CONTRACT NO: HK/2011/07

WANCHAI DEVELOPMENT PHASE II AND CENTRAL WANCHAI BYPASS SAMPLING, FIELD MEASUREMENT AND TESTING WORK (STAGE 2)

ENVIRONMENTAL PERMIT NO. EP- 416/2011 AND FEP- 01/416/2011

SHATIN TO CENTRAL LINK (SCL) PROTECTION WORKS AT CAUSEWAY BAY TYPHOON SHELTER (CBTS)

MONTHLY ENVIRONMENTAL MONITORING & AUDIT REPORT

- MAY 2015 -

CLIENTS:

Civil Engineering and Development Department

and

Highways Department

PREPARED BY:

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CERTIFIED BY:

Raymond Dai

Environmental Team Leader

DATE:

8 June 2015



Ref.: AACWBIECEM00_0_6749L.15

11 June 2015

By Post and Fax (2691 2649)

AECOM Asia Company Limited 11/F, Tower 2 Grand Central Plaza 138 Shatin Rural Committee Road Shatin, New Territories Hong Kong

Attention: Mr. Conrad Ng

Dear Sir,

Re: Shatin to Central Link – Protection Works at Causeway Bay Typhoon Shelter Monthly Environmental Monitoring and Audit Report (May 2015) for EP-416/2011 & FEP-01/416/2011

Reference is made to the Environmental Team's submission of the captioned Monthly Environmental Monitoring and Audit (EM&A) Report for May 2015 received by email 8 June 2015.

Please be informed that we have no adverse comment on the captioned submission. We write to verify the captioned submission in accordance with Condition 3.4 in the captioned Environmental Permit.

Thank you very much for your kind attention and please do not hesitate to contact the undersigned should you have any queries.

Yours sincerely,

David Yeung

Independent Environmental Checker

Mr. Cyrus Wong by fax: 2761 1508 c.c. HyD HyD Mr. Bond Chow by fax: 2714 5289 Mr. Jason Cheung CEDD by fax: 2577 5040 **AECOM** Mr. Peter Poon by fax: 3912 3010 Mr. Frankie Fan by fax: 2587 1877 AECOM MTRCL Mr. Richard Kwan by fax: 2993 7577 Lam Mr. Raymond Dai by fax: 2882 3331

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Contract No. HK/2011/07 Wanchai Development Phase II and Central Wanchai Bypass (Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter)

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EXECUTIVE SUMMARY

- i. This is the Environmental Monitoring and Audit (EM&A) Monthly Report May 2015 specific for Environmental Permit no. EP-416/2011 and Further Environmental Permit no. FEP-01/416/2011 on Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter (CBTS). The Shatin to Central Link (SCL) protection works inside the Causeway Bay Typhoon Shelter (CBTS) is entrusted to the Central-Wanchai Bypass (CWB) project and will be carried out concurrently with the construction of the CWB under contract no. HY/2009/15. The construction impact of the SCL protection works on the environment is monitored together with that of the CWB by the Environmental Team (ET) employed under Contractor No. HK/2011/07. This EM&A report captures the environmental monitoring findings and information recorded during the period April 2015 to May 2015. The cut-off date of reporting is on the 27th of each reporting month.
- ii. In the reporting period, the principal work activity is included as follows:
 - Nil

Noise Monitoring

- iii. Noise monitoring during daytime was conducted at M2b Noon gun area on a weekly basis.
- iv. No action or limit level exceedance was recorded at M2b Noon gun area in the reporting period.

Air quality monitoring

- v. 1-hour and 24-hour Total Suspended Particulates (TSP) monitoring were conducted at CMA3a CWB PRE Site Office Area.
- vi. No action or limit level exceedance was recorded in the reporting period.

Water Quality monitoring

- vii. Water quality monitoring at C7 was conducted three days per week during the reporting period. The action and limit level exceedance of water quality monitoring are summarized in **Table I**.
- viii. As confirmed by the CWB RSS, the marine based construction activities under Further Environmental Permit FEP-01/416/2011 have been completed by 9 April 2015. The post construction water quality monitoring was commenced in accordance with condition 2.26 in the approved EM&A manual from 11 April 2015 to 11 May 2015 for four weeks period to confirm for the post construction water quality.
- ix. No action or limit level exceedance was recorded during the post construction water quality monitoring period and the post construction water quality monitoring confirmed no deterioration in water quality. The water quality monitoring at the respective monitoring station C7 Windsor House was temporarily suspended from 13 May 2015.
- x. No action or limit level exceedance was recorded at C7 Windsor House in the reporting period.
- xi. Due to the hoisting of Amber Rainstorm Warning Signal, water quality monitoring on 11 May 2015 during ebb tide was cancelled.

Contract No. HK/2011/07 Wanchai Development Phase II and Central Wanchai Bypass (Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter)

Table I Summary of Water Quality Monitoring Exceedances in Reporting Month

	Water	Mid-flood				Mid-ebb							
Contract no.	quality monitoring	DO		Turbidity		S	S	D	0	Turb	idity	S	S
	Station	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL
HY/2009/15	C7	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0

Complaints, Notifications of Summons and Successful Prosecutions

xii. There was no complaint received in this reporting period.

Site Inspections and Audit

xiii. The Environmental Team (ET) conducted weekly site inspections for Contract no. HY/2009/15 - Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter (CBTS), in this reporting period. No non-conformance was identified during the site inspections.

Future Key Issues

- xiv. In coming reporting month, the principal work activity is anticipated as follows:
 - Nil



1 INTRODUCTION

1.1 Scope of the Report

- 1.1.1. Lam Geotechnics Limited (LGL) has been appointed to work as the Environmental Team (ET) under Environmental Permit no. EP-416/2011 and Further Environmental permit nos. FEP-01/416/2011 to implement the Environmental Monitoring and Audit (EM&A) programme as stipulated in the EM&A Manual of the approved Environmental Impact Assessment (EIA) Report for Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter (CBTS) (Register No.: AEIAR-159/2011) and in the EM&A Manual of the approved EIA Report for Shatin to Central Link Protection Works at Causeway Bay Typhoon Shelter (Register No. AEIAR-159/2011).
- 1.1.2. This report presents the environmental monitoring and auditing work carried out in accordance to the Section 7.5 of EM&A Manual and Environmental Monitoring and Audit Requirements of Environmental permit nos. EP-416/2011 and Further Environmental permit nos. FEP-01/416/2011.
- 1.1.3. This report documents the finding of EM&A works for Environmental Permit (EP) no. EP-416/2011, Further Environmental Permit (FEP) nos. FEP-01-416/2011 during the period April 2015 to May 2015. The cut-off date of reporting is at 27th of each reporting month.

1.2 Structure of the Report

- **Section 1** *Introduction* details the scope and structure of the report.
- **Section 2 Project Background** summarizes background and scope of the project, site description, project organization and contact details of key personnel during the reporting period.
- **Section 3 Status of Regulatory Compliance** summarizes the status of valid Environmental Permits / Licenses during the reporting period.
- **Section 4 Monitoring Requirements** summarizes all monitoring parameters, monitoring methodology and equipment, monitoring locations, monitoring frequency, criteria and respective event and action plan and monitoring programmes.
- **Section 5** *Monitoring Results* summarizes the monitoring results obtained in the reporting period.
- **Section 6 Compliance Audit** summarizes the auditing of monitoring results, all exceedances environmental parameters.

Contract No. HK/2011/07 Wanchai Development Phase II and Central Wanchai Bypass (Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter)

Section 7	Cumulative	Cor	nstruction	Impact d	lue to	the Co	ncurren	t Pro	ject	ts –
	summarizes	the	relevant	cumulative	cons	truction	impact	due	to	the
	concurrent ac	tivitie	es of the co	ncurrent Pr	rojects.					

Section 8 Environmental Site Audit – summarizes the findings of weekly site inspections undertaken within the reporting period, with a review of any relevant follow-up actions within the reporting period.

Section 9 Complaints, Notification of summons and Prosecution – summarizes the cumulative statistics on complaints, notification of summons and prosecution

Section 10 Conclusion



2 PROJECT BACKGROUND

2.1 Background

- 2.1.1. The "Shatin to Central Link Protection Works at Causeway Bay Typhoon Shelter" (hereafter called "the Project") is a Designed Project (DP) under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO). The Environmental Impact Assessment (EIA) Reports for Shatin to Central Link Protection Works at CBTS (Register No. AEIAR-159/2011) has been approved on 25 Feb 2011.
- 2.1.2. The key purpose of the SCL Protection Works and associated works at CBTS involves the construction of a 160m tunnel box by cut-and-cover method at the crossing above the Central Wan Chai Bypass (CWB) tunnels. Temporary reclamation is required and has been authorized under the Foreshore and Sea-bed (reclamations) Ordinance. With the presence of the Protection Works, future construction of the SCL on both sides of the CWB tunnels is protected and ensured feasible without damaging or unduly affecting the CWB tunnels which could be operational by then. This arrangement will also minimize public nuisance and impact to the surrounding environment as it can reduce the reclamation area for subsequent construction of the SCL after CWB is completed. Nevertheless, the Protection Works cannot serve to function for any railway service or operation before the completion of SCL.
- 2.1.3. The SCL is strategically important for connecting the existing railway lines into an integrated rail network. The east-west connection will allow the setup of a 57km East-West Corridor across the city connecting Wu Kai Sha with Tuen Mun via Kowloon; whilst the north-south connection will operate over a 41km North-South Corridor with services originating in Lok Ma Chau or Lo Wu travelling via the existing East Rail Line (EAL) to Admiralty. This will enable a direct transportation linkage between Mainland China and Hong Kong Island.

2.2 Scope of the Project and Site Description

- 2.2.1. The study area encompasses existing developments in Causeway Bay Typhoon Shelter as shown in *Figure 2.1*. The scope of the Project includes:
 - Temporary reclamation, which occupies about 0.7ha of Government foreshore and sea-bed (of which 0.3ha is already authorized under CWB project, i.e. additional reclamation of 0.4ha is required).
 - Dredging works at the southeast corner of the CBTS to provide space for temporary relocation of anchorage area due to the additional temporary reclamation for the Project.
 - Construction of a section of the twin track railway tunnel structure (approximately 160m long) above the proposed CWB located entirely offshore within the CBTS.
 - Relocation of the temporary Royal Hong Kong Yacht Club (RHKYC) jetty within the CWB temporary reclamation to a new location.



- Removal of the temporary reclamation, except the small area at the southwest corner of the reclamation (which will be removed by the SCL project upon completion of the future SCL tunnels connecting to the proposed South Ventilation Building (SOV)).
- 2.2.2. The Project contains Schedule 2 DP that, under the EIAO, requires Environmental Permits (EPs) to be granted by the DEP before they may either be constructed or operated. *Table 2.1* summarises the DP under this Project. *Figure 2.1* shows the location of this Schedule 2 DP.

Table 2.1 Schedule 2 Designated Projects under this Project

Item	Designated Project	EIAO Reference	Reason for inclusion
DP1	Temporary reclamation, which occupies about 0.7ha of Government foreshore and sea-bed	Schedule 2, Part I, C.12	A dredging operation which is less than 100m from a seawater intake point

2.3 Project Organization and Contact Personnel

- 2.3.1 Civil Engineering and Development Department and Highways Department are the overall project controllers for the construction phase of the Project, Project Engineer, Contractor(s), Environmental Team and Independent Environmental Checker are appointed to manage and control environmental issues.
- 2.3.2 The proposed project organization and lines of communication with respect to environmental protection works are shown in *Figure 2.2*. Key personnel and contact particulars are summarized in *Table 2.2*



Table 2.2 Contact Details of Key Personnel

Party	Role	Post	Name	Contact No.	Contact Fax
AECOM	Engineer's Representative for WDII	Principal Resident Engineer	Mr. Frankie Fan	2587 1778	2587 1877
	Engineer's Representative for CWB	Principal Resident Engineer	Mr. Peter Poon	3912 3388	3912 3010
MTR Corporation	Permit Holder	Environment Manager	Mr. Richard Kwan	2688 1179	2993 7577
Limited		Environmental Engineer I	Miss. Viola Tong	3127 6296	
		Environmental Engineer II	Mr. Chris Mak	3127 6297	
China State	Contractor	Project Director	Mr. Chris Leung	3557 6393	2566 2192
Construction Engineering (HK) Ltd.	under Contract no. HY/2009/15	Senior Site Manager	Y Huo	3557 6368	2566 2192
,		Contractor's Representative	Mr. Gene Cheung	3557 6395	
		Project Manager	Mr. Andrew Wong	3557 6371	
		Environmental Officer	Mr. Andy Mak	3557 6347	
ENVIRON Hong Kong Limited	Independent Environmental Checker (IEC)	Independent Environmental Checker (IEC)	Mr. David Yeung	3465 2888	3465 2899
Lam Geotechnics Limited	Environmental Team (ET)	Environmental Team Leader (ETL)	Mr. Raymond Dai	2882 3939	2882 3331

- 2.3.3 In this reporting period, the principal work activity is included as follows:
 - Nil
- 2.3.4 In coming reporting month, the principal work activity is anticipated as follows:
 - Nil

3 STATUS OF REGULATORY COMPLIANCE

3.1 Status of Environmental Licensing and Permitting under the Project

3.1.1. A summary of the current status on licences and/or permits on environmental protection pertinent to the Project is shown in *Table 3.1*.

Table 3.1 Summary of the current status on licences and/or permits on environmental protection pertinent to the Project

Permits and/or Licences	Reference No.	Issued Date	Status
Environmental Permit	EP-416/2011	4 April 2011	Valid
Further Environmental Permit	FEP-01/416/2011	11 Nov 2011	Valid

3.1.2. Summary of the current status on licences and/or permits on environmental protection pertinent and submission under FEP-01/416/2011 for contract no. HY/2009/15 showed in Table 3.2 and Table 3.3.

Table 3.2 Cumulative Summary of Valid Licences and Permits under Contract no. HY/2009/15

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Further Environmental Permit	FEP- 01/416/2011	11 Nov 2011	N/A	Valid
Notification of Works Under APCO	321822	24 Sep 2010	N/A	Valid
Construction Noise Permit (CNP) for seawall removal works at TS4/ME4	GW-RS0021-15	13 Jan 2015	16 Jan 2015 to 15 Jul 2015	Valid
Registration as a Chemical Waste Producer	WPN: 5213- 147-C1169-35	15 Nov 2010	N/A	Valid
Billing Account under Waste Disposal Ordinance	7011553	30 Sep 2010	27 Sep 2010 to 27 Jan 2016	Valid
Billing Account under Waste Disposal Ordinance (Disposal by Vessel)	7011761	23 Dec 2014	17 Apr 2015 to 16 Jul 2015	Valid
Water Discharge Licence (Discharge at TS4)	WT00018542- 2014	17 Mar 2014	17 Mar 2014 to 31 Jan 2016	Valid
Dumping Permit (Type 1 – Open Sea Disposal)	EP/MD/15-205	19 Jan 2015	28 Jan 2015 to 27 Jul 2015	Valid

Permits and/or Licences	Reference No.	Issued Date	Valid Period/ Expiry Date	Status
Dumping Permit (Type 1 – Open Sea Disposal (Dedicated Site) and Type 2 – Confined Marine Disposal)	EP/MD/15-265	31 Mar 2015	25 Apr 2015 to 24 May 2015	Expired

Table 3.3 Summary of submission status under EP/416/2011 and FEP-01/416/2011

Table 3.3 Summary of Submission Status under EF/410/2011 and 1 EF-01/410/2011							
EP Condition	FEP Condition	Submission	Date of Submission				
2.3	2.1	Notification of setting up of ENPC	Submitted to EPD on 21 Nov 2011				
2.4	-	Notification of setting up of CLG	Submitted to EPD on 21 Nov 2011				
2.5	2.2	Notification of work commencement date	Submitted to EPD on 21 Oct 2011				
2.5	-	Organization chart	Submitted to EPD on 17 Oct 2011				
2.6	2.2	Work schedule and Location Plans	Submitted to EPD on 27 Oct 2011				
2.7	2.3	Silt Curtain Deployment Plan	Re- submitted to EPD on 15 Dec 2011				
2.8	2.4	Silt Screen Deployment Plan	Re- submitted to EPD on 15 Dec 2011				
3.3	-	Baseline Monitoring Report	Submitted to EPD on 14 Nov 2011				

4 Monitoring Requirements

4.1 Noise Monitoring

NOISE MONITORING STATIONS

4.1.1. The noise monitoring stations for the Project are listed and shown in *Table 4.1* and *Figure*2.3. *Appendix 4.1* shows the established Action/Limit Levels for the monitoring works.

Table 4.1 Noise Monitoring Stations

Station	Description
M2b	Noon Gun Area

NOISE MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.1.2. The construction noise level shall be measured in terms of the A-weighted equivalent continuous sound pressure level (Leq). Leq (30 minutes) shall be used as the monitoring parameter for the time period between 0700 and 1900 hours on normal weekdays. For all other time periods, Leq (5 minutes) shall be employed for comparison with the Noise Control Ordinance (NCO) criteria. Supplementary information for data auditing, statistical results such as L₁₀ and L₉₀ shall also be obtained for reference.
- 4.1.3. Noise monitoring shall be carried out at all the designated monitoring stations. The monitoring frequency shall depend on the scale of the construction activities. The following is an initial guide on the regular monitoring frequency for each station on a weekly basis when noise generating activities are underway:
 - One set of measurements between 0700 and 1900 hours on normal weekdays.

MONITORING EQUIPMENT

- 4.1.4. As referred to in the Technical Memorandum (TM) issued under the NCO, sound level meters in compliance with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications shall be used for carrying out the noise monitoring. Immediately prior to and following each noise measurement the accuracy of the sound level meter shall be checked using an acoustic calibrator generating a known sound pressure level at a known frequency. Measurements may be accepted as valid only if the calibration level from before and after the noise measurement agree to within 1.0 dB.
- 4.1.5. Noise measurements shall not be made in fog, rain, wind with a steady speed exceeding 5 m/s or wind with gusts exceeding 10 m/s. The wind speed shall be checked with a portable wind speed meter capable of measuring the wind speed in m/s.



4.2 Air quality monitoring

AIR QUALITY MONITORING STATIONS

4.2.1. The air quality monitoring stations for the Project are listed and shown in *Table 4.2* and *Figure 2.3*. *Appendix 4.1* shows the established Action/Limit Levels for the monitoring works.

Table 4.2 Air quality monitoring Stations

Station ID	Monitoring Location	Description
CMA3a	CWB PRE Site Office	Causeway Bay

AIR QUALITY MONITORING PARAMETERS, FREQUENCY AND DURATION

- 4.2.2. One-hour and 24-hour TSP levels should be measured to indicate the impacts of construction dust on air quality. The 24-hour TSP levels shall be measured by following the standard high volume sampling method as set out in the Title 40 of the Code of Federal Regulations, Chapter 1 (Part 50), Appendix B.
- 4.2.3. All relevant data including temperature, pressure, weather conditions, elapsed-time meter reading for the start and stop of the sampler, identification and weight of the filter paper, and any other local atmospheric factors affecting or affected by site conditions, etc., shall be recorded down in detail.
- 4.2.4. For regular impact monitoring, the sampling frequency of at least once in every six-days, shall be strictly observed at all the monitoring stations for 24-hour TSP monitoring. For 1-hour TSP monitoring, the sampling frequency of at least three times in every six-days should be undertaken when the highest dust impact occurs.

SAMPLING PROCEDURE AND MONITORING EQUIPMENT

- 4.2.5. High volume samplers (HVSs) in compliance with the following specifications shall be used for carrying out the 1-hour and 24-hour TSP monitoring:
 - 0.6 1.7 m3 per minute adjustable flow range;
 - Equipped with a timing / control device with +/- 5 minutes accuracy for 24 hours operation;
 - Installed with elapsed-time meter with +/- 2 minutes accuracy for 24 hours operation;
 - Capable of providing a minimum exposed area of 406 cm2;
 - Flow control accuracy: +/- 2.5% deviation over 24-hour sampling period;
 - Equipped with a shelter to protect the filter and sampler;
 - Incorporated with an electronic mass flow rate controller or other equivalent devices;
 - Equipped with a flow recorder for continuous monitoring;
 - Provided with a peaked roof inlet;
 - Incorporated with a manometer;

- Able to hold and seal the filter paper to the sampler housing at horizontal position;
- · Easily changeable filter; and
- Capable of operating continuously for a 24-hour period.
- 4.2.6. Initial calibration of dust monitoring equipment shall be conducted upon installation and thereafter at bi-monthly intervals. The transfer standard shall be traceable to the internationally recognized primary standard and be calibrated annually. The concern parties such as IEC shall properly document the calibration data for future reference. All the data should be converted into standard temperature and pressure condition.

LABORATORY MEASUREMENT / ANALYSIS

- 4.2.7. A clean laboratory with constant temperature and humidity control, and equipped with necessary measuring and conditioning instruments to handle the dust samples collected, shall be available for sample analysis, and equipment calibration and maintenance. The laboratory should be HOKLAS accredited.
- 4.2.8. Filter paper of size 8" x 10" shall be labelled before sampling. It shall be a clean filter paper with no pinholes, and shall be conditioned in a humidity-controlled chamber for over 24-hours and be pre-weighed before use for the sampling.
- 4.2.9. After sampling, the filter paper loaded with dust shall be kept in a clean and tightly sealed plastic bag. The filter paper shall then be returned to the laboratory for reconditioning in the humidity controlled chamber followed by accurate weighing by an electronic balance with readout down to 0.1 mg. The balance shall be regularly calibrated against a traceable standard.
- 4.2.10. All the collected samples shall be kept in a good condition for 6 months before disposal.
- 4.2.11. Current calibration certificates of equipments are presented in *Appendix 4.2*.

4.3 Water Quality Monitoring

4.3.1. The EIA Report has identified that the key water quality impact would be associated with the dredging works during the construction phase. Marine water quality monitoring for dissolved oxygen (DO), suspended solid (SS) and turbidity is therefore recommended to be carried out at selected WSD flushing water intakes. The impact monitoring should be carried out during the proposed dredging works to ensure the compliance with the water quality standards.

Water Quality Monitoring Station

4.3.2. It is proposed to monitor the water quality at one cooling water intakes along the seafront of the Victoria Harbour. The proposed water quality monitoring stations of the Project are shown in *Table 4.3* and *Figure 2.3*. *Appendix 4.1* shows the established Action/Limit Levels for the monitoring works.

Table 4.3 Marine Water Quality Stations for Water Quality Monitoring

Cooling Water Intake				
Station ID	Monitoring Location	Easting	Northing	
C7	Windsor House	837193.7	816150.0	

WATER QUALITY PARAMETERS

- 4.3.3. Monitoring of dissolved oxygen (DO), turbidity and suspended solids (SS) shall be carried out at WSD flushing water intakes and cooling water intakes. DO and Turbidity are measured insitu while SS is determined in laboratory.
- 4.3.4. In association with the water quality parameters, other relevant data shall also be measured, such as monitoring location/position, time, sampling depth, water temperature, pH, salinity, dissolved oxygen (DO) saturation, weather conditions, sea conditions, tidal stage, and any special phenomena and work underway at the construction site etc.

SAMPLING PROCEDURES AND MONITORING EQUIPMENT

4.3.5. The interval between two sets of monitoring should not be less than 36 hours except where there are exceedances of Action and/or Limit Levels, in which case the monitoring frequency will be increased. *Table 4.4* shows the proposed monitoring frequency and water quality parameters. Duplicate in-situ measurements and water sampling should be carried out in each sampling event. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.

Table 4.4 Marine Water Quality Monitoring Frequency and Parameters

Activities	Monitoring Frequency ¹	Parameters ²
During the 4-week baseline monitoring period	Three days per week, at mid- flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity
During marine construction works	Three days per week, at mid- flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity
After completion of marine construction works	Three days per week, at mid- flood and mid-ebb tides	Turbidity, Suspended Solids (SS), Dissolved Oxygen (DO), pH, Temperature, Salinity

Notes:

- 1. For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.
- 2. Turbidity should be measured in situ whereas SS should be determined by laboratory.



DISSOLVED OXYGEN AND TEMPERATURE MEASURING EQUIPMENT

- 4.3.6. The instrument should be a portable, weatherproof dissolved oxygen measuring instrument complete with cable, sensor, comprehensive operation manuals, and use a DC power source. It should be capable of measuring:
 - a dissolved oxygen level in the range of 0-20 mg/l and 0-200% saturation
 - a temperature of 0-45 degree Celsius
- 4.3.7. It should have a membrane electrode with automatic temperature compensation complete with a cable. Sufficient stocks of spare electrodes and cables should be available for replacement where necessary. (e.g. YSI model 59 meter, YSI 5739 probe, YSI 5795A submersible stirrer with reel and cable or an approved similar instrument).
- 4.3.8. Should salinity compensation not be build-in in the DO equipment, in-situ salinity shall be measured to calibrate the DO equipment prior to each DO measurement.

TURBIDITY MEASUREMENT INSTRUMENT

4.3.9. The instrument should be a portable, weatherproof turbidity-measuring instrument complete with comprehensive operation manual. The equipment should use a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0-1000 NTU and be complete with a cable (e.g. Hach model 2100P or an approved similar instrument).

SAMPLER

4.3.10. A water sampler comprises a transparent PVC cylinder, with a capacity of not less than 2 litres, and 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 (e.g. Kahlsico Water Sampler or an approved similar instrument).

SAMPLE CONTAINER AND STORAGE

4.3.11. Water samples for suspended solids measurement should be collected in high-density polythene bottles, packed in ice (cooled to 4°C without being frozen), and delivered to ALS Technichem (HK) Pty Ltd. as soon as possible after collection for analysis.

WATER DEPTH DETECTOR

4.3.12. A portable, battery-operated echo sounder shall be used for the determination of water depth at each designated monitoring station. This unit can either be handheld or affixed to the bottom of the workboat, if the same vessel is to be used throughout the monitoring programme.

SALINITY

4.3.13. A portable salinometer capable of measuring salinity in the range of 0-40 ppt shall be provided for measuring salinity of the water at each of monitoring location.



MONITORING POSITION EQUIPMENT

4.3.14. A hand-held or boat-fixed type digital Global Positioning System (GPS) with waypoint bearing indication or other equivalent instrument of similar accuracy shall be provided and used during monitoring to ensure the monitoring vessel is at the correct location before taking measurements.

CALIBRATION OF IN-SITU INSTRUMENTS

- 4.3.15. All in-situ monitoring instrument shall be checked, calibrated and certified by a laboratory accredited under HOKLAS or equivalent before use, 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.
- 4.3.16. For the on site calibration of field equipment by the ET, the BS 127:1993, "Guide to Field and on-site test methods for the analysis of waters" should be observed.
- 4.3.17. Sufficient stocks of spare parts should 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, etc.
- 4.3.18. Current calibration certificates of equipments are presented in **Appendix 4.2**.

LABORATORY MEASUREMENT / ANALYSIS

4.3.19. Analysis of suspended solids has been carried out in a HOKLAS accredited laboratory, ALS Technichem (HK) Pty Ltd. Water samples of about 1L shall be collected at the monitoring stations for carrying out the laboratory SS determination. The SS determination work shall start within 24 hours after collection of the water samples. The SS determination shall follow APHA 19ed or equivalent methods subject to the approval of IEC and EPD.



5 MONITORING RESULTS

- 5.0.1. Overall layout showing work area, latest status of work commencement and monitoring stations is shown in *Figure 2.1* and *Figure 2.3*.
- 5.0.2. The environment monitoring schedules for reporting month and coming month are presented in *Appendix 5.1*.

5.1 Noise Monitoring Results

The noise monitoring station is shown in *Table 5.1* below.

Table 5.1 Noise Monitoring Station

Station	Description
M2b	Noon Gun Area

- 5.1.1 No action or limit level exceedance at M2b Noon Gun Area was recorded in the reporting month.
- 5.1.2 Details of noise monitoring results and graphical presentation can be referred in <u>Appendix</u> 5.2

5.2 Air quality monitoring Results

The air quality monitoring station is shown in *Table 5.2* below.

Table 5.2 Air quality monitoring Station

Station	Description
CMA3a	CWB PRE Site Office

- 5.2.1 No action or limit level exceedance was recorded at CMA3a CWB PRE Site Office in the reporting month.
- 5.2.2 Air quality monitoring results in this reporting period are reviewed and summarized. Details of air quality monitoring results and graphical presentation can be referred in *Appendix 5.3*.

5.3 Water quality monitoring Results

5.3.1 The water quality monitoring station is summarized in Table 5.3 below.

Table 5.3 Water quality monitoring Station

Station Ref.	Location	Easting	Northing		
Cooling Water Intake					
C7	Windsor House	837193.7	816150.0		



- 5.3.3 As confirmed by the CWB RSS, the marine based construction activities under Further Environmental Permit FEP-01/416/2011 have been completed by 9 April 2015. The post construction water quality monitoring was commenced in accordance with condition 2.26 in the approved EM&A manual from 11 April 2015 to 11 May 2015 for four weeks period to confirm for the post construction water quality.
- 5.3.4 No action or limit level exceedance was recorded during the post construction water quality monitoring period and the post construction water quality monitoring confirmed no deterioration in water quality. The water quality monitoring at the respective monitoring station C7 Windsor House was temporarily suspended from 13 May 2015.
- 5.3.5 No action or limit level exceedance was recorded at C7 Windsor House in the reporting month.
- 5.3.6 Due to the hoisting of Amber Rainstorm Warning Signal, water quality monitoring on 11 May 2015 during ebb tide was cancelled.
- 5.3.7 Water quality monitoring results measured in this reporting period are reviewed and summarized. Details of water quality monitoring results and graphical presentation can be referred in Table 5.4 and Appendix 5.4.

Table 5.4 Summary of Water Quality Monitoring Exceedance in Reporting Month

Water		Mid-flood					Mid-ebb						
Contract no. quality monitoring Station		DO		Turbidity		SS		DO		Turbidity		SS	
	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	AL	LL	
HY/2009/15	C7	0	0	0	0	0	0	0	0	0	0	0	0
Total		0	0	0	0	0	0	0	0	0	0	0	0

5.4 Waste Monitoring Results

5.4.1. Inert C&D wastes were disposed of in this reporting month. Details of the waste flow table are summarized in *Table 5.5*.

Table 5.5 Details of Waste Disposal

Waste Type	Quantity this month	Cumulative Quantity-to-Date	Disposal / Dumping Grounds	Remarks
Inert C&D	NIL	32,670	TM38	N/A
materials disposed, m3	NIL	6,267	TKO137	
	NIL	25,395.7	TS2	N/A
Inert C&D	NIL	1,228	WDII	
materials	NIL	1416	Lun Ku Tan	
recycled, m3	NIL	352	WENT Landfill	
	NIL	1,049	HY/2011/03 (HZM)	
Non-inert C&D materials disposed, m3	NIL	NIL	N/A	N/A
Non-inert C&D materials recycled, m3	NIL	NIL	N/A	N/A
Chemical waste disposed, kg	NIL	NIL	N/A	N/A
Marine Sediment	NIL	10,640	Cheung Chau	Dredging from
(Type 1 – Open Sea Disposal) , m3	(Bulk Volume)	(Bulk Volume)	South	SCL Protection Works (CBTS)
Marine Sediment	NIL	7,500	East of Sha Chau	Dredging from
(Type 1 – Open Sea Disposal (Dedicate Sites) & Type 2 – Confined Marine Disposal), m3	(Bulk Volume)	(Bulk Volume)		SCL Protection Works (CBTS)
Marine Sediment (Type 3 – Special Treatment / Disposal contained in geosynthetic Containers), m3	NIL	NIL	N/A	N/A

Contract No. HK/2011/07 Wanchai Development Phase II and Central Wanchai Bypass (Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter)

- 6 Compliance Audit
- 6.0.1. The Event Action Plan for construction noise, air qualities are presented in *Appendix 6.1*.
- 6.1 Noise Monitoring
- 6.1.1. No exceedance was recorded at M2b Noon Gun Area in the reporting month.
- 6.2 Air quality monitoring
- 6.2.1 No exceedance was recorded at CMA3a CWB PRE Site Office in the reporting month.
- 6.3 Water quality monitoring
- 6.3.1 No exceedance was recorded at C7 Windsor House in the reporting month.
- 6.4 Review of the Reasons for and the Implications of Non-compliance
- 6.4.1. There was no non-compliance from the site audits in the reporting period. The observations and recommendations made in each individual site audit session were presented in Section 8.
- 6.5 Summary of action taken in the event of and follow-up on non-compliance
- 6.5.1 There was no particular action taken since no project-related non-compliance was recorded from the site audits and environmental monitoring in the reporting period.

7 Cumulative Construction Impact due to the Concurrent Projects

- 7.0.1. According to Condition 3.4 of the EP-416/2011, this section addresses the relevant cumulative construction impact due to the concurrent activities of the current projects including the Wan Chai Development Phase II (WDII) and Central-WanChai Bypass (CWB).
- 7.0.2. From the Monthly EM&A report (April 2015) of Wan Chai Development Phase II (WDII) the key works in May 2015 are as follows:

<u>Contract no. HK/2009/01 – Wan Chai Development Phase II – Central –Wanchai Bypass at HKCEC</u>

Nil

Contract no. HK/2009/02 – Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai East

· Air lifting operation at WCR3

<u>Contract no. HY/2009/15 - Central-Wanchai Bypass - Tunnel (Causeway Bay Typhoon Shelter Section)</u>

- · Phase 3 Mooning
- Reinstatement of vertical seawall at TPCWAE

Contract no. HY/2009/19- Wan Chai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link

Nil

Contract no. HK/2012/08 - Wan Chai Development Phase II - Central- Wan Chai Bypass at Wan Chai West

- Placing of armour and beamstones
- · Dry dock construction
- Pre-bored H-pile construction on temporary piling platform

Contract no. HY/2010/08 - Central - Wan Chai Bypass (CWB) - Tunnel (Slip Road 8)

- Rock filling works
- Pre-treatment works
- · Bar fixing works
- ELS works
- Diaphragm Wall, Barrette and King Post construction works
- Fill Disposal Works

7.0.3. From the Monthly EM&A report (April 2015) of Central-Wan Chai Bypass (CWB) the key works in May 2015 are as follows:

Contract no. HY/2009/18 - Central - Wan Chai Bypass (CWB) - Central Interchange under FEP-05/364/2009/A

- Planting trees and shrubs
- · Transplanting of trees
- Drainage works
- Retaining wall and trough structure construction including excavation, concreting, waterproofing and backfilling
- Road works
- Bridges construction

Contract no. HK/2009/01 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Hong Kong Convention and Exhibition Centre - Tunnel Works under FEP-02/364/2009

- Stage 1 Construction of roadside barrier and backfilling on the top of CWB tunnel
- Stage 2 Construction of roof slab Bay 7, 8 and 9
- Stage 2 Construction of base slab Bay 10
- Stage 2 Construction of exhaust duct
- Stage 3 ELS excavation and strut installing works
- Stage 3 Box culvert diversion
- Cooling Main Installation (BI/BG) at Expo Drive East
- Removal of abandoned cooling main (P7/P8) at Convention Avenue
- Sewerage Pipeline A3-4B at Fenwick Pier Street
- Installation works for Cooling Main (BI/BG)/ Salt Watermain (S3)/ Fresh Watermain (F3)
- Reinstatement of Expo Drive East

Contract no. HK/2009/02 - Wan Chai Development Phase II - Central - Wan Chai Bypass at Wan Chai East (CWB Tunnel) under FEP-01/364/2009

- Continue tunnel structure works, i.e. concrete cast at side walls, formworks and concreting at OHVD base slab
- Continue bulk head wall BW2 breakthrough
- Complete pumping test
- Continue Strut layer S2 excavation and ELS installation at both sides

<u>Contract no. HY/2009/15 - Central-Wanchai Bypass - Tunnel (Causeway Bay Typhoon Shelter Section) under FEP-06/364/2009/A</u>

- Construction of OHVD and base slab at Mined Tunnel
- Permanent lining structure at Mined Tunnel
- Inner bench excavation
- Construction of diaphragm wall at TPCWAW
- · Installation of king post
- Fabrication of ELS steel works for TPCWAW

Contract No. HK/2011/07 Wanchai Development Phase II and Central Wanchai Bypass (Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter)

Contract no. HY/2009/19 - Central - Wanchai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link under FEP-07/364/2009/A

- Demolition of ELS for Cut & Cover Tunnel and EVB
- Pre-bored H-pile for Approach Ramp
- Abutment D12 construction
- Saw cut of parapet at IEC East bound
- Construction of TA2 bridge
- Construction of temporary steel tower for IEC demolition
- Saw cut of existing west bound of IEC bridge
- Demolition of bulk head wall between C15 to C19
- Column modification at F1 to F8
- Demolition of IEC west bond deck

Contract no. HK/2012/08 – Wan Chai Development Phase II – Central- Wan Chai Bypass at Wan Chai West under FEP-09/364/2009B

- Diaphragm wall construction
- Installation of dewatering wells
- Grouting
- Construction of ELS at MVB
- Excavation and installation of lateral support at top-down area
- Pre-bored H-pile construction

Contract no. HY/2010/08 -Central - Wan Chai Bypass (CWB) -Tunnel (Slip Road 8) under FEP-10/364/2009B

- Tree protection works next to existing BGO
- Drainage improvement works
- · Sheet piling works
- Excavation and Lateral Support for U-structure
- Renovation works for Bowling Green Office
- · Pipe piling and grouting works
- Utility diversion works
- Waterproofing works
- Demolition works of existing BGO
- Provisional of Bowling Green

<u>Contract no. HY/2011/08 – Central - Wan Chai Bypass (CWB) –Tunnel Buildings, Systems and Fittings, and Works Associated with Tunnel Commissioning under FEP-11/364/2009B</u>

- West Ventilation Building structure construction
- Install VE panels bracket and thermal barrier for Tunnel
- Construct reinforcement concrete structure for EVS



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7.0.4. According to the construction programme of Wan Chai Development Phase II, Central-Wan Chai Bypass and Island Eastern Corridor Link projects, the major construction activities under Wan Chai Development Phase II were marine works at HKCEC area, tunnel works and foundation works at Wan Chai East and temporary reclamation at Wan Chai West. The major construction activities under Central-Wan Chai Bypass and Island Eastern Corridor Link Projects were bridge construction and road works at Central Interchange, land based bored pilling works and ELS works at Victoria Park, D- wall construction and ELS at TS3, IEC demolition and tunnel works at North Point area in the reporting month

Contract No. HK/2011/07 Wanchai Development Phase II and Central Wanchai Bypass (Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter)

8 Environmental Site Audit

- 8.0.1. During this reporting period, weekly environmental site audits were conducted for the SCL Protection Works under the Contract no. HY/2009/15. No non-conformance was identified during the site audits.
- **8.0.2.** Five site inspections for Contract no. HY/2009/15 was carried out on 28 April, 5, 11, 19 and 26 May 2015 in the reporting period. No observation was found during the reporting month period.

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9 COMPLAINTS, NOTIFICATION OF SUMMONS AND PROSECUTION

- 9.0.1. There was no environmental complaint and prosecution recorded in the reporting period.
- 9.0.2. The details of cumulative complaint log and updated summary of complaints are presented in *Appendix 7.1*
- 9.0.3. Cumulative statistic on complaints and successful prosecutions are summarized in *Table 9.1* and *Table 9.2* respectively.

Table 9.1 Cumulative Statistics on Complaints

Reporting Period	No. of Complaints
May 2015	0
November 2011 to April 2015	0
Total	0

Table 9.2 Cumulative Statistics on Successful Prosecutions

Environmental Parameters	Cumulative No. Brought Forward	No. of Successful Prosecutions this period (Offence Date)	Cumulative No. Project-to-Date
Air	-	0	0
Noise	-	0	0
Water	-	0	0
Waste	-	0	0
Total	-	0	0

10. CONCLUSION

- 10.0.1. The EM&A programme was carried out in accordance with the EM&A Manual requirements, minor alternations to the programme proposed were made in response to changing circumstances.
- 10.0.2. The scheduled construction activities and the recommended mitigation measures for the coming month are listed in *Table 10.1*. The construction programmes of individual contracts are provided in *Appendix 10.1*.

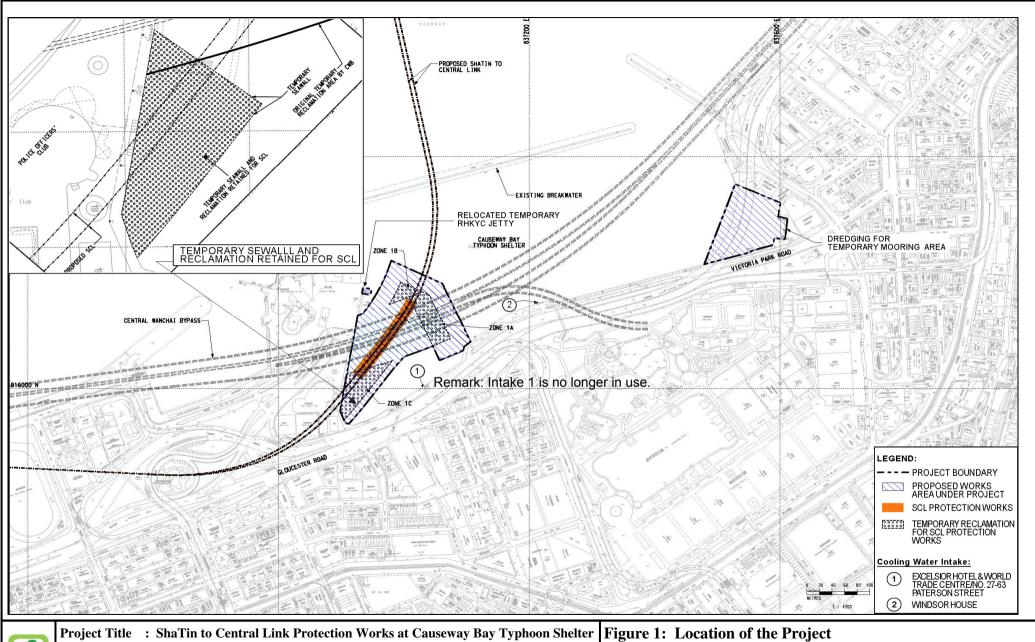
Table 10.1 Summary of Key Construction Activities of Individual Contract(s) to be commenced in Coming Reporting Month

Contract No.	Key Construction Works	Recommended Mitigation Measures		
HY/2009/15	• Nil	• Nil		

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Figure 2.1

Project Layout





工程項目名稱:沙田至中環綫位於銅鑼灣避風塘內之保護工程

Environmental Permit No.: EP-416/2011 環境許可證編號 : EP-416/2011

1: 工程項目位置

(This figure was prepared based on Figure NEX2213/C/331/ENS/M50/501 of EIA report (Register No.: AEIAR-159/2011))

(本圖是根據環評報告(登記冊編號 AEIAR-159/2011)圖 NEX2213/C/331/ENS/M50/501 編制)

Figure 2.2

Project Organization Chart

Project Organization Chart

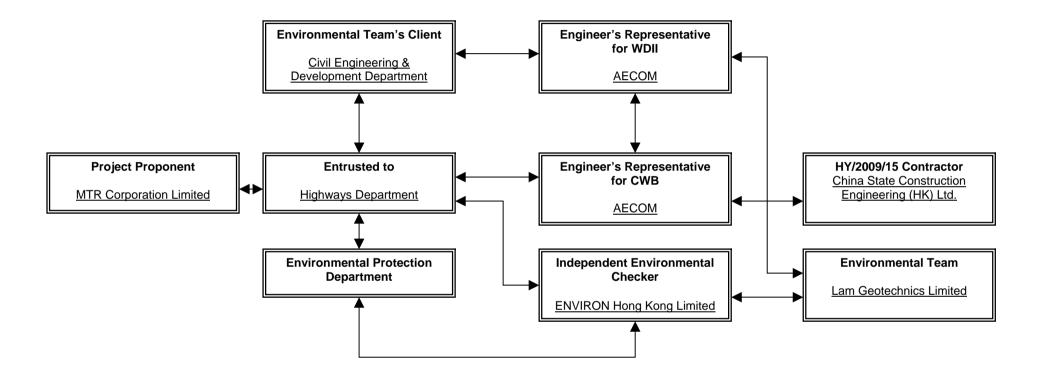
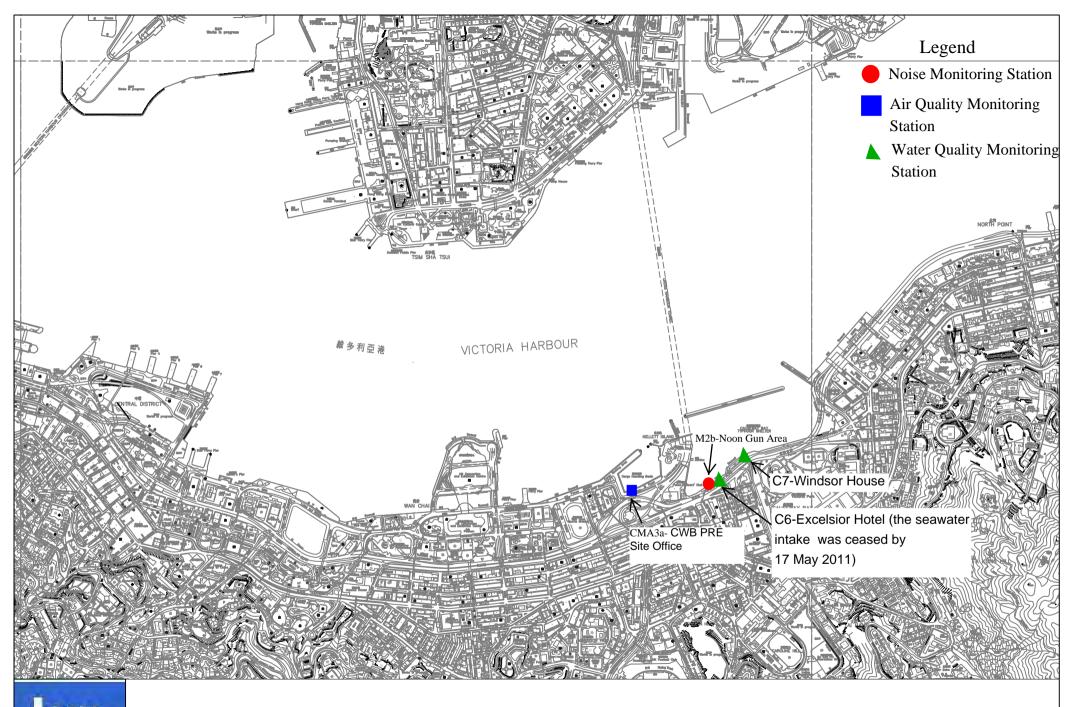


Figure 2.3

Locations of Monitoring Stations



Location Plan of Monitoring Stations

Appendix 3.1

Environmental Mitigation Implementation Schedule

IMPLEMENTATION SCHEDULE OF THE PROPOSED MITIGATION MEASURES

EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Who to implement the measures?	Location of the measure	When to implement the measures?	What requirements or standards for the measure to achieve?
	uality Impact (Construction Phase)					
3.142	Dredging should be carried out by closed grab dredger.	To minimize release of sediment and contaminants during dredging.	Contractor	Dredging works areas in Causeway Bay Typhoon Shelter (CBTS)	Construction Phase	EIAO-TM, WPCO
S3.142	All temporary reclamation works should adopt an approach where temporary seawalls will first be formed to enclose each phase of the temporary reclamation. Installation of diaphragm wall on temporary reclamation as well as any bulk filling will proceed behind the completed seawall. Any gaps that may need to be provided for marine access should be shielded by silt curtains to control sediment plume dispersion away from the site. Demolition of temporary reclamation including the demolition of the diaphragm wall and dredging to the existing seabed levels	To minimize loss of fines and contaminants during temporary reclamations	Contractor	Temporary reclamation works areas in CBTS	Construction Phase	EIAO-TM, WPCO

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	should be carried out behind the temporary seawall. Temporary seawall should be removed after completion of all excavation and dredging works for demolition of the temporary reclamation.					
S3.142	During construction of the temporary reclamation, temporary seawall should be partially constructed to protect the nearby seawater intakes from further dredging activities. For example, the seawalls along the southeast and northeast boundaries of PW1.1 should be constructed first (above high water mark) so that the seawater intake at the inner water would be protected from the impacts from the remaining dredging activities along the northwest boundary.	To minimize water quality impact upon the cooling water intakes in CBTS from temporary reclamation works	Contractor	Temporary reclamation works areas in CBTS	onstruction Phase	EIAO-TM, WPCO
S3.142	Silt curtains should be deployed to fully enclose the closed grab dredger during any dredging operation within the CBTS.	To minimize loss of fines and contaminants during dredging in CBTS	Contractor	Dredging works areas in CBTS	Construction Phase	EIAO-TM, WPCO
S3.142	Silt screens will be installed at all the cooling water intakes within the CBTS during temporary reclamation and dredging within the typhoon shelter.	To minimize water quality impact upon the cooling water intakes in CBTS from marine construction activities	Contractor	Cooling water intakes inside CBTS	Construction Phase	EIAO-TM, WPCO
S3.143	No more than two closed grab dredgers should be operated for dredging within the CBTS at	To minimize loss of fines and contaminants	Contractor	Temporary reclamation and	Construction Phase	EIAO-TM, WPCO

	any time. Moreover, the combined production rate of all concurrent dredging works to be undertaken within the CBTS shall not exceed 6,000 m ₃ per day at all times throughout the entire construction period.	during dredging in CBTS		dredging works areas in CBTS		
S3.145	The following good site practices should be undertaken during sand filling, public filling and dredging: • mechanical grabs, if used, should be designed and maintained to avoid spillage and sealed tightly while being lifted. For dredging of any contaminated mud, closed watertight grabs must be used; • all vessels should be sized so that adequate clearance is 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; • all hopper barges and dredgers should be fitted with tight fitting seals to their bottom openings to prevent leakage of material; • construction activities should not cause foam, oil, grease, scum, litter or other objectionable matter to be present on the water within the	To minimize loss of fines and contaminants from dredging / filling	Contractor	Temporary reclamation and dredging works areas in CBTS	Construction Phase	EIAO-TM, WPCO

	site or dumping grounds; and • loading of barges and hoppers should be controlled to prevent splashing of dredged material into the surrounding water. Barges or hoppers should not be filled to a level that will cause the overflow of materials or polluted water during loading or transportation.					
S3.146	The following mitigation measures are proposed to minimize the potential water quality impacts from the construction works at or close to the seafront: Temporary storage of construction materials (e.g. equipment, filling materials, chemicals and fuel) and temporary stockpile of construction and demolition materials should be located well away from the seawater front and storm drainage during carrying out of the works. Stockpiling of construction and demolition materials and dusty materials should be covered and located away from the seawater front and storm drainage. Construction debris and spoil should be covered up and/or disposed of as soon as	To minimize release of construction wastes from construction works at or close to the seafront	Contractor	Construction works at or close to the seafront	Construction Phase	EIAO-TM, WPCO

	possible to avoid being washed into the nearby receiving waters.					
S3.147	Silt curtains should be installed around the working area for the marine piling works for construction of the temporary jetty as necessary to minimize the release of sediment and construction wastes. All wastewater generated from the piling activities should be collected by a derrick lighter or other collection system and be treated before controlled discharge. Spoil from the piling activities should be collected by sealed hopper barges for proper disposal.	To minimize water quality impacts from piling works for construction of the temporary jetty	Contractor	Piling area at the piling location	Construction Phase	EIAO-TM, WPCO
S3.148	Regular maintenance of and refuse collection should be performed at the silt screens deployed at the seawater intakes at regular intervals on a daily basis. The Contractor should be responsible for keeping the water behind the silt screen free from floating rubbish and debris during the impact monitoring period.	To avoid the pollutant and refuse entrapment problems at the silt screens to be installed at the water intakes	Contractor	Proposed silt screens at cooling water intakes inside CBTS	Construction Phase	EIAO-TM, WPCO
S3.149	It is recommended that collection and removal of floating refuse should be performed within the marine construction areas at regular intervals on a daily basis. The Contractor should be	To minimize water quality impacts from illegal dumping and littering from marine vessels and runoff from	Contractor	All marine works areas	Construction Phase	EIAO-TM, WPCO, WDO

	responsible for keeping the water within the site boundary and the neighbouring water free from rubbish during the dredging works.	the coastal areas				
S3.150 to 3.169	The site practices outlined in ProPECC PN 1/94 "Construction Site Drainage" should be followed where practicable.	To minimize water quality impacts from construction site runoff and general construction activities	Contractor	All construction works areas	Construction Phase	EIAO-TM, WPCO, TM- DSS, WDO, ProPECC PN 1/94
\$3.170	There is a need to apply to EPD for a discharge licence for discharge of effluent from the construction site under the WPCO. The discharge quality must meet the requirements specified in the discharge licence. All the runoff and wastewater generated from the works areas should be treated so that it satisfies all the standards listed in the TM-DSS. Minimum distances of 100 m should be maintained between the discharge points of construction site effluent and the existing seawater intakes. The beneficial uses of the treated effluent for other on-site activities such as dust suppression, wheel washing and general cleaning etc., can minimise water consumption	To minimize water quality impact from effluent discharges from construction sites	Contractor	All construction works areas	Construction Phase	EIAO-TM, WPCO, TM-DSS

	and reduce the effluent discharge volume. If monitoring of the treated effluent quality from the works areas is required during the construction phase of the Project, the monitoring should be carried out in accordance with the WPCO license which is under the ambit of Regional Office (RO) of EPD.					
\$3.171 & 3.172	Construction work force sewage discharges on site are expected to be connected to the existing trunk sewer or sewage treatment facilities. If disposal of sewage to public sewerage system is not feasible, appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers over the construction site to prevent direct disposal of sewage into the water environment. The Contractor shall also be responsible for waste disposal and maintenance practices. Notices should be posted at conspicuous locations to remind the workers not to discharge any sewage or wastewater into the nearby environment.	To minimize water quality impacts due to sewage generated from construction workforce	Contractor	All construction works areas	Construction Phase	EIAO-TM, WPCO, TM- DSS, WDO
S3.173	Contractor must register as a chemical waste producer if	To minimize water quality	Contractor	All construction	Construction Phase	EIAO-TM, WPCO, TM-

	chemical wastes would be produced from the construction activities. The Waste Disposal Ordinance (Cap 354) and its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation should be observed and complied with for control of chemical wastes.	impact from accidental spillage of chemical		works areas		DSS, WDO
S3.174	Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.	To minimize water quality impact from accidental spillage of chemical	Contractor	All construction works areas	Construction Phase	EIAO-TM, WPCO, TM- DSS, WDO
S3.175	Disposal of chemical wastes should be carried out in compliance with the Waste Disposal Ordinance. The "Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes" published under the Waste Disposal Ordinance details the requirements to deal with chemical wastes. General requirements are given as follows: • Suitable containers should	To minimize water quality impact from accidental spillage of chemical	Contractor	All construction works areas	Construction Phase	EIAO-TM, WPCO, TM- DSS, WDO

	be used to hold the chemical wastes to avoid leakage or spillage during storage, handling and transport. • Chemical waste containers should be suitably labelled, to notify and warn the personnel who are handling the wastes, to avoid accidents. • Storage area should be selected at a safe location on site and adequate space should be allocated to the storage area.					
\$4.30	The following good site practices should be implemented: • Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction program • Silencers or mufflers on construction equipment should be utilized and should be properly maintained during the construction program • Mobile plant, if any, should be sited as far from NSRs as possible • Machines and plant (such as trucks) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum	To reduce construction noise impact	Contractor	All works areas	Construction phase	EIAO-TM, NCO

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Wanchai Development Phase II and Central Wanchai Bypass

(Shatin to Central Link (SCL) Protection

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	 Plant known to emit noise strongly in one direction should, wherever possible, be orientated so that the noise is directed away from the nearby NSRs Material stockpiles and other structures should be effectively utilized, wherever practicable, in screening noise from on-site construction activities. 					
\$4.31 – \$4.32 & Table 4.7	The following quiet PME are recommended for the construction activities: Air Compressor Bulldozer Concrete Pump Concrete Lorry Mixer Crane Dump Truck Excavator Generator Hand-held Breaker Poker Vibrator Roller Trucks	To reduce construction noise impact	Contractor	All works areas	Construction phase	EIAO-TM, NCO
S4.33 – S4.35 & Table 4.8	Movable noise barrier should be used for following PME: Air Compressor Bar Bender Bentonite Plants Concrete pump Diaphragm Wall Rigs Excavator	th e o reduce construction noise impact	Contractor	Affected works areas showing exceedance during un- mitigated scenario	Construction phase	EIAO-TM, NCO

	Poker Vibrator					
	ction Dust Impact					
S5.43	Watering once on construction areas for every working hour	To minimize dust impact	Contractor	Temporary reclamation area in CBTS	Construction phase	APCO
S5.43	Covering/paving the southwest retained area of temporary reclamation once filling is completed	To minimize dust impact	Contractor	southwest retained area of temporary reclamation	Construction phase	phase APCO
\$5.44	Dust suppression measures stipulated in the Air Pollution Control (Construction Dust) Regulation and good site practices: Use of regular watering, with complete coverage, to reduce dust emissions from exposed site surfaces and unpaved roads, particularly during dry weather. Use of frequent watering for particularly dusty cons truction areas and areas close to ASRs. Side enclosure and covering of any aggregate or dusty material storage piles to reduce emissions. Where this is not practicable owing to frequent usage, watering shall be applied to aggregate fines.	To minimize dust impacts	Contractor	Temporary reclamation area in CBTS	Construction phase	APCO and Air Pollution Control (Construction Dust) Regulation

Open stockpiles shall be avoided or covered. Where possible, prevent placing dusty material storage piles near ASRs. Tarpaulin covering of all dusty vehicle loads transported to, from and between site locations. Establishment and use of vehicle wheel and body washing facilities at the exit points of the site. Provision of wind shield and dust extraction units or similar dust mitigation measures at the loading points, and use of water sprinklers at the loading area where dust generation is likely during the loading process of loose material, particularly in dry seasons/ periods. Provision of not less than 2.4m high hoarding from ground level along site boundary where adjoins a road,
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ground level along site boundary where adjoins a road,
boundary where adjoins a road,
streets or other accessible to
the public except for a site
entrance or exit.
Imposition of speed controls
for vehicles on site haul roads.
Where possible, routing of
vehicles and positioning of
construction plant should be at
the maximum possible distance
from ASRs.

	Every stock of more than 20					
	bags of cement or dry					
	pulverised fuel ash (PFA)					
	should be covered entirely by					
	impervious sheeting or placed					
	in an area sheltered on the top					
	and the 3 sides.					
	 Instigation of an 					
	environmental monitoring and					
	auditing program to monitor the					
	construction process in order to					
	enforce controls and modify					
	method of work if dusty					
	conditions arise.					
	anagement implications (Construction Ph			1		
6.62	Good Site Practices and	To enhance	Contractor	All Work	Construction	Waste
	Waste Reduction Measures	water		Sites	Phase	Disposal
	- Prepare a Waste	management				Ordinance
	Management Plan approved by	practice and				(Cap. 354)
	the Engineer/Supervising	achieve waste				Land
	Officer of the Project based on	reduction.				(Miscellaneous
	current practices on					Provisions)
	construction sites;					Ordinance
	- Training of site personnel in,					(Cap. 28)
	site cleanliness, proper waste					ETWB TC(W)
	management and chemical					No.31/2004
	handling procedures;					
	- Provision of sufficient waste					
	disposal points and regular					
	collection of waste;					
	- Appropriate measures to					
	minimize windblown litter and					
	dust during transportation of					
	waste by either covering trucks					
	or by transporting wastes in					
	enclosed containers;					
	- Regular cleaning and		1			

	maintenance programme for drainage systems, sumps and oil interceptors; and - Separation of chemical wastes for special handling and appropriate treatment.					
6.63	Good Site Practices and Waste Reduction Measures (con't) - Sorting of demolition debris and excavated materials from demolition works to recover reusable/ recyclable portions (i.e. soil, broken concrete, metal etc.); - Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; - Encourage collection of aluminum cans by providing separate labeled bins to enable this waste to be segregated from other general refuse generated by the workforce; - Proper storage and site practices to minimize the potential for damage or contamination of construction materials; - Plan and stock construction	To achieve waste reduction	Contractor	All Work Sites	Construction Phase	Waste Disposal Ordinance (Cap. 354) Land (Miscellaneous Provisions) Ordinance (Cap. 28)

		materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste; and - Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycle.					
6	5.64	Good Site Practices and Waste Reduction Measures (con't) - The Contractor shall prepare and implement an EMP in accordance with ETWB TCW No. 19/2005. Such management plan should incorporate site specific factors, such as the designation of areas for segregation and temporary storage of reusable and recyclable materials. The EMP should be submitted to the Engineer for approval. The Contractor should implement the waste management practices in the EMP throughout the construction stage of the Project. The EMP should be reviewed regularly and updated by the Contractor, preferably in a monthly basis.	To enhance water management practice and achieve waste reduction.	Contractor	All Work Sites	Construction Phase	ETWB TCW No. 19/2005

6.66	Storage, Collection and Transportation of Waste - Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution; - Maintain and clean storage areas routinely; - Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away; and - Different locations should be designated to stockpile each material to enhance reuse.	To minimize potential adverse environmental impacts arising from waste storage	Contractor	Work Sites	Construction Phase	-
6.67	Storage, Collection and Transportation of Waste (con't) - Waste haulier with appropriate permits should be employed by the Contractor for the collection and transportation of waste from works areas to respective disposal outlets.	To minimize potential adverse environmental impacts arising from waste collection and disposal	Contractor	Waste storage area.	Construction Phase	-
6.68	Storage, Collection and Transportation of Waste (con't) - Implementation of trip ticket system with reference to ETWB TC(W) No.31/2004 to monitor disposal of waste and to control fly-tipping at PFRFs or landfills.	To minimize potential adverse environmental impacts arising from waste collection and disposal	Contractor	Work Sites	Construction Phase	ETWB TC(W) No.31/2004

	A recording system for the amount of waste generated, recycled and disposed (including disposal sites) should be proposed.					
6.70 – 6.73	Sorting of C&D Materials - Sorting to be performed to recover the inert materials, reusable and recyclable materials before disposal offsite Specific areas should be provided by the Contractors for sorting and to provide temporary storage areas for the sorted materials The C&D materials should at least be segregated into inert and non-inert materials, in which the inert portion could be reused and recycled as far as practicable before delivery to PFRFs as mentioned for beneficial use in other projects. While opportunities for reusing the non-inert portion should be investigated before disposal of at designated landfills Possibility of reusing the spoil in the Project will be continuously investigated in the construction stage.	To minimize potential adverse environmental impacts during the handling, transportation and disposal of C&D materials	Contractor	All work Sites	Construction Phase	ETWB TCW No. 31/2004 ETWB TCW No. 33/2002 ETWB TCW No. 19/2005
6.75	Sediments - The basic requirements and procedures for dredged	To ensure the sediment to be disposed of in an	Contractor	All works areas with sediments	Construction Phase	PNAP 252

	sediment disposal specified under PNAP 252 shall be followed. MFC manages disposal facilities in Hong Kong for the dredged sediment, while EPD is the authority issuing marine dumping permits under the <i>Dumping at Sea Ordinance</i> .	authorized and least impacted way		concern		
6.76	Sediments (con't) - The Project Proponent should agree in advance with MFC of CEDD on the site allocation by submitting a Construction & Demolition Material Management Plan. The contractor for the dredging works shall then apply for the site allocations of marine sediment disposal based on the prior agreement with MFC/CEDD. A request for reservation of sediment disposal space has been submitted to MFC for onward discussions of disposal approaches and feasible disposal sites. The Project Proponent is also responsible for application of all necessary permits from the relevant authorities, including the dumping permit as required under DASO from EPD, for the disposal of dredged sediment prior to the commencement of the dredging works.	To determine the best handling and disposal option of the sediments	MTR / Contractor	All works areas with sediments concern	Prior to the start of dredging works	PNAP 252; Dumping at Sea Ordinance

6.77 –	Sediments (con't)	To ensure	Contractor	Work Sites,	Construction	PNAP 252
6.81	- Requirements of the Air	handling of		Sediment	Phase	Dumping at
	Pollution Ordinance	sediments are in		disposal		Sea
	(Construction Dust) Regulation,	accordance to		sites		Ordinance
	where relevant, shall be	statutory				
	adhered to during dredging,	requirements				
	transportation and disposal of					
	sediments.					
	- Stockpiling of contaminated					
	sediments should be avoided					
	as far as possible. If temporary					
	stockpiling of contaminated					
	sediments is necessary, the					
	dredged sediment should be					
	covered by tarpaulin and the					
	area should be placed within					
	earth bunds or sand bags to					
	prevent leachate from entering					
	the ground, nearby drains					
	and/or surrounding water					
	bodies. The stockpiling areas					
	should be completely paved or					
	covered by linings in order to					
	avoid contamination to					
	underlying soil or groundwater.					
	Separate and clearly defined					
	areas should be provided for					
	stockpiling of contaminated and					
	uncontaminated materials.					
	Leachate, if any, should be					
	collected and discharged					
	according to the Water					
	Pollution Control Ordinance					
	(WPCO).					
	- In order to minimise the					
	potential odour / dust emissions					
	during dredging and					

	transportation of the sediment,			
	the dredged sediments should			
	be properly covered when			
	placed on barges. Loading of			
	the dredged sediment to the			
	barge should be controlled to			
	avoid splashing and			
	overflowing of the sediment			
	slurry to the surrounding water.			
	- The barge transporting the			
	sediments to the designated			
	disposal sites should be			
	equipped with tight fitting seals			
	to prevent leakage and should			
	not be filled to a level that			
	would cause overflow of			
	materials or laden water during			
	loading or transportation. In			
	addition, monitoring of the			
	barge loading shall be			
	conducted to ensure that loss			
	of material does not take place			
	during transportation. Transport			
	barges or vessels shall be			
	equipped with automatic self-			
	monitoring devices as specified			
	by the DEP.			
	- In order to minimise the			
	exposure to contaminated			
	materials, workers should wear			
	appropriate personal protective			
	equipments (PPE) when			
	handling contaminated			
	sediments. Adequate washing			
	and cleaning facilities should			
	also be provided on site.			
L		l		

6.82	Sediments (con't) The dredging work and associate sediment handling under this Project will be undertaken together with the CWB project by Highways Department and geosynthetic containment will be adopted to handle Type 3 sediments.	To ensure handling of sediments are in accordance to statutory requirements	Contractor	Work Sites, Sediment disposal sites	Construction Phase	PNAP 252 Dumping at Sea Ordinance
6.86	Containers for Storage of Chemical Waste The Contractor should register with EPD as a chemical waste producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Containers used for storage of chemical waste should: - Be compatible with the chemical wastes being stored, maintained in good condition and securely sealed; - Have a capacity of less than 450 litters unless the specifications have been approved by EPD; and	To register with EPD as a Chemical waste producer and store chemical waste in appropriate containers	Contractor	Chemical waste storage area	Construction Phase	Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes

	- Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Waste Disposal (Chemical Waste) (General) Regulation.					
6.87	Chemical Waste Storage Area - Be clearly labeled to indicate corresponding chemical characteristics of the chemical waste and used for storage of chemical waste only; - Be enclosed on at least 3 sides; - Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest; - Have adequate ventilation; - Be covered to prevent rainfall from entering; and - Be properly arranged so that incompatible materials are adequately separated.	To prepare appropriate storage areas for chemical waste at works areas	Contractor	Chemical waste storage area	Construction Phase	Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes
6.88	Labelling of Chemical Waste - Lubricants, waste oils and other chemical wastes would be generated during the maintenance of vehicles and mechanical equipments. Used	To clearly label the chemical waste at works areas	Contractor	Chemical waste storage area	Construction Phase	Code of Practice on the Packaging, Labelling and Storage of Chemical

	lubricants should be collected and stored in individual containers which are fully labeled in English and Chinese and stored in a designated secure place.					Wastes
6.89	Collection and Disposal of Chemical Waste - A trip-ticket system should be operated in accordance with the Waste Disposal (Chemical Waste) (General) Regulation to monitor all movements of chemical waste. The Contractor shall employ a licensed collector to transport and dispose of the chemical wastes, to either the approved CWTC at Tsing Yi, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.	To monitor the generation, reuse and disposal of chemical waste	Contractor	Work Sites with chemical waste production	Construction Phase	Waste Disposal (Chemical Waste) (General) Regulation
6.90	General Refuse - General refuse should be stored in enclosed bins or compaction units separate from C&D materials and chemical waste. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D materials and chemical wastes. Preferably, an enclosed and	To properly store and separate from other C&D materials for subsequent collection and disposal	Contractor	All Work Sites	Construction Phase	-

	covered area should be provided to reduce the occurrence of windblown light material.					
6.91	General Refuse (con't) - The recyclable component of general refuse, such as aluminum cans, paper and cleansed plastic containers should be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste should be set up by the Contractor. The Contractor should also be responsible for arranging recycling companies to collect these materials.	To facilitate recycling of recyclable portions of refuse	Contractor	All Work Sites	Construction Phase	-
6.92	General Refuse (con't) - The Contractor should carry out an education programme for workers in avoiding, reducing, reusing and recycling of materials generation. Posters and leaflets advising on the use of the bins should also be provided in the sites as reminders.	To raise workers' awareness on recycling issue	Contractor	All Work Sites	Construction Phase	-

Appendix 4.1

Action and Limit Level

Action and Limit Level

Action and Limit Level for Air Quality Monitoring

1-hour TSP Level in μ g/m ³		24-hour TSP Level in μ g/m ³	
Action Level	Limit Level	Action Level	Limit Level
311.3	500	171.0	260

Action and Limit Level for Noise Monitoring

Time Period	Action Level	Limit Level
07:00 – 19:00 hours on normal weekdays	When one documented complaint is received.	75 dB(A)/ 70 dB(A)/ 65 db(A) ^{Note 1}

Note 1:

- 70dB(A) and 65 dB(A) for schools during normal teaching periods and school examination periods, respectively.
- If works are to be carried out during the restricted hours, the conditions stipulated in the Construction Noise Permit (CNP) issued by the Noise Control Authority have to be followed.

Action and Limit Level for Water Quality Monitoring

Parameters	Dry Season		Wet Season	
	Action Level	Limit Level	Action Level	Limit Level
Cooling Water Intake				
SS in mg/L	15.00	22.13	18.42	27.54
Turbidity in NTU	9.10	10.25	11.35	12.71
DO in mg/L	3.36	2.73	3.02	2.44

Remarks: - Contractor shall implement additional improvement measures in case of oxygen depletion (i.e. DO level <2 mg/L) detected within CBTS.

Appendix 4.2

Copies of Calibration Certificates



G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. 香港 黃竹坑 道 3.7 號 利 達 中 心 地 下 , 9 樓 , 1 2 樓 , 1 '3 樓 及 2.0 樓

E-mail: smec@cigismec.com Website: www.cigismec.com Tel: (852) 2873 6860 Fax: (852) 2555 7533



CERTIFICATE OF CALIBRATION

Certificate No.:

14CA1213 01

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of

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Item tested

Description:

Sound Level Meter (Type 1) **B&K**

Microphone **B&K**

Manufacturer: Type/Model No.: Serial/Equipment No.:

2236 2100736 4188 2288941

Adaptors used:

Item submitted by

Customer Name:

Lam Geotechnics Limited

Address of Customer:

Request No.: Date of receipt:

13-Dec-2014

Date of test:

13-Dec-2014

Reference equipment used in the calibration

Multi function sound calibrator

Model: B&K 4226

Serial No. 2288444

Expiry Date: 20-Jun-2015

Traceable to: CIGISMEC CEPREI

Signal generator Signal generator

DS 360 DS 360

33873 61227

09-Apr-2015 09-Apr-2015

CEPREI

Ambient conditions

Temperature: Relative humidity:

Air pressure:

21 ± 1 °C 60 ± 5 % 1010 ± 5 hPa

Test specifications

1, The Sound Level Meter has been calibrated in accordance with the requirements as specified in BS 7580; Part 1: 1997 and the lab calibration procedure SMTP004-CA-152

2, The electrical tests were performed using an electrical signal substituted for the microphone which was removed and replaced by an equivalent capacitance within a tolerance of ±20%.

The acoustic calibration was performed using an B&K 4226 sound calibrator and corrections was applied for the difference 3, between the free-field and pressure responsess of the Sound Level Meter.

Test results

This is to certify that the Sound Level Meter conforms to BS 7580: Part 1: 1997 for the conditions under which the test was performed.

Details of the performed measurements are presented on page 2 of this certificate

Actual Measurement data are documented on worksheets.

Approved Signatory:

Date:

15-Dec-2014

Company Chop:

Huang Jian Min/Feng Jun Qi

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

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Form No.CARP152-1/Issue 1/Rev.C/01/02/2007



G/F, 9/F, 12/F, 13/F. & 20/F, Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. 香港黃竹坑道37號利達中心地下,9樓,12樓,13樓及20樓 E-mail: smec@cigismec.com Website: www.cigismec.com

Tel: (852) 2873 6860 Fax: (852) 2555 7533



CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.:

14CA1213 01

Page

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2

1, Electrical Tests

The electrical tests were performed using an equivalent capacitance substituted for the microphone. The results are given in below with test status and the estimated uncertainties. The "Pass" means the result of the test is inside the tolerances stated in the test specifications. The "-" means the result of test is outside these tolerances.

Test:	Subtest:	Status:	Expanded Uncertanity (dB)	Coverage Factor
	Gubicot.	Otatus.	oncontainty (ab)	1 dotoi
Self-generated noise	A	Pass	0.3	
	С	Pass	1.0	2.1
	Lin	Pass	2.0	2.2
Linearity range for Leq	At reference range, Step 5 dB at 4 kHz	Pass	0.3	
	Reference SPL on all other ranges	Pass	0.3	
	2 dB below upper limit of each range	Pass	0.3	
	2 dB above lower limit of each range	Pass	0.3	
Linearity range for SPL	At reference range, Step 5 dB at 4 kHz	Pass	0.3	
Frequency weightings	Α	Pass	0.3	
	C	Pass	0.3	
	Lin	Pass	0.3	
Time weightings	Single Burst Fast	Pass	0.3	
	Single Burst Slow	Pass	0.3	
Peak response	Single 100µs rectangular pulse	Pass	0.3	
R.M.S. accuracy	Crest factor of 3	Pass	0.3	
Time weighting I	Single burst 5 ms at 2000 Hz	Pass	0.3	
	Repeated at frequency of 100 Hz	Pass	0.3	
Time averaging	1 ms burst duty factor 1/103 at 4kHz	Pass	0.3	
	1 ms burst duty factor 1/104 at 4kHz	Pass	0.3	
Pulse range	Single burst 10 ms at 4 kHz	Pass	0.4	
Sound exposure level	Single burst 10 ms at 4 kHz	Pass	0.4	
Overload indication	SPL	Pass	0.3	
	Leq	Pass	0.4	

2, Acoustic tests

The complete sound level meter was calibrated on the reference range using a B&K 4226 acoustic calibrator with 1000Hz and SPL 94 dB. The sensitivity of the sound level meter was adjusted. The test result at 125 Hz and 8000 Hz are given in below with test status and the estimated uncertainties.

Test:	Subtest	Status	Expanded Uncertanity (dB)	Coverage Factor
Acoustic response	Weighting A at 125 Hz	Pass	0.3	
	Weighting A at 8000 Hz	Pass	0.5	
	5 5			

3, Response to associated sound calibrator

N/A

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

Calibrated by:

Fung Chi Yip

End

Checked by:

. .

Lam Tze Wai

Date:

13-Dec-2014

Date:

15-Dec-2014

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

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Form No.CARP152-2/Issue 1/Rev.C/01/02/2007



G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. 香港黃竹坑道37號利達中心地下,9樓,12樓,13樓及20樓 E-mail: smec@cigismec.com Website: www.cigismec.com

Tel: (852) 2873 6860 Fax: (852) 2555 7533



CERTIFICATE OF CALIBRATION

Certificate No.:

14CA0529 01-02

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of

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to:

Item tested

Description:

Acoustical Calibrator (Class 1)

Manufacturer: Type/Model No .: Rion Co., Ltd. NC-73

Serial/Equipment No.:

10465798

Adaptors used:

Item submitted by

Curstomer:

Lam Geotechnics Limited

Address of Customer:

Request No : Date of receipt:

29-May-2014

Date of test:

30-May-2014

Reference equipment used in the calibration

Description:	Model:	Serial No.	Expiry Date:	Traceable
Lab standard microphone	B&K 4180	2412857	13-May-2015	SCL
Preamplifier	B&K 2673	2239857	10-Apr-2015	CEPREI
Measuring amplifier	B&K 2610	2346941	08-Apr-2015	CEPREI
Signal generator	DS 360	61227	09-Apr-2015	CEPREI
Digital multi-meter	34401A	US36087050	17-Dec-2014	CEPREI
Audio analyzer	8903B	GB41300350	07-Apr-2015	CEPREI
Universal counter	53132A	MY40003662	11-Apr-2015	CEPREI

Ambient conditions

Temperature:

22 ± 1 °C

Relative humidity:

60 ± 10 %

Air pressure: 1000 ± 10 hPa

Test specifications

- 1, The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.
- 2. The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference 3, pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

Details of the performed measurements are presented on page 2 of this certificate.

Huang Jian Min/Feng Jun Qi

Approved Signatory:

Date:

30-May-2014

Company Chop:

Comments: The results reported in his certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

Soils & Materials Engineering Co., Ltd.

Form No.CARP156-1/Issue 1/Rev D/01/03/2007



G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. 香港黃竹坑道37號利達中心地下,9樓、12樓、13樓及20樓 E-mail: smec@cigismec.com Website: www.cigismec.com

Tel: (852) 2873 6860 Fax: (852) 2555 7533



CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No.:

14CA0529 01-02

Page:

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of

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1, Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties.

			(Output level in dB re 20 µPa
Frequency Shown Hz	Output Sound Pressure Level Setting dB	Measured Output Sound Pressure Level dB	Estimated Expanded Uncertainty dB
1000	94.00	94.57	0.10

2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

At 1000 Hz

STF = 0.001 dB

Estimated expanded uncertainty

0.005 dB

3, Actual Output Frequency

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

At 1000 Hz

Actual Frequency = 965.6 Hz

Estimated expanded uncertainty

0.1 Hz

Coverage factor k = 2.2

4, Total Noise and Distortion

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

At 1000 Hz

TND = 0.9 %

Estimated expanded uncertainty

0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated.

Calibrated by:

End

Date:

Fung Chi Yip 30-May-2014 Checked by:

Date:

Lam Tze Wai 30-May-2014

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

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Form No CARP156-2/Issue 1/Rev.C/01/05/2005



G/F., 9/F., 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. 香港黃竹坑道37號利達中心地下,9樓,12樓,13樓及20樓 E-mail: smec@cigismec.com Website: www.cigismec.com Tel: (852) 2873 6860 Fax: (852) 2555 7533



CERTIFICATE OF CALIBRATION

Certificate No.:

15CA0312 02-02

Page:

of

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Item tested

Description: Manufacturer: Acoustical Calibrator (Class 1) B & K

Manufacturer: Type/Model No.:

4230 1411076

Serial/Equipment No.: Adaptors used:

Yes

Item submitted by

Curstomer:

Lam Geotechnics Limited

Address of Customer:

(- 1

Request No.: Date of receipt:

12-Mar-2015

Date of test:

13-Mar-2015

Reference equipment used in the calibration

Description: Lab standard microphone Preamplifier Measuring amplifier Signal generator Digital multi-meter Audio analyzer	Model: B&K 4180 B&K 2673 B&K 2610 DS 360 34401A 8903B	Serial No. 2412857 2239857 2346941 61227 US36087050 GB41300350	Expiry Date: 13-May-2015 10-Apr-2015 08-Apr-2015 09-Apr-2015 01-Dec-2015 07-Apr-2015	Traceable to: SCL CEPREI CEPREI CEPREI CEPREI CEPREI CEPREI
Universal counter	53132A	MY40003662	11-Apr-2015	CEPREI

Ambient conditions

Temperature:

21 ± 1 °C

Relative humidity: Air pressure:

60 ± 10 % 1010 ± 5 hPa

Test specifications

- The Sound Calibrator has been calibrated in accordance with the requirements as specified in IEC 60942 1997 Annex B and the lab calibration procedure SMTP004-CA-156.
- 2, The calibrator was tested with its axis vertical facing downwards at the specific frequency using insert voltage technique.
- 3, The results are rounded to the nearest 0.01 dB and 0.1 Hz and have not been corrected for variations from a reference pressure of 1013.25 hectoPascals as the maker's information indicates that the instrument is insensitive to pressure changes.

Test results

This is to certify that the sound calibrator conforms to the requirements of annex B of IEC 60942: 1997 for the conditions under which the test was performed. This does not imply that the sound calibrator meets IEC 60942 under any other conditions.

Details of the performed measurements are presented on page 2 of this certificate.

Approved Signatory:

Date: Huang Jian Min/Feng Jun Qi

13-Mar-2015

Company Chop:

有限公司等

Comments: The results reported in this certificate refer to the condition of the instrument on the date of calibration and carry no implication regarding the long-term stability of the instrument.

© Soils & Materials Engineering Co., Ltd.

Form No.CARP156-1/Issue 1/Rev.D/01/03/2007



G/F., 9/\frac{7}{5}, 12/F., 13/F. & 20/F., Leader Centre, 37 Wong Chuk Hang Road, Aberdeen, Hong Kong. 香港黃竹坑道37號利達中心地下,9樓,12樓,13樓及20樓 E-mail: smec@cigismec.com Website: www.cigismec.com

Tel: (852) 2873 6860 Fax: (852) 2555 7533



CERTIFICATE OF CALIBRATION

(Continuation Page)

Certificate No :

15CA0312 02-02

Page:

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of

2

1, Measured Sound Pressure Level

The output Sound Pressure Level in the calibrator head was measured at the setting and frequency shown using a calibrated laboratory standard microphone and insert voltage technique. The results are given in below with the estimated uncertainties

			(Output level in dB re 20 μPa)
Frequency Shown Hz	Output Sound Pressure Level Setting dB	Measured Output Sound Pressure Level dB	Estimated Expanded Uncertainty dB
1000	94.00	94.22	0.10

2, Sound Pressure Level Stability - Short Term Fluctuations

The Short Term Fluctuations was determined by measuring the maximum and minimum of the fast weighted DC output of the B&K 2610 measuring amplifier over a 20 second time interval as required in the standard. The Short Term Fluctuation was found to be:

At 1000 Hz

STF = 0.002 dB

Estimated expanded uncertainty

0.005 dB

3, **Actual Output Frequency**

The determination of actual output frequency was made using a B&K 4180 microphone together with a B&K 2673 preamplifier connected to a B&K 2610 measuring amplifier. The AC output of the B&K 2610 was taken to an universal counter which was used to determine the frequency averaged over 20 second of operation as required by the standard. The actual output frequency at 1 KHz was:

At 1000 Hz

Actual Frequency = 965.3 Hz

Estimated expanded uncertainty

0.1 Hz

Coverage factor k = 2.2

Total Noise and Distortion 4,

For the Total Noise and Distortion measurement, the unfiltered AC output of the B&K 2610 measuring amplifier was connected to an Agilent Type 8903 B distortion analyser. The TND result at 1 KHz was:

At 1000 Hz

TND = 0.7 %

Estimated expanded uncertainty

0.7 %

The expanded uncertainties have been calculated in accordance with the ISO Publication "Guide to the expression of uncertainty in measurement", and gives an interval estimated to have a level of confidence of 95%. A coverage factor of 2 is assumed unless explicitly stated

Calibrated by:

End

Fung Chi Yip

Checked by:

Date: 13-Mar-2015 Date:

Lam Tze Wai 13-Mar-2015

The standard(s) and equipment used in the calibration are traceable to national or international recognised standards and are calibrated on a schedule to maintain the required accuracy level.

© Soils & Materials Engineering Co., Ltd.

Form No CARP156-2/Issue 1/Rev.C/01/05/2005



REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

Information supplied by customer:

CONTACT:

SAM LAM

WORK ORDER: HK1510067

CLIENT:

LAM GEOTECHNICS LIMITED

DATE RECEIVED: 25/02/2015 DATE OF ISSUE:

04/03/2015

ADDRESS:

11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,

WANCHAI, HONG KONG

PROJECT:

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity	
Equipment Type:	Turbidimeter	3 33335
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1203010	
Equipment No.:		
Date of Calibration:	25-Feb-15	

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

> Mr. Peter Lee Director

This report may not be reproduced except with prior written approval from Pilot Testing Limited.



REPORT OF EQUIPMENT PERFORMANCE CHECK / CALIBRATION

WORK ORDER:

HK1510067

DATE OF ISSUE:

04/03/2015

CLIENT:

LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1203010	
Equipment No.:		
Date of Calibration:	25-Feb-15	
Date of next Calibation:	25-May-15	

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	3.98	-0.5	
10	10.8	8.4	
40	39.8	-0.4	
100	100	0.2	
400	373	-6.7	
1000	964	-3.6	
	Tolerance Limit (±%)	10.0	

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.



Information supplied by customer:

CONTACT:

SAM LAM

WORK ORDER: HK1510147

CLIENT:

LAM GEOTECHNICS LIMITED

DATE RECEIVED: 2015-05-22 **DATE OF ISSUE: 2015-06-01**

ADDRESS:

11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,

WANCHAI, HONG KONG

PROJECT:

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity	
Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1203010	
Equipment No.:		
Date of Calibration:	22-May-15	

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

> Mr. Peter Lee Director



WORK ORDER: HK1510147 **DATE OF ISSUE:** 2015-06-01

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	15.00.0
Serial No.:	1203010	
Equipment No.:		
Date of Calibration:	22-May-15	
Date of next Calibation:	22-Aug-15	

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)
0	0.00	
4	3.86	-3.5
10	10.1	1.0
40	40.0	0.0
100	101	1.0
400	399	-0.3
1000	1000	0.0
	Tolerance Limit (±%)	10.0

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.



Information supplied by customer:

CONTACT:

SAM LAM

WORK ORDER: HK1510130

CLIENT:

LAM GEOTECHNICS LIMITED

DATE RECEIVED: 08/04/2015 DATE OF ISSUE:

15/04/2015

ADDRESS:

11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,

WANCHAI, HONG KONG

PROJECT:

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity	
Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1203015	
Equipment No.:		
Date of Calibration:	08/04/2015	

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

> Mr. Peter Lee Director



WORK ORDER:

HK1510130

DATE OF ISSUE: 15/04/2015

CLIENT:

LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1203015	
Equipment No.:		
Date of Calibration:	08/04/2015	
Date of next Calibation:	08/07/2015	

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	4.22	5.5	
10	9.77	-2.3	
40	40.9	2.3	
100	99	-1.0	
400	412	3.0	
1000	983	-1.7	4.00
	Tolerance Limit (±%)	10.0	

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.



Information supplied by customer:

CONTACT: **SAM LAM** WORK ORDER: HK1510131

CLIENT:

LAM GEOTECHNICS LIMITED

DATE RECEIVED: 08/04/2015

DATE OF ISSUE:

15/04/2015

ADDRESS:

11/F, CENTRE POINT, 181-185, GLOUCESTER ROAD,

WANCHAI, HONG KONG

PROJECT:

METHOD OF PERFORMANCE CHECK/ CALIBRATION:

Ref: APHA22nd ed 2130B

COMMENTS

It is certified that the item under performance check/calibration has been calibrated/checked by corresponding calibrated equipment in the laboratory.

Maximum Tolerance and calibration frequency stated in the report, unless otherwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.

Scope of Test:	Turbidity	
Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1309192	
Equipment No.:		
Date of Calibration:	08/04/2015	

Remarks:

This is the Final Report. Results apply to sample(s) as submitted. All pages of this report have been checked and approved for release.

> Mr. Peter Lee Director

Canan



WORK ORDER:

HK1510131

DATE OF ISSUE:

15/04/2015

CLIENT:

LAM GEOTECHNICS LIMITED

Equipment Type:	Turbidimeter	
Brand Name:	Xin Rui	
Model No.:	WGZ-3B	
Serial No.:	1309192	
Equipment No.:		
Date of Calibration:	08/04/2015	TWO I
Date of next Calibation:	08/07/2015	

Parameters:

Turbidity

Method Ref: APHA 22nd ed. 2130B

Expected Reading (NTU)	Display Reading (NTU)	Tolerance (%)	
0	0.00		
4	3.89	-2.8	
10	10.3	3.0	
40	41.5	3.8	
100	97	-3.0	
400	394	-1.5	
1000	978	-2.2	
	Tolerance Limit (±%)	10.0	

Remark: "Displayed Reading" presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.

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EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No.

: HK1510133

Project Name

EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue

: 21/04/2015

Customer

: LAM GEOTECHNICS LIMITED

Address

11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

Calibration Job No. Test Item No. : HK1510133 : HK1510133-01

Test Item Details Test Item Description

Multifunctional Meter

Manufacturer Model No. YSI Professional Plus

Serial No.

14E100105

Performance Method

Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value

(APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B)

, Dissolved oxygen (APHA 19e 4500-O,C))

Test Item Receipt Date Test Item Calibration Date 14-Apr-15 15-Apr-15

Test Period

14/04/2015 - 21/04/2015

Notes: 1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.

- 2. Results relate to item(s) as received.
- 3. ± indicates the tolerance limit
- 4. N/A = Not applicable
- APHA American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
- 6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.
- Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

Mr. Peter Lee

(Director)

Issue Date:

21/04/2015



WORK ORDER: HK1510133
DATE OF ISSUE: 21/04/2015

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	14E100105	
Date of Calibration	15-Apr-15	
Date of next Calibation	15-Jul-15	***************************************

Parameters:

Temperature (Method Ref: Section 6 of Intermational Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.2	10.4	+0.2
19.9	20.1	+0.2
28.9	27.4	-1.5
To	olerance Limit	±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	3.97	4.08	+0.11
7.0	6.92	7.03	+0.11
10.0	9.91	10.01	+0.10
	Tolerance Limit		±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCI concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	2
0.1000	12.89	12.70	-1.50
0.2000	24.80	24.99	+0.77
0.5000	58.67	58.36	-0.53
	Tolerance Limit		±2.0

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)
8.93	8.85	-0.08
5.15	5.17	+0.02
1.58	1.71	+0.13
	Tolerance Limit	±0.20

Remarks:

- (1) Maxium tolerance and calibration frequency stated in the report, unless otherwwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
- (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
- (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

- End of Report -



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No.

: HK1510134

Project Name

EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue

24/04/2015

Customer

: LAM GEOTECHNICS LIMITED

Address

11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

Calibration Job No. Test Item No.

HK1510134 : HK1510134-01

Test Item Details

Test Item Description

: Multifunctional Meter YSI

Manufacturer Model No.

Professional Plus

Serial No.

14M100277

Performance Method

Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value

(APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B)

, Dissolved oxygen (APHA 19e 4500-O,C))

Test Item Receipt Date Test Item Calibration Date 17-Apr-15 17-Apr-15

Test Period

17/04/2015 - 24/04/2015

- Notes: 1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.
 - 2. Results relate to item(s) as received.
 - 3. ± indicates the tolerance limit
 - 4. N/A = Not applicable
 - 5. APHA American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA
 - 6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.
 - 7. Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

cauan Mr. Peter Lee (Director)

Issue Date:

24/04/2015



WORK ORDER:

HK1510134

DATE OF ISSUE:

24/04/2015

CLIENT:

LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	14M100277	
Date of Calibration	17-Apr-15	
Date of next Calibation	17-Jul-15	

Parameters:

Temperature (Method Ref: Section 6 of International Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.2	10.5	+0.3
19.7	19.1	-0.6
31.3	31.3	0.0
IT _C	olerance Limit	±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	3.97	4.14	+0.17
7.0	6.88	7.03	+0.15
10.0	9.84	9.90	+0.06
	Tolerance Limit		±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCl concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	
0.1000	12.89	13.08	+1.47
0.2000	24.80	24.43	-1.49
0.5000	58.67	58.10	-0.97
	Tolerance Limit		±2.0

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)
8.18	8.06	-0.12
5.59	5.46	-0.13
3.00	2.96	-0.04
	Tolerance Limit	±0.20

Remarks:

- (1) Maxium tolerance and calibration frequency stated in the report, unless otherwwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
- (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
- (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.



EQUIPMENT PERFORMANCE CHECK / CALIBRATION REPORT

Report No.

: HK1510132

Project Name

EQUIPMENT PERFORMANCE CHECK/CALIBRATION REPORT

Date of Issue

: 21/04/2015

Customer

: LAM GEOTECHNICS LIMITED

Address

11/F., CENTRE POINT, 181-185 GLOUCESTER ROAD, WAN CHAI, HONG KONG

Calibration Job No.

Test Item No.

HK1510132 HK1510132-01

Test Item Details

: Multifunctional Meter

Test Item Description Manufacturer

YSI

Model No.

Professional Plus

Serial No.

11F100420

Performance Method

Checked according to in-house method CAL005

(References: Temperature (Section 6 of Intermational Accreditation New Zealand Technical Guide No. 3 Second edition March 2008: Working Thermometer Calibration Procedure), pH value

(APHA 21e 4500H:B), Salinity (Refer to Conductivity APHA 19e 2510B)

, Dissolved oxygen (APHA 19e 4500-O,C))

Test Item Receipt Date
Test Item Calibration Date

14-Apr-15 15-Apr-15

Test Period

14/4/2015 - 21/4/2015

Notes: 1. This report shall not be reproduced, except in full, without prior approval from Pilot Testing Limited.

2. Results relate to item(s) as received.

- 3. ± indicates the tolerance limit
- 4. N/A = Not applicable
- APHA American Public Health Association, American Water Works Association and Water Environment Federation, Standard Methods for the Examination of Water and Wastewater, APHA-AWWA-WEF. USA

6. DO, pH, salinity and temperature performance check was conducted by Pilot Testing Limited.

 Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

Approved Signatory

Mr. Peter Lee

(Director)

Issue Date:

21/04/2015



WORK ORDER: HK1510132 DATE OF ISSUE: 21/04/2015

CLIENT: LAM GEOTECHNICS LIMITED

Equipment Type	Multifunctional Meter	
Manufacturer	YSI	
Model No.	Professional Plus	
Serial No.	11F100420	
Date of Calibration	15-Apr-15	35429
Date of next Calibation	15-Jul-15	

Parameters:

Temperature (Method Ref: Section 6 of Intermational Accreditation New Zealand Technical Guide No.3 Second edition March 2008: Working Thermometer Calibration Procedure)

Reference Reading (°C)	Display Reading (°C)	Deviation (°C)
10.2	11.1	+0.9
19.9	20.3	+0.4
28.9	28.5	-0.4
T	olerance Limit	±2.0

pH Value (Method Ref: APHA21e, 4500H:B)

Expected Reading (pH unit)	Reference Reading (pH unit)	Display Reading (pH unit)	Deviation (pH unit)
4.0	3.97	4.09	+0.12
7.0	6.92	6.84	-0.08
10.0	9.91	9.97	+0.06
	Tolerance Limit		±0.20

Conductivity (Method Ref: APHA 19e, 2510)

KCI concentration (mol/L)	Reference Reading (ms/cm)	Display Reading (ms/cm)	Deviation (%)
0.0000	0.00	0.00	
0.1000	12.89	12.77	-0.93
0.2000	24.80	24.42	-1.53
0.5000	58.67	58.05	-1.05
200	Tolerance Limit		±2.0

Dissolved Oxygen (DO) (Method Ref: APHA 19e, 4500-O, C)

Reference DO reading (mg/L)	DO reading od DO probe (mg/L)	Deviation (mg/L)	
8.93	8.92	-0.01	
5.15	5.20	+0.05	
1.58	1.64	+0.06	
	Tolerance Limit	±0.20	

Remarks:

- (1) Maxium tolerance and calibration frequency stated in the report, unless otherwwise stated, the internal acceptance criteria of Pilot Testing Limited will be followed.
- (2) Displayed reading presents the figures shown on item under calibration/checking regardless of equipment precision or significant figures.
- (3) Because of high sensitivity and ease of measurement, the conductivity method (according to APHA 19e 2510) is used to determine salinity.

- End of Report -



TISCH ENVIRONMENTAL, INC. 145 SOUTH MIAMI AVE VILLAGE OF CLEVES, OH 45002 513.467.9000 877.263.7610 TOLL FREE 513.467.9009 FAX

ORIFICE TRANSFER STANDARD CERTIFICATION WORKSHEET TE-5025A

Date - Ju	l 14, 2014	Rootsmeter		438320	Ta (K) -	298
Operator	Tisch	Orifice I.I		0005	Pa (mm) -	- 749.3
PLATE OR Run # 1 2 3 4 5	VOLUME START (m3) NA NA NA NA	VOLUME STOP (m3) NA NA NA NA NA	DIFF VOLUME (m3) 1.00 1.00 1.00 1.00	DIFF TIME (min) 1.3870 0.9830 0.8760 0.8760 0.8340 0.6860	METER DIFF Hg (mm) 3.2 6.4 7.9 8.8 12.7	ORFICE DIFF H2O (in.) 2.00 4.00 5.00 5.50 8.00

DATA TABULATION

Vstd	(x axis) Qstd	(y axis)		Va	(x axis) Qa	(y axis)
0.9817 0.9775 0.9754 0.9743 0.9692	0.7078 0.9944 1.1135 1.1683 1.4128	1.4042 1.9859 2.2203 2.3286 2.8084		0.9957 0.9915 0.9894 0.9882 0.9830	0.7179 1.0086 1.1294 1.1849 1.4330	0.8919 1.2613 1.4101 1.4790 1.7837
Qstd slop	(b) =	1.99175 -0.00041 0.99991	n e n	Qa slope intercept coefficie	= (b) $=$	1.24720 -0.00026 0.99991
y axis =	SQRT[H20(F	Pa/760) (298/	[a)]	y axis =	SQRT [H2O (T	[a/Pa)]

CALCULATIONS

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

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



Calibration Data for High Volume Sampler (TSP Sampler)

				_		-	-	-	
Location :		CMA3a				Calbrati	on Date	:	10-Apr-15
Equipment no.		EL333				Calbrati	on Due Date	:	10-Jun-15
								<u> </u>	
CALIBRATION OF CON	TINUOUS	S FLOW RI	CORDER						
				Ambient C	ondition				
Temperature, T _a		291		Kelvin	Pressure, P	a		1018	mmHg
			Orifice Tra	ansfer Star	ndard Inforn	nation			
Equipment No.		EL086		Slope, m _c	1.991		Intercept, bc		-0.00041
Last Calibration Date		14-Jul-1		- II , Y			3.3 x 298		
Next Calibration Date		14-Jul-1	5		=		$Q_{std} + b_c$	' a /	
				.	(505		· siu · · · ·		
0.171 - 17		. 5		Calibration		0 11	E1		10
Calibration		nometer R			std		uous Flow		IC - :1/2:
Point		inches of			min.)		rder, W	(W(P _a /	1013.3x298/T _a) ^{1/2} /35.31)
	(up)	(down)	(difference)		axis		CFM)		Y-axis
1	5.7	5.7	11.4		196		52		52.7436
2	4.8	4.8	9.6		5781		48		48.6864
3	3.6	3.6	7.2		3667		42		42.6006
4	2.3	2.3	4.6		924		33		33.4719
5 Du Linear Degraceion of	1.4	1.4	2.8	0.8	3523		23		23.3289
By Linear Regression of			22.5	40E	Inte	araant h	4	1711	
Correlation Co	Slope, m		33.5		me	ercept, b =	-4	.1711	
Calibration		=	0.99 Yes/						
Calibration	Accepted	=	1 65/1						
* if Correlation Coefficier	nt < 0.990,	, check and	d recalibration	n again.					
** Delete as appropriate.									
Remarks :									
Calibrated by		uLu Mar				Checke	а ву	:	Derek Lo
Date :	1	0-Apr-15				Date		:	10-Apr-15

Appendix 5.1

Monitoring Schedules for Reporting Month and Coming Reporting Month

Wan Chai Development Phase II and Central-Wan Chai Bypass Sampling, Field Measurement and Testing Works (Stage 2)

Environmental Monitoring Schedule May 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
		28-Ар	r 29-A	or 30-Ap	r 1-May	2-May
			24hr TSP	1hr TSP		Impact WQM
				Mid-ebb 10:34		Mid-ebb 11:28
3-May	4-May	5-Ma	y 6-M	Mid-flood 16:3° ay 7-May		Mid-flood 17:52 9-May
,,				,		J
,	Noise (daytime)	24hr TSP	1hr TSP			
	Impact WQM		Impact WQM		Impact WQM	
	Mid-ebb 12:27 Mid-flood 19:08	i	Mid-ebb 13: Mid-flood 20:		Mid-ebb 15:00 Mid-flood 22:13	
10-May	11-May	12-Ma				16-May
	Impact WQM	1hr TSP	Noise (daytime)			24hr TSP
	Mid-flood 10:49					
17-May	18-May	19-Ma	у 20-М	21-May	, 22-May	23-May
	1hr TSP	Noise (daytime)			24hr TSP	1hr TSP
24-May	25-May	26-Ma	у 27-М	y		
Remark			Noise (daytime)			

Remark

As confirmed by CWB RSS, the marine based construction activities under Environmental Permit EP-416/2011 have been completed by 9 April 2015. As such the post construction water quality monitoring was commenced in accordance with condition 2.26 in the approved EM&A manual form 11 April 2015 to 11 May 2015 for four weeks period to confirm for the post construction water quality.

No action or limit level exceedance was recorded during the post construction water quality monitoring period and the post construction water quality monitoring confirmed no deterioration in water quality. The water quality monitoring at the respective monitoring station C7 – Windsor House was temporarily suspended from 13 May 2015.

Due to the hoisting of Amber Rainstorm Warning Signal, the water quality monitoring on 11 May 2015 during ebb tide was cancelled.

Wan Chai Development Phase II and Central-Wan Chai Bypass Sampling, Field Measurement and Testing Works (Stage 2)

Tentive Environmental Monitoring Schedule June 2015

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Gunday	monuay	ruesuay	rreunesuay	28-May	29-May	30-May
				24hr TSP	1hr TSP	
31-May	1-Jun	2-Jun	3-Jun	4-Jun	5-Jun	6-Jun
	Noise (daytime)	Noise (daytime)	24hr TSP	1hr TSP		
7-Jun	8-Jun	9-Jun	10-Jun	11-Jun	12-Jun	13-Jun
	24hr TSP Noise (daytime)	1hr TSP Noise (daytime)		Noise (daytime)	24hr TSP	1hr TSP
14-Jun	15-Jun	16-Jun	17-Jun	18-Jun	19-Jun	20-Jun
	Noise (daytime)	Noise (daytime)		24hr TSP	1hr TSP	
21-Jun	22-Jun	23-Jun	24-Jun	25-Jun	26-Jun	27-Jur
	Noise (daytime)	24hr TSP Noise (daytime)	1hr TSP			

Appendix 5.2

Noise Monitoring Results and Graphical Presentations



Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)

Location: M2b - Noon-day gun area

			Measure	ement Noi	se Level	Baseline Level	Construction Noise Level	Limit Level
Date	Time	Weather	Leq	L10	L90	Leq	Leq	Leq
				-	-	Unit: dB(A), (3	30-min)	
04/05/15	10:58	Fine	67.3	68.5	65.5	68	67	75
13/05/15	10:51	Fine	67.6	68.5	65.5	68	68	75
19/05/15	10:51	Fine	74.5	79.0	66.5	68	74	75
27/05/15	13:45	Fine	66.5	67.5	65.0	68	67	75

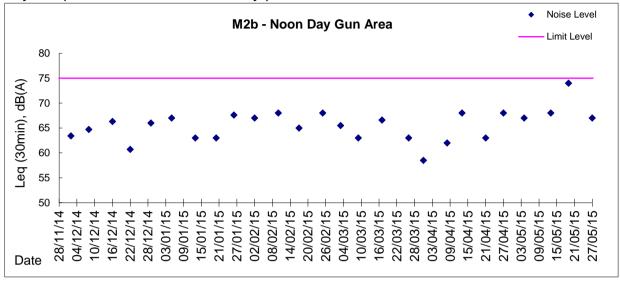


Wanchai Development Phase II and Central Wanchai Bypass

(Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter)

Graphic Presentation of Noise Monitoring Result

Day Time (0700 - 1900hrs on normal weekdays)



Appendix 5.3 Air Quality Monitoring Results and Graphical Presentations



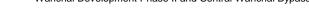
Location: CMA3a - CWB PRE Site Office Area

Report on 24-hour TSP monitoring Action Level (μ g/m3) - 171 Limit Level (μ g/m3) - 260

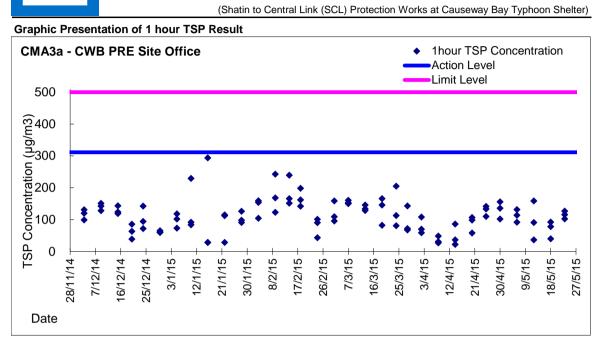
Date	Sampling	Weather	Filter	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m ³ /i	min	Total	TSP Level,
	Time	Condition	paper no.	Initial	Final	Initial	Final	Time, hr	Initial, Q _{si}	Final, Q _{sf}	Average	Volume, m ³	μg/m³
29-Apr-15	8:00	Fine	011812	2.7982	2.9334	3395.55	3419.55	24.00	1.24	1.24	1.24	1786	75.7
5-May-15	8:00	Fine	011303	2.7652	2.8923	3422.55	3446.55	24.00	1.27	1.27	1.27	1825	69.7
11-May-15	8:00	Fine	011917	2.8199	2.8869	3449.56	3473.56	24.00	1.19	1.19	1.19	1711	39.2
16-May-15	8:00	Rainy	011945	2.7988	2.9186	3476.56	3500.56	24.00	1.29	1.30	1.30	1865	64.2
22-May-15	8:00	Cloudy	012009	2.8015	2.8881	3503.56	3527.56	24.00	1.22	1.21	1.22	1751	49.5

Report on 1-hour TSP monitoring Action Level (µg/m3) - 311.3 Limit Level (µg/m3) - 500

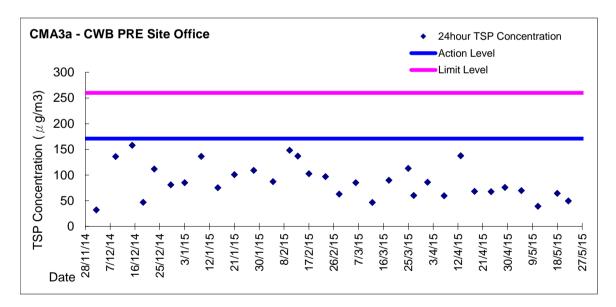
Date	Sampling	Weather	Filter	Filter Weigh	nt, g	Elapse Time	e, hr	Sampling	Flo	w Rate, m ³ /	min	Total	TSP Level,
	Time	Condition	paper no.	Initial	Final	Initial	Final	Time, hr	Initial, Qsi	Final, Q _{sf}	Average	Volume, m ³	μ g /m³
30-Apr-15	8:20	Fine	011402	2.7329	2.7406	3419.55	3420.55	1.00	1.26	1.26	1.26	76	101.6
30-Apr-15	9:25	Fine	011304	2.7863	2.7966	3420.55	3421.55	1.00	1.26	1.26	1.26	76	135.9
30-Apr-15	10:35	Fine	011403	2.7419	2.7537	3421.55	3422.55	1.00	1.26	1.26	1.26	76	155.7
6-May-15	8:09	Fine	011828	2.7187	2.7258	3446.55	3447.55	1.00	1.29	1.29	1.29	78	91.6
6-May-15	9:30	Fine	011833	2.7139	2.7229	3447.55	3448.55	1.00	1.32	1.32	1.32	79	113.6
6-May-15	10:35	Fine	011910	2.7421	2.7523	3448.55	3449.55	1.00	1.29	1.29	1.29	78	131.5
12-May-15	9:19	Fine	011845	2.7220	2.7289	3473.56	3474.56	1.00	1.27	1.27	1.27	76	90.7
12-May-15	10:23	Fine	011884	2.7123	2.7152	3474.56	3475.56	1.00	1.32	1.32	1.32	79	36.5
12-May-15	13:00	Fine	011886	2.7177	2.7303	3475.56	3476.56	1.00	1.32	1.32	1.32	79	158.6
18-May-15	8:51	Cloudy	011405	2.7429	2.7488	3500.56	3501.56	1.00	1.26	1.26	1.26	76	77.9
18-May-15	13:00	Cloudy	011404	2.7431	2.7501	3501.56	3502.56	1.00	1.26	1.26	1.26	76	92.5
18-May-15	15:35	Cloudy	011401	2.7360	2.7390	3502.56	3503.56	1.00	1.26	1.26	1.26	76	39.6
23-May-15	8:10	Rainy	012058	2.8570	2.8656	3527.57	3528.57	1.00	1.24	1.24	1.24	74	115.9
23-May-15	9:50	Rainy	012103	2.8390	2.8486	3528.57	3529.57	1.00	1.27	1.27	1.27	76	126.4
23-May-15	11:00	Rainy	012109	2.8274	2.8350	3529.57	3530.57	1.00	1.24	1.24	1.24	74	102.4







Graphic Presentation of 24 hour TSP Result



Appendix 5.4 Water Quality Monitoring Results and Graphical Presentation



Water Monitoring Result at C7 - Windsor House Mid-Flood Tide

Date	Time	Weater Condition	· ·	g Depth	Wat	ter Temp	perature		pH -			Salini	,		O Satur			DO mg/L			Turbid NTU			ed Solids g/L
			ſ	n	Va	ılue	Average	Va	llue	Average	Va	lue	Average	Va	ılue	Average	Va	lue	Average	Va	ılue	Average	Value	Average
30/4/15	16:54	Fine	Middle	-	26.40	26.40	26.40	8.20	8.20	8.20	31.54	31.54	31.56	89.1	88.1	88.5	5.98	5.94	5.95	2.05	2.01	2.01	<2	<2
30/4/13	16:56	Tille	Middle	-	26.40	26.40	20.40	8.20	8.20	0.20	31.58	31.58	31.30	87.6	89.3	00.5	5.88	5.99	3.93	2.00	1.97	2.01	<2	
2/5/15	15:45	Sunny	Middle	-	26.20	26.20	26.30	8.10	8.10	8.11	31.42	31.42	31.63	81.3	80.8	80.8	5.48	5.43	5.43	1.37	1.41	1.43	7	6.50
2/3/13	15:47	Outliny	Middle	-	26.40	26.40	20.50	8.12	8.12	0.11	31.83	31.83	31.03	80.7	80.2	00.0	5.42	5.40	5.45	1.46	1.49	1.43	6	0.50
4/5/15	20:00	Cloudy	Middle	•	26.50	26.50	26.50	8.18	8.18	8.18	29.91	29.91	29.92	85.4	86.9	86.5	5.81	5.91	5.89	1.77	1.60	1.67	<2	<2
4/3/13	20:01	Oloudy	Middle	-	26.50	26.50	20.50	8.18	8.18	0.10	29.92	29.92	25.52	86.3	87.3	00.0	5.88	5.94	5.05	1.63	1.66	1.07	<2	
6/5/15	19:21	Cloudy	Middle	-	26.50	26.50	26.50	8.10	8.10	8.10	30.55	30.55	30.55	89.4	89.8	89.9	6.05	6.07	6.08	2.01	1.48	1.73	<2	<2
0/0/10	19:22	Oloudy	Middle	-	26.50	26.50	20.00	8.09	8.09	0.10	30.55	30.55	00.00	90.2	90.3	00.0	6.10	6.10	0.00	1.96	1.46	1.70	<2	\
8/5/15	21:15	Cloudy	Middle	-	27.00	27.00	27.05	8.09	8.09	8.08	29.47	29.47	29.47	83.8	84.7	84.4	5.65	5.71	5.69	1.73	1.71	1.69	<2	<2
5/3/10	21:16	,	Middle	-	27.10	27.10	27.00	8.06	8.06	0.00	29.47	29.47	20.41	84.4	84.5	J-7.4	5.69	5.69	0.00	1.69	1.64	1.55	<2	
11/5/15	10:45	Fine	Middle	-	26.30	26.30	26.35	8.10	8.10	8.10	30.21	30.21	30.21	60.7	61.6	61.5	4.13	4.19	4.18	2.13	2.05	2.05	4	3.50
11/5/15	10:47	11116	Middle	-	26.40	26.40	20.00	8.09	8.09	0.10	30.20	30.20	30.21	62.2	61.5	01.0	4.23	4.18	7.10	2.01	2.01	2.00	3	3.30

Remarks: Single underline denotes exceedance over Action Level. Double underline denotes exceedance over Limit Level.

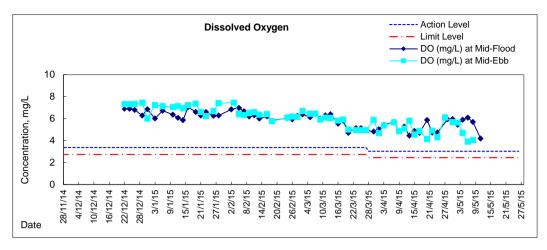


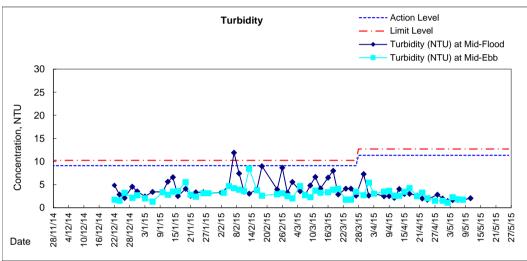
Water Monitoring Result at C7 - Windsor House Mid-Ebb Tide

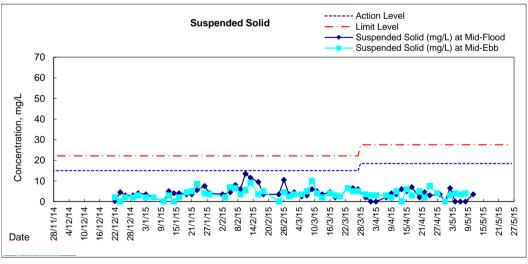
Date	Time	Weater Condition		ng Depth	Wa	ter Temp °C	oerature		pH -			Salini	ty		O Satur	ration		DO mg/L			Turbid			led Solids g/L
			r	n	Va	alue	Average	Va	llue	Average	Va	llue	Average	Va	lue	Average	Va	lue	Average	Va	lue	Average	Value	Average
30/4/15	9:01	Fine	Middle	-	25.20	25.20	25.20	8.12	8.12	8.12	31.62	31.62	31.62	83.4	83.4	82.6	5.73	5.74	5.68	1.52	1.52	1.52	<2	<2
30/4/13	9:02	Tille	Middle	-	25.20	25.20	25.20	8.12	8.12	0.12	31.62	31.62	31.02	82.3	81.1	02.0	5.66	5.58	5.00	1.53	1.51	1.02	<2	
2/5/15	12:05	Fine	Middle	-	25.70	25.70	25.75	8.13	8.13	8.13	31.72	31.72	31.71	83.4	83.0	82.7	5.68	5.65	5.63	1.06	1.19	1.13	3	3.00
2/0/10	12:07	Tillo	Middle	-	25.80	25.80	20.70	8.13	8.13	0.10	31.69	31.69	01.71	83.2	81.3	OZ.I	5.66	5.53	0.00	1.14	1.14	1.10	3	0.00
4/5/15	10:15	Fine	Middle	-	26.20	26.20	26.20	8.25	8.25	8.25	30.27	30.27	30.31	73.3	70.5	69.5	4.93	4.77	4.70	2.27	2.27	2.28	4	4.00
170710	10:17		Middle	-	26.20	26.20	20.20	8.24	8.24	0.20	30.35	30.35	00.01	68.3	65.8	00.0	4.65	4.46	0	2.29	2.28	2.20	4	
6/5/15	13:30	Sunny	Middle	-	26.20	26.20	26.25	8.10	8.10	8.10	31.08	31.08	31.07	57.2	57.3	57.7	3.88	3.89	3.89	1.82	1.84	1.82	4	3.50
5,5,12	13:32	,	Middle	-	26.30	26.30		8.09	8.09	• • • • • • • • • • • • • • • • • • • •	31.05	31.05		57.3	59.1		3.89	3.91		1.81	1.79		3	
8/5/15	16:00	Cloudy	Middle	-	26.40	26.40	26.45	7.97	7.97	7.97	30.30	30.30	30.29	57.9	59.6	59.7	3.93	4.05	4.05	1.64	1.76	1.74	4	4.00
5.0/10	16:02	2.344)	Middle	-	26.50	26.50		7.97	7.97		30.27	30.27	33,20	60.9	60.5		4.13	4.10	30	1.76	1.78		4	50
11/5/15	-	Amber	Middle	-	-	-	#DIV/0!	-	-	#DIV/0!	-	-	#DIV/0!	-	-	#DIV/0!	-	-	#DIV/0!	-	-	#DIV/0!	-	#DIV/0!
1 1/0/10	-	Rainstorm	Middle	-	-	-	#B1V/0:	-	-	#B1V/0:	-	-	#B1V/0:	-	-	#B1070:	-	-	#B1V/0:	-	-	#B1V/0:	-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,

Remarks:
Single underline denotes exceedance over Action Level.
Double underline denotes exceedance over Limit Level.
Due to the hoisting of Amber Rainstorm Warning Signal, water quality monitoring on 11 May 2015 during ebb tide was cancelled.

Graphic Presentation of Water Quality Result of C7 - Windsor House







Remark:

As confirmed by the CWB RSS, the marine based construction activities under Environmental Permit EP-416/2011 have been completed by 9 April 2015. As such, the post construction water quality monitoring was commenced in accordance with condition 2.26 in the approved EM&A manual from 11 April 2015 to 11 May 2015 for four weeks period to confirm for the post construction water quality.

No action or limit level exceedance was recorded during the post construction water quality monitoring period and the post construction water quality monitoring confirmed no deterioration in water quality. The water quality monitoring at the respective monitoring station C7 – Windsor House was temporarily suspended from 13 May 2015

Due to the hoisting of Amber Rainstorm Warning Sginal, water quality monitoring on 11 May 2015 during ebb tide was cancelled.

Appendix 6.1

Event Action Plans



Contract No. HK/2011/07 Wanchai Development Phase II and Central Wanchai Bypass (Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter)

Event/Action Plan for Construction Noise

EVENT		A	CTION	
	ET	IEC	ER	CONTRACTOR
Action Level	Notify IEC, ER and Contactor Carry out investigation Report the results of investigation to the IEC, ER and Contactor Discuss with the IEC and Contractor on remedial measures required Increase monitoring frequency to check mitigation effectiveness (The above actions should be taken within 2 working days after the exceedance is identified)	Review the investigation results submitted by the ET Review the proposed remedial measures by the Contractor and advise the ER accordingly Advise the ER on the effectiveness of the proposed remedial measures (The above actions should be taken within 2 working days after theexceedance is identified)	Confirm receipt of notification of failure in writing Notify Contractor In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented Supervise the implementation of remedial measures (The above actions should be taken within 2 working days after theexceedance is identified)	Submit noise mitigation proposals to IEC and ER Implement noise mitigation proposals (The above actions should be taken within 2 working days after theexceedance is identified)
Limit Level	Inform IEC, ER, EPD and Contractor Repeat measurement to confirm findings Increase monitoring frequency Identify source and investigate the cause of exceedance Carry out analysis of Contractor's working procedures. Discuss with the IEC, Contractor and ER on remedial measures require Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results If exceedance stops, cease additional monitoring (The above actions should be taken within 2 working days after the exceedance is identified)	Discuss amongst ER, ET and Contractor on the potential remedial actions Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly (The above actions should be taken within 2 working days after theexceedance is identified)	Confirm receipt of notification of failure in writing Notify Contractor In consolidation with the IEC, agree with the Contractor on the remedial measures to be implemented Supervise the implementation of remedial measures If exceedance continues, consider stopping the Contractor to continue working on that portion of work which causes the exceedance until the exceedance is abated (The above actions should be taken within 2 working days after the exceedance is identified)	Take immediate action to avoid further exceedance Submit proposals for remedial actions to IEC and ER within 3 working days of notification Implement the agreed proposals Submit further proposal if problem still not under control Stop the relevant portion of works as instructed by the ER until the exceedance is abated (The above actions should be taken within 2 working days after the exceedance is identified)



Contract No. HK/2011/07 Wanchai Development Phase II and Central Wanchai Bypass (Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter)

Event / Action Plan for Construction Air Quality

EVENT		ACTION		
EVENI	ET	IEC	ER	CONTRACTOR
ACTION LEVEL				
Exceedance for one sample	Identify source, investigate the causes of complaint and propose remedial measures; Inform IEC and ER; Repeat measurement to confirm finding; Increase monitoring frequency to daily. (The above actions should be taken within 2 working days after the exceedance is identified.)	Check monitoring data submitted by ET; Check Contractor's working method. (The above actions should be taken within 2 working days after the exceedance is identified.)	Notify Contractor. (The above actions should be taken within 2 working days after theexceedance is identified.)	Rectify any unacceptable practice; Amend working methods if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified.)
Exceedance for two or more consecutive samples	Identify source; Inform IEC and ER; Advise the ER on the effectiveness of the proposed remedial measures; Repeat measurements to confirm findings; Increase monitoring frequency to daily; Discuss with IEC and Contractor on remedial actions required; If exceedance continues, arrange meeting with IEC and ER; If exceedance stops, cease additional monitoring. (The above actions should be taken within 2 working days after the exceedance is identified.)	Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ET on the effectiveness of the proposed remedial measures; Supervise Implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified.)	Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after theexceedance is identified.)	Submit proposals for remedial to ER within three working days of notification; Implement the agreed proposals; Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified.)
LIMIT LEVEL	<u> </u>	<u> </u>		
Exceedance for one sample	Identify source, investigate the causes of exceedance and propose remedial measures; Inform IEC, ER, Contractor and EPD; Repeat measurement to confirm finding; Increase monitoring frequency to daily; Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and ER informed of the results. (The above actions should be taken within 2 working days after the exceedance is identified.)	Check monitoring data submitted by ET; Check Contractor's working method; Discuss with ET and Contractor on possible remedial measures; Advise the ER on the effectiveness of the proposed remedial measures; Supervise implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified.)	Confirm receipt of notification of failure in writing; Notify Contractor; Ensure remedial measures properly implemented. (The above actions should be taken within 2 working days after theexceedance is identified.)	Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within three working days of notification; Implement the agreed proposals; Amend proposal if appropriate. (The above actions should be taken within 2 working days after the exceedance is identified.)



Contract No. HK/2011/07 Wanchai Development Phase II and Central Wanchai Bypass (Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter)

consecutive samples	 Increase monitoring frequency to daily; Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; Arrange meeting with IEC and ER to discuss the remedial actions to be taken; Assess effectiveness of Contractor's remedial 	Discuss amongst ER, ET, and Contractor on the potential remedial actions; Review Contractor's remedial actions whenever necessary to assure their effectiveness and advise the ER accordingly; Supervise the implementation of remedial measures. (The above actions should be taken within 2 working days after the exceedance is identified.)	Confirm receipt of notification of failure in writing; Notify Contractor; In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented; Ensure remedial measures properly implemented; If exceedance continues, consider what portion of the work is responsible and instruct the	Take immediate action to avoid further exceedance; Submit proposals for remedial actions to IEC within three working days of notification; Implement the agreed proposals; Resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated.
		working days after the exceedance is	what portion of the work is	determined by the ER until
	monitoring. (The above actions should be taken within 2 working days after the exceedance is identified.)		abated. (The above actions should be taken within 2 working days after theexceedance is identified.)	the exceedance is identified.)



Contract No. HK/2011/07 Wanchai Development Phase II and Central Wanchai Bypass (Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter)

Event and Action Plan for Marine Water Quality

EVENT	ACTION						
	ET	IEC	ER	CONTRACTOR			
Action level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented. (The above actions should be taken within 1 working day after the exceedance is identified)	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 ET and IEC and propose mitigation measures to IEC and ER; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)			
Action level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC and Contractor; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Ensure mitigation measures are implemented; Prepare to increase the monitoring frequency to daily; (The above actions should be taken within 1 working day after the exceedance is identified) Repeat measurement on next working day of exceedance.	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC on the proposed mitigation measures; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET and IEC and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)			



Contract No. HK/2011/07 Wanchai Development Phase II and Central Wanchai Bypass (Shatin to Central Link (SCL) Protection Works at Causeway Bay Typhoon Shelter)

EVENT	ACTION						
	ET	IEC	ER	CONTRACTOR			
Limit level being exceeded by one sampling day	Repeat in-situ measurement to confirm findings; Identify source(s) of impact; Inform IEC and Contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Inform the Engineer and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ET , IEC and ER and propose mitigation measures to IEC and ER within 3 working days; Implement the agreed mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)			
Limit level being exceeded by more than one consecutive sampling days	Identify source(s) of impact; Inform IEC, contractor and EPD; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; Ensure mitigation measures are implemented; Increase the monitoring frequency to daily until no exceedance of Limit level for two consecutive days. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with ET and Contractor on the mitigation measures; Review proposals on mitigation measures submitted by Contractor and advise the ER accordingly; Assess the effectiveness of the implemented mitigation measures. (The above actions should be taken within 1 working day after the exceedance is identified)	Discuss with IEC, ET and Contractor on the proposed mitigation measures; Request Contractor to critically review the working methods; Make agreement on the mitigation measures to be implemented; Assess the effectiveness of the implemented mitigation measures; Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the marine work until no exceedance of Limit level. (The above actions should be taken within 1 working day after the exceedance is identified)	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 ET, IEC and ER and propose mitigation measures to IEC and ER within 3working days; Implement the agreed mitigation measures; As directed by the Engineer, to slow down or to stop all or part of the marine work or construction activities. (The above actions should be taken within 1 working day after the exceedance is identified)			

Appendix 6.2

Summary of Notification of Exceedances

Ref no.	Date	Tidal	Location	Parameters (Unit)	Measured	Action Leve	Limit Level	Follow-up action	
-	-	-	-	-	l-	-	-	-	

Appendix 7.1

Complaint Log



Environmental Complaints Log

Complaint Log No.	Date of Complaint	Received From and Received By	Nature of Complaint	Outcome	Status
-			 	-	

Appendix 10.1

Construction Programme of Individual Contracts

	Train o					-	Cition .									Contract of the Contract of th
Control Cont	WF13-U			_			ayour cive - wo	INITIG LAYOU.	IOI DVVP KEV IVI						Date Print	ed 26-Sep-14 15
Towks God 21-fib-14 00.h 30-Sep-14 19 -156 Rehablement yorks were take Rehablement yorks were take Towks God 31-Map-14 00.h 30-Sep-14 19 -156 Rehablement yorks were take God 31-Map-14 00.h 30-Sep-14 19 -156 God 15-Sep-14 00.h 30-Sep-14 19 -256 God 15-Sep-14 10.h 30-Sep-14 19 -256 God 30-Sep-14 19 -256	ACIVITY ID	Activity Name				Start	Finish	Float	04	5		60	2	č	2016	
704ws 60d 21-Feb-14 00 A 30-Sep-14 19 4564 700-No. 7	HY/2009/15	5 - Works Progr	amme Rev. M (DD:20-Sep-12)						5	ÿ	75	3	\$	5	ZD.	200
Transact Good 21-Fieb-14 GBA 30-Sep-14 18 -8564 Reinstatement Andres word disp Transact Good 21-Fieb-14 GBA 30-Sep-14 18 -8564 Good 15-Sep-14 GBA 30-Sep-14 GBA 30-S	Works in E	ast Ventilation A	dit - Based on Alternative Metho	pc				No.								
74 Web 664 21-76-14 GBA 50-56-14 15 4-564 6-64 12 4-644 15 4-644 15 4-644 15 4-644 15 4-644 15 4-644 15 4-644 15 4-644 15 4-644 15 4-644 16 4-64	Reinstateme	ent of Breakwater														
754we1 60d 31-May-1408 30-Sep-1418 -466d 40d 4	S3_54840	Reinstatement works	s-west side	7d/wk-1	P09	21-Feb-14 08 A	30-Sep-14 18	-85d	Reinstatement	works -west side		*****				
Completion of 30-Sep-1418	S3_60085	Reinstatement works	s east side	7d/wk-1	P09	31-May-14 08 A	30-Sep-14 18	-85d	Reinstatemen	works east side						
TS2-OHVD Clabe trough TS2-OHVD Clabe tro	53_54845	Completion of Section	n 3 (KD8) in EVA Area (Alternative Method)	7d/wk-2	8		30-Sep-14 18	-86d		Section 3 (KD8) in	EVA Area (Alternative M.	(poute,				
724wk-1 40d 20-Map-14-88 30-Sep-14-18 48d 46d 20-Map-14-88 30-Sep-14-18 48d 46d 20-Map-14-88 30-Sep-14-18 48d 46d	Works in T	S1/TS2 - OHVD	and Cable Trough/Maintenance	Valkway												
74446-1 40d 20-6449-14 16 -86d -8649-14 16 -8640 -8649-14 16 -8640 -8649-14 16 -8640 -8649-14 16 -8649 -8649-14 16	TS2 - OHVD	and Cable Trough/M	aintenance Walkway													
1 No. 1 No	OHVD Slab a	ind Cable Trough Con	struction													
17 17 17 17 17 17 17 17	S3_6210	TS2 - OHVD/ Cable	trough	7d/wk-1		20-May-14 08 A	30-Sep-14 18	-85d	TS2-OHVD/	Cable trough						
Towk-2 Ed 15-Sep-14 (16 26-Sep-14 (16 -3326d 15-Sep-14 (16 -3326d 16-Sep-14 (16 16 16-Sep-14 (16 16 16 16-Sep-14 (16 16 16 16 16 16 16 16	S3_6212	Completion of Section	in 3 - TS1/TS2 Area (below-6mpd) KD8)	7d/wk-2	В		30-Sep-14 18	-86d		Section 3 - TS1/TS	2 Area (below-6mpd) k	D8)				
15-38p-14 08 22-58p-14 18 3322d 15-38p-14 18 3252d 15-38	Works in T	S4/ME4 Area (Pc	ortion 14A, 14B, 15, 23)	No. of Persons												
Septemble Contract No. HY2009/15 Central War Chairman Contract No. HY2009/15 Centract No. HY2009/15 Central War Chairman Contract No. HY2009/15 Centract	TS4/ME4 - Re	emoval of Temporar	y Reclamation													
Solution Travine Tra	Remaining M	Vorks at TZ6														
Solid Backfilling up to 2-4.5mpC (Chy2.000 cu.m.) 7dvwk-2 2d 25-5mp-14 (8 -332d 1 5-3mp-14 (8 -332d 1	Stage 4 - Se	awall and Reclamatio	in at TZ6	THE ACTION OF		The state of the s										
3000 cu.m.) 7dwk-2 2d 25-Sep-14 08 27-Sep-14 18 -332d 7dwk-2 1d 27-Sep-14 08 27-Sep-14 18 -332d 7dwk-2 2d 28-Sep-14 08 28-Sep-14 18 -332d 7dwk-2 2d 28-Sep-14 08 30-Sep-14 18 -332d 7dwk-2 2d 28-Sep-14 08 30-Sep-14 18 -332d	A-2010	Installation of seawal	Il blocks (Qty. 245 nos.)	7d/wk-2	P9	15-Sep-14 08 A	26-Sep-14 18	-332d	Installation of s	eawall blocks (Qty:	245 nos.)					
7/d/wk-2 1d 27-Sep-14 08 28-Sep-14 18 -332d	A-2020	Soil Backfilling up to	-2.45mPD (Qty.3,000 cu.m.)	7d/wk-2	2d	25-Sep-14 08	26-Sep-14 18	-332d		up to -2.45mPD (Q	ty:3,000 cu.m.)	*****				
2.8. ME4-D19 to D13) 7. d/wk-2	A-2030	Utilities installation for	r Mined Tunnel	7d/wk-2	1d	27-Sep-14 08	27-Sep-14 18	-332d	Utilities installa	tion for Mined Tunn	a-			900 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		2.1100
2.8 MEt-Disto Dis) 2.8 MEt-Disto Dis) 2.8 MEt-Disto Dis) 2.8 MEt-Disto Disto Distorated Distoration and Seavall blocks (20nes C) 2.9 MEt-Disto Distoration Distorated Distoration and Seavall blocks (20nes C) 3.1	A-2040	Soil backfilling up to g	ground level (Qty:2,000 cu.m.)	7d/wk-2	2d	28-Sep-14 08	29-Sep-14 18	-332d	l Soil backfilling	up to ground level	(Qty.2,000 cu.m.)					
2 & ME4-D19 to D13) 2. & ME4-D19 to D13) 3. Sep-14 18 -305d	A-2050	Site dearance		7d/wk-2	p	30-Sep-14 08	30-Sep-14 18	-305d	Site clearance	11-24						2000
2 & ME4-D19 to D13) 3.) 7 dwk-2	A-2060	Handover to MTR		7d/wk-2	90		30-Sep-14 18	-305d		MR		******			*****	
7d/wk-2 21d 29-Aug-14 08 A 23-Sep-14 18 -340d	Removal of 1	Temporary Reclamatic	on at TS4/ME4													
1	Stage 5 (Zou	nes A, D & F - TS4-D3	13 to D-26, SCL2 & ME4-D19 to D13)					The state of the s								
Marine removal of temporarty reclamation and seawall blocks (Zones C) 7dwk-2 21d 31-Aug-14 08 02-Oct-14 18 -383d 10-Oct-14 18 -383d 10-Oct-14 18 -383d 10-Oct-14 18 -382d 10-Oct-14 18	A-3000	D-Wall horizontal cut	tting (Qty. 62 pcs.)	7d/wk-2	21d	29-Aug-14 08 A	23-Sep-14 18	-340d	D-Wall horizon	tal cutting (Qtyr. 62)	(%)					
Marine removal of temporarly reclamation and seawall blocks 7dwk-2 21d 31-Aug-14 08 A 02-Oct-14 18 -353d Marine removal of temporarly reclamation and seawall blocks (Zones C)	Stage 6 (Zoi	ne C - P4, ME4-D12 to	ME4-D10 & P3)									1.12				
D-Wall vertical cutting (Qty. 15 pcs.) Tdvwk-2	A-3011	Marine removal of te (Zones C.)	emporarly reclamation and seawall blocks	7d/wk-2	21d	31-Aug-14 08 A	02-Oct-14 18	-353d	Marine remov	ral of temporarly re	clamation and seawall b	locks (Zones C	,			
D-Wall horizontal cutting (dty, 20 pcs.) Tof/Wk-2 5d 06-Oct-14 18 -352d 10-Oct-14 18 -35	A-3030	D-Wall vertical outlin	ig (Qty. 15 pcs.)	7d/wk-2	44	03-Oct-14 08	06-Oct-14 18	-353d	D-Wall vertic	al cutting (Qty. 15)		*****				
1 of 18 Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	A-3040	D-Wall horizontal cur	tting (Qty: 20 pcs.)	7d/wk-2	5d	06-Oct-14 08	10-Oct-14 18	-352d		contal cutting (Qty.	20 pcs.)	******				
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	Summar		1 of 18								repared by William Calu	22				
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	Actual Li	evel of Effort Vork	China Sta	te Construc	tion Eng	ineering (Hon	g Kong) Ltd		164	6-Sep 1st submi	VISION	iddy payallo	Ē	1 新 颜 图 4	八枝粥/群』	加入と歴史
WORKS PROGRAM	Remaini	ing Work	Contract No. HY/2009/15 - Central N	Van Chai By	/ Pass -	funnel (Caus	eway Bay Typ	hoon She	Iter Section)					CHINA STATE CONSTRU	CHON ENGINEERING	HONG KONG LTD.
	◆ ♦ Milestone	Kemaining work	_	VORKS P	ROGRA	AMME REV.	N						Т			

18d Ge-Sep-14 08 A 00-Oct-14 18 3-3544	Activity ID	Activity Name	Calendar		Start	Finish	Total	2006	
2006 2016				Duration	2000	Victorior	Float	01 02 03 04 01 02	03
Particular Par	Stage 7 (Zc	ones C & E - ME4-D06 to D01, SCL1 & TS4-D25)							3
100 100	A-4000	Marine removal of temporarly redamation and seawall bloc (Zones C & E)		18d	06-Sep-14 08 A	06-Oct-14 18	-353d	Marine removal of temporarty reclamation and seawall blocks (Zones C & E)	
10 10 10 10 10 10 10 10	A-3090	Hole coring (Qty: 44 nos)			20-Sep-14 08*	28-Sep-14 18	-346d	Hole coring (Qty 44 nos)	
19 19 19 19 19 19 19 19	A-4010	D-Wall vertical outting (Qty. 27pcs.)	7d/wk-2	P/L	07-Oct-14 08	13-Oct-14 18	-353d	D-Wall vertical cutting (Qty. 27pcs.)	
Part	A-4020	D-Wall horizontal cutting (Qty. 37 pcs.)	7d/wk-2	10d	11-Oct-14 08	20-Oct-14 18	-353d		
10 10 10 10 10 10 10 10	Stage 9 (Zo	one I - TS4-D01 to TS4-D08)							
1 D-WM vertical cutting (Dy, 25 pca) 1 D-WM vertical cutting (Dy, 25 p	A-3050	Remaining removal of temporary reclamation (Zone I)	7d/wk-2		29-Aug-14 08 A	01-04-14 18	-342d	Remaining removal of temporary reclamation (Zone 1)	
1 1 1 1 1 1 1 1 1 1	A-3060	Hole caring (Qty: 25 nos)	7d/wk-2	2d	02-Oct-14 08	06-Oct-14 18	-342d	☐ Hole coring (Oyr. 25 nos)	
19 Chy 24 pca. 70 kw.2 56 25-56p-14 06 25-56p-14 18 -3550 19 kw.2 19	A-3070	D-Wall vertical cutting (Qtyr. 14 pcs.)	7d/wk-2	34	07-Oct-14 08	09-Oct-14 18	-342d	D-Wall vertical cutting (Oty, 14 pcs.)	
Package Pack	A-3080	D-Wall horizontal cutting (Qty. 24 pcs.)	7d/wk-2	2d	21-Oct-14 08	25-Oct-14 18	-353d		
Posterior Tawke Ed. 22-Sep 1-105° 25-Sep 1-106° 25	Stage 8 (Zo	ones G & K - TS4-D24 to TS4-D15)							
90) 907 907 908 908 908 908 908 908 908 908 908 908	A-4040	Relocation of RHKYC floating pontoon	7d/wk-2		22-Sep-14 08*	26-Sep-14 18	-338d		
9019/19 (30y 18 pca.) 71 dWe/c	A-4050	Hole coring (Qty. 27 nos)	7d/wk-2		29-Sep-14 08	04-Oct-14 18	-346d		
Clty, 18pca.) 74 alwaz 74 28-Oct-14 08 28-Oct-14 08 18 - Oct-14 08 18 - Oct-14 08 19 - Oct-1	A-4060	Marine removal of temporary reclamation and seawall block (Zone G & K)		14d	11-Oct-14 08	24-Oct-14 18	-352d	Marine removal of temporary redamation and seavall blocks (Zone G & K)	
Detail D	A-4070	D-Wall vertical cutting (Qtyr. 18pcs.)			25-Oct-14 08	28-Oct-14 18	-352d	D-Wall vertical cutting (Qty, 18pcs.)	
Clay 20 pcs. 7dwk-2 10d 07-0d-14 08 16-0d-14 18 -34dd	A-4080	D-Wall horizontal cutting (Qty. 25 pcs.)	7d/wk-2		26-Oct-14 08	01-Nov-14 18	-352d		
23-0ct-14 18 3-3404 28-0ct-14 18 3-3404 28-0ct-14 18 3-3504 20-0ct-14 18 3-3504 20-0	Stage 10 (Z	one J - 1S4-D09 to TS4-D14)							
Property redimention (Zone J) 740 km/2 74 17-04-14 08 28-04-14 18 -3534	A-4090	Land removal of temporary reclamation (Zone J)	7d/wk-2		07-Oct-14 08	16-Oct-14 18	-344d	Land removal of temporary reclamation (Zone J)	
Phase Contract No. HY/2009/15 - Central Wan Chair By Pages Td/wk-2 Td 26-Od-14 08 To-Nov-14 18 -3534 Td/wk-2 Td/wk-2 Td Od-Nov-14 08 To-Nov-14 18 -3534 Td/wk-2 Td/wk-2 Td Od-Nov-14 08 To-Nov-14 18 -3534 Td/wk-2 Td/	A-5000	Hole coring (Qty. 32 nos)	7d/wk-2	P/	17-Oct-14 08	23-Oct-14 18	-340d	■ Hole coring (Qty: 32 nos)	
City, 20 pcs. 7 d/wk-2 5d 02-Nov-14 08 06-Nov-14 18 -383d D-Wall horizontal cutting (Qy; 20 pcs.) 7 d/wk-2 7d 04-Nov-14 08 10-Nov-14 18 -347d D-Wall horizontal cutting (Qy; 20 pcs.) 7 d/wk-2 7d 04-Nov-14 08 11-Nov-14 18 -347d D-Wall horizontal cutting (Qy; 20 pcs.) Phase 3 Mooring Phase 3 Mooring Phase 3 Mooring Phase 3 Mooring Reinstlatement of existing seawall (Zones I & J) 7 d/wk-2 7d 11-Nov-14 08 11-Nov-14 18 -335d D-Wall permanent re-provision of Jetty is commencent of T d/wk-2 28d 20-Sep-14 08 A 30-Dec-14 18 -335d D-Wall permanent of T d/wk-2 28d 20-Sep-14 08 A 16-Oct-14 18 -335d D-Wall permanent of T d/wk-2 28d 20-Sep-14 08 A 16-Oct-14 18 336d D-Wall permanent of T d/wk-2 28d 20-Sep-14 08 A 16-Oct-14 18 336d D-Wall permanent of T d/wk-2 28d 20-Sep-14 08 A 16-Oct-14 18 336d D-Wall permanent of T d/wk-2 28d 20-Sep-14 08 A 16-Oct-14 18 26-Sep-1 13 submission and consent for commencement of superstructure D-Wall permanent of T d/wk-2 28d 20-Sep-14 08 A 20	A-5010	Marine removal of temporary reclamation (Zone J)	7d/wk-2		26-Oct-14 08	01-Nov-14 18	-353d	■ Marine removal of temporary redamation (Zone J)	
19 (CDty, 26 pcs.) 7 dwwk-2 7d 04-Nov-14 08 10-Nov-14 18 -383d ■ D-Wall Infiming of sea bed level Tdwk-2 4d 02-Nov-14 08 11-Nov-14 18 -383d ■ Phase 3 Mooring Phase 3 Mooring Phase 3 Mooring Phase 3 Mooring Phase 4 Milliam (20nes I & J) 7 dwk-2 7d 11-Nov-14 08 11-Nov-14 18 -383d ■ Reinstlatement of existing seawall (Zones I & J) 7 dwk-2 7d 11-Nov-14 08 11-Nov-14 18 -383d ■ Phase 4 Milliam Chainer (until permanent re-provision of Jetty 7 dwk-2 28d 20-Sep-14 08 A 15-Oct-14 18 -385d Phase 4 Milliam Chainer (until permanent of 7 dwk-2 28d 20-Sep-14 08 A 15-Oct-14 18 -386d Phase 4 Milliam Chainer (until permanent of 7 dwk-2 28d 20-Sep-14 08 A 15-Oct-14 18 20-Sep-14 08 A	A-5020	D-Wall vertical cutting (Qty: 20 pcs.)	7d/wk-2	1	02-Nov-14 08	06-Nov-14 18	-353d	D-Wall vertical cutting (Qty, 20 pcs.)	
Final trimning of sea bed level 7 d/wk-2 6d 06-Nov-14 08 11-Nov-14 18 -347d	A-5030	D-Wall horizontal cutting (Qty. 26 pcs.)	7d/wk-2		04-Nov-14 08	10-Nov-14 18*	-353d		
Tdwk-2 44 02-Nov-14 08 05-Nov-14 18 -347d Phase 5 Mooring Phase 5 Phas	Stage 13 - P.	hase 3 Mooring							
TdWk-2 6d 06-Nov-14 08 17-Nov-14 18 -347d Phase 3 Mooring Reinstitement of existing seawall (Zones I & J) TdWk-2 Td 11-Nov-14 08 17-Nov-14 18 -355d Provision of Mobile Crane (until permanent re-provision of Jetty is commencement of TdWk-2 28d 20-Sep-14 08 A 16-Oct-14 18 -356d BAB submission Prepared by William Caluza Prepared by William Caluza Prepared by William Caluza Prepared by William Caluza	A-5050	Final trimming of sea bed level	7d/wk-2		02-Nov-14 08	05-Nov-14 18	-347d	Final trimming of sea bed level	
ing seawall (Zones I & J) 7 d/wk-2 7 d 11-Nov-14 18 -353d rane (until permanent re-provision of Jetty 7 d/wk-1 7 d/wk-2 7 d/wk-2 7 d/wk-2 7 d/wk-1 7 d/wk-2 7 d/wk-1 7 d/wk-2 7 d/wk-1 7 d/wk-2 7 d/wk-1 7 d/wk-2 7 d/wk-2 7 d/wk-1 7 d/wk-2 7 d/wk-2 7 d/wk-1 7 d/wk-2 7 d/wk-1 7 d/wk-2 7	A-5060	Phase 3 Mooring	7d/wk-2	p9	06-Nov-14 08	11-Nov-14 18	-347d	■ Phase 3 Mooring	
rane (until permanent re-provision of Jetty 7dwk-1 150d 20-Feb-14 08 A 30-Dec-14 18 -335d Provision of Mobile Crane (until permanent re-provision of Jetty is commencement of Tdwk-2 28d 20-Sep-14 08 A 16-Oct-14 18 -336d Provision of Approved Of 18 China State Construction Engineering (Hong Kong) Ltd Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	A-5040	Reinstatement of existing seawall (Zones I & J)	7d/wk-2	PZ	11-Nov-14 08	17-Nov-14 18	-353d		
Provision of Mobile Crane (until permanent re-provision of Jetty) 7d/wk-1 160d 2D-Feb-14 08 A 30-Dec-14 18 -335d Provision of Mobile Crane (until permanent re-provision of Jetty) is completed) RAB submission and consent for commencement of Td/wk-2 28d 2D-Sep-14 08 A 16-Oct-14 18 -336d Page submission and consent for commencement of superstructure Prepared by Willam Caluza Date Revision Checked Approved China State Construction Engineering (Hong Kong) Ltd Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central	Stage 12 - R	e-provisioning of Jetty							
BA8 submission and consent for commencement of TdWk-2 28d 20-Sep-14 08 A 16-Oct-14 18 -336d	S6_5258	Provision of Mobile Crane (until permanent re-provision of is completed)				30-Dec-14 18	-335d	Provision of Mobile Crane (until permanent re-provision of Jetty is completed)	
2 of 18 China State Construction Engineering (Hong Kong) Ltd Contract No. HY/2009/15 - Central Wan Chair By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chair By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	A-6010	BA8 submission and consent for commencement of superstructure			20-Sep-14 08 A	16-Oct-14 18	-336d	BA8 submission and consent for commencement of superstructure	
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	Summa	2 of 18						Prepared by William Caluza Revision Checked	
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	Actual V		a State Construct	ion Eng	ineering (Hong	Kong) Ltd		26-Sep 1st submission	回公司
WORKS PROGRAM	Remain Critical I		ıtral Wan Chai By	Pass -	funnel (Cause	way Bay Typl	loon Shel	to the same	G KONCO LTD.
	◆ ♦ Milestor	- Pe	WORKS PI	ROGRA	MME REV.	M			

			Duration			Float		0104			2016	
A-6012	Submission of performance report	746.40	_	100 11 100 10	4		40	92	Q3 Q4	4 01	02	03
	delinesacion of periori rance report	/d/wk-2	DE.	25-Oct-14 08"	25-Oct-14 18	-286d	Submission	Submission of performance report				
A-6020 E	Erection of working platform for jetty beams and reinstate the floating portoon	7d/wk-2	PO1	02-Nov-14 08	11-Nov-14 18	-352d	Erection c	Erection of working platform for jetty beams and reinstate the floating portoon	state the floating por	toon		
A-6040 B	BA10 submission for authorized signatory and subcontractor	7d/wk-2	14	12-Nov-14 08	12-Nov-14 18	-304d	I BA10 sub	BA10 submission for authorized signatory and subcontractor	ntractor			
A-6030	Jetty beams construction	7d/wk-2	14d	12-Nov-14 08	25-Nov-14 18	-352d	Jetty b	Jetty beams construction				*****
A-6052 C	Construction of floating pontoon	7d/wk-2	14d	26-Nov-14 08	09-Dec-14 18	-331d	8	Construction of floating pontoon				****
A-6050 B	BA13 submission + 14-day cube test results	7d/wk-2	28d	26-Nov-14 08	23-Dec-14 18	-352d		BA13 submission;+ 14-day cube test results				
A-6060 E	E&M and accessories installation	7d/wk-2	P/	24-Dec-14 08	30-Dec-14 18	-352d		E&M and accessories installation				
A-6070 H	Handover to RHKYC	7d/wk-2	1d	31-Dec-14 08	31-Dec-14 18	-352d		Handover to RHKYC				
Stage 11 - Construction of TZ4	ruction of TZ4											
A-6080 S	South side - laying rockfill and levelling stone (Qty: 1,550 cu.m)	7d/wk-2	12d	24-Sep-14 08	05-Oct-14 18	-339d	South side - layin	South side - laying rockfill and levelling stone (Qty. 1,550 cu.m)	Ē,			
A-6090 S	South side - install seawall blocks (Qty. 255 nos.)	7d/wk-2	P9	06-Oct-14 08	11-04-14 18	-339d	South side - inst	South side - ir stall seawall blocks (Qty: 255 nos.)			****	*****
A-7000 S	South side - general fill (Qty: 2,000 cu.m.)	7d/wk-2	5d	12-Oct-14 08	13-Oct-14 18	-339d	South side - ger	South side - general fil (Qty. 2,000 cu.m.)			****	
A-7010 N	North side - laying rockfill and levelling stone (Qty: 1,550 cu.m)	7d/wk-2	12d	21-Oct-14 08	01-Nov-14 18	-346d	North side -	North side - laying rockfill and levelling stone (Qty; 1,550 cu.m)	50 cu.m)			
A-7020 N	North side - install seawall blocks (Qty: 255 nos.)	7d/wk-2	P9	02-Nov-14 08	07-Nov-14 18	-346d	North side	North side - install seawall blocks (Qty. 255 nos.)				*****
A-7030 N	North side - general fill (Qty.2,000 cu.m.)	7d/wk-2	2d	08-Nov-14 08	09-Nov-14 18	-346d	North side	North side - general fill (Qiy.2,000 cu.m.)			*****	
A-7040 H	Handover to contract TS3/SR8	7d/wk-2	14	10-Nov-14 08	10-Nov-14 18*	-346d	I Handover	Handover to contract TS3/SR8				
TS4/ME4, Remor	S4/ME4, Removal of Temporary Reclamation											
S26875 C	Completion of Section 2 (With ME4 option) (KD7)	7d/wk-2	РО		17-Nov-14 18	-353d	◆ Complet	 Completion of Section 2 (With ME4 option) (KD7) 	10155			****
S26890 C	Completion of Section 7B (ME4) (KD13)	7d/wk-2	В		17-Nov-14 18	-353d	◆ Complet	 Completion of Section 7B (ME4) (KD13) 				
TS4 - OHVD / Cable Trough	ble Trough											
S5_6185 T	TS4 (incl. TS4+) - OHVD Slab - Area C (access through temp. opening at 1724)	7d/wk-1	36d	02-Jan-15 08*	06-Feb-15 18	195d		TS4 (ind. TS4+) - OHVD Slab - Area C (access through temp. dpening at TZ4)	a C (access through	temp, opening at TZ4		
S5_6190 T	TS4 (ind. TS4+) - Cable Trough (access through temp. opening at TZ4)	7d/wk-1	P09	07-Feb-15 08*	14-Apr-15 18	195d		TS4 (ind. TS4+) - Ca	ble Trough (access t	TS4 (ind. TS4+) - Cable Trough (access through temp, opening at	at TZ4)	
S5_59850 C	Completion of Section 5 - TS4/ME4 Area (KD10), below -20mPD	7d/wk-2	po		02-Nov-15 18*	Po			•	Completion of Section 5 - TS4/ME4 Area (KD10), below -20m	- TS4/ME4 Area (K	D10), below-2
orks in TPC	Works in TPCWAE Area (Portion 20A, 20B)	D. St. Wall		SASSE EN								
emoval of Tem	Removal of Temporary Reclamation											
Removal of Tem	Removal of Temporary Reclamation & Form TZ5											
S67670 R	Remove general fill /sea wall block	7d/wk-1	24d	20-May-14 08 A	08-Oct-14 18	-296d	Remove general	Remove general fill /sea wall block				
S67675 D	Diaphragm wall saw cutting (1st D Wall cut on 23 Jun 2014)	7d/wk-1	31d	03-Sep-14 08 A	16-Oct-14 18	-306d	Diaphragm wal	Diaphragm wall saw cutting (1st D Wall cut on 23 Jun 2014)				
S67755 Fi	Form TZ5	7d/wk-1	18d	25-Sep-14 08	14-Oct-14 18	-304d	Form TZ5		*******			
Summary Bar	3 of 18						- 2	Prepared by William Calt	827			. 4.
Actual Work		ate Construct	tion Engil	China State Construction Engineering (Hong Kong) Ltd	y Kong) Ltd			1st submission		-	1 11/11	
Remaining Work	Vork Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	Wan Chai By	Pass - T	unnel (Cause	way Bay Typl	ioon Shelte	r Section)			CHINA STATE CONS	中国第第十年(中本)上四天の日日の日日の日日の日日の日日の日日の日日の日日の日日の日日日日日日日日日日	HONG KONG
Critical Kerns		200000000000000000000000000000000000000	2000		:							

All	Activity Name	Calendar	Original	2000	1 11111111	- inner	2015		2016	
		_	Ouration			Float	04 01 02 03 04	100	2018	000
S67685 Achie	Achievement of KD5	7d/wk-2	р		16-0ct-14 18	-323d	vernent of KD5	ē	77	23
S67687 Com	Complete Reinstatement of Vertical Seawall (near PRE Office)	7d/wk-2	Po		27-0ct-14 18	-322d	◆ Complete Reinstatement of Vertical Seawall (near PRE Office)	*++++		
Reinstate Mucking	Reinstate Mucking Out Access Shaft "C"									
S67240 Start work:	Start reinstatement works (after completion of TPCWAW OHVD works)	6d/wk	B	26-Mar-16 08		-102d		₩.	Start reinstatement works (after	orks (after
S67225 Cast	Cast slab opening at top of CCT West bound (access shaft)	6d/wk	18d	28-Mar-16 08	16-Apr-16 18	-102d			Cast slab opening at top of C	at top of (
S67230 Rem	Removal of vertical shaft and backfiling	6d/wk	48d	11-Apr-16 08	04-Jun-16 18	-102d			Remova	Removal of vertica
S67235 Reins	Reinstatement of pavement	6d/w/k	12d 3	30-May-16 08	11-Jun-16 18	-102d		×	Reinst	Reinstatement of
TPCWAE - OHVD / Cable Trough	Cable Trough									
S5_7405 TPC\	TPCWAE - Cable Trough (access through temp, opening at TZ5 & Portion 19)	9 gd/wfk	48d	04-Sep-15 08	02-Nov-15 18	PO	MO41	TPCWAE - Cable Trough (access through temp. opening at T	ess through temp, or	pening at
S5_7400 TPC1	TPCWAE - OHVD Slab AT Area A (access through temp. opening at TZ5 & Portion 19)	6d/wk	48d	04-Sep-15 08	02-Nov-15 18	Po	TPCM	TPCWAE - OHVD Slab AT Area A (access through temp. ope	a A (access through	temp. ope
S5_59840 Comp	Completion of Section 5 - TPCVVAE Area (KD10), below -20mPD	7d/wk-2	B		02-Nov-15 18*	В	◆ Compi	Completion of Section 5 - TPCWAE Area (KD10), below -20m	WAE Area (KD10), b	below -20n
Works in TPCWAW Area	AW A rea		The state of	THE PART OF	The second					
TPCWAW - Temporary Reclamation	ary Reclamation									
Temporary Reclamation	ation -									
S6_9440 TPC\	TPCWAW - place levelling stone and tamping, South side	7d/wk-1		15-Oct-14 08	20-Oct-14 18	-122d	■ TPCWAW - place levelling stone and tamping, South side			
S6_9450 TPC\	TPCWAW - place seawall block to +4 at South side (Qty. 569 nos/day)	7d/wk-1	12d 2	21-Oct-14 08	01-Nov-14 18	-122d	■ TPCWAW - place seawall block to +4 at South; side (Qty. 569 nos. @ 50 nos/day)	ay)		
S6_9465 TPC\	TPCWAW - place levelling stone and tamping, North side	7d/wk-1	0 pg	02-Nov-14 08	07-Nov-14 18	-122d	■ TPCWAW - place levelling stone and tamping, North side			
S6_9470 TPCV	TPCWAW - place seawall blocks to +4 North side (Qty:672 nos @ 50 nos/day)	7d/wk-1	14d 0	08-Nov-14 08	21-Nov-14 18	-122d	■ TPCWAW - place seawall blocks to +4 North side (Qty.672 nos @ 50 nos/day)	day)		
S6_9495 TPC\	TPCWAW - General fill to +2 within the seawall	7d/wk-1	17d 1	15-Nov-14 08	01-Dec-14 18	-122d	TPCWAW - General fill to +2 within the seawall			
S6_9490 TPCV	TPCWAW - place seawall blocks to +4 at the temporary opening	7d/wk-1	0 PZ	02-Dec-14 08	08-Dec-14 18	-122d	■ TPCWAW - place seawall blocks to +4 at the temporary opening	*****		
S6_9475 TPCV	TPCWAW - Remaining General fill to +4 within the seawall	7d/wk-1	0 POI	09-Dec-14 08	18-Dec-14 18	-122d	■ TPCW/AW - Remaining General fill to +4 within the seawall	*****	****	
rPCWAW - Diaphragm Wall	ıgm Wall									
Diaphragm Wall									*****	
S6_9385 Site in	Site investigation	7d/wk-1	49d 0	01-Dec-14 08	21-Jan-15 18	-113d	Site investigation			
S6_8960 Install	Install guide wall	7d/wk-1	40d	7-Dec-14 08	28-Jan-15 18	-120d	Install guide wall			
S6_8955 Curta	Curtain grout along proposed diaphragm wall	7d/wk-1	40d	9-Dec-14 08	30-Jan-15 18	-122d	Curtain grout along proposed diaphragm wall			
S6_9382 Set up	Set up bentonite silo/plants and equipments	7d/wk-1	30d 1	19-Dec-14 08	20-Jan-15 18	-112d	Set up bentonite slo/plants and equipments	*****		
S6_9345 Diaph	Diaphragm wall construction (34 panels @ 3 panels/ week)	7d/wk-1	68d 3	30-Jan-15 08	14-Apr-15 18	-141d	Diaphragm wall construction (34 panels @ 3 panels/ week)	ane(s/ week)		
S6_9350 Install	Install shear pins on diaphragm wall	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d	Install shear pins on diaphragm wall			
Summary Bar	4 of 18						Prepared by William Caluza	-		
Actual Level of Effort Actual Work		e Constructi	on Engin	China State Construction Engineering (Hong Kong) Ltd	Kong) Ltd		Date Revision Checked Approved 26-Sep 1st submission		1	
Remaining Work	k Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	fan Chai By I	Jass - Tu	nnel (Cause	way Bay Typt.	oon Shelter	r Section)	中國東部工程(華承)年度公司 CHINA STATE CONSTRUCTION BICKNESSING (HONG KONG) IIII	国(哈米) NO ENCINEERING (HONG	H W M
Critical Remaining Work										

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		_	Duration			Float	04	02	03	0.4	50	2010	00
S6_9355	Install king posts	7d/wk-1	40d	14-Mar-15 08	26-Apr-15 18	-133d		Install king posts		5	5	42	03
0268_98	Diaphragm Wall Pile test	7d/wk-1	40d	20-Mar-15 08	03-May-15 18	-129d		Diaphragn	Diaphragm Wall Pile test			(*****	
S6_9375	Carry out contact/fissure grouting	7d/wk-1	29d	21-Mar-15 08	22-Apr-15 18	-141d		Carry out co	Carry out contact/fissure grouting				
TPCWAW ELS Works	Works												
ELS Works													
S6_9360	Install dewatering wells and piezometers	7d/wk-1	20d	30-Mar-15 08	22-Apr-15 18	-141d		install dewat	Install dewatering wells and piezometers	meters			
S6_9365	Install inclinometers inside D-wall	7d/wk-1	50d	5-Apr-15 08	05-May-15 18	-141d		Install inclin	Install inclinometers inside D-wall	all a			
S6_8975	Carry out pumping tests	7d/wk-1	12d	23-Apr-15 08	05-May-15 18	-141d		Carry out	Carry out pumping tests			*****	
S6_8980	1st Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	06-May-15 08	15-May-15 18	-141d		■ 1st Laye	1st Layer - D Wall conc over break if any & Soft Excavation	r break if any & So	oft Excavation		
S6_9260	Submit pumping test report	7d/wk-1	14	06-May-15 08	06-May-15 18	-137d		Submit pu	Submit pumping test report.				
S6_8985	1st Layer - install lateral support	7d/wk-1	POL	6-May-15 08	26-May-15 18	-141d		a 1st La	1st Layer - install lateral support	pport			
0668 98	Install vibrating wire strain gauge	7d/wk-1	10d	6-May-15 08	26-May-15 18	-141d		Instail	Install vibrating wire strain gauge	gauge			
S6_8995	2nd Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	8-May-15 08	28-May-15 18	-141d		■ 2nd L	2nd Layer - D Wall conc over break if any & Soft Excavation	ver break if any &	Soft Excavation	*****	
0006 98	2nd Layer - install lateral support	7d/wk-1	10d	29-May-15 08	07-Jun-15 18	-141d		□ 2nd	2nd Layer - install lateral support	Support		*****	
S6_9005	3rd Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	100	31-May-15 08	09-Jun-15 18	-141d		and and	3rd Layer - D Wall conc over break if any & Soft Excavation	over break if any	& Soft Excavation		
S6_9010	3rd Layer - install lateral support	7d/wk-1	10d	0-Jun-15 08	19-Jun-15 18	-141d		ea	3rd Layer - install lateral support	ral support	2000		
S6_9015	4th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	2-Jun-15 08	22-Jun-15 18	-141d			4th Layer - D Wall conc over break if any & Soft Excavation	inc over break if a	ny & Soft Excavation	Lo	
S6_9020	4th Layer - install lateral support	7d/wk-1	10d	23-Jun-15 08	03-Jul-15 18	-1419			4th Layer - install lateral support	ateral support			
S6_9025	5th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d 2	25-Jun-15 08	05-Jul-15 18	-141d			5th Layer - D Wal	Conc over break	5th Layer - D Wall conc over break if any & Soft Excavation	vation	
S6_9030	5th Layer - install lateral support	7d/wk-1	10d 2	27-Jun-15 08	07-Jul-15 18	-141d			5th Layer - install lateral support	lateral support		*****	
S6_9035	6th Layer - D Wall conc over break if any & Soft Excavation	7d/wk-1	10d	08-Jul-15 08	17-Jul-15 18	-141d			6th Layer - D Wall conc over break if any & Soft Excavation	Vall conc over bre	ak if any & Soft Ex	cavation	
S6_9040	6th Layer - install lateral support	7d/wk-1	10d	18-Jul-15 08	27-Jul-15 18	P69-			6th Layer - ins	6th Layer - install lateral support			
PCWAW-RO	TPCWAW - ROCK EXCAVATION												
S6_6180	Rock excavation to formation	7d/wk-1	112d 1	18-Jul-15 08	09-Nov-15 18	-141d				Rock excar	Rock expavation to formation		
S6_9370	Install lie back anchor to D- Walls (area on west side, near Portion 11)	7d/wk-1	25d 2	20-Jul-15 08	13-Aug-15 18	P69-			Install tie b	ack anchor to D-1	Install tie back anchor to D- Walls (area on west side, near Portion 11)	st side, near Porti	on 11)
S6_9415	Install tie back anchor to D- Walls (east area)	7d/wk-1	20d 2	20-Jul-15 08	08-Aug-15 18	P69-			Install tie ba	Install tie back anchor to D- Walls (east area)	/alls (east area);		
S6_9055	Provide Access to WDII Contrador for demolition of bulkhead at Portion 11	7d/wk-2	B		10-Nov-15 18	-133d				◆ Provide Ac	Provide Access to WDII Contractor for demolition of bulkhear	ractor for demolit	ion of bulkhe
PCWAW-CCT	TPCWAWL CCT RC Structure												
TPCWAW - CCT / OHVD	OHVD.												
Summary Bar	5 of 18						-	Prepared by William Caluza					
 Actual Level of Effort Actual Work 		China State Construction Engineering (Hong Kong) Ltd	n Engin	eering (Hong	Kong) Ltd		26-Sep 1st su	Revision 1st submission	Checked Approved				
Remaining Work	Work Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	Van Chai By P	ass - Tu	nnel (Cause	way Bay Typh	oon Shelter Section	(uc				中國運業工程(春港)有限公司OHMY SME CONSTRUCTION BIGINERING GLONG ENDING TO SME CONSTRUCTION BIGINERING GLONG ENDING TO SME	院(帯ボ)沿 ON ENGINE INC #1	
Critical Ken	Critical Kemaining Work												

			-							0.04	
		_	Duration			Float	04	Q2 Q3	04	Q1 Q2	03
S6_9070 TPCWAW	TPC/WAW Construct tunnel base slab	7d/wk-1	20d	23-Oct-15 08	11-Dec-15 18	-141d		-		Construct tunne	
S6_9075 TPCWAW	TPCWAW Construct tunnel wall + OHVD + roof slab	7d/wk-1	90g	13-Nov-15 08	02-Feb-16 18	-141d		*****	I	TPCWAW Construct tunnel wall + OHVD +	# OHAD +
S6_9077 TPCWAW box (ind. sc	TPCWAW - external waterproofing on top of completed CCT box (ind. screeding)	7d/wk-1	26d	03-Feb-16 08	28-Feb-16 18	-120d		*****		TPCWAW - external waterproofing or	erproofing or
S6_9076 TPCWAW	TPCWAW King post load transfer	7d/wk-1	26d	03-Feb-16 08	28-Feb-16 18	-120d				TPCWAW King post load transfer	transfer
TPCWAW - Removal of 1	FPCWAW - Removal of Temporary Reclamation							******			
Removal of Temporary Reclamation	eclamation										
S6_9140 Backfilling/F	Backfilling/Removal of ELS/ Reinstatement of sea wall at Portion 11 (concurrent activities)	7d/wk-1	90c	17-Feb-16 08	17-Mar-16 18	-120d		*****	*****	Backfilling/Removal of ELS/ Reinsta	ELS/ Reinsta
S6_9105 Remove gr	Remove general fill' seawall block (concurrent activities)	7d/wk-1	25d	06-Mar-16 08	30-Mar-16 18	-120d				Remove general fill seawall bloc	/ seawall bloc
S6_9120 Saw cut dis	Saw cut diaphragm wall	7d/wk-1	P£9	21-Mar-16 08	23-May-16 18	-120d		*****	••••	Sawcut	Saw cut diaphragm w
S6_7550 Completion	Completion of Section 6- (KD11), above - 20mPD	7d/wk-2	РО		23-May-16 18	-121d		*****		◆ Complet	Completion of Section
TPCWAW -Cable Trough/ Maintenance Walkway	/ Maintenance Walkway										
S6_9085 TPCWAW Portion 19)	TPCWAW - Cable Trough (access through temp. opening at Portion 19)	7d/wk-2	24d	02-Mar-16 08	25-Mar-16 18	-144d	*****	*****		TPCWAW - Cable Trough (acce.	rough (acces
S6_9135 Completion	Completion of Section 5 - TPCWAW Area (KD10), below -20mPD	7d/wk-2	PO		25-Mar-16 18	-144d		******		 Completion of Section 5 - TPCW 	n 5 - TPCW
Works in Wan Chai PCWA (Portion 11)	CWA (Portion 11)										
Initial Works & Utilities Works	Norks										
S4_2810 Installation	Installation of Hoarding	7d/wk-1	24d	05-May-14 08 A 17-Oct-14 18	17-Oct-14 18	-58d	Installation of Hoarding	****			
S4_2720 Remove ex	Remove existing rock mound	7d/wk-1	24d	21-Oct-14 08	13-Nov-14 18	-61d	Remove existing rock mound				
S4_2750 Carry out S	Carry out Site Investigation for BW1/BW2	7d/wk-1	12d	21-Oct-14 08	01-Nov-14 18	-61d	Carry out Site Investigation for BW1/BW2	BW1/BW2			
S4_2755 BW1/BW2	BW1/BW2 Engineers confirmation of provisional Barrettes	7d/wk-1	РО		07-Nov-14 18	-61d	◆ BW1/BW2 Engineers confirmation of provisional Barrettes	ation of provisional Barrettes			
Allow Access to WDII											
S4_2785 Complete S	Complete Section 4 - Portion 11 (KD9)	7d/wk-2	PO		10-Nov-15 18	-132d	******		◆ Comp	 Complete Section 4 - Portion 11 (KD9) 	
S4_2775 Return Por	Return Portion 11 to WDIII	7d/wk-1	PO		10-Nov-15 18	-129d			♦ Return	◆ Return Portion 11 to WDII:	
Works for Mined Tur	Works for Mined Tunnel (Portion 16, 17, 18)										
SR8 (Tunnel Excavation + Lining)	+ Lining)										
From West (TPCWAE)											
Heading Excavation (2d	Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday	iry holiday)									
A8676 SR8 Headi @2d/m	SR8 Heading Excavation From West, CH 4095-4107 = 8m @2d/m	7d/wk-1a	16d	03-Sep-14 08 A	28-Sep-14 18	164d SF	SR8 Heading Excavation From West, CH 4095- 4107	CH 4095- 4107 = 8m @2d/m			
Sench Excavation (1.50	Bench Excavation (1.5d-2d/m, 20m separation with heading)										
A8700 SR8 Bench	SR8 Bench Excavation From West, CH 4055- 4065 = 10m	7d/wk-1a	20d	08-Sep-14 08 A	24-Sep-14 18	148d	SR8 Bench Excavation From West, CH 4055- 4065 = 10m	1 4055- 4065 = 10m			
Summary Bar	6 of 18							William Cal			
Actual Level of Effort Actual Work	China State	e Construct	ion Engi	China State Construction Engineering (Hong Kong) Ltd	Kong) Ltd		Date Re 26-Sep 1st submission	Revision Checked Approved	1	人 美洲/用一件现货车	i
Remaining Work	Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	/an Chai By	Pass - T	unnel (Cause	way Bay Typł	oon Shelter Se	ction)		1100	ト 国 利 米 イ 年 (和 永) 在 写 々 D D CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) ITD	NC KONC) LTD.
A Milestone		MODING DECEMBER DEV. M	/d5/00								

				COLUMN			Dat			
			_	Duration			The second second	Q4 Q1 Q2 Q3 Q4	Q1 Q2	03
A8705	SR8 Bench Excavation From West, CH 4065- 4075 = 10m	4065- 4075 = 10m	7d/wk-1a	20d	25-Sep-14 08	15-0ct-14 18	148d	SR8 Bench Excavation From West, CH 4065- 4075 = 10m		
A8685	SR8 Bench Excavation From West, CH 4075- 4085 = 10m	4075- 4085 = 10m	7d/wk-1a	50d	16-Oct-14 08	04-Nov-14 18	148d	SR8 Bench Excavation From West, CH 4075- 4085 = 10m		
A8680	SR8 Bench Excavation From West, CH 4085- 4095 = 10m	4085- 4095 = 10m	7d/wk-1a	20d	05-Nov-14 08	24-Nov-14 18	148d	SR8 Bench Excavation From West, CH 4085- 4095 = 10m	.,	
A8725	SR8 Bench Excavation From West, CH 4095- 4100 = 5m	4095- 4100 = 5m	7d/wk-1a	P01	25-Nov-14 08	04-Dec-14 18	148d	■ SRB Bench Excavation From West, CH: 4095- 4100 = 5m		
From East (TS4)	TS4)									
Heading Ex	Heading Excavation (2d/m, 24hiday work shift, 7d/week, no work on statutory holiday)	week, no work on statu	tory holiday)							
A8495	SR8 Heading Excavation From East CH 4115- 4107 = 8m @2d/m	14115-4107 = 8m	7d/wk-1a	16d	15-Sep-14 08 A	28-Sep-14 18	10d	SR8 Heading Extravelion From East CH 4115-4107 = 8m @2d/m		
Bench Exc.	Bench Excavation (1.5d/m, 20m separation with heading)	(Bujper								
A8455	SR8 Bench Excavation From East, CH 4147.5- 4135 = 12.5m	4147.5- 4135 = 12.5m	7d/wk-1a	19d	20-Sep-14 08	09-Oct-14 18	В	SR8 Bench Excavation From East, CH 4147.5- 4135 = 12.5m		
A8470	SR8 Bench Excavation From East, CH 4135- 4125 = 10m	4135- 4125 = 10m	7d/wk-1a	15d	10-Oct-14 08	24-Oct-14 18	8	SR8 Bench Excavation From East, CH 4135- 4125 = 10m		(2-14)
A8460	SR8 Bench Excavation From East, CH 4125- 4115 = 10m	4125-4115 = 10m	7d/wk-1a	15d	25-Oct-14 08	08-Nov-14 18	8	SR8 Behch Excavation From East, CH 4125- 4115 = 10m		
A8465	SR8 Bench Excavation From East, CH 4115- 4100 = 15m	4115- 4100 = 15m	7d/wk-1a	23d	09-Nov-14 08	01-Dec-14 18	8	SR8 Bench Excavation From East, CH 4115-4100 = 15m	O. V V.	
Tunnel Lining Works	ng Works									
From West	From West - Base Slab (10m/bay, 10m separation with benching excavation)	with benching excavation	(0)			A STATE OF				
A8525	SR8, From West, CH 4015 - 4025 = 10m/bay, base slab	m/bay, base slab	7d/wk-1a	10d	15-Sep-14 08 A	04-Oct-14 18	137d	SR8, From West, CH 4015 - 4025 = 10m/bay, base slab		
A8530	SR8, From West,CH 4025 - 4035 = 10m/bay, base slab	n/bay, base slab	7d/wk-1a	10d	05-Oct-14 08	14-Oct-14 18	163d	SR8, From V/est,CH 4025 - 4035 = 10m/bay, base slab		
A8535	SR8, From West,CH 4035 - 4045 = 10m/bay, base slab	n/bay, base slab	7d/wk-1a	pg pg	15-Oct-14 08	22-Oct-14 18	165d	SR8, From West,CH 4035 - 4045 = 10m/bay, base slab	•••••	
A8540	SR8, From West, CH 4045 - 4055 = 10m/bay, base slab	m/bay, base slab	7d/wk-1a	pg	23-Oct-14 08	30-Oct-14 18	165d	SR8, From West, CH 4045 + 4055 = 10m/bay, base slab	••••	
A8545	SR8, From West, CH 4055 - 4065 = 10m/bay, base slab	m/bay, base slab	7d/wk-1a	p8	05-Nov-14 08	12-Nov-14 18	160d	SR8, F om West, CH 4055 - 4065 = 10m/bay, base slab		
A8550	SR8, From West, CH 4065 - 4075 = 10m/bay, base slab	m/bay, base slab	7d/wk-1a	P8	25-Nov-14 08	02-Dec-14 18	148d	SR8, From West, CH/4065 - 4075 = 10m/bay, base slab	• • • • • • •	(2222+)
A8555	SR8, From West, CH 4075 - 4085 = 10m/bay, base slab	m/bay, base slab	7d/wk-1a	P8	05-Dec-14 08	12-Dec-14 18	148d	SR8, From West, CH 4075 - 4085 = 10m/bay, base slab		
A8560	SR8, From West, CH 4085 - 4095 = 10m/bay, base slab	m/bay, base slab	7d/wk-1a	pg P8	13-Dec-14 08	20-Dec-14 18	150d	■ SR8, From West, CH 4085 - 4095 = 10m/bay, base slab		
A8561	SR8, From West, CH 4095 - 4105 = 10m/bay, base slab	m/bay, base slab	7d/wk-1a	P8	21-Dec-14 08	29-Dec-14 18	152d	SR8, From West, CH 4095 - 4105 = 10m/bay, base slab	-4-14	****
A8562	SR8, From West, CH 4105 - 4115 = 10m/bay, base slab	m/bay, base slab	7d/wk-1a	P8	30-Dec-14 08	07-Jan-15 18	154d	SR8, From West, CH 4105 - 41(5 = 10m/bay, base slab	*****	
From West	From West - Lining (5m/bay, 10m separation with base slab)	base slab)			The second					
A8575	SR8, From West, CH 3995 - 4000 = 1bay, lining	ay, lining	7d/wk-1a	P6	20-Sep-14 08	28-Sep-14 18	В	SR8, From West, CH 3995 - 4000 = 1bay, lining		
A8580	SR8, From West, CH 4000 - 4005 = 1bay, lining	ay, lining	7d/wk-1a	P6	05-Oct-14 08	13-Oct-14 18	137d	■ SRB, From West, CH 4000 - 4005 = 1 bay, lining		
A8585	SR8, From West, CH 4005 - 4010 = 1bay, lining	ay, lining	7d/wk-1a	p ₆	14-Oct-14 08	22-0d-14 18	137d	SR8, From West, CH 4005 - 4010 = 1bay, Ining:	×	
A8590	SR8, From West, CH 4010 - 4015 = 1bay, lining	ray, lining	7d/wk-1a	p ₆	23-Oct-14 08	31-Oct-14 18	137d	SR8, From West, CH 4010 - 4015 = 1bay, fining		
Summary Bar Actual Level o	Summary Bar 7 of 18 Adual Level of Effort	China St	China State Construction Engineering (Hong Kong) Ltd	on Fnoi	neering (Hong	Kond) I fd		Prepared by William Caluza Date Revision Checked Approved		
Actual Work Remaining W		Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	Wan Chai By	Pass - T	unnel (Cause	eway Bay Typ	hoon She	1100	中國運禁工程(香港)有限公司 CHINA STATE CONSTRUCTION BNGINEBING (HONG KONG) IID.	学 图 公司
Critical Re	Critical Remaining Work			10000 CO						

	ACIVITY INSTITUTE	(alcinda)	101110				9107
			Duration			Float	Q4 Q1 Q2 Q3 Q4 Q1 Q2
A8595	SR8, From West, CH 4015 - 4020 = 1bay, lining	7d/wk-1a	P6	01-Nov-14 08	09-Nov-14 18	137d	
A8600	SR8, From West, CH 4020 - 4025 = 1bay, lining	7d/wk-1a	P6	10-Nov-14 08	18-Nov-14 18	137d	SR8, From West, CH 4020 - 4025 = 1bay, Ining
A8605	SRB, From West, CH 4025 - 4030 = 1bay, lining	7d/wk-1a	2g	19-Nov-14 08	23-Nov-14 18	137d	SR8, From West, CH 4025 - 4030 = 1bay, lining
A8610	SR8, From West, CH 4030 - 4035 = 1bay, lining	7d/wk-1a	. 2d	24-Nov-14 08	28-Nov-14 18	137d	SR8, From West, CH 4030 - 4035 = 1bay, lining
A8615	SR8, From West, CH 4035 - 4040 = 1bay, lining	7d/wk-1a	P9	29-Nov-14 08	03-Dec-14 18	137d	SRB, From West, CH 4035 - 4040 = 1bay, lining
A8620	SRB, From West, CH 4040 - 4045 = 1bay, lining	7d/wk-1a	P2	04-Dec-14 08	08-Dec-14 18	137d	SR8, From West, CH 4040 - 4045 = 1bay, lining
A8625	SR8, From West, CH 4045 - 4050 = 1bay, lining	7d/wk-1a	2d	09-Dec-14 08	13-Dec-14 18	137d	SR8, From West, CH 4045 - 4050 = 1bay, Ining
A8630	SR8, From West, CH 4050 - 4055 = 1bay, lining	7d/wk-1a	29	14-Dec-14 08	18-Dec-14 18	137d	BR8, From West, CH 4050 - 4055 = 1 bay, lining
A8635	SR8, From West, CH 4055 - 4060 = 1bay, lining	7d/wk-1a	P5	19-Dec-14 08	23-Dec-14 18	137d	SR8, From West, CH 4055 - 4060 = 1bay, lining
A8640	SR8, From West, CH 4060 - 4065 = 1bay, lining	7d/wk-1a	PS	24-Dec-14 08	29-Dec-14 18	137d	SR8, From West, CH 4060 - 4085 = 1bay, Ining
A8645	SR8, From West, CH 4085 - 4070 = 1bay, lining	7d/wk-1a	PS	30-Dec-14 08	04-Jan-15 18	137d	SR8, From West, CH 4085 - 4070 = 1bay, lining
A8647	SR8, From West, CH 4070 - 4075 = 1bay, lining	7d/wk-1a	P9	05-Jan-15 08	09-Jan-15 18	137d	SR8, From West, CH 4070 - 4075 = 1bay, lining
A8648	SR8, From West, CH 4075 - 4080 = 1bay, lining	7d/wk-1a	. 2d	10-Jan-15 08	14-Jan-15 18	137d	SR8, From West, CH 4075 - 4080 = 1bay, lining
A8649	SR8, From West, CH 4080 - 4085 = 1bay, lining	7d/wk-1a	. Pg	15-Jan-15 08	19-Jan-15 18	137d	SR8, From West, CH 4080 - 4085 = 1bay, lining
A8651	SR8, From West, CH 4085 - 4090 = 1bay, lining	7d/wk-1a	. Pg	20-Jan-15 08	24-Jan-15 18	137d	SR8, From West, CH 4085 - 4090 = 1bay, lining
A8652	SR8, From West, CH 4090 - 4095 = 1bay, lining	7d/wk-1a	2d	25-Jan-15 08	29-Jan-15 18	137d	SR8, From West, CH 4090 - 4095 = 1bay, lining
A8653	SR8, From West, CH 4095 - 4100 = 1bay, lining	7d/wk-1a	- P9	30-Jan-15 08	03-Feb-15 18	137d	SR8, From West, CH 4095 - 4100 = 1 bey, lining
A8654	SR8, From West, CH 4100 - 4105 = 1bay, lining	7d/wk-1a	2d	04-Feb-15 08	08-Feb-15 18	137d	■ SR8, From West, CH 4100 - 4105 = 1bay, Ining
From East	From East - Base Slab (10m/bay, 10m separation with benching excavation)	(0	1000				
A9775	SR8 From East, CH 4149.5- 4145 = 4.5m, base slab	7d/wk-1a	P8	02-Dec-14 08	09-Dec-14 18	PO	SR8 From East, CH 4149.5- 4145 = 4,5m, base slab
A9780	SR8 From East, CH 4145 - 4135 = 10m/bay, base slab	7d/wk-1a	pg Pg	10-Dec-14 08	17-Dec-14 18	PO	SR8 From East, CH 4145 - 4135 = 10m/bay, base slab
A9785	SR8 From East, CH 4135 - 4125 = 10m/bay, base slab	7d/wk-1a	9g	18-Dec-14 08	26-Dec-14 18	Pg	SR8 From East, CH 4135 - 4125 = 10m/bay, base slab
A9786	SR8 From East, CH 4125 - 4115 = 10m/bay, base slab	7d/wk-1a	98d	27-Dec-14 08	04-Jan-15 18	10d	SR8 From East, CH 4125 - 4115 = 10m/bay, base slab
From East	From East - Lining (Smibay, 10m separation with base slab)						
A9820	From East, SR8 CH 4149.5 - 4145 = 4.5m,1 bay, lining	7d/wk-1a	PS 2	18-Dec-14 08	22-Dec-14 18	PO	From East, SR8 CH 4149.5 - 4145 = 4,5m,1 bay, lining
A9815	From East, SR8 CH 4145 - 4140 = 1bay, lining	7d/wk-1a	. Pg	23-Dec-14 08	28-Dec-14 18	p9	From East, SR8.CH 4145 - 4140 = 1bay, lining
A9810	From East, SR8 CH 4140 - 4135 = 1bay, lining	7d/wk-1a	2d	29-Dec-14 08	03-Jan-15 18	p9	From East, SR8 CH 4140 - 4135 = 1bay, lining
A9805	From East, SR8 CH 4135 - 4130= 1bay, lining	7d/wk-1a	2d	04-Jan-15 08	08-Jan-15 18	P9	From East, SR8 CH 4135 - 4130= 1bay, lining

中國連禁工程(香港)有限公司 CHINA STATE CONSTRUCTION BIGINEERING GHONG KONG IUD. Prepared by William Caluza
Revision Checked Approved

Date Re 26-Sep... 1st submission

Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) China State Construction Engineering (Hong Kong) Ltd

WORKS PROGRAMME REV. M

Actual Level of Effort
Actual Work
Remaining Work
Critical Remaining Work

Summary Bar

♦ Milestone

Section Political Part Columbia Part Part Columbia	Activity ID	Activity Name	Calendar	-	Start	Finish	Total	2015	2004
				_			Float	Q1 Q2 Q3 Q4	-
	A9870	From East, SR8 CH 4130 - 4125 = 1bay, lining	7d/wk-1a		09-Jan-15 08	13-Jan-15 18	pg pg	■ From East, SR8 CH 4130 - 4125 = 1bay lining	
1 From East, State (14 to 24 to 15 to	A9800	From East, SR8 CH 4125 - 4120 = 1bay, lining	7d/wk-1a		14-Jan-15 08	18-Jan-15 18	143d	■ From East, SR8 CH 4125 - 4120 = 1bay, lining	
	A9860	From East, SR8 CH 4120 - 4115 = 1bay, lining	7d/wk-1a	5900	19-Jan-15 08	23-Jan-15 18	143d	■ From East, SR8 CH 4120 - 4315 = 1bay, Ining	
	A9855	From East, SR8 CH 4115 - 4110 = 1bay, lining	7d/wk-1a		24-Jan-15 08	28-Jan-15 18	143d	■ From East, SR8 CH 4115 - 4110 = 1bay, lining	
Purposition 167-17 Page 68 72-Mark 1204 103-40-15 09 13-Mark 1304 13-Mark	A9850	From East, SR8 CH 4110 - 4105 = 1bay, lining	7d/wk-1a		29-Jan-15 08	02-Feb-15 18	143d	From East, SR8 CH 4110 - 4105 = 1bay, lining	
Part	OHVD[10n	n/bay) / Utility Trough							
### CH 4015-4016 = 10m Toluk-1s 30d 07-Nag-14 08 A 20-06-14 18 136d 150-06-14 18 136d	A8570	SR8 Tunnel OHVD and utility trough =, 167= 17 bays @ 10m/bay @ 7d/bay	7d/wk-1a		09-Feb-15 08	13-Jun-15 18	137d	SR8 Tunnel OHVD and utility trough = 167= 17 bays @	@10m/bay@7d/bay
Comparison with heading Comparison with	EB Outer To	unnel Excavation							
20 20 20 20 20 20 20 20	From West	(TPCWAE)							*****
## CH 4435-4445 = 10m	Outer Ben	ich Excavation (1,5d - 2d/m, 20m separation with heading)							*****
## CH 4445-4455 = 10m (24m) 7 70wk-1a 20d 92-0c4-14 08 00-Nov-14 18 135d	A9550	EB, Outer Bench From West, CH 4035- 4045 = 10m	7d/wk-1a		07-Aug-14 08 A	20-Oct-14 18	135d	EB, Outer Bench From West, CH 4035- 4045 = 10m	
### Bit CH 4035-4036 = 10m (24m)	A9555	EB, Outer Bench From West, CH 4045- 4055 = 10m (2d/m)	7d/wk-1a		20-Oct-14 08	08-Nov-14 18	135d	EB, Outer Bench From West, CH 4045- 4055 = 10m (2d/m)	
## CH 4056-4075 = 10m (24m) ## CH 4056-4075	A9560	EB, Outer Bench From West, CH 4055- 4065 = 10m (2d/m)	7d/wk-1a		09-Nov-14 08	28-Nov-14 18	135d	EB, Outer Bench From West, CH 4055- 4065 = 10m (2d/m)	
### EB. Outer Benich From West, CH 4075-4085 = 10m (3dm) ###################################	A9565	EB, Outer Bench From West, CH 4065- 4075 = 10m (2d/m)	7d/wk-1a		29-Nov-14 08	18-Dec-14 18	135d	EB, Outer Bench From West, CH 4065- 4075 = 10m (2d/m)	
## EB, Outer Bench From West, CH 41085-4095 = 10m 1,5dm) ## Properties Tolum-15 08 24-Jan-15 18 135d	A9520	EB, Outer Bench From West, CH 4075- 4085 = 10m (2d/m)	7d/wk-1a		19-Dec-14 08	09-Jan-15 18	135d	EB, Outer Bench From West, CH 4075-4085 = 10m (2d/m)	*****
### CH 4145. 4145 = 2.5m ### CH 4145. 4145 = 1.0m ### CH 4145. 4145	A9545	EB, Outer Bench From West, CH 4085- 4095 = 10m 1.5d/m)			10-Jan-15 08	24-Jan-15 18	135d		
### CH 4147.5 - 4145 = 2.5m 7dwk-1a 30d 19-Nov-14 18 120d 19-Nov-14 18 19-N	From East	(TS4)							
4; CH 4145-4145=2.5m 7dwk-1a 20d 19-Nov-14 08 120-0c-14 18 120d 3t, CH 4145-4155=10m (2dm) 7dwk-1a 20d 19-Nov-14 08 09-Dec-14 18 120d 3t, CH 4145-4155=10m (2dm) 7dwk-1a 20d 09-Dec-14 08 19-Jan-15 18 120d 3t, CH 4105-4105=10m (2dm) 7dwk-1a 20d 2D-Jan-15 08 29-Dec-14 18 120d 3t, CH 4105-4105=10m (2dm) 7dwk-1a 20d 2D-Jan-15 08 29-Dec-14 18 120d 3t, CH 4105-4105=10m (2dm) 7dwk-1a 20d 2D-Jan-15 08 29-Dec-14 18 120d 3t, CH 4105-4105=10m (2dm) 7dwk-1a 15d 09-Feb-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (1.5dm) 7dwk-1a 20d 2D-Jan-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 20d 09-Feb-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 20d 09-Feb-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 20d 09-Feb-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 20d 09-Feb-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 20d 09-Feb-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 20d 09-Feb-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 20d 09-Feb-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 20d 09-Feb-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 30d 2D-Ian-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 30d 2D-Ian-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 30d 2D-Ian-15 08 28-Feb-15 18 120d 3t, CH 4105-4005 10m (2dm) 7dwk-1a 30d 2D-Ian-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 30d 2D-Ian-15 08 28-Feb-15 18 120d 3t, CH 4105-4005=10m (2dm) 7dwk-1a 30d 2D-Ian-15 08 28-Feb-15 18 120d 3t, CH 4105-4105=10m (2dm) 7dwk-1a 30d 2D-Ian-15 08 28-Feb-15 18 120d 3t, CH 4105-4105=10m (2dm) 3t, CH 4	Outer Ben	ich Excavation (1.5d-2d/m, 20m separation with heading)							
## CH4145-4135 = 10m (2dm) 7dwk-1a 20d 19-Nov-14 08 09-Dec-14 18 120d 3t. CH4125-4125 = 10m (2dm) 7dwk-1a 20d 09-Dec-14 08 19-Jan-15 18 120d 3t. CH4125-4125 = 10m (2dm) 7dwk-1a 20d 30-Dec-14 08 19-Jan-15 18 120d 3t. CH4125-415 = 10m (2dm) 7dwk-1a 20d 20-Dec-14 08 19-Jan-15 18 120d 3t. CH4125-415 = 10m (2dm) 7dwk-1a 20d 20-Dec-14 08 19-Jan-15 18 120d 3t. CH4125-415 = 10m (2dm) 7dwk-1a 20d 20-Dec-14 08 19-Jan-15 18 120d 3t. CH4105-4105 = 10m (2dm) 7dwk-1a 15d 09-Peb-15 18 120d 3t. CH4105-4105 = 10m (2dm) 7dwk-1a 15d 09-Peb-15 18 120d 3t. CH4105-4105 = 10m (2dm) 7dwk-1a 20d 20-Peb-15 18 120d 3t. CH4105-4005 = 10m (2dm) 7dwk-1a 20d 20-Peb-15 18 120d 3t. CH4105-4005 = 10m (2dm) 7dwk-1a 20d 20-Peb-15 18 120d 3t. CH4105-4005 = 10m (2dm) 7dwk-1a 39d 20-Peb-15 18 120d 3t. CH4105-4005 = 10m (2dm) 7dwk-1a 39d 20-Peb-15 18 120d 3t. CH4105-4005 = 10m (2dm) 7dwk-1a 39d 20-Peb-15 18 00-Peb-15 18	A9605	EB, Outer Bench From East, CH 4147.5 - 4145 = 2.5m	7d/wk-1a		20-Oct-14 08*	18-Nov-14 18	120d	EB, Outer Bench From East, CH 4147.5 - 4145 = 2.5m	
st, CH 4135- 4125 = 10m (2d/m) st, CH 4135- 4135 = 10m (2d/m) st, CH 4105- 4085 = 10m (2d/m)	A9610	EB, Outer Bench From East, CH 4145- 4135 = 10m (2d/m)	7d/wk-1a		19-Nov-14 08	08-Dec-14 18	120d		
st, CH 4125-4115 = 10m (2d/m) 7d/wk-1a 20d 30-Dec-14 08 19-Jan-15 18 120d st, CH 4155-4115 = 10m (2d/m) 7d/wk-1a 20d 20-Jan-15 08 06-Feb-15 18 120d 20-Jan-15 08 06-Feb-15 18 120d 20-Jan-15 08 26-Feb-15 18 120d Td/wk-1a 20d 20-Jan-15 08 26-Feb-15 18 120d Td/wk-1a 39d 29-Sep-14 08 07-Nov-14 18 0d Test, CH 4005-4015 = 10m (32d/m) 7d/wk-1a 39d 29-Sep-14 08 07-Nov-14 18 0d Test, CH 4005-4015 = 10m (32d/m) Td/wk-1a 20d 08-Nov-14 08 27-Nov-14 18 0d Test, CH 4005-4015 = 10m (32d/m) Td/wk-1a 20d 08-Nov-14 08 27-Nov-14 18 0d Test, CH 4005-4015 = 10m (32d/m) Td/wk-1a 20d 08-Nov-14 08 27-Nov-14 18 0d Test, CH 4005-4015 = 10m (32d/m) Td/wk-1a 20d 08-Nov-14 08 27-Nov-14 18 0d Td/wk-1a 20d 08-Nov-14 0	A9615	EB, Outer Bench From East, CH 4135- 4125 = 10m (2d/m)	7d/wk-1a		09-Dec-14 08	29-Dec-14 18	120d	EB, Outer Bench From East, CH 4/35-4/25 = 10m (2d/m)	
st, CH 4105 = 10m (22d/m) 7 dwk-1a 20d 20-Jan-15 08 08-Feb-15 18 120d	A9620	EB, Outer Bench From East, CH 4125-4115 = 10m (2d/m)	7d/wk-1a		30-Dec-14 08	19-Jan-15 18	120d	EB, Outer Bench From East, CH 4125-4115 = 10m (2d/m)	
st, CH 4105- 4095 = 10m (1.5d/m) 7 d/wk-1a 15d 09-Feb-15 08 28-Feb-15 18 120d	A9625	EB, Outer Bench From East, CH 4115- 4105 = 10m (2d/m)	7d/wk-1a		20-Jan-15 08	08-Feb-15 18	120d	EB, Outer Bench From East, CH 4115- 4105 = 10m (2d/m)	*****
Sext. CH 3892-4005 = 13m @3d/m	A9630	EB, Outer Bench From East, CH 4105- 4095 = 10m (1.5d/m)			09-Feb-15 08	26-Feb-15 18	120d	89	
### EB_Inner Heading From West, CH 4005- 4015 = 10m @2d/m	EB (Inner Ti	unnel Excavation + Lining)							
Second S	From West	(TPCWAE)							
EB, Inner Heading From West, CH 3992- 4005 = 13m @3d/m	Inner Head	Jing Excavation (2d/m, 24h/day work shift, 7d/week, no work	k on statutory holida	(%)					
EB.Inner Heading From West, CH 4005- 4015 = 10m @2d/m	A8805	EB,Inner Heading From West, CH 3992- 4005 = 13m @3d/m			29-Sep-14 08	07-Nov-14 18	po	EB.Inner Heading From West, CH 3992- 4005 = 13m @3d/m	*****
9 of 18 Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	A8815	EB.Inner Heading From West, CH 4005- 4015 = 10m @2d/m			08-Nov-14 08	27-Nov-14 18	р		
Contract No. HY/2009/15 - Central Wan Chair By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chair By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	Summ							Prepared by William Cale	
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	Actual Actual		State Constructi	on Engir	neering (Hong	Kong) Ltd		Tst submission	D/2 经水(共用/共工
WORKS PROGRAMME REV. M	Remail		tral Wan Chai By I	Pass - T	unnel (Cause	way Bay Typi	noon Shelter		トーも(有名)と BA A DE STRUCTION ENGINEERING GHONG KONG ITD
	Critical Critical	Remaining Work	WORKS PR	OGRA	MME REV.	Σ			

			2	Duration			Float			2016	
A8820	EB,Inner Heading F	EB, Inner Heading From West, , CH 4015- 4025 = 10m @2d/m	7d/wk-1a	Total Contract	28-Nov-14 08	17-Dec-14 18	0d		04 01	072	03
08780	00	100					3	Eb, inner Heading From West, , CH 4015- 4025 = 10m @2d/m	cd/m		
A8/80	EB,Inner Heading F	EB, Inner Heading From West, CH 4025-4035 = 10m @2d/m	7d/wk-1a	20d 18	18-Dec-14 08	08-Jan-15 18	В	EB.Inner Heading From West, CH 4025- 4035 = 10m @2d/m	@2d/m		
A8810	EB,Inner Heading F	EB,Inner Heading From West, , CH 4035- 4045 = 10m @2d/m	7d/wk-1a	20d 09	9-Jan-15 08	28-Jan-15 18	РО	EB,Inner Heading From West , CH 4035- 4045 = 10m @2d/m	10m @2d/m		
A8785	EB,Inner Heading F	EB,Inner Heading From West, , CH 4045- 4055 = 10m @2d/m	7d/wk-1a	20d 29	9-Jan-15 08	17-Feb-15 18	PO	EB, Inner Heading From West, , CH 4045- 4055 = 10m @2d/	55 = 10m @2d/m		
A8790	EB,Inner Heading F	EB,Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m	7d/wk-1a	20d 18	8-Feb-15 08	12-Mar-15 18	PO	EB.Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m	4065 = 10m @ 2d/m		
A8795	EB,Inner Heading F	EB,Inner Heading From West, , CH 4065- 4075 = 10m, @ 2d/m	7d/wk-1a	20d 13	13-Mar-15 08	01-Apr-15 18	PO	EB.Inner Heading From West., CH 4065- 4075 = 10m, @ 2d/m	065-4075 = 10m, @ 2d/m		
A8800	EB,Inner Heading F	EB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m	7d/wk-1a	20d 02	02-Apr-15 08	22-Apr-15 18	PO	EB,Inner Heading From West, CH 4075- 4085 ≢ 10m @ 2d/m	H 4075- 4085 = 10m @ 2d/m		
A8825	EB,Inner Heading F	EB,Inner Heading From West, CH 4085- 4095 = 10m @ 2d/m	7d/wk-1a	20d 23	23-Apr-15 08	13-May-15 18	Po	EB,Inner Heading From West	EB,Inner Heading From West, CH 4085- 4085 = 10m @ 2d/m		
iner Bench.	Excavation (1.5-2d/	Inner Bench Excavation (1.5-2d/m, 20m separation with heading)									
A8765	EB, Inner Bench Fro	EB, Inner Bench From West, CH 3992- 4005 = 13m (2d/m)	7d/wk-1a	26d 06	08-Nov-14 08	03-Dec-14 18	23d	EB Inner Bendt From West, CH 3992-4005 = 13m (2d/m)			
A8770	EB, Inner Bench Fro	EB, Inner Bench From West, CH 4005- 4015 = 10m	7d/wk-1a	15d 18	3-Dec-14 08	03-Jan-15 18	P6	EB, Inner Bench From West, CH 4005- 4015 = 10m		• • • • • •	
A8775	EB, Inner Bench Fro	EB, Inner Bench From West, CH 4015- 4025 = 10m	7d/wk-1a	15d 09	09-Jan-15 08	23-Jan-15 18	4d	EB, Inner Bench From West, CH 4015- 4025 = 10m			
A8735	EB, Inner Bench Fro	EB, Inner Bench From West, CH 4025- 4035 = 10m	7d/wk-1a	15d 29	3-Jan-15 08	12-Feb-15 18	14d	EB, Inner Bench From West, CH 4025- 4035 = 10m	TOm Low		
A8740	EB, Inner Bench Fro	EB, Inner Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	15d 18	18-Feb-15 08	07-Mar-15 18	11d	EB, Inner Bench From West, CH 4035-4045 = 10m	15 = 10m		
A8745	EB, Inner Bench Fro	EB, Inner Bench From West, CH 4045- 4055 = 10m	7d/wk-1a	15d 13-	3-Mar-15 08	27-Mar-15 18	pg	EB, Inner Bench From West,CH 4045- 4055 = 10m	4055 = 10m		
A8750	EB, Inner Bench Fro	EB, Inner Bench From West, CH 4055- 4065 = 10m	7d/wk-1a	15d 02	02-Apr-15 08	17-Apr-15 18	PĮ.	■ EB, Inner Bench From West,CH 4055- 4065 = 10m	055- 4065 = 10m		
A8755	EB, Inner Bench Fro	EB, Inner Bench From West, CH 4065- 4075 = 10m	7d/wk-1a	15d 18	3-Apr-15 08	03-May-15 18	19	EB, Inner Bench From West, CH 4065- 4075 = 10m	H 4065- 4075 = 10m	•••••	
A8760	EB, Inner Bench Fro	EB, Inner Bench From West, CH 4075- 4085 = 10m	7d/wk-1a	15d 05-	⊱May-15 08	19-May-15 18	PO	EB, Inner Bench From West, CH 4075- 4085 = 10m	,CH 4075- 4085 = 10m		
A8761	EB, Inner Bench Fro	EB, Inner Bench From West, CH 4085- 4095 = 10m	7d/wk-1a	15d 20-	J-May-15 08	03-Jun-15 18	Po	EB; Inner Bench From West, CH 4085- 4095 = 10m	est,CH 4085- 4095 = 10m		
From East (TS4)	84)										
ner Headin	ig Excavation (3d/m,	Inner Heading Excavation (3d/m, 24h/day work shift, 7d/week, no work on statutory holiday)	atutory holiday								
A8835	EB,Inner Heading Fi	EB,Inner Heading From East, CH 4147.5 to 4145 = 2.5m, @ 3d/m	7d/wk-1a	-90 pg	-Jan-15 08	13-Jan-15 18	Po	■ EB,Inner Heading From East, CH 4147,5 to 4145 = 2.5m, @ 3d/m	5m, @ 3d/m		
A8850	EB,Inner Heading F.	EB,Inner Heading From East, CH 4145- 4135 = 10m, @ 3d/m	7d/wk-1a 3	30d 14-	-Jan-15 08	12-Feb-15 18	PO	EB.Inner Heading From East, CH 4145- 4135 = 10m, @ 3d/m	10m, @ 3d/m		
A8830	EB,Inner Heading Fi	EB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m	7d/wk-1a 2	20d 13-	Feb-15 08	07-Mar-15 18	PO	EB Inner Heading From East, CH 4135- 4125 = 10m @2d/m	25 = 10m @2d/m		
A8840	EB,Inner Heading Fi	EB,Inner Heading From East, CH 4125-4115 = 10m @2d/m	7d/wk-1a 2	20d 08-	LMar-15 08	27-Mar-15 18	PO	EB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m	- 4115 = 10m @2d/m		
A9910	EB,Inner Heading Fi	EB,Inner Heading From East, CH 4115- 4105 = 10m @2d/m	7 d/wk-1a	20d 28-	-Mar-15 08	17-Apr-15 18	р	EB.Inner Heading From East, CH 4115- 4105 = 10m @2d/m	115-4105 = 10m @2d/m		
A8845	EB,Inner Heading Fi	EB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m	7d/wk-1a 2	20d 18	18-Apr-15 08	08-May-15 18	PO	■ EB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m	CH 4105- 4095 = 10m @2d/m		
ner Bench	Excavation (1.5d-2d	Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)		The second	The state of the s						
A8860	EB,Inner Bench Froi	EB Inner Bench From East, CH 4147.5 - 4145 = 2.5m	7d/wk-1a	4d 08-	-Mar-15 08	11-Mar-15 18	11d	■ EB,Inner Bench From East, CH 4147.5 - 4145 = 2.5m	145 = 2.5m		
Summary Bar		10 of 18						Prepared by William Call			
Actual Level Actual Work	Actual Level of Effort Actual Work	China State	China State Construction Engineering (Hong Kong) Ltd	ı Engine	ering (Hong	Kong) Ltd		Date Revision Checked Approved 26-Sep 1st submission	ا		
Remaining Work	Remaining Work	Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	an Chai By Pa	iss - Tur	inel (Causev	ray Bay Typho	on Shelter Section		中国 CHINA STATE CONSTRUCT	中國運業人程(海泳)学面公司GHIN SYNE CONSTRUCTION BICINEBING HONCE WOND IT	で な の に に の に の に の に の に の に の に の に の に の に の に に の に に に に に に に に に に に に に
Critical Kei	emaining Work										

			Duration			rioat		
A8865 EB,I	EB,Inner Bench From East, CH 4145-4135 = 10m	7d/wk-1a	15d	12-Mar-15 08	26-Mar-15 18		Q4 Q1 Q2 Q3 Q4 Q1 Q2 □: EB,Inner Bench From East, CH 4145 - 4135 = 10m	03
A8870 EB,I	EB,Inner Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	28-Mar-15 08	12-Apr-15 18	109	EB, Inner Bench From East, CH 4135- 4125 = 10m	
A8855 EB,I	EB,Inner Bench From East, CH 4125- 4115 = 10m	7d/wk-1a	15d	18-Apr-15 08	03-May-15 18	2d	EB, Inner Bench From East, CH 4125- 4115 = 10m	
A8875 EB,I	EB,Inner Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	09-May-15 08	23-May-15 18	po	■ EB.Imer Bench From East, CH 4115- 4105 = 10m	*****
A9915 EB,I	EB,Inner Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	16d	24-May-15 08	08-Jun-15 18	PO	■ EB,Inner Bench From East, CH 4105- 4095 = 10m	
Tunnel Lining Works	rks							
rom West Base	From West Base Slab (10m/bay, 10m separation with benching excavation)	ion)						
A8900 EB F	EB From West, Base Slab CH 3990 - 3995 = 1 bay	7d/wk-1a	10d	04-Dec-14 08	13-Dec-14 18	33d	■ E8 From West, Base Slab CH 3990 - 3995 = 1 bay	
A8890 EB P	EB From West, Base Slab CH 3995 - 4005 = 10m/bay	7d/wk-1a	10d	04-Jan-15 08	13-Jan-15 18	140	■ EB From West, Base Slab CH 3995 - 4005 = 10mbay	
A8905 EB F	EB From West, Base Slab CH 4005 - 4015 = 10m/bay	7d/wk-1a	10d	24-Jan-15 08	02-Feb-15 18	44	■ EB From:West, Base Slab CH 4005 - 4015 = 10m/bay	
A8910 EB F	EB From West, Base Slab CH 4015 - 4025 = 10m/bay	7d/wk-1a	10d	13-Feb-15 08	25-Feb-15 18	14d	■ EB From West, Base Slab CH 4015 - 4025 = 10mbay	
A8915 EB P	EB From West, Base Slab CH 4025 - 4035 = 10m/bay	7d/wk-1a	10d	08-Mar-15 08	17-Mar-15 18	12d	■ EB From West, Base Slab CH 4025 - 4035 = 10m/bay	
A8920 EB F	EB From West, Base Slab CH 4035 - 4045 = 10m/bay	7d/wk-1a	10d	28-Mar-15 08	07-Apr-15 18	pg	■ EB From West, Base Slab CH 4035 - 4045 = 10m/day	******
A8925 EB F	EB From West, Base Slab CH 4045 - 4055 = 10m/bay	7d/wk-1a	10d	18-Apr-15 08	27-Apr-15 18	44	■ EB From West, Base Slab CH 4045 - 4055 = 10mbay	
A8930 EB F	EB From West, Base Slab CH 4055 - 4065 = 10m/bay	7d/wk-1a	10d	04-May-15 08	13-May-15 18	pg pg	■ EB From West, Base Slab CH 4055 - 4065 ≠ 10m/bay	
A8880 EB F	EB From West, Base Slab CH 4065 - 4075 = 10m/bay	7d/wk-1a	10d	20-May-15 08	29-May-15 18	pg pg	■ EB From West, Base Slab CH 4065 - 4075 = 10m/bay	
A8885 EB F	EB From West, Base Slab CH 4075 - 4085 = 10m/bay	7d/wk-1a	10d	04-Jun-15 08	13-Jun-15 18	PO	■ EB From West, Base Slab CH 4075 - 4085 = 10m/bay	
A8895 EB F	EB From West, Base Slab CH 4085 - 4095 = 10m/bay	7d/wk-1a	10d	14-Jun-15 08	24-Jun-15 18	po	■ EB From West, Base Slab CH 4085 - 4095 = 10mbay	
rom East Base S	From East Base Slab (10m/bay, 10m separation with benching excavation)	(uo						
A9905 EB F	EB From East, Base Slab CH 4149.5 - 4145 = 4.5m	7d/wk-1a	10d	13-Apr-15 08	22-Apr-15 18	26d	■ EB From East, Base Slab CH 4149.5 - 4145 = 4,5m	
A9900 EB F	EB From East, Base Slab CH 4145 - 4135 = 10m/bay	7d/wk-1a	P01	04-May-15 08	13-May-15 18	16d	■ EB From East, Base Slab CH 4145 - 4135 = 10m/bay	
A9895 EB F	EB From East, Base Slab CH 4135 - 4125 = 10m/bay	7d/wk-1a	P01	24-May-15 08	02-Jun-15 18	pg	■ EB From East, Base Slab CH 4135 - 4125 = 10m/bay	
A9890 EB F	EB From East, Base Slab CH 4125 - 4115 = 10m/bay	7d/wk-1a	P01	09-Jun-15 08	18-Jun-15 18	PO	■ EB From East, Base Slab CH 4125 - 4115 = 10mbay	
A9885 EB F	EB From East, Base Slab CH 4115 - 4105 = 10m/bay	7d/wk-1a	10d	19-Jun-15 08	29-Jun-15 18	PO	■ EB From East, Base Slab CH 4115- 4105 = 10mbay	
A9880 EB F	EB From East, Base Slab CH 4105 - 4095 = 10m/bay	7d/wk-1a	10d	30-Jun-15 08	10-Jul-15 18	PO	EB From East, Base Slab CH 4105 - 4095 = 10m/bay	
ining (5m/bay, 15	Lining (5m/bay, 15m separation with base slab)							
A9065 EB F	EB From West, Lining CH 3990 - 3995 = 1bay	7d/wk-1a	10d	03-Feb-15 08	12-Feb-15 18	p4	■ EB From West, Lining CH 3990 - 3995 = 1bay	
A9005 EB F	EB From West, Lining CH 3995 - 4000 = 1bay	7d/wk-1a	10d	13-Feb-15 08	25-Feb-15 18	p4	■ EB From West, Lining ;CH 3995 - 4000 = 1bay	
A9090 EB F	EB From West, Lining CH 4000 - 4005 = 1bay	7d/wk-1a	P01	26-Feb-15 08	07-Mar-15 18	44	■ EB From West, Lining CH 4000 - 4005 = 1bay	
Summary Bar Actual Level of Effort Actual Work	11 of 18	China State Construction Engineering (Hong Kong) Ltd	on Engir	leering (Hong	Kong) Ltd		912	
Remaining Work Critical Remaining Work	rk Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	al Wan Chai By	Pass - Ti	unnel (Cause	way Bay Typh	oon Shelter Section	DIO ORINA STATE CONSTRUCTION BNCINKERING HONG KONG KONG KONG KONG KONG KONG KONG K	作 図 名 に de la conc in thouc konc in
A Milastona		WORKS DOODDAMME DEV M	VASO	VILL LIVER				

Activity ID	ACTIVITY INSTITUTE			The second secon						
		_			rioat	α4 α1	Q2 Q3 Q4	4 Q1	92	Q3
A9050	EB From West, Lining CH 4005 - 4010 = 1bay	7d/wk-1a 1	10d 08-Mar-15 08	17-Mar-15	18 4d	EBF	EB From West, Lining CH 4005 - 4010 = 1bay			
A9055	EB From West, Lining CH 4010 - 4015 = 1bay	7d/wk-1a 1	10d 18-Mar-15 08	08 27-Mar-15 18	8 4d	83	EB From West, Lining CH 4010 - 4015 = 1bay	ay		
A9060	EB From West, Lining CH 4015 - 4020 = 1bay	7d/wk-1a 1	10d 26-Mar-15 08	05-Apr-15 18	8 4d	₩ 	EB From West, Lining CH 4015 - 4020 = 1bay	bay		
A9070	EB From West, Lining CH 4020 - 4025 = 1bay	7d/wk-1a 1	10d 03-Apr-15 08	08 13-Apr-15 18	8 4d		EB From West, Lining CH 4020 - 4025 = 1bay	1bay		
A9075	EB From West, Lining CH 4025 - 4030 = 1bay	7d/wk-1a 1	10d 12-Apr-15 08	08 21-Apr-1518	8 4d		EB From West, Lining CH 4025 - 4030 = 1bay	= 1bay		
A9080	EB From West, Lining CH 4030 - 4035 = 1bay	7d/wk-1a 1	10d 20-Apr-15 08	08 29-Apr-1518	8 4d		EB From West, Lining CH 4030 - 4035 = 1bay	5 = 1bay		
A9085	EB From West, Lining CH 4035 - 4040 = 1bay	7d/wk-1a 1	10d 28-Apr-15 08	08 08-May-1518	18 4d		EB From West, Lining CH 4035 - 4040 = 1ba	40 = 1bay		
A9015	EB From West, Lining CH 4040 - 4045 = 1bay	7d/wk-1a 1	10d 07-May-15 08	5 08 16-May-15 18	18 4d		■ EB Fram West, Lining CH 4040 - 4045 = 1bay	4045 = 1bay		
A9020	EB From West, Lining CH 4045 - 4050 = 1bay	7d/wk-1a 1	10d 15-May-15 08	5 08 24-May-15 18	8 4d		EB From West, Lining CH 4045 - 4050 = 1bay	- 4050 = 1bay		
A9025	EB From West, Lining CH 4050 - 4055 = 1bay	7d/wk-1a 1	10d 23-May-15 08	5 08 01-Jun-15 18	8 4d		■ EB From West, Lining CH 4050 - 4055 = 1bay	0 - 4055 = 1bay		
A9030	EB From West, Lining CH 4055 - 4060 = 1bay	7d/wk-1a 1	10d 31-May-15 08	5 08 09-Jun-15 18	8 4d		■ EB From West, Lining CH 4055 - 4060 = 1bay	55 - 4060 = 1bay		
A9035	EB From West, Lining CH 4060 - 4065 = 1bay	7d/wk-1a 1	10d 07-Jun-15 08	08 16-Jun-15 18	8 4d		■ EB From West, Lining CH 4060 - 4065 = 1bay	.050 - 4065 = 1bay		
A9040	EB From West, Lining CH 4065 - 4070 = 1bay	7d/wk-1a 1	10d 14-Jun-15 08	08 24-Jun-15 18	8 4d		■ EB From West, Lining CH 4065 - 4070 = 1bay	4065 - 4070 = 1bay		
A9045	EB From West, Lining CH 4070 - 4075 = 1bay	7d/wk-1a 1	10d 25-Jun-15 08	05-Jul-15 18	po		EB From West, Lining CH 4070 -	CH 4070 - 4075 = 1bay		
A8955	EB From West, Lining CH 4075 - 4080 = 1bay	7d/wk-1a 1	10d 30-Jun-15 08	08 10-Jul-15 18	po s		EB From West, Lining CH 4075	CH 4075 - 4080 = 1bay		
A8960	EB From West, Lining CH 4080 - 4085 = 1bay	7d/wk-1a	5d 11-Jul-15 08	08 15-Jul-15 18	p0 8		EB From West, Lining	EB From West, Lining CH 4080 - 4085 = 1bay		
A8970	EB From West, Lining CH 4085 - 4090 = 1 bay	7d/wk-1a	5d 16-Jul-15 08	08 20-Jul-15 18	p0 8		■ EB From West, Linin	EB From West, Lining CH 4085 - 4090 = 1bay		
A8975	EB From West, Lining CH 4090 - 4095 = 1bay	7d/wk-1a	5d 21-Jul-15 08	08 25-Jul-15 18	po s		EB From West, Linir	EB From West, Lining CH 4090 - 4095 = 1bay		
A8980	EB From West, Lining CH 4095 - 4100 = 1bay	7d/wk-1a	5d 26-Jul-15 08	08 30-Jul-15 18	po s		■ EB From West, Lin	EB From West, Lining CH 4095 - 4100 = 1bay		
A8985	EB From West, Lining CH 4100 - 4105 = 1bay	7d/wk-1a	5d 31-Jul-15 08	08 04-Aug-15 18	18 0d		■ EB From;West, Li	EB From; West, Lining CH 4100 - 4105 = 1bay	· · ·	
A8990	EB From West, Lining CH 4105 - 4110 = 1bay	7d/wk-1a	5d 05-Aug-15 08	5 08 09-Aug-15 18	18 Od		■ EB From West, L	EB From West, Lining CH 4105 - 4110 = 1bay	ay.	
A8995	EB From West, Lining CH 4110 - 4115 = 1bay	7d/wk-1a	5d 10-Aug-15 08	5 08 14-Aug-15 18	18 0d		■ EB From West,	EB From West, Lining CH 4110 - 4115 = 1bay	bay	
A9000	EB From West, Lining CH 4115 - 4120 = 1bay	7d/wk-1a	5d 15-Aug-15 08	5 08 19-Aug-15 18	18 0d		■ EB From West	EB From West, Lining CH 4115 - 4120 = (bay	tbay	
A9010	EB From West, Lining CH 4120 - 4125 = 1bay	7d/wk-1a	5d 20-Aug-15 08	5 08 24-Aug-15 18	18 0d		EB From Wes	EB From West, Lining CH 4120 - 4125 = 1bay	-1bay	
A8965	EB From West, Lining CH 4125 - 4130 = 1bay	7d/wk-1a	5d 25-Aug-15 08	5 08 29-Aug-15 18	18 Od		■ EB From We	EB From West, Lining CH 4125 - 4130 = 1bay	= 1bay	
A8935	EB From West, Lining CH 4130 - 4135 = 1bay	7d/wk-1a	5d 30-Aug-15 08	5 08 03-Sep-15 18	18 Od		■ EB From W	EB:From West, Lining CH 4130 - 4135 = 1bay	5= 1bay	
A8940	EB From West, Lining CH 4135 - 4140 = 1bay	7d/wk-1a	5d 04-Sep-15 08	5 08 08-Sep-15 18	18 Od		■ EB From V	EB From West, Lining CH 4135 - 4140 = 1bay	0 = 1bay	
A8945	EB From West, Lining CH 4140 - 4145 = 1bay	7d/wk-1a	5d 09-Sep-15 08	5 08 13-Sep-15 18	18 0d		■ EB From	EB From West, Lining CH 4140 - 4145 = 1bay	45 = 1bay	
A8950	EB From West, Lining CH 4145 - 4149,5 = 4.5m	7d/wk-1a	5d 14-Sep-15 08	5 08 18-Sep-15 18	18 0d		EB From	EB From West, Liring CH 4145 - 4149.5 = 4.5m	149.5 = 4.5m	
Summary Bar	12 of 18					Prepar	Prepared by William Caluza			
Actual Level	f Effort	China State Construction Engineering (Hong Kong) Ltd	ı Engineering	(Hong Kong) Lt	т.	Date Rev 26-Sep 1st submission	Revision Checked Approved ion	10.00	四个四点(英语)是一种题图点	ぐ思
Remaini	Remaining Work Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	ntral Wan Chai By P	ss - Tunnel (Causeway Bay	Typhoon Shelter	Section)		CHINA STATE CONSTRU	CHINA STATE CONSTRUCTION ENGINEERING (HONG KONG) LTD	NGKONG
Critical Ke	Cracal Remaining Work		STERRING SHORES	10 May 10 Colors 11 May						

Activity ID	Activity Name	- 1								
		Calerinar	Ouration Start	Finish	Float	2015				
OHVD(10m/ba	OHVD(10m/bay) / Utility Trough						04	19	025	03
A9095	EB From West OHVD and utility trough =, 167= 17 bays @ 10m/bay @ 7d/bay	7d/wk-1a 12	120d 03-Jul-15 08	02-Nov-15 18	po		EB From	West OHVD and util	EB From West OHVD and utility trough =, 167=17 bays @ 10	ays @ 10i
WB Outer Tunnel Excavation	lel Excavation									
From West (TPCWAE)	CWA.E.)									
Outer Heading	Outer Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)	on statutory holiday								
A9651	WB, Outer Heading From West, CH 4085-4092.5 = 7.5m @ 2d/m	7d/wk-1a 1	15d 13-Sep-14 08 A	A 30-Sep-14 18	163d WB	WB, Outer Heading From West, CH 4085- 4092.5 = 7.5m @ 2d/m	2d/m			
Outer Bench 6	Outer Bench Excavation (1.54-2d/m, 20m separation with heading)									
A9680	WB, Outer Bench From West, CH 4025- 4035 = 10m	7d/wk-1a 1	15d 12-0d-14 08	26-Oct-14 18	163d	WB, Outer Bench From West, CH 4025- 4035 = 10m				
A9665	WB, Outer Bench From West, CH 4035- 4045 = 10m	7d/wk-1a 1	15d 27-Oct-14 08	10-Nov-14 18	163d	WB, Outer Bench From West, CH 4035- 4045 = 10m				
A9670	WB, Outer Bench From West, CH 4045- 4055 = 10m	7d/wk-1a 1	15d 11-Nov-14 08	25-Nov-14 18	163d	WB, Outer Bench From West, CH 4045- 4055 = 10m	Ę			
A9675	WB, Outer Bench From West, CH 4055- 4065 = 10m	7d/wk-1a 1	15d 26-Nov-14 08	10-Dec-14 18	163d	WB, Outer Bench From West, CH 4055- 4065 = 10m	10m			
A9700	WB, Outer Bench From West, CH 4065- 4075 = 10m	7d/wk-1a 1	15d 11-Dec-14 08	26-Dec-14 18	163d	WB, Outer Bench From West, CH 4065- 4075 = 10m	5 = 10m	*****		
A9701	WB, Outer Bench From West, CH 4075- 4082.5 = 7.5m	7d/wk-1a 1	15d 27-Dec-14 08	11-Jan-15 18	163d	WB, Outer Bench From West, CH 4075-4082.5 = 7.5m	4082.5 = 7.5m	*****		
From East (TS4)	0									
Outer Heading	Outer Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)	in statutory holiday)								
A9730	WB, Outer Heading From East, CH 4105- 4092.5 = 12.5m	7d/wk-1a 2	25d 30-Aug-14 08 A	A 30-Sep-14 18	168d WB	WB, Outer Heading From East, CH 4105- 4092.5 = 12.5m @2d/m	u/u			
Onter Rench F	@zdm Outer Rench Exercation (1 5d.3d/m 30m consession with honding)		77							
The state of the s	Action (1,50-20/III, 20III Separation With reading)					*****	Y 4 = 2 =			
A9740	WB, Outer Bench From East, CH 4136- 4135 = 1m	7d/wk-1a 2	2d 12-Oct-14 08	13-Oct-14 18	168d	WB, Outer Bench From East, CH 4136- 4135 = 1m			11851	
A9770	WB, Outer Bench From East, CH 4135-4125 = 10m	7d/wk-1a 1	15d 14-Oct-14 08	28-Oct-14 18	168d	WB, Outer Bench From East, CH 4135- 4125 = 10m				
A9745	WB. Outer Bench From East, CH 4125- 4115 = 10m	7d/wk-1a 1	15d 28-Oct-14 08	11-Nov-14 18	168d	■ WB, Outer Bench From East, CH 4125-4115 = 10m				
A9750 \	WB, Outer Bench From East, CH 4115- 4105 = 10m	7d/wk-1a 1	15d 11-Nov-14 08	25-Nov-14 18	168d	■ WB, Outer Bench From East, CH 4115- 4105 = 10m				
A9755	WB, Outer Bench From East, CH 4105- 4095 = 10m	7d/wk-1a 1	15d 26-Nov-14 08	10-Dec-14 18	168d	■ WB, Outer Bench From East, CH 4105- 4095 = 10m	10m	******		
A9760	WB, Outer Bench From East, CH 4095- 4082.5 = 12.5m	7d/wk-1a 2	25d 11-Dec-14 08	06-Jan-15 18	168d	WB, Outer Bench From East, CH 4095- 4082.5 = 12.5m	82.5 = 12.5m			
WB (Inner Tunn	WB (Inner Tunnel Excavation + Lining)									
From West (TPCWAE)	CWAE)								*****	
Inner Heading	Inner Heading Excavation (2-3d/m, 24h/day work shift, 7d/week, no work on statutory holiday)	on statutory holiday	0						****	
A9130 V	WB,Inner Heading From West, CH 3993- 4005 = 12m @3d/m	7d/wk-1a 5/	50d 29-Sep-14 08	18-Nov-14 18	PO	■ WB.Inher Heading From West, CH 3993- 4005 = 12m @3d/m	n @3d/m			
A9135	WB,Inner Heading From West,CH 4005-4015 = 10m @2d/m	7d/wk-1a 2/	20d 19-Nov-14 08	08-Dec-14 18	PO	WB,Inner Heading From West,CH 4005-4015 = 10m @2d/m	10m @2d/m	44.4.4.4		
A9140 V	WB,Inner Heading From West, CH 4015-4025 = 10m @2d/m	7d/wk-1a 20	20d 09-Dec-14 08	29-Dec-14 18	PO	WB.Inner Heading From West, CH 4015- 4025 = 10m @2d/m	25 = 10m @2d/m		******	
Summary Bar	13 of 18					Prepared by William Caluza				
Actual Work		China State Construction Engineering (Hong Kong) Ltd	Engineering (Ho	ng Kong) Ltd		26-Sep 1st submission	nakouddy		图4/排册/图	
Remaining Work	Remaining Work Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	Wan Chai By Pa	ss - Tunnel (Cau	seway Bay Typho	on Shelter Sect	(noi		中国海米上3	中国课券上往(海米)年贸公司 CHINA STATE CONSTRUCTION ENCINERING CHONG KONG LTD.	SONC ID.
◆ ♦ Milestone	rating work	WORKS PRO	WORKS PROGRAMME REV. M	/. M						
	_									

A9100 WB,Inner F	WB,Inner Heading From West, CH 4025- 4035 = 10m @2d/m	7d/wk-1a	Duration 20d	30-Dec-14 08	19-Jan-15 18	Float Q4	Q1 Q2 Q3 Q4 Q1 Q2 Q3 ■ WB,Inner Heading From West, CH 4025- 4035 = 10m @2d/im Q4 Q1 Q2 Q3
WB,Inner	WB,Inner Heading From West, CH 4035- 4045 = 10m @2d/m	7d/wk-1a	20d	20-Jan-15 08	08-Feb-15 18	PO	WB.Inner Heading From West, CH 4035- 4045 = 10m @2d/m
WB,Inner	WB,Inner Heading From West, CH 4045- 4055 = 10m @2d/m	7d/wk-1a	20d	09-Feb-15 08	03-Mar-15 18	PO	WB,Inner Heading From West, CH 4045- 4055 = 10m @2d/m
WB,Inner	WB, Inner Heading From West, CH 4055- 4065 = 10m @ 2d/m	7d/wk-1a	20d	04-Mar-15 08	23-Mar-15 18	PO	WBJnner Heading From West, CH 4055- 4065 = 10m @ 2d/m
WB,Inner	WB,Inner Heading From West, CH 4065- 4075 = 10m, @ 2d/m	7d/wk-1a	20d	24-Mar-15 08	13-Apr-15 18	PO	WB.Inner Heading From West, CH 4085- 4075 = 10m, @ 2d/m
WB,Inner	WB.Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m	7d/wk-1a	20d	14-Apr-15 08	04-May-15 18	PO	WB,Inner Heading From West, CH 4075- 4085 = 10m @ 2d/m:
h Excavation	nner Bench Excavation (1.54-24/m, 20m separation with heading)						
WB,Inner	WB,Inner Bench From West, CH 3993- 4005 = 12m	7d/wk-1a	18d	30-Dec-14 08	17-Jan-15 18	27d	WB.Inner Bench From West, CH 3993- 4005 = 12m
WB,Inner	WB,Inner Bench From West, CH 4005-4015 = 10m	7d/wk-1a	15d	20-Jan-15 08	03-Feb-15 18	25d	■ WB,Inner Bench From West, CH 4005- 4015 = 10m
WB,Inner	WB,Inner Bench From West, CH 4015- 4025 = 10m	7d/wk-1a	15d	09-Feb-15 08	26-Feb-15 18	20d	WB, nner Bench From West, CH 4015- 4025 = 10m
WB,Inner	WB,Inner Bench From West, CH 4025- 4035 = 10m	7d/wk-1a	15d	04-Mar-15 08	18-Mar-15 18	15d	■ WB.Inner Bench From West, CH 4025-4035 = 10m
WB,Inner	WB,Inner Bench From West, CH 4035- 4045 = 10m	7d/wk-1a	15d	24-Mar-15 08	08-Apr-15 18	10d	WB.Inner Bench From West, CH 4035-4045 = 10th
WB,Inner	WB, Inner Bench From West, CH 4045- 4055 = 10m	7d/wk-1a	15d	14-Apr-15 08	28-Apr-15 18	5d	■ WB, Inner Bench From West, CH 4045- 4055 = 10m
WB,Inner	WB,Inner Bench From West, CH 4055- 4065 = 10m	7d/wk-1a	15d	05-May-15 08	19-May-15 18	PO	■ WB.Inner Bench From West, CH 4055- 4055 = 10m
WB,Inner	WB, Inner Bench From West, CH 4065- 4075 = 10m	7d/wk-1a	15d	20-May-15 08	03-Jun-15 18	Po	■ WB,Inner Bench From West, CH 4065- 4075 = 10m
WB,Inner	WB,Inner Bench From West, CH 4075- 4085 = 10m	7d/wk-1a	15d	04-Jun-15 08	18-Jun-15 18	PO	WB,Inner Bench From West, CH 4075-4085 = 10m
From East (TS4)							
ing Excavation	Inner Heading Excavation (2d/m, 24h/day work shift, 7d/week, no work on statutory holiday)	tatutory holida	ay)		THE STATE OF THE PARTY OF THE P		
WB,Inner	WB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m	7d/wk-1a	50d	14-Jan-15 08	02-Feb-15 18	P9	WB,Inner Heading From East, CH 4135- 4125 = 10m @2d/m
WB,Inner	WB,Inner Heading From East, CH 4125- 4115 = 10m @2d/m	7d/wk-1a	20d	03-Feb-15 08	25-Feb-15 18	pg	WB Inner Heading From East, CH 4125-4115 = 10m @2d/m
WB,Inner	WB,Inner Heading From East, CH 4115- 4105 = 10m @24/m	7d/wk-1a	20d	26-Feb-15 08	17-Mar-15 18	p9	WB.Inner Heading From East, CH 4115- 4105 = 10m @2d/m
WB,Inner	WB,Inner Heading From East, CH 4105- 4095 = 10m @2d/m	7d/wk-1a	20d	18-Mar-15 08	07-Apr-15 18	P9	WB.Inner Heading From East, CH 4105- 4095 = 10m @2d/m
WB,Inner I	WB,Inner Heading From East, CH 4095- 4085 = 10m @2d/m	7d/wk-1a	20d	08-Apr-15 08	27-Apr-15 18	P9	WB.Inner Heading From East, CH 4095- 4085 ≠ 10m @2d/m
h Excavation	Inner Bench Excavation (1.5d-2d/m, 20m separation with heading)	The second second second			Name of Street, or other Persons		
WB,Inner I	WB,Inner Bench From East, CH 4135- 4125 = 10m	7d/wk-1a	15d	18-Mar-15 08	01-Apr-15 18	16d	WB, Inner Bench From East, CH 4)35- 4125 = 10m
WB,Inner	WB, Inner Bench From East, CH 4125-4115 = 10m	7d/wk-1a	15d	08-Apr-15 08	22-Apr-15 18	11d	WB,Inner Bench From East, CH 4125- 4115 = 10m
WB,Inner	WB, Inner Bench From East, CH 4115- 4105 = 10m	7d/wk-1a	15d	28-Apr-15 08	13-May-15 18	PPG	WB,Inner Bench From East, CH 4115- 4105 = 10m
WB,Inner	WB,Inner Bench From East, CH 4105- 4095 = 10m	7d/wk-1a	15d	14-May-15 08	28-May-15 18	pg	■ WB, Inner Bench From East, CH 4105-4495 = 10m
WB,Inner	WB,Inner Bench From East, CH 4095- 4085 = 10m	7d/wk-1a	15d	29-May-15 08	12-Jun-15 18	p9	WB.Inner Bench From East, CH 4095; 4085 = 10m
Summary Bar Actual Level of Effort	14 of 18				View of the last o		Prepared by William Caluza Date Revision Checked Approved
Actual Work	China State	e Constructi	ion Engir	China State Construction Engineering (Hong Kong) Ltd	y Kong) Ltd		26-Sep 1st submission 1st submis
Remaining Work Critical Remaining Work	Contract No. HY/2009/15 - Central	/an Chai By	Wan Chai By Pass - Tunne	unnel (Causewa	way Bay Typh	oon Shelter Section)	

Marcia Base Stab CH (1976) Marcia Base Stab CH 4005 - 4005 = 10m bay 7dwk-1a 10d 18-Jan-15 08 10d 18	4 4 4	1													
Extractive with beaching services with services with beaching services with beaching services with beaching services with services with beaching services with services with beaching	Activity ID	Activity Name		Calendar O		tart	Finish	Float			2015			2016	
	Tunnel Lini	ning Works			En application				04	50		Q4	20	92	03
Towk-in 10d 19-Lin-15 08 12-Feb-15 18 377			97077					THE DESIGNATION OF THE PERSON							
Towk-1s 10d G-Le-R-15 0s G-Le-R-15 1s 30d Towk-1s 1s 30d	From Wes	st Base Slab (10m/bay, 10m	separation with benching excavati	(uo)			NA CONTRACTOR								
70444-11 104 27-Feb-15 09 13-Feb-15 19 304 70444-11 104 27-Feb-15 09 10-Abu-15 19 304 70444-11 104 27-Feb-15 09 13-Abu-15 19 304 70444-11 104 13-Abu-15 09 23-Abu-15 19 304 70444-11 104 23-Abu-15 09 23-Abu-15 19 304	A9295	WB From West, Base Sla	lab CH 3990 - 3995 = 5m bay			8-Jan-15 08	27-Jan-15 18	37d		■ WB From We	st, Base Slab CH 3990 - 39	95 = 5m bay			
Totale 1 1 1 1 1 1 1 1 1	A9320	WB From West, Base Sia	lab CH 3995 - 4005 = 10m/bay			4-Feb-15 08	13-Feb-15 18	30d		■ WB From	West, Base Slab CH 3995 -	4005 = 10m/bay			
Totale 18 10 19 Main 15 16 19 Main 15 16 19 Main 15 16 10 19 Main 15 18 19 19 Main 15 18 19 19 Main 15 18 19 Main 15 18 Main 15	A9255	WB From West, Base Sla	ab CH 4005 - 4015 = 10m/bay			7-Feb-15 08	08-Mar-15 18	50d		- WB F	rom West, Base Slab CH 40	105 - 4015 = 10m/b	ıay		
744wi-1a 10d 29-Aga-15 03 19-Aga-15 18 30d 744wi-1a 10d 29-Aga-15 03 29-Aga-15	A9260	WB From West, Base Sla	lab CH 4015 - 4025 = 10m/bay				28-Mar-15 18	40d		5	/B From West, Base Slab C	H 4015 - 4025 = 10)т/Бау		
704W-13 104 25-Apr-15 08 25-Abril-15 18 204	A9265	WB From West, Base Sla	ab CH 4025 - 4035 = 10m/bay			9-Apr-15 08	18-Apr-15 18	30d			WB From West, Base Siz	ıb CH 4025 - 4035	= 10m/bay		
7dWk-1s 10d 04-Jun-15 08 13-Jun-15 18 54 7dWk-1s 10d 13-Jun-15 08 13-Jun-15 18 18 54 7dWk-1s 10d 13-Jun-15 08 13-Jun-15 08 13-Jun-15 18 18 54 7dWk-1s 10d 13-Jun-15 08 13-Jun-15 18 18 18 18 18 18 18 18 18 18 18 18 18	A9300	WB From West, Base Sla	ab CH 4035 - 4045 = 10m/bay			9-Apr-15 08	09-May-15 18	20d			■ WB From West, Basi	s Slab CH 4035 - 4	045 = 10m/bay		
744W-1a 10d 14-Jun-15 08 12-Jun-15 08 12-	A9325	WB From West, Base Sla	lab CH 4045 - 4055 = 10m/bay			0-May-15 08	29-May-15 18	10d			■ WB From West,	Base Slab CH 404	5 - 4055 = 10m/bay		
7dvwk-1a 10d 19-Jun-15 08 29-Jun-15 18 0d 7dvwk-1a 10d 22-Apr.15 08 23-Apr.15 18 26d 24-Jun-15 08 23-Apr.15 18 26d 24-Jun-15 08 23-Apr.15 18 26d 24-Jun-15 08 24-Jun-	A9305	WB From West, Base Sla	lab CH 4055 - 4065 = 10m/bay			4-Jun-15 08	13-Jun-15 18	PS			■ WB From We	st, Base Slab CH 4	055 - 4065 = 10m/bay	>	
7dvw-1a 10d 22-Apr-15 08 10-Jul-15 18 0d 14-Alay-15 08 23-Apr-15 18 26d 14-25-41 10d 22-Apr-15 08 22-Alay-15 18 26d 14-Alay-15 18 26d 22-Apr-15 08 22-Alay-15 18 26d 22-Alay-15 18 2	A9310	WB From West, Base Sla	lab CH 4065 - 4075 = 10m/bay		T	9-Jun-15 08	29-Jun-15 18	В			WB From	West, Base Slab Cl	H 4065 - 4075 = 10m	/bay	
74/44-18 10d 23-4pr-15 08 03-4bay-15 18 26d 24/40-15 08 03-4bay-15 18 15d 24/4bay-15 08 23-4bay-15 08 23	A9315	WB From West, Base Sla	ab CH 4075 - 4080 = 5m			0-Jun-15 08	10-Jul-15 18	PO		*****	■ WB Fron	n West, Base Slab	CH 4075 - 4080 = 5rr		
-4125 = 10mbay 70wk-1a 10d 22-May-1518 28d	From East	st Base Slab (10m/bay, 10m s	separation with benching excavation	(no											
-4105 = 10m7bay 7 d/w/k-1a 10d 14-May-15 08 23-May-15 18 116d 14-May-15 08 23-May-15 18 116d 14-May-15 08 23-May-15 18 116d 14-May-15 08 23-May-15 18 6d 14-May-15 18	A9960	WB From East, Base Slai	tb CH 4135 - 4125 = 10m/bay			3-Apr-15 08	03-May-15 18	26d				Slab CH 4135 - 412	25 = 10m/bay		
-4105 = 10mbay 70wk-1a 10d 32-May-15 08 07-Jun-15 18 11d	A9955	WB From East, Base Slal	tb CH 4125 - 4115 = 10m/bay			4-May-15 08	23-May-15 18	16d		*****	■ WB From East, Bt	rse Slab CH 4125 -	. 4115 = 10m/bay		
-4086 = 10m/bay 7dwk-1a 10d 13-Jun-15 08 23-Jun-15 18 6d	A9950	WB From East, Base Slat	tb CH 4115 - 4105 = 10m/bay			9-May-15 08	07-Jun-15 18	110			■ WB From East,	Base Slab CH 411	5 - 4105 = 10m/bay		
-4080 = 5m	A9945	WB From East, Base Slat	tb CH 4105 - 4095 = 10m/bay			3-Jun-15 08	23-Jun-15 18	P9			■ WB From E	ast, Base Slab CH	4105 - 4095 = 10m/b	ay	
-4080 = 5m 704wk-1a 10d 05-Jul-15 08 14-Jul-15 18 64	A9940	WB From East, Base Slat	ib CH 4095 - 4085 = 10m/bay			4-Jun-15 08	04-Jul-15 18	P9		*****	■ WB From	East, Base Slab C	H 4095 - 4085 = 10m	Vbay	
965 = 1bay 7 d4wk-1a 7d 14-Feb-15 08 23-Feb-15 18 30d	A9941	WB From East, Base Slai	sb CH 4085 - 4080 = 5m			5-Jul-15 08	14-Jul-15 18	P9				m East, Base Slab	CH 4085 - 4080 = 5rr		
WB From West, Lining CH 3990 - 3995 = 1bay 7d/wk-1a 7d 14-Feb-15 08 23-Feb-15 18 30d ■ WB From West, Lining CH 3990 - 3995 = 1bay WB From West, Lining CH 4010 - 4005 = 1bay 7d/wk-1a 7d 24-Feb-15 08 02-Mar-15 18 30d ■ WB From West, Lining CH 4000 - 4005 = 1bay WB From West, Lining CH 4010 - 4015 = 1bay 7d/wk-1a 7d 17-Mar-15 08 15-Mar-15 18 30d ■ WB From West, Lining CH 4000 - 4005 = 1bay WB From West, Lining CH 4010 - 4015 = 1bay 7d/wk-1a 7d 17-Mar-15 08 30-Mar-15 18 30d ■ WB From West, Lining CH 4010 - 4015 = 1bay WB From West, Lining CH 4010 - 4015 = 1bay 7d/wk-1a 7d 17-Mar-15 08 30-Mar-15 18 30d ■ WB From West, Lining CH 4010 - 4015 = 1bay WB From West, Lining CH 4020 - 4020 = 1bay 7d/wk-1a 7d 17-Mar-15 08 30-Apr-15 18 30d ■ WB From West, Lining CH 4020 - 4020 = 1bay WB From West, Lining CH 4020 - 4020 = 1bay 7d/wk-1a 7d 11-Apr-15 08 11-Apr-15 18 30d ■ WB From West, Lining CH 4020 - 4020 = 1bay WB From West, Lining CH 402	Lining (Sn	m/bay, 10m separation with	base slab)												
WB From West, Lining CH 3995 - 4000 = 1bay 7d 24-Feb-15 08 22-Feb-15 08 90-Mar-15 18 30d ■ WB From West, Lining CH 3995 - 4000 = 1bay WB From West, Lining CH 4000 - 4005 = 1bay 7dwk-1a 7d 7d-Mar-15 08 15-Mar-15 18 30d ■ WB From West, Lining CH 4000 - 4005 = 1bay WB From West, Lining CH 4005 - 4006 = 1bay 7dwk-1a 7d 10-Mar-15 08 35-Mar-15 18 30d ■ WB From West, Lining CH 4010 - 4015 = 1bay WB From West, Lining CH 4015 - 4020 = 1bay 7dwk-1a 7d 24-Mar-15 08 35-Mar-15 18 30d ■ WB From West, Lining CH 4015 - 4020 = 1bay WB From West, Lining CH 4015 - 4020 = 1bay 7dwk-1a 7d 24-Mar-15 08 35-Mar-15 18 30d ■ WB From West, Lining CH 4015 - 4020 = 1bay WB From West, Lining CH 4025 - 4020 = 1bay 7dwk-1a 7d 24-Mar-15 08 14-Apr-15 18 30d ■ WB From West, Lining CH 4025 - 4020 = 1bay WB From West, Lining CH 4025 - 4020 = 1bay 7dwk-1a 7d 15-Mar-15 08 14-Apr-15 18 30d ■ WB From West, Lining CH 4025 - 4020 = 1bay WB From West, Lining CH 4025 - 4020 = 1bay 7dwk-1a 7d 15-Apr-15 18 30d ■ WB From	A9430	WB From West, Lining C	2H 3990 - 3995 = 1bay	7d/wk-1a		4-Feb-15 08	23-Feb-15 18	30d		■ WB Fro	m West, Lining CH 3990 - 3	995 = 1bay			
WB From West, Lining CH 4000 - 4005 = 1bay 7dvwk-1a 7d 03-Mar-15 08 03-Mar-15 18 30d B WB From West, Lining CH 4000 - 4010 = 1bay Promotest, Lining CH 4000 - 4010 = 1bay Promotest, Lining CH 4000 - 4010 = 1bay Promotest, Lining CH 4000 - 4015 = 1bay Promotest, Lining CH 4010 - 4010 = 1bay	A9470	WB From West, Lining C	2H 3995 - 4000 = 1bay	7d/wk-1a		4-Feb-15 08	02-Mar-15 18	30d		WB Fr	om West, Lining CH 3995 -	4000 = 1bay			
WB From West, Lining CH 4005 - 4010 = 1bay 7d wk-ta 7d low-ta 7d low-ta 7d low-ta 7d low-ta 17-Mar-15 08 15-Mar-15 18 30d 8 Prepared by William CH 4015 - 4010 - 4015 - 1bay WB From West, Lining CH 4015 - 4020 = 1bay 7d wk-ta 7d wk-ta 7d 24-Mar-15 08 32-Mar-15 18 30d 8 WB From West, Lining CH 4015 - 4020 - 4025 - 1bay WB From West, Lining CH 4020 - 4025 = 1bay 7d wk-ta 7d wk-ta<	A9435	WB From West, Lining C	2H 4000 - 4005 = 1bay	7d/wk-1a		3-Mar-15 08	09-Mar-15 18	30d		■ WBF	rom West, Lining CH 4000	- 4005 = 1bay			
WB From West, Lining CH 4010 - 4015 = 1bay 7d wk-1a 7d 17-Mar-15 08 23-Mar-15 18 30d WB From West, Lining CH 4010 - 4015 = 1bay WB From West, Lining CH 4020 - 4025 = 1bay 7dwk-1a 7d 24-Mar-15 08 30-Mar-15 18 30d WB From West, Lining CH 4020 - 4025 = 1bay WB From West, Lining CH 4020 - 4025 = 1bay 7dwk-1a 7d 31-Mar-15 08 07-Apr-15 18 30d WB From West, Lining CH 4020 - 4025 = 1bay WB From West, Lining CH 4020 - 4025 = 1bay 7dwk-1a 7d 15-Apr-15 08 14-Apr-15 18 30d WB From West, Lining CH 4020 - 4025 = 1bay WB From West, Lining CH 4020 - 4025 = 1bay 7dwk-1a 7d 15-Apr-15 08 14-Apr-15 18 30d WB From West, Lining CH 4020 - 4025 = 1bay WB From West, Lining CH 4020 - 4025 = 1bay 7dwk-1a 7d 15-Apr-15 08 21-Apr-15 18 30d WB From West, Lining CH 4020 - 4025 = 1bay WB From West, Lining CH 4020 - 4025 = 1bay 7dwk-1a 7d 15-Apr-15 08 21-Apr-15 18 30d Properted by William Caluza A 15 of 18 China State Construction Engineering (Hong Kong) Lid Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) <td>A9360</td> <td>WB From West, Lining C</td> <td>2H 4005 - 4010 = 1bay</td> <td>7d/wk-1a</td> <td>T</td> <td>0-Mar-15 08</td> <td>16-Mar-15 18</td> <td>30d</td> <td></td> <td></td> <td>From West, Lining CH 400:</td> <td>5 - 4010 = 1bay</td> <td></td> <td></td> <td></td>	A9360	WB From West, Lining C	2H 4005 - 4010 = 1bay	7d/wk-1a	T	0-Mar-15 08	16-Mar-15 18	30d			From West, Lining CH 400:	5 - 4010 = 1bay			
WB From West, Lining CH 4015 - 4020 = 1bay 7dvwk-1a 7d 24-Mar-15 08 30-Mar-15 18 30d Total From West, Lining CH 4025 - 4030 = 1bay WB From West, Lining CH 4020 - 4025 = 1bay WB From West, Lining CH 4025 - 4030 = 1bay 7dvwk-1a 7d 08-Apr-15 08 14-Apr-15 18 30d WB From West, Lining CH 4025 - 4030 = 1bay WB From West, Lining CH 4025 - 4030 = 1bay 7dvwk-1a 7d 08-Apr-15 08 14-Apr-15 18 30d WB From West, Lining CH 4025 - 4030 = 1bay WB From West, Lining CH 4025 - 4030 = 1bay 7dvwk-1a 7d 15-Apr-15 08 21-Apr-15 18 30d WB From West, Lining CH 4020 - 4025 = 1bay WB From West, Lining CH 4025 - 4030 = 1bay 7dvwk-1a 7d 15-Apr-15 08 21-Apr-15 18 30d WB From West, Lining CH 4020 - 4025 = 1bay WB From West, Lining CH 4030 - 4035 = 1bay 7dvwk-1a 7d 15-Apr-15 08 21-Apr-15 18 30d WB From West, Lining CH 4020 - 4025 = 1bay Annual Bay Common West, Lining CH 4030 - 4035 = 1bay 7dvwk-1a	A9365	WB From West, Lining C	2H 4010 - 4015 = 1bay	7d/wk-1a		7-Mar-15 08	23-Mar-15 18	30d		W.	3 From West, Lining CH 40	10 - 4015 = 1bay			
WB From West, Lining CH 4020 - 4025 = 1bay 7d/wk-1a 7d 31-Mar-15 08 17-Apr-15 18 30d Image: CH 4020 - 4025 = 1bay Image: CH 4020 - 4020 = 1bay Image: CH 4020 - 4025 = 1bay Image: CH 4020 - 4020 = 1bay	A9370	WB From West, Lining C	2H 4015 - 4020 = 1bay	7d/wk-1a	T	4-Mar-15 08	30-Mar-15 18	30d			VB From West, Lining CH 4	015 - 4020 = 1bay			
WB From West, Lining CH 4025 - 4030 = 1bay 7d/wk-1a 7d 08-Apr-15 08 14-Apr-15 18 30d Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Central Wan Chail By Pass - Tunnel (Causeway Bay Typhoon Shelfer Section) Image: Contract No. HY/2009/15 - Centract No. HY/2009/15 - Centract No. HY/2009/15 - C	A9375	WB From West, Lining C	2H 4020 - 4025 = 1bay	7d/wk-1a		1-Mar-15 08	07-Apr-15 18	30d			WB From West, Lining CH	4020 - 4025 = 1bay	>		*****
WB From West, Lining CH 4030 - 4035 = 1bay Td/wk-ta 7d 15-Apr-15 08 21-Apr-15 18 30d Taylor Naming Work China State Construction Engineering (Hong Kong) Ltd Contract No. HY/2009/18 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	A9380	WB From West, Lining C	2H 4025 - 4030 = 1bay	7d/wk-1a		8-Apr-15 08	14-Apr-15 18	30d			WB From West, Lining Ch	1 4025 - 4030 = 1b.	ay		
15 of 18 Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	A9385	WB From West, Lining C	2H 4030 - 4035 = 1bay	7d/wk-1a		5-Apr-15 08	21-Apr-15 18	30d		******	WB From West, Lining C	:H 4030 - 4035 = 1.	bay		
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	Summ		of 18								red by William Caluza				
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	Actual	al Level of Effort	China §	State Constructio	n Engin	eering (Hong	Kong) Ltd		Ical	1st submiss	Vision	Approved	- 2	1	
WORKS PROGRAMME REV M	Remai		intract No. HY/2009/15 - Centra	al Wan Chai By P	ass - Tu	nnel (Cause	way Bay Typh	loon She	ter Section)					イ 神 (地 水) KUCHON ENGINERING	CHONG KONG UTD.
	Critica	al Remaining Work		WORKS PR	JGRAI	WME REV.	Σ								

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10 10 10 10 10 10 10 10				-		-	04		03 04	10	
100 100	A9390	WB From West, Lining CH 4035 - 4040 = 1bay	7d/wk-1a			-		■ WB From	West, Lining CH 4035 - 4040 = 1bay	• • • • • • • • • • • • • • • • • • • •	
100	A9330	WB From West, Lining CH 4040 - 4045 = 1bay	7d/wk-1a	123		-		■ WBFro	m West, Lining CH 4040 - 4045 = 1bay		
005 = 1999	A9335	WB From West, Lining CH 4045 - 4050 = 1bay	7d/wk-1a	Ť		-		■ WBFr	om West, Lining CH 4045 - 4050 = 1bay		
100	A9340	WB From West, Lining CH 4050 - 4055 = 1bay	7d/wk-1a					■ WB	rom West, Lining CH 4050 - 4055 = 1ba	Хе	
008 = 1899	A9345	WB From West, Lining CH 4055 - 4060 = 1bay	7d/wk-1a	1		-		■ WB	From West, Lining:CH 4055 - 4060 = 1b	bay	
100	A9350	WB From West, Lining CH 4060 - 4065 = 1bay	7d/wk-1a					>	B From West, Lining CH 4060 - 4065 = 1	1bay	
100	A9355	WB From West, Lining CH 4065 - 4070 = 1bay	7d/wk-1a	T		-		•		· 1bay	
089 = 169y	A9415	WB From West, Lining CH 4070 - 4075 = 1bay	7d/wk-1a			t			■ WB From West, Lining CH 4070 -	4075 = 1bay	
100	A9475	WB From West, Lining CH 4075 - 4080 = 1bay	7d/wk-1a	Ť				*****	■ WB From West, Lining CH 4075	- 4080 = 1bay	
150	A9440	WB From West, Lining CH 4080 - 4085 = 1bay	7d/wk-1a						■ WB From West, Lining CH 4d80	0 - 4085 = 1bay	
1508 = 1589	A9445	WB From West, Lining CH 4085 - 4090 = 1bay	7d/wk-1a						■ WB From West, Lining CH 408	5 - 4090 = 1bay	
150 = 1189y	A9450	WB From West, Lining CH 4090 - 4095 = 1bay	7d/wk-1a		T				■ WB From West, Lining CH 408	90 - 4095 = 1bay	*****
150 = 1589	A9455	WB From West, Lining CH 4095 - 4100 = 1bay	7d/wk-1a	10000					■ WB From West, Lining CH 40	095 - 4100 = 1bay	
155 = 1589	A9420	WB From West, Lining CH 4100 - 4105 = 1bay	7d/wk-1a						WB From West, Lining CH 4	4100 - 4105 = 1bay	
125	A9425	WB From West, Lining CH 4105 - 4110 = 1bay	7d/wk-1a			-			■ WB From West, Lining CH	4105 - 4110 = 1bay	
125 = 1bay 7dvk-1a 5d 22-Aug-15 08 02-Sap-15 18 0d 125 = 1bay 7dvk-1a 5d 02-Sap-15 18 0d 125 = 1bay 7dvk-1a 5d 04-Sap-15 08 12-Sap-15 18 0d 125 = 1bay 7dvk-1a 5d 04-Sap-15 08 12-Sap-15 18 0d 125 = 1bay 7dvk-1a 5d 04-Sap-15 08 12-Sap-15 18 0d 0d 0d 0d 0d 0d 0d 0	A9460	WB From West, Lining CH 4110 - 4115 = 1bay	7d/wk-1a						WB From West, Lining CH	44110 - 4115 = 1bay	- X X -
130 = 1 bay 7 dwk-1a 5d 30-Aug-15 0B 09-Sep-15 1B 0d 130 = 1 bay 7 dwk-1a 5d 04-Sep-15 0B 09-Sep-15 1B 0d 130 = 1 bay 7 dwk-1a 5d 04-Sep-15 0B 19-Sep-15 1B 0d 130 = 1 bay 7 dwk-1a 5d 04-Sep-15 0B 19-Sep-15 1B 0d 130 = 1 bay 7 dwk-1a 5d 04-Sep-15 0B 18-Sep-15 1B 0d 130 = 1 bay 7 dwk-1a 115d 08-Jul-15 0B 18-Sep-15 1B 0d 130 = 1 bay 7 dwk-2 0d 30-Sep-14 1B -249d 4 Handover TZ5 to MTR 130 = 1 bay 7 dwk-2 0d 30-Sep-14 1B -249d 4 Handover TZ5 to MTR 14	A9465	WB From West, Lining CH 4115 - 4120 = 1bay	7d/wk-1a						■ WB From West, Lining C	:H 4115 - 4120 = 1bay	
135 = 1 bay	A9395	WB From West, Lining CH 4120 - 4125 = 1bay	7d/wk-1a						■ WB From West, Lining C	CH 4120 - 4125 = 1bay	>
135.5 = 1 bay	A9400	WB From West, Lining CH 4125 - 4130 = 1bay	7d/wk-1a					• • • • • • • • • • • • • • • • • • • •	■ WB From West, Lining	CH 4125 - 4130 = 1bs	Áe.
196.5 = 1bay	A9405	WB From West, Lining CH 4130 - 4135 = 1bay	7d/wk-1a						■ WB From West, Lining	g CH 4130 - 4135 = 1b	эах
ed Turnel Works (orig. 7d/wk-2 0d 02-Nov-15 18* 0d 7d/wk-2 0d 30-Sep-14 18* -249d 7d/wk-2 0d 10-Nov-14 18* -290d 4 Handover TZ6 to MTR 4 Handover TZ6 to MTR 7d/wk-2 0d 10-Nov-14 18* -290d 4 Handover TZ6 to CWB(T2) 4 Handover TZ7 to CWB(T2) 4 Handover	A9410	WB From West, Lining CH 4135 - 4136.5 = 1bay	7d/wk-1a			1000				ng CH 4135 - 4136,5 =	- 1bay
Provide access to CWB(CC) Contractor 1154 08-Jul-15 08 02-Nov-15 18 04	OHVD(10s	n/bay) / Utility Trough									4 4 X X X
red Tunnel Works (orig. 7dvwk-2 0d 02-Nov-15 18* 0d 30-Sep-14 18 -249d + Handover TZ6 to MTR 7dvwk-2 0d 10-Nov-14 18 -250d + Handover TZ6 to MTR 7dvwk-2 0d 10-Nov-14 18 -250d + Handover TZ6 to MTR 7dvwk-2 0d 21-Nov-14 18* -85d + Provide access to CWB (CC) Contractor- TS1 & TS2 China State Construction Engineering (Hong Kong) Ltd Provide access to CWB (CC) Contractor- TS1 & TS2 Revision Checked Approve China State Construction Engineering (Hong Kong) Ltd 26-Sep 1st submission 26-Sep 1st submission Approve WORKS PROGRAMME REV. M Approve Approve Approve Approve	A9480	WB From West OHVD and utility trough =, 153= 16 bays @ 10m/bay @ 7d/bay				-		*****	WB From M	Vest OHVD and utility t	rough =, 153= 16 bays @ 1
Td/wk-2	Completion	of KD10- Section 5									
7 d/wk-2 0d 30-Sep.14 18 -249d 7 d/wk-2 0d 10-Nov-14 18 -290d 7 d/wk-2 0d 10-Nov-14 18 -290d ↑ Handover TZ6 to CWB(T2) ↑ Han	A8445	KD10- Section 2: Completion of Mined Tunnel Works (orig. Target KD10- 2 Nov 2015)	7d/wk-2	PO	02-No	_			♦ KD10- Sedi	ion 2: Completion of Mi	ined Tunnel Works (orig. Ta
Handover TZ6 to MTR	Interface	works with other Contracts									0
Handover T24 to CWB(T2)	S5_60115	Handover TZ6 to MTR	7d/wk-2	PO	30-Se		♦ Handover TZ6 t	MTR	*****		
Provide access to CWB (CC) Contractor - TS1 & TS2 7d/wk-2 7d/wk-	S6_5283	Handover TZ4 to CWB(T2)	7d/wk-2	Po	10-No	-	◆ Handov	er TZ4 to CWB(T2)			on ene
16 of 18 China State Construction Engineering (Hong Kong) Ltd Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	S6_5275	Provide access to CWB (CC) Contractor- TSI & TS2	7d/wk-2	PO	21-No	-	◆ Provi	e access to CWB (CC) Contractor	TS1 & TS2		-94744
China State Construction Engineering (Hong Kong) Ltd 26-Sep 1st submission Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	Summ										
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) WORKS PROGRAMME REV. M	Actual		ate Constructio	n Engineerin	g (Hong Kong) Ltd	36-	1st submiss	nanoida.	1111年 111年 1111年 111年 1111年 111年 1111年 111年 1111年 111年 1111年	5000年代共出
WORKS PROGRAMME REV. M	Rema		Wan Chai By P	ass - Tunnel	(Causeway B	ay Typhoon S	helter Section)			NA STATE CONSTRUCTION I	(和本)を写るい ENCINERING (HONG KONG) LIE
	Critica	I Remaining Work	WORKS PR	GRAMME	BEV M						

1982 Protection and Control Contro	Activity ID	Activity Name	Calendar							2	
1,120-01-12-12-12-12-12-12-12-12-12-12-12-12-12			_			Float	10	03	04		03
1, 11, 1250, 11, 11, 11, 11, 11, 11, 11, 11, 11, 1	S6_5280	Provide access to CWB (CC) Contractor- TS4, TPCWA, Mined Tunnel		PO	31-Mar-16 18*	-124d				• Provide	access to CWB (CC)
1964-1964 1964	Stage and	Section Completion									
Property 19	KD_5735	KD8 - Completion of Section 3, (1326d)		po	30-Sep-14 18*		VD8 - Completion of Section 3, (1326d)				
17-040-14 19 -2072	KD_5720	KD5 - Achievement of Stage 5, (1152d)		PO	16-0ci-14 18*	-323d	 KD5 - Achievement of Stage 5, (1152d) 	20000			
17-10-10-10-10-10-10-10-10-10-10-10-10-10-	KD_5760	KD13 - Completion of Section 7B, (1152d)		PO	17-Nov-14 18*	-353d	 KD13 - Completion of Section 7B, (1152d) 				
19 19 19 19 19 19 19 19	KD_5730	KD7 - Completion of Section 2, (1152d)		PO	17-Nov-14 18*	-297d	♦ KD7 - Completion of Section 2, (1152d)				
1985 1985	KD_5740	KD9 - Completion of Section 4, (1739d)		РО	10-Nov-15 18*	-132d			◆ KD9 - Comp	etion of Section 4, (1739	g
Period Control (1, KDS +28)	KD_5745	KD10 - Completion of Section 5, (1863d)		B	25-Mar-16 18	-144d	*****			◆ KD10 - C	ompletion of Section
## Perten M(4), KD6 *28	KD_5750	KD11 - Completion of Section 6, (1949d)		PO	23-May-16 18*	-121d					► KD11 - Completion
Pertical Handbower - Pertical N(4), KDB +28 704wk-2 Od 22-Od-14 ttp - 4504 9-Pertical Handbower - Pertical N(4), KDB +28 704wk-2 Od 22-Od-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 22-Od-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 22-Od-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 22-Od-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 22-Od-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 15-De-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 15-De-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 15-De-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 15-De-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 15-De-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 15-De-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 15-De-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 15-De-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 15-De-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 15-De-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 15-De-14 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 22-Apr-16 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 22-Apr-16 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 22-Apr-16 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 704wk-2 Od 22-Apr-16 ttp - 4504 9-Pertical Handbower - Pertical N(16), KDB +28 9-Pertical Handbower - Pertical N(16), KDB	Portion H	andover Date		STATE OF THE PARTY							
Portion Handover - Portion V (b), ICID +28 704wk-2 04 22-O-61-14 IF -504 9-Pertion Handover - Portion V (b), ICID +28 704wk-2 04 22-O-61-14 IF -504 9-Pertion Handover - Portion V (b), ICID +28 9-Pertion Handover - Portion V (c), ICID +28 9-	CD_5685	Portion Handover - Portion IV(4), KD8 +28		PO	28-Oct-14 18*	-50d	◆ Portion Handover - Portion IV(4), KD8 +28				
Perticut Handbows - Particut M (8), KOB 428 704442 04 28-Oct-14 16" - 504 9 Perticut Handbows - Particut M (8), KOB 428 704442 04 28-Oct-14 16" - 504 9 Perticut Handbows - Particut M (8), KOB 428 704442 04 28-Oct-14 16" - 504 9 Perticut Handbows - Particut M (8), KOB 428 704442 04 15-Dec-14 16" - 7044 9 Perticut Handbows - Particut M (9), KOB 428 704442 04 15-Dec-14 16" - 7044 9 Perticut Handbows - Particut M (9), KOB 428 704442 04 15-Dec-14 16" - 7044 9 Perticut Handbows - Particut M (9), KOB 428 704442 04 15-Dec-14 16" - 7044 9 Perticut Handbows - Particut M (9), KOB 428 704442 04 15-Dec-14 16" - 7044 9 Perticut Handbows - Particut M (9), KOB 428 704442 04 15-Dec-14 16" - 7044 9 Perticut Handbows - Particut M (9), KOB 428 704442 04 15-Dec-14 16" - 7044 9 Perticut Handbows - Particut M (19), KOB 428 704442 04 15-Dec-14 16" - 7044 9 Perticut Handbows - Particut M (19), KOB 428 704442 04 15-Dec-14 16" - 7044 9 Perticut Handbows - Particut M (19), KOB 428 704442 04 15-Dec-14 16" - 7044 9 Perticut Handbows - Particut M (19), KOB 428 704442 04 15-Dec-14 16" - 7044 9 Perticut Handbows - Particut M (19), KOB 428 704442 04 15-Dec-14 16" - 7044 9 Perticut Handbows - Particut M (19), KOB 428 704442 04 15-Dec-15 16" - 504 15	CD_5680	Portion Handover - Portion V (5), KD8 +28		po	28-Oct-14 18*	-50d	♦ Portion Handover - Portion V (5), KD8 +28				
Portion Hundover - Portion XIIII (13b), KD8 +28 744wk-2	CD_5695	Portion Handover - Portion VI (6), KD8 +28		PO	28-Oct-14 18*	-50d	Portion Handover - Portion VI (6), KD8 +28				
Portion Handover - Portion XIII (13), KD3 +28 7444k-2	CD_5735	Portion Handover - Portion XIIIB (13B), KD8 +28		Po	28-0ct-14 18*	-50d	 Portion Handover - Portion XIIIB (13B), KD8 	53.			
Portion Handover - Portion III (3), KD3 e-28 Portion Handover - Portion Mandover - Portion Mando	CD_5790	Portion Handover - Portion XXII (22), KD8 +28		PO	28-Oct-14 18*	-50d	♦ Portion Handover - Portion XXII (22), KD8 +2				
Portion Handover - Portion XIII (13A), KD7 +28 754/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion VIII (8), KD7 +28 Portion Handover - Portion XIII (13A), KD7 +28 Portion Handover - Portion XIII (13), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (13), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (13), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (13), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14), KD1 +28 T44/kk2 Od 15-Dec)14 18° -7364 Portion Handover - Portion XIII (14) T4/kk2 T4/	CD_5670	Portion Handover - Portion III (3), KD8 +28		PO	28-Oct-14 18*	-50d	 Portion Handover - Portion III (3), KD8 +28 	*****			
Portion Handover - Portion VIII (8), KO7 +28 7dvik-2	CD_5720	Portion Handover - Portion XIIIA (13A), KD7 +28		po	15-Dec-14 18*	P62-	◆ Portion Handover - Portion XIIIA (13	A), KD7 +28			+4++4*
Portion Handover - Portion XIAA (14A), KD7 +28	CD_5705	Portion Handover - Portion VIII (8), KD7 +28	7d/wk-2	po	15-Dec-14 18*	p62-	◆ Portion Handover - Portion VIII (8),	Ø7 +28			
Portion Handover - Portion XVIII (23), KD7 +28 T-dvw-2	CD_5730	Portion Handover - Portion XIVA (14A), KD7 +28	7d/wk-2	po	15-Dec-14 18*	P62-		A), KD7 +28			
Portion Handover - Portion XXIII (19), KD10 +28 740kk-2	CD_5740	Portion Handover - Portion XV (15), KD7 +28	7d/wk-2	PO	15-Dec-14 18*	P62-	-	KD7 +28			
Pertion Handover - Pertion XVIII (19), KD10 +28 74wk-2 0d 22-Dec-15 18* 0d	CD_5805	Portion Handover - Portion XXIII (23), KD7 +28	7d/wk-2	PO	15-Dec-14 18*	P62-	◆ Portion Handover - Portion XXIII (2), KD7 +28			
Portion Handover - Portion XJ (11), KD8 +28 74wk-2	CD_5775	Portion Handover - Portion XVIII (18), KD10 +28	7d/wk-2	PO	30-Nov-15 18*	В			• Portion	Handover - Portion XVIII	(18), KD10 +28
Portion Handover - Portion IX (9), KD10 +28	CD_5710	Portion Handover - Portion XI (11), KD9 +28	7d/wk-2	PO	27-Dec-15 18*	В			•	rtion Handover - Portion	XI (11), KD9 +28
Portion Handover - Portion XVI (19), KD10 +28 7dwwk-2 0d 22-Apr-16 18" -52d	CD_5700	Portion Handover - Portion IX (9), KD10 +28	7d/wk-2	po	22-Apr-16 18*	-52d				◆ Por	tion Handover - Port
Portion Handover - Portion XVII (16), KD10 +28	CD_5745	Portion Handover - Portion XIVB (14B), KD10 +28	7d/wk-2	p ₀	22-Apr-16 18*	-52d				♦ Por	tion Handover - Port
Portion Handover - Portion XXI (17), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XXX (19), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XXX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XXX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XXX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XXX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XXX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XXX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XXX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XXX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XXX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XXX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XX (209), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Portion Handover - Portion XX (209), KD10 +28 7d/wk-2 7d	CD_5755	Portion Handover - Portion XVI (16), KD10 +28	7d/wk-2	po	22-Apr-16 18*	-52d				◆ Por	tion Handover - Port
Portion Handover - Portion XXR (19), KD10 +28 7dvwk-2 0d 22-Apr-16 18" -52d Prepared by William Caluza	CD_5750	Portion Handover - Portion XVII (17), KD10 +28	7d/wk-2	PO	22-Apr-16 18*	-52d				♦ Por	tion Handover - Port
Portion Handover - Portion XXB (20B), KD10 +28 7d/wk-2 0d 22-Apr-16 18" -52d Prepared by William Caluza China State Construction Engineering (Hong Kong) Ltd 26-Sep 1st submission China State Construction Engineering (Hong Kong) Ltd 26-Sep 1st submission Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section) Contract No. HY/2009/15 - Cent	CD_5760	Portion Handover - Portion XIX (19), KD10 +28	7d/wk-2	po	22-Apr-16 18*	-52d				♦ Por	tion Handover - Port
17 of 18 China State Construction Engineering (Hong Kong) Ltd Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	CD_5780	Portion Handover - Portion XXB (20B), KD10 +28	7d/wk-2	PO	22-Apr-16 18*	-52d				♦ Por	tion Handover - Por
China State Construction Engineering (Hong Kong) Ltd 28-Sep 1st submission Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	Sumr							Caluza	parad		5
Contract No. HY/2009/15 - Central Wan Chai By Pass - Tunnel (Causeway Bay Typhoon Shelter Section)	Actus		ate Constructic	on Engineering	(Hong Kong) Ltd		1st submiss	de	ŧ	11) 界十縣 數值	ショム(技)
	Remi		Wan Chai By F	ass - Tunnel (Causeway Bay Typ	hoon Shelte	r Section)			A STATE CONSTRUCTION ENG	NEERING CHONG KONG)
	Critic	A HOS	WODKS DE	OCPAMME	DEV M				П		