Prepared by

Ramboll Hong Kong Limited

PROPOSED FLAT AND SHOP AND SERVICES USES WITH MINOR RELAXATION OF PLOT RATIO RESTRICTION AT LOTS 4614 AND 4615RP IN DD116, AND LOTS 1753SBRP, 1753SBSS3RP, 1753SBSS4, 1756SARP, 1756SB, 1756RP, 1757, 1758RP, 1760RP IN DD120, AND ADJOINING GOVERNMENT LAND, TAI KEI LENG, YUEN LONG

NOISE IMPACT ASSESSMENT

Proposed Flat and Shop and Services Uses with Minor Relaxation of Plot Ratio Restriction at Lots 4614 and 4615RP in DD116, and Lots 1753sBRP, 1753sBss3RP, 1753sBss4, 1756sARP, 1756sB, 1756RP, 1757, 1758RP, 1760RP in DD120, and adjoining Government Land, Tai Kei Leng, Yuen Long

Date	July 2024
Prepared by	Kyle Kam Assistant Environmental Consultant
Signed	
Approved by	Tony Cheng Senior Manager
Signed	
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Ramboll Hong Kong Limited

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

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

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CHAPTERS

TABLES

FIGURES

APPENDICES

1. INTRODUCTION

1.1 Project Background

1.1.1 The Proposed Development is located at Residential Group B under the approved Yuen Long Outline Zoning Plan (OZP) No. S/YL/27 which is designated for residential use. Below is the extract of the notes of the Yuen Long OZP for the use.

RESIDENTIAL (GROUP B)

Column 1 Uses always permitted	Column 2 Uses that may be permitted with or without conditions on application to the Town Planning Board
Flat	Ambulance Depot
Government Use (Police Reporting Centre, Post Office only)	Eating Place
House	Educational Institution
Library	Government Refuse Collection Point
Residential Institution	Government Use (not elsewhere specified)
School (in free-standing purpose-designed building only)	Hospital
Utility Installation for Private Project	Hotel
	Institutional Use (not elsewhere specified)
	Off-course Betting Centre
	Office
	Petrol Filling Station
	Place of Entertainment
	Place of Recreation, Sports or Culture
	Private Club
	Public Clinic
	Public Convenience
	Public Transport Terminus or Station
	Public Utility Installation
	Public Vehicle Park (excluding container vehicle)
	Recyclable Collection Centre
	Religious Institution
	School (not elsewhere specified)
	Shop and Services
	Social Welfare Facility
	Training Centre

1.1.2 Under the Column 1, flat and residential institution “i.e. residential use” is always permitted to be constructed at the Subject Site. The plot ratio of the residential use under the OZP is 3.5 and with a maximum building height of 25 storeys (excluding basement car park). As such, existing residential development “Sereno Verde” is located immediate east of the Subject Site.

1.1.3 Figure 1.1 shows the location of the Subject Site and the surrounding developments.

1.1.4 During the land exchange application, as per the Transport Department's request, a strip of land along the Tai Shu Ha Road East has to be reserved as non-building area of the proposed development. This strip of land is reserved with a view not to jeopardizing the potential road widening works in the future, if necessary. Under current status, there is no planning for the road widening of Tai Shu Ha Road East from neither the Transport Department nor the project proponent.

1.1.5 Under this current planning application, the Applicant proposed to have 20% plot ratio relaxation, i.e. to have an additional 4 storeys increase from 20 storeys to 24 storeys.

1.1.6 Ramboll Hong Kong Limited (the Consultant) has been commissioned by the Applicant to conduct this noise impact assessment in relation to the planning application. Architectural drawings and technical information of the Subject Site were provided by project proponent.

1.2 Subject Site and its Environs

1.2.1 The Subject Site is located at the junction of Tai Tong Road and Tai Shu Ha Road East. The site is currently zoned as "Residential Group B (R(B))".

1.2.2 The Subject Site is bounded by road carriageways, Tai Tong Road to the north and Tai Shu Ha Road East to the southwest of the Subject Site. Tai Shu Ha Road West is located further southwest of the Subject Site, while Yuen Long Highway is located further south of the Subject Site. An existing residential development "Sereno Verde" is located to the northeast of the Subject Site.

1.2.3 Figure 1.1 shows the location of the Subject Site and the surrounding environs.

1.3 The Proposed Development

1.3.1 The Proposed Development will mainly comprise of 1 residential tower with 25 storeys (the maximum building height is 101 mPD). As shown in the section, club house and E/M use are located at ground floor and 1st floor. Residential storeys start from 2/F to 24/F.

1.3.2 Master layout plans and sections of the Proposed Development are shown in Appendix 1.1.

1.4 Environmental Appraisal of the Proposed Developments

1.4.1 Assessment on road traffic noise impact, industrial noise impact will be discussed in Sections 2 and 3 respectively.

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 Developments Site and to recommend mitigation measures, where necessary.

2.2 Assessment Criteria

2.2.1 Noise standards are recommended in Chapter 9, “Environment”, of the Hong Kong Planning Standards and Guidelines (HKPSG) for planning against possible noise impact from road traffic, railway and aircrafts.

2.2.2 For the Proposed Development, only dwellings will rely on openable window for ventilation purpose. The clubhouse will be provided with air-conditioning system and will not be provided with any openable windows / openings for ventilation.

2.2.3 According to the guidelines, 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 openable 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. 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. 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 2028) of the Proposed Development. For worst-case scenario evaluation, the assessment year was chosen to be year 2043, which has the maximum forecasted traffic flow within the 15-year period. The year 2043 traffic forecast data is prepared by the project traffic consultant and attached in Appendix 2.1.

2.3.2 The U.K. Department of Transport’s procedure “Calculation of Road Traffic Noise” (CRTN) has been applied 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 criterion (i.e., $L_{10(1\text{-hour})}$ 70dB(A)).

2.4 Road Characteristics and Contribution

2.4.1 Appendix 2.1 presents the predicted 2043 peak hour traffic data (i.e., road speed, traffic volume and percentage of heavy vehicle) on the main road carriageways surrounding the Subject Site. Tai Kei Leng Road and Yuen Long Highway are considered to be the dominant road traffic noise sources contributing on the Proposed Development. All roads surfacing is assumed to be bitumen with a speed limit of 50 km/h. However, the road surfacing of Yeun Long Highway is assumed to be Low Noise Road Surface material with a speed limit of 70 km/h. Existing noise barriers along Yuen Long Highway and Shap Pat Heung Road have also been included in the road noise model. Appendix 2.4 shows the location of the Low Noise Road Surface material for Yuen Long Highway from Centralised Environmental Database (CED).

2.5 Noise Sensitive Receivers

2.5.1 All representative NSRs have been selected and assigned with assessment points. All assessment points were taken at 1.2m above the floor and 1m away from the facade of openable windows in rooms of sensitive use.

2.5.2 Figure 2.1 shows the location of the representative NSRs of dwellings for road traffic noise impact assessment.

2.6 Road Traffic Impact Assessment Result (Base Case)

2.6.1 The predicted road traffic noise impact on the selected NSRs under base case scenario is presented in Appendix 2.2.

2.6.2 According to the results, noise exceedances are found at residential units under the base case scenario. Maximum predicted noise level is 75 dB(A), which exceeds the 70 dB(A) noise criterion as listed in HKPSG for residential units. Below section advise the mitigation measures recommended for the design of the proposed development.

2.7 Proposed Noise Mitigation Measures

2.7.1 The predicted maximum traffic noise level at the proposed development is 75 dB(A) as shown in Appendix 2.2. To address this road traffic noise exceedance on the noise sensitive uses, the following noise mitigation measures are proposed as design guideline for detailed typical layout development during detailed design stage. As OZP zoning of the Subject Site is Residential Group B, submission of the noise impact assessment for the detailed layout would be one of OZP requirements.

2.7.2 Locations of the proposed noise mitigation measures for the road traffic noise impact assessment of Subject Site is shown in Figure 2.2.

Acoustic Window (Baffle Type) (AW(BT))

2.7.3 The baffle type acoustic window refers to the type of window that has a sliding glass panel behind an outer window, both readily openable, for creating an air gap for the supply of fresh air with noise mitigation effect. It comprises of two glazing –

(i) the outer window system with side hung openable window; and

(ii) the inner sliding panel.

2.7.4 In accordance with the "*Application of Innovative Noise Mitigation Designs in Planning Private Residential Developments against Road Traffic Noise Impact"* ("PropPECC PN 5/23"), noise reduction of 6 dB(A) can be achieved when AW(BT) is adopted at the proposed NSRs.

Enhanced Acoustic Balcony (Baffle Type) (EAB(BT))

2.7.5 Enhanced Acoustic Balcony (EAB) is specially designed balcony which adopt a combination of mitigation measures to further enhance the noise reduction ability of balcony. In this proposed development, the EAB (Baffle Type) which mentioned in the Practice Note would be adopted.

2.7.6 Similar to the acoustic window (baffle type) mentioned in the Section 2.7.3 above, the noise reduction mechanism of EAB(BT) is to prevent noise directly enter into indoor environment.

2.7.7 With reference to the PropPECC PN 5/23, the provision of EAB can achieve a sound attenuation up to 8 dB(A).

2.7.8 In this assessment, the provision of AW(BT) or EAB (BT) would be recommended for all recommended development sites.

Fixed Glazing with/without Maintenance Window

2.7.9 For those window façades that are not necessary to serve ventilation purpose yet exposed to adverse road traffic noise, Fixed Glazing with/without Maintenance Window is proposed. A special locking device (e.g. removable handle or key lock, allen key) would be installed to the fixed glazing. The fixed glazing needs are not opened for ventilation and could be opened by the key for cleansing and maintenance purposes only. The above information should also be stated in the Deed of Mutual Covenant (DMC) and Sales Brochure to let the future occupants be well aware of its intended purpose, appropriate use and correct setting as appropriate.

2.8 Assessment Result under Mitigated Scenario

2.8.1 With the application of the noise mitigation measures, no noise exceedance is found at Subject Site, i.e. 100% compliance rate. The predicted road traffic noise impact on the selected NSRs under mitigated scenario is presented in Appendix 2.3. The presented predicted noise level after adopting the noise mitigation measures does not necessarily represent the noise level at 1m from the external façade, but the equivalent noise level at 1m from the external façade after accounting the reduction in noise level inside the room offered by the noise mitigation measures.

2.9 Conclusion

2.9.1 The assessment results indicate that the HKPSG road traffic noise standard can be met at all representative NSRs in the Proposed Developments with the application of the proposed mitigation measures. As OZP zoning of the Subject Site is Residential Group B, submission of the noise impact assessment for the detailed layout would be one of OZP requirements.

3. INDUSTRIAL NOISE IMPACT ASSESSMENT

3.1 Introduction

3.1.1 The aim of this study is to assess potential noise impacts on the Proposed Development arising from the existing and planned fixed noise sources. Practicable noise mitigation measures would be recommended where necessary.

3.2 Assessment Criteria

3.2.1 In accordance with the Hong Kong Planning Standards and Guidelines (HKPSG), and reference has been made to the “Technical Memorandum For The Assessment Of Noise From Places Other Than Domestic Premises, Public Places Or Construction Sites” (IND-TM) issued under the 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 Subject Site is located in Yeun Long area and considered not rural, low density residential or urban.

3.2.3 With reference to the traffic census of Year 2022 published by Transport Department (TD), the AADT of Yuen Long Highway (between Shap Pat Heung INT and Tong Yan San Tsuen INT) to the west is around 90,880 vehicles per day. However, there are roadside noise barrier along the Yuen Long Highway. Therefore, the NSRs of the Proposed Development at the level where no shielding provided by the roadside noise barrier are assigned with an ASR of “C”; while the rest, i.e. located within the protection zone from the noise barrier, are assigned with an ASR of “B”. The corresponding Acceptable Noise Levels (ANLs), in Leq (30min) dB(A), during day & evening-time and night-time periods are shown in Table 3.1 and Appendix 3.3.

Table 3.1 Acceptable Noise Levels

Time Period	ANL (ASR of “C”), $L_{eq\ (30min)}$ dB(A)	ANL (ASR of “B”), $L_{eq\ (30min)}$ dB(A)
Day (0700 to 1900 hours)	70	65
Evening (1900 to 2300 hours)		
Night (2300 to 0700 hours)	60	55

3.3 Industrial Noise Sources

3.3.1 According to the desktop study and site survey conducted in Sep 2023, Mar 2024, Apr 2024 and May 2024, there are some enclosed workshops located in the study area. Residential premises in terms of village houses and middle-rise residential developments are also surrounding these enclosed workshops. Location of potential industrial noise sources in 300m assessment area is shown in Appendix 3.1 and summarized in Table 3.2.

Table 3.2 Potential Industrial Noise Sources

Noise Source	Observations	Source ID
恆香蓮蓉廠	General Description and Characteristics As observed from site surveys, the plant is enclosed without any opening at the top and sides. The main openings were located at the entrance / exit in front of Tai Shu Ha West Road. Time Period of Operation No daytime and night-time operation were being observed.	S1
Thai Restaurant	General Description and Characteristics No Fixed Noise Sources were identified during the site visit.	S2
華記車房	General Description and Characteristics As observed from site surveys, the plant is semi-enclosed by ceiling and side walls. The main openings were located at the entrance/exit in front of Tai Tong Road. There was no direct line of sight from the Subject Site. Time Period of Operation No night-time operation was being observed.	S3
長江車房	General Description and Characteristics As observed from site surveys, the plant is semi-enclosed by ceiling and side walls. The main openings were located at the entrance/exit in front of Tai Tong Road. There was no direct line of sight from the Subject Site. Time Period of Operation No night-time operation was being observed.	S4

油樂園機油專門店	General Description and Characteristics During the site surveys, the plant is semi-enclosed by ceiling and side walls. The main openings were located at the entrance/exit in front of Tai Kei Leng Road. There was no direct line of sight from the Subject Site. Time Period of Operation No night-time operation was being observed.	S5
JY workshop	General Description and Characteristics During the site surveys, the plant is semi-enclosed by ceiling and side walls. The main openings were located at the entrance/exit in front of Tai Kei Leng Road. There was no direct line of sight from the Subject Site. Time Period of Operation No night-time operation was being observed	S6
萬昌五金建材禮修村倉	General Description and Characteristics The plant was fully enclosed by ceiling and side walls, no activities were observed during site visit. Time Period of Operation No daytime and night-time operation were being observed	S7
光輝地板行	General Description and Characteristics The plant was fully enclosed by ceiling and side walls, no activities were observed during site visit. Time Period of Operation No daytime and night-time operation were being observed.	S8
NEW EGAL MOTORS DEVELOPMENT	General Description and Characteristics During the site surveys, the plant is Semi-enclosed by ceiling and side walls. The main openings were located at the entrance/exit in front of Tai Shu Ha East Road. There was no direct line of sight from the Subject Site. Time Period of Operation No night-time operation was being observed.	S9

恆香蓮蓉廠	General Description and Characteristics As observed from site surveys, the plant is enclosed without any opening at the top and sides. The main openings were located at the entrance / exit in front of Tai Shu Ha West Road. Time Period of Operation No daytime and night-time operation were being observed.	S10
Tai Sang Feeds Co., Ltd	General Description and Characteristics As observed from site surveys, the plant is enclosed without any opening at the top and sides. The main openings were located at the entrance / exit in front of Tai Shu Ha West Road. Time Period of Operation No daytime and night-time operation were being observed.	S11
Kam Wing Carwash	General Description and Characteristics For the potential fixed noise impact arising from the washing facility, both daytime and night-time operations were observed during site surveys, there was no audible noise heard from the identified fixed noise sources. Since the on-site noise measurement was not granted, to present the worst-case scenario, a sound power level from the previous approved EIA Report for the “Development at San Hing Road and Hong Po Road, Tuen Mun (AEIAR- 227/2020)”, has been adopted to predict the potential fixed noise level in the car washing facility. According to the extracted page from the mentioned EIA Report as shown in Appendix 3.2, the relevant SWL of the washing facility calculated based on the on-site noise measurement is 94 dB(A). The shortest horizontal distances between the NSRs N1-04 and the identified source is about 152m. As a worst-case scenario, the predicted fixed noise level (with +3 tonality) at the NSRs of the Proposed Development is 48.4 dB(A), which is much below the Acceptable Noise Level (i.e., 60 dB(A) during Nighttime). Therefore, it is considered that noise impact arising from the Kam Wing Carwash is not significant.	S12

M78 AUTO	<u>General Description and Characteristics</u> This potential noise source is located around 283m from the proposed development. During the site survey, here is no major operation (i.e., car washing) carried out during the site survey. Since the on-site noise measurement was not granted, to present the worst-case scenario, a sound power level from the previous approved EIA Report for the "Development at San Hing Road and Hong Po Road, Tuen Mun (AEIAR- 227/2020)", has been adopted to predict the potential fixed noise level in the car washing facility. According to the extracted page from the mentioned EIA Report as shown in Appendix 3.2, the relevant SWL of the washing facility calculated based on the on-site noise measurement is 94 dB(A). The shortest horizontal distances between the NSRs N1-04 and the identified source is about 283m. As a worst-case scenario, the predicted fixed noise level (with +3 tonality) at the NSRs of the Proposed Development is 43.0 dB(A), the total fixed noise level to the NSRs N1-04 is 49.5 dB(A), which is much below the Acceptable Noise Level (i.e., 60 dB(A) during Nighttime). Therefore, it is considered that noise impact arising from the Kam Wing Carwash is not significant. <u>Time Period of Operation</u> No night-time operation was being observed.	S13
Storage area	<u>General Description and Characteristics</u> As observed from site surveys, the storage areas is semi-enclosed. As shown in the site photos, this storage area is empty and there is no operation. <u>Time Period of Operation</u> No night-time operation was being observed.	S14

3.4 Potential Fixed Noise Sources of Proposed Development

3.4.1 As per the HKPSG, the following requirement are adopted as further specification to the noise criteria, whichever the lowest.

(1) 5 dB(A) below the appropriate ANLs in the IND-TM under the Noise Control Ordinance; or

(2) The prevailing background noise levels

3.4.2 More details of the proposed development shall be available during detailed design stage. Nevertheless, in order to ensure the fixed noise generated by the Proposed Development would not cause excessive impact to neighbouring noise sensitive uses, potential noise sources from the proposed development (e.g. plant room, the ventilation and air conditioning systems for the carpark, pump rooms, transformer rooms, lift machine room, emergency set rooms, etc.), will be designed to meet the relevant noise criteria as stipulated in the HKPSG.

3.4.3 Provisions shall be made to control the noise sources by suitable silencers, acoustic louvers and enclosures, if necessary. As such, it is anticipated that the fixed noise impact on the surrounding NSRs due to the operation of the Proposed Development will not exceed the relevant noise standard of the HKPSG .

3.5 Conclusion

3.5.1 Since the workshops in the vicinity mostly are enclosed, i.e., the industrial activities are carried out at indoor, any noisy activities carried out due to the industrial activities would be shielded by the building structure. As mentioned at Table 3.2, the calculated fixed noise level from S12 and S13 to the NSRs T1-04 is 49.5 dB(A), which is below the limit of 60 dB(A) during Nighttime. Thus, the Proposed Development is not subject to adverse fixed noise impact.

3.5.2 In order to avoid adverse noise impact of the future fixed noise sources onsite on the surrounding NSRs, the future contractor shall ensure that the equipment within the Proposed Development would be designed and installed to meet the HKPSG criteria and the NCO.

Appendix 3.1 Location of Potential Industrial Noise Sources within 300m Assessment Area

Appendix 3.2 Extract of Appendix 5.5 of the previous approved EIA Report for the “Development at San Hing Road and Hong Po Road, Tuen Mun” (AEIAR-227/2020)

Appendix 3.3 The Corresponding Acceptable Noise Levels (ANLs)

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4. OVERALL CONCLUSION

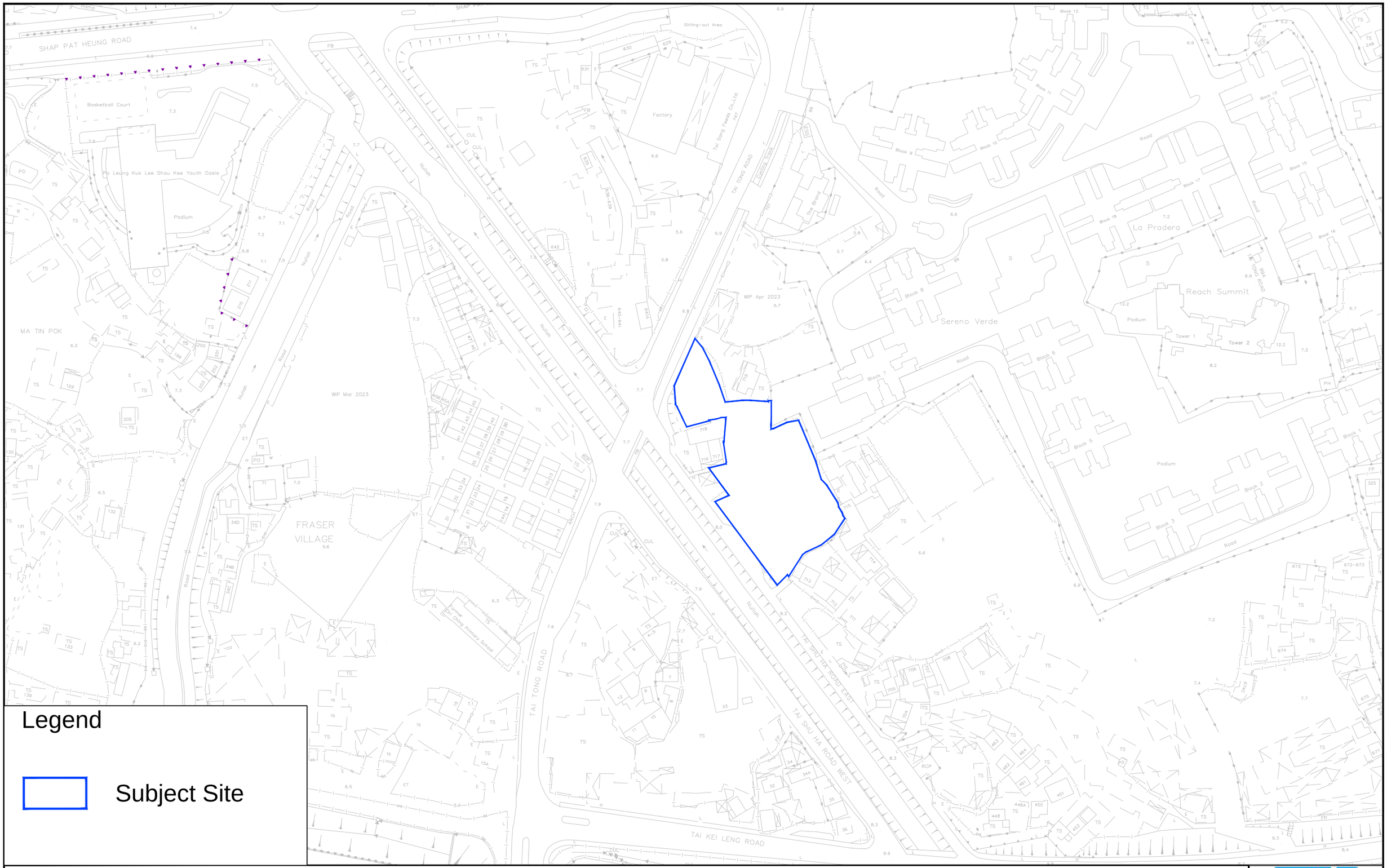
4.1.1 Environmental noise impacts on the Proposed Development have been appraised and quantitatively assessed.

4.1.2 The potential road traffic noise impact to the Proposed Development has been assessed. With the recommended noise mitigation measures in place (i.e., acoustic window (baffle type), enhanced acoustic balcony (baffle type) and fixed glazing with/ without maintenance window), the Proposed Development would not be subject to adverse road traffic noise impact.

4.1.3 For industrial noise, according to the desktop study and site survey conducted in Sep 2023 Mar 2024, Apr 2024 and May 2024, there are some enclosed industrial workshops in the surroundings. Since the workshops in the vicinity mostly are enclosed, i.e., the industrial activities are carried out at indoor, any noisy activities carried out due to the industrial activities would be shielded by the building structure. As mentioned at Table 3.2, the calculated fixed noise level from S12 and S13 to the NSRs T1-04 is 49.5 dB(A), which is below the limit of 60 dB(A) during Nighttime. Thus, the Proposed Development is not subject to adverse fixed noise impact.

4.1.4 In addition, future fixed noise source, if any, of the proposed development will be designed to follow the recommendation in the HKPSG (acceptable noise level minus 5dB(A) mentioned in the Noise Control Ordinance or prevailing background whichever is lower) to ensure that there will not be any adverse fixed noise impact arising from its operation.

Figures



Legend

Subject Site

Figure: 1.1

Title: Location of Subject Site and its Environs

Project: Proposed Flat and Shop and Services Uses with Minor Relaxation of Plot Ratio Restriction at Lots 4614 and 4615RP in DD116, and Lots 1753sBRP, 1753sBss3RP, 1753sBss4, 1756sARP, 1756sB, 1756RP, 1757, 1758RP, 1760RP in DD120, and adjoining Government Land, Tai Kei Leng, Yuen Long

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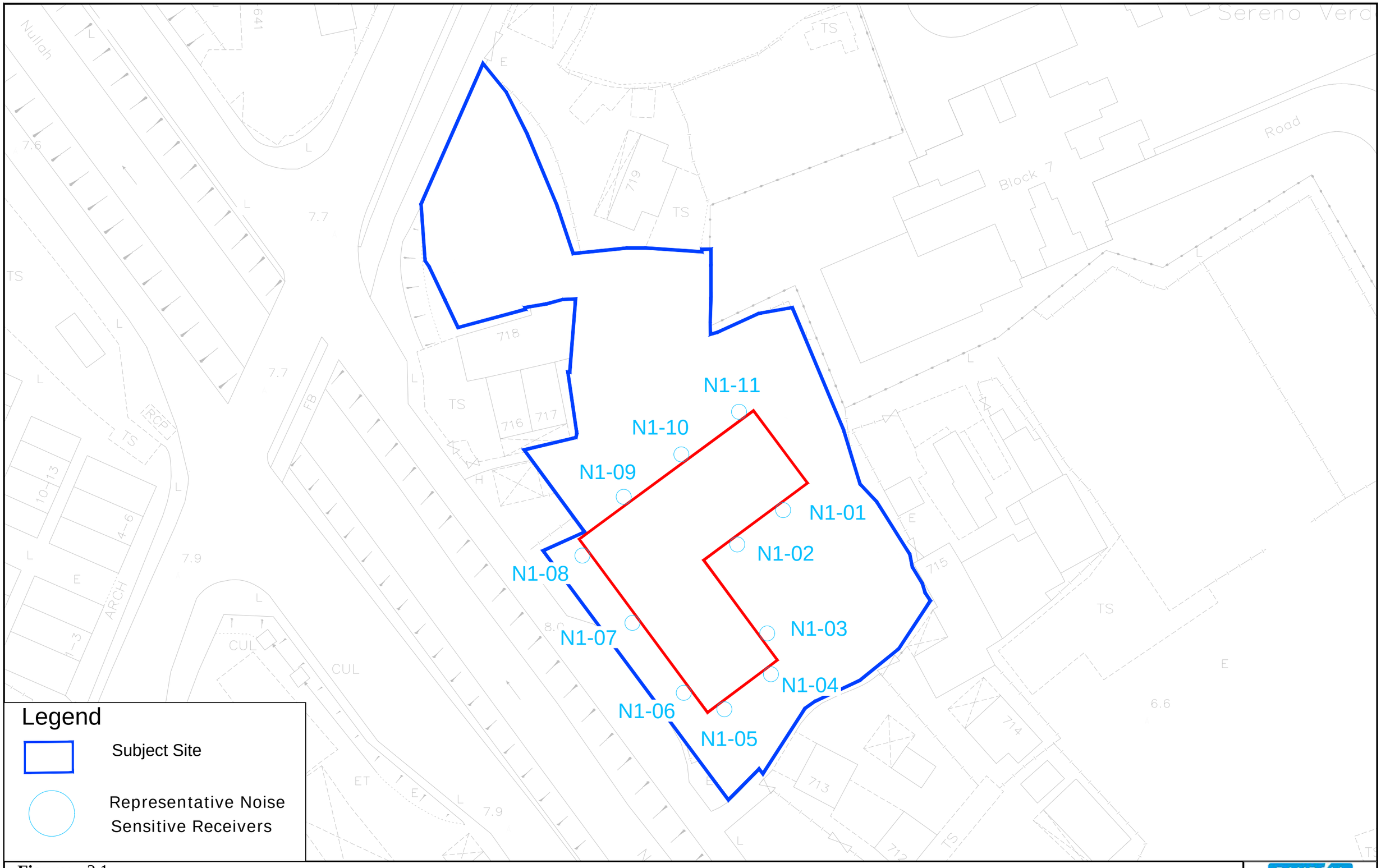

Figure: 2.1

Title: Location of Representative Noise Sensitive Receivers for Road Traffic Noise Impact Assessment

Project: Proposed Flat and Shop and Services Uses with Minor Relaxation of Plot Ratio Restriction at Lots 4614 and 4615RP in DD116, and Lots 1753sBRP, 1753sBss3RP, 1753sBss4, 1756sARP, 1756sB, 1756RP, 1757, 1758RP, 1760RP in DD120, and adjoining Government Land, Tai Kei Leng, Yuen Long

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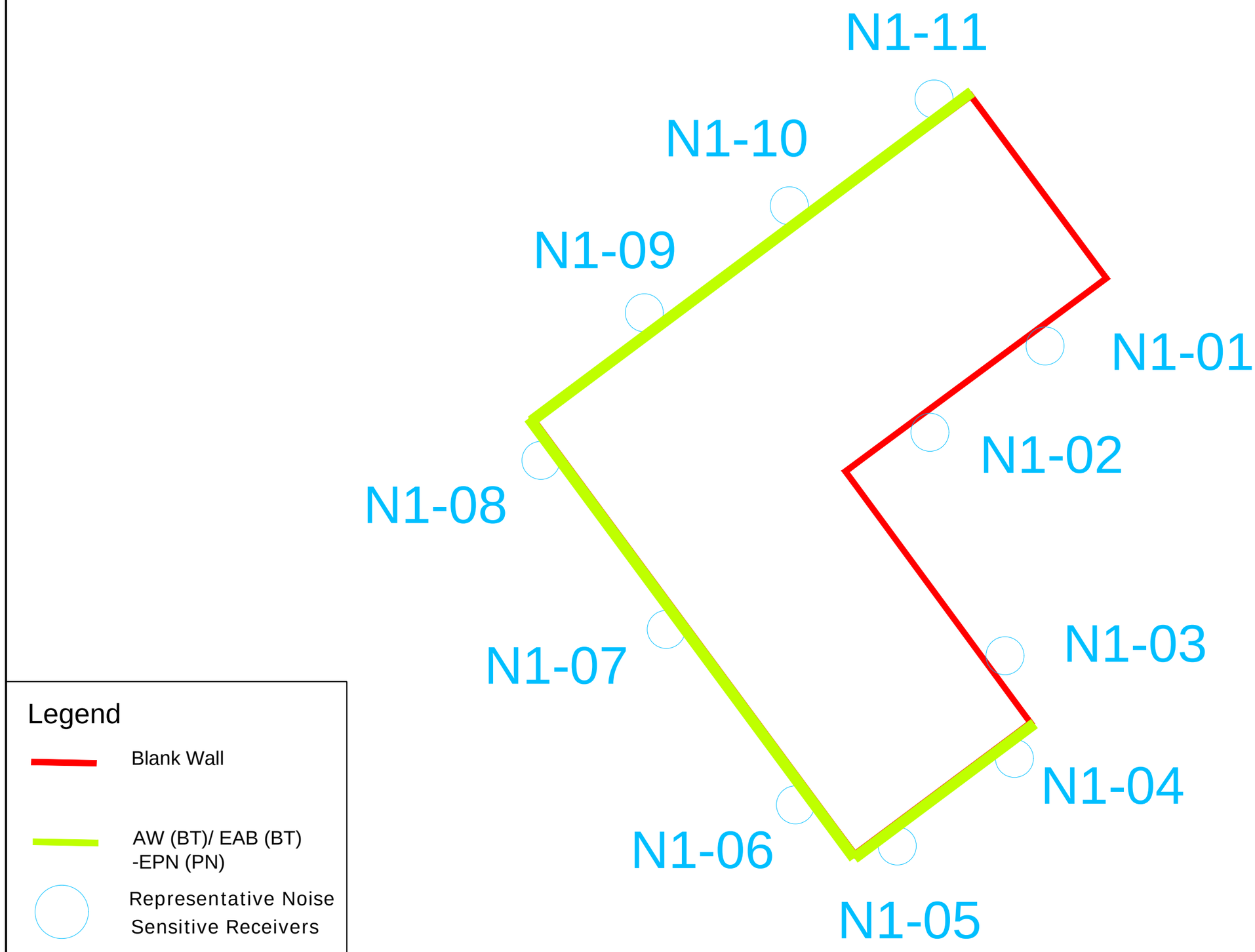

Figure: 2.2

Title: Proposed Road Traffic Noise Mitigation Measures

Project: Proposed Flat and Shop and Services Uses with Minor Relaxation of Plot Ratio Restriction at Lots 4614 and 4615RP in DD116, and Lots 1753sBRP, 1753sBss3RP, 1753sBss4, 1756sARP, 1756sB, 1756RP, 1757, 1758RP, 1760RP in DD120, and adjoining Government Land, Tai Kei Leng, Yuen Long

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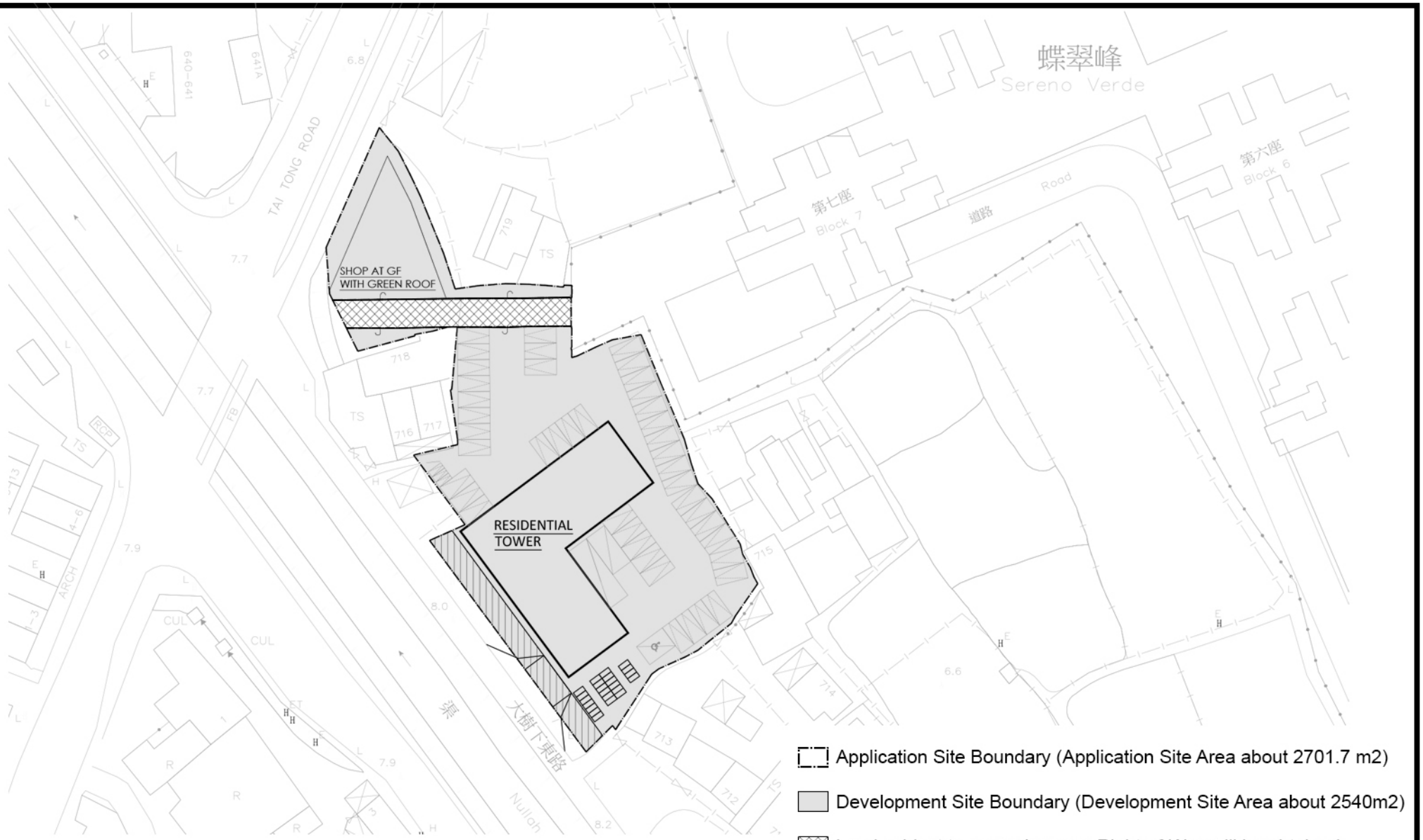
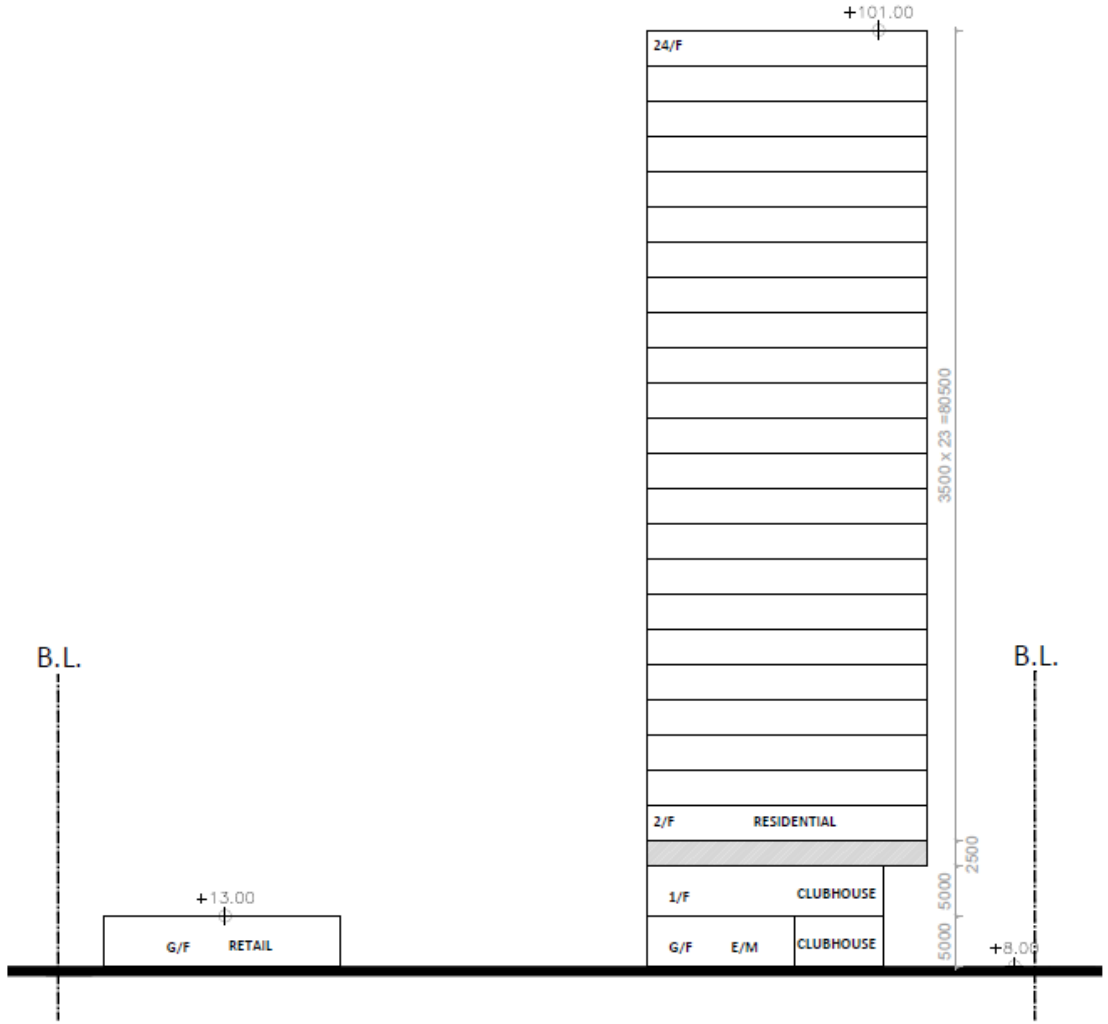
Appendix 1.1 Master Layout Plans and Sections of the Proposed Development



Proposed Flat and Shop and Services Uses with Minor Relaxation of Plot Ratio Restriction at Tai Kei Leng, Yuen Long

Figure 3a1
Master Layout Plan



SECTION A-A (SCALE 1:400)

Proposed Flat and Shop and Services Uses with Minor Relaxation of Plot Ratio Restriction at Tai Kei Leng, Yuen Long

Figure 4a1
Section Plan

Appendix 2.1 Traffic Forecast of Year 2043

TABLE E – PEAK HOUR TRAFFIC FLOW AND VEHICLE COMPOSITION

TABLE 1 - YEAR 2043 AM TRAFFIC FORECAST

Date: 31 January 2024 **Job No.: J7231**

Link ID	Road Section	From Road	To Road	AM Peak Hour		
				Traffic Flows	Vehicle Composition	
				(veh/hr)	LV	HV
L001	Tai Shu Ha Road East SB	Kiu Hing Road	Shap Pat Heung Road	200	79.5%	20.5%
L002	Tai Shu Ha Road West NB	Shap Pat Heung Road	Kiu Hing Road	50	23.1%	76.9%
L003	Shap Pat Heung Road EB	Kiu Hing Road	Tai Shu Ha Road West	600	72.5%	27.5%
L004	Shap Pat Heung Road WB	Tai Shu Ha Road West	Kiu Hing Road	400	74.5%	25.5%
L005	Shap Pat Heung Road EB	Tai Shu Ha Road West	Tai Shu Ha Road East	650	71.4%	28.6%
L006	Shap Pat Heung Road WB	Tai Shu Ha Road East	Tai Shu Ha Road West	350	72.8%	27.2%
L007	Shap Pat Heung Road EB	Tai Shu Ha Road East	Tai Tong Road	800	73.5%	26.5%
L008	Shap Pat Heung Road WB	Tai Tong Road	Tai Shu Ha Road East	350	68.3%	31.7%
L009	Tai Tong Road NB	Shap Pat Heung Road	Ma Tong Road	650	69.3%	30.7%
L010	Tai Tong Road SB	Ma Tong Road	Shap Pat Heung Road	400	70.5%	29.5%
L011	Shap Pat Heung Road EB	Tai Tong Road	Fung Ki Road	850	80.0%	20.0%
L012	Shap Pat Heung Road WB	Fung Ki Road	Tai Tong Road	650	76.2%	23.8%
L013	Tai Shu Ha Road West NB	Unnamed Road	Shap Pat Heung Road	200	70.7%	29.3%
L014	Tai Shu Ha Road West SB	Shap Pat Heung Road	Unnamed Road	50	85.2%	14.8%
L015	Unnamed Road NB	End of Unnamed Road	Tai Shu Ha Road West	50	100.0%	0.0%
L016	Unnamed Road SB	Tai Shu Ha Road West	End of Unnamed Road	50	83.3%	16.7%
L017	Unnamed Road NB	End of Unnamed Road	Tai Shu Ha Road West	50	80.0%	20.0%
L018	Unnamed Road SB	Tai Shu Ha Road West	End of Unnamed Road	50	83.3%	16.7%
L019	Tai Shu Ha Road West NB	Unnamed Road	Unnamed Road	200	69.2%	30.8%
L020	Tai Shu Ha Road West NB	Tai Tong Road	Unnamed Road	200	69.2%	30.8%
L021	Tai Shu Ha Road West SB	Unnamed Road	Tai Tong Road	0	0.0%	0.0%
L022	Tai Shu Ha Road East SB	Shap Pat Heung Road	Tai Tong Road	150	65.1%	34.9%
L023	Tai Tong Road NB	Tai Shu Ha Road East	Shap Pat Heung Road	350	72.9%	27.1%
L024	Tai Tong Road SB	Shap Pat Heung Road	Tai Shu Ha Road East	350	68.3%	31.7%
L025	Tai Tong Road NB	Tai Shu Ha Road West	Tai Shu Ha Road East	350	74.0%	26.0%
L026	Tai Tong Road SB	Tai Shu Ha Road East	Tai Shu Ha Road West	250	66.5%	33.5%
L027	Tai Tong Road NB	Tai Kei Leng Road	Tai Shu Ha Road West	350	75.7%	24.3%
L028	Tai Tong Road SB	Tai Shu Ha Road West	Tai Kei Leng Road	200	63.1%	36.9%
L029	Tai Shu Ha Road West NB	Tai Kei Leng Road	Tai Tong Road	200	63.9%	36.1%
L030	Tai Shu Ha Road West SB	Tai Tong Road	Tai Kei Leng Road	50	75.7%	24.3%
L031	Tai Shu Ha Road East SB	Tai Tong Road	Tai Kei Leng Road	250	69.9%	30.1%
L032	Tai Kei Leng Road EB	Tai Tong Road	Tai Shu Ha Road West	550	68.4%	31.6%
L033	Tai Kei Leng Road WB	Tai Shu Ha Road West	Tai Tong Road	200	73.2%	26.8%
L034	Tai Kei Leng Road EB	Tai Shu Ha Road East	Shap Pat Heung Road	1,050	75.4%	24.6%
L035	Tai Kei Leng Road WB	Shap Pat Heung Road	Tai Shu Ha Road East	600	74.0%	26.0%
L036	Tai Tong Road NB	Road L1	Tai Kei Leng Road	750	71.4%	28.6%
L037	Tai Tong Road SB	Tai Kei Leng Road	Road L1	250	67.5%	32.5%
L038	Tai Shu Ha Road West NB	Long Ho Road	Tai Kei Leng Road	650	74.5%	25.5%
L039	Tai Shu Ha Road East SB	Tai Kei Leng Road	Long Ho Road	550	69.4%	30.6%
L040	Road L1 EB	Kiu Hing Road	Tai Tong Road	300	80.2%	19.8%
L041	Road L1 WB	Tai Tong Road	Kiu Hing Road	200	81.6%	18.4%
L042	Road L1 EB	Tai Tong Road	Tai Shu Ha Road West	150	85.5%	14.5%
L043	Road L1 WB	Tai Shu Ha Road West	Tai Tong Road	200	81.4%	18.6%
L044	Long Ho Road EB	Tai Shu Ha Road East	Connection Bridge	250	72.2%	27.8%
L045	Long Ho Road WB	Connection Bridge	Tai Shu Ha Road East	350	76.2%	23.8%
L046	Sham Chung Tsuen Road EB	End of Sham Chung Tsuen Road	Tai Tong Road	50	78.1%	21.9%
L047	Sham Chung Tsuen Road WB	Tai Tong Road	End of Sham Chung Tsuen Road	50	83.3%	16.7%
L048	Tai Tong Road NB	Sham Chung Tsuen Road	Road L1	600	70.4%	29.6%
L049	Tai Tong Road SB	Road L1	Sham Chung Tsuen Road	250	66.9%	33.1%
L050	Tai Tong Road NB	Sham Chung Road	Sham Chung Tsuen Road	550	69.9%	30.1%
L051	Tai Tong Road SB	Sham Chung Tsuen Road	Sham Chung Road	250	66.4%	33.6%
L052	Shung Ching Road EB	End of Shung Ching Road	Tai Shu Ha Road West	50	83.3%	16.7%
L053	Shung Ching Road WB	Tai Shu Ha Road West	End of Shung Ching Road	50	100.0%	0.0%
L054	Tai Shu Ha Road West NB	Shung Ching Road	Long Ho Road	450	70.7%	29.3%
L055	Tai Shu Ha Road East SB	Long Ho Road	Shung Ching Road	450	70.0%	30.0%
L056	Tai Shu Ha Road West NB	Tai Shu Ha Road East	Shung Ching Road	450	70.5%	29.5%
L057	Tai Shu Ha Road East SB	Shung Ching Road	Tai Shu Ha Road East	450	69.7%	30.3%
L058	Yuen Long Highway EB	Tong Yan San Tsuen Interchange	Shap Pat Heung Interchange	5,100	64.5%	35.5%
L059	Yuen Long Highway WB	Shap Pat Heung Interchange	Tong Yan San Tsuen Interchange	5,100	67.1%	32.9%
L060	Tai Shu Ha Road West SB	Tai Kei Leng Road	Long Ho Road	50	72.7%	27.3%

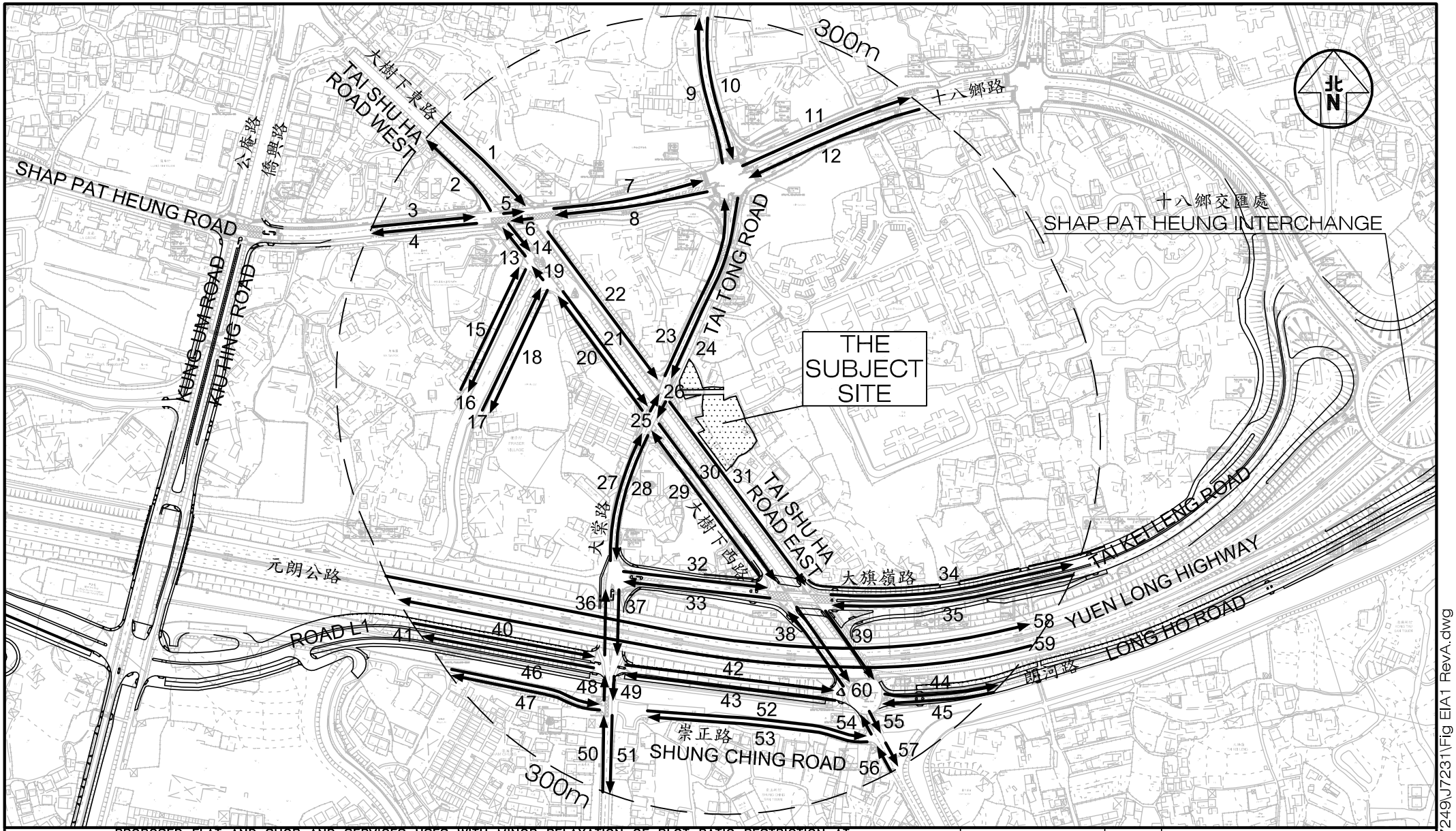
Note: "LV" includes motorcycle, private car and taxi
"HV" includes light / medium / heavy goods vehicle, public / private light bus, non-franchised bus and franchised bus

TABLE 2 - YEAR 2043 PM TRAFFIC FORECAST

Date: 31 January 2024 **Job No.: J7231**

Link ID	Road Section	From Road	To Road	PM Peak Hour		
				Traffic Flows	Vehicle Composition	
				(veh/hr)	LV	HV
L001	Tai Shu Ha Road East SB	Kiu Hing Road	Shap Pat Heung Road	300	84.2%	15.8%
L002	Tai Shu Ha Road West NB	Shap Pat Heung Road	Kiu Hing Road	50	90.0%	10.0%
L003	Shap Pat Heung Road EB	Kiu Hing Road	Tai Shu Ha Road West	450	69.7%	30.3%
L004	Shap Pat Heung Road WB	Tai Shu Ha Road West	Kiu Hing Road	350	69.7%	30.3%
L005	Shap Pat Heung Road EB	Tai Shu Ha Road West	Tai Shu Ha Road East	500	68.3%	31.7%
L006	Shap Pat Heung Road WB	Tai Shu Ha Road East	Tai Shu Ha Road West	350	68.0%	32.0%
L007	Shap Pat Heung Road EB	Tai Shu Ha Road East	Tai Tong Road	600	71.5%	28.5%
L008	Shap Pat Heung Road WB	Tai Tong Road	Tai Shu Ha Road East	350	66.0%	34.0%
L009	Tai Tong Road NB	Shap Pat Heung Road	Ma Tong Road	500	73.3%	26.7%
L010	Tai Tong Road SB	Ma Tong Road	Shap Pat Heung Road	450	70.4%	29.6%
L011	Shap Pat Heung Road EB	Tai Tong Road	Fung Ki Road	700	74.5%	25.5%
L012	Shap Pat Heung Road WB	Fung Ki Road	Tai Tong Road	650	72.0%	28.0%
L013	Tai Shu Ha Road West NB	Unnamed Road	Shap Pat Heung Road	150	75.9%	24.1%
L014	Tai Shu Ha Road West SB	Shap Pat Heung Road	Unnamed Road	50	83.9%	16.1%
L015	Unnamed Road NB	End of Unnamed Road	Tai Shu Ha Road West	50	50.0%	50.0%
L016	Unnamed Road SB	Tai Shu Ha Road West	End of Unnamed Road	50	76.9%	23.1%
L017	Unnamed Road NB	End of Unnamed Road	Tai Shu Ha Road West	50	100.0%	0.0%
L018	Unnamed Road SB	Tai Shu Ha Road West	End of Unnamed Road	50	83.3%	16.7%
L019	Tai Shu Ha Road West NB	Unnamed Road	Unnamed Road	150	74.5%	25.5%
L020	Tai Shu Ha Road West NB	Tai Tong Road	Unnamed Road	150	74.3%	25.7%
L021	Tai Shu Ha Road West SB	Unnamed Road	Tai Tong Road	0	0.0%	0.0%
L022	Tai Shu Ha Road East SB	Shap Pat Heung Road	Tai Tong Road	300	80.2%	19.8%
L023	Tai Tong Road NB	Tai Shu Ha Road East	Shap Pat Heung Road	300	72.7%	27.3%
L024	Tai Tong Road SB	Shap Pat Heung Road	Tai Shu Ha Road East	400	66.4%	33.6%
L025	Tai Tong Road NB	Tai Shu Ha Road West	Tai Shu Ha Road East	300	73.3%	26.7%
L026	Tai Tong Road SB	Tai Shu Ha Road East	Tai Shu Ha Road West	350	70.1%	29.9%
L027	Tai Tong Road NB	Tai Kei Leng Road	Tai Shu Ha Road West	200	71.3%	28.7%
L028	Tai Tong Road SB	Tai Shu Ha Road West	Tai Kei Leng Road	350	67.2%	32.8%
L029	Tai Shu Ha Road West NB	Tai Kei Leng Road	Tai Tong Road	200	74.3%	25.7%
L030	Tai Shu Ha Road West SB	Tai Tong Road	Tai Kei Leng Road	50	86.1%	13.9%
L031	Tai Shu Ha Road East SB	Tai Tong Road	Tai Kei Leng Road	300	74.9%	25.1%
L032	Tai Kei Leng Road EB	Tai Tong Road	Tai Shu Ha Road West	450	78.3%	21.7%
L033	Tai Kei Leng Road WB	Tai Shu Ha Road West	Tai Tong Road	400	78.5%	21.5%
L034	Tai Kei Leng Road EB	Tai Shu Ha Road East	Shap Pat Heung Road	950	81.6%	18.4%
L035	Tai Kei Leng Road WB	Shap Pat Heung Road	Tai Shu Ha Road East	850	80.3%	19.7%
L036	Tai Tong Road NB	Road L1	Tai Kei Leng Road	600	76.7%	23.3%
L037	Tai Tong Road SB	Tai Kei Leng Road	Road L1	650	73.3%	26.7%
L038	Tai Shu Ha Road West NB	Long Ho Road	Tai Kei Leng Road	700	80.3%	19.7%
L039	Tai Shu Ha Road East SB	Tai Kei Leng Road	Long Ho Road	800	77.8%	22.2%
L040	Road L1 EB	Kiu Hing Road	Tai Tong Road	200	79.2%	20.8%
L041	Road L1 WB	Tai Tong Road	Kiu Hing Road	150	79.2%	20.8%
L042	Road L1 EB	Tai Tong Road	Tai Shu Ha Road West	100	88.1%	11.9%
L043	Road L1 WB	Tai Shu Ha Road West	Tai Tong Road	150	78.6%	21.4%
L044	Long Ho Road EB	Tai Shu Ha Road East	Connection Bridge	250	74.2%	25.8%
L045	Long Ho Road WB	Connection Bridge	Tai Shu Ha Road East	350	83.3%	16.7%
L046	Sham Chung Tsuen Road EB	End of Sham Chung Tsuen Road	Tai Tong Road	50	77.3%	22.7%
L047	Sham Chung Tsuen Road WB	Tai Tong Road	End of Sham Chung Tsuen Road	50	76.3%	23.7%
L048	Tai Tong Road NB	Sham Chung Tsuen Road	Road L1	500	77.8%	22.2%
L049	Tai Tong Road SB	Road L1	Sham Chung Tsuen Road	600	73.0%	27.0%
L050	Tai Tong Road NB	Sham Chung Road	Sham Chung Tsuen Road	450	77.6%	22.4%
L051	Tai Tong Road SB	Sham Chung Tsuen Road	Sham Chung Road	600	73.0%	27.0%
L052	Shung Ching Road EB	End of Shung Ching Road	Tai Shu Ha Road West	50	100.0%	0.0%
L053	Shung Ching Road WB	Tai Shu Ha Road West	End of Shung Ching Road	50	76.2%	23.8%
L054	Tai Shu Ha Road West NB	Shung Ching Road	Long Ho Road	550	78.0%	22.0%
L055	Tai Shu Ha Road East SB	Long Ho Road	Shung Ching Road	700	80.5%	19.5%
L056	Tai Shu Ha Road West NB	Tai Shu Ha Road East	Shung Ching Road	550	77.1%	22.9%
L057	Tai Shu Ha Road East SB	Shung Ching Road	Tai Shu Ha Road East	700	80.4%	19.6%
L058	Yuen Long Highway EB	Tong Yan San Tsuen Interchange	Shap Pat Heung Interchange	5,100	74.1%	25.9%
L059	Yuen Long Highway WB	Shap Pat Heung Interchange	Tong Yan San Tsuen Interchange	5,100	72.3%	27.7%
L060	Tai Shu Ha Road West SB	Tai Kei Leng Road	Long Ho Road	50	88.9%	11.1%

Note: "LV" includes motorcycle, private car and taxi
"HV" includes light / medium / heavy goods vehicle, public / private light bus, non-franchised bus and franchised bus



Project Title	PROPOSED FLAT AND SHOP AND SERVICES USES WITH MINOR RELAXATION OF PLOT RATIO RESTRICTION AT LOTS 4614 AND 4615RP IN DD116, AND LOTS 1753SBRP (PART), 1753SBSS3 (PART), 1756SA (PART), 1756RP (PART), 1757, 1758RP, 1760RP IN DD120, AND ADJOINING GOVERNMENT LAND, TAI KEI LENG, YUEN LONG	J7231	Figure No. EIA1 / Revision A
Figure Title	LOCATION OF ROAD SECTIONS WITH 2043 TRAFFIC FORECAST		Designed by K K Y / Drawn by W S W / Checked by L K W / Scale in A4 1 : 4,500 / Date 31 JAN 2024

CKM Asia Limited
Traffic and Transportation Planning Consultants
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong
Tel : (852) 2520 5990 Fax : (852) 2528 6343
Email : mail@ckmasia.com.hk

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By Fax and by Post
2528 6343

運輸署
Transport Department

本署檔案 Our Ref. : (NQPNQ) in TD NR157/161/YLDD-120
來函檔號 Your Ref. : J7231/5
電 話 Tel. : 2399 2565
圖文傳真 Fax : 2381 3799
電 郵 Email : chiwaiip@td.gov.hk

27 May 2024

CKM Asia Limited
21st Floor, Methodist House,
36 Hennessy Road,
Wanchai, Hong Kong
(Attn: Mr. CHIN Kim Meng)

Dear Mr. CHIN,

Proposed Flat and Shop and Services Uses with Minor Relaxation of Plot Ratio Restriction at Lots 4614 and 4615RP DD116, and Lots 1753sBRP (part), 1753sBss3(part), 1756sA (part), 1756RP(part), 1757, 1758RP, 1760RP in DD120, and adjoining Government land, Tai Kei Leng, Yuen Long (TPB Application Nos. A/YL/303)

Traffic Forecast for Noise Impact Assessment

We refer to your letter dated 21 March 2024 regarding the captioned.

Please be informed that we have no further comments on the proposed methodology on the traffic forecast from traffic engineering point of view for noise assessment purpose.

Yours faithfully,

(Louis IP)
for Commissioner for Transport

Appendix 2.2 Road Traffic Noise Impact Assessment Result (Base Case)

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs) (AM Peak)
Base Case

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11
2	20.5	66	65	65	71	72	74	74	75	72	71	71
3	24	66	64	65	71	72	74	74	74	72	71	71
4	27.5	66	64	65	71	72	74	74	74	72	71	70
5	31	66	64	65	70	71	73	73	74	72	71	70
6	34.5	66	64	64	70	71	73	73	73	71	71	70
7	38	66	64	64	70	71	73	73	73	71	71	70
8	41.5	66	64	64	70	71	72	72	73	71	71	70
9	45	66	64	64	70	71	72	72	73	71	70	70
10	48.5	66	64	65	70	71	72	72	72	71	70	70
11	52	66	65	65	70	71	72	72	72	71	70	70
12	55.5	67	65	66	70	71	72	72	72	70	70	70
13	59	67	66	66	71	71	72	71	72	70	70	70
14	62.5	68	66	66	71	72	72	71	72	70	70	70
15	66	68	66	66	71	72	72	71	72	70	70	69
16	69.5	68	66	67	72	72	72	71	71	70	70	69
17	73	68	66	67	72	72	72	71	71	70	69	69
18	76.5	68	67	67	72	72	72	71	71	70	69	69
19	80	68	67	67	72	72	72	71	71	70	69	69
20	83.5	68	67	67	72	72	72	71	71	69	69	69
21	87	68	67	67	72	72	72	71	71	69	69	69
22	90.5	68	67	67	72	72	72	71	71	69	69	69
23	94	69	67	67	72	73	72	71	71	69	69	69
24	97.5	69	67	67	72	73	72	71	71	69	69	69
		0	0	0	15	23	23	23	23	10	7	2
Max		69	67	67	72	73	74	74	75	72	71	71
Exceedance		0	0	0	15	23	23	23	23	10	7	2

No. of Flats:	253
No. of Units with Exceedance:	126
Compliance Level:	50%
Max. Noise Level:	75

Noted:

Noise level exceed stardand of 70 dB(A)

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs) (PM Peak)
Base Case

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11
2	20.5	66	64	65	71	72	74	74	74	72	71	70
3	24	66	64	64	70	72	74	74	74	72	71	70
4	27.5	66	64	64	70	71	73	73	74	72	71	70
5	31	66	64	64	70	71	73	73	73	71	71	70
6	34.5	66	64	64	70	71	73	73	73	71	71	70
7	38	66	64	64	70	71	72	72	73	71	71	70
8	41.5	65	64	64	70	70	72	72	73	71	70	70
9	45	65	64	64	69	70	72	72	72	71	70	70
10	48.5	65	64	64	69	70	72	72	72	71	70	70
11	52	65	64	64	69	70	72	72	72	70	70	70
12	55.5	66	64	65	70	70	71	71	72	70	70	70
13	59	66	65	65	70	70	71	71	72	70	70	70
14	62.5	67	65	65	70	71	71	71	72	70	70	69
15	66	67	65	66	70	71	71	71	71	70	70	69
16	69.5	67	65	66	71	71	71	71	71	70	69	69
17	73	67	66	66	71	71	71	71	71	70	69	69
18	76.5	67	66	66	71	71	71	71	71	69	69	69
19	80	67	66	66	71	71	71	71	71	69	69	69
20	83.5	67	66	66	71	71	71	70	71	69	69	69
21	87	67	66	66	71	71	71	70	71	69	69	69
22	90.5	68	66	66	71	72	71	70	71	69	69	69
23	94	68	66	66	71	72	71	70	70	69	69	69
24	97.5	68	66	66	71	72	71	70	70	69	69	68
		0	0	0	10	17	23	18	21	9	6	0
Max		68	66	66	71	72	74	74	74	72	71	70
Exceedance		0	0	0	10	17	23	18	21	9	6	0

No. of Flats:	115
No. of Units with Exceedance:	104
Compliance Level:	10%
Max. Noise Level:	74

Noted:

Noise level exceed stardand of 70 dB(A)

Appendix 2.3 Road Traffic Noise Impact Assessment Result (Mitigated Case)

Predicted Road Traffic Noise (L10, dB(A)) at Representative Noise Assessment Points (NAPs)
Mitigated Case

Floor	mPD	N1-01	N1-02	N1-03	N1-04	N1-05	N1-06	N1-07	N1-08	N1-09	N1-10	N1-11
2	20.5	66	64	65	70	70	70	70	70	70	70	70
3	24	66	64	64	70	70	70	70	70	70	70	70
4	27.5	66	64	64	70	70	70	70	70	70	70	70
5	31	66	64	64	70	70	70	70	70	70	70	70
6	34.5	66	64	64	70	70	70	70	70	70	70	70
7	38	66	64	64	70	70	70	70	70	70	70	70
8	41.5	65	64	64	70	70	70	70	70	70	70	70
9	45	65	64	64	70	70	70	70	70	70	70	70
10	48.5	65	64	64	70	70	70	70	70	70	70	70
11	52	65	64	64	70	70	70	70	70	70	70	70
12	55.5	66	64	65	70	70	70	70	70	70	70	70
13	59	66	65	65	70	70	70	70	70	70	70	70
14	62.5	67	65	65	70	70	70	70	70	70	70	69
15	66	67	65	66	70	70	70	70	70	70	70	69
16	69.5	67	65	66	70	70	70	70	70	70	69	69
17	73	67	66	66	70	70	70	70	70	70	69	69
18	76.5	67	66	66	70	70	70	70	70	69	69	69
19	80	67	66	66	70	70	70	70	70	69	69	69
20	83.5	67	66	66	70	70	70	70	70	69	69	69
21	87	67	66	66	70	70	70	70	70	69	69	69
22	90.5	68	66	66	70	70	70	70	70	69	69	69
23	94	68	66	66	70	70	70	70	70	69	69	69
24	97.5	68	66	66	70	70	70	70	70	69	69	68
		0	0	0	0	0	0	0	0	0	0	0
Max		68	66	66	70	70	70	70	70	70	70	70
Exceedance		0	0	0	0	0	0	0	0	0	0	0

No. of Flats:	253
No. of Units with Exceedance:	0
Compliance Level:	100%
Max. Noise Level:	70

Noted:

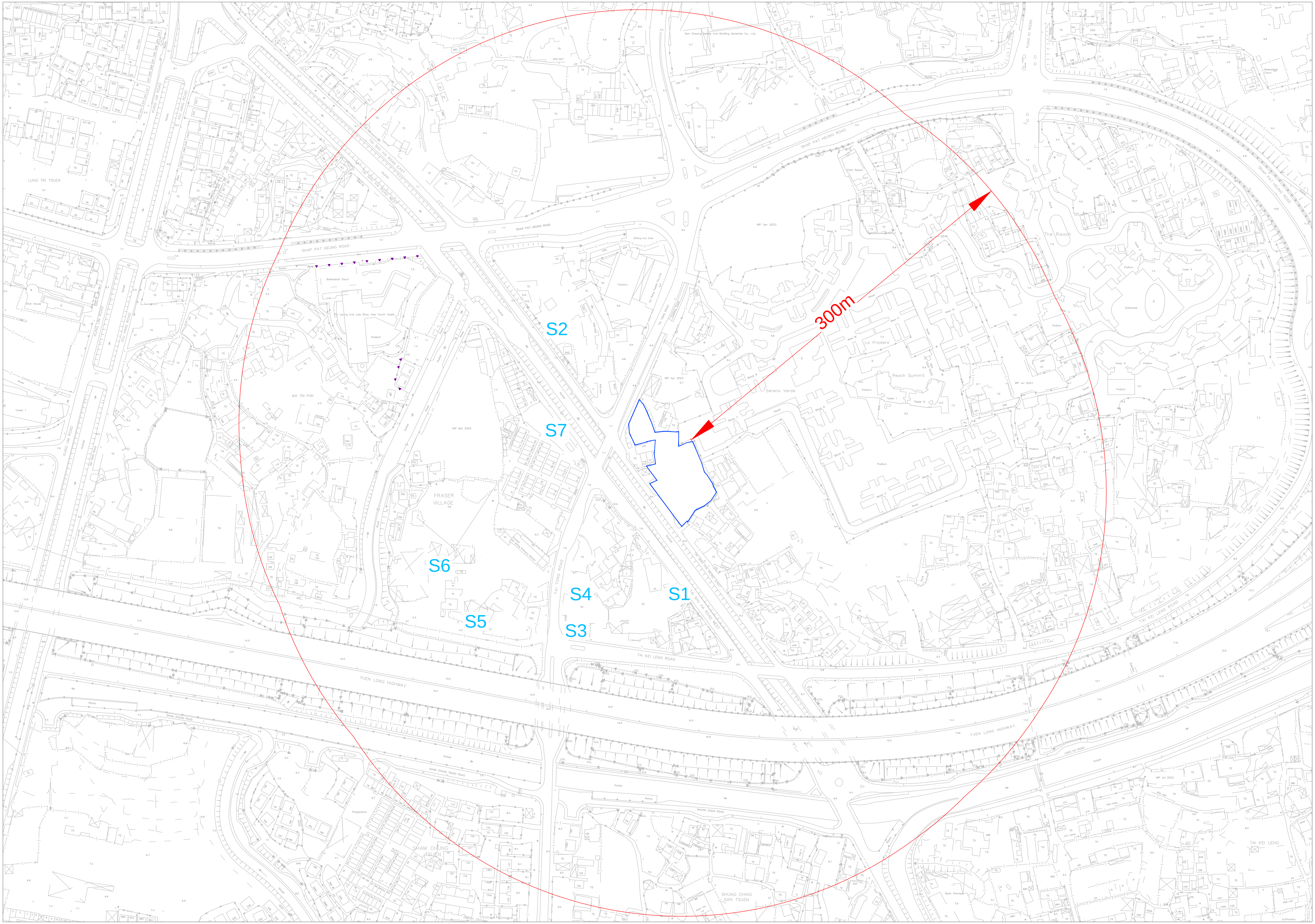
Noise level exceed stardand of 70 dB(A)

Acoustic Windows (Baffle Type)/ Enhance Acoustic Balcony (Baffle Type)

Appendix 2.4 The Location of the Low Noise Road Surface Material for Yuen Long Highway from Centralised Environmental Database (CED)


Traffic Flow Station Point
Road
Low Noise Road Surface
Noise Barriers
Semi-enclosure/ Cantilever Barrier
Noise Enclosures
NSR
Non-NSR
Industrial Estate (IF) Influencing Fact...
Industrial Zone
Industrial Buffer Zones
2030 3RS NEF Noise Contours in the app...
KIU HING ROAD
SHAP PAT HEUNG ROAD
TAI SHU HA ROAD EAST
TAI SHU HA ROAD WEST
KUNG UM ROAD
TAI KEI LENG ROAD
SHAM CHUNG TSUEN ROAD
SHUNG CHING ROAD
LUNG TIN TSUEN
MA TIN POK
FRASER VILLAGE
THE BRAND
Park Reach
The Reach
Reach Summit
Sereno Verde
La Pradera
LING MAN SCHOOL
Former Chi Ching Primary School
Lung Tin Sewage Pumping Station
SHAM CHUNG TSUEN
Sham Chung Tsuen Village Office
SHUNG CHING SAN TSUEN
Open Storage
Shap Pat Heung Road 33
Club House
Mei Wa Court
SUN MEI GARDEN

Appendix 3.1 Location of Potential Industrial Noise Sources within 300m Assessment Area


300m
S1
S2
S3
S4
S5
S6
S7
SHAP PAT HEUNG ROAD
TAI TONG ROAD
TAI KEI LENG ROAD
YUEN LONG HIGHWAY
SHAM CHUNG TSUEN ROAD
La Prodera
Reach Summit
Sereno Verde
The Reach
FRASER VILLAGE
MA TIN POK
LUNG TIN TSUEN
SHAM CHUNG TSUEN
SHUNG CHING SAN TSUEN
TAI KEI LENG

S1

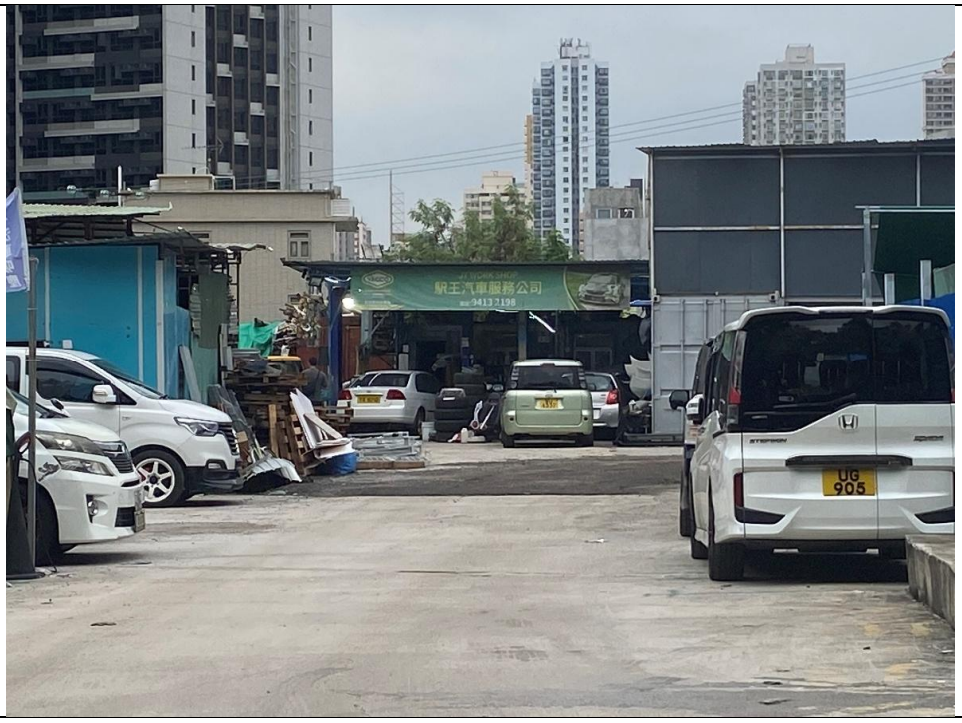
S2

S3

S4


油樂園機油專門店
LUBE PARADISE
汽車用品・機油批發・政府驗車
油樂園機油專門店
LUBE PARADISE
汽車用品・機油批發・政府驗車
專業維修 政府驗車
油樂園
WU 2230

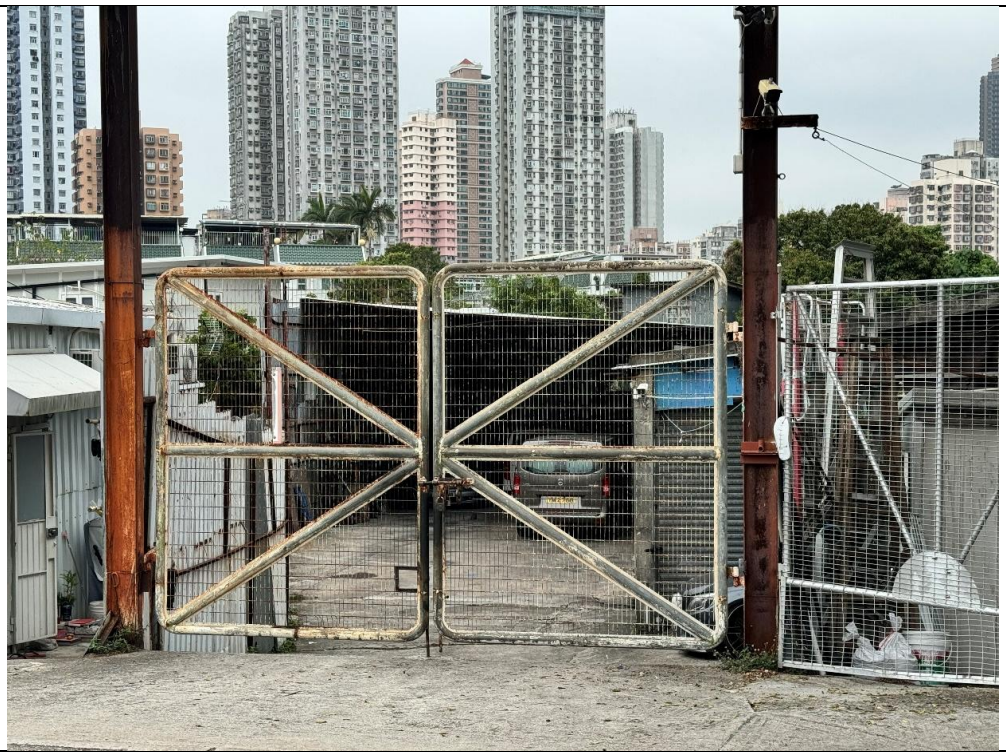
S5


駿王汽車服務公司
UG
905

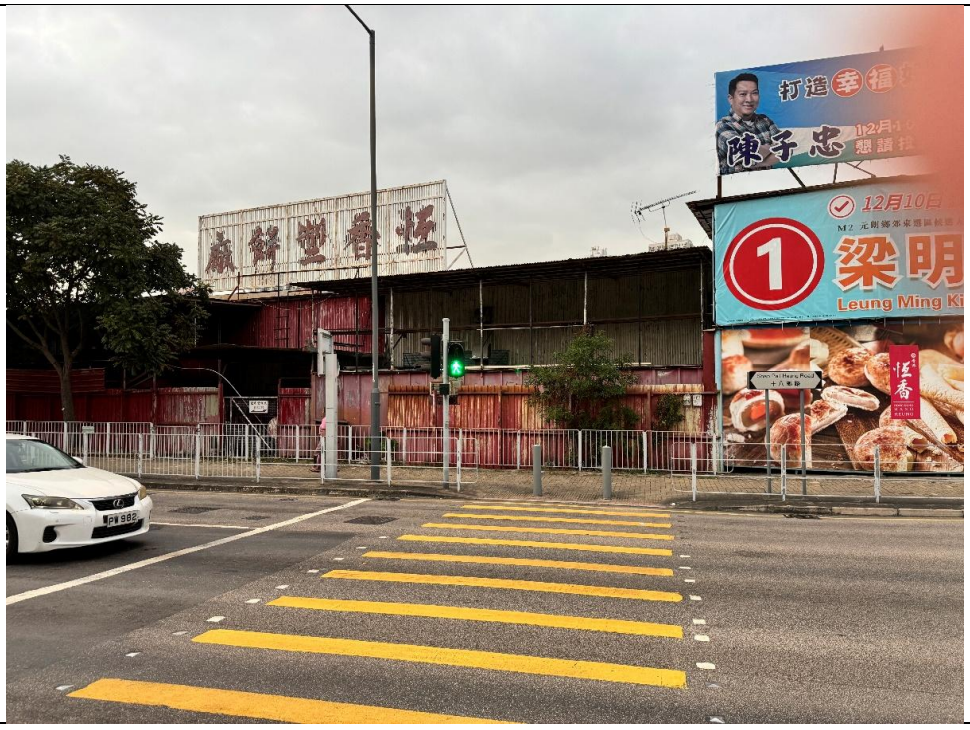
S6

S7

S8



S9

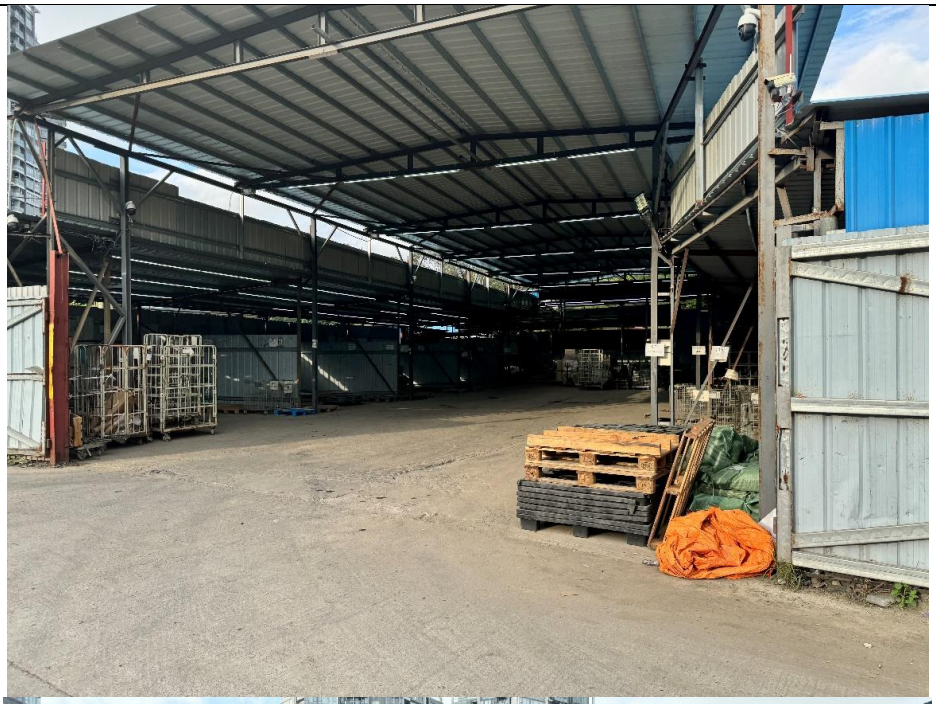


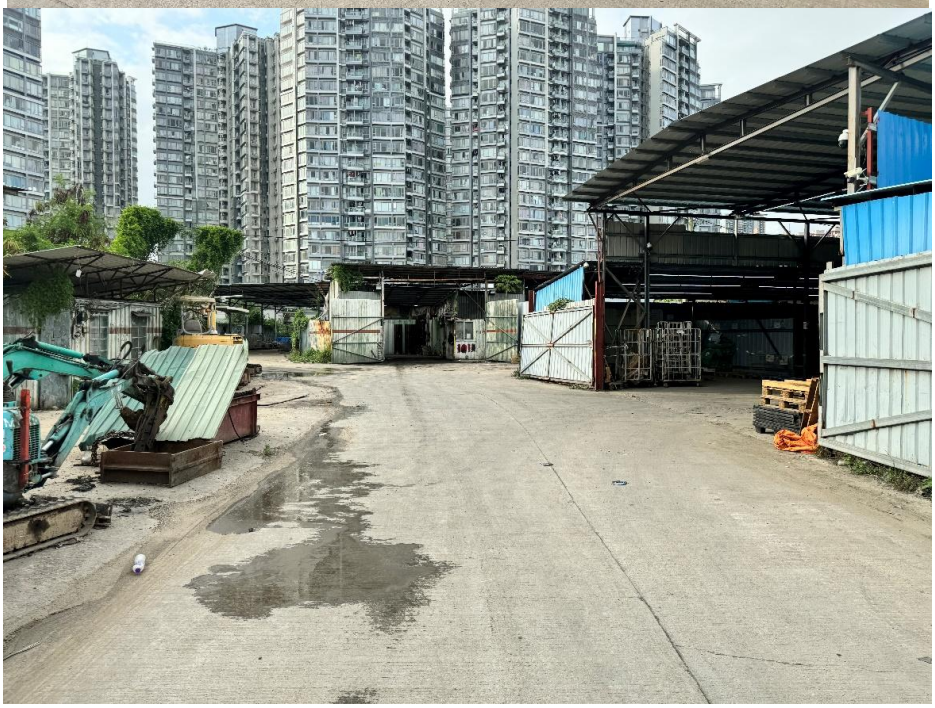
S10

S11

S12

S13





S14

Appendix 3.2 Extract of Appendix 5.5 of the previous approved EIA Report for the “Development at San Hing Road and Hong Po Road, Tuen Mun” (AEIAR-227/2020)

APPENDIX 5.5
Fixed Noise Source Inventory

Fixed Noise Source Inventory

Noise Source ID	Noise Sources	Source Description	Avg. Measured SPL, dB(A)	Measurement Distance from Source (d), m	SWL, dB(A) (SPL + 20 log (d)+8)	SWL adopted in Noise from Fixed Source Calculation, dB(A), Day time	SWL adopted in Noise from Fixed Source Calculation, dB(A), Night time	Remarks
FS1	力信	Car Repairing Workshop	-	-	-	98	0	Refer to FS18
FS2	加昌貿易海運	Car Repairing Workshop	-	-	-	98	0	
FS4	Car Repairing workshop	Car Repairing Workshop	-	-	-	98	0	
FS5	天輝	Car washing workshop	77	3	94	94	0	By on-site measurement
FS6	東聯汽車維修	Car Repairing Workshop	-	-	-	98	0	Refer to FS18
FS7	恒力	Car Repairing Workshop	-	-	-	98	0	
FS8	Unnamed car parking	Car Repairing Workshop	-	-	-	98	0	
FS9	Enclosed Workshop	Car Repairing Workshop	-	-	-	98	0	
FS10	Self-served car washing workshop	Car washing workshop	-	-	-	94	0	Refer to FS5
FS11	榮泰	Car Repairing Workshop	-	-	-	98	0	Refer to FS18
FS12	Calco Industrial Products Ltd.	Car Repairing Workshop	-	-	-	98	0	
FS13	Car Repairing workshop	Car Repairing Workshop	-	-	-	98	0	
FS14	Unknown workshop	Unknown workshop	58	5	80	80	0	By on-site measurement
FS15	CHEP	Covered storage with forklift	65	8	91	91	0	Reference is made to an approved planning application A/TM-LTYY/273
FS16	緯力貨倉 (Wai Yik)	Storage with forklift	63	13	93	93	0	By on-site measurement
FS17	龍顏(Lung Ngai)	Tyre pumping	-	-	89	92	0	SWL of tyre pumping made reference to an approved planning application A/YL-KTN/501; SWL of Hammering made reference to Tin Lung (FS18); Car Cleansing was measured on-site.
		Hammering	-	-	87		0	
		Car Cleasing	59	5	81		0	
FS18	天隆(Tin Lung)	Pneumatic screwdriver	-	-	97	98	0	SWL of pneumatic screwdriver and tyre pumping made reference to an approved planning application A/YL-KTN/501. Hammering was measured on-site.
		Tyre pumping	-	-	89		0	
		Hammering	63	6	87		0	
FS19	隆德 (Lung Tak)	Car repairing workshop	-	-	-	98	0	Refer to FS18
FS20	Chuen Fat Marble Tools	Marble grinding	73	3	90	90	0	By on-site measurement
PFS-01	PTI-01	Proposed Public Transport Interchange	-	-	-	84	77	By Back-calculation of Maximum Allowable SWL for the Proposed PTI (Appendix 5.17)
PFS-02	PTI-01		-	-	-	83	76	
PFS-03	PTI-02		-	-	-	84	77	
PFS-04	PTI-02		-	-	-	86	79	
PFS-05	Proposed Sewage Pumping Station	Spumps, Screens and Extraction Fans	-	-	-	89	89	Reference is made to the Project Profile of Proposed Sewage Pumping Station at Attachment 1

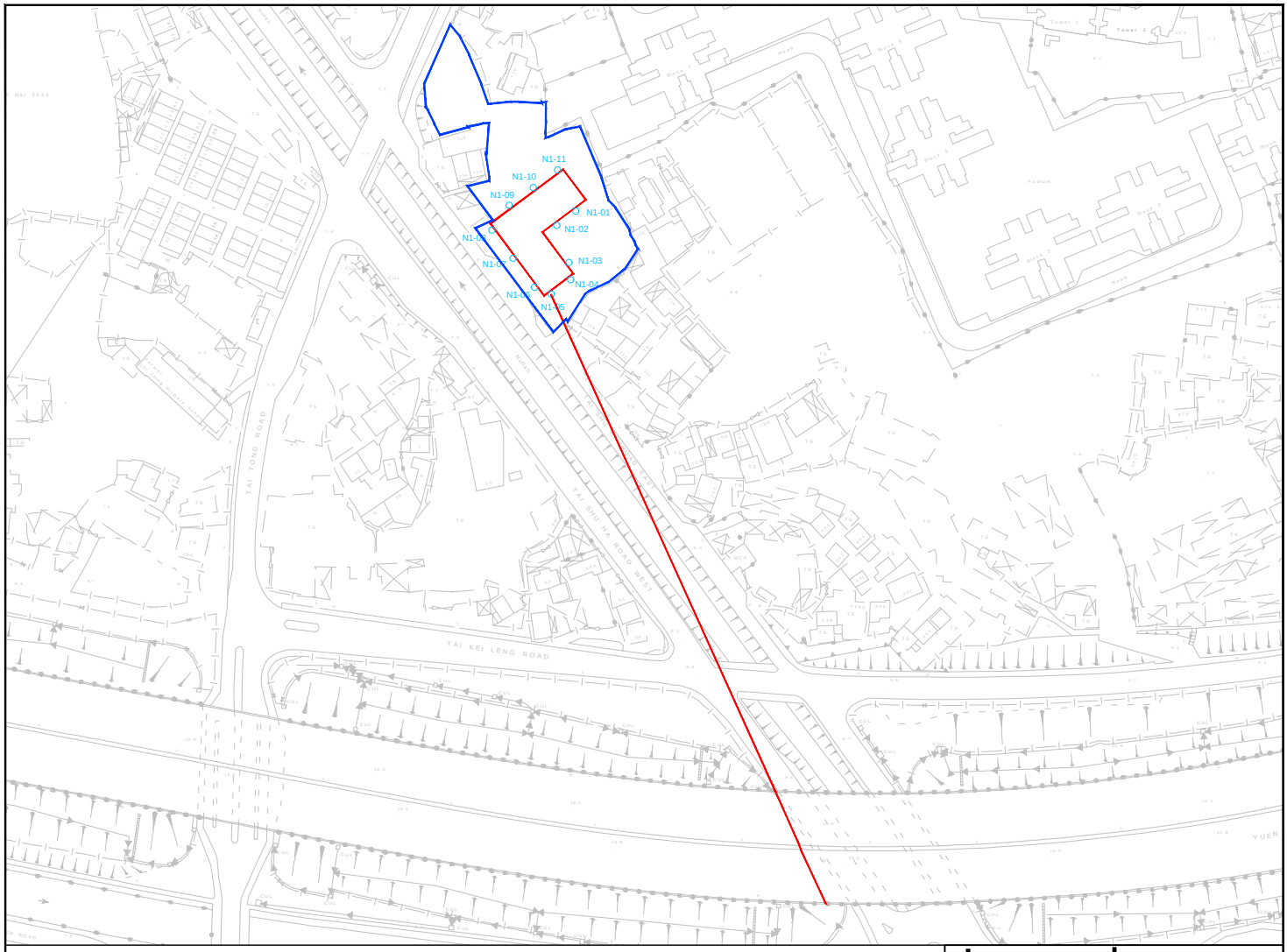
Attachment 1

Sound Power Level

Equipment	Number of Equipment	SWL,dB(A)	Combined SWL, dB(A)	Tonality Effect, dB(A)	Screening Barrier / Enclosure Reduction*, dB(A)	Corrected SWL, dB(A)	Total SWL, dB(A)
Submersible Pumps (Ref. 1)	2	85	88	6	-20	74	89
Mechanical Raked Bar Screens (Ref. 1)	2	89	92	6	-20	78	
Extraction Fan for Deodourization Unit (Ref. 1)	1	83	83	6	-20	69	
Extraction fan for Ventilation (Ref. 1)	2	79	82	6	0	88	

Remarks:
SWL = Sound Power Level
Ref. 1 - The estimated sound power level of the equipment were made reference from the Project Profile for Yuen Long Kau Hui No.2 Sewage Pumping (EIAO Register No. DIR-173/2008). In accordance with IND-TM, 6 dB(A) for tonality correction was applied to all equipment as a conservative approach.
* The pumps, screens and deodourization unit will be fully housed in a 200mm thick reinforced concrete structure, 20 dB(A) reduction due to enclosed building design was adopted.

Appendix 3.3 The Corresponding Acceptable Noise Levels (ANLs)



Legend

- ASR "B"
- ASR "C"