



Stanger Asia

QUARTERLY
ENVIRONMENTAL MONITORING AND AUDIT REPORT
FOR
CONTRACT No. HY/99/15
IMPROVEMENTS TO ISLAND EASTERN CORRIDOR
SECTION BETWEEN NORTH POINT INTERCHANGE AND SAI WAN HO
JULY - SEPTEMBER 2002
REPORT No. ET11223

Commissioned by:

**HIGHWAYS DEPARTMENT
Major Works Project Management Office
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EXECUTIVE SUMMARY

This is the 8th quarterly environmental monitoring and audit report produced for the project - Improvements to Island Eastern Corridor Section between North Point and Sai Wan Ho, Contract No. HY/99/15. It covers the monitoring works conducted for July - September 2002.

Works Progress

Works conducted this quarterly included:

Construction of Bridge A

- Installation of pre-cast beam, Bridge surface formation.

Construction of Bridge B

- Formation of bridge surface.
- Construction of retaining wall.

Construction of Bridge C

- Bridge surface formation

Quarry Bay Park

- Quarry Bay Park East - Construction of support for noise barrier, formation of columns for Bridge D.
- Quarry Bay Park North - Carriageway improvements, road surfacing.
- Quarry Bay Park West - Construction of retaining wall No.2 and 3, noise barrier, underpass and drainage works. Construction of footbridge A & B.

Hoi Yu Street

- Utilities installation.

Aldrich Bay

- Excavation, trenching for installation of pipe works.
- Construction of concrete wall and U-channel.

Air Quality Monitoring

Monitoring of 24 - hour Total Suspended Particulates (TSP) was carried out on fifteen occasions at each monitoring station ASR1, ASR2 and ASR3.

Monitoring of 1- hour TSP was carried out on forty occasions at each monitoring station ASR1, ASR2 and ASR3.

No exceedances to Action or Limit levels for either 24 or 1-Hour TSP were recorded at any monitoring station for this reported period.

Noise Monitoring

Routine impact noise monitoring was carried out on thirteen occasions at each monitoring stations NSR1, NSR2 and NSR3.

No exceedance to the noise Limit level was recorded at monitoring stations NSR1, NSR2 and NSR3 for this reported quarter.

Site Inspections

Weekly site inspections by the environmental team were carried out through the reported period.

Waste

4186 m³ C&D waste was generated in this reported period. 4076 m³ inert waste was transported to barging point at Quarry Bay, 110 m³ soil and rock was reused on site. 1,200L chemical waste was collected by a licensed contractor. In addition, 65 m³ general refuse was transported to landfill for disposal.

Complaints and Notification of Prosecutions

No complaints or notification of summonses received in this quarter.

1. INTRODUCTION.

1.1 Background

Stanger Asia Ltd. has been commissioned by Gammon Skanska Ltd. to provide an Environmental Team (ET) to monitor air, noise, waste management, and to conduct regular site inspections for the construction phase of Contract No.HY/99/15. The team is to take a pro-active role in all issues which may be of environmental concern.

In this report, the air, noise, waste management monitoring and site inspections conducted for July – September 2002 will be detailed and reviewed. All environmental works were carried in accordance to the specifications given in the contract documents for this project.

1.2 Report Structure.

The purpose of this report is to detail and review air, noise and waste management monitoring works carried out for the quarter of July – September 2002.

The report follows the format given below:

- Section 1: Introduction and background information to the content and purpose of this report.
- Section 2: This section reviews the progress of monitoring and inspection works.
- Section 3: The results for air, noise and waste management monitoring are presented.
- Section 4: This section details the Environmental Monitoring & Audit Requirements.
- Section 5: Exceedances to Action and Limit Levels are summarised.
- Section 6: Details the review procedures and follow-up actions to any exceedances to Action and Limit Levels.
- Section 7: Gives details of any complaints received, with their associated review and follow-up actions.
- Section 8: The status for solid and liquid waste management for the site is overviewed.
- Section 9: This section details the summary of notifications of summonses or prosecutions.
- Section 10: This section gives the environmental mitigation measures recommended from the Environmental Impact Assessment Report.
- Section 11: This section gives an update on the status of environmental protection control / mitigation measures.
- Section 12: This section gives a conclusion in relation to all monitoring activities.

1.3 Management Structure

The Project was commissioned by the Highways Department of the HKSAR.

Mr. Allen Chiu is the Senior Project Manager for Gammon Skanska Ltd., the main contractor for the project. (Tel: 2516 8823, Fax: 2516 6260).

Mr. Gault Rice is the Senior Resident Engineer of Maunsell Consultants Asia Limited, Consulting Engineers for the project. (Tel: 2564 1621, Fax: 2856 2460).

The Environmental Team is headed by Mr. Chris Shenfield of Stanger Asia Ltd. (Tel: 2682 1203, Fax: 2682 0046).

2. PROGRESS

2.1 Air Quality Monitoring.

Impact monitoring of 24 - hour and 1 - hour TSP was carried out to a full schedule during this quarter of once in every six days for 24 - hour TSP and three times per every six days for 1 - hour TSP as specified in the EM & A manual for this project.

The locations of the identified air sensitive receivers for monitoring works, ASR1 (Primrose Mansion), ASR2 (Juniper Mansion) and ASR3 (North Point Police Station) are given in Figure 1.

The breakdown of actual against scheduled air monitoring works is given in the following table.

Table I –Completed Air Quality Monitoring for this Quarter

Parameter	ASR1						ASR2						ASR3						
	Jul '02		Aug '02		Sep '02		Jul '02		Aug '02		Sep '02		Jul '02		Aug '02		Sep '02		
	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A	
24-Hr TSP	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
1-Hr TSP	14	14	14	14	13	13	14	14	14	14	13	13	14	14	14	14	13	13	13

Note: S = Scheduled A = Actual

2.2 Noise Monitoring.

Day-time impact noise monitoring (07:00 - 19:00 hours) of $Leq_{(30 mins)}$ was carried out to a full schedule during this quarter of at least once every week as specified in the EM&A manual for the project.

The locations of the identified noise sensitive receivers for monitoring works NSR1 (Primrose Mansion), NSR2 (Juniper Mansion) and NSR3 (North Point Police Station) are given in Figure 1.

The Contractor has been issued Construction Noise Permits (CNP), under Noise Control Ordinance for the use of powered mechanical equipment (GW designation) during night works.

Table II - Construction Noise Permits

CNP No.	Commencement Date	Expiry Date	Site Area
✓ GW-TS0003-02	01-Feb-2002	01-Jul-2002	Entrance of EHC
✓ GW-TS0528-01	12-Jan-2002	12-Jul-2002	Quarry Bay Park West
✓ GW-TS0050-02	01-Mar-2002	01-Aug-2002	Near Hoi Yu Street
✓ GW-TS0022-02	04-Feb-2002	03-Aug-2002	Near Entrance of EHT
✓ GW-TS0237-02	24-Jun-2002	24-Sept-2002	TKS near Primrose Mansion
✓ GW-TS0252-02	20-Jun-2002	13-Jul-2002	Road surface near RW 5
✓ GW-TS0218-02	05-Jun-2002	31-Jul-2002	Near North Point Police
✓ GW-TS0339-02	25-Aug-2002	24-Feb-2003	RCV Depot
✓ GW-TS0347-02	28-Aug-2002	27-Feb-2003	Bridge A

The breakdown of actual against scheduled noise monitoring works is given in the following table.

Table III - Completed Noise Monitoring for this quarter

Parameter	NSR1						NSR2						NSR3					
	Jul '02		Aug '02		Sep '02		Jul '02		Aug '02		Sep '02		Jul '02		Aug '02		Sep '02	
Leq _(30min)	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A	S	A
	5	5	4	4	4	4	5	5	4	4	4	4	5	5	4	4	4	4

Note: S = Scheduled A = Actual

2.3 Site Inspections.

These were carried out to a full schedule of once per week jointly with representatives of the Engineer and Contractor during July – September 2002.

2.4 Waste Management.

The Contractor has registered as a Chemical Waste Producer (lubricating and hydraulic oil waste). Waste is collected by a licensed chemical waste collector. The contractor has been issued six discharge licenses from EPD in regarding to the Water Pollution Control Ordinance for the sedimentation tank discharge in the site.

4186 m³ C&D waste was generated in this reported period. 4076 m³ inert waste was transported to barging point at Quarry Bay, 110 m³ soil and rock was reused on site. 1,200L chemical waste was collected by a licensed contractor. In addition, 65 m³ general refuse was transported to landfill for disposal.

2.5 Progress of Relevant Works.

Construction of Bridge A

- Installation of pre-cast beam, bridge surface formation.

Construction of Bridge B

- Formation of bridge beams, bridge surface.
- Construction of retaining wall.

Construction of Bridge C

- Bridge surface formation

Quarry Bay Park

- Quarry Bay Park East – Construction of support for noise barrier, formation of columns for Bridge D.
- Quarry Bay Park North – Carriageway improvements, road surfacing.
- Quarry Bay Park West – Construction of retaining wall No.2 and 3, noise barrier, underpass and drainage works. Construction of footbridge A & B.

Hoi Yu Street

- Installation of utilities.

Aldrich Bay

- Excavation, trenching for installation of pipe works.
- Construction of concrete wall and U-channel.