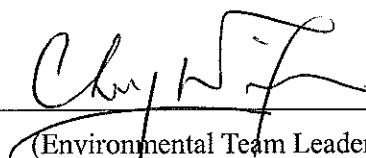


CWE-ZHEC Joint Venture

**Contract No. CV/2004/03 – Maintenance
and Repairs to Franchised and Licensed
Ferry Pier (2005-2008)
Construction of Yung Shue Wan Helipad –
Works Order No. YSW/01/03**

**Environmental Monitoring and Audit
Monthly Report (Version 1)**

September 2008

Certified By 
(Environmental Team Leader)

REMARKS:

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

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

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ABBREVIATION AND ACRONYM

| | |
|-----------|--|
| AL Levels | Action and Limit Levels |
| CEDD | Civil Engineering & Development Department |
| E / ER | Engineer/Engineer's Representative |
| EIA | Environmental Impact Assessment |
| EM&A | Environmental Monitoring and Audit |
| EMIS | Environmental Mitigation Implementation Schedule |
| EP | Environmental Permit |
| EPD | Environmental Protection Department |
| ET | Environmental Team |
| HVS | High Volume Sampler |
| IEC | Independent Environmental Checker |
| RE | Resident Engineer |
| RH | Relative Humidity |
| TSP | Total Suspended Particulates |
| QA/QC | Quality Assurance / Quality Control |
| SLM | Sound Level Meter |
| WMP | Waste Management Plan |

EXECUTIVE SUMMARY

Introduction

1. This is the 13th Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for the “Construction of Yung Shue Wan Helipad – Works order No. YSW/01/03 under Contract No. CV/2004/03” (the Project). This report documents the findings of EM&A Works conducted in September 2008.
2. The site activities undertaken in the reporting month included:
 - Demobilization works.

Environmental Monitoring Works

3. Environmental monitoring for the Project was performed in accordance with the updated EM&A Manual and the monitoring results were checked and reviewed. Site audits were conducted once per week. The implementation of the environmental mitigation measures, Event Action Plans and environmental complaint handling procedures were also checked.

4. Summary of the non-compliance of the reporting month is tabulated in Table I.

Table I Summary Table for Non-compliance Recorded in the Reporting Month

| Parameter | No. of Exceedance | | No. of Exceedance Due to the Project | | Action Taken |
|-----------|-------------------|-------------|--------------------------------------|-------------|--------------|
| | Action Level | Limit Level | Action Level | Limit Level | |
| Noise | 0 | 0 | 0 | 0 | N/A |
| Water | 0 | 0 | 0 | 0 | N/A |

Construction Noise

5. All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Water Quality

6. Since all piling works and related marine works were completed on 31 May 2008, the impact water monitoring was conducted in June and post-project water monitoring at the designated monitoring/ control stations were conducted in July and early August.

7. Water quality impact monitoring was completed as scheduled in June 2008 and post-project water quality monitoring was completed as scheduled in July 2008 and early August 2008. No Action / Limit Level exceedance was recorded.

Environmental Licenses and Permits

8. Licenses/Permits granted to the Project include the Environmental Permit (EP) for the Project, An Environmental Permit No. EP-242/2006 was issued on 13 March 2006 for this Project (EP) to the CEDD as Permit Holder.

Key Information in the Reporting Month

9. Summary of key information in the reporting month is tabulated in Table II.

Table II Summary Table for Key Information in the Reporting Month

| Event | Event Details | | Action Taken | Status | Remark |
|---|---------------|---------------------------------|--|--------|--------|
| | Number | Nature | | | |
| Complaint received | 0 | --- | N/A | N/A | --- |
| Changes to the assumptions and key construction / operation activities recorded | 0 | --- | N/A | N/A | --- |
| Status of submissions under EP | 1 | Monthly EM&A Report (August 08) | Submitted to EPD on 4th September 2008 (EP condition 4.4). | N/A | --- |
| Notifications of any summons & prosecutions received | 0 | --- | N/A | N/A | --- |
| <u>Future Key Issues:</u> | | | | | |
| Major site activities for the coming month include: | | | | | |
| <ul style="list-style-type: none"> • Nil | | | | | |

1. INTRODUCTION

Background

- 1.1 The Project “Construction of Yung Shue Wan Helipad” (Works order No. YSWH/01/03) under Contract No. CV/2004/03 was awarded to CWE-ZHEC Joint Venture (hereinafter called the “Contractor”) by the Civil Engineering and Development Department (CEDD) of the Hong Kong Special Administrative Region (HKSAR).
- 1.2 The Project has been planned and managed in-house by the Land Works Division of CEDD on behalf of the Home Affairs Department (HAD). The Project mainly comprises the construction works of a helipad used solely for emergency purpose with diameter of 25 metres and an Emergency Vehicular Access of about 25 metres long and 3.5 metres wide connecting the helipad with existing road. The general layout of the Project is shown in Figure 1.1.
- 1.3 The Project is a ‘designated project’ under Item B.2, Schedule 2 of the Environmental Impact Assessment Ordinance (EIAO) by virtue of being: “*A helipad within 300m of existing or planned residential development*”. An environmental impact assessment (EIA) report has been prepared in 2005 for the Project to consider the key issues of noise, air quality, water quality, construction waste, ecological and cultural impacts, and identify possible mitigation measures.
- 1.4 An Environmental Permit No. EP-242/2006 was issued on 13 March 2006 for this Project (EP) to the CEDD as the Permit Holder. An updated Environmental Monitoring and Audit Manual (the EM&A Manual) was prepared to fulfill requirements stipulated in Condition 2.4 of the EP.
- 1.5 Cinotech Consultants Limited was commissioned by the CWE-ZHEC Joint Venture (the Contractor) to undertake the Environmental Monitoring and Audit (EM&A) works for the Project. The Updated EM&A Manual was prepared by Cinotech to fulfill the requirements of the EP. This is the 13th monthly EM&A report summarizing the EM&A works for the Project in September 2008.

Project Organizations

- 1.6 Different parties with different levels of involvement in the project organization include:
- Project Proponent – Civil Engineering and Development Department (CEDD)
 - The Engineer of the Engineer’s Representative (ER) – Civil Engineering and Development Department (CEDD)
 - Environmental Team (ET) – Cinotech Consultants Limited.
 - Independent Environmental Checker (IEC) – Mannings (Asia) Company Limited
 - Environmental Protection Department (EPD) – Environmental Regulations Enforcer
 - Contractor - CWE-ZHEC Joint Venture

1.7 The responsibilities of respective parties are detailed in Sections 1.21 to 1.38 of the Updated EM&A Manual of the Project.

1.8 The key contacts of the Project are shown in Table 1.1 and the organization chart of ET is shown in Figure 2.1.

Table 1.1 Key Project Contacts

| Party | Role | Name | Position | Phone No. | Fax No. |
|------------------------|-----------------------------------|--------------------|---|-----------|-----------|
| CEDD | Permit Holder | Mr. K.S Cheng | Engineer | 2762 5455 | 2714 2054 |
| | | Mr. M.O Chiu | Senior Inspector of Works | 2762 5552 | |
| CEDD | Engineer | Mr. Fung Ping Lun | Engineer | 2762 5068 | 27142054 |
| | | Mr. K.S Cheng | Engineer | 2762 5455 | |
| Cinotech | Environmental Team | Dr. Priscilla Choy | ET Leader | 2151 2089 | 3107 1388 |
| | | Ms. Tammy Lin | Project Coordinator & Audit Team Leader | 2151 2095 | |
| | | Mr. Henry Leung | Monitoring Team Leader | 2151 2087 | |
| Mannings (Asia) | Independent Environmental Checker | Mr. Mark Cheung | Independent Environmental Checker | 31682028 | 31682022 |
| | | Mr. Simon Ng | Assistant Independent Environmental Checker | | |
| CWE-ZHEC Joint Venture | Contractor | Mr. Alan Mong | Site Agent | 2727 0128 | 2379 5931 |
| | | Mr. Y.F. Chao | Project Manager | 2727 0128 | 2379 5931 |

Construction Programme

1.9 The site activities undertaken in the reporting month included:

- Demobilization works.

Summary of EM&A Requirements

- 1.10 The EM&A programme requires construction phase monitoring construction noise and water quality and environmental site audit. The EM&A requirements for each parameter are described in the following sections, including:
- All monitoring parameters;
 - Action and Limit levels for all environmental parameters;
 - Event Action Plans;
 - Environmental mitigation measures, as recommended in the project EIA study final report; and
 - Environmental requirements in contract documents.
- 1.11 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 4 of this report.
- 1.12 This report presents the monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the required monitoring parameters, namely water and noise levels and audit works for the Project in September 2008.

2. NOISE

Monitoring Requirements

- 2.1 Two noise monitoring stations, namely N3 and N5 were designated in the Updated EM&A Manual for impact monitoring. **Appendix A** shows the established Action and Limit Levels for the environmental monitoring works.

Monitoring Locations

- 2.2 Noise monitoring was conducted at two designated monitoring stations as listed in Table 2.1. Figure 3.1 shows the locations of these stations.

Table 2.1 Noise Monitoring Stations

| Monitoring Stations | Locations |
|---------------------|--------------------------------------|
| N3 | North Lamma Clinic |
| N5 | No. 105 Yung Shue Wan Main Street |

Monitoring Equipment

- 2.3 Table 2.2 summarizes the noise monitoring equipment. Copies of calibration certificates are provided in Appendix B.

Table 2.2 Noise Monitoring Equipment

| Equipment | Model and Make | Qty. |
|-------------------------------|----------------|------|
| Integrating Sound Level Meter | B&K Model 2238 | 3 |
| Calibrator | B&K 4231 | 2 |

Monitoring Parameters, Frequency and Duration

- 2.4 Table 2.3 summarizes the monitoring parameters, frequency and total duration of monitoring. The noise monitoring schedule is shown in Appendix D.

Table 2.3 Noise Monitoring Parameters, Frequency and Duration

| Monitoring Stations | Parameter | Period | Frequency | Measurement |
|---------------------|--|-------------------------------------|------------------|-------------|
| N3 N5 | L ₁₀ (30 min.) dB(A) L ₉₀ (30 min.) dB(A) L _{eq} (30 min.) dB(A) | 0700-1900 hrs on normal weekdays | Once per week | Façade |

Monitoring Methodology and QA/QC Procedures

- The Sound Level Meter was set on a tripod at a height of 1.2 m above the ground.
- For free field measurement, the meter was positioned away from any nearby reflective surfaces. All records for free field noise levels were adjusted with a correction of +3 dB(A).
- The battery condition was checked to ensure the correct functioning of the meter.
- Parameters such as frequency weighting, the time weighting and the measurement time were set as follows:
 - frequency weighting : A
 - time weighting : Fast
 - time measurement : 30 minutes / 5 minutes
- Prior to and after each noise measurement, the meter was calibrated using a Calibrator for 94.0 dB at 1000 Hz. If the difference in the calibration level before and after measurement was more than 1.0 dB, the measurement would be considered invalid and repeat of noise measurement would be required after re-calibration or repair of the equipment.
- The wind speed was frequently checked with the portable wind meter.
- At the end of the monitoring period, the L_{eq}, L₉₀ and L₁₀ were recorded. In addition, site conditions and noise sources were recorded on a standard record sheet.
- Noise measurement was paused temporarily during periods of high intrusive noise if possible and observation was recorded when intrusive noise was not avoided.
- Noise monitoring was cancelled in the presence of fog, rain, and wind with a steady speed exceeding 5 m/s, or wind with gusts exceeding 10 m/s.

Maintenance and Calibration

- 2.5 The microphone head of the sound level meter and calibrator was cleaned with soft cloth regularly.
- 2.6 The meters were sent to the supplier to check and calibrate on a yearly interval.

Results and Observations

- 2.7 Noise monitoring at the two designated locations was conducted as scheduled in the reporting month.
- 2.8 All the Construction Noise Levels (CNLs) reported in this report were adjusted with the corresponding baseline level (i.e. Measured Leq – Baseline Leq = Measured CNL), in order to facilitate the interpretation of the noise exceedance. The baseline noise level and the allowed CNL at each designated noise monitoring station are presented at Table 3.4.
- 2.9 No Action/Limit Level exceedance was recorded. Details of Exceedance Report are shown in Appendix F.
- 2.10 Noise monitoring results and graphical presentations are shown in **Appendix D**. In accordance with Condition 5.2 of the EP, all environmental monitoring data was made available to the public via internet access at the website <http://nteema.cedd.gov.hk/YSWHelipad/>.
- 2.11 The major noise source identified at the designated noise monitoring stations was the activities around Yung Shue Wan Playground.

Table 2.4 Baseline Noise Level and Allowed Construction Noise Level for Monitoring Stations

| Station | Baseline Noise Level, dB (A) | Allowed CNL, dB (A) |
|-------------------------------|---|--|
| N3 – North Lamma Clinic | 60.8 (at 0700 – 1900 hrs on normal weekdays) | 75 (at 0700 – 1900 hrs on normal weekdays) |
| | 59.7 (at 1900 – 2300 hrs on all days & 0700 – 1900 hrs on holidays) | |
| | 59.4 (at 2300 – 0700 hrs of the next day) | |
| N4 – Yung Shue Wan Playground | 63.8 (at 0700 – 1900 hrs on normal weekdays) | 75 (at 0700 – 1900 hrs on normal weekdays) |
| | 61.4 (at 1900 – 2300 hrs on all days & 0700 – 1900 hrs on holidays) | |
| | 63.6 (at 2300 – 0700 hrs of the next day) | |

3. WATER QUALITY

Monitoring Requirements

- 3.1 Dissolved oxygen (DO concentration in mg/L and DO saturation in percentage), Turbidity (Tby in NTU), Suspended Solid (SS in mg/L), pH, salinity and both water and ambient temperature monitoring were conducted to monitor the water quality. Appendix A shows the established Action/Limit Levels for the environmental monitoring works.

Monitoring Locations

- 3.2 Locations of designated Water Quality Monitoring Stations are shown in **Figure 3.1** and described in Table 3.1. Samples shall be taken at all designated Monitoring and Control Stations.

Table 3.1 Locations for Water Quality Monitoring

| Monitoring Stations | Coordinates | |
|------------------------|--------------|-------------|
| | Northing (m) | Easting (m) |
| <i>Control Station</i> | | |
| C1 | 809 608.0 | 829 207.7 |
| <i>Impact Stations</i> | | |
| M1 | 809 544.0 | 829 213.0 |
| M2 | 809 559.2 | 829 243.0 |

Monitoring Equipment

- 3.3 Table 3.2 summarizes the equipment used in the water quality monitoring program. All the monitoring equipment complied with the specifications is stipulated in the Updated EM&A Manual. Copies of the calibration certificates of the equipment are shown in **Appendix B**.

Table 3.2 Water Quality Monitoring Equipment

| Equipment | Model and Make | Qty. |
|--------------------------------------|--|------|
| Multi-parameter Water Quality System | YSI 6820-C-M | 2 |
| Monitoring Position Equipment | “Magellan” Handheld GPS Model GPS-320 | 1 |

Monitoring Parameters, Frequency and Duration

- 3.4 Table 3.3 summarizes the monitoring parameters, monitoring period and frequencies of water quality monitoring.

Table 3.3 Frequency and Parameters of Water Quality Monitoring

| Station | Parameters | Frequency |
|---------|---|---|
| C1 | DO, SS, turbidity, salinity, pH & temperature | 1 day per week during the marine work and 3 days per week during the piling work, at mid- flood and mid-ebb |
| M1 | | |
| M2 | | |

Monitoring Methodology, Calibration Details and QA/QC Procedures

Instrumentation

- 3.5 A multi-parameter meter (Model YSI 6820 C-M) was used to measure DO, DO saturation, turbidity, salinity and temperature.

Operating/Analytical Procedures

- 3.6 At each measurement, two consecutive measurements of DO concentration, DO saturation, salinity, turbidity and temperature were taken. Where the difference in the value between the first and second readings of each set was more than 25% of the value of the first reading, the reading was discarded and further readings were taken.
- 3.7 For SS measurement, duplicate water samples for SS were taken and analysed at each monitoring station at each sample depth. The sample bottles were then packed in cool-boxes (without being frozen), and delivered to a HOKLAS accredited laboratory for analysis of suspended solids concentrations within 24 hours.

Maintenance and Calibration

- 3.8 Before each round of monitoring, a zero check in distilled water was performed with the turbidity probe of YSI 6820-C-M. The probe was then calibrated with a solution of known NTU.
- 3.9 QA/QC procedures as attached in Appendix C are available for the SS analyzed in the HOKLAS-accredited laboratory, WELLAB Ltd.

Results and Observations

- 3.10 Since all piling works and related marine works were completed on 31 May 2008, the impact water monitoring was conducted in June and post-project water monitoring at the designated monitoring/ control stations were conducted in July and early August.
- 3.11 Water quality impact monitoring was completed as scheduled in June 2008 and post-project water quality monitoring was completed as scheduled in July 2008 and early August 2008. No Action/Limit Level exceedance was recorded.

- 3.12 In accordance with Condition 5.2 of the EP, all environmental monitoring data was made available to the public via internet access at the website <http://nteema.cedd.gov.hk/YSWHelipad/>.

4. ENVIRONMENTAL AUDIT

Site Audits

- 4.1 Site audits were carried out on a weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in **Appendix F**.
- 4.2 Site audits were conducted on 4th September 2008. No non-compliance was observed during the site audits.

Review of Environmental Monitoring Procedures

- 4.3 The monitoring works conducted by the monitoring team were inspected regularly. The following observations have been recorded for the monitoring works:

Noise Monitoring

- The monitoring team recorded all observations around the monitoring stations, which might affect the monitoring result.
- Major noise sources were identified and recorded. Other intrusive noise attributing to the result was trimmed off by pausing the monitoring temporarily.

Water Quality Monitoring

- The monitoring team recorded all observations around the monitoring stations, which might affect the monitoring result.
- The monitoring team recorded the weather condition on the monitoring day.

Status of Environmental Licensing and Permitting

- 4.4 All permits/licenses obtained for the Project are summarized in Table 4.1.

Status of Waste Management

- 4.5 The amount of wastes generated by the activities of the Project in September 2008 is shown in **Appendix G**.

Table 4.1 Summary of Environmental Licensing and Permit Status

| Permit No. | Valid Period | | Section | Status |
|----------------------------------|--------------|-----|---|--------|
| | From | To | | |
| <i>Environmental Permit (EP)</i> | | | | |
| EP-242/2006 | 13/3/2006 | N/A | A helipad used solely for emergency purpose with diameter of 25 metres and an Emergency Vehicular Access of about 25 metres long and 3.5 metres wide connecting the helipad with existing road. | Valid |

Implementation Status of Environmental Mitigation Measures

- 4.6 According to the *EIAO Guidance Note No. 14/2003*, the key information in the EIA Report is summarized in Table 4.2. According to the EIA Report, air quality, noise and water quality would be the key issues during the construction and operation of the Yung Shue Wan Helipad. Details of the implementation of mitigation measures are provided in the **Appendix I**.

Table 4.2 Key Information in the EIA Report and the Status of EMIS

| | Issues | Assumptions and Assessment | Recommended Mitigation Measures |
|--------------|--------|---|---|
| Construction | Air | With the implementation of dust suppression mitigation measures, the level of construction dust would comply with the relevant AQO. | <ul style="list-style-type: none"> • Restricting heights from which material are dropped • Covering the materials on truck with tarpaulin sheet • Watering of the dusty areas, at least twice a day • Provide wheel-washing facilities at site exit(s) • Traveling speeds should be controlled |
| | Noise | Noise level at most of NSRs would exceed the noise criteria without mitigation measures. | Good site practice, adoption of quiet construction plant, reduction of on-time operation of plant, movable noise barrier and avoid simultaneous noisy activities. |
| | Water | Adverse impacts on the water quality | Good site practice, adoption of use holding tank that should be fitted with a tight fitting seal, excavator grab seal is tightly closed and the hoist speed is suitably low, large objects should be removed from the excavator grab and use small diameter pre-bored piling instead of dredging and reclamation for construction of helipad |

| | Issues | Assumptions and Assessment | Recommended Mitigation Measures |
|-----------|---------|---|---|
| | Ecology | Ecology concentration, if unmitigated, it would not comply with the Protection of Endangered Species of Animals and Plants Ordinance (Cap. 586). [Replaced the animals & Plants Ordinance (Protection of Endangered Species) (Cap. 187) in December 2006] | Silt curtain should be installed Good site practice measures: <ul style="list-style-type: none"> • Particular care should be taken when demolishing the existing concrete planter and decommissioning the silt curtain • Materials storage areas should be located well away from the seawall and covered during the works. • Holding tank that should be fitted with a tight fitting seal • Excavator seal is tightly closed and the hoist speed is suitably low • Large objects should be removed from the excavator grab and use small diameter pre-bored piling instead of dredging and reclamation for construction of helipad |
| | Waste | Potential for environmental impacts (Visual impacts and nuisance) | Good site practice, adoption of proper on-site handling and storage (covered containers), reuse (of inert C&D materials) and off-site disposal (via approved waste collectors to approved waste facilities and/or disposal grounds) the generation. |
| Operation | Noise | NSRs along the alignment would be exposed to noise level exceeding the noise limit without mitigation measures. | <ul style="list-style-type: none"> • Use of quieter helicopter type EC155B1 in priority • Reduce the angle of the helicopter flights path • The helipad will be solely for emergency use |
| | Waste | Potential for environmental impacts without mitigation measures. | <ul style="list-style-type: none"> • The helipad will only be used for emergency purposes. • No equipment will be placed on the landing pad or along the EVA |

4.7 During the weekly environmental site inspections in the reporting period, no non-conformance was identified. There are no observations and recommendations.

Implementation Status of Event Action Plans

- 4.8 The Event Action Plans for noise and water quality are presented in **Appendix H**.

Construction Noise

- 4.9 No Action/Limit Level exceedance was recorded for construction noise.

Water Quality

- 4.10 All water quality impact monitoring was completed in June 2008 and post-project water quality monitoring were completed in July 2008 and early August 2008. No Action/Limit Level exceedance was recorded.

Summary of Complaints and Prosecutions

- 4.11 No environmental prosecution and complaint was received in the reporting month.
- 4.12 No environmental prosecution was received in the reporting month.
- 4.13 There were no environmental complaint and no prosecution received since the commencement of the Project. The Complaint Log is attached in **Appendix K**.

5. FUTURE KEY ISSUES

Key Issues for the Coming Month

5.1 Key environmental issues in the coming month include:

- Nil

Monitoring Schedule for the Next Month

5.2 The tentative environmental monitoring schedules for the next month are shown in **Appendix C**.

Construction Program for the Next Month

5.3 The tentative construction program for the Project is provided in **Appendix J**.

6. CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 6.1 Environmental monitoring works were performed in the reporting month and all monitoring results were checked and reviewed.

Construction Noise Monitoring

- 6.2 All construction noise monitoring was conducted as scheduled in the reporting month. No Action/Limit Level exceedance was recorded.

Water Quality Monitoring

- 6.3 All water quality impact monitoring was completed in June 2008 and post-project water quality monitoring were completed in July 2008 and early August 2008. No Action/Limit Level exceedance was recorded.

Complaint and Prosecution

- 6.4 No environmental prosecution and complaint was received in the reporting month.

Recommendations

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

Dust Impact

- To prohibit any open burning on site.
- To regularly maintain the machinery and vehicles on site.
- To follow up any exceedance caused by the construction works.
- To implement dust suppression measures on all haul roads, stockpiles, dry surfaces and excavation works.
- To provide hoarding

Noise Impact

- To inspect the noise sources inside the site.
- To follow up any exceedance caused by the construction works.
- To space out noisy equipment and position the equipment as far away as possible from sensitive receivers.
- To provide temporary noise barriers for operations of noisy equipment near the noise sensitive receivers in an appropriate location.

Water Impact

- To identify any wastewater discharges from site.
- To provide silt curtain surrounding the whole of the piling site.
- To check the holding tank should be fitted with a tight fitting seal.
- To ensure the excavator grab seal is tightly closed.

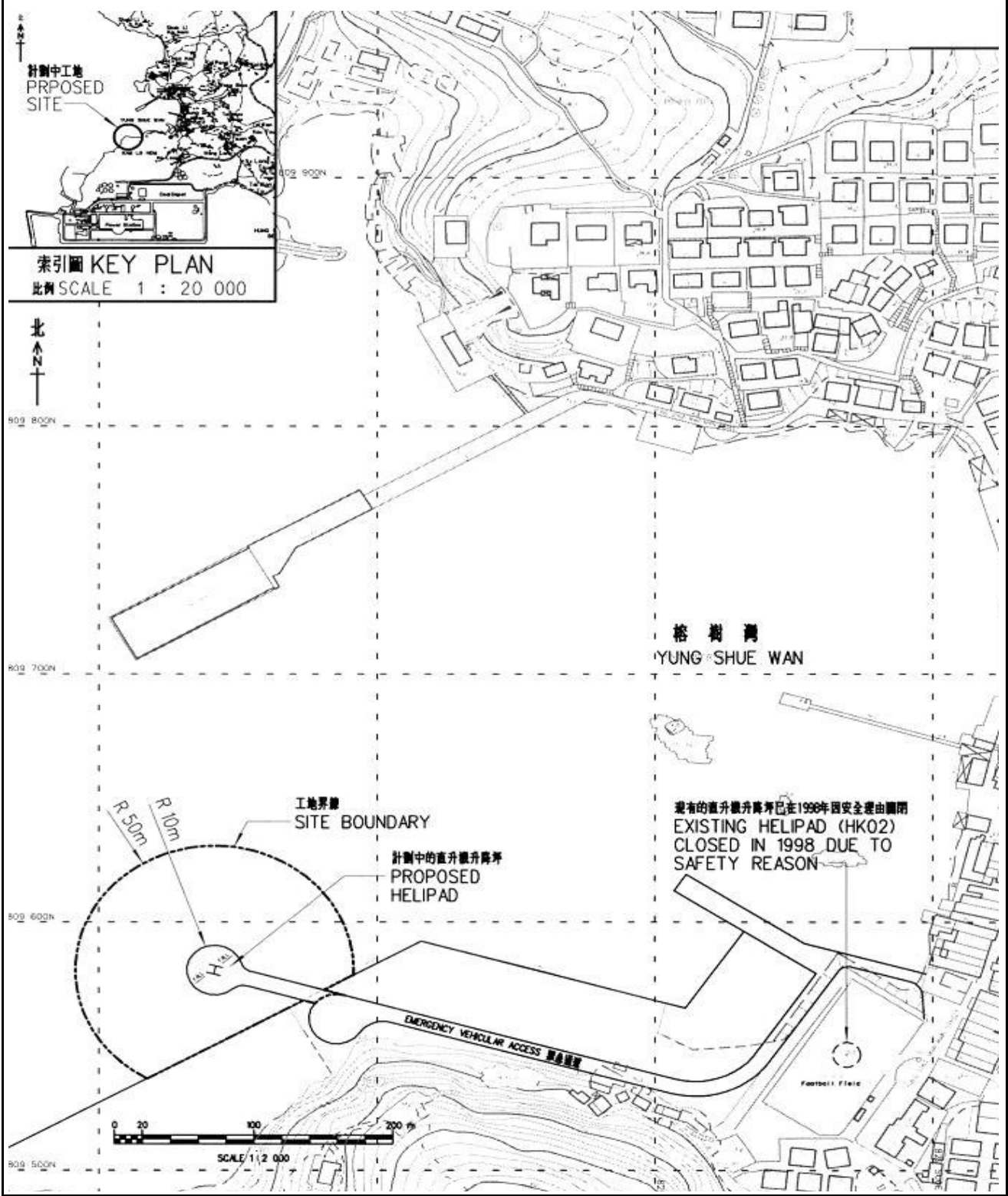
Waste/Chemical Management

- To check for any accumulation of waste materials or rubbish on site.
- To avoid any discharge or accidental spillage of chemical waste or oil directly from the site.
- To avoid improper handling or storage of oil drum on site.

Ecology

- To provide silt curtain, checked and maintenance throughout the construction period

FIGURES



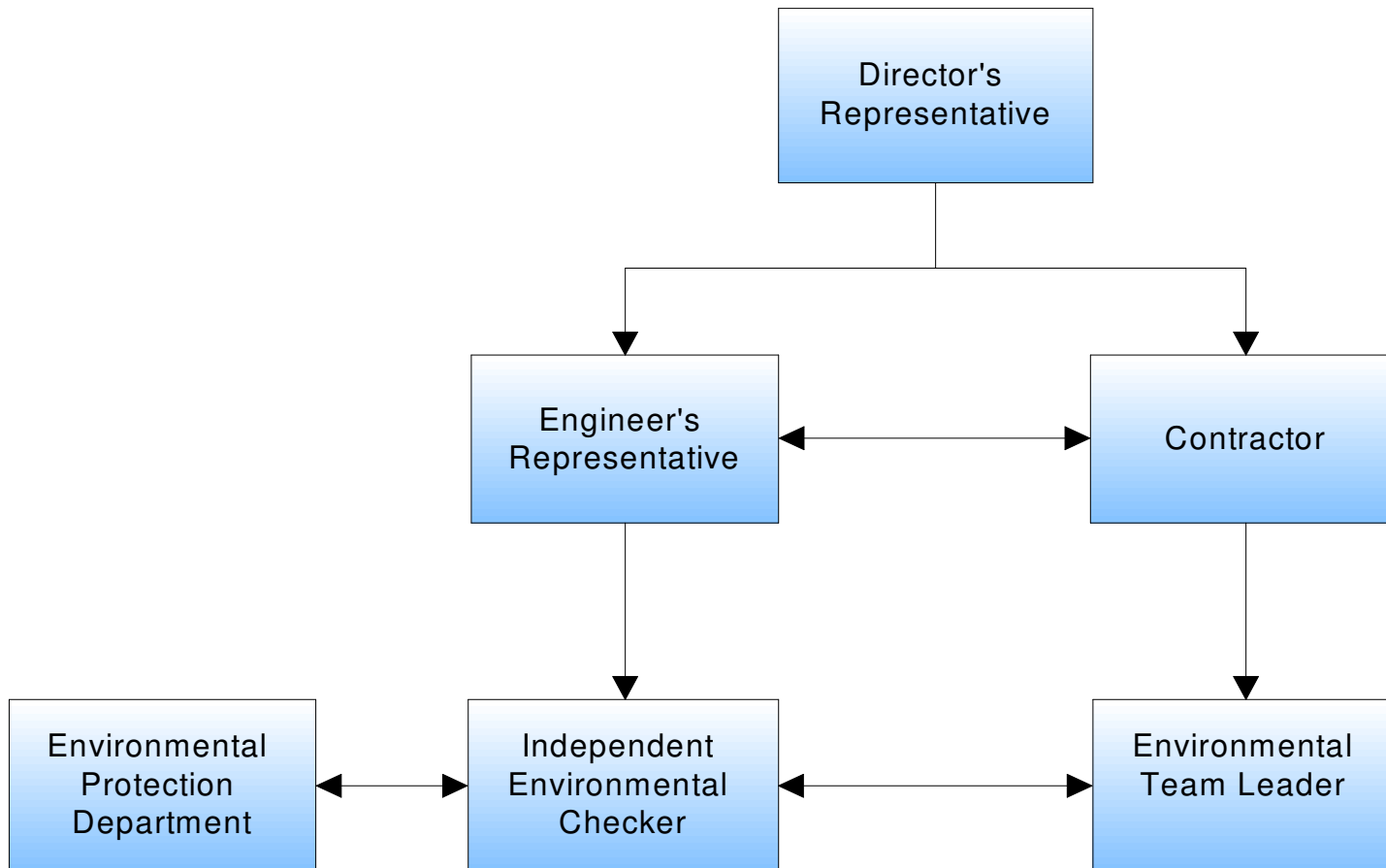
Title Contract No. CV/2004/03
Maintenance and Repairs to Franchised and Licensed Ferry Piers (2005 – 2008)
Construction of Yung Shue Wan Helipad – Works Order No. YSWH/01/03

Site Layout Plan

Scale N.T.S
Date May-08

Project No. MA7018
Figure 1.1





Title

Contract No. CV/2004/03
 Maintenance and Repairs to Franchised and Licensed Ferry Piers (2005 – 2008)
 Construction of Yung Shue Wan Helipad – Works Order No. YSWH/01/03

Scale

N.T.S

Propos

No. MA7018

Date

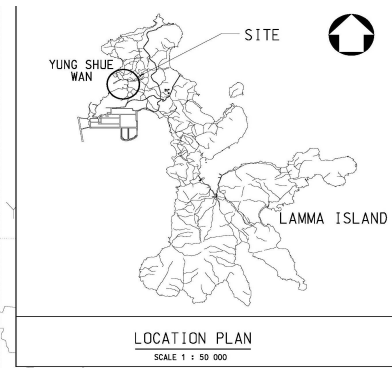
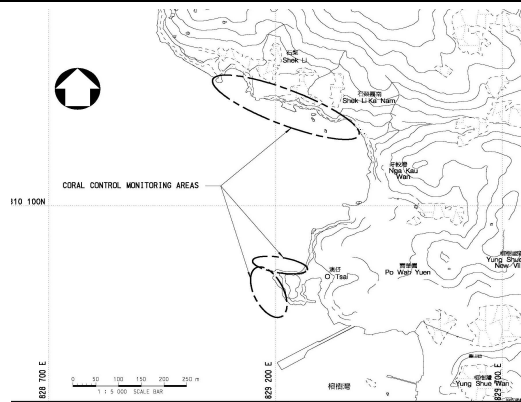
May-08

Figure

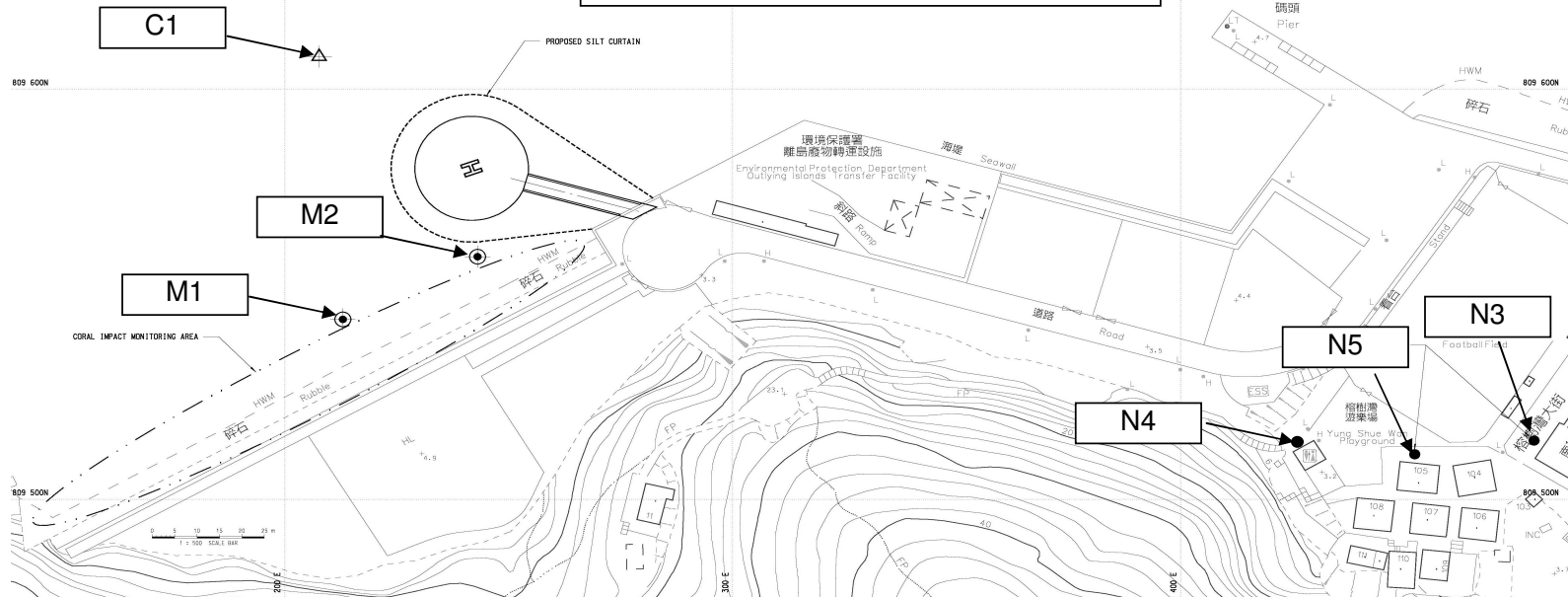
2.1

Project Organization Chart

CINOTECH



Water Quality Monitoring Stations
 - C1, M1 & M2
Noise Monitoring Stations (Baseline)
 - N3 & N4
Noise Monitoring Stations (Impact)
 - N3 & N5



Title
 Contract No. CV/2004/03
 Maintenance and Repairs to Franchised and Licensed Ferry Piers (2005 – 2008)
 Construction of Yung Shue Wan Helipad – Works Order No. YSWH/01/03
 Location of Noise and Water Quality Monitoring Stations

| | | | |
|-------|--------|-------------|--------|
| Scale | N.T.S | Project No. | MA7018 |
| Date | May-08 | Figure | 3.1 |

CINOTECH

**APPENDIX A
ACTION AND LIMIT LEVELS**

Action and Limit Levels

Table A-1 Action and Limit Level for Construction Noise

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

Table A-2 Action and Limit Level for Water Quality

| Parameter (unit) | Action | Limit |
|--|---|---|
| Dissolved Oxygen (mg/L) (surface, middle, bottom) | <i>Surface and middle</i> 5%-ile of baseline for surface and middle layers <i>Bottom</i> 5%-ile of baseline for bottom layer | <i>Surface and middle</i> 4 mg/L or 1%-ile of baseline for surface and middle layers <i>Bottom</i> 2 mg/L or 1%-ile of baseline for bottom layer |
| SS (mg/L) Depth average | 95%-ile of baseline data or 120% of upstream control station's SS at the same tide of the same day. | 99%-ile of baseline or 130% of SS readings at the upstream control station at the same tide of same day and specific sensitive receiver water quality requirements. |
| Turbidity (NTU) (depth average) | 95%-ile of baseline data or 120% of upstream control station's turbidity at the same tide of the same day. | 99%-ile of baseline or 130% of turbidity at the upstream control station at the same tide of same day. |

Notes:

- "Depth-averaged" is calculated by taking the arithmetic means of reading all three depths.
- For DO, non-compliance of the water quality limit occurs when monitoring result is lower than the limit.
- For SS & turbidity non-compliance of the water quality limits occur when monitoring result is higher than the limits.
- All the figures given in the table are used for reference only and the Engineer may amend the figures whenever it is considered as necessary

**APPENDIX B
COPIES OF CALIBRATION
CERTIFICATES**

TEST REPORT

APPLICANT: **Cinotech Consultants Limited**
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

| | |
|------------------|-------------|
| Test Report No.: | C/N/80903-1 |
| Date of Issue: | 2008-09-03 |
| Date Received: | 2008-09-02 |
| Date Tested: | 2008-09-02 |
| Date Completed: | 2008-09-03 |
| Next Due Date: | 2009-09-02 |

ATTN: **Mr. Henry Leung**

Page: 1 of 1

Certificate of Calibration

Item for calibration:

| | |
|----------------|---------------------------------|
| Description | : Integrating Sound Level Meter |
| Manufacturer | : Brüel & Kjær |
| Model No. | : B&K 2238 |
| Serial No. | : 2359311 |
| Microphone No. | : 2346382 |
| Equipment No. | : N-01-03 |

Test conditions:

| | |
|-------------------|---------------------|
| Room Temperature | : 21 degree Celsius |
| Relative Humidity | : 61% |

Test Specifications:

Performance checking at 94 and 114 dB


Methodology:

In-house method, according to manufacturer instruction manual

Results:

| Reference Set Point, dB | Instrument Readings, dB |
|-------------------------|-------------------------|
| 94 | 94.0 |
| 114 | 114.0 |

PREPARED AND CHECKED BY:
For and On Behalf of **WELLAB Ltd.**


PATRICK TSE
Laboratory Manager

TEST REPORT

APPLICANT: Cinotech Consultants Limited
Room 1710, Technology Park,
18 On Lai Street,
Shatin, NT, Hong Kong

| | |
|------------------|-------------|
| Test Report No.: | C/N/80903-3 |
| Date of Issue: | 2008-09-03 |
| Date Received: | 2008-09-02 |
| Date Tested: | 2008-09-02 |
| Date Completed: | 2008-09-03 |
| Next Due Date: | 2009-09-02 |

ATTN: Mr. Henry Leung

Page: 1 of 1

Item for calibration:

| | |
|---------------|-------------------------|
| Description | : Acoustical Calibrator |
| Manufacturer | : Brüel & Kjær |
| Model No. | : 4231 |
| Serial No. | : 2412367 |
| Equipment No. | : N-02-03 |

Test conditions:

| | |
|-------------------|---------------------|
| Room Temperature | : 21 degree Celsius |
| Relative Humidity | : 61% |

Methodology:

The Sound Level Calibrator has been calibrated in accordance with the documented procedures and using standard(s) and instrument(s) which are recommended by the manufacturer, or equivalent.

Results:

| Sound Pressure Level (1kHz) | Measured SPL | Tolerance |
|-----------------------------|--------------|----------------|
| At 94 dB SPL | 94.0 | 94.0 ± 0.1 dB |
| At 114 dB SPL | 114.0 | 114.0 ± 0.1 dB |

PREPARED AND CHECKED BY:

For and On Behalf of **WELLAB Ltd.**



PATRICK TSE

Laboratory Manager

**APPENDIX C
ENVIRONMENTAL MONITORING
SCHEDULES**

Contract No. CV/2004/03 - Maintenance and Repairs to Franchised and Licensed Ferry Piers (2005 – 2008)
Construction of Yung Shue Wan Helipad – Works Order No. YSWH/01/03
Impact Noise Monitoring Schedule for September 2008

| Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|---------------|---------------|---------|--------------|----------------------------------|--------|----------|
| 31-Aug | 1-Sep | 2-Sep | 3-Sep | 4-Sep | 5-Sep | 6-Sep |
| | | | | Noise Monitoring at N3 and N5 | | |
| 7-Sep | 8-Sep | 9-Sep | 10-Sep | 11-Sep | 12-Sep | 13-Sep |
| | | | | | | |
| 14-Sep | 15-Sep | 16-Sep | 17-Sep | 18-Sep | 19-Sep | 20-Sep |
| | | | | | | |
| 21-Sep | 22-Sep | 23-Sep | 24-Sep | 25-Sep | 26-Sep | 27-Sep |
| | | | | | | |
| 28-Sep | 29-Sep | 30-Sep | 1-Oct | 2-Oct | 3-Oct | 4-Oct |
| | | | | | | |

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

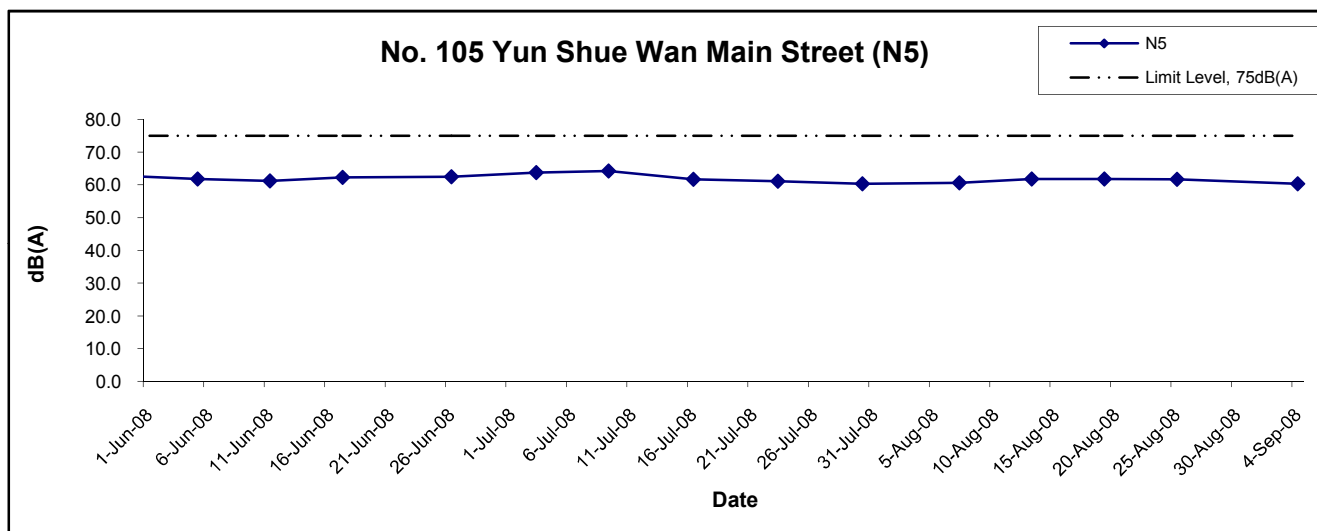
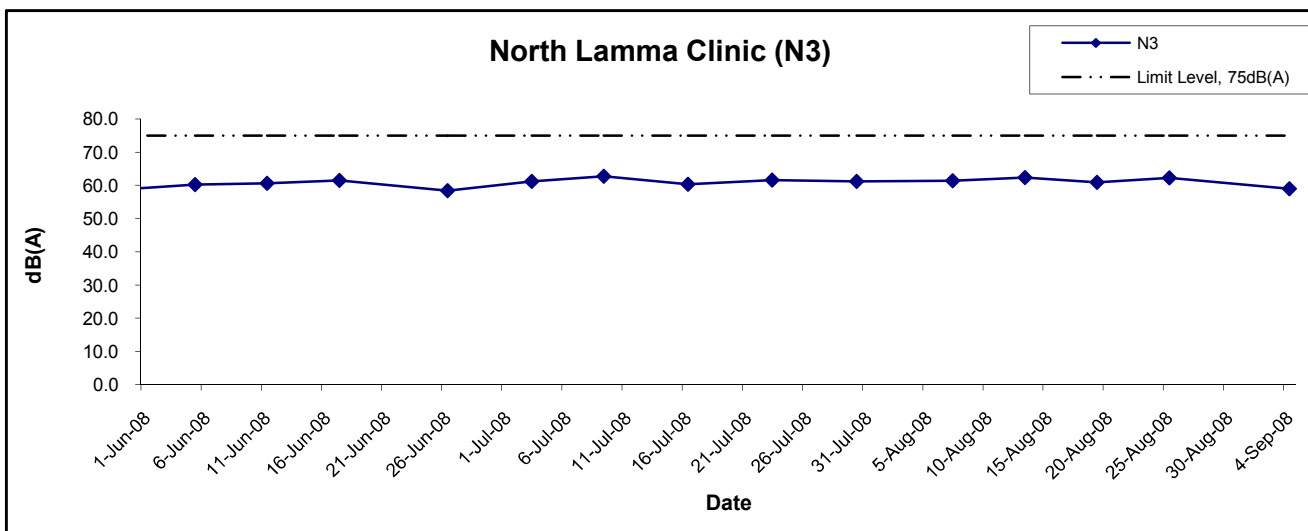
**APPENDIX D
NOISE MONITORING RESULTS AND
GRAPHICAL PRESENTATIONS**

Appendix D - Noise Monitoring Results

| Location N3 - North Lamma Clinic | | | | | |
|---|-------|---------|-----------------|-----------------|-----------------|
| Date | Time | Weather | dB (A) (30-min) | | |
| | | | L _{eq} | L ₁₀ | L ₉₀ |
| 4-Sep-08 | 16:00 | Sunny | 59.0 | 60.5 | 56.0 |

| Location N5 - No. 105 Yun Shue Wan Main Street | | | | | |
|---|-------|---------|-----------------|-----------------|-----------------|
| Date | Time | Weather | dB (A) (30-min) | | |
| | | | L _{eq} | L ₁₀ | L ₉₀ |
| 4-Sep-08 | 15:25 | Sunny | 60.4 | 62.5 | 57.5 |

Noise Levels



| | | | |
|---|----------------|-----------------------|--|
| Title Contract No. CV/2004/03 Maintenance and Repairs to Franchised and Licensed Ferry Piers (2005 - 2008) Construction of Yung Shue Wan Helipad - Works Order No. YSWH/01/03 Graphical Presentation of Construction Noise Monitoring Results | Scale N.T.S | Project No. MA7018 | |
| | Date Sep 08 | Appendix D | |

APPENDIX E
SUMMARY OF EXCEEDANCE

**Contract No. CV/2004/03 – Maintenance and Repairs to Franchised and Licensed Ferry Piers
(2005-2008)
Construction of Yung Shue Wan Helipad – Works Order No. YSWH/01/03**

Exceedance Report

**(A) Exceedance Report for Construction Noise
(NIL in the reporting month)**

**(B) Exceedance Report for water quality monitoring
(NIL in the reporting month)**

APPENDIX F
SITE AUDIT SUMMARY

Maintenance and Repairs to Franchised and Licensed Ferry Piers (2005 – 2008)

Contract No. CV/2004/03

Construction of Yung Shue Wan Helipad


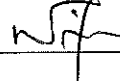
Weekly Site Inspection Record Summary

Inspection Information

| | |
|----------------------------|------------------|
| Checklist Reference Number | 80904 |
| Date | 4 September 2008 |
| Time | 15:10 |

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

| Ref. No. | Remarks/Observations | Related Item No. |
|----------|---|------------------|
| | <p>Water Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>Air Quality</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>Noise</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>Waste / Chemical Management</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>Permit / Licenses</p> <ul style="list-style-type: none"> No environmental deficiency was identified during site inspection. <p>Others</p> <ul style="list-style-type: none"> Follow-up on previous site audit session (Ref. No. 80819), no environmental deficiency was identified during site inspection. | |

| | Name | Signature | Date |
|-------------|--------------------|--|------------------|
| Recorded by | Choi Wai Yi |  | 4 September 2008 |
| Checked by | Dr. Priscilla Choy |  | 4 September 2008 |

**APPENDIX G
SUMMARY OF AMOUNT OF WASTE
GENERATED**

Appendix G

Name of Department: CWE-ZHEC Joint Venture

Contract No.: CV/2004/03

Monthly Summary Waste Flow Table For 2008 (year)

| Month | Actual Quantities of Inert C&D Materials Generated Monthly | | | | | Actual Quantities of C&D Waste Generated Monthly | | | | |
|------------------|--|------------------------------|--------------------------|--------------------------|--------------------------|--|----------------------------|-----------------------|----------------|-----------------------------|
| | Total Quantity Generated | Broken Concrete (see Note 2) | Reused in the Contract | Reused in other Projects | Disposed as Public Fill | Metals | Paper/ cardboard packaging | Plastics (see Note 1) | Chemical Waste | Others, e.g. general refuse |
| | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000m ³) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000kg) | (in '000m ³) |
| Jan | 0.000 | 0.000 | 0.000 | 0.000 | 20.000 | 0.000 | 0.000 | 0.000 | 0.000 | 5.000 |
| Feb | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 5.000 |
| Mar | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Apr | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| May | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Jun | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Sub-total | 0.000 | 0.000 | 0.000 | 0.000 | 20.000 | 0.000 | 0.000 | 0.000 | 0.000 | 10.000 |
| July | 0.000 | 0.000 | 0.000 | 0.000 | 10.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Aug | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Sep | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Total | 0.000 | 0.000 | 0.000 | 0.000 | 30.000 | 0.000 | 0.000 | 0.000 | 0.000 | 10.000 |

- Notes: (1) Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
 (2) Broken concrete for recycling into aggregates.

**APPENDIX H
EVENT ACTION PLANS**

APPENDIX H – Event / Action Plan

Table H-1 Event / Action Plan Construction Noise

| Event | ACTION | | | |
|--------------|--|--|---|---|
| | ET Leader | IC (E) | ER | Contractor |
| Action Level | <ol style="list-style-type: none"> 1. Notify IC(E) and Contractor 2. Carry out investigation 3. Report the results of investigation to the IC(E) and Contractor 4. Discuss with the Contractor and formulate remedial measures 5. Increase monitoring frequency to check mitigation effectiveness | <ol style="list-style-type: none"> 1. Review the analysed results submitted by the ET 2. Review the proposed remedial measures by the Contractor and advise the ER accordingly 3. Supervise the implementation of remedial measures | <ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Require Contractor to propose remedial measures for the analysed noise problem 4. Ensure remedial measures are properly implemented | <ol style="list-style-type: none"> 1. Submit noise mitigation proposal to IC(E) 2. Implement noise mitigation proposals |

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

Table H-2 Event / Action Plan for Water Quality Monitoring

| EVENT | ACTION | | | |
|--|---|--|--|---|
| | ET | IEC | ER | CONTRACTOR |
| ACTION LEVEL | | | | |
| 1.Exceedance for one sample | <ol style="list-style-type: none"> 1. Identify source 2. Inform ER & IEC 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily | <ol style="list-style-type: none"> 1. Check monitoring data submitted by ET | <ol style="list-style-type: none"> 1.Notify Contractor 2.Check monitoring data and Contractor's working methods | <ol style="list-style-type: none"> 1.Rectify any unacceptable practice 2.Amend working methods if appropriate |
| 2.Exceedance for two or more consecutive samples | <ol style="list-style-type: none"> 1. Identify source 2. Inform ER & IEC 3. Repeat measurements to confirm findings 4. Increase monitoring frequency to daily 5. Discuss with ER & IEC for remedial actions required 6. If exceedance continues, arrange meeting with ER & IEC 7. If exceedance stops, cease additional monitoring | <ol style="list-style-type: none"> 1.Checking monitoring data submitted by ET 2.Advise the ER & ET on the effectiveness of the proposed remedial measures 3.Supervise the implementation of the remedial measures | <ol style="list-style-type: none"> 1.Confirm receipt of notification of failure in writing 2.Notify Contractor 3.Check Contractor's working methods 4.Discuss with ET, IEC and Contractor on proposed remedial actions 5.Ensure remedial actions properly implemented | <ol style="list-style-type: none"> 1.Submit proposals for remedial actions to ER within 3 working days of notification 2.Implement the agreed proposals 3.Amend proposal if appropriate |
| LIMIT LEVEL | | | | |
| 1.Exceedance for one sample | <ol style="list-style-type: none"> 1. Identify source 2. Inform ER & IEC and EPD 3. Repeat measurement to confirm finding 4. Increase monitoring frequency to daily 5. Assess effectiveness of Contractor's remedial actions and keep EPD and ER & IEC informed of the results | <ol style="list-style-type: none"> 1.Check monitoring data submitted by ET 2.Advise the ER & ET on the effectiveness of the proposed remedial measures 3.Supervise the implementation of the remedial measures | <ol style="list-style-type: none"> 1.Confirm receipt of notification of failure in writing 2.Notify Contractor 3.Check monitoring data and Contractor's working methods 4.Discuss with ET, IEC and Contractor on proposed remedial actions 5.Ensure remedial actions properly implemented | <ol style="list-style-type: none"> 1.Take immediate action to avoid further exceedance 2.Submit proposals for remedial actions to ER within 3 working days of notification 3.Implement the agreed proposals 4.Amend proposal if appropriate |
| 2.Exceedance | <ol style="list-style-type: none"> 1. Identify source | <ol style="list-style-type: none"> 1.Check monitoring data submitted by | <ol style="list-style-type: none"> 1.Confirm receipt of notification of | <ol style="list-style-type: none"> 1.Take immediate action to |

| EVENT | ACTION | | | |
|-------------------------------------|---|---|--|---|
| | ET | IEC | ER | CONTRACTOR |
| for two or more consecutive samples | 2. Inform ER, IEC and EPD the causes & actions taken for the exceedances 3. Repeat measurement to confirm findings 4. Increase monitoring frequency to daily 5. Investigate the causes of exceedance 6. Arrange meeting with & IEC and ER to discuss the remedial actions to be taken 7. Assess effectiveness of Contractor's remedial actions and keep ER, IEC and EPD informed of the results 8. If exceedance stops, cease additional monitoring | ET 2. Review Contractor's remedial actions to assure their effectiveness and advise the ER accordingly 3. Supervise the implementation of the remedial measures | failure in writing 2. Notify Contractor 3. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented 4. Discuss amongst ET, IEC and the Contractor on proposed remedial actions 5. Ensure remedial measure are properly implemented 6. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated | avoid further exceedance 2. Submit proposals for remedial actions to ER within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant portion of works as determined by the ER until the exceedance is abated |

**APPENDIX I
ENVIRONMENTAL MITIGATION
IMPLEMENTATION SCHEDULE (EMIS)**

Appendix I - Summary of Environmental Mitigation Implementation Schedule

| Types of Impacts | Mitigation Measures | Status |
|---|--|--------|
| Construction Dust | <ul style="list-style-type: none"> Restricting heights from which materials are dropped, as far as practicable to minimise the fugitive dust arising from unloading/loading. | ^ |
| | <ul style="list-style-type: none"> All stockpiles of excavated materials or spoil of more than 50m³ should be enclosed, covered or dampened during dry or windy conditions. | ^ |
| | <ul style="list-style-type: none"> Effective water sprays should be used to control potential dust emission sources such as unpaved haul roads and active construction areas. | ^ |
| | <ul style="list-style-type: none"> All spraying of materials and surfaces should avoid excessive water usage. | ^ |
| | <ul style="list-style-type: none"> Vehicles that have the potential to create dust while transporting materials should be covered, with the cover properly secured and extended over the edges of the side and tail boards. | ^ |
| | <ul style="list-style-type: none"> Materials should be dampened, if necessary, before transportation. | ^ |
| | <ul style="list-style-type: none"> Travelling speeds should be controlled to reduce traffic induced dust dispersion and re-suspension from the operating haul trucks. | ^ |
| | <ul style="list-style-type: none"> Vehicle washing facilities will be provided to minimize the quantity of material deposited on public roads. | ^ |
| Construction Noise | <i>Construction Phase</i> | |
| | <ul style="list-style-type: none"> Use of silenced plant, or plant equipped with mufflers or dampers in substitute or ordinary plant. | ^ |
| | <ul style="list-style-type: none"> Movable noise barriers positioned as close as possible to PMEs such that none of the PMEs will be visible when viewed from any noise sensitive facades. | ^ |
| | <ul style="list-style-type: none"> Noisy equipment and noisy activities should be located as far away from the NSRs as is practical. | ^ |
| | <ul style="list-style-type: none"> Unused equipment should be turned off. | ^ |
| <ul style="list-style-type: none"> Number of powered mechanical equipment (PME) should be kept to minimum and the parallel use of noisy equipment/machinery should be avoided. | ^ | |

| Types of Impacts | Mitigation Measures | Status | |
|----------------------|---|--------|--|
| | <ul style="list-style-type: none"> Regular maintenance of all plant and equipment. | ^ | |
| | <ul style="list-style-type: none"> Observe and comply with the statutory requirements and guidelines. | ^ | |
| | <i>Operation Phase</i> | | |
| | <ul style="list-style-type: none"> Use of quieter helicopter type EC 155 B1 in priority. | - | |
| | <ul style="list-style-type: none"> Reduce the angle of the helicopter flight path from the standard 150 degrees to 80 degrees for the 'EC 155 B1' and to 70 degrees for 'Super Puma AS332 L2' helicopter | - | |
| | <ul style="list-style-type: none"> The helipad will be solely for emergency use. | - | |
| Ecology | <ul style="list-style-type: none"> Silt curtain to be installed surrounding the whole of the piling site. | ^ | |
| | <i>Good site practice</i> | | |
| | <ul style="list-style-type: none"> Particular care should be taken when demolishing the existing concrete planter to ensure no waste enters the water column. | N/A | |
| | <ul style="list-style-type: none"> Particular care should be taken when decommissioning the silt curtain to avoid sudden dispersion of muddy water which may cause adverse impact to the nearby marine life; | N/A | |
| | <ul style="list-style-type: none"> Materials storage areas should be located well away from the seawall, and any such areas should be covered during the works. | ^ | |
| | <ul style="list-style-type: none"> The holding tank for sediment excavated from within the pile casing should be fitted with a tight fitting seal to prevent leakage. | N/A | |
| | <ul style="list-style-type: none"> Ensure that excavator seal is tightly closed and the hoist speed is suitably low. | N/A | |
| | <ul style="list-style-type: none"> The holding tank should not be filled to a level that will cause overflow of sediment during loading and transportation. | N/A | |
| | <ul style="list-style-type: none"> Large objects should be removed from the excavator grab to avoid sediment spills. | N/A | |
| | <ul style="list-style-type: none"> The helipad shall be constructed by using small diameter pre-bored piling instead of dredging and reclamation. | - | |
| Water Quality | <i>Construction Phase</i> | | |
| | <ul style="list-style-type: none"> Silt curtain to be installed surrounding the whole of the piling site. | ^ | |
| | <i>Good site practice</i> | | |

| Types of Impacts | Mitigation Measures | Status |
|---|--|--------|
| | <ul style="list-style-type: none"> The holding tank should be fitted with a tight fitting seal to prevent sediment leakage. | N/A |
| | <ul style="list-style-type: none"> Ensure that excavator grab seal is tightly closed and the hoist speed is suitably low. | N/A |
| | <ul style="list-style-type: none"> The holding tank should not be filled to a level which will cause overflow of sediment during loading and transportation. | N/A |
| | <ul style="list-style-type: none"> Large objects should be removed from the excavator grab to avoid sediment spills. | N/A |
| | <ul style="list-style-type: none"> The helipad shall be constructed by using small diameter pre-bored piling instead of dredging and reclamation. | - |
| Waste / Chemical | <ul style="list-style-type: none"> Ensure that proper handling, storage, transportation and disposal of materials is implemented at the outset and throughout the construction phase of the helipad. | ^ |
| | <ul style="list-style-type: none"> In line with Government's position on waster minimization, the practice of avoiding and minimizing waster generation and waste recycling should be adopted as far as practicable. | ^ |
| | <ul style="list-style-type: none"> An on-site environmental co-ordinator should be identified at the outset of the works. The co-ordinaror shall prepare a Waste Management Plan. | ^ |
| | <ul style="list-style-type: none"> Spoil generated from the piling activities will need to be properly handled to minimize contamination to the marine water and any exposed ground areas due to leakage or improper storage (i.e. onto bare ground instead of into tanks). | ^ |
| | <ul style="list-style-type: none"> The reuse/recycling of all materials on site shall be investigated prior to treatment/disposal off site | ^ |
| | <ul style="list-style-type: none"> Good site practices shall be adopted from the commencement of works to avoid the generation of waste and to promote waste minimization practices. | ^ |
| | <ul style="list-style-type: none"> All waste material shall be sorted on site into inert and non-inert C&D materials, and where the materials will be recycling or reused, these shall be further segregated. The Contractor shall be responsible for identifying which materials can be recycled/reused, whether on site or off site. In the event of the latter, the Contractor shall make arrangements for the collection of the recyclable materials. Any remaining non-inert waste shall be collected and disposed of to the refuse transfer station whilst any non-inert C&D material shall be re-used on site as far as possible. If no use of the material can be found on site, the inert C&D material can be delivered to a public filling area, public barging point or public stockpile area after obtaining the appropriate licence. | ^ |
| <ul style="list-style-type: none"> A trip ticket system should be established at the outset of the construction of the helipad to monitor the disposal of C&D and solid wastes from the site to public filling facilities and landfills. | ^ | |

| Types of Impacts | Mitigation Measures | Status |
|------------------|---|--|
| | <ul style="list-style-type: none"> The Contractor shall register with EPD as a Chemical Waste Producer if there is any use of chemicals on site including lubricants, paints, diesel fuel, etc. Only licensed chemical waste collectors shall be employed to collect any chemical waster generated at site. The handling, storage, transportation and disposal of chemical wastes shall be conducted in accordance with the relevant guidelines as published by Government. | ^ |
| | <ul style="list-style-type: none"> A sufficient number of covered bins shall be provided on site for the containment of general refuse to prevent visual impacts and nuisance to sensitive receivers. These bins shall be cleared daily and the collected waste disposal of to the refuse transfer station. Further to the issue of Environment, Transport and Works Bureau Technical Circular (Works) No. 6/2002A, Enhanced Specification for Site Cleanliness and Tidiness, the Contractor is required to maintain a clean and hygienic site throughout the Project works. | ^ |
| | <ul style="list-style-type: none"> All Chemical toilets shall be regularly cleaned and the nightsoil collected and transported by a licensed contractor to a Government Sewage Treatment Works facility for disposal. | ^ |
| | <ul style="list-style-type: none"> Tool box talks shall be provided to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduction, reuse and recycling. | ^ |
| | <ul style="list-style-type: none"> Contractor shall comply with all relevant statutory requirements and guidelines and their updated versions. | - |
| | <ul style="list-style-type: none"> The helipad shall be constructed by using small diameter pre-bored piling instead of dredging and reclamation. | - |
| | <i>Operation Phase</i> | |
| | <ul style="list-style-type: none"> The helipad will only be used for emergency purposes. No equipment will be placed on the landing pad or along the EVA. Helicopters will not be parked at the landing pad and all repair and maintenance works (on the helicopters) will be conducted off site. As such the only source of waste generation during the operation of the helipad is anticipated to be from the long-term maintenance of the pad. | - |
| Remarks: | ^ Compliance of mitigation measure; | X Non-compliance of mitigation measure; |
| | N/A Not Applicable; | •Non-compliance but rectified by the contractor; |
| | * Recommendation was made during site audit but improved/rectified by the contractor. | |

APPENDIX J
CONSTRUCTION PROGRAMME

Contract No: CV200403
 Maintenance and Repairs to Franchised
 and Licensed Ferry Pier (2005-2008)

Works Order No. YSWH/01/03 Three Month Rolling Programme of Yung Shue Wan Helipad Jun to Aug 2008

| ID | Task Name | Duration | Start | Finish | '08 Jun | | | | '08 Jul | | | | '08 Aug | | | | | | | |
|----|--|-----------------|-------------------|-------------------|---------|----|----|----|---------|----|----|----|---------|----|----|----|----|--|--|--|
| | | | | | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 | | | |
| 1 | Construction of Yubg Shue Wan Helipad | 385 days | '07 Aug 2 | '08 Aug 20 | | | | | | | | | | | | | | | | |
| 2 | Piling Works | 274 days | '07 Aug 2 | '08 May 1 | | | | | | | | | | | | | | | | |
| 9 | | | | | | | | | | | | | | | | | | | | |
| 10 | Superstructure Works | 311 days | '07 Oct 15 | '08 Aug 20 | | | | | | | | | | | | | | | | |
| 11 | Fabrication of Pre-cast Concrete Unit | 90 days | '07 Oct 15 | '08 Jan 12 | | | | | | | | | | | | | | | | |
| 12 | Pile Cap Construction | 60 days | '08 Mar 10 | '08 May 8 | | | | | | | | | | | | | | | | |
| 13 | Precast Concrete Installation | 40 days | '08 May 9 | '08 Jun 17 | | | | | | | | | | | | | | | | |
| 14 | In situ Concrete Slab | 28 days | '08 Jun 18 | '08 Jul 15 | | | | | | | | | | | | | | | | |
| 15 | Installation of Steelwork & Miscellaneous | 27 days | '08 Jul 16 | '08 Aug 11 | | | | | | | | | | | | | | | | |
| 16 | Removal of Temporary Working Platform & Demobilization | 9 days | '08 Aug 12 | '08 Aug 20 | | | | | | | | | | | | | | | | |
| 17 | Completion of Works | 0 days | '08 Aug 20 | '08 Aug 20 | | | | | | | | | | | | | | | | |

| | | | | | | | | |
|---|----------|--|-----------------|--|-------------------|--|----------|--|
| Project: Yueng Shue Wan Helipad - R Date: '08 Aug 14 | Task | | Milestone | | External Tasks | | Progress | |
| | Split | | Summary | | External MileTask | | | |
| | Progress | | Project Summary | | Split | | | |

**APPENDIX K
COMPLAINT LOG**

APPENDIX K – COMPLAINT LOG**Reporting Month:** September 2008

| Log Ref. | Location | Received Date | Details of Complaint | Investigation/Mitigation Action | Status |
|-----------------|-----------------|----------------------|-----------------------------|--|---------------|
| N/A | N/A | N/A | N/A | N/A | N/A |

Remarks: No environmental complaint was received in the reporting month.