Appendix IV

Environmental Assessment

Prepared by

Ramboll Hong Kong Limited

PROPOSED COMPREHENSIVE DEVELOPMENT AT 8 LAM CHAK STREET, KOWLOON – N.K.I.L. 6215

ENVIRONMENTAL ASSESSMENT

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1. INTRODUCTION

1.1 Background

1.1.1 This Environmental Assessment (EA) is prepared for the proposed residential development at 8 Lam Chak Street, Kowloon Bay (hereafter referred to as "the Application Site").

1.1.2 The Application Site is currently zoned "Commercial (2)" ("C(2)") under Kai Tak Outline Zoning Plan (No. S/K22/8) and building height restriction of 100mPD.

1.1.3 It is currently occupied by an office building (Harbourside HQ) of maximum 136.5mPD. The entire Application Site is occupied by the building footprint.

1.1.4 It is proposed to redevelop the Application Site to residential uses with retail facilities, comprising 2 residential towers sitting on a podium building which houses both retail/ F&B facilities and recreational facilities of the residential uses.

1.1.5 Ramboll Hong Kong Limited has been commissioned by the applicant to prepare this environmental assessment. This environmental assessment covers assessment of environmental noise and air quality impact, as well as to appraise land contamination impact.

1.1.6 The development scheme is provided by DLN Architects Ltd (Project Architect). Road traffic forecast is provided by CTA Consultants Ltd. (Project Traffic Consultant).

1.2 The Site Environs

1.2.1 **Figure 1.1** shows the location of the Application Site and its environs. The Application Site is of square shaped and amounts to about 0.65 ha. It is bounded by Lam Chak Street to the southwest, Kai Hing Road to the southeast and Cheung Yip Street to the northwest. Kwun Tong Bypass (elevated) and Hoi Bun Road underneath it are aligned at about 55m to the north.

1.2.2 An existing building, the Pacific Trade Centre is a commercial development, mainly used as office, is located adjacent to the northeast. An existing LPG filling station is located some 30m apart to the north of the Application Site. Kai Tak Fire Station is located on opposite side of Cheung Yip Street to the northwest and is about 40m apart. Kerry Dangerous Goods Waterhouse is situated at waterfront and separated from the Application Site by around 40m to the south. The Quayside (office building) is on northeast side of Kwun Tong Bypass at more than 120m apart. The more recently completed Hong Kong Children's Hospital is separated from the Application Site by around 145m to the southwest. Lam Chak Street Substation is separated from the Application Site by around 20m to the southwest.

1.2.3 There are a number of planned developments nearby. New Acute Hospital (NAH) is being constructed on the opposite side of Cheung Yip Street to the northwest. A waterfront site is on opposite side of Kai Hing Road to the southeast which was occupied by a godown and is being redeveloped as private residential development. Another site is on opposite side of Lam Chak Street to the southwest which is currently occupied by Lam Chak Street Substation and Public Works Central Laboratory Building and is planned to be redeveloped as private residential development. Regarding this private residential development, a S16 planning application was submitted and approved in 2024 with minor relaxation of plot ratio and building height restriction (Application No. A/K22/43).

1.2.4 Kwun Tong Promenade is located at the shoreline along Hoi Bun Road & Kwun Tong Bypass (elevated) to the east of the Application Site. Kwun Tong Typhoon Shelter (KTTS) (about 95m apart) is right in front of Kwun Tong Promenade. The Kai Tak Approach Channel (KTAC) is aligned along the northwest-southeast axis with a

minimum separation distance of about 230m from the Application Site. Kai Tak cruise terminal is located near the tip of ex-Kai Tak Runway to the south of the Subject Suite with separation of over 500m.

1.3 Proposed Development

1.3.1 **Appendix 1.1** shows the proposed development scheme. The Proposed Development will consist of 2 residential towers (T1 to T2), residents' recreational facilities, retail/ F&B facilities and car parking facilities. Recreational facilities and retail/ F&B facilities will be provided with centralised air conditioning system so that they would not rely on openable window for natural ventilation. Car parking facilities will be provided with mechanical ventilation system.

1.3.2 B1/F and B2/F are designated for carpark and E&M plant room. G/F and 1/F are designated for retail/ F&B and 2/F are for recreational uses. Towers are elevated with maximum building height of 136.5mPD and equivalent to the height of existing Harbourside HQ occupying the Application Site.

1.3.3 There will be altogether 2 residential towers, recreational facilities of 1,800m^2 and retail area of 3,270.5m^2. The tentative occupation year of the development is 2033.

1.3.4 It is understood that all planned developments mentioned above should be completed by the time of tentative occupation of the Proposed Development.

1.4 Appraisal of Change of Environmental Impact

1.4.1 Updated information regarding existing context and planned development in the surroundings have been reviewed. In addition, onsite survey has been conducted on 15 July 2025 to identify presence of any environmental pollution sources. The environmental impacts are appraised below.

LPG Hazard

1.4.2 There is an existing LPG filling station at Cheung Yip Street to the north of the Application Site. To account for the potential risk impact and follow the recommendations in the HKPSG, the residential towers are disposited so that it maintains a separation of over 55m from the LPG filling station. The proposed residential development will differ from the existing office and retail building in terms of the population density and temporal variation of population. Potential LPG hazard has been assessed and documented in separate report under this same planning application.

Helicopter Noise Impact

1.4.3 It is understood that a new helipad at the being constructed NAH is proposed (EIA Report: AEIAR-224/2020 – A Rooftop Helipad at New Acute Hospital at Kai Tak Development Area) to the northwest of the Application Site. The proposed helipad (elevated at approximately +119.15mPD) at NAH is separated from the Application Site by around 170m. It is also understood that another helipad for GFS is planned at the tip of ex-Kai Tak Airport runway on southeast side of the Application Site but already separated by around 1km so that potential helicopter noise impact due to future GFS helipad on the Proposed Development is unlikely significant due to long separation distance.

1.4.4 Evaluation of helicopter noise impact due to the proposed helipad at NAH has been included in **Section 7**.

Road Traffic Noise Impact

1.4.5 Road traffic noise was identified as one of the major environmental impacts on the Proposed Development. Kwun Tong Bypass is the major road traffic noise source despite that it is located further apart when compared other local carriageways, and

shielded by existing Pacific Trade Centre and planned New Acute Hospital plus the planned residential development at the waterfront site. The development scheme has been designed to maximise separation from Kwun Tong Bypass. In addition, direct noise mitigation measures have been proposed. The road traffic noise impact under base case and mitigated scenarios has been quantitatively assessed and presented in subsequent section of this report. According to the assessment result, the predicted road traffic noise level at noise sensitive receivers of the Proposed Development would be within the acceptable standard with the proposed noise mitigation measures in place. During detailed design of the project, the road traffic noise impact should be re-assessed based on latest development scheme to ensure that adequate and effective noise mitigation design and measures would be incorporated.

Fixed Noise Impact

1.4.6 Both desktop and onsite surveys have been conducted. Desktop survey includes review of relevant study, aerial photo, etc. to identify any existing and planned fixed noise sources and quantify their strength. Onsite surveys include visual inspection to identify presence of any fixed noise sources, and conduct measurement where practicable.

1.4.7 The fixed noise impact has been quantitatively assessed and presented in subsequent section of this report. According to the assessment result, the predicted fixed noise level at representative assessment points of the Proposed Development is within the acceptable standard.

Railway Noise Impact

1.4.8 There is no railway system within 300m from the Application Site. The nearest railway line is Kwun Tong Line separated by a horizontal distance of over 320m. No adverse railway noise impact is anticipated and not further discussed in this context.

Air Quality Impact

1.4.9 The Application Site is bounded by carriageways on three sides. Kwun Tong Bypass is located further apart. Moreover, while there is no active industrial operation in the vicinity, an existing Hong Kong Children's Hospital and a being constructed New Acute Hospital are in the surrounding. It is usual for hospital to equip boiler and chimney stack. The separation from carriageways and chimney stacks has been evaluated based on desktop survey including to consult relevant government departments.

1.4.10 While the Application Site is not close to Kai Tak Approach Channel (230m apart) and Kwun Tong Typhoon Bypass, potential marine emission has also been appraised with onsite survey conducted.

1.4.11 In addition, the onsite survey also covers to evaluate whether there is any odour issue in the vicinity of the Application Site.

Potential Land Contamination Review

1.4.12 The Application Site is currently occupied by an office building (Harbourside HQ) which was completed as early as 2010. The ground level of the existing office building is about +4.5mPD. It has 1 basement floor and down to elevation of -1.5mPD. The basement floor of existing building in the Application site was used as a carpark and plant rooms. No fuel is used in the basement plant rooms, and those floor are well paved, therefore, no activities contributing to soil contamination is anticipated, the detailed discussion is provided in **Section 5.5**.

1.4.13 In addition, historical uses of the Application Site is also reviewed. Relevant government departments have been approached to collect information which may serve to determine whether land contamination is likely.

Construction Phase Environmental Impact

1.4.14 Lastly, construction phase environmental impact, though interim in nature, has been discussed. Environmental mitigation measures and good management practice has been recommended to minimise potential impact on the surrounding sensitive uses.

Operation Phase Waste Management

1.4.15 During the operation of the project, there will be waste generation from the residential, retail and clubhouse uses such as glass, metals, plastics, food wastes, textile, wood, household hazardous wastes and others. Adequate waste collection/storage facilities will be provided for collection and storage of sorted recyclable wastes (glass, paper, metal, plastic) to enable recycling. Based on Waste Statistics for 2024, the per capita disposal rates of municipal solid waste, domestic waste, commercial & industrial waste are respectively 1.40kg/person/day, 0.86kg/person/day and 0.53kg/person/day (Plate 2.7 of Waste Statistics for 2024). Among domestic and commercial waste, the recovery rate are 22% and 48% respectively (Plate 3.2 of Waste Statistics for 2024). Based on the Proposed Development with around 2950 residential population and 199 working population, there will be around 3455kg/day of waste generation (i.e. 0.86/(1-22%) x 2950 + 0.53/(1-48%) x 199). With adequate waste collection/storage facilities provided to segregate recyclable and non-recyclable wastes, the burden of waste treatment facilities in Hong Kong will be reduced. In addition, the applicant will explore in detailed design stage to collect food waste alongside these recyclable wastes mentioned above to further reduce waste generation. Retail facilities are proposed in the development, and chemical waste may be generated from retail operations and maintenance. If chemical wastes are generated, it will be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes. All chemical wastes will be collected by a licensed chemical waste collector and disposed of at the Chemical Waste Treatment Centre (CWTC) in Tsing Yi. Moreover, generation of other types of waste (such as clinical waste, etc.) is not anticipated from the Project during operation phase.

1.5 Organisation of this Report

1.5.1 Based on discussion above, the environmental and hazard impacts, chlorine transshipment dock hazard impact, odour impact and rail noise impact are considered no longer a concern. LPG hazard has been assessed in separate report under this S16 submission.

1.5.2 This report will contain following chapters to address individual environmental impacts:

Chapter 2	Road traffic noise impact
Chapter 3	Fixed noise impact
Chapter 4	Air quality impact
Chapter 5	Land contamination
Chapter 6	Construction phase environmental impact

2. ROAD TRAFFIC NOISE IMPACT ASSESSMENT

2.1 Introduction

2.1.1 This road traffic noise impact assessment is prepared to address potential road traffic noise impact on the noise sensitive uses of the Proposed Development and to recommend mitigation measures where practicable to attenuate the impact.

2.1.2 The Proposed Development comprises residential uses, recreational facilities and retail/ F&B facilities. Recreational and retail/ F&B facilities will be provided with centralised air conditioning system so that they would not rely on openable window for natural ventilation. The residential dwellings are noise sensitive in nature and will rely on opened window for ventilation. All other uses such as car parking facilities are non-noise sensitive in nature.

2.2 Assessment Criteria

2.2.1 Noise standards are recommended in the Hong Kong Planning Standards and Guidelines (HKPSG) for planning against noise impact from sources such as road traffic, railway and aircraft.

2.2.2 Under the HKPSG, the criterion for road traffic noise impact on domestic premises (habitable rooms) is $L_{10(1\text{-hour})}$ 70dB(A). This criterion applies to uses which rely on opened windows for ventilation.

2.3 Assessment Methodology

2.3.1 In this assessment, the potential noise impact arising from nearby existing and future road carriageways on the development has been assessed based on the proposed development scheme.

2.3.2 It involved the prediction of future noise impacts on Noise Sensitive Receivers (NSRs) arising from traffic flows along existing and future road carriageways situated within or in the vicinity of the Application Site.

2.3.3 Calculation of predicted road traffic noise were based on the worst case peak hour traffic flows projected within a 15-year period from the target completion date (Year 2033) of the Proposed Development. For worst-case scenario evaluation, the assessment year was chosen to be year 2048, which has the maximum forecasted traffic flow within the 15-year period. The year 2048 traffic forecast data was prepared by project traffic consultant and attached in **Appendix 2.1**. Correspondence regarding endorsement of the traffic forecast data will be appended once available.

2.3.4 The U.K. Department of Transport's procedure "Calculation of Road Traffic Noise" (CRTN) was used to predict the hourly $L_{10(1\text{-hour})}$ noise levels generated from road traffic at selected representative NSRs. Practicable environmental mitigation measures have been recommended, where necessary. The predicted noise levels were compared with the relevant HKPSG noise standards (i.e. $L_{10(1\text{-hour})}$ 70dB(A)).

2.3.5 In this assessment, all roads are assumed of impervious surface except for Kwun Tong Bypass (KTB) (i.e. Road ID: 51, 52, 54, and 55 as indicated in **Appendix 2.1**). Speed limit of 50 km/hr is assumed for most of the roads, 70km/hr is assumed for Kai Fuk Road, part of Wai Yip Street and Kwun Tong Road (i.e. Road ID: 11, 39 to 42, 49, 50, 57, 58 and 60), and 80km/hr is assumed for part of Kwun Tong Bypass (i.e. Road ID: 51 to 55).

2.3.6 The superstructure of the planned New Acute Hospital is being constructed as observed onsite. It is understood that it will start to operate as early as 2026. On the other hand, the construction of the planned residential development at the waterfront site is in progress and the godown development has been demolished already. It is planned to

be completed in late 2027. The building structure of these two planned developments should be in place well before the completion of the proposed development in 2033. They are included in the assessment model.

2.4 Noise Sensitive Receivers

2.4.1 A number of Noise Sensitive Receivers (NSRs), representing the noise sensitive habitable rooms of flat units were selected for the assessment. All assessment points were taken at 1.2m above the floor and 1m away from the façade of openable windows (which would be for ventilation purpose) of rooms of sensitive use (living rooms and bedrooms). **Figure 2.1** illustrates the locations of the selected representative NSRs for road traffic noise impact assessment.

2.5 Road Traffic Impact Assessment Result (Base Case)

2.5.1 In the development scheme, setback from Kwun Tong Bypass has been maximised in order to reduce potential road traffic noise impact from the same. Under base case scenario, the design including disposition of tower is accounted. No direct mitigation measures have been assumed.

2.5.2 Assessment has been conducted with respect to the Base Case Scenario. According to the advice from the traffic consultant, PM peak is considered the worst scenario compared to AM peak, therefore PM peak traffic forecast is adopted for assessment.

2.5.3 Detailed result is presented in **Appendix 2.2** and also summarized below.

Table 2.1 Summary of Road Traffic Noise Impact Assessment Result under Base Case Scenario

Scenario	Max. Predicted Noise Level	Total Number of Exceedance	Compliance Rate
PM Peak Scenario	80	643	44%

2.5.4 The compliance rate is 44% and the maximum predicted noise level is 80dB(A) under base case scenario. Noise mitigation measures are therefore recommended for the Proposed Development to attenuate the noise impact from road traffic.

2.6 Proposed Noise Mitigation Measures

Noise Barrier

2.6.1 Solid fence wall (e.g. made of glass, brick, concrete, etc. and without gap in-between) of 23.0mPD is erected on north side to provide additional shielding, in particular flat units at lowest levels.

Acoustic Window / Enhanced Acoustic Balcony (Baffle Type) (AW(BT)/ EAB(BT))

2.6.2 Acoustic window (baffle type) (AW(BT)) and enhanced acoustic balcony (baffle type) (EAB(BT)) are adopted to attenuate road traffic noise impact. Referring to ProPECC PN 5/23 "Application of Innovative Noise Mitigation Designs in Planning Private Residential Developments against Road Traffic Noise Impact" published by EPD, possible design of AW(BT) and EAB(BT) are recommended to attenuate road traffic noise (see **Appendix 2.3**).

2.6.3 AW(BT) for bedroom (not more than 8m^2 based on the proposed scheme) can reduce noise (relative noise reduction (RNR)) by 6dB(A) (without sound absorptive material (SAM)) and 7.5dB(A) (with SAM). Noise reduction performance can be improved by various means including tilting the AW(BT) to a horizontal incident angle not less than 30 degree to the dominant line source (-1.0dB(A)) and adding 1.5m long full-height architectural fin (-1.0dB(A) for tilting not less than 30 degree and -2.0dB(A) for not less than 60 degree). It is assumed the optimal tilt/fin configuration and SAM is applied

to all proposed AW(BT), maximum 10.5dB(A) relative noise reduction will be adopted in the assessment.

2.6.4 EAB(BT) for living room (generally not more than 14m^2 based on the proposed scheme) can reduce noise by 8dB(A) (without sound absorptive material (SAM)) and 9.5dB(A) (with SAM). Noise reduction performance can be improved by 3db(A) when tilting the EAB(BT) to a horizontal incident angle not less than 30 degree to the dominant line source. It is assumed the optimal tilt configuration and SAM is applied to all proposed EAB(BT), maximum 12.5dB(A) relative noise reduction will be adopted in the assessment.

2.6.5 The noise reduction of AW(BT) and EAB(BT) after adjustment for improvement measures are tabulated and shown in **Appendix 2.4**.

2.6.6 It is noted that the detailed configuration of AW(BT)/EAB(BT) of the proposed development is under study. For the purpose of this assessment, it is assumed that the configuration of AW(BT)/EAB(BT) in the proposed development can follow the possible design of AW(BT) and EAB(BT) documented in ProPECC PN 5/23 (e.g. outer opening not exceeding the possible design case; overlapping not less than possible design case). In addition, the outer window opening will be maintained to minimum size which can satisfy relevant requirement such as Building (Planning) Regulations so that room size smaller than the possible design in ProPECC PN 5/23 would have reduce opening such that the performance (RNR) would be similar to the possible design as well. In the detailed design stage, the detailed configuration of the noise mitigation measures will be provided and the adjustment on the relative noise reduction (RNR) will be made in the detailed noise impact assessment report. A full-scale mock-up test, if necessary, will be carried out at a later stage to justify the noise-reduction performance of the optimised mitigation measures.

Fixed Glazing (with or without Maintenance Window)

2.6.7 For window façade that are not necessary to serve ventilation purpose yet exposed to significant road traffic noise, fixed glazing (with or without maintenance window) (not for ventilation purpose) is proposed. The fixed glazing if with maintenance window will be equipped with a removable handle or key lock system to ensure the maintenance window remains locked except for cleaning and maintenance purposes. The purpose of fixed glazing (not for ventilation purpose) will be stated in relevant documents such as sales brochure, GBP and DMC in future.

Vertical Acoustic Fin

2.6.8 For bedrooms facing road, in order to further reduce the noise impact, it is recommended to locate the prescribed ventilation opening sideway instead of at the front. However, as the assessment point is located at 1m away from the window opening, the view angle will not be significantly reduced. In order to limit the view angle further, four (4) 1.5m long vertical acoustic fins are proposed. The side of the fin adjacent to ventilation opening will be covered with SAM to minimise noise reflection or reverberation. Noise reduction due to use of vertical fin is determined based on approach of CRTN but capped to not more than 3 dB(A).

Sound Absorptive Material

2.6.9 It is noted that some NSRs are located with reflective façade surface nearby (e.g. just aside a façade/fin surface), and hence inducing possible multiple noise reflection effect. In order to avoid the potential multiple noise reflection effect at NSRs, sound absorptive material (SAM) is proposed to the building façade at the surface facing the opening where necessary.

2.6.10 **Figure 2.2** shows the proposed road traffic noise mitigation measures. In addition to the recommended direct noise mitigation measures, glazing system of better insulation

(equivalent to sound transmission loss of 12mm thick glass or above) is provided in order to create a quiet indoor environment for future occupants.

2.7 Road Traffic Impact Assessment Result (Mitigated Case)

2.7.1 The predicted road traffic noise effect on the selected NSRs based on the noise mitigation measures discussed above were assessed and presented in **Appendix 2.5**. With the recommended road traffic noise mitigation measures in place, full compliance with the relevant noise criterion of $L_{10(1\text{-hour})}$ 70dB(A) stated in HKPSG can be achieved for the Proposed Development.

2.8 Conclusion

2.8.1 Road traffic noise impact has been conducted for the Proposed Development. Noise mitigation measures including noise barrier, acoustic window (baffle type), enhanced acoustic balcony (baffle type), fixed glazing (with or without maintenance window), vertical acoustic fin and sound absorption material are provided. The noise mitigation measures are tentative only and subject to future scheme refinement.

2.8.2 With the proposed noise mitigation measures in place (see **Appendix 2.6**), no adverse road traffic noise impact on the Proposed Development is anticipated. The feasibility of meeting relevant road traffic noise standard is demonstrated in this planning stage.

3. FIXED NOISE IMPACT ASSESSMENT

3.1 Introduction

3.1.1 This fixed noise impact assessment is prepared to address potential fixed noise impact on the noise sensitive uses of the Proposed Development and to recommend mitigation measures where practicable to attenuate the impact.

3.1.2 The Proposed Development comprises residential uses, recreational and retail facilities. Recreational and retail facilities will be provided with centralised air conditioning system so that they would not rely on openable window for natural ventilation. The residential dwellings are noise sensitive in nature and will rely on opened window for ventilation. All other uses such as car parking facilities are non-noise sensitive in nature.

3.2 Assessment Criteria

3.2.1 According to the Technical Memorandum for the Assessment of Noise from Places other than Domestics Premises, Public Places or Construction Sites ("IND-TM") issued under the Noise Control Ordinance (NCO), the airborne noise shall comply with the Acceptable Noise Level (ANL), which depends on the Area Sensitive Rating (ASR).

3.2.2 According to the IND-TM, four (4) types of areas are defined and including: Rural Area, Low Density Residential Area, Urban Area and Area Other Than Those Above. The Proposed Development is situated in urban area. According to the Annual Traffic Census 2024, the Annual Average Daily Traffic (AADT) of Kwun Tong Bypass was 72,360 (i.e. Station 3701). The Kwun Tong Bypass therefore acts as an influencing Factor (IF) (with AADT over 30,000) in the surrounding of the Site. Therefore, ASR "C" would be assigned to the facades directly or indirectly by the Kwun Tong Bypass, whilst ASR "B" is applicable to noise sensitive receivers having no direct line of sight with Kwun Tong Bypass and not affected by IF (e.g. NSRs shielded by Pacific Trade Centre and planned residential development on northeast to east sides). **Table 3.1** shows the applicable ASR of the noise sensitive facades of the Proposed Development. The ASR and ANLs according to IND-TM are tabulated below.

Table 3.1 Area Sensitivity Rating of NSRs

Type of Area Containing NSR		Degree to which NSR is affected by Influencing Factors (IFs)		
		Not Affected	Indirectly Affected	Directly Affected
i.	Rural area, including country parks, or village type development	A	B	B
ii.	Low density residential area consisting of low-rise or isolated high-rise developments	A	B	C
iii.	***Urban area***	***B***	***C***	***C***
iv.	Area other than those above	B	B	C

Table 3.2 Acceptable Noise Level

Time Period	ASR "B", Leq (30 min), dB(A)	ASR "C", Leq (30 min), dB(A)
Day & Evening (0700 – 2300 hours)	65	70
Night (2300 – 0700 hours)	55	60

3.3 Assessment Methodology

3.3.1 Assessment of noise impact arising from fixed noise sources has been based on standard acoustic principles and procedures given in the IND-TM. Noise impacts due to individual noise sources are calculated and logarithmically summed at each NSR to represent the overall impacts:

$$\sum PNL_i = \sum [SWL_i + C_{distance} + C_{barrier} + C_{impulse} + C_{tonality} + C_{barrier} + C_{facade}]$$

where

PNL_i = Predicted noise level, i.e. the overall sound pressure level arising from individual noise sources after various corrections

SWL_i = Derived sound power level of individual noise sources from measured noise levels

$C_{distance}$ = Correction for distance attenuation (for simplicity, only horizontal distance is considered in this study)

$C_{barrier}$ = Correction (-10 dB(A)) for substantial shielding by building structure

$C_{impulse}$ = According to the nature of the identified noise sources in the surrounding, noise of impulsive nature is not expected. No correction is recommended

$C_{tonality}$ = Correction for tonality as in IND-TM, if applicable

C_{facade} = Correction (+3 dB(A)) for façade reflection at receiver

3.4 Identification of Fixed Noise Sources

3.4.1 Based on onsite observation, the noise environment is dominated by road traffic. There are heavy traffic along Kwun Tong Bypass relatively close to the Application Site.

3.4.2 On the other hand, noise sources are identified based on desktop and onsite survey as below. The desktop survey makes reference to aerial photo, relevant study such as the planning application for the planned private residential development site (application no. A/K22/43), preliminary environmental review of New Acute Hospital (NAH) provided by Hospital Authority (see **Appendix 3.1**). It is noted that most of these identified noise sources are either being constructed or at location (e.g. rooftop) which are not accessible. Therefore, information from other reference is adopted for the assumption of noise strength.

3.4.3 Fixed noise sources have been identified in the surrounding as tabulated below and shown in **Figure 3.1.**

Table 3.3 Identified Fixed Noise Sources within the 300m Study Area

Source ID	Building	Type of Noise Source	Height	Separation from Nearest Site Boundary	Ref.
NAH-FNS-A1 to NAH-FNS-A5	NAH Block A	Planned noise source (4 nos. on 4 facades, 1 no. at the rooftop)	~100mPD	~63m	A
NAH-FNS-B1 to NAH-FNS-B5	NAH Block B	Planned noise source (4 nos. on 4 facades, 1 no. at the rooftop), NAH-FNS-A3 out of 300m assessment area [1]	~100mPD	~252m	A
HKCH01 to HKCH05	Hong Kong Children's Hospital – Roof	Condenser at the rooftop (4 nos.) Chiller at the rooftop (1 nos.)	~67mPD	~154m	B

KTF01 to KTF08	Kai Tak Fire Station – Roof	Chillers / Condensers on rooftop (8 nos.)	~39mPD	~38m	B
TQR01 -TQR05	The Quayside^	Chillers / Condensers on rooftop (5 nos.)	~100mPD	~132m	B
ET_FN01 to ET_FN06	One Bay East (East Tower)^	Cooling Towers at the rooftop (4 nos.) Chillers at the rooftop (2 nos.)	~101mPD	~218mdoim	NA
WT_FN01 to WT_FN04	One Bay East (West Tower)^	Cooling Towers at the rooftop (4 nos.)	~101mPD	~175m	NA
WS_FN01 to WS_FN03	Water Supplies Department Kowloon East Reginal Building^	Water Cooled Chillers on the rooftop (3 nos., 1 Water Cooled Chiller standby only)	~59mPD	222m	NA
CT_FN01 to CT_FN03	Capital Tower^	Cooling Tower on rooftop (3 nos.)	~120mPD	227m	NA
LC_FN01	Lam Chak Street Substation [1]	Substation with no noticeable noise observed	10mPD	24m	NA
HS-FN1	Hoi Bun Road Substation [1]	Substation with no noticeable noise observed	~13mPD	256m	NA

[1] Not included in detailed calculation

^No nighttime operation

A-New Acute Hospital at Kai Tak Development Area - Preliminary Environmental Review (Final) December 2020

B-Appendix D (Environmental Assessment), Planning Application (no. A/K22/43)

3.4.4 Most identified noise source are to the west of the Application Site except the Quayside and One Bay East on the north and northeast of the Application Site respectively.

3.4.5 The proposed NAH is still in its construction at the time of preparation of this assessment. Therefore, the noise sources will make reference to the Preliminary Environmental Review Report (PER) (See **Appendix 3.1**). The strength of noise sources of Hong Kong Children's Hospital, The Quayside and Kai Tak Fire Station have made reference to the assumption in EA report under S16 Application (A/K22/43). Meanwhile, enquiry of the aforementioned fixed noise sources has also been made to respective owners/operators (see **Appendix 3.3**) while no response has been received so far. The assessment will be updated later upon receiving any feedback from owners/operators.

3.4.6 In addition, the enquiry of information for other identified fixed noise source were made to the operators as well, as detailed in **Appendix 3.3**. Only the operator of Water Supplies Department (WSD) Kowloon East Reginal Building has replied by email and its reply is shown in **Appendix 3.3**. No reply is received yet and no access consent can be obtained from any of the parties. Since direct measurement is not practicable possible, the noise strength of the identified noise sources has been assumed based on either equipment catalogue of equipment model information provided by WSD or reference equipment catalogue model of similar scale for remaining noise sources. The reference equipment catalogue is shown in **Appendix 3.2**.

3.4.7 Moreover, according to the site survey in July 2025, no noticeable sound is observed from the Lam Chak Street Substation and Hoi Bun Road Substation. Therefore, no significant noise impact is expected from these two substations.

3.4.8 According to the Quarterly Report on the Public Works Programme in **Appendix 3.5**, the relocation and demolition of the existing Public Works Central Laboratory Building (PWCL) to caverns are expected to be completed by Q3 2027. The latest completion dated of the relocation and demolition of PWCL also has been confirmed by CEDD, and its reply is shown in **Appendix 3.3**. Meanwhile, the tentative completion year for the Proposed Development is year 2033. By that time, PWCL will no longer exist. Therefore, PWCL is not considered as the fixed noise source in the fixed noise impact assessment.

3.4.9 For noise sources at roof of building, it is assumed that there is direct line of sight, and no shielding correction applies as a conservative approach. For noise sources at the façade of building, barrier shielding correction will be applied if there is no direct line of sight with the noise sensitive receivers.

3.4.10 Most identified noise sources are chiller/condenser, etc. Tonal correction of +3dBA is assumed.

3.5 Noise Sensitive Receivers

3.5.1 A number of representative Noise Sensitive Receivers (NSRs), corresponding to habitable rooms which are likely to be subject to worst noise impact were selected for the assessment. All representative assessment points were taken at 1 m away from the façade of openable windows of rooms of sensitive use (living room, bedroom).

Figure 3.2 illustrates the locations of the selected representative NSRs for fixed noise impact assessment.

3.6 Assessment Result without Noise Mitigation Measures (Base Scenario)

3.6.1 **Appendix 3.4** shows the detailed calculation of noise impact and overall predicted noise levels among the representative assessment points selected for the proposed development. According to the result, the predicted noise level is well below the applicable noise criteria. There is no exceedance of any noise standard during different time periods. The predicted cumulative noise level at the representative NSRs under the base scenario have been summarized in **Table 3.4**.

Table 3.4 Maximum Predicted Fixed Noise Levels of the Representative NSRs (Base Case)

NSR	ASR	Noise Criteria, dB(A)		Predicted Noise Level, dB(A)	
		Day and Evening Time	Night Time	Day and Evening Time	Night Time
N1-01	C	70	60	58	39
N1-14	B	65	55	54	47
N1-52	C	70	60	58	41
N2-01	B	65	55	52	49
N2-15	B	65	55	54	50
N2-31	C	70	60	59	50
N2-35	C	70	60	58	41

3.7 Impact due to Future Fixed Noise Sources of the Proposed Development

3.7.1 The Proposed Development will contain some noisy facilities such as ventilation system, fan system and HVAC (for residents' recreational use and retail uses; for car parking facilities). However, in this early planning stage, building services consultant/contractor has not been engaged and there is absence of any detail regarding potential noisy facilities. In all circumstances, the requirement under HKPSG is fully observed (i.e. acceptable noise level minus 5 decibels). In future detailed design of the project, same requirement will be imposed so that the relevant noise standard will be met by various means such as selection of quiet equipment, use of shielding device, acoustic louvers, silencers, semi/full-enclosure. Upon availability of details of fixed noise sources, the assessment of fixed noise impact can be conducted with respect to the said planning approval condition. With abundance of direct noise mitigation measures to control and suppressed the generated noise level, no adverse noise impact due to operation of potentially noisy facilities of the Proposed Development is anticipated.

3.8 Conclusion

3.8.1 According to the result of fixed noise impact assessment, no adverse fixed noise impact due to surrounding fixed noise sources on the Proposed Development is anticipated. No noise mitigation is considered necessary.

3.8.2 This is in early planning stage of the study so that there is no detail of future fixed noise sources onsite available. With abundance of direct noise mitigation measures to control and suppressed the generated fixed noise level, no adverse noise impact due to operation of potentially noisy facilities of the Proposed Development is anticipated.

4. AIR QUALITY IMPACT ASSESSMENT

4.1 Introduction

4.1.1 This section evaluates the air quality impact during operation of the project. Table 3.1 in Chapter 9 of the HKPSG has been referenced for provision of buffer separation from identified air pollution sources in the surrounding.

4.2 Legislative Requirements and Evaluation Criteria

Assessment Criteria

4.2.1 The principal legislation for the management of air quality in Hong Kong is the *Air Pollution Control Ordinance (APCO)* (Cap. 311). The Hong Kong AQOs enacted on 11 April 2025 are listed in **Table 4.1** below.

Table 4.1 Hong Kong Air Quality Objectives

Pollutants	Average Time	Concentration Limit [i] (μg/m³)	No. of exceedances allowed per calendar year
SO_2	10-min	500	3
	24-Hour	40	3
RSP (PM_{10}) [ii]	24-Hour	75	9
	Annual	30	NA
FSP ($PM_{2.5}$) [iii]	24-Hour	37.5	18
	Annual	15	NA
NO_2	1-Hour	200	18
	24-Hour	120	9
	Annual	40	NA
Ozone (O_3)	8-Hour	160	9
	Peak Season	100	NA
Carbon Monoxide (CO)	1-Hour	30,000	0
	8-Hour	10,000	0
	24-Hour	4,000	0
Lead (Pb)	Annual	0.5	NA

Notes:

[i] All measurements of the concentration of gaseous air pollutants, i.e. sulphur dioxide, nitrogen dioxide, ozone and carbon monoxide, are to be adjusted to a reference temperature of 293 Kelvin and a reference pressure of 101.325 kilopascal.

[ii] Respirable suspended particulates (PM_{10}) means suspended particles in air with a nominal aerodynamic diameter of 10 μm or less.

[iii] Fine suspended particulates ($PM_{2.5}$) means suspended particles in air with a nominal aerodynamic diameter of 2.5 μm or less.

Air Pollution Control (Construction Dust) Regulation

4.2.2 Notifiable and regulatory works are under the control of Air Pollution Control (Construction Dust) Regulation. Notifiable works include site formation, reclamation, demolition, foundation and superstructure construction for buildings and road construction. Regulatory works include building renovation, road opening and resurfacing, slope stabilisation, and other activities including stockpiling, dusty material handling, excavation, concrete production, etc. The Project is expected to include notifiable works (site formation, demolition, foundation and superstructure construction for buildings) and regulatory works (dusty material handling and

excavation). Contractors and site agents are required to inform EPD and adopt dust reduction measures to minimize dust emissions, while carrying out construction works, to the acceptable level.

Air Pollution Control (Non-road Mobile Machinery)(Emission) Regulation

4.2.3 The Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation comes into operation on 1 June 2015. Under the Regulation, Non-road mobile machinery (NRMMs), except those exempted, are required to comply with the prescribed emission standards. From 1 September 2015, all regulated machines sold or leased for use in Hong Kong must be approved or exempted with a proper label in a prescribed format issued by EPD. Starting from 1 December 2015, only approved or exempted NRMMs with a proper label are allowed to be used in specified activities and locations including construction sites. The Contractor is required to ensure the adopted machines or non-road vehicle under the Project could meet the prescribed emission standards and requirement.

Air Pollution Control (Fuel Restriction) Regulations

4.2.4 The Air Pollution Control (Fuel Restriction) Regulations were enacted in 1990 to impose legal control on the type of fuels allowed for use and their sulphur contents in commercial and industrial processes to reduce sulphur dioxide (SO_2) emissions. In November 2024, the Regulations were amended to further tighten the control requirements of liquid fuels and remove the restrictions on the use of liquid and solid fuel in Sha Tin Fuel Restriction Area. The Regulations do not apply to any fuel-using equipment that is used or operated in premises used solely as a dwelling or is used or operated in or on a vessel, motor vehicle, railway locomotive or aircraft. Gaseous fuel, conventional solid fuel with a sulphur content not exceeding 1% by weight or liquid fuel with a sulphur content not exceeding 0.001% by weight and a viscosity not more than 6 centistokes at 40°C, such as Ultra Low Sulphur Diesel (ULSD) are permitted to be used in commercial and industrial processes.

Recommended Pollution Control Clauses for Construction Contracts

4.2.5 The Recommended Pollution Control Clauses (RPCC) are generally good engineering practice to minimize inconvenience and environmental nuisance to nearby residents and other sensitive receivers. The Contractor shall undertake environmental protection measures to reduce the environmental impacts arising from the execution of the Works and to minimise the effects on the air, noise, water quality as well as nuisance of waste within and outside the Site, on transport routes and at the loading, dredging and dumping areas.

Hong Kong Planning Standards and Guidelines

4.2.6 Section 3 in Chapter 9 of the Hong Kong Planning Standards and Guidelines (the HKPSG) presents the principal framework for planning against air pollution and a summary of common pollution sources, which includes industrial processes, motor vehicles, construction and reclamation sites, odour sources, dusty uses, etc. The recommended buffer distances are reproduced in **Table 4.2** and **Table 4.3**.

Table 4.2 HKPSG's Recommended Minimum Buffer Distance from Roads

Type of Road	Buffer Distance	Permitted Uses
Trunk Road (including expressway) and Primary Distributor	> 20 m	Active and passive recreation uses
	3 – 20 m	Passive recreational uses
	< 3 m	Amenity areas
District Distributor	> 10 m	Active and passive recreational uses

Type of Road	Buffer Distance	Permitted Uses
	< 10 m	Passive recreational uses
Local Distributor	> 5 m	Active and passive recreational uses
	< 5 m	Passive recreational uses
Under Flyovers	-	Passive recreational uses

Table 4.3 HKPSG's Recommended Minimum Buffer Distance from Industrial Chimneys

Difference in Height between Industrial Chimney Exit and the Site	Buffer Distance	Permitted Uses
< 20 m	> 200 m	Active and passive recreation uses
	5 – 200 m	Passive recreational uses
20 m – 30 m	> 100 m	Active and passive recreational uses
	5 – 100 m	Passive recreational uses
30 m – 40 m	> 50 m	Active and passive recreational uses
	5 – 50 m	Passive recreational uses
> 40 m	> 10 m	Active & Passive recreational uses

4.3 Existing Air Quality

4.3.1 The nearest air quality monitoring station (AQMS) to the Application Site is the Kwun Tong Air Quality Monitoring Station (AQMS). The five most recent years of air quality monitoring data, 2020 to 2024, from the Kwun Tong general Air Quality Monitoring Station (AQMS) are summarized in **Table 4.4**. According to the AQMS monitoring data presented in **Table 4.4**, 24-hour average RSP concentration, 1-hour average NO_2 concentration, 10-minutes average & 24-hour average SO_2 concentration and 8-hour average O_3 concentration complied with the criteria of AQOs, and exceedance in annual average RSP concentration, annual average FSP concentration and annual average NO_2 concentration were recorded between Year 2020 and 2024, but a trend of improvement is observed.

4.3.2 As the tentative year of completion of the Proposed Development is 2033, the year of 2030 hourly background concentrations from the PATH v3.0 model has been adopted for the purpose of this assessment, which is considered as a more conservative approach. The data for Year 2030 was extracted from the *Pollutants in the Atmosphere and the Transport over Hong Kong*-model version 3.0 (PATH v3.0) developed and released by EPD in January 2024 (Grid (44,33)). According to **Table 4.4** there would be no exceedance of AQOs for the future background air quality (except O_3).

Table 4.4 EPD Air Quality Monitoring Data in Kwun Tong AQMS and PATH-v3.0 (Grid (44,33))

Pollutant	Averaging time	Parameter	AQO (μg/m³)	Concentration [1] (μg/m³)					
				2020	2021	2022	2023	2024	PATH in Year 2030 (44, 33)
RSP (PM_{10})	24-hour	10th highest	75	67	72	49	57	56	52
	Annual	Maximum	30	**32**	**31**	24	26	24	20
FSP ($PM_{2.5}$)	24-hour	19th highest	37.5	32	32	31	28	31	30
	Annual	Maximum	15	**16**	**17**	14	15	14	12

Pollutant	Averaging time	Parameter	AQO (μg/m³)	Concentration [1] (μg/m³)					
				2020	2021	2022	2023	2024	PATH in Year 2030 (44, 33)
NO_2	1-hour	19th highest	200	153	164	145	147	144	88
	24-hour	10th highest	120	81	97	83	75	72	38
	Annual	Maximum	40	**43**	**49**	**45**	**41**	**42**	17
SO_2	10-minute	4th highest	500	24	24	19	29	21	21
	24-hour	4th highest	40	8	7	11	10	7	7
O_3	8-hour	10th highest	160	126	136	148	136	142	**170**
	Peak Season	Maximum	100	84	79	81	85	87	**118**
CO	1-Hour	Maximum	30,000	-	-	-	-	-	527
	8-Hour	Maximum	10,000	-	-	-	-	-	503
	24-hour	Maximum	4,000	N.A.	N.A.	N.A.	N.A.	N.A.	468

Notes:
[1] Bolded and underlined values exceed the relevant AQO.
[2] CO concentration from 2020-2024 is not available at Kwun Tong AQMS

4.4 Identification of Air Sensitive Receivers

4.4.1 Air Sensitive Receivers (ASRs) of the Proposed Development would include openable windows for ventilation purpose of the residential units and the fresh air intake of the mechanical ventilation system quipped for the retail / F&B use.

Table 4.5 Summary of Representative Air Sensitive Receivers for Proposed Development

Representative ASR	Type of Air Sensitive Uses	Assessment Height, mPD
Openable windows for ventilation purpose of the residential units	Residential	23 – 132.45 mPD
Fresh Air Intake for Retail / F&B	Commercial	4.35 – 14.35 mPD

4.5 Potential Air Quality Impact on Proposed Development

Identification of Chimney Emission Source

4.5.1 Site surveys were conducted on 15 July 2025 to identify any environmental nuisance and focus on air within 200m from the Application Site (see **Figure 4.1**). Desktop survey was also conducted to identify any planned industrial uses or uses with suspected air pollutant emissions. There is no existing and planned industrial sources and chimneys identified within 200m from the Application Site. According to relevant study in the approved planning application (Application no. A/K22/43), three existing chimneys were identified at Hong Kong Children's Hospital. During the site survey, chimneys were observed at the northern corner on the roof of Tower A at Hong Kong Children's Hospital, which is in line with chimneys' information in the approved planning application (Application No. A/K22/43). The chimneys at the Hong Kong Children's Hospital are over 200m away from the Application Site.

4.5.2 According to the Preliminary Environmental Review for New Acute Hospital (which is being constructed), there are three proposed chimneys at New Acute Hospital. The nearest chimneys at the New Acute Hospital are over 200m away from the application site.

4.5.3 As such, the horizontal buffer distance is deemed to have complied with recommended buffer distance of chimney stack under HKPSG. Hence, no adverse air quality impact from the industrial / chimney emissions is anticipated.

Identification of Vehicular Emission Sources

4.5.4 The Application Site is bounded by Cheung Yip Street to the northwest, Lam Chak Street to the southwest and Kai Hing Road to the southeast. Kwun Tong Bypass is located from the north to the east of Application Site with a horizontal separation of over 20m between its kerb site and nearest Application Site boundary.

4.5.5 **Figure 4.2** shows the separation distance from nearby road network provided and the buffer zone according to Table 3.1 in Chapter 9 of the HKPSG. According to the Annual Traffic Census (2023), Cheung Yip Street is categorised as local distributor. As advised by Traffic Consultant, Lam Chak Street and Kai Hing Road (appeared to have smaller scale when compared to Cheung Yip Street and not covered in Annual Traffic Census) are considered as local distributors. Road buffer separations (measured from road kerb side to air sensitive use) of 5m is recommended for local distributor under **Table 4.2**.

4.5.6 Regarding Cheung Yip Street, there is a horizontal separation of over 5m between its kerb site and nearest Application Site boundary. Regarding Kai Hing Street and Lam Chak Street, there are small strips area within and along the southwestern and southeastern of the Application Site falling within the buffer zone measured 5m from the kerb site of Kai Hing Road and Lam Chak Street. To comply with the required buffer distance as stipulated in the HKPSG, it is confirmed that there is no air sensitive use, including fresh air intake of ventilation system or openable windows of the buildings, recreational uses located within the buffer zone. Therefore, no adverse vehicular emission impact is anticipated

4.6 Potential Odour Impact on Proposed Development

Identification of Odour Sources

4.6.1 Site survey was conducted to identify any odour impact arising from odour sources with 200m assessment areas. The identified potential odour sources are the Kwun Tong Typhoon Shelter (See **Figure 4.3**).

4.6.2 The site survey was conducted on 15 July 2025. The photo record of site survey is provided in **Appendix 4.1**. Kwun Tong Typhon Shelter is located around 100m from the Application Site.

4.6.3 According to the observation during the site survey, no odour impact was observed near the Kwun Tong Typhoon Shelter. The enquires on the odour related complaints against the odour sources close to the Application Site have been made to Environmental Protection Department (EPD). According to the information provided by EPD, no odour complaint regarding the Kwun Tong Typhoon Shelter was received in the past 5 years. The relevant correspondences with EPD are shown in **Appendix 4.2**.

4.6.4 Based on the observation during the site survey and the nature of the Proposed Development, adverse odour impact is not anticipated on the Proposed Development at the Application Site.

4.7 Potential Air Quality Impact arising from Proposed Development

Construction Phase

4.7.1 The potential air quality impacts during the construction phase and the mitigation measures where practicable for fugitive dust and gaseous emission during construction to be adopted would be further discussed in **Session 6.2**.

4.7.2 "Recommended Pollution Control Clauses for Construction Contracts" is available on the EPD website which set out the recommended air pollution control measures to be implemented by the contractor(s) during the construction stage of the project.

4.7.3 With the implementation of control measures stipulated under the Air Pollution Control (Construction Dust) Regulation and the adoption of good practices, it is expected that construction fugitive dust and gaseous emission can be controlled.

Operation Phase

4.7.4 The Proposed Development at the Application Site is not considered environmentally polluting in nature. There will be no chimney stack planned within the site other than those for emergency generators. No adverse air quality impact on surrounding air sensitive uses is anticipated during its operation.

4.8 Conclusion

4.8.1 As confirmed in site survey, there is no existing and planned industrial source / chimney identified within 200m from the Application Site. No adverse air quality impact from the industrial / chimney emission is anticipated.

4.8.2 The Proposed Development will be designed so that there are no air-sensitive uses of the Proposed Development, including openable window, fresh air intake and recreational use in open space, falling within the road separation buffer zone (measured 5m from kerb side of Lam Chak Street and Kai Hing Road) as stipulated in the HKPSG.

4.8.3 According to the findings from the site visit, adverse odour impact is not anticipated at the Application Site.

4.8.4 Control measures stipulated under the Air Pollution Control (Construction Dust) Regulation and good practices will be adopted during construction of the project. It is expected that construction fugitive dust and gaseous emission can be controlled.

5. LAND CONTAMINATION ASSESSMENT

5.1 Legislation and Guidelines

5.1.1 The Following guidelines published by EPD have been followed:

- Guidance Manual for Use of Risk-Based Remediation Goals for Contaminated Land Management (RBRGs), revised in April 2023;
- Guidance Note for Contaminated Land Assessment and Remediation, Dated 15 August 2007; and
- Practice Guide for Investigation and Remediation of Contaminated Land (EPD's Practice Guide), revised in April 2023.

5.1.2 The criteria and the requirements stated in the above guidelines will be adopted in this Land Contamination Review.

5.2 Assessment Methodology

5.2.1 Land contamination review was carried out according to the Guidance Manual, the Guidance Note and the Practice Guide. Site appraisals, including site survey and desktop review, were conducted to identify the potentially contaminating activities that may pose adverse impact to the Application Site. Site survey was conducted within the Application Site to review the general site conditions and to identify any sources of land contamination (or 'hot spots'). There is no previous GI records or land contamination related assessment as the applicant has not received any during acquisition of this existing development. For the desktop review, the following information was reviewed:

- Selected historical aerial photos and topographic maps held by the Lands Department (LD); and
- Records on dangerous goods (DGs), chemical wastes, chemical spillage/leakage incidents and Chemical Waste Producers registry from Fire Services Department (FSD) and Environmental Protection Department (EPD).

5.2.2 Subject to the assessment outcome the Contamination Assessment Plan (CAP) may be recommended. If so, the Contamination Assessment Report (CAR) based on environmental site investigation will be prepared. Remediation Action Plan (RAP) if necessary will be provided at the same time and a Remediation Report will be submitted if land contamination is identified and remediation is required within the Project Site. The land contamination assessment and/ or remediation works shall be completed according to EPD guidelines before the commencement of any construction works for the development.

5.3 Current and Historical Land Uses

5.3.1 The Application Site is located in Kowloon Bay and currently occupied by a commercial building. The Application Site is surrounded by Cheung Yip Street to the northwest, Lam Chak Road to the southwest and Kai Hing Road to the southeast. The Pacific Trade Centre is located to the immediate northeast of the Application Site. LPG filling station is located over 30m to the north of the Application Site. The Kerry Dangerous Goods Warehouses is located around 40m to the south of Application Site. Lam Chak Street Substation is located around 20m to the southwest of Application Site.

5.3.2 Historical aerial photos taken in year 1963, 1964, 1968, 1974, 1981, 1986,1991, 1992, 1993, 1994, 2000, 2006, 2010 and 2024 are shown in **Appendix 5.1** to present the change of land use status (**Table 5.1** also refers). Reclamation of the Application Site started in 1964. After reclamation in 1968, it was used as open container storage area. Since year 1974, the site was converted into a container terminal with shelter

structure. In 1981, the site was vacant and till 1986. Afterwards, the site was re-used for container storage and with some warehouses. From year 1991 to year 1993, the site was used as a bus depot. From the year 1994, the site became vacant again. From year 2006 to year 2010, the site was under construction. In year 2010, the existing commercial building (Harbourside HQ) was built. After year 2010, the use of the building has not changed.

Table 5.1 Land use Summary on the Application Siet

Period / Year	Land Use / Description	Owner / Occupier	Source of Information	Off-site Property Affected?
1963	The Application Site was a sea.	No information available	Aerial Photos from LD	No.
1964	The Application Site was under reclamation.	No information available	Aerial Photos from LD	No.
1968	The Application Site was formed. The eastern corner of the Application Site was occupied by container storage. Two temporary structures were observed in the southwestern portion of the Application Site. A channel crossed on the eastern corner of the Application Site.	No information available	Aerial Photos from LD	No.
1974	The Application Site was converted into part of a container terminal. Containers and warehouses were observed in the Application Site.	No information available	Aerial Photos and topographic map from LD	No.
1981	The Application site was paved and became a vacant land. Lam Chak Street, Kai Hing Street and Cheung Yip Street were formed.	No information available	Aerial Photos from LD	No.
1986	The Application was paved and occupied by containers. Some warehouses were observed in the middle portion of the Application Site.	No information available	Aerial Photos from LD	No. Although the Kerry Dangerous Goods Warehouses remains in operation, as mentioned above, it continues to be separated from the Application Site 40m apart by a paved road. According to reply from EPD (See **Appendix 5.2**), there is no record of chemical spillage accident and land contamination at the Warehouses. Therefore, no adverse impact due to off-site property is anticipated.
1991	The Application Site was paved and used as bus depot.	No information available	Aerial Photos and	No.

Period / Year	Land Use / Description	Owner / Occupier	Source of Information	Off-site Property Affected?
			topographic map from LD	Although the Kerry Dangerous Goods Warehouses remains in operation, as mentioned above, it continues to be separated from the Application Site 40m apart by a paved road. According to reply from EPD (See **Appendix 5.2**), there is no record of chemical spillage accident and land contamination at the Warehouses. Therefore, no adverse impact due to off-site property is anticipated. Pacific Trade Centre, a commercial development completed in 1990 and situated next to the application site, was observed during the site visit to be used primarily as office. Therefore, no adverse impact due to off-site property is anticipated.
1992	There is no change of land use comparing to year 1991. Some temporary structures were observed in the Application Site.	No information available	Aerial Photos	
1993	There is no change of land use comparing to year 1992.	No information available	Aerial Photos and topographic map from LD	
1994	The Application Site was vacated	No information available	Aerial Photos from LD	
2000	There is no change of land use comparing to year 1994.	Nan Fung Group	Aerial Photos from LD	
2006	The Application Site was being construction.	Nan Fung Group	Aerial Photos from LD	
2010	Harbourside HQ (Original name: Octa Tower) was built and start its operation as commercial building.	Nan Fung Group	Aerial Photos from LD	No Although the Kerry Dangerous Goods Warehouses remains in operation, as mentioned above, it continues to be separated from the Application Site 40m apart by a paved road. According to reply from EPD (See **Appendix 5.2**), there is no record of chemical spillage accident and land contamination at the Warehouses. Therefore, no adverse impact due to off-site property is anticipated.

Period / Year	Land Use / Description	Owner / Occupier	Source of Information	Off-site Property Affected?
				An LPG filling station has been observed 30m apart since 2006. It is well separated and no adverse impact due to off-site property is anticipated. Pacific Trade Centre, a commercial development completed in 1990 and situated next to the application site, was observed during the site visit to be used primarily as office. Therefore, no adverse impact due to off-site property is anticipated.
2024	There is no change of land use comparing to year 2010.	The Applicants	Aerial Photos from LD	No Although the Kerry Dangerous Goods Warehouses remains in operation, as mentioned above, it continues to be separated from the Application Site 40m apart by a paved road. According to reply from EPD (See Appendix 5.2), there is no record of chemical spillage accident and land contamination at the Warehouses. Therefore, no adverse impact due to off-site property is anticipated. An LPG filling station has been observed 30m apart since 2006. It is well separated and no adverse impact due to off-site property is anticipated. Pacific Trade Centre, a commercial development completed in 1990 and situated next to the application site, was observed during the site

Period / Year	Land Use / Description	Owner / Occupier	Source of Information	Off-site Property Affected?
				visit to be used primarily as office. Therefore, no adverse impact due to off-site property is anticipated. Lam Chak Street Substation has been observed 20m apart since 2020. no adverse impact due to off-site property is anticipated.

5.4 Information from Government Departments

5.4.1 Apart from the historical aerial photos, the following Hong Kong Special Administration Region (HKSAR) Government Departments have been enquired on the latest update on the availability of land use status and records of land contamination and/or spillage of the Application Site. The summary of correspondences is tabulated in

5.4.2 **Table** 5.2 below. Copy of letters which the Consultant sent to various Government Departments and relevant replies are shown in **Appendix 5.2.**

5.4.3 Building Records Access and Viewing On-line (BRAVO) of Building Departments (BD) was visited on 29 July 2025 to obtain records for completed private buildings. There is a set of building plan of Harbourside HQ (including building, structure and drainage files) available on the website. It is observed from building plan in 2008 was designated as commercial building. The basement floor of Harbourside HQ is occupied by plant room facilities (including pump rooms, fan rooms and switch room) and a car park with a paved surface. The captured screen of BRAVO is provided in **Appendix 5.3.**

5.4.4 As advised by Planning Department (Plans), the Application Site falls within an area zoned "Commercial (2)" ("C(2)") on the approved Kai Tak Outline Zoning Plan (OZP) No. S/K22/8, intended primarily for commercial developments. The Consultant visited the Town Planning Board Statutory Planning Portal 3 to obtain latest records for land zoning. The website as of 29 July 2025 has confirmed the zone remains valid under Kai Tak Outline Zoning Plan (OZP) No. S/K22/8.

5.4.5 As advised by Environmental Department (EPD), there are 7 chemical waste producer registrations in the Application Site. There is no record of chemical spillage accident and land contamination at the Application Site.

5.4.6 As advised by Fire Service Department (FSD), neither records of dangerous goods license, fire incidents nor incidents of spillage / leakage of dangerous good were found in connected with given conditions of the Application Site.

Table 5.2 Enquires and Responses on Land Contamination Related Records in the Application Site

Consultant's Letter Ref.	Department	Response Letter Ref.	Response Date	Summary
CHPHBSHQEI00_0_0003L.25	Planning Department	-	24 July 2025	The Application Site falls within an area zoned "Commercial (2)" ("C(2)") on the approved Kai Tak Outline Zoning Plan (OZP) No. S/K22/8, intended primarily for commercial developments. The current "C(2)" zone for the Application Site was first designated on the draft Kai Tak OZP No. S/K22/1 exhibited in November 2006 and has remained unchanged since then. Before that, the site had been subject to various land use zonings/designations on statutory town plan, including: "Industrial" on draft Ngau Tau Kok and Kowloon Bay OZP No. S/K13/1 exhibited in August 1986; "Industrial" on the draft Kai Tak (South) OZP No. S/K21/1 exhibited in September 1998; and "Comprehensive Development Area (2)" on the draft Kai Tak (South) OZP No. S/K21/2 exhibited in August 2001.
CHPHBSHQEI00_0_0004L.25	Environmental Protection Department	-	29 July 2025	There is no record of chemical spillage and land contamination at the Application Site. There are 7 chemical waste producer registration in the Application Site.
CHPHBSHQEI00_0_0005L.25	Lands Department	(4) in DLOKE 240/KPA/KE(VII)	22 July 2025	The land contamination information is not available from DLO.
CHPHBSHQEI00_0_0006L.25	Fire Services Department	-	26 July 2025	Neither records of dangerous goods license, fire incidents nor incidents of spillage / leakage of dangerous goods were found in connection with the Application Site.

5.5 Discussion and Site Observation

5.5.1 Based on the above, the desktop review of historical information indicates that the Application Site was reclaimed in year 1964. Major changes of land use status in the area were observed around year 1974, 1991 and 2010. The Application Site was used as container terminal and bus depot before. The commercial building (Harbourside HQ) was developed and operated from year 2010 to present.

5.5.2 Further to review of historical aerial photos, it is found that the Application Site was used as a container terminal and open storage for the containers from Years 1968 to 1981 and in 1986. According to the observations from historical photos, the Application Site was mainly used for the storage of containers. The Application Site was vacant between year 1981 and 1986. During the period when the site was used as a container terminal and open storage, no dedicated uses within site and of land contamination concern (e.g. container truck or other equipment maintenance area) could be identified. Therefore, potential land contamination arising from this historical use is less likely.

5.5.3 A review of historical aerial photographs from 1991 to 1993 indicates that the Application Site was utilized as a bus depot. Some temporary structures were identified from the review of historical aerial photographs. Vehicle maintenance operations and fuel filling activities in the past could not be ruled out. Land contamination associated with the former bus depot may arise.

5.5.4 Based on the historical topographic maps (1991 and 1993), the ground level of the Application Site was around +4.4 mPD. The Application Site has been occupied by a commercial building (the existing Harbourside HQ) with a basement floor covering entire site since 2010. The floor level of the basement carpark of Harbourside HQ is -1.5mPD. There is piling cap as basement floor (around 2m). In other words, excavation works of more than 7 m in depth (down to -3.5mPD) were undertaken for the construction of the existing basement carpark at that time. Potentially contaminated soil arising from any historical surface spillages, if any, is unlikely to have migrated beyond approximately 7 m below the original ground level. It means that potentially contaminated soil related to the former bus depot, if any, should have been removed. Therefore, land contamination issues within the Application Site is very unlikely.

5.5.5 The lowest floor level of the Proposed Development is at approximately –5.5 mPD (B2 floor), with an anticipated maximum excavation depth of approximately –7.5 mPD, (i.e. 2 m below the lowest level of the Proposed Development). Nevertheless, as mentioned in **paragraph 5.5.4**, all potentially contaminated soil related arising from historical land uses, if any, should have been removed during the construction of the basement carpark of the existing development. Contaminated soil encountered during deeper excavation works of the Proposed Development is not expected.

5.5.6 7 valid Chemical Waste Producers (CWPs) were identified. As checked with the management office of Harbourside HQ and site visit conducted on 15 July 2025, it is found that 5 CWPs (distributed at 1/F, 3/F, 11/F, 25/F) have already relocated from the current building. For the remaining CWPs, one of them is on 13/F and is occupied by Atos Information Technology HK Limited, which operates as an office for providing business and technology consulting services. Given the nature of its operations, it is anticipated that no chemical spillage accidents will be caused by this CWP. Another valid CWP is the Asian Integrated Cell Laboratory (occupied entire 30/F) which includes laboratory for providing international standardized cell storage services and clinical treatment services for immune cells and stem cells. According to the management office, the company has independently engaged a contractor to menage their waste disposal. It is expected that all CWPs follow the code of practice on the packaging, labelling and storage, as well as disposal, of chemical wastes. Additionally, there is no record of chemical spillage, land contamination or incidents of spillage/leakage of dangerous goods at the Application Stie, as advised by the EPD and FSD. From the site visit, it is confirmed that the paving on all concerned floors with past and current CWPs are in good condition. Since the CWPs are located at a high level, only floor (i.e. basement floor) at the level with possible direct contract with soil would cause land contamination. Therefore, no land contamination issue is expected to arise. The details of CWPs and the photo record are shown in **Appendix 5.6**.

5.5.7 Site visit was conducted on 15 July 2025. According to the site visit, the basement floor (B/F) of Application Site is currently a carpark and plants room. It was observed that the paving material in the basement areas (including both the car park and plant rooms) is concrete and kept in good condition. Also, there is no incident of spillage / leakage of dangerous goods record received. Photo records for current building were show in **Appendix 5.5**. Therefore, land contamination is not expected from the operation of plant rooms and carpark.

5.5.8 According to site walkover checklist, there is no potential contaminating facilities at the floor (i.e. B/F) having direct contact with soil in spite of the observation that diesel fuel is used for the emergency generator (2/F) and with storage on 2/F. Sump pits and

a petrol interceptor are observed at B/F of the Application Site. Since B/F was used for car parking rather than industrial uses or car repairing, the sump pits mainly collect water from the basement carpark, while petrol interceptor filter lighter oil from the collected water. Therefore, the potential for land contamination is deemed negligible. The site walkover checklist is shown in **Appendix 5.4**.

5.5.9 Historical land use showed that the Application Site was used as container storage. Land contamination due to such historical use is less likely. The Application Site was also used as bus depot before with temporary structures for which vehicle maintenance operations and fuel filling activities could not be ruled out. However, it is understood that there should be deep excavation conducted before for the construction of the existing commercial building onsite. Potentially contaminated soil, if any, should have been removed. Therefore, land contamination arising from this past land use is very unlikely. Regarding the existing use, it is observed that the basement is fully paved and in good condition according to site visit. No potential land contamination issue has been identified.

5.5.10 It is therefore considered that the risk of land contamination problem arising from the historical and current use is unlikely.

5.6 Conclusion

5.6.1 According to the existing use observed in site survey and the historical use reviewed, the risk of land contamination problem is unlikely. Further investigation of potential land contamination problems is not considered necessary (i.e. the CAP, CAR, RAP and Remediation Report is not considered required in later stage of the Project).

6. CONSTRUCTION PHASE ENVIRONMENTAL IMPACT

6.1 Introduction

6.1.1 During the construction phase of the Proposed Development, there may be potential air quality, noise and water quality impacts upon the nearby sensitive receivers. Waste generation is another consideration. Practicable environmental mitigation measures are recommended to reduce these impacts to acceptable ranges.

6.2 Construction Air Quality Impact

Construction Fugitive Dust Impact

6.2.1 The major air quality impact of concern during the construction phase will be the potential fugitive dust emission. The major dust emission sources during the construction phase of the Proposed Development are expected arise from construction activities such as:

- Demolition of existing building structures;
- Earthworks (minor excavation and backfilling activities);
- Wind effect on material stockpiling; and
- Vehicle movements on haul roads and over the construction site.

6.2.2 For the demolition of existing building, C&D materials generated is estimated to be around 93,000m^3. Assuming a demolition period of around 1 year, there will be around 40 truckloads of materials generated per day. The Proposed Development has a site area of about 6,520m^2. Excavation will only be required for the B2 floor, which occupies an area of about 2,616 m^2 and the excavation work will be carried to a depth of about 6m. Therefore, total excavation volume is estimated around 15,696m^3 during the site formation stage. Assuming a period of 1 year for site formation, there will be about 7 truckloads of materials generated per day. During the superstructure construction, it is estimated that 10,200m^3 construction waste will be generated. Assuming a period of 3 years for superstructure construction, there will be about 1 truckloads of construction waste generated per day. Therefore, necessary mitigation measures are recommended and will be implemented in order to avoid adverse fugitive dust impact.

6.2.3 On the other hand, there is the proposed residential development under the Approved Planning Application A/K22/43 located immediately southwest of the Application Site is tentatively scheduled to be completed by year 2033. Overlapping of construction work is expected. Construction of other two planned developments including New Acute Hospital and residential development at the waterfront site are tentatively completed by 2026 and late 2027 before any construction work of the Project so that they would not contribute to cumulative construction air quality impact.

Construction Gaseous Emission Impact

6.2.4 There will be potential impacts from the criteria pollutants (e.g. nitrogen oxides (NOx), sulphur dioxide (SO_2), and carbon monoxide (CO)). Emission from diesel trucks for the haulage of materials and construction plants will contain high percentage of smoke particulate and unburned hydrocarbons in comparison with petrol driven vehicles. Ultra-low sulphur diesel (ULSD) with sulphur content not exceeding 0.001% by weight will be used as fuel to minimize SO_2 emission. In all circumstances, the contractor will be required to observe all relevant regulations and maintain all equipment in good condition to avoid any excessive emission. Under the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation, only approved or exempted non-road mobile machineries (including mobile generator, air compressor, excavator, crawler crane, bulldozer and etc.) with a proper label are allowed to be used in the construction site.

6.2.5 In addition, availability of electricity supply during construction of the project will be explored and such requirement will be specified in future contract. If available, contractor should maximise use of electricity and with least reliance of diesel fuelled equipment (e.g. for electricity powered stationary equipment such as pump instead of using generator).

6.2.6 There are existing and planned residential uses, office, hospital and recreational facility situated in the vicinity of the Application Site, which are considered air sensitive in nature. In addition, the residential development is considered noise sensitive. These representative ASRS are shown in **Figure 6.1** and tabulated below.

Table 6.1 Summary of Representative Surrounding Air and Noise Sensitive Receivers during Construction of the Project

ID	Description	Type of Air Sensitive Uses	Approximate Horizontal Distance to the Application Site	Height
SR01	Proposed Residential Development at Nos. 1-5 Kai Hing Road (1)	Residential (3)	15m	~5.7 to 100 mPD
SR02	Miami Quay	Residential (3)	475m	~6.5 to 95 mPD
SR03	Hong Kong Children's Hospital	Hospital	155m	~5.7 to 67.2 mPD
SR04	New Acute Hospital (2)	Hospital	50m	~5.7 to 100 mPD
SR05	Capital Tower	Office	265m	~6 to 120 mPD
SR06	The Quayside	Office	125m	~5 to 106 mPD
SR07	One Bay East	Office	175m	~5.3 – 100 mPD
SR08	Kwun Tong Promenade	Recreational Space	115m	~5.3 mPD
SR09	Planned Development under the Planning Application A/K22/43(4)	Residential (3)	20m	~5.3 – 100 mPD
SR10	Kai Tak Fire Station	Fire Station	40m	~5.8 – 36.7 mPD
SR11	Pacific Trade Centre	Office	~ 1m	~5.8 – 51.5 mPD

(1) Tentatively completion by year 2027
(2) Tentatively completion by year 2026
(3) Also considered as noise sensitive uses
(4) Tentatively completion by year 2033

Concurrent Projects

6.2.7 According to the approved S16 planning application (Application No. A/K22/43), the proposed residential development located immediately southwest of the Application Site is tentatively scheduled to completed by year 2033. Given that the tentative completion year for the Proposed Development by the same year, overlapping of construction work is expected and cumulative fugitive dust mitigation measures should be implemented for the Proposed Development as well as the concurrent project. It is recommended that the contractors of the concurrent projects should have close liaison to minimize dusty activities to take place at the same time as far as practicable.

Mitigation Measures for Fugitive Dust and Gaseous Emission

6.2.8 Fugitive dust and gaseous emission arising from construction activities can be effectively suppressed by incorporating proper mitigation measures into work procedures through contractual clauses, good site management, and close monitoring by the resident engineers. The contractor shall be required to follow the requirements of the Air Pollution Control (Construction Dust) Regulations. With the adoption of good practices, it is expected that emission of construction dust can be kept at an acceptable level. The recommended mitigation measures are described below. In addition, EPD's recommended pollution control clause for construction contracts will be incorporated and required in future tender document to ensure that all relevant environmental protection and pollution control ordinances are observed and complied with.

General Site Management

6.2.9 Appropriate working methods should be devised and arranged to minimise dust emissions and to ensure any installed control system and/or measures are operated and/or implemented in accordance with their design merits. No free falling of construction debris should be allowed, which should be let down by hoist or enclosed tunnel to the ground.

6.2.10 Frequent mist/ water spraying should be applied on dusty areas. The frequency of spraying will depend upon local conditions such as rainfall, temperature, wind speed and humidity. The amount of water spraying should be just enough to dampen the material without over-watering which could result in surface water runoff.

6.2.11 Hoarding of not less than 2.4m high from ground level along site boundary, which is next to a road or other public area should be provided. Higher hoarding should be considered for boundary close to nearest air sensitive uses (Proposed Residential Development at Nos. 1-5 Kai Hing Road).

Vehicles and Unpaved Site Roads

6.2.12 Dust emission from unpaved roads comes predominantly from travelling of vehicles. Areas within the site where there are regular vehicle movements should have an approved hard surface. Speed controls at an upper limit of 10km/hr should be imposed and their movements should be confined to designed roadways within the site. All dusty vehicle loads should have side and tail boards covered by tarpaulin extending at least 300mm over the edges of the side and tail boards. Wheel-wash troughs and hoses should be provided at exit points of the site.

Material Stockpiling and Handling

6.2.13 The amount of stockpiling should be minimised where possible. Construction material or debris should be covered and stored inside enclosed areas. Other control measures such as enclosed or semi-enclosed windboard should be used, where applicable, to minimise dust emission. Regular watering is needed at areas such as storage piles, where there could be potential dust emission. Placing dusty material storage piles near ASRs should be prevented.

Maximising Use of Electric Power Supply

6.2.14 Only approved Non-road Mobile Machinery (NRMM) should be used for construction work with respect to the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation. Exempted NRMMs shall be avoided. Electrified NRMMs should be deployed as far as practicable. In addition, electric power supply shall be provided for onsite machinery as far as practicable to minimize PM and gaseous emissions.

6.2.15 The dust control measures detailed below shall also be incorporated into the Contract Specification where practicable as an integral part of good construction practices:

- The area at which demolition work takes place shall be sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation so as to maintain the entire surface wet;
- Impervious dust screens or sheeting shall be used to enclose the whole wall to a height of at least 1m higher than the highest level of the structure being demolished;
- Any dusty materials remaining after a stockpile is removed shall be wetted with water and cleared from the surface of roads or streets.
- Plan site layout so that machineries, dust causing activities and stockpiling are away from receptors as far as possible;
- Higher site hoarding (not less than 2.4m) should be implemented where there are receptors at close proximity to the construction site and dusty activities; and
- Haul road shall be away from the project boundary as much as possible.

6.3 Construction Noise Impact

6.3.1 During the construction phase of the Proposed Development and associated works, major noise impacts would arise from operation of Powered Mechanical Equipment (PME), and construction-related traffic.

Construction Noise Criteria

6.3.2 Construction noise is controlled under the Noise Control Ordinance (NCO) which prohibits the use of powered mechanical equipment (PME) during the restricted hours (7 p.m. to 7 a.m. on normal weekdays and any time on a public holiday, including Sunday) without a valid Construction Noise Permit (CNP) from the Authority. The criteria and procedures for issuing such a permit are specified in the "Technical Memorandum on Noise From Construction Works Other than Percussive Piling" (TM1). While there is no planned construction works to be carried out during the restricted hours, TM1 should be followed in case there is any need to carry out works in such time period in future.

6.3.3 With effect from 1 November 96, the use of specified powered mechanical equipment (SPME) for carrying out construction work other than percussive piling and/ or the carrying out of prescribed construction work (PCW) within a designated area are also brought under control. The relevant technical details are provided in the "Technical Memorandum on Noise from Construction Work in Designated Areas" (TM2).

6.3.4 For construction works other than percussive piling, although GW-TM does not provide control over daytime construction activities, noise limits as shown in below Table are set out in the ProPECC PN 1/24.

Table 6.2 Noise Limit for Daytime Construction Activities

NSR	0700 to 1900 Hours on Any Day Not Being a Sunday or General Holiday, Leq (30 min), dB(A)
All domestic premises Temporary housing accommodation Hostels Convalescences homes Homes for the aged	75
Places of public worship Courts of law Hospitals and medical clinics	70

Educational institutions (including kindergartens and nurseries)	70 (65 during examinations)

Notes:

(i) The above standards apply to uses which rely on opened windows for ventilation;

(ii) The above standards shall be viewed as the maximum permissible noise levels assessed at 1 m from the external façade.

Identification of Potential Noise Impacts

6.3.5 The potential sources of noise impact during the construction phase of the Proposed Development would be the use of Powered Mechanical Equipment (PME) for various construction activities. The key construction activities to be carried out which are relevant to the construction noise impact include:

- Demolition of Existing Building;
- Construction of Foundation (percussive piling);
- Construction of Pile Cap; and
- Construction of Superstructure.

The use of PMEs for the construction works would likely cause potential noise impact on the NSRs located in the vicinity of the Project Site. The potential construction noise impacts should be able to be mitigated by the implementation of noise mitigation measures and discussed below. Since the detailed information on construction activities of the Project and PMEs to be used are unavailable at this stage, a quantitative construction noise impact assessment is recommended to be conducted by the Project Proponent/Contractor during detailed design stage to assess the construction noise impact and to formulate the mitigation measures required for implementation.

Noise Mitigation Measures

6.3.6 Noise mitigation measures are recommended to be introduced to alleviate potential noise impacts. The Contractor(s) will be required under the contract to ensure regular maintenance of all plant and equipment, and that noise generation at source would be minimized and practicable noise mitigation measures would be in use. The Contractor(s) will be required to adopt onsite electricity (to avoid using genset or pneumatic equipment), quiet type construction plants (e.g. EPD's quality powered mechanical equipment (QPME) inventory), wherever practicable. Movable noise barriers will also be erected around noisy plants in order to minimize noise generation at source. With these measures in place noise generation due to construction activities would be minimized.

6.3.7 The following general noise mitigation measures are recommended for implementation:

- Application of properly designed silencers, mufflers, acoustically dampened panels and acoustic sheds or shields, etc.;
- Making use of onsite electricity and use of electric-powered equipment where applicable instead of diesel-powered or pneumatic-powered equipment;
- Erecting noise enclosures/ movable noise barriers around noisy plants;
- Only well-maintained plants should be operated on-site;
- Plants should be serviced regularly during the construction programme;

- Noisy activities can be scheduled to minimize exposure of nearby NSRs to high levels of construction noise. For example, noisy activities can be scheduled for midday or at times coinciding with periods of high background noise;
- Noisy equipment such as emergency generators shall always be sited as far away as possible from noise sensitive receivers;
- Location of noise emitting plants at maximum possible distances from sensitive receivers;
- Contractual clauses for construction works;
- Schedule of noisy operations during non-restricted hours where possible; and
- Quieter construction method & equipment such as using high pressure water jetting, quieter type wire saws or diamond wire saws, hydraulic crusher for concrete breaking for demolition works, handheld concrete crushers, silent piling by press-in method for foundation works.

6.3.8 The above-mentioned noise mitigation measures, and all other relevant measures in "Recommended Pollution Control Clauses for Construction Contracts" from EPD website and ProPECC PN 1/24 will be included in the contractual clauses for the contractor(s) to follow and implement during the construction stage for construction of the proposed development. Furthermore, the Project Proponent will be recommended to specify the quieter construction equipment/methods in the construction contract to adopt through the preparation of a Construction Noise Management Plan (CNMP) by the successful tenderer with reference to ProPECC PN 1/24. With these measures in place, construction noise due to the Proposed Development can be minimized, and no significant noise impact is anticipated.

6.4 Water Quality Impact

Relevant Legislation, Standards and Guidelines

6.4.1 Relevant legislations and standards include:

- Water Pollution Control Ordinance (Cap. 358); and
- Hong Kong Planning Standards and Guidelines.

6.4.2 Other relevant guidelines include:

- Water Supplies Department (WSD) Water Quality Criteria;
- Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS);
- Professional Persons Environmental Consultative Committee Practice Note 2/24 "Construction Site Drainage" (ProPECC PN 2/24);
- Professional Persons Environmental Consultative Committee Practice Note 1/23 "Drainage Plans subject to Comment by the Environmental Protection Department" (ProPECC PN 1/23); and
- Sewerage Manual (SM) and the Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning (GESF).
- Environmental, Transport and Works Bureau (ETWB) Technical Circular (Works) No. 5/2005 Protection of natural streams/rivers from adverse impacts arising from construction works
- Drainage Services Department (DSD) Technical Circular and Practice Notes
- EPD Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning (version 1.0) (Report No. EPD/TP 1/05)

Water Sensitive Receivers

6.4.3 The identified Water Sensitive Receivers (WSR) located within 500m from the Proposed Development are shown in **Figure 6.2** and Nevertheless, potential water quality impact during construction of the Project needs to be properly addressed.

6.4.4 Table 6.3**.** Nevertheless, potential water quality impact during construction of the Project needs to be properly addressed.

6.4.5 There is no watercourse found within the Application Site and the Application Site is separated from identified WSR by road and other development areas as well. The nearest WSR is WSR 01 (Kwun Tong Typhoon Shelter), which is located ~95m to the southeast of the Application Site separated by the planned residential development at the waterfront site. Nevertheless, potential water quality impact during construction of the Project needs to be properly addressed.

Table 6.3 Representative Water Sensitive Receivers

WSR	Nature	Approximate Horizontal Separation from Nearest Site Boundary
WSR 01 Kwun Tong Typhoon Shelter	Marine	~95m to the southeast
WSR 02 Kai Tak Approach Channel	Marine	~230m to the southwest

Source of Construction Wastewater

6.4.6 Construction activities including site clearance and formation, foundation work (piling), excavation and superstructure construction, etc. would inevitably have the potential to generate wastewater and affect the nearby water quality. Works should be carried out in such a manner so as to minimise significant impacts on local water bodies. Activities that are likely to cause water pollution include:

- Demolition and construction runoff and drainage;
- Sewage effluent from the site; and
- Accidental spillage of chemical, e.g. oil, diesel, solvents etc.

6.4.7 Liquid spillage, e.g. oil, diesel, solvents etc. Demolition and construction runoff contain increased loads of sediments, other suspended solids and contaminants. Potential sources of pollution include runoff and erosion from the site surfaces, drainage channels, bentonite slurries and runoff from dust suppression sprays, fuel, oil and lubricants from vehicles and other equipment.

6.4.8 Sewage effluent could be potentially generated from eating areas, temporary site facilities (e.g. toilets) and waste disposal area for onsite construction workforce. The sewage effluent is characterized by high levels of biochemical oxygen demand (BOD), ammonia, E. coli and some oil/ grease.

6.4.9 Liquid spillage could be caused by general construction works to contaminate surface soils, e.g. oil, diesel, solvents etc. The contaminated soil may be washed away through runoff from construction site and enter nearby stormwater drains, thus leading to negative water quality impact.

6.4.10 The effects on water quality from these construction activities are likely to be minimal provided that site boundaries are well maintained a goods site practice is observed to ensure that litter and fuels are managed, stored, and handled properly. Below are

some mitigation measures to avoid and minimize potential water quality impacts on the WSRs.

Mitigation Measures

6.4.11 The good practice given in the ProPECC PN 2/24 in controlling water pollution at construction site shall be implemented during the construction phase of the Proposed Development. Soil erosion from the construction site can be minimised through good onsite management practices by implementing viable erosion control measures, which should be incorporated in contract clauses. The main practices provided in ProPECC PN 2/24 are also summarized in the following paragraphs, which should be enforced to prevent adverse construction stage impacts and for compliance with the statutory criteria.

Construction Site Runoff

- Exposed soil surfaces should be protected from rainfall through, for example, by covering temporarily exposed slope surfaces or stockpiles with impervious tarpaulin and protect temporary access roads by crushed stone or gravel;
- Exposed soil areas should be minimized to reduce the potential for increased siltation and contamination of runoff;
- Minimise the time that soil surfaces are exposed;
- Slow down water run-off flowing across exposed soil surfaces;
- Channels, earth bunds or sandbag barriers should be provided on-site to properly direct surface runoff through drainage systems. The construction runoff will be controlled in such a way that there will be no spillage of site runoff into adjacent areas or into the nearby bay;
- Oil interceptors are also recommended to be provided for stormwater drains near plant maintenance/repair areas, where necessary;
- Manholes (including newly constructed ones) should be adequately covered or temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system;
- Construction works should be programmed to minimise soil excavation works where practical during rainy conditions; and

Ground Water

- Groundwater pumped out of wells, etc. for the lowing of ground water level in basement or foundation construction, and groundwater seepage pumped out of tunnels or caverns under construction should be discharged into storm water drains after the removal of silt in silt removal facilities.

Boring and Drilling Water

- Water used in ground boring and drilling for site investigation or rock/soil anchoring should as far as practicable be recirculated after sedimentation. When there is a need for final disposal, the wastewater should be discharged into storm drains via silt removal facilities.

Bentonite Slurries

- Bentonite slurries used in diaphragm wall and bore-pile construction should be reconditioned and reused wherever practicable. If the disposal of a certain residual quantity cannot be avoided, used bentonite slurry (if mixed with only inert fill materials) should be dewatered, and disposed of at a public fill reception facility/ area or the marine spoil ground (as a last resort) subject to obtaining a marine dumping licence from EPD on a case-by-case basis; and

- The water generated from the dewatering process should be treated to the respective effluent standards applicable to foul sewers, storm water drains or the receiving waters as set out in the Technical Memorandum on Effluent Standards under the WPCO.

Wastewater from Construction Sites

- Sewerage generated from the construction workforce should be contained by chemical toilets before connection to public foul sewer can be provided. Sufficient chemical toilets should be provided in the construction site. The facility should be serviced and cleaned by a licensed contractor at regular intervals;
- Foul water from canteens on-site, if any, should also be contained by chemical toilets before connection to public foul sewer can be provided;
- A vehicle wheel washing facility should be provided at every site exit such that earth, mud, debris, etc. deposited onto the vehicle wheels or body can be washed off before leaving the sites; and
- Section of the construction road between the wheel washing bay and the public road should be paved to reduce vehicle tracking of soil and to prevent site runoff from entering public road drains.

Liquid Spillage

- Spillage of fuel oils or other polluting fluids should be prevented at source. It is recommended that all stocks should be stored inside proper containers and sited on sealed areas, preferably surrounded by berms;
- Regular site inspections to ensure the proper implementation of the above measures shall be carried out;
- A chemical waste producer must be registered by the Contractor if chemical waste would be produced from the construction site;
- Control of chemical waste shall observe and comply with the Waste Disposal Ordinance (Cap. 354) and its subsidiary regulations, particularly the Waste Disposal (Chemical Waste) (General) Regulation;
- Any maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided; and
- Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should be undertaken with the areas appropriately equipped to control these discharges.

6.4.12 Regular site inspections to ensure the proper implementation of the above measures shall be carried out.

6.5 Construction Waste Management

Legislation

6.5.1 The principal legislation controlling waste materials in Hong Kong is the Waste Disposal Ordinance (WDO) (Cap. 354) and its subsidiary regulations including Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) and Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N). Other relevant ordinance includes Land (Miscellaneous Provisions) Ordinance (Cap 28) and Public Health and Municipal Services Ordinance (Cap 132) - Public Cleansing and Prevention of Nuisances Regulation. Other relevant guidelines which cover how applicant and contractor should comply with the regulations are as follows:

- Waste Disposal Plan for Hong Kong (December 1989), Planning, Environment and Lands Branch Government Secretariat, Hong Kong Government;
- Environmental Guidelines for Planning In Hong Kong (2024), Hong Kong Planning Standards and Guidelines, Hong Kong Government;
- Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes (2023), EPD, Hong Kong Government;
- Works Branch Technical Circular (WBTC) No. 2/93, Public Dumps, Works Branch, Hong Kong Government;
- WBTC No. 2/93B, Public Filling Facilities, Works Branch, Hong Kong Government;
- WBTC No. 12/2000, Fill Management; Works Bureau, Hong Kong SAR Government;
- DevB TCW No. 8/2010, Enhanced Specification for Site Cleanliness and Tidiness. Development Bureau, Hong Kong SAR Government;
- WBTC No. 12/2002, Specification Facilitating the Use of Recycled Aggregates. Works Bureau, Hong Kong SAR Government;
- DEVB TC(W) No. 6/2010, Trip Ticket System for Disposal of Construction & Demolition Materials, Development Bureau, Hong Kong SAR Government;
- Practice Note for Authorized Persons and Registered Structural Engineers – Construction and Demolition Waste (PNAP ADV-19, also known as PN for AR&RSE No.243);
- A Guide to the Chemical Waste Control Scheme; and
- Monitoring of Solid Waste in Hong Kong 2023.
- PNAP No. 252 (ADV-21), Management Framework for Disposal of Dredged Excavated Sediment
- Dumping at Sea Ordinance (Cap.466)
- Administrative Guidance – Management Framework for Disposal of Dredged/Excavated Sediment

Construction Waste Generation

6.5.2 Construction activities for the Proposed Commercial Development will generate waste materials requiring appropriate management and disposal. Likely range of waste types includes:

- C&D materials;
- General refuse generated by the workforce; and
- Chemical and oily wastes due to maintenance of equipment.
- Land-based sediments

C&D Materials

6.5.3 C&D materials comprise mainly of unwanted materials, including surplus materials arising from excavations that are generated from the works (e.g. site clearance, demolition works of substructure, site formation works, excavation work for basement). Inert soft C&D materials comprise of soil, sand, clay, slurry, etc., while hard C&D materials comprise of crushed concrete, asphalt, rock, etc. The amount of non-inert C&D materials generated during site clearance would be minor (as there is little vegetation at the Application Site). C&D materials may comprise different types of materials, including:

- Non-inert C&D materials (e.g. bamboo, timber, paper, metal, glass, plastic, packaging wastes, etc.) decompose and are not suitable for land reclamation. Non-inert C&D materials should be reused or recycled as far as possible. For those

non-inert C&D materials that cannot be reused or recycled should be disposed of at landfill as last resort;

- Inert C&D materials do not decompose (e.g. soil, rock debris, rubble earth, concrete, etc.) and is suitable to reuse as filling materials for land reclamation and site formation. Inert C&D materials could be reused on-site as filling materials. For those inert C&D materials that cannot be reused should be delivered to a Public Fill Reception Facilities.

6.5.4 The general waste management strategy is to avoid waste generation in the first place. If that is unavoidable, source reduction and segregation should be exercised as far as practicable and at the same time, recycling and reuse should be adopted to salvage as much as possible all the recyclable and reusable materials.

Identification and Evaluation of Waste Management Implications in Construction Phase

C&D Waste

6.5.5 C&D material of different types may be mixed together, thus not possible to recycle C&D material subsequently and increase burden to landfill facilities. In accordance with the development scheme, the existing building will be demolished. An approximate total of 93,000m^3 will be generated during demolition stage. Approximate 74,400m^3 of inert C&D (i.e. 80% of total demolition materials) and 18,600m^3 of non-inert C&D materials (i.e. 20% of total demolition materials) will be generated during the demolition works. The existing basement floor level is -1.5 mPD, which is the same as the B1 level of the proposed development. Excavation work will only be required for B2 floor of the Proposed Development, which has an area of approximately 2,616m^2 and a depth of about -5.5 mPD. The tentative maximum excavation depth is -7.5 mPD (i.e 2 m below the B2 floor level), resulting in an overall excavation depth of approximately 6m (-1.5mPD-(-7.5mPD)). Approximate 15,696 m^3 (i.e. 6m X 2,616m^2) excavation material will be generated during the excavation works. Approximate 4,100m^3 of Inert C&D Materials and 6,100m^3 of non-inert C&D materials will be generated during the superstructure works.

General refuse

6.5.6 Without any handling arrangement/ control measures in place, the storage, handling and disposal of general refuse have the potential to give rise to some environmental impacts. These include odour and hygienic problem if waste is not collected frequently, windblown litter, water quality impacts if waste enters water bodies, and visual impact. To estimate the general refuse generated during construction phase, an assumption of 100 workers per day with 0.65 kg per worker per day has been made, an approximate total of 65kg of general refuse (i.e. 0.65kg X100 workers) will be generated per day.

Chemical Waste

6.5.7 The possible chemical waste includes oil and grease associated with plant maintenance, hydraulic fluid from plant machinery, scrap batteries from vehicle maintenance, and used paint, cleaners, solvents used in maintaining mechanical equipment. Chemical wastes arising during the construction phase may pose environmental, health and safety hazards if not properly labelled, packaged, handled, stored and disposed of in an appropriate manner. For chemical waste, only a small amount will be generated during the construction period, estimated at no more than 50 L per month. The amount of chemical waste to be generated shall be quantified in the Waste Management Plan (WMP) as part of the Environmental Management Plan (EMP) to be prepared by Contractor in subsequent construction stage.

Land-based Sediment

6.5.8 It is noted that the Application Site is situated on reclaimed land. However, at this planning stage, there is no detailed information on the land-based sediment (i.e., GI Record). As shown in the MLP (**Appendix 1.1**), the lowest basement floor level (B2) of Proposed Development is -5.5mPD. A tentative maximum excavation depth of –7.5 mPD, which is approximately 2 m below the basement floor level, has been assumed. In view of this, land-based sediment is anticipated within the Project Site and is expected to be encountered during piling and excavation works associated with the basement construction. In accordance with the PNAP ADV-21 and Administrative Guidance – Management Framework for Disposal of Dredged/Excavated Sediment, sediment should be classified into three Categories and the Types of marine disposal are according to the chemical and biological concentration of the sediment. Classification of the sediment will be conducted based on laboratory analysis results of sediment samples in later stage. On-site treatment and reuse of excavated sediment will be prioritised, subject to detailed study in later stage, with marine disposal considered only as a last resort.

6.5.9 The estimated quantities and types of waste to be generated by the project are summarized in **Table 6.4**.

Table 6.4 Summary Table of Estimated Waste during Construction of Project

Waste material	Estimated Waste Generation	Proposed Handling Method and Destination
Inert C&D Materials	~94,196 (74,400m^3 during demolition period; 15,696during excavation period and 4,100m^3 during the superstructure period)	~99% (i.e. 93,254m^3) would be delivered to public fill reception facility (i.e. Tseung Kwuan O Area 137 Fill Bank) ~1% (i.e. 942m^3) would be reused on-site.
Non-inert C&D Materials	~24,700 (18,600m^3 during demolition period, and 6,100m^3 during the superstructure period)	Recyclable waste to be sorted and segregated from non-recyclable waste; ~1000m^3 of recyclable wastes to be collected by/delivered to recycler; Remaining ~23,700m^3 of non-recyclable wastes to be disposed of at designed landfill site
General Refuse	~65kg/day	Collected by refuse collection vehicle and disposed of at designated landfill site
Chemical Waste	Anticipated to be limited (say, <50 litre / month)	Collected by licensed chemical waste collector and delivered to Chemical Waste Treatment Centre or equivalent
Land-based sediment	To be confirmed.	On-site treatment and reuse of excavated sediment will be prioritised. Handling and disposal of sediment to the sediment disposal space at sea.

Notes:

(i) The above estimated quantities are subject to the detailed design stage.

(ii) The destination of inert C&D materials is subject to the designation by the Public Fill Committee according to DEVB TC(W) No, 6/2010

(iii) *The disposal of non-inert C&D materials at designated landfill shall be subject to agreement with the relevant section of the EPD*

Mitigation Measures during Construction Phase

6.5.10 The various waste management options are categorised in terms of preference from an environmental viewpoint. The options considered to be most preferable have the least environmental impacts and are more sustainable in the long term. The hierarchy is as follows. The waste management strategy is to avoid waste generation in the first place (i.e. in descending order of preference as listed below).

- Avoidance and reduction;
- Reuse of materials;

- Recovery and recycling; and
- Treatment and disposal.

6.5.11 The following section describes the best management practices in construction site to avoid or further reduce the potential environmental impacts associated with the handling, collection and disposal of construction and chemical wastes arising from the construction of the Proposed Development.

6.5.12 Contractor will be required to develop and implement a proper waste management plan (WMP) according to the PNAP ADV-19. The WMP should include designation of areas for the segregation and temporary storage of materials for future use or recycling, the hierarchy for waste management on and off-site as well as a complete list of mitigation measures for handling excavated materials.

6.5.13 It will be the contractor's responsibility to ensure that only reputable licensed waste collectors are used and that appropriate measures to reduce adverse impacts, including windblown litter and dust from the transportation of these wastes, are employed. In addition, the contractor must ensure that all the necessary permits or licences required under the Waste Disposal Ordinance are obtained for the construction phase.

6.5.14 It can be achieved through careful planning of works method and material consumption before ordering of materials. Material should be properly stored and protected to reduce damage and contamination to reduce waste generation as well. Non-timber formwork, or used timber, instead of virgin timber, should be adopted where possible.

6.5.15 If that is unavoidable, source reduction and segregation should be exercised as far as practicable and at the same time, recycling and reuse should be adopted to salvage as much as possible all the recyclable and reusable materials.

6.5.16 In order to monitor the disposal of C&D material at landfills and public fill reception facilities, as appropriate, and to control fly tipping, a trip-ticket system should be included as one of the contractual requirements to be implemented by Contractor. Reference shall be made to DEVB TCW No.6/2010 for details.

C&D Materials

6.5.17 On-site sorting of C&D materials will be recommended. On-site sorting can be achieved by avoiding the generation of "mixed waste" through good site control. Waste generated by construction activities should be sorted into inert C&D materials and non-inert C&D materials. Adequate areas for sorting and storage of segregated materials should be provided onsite. The inert C&D materials which comprise soil, rock, concrete, brick, cement plaster/mortar, inert building debris, aggregates and asphalt shall be reused in site formation works (such as backfilling).

6.5.18 Used timber in good condition will be reused in other contract and construction site of the contractor to reduce the amount of timber wastes.

6.5.19 Surplus inert construction material and other non-inert C&D materials which comprises metal, timber, paper, glass, etc. shall be recycled. Recycle bins should be provided onsite and workers should be trained and encouraged to segregate recyclable and non-recyclable wastes upon disposal.

6.5.20 The Applicant and its contractor will consider to use dump trucks equipped with GPS or an equivalent system for tracking the delivery of inert and non-inert C&D material from the site to the designated disposal location. The trip-ticket system and other measures for transportation, storage and collection of waste, such as using trucks with cover or enclosed containers for waste transportation will be implemented. Disposal and transportation of C&D materials are recommended before foreseeable inclement

weather such as typhoon or heavy rain. The stockpiled soil shall be properly covered with tarpaulin when heavy storms are forecast.

Chemical Waste

6.5.21 Any unused chemicals and those with remaining functional capacity should be recycled as far as possible. Chemical waste will be handled in accordance with the Code of Practice on the Packaging, Handling and Storage of Chemical Wastes. All chemical waste that cannot be recycled or re-refined in the case of waste lubricants should be collected by a licensed chemical waste collector and disposed of Chemical Waste Treatment Centre (CWTC) at Tsing Yi. Provided that the handling, storage and disposal of chemical waste are in accordance with these requirements, adverse waste management implications, including the potential hazards, air and odour emissions, noise, wastewater discharge, ecology and public transport, associated with handling, storage and disposal of chemical waste are not expected.

6.5.22 Chemical and oily wastes generated from the construction activities, vehicle and plant maintenance and oil interceptors should be disposed of as chemical waste in strict compliance with the Waste Disposal (Chemical Waste) (General) Regulations. Any person who produces or causes to produce chemical waste is required to register with EPD. The Applicant and its contractor will duly follow the requirement and register with EPD as a chemical waste producer.

General Refuse

6.5.23 Waste such as bamboo, contaminated plastic and glass, packaging waste and other organic materials will be considered as non-recyclable waste and disposed to landfills.

6.5.24 For general refuse (including food waste, paper, plastic bottles and aluminium cans, etc.), mitigation measures should include provision of a collection area where waste can be sorted, stored and loaded prior to removal from the site. Recyclable materials (i.e. paper, plastic bottles and aluminium cans) will be separated for recycling, in order to reduce the amount of general refuse to be disposed of at landfill.

6.5.25 The removal of general refuse from the site will be arranged on a daily basis or at least on every second day to minimize any potential odour impacts. Disposal of general refuse is recommended before foreseeable inclement weather such as typhoon or heavy rain.

6.5.26 The Applicant and its contractor will consider if recycling of food waste is practicable during the construction phase.

6.5.27 Waste disposal from construction site is subject to control under the Waste Disposal Ordinance.

6.6 Conclusion

6.6.1 Potential environment impacts arising from construction activities of the Proposed Development, including air quality, construction wastewater, noise and waste impacts have been qualitatively assessed. Potential environmental impacts are anticipated to be acceptable with the implementation of effective environmental mitigation measures.

6.6.2 In conclusion, it is envisaged that construction phase environmental impacts arising from the Proposed Development would be acceptable.

7. HELICOPTER NOISE IMPACT

7.1 Evaluation of Helicopter Noise Impact

7.1.1 It is understood that a new helipad at the being constructed NAH is proposed (EIA Report: AEIAR-224/2020 – A Rooftop Helipad at New Acute Hospital at Kai Tak Development Area) to the northwest of the Application Site. The proposed helipad (elevated at approximately +119.15mPD) at NAH is separated from the Application Site by around 170m. It is also understood that another helipad for GFS is planned at the tip of ex-Kai Tak Airport runway on southeast side of the Application Site but already separated by around 1km so that potential helicopter noise impact due to future GFS helipad on the Proposed Development is unlikely significant due to long separation distance. **Figure 7.1** illustrates the locations of the helipads of NAH and GFS.

7.1.2 According to the aforementioned EIA Report, helicopter of model Airbus H175 will be used at NAH helipad. In the EIA report, non-lateral movement noise level was collected by field measurement while lateral movement noise level was made reference to its noise certificate. Regarding non-lateral noise movement, Lmax noise level is highest during lift-off operation (measured 82.4dB(A) at 150m). Regarding lateral noise movement, Lmax noise level is highest during approval operation (82.1dB(A) at 120m).

7.1.3 For non-lateral helicopter movement at the helipad, the predicted Lmax noise level at the nearest boundary of the Application Site is derived as follows:

Lmax = Lmax (ref) + Distance Corr (20xlog(Dref/D)) + Façade corr (+3dB(A))

= 82.4 + 20 x log (150/170) + 3 = 84dB(A)

whereas horizontal distance of 170m between helipad and nearest boundary of the Application Site is adopted as a conservative approach

7.1.4 It means that the noise level due to non-lateral movement at the helipad would be below the assessment criterion of Lmax 85 dB(A) applicable for dwelling.

7.1.5 The proposed helipad at NAH will operate under emergency situation only and there are 3 flight paths proposed. For lateral movement along different flight paths, since one of the three flight paths will pass over Pacific Trade Centre & the planned residential development at the waterfront site, and nearest to the Application Site. It is anticipated that the helicopter will pass over the Proposed Development, similar to the just mentioned planned residential development to the southeast of the Application Site. The noise level is expected to exceed the assessment standard for only a few seconds when the helicopter passes through the Proposed Development. As discussed, the helicopter operation is for emergency situation only and the flight path to be used would reasonably be subject to the requirement under emergency condition. No persistent environmental noise impact on the Proposed Development is therefore anticipated

7.1.6 Nevertheless, to minimize potential noise nuisance under emergency situation, the Proposed Development is designed to maximise separation from the flight path on northeast side of the Application Site. That is, the residential towers are disposited nearest to the southwest boundary.

7.1.7 In addition, better insulation will be provided for the Proposed Development which has equivalent or better noise performance than those recommended under "Appendix 4.4 Suitable Window Types for Noise Insulation – Window Type III (12mm (6+6mm) laminated glass)" in Chapter 9 of the HKPSG so that a more silent indoor environment

can be maintained (e.g. For window - insulated glazing unit (IGU) or single frame double pane (exclude window for kitchen and bathroom); For sliding doors – laminated or single layer glass).

8. OVERALL CONCLUSION

8.1.1 An environmental assessment has been conducted to address potential environmental noise, air quality impact, risk of land contamination and environmental impact during construction phase based on the Proposed Development scheme. Environmental feasibility of the proposed development is demonstrated as below.

Air Quality

8.1.2 As confirmed in field survey, there is no chimney identified within 200m from the Application Site so that the industrial emission buffer separation requirement can be well met. Similarly, the air sensitive uses in the MLP can meet the road traffic emission buffer separation requirement with respect to nearest carriageways. There is no fluff, odour and other air pollutant emission identified in the surrounding. Therefore, it is envisaged that the Proposed Development at the Application Site would not be subject to significant air quality impact.

8.1.3 Best management practice will be adopted during construction of the project. Necessary mitigation measures as stated above and in "Recommended Pollution Control Clauses for Construction Contracts" where applicable will be applied so that emission during construction stage should be kept to an acceptable level.

Noise

8.1.4 As observed onsite, major environmental noise impact includes road traffic noise.

8.1.5 Noise barrier, acoustic window (baffle type), acoustic balcony (baffle type), fixed glazing (with or without maintenance window), vertical acoustic fin and sound absorption material are proposed. With these noise mitigation measures incorporated, the Proposed Development would not be subject to adverse road traffic noise impact.

8.1.6 The potential fixed/industrial noise impact has been assessed. Given that there is long separation distance from identified noise sources and there are shielding for some of the noise sources already, fixed/industrial noise impact is found to be not significant.

8.1.7 On the other hand, the development will be designed so that potentially noisy facilities onsite will need to meet the standard stipulated in the HKPSG. No unacceptable fixed noise impact on the surrounding and the Proposed Development is anticipated.

8.1.8 To minimize nuisance due to helicopter noise from emergency operation of the recently planned helipad facilities at New Acute Hospital, better insulation in terms of IGU and single frame double pane window will be installed.

8.1.9 Best management practice will be adopted for the construction of the Proposed Development so that no significant noise impact is anticipated.

Land Contamination

8.1.10 Based on the appraisal of risk of land contamination including historical uses, current condition and any other records available from relevant governmental departments, risk of land contamination is unlikely. No further investigation and remediation work is recommended.

Construction Environmental Impact

8.1.11 Potential environment impacts arising from construction activities of the Proposed Development, including air quality, construction wastewater, noise and waste impacts have been qualitatively assessed. Potential environmental impacts are anticipated to be acceptable with the implementation of effective environmental mitigation measures.

Figure

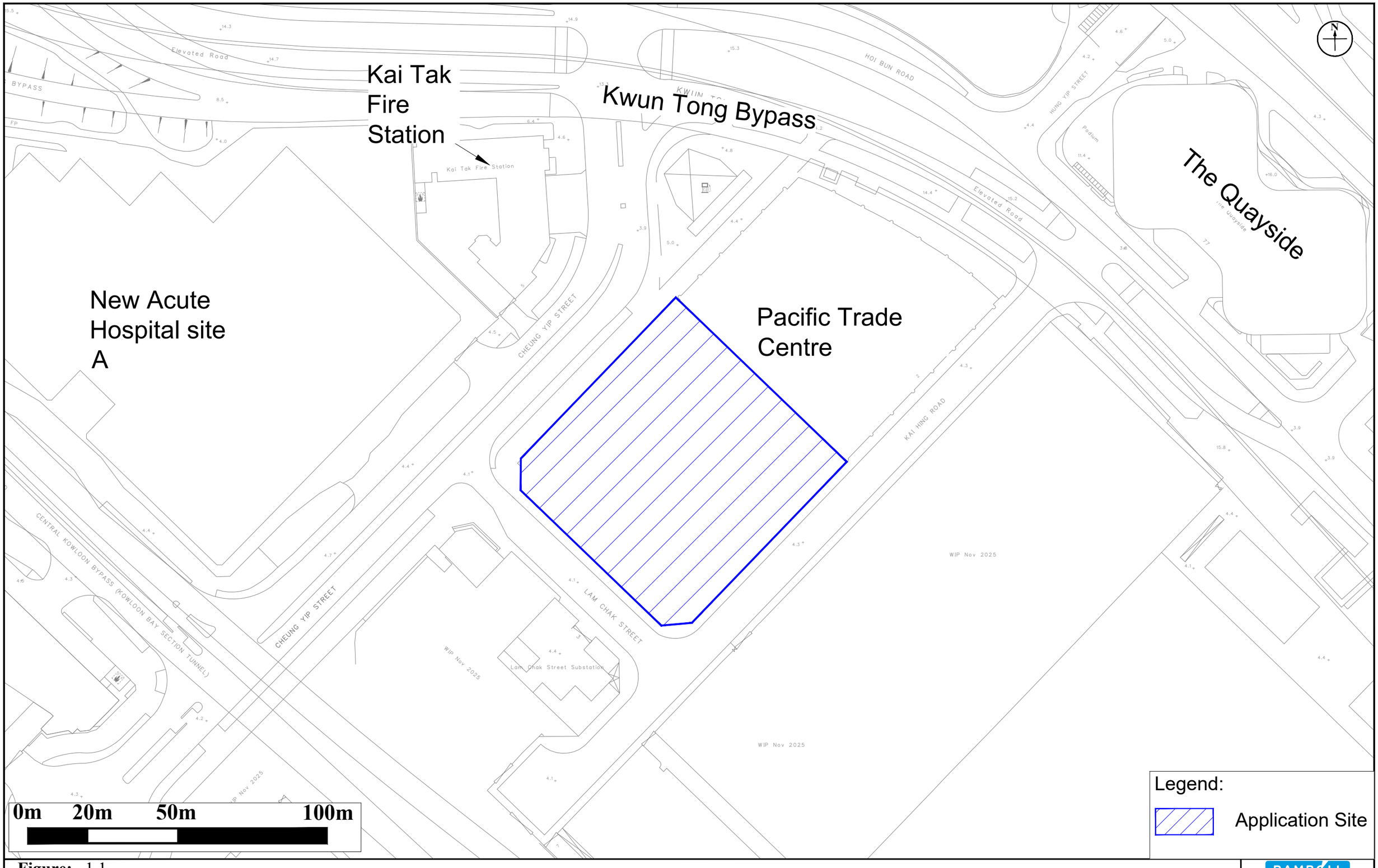


Figure: 1.1	RAMBOLL
Title: Application Site and its Environs	Drawn by: GW
	Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.0
	Date: Aug 2025

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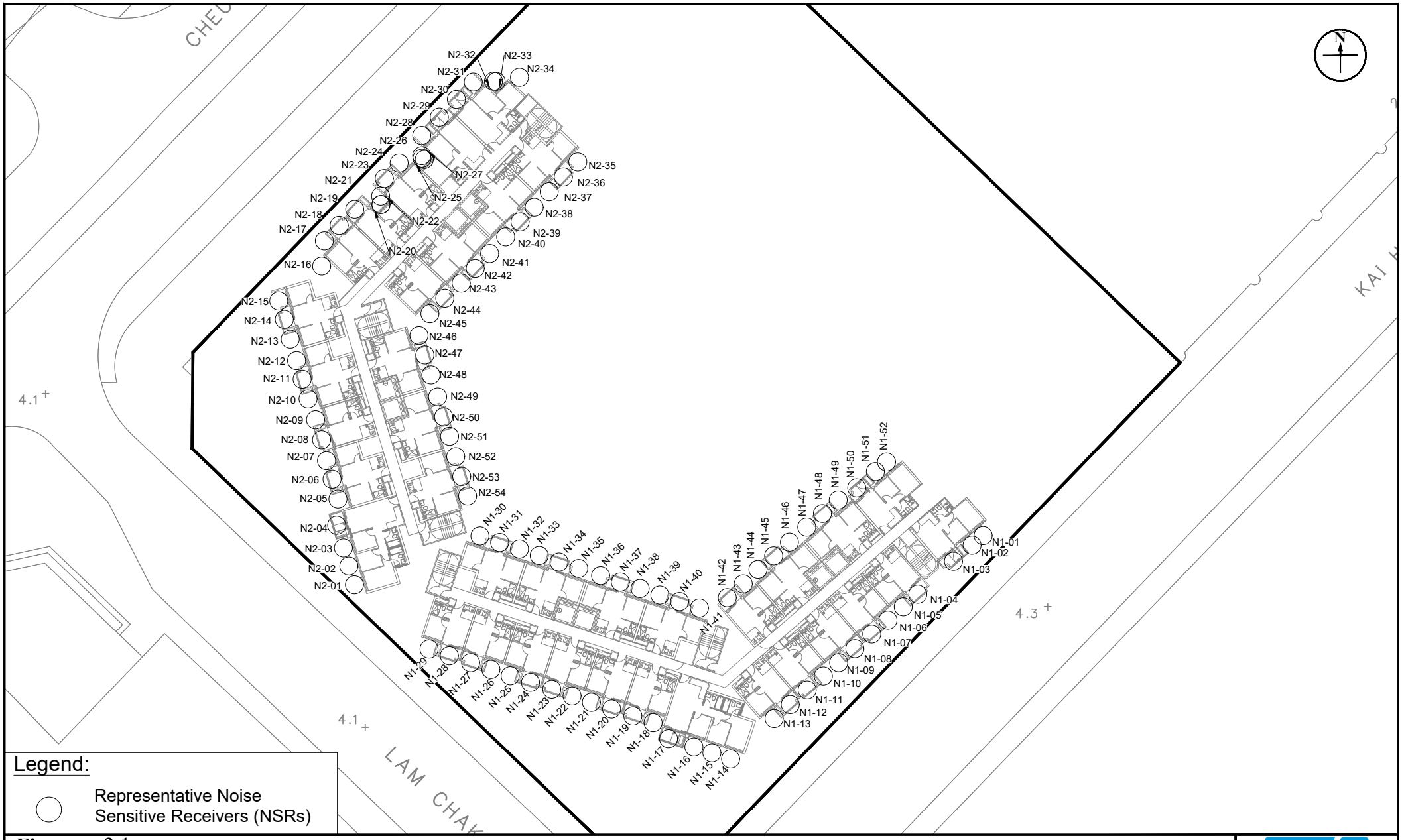


Figure: 2.1a	RAMBOLL
Title: Locations of Representative Noise Sensitive Receivers for Road Traffic Noise Impact Assessment - Low Zone (3/F-29/F)	Drawn by: CM Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon – N.K.I.L. 6215	Rev.: 1.2 Date: Mar 2026

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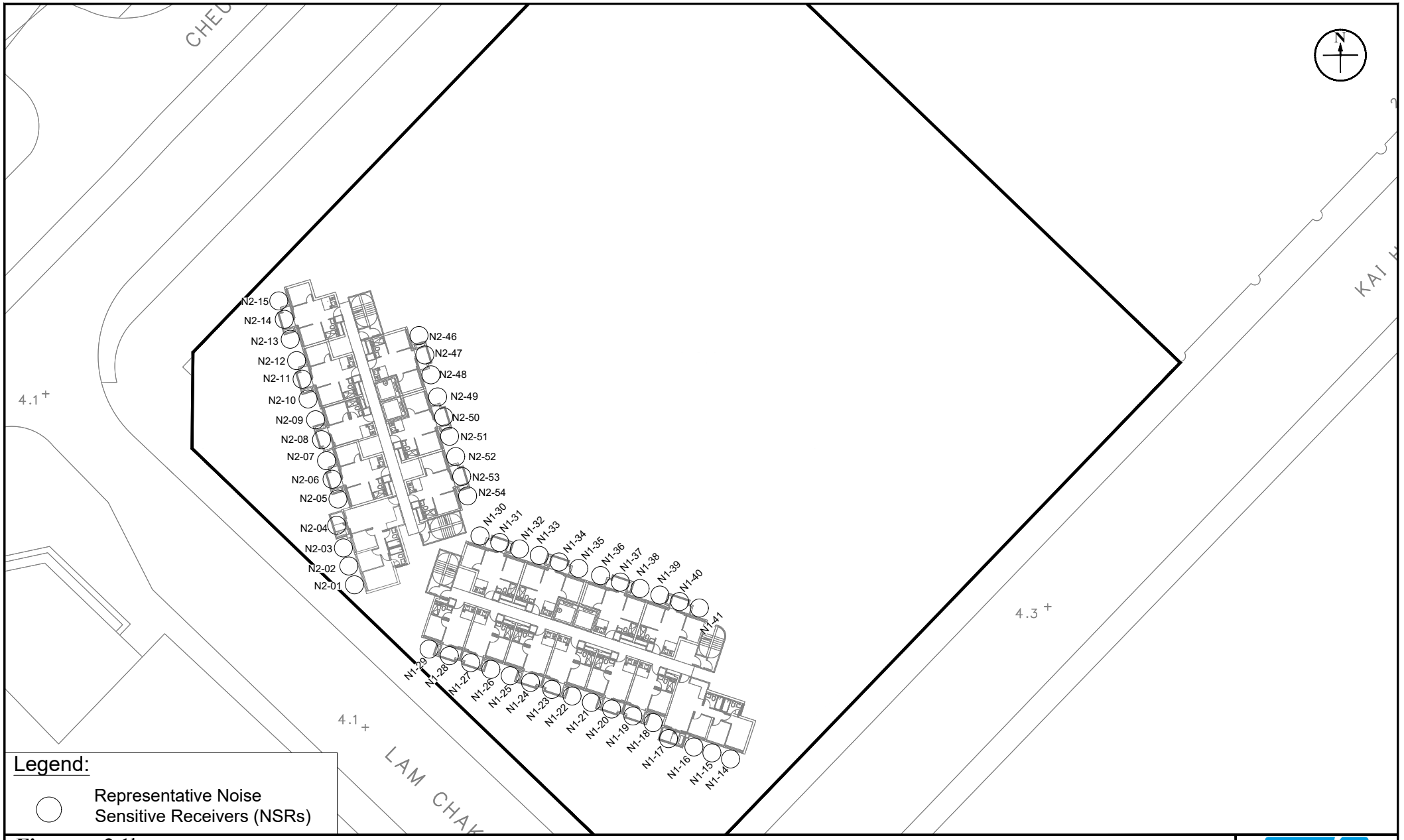


Figure: 2.1b

Title: Locations of Representative Noise Sensitive Receivers for Road Traffic Noise Impact Assessment - High Zone (30/F-37/F)

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon – N.K.I.L. 6215

RAMBOLL

Drawn by:	CM
Checked by:	CC
Rev.:	1.2
Date:	Mar 2026

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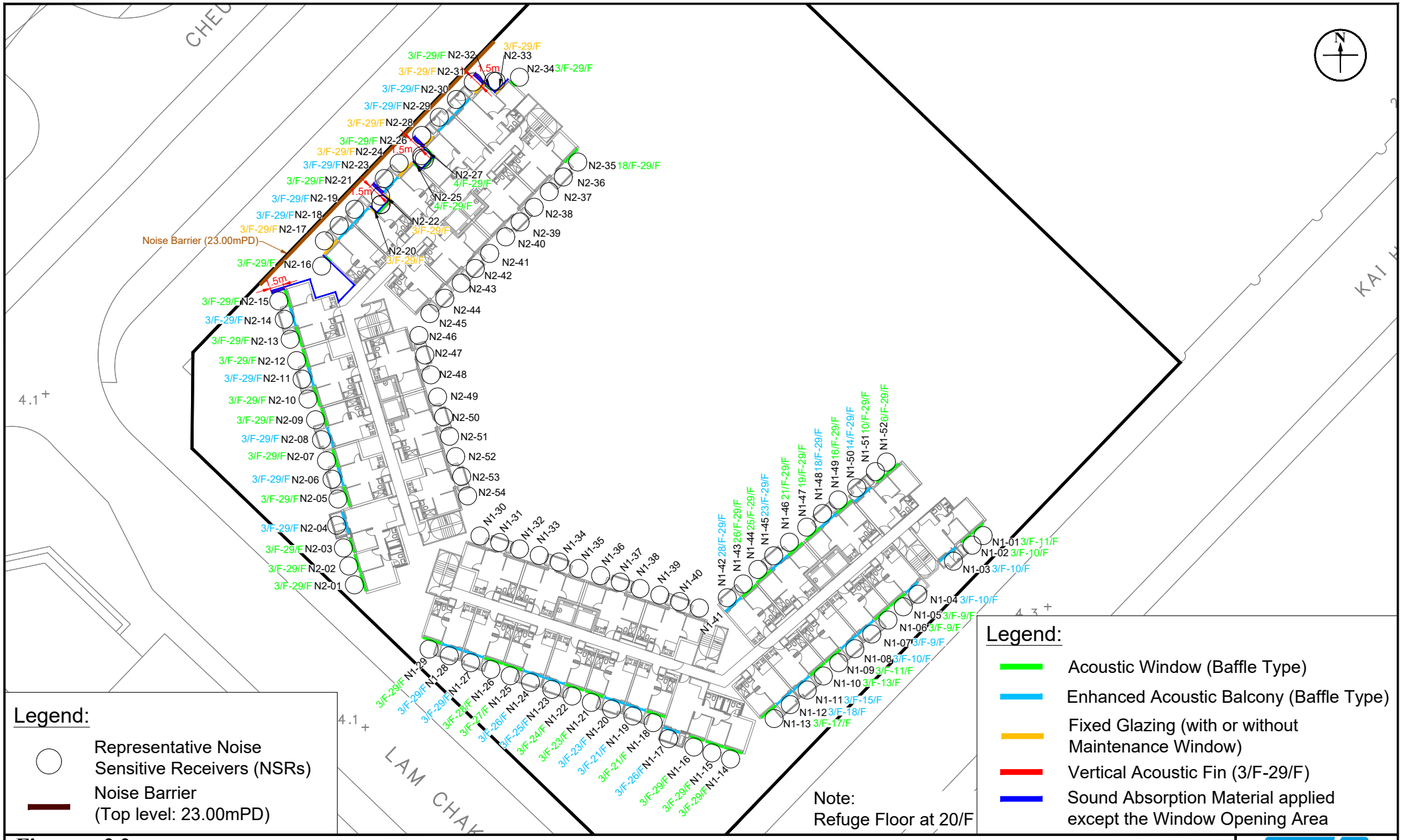


Figure: 2.2a

Title: Locations of Representative Noise Sensitive Receivers for Road Traffic Noise Impact Assessment - Low Zone (3/F-29/F)

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon – N.K.I.L. 6215

RAMBOLL

Drawn by:	CM
Checked by:	CC
Rev.:	1.2
Date:	Mar 2026

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Figure: 2.2b

Title: Locations of Representative Noise Sensitive Receivers for Road Traffic Noise Impact Assessment - High Zone (30/F-37/F)

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon – N.K.I.L. 6215

RAMBOLL

Drawn by:	CM
Checked by:	CC
Rev.:	1.2
Date:	Mar 2026

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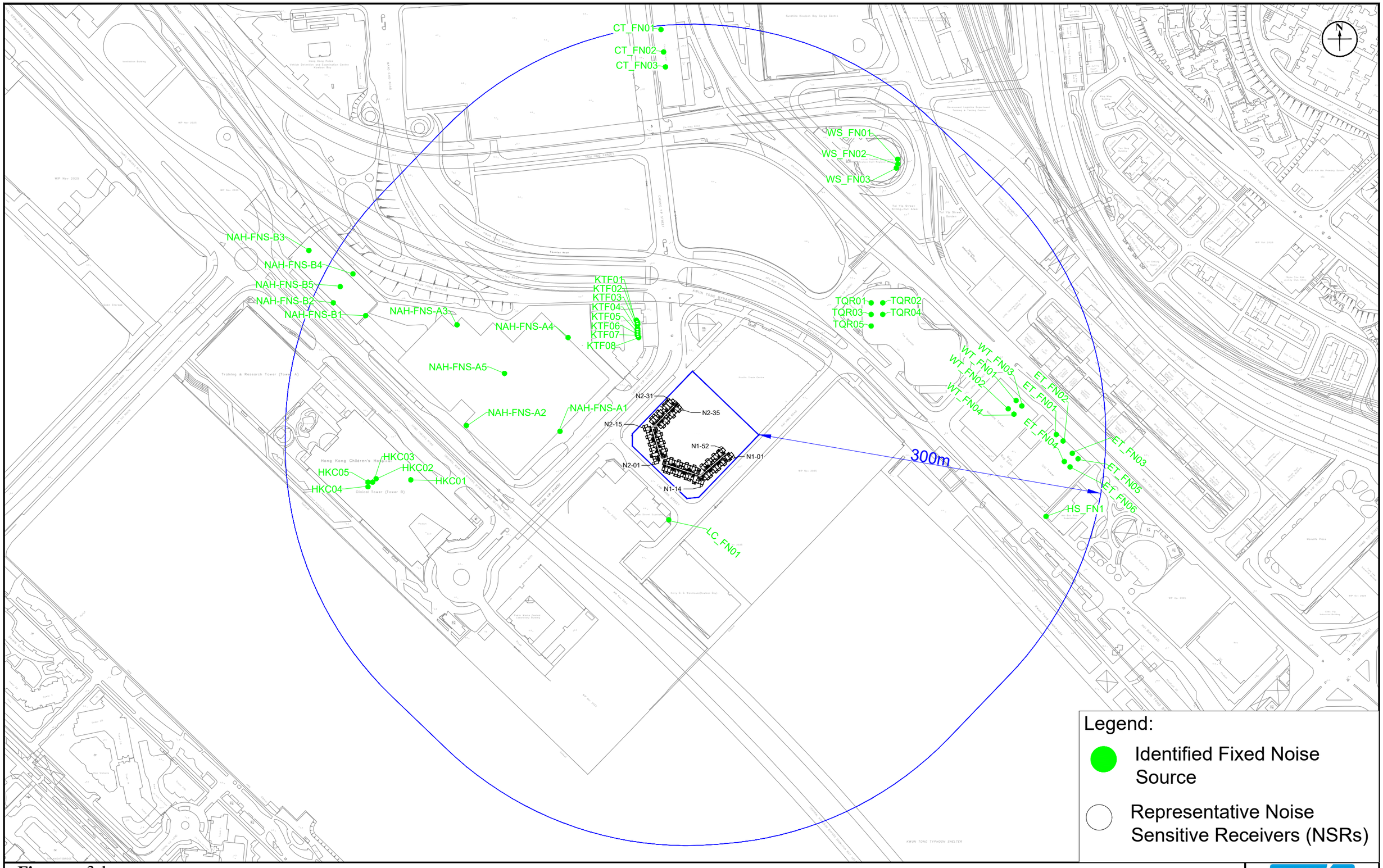


Figure: 3.1	RAMBOLL
Title: Locations of Identification Fixed Noise Source for Fixed Noise Impact Assessment	Drawn by: GW Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2 Date: Mar 2026

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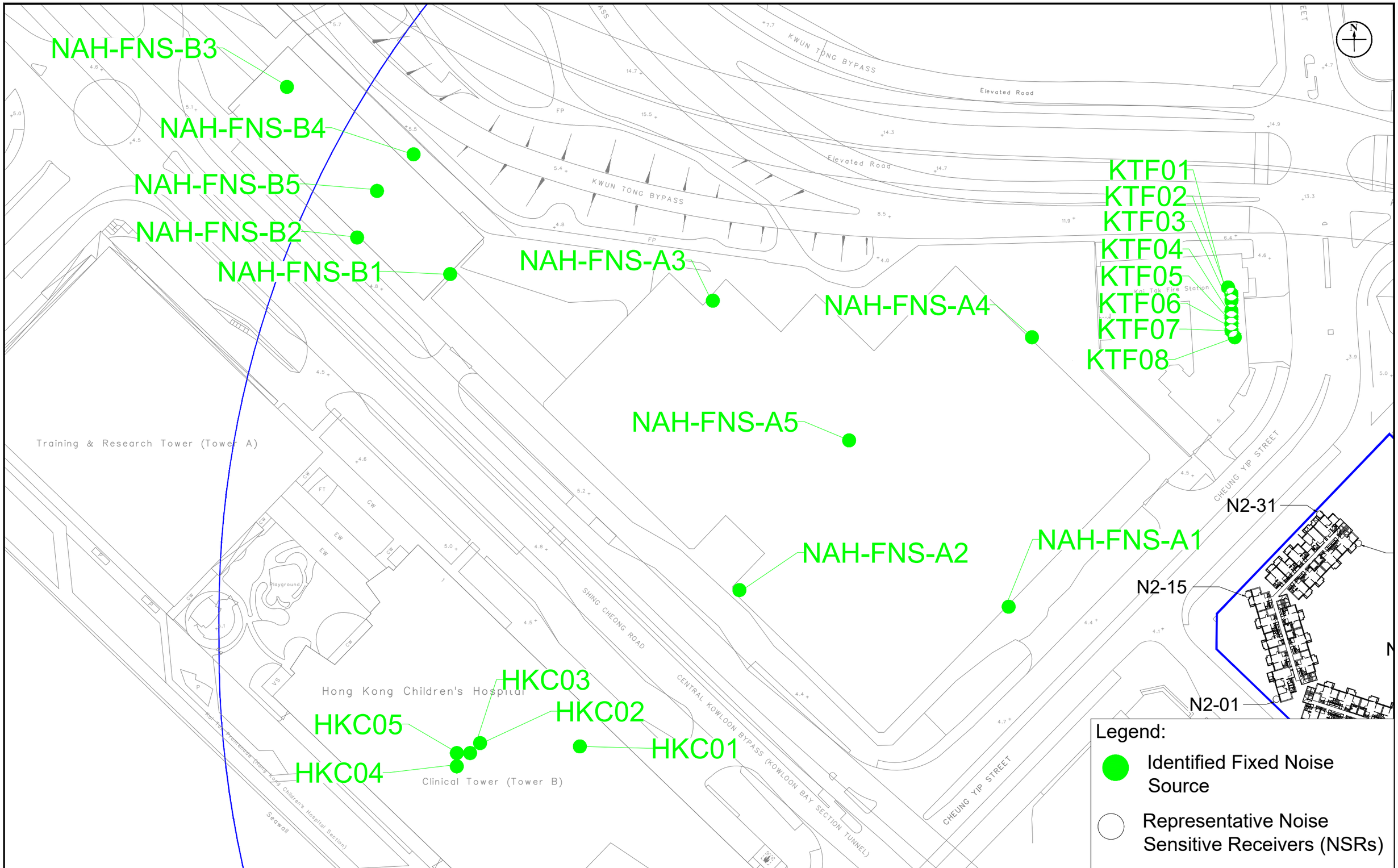


Figure: 3.1a	RAMBOLL
Title: Locations of Identification Fixed Noise Source for Fixed Noise Impact Assessment (Zoom In 1)	Drawn by: GW Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2 Date: Mar 2026

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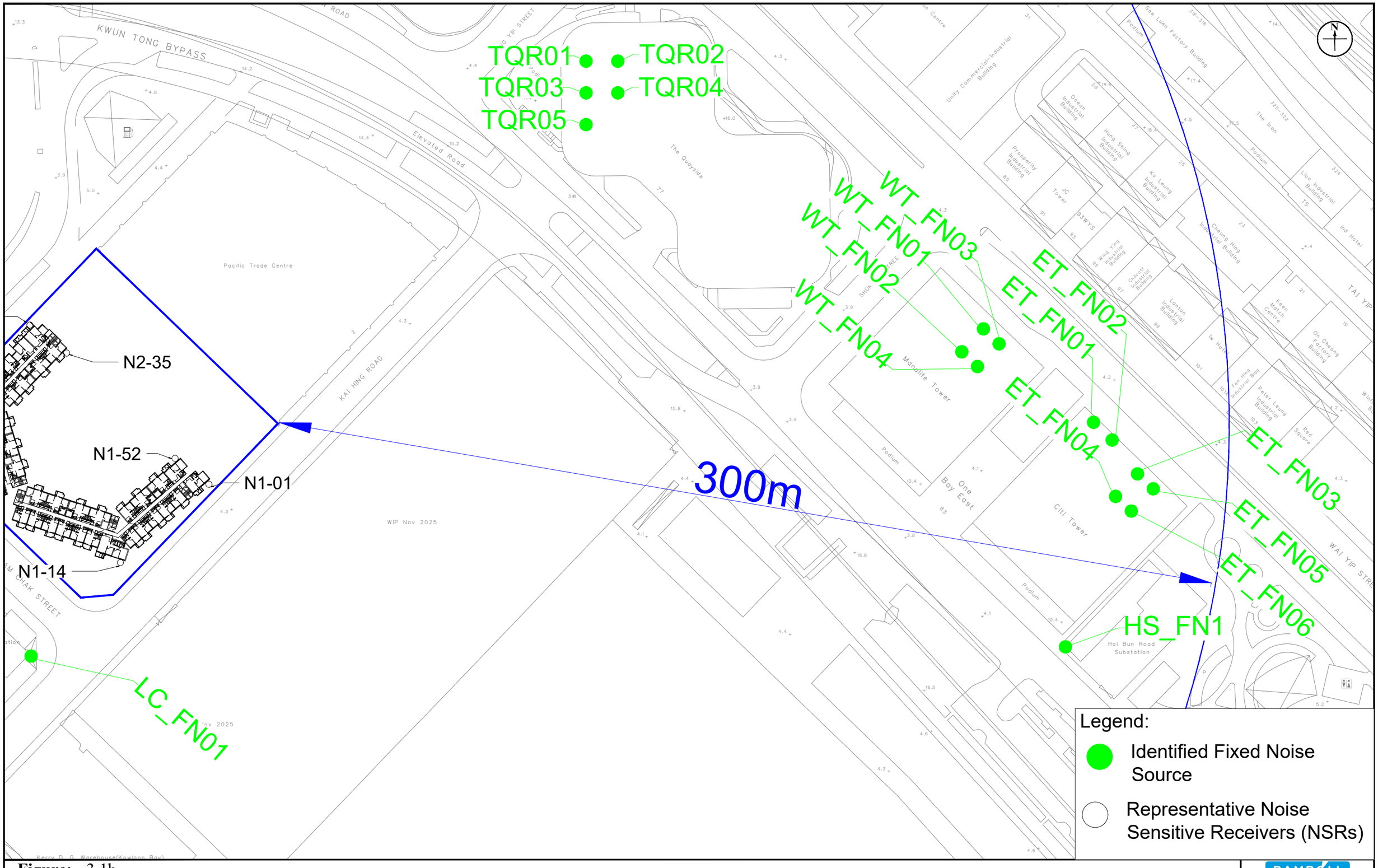


Figure: 3.1b	RAMBOLL
Title: Locations of Identification Fixed Noise Source for Fixed Noise Impact Assessment (Zoom In 2)	Drawn by: GW Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2 Date: Mar 2026

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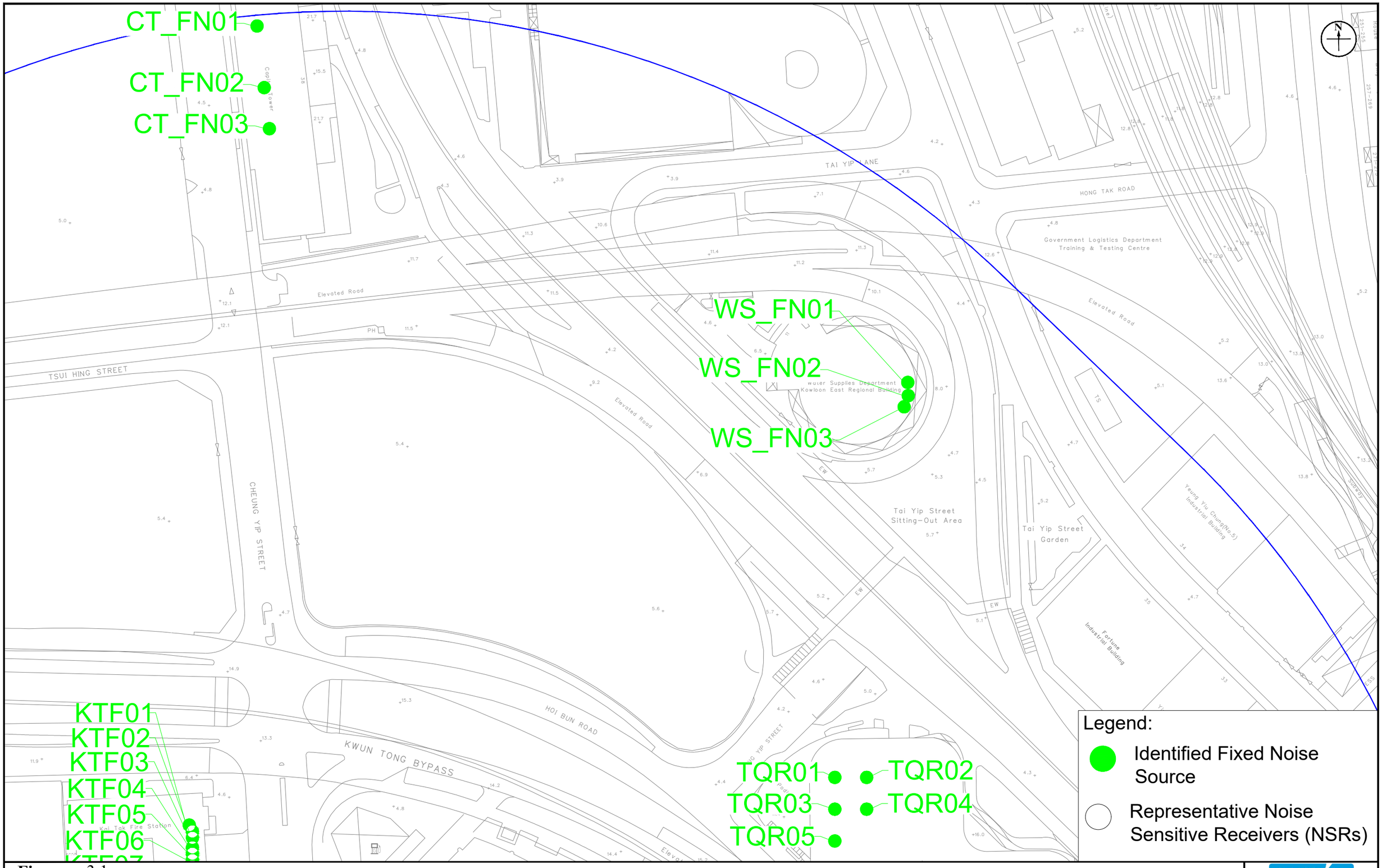


Figure: 3.1c

Title: Locations of Identification Fixed Noise Source for Fixed Noise Impact Assessment (Zoom In 3)

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by:	GW
Checked by:	CC
Rev.:	1.2
Date:	Mar 2026

Q:\Projects\CHPHBSHQEI00\05 Assessments\02 Noise\01 Industrial\20260211\FNIA 20260216.dwg



Figure: 3.2

Title: Locations of Representative Noise Sensitive Receivers for Fixed Noise Impact Assessment

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by:	GW
Checked by:	CC
Rev.:	1.2
Date:	Mar 2026

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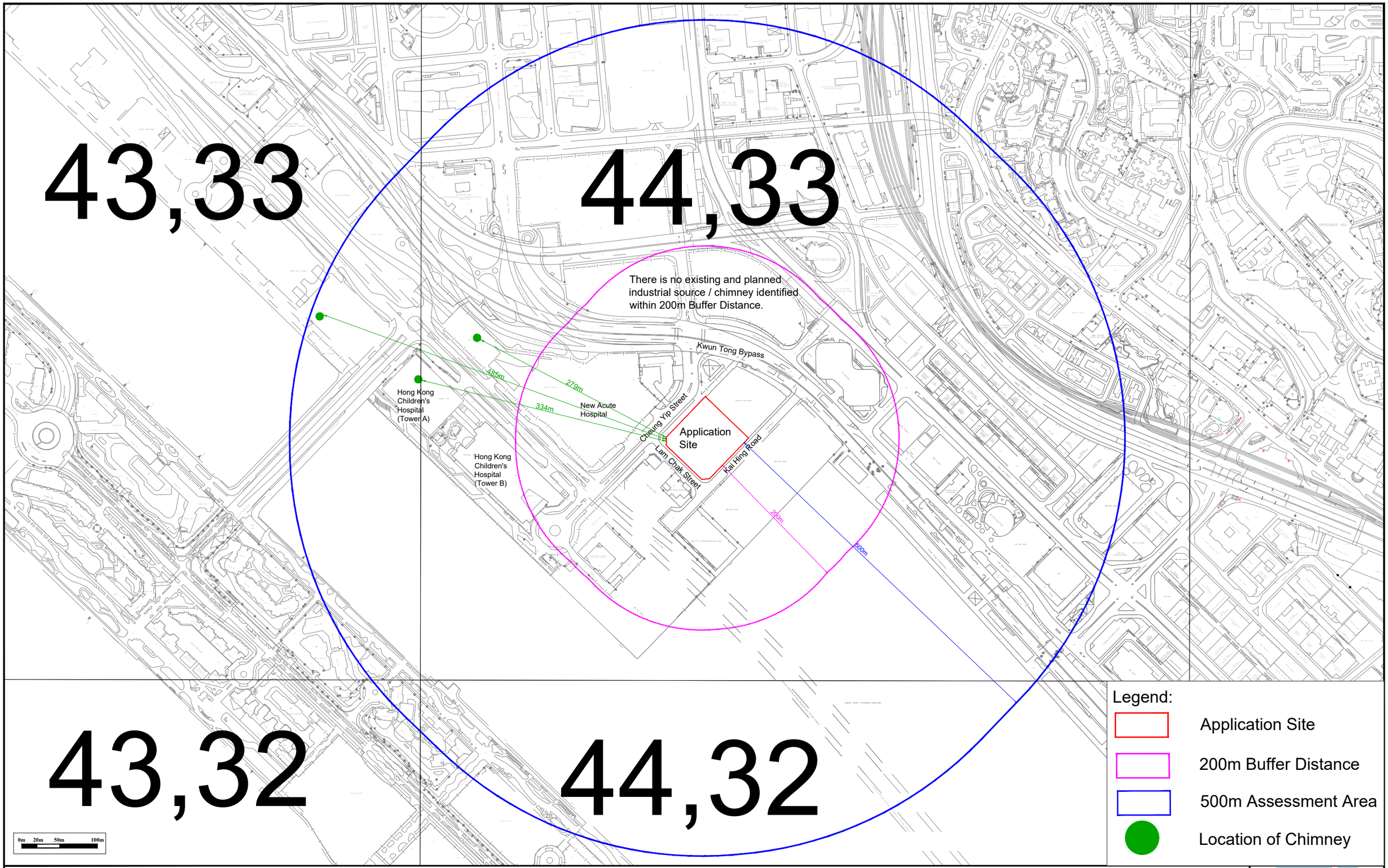


Figure: 4.1

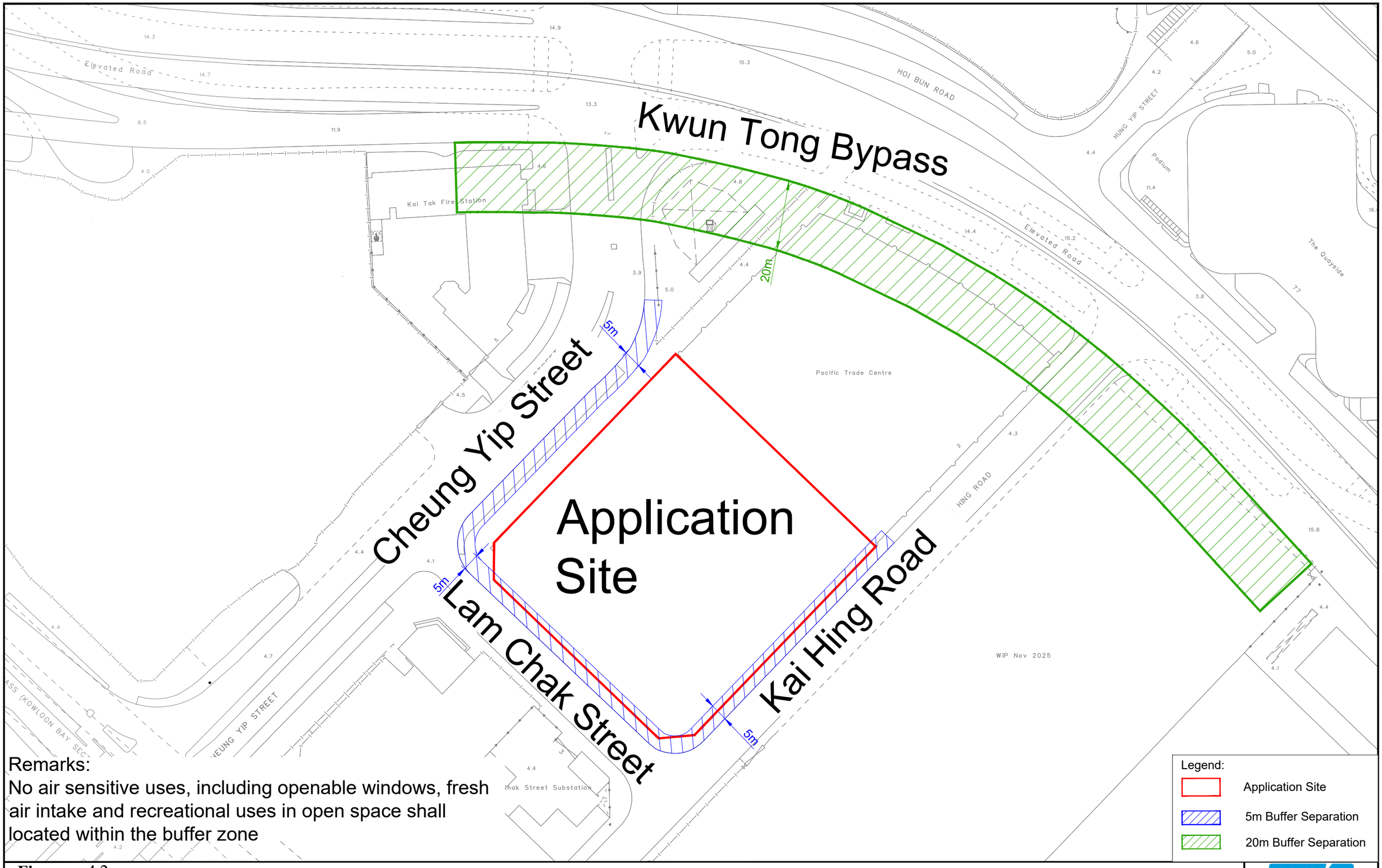
Title: 500m Assessment Area and 200m Buffer Distance from the Application Site for Chimney Stack Emission Study

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by:	GW
Checked by:	CC
Rev.:	1.2
Date:	Feb 2026

Q:\Projects\CHPHBSHQEI00\05 Assessments\01 Air\02 Vehicles\AQIA_Figure.dwg



Remarks:
No air sensitive uses, including openable windows, fresh air intake and recreational uses in open space shall located within the buffer zone

Figure: 4.2	RAMBOLL
Title: HKPSG Vehicular Emission Buffer Distance for Nearby Road Network	Drawn by: GW
	Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2
	Date: Feb 2026

Q:\Projects\CHPHBSHQEI00\05 Assessments\01 Air\02 Vehicles\AQIA_Figure.dwg

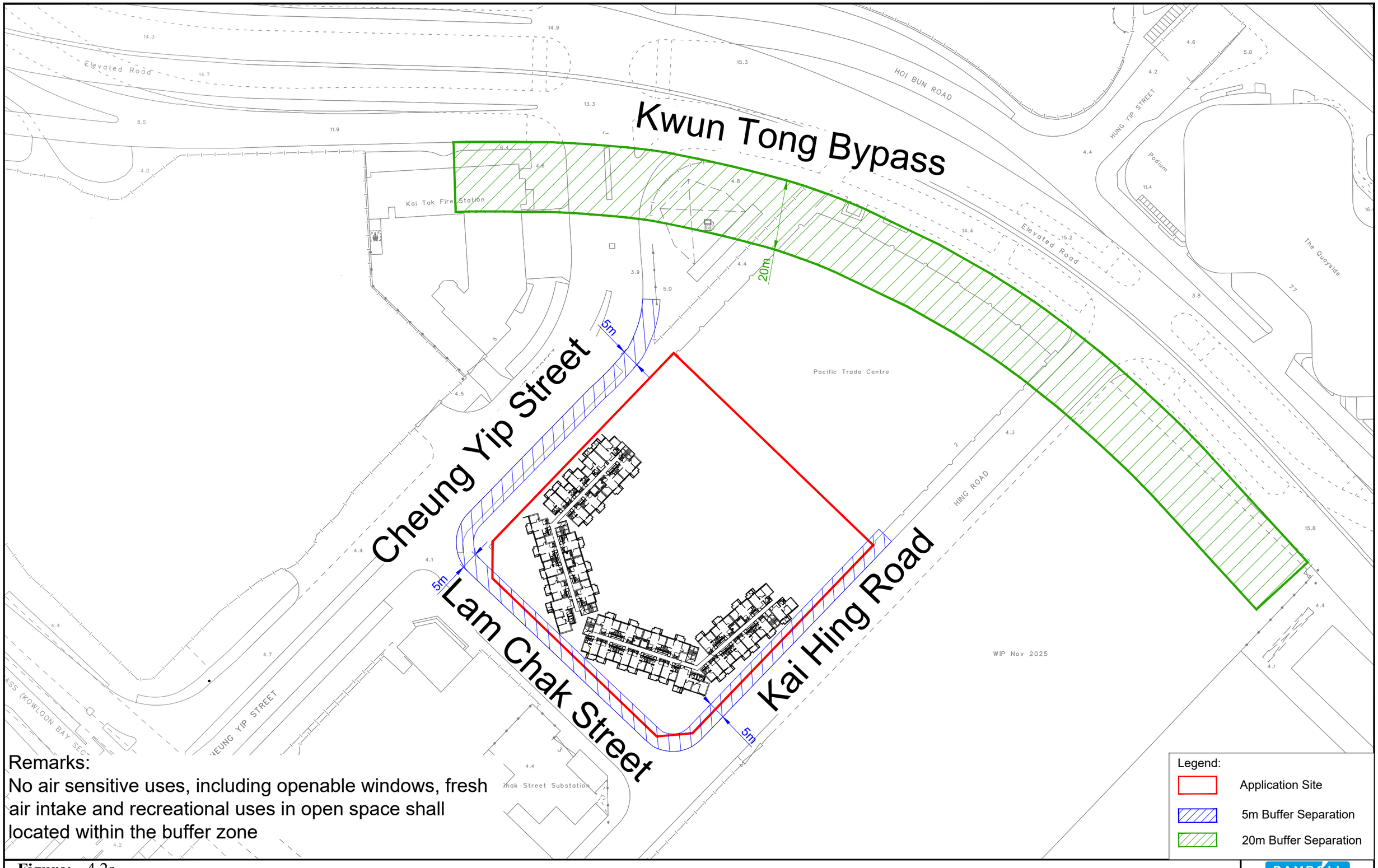
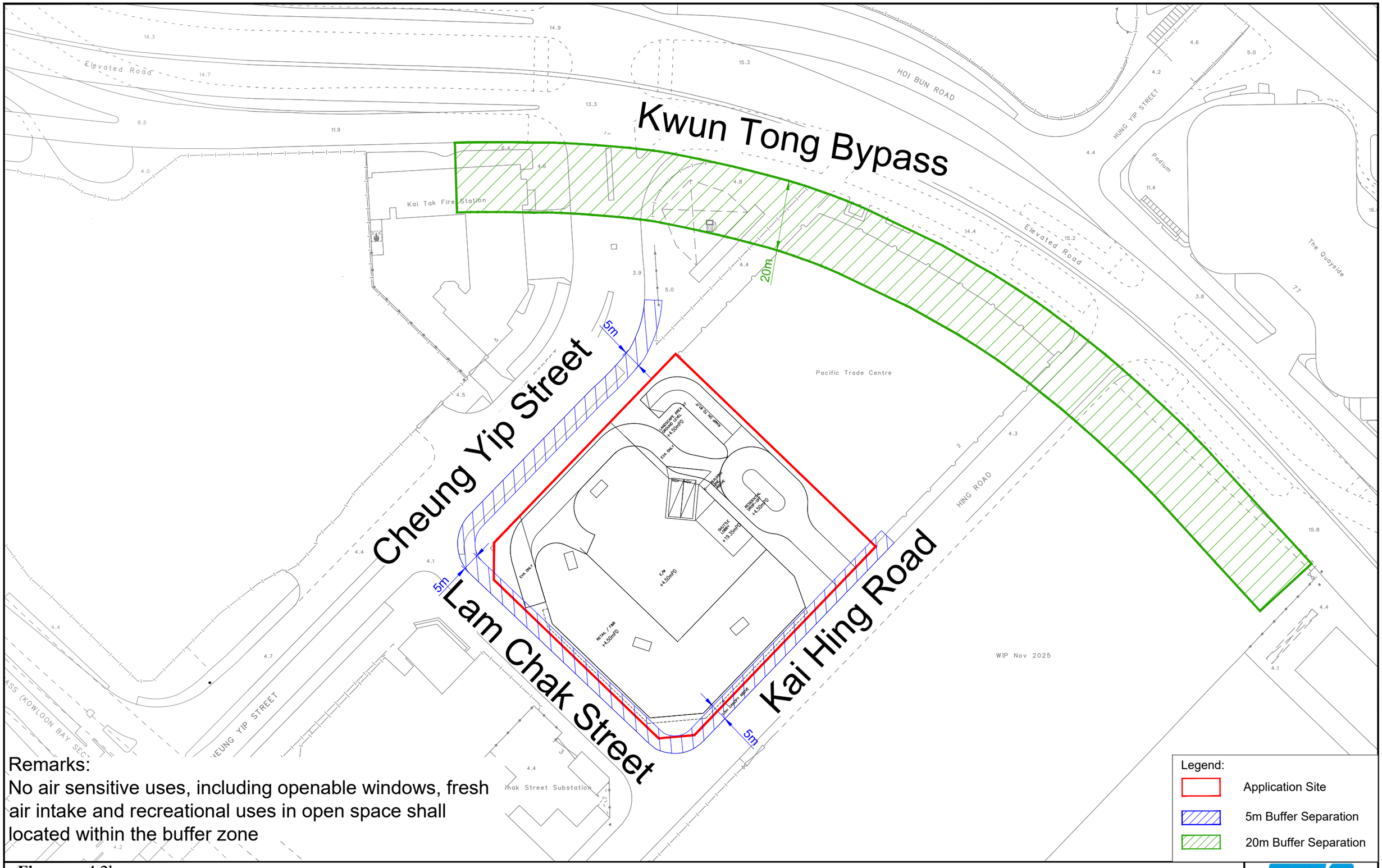


Figure: 4.2a	RAMBOLL
Title: HKPSG Vehicular Emission Buffer Distance for Nearby Road Network (Residential Tower)	Drawn by: GW Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2 Date: Feb 2026

Q:\Projects\CHPHBSHQEI00\05 Assessments\01 Air\02 Vehicles\AQIA_Figure.dwg



Remarks:
No air sensitive uses, including openable windows, fresh air intake and recreational uses in open space shall located within the buffer zone

Figure: 4.2b	RAMBOLL
Title: HKPSG Vehicular Emission Buffer Distance for Nearby Road Network (Ground Floor)	Drawn by: GW Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2 Date: Feb 2026

Q:\Projects\CHPHBSHQEI00\05 Assessments\01 Air\02 Vehicles\AQIA_Figure.dwg

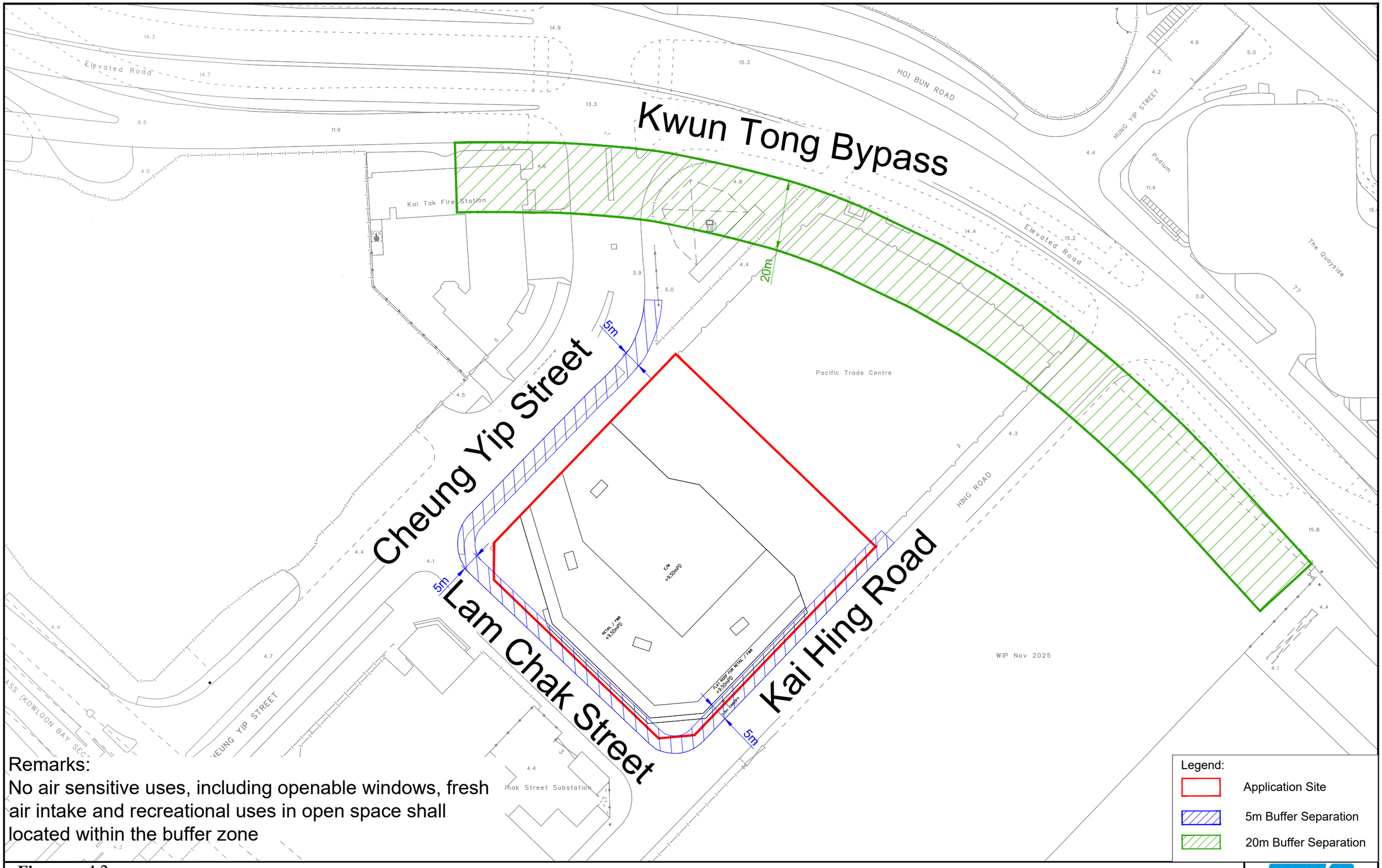


Figure: 4.2c

Title: HKPSG Vehicular Emission Buffer Distance for Nearby Road Network (First Floor)

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

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Rev.:	1.2
Date:	Feb 2026

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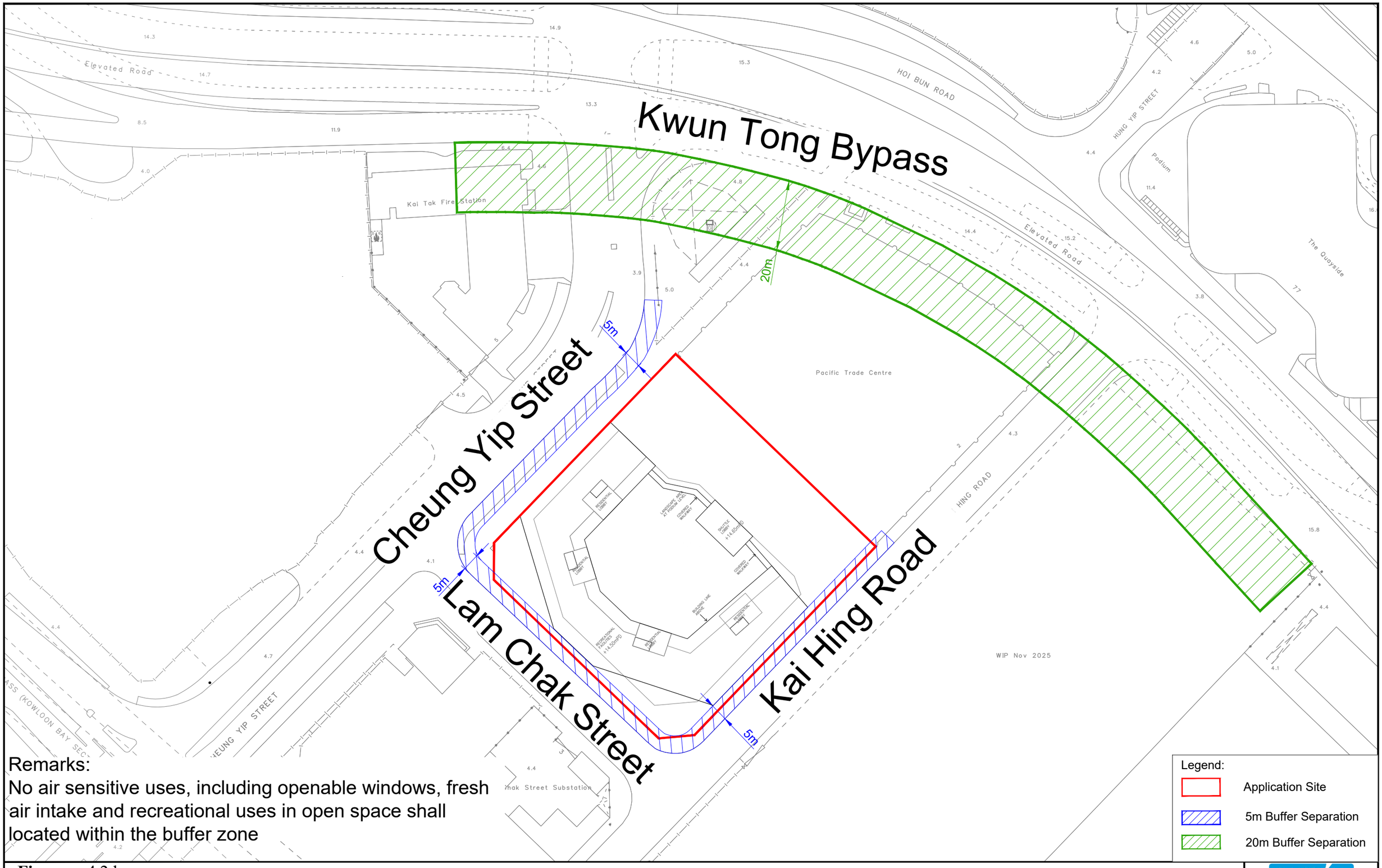


Figure: 4.2d

Title: HKPSG Vehicular Emission Buffer Distance for Nearby Road Network (Second Floor)

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by: GW

Checked by: CC

Rev.: 1.2

Date: Feb 2026

Q:\Projects\CHPHBSHQEI00\05 Assessments\01 Air\02 Vehicles\AQIA_Figure.dwg

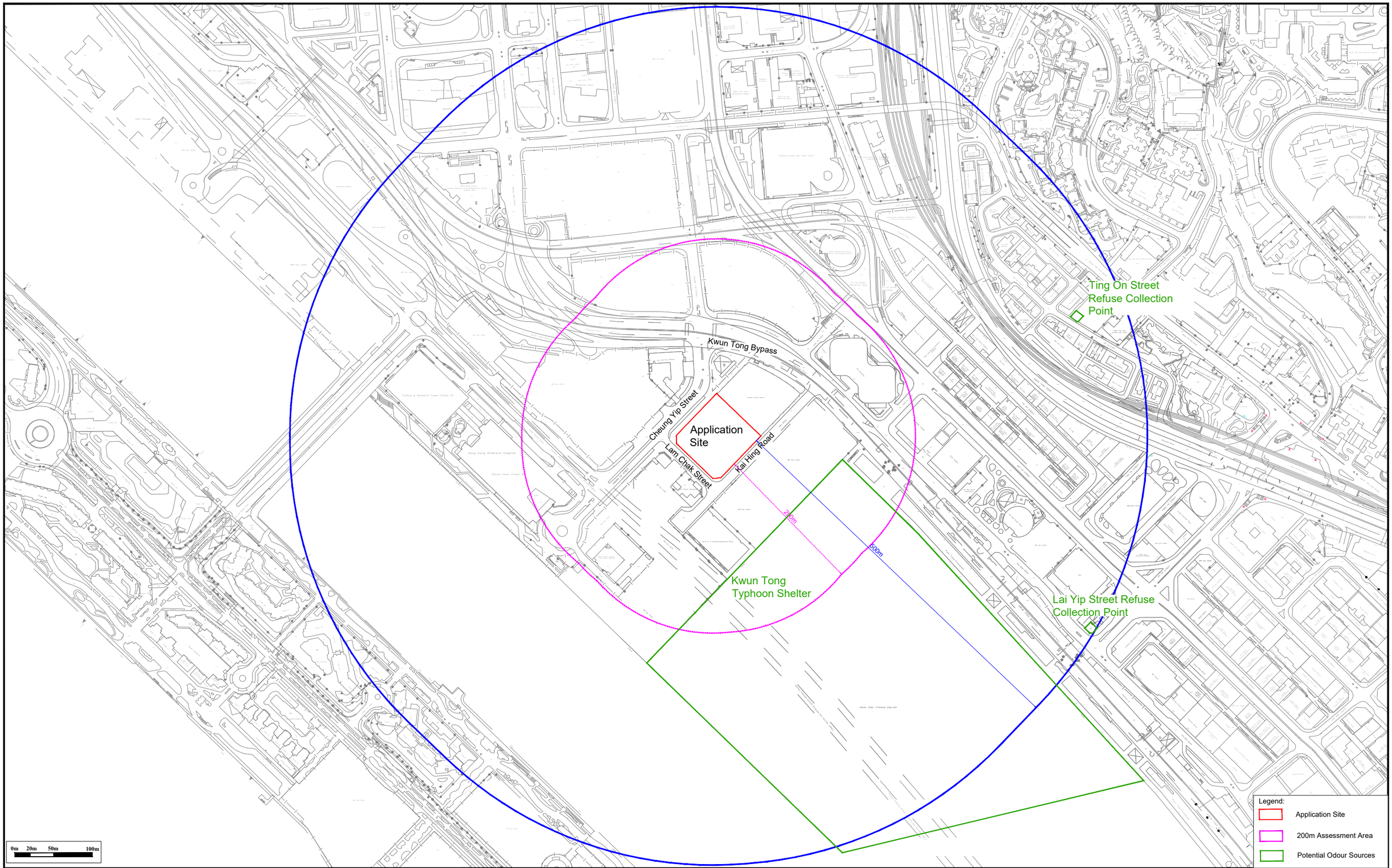


Figure: 4.3

Title: Odour Sources Identification within 200m Buffer Distance and 500m Assessment Area

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

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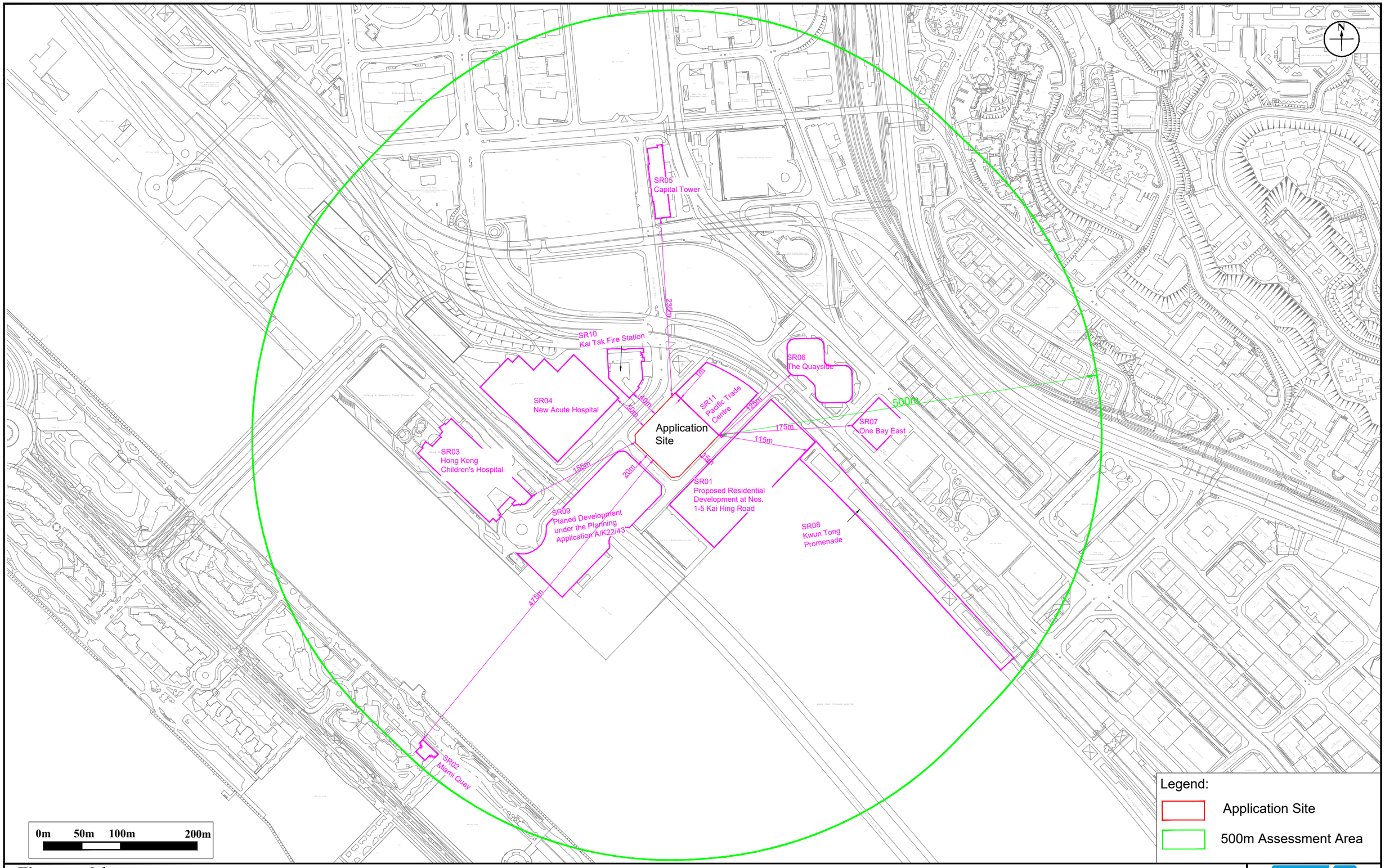


Figure: 6.1

Title: Representative Air and Noise Sensitive Receivers in the Surrounding

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by:	GW
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Date:	Feb 2026

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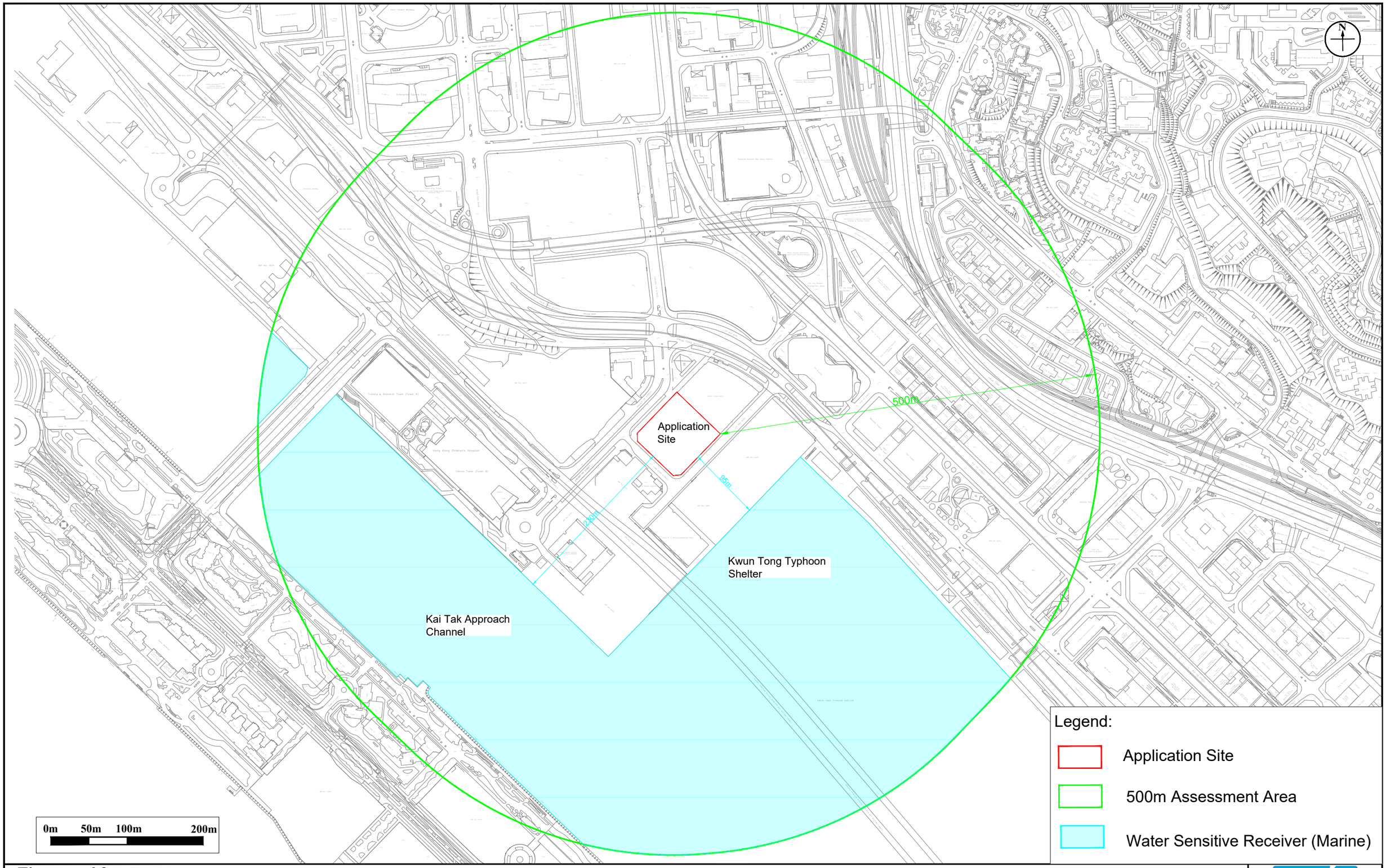


Figure: 6.2

Title: Representative Water Sensitive Receiver in the Surrounding

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by:	GW
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Rev.:	1.0
Date:	Aug 2025

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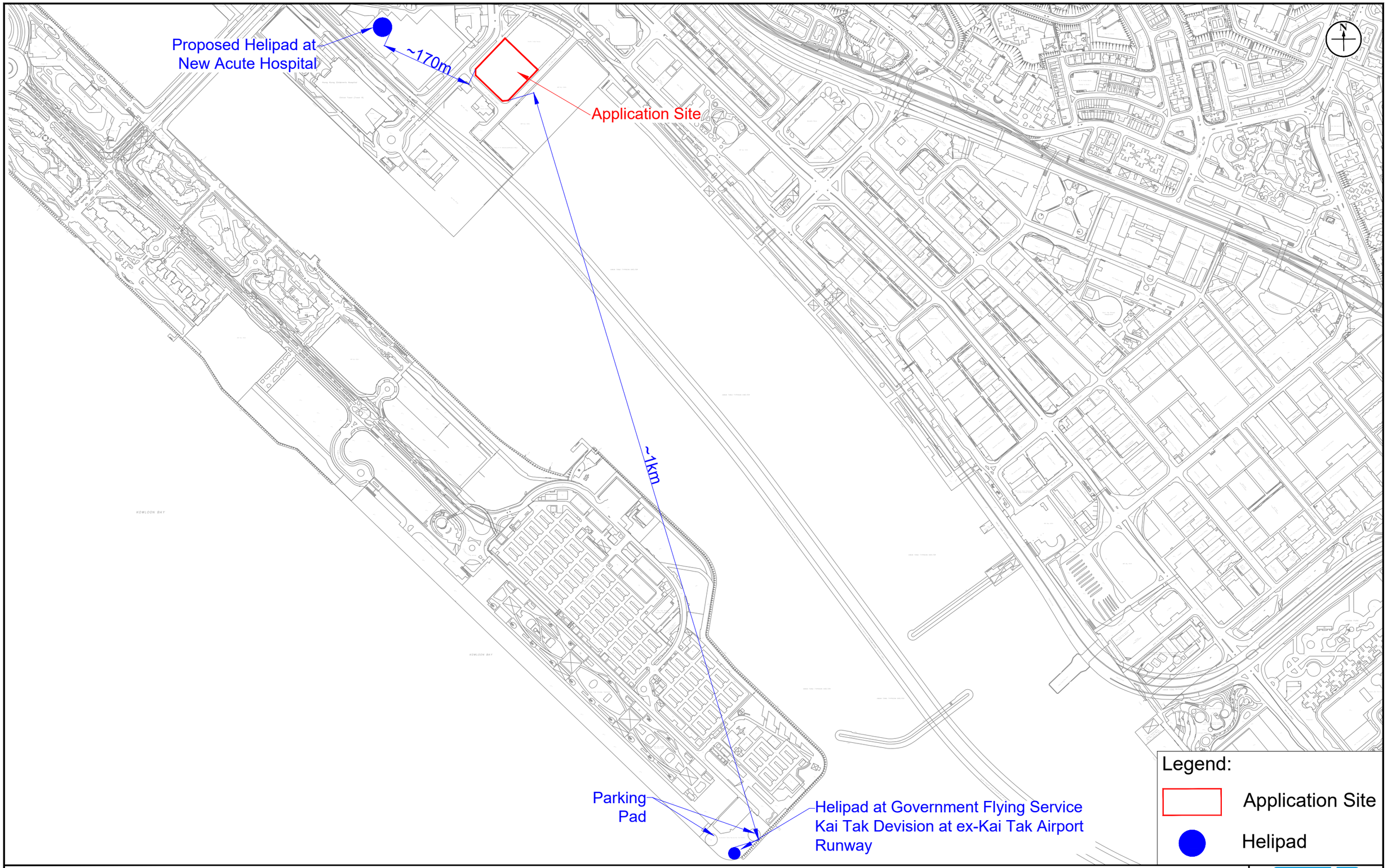


Figure: 7.1

Title: Locations of Helipads

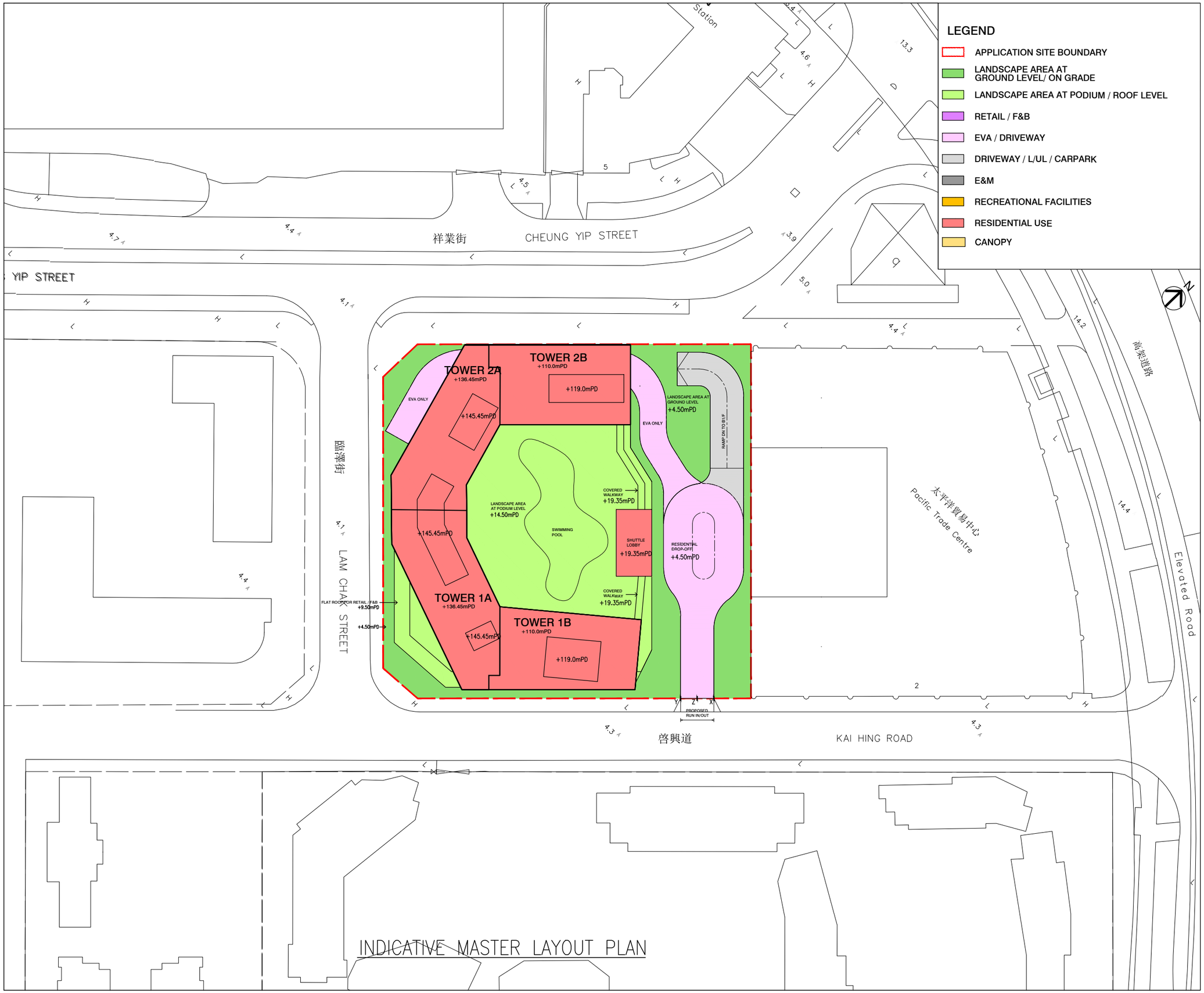
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by:	CM
Checked by:	CC
Rev.:	1.0
Date:	Jan 2026

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Appendix 1.1 Proposed Development Scheme



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F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
CAD FILE NAME	檔案編號
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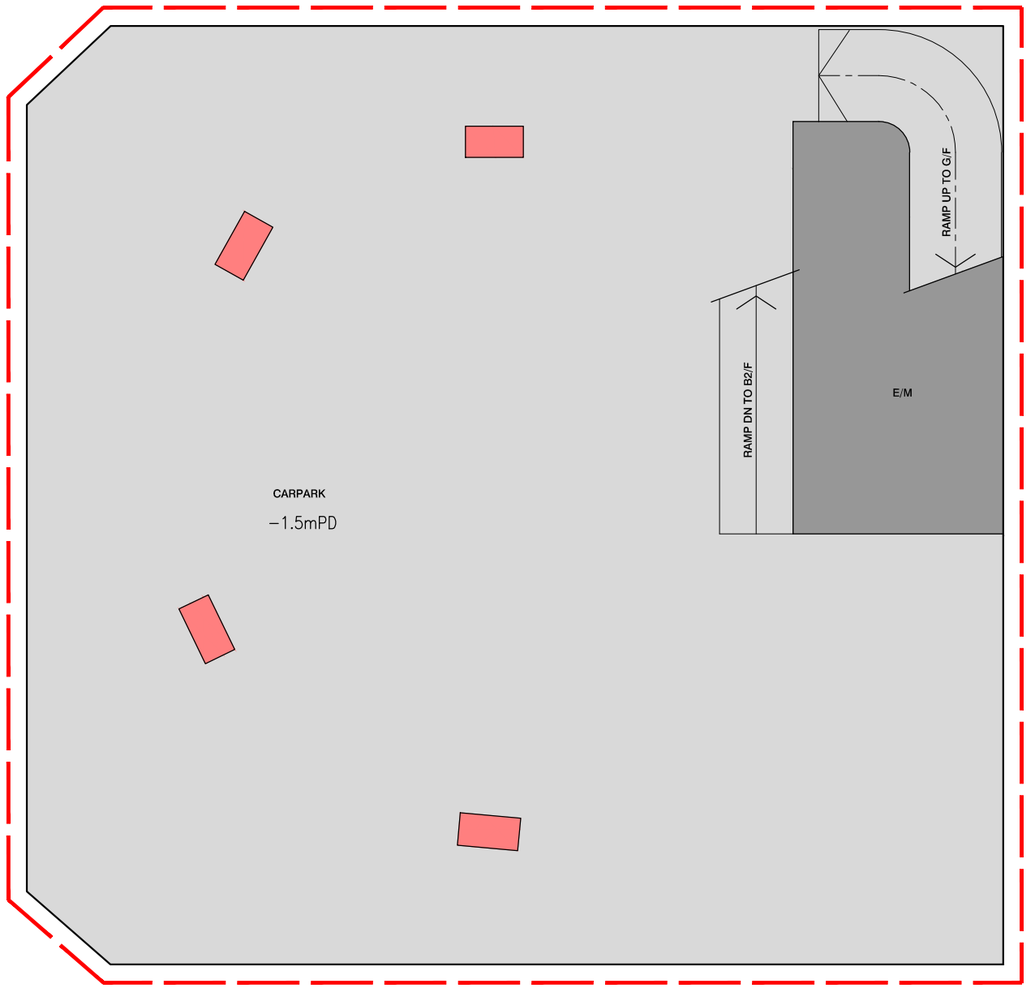
PROPOSED COMPOSITE DEVELOPMENT
AT 8 LAM CHAK STREET, KOWLOON
– N.K.I.L. 6215

TITLE 標題

INDICATIVE MASTER LAYOUT PLAN

SCALE 比例	DATE 日期
1:800(A3)	AUG 2025
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DT	–
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N3591–H	–

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INDICATIVE BASEMENT 1 FLOOR PLAN

LEGEND

- APPLICATION SITE BOUNDARY
- LANDSCAPE AREA AT GROUND LEVEL/ ON GRADE
- LANDSCAPE AREA AT PODIUM / ROOF LEVEL
- RETAIL / F&B
- EVA / DRIVEWAY
- DRIVEWAY / L/UL / CARPARK
- E&M
- RECREATIONAL FACILITIES
- RESIDENTIAL USE

N

B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
CAD FILE NAME	檔案編號
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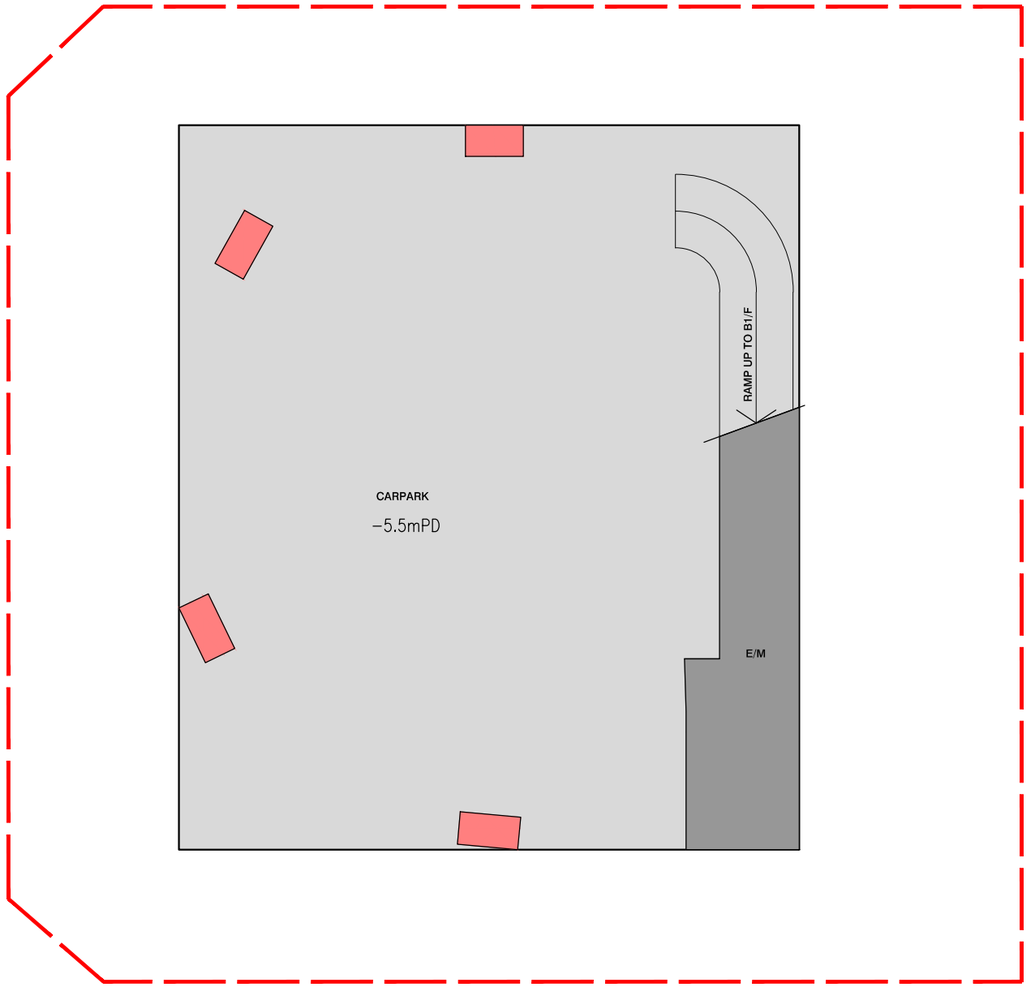
PROJECT 項目名稱

PROPOSED COMPOSITE DEVELOPMENT
AT 8 LAM CHAK STREET, KOWLOON
– N.K.I.L. 6215

TITLE 標題

INDICATIVE BASEMENT 1 FLOOR PLAN

SCALE 比例 1:500(A3)	DATE 日期 AUG 2025
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- LANDSCAPE AREA AT PODIUM / ROOF LEVEL
- RETAIL / F&B
- EVA / DRIVEWAY
- DRIVEWAY / L/UL / CARPARK
- E&M
- RECREATIONAL FACILITIES
- RESIDENTIAL USE

INDICATIVE BASEMENT 2 FLOOR PLAN

B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
CAD FILE NAME	檔案編號
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AT 8 LAM CHAK STREET, KOWLOON
– N.K.I.L. 6215

TITLE 標題

INDICATIVE BASEMENT 2 FLOOR PLAN

SCALE 比例 1:500(A3)	DATE 日期 AUG 2025
DRAWN BY 製作人 DT	CHECKED BY 檢查 –
JOB NO. 工程項目 N3591–H	DRAWING NO. 圖號 –

祥業街 CHEUNG YIP STREET

4.4 A

4.1 A

3.9 A

5.0 A

H

EVA ONLY

LANDSCAPE AREA AT GROUND LEVEL
+4.50mPD

EVA ONLY

RAMP DN TO B1/F

HGV

HGV

RETAIL / F&B
+4.50mPD

E/M
+4.50mPD

SHUTTLE LOBBY
+19.35mPD

RESIDENTIAL DROP-OFF
+4.50mPD

2500

2500

1.5m CANOPY ABOVE

Y

Z

X

2

4.3 A

4.1 A

4.3 A

監澤街

LAM CHAK STREET

太平洋貿易中心
Pacific Trade Centre

啓興道 KAI HING ROAD

INDICATIVE GROUND FLOOR PLAN

LEGEND

- APPLICATION SITE BOUNDARY
- LANDSCAPE AREA AT GROUND LEVEL/ ON GRADE
- LANDSCAPE AREA AT PODIUM / ROOF LEVEL
- RETAIL / F&B
- EVA / DRIVEWAY
- DRIVEWAY / L/UL / CARPARK
- E&M
- RECREATIONAL FACILITIES
- RESIDENTIAL USE

N

B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
CAD FILE NAME	檔案編號
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AT 8 LAM CHAK STREET, KOWLOON
– N.K.I.L. 6215

TITLE 標題

INDICATIVE GROUND FLOOR PLAN

SCALE 比例	DATE 日期
1:500(A3)	AUG 2025
DRAWN BY 製作人	CHECKED BY 檢查
DT	–
JOB NO. 工程項目	DRAWING NO. 圖號
N3591–H	–

祥業街 CHEUNG YIP STREET

4.4 A

4.1 A

3.9 A

5.0 A

4.1 A

H

L

LAM CHAK STREET 臨澤街

4.1 A

H

L

RETAIL / F&B
+9.50mPD

E/M
+9.50mPD

2500

FLAT ROOF FOR RETAIL / F&B
+9.50mPD

2500

1.5m CANOPY

BUILDING LINE ABOVE

H

L

2

L

4.3 A

啓興道 KAI HING ROAD

4.3 A

太平洋貿易中心 Pacific Trade Centre

N

LEGEND

- APPLICATION SITE BOUNDARY
- LANDSCAPE AREA AT GROUND LEVEL/ ON GRADE
- LANDSCAPE AREA AT PODIUM / ROOF LEVEL
- RETAIL / F&B
- EVA / DRIVEWAY
- DRIVEWAY / L/UL / CARPARK
- E&M
- RESIDENTIAL USE
- CANOPY

INDICATIVE FIRST FLOOR PLAN

B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
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AT 8 LAM CHAK STREET, KOWLOON
– N.K.I.L. 6215

TITLE 標題

INDICATIVE FIRST FLOOR PLAN

SCALE 比例 1:500(A3)	DATE 日期 AUG 2025
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祥業街 CHEUNG YIP STREET

4.4 A

4.1 A

3.9 A

5.0 A

H

4.1 A

LAM CHAK STREET 監澤街

RESIDENTIAL LOBBY

RESIDENTIAL LOBBY

LANDSCAPE AREA AT PODIUM LEVEL

COVERED WALKWAY

RECREATIONAL FACILITIES +14.50mPD

SHUTTLE LOBBY +14.65mPD

RESIDENTIAL LOBBY

BUILDING LINE ABOVE

COVERED WALKWAY

RESIDENTIAL LOBBY

NOT LESS THAN 15m

太平洋貿易中心 Pacific Trade Centre

2

4.3 A

啓興道 KAI HING ROAD

4.3 A

LEGEND

- APPLICATION SITE BOUNDARY
- LANDSCAPE AREA AT GROUND LEVEL/ ON GRADE
- LANDSCAPE AREA AT PODIUM / ROOF LEVEL
- RETAIL / F&B
- EVA / DRIVEWAY
- DRIVEWAY / L/UL / CARPARK
- E&M
- RECREATIONAL FACILITIES
- RESIDENTIAL USE
- CANOPY

N

INDICATIVE SECOND FLOOR PLAN

B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
CAD FILE NAME	檔案編號
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PROJECT 項目名稱

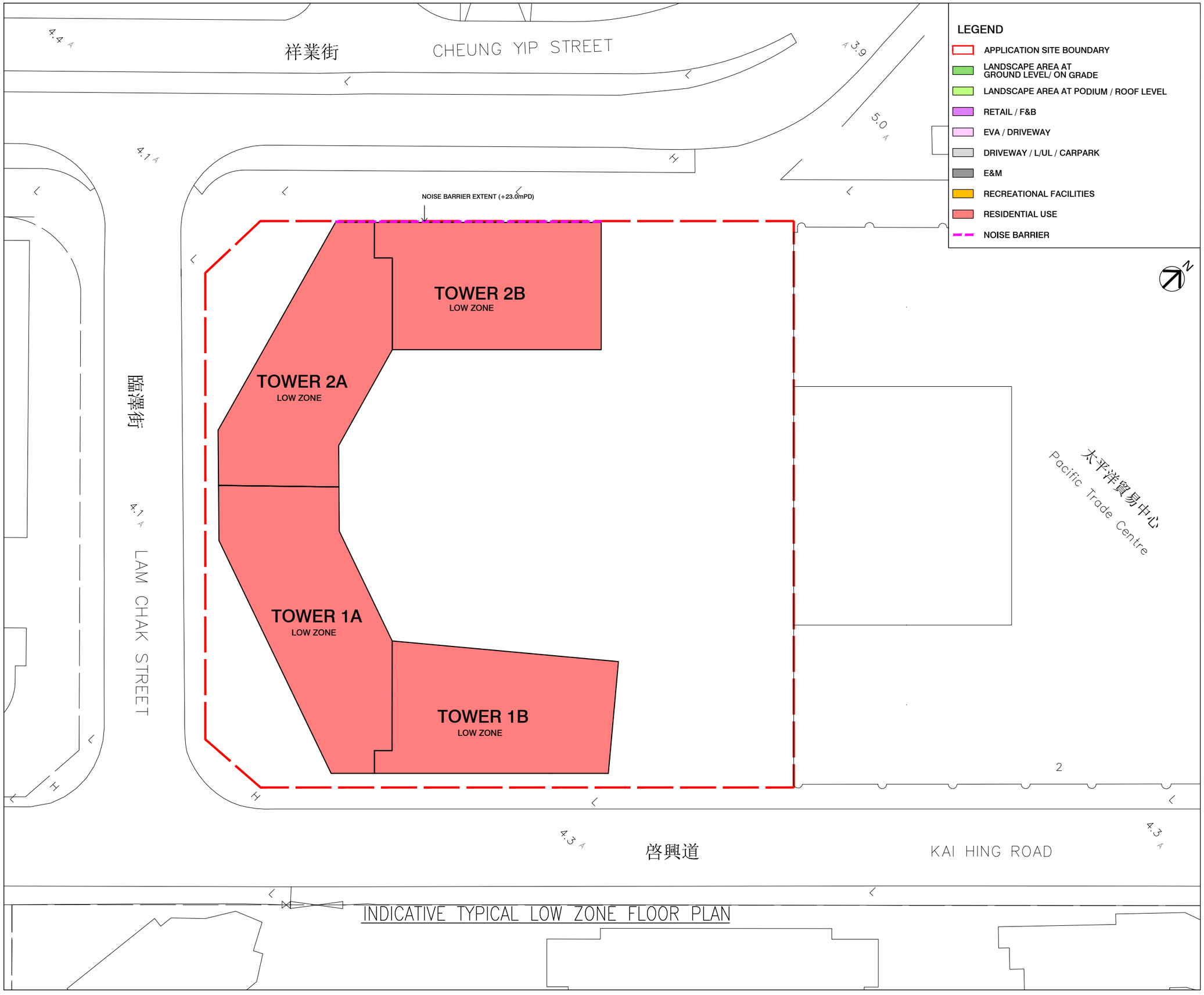
PROPOSED COMPOSITE DEVELOPMENT
AT 8 LAM CHAK STREET, KOWLOON
– N.K.I.L. 6215

TITLE 標題

INDICATIVE SECOND FLOOR PLAN

SCALE 比例 1:500(A3)	DATE 日期 AUG 2025
DRAWN BY 製作人 DT	CHECKED BY 檢查 –
JOB NO. 工程項目 N3591–H	DRAWING NO. 圖號 –

H:\Dwgs\ACAD\Submission Plans (TPB)\2026-03-03 6.5+0.5\2026-03-06 S16 6.5+0.5.dwg, 1:1, Project No.: N3591-H



INDICATIVE TYPICAL LOW ZONE FLOOR PLAN

B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
CAD FILE NAME	檔案編號
NOTES	注釋

NO. 修定號	REVISIONS 修定內容	DATE 日期	BY 經手人

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DLN Architects Limited
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PROJECT 項目名稱

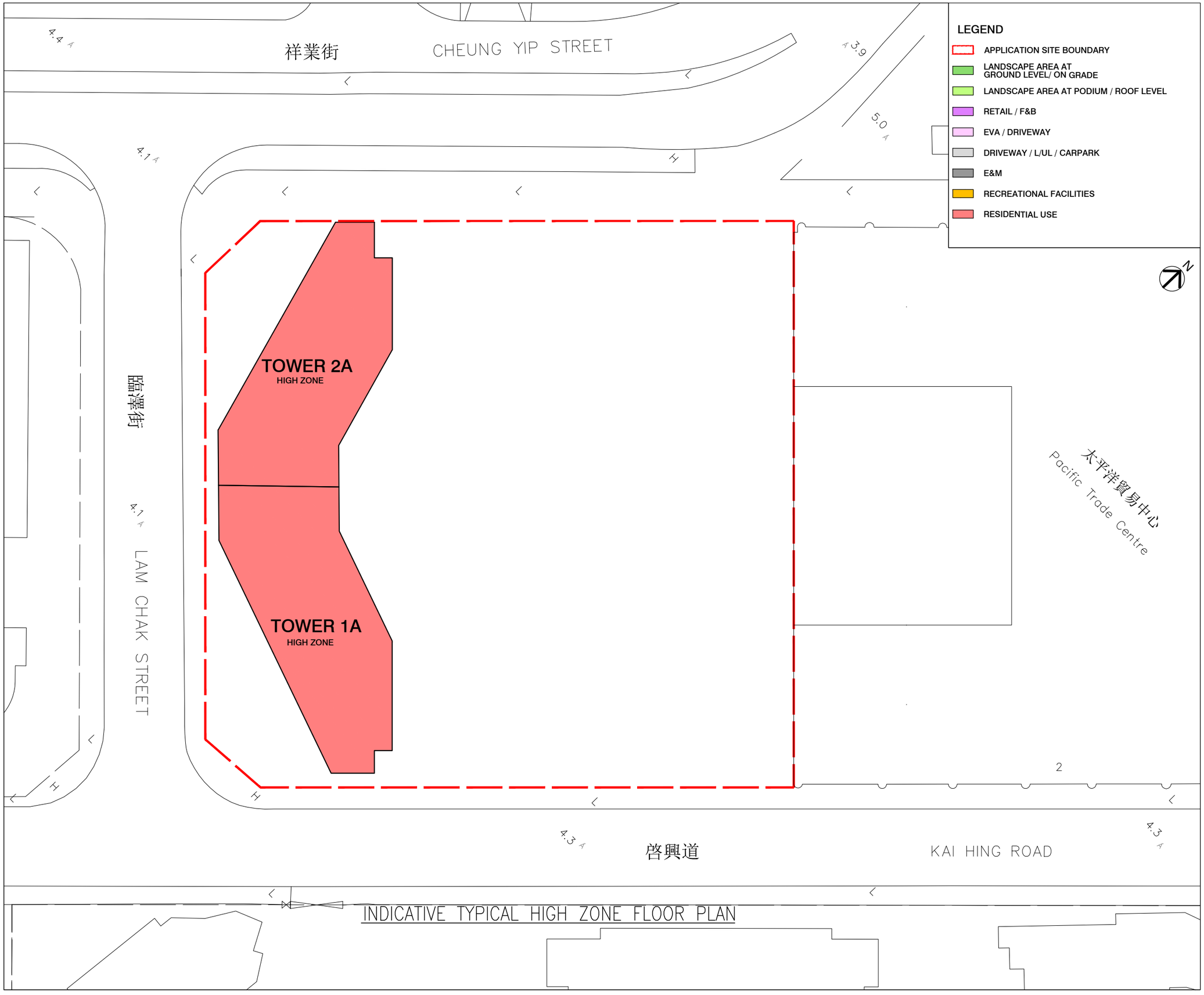
PROPOSED COMPOSITE DEVELOPMENT
AT 8 LAM CHAK STREET, KOWLOON
– N.K.I.L. 6215

TITLE 標題

INDICATIVE LOW ZONE FLOOR PLAN

SCALE 比例 1:500(A3)	DATE 日期 AUG 2025
DRAWN BY 製作人 DT	CHECKED BY 檢查 –
JOB NO. 工程項目 N3591–H	DRAWING NO. 圖號 –

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INDICATIVE TYPICAL HIGH ZONE FLOOR PLAN

B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
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PROJECT 項目名稱

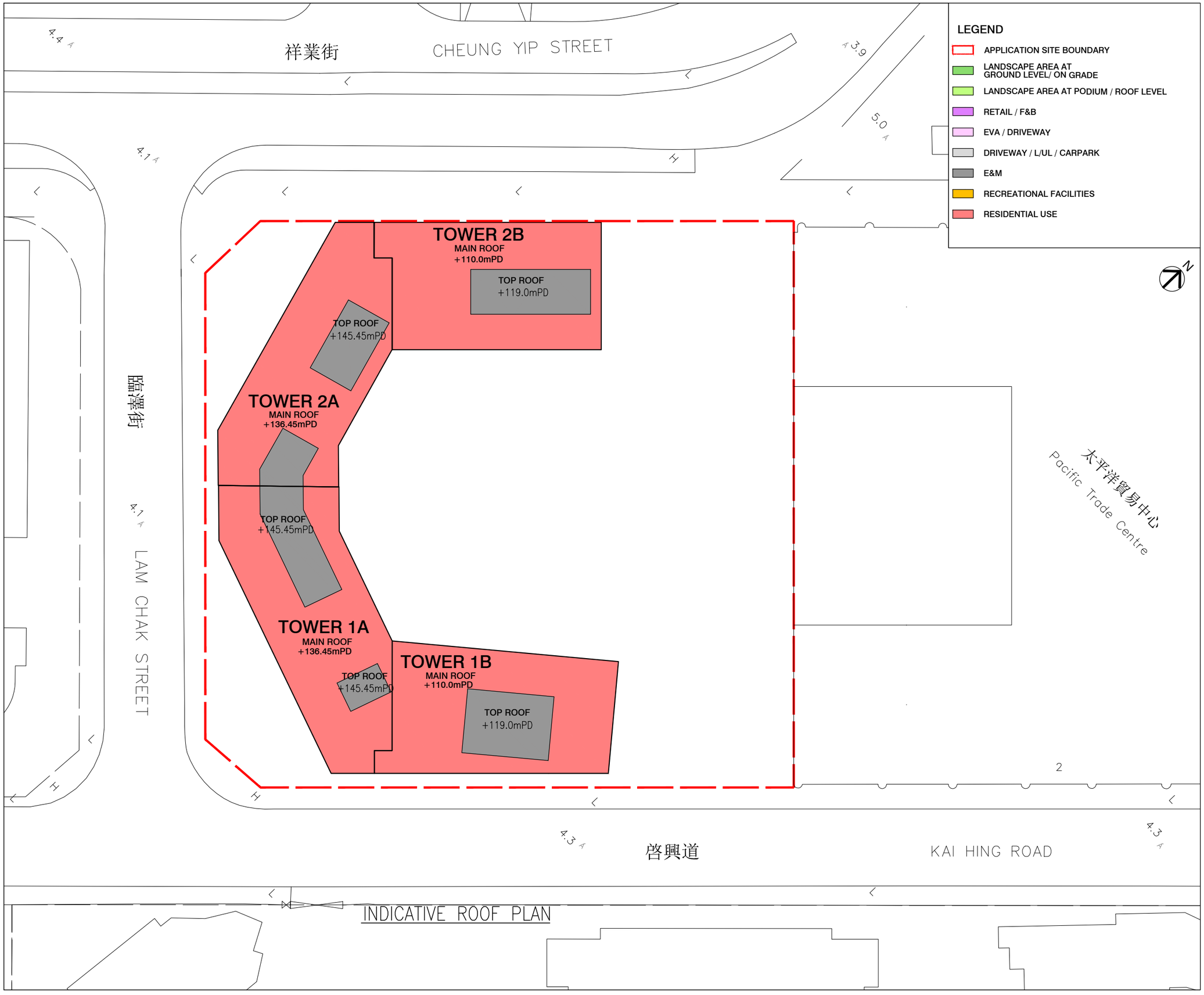
PROPOSED COMPOSITE DEVELOPMENT
AT 8 LAM CHAK STREET, KOWLOON
– N.K.I.L. 6215

TITLE 標題

INDICATIVE HIGH ZONE FLOOR PLAN

SCALE 比例 1:500(A3)	DATE 日期 AUG 2025
DRAWN BY 製作人 DT	CHECKED BY 檢查 –
JOB NO. 工程項目 N3591–H	DRAWING NO. 圖號 –

H:\Dwgs\ACAD\Submission Plans (TPB)\2026-03-03 6.5+0.5\2026-02-03 S16 6.5+0.5.dwg, 1:1, Project No.: N3591-H



INDICATIVE ROOF PLAN

B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
CAD FILE NAME	檔案編號
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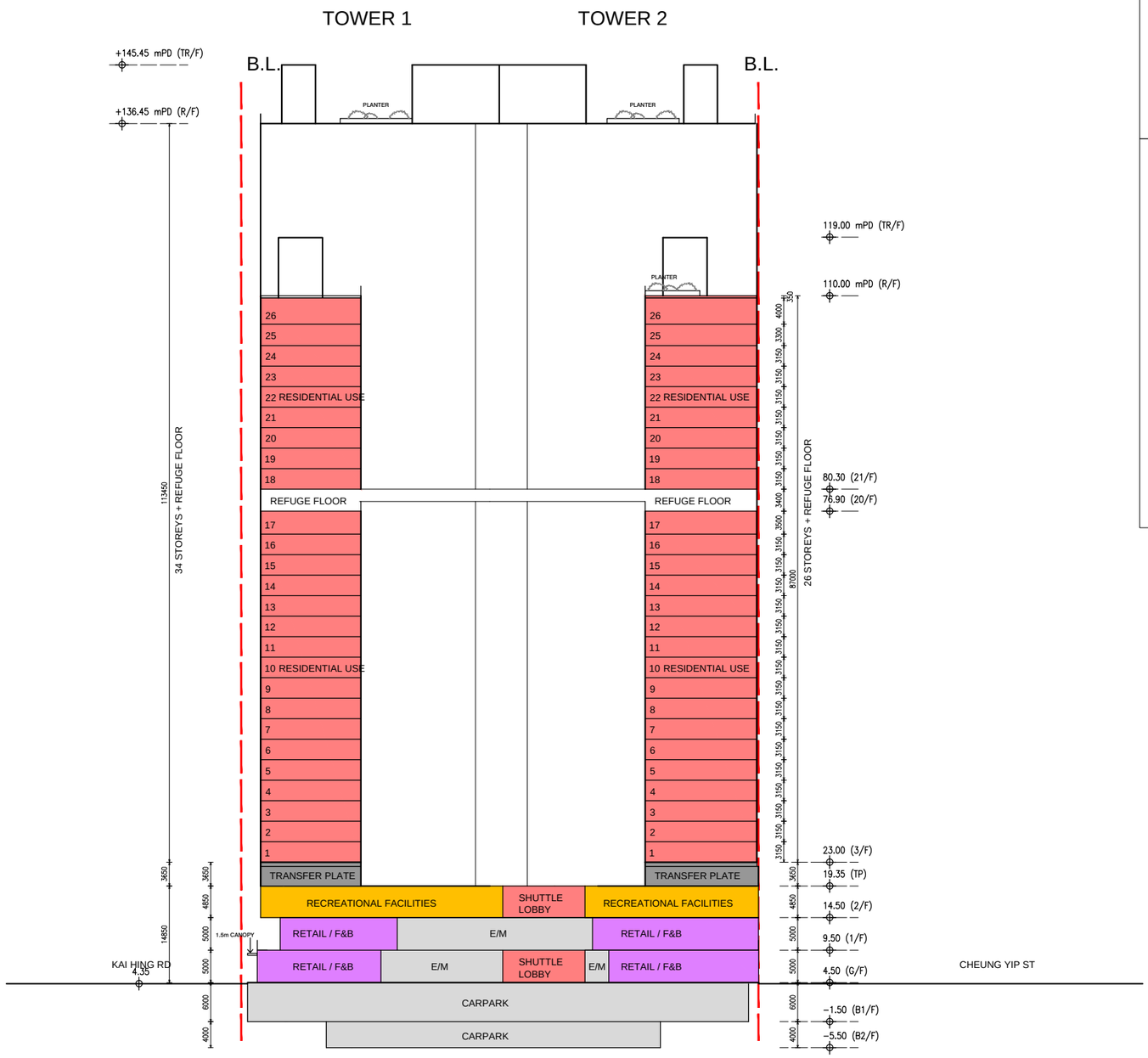
PROJECT 項目名稱

PROPOSED COMPOSITE DEVELOPMENT
AT 8 LAM CHAK STREET, KOWLOON
– N.K.I.L. 6215

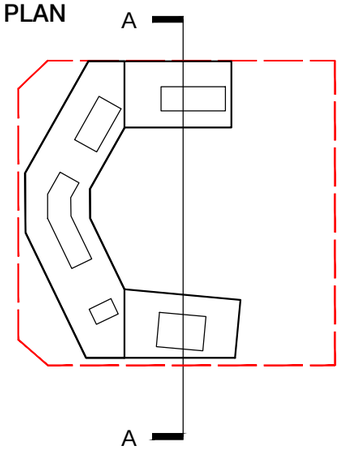
TITLE 標題

INDICATIVE ROOF FLOOR PLAN

SCALE 比例 1:500(A3)	DATE 日期 AUG 2025
DRAWN BY 製作人 DT	CHECKED BY 檢查 –
JOB NO. 工程項目 N3591–H	DRAWING NO. 圖號 –



KEY PLAN



LEGEND

- APPLICATION SITE BOUNDARY
- LANDSCAPE AREA AT GROUND LEVEL/ ON GRADE
- LANDSCAPE AREA AT PODIUM / ROOF LEVEL
- RETAIL / F&B
- EVA / DRIVEWAY
- DRIVEWAY / L/UL / CARPARK
- E&M
- RECREATIONAL FACILITIES
- RESIDENTIAL USE

B.D. REFERENCE	屋宇署檔案
F.S.D. REFERENCE	消防處檔案
W.W.O. REFERENCE	水務署檔案
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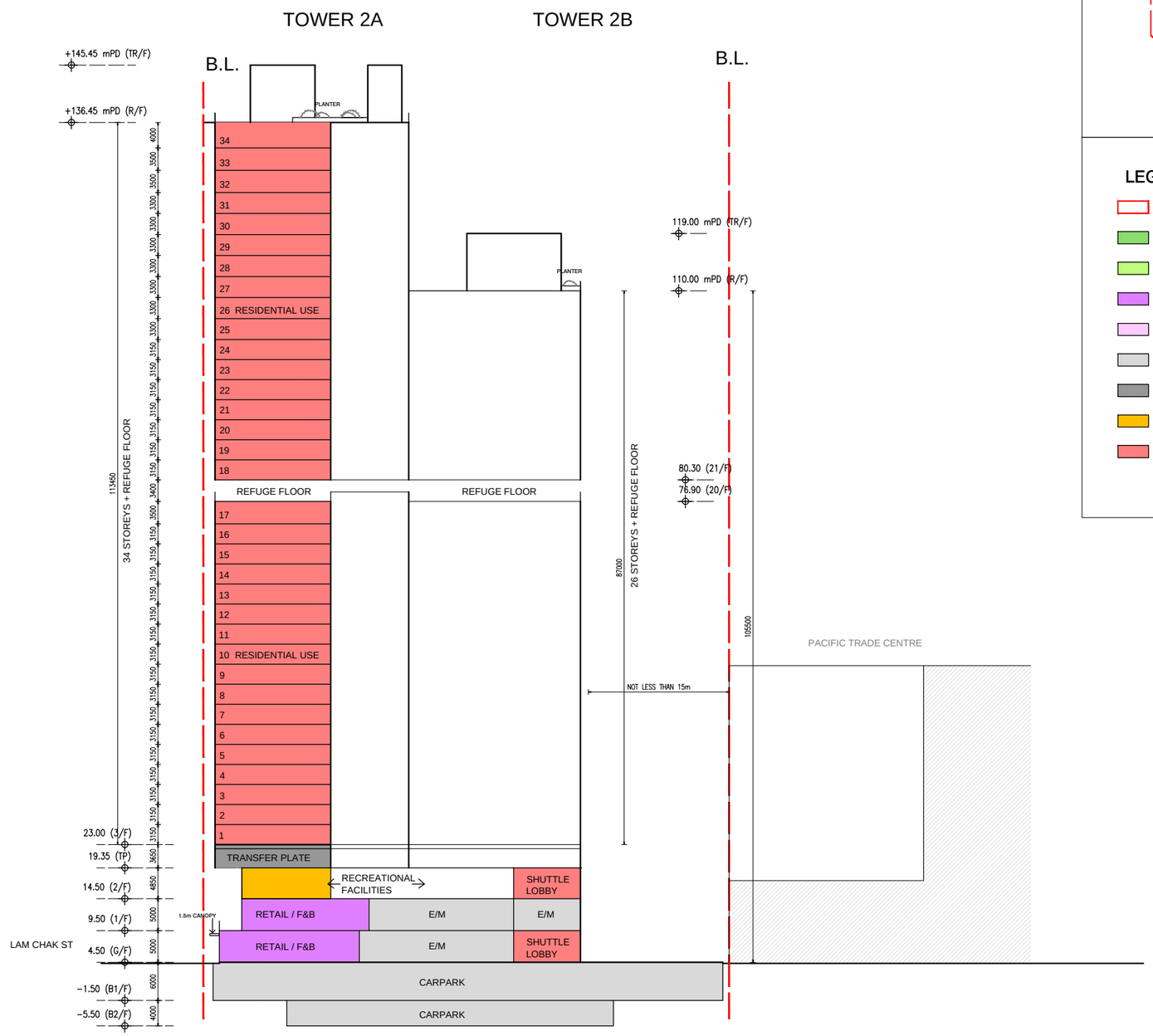
PROJECT 項目名稱

PROPOSED COMPOSITE DEVELOPMENT
AT 8 LAM CHAK STREET, KOWLOON
– N.K.I.L. 6215

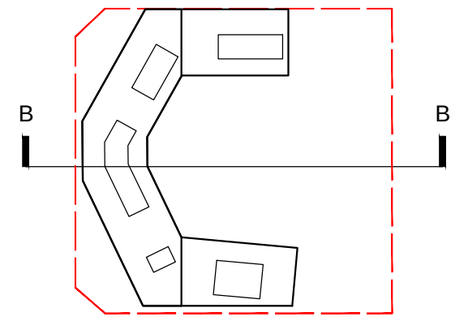
TITLE 標題

INDICATIVE SECTION A–A

SCALE 比例	DATE 日期
1:800(A3)	AUG 2025
DRAWN BY 製作人	CHECKED BY 檢查
DT	–
JOB NO. 工程項目	DRAWING NO. 圖號
N3591–H	–



KEY PLAN



LEGEND

- APPLICATION SITE BOUNDARY
- LANDSCAPE AREA AT GROUND LEVEL/ ON GRADE
- LANDSCAPE AREA AT PODIUM / ROOF LEVEL
- RETAIL / F&B
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PROJECT 項目名稱

PROPOSED COMPOSITE DEVELOPMENT
AT 8 LAM CHAK STREET, KOWLOON
– N.K.I.L. 6215

TITLE 標題

INDICATIVE SECTION B–B

SCALE 比例: 1:800(A3)	DATE 日期: AUG 2025
DRAWN BY 製作人: DT	CHECKED BY 檢查: –
JOB NO. 工程項目: N3591–H	DRAWING NO. 圖號: –

Appendix 2.1 Year 2048 Traffic Forecast (15 Years from 2033)

25046HK: S16 Planning Application for Proposed Composite Development of Harbourside HQ at No. 8 Lam Chak Street, Kowloon Bay

2048 Traffic Forecasts for Traffic Noise Impact Assessment 13-Feb-26

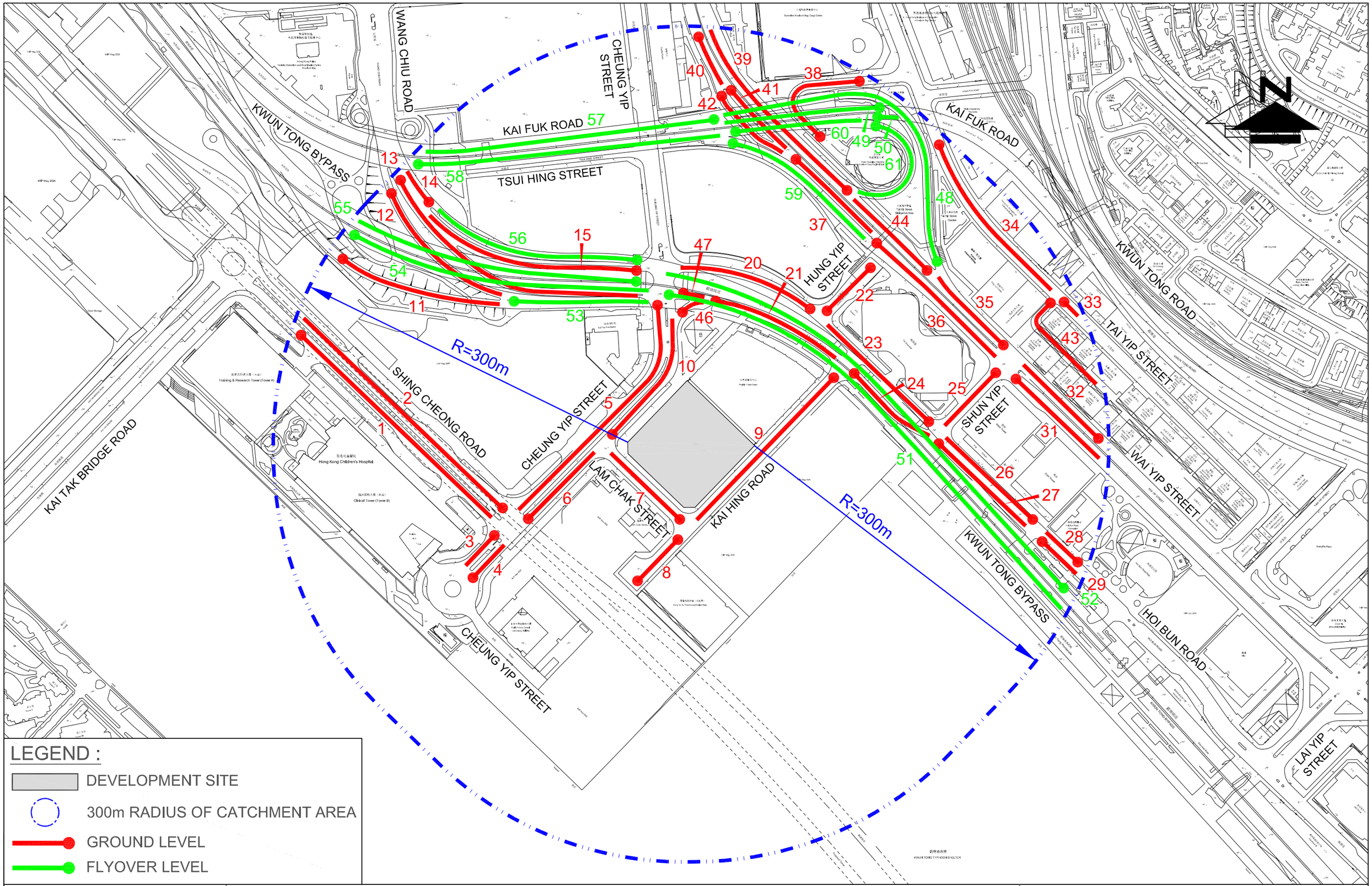
Preliminary Result

Road Link	Road Name	Road Speed	PM Peak	
			2048 Peak Hour Traffic Flows (in veh/hr)	% of HV[(1)]
1	Shing Cheong Road (From Cheung Yip Street to Kai Tak Bridge Road)	50	1,170	45%
2	Shing Cheong Road (From Kai Tak Bridge Road to Cheung Yip Street)	50	1,110	50%
3	Cheung Yip Street (From Cheung Yip Street Roundabout to Shing Cheong Road)	50	155	15%
4	Cheung Yip Street (From Shing Cheong Road to Cheung Yip Street Roundabout)	50	75	40%
5	Cheung Yip Street (From Shing Cheong Road to Hoi Bun Road)	50	1,180	45%
6	Cheung Yip Street (From Lam Chak Street to Cheung Yip Street Roundabout)	50	1,160	45%
7	Lam Chak Street (From Cheung Yip Street to Kai Hing Road)	50	395	40%
8	Kai Hing Road	50	335	60%
9	Kai Hing Road (From Lam Chak Street to Hoi Bun Road)	50	335	40%
10	Cheung Yip Street (From Hoi Bun Road to Lam Chak Street)	50	1,540	40%
11	Kwun Tong Bypass	70	715	35%
12	Kwun Tong Bypass (From Kwun Tong Bypass to Wang Chiu Road)	50	745	45%
13	Wang Chiu Road (From Hoi Bun Road to Wang Chiu Road)	50	880	40%
14	Wang Chiu Road (From Wang Chiu Road to Kwun Tong Bypass)	50	2,335	40%
15	Wang Chiu Road (From Wang Chiu Road to Cheung Yip Street)	50	1,625	45%
20	Hoi Bun Road (From Cheung Yip Street to Hung Yip Street)	50	960	50%
21	Hoi Bun Road (From Kai Hing Road to Cheung Yip Street)	50	635	50%
22	Hung Yip Street	50	130	25%
23	Hoi Bun Road (From Hung Yip Street to Shun Yip Street)	50	1,010	50%

Road Link	Road Name	Road Speed	PM Peak	
			2048 Peak Hour Traffic Flows (in veh/hr)	% of HV[(1)]
24	Hoi Bun Road (From Shun Yip Street to Kai Hing Road)	50	485	45%
25	Shun Yip Street (From Hoi Bun Road to Wai Yip Street)	50	1,095	55%
26	Hoi Bun Road	50	555	40%
27	Hoi Bun Road	50	925	50%
28	Hoi Bun Road	50	555	40%
29	Hoi Bun Road	50	925	50%
31	Wai Yip Street (From Yan Yip Street to Shun Yip Street)	50	1,170	20%
32	Wai Yip Street (From Shun Yip Street to Tai Yip Street)	50	2,095	35%
33	Tai Yip Street (From Wai Yip Street to Access Road)	50	300	15%
34	Tai Yip Street (From Access Road to Hong Tak Road)	50	310	15%
35	Wai Yip Street (From Kai Fuk Road to Shun Yip Street)	50	1,950	40%
36	Wai Yip Street (From Shun Yip Street to Kai Fuk Road Slip Road)	50	2,120	45%
37	Kai Fuk Road Slip Road (From Wai Yip Street to Kai Fuk Road)	50	1,075	55%
38	Tai Yip Lane	50	10	30%
39	Wai Yip Street (From Sheung Yee Road to Kai Fuk Road Slip Road)	70	1,495	40%
40	Wai Yip Street	70	1,075	55%
41	Wai Yip Street	70	1,065	55%
42	Wai Yip Street	70	10	20%
43	Access Road	50	10	20%
44	Wai Yip Street	50	1,820	35%
46	Hoi Bun Road (From Hoi Bun Road to Cheung Yip Street)	50	430	45%
47	Hoi Bun Road (From Hoi Bun Road to Cheung Yip Street)	50	200	50%

Road Link	Road Name	Road Speed	PM Peak	
			2048 Peak Hour Traffic Flows (in veh/hr)	% of HV[(1)]
48	Kai Fuk Road Slip Road (From Kai Fuk Road to Wai Yip Street)	50	130	45%
49	Kai Fuk Road	70	550	20%
50	Kai Fuk Road	70	265	40%
51	Kwun Tong Bypass	80	3,855	45%
52	Kwun Tong Bypass	80	3,930	35%
53	Kwun Tong Bypass (From Kwun Tong Bypass to Wang Chiu Road)	80	1,460	40%
54	Kwun Tong Bypass	80	2,395	45%
55	Kwun Tong Bypass	80	3,220	40%
56	Kwun Tong Bypass (From Wang Chiu Road to Kwun Tong Bypass)	50	710	30%
57	Kai Fuk Road	70	680	65%
58	Kai Fuk Road	70	1,640	40%
59	Kai Fuk Road Slip Road (From Wai Yip Street to Kai Fuk Road)	50	1,050	40%
60	Kai Fuk Road	70	590	40%
61	Kai Fuk Road Slip Road (From Wai Yip Street to Kai Fuk Road)	50	330	35%

Note: (1) Including private light buses, public light buses, medium/heavy goods vehicles, non-franchised buses, single deck franchised bues and double deck franchised buses



LEGEND :

- DEVELOPMENT SITE
- 300m RADIUS OF CATCHMENT AREA
- GROUND LEVEL
- FLYOVER LEVEL

FIGURE NO.: 1	PROJECT TITLE: S16 for Harbourside HQ at No. 8 Lam Chak Street, Kowloon Bay	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 25046HK	DRAWING TITLE: INDEX PLAN (300m)	
SCALE: 1 : 4200 @A4 / DATE: 4 AUG 2025		

Appendix 2.2 Results of Road Traffic Noise Impact Assessment (Base Case)

Predicted Road Traffic Noise (L10, dB(A)) at Selected Sensitive Receivers
Base Case (PM Peak Flow)

Tower 1

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11	N1-12	N1-13	N1-14	N1-15	N1-16	N1-17	N1-18	N1-19	N1-20	N1-21	N1-22	N1-23	N1-24	N1-25
3/F	23.0	73	73	72	72	72	72	72	72	71	71	71	71	71	74	74	74	74	73	73	73	73	73	73	73	73
4/F	26.2	72	72	72	72	72	72	72	72	72	72	72	72	72	74	74	74	73	73	73	73	73	73	73	73	74
5/F	29.3	72	72	72	72	72	72	72	72	72	72	72	72	72	74	73	73	73	73	73	73	73	73	73	73	74
6/F	32.5	72	72	72	71	71	71	71	71	72	72	72	72	72	73	73	73	73	73	73	73	73	73	73	73	73
7/F	35.6	71	71	71	71	71	71	71	71	71	71	72	72	72	73	73	73	73	73	73	73	73	73	73	73	73
8/F	38.8	71	71	71	71	71	71	71	71	71	71	71	72	72	73	73	73	73	72	73	73	73	73	73	73	73
9/F	41.9	71	71	71	71	71	71	71	71	71	71	71	71	71	73	73	73	73	72	72	73	73	73	73	73	73
10/F	45.1	71	71	71	71	70	70	70	71	71	71	71	71	71	73	73	73	73	72	72	72	72	73	73	73	73
11/F	48.2	71	70	70	70	70	70	70	70	71	71	71	71	71	73	73	72	72	72	72	72	72	72	72	73	73
12/F	51.4	70	70	70	70	70	70	70	70	70	71	71	71	71	73	72	72	72	72	72	72	72	72	72	72	72
13/F	54.5	70	70	70	70	70	70	70	70	70	71	71	71	71	72	72	72	72	72	72	72	72	72	72	72	72
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16/F	64.0	70	70	70	70	70	69	70	70	70	70	70	71	71	72	72	72	72	71	71	72	71	72	72	72	72
17/F	67.1	70	70	70	69	69	69	69	70	70	70	70	71	71	72	72	72	72	71	71	71	71	71	72	72	72
18/F	70.3	70	70	70	69	69	69	69	70	70	70	70	71	70	72	72	72	71	71	71	71	71	71	71	71	72
19/F	73.4	70	70	69	69	69	69	69	70	70	70	70	70	70	72	72	72	71	71	71	71	71	71	71	71	71
21/F	80.3	70	70	69	69	69	69	69	69	70	70	70	70	70	72	71	71	71	71	71	71	71	71	71	71	71
22/F	83.5	70	69	69	69	69	69	69	69	69	70	70	70	70	71	71	71	71	70	70	71	71	71	71	71	71
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24/F	89.8	70	69	69	69	69	69	69	69	69	70	70	70	70	71	71	71	71	70	70	70	70	71	71	71	71
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27/F	99.2	70	69	69	69	69	69	69	69	69	69	70	70	70	71	71	71	70	70	70	70	70	70	70	70	71
28/F	102.4	70	69	69	69	69	69	69	69	69	69	70	70	70	71	71	71	70	70	70	70	70	70	70	70	70
29/F	105.7	70	70	69	69	69	69	69	69	69	69	70	70	70	71	71	71	70	70	70	70	70	70	70	70	70
30/F	109.0	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	71	70	70	70	70	70	70	70	70	70
31/F	112.3	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	71	70	70	70	70	70	70	70	70	70
32/F	115.6	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	71	70	70	70	70	70	70	70	70	70
33/F	118.9	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	71	70	70	70	70	70	70	70	70	70
34/F	122.2	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	70	70	70	70	70	70	70	70	70	70
35/F	125.5	--	--	--	--	--	--	--	--	--	--	--	--	--	71	70	70	70	69	69	70	70	70	70	70	70
36/F	129.0	--	--	--	--	--	--	--	--	--	--	--	--	--	71	70	70	70	69	69	70	70	70	70	70	70
37/F	132.5	--	--	--	--	--	--	--	--	--	--	--	--	--	71	70	70	70	69	69	70	70	70	70	70	70
Max Noise Level		73	73	72	72	72	72	72	72	72	72	72	72	72	74	74	74	74	73	73	73	73	73	73	73	74
Exceedance		9			8		7		9		13		16		34				18		20		22		24	

Floor	mPD	N1-26	N1-27	N1-28	N1-29	N1-30	N1-31	N1-32	N1-33	N1-34	N1-35	N1-36	N1-37	N1-38	N1-39	N1-40	N1-41	N1-42	N1-43	N1-44	N1-45	N1-46	N1-47	N1-48	N1-49	N1-50	N1-51	N1-52
3/F	23.0	73	74	74	75	60	61	63	64	65	65	65	66	66	67	68	68	69	69	70	70	69	69	68	68	68	68	68
4/F	26.2	74	74	74	75	60	62	63	64	65	65	65	66	66	67	68	68	69	69	70	70	70	70	70	70	69	69	70
5/F	29.3	74	74	74	75	60	62	63	64	65	65	66	66	66	67	68	68	69	69	70	70	70	70	70	70	70	70	70
6/F	32.5	74	74	74	74	60	62	63	64	65	65	66	66	66	67	68	68	69	69	70	70	70	70	70	70	70	70	71
7/F	35.6	73	74	74	74	60	62	63	64	65	65	66	66	66	67	68	68	69	69	70	70	70	70	70	70	70	70	71
8/F	38.8	73	73	74	74	60	62	63	64	65	65	66	66	66	67	68	68	69	69	69	70	70	70	70	70	70	70	71
9/F	41.9	73	73	74	74	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	70	71
10/F	45.1	73	73	73	74	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	71	71
11/F	48.2	73	73	73	74	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	71	71
12/F	51.4	73	73	73	73	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	71	71
13/F	54.5	72	73	73	73	60	62	63	64	65	65	66	66	66	67	67	68	68	69	69	70	70	70	70	70	70	71	71
14/F	57.7	72	72	73	73	60	62	63	64	65	65	66	66	66	67	67	68	68	69	69	70	70	70	70	70	71	71	71
15/F	60.8	72	72	73	73	60	62	63	64	65	65	66	66	66	67	67	68	68	69	69	69	70	70	70	70	71	71	71
16/F	64.0	72	72	72	73	61	62	63	64	65	65	66	66	67	67	67	68	68	69	69	70	70	70	70	71	71	71	71
17/F	67.1	72	72	72	73	61	63	64	65	65	66	66	66	67	67	68	68	69	69	69	70	70	70	70	71	71	71	72
18/F	70.3	72	72	72	73	62	63	64	65	66	66	66	67	67	68	68	68	69	69	70	70	70	70	71	71	71	72	72
19/F	73.4	72	72	72	72	62	64	65	65	66	66	67	67	67	68	68	68	69	69	70	70	70	71	71	71	71	72	72
21/F	80.3	71	71	72	72	63	64	65	66	67	67	67	68	68	68	68	69	69	70	70	70	71	71	71	71	72	72	73
22/F	83.5	71	71	72	72	64	65	66	66	67	67	68	68	68	68	69	69	69	70	70	70	71	71	71	72	72	73	73
23/F	86.6	71	71	72	72	64	65	66	67	67	68	68	68	69	69	69	69	70	70	70	71	71	71	72	72	72	73	73
24/F	89.8	71	71	71	72	65	66	66	67	68	68	68	69	69	69	69	69	70	70	70	71	71	72	72	72	72	73	73
25/F	92.9	71	71	71	72	65	66	67	67	68	68	69	69	69	69	69	70	70	70	71	71	71	72	72	72	73	73	74
26/F	96.1	71	71	71	72	66	67	67	68	68	69	69	69	69	69	70	70	70	71	71	71	72	72	72	73	73	74	74
27/F	99.2	71	71	71	71	67	67	68	68	69	69	69	69	70	70	70	70	70	71	71	71	71	72	72	73	73	74	74
28/F	102.4	71	71	71	71	67	67	68	68	69	69	69	70	70	70	70	70	71	71	71	72	72	72	73	73	73	74	74
29/F	105.7	70	71	71	71	67	68	68	69	69	69	70	70	70	70	70	70	71	71	71	72	72	72	73	73	73	74	74
30/F	109.0	70	71	71	71	67	68	68	69	69	70	70	70	70	70	70	70	--	--	--	--	--	--	--	--	--	--	--
31/F	112.3	70	70	71	71	68	68	69	69	69	70	70	70	71	71	71	71	--	--	--	--	--	--	--	--	--	--	--
32/F	115.6	70	70	71	71	68	68	69	69	70	70	70	71	71	71	71	71	--	--	--	--	--	--	--	--	--	--	--
33/F	118.9	70	70	71	71	68	69	69	69	70	70	70	71	71	71	71	71	--	--	--	--	--	--	--	--	--	--	--
34/F	122.2	70	70	71	71	68	69	69	70	70	70	71	71	71	72	72	72	--	--	--	--	--	--	--	--	--	--	--
35/F	125.5	70	70	71	71	69	69	70	70	70	71	71	71	71	72	72	72	--	--	--	--	--	--	--	--	--	--	--
36/F	129.0	70	70	70	71	70	70	70	70	71	71	71	71	72	72	72	72	--	--	--	--	--	--	--	--	--	--	--
37/F	132.5	70	70	70	71	70	70	70	71	71	71	71	72	72	72	72	72	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		74	74	74	75	70	70	70	71	71	71	71	72	72	72	72	72	71	71	71	72	72	72	73	73	73	74	74
		25	27	32	34	0	0	0	1	2	3	4	6	7	7	7	7	2	4	5	7	9	10	11	13	15	19	23
Exceedance		27		34		0			3			7			7			4			9			13			23	

Predicted Road Traffic Noise (L10, dB(A)) at Selected Sensitive Receivers
Base Case (PM Peak Flow)

Tower 2

Floor	mPD	N2-01	N2-02	N2-03	N2-04	N2-05	N2-06	N2-07	N2-08	N2-09	N2-10	N2-11	N2-12	N2-13	N2-14	N2-15	N2-16	N2-17	N2-18	N2-19	N2-20	N2-21	N2-22	N2-23	N2-24	N2-25	N2-26	N2-27	N2-28	N2-29
3/F	23.0	76	76	76	76	76	76	76	76	77	77	77	77	77	78	80	78	80	80	80	78	80	78	80	80	77	79	78	80	80
4/F	26.2	76	76	76	76	76	76	76	76	77	77	77	77	78	78	79	78	80	80	80	78	80	78	80	80	78	79	78	80	80
5/F	29.3	76	76	76	76	76	76	76	76	76	77	77	77	77	78	79	78	80	80	80	78	80	78	80	80	78	79	78	80	80
6/F	32.5	76	76	76	76	76	76	76	76	76	77	77	77	77	78	79	78	80	80	80	78	80	78	80	80	77	79	78	80	80
7/F	35.6	76	76	76	76	76	76	76	76	76	77	77	77	77	78	79	78	80	80	80	78	80	78	80	80	77	79	78	80	80
8/F	38.8	76	76	76	76	76	76	76	76	76	76	77	77	77	77	79	78	80	80	80	78	79	78	80	80	77	79	78	80	80
9/F	41.9	76	75	75	76	75	76	76	76	76	76	76	77	77	77	79	78	79	79	79	78	79	78	80	80	77	79	78	80	80
10/F	45.1	75	75	75	75	75	76	76	76	76	76	76	76	77	77	78	78	79	79	79	78	79	78	79	80	77	79	78	80	80
11/F	48.2	75	75	75	75	75	75	76	76	76	76	76	76	77	77	78	78	79	79	79	78	79	78	79	79	77	79	78	79	80
12/F	51.4	75	75	75	75	75	75	75	75	76	76	76	76	76	77	78	77	79	79	79	77	79	77	79	79	77	78	77	79	79
13/F	54.5	75	75	75	75	75	75	75	75	75	76	76	76	76	77	78	77	79	79	79	77	79	77	79	79	77	78	77	79	79
14/F	57.7	75	75	75	75	75	75	75	75	75	76	76	76	76	77	78	77	79	79	79	77	79	77	79	79	77	78	77	79	79
15/F	60.8	75	75	75	75	75	75	75	75	75	75	76	76	76	76	78	77	79	79	79	77	79	77	79	79	77	78	77	79	79
16/F	64.0	75	75	75	75	75	75	75	75	75	75	75	76	76	76	78	77	79	79	79	77	79	77	79	79	76	78	77	79	79
17/F	67.1	75	75	75	75	75	75	75	75	75	75	75	76	76	78	77	79	79	79	77	79	77	79	79	79	76	78	77	79	79
18/F	70.3	74	74	74	75	74	75	75	75	75	75	75	75	76	76	77	77	78	79	79	77	78	77	79	79	76	78	77	79	79
19/F	73.4	74	74	74	74	74	74	75	75	75	75	75	75	76	76	77	77	78	78	79	77	78	77	79	79	76	78	77	79	79
21/F	80.3	74	74	74	74	74	74	74	74	75	75	75	75	75	76	77	76	78	78	78	77	78	77	78	78	76	77	77	79	79
22/F	83.5	74	74	74	74	74	74	74	74	74	75	75	75	75	76	77	76	78	78	78	77	78	77	78	78	76	77	77	78	79
23/F	86.6	74	74	74	74	74	74	74	74	74	74	75	75	75	76	77	76	78	78	78	76	78	76	78	78	76	77	76	78	78
24/F	89.8	74	74	74	74	74	74	74	74	74	74	75	75	75	76	77	76	78	78	78	76	78	76	78	78	76	77	76	78	78
25/F	92.9	74	74	74	74	74	74	74	74	74	74	74	75	75	75	77	76	78	78	78	76	78	76	78	78	76	77	76	78	78
26/F	96.1	74	74	74	74	74	74	74	74	74	74	74	75	75	75	77	76	78	78	78	76	78	76	78	78	76	77	76	78	78
27/F	99.2	74	74	74	74	74	74	74	74	74	74	74	74	75	75	77	76	78	78	78	76	78	76	78	78	75	77	76	78	78
28/F	102.4	74	73	73	74	73	74	74	74	74	74	74	74	75	75	77	76	78	78	78	76	78	76	78	78	75	77	76	78	78
29/F	105.7	73	73	73	73	73	73	74	74	74	74	74	74	75	75	77	76	78	78	78	76	78	76	78	78	75	77	76	78	78
30/F	109.0	73	73	73	73	73	73	73	74	74	74	74	74	75	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31/F	112.3	73	73	73	73	73	73	73	73	74	74	74	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
32/F	115.6	73	73	73	73	73	73	73	73	73	74	74	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
33/F	118.9	73	73	73	73	73	73	73	73	73	74	74	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
34/F	122.2	73	73	73	73	73	73	73	73	73	74	74	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
35/F	125.5	73	73	73	73	73	73	73	73	73	73	74	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
36/F	129.0	73	73	73	73	73	73	73	73	73	73	74	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
37/F	132.5	73	73	73	73	73	73	73	73	73	73	73	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		76	76	76	76	76	76	76	76	77	77	77	77	78	78	80	78	80	80	80	78	80	78	80	80	78	79	78	80	80
Exceedance		34				34			34		34			34			26			26			26				26			

Floor	mPD	N2-30	N2-31	N2-32	N2-33	N2-34	N2-35	N2-36	N2-37	N2-38	N2-39	N2-40	N2-41	N2-42	N2-43	N2-44	N2-45	N2-46	N2-47	N2-48	N2-49	N2-50	N2-51	N2-52	N2-53	N2-54
3/F	23.0	80	80	79	79	79	69	53	52	52	53	54	55	56	56	56	56	56	56	55	55	55	55	55	54	57
4/F	26.2	80	80	79	80	79	69	54	53	53	54	55	55	56	57	57	57	56	56	56	55	55	55	55	54	57
5/F	29.3	80	80	79	80	79	69	56	56	55	55	56	56	57	57	57	57	57	56	56	55	55	55	55	54	57
6/F	32.5	80	80	79	80	79	69	57	57	56	57	57	57	57	58	58	58	57	57	56	56	55	55	54	54	57
7/F	35.6	80	80	79	79	79	69	58	57	57	58	58	58	58	59	59	58	58	57	57	56	55	55	54	54	57
8/F	38.8	80	80	79	79	79	69	58	58	58	58	58	59	59	59	59	59	58	58	57	56	55	55	55	54	57
9/F	41.9	80	80	79	79	79	69	58	58	58	58	58	59	59	59	59	59	58	58	57	56	55	55	54	54	57
10/F	45.1	80	80	79	79	79	69	58	58	58	58	59	59	59	59	59	59	58	58	57	56	55	55	55	54	57
11/F	48.2	80	80	79	79	79	69	58	58	58	58	59	59	59	59	59	59	59	58	57	56	55	55	55	54	57
12/F	51.4	79	80	79	79	79	69	58	58	58	58	59	59	59	59	59	59	59	58	57	56	55	55	55	55	57
13/F	54.5	79	79	79	79	79	69	58	58	58	58	59	59	59	59	60	59	59	58	57	56	55	55	55	55	57
14/F	57.7	79	79	79	79	79	69	59	58	58	59	59	59	59	59	60	59	59	58	57	57	56	56	56	56	58
15/F	60.8	79	79	79	79	79	70	60	59	59	59	59	59	59	60	60	60	59	58	58	57	56	56	56	56	58
16/F	64.0	79	79	79	79	79	70	61	60	59	60	59	59	60	60	60	60	59	58	58	57	56	57	57	57	58
17/F	67.1	79	79	79	79	78	70	63	61	61	61	60	60	60	60	60	60	59	59	58	57	57	57	58	58	59
18/F	70.3	79	79	78	78	78	71	64	63	62	62	61	61	60	60	60	60	59	59	58	58	58	58	59	59	60
19/F	73.4	79	79	78	78	78	71	65	64	63	62	62	61	61	61	60	60	59	59	58	58	58	59	60	60	61
21/F	80.3	79	79	78	78	78	71	66	65	64	63	63	62	62	61	61	60	60	59	59	60	60	61	61	62	62
22/F	83.5	79	79	78	78	78	72	67	65	64	64	63	63	62	62	61	61	60	60	60	60	61	61	62	62	63
23/F	86.6	79	79	78	78	78	72	67	66	65	64	64	63	63	62	62	61	60	60	60	61	61	62	62	63	63
24/F	89.8	78	79	78	78	78	72	68	66	65	65	64	64	63	63	62	61	61	61	61	62	62	63	63	64	64
25/F	92.9	78	78	78	78	78	72	68	66	66	65	65	64	64	63	63	62	62	62	62	62	63	63	64	64	65
26/F	96.1	78	78	78	78	78	72	68	67	66	65	65	64	64	64	63	63	62	63	63	63	63	64	65	65	65
27/F	99.2	78	78	78	78	78	72	69	67	66	66	65	65	64	64	63	63	63	63	63	64	64	65	65	66	66
28/F	102.4	78	78	78	78	78	73	69	67	66	66	65	65	65	64	64	63	63	64	64	64	65	65	66	66	66
29/F	105.7	78	78	78	78	78	73	69	67	67	66	66	65	65	65	64	64	64	64	64	65	65	66	66	67	67
30/F	109.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	65	65	65	66	66	66	67	67	67
31/F	112.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	66	66	66	66	66	66	67	67	67
32/F	115.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	69	67	66	67	67	67	67	67	67
33/F	118.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	71	69	68	68	68	68	68	68	68
34/F	122.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	71	70	69	69	69	69	69	69
35/F	125.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	72	71	70	70	70	70	70	69
36/F	129.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	73	72	71	71	71	70	70	70
37/F	132.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	73	72	72	72	71	71	71	71
Max Noise Level		80	80	79	80	79	73	69	67	67	66	66	65	65	65	64	64	74	73	72	72	72	71	71	71	71
Exceedance		26					26			0			0			0		5			3			2		

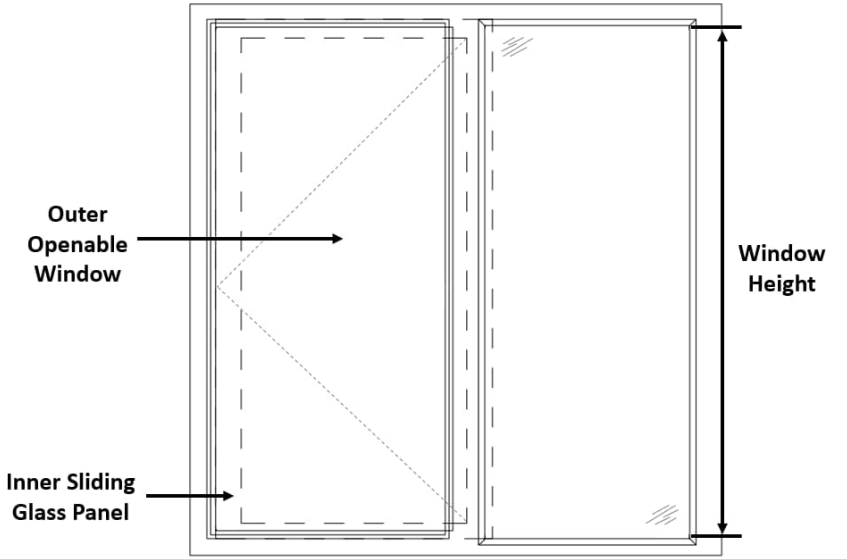
Total no. of Flats:	1140
Total no. of Exceedance:	643
Compliance Level:	44%
Max. Noise Level:	80

Notes:

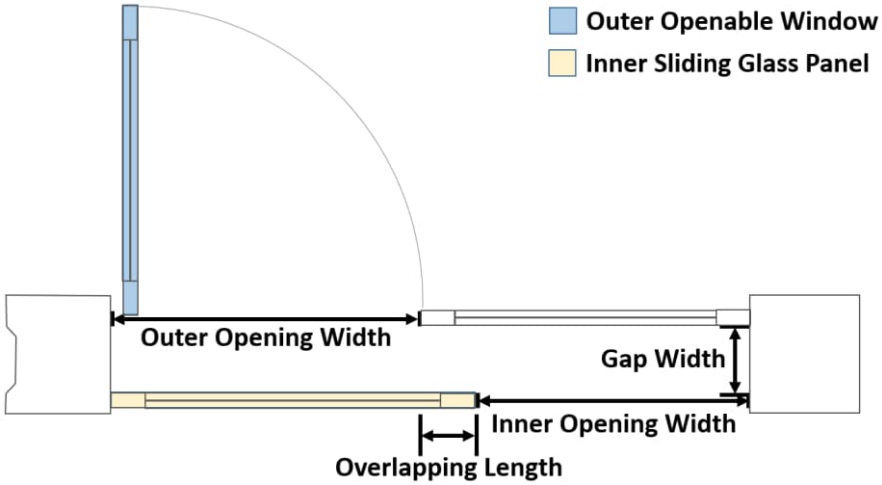
71	Noise level exceed stardand of 70 dB(A)
--	Not Available at this residential storey

Appendix 2.3 Possible Design Cases of Acoustic Window (Baffle Type) and Enhanced Acoustic Balcony (Baffle Type) (extracted from ProPECC PN5/23)

(I) Possible design of "Acoustic Window (Baffle Type)" for 8m² and 18m² habitable rooms (i.e. dining room, living room or bedroom)



INTERNAL VIEW (NOT TO SCALE)



PLAN (NOT TO SCALE)

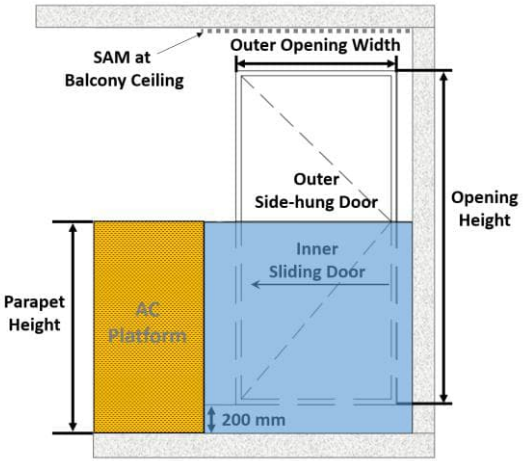
Possible Designs of "Acoustic Window (Baffle Type)" for 8m² and 18m² rooms					
Room Size (m^2)	**Room Dimensions (mm^3)**	**Inner Window Opening (mm^2)**	**Outer Window Opening (mm^2)**	**Overlapping Length (mm)**	**Gap Width (mm)**
8	**3200 (W) x 2500 (D) x 3400 (H)**	**580 (W) x 870 (H)**	**600 (W) x 870 (H)**	**≥ 100**	**100 to 175**
18	**5300 (W) x 3390 (D) x 3400 (H)**	**750 (W) x 1500 (H)**	**750 (W) x 1500 (H)**	**≥ 100**	**100 to 175**

Notes:

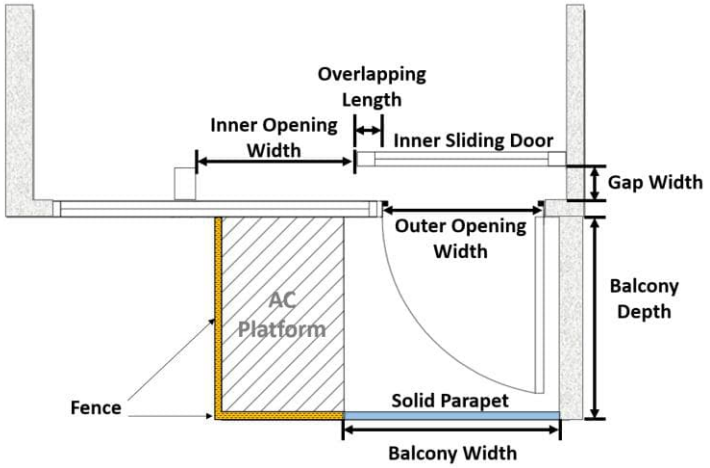
a. These are feasible designs of AW(BT) for 8m² and 18m² rooms.

b. For optimum performance of noise reduction, the air gap should have a pane-to-pane overlapping length of ≥ 100mm and a gap width between 100mm and 175mm, with the inner sliding glass panel in a closed position. The window pane shall be ≥ 6mm in thickness.

(II) Possible designs of "Enhanced Acoustic Balcony (Baffle Type)" in 14m^2 and 18m^2 habitable rooms (i.e. dining room, living room or bedroom)



EXTERNAL VIEW (NOT TO SCALE)



PLAN (NOT TO SCALE)

Fence (≥ 70% Permeability) Solid Parapet

Possible Designs of "Enhanced Acoustic Balcony (Baffle Type)" for 14m^2 and 18m^2 rooms								
Room size (m^2)	**Room Dimensions (mm^3)**	**Balcony Width (mm)**	**Balcony Depth (mm)**	**Parapet Height (mm)**	**Inner Opening (mm^2)**	**Outer Opening (mm^2)**	**Overlapping Length (mm)**	**Gap Width (mm)**
14	**3400 (W) x 4100 (D) x 3100 (H)**	**≥ 1440**	**≥ 1300**	**≥ 1450**	**1025 (W) x 2210 (H)**	**1150 (W) x 2210 (H)**	**≥ 100**	**100**
18	**5300 (W) x 3390 (D) x 3400 (H)**	**≥ 2055**	**≥ 1300**	**≥ 1450**	**1150 (W) x 2210 (H)**	**1150 (W) x 2210 (H)**	**≥ 100**	**100**

Notes:
1. These are feasible designs of EAB for 14m^2 and 18m^2 rooms. The room with EAB should meet the natural lighting and ventilation requirements in regulations 30 & 31 of the Building (Planning) Regulations (B(P)R). The AC platform should comply with the requirements under Appendix B of Code of Practice on Access for External Maintenance 2021 (AfEM Code), and balconies for residential buildings should comply with the criteria and conditions set out in Joint Practice Note (JPN) 1 for application of exemption from gross floor area and/or site coverage under the B(P)R.
2. SAM at balcony ceiling refers to sound absorptive material of noise reduction coefficient ≥ 0.7. It is an essential feature to attain the basic noise reduction performance in Annex B.
3. Comparable noise performance is anticipated should the AC platform be replaced by balcony with solid parapet.

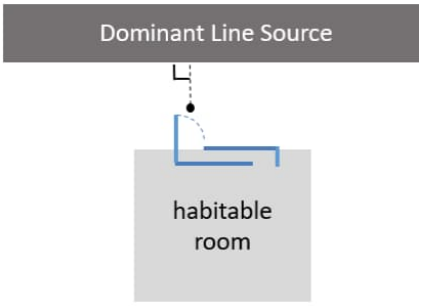
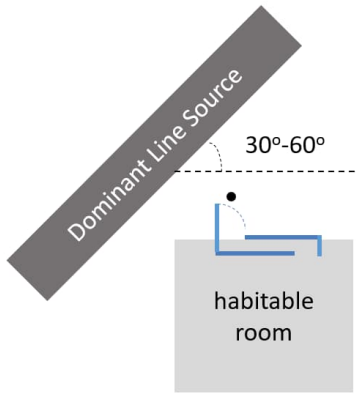
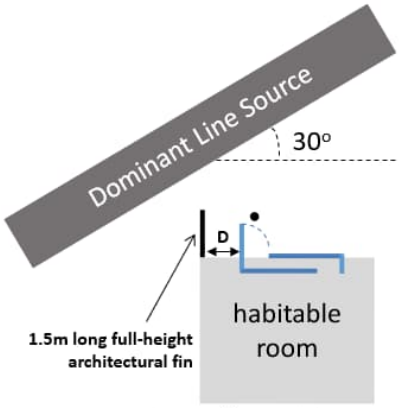
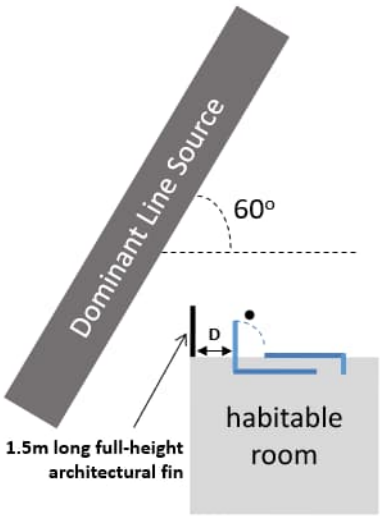
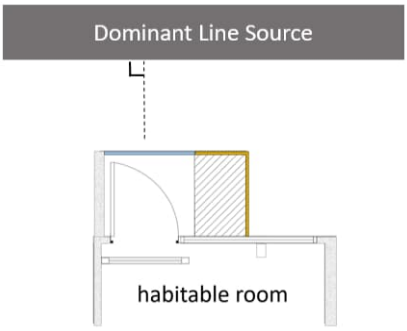
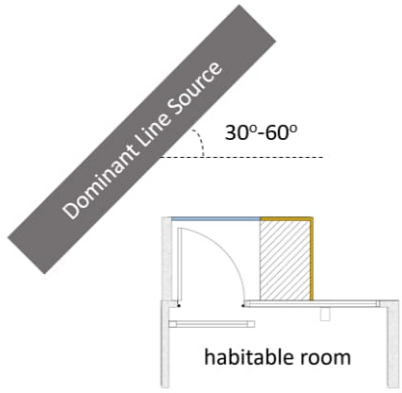
Table 1: Summary on RNR of Acoustic Window (Baffle Type) (for use in NIA) *Plan not to scale		Correction dB(A) L10(1hr)	
		8m²	18m²
	**(a) Provision of AW(BT) parallel to dominant line source** (whichever side the outer side-hung window is)	- **6.0** - **7.5 (added SAM[1])**	- **7.0** - **8.5 (added SAM[1])**
	**(b) Tilting the AW(BT) in (a) above to 30° - 60° horizontal incident angle to dominant line source** (whichever side the outer side-hung window is)	- **7.0** - **8.5 (added SAM[1])**	- **8.0** - **9.5 (added SAM[1])**
 D = Distance from architectural fin to nearest window frame should be at most 900mm.	**(b1) If tilted AW(BT) is at 30° horizontal incident angle to dominant line source** **+ 1.5m long full-height architectural fin[2]** *** AW(BT) + architectural fin should be considered as ONE package of noise mitigation measures. Outer side-hung window of AW(BT) and architectural fin should be installed at the side nearer to dominant line source.**	- **8.0** - **9.5 (added SAM[1])**	- **9.0** - **10.5 (added SAM[1])**

Table 1: Summary on RNR of Acoustic Window (Baffle Type) (for use in NIA) *Plan not to scale		Correction dB(A) L10(1hr)	
		8m^2	18m^2
 D = Distance from architectural fin to nearest window frame should be at most 900mm.	**(b2) If tilted AW(BT) is at 60° horizontal incident angle to dominant line source** **+ 1.5m long full-height architectural fin[2]** *** AW(BT) + architectural fin should be considered as ONE package of noise mitigation measures. Outer side-hung window of AW(BT) and architectural fin should be installed at the side nearer to dominant line source.**	**- 9.0** **- 10.5 (added SAM[1])**	**- 10.0** **- 11.5 (added SAM[1])**

Note 1: The additional Sound Absorptive Material (SAM) shall be of Noise Reduction Coefficient ≥ 0.7 and applied at top and outer opening side of mullion. The material of SAM is subject to the requirements of section 3 of Building (Construction) Regulation.

Note 2: The 1.5m long full-height architectural fin may be subject to the requirements for natural lighting and ventilation, gross floor area and site coverage under the B(P)R.

Table 2: Summary on RNR of Enhanced Acoustic Balcony (Baffle Type) (for use in NIA) *Plan not to scale		Correction dB(A) L10(1hr)	
		14m²	18m²
	**(a) Provision of EAB(BT) parallel to dominant line source**	- **8.0** - **9.5 (added SAM[1])**	- **9.0** - **10.5 (added SAM[1])**
	**(b) Tilting the EAB(BT) in (a) above to 30° - 60° horizontal incident angle to dominant line source**	- **11.0** - **12.5 (added SAM[1])**	- **11.0** - **12.5 (added SAM[1])**
Note 1: The additional Sound Absorptive Material (SAM) shall be of Noise Reduction Coefficient ≥ 0.7 and applied at top and outer opening side of the mullion. The material of SAM is subject to the requirements of section 3 of Building (Construction) Regulation.			

[i] *Should there be any variation on the proposed INMD, or practitioners and professionals consider that a higher RNR value should be adopted, justifications together with technical documents, e.g. corrections based on acoustic principles, laboratory testing reports, in-situ measurement reports, etc. should be submitted to the EPD for consideration. For requirements of laboratory measurement or in-situ measurement requirements, practitioners and professionals may contact the EPD for further details. As RNR varies with room size, practitioners and professionals may like to propose the preferred RNR to the EPD for consideration if different room size is encountered in the NIA study. Having said that, information indicates that for* ***Tables 1 and 2****:*

- *Variations of room size within +/- 10% would not affect the RNR;*
- *Variations of floor-to-ceiling height within +/- 5% would not affect the RNR; and*
- *Variations of window / door opening size within +/- 5% would not affect the RNR.*

Appendix 2.4 Estimation of Road Traffic Noise Attenuation of Acoustic Window (Baffle Type) and Enhanced Acoustic Balcony (Baffle Type)

Road Traffic Noise Impact Assessment

Acoustic Window (Baffle Type) and Enhanced Acoustic Balcony (Baffle Type) for Residential Tower

Summary Table of Major Parameters of Reference Case and Maximum Sound Attenuation Available

Name	Outer opening width, mm	Outer opening height, mm	Outer opening area, m^2	Air gap, mm	Overlapping length, mm	MPA Applied	Solid Parapet Applied	Acoustic Ceiling Applied	Additional SAM	Room Area, m^2	Maximum Noise Reduction Available, dB(A)
Acoustic Window (Baffle Type)											
AW-PN	600	870	0.5	100	100	No	-	-	Yes	8.0	7.5
Enhanced Acoustic Balcony (Baffle Type)											
EAB-PN	1150	2210	2.5	100	100	No	Yes	Yes	Yes	14.0	9.5

Note:

MPA: Micro Perforated Absorber

Solid Parapet: Minimum 1440mm (W) x 1450mm (H) parallel to door opening

SAM: Sound Absoptive Material

Acoustic Ceiling: Balcony ceiling to be covered by SAM

Road Traffic Noise Impact Assessment
Acoustic Window (Baffle Type) and Enhanced Acoustic Balcony (Baffle Type)
Table of Major Parameters, Room Size and Sound Attenuation Adjustment of "Proposed Case for Proposed Development" and "Corresponding Reference Case"

				Proposed Development				Reference Case													
Tower	Opening	NSRs	Case	Outer opening area, m^2	Air gap, mm	Overlapping length, mm	MPA applied?	Outer opening width, mm	Outer opening height, mm	Outer opening area, m^2	Air gap, mm	Overlapping length, mm	MPA applied?	Room area (RAref), m^2	Ref. sound attenuation, dB(A)	Window / Door: Extra sound attenuation with SAM, dB(A)	Incident angle, deg	Window / Door: Extra sound attenuation from incident angle, dB(A)	Window: 1.5m Fin	Window: Extra sound attenuation with 1.5m Fin, dB(A)	Relative Noise Reduction, dB(A)	Noise Reduction Required, dB(A)
1	W	N1-01	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	5	0	No	0	**7.5**	**2.2**
1	W	N1-02	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	5	0	No	0	**7.5**	**2.1**
1	D	N1-03	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	5	0	No	0	**9.5**	**2.0**
1	D	N1-04	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	5	0	No	0	**9.5**	**1.8**
1	W	N1-05	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	5	0	No	0	**7.5**	**1.7**
1	W	N1-06	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	5	0	No	0	**7.5**	**1.5**
1	D	N1-07	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	5	0	No	0	**9.5**	**1.4**
1	D	N1-08	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	5	0	No	0	**9.5**	**1.5**
1	W	N1-09	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	5	0	No	0	**7.5**	**1.4**
1	W	N1-10	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	5	0	No	0	**7.5**	**1.4**
1	D	N1-11	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	5	0	No	0	**9.5**	**1.6**
1	D	N1-12	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	5	0	No	0	**9.5**	**1.7**
1	W	N1-13	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	5	0	No	0	**7.5**	**1.6**
1	W	N1-14	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	65	1.0	No	0	**8.5**	**3.4**
1	W	N1-15	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	65	1.0	No	0	**8.5**	**3.2**
1	W	N1-16	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	65	1.0	No	0	**8.5**	**3.1**
1	D	N1-17	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	65	3.0	No	0	**12.5**	**3.2**
1	W	N1-18	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	25	0	No	0	**7.5**	**2.7**
1	D	N1-19	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	25	0	No	0	**9.5**	**2.8**
1	D	N1-20	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	25	0	No	0	**9.5**	**2.9**
1	W	N1-21	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	25	0	No	0	**7.5**	**2.9**
1	W	N1-22	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	25	0	No	0	**7.5**	**3.0**
1	D	N1-23	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	25	0	No	0	**9.5**	**3.0**
1	D	N1-24	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	25	0	No	0	**9.5**	**3.0**
1	W	N1-25	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	25	0	No	0	**7.5**	**3.1**
1	W	N1-26	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	25	0	No	0	**7.5**	**3.3**
1	D	N1-27	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	25	0	No	0	**9.5**	**3.5**
1	D	N1-28	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	25	0	No	0	**9.5**	**4.0**
1	W	N1-29	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	25	0	No	0	**7.5**	**4.6**
1	W	N1-33	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	15	0	No	0	**7.5**	**0.3**
1	D	N1-34	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	15	0	No	0	**9.5**	**0.5**
1	W	N1-35	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	15	0	No	0	**7.5**	**0.7**
1	W	N1-36	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	15	0	No	0	**7.5**	**0.9**
1	D	N1-37	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	15	0	No	0	**9.5**	**1.2**
1	W	N1-38	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	15	0	No	0	**7.5**	**1.4**
1	W	N1-39	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	15	0	No	0	**7.5**	**1.7**
1	D	N1-40	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	15	0	No	0	**9.5**	**1.8**
1	W	N1-41	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	15	0	No	0	**7.5**	**1.9**
1	D	N1-42	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	50	3.0	No	0	**12.5**	**0.1**
1	W	N1-43	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	50	1.0	No	0	**8.5**	**0.5**
1	W	N1-44	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	50	1.0	No	0	**8.5**	**0.9**
1	D	N1-45	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	50	3.0	No	0	**12.5**	**1.2**
1	W	N1-46	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	50	1.0	No	0	**8.5**	**1.5**
1	W	N1-47	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	50	1.0	No	0	**8.5**	**1.8**
1	D	N1-48	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	50	3.0	No	0	**12.5**	**2.1**
1	W	N1-49	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	50	1.0	No	0	**8.5**	**2.5**
1	D	N1-50	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	50	3.0	No	0	**12.5**	**2.7**
1	W	N1-51	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	50	1.0	No	0	**8.5**	**3.3**
1	W	N1-52	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	50	1.0	No	0	**8.5**	**3.5**

Road Traffic Noise Impact Assessment
Acoustic Window (Baffle Type) and Enhanced Acoustic Balcony (Baffle Type)
Table of Major Parameters, Room Size and Sound Attenuation Adjustment of "Proposed Case for Proposed Development" and "Corresponding Reference Case"

				Proposed Development				Reference Case													
Tower	Opening	NSRs	Case	Outer opening area, m^2	Air gap, mm	Overlapping length, mm	MPA applied?	Outer opening width, mm	Outer opening height, mm	Outer opening area, m^2	Air gap, mm	Overlapping length, mm	MPA applied?	Room area (RAref), m^2	Ref. sound attenuation, dB(A)	Window / Door: Extra sound attenuation with SAM, dB(A)	Incident angle, deg	Window / Door: Extra sound attenuation from incident angle, dB(A)	Window: 1.5m Fin	Window: Extra sound attenuation with 1.5m Fin, dB(A)	Relative Noise Reduction, dB(A)	Noise Reduction Required, dB(A)
2	W	N2-01	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	30	1.0	No	0	**8.5**	**6.0**
2	W	N2-02	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	30	1.0	No	0	**8.5**	**5.8**
2	W	N2-03	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	30	1.0	No	0	**8.5**	**5.8**
2	D	N2-04	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	30	3.0	No	0	**12.5**	**5.8**
2	W	N2-05	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	30	1.0	No	0	**8.5**	**5.6**
2	D	N2-06	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	30	3.0	No	0	**12.5**	**5.7**
2	W	N2-07	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	30	1.0	No	0	**8.5**	**5.8**
2	D	N2-08	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	30	3.0	No	0	**12.5**	**5.9**
2	W	N2-09	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	60	1.0	No	0	**8.5**	**6.1**
2	W	N2-10	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	60	1.0	No	0	**8.5**	**6.3**
2	D	N2-11	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	60	3.0	No	0	**12.5**	**6.4**
2	W	N2-12	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	60	1.0	No	0	**8.5**	**6.5**
2	W	N2-13	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	60	1.0	No	0	**8.5**	**6.6**
2	D	N2-14	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	60	3.0	No	0	**12.5**	**6.6**
2	W	N2-15	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	60	1.0	Yes	2.0	**10.5**	**8.8**
2	W	N2-16	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	90	1.0	No	0	**8.5**	**7.6**
2	D	N2-18	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	0	0	No	0	**9.5**	**9.5**
2	D	N2-19	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	0	0	No	0	**9.5**	**9.4**
2	W	N2-21	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	0	0	No	0	**7.5**	**6.3**
2	D	N2-23	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	0	0	No	0	**9.5**	**9.2**
2	W	N2-25	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	90	1.0	No	0	**8.5**	**5.5**
2	W	N2-26	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	0	0	No	0	**7.5**	**6.4**
2	W	N2-27	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	90	1.0	No	0	**8.5**	**5.9**
2	D	N2-29	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	0	0	No	0	**9.5**	**9.5**
2	D	N2-30	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	0	0	No	0	**9.5**	**9.5**
2	W	N2-32	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	90	1.0	No	0	**8.5**	**8.4**
2	W	N2-34	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	90	1.0	No	0	**8.5**	**8.4**
2	W	N2-35	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	30	1.0	No	0	**8.5**	**2.2**
2	W	N2-46	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	30	1.0	No	0	**8.5**	**4.0**
2	D	N2-47	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	30	3.0	No	0	**12.5**	**2.9**
2	W	N2-48	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	30	1.0	No	0	**8.5**	**1.9**
2	W	N2-49	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	60	1.0	No	0	**8.5**	**1.4**
2	D	N2-50	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	60	3.0	No	0	**12.5**	**1.0**
2	W	N2-51	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	60	1.0	No	0	**8.5**	**0.6**
2	W	N2-52	AW-PN	**0.5**	100	100	No	600	870	**0.5**	100	100	No	8.00	6.0	1.5	60	1.0	No	0	**8.5**	**0.4**
2	D	N2-53	EAB-PN	**2.5**	100	100	No	1150	2210	**2.5**	100	100	No	14.00	8.0	1.5	60	3.0	No	0	**12.5**	**0.2**

Appendix 2.5 Results of Road Traffic Noise Impact Assessment (Mitigated Case)

Predicted Road Traffic Noise (L10, dB(A)) at Selected Sensitive Receivers
Mitigated Case (Noise Barrier) (PM Peak Flow)

Tower 1

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11	N1-12	N1-13	N1-14	N1-15	N1-16	N1-17	N1-18	N1-19	N1-20	N1-21	N1-22	N1-23	N1-24	N1-25
3/F	23.0	73	73	72	72	72	72	72	72	71	71	71	71	71	74	74	74	74	73	73	73	73	73	73	73	73
4/F	26.2	72	72	72	72	72	72	72	72	72	72	72	72	72	74	74	74	73	73	73	73	73	73	73	73	74
5/F	29.3	72	72	72	72	72	72	72	72	72	72	72	72	72	74	73	73	73	73	73	73	73	73	73	73	74
6/F	32.5	72	72	72	71	71	71	71	71	72	72	72	72	72	73	73	73	73	73	73	73	73	73	73	73	73
7/F	35.6	71	71	71	71	71	71	71	71	71	71	72	72	72	73	73	73	73	73	73	73	73	73	73	73	73
8/F	38.8	71	71	71	71	71	71	71	71	71	71	71	72	72	73	73	73	73	72	73	73	73	73	73	73	73
9/F	41.9	71	71	71	71	71	71	71	71	71	71	71	71	71	73	73	73	73	72	72	73	73	73	73	73	73
10/F	45.1	71	71	71	71	70	70	70	71	71	71	71	71	71	73	73	73	73	72	72	72	72	73	73	73	73
11/F	48.2	71	70	70	70	70	70	70	70	71	71	71	71	71	73	73	72	72	72	72	72	72	72	72	73	73
12/F	51.4	70	70	70	70	70	70	70	70	70	71	71	71	71	73	72	72	72	72	72	72	72	72	72	72	72
13/F	54.5	70	70	70	70	70	70	70	70	70	71	71	71	71	72	72	72	72	72	72	72	72	72	72	72	72
14/F	57.7	70	70	70	70	70	70	70	70	70	70	71	71	71	72	72	72	72	72	72	72	72	72	72	72	72
15/F	60.8	70	70	70	70	70	70	70	70	70	70	71	71	71	72	72	72	72	71	71	72	72	72	72	72	72
16/F	64.0	70	70	70	70	70	69	70	70	70	70	70	71	71	72	72	72	72	71	71	72	71	72	72	72	72
17/F	67.1	70	70	70	69	69	69	69	70	70	70	70	71	71	72	72	72	72	71	71	71	71	71	72	72	72
18/F	70.3	70	70	70	69	69	69	69	70	70	70	70	71	70	72	72	72	71	71	71	71	71	71	71	71	72
19/F	73.4	70	70	69	69	69	69	69	70	70	70	70	70	70	72	72	72	71	71	71	71	71	71	71	71	71
21/F	80.3	70	70	69	69	69	69	69	69	70	70	70	70	70	72	71	71	71	71	71	71	71	71	71	71	71
22/F	83.5	70	69	69	69	69	69	69	69	69	70	70	70	70	71	71	71	71	70	70	71	71	71	71	71	71
23/F	86.6	70	69	69	69	69	69	69	69	69	70	70	70	70	71	71	71	71	70	70	71	71	71	71	71	71
24/F	89.8	70	69	69	69	69	69	69	69	69	70	70	70	70	71	71	71	71	70	70	70	70	71	71	71	71
25/F	92.9	70	69	69	69	69	69	69	69	69	69	70	70	70	71	71	71	71	70	70	70	70	70	71	71	71
26/F	96.1	70	69	69	69	69	69	69	69	69	69	70	70	70	71	71	71	71	70	70	70	70	70	70	71	71
27/F	99.2	70	69	69	69	69	69	69	69	69	69	70	70	70	71	71	71	70	70	70	70	70	70	70	70	71
28/F	102.4	70	69	69	69	69	69	69	69	69	69	70	70	70	71	71	71	70	70	70	70	70	70	70	70	70
29/F	105.7	70	70	69	69	69	69	69	69	69	69	70	70	70	71	71	71	70	70	70	70	70	70	70	70	70
30/F	109.0	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	71	70	70	70	70	70	70	70	70	70
31/F	112.3	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	71	70	70	70	70	70	70	70	70	70
32/F	115.6	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	71	70	70	70	70	70	70	70	70	70
33/F	118.9	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	71	70	70	70	70	70	70	70	70	70
34/F	122.2	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	70	70	70	70	70	70	70	70	70	70
35/F	125.5	--	--	--	--	--	--	--	--	--	--	--	--	--	71	70	70	70	69	69	70	70	70	70	70	70
36/F	129.0	--	--	--	--	--	--	--	--	--	--	--	--	--	71	70	70	70	69	69	70	70	70	70	70	70
37/F	132.5	--	--	--	--	--	--	--	--	--	--	--	--	--	71	70	70	70	69	69	70	70	70	70	70	70
Max Noise Level		73	73	72	72	72	72	72	72	72	72	72	72	72	74	74	74	74	73	73	73	73	73	73	73	74
Exceedance		9			8		7		9		13		16		34				18		20		22		24	

Floor	mPD	N1-26	N1-27	N1-28	N1-29	N1-30	N1-31	N1-32	N1-33	N1-34	N1-35	N1-36	N1-37	N1-38	N1-39	N1-40	N1-41	N1-42	N1-43	N1-44	N1-45	N1-46	N1-47	N1-48	N1-49	N1-50	N1-51	N1-52
3/F	23.0	73	74	74	75	60	61	63	64	65	65	65	66	66	67	68	68	69	69	70	70	69	69	68	68	68	68	68
4/F	26.2	74	74	74	75	60	62	63	64	65	65	65	66	66	67	68	68	69	69	70	70	70	70	70	70	69	69	70
5/F	29.3	74	74	74	75	60	62	63	64	65	65	66	66	66	67	68	68	69	69	70	70	70	70	70	70	70	70	70
6/F	32.5	74	74	74	74	60	62	63	64	65	65	66	66	66	67	68	68	69	69	70	70	70	70	70	70	70	70	71
7/F	35.6	73	74	74	74	60	62	63	64	65	65	66	66	66	67	68	68	69	69	70	70	70	70	70	70	70	70	71
8/F	38.8	73	73	74	74	60	62	63	64	65	65	66	66	66	67	68	68	69	69	69	70	70	70	70	70	70	70	71
9/F	41.9	73	73	74	74	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	70	71
10/F	45.1	73	73	73	74	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	71	71
11/F	48.2	73	73	73	74	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	71	71
12/F	51.4	73	73	73	73	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	71	71
13/F	54.5	72	73	73	73	60	62	63	64	65	65	66	66	66	67	67	68	68	69	69	70	70	70	70	70	70	71	71
14/F	57.7	72	72	73	73	60	62	63	64	65	65	66	66	66	67	67	68	68	69	69	70	70	70	70	70	71	71	71
15/F	60.8	72	72	73	73	60	62	63	64	65	65	66	66	66	67	67	68	68	69	69	69	70	70	70	70	71	71	71
16/F	64.0	72	72	72	73	61	62	63	64	65	65	66	66	67	67	67	68	68	69	69	70	70	70	70	71	71	71	71
17/F	67.1	72	72	72	73	61	63	64	65	65	66	66	66	67	67	68	68	69	69	69	70	70	70	70	71	71	71	72
18/F	70.3	72	72	72	73	62	63	64	65	66	66	66	67	67	68	68	68	69	69	70	70	70	70	71	71	71	72	72
19/F	73.4	72	72	72	72	62	64	65	65	66	66	67	67	67	68	68	68	69	69	70	70	70	71	71	71	71	72	72
21/F	80.3	71	71	72	72	63	64	65	66	67	67	67	68	68	68	68	69	69	70	70	70	71	71	71	71	72	72	73
22/F	83.5	71	71	72	72	64	65	66	66	67	67	68	68	68	68	69	69	69	70	70	70	71	71	71	72	72	73	73
23/F	86.6	71	71	72	72	64	65	66	67	67	68	68	68	69	69	69	69	70	70	70	71	71	71	72	72	72	73	73
24/F	89.8	71	71	71	72	65	66	66	67	68	68	68	69	69	69	69	69	70	70	70	71	71	72	72	72	72	73	73
25/F	92.9	71	71	71	72	65	66	67	67	68	68	69	69	69	69	69	70	70	70	71	71	71	72	72	72	73	73	74
26/F	96.1	71	71	71	72	66	67	67	68	68	69	69	69	69	69	70	70	70	71	71	71	72	72	72	73	73	74	74
27/F	99.2	71	71	71	71	67	67	68	68	69	69	69	69	70	70	70	70	70	71	71	71	72	72	72	73	73	74	74
28/F	102.4	71	71	71	71	67	67	68	68	69	69	69	70	70	70	70	70	71	71	71	72	72	72	73	73	73	74	74
29/F	105.7	70	71	71	71	67	68	68	69	69	69	70	70	70	70	70	70	71	71	71	72	72	72	73	73	73	74	74
30/F	109.0	70	71	71	71	67	68	68	69	69	70	70	70	70	70	70	70	--	--	--	--	--	--	--	--	--	--	--
31/F	112.3	70	70	71	71	68	68	69	69	69	70	70	70	71	71	71	71	--	--	--	--	--	--	--	--	--	--	--
32/F	115.6	70	70	71	71	68	68	69	69	70	70	70	71	71	71	71	71	--	--	--	--	--	--	--	--	--	--	--
33/F	118.9	70	70	71	71	68	69	69	69	70	70	70	71	71	71	71	71	--	--	--	--	--	--	--	--	--	--	--
34/F	122.2	70	70	71	71	68	69	69	70	70	70	71	71	71	72	72	72	--	--	--	--	--	--	--	--	--	--	--
35/F	125.5	70	70	71	71	69	69	70	70	70	71	71	71	71	72	72	72	--	--	--	--	--	--	--	--	--	--	--
36/F	129.0	70	70	70	71	70	70	70	70	71	71	71	71	72	72	72	72	--	--	--	--	--	--	--	--	--	--	--
37/F	132.5	70	70	70	71	70	70	70	71	71	71	71	72	72	72	72	72	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		74	74	74	75	70	70	70	71	71	71	71	72	72	72	72	72	71	71	71	72	72	72	73	73	73	74	74
Exceedance		27		34		0			3		7				7			4			9			13			23	

Predicted Road Traffic Noise (L10, dB(A)) at Selected Sensitive Receivers
Mitigated Case (Noise Barrier) (PM Peak Flow)

Tower 2

Floor	mPD	N2-01	N2-02	N2-03	N2-04	N2-05	N2-06	N2-07	N2-08	N2-09	N2-10	N2-11	N2-12	N2-13	N2-14	N2-15	N2-16	N2-17	N2-18	N2-19	N2-20	N2-21	N2-22	N2-23	N2-24	N2-25	N2-26	N2-27	N2-28	N2-29
3/F	23.0	76	76	76	76	76	76	76	76	77	77	77	77	77	77	78	73	76	76	76	73	75	73	77	77	72	74	73	77	77
4/F	26.2	76	76	76	76	76	76	76	76	77	77	77	77	77	77	79	77	80	80	80	77	79	77	80	80	76	78	77	80	80
5/F	29.3	76	76	76	76	76	76	76	76	76	77	77	77	77	78	79	78	80	80	80	78	80	78	80	80	77	79	78	80	80
6/F	32.5	76	76	76	76	76	76	76	76	76	77	77	77	78	79	78	80	80	80	80	78	80	78	80	80	77	79	78	80	80
7/F	35.6	76	76	76	76	76	76	76	76	76	76	77	77	77	78	79	78	80	80	80	78	80	78	80	80	77	79	78	80	80
8/F	38.8	76	76	76	76	76	76	76	76	76	76	76	77	77	77	79	78	80	80	80	78	79	78	80	80	77	79	78	80	80
9/F	41.9	75	75	75	76	75	76	76	76	76	76	76	77	77	77	79	78	79	79	79	78	79	78	80	80	77	79	78	80	80
10/F	45.1	75	75	75	75	75	75	76	76	76	76	76	76	77	77	78	78	79	79	79	78	79	78	79	80	77	79	78	80	80
11/F	48.2	75	75	75	75	75	75	75	76	76	76	76	76	77	77	78	78	79	79	79	78	79	78	79	79	77	78	78	79	80
12/F	51.4	75	75	75	75	75	75	75	75	76	76	76	76	76	77	78	77	79	79	79	77	79	77	79	79	77	78	77	79	79
13/F	54.5	75	75	75	75	75	75	75	75	75	76	76	76	76	77	78	77	79	79	79	77	79	77	79	79	77	78	77	79	79
14/F	57.7	75	75	75	75	75	75	75	75	75	76	76	76	76	77	78	77	79	79	79	77	79	77	79	79	77	78	77	79	79
15/F	60.8	75	75	75	75	75	75	75	75	75	75	76	76	76	76	78	77	79	79	79	77	79	77	79	79	77	78	77	79	79
16/F	64.0	75	75	75	75	75	75	75	75	75	75	75	76	76	76	78	77	79	79	79	77	79	77	79	79	76	78	77	79	79
17/F	67.1	75	75	75	75	75	75	75	75	75	75	75	76	76	76	78	77	79	79	79	77	79	77	79	79	76	78	77	79	79
18/F	70.3	74	74	74	75	74	75	75	75	75	75	75	75	76	76	77	77	78	79	79	77	78	77	79	79	76	78	77	79	79
19/F	73.4	74	74	74	74	74	74	75	75	75	75	75	75	76	76	77	77	78	78	79	77	78	77	79	79	76	78	77	79	79
21/F	80.3	74	74	74	74	74	74	74	74	75	75	75	75	75	76	77	76	78	78	78	77	78	77	78	78	76	77	77	79	79
22/F	83.5	74	74	74	74	74	74	74	74	74	75	75	75	75	76	77	76	78	78	78	77	78	77	78	78	76	77	77	78	79
23/F	86.6	74	74	74	74	74	74	74	74	74	74	75	75	75	76	77	76	78	78	78	76	78	76	78	78	76	77	76	78	78
24/F	89.8	74	74	74	74	74	74	74	74	74	74	75	75	75	76	77	76	78	78	78	76	78	76	78	78	76	77	76	78	78
25/F	92.9	74	74	74	74	74	74	74	74	74	74	74	75	75	75	77	76	78	78	78	76	78	76	78	78	76	77	76	78	78
26/F	96.1	74	74	74	74	74	74	74	74	74	74	74	75	75	75	77	76	78	78	78	76	78	76	78	78	76	77	76	78	78
27/F	99.2	74	74	74	74	74	74	74	74	74	74	74	74	75	75	77	76	78	78	78	76	78	76	78	78	75	77	76	78	78
28/F	102.4	74	73	73	74	73	74	74	74	74	74	74	74	75	75	77	76	78	78	78	76	78	76	78	78	75	77	76	78	78
29/F	105.7	73	73	73	73	73	73	74	74	74	74	74	74	75	75	77	76	78	78	78	76	78	76	78	78	75	77	76	78	78
30/F	109.0	73	73	73	73	73	73	73	74	74	74	74	74	75	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31/F	112.3	73	73	73	73	73	73	73	73	74	74	74	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
32/F	115.6	73	73	73	73	73	73	73	73	73	74	74	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
33/F	118.9	73	73	73	73	73	73	73	73	73	74	74	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
34/F	122.2	73	73	73	73	73	73	73	73	73	74	74	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
35/F	125.5	73	73	73	73	73	73	73	73	73	73	74	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
36/F	129.0	73	73	73	73	73	73	73	73	73	73	74	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
37/F	132.5	73	73	73	73	73	73	73	73	73	73	73	74	74	75	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		76	76	76	76	76	76	76	76	77	77	77	77	77	78	79	78	80	80	80	78	80	78	80	80	77	79	78	80	80
Exceedance		34				34			34		34			34			26			26			26				26			

Floor	mPD	N2-30	N2-31	N2-32	N2-33	N2-34	N2-35	N2-36	N2-37	N2-38	N2-39	N2-40	N2-41	N2-42	N2-43	N2-44	N2-45	N2-46	N2-47	N2-48	N2-49	N2-50	N2-51	N2-52	N2-53	N2-54
3/F	23.0	77	77	77	77	78	69	53	52	52	53	54	55	56	56	56	56	56	56	55	55	55	55	55	54	57
4/F	26.2	80	80	79	79	78	69	54	53	53	54	55	55	56	57	57	57	56	56	56	55	55	55	55	54	57
5/F	29.3	80	80	79	79	79	69	56	56	55	55	56	56	57	57	57	57	57	56	56	55	55	55	55	54	57
6/F	32.5	80	80	79	79	79	69	57	57	56	57	57	57	57	58	58	58	57	57	56	56	55	55	54	54	57
7/F	35.6	80	80	79	79	79	69	58	57	57	58	58	58	58	59	59	58	58	57	57	56	55	55	54	54	57
8/F	38.8	80	80	79	79	79	69	58	58	58	58	58	59	59	59	59	59	58	58	57	56	55	55	55	54	57
9/F	41.9	80	80	79	79	79	69	58	58	58	58	58	59	59	59	59	59	58	58	57	56	55	55	54	54	57
10/F	45.1	80	80	79	79	79	69	58	58	58	58	59	59	59	59	59	59	58	58	57	56	55	55	55	54	57
11/F	48.2	80	80	79	79	79	69	58	58	58	58	59	59	59	59	59	59	59	58	57	56	55	55	55	54	57
12/F	51.4	79	79	79	79	79	69	58	58	58	58	59	59	59	59	59	59	59	58	57	56	55	55	55	55	57
13/F	54.5	79	79	79	79	79	69	58	58	58	58	59	59	59	59	60	59	59	58	57	56	55	55	55	55	57
14/F	57.7	79	79	79	79	79	69	59	58	58	59	59	59	59	59	60	59	59	58	57	57	56	56	56	56	58
15/F	60.8	79	79	79	79	79	70	60	59	59	59	59	59	59	60	60	60	59	58	58	57	56	56	56	56	58
16/F	64.0	79	79	79	79	79	70	61	60	59	60	59	59	60	60	60	60	59	58	58	57	56	57	57	57	58
17/F	67.1	79	79	79	79	78	70	63	61	61	61	60	60	60	60	60	60	59	59	58	57	57	57	58	58	59
18/F	70.3	79	79	78	78	78	71	64	63	62	62	61	61	60	60	60	60	59	59	58	58	58	58	59	59	60
19/F	73.4	79	79	78	78	78	71	65	64	63	62	62	61	61	61	60	60	59	59	58	58	58	59	60	60	61
21/F	80.3	79	79	78	78	78	71	66	65	64	63	63	62	62	61	61	60	60	59	59	60	60	61	61	62	62
22/F	83.5	79	79	78	78	78	72	67	65	64	64	63	63	62	62	61	61	60	60	60	60	61	61	62	62	63
23/F	86.6	79	79	78	78	78	72	67	66	65	64	64	63	63	62	62	61	60	60	60	61	61	62	62	63	63
24/F	89.8	78	79	78	78	78	72	68	66	65	65	64	64	63	63	62	61	61	61	61	62	62	63	63	64	64
25/F	92.9	78	78	78	78	78	72	68	66	66	65	65	64	64	63	63	62	62	62	62	62	63	63	64	64	65
26/F	96.1	78	78	78	78	78	72	68	67	66	65	65	64	64	64	63	63	62	63	63	63	63	64	65	65	65
27/F	99.2	78	78	78	78	78	72	69	67	66	66	65	65	64	64	63	63	63	63	63	64	64	65	65	66	66
28/F	102.4	78	78	78	78	78	73	69	67	66	66	65	65	65	64	64	63	63	64	64	64	65	65	66	66	66
29/F	105.7	78	78	78	78	78	73	69	67	67	66	66	65	65	65	64	64	64	64	64	65	65	66	66	67	67
30/F	109.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	65	65	65	66	66	66	67	67	67
31/F	112.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	66	66	66	66	66	66	67	67	67
32/F	115.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	69	67	66	67	67	67	67	67	67
33/F	118.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	71	69	68	68	68	68	68	68	68
34/F	122.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	71	70	69	69	69	69	69	69
35/F	125.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	72	71	70	70	70	70	70	69
36/F	129.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	73	72	71	71	71	70	70	70
37/F	132.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	73	72	72	72	71	71	71	71
Max Noise Level		80	80	79	79	79	73	69	67	67	66	66	65	65	65	64	64	74	73	72	72	72	71	71	71	71
Exceedance		26					26			0			0			0		5			3			2		

Total no. of Flats:	1140
Total no. of Exceedance:	643
Compliance Level:	44%
Max. Noise Level:	80

Notes:

71	Noise level exceed stardand of 70 dB(A)
--	Not Available at this residential storey

Predicted Road Traffic Noise (L10, dB(A)) at Selected Sensitive Receivers
Mitigated Case (Acoustic Fin and Noise Barrier) (PM Peak Flow)

Tower 1

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11	N1-12	N1-13	N1-14	N1-15	N1-16	N1-17	N1-18	N1-19	N1-20	N1-21	N1-22	N1-23	N1-24	N1-25
3/F	23.0	73	73	72	72	72	72	72	72	71	71	71	71	71	74	74	74	74	73	73	73	73	73	73	73	73
4/F	26.2	72	72	72	72	72	72	72	72	72	72	72	72	72	74	74	74	73	73	73	73	73	73	73	73	74
5/F	29.3	72	72	72	72	72	72	72	72	72	72	72	72	72	74	73	73	73	73	73	73	73	73	73	73	74
6/F	32.5	72	72	72	71	71	71	71	71	72	72	72	72	72	73	73	73	73	73	73	73	73	73	73	73	73
7/F	35.6	71	71	71	71	71	71	71	71	71	71	72	72	72	73	73	73	73	73	73	73	73	73	73	73	73
8/F	38.8	71	71	71	71	71	71	71	71	71	71	71	72	72	73	73	73	73	72	73	73	73	73	73	73	73
9/F	41.9	71	71	71	71	71	71	71	71	71	71	71	71	71	73	73	73	73	72	72	73	73	73	73	73	73
10/F	45.1	71	71	71	71	70	70	70	71	71	71	71	71	71	73	73	73	73	72	72	72	72	73	73	73	73
11/F	48.2	71	70	70	70	70	70	70	70	71	71	71	71	71	73	73	72	72	72	72	72	72	72	72	73	73
12/F	51.4	70	70	70	70	70	70	70	70	70	71	71	71	71	73	72	72	72	72	72	72	72	72	72	72	72
13/F	54.5	70	70	70	70	70	70	70	70	70	71	71	71	71	72	72	72	72	72	72	72	72	72	72	72	72
14/F	57.7	70	70	70	70	70	70	70	70	70	70	71	71	71	72	72	72	72	72	72	72	72	72	72	72	72
15/F	60.8	70	70	70	70	70	70	70	70	70	70	71	71	71	72	72	72	72	71	71	72	72	72	72	72	72
16/F	64.0	70	70	70	70	70	69	70	70	70	70	70	71	71	72	72	72	72	71	71	72	71	72	72	72	72
17/F	67.1	70	70	70	69	69	69	69	70	70	70	70	71	71	72	72	72	72	71	71	71	71	71	72	72	72
18/F	70.3	70	70	70	69	69	69	69	70	70	70	70	71	70	72	72	72	71	71	71	71	71	71	71	71	72
19/F	73.4	70	70	69	69	69	69	69	70	70	70	70	70	70	72	72	72	71	71	71	71	71	71	71	71	71
21/F	80.3	70	70	69	69	69	69	69	69	70	70	70	70	70	72	71	71	71	71	71	71	71	71	71	71	71
22/F	83.5	70	69	69	69	69	69	69	69	69	70	70	70	70	71	71	71	71	70	70	71	71	71	71	71	71
23/F	86.6	70	69	69	69	69	69	69	69	69	70	70	70	70	71	71	71	71	70	70	71	71	71	71	71	71
24/F	89.8	70	69	69	69	69	69	69	69	69	70	70	70	70	71	71	71	71	70	70	70	70	71	71	71	71
25/F	92.9	70	69	69	69	69	69	69	69	69	69	70	70	70	71	71	71	71	70	70	70	70	70	71	71	71
26/F	96.1	70	69	69	69	69	69	69	69	69	69	70	70	70	71	71	71	71	70	70	70	70	70	70	71	71
27/F	99.2	70	69	69	69	69	69	69	69	69	69	70	70	70	71	71	71	70	70	70	70	70	70	70	70	71
28/F	102.4	70	69	69	69	69	69	69	69	69	69	70	70	70	71	71	71	70	70	70	70	70	70	70	70	70
29/F	105.7	70	70	69	69	69	69	69	69	69	69	70	70	70	71	71	71	70	70	70	70	70	70	70	70	70
30/F	109.0	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	71	70	70	70	70	70	70	70	70	70
31/F	112.3	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	71	70	70	70	70	70	70	70	70	70
32/F	115.6	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	71	70	70	70	70	70	70	70	70	70
33/F	118.9	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	71	70	70	70	70	70	70	70	70	70
34/F	122.2	--	--	--	--	--	--	--	--	--	--	--	--	--	71	71	70	70	70	70	70	70	70	70	70	70
35/F	125.5	--	--	--	--	--	--	--	--	--	--	--	--	--	71	70	70	70	69	69	70	70	70	70	70	70
36/F	129.0	--	--	--	--	--	--	--	--	--	--	--	--	--	71	70	70	70	69	69	70	70	70	70	70	70
37/F	132.5	--	--	--	--	--	--	--	--	--	--	--	--	--	71	70	70	70	69	69	70	70	70	70	70	70
Max Noise Level		73	73	72	72	72	72	72	72	72	72	72	72	72	74	74	74	74	73	73	73	73	73	73	73	74
Exceedance		9			8		7		9		13		16		34				18		20		22		24	

Floor	mPD	N1-26	N1-27	N1-28	N1-29	N1-30	N1-31	N1-32	N1-33	N1-34	N1-35	N1-36	N1-37	N1-38	N1-39	N1-40	N1-41	N1-42	N1-43	N1-44	N1-45	N1-46	N1-47	N1-48	N1-49	N1-50	N1-51	N1-52
3/F	23.0	73	74	74	75	60	61	63	64	65	65	65	66	66	67	68	68	69	69	70	70	69	69	68	68	68	68	68
4/F	26.2	74	74	74	75	60	62	63	64	65	65	65	66	66	67	68	68	69	69	70	70	70	70	70	70	69	69	70
5/F	29.3	74	74	74	75	60	62	63	64	65	65	66	66	66	67	68	68	69	69	70	70	70	70	70	70	70	70	70
6/F	32.5	74	74	74	74	60	62	63	64	65	65	66	66	66	67	68	68	69	69	70	70	70	70	70	70	70	70	71
7/F	35.6	73	74	74	74	60	62	63	64	65	65	66	66	66	67	68	68	69	69	70	70	70	70	70	70	70	70	71
8/F	38.8	73	73	74	74	60	62	63	64	65	65	66	66	66	67	68	68	69	69	69	70	70	70	70	70	70	70	71
9/F	41.9	73	73	74	74	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	70	71
10/F	45.1	73	73	73	74	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	71	71
11/F	48.2	73	73	73	74	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	71	71
12/F	51.4	73	73	73	73	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	71	71
13/F	54.5	72	73	73	73	60	62	63	64	65	65	66	66	66	67	67	68	68	69	69	70	70	70	70	70	70	71	71
14/F	57.7	72	72	73	73	60	62	63	64	65	65	66	66	66	67	67	68	68	69	69	70	70	70	70	70	71	71	71
15/F	60.8	72	72	73	73	60	62	63	64	65	65	66	66	66	67	67	68	68	69	69	69	70	70	70	70	71	71	71
16/F	64.0	72	72	72	73	61	62	63	64	65	65	66	66	67	67	67	68	68	69	69	70	70	70	70	71	71	71	71
17/F	67.1	72	72	72	73	61	63	64	65	65	66	66	66	67	67	68	68	69	69	69	70	70	70	70	71	71	71	72
18/F	70.3	72	72	72	73	62	63	64	65	66	66	66	67	67	68	68	68	69	69	70	70	70	70	71	71	71	72	72
19/F	73.4	72	72	72	72	62	64	65	65	66	66	67	67	67	68	68	68	69	69	70	70	70	71	71	71	71	72	72
21/F	80.3	71	71	72	72	63	64	65	66	67	67	67	68	68	68	68	69	69	70	70	70	71	71	71	71	72	72	73
22/F	83.5	71	71	72	72	64	65	66	66	67	67	68	68	68	68	69	69	69	70	70	70	71	71	71	72	72	73	73
23/F	86.6	71	71	72	72	64	65	66	67	67	68	68	68	69	69	69	69	70	70	70	71	71	71	72	72	72	73	73
24/F	89.8	71	71	71	72	65	66	66	67	68	68	68	69	69	69	69	69	70	70	70	71	71	72	72	72	72	73	73
25/F	92.9	71	71	71	72	65	66	67	67	68	68	69	69	69	69	69	70	70	70	71	71	71	72	72	72	73	73	74
26/F	96.1	71	71	71	72	66	67	67	68	68	69	69	69	69	69	70	70	70	71	71	71	72	72	72	73	73	74	74
27/F	99.2	71	71	71	71	67	67	68	68	69	69	69	69	70	70	70	70	70	71	71	71	72	72	72	73	73	74	74
28/F	102.4	71	71	71	71	67	67	68	68	69	69	69	70	70	70	70	70	71	71	71	72	72	72	73	73	73	74	74
29/F	105.7	70	71	71	71	67	68	68	69	69	69	70	70	70	70	70	70	71	71	71	72	72	72	73	73	73	74	74
30/F	109.0	70	71	71	71	67	68	68	69	69	70	70	70	70	70	70	70	--	--	--	--	--	--	--	--	--	--	--
31/F	112.3	70	70	71	71	68	68	69	69	69	70	70	70	71	71	71	71	--	--	--	--	--	--	--	--	--	--	--
32/F	115.6	70	70	71	71	68	68	69	69	70	70	70	71	71	71	71	71	--	--	--	--	--	--	--	--	--	--	--
33/F	118.9	70	70	71	71	68	69	69	69	70	70	70	71	71	71	71	71	--	--	--	--	--	--	--	--	--	--	--
34/F	122.2	70	70	71	71	68	69	69	70	70	70	71	71	71	72	72	72	--	--	--	--	--	--	--	--	--	--	--
35/F	125.5	70	70	71	71	69	69	70	70	70	71	71	71	71	72	72	72	--	--	--	--	--	--	--	--	--	--	--
36/F	129.0	70	70	70	71	70	70	70	70	71	71	71	71	72	72	72	72	--	--	--	--	--	--	--	--	--	--	--
37/F	132.5	70	70	70	71	70	70	70	71	71	71	71	72	72	72	72	72	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		74	74	74	75	70	70	70	71	71	71	71	72	72	72	72	72	71	71	71	72	72	72	73	73	73	74	74
Exceedance		27		34		0			3		7				7			4			9			13			23	

Predicted Road Traffic Noise (L10, dB(A)) at Selected Sensitive Receivers
Mitigated Case (Acoustic Fin and Noise Barrier) (PM Peak Flow)

Tower 2

Floor	mPD	N2-01	N2-02	N2-03	N2-04	N2-05	N2-06	N2-07	N2-08	N2-09	N2-10	N2-11	N2-12	N2-13	N2-14	N2-15	N2-16	N2-17	N2-18	N2-19	N2-20	N2-21	N2-22	N2-23	N2-24	N2-25	N2-26	N2-27	N2-28	N2-29
3/F	23.0	76	76	76	76	76	76	76	76	77	77	77	77	77	77	78	73	76	76	76	70	72	70	76	76	70	71	70	77	77
4/F	26.2	76	76	76	76	76	76	76	76	76	77	77	77	77	77	79	77	80	80	80	74	76	74	79	80	74	76	75	80	80
5/F	29.3	76	76	76	76	76	76	76	76	76	76	77	77	77	77	79	78	80	80	80	76	77	76	80	80	76	77	76	80	80
6/F	32.5	76	76	76	76	76	76	76	76	76	76	76	77	77	77	79	78	80	80	80	76	77	76	80	80	76	77	76	79	80
7/F	35.6	76	76	76	76	76	76	76	76	76	76	76	76	76	77	79	78	80	80	80	76	77	76	79	80	76	77	76	79	80
8/F	38.8	76	76	76	76	75	76	76	76	76	76	76	76	76	76	79	78	79	79	79	76	76	76	79	79	76	77	76	79	80
9/F	41.9	75	75	75	75	75	75	76	76	76	76	76	76	76	76	79	78	79	79	79	75	76	75	79	79	76	76	76	79	80
10/F	45.1	75	75	75	75	75	75	75	75	76	76	76	76	76	76	78	78	79	79	79	75	76	75	79	79	75	76	76	79	79
11/F	48.2	75	75	75	75	75	75	75	75	75	76	76	76	76	76	78	77	79	79	79	75	76	75	79	79	75	76	76	79	79
12/F	51.4	75	75	75	75	75	75	75	75	75	75	75	75	76	75	78	77	79	79	79	75	76	75	79	79	75	76	76	79	79
13/F	54.5	75	75	75	75	75	75	75	75	75	75	75	75	75	75	78	77	79	79	79	75	76	75	79	79	75	76	75	79	79
14/F	57.7	75	75	75	75	75	75	75	75	75	75	75	75	75	75	78	77	79	79	79	75	76	75	79	79	75	76	75	79	79
15/F	60.8	75	75	75	75	75	75	75	75	75	75	75	75	75	75	78	77	79	79	79	75	76	75	78	79	75	76	76	79	79
16/F	64.0	75	75	75	75	74	75	75	75	75	75	75	75	75	75	78	77	79	79	79	75	76	75	78	78	75	75	75	78	79
17/F	67.1	74	74	74	74	74	74	74	75	75	75	75	75	75	75	78	77	78	78	78	74	76	74	78	78	74	75	75	78	79
18/F	70.3	74	74	74	74	74	74	74	74	74	75	75	75	75	75	77	77	78	78	78	74	75	74	78	78	74	75	75	78	79
19/F	73.4	74	74	74	74	74	74	74	74	74	74	75	74	75	74	77	77	78	78	78	74	75	74	78	78	74	75	75	78	79
21/F	80.3	74	74	74	74	74	74	74	74	74	74	74	74	74	74	77	76	78	78	78	74	75	74	78	78	74	75	75	78	78
22/F	83.5	74	74	74	74	74	74	74	74	74	74	74	74	74	74	77	76	78	78	78	74	75	74	78	78	74	75	74	78	78
23/F	86.6	74	74	74	74	74	74	74	74	74	74	74	74	74	74	77	76	78	78	78	74	75	74	78	78	74	75	74	78	78
24/F	89.8	74	74	74	74	74	74	74	74	74	74	74	74	74	74	77	76	78	78	78	74	75	74	78	78	74	75	74	78	78
25/F	92.9	74	74	74	74	73	74	74	74	74	74	74	74	74	74	77	76	78	78	78	74	75	74	78	78	74	74	74	78	78
26/F	96.1	73	73	73	73	73	73	73	73	74	74	74	74	74	73	77	76	78	78	78	74	75	74	78	78	74	74	74	78	78
27/F	99.2	73	73	73	73	73	73	73	73	73	74	74	74	74	73	77	76	78	78	78	73	75	73	77	78	73	74	74	78	78
28/F	102.4	73	73	73	73	73	73	73	73	73	73	73	73	73	73	77	76	78	78	78	73	75	73	77	77	73	74	74	78	78
29/F	105.7	73	73	73	73	73	73	73	73	73	73	73	73	73	73	77	76	77	77	77	73	75	73	77	77	73	74	74	77	78
30/F	109.0	73	73	73	73	73	73	73	73	73	73	73	73	73	73	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31/F	112.3	73	73	73	73	73	73	73	73	73	73	73	73	73	73	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
32/F	115.6	73	73	73	73	73	73	73	73	73	73	73	73	73	73	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
33/F	118.9	73	73	73	73	73	73	73	73	73	73	73	73	73	73	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
34/F	122.2	73	73	73	73	73	73	73	73	73	73	73	73	73	73	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
35/F	125.5	73	73	73	73	72	73	73	73	73	73	73	73	73	73	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
36/F	129.0	73	73	73	73	72	73	73	73	73	73	73	73	73	73	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
37/F	132.5	73	73	72	73	72	72	73	73	73	73	73	73	73	72	76	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		76	76	76	76	76	76	76	76	77	77	77	77	77	77	79	78	80	80	80	76	77	76	80	80	76	77	76	80	80
Exceedance		34				34			34		34			34			26			26			26			26				

Floor	mPD	N2-30	N2-31	N2-32	N2-33	N2-34	N2-35	N2-36	N2-37	N2-38	N2-39	N2-40	N2-41	N2-42	N2-43	N2-44	N2-45	N2-46	N2-47	N2-48	N2-49	N2-50	N2-51	N2-52	N2-53	N2-54
3/F	23.0	77	76	77	76	78	69	53	52	52	53	54	55	56	56	56	56	56	56	55	55	55	55	55	54	57
4/F	26.2	80	79	78	78	78	69	54	53	53	54	55	55	56	57	57	57	56	56	56	55	55	55	55	54	57
5/F	29.3	80	79	79	79	79	69	56	56	55	55	56	56	57	57	57	57	57	56	56	55	55	55	55	54	57
6/F	32.5	80	79	79	79	79	69	57	57	56	57	57	57	57	58	58	58	57	57	56	56	55	55	54	54	57
7/F	35.6	80	79	79	79	79	69	58	57	57	58	58	58	58	59	59	58	58	57	57	56	55	55	54	54	57
8/F	38.8	80	79	79	79	79	69	58	58	58	58	58	59	59	59	59	59	58	58	57	56	55	55	55	54	57
9/F	41.9	80	79	79	79	79	69	58	58	58	58	58	59	59	59	59	59	58	58	57	56	55	55	54	54	57
10/F	45.1	79	79	79	79	79	69	58	58	58	58	59	59	59	59	59	59	58	58	57	56	55	55	55	54	57
11/F	48.2	79	79	78	78	79	69	58	58	58	58	59	59	59	59	59	59	59	58	57	56	55	55	55	54	57
12/F	51.4	79	78	78	78	79	69	58	58	58	58	59	59	59	59	59	59	59	58	57	56	55	55	55	55	57
13/F	54.5	79	78	78	78	78	69	58	58	58	58	59	59	59	59	60	59	59	58	57	56	55	55	55	55	57
14/F	57.7	79	78	78	78	78	69	59	58	58	59	59	59	59	59	60	59	59	58	57	57	56	56	56	56	58
15/F	60.8	79	78	78	78	78	70	60	59	59	59	59	59	59	60	60	60	59	58	58	57	56	56	56	56	58
16/F	64.0	79	78	78	78	78	70	61	60	59	60	59	59	60	60	60	60	59	58	58	57	56	57	57	57	58
17/F	67.1	79	78	78	78	78	70	63	61	61	61	60	60	60	60	60	60	59	59	58	57	57	57	58	58	59
18/F	70.3	79	78	78	78	78	71	64	63	62	62	61	61	60	60	60	60	59	59	58	58	58	58	59	59	60
19/F	73.4	79	78	78	78	78	71	65	64	63	62	62	61	61	61	60	60	59	59	58	58	58	59	60	60	61
21/F	80.3	78	78	78	78	78	71	66	65	64	63	63	62	62	61	61	60	60	59	59	60	60	61	61	62	62
22/F	83.5	78	77	78	78	78	72	67	65	64	64	63	63	62	62	61	61	60	60	60	60	61	61	62	62	63
23/F	86.6	78	77	78	78	78	72	67	66	65	64	64	63	63	62	62	61	60	60	60	61	61	62	62	63	63
24/F	89.8	78	77	78	78	78	72	68	66	65	65	64	64	63	63	62	61	61	61	61	62	62	63	63	64	64
25/F	92.9	78	77	78	78	78	72	68	66	66	65	65	64	64	63	63	62	62	62	62	62	63	63	64	64	65
26/F	96.1	78	77	78	78	78	72	68	67	66	65	65	64	64	64	63	63	62	63	63	63	63	64	65	65	65
27/F	99.2	78	77	78	78	78	72	69	67	66	66	65	65	64	64	63	63	63	63	63	64	64	65	65	66	66
28/F	102.4	78	77	77	77	78	73	69	67	66	66	65	65	65	64	64	63	63	64	64	64	65	65	66	66	66
29/F	105.7	78	77	77	77	78	73	69	67	67	66	66	65	65	65	64	64	64	64	64	65	65	66	66	67	67
30/F	109.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	65	65	65	66	66	66	66	67	67
31/F	112.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	66	65	66	66	66	66	67	67	67
32/F	115.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	69	67	66	67	67	67	67	67	67
33/F	118.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	71	69	68	68	67	68	68	68	68
34/F	122.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	73	71	70	69	69	69	69	69	69
35/F	125.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	72	71	70	70	70	70	70	69
36/F	129.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	73	72	71	71	70	70	70	70
37/F	132.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	74	73	72	72	71	71	71	71	70
Max Noise Level		80	79	79	79	79	73	69	67	67	66	66	65	65	65	64	64	74	73	72	72	71	71	71	71	70
Exceedance		26					26			0			0			0		5			3			1		

Total no. of Flats:	1140
Total no. of Exceedance:	642
Compliance Level:	44%
Max. Noise Level:	80

Notes:

71	Noise level exceed stardand of 70 dB(A)
--	Not Available at this residential storey

Predicted Road Traffic Noise (L10, dB(A)) at Selected Sensitive Receivers
Mitigated Case (Acoustic Window (Baffle Type), Acoustic Balcony (Baffle Type), Fixed Glazing (with or without Maintenance Window), Acoustic Fin and Noise Barrier) (PM Peak Flow)

Tower 1

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11	N1-12	N1-13	N1-14	N1-15	N1-16	N1-17	N1-18	N1-19	N1-20	N1-21	N1-22	N1-23	N1-24	N1-25
3/F	23.0	65	65	63	63	65	64	62	62	64	64	62	62	63	65	65	65	61	66	64	64	66	66	64	64	66
4/F	26.2	65	65	63	63	65	64	62	62	64	64	62	63	65	65	65	65	61	66	64	64	66	66	64	64	66
5/F	29.3	64	64	62	62	64	64	62	62	64	64	63	63	65	65	65	65	61	66	64	64	66	66	64	64	66
6/F	32.5	64	64	62	62	64	64	62	62	64	64	62	62	64	65	65	65	61	65	63	64	66	66	64	64	66
7/F	35.6	64	64	62	62	64	64	62	62	64	64	62	62	64	65	65	65	61	65	63	63	65	66	64	64	66
8/F	38.8	64	64	62	61	63	63	61	62	64	64	62	62	64	65	64	64	60	65	63	63	65	65	63	64	66
9/F	41.9	64	63	61	61	63	63	61	61	63	64	62	62	64	64	64	64	60	65	63	63	65	65	63	63	65
10/F	45.1	63	63	61	61	70	70	70	61	63	63	62	62	64	64	64	64	60	65	63	63	65	65	63	63	65
11/F	48.2	63	70	70	70	70	70	70	70	63	63	61	62	64	64	64	64	60	65	63	63	65	65	63	63	65
12/F	51.4	70	70	70	70	70	70	70	70	70	63	61	61	63	64	64	64	60	64	62	63	65	65	63	63	65
13/F	54.5	70	70	70	70	70	70	70	70	70	63	61	61	63	64	64	64	60	64	62	62	64	65	63	63	65
14/F	57.7	70	70	70	70	70	70	70	70	70	70	61	61	63	64	64	64	59	64	62	62	64	64	62	63	65
15/F	60.8	70	70	70	70	70	70	70	70	70	70	61	61	63	64	64	64	59	64	62	62	64	64	62	62	65
16/F	64.0	70	70	70	70	70	69	70	70	70	70	70	61	63	64	63	63	59	64	62	62	64	64	62	62	64
17/F	67.1	70	70	70	69	69	69	69	70	70	70	70	61	63	63	63	63	59	64	62	62	64	64	62	62	64
18/F	70.3	70	70	70	69	69	69	69	70	70	70	70	61	70	63	63	63	59	63	61	62	64	64	62	62	64
19/F	73.4	70	70	69	69	69	69	69	70	70	70	70	70	70	63	63	63	59	63	61	62	64	64	62	62	64
21/F	80.3	70	70	69	69	69	69	69	69	70	70	70	70	70	63	63	63	59	63	61	61	63	63	62	62	64
22/F	83.5	70	69	69	69	69	69	69	69	69	70	70	70	70	63	63	63	58	70	70	61	63	63	61	62	64
23/F	86.6	70	69	69	69	69	69	69	69	69	70	70	70	70	63	63	63	58	70	70	61	63	63	61	61	64
24/F	89.8	70	69	69	69	69	69	69	69	69	70	70	70	70	63	63	62	58	70	70	70	70	63	61	61	63
25/F	92.9	70	69	69	69	69	69	69	69	69	69	70	70	70	63	63	62	58	70	70	70	70	70	61	61	63
26/F	96.1	70	69	69	69	69	69	69	69	69	69	70	70	70	63	62	62	58	70	70	70	70	70	70	61	63
27/F	99.2	70	69	69	69	69	69	69	69	69	69	70	70	70	62	62	62	70	70	70	70	70	70	70	70	63
28/F	102.4	70	69	69	69	69	69	69	69	69	69	70	70	70	62	62	62	70	70	70	70	70	70	70	70	70
29/F	105.7	70	70	69	69	69	69	69	69	69	69	70	70	70	62	62	62	70	70	70	70	70	70	70	70	70
30/F	109.0	--	--	--	--	--	--	--	--	--	--	--	--	--	62	62	62	70	70	70	70	70	70	70	70	70
31/F	112.3	--	--	--	--	--	--	--	--	--	--	--	--	--	62	62	62	70	70	70	70	70	70	70	70	70
32/F	115.6	--	--	--	--	--	--	--	--	--	--	--	--	--	62	62	62	70	70	70	70	70	70	70	70	70
33/F	118.9	--	--	--	--	--	--	--	--	--	--	--	--	--	62	62	62	70	70	70	70	70	70	70	70	70
34/F	122.2	--	--	--	--	--	--	--	--	--	--	--	--	--	62	62	70	70	70	70	70	70	70	70	70	70
35/F	125.5	--	--	--	--	--	--	--	--	--	--	--	--	--	62	70	70	70	69	69	70	70	70	70	70	70
36/F	129.0	--	--	--	--	--	--	--	--	--	--	--	--	--	62	70	70	70	69	69	70	70	70	70	70	70
37/F	132.5	--	--	--	--	--	--	--	--	--	--	--	--	--	62	70	70	70	69	69	70	70	70	70	70	70
Max Noise Level		70	70	70	70	70	70	70	70	70	70	70	70	70	65	70	70	70	70	70	70	70	70	70	70	70
Exceedance		0			0		0		0		0		0		0				0		0		0		0	

Floor	mPD	N1-26	N1-27	N1-28	N1-29	N1-30	N1-31	N1-32	N1-33	N1-34	N1-35	N1-36	N1-37	N1-38	N1-39	N1-40	N1-41	N1-42	N1-43	N1-44	N1-45	N1-46	N1-47	N1-48	N1-49	N1-50	N1-51	N1-52
3/F	23.0	66	64	65	68	60	61	63	64	65	65	65	66	66	67	68	68	69	69	70	70	69	69	68	68	68	68	68
4/F	26.2	66	64	65	67	60	62	63	64	65	65	65	66	66	67	68	68	69	69	70	70	70	70	70	70	69	69	70
5/F	29.3	66	64	65	67	60	62	63	64	65	65	66	66	66	67	68	68	69	69	70	70	70	70	70	70	70	70	70
6/F	32.5	66	64	65	67	60	62	63	64	65	65	66	66	66	67	68	68	69	69	70	70	70	70	70	70	70	70	62
7/F	35.6	66	64	64	67	60	62	63	64	65	65	66	66	66	67	68	68	69	69	70	70	70	70	70	70	70	70	62
8/F	38.8	66	64	64	67	60	62	63	64	65	65	66	66	66	67	68	68	69	69	69	70	70	70	70	70	70	70	62
9/F	41.9	66	64	64	66	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	70	62
10/F	45.1	65	64	64	66	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	62	62
11/F	48.2	65	63	64	66	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	62	62
12/F	51.4	65	63	64	66	60	62	63	64	65	65	66	66	66	67	67	68	69	69	69	70	70	70	70	70	70	62	62
13/F	54.5	65	63	63	66	60	62	63	64	65	65	66	66	66	67	67	68	68	69	69	70	70	70	70	70	70	62	62
14/F	57.7	65	63	63	66	60	62	63	64	65	65	66	66	66	67	67	68	68	69	69	70	70	70	70	70	58	62	63
15/F	60.8	65	63	63	66	60	62	63	64	65	65	66	66	66	67	67	68	68	69	69	69	70	70	70	70	58	62	63
16/F	64.0	64	63	63	65	61	62	63	64	65	65	66	66	67	67	67	68	68	69	69	70	70	70	70	62	58	62	63
17/F	67.1	64	63	63	65	61	63	64	65	65	66	66	66	67	67	68	68	69	69	69	70	70	70	70	62	58	63	63
18/F	70.3	64	62	63	65	62	63	64	65	66	66	66	67	67	68	68	68	69	69	70	70	70	70	58	62	59	63	63
19/F	73.4	64	62	63	65	62	64	65	65	66	66	67	67	67	68	68	68	69	69	70	70	70	62	58	63	59	63	64
21/F	80.3	64	62	62	65	63	64	65	66	67	67	67	68	68	68	68	69	69	70	70	70	62	62	59	63	59	64	64
22/F	83.5	64	62	62	65	64	65	66	66	67	67	68	68	68	68	69	69	69	70	70	70	62	63	59	63	59	64	64
23/F	86.6	64	62	62	64	64	65	66	67	67	68	68	68	69	69	69	69	70	70	70	58	62	63	59	63	60	64	65
24/F	89.8	64	62	62	64	65	66	66	67	68	68	68	69	69	69	69	69	70	70	70	58	63	63	59	64	60	65	65
25/F	92.9	63	61	62	64	65	66	67	67	68	68	69	69	69	69	69	70	70	70	62	59	63	63	60	64	60	65	65
26/F	96.1	63	61	62	64	66	67	67	68	68	69	69	69	69	69	70	70	70	62	62	59	63	63	60	64	60	65	65
27/F	99.2	63	61	62	64	67	67	68	68	69	69	69	69	70	70	70	70	70	62	63	59	63	64	60	64	61	65	65
28/F	102.4	63	61	61	64	67	67	68	68	69	69	69	70	70	70	70	70	58	62	63	59	63	64	60	64	61	65	65
29/F	105.7	70	61	61	64	67	68	68	69	69	69	70	70	70	70	70	70	58	62	63	59	63	64	60	64	61	65	65
30/F	109.0	70	61	61	64	67	68	68	69	69	70	70	70	70	70	70	70	--	--	--	--	--	--	--	--	--	--	--
31/F	112.3	70	70	61	64	68	68	69	69	69	70	70	70	63	63	61	63	--	--	--	--	--	--	--	--	--	--	--
32/F	115.6	70	70	61	64	68	68	69	69	70	70	70	61	63	64	62	64	--	--	--	--	--	--	--	--	--	--	--
33/F	118.9	70	70	61	63	68	69	69	69	70	70	70	61	64	64	62	64	--	--	--	--	--	--	--	--	--	--	--
34/F	122.2	70	70	61	63	68	69	69	70	70	70	63	61	64	64	62	64	--	--	--	--	--	--	--	--	--	--	--
35/F	125.5	70	70	61	63	69	69	70	70	70	63	63	62	64	64	62	64	--	--	--	--	--	--	--	--	--	--	--
36/F	129.0	70	70	70	63	70	70	70	70	61	63	64	62	64	64	62	65	--	--	--	--	--	--	--	--	--	--	--
37/F	132.5	70	70	70	63	70	70	70	63	61	64	64	62	64	65	63	65	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		70	70	70	68	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70
Exceedance		0		0		0			0			0			0			0			0			0			0	

Predicted Road Traffic Noise (L10, dB(A)) at Selected Sensitive Receivers
Mitigated Case (Acoustic Window (Baffle Type), Acoustic Balcony (Baffle Type), Fixed Glazing (with or without Maintenance Window), Acoustic Fin and Noise Barrier) (PM Peak Flow)

Tower 2

Floor	mPD	N2-01	N2-02	N2-03	N2-04	N2-05	N2-06	N2-07	N2-08	N2-09	N2-10	N2-11	N2-12	N2-13	N2-14	N2-15	N2-16	N2-17	N2-18	N2-19	N2-20	N2-21	N2-22	N2-23	N2-24	N2-25	N2-26	N2-27	N2-28	N2-29
3/F	23.0	68	68	68	64	68	64	68	64	68	68	64	68	69	65	67	64	-	67	67	-	65	-	67	-	70	63	70	-	67
4/F	26.2	68	68	68	64	67	64	68	64	68	68	64	68	68	65	69	68	-	70	70	-	69	-	70	-	66	68	66	-	70
5/F	29.3	68	68	67	64	67	63	68	64	68	68	64	68	68	64	69	70	-	70	70	-	69	-	70	-	67	69	68	-	70
6/F	32.5	67	67	67	63	67	63	67	64	68	68	64	68	68	64	69	70	-	70	70	-	69	-	70	-	67	69	68	-	70
7/F	35.6	67	67	67	63	67	63	67	63	67	68	64	68	68	64	68	69	-	70	70	-	69	-	70	-	67	69	68	-	70
8/F	38.8	67	67	67	63	67	63	67	63	67	67	64	68	68	64	68	69	-	70	70	-	69	-	70	-	67	69	68	-	70
9/F	41.9	67	67	67	63	67	63	67	63	67	67	63	68	68	64	68	69	-	70	70	-	69	-	70	-	67	69	67	-	70
10/F	45.1	67	67	67	63	67	63	67	63	67	67	63	67	67	63	68	69	-	70	70	-	69	-	70	-	67	69	67	-	70
11/F	48.2	67	67	67	63	67	63	67	63	67	67	63	67	67	63	68	69	-	70	70	-	69	-	69	-	67	69	67	-	70
12/F	51.4	67	66	66	63	66	63	67	63	67	67	63	67	67	63	68	69	-	70	69	-	69	-	69	-	67	68	67	-	70
13/F	54.5	66	66	66	62	66	62	66	63	67	67	63	67	67	63	68	69	-	69	69	-	68	-	69	-	66	68	67	-	70
14/F	57.7	66	66	66	62	66	62	66	62	66	67	63	67	67	63	67	69	-	69	69	-	68	-	69	-	66	68	67	-	69
15/F	60.8	66	66	66	62	66	62	66	62	66	66	63	67	67	62	67	68	-	69	69	-	68	-	69	-	66	68	67	-	69
16/F	64.0	66	66	66	62	66	62	66	62	66	66	62	66	66	62	67	68	-	69	69	-	68	-	69	-	66	68	67	-	69
17/F	67.1	66	66	66	62	66	62	66	62	66	66	62	66	66	62	67	68	-	69	69	-	68	-	69	-	66	68	66	-	69
18/F	70.3	66	66	66	62	66	62	66	62	66	66	62	66	66	62	67	68	-	69	69	-	68	-	69	-	66	68	66	-	69
19/F	73.4	66	66	66	62	66	62	66	62	66	66	62	66	66	62	67	68	-	69	69	-	68	-	69	-	66	68	66	-	69
21/F	80.3	65	65	65	61	65	61	65	62	66	66	62	66	66	62	67	68	-	69	69	-	68	-	68	-	66	67	66	-	69
22/F	83.5	65	65	65	61	65	61	65	61	65	66	62	66	66	61	67	68	-	69	69	-	68	-	68	-	65	67	66	-	69
23/F	86.6	65	65	65	61	65	61	65	61	65	65	61	65	65	61	67	68	-	68	68	-	68	-	68	-	65	67	66	-	69
24/F	89.8	65	65	65	61	65	61	65	61	65	65	61	65	65	61	66	68	-	68	68	-	67	-	68	-	65	67	66	-	69
25/F	92.9	65	65	65	61	65	61	65	61	65	65	61	65	65	61	66	68	-	68	68	-	67	-	68	-	65	67	66	-	69
26/F	96.1	65	65	65	61	65	61	65	61	65	65	61	65	65	61	66	67	-	68	68	-	67	-	68	-	65	67	66	-	68
27/F	99.2	65	65	65	61	65	61	65	61	65	65	61	65	65	61	66	67	-	68	68	-	67	-	68	-	65	67	65	-	68
28/F	102.4	65	65	65	61	65	61	65	61	65	65	61	65	65	61	66	67	-	68	68	-	67	-	68	-	65	67	65	-	68
29/F	105.7	65	65	65	61	65	61	65	61	65	65	61	65	65	61	66	67	-	68	68	-	67	-	68	-	65	67	65	-	68
30/F	109.0	65	65	65	61	64	61	65	61	65	65	61	65	65	61	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--
31/F	112.3	65	64	64	61	64	60	64	61	65	65	61	65	65	60	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--
32/F	115.6	64	64	64	60	64	60	64	60	64	65	61	65	65	60	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--
33/F	118.9	64	64	64	60	64	60	64	60	64	64	61	64	64	60	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--
34/F	122.2	64	64	64	60	64	60	64	60	64	64	60	64	64	60	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--
35/F	125.5	64	64	64	60	64	60	64	60	64	64	60	64	64	60	66	--	--	--	--	--	--	--	--	--	--	--	--	--	--
36/F	129.0	64	64	64	60	64	60	64	60	64	64	60	64	64	60	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--
37/F	132.5	64	64	64	60	64	60	64	60	64	64	60	64	64	60	65	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Max Noise Level		68	68	68	64	68	64	68	64	68	68	64	68	69	65	69	70	0	70	70	0	69	0	70	0	70	69	70	0	70
Exceedance		0				0			0			0			0			0			0			0				0		

Floor	mPD	N2-30	N2-31	N2-32	N2-33	N2-34	N2-35	N2-36	N2-37	N2-38	N2-39	N2-40	N2-41	N2-42	N2-43	N2-44	N2-45	N2-46	N2-47	N2-48	N2-49	N2-50	N2-51	N2-52	N2-53	N2-54
3/F	23.0	67	-	68	-	69	69	53	52	52	53	54	55	56	56	56	56	56	56	55	55	55	55	55	54	57
4/F	26.2	70	-	70	-	70	69	54	53	53	54	55	55	56	57	57	57	56	56	56	55	55	55	55	54	57
5/F	29.3	70	-	70	-	70	69	56	56	55	55	56	56	57	57	57	57	57	56	56	55	55	55	55	54	57
6/F	32.5	70	-	70	-	70	69	57	57	56	57	57	57	57	58	58	58	57	57	56	56	55	55	54	54	57
7/F	35.6	70	-	70	-	70	69	58	57	57	58	58	58	58	59	59	58	58	57	57	56	55	55	54	54	57
8/F	38.8	70	-	70	-	70	69	58	58	58	58	58	59	59	59	59	59	58	58	57	56	55	55	55	54	57
9/F	41.9	70	-	70	-	70	69	58	58	58	58	58	59	59	59	59	59	58	58	57	56	55	55	54	54	57
10/F	45.1	70	-	70	-	70	69	58	58	58	58	59	59	59	59	59	59	58	58	57	56	55	55	55	54	57
11/F	48.2	70	-	70	-	70	69	58	58	58	58	59	59	59	59	59	59	59	58	57	56	55	55	55	54	57
12/F	51.4	70	-	70	-	70	69	58	58	58	58	59	59	59	59	59	59	59	58	57	56	55	55	55	55	57
13/F	54.5	70	-	70	-	70	69	58	58	58	58	59	59	59	59	60	59	59	58	57	56	55	55	55	55	57
14/F	57.7	69	-	70	-	70	69	59	58	58	59	59	59	59	59	60	59	59	58	57	57	56	56	56	56	58
15/F	60.8	69	-	70	-	70	70	60	59	59	59	59	59	59	60	60	60	59	58	58	57	56	56	56	56	58
16/F	64.0	69	-	70	-	70	70	61	60	59	60	59	59	60	60	60	60	59	58	58	57	56	57	57	57	58
17/F	67.1	69	-	70	-	70	70	63	61	61	61	60	60	60	60	60	60	59	59	58	57	57	57	58	58	59
18/F	70.3	69	-	70	-	70	62	64	63	62	62	61	61	60	60	60	60	59	59	58	58	58	58	59	59	60
19/F	73.4	69	-	69	-	70	63	65	64	63	62	62	61	61	61	60	60	59	59	58	58	58	59	60	60	61
21/F	80.3	69	-	69	-	70	63	66	65	64	63	63	62	62	61	61	60	60	59	59	60	60	61	61	62	62
22/F	83.5	69	-	69	-	70	63	67	65	64	64	63	63	62	62	61	61	60	60	60	60	61	61	62	62	63
23/F	86.6	69	-	69	-	70	63	67	66	65	64	64	63	63	62	62	61	60	60	60	61	61	62	62	63	63
24/F	89.8	69	-	69	-	70	64	68	66	65	65	64	64	63	63	62	61	61	61	61	62	62	63	63	64	64
25/F	92.9	68	-	69	-	70	64	68	66	66	65	65	64	64	63	63	62	62	62	62	62	63	63	64	64	65
26/F	96.1	68	-	69	-	69	64	68	67	66	65	65	64	64	64	63	63	62	63	63	63	63	64	65	65	65
27/F	99.2	68	-	69	-	69	64	69	67	66	66	65	65	64	64	63	63	63	63	63	64	64	65	65	66	66
28/F	102.4	68	-	69	-	69	64	69	67	66	66	65	65	65	64	64	63	63	64	64	64	65	65	66	66	66
29/F	105.7	68	-	69	-	69	64	69	67	67	66	66	65	65	65	64	64	64	64	64	65	65	66	66	67	67
30/F	109.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	65	65	65	66	66	66	66	67	67
31/F	112.3	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	66	65	66	66	66	66	67	67	67
32/F	115.6	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	69	67	66	67	67	67	67	67	67
33/F	118.9	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	63	69	68	68	67	68	68	68	68
34/F	122.2	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	64	58	70	69	69	69	69	69	69
35/F	125.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	65	60	62	70	70	70	70	70	69
36/F	129.0	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	66	60	63	63	58	70	70	70	70
37/F	132.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	66	61	64	63	59	63	62	58	70
Max Noise Level		70	0	70	0	70	70	69	67	67	66	66	65	65	65	64	64	69	69	70	70	70	70	70	70	70
Exceedance				0				0			0			0			0		0			0			0		

Total no. of Flats:	1140
Total no. of Exceedance:	0
Compliance Level:	100%
Max. Noise Level:	70

Notes:

71	Noise level exceed stardand of 70 dB(A)
--	Not Available at this residential storey
	Acoustic Window (Baffle Type)
	Acoustic Balcony (Baffle Type)
-	Fixed Glazing (with or without Maintenance Window)

Appendix 2.6 Proposed Road Traffic Noise Mitigation Measures Schedule

Appendix 2.6 Schedule of Noise Mitigation Measures

Residential Towers

Tower	Room (NSRs)	Floor	Noise Mitigation Measures
T1	N1-01	3/F-11/F	Acoustic Window (Baffle Type)
T1	N1-02	3/F-10/F	Acoustic Window (Baffle Type)
T1	N1-03	3/F-10/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-04	3/F-10/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-05	3/F-9/F	Acoustic Window (Baffle Type)
T1	N1-06	3/F-9/F	Acoustic Window (Baffle Type)
T1	N1-07	3/F-9/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-08	3/F-10/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-09	3/F-11/F	Acoustic Window (Baffle Type)
T1	N1-10	3/F-13/F	Acoustic Window (Baffle Type)
T1	N1-11	3/F-15/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-12	3/F-18/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-13	3/F-17/F	Acoustic Window (Baffle Type)
T1	N1-14	3/F-37/F	Acoustic Window (Baffle Type)
T1	N1-15	3/F-34/F	Acoustic Window (Baffle Type)
T1	N1-16	3/F-33/F	Acoustic Window (Baffle Type)
T1	N1-17	3/F-26/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-18	3/F-21/F	Acoustic Window (Baffle Type)
T1	N1-19	3/F-21/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-20	3/F-23/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-21	3/F-23/F	Acoustic Window (Baffle Type)
T1	N1-22	3/F-24/F	Acoustic Window (Baffle Type)
T1	N1-23	3/F-25/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-24	3/F-26/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-25	3/F-27/F	Acoustic Window (Baffle Type)
T1	N1-26	3/F-28/F	Acoustic Window (Baffle Type)
T1	N1-27	3/F-30/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-28	3/F-35/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-29	3/F-37/F	Acoustic Window (Baffle Type)
T1	N1-33	37/F	Acoustic Window (Baffle Type)
T1	N1-34	36/F-37/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-35	35/F-37/F	Acoustic Window (Baffle Type)
T1	N1-36	34/F-37/F	Acoustic Window (Baffle Type)
T1	N1-37	32/F-37/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-38	31/F-37/F	Acoustic Window (Baffle Type)
T1	N1-39	31/F-37/F	Acoustic Window (Baffle Type)
T1	N1-40	31/F-37/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-41	31/F-37/F	Acoustic Window (Baffle Type)
T1	N1-42	28/F-29/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-43	26/F-29/F	Acoustic Window (Baffle Type)
T1	N1-44	25/F-29/F	Acoustic Window (Baffle Type)
T1	N1-45	23/F-29/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-46	21/F-29/F	Acoustic Window (Baffle Type)

Tower	Room (NSRs)	Floor	Noise Mitigation Measures
T1	N1-47	19/F-29/F	Acoustic Window (Baffle Type)
T1	N1-48	18/F-29/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-49	16/F-29/F	Acoustic Window (Baffle Type)
T1	N1-50	14/F-29/F	Enhanced Acoustic Balcony (Baffle Type)
T1	N1-51	10/F-29/F	Acoustic Window (Baffle Type)
T1	N1-52	6/F-29/F	Acoustic Window (Baffle Type)
T2	N2-01	3/F-37/F	Acoustic Window (Baffle Type)
T2	N2-02	3/F-37/F	Acoustic Window (Baffle Type)
T2	N2-03	3/F-37/F	Acoustic Window (Baffle Type)
T2	N2-04	3/F-37/F	Enhanced Acoustic Balcony (Baffle Type)
T2	N2-05	3/F-37/F	Acoustic Window (Baffle Type)
T2	N2-06	3/F-37/F	Enhanced Acoustic Balcony (Baffle Type)
T2	N2-07	3/F-37/F	Acoustic Window (Baffle Type)
T2	N2-08	3/F-37/F	Enhanced Acoustic Balcony (Baffle Type)
T2	N2-09	3/F-37/F	Acoustic Window (Baffle Type)
T2	N2-10	3/F-37/F	Acoustic Window (Baffle Type)
T2	N2-11	3/F-37/F	Enhanced Acoustic Balcony (Baffle Type)
T2	N2-12	3/F-37/F	Acoustic Window (Baffle Type)
T2	N2-13	3/F-37/F	Acoustic Window (Baffle Type)
T2	N2-14	3/F-37/F	Enhanced Acoustic Balcony (Baffle Type)
T2	N2-15	3/F-37/F	Acoustic Window (Baffle Type) 1.5m long Vertical Acoustic Fin with Sound Absorptive Material
T2	N2-16	3/F-29/F	Acoustic Window (Baffle Type)
T2	N2-17	3/F-29/F	Fixed Glazing (with or without Maintenance window)
T2	N2-18	3/F-29/F	Enhanced Acoustic Balcony (Baffle Type)
T2	N2-19	3/F-29/F	Enhanced Acoustic Balcony (Baffle Type)
T2	N2-20	3/F-29/F	Fixed Glazing (with or without Maintenance window)
T2	N2-21	3/F-29/F	Acoustic Window (Baffle Type)
T2	N2-22	3/F-29/F	Fixed Glazing (with or without Maintenance window)
T2	N2-23	3/F-29/F	1.5m long Vertical Acoustic Fin with Sound Absorptive Material Enhanced Acoustic Balcony (Baffle Type)
T2	N2-24	3/F-29/F	Fixed Glazing (with or without Maintenance window)
T2	N2-25	4/F-29/F	Acoustic Window (Baffle Type)
T2	N2-26	3/F-29/F	Acoustic Window (Baffle Type)
T2	N2-27	4/F-29/F	Acoustic Window (Baffle Type)
T2	N2-28	3/F-29/F	1.5m long Vertical Acoustic Fin with Sound Absorptive Material Fixed Glazing (with or without Maintenance window)
T2	N2-29	3/F-29/F	Enhanced Acoustic Balcony (Baffle Type)
T2	N2-30	3/F-29/F	Enhanced Acoustic Balcony (Baffle Type)
T2	N2-31	3/F-29/F	Fixed Glazing (with or without Maintenance window) 1.5m long Vertical Acoustic Fin with Sound Absorptive Material
T2	N2-32	3/F-29/F	Acoustic Window (Baffle Type)
T2	N2-34	3/F-29/F	Acoustic Window (Baffle Type)
T2	N2-35	18/F-29/F	Acoustic Window (Baffle Type)
T2	N2-46	33/F-37/F	Acoustic Window (Baffle Type)

Tower	Room (NSRs)	Floor	Noise Mitigation Measures
T2	N2-47	34/F-37/F	Enhanced Acoustic Balcony (Baffle Type)
T2	N2-48	35/F-37/F	Acoustic Window (Baffle Type)
T2	N2-49	36/F-37/F	Acoustic Window (Baffle Type)
T2	N2-50	36/F-37/F	Enhanced Acoustic Balcony (Baffle Type)
T2	N2-51	37/F	Acoustic Window (Baffle Type)
T2	N2-52	37/F	Acoustic Window (Baffle Type)
T2	N2-53	37/F	Enhanced Acoustic Balcony (Baffle Type)
T2	N2-15 to N2-16	3/F-29/F	Sound Absorptive Material on Façade (Please refer to **Figure 2.2** for the details)
T2	N2-20 to N2-22	3/F-29/F	Sound Absorptive Material on Façade (Please refer to **Figure 2.2** for the details)
T2	N2-25 to N2-27	3/F-29/F	Sound Absorptive Material on Façade (Please refer to **Figure 2.2** for the details)

Note:
Refuge Floor at 20/F.

Appendix 3.1 Extracts of Reference Materials

S16 Planning Application for Proposed Minor Relaxation of Plot Ratio (PR), Site Coverage (SC) and Building Height (BH) Restrictions for Permitted/Proposed Commercial Development, Public Transport Station and Underground Vehicle Tunnel at Kai Tak Area 4C Sites 4 and 5 and Adjoining Road Portion of Shing King Street; and Minor Relaxation of PR and BH Restrictions for Permitted Private Housing Development with Proposed Eating Place, Shop and Services and Social Welfare Facilities at Kai Tak Area 3E Sites 1 and 2

Environmental Assessment Study

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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ARUP

5 Fixed Noise Assessment

5.1 Identification of Fixed Noise Sources

5.1.1 Application Site A

5.1.1.1 Based on desktop review and site visits in August 2024, the surrounding of Application Site A is mainly existing residential buildings, construction sites of planned residential development and Kai Tak Cruise Terminal. Major fixed noise sources are not observed within the 300m assessment area. Nevertheless, as mentioned in **Section 2**, Application Site A would be developed into office towers and hotel towers for commercial use and would not rely on openable windows for ventilation. Therefore, the noise standards shall not apply to the planned development at Application Site A. Existing fixed noise sources impacts are not anticipated for the top side developments of Application Site A.

5.1.1.2 The public transport station (potential KTGTS's station and depot) at podium of Application Site A will be designed to suit the KTGTS's operational needs. Appropriate measures, such as enclosing the noisy machinery within building structure, using of acoustic louvers, silencer for ventilating fan, etc. to eliminate the potential noise nuisance to the nearby existing/planned NSRs, will be considered and implemented under the KTGTS project. Therefore, no insurmountable impact from fixed noise sources owing to the public transport station on nearby existing/ planned NSRs is anticipated.

5.1.2 Application Site B

5.1.2.1 Desktop study and site survey have been carried out in August 2024 to identify any potential fixed noise sources within 300m assessment area of the project site. **Figure 5.1** indicates the locations of the identified fixed noise sources. These include Hong Kong Children's Hospital to the northwest of the site, and Kai Tak Fire Station, Harbourside HQ and the Quayside to the north of the site. As mentioned in **Section 2**, the population intake year for Application Site B will be 2033. Since the proposed New Acute Hospital will complete construction in 2026, the planned fixed noise sources from the planned hospital blocks will be considered in the assessment. **Table 5.1** summarizes the identified fixed noise sources and details are provided in **Appendix 5.1**. All identified major and significant fixed noise sources which may have potential noise impact on the planned NSRs of the proposed residential development are included in the noise assessment.

Table 5.1: Summary of identified fixed noise sources

Name of Fixed Noise Source	Source
Hong Kong Children's Hospital	• Operation: Chillers/ Condensers/ on rooftop
Kai Tak Fire Station	• Operation: Chillers/ Condensers on rooftop
Harbourside HQ	• Operation: Chillers/ Condensers on rooftop

Name of Fixed Noise Source	Source
The Quayside	• Operation: Chillers/ Condensers on rooftop
New Acute Hospital	• Operation: Planned fixed noise sources on façade/ rooftop

recommended that all exhausts shall be located on the southwestern facades of the proposed buildings such that there is no direct line of sight from the residential developments nearby (i.e. Cullinan Harbour and the Pavilia Forest). With the above measures, adverse noise impact from the planned fixed plant noise sources due to the operation of the development at Site 4C4 & 4C5 is not anticipated.

5.3.1.3 Nonetheless, if exhausts are required to be located on façades with direct line of sight from the nearby noise sensitive uses, the Contractor shall select fixed plants that can achieve the compliance of the NCO criteria, as well as adopting the proposed mitigation strategies and measures when necessary. Installation of silencers/ acoustic louvers at the exhaust shall be considered to minimise the noise impact. The Contractor should also carry out a noise commissioning test for all fixed noise sources before operation of the Project, in order to ensure compliance of the operation airborne noise levels with the planning fixed source noise criteria under NCO.

5.4 Predicted Fixed Noise Impact for Residential Blocks at Application Site B

5.4.1 Assessment Methodology

5.4.1.1 For the identified fixed noise sources, noise measurement shall be taken at locations where access was allowed and influences from other noisy activities were as minimal as possible. However, site access to the Hong Kong Children's Hospital and Kai Tak Fire Station was not allowed. Therefore, reference has been made to other plant of similar mode, nature and scale for this assessment. Aerial photos have been reviewed to ensure the noise data references adopted for noise assessment are fixed plants of similar type, nature and scale. For the planned fixed noise sources at New Acute Hospital, reference has been made from the Preliminary Environmental Review Report (PER) for the New Acute Hospital (NAH). Since the location of the planned fixed noise sources has not been confirmed, the NAH PER has assumed one planned fixed noise source at each building block façade and on the rooftop. The maximum allowable sound power levels of the planned fixed noise sources have been extracted from the PER report and adopted for assessment.

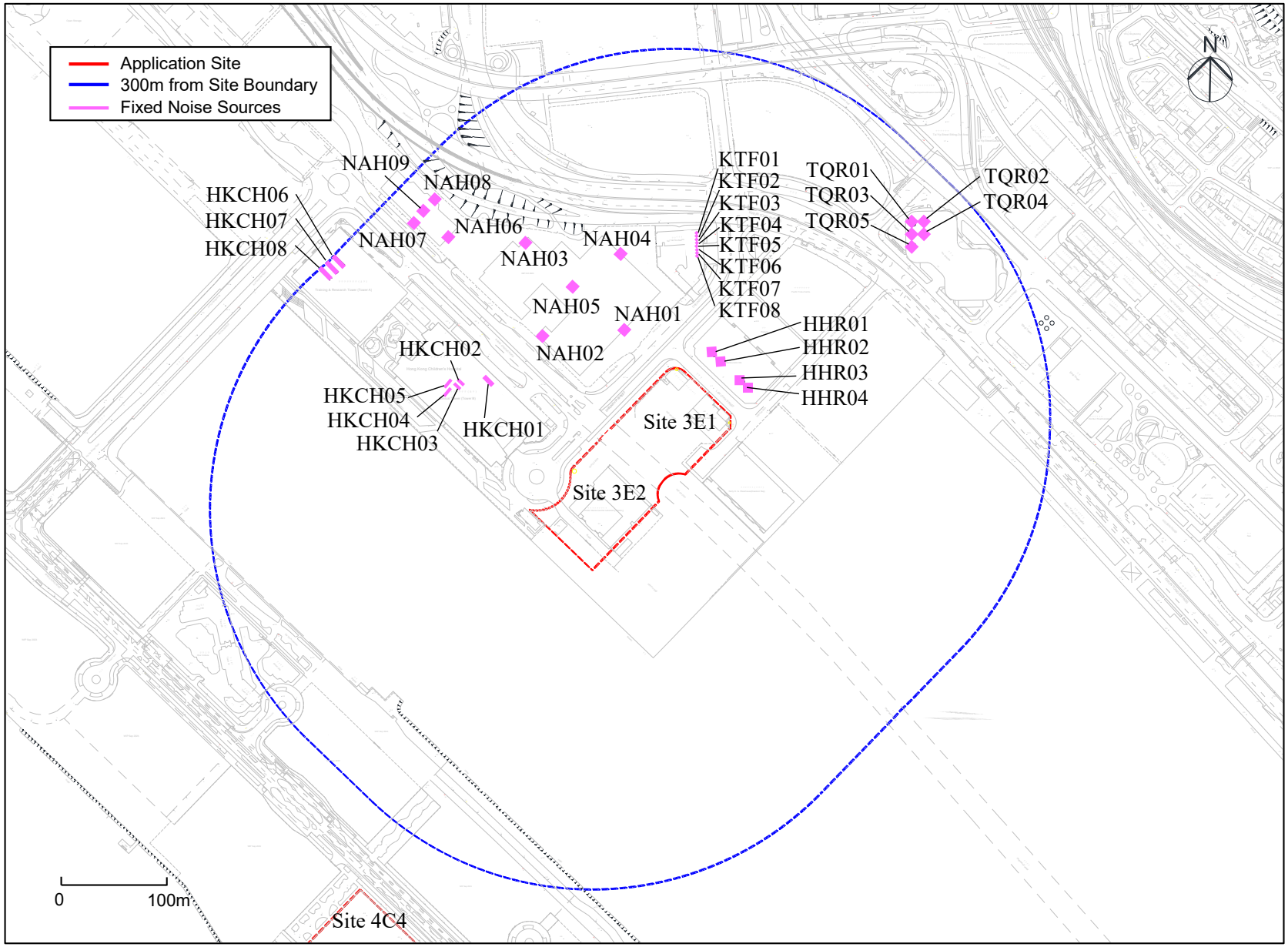
5.4.1.2 **Appendix 5.2** presents the adopted sound pressure levels and sound power levels for the fixed noise sources. **Appendix 5.3** presents the referenced sound pressure levels and sound power levels. The sound power levels for the planned fixed noise sources at New Acute Hospital are extracted from the NAH PER.

5.4.1.3 Tonality correction of 3dB(A) has been added for conservative assessment. Impulsive and intermittent characteristics of the identified noise sources were investigated and considered in accordance with TM-Places. No impulsive or intermittent character was identified at the site and therefore no correction has been applied.

Appendix 5.1

Site Survey Record

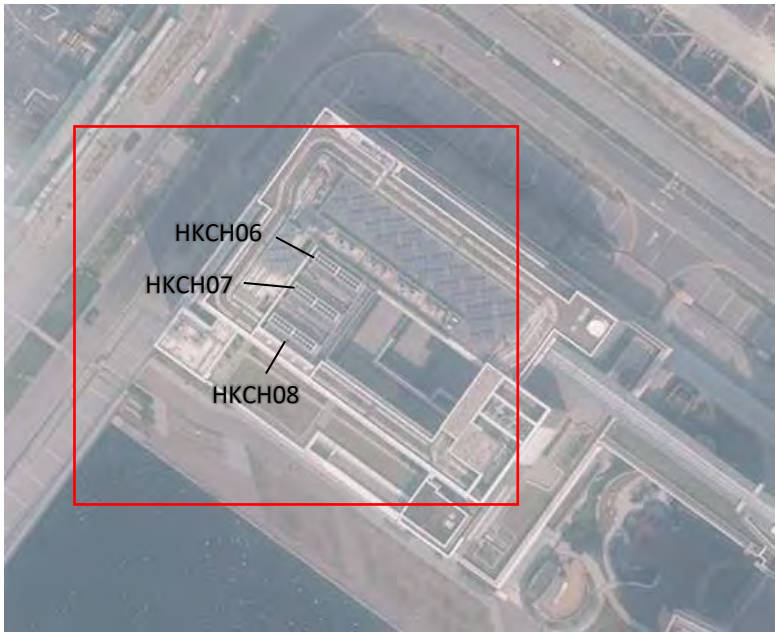
Appendix 5.1: Site Survey Record



Identified Fixed Noise Source for Assessment
Fixed Noise Source ID: HKCH01 – HKCH08

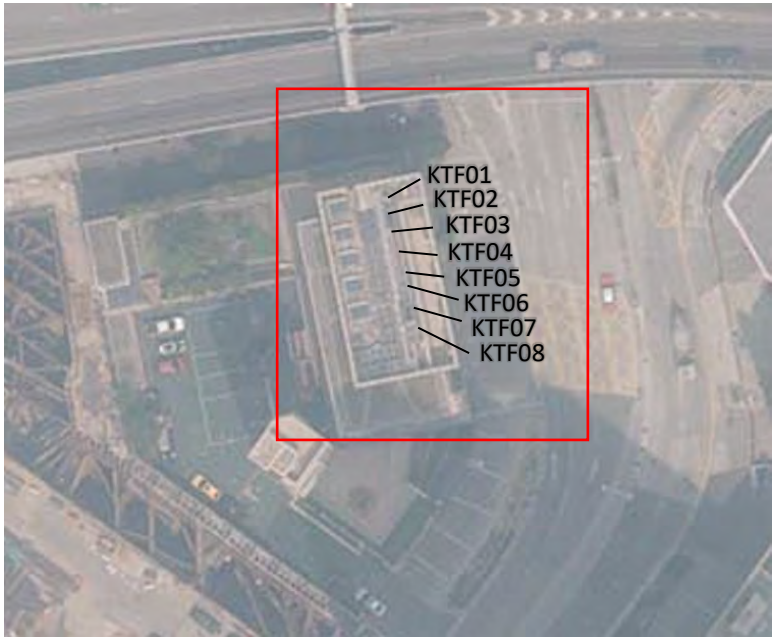
Name	Date of observation	Type of landuse	Noisy activities /sources based on site observation and/or employees information	Site record and/or information provided by operators / employees
Hong Kong Children's Hospital	23 August 2024	Government, Institution or Community	• Chillers/ condensers on rooftop	• Planned NSRs may have direct line of sight to the fixed plants on the rooftop. • This fixed noise source is included for assessment.

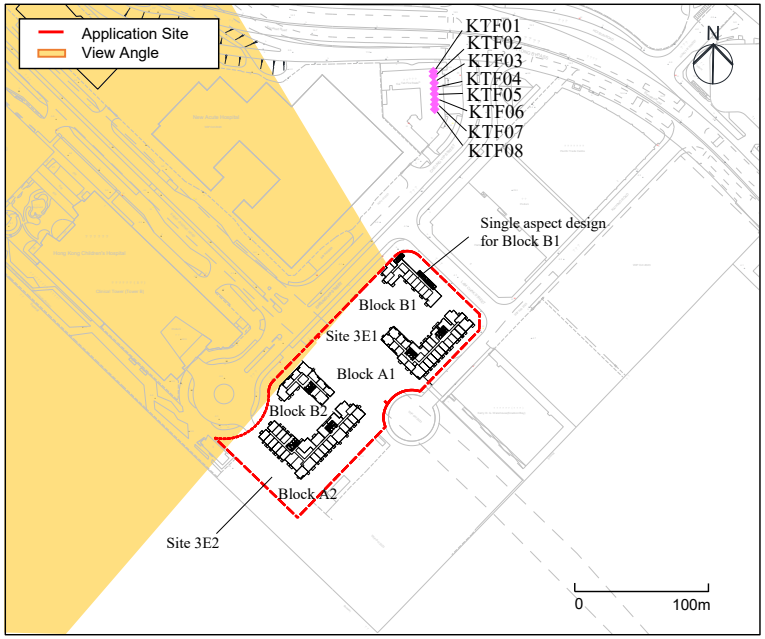




Identified Fixed Noise Source for Assessment
Fixed Noise Source ID: KTF01 – KTF08

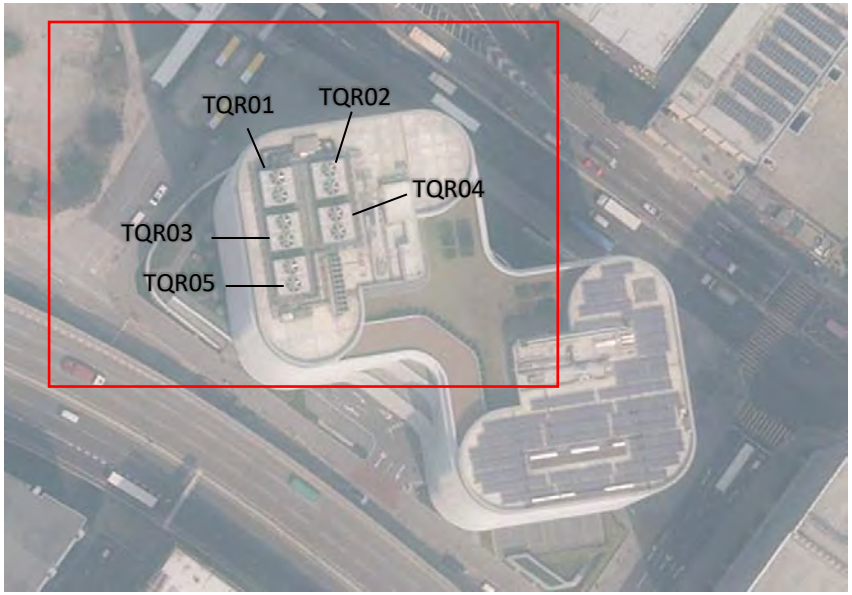
Name	Date of observation	Type of landuse	Noisy activities /sources based on site observation and/or employees information	Site record and/or information provided by operators / employees
Kai Tak Fire Station	23 August 2024	Government, Institution or Community	• Chillers/ condensers on rooftop	• Some planned NSRs may have direct line of sight to the fixed plants on the rooftop. • Single aspect has been adopted for Block B1 and therefore no planned NSRs at Block B1 would have line of sight to the fixed plants. • This fixed noise source is included for assessment.

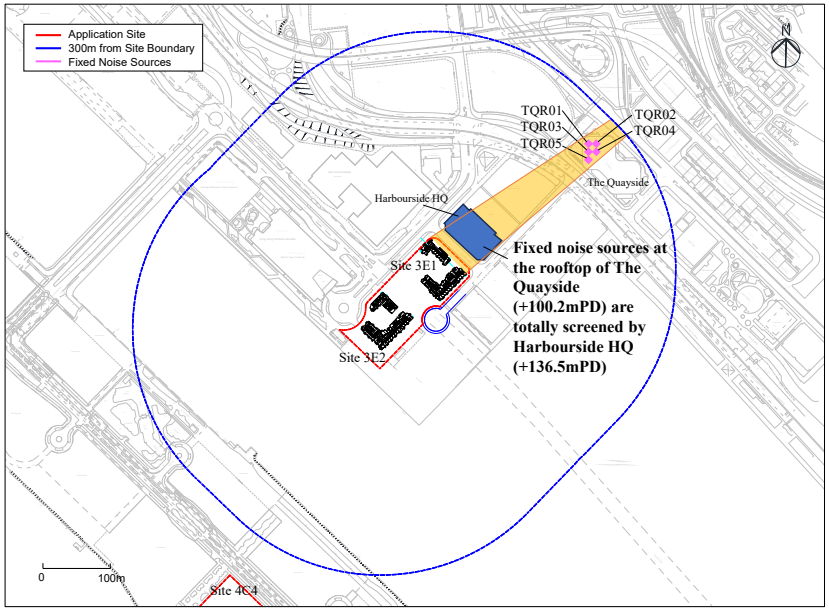




Identified Fixed Noise Source for Assessment
Fixed Noise Source ID: TQR01 - 05

Name	Date of observation	Type of landuse	Noisy activities /sources based on site observation and/or employees information	Site record and/or information provided by operators / employees
The Quayside	23 August 2024	Government, Institution or Community	• Chillers/ condensers on rooftop	• Based on the latest aerial photo, the fixed plants on the rooftop of The Quayside (100.2 mPD) are completely screened by Harbourside HQ (136.5 mPD). Hence, it is not included in the assessment.





Appendix 5.2

Sound Pressure Levels and Sound Power Levels of Fixed Noise Sources

Project: KTGTS
Project number: 295879-52
Title: Measured Sound Pressure Level (SPL) and referenced Sound Power Level (SWL) of Fixed Noise Sources

Source Location	Source Description	Source ID	Source Height, mPD	Max Measured SPL, dB(A) [1]	Measurement distance from source, m	Operation		Assumptions	Remarks
The Quayside	Chillers on Rooftop	TQR01	102.2	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	The fixed noise sources are screened by the Harbourside HQ (136.5 mPD) to the south of the building. The NAPs would have no line of sight to the fixed noise sources.
		TQR02	102.2	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		TQR03	102.2	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		TQR04	102.2	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		TQR05	102.2	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
Harbourside HQ	Chillers on Rooftop	HHR01	138.5	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	Based on the latest site parameters, the propsoed residential blocks at Sites 3E1 & 3E2 are at 96.6mPD and 102.9mPD tall respectively which will be lower than Harbourside HQ (136.5 mPD). The NAPs would have no line of sight to the fixed noise sources.
		HHR02	138.5	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		HHR03	138.5	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		HHR04	138.5	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
Hong Kong Children's Hospital	Chillers on Rooftop	HKCH01	66.2	69.0	10.0	Y	Y	Model RTAF 410 Standard Efficiency Standard Noise	This fixed noise source is included for assessment
		HKCH02	66.2	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		HKCH03	66.2	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		HKCH04	66.2	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		HKCH05	66.2	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		HKCH06	66.2	69.0	10.0	Y	Y	Model RTAF 410 Standard Efficiency Standard Noise	
		HKCH07	66.2	69.0	10.0	Y	Y	Model RTAF 410 Standard Efficiency Standard Noise	
		HKCH08	66.2	69.0	10.0	Y	Y	Model RTAF 410 Standard Efficiency Standard Noise	
Kai Tak Fire Station	Chillers on Rooftop	KTF01	38.7	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	This fixed noise source is included for assessment
		KTF02	38.7	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		KTF03	38.7	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		KTF04	38.7	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		KTF05	38.7	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		KTF06	38.7	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		KTF07	38.7	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
		KTF08	38.7	49.0	5.0	Y	Y	Zonda-S H 80-2 A 2,1 V AC 06D	
				Max Permissible SWL, dB(A) [2]					
New Acute Hospital	Block A – East Façade	NAH01	-	81.0	-	Y	Y	Source height is not available and fixed noise source is assumed at same height with NAP for assessment	This fixed noise source is included for assessment
	Block A – South Façade	NAH02	-	81.0	-	Y	Y	Source height is not available and fixed noise source is assumed at same height with NAP for assessment	
	Block A – West Façade	NAH03	-	98.0	-	Y	Y	Source height is not available and fixed noise source is assumed at same height with NAP for assessment	
	Block A – North Façade	NAH04	-	85.0	-	Y	Y	Source height is not available and fixed noise source is assumed at same height with NAP for assessment	
	Block A – Roof	NAH05	102.0	81.0	-	Y	Y	Source height is assumed at roof level	
	Block B – East Façade	NAH06	-	95.0	-	Y	Y	Source height is not available and fixed noise source is assumed at same height with NAP for assessment	
	Block B – South Façade	NAH07	-	95.0	-	Y	Y	Source height is not available and fixed noise source is assumed at same height with NAP for assessment	
	Block B – North Façade	NAH08	-	95.0	-	Y	Y	Source height is not available and fixed noise source is assumed at same height with NAP for assessment	
	Block B – Roof	NAH09	102.0	95.0	-	Y	Y	Source height is assumed at roof level	

Note:
[1] Measured SPL and measured distance of fixed noise sources are referenced from specification/ catalogue for Trane Model RTAF 090 to 450 air-cooled chillers and Stefani V-type single-row condensers. The models chosen are based on dimensions observed in aerial photos and dimension data as shown in the specification/ catalogue.
[2] Max. Permissible SWL extracted from PER for New Acute Hospital

Appendix 5.3

Stefani V-type single-row condenser and Trane Model RTAF 090 to 450 air cooled chillers specifications

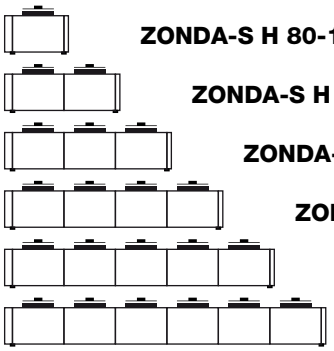
AIR HEAT EXCHANGER MANUFACTURER



ZONDA-S H 80

V-type single-row condenser

Ø 800 mm	FAN SIZE
60 ÷ 530 kW	DT 15K CAPACITY
1 ÷ 6	NUMBER OF FANS



ZONDA-S H 80-1

ZONDA-S H 80-2

ZONDA-S H 80-3

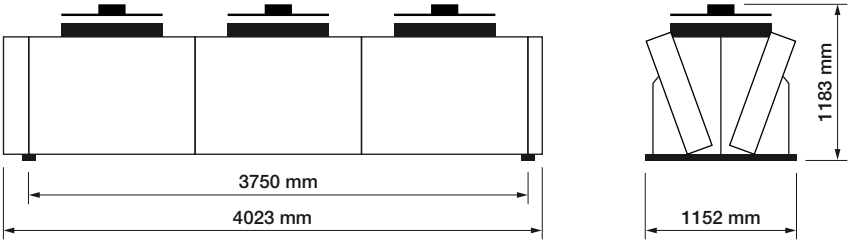
ZONDA-S H 80-4

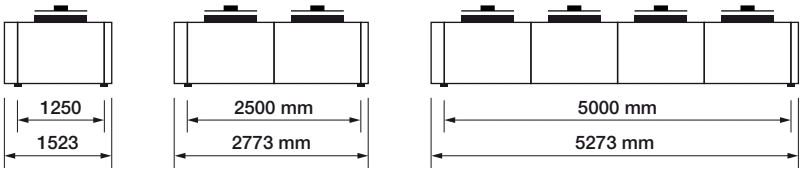
ZONDA-S H 80-5

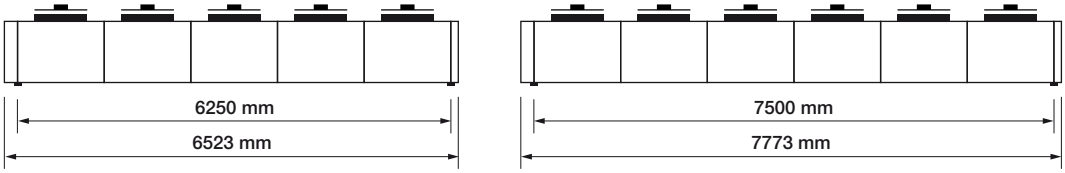
ZONDA-S H 80-6

DIMENSIONS

ZONDA-S H 80-1/2/3/4/5/6







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ZONDA-S H 80

V-type single-row condenser

3 PH 6 poles	CAPACITY	SURFACE	AIR FLOW	SOUND PRESSURE	N° FANS x DIAMETER	FANS DIAMETER	FAN SPEED	POWER	CURRENT	VOLUME	WEIGHT	Ø IN	Ø OUT
	kW	m²	m³/h	dB(A) @ 5m	Nr. x Ø mm	mm	Rpm	W	A	lt	kg	mm	mm
ZONDA-S H 80-1 A 2,1 V AC 06D	70,8	104,7	20300	46	1x1	800	880	1720	3,9	12,1	142	2x28	2x22
ZONDA-S H 80-1 B 2,1 V AC 06D	84,1	157,1	19250	46	1x1	800	880	1720	3,9	18,1	159	2x28	2x22
ZONDA-S H 80-1 C 2,1 V AC 06D	87,9	209,5	18350	46	1x1	800	880	1720	3,9	23,1	176	2x28	2x22
ZONDA-S H 80-2 A 2,1 V AC 06D	141,2	209,5	40550	49	1x2	800	880	3440	7,8	23,1	251	2x35	2x28
ZONDA-S H 80-2 B 2,1 V AC 06D	167,1	314,2	38500	49	1x2	800	880	3440	7,8	34,1	284	2x35	2x28
ZONDA-S H 80-2 C 2,1 V AC 06D	176,4	419	36700	49	1x2	800	880	3440	7,8	45,7	318	2x35	2x28
ZONDA-S H 80-3 A 2,1 V AC 06D	212,3	314,2	60850	51	1x3	800	880	5160	11,7	34,1	361	2x35	2x28
ZONDA-S H 80-3 B 2,1 V AC 06D	250,5	470,9	57750	51	1x3	800	880	5160	11,7	51,7	411	2x42	2x35
ZONDA-S H 80-3 C 2,1 V AC 06D	265	628,5	55100	51	1x3	800	880	5160	11,7	68,5	462	2x42	2x35
ZONDA-S H 80-4 A 2,1 V AC 06D	282,6	419	81150	52	1x4	800	880	6880	15,6	46,5	470	2x42	2x35
ZONDA-S H 80-4 B 2,1 V AC 06D	338,2	628,5	77000	52	1x4	800	880	6880	15,6	69,9	537	2x54	2x42
ZONDA-S H 80-4 C 2,1 V AC 06D	359	837,9	73450	52	1x4	800	880	6880	15,6	93,8	605	2x54	2x42
ZONDA-S H 80-5 A 2,1 V AC 06D	356,3	523,7	101400	53	1x5	800	880	8600	19,5	57,5	580	2x54	2x42
ZONDA-S H 80-5 B 2,1 V AC 06D	422,4	785,6	96250	53	1x5	800	880	8600	19,5	84,5	664	2x54	2x42
ZONDA-S H 80-5 C 2,1 V AC 06D	446,3	1047,4	91800	53	1x5	800	880	8600	19,5	115,8	749	2x54	2x42
ZONDA-S H 80-6 A 2,1 V AC 06D	425,4	628,5	121700	54	1x6	800	880	10320	23,4	68,5	688	2x54	2x42
ZONDA-S H 80-6 B 2,1 V AC 06D	502,8	942,7	115500	54	1x6	800	880	10320	23,4	101,5	790	2x64	2x54
ZONDA-S H 80-6 C 2,1 V AC 06D	530,5	1256,9	110150	54	1x6	800	880	10320	23,4	137,8	892	2x64	2x54

3 PH 8 poles	CAPACITY	SURFACE	AIR FLOW	SOUND PRESSURE	N° FANS x DIAMETER	FANS DIAMETER	FAN SPEED	POWER	CURRENT	VOLUME	WEIGHT	Ø IN	Ø OUT
	kW	m²	m³/h	dB(A) @ 5m	Nr. x Ø mm	mm	Rpm	W	A	lt	kg	mm	mm
ZONDA-S H 80-1 A 2,1 V AC 08D	60	104,7	14700	39	1x1	800	680	770	2,22	12,1	142	2x28	2x22
ZONDA-S H 80-1 B 2,1 V AC 08D	67	157,1	14000	39	1x1	800	680	770	2,22	18,1	159	2x28	2x22
ZONDA-S H 80-1 C 2,1 V AC 08D	67,3	209,5	13400	39	1x1	800	680	770	2,22	23,1	176	2x28	2x22
ZONDA-S H 80-2 A 2,1 V AC 08D	119,8	209,5	29450	42	1x2	800	680	1540	4,44	23,1	251	2x35	2x28
ZONDA-S H 80-2 B 2,1 V AC 08D	133,2	314,2	28000	42	1x2	800	680	1540	4,44	34,1	284	2x35	2x28
ZONDA-S H 80-2 C 2,1 V AC 08D	134,9	419	26750	42	1x2	800	680	1540	4,44	45,7	318	2x35	2x28
ZONDA-S H 80-3 A 2,1 V AC 08D	180	314,2	44150	44	1x3	800	680	2310	6,66	34,1	361	2x35	2x28
ZONDA-S H 80-3 B 2,1 V AC 08D	199,7	470,9	42050	44	1x3	800	680	2310	6,66	51,7	411	2x42	2x35
ZONDA-S H 80-3 C 2,1 V AC 08D	202,5	628,5	40150	44	1x3	800	680	2310	6,66	68,5	462	2x42	2x35
ZONDA-S H 80-4 A 2,1 V AC 08D	239,3	419	58850	45	1x4	800	680	3080	8,88	46,5	470	2x42	2x35
ZONDA-S H 80-4 B 2,1 V AC 08D	269,1	628,5	56050	45	1x4	800	680	3080	8,88	69,9	537	2x54	2x42
ZONDA-S H 80-4 C 2,1 V AC 08D	273,5	837,9	53500	45	1x4	800	680	3080	8,88	93,8	605	2x54	2x42
ZONDA-S H 80-5 A 2,1 V AC 08D	301,6	523,7	73550	46	1x5	800	680	3850	11,1	57,5	580	2x54	2x42
ZONDA-S H 80-5 B 2,1 V AC 08D	336	785,6	70050	46	1x5	800	680	3850	11,1	84,5	664	2x54	2x42
ZONDA-S H 80-5 C 2,1 V AC 08D	340,4	1047,4	66900	46	1x5	800	680	3850	11,1	115,8	749	2x54	2x42
ZONDA-S H 80-6 A 2,1 V AC 08D	360,6	628,5	88300	47	1x6	800	680	4620	13,32	68,5	688	2x54	2x42
ZONDA-S H 80-6 B 2,1 V AC 08D	400,6	942,7	84050	47	1x6	800	680	4620	13,32	101,5	790	2x64	2x54
ZONDA-S H 80-6 C 2,1 V AC 08D	405,4	1256,9	80250	47	1x6	800	680	4620	13,32	137,8	892	2x64	2x54

Capacity: R404A Tc=40°C Ts=65°C Ta=25°C

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stefani® SMART THINKING

Sintesis air-cooled chillers

Model RTAF 090 to 450
(300 to 1600 kW – 50 Hz)
Built for Industrial and Commercial Markets



SINTESIS

RLC-PRC046C-GB

Sound Power Levels

Table 19 – Sound power levels in accordance with ISO 9614 - 1996.

Unit RTAF	SE					HE		XE					HSE				
dB(A)(1)	SN	LN	LN+NNSB	XLN	XLN+NNSB	SN	LN	SN	LN	LN+NNSB	XLN	XLN+NNSB	SN	LN	LN+NNSB	XLN	XLN+NNSB
090	95	92	89	88	85	95	93	94	91	90	88	86	94	91	90	88	86
105	95	92	89	89	86	95	93	94	91	89	88	86	94	91	89	88	86
125	95	92	89	89	86	96	93	95	92	90	88	85	95	92	90	88	85
145	96	93	90	89	86	96	93	96	93	90	89	86	96	93	90	89	86
155	96	93	90	90	87	97	94	97	94	91	90	87	97	94	91	90	87
175	97	94	91	90	87	97	94	97	94	91	90	87	97	94	91	90	87
190	97	94	91	91	88	98	95	98	95	92	91	88	98	95	92	91	88
205	97	94	91	91	88	98	95	98	95	92	91	88	98	95	92	91	88

Table 20 – Sound pressure levels at 10m

Unit RTAF	SE					HE		XE					HSE				
dB(A)(2)	SN	LN	LN+NNSB	XLN	XLN+NNSB	SN	LN	SN	LN	LN+NNSB	XLN	XLN+NNSB	SN	LN	LN+NNSB	XLN	XLN+NNSB
090	62	59	56	55	52	62	60	61	58	57	55	53	61	58	57	55	53
105	62	59	56	56	53	62	60	61	58	56	55	53	61	58	56	55	53
125	62	59	56	56	53	63	60	62	59	57	55	52	62	59	57	55	52
145	63	60	57	56	53	63	60	63	60	57	56	53	63	60	57	56	53
155	63	60	57	57	54	64	61	64	61	58	57	54	64	61	58	57	54
175	64	61	58	57	54	64	61	64	61	58	57	54	64	61	58	57	54
190	64	61	58	58	55	65	62	65	62	59	58	55	65	62	59	58	55
205	64	61	58	58	55	65	62	65	62	59	58	55	65	62	59	58	55

Notes:

At Eurovent conditions: 12/7°C entering/leaving water temperature and 35°C ambient temperature

(1) Value at full load with 1pW Reference Sound Power, according to ISO9614

(2) Average at 10 meters in a free field. This is a non-contractual data, calculated from the above certified sound power level according to the formula Lp=Lw-10logS. This is an averaged value considering the unit as a paralelopedic box with five exposed face areas.

Table 21 – Sound Power Levels in accordance with ISO 9614-1996

Unit RTAF	SE					HE		XE					HSS					HSE				
dB(A)	SN	LN	LN+NNSB	XLN	XLN+NNSB	SN	LN	SN	LN	LN+NNSB	XLN	XLN+NNSB	SN	LN	LN+NNSB	XLN	XLN+NNSB	SN	LN	LN+NNSB	XLN	XLN+NNSB
250	99	96	94	93	91	99	96	99	96	94	93	91	99	97	95	93	91	99	97	95	93	91
280	100	97	95	94	92	100	97	100	97	95	94	92	100	98	96	94	92	100	98	96	94	92
310	101	98	96	94	92	101	98	101	98	96	95	93	101	99	97	95	93	101	99	97	95	93
350	101	98	96	94	92	101	98	101	98	96	95	93	101	99	97	95	93	101	99	97	95	93
380	101	98	96	95	93	102	98	102	98	96	95	93	102	99	97	95	93	102	99	97	95	93
410	102	99	97	95	93	102	99	102	99	97	95	93	102	100	98	95	93	102	100	98	95	93
450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107	105	103	103	101

Table 22 – Sound Pressure Levels at 10 m

Unit RTAF	SE					HE		XE					HSS					HSE				
dB(A)	SN	LN	LN+NNSB	XLN	XLN+NNSB	SN	LN	SN	LN	LN+NNSB	XLN	XLN+NNSB	SN	LN	LN+NNSB	XLN	XLN+NNSB	SN	LN	LN+NNSB	XLN	XLN+NNSB
250	66	63	61	60	58	66	63	66	63	61	60	58	66	64	62	60	58	66	64	62	60	58
280	67	64	62	61	59	67	64	67	64	62	61	59	67	65	63	61	59	67	65	63	61	59
310	68	65	63	61	59	68	65	68	65	63	62	60	68	66	64	62	60	68	66	64	62	60
350	68	65	63	61	59	68	65	68	65	63	62	60	68	66	64	62	60	68	66	64	62	60
380	68	65	63	62	60	69	65	69	65	63	62	60	69	66	64	62	60	69	66	64	62	60
410	69	66	64	62	60	69	66	69	66	64	62	60	69	67	65	62	60	69	67	65	62	60
450	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	74	72	70	70	68

Notes:

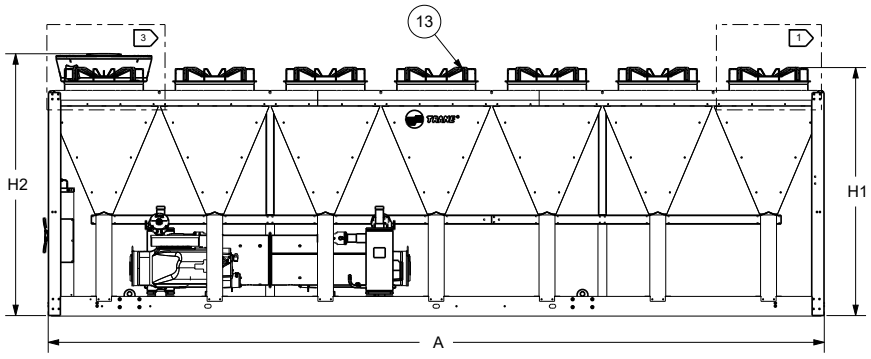
At Eurovent conditions: 12/7°C entering/leaving water temperature and 35°C ambient temperature

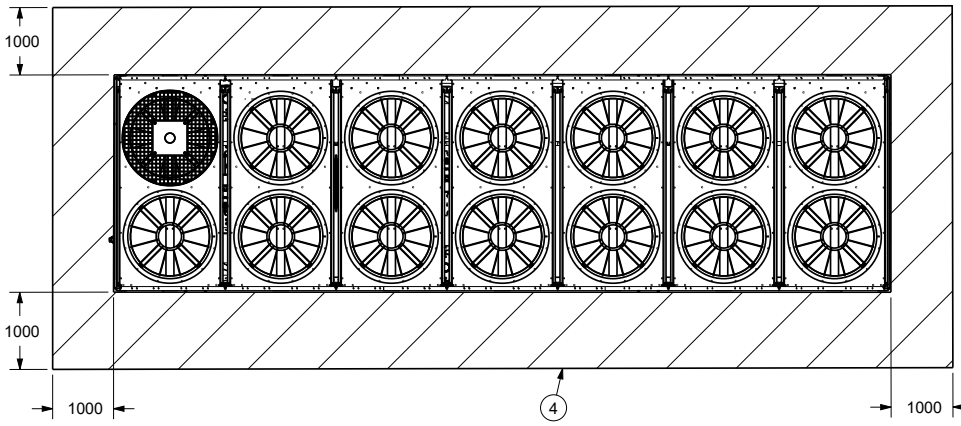
(1) Value at full load with 1pW Reference Sound Power, according to ISO9614

(2) Average at 10 meters in a free field. This is a non-contractual data, calculated from the above certified sound power level according to the formula Lp=Lw-10logS. This is an averaged value considering the unit as a paralelopedic box with five exposed face areas.

Dimensional Data

Dimensions RTAF models SE / HE / XE



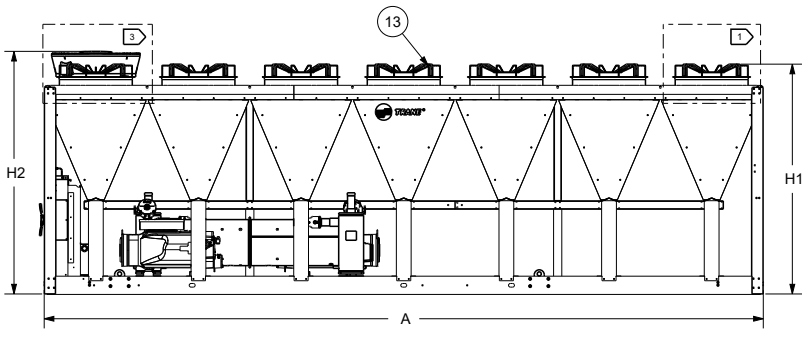


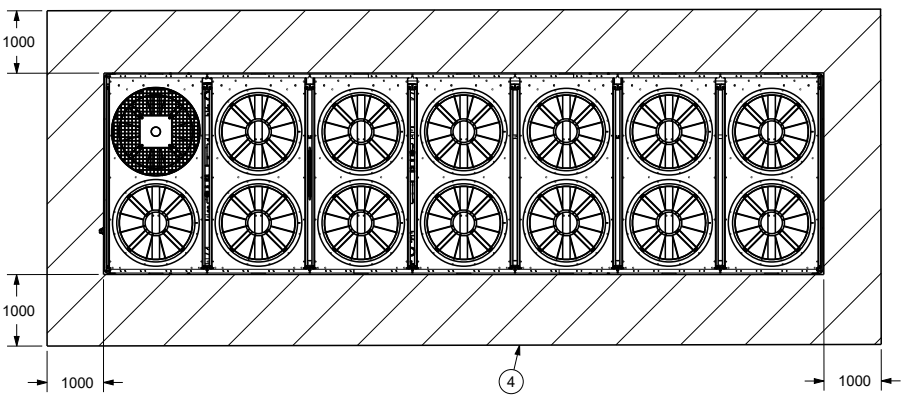
H1 = STD_LN
H2 = XLN

		A	H1	H2
090-105-125	SE	4520	2526	2672
	HE_XE	5645		
145-155-175	SE	5645		
	HE_XE	6770		
190-205	SE	6770		
	HE_XE	7895		

		13
090_105_125	SE	8
	HE_XE	10
145_155_175	SE	10
	HE_XE	12
190_205	SE	12
	HE_XE	14

Dimensions RTAF model HSE





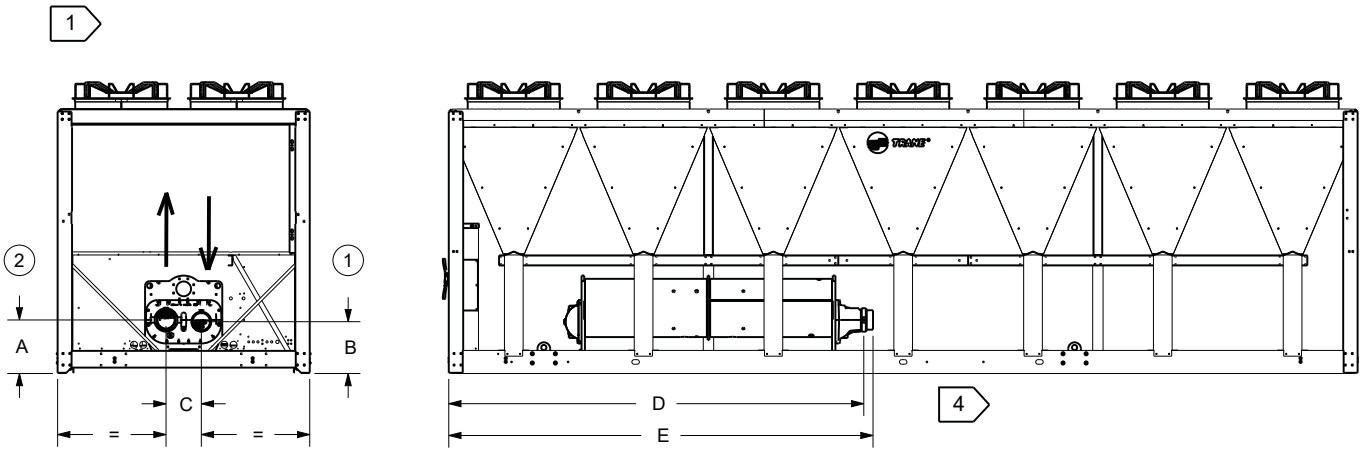
H1 = STD_LN
H2 = XLN

	A	H1	H2
090-105-125	5645	2526	2672
145-155-175	6770		
190-205	7895		

	13
090-105-125	10
145-155-175	12
190-205	14

Dimensional Data

RTAF 090-205 units without hydraulic module



	∅ VICTAULIC ®	A	B	C	D	4 E
090-105	4"_114.3 mm	459	449	260	3565	3625
125-145-155	5"_139.7 mm	501	491	275	3570	3630
175-190	6"_168.3 mm	464	449	306	3595	3675
205	6"_168.3 mm	464	449	306	3595	3675

Numbers in circles

1 = Evaporator water inlet connection
2 = Evaporator water outlet connection
3 = Electrical panel
4 = Minimum clearance (air entering and maintenance)
5 = Power cable gland plate for customer wiring
6 = External control wiring cable gland plate
7 = Power disconnect switch
8 = Display module
9 = Main processor module
10 = Hydraulic module
11 = Isolators
12 = Operating weight (kg)
13 = Number of fans

Numbers in arrows

1 = SN_LN unit
2 = Unit with hydraulic module
3 = Option XLN
4 = Grooved pipe (option)

New Acute Hospital at Kai Tak Development Area

Preliminary Environmental Review (Final)

December 2020

Submitted to

Wong Tung & Partners Limited

Hospital Authority

Prepared By

Meinhardt Infrastructure and Environment Ltd

Determination of Maximum Allowable SWLs

4.7.1.5 A summary of determined maximum permissible SWLs for the roofs and facades are presented in **Table 4.13**. Detail calculations are provided in **Appendix 4.5**.

Table 4.13 Summary of Maximum Permissible SWL of Fixed Noise Source

Fixed Noise Source		Max. Permissible SWL, dB(A)	
ID	Description[1]	Daytime & Evening	Night-time
FNS-A1	NAH Block A – East Façade	81	76
FNS-A2	NAH Block A – South Façade	81	76
FNS-A3	NAH Block A – West Façade	98	90
FNS-A4	NAH Block A – North Façade	85	80
FNS-A5	NAH Block A – Roof	81	76
FNS-B1	NAH Block B – East Façade	95	90
FNS-B2	NAH Block B – South Façade	95	90
FNS-B3	NAH Block B – West Façade	98	90
FNS-B4	NAH Block B – North Façade	95	90
FNS-B5	NAH Block B – Roof	95	90
FNS-C1	NAH Block C – East Façade	98	90
FNS-C2	NAH Block C – South Façade	98	90
FNS-C3	NAH Block C – West Façade	98	90
FNS-C4	NAH Block C – North Façade	99	95
FNS-C5	NAH Block C – Roof	98	90
FNS-D1	NAH Block D – East Façade	95	86
FNS-D2	NAH Block D – South Façade	95	86
FNS-D3	NAH Block D – West Façade	95	86
FNS-D4	NAH Block D – North Façade	99	94
FNS-D5	NAH Block D – Roof	95	86
FNS-E1	NAH Block E – East Façade	95	86
FNS-E2	NAH Block E – South Façade	95	86
FNS-E3	NAH Block E – West Façade	95	86
FNS-E4	NAH Block E – North Façade	102	97
FNS-E5	NAH Block E – Roof	95	86

Note:
[1] Blocks A, B & C represent the Acute Block, the Administration Block and the Education Block in Site A (including Site A Extension) respectively. Blocks D & E represent the Oncology Block and the Specialist Out-Patient Clinic Block in Site B respectively.

4.7.1.6 The above maximum permissible SWLs during daytime and evening period and night-time period for all fixed noise sources on the roofs and facades should be followed in order to avoid adverse fixed plant noise impact on the surrounding NSRs. As the layout and M&E design of the NAH is yet to be finalised at the stage, the maximum permissible SWLs may be subject to change.

4.7.1.7 To allow flexibility of adopting a higher SWL of the outdoor M&E equipment, the following noise mitigation measures would be considered:

- Erection of acoustic barriers, partial enclosures or full enclosures for the M&E equipment;
- Installation of acoustic louvers and silencers for ventilation system; and
- Reducing number of equipment operating in night-time period.

4.7.1.8 With the provision of the noise control measures, it is anticipated that operational noise impact upon the nearby NSR will comply with the noise criteria.

4.7.1.9 Nevertheless, the actual noise impact from the fixed noise sources shall be subject to the selected model, brand of the equipment, positioning and location of outdoor plants and

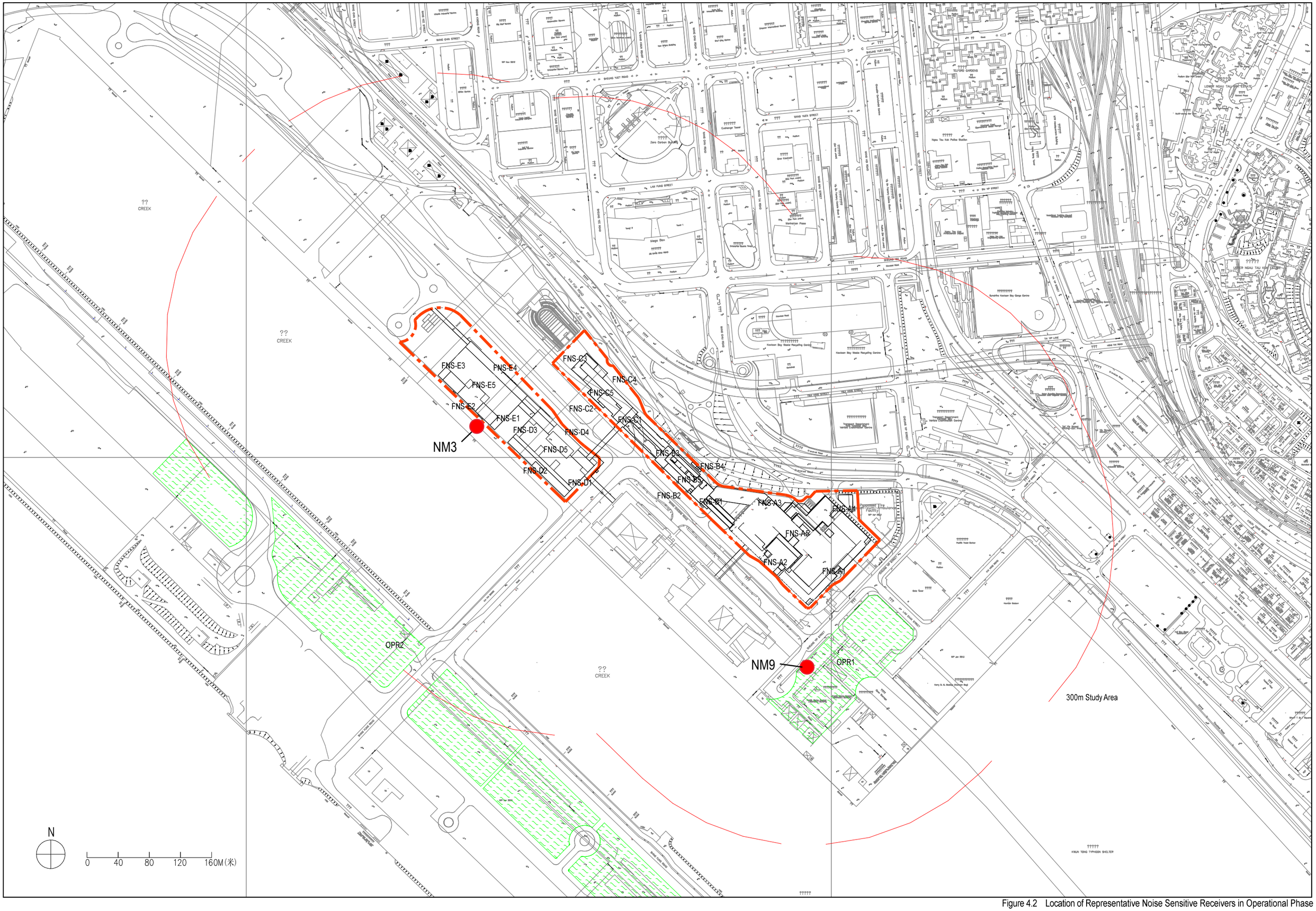


Figure 4.2 Location of Representative Noise Sensitive Receivers in Operational Phase

Appendix 3.2 Reference Equipment Catalogue

菱和
RYOWO™

FRP

CROSS FLOW FC SERIES

COOLING TOWER



SPECIFICATION

ITEM	MODER			ONE CELL							TWO CELLS					THREE CELLS			FOUR CELLS		
				FC-100	FC-125	FC-150	FC-175	FC-200	FC-225	FC-250	FC-300	FC-350	FC-400	FC-450	FC-500	FC-600	FC-675	FC-750	FC-800	FC-900	FC-1000
CAPACITY	27°C WB	circulating water flow rate	m³/hr	78.0	97.5	117.0	136.5	156.0	175.5	195.0	234.0	273.0	312.0	351.0	390.0	468.0	526.5	585.0	624.0	702.0	780.0
		make-up water(approx.)	m³/hr	1.1	1.4	1.7	2.0	2.2	2.5	2.8	3.3	3.9	4.5	5.0	5.6	6.7	7.5	8.4	8.9	10.0	11.2
	28°C WB	circulating water flow rate	m³/hr	70	88	105	123	140	158	175	210	245	280	315	350	420	473	525	560	630	700
		make-up water(approx.)	m³/hr	1.0	1.3	1.5	1.8	2.0	2.3	2.5	3.0	3.5	4.0	4.5	5.0	6.0	6.8	7.5	8.0	9.0	10.0
	Air flow rate(Approx.)		m³/min	630	800	960	1135	1285	1460	1660	1920	2270	2570	2920	3320	3855	4380	4950	5140	5840	6640
	Hot water temperature		°C	37																	
	Cold water temperature		°C	32																	
OVERALL DIMENSION	Width		mm	1650		2000		2300		2600	4000		4600		5200	6900		7800	9200		10400
	Length		mm	3650		4000		4300		4400	4000		4300		4400	4300		4400	4300		4400
	Height		mm	3400																	
MATERIAL	Casing			FRP																	
	Steel structure			Steel (hot-dip galvanized)																	
	Filler			PVC																	
	Distribution tray			FRP																	
	Cold water basin			FRP																	
	Sump tank			FRP																	
	Fan			Blade : FRP , Hub : Aluminum Cast alloy																	
	Fan stack			FRP																	
FAN ASSEMBLY	Fan	TYPE		Axial-flow																	
		Diameter X Nos.	∅ mm	1400 x 1		1600 x 1		1800 X1		2000 x 1	1600 x 2		1800 X1		2000 x 2	1800 X3		2000 x 3	1800 X4		2000 x 4
		Number of blades		4																	
		Fan speed(Approx.)	rpm	470	540	375	420	420	335	370	375	420	420	335	370	420	335	370	420	335	370
		Drive system		V-belt drive																	
	Motor	TYPE		Totally enclosed fan cooled outdoor 3 phase induction motor 4 poles																	
		Power source		380V / 3 / 50Hz																	
		Rated output	Kw	2.2 x 1		3.7 x 1		5.5 x 1		7.5 x 1	3.7 x 2		5.5 x 2		7.5 x 2	5.5 x 3		7.5 x 3	5.5 x 4		7.5 x 4
		Quantity		1							2					3			4		
DISTRIBUTION SYSTEM				Open gravity + redistribution layer																	
PIPING DIMENSION	Hot water inlet pipe		mm	∅100 x 2				∅125 x 2			∅100 x 4		∅125 x 4			∅125 x 6			∅125 x 8		
	Cold water outlet pipe		mm	∅125 x 1		∅150 x 1			∅200 x 1			∅250 x 1				∅200 x 2			∅250 x 2		
	Drain pipe		mm	∅50 x 1		∅50 x 1			∅50 x 1							∅50 x 2					
	Overflow pipe		mm	∅50 x 1		∅50 x 1			∅80 x 1							∅80 x 2					
	Float valve		mm	∅25 x 1				∅40 x 1				∅40 x 1				∅40 x 2			∅40 x 2		
	Manual make-up		mm	∅25 x 1				∅40 x 1				∅40 x 1				∅40 x 2			∅40 x 2		
MAKE-UP	Evaporation loss(Approx.)		%	Approx 0.83																	
	Drift loss		%	Less than 0.005																	
WEIGHT	Net weight		kg	970	985	1160	1205	1345	1390	1450	2270	2360	2640	2730	2850	3985	4120	4300	5280	5460	5700
	Operating weight		kg	2475	2490	2975	3020	3450	3750	3810	5455	5545	6400	7000	7120	9850	10755	10935	12800	14005	14245
NOISE LEVEL	Measuring point D=1.13$\sqrt{LxW}$		dBA	64	65	65	66	66	66	67	67	68	68	69	70	70	71	71	72	73	73

ITEM	MODER			ONE CELL					TWO CELLS						THREE CELLS				FOUR CELLS				FIVE CELLS	
				FC/LN-100	FC/LN-125	FC/LN-150	FC/LN-175	FC/LN-200	FC/LN-250	FC/LN-300	FC/LN-350	FC/LN-400	FC/LN-450	FC/LN-500	FC/LN-600	FC/LN-700	FC/LN-800	FC/LN-900	FC/LN-1000
CAPACITY	27°C WB	circulating water flow rate	m³/hr	78.0	97.5	117.0	136.5	156.0	195.0	234.0	273.0	312.0	351.0	390.0	468.0	546.0	624.0	702.0	780.0
		make-up water(approx.)	m³/hr	1.1	1.4	1.7	2.0	2.2	2.8	3.3	3.9	4.5	5.0	5.6	6.7	7.8	8.9	10.0	11.2
	28°C WB	circulating water flow rate	m³/hr	70	88	105	123	140	175	210	245	280	315	350	420	490	560	630	700
		make-up water(approx.)	m³/hr	1.0	1.3	1.5	1.8	2.0	2.5	3.0	3.5	4.0	4.5	5.0	6.0	7.0	8.0	9.0	10.0
	Air flow rate(Approx.)		m³/min	530	680	830	980	1100	1360	1660	1960	2200	2490	2940	3300	3920	4400	4900	5500
	Hot water temperature		°C	37															
	Cold water temperature		°C	32															
OVERALL DIMENSION	Width		mm	2000		2300		2600	4000		4600	5200	6900		7800	9200	10400	11500	13000
	Length		mm	4000		4300		4400	4000		4300	4400	4300		4400	4300	4400	4300	4400
	Height		mm	3700															
MATERIAL	Casing			FRP															
	Steel structure			Steel (hot-dip galvanized)															
	Filler			PVC															
	Distribution tray			FRP															
	Cold water basin			FRP															
	Sump tank			FRP															
	Fan			Blade : FRP , Hub : Aluminum Cast alloy															
	Fan stack			FRP															
FAN ASSEMBLY	Fan	TYPE		Axial-flow															
		Diameter X Nos.	∅ mm	1600 x 1		1800 x 1		2000 x 1	1600 x 2		1800 x 2	2000 x 2	1800 x 3		2000 x 3	1800 x 4	2000 x 4	1800 x 5	2000 x 5
		Number of blades		4															
		Fan speed(Approx.)	rpm	270	340	300	360	310	340	300	360	310	300	360	310	360	310	360	310
		Drive system		V-belt drive															
	Motor	TYPE		Totally enclosed fan cooled outdoor 3 phase induction motor 4 poles															
		Power source		380V / 3 / 50Hz															
		Rated output	Kw	1.5 x 1		2.2 x 1		3.7 x 1	2.2 x 2		3.7 x 2		2.2 x 3		3.7 x 3	3.7 x 4		3.7 x 5	
		Quantity		1					2				3			4		5	
DISTRIBUTION SYSTEM				Open gravity + redistribution layer															
PIPING DIMENSION	Hot water inlet pipe		mm	∅100 x 2				∅125 x 2	∅100 x 4			∅125 x 4	∅100 x 6	∅125 x 6		∅100 x 8	∅125 x 8		∅125 x 10
	Cold water outlet pipe		mm	∅125 x 1		∅150 x 1			∅200 x 1			∅250 x 1		∅200 x 2			∅250 x 2		∅200 x 3
	Drain pipe		mm	∅50 x 1		∅50 x 1			∅50 x 1				∅50 x 2						
	Overflow pipe		mm	∅50 x 1		∅50 x 1			∅80 x 1				∅80 x 2						
	Float valve		mm	∅25 x 1					∅40 x 1				∅40 x 2					∅ 40 x 2	
	Manual make-up		mm	∅25 x 1					∅40 x 1				∅40 x 2					∅ 40 x 2	
MAKE-UP	Evaporation loss(Approx.)		%	Approx 0.83															
	Drift loss		%	Less than 0.005															
WEIGHT	Net weight		kg	1080	1120	1240	1260	1530	2230	2450	2470	2880	3700	3800	4550	5000	6050	6100	7550
	Operating weight		kg	2250	2340	2640	2730	3170	4340	4920	5090	5910	7560	7820	9080	10180	11820	12910	14990
NOISE LEVEL	Measuring point D=1.13$\sqrt{LxW}$		dBA	60	61	62	63	64	65	65	66	66	67	68	68	69	70	71	71

Note: Nominal cooling capacity is based on 131 / min/ RT(1RT=3,900 Kcal /hr) at 37 °C hot water in, 32°C cold water out 27°C ambient wet bulb. The SPLs are measured 1.13$\sqrt{WxL}$ horizontally away from air intake side of the tower at 1.5m above the foundation level. Pump head of the cooling tower is approximate equal to the height of tower(H). Dimension shown in this catalogue is metric sized and specifications are subject to change without further notice for technical improvement of our products.

GUARANTEE:

All components are guaranteed against defective material for a period of one(1) year. When return to RYOWO with transportation prepaid, all parts found by factory inspection to be defective will be repaired or replaced without charge, FOB Hong Kong or FOB ShenZhen, PRC. No liability will be assumed for loss or damage resulting form misuse of our products.

菱和
ryowo™





RYOWO COOLING TOWER

FWS SERIES

Low Noise Cross Flow Type



CTI CERTIFIED

bsi. ANAB ACCREDITED

ISO 9001 : 2008 FM 601004

3 SPECIFICATION

Model	Nominal Water Flow M^3/hr	Dimension L mm	W mm	h mm	H mm	Fan Power kW	Fan Dia mm	Piping In mm	Out mm	Fv mm	Of mm	Dr mm	Sound Power Level	Weight Dry kgs	Wet kgs
FWS-94-3.7	94	4000	2000	4125	4625	3.7	1600	100x2	150	25	50	50	88	1335	2300
FWS-94-5.5	107				4705	5.5							91	1385	2350
FWS-94-7.5	119				4745	7.5							93	1400	2365
FWS-127-5.5	127	4400	2300	4125	4705	5.5	1800	100x2	150	25	50	50	90	1570	3000
FWS-127-7.5	141				4745	7.5							92	1585	3015
FWS-127-11	160				4825	11							94	1650	3080
FWS-169-7.5	169	4400	2600	4125	4745	7.5	2000	125x2	200	25	50	50	92	1690	3700
FWS-169-11	192				4825	11							94	1760	3770
FWS-169-15	213				4870	15							95	1770	3780
FWS-200-7.5	190	4600	2600	4145	4785	7.5	2400	125x2	200	40	80	50	91	2195	4000
FWS-200-11	215				4865	11							93	2250	4055
FWS-200-15	235				4910	15							95	2255	4060
FWS-250-7.5	210	4800	3200	4345	4985	7.5	2400	125x2	200	40	80	50	90	2890	5000
FWS-250-11	240				5065	11							93	2945	5055
FWS-250-15	265				5110	15							94	2950	5060
FWS-275-7.5	225	5200	3200	4145	4785	7.5	2900	150x2	200	40	80	50	89	3050	5160
FWS-275-11	255				4865	11							92	3105	5215
FWS-275-15	285				5910	15							94	3110	5220
FWS-300-7.5	235	6000	3200	4345	4895	7.5	2400	150x2	200	40	80	50	89	3310	6500
FWS-300-11	270				5065	11							91	3365	6555
FWS-300-15	300				5110	15							93	3370	6560
FWS-300-18.5	320				5175	18.5							94	3410	6600
FWS-300-22	340				5215	22							95	3470	6660
FWS-330-7.5	260	6300	3200	4145	4785	7.5	2900	150x2	250	50	80	50	88	3405	6595
FWS-330-11	300				4865	11							91	3460	6650
FWS-330-15	330				4910	15							93	3465	6655
FWS-330-18.5	350				5175	18.5							94	3505	6695
FWS-330-22	375				5215	22							95	3565	6755
FWS-350-7.5	275	5400	3600	5425	6065	7.5	3000	150x2	250	50	80	50	89	3580	6770
FWS-350-11	315				6145	11							91	3635	6825
FWS-350-15	350				6190	15							93	3640	6830
FWS-350-18.5	375				6255	18.5							94	3680	6870
FWS-350-22	400				6295	22							95	3740	6930
FWS-400-7.5	285	6600	3600	4345	4985	7.5	3000	125x4	250	50	80	50	87	3630	7000
FWS-400-11	325				5065	11							89	3685	7055
FWS-400-15	360				5110	15							91	3690	7060
FWS-400-18.5	385				5135	18.5							92	3730	7100
FWS-400-22	410				5195	22							93	3790	7160
FWS-400-30	450				5255	30							94	3820	7185
FWS-500-7.5	305	6000	4200	5355	5990	7.5	3400	125x4	250	50	80	50	87	4230	8000
FWS-500-11	345				6070	11							90	4285	8055
FWS-500-15	385				6115	15							91	4290	8060
FWS-500-18.5	410				6180	18.5							93	4325	8100
FWS-500-22	435				6220	22							94	4390	8120
FWS-500-30	485				6280	30							95	4415	8145
FWS-550-7.5	315	6600	3600	5355	5990	7.5	3000	125x4	250	50	80	50	87	4350	8080
FWS-550-11	360				6070	11							89	4405	8135
FWS-550-15	400				6115	15							91	4410	8140
FWS-550-18.5	430				6180	18.5							92	4450	8180
FWS-550-22	455				6220	22							94	4510	8240
FWS-550-30	500				6280	30							95	4535	8275
FWS-600-11	435	7000	4200	5500	6255	11	3700	150x4	300	50	80	50	89	5015	9000
FWS-600-15	485				6300	15							91	5020	9005
FWS-600-18.5	520				6365	18.5							92	5060	9045
FWS-600-22	550				6405	22							94	5120	9085
FWS-600-30	610				6465	30							95	5140	9110
FWS-600-37	650				6485	37							96	5330	9300
FWS-700-11	515	7000	5000	5500	6255	11	3700	150x4	300	50	80	50	89	5650	12000
FWS-700-15	570				6300	15							91	5655	12005
FWS-700-18.5	610				6365	18.5							92	5690	12055
FWS-700-22	645				6405	22							93	5755	12120
FWS-700-30	720				6465	30							95	5780	12145
FWS-700-37	765				6485	37							96	5970	12335
FWS-800-11	555	7500	5000	6400	7155	11	4200	150x4	300	50	80	50	88	6905	14880
FWS-800-15	615				7200	15							90	6910	14885
FWS-800-18.5	655				7265	18.5							91	6945	14920
FWS-800-22	695				7305	22							93	7010	14985
FWS-800-30	760				7365	30							95	7035	15010
FWS-800-37	820				7385	37	4200	150x4	350	50	80	50	98	7225	15200
FWS-800-45	880				7405	45							99	7255	15230
FWS-800-55	940				7495	55							100	7365	15340

Notes:

1/CTI Certification applies to the operation with the Wet Bulb Temp. between 12.8°C and 32.2°C, Max. Entering Water Temp. 51.7°C, Min. Range of 2.2°C and Min. Approach of 2.8°C.

2/The nominal water flows are based upon 37°C HWT, 32°C CWT, 28°C WBT, 32°C DBT and 101.3 kPa Barometric pressure.

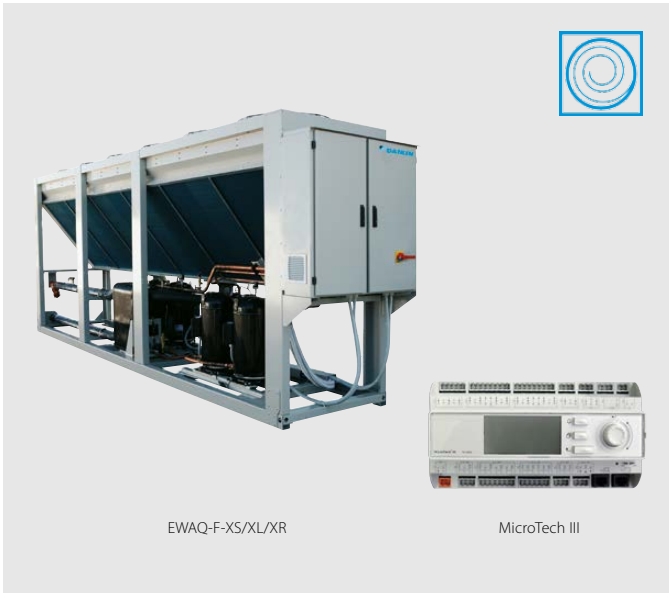
3/Sound Power Level is in dBA re 10^{-12} Watt.

4/Data and specifications are subjected to change without prior notice.

Air cooled multi-scroll chiller

High efficiency

Reduced sound



EWAQ-F-XS/XL/XR MicroTech III

Cooling only				EWAQ-F-XR	170	190	210	240	300	310	330	340	390	410	430	500	580	650
Cooling capacity	Nom.			kW	165	188	211	236	304		340		385	407	433	502	579	645
Power input	Cooling	Nom.		kW	53.0	61.2	68.7	77.3	101		117		128	136	146	170	200	219
Capacity control	Method				Step													
	Minimum capacity			%	25.0	21.0	25.0	22.0	23.0		25.0		21.0	20.0	25.0	17.0	14.0	17.0
EER					3.12	3.07	3.08	3.05	3.00		2.92		3.01	2.99	2.96		2.90	2.95
ESEER					4.53	4.64	4.51	4.60	4.53	4.68	4.44	4.63	4.68	4.64	4.54	4.82	4.69	4.65
Dimensions	Unit	Height		mm	2,271					2,221	2,271				2,221			
		Width		mm	1,224					2,258	1,224				2,258			
		Depth		mm	4,413		5,313		6,213	3,210	6,213	3,210	4,110			5,010		5,910
Weight	Unit			kg	2,004	2,303	2,580	2,722	2,900	3,000	3,045	3,145	3,168	3,280	3,298	4,120	4,228	4,655
	Operation weight			kg	2,017	2,317	2,594	2,736	2,914	3,014	3,085	3,185	3,208	3,326	3,344	4,166	4,288	4,716
Water heat exchanger	Type				Plate heat exchanger													
	Water volume			l	12			14			40			46			60	
	Water flow rate	Cooling	Nom.	l/s	7.9	9.0	10.1	11.3	14.5		16.3		18.4	19.5	20.7	24.0	27.7	30.9
	Water pressure drop	Cooling	Nom.	kPa	24	25	31	39	21				28	26	27	38	40	51
Air heat exchanger	Type				High efficiency fin and tube type with integral subcooler													
Compressor	Type				Scroll compressor													
	Quantity				4											6		
Fan	Type				Direct propeller													
	Quantity				4		5		6				8			10		12
	Air flow rate	Nom.		l/s	16,743	16,285	20,618	19,522	24,428		23,426		32,570	31,235		39,044		46,852
	Speed			rpm	705													
Sound power level	Cooling	Nom.		dBA	83	84	85	86	87				89		90	89	90	92
Sound pressure level	Cooling	Nom.		dBA	64	65	66	67	68	67	68		69	70		69	70	71
Operation range	Water side	Cooling	Min.~Max.	°CDB	-13~18													
	Air side	Cooling	Min.~Max.	°CDB	-18~52													
Refrigerant	Type / GWP				R-410A / 2,087.5													
	Circuits	Quantity			2													
Refrigerant charge	Per circuit			kg/TCO_2Eq	14.0 / 29.2	15.5 / 32.4	16.5 / 34.4	20.0 / 41.8	24.0 / 50.1	26.0 / 54.3			31.0 / 64.7			35.0 / 73.1	36.0 / 75.2	41.5 / 86.6
Piping connections	Evaporator water inlet/outlet (OD)				3"													
Unit	Maximum starting current			A	276	332	346	401	472		501		618	632	646	628	754	801
	Nominal running current (RLA)	Cooling		A	107	116	125	139	180		204		226	239	255	300	347	380
	Maximum running current			A	132	143	157	173	220		249		283	296	310	377	419	465
Power supply	Phase/Frequency/Voltage			Hz/V	3~/50/400													

Appendix 3.3 Letters of Request Information of the Fixed Noise Source to Operator / Owner

Ref.: CHPHBSHQEI00_0_0014L.25

By Post

6 August 2025

Management Office
Capital Tower,
38 Wai Yip Street, Kowloon Bay,
Kwun Tong, Kowloon, Hong Kong

Dear Sir / Madam,

Request of Information for Fixed Noise Sources at Capital Tower

We are the environmental consultant employed by the project proponent for conducting an Environmental Assessment for the Proposed Development on 8 Lam Chak Street, Kowloon Bay. The location plan of the Proposed Development with 300m noise impact assessment area is attached for your reference.

For the purpose of Environmental Assessment, we would like to have some enquires regarding the fixed noise sources (e.g. Chillers, water-cooling towers or varied refrigerant volume system (VRV)) at Capital Tower. We would be grateful if you could provide following information for the purpose of Environmental Assessment:

- Inventory of equipment (e.g. Chillers, Cooling Towers, VRVs);
  The operation parameters of equipment:
  - Quantity (e.g. 4 nos + 2 nos standby)
  - Locations (layout / room layout plan)
  - Particulars (e.g. catalogue, brand and model, power rating, sound emission data as available)
  - Operation hours (e.g. 0800 to 2200 hours)
  - Acoustic / sound insulation measures adopted (e.g. noise enclosure, silencer, etc.)

In addition, it would be grateful if we could have your permission in carrying our on-site noise measurement at the rooftop of the building. Due to the tight programme of this project, your prompt response on or before **13 August 2025** would be very much appreciated.

Should you have any queries, please do not hesitate to contact the undersigned at 3465 2811 (email: cchiu@ramboll.com) or our Ms. Grace Wong at 3465 2868 (email: gkfwong@ramboll.com). We sincerely seek your feedback on this matter. Thank you in advance for any assistance you can provide.

Yours faithfully,
For and on behalf of
Ramboll Hong Kong Limited

Calvin Chiu
Technical Director
Encl. Plan of 300m Assessment Area and Application Site

Q:\Projects\CHPHBSHQEI00\02 Project Management\02 Corr\CHPHBSHQEI00_0_0014L.25.docx

Ramboll Hong Kong Limited 英環香港有限公司
21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.ramboll.com

Ref.: CHPHBSHQEI00_0_0015E.25

By Post

6 August 2025

Management Office
One Bay East
83, Hoi Bun Road, Kwun Tong
Kowloon, Hong Kong

Dear Sir / Madam,

Request of Information for Fixed Noise Sources at One Bay East

We are the environmental consultant employed by the project proponent for conducting an Environmental Assessment for the Proposed Development on 8 Lam Chak Street, Kowloon Bay. The location plan of the Proposed Development with 300m noise impact assessment area is attached for your reference.

For the purpose of Environmental Assessment, we would like to have some enquires regarding the fixed noise sources (e.g. Chillers, water-cooling towers or varied refrigerant volume system (VRV)) at One Bay East. We would be grateful if you could provide following information for the purpose of Environmental Assessment:

- Inventory of equipment (e.g. Chillers, Cooling Towers, VRVs);
  The operation parameters of equipment:
  - Quantity (e.g. 4 nos + 2 nos standby)
  - Locations (layout / room layout plan)
  - Particulars (e.g. catalogue, brand and model, power rating, sound emission data as available)
  - Operation hours (e.g. 0800 to 2200 hours)
  - Acoustic / sound insulation measures adopted (e.g. noise enclosure, silencer, etc.)

In addition, it would be grateful if we could have your permission in carrying our on-site noise measurement at the rooftop of the building. Due to the tight programme of this project, your prompt response on or before **13 August 2025** would be very much appreciated.

Should you have any queries, please do not hesitate to contact the undersigned at 3465 2811 (email: cchiu@ramboll.com) and our Ms. Grace Wong at 3465 2868 (email: gkfwong@ramboll.com).

Yours faithfully,
For and on behalf of
Ramboll Hong Kong Limited



Calvin Chiu
Technical Director
Encl. Plan of 300m Assessment Area and Application Site

Ramboll Hong Kong Limited 英環香港有限公司
21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.ramboll.com

Grace KF Wong

From: Grace KF Wong
Sent: Wednesday, August 6, 2025 2:49 PM
To: kat_fstn@hkfsd.gov.hk
Cc: Calvin Chiu
Subject: Request of Information for Fixed Noise Sources at Kai Tak Fire Station
Attachments: Location Plan_300m.pdf; Appointment letter.pdf

Dear Sir / Madam,

We are the environmental consultant employed by the project proponent for conducting an Environmental Assessment for the Proposed Development on 8 Lam Chak Street, Kowloon Bay. The location plan of the Proposed Development with 300m noise impact assessment area is attached for your reference.

For the purpose of Environmental Assessment, we would like to have some enquires regarding the fixed noise sources (e.g. Chillers, water-cooling towers or varied refrigerant volume system (VRV)) at Kai Tak Fire Station. We would be grateful if you could provide following information for the purpose of Environmental Assessment:

- Inventory of equipment (e.g. Chillers, Cooling Towers, VRVs);
  The operation parameters of equipment:
  - Quantity (e.g. 4 nos + 2 nos standby)
  - Locations (layout / room layout plan)
  - Particulars (e.g. catalogue, brand and model, power rating, sound emission data as available)
  - Operation hours (e.g. 0800 to 2200 hours)
  - Acoustic / sound insulation measures adopted (e.g. noise enclosure, silencer, etc.)

In addition, it would be grateful if we could have your permission in carrying out on-site noise measurement at the rooftop of the building. Due to the tight programme of this project, your prompt response on or before 13 August 2025 would be very much appreciated.

Should you have any queries, please do not hesitate to contact our Mr. Calvin Chiu at 3465 2811 (email: cchiu@ramboll.com) or the undersigned at 3465 2868 (email: gkfwong@ramboll.com). We sincerely seek your feedback on this matter. Thank you in advance for any assistance you can provide.

Attachment 1: 300m Assessment Area with Location Plan
Attachment 2: Appointment Letter

Kind regards
Grace Wong

Assistant Environmental Consultant

D +852 3465 2868
gkfwong@ramboll.com

Ramboll
21st Floor
BEA Harbour View Centre
56 Gloucester Road
Wan Chai
Hong Kong

https://ramboll.com

Ramboll Hong Kong Limited

Grace KF Wong

From: Grace KF Wong
Sent: Wednesday, August 6, 2025 2:51 PM
To: enquiry@thequayside.com.hk
Cc: Calvin Chiu
Subject: Request of Information for Fixed Noise Sources at The Quayside
Attachments: Location Plan_300m.pdf

Dear Sir / Madam,

We are the environmental consultant employed by the project proponent for conducting an Environmental Assessment for the Proposed Development on 8 Lam Chak Street, Kowloon Bay. The location plan of the Proposed Development with 300m noise impact area is attached for your reference.

For the purpose of Environmental Assessment, we would like to have some enquires regarding the fixed noise sources (e.g. Chillers, water-cooling towers or varied refrigerant volume system (VRV)) at The Quayside. We would be grateful if you could provide following information for the purpose of Environmental Assessment:

- Inventory of equipment (e.g. Chillers, Cooling Towers, VRVs);
  The operation parameters of equipment:
  - Quantity (e.g. 4 nos + 2 nos standby)
  - Locations (layout / room layout plan)
  - Particulars (e.g. catalogue, brand and model, power rating, sound emission data as available)
  - Operation hours (e.g. 0800 to 2200 hours)
  - Acoustic / sound insulation measures adopted (e.g. noise enclosure, silencer, etc.)

In addition, it would be grateful if we could have your permission in carrying our on-site noise measurement at the rooftop of the building. Due to the tight programme of this project, your prompt response on or before 13 August 2025 would be very much appreciated.

Should you have any queries, please do not hesitate to contact our Mr. Calvin Chiu at 3465 2811 (email: cchiu@ramboll.com) or the undersigned at 3465 2868 (email: gkfwong@ramboll.com). We sincerely seek your feedback on this matter. Thank you in advance for any assistance you can provide.

Attachment 1: 300m Assessment Area with Location Plan

Kind regards
Grace Wong

Assistant Environmental Consultant

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gkfwong@ramboll.com

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21st Floor
BEA Harbour View Centre
56 Gloucester Road
Wan Chai
Hong Kong

https://ramboll.com

Ramboll Hong Kong Limited

Grace KF Wong

From: Vivian SW LAM/WSD <vivian_sw_lam@wsd.gov.hk>
Sent: Wednesday, August 13, 2025 5:23 PM
To: Grace KF Wong
Cc: Calvin Chiu
Subject: Re: Request of Information for Fixed Noise Sources at Water Supplies Department Kowloon East Reginal Building

Follow Up Flag: Follow up
Flag Status: Completed

Dear Grace,

Please find the information as appended below. Thank you.

Model No. PFSV
Manufacturer: Mcquary

A. Water cooled Chillers

Quantity (Set)	3
Manufacturer	Yes
Model no.	PFSV
Country of Origin	PRC
Refrigerant used	R134a
Operating weight (kg)	4079
Overall dimension LxWxH (mm)	3569x1355x1894
Cooling capacity (kW) per set	605
Volt/Phase/Hz	380/3/50

Regards,
Vivian LAM
EO/NTE
Tel: 2152 5622



From: Grace KF Wong <GKFWONG@ramboll.com>
Sent: Tuesday, August 12, 2025 9:07 AM
To: Vivian SW LAM/WSD <vivian_sw_lam@wsd.gov.hk>
Cc: Calvin Chiu <cchiu@ramboll.com>
Subject: RE: Request of Information for Fixed Noise Sources at Water Supplies Department Kowloon East Reginal Building

Dear Vivian,

As discussed, could you please also provide the catalogue, brand and model regarding the existing water cooled chillers at Water Supplies Department Kowloon East Reginal Building?

Thank you for your assistance.

Kind regards
Grace Wong

Assistant Environmental Consultant

D +852 3465 2868
gkfwong@ramboll.com

Ramboll Hong Kong Limited

Classification: Confidential

From: Vivian SW LAM/WSD <vivian_sw_lam@wsd.gov.hk>
Sent: Friday, August 8, 2025 5:27 PM
To: Grace KF Wong <GKFWONG@ramboll.com>
Cc: Calvin Chiu <cchiu@ramboll.com>
Subject: Re: Request of Information for Fixed Noise Sources at Water Supplies Department Kowloon East Reginal Building

Dear Grace,

Please find below information for your reference.

- Inventory of equipment (e.g. Chillers, Cooling Towers, VRVs); Water Cooled Chiller

The operation parameters of equipment:

o Quantity (e.g. 4 nos + 2 nos standby) 2 duty + 1 standby
o Locations (layout / room layout plan) : R/F Pump room, R /F Chiller Plant, G/F to R/F for make-up water Pipe
o Particulars (e.g. catalogue, brand and model, power rating, sound emission data as available) : For details , please refer to General Specification for

Building Services Installation in Government Buildings of The Hong Kong Special Administrative Region
https://www.archsd.gov.hk/media/publications-publicity/general-specification-for-building-serivces/BSGS%202022%20Edition%20(Sep22).pdf

- Operation hours (e.g. 0800 to 2200 hours): 0800-1800
- Acoustic / sound insulation measures adopted (e.g. noise enclosure, silencer, etc.): For details , please refer to General Specification for Building Services Installation in Government Buildings of The Hong Kong Special Administrative Region
https://www.archsd.gov.hk/media/publications-publicity/general-specification-for-building-serivces/BSGS%202022%20Edition%20(Sep22).pdf

Due to maintance and fitting-out works undergoing at this office, we are not open for site visit/on-site noise measurement. Thank you.

Regards,
Vivian LAM
EO/NTE
Tel: 2152 5622

周年
th Anniversary
東江水供港
Dongjiang Water Supply to Hong Kong

From: Grace KF Wong <GKFWONG@ramboll.com>
Sent: Wednesday, August 6, 2025 3:36 PM
To: Vivian SW LAM/WSD <vivian_sw_lam@wsd.gov.hk>
Cc: Calvin Chiu <cchiu@ramboll.com>
Subject: Request of Information for Fixed Noise Sources at Water Supplies Department Kowloon East Reginal Building

Dear Ms. LAM,

We are the environmental consultant employed by the project proponent for conducting an Environmental Assessment for the Proposed Development on 8 Lam Chak Street, Kowloon Bay. The location plan of the Proposed Development with 300m noise impact assessment area is attached for your reference.

For the purpose of Environmental Assessment, we would like to have some enquires regarding the fixed noise sources (e.g. Chillers, water-cooling towers or varied refrigerant volume system (VRV)) at Water Supplies Department Kowloon East Reginal Building. We would be grateful if you could provide following information for the purpose of Environmental Assessment:

- Inventory of equipment (e.g. Chillers, Cooling Towers, VRVs);
  The operation parameters of equipment:
  - Quantity (e.g. 4 nos + 2 nos standby)
  - Locations (layout / room layout plan)
  - Particulars (e.g. catalogue, brand and model, power rating, sound emission data as available)

- Operation hours (e.g. 0800 to 2200 hours)
- Acoustic / sound insulation measures adopted (e.g. noise enclosure, silencer, etc.)

In addition, it would be grateful if we could have your permission in carrying our on-site noise measurement at the rooftop of the building. Due to the tight programme of this project, your prompt response on or before 13 August 2025 would be very much appreciated.

Should you have any queries, please do not hesitate to contact our Mr. Calvin Chiu at 3465 2811 (email: cchiu@ramboll.com) or the undersigned at 3465 2868 (email: gkfwong@ramboll.com). We sincerely seek your feedback on this matter. Thank you in advance for any assistance you can provide.

Attachment 1: 300m Assessment Area with Location Plan
Attachment 2: Appointment Letter

Kind regards
Grace Wong

Assistant Environmental Consultant

D +852 3465 2868
gkfwong@ramboll.com

Ramboll
21st Floor
BEA Harbour View Centre
56 Gloucester Road
Wan Chai
Hong Kong

https://ramboll.com

Ramboll Hong Kong Limited

Classification: Confidential

Grace KF Wong

From: HON MAN SUEN/CEDD <hmsuen@cedd.gov.hk>
Sent: Monday, October 20, 2025 5:21 PM
To: Grace KF Wong
Cc: DENNIS KWOK FAI CHAN/CEDD; WA CHI LEUNG/CEDD; WING YEUNG SHUM/CEDD; STEVEN NGAN FAI TSANG/CEDD
Subject: Re: Enquiry Regarding Relocation and Demolition Timeline of Public Works Central Laboratory

You don't often get email from hmsuen@cedd.gov.hk. Learn why this is important

Dear Grace,

I refer to your enquiry email dated 10 October 2025. Please be advised that the completion date of reprovisioning Public Works Central Laboratory and building of Government Records Service's Archives Centre in caverns under Contract No. GE/2022/14 as shown in CEDD website (i.e. July 2028) is valid. For the information regarding the relocation programme and the anticipated start date for demolition of the existing Public Works Central Laboratory, please refer to the Quarterly Report on Public Works Programme in the website of Development Bureau. The link is attached below for your easy reference.

https://www.devb.gov.hk/en/publications_and_press_releases/studies_and_reports/quarterly_report_on_public_works_programme/index.html

Thanks a lot.
Best Regards,
Hermann Suen
GE/GP42, GP Division
GEO, CEDD
Tel: 2760 5704

----- Forwarded by WA CHI LEUNG/CEDD/HKSARG on 10/10/2025 17:25 -----

From: "Grace KF Wong" <GKFWONG@ramboll.com>
To: "wcleung@cedd.gov.hk" <wcleung@cedd.gov.hk>
Cc: "Calvin Chiu" <cchiu@ramboll.com>, "Simon Lai" <slai@ramboll.com>, "Coco Ma" <COCOMA@ramboll.com>
Date: 10/10/2025 17:24
Subject: Enquiry Regarding Relocation and Demolition Timeline of Public Works Central Laboratory

---

Dear Mr. LEUNG,

We are the environmental consultant employed by the project proponent for conducting an Environmental Assessment for the Proposed Development at the 8 Lam Chak Street, Kowloon Bay. The location plan of the Proposed Development with 300m noise impact assessment area is attached for your reference.

It is found that the relocation and demolition of the Public Works Central Laboratory will be carried out under the Joint Cavern Development at Anderson Road Quarry Site - Reprovisioning of Public Works Central Laboratory and Building of Government Records Service's Archives Centre – Investigation, Design and Construction (Contract No. GE/2022/14). According to the information available on the CEDD website, the stated project completion date is July 2028. For the purpose of the Environmental Assessment, could you please help to confirm whether this is the latest completion date for the project? If there have been any updates, we would be grateful if you could advise the latest completion date of the project.

Additionally, we would appreciate it if you could provide further details regarding the relocation programme and the anticipated start date for demolition of the existing Public Works Central Laboratory.

Should you have any queries, please do not hesitate to contact our Mr. Calvin Chiu at 3465 2811 (email: cchiu@ramboll.com) or the undersigned at 3465 2868 (email: gkfwong@ramboll.com). We sincerely seek your feedback on this matter. Thank you in advance for any assistance you can provide.

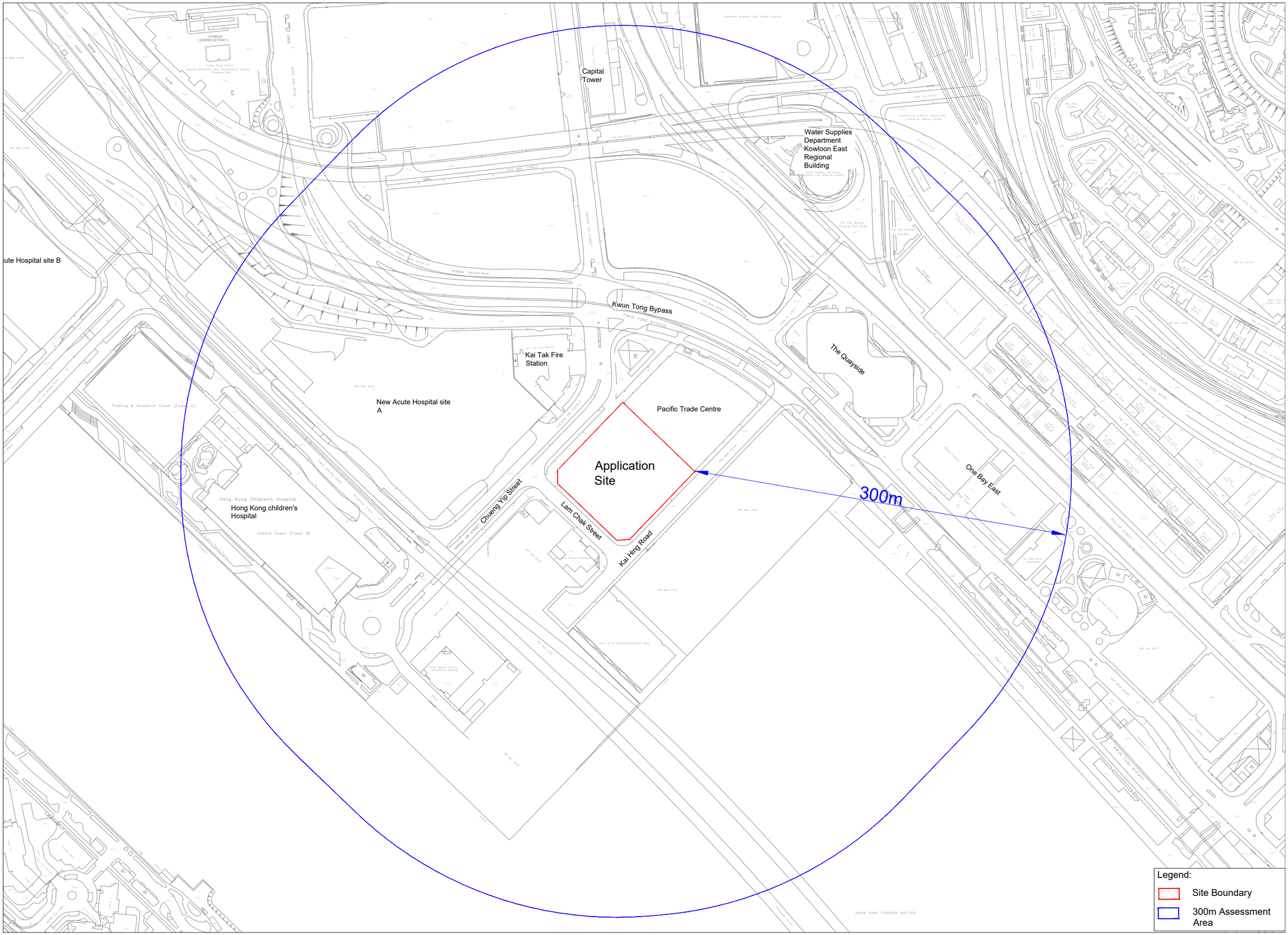
Attachment 1: 300m Assessment Area with Location Plan

Attachment 2: Appointment Letter

Kind regards
Grace Wong
Assistant Environmental Consultant

D +852 3465 2868
gkfwong@ramboll.com
_____
Ramboll
21st Floor
BEA Harbour View Centre
56 Gloucester Road
Wan Chai
Hong Kong
https://ramboll.com
Ramboll Hong Kong Limited

(See attached file: Application Site_300m.pdf)(See attached file: Appointment letter.pdf)


Capital Tower
Water Supplies Department Kowloon East Regional Building
Kwun Tong Bypass
Kai Tak Fire Station
The Quayside
New Acute Hospital site A
Pacific Trade Centre
Application Site
300m
One Bay East
Hong Kong children's Hospital
Chueng Yip Street
Lam Chak Street
Kai Hing Road
Legend:
Site Boundary
300m Assessment Area

Health Link Investment Limited

31/F, Bank of America Tower, 12 Harcourt Road, Hong Kong
Tel : 2878 2800 Fax : 2878 7525

Our Ref: OTT/003/25
Date: 9 Jul 2025

To Whom It May Concern:

Dear Sir or Madam,

Proposed Residential Development at 8 Lam Chak Street, Kowloon Bay

It is to confirm that Ramboll Hong Kong Limited has been appointed to conduct environmental consultancy for the captioned project.

Your assistance on this matter is most appreciated.

Yours faithfully,
For and on behalf of
Health Link Investment Limited

For and on behalf of
朗康投資有限公司
HEALTH LINK INVESTMENT LIMITED

.....
Authorized Signature(s)

Louis Chow
Director

YT/cl

Appendix 3.4 Detailed Fixed Noise Impact Assessment

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Day/Evening Time

N1-01 NSR Coordinate: x = 839908.1 y = 819626.7 z = 0 **58**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard Nc	839629.0	819607.0	0.0	69.0	10.0	97.0	279.7	56.9	3.0	-10.0	3.0	0.0	36.1
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	309.6	57.8	3.0	-10.0	3.0	0.0	9.2
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	312.8	57.9	3.0	-10.0	3.0	0.0	9.1
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	317.1	58.0	3.0	-10.0	3.0	0.0	9.0
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	316.8	58.0	3.0	-10.0	3.0	0.0	9.0
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	145.1	51.2	3.0	-10.0	3.0	0.0	15.7
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	142.9	51.1	3.0	-10.0	3.0	0.0	15.9
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	141.3	51.0	3.0	-10.0	3.0	0.0	16.0
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	138.9	50.9	3.0	-10.0	3.0	0.0	16.1
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	137.3	50.8	3.0	-10.0	3.0	0.0	16.2
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	135.7	50.7	3.0	-10.0	3.0	0.0	16.3
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	134.1	50.6	3.0	-10.0	3.0	0.0	16.4
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	131.9	50.4	3.0	-10.0	3.0	0.0	16.6
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	81.0	151.7	51.6	3.0	-10.0	3.0	0.0	25.4
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	81.0	232.7	55.3	3.0	-10.0	3.0	0.0	21.7
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	98.0	265.0	56.5	3.0	-10.0	3.0	0.0	37.5
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	85.0	176.5	52.9	3.0	-10.0	3.0	0.0	28.1
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	81.0	210.8	54.5	3.0	-10.0	3.0	0.0	22.5
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	95.0	340.8	58.6	3.0	-10.0	3.0	0.0	32.4
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	95.0	370.8	59.4	3.0	-10.0	3.0	0.0	31.6
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	95.0	365.2	59.2	3.0	-10.0	3.0	0.0	31.8
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	95.0	370.6	59.4	3.0	-10.0	3.0	0.0	31.6
TQR01	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819760.0	0.0	49.0	5.0	71.0	178.7	53.0	3.0	0.0	3.0	0.0	23.9
TQR02	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819760.0	0.0	49.0	5.0	71.0	185.5	53.4	3.0	0.0	3.0	0.0	23.6
TQR03	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819750.0	0.0	49.0	5.0	71.0	171.3	52.7	3.0	0.0	3.0	0.0	24.3
TQR04	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819750.0	0.0	49.0	5.0	71.0	178.4	53.0	3.0	0.0	3.0	0.0	23.9
TQR05	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819740.0	0.0	49.0	5.0	71.0	164.3	52.3	3.0	0.0	3.0	0.0	24.7
ET_FN01	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840187.0	819646.2	0.0	70.0	5.4	92.7	279.7	56.9	3.0	0.0	3.0	0.0	41.7
ET_FN02	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840192.9	819640.6	0.0	70.0	5.4	92.7	285.2	57.1	3.0	0.0	3.0	0.0	41.6
ET_FN03	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840200.9	819629.9	0.0	70.0	5.4	92.7	292.9	57.3	3.0	0.0	3.0	0.0	41.3
ET_FN04	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840194.0	819622.8	0.0	70.0	5.4	92.7	286.0	57.1	3.0	0.0	3.0	0.0	41.5
ET_FN05	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840205.9	819625.2	0.0	-	-	90.0	297.8	57.5	3.0	0.0	3.0	0.0	38.5
ET_FN06	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840198.9	819618.2	0.0	-	-	90.0	291.0	57.3	3.0	0.0	3.0	0.0	38.7
WT_FN01	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840152.3	819675.6	0.0	70.0	5.4	92.7	249.1	55.9	3.0	0.0	3.0	0.0	42.7
WT_FN02	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840145.5	819668.4	0.0	70.0	5.4	92.7	241.1	55.6	3.0	0.0	3.0	0.0	43.0
WT_FN03	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840157.2	819670.9	0.0	70.0	5.4	92.7	253.1	56.1	3.0	0.0	3.0	0.0	42.6
WT_FN04	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840150.4	819663.8	0.0	70.0	5.4	92.7	245.2	55.8	3.0	0.0	3.0	0.0	42.9
WS_FN01 [1]	Chiller at WSD Kowloon Bay Building	840049.9	819884.2	0.0	--	--	105.0	294.0	57.4	3.0	0.0	3.0	0.0	53.6
WS_FN02 [1]	Chiller at WSD Kowloon Bay Building	840050.1	819880.0	0.0	--	--	105.0	290.4	57.3	3.0	0.0	3.0	0.0	53.7
CT_FN01	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839845.3	819996.2	0.0	--	--	95.0	374.8	59.5	3.0	-10.0	3.0	0.0	31.5
CT_FN02	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839847.6	819976.8	0.0	--	--	95.0	355.3	59.0	3.0	-10.0	3.0	0.0	32.0
CT_FN03	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839849.2	819963.9	0.0	--	--	95.0	342.3	58.7	3.0	-10.0	3.0	0.0	32.3
										Noise standard:		**70**	**Overall**	**58**

[1] According to EPD 's Good Practice on Ventilation System Noise Control, 105dB(A) is adopted for each chillers as a conservative approach.

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Night Time

N1-01 NSR Coordinate: x = 839908.1 y = 819626.7 z = 0 **39**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard	839629.0	819607.0	0.0	69.0	10.0	97.0	279.7	56.9	3.0	-10.0	3.0	0.0	36.1
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	309.6	57.8	3.0	-10.0	3.0	0.0	9.2
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	312.8	57.9	3.0	-10.0	3.0	0.0	9.1
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	317.1	58.0	3.0	-10.0	3.0	0.0	9.0
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	316.8	58.0	3.0	-10.0	3.0	0.0	9.0
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	145.1	51.2	3.0	-10.0	3.0	0.0	15.7
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	142.9	51.1	3.0	-10.0	3.0	0.0	15.9
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	141.3	51.0	3.0	-10.0	3.0	0.0	16.0
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	138.9	50.9	3.0	-10.0	3.0	0.0	16.1
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	137.3	50.8	3.0	-10.0	3.0	0.0	16.2
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	135.7	50.7	3.0	-10.0	3.0	0.0	16.3
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	134.1	50.6	3.0	-10.0	3.0	0.0	16.4
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	131.9	50.4	3.0	-10.0	3.0	0.0	16.6
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	76.0	151.7	51.6	3.0	-10.0	3.0	0.0	20.4
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	76.0	232.7	55.3	3.0	-10.0	3.0	0.0	16.7
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	90.0	265.0	56.5	3.0	-10.0	3.0	0.0	29.5
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	80.0	176.5	52.9	3.0	-10.0	3.0	0.0	23.1
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	76.0	210.8	54.5	3.0	-10.0	3.0	0.0	17.5
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	90.0	340.8	58.6	3.0	-10.0	3.0	0.0	27.4
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	90.0	370.8	59.4	3.0	-10.0	3.0	0.0	26.6
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	90.0	365.2	59.2	3.0	-10.0	3.0	0.0	26.8
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	90.0	370.6	59.4	3.0	-10.0	3.0	0.0	26.6
										Noise standard:		**60**	**Overall**	**39**

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Day/Evening Time

N1-14 NSR Coordinate: x = 839880.1 y = 819601.9 z = 0 **54**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard Nc	839629.0	819607.0	0.0	69.0	10.0	97.0	251.2	56.0	3.0	0.0	3.0	0.0	47.0
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	281.2	57.0	3.0	0.0	3.0	0.0	20.0
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	284.1	57.1	3.0	0.0	3.0	0.0	19.9
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	288.1	57.2	3.0	0.0	3.0	0.0	19.8
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	288.1	57.2	3.0	0.0	3.0	0.0	19.8
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	153.7	51.7	3.0	-10.0	3.0	0.0	15.2
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	151.5	51.6	3.0	-10.0	3.0	0.0	15.4
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	149.6	51.5	3.0	-10.0	3.0	0.0	15.5
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	146.8	51.3	3.0	-10.0	3.0	0.0	15.6
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	145.0	51.2	3.0	-10.0	3.0	0.0	15.8
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	143.1	51.1	3.0	-10.0	3.0	0.0	15.9
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	141.3	51.0	3.0	-10.0	3.0	0.0	16.0
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	139.0	50.9	3.0	-10.0	3.0	0.0	16.1
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	81.0	130.9	50.3	3.0	0.0	3.0	0.0	36.7
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	81.0	209.7	54.4	3.0	-10.0	3.0	0.0	22.6
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	98.0	252.8	56.1	3.0	-10.0	3.0	0.0	37.9
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	85.0	172.2	52.7	3.0	-10.0	3.0	0.0	28.3
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	81.0	195.9	53.8	3.0	-10.0	3.0	0.0	23.2
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	95.0	325.3	58.2	3.0	-10.0	3.0	0.0	32.8
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	95.0	355.2	59.0	3.0	-10.0	3.0	0.0	32.0
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	95.0	352.4	58.9	3.0	-10.0	3.0	0.0	32.1
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	95.0	356.4	59.0	3.0	-10.0	3.0	0.0	32.0
TQR01	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819760.0	0.0	49.0	5.0	71.0	215.8	54.7	3.0	-10.0	3.0	0.0	12.3
TQR02	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819760.0	0.0	49.0	5.0	71.0	222.7	55.0	3.0	-10.0	3.0	0.0	12.0
TQR03	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819750.0	0.0	49.0	5.0	71.0	208.6	54.4	3.0	-10.0	3.0	0.0	12.6
TQR04	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819750.0	0.0	49.0	5.0	71.0	215.7	54.7	3.0	-10.0	3.0	0.0	12.3
TQR05	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819740.0	0.0	49.0	5.0	71.0	201.6	54.1	3.0	-10.0	3.0	0.0	12.9
ET_FN01	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840187.0	819646.2	0.0	70.0	5.4	92.7	310.1	57.8	3.0	0.0	3.0	0.0	40.8
ET_FN02	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840192.9	819640.6	0.0	70.0	5.4	92.7	315.2	58.0	3.0	0.0	3.0	0.0	40.7
ET_FN03	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840200.9	819629.9	0.0	70.0	5.4	92.7	322.0	58.2	3.0	0.0	3.0	0.0	40.5
ET_FN04	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840194.0	819622.8	0.0	70.0	5.4	92.7	314.6	58.0	3.0	0.0	3.0	0.0	40.7
ET_FN05	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840205.9	819625.2	0.0	-	-	90.0	326.6	58.3	3.0	0.0	3.0	0.0	37.7
ET_FN06	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840198.9	819618.2	0.0	-	-	90.0	319.3	58.1	3.0	0.0	3.0	0.0	37.9
WT_FN01	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840152.3	819675.6	0.0	70.0	5.4	92.7	282.0	57.0	3.0	0.0	3.0	0.0	41.7
WT_FN02	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840145.5	819668.4	0.0	70.0	5.4	92.7	273.6	56.7	3.0	0.0	3.0	0.0	41.9
WT_FN03	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840157.2	819670.9	0.0	70.0	5.4	92.7	285.6	57.1	3.0	0.0	3.0	0.0	41.5
WT_FN04	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840150.4	819663.8	0.0	70.0	5.4	92.7	277.3	56.9	3.0	0.0	3.0	0.0	41.8
WS_FN01 [1]	Chiller at WSD Kowloon Bay Building	840049.9	819884.2	0.0	--	--	105.0	329.4	58.4	3.0	-10.0	3.0	0.0	42.6
WS_FN02 [1]	Chiller at WSD Kowloon Bay Building	840050.1	819880.0	0.0	--	--	105.0	325.9	58.3	3.0	-10.0	3.0	0.0	42.7
CT_FN01	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839845.3	819996.2	0.0	--	--	95.0	395.8	59.9	3.0	-10.0	3.0	0.0	31.1
CT_FN02	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839847.6	819976.8	0.0	--	--	95.0	376.3	59.5	3.0	-10.0	3.0	0.0	31.5
CT_FN03	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839849.2	819963.9	0.0	--	--	95.0	363.3	59.2	3.0	-10.0	3.0	0.0	31.8
										Noise standard:		**65**	**Overall**	**54**

[1] According to EPD 's Good Practice on Ventilation System Noise Control, 105dB(A) is adopted for each chillers as a conservative approach.

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Night Time

N1-14 NSR Coordinate: x = 839880.1 y = 819601.9 z = 0 **47**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard	839629.0	819607.0	0.0	69.0	10.0	97.0	251.2	56.0	3.0	0.0	3.0	0.0	47.0
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	281.2	57.0	3.0	0.0	3.0	0.0	20.0
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	284.1	57.1	3.0	0.0	3.0	0.0	19.9
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	288.1	57.2	3.0	0.0	3.0	0.0	19.8
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	288.1	57.2	3.0	0.0	3.0	0.0	19.8
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	153.7	51.7	3.0	-10.0	3.0	0.0	15.2
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	151.5	51.6	3.0	-10.0	3.0	0.0	15.4
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	149.6	51.5	3.0	-10.0	3.0	0.0	15.5
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	146.8	51.3	3.0	-10.0	3.0	0.0	15.6
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	145.0	51.2	3.0	-10.0	3.0	0.0	15.8
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	143.1	51.1	3.0	-10.0	3.0	0.0	15.9
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	141.3	51.0	3.0	-10.0	3.0	0.0	16.0
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	139.0	50.9	3.0	-10.0	3.0	0.0	16.1
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	76.0	130.9	50.3	3.0	0.0	3.0	0.0	31.7
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	76.0	209.7	54.4	3.0	-10.0	3.0	0.0	17.6
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	90.0	252.8	56.1	3.0	-10.0	3.0	0.0	29.9
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	80.0	172.2	52.7	3.0	-10.0	3.0	0.0	23.3
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	76.0	195.9	53.8	3.0	-10.0	3.0	0.0	18.2
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	90.0	325.3	58.2	3.0	-10.0	3.0	0.0	27.8
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	90.0	355.2	59.0	3.0	-10.0	3.0	0.0	27.0
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	90.0	352.4	58.9	3.0	-10.0	3.0	0.0	27.1
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	90.0	356.4	59.0	3.0	-10.0	3.0	0.0	27.0
										Noise standard:		**55**	**Overall**	**47**

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Day/Evening Time

N1-52 NSR Coordinate: x = 839897.3 y = 819634.8 z = 0 **58**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard Noi	839629.0	819607.0	0.0	69.0	10.0	97.0	269.8	56.6	3.0	-10.0	3.0	0.0	36.4
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	299.5	57.5	3.0	-10.0	3.0	0.0	9.5
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	302.8	57.6	3.0	-10.0	3.0	0.0	9.4
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	307.2	57.7	3.0	-10.0	3.0	0.0	9.2
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	306.8	57.7	3.0	-10.0	3.0	0.0	9.2
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	132.4	50.4	3.0	0.0	3.0	0.0	26.5
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	130.2	50.3	3.0	0.0	3.0	0.0	26.7
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	128.5	50.2	3.0	0.0	3.0	0.0	26.8
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	126.0	50.0	3.0	0.0	3.0	0.0	27.0
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	124.4	49.9	3.0	0.0	3.0	0.0	27.1
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	122.8	49.8	3.0	0.0	3.0	0.0	27.2
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	121.2	49.7	3.0	0.0	3.0	0.0	27.3
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	119.0	49.5	3.0	0.0	3.0	0.0	27.5
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	81.0	140.1	50.9	3.0	-10.0	3.0	0.0	26.1
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	81.0	221.2	54.9	3.0	-10.0	3.0	0.0	22.1
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	98.0	251.8	56.0	3.0	-10.0	3.0	0.0	38.0
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	85.0	163.0	52.2	3.0	-10.0	3.0	0.0	28.8
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	81.0	198.0	53.9	3.0	-10.0	3.0	0.0	23.1
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	95.0	327.9	58.3	3.0	-10.0	3.0	0.0	32.7
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	95.0	358.0	59.1	3.0	-10.0	3.0	0.0	31.9
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	95.0	352.0	58.9	3.0	-10.0	3.0	0.0	32.1
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	95.0	357.6	59.1	3.0	-10.0	3.0	0.0	31.9
TQR01	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819760.0	0.0	49.0	5.0	71.0	180.2	53.1	3.0	0.0	3.0	0.0	23.9
TQR02	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819760.0	0.0	49.0	5.0	71.0	187.6	53.5	3.0	0.0	3.0	0.0	23.5
TQR03	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819750.0	0.0	49.0	5.0	71.0	173.4	52.8	3.0	0.0	3.0	0.0	24.2
TQR04	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819750.0	0.0	49.0	5.0	71.0	181.0	53.2	3.0	0.0	3.0	0.0	23.8
TQR05	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819740.0	0.0	49.0	5.0	71.0	167.0	52.5	3.0	0.0	3.0	0.0	24.5
ET_FN01	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840187.0	819646.2	0.0	70.0	5.4	92.7	289.9	57.2	3.0	-10.0	3.0	0.0	31.4
ET_FN02	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840192.9	819640.6	0.0	70.0	5.4	92.7	295.6	57.4	3.0	-10.0	3.0	0.0	31.2
ET_FN03	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840200.9	819629.9	0.0	70.0	5.4	92.7	303.6	57.6	3.0	-10.0	3.0	0.0	31.0
ET_FN04	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840194.0	819622.8	0.0	70.0	5.4	92.7	296.9	57.5	3.0	-10.0	3.0	0.0	31.2
ET_FN05	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840205.9	819625.2	0.0	-	-	90.0	308.7	57.8	3.0	-10.0	3.0	0.0	28.2
ET_FN06	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840198.9	819618.2	0.0	-	-	90.0	302.1	57.6	3.0	-10.0	3.0	0.0	28.4
WT_FN01	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840152.3	819675.6	0.0	70.0	5.4	92.7	258.2	56.2	3.0	0.0	3.0	0.0	42.4
WT_FN02	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840145.5	819668.4	0.0	70.0	5.4	92.7	250.4	56.0	3.0	0.0	3.0	0.0	42.7
WT_FN03	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840157.2	819670.9	0.0	70.0	5.4	92.7	262.4	56.4	3.0	0.0	3.0	0.0	42.3
WT_FN04	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840150.4	819663.8	0.0	70.0	5.4	92.7	254.7	56.1	3.0	0.0	3.0	0.0	42.5
WS_FN01 [1]	Chiller at WSD Kowloon Bay Building	840049.9	819884.2	0.0	--	--	105.0	292.3	57.3	3.0	0.0	3.0	0.0	53.7
WS_FN02 [1]	Chiller at WSD Kowloon Bay Building	840050.1	819880.0	0.0	--	--	105.0	288.9	57.2	3.0	0.0	3.0	0.0	53.8
CT_FN01	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839845.3	819996.2	0.0	--	--	95.0	365.1	59.2	3.0	0.0	3.0	0.0	41.8
CT_FN02	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839847.6	819976.8	0.0	--	--	95.0	345.6	58.8	3.0	0.0	3.0	0.0	42.2
CT_FN03	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839849.2	819963.9	0.0	--	--	95.0	332.6	58.4	3.0	0.0	3.0	0.0	42.6
										Noise standard:		**70**	**Overall**	**58**

[1] According to EPD 's Good Practice on Ventilation System Noise Control, 105dB(A) is adopted for each chillers as a conservative approach.

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Night Time

N1-52 NSR Coordinate: x = 839897.3 y = 819634.8 z = 0 **41**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard	839629.0	819607.0	0.0	69.0	10.0	97.0	269.8	56.6	3.0	-10.0	3.0	0.0	36.4
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	299.5	57.5	3.0	-10.0	3.0	0.0	9.5
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	302.8	57.6	3.0	-10.0	3.0	0.0	9.4
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	307.2	57.7	3.0	-10.0	3.0	0.0	9.2
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	306.8	57.7	3.0	-10.0	3.0	0.0	9.2
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	132.4	50.4	3.0	0.0	3.0	0.0	26.5
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	130.2	50.3	3.0	0.0	3.0	0.0	26.7
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	128.5	50.2	3.0	0.0	3.0	0.0	26.8
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	126.0	50.0	3.0	0.0	3.0	0.0	27.0
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	124.4	49.9	3.0	0.0	3.0	0.0	27.1
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	122.8	49.8	3.0	0.0	3.0	0.0	27.2
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	121.2	49.7	3.0	0.0	3.0	0.0	27.3
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	119.0	49.5	3.0	0.0	3.0	0.0	27.5
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	76.0	140.1	50.9	3.0	-10.0	3.0	0.0	21.1
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	76.0	221.2	54.9	3.0	-10.0	3.0	0.0	17.1
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	90.0	251.8	56.0	3.0	-10.0	3.0	0.0	30.0
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	80.0	163.0	52.2	3.0	-10.0	3.0	0.0	23.8
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	76.0	198.0	53.9	3.0	-10.0	3.0	0.0	18.1
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	90.0	327.9	58.3	3.0	-10.0	3.0	0.0	27.7
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	90.0	358.0	59.1	3.0	-10.0	3.0	0.0	26.9
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	90.0	352.0	58.9	3.0	-10.0	3.0	0.0	27.1
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	90.0	357.6	59.1	3.0	-10.0	3.0	0.0	26.9
										Noise standard:		**60**	**Overall**	**41**

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Day/Evening Time

N2-01 NSR Coordinate: x = 839838.5 y = 819621.2 z = 0 **52**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard Nc	839629.0	819607.0	0.0	69.0	10.0	97.0	210.0	54.4	3.0	0.0	3.0	0.0	48.6
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	239.8	55.6	3.0	0.0	3.0	0.0	21.4
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	243.0	55.7	3.0	0.0	3.0	0.0	21.3
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	247.3	55.9	3.0	0.0	3.0	0.0	21.1
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	247.0	55.9	3.0	0.0	3.0	0.0	21.1
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	124.7	49.9	3.0	-10.0	3.0	0.0	17.1
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	122.6	49.8	3.0	-10.0	3.0	0.0	17.2
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	120.6	49.6	3.0	-10.0	3.0	0.0	17.4
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	117.6	49.4	3.0	-10.0	3.0	0.0	17.6
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	115.6	49.3	3.0	-10.0	3.0	0.0	17.7
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	113.6	49.1	3.0	-10.0	3.0	0.0	17.9
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	111.6	49.0	3.0	-10.0	3.0	0.0	18.0
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	109.5	48.8	3.0	-10.0	3.0	0.0	18.2
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	81.0	85.2	46.6	3.0	0.0	3.0	0.0	40.4
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	81.0	164.8	52.3	3.0	-10.0	3.0	0.0	24.7
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	98.0	207.6	54.3	3.0	-10.0	3.0	0.0	39.7
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	85.0	131.3	50.4	3.0	-10.0	3.0	0.0	30.6
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	81.0	150.2	51.5	3.0	0.0	3.0	0.0	35.5
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	95.0	279.4	56.9	3.0	-10.0	3.0	0.0	34.1
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	95.0	309.4	57.8	3.0	-10.0	3.0	0.0	33.2
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	95.0	306.9	57.7	3.0	-10.0	3.0	0.0	33.3
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	95.0	310.7	57.8	3.0	0.0	3.0	0.0	43.2
TQR01	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819760.0	0.0	49.0	5.0	71.0	234.1	55.4	3.0	-10.0	3.0	0.0	11.6
TQR02	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819760.0	0.0	49.0	5.0	71.0	242.2	55.7	3.0	-10.0	3.0	0.0	11.3
TQR03	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819750.0	0.0	49.0	5.0	71.0	228.3	55.2	3.0	-10.0	3.0	0.0	11.8
TQR04	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819750.0	0.0	49.0	5.0	71.0	236.6	55.5	3.0	-10.0	3.0	0.0	11.5
TQR05	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819740.0	0.0	49.0	5.0	71.0	222.8	55.0	3.0	-10.0	3.0	0.0	12.0
ET_FN01	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840187.0	819646.2	0.0	70.0	5.4	92.7	349.4	58.9	3.0	-10.0	3.0	0.0	29.8
ET_FN02	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840192.9	819640.6	0.0	70.0	5.4	92.7	354.9	59.0	3.0	-10.0	3.0	0.0	29.7
ET_FN03	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840200.9	819629.9	0.0	70.0	5.4	92.7	362.5	59.2	3.0	-10.0	3.0	0.0	29.5
ET_FN04	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840194.0	819622.8	0.0	70.0	5.4	92.7	355.5	59.0	3.0	-10.0	3.0	0.0	29.6
ET_FN05	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840205.9	819625.2	0.0	-	-	90.0	367.4	59.3	3.0	-10.0	3.0	0.0	26.7
ET_FN06	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840198.9	819618.2	0.0	-	-	90.0	360.5	59.1	3.0	-10.0	3.0	0.0	26.9
WT_FN01	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840152.3	819675.6	0.0	70.0	5.4	92.7	318.5	58.1	3.0	-10.0	3.0	0.0	30.6
WT_FN02	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840145.5	819668.4	0.0	70.0	5.4	92.7	310.6	57.8	3.0	-10.0	3.0	0.0	30.8
WT_FN03	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840157.2	819670.9	0.0	70.0	5.4	92.7	322.6	58.2	3.0	-10.0	3.0	0.0	30.5
WT_FN04	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840150.4	819663.8	0.0	70.0	5.4	92.7	314.8	58.0	3.0	-10.0	3.0	0.0	30.7
WS_FN01 [1]	Chiller at WSD Kowloon Bay Building	840049.9	819884.2	0.0	--	--	105.0	337.4	58.6	3.0	-10.0	3.0	0.0	42.4
WS_FN02 [1]	Chiller at WSD Kowloon Bay Building	840050.1	819880.0	0.0	--	--	105.0	334.3	58.5	3.0	-10.0	3.0	0.0	42.5
CT_FN01	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839845.3	819996.2	0.0	--	--	95.0	375.1	59.5	3.0	-10.0	3.0	0.0	31.5
CT_FN02	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839847.6	819976.8	0.0	--	--	95.0	355.8	59.0	3.0	-10.0	3.0	0.0	32.0
CT_FN03	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839849.2	819963.9	0.0	--	--	95.0	342.9	58.7	3.0	-10.0	3.0	0.0	32.3
										Noise standard:		**65**	**Overall**	**52**

[1] According to EPD 's Good Practice on Ventilation System Noise Control, 105dB(A) is adopted for each chillers as a conservative approach.

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Night Time

N2-01 NSR Coordinate: x = 839838.5 y = 819621.2 z = 0 **49**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard	839629.0	819607.0	0.0	69.0	10.0	97.0	210.0	54.4	3.0	0.0	3.0	0.0	48.6
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	239.8	55.6	3.0	0.0	3.0	0.0	21.4
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	243.0	55.7	3.0	0.0	3.0	0.0	21.3
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	247.3	55.9	3.0	0.0	3.0	0.0	21.1
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	247.0	55.9	3.0	0.0	3.0	0.0	21.1
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	124.7	49.9	3.0	-10.0	3.0	0.0	17.1
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	122.6	49.8	3.0	-10.0	3.0	0.0	17.2
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	120.6	49.6	3.0	-10.0	3.0	0.0	17.4
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	117.6	49.4	3.0	-10.0	3.0	0.0	17.6
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	115.6	49.3	3.0	-10.0	3.0	0.0	17.7
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	113.6	49.1	3.0	-10.0	3.0	0.0	17.9
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	111.6	49.0	3.0	-10.0	3.0	0.0	18.0
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	109.5	48.8	3.0	-10.0	3.0	0.0	18.2
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	76.0	85.2	46.6	3.0	0.0	3.0	0.0	35.4
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	76.0	164.8	52.3	3.0	-10.0	3.0	0.0	19.7
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	90.0	207.6	54.3	3.0	-10.0	3.0	0.0	31.7
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	80.0	131.3	50.4	3.0	-10.0	3.0	0.0	25.6
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	76.0	150.2	51.5	3.0	0.0	3.0	0.0	30.5
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	90.0	279.4	56.9	3.0	-10.0	3.0	0.0	29.1
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	90.0	309.4	57.8	3.0	-10.0	3.0	0.0	28.2
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	90.0	306.9	57.7	3.0	-10.0	3.0	0.0	28.3
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	90.0	310.7	57.8	3.0	0.0	3.0	0.0	38.2
										Noise standard:		**55**	**Overall**	**49**

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Day/Evening Time

N2-15 NSR Coordinate: x = 839830.1 y = 819652.6 z = 0 **54**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard Noi	839629.0	819607.0	0.0	69.0	10.0	97.0	206.2	54.3	3.0	0.0	3.0	0.0	48.7
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	235.4	55.4	3.0	0.0	3.0	0.0	21.5
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	238.9	55.6	3.0	0.0	3.0	0.0	21.4
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	243.6	55.7	3.0	0.0	3.0	0.0	21.2
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	242.8	55.7	3.0	0.0	3.0	0.0	21.3
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	92.6	47.3	3.0	0.0	3.0	0.0	29.6
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	90.5	47.1	3.0	0.0	3.0	0.0	29.8
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	88.5	46.9	3.0	0.0	3.0	0.0	30.0
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	85.5	46.6	3.0	0.0	3.0	0.0	30.3
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	83.5	46.4	3.0	0.0	3.0	0.0	30.5
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	81.6	46.2	3.0	0.0	3.0	0.0	30.8
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	79.6	46.0	3.0	0.0	3.0	0.0	31.0
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	77.5	45.8	3.0	0.0	3.0	0.0	31.2
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	81.0	72.2	45.2	3.0	0.0	3.0	0.0	41.8
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	81.0	153.1	51.7	3.0	-10.0	3.0	0.0	25.3
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	98.0	183.8	53.3	3.0	-10.0	3.0	0.0	40.7
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	85.0	101.1	48.1	3.0	-10.0	3.0	0.0	32.9
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	81.0	128.8	50.2	3.0	0.0	3.0	0.0	36.8
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	95.0	258.7	56.3	3.0	-10.0	3.0	0.0	34.7
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	95.0	288.8	57.2	3.0	-10.0	3.0	0.0	33.8
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	95.0	283.9	57.1	3.0	-10.0	3.0	0.0	33.9
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	95.0	288.9	57.2	3.0	0.0	3.0	0.0	43.8
TQR01	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819760.0	0.0	49.0	5.0	71.0	224.3	55.0	3.0	-10.0	3.0	0.0	12.0
TQR02	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819760.0	0.0	49.0	5.0	71.0	233.1	55.4	3.0	-10.0	3.0	0.0	11.6
TQR03	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819750.0	0.0	49.0	5.0	71.0	219.7	54.8	3.0	-10.0	3.0	0.0	12.1
TQR04	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819750.0	0.0	49.0	5.0	71.0	228.7	55.2	3.0	-10.0	3.0	0.0	11.8
TQR05	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819740.0	0.0	49.0	5.0	71.0	215.4	54.7	3.0	-10.0	3.0	0.0	12.3
ET_FN01	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840187.0	819646.2	0.0	70.0	5.4	92.7	357.0	59.1	3.0	-10.0	3.0	0.0	29.6
ET_FN02	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840192.9	819640.6	0.0	70.0	5.4	92.7	363.0	59.2	3.0	-10.0	3.0	0.0	29.5
ET_FN03	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840200.9	819629.9	0.0	70.0	5.4	92.7	371.5	59.4	3.0	-10.0	3.0	0.0	29.3
ET_FN04	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840194.0	819622.8	0.0	70.0	5.4	92.7	365.1	59.2	3.0	-10.0	3.0	0.0	29.4
ET_FN05	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840205.9	819625.2	0.0	-	-	90.0	376.7	59.5	3.0	-10.0	3.0	0.0	26.5
ET_FN06	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840198.9	819618.2	0.0	-	-	90.0	370.4	59.4	3.0	-10.0	3.0	0.0	26.6
WT_FN01	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840152.3	819675.6	0.0	70.0	5.4	92.7	323.0	58.2	3.0	-10.0	3.0	0.0	30.5
WT_FN02	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840145.5	819668.4	0.0	70.0	5.4	92.7	315.8	58.0	3.0	-10.0	3.0	0.0	30.7
WT_FN03	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840157.2	819670.9	0.0	70.0	5.4	92.7	327.6	58.3	3.0	-10.0	3.0	0.0	30.3
WT_FN04	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840150.4	819663.8	0.0	70.0	5.4	92.7	320.5	58.1	3.0	-10.0	3.0	0.0	30.5
WS_FN01 [1]	Chiller at WSD Kowloon Bay Building	840049.9	819884.2	0.0	--	--	105.0	319.3	58.1	3.0	-10.0	3.0	0.0	42.9
WS_FN02 [1]	Chiller at WSD Kowloon Bay Building	840050.1	819880.0	0.0	--	--	105.0	316.4	58.0	3.0	-10.0	3.0	0.0	43.0
CT_FN01	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839845.3	819996.2	0.0	--	--	95.0	343.9	58.7	3.0	0.0	3.0	0.0	42.3
CT_FN02	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839847.6	819976.8	0.0	--	--	95.0	324.7	58.2	3.0	0.0	3.0	0.0	42.8
CT_FN03	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839849.2	819963.9	0.0	--	--	95.0	311.9	57.9	3.0	0.0	3.0	0.0	43.1
										Noise standard:		**65**	**Overall**	**54**

[1] According to EPD 's Good Practice on Ventilation System Noise Control, 105dB(A) is adopted for each chillers as a conservative approach.

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Night Time

N2-15 NSR Coordinate: x = 839830.1 y = 819652.6 z = 0 **50**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard	839629.0	819607.0	0.0	69.0	10.0	97.0	206.2	54.3	3.0	0.0	3.0	0.0	48.7
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	235.4	55.4	3.0	0.0	3.0	0.0	21.5
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	238.9	55.6	3.0	0.0	3.0	0.0	21.4
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	243.6	55.7	3.0	0.0	3.0	0.0	21.2
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	242.8	55.7	3.0	0.0	3.0	0.0	21.3
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	92.6	47.3	3.0	0.0	3.0	0.0	29.6
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	90.5	47.1	3.0	0.0	3.0	0.0	29.8
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	88.5	46.9	3.0	0.0	3.0	0.0	30.0
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	85.5	46.6	3.0	0.0	3.0	0.0	30.3
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	83.5	46.4	3.0	0.0	3.0	0.0	30.5
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	81.6	46.2	3.0	0.0	3.0	0.0	30.8
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	79.6	46.0	3.0	0.0	3.0	0.0	31.0
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	77.5	45.8	3.0	0.0	3.0	0.0	31.2
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	76.0	72.2	45.2	3.0	0.0	3.0	0.0	36.8
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	76.0	153.1	51.7	3.0	-10.0	3.0	0.0	20.3
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	90.0	183.8	53.3	3.0	-10.0	3.0	0.0	32.7
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	80.0	101.1	48.1	3.0	-10.0	3.0	0.0	27.9
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	76.0	128.8	50.2	3.0	0.0	3.0	0.0	31.8
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	90.0	258.7	56.3	3.0	-10.0	3.0	0.0	29.7
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	90.0	288.8	57.2	3.0	-10.0	3.0	0.0	28.8
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	90.0	283.9	57.1	3.0	-10.0	3.0	0.0	28.9
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	90.0	288.9	57.2	3.0	0.0	3.0	0.0	38.8
										Noise standard:		**55**	**Overall**	**50**

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Day/Evening Time

N2-31 NSR Coordinate: x = 839851.6 y = 819676.8 z = 0 **59**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard Noi	839629.0	819607.0	0.0	69.0	10.0	97.0	233.3	55.4	3.0	0.0	3.0	0.0	47.6
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	261.8	56.4	3.0	0.0	3.0	0.0	20.6
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	265.5	56.5	3.0	0.0	3.0	0.0	20.5
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	270.4	56.6	3.0	0.0	3.0	0.0	20.3
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	269.3	56.6	3.0	0.0	3.0	0.0	20.4
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	73.5	45.3	3.0	0.0	3.0	0.0	31.6
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	71.3	45.1	3.0	0.0	3.0	0.0	31.9
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	69.5	44.8	3.0	0.0	3.0	0.0	32.1
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	66.7	44.5	3.0	0.0	3.0	0.0	32.5
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	64.9	44.2	3.0	0.0	3.0	0.0	32.7
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	63.1	44.0	3.0	0.0	3.0	0.0	33.0
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	61.3	43.7	3.0	0.0	3.0	0.0	33.2
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	59.0	43.4	3.0	0.0	3.0	0.0	33.6
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	81.0	97.6	47.8	3.0	0.0	3.0	0.0	39.2
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	81.0	176.1	52.9	3.0	-10.0	3.0	0.0	24.1
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	98.0	193.5	53.7	3.0	-10.0	3.0	0.0	40.3
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	85.0	101.6	48.1	3.0	0.0	3.0	0.0	42.9
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	81.0	143.3	51.1	3.0	0.0	3.0	0.0	35.9
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	95.0	271.4	56.7	3.0	-10.0	3.0	0.0	34.3
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	95.0	301.3	57.6	3.0	-10.0	3.0	0.0	33.4
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	95.0	293.3	57.3	3.0	-10.0	3.0	0.0	33.7
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	95.0	299.8	57.5	3.0	0.0	3.0	0.0	43.5
TQR01	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819760.0	0.0	49.0	5.0	71.0	194.1	53.8	3.0	0.0	3.0	0.0	23.2
TQR02	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819760.0	0.0	49.0	5.0	71.0	203.2	54.2	3.0	0.0	3.0	0.0	22.8
TQR03	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819750.0	0.0	49.0	5.0	71.0	190.1	53.6	3.0	0.0	3.0	0.0	23.4
TQR04	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819750.0	0.0	49.0	5.0	71.0	199.3	54.0	3.0	0.0	3.0	0.0	23.0
TQR05	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819740.0	0.0	49.0	5.0	71.0	186.4	53.4	3.0	0.0	3.0	0.0	23.6
ET_FN01	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840187.0	819646.2	0.0	70.0	5.4	92.7	336.8	58.5	3.0	-10.0	3.0	0.0	30.1
ET_FN02	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840192.9	819640.6	0.0	70.0	5.4	92.7	343.2	58.7	3.0	-10.0	3.0	0.0	29.9
ET_FN03	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840200.9	819629.9	0.0	70.0	5.4	92.7	352.5	58.9	3.0	-10.0	3.0	0.0	29.7
ET_FN04	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840194.0	819622.8	0.0	70.0	5.4	92.7	346.6	58.8	3.0	-10.0	3.0	0.0	29.9
ET_FN05	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840205.9	819625.2	0.0	-	-	90.0	358.0	59.1	3.0	-10.0	3.0	0.0	26.9
ET_FN06	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840198.9	819618.2	0.0	-	-	90.0	352.3	58.9	3.0	-10.0	3.0	0.0	27.1
WT_FN01	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840152.3	819675.6	0.0	70.0	5.4	92.7	300.7	57.6	3.0	-10.0	3.0	0.0	31.1
WT_FN02	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840145.5	819668.4	0.0	70.0	5.4	92.7	294.0	57.4	3.0	-10.0	3.0	0.0	31.3
WT_FN03	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840157.2	819670.9	0.0	70.0	5.4	92.7	305.7	57.7	3.0	-10.0	3.0	0.0	30.9
WT_FN04	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840150.4	819663.8	0.0	70.0	5.4	92.7	299.1	57.5	3.0	-10.0	3.0	0.0	31.1
WS_FN01 [1]	Chiller at WSD Kowloon Bay Building	840049.9	819884.2	0.0	--	--	105.0	286.9	57.2	3.0	0.0	3.0	0.0	53.8
WS_FN02 [1]	Chiller at WSD Kowloon Bay Building	840050.1	819880.0	0.0	--	--	105.0	284.0	57.1	3.0	0.0	3.0	0.0	53.9
CT_FN01	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839845.3	819996.2	0.0	--	--	95.0	319.4	58.1	3.0	0.0	3.0	0.0	42.9
CT_FN02	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839847.6	819976.8	0.0	--	--	95.0	300.0	57.5	3.0	0.0	3.0	0.0	43.5
CT_FN03	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839849.2	819963.9	0.0	--	--	95.0	287.1	57.2	3.0	0.0	3.0	0.0	43.8
										Noise standard:		**70**	**Overall**	**59**

[1] According to EPD 's Good Practice on Ventilation System Noise Control, 105dB(A) is adopted for each chillers as a conservative approach.

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Night Time

N2-31 NSR Coordinate: x = 839851.6 y = 819676.8 z = 0 **50**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard	839629.0	819607.0	0.0	69.0	10.0	97.0	233.3	55.4	3.0	0.0	3.0	0.0	47.6
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	261.8	56.4	3.0	0.0	3.0	0.0	20.6
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	265.5	56.5	3.0	0.0	3.0	0.0	20.5
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	270.4	56.6	3.0	0.0	3.0	0.0	20.3
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	269.3	56.6	3.0	0.0	3.0	0.0	20.4
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	73.5	45.3	3.0	0.0	3.0	0.0	31.6
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	71.3	45.1	3.0	0.0	3.0	0.0	31.9
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	69.5	44.8	3.0	0.0	3.0	0.0	32.1
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	66.7	44.5	3.0	0.0	3.0	0.0	32.5
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	64.9	44.2	3.0	0.0	3.0	0.0	32.7
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	63.1	44.0	3.0	0.0	3.0	0.0	33.0
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	61.3	43.7	3.0	0.0	3.0	0.0	33.2
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	59.0	43.4	3.0	0.0	3.0	0.0	33.6
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	76.0	97.6	47.8	3.0	0.0	3.0	0.0	34.2
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	76.0	176.1	52.9	3.0	-10.0	3.0	0.0	19.1
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	90.0	193.5	53.7	3.0	-10.0	3.0	0.0	32.3
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	80.0	101.6	48.1	3.0	0.0	3.0	0.0	37.9
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	76.0	143.3	51.1	3.0	0.0	3.0	0.0	30.9
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	90.0	271.4	56.7	3.0	-10.0	3.0	0.0	29.3
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	90.0	301.3	57.6	3.0	-10.0	3.0	0.0	28.4
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	90.0	293.3	57.3	3.0	-10.0	3.0	0.0	28.7
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	90.0	299.8	57.5	3.0	0.0	3.0	0.0	38.5
										Noise standard:		**60**	**Overall**	**50**

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Day/Evening Time

N2-35 NSR Coordinate: x = 839863.2 y = 819668.0 z = 0 **58**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard Noi	839629.0	819607.0	0.0	69.0	10.0	97.0	242.0	55.7	3.0	-10.0	3.0	0.0	37.3
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	270.9	56.7	3.0	-10.0	3.0	0.0	10.3
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	274.5	56.8	3.0	-10.0	3.0	0.0	10.2
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	279.3	56.9	3.0	-10.0	3.0	0.0	10.1
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	278.4	56.9	3.0	-10.0	3.0	0.0	10.1
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	86.4	46.7	3.0	-10.0	3.0	0.0	20.2
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	84.2	46.5	3.0	-10.0	3.0	0.0	20.5
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	82.4	46.3	3.0	-10.0	3.0	0.0	20.7
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	79.7	46.0	3.0	-10.0	3.0	0.0	20.9
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	78.0	45.8	3.0	-10.0	3.0	0.0	21.1
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	76.3	45.6	3.0	-10.0	3.0	0.0	21.3
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	74.5	45.4	3.0	-10.0	3.0	0.0	21.5
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	72.3	45.2	3.0	-10.0	3.0	0.0	21.8
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	81.0	106.9	48.6	3.0	-10.0	3.0	0.0	28.4
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	81.0	186.7	53.4	3.0	-10.0	3.0	0.0	23.6
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	98.0	207.4	54.3	3.0	-10.0	3.0	0.0	39.7
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	85.0	116.1	49.3	3.0	-10.0	3.0	0.0	31.7
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	81.0	156.3	51.9	3.0	-10.0	3.0	0.0	25.1
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	95.0	284.9	57.1	3.0	-10.0	3.0	0.0	33.9
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	95.0	314.9	58.0	3.0	-10.0	3.0	0.0	33.0
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	95.0	307.3	57.8	3.0	-10.0	3.0	0.0	33.2
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	95.0	313.6	57.9	3.0	-10.0	3.0	0.0	33.1
TQR01	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819760.0	0.0	49.0	5.0	71.0	187.9	53.5	3.0	0.0	3.0	0.0	23.5
TQR02	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819760.0	0.0	49.0	5.0	71.0	196.7	53.9	3.0	0.0	3.0	0.0	23.1
TQR03	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819750.0	0.0	49.0	5.0	71.0	183.2	53.3	3.0	0.0	3.0	0.0	23.7
TQR04	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840037.0	819750.0	0.0	49.0	5.0	71.0	192.2	53.7	3.0	0.0	3.0	0.0	23.3
TQR05	Chillers/condenser at The Quayside (Ref.: Zonda-S H 80-2 A2, 1 V AC 06D)	840027.0	819740.0	0.0	49.0	5.0	71.0	179.0	53.1	3.0	0.0	3.0	0.0	23.9
ET_FN01	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840187.0	819646.2	0.0	70.0	5.4	92.7	324.6	58.2	3.0	0.0	3.0	0.0	40.4
ET_FN02	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840192.9	819640.6	0.0	70.0	5.4	92.7	330.9	58.4	3.0	0.0	3.0	0.0	40.3
ET_FN03	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840200.9	819629.9	0.0	70.0	5.4	92.7	339.9	58.6	3.0	0.0	3.0	0.0	40.0
ET_FN04	Cooling Tower at One Bay East East Tower (Ref.: Ryowo FC-500)	840194.0	819622.8	0.0	70.0	5.4	92.7	333.9	58.5	3.0	0.0	3.0	0.0	40.2
ET_FN05	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840205.9	819625.2	0.0	-	-	90.0	345.3	58.8	3.0	0.0	3.0	0.0	37.2
ET_FN06	Chillers/condenser at One Bay East Tower (Ref.: EWAQ-F-XR 430)	840198.9	819618.2	0.0	-	-	90.0	339.4	58.6	3.0	0.0	3.0	0.0	37.4
WT_FN01	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840152.3	819675.6	0.0	70.0	5.4	92.7	289.2	57.2	3.0	0.0	3.0	0.0	41.4
WT_FN02	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840145.5	819668.4	0.0	70.0	5.4	92.7	282.3	57.0	3.0	0.0	3.0	0.0	41.6
WT_FN03	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840157.2	819670.9	0.0	70.0	5.4	92.7	294.1	57.4	3.0	0.0	3.0	0.0	41.3
WT_FN04	Cooling Tower at One Bay East West Tower (Ref.: Ryowo FC-500)	840150.4	819663.8	0.0	70.0	5.4	92.7	287.3	57.2	3.0	0.0	3.0	0.0	41.5
WS_FN01 [1]	Chiller at WSD Kowloon Bay Building	840049.9	819884.2	0.0	--	--	105.0	285.7	57.1	3.0	0.0	3.0	0.0	53.9
WS_FN02 [1]	Chiller at WSD Kowloon Bay Building	840050.1	819880.0	0.0	--	--	105.0	282.6	57.0	3.0	0.0	3.0	0.0	54.0
CT_FN01	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839845.3	819996.2	0.0	--	--	95.0	328.7	58.3	3.0	-10.0	3.0	0.0	32.7
CT_FN02	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839847.6	819976.8	0.0	--	--	95.0	309.2	57.8	3.0	-10.0	3.0	0.0	33.2
CT_FN03	Cooling Tower at Capital Tower (Ref.: Ryowo FWS-700-30)	839849.2	819963.9	0.0	--	--	95.0	296.3	57.4	3.0	-10.0	3.0	0.0	33.6
										Noise standard:		**70**	**Overall**	**58**

[1] According to EPD 's Good Practice on Ventilation System Noise Control, 105dB(A) is adopted for each chillers as a conservative approach.

Predicted Noise Level for Fixed Noise Impact Assessment - Base Case Scenario
Night Time

N2-35 NSR Coordinate: x = 839863.2 y = 819668.0 z = 0 **41**

Source ID	Description	Industrial Noise Source Coordinate: x	y	z	SPL	Ref dist.	SWL	Horizontal distance from source to NSR (m)	Distance Corr.	Façade Corr.	Barrier Corr.	Tonality Corr.	Impulsive Corr.	ANL
HKCH01	Hong Kong Children's Hospital (Ref.: Model RTAF 410 Standard Efficiency Standard	839629.0	819607.0	0.0	69.0	10.0	97.0	242.0	55.7	3.0	-10.0	3.0	0.0	37.3
HKCH02	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839599.0	819608.0	0.0	49.0	5.0	71.0	270.9	56.7	3.0	-10.0	3.0	0.0	10.3
HKCH03	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839596.0	819605.0	0.0	49.0	5.0	71.0	274.5	56.8	3.0	-10.0	3.0	0.0	10.2
HKCH04	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819601.0	0.0	49.0	5.0	71.0	279.3	56.9	3.0	-10.0	3.0	0.0	10.1
HKCH05	Hong Kong Children's Hospital (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839592.0	819605.0	0.0	49.0	5.0	71.0	278.4	56.9	3.0	-10.0	3.0	0.0	10.1
KTF01	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839824.0	819745.0	0.0	49.0	5.0	71.0	86.4	46.7	3.0	-10.0	3.0	0.0	20.2
KTF02	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819743.0	0.0	49.0	5.0	71.0	84.2	46.5	3.0	-10.0	3.0	0.0	20.5
KTF03	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819741.0	0.0	49.0	5.0	71.0	82.4	46.3	3.0	-10.0	3.0	0.0	20.7
KTF04	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819738.0	0.0	49.0	5.0	71.0	79.7	46.0	3.0	-10.0	3.0	0.0	20.9
KTF05	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819736.0	0.0	49.0	5.0	71.0	78.0	45.8	3.0	-10.0	3.0	0.0	21.1
KTF06	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819734.0	0.0	49.0	5.0	71.0	76.3	45.6	3.0	-10.0	3.0	0.0	21.3
KTF07	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839825.0	819732.0	0.0	49.0	5.0	71.0	74.5	45.4	3.0	-10.0	3.0	0.0	21.5
KTF08	Kai Tak Fire Station (Ref.: Zonda-S H 80-2 A 2, 1 V AC 06D)	839826.0	819730.0	0.0	49.0	5.0	71.0	72.3	45.2	3.0	-10.0	3.0	0.0	21.8
NAH-FNS-A1	Fixed Noise Source at East Façade of Block A in New Acute Hospital	839758.0	819649.0	0.0	--	--	76.0	106.9	48.6	3.0	-10.0	3.0	0.0	23.4
NAH-FNS-A2	Fixed Noise Source at South Façade of Block A in New Acute Hospital	839677.0	819654.0	0.0	--	--	76.0	186.7	53.4	3.0	-10.0	3.0	0.0	18.6
NAH-FNS-A3	Fixed Noise Source at West Façade of Block A in New Acute Hospital	839669.0	819741.0	0.0	--	--	90.0	207.4	54.3	3.0	-10.0	3.0	0.0	31.7
NAH-FNS-A4	Fixed Noise Source at North Façade of Block A in New Acute Hospital	839765.0	819730.0	0.0	--	--	80.0	116.1	49.3	3.0	-10.0	3.0	0.0	26.7
NAH-FNS-A5	Fixed Noise Source on Rooftop at Block A in New Acute Hospital	839710.0	819699.0	0.0	--	--	76.0	156.3	51.9	3.0	-10.0	3.0	0.0	20.1
NAH-FNS-B1	Fixed Noise Source at East Façade of Block B in New Acute Hospital	839590.0	819749.0	0.0	--	--	90.0	284.9	57.1	3.0	-10.0	3.0	0.0	28.9
NAH-FNS-B2	Fixed Noise Source at South Façade of Block B in New Acute Hospital	839562.0	819760.0	0.0	--	--	90.0	314.9	58.0	3.0	-10.0	3.0	0.0	28.0
NAH-FNS-B4	Fixed Noise Source at North Façade of Block B in New Acute Hospital	839579.0	819785.0	0.0	--	--	90.0	307.3	57.8	3.0	-10.0	3.0	0.0	28.2
NAH-FNS-B5	Fixed Noise Soruce on Rooftop at Block B in New Acute Hospital	839568.0	819774.0	0.0	--	--	90.0	313.6	57.9	3.0	-10.0	3.0	0.0	28.1
										Noise standard:		**60**	**Overall**	**41**

Appendix 3.5 Extract Quarterly Report on the Public Works Programme

Project No.	Project Title		Project Estimate ($M)	Project Start Date	Project Completion Date	Notes on Progress of Project and variance in project estimate, start date and completion date
7851CL	Relocation of Public Works Central Laboratory to caverns	Approved by F.C. Current forecast	2,155.700 2,155.700	Q2/2023 07/2023	Q2/2027 Q3/2027	The project (under a Joint Cavern Development package, see also Project No. 5792CL) obtained funding approval from Finance Committee on 23 June 2023. The works contract commenced on 10 July 2023 and was about 26% completed. Design works under the Design and Build contract, drill-and-blast works for the main cavern and enabling adit formation, and site formation works at Portal B are in progress as scheduled.
7771CL	Site formation and infrastructure works for the development of ex-Cha Kwo Ling Kaolin Mine Site (Phase 2)	Approved by F.C. Current forecast	675.600 675.600	Q2/2023 07/2023	Q4/2027 Q4/2027	Works commenced on 31 July 2023 and were about 34.8% completed. The earthworks, slope works and construction of retaining structures were in progress.
7796CL	Hung Shui Kiu/Ha Tsuen New Development Area stage 1 works—site formation and engineering infrastructure	Approved by F.C. Current forecast	1,351.200 1,351.200	Q2/2020 04/2021	Q3/2025 Q3/2025	The works were 85% completed. Site formation works for multi-storey building sites are in progress. It is expected that the contract would be substantially completed by Q3 2025.

Appendix 4.1 Photo Record for the Identified Potential Odour Sources



Appendix: 4.1

Title: Photo Record for the Identified Potential Odour Sources

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by:	AW
Checked by:	CC
Rev.:	1.0
Date:	Aug 2025

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Appendix 4.2 Correspondence from Environmental Protection Department

Anna Wu

From: YC CHU/EPD <ycchu@epd.gov.hk>
Sent: Monday, August 11, 2025 2:57 PM
To: Anna Wu
Cc: CT WONG/EPD
Subject: Fw: Request for Information of Odour Complaints of Kwun Tong Typhoon Shelter and Sinopec LPG Station
Attachments: Location of odour sources and Application Site.pdf

You don't often get email from ycchu@epd.gov.hk. Learn why this is important

Dear Anna,

I refer to your request of information in the preceding email.

Based on our record, no odour complaints were received during the period of 2020-2024 for the Sinopec LPG station and Kwun Tong Typhoon Shelter (within 200m from the application site in your attached file).

If you have any questions, please contact my colleague Ms Wong at 2117 7547.

Regards,
Vincent Chu
Regional Office (East)
Environmental Protection Department

From: Anna Wu <AYMWU@ramboll.com>
Sent: Tuesday, July 15, 2025 11:21 AM
To: Kwok-wai HO/EPD <kwokwaiho@epd.gov.hk>
Cc: Billy Fan <bfan@ramboll.com>; Susan Chan <SUSANCHAN@ramboll.com>
Subject: Request for Information of Odour Complaints of Kwun Tong Typhoon Shelter and Sinopec LPG Station

Dear Mr Ho,

Environmental Assessment for Proposed Residential Development at 8 Lam Chak Street, Kowloon Bay
Request for Information of Odour Complaints of Kwun Tong Typhoon Shelter and Sinopec LPG Station

We are the environmental consultant employed by the project proponent for conducting an Environmental Assessment for the proposed residential development at 8 Lam Chak Street, Kowloon Bay.

Of particular interests is whether there is any information regarding historical complaint(s) received in the past five years (2020-2024) on the odour issue (if any) of Kwun Tong Typhoon Shelter and Sinopec LPG Station (figure as attached).

If there are odour complaints related to these facilities, we would be much appreciated if you would provide us the number of complaints received in each year between 2020 to 2024. We would be grateful if there is any additional information including the date of complaint, affected area, as well as any identification of the odour source(s) and any mitigation measures / improvements of the odour source(s), if necessary, have been implemented after receiving the complaints(s).

Due to the urgency of the project, we would be much appreciated if you could provide the requested information by **29 Jul 2025**.

Should you have any queries, please do not hesitate to contact the undersigned. We sincerely seek your feedback on this matter. Thank you in advance for any assistance you can provide.

Kind regards
Anna Wu

Assistant Environmental Consultant

D +852 3465 2863
M +852 6210 3085
aymwu@ramboll.com

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Hong Kong

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Ramboll Hong Kong Limited

Classification: Confidential

Appendix 4.3 TD's Endorsement on the Road Type

Grace KF Wong

From: Hei Yu CHAN <heiyuchan@td.gov.hk>
Sent: Friday, February 20, 2026 3:03 PM
To: Catherina Chu
Subject: RE: Harbourside HQ at No. 8 Lam Chak Street, Kowloon Bay - Road Type Classification
Attachments: 20260108_EPD5.pdf; FIG 1 - Location.pdf

Dear Catherina,

No comment please.

Regards,

Alvin Chan
EK/KTak, TEK, TD
Tel: 2399 2772

From: "Catherina Chu" <catherinachu@ctaconsultants.com>
To: <heiyuchan@td.gov.hk>
Cc: "'Horace Mak'" <horacemak@ctaconsultants.com>, <edmundyip@ctaconsultants.com>
Date: 16/02/2026 11:48 AM
Subject: RE: Harbourside HQ at No. 8 Lam Chak Street, Kowloon Bay - Road Type Classification

---

Dear Alvin,

We refer to the captioned subject.

As per comment of EPD #4 (please refer to the attachment), road type of Lam Chak Street and Kai Hing Road (please refer to the attached location plan) is required to be confirmed for their further consideration of the report for Air Quality Impact Assessment (AQIA).

As stipulated in Annual Traffic Census 2024, there is no road classification for the concerned road links. Taking into consideration that Cheung Yip Street is classified as "Local Distributor" and it is connected to Lam Chak Street, which connected to Kai Hing Road, it is envisaged that of Lam Chak Street and Kai Hing Road should be classified as "Local Distributor" (the lowest road type under the road hierarchy) and hence we would like to seek for your comment/confirmation on that.

Should you have any queries or require further information, please do not hesitate to Mr. Horace Mak or the undersigned at 2214 0849.

Thank you very much for your kind attention and we are looking forward to your favourable reply at your earliest convenience.

Best Regards,

Catherina Chu
Chief Transport Planner

CTA Consultants Limited
Unit 2108, 21/F, Westlands Centre, 20 Westlands Road, Quarry Bay, Hong Kong
Tel: (852) 2214 0849 Fax: (852) 2214 0817

Appendix 5.1 Historical Aerial Photo



Appendix:	5.1	RAMBOLL
Title:	Historical Aerial Photo - Year 1963	Drawn by: GW Checked by: CC
Project:	Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.1 Date: Oct 2025

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Appendix: 5.1

Title: Historical Aerial Photo - Year 1964

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by:	GW
Checked by:	CC
Rev.:	1.1
Date:	Oct 2025

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Appendix: 5.1

Title: Historical Aerial Photo - Year 1968

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by:	GW
Checked by:	CC
Rev.:	1.1
Date:	Oct 2025

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Appendix: 5.1	RAMBOLL
Title: Historical Aerial Photo - Year 1974	Drawn by: GW
	Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2
	Date: Jan 2026

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Appendix: 5.1

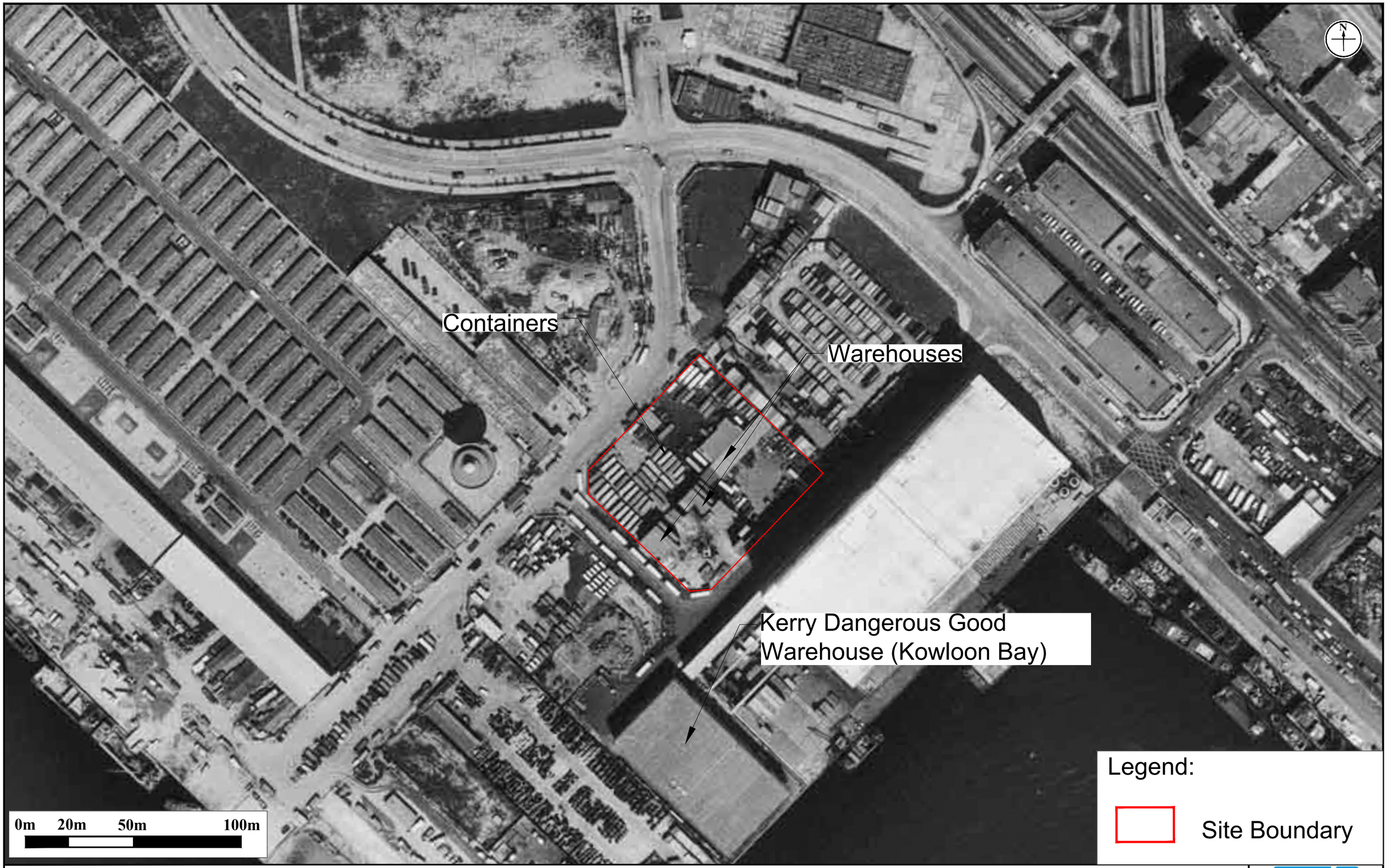
Title: Historical Aerial Photo - Year 1981

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by:	GW
Checked by:	CC
Rev.:	1.1
Date:	Oct 2025

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Appendix: 5.1

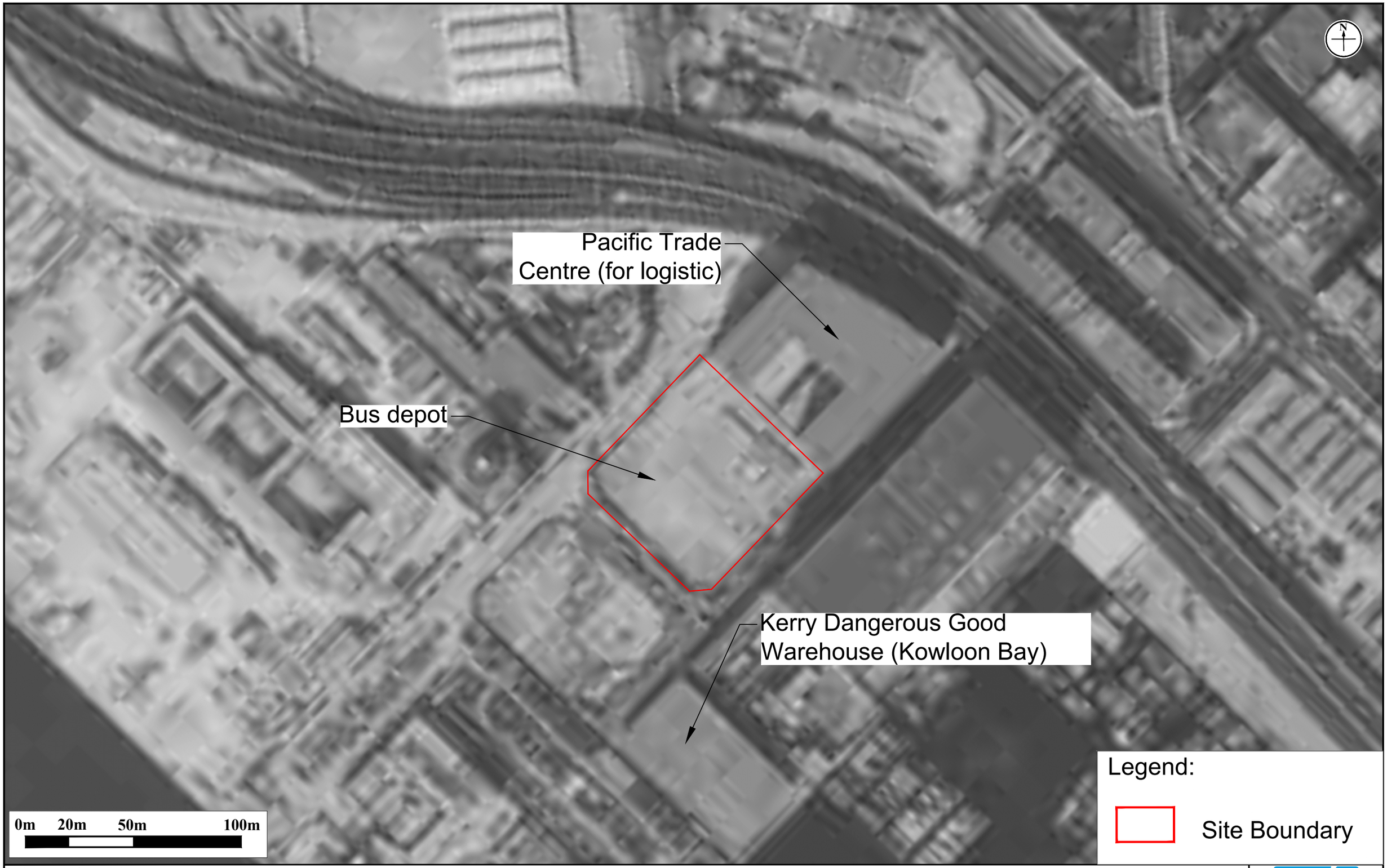
Title: Historical Aerial Photo - Year 1986

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

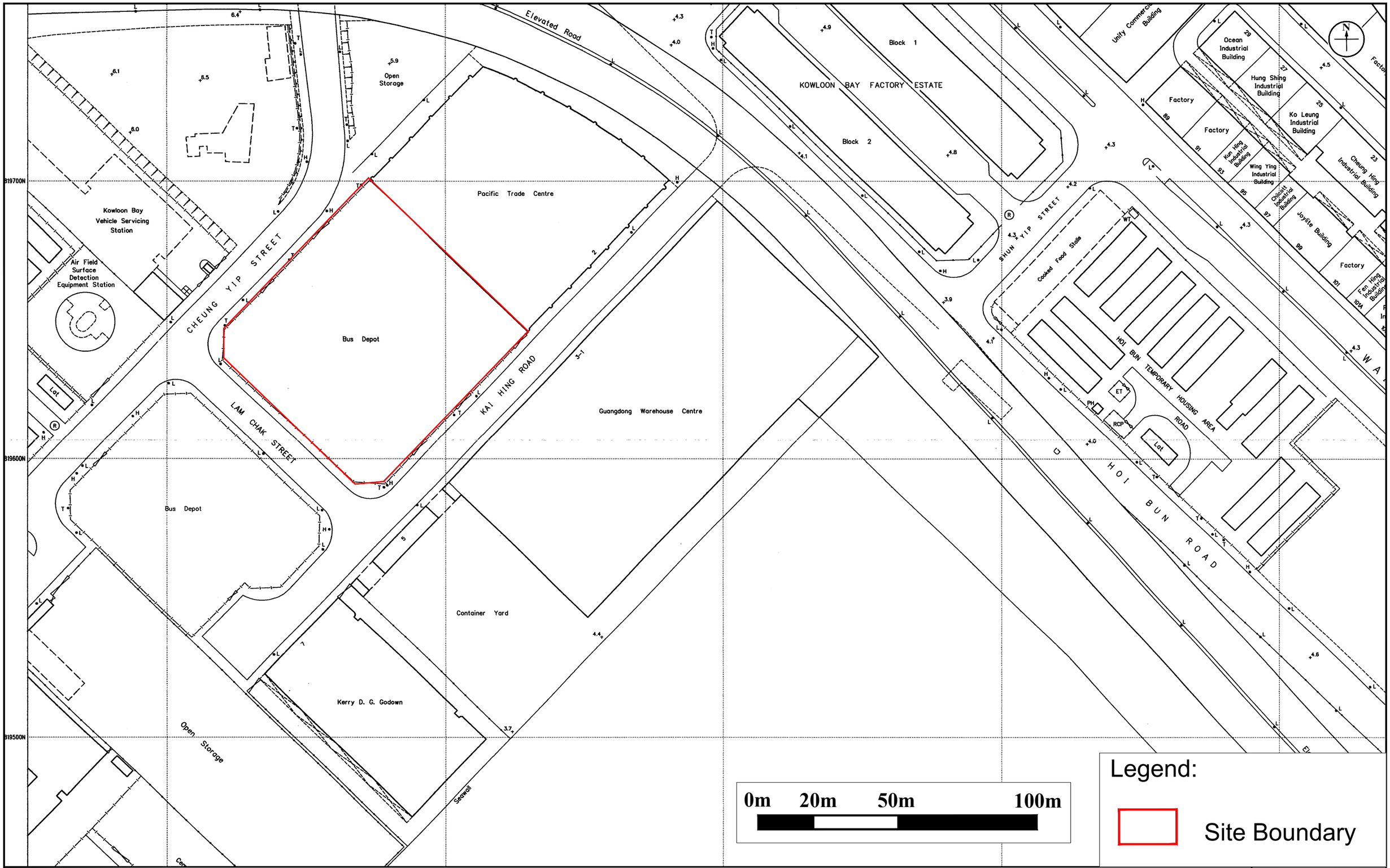
Drawn by:	GW
Checked by:	CC
Rev.:	1.2
Date:	Jan 2026

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Appendix: 5.1	RAMBOLL
Title: Historical Aerial Photo - Year 1991	Drawn by: GW Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2 Date: Jan 2026

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Appendix: 5.1

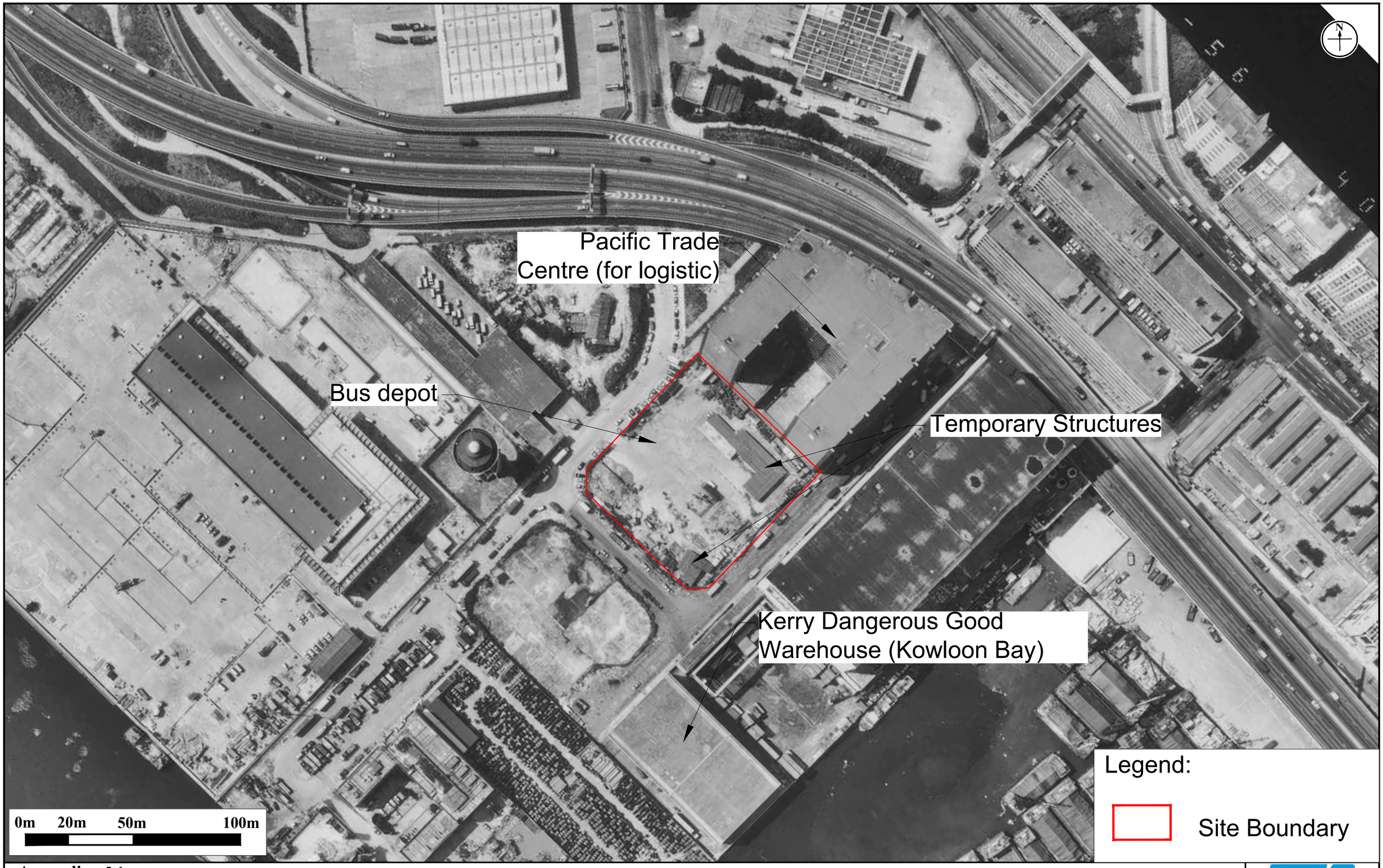
Title: Topographic Map - Year 1991

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by:	GW
Checked by:	CC
Rev.:	1.2
Date:	Jan 2026

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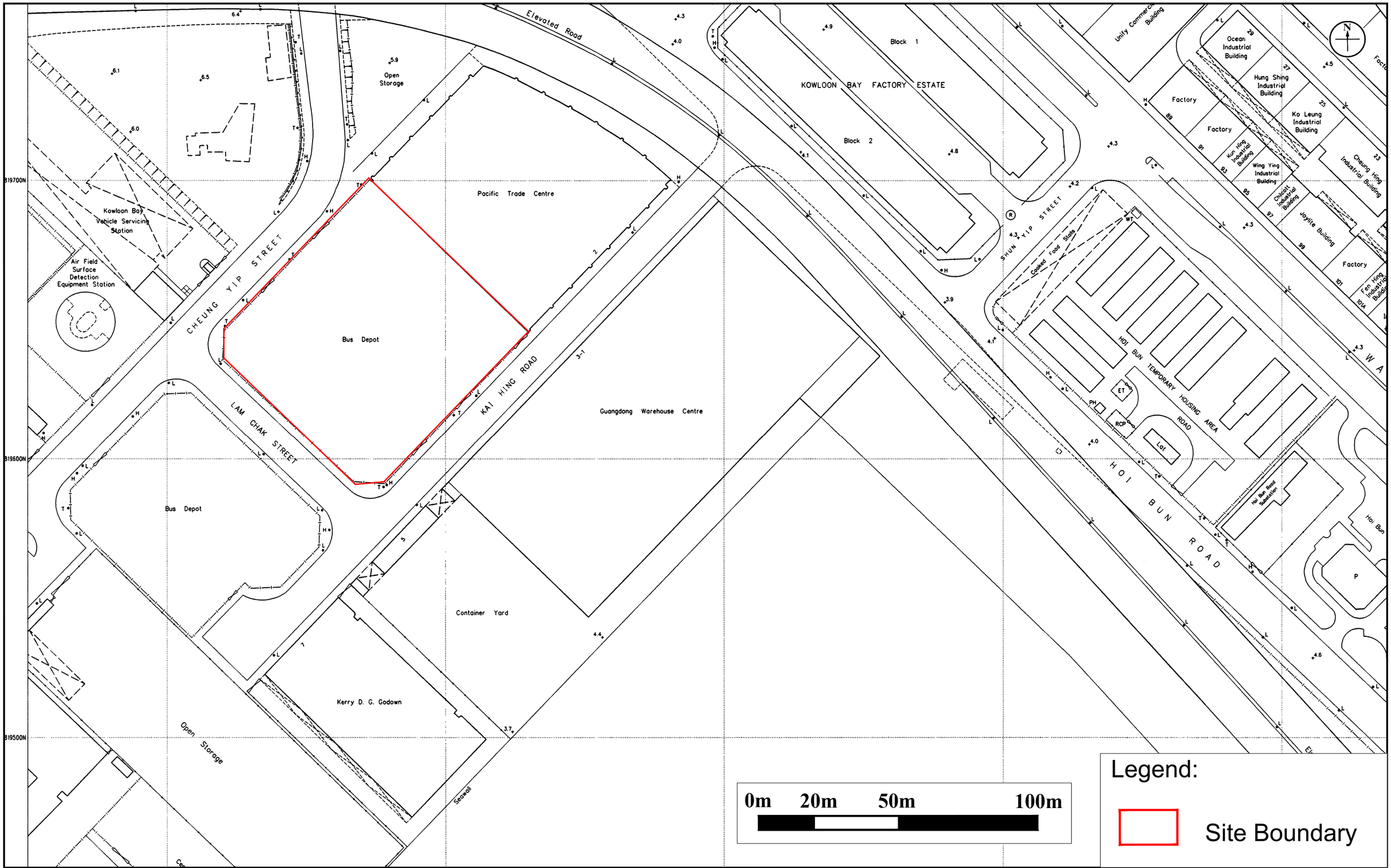
Appendix: 5.1	RAMBOLL
Title: Historical Aerial Photo - Year 1992	Drawn by: GW
	Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2
	Date: Jan 2026

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Appendix: 5.1	RAMBOLL
Title: Historical Aerial Photo - Year 1993	Drawn by: GW Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2 Date: Jan 2026

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Appendix: 5.1

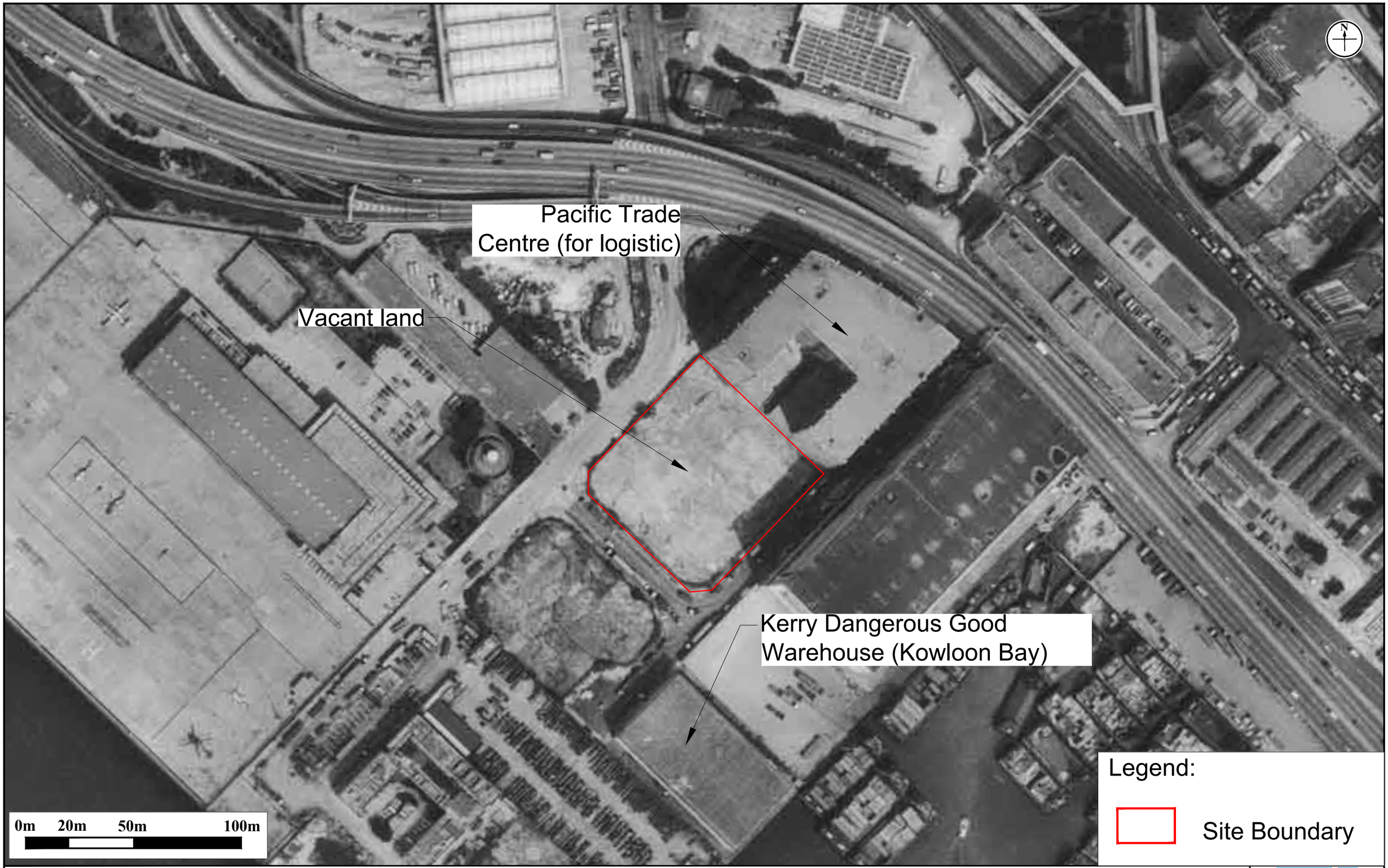
Title: Topographic Map - Year 1993

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

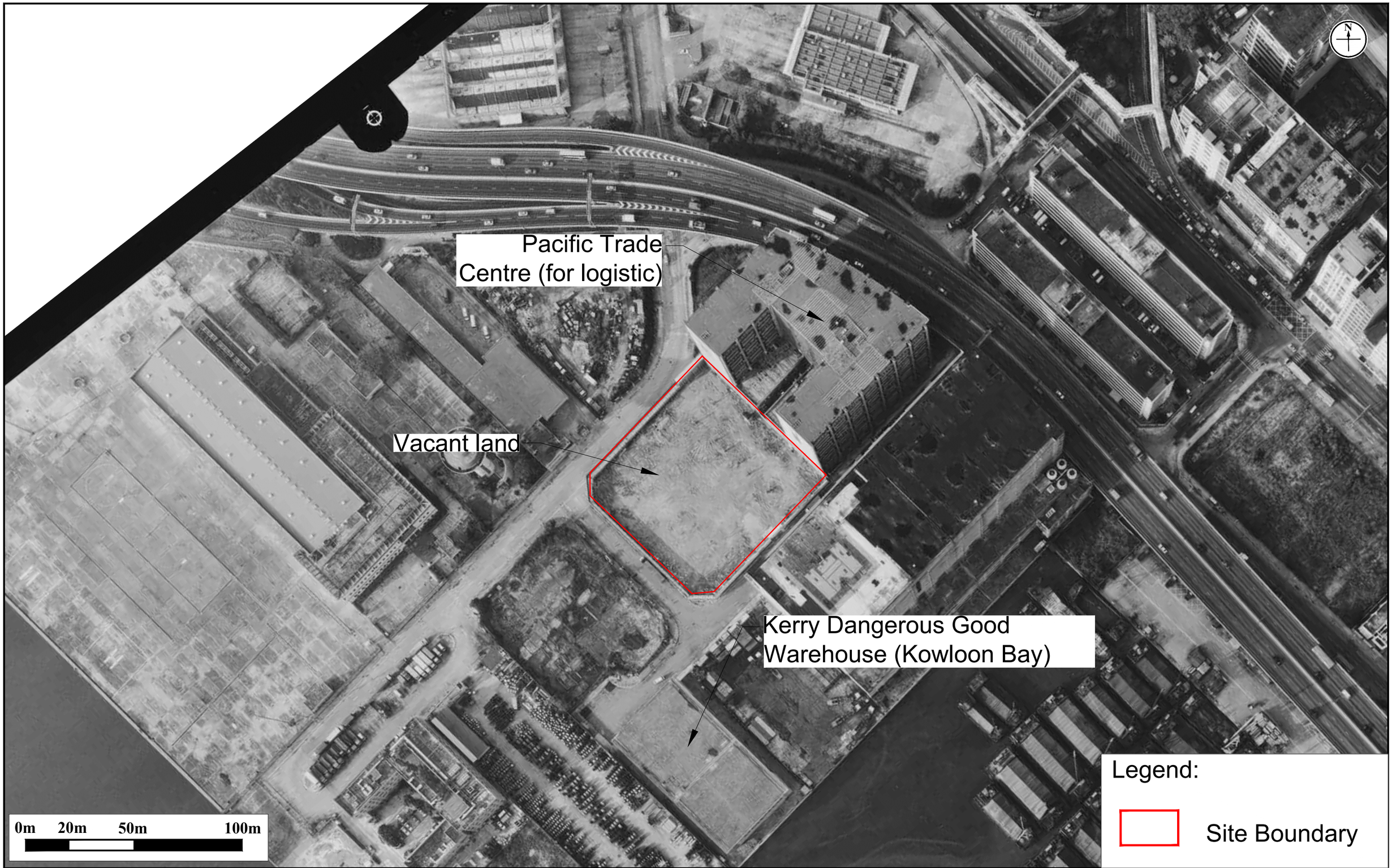
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Checked by:	CC
Rev.:	1.2
Date:	Jan 2026

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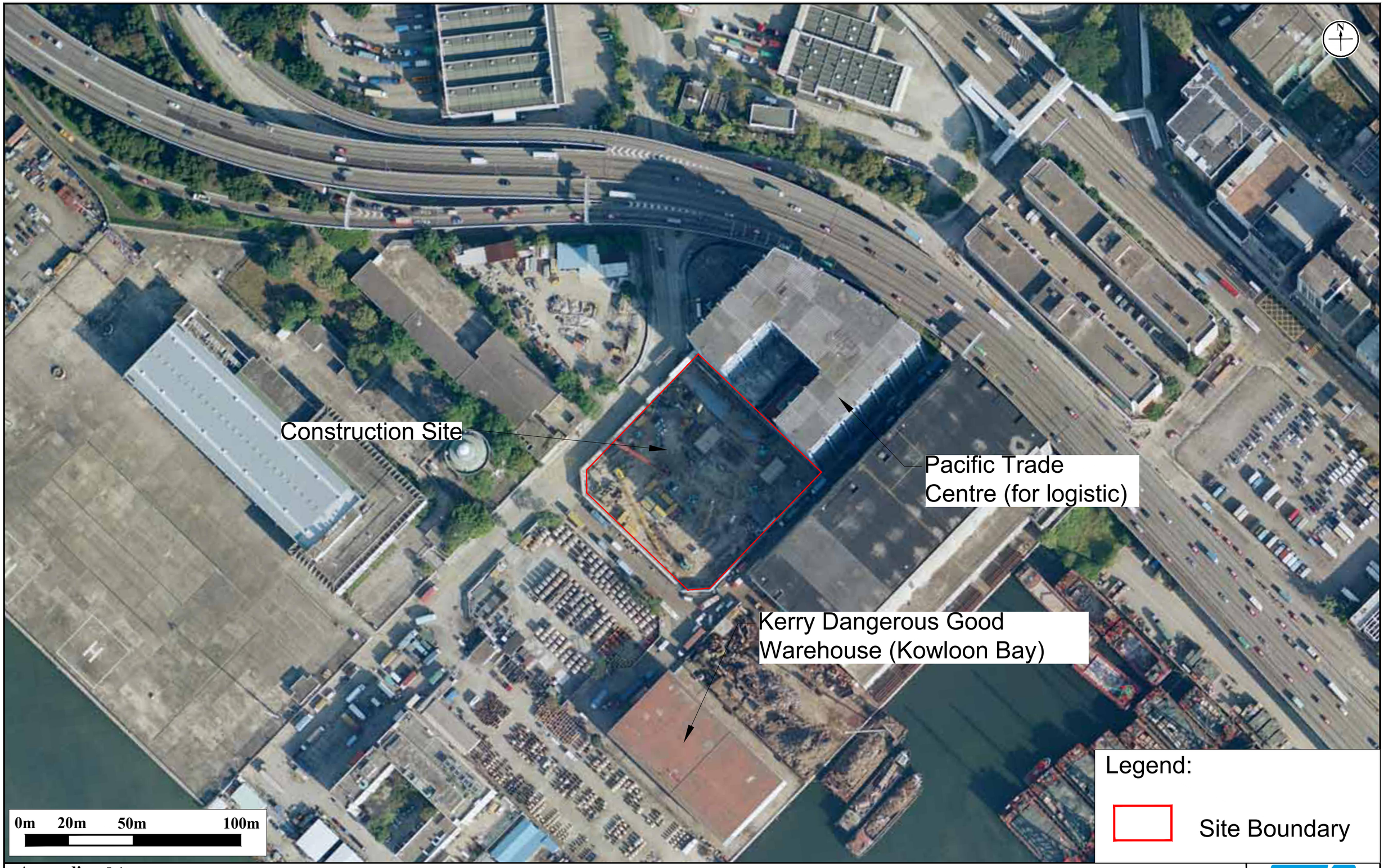
Appendix: 5.1	RAMBOLL
Title: Historical Aerial Photo - Year 1994	Drawn by: GW
	Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2
	Date: Jan 2026

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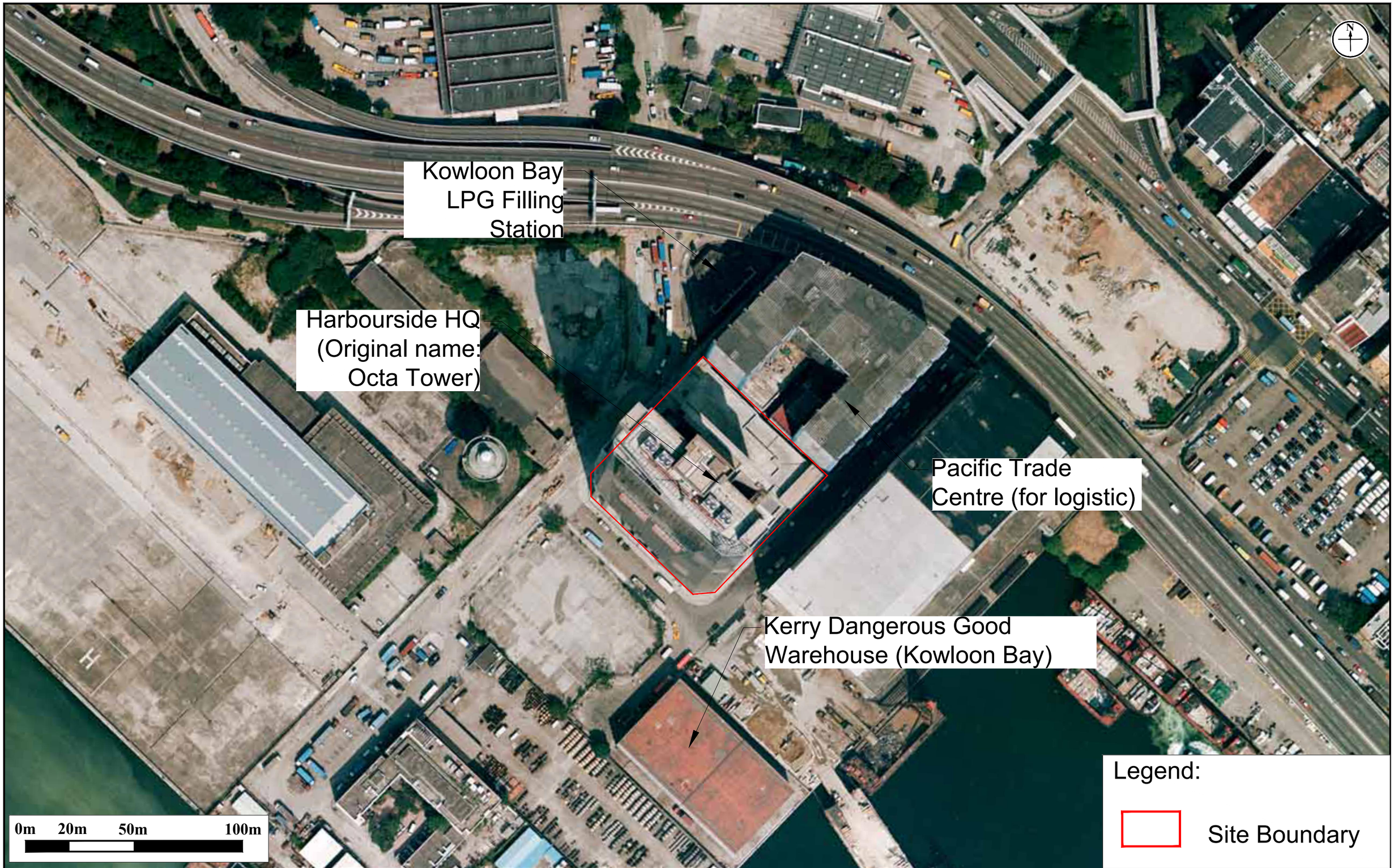
Appendix: 5.1	RAMBOLL
Title: Historical Aerial Photo - Year 2000	Drawn by: GW Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2 Date: Jan 2026

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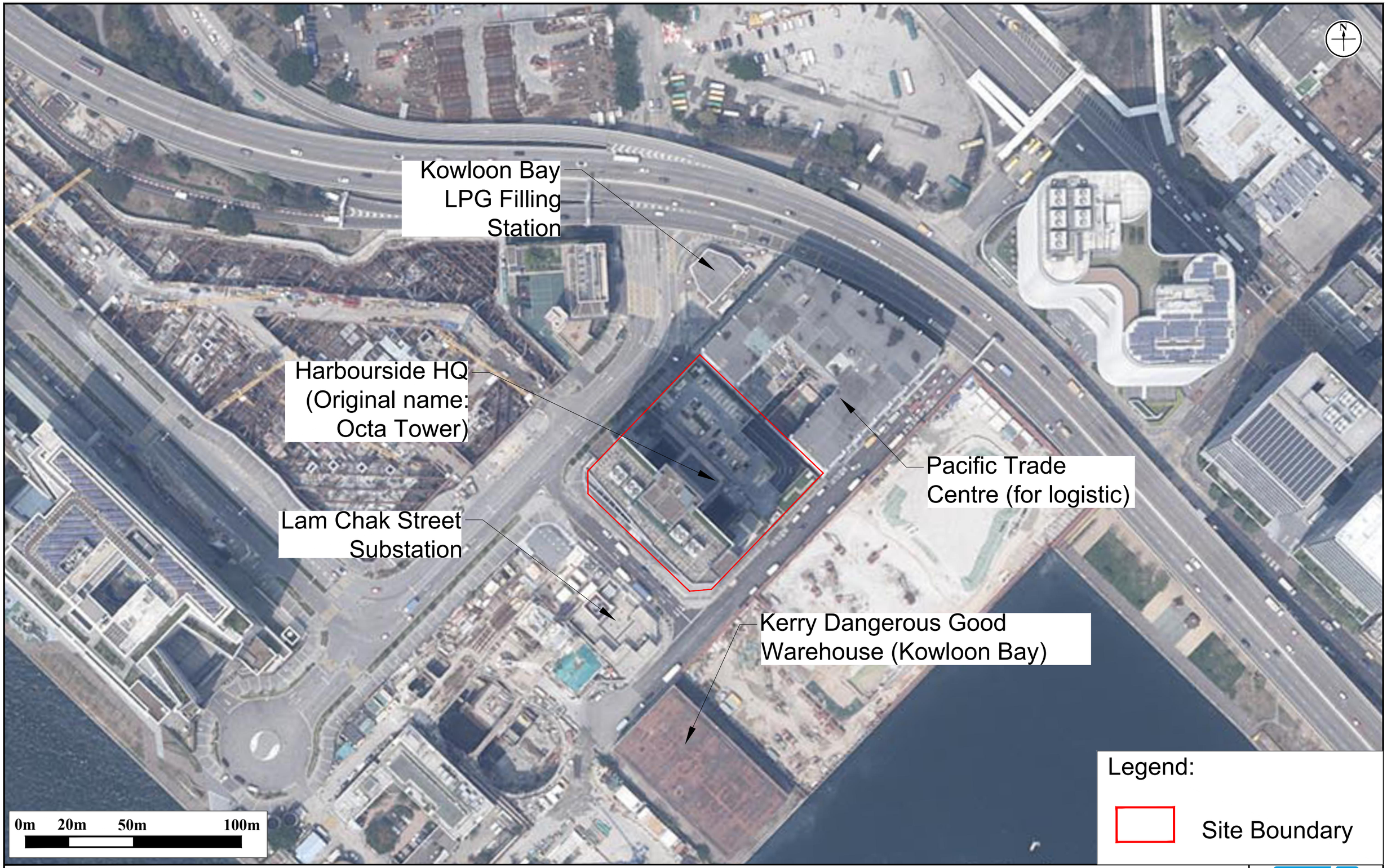
Appendix: 5.1	RAMBOLL
Title: Historical Aerial Photo - Year 2006	Drawn by: GW
	Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2
	Date: Jan 2026

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Appendix: 5.1		RAMBOLL
Title:	Historical Aerial Photo - Year 2010	Drawn by: GW
		Checked by: CC
Project:	Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2
		Date: Jan 2026

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Appendix: 5.1	RAMBOLL
Title: Historical Aerial Photo - Year 2024	Drawn by: GW
	Checked by: CC
Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215	Rev.: 1.2
	Date: Jan 2026

Q:\Projects\CHPHBSHQEI00\05 Assessments\06 LD\20260105 v1.2\20260105_Aerial Photo v2.dwg

Appendix 5.2 Correspondence with Various Departments

RAMBOLL

Ref.: CHPHBSHQEI00_0_0003L.25

9 July 2025

Planning Department,
District Planning Branch,
Metro District Planning Division,
Kowloon District Planning Office
14/F, North Point Government Offices,
333 Java Road, Hong Kong

By Fax (2894 9502) & Post

Dear Sir / Madam,

Land Contamination Assessment Study for Planning Application for Proposed Development at 8 Lam Chak Street, Kowloon Bay
Enquiry for Land Contamination Information

We are conducting a Land Contamination Assessment Study for a site at 8 Lam Chack Street, Kowloon Bay. As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the Government of HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Application Site are required as part of the vetting process.

Of particular interests are current and historical site information, any change on the land use, future land use and any information relating to land contamination issues of the Application Site. A location plan for the project site is enclosed for your reference.

Due to the tight timeline of the project, we would be much appreciated if you could provide the requested information by **24 July 2025**.

Should you have any query, please do not hesitate to contact the undersigned at 3465 2811 (email: cchiu@ramboll.com) or our Ms. Grace Wong at 3465 2868 (email: gkfwong@ramboll.com). We sincerely seek your feedback on this matter. Thank you in advance for any assistance you can provide.

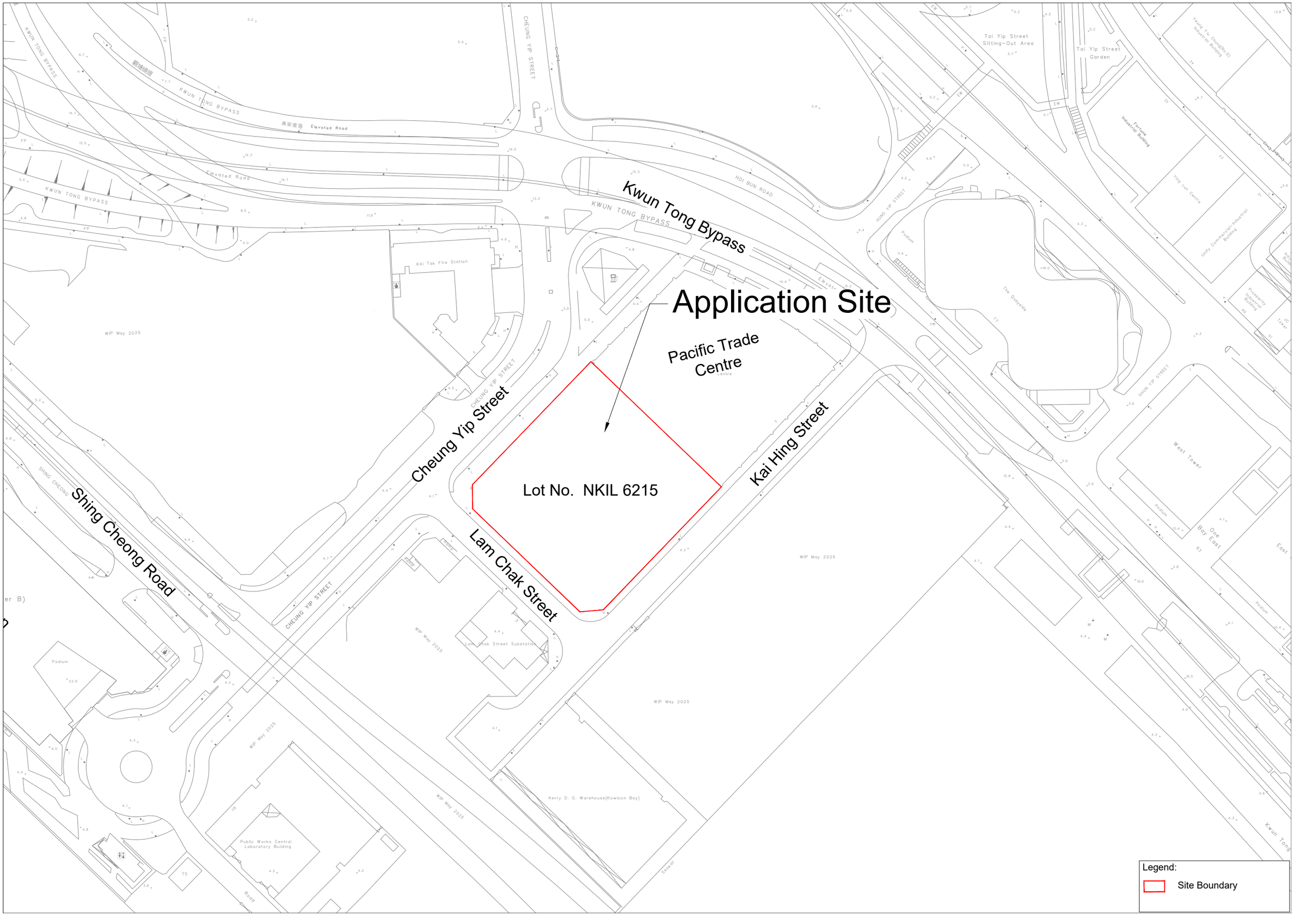
Yours faithfully,
For and on behalf of
Ramboll Hong Kong Limited

Calvin Chiu
Technical Director

Enclosure: Location Plan of the Application Site

\\aphkfps3\Drive Q\Projects\CHPHBSHQEI00\02 Project Management\02 Corr\CHPHBSHQEI00_0_0003L.25.docx

Ramboll Hong Kong Limited 英環香港有限公司
21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.ramboll.com


Application Site
Pacific Trade Centre
Lot No. NKIL 6215
Kwun Tong Bypass
Cheung Yip Street
Shing Cheong Road
Lam Chak Street
Kai Hing Street
KWUN TONG BYPASS
CHEUNG YIP STREET
HOI BUN ROAD
Elevated Road
Kai Tak Fire Station
Lam Chak Street Substation
Public Works Central Laboratory Building
Kerry D. G. Warehouse(Kowloon Bay)
Tai Yip Street Sitting-Out Area
Tai Yip Street Garden
WIP May 2025
Legend:
Site Boundary

Grace KF Wong

From: Helen Ka Wing IP/PLAND <hkwip@pland.gov.hk>
Sent: Thursday, July 24, 2025 4:26 PM
To: Grace KF Wong
Cc: Calvin Chiu; Ernest CM FUNG/PLAND
Subject: Enquiry for Land Contamination Information (Your Ref.: CHPHBSHQEI00_0_0003L.25)

Some people who received this message don't often get email from hkwip@pland.gov.hk. Learn why this is important

Dear Grace,

Land Contamination Assessment Study for Planning Application for Proposed Development at 8 Lam Chak Street, Kowloon Bay

Enquiry for Land Contamination Information

I refer to your letter dated 9.7.2025 (Your Ref.: CHPHBSHQEI00_0_0003L.25) enquiring the current and historical site information and land use changes of the site as indicated on the site map attached to your letter for land contamination investigation purposes.

The subject site falls within an area zoned "Commercial (2)" ("C(2)") on the approved Kai Tak Outline Zoning Plan (OZP) No. S/K22/8, intended primarily for commercial developments, which may include uses such as office, shop, services, place of entertainment, eating place and hotel, functioning as territorial business/financial centre and regional or district commercial/shopping centre. The current "C(2)" zone for the subject site was first designated on the draft Kai Tak OZP No. S/K22/1 exhibited in November 2006 and has remained unchanged since then.

Before that, the site had been subject to various land use zonings/designations on statutory town plans, including:

- "Industrial" on the draft Ngau Tau Kok and Kowloon Bay OZP No. S/K13/1 exhibited in August 1986;
- "Industrial" on the draft Kai Tak (South) OZP No. S/K21/1 exhibited in September 1998; and
- "Comprehensive Development Area (2)" on the draft Kai Tak (South) OZP No. S/K21/2 exhibited in August 2001.

For details, you are advised to further check with the relevant aerial photos and land lease records.

Thanks and regards,
Helen IP
TP/K12, K DPO, PlanD
Tel: 2231 4973

Internal
K-R/PUB/1A
Site Record

Ref.: CHPHBSHQEI00__0_0004L.25

9 July 2025

Environmental Protection Department,
Environmental Compliance Division,
Regional Office (East), Kowloon City
5th Floor, Nan Fung Commercial Centre,
19 Lam Lok Street, Kowloon Bay, Kowloon
Hong Kong

By Fax (2756 8588) & Post

Dear Sir / Madam,

Land Contamination Assessment Study for Planning Application for Proposed Development at 8 Lam Chak Street, Kowloon Bay
Enquiry for Land Contamination Information

We are conducting a Land Contamination Assessment Study for a site at 8 Lam Chack Street, Kowloon Bay. As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the Government of HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Application Site are required as part of the vetting process.

Of particular interests is whether there are any registered chemical waste producers under your record in the Application Site, any waste disposal record, any accidental spillage record, any submission relating to land contamination assessment and any information you could provide which might be useful for our study. A location plan for the project site is enclosed for your reference.

Due to the tight timeline of the project, we would be much appreciated if you could provide the requested information by **24 July 2025**.

Should you have any query, please do not hesitate to contact the undersigned at 3465 2811 (email: cchiu@ramboll.com) or our Ms. Grace Wong at 3465 2868 (email: gkfwong@ramboll.com). We sincerely seek your feedback on this matter. Thank you in advance for any assistance you can provide.

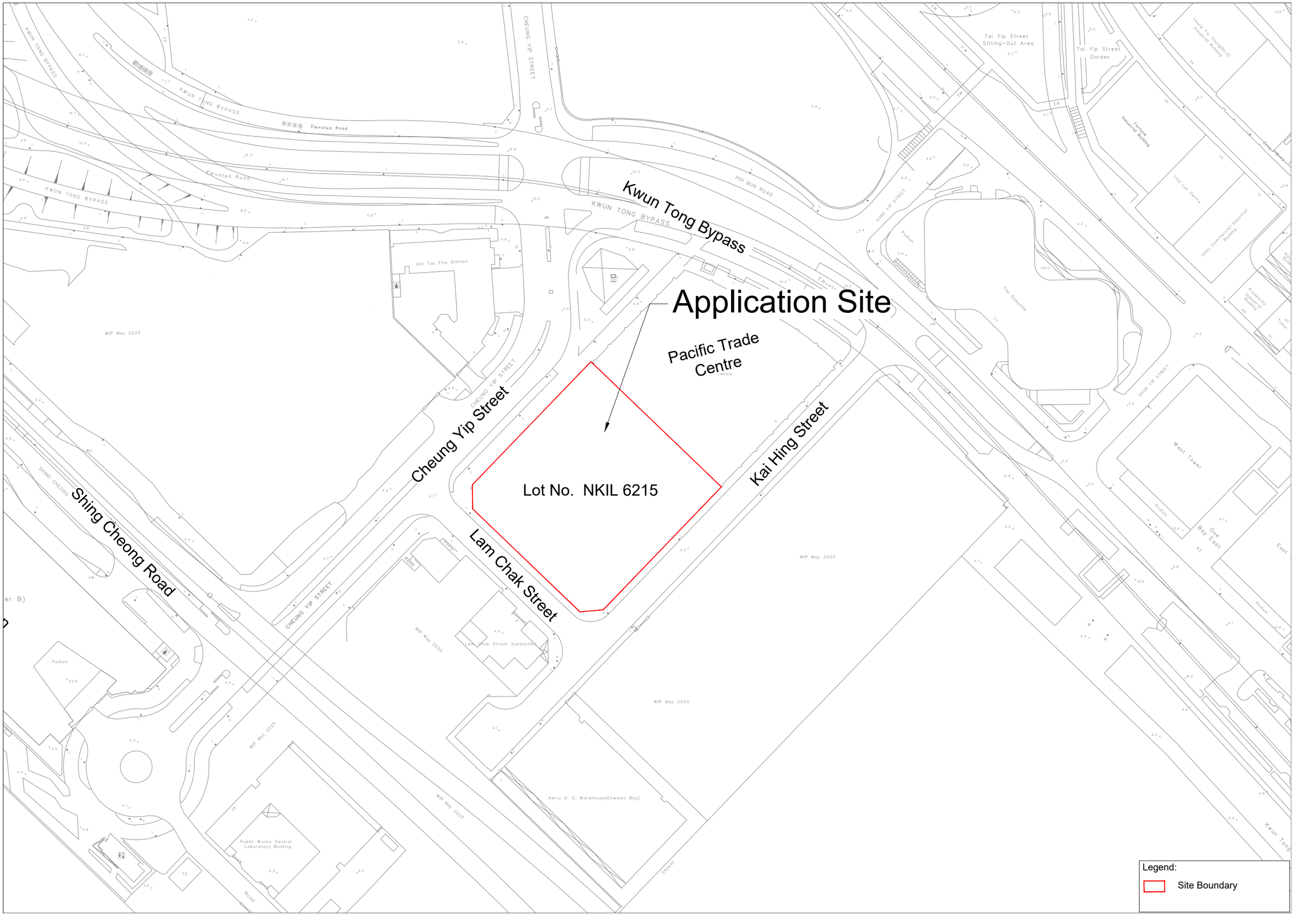
Yours faithfully,
For and on behalf of
Ramboll Hong Kong Limited

Calvin Chiu
Technical Director

Enclosure: Location Plan of the Application Site

\\aphkfps3\Drive Q\Projects\CHPHBSHQEI00\02 Project Management\02 Corr\CHPHBSHQEI00_0_0004L.25.docx

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21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.ramboll.com


Application Site
Pacific Trade Centre
Lot No. NKIL 6215
Kwun Tong Bypass
Cheung Yip Street
Shing Cheong Road
Lam Chak Street
Kai Hing Street
KWUN TONG BYPASS
CHEUNG YIP STREET
HOI BUN ROAD
Elevated Road
Kai Tak Fire Station
Lam Chak Street Substation
Public Works Central Laboratory Building
Kerry D. G. Warehouse(Kowloon Bay)
Tai Yip Street Sitting-Out Area
Tai Yip Street Garden
WIP May 2025
Legend:
Site Boundary

Grace KF Wong

From: Herrick YW HO/EPD <herrickho@epd.gov.hk>
Sent: Tuesday, July 29, 2025 11:56 AM
To: Grace KF Wong
Cc: cchlu@ramboll.com; E[RE]33/EPD
Subject: Re. Land Contamination Assessment Study of 8 Lam Chak Street

You don't often get email from herrickho@epd.gov.hk. Learn why this is important

Dear Grace,

Re. subject request.

According to our record, NO Chemical Spillage / Land Contamination has been found in concerned location.

Chemical waste producer records are listed below for your reference:

Polluter	Address
Medisun Holdings Limited	25/F., OCTA Tower, 8 Lam Chak Street, Kowloon Bay, Kowloon
Ping Kee Construction (China) Limited	1/F. and 3/F., Octa Tower, 8 Lam Chak Street, Kowloon Bay,
Asian Integrated Cell Laboratory Limited	30/F, Octa Tower, 8 Lam Chak Street, Kowloon Bay, Kowloon
TYSAN BUILDING CONSTRUCTION COMPANY LIMITED	OCTA TOWER, 8 LAM CHAK STREET, KOWLOON BAY, KOWLOON
New Charm Management Limited	Octa Tower, 8 Lam Chak Street, Kowloon Bay, Kowloon
ATOS INFORMATION TECHNOLOGY HK LIMITED	UNIT 1301, 13/F., HARBOURSIDE HQ, 8 LAM CHAK STREET, KOWLOON BAY, KOWLOON
JONES LANG LASALLE MANAGEMENT SERVICES LIMITED	UNIT 1103, 11/F., 8 LAM CHAK STREET, KOWLOON BAY, KOWLOON

Thanks & Regards,
Herrick HO / EPD
2117 7551

Ref.: CHPHBSHQEI00_0_0005L.25

9 July 2025

Lands Department
Lands Administration Office
District Lands Office, Kowloon East
4 Floor, South Tower, West Kowloon Government Offices
11 Hoi Ting Road, Yau Ma Tei,
Kowloon

By Fax (2782 5061) & Post

Dear Sir / Madam,

Land Contamination Assessment Study for Planning Application for Proposed Development at 8 Lam Chak Street, Kowloon Bay
Enquiry for Land Contamination Information

We are conducting a Land Contamination Assessment Study for a site at 8 Lam Chak Street, Kowloon Bay. As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the Government of HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Application Site are required as part of the vetting process.

Of particular interests are information on spillage accidents, illegal/contaminating land uses or uncontrolled dumping uses, current and historical land use information, previous short term tenancy and any information relating to land contamination issues of the Application Site. Location plan for the project site is enclosed for your reference.

Due to the tight timeline of the project, we would be much appreciated if you could provide the requested information by **24 July 2025**.

Should you have any query, please do not hesitate to contact the undersigned at 3465 2811 (email: cchiu@ramboll.com) or our Ms. Grace Wong at 3465 2868 (email: gkfwong@ramboll.com). We sincerely seek your feedback on this matter. Thank you in advance for any assistance you can provide.

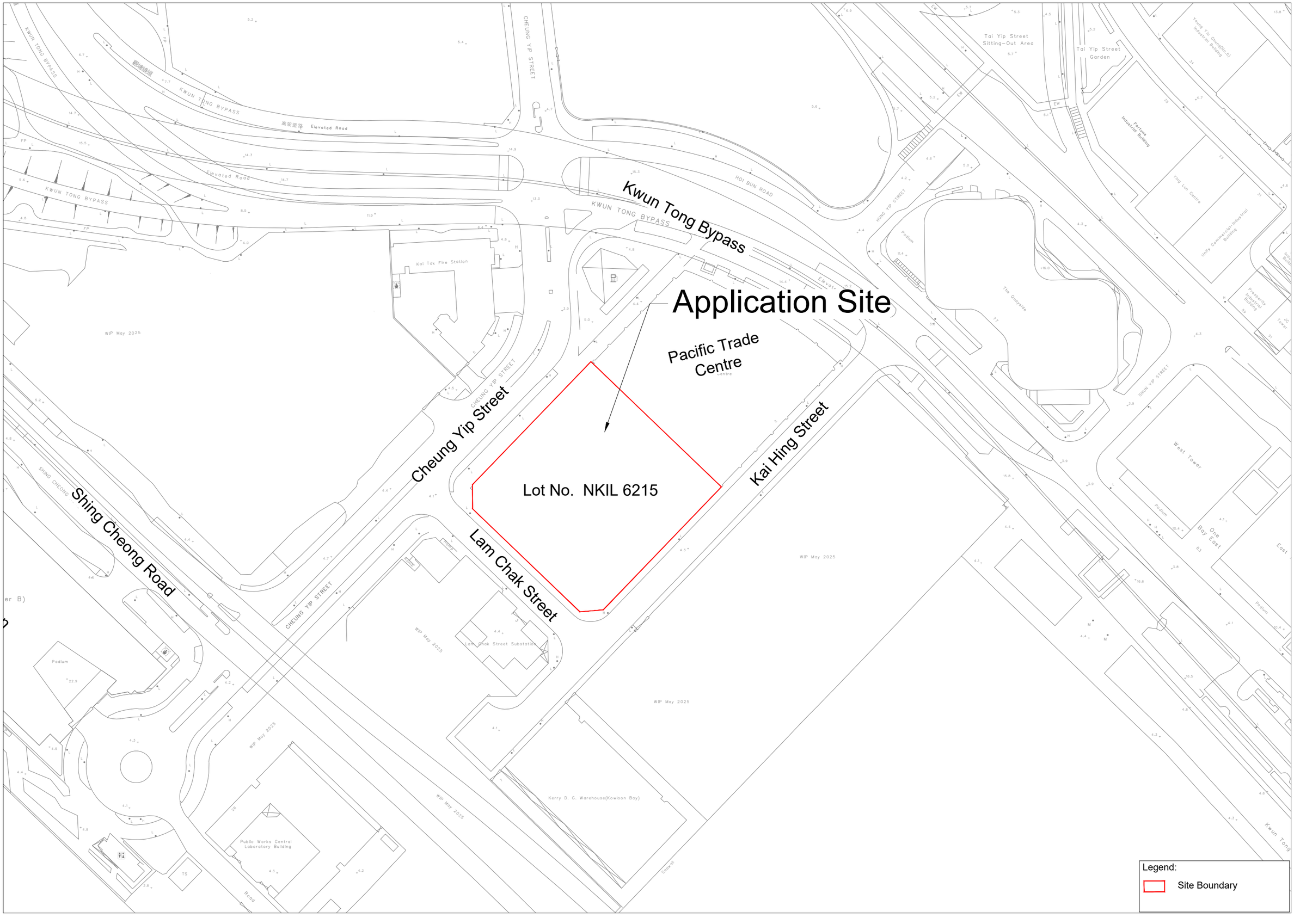
Yours faithfully,
For and on behalf of
Ramboll Hong Kong Limited

Calvin Chiu
Technical Director

Enclosure: Location Plan of the Application Site

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21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.ramboll.com


Application Site
Pacific Trade Centre
Lot No. NKIL 6215
Kwun Tong Bypass
Cheung Yip Street
Shing Cheong Road
Lam Chak Street
Kai Hing Street
KWUN TONG BYPASS
CHEUNG YIP STREET
HOI BUN ROAD
Elevated Road
Kai Tak Fire Station
Lam Chak Street Substation
Public Works Central Laboratory Building
Kerry D. G. Warehouse(Kowloon Bay)
Tai Yip Street Sitting-Out Area
Tai Yip Street Garden
WIP May 2025
Legend:
Site Boundary

RECEIVED
24 JUL 2025
BY:.....

地政總署
九龍東區地政處
DISTRICT LANDS OFFICE/
KOWLOON EAST
LANDS DEPARTMENT

我們矢志努力不懈，提供盡善盡美的土地行政服務。
We strive to achieve excellence in land administration.

電　話 Tel: 3842 7610
圖文傳真 Fax: 2782 5061
電郵地址 Email: eskekta@landsd.gov.hk
本署檔號 Our Ref.: (4) in DLOKE 240/KPA/KE(VII)
來函檔號 Your Ref. CHPHBSHQEI00_0_0005L.25

九龍海庭道11號西九龍政府合署南座4樓
4/F, SOUTH TOWER, WEST KOWLOON GOVERNMENT OFFICES,
11 HOI TING ROAD, KOWLOON

網址 Website : www.landsd.gov.hk

來函請註明本署檔號
Please quote our reference in your reply

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

By Fax (3465 2899) and By Post

22 July 2025

(Attn: Mr. Calvin CHIU)

Dear Sir,

Land Contamination Assessment Study for Planning Application for Proposed Development at 8 Lam Chak Street, Kowloon Bay
New Kowloon Inland Lot No. 6215

I refer to your letter dated 9 July 2025 which was received by this office on 11 July 2025 regarding the captioned.

Please be advised that your requested information is not available from this office.

Yours faithfully,

(Miss Winnie WAN)
for District Lands Officer/Kowloon East

Ramboll Hong Kong Ltd.
Project: CHPHBSHQEI00_0_0005L.25
Maconomy no.:
Circulation:

		Read	Action
CC		☑	☐
GW		☐	☐
		☐	☐
		☐	☐

	Yes	No
Document Scan	☐	☐
Hard Copy	☐	☐

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Ref.: CHPHBSHQEI00_0_0006L.25

14 July 2025

Fire Services Department
Corporate Strategy Command,
Corporate Services Division,
9th Floor, Fire Services Headquarters Building, 1 Hong Chong Road,
Tsim Sha Tsui East, Kowloon

By Email (aio_fsd@hkfsd.gov.hk)

Dear Sir / Madam,

Land Contamination Assessment Study for Planning Application for Proposed Development at 8 Lam Chak Street, Kowloon Bay
Enquiry for Land Contamination Information

We are conducting a Land Contamination Assessment Study for a site at 8 Lam Chack Street, Kowloon Bay. As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the Government of HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Application Site are required as part of the vetting process.

Of particular interests are spill and incident reports (including records of fire at the Application Site) that we believe your Department might have record of. Furthermore, we would also like to know whether anywhere of the Applications Site had applied or possessed license for dangerous goods storage. Location plan for the project site is enclosed for your reference.

Due to the tight timeline of the project, we would be much appreciated if you could provide the requested information by **28 July 2025**.

Should you have any query, please do not hesitate to contact the undersigned at 3465 2811 (email: cchiu@ramboll.com) or our Ms. Grace Wong at 3465 2868 (email: gkfwong@ramboll.com). We sincerely seek your feedback on this matter. Thank you in advance for any assistance you can provide.

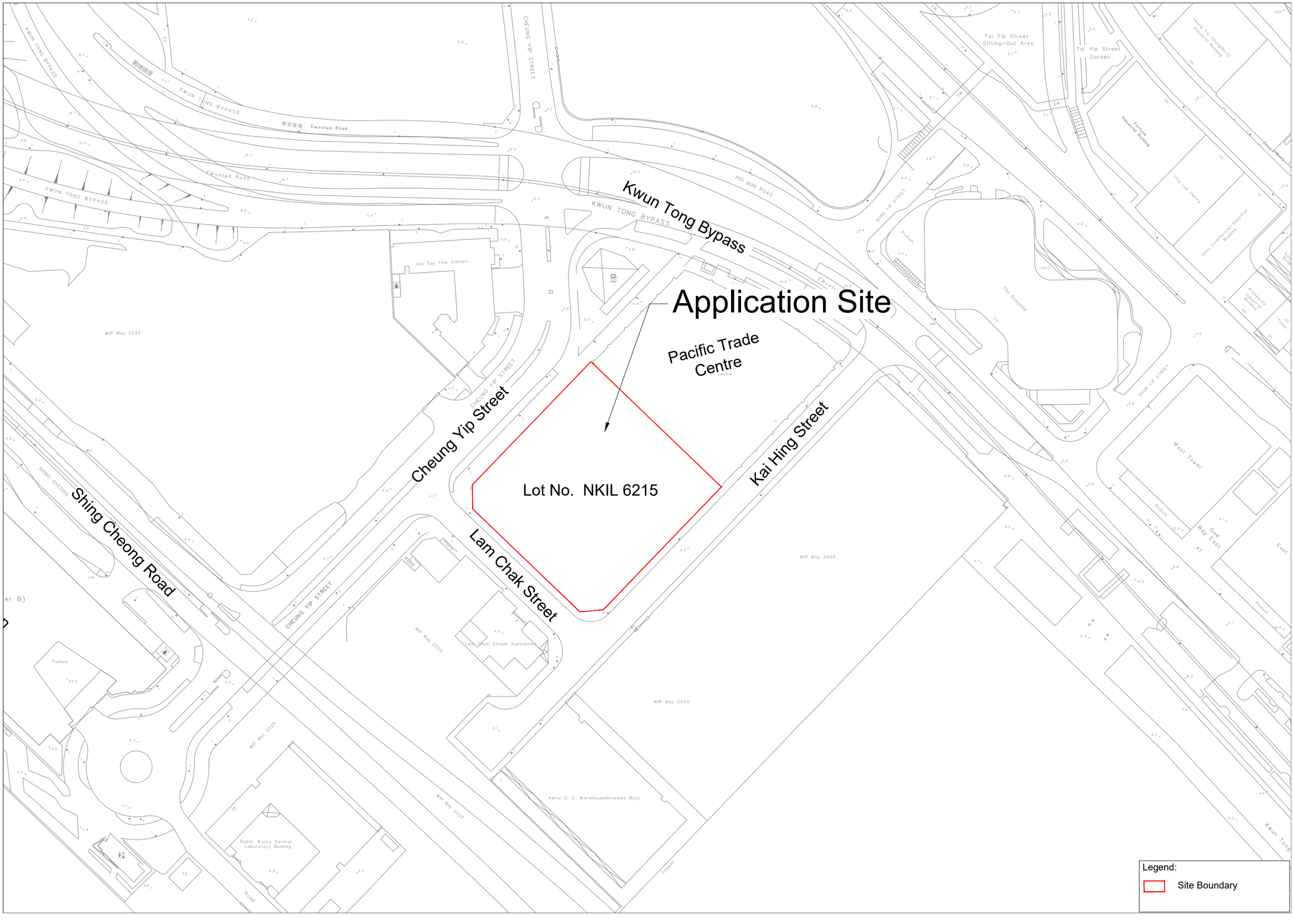
Yours faithfully,
For and on behalf of
Ramboll Hong Kong Limited

Calvin Chiu
Technical Director

Enclosure: Location Plan of the Application Site and Appointment Letter from Client

Q:\Projects\CHPHBSHQEI00\02 Project Management\02 Corr\CHPHBSHQEI00_0_0006L.25.docx

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21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.ramboll.com


Application Site
Pacific Trade Centre
Lot No. NKIL 6215
Kwun Tong Bypass
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Shing Cheong Road
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KWUN TONG BYPASS
CHEUNG YIP STREET
HOI BUN ROAD
Elevated Road
Kai Tak Fire Station
Lam Chak Street Substation
Public Works Central Laboratory Building
Kerry D. G. Warehouse(Kowloon Bay)
Tai Yip Street Sitting-Out Area
Tai Yip Street Garden
WIP May 2025
Legend:
Site Boundary

Grace KF Wong

From: ado_lea_cs@hkfsd.gov.hk
Sent: Saturday, July 26, 2025 7:26 PM
To: Grace KF Wong
Cc: OE8 CS/FSD
Subject: Fw: Land Contamination Assessment Study for Planning Application for Proposed Development at 8 Lam Chak Street, Kowloon Bay -Enquiry for Land Contamination Information

You don't often get email from ado_lea_cs@hkfsd.gov.hk. Learn why this is important

Dear Ms. WONG,

Land Contamination Assessment Study for Planning Application for Proposed Development at 8 Lam Chak Street, Kowloon Bay
Request for Information – Dangerous Goods Record and Records of accidents of spillage/leakage

I refer to your email of 14.7.2025 regarding the captioned request and reply below in response to your questions:-

Please be advised that neither records of dangerous goods license, fire incidents nor incidents of spillage / leakage of dangerous goods were found in connection with the given conditions of your request at the subject location.

If you have further questions, please feel free to contact the undersigned.

Best regards,

TSANG Chun-hei Jason
Assistant Divisional Officer (Legal Affairs) (Acting)
Corporate Services Division
Fire Services Department

Tel.: 2733 7896

Remark:
Lift incidents are excluded unless otherwise required.

Disclaimer:
*Fire Services Department uses its best endeavor to ensure the accuracy and reliability of the information provided, but cannot guarantee its accuracy and reliability and accepts no liability of any nature for any loss or damage arising from any inaccuracies or omissions that may from the information provided.

Ref.: CHPHBSHQEI00_0_0028L.25

13 November 2025

Environmental Protection Department,
Environmental Compliance Division,
Regional Office (East), Kwun Tong
5th Floor, Nan Fung Commercial Centre,
19 Lam Lok Street, Kowloon Bay, Kowloon
Hong Kong

By Fax (2756 8588) & Post

Dear Sir / Madam,

Land Contamination Assessment Study for Planning Application for Proposed Development at 8 Lam Chak Street, Kowloon Bay
Enquiry for Land Contamination Information at Kerry D.G. Godown (Kowloon Bay)

We are conducting a Land Contamination Assessment Study for the captioned Application Site. By following the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the Government of HKSAR (EPD), it is required to review the potential land contamination sources (if any) in the vicinity of the Application Site.

Given that **Kerry D.G. Godown (Kowloon Bay)** is located near the Application Site and is known for the storage of dangerous goods, we would like to seek your advice if there is any records or information related to land contamination issues associated with this godown. Of particular interests are any registered chemical waste producers in **Kerry D.G. Godown (Kowloon Bay),** any waste disposal record, any accidental spillage record, any submission relating to land contamination assessment and any information you could provide which might be useful for our study. A location plan for the Application Site is enclosed for your reference.

Due to the tight timeline of the project, you are much appreciated if you could provide the requested information as your earliest convenience.

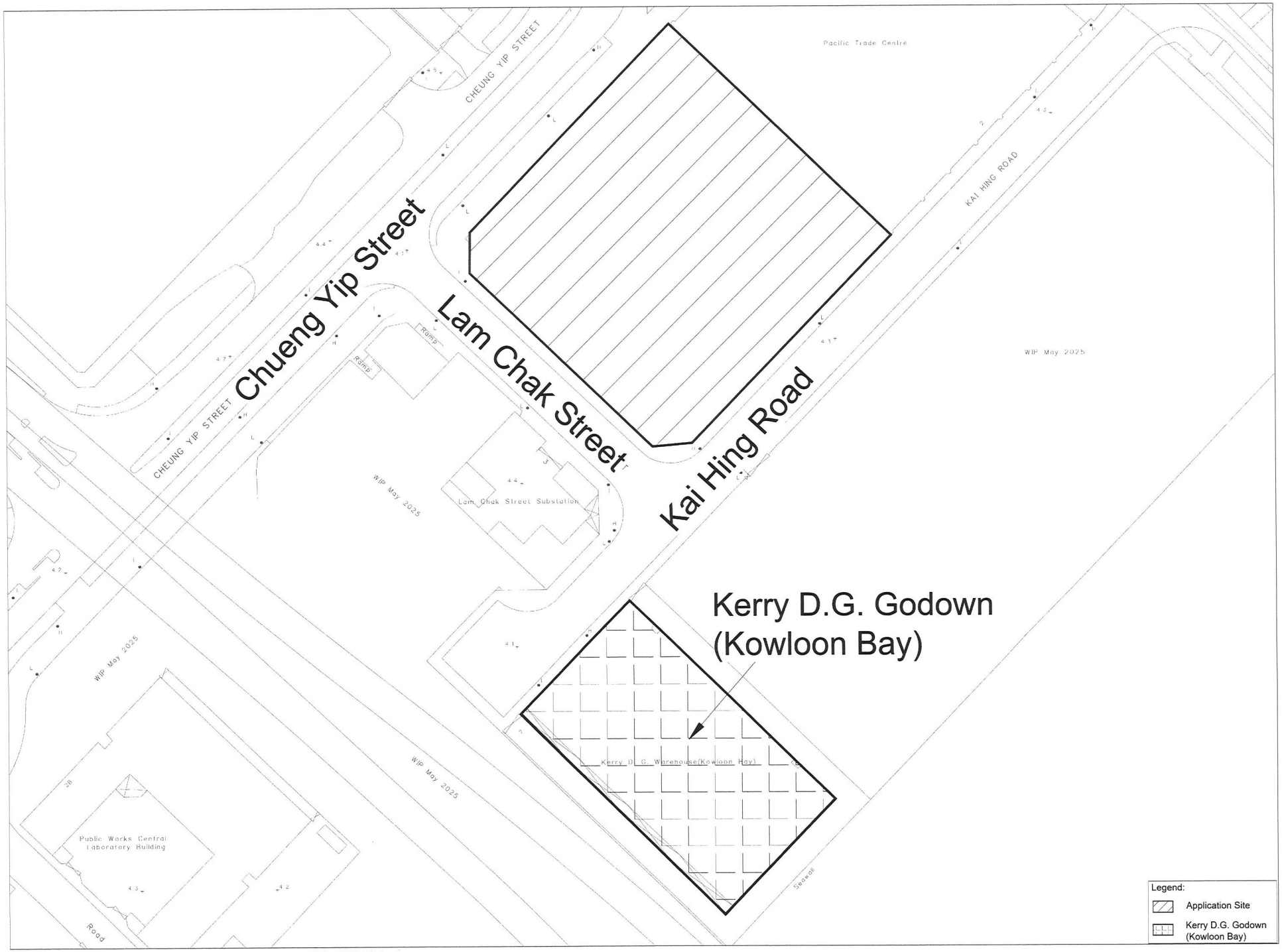
Should you have any query, please do not hesitate to contact the undersigned at 3465 2811 (email: cchiu@ramboll.com) or our Ms. Grace Wong at 3465 2868 (email: gkfwong@ramboll.com). We sincerely seek your feedback on this matter. Thank you in advance for any assistance you can provide.

Yours faithfully,
For and on behalf of
Ramboll Hong Kong Limited

Calvin Chiu
Technical Director
Enclosure: Location Plan of the Application Site

Q:\Projects\CHPHBSHQEI00\02 Project Management\02 Corr\CHPHBSHQEI00_0_0028L.25.docx

Ramboll Hong Kong Limited 英環香港有限公司
21/F, BEA Harbour View Centre, 56 Gloucester Road, Wan Chai, Hong Kong Tel: 852.3465 2888 Fax: 852.3465 2899
www.ramboll.com



Q:\Projects\CHPHBSHQEI00\05 Assessments\02 Noise\01 Industrial\20251009\FNIA_20251009.dwg

Grace KF Wong

From: Herrick YW HO/EPD <herrickho@epd.gov.hk>
Sent: Thursday, November 13, 2025 4:16 PM
To: Calvin Chiu; Grace KF Wong
Cc: E[RE]33/EPD
Subject: Re. : Enquiry for Land Contamination Information at Kerry D.G. Godown (Kwoloon Bay) (Ref: CHPHBSHQEI00_0_0028L.25)
Attachments: CWP at Kerry DG Godown (Reply).xls

Follow Up Flag: Follow up
Flag Status: Flagged

Some people who received this message don't often get email from herrickho@epd.gov.hk. Learn why this is important

Dear Mr Chiu,

Refers to your subject enquiry.

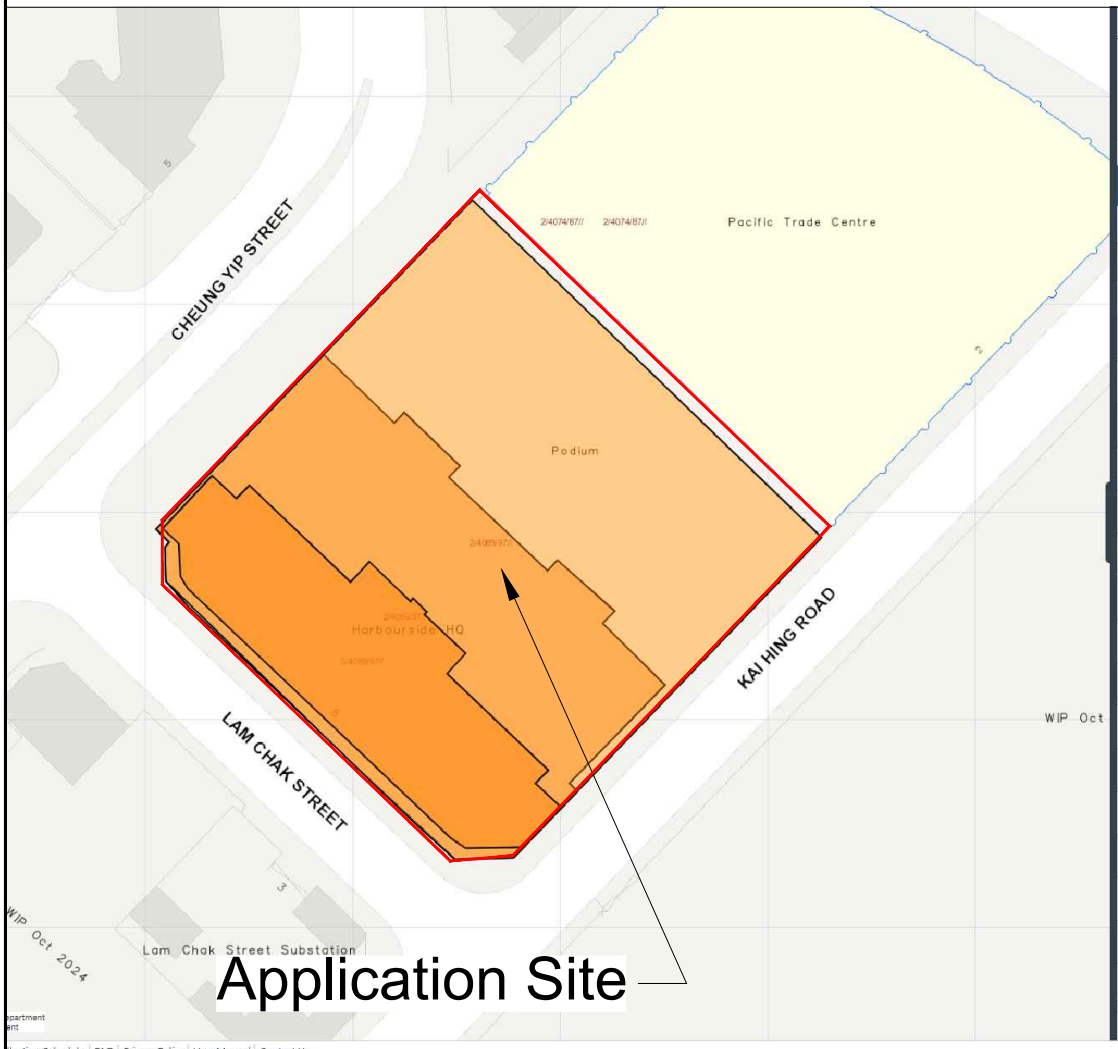
Please find our reply below:

1. There are 97 Chemical waste producers in Kerry D.G. Godown (Kowloon Bay) (Refer to attachment);
2. No chemical spillage and land contamination had been recorded by EPD in concerned location.

Thanks & Regards,
Herrick HO / EPD
2117 7551

[See attachment "CWP at Kerry DG Godown (Reply).xls"]

Appendix 5.3 Screen Capture of BRAVO Record



Building | Slope

File Type: ▲

All | Building | Structural | Drainage | Alterations & Additions | Site Formation | Minor Works | Existing Buildings | Others

Location | e.g. 750 Nathan Road

Inspection paid record(s). | Show search result o

Plan / Doc / MW	File Ref.	Address	Building Name	Lot No.	File Type	OP No.	Remarks
Plan	2/4089/97	LAM CHAK STREET		NKIL 6215	Building	View	
Plan Doc	3/4089/97	LAM CHAK STREET		NKIL 6215	Structural	View	
Plan Doc	4/4089/97	LAM CHAK STREET		NKIL 6215	Drainage	View	
Plan	2-3/4089/97	8 LAM CHAK STREET		NKIL 6215	Alterations & Additions		A & A WORKS:
Plan Doc	2-3/4089/97(S)	8 LAM CHAK STREET		NKIL 6215	Alterations & Additions		
Plan	2-3/4089/97/10	8 LAM CHAK STREET	OCTA TOWER	N.K.I.L. 6215	Alterations & Additions		A&A WORKS AT ROOF
Plan Doc	2-3/4089/97/10(S)	8 LAM CHAK STREET	OCTA TOWER	N.K.I.L. 6215	Alterations & Additions		A&A WORKS AT ROOF
Plan	2-3/4089/97/11	8 LAM CHAK STREET	OCTA TOWER	N.K.I.L. 6215	Alterations & Additions		A&A WORKS
Plan Doc	2-3/4089/97/11(S)	8 LAM CHAK STREET	OCTA TOWER	N.K.I.L. 6215	Alterations & Additions		A&A WORKS
Plan Doc	2-3/4089/97/12	8 LAM CHAK STREET	OCTA TOWER	N.K.I.L. 6215	Alterations & Additions		A & A WORKS AT 23/F
Plan	2-3/4089/97/3	8 LAM CHAK STREET		NKIL 6215	Alterations & Additions		KWUN TONG
Plan Doc	2-3/4089/97/4(SB)	8 LAM CHAK STREET		NKIL 6215	Alterations & Additions		A & A WORKS: SIGNBOARD
Doc	2-3/4089/97/4(SB)(S)	8 LAM CHAK STREET		NKIL 6215	Alterations & Additions		A & A WORKS: SIGNBOARD
Plan	2-3/4089/97/7	8 LAM CHAK STREET	OCTA TOWER	N.K.I.L. 6215	Alterations & Additions		A&A WORKS AT G/
Plan Doc	2-3/4089/97/7(S)	8 LAM CHAK STREET	OCTA TOWER	N.K.I.L. 6215	Alterations & Additions		A&A WORKS AT G/
Plan	2-3/4089/97/8	8 LAM CHAK STREET	OCTA TOWER	N.K.I.L. 6215	Alterations & Additions		A&A WORKS AT G/
Plan Doc	2-3/4089/97/8(S)	8 LAM CHAK STREET		N.K.I.L. 6215	Alterations & Additions		A&A WORKS
Plan	2-3/4089/97/2	8 LAM CHAK STREET		N.K.I.L. 6215	Alterations & Additions		A&A WORKS AT 19 & 20/F
MW	4089/97	LAM CHAK STREET			Minor Works		

1 - 19 of 19 items | 25 | 50 | 100 | All | Page 1 of 1

Election Schedule | FAQ | Privacy Policy | User Manual | Contact Us

Appendix: 5.3

Title: Screen Capture of BRAVO Record

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

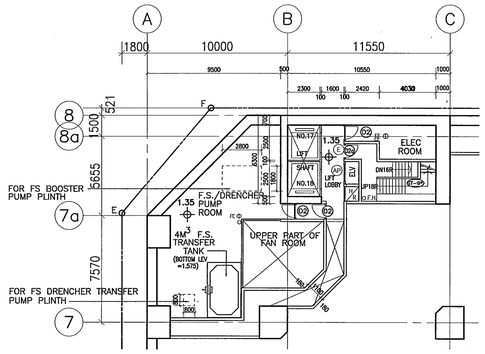
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Checked by: CC

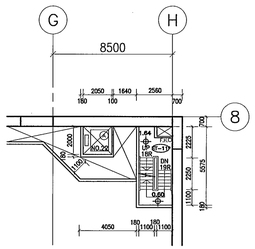
Rev.: 1.0

Date: Aug 2025

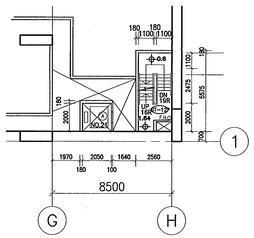
Q:\Projects\CHPHBSHQEI00\05 Assessments\06 LD\20250721 v1.0\Aerial Photo.dwg



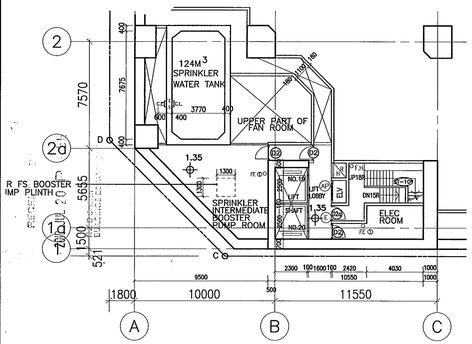
PART PLAN AT LEV 0.9mPD



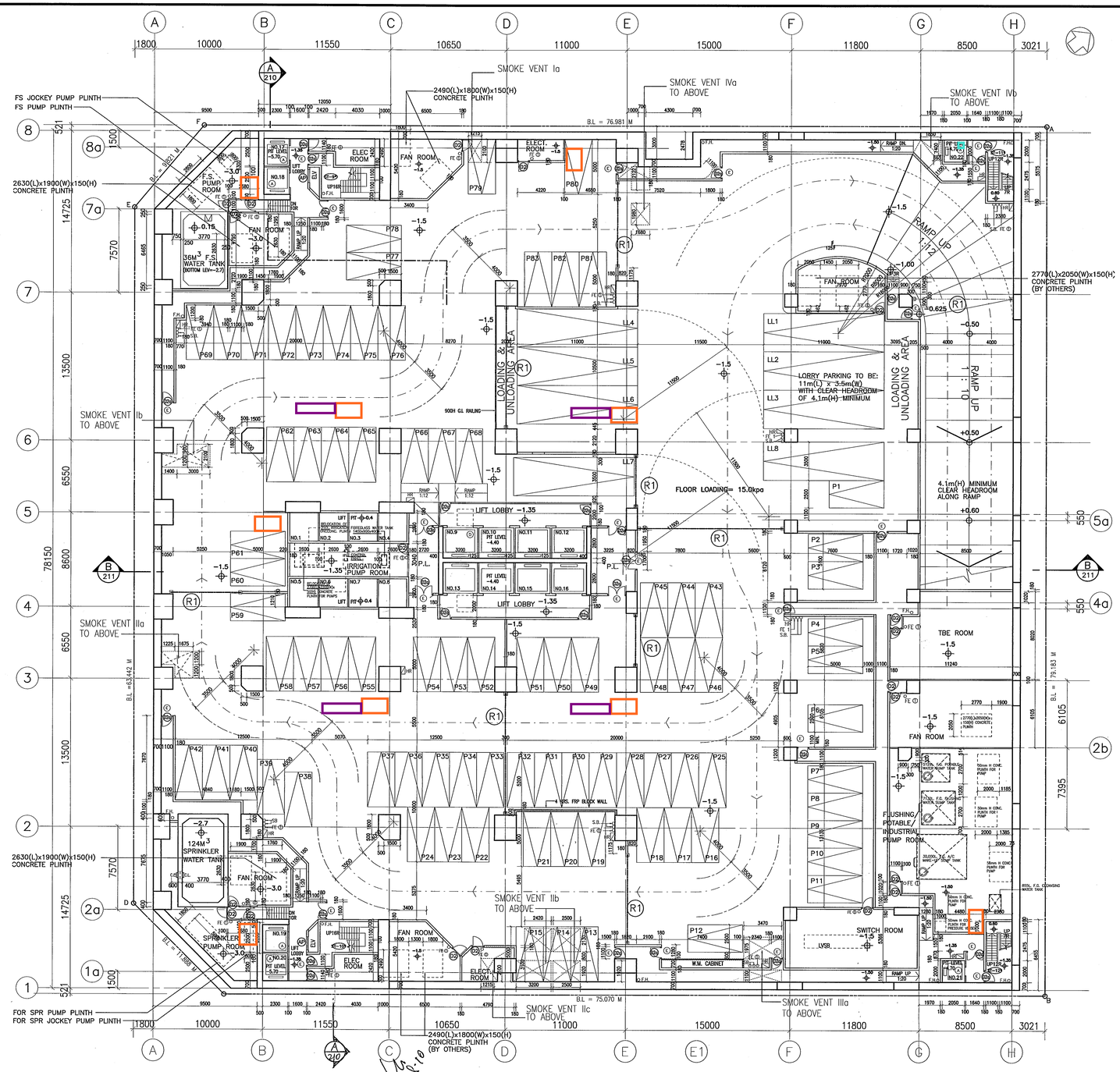
PART PLAN AT LEV 0.6mPD



PART PLAN AT LEV 0.6mPD



PART PLAN AT LEV 0.9mPD



SMOKE VENT AREA CALCULATION

* DENOTE WALL OPENNING REFER ELEVATIONS FOR DETAILS

COMPARTMENT I

REQUIRED = 963.602 x 0.5%
= 4.818 sm

PROVIDED:-
lla: (1.225x1.2 + 1.675x2.4) = 5.49
*llb: 1.12 x 1.0 x 3 = 3.36
*llc: 1.12 x 1.0 = 1.12
TOTAL = 9.97 sm O.K.

COMPARTMENT III

REQUIRED = 1018.293 x 0.5%
= 5.091 sm

PROVIDED:-
*IIIa: 3.07 x 2.40 = 7.368 sm O.K.

COMPARTMENT IV

QUIRED = 1074.373 x 0.5%
= 5.372 sm

OVIDED:-
1.08 x 6.0 = 6.48
1.12 x 1.0 = 1.12
TOTAL = 7.60 sm O.K.

Waste Water Sump Pit

Petrol Interceptor

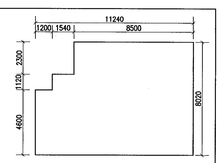
BASEMENT B/F PLAN

TBE ROOM AREA CALCULATION

TOTAL U.F.A = 50190.839

∴ MIN. AREA (PNAP 201) = 79 s.m.

PROVIDED = 82.505 s.m. > 79 s.m. O.K.



Statement II ; The works shown on these plans are Type II works
(name of works : General Building Works)
in respect of which the Building Authority's consent is applied for

B.L.D. REF.: 2-3/4089/97

F.S.D. REF.: FP 8/24214 II

REVISION:	DATE:	BY:
N	23/05/08	WLO
GENERAL REVISION –PHASE 1 FINAL FSD APP 2008.07.16 BD APP 2008.07.22		
U1	06/02/09	LPL
A&A TO OFFICE FSD APP 2009.02.24 BD DISAPP 2009.04.09		
U2	30/06/09	LPL
A&A TO OFFICE RE-SUB FSD APP 2009.07.21 BD APP 2009.07.29		
U3	01/09/09	LPL
CARPARK & SMOKE VENT CAL FSD APP 2009.09.23 BD APP 2009.09.30		
U4	28/10/09	LPL
CARPARK REV FSD APP 2009.11.27 BD APP 2009.12.03		
U5	26/03/10	LPL
CARPARK REV BD DISAPP 2010.04.30		
U5R	03/05/10	LPL
SHUTTER & CARPARK FSD APP 2010.05.20 BD APP 2010.05.31		
U6	12/07/10	LPL
IRRIGATION PUMP ROOM		

Plan Approved
C.S.YUE
Senior Building Surveyor
for BUILDING AUTHORITY
11 AUG 2010

B.D. COPY

SIGNATURE FOR SUBMISSION / CONSTRUCTION
STEPHEN S.F. KU
AUTHORIZED PERSON (AP(A) 33/81)

CHAU KU & LEUNG
ARCHITECTS & ENGINEERS LTD

CONSULTANT

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SCALE: 1 : 200
DRAWN: PS CHECK: EG/LPL
CODE : 798\DETAIL\PLAN\
FIRST ISSUE:
DATE OF DISTRIBUTION:

DRAWING TITLE:
BASEMENT PLAN (PHASE 1)

PROJECT:
ALTERATION AND ADDITION PHASE 1 BUILDING
CHEUNG YIP ST./LAM CHAK ST.
KOWLOON BAY
N.K.I.L. 6215

PROJECT NO.: 798
DRAWING NO.: P1–201 U6

STAIRCASE 1 & 2 AREA

STAIRCASE AREA CALCULATION

5.81 x 5.25 = 30.503 sm
1.7 x 0.915 = 1.556 sm
= 32.059 sm

LESS
2.14 x 1.58 = 3.381 sm
= 28.678 sm

STAIRCASE OPENABLE WINDOW AREA REQUIRED

28.678sm x 10% = 2.868 sm

STAIRCASE OPENABLE WINDOW AREA PROVIDED

2 x 1.925(W) x 1.5(H) x 80%
= 4.62 sm > 2.868 sm

STAIRCASE 7 & 8 AREA

STAIRCASE AREA CALCULATION

5.925 x 2.380 = 14.102 sm

STAIRCASE OPENABLE WINDOW AREA REQUIRED

14.102sm x 10% = 1.402 sm

STAIRCASE OPENABLE WINDOW AREA PROVIDED

2.05(W) x 1.50(H) x 80%
= 2.46 sm > 1.402 sm

OPENABLE WINDOW AREA REQUIRED FOR SHOP

2306.104 sm x 6.25% = 144.132 sm

OPENABLE WINDOW AREA PROVIDED

(6.50 + 23.80 + 9.55+ 4.71+ 4.65) x 4.6
= 184.242sm > 144.132 sm (REQ)

OPENABLE WINDOW AREA REQUIRED FOR CARPARK

2507.859 sm x 6.25% = 156.741 sm

OPENABLE WINDOW AREA PROVIDED

[(11.35+9.5) x 6.0(H) +(9.0+6.5+4.0+6.5+7.2)x 3.0(H)] x 0.8
= 179.760 sm > 156.741 sm (REQ)

CHEUNG YIP STREET (17.5m WIDE)
(MEAN STREET LEVEL = 4.35MPD)

LAM CHAK STREET (16.5m WIDE)
(MEAN STREET LEVEL 4.35MPD)

KAI HING ROAD (16.8m WIDE)
(MEAN STREET LEVEL = 4.35MPD)

PAVEMENT (3.5m WIDE)

PAVEMENT (2.65m WIDE)

PAVEMENT (2.7m WIDE)

PART PLAN OF ST-1 (LEV. = 8.11)

PART PLAN OF ST-2 (LEV. = 8.11)

PART PLAN OF ST-7 (LEV. = 8.96)

PART PLAN OF ST-4 AT UPPER PART OF G/F

PART PLAN OF ST-8 (LEV. = 8.00)

ADJOINING BUILDING

SHOP ENTRANCE LOBBY
FLOOR LOADING = 5kpa

SHOP
FLOOR LOADING = 5kpa

FLOOR LOADING = 5kpa

FLOOR LOADING (CARPARK) = 15kpa

SHOP ENTRANCE LOBBY
FLOOR LOADING = 5kpa

SHOP
FLOOR LOADING = 5kpa

ENTRANCE LOBBY
(SIGNAGE/INFORMATION COUNTER NOT TO BE HIGHER THAN 750mm)

LIFT LOBBY

RAMP UP 1:10

RAMP DN 1:10

RAMP DN 1:12

RAMP UP 1:12

REFUSE COLLECTION VEHICLE
RGN. PARKING TO BE 12m(L) x 5.0 m(W) WITH CLEAR HEADROOM 4.5m MINIMUM

REFUSE STORAGE AND MATERIAL RECOVERY CHAMBER TO BE PROVIDED)

TRANSFORMER RM. "A" (1500 KVA x 2 = 3000 KVA)

RUN IN/OUT SERVICE CHANNEL

RUN IN/OUT DETAILS SHALL BE CONSTRUCTED ACCORDING TO HIGHWAY STANDARD DRAWINGS NO. H1113B & H1114A

LOCATIONS OF SMOKE VENT OUTLETS SHOULD BE AT LEAST 5M CLEAR AWAY FROM THE DOOR HEAD OF EACH EXIT DOOR ON GROUND LEVEL

NOTES
CARPARK NO. WITH (R) DENOTES THE PARKING SPACE CALCULATED UNDER THE RATIO OF RETAIL USE AND THE OTHERS UNDER THE RATIO OF OFFICE USE

Statement II : The works shown on these plans are Type II works
(name of works : General Building Works)
in respect of which the Building Authority's consent is applied for

Plan Approved
C. LAM
Senior Building Surveyor
for BUILDING AUTHORITY
12 NOV 2010

B.D. COPY
SIGNATURE FOR SUBMISSION / CONSTRUCTION
STEPHEN S.F. KU
AUTHORIZED PERSON (APA) 33/81

CHAU KU & LEUNG
ARCHITECTS & ENGINEERS LTD

CONSULTANT

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SCALE: 1 : 200
DRAWN: PS CHECK: EC/LPL
CODE : 798\DETAIL\PLAN\
FIRST ISSUE: 03 OCT, 1997
DATE OF DISTRIBUTION:

DRAWING TITLE:
G/F FLOOR PLAN (PHASE 1)

PROJECT:
ALTERATION AND ADDITION
PHASE 1 BUILDING
CHEUNG YIP ST./LAM CHAK ST.
KOWLOON BAY
N.K.I.L. 6215

PROJECT NO.: COU798
DRAWING NO.: P1-202 U6R

B.L.D. REF.: 2-3/4089/97
F.S.D. REF.: FP 8/24214 II

REVISION	DATE	BY	
N	23/05/08	WLO	GENERAL REVISION -PHASE 1 FINAL FSD APP 2008.07.16 BD APP 2008.07.22 P1 OP 2008.09.30
U1	06/02/09	LPL	A&A TO OFFICE FSD APP 2009.02.24 BD DISAPP 2009.04.09
U2	30/06/09	LPL	A&A TO OFFICE RE-SUB FSD APP 2009.07.21 BD APP 2009.07.29
U3	01/09/09	LPL	ESCALATOR DELETED & MINOR REV FSD APP 2009.09.23 BD APP 2009.09.30
U5	26/03/10	LPL	LIFT LOBBY REV BD DISAPP 2010.04.30
U5R	03/05/10	LPL	ACCESSIBLE URINAL FSD APP 2010.05.20 BD APP 2010.05.31
U6	12/07/10	LPL	DISABLED RAMP DELETED FSD APP 2010.08.09 BD APP 2010.08.11
U6R	25/10/10	LPL	SHOP 3 GLASS PANEL PER AS-BUILT

STAIRCASE AREA CALCULATION

5.81 x 5.25 = 30.503 sm
1.7 x 0.915 = 1.556 sm
= 32.059 sm

LESS
2.14 x 1.58 = 3.381 sm
= 28.678 sm

STAIRCASE OPENABLE WINDOW AREA REQUIRED

28.678sm x 10% = 2.8678 sm

STAIRCASE OPENABLE WINDOW AREA PROVIDED

2 x 1.925(W) x 1.5(H) x 80%
= 4.62 sm > 2.8678 sm

STAIRCASE AREA CALCULATION

5.500 x 2.380 = 13.090 sm

STAIRCASE OPENABLE WINDOW AREA REQUIRED

13.090 sm x 10% = 1.309 sm

STAIRCASE OPENABLE WINDOW AREA PROVIDED

2.05(W) x 1.20(H) x 80%
= 1.968 sm > 1.309 sm

PART PLAN OF ST-1 (LEV. = 14.55)

PART PLAN OF ST-7 (LEV. = 14.70)

PART SECTION B OF ELECT ROOM

PART PLAN OF ST-3 (LEV. = 15.5)

PART PLAN OF ST-5 (LEV. = 14.55)

PART PLAN OF ST-4 (LEV. = 15.5)

PART PLAN OF ST-2 (LEV. = 14.55)

PART PLAN OF ST-8 (LEV. = 13.95)

FLOOR LOADING = 5kpa
SHOP
11.75

FLOOR LOADING = 15kpa

ARCADE
FLOOR LOADING = 5kpa

TRANSFORMER RM. "B"
(1500 KVA x 2
= 3000 KVA)
(SUNKEN SLAB AT 10.7mPD)
11.90

TRANSFORMER RM. "C"
(1500 KVA x 2
= 3000 KVA)
(SUNKEN SLAB AT 10.7mPD)
11.90

TRANSFORMER RM. "D"
(1500 KVA x 2
= 3000 KVA)
11.90

LORRY PARKING TO BE 11m(L) x 3.5m(W) WITH CLEAR HEADROOM OF 4.1m(H) MINIMUM

LORRY PARKING IN LOADING / UNLOADING BAY TO BE 11m(L) x 3.5m(W) WITH CLEAR HEADROOM OF 4.1m(H) MINIMUM

OPEN RAMP UP 1 : 10

RAMP DOWN 1 : 12

RAMP DOWN 1 : 10

LOADING & UNLOADING AREA

LIFT LOBBY

SHOP

SHOWCASE

VOID

CURTAIN WALL

GLASS BALUSTRADE

GLASS SHOP FRONT AFTER OP

CLADDING BELOW WINDOW

1100H PARAPET

FLAT ROOF

AHU ROOM
18.81

CARPARK

ELECT. ROOM

LV SWITCH ROOM
18.81

CABLE TRENCH

METAL LOUVER

CURTAIN WALL

METAL BOLLARD AT 1500 C/C

OPENABLE WINDOW CALCULATION FOR SHOP

OPENABLE WINDOW AREA REQUIRED

1525.791 x 6.25% = 95.362 sm

OPENABLE WINDOW AREA PROVIDED

(22.8 +19.231 + 7.134 + 1.2)(W) X 2.5(H) X 0.8
= 100.73 sm > 95.362 sm O.K.

FOR CARPARK

OPENABLE WINDOW AREA REQUIRED

3106.430 x 6.25% = 194.152 sm

OPENABLE WINDOW AREA PROVIDED

(11.35+ 9.6)x3.0(H) + (8.75 + 8.9)x3.575(H)+
8.5x2.5 (H) + 6.65x 1.31(H) + 7.5 x2.29(H) +
8.92x 3.35 (H)
= 204.806 sm > 194.152 sm O.K.

13.733sm (REFER TO GFA CAL)

13.733sm (REFER TO GFA CAL)

AHU ROOM CALCULATION

(13.5798 + 13.5798)/ 2165.074 x100%
= 1.234% < 4% (O.K.)

Statement II : The works shown on these plans are Type II works (name of works : General Building Works) in respect of which the Building Authority's consent is applied for

B.L.D. REF.: 2-3/4089/97

F.S.D. REF.: FP 8/24214 II

REVISION: N DATE: 23/05/08 BY: WLO
GENERAL REVISION -PHASE 1 FINAL
FSD APP 2008.07.16
BD APP 2008.07.22
PH1 OP 2008.09.30

REVISION: U1 DATE: 06/02/09 BY: LPL
A&A TO OFFICE
FSD APP 2009.02.24
BD DISAPP 2009.04.09

REVISION: U2 DATE: 30/06/09 BY: LPL
A&A TO OFFICE RE-SUB
FSD APP 2009.07.21
BD APP 2009.07.29

REVISION: U3 DATE: 01/09/09 BY: LPL
ESCALATOR DELETED & LAV RELOCATED
FSD APP 2009.09.23
BD APP 2009.09.30

REVISION: U4 DATE: 28/10/09 BY: LPL
GLASS PARAPET EXTENT REV & AC DUCT DELETED
FSD APP 2009.11.27
BD APP 2009.12.03

REVISION: U5 DATE: 26/03/10 BY: LPL
STAIR WALL THICKNESS
BD DISAPP 2010.04.30

REVISION: U5R DATE: 03/05/10 BY: LPL
ACCESSIBLE URINAL
FSD APP 2010.05.20
BD APP 2010.05.31

REVISION: U6 DATE: 12/07/10 BY: LPL
TOILET WALL & SHOWCASE

Plan Approved
CS.T.FOR
Senior Building Surveyor
for BUILDING AUTHORITY
11 AUG 2010

B.D. COPY

SIGNATURE FOR SUBMISSION / CONSTRUCTION

CHAU KU & LEUNG ARCHITECTS & ENGINEERS LTD

CONSULTANT

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SCALE: 1 : 200
DRAWN: PS CHECK: LPL
CODE : 798\GBP\DETAIL\PLAN\
FIRST ISSUE: 03 OCT, 1997
DATE OF DISTRIBUTION:

DRAWING TITLE:
1/F FLOOR PLAN
(PHASE 1)

PROJECT:
ALTERATION AND ADDITION
PHASE 1 BUILDING
CHEUNG YIP ST./LAM CHAK ST.
KOWLOON BAY
N.K.I.L. 6215

PROJECT NO.: COU798
DRAWING NO.: P1-203 U6

AHU ROOM CALCULATION

G/F (AHU LOCATED AT 2/F)

2/F AHU 30.803sm

2/F AHU 25.47sm

(30.803 + 25.470) / 3694.628 x 100%
= 1.523% < 4% (O.K.)

OPENABLE WINDOW CALCULATION FOR CARPARK (COVERED AREA)

OPENABLE WINDOW AREA REQUIRED

2450.701 x 6.25% = 153.169 sm

OPENABLE WINDOW AREA PROVIDED

(22.8 +9.634)(W) X 2.5(H) X 0.8 = 64.868 sm

(10.863 + 19.231 + 7.134 + 1.2)(W)
X 2.5(H) X 0.8 = 76.856 sm

(10.775 + 10.775)(W)
X 3.0(H) X 0.8 = 51.720 sm

TOTAL = 193.444 sm

SECTION OF 1100H SOIL PLANTER AT FLAT ROOF
SECTION 4

SECTION OF 1200H SOIL PLANTER IN 300 SOIL PLANT
SECTION 5

PART PLAN OF ST-2
(LEV. = 20.245)

ST-7 HOOD PLAN
(LEV. = 21.90)
(NON-ACCESSIBLE ROOF)

PART PLAN OF ST-3
(LEV. = 20.05)

PART SECTION A OF ELECT ROOM

PART PLAN OF ST-5
(LEV. = 19.9)

CARPARK
FLOOR LOADING = 5kpa

PRIVATE CAR PARKING TO BE: 5.0m(L) x 2.5m(W) WITH CLEAR HEADROOM OF 2.4m(H) MINIMUM

OPEN CARPARK
FLOOR LOADING = 5kpa

CARPARK
FLOOR LOADING = 5kpa

PART PLAN OF ST-4
(LEV. = 20.05)

2/F UFA DIAGRAM

UFA= 2450.701 sm

SECTION OF 300H SOIL PLANTER AT FLAT ROOF
SECTION 1

SECTION OF 300H-500H SOIL PLANTER
SECTION 2

SECTION OF 1100H SOIL PLANTER
SECTION 3

PART PLAN OF ST-2
(LEV. = 20.245)

ST-8 HOOD PLAN(LEV. = 21.90)
(NON-ACCESSIBLE ROOF)

NOTES

1. ALL PLANTER SHALL BE DESIGNATED AS COMMON AREA IN DMC OR TENANCY AGREEMENT
2. CARPARK NO. WITH (R) DENOTES THE PARKING SPACE CALCULATED UNDER THE RATIO OF RETAIL USE.

Statement II : The works shown on these plans are Type II works
(name of works : General Building Works)
in respect of which the Building Authority's consent is applied for

B.L.D. REF.: 2-3/4089/97

F.S.D. REF.: FP 8/24214 II

REVISION	DATE	BY	
N	23/05/08	WLO	GENERAL REVISION -PHASE 1 FINAL FSD APP 2008.07.16 BD APP 2008.07.22 PH1 OP 2008.09.30
U1	06/02/09	LPL	A&A TO OFFICE FSD APP 2009.02.24 BD DISAPP 2009.04.09
U2	30/06/09	LPL	A&A TO OFFICE RE-SUB FSD APP 2009.07.21 BD APP 2009.07.29
U3	01/09/09	LPL	PLANTER & BARRIER ADDED FSD APP 2009.09.23 BD APP 2009.09.30
U4	28/10/09	LPL	CARPARK REV FSD APP 2009.11.27 BD APP 2009.12.03
U5	26/03/10	LPL	CARPARK & PLANTER REV BD DISAPP 2010.04.30
USR	03/05/10	LPL	RE-SUB FSD APP 2010.05.20 BD APP 2010.05.31
U6	12/07/10	LPL	PLANTER HEIGHT

Plan Approved
C.S.YUE
Senior Building Surveyor
for BUILDING AUTHORITY
11 AUG 2010

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SIGNATURE FOR SUBMISSION / CONSTRUCTION

CHAU KU & LEUNG
ARCHITECTS & ENGINEERS LTD

CONSULTANT

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SCALE: 1 : 200
DRAWN: PS CHECK: PW/LPL
CODE : 798\GBP\DETAIL\PLAN\
FIRST ISSUE: 03 OCT, 1997
DATE OF DISTRIBUTION:

DRAWING TITLE:
2/F FLOOR PLAN (PHASE 1)

PROJECT:
ALTERATION AND ADDITION
PHASE 1 BUILDING
CHEUNG YIP ST./LAM CHAK ST.
KOWLOON BAY
N.K.I.L. 6215

PROJECT NO.: COU798
DRAWING NO.: P1-204 U6

STAIRCASE AREA CALCULATION

5.81 x 5.42	=	31.49 sm
1.7 x 0.915	=	1.556 sm
	=	33.046 sm
less		
1.96 x 1.68	=	3.293 sm

STAIRCASE OPENABLE WINDOW AREA REQUIRED

29.753sm x 10% = 2.975 sm

STAIRCASE OPENABLE WINDOW AREA PROVIDED

2.4(W) x [1.91(H)+1.16(H)]x 80%
= 5.89 sm > 2.975 sm.

GLASS AREA CALCULATION AT 7/F

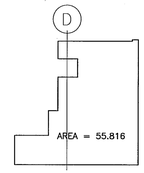
GLASS AREA REQUIRED
2377.427 / 10 = 237.743

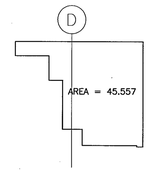
GLASS AREA PROVIDED
(10.85+3.22+21.70+3.22+10.85) x 2.0(H) x 0.8 = 79.744 sm

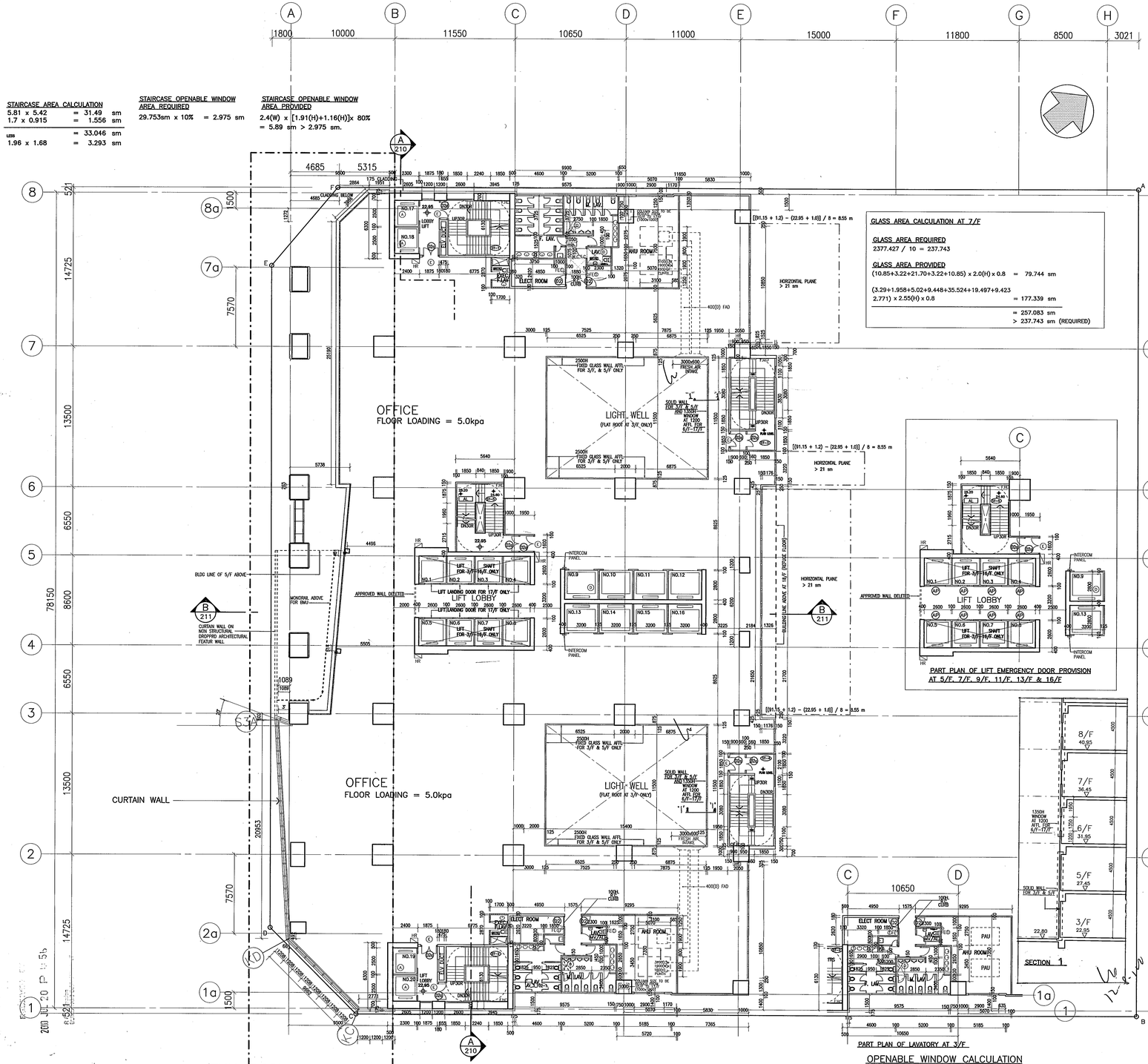
(3.29+1.958+5.02+9.448+35.524+19.497+9.423
2.771) x 2.55(H) x 0.8 = 177.339 sm

= 257.083 sm
> 237.743 sm (REQUIRED)

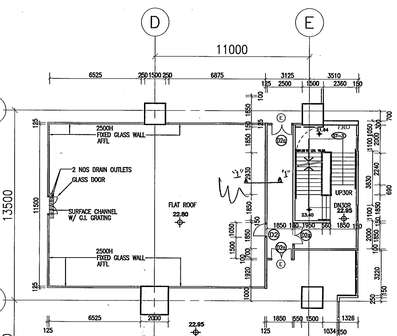
AHU ROOM CALCULATION
(SMALLEST GFA AT 3/F)
(55.816 + 45.557) / 2795.924
= 3.63% < 4% (O.K.)







PART PLAN OF FLAT ROOF AT 3/F



PART PLAN OF LIFT EMERGENCY DOOR PROVISION AT 5/F, 7/F, 9/F, 11/F, 13/F & 16/F

PART PLAN OF LAVATORY AT 3/F

OPENABLE WINDOW CALCULATION
(LARGEST FLOOR AT 7/F UNIT)

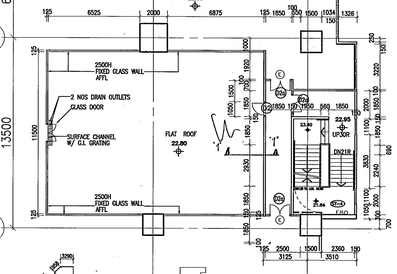
OPENABLE WINDOW AREA REQUIRED
2377.427 (DWG NO. 216) x 6.25% = 148.589 sm

OPENABLE WINDOW AREA PROVIDED
(10.85+3.22+21.70+3.22+10.85) x 2.0(H) x 0.8 = 79.744 sm

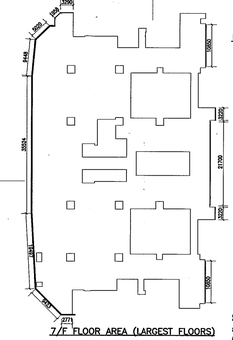
(3.29+1.958+5.02+9.448+35.524+19.497+9.423
2.771) x 1.25(H) x 0.8 = 86.931 sm

= 166.675 sm > 148.589 sm O.K.

PART PLAN OF FLAT ROOF AT 3/F



PART PLAN OF FLAT ROOF AT 3/F



7/F FLOOR AREA (LARGEST FLOORS)

Statement II : The works shown on these plans are Type II works
(name of works : General Building Works)
in respect of which the Building Authority's consent is applied for

B.L.D. REF.: 2-3/4089/97

F.S.D. REF.: FP 8/24214 II

REVISION: N DATE: 23/05/08 BY: WLO
GENERAL REVISION -PHASE 1 FINAL
FSD APP 2008.07.16
BD APP 2008.07.22
PH1 OP 2008.09.30

REVISION: U1 DATE: 06/02/09 BY: LPL
A&A TO OFFICE
FSD APP 2009.02.24
BD DISAPP 2009.04.09

REVISION: U2 DATE: 30/06/09 BY: LPL
A&A TO OFFICE RE-SUB
FSD APP 2009.07.21
BD APP 2009.07.29

REVISION: U3 DATE: 01/09/09 BY: LPL
AD SIGNBOARD ADD
FSD APP 2009.09.23
BD APP 2009.09.30

REVISION: U4 DATE: 28/10/09 BY: LPL
ADD EXE TOILET & LIGHTWELL GLASS WALL
FSD APP 2009.11.27
BD APP 2009.12.03

REVISION: U5 DATE: 26/03/10 BY: LPL
EXE TOILET REV & CHANNEL ADD AT LIGHTWELL
BD DISAPP 2010.04.30

REVISION: U5R DATE: 03/05/10 BY: LPL
ACCESSIBLE URINAL
FSD APP 2010.05.20
BD APP 2010.05.31

REVISION: U6 DATE: 12/07/10 BY: LPL
ACCESSIBLE URINAL RELOCATE

Plan Approved
C.S.YUE
Senior Building Surveyor
for BUILDING AUTHORITY
11 AUG 2010

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SIGNATURE FOR SUBMISSION / CONSTRUCTION
STEPHEN S.F. KU
AUTHORIZED PERSON (AP(A) 33/81)

CHAU KU & LEUNG
ARCHITECTS & ENGINEERS LTD

CONSULTANT

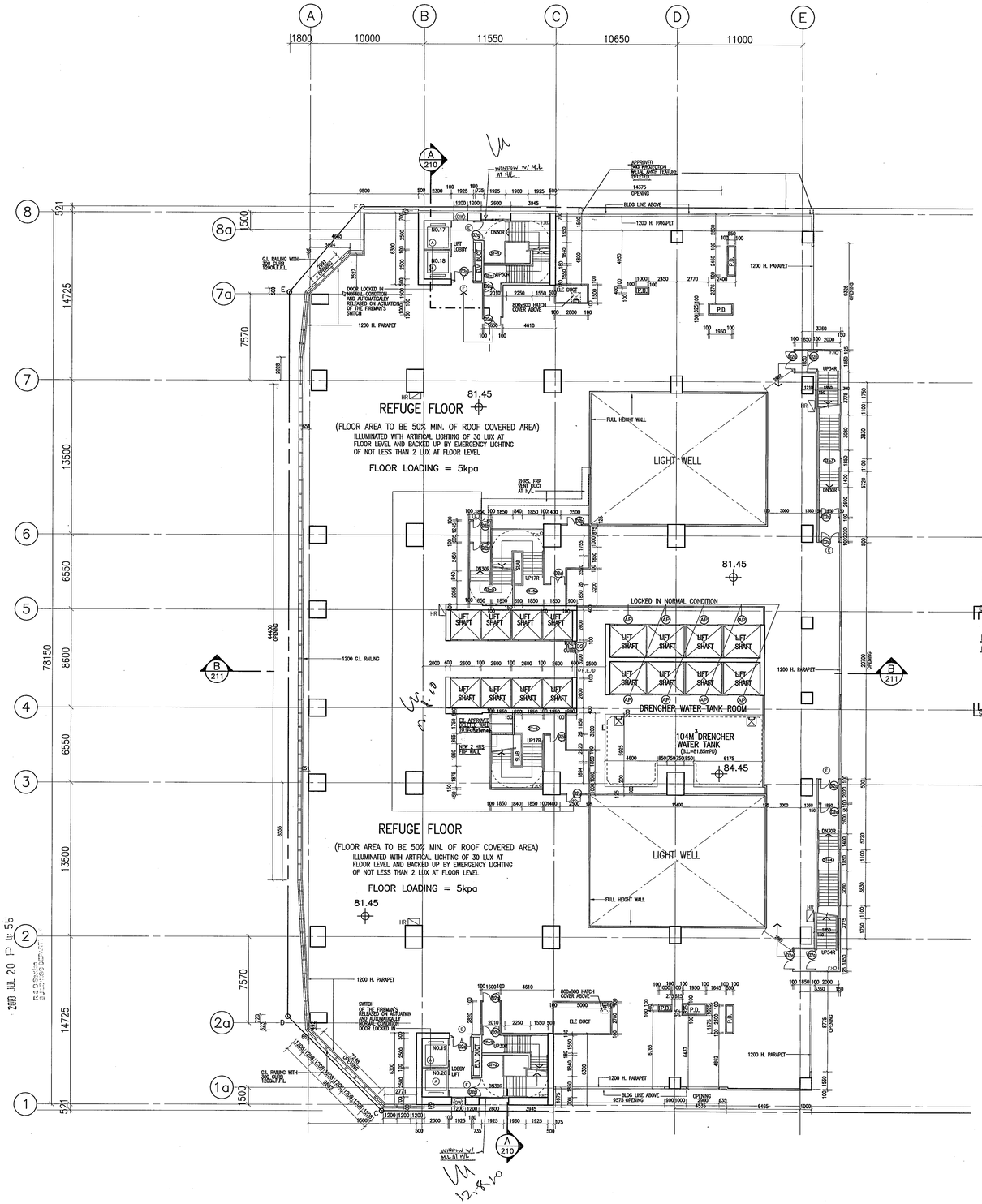
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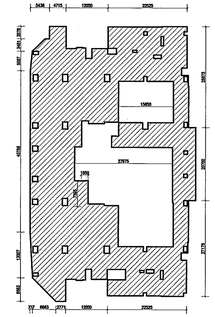
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CODE : 798\GBP\DETAIL\PLAN\
FIRST ISSUE: 03 OCT, 1997
DATE OF DISTRIBUTION:

DRAWING TITLE:
3/F-17/F FLOOR PLAN
(4/F & 14/F EXCLUDED)
(PHASE 1)

PROJECT:
ALTERATION AND ADDITION
PHASE 1 BUILDING
CHEUNG YIP ST./LAM CHAK ST.
KOWLOON BAY
N.K.I.L. 6215

PROJECT NO.: COU798
DRAWING NO.: P1-205 U6





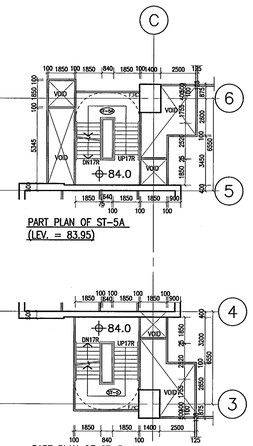
REFUGE AREA

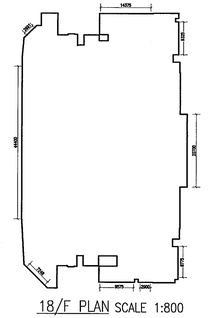
REFUGE AREA CALCULATION

① =2343.835 sm

> 50% OF ROOF COVERED AREA (3436.205 sm)

> 1718.103 sm





DRENCHER WATER TANK CAPACITY CALCULATION

AREA OF OPENINGS: (44.4 + 7.248 + 2.991)(W) X 2.50(H) = 136.598 s.m.

(14.38 + 9.58 + 2.9)(W) X 2.50(H) = 67.150 s.m.

(9.33 + 8.78) (W) X 1.54(H) = 27.889 s.m.

(20.700) (W) X 1.54 (H) = 31.878 s.m.

TOTAL = 263.515 s.m.

CAPACITY REQUIRED: = 263.515 sm x 10 L/m/min. x 30 min.
= 79054.50
= 104 cubic m. (SAY) (PROVIDED ON REFUGE FLOOR)

NOTES:

ALL WALLS & FLOORS SEPARATING LIFT MOTOR ROOM & PLANT ROOMS FROM THE AREA OF REFUGE TO HAVE 2 HRS F.R.P.

Statement II : The works shown on these plans are Type II works
(name of works : General Building Works)
in respect of which the Building Authority's consent is applied for

B.L.D. REF.: 2-3/4089/97

F.S.D. REF.: FP 8/24214 II

REVISION	DATE	BY	
N	23/05/08	WLO	GENERAL REVISION -PHASE 1 FINAL FSD APP 2008.07.16 BD APP 2008.07.22
U1	06/02/09	LPL	A&A TO OFFICE FSD APP 2009.02.24 BD DISAPP 2009.04.09
U2	30/06/09	LPL	A&A TO OFFICE RE-SUB FSD APP 2009.07.21 BD APP 2009.07.29
U3	01/09/09	LPL	AD SIGNBOARD FSD APP 2009.09.23 BD APP 2009.09.30
U6	10/07/10	LPL	AD SIGNBOARD & STAIR ST-5

Plan Approved
C.S.YUE
Senior Building Surveyor
for BUILDING AUTHORITY
11 AUG 2010

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SIGNATURE FOR SUBMISSION / CONSTRUCTION
AUTHORIZED PERSON (AP(A) 33/81)

CHAU KU & LEUNG ARCHITECTS & ENGINEERS LTD

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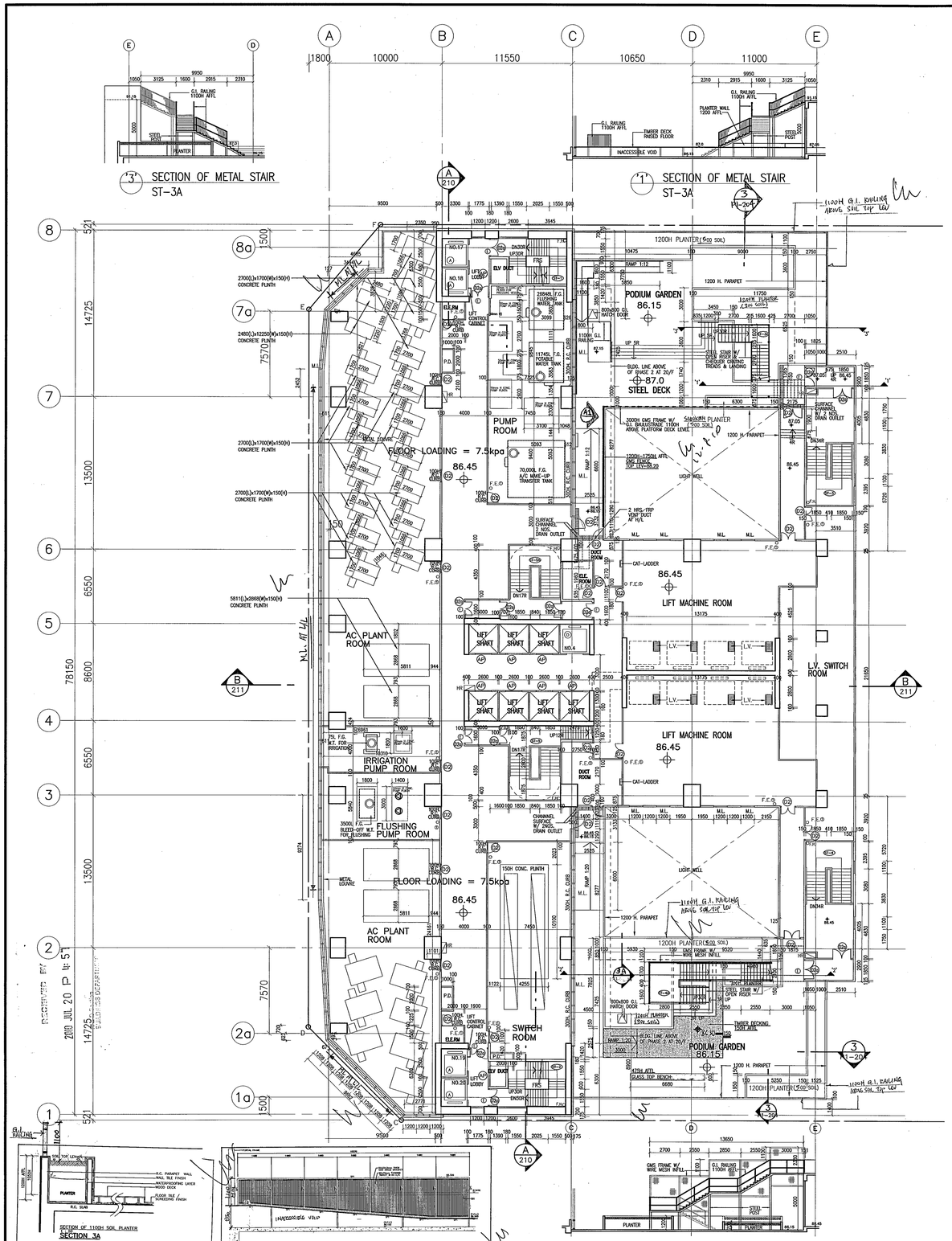
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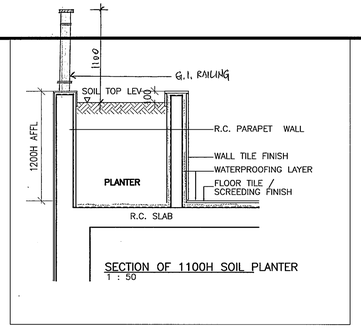
SCALE: 1 : 200
DRAWN: PS CHECK: PW/LPL
CODE : 798\DETAIL\PLAN\
FIRST ISSUE:
DATE OF DISTRIBUTION:

DRAWING TITLE:
18/F REFUGE FLOOR PLAN (PHASE 1)

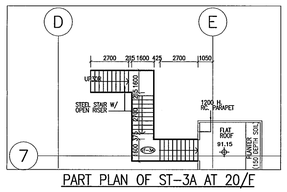
PROJECT:
ALTERATION AND ADDITION
PHASE 1 BUILDING
CHEUNG YIP ST./LAM CHAK ST.
KOWLOON BAY
N.K.I.L. 6215

PROJECT NO.: COU798
DRAWING NO.: P1-206 U6

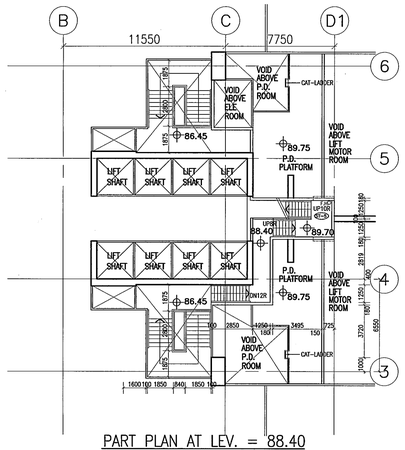




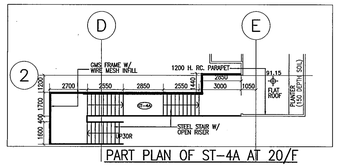
SECTION OF 1100H SOIL PLANTER
1 : 50



PART PLAN OF ST-3A AT 20/F



PART PLAN AT LEV. = 88.40



PART PLAN OF ST-4A AT 20/F

A/C PLANT CALCULATION

PHASE 1

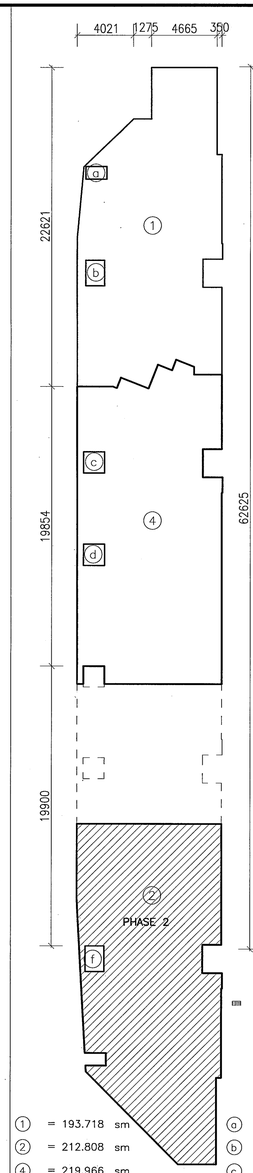
A/C PLANT ROOM AT 19/F = 405.404 sm

PROVIDING A/C ROOM AREA
= 405.404 / 44684.661 x 100%
= 0.907% < 1% (O.K.)

PHASE 1 & 2

A/C PLANT ROOM AT 19/F = 615.782 sm

PROVIDING A/C ROOM AREA
= 615.782 / 63119.118 x 100%
= 0.976% < 1% (O.K.)



①	= 193.718 sm	ⓐ	= 1.350 sm
②	= 212.808 sm	ⓑ	= 2.430 sm
④	= 219.966 sm	ⓒ	= 2.250 sm
		ⓓ	= 2.250 sm
		ⓕ	= 2.430 sm

A/C ROOM AT 19/F (P1)

① + ④ − ⓐ − ⓑ − ⓒ − ⓓ = 405.404 sm

A/C ROOM AT 19/F (P2)

ADD

② − ⓕ = 210.378 sm

TOTAL (P2) = 615.782 sm

NOTES
ALL PLANTER SHALL BE DESIGNATED AS COMMON AREA IN DMC OR TENANCY AGREEMENT

Statement II : The works shown on these plans are Type II works
(name of works : General Building Works)
in respect of which the Building Authority's consent is applied for

B.L.D. REF.: 2-3/4089/97

F.S.D. REF.: FP 8/24214 II

REVISION	DATE	BY	
N	23/05/08	WLO	GENERAL REVISION --PHASE 1 FINAL FSD APP 2008.07.16 BD APP 2008.07.22
U1	06/02/09	LPL	A&A TO OFFICE FSD APP 2009.02.24 BD DISAPP 2009.04.09
U2	30/06/09	LPL	A&A TO OFFICE RE-SUB FSD APP 2009.07.21 BD APP 2009.07.29
U3	01/09/09	LPL	PLANTER ADD & UPS REV TO IRRIGATION PUMP FSD APP 2009.09.23 BD APP 2009.09.30
U4	0511/09	LPL	IRRIGATION PUMP, GUARD ROOM & STEEL STAIR FSD APP 2009.11.27 BD APP 2009.12.03
U5	26/03/10	LPL	LANDSCAPED & TOILET BD DISAPP 2010.04.30
U5R	03/05/10	LPL	THIS FLOOR COMPLIED WITH BFA200B FSD APP 2010.05.20 BD APP 2010.05.31
U6	12/07/10	LPL	PLANTER SETOUT + BENCH

Plan Approved
C.S.YUE
Senior Building Surveyor
for BUILDING AUTHORITY
11 AUG 2010

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SIGNATURE FOR SUBMISSION / CONSTRUCTION
STEPHEN S.K. KU
AUTHORIZED PERSON AP(A) 33/81

CHAU KU & LEUNG
ARCHITECTS & ENGINEERS LTD

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SCALE: 1 : 200
DRAWN: CHECK:
CODE : 798\GBP\9SUB\207-MF-G
FIRST ISSUE:
DATE OF DISTRIBUTION:

DRAWING TITLE:
19/F MECHANICAL FLOOR PLAN

PROJECT:
ALTERATION AND ADDITION
PHASE 1 BUILDING
CHEUNG YIP ST./LAM CHAK ST.
KOWLOON BAY
N.K.I.L. 6215

PROJECT NO.: COU798
DRAWING NO.: P1-207 U6

STAIRCASE AREA CALCULATION
5.13 x 4.00 = 20.520 sm
1.83 x 1.60 = 2.928 sm
= 23.448 sm

STAIRCASE OPENABLE WINDOW AREA REQUIRED
23.448 sm x 10% = 2.345 sm

STAIRCASE OPENABLE WINDOW AREA PROVIDED
1200(W) x 2 x 2.5(H)x 80%
= 4.8 sm > 2.345 sm

OPENABLE WINDOW CALCULATION
TOTAL FLOOR AREA = 1626.096sm

OPENABLE WINDOW AREA REQUIRED
1626.096 x 6.25% = 101.631 sm

OPENABLE WINDOW AREA PROVIDED
[2(2.070 + 20.40) + 4.906 + 3.09 + 2.43 + 46.8 + 8.414
+ 7.134 + 1.2] x 1.25(H) x 0.8 = 118.914 sm
> 101.631 sm O.K.

GLASS AREA REQUIRED
1626.096 x 10% = 162.610 sm

GLASS AREA PROVIDED
[2(2.070 + 20.40) + 4.906 + 3.09 + 2.43 + 46.8 + 8.414
+ 7.134 + 1.2] x 2.55(H) x 0.8 = 242.585 sm
> 162.610 sm O.K.

NOTES
ALL PLANTER SHALL BE DESIGNATED AS COMMON AREA IN DMC OR TENANCY AGREEMENT

ST-3A PART PLAN AT 19/F
THE PROPOSED NEW METAL STAIR WILL BE SUBMITTED SEPARATELY FOR APPROVAL UNDER BD REFERENCE BD 2-3/4089/97 IN PHASE 1 & THIS IS ONLY FOR INFORMATION

20/F PLAN

21/F–30/F PLAN

SECTION 1

SECTION 2

20/F–30/F AHU ROOM CALCULATION
(SMALLEST GFA AT 39/F)
16.374 / 1663.534 x 100%
= 0.985% < 4% (O.K.)
16.374sm (REFER TO GFA CAL)

Statement II : The works shown on these plans are Type II works
(name of works : General Building Works)
in respect of which the Building Authority's consent is applied for

RECEIVED FILED
26 JUL 20 P 12:54
B.D.D. Kowloon
BUILDING DEPARTMENT

B.L.D. REF.: 2/4089/97
F.S.D. REF.: FP 8/24214 II

REVISION	DATE	BY	
N	23/05/08	WLO	GENERAL REVISION –PHASE 1 FINAL FSD APP 2008.07.16 BD APP 2008.07.22 P1 OP 2008.09.30
U1	06/02/09	LPL	A&A TO OFFICE FSD APP 2009.02.24 BD DISAPP 2009.03.10
U1R	12/03/09	LPL	COU TO OFFICE RE-SUB FSD APP 2009.04.14 BD DISAPP 2009.04.16
U2	30/06/09	LPL	COU TO OFFICE RE-SUB FSD APP 2009.07.21 BD APP 2009.07.29
U3	01/09/09	LPL	PLANTER ADD FSD APP 2009.09.23 BD APP 2009.09.30
U4	13/10/09	LPL	EXEC. TOILET ADD FSD APP 2009.11.27 BD APP 2009.12.03
U5	26/03/10	LPL	LANDSCAPED & TOILET BD DISAPP 2010.04.30
U5R	03/05/10	LPL	LANDSCAPED COMPLIED WITH BFA2008 FSD APP 2010.05.20 BD APP 2010.05.31
U6	12/07/10	LPL	LOBBY FURRING & PLANTER

Plan Approved
C.S.YUE
Senior Building Surveyor
for BUILDING AUTHORITY
11 AUG 2010

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SIGNATURE FOR SUBMISSION / CONSTRUCTION
AUTHORIZED PERSON (APA) 33/81

CHAU KU & LEUNG ARCHITECTS & ENGINEERS LTD

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SCALE: 1 : 200
DRAWN: PS CHECK: PW/LPL
CODE : 798/GBP/9SUB/208–20–G
FIRST ISSUE: 03 OCT, 1997
DATE OF DISTRIBUTION:

DRAWING TITLE:
20/F–30/F PLAN

PROJECT:
PHASE 2
OFFICE/COMMERCIAL BUILDING AT
CHEUNG YIP ST./LAM CHAK ST.
KOWLOON BAY
N.K.I.L. 6215

PROJECT NO.: COU798
DRAWING NO.: 208 U6

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2010 JUL 20 P 4:57
R & D Section
BUILDINGS DEPARTMENT

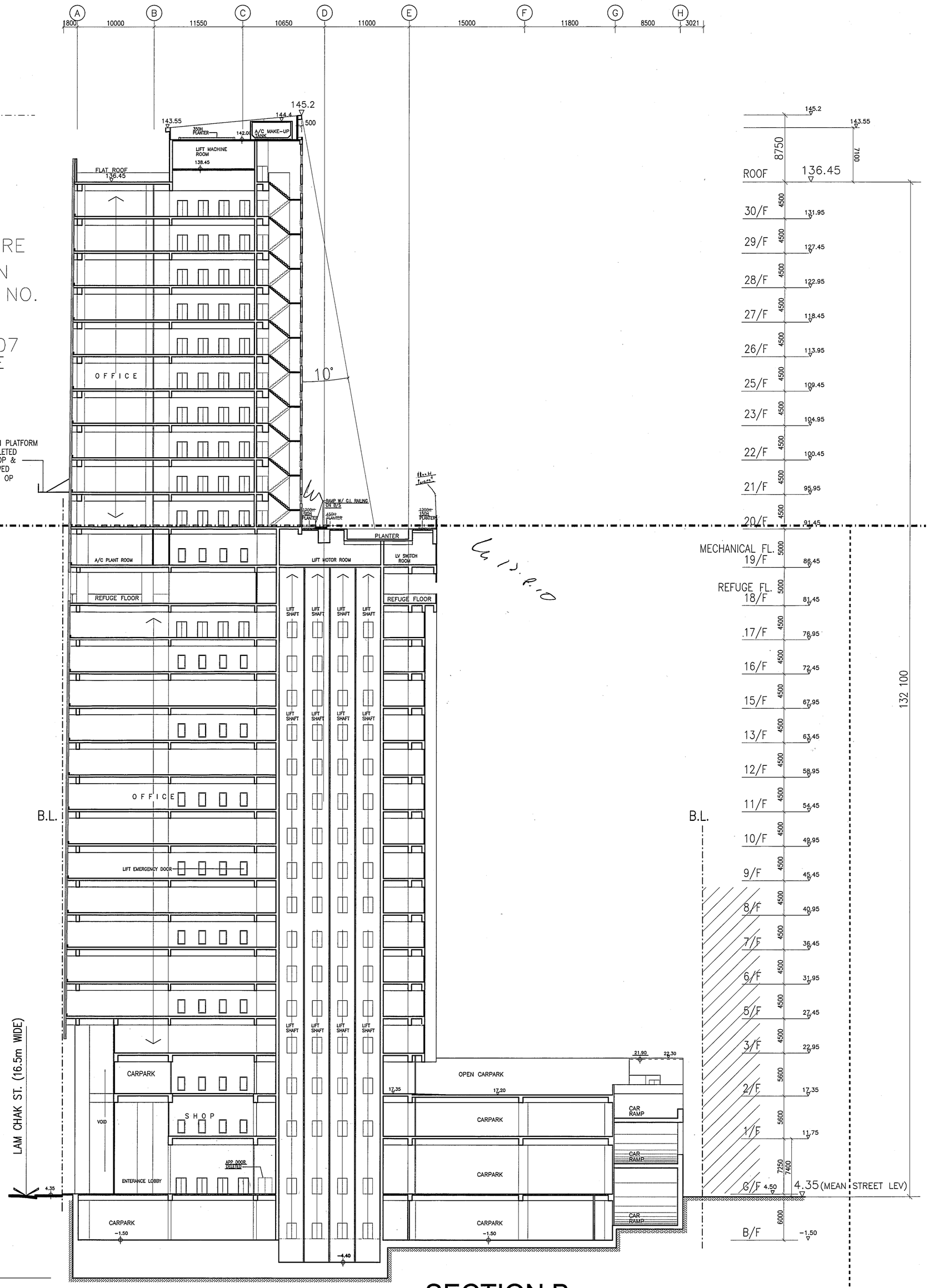
FOR INFORMATION ONLY

PHASE 2

BUILDING & STRUCTURE
UNDER CONSTRUCTION
BY CONSENT PERMIT NO.
NK 6/98 (Cont'd 3)
ISSUED ON 30.05.2007
PHASE 2 WORK WILL BE
SUBMITTED SEPARATELY
UNDER REF 2/4089/97

PHASE 1

A&A WORKS
SUBMISSION
UP TO 19/F OF
THE BUILDING



SECTION B

Statement II : The works shown on these plans are Type II works
(name of works : General Building Works)
in respect of which the Building Authority's consent is applied for

B.L.D. REF.:	2.3/4089/97
F.S.D. REF.:	FP 8/24214 II

REVISION:	DATE:	BY:
N	23/05/08	WLO
GENERAL REVISION – PHASE 1 FINAL	FSD APP 2008.07.16 BD APP 2008.07.22 PH1 OP 2008.09.30	
P	12/09/08	WLO
ROOF FENCING & LIFT CORE		
U1	06/02/09	KC
A&A TO OFFICE	FSD APP 2009.02.24 BD DISAPP 2009.03.10	
U1R	12/03/09	LPL
COU TO OFFICE RE-SUB	FSD APP 2009.04.14 BD DISAPP 2009.04.16	
U2	30/06/09	LPL
COU TO OFFICE RE-SUB	FSD APP 2009.07.21 BD APP 2009.07.29	
U3	01/09/09	LPL
ROOF FEATURE ADD & ESCALATOR DELETED	FSD APP 2009.09.23 BD APP 2009.09.30	
U6	12/07/10	LPL
PLANTER AT 20/F		

Plan Approved
C.S.YUE
Senior Building Surveyor
for BUILDING AUTHORITY
11 AUG 2010

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SIGNATURE FOR SUBMISSION / CONSTRUCTION
STEPHEN K.L. CHAU
AUTHORIZED PERSON AP(A) 33/81

CHAU KU & LEUNG
ARCHITECTS & ENGINEERS LTD

CONSULTANT

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SCALE:	1 : 300
DRAWN:	PS/WLO
CHECK:	PW/LPL
CODE :	798\GBP\145UB\210-AA-G
FIRST ISSUE:	03 OCT. 1997
DATE OF DISTRIBUTION:	

DRAWING TITLE:

SECTION B – B

PROJECT:
ALTERATION AND ADDITION
PHASE 1 BUILDING
CHEUNG YIP ST./LAM CHAK ST.
KOWLOON BAY
N.K.I.L. 6215

PROJECT NO.:	DRAWING NO.:	
COU798	P1–211	U6

Appendix 5.4 Site Walkover Checklist

Site Walkover Checklist

GENERAL SITE DETAILS

SITE OWNER/CLIENT	Health Link Investment Limited
PROPERTY ADDRESS	8 Lam Chak Street, Kowloon Bay, Kowloon, Hong Kong

PERSON CONDUCTING THE QUESTIONNAIRE

NAME	Anna Wu
POSITION	Assistant Environmental Consultant

AUTHORIZED OWNER/CLIENT REPRESENTATIVE (IF APPLICABLE)

NAME	Ricky Kan / Danny Chan
POSITION	Property Manager / Senior Building Services Engineer
TELEPHONE	2670 0070

SITE ACTIVITIES

Briefly describe activities carried out on site, including types of products/chemicals/materials handled. Obtain a flow schematic if possible.

Number of employees:	Full-time:	3,000+
	Part-time:	-
	Temporary/Seasonal:	-
Maximum no. of people on site at any time:		3,000+
Typical hours of operation:		10
Number of shifts:		3
Days per week:		7
Weeks per year:		52
Scheduled plant shut-down:		-

Detail the main sources of energy at the site:

Gas	Yes/~~No~~
Electricity	Yes/~~No~~
Coal	~~Yes~~/No
Oil	Yes/~~No~~
Other	~~Yes~~/No

SITE DESCRIPTION

This section is intended to gather information on site setting and environmental receptors on, adjacent or close to the site.

What is the total site area: 810,000 s.f.

What area of the site is covered by buildings (%):

Please list all current and previous owners/occupiers if possible.
Previous Occupiers:
Current Occupiers:

Is a site plan available? If yes, please attach. Yes/~~No~~ (Please refer to the attached site plan)

Are there any other parties on site as tenants or sub-tenants? Yes/~~No~~

If yes, identify those parties:

Describe surrounding land use (residential, industrial, rural, etc.) and identify neighbouring facilities and types of industry.

North:	Carriageway: Kwun Tong bypass
	Commercial: Pacific Trade Centre
South:	Warehouse: Kerry D.G Godown (Kowloon Bay)
	Construction Site
East:	Kwun Tong Typhoon Shelter
West:	Institution: Kai Tak Fire Station
	Construction Site

Site Walkover Checklist

Describe the topography of the area (flat terrain, rolling hills, mountains, by a large body of water, vegetation, etc.).

Flat reclamation land with a large body of water on the eastern side.

State the size and location of the nearest residential communities.

Chit Wong Mansion, a 5-storey building that provides 25 residential units.

Are there any sensitive habitats nearby, such as nature reserves, parks, wetlands or sites of special scientific interest?

No.

Questionnaire with Existing/Previous Site Owner or Occupier

Ref.		Yes/No	Notes
1.	What are the main activities/operations at the above address?	Y	Office
2.	How long have you been occupying the site?	Y	5 years
3.	Were you the first occupant on site? (If yes, what was the usage of the site prior to occupancy?)	N	-
4.	Prior to your occupancy, who occupied the site?	Y	Nan Fung
5.	What were the main activities/operations during their occupancy?	Y	Office
6.	Have there been any major changes in operations carried out at the site in the last 10 years?	N	-
7.	Have any polluting activities been carried out in the vicinity of the site in the past?	N	-
8.	To the best of your knowledge, has the site ever been used as a petrol filling station/car service garage?	N	-
9.	Are there any boreholes/wells or natural springs either on the site or in the surrounding area?	N	-
10	Do you have any registered hazardous installations as defined under relevant ordinances? (If yes, please provide details.)	N	-
11.	Are any chemicals used in your daily operations? (If yes, please provide details.)	Y	Diesel fuel which will be used for the emergency generator under emergency situations.
	• Where do you store these chemicals?	-	The diesel fuel is store in oil tank room which is located on 2/F.
12.	Material inventory lists, including quantities and locations available? (If yes, how often are these inventories updated?)	Y	Monthly
13.	Has the facility produced a separate hazardous substance inventory?	N	-

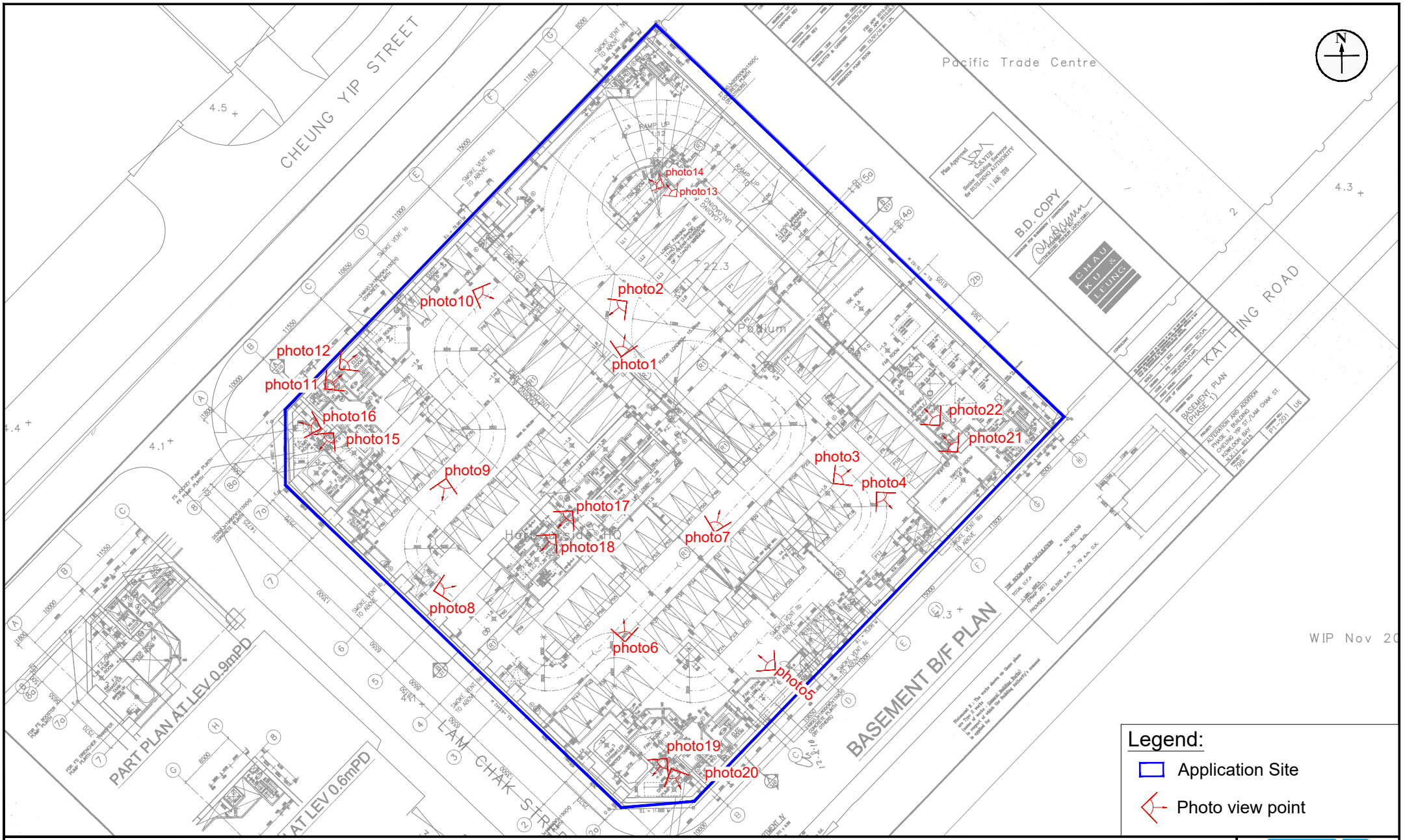
Ref.		Yes/No	Notes
14.	Have there ever been any incidents or accidents (e.g. spills, fires, injuries, etc.) involving any of these materials? (If yes, please provide details.)	N	-
15.	How are materials received (e.g. rail, truck, etc.) and stored on site (e.g. drums, tanks, carboys, bags, silos, cisterns, vaults and cylinders)?	N	-
16.	Do you have any underground storage tanks? (If yes, please provide details.)	N	-
	▪ How many underground storage tanks do you have on site?	-	-
	▪ What are the tanks constructed of?	-	-
	▪ What are the contents of these tanks?	-	-
	▪ Are the pipelines above or below ground?	-	-
	▪ If the pipelines are below ground, has any leak and integrity testing been performed?	-	-
	▪ Have there been any spills associated with these tanks?	-	-
17.	Are there any disused underground storage tanks?	N	-
18.	Do you have regular check for any spillage and monitoring of chemicals handled? (If yes, please provide details.)	N	-
19.	How are the wastes disposed of?	-	General waste collected by registered contractor. For chemical wastes, licensed chemical waste collector is hired by the chemical waste producer for collection and removal of chemical wastes independently.
20.	Have you ever received any notices of violation of environmental regulations or received public complaints? (If yes, please provide details.)	N	-
21.	Have any spills occurred on site? (If yes, please provide details.)	N	-
	• When did the spill occur?	-	-
	• What were the substances spilled?	-	-
	• What was the quantity of material spilled?	-	-
	• Did you notify the relevant departments of the spill?	-	-
	• What were the actions taken to clean up the spill?	-	-
	• What were the areas affected?	-	-

Ref.		Yes/No	Notes
22.	Do you have any records of major renovation of your site or rearrangement of underground utilities, pipe work/underground tanks (If yes, please provide details.)	N	-
23.	Have disused underground tanks been removed or otherwise secured (e.g. concrete, sand, etc.)?	N	-
24.	Are there any known contaminations on site? (If yes, please provide details.)	N	-
25.	Has the site ever been remediated? (If yes, please provide details.)	N	-

Observations

1.	Are chemical storage areas provided with secondary containment (i.e. bund walls and floors)?	Y	Diesel fuel is stored inside the tank with bund walls and elevated
2.	What are the conditions of the bund walls and floors?	-	In good condition
3.	Are any surface water drains located near to drum storage and unloading areas?	N	-
4.	Are any solid or liquid waste (other than wastewater) generated at the site? (If yes, please provide details.)	N	-
5.	Is there a storage site for the wastes?	N	-
6.	Is there an on-site landfill?	N	-
7.	Were any stressed vegetation noted on site during the site reconnaissance? (If yes, please indicate location and approximate size.)	N	-
8.	Were any stained surfaces noted on-site during the site reconnaissance? (If yes, please provide details.)	N	-
9.	Are there any potential off-site sources of contamination?	N	-
10.	Does the site have any equipment which might contain polychlorinated biphenyls (PCBs)?	N	-
11.	Are there any sumps, effluent pits, interceptors or lagoons on site?	Y	Sump pits and a petrol interceptor mainly located at basement carpark
12.	Any noticeable odours during site walkover?	N	-
13.	Are any of the following chemicals used on site: fuels, lubricating oils, hydraulic fluids, cleaning solvents, used chemical solutions, acids, anti-corrosive paints, thinners, coal, ash, oily tanks and bilge sludge, metal wastes, wood preservatives and polyurethane foam?	Y	Diesel fuel

Appendix 5.5 Photo Record



Appendix: 5.5

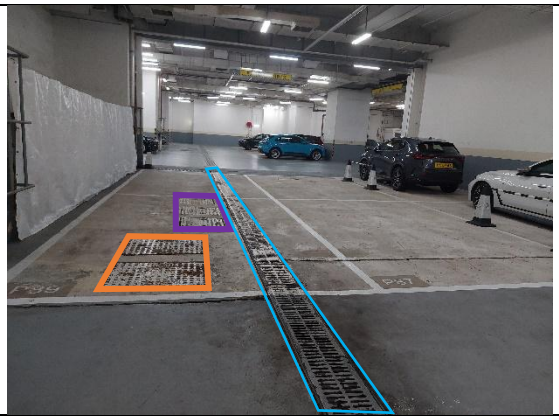
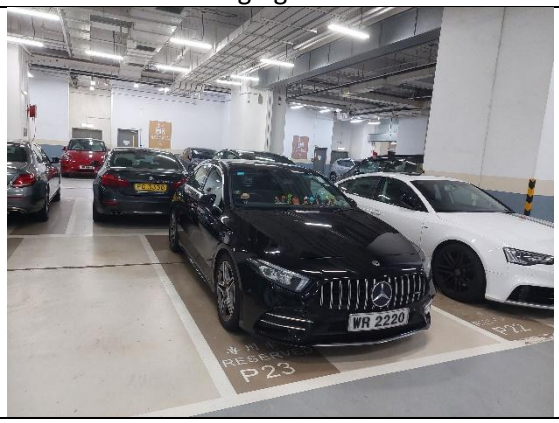
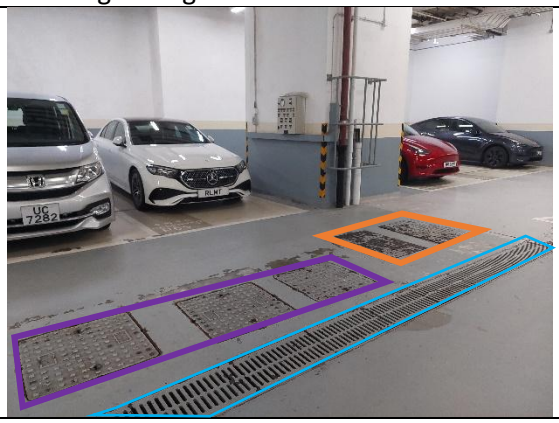
Title: Photo Record (B/F)

Project: Proposed Comprehensive Development at 8 Lam Chak Street, Kowloon - N.K.I.L. 6215

RAMBOLL

Drawn by:	AW
Checked by:	CC
Rev.:	1.2
Date:	Jan 2026

Q:\Projects\CHPHBSHQEI00\05 Assessments\06 LD\20260105 v1.2\Site Survey\Site survey record.dwg

	
Photo 1 The view of car park	Photo 2 The view of car park and drainage facilities including wastewater sump pit (orange), petrol interceptor (purple) and surface channel (blue).
	
Photo 3 Electric vehicle charging station	Photo 4 Fire Extinguishing Tools
	
Photo 5 The view of car park	Photo 6 The view of car park and drainage facilities including wastewater sump pit (orange), petrol interceptor (purple) and surface channel (blue).

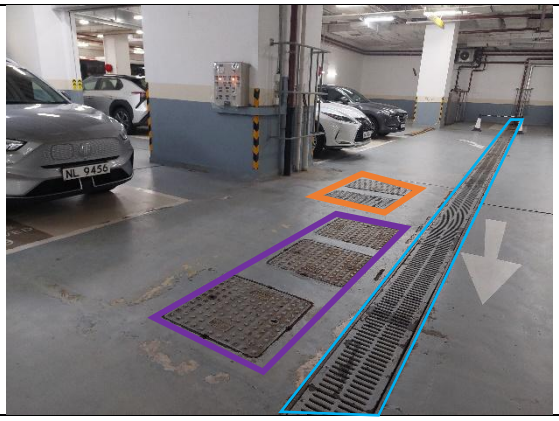
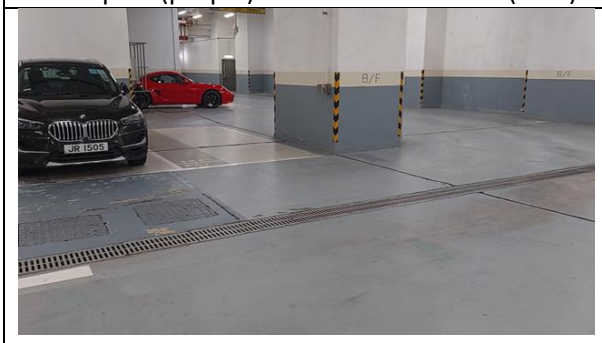
	
Photo 7 The view of car park and drainage facilities including wastewater sump pit (orange), petrol interceptor (purple) and surface channel (blue).	Photo 8 The view of car park and wastewater sump pit (orange).
	
Photo 9 The view of car park	Photo 10 Fire Extinguishing Tools
	
Photo 11 The Opening of ELEC Room	Photo 12 The view of ELEC Room and floor was concrete paved and in good condition.

	
Photo 13 The opening of Fan Room	Photo 14 The view of Fan Room and floor was concrete paved and in good condition.
	
Photo 15 The opening of F.S. Pump Room	Photo 16 The view of F.S. Pump Room and floor was concrete paved and in good condition.
	
Photo 17 The opening of Irrigation Pump Room.	Photo 18 The view of Irrigation Pump Room and floor was concrete paved and in good condition.

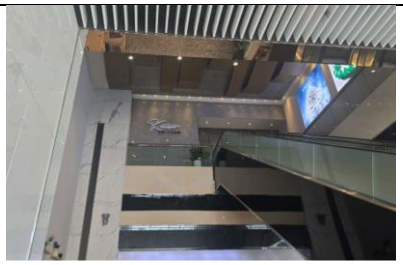
	
Photo 19 The opening of Sprinkler Pump Room	Photo 20 The view of Sprinkler Pump Room and floor was concrete paved and in good condition.
	
Photo 21 The opening of Flushing/ Potable Pump Room	Photo 22 The view of Flushing/ Potable Pump Room and floor was concrete paved and in good condition.

<table>
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Storage Tank for diesel equipped with solid and impermeable spill tray inside the D.G. Room on 2/F
Floor of D.G. room was concrete paved and in good condition

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Appendix 5.6 Details of Chemical Waste Producers

Name	Medisun Holdings Limited	Ping Kee Construction (China) Limited	
Level of Encroachment	Past: 25/F Present: N (The company has been moved out)	Past: 1/F Present: N (The company has been moved out)	Past: 3/F Present: N (The company has been moved out)
The present and past land-use and site operation/activities	Past: Medical Practice Present: The company has been moved out and the present operation is for beauty services	Past: Construction industry Presnet: The company has been moved out and present operation is for retail	Past: Construction industry Present: empty
Observations in Site Walkover	Occupied by MH Kami Health Medical Limited for providing beauty sesrvices	1/F was occupied by Kaiser Jewellery International Limited	empty
Type of Business or Operation	Beauty Service	Retail Shop	N/A
Photo			-

Name	Asian Integrated Cell Laboratory Limited	Atos Infromation Technology HK Limited	Jones Lang Lasalle Management Services Limited
Level of Encroachment	30/F	Unit 1301, 13/F	Past: Unit 1103, 11/F Present: N (The company has been moved out)
The present and past land-use and site operation/activities	Present: Laboratory	Present: Office	Past: Office for Real Estate Maintenance Management Present: The company has been moved out and present operation is for Electronic Health Record Office.
Observations in Site Walkover	Still in operation, according to the property manager, their waste disposal was independently collected by a contractor to manage.	A formal office	11/F is used for offices of Hospital Autority and Health Bureau, unit 1103 is occupied by Health Bureau for Electronic Health Record Office
Type of Business or Operation	Laboratory	Information Technology Related service	Office
Photo			

Name	Tysan Building Construction Company Limited	New Charm Management Limited
Level of Encroachment	Past: It should be responsible for design and construction works in upgrading OCTA Tower in 2020 Present: The project has been completed in 2020	Past: It was the previous management company hired by previous occupier Present: Management company has been changed to Jones Lang LaSalle
The present and past land-use and site operation/activities	Past: Interior Fitting Present: N/A	Past: Property management Present: N/A
Observations in Site Walkover	N/A	N/A
Type of Business or Operation	N/A	N/A
Photo	-	-

Appendix 5.7 Photo Records of Storage Tanks

	
• Storage Tank for diesel equipped with solid and impermeable spill tray inside the D.G. Room on 2/F • Floor of D.G. room was concrete paved and in good condition	

AHU ROOM CALCULATION

G/F (AHU LOCATED AT 2/F)

2/F AHU 30.803sm

2/F AHU 25.47sm

(30.803 + 25.470) / 3694.628 x 100%
= 1.523% < 4% (O.K.)

OPENABLE WINDOW CALCULATION FOR CARPARK (COVERED AREA)

OPENABLE WINDOW AREA REQUIRED

2450.701 x 6.25% = 153.169 sm

OPENABLE WINDOW AREA PROVIDED

(22.8 +9.634)(W) X 2.5(H) X 0.8 = 64.868 sm

(10.863 + 19.231 + 7.134 + 1.2)(W)
X 2.5(H) X 0.8 = 76.856 sm

(10.775 + 10.775)(W)
X 3.0(H) X 0.8 = 51.720 sm

TOTAL = 193.444 sm

CARPARK
FLOOR LOADING = 5kpa

OPEN CARPARK
FLOOR LOADING = 5kpa

CARPARK
FLOOR LOADING = 5kpa

PRIVATE CAR PARKING TO BE: 5.0m(L) x 2.6m(W) WITH CLEAR HEADROOM OF 2.4m(H) MINIMUM

Fuel Tank Room for diesel storage (2/F)

PART PLAN OF ST-2 (LEV. = 20.245)

ST-7 HOOD PLAN (LEV. = 21.90) (NON-ACCESSIBLE ROOF)

PART PLAN OF ST-3 (LEV. = 20.05)

PART SECTION A OF ELECT ROOM

PART PLAN OF ST-5 (LEV. = 19.9)

PART PLAN OF ST-4 (LEV. = 20.05)

2/F UFA DIAGRAM

ST-8 HOOD PLAN (LEV. = 21.90) (NON-ACCESSIBLE ROOF)

SECTION 1 — SECTION OF 300H SOIL PLANTER AT FLAT ROOF

SECTION 2 — SECTION OF 300H-500H SOIL PLANTER

SECTION 3 — SECTION OF 1100H SOIL PLANTER

SECTION 4 — SECTION OF 1100H SOIL PLANTER AT FLAT ROOF

SECTION 5 — SECTION OF 1200H SOIL PLANTER IN 300 SOIL PLANT

NOTES

1. ALL PLANTER SHALL BE DESIGNATED AS COMMON AREA IN DMC OR TENANCY AGREEMENT
2. CARPARK NO. WITH (R) DENOTES THE PARKING SPACE CALCULATED UNDER THE RATIO OF RETAIL USE.

Statement II : The works shown on these plans are Type II works
(name of works : General Building Works)
in respect of which the Building Authority's consent is applied for

B.L.D. REF.:	2-3/4089/97
F.S.D. REF.:	FP 8/24214 II

REVISION	DATE	BY	
N	23/05/08	WLO	GENERAL REVISION -PHASE 1 FINAL FSD APP 2008.07.16 BD APP 2008.07.22 PH1 OP 2008.09.30
U1	06/02/09	LPL	A&A TO OFFICE FSD APP 2009.02.24 BD DISAPP 2009.04.09
U2	30/06/09	LPL	A&A TO OFFICE RE-SUB FSD APP 2009.07.21 BD APP 2009.07.29
U3	01/09/09	LPL	PLANTER & BARRIER ADDED FSD APP 2009.09.23 BD APP 2009.09.30
U4	28/10/09	LPL	CARPARK REV FSD APP 2009.11.27 BD APP 2009.12.03
U5	26/03/10	LPL	CARPARK & PLANTER REV BD DISAPP 2010.04.30
USR	03/05/10	LPL	RE-SUB FSD APP 2010.05.20 BD APP 2010.05.31
U6	12/07/10	LPL	PLANTER HEIGHT

Plan Approved
C.S.YUE
Senior Building Surveyor
for BUILDING AUTHORITY
11 AUG 2010

B.D. COPY

SIGNATURE FOR SUBMISSION / CONSTRUCTION

CHAU KU & LEUNG
ARCHITECTS & ENGINEERS LTD

CONSULTANT

ALL MEASUREMENTS MUST BE CHECKED AT SITE. DO NOT SCALE DRAWING DRAWING AND CONTENT OF THE WORKS. ANY DISCREPANCY SHALL BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING. DRAWING IS NOT VALID FOR CONSTRUCTION UNLESS EXPRESSLY STATED.

SCALE:	1 : 200
DRAWN: PS	CHECK: PW/LPL
CODE : 798\GBP\DETAIL\PLAN\	
FIRST ISSUE: 03 OCT, 1997	
DATE OF DISTRIBUTION:	

DRAWING TITLE:

2/F FLOOR PLAN (PHASE 1)

PROJECT:

ALTERATION AND ADDITION
PHASE 1 BUILDING
CHEUNG YIP ST./LAM CHAK ST.
KOWLOON BAY
N.K.I.L. 6215

PROJECT NO.:	DRAWING NO.:
COU798	P1-204 U6