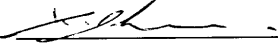


Mass Transit Railway Corporation Limited

Contract 5032 – Mong Kok Station New Integrated Entrance C3

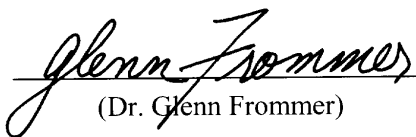
Environmental Monitoring and Audit Report

(October 2003)

Certified:   
(Dr. Kam Chan)

Position: Environmental Team Leader

Date: 17 Nov. 2003

Verified:   
(Dr. Glenn Frommer)

Position: Independent Environmental Checker

Date: 17 NOV 2003

### ***EXECUTIVE SUMMARY***

This is the 7<sup>th</sup> report prepared to document the environmental monitoring and audit works conducted for the modification works of Mong Kok Station under Contract 5032. Monitoring works for noise impact from the construction works were carried out during the period of October 2003. During this period, the major civil construction activities, including existing box culvert removal, utility diversion, sheetpile installation, king post installation, temporary road deck construction and implementing of TTM Scheme were carried out.

With reference to the collected monitoring data and by field observation, environmental conditions of the construction site were said to be satisfactory in general. There were no limit level exceedance recorded in regular construction noise monitoring at the agreed sensitive receivers. The Contractor have provided reasonable effort to control the environmental impacts generated from the construction activities to the nearby surrounding.

As the concerned construction site is located in an urban area of Mong Kok, the noise and dust level are significantly affected by the busy traffic on Argyle Street and Portland Street and the works activities performed on the adjacent URA K2 Development site.

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## **1 INTRODUCTION**

### **1.1 Scope of the Report**

The Environmental Team lead by the ET leader Dr. Kam Chan was responsible to provide baseline and impact environmental monitoring services for the Project and advise ER to supervise Contractor's performance on site environmental matters in order to comply with the requirements of the Project Profile, EM&A Manual and Environmental Permit approved by the Environmental Protection Department of HKSAR.

This is the 7<sup>th</sup> impact monitoring report to cover the environmental monitoring works in the period of October 2003.

### **1.2 Structure of the Report**

The structure of the report is as follows:

- Section 1: Introduction – details the scope and structure of the report.
- Section 2: Project Information – summarizes the scope of the construction activities in this monitoring reporting period and the coming month.
- Section 3: Impact Noise Monitoring – summarizes the monitoring programme, locations and results.
- Section 4: Compliance checking which compares the impact monitoring results with the A/L Levels to determine whether the construction activities have any adverse impacts on the environment and gives comment in order to alleviate those impacts.
- Section 5: Actions taken in events of noise level exceedance.
- Section 6: Construction wastes disposal.
- Section 7: Record of complaints from public & EPD.
- Section 8: Status of permits and licences obtained.
- Section 9: Action items for site audits recorded.
- Section 10: Conclusion.

## **2 PROJECT INFORMATION**

### **2.1 Construction Programme**

The construction for modifications to the existing Mongkok Station are scheduled to commence in April 2003 and to be completed in early 2005. MTRCL is responsible for overall programming of the construction works. It is recommended that the programming is such that environmental impacts are reduced as far as possible. Site location plan is shown on Appendix A EMOKC3-001.

### **2.2 Construction Activities**

Major site activities carried out by the Contractor during this reporting period include the following:-

#### Stage 2 TTM Construction

- All civil construction works including relevant temporary road deck construction completed. The occupied road lane section reopened to the road users..

#### Stage 3 TTM Construction

- Road lane closure for construction works implemented.
- Temporary road deck construction commenced.
- Excavation for exposure of existing underground services commenced.
- Breaking existing road slab carried out and substantially completed.
- Sheetpiling for underground construction implemented and completed.
- Removal of existing box culvert commenced.

Scheduled major site activities carried out by the Contractor in the next reporting period are as follows:-

#### Stage 3 TTM Construction

- Continue implementation of TTM Stage 3 traffic diversion.
- Continue trench excavation for exposure of underground services.
- Continue temporary road deck construction.
- Continue removal of existing box culvert.

### 3 IMPACT NOISE MONITORING

#### 3.1 Monitoring Parameters

During this monitoring period, regular noise monitoring were made once a week at logging interval of 5 minutes in 30 minutes. 5 sets of 5 minutes average of Leq, L10 and L90 (in A-Weighting) were taken at N1MOKC3 and N2MOKC3.

#### 3.2 Monitoring Locations

##### Noise

Noise monitoring was undertaken at the following locations:

N1MOKC3 Residential Building at 43-49A Argyle Street (Argyle House)  
N2MOKC3 Residential Building at 35-37A Argyle Street

Location of the above agreed monitoring stations are shown on Appendix A Figure EMOKC3-001.

#### 3.3 Monitoring Time, Frequency, Duration and Weather

##### Noise

Noise monitoring was performed once on normal weekdays i.e. Monday to Saturday (refer to Item 5.5.2 of the approved EM&A Manual March 2003). Below is the time schedule that the noise monitoring was performed in this monitoring period.

Location	Date and Time of Monitoring		Climate
N1MOKC3 (Argyle House)	6/10/03	5:01pm	Clear
	9/10/03	2:24pm	Clear
	14/10/03	1:17pm	Clear
	23/10/03	4:05pm	Clear
	29/10/03	4:04pm	Clear
	3/11/03	3:12pm	Clear
N2MOKC3 (Residential Bldg 35-37A Argyle Street)	7/11/03	1:32pm	Clear
	12/11/03	2:55pm	Clear
	6/10/03	4:53pm	Clear
	9/10/03	3:10pm	Clear
	14/10/03	2:09pm	Clear
	22/10/03	4:54pm	Clear
	29/10/03	4:43pm	Clear
	3/11/03	4:05pm	Clear
	7/11/03	1:29pm	Clear
	12/11/03	3:40pm	Clear

### 3.4 Monitoring Schedule for Next Month

Noise monitoring at N1MOKC3 and N2MOKC3 will be performed on 3, 11, 19 and 27 November 2003.

### 3.5 Monitoring Results

#### Noise

A summary of the results (Leq30min) recorded during this monitoring period is shown in following table. Relevant details of the noise monitoring results and graphic plots are presented in Appendix B. Having compared the results with the limit levels, no exceedance were found.

Summary of Noise Monitoring Results measured in 30 minutes and dBA

Location	N1MOKC3 (Argyle House)						
	Date	Leq (30 min)	Leq corrected (30 min)	L10(30min)	L90(30min)	Allowable limit (30min)	Exceedance
	6/10/03	70.8	****	-	-	75	N
	9/10/03	73.8	69.1	78	69.5	75	N
	14/10/03	74.5	72.4	76.5	70	75	N
	23/10/03	73.4	68.9	75	70.3	75	N
	29/10/03	75.1	72.6	78	69.4	75	N
	3/11/03	71.8	****	73.5	66.5	75	N
	7/11/03	71.2	****	-	-	75	N
	12/11/03	71.9	****	-	-	75	N
	<b>N2MOKC3 (Residential Building at 35-37A Argyle Street)</b>						
	6/10/03	74.7	****	-	-	75	N
	9/10/03	76.2	67.9	78.5	73	75	N
	14/10/03	76.1	66.5	78	73	75	N
	22/10/03	75.9	69.4	76.5	72	75	N
	29/10/03	78.1	74.8	80.1	73.9	75	N
	3/11/03	75.3	****	76.5	66.5	75	N
	7/11/03	76.8	69.5	-	-	75	N
	12/11/03	72.3	****	-	-	75	N

Note:- \*\*\*\* measured noise level Leq(30min) less than or equal to background noise.

Leq(30min) corrected Measured noise level Leq(30min) with background correction.

Y Exceedance caused by Contractor's works activities.

N No exceedance caused by Contractor's works activities.

**4 ASSESSMENT AND AUDIT RESULTS**

With reference to the monitoring results obtained, there was no exceedance of limit level occurred in noise monitoring taken during this reporting period. Levels of the construction noise recorded at the agreed NSRs in this reporting period are lower than the allowable limit. By site observations, the major noise sources mainly came from the busy traffic on Argyle Street and Portland Street, the construction activities in URA K2 Development site and the Project construction activities. The Contractor have provided reasonable monitoring and supervision to control the noise generated from the construction site.

**5 ACTION TAKEN IN EVENT OF CONSTRUCTION NOISE LEVEL EXCEEDANCE**

There was no exceedance recorded during regular noise monitoring at the agreed NSRs during this reporting period.

**6 CONSTRUCTION WASTE DISPOSAL**

Certain amount of excavated material and concrete debris were generated from the construction activities during this reporting period. The Contractor have set up implementation of the delivery trip ticket system for waste disposal.

	Amount of Construction Wastes Disposed		
	Inert Waste (to PPE) (m <sup>3</sup> )	Non-inert waste (to Landfill) (m <sup>3</sup> )	Chemical waste (trip)
April 2003	0	0	0
May 2003	78	0	0
June 2003	148	0	0
July 2003	46	0	0
August 2003	184	0	0
September 2003	152	0	0
October 2003	296	0	0
Accumulated total since April 2003	904	0	0



**7 RECORD OF COMPLAINTS FROM PUBLIC & EPD**

No new formal environmental complaints were received during this reporting period.

Formal complaint				
	Air	Noise	Water	Others
April 2003	0	0	0	0
May 2003	0	0	0	0
June 2003	0	0	0	0
July 2003	0	0	0	0
August 2003	0	0	0	0
September 2003	1	1	0	0
October 2003	0	0	0	0
Accumulated total since April 2003	1	1	0	0

**8 STATUS OF PERMITS AND LICENCES OBTAINED**

No new environmental related permits and licences were obtained during this reporting period.

Type	Reference No.	Commencement Date	Expired Date	Remarks
Chemical waste disposal	WPN5117-229-K2801-01	29/4/03	end of the Project	
Site water disposal	EP482/229/0302/1	30/4/03	31-5-2008	
Public fill disposal	CED's letter ref. (8) in PW PF/GEN/01 pt.26 dated 30/7/03	30/7/03	end of the project unless advised	
Landfill disposal	EPD's letter ref. EPD195/01/24/0614/2003 dated 16/9/03	16/9/03	end of the project unless advised	

**9 ACTION ITEMS FOR SITE AUDITS IN PAST MONTH**

During this monitoring period, regular weekly joint site audits lead by the senior of MTRC and the Contractor were taken. The Contractor's performance on the environmental matters were assessed. Status of required actions taken by the Contractor can be summarised as follows.

	<b>Description</b>	<b>Status</b>
1.	The Contractor was reminded to have regular check on site to ensure the compliance of relevant environmental regulations, permits and licence.	On going
2.	The Contractor was reminded to remove the accumulated construction debris off site as soon as practical.	On going
3.	The Contractor was reminded to place the movable noise barrier as close as possible to the noisy activities carried out on site.	On going
4.	The Contractor was reminded to have regular check to prevent black smoke generated from the working plant.	On going
5.	The Contractor was reminded to clean up the rain water collected inside the oil drip tray in order prevent land contamination.	On going
6.	The Contractor was reminded to control the noise generated during breaking hard materials.	On going
7.	The Contractor was reminded to provide chemical waste collection store asap.	Done

There was an incident regarding the turning over of a noise barrier panel in early morning on 4/11/03. In the incident, a pedestrain was injured and sent to the hospital. Details of the incident are being investigated by the ER. ER has determined to stop using all noise barrier panels on site temporarily and requested the Contractor to review the situation. Noise monitoring has shown no significant increase in impacts as a result. Monitoring is ongoing as mitigation is reviewed.

**10 CONCLUSION**

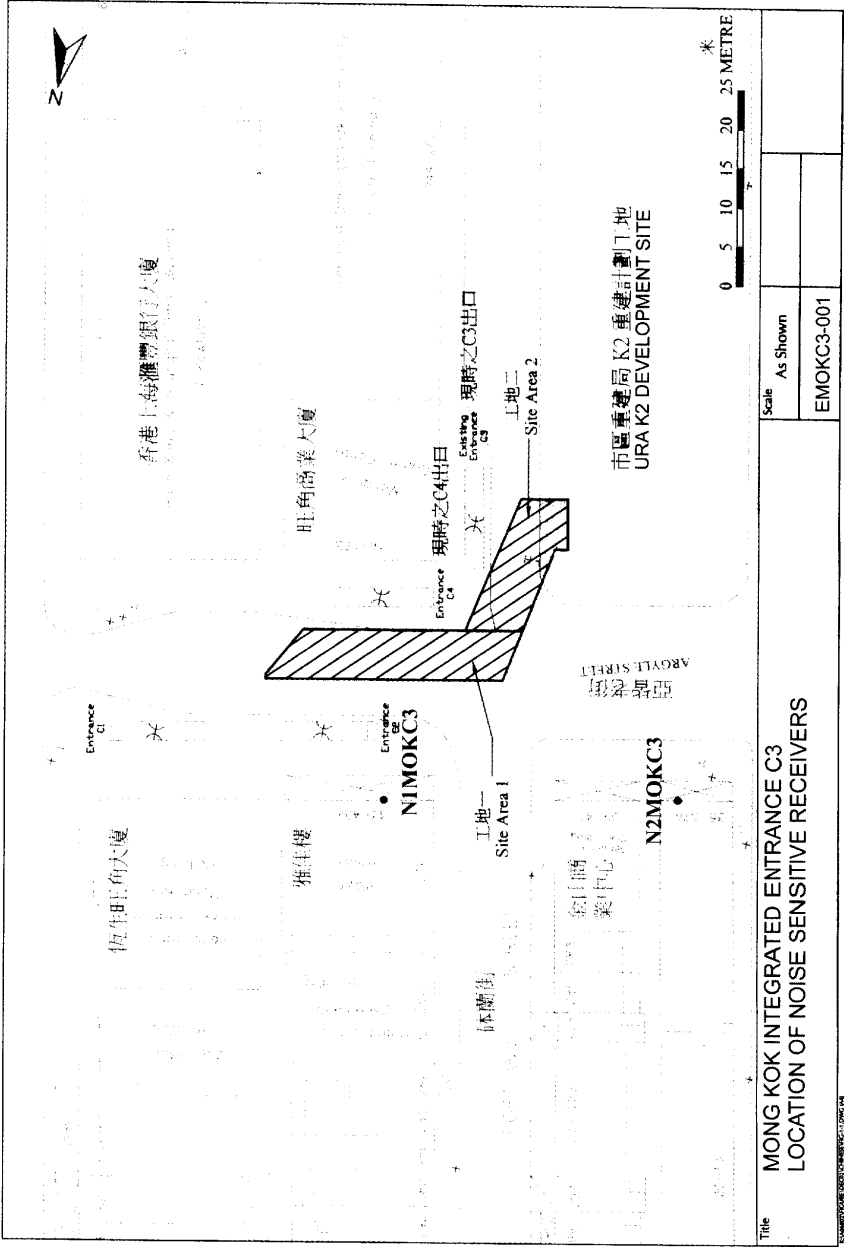
Major civil activities including existing underground box culvert removal, underground services exposure, sheetpiling, temporary road deck construction and road slab breaking were carried out by the Contractor during this reporting period. Regular meetings and joint site audits lead by the senior were held among ET/ER/the

Contractor to resolve the site environmental problems. Concerned site environmental issues have been in general followed up by the Contractor properly.

By field observation, the environmental pollution control measures provided by the Contractor were generally acceptable. The construction noise levels recorded in regular monitoring were below the allowable limits. No prosecutions and complaints were received.

## Appendix A

- Reference Figures



Title MONG KOK INTEGRATED ENTRANCE C3  
 LOCATION OF NOISE SENSITIVE RECEIVERS

Scale	As Shown
	EMOKC3-001

0 5 10 15 20 25 METRE 米

市區重建局 K2 重建計劃土地  
 URA K2 DEVELOPMENT SITE

亞答街  
 ARGYLE STREET

諾蘭街

金日購  
 業中心

Site Area 1

Site Area 2

旺角商業大廈

香港上海滙豐銀行大廈

旺角旺角大廈

雅律樓

現時之C4出口

現時之C3出口

Entrance C1

Entrance C2

Entrance C3

Entrance C4

NIMOKC3

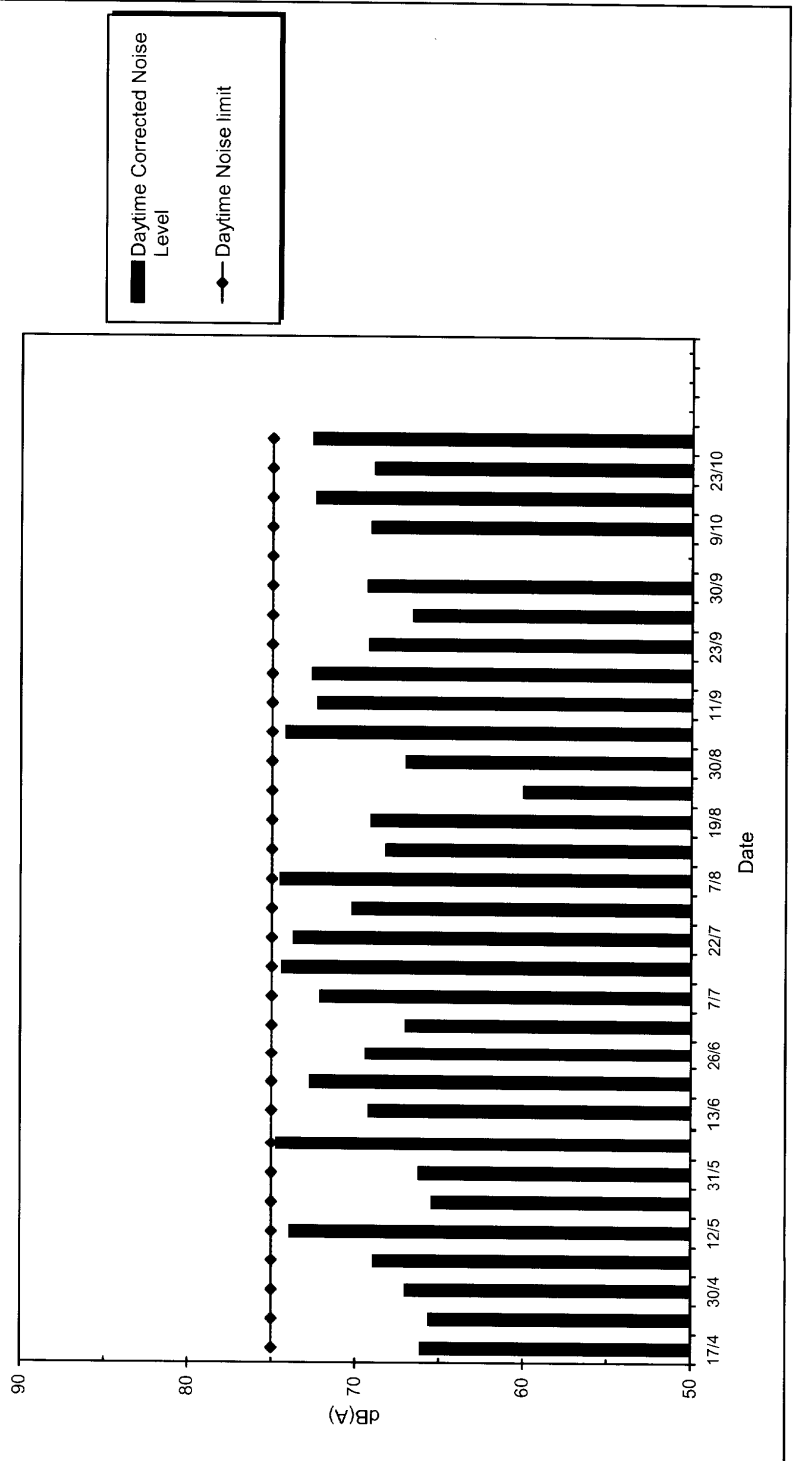
N2MOKC3



## Appendix B

- Environmental Monitoring  
Data

C5032- Noise Level at Monitoring Station N1MOKC3 (October 03)



**C5032 - Noise Level at Monitoring Station N2MOKC3 (October 03)**

