Sinopower Consultants Limited

Temporary Karting Track at Tuen Mun
Environmental Impact Assessment Study

Project Profile for the

Application for Permission to Apply Directly for Environmental Permit

(21564-PP1 Rev B)

APRIL 2002

Westwood Hong & Associates Ltd.

A. BASIC INFORMATION

1. Project Title

Temporary Karting Track at Tuen Mun

2. Purpose and Nature of Project

The objective of this project is to provide a temporary recreational karting track at Tuen Mun (Project). The Project is located at the area of the former Airport Authority Lok On Pai Transshipment Centre (Figure 1). The Project will have an outdoor motor training track with petrol karts. The karting information is given in Appendix 1.

In view of the planned occupation of the Nan Fung Siu Lam Project (NF1) at TMTL 419 in November 2002 (Figure 1 & Appendix 2), the application for Environmental Permit is to cover the period from April till October 2002.

The proposed karting track is well designed and installed with the necessary safety features. The proposed karting track will provide a track length of 500m. The temporary karting track will operate from Monday to Sunday with opening hours from 9 am to 11 pm. The proposed track will have an estimated maximum population of 20 trained instructors and 200 visitors. Maximum 10 karts are allowed to be operated within the track as per Electrical & Mechanical Services Department's requirement.

Table 1 illustrates the provision of facilities inside the karting track. Layout plan of the proposed track is given in Appendix 3.

Table 1 Facility Provisions of the proposed karting track

Facilities
Training track
Store room
Repair kart centre
First aid centre
Toilet
Exhibition area
Staff changing room
Office
Drink bar

Apart from the above facilities, the project also provides the following measures for mitigating the environmental impacts:-

- The installation of minimum 2.2m high profiled steel walls as noise barriers along the site boundaries (Appendix 3)
- The provision of portable toilet/sink facilities and waste collection services by licensed disposal agent (Appendix 4)
- Collection of chemical waste including used oil by licensed disposal agent (Appendix 4)

3. Name of Project Proponent

Sinopower Consultants Limited

4. Location and Scale of the Project

Location: The proposed site is located at Zone 3, Tsing Fat Street, Lok On Pai, Area 59, Tuen Mun, New Territories (Figure 1).

Site Area: 4,600 m^2 (Approximately)

Total GFA: 4,600 m^2 (Approximately)

5. History of Site

The site was part of the former Airport Authority Lok On Pai Transshipment Centre. As advised by Sinopower Consultants Ltd., the lease does not contain any specific requirements on decommissioning and the restoration condition (Appendix 6).

6. Number and Types of Designated Projects

The karting track constitutes a Designated Project under Schedule 2, Part 1, O.4 of the Environmental Impact Assessment Ordinance.

7. Name and Telephone Number of Contact Person

The contact persons are shown in Table 2.

Table 2 Names and Telephone Number of Contact Person

Project Team	Company	Contact Person	Telephone Number	Fax Number
Project Proponent	Sinopower Consultants Ltd			
Environmental Consultant	Westwood Hong & Associates Ltd			

8. Licenses obtained from other Government Departments

The design aspects and operation method of the Project have been approved with licenses issued by Electrical & Mechanical Services Department, Food and Environmental Hygiene Department and Fire Services Department (Appendix 5).

B. OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

The proposed project is planned and designed by the Project Proponent. Westwood Hong & Associates Ltd has been appointed as the Environmental Consultant of the Project.

Thc construction pcriod of thc Projcct will takc approximatc 9 days (Appcndix 7).

The decommission period of the Project will take approximate 7 days.

C. POSSIBLE IMPACTS ON THE ENVIRONMENT

The possible environmental impacts that may arise from construction and operational phases of the Project are given below.

Construction Phase

1. Construction Noise Impact

Construction activities anticipated include the erection of outlying fence, cleaning of waste on site, allocation of tyres within course, paving of 500m long tracks and erecting a small pedestrian bridge (Appendix 7). The Powered Mechanical Equipment (PME) involved only a 5.5 ton truck and compactor. The construction activities are to be carried out during daytime period from 0700 to 1900 hours.

The nearest Sensitive Receivers (SRs) including Siu Lam Sun Tsuen are located at more than 200m from the subject site and hence, the SRs would not be affected by the construction works that would involved very few Powered Mechanical Equipments (PMEs) except for a 5.5 ton truck lorry with SWL of 112dB(A) and a compactor with SWL of 105dB(A), as governed by GW-TM. The construction noise levels at nearest SRs will be well within the stipulated day-time noise limit of 75dB(A) as stated in EIAO-TM.

The construction contractors are to be required to implement good site practices to control construction site noise in order to minimize any adverse impacts.

2. Fugitive Dust Impact

Fugitive dust will be strictly controlled on site. The decorative work is simple requiring no demolition of any building structure. The construction contractors will be required to implement good site practices to control fugitive dust, in order to minimize any adverse impacts.

3. Water Quality Impact

Little or no wastewater will be generated regarding to the construction activities. No water pollution from site will result.

4. Waste Disposal

The construction waste will be collected and disposed as per the requirements stated in the Waste Disposal Ordinance (WDO).

5. Landscape and Visual Impact

No landscape and visual impact is expected as the nearest residential buildings are located at more than 200m from the subject site.

Operational Phase

6. Air Quality Impact

The engine of a kart works with an efficient 4-stroke petrol cylinder having a max capacity of 60 c.c. only. This tiny engine is similar to that of a low-power motorcycle with minimal air emission.

A CALINE4 model has been set up for predicting the air pollutant concentration due to kart emissions. With an approximate 2-minute lap time and maximum allowable 10 karts on the track, the flow is estimated as 300 karts per hour on the track. This estimation can be considered as conservative as a non-stop karting operation is assumed for all the karts. Details of assessment are given in Appendix 8.

Prediction results indicate that the air pollutant concentrations caused by the karts are insignificant and well within the HKAQO limits for all the nearby air sensitive receivers. No adverse air impact is expected.

Table 3 Predicted Maximum Pollutant Concentrations within the subject site

Air Pollutant	Predicted Maximum Pollutant Concentrations, $\mu g/m^3$	HKAQO limit, $\mu g/m^3$
1-hr Nitrogen Dioxide	78*	300
24-hr Respirable Suspended Particulates	51**	180

Note:
* Predicted concentration including background concentration of $61\mu g/m^3$.
** Predicted concentration including background concentration of $50\mu g/m^3$.

Little or no painting will be required for the karts. There will also be no air polluting sources such as kitchens on site. No odour emission is expected from the kart operation and from the entire track site.

7. Noise Impact

The dominant noise source is identified as kart movements and PA system. The measured noise levels due to karts running on leveled course and the section with a gentle slope at the maximum allowable speed of 24kph are in the range of 77 – 82dB(A) at 3m from passing karts. These measured noise levels included braking noise, skidding noise and tyre noise. The noise levels of the PA system for making announcements and playing of background music are measured in the range of 75 – 80dB(A) at 3m from the speakers.

The nearby Noise Sensitive Receivers (NSRs) are identified as the residential houses in Siu Lam Sun Tsuen and Villa Sapphire located at approximately 200m and 300m from the site boundaries respectively (Figure 2). The residential development (Nam Fung Siu Lam Project (NF1)) located to the north of the site will be a potential NSR but as the occupation of the NF1 development will take place beyond the period of the EP, there is no need to be included in this noise assessment.

The predicted cumulative facade noise levels at the identified NSRs are in the range of 35 – 41dB(A) due to the karting activities and PA system. The NSRs will not be adversely affected by the operation of the proposed karting track. Details of noise survey and assessment are given in Appendices 9 – 10.

The adjoining flea market is located within an enclosed building such that the noise from the activities within flea market is insignificant. The cumulative noise impact arises from the activities taken in the proposed karting track and flea market will be within the stipulated noise criterion.

8. Traffic Generation

The scale and purpose of the Project is for use by a maximum allowable number of 200 visitors. The estimated traffic generation is approximately 10 car trips (Appendix 6). The number of visitors and their vehicles will be under control and management by Project Proponent, no excessive burden to the existing traffic flow due to visitors of the subject site is estimated.

9. Night-time operations

No night-time operation including maintenance works will be undertaken in the period from 2300 to 0900 hours.

10. Water Quality & Waste Impact

Portable toilet and hand-wash sink facilities will be provided. The amount of household waste generated is estimated to be approximate 5 kg per day (Appendix 6). All wastes generated from will be collected and disposed by a licensed disposal agent (Appendix 4). No adverse impact is identified.

11. Generation of Chemical Waste

The amount of chemical waste generated is estimated to be 20 litres per month (Appendix 6). The used engine lubrication oil and the effluent via the petrol-interceptor will be collected by a licensed disposal agent (Appendix 4). No adverse impact is identified.

12. Land Contamination

All used lubricant and effluent will be handled as per the stipulated guideline and collected by the licensed disposal agent. Daily inspection for karts will be carried out by a Registered Person to ensure that they are kept in good running conditions, and hence no leakage of lubricant and petrol from the karts to be occur. No land contamination is envisaged.

13. Risk of accident

The karting course is designed to meet the international standards of safety including the fitting along the karting course with rubber tyres, providing the necessary cushioning to prevent the kart from any significant damage. Only the participants and the trainers will be allowed on the karting course. The karts are fully equipped with the bumpers to minimize damage on impact with the rubber tyres.

Training courses will be given to the karting participants from experienced instructors. A maximum of 10 karts are allowed within the track as per the requirements of EMSD. Together with the safety helmets and protective gears, it is not anticipated that the proposed project will cause hazardous impact to human life.

14. Hazard impact

As per Fire Services Department's requirement, only a maximum of 20 litres of petrol will be stored within the site. A re-filling area is defined at repair kart centre where away from the main entrance and Hall. The proposed karting track will be adequately equipped with fire fighting devices as per the FSD requirements to ensure the safety of individuals against the potential fire hazards

15. Landscape and Visual impact

The proposed karting track comprises on-grade tracks, a small site office (container box) and a covered space for refreshment. Given the significant screening available from the 7-stroey high building, there is no direct line of sign from the nearest residential buildings at more than 200m away from subject site. No significant landscape and visual effects caused by the appearance of the karting track is expected.

16. Ecological impact

The subject site is considered as an ecologically unimportant area. The Project will not cause ecological impact.

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D. MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

The proposed karting track is quite isolated from the existing residential areas including Siu Lam San Tsuen and Villa Sapphire (Figure 2).

A residential development (Nan Fung Siu Lam Project) located to the north of the Project is being constructed (Figure 1) and will be occupied beyond the period of the EP.

The dominant noise sources in the residential areas are the traffic noise from Tsing Fat Street and Castle Peak Road. The karting track is screened from the sight of the identified sensitive receivers by the 7-storey high Lok On Pai Transshipment Centre, natural landscape and trees.

There are no ecology or heritage sensitive receivers in the vicinity.

With the provision of proposed mitigation measures, there will be no significant impacts on the surrounding environment.

E. ENVIRONMENTAL PROTECTION MEASURES

To mitigate any environmental impact that may arise from the construction and operation phases of the Project, mitigation measures to be carried out in different phases are given below.

Construction Phase

1. Protection measures

During the fitting-out period, all precautionary measures applicable to construction works such as dust suppression measures, noise control, drainage & waste management would be implemented. In particular the following control Ordinances and other relevant ProPECC Notes will be strictly followed to ensure compliance:

- Air Pollution Control (Construction Dust) Regulation
- Noise Control Ordinance
- Water Pollution Control Ordinance

2. General Management

As a general guidance, the emission of dust and noise should be controlled by providing a high standard of housekeeping. This can be done by adopting precautionary procedures to reduce the amount of dust and noise emission whilst carrying out loading, unloading, handling and storage of building materials and debris.

Operational Phase

3. Air Quality

The proposed karting track is located at an open area. Air prediction results indicate that the air sensitive receivers would not be affected by the karting activities. No additional air mitigation measures are required. Daily inspection and schedule check will be carried out to ensure the kart will be operating in good conditions.

4. Noise Impact

2.2m high profiled steel walls are erected along site boundaries for minimizing the noise impact from the karting activities.

5. Water Quality

Wastewater generated from all operational processes should be collected by the licensed disposal agents.

6. Waste Management

Adequate, environmentally acceptable waste handling, storage, collection, transfer, treatment and disposal facilities should be provided to deal with the waste arising from the operation of Project.

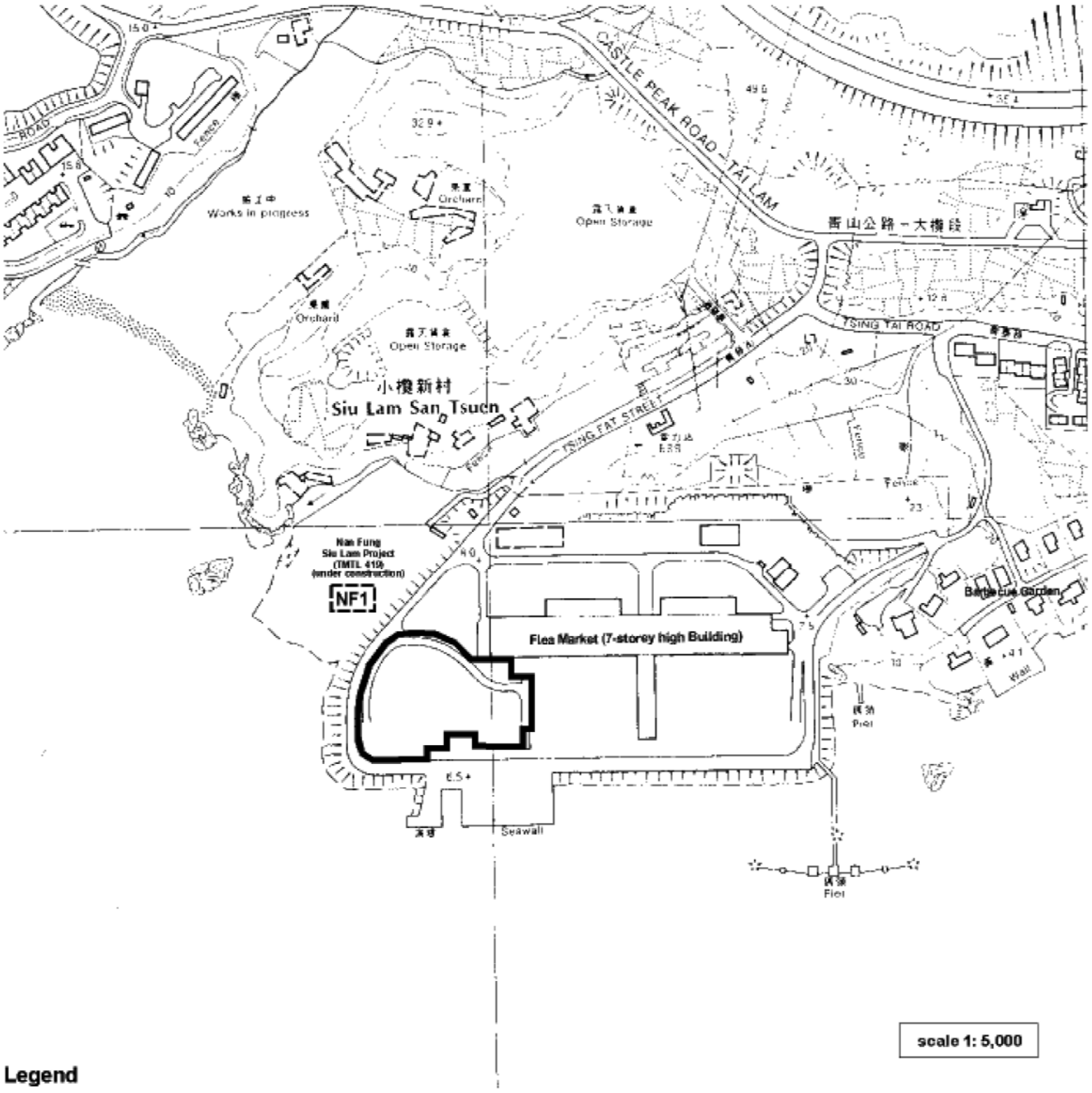
Chemical Wastes should be collected by licensed disposal agent.

7. Hazard Impact

The proposed karting track will be adequately equipped with fire fighting devices as per the FSD requirements to ensure the safety of individuals against the potential fire hazards.

F. USE OF PREVIOUSLY APPROVED EIA REPORTS

No previously approved EIA reports are found to be relevant to this proposed project.

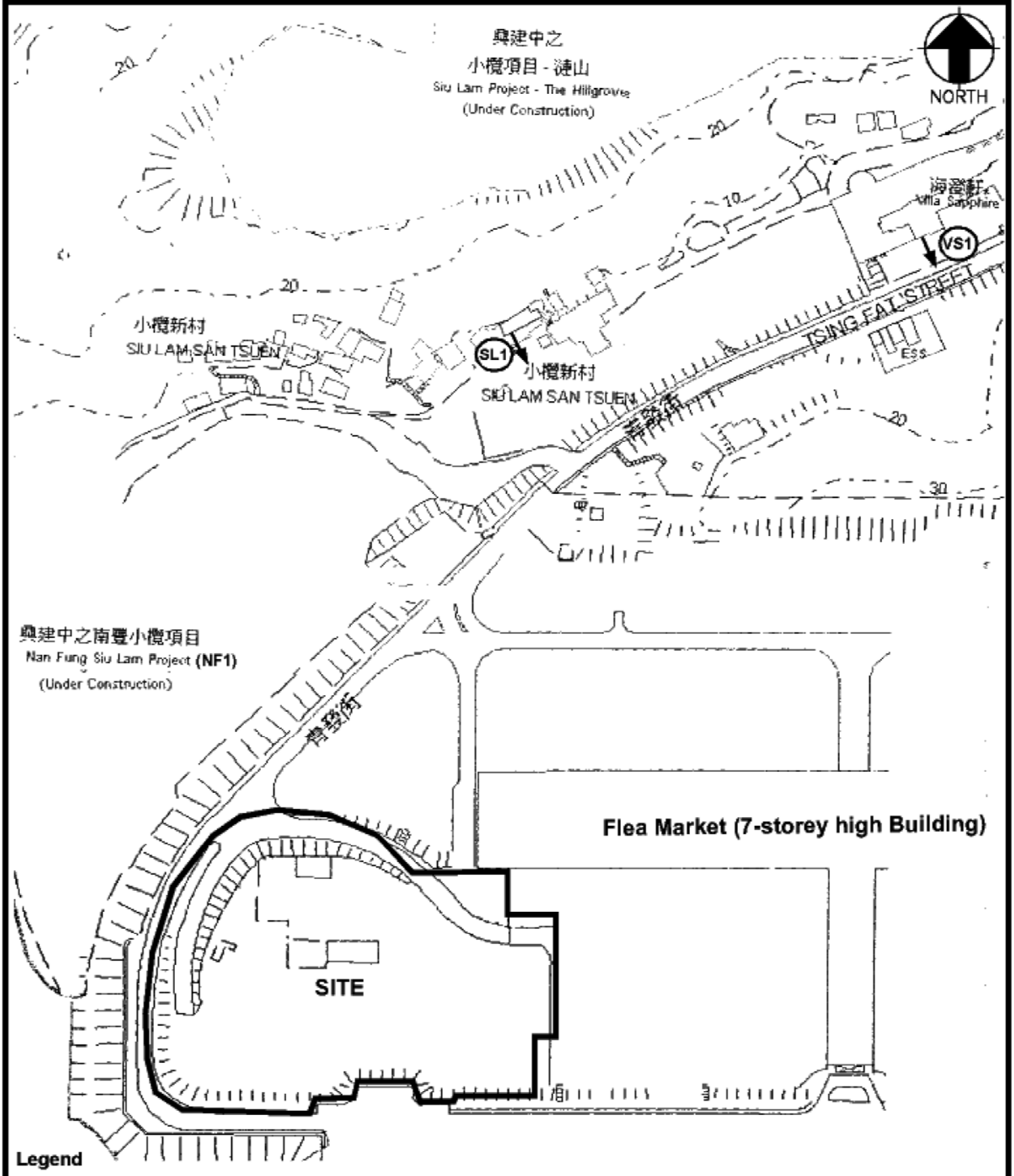


Legend

Site location

NF1 Residential Development under construction (Nam Fung Siu Lam Project)

Westwood Hong & Associates Ltd	TITLE :	FIGURE
PROJECT : 21564	Site location	1
Karting Track at Tuen Mun		



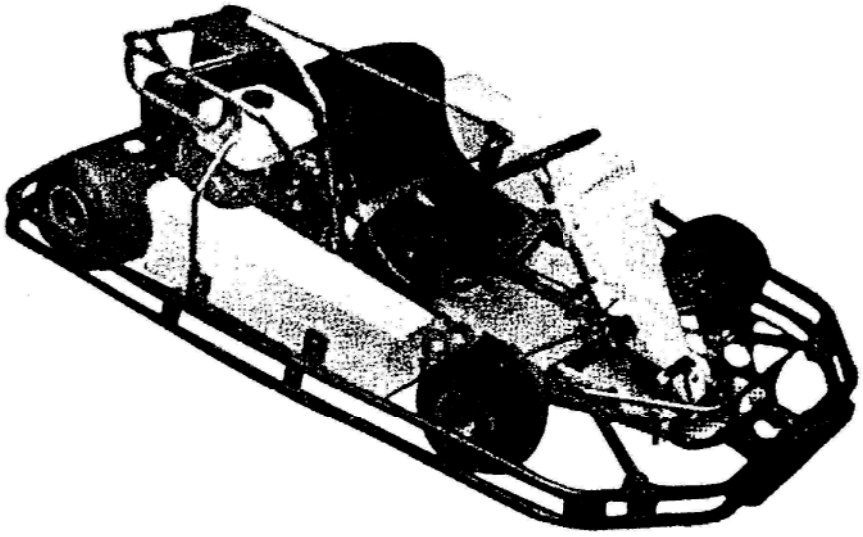
Westwood Hong & Associates Ltd	TITLE :	FIGURE
PROJECT : 21564	Locations of sensitive receivers	2
Karting Track at Tuen Mun		

Appendix 1

Karting Information

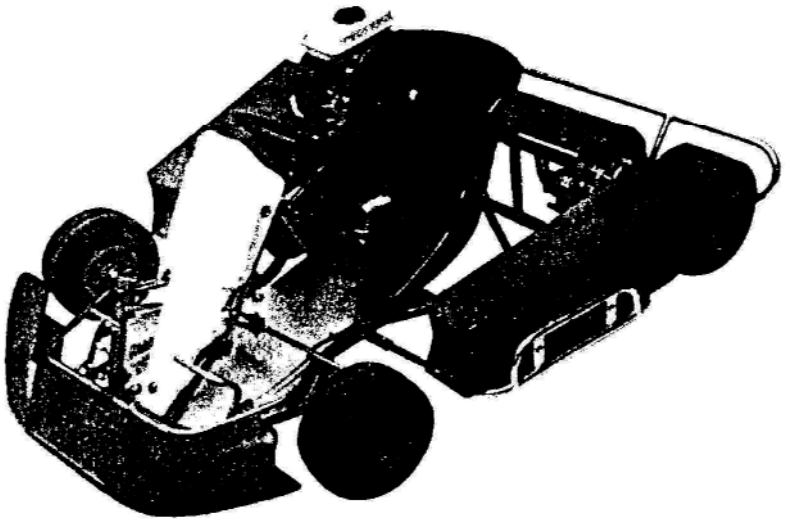
TK -160 - single seat outdoor entertainment kart

- Chassis :∅32 seamless tubular steel
- Dimension (mm) : 1836 (L) × 1360 (W) × 560 (H)
- Mechanical disc brake system
- 3 axle bearings
- Rear axle∅30
- 3 point safely belt
- Engine : 5.5hp / 4 - stroke / Honda or Robin
- Top speed up to 24km / hr
- Weight : ~114 kg



TK - 100SA

- single seat
- Chassis :∅30 seamless tubular steel
- Dimension : 1600 (L) × 1200 (W) × 560 (H)
- Mechanical disc brake system
- Engine : 2hp / 4 - stroke / Honda or Robin
- Tires : front 10 × 3.6-5 Rear 11 × 6.0-5
- Top speed up to 24 km / hr
- Weight : ~67 kg



Appendix 2

Information provided by Nam Fung Group

晉業建築有限公司
CHUN YIP CONSTRUCTION CO., LIMITED
香港畢打街3號中建大廈10樓 • 10TH FLOOR CENTRAL BUILDING 3 PEDDER STREET HONG KONG
Telephone : 2521 7417 • Fax : 2596 0905 • Telex : 73464 NANFU HX • Cable : NANFUNTEX

Our Ref : 419/MC-150

25th March, 2002

Sinopower Consultants Ltd.
Zone 3, Tsing Fat Street
Lok On Pai, Area 59
Tuen Mun
N.T., Hong Kong
Attn: Mr. Tommy Ho

By Fax & By Post
(2441-5291)

Dear Sirs

Re: Occupation Date
TMTL 419, Siu Lam, Tuen Mun, N.T.

With reference to your faxed letter dated March 19, 2002 regarding the captioned, we wish to advise you that the scheduled Occupation Permit procurement is by the end of September, 2002 whereas the actual occupation will take place after the procurement of CC i.e. by the end of November, 2002.

Yours faithfully
For and on behalf of
CHUN YIP CONSTRUCTION COMPANY LIMITED

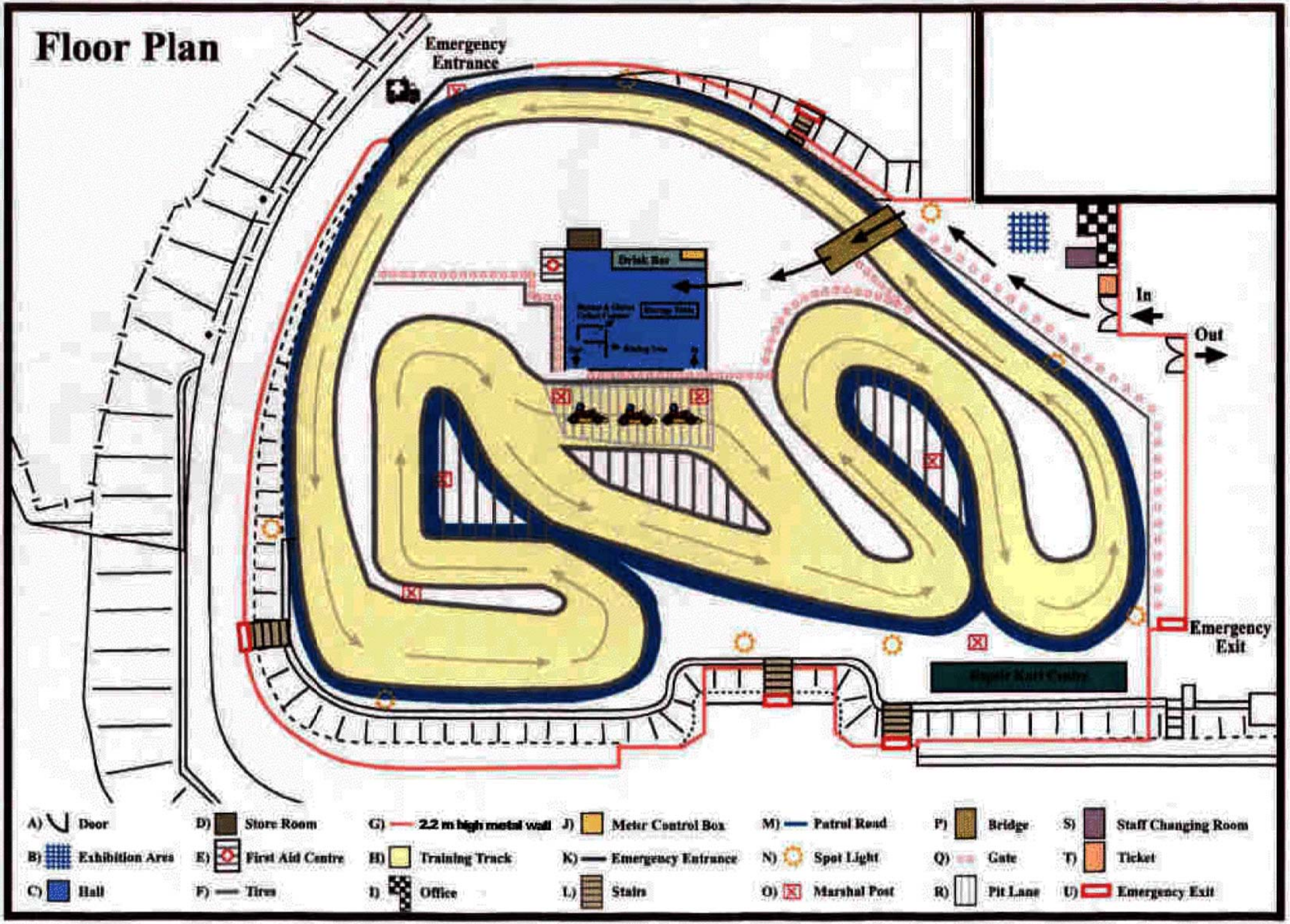
Walter Wan
Construction Manager

WW/ol

Appendix 3

Layout plan of

the Karting Track


Floor Plan
Emergency Entrance
Drink Bar
In
Out
Emergency Exit
A) Door
B) Exhibition Area
C) Hall
D) Store Room
E) First Aid Centre
F) Tires
G) 2.2 m high metal wall
H) Training Track
I) Office
J) Meter Control Box
K) Emergency Entrance
L) Stairs
M) Patrol Road
N) Spot Light
O) Marshal Post
P) Bridge
Q) Gate
R) Pit Lane
S) Staff Changing Room
T) Ticket
U) Emergency Exit

Appendix 4

Information of Disposal Service for Karting Track

ToiToi Hong Kong Limited

香港葵涌葵福道 93 號百佳中心 26 樓 2607 室
Unit 2607, 26 F., Broadway Centre, 93 Kwai Fuk Road, Kwai Chung, Hong Kong
Tel: (852) 2477-1911 Fax: (852) 2443-4790

Monday, December 03, 2001 Reference: TT/PT/01/1002196/JA

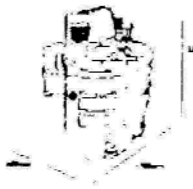
Mr. Patrick Choi
Sinopower Consultants Ltd
102, Hutchison House,
10 Harcourt Road,
Central, HK

By Fax: 2441-5291
Tel: 9464-4733

Dear Patrick

Re: Portable Toilet Rental Service Quotation

We thank you for your interest in our Toi Toi Portable Toilet System regarding the above captioned. We are pleased to submit our quotation for your consideration.

	Portable Toilet Equipment 1 Unit of:	**Rental / month / unit HK$**
	Sink Station ▪ **Foot operated sink system** ▪ **Soap** ▪ **Hand Towel Paper**	**600.00 inclusive of rental & once per week service**
	SUPERLOO Toi Fresh Sititng Style ▪ **Urinal** ▪ Concealed toilet bowl ▪ Toilet paper ▪ Hand Washing Sink	**600.00 inclusive of rental & 4 times per week services per month**

Transportation HK$400 per unit (round trip)

Location : Siu Lam

Service Schedule : *Not including Public holidays*

- Provision of waste water desludging service
- Provision of cleaning service for the toilet interior & exterior

Inclusive of government dump charges, cleaning and washing the toilet interior and exterior, emptying the waste tank, refilling of deodorizer, fresh water and toilet paper.

Reference: TT/PT/01/1002196/JA

Sinopower Consultants Ltd

WASHABLE HOUSE RESTROOM — Rental HK$ 2,900.00/month

INCLUSIVE OF

Equipment & Service Provided

* One unit of 5 meter Washable House Restroom Rental
* Washroom Hygiene Service (Once per week)
  - Wash down interior walls & doors with professional cleaning chemicals
  - Scrub toilet stand , bowl & urinals
  - Towel dry interior
  - Replace toilet paper & back up supply
  - Flush Floor completely clean
  - Make necessary repairs

Transportation — **HK$2,000 (per round trip)**

Installation and connection of Toilet to sewer pipe — **HK$2,000**

Requires your assist: ***Water supply at site***
Electrical connection
Assistance on connection to foul sewer & water
It is the responsibility of Client to get the approval of connecting the toilet to sewer pipe

Location Siu Lam
Delivery 5 12-2001
Deposit One month ($2900)
Payment 30 days (BR copy requested)
Termination One month notice in advance

Not included in contract: Foul sewer pipes repair, maintenance and clearing of external blockage caused by users, sea water supply ofr its repair and maintenance, external fresh water supply or its repair and maintenance.

To confirm your order, simply sign both copies and return the duplicate copy to me. Should you have any queries, please feel free to contact me at **2477-1911 or 9672-6729.**

Quality Service Excellent is our long-term commitment to you.
We look forward to be your business partner soon.

Yours Sincerely,
For and on behalf of
Toi Toi Hong Kong Limited

Janice Lee
Sales Manager

Accepted and Confirmed By
Sinopower Consultants Ltd

SINOPOWER CONSULTANTS LIMITED

Authorized signature with chop
Name/Title: PATRICK CHOI

DET NORSKE VERITAS

ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

Certificate No. EMSC - 1071

This is to certify that
the Environmental Management System
of

DUNWELL PETRO-CHEMICAL CO., LTD.
DUNWELL ENVIRONMENTAL MANAGEMENT CO., LTD.

at

Wang Lee Street, Yuen Long Industrial Estate, New Territories, Hong Kong

has been found to conform to the Environmental Management System Standard:

ISO 14001:1996

This Certificate is valid concerning all activities related to:

MANUFACTURE OF LUBRICATION OIL INCLUDING MANAGEMENT OF COLLECTION SERVICE, WASTE OIL RECYCLING AND WASTE WATER TREATMENT

Place and date:
Rotterdam, August 20th, 1999

for the Accredited Unit:
DNV CERTIFICATION B.V.,
THE NETHERLANDS

Ron J. Meijer
Management Representative

Accredited by the RvA

This Certificate is valid until:
August 20th, 2002

Original Certification date:
August 20th, 1999

C.F. Fong
Lead Auditor

Lack of fulfilment of conditions as set out in the Appendix may render this Certificate invalid.

DUNWELL ENVIRONMENTAL MGMT CO., LTD.
[illegible]昌環保管理有限公司

A member of DUNWELL

Service Scope

Chemical Wastes Collection Services

Services Provided: Chemical Wastes Collection Services

[illegible]

To provide collection, transportation, treatment and disposal services for the following chemical wastes :

i) lubricating oil
ii) non-halogenated solvent
iii) mineral oil
iv) containers, clothing, or other solids contaminated with waste types i), ii) & iii)
v) oil filters contaminated with spent lubricating oil
vi) dry battery, battery casing without electrolyte
vii) containers, clothing or other solids contaminated with paint

[illegible]

Client informs Dunwell of the waste types and quantities to be collected.
Whenever necessary, sampling of wastes for recycling, treatment and disposal will be required.
Dunwell performs the collection services according to EPD's requirements.
Trip tickets will be provided for client's retention.
Recyclable wastes will be recycled at Dunwell's re-refinery facility at Yuen Long Industrial Estate.
Non-recyclable wastes will be disposed at EPD's approved facilities accordingly.

Remarks

Client shall apply for waste producer license from EPD for every site requiring the specific service.
Client are advised to retain the trip ticket records for a minimal of one year for EPD's inspection.
Dunwell Environmental Management Co., Ltd. is an ISO 14001 certified company.

DUNWELL ENVIRONMENTAL MGMT CO., LTD.
正昌環保管理有限公司

A member of DUNWELL

Service Scope

Petro-Interceptor Cleansing Services

Services Provided: Collection of oily effluent from petro-interceptor

Service Scope

To provide collection, transportation, treatment and disposal services for the oily effluent from petro-interceptors.

Service Procedures

Client informs Dunwell of the waste types and quantities to be collected.
Whenever necessary, sampling of wastes for recycling, treatment and disposal will be required.
Vacuum tankers will be used to collect the oily effluent from client's petro-interceptors.
Dunwell uses on-site water supply to clean the internal walls of petro-interceptors and collects the oily effluent afterwards.
Trip tickets will be provided for client's retention.
Recyclable wastes will be recycled at Dunwell's re-refinery facility at Yuen Long Industrial Estate.
Non-recyclable wastes will be disposed at EPD's approved facilities accordingly.

Remarks

Client shall apply for waste producer license from EPD for every site requiring the specific service.
Client is advised to retain the trip ticket records for a minimal of one year for EPD's inspection.
Dunwell Environmental Management Co., Ltd. is an ISO 14001 certified company.

Appendix 5

Licenses issued by Government Departments

食物環境衞生署
FOOD AND ENVIRONMENTAL HYGIENE DEPARTMENT

正 本——白 色
ORIGINAL—WHITE PAPER
副 本——黃 色
DUPLICATE—YELLOW PAPER

牌照號碼 Licence No. 001639

公眾娛樂場所牌照(臨時)
PLACES OF PUBLIC ENTERTAINMENT LICENCE (TEMPORARY)

由食物環境衞生署署長根據公眾娛樂場所條例(第172章)第3B條獲民政事務局局長授權而簽發。
Issued by the Director of Food and Environmental Hygiene authorised by the Secretary for Home Affairs under section 3B of the Places of Public Entertainment Ordinance, Cap 172.

場所種類及名稱：
Type and name of place Zone 3, Tsing Fat Street, Lok On Pai

場所地點：
Situation of place Area 59, Tuen Mun, N.T.

場所用途：
Purpose for which it is to be kept or used kart exhibition, driving training of racing kart and children leisure kart, social gathering and remote control model car racing.

准許 Mr. CHOI Wai-wah
地址為
of 102 A & B, Hutchison House, 10 Harcourt Road, Central, H.K.
(private address)

經營或使用上述場所作為
is hereby authorized to keep or use the above-mentioned place for the purpose of as above

為期 月，由 年 月
for a period of 141 days~~months~~ from the 11st day
of January 2002 日起生效惟必須遵守下列持牌條件。
subject to the under-mentioned conditions.

牌照期滿日期為 年 月 日。
Date of expiry of licence 31st May 2002

牌費：
Fee Received $ 9,910.00 元收訖

(Miss CHENG Ka-yee)
食物環境衞生署署長(代行)
for Director of Food and Environmental Hygiene

日期：
Date 11 January 2002

持牌條件
CONDITIONS

1. 持牌人必須遵守公眾娛樂場所規例內一切有關規定。
The licensee shall observe all the provisions of the Places of Public Entertainment Regulations applicable to him.

2. 該場所最多只能容納之人數：
Maximum number of persons to be accommodated 200 persons

FEHD 34/TM 584/01
011-049-010-54SC

Ref: (19) in FP/NT/W 25/80867 Serial No. 007798

FIRE SERVICES CERTIFICATE

NAME OF LICENSEE : Mr. CHOI Wai-wah

ADDRESS OF PREMISES : Zone 3, Tsing Fat Street,
Lok On Pai, Area 59,
Tuen Mun, New Territories

The above premises was inspected by officers of the Fire Services Department on 8.1.2002 and at the time of inspection, was in accordance with the plans held by this Department. Fire Services requirements for the licensing of this Place of Public Entertainment (~~Theatre~~/Others Kart Exhibition, driving training of racing Kart and children leisure kart, social gathering and ~~remote control model~~ car racing.
(Period: 8.1.2002 to 31.5.2002)) by the ~~Regional Services~~ Department Food and Environmental Hygiene were found to be complied with.

N.B.:— (1) You are advised that this Certificate does not cover the storage or use of dangerous goods, or the installation of a ventilation system (i.e. air-conditioning). Separate applications under appropriate legislation are required for such items.

(2) You are required to observe the Fire Services requirements issued to you at all times.

(WONG Kin-cheong)
for *Director of Fire Services*

Date: 15.1.2002

c.c. D of ~~FS~~/D of RS - (47) in FEHD 34/TM 584/01
Ventilation Division, FSD

FS 366 (Rev. 4/97)

GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION
FORM 5
AMUSEMENT RIDES (SAFETY) ORDINANCE, CHAPTER 449
SECTION 10
PERMIT TO USE AND OPERATE AMUSEMENT RIDE

Electrical and Mechanical
Services Department
98 Caroline Hill Road
Causeway Bay
Hong Kong

Date 12 January 2002

Pursuant to Section 10 of the Amusement Rides (Safety) Ordinance, I hereby permit the use and operation of the amusement ride

Karting
(name of amusement ride)

of *location number XSI-00-001 installed at

Zone 3, Tsing Fat Street, Lok On Pai, Area 59, Tuen Mun, N.T
(ride address)

subject to the conditions stipulated in the Annex to this certificate.

(LAW Yu-wing)
for Director of Electrical and Mechanical Services

* *Please quote this number for future correspondence.*

Receipt No. : L449963
Payment Amount : HK$5,340-

EMSD/GLA03

機電工程署 EMSD

香港特別行政區政府 機電工程署
香港銅鑼灣加路連山道98號
Electrical and Mechanical Services Department
Government of the Hong Kong Special Administrative Region
98 Caroline Hill Road, Causeway Bay, Hong Kong
www.emsd.gov.hk

Our reference 本署檔號: (36) in EM/GL/05/21-24

Telephone 電話號碼: (852) 21358162

Facsimile 圖文傳真: (852) 2577 4901

Your reference 來函檔號:

12 January 2002

Zone 3, Tsing Fat Street
Lok On Pai, Area 59
Tuen Mun, N.T

(Attn. : Mr CHOI Wai-wah)

Dear Sir,

Application for Permit to Use and Operate of Amusement Ride "Karting" (Location No. XSI-00-001) at Zone 3, Tsing Fat Street, Lok On Pai, Area 59, Tuen Mun

I refer to your above application under the Amusement Rides (Safety) Ordinance.

The Form 3 submitted by you on 7 January 2002 has been approved by this Department.

The Form 5 for permission of the use and operation of the above amusement rides and receipt of payment for your application are attached herewith for your retention.

Yours Faithfully,

(Raymond KAN)
for Director of Electrical and Mechanical Services

RK/jc

GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION

FORM 22

AMUSEMENT RIDES (SAFETY)(OPERATION AND MAINTENANCE) REGULATION, CHAPTER 449

SECTION 5

CERTIFICATE OF APPROVAL AS A COMPETENT PERSON

Certificate No. C-075

[redacted]

Electrical and Mechanical
Services Department
98 Caroline Hill Road
Causeway Bay
Hong Kong

Date 10 January 2002

I hereby approve, under Section 5 of the Amusement Rides (Safety) (Operation and Maintenance) Regulation, [redacted] Being the holder of

(name of certificate holder)

#Hong Kong Identity Card / ~~Passport No.~~ [redacted] to carry out the duties of a Competent Person *under the conditions as stipulated in the Annex to this certificate for the following amusement ride owner(s) and for the amusement rides installed in the following location(s) -

Name of Amusement ride Owner(s)	**Location of Amusement Ride(s)**
Sinopower Consultants Limited	Zone 3, Tsing Fat Street, Lok On Pai Area 59, Tuen Mun, N T

(LAW Yu-wing)
for Director of Electrical and Mechanical Services

Notes: ① *This certificate shall become null and void when the person named herein shall no longer be employed in the capacity and shall forthwith be returned to the issuing officer at the above address.*

② **The duties which the Competent Person may perform are limited to those stipulated in the Annex to this certificate.*

#Delete if inappropriate

EMSD/GLA22

Name of Applicant : [redacted]

HKID No. : [redacted]

Ride Name & Location No. : Karting (XSI-00-001)

Location of Amusement Ride : Zone 3, Tsing Fat Street,
Lok On Pai,
Area 59, Tuen Mun, N.T..

Appendix 6

Information provided by Project Proponent (Sinopower Consultants Ltd)

中力顧問有限公司
Sinopower Consultants Ltd.

To : Westwood Hong & Associates Ltd.
Attn : Mr. Westwood Hong
Fax : 25916189
Date: March 27, 2002

Dear Sir,

Kart Motor Track at Lok On Pai, Area 59, Tuen Mun
Additional Information required to support the Project Profile

For the additional information as required to support the Project Profile, please be informed of the followings:

Additional Information :

1. The overall track length of the Kart Motor Track is 500 Metres.
2. There is no specific requirement in the Lease condition of the subject on decommissioning and the restoration.
3. There is no specific requirement on the decommissioning period.
4. For the Boundary Wall, the height is 2.2 metres.
5. The quantities of chemical waste estimated to be generated are 20 litres per month. And, the household waste estimated to be generated are 5 kgs per day.
6. For the attraction of traffic to site, it is estimated to be 10 vehicles per day.

Please note for your information and let us know if you have further comments to the above.

Best Regards,

Patrick Choi.

香港新界屯門青山公路小欖青發街59號 (三號場)
Zone 3, Tsing Fat Street, Lok On Pai, Area 59, Tuen Mun, N.T. Hong Kong.
Tel: (852) 2441 4447 (852) 2441 4446 Fax: (852) 2441 5291

Appendix 7

Construction Schedule provided by Client

中力顧問有限公司
Sinopower Consultants Ltd.

To : Westwood Hong & Associates Ltd.
Attn: Mr. Westwood Hong
c.c. : Angela

Fax: 2591 6189 Date: Apr 2, 2002

Dear Sir,

Kart Motor Track at Lok On Pai,
Area 59, Tuen Mun

We are pleased to inform you the building process of the subject site:

Item		Duration
1.	Outlying fence:	takes 2 days
2.	Cleaning of waste	takes 2 days
3.	Positioning of the tyres for the track 5.5 ton truck was used for unloading the tyres.	takes 3 days
4.	Build the bitumen on the track workers used compactor in this process	takes 3 days,
5.	Pedestrian bridge	takes 3 days

(Note: Item 1, 2, 3 are going to take place simultaneously)

Please note and let us know if you have any query.

Best Rgds,
Tommy Ho

香港新界屯門青山公路小欖青發街59號 (三號場)
Zone 3, Tsing Fat Street, Lok On Pai, Area 59, Tuen Mun, N.T. Hong Kong.
Tel: (852) 2441 4447 (852) 2441 4446 Fax: (852) 2441 5291

Appendix 8

Air Impact Assessment

Air Impact Assessment

Methodology

1) The air impacts caused by the kart emissions have been predicted by employing CALINE4 model which is a line source air quality model developed by the California Department of Transport. The prediction model is based on the Gaussian diffusion equation and employs a mixing zone concept to characterize pollutant dispersion over the roadway.

2) Based on an approximate 2-minute lap time and maximum allowable 10 karts on the track, the flow is estimated as 300 karts per hour on the track.

3) The computer plot of the simulation model for the kart emissions assessment is presented in Figure A8.1.

4) According to Trinity Consultants Inc, the supplier of the CALINE4 software, the 24-hour averages of RSP could be estimated by multiplying the maximum 1-hour concentration with multiplication factor of 0.4. This factor is accepted by the regulatory agencies in the USA.

5) The 1-hour NO_2 having more stringent criterion is presented. The predicted 1-hour NO_2 and 24-hour RSP concentrations including background concentrations were presented in contour maps, plotted by employing the program *Surfer* by *Golden Software*.

Background Concentrations

6) Background concentrations for NO_2 and RSP in the vicinity are taken as the annual average concentrations at Tsuen Wan area as stated in the Air Quality in Hong Kong Year 2000, as shown in Table A8-1.

	Pollutants	
	NO_2	RSP
Background concentrations (μgm^{-3})	61	50

Table A8-1 The background concentrations for NO_2 and RSP

Pollutant Emission Rates

7) The major pollutants emitted by vehicles include Nitrox (NO_x) and Respirable Suspended Particulates (RSP). The emission factors for these pollutants have been calculated according to the EPD's Fleet Average Vehicle Emission Factors at Year 2002. The emission rates of NOx and RSP is 1.68 and 0.05 g/mile/veh respectively.

Parameters for CALINE4

8) The parameters employed in the CALINE4 model are given in Table A8-2. These parameters are the worst-case meteorological data.

Parameters employed in CALINE4	Value
Wind Speed	1m/s
Stability Class	D
Ambient Temperature	25 degree C
Mixing Height	500m
Wind Direction Standard Deviation	12 degree
Aerodynamic Roughness Coefficient	100cm
Pollutant Settling Velocity	0 cm/s
Pollutant Deposition Velocity	0 cm/s

Table A8-2 Parameters employed in CALINE4 model

Interpretation of Results

9) NO_2 is assumed to behave as an inert gas. The concentrations for NO_2 are taken to be 20% of the predicted NO_x results.

Predicted Pollutant Concentrations

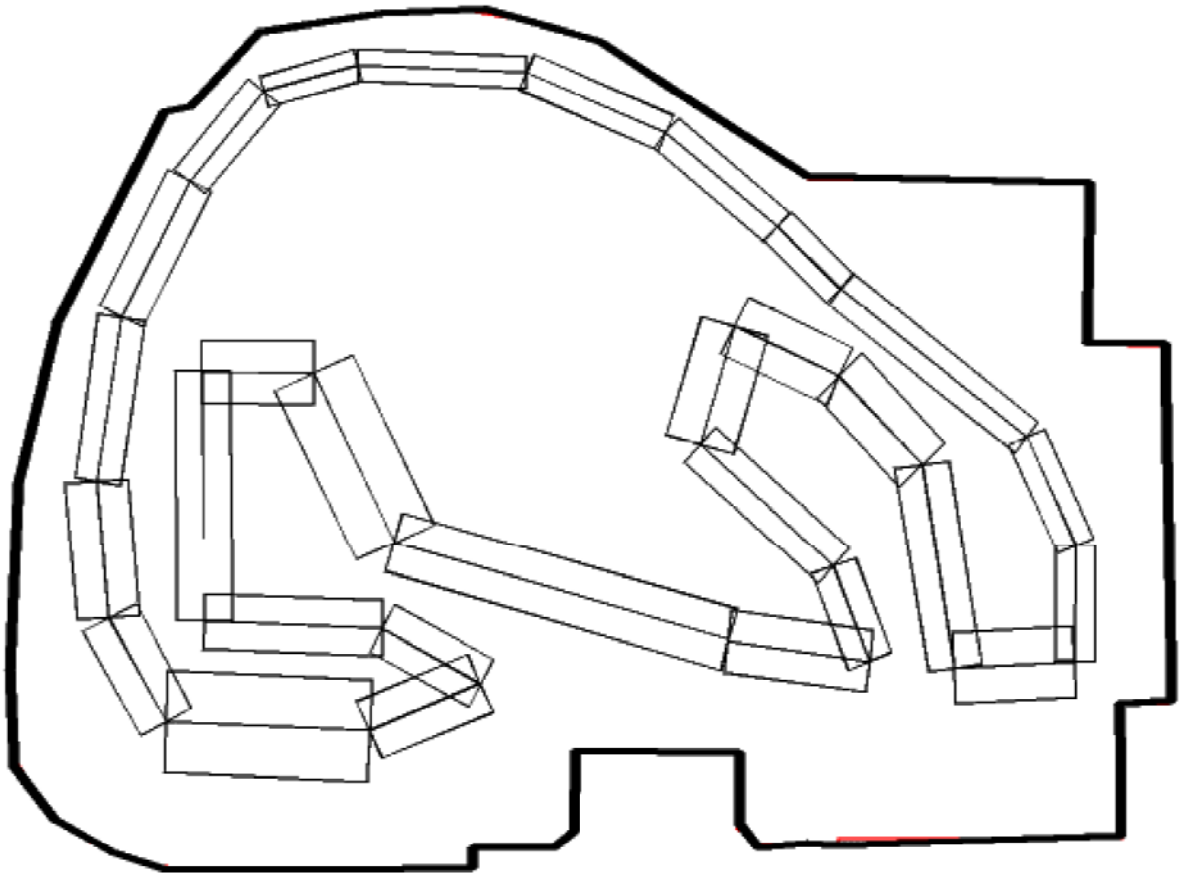
10) The prediction results are summarized in Table A8-3 and shown in Figures A8-2 & A8-3. Prediction results indicate that the air pollutant concentrations caused by the karts are well within the HKAQO limits for all the nearby air sensitive receivers. A typical CALINE output file is given in Appendix 8.1.

Air Pollutant	Predicted Maximum Pollutant Concentrations, $\mu g/m^3$	HKAQO limit, $\mu g/m^3$
1-hr Nitrogen Dioxide	78*	300
24-hr Respirable Suspended Particulates	51**	180

Table A8-3 Predicted Maximum Pollutant Concentrations within the subject site

Note:
* Predicted concentration including background concentration of $61\mu g/m^3$.
** Predicted concentration including background concentration of $50\mu g/m^3$.

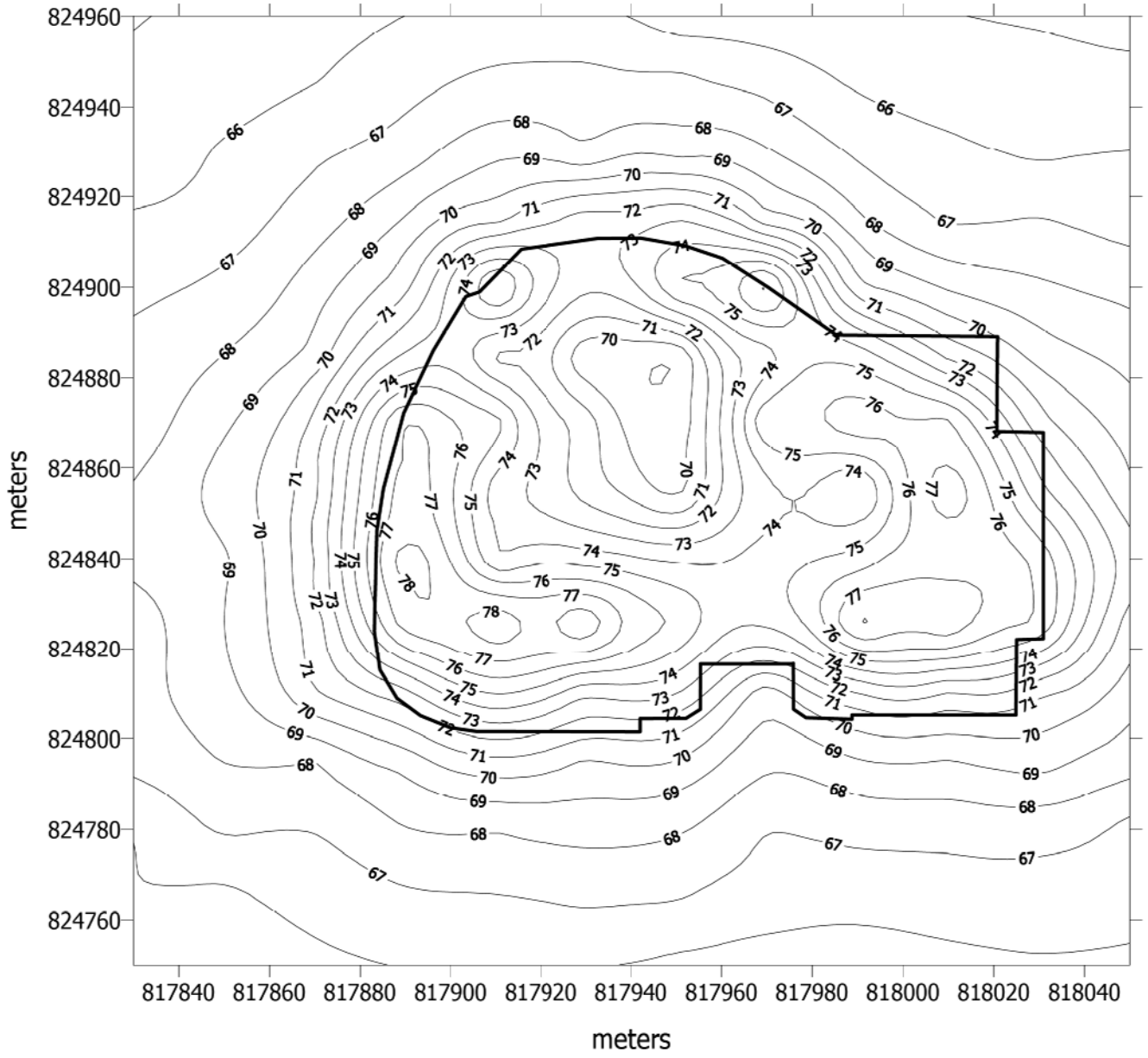
NORTH



Legend

Site location

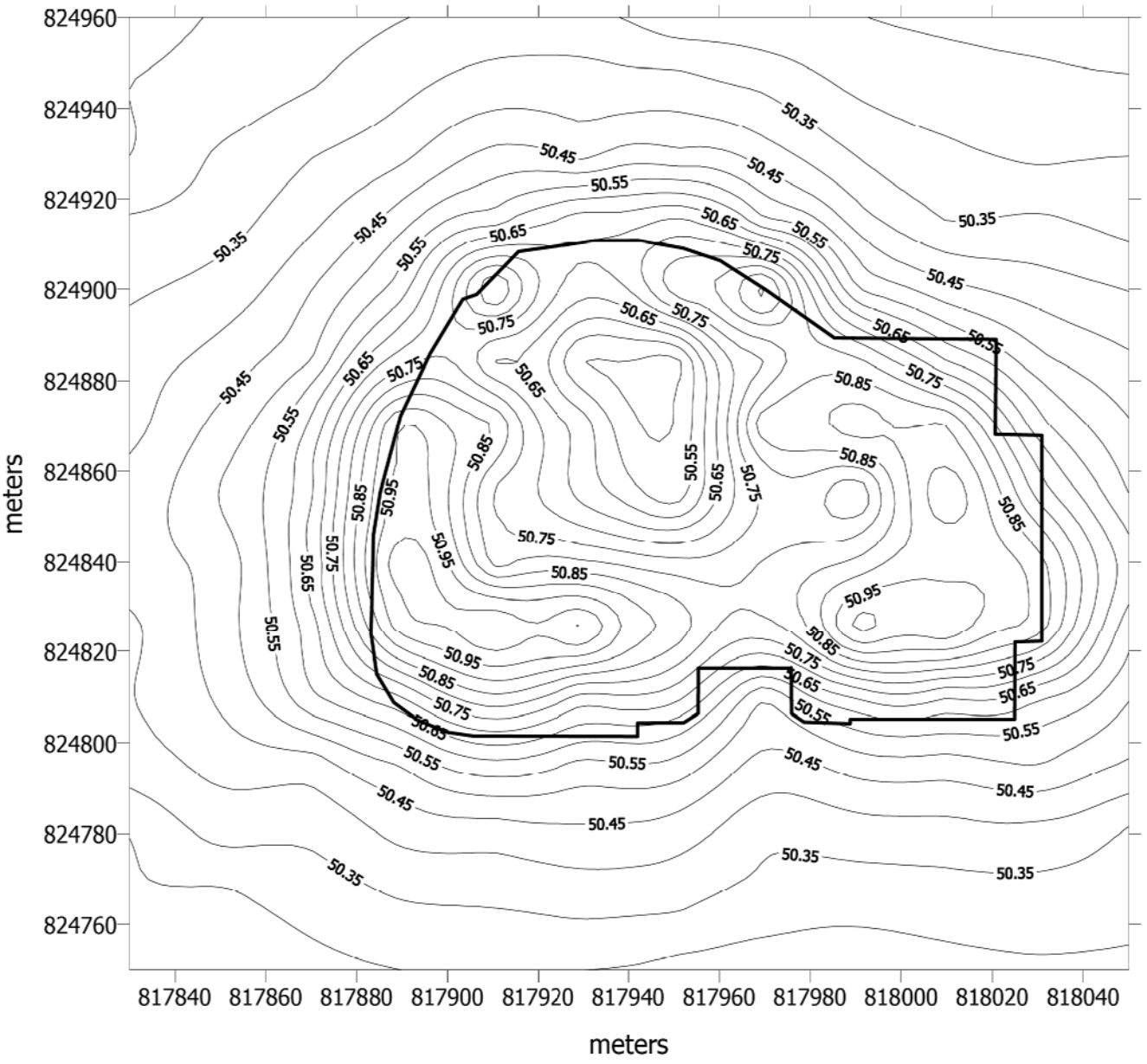
Westwood Hong & Associates Ltd	TITLE :	FIGURE
PROJECT : 21564	A Computer plot of road scheme (Air impact assessment)	A8-1
Karting Track at Tuen Mun		



Notes: 1) The HKAQO limit for 1-hr NO_2 is 300μgm^{-3}

2) The background concentration included is 61μgm^{-3} (annual average conc. at Tsuen Wan, 2000)

Westwood Hong & Associates Ltd PROJECT : 21564 **Karting Track at Tuen Mun**	TITLE : Predicted 1-hr NO_2 concentrations at G/F (with site boundaries shown) (in μgm^{-3})	FIGURE A8-2



Notes: 1) The HKAQO limit for 24-hr RSP is 180μgm^{-3}
2) The background concentration included is 50μgm^{-3} (annual average conc. at Tsuen Wan, 2000)

Westwood Hong & Associates Ltd	TITLE :	FIGURE
PROJECT : 21564	Predicted 24-hr RSP concentrations at G/F	A8-3
Karting Track at Tuen Mun	(with site boundaries shown) (in μgm^{-3})	

Appendix 8.1

CALINE4 Output File for NO_x at G/F

1 CALINE4 - (DATED CALINE4x)

3.0.0 PC (32 BIT) VERSION
(C) COPYRIGHT 2000, TRINITY CONSULTANTS

Run Began on 1/22/2002 at 17:13:08

CALINE4: CALIFORNIA LINE SOURCE DISPERSION MODEL
JUNE 1989 VERSION
PAGE 1

JOB: 21564 Karting Circuit Tuen Mun(2002)
RUN: 64a1N (WORST CASE ANGLE)
POLLUTANT: NOx

I. SITE VARIABLES

U= 1.0 M/S Z0= 100. CM ALT= 0. (M)
BRG= WORST CASE VD= 0.0 CM/S
CLAS= 4 (D) VS= 0.0 CM/S
MIXH= 500. M AMB= 0.0 PPM
SIGTH= 12. DEGREES TEMP= 25.5 DEGREE (C)

II. LINK VARIABLES

	LINK DESCRIPTION	LINK COORDINATES (M) X1	Y1	X2	Y2	TYPE	VPH	EF (G/MI)	H (M)	W (M)
1.	1	*****	*****	*****	*****	AG	300	1.7	-1.4	14.0
2.	2	*****	*****	*****	*****	AG	300	1.7	-1.4	12.0
3.	3	*****	*****	*****	*****	AG	300	1.7	-1.4	12.0
4.	4	*****	*****	*****	*****	AG	300	1.7	-1.4	15.0
5.	5	*****	*****	*****	*****	AG	300	1.7	-1.4	14.0
6.	6	*****	*****	*****	*****	AG	300	1.7	-1.4	14.0
7.	7	*****	*****	*****	*****	AG	300	1.7	-1.4	13.0
8.	8	*****	*****	*****	*****	AG	300	1.7	-1.4	15.0
9.	9	*****	*****	*****	*****	AG	300	1.7	-1.4	11.0
10.	10	*****	*****	*****	*****	AG	300	1.7	-1.4	11.0
11.	11	*****	*****	*****	*****	AG	300	1.7	-1.3	11.0
12.	12	*****	*****	*****	*****	AG	300	1.7	-1.0	11.0
13.	13	*****	*****	*****	*****	AG	300	1.7	-0.4	11.0
14.	14	*****	*****	*****	*****	AG	300	1.7	0.4	11.0
15.	15	*****	*****	*****	*****	AG	300	1.7	1.2	10.0
16.	16	*****	*****	*****	*****	AG	300	1.7	1.4	10.0
17.	17	*****	*****	*****	*****	AG	300	1.7	1.0	11.0
18.	18	*****	*****	*****	*****	AG	300	1.7	0.5	12.0
19.	19	*****	*****	*****	*****	AG	300	1.7	-0.1	12.0
20.	20	*****	*****	*****	*****	AG	300	1.7	-0.7	14.0
21.	21	*****	*****	*****	*****	AG	300	1.7	-1.2	13.6
22.	22	*****	*****	*****	*****	AG	300	1.7	-1.4	19.0
23.	23	*****	*****	*****	*****	AG	300	1.7	-1.4	14.0
24.	24	*****	*****	*****	*****	AG	300	1.7	-1.4	13.0
25.	25	*****	*****	*****	*****	AG	300	1.7	-1.4	13.0
26.	26	*****	*****	*****	*****	AG	300	1.7	-1.4	13.0
27.	27	*****	*****	*****	*****	AG	300	1.7	-1.4	14.0
28.	28	*****	*****	*****	*****	AG	300	1.7	-1.4	17.0
29.	29	*****	*****	*****	*****	AG	300	1.7	-1.4	14.0

III. RECEPTOR LOCATIONS

RECEPTOR	*	COORDINATES (M) X	Y	Z
1. 1	*	817830	824750	0.1
2. 2	*	817830	824765	0.1
3. 3	*	817830	824780	0.1
4. 4	*	817830	824795	0.1
5. 5	*	817830	824810	0.1
6. 6	*	817830	824825	0.1
7. 7	*	817830	824840	0.1
8. 8	*	817830	824855	0.1
9. 9	*	817830	824870	0.1
10. 10	*	817830	824885	0.1
11. 11	*	817830	824900	0.1
12. 12	*	817830	824915	0.1
13. 13	*	817830	824930	0.1
14. 14	*	817830	824945	0.1
15. 15	*	817830	824960	0.1
16. 16	*	817850	824750	0.1
17. 17	*	817850	824765	0.1
18. 18	*	817850	824780	0.1
19. 19	*	817850	824795	0.1
20. 20	*	817850	824810	0.1
21. 21	*	817850	824825	0.1
22. 22	*	817850	824840	0.1
23. 23	*	817850	824855	0.1
24. 24	*	817850	824870	0.1
25. 25	*	817850	824885	0.1
26. 26	*	817850	824900	0.1
27. 27	*	817850	824915	0.1
28. 28	*	817850	824930	0.1
29. 29	*	817850	824945	0.1
30. 30	*	817850	824960	0.1
31. 31	*	817870	824750	0.1
32. 32	*	817870	824765	0.1
33. 33	*	817870	824780	0.1
34. 34	*	817870	824795	0.1
35. 35	*	817870	824810	0.1
36. 36	*	817870	824825	0.1
37. 37	*	817870	824840	0.1
38. 38	*	817870	824855	0.1
39. 39	*	817870	824870	0.1
40. 40	*	817870	824885	0.1
41. 41	*	817870	824900	0.1
42. 42	*	817870	824915	0.1
43. 43	*	817870	824930	0.1
44. 44	*	817870	824945	0.1
45. 45	*	817870	824960	0.1
46. 46	*	817890	824750	0.1
47. 47	*	817890	824765	0.1
48. 48	*	817890	824780	0.1
49. 49	*	817890	824795	0.1
50. 50	*	817890	824810	0.1
51. 51	*	817890	824825	0.1
52. 52	*	817890	824840	0.1
53. 53	*	817890	824855	0.1
54. 54	*	817890	824870	0.1

55.	55	*	817890	824885	0.1
56.	56	*	817890	824900	0.1
57.	57	*	817890	824915	0.1
58.	58	*	817890	824930	0.1
59.	59	*	817890	824945	0.1
60.	60	*	817890	824960	0.1
61.	61	*	817910	824750	0.1
62.	62	*	817910	824765	0.1
63.	63	*	817910	824780	0.1
64.	64	*	817910	824795	0.1
65.	65	*	817910	824810	0.1
66.	66	*	817910	824825	0.1
67.	67	*	817910	824840	0.1
68.	68	*	817910	824855	0.1
69.	69	*	817910	824870	0.1
70.	70	*	817910	824885	0.1
71.	71	*	817910	824900	0.1
72.	72	*	817910	824915	0.1
73.	73	*	817910	824930	0.1
74.	74	*	817910	824945	0.1
75.	75	*	817910	824960	0.1
76.	76	*	817930	824750	0.1
77.	77	*	817930	824765	0.1
78.	78	*	817930	824780	0.1
79.	79	*	817930	824795	0.1
80.	80	*	817930	824810	0.1
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82.	82	*	817930	824840	0.1
83.	83	*	817930	824855	0.1
84.	84	*	817930	824870	0.1
85.	85	*	817930	824885	0.1
86.	86	*	817930	824900	0.1
87.	87	*	817930	824915	0.1
88.	88	*	817930	824930	0.1
89.	89	*	817930	824945	0.1
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91.	91	*	817950	824750	0.1
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93.	93	*	817950	824780	0.1
94.	94	*	817950	824795	0.1
95.	95	*	817950	824810	0.1
96.	96	*	817950	824825	0.1
97.	97	*	817950	824840	0.1
98.	98	*	817950	824855	0.1
99.	99	*	817950	824870	0.1
100.	100	*	817950	824885	0.1
101.	101	*	817950	824900	0.1
102.	102	*	817950	824915	0.1
103.	103	*	817950	824930	0.1
104.	104	*	817950	824945	0.1
105.	105	*	817950	824960	0.1
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107.	107	*	817970	824765	0.1
108.	108	*	817970	824780	0.1
109.	109	*	817970	824795	0.1
110.	110	*	817970	824810	0.1
111.	111	*	817970	824825	0.1
112.	112	*	817970	824840	0.1
113.	113	*	817970	824855	0.1
114.	114	*	817970	824870	0.1
115.	115	*	817970	824885	0.1

116. 116 * 817970 824900 0.1
117. 117 * 817970 824915 0.1
118. 118 * 817970 824930 0.1
119. 119 * 817970 824945 0.1
120. 120 * 817970 824960 0.1
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125. 125 * 817990 824810 0.1
126. 126 * 817990 824825 0.1
127. 127 * 817990 824840 0.1
128. 128 * 817990 824855 0.1
129. 129 * 817990 824870 0.1
130. 130 * 817990 824885 0.1
131. 131 * 817990 824900 0.1
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136. 136 * 818010 824750 0.1
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159. 159 * 818030 824870 0.1
160. 160 * 818030 824885 0.1
161. 161 * 818030 824900 0.1
162. 162 * 818030 824915 0.1
163. 163 * 818030 824930 0.1
164. 164 * 818030 824945 0.1
165. 165 * 818030 824960 0.1
166. 166 * 818050 824750 0.1
167. 167 * 818050 824765 0.1
168. 168 * 818050 824780 0.1
169. 169 * 818050 824795 0.1
170. 170 * 818050 824810 0.1
171. 171 * 818050 824825 0.1
172. 172 * 818050 824840 0.1
173. 173 * 818050 824855 0.1
174. 174 * 818050 824870 0.1
175. 175 * 818050 824885 0.1
176. 176 * 818050 824900 0.1

177. 177	* 818050	824915	0.1
178. 178	* 818050	824930	0.1
179. 179	* 818050	824945	0.1
180. 180	* 818050	824960	0.1

IV. MODEL RESULTS (WORST CASE WIND ANGLE)

RECEPTOR	BRG (DEG)	PRED CONC (PPM)	CONC/LINK (PPM) 1	2	3	4	5	6	7	8
1. 1	49.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. 2	55.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. 3	61.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. 4	69.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. 5	75.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6. 6	82.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7. 7	90.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8. 8	96.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9. 9	102.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10. 10	108.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11. 11	115.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12. 12	119.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13. 13	130.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14. 14	128.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15. 15	139.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16. 16	46.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17. 17	51.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18. 18	58.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19. 19	65.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20. 20	73.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21. 21	82.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22. 22	91.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23. 23	98.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24. 24	103.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25. 25	112.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26. 26	124.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27. 27	133.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28. 28	140.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29. 29	144.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30. 30	148.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31. 31	26.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32. 32	29.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33. 33	53.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34. 34	61.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35. 35	70.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36. 36	82.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37. 37	93.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38. 38	98.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39. 39	106.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40. 40	117.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41. 41	135.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42. 42	144.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43. 43	150.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44. 44	154.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45. 45	156.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46. 46	14.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47. 47	15.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48. 48	17.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49. 49	53.	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

50. 50	*	66. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
51. 51	*	80. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52. 52	*	95. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53. 53	*	101. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54. 54	*	112. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55. 55	*	140. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56. 56	*	155. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57. 57	*	160. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58. 58	*	162. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
59. 59	*	165. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60. 60	*	166. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
61. 61	*	3. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62. 62	*	1. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
63. 63	*	360. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64. 64	*	356. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65. 65	*	57. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66. 66	*	78. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67. 67	*	122. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
68. 68	*	107. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
69. 69	*	181. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70. 70	*	211. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
71. 71	*	187. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72. 72	*	181. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73. 73	*	180. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74. 74	*	179. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75. 75	*	179. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76. 76	*	352. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77. 77	*	349. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78. 78	*	347. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79. 79	*	340. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80. 80	*	349. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81. 81	*	67. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82. 82	*	94. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83. 83	*	287. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84. 84	*	231. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85. 85	*	209. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86. 86	*	89. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87. 87	*	130. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88. 88	*	140. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89. 89	*	146. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90. 90	*	189. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91. 91	*	342. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92. 92	*	338. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93. 93	*	336. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94. 94	*	330. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95. 95	*	318. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96. 96	*	278. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97. 97	*	99. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98. 98	*	223. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99. 99	*	106. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100. 100	*	127. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101. 101	*	122. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102. 102	*	144. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103. 103	*	154. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104. 104	*	158. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105. 105	*	161. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106. 106	*	332. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107. 107	*	327. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108. 108	*	321. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109. 109	*	311. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110. 110	*	33. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

111. 111	*	298. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112. 112	*	259. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113. 113	*	125. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114. 114	*	118. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115. 115	*	125. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116. 116	*	151. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117. 117	*	163. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118. 118	*	167. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119. 119	*	170. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120. 120	*	172. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121. 121	*	359. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122. 122	*	358. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123. 123	*	357. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124. 124	*	356. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125. 125	*	355. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126. 126	*	342. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127. 127	*	259. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128. 128	*	334. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129. 129	*	238. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130. 130	*	214. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131. 131	*	184. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132. 132	*	186. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133. 133	*	183. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134. 134	*	182. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135. 135	*	182. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136. 136	*	348. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137. 137	*	346. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138. 138	*	342. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139. 139	*	339. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140. 140	*	339. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141. 141	*	330. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142. 142	*	263. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143. 143	*	308. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144. 144	*	248. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145. 145	*	237. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146. 146	*	227. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147. 147	*	213. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148. 148	*	200. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149. 149	*	197. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150. 150	*	195. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151. 151	*	338. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152. 152	*	336. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153. 153	*	332. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154. 154	*	327. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155. 155	*	320. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156. 156	*	283. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157. 157	*	267. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158. 158	*	260. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159. 159	*	252. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160. 160	*	242. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161. 161	*	234. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162. 162	*	227. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163. 163	*	221. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164. 164	*	216. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165. 165	*	212. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166. 166	*	330. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167. 167	*	325. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168. 168	*	321. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169. 169	*	314. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170. 170	*	294. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171. 171	*	280. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

172. 172	* 269. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173. 173	* 261. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174. 174	* 254. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175. 175	* 248. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176. 176	* 238. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177. 177	* 232. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178. 178	* 227. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179. 179	* 222. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180. 180	* 221. *	0.0 *	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RECEPTOR	* CONC/LINK (PPM) * 9	10	11	12	13	14	15	16
1. 1	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. 2	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. 3	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. 4	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. 5	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6. 6	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7. 7	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8. 8	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9. 9	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10. 10	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11. 11	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12. 12	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13. 13	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14. 14	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15. 15	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16. 16	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17. 17	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18. 18	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19. 19	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20. 20	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21. 21	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22. 22	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23. 23	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24. 24	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25. 25	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26. 26	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27. 27	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28. 28	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29. 29	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30. 30	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31. 31	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32. 32	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33. 33	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34. 34	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35. 35	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36. 36	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37. 37	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38. 38	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39. 39	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40. 40	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41. 41	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42. 42	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
43. 43	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44. 44	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45. 45	* 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

46.	46	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.	47	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48.	48	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49.	49	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50.	50	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
51.	51	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.	52	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53.	53	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54.	54	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55.	55	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56.	56	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.	57	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58.	58	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
59.	59	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60.	60	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
61.	61	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.	62	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
63.	63	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64.	64	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65.	65	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66.	66	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.	67	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
68.	68	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
69.	69	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70.	70	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
71.	71	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.	72	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73.	73	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74.	74	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75.	75	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76.	76	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.	77	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78.	78	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.	79	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.	80	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81.	81	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.	82	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83.	83	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.	84	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.	85	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.	86	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.	87	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88.	88	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89.	89	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.	90	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91.	91	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.	92	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93.	93	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94.	94	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95.	95	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96.	96	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.	97	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98.	98	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99.	99	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.	100	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101.	101	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.	102	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103.	103	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
104.	104	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105.	105	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106.	106	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

107.	107	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108.	108	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109.	109	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110.	110	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111.	111	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.	112	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113.	113	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114.	114	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115.	115	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116.	116	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.	117	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118.	118	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119.	119	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120.	120	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121.	121	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.	122	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123.	123	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124.	124	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125.	125	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126.	126	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.	127	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128.	128	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129.	129	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130.	130	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131.	131	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.	132	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133.	133	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134.	134	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135.	135	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136.	136	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.	137	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138.	138	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139.	139	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140.	140	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141.	141	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.	142	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143.	143	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144.	144	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145.	145	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146.	146	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.	147	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148.	148	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149.	149	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150.	150	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151.	151	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.	152	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153.	153	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154.	154	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155.	155	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156.	156	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.	157	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158.	158	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159.	159	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160.	160	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161.	161	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.	162	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163.	163	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164.	164	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165.	165	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166.	166	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.	167	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

168. 168	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169. 169	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170. 170	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171. 171	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172. 172	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173. 173	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174. 174	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175. 175	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176. 176	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177. 177	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178. 178	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179. 179	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180. 180	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

		CONC/LINK (PPM)							
RECEPTOR	*	17	18	19	20	21	22	23	24
1. 1	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2. 2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3. 3	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4. 4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5. 5	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6. 6	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7. 7	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8. 8	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9. 9	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10. 10	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11. 11	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12. 12	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13. 13	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14. 14	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15. 15	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16. 16	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17. 17	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18. 18	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19. 19	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20. 20	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
21. 21	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22. 22	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
23. 23	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
24. 24	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25. 25	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
26. 26	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27. 27	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
28. 28	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
29. 29	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30. 30	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
31. 31	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32. 32	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
33. 33	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
34. 34	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35. 35	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
36. 36	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37. 37	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
38. 38	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
39. 39	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40. 40	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
41. 41	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42. 42	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

43.	43	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
44.	44	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45.	45	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
46.	46	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.	47	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
48.	48	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
49.	49	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50.	50	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
51.	51	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.	52	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
53.	53	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
54.	54	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55.	55	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
56.	56	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.	57	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
58.	58	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
59.	59	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60.	60	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
61.	61	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.	62	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
63.	63	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
64.	64	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65.	65	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
66.	66	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.	67	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
68.	68	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
69.	69	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70.	70	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
71.	71	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.	72	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
73.	73	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
74.	74	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75.	75	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
76.	76	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.	77	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
78.	78	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
79.	79	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80.	80	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
81.	81	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.	82	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
83.	83	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
84.	84	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85.	85	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
86.	86	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.	87	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
88.	88	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
89.	89	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90.	90	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
91.	91	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.	92	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
93.	93	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
94.	94	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95.	95	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
96.	96	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.	97	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
98.	98	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
99.	99	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100.	100	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
101.	101	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.	102	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
103.	103	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

104.	104	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105.	105	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
106.	106	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.	107	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
108.	108	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
109.	109	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110.	110	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
111.	111	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.	112	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
113.	113	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
114.	114	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115.	115	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
116.	116	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.	117	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
118.	118	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
119.	119	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120.	120	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
121.	121	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.	122	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
123.	123	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
124.	124	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125.	125	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
126.	126	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.	127	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
128.	128	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
129.	129	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130.	130	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
131.	131	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.	132	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
133.	133	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
134.	134	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135.	135	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
136.	136	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.	137	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
138.	138	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
139.	139	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140.	140	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
141.	141	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.	142	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
143.	143	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
144.	144	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145.	145	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
146.	146	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.	147	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
148.	148	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
149.	149	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150.	150	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
151.	151	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.	152	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
153.	153	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
154.	154	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155.	155	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
156.	156	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.	157	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
158.	158	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
159.	159	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160.	160	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
161.	161	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.	162	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
163.	163	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
164.	164	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

165. 165	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
166. 166	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167. 167	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
168. 168	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
169. 169	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170. 170	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
171. 171	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172. 172	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
173. 173	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
174. 174	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175. 175	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
176. 176	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177. 177	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
178. 178	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
179. 179	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180. 180	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

RECEPTOR	*CONC/LINK *(PPM) *	25	26	27	28	29
1. 1	*	0.0	0.0	0.0	0.0	0.0
2. 2	*	0.0	0.0	0.0	0.0	0.0
3. 3	*	0.0	0.0	0.0	0.0	0.0
4. 4	*	0.0	0.0	0.0	0.0	0.0
5. 5	*	0.0	0.0	0.0	0.0	0.0
6. 6	*	0.0	0.0	0.0	0.0	0.0
7. 7	*	0.0	0.0	0.0	0.0	0.0
8. 8	*	0.0	0.0	0.0	0.0	0.0
9. 9	*	0.0	0.0	0.0	0.0	0.0
10. 10	*	0.0	0.0	0.0	0.0	0.0
11. 11	*	0.0	0.0	0.0	0.0	0.0
12. 12	*	0.0	0.0	0.0	0.0	0.0
13. 13	*	0.0	0.0	0.0	0.0	0.0
14. 14	*	0.0	0.0	0.0	0.0	0.0
15. 15	*	0.0	0.0	0.0	0.0	0.0
16. 16	*	0.0	0.0	0.0	0.0	0.0
17. 17	*	0.0	0.0	0.0	0.0	0.0
18. 18	*	0.0	0.0	0.0	0.0	0.0
19. 19	*	0.0	0.0	0.0	0.0	0.0
20. 20	*	0.0	0.0	0.0	0.0	0.0
21. 21	*	0.0	0.0	0.0	0.0	0.0
22. 22	*	0.0	0.0	0.0	0.0	0.0
23. 23	*	0.0	0.0	0.0	0.0	0.0
24. 24	*	0.0	0.0	0.0	0.0	0.0
25. 25	*	0.0	0.0	0.0	0.0	0.0
26. 26	*	0.0	0.0	0.0	0.0	0.0
27. 27	*	0.0	0.0	0.0	0.0	0.0
28. 28	*	0.0	0.0	0.0	0.0	0.0
29. 29	*	0.0	0.0	0.0	0.0	0.0
30. 30	*	0.0	0.0	0.0	0.0	0.0
31. 31	*	0.0	0.0	0.0	0.0	0.0
32. 32	*	0.0	0.0	0.0	0.0	0.0
33. 33	*	0.0	0.0	0.0	0.0	0.0
34. 34	*	0.0	0.0	0.0	0.0	0.0
35. 35	*	0.0	0.0	0.0	0.0	0.0
36. 36	*	0.0	0.0	0.0	0.0	0.0
37. 37	*	0.0	0.0	0.0	0.0	0.0
38. 38	*	0.0	0.0	0.0	0.0	0.0
39. 39	*	0.0	0.0	0.0	0.0	0.0

40.	40	*	0.0	0.0	0.0	0.0	0.0
41.	41	*	0.0	0.0	0.0	0.0	0.0
42.	42	*	0.0	0.0	0.0	0.0	0.0
43.	43	*	0.0	0.0	0.0	0.0	0.0
44.	44	*	0.0	0.0	0.0	0.0	0.0
45.	45	*	0.0	0.0	0.0	0.0	0.0
46.	46	*	0.0	0.0	0.0	0.0	0.0
47.	47	*	0.0	0.0	0.0	0.0	0.0
48.	48	*	0.0	0.0	0.0	0.0	0.0
49.	49	*	0.0	0.0	0.0	0.0	0.0
50.	50	*	0.0	0.0	0.0	0.0	0.0
51.	51	*	0.0	0.0	0.0	0.0	0.0
52.	52	*	0.0	0.0	0.0	0.0	0.0
53.	53	*	0.0	0.0	0.0	0.0	0.0
54.	54	*	0.0	0.0	0.0	0.0	0.0
55.	55	*	0.0	0.0	0.0	0.0	0.0
56.	56	*	0.0	0.0	0.0	0.0	0.0
57.	57	*	0.0	0.0	0.0	0.0	0.0
58.	58	*	0.0	0.0	0.0	0.0	0.0
59.	59	*	0.0	0.0	0.0	0.0	0.0
60.	60	*	0.0	0.0	0.0	0.0	0.0
61.	61	*	0.0	0.0	0.0	0.0	0.0
62.	62	*	0.0	0.0	0.0	0.0	0.0
63.	63	*	0.0	0.0	0.0	0.0	0.0
64.	64	*	0.0	0.0	0.0	0.0	0.0
65.	65	*	0.0	0.0	0.0	0.0	0.0
66.	66	*	0.0	0.0	0.0	0.0	0.0
67.	67	*	0.0	0.0	0.0	0.0	0.0
68.	68	*	0.0	0.0	0.0	0.0	0.0
69.	69	*	0.0	0.0	0.0	0.0	0.0
70.	70	*	0.0	0.0	0.0	0.0	0.0
71.	71	*	0.0	0.0	0.0	0.0	0.0
72.	72	*	0.0	0.0	0.0	0.0	0.0
73.	73	*	0.0	0.0	0.0	0.0	0.0
74.	74	*	0.0	0.0	0.0	0.0	0.0
75.	75	*	0.0	0.0	0.0	0.0	0.0
76.	76	*	0.0	0.0	0.0	0.0	0.0
77.	77	*	0.0	0.0	0.0	0.0	0.0
78.	78	*	0.0	0.0	0.0	0.0	0.0
79.	79	*	0.0	0.0	0.0	0.0	0.0
80.	80	*	0.0	0.0	0.0	0.0	0.0
81.	81	*	0.0	0.0	0.0	0.0	0.0
82.	82	*	0.0	0.0	0.0	0.0	0.0
83.	83	*	0.0	0.0	0.0	0.0	0.0
84.	84	*	0.0	0.0	0.0	0.0	0.0
85.	85	*	0.0	0.0	0.0	0.0	0.0
86.	86	*	0.0	0.0	0.0	0.0	0.0
87.	87	*	0.0	0.0	0.0	0.0	0.0
88.	88	*	0.0	0.0	0.0	0.0	0.0
89.	89	*	0.0	0.0	0.0	0.0	0.0
90.	90	*	0.0	0.0	0.0	0.0	0.0
91.	91	*	0.0	0.0	0.0	0.0	0.0
92.	92	*	0.0	0.0	0.0	0.0	0.0
93.	93	*	0.0	0.0	0.0	0.0	0.0
94.	94	*	0.0	0.0	0.0	0.0	0.0
95.	95	*	0.0	0.0	0.0	0.0	0.0
96.	96	*	0.0	0.0	0.0	0.0	0.0
97.	97	*	0.0	0.0	0.0	0.0	0.0
98.	98	*	0.0	0.0	0.0	0.0	0.0
99.	99	*	0.0	0.0	0.0	0.0	0.0
100.	100	*	0.0	0.0	0.0	0.0	0.0

101.	101	*	0.0	0.0	0.0	0.0	0.0
102.	102	*	0.0	0.0	0.0	0.0	0.0
103.	103	*	0.0	0.0	0.0	0.0	0.0
104.	104	*	0.0	0.0	0.0	0.0	0.0
105.	105	*	0.0	0.0	0.0	0.0	0.0
106.	106	*	0.0	0.0	0.0	0.0	0.0
107.	107	*	0.0	0.0	0.0	0.0	0.0
108.	108	*	0.0	0.0	0.0	0.0	0.0
109.	109	*	0.0	0.0	0.0	0.0	0.0
110.	110	*	0.0	0.0	0.0	0.0	0.0
111.	111	*	0.0	0.0	0.0	0.0	0.0
112.	112	*	0.0	0.0	0.0	0.0	0.0
113.	113	*	0.0	0.0	0.0	0.0	0.0
114.	114	*	0.0	0.0	0.0	0.0	0.0
115.	115	*	0.0	0.0	0.0	0.0	0.0
116.	116	*	0.0	0.0	0.0	0.0	0.0
117.	117	*	0.0	0.0	0.0	0.0	0.0
118.	118	*	0.0	0.0	0.0	0.0	0.0
119.	119	*	0.0	0.0	0.0	0.0	0.0
120.	120	*	0.0	0.0	0.0	0.0	0.0
121.	121	*	0.0	0.0	0.0	0.0	0.0
122.	122	*	0.0	0.0	0.0	0.0	0.0
123.	123	*	0.0	0.0	0.0	0.0	0.0
124.	124	*	0.0	0.0	0.0	0.0	0.0
125.	125	*	0.0	0.0	0.0	0.0	0.0
126.	126	*	0.0	0.0	0.0	0.0	0.0
127.	127	*	0.0	0.0	0.0	0.0	0.0
128.	128	*	0.0	0.0	0.0	0.0	0.0
129.	129	*	0.0	0.0	0.0	0.0	0.0
130.	130	*	0.0	0.0	0.0	0.0	0.0
131.	131	*	0.0	0.0	0.0	0.0	0.0
132.	132	*	0.0	0.0	0.0	0.0	0.0
133.	133	*	0.0	0.0	0.0	0.0	0.0
134.	134	*	0.0	0.0	0.0	0.0	0.0
135.	135	*	0.0	0.0	0.0	0.0	0.0
136.	136	*	0.0	0.0	0.0	0.0	0.0
137.	137	*	0.0	0.0	0.0	0.0	0.0
138.	138	*	0.0	0.0	0.0	0.0	0.0
139.	139	*	0.0	0.0	0.0	0.0	0.0
140.	140	*	0.0	0.0	0.0	0.0	0.0
141.	141	*	0.0	0.0	0.0	0.0	0.0
142.	142	*	0.0	0.0	0.0	0.0	0.0
143.	143	*	0.0	0.0	0.0	0.0	0.0
144.	144	*	0.0	0.0	0.0	0.0	0.0
145.	145	*	0.0	0.0	0.0	0.0	0.0
146.	146	*	0.0	0.0	0.0	0.0	0.0
147.	147	*	0.0	0.0	0.0	0.0	0.0
148.	148	*	0.0	0.0	0.0	0.0	0.0
149.	149	*	0.0	0.0	0.0	0.0	0.0
150.	150	*	0.0	0.0	0.0	0.0	0.0
151.	151	*	0.0	0.0	0.0	0.0	0.0
152.	152	*	0.0	0.0	0.0	0.0	0.0
153.	153	*	0.0	0.0	0.0	0.0	0.0
154.	154	*	0.0	0.0	0.0	0.0	0.0
155.	155	*	0.0	0.0	0.0	0.0	0.0
156.	156	*	0.0	0.0	0.0	0.0	0.0
157.	157	*	0.0	0.0	0.0	0.0	0.0
158.	158	*	0.0	0.0	0.0	0.0	0.0
159.	159	*	0.0	0.0	0.0	0.0	0.0
160.	160	*	0.0	0.0	0.0	0.0	0.0
161.	161	*	0.0	0.0	0.0	0.0	0.0

162.	162	*	0.0	0.0	0.0	0.0	0.0
163.	163	*	0.0	0.0	0.0	0.0	0.0
164.	164	*	0.0	0.0	0.0	0.0	0.0
165.	165	*	0.0	0.0	0.0	0.0	0.0
166.	166	*	0.0	0.0	0.0	0.0	0.0
167.	167	*	0.0	0.0	0.0	0.0	0.0
168.	168	*	0.0	0.0	0.0	0.0	0.0
169.	169	*	0.0	0.0	0.0	0.0	0.0
170.	170	*	0.0	0.0	0.0	0.0	0.0
171.	171	*	0.0	0.0	0.0	0.0	0.0
172.	172	*	0.0	0.0	0.0	0.0	0.0
173.	173	*	0.0	0.0	0.0	0.0	0.0
174.	174	*	0.0	0.0	0.0	0.0	0.0
175.	175	*	0.0	0.0	0.0	0.0	0.0
176.	176	*	0.0	0.0	0.0	0.0	0.0
177.	177	*	0.0	0.0	0.0	0.0	0.0
178.	178	*	0.0	0.0	0.0	0.0	0.0
179.	179	*	0.0	0.0	0.0	0.0	0.0
180.	180	*	0.0	0.0	0.0	0.0	0.0

1

Run Ended on 1/22/2002 at 17:13:35

Appendix 9

Noise Survey

Noise Survey

Objective

11) The objective of the noise survey was to collect noise data for karts and other possible noise sources, if any, at the proposed karting track.

Date and Time

12) Site inspection was conducted on 19 January 2002 commencing from 1000 hours and finishing at 1230 hours.

Instrumentation

13) The instruments used by Westwood Hong & Associates Ltd for the survey are listed in Table A9-1.

MANUFACTURER	TYPE
Ono Sokki	Type I Precision Integrating Sound Level Meters
Bruel and Kjaer	Noise Calibrator Type 4231

Table A9-1 Instruments used for the noise survey

14) The sound level meters were calibrated before use in accordance with the manufacturer's recommendations and further checks on completion of the survey confirmed that there had been no significant drift of calibration.

Identified Noise Sources

15) The identified noise sources are kart movement and PA system.

Information on Karts

16) The engine of a kart works with an efficient 4-stroke cylinder having a max capacity of 60 c.c. only. The small engine is similar to that of a low-power motorcycle. The maximum speed of kart is 24kph.

Results of Noise Measurements

17) The measured noise levels included braking noise, skidding noise and tyre noise. Results obtained are summarised as:

- at 3m from a kart running on levelled course in maximum speed (without facade effect): the Leq noise levels were in the range of 77 - 80dB(A) Leq.
- at 3m from a kart running up the section with a gentle slope in maximum speed (without facade effect): the Leq noise levels were in the range of 79 - 82dB(A) Leq.
- at 3m from the PA system (without facade effect): the Leq noise levels were in the range of 75 - 80dB(A) Leq.

18) Background noise levels at the karting track due to community activities were in the range of 60 - 62 dB(A) Leq recorded immediately before the starting of karting noise measurements.

Appendix 10

Noise Prediction

Noise Prediction

Ambient Noise Condition

1) The existing ambient noise climate of the representative NSRs is dominated by traffic noise from Tsing Fat Street and Castle Peak Road. The adjoining flea market is located within an enclosed building such that the noise from the activities within flea market is insignificant.

Industrial Noise Criterion

2) In accordance with the "Technical Memorandum for the Assessment of Noise from Places other than Domestic Premises, Public Places or Construction Sites", an Area Sensitivity Rating (ASR) of "A" should be used. The Acceptable Noise Level is 60dB(A) for the periods of day (0700 to 1900 hours) and evening (1900 to 2300 hours).

3) As per the "Technical Memorandum on Environmental Impact Assessment Process", noise standard should also be referred to the prevailing background noise levels of the NSRs.

Noise Sensitive Receivers (NSRs)

4) The residential development (Nam Fung Siu Lam Project (NF1)) located to the north of the Project will be a potential NSR but as the occupation of the NF1 development will take place beyond the period of the EP, there is no need to be included in this noise assessment

5) The nearest Noise Sensitive Receivers (NSRs) that may be affected by the proposed karting track are summarised in the following Table A10-1 and shown in Figure A10-1. Villa Sapphire is protected by a 7-storey high building, which is now being occupied by a flea market.

Table A10-1 Noise Sensitive Receivers (NSRs)

NSRs	Description	Storey	Distance to site boundary (approximately)
SL1	Siu Lam Sun Tsuen	3-S	200m
VS1	Villa Sapphire	16-S	300m

Operation of Karting Track

6) The proposed karting track will operate from Monday to Sunday with opening hours from 9 am to 11 pm. A maximum of 10 karts are allowed within the track as per the requirements of Electrical & Mechanical Services Department.

Noise Mitigation Measures

7) 2.2m high profiled steel walls are erected along site boundaries to minimize the noise impact from the karting track. The karting track will be completely screened off by the 7-storey high Lok On Pai Transshipment Centre and the barrier wall from the NSRs.

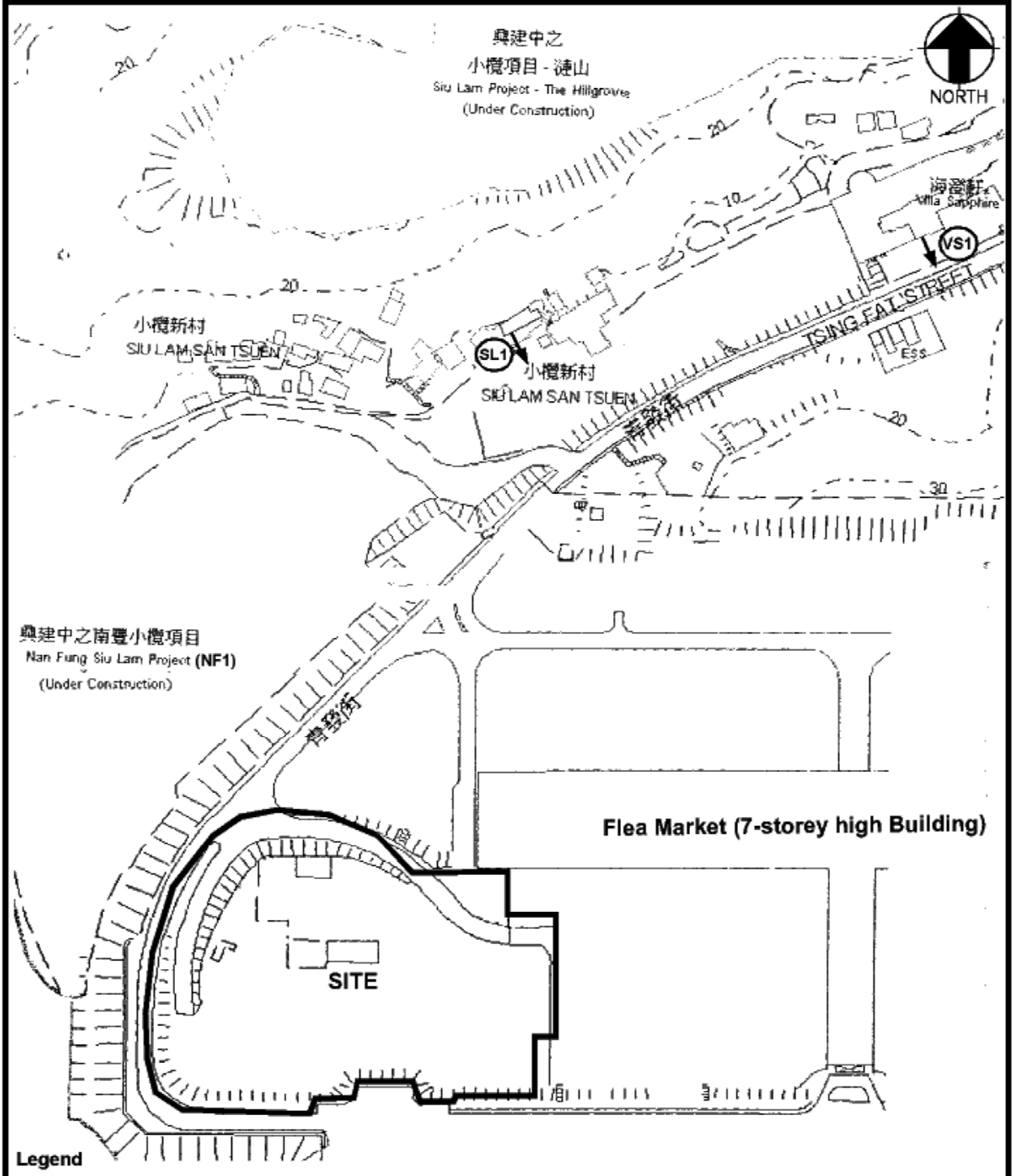
Methodology

8) The prediction of noise impact due to kart movement has been conducted based on BS 5228: Part 1:1984.

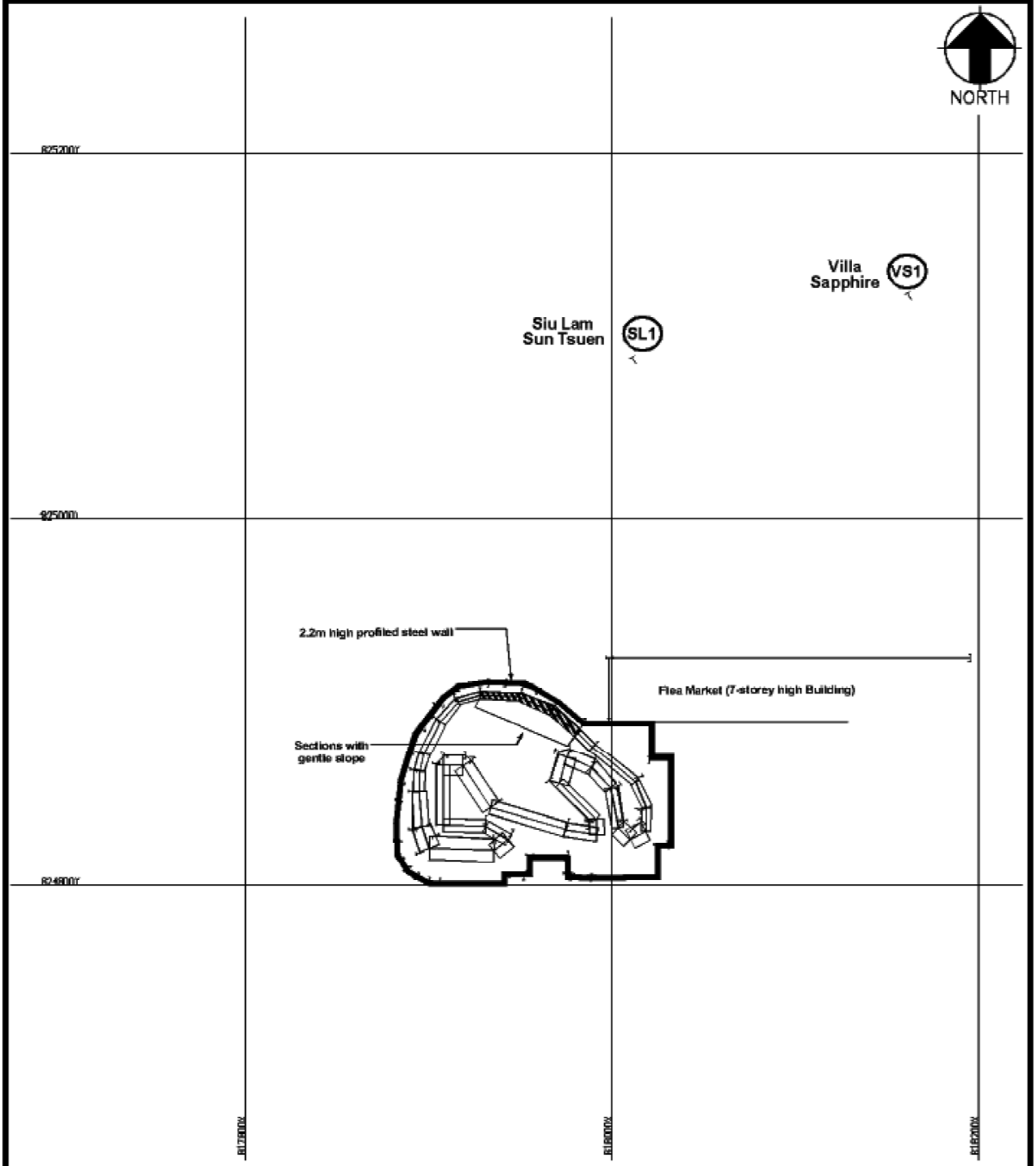
9) A computer model has been set up to evaluate the barrier effects provided by 2.2m high profiled steel walls and flea market(Figure A10-2).

Predicted Noise Levels

10) The predicted facade noise levels at identified NSRs will be in the range of 34 - 40dB(A) due to the karting activities and 29 – 32dB(A) due to PA system. The predicted cumulative noise levels will be in range of 35 – 41dB(A), which comply with the noise limit of 60dB(A). Details of calculation are given in the Appendix 10.1



Westwood Hong & Associates Ltd	TITLE :	FIGURE
PROJECT : 21564	Locations of sensitive receivers	A10-1
Karting Track at Tuen Mun		



Legend

Site location

Location of NSRs

Westwood Hong & Associates Ltd	TITLE :	FIGURE
PROJECT : 21564	Computer plot of karting track (Noise impact assessment)	A10-2
Karting Track at Tuen Mun		

Appendix 10.1

Details of Noise Prediction

Predicted Noise Levels due to Kart Movements

Job Title.: Karting Track at Tuen Mun
Job No.: 21564
Date: 4/4/02

	NSRs	
Floor	SL 1	VS 1
1	40.0	34.2
2	40.0	34.2
3	40.0	34.2
4		34.2
5		34.2
6		34.2
7		34.2
8		34.2
9		34.2
10		34.1
11		34.1
12		34.1
13		34.1
14		34.1
15		34.1
16		34.1
Max	**40.0**	**34.2**
ANL-5 Criteria	**60**	**60**
Compliance	**Yes**	**Yes**

Calculation of Noise Levels due to Kart Movements

Job Title.: Karting Track at Tuen Mun
Job No.: 21564
Date: 3/7/02

NSR	SL 1	Xr : 818011.9
Floor	1 /F	Yr : 825086.9
		Hr : 9.2

PREDICTION OF NOISE FROM MOBILE PLANTS (as per BS5228 Part 1)

No	Description	Lwa	Traffic flow	Spd	View angle	Segment location & distance				Corrections							CNL
						Xs	Ys	Hs	Lsr	Ctf	CLsr	Catm	Cspd	Cva	Csri	Cfac	dB(A)
1	Kart Movement	96	300	24	3.8	817983	824829	0.5	259.5	25	-24.1	0.0	-14	-17	-8.3	3	27.8
2	Kart Movement	96	300	24	0.0	817992	824832	0.5	255.8	25	-24.1	0.0	0	0	0.0	3	0.0
3	Kart Movement	96	300	24	5.3	817981	824846	0.5	243.1	25	-23.9	0.0	-14	-15	-8.5	3	29.3
4	Kart Movement	96	300	24	0.0	817974	824863	0.5	227.5	25	-23.6	0.0	0	0	0.0	3	0.0
5	Kart Movement	96	300	24	3.7	817982	824867	0.5	221.8	25	-23.5	0.0	-14	-17	-9.8	3	26.8
6	Kart Movement	96	300	24	2.8	817994	824859	0.5	229.1	25	-23.6	0.0	-14	-18	-12.8	3	22.5
7	Kart Movement	96	300	24	1.1	818002	824842	0.5	245.0	25	-23.9	0.0	-14	-22	-30.2	3	0.7
8	Kart Movement	96	300	24	1.5	818007	824829	0.5	258.6	25	-24.1	0.0	-14	-21	-24.1	3	8.0
9	Kart Movement	96	300	24	1.9	818014	824827	0.5	259.7	25	-24.1	0.0	-14	-20	-23.0	3	10.1
10	Kart Movement	96	300	24	0.0	818019	824836	0.5	251.2	25	-24.0	0.0	0	0	0.0	3	0.0
11	Kart Movement	96	300	24	1.5	818016	824849	0.5	237.8	25	-23.8	0.0	-14	-21	-28.7	3	3.7
12	Kart Movement	96	300	24	6.3	818001	824866	0.5	221.5	25	-23.5	0.0	-14	-15	-15.1	3	23.9
13	Kart Movement	96	300	24	2.4	817985	824879	0.5	209.4	25	-23.2	0.0	-14	-19	-10.5	3	24.5
14	Kart Movement	96	300	24	4.6	817974	824889	0.5	201.3	25	-23.0	0.0	-14	-16	-11.0	3	27.0
15	Kart Movement	97	300	24	5.7	817958	824899	0.5	195.4	25	-22.9	0.0	-14	-15	-10.7	3	29.4
16	Kart Movement	97	300	24	5.9	817939	824904	0.5	197.6	25	-23.0	0.0	-14	-15	-10.0	3	30.2
17	Kart Movement	97	300	24	2.6	817922	824902	0.5	205.5	25	-23.1	0.0	-14	-18	-10.8	3	25.6
18	Kart Movement	96	300	24	0.0	817911	824895	0.5	216.8	25	-23.4	0.0	0	0	0.0	3	0.0
19	Kart Movement	96	300	24	0.0	817902	824881	0.5	233.8	25	-23.7	0.0	0	0	0.0	3	0.0
20	Kart Movement	96	300	24	0.0	817896	824867	0.5	248.5	25	-24.0	0.0	0	0	0.0	3	0.0
21	Kart Movement	96	300	24	1.0	817895	824857	0.5	258.5	25	-24.1	0.0	-14	-23	-10.8	3	19.5
22	Kart Movement	96	300	24	2.0	817895	824842	0.5	271.9	25	-24.3	0.0	-14	-20	-10.5	3	22.6
23	Kart Movement	96	300	24	1.7	817898	824826	0.5	284.6	25	-24.5	0.0	-14	-20	-10.3	3	21.9
24	Kart Movement	96	300	24	6.9	817918	824820	0.5	283.4	25	-24.5	0.0	-14	-14	-9.3	3	29.0
25	Kart Movement	96	300	24	1.2	817939	824822	0.5	274.8	25	-24.4	0.0	-14	-22	-9.5	3	21.3
26	Kart Movement	96	300	24	3.0	817937	824829	0.5	269.1	25	-24.3	0.0	-14	-18	-9.2	3	25.7
27	Kart Movement	96	300	24	4.6	817919	824833	0.5	270.8	25	-24.3	0.0	-14	-16	-9.4	3	27.3
28	Kart Movement	96	300	24	2.9	817908	824849	0.5	259.7	25	-24.1	0.0	-14	-18	-11.3	3	23.1
29	Kart Movement	96	300	24	2.3	817913	824865	0.5	242.9	25	-23.9	0.0	-14	-19	-11.2	3	23.0
30	Kart Movement	96	300	24	5.0	817926	824854	0.5	248.4	25	-24.0	0.0	-14	-16	-10.2	3	27.3
31	Kart Movement	96	300	24	9.6	817954	824837	0.5	257.0	25	-24.1	0.0	-14	-13	-9.1	3	31.0
																Sub-total	**40.0**

Definition of terms:

Ref	- Reference from EPD's TM or BS5228
Lwa	- the sound power level of the plant, dB(A)
Xr, Yr, Hr	- the coordinates of the NSR, m
Xs, Ys, Hs	- the coordinates of the source, m
Lsr	- the slant distance between the source and NSR, m
Traffic flow	- the traffic flow, vehicles/hour
Spd	- the speed of traffic, km/hour
View angle	- the view angle to the segment
No.	- the number of items of plant operating simultaneously
% on	- the percentage of time with plant operating

CLsr	- the correction for slant distance between the source and the NSR, dB(A)
Ctf	- the correction for traffic flow, dB(A)
Cspd	- the correction for speed of traffic, dB(A)
Cva	- the correction for view angle, dB(A)
Cno	- the correction for no. of plant items, dB(A)
Con	- the sound reduction provided by plants not operating fully, dB(A)
Catm	- the air absorption using CONCAWE methodology for distance greater than 300m
Csri	- the sound reduction provided by barriers
Cfac	- the facade correction, dB(A)
CNL	- the corrected noise level, dB(A)(30 minutes)

Remark:

1) The sound power level of a kart moving on leveled course is 96dB(A) in average.
2) The sound power level of a kart moving up the slope is 97dB(A) in average.

Predicted Noise Levels due to the PA system in Karting Track

Job Title: Karting Track at Tuen Mun
Job No.: 21564
Date: 21/1/02

Noise source location: Karting Track
Nearest NSR: SL 1 - Siu Lam San Tsuen

Item	Activities	Sound Power Level SWL, (dB(A))	No. of sources per 30 min.	Lsr (m)	Correction				CNL (dB(A))
					Cno	CLsr	Csri	Cfad	
1*	PA system	95	1	246	0.0	-55.8	-10.0	3.0	32

Noise source location: Karting Track
Nearest NSR: VS1 - Villa Sapphine

Item	Activities	Sound Power Level SWL, (dB(A))	No. of sources per 30 min.	Lsr (m)	Correction				CNL (dB(A))
					Cno	CLsr	Csri	Cfad	
1*	PA system	95	1	340	0.0	-58.6	-10.0	3.0	29.4

* - 1 PA system is located in a area surrounded by 2.2m high profiled steel wall within the karting track
Lsr - Distance between noise source and the NSR, m
Cno - correction for no. of sources within the track area, dB(A)
CLsr - the correction for distance between the source and the NSR, dB(A)
Csri - noise attenuation of -10dB(A) as no direct line of sight from the NSRs due to the screening by 7-storey high building and 2.2m metal wall (as per GW-TM for noise source screened by barrier)
Cfad - facade correction
CNL - the corrected noise level (30 minutes), dB(A)