

Appendix 2

PRELIMINARY ENVIRONMENTAL REVIEW

Issue No. : 2
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PRELIMINARY ENVIRONMENTAL REVIEW

FOR

**PROPOSED MINOR RELAXATION
OF BUILDING HEIGHT
RESTRICTION FOR PERMITTED
FLAT (POLICE MARRIED
QUARTERS) IN “GOVERNMENT,
INSTITUTION OR COMMUNITY
(1)” ZONE AND PROPOSED FLAT
(POLICE MARRIED QUARTERS)
IN “GOVERNMENT,
INSTITUTION OR COMMUNITY”
ZONE IN GOVERNMENT LAND
AT TUNG CHUNG AREAS 134
AND 135, TUNG CHUNG,
LANTAU ISLAND**

Prepared by

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COMMERCIAL-IN-CONFIDENCE

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PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

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1. Introduction

- 1.1.1. The Hong Kong Police Force (the Applicant) intends to develop a Junior Police Officers Married Quarters (JPOMQ) (hereafter as “the proposed development”) at Tung Chung Area 134, Lantau Island (hereafter as “the Application Site”).
- 1.1.2. The Application Site is located in Tung Chung East (TCE) of Tung Chung New Town Extension (TCNTE). It is predominantly zoned “Government, Institution or Community (1)” (“G/IC (1)”) with minor encroachment into the “Government, Institution or Community” (“G/IC”) zone. The “G/IC” and “G/IC (1)” zones are subject to BH restrictions of 50mPD and 70mPD respectively. A Section 16 (S16) Planning Application is being submitted in support of the Proposed Minor Relaxation of Building Height Restriction for Permitted Flat (Police Married Quarters) in “G/IC (1)” zone and Proposed Flat (Police Married Quarters in “G/IC” zone at the Application Site.
- 1.1.3. Allied Environmental Consultants Limited (AEC) has been appointed to conduct a Preliminary Environmental Review (PER) for the proposed development in support of the Section 16 Planning Application.

2. Objectives

- 2.1.1. A Preliminary Environmental Review for the proposed development is required to assess the potential air quality and noise impacts on its air/noise sensitive uses and recommend relevant mitigation measures where necessary.

3. The Proposed development

- 3.1.1. The Application Site is currently reclaimed land, the site area is about 4,876m² in land area. The proposed development is located at Area 134 in Tung Chung New Town Extension (East) (TCNTE) which is at the junction of Road D2 to the east and Road L7 to the south. Road P1 and North Lantau Highway are located to the south of approximately 127m and 200m respectively. The Application Site will be surrounded by other developments in its immediate vicinity, including Area 137 to the east, Areas 130, 131 and 132 to the south. The public housing site of Area 133C is located to its west and Area 135 is designated for other educational use and is located to the immediate north.

- 3.1.2. The existing Tung Chung Line (TCL) and Airport Express Line (AEL) are located about 170m and 175m respectively to the south of the Application Site. The location of the site and its surroundings are presented in **Figure 3.1**.
- 3.1.3. Across Road D2 are Area 137 and Area 138, located to the east, designated for a post-secondary institution and other educational uses, and a sports ground respectively. Area 131 is a planned police station and Area 132 is the planned Eastern Sewage Pumping System (ESPS) across Road L7 located to the south. Area 133C is located to the west, planned for public housing while Area 135 is designated for other educational use and is located to the immediate north. The Application Site is currently located on reclaimed land within TCNTE in the Islands District. Location of the site and its surroundings are presented in **Figure 3.1**.
- 3.1.4. The proposed development comprises two residential towers with 3 podium floors and 27 residential floors with about 432 domestic units. Carpark is proposed at G/F and 1/F while E&M facilities and Loading/Unloading Bays are proposed at G/F. Podium garden is located at 2/F.
- 3.1.5. The development schedule of the proposed development is tabulated in **Table 3-1**. The layout design scheme of the proposed development is shown in **Appendix 3.1**.

Table 3-1 Development Schedule

Floor	Use
G/F	Carpark, E&M Facilities, Loading/Unloading Bays, Management Office/Toilet & Changing Room/ Multipurpose Room
1/F	Carpark
2/F	Podium Garden
3/F – 29/F	Flat

- 3.1.6. According to the latest programme, the commencement of construction works will start in October 2027 tentatively and the proposed development is expected to be completed in Q4 2031.

4. Implication of Environmental Impact Assessment

- 4.1.1. The proposed usage of the Proposed Development is for residential and there are no ecological valuable locations, country parks, conservation area within 500m study area of the Proposed Development. In view of the project nature and the location of proposed site, therefore it is not a designated project under the Environmental Impact Assessment (EIA) Ordinance (Cap. 499). This PER has been undertaken with reference to the guidance for environmental considerations provided in Chapter 9 “Environment” of the Hong Kong Planning Standards and Guidelines (HKPSG). This PER presents a study of the potential environmental impacts, with respect to air quality, noise, water quality, land contamination and waste management. Drainage and sewerage impact assessments are presented separately.

5. Air Quality Impact Assessment

5.1. Introduction

5.1.1. This section assesses the potential air quality impacts in association with the proposed development by taking into account the following considerations:

- Road traffic emissions from nearby roads in the proximity;
- Industrial emissions; and
- Potential cumulative air quality impacts, if any, from nearby major housing development.

5.2. Environmental Legislation, Standards and Criteria

Hong Kong Air Quality Objectives

5.2.1. Air quality in Hong Kong is governed under the Air Pollution Control Ordinance (“APCO”) (Cap. 311). Under this legislation, the Government has designated various Air Control Zones for the whole territory, and the new Air Quality Objectives (“AQOs”) was taken into effect on 11 April 2025. The AQOs stipulate the statutory limits for seven pollutants and dictate the maximum number of allowable exceedances over specified periods as shown in **Table 5-1**.

Table 5-1 Hong Kong Air Quality Objectives

Pollutant	Averaging Time	Concentration Limit (ug/m ³) ^[i]	Number of Exceedances to be allowed per Calendar Year
Sulphur Dioxide (SO ₂)	10-minute	500	3
	24-hour	40	3
RSP or PM ₁₀ ^[ii]	24-hour	75	9
	Annual	30	N/A
FSP or PM _{2.5} ^[iii]	24-hour	37.5	18
	Annual	15	N/A
Nitrogen Dioxide (NO ₂)	1-hour	200	18
	24-hour	120	9
	Annual	40	N/A
Ozone (O ₃)	8-hour	160	9
	Peak season	100	N/A
Carbon monoxide (CO)	1-hour	30,000	0
	8-hour	10,000	0
	24-hour	4,000	0
Lead (Pb)	Annual	0.5	N/A

Note:

[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 means suspended particles in air with a nominal aerodynamic diameter of 10 µm or less.

[iii] Fine suspended particulates means suspended particles in air with a nominal aerodynamic diameter of 2.5 µm or less.

Hong Kong Standards and Guidelines

- 5.2.2. The Hong Kong Planning Standards and Guidelines (HKPSG) also provide guidance for all private and public development projects. A summary of relevant environmental design guidelines extracted from Table 3.1 of the HKPSG Chapter 9 is provided below.

Table 5-2 Recommended Buffer Distance for Land Uses (Table 3.1 of HKPSG Chapter 9)

Polluting Uses	Sensitive Uses	Buffer Distance
Trunk roads and Primary Distributor	(a) Active and passive recreational uses	>20m
	(b) Passive recreational uses	3 – 20m
	(c) Amenity areas	< 3m
District Distributor	(a) Active and passive recreational uses	>10m
	(b) Passive recreational uses	<10m
Local Distributor	(a) Active and passive recreational uses	>5m
	(b) Passive recreational uses	<5m
Industrial Chimneys	(a) sensitive uses	Within 500m, consult EPD
	(b) high-rise buildings	200m
	(c) active open spaces	10 – 100m
Odour sources	sensitive uses	200m

5.3. Background Air Quality

Existing Air Quality in Tung Chung District

- 5.3.1. The background air quality of Project Site has been assessed and the nearest EPD air quality monitoring station (AQMS) is Tung Chung Monitoring Station which is adopted to represent the ambient air quality of the area. The latest 5 available years of air quality data, i.e., 2019 to 2023, are summarised in **Table 5-3** to depict local air quality trends.

Table 5-3 Background Air Quality at Tung Chung Air Quality Monitoring Station

Pollutant	Averaging time	Concentration 2019-2023 ($\mu\text{g}/\text{m}^3$)[1][2]					AQO ($\mu\text{g}/\text{m}^3$)
		2019	2020	2021	2022	2023	
SO ₂	4 th peak 10-min	57	24	19	26	22	500
	4 th peak 24-hr	18	8	9	11	11	40
PM ₁₀	10 th peak 24-hr	75	66	63	57	51	75
	Annual Average	30	25	26	23	22	30
PM _{2.5}	19 th peak 24-hr	<u>43</u>	34	<u>38</u>	36	28	37.5
	Annual Average	<u>19</u>	14	<u>17</u>	14	14	15
NO ₂	19 th peak 1-hr	149	113	115	94	118	200
	10 th peak 24-hr	80	64	61	51	58	120
	Annual Average	33	28	28	25	26	40
O ₃	10 th peak 8-hr	<u>208</u>	<u>168</u>	158	<u>171</u>	156	160
	Peak season	<u>104</u>	90	82	89	79	100
CO	1 st peak 1-hr	2260	1530	1240	1170	1280	30,000
	1 st peak 8-hr	1874	1388	1073	1151	1095	10,000
	1 st peak 24-hr	1644	1157	865	1011	1007	4,000

Notes:

[1] Monitoring result(s) exceeding the AQO is/are bolded and underlined.

[2] All air quality data were extracted from EPD's Environmental Protection Interactive Centre.

5.3.2. Exceedance of concentration of PM_{2.5} and O₃ in the AQO has been recorded at Tung Chung Air Quality Monitoring Station. The exceedance of PM_{2.5} are likely due to the influence from exhaust emission from traffic on the busy networks (e.g. North Lantau Highway) in Tung Chung Area, whereas the exceedance of O₃ is mainly caused by regional air pollution and is not directly emitted from man-made sources. In general, the results show a decreasing trend in the concentration of most pollutants in these 5 years.

Future Background Air Quality Condition

5.3.3. In view of the tentative completion year of the proposed development will be in Q4 2031, it is noted that the PATH v3.0 dataset only provides the nearest projected nearest background air quality concentrations for Year 2030. Therefore, the Year 2030 projections at Grid (19, 31) have been adopted as the best available representation of the future background air quality for the Application Site. A summary of the Year 2030 background air quality concentrations is presented in **Table 5-4**.

Table 5-4 Background Air Quality Concentration of Pollutants

Pollutant	Averaging time	AQOs Concentration limit ($\mu\text{g}/\text{m}^3$) (number of exceedances to be allowed)	Background (19,31)
SO ₂	4th peak 10-min	500 (3)	31.35
	4th peak 24-hr	40 (3)	6.9
PM ₁₀	10th peak 24-hr	75 (9)	51.06
	Annual Average	30	18.66
PM _{2.5}	19th peak 24-hr	37.5 (18)	27.43
	Annual Average	15	11.31
NO ₂	19th peak 1-hr	200 (18)	88.29
	10th peak 24-hr	120 (9)	39.88
	Annual Average	40	16.77
O ₃	10th peak 8-hr	160 (9)	<u>180.48</u>
	Peak season	100	<u>113.13</u>
CO	1st peak 1-hr	30,000 (0)	532.14
	1st peak 8-hr	10,000 (0)	500.48
	1st peak 24-hr	4,000 (0)	469.55

Notes:

[1] Prediction result(s) exceeding the AQO is/are bolded and underlined.

[2] Future background air quality is represented using PATH data at Level 1.

5.3.4. These data have demonstrated that the concentrations of pollutants are below the AQOs, except for O₃. O₃ is not directly emitted from an emission source. It is formed by the chemical reactions of NO_x and VOCs under the presence of sunlight and a regional pollution problem. O₃ is therefore not considered as a key parameter in this assessment.

5.4. Assessment Area and Representative Air Quality Sensitive Receivers (ASRs)

5.4.1. In general, the assessment area for an air quality impact assessment (AQIA) is defined by a distance of 500m from the site boundary.

5.4.2. Representative air quality sensitive receivers (ASRs) were identified and the separation distance between ASRs and Application Site are shown in **Figure 5.1** and summarized in **Table 5-5**.

5.4.3. The planned ASRs were identified based on best available information from at the time of preparation of this report, including:

- Tung Chung Line Extension (TCLE) EIA report (AEIAR-235/2022);

-
- Tung Chung New Town Extension (TCNTE) EIA (AEIAR-196/2016); and
 - Hong Kong Housing Authority (HKHA) report Public Housing Development at Tung Chung Area 133A, 133B and 133C Environmental Assessment Study Final Report”

Table 5-5 Representative Air Sensitive Receivers (ASRs)

ASR ID	Description	No. of Storey (approx.) ^[1]	Land Use ^[2]	Shortest distance from project boundary (m)
ASR01	Proposed Post Secondary Institution	118	E	188
ASR02	Proposed Fire Station	9	GIC	119
ASR03	Proposed Police Station	6	GIC	98
ASR04	Proposed International School	11	E	108
ASR05	Proposed Residential Development (C2-2)	32	R	236
ASR06	Proposed Residential Development (C2-1)	28	R	27
ASR07	Proposed Commercial Development (COM-3)	28	CDA	151
ASR08	Proposed Residential Development (C1-1)	37	R	327
ASR09	Proposed Commercial Development (COM-2)	34	CDA	332
ASR10	Proposed Comprehensive Development (A1-2)	30	CDA	454
ASR11	Proposed Comprehensive Development (A1-2)	30	CDA	381
ASR12	Proposed Residential Development (A2-4)	32	R	435
ASR13	Proposed Residential Development (E1-5)	31	R	489
ASR14	Proposed Residential Development (F1-1)	10	R	338
ASR15	Proposed Residential Development (F1-2)	13	R	309
ASR16	Proposed Residential Development (F1-1)	10	R	443
ASR17	Proposed Secondary School (F1)	8	E	496
ASR18	Proposed Primary School (F)	8	E	467
ASR19	Proposed Primary School (F)	8	E	443

Remark:

[1] Reference from (TCNTE) EIA (AEIAR-196/2016) and HKHA report.

[2] E = Education; R = Residential Development; CDA = Comprehensive Development Area; GIC = Government Institution or Community; C = Commercial

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- 5.4.4. Openable windows will be provided at habitable rooms at residential units at Tower 1 and Tower for ventilation. Management office at podium will be provided with air-conditioning. These rooms are considered as ASRs within the project site.

5.5. Potential Air Quality Impact - Construction Phase

Emissions Sources from the Project

- 5.5.1. Foundation and superstructure works during the construction period would be anticipated in construction phase, dust emission in terms of Total suspended particulates (TSP), respirable suspended particulates (RSP) and fine suspended particulates (FSP) are the key air pollutants during construction. No demolition works will be carried out as there is no existing structure to demolished. MiC construction method will be adopted. No basement will be provided and thus deep excavation is not expected. In view of the project nature and scale, the construction activities will be limited to localised at-grade construction works.
- 5.5.2. The construction activities are expected to generate about 14,205 m³ of inert C&D waste as shown in **Table 9-1**. The construction will last for 4 years, assuming a capacity of 7m³ per truck, bulk factor of 1.2, 25 working days a month and the works will not be conducted simultaneously, it is estimated that a maximum of 2 truck trips per day would be required for the delivery of excavated material. In view of the estimated number of dump trucks arising from the transportation of inert C&D materials is low, the impacts from transportation off-site are expected to be limited.
- 5.5.3. Diesel-fueled machinery operating on-site, including construction trucks and powered mechanical equipment (PMEs) may be potential source of NO₂, SO₂, and CO during construction stage. Current operation of PMEs will be avoided and PMEs are to be placed away from the ASRs as far as practicable to avoid adverse impact to the nearby ASRs.

Emissions from Concurrent Projects

- 5.5.4. All potential concurrent projects within 500m assessment area during construction phase of the proposed development have been identified and tabulated in table below and shown in **Figure 5.2**.

Table 5-6 List of Concurrent Projects

Concurrent Projects		Construction Programme	Potential Cumulative Impacts		Approximate Distance from the Application Site
			Construction Phase	Operational Phase	
1.	Tung Chung Line Extension (TCLE) ^[1]	Q2 2023 till Q1 2028	Yes	No	170m
2.	Sports Ground at Area 138 ^[2]	2024 till 2030	Yes	No	85m
3.	Fire Station at Area 136 ^[2]	2024 till 2030	Yes	No	77m
4.	Post Secondary Institution at Area 137 ^[2]	2024 till 2030	Yes	No	135m
5.	International School at Area 135 ^[2]	2024 till 2030	Yes	No	29m
6.	Public Housing Development at Area 133A, Area 133B and Area 133C ^[3]	2024/25 till 2029/30	Yes	No	Area 133A: 156m Area 133B: 93m Area 133C: 3m
7.	Police Station at Area 131 ^[2]	2024 till 2030	Yes	No	55m
8.	East Sewage Pumping Station at Area 132 ^[2]	2024 till 2030	Yes	No	21m
9.	Commercial development in Area 129 ^[2]	2024 till 2030	Yes	No	151m
10.	Commercial development in Area 130 ^[2]	2024 till 2030	Yes	No	31m
11.	Public Housing Development at Area 117 ^[4]	Q3 of 2024 till 2028	Yes	No	362m
12.	Residential Development at Area 139 ^[2]	2024 till 2030	Yes	No	303m
13.	Planned integrated development with housing, office, retail facilities, open	NA	-	-	388m

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Concurrent Projects		Construction Programme	Potential Cumulative Impacts		Approximate Distance from the Application Site
			Construction Phase	Operational Phase	
	space, GIC facilities and Public Transport Interchange (PTI) in Area 113 ^[2]				
14.	Residential Development at Area 122 ^[2]	2024 till 2030	Yes	No	461m
15.	Residential Development at Area 140 ^[2]	2024 till 2030	Yes	No	376m
16.	Residential Development at Area 141 ^[2]	2024 till 2030	Yes	No	299m
17.	Sports Centre at Area 140 ^[2]	2024 till 2030	Yes	No	435m

Note:

[1] reference to Tung Chung Line Extension (TCLE) EIA report (AEIAR-235/2022)

[2] reference to Tung Chung New Town Extension (TCNTE) EIA (AEIAR-196/2016)

[3] reference to Hong Kong Housing Authority (HKHA) report “Public Housing Development at Tung Chung Area 133A, 133B and 133C Environmental Assessment Study Final Report” (April 2024)

[4] reference to “Section 16 Planning Application for Proposed Minor Relaxation of Building Height Restrictions for Permitted Public Housing Development at Tung Chung Area 114 and Tung Chung Area 117, Lantau Island” (August 2024)

5.5.5. With reference to findings in TCNTE EIA report (AEIAR-196/2016), it is anticipated that appropriate mitigation measures for air quality impact stipulated in Air Pollution Control (Construction Dust) Regulation will be implemented by the contractors of the concurrent project. In addition, careful programme management liaison will be arranged to ensure that construction activities near ASRs are efficiently scheduled to prevent concurrent works at the same interfacing locations. Review of the Environmental Monitoring and Audit (EM&A) Reports of the TCNTE EIA (AEIAR-196/2016) indicates that the dust monitoring data recorded no exceedance of Action and Limit Levels for construction air quality monitoring during the reporting period. As a result, adverse cumulative air quality impact during the construction phase of the proposed development is not expected.

Proposed Mitigation Measures

5.5.6. With the implementation of sufficient dust suppression measures as stipulated under the Air Pollution Control (Construction Dust) Regulation and good site practices, significant adverse dust generated from the construction of the planned residential developments is not anticipated. Mitigation measures to control construction dust/ gaseous emission listed below are recommended to be incorporated into the future contractor specifications for contractor’s implementation:

- Wetting by water spraying or dust suppression chemical on dusty material before loading and unloading, stockpile of dusty materials, area where breaking, excavation or earth moving activities works is carried out, and unpaved main haul road.
- Providing hoarding of not less than 2.4m high from ground level along the site boundary which is next to a road or other public area.
- Providing effective dust screens, sheeting or netting to enclose any scaffolding built around the perimeter of a building.
- Covering or sheltering any stockpile of dusty materials.
- Disposing of any dusty materials collected by fabric filters or other pollution control system in totally enclosed containers.
- Properly treating any exposed earth, such as by compacting or hydroseeding, within 6 months after the last construction activity.
- Providing vehicle washing facilities at all site exits to wash away any dusty materials from vehicles body and wheels before they leave the site.
- Covering of dust load on vehicles before they leave the site.
- Use of ultra-low sulphur content for on-site generators to minimize black smoke emission.
- Providing water spraying system where available and applicable.
- Restricting heights from which materials are to be dropped, as far as practicable, to minimise the fugitive dust arising from unloading / loading.
- Where the public can be affected by exhaust fumes or smoke emission from any construction plants or activities, shielding the related activities by an incombustible screen such as corrugated sheet of at least 2m in width and 1.8m in height.
- Using enclosed chutes for dropping construction materials to ground level and the chutes are dampened regularly, if applicable.
- The foundation work can be carried out either by percussive piling method or non-percussive piling method. For this project, adoption of non-percussive piling method is anticipated which helps generating lower dust emissions.

-
- The area where vehicle washing takes place and the section of the road between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcore.
 - Vehicles within the site are restricted to a maximum speed of 10 kph.
 - Vehicles are inspected regularly and well maintained to ensure that they are operating efficiently and that exhaust emissions are not causing nuisance.
 - Vehicle engines are turned off when they are not in use.
 - Haul road of the subject site is located as far as possible from nearby ASRs.
- 5.5.7. Due to small in development scale, the construction works to be involved the Application Site would be very limited. Also, requirements set out in the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation to control potential emissions from non-road mobile machinery will need to be fully complied with. Therefore, gaseous emission from diesel-fueled construction equipment would be minor and would not cause any significant adverse air quality impact.
- 5.5.8. To reduce SO₂ emission from diesel-fueled machinery operating on-site, Air Pollution Control (Fuel Restriction) Regulation was enacted in 1990 to impose legal control on the types of fuel allowed for use and their sulphur contents in commercial and industrial processes. To improve air quality and protect public health, EPD has introduced the Air Pollution control (Non-road Mobile Machinery) (Emission) Regulation since 1 December 2015, under which only approved or exempted NRMMS are allowed to be used in construction sites. In addition, all construction plants are required to use ULSD (defined as diesel fuel containing not more than 0.005% sulphur by weight) as stipulated in Environment, Transport and Works Bureau Technical Circular (ETWB-TC(W)) No.19/2005 on Environmental Management on Construction Sites. Furthermore, given the localized and small scale of the Project, as well as the small number of PMEs involved, adverse air quality impacts due to emissions from the use of PMEs would be unlikely.

5.6. Potential Air Quality Impact – Operation Phase

Vehicular Emissions from Open Road Traffic

- 5.6.1. The major air pollution source in the vicinity of the Subject Site during operational phase would be tailpipe emission generated from road traffic along open road.
- 5.6.2. The Subject Site is bounded by two roads, namely Road L7 facing to the south and Road D2 along its east. With reference to Roadworks and Noise Mitigation Measures Design Report

under TCNTE (East) – Design and Construction and the respective Technical Note on Traffic Forecast for Environmental Impact Assessment for Planning Review for Population Increase and Development Intensity in TCNTE (East), Road L7 is classified as local distributor while Road D2 is classified as district distributor. In accordance with HKPSG, the buffer distance between the proposed residential towers and the nearby roads should be adopted, which are summarised in **Table 5-7** and presented in **Figure 5.3**.

Table 5-7 Buffer distance between the Proposed development and Nearby Road

Road	Road Type [1]	HKPSG Guideline Buffer Distance Requirement	Distance between Proposed Residential Development and nearby road
Road D2	District Distributor	>10m	~10m
Road L7	Local Distributor	>5m	~9m

Note:

[1] DD – District Distributor, LD – Local Distributor. The road classifications are given in the Roadworks and Noise Mitigation Measures Design Report under TCNTE (East) – Design and Construction and the respective Technical Note on Traffic Forecast for Environmental Impact Assessment for Planning Review for Population Increase and Development Intensity in TCNTE (East) has referenced the road classification. The road type is referenced from HKHA report “Public Housing Development at Tung Chung Area 133A, 133B and 133C Environmental Assessment Study Final Report” (April 2024) to ascertain the appropriate buffer distance requirements.

- 5.6.3. Representative ASRs (NAPs T2-O19 and T2-O28) with the shortest separation distance of 10.3m and 5.8m distance to the nearest road kerb, respectively, demonstrated that no openable windows encroach into the buffer zones of Road D2 and Road L7, as shown in **Figure 5.3**. The management office will be provided with air conditioning, the location of fresh air intake will be carefully designed and will not encroach on the buffer zone as recommended in the HKPSG.
- 5.6.4. The proposed development for the current scheme can satisfy the setback distance requirements between the nearest road kerb of Road D2 and Road L7 as stipulated in HKPSG. There are also no other sensitive active and passive recreational uses located within the minimum buffer zone. Therefore, adverse vehicular emission impacts on the proposed development are not anticipated.

Vehicular Emissions from Public Transport Interchange

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- 5.6.5. For the concurrent project of Planned Public Transport Interchange (PTI) will be located at Area 113 and Area 133B as shown in **Figure 5.4**. With reference to the approved TCNTE EIA (AEIAR-196/2016) and TCLE EIA (AEIAR-235/2022), the PTI would be decked under proposed Area 113 development. The proposed PTI at Area 113 is planned by other parties, any design, maintenance, and operating requirements stipulated in Practice Note for Professional Persons (ProPECC PN) 1/22 “Control of Air Pollution in Semi-Confined Public Transport Interchanges” relevant to any air quality impacts to its neighbouring developments shall be considered and addressed by other parties. The planned PTI at Area 133B will be designed with due consideration to the HKPSG as far as practicable. Besides, ProPECC PN 1/22 be followed as appropriate for designing and operating the PTI to meet the air quality guidelines inside the PTI. With the provision of implementing appropriate mitigation by the future operator, no adverse air quality impacts are anticipated.

Vehicular Emissions from Tunnel Portal and Ventilation Building

- 5.6.6. Other than vehicular emission along open roads, those emitted from the tunnel portals and ventilation buildings would also cause cumulative air quality impact. They are outside 500m assessment area as shown in **Appendix 5.1** and thus impact from these facilities are not anticipated.

Industrial Chimney Emissions

- 5.6.7. Based on desktop study and site survey conducted on 29 Aug 2025, no existing chimney were found within 500m of the subject site. According to the Air Quality Impact Assessments Review for Population Increase and Development Intensity - CASE 2: Scenario 2A (Final) under TCNTE (East) – Design and Construction conducted in May 2021, no chimney is also planned within 500m of the subject site. Given the proposed development is for residential use, which is not environmental polluting in nature and does not have provision of chimney. Hence, no chimney emission will arise from the proposed development and no adverse air quality due to chimney emission is anticipated.

Odour Emission from the proposed Sewage Pumping Station

- 5.6.8. According to TCNTE EIA report (AEIAR-196/2016), a proposed Sewage Pumping Station (SPS) will be located at the south of the project with a separation distance of 21m as measured from the site boundary of the Application Site. With reference to deliverable PI49 (Sewerage System and Sewage Treatment Implication Review for Population Increase and Development Intensity – Case 2) of CEDD, the latest design of proposed SPS has a shorter separation distance to the current scheme of proposed development. Given the mitigation measures stipulated in AEIAR-196/2016 will be incorporated, including installation of de-odourisation system within the pump house, design exhaust outlets further away from sensitive receivers, and full enclosure of pumps within building. It is anticipated that with the implementation of appropriate mitigation measures, potential odour impact from the SPS to the proposed development could be properly controlled.

Marine Emission from the proposed Marina at TCE

- 5.6.9. According to TCNTE EIA report (AEIAR-196/2016), the proposed Marina is located outside 500m assessment of the proposed site as shown in **Appendix 5.1**. No marine routing is identified within 500m assessment area. In view of large separation distance, no adverse air quality impacts are anticipated.

Marine Emission from Existing Local Vessels

- 5.6.10. Apart from proposed Marina at TCE, gaseous emission from the existing local vessels operating at the Tung Chung Pier for the transportation between Tuen Mun, Tung Chung, Sha Lo Wan and Tai O are observed to the west of project as shown in **Appendix 5.1**. As these vessels are located outside 500m assessment area and thus no adverse impact from existing local vessels is anticipated.

Air Quality Impact arising from the Proposed Development

- 5.6.11. The nature of the proposed development is not environmental polluting and it is primarily for residential use. Car parks will be provided at G/F and 1/F and the exhaust vent will be properly design and located away from west side, and oriented away from the fresh air intakes of the proposed building as well as nearby ASRs, subject to further detailed design of the building system. In this connection, adverse air quality impact from the car parks are not expected.

5.7. Conclusions

- 5.7.1. With the implementation of dust suppression measures of the Proposed development and provision of good site practice as stipulated under the Air Pollution Control (Construction Dust) Regulation, Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation and Air Pollution Control (Fuel Restriction) Regulations, fugitive dust impacts and gaseous emission from diesel-fueled construction equipment and machinery to the nearby air sensitive receivers due to construction works are expected to be insignificant.
- 5.7.2. For vehicular emission, a sufficient horizontal buffer distance between Road L7 and Road D2 to the Application Site is proposed in accordance with the requirements set out in the HKPSG. No significant adverse air quality impact due to vehicular emission on the proposed development is anticipated.
- 5.7.3. In view of no chimney was identified within the assessment area, no air quality impact with respect to industrial chimney emission on the future domestic users in the proposed development is anticipated. The proposed development does not include any chimney provision, no adverse air quality impact from chimney emissions is expected on nearby sensitive receivers.
- 5.7.4. For odour emission, with the adoption of appropriate odour control measures as outlined in the TCNTE EIA report (AEIAR-196/2016) and commonly implemented in other sewage pumping stations in Hong Kong, no adverse air quality impact due to odour emission is anticipated from the proposed SPS at Area 132 on the Application Site.
- 5.7.5. For marine emission, given the proposed marina at TCE and the existing local vessels are located outside the 500m assessment area, no adverse air quality impact due to marine emissions is anticipated.
- 5.7.6. Given that the exhaust vent of car parks will be carefully designed and located away from fresh air intakes of proposed development and nearby NSRs, no adverse air quality impact during operation phase is expected.

6. Noise Impact Assessment

6.1. Introduction

6.1.1. As observed, traffic noise, railway noise and fixed noise impact are identified upon the proposed development.

6.1.2. The potential traffic noise impact is mainly dominated by Road P1, Road D2, Road L7, North Lantau Highway, Cheung Tung Road and Shun Long Road within the assessment area, road traffic noise impact assessment is conducted to evaluate potential adverse noise impact arising from the carriageways in the vicinity of the Application Site (detailed in **Section 6.3**).

6.1.3. Since the Application Site is surrounded by numerous residential and commercial buildings in its vicinity, potential fixed noise impact on the proposed development is envisaged. Therefore, fixed noise impact assessment has been conducted (detailed in **Section 6.3.25**).

6.1.4. The following reports have been made reference for analysing the traffic noise, railway noise and fixed noise impact within 300m assessment area of proposed development.

- Tung Chung Line Extension (TCLE) EIA report (AEIAR-235/2022)

- Tung Chung New Town Extension (TCNTE) EIA (AEIAR-196/2016).

- Hong Kong Housing Authority (HKHA) report “Public Housing Development at Tung Chung Area 133A, 133B and 133C Environmental Assessment Study Final Report”

- Deliverable PI49 (Sewerage System and Sewage Treatment Implication Review for Population Increase and Development Intensity – Case 2) of CEDD

6.2. Design Strategy for Noise Consideration

6.2.1. General guidance is provided in the HKPSG and EPD’s website on Innovative Noise Mitigation Designs and Measures to reduce noise exposure. These guidelines have been duly considered in the design layout of the Proposed development. **Table 6-1** below summarizes the design strategies adopted in the Proposed development.

Table 6-1 Summary of Noise Conscious Design Strategy

Item	Design Strategy/Mitigation Measure	Considerations in the Proposed development
1	Building Setback	- The residential tower requires to maintain a setback from Road L7 and Road D2 to increase the horizontal separation distance from noise sources.
2	Building Layout	- Cruciform building block designed has been adopted where the subject site is close Road L7 and Road D2. Cruciform block could provide self-screening effect and reduce view angle to the nearby roads.
3	Podium	- Tower 1 and Tower 2 are situated on top of a podium approximately 16.31m high for the current scheme, which can increase the separation distance between the residential units and the nearby roads to achieve larger noise reduction.

6.3. Traffic Noise Impact Assessment

Introduction

- 6.3.1. This road traffic NIA is prepared to assess the potential traffic noise impact on the noise sensitive uses of the proposed development and recommend mitigation measures where practicable to attenuate the noise impact, if any. Road L7 and Road D2 are the potential dominant noise sources in view of their proximity to the Application Site.

Assessment Criteria

- 6.3.2. Noise standards are recommended in Chapter 9, “Environmental” of the HKPSG for guiding new developments against potential noise impact from sources such as road traffic, railway and aircraft. The applicable road traffic standard on the residential blocks (relies on openable windows for ventilation) is $L_{10(1\text{-hour})}$ 70dB(A).

Assessment Methodology

- 6.3.3. The potential noise impact arising from nearby existing and future road carriageways within 300m assessment area on the Noise Sensitive Receivers (NSRs) of Proposed development was assessed.
- 6.3.4. This approach considers the worst-case scenario of 15 years from the tentative completion date (Year 2031) of the proposed development. For worst case scenario evaluation, the assessment year has been chosen to be Year 2046, which has the maximum forecasted traffic flow within the 15-year period, per the advice by the traffic engineer.

- 6.3.5. **Appendix 6.1** presents the predicted peak hour traffic flows and percentage of heavy vehicle of road carriageways within 300m assessment area from the Application Site for Year 2046, with Transport Department’s no objection on such traffic forecast data supplemented as shown in **Appendix 5.2**.
- 6.3.6. The procedure of “*Calculation of Road Traffic Noise*” adopted by U.K.’s Department of Transport was used to predict the hourly $L_{10(1\text{-hour})}$ noise levels generated from road traffic at selected representative NSRs. The predicted noise levels were compared to the noise standard set out in the HKPSG (i.e. $L_{10(1\text{-hour})}$ 70dB(A) for domestic use. Practicable noise mitigation measures have been recommended where necessary.
- 6.3.7. Low noise road surfacing (LNRS) is currently in place on North Lantau Highway and Shun Long Road and the extent of LNRS is shown in **Figure 6.1**. It is considered in the assessment in both Base Scheme Scenario and Mitigated Scenario.

Noise Sensitive Receivers

- 6.3.8. Noise Sensitive Receivers (NSR) within the Proposed development have been selected to assess the road traffic noise impact to the noise sensitive uses. Assessment points for the residential blocks have been assigned to all openable windows for ventilation at all habitable rooms. All noise assessment points (NAPs) were taken at 1.2m above the floor level and 1m away from the façade of openable windows in rooms of sensitive uses.
- 6.3.9. Based on **Appendix A**, the management office is located on the G/F and will be provided with air conditioning without relying on openable window for ventilation. Therefore, the management office is not considered as NSR for assessment.
- 6.3.10. **Figure 6.2** shows the location of the selected NSRs for traffic noise impact assessment.

Assessment Result Under Based Scheme Scenario (Scenario 1)

- 6.3.11. The road traffic noise prediction results indicate that the residential units are likely to be exposed to traffic noise levels exceeding the HKPSG traffic noise criterion of 70 dB(A). The predicted noise levels at all the NAPS at different levels under this “Base Scheme Scenario” (Scenario 1) are shown in **Appendix 6.2**. Summary of traffic noise prediction results is shown in **Table 6-2**. Residential flats facing Road L7 are anticipated to be the worst-affected locations.

6.3.12. Under the “Base Scheme Scenario” (Scenario 1), 54% of residential flats of the proposed development will be subjected to noise levels within the stipulated noise limit of 70 dB (A). The remaining flats will be subjected to noise levels higher than 70 dB (A), in the range of 71-74dB(A). The results of the assessment have indicated that the highest predicted noise level is 72 dB(A) for Tower 1 and 74 dB(A) for Tower 2.

6.3.13. **Table 6-2** summarizes the results of the traffic noise assessment under “Base Scheme Scenario” (Scenario 1). Predicted noise levels at the representative NSRs are presented in **Appendix 6.2**.

Table 6-2 Traffic Noise Prediction Results, Base Scheme Scenario

	Residential Towers		
	Tower 1	Tower 2	Overall
Maximum Predicted Traffic Noise Level, $L_{10,peak\ hr}$ in dB(A)	72	74	74
Noise Criteria $L_{10,1\ hr}$ in dB(A)	70	70	NA
Total No. of Units	216	216	432
Total No. of Units Exceed Traffic Noise Criteria	64	135	199
Percentage of Compliance	70%	38%	54%

Proposed Mitigation Measures

6.3.14. Despite adopting above site specific layout design strategies for minimizing the potential road traffic noise impact, exceedance of road traffic noise is anticipated at residential blocks. Other practical mitigation measures and “Innovative Noise Mitigation Designs and Measures” as listed on the EPD’s website have been considered and incorporated into the development to further mitigate the noise impact.

(a) Vertical Architectural Fin

Table 6-3 Proposed Vertical Architectural Fins

Fin Length	Number of fins used	Rooms with fins
1.0m fins	3	T1-O32 T2-O29 T2-O32
1.2m fins	2	T1-O33 T2-O19

6.3.15. A total of 5 no. vertical architectural fin ("architectural fin") have been proposed to minimize road traffic noise impacts on the proposed development.

6.3.16. The noise reduction effect is determined using CRTN methodology taking into account the view angle correction but would have the maximum value of not more than 3 dB(A). The locations of vertical fins are shown in **Figure 6.3**.

(b) Acoustic Window (Baffle-type) (BAW)

6.3.17. In view of the maximum traffic noise exceedance < 5dB(A), BAW is proposed as a noise mitigation measure at living rooms, bedrooms and master bedrooms of Tower 1 and Tower 2 with traffic noise exceedance. The reference designs of BAW are reference to EPD's ProPECC PN5/23 "Practice Note on Application of INNOVATIVE NOISE MITIGATION DESIGNS in Planning Private Residential Developments against Road Traffic Noise Impact"

6.3.18. The locations of BAW are shown in **Figure 6.3**. The details of the proposed BAW are given in **Table 6-4** and **Table 6-5**. The schematic design of BAW is given in **Appendix 6.4**.

6.3.19. Each BAW comprises of two layers of window, i.e. typical window at outer layer and sliding glazing at inner layer. While the prescriptive requirements of ventilation openings under Building (Planning) Regulations can be met by an unobstructed opening that allows air flow, noise reduction is achieved when the opening is obstructed by sliding glazing. The noise reduction performance shall be further enhanced by locating the opening of the outer layer of window away from dominant noise sources.

6.3.20. Optimal noise reduction performance of BAW would be considered when location of openable window and fixed glazing at outer layer is arranged in favourable setting. Openable window at outer layer are arranged further apart from dominant noise source, while fixed glazing is closer to the dominant noise source in general. In case there is a noise barrier structure, e.g. architectural fin, screening the openable window from noise source, openable window is arranged adjacent to the barrier structure.

6.3.21. For living rooms, bedrooms and master bedrooms with predicted traffic noise exceedance, BAW are proposed designed in accordance with EPD's "Practice Note on Application of INNOVATIVE NOISE MITIGATION DESIGNS in Planning Private Residential Developments against Road Traffic Noise Impact" as detailed in **Table 6-4** and **Table 6-5**.

6.3.22. To ensure the noise reduction performance of the acoustic window BAW, only one window opening with the acoustic window design will be allowed in each habitable room. This design

arrangement is strictly followed.

Table 6-4 BAW (Configuration 1) and Living Room

Parameters	PN BAW2 w/o SAM	Proposed development (Living Room)
Size of Room ^[1] (m ²)	18	20
Maximum relative noise reduction required (dB(A))	/	3.4
Noise reduction adopted (dB(A))	7	7
Required Opening Area ^[2] (m ²)	/	1.11
Opening Area Provided ^[3] , (W) x (H) = Area (m and m ²)	/	Subject to detailed design stage
Acoustic Window Height (m)	1.5	
Gap Width (mm)	100 - 175	
Overlapping Length ^[4] (mm)	100	
Outer Opening Dimensions (W) x (H) = Area (m and m ²)	0.75 x 1.5 = 1.125	
Inner Opening Dimensions (W) x (H) = Area (m and m ²)	0.75 x 1.5 = 1.125	
Absorption Lining ^[5]	No	

Notes:

[1] Size of room in terms of Usable Floor Area (UFA) of subject room, excluding area of enclosed kitchens or toilets

[2] Size of opening required to satisfy ventilation requirement under Building Regulations, this area excludes area occupied by window frames.

[3] Opening when inner and outer opening aligned, i.e. the minimum of inner and outer opening area in above acoustic window (baffle type) configurations.

[4] Overlapping length of exterior and interior glazing measured from centres of aluminium frames (standard aluminium frame size of 50mm).

[5] Absorption Lining: on 3 sides of window frame (Top, Left and Right), with 30mm thick acoustic infill, rock wool, wrapped in sound transparent membrane in perforated casing of minimum 23% perforation. NRC 0.7 or above

Table 6-5 BAW (Configuration 2), Master Bedroom and Bedroom

Parameters	PN BAW1 w/o SAM	Proposed development (Master Bedroom)	Proposed development (Bedroom)
Size of Room ^[1] (m ²)	8	7.1	4.9
Maximum relative noise reduction required (dB(A))	/	3.5	3.1
Noise reduction adopted (dB(A))	6	5.5	3.9
Required Opening Area ^[2] (m ²)	/	0.45	0.31
Opening Area Provided ^[3] , (W) x (H) = Area (m and m ²)	/	Subject to detailed design stage	Subject to detailed design stage
Acoustic Window Height (m)	0.87		
Gap Width (mm)	100 - 175		
Overlapping Length ^[4] (mm)	100		
Outer Opening Dimensions (W) x (H) = Area (m and m ²)	0.6 x 0.87 = 0.522		
Inner Opening Dimensions (W) x (H) = Area (m and m ²)	0.58 x 0.87 = 0.5046		
Absorption Lining ^[5]	No		

Notes:

[1] Size of room in terms of Usable Floor Area (UFA) of subject room, excluding area of enclosed kitchens or toilets

[2] Size of opening required to satisfy ventilation requirement under Building Regulations, this area excludes area occupied by window frames.

[3] Opening when inner and outer opening aligned, i.e. the minimum of inner and outer opening area in above acoustic window (baffle type) configurations.

[4] Overlapping length of exterior and interior glazing measured from centres of aluminium frames (standard aluminium frame size of 50mm).

[5] Absorption Lining: on 3 sides of window frame (Top, Left and Right), with 30mm thick acoustic infill, rock wool, wrapped in sound transparent membrane in perforated casing of minimum 23% perforation. NRC 0.7 or above

Assessment Result under Mitigated Scenario (Scenario 2)

6.3.23. The details of the noise mitigation measures adopted in the scenarios for road traffic noise impact assessment are tabulated in **Table 6-6**. The road traffic noise prediction results for mitigated scenario are shown in **Table 6-7**. The predicted noise levels are provided in **Appendix 6.3**.

Table 6-6 Noise Mitigation Measures Adopted in the Scenarios

	Scenarios	
	Base Scheme (Scenario 1)	Mitigated Scenario (Scenario 2)
Existing Low Noise Surfacing	Adopted	Adopted
Building Layout	Adopted	Adopted
Podium	Adopted	Adopted
Vertical Architectural Fins	-	Adopted
BAW	-	Adopted

Table 6-7 Traffic Noise Prediction Result

	Tower 1	Tower 2	Overall
Total No. of Units: 432	216	216	432
Scenario 1: Base Scheme			
Max. predicted traffic noise level ($L_{10(1\text{hour})}$, dB(A))	72	74	74
Total No. of NSRs exposed to noise level > 70dB(A) $L_{10(1\text{hour})}$	70	135	205
Percentage of Compliance	68%	38%	53%
Scenario 2: Mitigated Scenario			
Max. predicted traffic noise level ($L_{10(1\text{hour})}$, dB(A))	70	70	70
Total No. of NSRs exposed to noise level > 70dB(A) $L_{10(1\text{hour})}$	0	0	0
Percentage of Compliance	100%	100%	100%

6.3.24. With the abovementioned noise mitigation measures incorporated in the proposed development scheme, it is anticipated that the road traffic noise criteria can be fully complied with. The predicted noise levels under mitigated scenario and the schedule of mitigation measures are given in **Appendix 6.3**.

Summary for Road Traffic Noise Impact Assessment

- 6.3.25. Potential road traffic noise impact on the proposed development has been assessed. According to the road traffic noise impact assessment result, the proposed development will comply with the relevant traffic noise standard stipulated in HKPSG with the implementation of noise mitigation measures, i.e. acoustic windows (baffle type) and architectural fins. Full compliance is expected with incorporation of mitigation measures.

6.4. Fixed Plant Noise Impact Assessment

Environmental Legislation and Guidance

6.4.1. Legislation, standards, guidelines, and criteria relevant to the consideration of planning against possible fixed noise impact under this assessment include the following:

- Noise Control Ordinance (NCO) Cap.400
- Chapter 9 of HKPSG
- Technical Memorandum on Noise from Places other than Domestic Premises, Public Places or Construction Sites (IND-TM)

6.4.2. Existing Fixed Plant Noise is controlled under the NCO’s Technical Memorandum on Noise from Places other than Domestic Premises, Public Places or Construction Sites (IND-TM), which shall not exceed the Acceptable Noise Level (ANL) for a Noise Sensitive Receiver.

6.4.3. More stringent criteria are applicable for planned fixed plants, as stipulated in the Chapter 9, “Environmental” of the HKPSG with the following requirements: 5dB(A) below the appropriate ANLs in the IND-TM, or in the case of the background noise being 5 dB(A) lower than the ANL, should not be higher than the background.

6.4.4. The ANLs for the NSRs are based on the Area Sensitivity Rating (ASR), which is defined in the IND-TM issued under NCO. The ASR depends on the type of area and the degree of impact that Influencing Factors (IFs) have on the NSRs and as illustrated in below **Table 6-8**. Industrial area and major road shall be considered to be an IF. For the given ASR, the ANL, in dB(A), is given in **Table 6-9**.

Table 6-8 Area Sensitivity Ratings (ASRs) 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 developments	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 6-9 Acceptable Noise Level for Fixed Noise Sources

Time Period	ANL, dB(A)		
	ASR “A”	ASR “B”	ASR “C”
Day (0700 to 1900 hours)	60	65	70
Evening (1900 to 2300 hours)	60	65	70
Night (2300 to 0700 hours)	50	55	60

- 6.4.5. The site is planned for high-rise residential development, it is surrounded by planned residential developments in TCNTE (East). The types of area (i) rural area; (ii) low density residential area consisting of low-rise or isolated high-rise developments and (iii) urban area according to IND-TM cannot reflect the future environs of the subject site and are all not applicable. Thus, the whole site shall fall into type (iv) “Area other than those above” according to IND-TM.
- 6.4.6. Review of the Annual Traffic Census (ATC) for Year 2023, indicated that North Lantau Highway had an AADT of 41,340, which is considered as an Influencing Factor (IF) under the IND-TM. All façades of Tower 1 except the south east façade will not have line of sight to the North Lantau Highway and therefore considered to be not affected by the IF. An ASR of B is assigned. The ANL for “B” should be 65 dB(A) and 55 dB(A) for daytime and night-time respectively. As the south east façade of Tower 1 will be exposed to IF as shown in **Figure 6.4**. The corresponding ANLs should be 70 dB(A) and 60 dB(A) for daytime and night-time respectively.

- 6.4.7. For Tower 2 of the proposed development, the east and south facades are directly exposed to North Lantau Highway. The proposed police station and east sewage pumping station located in front of the development does not provide effective shielding. As such, these facades are therefore considered to be directly affected by the IF and hence an ASR of “C” is assigned. The corresponding ANLs should be 70 dB(A) and 60 dB(A) for daytime and night-time respectively. For the facades facing west and north, ASR of “B” is assigned. The proposed ASR for the NSRs is indicated in **Figure 6.4**.

Planned Noise Sources

- 6.4.8. With reference to the approved TCLE EIA report (AEIAR-235/2022), TCNTE EIA (AEIAR-196/2016) and HKHA report “Public Housing Development at Tung Chung Area 133A, 133B and 133C Environmental Assessment Study Final Report”, four planned fixed noise sources were identified within 300m assessment area of proposed development and shown in **Figure 6.5**. The basic information of the identified planned fixed noise sources is summarized in table below.

Table 6-10 Summary of Identified Fixed Noise Sources

Location	Operators	Identified Potential Noise Sources	Shortest separation distance from site boundary (m)	Sound Power Level, SWL (dBA) ^[1]
(C2-2) Area 133B	Public Transport Interchange (PTI) ^[1]	Operation: ventilation fans	242	82
(CO-3) Area 132	Sewage Pumping Station (SPS) ^[1]	Operation: Pumps and exhaust of the mechanical ventilation system to be operated during daytime, evening, and nighttime periods.	27	88
(G0-3) Area 136	Tung Chung East Fire Station ^[1]	Operation: Station operations include loudspeakers, siren, fire engine sirens, condenser and transformer, etc.	67	97
(G0-1) Area 138	Sports Ground ^[2]	Operation: Operation of the facility and public address (PA) system	220	105 (NW)
			175	101 (SE)

Note:

^[1] Sound power level for identified fixed noise sources is referred to the approved TCNTE EIA (AEIAR-196/2016)

^[2] Sound power level of Sports Ground is made reference to approved Main Arena of the 2008 Olympic Equestrian Event EIA Report and it is measured in NW - northwest and SE – southeast direction.

Public Transport Interchange (PTI)

- 6.4.9. With reference to the TCNTE EIA (AEIAR-196/2016) and HKHA report, PTI is planned on G/F underneath Block 1 and Block 3 of public housing development at Area 133B, which will be designed with due consideration to the HKPSG. The planned PTI will be covered under a podium decking with full height double bank louver, solid boundary wall and hanger louver/fins at vehicular and pedestrian accesses, to avoid line of sights to the planned noise sensitive uses in the proximity as far as practicable.

Sewage Pumping Station (SPS)

- 6.4.10. Noise sources include the pumps and exhaust of mechanical ventilation system to be operated during daytime, evening time and night-time periods. With reference to deliverable PI49 (Sewerage System and Sewage Treatment Implication Review for Population Increase and Development Intensity – Case 2) of CEDD, the latest design of proposed SPS has incorporated the mitigation measures stipulated in AEIAR-196/2016, including design exhaust outlets further away from sensitive receivers, and full enclosure of pumps within building. Given the use of proper design and provision of noise mitigation measures, no adverse fixed noise impact on the proposed development is anticipated.

Fire Station

- 6.4.11. Major fixed noise sources of the fire station include chillers, condensers and transformers from the station operations. Other noise sources associated with the fire station include loudspeakers, siren and vehicular sirens. As confirmed by the Fire Services Department (FSD), daily operational activities at the fire station will be confined to daytime hours only. Noise emissions from sirens and loudspeakers are expected to occur for a short duration, while machinery used for daily training activity will operate for 30 minutes per day during daytime hours. It is assumed that the proposed fire station will be designed to meet the HKPSG noise criteria, taking the Project into account as the potential NSR. Given that the occurrences of fire station activities are on an as-needed basis and last for a short duration only, adverse fixed noise impact on the proposed development is not anticipated.

Sports Ground

- 6.4.12. Noise sources of sports ground including the operation of the facility and PA system during daytime and evening time operation. With reference to the approved TCNTE EIA (AEIAR-196/2016), it was recommended to incorporate measures for the PA system and/ or the sound amplification system, if used during the outdoor noise activities. The recommended measures include the adoption of a cluster of small power loudspeakers instead of a few large power loudspeakers, adoption of directional loudspeakers with orientation to point away from the nearby NSRs; and the inclusion of a “Limiter” device in the system to set the upper bound of the output sound level. Besides, as concluded in the TCNTE EIA, the sports ground is a DP under Item O.7 of Schedule 2 of Technical Memorandum on the Environmental Impact Assessment Process, a separate EIA study would be required to be conducted by the future operator to fulfil all the statutory requirements and procedures under the EIAO. Any potential environmental noise impacts caused by the planned sports ground shall be addressed in the respective future EIA and mitigated by appropriate at source mitigation measures where necessary to ensure no noise exceedance at all nearby sensitive receivers including the proposed development.

Representative NAP for Fixed Noise Impact Assessment

- 6.4.13. Representative NAPs with short separation distance from different potential noise sources are selected within the proposed development and are shown in **Figure 6.4**.

Potential Fixed Noise Impact on the Proposed Development

- 6.4.14. The summary of the predicted fixed plant noise level is tabulated in **Table 6-11**. Detailed calculation of fixed noise impact assessment is presented in **Appendix 6.5**.
- 6.4.15. The maximum predicted fixed noise levels for representative NAP at Tower 1 during daytime/ evening time are up to 51dB(A), whilst for the night-time period, it is 47dB(A). Therefore, the assessment criteria for fixed noise levels are 65dB(A) and 55 dB(A) for day/ evening time and night time periods can be complied with.
- 6.4.16. The maximum predicted fixed noise levels for representative NAPs at Tower 2 during daytime/ evening time are up to 57dB(A), whilst for the night-time period, it is 44dB(A). Therefore, the assessment criteria for fixed noise levels are 70dB(A) and 60dB(A) for day/ evening time and night time periods can be complied with.

Table 6-11 Predicted Fixed Noise Level at Representative NAPs

NAP ID	ASR	Daytime & Evening Time Criteria (dB(A))	Night Time Criteria (dB(A))	Maximum Predicted Noise Level, dB(A)	
				Daytime & Evening Time	Night Time
T1-O12	B	65	55	44	39
T1-O33				51	47
T2-O12	C	70	60	54	39
T2-O23				57	41
T2-O28				57	44

Fixed noise impacts from the Project on the NSRs in the vicinity

- 6.4.17. Potential fixed noise to be generated from the proposed development includes noise from the operation of air-conditioning units from the residential units, mechanical ventilation installations of the plant rooms, as well as other fixed noise sources equipment.
- 6.4.18. The residential development with the shortest separation distance from the Project Site is Area 133C, located approximately 14m away from the building facade as shown in **Figure 6.4**.
- 6.4.19. Mechanical Equipment and Air conditioning (MVAC) and E&M plants, such as pump units, transformers, emergency generator and lift machines, will be placed at enclosed plant rooms. In particular, based on the current design, PV equipment, water tanks, water pump rooms will be placed on the rooftop. The water pump will be installed within the plant room. The ventilation louvres, mechanical ventilation intakes or exhausts of MVAC equipment and E&M plant rooms will be treated by silencers and enclosure, if necessary.
- 6.4.20. The choice of equipment and the requirement of noise control measures, such as acoustic treatments by silencers and enclosure, will be determined to ensure that noise level at potentially affected NSR will comply with the noise criteria. The cumulative noise impact on nearby NSRs shall comply with statutory requirement under Noise Control Ordinance (NCO) stipulated in IND-TM. For the design of plant noise control treatment, the plant noise shall be controlled and designed to meet the HKPSG requirement, i.e. 5 dB below ANL or the prevailing background noise level, whichever is lower. The prevailing background noise levels shall be determined at detailed design stage, before construction commencement, for determining the planning criteria. The design requirement for the compliance to HKPSG criteria will be stated clearly in the tender specification. The Contractor shall be responsible for the design of the MVAC and E&M plants with proper mitigation measures, if necessary.

Summary of Fixed Noise Impact Assessment

- 6.4.21. The predicted fixed noise levels for daytime/ evening time and nighttime at representative NSR show that full compliance with assessment criteria of 65/ 70 dB(A) and 70/ 60 dB(A) for day/ evening time and night time periods respectively. The proposed development will not be exposed to fixed noise impact from noise sources nearby.
- 6.4.22. Nearby residential development will be located at 14m from the Site. To ensure that the noise level at potentially affected NSRs will comply with the statutory requirement under Noise Control Ordinance stipulated in IND-TM, all on-site planned fixed plant within the Proposed development shall be controlled and designed to meet the HKPSG requirement, i.e. 5 dB below ANL or the prevailing background noise level, whichever is the lower.

6.5. Railway Noise Impact Assessment

Introduction

- 6.5.1. This railway NIA is prepared to assess the potential railway noise impact on the noise sensitive uses of the proposed development and recommend mitigation measures where practicable to attenuate the noise impact, if any. Potential railway noise impact associated with the proposed development will arise from the existing Tung Chung Line (TCL) and Airport Express Line (AEL) which are located about 170m to the south of the Subject Site. A section of existing TCL will be diverted from the planned Tung Chung Line Extension (TCLE) with the provision of a new TCE Station.

Assessment Criteria

- 6.5.2. Noise planning standards for rail noise have been specified in Table 4.1 of the HKPSG Chapter 9, i.e. $L_{eq}(24hr)$ of 65 dB(A) and $L_{max}(2300-0700hrs)$ of 85 dB(A). Besides, ANL are also stipulated in the IND-TM issued under the NCO as shown in **Table 6-12**.

Table 6-12 Noise Criteria for Rail Noise

Area Sensitivity Rating	Time Period ^[1]	Acceptable Noise Levels, $L_{eq}(30mins)$, dB(A) under IND-TM	Maximum A-weighted SPL, $L_{max}(2300-0700hrs)$ dB(A), under HKPSG	Maximum A-weighted SPL, $L_{eq}(24hrs)$ dB(A), under HKPSG
A	Daytime & Evening	60	85	65
	Night-time	50		
B	Daytime & Evening	65		
	Night-time	55		
C	Daytime & Evening	70		
	Night-time	60		

Note: [1] Daytime: 0700 to 1900 hours, Evening: 1900 to 2300 hours, Night-time: 2300 to 0700 hours

- 6.5.3. As shown in Figure 6.4 and Section 6.4.5 to 6.4.7, the ASR of “B” and “C” are proposed for Tower 1 and Tower 2. The ASR assigned in this PER report is for assessment purpose only and shall not prejudice the Authority’s decision on enforcement based on contemporary conditions.

Review of Potential Rail Noise Impact

- 6.5.4. The TCLE is a Designated Project under the EIAO. An EIA was conducted and approved under the EIAO on 12 July 2022 (AEIAR-235/2022).
- 6.5.5. The planned TCLE are located at about 170m to the south of the subject site as shown in **Figure 5.2**. The committed commercial development at Area 129 and 130, G/IC developments at Area 131, 132, 136 and 137 are located between the railway and the subject site. Shielding can be provided by these developments.
- 6.5.6. With reference to the approved TCLE EIA (AEIAR-235/2022), rail noise impact assessment was conducted. The railway noise contours of $L_{eq(30min)} / L_{max}$ at 7.2mPD, 15mPD and 30mPD are extracted and reviewed as shown in **Appendix 6.6**.
- 6.5.7. For tower 1, the predicted noise level of $L_{eq(30 mins)}$ is below 65 dB(A) and 55dB(A) for daytime and nighttime respectively which compiles with the respective noise criteria for ASR of B, and the predicted L_{max} is below 85dB(A) which could also comply with the noise standard of HKPSG.
- 6.5.8. For tower 2, the predicted noise level of $L_{eq(30 mins)}$ is below 70 dB(A) and 60 dB(A) for daytime and nighttime respectively which compiles with the respective noise criteria for ASR of C, and the predicted L_{max} is below 85dB(A) which could also comply with the noise standard of HKPSG.
- 6.5.9. Therefore, potential rail noise impact is not anticipated on the current scheme.

Conclusions

- 6.5.10. Potential railway noise impact on the proposed development has been assessed. According to the railway noise impact assessment result from TCLE EIA report (AEIAR-235/2022), the proposed development would not subject to significant adverse railway noise impact on the current scheme.

6.6. Review on Helicopter Noise Assessment

Introduction

- 6.6.1. Helicopter noise assessment is prepared to assess the potential helicopter noise impact on the noise sensitive uses of the proposed development and recommend mitigation measures where practicable to attenuate the noise impact, if any. Helicopter noise will be generated during manoeuvring over the helipad and during lateral (approach/departure) flight. With reference to the TCNTE Report (AEIAR- 196/2016), potential helicopter noise impacts are anticipated due to GFS and business helicopter operations.

Assessment Criteria

- 6.6.2. In accordance with the HKPSG, a helipad should not be located in such a way that the daytime (07:00- 19:00 hours) maximum noise levels at sensitive uses will be exceeded.

Table 6-13 Daytime Helicopter Noise Assessment Criteria

Uses	Assessment Criteria L _{max} , dB(A)
All domestic premises	85
Hotels and Hostels	85
Offices	90
Educational institutions including kindergartens, nurseries and all others where unaided voice communication is required	85
Places of public worship and courts of law	85
Hospitals, clinics, convalescences and homes for the aged, diagnostic rooms, wards	85

Evaluation of Potential Helicopter Noise Impact

- 6.6.3. For the area in Tung Chung in particular, the helicopters operated by both Government Flying Services (GFS) and commercial company would be using the airspace in the vicinity. GFS has a headquarters within the Hong Kong International Airport (HKIA) and its helicopters serve both routine and emergency services. According to the information given in the EIA report, all the routine services (including flying support for all bureau and departments) would be conducted during daytime period only while emergency services (including air ambulance, Search & Rescue (SAR), supporting law enforcement agencies, fire fighting) have to be conducted on an as-required basis to suit actual circumstances.

- 6.6.4. HKBAC is a helicopter landing services company providing a facility for commercial helicopters to use. According to HKBAC’s latest information, there had only been 2 flight events between HKIA and Macau, and another 2 flights between HKIA and Kowloon during daytime period.
- 6.6.5. GFS and HKBAC are located at the south-western of the Hong Kong International Airport (HKIA). Both the GFS and HKBAC are located at approximately 4km west from the planned NSRs at TCE. Noise impact generated from helicopter approaching, take-off and manoeuvring are not anticipated.
- 6.6.6. The helicopter holding areas are identified which may generate helicopter noise by flyover mode as shown in **Table 6-14** and **Appendix 6.7**. The flight paths are given in **Appendix 6.7** and **Figure 6.6**.

Table 6-14 Location of Helicopter Holding Areas

ID	Location
H5	Pak Mong
H6	Cathay City
H7	Freight Centre
H10	Tung Chung Bay

- 6.6.7. According to the helicopter noise assessment in the EIA report, the first layer of NSRs within 130m horizontal to the helicopter flight path are identified for assessment and results demonstrated that the maximum predicted noise levels at the identified NSRs ranged from 79 - 81 dB(A), which is below the assessment criteria of L_{max} 85dB(A).
- 6.6.8. For the application site, the shortest separation distance from the flight path is maintained at 290m (i.e. NAP T2-O12). It is anticipated that the application site is not exposed to helicopter noise impact and no mitigation measures are required.

Conclusions

- 6.6.9. Potential helicopter noise impact on the proposed development has been reviewed. According to the helicopter noise impact assessment result from TCNTE EIA report (AEIAR-196/2016), the proposed development would not subject to significant adverse helicopter noise impact on the current scheme and no mitigation measures are proposed.

6.7. Review on Aircraft Noise Assessment

Introduction

- 6.7.1. Aircraft noise assessment is prepared to assess the potential aircraft noise impact on the noise sensitive uses of the proposed development and recommend mitigation measures where practicable to attenuate the noise impact, if any. Hong Kong International Airport is located to the northwest of the application site. The minimum separation distance from the southern runway and the nearest NSR is 3,071m (NSR T1-O08) as shown in **Figure 6.7**.

Assessment Criteria

- 6.7.2. In accordance with the HKPSG, NSRs relying on opened windows for ventilation should be planned beyond the NEF25 contour, except for offices which should be beyond the NEF30 contour, as shown in **Table 6-15**.

Table 6-15 Assessment Criteria for Aircraft Noise

Uses	Aircraft Noise (Noise Exposure Forecast : NEF)
All domestic premises	25
Hotels and Hostels	25
Offices	30
Educational institutions including kindergartens, nurseries and all others where unaided voice communication is required	25
Places of public worship and courts of law	25
Hospitals, clinics, convalescences and homes for the aged, diagnostic rooms, wards	85

Evaluation of Potential Helicopter Noise Impact

- 6.7.3. Based on the NEF results from approved EIA report TCNTE (AEIAR-196/2016), the predicted NEF 25 contours of the 3 Runway System (3RS) for year 2032 would be away from the boundary of TCE upon the full commissioning of the 3RS, currently planned for 2023. The relevant contours are given in **Appendix 6.8**. The boundary of the application site will be away from the predicted NEF 25 contours for all the operation modes for airport including the existing two runway system and the 3RS. Adverse aircraft noise impact is therefore not anticipated. No mitigation measures are required.

Conclusion

- 6.7.4. Potential aircraft noise impact on the proposed development has been reviewed. According to the aircraft noise impact assessment result from TCNTE EIA report (AEIAR-196/2016), the proposed development would not subject to significant adverse aircraft noise impact on the current scheme and no mitigation measures are proposed.

7. Water Quality Impact Assessment

7.1. Introduction

7.1.1. This section assesses the potential water quality impacts in association with the proposed development.

7.2. Legislation and Standards on Water Quality

7.2.1. The Water Pollution Control Ordinance (WPCO, Cap.358) provides a mechanism for setting effluent standards as specified in the “Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters”. All discharges into government sewerage systems, marine and inland waters are required to comply with the standards stipulated in this Technical Memorandum. The entire Hong Kong waters are divided into ten Water Control Zones (WCZs) and four supplementary WCZs. Each WCZ has a designated set of statutory Water Quality Objectives (WQOs) designed to protect the inland and/or marine environment and its users. The Application Site is in the North Western WCZ. The corresponding WQOs are listed in **Table 7-1**.

Table 7-1 Summary of Water Quality Objectives for North Western WCZ

Parameters	Objectives	Sub-Zone
Offensive Odour, Tints	Not to be present	Whole zone
Visible foam, oil scum, litter	Not to be present	Whole zone
Dissolved Oxygen (DO) within 2 m of the seabed	Not less than 2.0 mg L ⁻¹ for 90% of samples	Marine waters
Depth-averaged DO	Not less than 4.0 mg L ⁻¹	Tuen Mun (A), Tuen Mun (B) and Tuen Mun (C) subzones, water gathering ground subzones and other inland waters
	Not less than 4.0 mg L ⁻¹ for 90% of samples	Marine waters
pH	To be in the range of 6.5 - 8.5, change due to human activity not to exceed 0.2	Marine waters excepting bathing beach subzones
	To be in the range of 6.5 - 8.5	Tuen Mun (A), Tuen Mun (B) and Tuen Mun (C) subzones and

PRELIMINARY ENVIRONMENTAL REVIEW FOR PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Parameters	Objectives	Sub-Zone
		water gathering ground subzones
	To be in the range of 6.0 –9.0	Other inland waters
	To be in the range of 6.0 –9.0 for 95% of samples	Bathing beach subzones
Salinity	Change due to human activity not to exceed 10% of ambient	Whole zone
Temperature	Change due to human activity not to exceed 2 °C	Whole zone
Suspended solids (SS)	Not to raise the ambient level by 30% caused by human activity	Marine waters
	Change due to waste discharges not to exceed 20 mg/l of annual median	Tuen Mun (A), Tuen Mun (B) and Tuen Mun (C) subzones and water gathering ground subzones
	Change due to waste discharges not to exceed 25 mg L ⁻¹ of annual median	Inland waters
Unionized ammonia (UIA)	Annual mean not to exceed 0.021 mg L ⁻¹ as unionized form	Whole zone
Nutrients	Shall not cause excessive algal growth	Marine waters
Total inorganic nitrogen (TIN)	Annual mean depth-averaged inorganic nitrogen not to exceed 0.3 mg L ⁻¹	Castle peak bay subzone
	Annual mean depth-averaged inorganic nitrogen not to exceed 0.5 mg L ⁻¹	Marine waters excepting castle peak bay subzone
<i>E. coli</i> Bacteria	Not exceed 610 per 100 ml, calculated as the geometric mean of all samples collected in one calendar year	Secondary contact recreation subzones
	Should be less than 1 per 100 ml, calculated as the geometric mean of the most recent 5 consecutive samples taken between 7 and 21 days.	Tuen Mun (A) and Tuen Mun (B) subzones and water gathering ground subzones
	Not exceed 1000 per 100 ml, calculated as the geometric mean of the most recent 5 consecutive samples taken between 7 and 21 days	Tuen Mun (C) subzone and other inland waters
	Not exceed 180 per 100 ml, calculated as the geometric mean of all samples collected from March to October inclusive.	Bathing beach subzones

PRELIMINARY ENVIRONMENTAL REVIEW FOR PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Parameters	Objectives	Sub-Zone
Colour	Change due to waste discharges not to exceed 30 Hazen units	Tuen Mun (A) and Tuen Mun (B) subzones and water gathering ground subzones
	Change due to waste discharges not to exceed 50 Hazen units	Tuen Mun (C) subzone and other inland waters
5-Day biochemical oxygen demand (BOD ₅)	Change due to waste discharges not to exceed 3 mg L ⁻¹	Tuen Mun (A), Tuen Mun (B) and Tuen Mun (C) subzones and water gathering ground subzones
	Change due to waste discharges not to exceed 5 mg L ⁻¹	Inland waters
Chemical Oxygen Demand (COD)	Change due to waste discharges not to exceed 15 mg L ⁻¹	Tuen Mun (A), Tuen Mun (B) and Tuen Mun (C) subzones and water gathering ground subzones
	Change due to waste discharges not to exceed 30 mg L ⁻¹	Inland waters
Toxins	Should not cause a risk to any beneficial uses of the aquatic environment	Whole zone
	Waste discharge shall not cause the toxins in water significant to produce toxic carcinogenic, mutagenic or teratogenic effects in humans, fish or any other aquatic organisms.	Whole zone
Phenol	Quantities shall not sufficient to produce a specific odour or more than 0.05 mg L ⁻¹ as C ₆ H ₅ OH	Bathing beach subzones
Turbidity	Shall not reduce light transmission substantially from the normal level	Bathing beach subzones

Source: Statement of Water Quality Objectives (North Western Water Control Zone).

- 7.2.2. Chapter 9 of HKPSG sets out the guidelines for sewage collection and disposal whereby public sewers should be used as it is considered the most efficient and safe means of disposing sewage.
- 7.2.3. The Professional Persons Environmental Consultative Committee Practice Note 2/24 Construction Site Drainage (ProPECC PN2/24) provides guidelines for the handling and disposal of construction discharges. It is applicable to this study for control of site runoff and wastewater generated during the construction phase. The types of discharges from construction sites outlined in the ProPECC PN2/24 include:

- Surface runoff;

-
- Groundwater;
 - Boring and drilling water;
 - Wastewater from concrete batching;
 - Wheel washing water;
 - Bentonite slurries;
 - Water for testing and sterilization of water retaining structures and water pipes;
 - Wastewater from building construction and site facilities; and
 - Acid cleaning, etching and pickling wastewater.

7.2.4. The Professional Persons Environmental Consultative Committee Practice Note 1/23 Drainage Plans subject to Comment by the Environmental Protection Department (ProPECC PN 1/23) provides guidelines for Drainage Plans and practices for handling, treatment and disposal of various effluent discharges of the Proposed development to stormwater drains and foul sewers during the operation phase. The design of site drainage and disposal of various site effluents generated with the Proposed development should follow the relevant guidelines and practices as given in the ProPECC PN1/23.

7.3. Surrounding Environmental Context and Water Sensitive Receivers

7.3.1. The proposed development is located on reclaimed flat land. No WSRs including water intakes, country parks, water gathering grounds, beaches or water uses for agriculture within 500m study area of the proposed development, except 3 ecological valuable water bodies. Key WSRs and Coastal Protection Area (CPA) within 500m from the boundary of the Project were identified at **Table 7-2** below and their respective locations are illustrated in **Figure 7.1**.

Table 7-2 Summary of Representative Water Sensitive Receivers

ID	Location	Distance(m)
WSR01	Tai Ho Wan Inlet (inside)	265
WSR02	Tai Ho Wan Inlet (outside)	440
WSR03	Coastal Protection Area (CPA) within Tai Ho Wan	360

7.3.2. It should be noted that the proposed development would not involve any construction works at/ within the identified water sensitive receivers and CPA.

7.4. Potential Impacts During Construction Phase

7.4.1. MiC will be proposed for the construction of the Project. No deep excavation and foundation expected. Wastewater will be likely generated from groundwater extraction during foundation works and construction site surface run-off which will be mainly laden with suspended solids such as silt and mud. The water quality of effluent will be affected by the following:

- i. General Construction Activities;
- ii. Wash water from vehicles, equipment and dust suppression sprays;
- iii. Potential minor oil leaks or spills from vehicles and plants;
- iv. Site surface runoff and erosion of exposed bare soil and earth, drainage channels, earth working areas and stockpiles; and
- v. Sewage generated from on-site workforce.

7.5. Mitigation Measures and Good Site Practice

7.5.1. There is a need to apply to EPD for a discharge license for the discharge of effluent from the construction site under the WPCO. Any surface runoff and wastewater generated from the works area during the construction phase should be treated and discharged in accordance with the requirements of the discharge license.

7.5.2. Runoff and drainage shall be avoided or minimised with the implementation of mitigation measures and good site practices outlined in ProPECC PN 2/24 which shall include but not limited to the following.

- i. Providing perimeter channels to intercept storm runoff from outside the site. These shall be constructed in advance of site formation works and earthworks.
- ii. Providing sand/silt removal facilities such as sand traps, silt traps and sediment basins to remove sand/silt particles from runoff to meet the requirements of the standard in Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters under the WPCO. These facilities shall be properly and regularly maintained. Channels or earth bunds or sand bag barriers shall be provided on site to properly direct storm water to such silt removal facilities
- iii. Minimising soil excavation works by careful programming of works during rainy seasons
- iv. Protecting exposed soil surface by paving as practical to reduce the potential of soil erosion

- v. Protecting temporary access roads by crushed gravel and exposed slope surfaces shall be protected when rainstorms are likely to occur
- vi. Avoiding trench excavation in the wet season as far as practicable, and, if necessary, these trenches shall be excavated and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.
- vii. Covering the open stockpiles of construction materials on site with tarpaulin or similar fabric during rainstorms. Measures should be taken to prevent the washing away of construction materials, soil, silt or debris into any drainage system.
- viii. Vehicle wheel washing facilities should be provided at the site exit such that mud, debris, etc. attached to the vehicle wheels or body can be washed off before the vehicle leaves the work site”. Settling out the sand and silt in the wash water from the vehicles leaving the wheel washing facility, which ensures no earth, mud and debris is deposited on the road, before discharging into the storm drain. The section of the road between the wheel washing bay and the public road shall be paved with a back-fall to prevent wash water or other site runoff from entering the public area.
- ix. Planning ahead the temporary site drainage management and wastewater treatment system for collection, treatment, reuse and discharge of surface runoff and wastewater before the construction works start.
- x. Groundwater pumped out of wells, etc. for the lowering of ground water level in basement or foundation construction should be discharged into storm drains after the removal of silt in silt removal facilities.

General Construction Activities

- 7.5.3. Debris and rubbish generated on site shall be collected, handled, and disposed of properly. All fuel tanks shall be provided with locks and be sited on sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank. Open storm water drains and culverts near the works area shall be covered to block the entrance of large debris and refuse.
- 7.5.4. Any service shop and maintenance facilities should be located on hard standings within a bunded area, and sumps and oil interceptors should be provided. Maintenance of vehicles and equipment involving activities with potential for leakage and spillage should only be undertaken within the areas appropriately equipped to control these discharges.

Sewage Generated from On-site Workforce

- 7.5.5. The sewage from construction work force is expected to be handled by portable chemical toilets. Portable toilets shall be provided by licensed contractors who shall be responsible for appropriate disposal of collected sewage and maintenance of these facilities.

Evaluation of Impact

- 7.5.6. The construction phase of the Project will be land-based which does not involve any marine works or works at the streams identified. Therefore, it is unlikely that the Project will have any adverse water quality impact from construction work, given good site practices properly implemented on site by Contractor.
- 7.5.7. The mitigation measures and good site practices will be included in the contract for contractor's implementation. With the provision and implementation of abovementioned mitigation measures, adverse water quality impact during construction phase is not anticipated.

7.6. Potential Impacts During Operation Phase

- 7.6.1. During the operation phase of the proposed development, surface run-off and sewage generated by the residents are the main sources of water quality impacts. Surface run-off on site will be properly collected via stormwater drains and discharged to the existing drainage system. The sewage will be discharged to existing public sewerage manhole PLUG C0.2. The design of site drainage and disposal of various site effluents generated with the proposed development should follow the relevant guidelines and practices as given in the ProPECC PN1/23. Effluent arising from proposed development is subject to the control of WPCO, and the effluent discharge should be in compliance with the WPCO-TM and WPCO discharge license conditions.
- 7.6.2. As refer to the sewerage impact assessment conducted separately, the ADWF and peak flow from the Application Site are 315.3m³/day and 0.022m³/s respectively. A sewerage network comprising gravity sewer is proposed to convey the collected sewage to the planned Eastern Sewage Pumping System (ESPS) with design ADWF capacity of 35,727 m³/day.
- 7.6.3. The assessment results in the SIA report demonstrated that all sewers and ESPS have sufficient sewer capacity to cope with the sewage flow from catchments and the proposed development. Therefore, significant sewerage impact arising from the proposed development on the existing sewers is not expected, no mitigation measures are considered

necessary for the existing sewers.

Surface Runoff

- 7.6.4. The Application Site is a reclaimed land with no existing vegetation. Surface runoff within the Application Site will be collected and discharged into the existing public stormwater drainage network at the terminal manhole (CTC-4424). Provision of greenery area will be provided at the proposed development which will increase the filtration of stormwater and minimize surface runoff.
- 7.6.5. In order to minimize the pollution loading, silt/sand traps should be provided for the drainage systems of open areas. Moreover, the pollution loading of runoff could be controlled by best management practice. The operator should manage the cleaning of roads and open areas within the Site before heavy rain. To further minimise pollution loading, cleaning should be carried out during low traffic periods. Cleaning methods for road/open areas, such as manual cleaning or mechanical methods and including street sweepers are recommended to be adopted. The substances during cleaning should be collected as far as practicable for off-site disposal at landfill sites. After the removal of the substances, the pollution loading of runoff would be reduced.
- 7.7. Conclusion
- 7.7.1. The Project would not involve any construction works at/ within the water sensitive receivers. Therefore, the water source of the existing WSRs is not expected to be affected during the construction and operation phases of the Project.
- 7.7.2. For construction phase, water quality impact is expected to be minimal when appropriate mitigation measures and good site practice are implemented to properly discharge site run-offs.
- 7.7.3. The contractor shall apply for a Discharge License from EPD under the WPCO. All site discharges should be treated as necessary in accordance with the terms and conditions of the Discharge License.
- 7.7.4. With the implementation of the above mitigation measures, water quality impact is not anticipated during construction phase and operation phase of the proposed development.

8. Land Contamination

8.1. Guidelines

8.1.1. This site appraisal is prepared in accordance with the following guidance:

- Guidance Manual for Use of Risk-Based Remediation Goals (RBRGs) for Contaminated Land Management (Guidance Manual), dated December 2007, Revised in April 2023;
- Guidance Note for Contaminated Land Assessment and Remediation (Guidance Note), dated 15 August 2007, Revised in April 2023; and
- Practice Guide for Investigation and Remediation of Contaminated Land (Practice Guide), dated August 2011, Revised in April 2023.

8.2. Site Appraisal

8.2.1. The Site Appraisal has been conducted to assess the potential land contamination impact at the Application Site due to current and historical land uses, on and off-site activities that could result in contamination of the site.

8.3. Review of Historical Aerial Photos and Past Land Use

8.3.1. The Application Site was the sea in 1973 and was then developed since 2020. The aerial photos are attached in **Appendix 7.1**. A summary of the land use of the Application Site is given in **Table 8-1 Summary Table of Land Use**.

Table 8-1 Summary Table of Land Use

Year	Land Use	Sources of Information
1973 - 2020	The Subject Site was the sea	Aerial photo from LandSD
2020	Reclamation at Application Site started since 2020.	
2024 - now	The Application Site was a vacant land until now	

8.4. Information from Government Departments

8.4.1. The following 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 for the site. The summary of correspondence is presented in

8.4.2. **Table 8-2** below. Copy of the letters replied from various Government Departments are included in **Appendix 8.2** for reference.

Table 8-2 Enquiries and Responses on Land Contamination Related Records in the Application Site

Consultant's Letter Ref.	Department	Response Letter Ref.	Response Date	Summary
2240/ 24-0001	Environmental Protection Department	() in Ax (3) to EP771/E1/116 Pt.2	5 Dec 2024	No registered chemical waste producer for the captioned area
2240/ 24-0002	Fire Services Department	(125) in FSD GR 6-5/4 R Pt. 56	24 Dec 2024	- Neither records of dangerous goods license, fire accidents nor incidents of spillage/ leakage of dangerous goods were found at the subject location.
2240/ 24-0003	Planning Department	By email	15 May 2025	- The site is located on newly reclaimed land in Tung Chung East and is zoned "Government, Institution or Community" ("G/IC") under the approved Outline Zoning Plan (No. S/I-TCE/2). - There has been no change in zoning since the first plan was gazetted on 8 January 2016.
2240/ 24-0004	Lands Department	By email	17 Mar 2025	- LandsD has not received any reported spillage accidents, illegal/contaminating issues in respect of the concerned site. - The site is currently allocated to Civil Engineering and Development Department ("CEDD") under Simplified Temporary Land Allocation ("STLA") to carry out "Tung Chung New Town Extension - Reclamation and Advance Works" since 20 December 2017.

8.4.3. As advised by EPD, there is no record of the registered chemical waste producer were found within the Application Site.

8.4.4. For the dangerous goods records provided by FSD, no dangerous goods are stored on-site. Also, the Application Site is used as vacant land at present. Therefore, no land contamination potential upon the dangerous goods records. For the fire incident records provided by FSD, no on-site fire accident records. Therefore, no land contamination potential upon the fire incident records.

8.5. Conclusion

8.5.1. According to the government’s response, no active chemical waste producers and no chemical spillage accident were recorded at the Application Sites and its immediate surroundings. The Application Site is an existing empty land, with no dangerous goods and chemical storage on-site. It is anticipated no potential land contamination issues at the Application Site.

8.5.2. The Application Site was the sea before 2020. Land reclamation works commenced in 2020 and the site has remained vacant since then. No chemical manufacturing or dangerous goods storage was expected on the site and no potential contamination sources were anticipated. Therefore, no potential contamination issues are anticipated from the past and current uses of the Application Site.

9. Waste Management

9.1. Legislation and Standards on Waste Management

Waste Disposal Ordinance (WDO) (Cap. 354)

- 9.1.1. Waste Disposal Ordinance, Cap. 354 provides legislative control on pollution caused by all forms of wastes such as livestock wastes, chemical waste etc. It provides the statutory framework for the planning, management and control of wastes in Hong Kong.

Public Health and Municipal Services Ordinance (Cap.132)

- 9.1.2. The Public Cleansing and Prevention of Nuisances Regulation provides control on illegal tipping of waste on unauthorized (unlicensed) sites.

Waste Disposal (Chemical Waste) (General) Regulation (Cap.354C)

- 9.1.3. Under the WDO, Waste Disposal (Chemical Waste) (General) Regulation (Cap.354C) provides regulations for chemical waste control, and administers the possession, storage, collection, transport and disposal of chemical waste. EPD has also issued the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes (1992), which details how the chemical waste producers should comply with the regulations on chemical waste.

Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap.354N)

- 9.1.4. Under the Waste Disposal (Charges for Disposal of Construction Waste) Regulation, construction waste delivered to a landfill for disposal must not contain more than 50% by weight of inert material; construction waste delivered to a sorting facility for disposal must contain more than 50% by weight of inert material; and construction waste delivered to a Public Fill Reception Facilities for disposal must consist entirely of inert material.

Other Environmental Regulations / Guidelines

- Trip Ticket System for Disposal of Construction & Demolition Materials (DEV B TC(W) No. 6/2010)
- Environmental Management on Construction Sites (ETWB TC(W) No. 19/2005)
- Public Filling Facilities (WBTC No. 2/93B)
- Fill Management (WBTC No. 12/2000)
- Code of Practice on the Packaging, Labeling and Storage of Chemical Waste
- DevB TCW No. 8/2010 "Enhanced Specification for Site Cleanliness and Tidiness"
- Management of Construction and Demolition Materials (Technical Circular No. 11/2019) published by CEDD
- CEDD's Project Administration Handbook for Civil Engineering Works

- Monitoring of Solid Waste in Hong Kong – Waste Statistics for 2023

9.2. Assessment Approach and Criteria

9.2.1. The assessment of waste management implications from the construction and operation of the Project includes the following tasks:

- Identification of types and quantities of waste arising from various construction activities based on the latest understandings;
- Evaluation of opportunities for waste reduction, re-use and recycling on-site or off-site;
- Identification of disposal options for each type of waste;
- Evaluation of potential impacts from the handling (including stockpiling, labelling, packing and storage), collection, transportation and reuse/disposal of waste with respect to potential hazards, air and odour emissions, noise, wastewater discharges and public transport; and
- Proposing mitigation measures and evaluation of residual impact.

9.3. Potential Impacts during Construction Phase

9.3.1. The construction works of the Project mainly include foundation works and superstructure construction. Construction & Demolition (C&D) materials generated from the construction works comprises of inert and non-inert materials. For inert C&D materials (or public fills), such as soil, rock, concrete, etc., could be reused on-site as filling materials or off-site as public fill at public fills reception facilities. For non-inert C&D materials, such as timber, paper, etc., should be reused or recycled as far as possible before landfill disposal, which should only be considered as the last resort for waste handling.

9.3.2. Waste management planning is needed prior to the commencement of construction works. Construction waste management strategy is to avoid, minimize, reuse, re-cycle and finally dispose of waste with the desirability descending in this order. Contractor(s) will be required to implement effective waste management measures to ensure their practices are in line with the strategies. In order to minimize the generation of wood waste, steel is recommended to be used for formworks.

- 9.3.3. Chemical waste from maintenance and servicing of construction equipment/plant may be generated. If chemical waste is produced, it will be disposed of according to Code of Practice on the Packaging, Labelling and Storage of Chemical Waste. Special handling and temporary storage of chemical waste is required before removal from site. A licensed collector will be employed to deliver these wastes at EPD licensed chemical waste treatment facility.
- 9.3.4. General refuse such as food scraps, waste paper, empty containers, etc. would be generated from the workforce during the construction phase. General refuse should be stored in enclosed bins separately from C&D materials and chemical wastes. Recycling bins should also be placed to encourage recycling. Enclosed and covered areas should be provided for general refuse collection to prevent waste materials being blown around by wind, flushed or leached into nearby waters, or creating an odour nuisance or pest and vermin problem. Also, routine cleaning for these areas should be implemented to keep areas clean, so that intentional or accidental release to the surrounding environment does not occur with proper management.

Estimation on C&D Materials Quantity

- 9.3.5. The majority of C&D materials will be generated from the key construction activities mentioned in **Section 9.3.1**. Demolition waste is not anticipated since the site is currently vacant. Based on the project nature, it is not anticipated that significant quantities of C&D waste will be generated. Where possible, inert C&D materials will be re-used on site and sent to public fill reception facilities as a last resort.
- 9.3.6. As advised by project team, the quantities of C&D materials generated will be subject to further design development and contractor’s operation procedure/practices. The estimated quantities for all types of waste to be generated is summarized in the table below.

PRELIMINARY ENVIRONMENTAL REVIEW FOR PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN “GOVERNMENT, INSTITUTION OR COMMUNITY (1)” ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN “GOVERNMENT, INSTITUTION OR COMMUNITY” ZONE GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Table 9-1 Summary of Construction Waste Generated

Type of Waste	Quantity	Handling Arrangement and Outlets	Remark
Inert C&D Materials Delivered to Public Fill Reception Facilities ^[1]	14,205 m ³	- Delivered to the public fill reception facilities	With reference to “A guide for managing and minimizing building and demolition waste”, 0.238 m³/m² GFA for demolition waste and 0.498 m³/m² GFA for construction. According to Hong Kong Waste Statistics for 2023, a total of 90% of construction waste generated will be delivered to public fill reception facilities. (65% of C&D waste was delivered to public fill reception facilities, while 25% of C&D waste was transferred to other projects for direct use) Tentative GFA: 31,694m² C&D Waste Generation Index: 0.498 per m² GFA (Note: Only construction waste is considered; the Application Site is a vacant land) Total Quantity = 31,694m² × 0.498m³/m² × 90%
Reused Inert C&D Materials (or Public Fills) For Onsite Reused	2,841 m ³	- Recycled as much as practicable for onsite re-usage	Assumed a reusable rate of 20%
Non-inert C&D Materials (or C&D waste) Generated ^[2]	713m ³	- Recycled and reused as much as practicable - Disposed of at the landfill	Tentative GFA: 31,694m² With reference to “A guide for managing and minimizing building and demolition waste”, for Housing Projects: 0.250m³/m² GFA According to Hong Kong Waste Statistics for 2023, 9% of C&D waste was disposed of at landfill. Non-inert C&D Materials Waste Index: 0.25 per m² GFA Total Quantity = 31,694m² × 0.25m³/m² × 9%
Chemical Waste ^[3]	few cubic metres per month	- Collected by licensed collector for the disposal of at licensed treatment facilities (e.g. Chemical Waste Treatment Centre (CWTC) at Tsing Yi)	Advised by project team
General Refuse from Workforce ^[4]	74 kg/day	- Recycled as much as Practicable - Disposed of at the landfill	Assumed maximum of 135 workers working simultaneously at the Application Site. According to Hong Kong Waste Statistics for 2023, the generation rate of industrial and commercial waste is 0.55 kg/person/day

Note:

[1] Includes, but not limited to excavated soil, broken concrete, granular materials etc.

[2] Includes, but not limited to, bamboo, timber, paper and plastic, etc.

[3] Includes, but not limited to, scrap batteries or acid/alkali from construction plant maintenance activities; used paints, engine oils, hydraulic fluids and waste fuel, etc.

[4] Includes, but not limited to, food waste, aluminum cans, waste paper, etc.

- 9.3.7. In this project, it is estimated that the total amount of 713 m³ of non-inert C&D materials will be generated and imported fill is not required for the Project works during construction stage. The Contractor shall develop and implement their Environmental Plan (EMP) and Waste Management Plan (which is part of the EMP) to control any potential adverse impact associated with the construction waste as far as possible.

Marine Sediment

- 9.3.8. The Application Site is situated on reclaimed land within the Designated Area of Northshore Lantau, where complex geological conditions are known to exist. Based on the existing borehole logs from the vicinity of the site have been retrieved from the CEDD Digital Geotechnical Information, marine deposits and in situ completely decomposed rock are present at depths ranging from 20 to 50 m. Below this layer, slightly to moderately decomposed igneous rocks are present, predominantly granite with minor Feldsparphyric rhyolite, at depths between 4 to 20 m (approximately -20 to -50 mPD). No metamorphic rocks, such as marble, were identified in these boreholes.
- 9.3.9. As confirmed with the project team, the proposed foundation works will be limited to approximately 4.5m and will not disturb the underlying marine sediment layer during construction phase of the Project.

9.4. Mitigation Measures to Control Construction Waste Impact

General

- 9.4.1. All C&D materials shall be sorted on-site into inert and non-inert C&D waste materials, where the materials can be recycled or reused shall be re-used on site as far as possible. Inert C&D materials shall be delivered to the public fill reception facilities as far as practicable. Any remaining non-inert C&D materials shall be delivered to sorting facilities and landfills. In order to facilitate process of transferring the construction waste to Government waste disposal facilities (e.g. public fill reception facilities, sorting facilities and landfills), waste sorting and segregation shall be carried out on site in accordance with the following categories:

-
- Hard rock and large broken concrete suitable for reuse on the Site or recycling;
 - Metals (i.e. aluminium can, steel metal, ferrous metal, and non-ferrous metal);
 - Plastic (i.e. plastic bag, plastic bottle, plastic packaging, etc.)
 - Paper;
 - Chemical waste;
 - Materials suitable for disposal at public fill reception facilities, sorting facilities and landfills

9.4.2. In addition, the Contractor is required to implement good EMP and practices on handling and disposal of waste, including but not limited to,

- Handle, store and dispose of all wastes in accordance with the Waste Disposal Ordinance;
- Handle, store and dispose of chemical waste in accordance with the EPD recommended Codes of Practice on the Packaging, Labelling & Storage of Chemical Wastes and Waste Disposal (Chemical Waste) (General) Regulation under the Waste Disposal Ordinance;
- Store general refuse in enclosed bins or compaction units separate from C&D materials and chemical wastes. A reputable waste collector should be employed to collect and dispose of general refuse from the site on a daily or every second day basis;
- Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste;
- Waste storage areas within the Application Site should be well maintained and cleaned regularly to prevent cross-contamination;
- Cover trucks with tarpaulin and transporting waste in enclosed containers to minimize windblown litter and dust during transportation;
- Maintain temporary stockpiles and ensure with well cover to prevent inclement weather (e.g. heavy rain).

9.4.3. To clearly spell out the types and amount of waste generated and its associated mitigation measures, a Waste Management Plan (WMP), as part of EMP should be prepared in accordance with ETWB TC(W) No.19/2005 and submitted to the Project / Site Engineer for approval. The recommended mitigation measures should form the basis of the WMP.

C&D Materials/Waste

9.4.4. It is presently anticipated that most of the C&D materials/waste will need to be transported off-site for re-use, recycling and disposal by trucks. With the implementation of the recommended dust and noise control / mitigation measures presented in the air quality and noise sections, such as covering and stockpiling materials to avoid dust and other nuisance impacts from truck movements, these secondary environmental factors are not expected to be a concern.

9.4.5. C&D materials should be segregated from other wastes to avoid contamination and ensure acceptability at Public Fill Reception Facilities areas or reclamation site. The following mitigation measures should be implemented in handling the excavated and C&D materials:

- Maintain temporary stockpiles and ensure with well cover to prevent inclement weather;
- Reuse excavated fill material for backfilling;
- Carry out on-site sorting; and
- According to the DEVB TC(W) No. 6/2010, implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials/waste is properly documented and verified.

Chemical Waste

9.4.6. If chemical wastes are produced at the construction site, the Contractor would be required to register with the EPD as a Chemical Waste Producer and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Good quality containers compatible with the chemical wastes should be used. Appropriate labels should be securely attached on each chemical waste container indicating the corresponding chemical characteristics of the chemical waste, such as explosives, flammable, oxidizing, irritant, toxic, harmful, corrosive, etc. Chemical waste should be collected by a licensed collector and to be disposed of at a licensed chemical waste treatment and disposal facility in accordance with the Waste Disposal (Chemical Waste) (General) Regulation.

9.4.7. Mitigation measures will also include the provision of protective gloves and clothing to site workers, use of bulk earth movers to remove contaminated materials to prevent any possible human contact, provision of adequate washing facilities and the use of licensed chemical waste collectors to ensure legal disposal of waste, etc.

General Refuse

9.4.8. Recycling bins should also be placed to encourage recycling. Enclosed and covered areas should be provided for general refuse collection to prevent waste materials from being blown around by the wind, flushed or leached into nearby waters, or creating an odour nuisance or pest and vermin problem. Also, routine cleaning for these areas should be implemented to keep areas clean, so that intentional or accidental release into the surrounding environment does not occur without proper management.

9.4.9. With the implementation of good waste management practices at the Site, and the abovementioned mitigation measures at the Application Site, adverse environmental impacts are not expected to arise from the storage, handling and transportation of C&D materials, chemical waste and general refuse generated during construction phase.

9.5. Potential Impacts and Mitigation Measures during Operation Phase

General Refuse

9.5.1. The major type of waste generated from the operation phase is general refuse. With reference to *Monitoring of Solid Waste in Hong Kong - Waste Statistics for 2023* by EPD, the disposal rate of domestic waste was 0.89 kg/person/day. The estimated quantities of general refuse anticipated will be 1,038.6 kg/day (0.89 kg/person/day x 1,167 residents).

9.5.2. General refuse will be removed on regular basis to minimize odour, pest and litter impacts. To promote the recycling of waste paper, aluminium cans and plastic bottles, the 3-coloured waste separation bins for the collection of recyclable municipal waste will be clearly labelled and placed at convenient locations. The recyclable materials will then be collected by reliable waste recycling agents on a regular basis. Waste generated will be disposed of at government waste disposal facilities such as WENT Landfill in Nim Man. Hence, adverse waste management implication is not anticipated during the operation phase.

9.5.3. Food waste is the main source of generating unpleasant odour and causing environmental hygiene concerns during operation phase. The Project Team will explore the feasibility of providing separate recycling bins for food waste to facilitate the recycling of food waste on-site or off-site in a hygienic manner in detailed design stage. The collected food waste will be disposed of at Organic Resources Recovery Centre (ORRC).

9.6. Conclusion

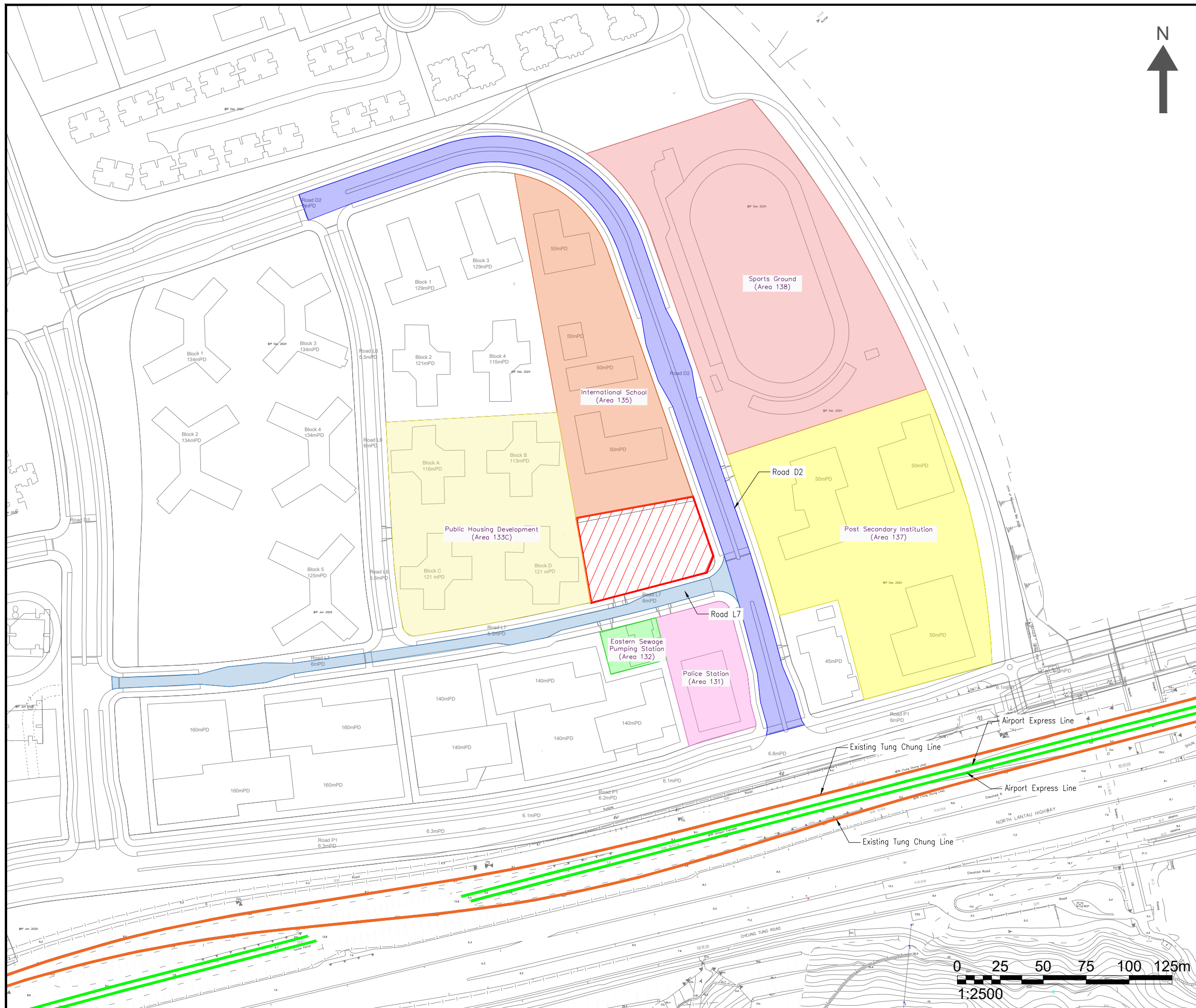
- 9.6.1. During the construction phase, the major waste types generated by the construction activities for this project will include C&D materials from the construction of foundation works, substructure and superstructures work; chemical waste from maintenance and servicing of construction site and equipment; general refuse from the workforce. Provided that all these identified wastes are reused and recycled if appropriate, handled, transported and disposed of in strict accordance with the relevant legislative and recommended requirements and that the recommended good site practices and mitigation measures are properly implemented, no adverse environmental impact is expected during the construction phase.
- 9.6.2. During the operation phase, the key waste types generated will be general refuse. Provided that all these wastes are reused and recycled if appropriate, handled, transported and disposed of in strict accordance with the relevant legislative requirements and the recommended mitigation measures are properly implemented, no adverse environmental impact is expected during the operation phase.

10. Conclusion

- 10.1.1. The potential environmental noise impacts from nearby road traffic, railway noise, aircraft noise, helicopter noise and fixed noise sources on the proposed development have been evaluated.
- 10.1.2. For traffic noise impact assessment, all NSRs in the Proposed development will comply with the relevant traffic noise standard stipulated in HKPSG with the implementation of mitigation measures, including architectural fins and BAW. The Proposed development would not subject to significant adverse traffic noise impact.
- 10.1.3. Potential railway noise impact on the Proposed development has been assessed and the Proposed development would not subject to significant adverse railway noise impact on the current scheme.
- 10.1.4. Potential aircraft and helicopter noise impacts on the Proposed Development have been assessed. Given the large separation distance between the noise sources and the Proposed Development, no significant adverse aircraft and helicopter noise impacts are anticipated under the current scheme.
- 10.1.5. Fixed noise impact assessment has been carried out for the Proposed development. The results of the assessment have indicated that the predicted fixed noise levels of all NSRs would comply with the fixed noise standard under the Noise Control Ordinance.
- 10.1.6. The current scheme has allowed adequate setback distance for all air sensitive uses from the major roads to meet the minimum requirement as stipulated in HKPSG. There is also no chimney found within 500m of the study area. Fugitive dust due to construction works and gaseous emission from construction equipment would make insignificant air quality impacts to the nearby air sensitive receivers, with the implementation of air quality control measures and good site practice as stipulated under Air Pollution Control (Construction Dust) Regulation, Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation and Air Pollution Control (Fuel Restriction) Regulations. Hence, no adverse air quality impact is anticipated.
- 10.1.7. For water quality assessment, the Project would not involve any construction works at/within the above identified water bodies. Therefore, it is not expected to be affected during the construction of the Project.

- 10.1.8. The Application Site is currently situated on reclaimed land with no existing vegetation. Based on the information gathered, no chemical manufacturing or dangerous goods storage was expected on the site, and the past and current uses are not considered potential hotspots. According to replies from HKSAR Departments, there are no records of chemical storage/spillage accidents, or submissions relating to land contamination at the Application Site. Thus, no contamination activities are anticipated for the past and current use and no potential sources and signs of contamination have been discovered. No land contamination impact is anticipated.
- 10.1.9. For waste management during construction phase, C&D waste will be properly sorted on-site into inert and non-inert waste for recycling and disposed of at designated facilities. Top priority should be given to waste avoidance, followed by minimization, reuse/recycling, treatment and disposal of waste as a last resort. During the operation phase, general refuse will be the major waste type. Recycling bins will be provided to promote separation of recyclables and will be collected regularly by recycling agents. The Project Team will explore feasibility of providing separate bins for food waste with disposal to the ORRC. Provided that all these wastes are reused and recycled if appropriate, handled, stored and disposed of in strict accordance with the relevant legislative requirements and the recommended mitigation measures are properly implemented, no adverse waste impact is anticipated during construction and operation phases.
- 10.1.10. It is concluded that there are no adverse environmental impacts on the Proposed development at Tung Chung Areas 134 and 135.

Figures



NOTES :



Subject Site

Consultant

**Allied Environmental Consultants Limited**

Project No. : 2240

Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT
RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED
QUARTERS) IN "GOVERNMENT, INSTITUTION OR
COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE
MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION
OR COMMUNITY" ZONE IN GOVERNMENT LAND AT
TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG,
LANTAU ISLAND

Drawing Title :
LOCATION OF APPLICATION SITE AND ITS ENVIRON

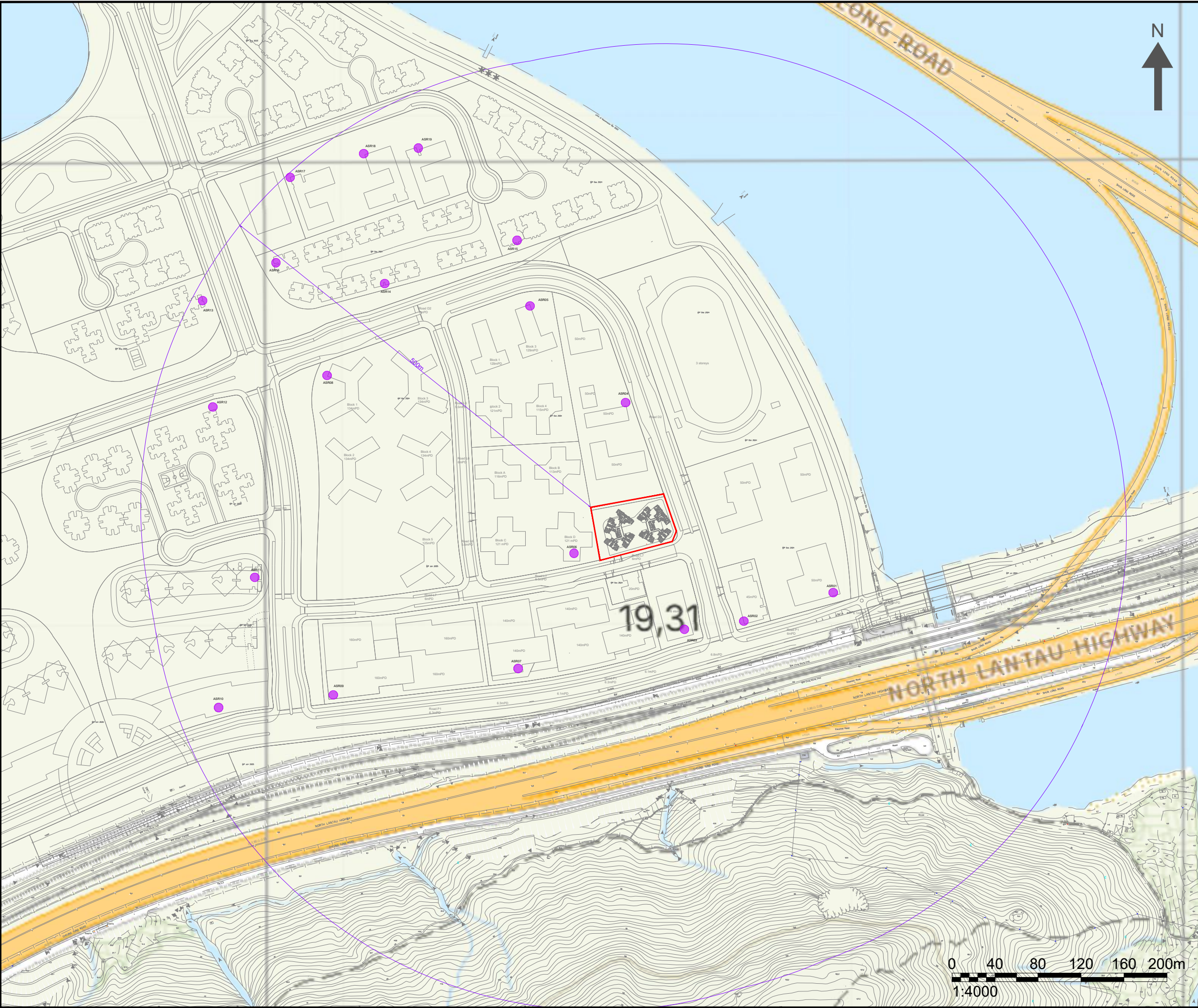
Drawing No :
FIGURE 3.1

Revision :
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Date :
AUG 2025

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NOTES :



Subject Site



500m assessment area



Air Sensitive Receiver (ASR)

Consultant



Allied Environmental Consultants Limited

Project No. : 2240

Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATION OF AIR SENSITIVE RECEIVERS (ASRs)

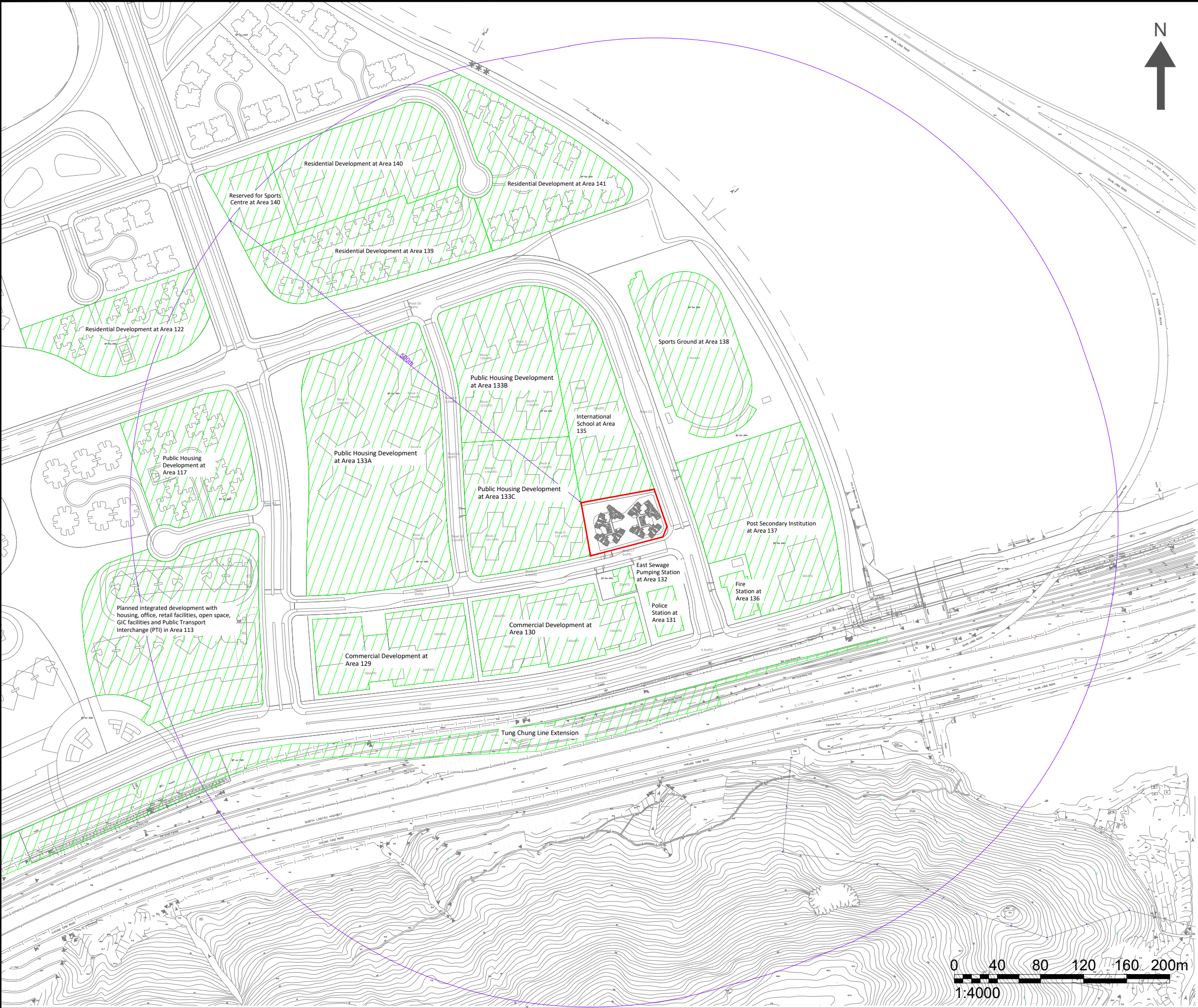
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FIGURE 5.1

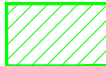
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- NOTES :
-  Subject Site
 -  Concurrent Projects
 -  500m assessment area

Consultant



Allied Environmental Consultants Limited

Project No. : 2240

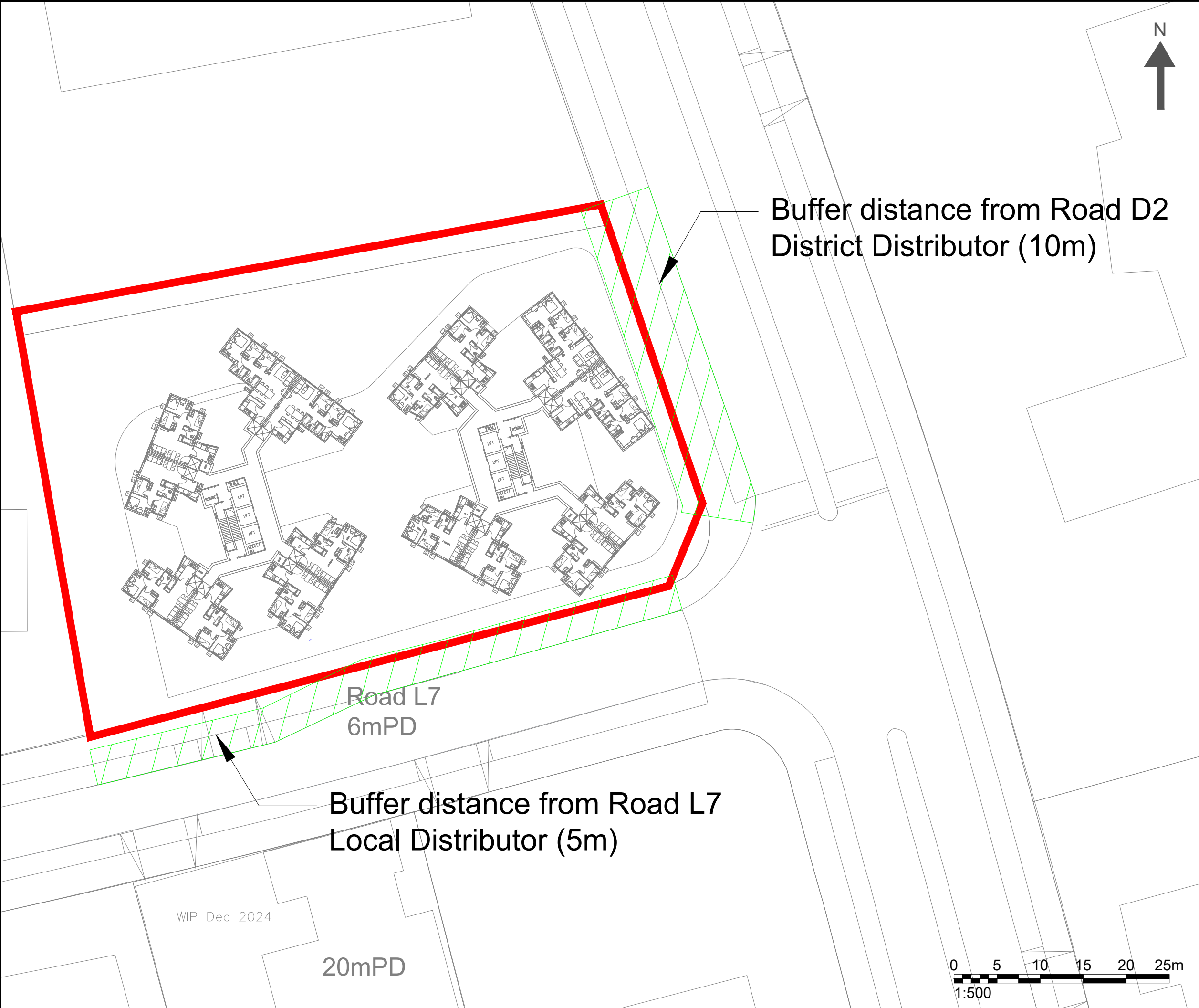
Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATION OF CONCURRENT PROJECTS

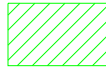
Drawing No : FIGURE 5.2	Revision : 1
Scale : AS SHOWN	Date : AUG 2025

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NOTES :

 Subject Site

 Buffer Distance of Adjacent Road

Consultant



AEC

Allied Environmental Consultants Limited

Project No. : 2240

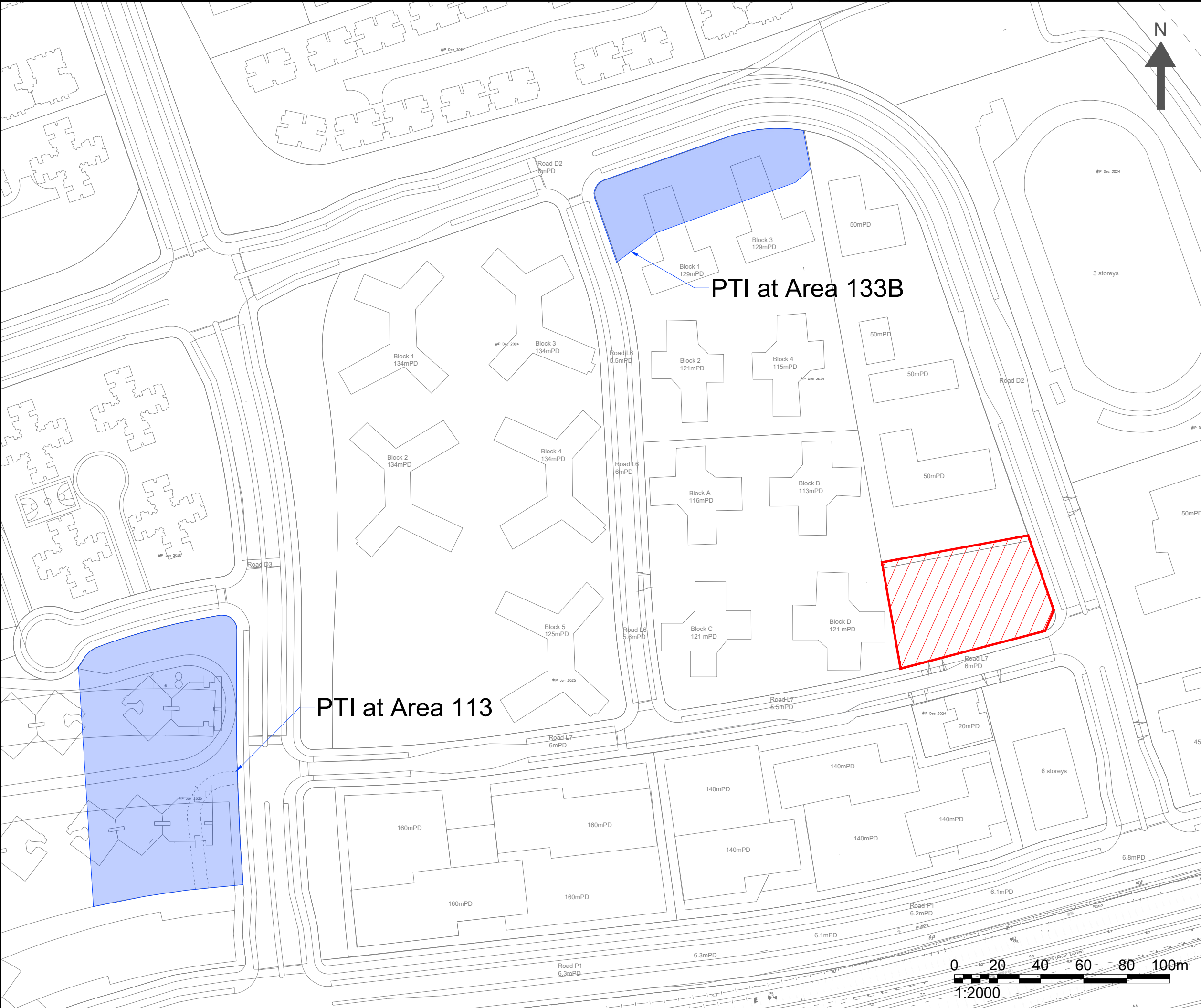
Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
BUFFER DISTANCE FROM NEARBY ROADS

Drawing No : FIGURE 5.3	Revision : 1
Scale : AS SHOWN	Date : AUG 2025

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NOTES :

Subject Site

Public Transport Interchange (PTI)

Consultant



AEC

Allied Environmental Consultants Limited

Project No. : 2240

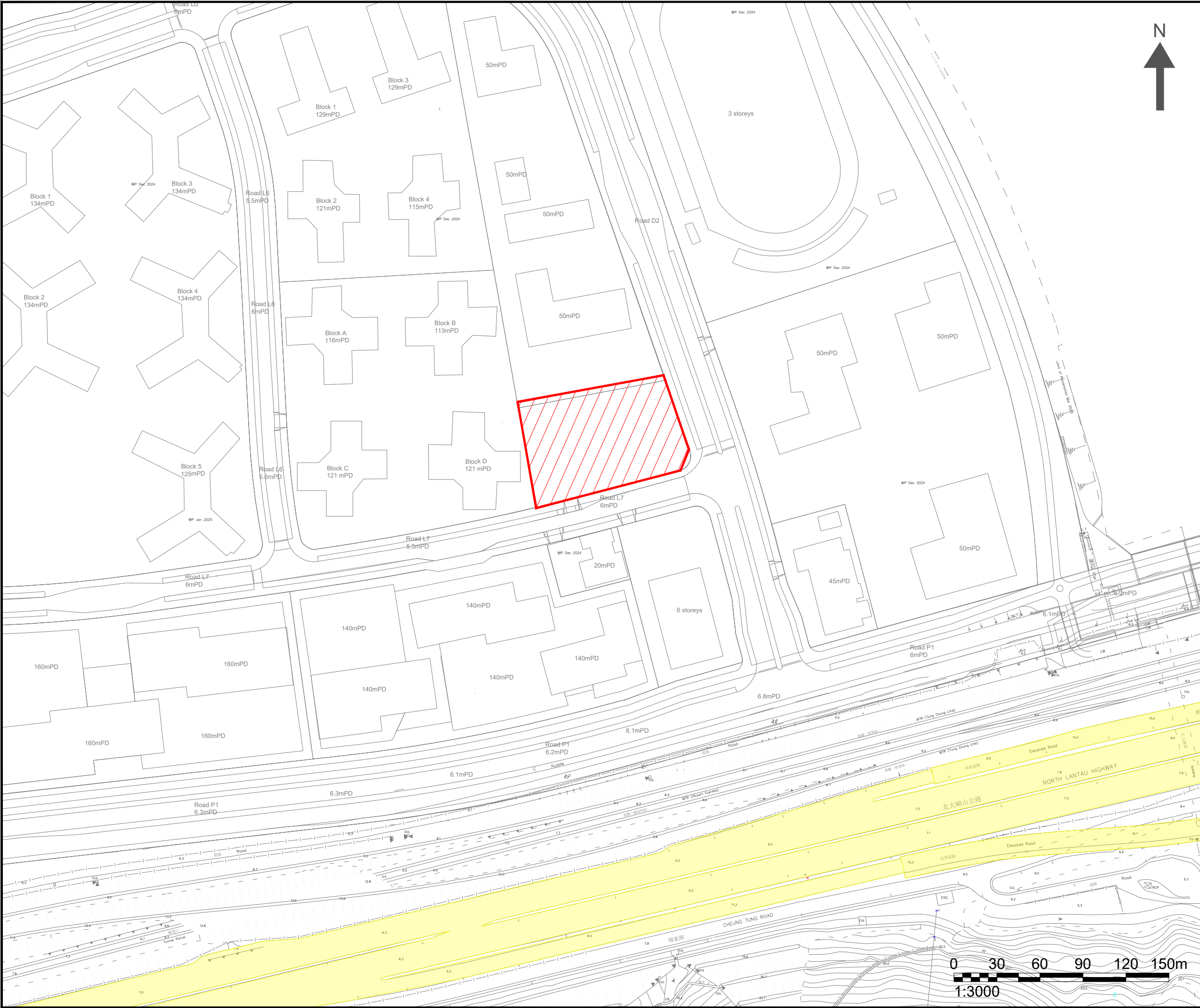
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Project :
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Drawing Title :
LOCATION OF PUBLIC TRANSPORT INTERCHANGE (PTI)

Drawing No : FIGURE 5.4	Revision : 0
Scale : AS SHOWN	Date : AUG 2025

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- NOTES :
-  Subject Site
 -  Low Noise Road Surfacing

Consultant



AEC

Allied Environmental Consultants Limited

Project No. : 2240

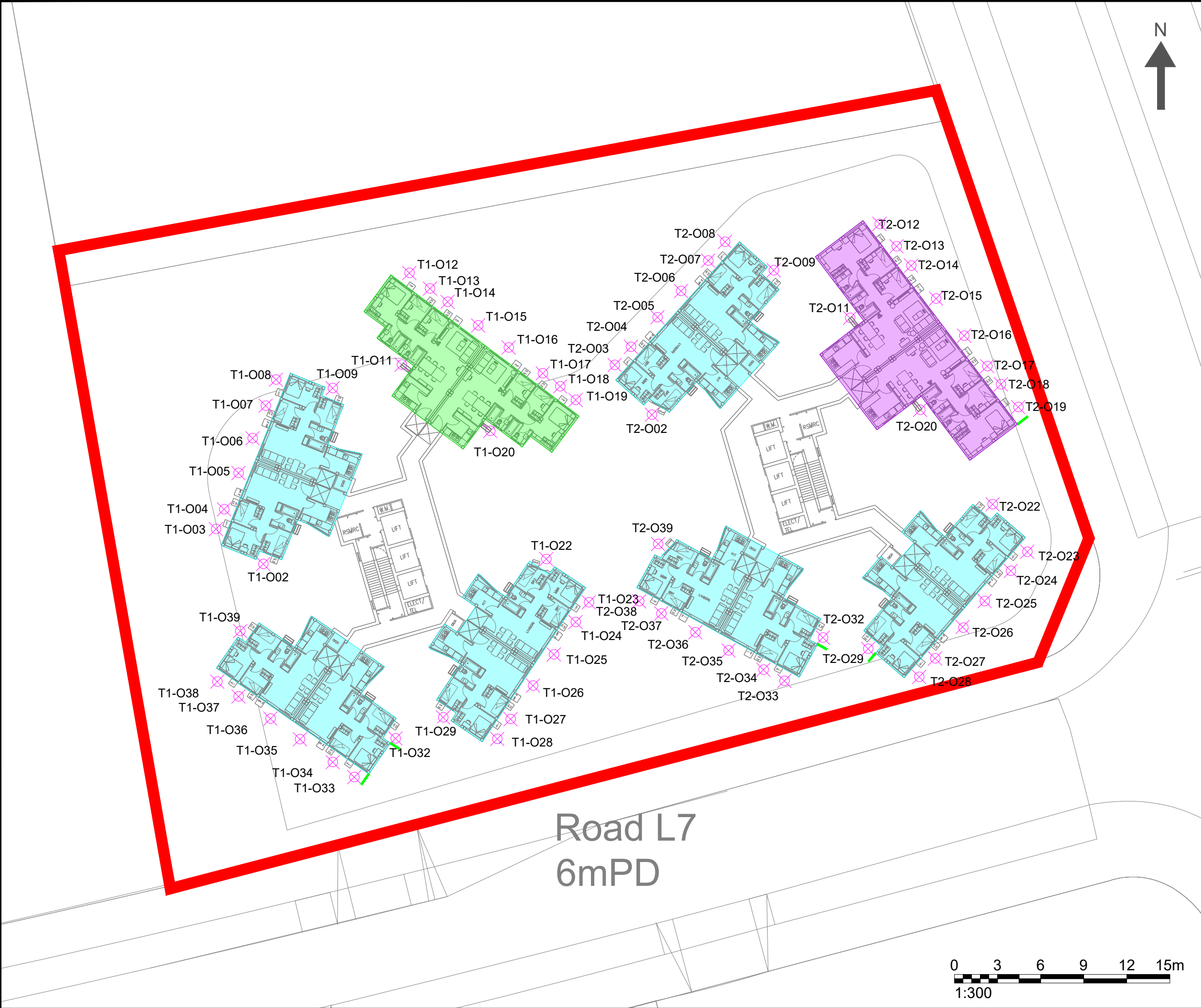
Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
EXISTING LOW NOISE ROAD SURFACING (LNRS) AT NORTH LANTAU HIGHWAY AND SHUN LONG ROAD

Drawing No : FIGURE 6.1	Revision : 0
Scale : AS SHOWN	Date : APRIL 2025

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NOTES :



Subject Site



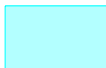
Noise Assessment Point (NAP)



Flat E



Flat F



Flat G

Consultant



Allied Environmental Consultants Limited

Project No. : 2240

Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATIONS OF NOISE ASSESSMENT POINTS

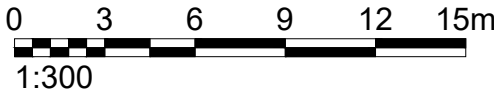
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FIGURE 6.2

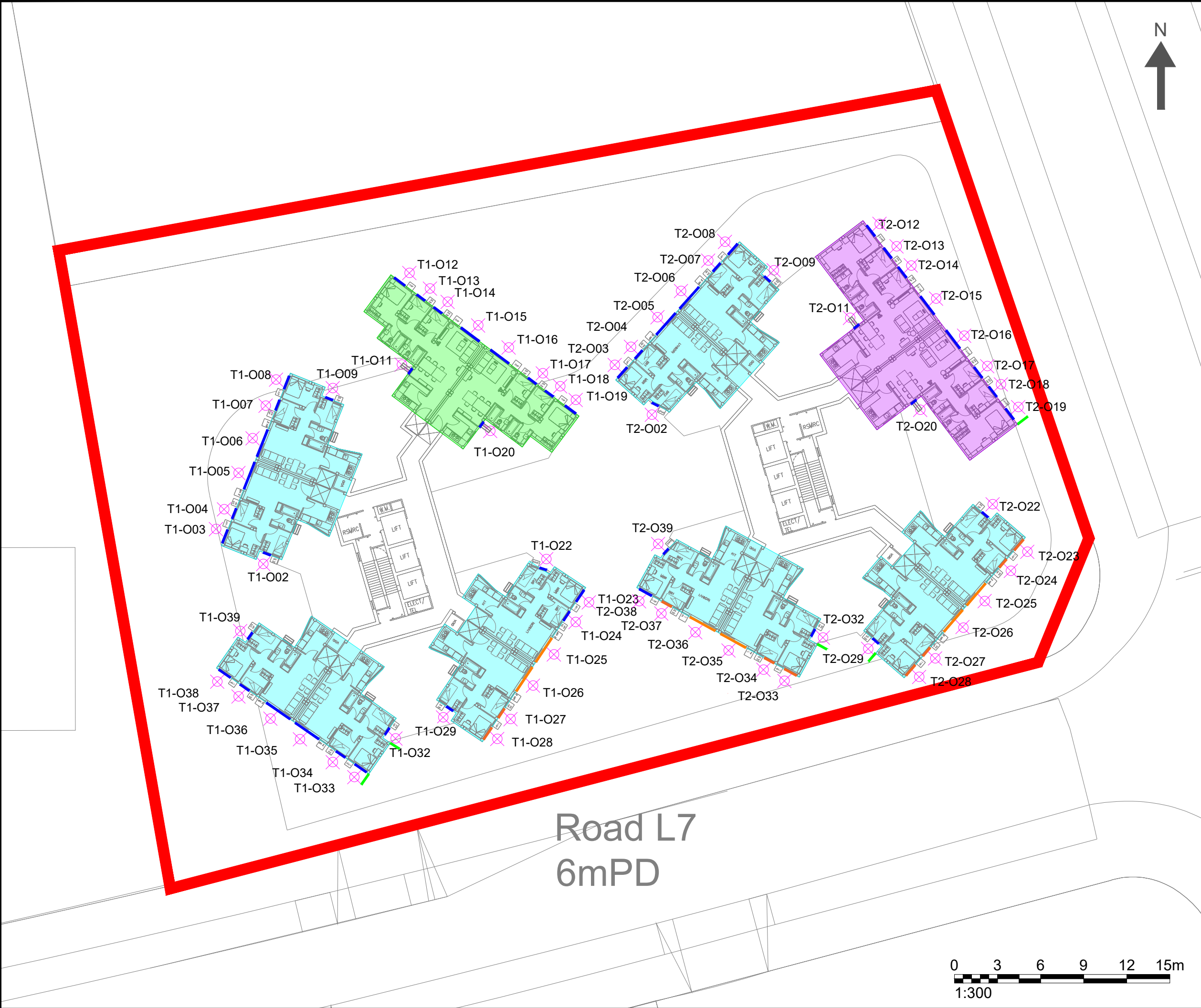
Revision :
1

Scale :
AS SHOWN

Date :
AUGUST 2025

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NOTES :

- Subject Site
- Noise Assessment Point (NAP)
- Architectural fins
- Acoustic Window (Baffle Type)
- Openable Window
- Flat E
- Flat F
- Flat G

Consultant



Allied Environmental Consultants Limited

Project No. : 2240

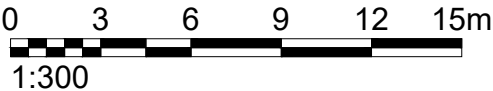
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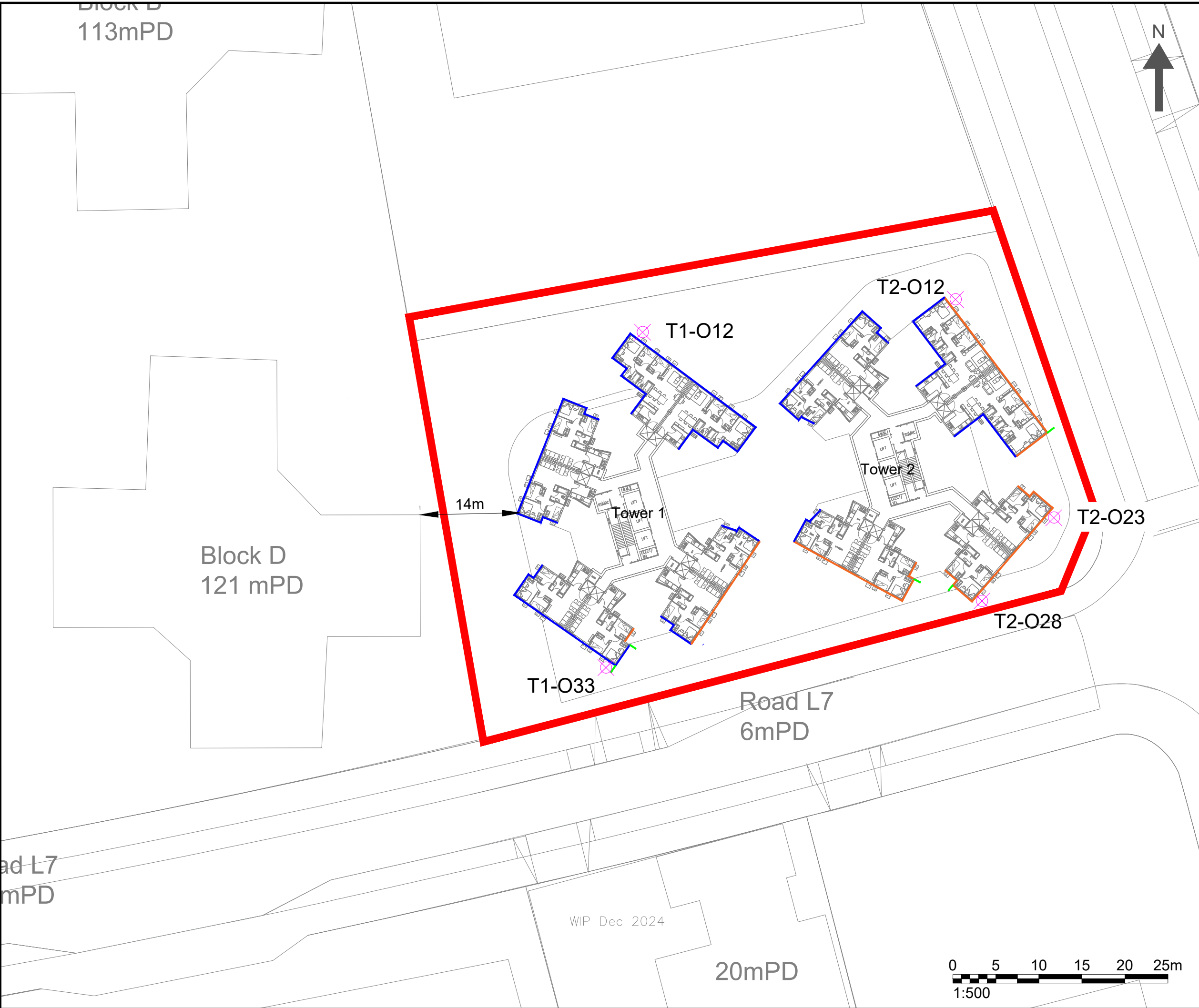
Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATIONS OF ARCHITECTURAL FINS AND BAW

Drawing No : FIGURE 6.3	Revision : 1
Scale : AS SHOWN	Date : AUGUST 2025

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- NOTES :
- Subject Site
 - Noise Sensitive Receiver (NSR)
 - Facade with ASR "B" rating
 - Facade with ASR "C" rating
 - Architectural fins

Consultant



Allied Environmental Consultants Limited

Project No. : 2240

Drawing By : CC

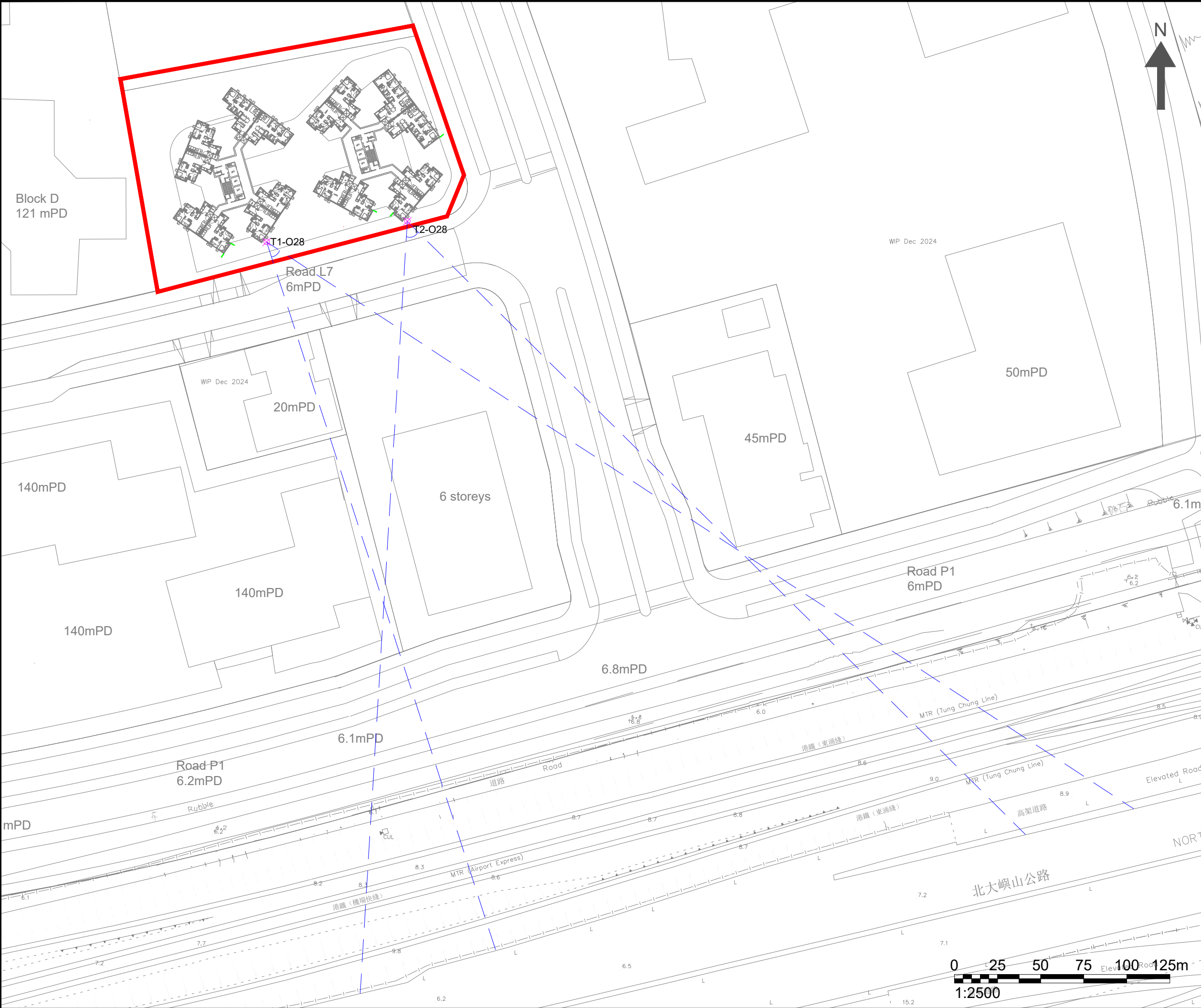
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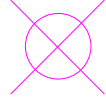
Drawing Title :
ASR RATINGS OF PROPOSED DEVELOPMENT FOR TOWER 1 AND TOWER 2

Drawing No : FIGURE 6.4	Revision : 0
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Scale : AS SHOWN	Date : APRIL 2025
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- NOTES :
-  Subject Site
 -  Noise Sensitive Receiver (NSR)
 -  Architectural fins

Consultant



Allied Environmental Consultants Limited

Project No. : 2240

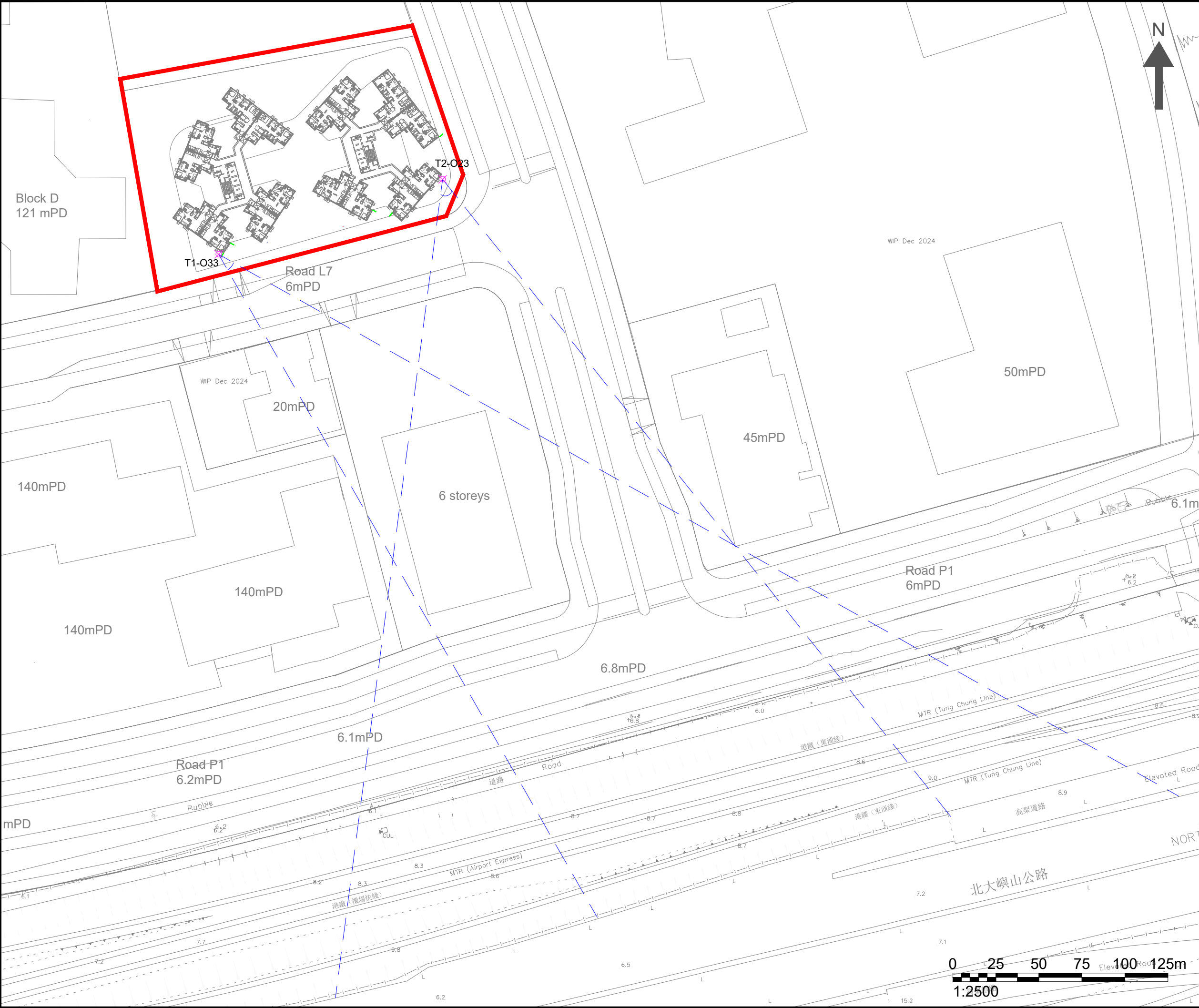
Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
ASR RATINGS OF PROPOSED DEVELOPMENT FOR TOWER 1 AND TOWER 2

Drawing No : FIGURE 6.4a	Revision : 1
Scale : AS SHOWN	Date : AUG 2025

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- NOTES :
- Subject Site
 - Noise Sensitive Receiver (NSR)
 - Architectural fins

Consultant



Allied Environmental Consultants Limited

Project No. : 2240

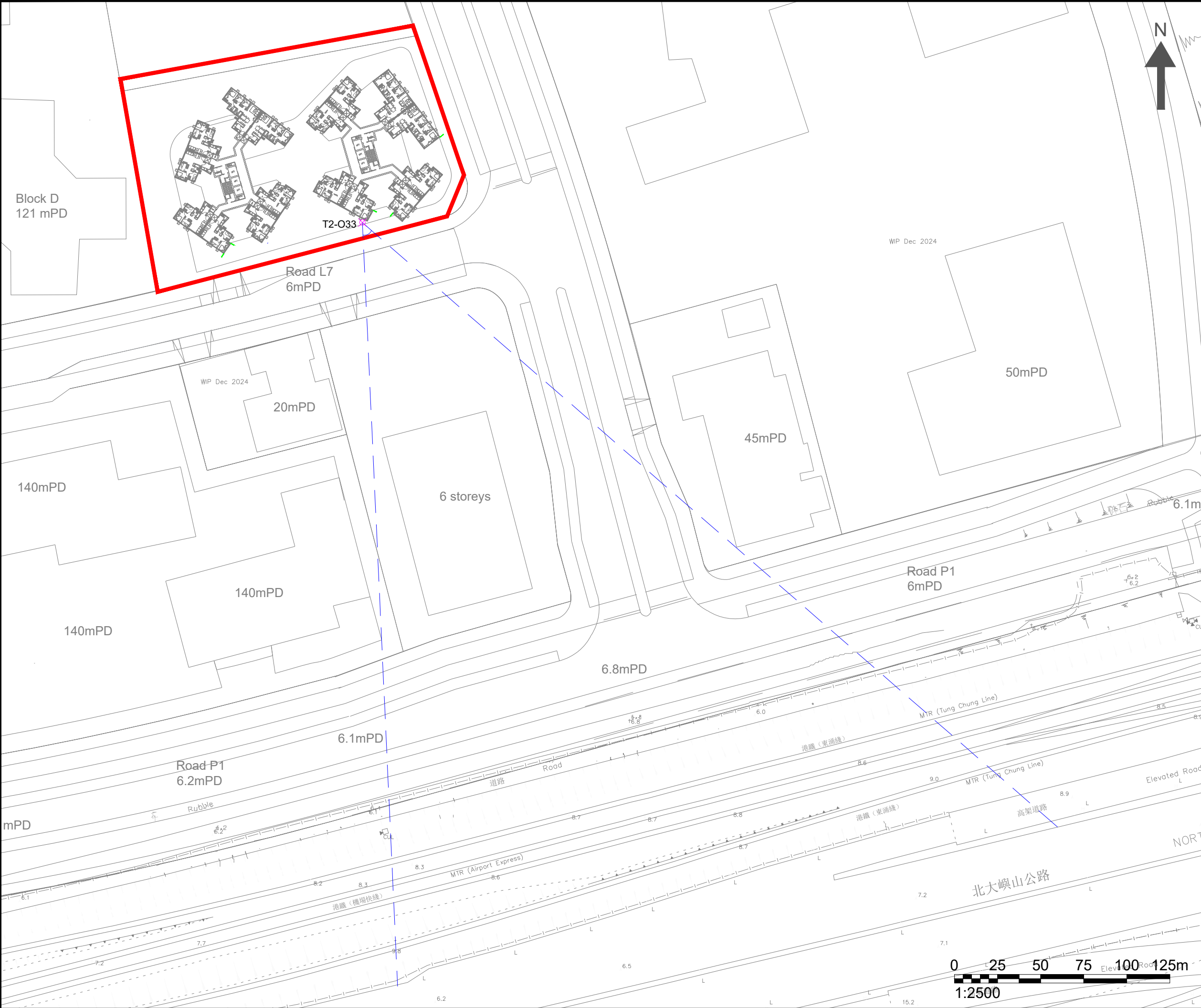
Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
ASR RATINGS OF PROPOSED DEVELOPMENT FOR TOWER 1 AND TOWER 2

Drawing No : FIGURE 6.4b	Revision : 1
Scale : AS SHOWN	Date : AUG 2025

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- NOTES :
- Subject Site
 - Noise Sensitive Receiver (NSR)
 - Architectural fins

Consultant

Allied Environmental Consultants Limited

Project No. : 2240

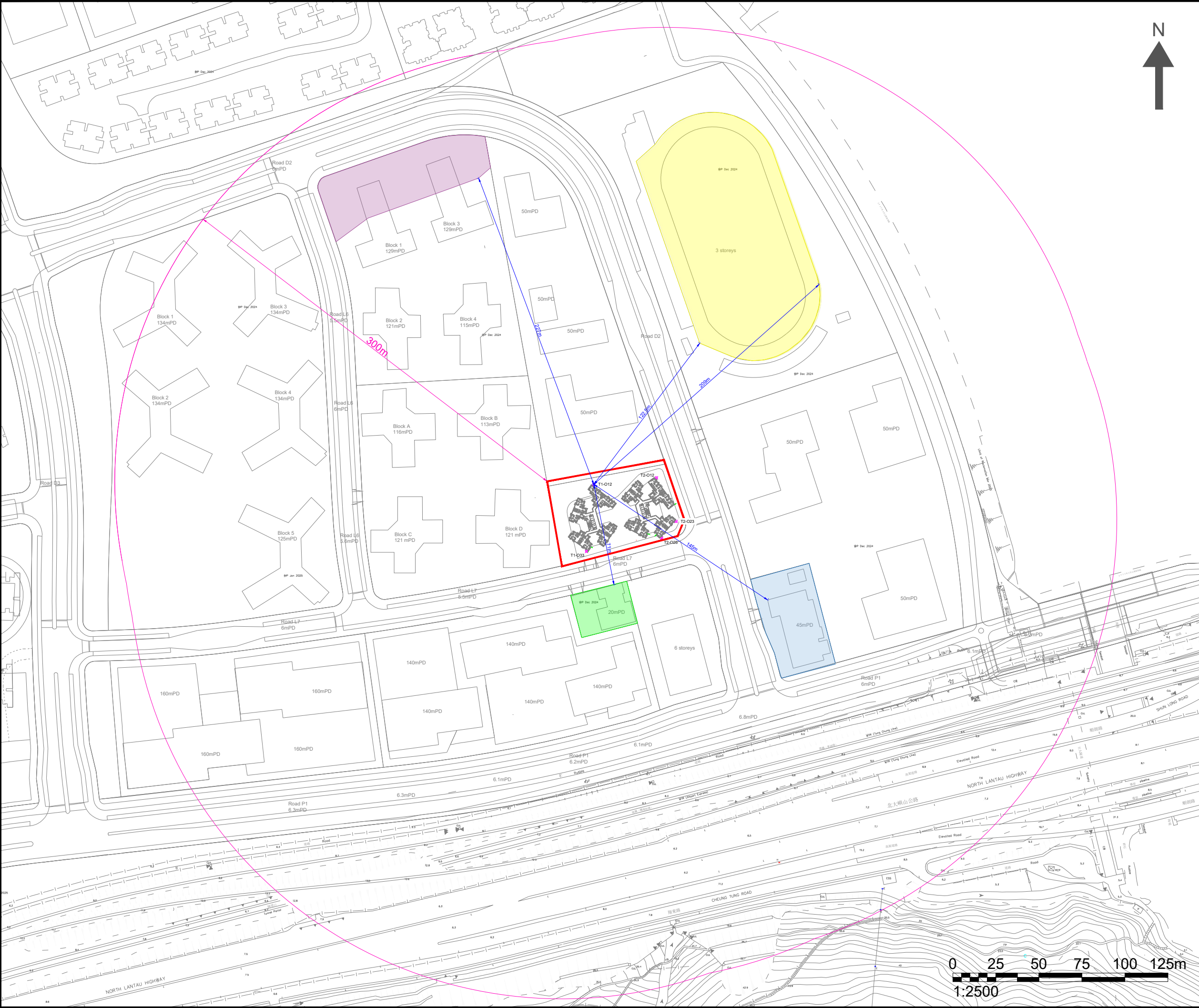
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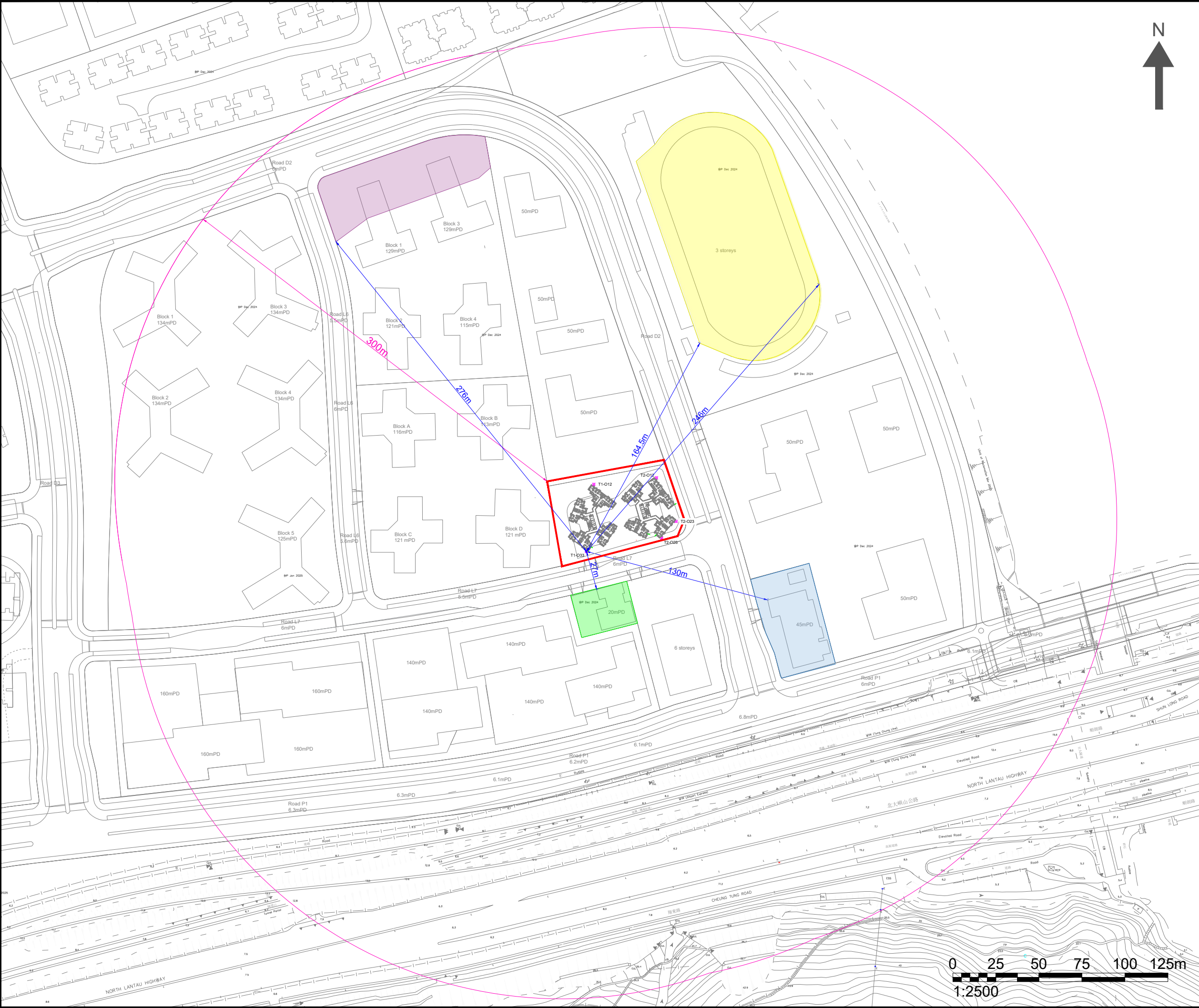
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PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

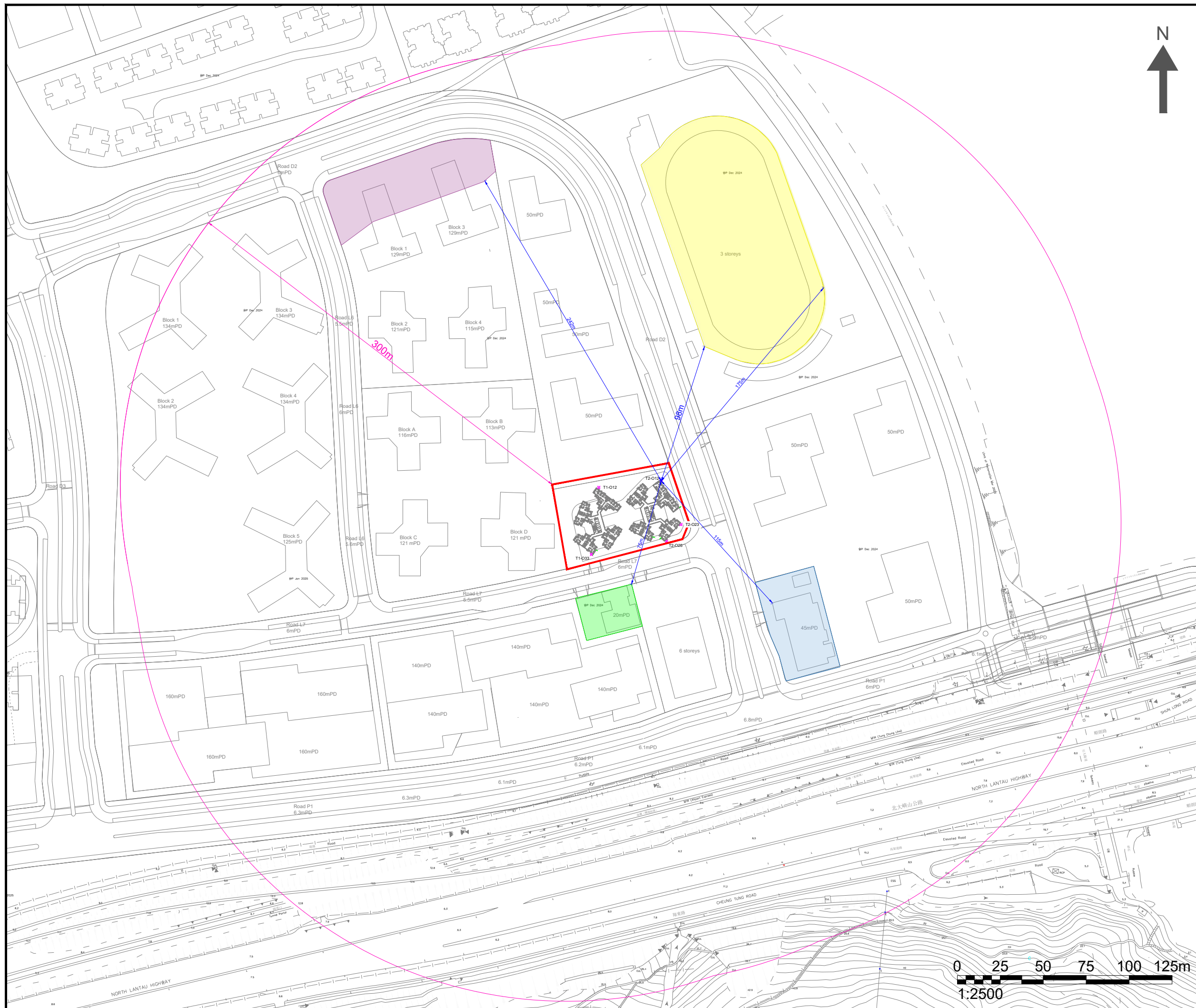
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ASR RATINGS OF PROPOSED DEVELOPMENT FOR TOWER 1 AND TOWER 2

Drawing No : FIGURE 6.4c	Revision : 1
Scale : AS SHOWN	Date : AUG 2025

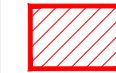
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NOTES :



Subject Site



300m assessment area

Sports Ground (Area 138)



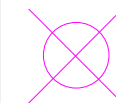
Fire Station (Area 136)



Eastern Sewage Pumping
Station (Area 132)



Public Transport
Interchange (PT1)
(Area 133B)



Noise Sensitive Receiver
(NSR)



- Architectural fins

Consultant

**Allied Environmental Consultants Limited**

Project No. : 2240

Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT
RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED
QUARTERS) IN "GOVERNMENT, INSTITUTION OR
COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE
MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION
OR COMMUNITY" ZONE IN GOVERNMENT LAND AT
TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG,
LANTAU ISLAND

Drawing Title :
LOCATION OF PLANNED FIXED NOISE SOURCES

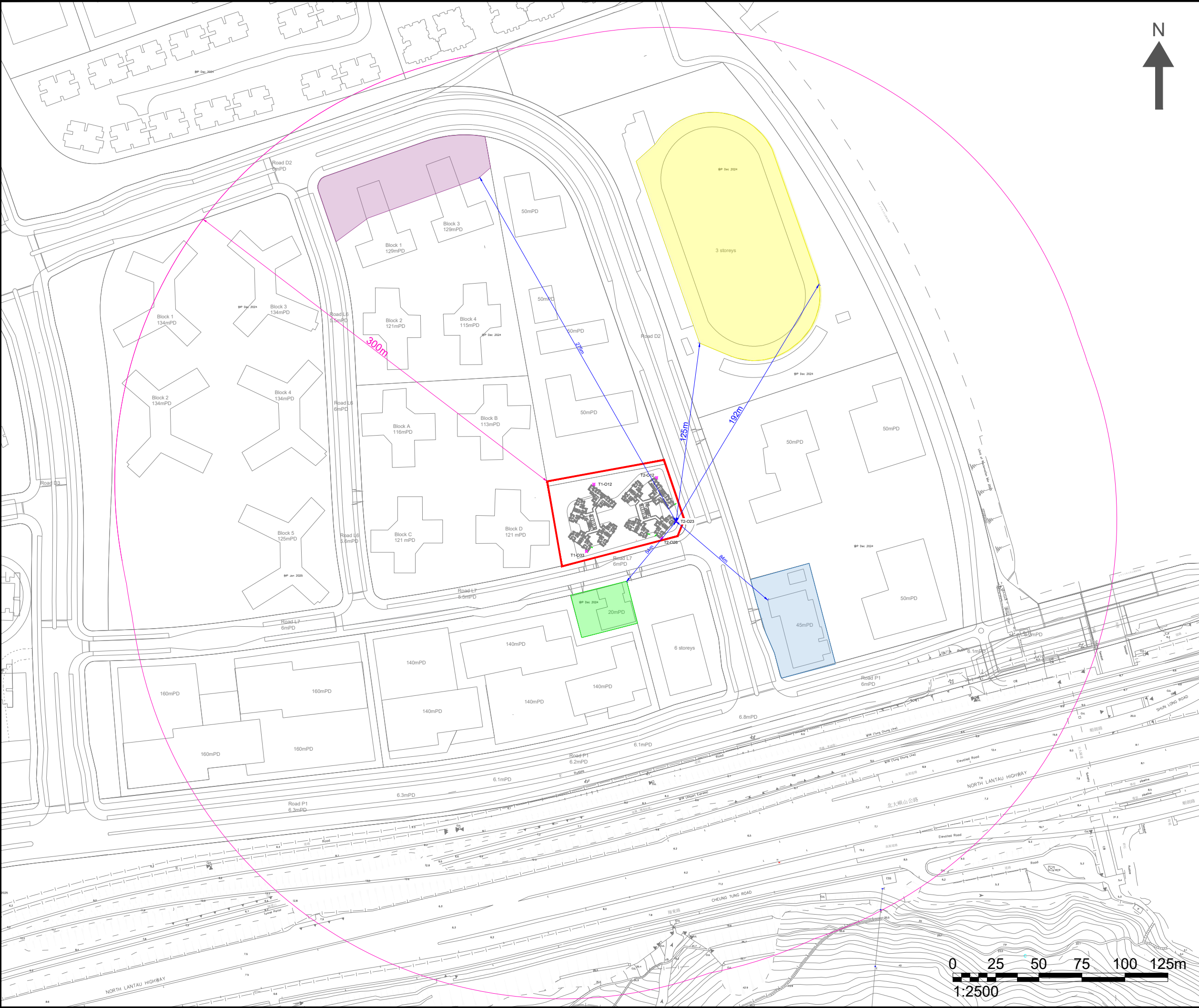
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FIGURE 6.5c

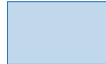
Revision :
1

Scale :
AS SHOWN

Date :
AUG 2025

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- NOTES :
-  Subject Site
 -  300m assessment area
 -  Sports Ground (Area 138)
 -  Fire Station (Area 136)
 -  Eastern Sewage Pumping Station (Area 132)
 -  Public Transport Interchange (PT1) (Area 133B)
 -  Noise Sensitive Receiver (NSR)
 -  Architectural fins

Consultant



Allied Environmental Consultants Limited

Project No. : 2240

Drawing By : CC

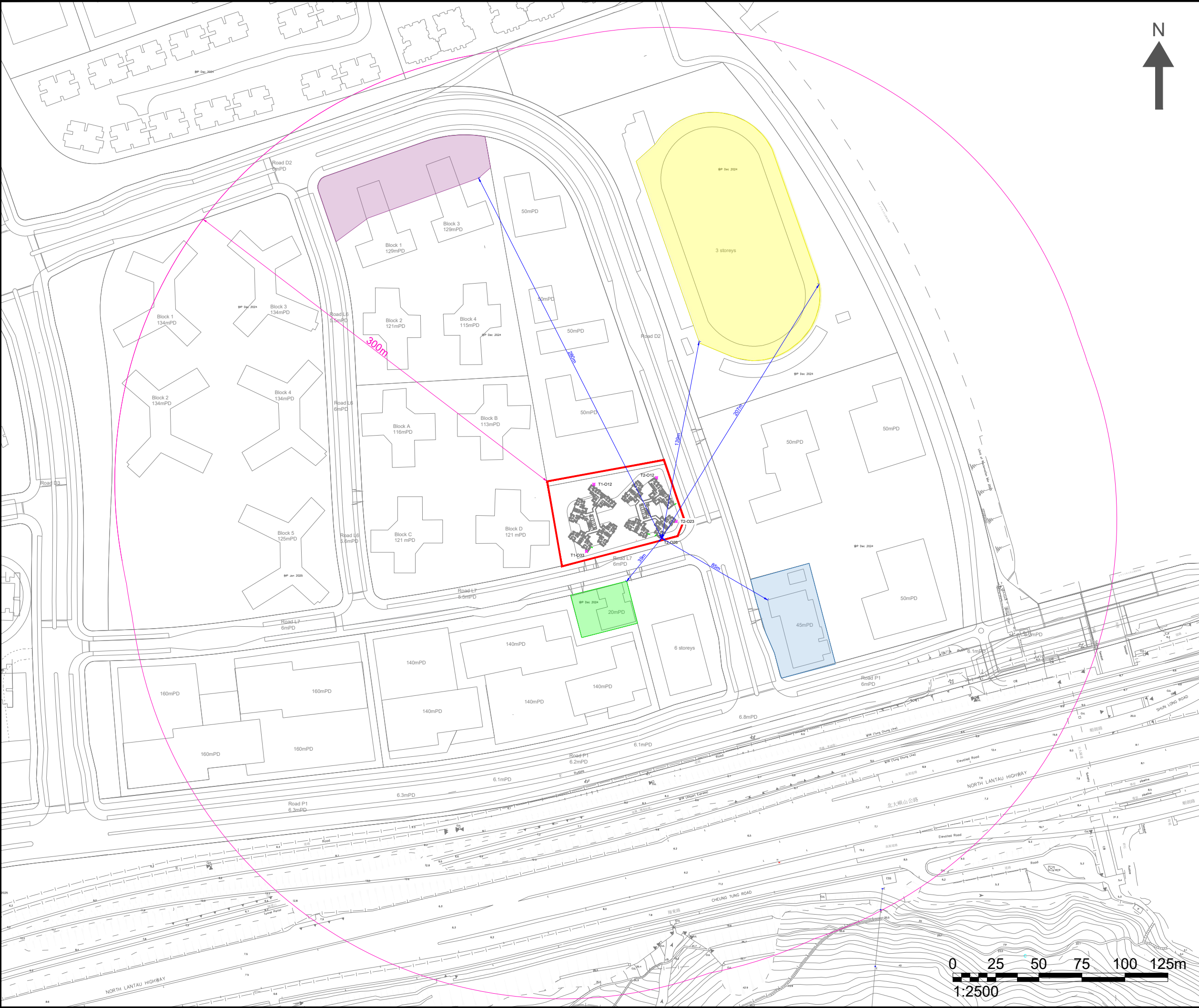
Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

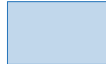
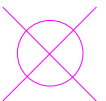
Drawing Title :
LOCATION OF PLANNED FIXED NOISE SOURCES

Drawing No : FIGURE 6.5d	Revision : 1
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Scale : AS SHOWN	Date : AUG 2025
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- NOTES :
-  Subject Site
 -  300m assessment area
 -  Sports Ground (Area 138)
 -  Fire Station (Area 136)
 -  Eastern Sewage Pumping Station (Area 132)
 -  Public Transport Interchange (PT1) (Area 133B)
 -  Noise Sensitive Receiver (NSR)
 -  Architectural fins

Consultant



Allied Environmental Consultants Limited

Project No. : 2240

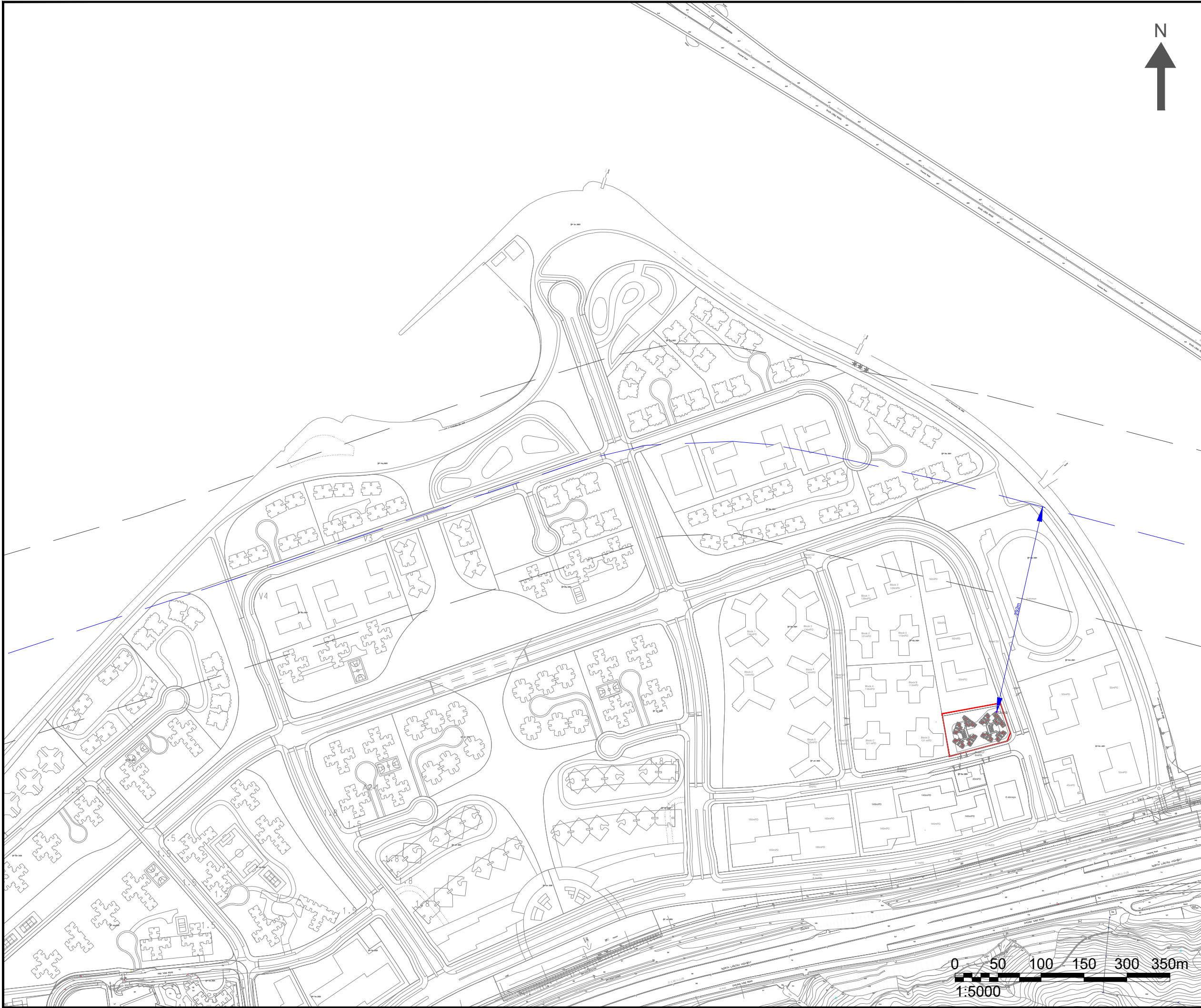
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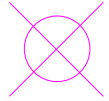
Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATION OF PLANNED FIXED NOISE SOURCES

Drawing No : FIGURE 6.5e	Revision : 1
Scale : AS SHOWN	Date : AUG 2025

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- NOTES :
-  Subject Site
 -  Noise Sensitive Receiver (NSR)
 -  Assessment Area
 -  Helicopter Flight Path

Consultant



Allied Environmental Consultants Limited

Project No. : 2240

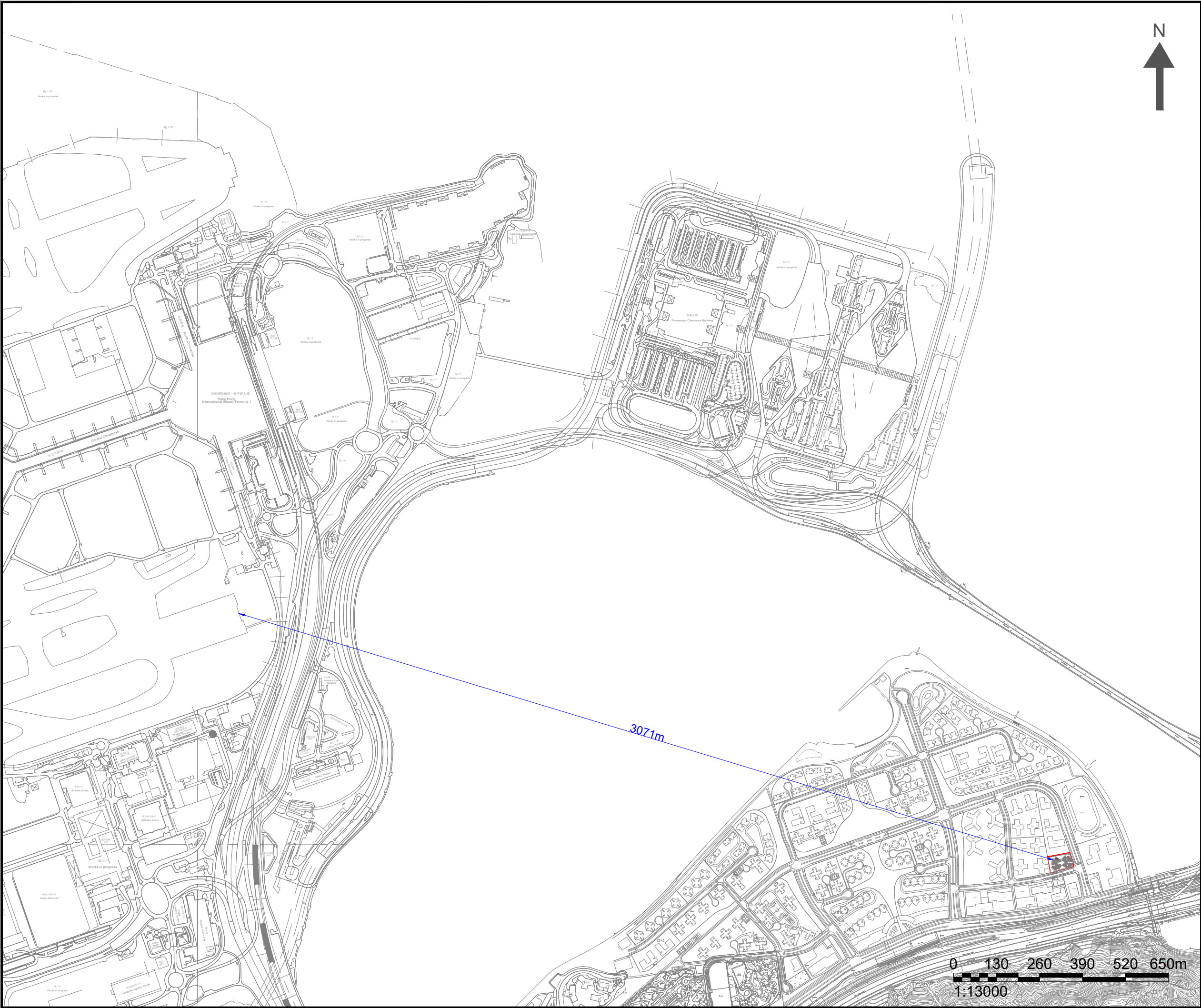
Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATION OF NEAREST NSR TO HELICOPTER FLIGHT PATH

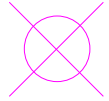
Drawing No : FIGURE 6.6	Revision : 0
Scale : AS SHOWN	Date : AUG 2025

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NOTES :

 Subject Site

 Noise Sensitive Receiver (NSR)

Consultant



AEC

Allied Environmental Consultants Limited

Project No. : 2240

Drawing By : CC

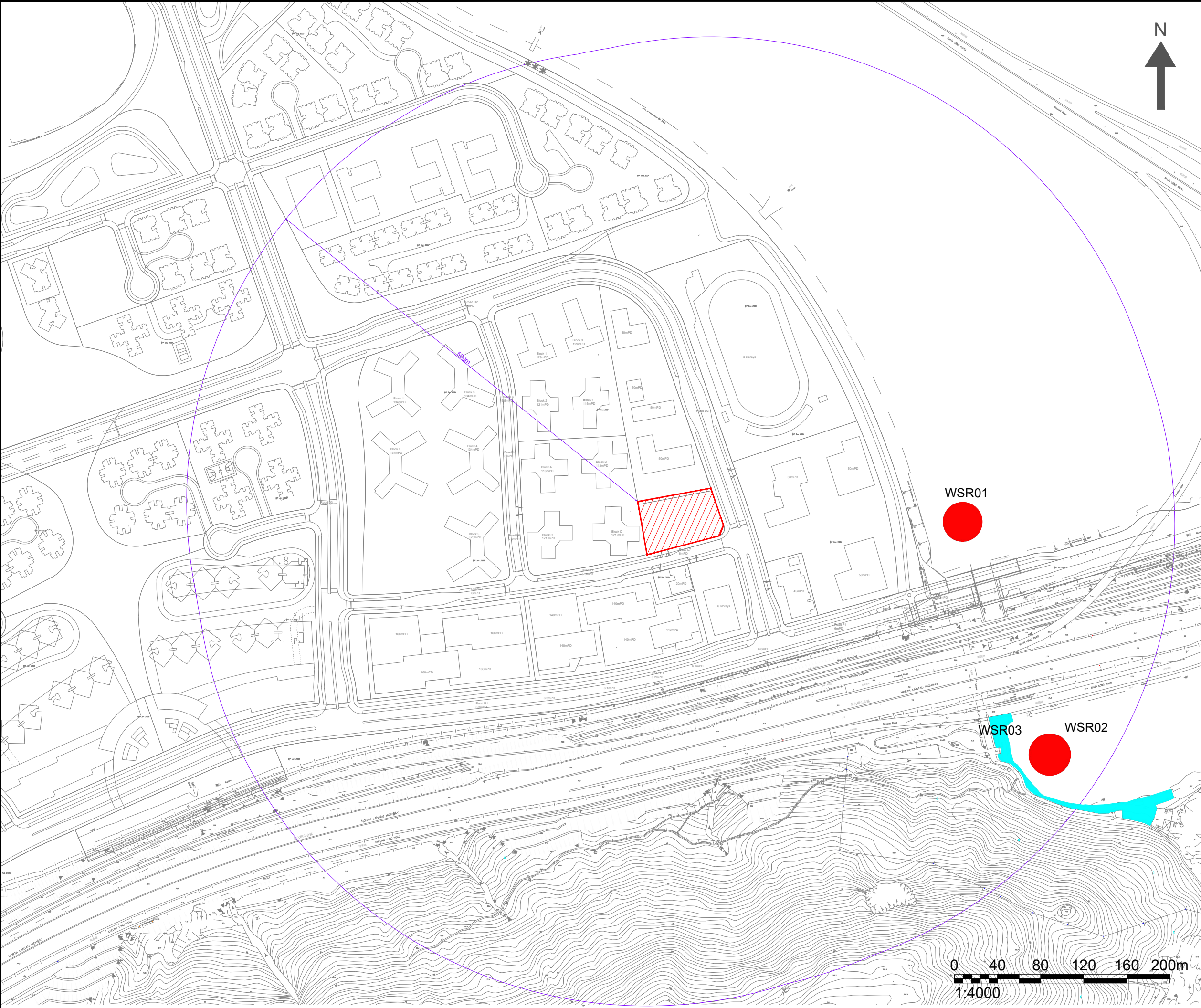
Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATION OF NEAREST NSR TO HONG KONG INTERNATIONAL AIRPORT

Drawing No : FIGURE 6.7	Revision : 0
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Scale : AS SHOWN	Date : AUG 2025
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- NOTES :
-  Subject Site
 -  Water Sensitive Receiver (WSR)
 -  500m Assessment Area
 -  Coastal Protection Area

Consultant



Allied Environmental Consultants Limited

Project No. : 2240

Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATION OF WATER SENSITIVE RECEIVERS (WSRs) & COASTAL PROTECTION AREA

Drawing No : FIGURE 7.1	Revision : 1
Scale : AS SHOWN	Date : AUGUST 2025

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Appendix 3.1

Layout Design Scheme of the Proposed Development

(Please refer to Appendix 1 of Supplementary Planning Statement)

Appendix 5.1

Extract of Proposed Marina & Existing Local Vessels from TCNTE
EIA Report (AEIAR 196/2016)

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LEGEND

- POSSIBLE DEVELOPMENT AREA
- WORKS AREA FOR ROAD P1 (TUNG CHUNG - TAI HO SECTION)
- 500M ASSESSMENT AREA
- CHIMNEY
- PROPOSED MARINA
- MARINE EMISSION
- MARINE ROUTE
- VENTILATION BUILDING
- TUNNEL PORTAL

PROPOSED EXPANSION OF
HONG KONG INTERNATIONAL AIRPORT
(BY OTHERS)

HK BOUNDARY CROSSING
FACILITIES OF HZMB
(BY OTHERS)

TMCLK LINK
(BY OTHERS)

OWTF (Phase 1)

HONG KONG
INTERNATIONAL AIRPORT

LOCATION OF MARINA

500m assessment area

Subject Site

PROPOSED LANTAU LOGISTICS PARK
(BY OTHERS)
(REF. REVISED CONCEPT PLAN
FOR LANTAU)

HK LINK ROAD OF HZMB
(BY OTHERS)

TUNG CHUNG PIER

TAI HO WAN

B	SECOND ISSUE	GL	08/15
A	FIRST ISSUE	GL	05/15
Rev	Description	By	Date

Consultant

ARUP

Project title

Tung Chung
New Town Extension

Drawing title

Locations of Chimney,
Proposed Marina and
Existing Local Vessel

Drawing no. **Figure 3.15** Rev. **B**

Drawn GL	Date 08/15	Checked LK	Approved FC
Scale 1:30000 @A3	Status PRELIMINARY		

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土木工程拓展署
Civil Engineering and
Development Department

Appendix 5.2

Endorsement from Transport Department

From: Lap Man LEE/TD/HKSARG@TD
To: Sandy Lai Shan WONG/ARCHSD/HKSARG@ARCHSD
Cc: Vivian Wai Yan WAN/PLAND <vywan@pland.gov.hk>, WM WONG/TD/HKSARG@TD
Date: 20/08/2025 12:39 PM
Subject: Re: Fw: Pre-Submission Enquiry of Section 16 Planning Application for Proposed Junior Police Officers Married Quarters with Minor Relaxation of Building Height Restriction at Tung Chung Area 134, Lantau Island [TD's endorsement of traffic flow data for PER]

Dear Sandy,

I refer to your subject email.

2. Please note that the noise impact assessment under Preliminary Environmental Review is not under our purview. We are not in a position to offer comments on the traffic figures tailor-made for the noise impact assessment study.
3. Notwithstanding the above, I have no comments on the methodology of the traffic forecast provided that the traffic data of the technical note shall tally with those for the Traffic Impact Assessment (TIA) report. In case there is any discrepancy in the traffic data between the TIA report and the noise impact assessment, please highlight it for further consideration.

Regards,
Raymond LEE
E/Is2, TD

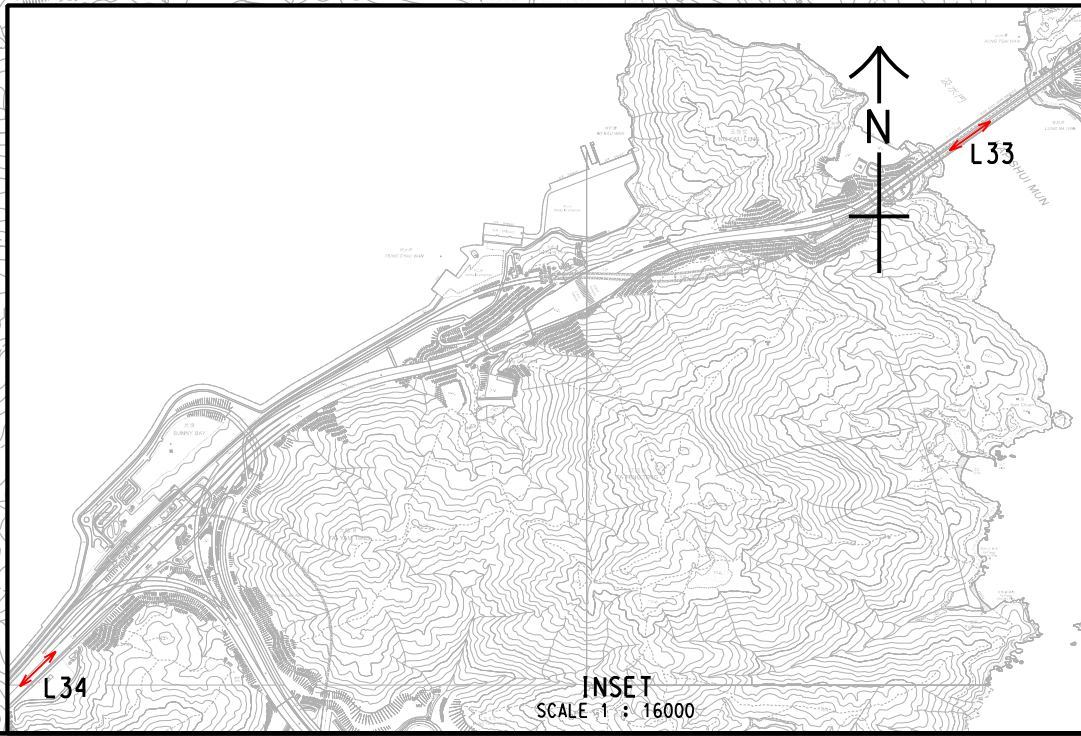
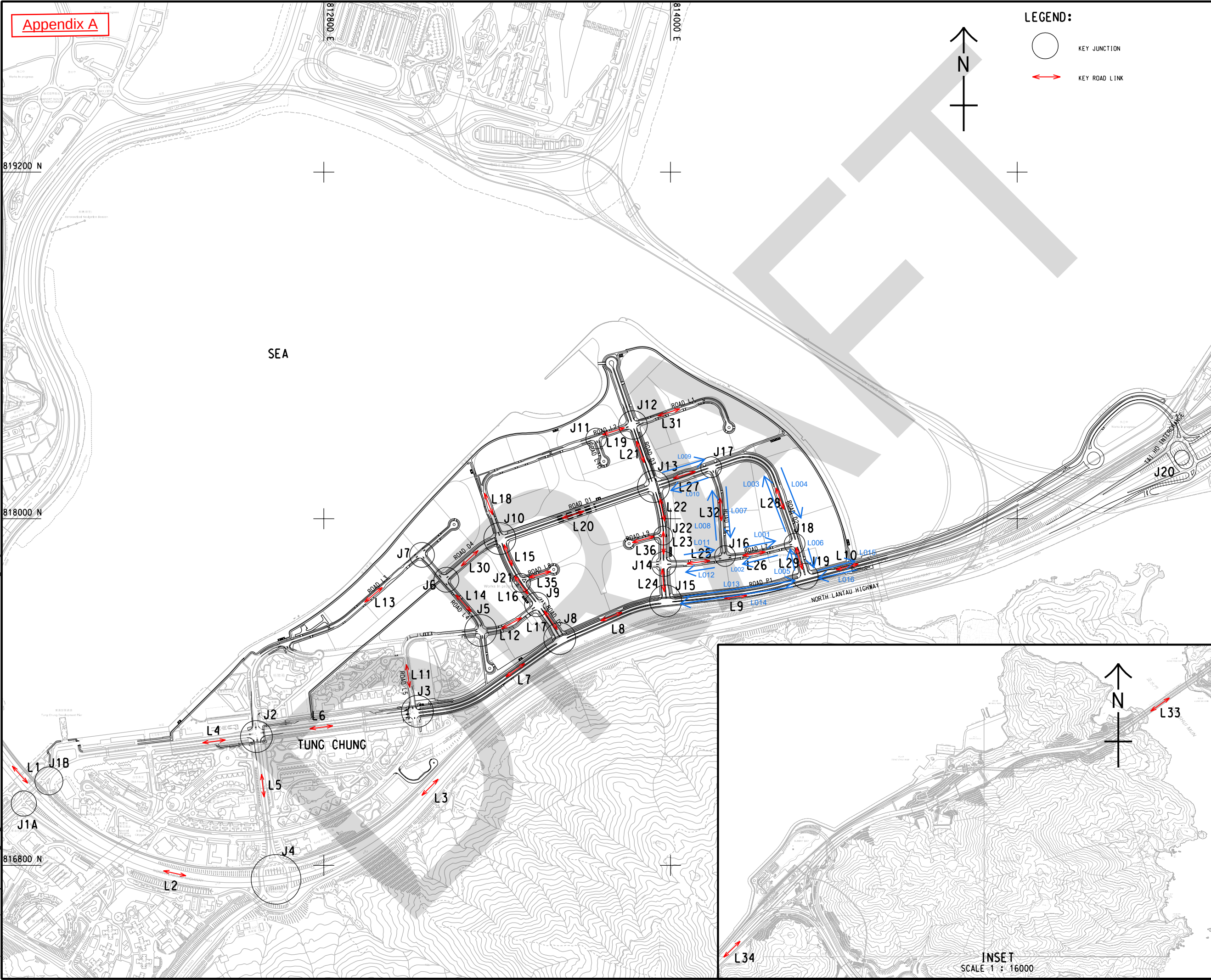
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Appendix 6.1

Traffic Forecast of Year 2046

ISO A1 594mm x 841mm
Approved:
Checked:
Designer:
Project Management Initials:
30 December 2024
Plot File by: L1U19
PATH pw:\aecom-as-pw\benley.com\AECOM_DS02_ASI\Documents\60507694_TCNTE-D&C\CAD PRODUCTION\DRAWING\REPORT\1\1\111_515.dgn
SPLTD\RVLS

Appendix A



LEGEND:

- KEY JUNCTION
- ↔ KEY ROAD LINK



PROJECT
TUNG CHUNG NEW TOWN
EXTENSION (EAST) -
DESIGN AND
CONSTRUCTION

CLIENT
CEDD 土木工程拓展署
Civil Engineering and
Development Department

CONSULTANT
AECOM Asia Company Ltd.
www.aecom.com

SUB-CONSULTANTS

ISSUE/REVISION			
I/R	DATE	DESCRIPTION	CHK.

STATUS

SCALE
A1 1 : 6000

DIMENSION UNIT
METRES

KEY PLAN

PROJECT NO.
60507694

CONTRACT NO.
CE 69/2015 (CE)

SHEET TITLE
KEY JUNCTIONS AND ROAD LINKS
ASSESSED IN 2031 & 2036

SHEET NUMBER
FIGURE 1.2

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TABLE E – PEAK HOUR TRAFFIC FLOW AND VEHICLE COMPOSITION

YEAR 2046 TRAFFIC DATA

YEAR 2046 TRAFFIC DATA				Job No.: J7372		
Link ID	Road Section	From Road	To Road	AM Peak Hour		
				Traffic Flows (veh/hr)	Vehicle Composition	
					LV	HV
L001	Road L7 (EB)	Road L6	Road D2	46	50.7%	49.3%
L002	Road L7 (WB)	Road D2	Road L6	579	79.9%	20.1%
L003	Road D2 (NB)	Road L7	Road L6	74	60.6%	39.4%
L004	Road D2 (SB)	Road L6	Road L7	817	87.6%	12.4%
L005	Road D2 (NB)	Road P1	Road L7	86	65.8%	34.2%
L006	Road D2 (SB)	Road L7	Road P1	1,322	88.3%	11.7%
L007	Road L6 (SB)	Road D2	Road L7	319	77.6%	22.4%
L008	Road L6 (NB)	Road L7	Road D2	211	65.9%	34.1%
L009	Road D1 (EB)	Road D1	Road L6	86	40.0%	60.0%
L010	Road D1 (WB)	Road L6	Road D1	774	82.6%	17.4%
L011	Road L7 (EB)	Road D3	Road L6	523	71.2%	28.8%
L012	Road L7 (WB)	Road L6	Road D3	99	43.0%	57.0%
L013	Road P1 (EB)	Road D3	Road D2	1,217	83.4%	16.6%
L014	Road P1 (WB)	Road D2	Road D3	1,691	73.8%	26.2%
L015	Road P1 (EB)	Road D2	North Lantau Highway	2,453	86.7%	13.3%
L016	Road P1 (WB)	North Lantau Highway	Road D2	1,691	73.8%	26.2%
L017	Shun Long Road (EB)	North Lantau Highway	Tuen Mun Chek Lap Kok Tunnel	222	68.5%	31.5%
L018	North Lantau Highway (EB)	Tai Ho Interchange	Shun Long Road	2,256	80.8%	19.2%
L019	North Lantau Highway (EB)	Tung Chung Eastern Interchange	Shun Long Road	2,478	79.7%	20.3%
L020	North Lantau Highway (WB)	Tai Ho Interchange	Tung Chung Eastern Interchange	3,521	74.1%	25.9%
L021	Cheung Tung Road (WB)	Tai Ho Interchange	Tung Chung Eastern Interchange	46	81.0%	19.0%
L022	Shun Long Road (WB)	Tuen Mun Chek Lap Kok Tunnel	North Lantau Highway	288	67.7%	32.3%

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

YEAR 2046 TRAFFIC DATA

YEAR 2046 TRAFFIC DATA				Job No.: J7372		
Link ID	Road Section	From Road	To Road	PM Peak Hour		
				Traffic Flows (veh/hr)	Vehicle Composition	
					LV	HV
L001	Road L7 (EB)	Road L6	Road D2	76	64.7%	35.3%
L002	Road L7 (WB)	Road D2	Road L6	365	70.1%	29.9%
L003	Road D2 (NB)	Road L7	Road L6	42	36.7%	63.3%
L004	Road D2 (SB)	Road L6	Road L7	512	79.9%	20.1%
L005	Road D2 (NB)	Road P1	Road L7	107	84.0%	16.0%
L006	Road D2 (SB)	Road L7	Road P1	891	77.4%	22.6%
L007	Road L6 (SB)	Road D2	Road L7	145	47.4%	52.6%
L008	Road L6 (NB)	Road L7	Road D2	309	78.9%	21.1%
L009	Road D1 (EB)	Road D1	Road L6	44	8.4%	91.6%
L010	Road D1 (WB)	Road L6	Road D1	452	73.1%	26.9%
L011	Road L7 (EB)	Road D3	Road L6	536	75.8%	24.2%
L012	Road L7 (WB)	Road L6	Road D3	83	29.6%	70.4%
L013	Road P1 (EB)	Road D3	Road D2	921	76.7%	23.3%
L014	Road P1 (WB)	Road D2	Road D3	1,520	82.7%	17.3%
L015	Road P1 (EB)	Road D2	North Lantau Highway	1,704	76.6%	23.4%
L016	Road P1 (WB)	North Lantau Highway	Road D2	1,520	82.7%	17.3%
L017	Shun Long Road (EB)	North Lantau Highway	Tuen Mun Chek Lap Kok Tunnel	252	52.3%	47.7%
L018	North Lantau Highway (EB)	Tai Ho Interchange	Shun Long Road	3,383	82.8%	17.2%
L019	North Lantau Highway (EB)	Tung Chung Eastern Interchange	Shun Long Road	3,635	80.7%	19.3%
L020	North Lantau Highway (WB)	Tai Ho Interchange	Tung Chung Eastern Interchange	3,097	79.5%	20.5%
L021	Cheung Tung Road (WB)	Tai Ho Interchange	Tung Chung Eastern Interchange	31	76.6%	23.4%
L022	Shun Long Road (WB)	Tuen Mun Chek Lap Kok Tunnel	North Lantau Highway	198	61.9%	38.1%

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

Appendix 6.2

Predicted Traffic Noise Levels for Residential Blocks (Base Scheme Scenario)

Project No: Z240 Tung Chung JPOMQ
Scenario: AM base case
Traffic Date: 2046
Scheme: Scheme (rev J)_20250522, 20250428 Elevation

T1 summary	
Max Noise Level	72
Total no. of unit with exceedance	64
Total no. of units	216
Compliance rate	70

T2 summary	
Max Noise Level	74
Total no. of unit with exceedance	135
Total no. of units	216
Compliance rate	38

Overall summary	
Max Noise Level	74
Total no. of unit with exceedance	199
Total no. of units	432
Compliance rate	54

[illegible]

Project No: Z240 Tung Chung JPQM/Q
Scenario: PM base case
Traffic Date: 2046
Scheme: Scheme (rev J)_20250522, 20250428 Elevation

T1 summary	
Max Noise Level	72
Total no. of unit with exceedance	42
Total no. of units	216
Compliance rate	81

T2 summary	
Max Noise Level	73
Total no. of unit with exceedance	115
Total no. of units	216
Compliance rate	47

Overall summary	
Max Noise Level	73
Total no. of unit with exceedance	157
Total no. of units	432
Compliance rate	64

[illegible]

Appendix 6.3

Predicted Traffic Noise Levels for Residential Blocks
(Mitigated Scenario)

Road Traffic Impact Assessment

Project No:	2240 Tung Chung JPOMQ
Scenario:	AM mit case (with fin & BAW)
Traffic Date:	2046
Scheme:	Scheme (rev J)_20250522 , 20250428 Elevation

T1 summary	
Max Noise Level	70
Total no. of unit with exceedance	0
Total no. of units	216
Compliance rate	100

T2 summary	
Max Noise Level	70
Total no. of unit with exceedance	0
Total no. of units	216
Compliance rate	100

Overall summary	
Max Noise Level	70
Total no. of unit with exceedance	0
Total no. of units	432
Compliance rate	100

70	Compliance
71	Non-compliance

	1.0m fin
	1.2m fin
	BAW Configuration 1
	BAW Configuration 2

[illegible]

Road Traffic Impact Assessment

Project No:	2240 Tung Chung JPOMQ
Scenario:	PM mit case (with fin & BAW)
Traffic Date:	2046
Scheme:	Scheme (rev J)_20250522 , 20250428 Elevation

T1 summary	
Max Noise Level	70
Total no. of unit with exceedance	0
Total no. of units	216
Compliance rate	100

T2 summary	
Max Noise Level	70
Total no. of unit with exceedance	0
Total no. of units	216
Compliance rate	100

Overall summary	
Max Noise Level	70
Total no. of unit with exceedance	0
Total no. of units	432
Compliance rate	100

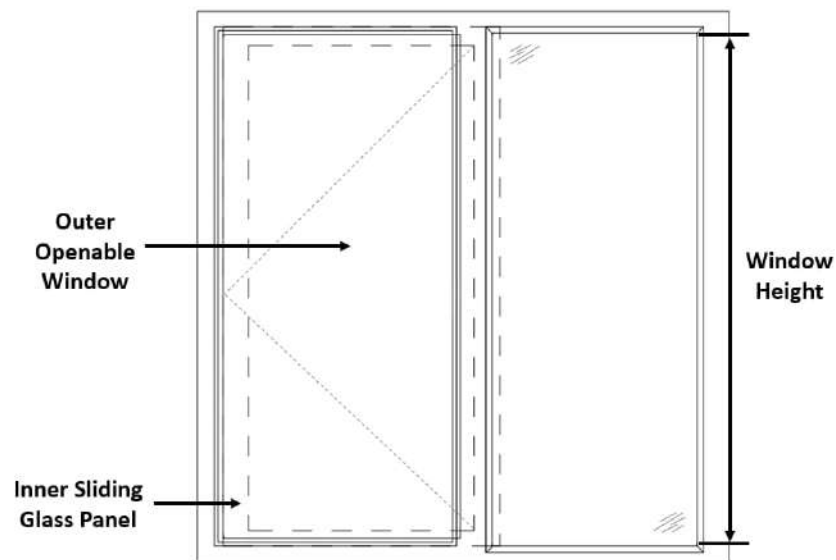
70	Compliance
71	Non-compliance

	1.0m fin
	1.2m fin
	BAW Configuration 1
	BAW Configuration 2

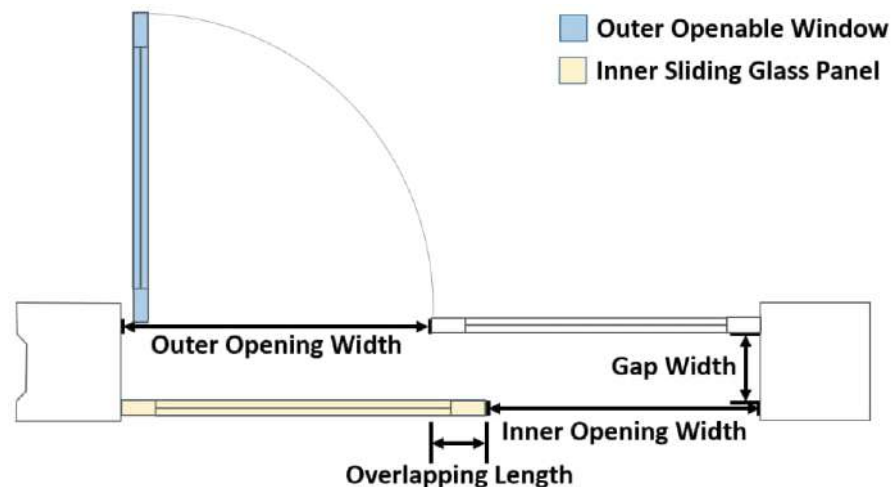
[illegible]

Appendix 6.4

Indicative Design of Proposed Acoustic Window (Baffle Type)



INTERNAL VIEW (NOT TO SCALE)



PLAN (NOT TO SCALE)

Window Configuration 2:
PN BAW1 w/o SAM

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:

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

Window Configuration 1:
PN BAW2 w/o SAM

Appendix 6.5

Fixed Noise Calculation

Predicted Sound Pressure Level from Sports Ground

Project No.: 2240

Project: Junior Police Office Married Head Quarters (JPOMQ)

Assessment Point	Spectator	SWL, dB(A)	Distance, D (m)	Dimensions		Conformal Area		Correction				
				Length, L (m)	Width, W (m)	Area, A (m ²) [4]	Correction, dB(A) [5]	Façade, dB(A) [6]	Directivity, dB(A) [2]	SPL, dB(A) [1]	Daytime Criteria, dB(A) [3]	Compliance
T1-O12	NW	105.0	122.5	150	10	157362	-52	3	0	56		
	SE	101.0	209	87	10	339015	-55	3	0	49		
Predicted Total SPL dB(A)										57	65	YES
T1-O33	NW	105.0	164.5	150	10	254211	-54	3	0	54		
	SE	101.0	246	87	10	456068	-57	3	0	47		
Predicted Total SPL dB(A)										55	65	YES
T2-O12	NW	105.0	98	150	10	111104	-50	3	0	58		
	SE	101.0	175	87	10	246621	-54	3	0	50		
Predicted Total SPL dB(A)										58	70	YES
T2-O23	NW	105.0	125	150	10	162507	-52	3	0	56		
	SE	101.0	192	87	10	291002	-55	3	0	49		
Predicted Total SPL dB(A)										57	70	YES
T2-O28	NW	105.0	139	150	10	192766	-53	3	0	55		
	SE	101.0	207	87	10	333178	-55	3	0	49		
Predicted Total SPL dB(A)										56	70	YES

Remarks:

[1] Noise calculation is made reference to the approved TCNTE EIA (AEIAR-196/2016)

[2] Directivity correction of 5dB(A) is applied when the spectator is at more than 90 degree from the NSR, 10dB(A) is applied when the spectator is completely not facing the NSR.

[3] According to the approved TCNTE EIA (AEIAR-196/2016), Sports Ground are operated during daytime and evening time only

[4] The following formula was used for calculating the conformal area:

$$A = (L+W)(2C + \pi d) + 2\pi d(C+d) + (DL)$$

C = measured noise level, assume same height as noise receiver, C = 0m

[5] Correction factor for conformation area (dB(A)) = - 10 log (area)

[6] Façade Correction (dB(A)) = + 3

Fixed Noise Impact Assessment Calculation
Project No.: 2240
Project: Junior Police Office Married Head Quarters (JPOMQ)
NAP ID T1-O12
ASR B

Day-time Criterion: 65 dB(A)										Correction								Resultant Noise Level dB(A)	Compliance (Yes/No)
Fixed Noise Source					NSR Location	Horizontal Distance (m)	Vertical Distance (m)	Slant Distance (m)	% on time over 30mins	Distance	Quantity	Façade	Tonality	Impulsive	Intermittency	Barrier	% on time		
Source Location	Source Description	Height (mPD)	SWL dB(A)	Remark	Height (mPD)					(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)		
CO-3	Tung Chung East Sewage Pumping Station	24.5	88.0	[1][4]	24.5	71	0	71	100%	-45	0	3	3	0	0	-10	0	39	
C2-2	Tung Chung East Public Transport Interchange	24.5	82.0	[1][3]	24.5	227	0	227	100%	-55	0	3	3	0	0	-10	0	23	
G0-3	Tung Chung East Fire Station	24.5	97.0	[1] [2]	24.5	145	0	145	100%	-51	0	3	3	0	0	-10	0	42	
Overall																		44	YES

Night-time Criterion: 55 dB(A)										Correction								Resultant Noise Level dB(A)	Compliance (Yes/No)
Fixed Plant Noise Source						Horizontal Distance (m)	Vertical Distance (m)	Slant Distance (m)	% on time over 30mins	Distance	Quantity	Façade	Tonality	Impulsive	Intermittency	Barrier	% on time		
ID	Name	Height (mPD)	SWL dB(A)	Remark	Height (mPD)					(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)		
CO-3	Tung Chung East Sewage Pumping Station	24.5	88	[1][4]	24.5	71	0	71	100%	-45	0	3	3	0	0	-10	0	39	
C2-2	Tung Chung East Public Transport Interchange	24.5	82	[1][3]	24.5	227	0	227	100%	-55	0	3	3	0	0	-10	0	23	
Overall																		39	YES

Remarks for SWLs:

- [1]

The following formula was used for calculating the SPLs at NSRs :
SPL = SWL+QC+DC+FC+BC+OC+TC+IMC+INTC
SPL Sound Pressure Level (dB(A))
SWL Sound Power Level (dB(A))
QC Correction factor for quantity (dB(A)) = + 10 log (quantity)
DC Distance Attenuation (dB(A)) = SWL - 20 log (distance) - 8
FC Façade Correction (dB(A)) = + 3
BC Barrier Correction (dB(A)): While NSR with no direct line of sight to the source/opening, a -10dB(A) correction would be applied. While NSR is partially screened, a -5dB(A) correction would be applied.
OC Correction for Percentage on-time over 30 minutes (dB(A)) = - 10 log (on-time %)
TC Correction for Tonality (dB(A))
IMC Correction for Impulsiveness (dB(A))
INTC Correction for Intermittency (dB(A))
- [2]

Based on the information provided by Fire Service Department, the proposed daily activities to be carried out at the fire station will take place during daytime only
- [3]

With reference to HKHA Report, Planned PTI at Area 133B will be covered under a podium decking with full height double bank louvre, solid boundary wall and hanger louvre/fins at vehicular and pedestrian accesses, to avoid line of sights to the planned noise sensitive uses in the proximity as far as practicable.
- [4]

With reference to deliverable PI49 (Sewerage System and Sewage Treatment Implication Review for Population Increase and Development Intensity – Case 2) of CEDD, the latest design of proposed SPS will enclosethe pumps within building.

Fixed Noise Impact Assessment Calculation
Project No.: 2240
Project: Junior Police Office Married Head Quarters (JPOMQ)
NAP ID T1-O33
ASR B

Day-time Criterion: 65 dB(A)										Correction								Resultant Noise Level dB(A)	Compliance (Yes/No)	
Fixed Noise Source					NSR Location	Horizontal Distance (m)	Vertical Distance (m)	Slant Distance (m)	% on time over 30mins	Distance	Quantity	Façade	Tonality	Impulsive	Intermittency	Barrier	% on time			
Source Location	Source Description		Height (mPD)	SWL dB(A)						Remark	Height (mPD)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)			(dB)
CO-3	Tung Chung East Sewage Pumping Station		24.5	88.0	[1][4]	24.5	27	0	27	100%	-37	0	3	3	0	0	-10	0	47	
C2-2	Tung Chung East Public Transport Interchange		24.5	82.0	[1][3]	24.5	276	0	276	100%	-57	0	3	3	0	0	-10	0	21	
G0-3	Tung Chung East Fire Station		24.5	97.0	[1] [2]	24.5	115	0	115	100%	-49	0	3	3	0	0	-5	0	49	
Overall																		51	YES	

Night-time Criterion: 55 dB(A)										Correction								Resultant Noise Level dB(A)	Compliance (Yes/No)
Fixed Plant Noise Source						Horizontal Distance (m)	Vertical Distance (m)	Slant Distance (m)	% on time over 30mins	Distance	Quantity	Façade	Tonality	Impulsive	Intermittency	Barrier	% on time		
ID	Name	Height (mPD)	SWL dB(A)	Remark	Height (mPD)					(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)		
CO-3	Tung Chung East Sewage Pumping Station	24.5	88	[1][4]	24.5	27	0	27	100%	-37	0	3	3	0	0	-10	0	47	YES
C2-2	Tung Chung East Public Transport Interchange	24.5	82	[1][3]	24.5	276	0	276	100%	-57	0	3	3	0	0	-10	0	21	
Overall																		47	YES

Remarks for SWLs:

- [1]

The following formula was used for calculating the SPLs at NSRs :
SPL = SWL+QC+DC+FC+BC+OC+TC+IMC+INTC
SPL Sound Pressure Level (dB(A))
SWL Sound Power Level (dB(A))
QC Correction factor for quantity (dB(A)) = + 10 log (quantity)
DC Distance Attenuation (dB(A)) = SWL - 20 log (distance) - 8
FC Façade Correction (dB(A)) = + 3
BC Barrier Correction (dB(A)): While NSR with no direct line of sight to the source/opening, a -10dB(A) correction would be applied. While NSR is partially screened, a -5dB(A) correction would be applied.
OC Correction for Percentage on-time over 30 minutes (dB(A)) = - 10 log (on-time %)
TC Correction for Tonality (dB(A))
IMC Correction for Impulsiveness (dB(A))
INTC Correction for Intermittency (dB(A))
- [2]

Based on the information provided by Fire Service Department, the proposed daily activities to be carried out at the fire station will take place during daytime only
- [3]

With reference to HKHA Report, Planned PTI at Area 133B will be covered under a podium decking with full height double bank louvre, solid boundary wall and hanger louver/fins at vehicular and pedestrian accesses, to avoid line of sights to the planned noise sensitive uses in the proximity as far as practicable.
- [4]

With reference to deliverable PI49 (Sewerage System and Sewage Treatment Implication Review for Population Increase and Development Intensity – Case 2) of CEDD, the latest design of proposed SPS will enclosethe pumps within building.

Fixed Noise Impact Assessment Calculation
Project No.: 2240
Project: Junior Police Office Married Head Quarters (JPOMQ)
NAP ID T2-O12
ASR C

Day-time Criterion: 70 dB(A)										Correction								Resultant Noise Level dB(A)	Compliance (Yes/No)
Fixed Noise Source					NSR Location	Horizontal Distance (m)	Vertical Distance (m)	Slant Distance (m)	% on time over 30mins	Distance	Quantity	Façade	Tonality	Impulsive	Intermittency	Barrier	% on time		
Source Location	Source Description	Height (mPD)	SWL dB(A)	Remark	Height (mPD)					(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)		
CO-3	Tung Chung East Sewage Pumping Station	24.5	88.0	[1][4]	24.5	75	0	75	100%	-46	0	3	3	0	0	-10	0	39	
C2-2	Tung Chung East Public Transport Interchange	24.5	82.0	[1][3]	24.5	242	0	242	100%	-56	0	3	3	0	0	-10	0	22	
G0-3	Tung Chung East Fire Station	24.5	97.0	[1] [2]	24.5	115	0	115	100%	-49	0	3	3	0	0	0	0	54	
Overall																		54	YES

Night-time Criterion: 60 dB(A)										Correction								Resultant Noise Level dB(A)	Compliance (Yes/No)
Fixed Plant Noise Source						Horizontal Distance (m)	Vertical Distance (m)	Slant Distance (m)	% on time over 30mins	Distance	Quantity	Façade	Tonality	Impulsive	Intermittency	Barrier	% on time		
ID	Name	Height (mPD)	SWL dB(A)	Remark	Height (mPD)					(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)		
CO-3	Tung Chung East Sewage Pumping Station	24.5	88	[1][4]	24.5	75	0	75	100%	-46	0	3	3	0	0	-10	0	39	
C2-2	Tung Chung East Public Transport Interchange	24.5	82	[1][3]	24.5	242	0	242	100%	-56	0	3	3	0	0	-10	0	22	
Overall																		39	YES

Remarks for SWLs:

- [1]

The following formula was used for calculating the SPLs at NSRs :
SPL = SWL+QC+DC+FC+BC+OC+TC+IMC+INTC
SPL Sound Pressure Level (dB(A))
SWL Sound Power Level (dB(A))
QC Correction factor for quantity (dB(A)) = + 10 log (quantity)
DC Distance Attenuation (dB(A)) = SWL - 20 log (distance) - 8
FC Façade Correction (dB(A)) = + 3
BC Barrier Correction (dB(A)): While NSR with no direct line of sight to the source/opening, a -10dB(A) correction would be applied. While NSR is partially screened, a -5dB(A) correction would be applied.
OC Correction for Percentage on-time over 30 minutes (dB(A)) = - 10 log (on-time %)
TC Correction for Tonality (dB(A))
IMC Correction for Impulsiveness (dB(A))
INTC Correction for Intermittency (dB(A))
- [2]

Based on the information provided by Fire Service Department, the proposed daily activities to be carried out at the fire station will take place during daytime only
- [3]

With reference to HKHA Report, Planned PTI at Area 133B will be covered under a podium decking with full height double bank louvre, solid boundary wall and hanger louvre/fins at vehicular and pedestrian accesses, to avoid line of sights to the planned noise sensitive uses in the proximity as far as practicable.
- [4]

With reference to deliverable PI49 (Sewerage System and Sewage Treatment Implication Review for Population Increase and Development Intensity – Case 2) of CEDD, the latest design of proposed SPS will enclosethe pumps within building.

Fixed Noise Impact Assessment Calculation
Project No.: 2240
Project: Junior Police Office Married Head Quarters (JPOMQ)
NAP ID T2-O23
ASR C

Day-time Criterion: 70 dB(A)										Correction								Resultant Noise Level dB(A)	Compliance (Yes/No)
Fixed Noise Source					NSR Location	Horizontal Distance (m)	Vertical Distance (m)	Slant Distance (m)	% on time over 30mins	Distance	Quantity	Façade	Tonality	Impulsive	Intermittency	Barrier	% on time		
Source Location	Source Description	Height (mPD)	SWL dB(A)	Remark	Height (mPD)					(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)		
CO-3	Tung Chung East Sewage Pumping Station	24.5	88.0	[1][4]	24.5	54	0	54	100%	-43	0	3	3	0	0	-10	0	41	
C2-2	Tung Chung East Public Transport Interchange	24.5	82.0	[1][3]	24.5	275	0	275	100%	-57	0	3	3	0	0	-10	0	21	
G0-3	Tung Chung East Fire Station	24.5	97.0	[1] [2]	24.5	84	0	84	100%	-47	0	3	3	0	0	0	0	57	
Overall																		57	YES

Night-time Criterion: 60 dB(A)										Correction								Resultant Noise Level dB(A)	Compliance (Yes/No)
Fixed Plant Noise Source						Horizontal Distance (m)	Vertical Distance (m)	Slant Distance (m)	% on time over 30mins	Distance	Quantity	Façade	Tonality	Impulsive	Intermittency	Barrier	% on time		
ID	Name	Height (mPD)	SWL dB(A)	Remark	Height (mPD)					(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)		
CO-3	Tung Chung East Sewage Pumping Station	24.5	88	[1][4]	24.5	54	0	54	100%	-43	0	3	3	0	0	-10	0	41	
C2-2	Tung Chung East Public Transport Interchange	24.5	82	[1][3]	24.5	275	0	275	100%	-57	0	3	3	0	0	-10	0	21	
Overall																		41	YES

Remarks for SWLs:

- [1]

The following formula was used for calculating the SPLs at NSRs :
SPL = SWL+QC+DC+FC+BC+OC+TC+IMC+INTC
SPL Sound Pressure Level (dB(A))
SWL Sound Power Level (dB(A))
QC Correction factor for quantity (dB(A)) = + 10 log (quantity)
DC Distance Attenuation (dB(A)) = SWL - 20 log (distance) - 8
FC Façade Correction (dB(A)) = + 3
BC Barrier Correction (dB(A)): While NSR with no direct line of sight to the source/opening, a -10dB(A) correction would be applied. While NSR is partially screened, a -5dB(A) correction would be applied.
OC Correction for Percentage on-time over 30 minutes (dB(A)) = - 10 log (on-time %)
TC Correction for Tonality (dB(A))
IMC Correction for Impulsiveness (dB(A))
INTC Correction for Intermittency (dB(A))
- [2]

Based on the information provided by Fire Service Department, the proposed daily activities to be carried out at the fire station will take place during daytime only
- [3]

With reference to HKHA Report, Planned PTI at Area 133B will be covered under a podium decking with full height double bank louvre, solid boundary wall and hanger louver/fins at vehicular and pedestrian accesses, to avoid line of sights to the planned noise sensitive uses in the proximity as far as practicable.
- [4]

With reference to deliverable PI49 (Sewerage System and Sewage Treatment Implication Review for Population Increase and Development Intensity – Case 2) of CEDD, the latest design of proposed SPS will enclosethe pumps within building.

Fixed Noise Impact Assessment Calculation
Project No.: 2240
Project: Junior Police Office Married Head Quarters (JPOMQ)
NAP ID T2-O28
ASR C

Day-time Criterion: 70 dB(A)										Correction								Resultant Noise Level dB(A)	Compliance (Yes/No)
Fixed Noise Source					NSR Location	Horizontal Distance (m)	Vertical Distance (m)	Slant Distance (m)	% on time over 30mins	Distance	Quantity	Façade	Tonality	Impulsive	Intermittency	Barrier	% on time		
Source Location	Source Description	Height (mPD)	SWL dB(A)	Remark	Height (mPD)					(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)		
CO-3	Tung Chung East Sewage Pumping Station	24.5	88.0	[1][4]	24.5	39	0	39	100%	-40	0	3	3	0	0	-10	0	44	
C2-2	Tung Chung East Public Transport Interchange	24.5	82.0	[1][3]	24.5	280	0	280	100%	-57	0	3	3	0	0	-10	0	21	
G0-3	Tung Chung East Fire Station	24.5	97.0	[1] [2]	24.5	85	0	85	100%	-47	0	3	3	0	0	0	0	56	
Overall																		57	YES

Night-time Criterion: 60 dB(A)										Correction								Resultant Noise Level dB(A)	Compliance (Yes/No)
Fixed Plant Noise Source						Horizontal Distance (m)	Vertical Distance (m)	Slant Distance (m)	% on time over 30mins	Distance	Quantity	Façade	Tonality	Impulsive	Intermittency	Barrier	% on time		
ID	Name	Height (mPD)	SWL dB(A)	Remark	Height (mPD)					(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)	(dB)		
CO-3	Tung Chung East Sewage Pumping Station	24.5	88	[1][4]	24.5	39	0	39	100%	-40	0	3	3	0	0	-10	0	44	
C2-2	Tung Chung East Public Transport Interchange	24.5	82	[1][3]	24.5	280	0	280	100%	-57	0	3	3	0	0	-10	0	21	
Overall																		44	YES

Remarks for SWLs:

- [1]

The following formula was used for calculating the SPLs at NSRs :
SPL = SWL+QC+DC+FC+BC+OC+TC+IMC+INTC
SPL Sound Pressure Level (dB(A))
SWL Sound Power Level (dB(A))
QC Correction factor for quantity (dB(A)) = + 10 log (quantity)
DC Distance Attenuation (dB(A)) = SWL - 20 log (distance) - 8
FC Façade Correction (dB(A)) = + 3
BC Barrier Correction (dB(A)): While NSR with no direct line of sight to the source/opening, a -10dB(A) correction would be applied. While NSR is partially screened, a -5dB(A) correction would be applied.
OC Correction for Percentage on-time over 30 minutes (dB(A)) = - 10 log (on-time %)
TC Correction for Tonality (dB(A))
IMC Correction for Impulsiveness (dB(A))
INTC Correction for Intermittency (dB(A))
- [2]

Based on the information provided by Fire Service Department, the proposed daily activities to be carried out at the fire station will take place during daytime only
- [3]

With reference to HKHA Report, Planned PTI at Area 133B will be covered under a podium decking with full height double bank louvre, solid boundary wall and hanger louver/fins at vehicular and pedestrian accesses, to avoid line of sights to the planned noise sensitive uses in the proximity as far as practicable.
- [4]

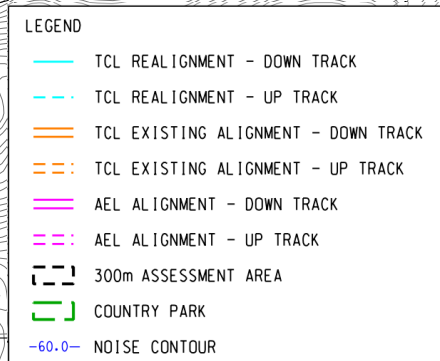
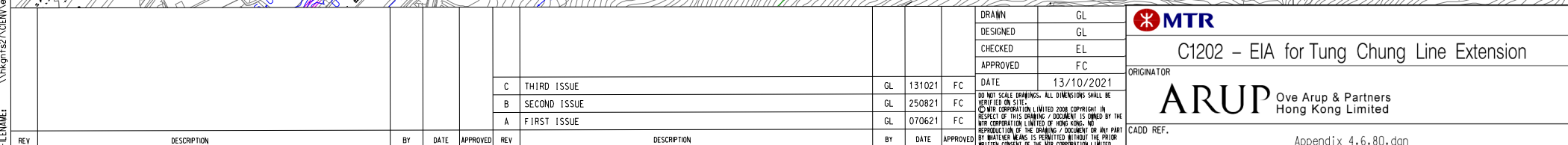
With reference to deliverable PI49 (Sewerage System and Sewage Treatment Implication Review for Population Increase and Development Intensity – Case 2) of CEDD, the latest design of proposed SPS will enclosethe pumps within building.

Appendix 6.6

Extract of Railway Noise Contour from TCLE EIA Report

(AEIAR-235/2022)

Acceptable Noise Levels, $L_{eq(30mins)}$, dB(A) under IND-TM
 ASR of "C" = 70 dB(A)
 ASR of "B" = 65 dB(A)



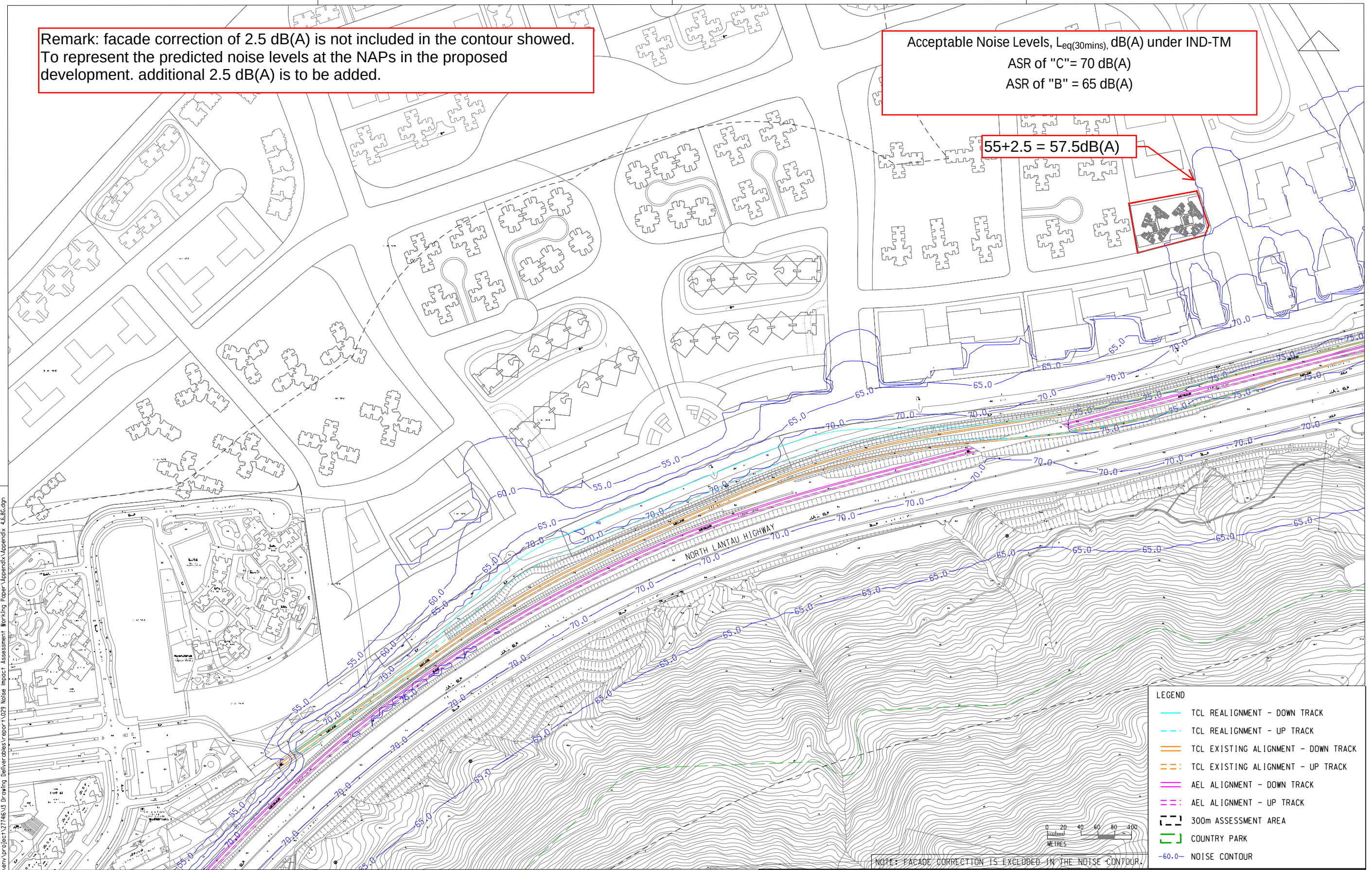
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Remark: facade correction of 2.5 dB(A) is not included in the contour showed.
To represent the predicted noise levels at the NAPs in the proposed development. additional 2.5 dB(A) is to be added.

Acceptable Noise Levels, $L_{eq(30mins)}$, dB(A) under IND-TM
ASR of "C" = 70 dB(A)
ASR of "B" = 65 dB(A)

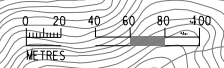
55+2.5 = 57.5dB(A)

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- LEGEND
- TCL REALIGNMENT - DOWN TRACK
 - TCL REALIGNMENT - UP TRACK
 - TCL EXISTING ALIGNMENT - DOWN TRACK
 - TCL EXISTING ALIGNMENT - UP TRACK
 - AEL ALIGNMENT - DOWN TRACK
 - AEL ALIGNMENT - UP TRACK
 - 300m ASSESSMENT AREA
 - COUNTRY PARK
 - 60.0- NOISE CONTOUR

NOTE: FACADE CORRECTION IS EXCLUDED IN THE NOISE CONTOUR.

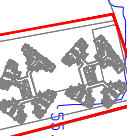


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				B		SECOND ISSUE		GL		250821		FC		ARUP		MITIGATED RAIL NOISE Leq - SCENARIO D (DAYTIME) AT 30mPD	
				A		FIRST ISSUE		GL		070621		FC		Ove Arup & Partners Hong Kong Limited		SCALE	
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																REV.	
																C	

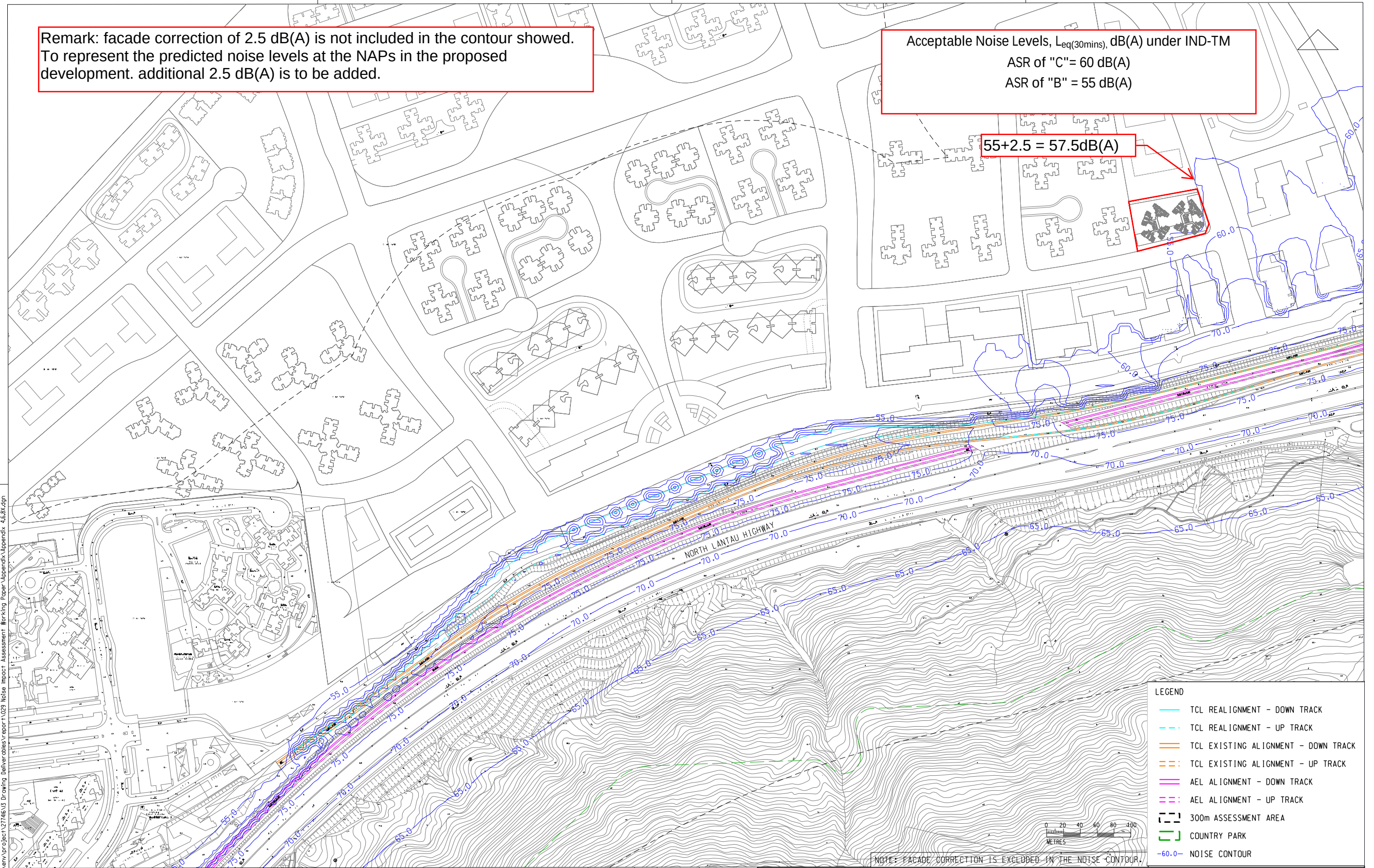
Remark: facade correction of 2.5 dB(A) is not included in the contour showed.
To represent the predicted noise levels at the NAPs in the proposed development. additional 2.5 dB(A) is to be added.

Acceptable Noise Levels, $L_{eq(30mins)}$, dB(A) under IND-TM
ASR of "C" = 60 dB(A)
ASR of "B" = 55 dB(A)

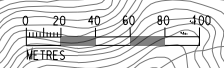
55+2.5 = 57.5dB(A)



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- LEGEND
- TCL REALIGNMENT - DOWN TRACK
 - TCL REALIGNMENT - UP TRACK
 - TCL EXISTING ALIGNMENT - DOWN TRACK
 - TCL EXISTING ALIGNMENT - UP TRACK
 - AEL ALIGNMENT - DOWN TRACK
 - AEL ALIGNMENT - UP TRACK
 - 300m ASSESSMENT AREA
 - COUNTRY PARK
 - 60.0- NOISE CONTOUR

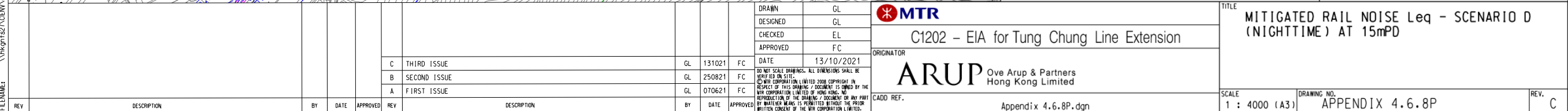


NOTE: FACADE CORRECTION IS EXCLUDED IN THE NOISE CONTOUR.

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				B		SECOND ISSUE		GL		250821		FC		ARUP		(NIGHTTIME) AT 7.2mPD	
				A		FIRST ISSUE		GL		070621		FC		Ove Arup & Partners		SCALE	
														Hong Kong Limited		1 : 4000 (A3)	
														CADD REF.		DRAWING NO.	
														Appendix 4.6.8X.dgn		APPENDIX 4.6.8X	
																REV.	
																C	

Acceptable Noise Levels, $L_{eq(30mins)}$, dB(A) under IND-TM
 ASR of "C" = 60 dB(A)
 ASR of "B" = 55 dB(A)

An aerial photograph of a building complex, possibly a school or institutional facility, with a red bounding box and a blue line indicating a path or boundary.

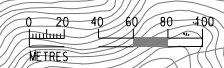


Remark: facade correction of 2.5 dB(A) is not included in the contour showed.
To represent the predicted noise levels at the NAPs in the proposed development. additional 2.5 dB(A) is to be added.

Acceptable Noise Levels, $L_{eq(30mins)}$, dB(A) under IND-TM
ASR of "C" = 60 dB(A)
ASR of "B" = 55 dB(A)

55+2.5 = 57.5dB(A)

- LEGEND
- TCL REALIGNMENT - DOWN TRACK
 - TCL REALIGNMENT - UP TRACK
 - TCL EXISTING ALIGNMENT - DOWN TRACK
 - TCL EXISTING ALIGNMENT - UP TRACK
 - AEL ALIGNMENT - DOWN TRACK
 - AEL ALIGNMENT - UP TRACK
 - 300m ASSESSMENT AREA
 - COUNTRY PARK
 - 60.0- NOISE CONTOUR



NOTE: FACADE CORRECTION IS EXCLUDED IN THE NOISE CONTOUR.

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A	FIRST ISSUE	GL	070621	FC					

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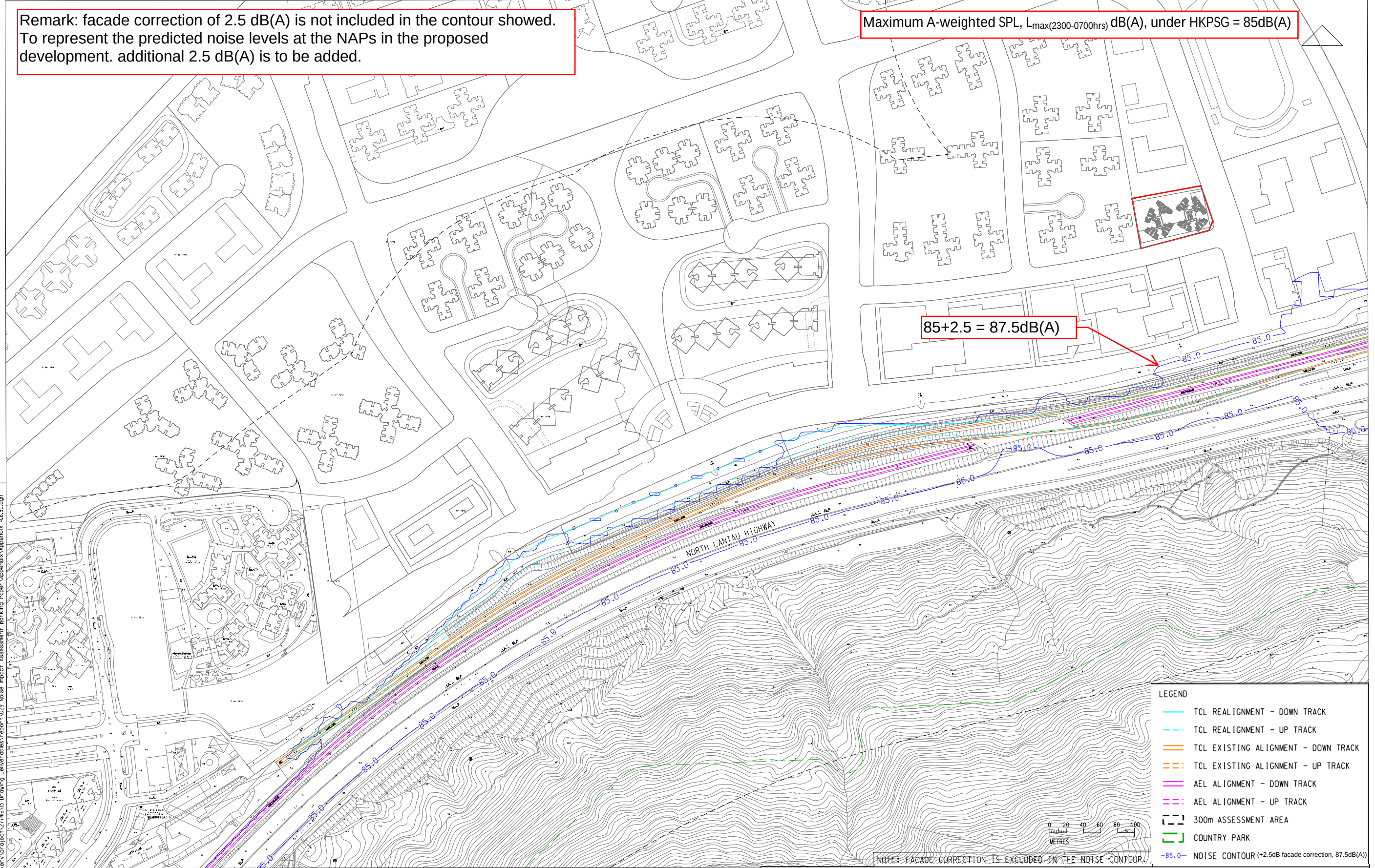
MTR
C1202 - EIA for Tung Chung Line Extension

ARUP Ove Arup & Partners
Hong Kong Limited

CADD REF. Appendix 4.6.8H.dgn

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REV.	C		

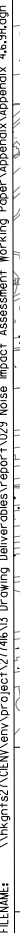
Maximum A-weighted SPL, $L_{\max}(2300-0700\text{hrs})$ dB(A), under HKPSG = 85dB(A)

$$85 + 2.5 = 87.5 \text{ dB(A)}$$


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Maximum A-weighted SPL, $L_{\max}(2300-0700\text{hrs})$ dB(A), under HKPSG = 85dB(A)

$$85 + 2.5 = 87.5 \text{ dB(A)}$$


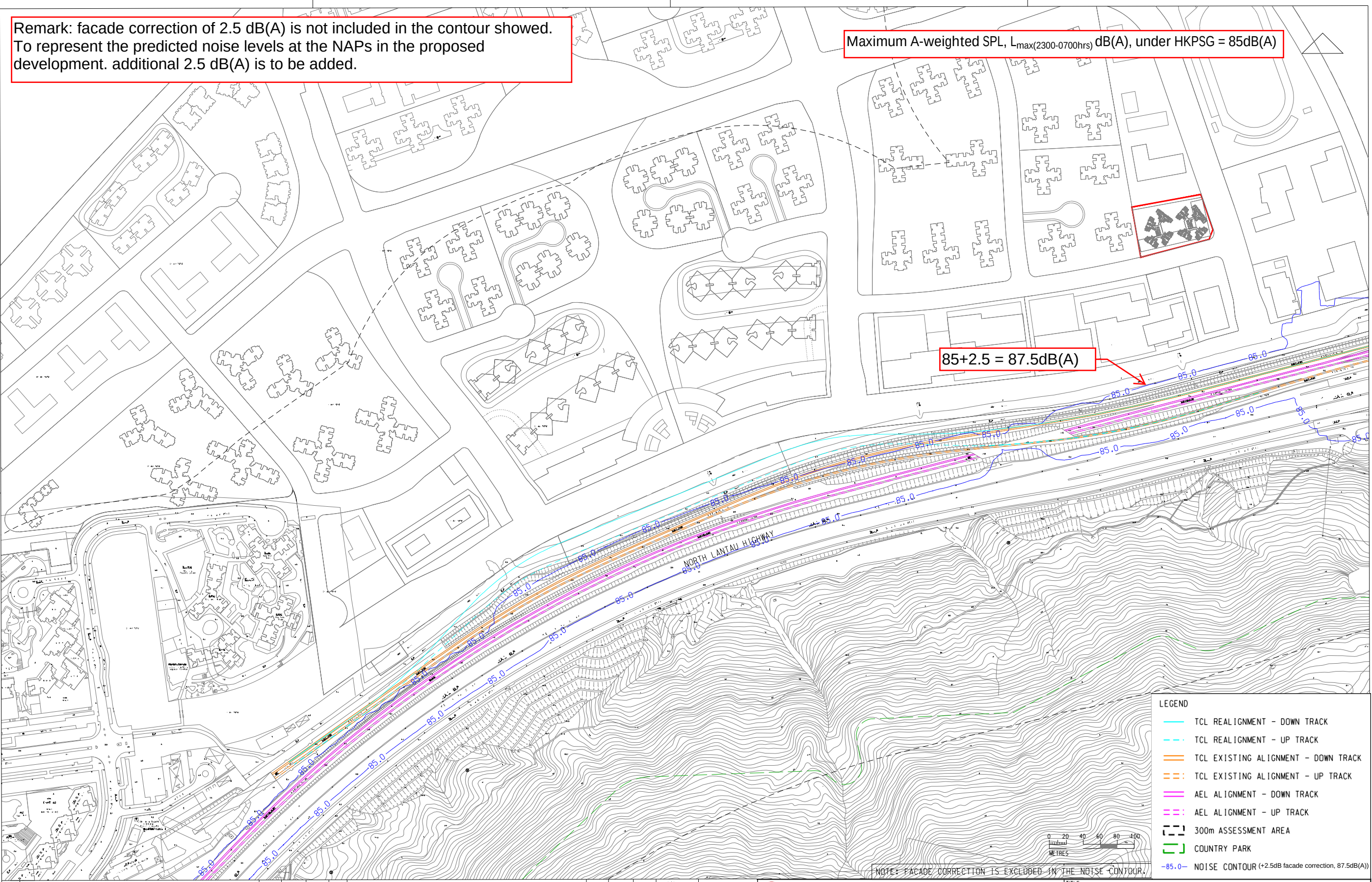
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										CHECKED EL											
										APPROVED FC											
										DATE 13/10/2021		ORIGINATOR  ARUP Ove Arup & Partners Hong Kong Limited									
										DO NOT SCALE DRAWINGS. ALL DIMENSIONS SHALL BE VERIFIED ON SITE. © MTR CORPORATION LIMITED 2008. COPYRIGHT IN RESPECT OF THIS DRAWING / DOCUMENT IS OWNED BY THE MTR CORPORATION LIMITED OF HONG KONG. NO REPRODUCTION OF THE DRAWING / DOCUMENT OR ANY PART OF WHATEVER NATURE IS PERMITTED WITHOUT THE PRIOR WRITTEN CONSENT OF THE MTR CORPORATION LIMITED.		CADD REF. Appendix 4.6.9H.dgn		SCALE 1 : 4000 (A3)		DRAWING NO. APPENDIX 4.6.9H		REV. C			
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					B	SECOND ISSUE								GL	250821				FC		
					A	FIRST ISSUE				GL	070621				FC						

Remark: facade correction of 2.5 dB(A) is not included in the contour showed.
To represent the predicted noise levels at the NAPs in the proposed development. additional 2.5 dB(A) is to be added.

Maximum A-weighted SPL, $L_{max}(2300-0700hrs)$ dB(A), under HKPSG = 85dB(A)

85+2.5 = 87.5dB(A)

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LEGEND

- TCL REALIGNMENT - DOWN TRACK
- TCL REALIGNMENT - UP TRACK
- TCL EXISTING ALIGNMENT - DOWN TRACK
- TCL EXISTING ALIGNMENT - UP TRACK
- AEL ALIGNMENT - DOWN TRACK
- AEL ALIGNMENT - UP TRACK
- 300m ASSESSMENT AREA
- COUNTRY PARK
- 85.0- NOISE CONTOUR (+2.5dB facade correction, 87.5dB(A))

NOTE: FACADE CORRECTION IS EXCLUDED IN THE NOISE CONTOUR.

REV	DESCRIPTION	BY	DATE	APPROVED	REV	DESCRIPTION	BY	DATE	APPROVED
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B	SECOND ISSUE	GL	25/08/21	FC					
A	FIRST ISSUE	GL	07/06/21	FC					

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CHECKED
APPROVED

GL
GL
EL
FC

MTR

C1202 - EIA for Tung Chung Line Extension

ORIGINATOR

ARUP

Ove Arup & Partners
Hong Kong Limited

CADD REF.

Appendix 4.6.9D.dgn

TITLE

MITIGATED RAIL NOISE L_{max} - SCENARIO D
AT 30mPD

SCALE

1 : 4000 (A3)

DRAWING NO.

APPENDIX 4.6.9D

REV.

C

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Appendix 6.7

Extract of Helicopter Flight Path and Holding Area from TCNTE
EIA Report (AEIAR-196/2016)

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PROPOSED EXPANSION OF
HONG KONG INTERNATIONAL AIRPORT
(BY OTHERS)

HK BOUNDARY CROSSING
FACILITIES OF HZMB
(BY OTHERS)

TMCLK LINK
(BY OTHERS)

PROPOSED LANTAU LOGISTICS PARK
(BY OTHERS)
(REF. REVISED CONCEPT PLAN
FOR LANTAU)

Subject Site

H6

H5

H7

H10

TCV-11-06

TCV-6-01

LANTAU NORTH (EXTENSION) COUNTRY PARK

LANTAU NORTH COUNTRY PARK

WO LUP TUN

POK TO YAN

POK KAI SHAN

LANTAU NORTH (EXTENSION) COUNTRY PARK

LANTAU NORTH (EXTENSION) COUNTRY PARK

NORTH LANTAU HIGHWAY

HONG KONG
INTERNATIONAL AIRPORT

赤鱗角
CHEE LAP TONK



LEGEND

- POSSIBLE DEVELOPMENT AREA
- WORKS AREA FOR ROAD P1
(TUNG CHUNG - TAI HO SECTION)
- ASSESSMENT AREA
- COUNTRY PARK
- HELICOPTER FLIGHT PATH
- H HELICOPTER HOLDING AREA
- PLANNED NOISE ASSESSMENT POINT

D	FOURTH ISSUE	GL	09/15
C	THIRD ISSUE	GL	08/15
B	SECOND ISSUE	GL	06/15
A	FIRST ISSUE	GL	04/15
Rev	Description	By	Date

Consultant
ARUP

Project title
**Tung Chung
New Town Extension**

Drawing title
**Location of Representative
Noise Assessment Points
(Helicopter Noise)**

Drawing no. Figure 4.12		Rev. D	
Drawn GL	Date 09/15	Checked LK	Approved FC
Scale 1:30000 @A3	Status PRELIMINARY		

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土木工程拓展署
Civil Engineering and
Development Department

Appendix 6.8

Extract of NEF Contours from TCNTE EIA Report

(AEIAR-196/2016)

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LEGEND



POSSIBLE DEVELOPMENT AREA



NEF25 CONTOUR



NEF30 CONTOUR

EXTRACTED FROM "EXPANSION OF HONG KONG
INTERNATIONAL AIRPORT INTO A THREE-RUNWAY
SYSTEM" EIA REPORT

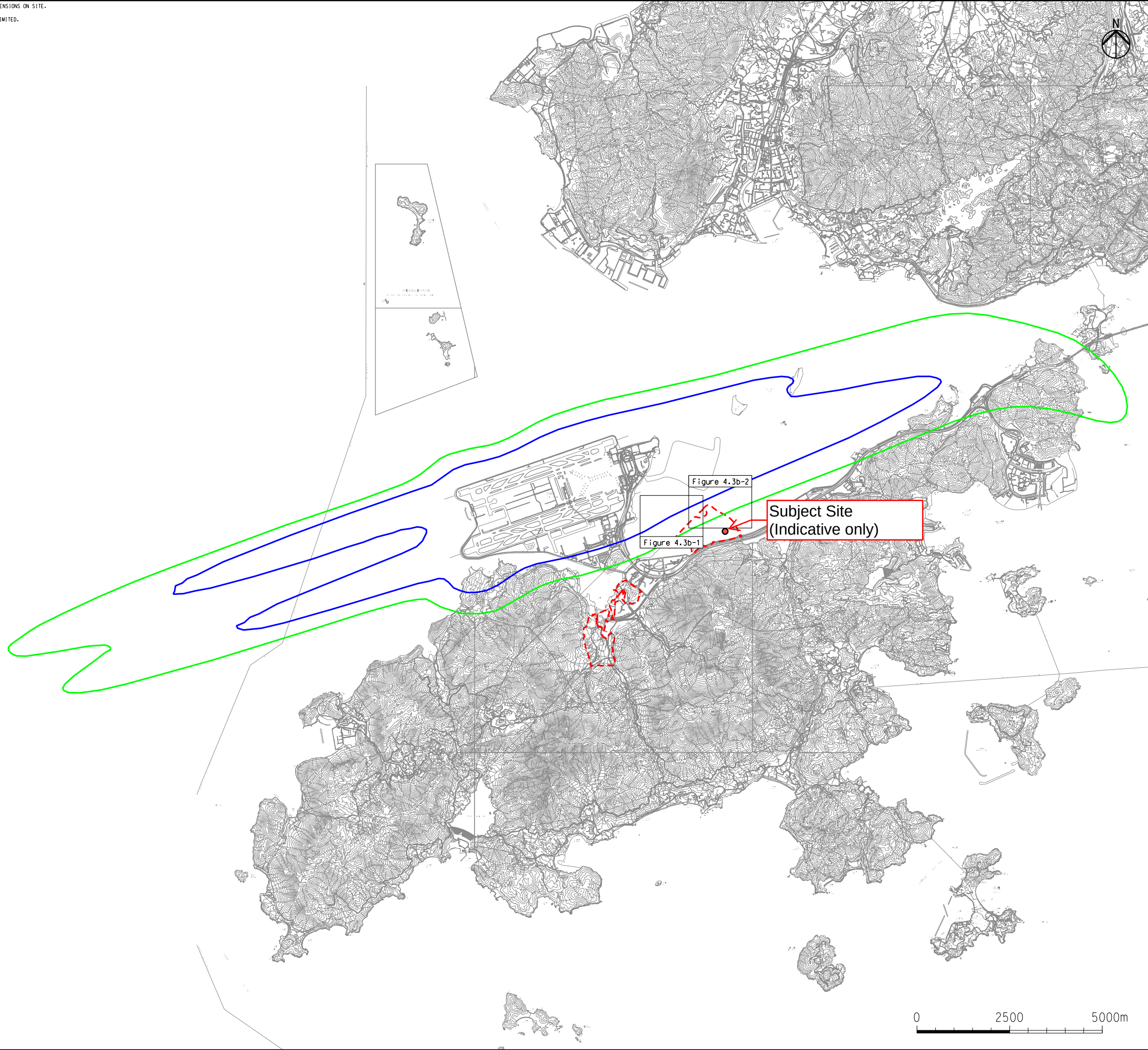


Figure 4.3b-2

Figure 4.3b-1

Subject Site
(Indicative only)

D	FOURTH ISSUE	GL	10/15
C	THIRD ISSUE	GL	08/15
B	SECOND ISSUE	GL	06/15
A	FIRST ISSUE	GL	04/15
Rev	Description	By	Date

Consultant

ARUP

Project title

Tung Chung
New Town Extension

Drawing title

NEF Contours Against
TCE Phasing
(Year 2011)
(Sheet 1 of 3)

Drawing no.

Figure 4.3a

Rev.

D

Drawn

GL

10/15

Checked

LK

Approved

FC

Scale

1:100000 @A3

Status

PRELIMINARY

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Civil Engineering and
Development Department

0 2500 5000m

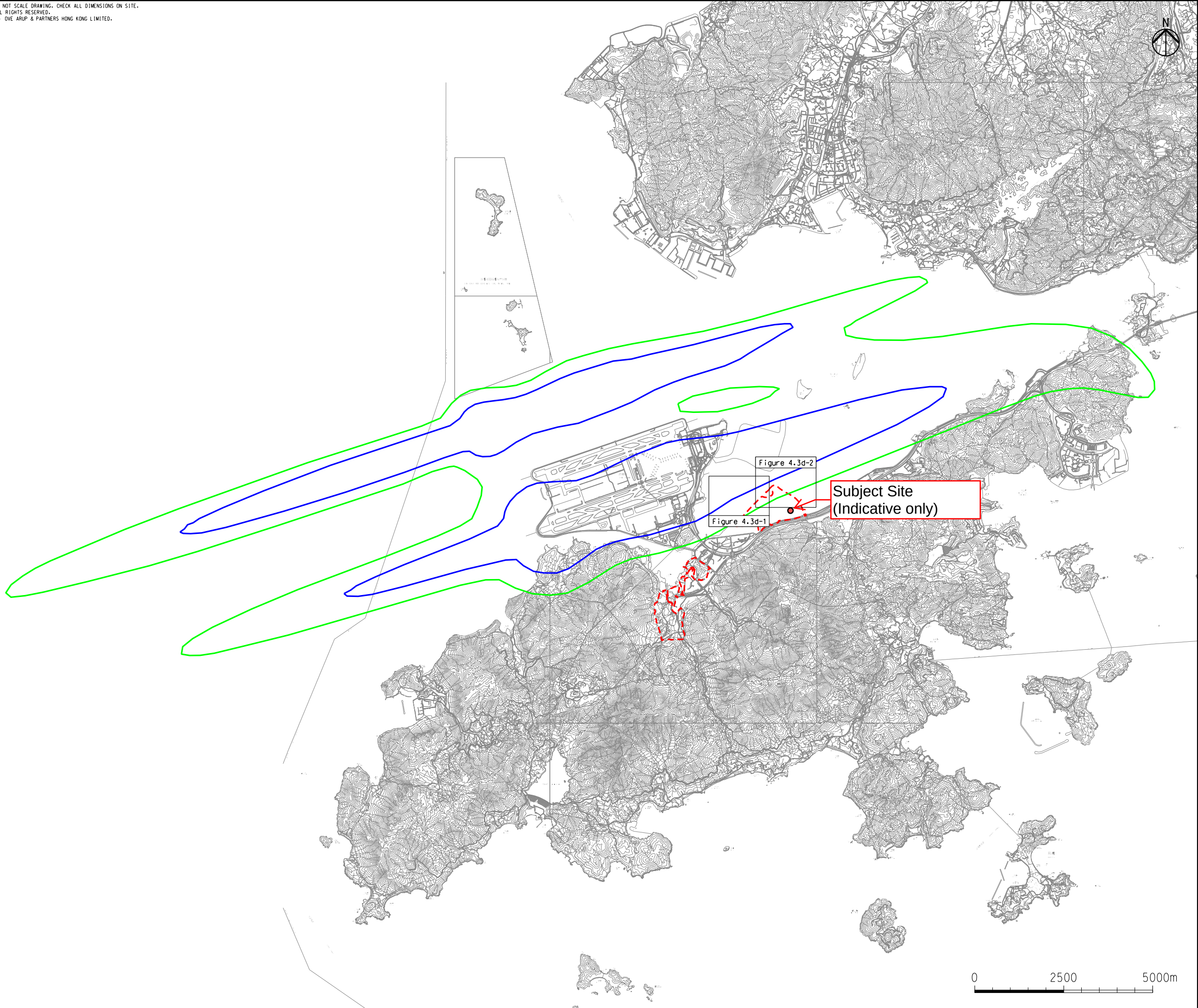
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LEGEND

- POSSIBLE DEVELOPMENT AREA
- NEF25 CONTOUR
- NEF30 CONTOUR

EXTRACTED FROM "EXPANSION OF HONG KONG INTERNATIONAL AIRPORT INTO A THREE-RUNWAY SYSTEM" EIA REPORT



D	FOURTH ISSUE	GL	10/15
C	THIRD ISSUE	GL	08/15
B	SECOND ISSUE	GL	06/15
A	FIRST ISSUE	GL	04/15
Rev	Description	By	Date

Consultant

ARUP

Project title

Tung Chung
New Town Extension

Drawing title

NEF Contours Against
TCE Phasing
(Year 2021)
(Sheet 1 of 3)

Drawing no. Figure 4.3c Rev. D

Drawn	Date	Checked	Approved
GL	10/15	LK	FC
Scale	1:100000 @A3	Status	PRELIMINARY

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LEGEND



POSSIBLE DEVELOPMENT AREA

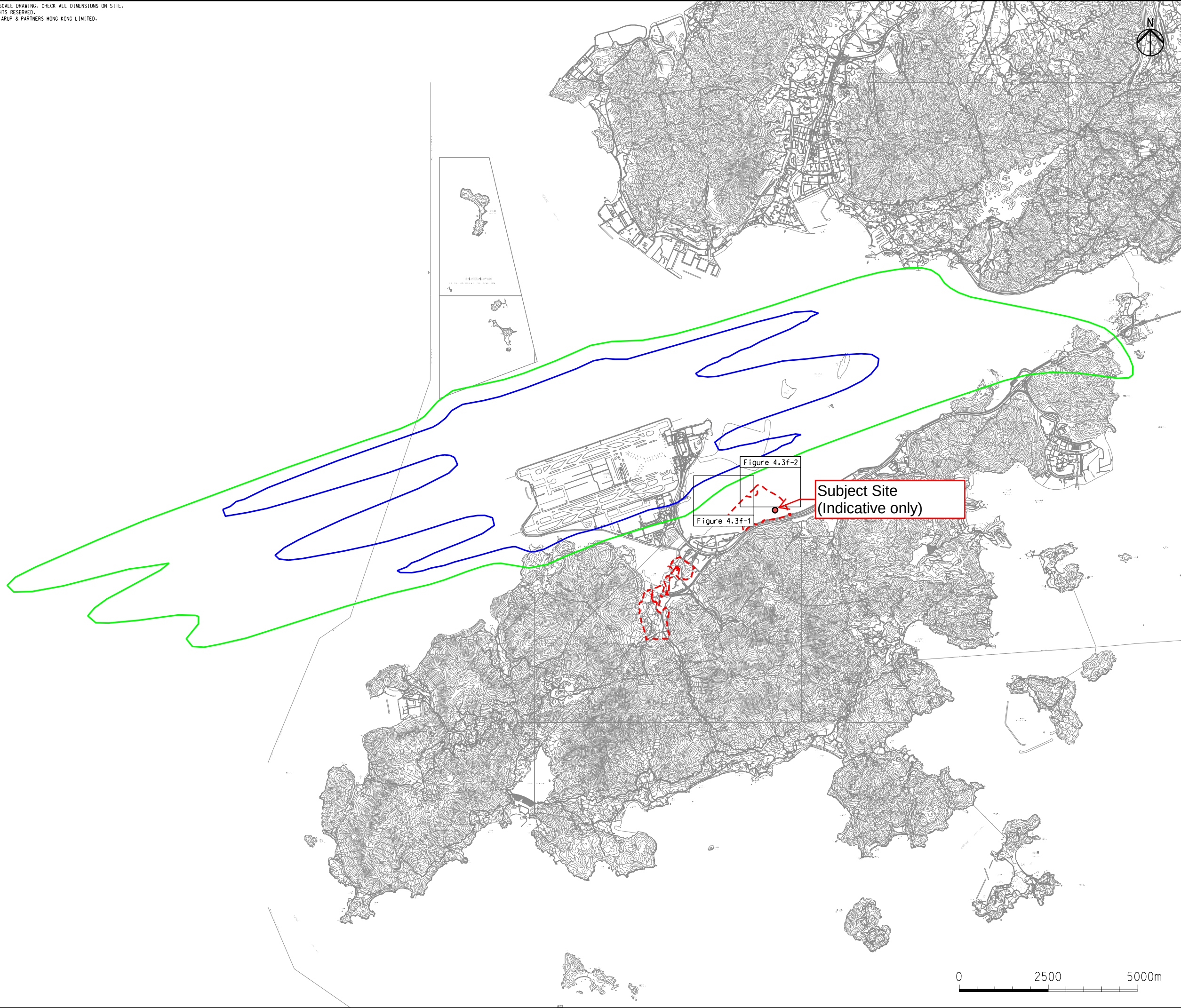


NEF25 CONTOUR



NEF30 CONTOUR

EXTRACTED FROM "EXPANSION OF HONG KONG
INTERNATIONAL AIRPORT INTO A THREE-RUNWAY
SYSTEM" EIA REPORT



D	FOURTH ISSUE	GL	10/15
C	THIRD ISSUE	GL	08/15
B	SECOND ISSUE	GL	06/15
A	FIRST ISSUE	GL	04/15
Rev	Description	By	Date

Consultant

ARUP

Project title

**Tung Chung
New Town Extension**

Drawing title

**NEF Contours Against
TCE Phasing
(Year 2030)
(Sheet 1 of 3)**

Drawing no.

Figure 4.3e

Rev.

D

Drawn

Date

10/15

Checked

Approved

LK

FC

Scale

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Status

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LEGEND



POSSIBLE DEVELOPMENT AREA

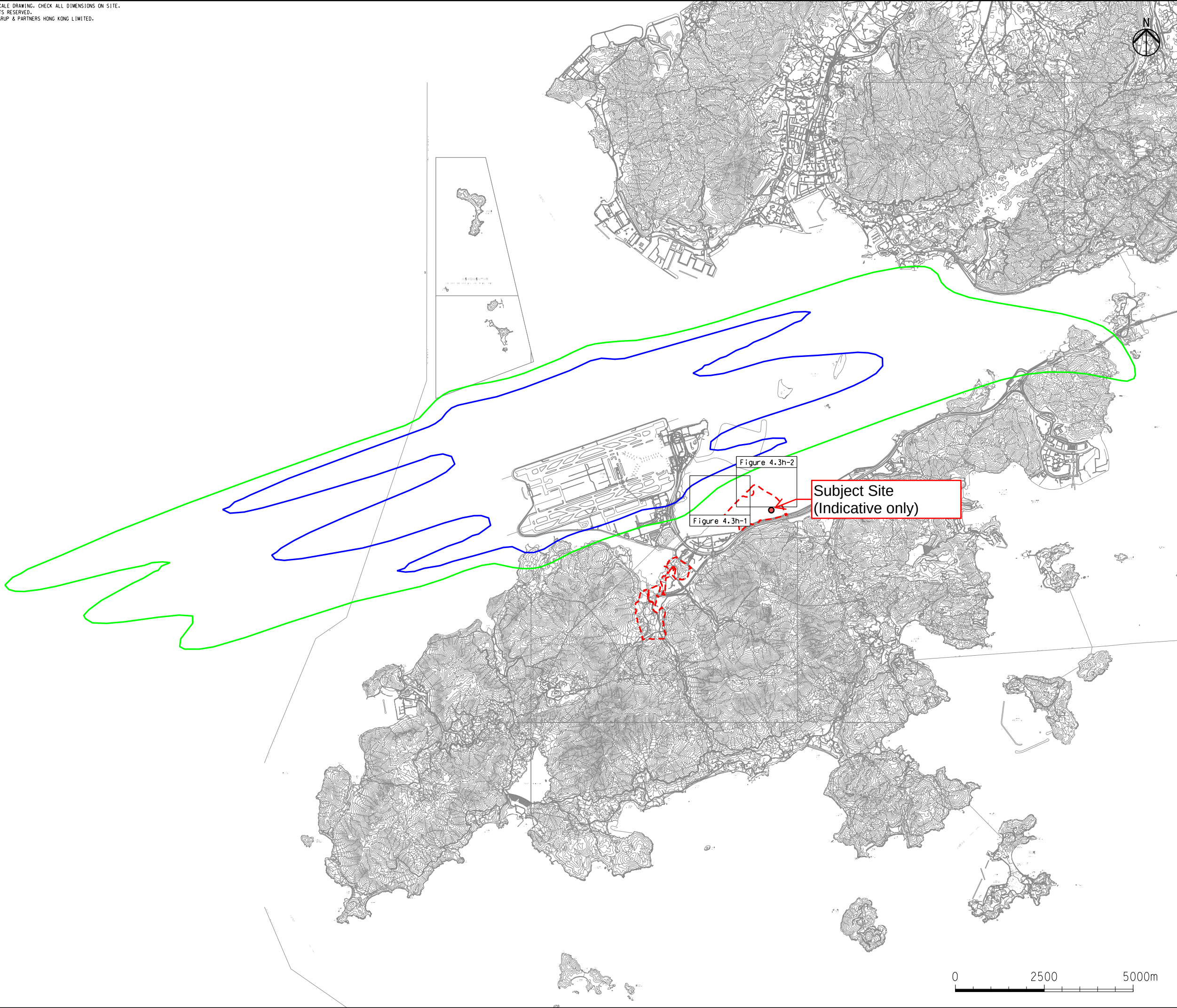


NEF25 CONTOUR



NEF30 CONTOUR

EXTRACTED FROM "EXPANSION OF HONG KONG
INTERNATIONAL AIRPORT INTO A THREE-RUNWAY
SYSTEM" EIA REPORT



D	FOURTH ISSUE	GL	10/15
C	THIRD ISSUE	GL	08/15
B	SECOND ISSUE	GL	06/15
A	FIRST ISSUE	GL	04/15
Rev	Description	By	Date

Consultant

ARUP

Project title

**Tung Chung
New Town Extension**

Drawing title

**NEF Contours Against
TCE Phasing
(Year 2032)
(Sheet 1 of 3)**

Drawing no.

Figure 4.3g

Rev.

D

Drawn

Date

10/15

Checked

Approved

LK

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Scale

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Status

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Civil Engineering and
Development Department**

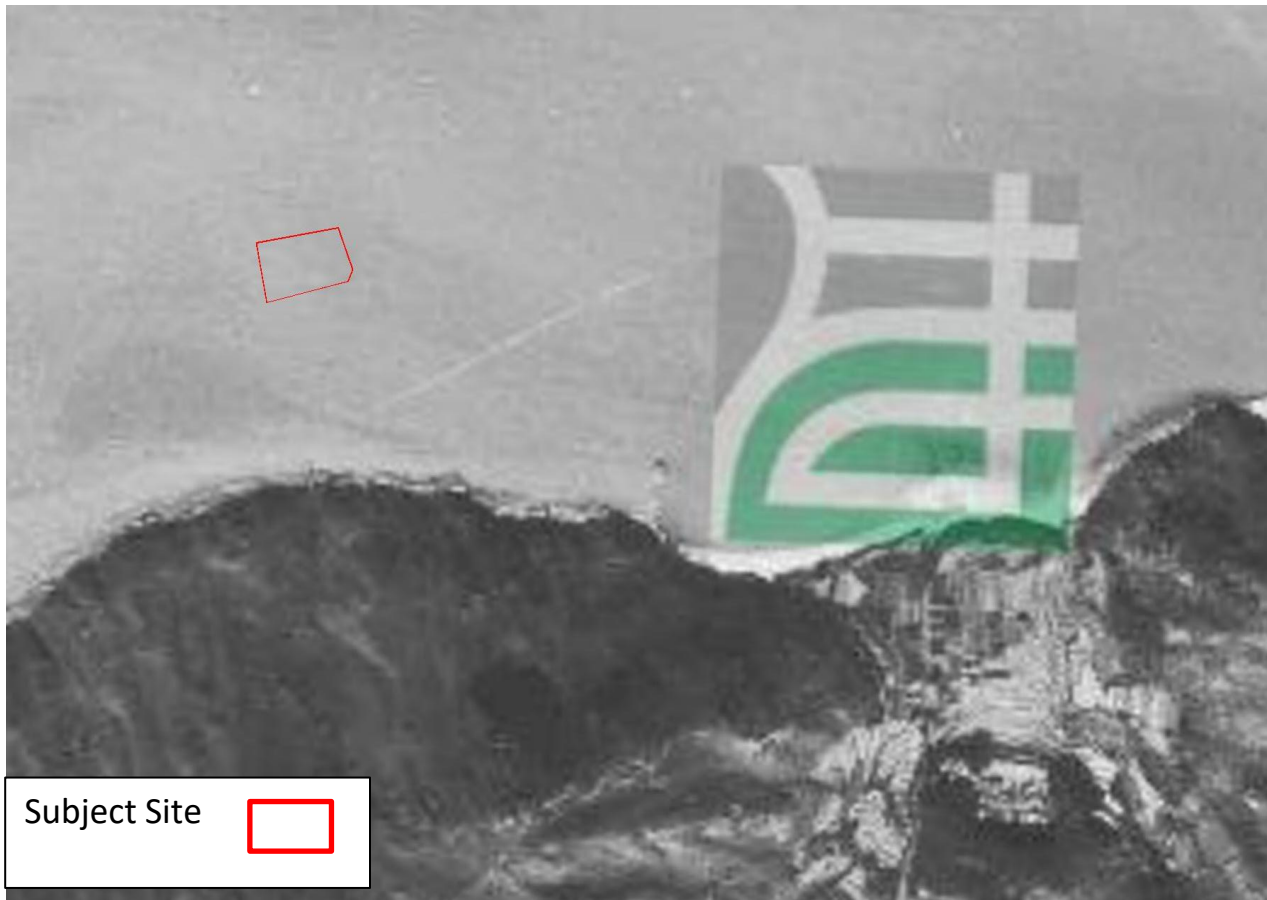


Appendix 8.1

Historical Aerial Photographs

Project No. 2240

Preliminary Environmental Review for Proposed Minor Relaxation of Building Height Restriction for Permitted Flat (Police Married Quarters) in "Government, Institution or Community (1)" Zone and Proposed Flat (Police Married Quarters) in "Government, Institution or Community" Zone in Government Land at Tung Chung Areas 134 and 135, Tung Chung, Lantau Island



Year: 1973

Project No. 2240

Preliminary Environmental Review for Proposed Minor Relaxation of Building Height Restriction for Permitted Flat (Police Married Quarters) in "Government, Institution or Community (1)" Zone and Proposed Flat (Police Married Quarters) in "Government, Institution or Community" Zone in Government Land at Tung Chung Areas 134 and 135, Tung Chung, Lantau Island



Year : 1982

Project No. 2240

Preliminary Environmental Review for Proposed Minor Relaxation of Building Height Restriction for Permitted Flat (Police Married Quarters) in "Government, Institution or Community (1)" Zone and Proposed Flat (Police Married Quarters) in "Government, Institution or Community" Zone in Government Land at Tung Chung Areas 134 and 135, Tung Chung, Lantau Island



Year : 2004

Project No. 2240

Preliminary Environmental Review for Proposed Minor Relaxation of Building Height Restriction for Permitted Flat (Police Married Quarters) in “Government, Institution or Community (1)” Zone and Proposed Flat (Police Married Quarters) in “Government, Institution or Community” Zone in Government Land at Tung Chung Areas 134 and 135, Tung Chung, Lantau Island



Year : 2012

Project No. 2240

Preliminary Environmental Review for Proposed Minor Relaxation of Building Height Restriction for Permitted Flat (Police Married Quarters) in “Government, Institution or Community (1)” Zone and Proposed Flat (Police Married Quarters) in “Government, Institution or Community” Zone in Government Land at Tung Chung Areas 134 and 135, Tung Chung, Lantau Island



Year : 2020

Project No. 2240

Preliminary Environmental Review for Proposed Minor Relaxation of Building Height Restriction for Permitted Flat (Police Married Quarters) in “Government, Institution or Community (1)” Zone and Proposed Flat (Police Married Quarters) in “Government, Institution or Community” Zone in Government Land at Tung Chung Areas 134 and 135, Tung Chung, Lantau Island



Year : 2024

Appendix 8.2

Copy of Letter Replies from Various Government Departments

Our Ref. [2240/24-0001]



Environmental Protection Department
Environmental Compliance Division
Regional Office (South)
Islands
2/F., Chinachem Exchange Square,
1 Hoi Wan Street, Quarry Bay,
Hong Kong.

27/F, Overseas Trust Bank Building
160 Gloucester Road
Wan Chai
Hong Kong

info@aechk.com
www.asecg.com

26 November 2024

By Email

Dear Sir/ Madam,

**Proposed Junior Police Married Quarters (JPOMQ)
at Area 134 in Tung Chung New Town Extension East
Request for Information for Land Contamination Assessment**

We are conducting an Environmental Assessment for Proposed Junior Police Married Quarters (JPOMQ) at Area in Tung Chung New Town Extension East (Subject Site). As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Subject 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 Subject 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. We enclosed herewith a site map showing the location of the Subject Site for your reference.

Due to tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. [REDACTED] or email by **10 December 2024**. Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact the undersigned at [REDACTED] or Ms. Christine Goh [REDACTED]

Yours sincerely,

A handwritten signature in black ink, appearing to be 'Cathy Man'.

Cathy Man
Associate Director
CM/II

Encl. Site Location Plan

Allied Environmental Consultants Limited

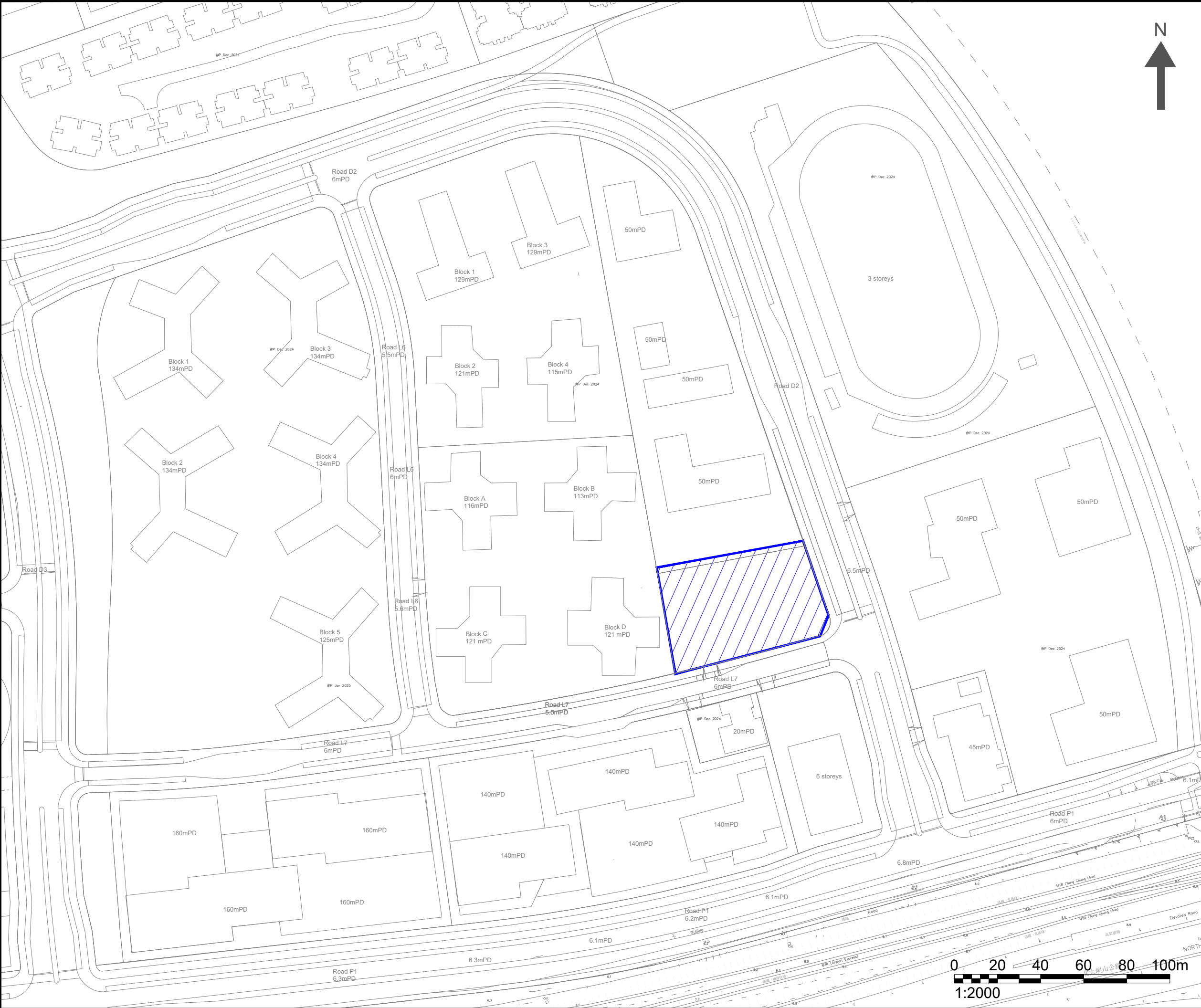
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沛然環境評估工程顧問有限公司

沛然環保集團成員 (港交所股份代號: 8320.HK)

香港灣仔告士打道 160 號海外信託銀行大廈 27 樓



NOTES :



Consultant



Allied Environmental Consultants Limited

Project No. : 2240

Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATION OF PROJECT SITE AND ITS ENVIRON

Drawing No : FIGURE 2.1	Revision : 0
Scale : AS SHOWN	Date : MAY 2025

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本署檔案
OUR REF : () in Ax (3) to EP771/E1/116 Pt.2
來函檔案
YOUR REF: 2240/24-0001
電話
TEL. NO. [REDACTED]
圖文傳真
FAX NO. : [REDACTED]
網址
HOMEPAGE: <http://www.epd.gov.hk>

**Environmental Protection Department
Environmental Compliance Division
Regional Office (South)**

2/F, Chinachem Exchange Square,
1 Hoi Wan Street,
Quarry Bay, Hong Kong.



環境保護署
環保法規管理科
區域辦事處(南)
香港鰂魚涌
海灣街一號
華懋交易廣場二樓

By Email Only (Total Page:1)

5 December 2024

Allied Environmental Consultants Limited
27/F, Overseas Trust Bank Building,
160 Gloucester Road, Wan Chai, Hong Kong.

(Attn: Ms. Cathy Man, Associate Director / Ms. Christine Goh, Assistant Consultant)

Dear Ms. Man,

**Proposed Junior Police Proposed Junior Police Married Quarters (JPOMQ)
at Area 134 in Tung Chung New Town Extension East
Request for Information for Land Contamination Assessment**

We refer to above referenced letter dated 26 November 2024.

Please be advised that there has been no registered chemical waste producer for the captioned area.

You are advised to seek other requested records from relevant departments for your consultancy study.


(Fiona CHEUNG)
Senior Environmental Protection Officer
for Director of Environmental Protection

Internal: AE(MP)2, E(TS)11

Our Ref. [2240/24-0002]



Fire Services Department
Fire Services Headquarters Building,
1 Hong Chong Road,
Tsim Sha Tsui East,
Kowloon

27/F, Overseas Trust Bank Building
160 Gloucester Road
Wan Chai
Hong Kong

info@aechk.com
www.aecg.com

26 November 2024

By Email

Dear Sir/Madam,

**Proposed Junior Police Married Quarters (JPOMQ)
at Area 134 in Tung Chung New Town Extension East
Request for Information for Land Contamination Assessment**

We are conducting an Environmental Assessment for Proposed Junior Police Married Quarters (JPOMQ) at Area in Tung Chung New Town Extension East (Subject Site). As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Subject Site are required as part of the vetting process.

Of particular interests are spill and incident reports (including records of fire at the Subject Site) that we believe your Department might have record of. Furthermore, we would also like to know whether anywhere of the subject site had applied or possessed license for dangerous goods storage. We enclosed herewith a site map showing the location of the Subject Site for your reference.

Due to tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. [REDACTED]) or email by **10 December 2024**.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact the undersigned at [REDACTED] or Ms. Christine Goh [REDACTED].

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Cathy Man', is written over a white rectangular background.

Cathy Man

Associate Director
CM/II

Encl. Site Location Plan

Allied Environmental Consultants Limited

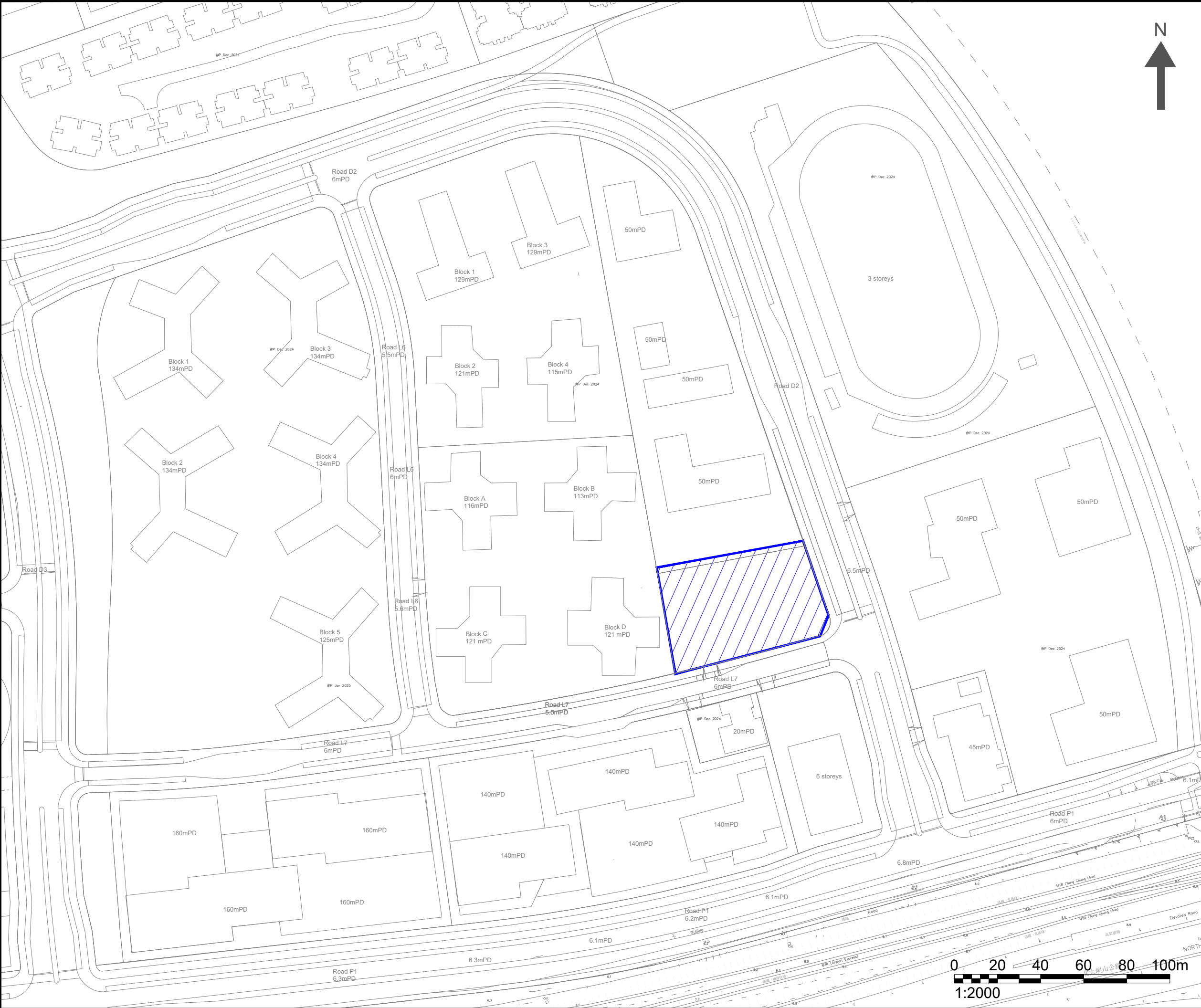
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沛然環境評估工程顧問有限公司

沛然環保集團成員 (港交所股份代號: 8320.HK)

香港灣仔告士打道 160 號海外信託銀行大廈 27 樓



NOTES :



Consultant



AEC

Allied Environmental Consultants Limited

Project No. : 2240

Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATION OF PROJECT SITE AND ITS ENVIRON

Drawing No : FIGURE 2.1	Revision : 0
Scale : AS SHOWN	Date : MAY 2025

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消防處
香港九龍尖沙咀東部康莊道1號
消防處總部大廈



125
FIRE SERVICES DEPARTMENT
FIRE SERVICES HEADQUARTERS
BUILDING,
No.1 Hong Chong Road,
Tsim Sha Tsui East, Kowloon,
Hong Kong.

本處檔號 OUR REF. : (125) in FSD GR 6-5/4 R Pt. 56
來函檔號 YOUR REF. : [2240/24-0002]
電子郵件 E-mail : hkfsdenq@hkfsd.gov.hk
圖文傳真 FAX NO. : 2988 1196
電話 TEL NO. : 2733 7896

24 December 2024

Allied Environmental Consultants Limited
27/F, Overseas Trust Bank Building,
160 Gloucester Road,
Wan Chai, Hong Kong.
(Attn: Ms. Cathy MAN, Associate Director)

Dear Ms. MAN,

**Proposed Junior Police Married Quarters (JPOMQ)
at Area 134 in Tung Chung New Town Extension East
Request for Information of Dangerous Goods & Incident Records**

I refer to your letter of 26.11.2024 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.

Yours sincerely,

(AU Ting-hin)
for Director of Fire Services

Our Ref. [2240/24-0003]



Planning Department
District Planning Branch
New Territories District Planning Division
Sai Kung & Islands District Planning Office
15/F, Sha Tin Government Offices,
1 Sheung Wo Che Road, Sha Tin, N.T.

27/F, Overseas Trust Bank Building
160 Gloucester Road
Wan Chai
Hong Kong

info@aechk.com
www.asecg.com

26 November 2024

By Email

Dear Sir/Madam,

**Proposed Junior Police Married Quarters (JPOMQ)
at Area 134 in Tung Chung New Town Extension East
Request for Information for Land Contamination Assessment**

We are conducting an Environmental Assessment for Proposed Junior Police Married Quarters (JPOMQ) at Area in Tung Chung New Town Extension East (Subject Site). As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Subject Site are required as part of the vetting process.

Of particular interests are current and historical site information, any change on the land use and any information you could provide that might be useful for our study. We enclosed herewith a site map showing the location of the subject site for your reference.

Due to tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. [REDACTED]) or email by **10 December 2024**.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact the undersigned at [REDACTED] or Ms. Christine Goh [REDACTED].

Yours sincerely,

A handwritten signature in black ink, appearing to be 'Cathy Man', written over a circular stamp.

Cathy Man
Associate Director
CM/II

Encl. Site Location Plan

Allied Environmental Consultants Limited

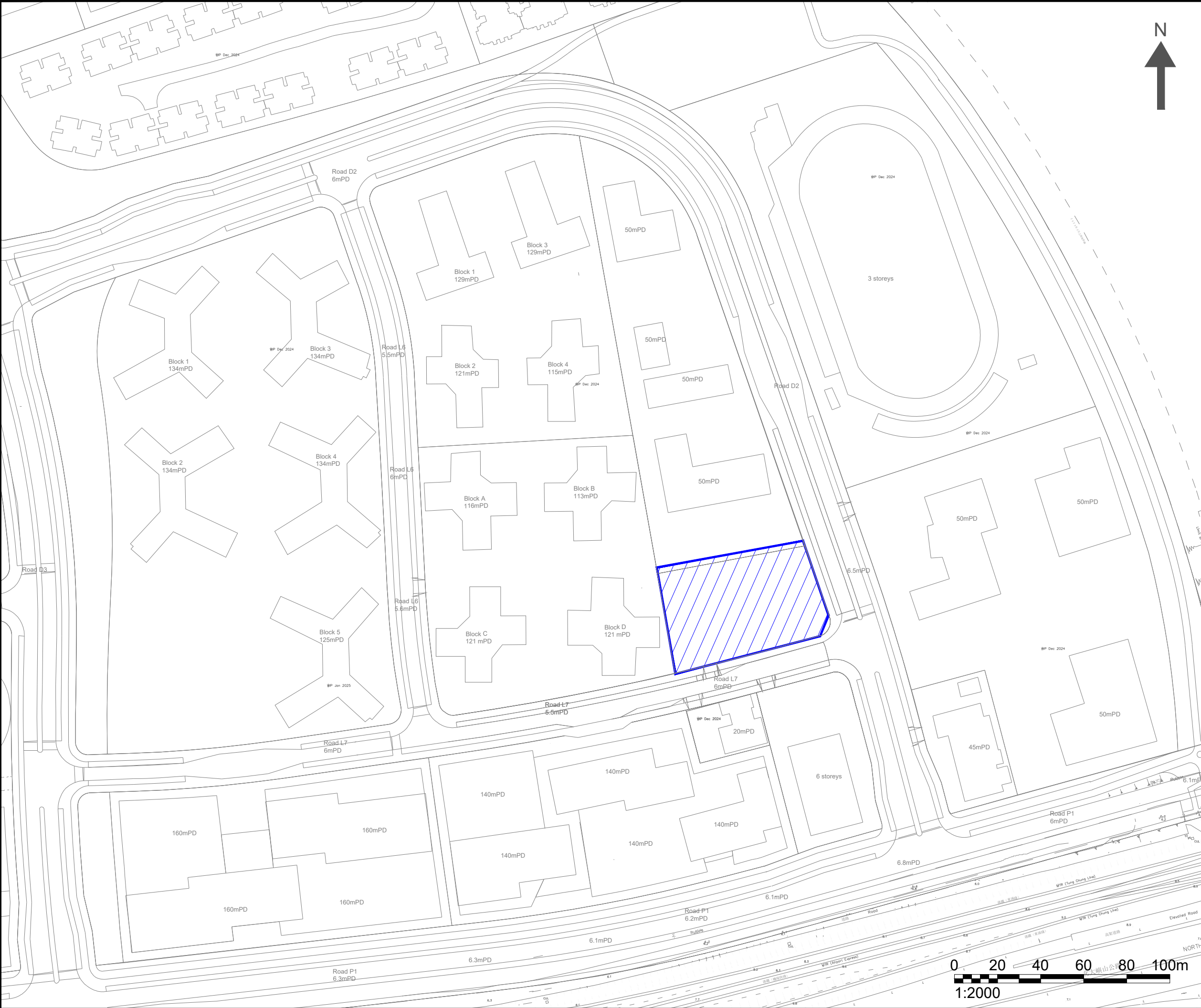
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沛然環保集團成員 (港交所股份代號: 8320.HK)

香港灣仔告士打道 160 號海外信託銀行大廈 27 樓



NOTES :



Consultant



AEC

Allied Environmental Consultants Limited

Project No. : 2240

Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATION OF PROJECT SITE AND ITS ENVIRON

Drawing No : FIGURE 2.1	Revision : 0
Scale : AS SHOWN	Date : MAY 2025

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Re: [2240] Information Request for Land Contamination Assessment - Tung Chung JPOMQ

From Kirstie Yuk Ling LAW/PLAND [REDACTED]

Date Thu 15/05/2025 09:34

To Christine Goh Siew Yinn [REDACTED]

Cc Cathy Mar [REDACTED] NGAN Chun Sang [REDACTED]

Dear Christine,

I refer to your preceding emails.

The subject site falls within an area zoned "Government, Institution or Community" ("G/IC") on the approved Tung Chung Extension Area Outline Zoning Plan (OZP) No. S/I-TCE/2. The site is located in the Tung Chung East Reclamation area and is on newly formed land. There has not been change of zoning since the first OZP (No. S/I-TCE/1) gazetted under s.5 of the Town Planning Ordinance on 8 January 2016.

Regards,
Kirstie LAW
SKIs DPO, PlanD
[REDACTED]

From: Christine Goh Siew Yinn [REDACTED]

Sent: Thursday, May 15, 2025 9:15 AM

To: Kirstie Yuk Ling LAW/PLAND [REDACTED]

Cc: Cathy Mar [REDACTED]; NGAN Chun Sang [REDACTED]

Subject: Re: [2240] Information Request for Land Contamination Assessment - Tung Chung JPOMQ

Dear Kirstie,

I hope this message finds you well.

With reference to our previous email dated 28 November 2024, we would like to follow up on regarding the information request for the proposed development at Area 134, Tung Chung New Town Extension East. We would greatly appreciate it if you could kindly provide us with a reply on the requested information at your earliest convenience.

Your assistance is much appreciated.

Thank you very much for your support.

Best regards,



**Christine Goh – Assistant Consultant
Environmental Consultancy | Green & Healthy Building**
[REDACTED]

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From: Christine Goh Siew Yinn

Sent: 28 November 2024 17:51

To: [REDACTED]

Cc: Cathy Man [REDACTED]; NGAN Chun Sang [REDACTED]

Subject: [2240] Information Request for Land Contamination Assessment - Tung Chung JPOMQ

Dear Ms. LAW,

**Proposed Junior Police Married Quarters (JPOMQ) at Area 134 in Tung Chung New Town
Extension East**

Request for Information for Land Contamination Assessment

We are conducting an Environmental Assessment for Proposed Junior Police Married Quarters (JPOMQ) at Area in Tung Chung New Town Extension East (Subject Site). As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Subject Site are required as part of the vetting process.

Of particular interests are current and historical site information, any change on the land use and any information you could provide that might be useful for our study. We enclosed herewith a site map showing the location of the subject site for your reference.

Due to tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. 2815 5399) or email by **10 December 2024**.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact us.

Thanks and regards,



**Christine Goh – Assistant Consultant
Environmental Consultancy | Green & Healthy Building**



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Our Ref. [2240/24-0004]



Lands Department
District Lands Office,
Islands
19th floors,
Harbour Building,
38 Pier Road,
Central, Hong Kong

27/F, Overseas Trust Bank Building
160 Gloucester Road
Wan Chai
Hong Kong

info@aechk.com
www.asecg.com

26 November 2024

By Email

Dear Sir/Madam,

**Proposed Junior Police Married Quarters (JPOMQ)
at Area 134 in Tung Chung New Town Extension East
Request for Information for Land Contamination Assessment**

We are conducting an Environmental Assessment for Proposed Junior Police Married Quarters (JPOMQ) at Area in Tung Chung New Town Extension East (Subject Site). As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Subject 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, and any information you could provide which might be useful for our study. We enclosed herewith a site map showing the location of the subject site for your reference.

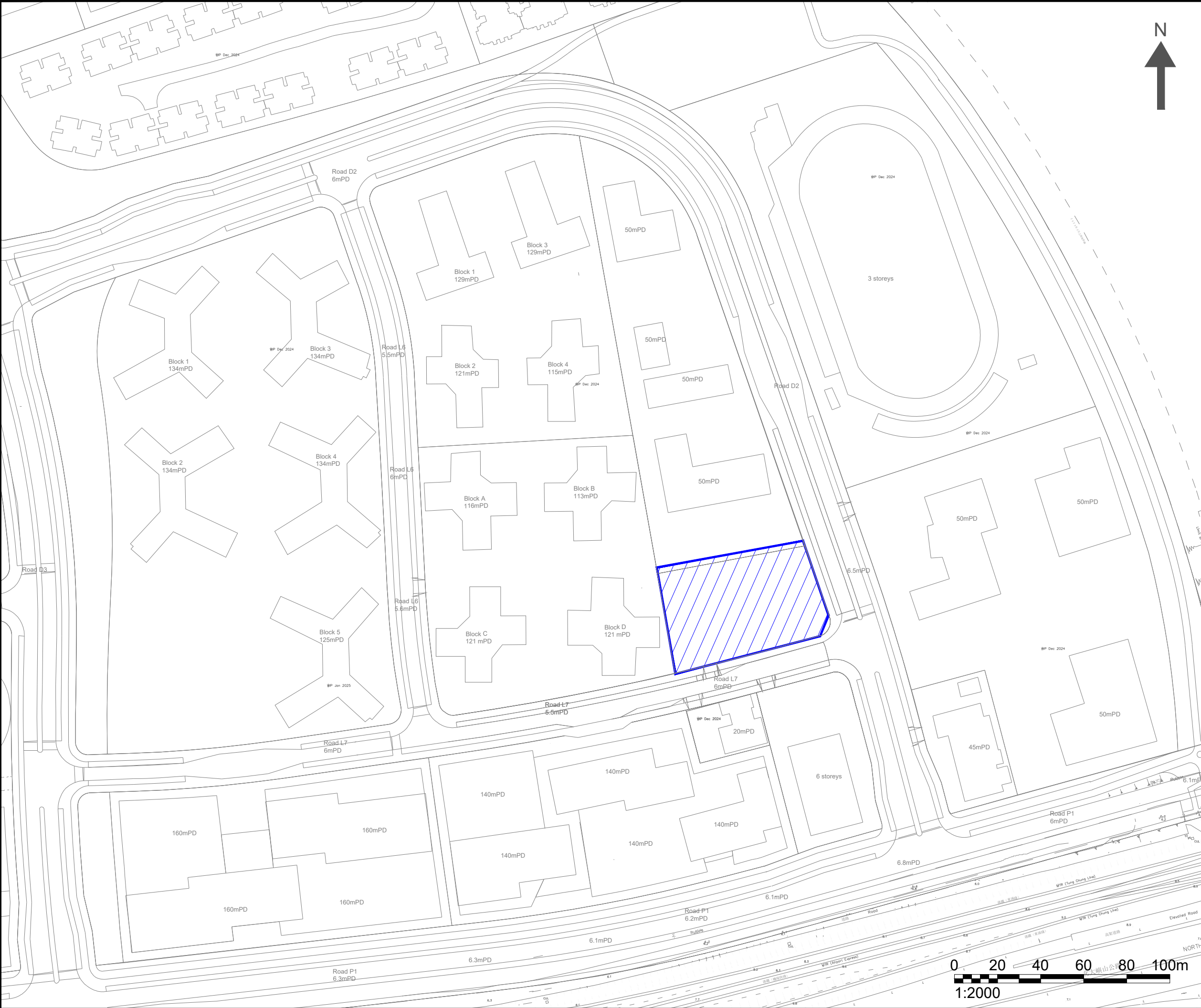
Due to tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. [REDACTED]) or email by **10 December 2024**.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact the undersigned at [REDACTED] or Ms. Christine Goh [REDACTED] at [REDACTED].

Yours sincerely,

A handwritten signature in black ink, appearing to be 'Cathy Man'.

Cathy Man
Associate Director
CM/II
Encl. Site Location Plan



NOTES :



Consultant



Allied Environmental Consultants Limited

Project No. : 2240

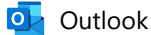
Drawing By : CC

Project :
PROPOSED MINOR RELAXATION OF BUILDING HEIGHT RESTRICTION FOR PERMITTED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY (1)" ZONE AND PROPOSED FLAT (POLICE MARRIED QUARTERS) IN "GOVERNMENT, INSTITUTION OR COMMUNITY" ZONE IN GOVERNMENT LAND AT TUNG CHUNG AREAS 134 AND 135, TUNG CHUNG, LANTAU ISLAND

Drawing Title :
LOCATION OF PROJECT SITE AND ITS ENVIRON

Drawing No : FIGURE 2.1	Revision : 0
Scale : AS SHOWN	Date : MAY 2025

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Re: Fw: [2240] Information Request for Land Contamination Assessment - Tung Chung JPOMQ

From [REDACTED]
Date Mon 17/03/2025 16:39
To Christine Goh Siew Yinn [REDACTED]

Dear Christine,

I refer to your email dated 28.11.2024 and your supplementary information provided on 20.12.2024.

In response to para. 2 of your email dated 28.11.2024, please see the information as requested below:-

- 1) This office has not received any reported spillage accidents, illegal/contaminating issues in respect of the concerned site.
- 2) The site is currently allocated to Civil Engineering and Development Department ("CEDD") under Simplified Temporary Land Allocation ("STLA") to carry out "Tung Chung New Town Extension - Reclamation and Advance Works" since 20 December 2017.

Since the concerned site is within the STLA allocated to CEDD, you may wish to approach CEDD direct for your required information. Should you have any queries, please feel free to contact me.

Regards,
Milky Li
ES/SD1. DLO/Is
[REDACTED]

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From: Christine Goh Siew Yinn [REDACTED]
To: [REDACTED]
Cc: Cathy Man [REDACTED], NGAN Chun Sang [REDACTED]
Date: 20/12/2024 15:42
Subject: Re: Fw: [2240] Information Request for Land Contamination Assessment - Tung Chung JPOMQ

Dear Milky,

Thank you for your reminder.

Please find the attached appointment letter for your reference and for proceeding with the related work. Should you require any additional information or clarification, please feel free to contact us.

Thank you for your kind attention.

Best regards,
Christine Goh – Assistant Consultant
Environmental Consultancy | Green & Healthy Building
[REDACTED]

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From: [REDACTED]
Sent: 17 December 2024 15:03
To: Christine Goh Siew Yinn [REDACTED]
Subject: Re: Fw: [2240] Information Request for Land Contamination Assessment - Tung Chung JPOMQ

Dear Christine,

I refer to my preceding email.

Your reply is still pending. You are reminded to provide the required information to this office for our consideration. Should you have any queries, please feel free to contact me.

Regards,
Milky Li
ES/SD1, DLO/Is
[REDACTED]

This message and any attachment is intended for the use of the addressee only. It may contain information which is confidential and/or legally privileged. You are hereby notified that no unauthorised disclosure or use of this message is permitted. If you have received this message by mistake, please notify us immediately and delete or destroy this message, as appropriate. Any liability arising from the use of this information is excluded.

From: Milky Chui Ting LI/LAO/LANDSD/HKSARG
To: [REDACTED]
Date: 05/12/2024 16:27
Subject: Fw: [2240] Information Request for Land Contamination Assessment - Tung Chung JPOMQ

Dear Christine,

I refer to your preceding email regarding the captioned.

Please advise the identity and status of your company in connection to the project (i.e. the Proposed Junior Police Married Quarters (JPOMQ) at Area 134 in Tung Chung New Town Extension East), with necessary supporting document, before we could follow up your enquiry.

Regards,
Milky Li
ES/SD1, DLO/Is
[REDACTED]

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----- Forwarded by Milky Chui Ting LI/LAO/LANDSD/HKSARG on 05/12/2024 16:10 -----

From: Christine Goh Siew Yinn [REDACTED]
To: [REDACTED]
Cc: Cathy Man [REDACTED], NGAN Chun Sang [REDACTED]
Date: 2024/11/28 下午 05:49
Subject: [2240] Information Request for Land Contamination Assessment - Tung Chung JPOMQ

Dear Sir/Madam,

Proposed Junior Police Married Quarters (JPOMQ) at Area 134 in Tung Chung New Town Extension East
Request for Information for Land Contamination Assessment

We are conducting an Environmental Assessment for Proposed Junior Police Married Quarters (JPOMQ) at Area in Tung Chung New Town Extension East (Subject Site). As required by the "Practice Guide for Investigation and Remediation of Contaminated Land" published by the Environmental Protection Department of the HKSAR (EPD), information pertaining to the change of land uses/past activities/incidents/accidents at the Subject 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, and any information you could provide which might be useful for our study. We enclosed herewith a site map showing the location of the subject site for your reference.

Due to tight schedule, it is highly appreciated if the above information could be available and returned to us via either fax (Fax No. [REDACTED]) or email by **10 December 2024**.

Thank you very much for your kind attention and assistance. Should you have any queries, please feel free to contact us.
Thanks and regards,

Christine Goh – Assistant Consultant
Environmental Consultancy | Green & Healthy Building

Allied Environmental Consultants Limited *Member of AEC Group (HKEX Stock Code: 8320.HK)*
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