Appendix 4

Noise Impact Assessment

Prepared by

Ramboll Hong Kong Limited

PROPOSED COMPOSITE DEVELOPMENT AT 43-49A HANKOW ROAD, TSIM SHA TSUI, KOWLOON

NOISE IMPACT ASSESSMENT

Date	16 August 2023
Prepared by	Vicky Shek *et al.* Assistant Environmental Consultant
Signed	
Approved by	Katie Yu Senior Manager
Signed	
Project Reference	NWDHKR43EI00
Document No.	R9114_v1.1.docx

Ramboll Hong Kong Limited

21/F, BEA Harbour View Centre
56 Gloucester Road, Wan Chai, Hong Kong

Tel: (852) 3465 2888
Fax: (852) 3465 2899
Email: hkinfo@ramboll.com

Q:\Projects\NWDHKR43EI00\04 Deliverables\03 NIA Report\R9114_v1.0\R9114_v1.1.docx

CHAPTERS

TABLES

FIGURES

APPENDICES

1. INTRODUCTION

1.1 Background

1.1.1 The Application Site at 43-49A Hankow Road, Tsim Sha Tsui , is zoned as "Commercial" ("C(6)") under the Approved Tsim Sha Tsui Outline Zoning Plan No. S/K1/28 ("the OZP") with a site area of about 1074.5 m^2 and maximum building height ("BH") of 110 metres above principal datum ("mPD") at the Application Site ("the Proposed Development").

1.1.2 Ramboll Hong Kong Ltd. has been commissioned by the Applicant to conduct this Noise Impact Assessment (NIA) for the subject S16 application.

1.2 The Project Location

1.2.1 The Application Site is bounded by No. 51 Hankow Road Building to the north, Hankow Road to the east, Maxwell Centre to the south, Astoria Building to the west. Figure 1.1 shows the location and the environ of the Application Site.

1.3 The Project Description

1.3.1 The Proposed Development consists of one single composite tower with retails, office and residential use, with a proposed domestic plot ratio of about 3.4 and a proposed non-domestic plot ratio of about 8.6, providing 110 residential units. Non-domestic uses including office, retail and ancillary uses (G/F to 17/F) and a clubhouse (18/F) are proposed under the residential floors (19/F – 23/F, 25/F - 30/F).

1.3.2 The height of the tower is ~110 mPD. The anticipated population intake year of the Proposed Development is expected to be in 2027. The master layout plan of the Proposed Development is shown in Figure 1.2 with details shown in Appendix 1.1. Major development parameters are summarised as follows:

Table 1.1 Development Parameters for Proposed Development in Application Site

Building	Residential
Zoning under OZP	"C(6)" under S/K1/28
Site Area, m^2	~1074
No. of Residential Units	110 (10 x 11 floors)
No. of Storey	G/F – 18/F (non-noise sensitive uses, e.g. retails, commercials) 19/F to 30/F (11 typical residential floors)
Top Level of Residential Floors / Building Height, mPD	~110
Facilities	Retail & Office & Clubhouse
Anticipated Population Intake Year	2027

1.4 Scope

1.4.1 The scope of this NIA includes road traffic noise impact and fixed noise impact assessments for evaluating key potential noise impacts of the proposed development.

2. TRAFFIC NOISE IMPACT ASSESSMENT

2.1 Introduction

2.1.1 In this assessment, road traffic noise impact from roads within 300m radius on the Proposed Development has been assessed.

2.2 Assessment Criteria

2.2.1 Noise standards are recommended in Chapter 9 of the HKPSG for planning against possible road traffic noise impacts. For new residential use, as in the case of the proposed development within the Application Site, the standard for road traffic noise level expressed in terms of L_{10}(1 hr) at the typical façades of the proposed development is recommended to be 70 dB(A).

2.3 Noise Sensitive Receivers for Road Traffic Noise Assessment

2.3.1 The residential units of the planned composite tower within the Application Site is a noise sensitive receiver (NSR) of road traffic noise impact. Representative assessment points have been assigned to all residential units within 19/F to 30/F of the planned composite tower. As the office, retail use and clubhouse will be provided with centralized air conditioning system and do not rely on openable windows for ventilation, they are not considered as NSRs for traffic noise impact assessment. The assessment area is provided in Figure 2.1. Noise assessment for residential floors is based on typical internal layout plan. Details of the representative NSRs selected for noise assessment are provided in Figure 2.2 and Table 2.1 below, respectively.

Table 2.1 Representative NSRs for Road Traffic Noise Assessment

NSR	Description	Level	No. storey
T1_TN01-T1_TN26	Residential	19/F-23/F, 25/F-30/F	11

2.4 Assessment Methodology

2.4.1 As discussed in Section 2.2, according to HKPSG, the standard for road traffic noise level expressed in terms of L_{10} (1 hr) at the typical façades of the proposed development is recommended to be 70 dB(A). The assessment is based on the prediction of the maximum L_{10} (1 hr) traffic noise level at NSRs of the proposed development due to the projected traffic on the adjacent road network for year 2042, which is considered as the maximum traffic projections within 15 years upon occupation of the Proposed Development in 2027. Traffic data was predicted by the project traffic consultant. Details of information on peak hour traffic volume and percentage of heavy vehicle of the road network within the 300m assessment area provided by the Project traffic consultant is presented in Appendix 2.1, which represents the worst-case scenario of the projected traffic flows.

2.4.2 The UK Department of Transport's procedures – "Calculation of Road Traffic Noise" (CRTN) has been used in the prediction of the road traffic noise at the representative NSRs of the proposed development within the Application Site. The existing topographic details, such as the existing houses and structures near the Application Site, have been considered in the assessment.

2.4.3 The noise prediction has been carried out using the *Road Noise Module 2.7.2 of Noise Map Enterprise Edition* software, which is a computerised model developed on the basis of the U.K. Department of Transport's CRTN procedures, and is acceptable to the EPD.

2.5 Prediction and Evaluation of Noise Impacts

2.5.1 As described in Section 1.3, the Proposed Development has used noise-tolerant uses at lower floors (e.g. retails, commercial uses) while residential floors are located from 19/F to 30/F which is substantially higher than the surrounding roads. The Proposed Development is also partially shielded by other surrounding existing buildings in the area. An assessment on the road traffic noise level at the representative NSRs based on the traffic flow data has been conducted. A summary of the predicted road traffic noise levels is provided in Table 2.2. The predicted road traffic noise levels at the representative NSRs in both AM and PM scenario show no exceedance of the traffic noise criterion of 70 dB(A). The detailed traffic noise assessment results are provided in Appendix 2.2.

Table 2.2 Summary of Predicted Unmitigated Road Traffic Noise Levels at Representative NSRs (AM and PM peaks)

NSR	Predicted Road Traffic Noise Level, $L_{10\ (1\text{-hour})}$, dB(A) (Unmitigated)	
	AM	PM
T1_TN01	64 - 66	63 - 65
T1_TN02	62 - 65	61 - 64
T1_TN03	61 - 65	61 - 64
T1_TN04	61 - 65	60 - 64
T1_TN05	61 - 64	60 - 64
T1_TN06	60 - 64	60 - 63
T1_TN07	60 - 64	60 - 63
T1_TN08	60 - 64	60 - 63
T1_TN09	60 - 64	59 - 63
T1_TN10	60 - 64	59 - 63
T1_TN11	60 - 64	60 - 63
T1_TN12	60 - 64	60 - 63
T1_TN13	60 - 64	60 - 63
T1_TN14	61 - 64	60 - 63
T1_TN15	63 - 65	63 - 64
T1_TN16	64 - 65	63 - 64
T1_TN17	64 - 65	63 - 64
T1_TN18	65 - 68	64 - 66
T1_TN19	65 - 67	64 - 66
T1_TN20	55 - 65	54 - 63
T1_TN21	56 - 65	55 - 64
T1_TN22	57 - 65	56 - 64
T1_TN23	60 - 66	59 - 65
T1_TN24	62 - 67	61 - 65
T1_TN25	63 - 67	62 - 66
T1_TN26	64 - 67	62 - 66
Criterion	70	70

2.6 Conclusion

2.6.1 Noise impacts due to road traffic within 300m radius from the Application Site have been assessed. The predicted traffic noise levels at all representative NSRs within the Application Site would comply with the noise criterion of 70 dB(A). No adverse traffic noise impact on the proposed development is anticipated and mitigation measures are not required.

3. FIXED NOISE IMPACT ASSESSMENT

3.1 Introduction

3.1.1 In this assessment, potential noise impacts arising from the nearby fixed noise sources within 300m radius on the proposed development has been assessed by general acoustic principle and Technical Memorandum for the Assessment of Noise from Places Other Than Domestic Premises, Public Places or Construction Sites (IND-TM). Practicable environmental mitigation measures would be recommended, where necessary.

3.2 Government Legislation and Standards

Noise Control Ordinance (NCO)

3.2.1 The Noise Control Ordinance (NCO) provides the statutory framework for the control of fixed plant. The Technical Memorandum for the Assessment of Noise from Places other than Domestic Premises, Public Places or Construction Sites (IND-TM) sets the criteria, Acceptable Noise Level (ANL), for governing noise from existing fixed plant / industrial noise sources.

Hong Kong Planning Standards and Guidelines (HKPSG)

3.2.2 The NCO requires that noise impacts from existing fixed noise sources shall comply with the Acceptable Noise Levels (ANL) laid down in Table 2 of IND-TM, which is influenced by the Area Sensitivity Rating (ASR) determined by the type of area containing the NSR.

3.2.3 The Application Site is located in an urban area not affected by an Influencing Factor defined by the IND-TM. An ASR of "B" has been adopted to the residential units with 65 dB(A) as the noise criteria for day and evening time, and 55 dB(A) for night time. The ANL for ASRs "B" is depicted in Table 3.1.

Table 3.1 Relevant Noise Standard for Fixed Noise Sources

	Criteria in Relevant Time Periods	Acceptable Noise Level (ANL)
"B"	Day and Evening (07:00 – 23:00)	65 dB(A)
	Night (23:00 – 07:00)	55 dB(A)

3.2.4 The ASRs proposed in this NIA is intended for assessment only. Nothing in the NIA shall bind the Noise Control Authority in the context of enforcement against any of the fixed plant / industrial noise sources identified and assessed in the future under the NCO.

3.2.5 Since the observed fixed noise sources (Section 3.3 refers) are existing uses, the ANL criteria is relevant and has been adopted.

3.3 Identification of Potential Noise Impacts

Fixed Noise Sources

3.3.1 Within 300m radius from the boundary of the Application Site, ventilation equipment, including chillers and Variable Refrigerant Volume (VRV) equipment have been identified as the potential fixed noise sources. The locations of the existing fixed noise sources are indicated in Figure 3.1. Since the Proposed Development is located at an existing developed area, some of the fixed sources are partially shielded by other

existing surrounding buildings. Site survey has been conducted to identify locations of fixed noise sources. The type and number of equipment adopted for the assessment were based on site observation. The noise assessment assumed all equipment will be operating simultaneously and continuously as a worst-case scenario. The sound power level (SWL) of noise sources was referenced from the relevant product catalogues. The details of the fixed noise sources are also presented in Appendix 3.1.

3.4 Noise Sensitive Receivers for Fixed Noise Assessment

3.4.1 Representative assessment points have been assigned to the residential units of the Proposed Development overlooking the industrial noise sources. The NSRs are selected at 1m away from the façade of openable window for ventilation purpose. The locations and details of the representative NSRs selected for assessment are provided in Figure 3.2 and Table 3.2 below, respectively.

Table 3.2 Representative NSRs for Fixed Noise Assessment

NSR	Description
N01	Residential
N02	Residential
N03	Residential
N04	Residential

3.5 Assessment Methodology

3.5.1 As all premises were not accessible, information such as types of noise source and SWL of noisy equipment were referenced from representative catalogues available in the market and with similar brand and model of equipment (Appendix 3.1 refers), in order to represent the noise sources.

3.5.2 To predict the noise level at the future noise sensitive uses within the Proposed Development, the following correction factors have been accounted for:

- Distance correction: based on the separation distance between the identified noise sources and the NSR, the distance correction is projected based on standard acoustical principle for point source;
- Although it is unlikely that all the identified fixed noise sources will be in operation simultaneously, to be conservative, it has been assumed that all the identified noise sources are in operation at the same time, which also represents a worst-case scenario. Noise sources are assumed to operate continuously instead of in occasion as observed onsite and all noise sources are regarded as point source;
- Façade correction: a +3dB(A) correction is applied to account for noise reflection from façade.

3.5.3 Corrected Noise Level (CNL) at the representative NSRs of the proposed development can be calculated by applying the above corrections to the measured SWL of the noise sources in accordance with the following formula:

$$CNL = SWL + C_{dist} + C_{fac} + C_{bar}$$

Where,

CNL is the corrected noise level at the Assessment Point in dB(A)

SWL is the sound power level of the fixed plant in dB(A)

C_{dist} is the distance correction in dB(A) in accordance with the Technical Memorandum on Noise from Construction Works Other than Percussive Piling

C_{fac} is façade correction, +3 dB(A)

C_{bar} is screening correction, -5 dB(A) for partial screening and -10 dB(A) when there is no direct line of sight or for complete screening by structure.

3.6 Prediction and Evaluation of Noise Impacts

Fixed Noise Assessment Results

3.6.1 Based on the assumptions mentioned above and information of noise sources in Section 3.3, noise level estimation for the selected NSRs at the Application Site has been conducted. The predicted industrial noise levels at the representative NSRs are summarised in Table 3.3. The details are presented in Appendix 3.2.

Table 3.3 Predicted Unmitigated Fixed Noise Levels at Representative NSRs

NSR[1]	Predicted Unmitigated Noise Level, dB(A)	
	Day and Evening (07:00 – 23:00)	Night (23:00 – 07:00)
N01	58	50
N02	62	53
N03	62	53
N04	58	43
Criteria	65	55

Notes:
[1] The assessment only includes NSRs which reply on opened windows for ventilation.

3.6.2 Based on the proposed layout, the calculated industrial noise levels at all NSRs comply with the noise criteria. No adverse industrial noise impact is anticipated at the Application Site.

3.7 Conclusion

3.7.1 Noise impacts due to existing fixed noise sources within 300m radius of the Application Site have been examined. Based on the proposed layout, no adverse industrial noise impact on the proposed development is anticipated.

4. OVERALL CONCLUSION

4.1.1 The potential road traffic noise and fixed noise impacts that may affect the Proposed Development have been assessed.

4.1.2 Road traffic noise impact assessment revealed that the predicted noise levels at all representative NSRs within the Application Site would comply with the HKPSG recommended criterion of 70 dB(A) for L_{10} (1- hr). No adverse road traffic noise impact is thus anticipated. No mitigation measures are required.

4.1.3 Fixed noise sources in the vicinity of the proposed development have been identified. Assessment on fixed noise impact at representative noise sensitive receivers has been conducted. It is confirmed that the predicted fixed noise level at all NSRs comply with the requirement of relevant technical memorandum under Noise Control Ordinance.

4.1.4 It can be concluded that no adverse noise impact is anticipated in associated with Proposed Development.

Figures

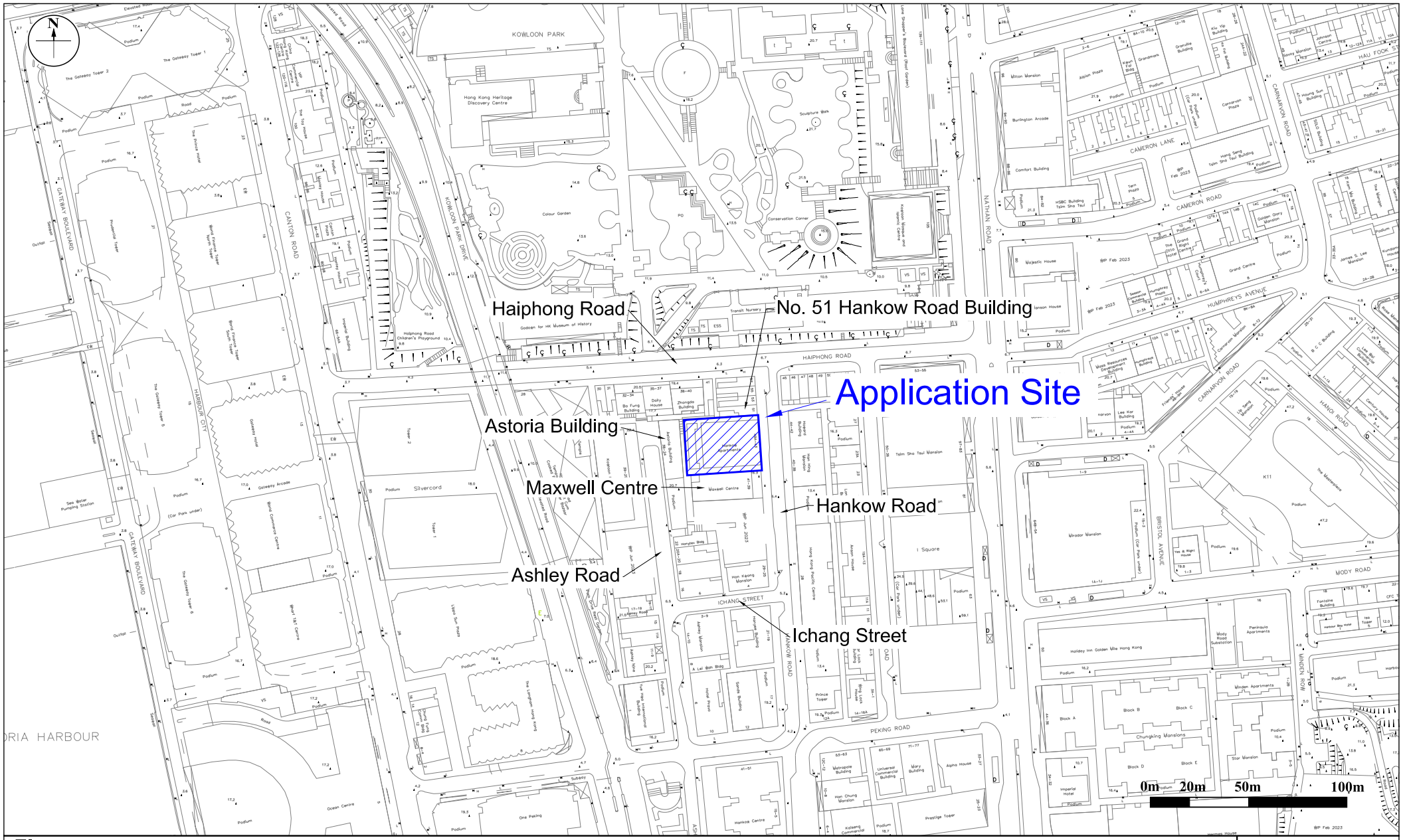


Figure: 1.1	RAMBOLL
Title: Application Site & Its Environ	Drawn by: EC
	Checked by: KY
Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon	Rev.: 1.0
	Date: Aug 2023

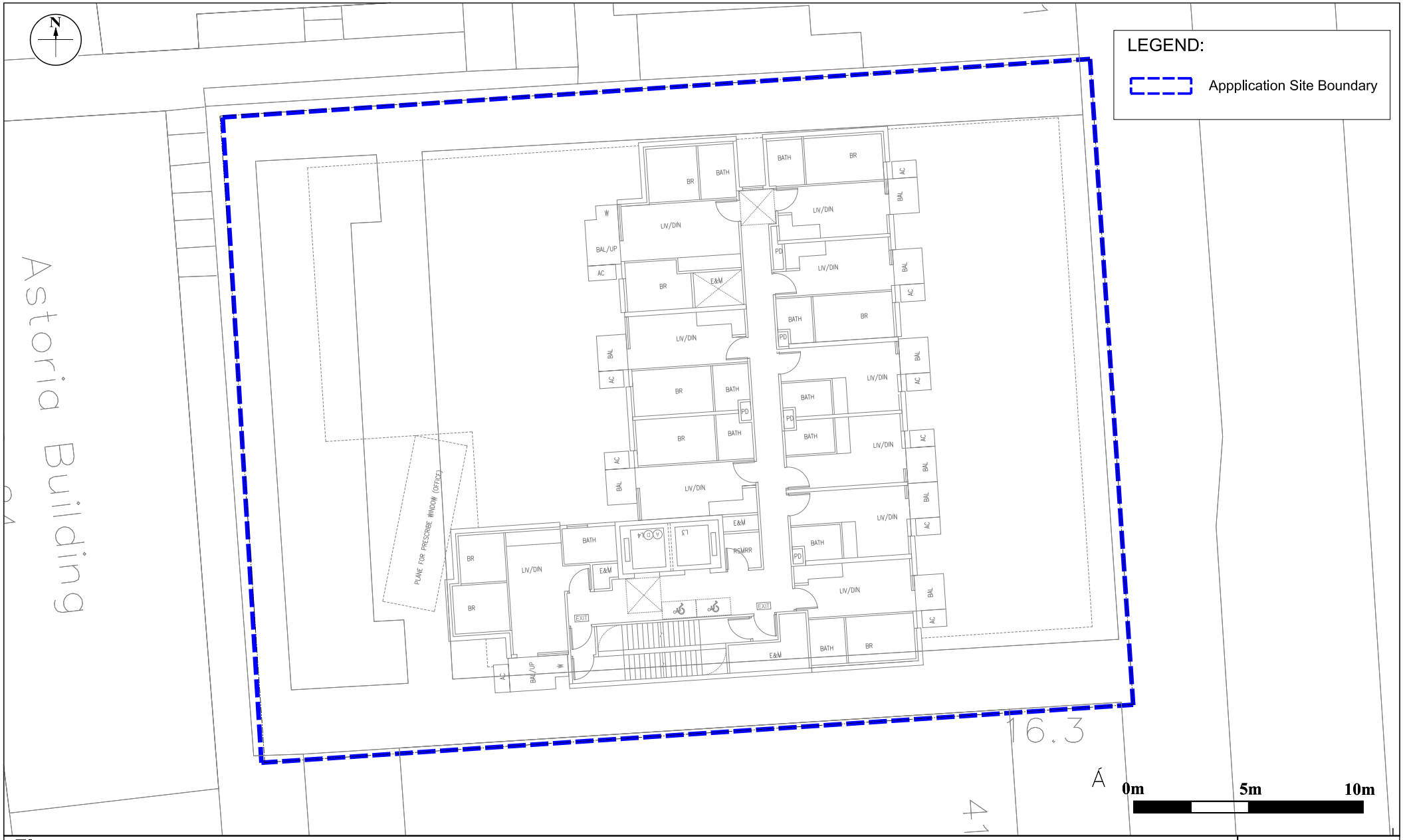


Figure: 1.2

Title: Master Layout Plan of Indicative Scheme

Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon

RAMBOLL

Drawn by: EC

Checked by: KY

Rev.: 1.0

Date: Aug 2023

Figure: 2.1	RAMBOLL
Title: Traffic Noise Assessment Area	Drawn by: EC
	Checked by: KY
Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon	Rev.: 1.0
	Date: Aug 2023

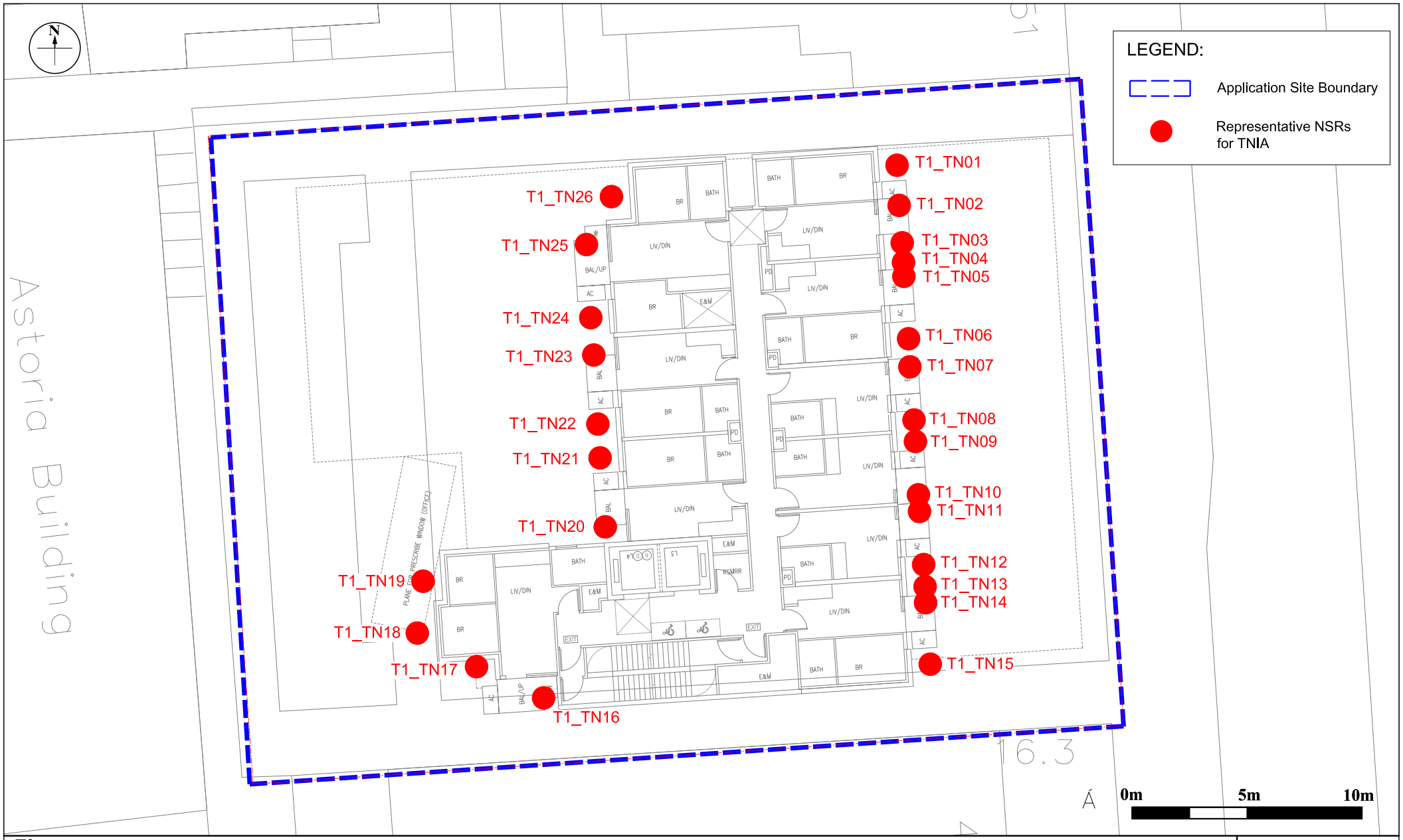


Figure: 2.2	RAMBOLL
Title: Representative NSRs for Traffic Noise Impact Assessment (19-30/F)	Drawn by: EC Checked by: KY
Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon	Rev.: 1.0 Date: Aug 2023

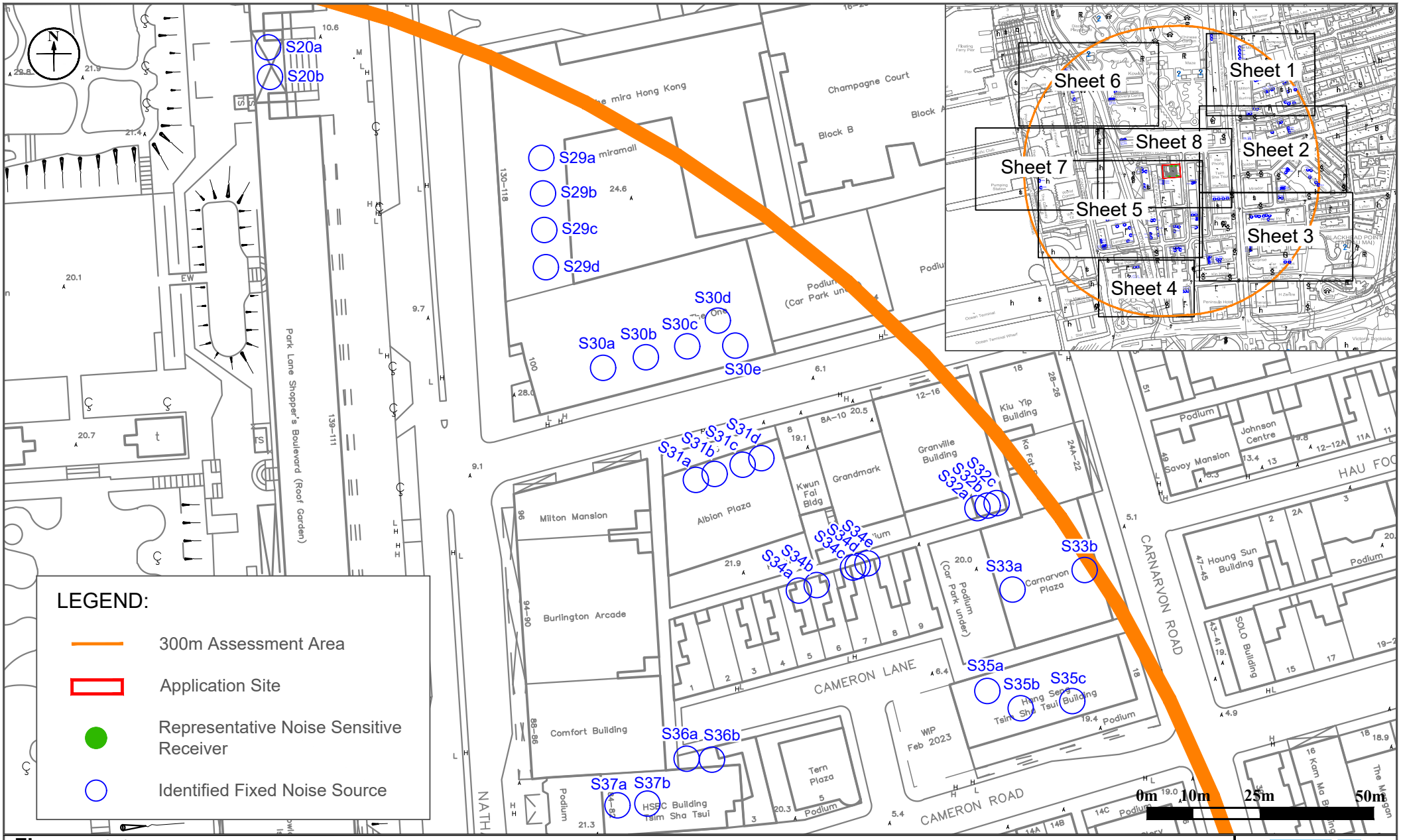


Figure: 3.1

Title: Location of Representative Noise Sensitive Receivers for Fixed Noise Source Impact Assessment (Sheet 1 of 8)

Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon

RAMBOLL

Drawn by: VS

Checked by: KY

Rev.: 1.0

Date: Aug 2023

Figure: 3.1

Title: Location of Representative Noise Sensitive Receivers for Fixed Noise Source Impact Assessment (Sheet 2 of 8)

Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon

RAMBOLL

Drawn by: VS

Checked by: KY

Rev.: 1.0

Date: Aug 2023

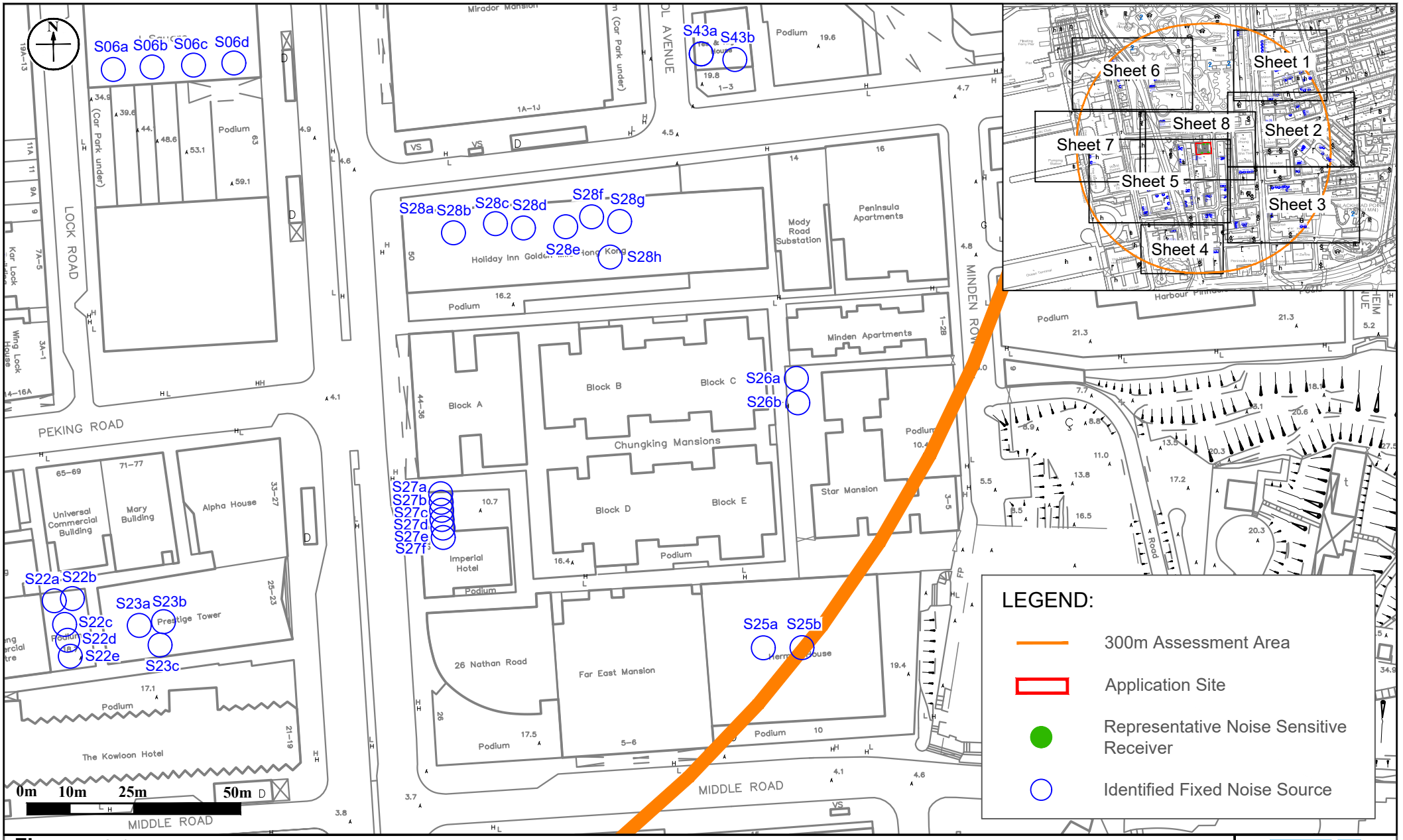


Figure: 3.1

Title: Location of Representative Noise Sensitive Receivers for Fixed Noise Source Impact Assessment (Sheet 3 of 8)

Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon

RAMBOLL

Drawn by: VS

Checked by: KY

Rev.: 1.0

Date: Aug 2023

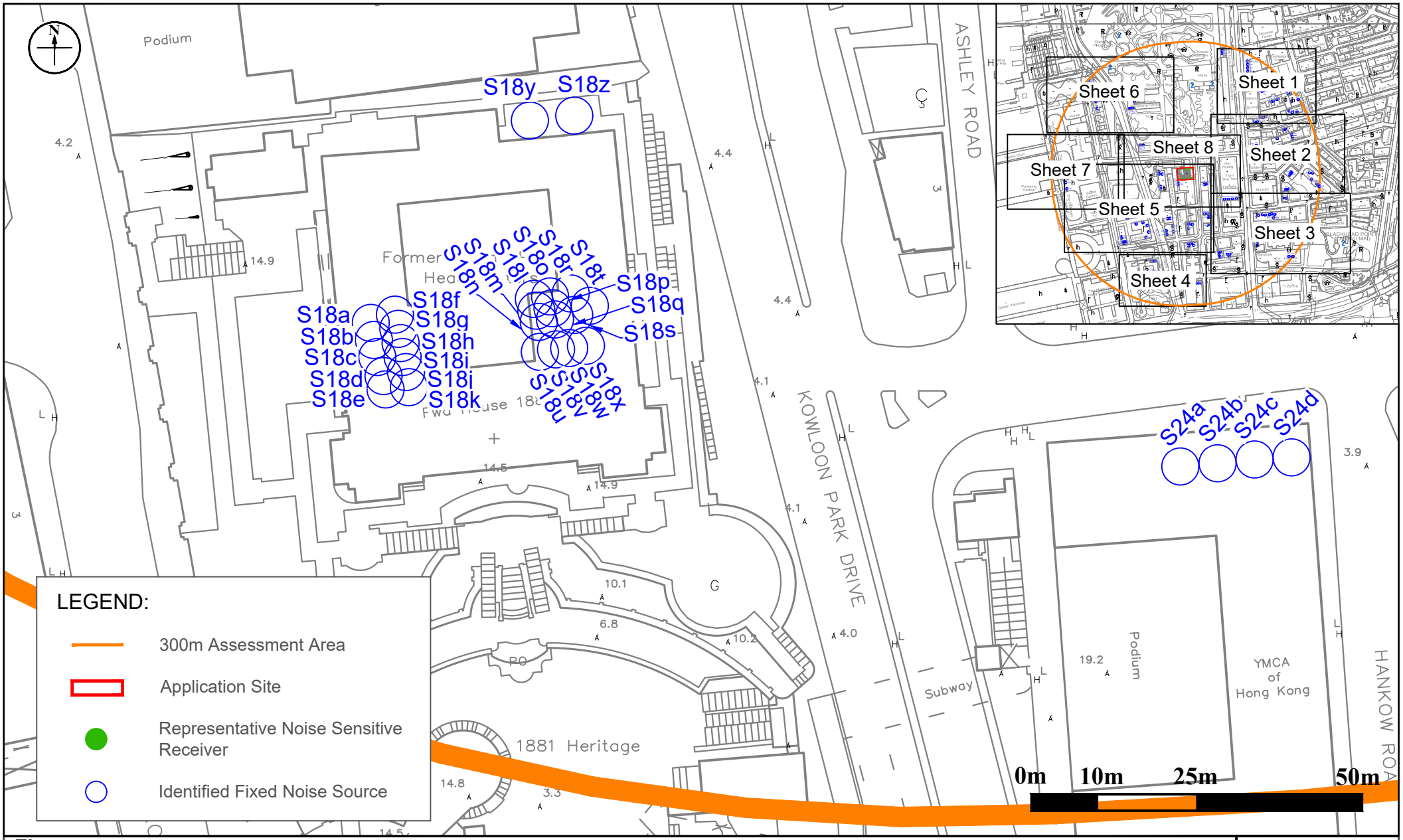


Figure: 3.1

Title: Location of Representative Noise Sensitive Receivers for Fixed Noise Source Impact Assessment (Sheet 4 of 8)

Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon

RAMBOLL

Drawn by: VS

Checked by: KY

Rev.: 1.0

Date: Aug 2023

Figure: 3.1	RAMBOLL
Title: Location of Representative Noise Sensitive Receivers for Fixed Noise Source Impact Assessment (Sheet 5 of 8)	Drawn by: VS Checked by: KY
Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon	Rev.: 1.0 Date: Aug 2023

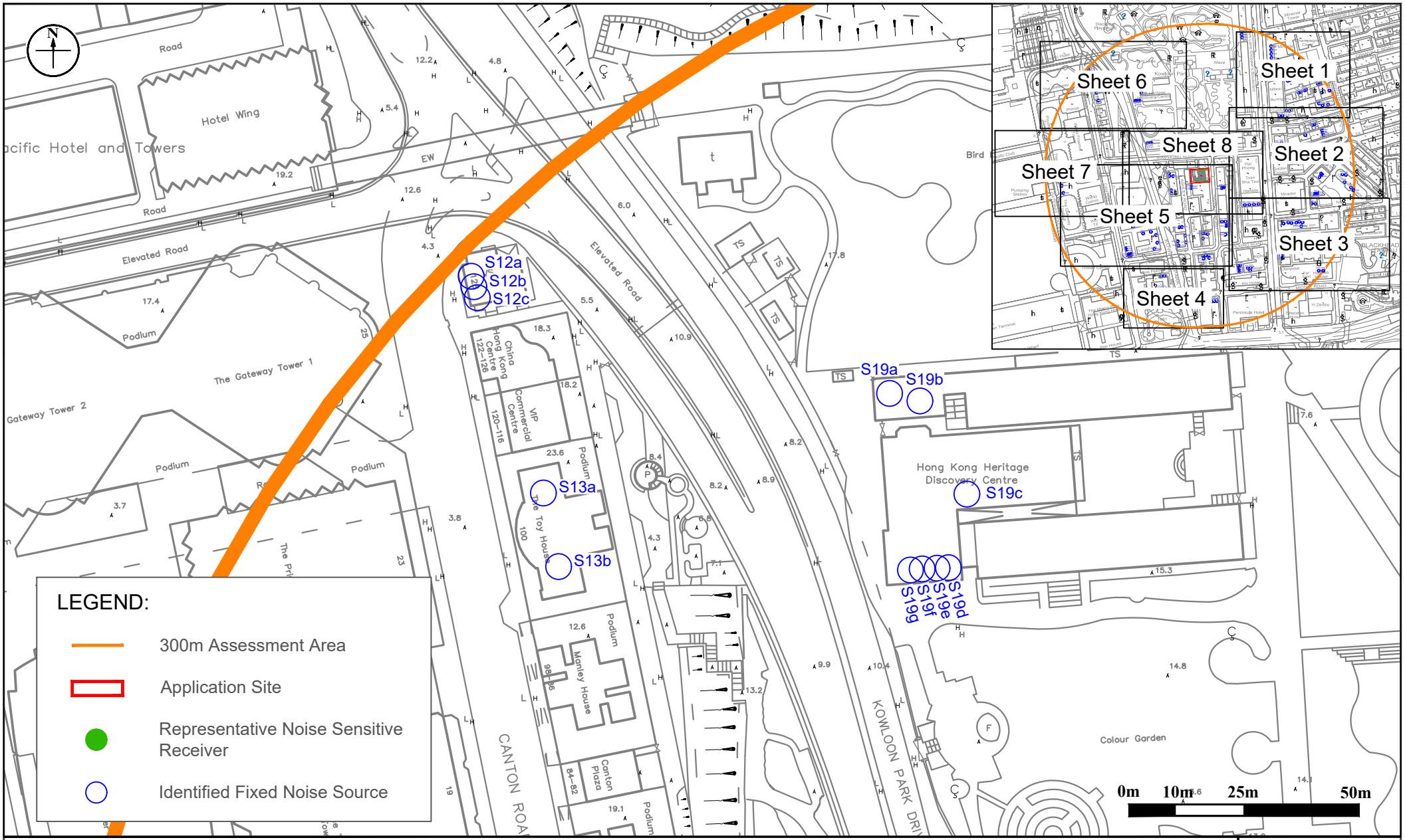


Figure: 3.1

Title: Location of Representative Noise Sensitive Receivers for Fixed Noise Source Impact Assessment (Sheet 6 of 8)

Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon

RAMBOLL

Drawn by: VS

Checked by: KY

Rev.: 1.0

Date: Aug 2023

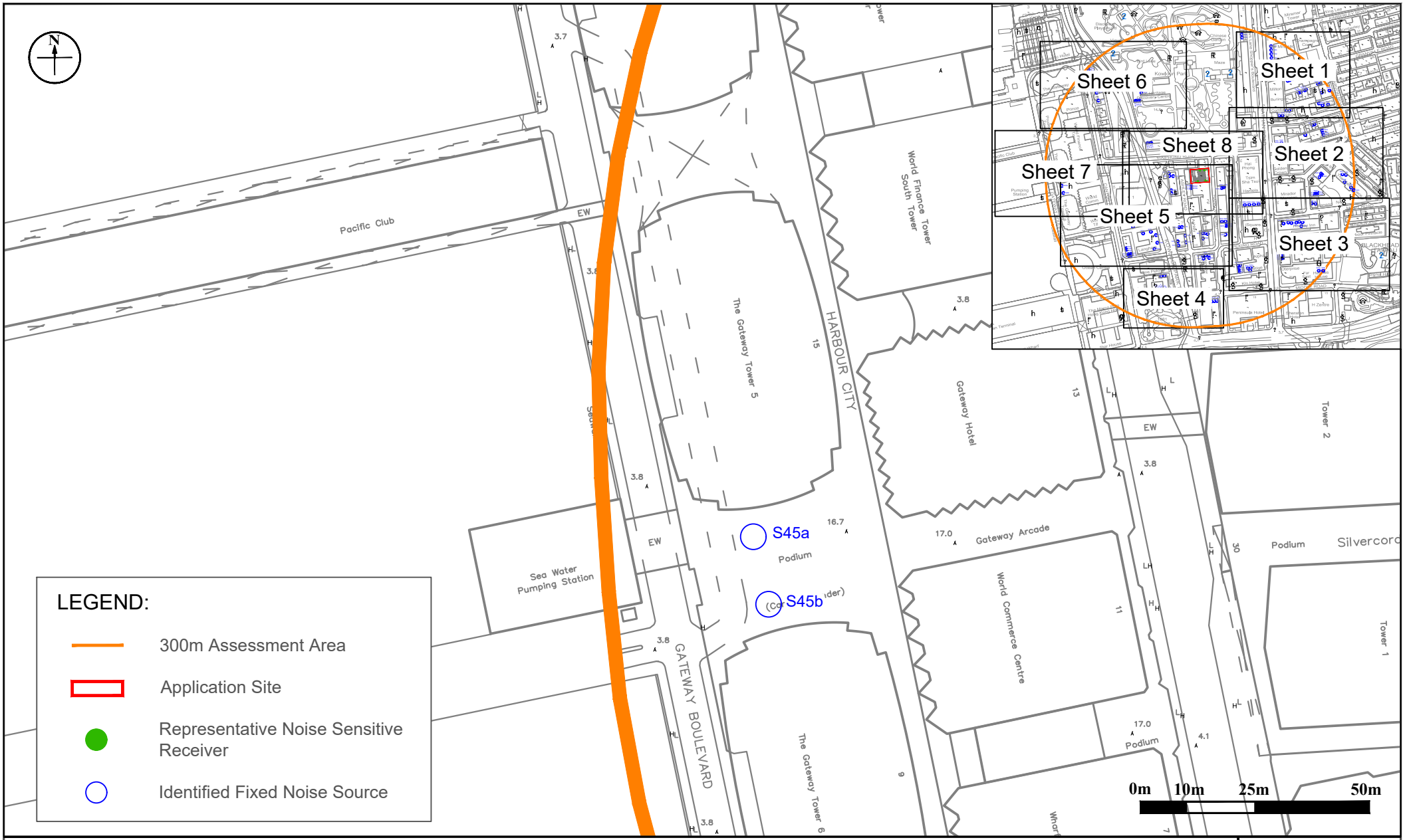


Figure: 3.1

Title: Location of Representative Noise Sensitive Receivers for Fixed Noise Source Impact Assessment (Sheet 7 of 8)

Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon

RAMBOLL

Drawn by: VS

Checked by: KY

Rev.: 1.0

Date: Aug 2023

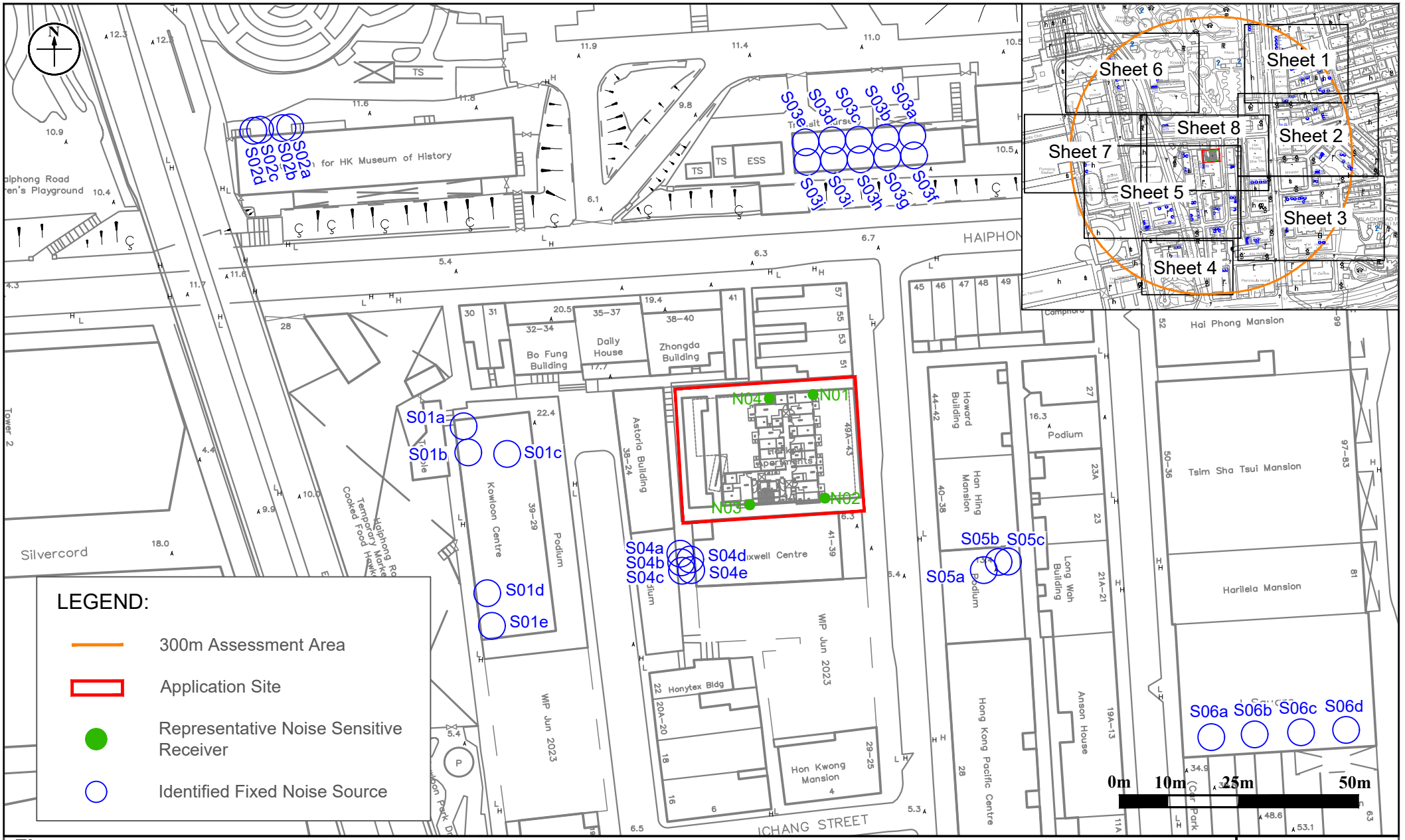


Figure: 3.1

Title: Location of Representative Noise Sensitive Receivers for Fixed Noise Source Impact Assessment (Sheet 8 of 8)

Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon

RAMBOLL

Drawn by: VS

Checked by: KY

Rev.: 1.0

Date: Aug 2023

Figure: 3.2

Title: Location of Representative Noise Sensitive Receivers for Fixed Noise Source Impact Assessment

Project: Proposed Composite Development at 43-49A Hankow Road, Tsim Sha Tsui, Kowloon

RAMBOLL

Drawn by: VS

Checked by: KY

Rev.: 1.1

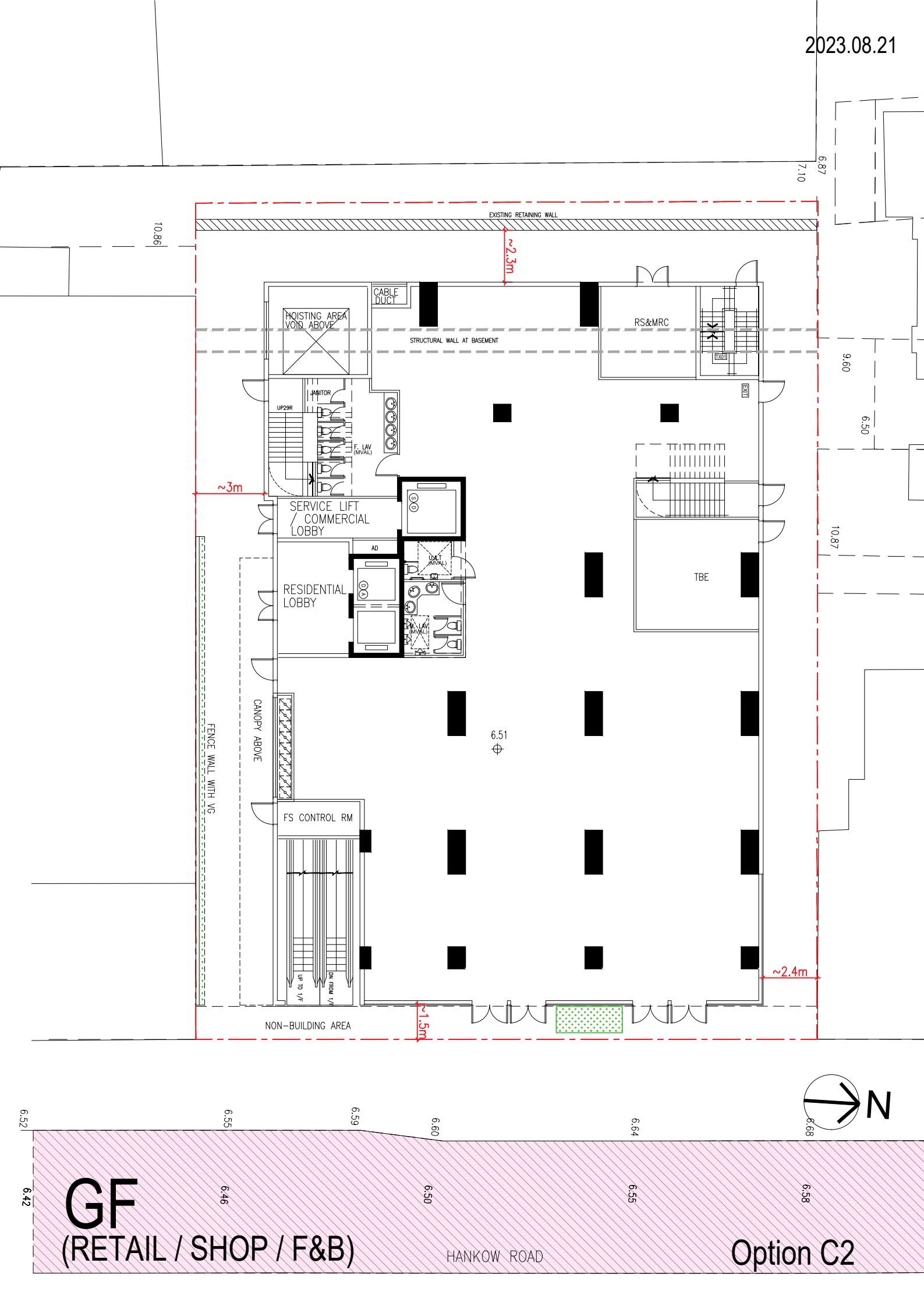
Date: Aug 2023

Appendices

Appendix 1.1

Detailed Layout of the Proposed Development

2023.08.21

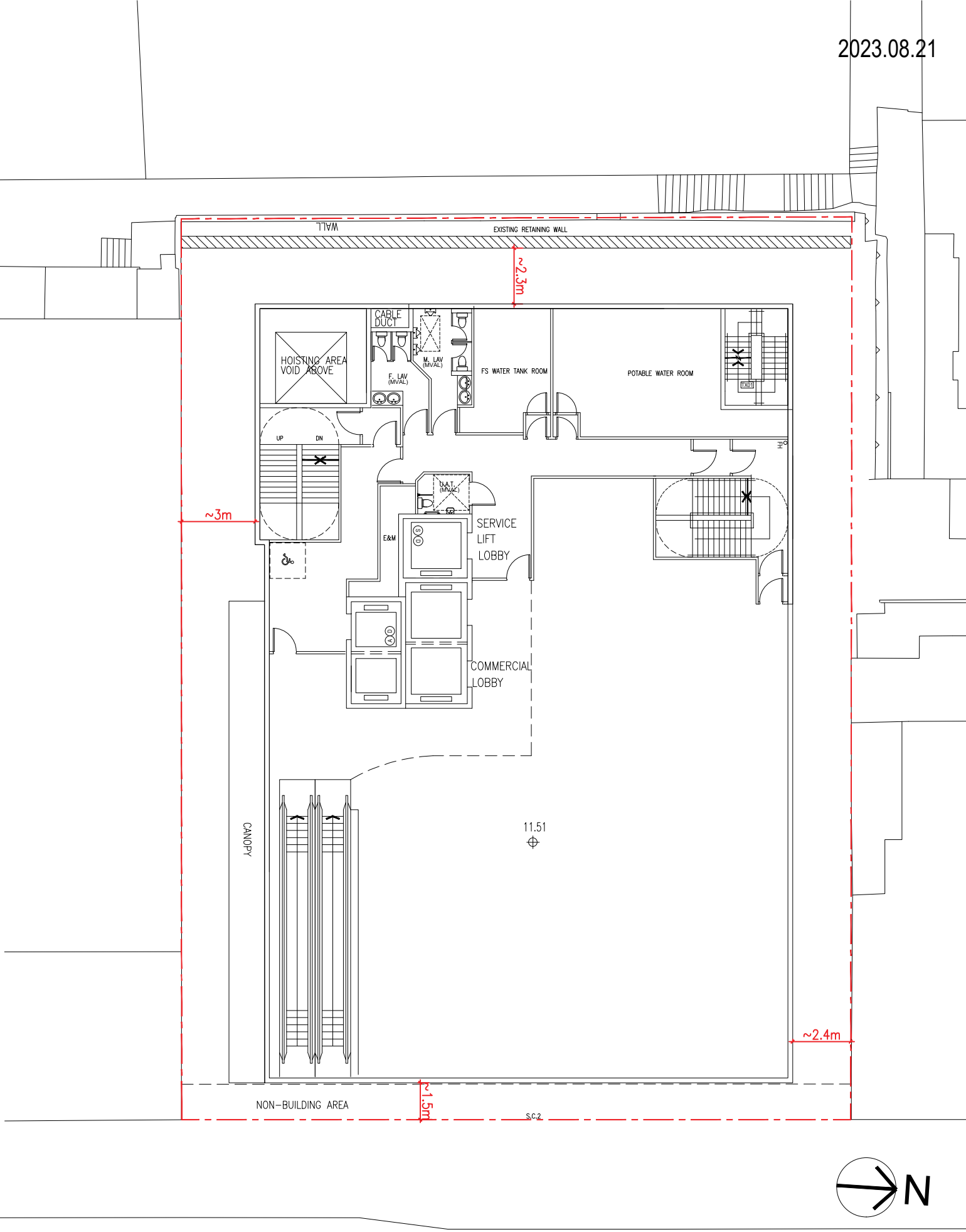


GF
(RETAIL / SHOP / F&B)

HANKOW ROAD

Option C2

2023.08.21

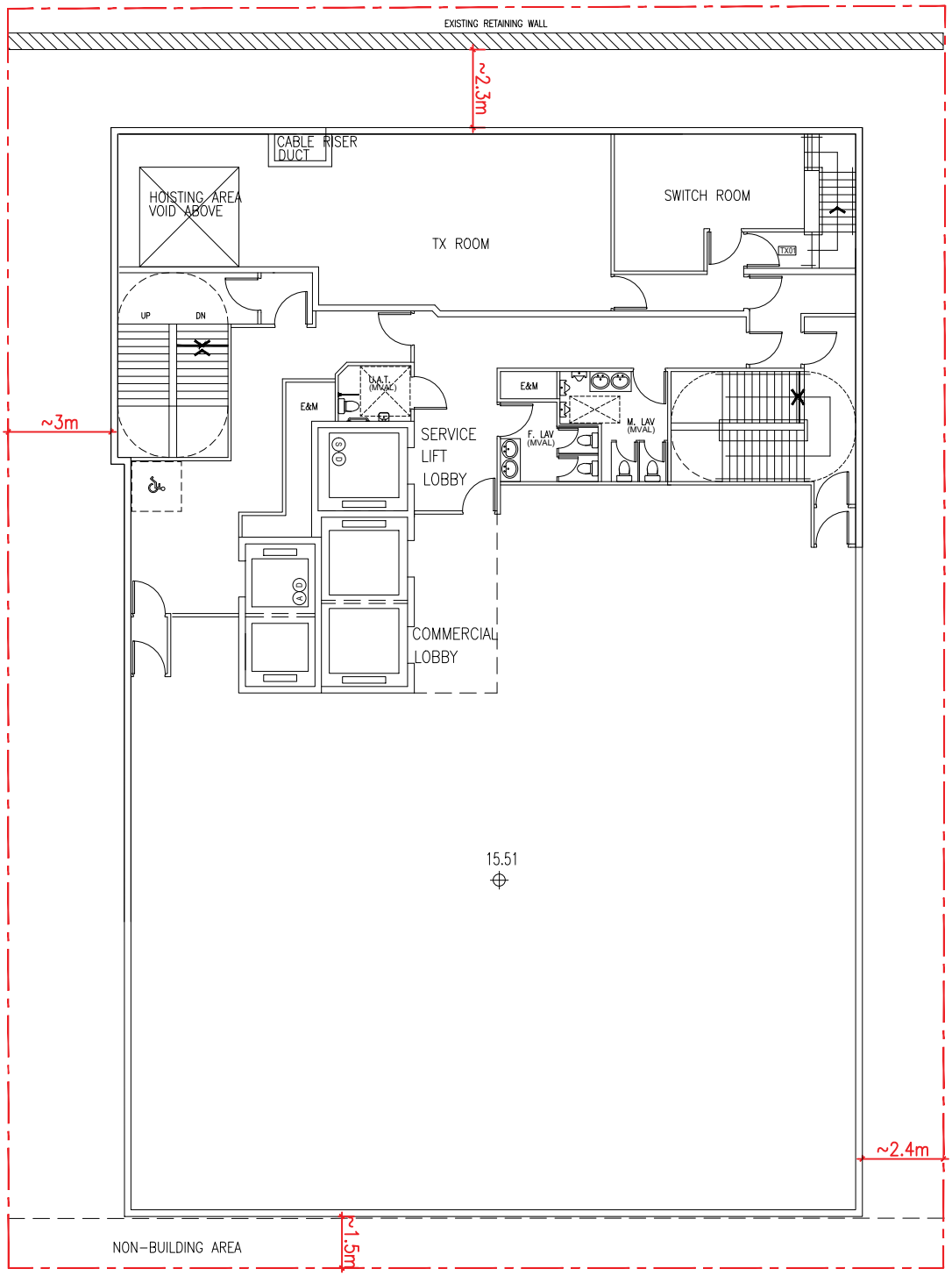


1F

(RETAIL / SHOP / F&B)

Option C2

2023.08.21

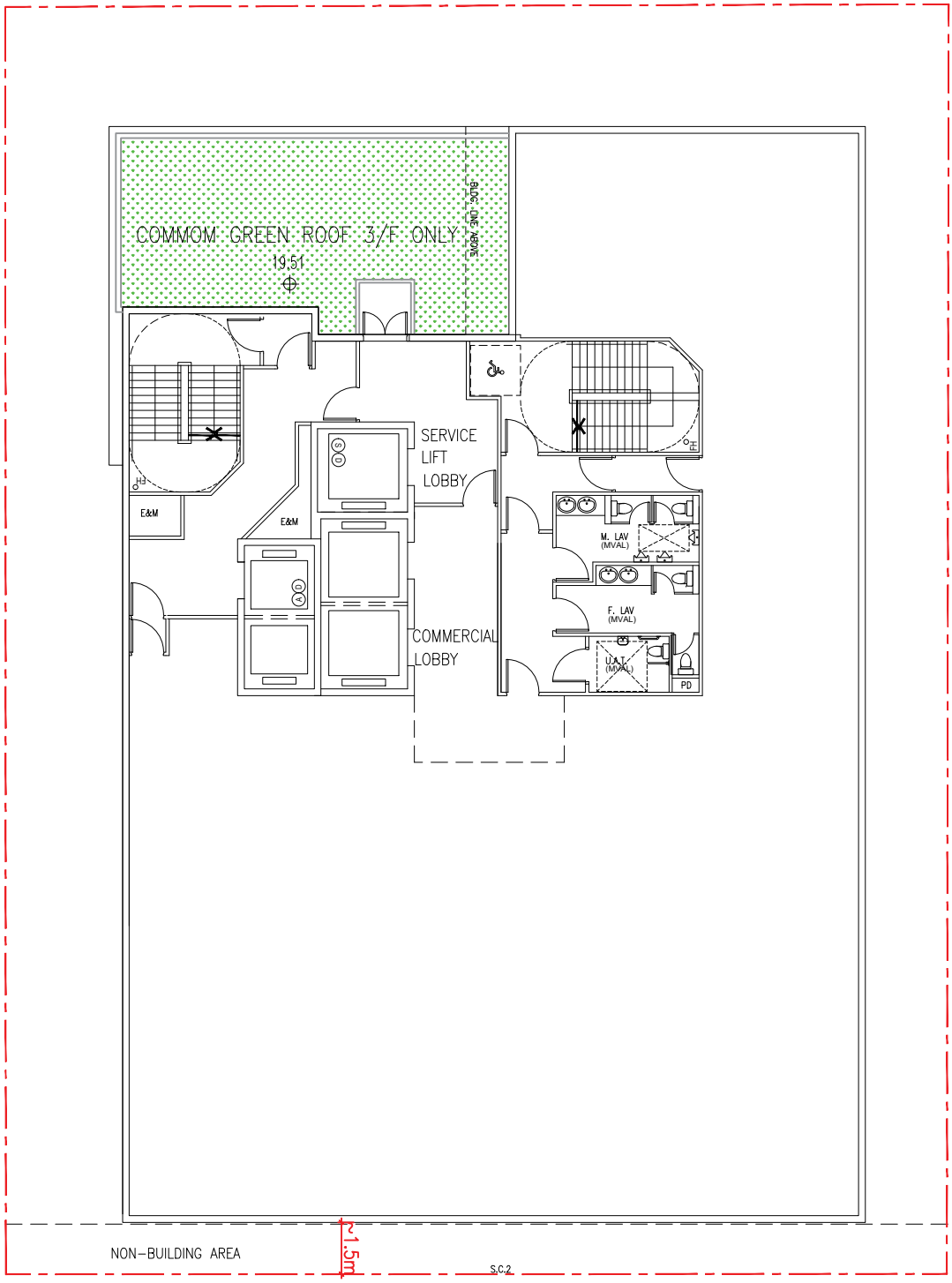


N

2F
(RETAIL / SHOP / F&B)

Option C2

2023.08.21



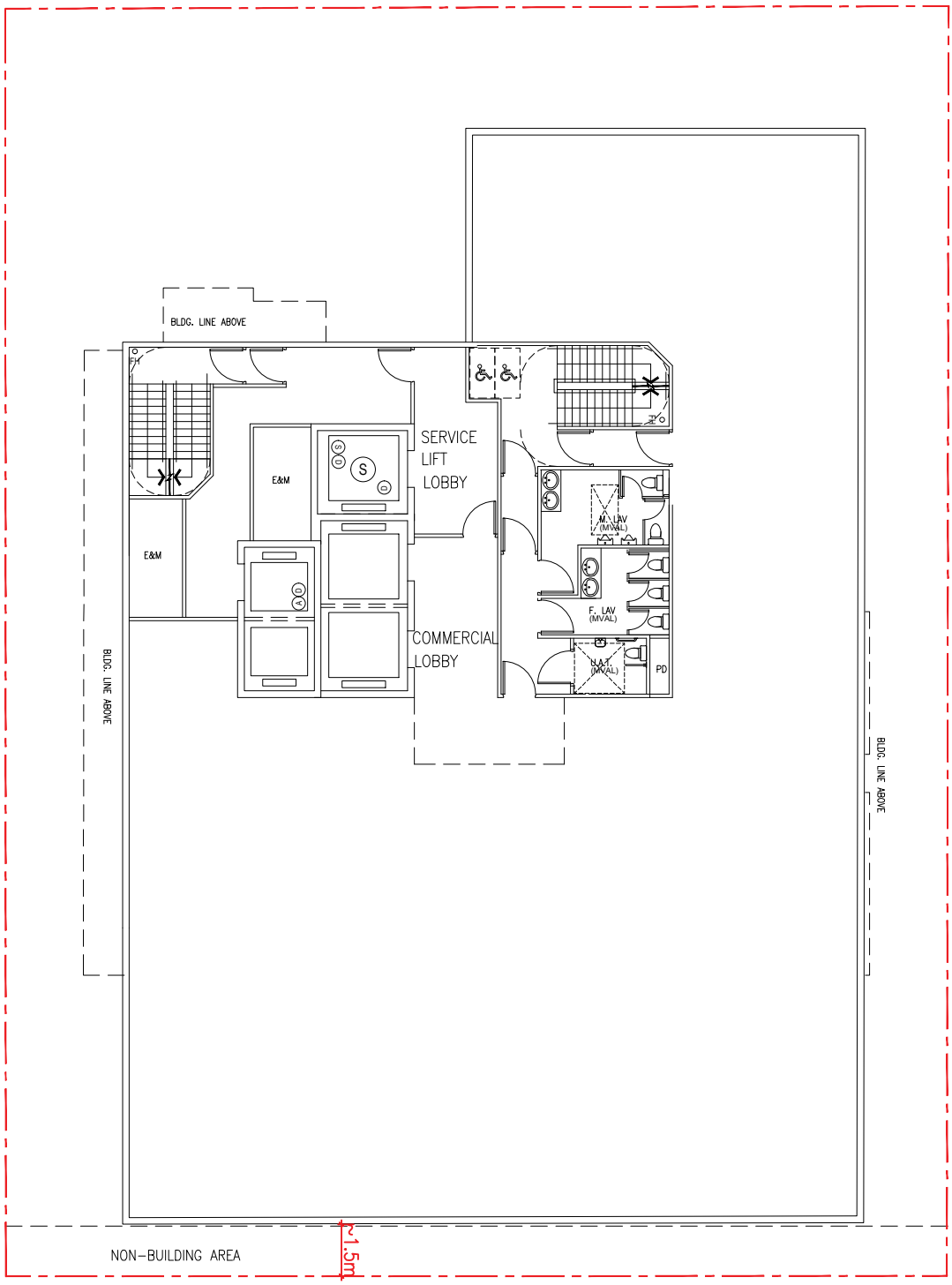
N

3F-7F

(SHOP/OFFICE/F&B)

Option C2

2023.08.21



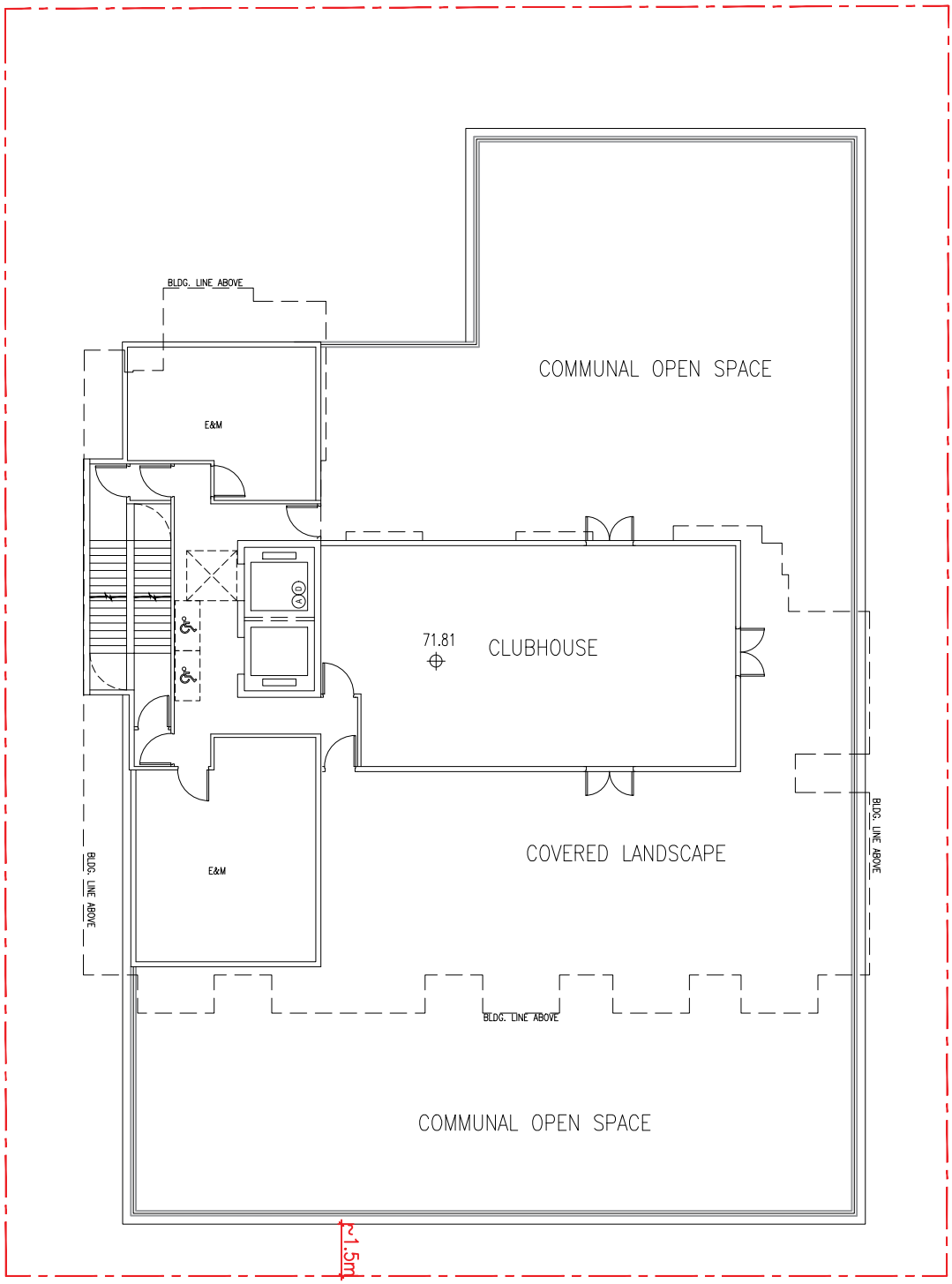
N

8F-17F

(OFFICE)

Option C2

2023.08.21

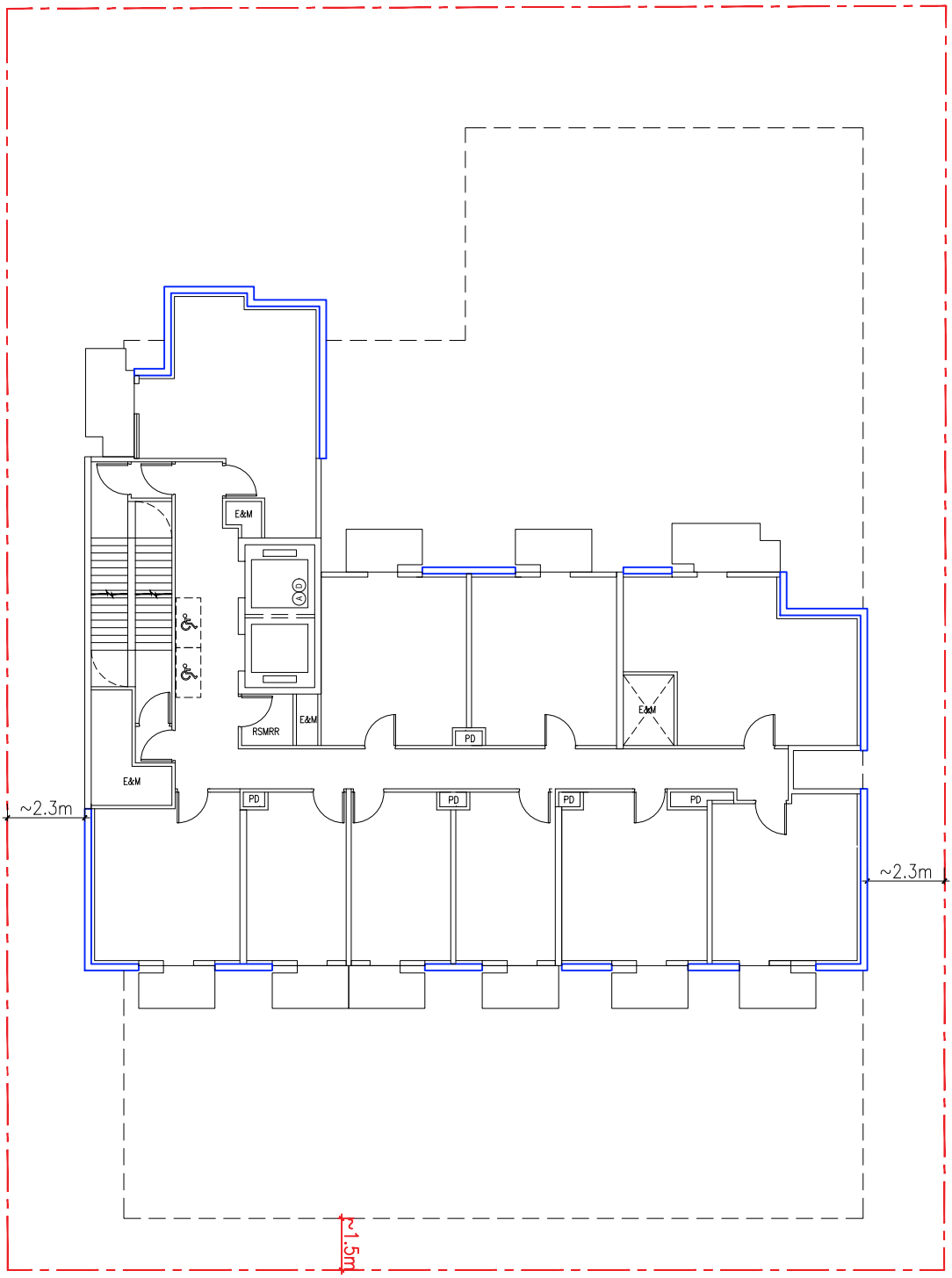


N

18F

Option C2

2023.08.21



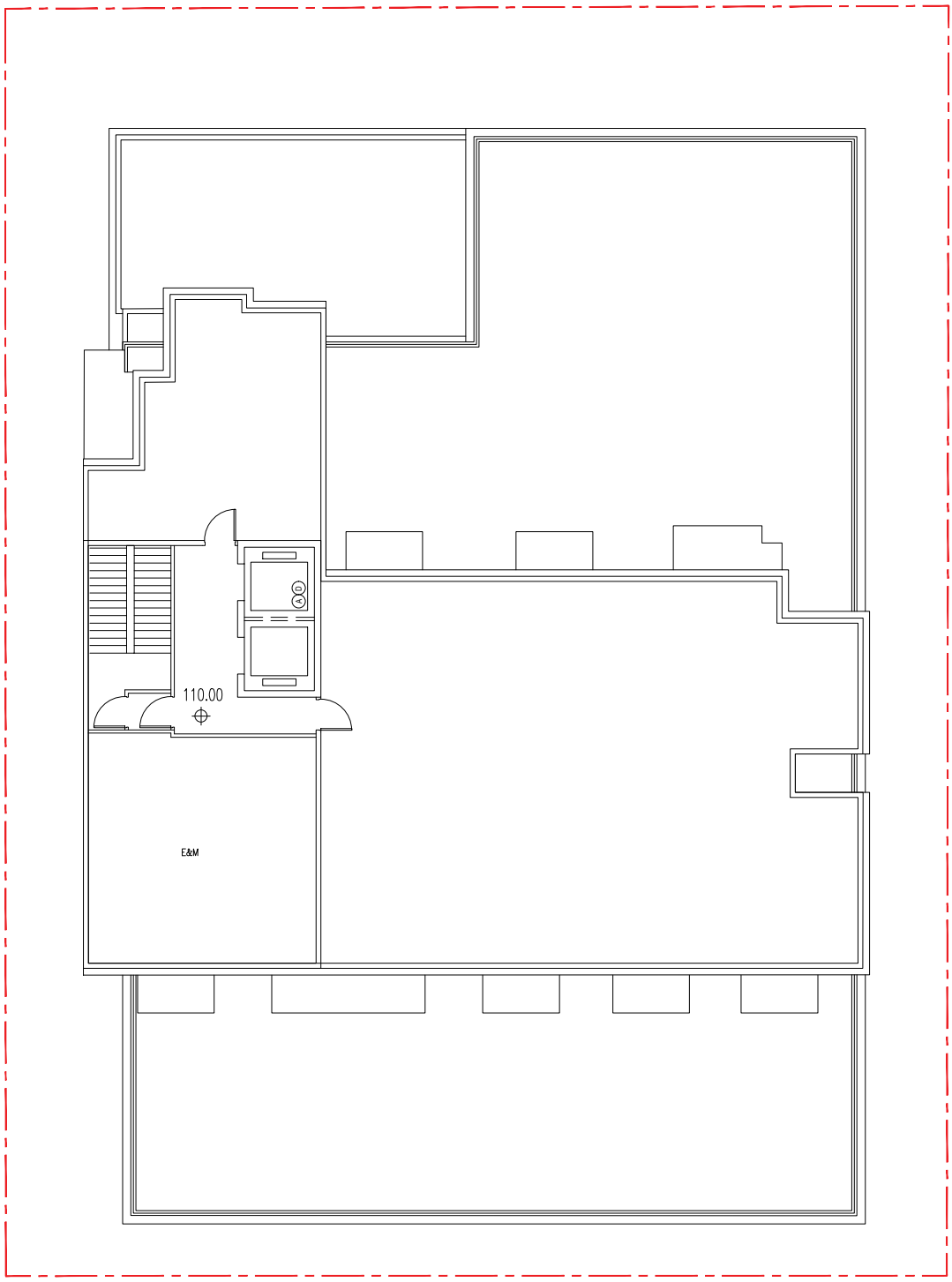
HANKOW ROAD

N

19F-30F
(EXCLUDE 24/F)

OPTION C2

2023.08.21

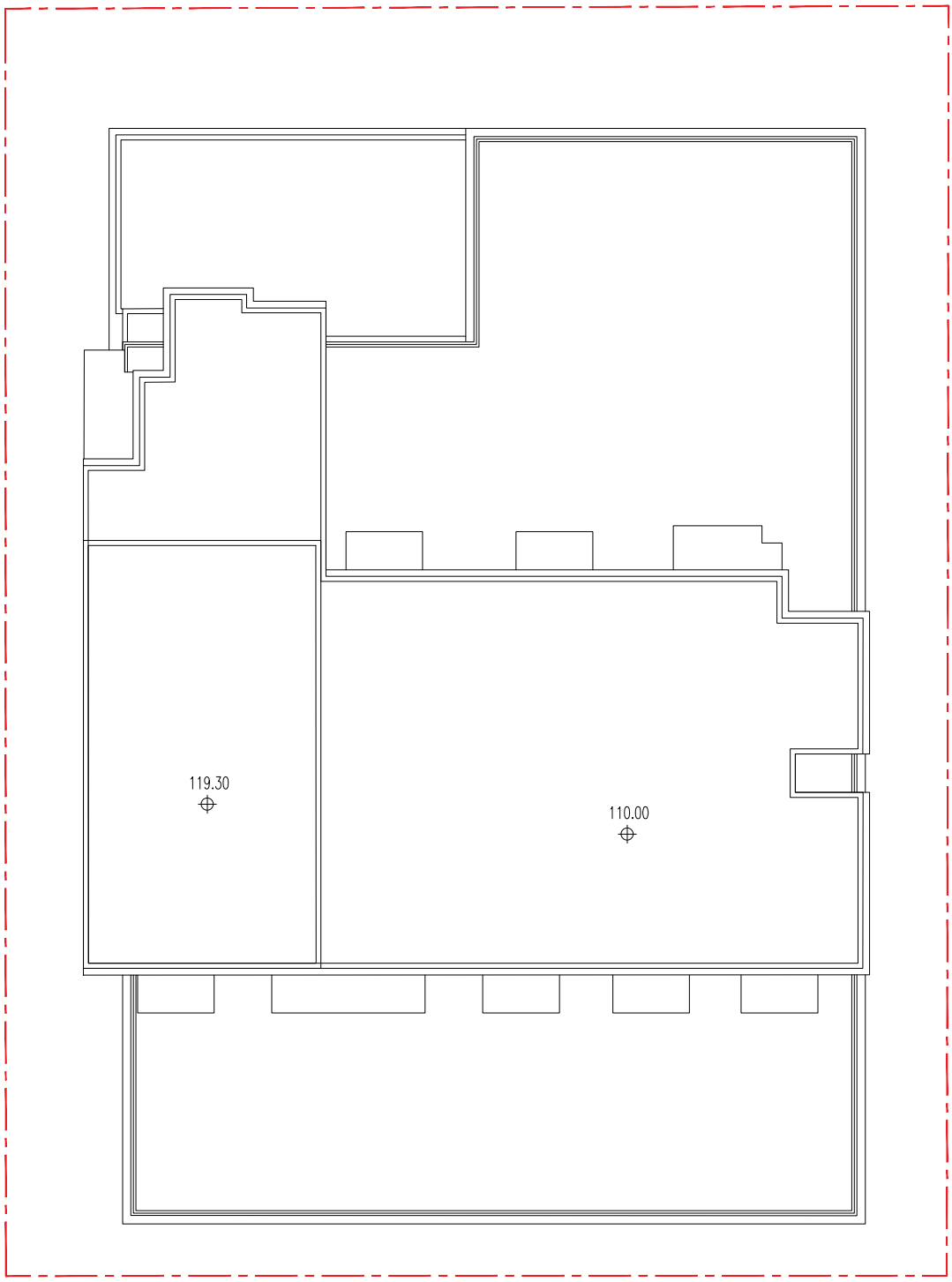


N

R/F

Option C2

2023.08.21



T/R

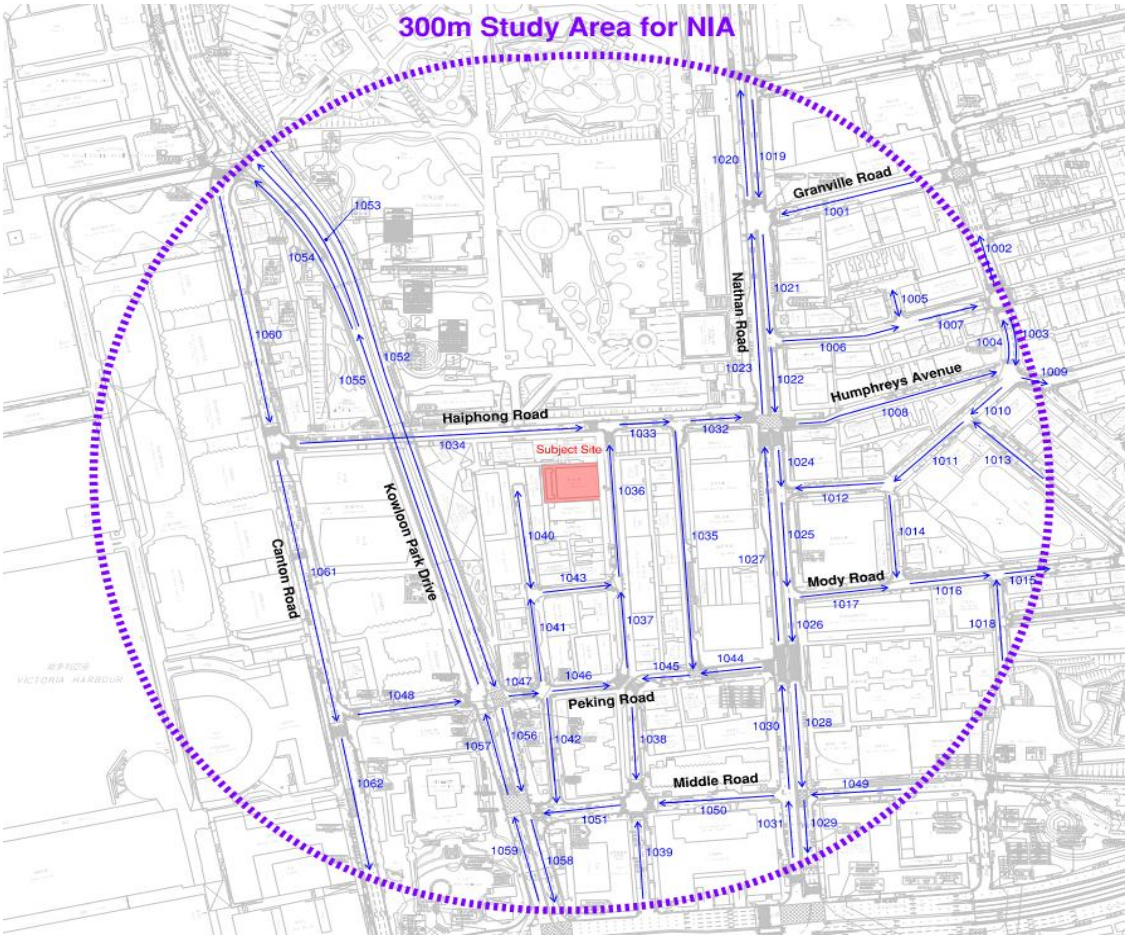
Option C2

Appendix 2.1

Traffic Forecast

Year 2042 Traffic Data

Link ID	Road Name	Design Speed (Km / Hour)	AM Peak			PM Peak		
			Total (Veh / Hour)	LV%	HV%	Total (Veh / Hour)	LV%	HV%
1001	Granville Road (WB)	50	110	78%	22%	225	96%	4%
1002	Carnarvon Road (NB)	50	935	81%	19%	885	90%	10%
1003	Carnarvon Road (SB)	50	245	78%	22%	185	91%	9%
1004	Carnarvon Road (NB)	50	140	86%	14%	160	95%	5%
1005	Cameron Lane (Two-way)	50	40	92%	8%	30	98%	2%
1006	Cameron Road (EB)	50	360	82%	18%	270	96%	4%
1007	Cameron Road (EB)	50	360	80%	20%	280	96%	4%
1008	Humphreys Avenue	50	400	88%	12%	400	95%	5%
1009	Prat Avenue (WB)	50	320	86%	14%	290	94%	6%
1010	Carnarvon Road (WB)	50	185	78%	22%	135	91%	9%
1011	Carnarvon Road (WB)	50	370	87%	13%	425	90%	10%
1012	Carnarvon Road (WB)	50	120	92%	8%	240	96%	4%
1013	Hanoi Road	50	185	96%	4%	290	89%	11%
1014	Bristol Avenue	50	250	84%	16%	185	82%	18%
1015	Mody Road	50	475	86%	14%	575	89%	11%
1016	Mody Road	50	440	85%	15%	475	90%	10%
1017	Mody Road	50	190	87%	13%	290	95%	5%
1018	Minden Row	50	35	94%	6%	100	89%	11%
1019	Nathan Road (SB)	50	790	67%	33%	900	84%	16%
1020	Nathan Road (NB)	50	230	45%	55%	335	42%	58%
1021	Nathan Road (SB)	50	880	68%	32%	1080	86%	14%
1022	Nathan Road (SB)	50	520	61%	39%	805	82%	18%
1023	Nathan Road (NB)	50	205	39%	61%	290	31%	69%
1024	Nathan Road (SB)	50	520	61%	39%	805	82%	18%
1025	Nathan Road (SB)	50	640	67%	33%	1045	86%	14%
1026	Nathan Road (SB)	50	450	60%	40%	755	82%	18%
1027	Nathan Road (NB)	50	135	28%	72%	230	25%	75%
1028	Nathan Road (SB)	50	450	60%	40%	755	82%	18%
1029	Nathan Road (SB)	50	680	67%	33%	1095	84%	16%
1030	Nathan Road (NB)	50	305	50%	50%	425	55%	45%
1031	Nathan Road (NB)	50	540	64%	36%	755	69%	31%
1032	Haiphong Road	50	470	87%	13%	460	95%	5%
1033	Haiphong Road	50	585	84%	16%	695	94%	6%
1034	Haiphong Road	50	270	86%	14%	295	97%	3%
1035	Lock Road	50	115	74%	26%	230	93%	7%
1036	Hankow Road (NB)	50	315	83%	17%	400	93%	7%
1037	Hankow Road (NB)	50	205	77%	23%	250	93%	7%
1038	Hankow Road (SB)	50	285	72%	28%	430	88%	12%
1039	Hankow Road (NB)	50	55	63%	37%	65	67%	33%
1040	Ashley Road (Two-way)	50	55	75%	25%	100	89%	11%
1041	Ashley Road (NB)	50	130	86%	14%	135	95%	5%
1042	Ashley Road (SB)	50	50	89%	11%	45	41%	59%
1043	Ichang Road	50	115	87%	13%	150	93%	7%
1044	Peking Road (WB)	50	170	70%	30%	200	82%	18%
1045	Peking Road (WB)	50	285	72%	28%	430	88%	12%
1046	Peking Road (EB)	50	205	77%	23%	250	93%	7%
1047	Peking Road (EB)	50	385	79%	21%	425	91%	9%
1048	Peking Road (EB)	50	265	87%	13%	325	94%	6%
1049	Middle Road (WB)	50	230	84%	16%	340	90%	10%
1050	Middle Road (WB)	50	235	82%	18%	330	87%	13%
1051	Middle Road (WB)	50	630	75%	25%	865	85%	15%
1052	Kowloon Park Drive (SB)	50	1515	81%	19%	1235	90%	10%
1053	Kowloon Park Drive (NB)	50	1280	85%	15%	1685	93%	7%
1054	Kowloon Park Drive (NB)	50	525	79%	21%	655	85%	15%
1055	Kowloon Park Drive (NB)	50	1805	83%	17%	2340	91%	9%
1056	Kowloon Park Drive (SB)	50	1310	81%	19%	1045	90%	10%
1057	Kowloon Park Drive (NB)	50	1720	82%	18%	2255	90%	10%
1058	Kowloon Park Drive (SB)	50	1600	79%	21%	1395	87%	13%
1059	Kowloon Park Drive (NB)	50	1375	83%	17%	1740	90%	10%
1060	Canton Road (SB)	50	1385	83%	17%	1575	92%	8%
1061	Canton Road (SB)	50	1115	82%	18%	1275	90%	10%
1062	Canton Road (SB)	50	850	80%	20%	955	89%	11%


300m Study Area for NIA
Granville Road
Nathan Road
Humphreys Avenue
Haiphong Road
Subject Site
Kowloon Park Drive
Canton Road
Mody Road
Peking Road
Middle Road
1001
1002
1003
1004
1005
1006
1007
1008
1009
1010
1011
1012
1013
1014
1015
1016
1017
1018
1019
1020
1021
1022
1023
1024
1025
1026
1027
1028
1029
1030
1031
1032
1033
1034
1035
1036
1037
1038
1039
1040
1041
1042
1043
1044
1045
1046
1047
1048
1049
1050
1051
1052
1053
1054
1055
1056
1057
1058
1059
1060
1061
1062

Appendix 2.2

Traffic Noise Impact Assessment Results

Appendix 2.2.1 - Predicted Road Traffic Noise Levels at Representative NSRs For 2042 AM Peak Hour

Residential Floor (19/F - 30/F)

NSR		T1_TN01	T1_TN02	T1_TN03	T1_TN04	T1_TN05	T1_TN06	T1_TN07	T1_TN08	T1_TN09	T1_TN10	T1_TN11	T1_TN12	T1_TN13	T1_TN14	T1_TN15	T1_TN16	T1_TN17	T1_TN18	T1_TN19	T1_TN20	T1_TN21	T1_TN22	T1_TN23	T1_TN24	T1_TN25	T1_TN26
Floor	mPD	L10 1-hour, dB(A)																									
19/F	76.6	64	62	61	61	61	60	60	60	60	60	60	60	60	61	63	64	64	65	65	55	56	57	60	62	63	64
20/F	79.7	65	63	62	62	62	61	61	61	61	61	61	61	62	62	64	64	64	66	66	60	61	62	64	64	65	65
21/F	82.9	65	64	63	62	62	62	62	62	62	62	62	62	62	62	64	64	64	66	66	62	63	63	65	65	66	66
22/F	86	65	64	63	63	63	62	62	62	62	62	62	62	62	62	64	64	64	66	66	63	63	64	65	66	66	66
23/F	89.2	65	64	64	63	63	63	62	62	62	62	62	62	63	63	64	64	64	67	66	63	64	64	65	66	66	66
25/F	92.3	66	64	64	64	64	63	63	62	62	62	62	63	63	63	64	64	64	67	67	63	64	64	65	66	67	67
26/F	95.5	66	65	64	64	64	63	63	63	63	63	63	63	63	63	64	64	64	67	67	64	64	64	66	66	67	67
27/F	98.6	66	65	64	64	64	64	63	63	63	63	63	63	63	63	65	65	64	67	67	64	64	65	66	66	67	67
28/F	101.8	66	65	64	64	64	64	64	63	63	63	63	63	63	64	65	65	64	67	67	64	65	65	66	66	67	67
29/F	104.9	66	65	65	64	64	64	64	64	63	63	63	64	64	64	65	65	65	67	67	64	65	65	66	67	67	67
30/F	108.1	66	65	65	65	64	64	64	64	64	64	64	64	64	64	65	65	65	68	67	65	65	65	66	67	67	67
Max. Level, dB(A)		66	65	65	65	64	64	64	64	64	64	64	64	64	64	65	65	65	68	67	65	65	65	66	67	67	67
Criteria		70																									
Compliance?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Compliance Rate

No. of residential flats counted with noise exceedance:	0
Total no. of flats at Subject Site	110
Compliance Rate (%):	100.00%

Appendix 2.2.2 - Predicted Road Traffic Noise Levels at Representative NSRs For 2042 PM Peak Hour

Residential Floor (19/F - 30/F)

NSR		T1_TN01	T1_TN02	T1_TN03	T1_TN04	T1_TN05	T1_TN06	T1_TN07	T1_TN08	T1_TN09	T1_TN10	T1_TN11	T1_TN12	T1_TN13	T1_TN14	T1_TN15	T1_TN16	T1_TN17	T1_TN18	T1_TN19	T1_TN20	T1_TN21	T1_TN22	T1_TN23	T1_TN24	T1_TN25	T1_TN26
Floor	mPD	L10 1-hour, dB(A)																									
19/F	76.6	63	61	61	60	60	60	60	60	59	59	60	60	60	60	63	63	63	64	64	54	55	56	59	61	62	62
20/F	79.7	64	62	62	61	61	61	61	61	61	61	61	61	61	61	63	63	63	64	64	59	60	60	62	63	64	64
21/F	82.9	64	63	62	62	62	61	61	61	61	61	61	61	61	62	63	63	63	65	65	61	62	62	64	64	65	65
22/F	86	64	63	63	62	62	62	62	61	61	61	61	62	62	62	63	63	63	65	65	62	62	62	64	65	65	65
23/F	89.2	65	63	63	63	63	62	62	62	62	62	62	62	62	62	64	63	63	65	65	62	62	63	64	65	65	65
25/F	92.3	65	64	63	63	63	62	62	62	62	62	62	62	62	62	64	63	63	66	66	62	63	63	64	65	65	65
26/F	95.5	65	64	63	63	63	63	62	62	62	62	62	62	62	63	64	63	63	66	66	62	63	63	64	65	65	65
27/F	98.6	65	64	64	63	63	63	63	62	62	62	62	62	63	63	64	64	63	66	66	63	63	63	65	65	66	66
28/F	101.8	65	64	64	64	63	63	63	63	63	62	63	63	63	63	64	64	64	66	66	63	63	64	65	65	66	66
29/F	104.9	65	64	64	64	64	63	63	63	63	63	63	63	63	63	64	64	64	66	66	63	64	64	65	65	66	66
30/F	108.1	65	64	64	64	64	63	63	63	63	63	63	63	63	63	64	64	64	66	66	63	64	64	65	65	66	66
Max. Level, dB(A)		65	64	64	64	64	63	63	63	63	63	63	63	63	63	64	64	64	66	66	63	64	64	65	65	66	66
Criteria		70																									
Compliance?		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Compliance Rate

No. of residential flats counted with noise exceedance:	0
Total no. of flats at Subject Site	110
Compliance Rate (%):	100.00%

Appendix 3.1

Inventory of Potential Fixed Noise Sources

Noise Source ID	Description of Noise Sources	Sources		SWL, dB(A), L_{eq} (30 min)				Source Location			Directivity Factor (Q)	No. of Plant
		Nature of Business	Existing/ Planned	Daytime & Evening Time (0700-2300)	Ref	Nighttime (2300-0700)	Ref	X	Y	Z, mPD		
S01a	Chiller at Roof of Kowloon Centre	Commercial Building	Existing	85	[1]	OFF	[1]	835578	817649	76.6	2	1
S01b	Chiller at Roof of Kowloon Centre	Commercial Building	Existing	85	[1]	OFF	[1]	835579	817643	76.6	2	1
S01c	Chiller at Roof of Kowloon Centre	Commercial Building	Existing	87	[2]	OFF	[2]	835587	817643	76.6	2	1
S01d	Chiller at Roof of Kowloon Centre	Commercial Building	Existing	85	[1]	OFF	[1]	835583	817614	76.6	2	1
S01e	Chiller at Roof of Kowloon Centre	Commercial Building	Existing	85	[1]	OFF	[1]	835584	817607	76.6	2	1
S02a	Chiller at Podium of Godown for HK Museum of History	Godown	Existing	80	[3]	OFF	[3]	835542	817712	76.6	2	1
S02b	Chiller at Podium of Godown for HK Museum of History	Godown	Existing	80	[3]	OFF	[3]	835540	817711	76.6	2	1
S02c	Chiller at Podium of Godown for HK Museum of History	Godown	Existing	80	[3]	OFF	[3]	835536	817711	76.6	2	1
S02d	Chiller at Podium of Godown for HK Museum of History	Godown	Existing	80	[3]	OFF	[3]	835534	817711	76.6	2	1
S03a	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835673	817710	76.6	2	1
S03b	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835667	817709	76.6	2	1
S03c	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835661	817709	76.6	2	1
S03d	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835656	817709	76.6	2	1
S03e	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835650	817708	76.6	2	1
S03f	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835673	817706	76.6	2	1
S03g	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835667	817705	76.6	2	1
S03h	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835662	817705	76.6	2	1
S03i	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835656	817705	76.6	2	1
S03j	Chiller at Roof of Health Education Exhibition and Resources Centre	GIC	Existing	78	[4]	OFF	[4]	835650	817704	76.6	2	1
S04a	Chiller at Podium at Maxwell Centre	Commercial Building	Existing	78	[4]	OFF	[4]	835624	817622	9.5	2	1
S04b	Chiller at Podium at Maxwell Centre	Commercial Building	Existing	78	[4]	OFF	[4]	835624	817620	9.5	2	1
S04c	Chiller at Podium at Maxwell Centre	Commercial Building	Existing	78	[4]	OFF	[4]	835624	817618	9.5	2	1
S04d	Chiller at Podium at Maxwell Centre	Commercial Building	Existing	82	[5]	OFF	[5]	835626	817621	12.5	2	1
S04e	Chiller at Podium at Maxwell Centre	Commercial Building	Existing	82	[5]	OFF	[5]	835626	817619	12.5	2	1
S05a	Chiller at Podium at Han Hing Mansion	Mixed-used Building	Existing	80	[3]	OFF	[3]	835688	817619	13.4	2	1
S05b	Chiller at Podium at Han Hing Mansion	Mixed-used Building	Existing	80	[3]	OFF	[3]	835691	817620	13.4	2	1
S05c	Chiller at Podium at Han Hing Mansion	Mixed-used Building	Existing	80	[3]	OFF	[3]	835693	817620	13.4	2	1
S06a	Chiller at Roof of ISQUARE	Mixed Commercial Use	Existing	84	[10]	OFF	[10]	835735	817583	76.6	2	1
S06b	Chiller at Roof of ISQUARE	Mixed Commercial Use	Existing	84	[10]	OFF	[10]	835745	817584	76.6	2	1
S06c	Chiller at Roof of ISQUARE	Mixed Commercial Use	Existing	84	[10]	OFF	[10]	835754	817584	76.6	2	1
S06d	Chiller at Roof of ISQUARE	Mixed Commercial Use	Existing	84	[10]	OFF	[10]	835764	817585	76.6	2	1
S7a	Chiller at Roof of Hong Kong Pacific Centre	Commercial Building	Existing	83	[7]	OFF	[7]	835688	817549	76.6	2	1
S7b	Chiller at Roof of Hong Kong Pacific Centre	Commercial Building	Existing	83	[7]	OFF	[7]	835696	817550	76.6	2	1
S7c	Chiller at Podium of Hong Kong Pacific Centre	Commercial Building	Existing	80	[3]	OFF	[3]	835698	817543	13.4	2	1
S7d	Chiller at Podium of Hong Kong Pacific Centre	Commercial Building	Existing	80	[3]	OFF	[3]	835696	817540	13.4	2	1
S7e	Chiller at Podium of Hong Kong Pacific Centre	Commercial Building	Existing	80	[3]	OFF	[3]	835699	817540	13.4	2	1
S8a	Chiller at Roof of Prince Tower	Commercial Building	Existing	87	[8]	OFF	[8]	835695	817522	76.6	2	1
S9a	Chiller at Roof of Sands Building	Commercial Building	Existing	87	[8]	OFF	[8]	835658	817523	76.6	2	1
S9b	Chiller at Roof of Sands Building	Commercial Building	Existing	86	[6]	OFF	[6]	835654	817525	76.6	2	1
S9c	Chiller at Roof of Sands Building	Commercial Building	Existing	86	[6]	OFF	[6]	835649	817525	76.6	2	1
S9d	Chiller at Roof of Sands Building	Commercial Building	Existing	84	[9]	OFF	[9]	835649	817514	76.6	2	1
S10a	Chiller at Roof of Yue Hwa International Building	Commercial Building	Existing	85	[1]	OFF	[1]	835597	817508	76.6	2	1
S10b	Chiller at Roof of Yue Hwa International Building	Commercial Building	Existing	85	[1]	OFF	[1]	835598	817500	76.6	2	1
S10c	Chiller at Podium of Yue Hwa International Building	Commercial Building	Existing	84	[9]	OFF	[9]	835614	817506	16.2	2	1
S10d	Chiller at Podium of Yue Hwa International Building	Commercial Building	Existing	84	[9]	OFF	[9]	835612	817520	16.2	2	1
S11a	Chiller at Roof of Ashley Nine	Commercial Building	Existing	85	[1]	OFF	[1]	835600	817537	76.6	2	1
S11b	Chiller at Roof of Ashley Nine	Commercial Building	Existing	85	[1]	OFF	[1]	835605	817538	76.6	2	1
S12a	Chiller at Roof of MTR Emergency Access Point	Emergency Access Point	Existing	80	[3]	OFF	[3]	835414	817863	76.6	2	1
S12b	Chiller at Roof of MTR Emergency Access Point	Emergency Access Point	Existing	80	[3]	OFF	[3]	835414	817860	76.6	2	1
S12c	Chiller at Roof of MTR Emergency Access Point	Emergency Access Point	Existing	80	[3]	OFF	[3]	835415	817858	76.6	2	1
S13a	Chiller at Roof of The Toy House	Commercial Building	Existing	78	[4]	OFF	[4]	835429	817815	76.6	2	1
S13b	Chiller at Roof of The Toy House	Commercial Building	Existing	78	[4]	OFF	[4]	835433	817799	76.6	2	1
S14a	Chiller at Roof of Lippo Sun Plaza	Commercial Building	Existing	80	[3]	OFF	[3]	835504	817538	76.6	2	6
S14b	Chiller at Roof of Lippo Sun Plaza	Commercial Building	Existing	80	[3]	OFF	[3]	835524	817543	76.6	2	6

Noise Source ID	Description of Noise Sources	Sources		SWL, dB(A), L_{eq} (30 min)				Source Location			Directivity Factor (Q)	No. of Plant
		Nature of Business	Existing/ Planned	Daytime & Evening Time (0700-2300)	Ref	Nighttime (2300-0700)	Ref	X	Y	Z, mPD		
S15a	Chiller at Roof of The Langham Hong Kong	Hotel	Existing	89	[11]	89	[11]	835525	817525	76.6	2	1
S15b	Chiller at Roof of The Langham Hong Kong	Hotel	Existing	89	[11]	89	[11]	835541	817528	76.6	2	1
S15c	Chiller at Roof of The Langham Hong Kong	Hotel	Existing	83	[12]	83	[12]	835552	817521	76.6	2	1
S15d	Chiller at Roof of The Langham Hong Kong	Hotel	Existing	83	[12]	83	[12]	835555	817505	76.6	2	1
S15e	Chiller at Roof of The Langham Hong Kong	Hotel	Existing	83	[12]	83	[12]	835549	817492	76.6	2	1
S16a	Chiller at Roof of 4-8 Canton Road	Commercial Building	Exisiting	78	[4]	OFF	[4]	835491	817494	76.6	2	1
S16b	Chiller at Roof of 4-8 Canton Road	Commercial Building	Exisiting	78	[4]	OFF	[4]	835491	817492	76.6	2	1
S16c	Chiller at Roof of 4-8 Canton Road	Commercial Building	Exisiting	78	[4]	OFF	[4]	835492	817491	76.6	2	1
S17a	Chiller at Roof of Pacific Star Building	Commercial Building	Exisiting	78	[4]	OFF	[4]	835495	817482	76.6	2	1
S17b	Chiller at Roof of Pacific Star Building	Commercial Building	Exisiting	78	[4]	OFF	[4]	835496	817480	76.6	2	1
S17c	Chiller at Roof of Pacific Star Building	Commercial Building	Exisiting	78	[4]	OFF	[4]	835496	817478	76.6	2	1
S17d	Chiller at Roof of Pacific Star Building	Commercial Building	Exisiting	83	[12]	OFF	[4]	835500	817482	76.6	2	1
S17e	Chiller at Roof of Pacific Star Building	Commercial Building	Exisiting	83	[12]	OFF	[4]	835501	817479	76.6	2	1
S18a	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	[4]	78	[4]	835539	817405	76.6	2	1
S18b	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835540	817403	76.6	2	1
S18c	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	[4]	78	[4]	835540	817400	76.6	2	1
S18d	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835541	817397	76.6	2	1
S18e	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	[4]	78	[4]	835542	817395	76.6	2	1
S18f	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835543	817407	76.6	2	1
S18g	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	[4]	78	[4]	835543	817405	76.6	2	1
S18h	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835544	817402	76.6	2	1
S18i	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835544	817400	76.6	2	1
S18j	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835545	817398	76.6	2	1
S18k	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835545	817396	76.6	2	1
S18l	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835563	817409	76.6	2	1
S18m	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	[4]	78	[4]	835564	817407	76.6	2	1
S18n	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835564	817405	76.6	2	1
S18o	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835566	817409	76.6	2	1
S18p	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	[4]	78	[4]	835566	817409	76.6	2	1
S18q	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835566	817408	76.6	2	1
S18r	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	[4]	78	[4]	835567	817406	76.6	2	1
S18s	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	78	[4]	78	[4]	835569	817410	76.6	2	1
S18t	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835569	817406	76.6	2	3
S18u	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835572	817408	76.6	2	3
S18v	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835564	817401	76.6	2	3
S18w	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835567	817401	76.6	2	3
S18x	Chiller at Roof of FWD 1881 House	Mixed Commercial Use	Existing	80	[3]	80	[3]	835569	817401	76.6	2	3
S18y	Chiller at Podium of FWD 1881 House	Mixed Commercial Use	Existing	85	[1]	85	[1]	835571	817402	76.6	2	1
S18z	Chiller at Podium of FWD 1881 House	Mixed Commercial Use	Existing	85	[1]	85	[1]	835563	817436	76.6	2	1
S19a	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	85	[1]	OFF	[1]	835569	817437	76.6	2	1
S19b	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	85	[1]	OFF	[1]	835511	817835	76.6	2	1
S19c	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	85	[1]	OFF	[1]	835522	817815	76.6	2	1
S19d	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	80	[3]	OFF	[3]	835518	817799	76.6	2	1
S19e	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	80	[3]	OFF	[3]	835515	817799	76.6	2	1
S19f	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	80	[3]	OFF	[3]	835512	817799	76.6	2	1
S19g	Chiller at Roof of Hong Kong Heritage Discovery Centre	GIC	Existing	80	[3]	OFF	[3]	835509	817799	76.6	2	1
S20a	Chiller at Roof of Park Lane Shopper's Boulevard	Retail	Existing	87	[2]	OFF	[2]	835729	817936	76.6	2	1
S20b	Chiller at Roof of Park Lane Shopper's Boulevard	Retail	Existing	87	[2]	OFF	[2]	835729	817929	76.6	2	1
S21a	Cooling Tower at Roof of Hankow Centre	Mixed-used Building	Existing	95	[13]	OFF	[13]	835661	817480	76.6	2	1
S21b	Cooling Tower at Roof of Hankow Centre	Mixed-used Building	Existing	95	[13]	OFF	[13]	835662	817474	76.6	2	1
S21c	Cooling Tower at Roof of Hankow Centre	Mixed-used Building	Existing	95	[13]	OFF	[13]	835650	817472	76.6	2	1
S21d	Cooling Tower at Roof of Hankow Centre	Mixed-used Building	Existing	95	[13]	OFF	[13]	835649	817478	76.6	2	1
S21e	Cooling Tower at Roof of Hankow Centre	Mixed-used Building	Existing	95	[13]	OFF	[13]	835655	817479	76.6	2	1
S22a	Chiller at Podium of Kai Seng Commercial Building	Commercial Building	Exisiting	82	[5]	OFF	[5]	835722	817459	76.6	2	1
S22b	Chiller at Podium of Kai Seng Commercial Building	Commercial Building	Exisiting	82	[5]	OFF	[4]	835726	817459	76.6	2	1
S22c	Chiller at Podium of Kai Seng Commercial Building	Commercial Building	Exisiting	97	[14]	OFF	[4]	835724	817453	76.6	2	1
S22d	Chiller at Podium of Kai Seng Commercial Building	Commercial Building	Exisiting	97	[14]	OFF	[4]	835725	817449	76.6	2	1
S22e	Chiller at Podium of Kai Seng Commercial Building	Commercial Building	Exisiting	87	[8]	OFF	[4]	835725	817446	76.6	2	1

Noise Source ID	Description of Noise Sources	Sources		SWL, dB(A), L_{eq} (30 min)				Source Location			Directivity Factor (Q)	No. of Plant
		Nature of Business	Existing/ Planned	Daytime & Evening Time (0700-2300)	Ref	Nighttime (2300-0700)	Ref	X	Y	Z, mPD		
S23a	Cooling Tower at Roof of Prestige Tower	Commercial Building	Existing	95	[13]	OFF	[13]	835742	817453	76.6	2	1
S23b	Cooling Tower at Roof of Prestige Tower	Commercial Building	Existing	95	[13]	OFF	[13]	835747	817454	76.6	2	1
S23c	Cooling Tower at Roof of Prestige Tower	Commercial Building	Existing	95	[13]	OFF	[13]	835746	817448	76.6	2	1
S24a	Chiller at Roof of The Salisbury YMCA Of Hong Kong	Hotel	Existing	84	[10]	84	[10]	835661	817384	76.6	2	1
S24b	Chiller at Roof of The Salisbury YMCA Of Hong Kong	Hotel	Existing	84	[10]	84	[10]	835667	817384	76.6	2	1
S24c	Chiller at Roof of The Salisbury YMCA Of Hong Kong	Hotel	Existing	84	[10]	84	[10]	835672	817385	76.6	2	1
S24d	Chiller at Roof of The Salisbury YMCA Of Hong Kong	Hotel	Existing	84	[10]	84	[10]	835678	817385	76.6	2	1
S25a	Chiller at Rooftop of Hermes House	Commercial Building	Existing	87	[8]	OFF	[8]	835888	817447	76.6	2	1
S25b	Chiller at Rooftop of Hermes House	Commercial Building	Existing	87	[8]	OFF	[8]	835897	817448	76.6	2	1
S26a	Chiller at Podium of Star Mansion	Mixed-used Building	Existing	84	[10]	OFF	[10]	835896	817511	76.6	2	1
S26b	Chiller at Podium of Star Mansion	Mixed-used Building	Existing	84	[10]	OFF	[10]	835896	817505	76.6	2	1
S27a	Chiller at Roof of Imperial Hotel	Hotel	Existing	80	[3]	80	[3]	835812	817484	76.6	2	1
S27b	Chiller at Roof of Imperial Hotel	Hotel	Existing	80	[3]	80	[3]	835812	817482	76.6	2	1
S27c	Chiller at Roof of Imperial Hotel	Hotel	Existing	80	[3]	80	[3]	835813	817480	76.6	2	1
S27d	Chiller at Roof of Imperial Hotel	Hotel	Existing	80	[3]	80	[3]	835813	817478	76.6	2	1
S27e	Chiller at Roof of Imperial Hotel	Hotel	Existing	80	[3]	80	[3]	835813	817476	76.6	2	1
S27f	Chiller at Roof of Imperial Hotel	Hotel	Existing	80	[3]	80	[3]	835813	817473	76.6	2	1
S28a	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	87	[2]	87	[2]	835809	817546	76.6	2	1
S28b	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	87	[2]	87	[2]	835815	817545	76.6	2	1
S28c	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	87	[2]	87	[2]	835825	817547	76.6	2	1
S28d	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	87	[2]	87	[2]	835832	817546	76.6	2	1
S28e	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	95	[13]	95	[13]	835842	817546	76.6	2	1
S28f	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	95	[13]	95	[13]	835848	817549	76.6	2	1
S28g	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	95	[13]	95	[13]	835854	817548	76.6	2	1
S28h	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	Hotel	Existing	95	[13]	95	[13]	835852	817539	76.6	2	1
S29a	Chiller at Roof at The Mira Hong Kong	Retail & Hotel	Existing	84	[10]	84	[10]	835790	817911	76.6	2	1
S29b	Chiller at Roof at The Mira Hong Kong	Retail & Hotel	Existing	84	[10]	84	[10]	835790	817904	76.6	2	1
S29c	Chiller at Roof at The Mira Hong Kong	Retail & Hotel	Existing	84	[10]	84	[10]	835790	817896	76.6	2	1
S29d	Chiller at Roof at The Mira Hong Kong	Retail & Hotel	Existing	84	[10]	84	[10]	835791	817887	76.6	2	1
S30a	Chiller at Roof at The One	Retail	Existing	83	[7]	OFF	[7]	835803	817865	76.6	2	1
S30b	Chiller at Roof at The One	Retail	Existing	83	[7]	OFF	[7]	835813	817867	76.6	2	1
S30c	Chiller at Roof at The One	Retail	Existing	83	[7]	OFF	[7]	835822	817870	76.6	2	1
S30d	Chiller at Roof at The One	Retail	Existing	83	[7]	OFF	[7]	835829	817875	76.6	2	1
S30e	Chiller at Roof at The One	Retail	Existing	83	[7]	OFF	[7]	835833	817870	76.6	2	1
S31a	Cooling Tower at Roof of Albion Plaza	Commercial Building	Existing	95	[13]	OFF	[13]	835824	817840	76.6	2	1
S31b	Cooling Tower at Roof of Albion Plaza	Commercial Building	Existing	95	[13]	OFF	[13]	835828	817841	76.6	2	1
S31c	Cooling Tower at Roof of Albion Plaza	Commercial Building	Existing	95	[13]	OFF	[13]	835834	817843	76.6	2	1
S31d	Cooling Tower at Roof of Albion Plaza	Commercial Building	Existing	95	[13]	OFF	[13]	835838	817845	76.6	2	1
S32a	Chiller at Podium of Granville Building	Mixed-used Building	Existing	80	[3]	OFF	[3]	835886	817834	76.6	2	1
S32b	Chiller at Podium of Granville Building	Mixed-used Building	Existing	80	[3]	OFF	[3]	835889	817834	76.6	2	1
S32c	Chiller at Podium of Granville Building	Mixed-used Building	Existing	80	[3]	OFF	[3]	835891	817835	76.6	2	1
S33a	Chiller at Roof of Carnarvon Plaza	Commercial Building	Existing	84	[10]	OFF	[10]	835894	817816	76.6	2	1
S33b	Chiller at Roof of Carnarvon Plaza	Commercial Building	Existing	84	[10]	OFF	[10]	835910	817820	76.6	2	1
S34a	Chiller at Podium of 5-8 Cameron Lane	Commercial Building	Existing	78	[4]	OFF	[4]	835862	817822	76.6	2	1
S34b	Chiller at Podium of 5-8 Cameron Lane	Commercial Building	Existing	80	[3]	OFF	[3]	835860	817821	76.6	2	1
S34c	Chiller at Podium of 5-8 Cameron Lane	Commercial Building	Existing	80	[3]	OFF	[3]	835859	817821	76.6	2	1
S34d	Chiller at Podium of 5-8 Cameron Lane	Commercial Building	Existing	78	[4]	OFF	[4]	835851	817817	76.6	2	1
S34e	Chiller at Podium of 5-8 Cameron Lane	Commercial Building	Existing	78	[4]	OFF	[4]	835847	817816	76.6	2	1
S35a	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	Commercial Building	Existing	89	[15]	OFF	[15]	835889	817793	76.6	2	1
S35b	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	Commercial Building	Existing	80	[3]	OFF	[3]	835896	817789	76.6	2	1
S35c	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	Commercial Building	Existing	80	[3]	OFF	[3]	835907	817791	76.6	2	1
S36a	Chiller at Podium of Tern Plaza	Commercial Building	Existing	80	[3]	OFF	[3]	835822	817778	76.6	2	1
S36b	Chiller at Podium of Tern Plaza	Commercial Building	Existing	80	[3]	OFF	[3]	835827	817778	76.6	2	1
S37a	Chiller at Roof of HSBC Building Tsim Sha Tsui	Commercial Building	Existing	89	[16]	OFF	[16]	835807	817768	76.6	2	1
S37b	Chiller at Roof of HSBC Building Tsim Sha Tsui	Commercial Building	Existing	89	[16]	OFF	[16]	835813	817768	76.6	2	1

Noise Source ID	Description of Noise Sources	Sources		SWL, dB(A), L_{eq} (30 min)				Source Location			Directivity Factor (Q)	No. of Plant
		Nature of Business	Existing/ Planned	Daytime & Evening Time (0700-2300)	Ref	Nighttime (2300-0700)	Ref	X	Y	Z, mPD		
S38a	Chiller at Roof of Manson House	Commercial Building	Existing	85	[1]	85	[1]	835801	817711	76.6	2	1
S38b	Chiller at Roof of Manson House	Commercial Building	Existing	85	[1]	85	[1]	835803	817706	76.6	2	1
S38c	Chiller at Roof of Manson House	Commercial Building	Existing	84	[9]	84	[9]	835806	817706	76.6	2	1
S38d	Chiller at Roof of Manson House	Commercial Building	Existing	84	[9]	84	[9]	835809	817706	76.6	2	1
S38e	Chiller at Roof of Manson House	Commercial Building	Existing	84	[9]	84	[9]	835811	817707	76.6	2	1
S38f	Chiller at Roof of Manson House	Commercial Building	Existing	84	[9]	84	[9]	835811	817712	76.6	2	1
S39a	Chiller at Podium of Humphrey Plaza	Commercial Building	Existing	78	[4]	OFF	[4]	835860	817728	76.6	2	1
S40a	Chiller at Roof of Grand Centre	Commercial Building	Existing	83	[7]	OFF	[7]	835895	817737	76.6	2	1
S40b	Chiller at Roof of Grand Centre	Commercial Building	Existing	83	[7]	OFF	[7]	835897	817733	76.6	2	1
S40c	Chiller at Roof of Grand Centre	Commercial Building	Existing	84	[10]	OFF	[10]	835898	817728	76.6	2	1
S41a	Chiller at Roof of Grand Right Centre	Commercial Building	Existing	84	[9]	OFF	[9]	835875	817749	76.6	2	1
S41b	Chiller at Roof of Grand Right Centre	Commercial Building	Existing	82	[5]	OFF	[5]	835879	817750	76.6	2	1
S42a	Chiller at Podium of More Resources Development Building	Commercial Building	Existing	85	[1]	OFF	[1]	835828	817684	76.6	2	1
S42b	Chiller at Podium of More Resources Development Building	Commercial Building	Existing	85	[1]	OFF	[1]	835829	817680	76.6	2	1
S42c	Chiller at Podium of More Resources Development Building	Commercial Building	Existing	85	[1]	OFF	[1]	835830	817674	76.6	2	1
S43a	Chiller at Roof of Yes & Right House	Commercial Building	Existing	87	[2]	OFF	[2]	835874	817587	76.6	2	1
S43b	Chiller at Roof of Yes & Right House	Commercial Building	Existing	87	[2]	OFF	[2]	835881	817586	76.6	2	1
S44a	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	82	[5]	82	[5]	835878	817608	76.6	2	1
S44b	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	84	[9]	84	[9]	835882	817608	76.6	2	1
S44c	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	84	[9]	84	[9]	835886	817609	76.6	2	1
S44d	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	82	[5]	82	[5]	835879	817606	76.6	2	1
S44e	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	84	[9]	84	[9]	835883	817606	76.6	2	1
S44f	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	84	[9]	84	[9]	835887	817607	76.6	2	1
S44g	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	78	[4]	78	[4]	835889	817641	76.6	2	1
S44h	Chiller at Podium of K11 the Piazza	Mixed Commercial Use	Existing	80	[3]	80	[3]	835893	817648	76.6	2	1
S44i	Chiller at Roof of K11 the Piazza	Mixed Commercial Use	Existing	78	[4]	78	[4]	835895	817646	76.6	2	1
S44j	Chiller at Roof of K11 the Piazza	Mixed Commercial Use	Existing	84	[10]	84	[10]	835937	817647	76.6	2	1
S44k	Chiller at Roof of K11 the Piazza	Mixed Commercial Use	Existing	80	[3]	80	[3]	835944	817646	76.6	2	1
S44l	Chiller at Roof of K11 the Piazza	Mixed Commercial Use	Existing	84	[10]	84	[10]	835941	817631	76.6	2	1
S44m	Chiller at Roof of K11 the Piazza	Mixed Commercial Use	Existing	84	[10]	84	[10]	835955	817619	76.6	2	1
S44n	Chiller at Roof of K11 the Piazza	Mixed Commercial Use	Existing	84	[10]	84	[10]	835960	817614	76.6	2	1
S45a	Chiller at Podium of The Gateway Tower	Mixed Commercial Use	Existing	83	[12]	OFF	[12]	835357	817623	76.6	2	1
S45b	Chiller at Podium of The Gateway Tower	Mixed Commercial Use	Existing	82	[17]	OFF	[17]	835361	817608	76.6	2	1

Notes:

[1] From Catalog (McQuay MCS135.1)
[2] From Catalog (McQuay MCS185.1)
[3] From Catalog (Carrier 30RB 040)
[4] From Catalog (York YLCA 0040 T-TP)
[5] From Catalog (McQuay MCS050.1)
[6] From Catalog (McQuay MCS150.1)
[7] From Catalog (York YCAE065 SME53)
[8] From Catalog (McQuay MCS200.2)
[9] From Catalog (McQuay MCS070.1)
[10] From Catalog (Carrier 30RBSY 039)
[11] From Catalog (McQuay MCS310.2)
[12] From Catalog (York YLCA 0080 T-TP)
[13] From Catalog (Ryowo FT-250)
[14] From Catalog (Trane RTAC 300)
[15] From Catalog (McQuay MCS235.2)
[16] From Catalog (McQuay MCS350.2)
[17] From Catalog (York YLCA 0100 T-TP)

Catalogue of

York YLCA 0040 T-TP,

York YLCA 0080 T-TP &

York YLCA 0100 T-TP

Return to Content

ECOFRIO v2
Air cooled chiller / heat pump

YLCA / YLHA 0040 to 0150

A complete range from 39.6 kW up to 151 kW

The **YORK YLCA/YLHA** air-cooled chillers and heat pumps represents the right solution for any kind of installation.

With thousands of units installed all around Europe and Africa, used for different applications and in different climate conditions are one of the most flexible and reliable scroll type chillers in the market.

The standard product configuration and the different options and accessories selectable by the customer make these units ideal where a compact, and high performance unit is required.

Features

YLCA/YLHA 0040 to 0080

- 2 capacity steps (1 for size 40)
- LWT & RWT Control
- Plate heat exchanger
- Condenser fins (blue fin)
- Pressostatic LAK (-18°C)

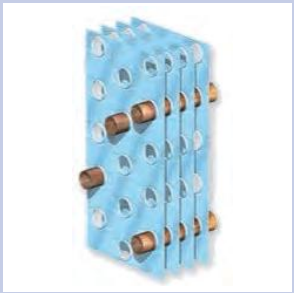
YLCA/YLHA 0100 to 0150

- Same features as YLCA/YLHA 40 to 80
- 4 capacity steps
- High efficiency at full and partial load
- Reduced noise levels
- 1/4 turn lock for easy access

Options / Accessories

- Unit without pack
- BMS Communication (Carel and Modbus protocol)
- Remote control
- Remote terminal
- Water filter (unit without Hydro Pack)
- Flow switch (unit without Hydro Pack)
- Low noise version
- Dual pump version
- Antivibration mountings
- Condenser protection grille

Low noise version with special insulation in the compressor chamber.



Special coating on the condenser fins for improved corrosion protection.

Pump built-in for space saving and easy installation.

S03a-S03j
S04a-S04c,
S13a-S13b,
S16a-S16c,
S17a-S17c,
S18a,S18c, S18e, S18g, S18m, S18p, S18r, S18s,
S34a, S34d-S34e,
S39a,
S44g, S44i

ECOFRIO v2

YLCA / YLHA 0040 to 0150

Technical features

T Three phases supply P Hydro Pack H Heat pump

Model			YLCA / YLHA						
			0040 T-TP	0050 T-TP	0060 T-TP	0080 T-TP	0100 T-TP	0120 T-TP	0150 T-TP
Performance	Cooling capacity c/o units (1)	kW	39.3	51.8	60.1	77	100.3	118.3	150.5
	Total Input Power (1) (3)	kW	13.69	18.3	20.03	27.11	34.47	40.44	54.14
	EER (1)		2.87	2.83	3	2.84	2.91	2.93	2.78
	ESEER (1)		3.15	3.18	3.3	3.15	3.74	3.83	3.66
	Cooling capacity h/p units (1)	kW	37.6	51.2	60.1	71.7	95.4	113.6	144.5
	Heating capacity h/p units (1)	kW	38.8	52.8	60	75.2	104.6	120	150.5
	Total Input Power cool/heat mode (1)	kW	13.48 / 12.81	17.65 / 18.21	20.03 / 20.2	26.46 / 26.86	36.14 / 37.76	43.69 / 40	51.06 / 53.94
	EER / COP (1)		2.79 / 3.03	2.93 / 2.9	3 / 2.97	2.71 / 2.8	2.64 / 2.77	2.6 / 3	2.83 / 2.79
	ESEER (1)		3.15	3.18	3.29	2.91	3.39	3.43	3.73
	Capacity steps	%	0 / 100	0-50-100			0-25-50-75-100		
	Sound power level STD / LN	dB(A)	78 / 73	81 / 76	87 / 77	83 / 79	82 / 78	82 / 78	84 / 80
Compressor	Type		Scroll						
	Quantity		1	2			4		
Air side heat exchanger	Fans quantity		2			3	4		
	Working ambient temp. cool. / heat. mode		-18°C ~ 46°C / -10°C ~ 20°C						
Water side heat exchanger	Type		Single Plate Heat Exchanger				Dual Plate Heat Exchanger		
	Unit water volume (2)	Litres	131	188	194	285	193	195	214
	Pump Type								
	Nominal water flow	l/h	6 820	8 960	10 400		17 6	470	25 970
	Available pressure (1) (2)	kPa	105	108	158		187	202	186
	Pressure drop (1) (3)	kPa	75	39	50		59	33	27
	Working range water leaving temperature cooling / heating (4)								
	Water connections (2)	inch	1 1/4"	2"			2 1/2"		
Dimensions & Weight	Height / Width / Depth	mm	1573/1500/822	1600 / 1011 / 2104		1600/1118/2944	2190 / 1101 / 3416		2263/1101/3770
	Weight without pack / pack c/o	kg	340 / 380	524 / 580	555 / 611	715 / 785	1 124 / 1 220	1 190 / 1 286	1 415 / 1 503
	Weight without pack / pack h/p	kg	337 / 397	537 / 593	568 / 624	735 / 805	1 154 / 1 250	1 220 / 1 316	1 445 / 1 703
Electrical features	Voltage / Phases / Frequency	V/ph/hz	400 / 3 / 50+N+E						
	Maximum Unit current	A	33	46.2	49.2	70.5	80	108	120

S15c-S15e
S17d-S17e
S45a

S45b

YLCA: Cooling only units models. YLHA: Air to water heat pump models.
(1) net values at Eurovent nominal conditions (2) version P with hydro kit with filter (3) version without hydro kit (4) below 6°C with glycol
Nominal conditions: Cooling capacities in kW given for 7°C water leaving temperature Δt 5°C and 35°C ambient temperature
Heating capacities in kW given for 45°C water leaving temperature and 7°C ambient temperature

Compatibility table / Codes

Model	0040 TP	0050 TP	0060 TP	0080 TP	0100 TP	0120 TP	0150 TP
YLCA Cooling only unit (Pack included)	S668554084	S668525182	S668526182	S668528182	S668521182	S668551156	S668551507
YLHA Heat pump unit (Pack included)	S668654084	S668625182	S668626182	S668628182	S668621182	S668651156	S668651506

Model	0040 T	0050 T	0060 T	0080 T	0100 T	0120 T	0150 T
YLCA Cooling only unit (without Pack)	S668554080	S668525180	S668526180	S668528180	S668521180	S668551154	S668551503
YLHA Heat pump unit (without Pack)	S668654080	S668625180	S668626180	S668628180	S668621180	S668651154	S668651504

Use this unit code when a factory fitted option is NOT required

Accessories (Supplied loose)

AVM mounting	S613029002	S613026080		S613028180	S613021580	
Mechanical flow switch	S611992021					
Water Filter *	S611300150	S611300170			S611300190	
Remote control	S613802011					
Remote terminal	S613802231				-	
Cable for remote connection of the terminal	-				S613802241	
B.M.S. Communication	S613802041				S613802051	

Model	0040 TP	0050 TP	0060 TP	0080 TP	0100 TP	0120 TP	0150 TP
YLCA Cooling only unit (Pack included)	S668000226	S668000247	S668000251	S668000255	S668000259	S668000107	S668000111
YLHA Heat pump unit (Pack included)	S668000228	S668000248	S668000252	S668000256	S668000260	S668000131	S668000135

Model	0040 T	0050 T	0060 T	0080 T	0100 T	0120 T	0150 T
YLCA Cooling only unit (without Pack)	S668000038	S668000245	S668000249	S668000253	S668000257	S668000105	S668000109
YLHA Heat pump unit (without Pack)	S668000039	S668000246	S668000250	S668000254	S668000258	S668000129	S668000133

Use this unit code when a factory fitted option is required

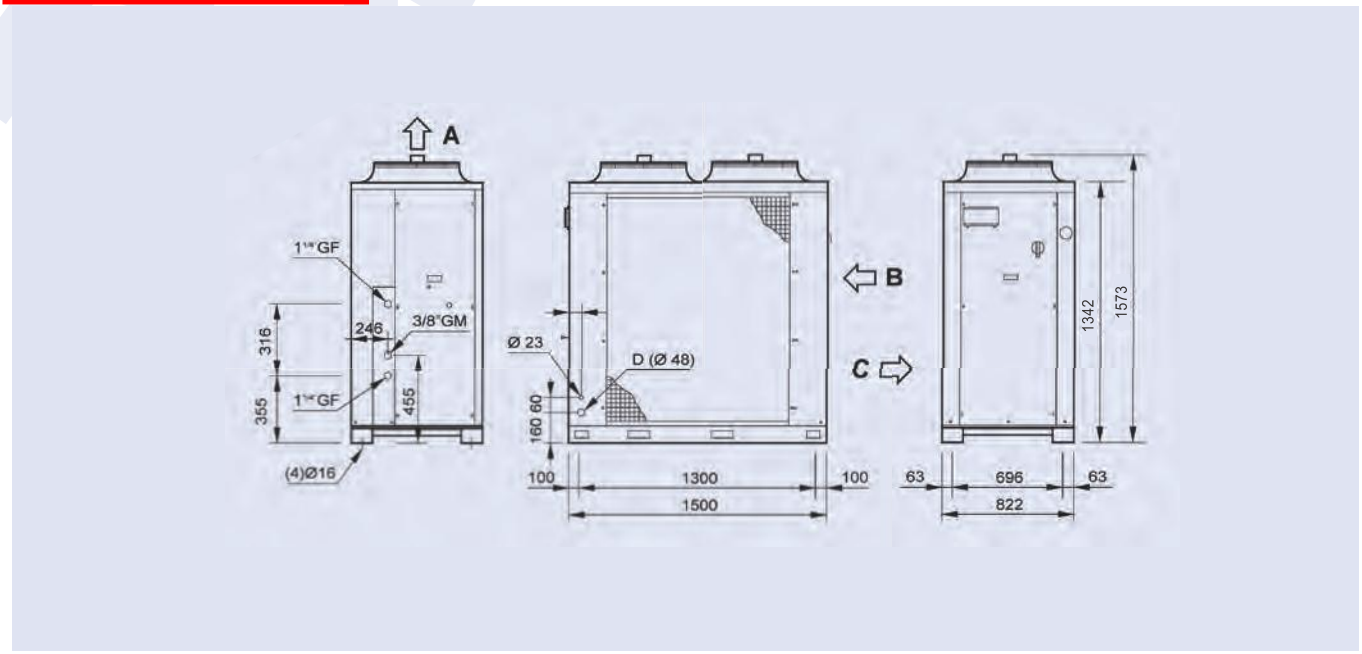
Options (Factory fitted)

Low Noise version	S613990550	S613990650		S613990850	S613991050	S613991285	S613991584
Softstart	S606744692	S606744693			S606744694		
Dual pumps **	-	S613990540	S613990640	S613990840	S613991040	S613991286	S613991585
Condenser protection grille	S613995090	S613995091		S613995092	S613995093		S613995094

** included with unit version "P" only for unit without pack. Filter size: 2" for YLCA 40-50-60-80 and 2 1/2" for YLHA 100-120-150.*
*** Dual pump option has to be ordered with units with hydrokit.*

Dimensions and hydraulic connections

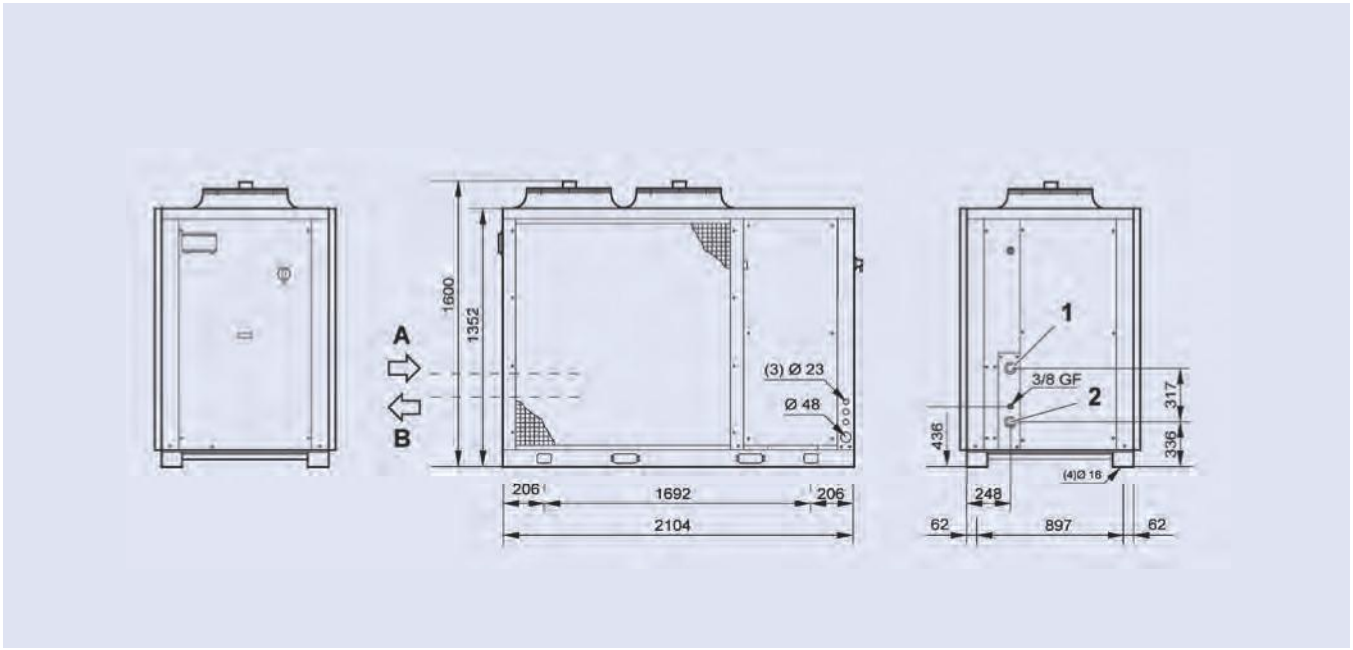
YLCA-YLHA 0040 T-TP



All dimensions in mm. Drawings not a scale.

Unit	A	B	C
YLCA/YLHA 0040	Air outlet	Water inlet	Water outlet

YLCA-YLHA 0050 and 0060 T-TP



All dimensions in mm. Drawings not a scale.

Unit	A	B	1	2
YLCA/YLHA 0050-0060	Water inlet	Water outlet	2" GF (Inlet)	2" GF (Outlet)

Catalogue of

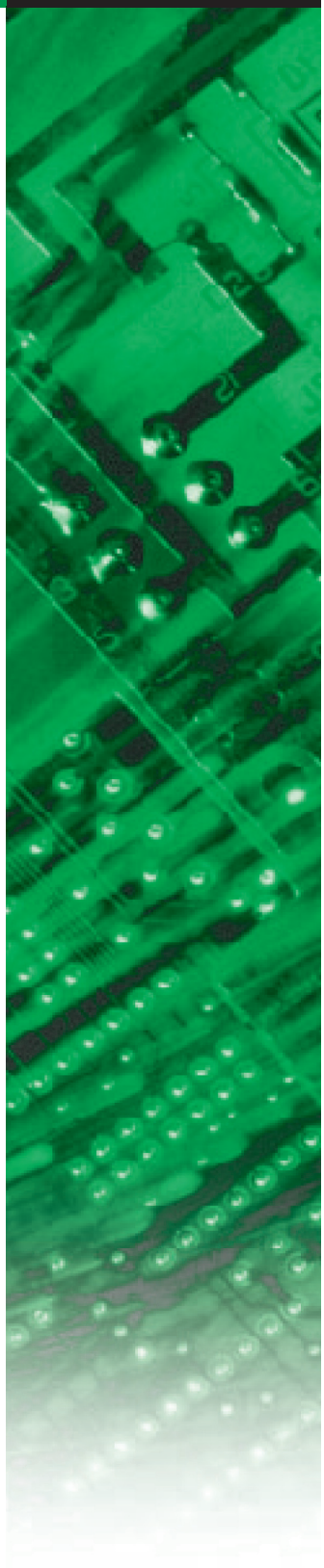
McQuay MCS135.1,

McQuay MCS150.1&

McQuay MCS185.1

Air Cooled Single Screw Chiller

Models: MCS050.1-380.2F
Cooling Capacity: 161kW-1370kW
Refrigerant: R22/R407C



McQuay® Air Conditioning

Engineered for flexibility and performance.™

S01a-S01b, S01d-S01e
S10a-S10b,
S11a-S11b,
S18y-S18z
S19a-S19c
S38a-S38b
S42a-S42c

S9b-S09c

S01c,
S20a-S20b
S28a-S28d
S43a-S43b

Model			MCS120.1	MCS135.1	MCS150.1	MCS170.1	MCS185.1
∗1 Normal cooling capacity		kW	422	455	525	625	654
		USRT	120	129	149	178	186
		kcal/h	362,900	391,300	451,500	537,500	562,400
		Btu/h	1,440,700	1,553,400	1,792,400	2,133,800	2,232,800
Casing/Color				Paintable Galvanized Steel Plate / Ivory White			
Capacity Steps					0,25 ~ 100%		
Power Supply					380~400V/3~50Hz		
Compressor	Type			Semi-hermetic Single-screw			
	No. × Model		1×3221	1×4221	1×4222	1×4223	1×4223
	Motor Input	kW	120	126	149	182	170
Refrigerant Oil	Model				LPT68		
	Charge	L	18	16	16	16	16
Evaporator	Type			High-efficiency Shell and Tube			
	Flow Rate	L/min.	1210	1304	1505	1792	1875
	Pressure Drop	kPa	37	37	37	32	46
Condenser	Type				Cross Fin Coil		
	Rows × Stages		3×44	3×44	3×44	3×44	3×44
	Fit Pitch	mm	1.8	1.8	1.8	1.8	1.8
	Face Area	m^2	16.09	16.09	20.12	20.12	24.14
Fan	Type			Propeller (Direct Drive)			
	No.		8	8	10	10	12
	Air Flow Rate	m^3/min.	2,933	2,933	3,667	3,667	4,400
		cfm	103,547	103,547	129,433	129,433	155,320
	Motor Input	kW	16	16	20	20	24
Refrigerant	Type		R22				
	No. of Circuits		1	1	1	1	1
	Control		Electronic Expansion Valve				
Water Piping Connection		inch	8				
Compressor Acoustic Insulation Material			Polyurethane Foaming				
Unit Input		kW	136	142	169	202	194
Unit Dimensions	D	mm	4100	4100	5000	5000	5900
	W	mm	2260	2260	2260	2260	2260
	H	mm	2360	2360	2360	2360	2360
Weight		kg	4290	4290	4795	4795	5370
Operation Weight		kg	4440	4440	4975	4975	5560
Standard Accessories			Unit Operation Instructions, Conformity Certificate, Warranty Application Form, Spring Damper, Water Flow Switch.				

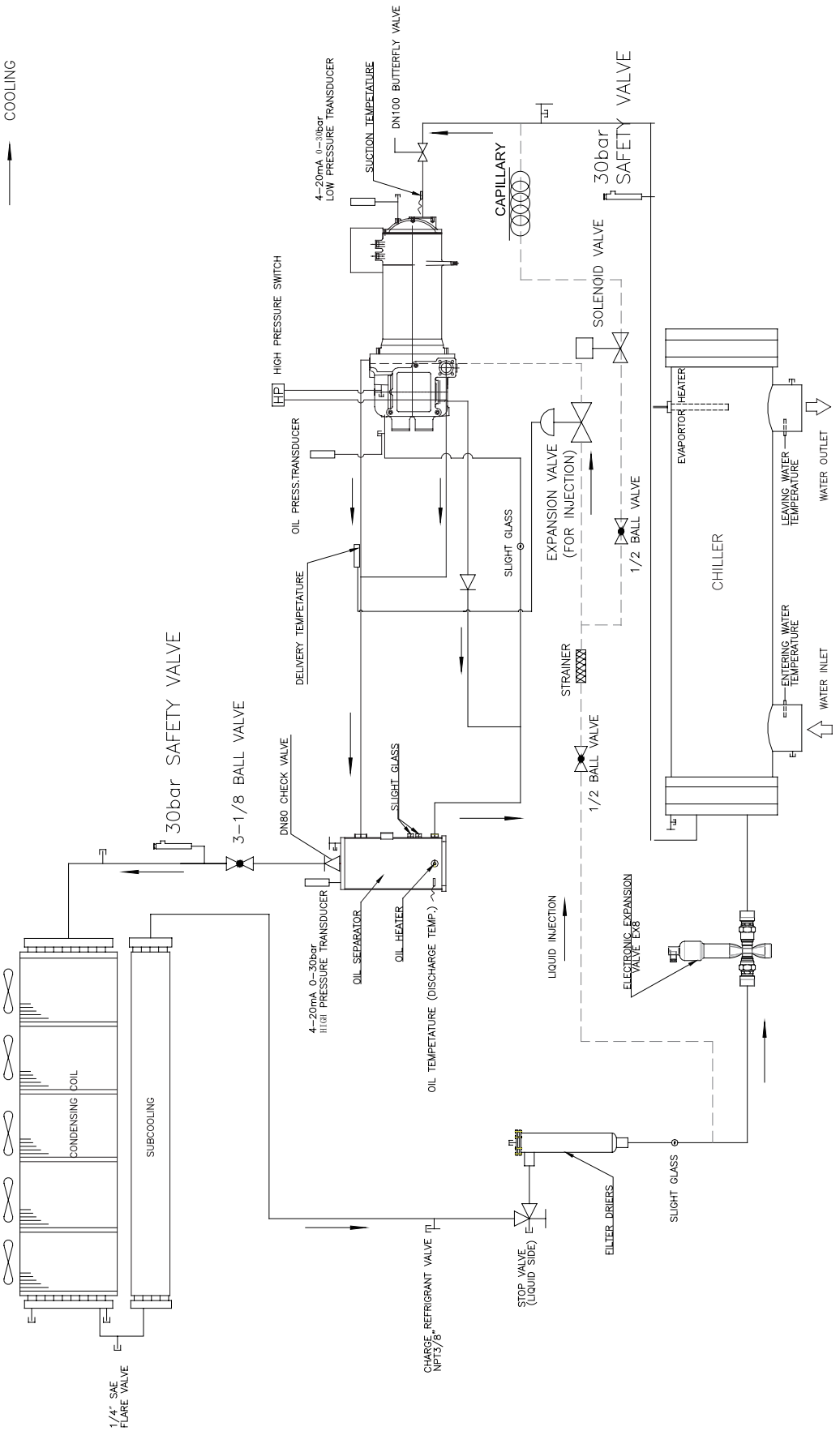
Notes:

∗1. Cooling capacity is based on the following conditions:
Entering chilled water temp. 12°C, Leaving chilled water temp. 7°C, ambient temp. 35°C DB

2. The following safity devices are equipped as standard.
   - High pressure (pressure switch)
   - Low pressure (pressure sensor)
   - Compressor thermal
   - Condensation fan thermal
   - High discharge temperature on the compressor
   - Phase monitor
   - Star/Delta transition failed
   - Low-pressure ratio
   - High oil pressure drop
   - Low oil pressure
   - Freeze protection
   - Load stepless adjust
   - Trouble record

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m^3/min×35.3

MCS135.1~185.1,MCS260.2~380.2F



11. Sound Level

11.1 ST Overall Sound Level and Octave Band Level

Model / Hz	Octave band level								Overall dBA
	63	125	250	500	1000	2000	4000	8000	
MCS050.1FST	46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	74.0
MCS060.1FST	43.5	56.6	63.3	69.4	70.0	65.6	60.2	56.0	74.0
MCS070.1FST	53.7	64.6	70.3	71.0	69.7	65.2	57.4	49.3	76.0
MCS080.1FST	48.0	63.6	69.2	71.0	69.6	68.0	61.4	53.9	76.0
MCS100.1FST	53.9	66.4	72.4	71.2	70.9	65.5	59.6	53.3	77.0
MCS120.1FST	40.5	58.2	65.8	71.8	73.5	68.2	60.6	54.1	77.0
MCS135.1FST	46.5	58.5	68.3	71.0	72.8	69.4	62.3	54.9	77.0
MCS150.1FST	51.9	69.1	72.4	72.9	72.2	64.5	57.4	50.6	78.0
MCS170.1FST	51.8	66.7	69.9	73.3	73.6	68.2	60.3	51.4	78.0
MCS185.1FST	46.7	65.2	70.8	74.6	74.0	69.5	62.0	52.1	79.0
MCS200.2FST	45.8	65.9	69.8	73.6	74.1	71.7	63.0	56.7	79.0
MCS220.2FST	49.3	66.7	71.7	74.3	75.2	72.2	65.5	58.5	80.0
MCS235.2FST	54.2	66.6	75.0	74.0	74.5	70.1	63.7	57.2	80.5
MCS260.2FST	46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	80.5
MCS285.2FST	53.7	68.1	73.3	77.3	76.5	72.9	67.0	59.1	81.0
MCS310.2FST	58.8	68.1	71.9	74.9	76.6	73.7	66.9	60.0	81.0
MCS330.2FST	46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	81.0
MCS350.2FST	45.4	60.5	72.1	76.0	75.5	71.6	65.4	56.8	81.0
MCS380.2FST	54.6	67.6	73.2	76.6	76.6	72.7	66.4	59.2	81.5

Notes:

Average sound pressure level is according to ISO 3744, semispheric free field conditions.
Sound pressure levels are referred to units furnished without hydronic kit.
Measuring location is at 1m from the unit in semispheric free field (rif. 2×10^{-5} Pa).

Catalogue of

McQuay MCS200.2 &

McQuay MCS235.2

Air Cooled Single Screw Chiller/ Heat Pump

Models: MCS050.1-380.2F
MHS050.1-380.2F
Cooling Capacity: 169kW-1370kW
Heating Capacity: 179kW-1439kW
Refrigerant: R22/R407C

McQuay® Air Conditioning

Engineered for flexibility and performance.™

S08a
S09a
S25a-S25b

S35a

Model			MCS200.2	MCS220.2	MCS235.2	MCS260.2	MCS285.2
*1 Normal cooling capacity		kW	695	755	811	917	965
		USRT	198	215	231	261	274
		kcal/h	597,500	649,000	697,100	788,400	829,900
		Btu/h	2,372,000	2,576,300	2,767,400	3,129,800	3,294,500
Casing/Color			Paintable Galvanized Steel Plate / Ivory White				
Capacity Steps			0,12.5 ~ 100%				
Power Supply			380~400V/3~50Hz				
Compressor	Type		Semi-hermetic Single-screw				
	No. × Model		2×3220	1×3220 1×3221	2×3221	2×4221	1×4221 1×4222
	Motor Input	kW	216	235	253	270	295
Refrigerant Oil	Model		RL68H				
	Charge	L	18×2	18×2	18×2	16×2	16×2
Evaporator	Type		High-efficiency Shell and Tube				
	Flow Rate	L/min.	1992	2163	2324	2628	2766
	Pressure Drop	kPa	55	41	53	63	78
Condenser	Type		Cross Fin Coil				
	Rows × Stages		3×44	3×44	3×44	3×44	3×44
	Fit Pitch	mm	1.8	1.8	1.8	1.8	1.8
	Face Area	m^2	28.16	30.18	32.19	32.19	34.20
Fan	Type		Propeller (Direct Drive)				
	Qty.		14	15	16	16	17
	Air Flow Rate	m^3/min.	5,133	5,500	5,867	5,867	6,233
		cfm	181,207	194,150	207,093	207,093	220,037
	Motor Input	kW	28	30	32	32	34
Refrigerant	Type		R407C				
	No. of Circuits		2	2	2	2	2
	Control		Electronic Expansion Valve				
Water Piping Connection		inch	8				
Compressor Acoustic Insulation Material			Polyurethane Foaming				
Unit Input		kW	244	265	285	302	329
Unit Dimensions	D	mm	7300	8200	8200	8200	9100
	W	mm	2260	2260	2260	2260	2260
	H	mm	2360	2360	2360	2360	2360
Weight		kg	7085	7665	8160	8200	8620
Operation Weight		kg	7275	7855	8350	8400	8820
Standard Accessories			Unit Operation Instructions, Conformity Certificate, Warranty Application Form, Spring Damper, Water Flow Switch.				

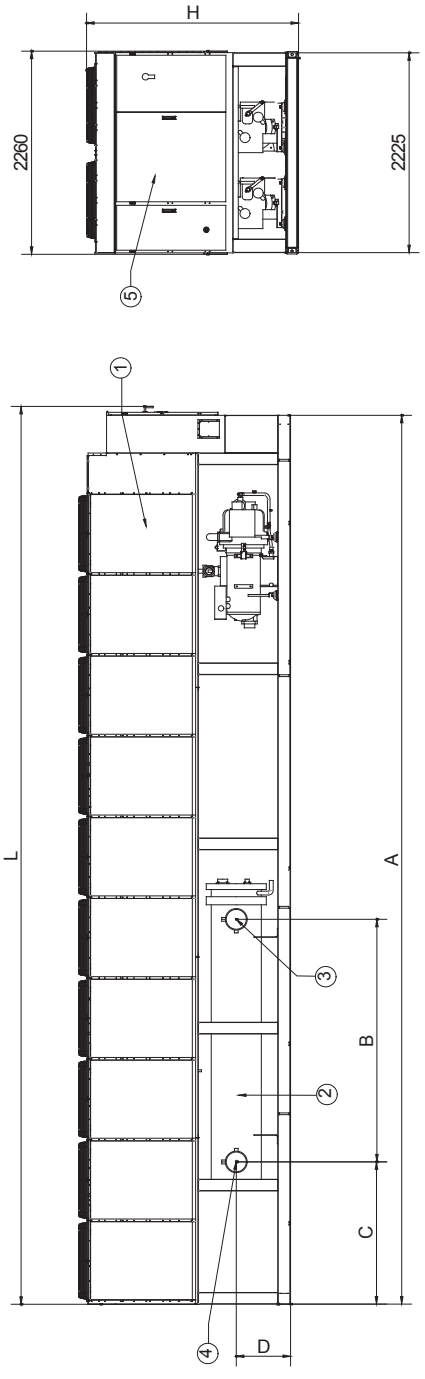
Notes:

*1. Cooling capacity is based on the following conditions:
Entering chilled water temp. 12°C, Leaving chilled water temp. 7°C, ambient temp. 35°C DB

2. The following safity devices are equipped as standard.
   - High pressure (pressure switch)
   - Low pressure (pressure sensor)
   - Compressor thermal
   - Condensation fan thermal
   - High discharge temperature on the compressor
   - Phase monitor
   - Star/Delta transition failed
   - Low-pressure ratio
   - High oil pressure drop
   - Low oil pressure
   - Freeze protection
   - Load stepless adjust
   - Trouble record

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m^3/min×35.3

MCS200~380 / MHS200~380



1	Condensor
2	Evaporator
3	Evaporator water outlet
4	Evaporator water intlet
5	Control box
6	Fans

unit: mm

MODEL	Dimension/mm							Water connections
	A	B	C	D	E	H	L	
MCS(MHS)200.2F	7200	1800	450	532	702	2330	7340	8"(OD219.1)
MCS(MHS)220/235/260.2F	8100	1800	565	597	662	2330	8240	8"(OD219.1)
MCS(MHS)285/310.2F	9000	2000	1390	597	662	2330	9140	8"(OD219.1)
MCS(MHS)330/350/380.2F	9900	2702	1585	597	662	2330	10040	8"(OD219.1)

Note:
Fans No.could be found from the technical param eters.

11. Sound Level

11.1 ST Overall Sound Level and Octave Band Level

Model MHS/MCS / Hz	Octave band level								Overall dBA
	63	125	250	500	1000	2000	4000	8000	
050.1FST	46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	74.0
060.1FST	43.5	56.6	63.3	69.4	70.0	65.6	60.2	56.0	74.0
070.1FST	53.7	64.6	70.3	71.0	69.7	65.2	57.4	49.3	76.0
080.1FST	48.0	63.6	69.2	71.0	69.6	68.0	61.4	53.9	76.0
100.1FST	53.9	66.4	72.4	71.2	70.9	65.5	59.6	53.3	77.0
120.1FST	40.5	58.2	65.8	71.8	73.5	68.2	60.6	54.1	77.0
135.1FST	46.5	58.5	68.3	71.0	72.8	69.4	62.3	54.9	77.0
150.1FST	51.9	69.1	72.4	72.9	72.2	64.5	57.4	50.6	78.0
170.1FST	51.8	66.7	69.9	73.3	73.6	68.2	60.3	51.4	78.0
185.1FST	46.7	65.2	70.8	74.6	74.0	69.5	62.0	52.1	79.0
200.2FST	45.8	65.9	69.8	73.6	74.1	71.7	63.0	56.7	79.0
220.2FST	49.3	66.7	71.7	74.3	75.2	72.2	65.5	58.5	80.0
235.2FST	54.2	66.6	75.0	74.0	74.5	70.1	63.7	57.2	80.5
260.2FST	46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	80.5
285.2FST	53.7	68.1	73.3	77.3	76.5	72.9	67.0	59.1	81.0
310.2FST	58.8	68.1	71.9	74.9	76.6	73.7	66.9	60.0	81.0
330.2FST	46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	81.0
350.2FST	45.4	60.5	72.1	76.0	75.5	71.6	65.4	56.8	81.0
380.2FST	54.6	67.6	73.2	76.6	76.6	72.7	66.4	59.2	81.5

Notes:

Average sound pressure level is according to ISO 3744, semispheric free field conditions.
Sound pressure levels are referred to units furnished without hydraulic kit.
Measuring location is at 1m from the unit in semispheric free field (rif. 2×10^{-5} Pa).

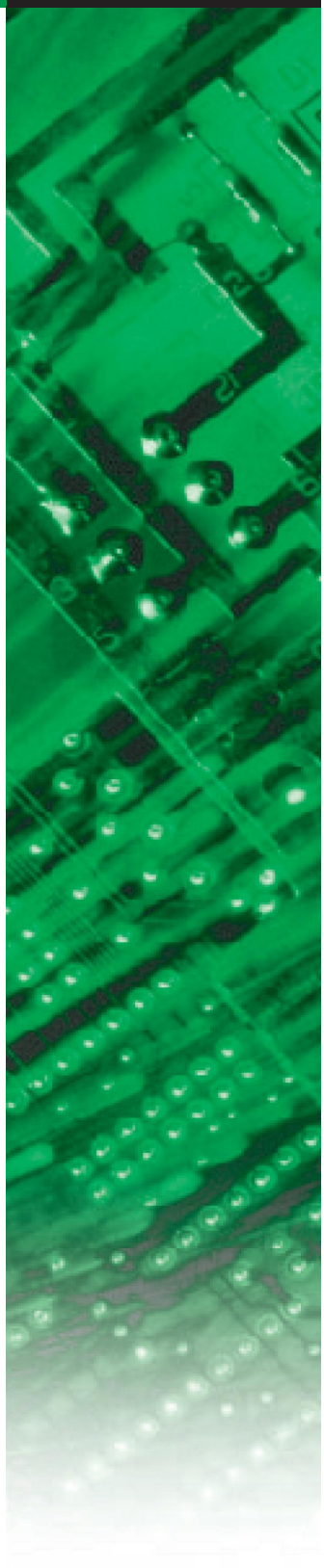
Catalogue of

McQuay MCS050.1 &

McQuay MCS070.1

Air Cooled Single Screw Chiller

Models: MCS050.1-380.2F
Cooling Capacity: 161kW-1370kW
Refrigerant: R22/R407C



McQuay® Air Conditioning

Engineered for flexibility and performance.™

S04d-S04e
S22a-S22b
S41b
S44a, S44d

S09d,
S10c-S10d
S38c-S38f
S41a
S44b-S44c, S44e-S44f

3.2 MCS050.1FST~MCS350.2FST[R407C]

Model			MCS050.1	MCS060.1	MCS070.1	MCS080.1	MCS100.1
*1 Normal cooling capacity		kW	164	198	232	270	347
		USRT	47	56	66	77	99
		kcal/h	141,100	170,100	199,200	232,400	298,800
		Btu/h	560,100	675,400	790,700	922,500	1,186,000
Casing / Color			Paintable Galvanized Steel Plate / Ivory White				
Capacity Steps			0,25 ~ 100%				
Power Supply			380~400V/3~50Hz				
Compressor	Type		Semi-hermetic Single-screw				
	No. × Model		1×3118	1×3120	1×3121	1×3122	1×3220
	Motor Input	kW	53	66	75	89	108
Refrigerant Oil	Model		RL68H				
	Charge	L	13	13	13	13	18
Evaporator	Type		High-efficiency Shell and Tube				
	Flow Rate	L/min.	470	567	664	775	996
	Pressure Drop	kPa	18	24	18	28	31
Condenser	Type		Cross Fin Coil				
	Rows × Stages		3×44	3×44	3×44	3×44	3×44
	Fit Pitch	mm	1.8	1.8	1.8	1.8	1.8
	Face Area	m^2	9.57	9.57	12.07	12.07	16.09
Fan	Type		Propeller (Direct Drive)				
	Qty.		4	4	6	6	8
	Air Flow Rate	m^3/min	1,467	1,467	2,200	2,200	2,933
		cfm	51,773	51,773	77,660	77,660	103,547
	Motor Input	kW	8	8	12	12	16
Refrigerant	Type		R407C				
	No. of Circuits		1	1	1	1	1
	Control		Electronic Expansion Valve				
Water Piping Connection		inch	5				
Compressor Acoustic Insulation Material			—				Polyurethane Foaming
Unit Input		kW	61	74	87	101	124
Unit Dimensions	D	mm	2975	2975	3200	3200	4100
	W	mm	2260	2260	2260	2260	2260
	H	mm	2285	2285	2285	2285	2360
Weight		kg	2350	2360	2870	2880	4050
Operation Weight		kg	2500	2510	3020	3030	4200
Standard Accessories			Unit Operation Instructions, Conformity Certificate, Warranty Application Form, Spring Damper, Water Flow Switch.				

Notes:

*1. Cooling capacity is based on the following conditions:
Entering chilled water temp. 12°C, Leaving chilled water temp. 7°C, ambient temp. 35°C DB

2. The following safity devices are equipped as standard.
   - High pressure (pressure switch)
   - Low pressure (pressure sensor)
   - Compressor thermal
   - Condensation fan thermal
   - High discharge temperature on the compressor
   - Phase monitor
   - Star/Delta transition failed
   - Low-pressure ratio
   - High oil pressure drop
   - Low oil pressure
   - Freeze protection
   - Load stepless adjust
   - Trouble record

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m^3/min×35.3

11. Sound Level

11.1 ST Overall Sound Level and Octave Band Level

Model / Hz	Octave band level								Overall dBA
	63	125	250	500	1000	2000	4000	8000	
MCS050.1FST	46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	74.0
MCS060.1FST	43.5	56.6	63.3	69.4	70.0	65.6	60.2	56.0	74.0
MCS070.1FST	53.7	64.6	70.3	71.0	69.7	65.2	57.4	49.3	76.0
MCS080.1FST	48.0	63.6	69.2	71.0	69.6	68.0	61.4	53.9	76.0
MCS100.1FST	53.9	66.4	72.4	71.2	70.9	65.5	59.6	53.3	77.0
MCS120.1FST	40.5	58.2	65.8	71.8	73.5	68.2	60.6	54.1	77.0
MCS135.1FST	46.5	58.5	68.3	71.0	72.8	69.4	62.3	54.9	77.0
MCS150.1FST	51.9	69.1	72.4	72.9	72.2	64.5	57.4	50.6	78.0
MCS170.1FST	51.8	66.7	69.9	73.3	73.6	68.2	60.3	51.4	78.0
MCS185.1FST	46.7	65.2	70.8	74.6	74.0	69.5	62.0	52.1	79.0
MCS200.2FST	45.8	65.9	69.8	73.6	74.1	71.7	63.0	56.7	79.0
MCS220.2FST	49.3	66.7	71.7	74.3	75.2	72.2	65.5	58.5	80.0
MCS235.2FST	54.2	66.6	75.0	74.0	74.5	70.1	63.7	57.2	80.5
MCS260.2FST	46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	80.5
MCS285.2FST	53.7	68.1	73.3	77.3	76.5	72.9	67.0	59.1	81.0
MCS310.2FST	58.8	68.1	71.9	74.9	76.6	73.7	66.9	60.0	81.0
MCS330.2FST	46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	81.0
MCS350.2FST	45.4	60.5	72.1	76.0	75.5	71.6	65.4	56.8	81.0
MCS380.2FST	54.6	67.6	73.2	76.6	76.6	72.7	66.4	59.2	81.5

Notes:

Average sound pressure level is according to ISO 3744, semispheric free field conditions.
Sound pressure levels are referred to units furnished without hydronic kit.
Measuring location is at 1m from the unit in semispheric free field (rif. 2×10^{-5} Pa).

Catalogue of

Carrier 30RBSY 039

30RBSY

Nominal cooling capacity 40-153 kW

AQUASNAP®

Compact design

High static available pressure

Quiet operation

Variable speed fans

Variable water flow (optional)

The AquaSnap liquid chiller was designed for commercial (air conditioning of offices, hotels etc.) or industrial (low-temperature process units etc.) applications.

It integrates the latest technological innovations:

- Non-ozone depleting refrigerant R410A
- All-aluminium microchannel heat exchangers
- Scroll compressors
- Low-noise fans made of a composite material
- Auto-adaptive microprocessor control
- Electronic expansion valve
- Variable-speed pump (option)

The AquaSnap can be equipped with a hydronic module integrated into the unit chassis, limiting the installation to straightforward operations like connection of the power supply and the chilled water supply and return piping.

S06a-S06d
S24a-S24d
S26a-S26b
S29a-S29d
S33a-S33b
S40c
S44j, S44l-S44n

Physical data

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

30RBSY		039	045	050	060	070	080	090	100	120	140	160
Cooling												
Air conditioning application as per EN14511-3:2013† - standard unit												
Condition 1:												
Nominal cooling capacity	kW	39.6	44.0	51.2	58.1	66.2	77.7	86.7	97.1	114.4	132.8	153.4
ESEER	kW/ kW	3.81	3.95	3.94	3.85	3.68	3.68	3.82	3.87	3.83	3.74	3.88
EER	kW/ kW	2.87	2.76	2.65	2.67	2.65	2.61	2.69	2.70	2.65	2.63	2.56
Eurovent class cooling		A	B	B	B	B	B	B	B	B	B	B
Condition 2:												
Nominal cooling capacity	kW	53.0	58.9	68.5	80.8	83.6	97.0	114.3	126.5	150.8	168.9	191.7
EER	kW/ kW	3.44	3.33	3.11	3.32	2.89	2.96	3.13	3.06	3.09	2.91	2.91
Air conditioning application†† - standard unit												
Condition 1:												
Nominal cooling capacity	kW	39.9	44.4	51.6	58.6	66.8	78.4	87.2	97.7	115.1	133.6	154.4
ESEER	kW/ kW	3.28	3.46	3.56	3.54	3.31	3.39	3.26	3.35	3.41	3.40	3.61
EER	kW/ kW	2.69	2.63	2.56	2.59	2.55	2.54	2.55	2.58	2.56	2.52	2.48
Condition 2:												
Nominal cooling capacity	kW	53.5	59.4	69.3	81.7	84.3	97.9	115.3	127.4	152.1	170.3	193.4
EER	kW/ kW	3.31	3.23	3.06	3.29	2.82	2.92	3.02	2.97	3.03	2.83	2.86
Sound levels												
Standard unit - for 160 Pa external static pressure												
Sound power level at discharge*	dB(A)	84	84	84	84	87	87	87	87	87	90	90
Sound power level radiated*	dB(A)	84	84	84	84	87	87	87	87	87	90	90
Sound pressure level at 10 m**	dB(A)	53	53	53	53	55	55	56	56	56	58	58
Dimensions		If two values are shown the first one is for standard units and the second one for units with option 23B										
Length	mm	2142/ 2307	2142/ 2307	2142/ 2307	2142/ 2307	2142/ 2307	2142/ 2307	2273	2273	2273	2273	2273
Width	mm	1132/ 1297	1132/ 1297	1132/ 1297	1132/ 1297	1132/ 1297	1132/ 1297	2122	2122	2122	2122	2122
Height	mm	1371	1371	1371	1371	1371	1371	1371	1371	1371	1371	1371
Operating weight with MCHE coil* **												
Standard unit without hydronic module	kg	436	443	449	464	461	480	771	780	793	901	932
Standard unit with hydronic module												
Single high-pressure pump	kg	466	473	479	494	491	510	803	812	829	940	971
Dual high-pressure pump	kg	491	499	504	520	517	536	848	857	877	977	1008
Compressors		Hermetic scroll compressors, 48.3 r/s										
Circuit A		2	2	2	2	2	2	3	3	3	2	2
Circuit B		-	-	-	-	-	-	-	-	-	2	2
No of control stages		2	2	2	2	2	2	3	3	3	4	4
Refrigerant charge with MCHE coil* **		R-410A										
Circuit A	kg	4.7	4.5	6.3	6.7	6.2	7.3	9.5	10.8	11.4	6.3	8
Circuit B	kg	-	-	-	-	-	-	-	-	-	6.3	8
Capacity control		Touch Pilot Junior										
Minimum capacity	%	50	50	50	50	50	50	33	33	33	25	25
Condensers		All-aluminium microchannel heat exchanger (MCHE)										
Fans		Axial Flying Bird IV with rotating shroud										
Quantity		1	1	1	1	1	1	2	2	2	2	2
Maximum total air flow	l/s	3885	3883	3687	3908	4982	5267	6940	6936	7370	9958	10534
Maximum rotation speed	r/s	16	16	16	18	18	18	16	16	16	16	16
Evaporator		Direct expansion, plate heat exchanger										
Water volume	l	2.6	3.0	3.3	4.0	4.8	5.6	8.7	9.9	11.3	12.4	14.7
Without hydronic module (option)												
Max. water-side operating pressure without hydronic module	kPa	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
With hydronic module (option)												
Single or dual pump (as selected)		Pump, Victaulic screen filter, safety valve, expansion tank, purge valves (water + air), pressure sensors										
Expansion tank volume	l	12	12	12	12	12	12	35	35	35	35	35
Expansion tank pressure****	bar	1	1	1	1	1	1	1.5	1.5	1.5	1.5	1.5
Max. water-side operating pressure	kPa	400	400	400	400	400	400	400	400	400	400	400
Water connections with/without hydronic module		Victaulic										
Diameter	in	2	2	2	2	2	2	2	2	2	2	2
Outside diameter	mm	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3
Chassis paint colour		Colour code: RAL7035										

† Eurovent-certified performances in accordance with standard EN14511-3:2013.
†† Gross performances, not in accordance with EN14511-3:2013. These performances do not take into account the correction for the proportionnal heating capacity and power input generated by the water pump to overcome the internal pressure drop in the heat exchanger.
Condition 1: cooling mode conditions: evaporator water entering/leaving temperature 12°C/7°C, outside air temperature 35°C, evaporator fooling factor 0 m².K/W
Condition 2: cooling mode conditions: evaporator water entering/leaving temperature 23°C/18°C, outside air temperature 35°C, evaporator fooling factor 0 m².K/W
* In dB ref=10-12 W, (A) weighting. Declared dualnumber noise emission values in accordance with ISO 4871 (with an associated uncertainty of +/-3dB(A)). Measured in accordance with ISO 9614-1 and certified by Eurovent.
** In dB ref 20µPa, (A) weighting. Declared dualnumber noise emission values in accordance with ISO 4871 (with an associated uncertainty of +/-3dB(A)). For information, calculated from the sound power level Lw(A).
*** Weight shown is a guideline only. Please refer to the unit nameplate.
**** When delivered, the standard pre-inflation of the tank is not necessarily the optimal value for the system. To permit changing the water volume, change the inflation pressure to a pressure that is close to the static head of the system. Fill the system with water (purging the air) to a pressure value that is 10 to 20 kPa higher than the pressure in the tank

Eurovent certified data

Catalogue of

Carrier 30RB 040

30RB

Nominal cooling capacity 16-40 kW

AQUASNAP®

Easy and fast installation

Hydronic module available

Economical operation

Superior reliability

The AquaSnap liquid chiller range was designed for commercial applications such as the air conditioning of offices and hotels, etc.

The new AquaSnap units integrate the latest technological innovations:

- Non-ozone depleting refrigerant R410A
- Scroll compressors
- Low-noise fans
- Auto-adaptive microprocessor control

The AquaSnap units are equipped with a hydronic module integrated into the unit chassis, limiting the installation to straightforward operations like connection of the power supply and the water supply and return piping.

S02a-S02d
S05a-S05c
S07c-S07e
S12a-S12c
S14a-S14b
S18b, S18d, S18f, S18h-S18l,
S18n-S18o, S18q, S18t-S18x
S19d-S19g
S27a-S27f
S32a-S32c
S34b-S34c
S35b-S35c
S36a-S36b
S44h, S44k

Physical data

EUROVENT CERTIFIED PERFORMANCE www.eurovent-certification.com

30RB								040
Cooling								
Full load performances*	C1	Nominal capacity	kW					41.4
	C1	EER	kW/kW					2.96
	C1	Eurovent Energy Class		B	A	B	A	B
	C2	Nominal capacity	kW	22.7	29.5	38.6	45.8	56.9
	C2	EER	kW/kW	3.80	3.86	4.01	4.11	3.52
Seasonal Efficiency*		ESEER	kW/kW	3.46	3.47	3.44	3.62	3.29
Sound Power Level Standard Unit			dB(A)	72	74	78	78	80
Operating weight†								
Standard unit (with hydronic module)			kg	189	208	255	280	291
Standard unit (without hydronic module)			kg	173	193	237	262	273
Refrigerant				R-410A				
Compressor				One hermetic scroll compressor				
Control				Pro-Dialog+				
Fans			%	Two twin-speed axial fans, 3 blades		One twin-speed axial fan, 7 blades		
Air flow				2212	2212	3530	3530	3530
Evaporator				Plate heat exchanger				
Condenser				Copper tubes and aluminium fins				
Unit with hydronic module Pump				One single-speed pump, screen filter, expansion tank, flow switch, pressure gauge, automatic air purge valve, safety valve				
Entering water connection			in	1-1/41	1-1/41	1-1/4	1-1/4	1-1/4
Leaving water connection			in	1	1	1-1/4	1-1/4	1-1/4
Nominal operating current			A	1.30	1,4	2,4	2,6	2,8
Dimensions								
Length			mm	1136	1136	1002	1002	1002
Depth			mm	584	584	824	824	824
Height			mm	1579	1579	1790	1790	1790

C1 Cooling mode conditions: Evaporator Water heat exchanger, entering/leaving temperature 12°C/7°C, fouling factor 0 m² K/W. Condenser Water heat exchanger, entering/leaving temperature 30°C/35°C, fouling factor 0 m² K/W.
C2 Cooling mode conditions: Evaporator Water heat exchanger, entering/leaving temperature 23°C/18°C, fouling factor 0 m² K/W. Condenser Water heat exchanger, entering/leaving temperature 30°C/35°C, fouling factor 0 m² K/W.
* In accordance with standard EN14511-3:2013
† Weight shown is a guideline only. The dimensions shown are for the standard unit.

Eurovent certified data

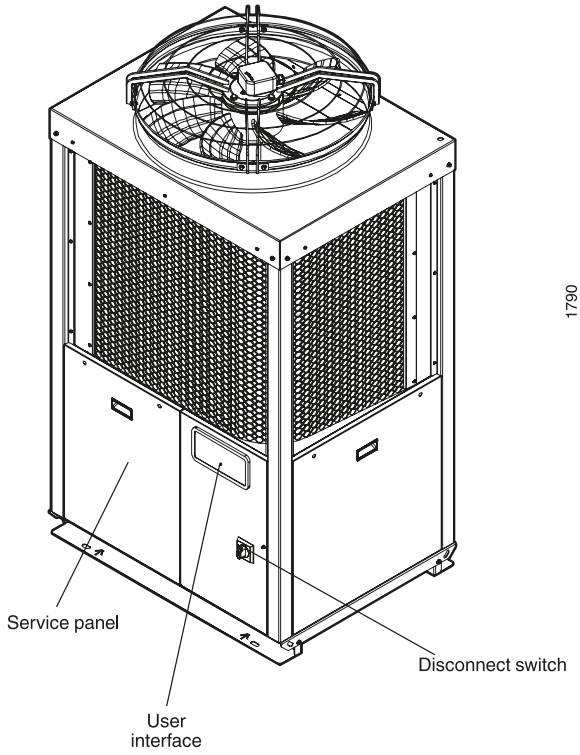
Electrical data

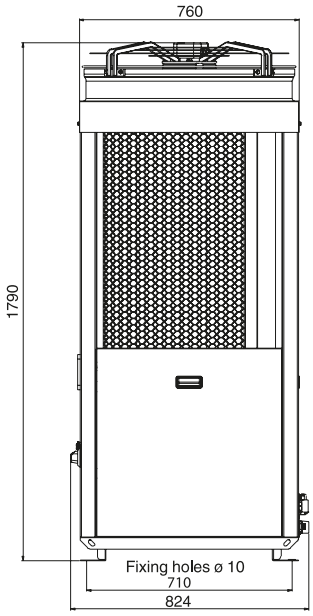
30RB		580	630	810	880	1150
Power circuit						
Nominal power supply ± 6%	V-ph-Hz	400-3-50 ± 10%				
Control circuit supply		24 V via internal transformer				
Maximum start-up current (Un)*	A	75	95	118	118	176
Maximum operating power input**	kW	7.8	9.1	11	13.8	17.5
Nominal unit operating current draw***	A	8	12	16	17	25

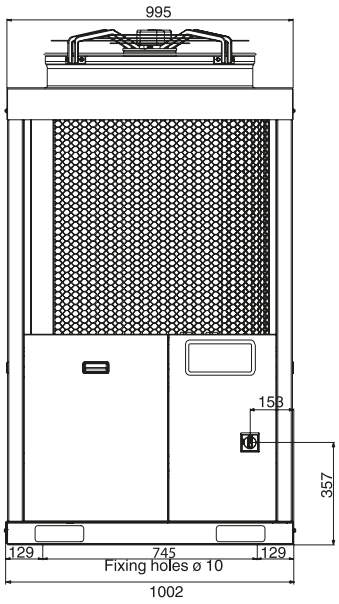
* Maximum instantaneous start-up current (locked rotor current of the compressor).
** Power input, compressors and fans, at the unit operating limits (saturated suction temperature 10°C, saturated condensing temperature 65°C) and nominal voltage of 400 V (data given on the unit nameplate).
*** Standardised Eurovent conditions: water heat exchanger entering/leaving water temperature 12°C/7°C, outside air temperature 35°C.

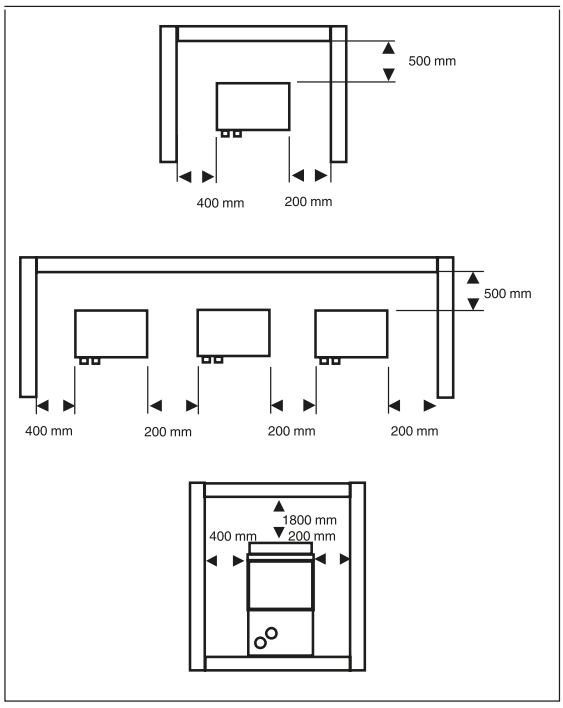
Dimensions/clearances

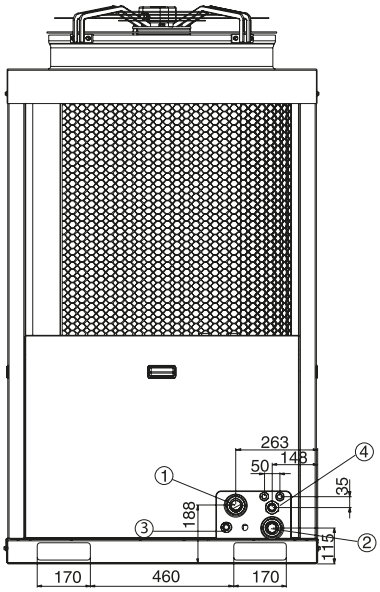
30RB 026-040











Legend
All dimensions are in mm
1. Water inlet
2. Water outlet
3. Water fill kit connection (option)
4. Power connections

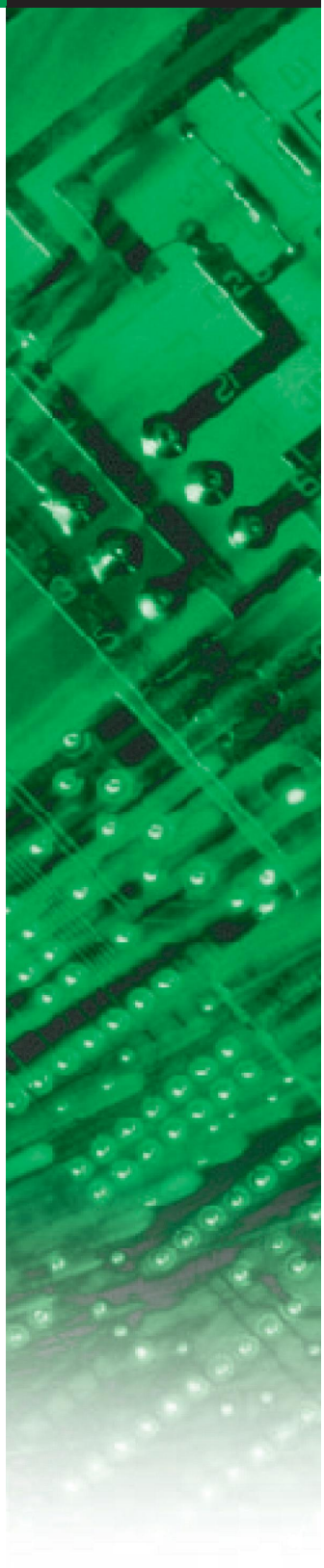
Catalogue of

McQuay MCS310.2 &

McQuay MCS350.2

Air Cooled Single Screw Chiller

Models: MCS050.1-380.2F
Cooling Capacity: 161kW-1370kW
Refrigerant: R22/R407C



McQuay® Air Conditioning

Engineered for flexibility and performance.™

S15a-S15b

S37a-S37b

Model			MCS310.2	MCS330.2	MCS350.2
*1 Normal cooling capacity		kW	1033	1122	1255
		USRT	294	319	357
		kcal/h	888,000	965,200	1,078,900
		Btu/h	3,525,100	3,831,500	4,282,900
Casing/Color			Paintable Galvanized Steel Plate / Ivory White		
Capacity Steps				0,12.5 ~ 100%	
Power Supply				380~400V/3~50Hz	
Compressor	Type			Semi-hermetic Single-screw	
	No. × Model		2×4222	1×4222 1×4223	2×4223
	Motor Input	kW	326	356	386
Refrigerant Oil	Model			RL68H	
	Charge	L	16×2	16×2	16×2
Evaporator	Type			High-efficiency Shell and Tube	
	Flow Rate	L/min.	2960	3217	3596
	Pressure Drop	kPa	74	87	95
Condenser	Type			Cross Fin coil	
	Rows × Stages		3×44	3×44	3×44
	Fit Pitch	mm	1.8	1.8	1.8
	Face Area	m^2	36.21	38.22	40.23
Fan	Type			Propeller (Direct Drive)	
	Qty.		18	19	20
	Air Flow Rate	m^3/min.	6,600	6,967	7,333
		cfm	232,980	245,923	258,867
	Motor Input	kW	36	38	40
Refrigerant	Type			R407C	
	No. of Circuits		2	2	2
	Control			Electronic Expansion Valve	
Water Piping Connection		inch		8	
Compressor Acoustic Insulation Material				Polyurethane Foaming	
Unit Input		kW	362	394	426
Unit Dimensions	D	mm	9100	10000	10000
	W	mm	2260	2260	2260
	H	mm	2360	2360	2360
Weight		kg	8660	9405	9460
Operation Weight		kg	8860	9605	9660
Standard Accessories			Unit Operation Instructions, Conformity Certificate, Warranty Application Form, Spring Damper, Water Flow Switch.		

Notes:

*1. Cooling capacity is based on the following conditions:
Entering chilled water temp. 12°C, Leaving chilled water temp. 7°C, ambient temp. 35°C DB

2. The following safity devices are equipped as standard.
   - High pressure (pressure switch)
   - Low pressure (pressure sensor)
   - Compressor thermal
   - Condensation fan thermal
   - High discharge temperature on the compressor
   - Phase monitor
   - Star/Delta transition failed
   - Low-pressure ratio
   - High oil pressure drop
   - Low oil pressure
   - Freeze protection
   - Load stepless adjust
   - Trouble record

Conversion Formulae
kcal/h=kW×860
Btu/h=kW×3414
cfm=m^3/min×35.3

11. Sound Level

11.1 ST Overall Sound Level and Octave Band Level

Model / Hz	Octave band level								Overall dBA
	63	125	250	500	1000	2000	4000	8000	
MCS050.1FST	46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	74.0
MCS060.1FST	43.5	56.6	63.3	69.4	70.0	65.6	60.2	56.0	74.0
MCS070.1FST	53.7	64.6	70.3	71.0	69.7	65.2	57.4	49.3	76.0
MCS080.1FST	48.0	63.6	69.2	71.0	69.6	68.0	61.4	53.9	76.0
MCS100.1FST	53.9	66.4	72.4	71.2	70.9	65.5	59.6	53.3	77.0
MCS120.1FST	40.5	58.2	65.8	71.8	73.5	68.2	60.6	54.1	77.0
MCS135.1FST	46.5	58.5	68.3	71.0	72.8	69.4	62.3	54.9	77.0
MCS150.1FST	51.9	69.1	72.4	72.9	72.2	64.5	57.4	50.6	78.0
MCS170.1FST	51.8	66.7	69.9	73.3	73.6	68.2	60.3	51.4	78.0
MCS185.1FST	46.7	65.2	70.8	74.6	74.0	69.5	62.0	52.1	79.0
MCS200.2FST	45.8	65.9	69.8	73.6	74.1	71.7	63.0	56.7	79.0
MCS220.2FST	49.3	66.7	71.7	74.3	75.2	72.2	65.5	58.5	80.0
MCS235.2FST	54.2	66.6	75.0	74.0	74.5	70.1	63.7	57.2	80.5
MCS260.2FST	46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	80.5
MCS285.2FST	53.7	68.1	73.3	77.3	76.5	72.9	67.0	59.1	81.0
MCS310.2FST	58.8	68.1	71.9	74.9	76.6	73.7	66.9	60.0	81.0
MCS330.2FST	46.4	65.5	71.6	76.2	75.3	71.3	64.9	56.4	81.0
MCS350.2FST	45.4	60.5	72.1	76.0	75.5	71.6	65.4	56.8	81.0
MCS380.2FST	54.6	67.6	73.2	76.6	76.6	72.7	66.4	59.2	81.5

Notes:

Average sound pressure level is according to ISO 3744, semispheric free field conditions.
Sound pressure levels are referred to units furnished without hydronic kit.
Measuring location is at 1m from the unit in semispheric free field (rif. 2×10^{-5} Pa).

Catalogue of

York YCAE065 SME53

YCAE
Modular air cooled scroll chiller / heat pump

YCAE 065R/S to 0100R/S (CE version)

A complete range from 64 kW up to 99 kW

Features

Up to 8 modules in one water system; each module can be operated separately. Built-in main water pipe makes it easy to install in the field

Ability to configure modular chillers to fit the space
Installation flexibility for modular chillers will allow you to use all the available space. Many different possible configurations (linear, parallel, star, etc).

Ability to add more modular chillers in the future
Buildings being constructed or occupied in phases do not need the full cooling/heating capacity at the start. Modular chillers allow you to stage the investment by combining modules to obtain the required capacity.

Ability to stock a few models and cover large range
Modular chillers are your solution. Limited numbers of module configurations allow the distribution channel to keep modules in stock.

Quick and easy module combination
Connecting the water piping and cables, installing the sensors and bringing power to the modular(s) makes installation quick and easy.

Full redundancy – Easy parts management
Modularity and the central controller allows you to decide the quantity of modules active at anytime. In the event of maintenance other modules in the system will continue to operate ensuring minimal capacity loss.

Small modules, small components, low noise
Modularity design is based on low capacity modules installed together. Components are carefully selected based on its performance, reliability and low sound attributes. When comparing modular systems with standard chillers, modular chillers provide a lower noise level.

Very easy and intuitive central controller
Modular units, which can manage up to 8 modules per system, are controlled with a single central controller. Central controller sequence enables the units to even out the run hours and prolong the life of the chiller.

Intelligent defrost - For heat pumps
For our air to water heat pumps, defrost must occur. The central controller optimizes the sequencing of the defrost cycle allowing only one module to defrost at a time. This allows the remaining modules to continue to provide heating.

Modular air cooled scroll chiller / heat pump

YCAE 065R/S to 0100R/S

S07a-S07b
S30a-S30e
S40a-S40b

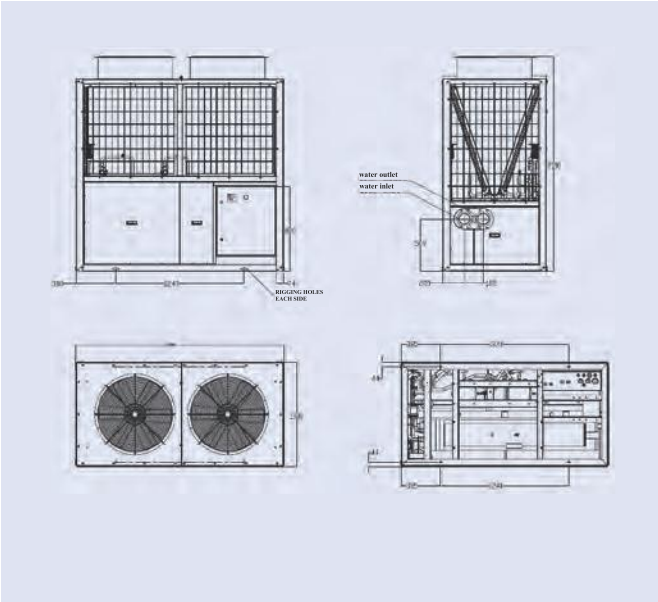
Technical features

Model			YCAE065SME53	YCAE065RME53	YCAE100SME53	YCAE100RME53
Cooling capacity		kW	64.1	64.1	99	99
Heating capacity		kW	-	70	-	103
EER / COP			3.05 / -	3.05 / 3.39	3.16 / -	3.16 / 3.2
ESEER			3.32	3.32	3.65	3.65
Refrigerant charge		kg	2 x 9	2 x 9	3 x 10.5	3 x 10.5
Sound power level		dB(A)	83	83	85	85
Capacity adjustment		%	0, 50, 100	0, 50, 100	0, 33, 66, 100	0, 33, 66, 100
Compressor	Type		Scroll	Scroll	Scroll	Scroll
	No.		2	2	3	3
Power input	Cooling	kW	21	21	31.3	31.3
	Heating	kW	-	20.8	-	33.9
	Power input	kW	0.9 x 2	0.9 x 2	0.9 x 3	0.9 x 3
Fan	Fan No.		2	2	3	3
	Air flow	m^3/h	13000 x 2	13000 x 2	13000 x 3	13000 x 3
Water-side heat exchanger	Water pressure drop	kPa	50	50	50	50
	Water pipe size	mm	114	114	89	89
	Pipe connection		Clamp	Clamp	Clamp	Clamp
	Water flow	m^3/h	11.1	11.1	17.2	17.2
Max. operating Current		A	49.3	49.3	74	74
Dimensions	Length	mm	2000	2000	2030	2030
	Width	mm	1000	1000	1930	1930
	Height	mm	2100	2100	2100	2100
Weight	Shipping weight	kg	800	840	1180	1240
	Operating weight	kg	880	920	1280	1350

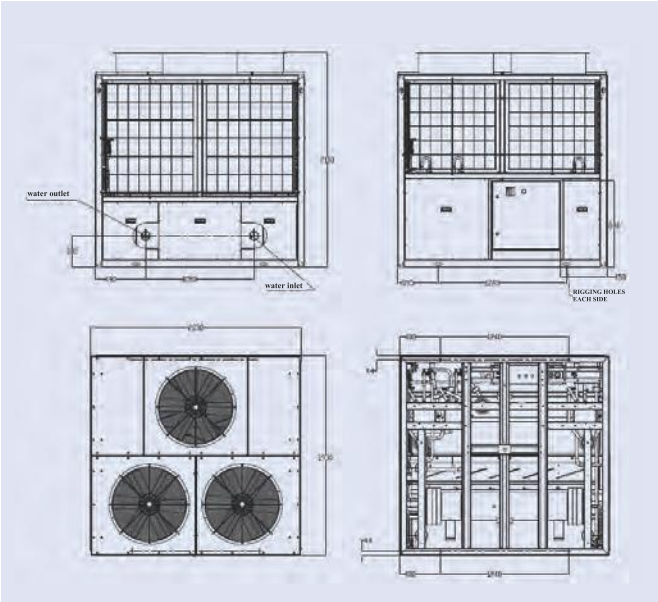
Nominal conditions: Cooling capacities in kW given for 7°C water leaving temperature Δt 5°C and 35°C ambient temperature
Heating capacities in kW given for 45°C water leaving temperature and 7°C ambient temperature

Dimensions and hydraulic connections

YCAE 065R/S



YCAE 100R/S



All dimensions in mm. Drawings not a scale.

Catalogue of

Trane RTAC 300

Air-cooled helical-rotary chillers Series R™

412 - 1451 kW
RTAC

Customer benefits

- Reliability: Trane helical-rotary compressor with only 3 moving parts
- Eurovent certified class A
- Ease of installation: wide choice of hydraulic modules
- Reliability: main components designed and manufactured by Trane
- Advanced Adaptive Control™ to keep chiller online in extreme operating conditions
- Optional remote monitoring by Trane Intelligent Services
- Single power supply connection
- Exact load matching

Main features

- Rental crash frame
- Integral hydraulic module (pumps)
- Compact design: reduced footprint and low profile design
- Falling film evaporator - high COP
- Two acoustic packages: SN and LN
- Wide operating map: airside and waterside
- Easy customized couple connections

S22c-S22d

Chiller model	RTAC 120	RTAC 200	RTAC 300	RTAC 400
Cooling capacity	412	737	1077	1451
Power input (kW)	135	232.90	370	498
Refrigerant type	R134a	13	R134a	R134a
Minimum chiller load (%)	30	17	13	10
Qty. of compressors	2	2	3	4
Number of refrigerant circuits	2	2	2	2
Power supply (V/Ph/Hz)	400/3/50	400/3/50	400/3/50	100/3/50
Max. amps (A)	390	562	844	1096
Starting amps (A)	410	594	813	1002
Length (mm)	5041	5960	10058	12244
Width (mm)	2260	2260	2250	2250
Height (mm)	2411	2381	2530	2530
Weight (kg)	4506	5590	9375	11929
Sound pressure level 10 m free field dB(A)	65	68	69	81

Cooling capacity and power input at Eurovent conditions:
12/7°C entering/leaving water temperature and 35°C ambient temperature according to EN 14-511

Trane® is a brand of Ingersoll Rand®. Ingersoll Rand (NYSE:IR) advances the quality of life by creating comfortable, sustainable and efficient environments. Our people and our family of brands—including Ingersoll Rand®, Trane®, Thermo King® and Club Car® — work together to enhance the quality and comfort of air in homes and buildings; transport and protect food and perishables; and increase industrial productivity and efficiency. We are a global business committed to a world of sustainable progress and enduring results.

We are committed to using environmentally conscious print practices that reduce waste.

Catalogue of

Ryowo FT-250

菱和
ryowo™

FRP COUNTER FLOW FT SERIES

COOLING TOWER

SPECIFICATION FOR FT SERIES

SPECIFICATION FOR FT SERIES

ITEM	MODEL			FT-8	FT-10	FT-15	FT-20	FT-25	FT-30	FT-40	FT-50	FT-60	FT-80	FT-100	FT-125	FT-150	FT-175	FT-200	FT-225	FT-250	FT-300	FT-350	FT-400	FT-500	FT-600	FT-700	FT-800	FT-1000
Capacity	27 ºC WB	Circulating water flow rate	m^3/ hr	6.2	7.8	11.7	15.6	19.5	23.4	31.2	39.1	46.9	62.5	78.1	97.7	117.2	136.7	156.2	175.8	195.3	234.4	273.4	312.5	390.6	468.7	546.8	625.0	781.2
		Make-up water (Approx.)	m^3/ hr	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.6	0.7	0.9	1.1	1.4	1.7	2.0	2.2	2.5	2.8	3.4	3.9	4.5	5.6	6.7	7.8	8.9	11.2
	28 ºC WB	Circulating water flow rate	m^3/ hr	5.6	7.4	10.6	14.4	17.8	21.5	28.7	36.3	42.5	58.8	70.6	88.2	107.5	125.0	142.5	160.0	176.2	212.5	250.0	287.5	337.5	431.2	512.4	575.0	718.7
		Make-up water (Approx.)	m^3/ hr	0.1	0.1	0.2	0.2	0.3	0.3	0.4	0.5	0.6	0.8	1.0	1.3	1.5	1.8	2.0	2.3	2.5	3.0	3.6	4.1	4.8	6.2	7.3	8.2	10.3
	Air flow rate (Approx.)		m^3/ min	70	85	140	160	230	280	330	420	450	700	830	950	1150	1200	1250	1600	1750	2000	2200	2450	2700	3500	3750	5000	5400
	Hot water temperature		ºC	37																								
	Cold water temperature		ºC	32																								
Overall Dimension	Diameter (ϕ)		mm	920	920	1160	1160	1490	1660	1660	1890	2100	2100	2900	2900	2900	3310	3310	3960	3960	4360	4760	4760	5600	6600	6600	7600	7600
	Height (H)		mm	1560	1700	1585	1835	1945	1885	2035	2110	2300	2475	2910	3110	3110	3300	3450	3920	3920	3990	4195	4255	4590	5310	5510	5660	5860
	Height (w/o motor) (m)		mm	1390	1530	1395	1645	1760	1720	1785	1860	1980	2155	2590	2790	2790	2880	3030	3300	3300	3290	3495	3495	3830	4470	4670	4720	4940
Material	Air inlet mesh			PVC																								
	Basin			FRP																								
	Casing			FRP																								
	Eliminator			FRP																								
	Fan			ABS Plastic								FRP				Aluminium alloy				FRP								
	Filler			PVC																								
	Motor support			Steel (Hot-dip galvanized)																								
	Sprinkler head			ABS Plastic											Aluminium alloy													
	Sprinkler pipe			PVC pipe																								
	Stand pipe			PVC pipe																								
	Structure			Steel (Hot-dip galvanized)																								
Fan	TYPE			Axial-flow																								
	Diameter		mm	550	640		770			930		1200		1500			1800			2400			3000		3400		3700	
	Speed		rpm	970								750					600			450			375		314			
	Driven type			Direct driven																Belt driven					Gear driven			
Motor	TYPE			Totally enclosed fan cooled outdoor 3 phase induction motor																								
	Power source			380V / 3 / 50Hz																								
	Rated output		kw	0.18		0.37		0.75		1.5				2.2			3.7			5.5		7.5		11		15		22
	No of pole		Pole	6								8					10					4						
Distribution System	TYPE			Automatic sprinkler system																								
	Inlet dia		mm	40		50		80				100		125		150					200			250			300	
	Outlet dia			15		20		40						65							75			100	75		100	
	No of outlet			4								6		4							6				8		10	
Piping	Inlet		mm	40		50		80				100		125		150					200			250			300	
	Outlet		mm	40		50		80				100		125		150					200			250			300	
	Drain		mm	25										50							80			100				
	Overflow		mm	25										50							80			100				
	Float valve		mm	15								20					25				32			50			80	
	Manual make-up		mm	15										20			25				32			50			80	
Weight	Dry weight		Kg	56	65	75	85	105	130	150	180	250	270	500	540	580	870	900	1300	1350	1550	1720	2050	2450	3950	4050	4700	4900
	Operating weight		Kg	140	150	200	210	290	370	390	550	840	860	1600	1640	1680	2170	2200	2700	2750	3350	3720	3950	6150	9350	9450	11900	12100
Noise Level	Sound pressure level		dBA	45.5	47	48	50	52	54	58	59	58	59	61	61.5	62	62	62	63	63	64	64.5	61.5	62	65	66	73	74

NOTE : Nominal cooling capacity is based on 13 ℓ / min / RT (1 RT=3,900 Kcal / hr) at 37ºC inlet water tpmperature, 32ºC outlet water temperature and 27ºC ambient wet bulb temperature.

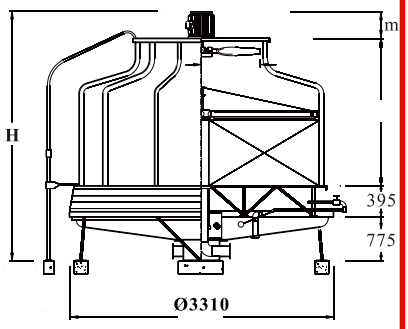
The SPLs are measured 16m horizontally from the edge of the tower at 1.5m above the foundation level.

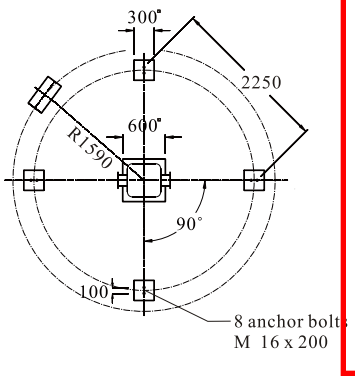
Pump head is obtained by adding resistance of piping/condenser and the tower height(H).

The unit dimension in this catalogue is metric. Specifications listed in this catalogue are subject to change without further noticefor technical improvement of our products.

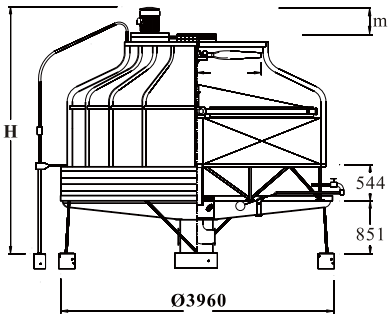
TOWER FOUNDATION

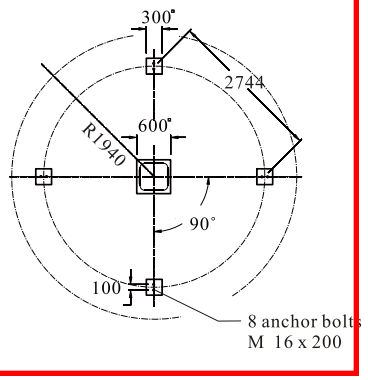
FT· FT/LN-175· 200



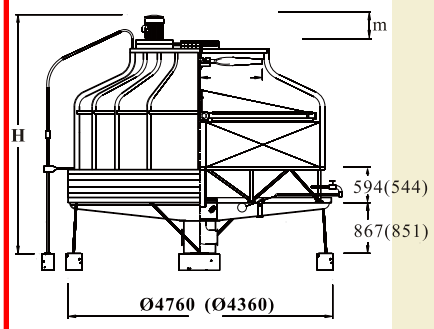


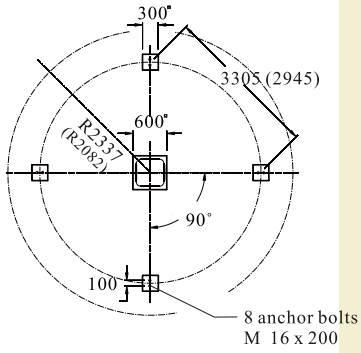
FT· FT/LN-225·250



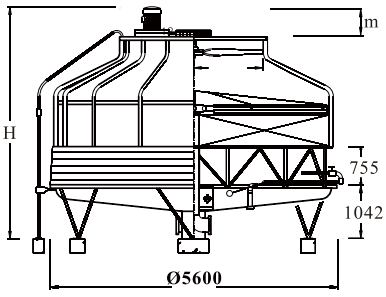


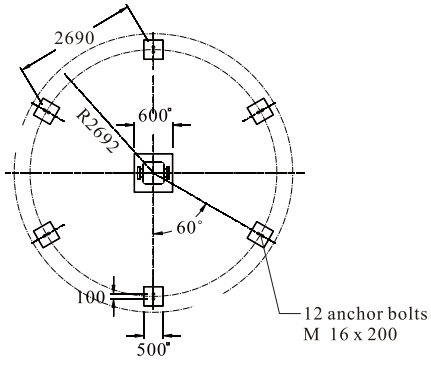
FT· FT/LN-(300) ·350·400



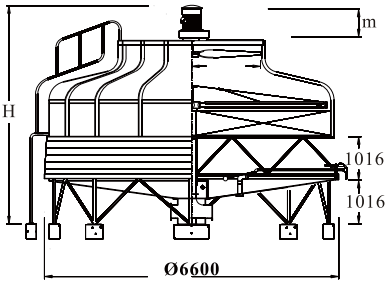


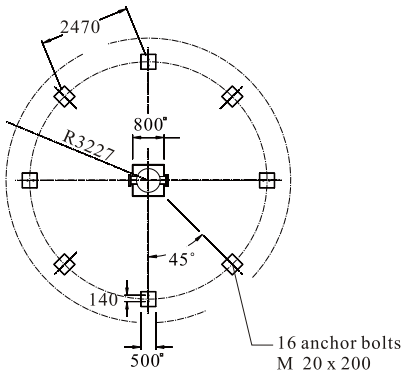
FT· FT/LN- 500



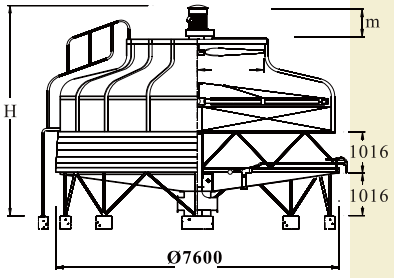


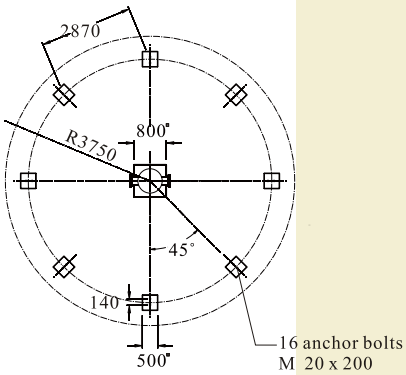
FT· FT/LN-600 · 700





FT· FT/LN-800 · 1000





Catalogue of

York YLCA 0040 T-TP,

York YLCA 0080 T-TP &

York YLCA 0100 T-TP

Catalogue of

McQuay MCS135.1

Catalogue of

McQuay MCS200.2 &

McQuay MCS235.2

Catalogue of

McQuay MCS050.1 &

McQuay MCS070.1

Catalogue of

Carrier 30RBSY 039

Catalogue of

Carrier 30RB 040

Catalogue of

McQuay MCS310.2 &

McQuay MCS350.2

Catalogue of

York YCAE065 SME53

Catalogue of

Trane RTAC 300

Catalogue of

Ryowo FT-250

Appendix 3.2

Fixed Noise Impact Assessment Results

Prediction of Fixed Noise Source Impact on Planned NSR

NSR Labels	Descriptions	Nature of Use	Existing/ Planned Uses	Location			ASR	Noise Criteria (ANL), L_{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)	
				X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night-time)	Screening by Features [1]	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time
N01	0	Residential	Planned	835652	817655	77	B	65	55	S02a	Chiller at Podium of Godown for HK Museum of History	835542	817712	76.6	123	-49.8	0	0	N.A.	-5	0	3	3	31.2	N.A.
										S02b	Chiller at Podium of Godown for HK Museum of History	835540	817711	76.6	125	-49.9	0	0	N.A.	-5	0	3	3	31.1	N.A.
										S02c	Chiller at Podium of Godown for HK Museum of History	835536	817711	76.6	129	-50.2	0	0	N.A.	-5	0	3	3	30.8	N.A.
										S02d	Chiller at Podium of Godown for HK Museum of History	835534	817711	76.6	130	-50.3	0	0	N.A.	-5	0	3	3	30.7	N.A.
										S03a	Chiller at Roof of Health Education Exhibition and Resources Centre	835673	817710	76.6	58	-43.3	0	0	N.A.	0	0	3	3	40.7	N.A.
										S03b	Chiller at Roof of Health Education Exhibition and Resources Centre	835667	817709	76.6	56	-43.0	0	0	N.A.	0	0	3	3	41.0	N.A.
										S03c	Chiller at Roof of Health Education Exhibition and Resources Centre	835661	817709	76.6	54	-42.7	0	0	N.A.	0	0	3	3	41.3	N.A.
										S03d	Chiller at Roof of Health Education Exhibition and Resources Centre	835656	817709	76.6	54	-42.6	0	0	N.A.	0	0	3	3	41.4	N.A.
										S03e	Chiller at Roof of Health Education Exhibition and Resources Centre	835650	817708	76.6	53	-42.5	0	0	N.A.	0	0	3	3	41.5	N.A.
										S03f	Chiller at Roof of Health Education Exhibition and Resources Centre	835673	817706	76.6	55	-42.7	0	0	N.A.	0	0	3	3	41.3	N.A.
										S03g	Chiller at Roof of Health Education Exhibition and Resources Centre	835667	817705	76.6	52	-42.4	0	0	N.A.	0	0	3	3	41.6	N.A.
										S03h	Chiller at Roof of Health Education Exhibition and Resources Centre	835662	817705	76.6	50	-42.1	0	0	N.A.	0	0	3	3	41.9	N.A.
										S03i	Chiller at Roof of Health Education Exhibition and Resources Centre	835656	817705	76.6	49	-41.9	0	0	N.A.	0	0	3	3	42.1	N.A.
										[2] S05a	Chiller at Podium at Han Hing Mansion	835688	817619	13.4	53	-42.5	0	0	N.A.	-10	0	3	3	33.5	N.A.
										[2] S05b	Chiller at Podium at Han Hing Mansion	835691	817620	13.4	54	-42.7	0	0	N.A.	-10	0	3	3	33.3	N.A.
										[2] S05c	Chiller at Podium at Han Hing Mansion	835693	817620	13.4	56	-42.9	0	0	N.A.	-10	0	3	3	33.1	N.A.
										S06a	Chiller at Roof of ISQUARE	835735	817583	76.6	110	-48.9	0	0	N.A.	-5	0	3	3	36.1	N.A.
										S06b	Chiller at Roof of ISQUARE	835745	817584	76.6	117	-49.4	0	0	N.A.	-5	0	3	3	35.6	N.A.
										S06c	Chiller at Roof of ISQUARE	835754	817584	76.6	125	-49.9	0	0	N.A.	-5	0	3	3	35.1	N.A.
										S06d	Chiller at Roof of ISQUARE	835764	817585	76.6	132	-50.4	0	0	N.A.	-5	0	3	3	34.6	N.A.
										S7a	Chiller at Roof of Hong Kong Pacific Centre	835688	817549	76.6	112	-49.0	0	0	N.A.	0	0	3	3	40.0	N.A.
										S7b	Chiller at Roof of Hong Kong Pacific Centre	835696	817550	76.6	115	-49.2	0	0	N.A.	0	0	3	3	39.8	N.A.
										[2] S7c	Chiller at Podium of Hong Kong Pacific Centre	835698	817543	13.4	122	-49.7	0	0	N.A.	-10	0	3	3	26.3	N.A.
										[2] S7d	Chiller at Podium of Hong Kong Pacific Centre	835696	817540	13.4	124	-49.9	0	0	N.A.	-10	0	3	3	26.1	N.A.
										[2] S7e	Chiller at Podium of Hong Kong Pacific Centre	835699	817540	13.4	125	-49.9	0	0	N.A.	-10	0	3	3	26.1	N.A.
										S8a	Chiller at Roof of Prince Tower	835695	817522	76.6	140	-50.9	0	0	N.A.	0	0	3	3	42.1	N.A.
										S12a	Chiller at Roof of MTR Emergency Access Point	835414	817863	76.6	316	-58.0	0	0	N.A.	-5	0	3	3	23.0	N.A.
										S12b	Chiller at Roof of MTR Emergency Access Point	835414	817860	76.6	314	-57.9	0	0	N.A.	-5	0	3	3	23.1	N.A.
										S12c	Chiller at Roof of MTR Emergency Access Point	835415	817858	76.6	312	-57.9	0	0	N.A.	-5	0	3	3	23.1	N.A.
										S13a	Chiller at Roof of The Toy House	835429	817815	76.6	274	-56.8	0	0	N.A.	-5	0	3	3	22.2	N.A.
										S13b	Chiller at Roof of The Toy House	835433	817799	76.6	262	-56.4	0	0	N.A.	-5	0	3	3	22.6	N.A.
										S19a	Chiller at Roof of Hong Kong Heritage Discovery Centre	835569	817437	76.6	234	-55.4	0	0	N.A.	0	0	3	3	35.6	N.A.
										S19b	Chiller at Roof of Hong Kong Heritage Discovery Centre	835511	817835	76.6	228	-55.2	0	0	N.A.	0	0	3	3	35.8	N.A.
										S19c	Chiller at Roof of Hong Kong Heritage Discovery Centre	835522	817815	76.6	206	-54.3	0	0	N.A.	0	0	3	3	36.7	N.A.
										S19d	Chiller at Roof of Hong Kong Heritage Discovery Centre	835518	817799	76.6	196	-53.9	0	0	N.A.	0	0	3	3	32.1	N.A.
										S19e	Chiller at Roof of Hong Kong Heritage Discovery Centre	835515	817799	76.6	198	-53.9	0	0	N.A.	0	0	3	3	32.1	N.A.
										S19f	Chiller at Roof of Hong Kong Heritage Discovery Centre	835512	817799	76.6	200	-54.0	0	0	N.A.	0	0	3	3	32.0	N.A.
										S19g	Chiller at Roof of Hong Kong Heritage Discovery Centre	835509	817799	76.6	202	-54.1	0	0	N.A.	0	0	3	3	31.9	N.A.
										S20a	Chiller at Roof of Park Lane Shopper's Boulevard	835729	817936	76.6	291	-57.3	0	0	N.A.	0	0	3	3	35.7	N.A.
										S20b	Chiller at Roof of Park Lane Shopper's Boulevard	835729	817929	76.6	285	-57.1	0	0	N.A.	0	0	3	3	35.9	N.A.
										S22a	Chiller at Podium of Kai Seng Commercial Building	835722	817459	76.6	209	-54.4	0	0	N.A.	-5	0	3	3	28.6	N.A.
										S22b	Chiller at Podium of Kai Seng Commercial Building	835726	817459	76.6	210	-54.4	0	0	N.A.	-5	0	3	3	28.6	N.A.
										S22c	Chiller at Podium of Kai Seng Commercial Building	835724	817453	76.6	215	-54.6	0	0	N.A.	-5	0	3	3	43.4	N.A.
										S22d	Chiller at Podium of Kai Seng Commercial Building	835725	817449	76.6	219	-54.8	0	0	N.A.	-5	0	3	3	43.2	N.A.
										S22e	Chiller at Podium of Kai Seng Commercial Building	835725	817446	76.6	222	-54.9	0	0	N.A.	-5	0	3	3	33.1	N.A.
										S23a	Cooling Tower at Roof of Prestige Tower	835742	817453	76.6	222	-54.9	0	0	N.A.	0	0	3	3	46.1	N.A.
										S23b	Cooling Tower at Roof of Prestige Tower	835747	817454	76.6	223	-55.0	0	0	N.A.	0	0	3	3	46.0	N.A.
										S23c	Cooling Tower at Roof of Prestige Tower	835746	817448	76.6	228	-55.2	0	0	N.A.	0	0	3	3	45.8	N.A.
										S24c	Chiller at Roof of The Salisbury YMCA Of Hong Kong	835672	817385	76.6	272	-56.7	0	0	0	0	0	3	3	33.3	33.3
										S24d	Chiller at Roof of The Salisbury YMCA Of Hong Kong	835678	817385	76.6	272	-56.7	0	0	0	0	0	3	3	33.3	33.3
										S25a	Chiller at Rooftop of Hermes House	835888	817447	76.6	315	-58.0	0	0	N.A.	-10	0	3	3	25.0	N.A.
										S25b	Chiller at Rooftop of Hermes House	835897	817448	76.6	322	-58.2	0	0	N.A.	-10	0	3	3	24.8	N.A.
										S26a	Chiller at Podium of Star Mansion	835896	817511	76.6	284	-57.1	0	0	N.A.	-10	0	3	3	22.9	N.A.
										S26b	Chiller at Podium of Star Mansion	835896	817505	76.6	287	-57.2	0	0	N.A.	-10	0	3	3	22.8	N.A.
										S27a	Chiller at Roof of Imperial Hotel	835812	817484	76.6	235	-55.4	0	0	0	0	0	3	3	30.6	30.6
										S27b	Chiller at Roof of Imperial Hotel	835812	817482	76.6	237	-55.5	0	0	0	0	0	3	3	30.5	30.5
										S27c	Chiller at Roof of Imperial Hotel	835813	817480	76.6	238	-55.5	0	0	0	0	0	3	3	30.5	30.5
										S27d	Chiller at Roof of Imperial Hotel	835813	817478	76.6	240	-55.6	0	0	0	0	0	3	3	30.4	30.4
										S27e	Chiller at Roof of Imperial Hotel	835813	817476	76.6	241	-55.7	0	0	0	0	0	3	3	30.3	30.3
										S27f	Chiller at Roof of Imperial Hotel	835813	817473	76.6	243	-55.7	0	0	0	0	0	3	3	30.3	30.3
										S28a	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	835809	817546	76.6	191	-53.6	0	0	0	-10	0	3	3	29.4	29.4
										S28b	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	835815	817545	76.6	197	-53.9	0	0	0	-10	0	3	3	29.1	29.1
										S28c	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	835825	817547	76.6	205	-54.2	0	0	0	-10	0	3	3	28.8	28.8
										S28d	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	835832	817546	76.6	211	-54.5	0	0	0	-10	0	3	3	28.5	28.5
										S28e	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	835842	817546	76.6	219	-54.8	0	0	0	-10	0	3	3	36.2	36.2
										S28f	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	835848	817549	76.6	223	-55.0	0	0	0	-10	0	3	3	36.0	36.0
										S28g	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	835854	817548	76.6	230	-55.2	0	0	0	-10	0	3	3	35.8	35.8
										S28h	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	835852	817539	76.6	232	-55.3	0	0	0	-10	0	3	3	35.7	35.7

Prediction of Fixed Noise Source Impact on Planned NSR

NSR Labels	Descriptions	Nature of Use	Existing/ Planned Uses	Location			ASR	Noise Criteria (ANL), L_{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)	
				X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night-time)	Screening by Features [1]	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time
										S29a	Chiller at Roof at The Mira Hong Kong	835790	817911	76.6	291	-57.3	0	0	0	0	0	3	3	32.7	32.7
										S29b	Chiller at Roof at The Mira Hong Kong	835790	817904	76.6	284	-57.1	0	0	0	0	0	3	3	32.9	32.9
										S29c	Chiller at Roof at The Mira Hong Kong	835790	817896	76.6	277	-56.9	0	0	0	0	0	3	3	33.1	33.1
										S29d	Chiller at Roof at The Mira Hong Kong	835791	817887	76.6	270	-56.6	0	0	0	-10	0	3	3	23.4	23.4
										S30a	Chiller at Roof at The One	835803	817865	76.6	259	-56.3	0	0	N.A.	-5	0	3	3	27.7	N.A.
										S30b	Chiller at Roof at The One	835813	817867	76.6	266	-56.5	0	0	N.A.	-5	0	3	3	27.5	N.A.
										S30c	Chiller at Roof at The One	835822	817870	76.6	274	-56.7	0	0	N.A.	-5	0	3	3	27.3	N.A.
										S30d	Chiller at Roof at The One	835829	817875	76.6	282	-57.0	0	0	N.A.	-5	0	3	3	27.0	N.A.
										S30e	Chiller at Roof at The One	835833	817870	76.6	281	-57.0	0	0	N.A.	-5	0	3	3	27.0	N.A.
										S31a	Cooling Tower at Roof of Albion Plaza	835824	817840	76.6	252	-56.0	0	0	N.A.	0	0	3	3	45.0	N.A.
										S31b	Cooling Tower at Roof of Albion Plaza	835828	817841	76.6	256	-56.2	0	0	N.A.	0	0	3	3	44.8	N.A.
										S31c	Cooling Tower at Roof of Albion Plaza	835834	817843	76.6	262	-56.4	0	0	N.A.	0	0	3	3	44.6	N.A.
										S31d	Cooling Tower at Roof of Albion Plaza	835838	817845	76.6	266	-56.5	0	0	N.A.	0	0	3	3	44.5	N.A.
										S32a	Chiller at Podium of Granville Building	835886	817834	76.6	295	-57.4	0	0	N.A.	-5	0	3	3	23.6	N.A.
										S32b	Chiller at Podium of Granville Building	835889	817834	76.6	297	-57.5	0	0	N.A.	-5	0	3	3	23.5	N.A.
										S32c	Chiller at Podium of Granville Building	835891	817835	76.6	299	-57.5	0	0	N.A.	-5	0	3	3	23.5	N.A.
										S33a	Chiller at Roof of Carnarvon Plaza	835894	817816	76.6	291	-57.3	0	0	N.A.	0	0	3	3	32.7	N.A.
										S33b	Chiller at Roof of Carnarvon Plaza	835910	817820	76.6	306	-57.7	0	0	N.A.	0	0	3	3	32.3	N.A.
										S34a	Chiller at Podium of 5-8 Cameron Lane	835862	817822	76.6	268	-56.6	0	0	N.A.	-5	0	3	3	22.4	N.A.
										S34b	Chiller at Podium of 5-8 Cameron Lane	835860	817821	76.6	266	-56.5	0	0	N.A.	-5	0	3	3	24.5	N.A.
										S34c	Chiller at Podium of 5-8 Cameron Lane	835859	817821	76.6	265	-56.5	0	0	N.A.	-5	0	3	3	24.5	N.A.
										S34d	Chiller at Podium of 5-8 Cameron Lane	835851	817817	76.6	256	-56.2	0	0	N.A.	-5	0	3	3	22.8	N.A.
										S34e	Chiller at Podium of 5-8 Cameron Lane	835847	817816	76.6	252	-56.0	0	0	N.A.	-5	0	3	3	23.0	N.A.
										S35a	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835889	817793	76.6	274	-56.8	0	0	N.A.	0	0	3	3	37.7	N.A.
										S35b	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835896	817789	76.6	279	-56.9	0	0	N.A.	0	0	3	3	29.1	N.A.
										S35c	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835907	817791	76.6	289	-57.2	0	0	N.A.	0	0	3	3	28.8	N.A.
										S36a	Chiller at Podium of Tern Plaza	835822	817778	76.6	210	-54.4	0	0	N.A.	-10	0	3	3	21.6	N.A.
										S36b	Chiller at Podium of Tern Plaza	835827	817778	76.6	214	-54.6	0	0	N.A.	-10	0	3	3	21.4	N.A.
										S37a	Chiller at Roof of HSBC Building Tsim Sha Tsui	835807	817768	76.6	191	-53.6	0	0	N.A.	0	0	3	3	41.4	N.A.
										S37b	Chiller at Roof of HSBC Building Tsim Sha Tsui	835813	817768	76.6	197	-53.9	0	0	N.A.	0	0	3	3	41.1	N.A.
										S38a	Chiller at Roof of Manson House	835801	817711	76.6	160	-52.1	0	0	0	0	0	3	3	38.9	38.9
										S38b	Chiller at Roof of Manson House	835803	817706	76.6	160	-52.1	0	0	0	0	0	3	3	38.9	38.9
										S38c	Chiller at Roof of Manson House	835806	817706	76.6	162	-52.2	0	0	0	0	0	3	3	37.8	37.8
										S38d	Chiller at Roof of Manson House	835809	817706	76.6	165	-52.4	0	0	0	0	0	3	3	37.6	37.6
										S38e	Chiller at Roof of Manson House	835811	817707	76.6	167	-52.5	0	0	0	0	0	3	3	37.5	37.5
										S38f	Chiller at Roof of Manson House	835811	817712	76.6	169	-52.6	0	0	0	0	0	3	3	37.4	37.4
										S39a	Chiller at Podium of Humphrey Plaza	835860	817728	76.6	221	-54.9	0	0	N.A.	-10	0	3	3	19.1	N.A.
										S40a	Chiller at Roof of Grand Centre	835895	817737	76.6	257	-56.2	0	0	N.A.	0	0	3	3	32.8	N.A.
										S40b	Chiller at Roof of Grand Centre	835897	817733	76.6	257	-56.2	0	0	N.A.	0	0	3	3	32.8	N.A.
										S40c	Chiller at Roof of Grand Centre	835898	817728	76.6	257	-56.2	0	0	N.A.	0	0	3	3	33.8	N.A.
										S41a	Chiller at Roof of Grand Right Centre	835875	817749	76.6	242	-55.7	0	0	N.A.	0	0	3	3	34.3	N.A.
										S41b	Chiller at Roof of Grand Right Centre	835879	817750	76.6	246	-55.8	0	0	N.A.	0	0	3	3	32.2	N.A.
										S42a	Chiller at Podium of More Resources Development Building	835828	817684	76.6	179	-53.0	0	0	N.A.	-10	0	3	3	28.0	N.A.
										S42b	Chiller at Podium of More Resources Development Building	835829	817680	76.6	179	-53.0	0	0	N.A.	-10	0	3	3	28.0	N.A.
										S42c	Chiller at Podium of More Resources Development Building	835830	817674	76.6	179	-53.1	0	0	N.A.	-10	0	3	3	27.9	N.A.
										S43a	Chiller at Roof of Yes & Right House	835874	817587	76.6	232	-55.3	0	0	N.A.	0	0	3	3	37.7	N.A.
										S43b	Chiller at Roof of Yes & Right House	835881	817586	76.6	240	-55.6	0	0	N.A.	0	0	3	3	37.4	N.A.
										S44a	Chiller at Podium of K11 the Piazza	835878	817608	76.6	232	-55.3	0	0	0	0	0	3	3	32.7	32.7
										S44b	Chiller at Podium of K11 the Piazza	835882	817608	76.6	235	-55.4	0	0	0	0	0	3	3	34.6	34.6
										S44c	Chiller at Podium of K11 the Piazza	835886	817609	76.6	239	-55.6	0	0	0	0	0	3	3	34.4	34.4
										S44d	Chiller at Podium of K11 the Piazza	835879	817606	76.6	233	-55.3	0	0	0	0	0	3	3	32.7	32.7
										S44e	Chiller at Podium of K11 the Piazza	835883	817606	76.6	236	-55.5	0	0	0	0	0	3	3	34.5	34.5
										S44f	Chiller at Podium of K11 the Piazza	835887	817607	76.6	240	-55.6	0	0	0	0	0	3	3	34.4	34.4
										S44g	Chiller at Podium of K11 the Piazza	835889	817641	76.6	238	-55.5	0	0	0	0	0	3	3	28.5	28.5
										S44h	Chiller at Podium of K11 the Piazza	835893	817648	76.6	241	-55.6	0	0	0	0	0	3	3	30.4	30.4
										S44i	Chiller at Roof of K11 the Piazza	835895	817646	76.6	244	-55.7	0	0	0	0	0	3	3	28.3	28.3
										S44j	Chiller at Roof of K11 the Piazza	835937	817647	76.6	285	-57.1	0	0	0	-10	0	3	3	22.9	22.9
										S44k	Chiller at Roof of K11 the Piazza	835944	817646	76.6	293	-57.3	0	0	0	-10	0	3	3	18.7	18.7
										S44l	Chiller at Roof of K11 the Piazza	835941	817631	76.6	291	-57.3	0	0	0	-10	0	3	3	22.7	22.7
										S44m	Chiller at Roof of K11 the Piazza	835955	817619	76.6	305	-57.7	0	0	0	-10	0	3	3	22.3	22.3
										S44n	Chiller at Roof of K11 the Piazza	835960	817614	76.6	311	-57.9	0	0	0	-10	0	3	3	22.1	22.1
																							Total =	58	50

Prediction of Fixed Noise Source Impact on Planned NSR

NSR Labels	Descriptions	Nature of Use	Existing/ Planned Uses	Location			ASR	Noise Criteria (ANL), L_{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)	
				X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night-time)	Screening by Features [1]	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time
N02	0	Residential	Planned	835653	817634	77	B	65	55	S01d	Chiller at Roof of Kowloon Centre	835583	817614	76.6	73	-45.2	0	0	N.A.	-5	0	3	3	40.8	N.A.
										S01e	Chiller at Roof of Kowloon Centre	835584	817607	76.6	74	-45.4	0	0	N.A.	-5	0	3	3	40.6	N.A.
										S03a	Chiller at Roof of Health Education Exhibition and Resources Centre	835673	817710	76.6	79	-45.9	0	0	N.A.	0	0	3	3	38.1	N.A.
										S03b	Chiller at Roof of Health Education Exhibition and Resources Centre	835667	817709	76.6	77	-45.7	0	0	N.A.	0	0	3	3	38.3	N.A.
										S03c	Chiller at Roof of Health Education Exhibition and Resources Centre	835661	817709	76.6	76	-45.6	0	0	N.A.	0	0	3	3	38.4	N.A.
										S03d	Chiller at Roof of Health Education Exhibition and Resources Centre	835656	817709	76.6	75	-45.5	0	0	N.A.	0	0	3	3	38.5	N.A.
										S03f	Chiller at Roof of Health Education Exhibition and Resources Centre	835673	817706	76.6	75	-45.5	0	0	N.A.	0	0	3	3	38.5	N.A.
										S03g	Chiller at Roof of Health Education Exhibition and Resources Centre	835667	817705	76.6	73	-45.3	0	0	N.A.	0	0	3	3	38.7	N.A.
										S03h	Chiller at Roof of Health Education Exhibition and Resources Centre	835662	817705	76.6	72	-45.1	0	0	N.A.	0	0	3	3	38.9	N.A.
										S03i	Chiller at Roof of Health Education Exhibition and Resources Centre	835656	817705	76.6	71	-45.1	0	0	N.A.	0	0	3	3	38.9	N.A.
										[2] S04a	Chiller at Podium at Maxwell Centre	835624	817622	9.5	33	-38.4	0	0	N.A.	-10	0	3	3	35.6	N.A.
										[2] S04b	Chiller at Podium at Maxwell Centre	835624	817620	9.5	34	-38.5	0	0	N.A.	-10	0	3	3	35.5	N.A.
										[2] S04c	Chiller at Podium at Maxwell Centre	835624	817618	9.5	34	-38.7	0	0	N.A.	-10	0	3	3	35.3	N.A.
										[2] S04d	Chiller at Podium at Maxwell Centre	835626	817621	12.5	33	-38.3	0	0	N.A.	-10	0	3	3	39.7	N.A.
										[2] S04e	Chiller at Podium at Maxwell Centre	835626	817619	12.5	33	-38.5	0	0	N.A.	-10	0	3	3	39.5	N.A.
										[2] S05a	Chiller at Podium at Han Hing Mansion	835688	817619	13.4	40	-40.0	0	0	N.A.	0	0	3	3	46.0	N.A.
										[2] S05b	Chiller at Podium at Han Hing Mansion	835691	817620	13.4	42	-40.5	0	0	N.A.	-5	0	3	3	40.5	N.A.
										[2] S05c	Chiller at Podium at Han Hing Mansion	835693	817620	13.4	44	-40.8	0	0	N.A.	-5	0	3	3	40.2	N.A.
										S06a	Chiller at Roof of ISQUARE	835735	817583	76.6	96	-47.7	0	0	N.A.	-5	0	3	3	37.3	N.A.
										S06b	Chiller at Roof of ISQUARE	835745	817584	76.6	104	-48.3	0	0	N.A.	-5	0	3	3	36.7	N.A.
										S06c	Chiller at Roof of ISQUARE	835754	817584	76.6	112	-49.0	0	0	N.A.	-5	0	3	3	36.0	N.A.
										S06d	Chiller at Roof of ISQUARE	835764	817585	76.6	121	-49.6	0	0	N.A.	-5	0	3	3	35.4	N.A.
										S7a	Chiller at Roof of Hong Kong Pacific Centre	835688	817549	76.6	91	-47.2	0	0	N.A.	0	0	3	3	41.8	N.A.
										S7b	Chiller at Roof of Hong Kong Pacific Centre	835696	817550	76.6	94	-47.5	0	0	N.A.	0	0	3	3	41.5	N.A.
										[2] S7c	Chiller at Podium of Hong Kong Pacific Centre	835698	817543	13.4	102	-48.2	0	0	N.A.	-10	0	3	3	27.8	N.A.
										[2] S7d	Chiller at Podium of Hong Kong Pacific Centre	835696	817540	13.4	104	-48.3	0	0	N.A.	-10	0	3	3	27.7	N.A.
										[2] S7e	Chiller at Podium of Hong Kong Pacific Centre	835699	817540	13.4	105	-48.4	0	0	N.A.	-10	0	3	3	27.6	N.A.
										S8a	Chiller at Roof of Prince Tower	835695	817522	76.6	119	-49.5	0	0	N.A.	0	0	3	3	43.5	N.A.
										S9a	Chiller at Roof of Sands Building	835658	817523	76.6	132	-50.4	0	0	N.A.	0	0	3	3	42.6	N.A.
										S9b	Chiller at Roof of Sands Building	835654	817525	76.6	130	-50.3	0	0	N.A.	0	0	6	3	44.7	N.A.
										S9c	Chiller at Roof of Sands Building	835649	817525	76.6	131	-50.3	0	0	N.A.	0	0	6	3	44.7	N.A.
										S9d	Chiller at Roof of Sands Building	835649	817514	76.6	142	-51.0	0	0	N.A.	0	0	0	3	36.0	N.A.
										S10a	Chiller at Roof of Yue Hwa International Building	835597	817508	76.6	138	-50.8	0	0	N.A.	0	0	3	3	40.2	N.A.
										S10b	Chiller at Roof of Yue Hwa International Building	835598	817500	76.6	145	-51.2	0	0	N.A.	0	0	3	3	39.8	N.A.
										[2] S10c	Chiller at Podium of Yue Hwa International Building	835614	817506	16.2	146	-51.3	0	0	N.A.	0	0	3	3	38.7	N.A.
										[2] S10d	Chiller at Podium of Yue Hwa International Building	835612	817520	16.2	135	-50.6	0	0	N.A.	0	0	3	3	39.4	N.A.
										S11a	Chiller at Roof of Ashley Nine	835600	817537	76.6	110	-48.8	0	0	N.A.	0	0	3	3	42.2	N.A.
										S11b	Chiller at Roof of Ashley Nine	835605	817538	76.6	107	-48.6	0	0	N.A.	0	0	3	3	42.4	N.A.
										S14a	Chiller at Roof of Lippo Sun Plaza	835504	817538	76.6	177	-53.0	8	0	N.A.	0	0	3	3	48.6	N.A.
										S14b	Chiller at Roof of Lippo Sun Plaza	835524	817543	76.6	158	-52.0	8	0	N.A.	0	0	3	3	49.6	N.A.
										S15a	Chiller at Roof of The Langham Hong Kong	835525	817525	76.6	168	-52.5	0	0	0	0	0	3	3	42.5	42.5
										S15b	Chiller at Roof of The Langham Hong Kong	835541	817528	76.6	154	-51.8	0	0	0	0	0	3	3	43.2	43.2
										S15c	Chiller at Roof of The Langham Hong Kong	835552	817521	76.6	151	-51.6	0	0	0	0	0	3	3	37.4	37.4
										S15d	Chiller at Roof of The Langham Hong Kong	835555	817505	76.6	162	-52.2	0	0	0	0	0	3	3	36.8	36.8
										S15e	Chiller at Roof of The Langham Hong Kong	835549	817492	76.6	176	-52.9	0	0	0	0	0	3	3	36.1	36.1
										S16a	Chiller at Roof of 4-8 Canton Road	835491	817494	76.6	214	-54.6	0	0	N.A.	0	0	3	3	29.4	N.A.
										S16b	Chiller at Roof of 4-8 Canton Road	835491	817492	76.6	215	-54.7	0	0	N.A.	0	0	3	3	29.3	N.A.
										S16c	Chiller at Roof of 4-8 Canton Road	835492	817491	76.6	216	-54.7	0	0	N.A.	0	0	3	3	29.3	N.A.
										S17a	Chiller at Roof of Pacific Star Building	835495	817482	76.6	219	-54.8	0	0	N.A.	0	0	3	3	29.2	N.A.
										S17b	Chiller at Roof of Pacific Star Building	835496	817480	76.6	220	-54.9	0	0	N.A.	0	0	3	3	29.1	N.A.
										S17c	Chiller at Roof of Pacific Star Building	835496	817478	76.6	221	-54.9	0	0	N.A.	0	0	3	3	29.1	N.A.
										S17d	Chiller at Roof of Pacific Star Building	835500	817482	76.6	216	-54.7	0	0	N.A.	0	0	3	3	34.3	N.A.
										S17e	Chiller at Roof of Pacific Star Building	835501	817479	76.6	217	-54.7	0	0	N.A.	0	0	3	3	34.3	N.A.

Prediction of Fixed Noise Source Impact on Planned NSR

NSR Labels	Descriptions	Nature of Use	Existing/ Planned Uses	Location			ASR	Noise Criteria (ANL), L_{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)	
				X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night-time)	Screening by Features [1]	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time
										S18a	Chiller at Roof of FWD 1881 House	835539	817405	76.6	255	-56.1	0	0	0	-10	0	3	3	17.9	17.9
										S18b	Chiller at Roof of FWD 1881 House	835540	817403	76.6	257	-56.2	0	0	0	-10	0	3	3	19.8	19.8
										S18c	Chiller at Roof of FWD 1881 House	835540	817400	76.6	259	-56.3	0	0	0	-10	0	3	3	17.7	17.7
										S18d	Chiller at Roof of FWD 1881 House	835541	817397	76.6	261	-56.3	0	0	0	-10	0	3	3	19.7	19.7
										S18e	Chiller at Roof of FWD 1881 House	835542	817395	76.6	263	-56.4	0	0	0	-10	0	3	3	17.6	17.6
										S18f	Chiller at Roof of FWD 1881 House	835543	817407	76.6	252	-56.0	0	0	0	-10	0	3	3	20.0	20.0
										S18g	Chiller at Roof of FWD 1881 House	835543	817405	76.6	254	-56.1	0	0	0	-10	0	3	3	17.9	17.9
										S18h	Chiller at Roof of FWD 1881 House	835544	817402	76.6	256	-56.2	0	0	0	-10	0	3	3	19.8	19.8
										S18i	Chiller at Roof of FWD 1881 House	835544	817400	76.6	258	-56.2	0	0	0	-10	0	3	3	19.8	19.8
										S18j	Chiller at Roof of FWD 1881 House	835545	817398	76.6	259	-56.3	0	0	0	-10	0	3	3	19.7	19.7
										S18k	Chiller at Roof of FWD 1881 House	835545	817396	76.6	261	-56.3	0	0	0	-10	0	3	3	19.7	19.7
										S18l	Chiller at Roof of FWD 1881 House	835563	817409	76.6	242	-55.7	0	0	0	0	0	3	3	30.3	30.3
										S18m	Chiller at Roof of FWD 1881 House	835564	817407	76.6	243	-55.7	0	0	0	0	0	3	3	28.3	28.3
										S18n	Chiller at Roof of FWD 1881 House	835564	817405	76.6	245	-55.8	0	0	0	0	0	3	3	30.2	30.2
										S18o	Chiller at Roof of FWD 1881 House	835566	817409	76.6	241	-55.6	0	0	0	0	0	3	3	30.4	30.4
										S18p	Chiller at Roof of FWD 1881 House	835566	817409	76.6	241	-55.6	0	0	0	0	0	3	3	28.4	28.4
										S18q	Chiller at Roof of FWD 1881 House	835566	817408	76.6	242	-55.7	0	0	0	0	0	3	3	30.3	30.3
										S18r	Chiller at Roof of FWD 1881 House	835567	817406	76.6	244	-55.7	0	0	0	0	0	3	3	28.3	28.3
										S18s	Chiller at Roof of FWD 1881 House	835569	817410	76.6	239	-55.6	0	0	0	0	0	3	3	28.4	28.4
										S18t	Chiller at Roof of FWD 1881 House	835569	817406	76.6	242	-55.7	5	0	0	0	0	3	3	39.9	39.9
										S18u	Chiller at Roof of FWD 1881 House	835572	817408	76.6	240	-55.6	5	0	0	0	0	3	3	40.0	40.0
										S18v	Chiller at Roof of FWD 1881 House	835564	817401	76.6	249	-55.9	5	0	0	0	0	3	3	39.6	39.6
										S18w	Chiller at Roof of FWD 1881 House	835567	817401	76.6	248	-55.9	5	0	0	0	0	3	3	39.7	39.7
										S18x	Chiller at Roof of FWD 1881 House	835569	817401	76.6	247	-55.9	5	0	0	0	0	3	3	39.7	39.7
										S18y	Chiller at Podium of FWD 1881 House	835571	817402	76.6	246	-55.8	0	0	0	-10	0	3	3	25.2	25.2
										S18z	Chiller at Podium of FWD 1881 House	835563	817436	76.6	217	-54.7	0	0	0	0	0	3	3	36.3	36.3
										S20a	Chiller at Roof of Park Lane Shopper's Boulevard	835729	817936	76.6	312	-57.9	0	0	N.A.	0	0	3	3	35.1	N.A.
										S20b	Chiller at Roof of Park Lane Shopper's Boulevard	835729	817929	76.6	306	-57.7	0	0	N.A.	0	0	3	3	35.3	N.A.
										S21a	Cooling Tower at Roof of Hankow Centre	835661	817480	76.6	154	-51.8	0	0	N.A.	0	0	3	3	49.2	N.A.
										S21b	Cooling Tower at Roof of Hankow Centre	835662	817474	76.6	160	-52.1	0	0	N.A.	0	0	3	3	48.9	N.A.
										S21c	Cooling Tower at Roof of Hankow Centre	835650	817472	76.6	161	-52.1	0	0	N.A.	0	0	3	3	48.9	N.A.
										S21d	Cooling Tower at Roof of Hankow Centre	835649	817478	76.6	155	-51.8	0	0	N.A.	0	0	3	3	49.2	N.A.
										S21e	Cooling Tower at Roof of Hankow Centre	835655	817479	76.6	155	-51.8	0	0	N.A.	0	0	3	3	49.2	N.A.
										S22a	Chiller at Podium of Kai Seng Commercial Building	835722	817459	76.6	188	-53.5	0	0	N.A.	-5	0	3	3	29.5	N.A.
										S22b	Chiller at Podium of Kai Seng Commercial Building	835726	817459	76.6	189	-53.5	0	0	N.A.	-5	0	3	3	29.5	N.A.
										S22c	Chiller at Podium of Kai Seng Commercial Building	835724	817453	76.6	194	-53.8	0	0	N.A.	-5	0	3	3	44.2	N.A.
										S22d	Chiller at Podium of Kai Seng Commercial Building	835725	817449	76.6	198	-53.9	0	0	N.A.	-5	0	3	3	44.1	N.A.
										S22e	Chiller at Podium of Kai Seng Commercial Building	835725	817446	76.6	201	-54.1	0	0	N.A.	-5	0	3	3	33.9	N.A.
										S23a	Cooling Tower at Roof of Prestige Tower	835742	817453	76.6	201	-54.1	0	0	N.A.	0	0	3	3	46.9	N.A.
										S23b	Cooling Tower at Roof of Prestige Tower	835747	817454	76.6	203	-54.2	0	0	N.A.	0	0	3	3	46.8	N.A.
										S23c	Cooling Tower at Roof of Prestige Tower	835746	817448	76.6	208	-54.3	0	0	N.A.	0	0	3	3	46.7	N.A.
										S24a	Chiller at Roof of The Salisbury YMCA Of Hong Kong	835661	817384	76.6	250	-56.0	0	0	0	0	0	3	3	34.0	34.0
										S24b	Chiller at Roof of The Salisbury YMCA Of Hong Kong	835667	817384	76.6	250	-56.0	0	0	0	0	0	3	3	34.0	34.0
										S24c	Chiller at Roof of The Salisbury YMCA Of Hong Kong	835672	817385	76.6	250	-55.9	0	0	0	0	0	3	3	34.1	34.1
										S24d	Chiller at Roof of The Salisbury YMCA Of Hong Kong	835678	817385	76.6	250	-56.0	0	0	0	0	0	3	3	34.0	34.0
										S25a	Chiller at Rooftop of Hermes House	835888	817447	76.6	300	-57.5	0	0	N.A.	0	0	3	3	35.5	N.A.
										S25b	Chiller at Rooftop of Hermes House	835897	817448	76.6	307	-57.7	0	0	N.A.	0	0	3	3	35.3	N.A.
										S26a	Chiller at Podium of Star Mansion	835896	817511	76.6	272	-56.7	0	0	N.A.	-10	0	3	3	23.3	N.A.
										S26b	Chiller at Podium of Star Mansion	835896	817505	76.6	275	-56.8	0	0	N.A.	-10	0	3	3	23.2	N.A.
										S27a	Chiller at Roof of Imperial Hotel	835812	817484	76.6	219	-54.8	0	0	0	0	0	3	3	31.2	31.2
										S27b	Chiller at Roof of Imperial Hotel	835812	817482	76.6	220	-54.9	0	0	0	0	0	3	3	31.1	31.1
										S27c	Chiller at Roof of Imperial Hotel	835813	817480	76.6	221	-54.9	0	0	0	0	0	3	3	31.1	31.1
										S27d	Chiller at Roof of Imperial Hotel	835813	817478	76.6	223	-55.0	0	0	0	0	0	3	3	31.0	31.0
										S27e	Chiller at Roof of Imperial Hotel	835813	817476	76.6	225	-55.0	0	0	0	0	0	3	3	31.0	31.0
										S27f	Chiller at Roof of Imperial Hotel	835813	817473	76.6	226	-55.1	0	0	0	0	0	3	3	30.9	30.9
										S28a	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	835809	817546	76.6	178	-53.0	0	0	0	-10	0	3	3	30.0	30.0
										S28b	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	835815	817545	76.6	185	-53.3	0	0	0	-10	0	3	3	29.7	29.7
										S28c	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	835825	817547	76.6	192	-53.7	0	0	0	-10	0	3	3	29.3	29.3
										S28d	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	835832	817546	76.6	199	-54.0	0	0	0	-10	0	3	3	29.0	29.0
										S28e	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	835842	817546	76.6	208	-54.3	0	0	0	-10	0	3	3	36.7	36.7
										S28f	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	835848	817549	76.6	212	-54.5	0	0	0	-10	0	3	3	36.5	36.5
										S28g	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	835854	817548	76.6	219	-54.8	0	0	0	-10	0	3	3	36.2	36.2
										S28h	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	835852	817539	76.6	220	-54.9	0	0	0	-10	0	3	3	36.1	36.1
										S29a	Chiller at Roof of The Mira Hong Kong	835790	817911	76.6	310	-57.8	0	0	0	0	0	3	3	32.2	32.2
										S29b	Chiller at Roof of The Mira Hong Kong	835790	817904	76.6	303	-57.6	0	0	0	0	0	3	3	32.4	32.4
										S29c	Chiller at Roof of The Mira Hong Kong	835790	817896	76.6	296	-57.4	0	0	0	0	0	3	3	32.6	32.6
										S29d	Chiller at Roof of The Mira Hong Kong	835791	817887	76.6	288	-57.2	0	0	0	-10	0	3	3	22.8	22.8
										S30a	Chiller at Roof of The One	835803	817865	76.6	276	-56.8	0	0	N.A.	-5	0	3	3	27.2	N.A.
										S30b	Chiller at Roof of The One	835813	817867	76.6	283	-57.0	0	0	N.A.	-5	0	3	3	27.0	N.A.
										S30c	Chiller at Roof of The One	835822	817870	76.6	290	-57.3	0	0	N.A.	-5	0	3	3	26.7	N.A.
										S30d	Chiller at Roof of The One	835829	817875	76.6	299	-57.5	0	0	N.A.	-5	0	3	3	26.5	N.A.
										S30e	Chiller at Roof of The One	835833	817870	76.6	297	-57.4	0	0	N.A.	-5	0	3	3	26.6	N.A.
										S31a	Cooling Tower at Roof of Albion Plaza	835824	817840	76.6	268	-56.6	0	0	N.A.	0	0	3	3	44.4	N.A.
										S31b	Cooling Tower at Roof of Albion Plaza	835828	817841	76.6	272	-56.7	0	0	N.A.	0	0	3	3	44.3	N.A.
										S31c	Cooling Tower at Roof of Albion Plaza	835834	817843	76.6	277	-56.9	0	0	N.A.	0	0	3	3	44.1	N.A.
										S31d	Cooling Tower at Roof of Albion Plaza	835838	817845	76.6	281	-57.0	0	0	N.A.	0	0	3	3	44.0	N.A.
										S32a	Chiller at Podium of Granville Building	835886	817834	76.6	307	-57.8	0	0	N.A.	-5	0	3	3	23.2	N.A.
										S32b	Chiller at Podium of Granville Building	835889	817834	76.6	309	-57.8	0	0	N.A.	-5	0	3	3	23.2	N.A.
										S32c	Chiller at Podium of Granville Building	835891	817835	76.6	311	-57.9	0	0	N.A.	-5	0	3	3	23.1	N.A.

Prediction of Fixed Noise Source Impact on Planned NSR

NSR Labels	Descriptions	Nature of Use	Existing/ Planned Uses	Location			ASR	Noise Criteria (ANL), L_{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)	
				X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night-time)	Screening by Features [1]	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time
										S33a	Chiller at Roof of Carnarvon Plaza	835894	817816	76.6	302	-57.6	0	0	N.A.	0	0	3	3	32.4	N.A.
										S33b	Chiller at Roof of Carnarvon Plaza	835910	817820	76.6	317	-58.0	0	0	N.A.	0	0	3	3	32.0	N.A.
										S34a	Chiller at Podium of 5-8 Cameron Lane	835862	817822	76.6	281	-57.0	0	0	N.A.	-5	0	3	3	22.0	N.A.
										S34b	Chiller at Podium of 5-8 Cameron Lane	835860	817821	76.6	279	-56.9	0	0	N.A.	-5	0	3	3	24.1	N.A.
										S34c	Chiller at Podium of 5-8 Cameron Lane	835859	817821	76.6	278	-56.9	0	0	N.A.	-5	0	3	3	24.1	N.A.
										S34d	Chiller at Podium of 5-8 Cameron Lane	835851	817817	76.6	269	-56.6	0	0	N.A.	-5	0	3	3	22.4	N.A.
										S34e	Chiller at Podium of 5-8 Cameron Lane	835847	817816	76.6	266	-56.5	0	0	N.A.	-5	0	3	3	22.5	N.A.
										S35a	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835889	817793	76.6	284	-57.1	0	0	N.A.	0	0	3	3	37.4	N.A.
										S35b	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835896	817789	76.6	288	-57.2	0	0	N.A.	0	0	3	3	28.8	N.A.
										S35c	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835907	817791	76.6	299	-57.5	0	0	N.A.	0	0	3	3	28.5	N.A.
										S36a	Chiller at Podium of Tern Plaza	835822	817778	76.6	222	-54.9	0	0	N.A.	-10	0	3	3	21.1	N.A.
										S36b	Chiller at Podium of Tern Plaza	835827	817778	76.6	226	-55.1	0	0	N.A.	-10	0	3	3	20.9	N.A.
										S37a	Chiller at Roof of HSBC Building Tsim Sha Tsui	835807	817768	76.6	204	-54.2	0	0	N.A.	0	0	3	3	40.8	N.A.
										S37b	Chiller at Roof of HSBC Building Tsim Sha Tsui	835813	817768	76.6	209	-54.4	0	0	N.A.	0	0	3	3	40.6	N.A.
										S38a	Chiller at Roof of Manson House	835801	817711	76.6	167	-52.5	0	0	0	0	0	3	3	38.5	38.5
										S38b	Chiller at Roof of Manson House	835803	817706	76.6	166	-52.4	0	0	0	0	0	3	3	38.6	38.6
										S38c	Chiller at Roof of Manson House	835806	817706	76.6	169	-52.5	0	0	0	0	0	3	3	37.5	37.5
										S38d	Chiller at Roof of Manson House	835809	817706	76.6	172	-52.7	0	0	0	0	0	3	3	37.3	37.3
										S38e	Chiller at Roof of Manson House	835811	817707	76.6	174	-52.8	0	0	0	0	0	3	3	37.2	37.2
										S38f	Chiller at Roof of Manson House	835811	817712	76.6	176	-52.9	0	0	0	0	0	3	3	37.1	37.1
										S39a	Chiller at Podium of Humphrey Plaza	835860	817728	76.6	227	-55.1	0	0	N.A.	-10	0	3	3	18.9	N.A.
										S40a	Chiller at Roof of Grand Centre	835895	817737	76.6	263	-56.4	0	0	N.A.	0	0	3	3	32.6	N.A.
										S40b	Chiller at Roof of Grand Centre	835897	817733	76.6	263	-56.4	0	0	N.A.	0	0	3	3	32.6	N.A.
										S40c	Chiller at Roof of Grand Centre	835898	817728	76.6	263	-56.4	0	0	N.A.	0	0	3	3	33.6	N.A.
										S41a	Chiller at Roof of Grand Right Centre	835875	817749	76.6	249	-55.9	0	0	N.A.	0	0	3	3	34.1	N.A.
										S41b	Chiller at Roof of Grand Right Centre	835879	817750	76.6	254	-56.1	0	0	N.A.	0	0	3	3	31.9	N.A.
										S42a	Chiller at Podium of More Resources Development Building	835828	817684	76.6	182	-53.2	0	0	N.A.	-10	0	3	3	27.8	N.A.
										S42b	Chiller at Podium of More Resources Development Building	835829	817680	76.6	181	-53.2	0	0	N.A.	-10	0	3	3	27.8	N.A.
										S42c	Chiller at Podium of More Resources Development Building	835830	817674	76.6	181	-53.2	0	0	N.A.	-10	0	3	3	27.8	N.A.
										S43a	Chiller at Roof of Yes & Right House	835874	817587	76.6	225	-55.1	0	0	N.A.	0	0	3	3	37.9	N.A.
										S43b	Chiller at Roof of Yes & Right House	835881	817586	76.6	233	-55.4	0	0	N.A.	0	0	3	3	37.6	N.A.
										S44a	Chiller at Podium of K11 the Piazza	835878	817608	76.6	227	-55.1	0	0	0	0	0	3	3	32.9	32.9
										S44b	Chiller at Podium of K11 the Piazza	835882	817608	76.6	230	-55.3	0	0	0	0	0	3	3	34.7	34.7
										S44c	Chiller at Podium of K11 the Piazza	835886	817609	76.6	235	-55.4	0	0	0	0	0	3	3	34.6	34.6
										S44d	Chiller at Podium of K11 the Piazza	835879	817606	76.6	227	-55.1	0	0	0	0	0	3	3	32.9	32.9
										S44e	Chiller at Podium of K11 the Piazza	835883	817606	76.6	231	-55.3	0	0	0	0	0	3	3	34.7	34.7
										S44f	Chiller at Podium of K11 the Piazza	835887	817607	76.6	235	-55.4	0	0	0	0	0	3	3	34.6	34.6
										S44g	Chiller at Podium of K11 the Piazza	835889	817641	76.6	236	-55.5	0	0	0	0	0	3	3	28.5	28.5
										S44h	Chiller at Podium of K11 the Piazza	835893	817648	76.6	240	-55.6	0	0	0	0	0	3	3	30.4	30.4
										S44i	Chiller at Roof of K11 the Piazza	835895	817646	76.6	242	-55.7	0	0	0	0	0	3	3	28.3	28.3
										S44j	Chiller at Roof of K11 the Piazza	835937	817647	76.6	284	-57.1	0	0	0	-10	0	3	3	22.9	22.9
										S44k	Chiller at Roof of K11 the Piazza	835944	817646	76.6	291	-57.3	0	0	0	-10	0	3	3	18.7	18.7
										S44l	Chiller at Roof of K11 the Piazza	835941	817631	76.6	288	-57.2	0	0	0	-10	0	3	3	22.8	22.8
										S44m	Chiller at Roof of K11 the Piazza	835955	817619	76.6	302	-57.6	0	0	0	-10	0	3	3	22.4	22.4
										S44n	Chiller at Roof of K11 the Piazza	835960	817614	76.6	308	-57.8	0	0	0	-10	0	3	3	22.2	22.2
																							Total =	62	53

Prediction of Fixed Noise Source Impact on Planned NSR

NSR Labels	Descriptions	Nature of Use	Existing/ Planned Uses	Location			ASR	Noise Criteria (ANL), L_{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)	
				X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night-time)	Screening by Features [1]	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time
N03	0	Residential	Planned	835632	817635	76.6	B	65	55	S01a	Chiller at Roof of Kowloon Centre	835578	817649	76.6	55	-42.8	0	0	N.A.	0	0	3	3	48.2	N.A.
										S01b	Chiller at Roof of Kowloon Centre	835579	817643	76.6	53	-42.5	0	0	N.A.	0	0	3	3	48.5	N.A.
										S01c	Chiller at Roof of Kowloon Centre	835587	817643	76.6	45	-41.0	0	0	N.A.	0	0	3	3	52.0	N.A.
										S01d	Chiller at Roof of Kowloon Centre	835583	817614	76.6	53	-42.4	0	0	N.A.	0	0	3	3	48.6	N.A.
										S01e	Chiller at Roof of Kowloon Centre	835584	817607	76.6	55	-42.8	0	0	N.A.	0	0	3	3	48.2	N.A.
										S02a	Chiller at Podium of Godown for HK Museum of History	835542	817712	76.6	118	-49.4	0	0	N.A.	0	0	3	3	36.6	N.A.
										S02b	Chiller at Podium of Godown for HK Museum of History	835540	817711	76.6	119	-49.5	0	0	N.A.	0	0	3	3	36.5	N.A.
										S02c	Chiller at Podium of Godown for HK Museum of History	835536	817711	76.6	122	-49.8	0	0	N.A.	0	0	3	3	36.2	N.A.
										S02d	Chiller at Podium of Godown for HK Museum of History	835534	817711	76.6	123	-49.8	0	0	N.A.	0	0	3	3	36.2	N.A.
										S03b	Chiller at Roof of Health Education Exhibition and Resources Centre	835667	817709	76.6	82	-46.3	0	0	N.A.	-5	0	3	3	32.7	N.A.
										S03c	Chiller at Roof of Health Education Exhibition and Resources Centre	835661	817709	76.6	80	-46.0	0	0	N.A.	0	0	3	3	38.0	N.A.
										S03d	Chiller at Roof of Health Education Exhibition and Resources Centre	835656	817709	76.6	78	-45.8	0	0	N.A.	0	0	3	3	38.2	N.A.
										S03e	Chiller at Roof of Health Education Exhibition and Resources Centre	835650	817708	76.6	76	-45.6	0	0	N.A.	0	0	3	3	38.4	N.A.
										S03g	Chiller at Roof of Health Education Exhibition and Resources Centre	835667	817705	76.6	79	-45.9	0	0	N.A.	-10	0	3	3	28.1	N.A.
										S03h	Chiller at Roof of Health Education Exhibition and Resources Centre	835662	817705	76.6	76	-45.6	0	0	N.A.	0	0	3	3	38.4	N.A.
										S03i	Chiller at Roof of Health Education Exhibition and Resources Centre	835656	817705	76.6	74	-45.4	0	0	N.A.	0	0	3	3	38.6	N.A.
										S03j	Chiller at Roof of Health Education Exhibition and Resources Centre	835650	817704	76.6	72	-45.1	0	0	N.A.	0	0	3	3	38.9	N.A.
									[2]	S04a	Chiller at Podium at Maxwell Centre	835624	817622	9.5	18	-33.0	0	0	N.A.	0	0	3	3	51.0	N.A.
									[2]	S04b	Chiller at Podium at Maxwell Centre	835624	817620	9.5	19	-33.6	0	0	N.A.	0	0	3	3	50.4	N.A.
									[2]	S04c	Chiller at Podium at Maxwell Centre	835624	817618	9.5	20	-34.2	0	0	N.A.	0	0	3	3	49.8	N.A.
									[2]	S04d	Chiller at Podium at Maxwell Centre	835626	817621	12.5	20	-33.9	0	0	N.A.	-5	0	3	3	49.1	N.A.
									[2]	S04e	Chiller at Podium at Maxwell Centre	835626	817619	12.5	21	-34.6	0	0	N.A.	-5	0	3	3	48.4	N.A.
										S06a	Chiller at Roof of ISQUARE	835735	817583	76.6	116	-49.3	0	0	N.A.	-5	0	3	3	35.7	N.A.
										S06b	Chiller at Roof of ISQUARE	835745	817584	76.6	124	-49.9	0	0	N.A.	-5	0	3	3	35.1	N.A.
										S06c	Chiller at Roof of ISQUARE	835754	817584	76.6	133	-50.5	0	0	N.A.	-10	0	3	3	29.5	N.A.
										S06d	Chiller at Roof of ISQUARE	835764	817585	76.6	141	-51.0	0	0	N.A.	-10	0	3	3	29.0	N.A.
										S7a	Chiller at Roof of Hong Kong Pacific Centre	835688	817549	76.6	103	-48.2	0	0	N.A.	0	0	3	3	40.8	N.A.
										S7b	Chiller at Roof of Hong Kong Pacific Centre	835696	817550	76.6	107	-48.6	0	0	N.A.	0	0	3	3	40.4	N.A.
									[2]	S7c	Chiller at Podium of Hong Kong Pacific Centre	835698	817543	13.4	114	-49.2	0	0	N.A.	-10	0	3	3	26.8	N.A.
									[2]	S7d	Chiller at Podium of Hong Kong Pacific Centre	835696	817540	13.4	116	-49.3	0	0	N.A.	-10	0	3	3	26.7	N.A.
									[2]	S7e	Chiller at Podium of Hong Kong Pacific Centre	835699	817540	13.4	117	-49.3	0	0	N.A.	-10	0	3	3	26.7	N.A.
										S8a	Chiller at Roof of Prince Tower	835695	817522	76.6	130	-50.3	0	0	N.A.	0	0	3	3	42.7	N.A.
										S9a	Chiller at Roof of Sands Building	835658	817523	76.6	115	-49.2	0	0	N.A.	0	0	3	3	43.8	N.A.
										S9b	Chiller at Roof of Sands Building	835654	817525	76.6	112	-49.0	0	0	N.A.	0	0	6	3	46.0	N.A.
										S9c	Chiller at Roof of Sands Building	835649	817525	76.6	112	-49.0	0	0	N.A.	0	0	6	3	46.0	N.A.
										S9d	Chiller at Roof of Sands Building	835649	817514	76.6	122	-49.8	0	0	N.A.	0	0	0	3	37.2	N.A.
										S10a	Chiller at Roof of Yue Hwa International Building	835597	817508	76.6	131	-50.4	0	0	N.A.	0	0	3	3	40.6	N.A.
										S10b	Chiller at Roof of Yue Hwa International Building	835598	817500	76.6	139	-50.9	0	0	N.A.	0	0	3	3	40.1	N.A.
									[2]	S10c	Chiller at Podium of Yue Hwa International Building	835614	817506	16.2	131	-50.3	0	0	N.A.	0	0	3	3	39.7	N.A.
									[2]	S10d	Chiller at Podium of Yue Hwa International Building	835612	817520	16.2	118	-49.4	0	0	N.A.	0	0	3	3	40.6	N.A.
										S11a	Chiller at Roof of Ashley Nine	835600	817537	76.6	103	-48.2	0	0	N.A.	0	0	3	3	42.8	N.A.
										S11b	Chiller at Roof of Ashley Nine	835605	817538	76.6	101	-48.0	0	0	N.A.	0	0	3	3	43.0	N.A.
										S12a	Chiller at Roof of MTR Emergency Access Point	835414	817863	76.6	315	-58.0	0	0	N.A.	0	0	3	3	28.0	N.A.
										S12b	Chiller at Roof of MTR Emergency Access Point	835414	817860	76.6	313	-57.9	0	0	N.A.	0	0	3	3	28.1	N.A.
										S12c	Chiller at Roof of MTR Emergency Access Point	835415	817858	76.6	311	-57.8	0	0	N.A.	0	0	3	3	28.2	N.A.
										S13a	Chiller at Roof of The Toy House	835429	817815	76.6	271	-56.7	0	0	N.A.	0	0	3	3	27.3	N.A.
										S13b	Chiller at Roof of The Toy House	835433	817799	76.6	258	-56.2	0	0	N.A.	0	0	3	3	27.8	N.A.
										S14a	Chiller at Roof of Lippo Sun Plaza	835504	817538	76.6	160	-52.1	8	0	N.A.	0	0	3	3	49.5	N.A.
										S14b	Chiller at Roof of Lippo Sun Plaza	835524	817543	76.6	142	-51.0	8	0	N.A.	0	0	3	3	50.5	N.A.
										S15a	Chiller at Roof of The Langham Hong Kong	835525	817525	76.6	153	-51.7	0	0	0	0	0	3	3	43.3	43.3
										S15b	Chiller at Roof of The Langham Hong Kong	835541	817528	76.6	140	-50.9	0	0	0	0	0	3	3	44.1	44.1
										S15c	Chiller at Roof of The Langham Hong Kong	835552	817521	76.6	139	-50.9	0	0	0	0	0	3	3	38.1	38.1
										S15d	Chiller at Roof of The Langham Hong Kong	835555	817505	76.6	151	-51.6	0	0	0	0	0	3	3	37.4	37.4
										S15e	Chiller at Roof of The Langham Hong Kong	835549	817492	76.6	165	-52.3	0	0	0	0	0	3	3	36.7	36.7
										S16a	Chiller at Roof of 4-8 Canton Road	835491	817494	76.6	199	-54.0	0	0	N.A.	0	0	3	3	30.0	N.A.
										S16b	Chiller at Roof of 4-8 Canton Road	835491	817492	76.6	200	-54.0	0	0	N.A.	0	0	3	3	30.0	N.A.
										S16c	Chiller at Roof of 4-8 Canton Road	835492	817491	76.6	201	-54.1	0	0	N.A.	0	0	3	3	29.9	N.A.
										S17a	Chiller at Roof of Pacific Star Building	835495	817482	76.6	205	-54.2	0	0	N.A.	0	0	3	3	29.8	N.A.
										S17b	Chiller at Roof of Pacific Star Building	835496	817480	76.6	206	-54.3	0	0	N.A.	0	0	3	3	29.7	N.A.
										S17c	Chiller at Roof of Pacific Star Building	835496	817478	76.6	207	-54.3	0	0	N.A.	0	0	3	3	29.7	N.A.
										S17d	Chiller at Roof of Pacific Star Building	835500	817482	76.6	202	-54.1	0	0	N.A.	0	0	3	3	34.9	N.A.
										S17e	Chiller at Roof of Pacific Star Building	835501	817479	76.6	203	-54.2	0	0	N.A.	0	0	3	3	34.8	N.A.
										S18a	Chiller at Roof of FWD 1881 House	835539	817405	76.6	247	-55.9	0	0	0	-10	0	3	3	18.1	18.1
										S18b	Chiller at Roof of FWD 1881 House	835540	817403	76.6	250	-55.9	0	0	0	-10	0	3	3	20.1	20.1
										S18c	Chiller at Roof of FWD 1881 House	835540	817400	76.6	252	-56.0	0	0	0	-10	0	3	3	18.0	18.0
										S18d	Chiller at Roof of FWD 1881 House	835541	817397	76.6	254	-56.1	0	0	0	-10	0	3	3	19.9	19.9
										S18e	Chiller at Roof of FWD 1881 House	835542	817395	76.6	256	-56.2	0	0	0	-10	0	3	3	17.8	17.8
										S18f	Chiller at Roof of FWD 1881 House	835543	817407	76.6	245	-55.8	0	0	0	-10	0	3	3	20.2	20.2

Prediction of Fixed Noise Source Impact on Planned NSR

NSR Labels	Descriptions	Nature of Use	Existing/ Planned Uses	Location			ASR	Noise Criteria (ANL), L_{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)	
				X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night-time)	Screening by Features [1]	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time
										S18g	Chiller at Roof of FWD 1881 House	835543	817405	76.6	247	-55.8	0	0	0	-10	0	3	3	18.2	18.2
										S18h	Chiller at Roof of FWD 1881 House	835544	817402	76.6	249	-55.9	0	0	0	-10	0	3	3	20.1	20.1
										S18i	Chiller at Roof of FWD 1881 House	835544	817400	76.6	250	-56.0	0	0	0	-10	0	3	3	20.0	20.0
										S18j	Chiller at Roof of FWD 1881 House	835545	817398	76.6	252	-56.0	0	0	0	-10	0	3	3	20.0	20.0
										S18k	Chiller at Roof of FWD 1881 House	835545	817396	76.6	254	-56.1	0	0	0	-10	0	3	3	19.9	19.9
										S18l	Chiller at Roof of FWD 1881 House	835563	817409	76.6	236	-55.5	0	0	0	0	0	3	3	30.5	30.5
										S18m	Chiller at Roof of FWD 1881 House	835564	817407	76.6	238	-55.5	0	0	0	0	0	3	3	28.5	28.5
										S18n	Chiller at Roof of FWD 1881 House	835564	817405	76.6	239	-55.6	0	0	0	0	0	3	3	30.4	30.4
										S18o	Chiller at Roof of FWD 1881 House	835566	817409	76.6	235	-55.4	0	0	0	0	0	3	3	30.6	30.6
										S18p	Chiller at Roof of FWD 1881 House	835566	817409	76.6	235	-55.4	0	0	0	0	0	3	3	28.6	28.6
										S18q	Chiller at Roof of FWD 1881 House	835566	817408	76.6	237	-55.5	0	0	0	0	0	3	3	30.5	30.5
										S18r	Chiller at Roof of FWD 1881 House	835567	817406	76.6	238	-55.5	0	0	0	0	0	3	3	28.5	28.5
										S18s	Chiller at Roof of FWD 1881 House	835569	817410	76.6	234	-55.4	0	0	0	0	0	3	3	28.6	28.6
										S18t	Chiller at Roof of FWD 1881 House	835569	817406	76.6	237	-55.5	5	0	0	0	0	3	3	40.1	40.1
										S18u	Chiller at Roof of FWD 1881 House	835572	817408	76.6	235	-55.4	5	0	0	0	0	3	3	40.2	40.2
										S18v	Chiller at Roof of FWD 1881 House	835564	817401	76.6	244	-55.7	5	0	0	0	0	3	3	39.8	39.8
										S18w	Chiller at Roof of FWD 1881 House	835567	817401	76.6	243	-55.7	5	0	0	0	0	3	3	39.9	39.9
										S18x	Chiller at Roof of FWD 1881 House	835569	817401	76.6	242	-55.7	5	0	0	0	0	3	3	39.9	39.9
										S18y	Chiller at Podium of FWD 1881 House	835571	817402	76.6	241	-55.6	0	0	0	-10	0	3	3	25.4	25.4
										S18z	Chiller at Podium of FWD 1881 House	835563	817436	76.6	211	-54.5	0	0	0	0	0	3	3	36.5	36.5
										S19a	Chiller at Roof of Hong Kong Heritage Discovery Centre	835569	817437	76.6	208	-54.4	0	0	N.A.	0	0	3	3	36.6	N.A.
										S19b	Chiller at Roof of Hong Kong Heritage Discovery Centre	835511	817835	76.6	234	-55.4	0	0	N.A.	0	0	3	3	35.6	N.A.
										S19c	Chiller at Roof of Hong Kong Heritage Discovery Centre	835522	817815	76.6	211	-54.5	0	0	N.A.	0	0	3	3	36.5	N.A.
										S19d	Chiller at Roof of Hong Kong Heritage Discovery Centre	835518	817799	76.6	200	-54.0	0	0	N.A.	0	0	3	3	32.0	N.A.
										S19e	Chiller at Roof of Hong Kong Heritage Discovery Centre	835515	817799	76.6	201	-54.1	0	0	N.A.	0	0	3	3	31.9	N.A.
										S19f	Chiller at Roof of Hong Kong Heritage Discovery Centre	835512	817799	76.6	203	-54.1	0	0	N.A.	0	0	3	3	31.9	N.A.
										S19g	Chiller at Roof of Hong Kong Heritage Discovery Centre	835509	817799	76.6	204	-54.2	0	0	N.A.	0	0	3	3	31.8	N.A.
										S21a	Cooling Tower at Roof of Hankow Centre	835661	817480	76.6	158	-52.0	0	0	N.A.	0	0	3	3	49.0	N.A.
										S21b	Cooling Tower at Roof of Hankow Centre	835662	817474	76.6	164	-52.3	0	0	N.A.	0	0	3	3	48.7	N.A.
										S21c	Cooling Tower at Roof of Hankow Centre	835650	817472	76.6	164	-52.3	0	0	N.A.	0	0	3	3	48.7	N.A.
										S21d	Cooling Tower at Roof of Hankow Centre	835649	817478	76.6	158	-52.0	0	0	N.A.	0	0	3	3	49.0	N.A.
										S21e	Cooling Tower at Roof of Hankow Centre	835655	817479	76.6	158	-52.0	0	0	N.A.	0	0	3	3	49.0	N.A.
										S22a	Chiller at Podium of Kai Seng Commercial Building	835722	817459	76.6	198	-53.9	0	0	N.A.	-5	0	3	3	29.1	N.A.
										S22b	Chiller at Podium of Kai Seng Commercial Building	835726	817459	76.6	200	-54.0	0	0	N.A.	-5	0	3	3	29.0	N.A.
										S22c	Chiller at Podium of Kai Seng Commercial Building	835724	817453	76.6	204	-54.2	0	0	N.A.	-5	0	3	3	43.8	N.A.
										S22d	Chiller at Podium of Kai Seng Commercial Building	835725	817449	76.6	208	-54.4	0	0	N.A.	-5	0	3	3	43.6	N.A.
										S22e	Chiller at Podium of Kai Seng Commercial Building	835725	817446	76.6	211	-54.5	0	0	N.A.	-5	0	3	3	33.5	N.A.
										S23a	Cooling Tower at Roof of Prestige Tower	835742	817453	76.6	213	-54.6	0	0	N.A.	0	0	3	3	46.4	N.A.
										S23b	Cooling Tower at Roof of Prestige Tower	835747	817454	76.6	215	-54.7	0	0	N.A.	0	0	3	3	46.3	N.A.
										S23c	Cooling Tower at Roof of Prestige Tower	835746	817448	76.6	219	-54.8	0	0	N.A.	0	0	3	3	46.2	N.A.
										S24a	Chiller at Roof of The Salisbury YMCA Of Hong Kong	835661	817384	76.6	253	-56.1	0	0	0	0	0	3	3	33.9	33.9
										S24b	Chiller at Roof of The Salisbury YMCA Of Hong Kong	835667	817384	76.6	253	-56.1	0	0	0	0	0	3	3	33.9	33.9
										S24c	Chiller at Roof of The Salisbury YMCA Of Hong Kong	835672	817385	76.6	254	-56.1	0	0	0	0	0	3	3	33.9	33.9
										S24d	Chiller at Roof of The Salisbury YMCA Of Hong Kong	835678	817385	76.6	254	-56.1	0	0	0	0	0	3	3	33.9	33.9
										S25a	Chiller at Rooftop of Hermes House	835888	817447	76.6	318	-58.0	0	0	N.A.	0	0	3	3	35.0	N.A.
										S25b	Chiller at Rooftop of Hermes House	835897	817448	76.6	325	-58.2	0	0	N.A.	0	0	3	3	34.8	N.A.
										S26a	Chiller at Podium of Star Mansion	835896	817511	76.6	292	-57.3	0	0	N.A.	-10	0	3	3	22.7	N.A.
										S26b	Chiller at Podium of Star Mansion	835896	817505	76.6	295	-57.4	0	0	N.A.	-10	0	3	3	22.6	N.A.
										S27a	Chiller at Roof of Imperial Hotel	835812	817484	76.6	236	-55.5	0	0	0	0	0	3	3	30.5	30.5
										S27b	Chiller at Roof of Imperial Hotel	835812	817482	76.6	237	-55.5	0	0	0	0	0	3	3	30.5	30.5
										S27c	Chiller at Roof of Imperial Hotel	835813	817480	76.6	238	-55.5	0	0	0	0	0	3	3	30.5	30.5
										S27d	Chiller at Roof of Imperial Hotel	835813	817478	76.6	240	-55.6	0	0	0	0	0	3	3	30.4	30.4
										S27e	Chiller at Roof of Imperial Hotel	835813	817476	76.6	241	-55.7	0	0	0	0	0	3	3	30.3	30.3
										S27f	Chiller at Roof of Imperial Hotel	835813	817473	76.6	243	-55.7	0	0	0	0	0	3	3	30.3	30.3
										S28a	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	835809	817546	76.6	198	-53.9	0	0	0	-10	0	3	3	29.1	29.1
										S28b	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	835815	817545	76.6	205	-54.2	0	0	0	-10	0	3	3	28.8	28.8
										S28c	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	835825	817547	76.6	213	-54.6	0	0	0	-10	0	3	3	28.4	28.4
										S28d	Chiller at Roof of Holiday Inn Golden Mile Hong Kong	835832	817546	76.6	219	-54.8	0	0	0	-10	0	3	3	28.2	28.2
										S28e	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	835842	817546	76.6	228	-55.2	0	0	0	-10	0	3	3	35.8	35.8
										S28f	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	835848	817549	76.6	233	-55.3	0	0	0	-10	0	3	3	35.7	35.7
										S28g	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	835854	817548	76.6	239	-55.6	0	0	0	-10	0	3	3	35.4	35.4
										S28h	Cooling Tower at Roof of Holiday Inn Golden Mile Hong Kong	835852	817539	76.6	241	-55.6	0	0	0	-10	0	3	3	35.4	35.4
										S44a	Chiller at Podium of K11 the Piazza	835878	817608	76.6	248	-55.9	0	0	0	0	0	3	3	32.1	32.1
										S44b	Chiller at Podium of K11 the Piazza	835882	817608	76.6	252	-56.0	0	0	0	0	0	3	3	34.0	34.0
										S44c	Chiller at Podium of K11 the Piazza	835886	817609	76.6	256	-56.2	0	0	0	0	0	3	3	33.8	33.8
										S44d	Chiller at Podium of K11 the Piazza	835879	817606	76.6	249	-55.9	0	0	0	0	0	3	3	32.1	32.1
										S44e	Chiller at Podium of K11 the Piazza	835883	817606	76.6	253	-56.1	0	0	0	0	0	3	3	33.9	33.9
										S44f	Chiller at Podium of K11 the Piazza	835887	817607	76.6	257	-56.2	0	0	0	0	0	3	3	33.8	33.8
										S44g	Chiller at Podium of K11 the Piazza	835889	817641	76.6	258	-56.2	0	0	0	-5	0	3	3	22.8	22.8
										S44h	Chiller at Podium of K11 the Piazza	835893	817648	76.6	261	-56.3	0	0	0	-5	0	3	3	24.7	24.7
										S44i	Chiller at Roof of K11 the Piazza	835895	817646	76.6	264	-56.4	0	0	0	-5	0	3	3	22.6	22.6
										S44j	Chiller at Roof of K11 the Piazza	835937	817647	76.6	306	-57.7	0	0	0	-5	0	3	3	27.3	27.3
										S44k	Chiller at Roof of K11 the Piazza	835944	817646	76.6	313	-57.9	0	0	0	-5	0	3	3	23.1	23.1
										S44l	Chiller at Roof of K11 the Piazza	835941	817631	76.6	310	-57.8	0	0	0	0	0	3	3	32.2	32.2
										S44m	Chiller at Roof of K11 the Piazza	835955	817619	76.6	324	-58.2	0	0	0	0	0	3	3	31.8	31.8
										S44n	Chiller at Roof of K11 the Piazza	835960	817614	76.6	330	-58.4	0	0	0	0	0	3	3	31.6	31.6
										S45a	Chiller at Podium of The Gateway Tower	835357	817623	76.6	275	-56.8	0	0	N.A.	0	0	3	3	32.2	N.A.
										S45b	Chiller at Podium of The Gateway Tower	835361	817608	76.6	272	-56.7	0	0	N.A.	0	0	3	3	31.3	N.A.
																							Total =	63	53

Prediction of Fixed Noise Source Impact on Planned NSR

NSR Labels	Descriptions	Nature of Use	Existing/ Planned Uses	Location			ASR	Noise Criteria (ANL), L_{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)	
				X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night-time)	Screening by Features [1]	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time
N04	0	Residential	Planned	835643	817655	76.6	B	65	55	S01a	Chiller at Roof of Kowloon Centre	835578	817649	76.6	65	-44.2	0	0	N.A.	0	0	3	3	46.8	N.A.
										S01b	Chiller at Roof of Kowloon Centre	835579	817643	76.6	64	-44.2	0	0	N.A.	0	0	3	3	46.8	N.A.
										S01c	Chiller at Roof of Kowloon Centre	835587	817643	76.6	56	-43.0	0	0	N.A.	0	0	3	3	50.0	N.A.
										S01d	Chiller at Roof of Kowloon Centre	835583	817614	76.6	72	-45.2	0	0	N.A.	-5	0	3	3	40.8	N.A.
										S01e	Chiller at Roof of Kowloon Centre	835584	817607	76.6	76	-45.6	0	0	N.A.	-5	0	3	3	40.4	N.A.
										S02a	Chiller at Podium of Godown for HK Museum of History	835542	817712	76.6	116	-49.3	0	0	N.A.	0	0	3	3	36.7	N.A.
										S02b	Chiller at Podium of Godown for HK Museum of History	835540	817711	76.6	117	-49.4	0	0	N.A.	0	0	3	3	36.6	N.A.
										S02c	Chiller at Podium of Godown for HK Museum of History	835536	817711	76.6	121	-49.6	0	0	N.A.	0	0	3	3	36.4	N.A.
										S02d	Chiller at Podium of Godown for HK Museum of History	835534	817711	76.6	122	-49.7	0	0	N.A.	0	0	3	3	36.3	N.A.
										S03a	Chiller at Roof of Health Education Exhibition and Resources Centre	835673	817710	76.6	63	-43.9	0	0	N.A.	0	0	3	3	40.1	N.A.
										S03b	Chiller at Roof of Health Education Exhibition and Resources Centre	835667	817709	76.6	60	-43.5	0	0	N.A.	0	0	3	3	40.5	N.A.
										S03c	Chiller at Roof of Health Education Exhibition and Resources Centre	835661	817709	76.6	57	-43.2	0	0	N.A.	0	0	3	3	40.8	N.A.
										S03d	Chiller at Roof of Health Education Exhibition and Resources Centre	835656	817709	76.6	56	-42.9	0	0	N.A.	0	0	3	3	41.1	N.A.
										S03e	Chiller at Roof of Health Education Exhibition and Resources Centre	835650	817708	76.6	54	-42.7	0	0	N.A.	0	0	3	3	41.3	N.A.
										S03f	Chiller at Roof of Health Education Exhibition and Resources Centre	835673	817706	76.6	59	-43.4	0	0	N.A.	0	0	3	3	40.6	N.A.
										S03g	Chiller at Roof of Health Education Exhibition and Resources Centre	835667	817705	76.6	56	-43.0	0	0	N.A.	0	0	3	3	41.0	N.A.
										S03h	Chiller at Roof of Health Education Exhibition and Resources Centre	835662	817705	76.6	53	-42.6	0	0	N.A.	0	0	3	3	41.4	N.A.
										S03i	Chiller at Roof of Health Education Exhibition and Resources Centre	835656	817705	76.6	52	-42.3	0	0	N.A.	0	0	3	3	41.7	N.A.
										S03j	Chiller at Roof of Health Education Exhibition and Resources Centre	835650	817704	76.6	50	-42.0	0	0	N.A.	0	0	3	3	42.0	N.A.
										S12a	Chiller at Roof of MTR Emergency Access Point	835414	817863	76.6	309	-57.8	0	0	N.A.	0	0	3	3	28.2	N.A.
										S12b	Chiller at Roof of MTR Emergency Access Point	835414	817860	76.6	307	-57.7	0	0	N.A.	0	0	3	3	28.3	N.A.
										S12c	Chiller at Roof of MTR Emergency Access Point	835415	817858	76.6	305	-57.7	0	0	N.A.	0	0	3	3	28.3	N.A.
										S13a	Chiller at Roof of The Toy House	835429	817815	76.6	267	-56.5	0	0	N.A.	0	0	3	3	27.5	N.A.
										S13b	Chiller at Roof of The Toy House	835433	817799	76.6	255	-56.1	0	0	N.A.	0	0	3	3	27.9	N.A.
										S14a	Chiller at Roof of Lippo Sun Plaza	835504	817538	76.6	181	-53.1	8	0	N.A.	-5	0	3	3	43.4	N.A.
										S14b	Chiller at Roof of Lippo Sun Plaza	835524	817543	76.6	163	-52.3	8	0	N.A.	-5	0	3	3	44.3	N.A.
										S15a	Chiller at Roof of The Langham Hong Kong	835525	817525	76.6	175	-52.9	0	0	0	-10	0	3	3	32.1	32.1
										S15b	Chiller at Roof of The Langham Hong Kong	835541	817528	76.6	163	-52.2	0	0	0	-10	0	3	3	32.8	32.8
										S16a	Chiller at Roof of 4-8 Canton Road	835491	817494	76.6	221	-54.9	0	0	N.A.	-10	0	3	3	19.1	N.A.
										S16b	Chiller at Roof of 4-8 Canton Road	835491	817492	76.6	222	-54.9	0	0	N.A.	-10	0	3	3	19.1	N.A.
										S16c	Chiller at Roof of 4-8 Canton Road	835492	817491	76.6	223	-55.0	0	0	N.A.	-10	0	3	3	19.0	N.A.
										S17a	Chiller at Roof of Pacific Star Building	835495	817482	76.6	228	-55.1	0	0	N.A.	-10	0	3	3	18.9	N.A.
										S17b	Chiller at Roof of Pacific Star Building	835496	817480	76.6	229	-55.2	0	0	N.A.	-10	0	3	3	18.8	N.A.
										S17c	Chiller at Roof of Pacific Star Building	835496	817478	76.6	230	-55.2	0	0	N.A.	-10	0	3	3	18.8	N.A.
										S17d	Chiller at Roof of Pacific Star Building	835500	817482	76.6	224	-55.0	0	0	N.A.	-10	0	3	3	24.0	N.A.
										S17e	Chiller at Roof of Pacific Star Building	835501	817479	76.6	226	-55.1	0	0	N.A.	-10	0	3	3	23.9	N.A.
										S19a	Chiller at Roof of Hong Kong Heritage Discovery Centre	835569	817437	76.6	230	-55.2	0	0	N.A.	0	0	3	3	35.8	N.A.
										S19b	Chiller at Roof of Hong Kong Heritage Discovery Centre	835511	817835	76.6	223	-55.0	0	0	N.A.	0	0	3	3	36.0	N.A.
										S19c	Chiller at Roof of Hong Kong Heritage Discovery Centre	835522	817815	76.6	201	-54.1	0	0	N.A.	0	0	3	3	36.9	N.A.
										S19d	Chiller at Roof of Hong Kong Heritage Discovery Centre	835518	817799	76.6	191	-53.6	0	0	N.A.	0	0	3	3	32.4	N.A.
										S19e	Chiller at Roof of Hong Kong Heritage Discovery Centre	835515	817799	76.6	192	-53.7	0	0	N.A.	0	0	3	3	32.3	N.A.
										S19f	Chiller at Roof of Hong Kong Heritage Discovery Centre	835512	817799	76.6	194	-53.8	0	0	N.A.	0	0	3	3	32.2	N.A.
										S19g	Chiller at Roof of Hong Kong Heritage Discovery Centre	835509	817799	76.6	196	-53.8	0	0	N.A.	0	0	3	3	32.2	N.A.
										S20a	Chiller at Roof of Park Lane Shopper's Boulevard	835729	817936	76.6	294	-57.4	0	0	N.A.	0	0	3	3	35.6	N.A.
										S20b	Chiller at Roof of Park Lane Shopper's Boulevard	835729	817929	76.6	288	-57.2	0	0	N.A.	0	0	3	3	35.8	N.A.
										S29a	Chiller at Roof at The Mira Hong Kong	835790	817911	76.6	296	-57.4	0	0	0	0	0	3	3	32.6	32.6
										S29b	Chiller at Roof at The Mira Hong Kong	835790	817904	76.6	289	-57.2	0	0	0	0	0	3	3	32.8	32.8
										S29c	Chiller at Roof at The Mira Hong Kong	835790	817896	76.6	282	-57.0	0	0	0	0	0	3	3	33.0	33.0
										S29d	Chiller at Roof at The Mira Hong Kong	835791	817887	76.6	275	-56.8	0	0	0	-10	0	3	3	23.2	23.2
										S30a	Chiller at Roof at The One	835803	817865	76.6	264	-56.4	0	0	N.A.	-5	0	3	3	27.6	N.A.
										S30b	Chiller at Roof at The One	835813	817867	76.6	272	-56.7	0	0	N.A.	-5	0	3	3	27.3	N.A.
										S30c	Chiller at Roof at The One	835822	817870	76.6	280	-56.9	0	0	N.A.	-5	0	3	3	27.1	N.A.
										S30d	Chiller at Roof at The One	835829	817875	76.6	289	-57.2	0	0	N.A.	-5	0	3	3	26.8	N.A.
										S30e	Chiller at Roof at The One	835833	817870	76.6	287	-57.2	0	0	N.A.	-5	0	3	3	26.8	N.A.

Prediction of Fixed Noise Source Impact on Planned NSR

NSR Labels	Descriptions	Nature of Use	Existing/ Planned Uses	Location			ASR	Noise Criteria (ANL), L_{eq} (30 min)		Noise Source ID	Description of Noise Sources	Source Location			Distance to NSR, d (m)	Correction for, dB(A)								Noise Impact at NSR, dB(A)	
				X	Y	Z, mPD		Daytime & Evening Time (0700-2300)	Nighttime (2300-0700)			X	Y	Z, mPD		Distance	No.	% on time (Daytime)	% on time (Night-time)	Screening by Features [1]	Silencer	Tonality	Facade	Daytime & Evening Period	Night-time
										S31a	Cooling Tower at Roof of Albion Plaza	835824	817840	76.6	259	-56.3	0	0	N.A.	0	0	3	3	44.7	N.A.
										S31b	Cooling Tower at Roof of Albion Plaza	835828	817841	76.6	263	-56.4	0	0	N.A.	0	0	3	3	44.6	N.A.
										S31c	Cooling Tower at Roof of Albion Plaza	835834	817843	76.6	269	-56.6	0	0	N.A.	0	0	3	3	44.4	N.A.
										S31d	Cooling Tower at Roof of Albion Plaza	835838	817845	76.6	273	-56.7	0	0	N.A.	0	0	3	3	44.3	N.A.
										S32a	Chiller at Podium of Granville Building	835886	817834	76.6	302	-57.6	0	0	N.A.	-5	0	3	3	23.4	N.A.
										S32b	Chiller at Podium of Granville Building	835889	817834	76.6	305	-57.7	0	0	N.A.	-5	0	3	3	23.3	N.A.
										S32c	Chiller at Podium of Granville Building	835891	817835	76.6	306	-57.7	0	0	N.A.	-5	0	3	3	23.3	N.A.
										S33a	Chiller at Roof of Carnarvon Plaza	835894	817816	76.6	299	-57.5	0	0	N.A.	0	0	3	3	32.5	N.A.
										S33b	Chiller at Roof of Carnarvon Plaza	835910	817820	76.6	314	-57.9	0	0	N.A.	0	0	3	3	32.1	N.A.
										S34a	Chiller at Podium of 5-8 Cameron Lane	835862	817822	76.6	275	-56.8	0	0	N.A.	-5	0	3	3	22.2	N.A.
										S34b	Chiller at Podium of 5-8 Cameron Lane	835860	817821	76.6	273	-56.7	0	0	N.A.	-5	0	3	3	24.3	N.A.
										S34c	Chiller at Podium of 5-8 Cameron Lane	835859	817821	76.6	272	-56.7	0	0	N.A.	-5	0	3	3	24.3	N.A.
										S34d	Chiller at Podium of 5-8 Cameron Lane	835851	817817	76.6	264	-56.4	0	0	N.A.	-5	0	3	3	22.6	N.A.
										S34e	Chiller at Podium of 5-8 Cameron Lane	835847	817816	76.6	260	-56.3	0	0	N.A.	-5	0	3	3	22.7	N.A.
										S35a	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835889	817793	76.6	282	-57.0	0	0	N.A.	0	0	3	3	37.5	N.A.
										S35b	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835896	817789	76.6	287	-57.2	0	0	N.A.	0	0	3	3	28.8	N.A.
										S35c	Chiller at Roof of Hang Seng Tsim Sha Tsui Building	835907	817791	76.6	298	-57.5	0	0	N.A.	0	0	3	3	28.5	N.A.
										S36a	Chiller at Podium of Tern Plaza	835822	817778	76.6	218	-54.8	0	0	N.A.	-10	0	3	3	21.2	N.A.
										S36b	Chiller at Podium of Tern Plaza	835827	817778	76.6	222	-54.9	0	0	N.A.	-10	0	3	3	21.1	N.A.
										S37a	Chiller at Roof of HSBC Building Tsim Sha Tsui	835807	817768	76.6	199	-54.0	0	0	N.A.	0	0	3	3	41.0	N.A.
										S37b	Chiller at Roof of HSBC Building Tsim Sha Tsui	835813	817768	76.6	205	-54.2	0	0	N.A.	0	0	3	3	40.8	N.A.
										S38a	Chiller at Roof of Manson House	835801	817711	76.6	169	-52.5	0	0	0	-5	0	3	3	33.5	33.5
										S38b	Chiller at Roof of Manson House	835803	817706	76.6	168	-52.5	0	0	0	-5	0	3	3	33.5	33.5
										S38c	Chiller at Roof of Manson House	835806	817706	76.6	171	-52.7	0	0	0	-5	0	3	3	32.3	32.3
										S38d	Chiller at Roof of Manson House	835809	817706	76.6	174	-52.8	0	0	0	-5	0	3	3	32.2	32.2
										S38e	Chiller at Roof of Manson House	835811	817707	76.6	176	-52.9	0	0	0	-5	0	3	3	32.1	32.1
										S38f	Chiller at Roof of Manson House	835811	817712	76.6	178	-53.0	0	0	0	-5	0	3	3	32.0	32.0
										S39a	Chiller at Podium of Humphrey Plaza	835860	817728	76.6	229	-55.2	0	0	N.A.	-10	0	3	3	18.8	N.A.
										S40a	Chiller at Roof of Grand Centre	835895	817737	76.6	265	-56.5	0	0	N.A.	-5	0	3	3	27.5	N.A.
										S40b	Chiller at Roof of Grand Centre	835897	817733	76.6	266	-56.5	0	0	N.A.	-5	0	3	3	27.5	N.A.
										S40c	Chiller at Roof of Grand Centre	835898	817728	76.6	266	-56.5	0	0	N.A.	-5	0	3	3	28.5	N.A.
										S41a	Chiller at Roof of Grand Right Centre	835875	817749	76.6	250	-56.0	0	0	N.A.	-5	0	3	3	29.0	N.A.
										S41b	Chiller at Roof of Grand Right Centre	835879	817750	76.6	255	-56.1	0	0	N.A.	-5	0	3	3	26.9	N.A.
										S42a	Chiller at Podium of More Resources Development Building	835828	817684	76.6	188	-53.5	0	0	N.A.	-10	0	3	3	27.5	N.A.
										S42b	Chiller at Podium of More Resources Development Building	835829	817680	76.6	188	-53.5	0	0	N.A.	-10	0	3	3	27.5	N.A.
										S42c	Chiller at Podium of More Resources Development Building	835830	817674	76.6	188	-53.5	0	0	N.A.	-10	0	3	3	27.5	N.A.
										S45a	Chiller at Podium of The Gateway Tower	835357	817623	76.6	287	-57.2	0	0	N.A.	0	0	3	3	31.8	N.A.
										S45b	Chiller at Podium of The Gateway Tower	835361	817608	76.6	286	-57.1	0	0	N.A.	0	0	3	3	30.9	N.A.
																							Total =	58	43

Notes:

[1] Screening by structures resulting in rough noise attenuation of 10 dB(A) for full screening and 5 dB(A) for partial screening.

[2] Slant distance is applied for the noise sources at podium level near the Proposed Site.

[3] It is considered that all noise sources on-site are steady, and will not generate sudden noise impulse. Impulsive noise correction are therefore not applicable in the calculation.