

Date 13 December 2021
Our Ref. MCL/ED/0484/2021/C

The EIA Ordinance Register Office,
Environmental Protection Department,
27/F, Southorn Centre,
130 Hennessy Road, Wan Chai, Hong Kong
Attn: Ms. CHEUNG Wai Yan, Louisa

BY HAND & E-MAIL

Dear Ms. Cheung,

Sai O Trunk Sewer Sewage Pumping Station

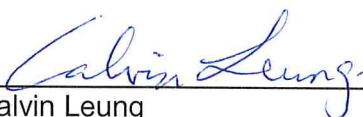
Environmental Permit: EP-597/2021

Submission of Alternative Air Quality Monitoring Location Proposal (0185/21/ED/0218/05)

Fugro Technical Services Limited (FTS) is appointed by Light Time Investments Limited as the Environmental Team for the captioned contract. Pursuant to EP-597/2021 Condition 3.1 & Section 2.2.1.20 of the EM&A Manual, we hereby submit 1 hardcopy and 1 e-copy of the Alternative Air Quality Monitoring Location Proposal (0185/21/ED/0218/05) for your approval. This proposal has been certified by ETL and verified by IEC accordingly.

Thank you for your kind attention, should you require further information, please do not hesitate to contact our Environmental Team Leader Mr. Calvin Leung at 3565 4441.

Yours faithfully,
for and on behalf of
Fugro Technical Services Limited



Calvin Leung
Environmental Team Leader

c.c. AECOM
Ramboll
SGJV

Ms. Janice Tam / Mr. CK Man (By email)
Mr. Y.H Hui (By email)
Mr. Ray Lo / Mr. Eddie Tse (By email)

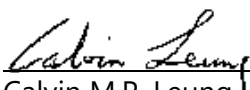


Alternative Air Quality Monitoring Location Proposal

Project No. : 0185/21
Project Name : Sai O Trunk Sewer Sewage Pumping Station
Report No. : 0185/21/ED/0218

Prepared by : Jason C.Y. Man

Reviewed by : Cyrus C.Y. Lai

Certified by : 
Calvin M.P. Leung
Environmental Team Leader
(MHKIQEP, MHKIOA, CEMAHK)



Ref.: SHKSOSPSEM00_0_0014L.21

13 December 2021

By Fax (2827 0485) and By Post

Sun Hung Kai Properties Ltd.
42/F., Sun Hung Kai Centre
30 Harbour Road, Wan Chai, Hong Kong

Attention: Mr. Sunny Cheung

Dear Sir,

**Re: Sai O Trunk Sewer Sewage Pumping Station
Environmental Permit No. EP-597/2021
Alternative Air Quality Monitoring Location Proposal**

Reference is made to the Environmental Team's submission of the Alternative Air Quality Monitoring Location Proposal certified by the ET Leader (ET's ref.: "MCL/ED/0484/2021/C") provided to us via e-mail on 13 December 2021.

We are pleased to inform you that we have no further comments on the captioned submission. We write to verify the captioned submission in accordance with Condition 3.1 of EP-597/2021 and Section 2.2.1.20 of the EM&A manual for the captioned project.

Thank you very much for your attention and please feel free to contact the undersigned should you require further information.

Yours sincerely,
For and on behalf of
Ramboll Hong Kong Ltd.

Y H Hui
Independent Environmental Checker

c.c.

AECOM
Fugro
SGJV

Mr. Janice Tam / Mr. CK Man
Mr. Calvin Leung
Ms. Eddie Tse

(By Fax: 3894 5801)
(By Fax: 2450 6138)
(By Fax: 3894 5801)

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Document Control

Document Information

Project Title	Sai O Trunk Sewer Sewage Pumping Station
Document Title	Alternative Air Quality Monitoring Location Proposal
Fugro Project No.	0185/21
Fugro Document No.	0185/21/ED/0218
Issue Number	05

Client Information

Client	Light Time Investments Limited
Client Address	Main Contractor's Site Office, Sai Sha Road Widening, N.T
Client Contact	Mr. Sunny Cheung

Document Status

00	Issued	Jason C.Y. Man	Cyrus C.Y. Lai	Calvin M.P. Leung	23 November 2021
01	Issued	Jason C.Y. Man	Cyrus C.Y. Lai	Calvin M.P. Leung	25 November 2021
02	Issued	Jason C.Y. Man	Cyrus C.Y. Lai	Calvin M.P. Leung	25 November 2021
03	Issued	Jason C.Y. Man	Cyrus C.Y. Lai	Calvin M.P. Leung	3 December 2021
04	Issued	Jason C.Y. Man	Cyrus C.Y. Lai	Calvin M.P. Leung	8 December 2021
05	Amended	Jason C.Y. Man	Cyrus C.Y. Lai	Calvin M.P. Leung	10 December 2021
Issue	Document Status	Prepared by	Reviewed by	Certified by	Date

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Figure 2.1 Locations of Proposed Dust Monitoring Point

Appendix

Appendix A Photo Record of Air Quality Monitoring Locations

Appendix B Email Conversation between SGJV & HKBTS

Appendix C Approval from Engineer's Representative (ER)

1. Introduction

1.1 Background

- 1.1.1 The proposed Sai O Trunk Sewer SPS is a part of Public Works Programme Item 4125DS - Tolo Harbour Sewerage of Unsewered Areas, Stage II, is a core component of the proposed trunk sewerage system in Ma On Shan along Sai Sha Road. It is required to receive all sewage flows along Sai Sha Road from Kei Ling Ha Lo Wai to Cheung Muk Tau and the adjacent residential development, health care institution and education institutions, and then convey the sewage to Sha Tin Sewage Treatment Works.
- 1.1.2 Based on the latest design, the installed capacity per day of the proposed Sai O Trunk Sewer SPS is about 20,600m³ for coping with the sewerage needs of both existing and future developments. Location of the proposed Sai O Trunk Sewer SPS is shown in **Figure 1.1**.
- 1.1.3 The proposed Sai O Trunk Sewer SPS include the following main components:
- Loading/unloading bay
 - Inlet chamber
 - Coarse screen channel
 - Distribution chamber
 - Wet wells
 - Valve chamber
 - Emergency storage tank
 - Deodorizing unit
 - Switch room
 - Transformer room
- 1.1.4 The project proponent was the Light Time Investments Limited. Aecom Asia Company Limited (Aecom) was commissioned by project proponent as the Engineer for the Project. Ramboll Hong Kong Limited (Ramboll) was commissioned as the Independent Environmental Checker (IEC). Sanfield-Gammon Construction JV Company Limited (SGJV) was appointed as the main contractor for the construction works. Fugro Technical Services Limited (FTS) was appointed as the Environmental Team (ET) by Light Time Investments Limited to implement the EM&A programme for the Project.

1.2 Purposes of this Proposal

- 1.2.1 After the site visit at the designated monitoring locations on 18 November 2021, the monitoring location (CA_M1) was not suitable for conducting air quality monitoring using High Volume Sampler (HVS).
- 1.2.2 Hence, the alternative air quality monitoring location is proposed in this proposal in line with the section 2.2.1.20 & 2.2.1.21 of EM&A Manual.

2. Air Quality Monitoring Locations

2.1 Designated Air Quality Monitoring Location (CA_M1)

2.1.1 According to the Section 2.2.1.19 of EM&A Manual, the monitoring location (CA_M1) was selected.

2.1.2 But a number of limitations and technical difficulties are identified at the designated monitoring location under the EM&A Manual. The Monitoring Location & limitation of station was listed in **Table 2.1**.

Table 2.1 Air Quality Monitoring Location & Limitation of Station

Monitoring Station ID	Monitoring Location	Limitation of Station
CA_M1	In front of Hong Kong Baptist Theological Seminary (HKBTS) Staff & Students Quarters	Limitation of stable electricity supply & Safety concern

2.1.3 Due to the Hi-Volume Sampling in air quality monitoring request a stable electricity supply and safety environment, the monitoring location (CA_M1) is unsuitable for air quality monitoring. The electricity can only be provided inside the construction site area. Connection of Electricity from site to public access is not suggested as the electrical wire will be exposed to public.

2.2 Alternative Air Quality Monitoring Location (CA_M1(a))

2.2.1 In the light of the Section 2.2.1.21 of EM&A Manual, when alternative monitoring locations are proposed, the following criteria, as far as practicable, shall be followed:

- (i) At the site boundary or such locations close to the major dust emission source;
- (ii) Close to the air sensitive receivers as defined on the EIAO-TM;
- (iii) Proper position/sitting and orientation of the monitoring equipment; and
- (iv) Take into account the prevailing meteorological conditions.

2.2.2 Base on the following criteria & the limitation of the original designated monitoring station, the alternative monitoring location is proposed. The designated & alternative air quality monitoring locations are shown in **Figure 2.1**. The details of the proposed alternative air monitoring location are listed in **Table 2.2**.

Table 2.2 Proposed Air Quality Monitoring Location

Proposed Monitoring Station	Monitoring Location	Approximated Direction from Approved Location	Approximated Distance from Approved Location (m)
CA_M1(a)	Construction Site Boundary near Hong Kong Baptist Theological Seminary (HKBTS) Staff & Students Quarters	N	6.7 m

- 2.2.3 The Location Photos are shown in **Appendix A**.
- 2.2.4 As refer to the criteria of the Section 2.2.1.21 of EM&A Manual, the proposed Alternative Air Monitoring Station CA_M1(a) is at the site boundary of the construction site and close to the major dust emission source.
- 2.2.5 Besides, the proposed Alternative Air Monitoring Station CA_M1(a) is close to the HKBTS Staff & Students Quarters (the air sensitive receivers as defined in the approved EIA Report (Register No.: AEIAR-230/2021) Table 3.4 ASR ID: A1, Hong Kong Baptist Theological Seminary (HKBTS) Staff & Students Quarters.
- 2.2.6 Moreover, the monitoring equipment at the alternative monitoring location (CA_M1(a)) will be properly posited and oriented to face directly to the construction site without being any obstructed.
- 2.2.7 Furthermore, the distance between the original station (CA_M1) and alternative monitoring location (CA_M1(a)) is 6.7m. Therefore, the proper position and orientation of the monitoring equipment and the prevailing meteorological condition at CA_M1(a) are similar to CA_M1.
- 2.2.8 Monitoring Station CA_M1(a) is selected as it is a safety location and can be provided a stable electricity supply for HVS. The location is 10.5 m away from the HKBTS. The new proposed location CA_M1(a) is also situated in an open space and maintaining minimal noise disturbance to the HKBTS.
- 2.2.9 The site meeting with the representatives of project proponent, AECOM, SGJV & HKBTS was conducted on 2 December 2021. After the join site meeting, there was no adverse comment from all parties for the alternative air quality monitoring location (CA_M1(a)). The email conversation between SGJV & HKBTS are shown in **Appendix B**. The no adverse comment from Engineer's Representative (ER) letter is shown in **Appendix C**.

2.3 The Action & Limit Level of CA_M1(a)

- 2.3.1 By considering the proximity (around 6.7 m) of the location between approved monitoring location (CA_M1) and the proposed alternative monitoring location (CA_M1(a)), the Action & Limit Level of CA_M1 will be applicable to CA_M1(a). The Action Level and Limit Level of CA_M1 and CA_M1(a) is shown in **Table 2.3**.

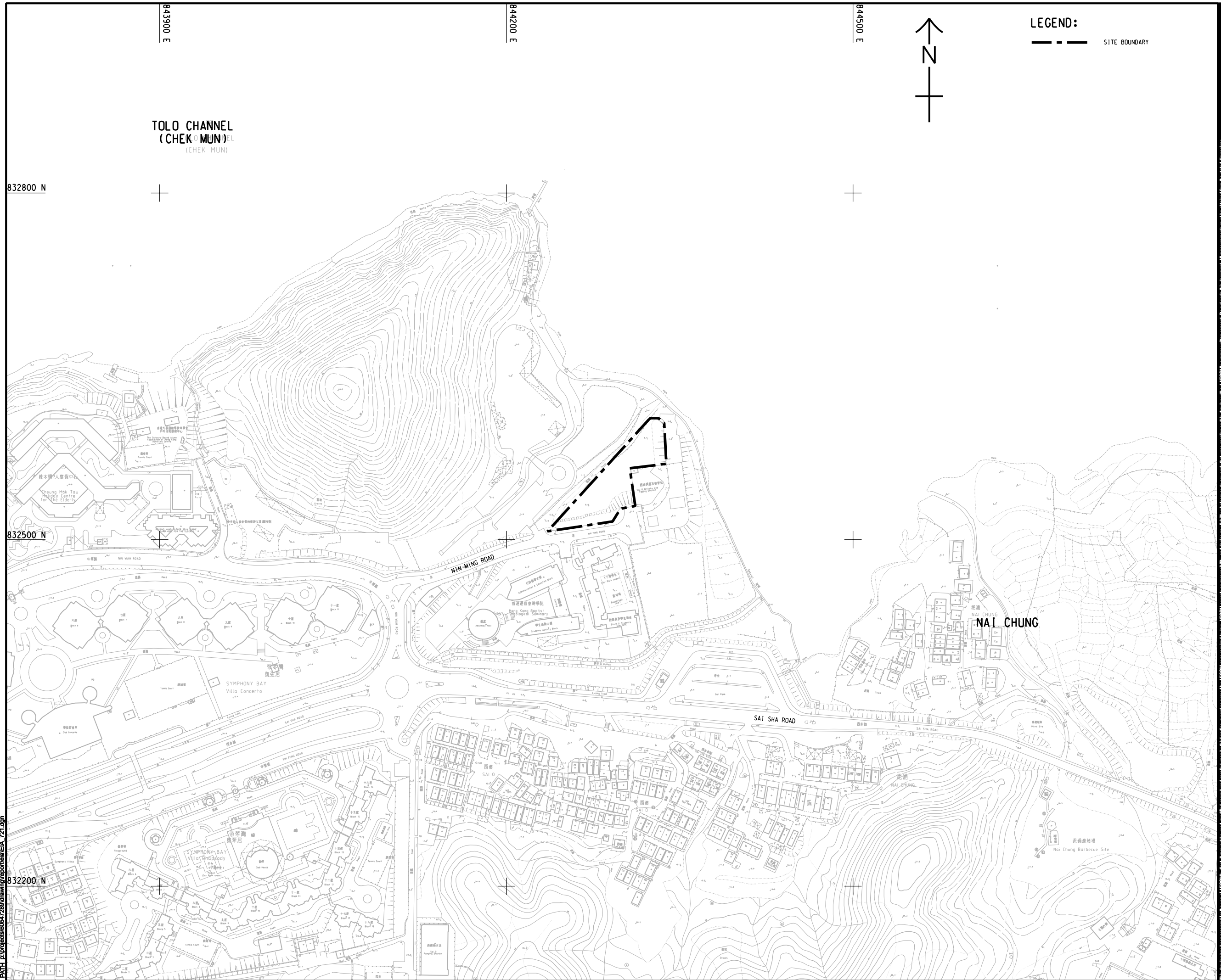
Table 2.3 The Action Level & Limit Level of CA_M1 & CA_M1(a)

Parameter	Monitoring Location	Action Level	Limit Level
1-hr TSP in $\mu\text{g}/\text{m}^3$	CA_M1	$\text{BL} \leq 384 \mu\text{g}/\text{m}^3, \text{AL} = (\text{BL} * 1.3 + \text{LL})/2$	500 $\mu\text{g}/\text{m}^3$
	CA_M1(a)	$\text{BL} > 384 \mu\text{g}/\text{m}^3, \text{AL} = \text{LL}$	

3. Conclusion

- 3.1.1 Based on the selection criteria and site observations, the proposed alternative monitoring location (CA_M1(a)) is considered as suitable monitoring locations for air quality monitoring.

Figure 1.1 Location of The Proposed Sai O Trunk Sewer Sewage Pumping Station



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PROJECT
項目

**TOLO HARBOUR
SEWERAGE OF
UNSEWERED AREAS
STAGE 2 -
INVESTIGATION, DESIGN
AND CONSTRUCTION**

CLIENT
業主



渠務署
Drainage Services Department

CONSULTANT
工程顧問公司

AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS
分判工程顧問公司

ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK 複核
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STATUS

SCALE
比例

A1 1 : 1500

DIMENSION UNIT
尺寸單位

METRES

KEY PLAN

索引圖

PROJECT NO.
項目編號

60547289

SHEET TITLE
圖紙名義

**LOCATION OF THE PROPOSED
SAI O TRUNK SEWER SEWAGE
PUMPING STATION**

SHEET NUMBER
張数

60547289/EM&A/FIGURE 1.1

CONTRACT NO.
合約編號

60547289

SHEET TITLE
圖紙名義

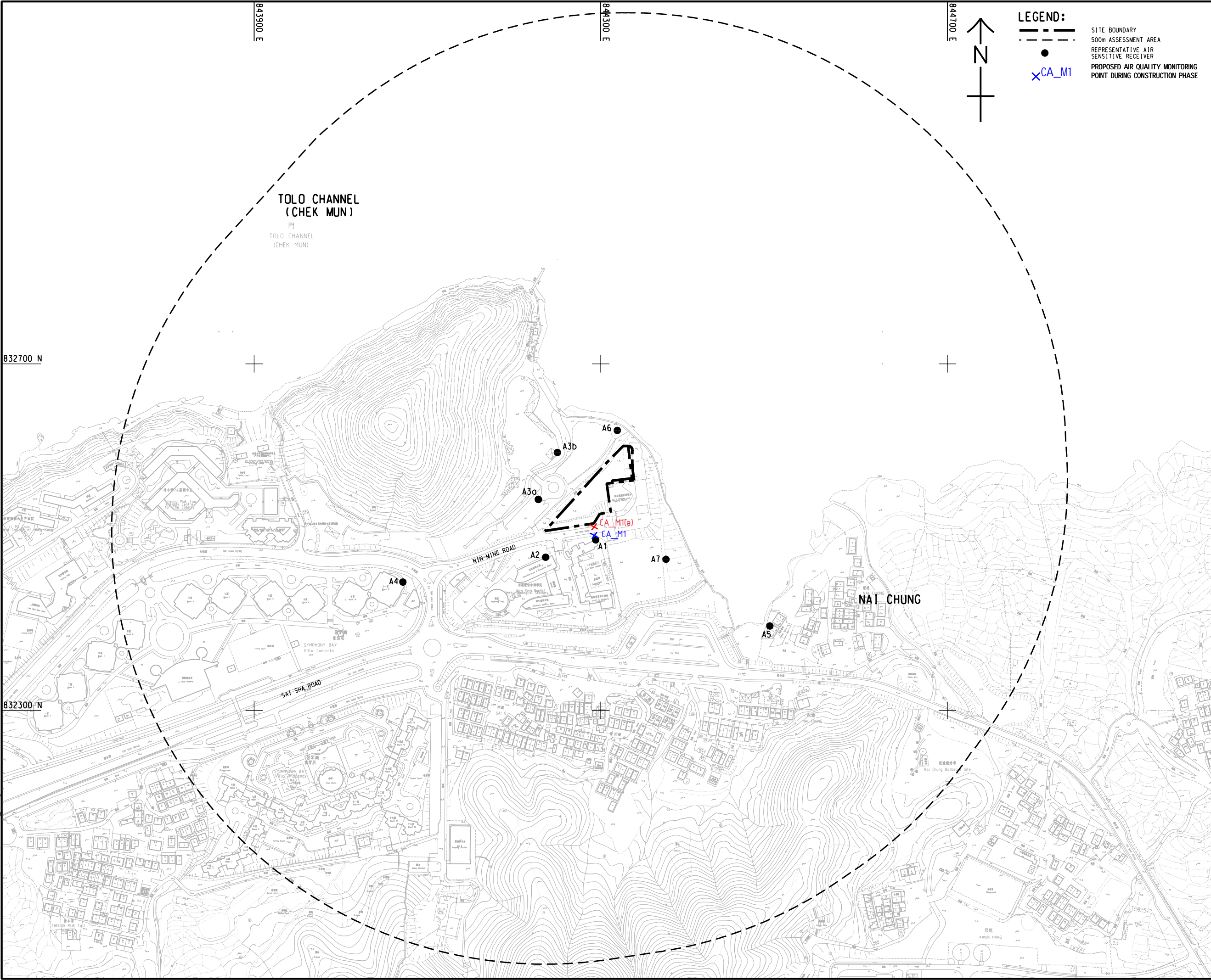
**LOCATION OF THE PROPOSED
SAI O TRUNK SEWER SEWAGE
PUMPING STATION**

SHEET NUMBER
張数

60547289/EM&A/FIGURE 1.1

Figure 2.1 Locations of Proposed Dust Monitoring Point

ISO A1 594mm x 841mm
Approved:
Checked:
Designer:
Project Management Initials:
Plot File by: ZHUJUNZ 2020/12/21
PATH P:\PROJECTS\60547289\DRAWING\Report\EA\EA_731.dgn



PROJECT
TOLO HARBOUR
SEWERAGE OF
UNSEWERED AREAS
STAGE 2 -
INVESTIGATION, DESIGN
AND CONSTRUCTION
CLIENT



CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

ISSUE/REVISION

I/R	DATE	DESCRIPTION	CHK.

STATUS

SCALE
A1 1 : 2000
DIMENSION UNIT
METRES

KEY PLAN

PROJECT NO.
60547289
CONTRACT NO.

SHEET TITLE

LOCATIONS OF PROPOSED DUST
MONITORING POINT

SHEET NUMBER

60547289/EM&A/FIGURE 2.1

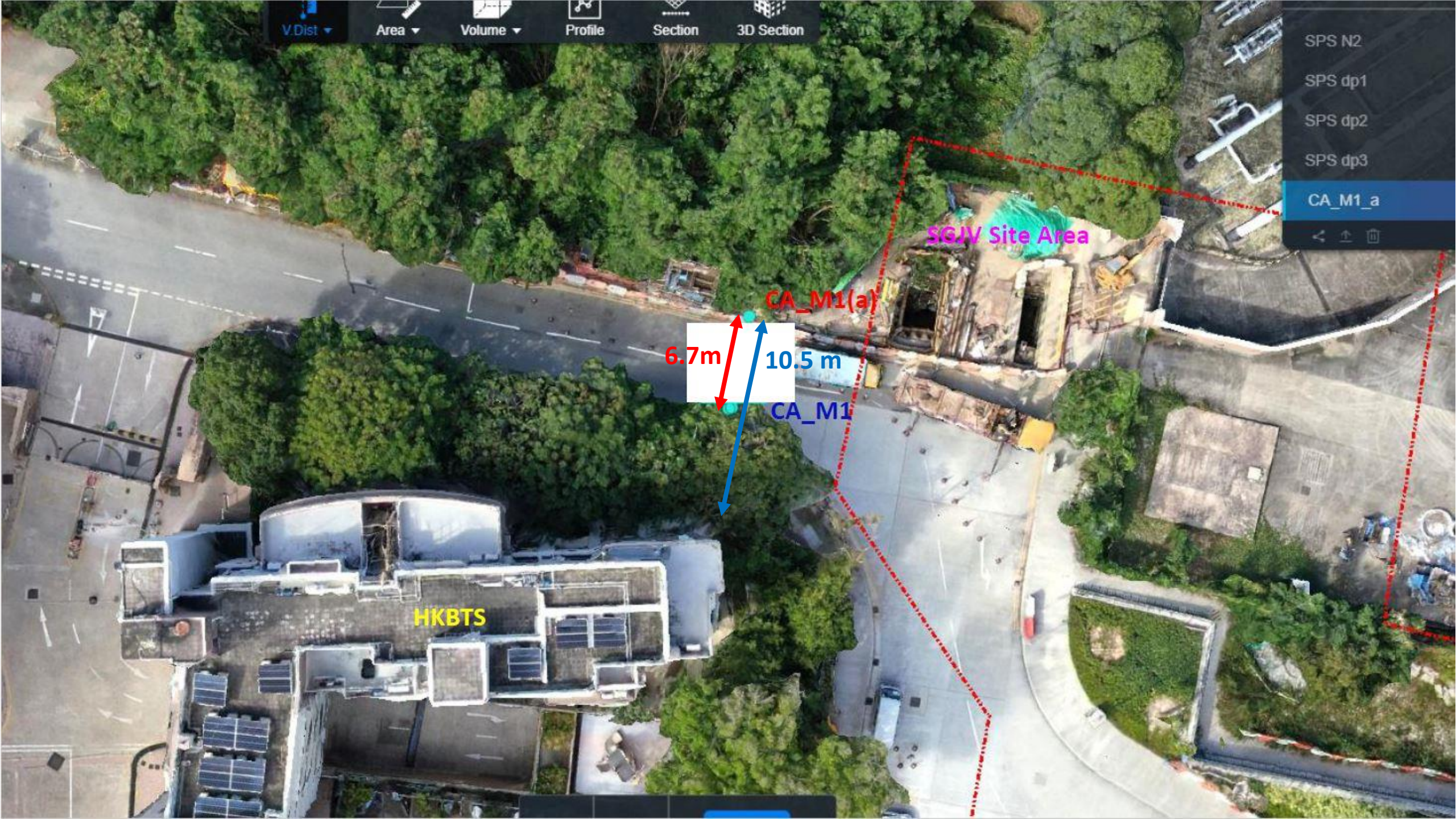
Appendix A Photo Record of Air Quality Monitoring Locations

CA_M1 In front of Hong Kong Baptist Theological Seminary (HKBTS) Staff & Students Quarters



C1_M1(a) Site Boundary near Hong Kong Baptist Theological Seminary (HKBTS) Staff & Students Quarters





V.Dist ▾ Area ▾ Volume ▾ Profile Section 3D Section

SPS N2
SPS dp1
SPS dp2
SPS dp3

CA_M1_a



SGJV Site Area

CA_M1(a)

6.7m

10.5 m

CA_M1

HKBTS

Appendix B Email Conversation between SGJV & HKBTS

Zero Jane Heung Chun Ling

From: Emily Chung <emily@hkbts.edu.hk>
Sent: 2021年12月3日星期五 15:41
To: Mocha Ka Yee Mok; patrick@hkbts.edu.hk
Cc: Yiu Keung Lui; celia.juergens; john.chpak@hkbts.edu.hk
Subject: [E] Re: Monitoring location of air and dust outside HKBTS



This email is from **EXTERNAL** – be cautious with any link and attachment



Dear Mocha,

Noted with thanks.

Emily

Mocha Ka Yee Mok 於 3/12/2021 13:24 寫道:

Dear Emily & Partick,

This email is served as an record for the meeting amongst SHK, AECO, SGJV and your good self dated 2 Dec 2021, SGJV explained the monitoring measurement to you during the meeting and the representatives has agreed the monitoring location of air and dust as attached.

Thank you for your kind attention.

Best Regards,

Mocha MOK
Sr Public Relations Officer

Sanfield-Gammon Construction JV Company Limited
J5230 Sai Sha Road Widening Works
Tel.: (852) 3894-5809 Fax: (852) 3742-2601 Mob: (852) 9229-5992

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Environmental

EP Requirement

ET- Fugro
Air Monitoring
Noise Monitoring

IEC - Ramboll

Storage

Pipe Pile Area

Air Monitoring

Noise Monitoring



Appendix C Approval from Engineer's Representative (ER)

Your Ref: J5230/302.Q474.4/D07111
Our Ref: SSRW/M30/910-01773

10 December 2021

By Hand & Email

Sanfield – Gammon Construction JV Company Limited
P.O. Box No.385
Man On Shan Post Office
Hong Kong

Attn: Mr. Michael WONG

Dear Sirs,

Sai Sha Road Widening, Shap Sz Heung, Sai Kung North, N.T.

**Sai O Trunk Sewer Sewage Pumping Station (Environment Permit No. EP-597/2021) -
Alternative Air Quality Monitoring Location Proposal (0185/21/ED/0218/05)**

We refer to your above referenced letter dated 10 December 2021 and subsequent discussion between your Ms. Zero J. LING and our Mr. C. K. MAN on 10 December 2021 regarding the captioned subject.

During the above mentioned discussion on 10 December 2021, we were given to understand that the version 05 of the Alternative Air Quality Monitoring Location Proposal is to address the latest comments given by the ICE and this version supersedes the version 04 of proposal enclosed in your letter ref.: J5230/302.Q474.4/D07097 dated 9 December 2021.

We would like to advise that we have no comment on the alternative air quality monitoring location as shown in Figure 2.1 and Appendix A in the Environmental Team (ET)'s submission of the Alternative Air Quality Monitoring Location Proposal (ET's Report No. 0185/21/ED/0218 Issue No.: 05) which has been certified by the ET.

Thank you for your kind attention.

Yours faithfully,

For and on behalf of
AECOM Asia Co. Ltd.



C.K. Man
Senior Resident Engineer

cc	SHK	-	Messrs. Sunny CHEUNG / Grant YUEN] By email
	SGJV	-	Messrs. Benjamin FONG / Raymond LEUNG / Charles CHUI] By email
	Ramboll	-	Messrs. Y. H. HUI] By email
	AECOM	-	Messrs. Desmond LEUNG / Ming YUEN / Vic PUN / Francis LEUNG] By email

MCK/JT/MW/RV