



Date: 28<sup>th</sup> July 2025

Pages: 1 + Attachments

Secretary, Town Planning Board  
15/F, North Point Government Offices  
333 Java Road, North Point, Hong Kong

**BY HAND & BY EMAIL**

Dear Sir/Madam,

**SECTION 16 APPLICATION  
TOWN PLANNING ORDINANCE (CHAPTER 131)**

\*\*\*\*\*

**PROPOSED SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES) IN "VILLAGE TYPE DEVELOPMENT" ZONE ON APPROVED NAM SANG WAI OUTLINE ZONING PLAN NO. S/YL-NSW/10 AT LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG**

**Town Planning Application No. A/YL-NSW/348 - Submission of Further Information (2)**

References are made to the emails dated 27<sup>th</sup> June 2025, 4<sup>th</sup> July 2025, 17<sup>th</sup> July 2025 and 18<sup>th</sup> July 2025 from the Planning Department in relation to technical comments from various departments.

In order to address the comments, please find attached 4 hard copies of the response-to-comment (R to C) table with the revised Environmental Assessment at **Appendix 1**. The revised Traffic Impact Assessment is attached at **Appendix 2**, while the Modification Plans of Noise Barrier and Street Furniture are attached as **Appendix 3**.

Should you have any queries with this submission, please feel free to contact Mr. Jeffrey Kwok and Ms. Samantha Ng at [REDACTED] or the undersigned at [REDACTED].

Yours faithfully,  
FOR AND ON BEHALF OF  
DeSPACE (INTERNATIONAL) LIMITED



Greg Lam



**PROPOSED SOCIAL WELFARE FACILITY (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES) IN “VILLAGE TYPE DEVELOPMENT” ZONE ON APPROVED NAM SANG WAI OUTLINE ZONING PLAN NO. S/YL-NSW/10 AT LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG**

(Planning Application No. A/YL-NSW/348)

**Response-to-Comment Table**

Departmental Comments	Response
<b>Email dated 27<sup>th</sup> June 2025 refers:</b>	
<b><u>Comment from the Director of Environmental Protection</u></b>	
<b><u>(Comments on the EA and SIA)</u></b>	
<b><u>(Please refer to Appendix 1 for the Revised Environmental Assessment)</u></b>	
<b>General</b>	
1. S.1.2.1 - The site area is inconsistent with that provided in the planning statement, please check.	The site area is corrected.
2. Please highlight all the changes/amendments in the next submission.	Noted.
<b>Air Quality</b>	
<b>1. Section 2.2.2 and Table 2.1</b>	
a. The AQOs were updated on 11 April 2025. Please revise Table 2.1 to present the updated AQOs.	The table is updated accordingly.
<b>2. Section 2.2.4</b>	
a. Please delete “active and passive” in line 1.	The section is revised accordingly.
b. Please revise “open road” in line 3 to “vehicular”.	The section is revised accordingly.
<b>3. Section 2.3.1, Table 2.3 and Figure 2.1</b>	
a. Section 2.3.1, Table 2.3 and Figure 2.1 - Please note that not only the domestic premises are the ASRs, some places/premises such as factory and workshop may also be the ASRs. Based on the desktop review, there are some areas in the vicinity of the project site which have been used for workshops/open storage, etc. Please review the potential existing/planned ASRs within the assessment area with reference to the Determination of ASR under the EIAO-TM and update as appropriate.	More ASRs have been identified in Table 2.3 and Figure 2.1. For other areas mainly for open storage use where long duration of exposure to air pollutants is not expected are, therefore, not considered as ASR.
<b>4. Sections 2.4.1 and 2.4.2</b>	
a. Please provide the estimated size of site formation, amount of excavated materials, size of active workfront area, no. of construction vehicles and PME to be used at a time, etc. to justify the scale of construction works and hence if the construction air quality impact can be properly controlled with the implementation of the recommended mitigation measures.	The estimation is provided in Section 2.4.2 to 2.4.3 accordingly.
b. Besides the fugitive dust emission, exhaust emissions from the use of construction machinery and construction vehicles including particulate matters (PM) and gaseous emissions are also another potential source of construction air quality impact, please supplement in Section 2.4.1.	The section is revised accordingly.

c. For the Comment #4(b) above, please consider if the control measures set out in the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation will implemented to control the emissions and supplement in Section 2.4.2.	The discussion is provided in Section 2.4.3 accordingly.
d. Please provide the details about the construction programme of the proposed development and review if there are any concurrent projects within the assessment area such that there will be any cumulative construction air quality impact to be addressed.	The construction programme is provided in Section 2.4.2 accordingly.
<b>5. Section 2.4.2</b>	
a. Please revise “dust” in line 1 to “air quality”.	The section is revised accordingly.
b. Please revise “minimise the dust impact” in line 3 to “control the air pollutant emissions”, and revise “fugitive dust” to “air quality”.	The section is revised accordingly.
<b>6. Section 2.4.3</b>	
a. Please revise “minimized” in line 1 to “controlled”.	The section is revised accordingly.
b. Please revise “dust” in line 2 to “air quality”.	The section is revised accordingly.
c. Please revise “suppression” in line 5 to “control”	The section is revised accordingly.
d. Please propose any additional measures for the exhaust emissions from the use of construction machinery (e.g. if electrified NRMM will be used as far as practicable and exempted NRMM will be avoided, etc.), supplement in the additional bullets.	Additional bullets is added accordingly
<b>7. Section 2.5.2 and Table 2.4</b>	
a. Please clearly state that the road type of Kam Pok Road East is not available in the latest Annual Traffic Census (ATC) of the Transport Department (TD). TD’s endorsement on the road type of Kam Pok Road East should be sought in order to consider it as local distributor such that 5m buffer distance requirement in Table 3.1 of Chapter 9 of HKPSG can be applied.	TD’s endorsement to be provided once available.
b. Please delete “of mechanical ventilation” in the 2nd last line, and revise “area” in the last line to “space”.	The section is revised accordingly.
c. Also please advise if there is any proposed carpark, PTL/public transport lay-by, etc. in the proposed development. If any, their air quality impacts should be assessed.	Discussion of proposed carpark is added in section 2.5.4.
<b>8. Section 2.5 – Industrial/chimney emission</b>	
a. Please review if there is any source of industrial/chimney emission within the assessment area. If any, their air quality impacts should be assessed with reference to Table 3.1 of Chapter 9 of HKPSG. Please supplement in a new sub-section under Section 2.5	Discussion of industrial/chimney emission is added in Section 2.5.5.
b. As mentioned in Comment #3(a) above, it is noted that there are a number of industrial activities in the vicinity of the proposed development. Please review and further supplement the findings identified in the vicinity to support there is no active/heavy industrial operation in the vicinity and hence no adverse I/R interface problem is anticipated. Please supplement in a new sub-section under Section 2.5	Discussion of industrial/chimney emission is added in Section 2.5.5.
<b>9. Section 2.5 – Odour emission</b>	

a. Please review if there is any source of odour emission within the assessment area (e.g. livestock farm, lard boiling factory, STP/SPS, temple with incense/joss paper burning, nullah, etc.), if any, their air quality/odour impacts should be assessed. Please supplement in a new subsection under Section 2.5	Discussion of odour emission is added in Section 2.5.6.
<b>10. Section 2.6.1</b>	
a. Please add “and gaseous” after “Fugitive dust” in line 1.	The section is revised accordingly.
b. Please revise “dust” in line 2 to “air quality”.	The section is revised accordingly.
c. Please delete “at source to acceptable levels” in the 2nd last line, and add “adverse” before “air”.	The section is revised accordingly.
d. Please delete “to be adverse” in the last line.	The section is revised accordingly.
<b>11. Section 2.6.2</b>	
a. Please supplement this section by incorporating the Comments #8 and #9 above.	The section is revised accordingly.
<b>12. Figure 2.2</b>	
a. The buffer distance should be measured from the edge of road kerb. Please update and present the buffer zone appropriately.	Figure 2.2 is revised accordingly.
b. Please show the road name of Kam Pok Road East clearly in the figure.	Figure 2.2 is revised accordingly.
c. Please add a remark “No air-sensitive use including openable window, fresh air intake and recreational use in open space shall be located within the buffer zone”.	Figure 2.2 is revised accordingly.
<b><u>Email dated 18<sup>th</sup> July 2025 refers:</u></b>	
<b><u>Comment from the Director of Environmental Protection</u></b>	
<b><u>(Please refer to Appendix 1 for the Revised Environmental Assessment)</u></b>	
<b><u>Comments on the Noise Chapter of the Environmental Assessment:</u></b>	
1. S3.2.1 i. "Good Practices on Pumping System Noise Control; and Good Practices on Ventilation System Noise Control" has been obsoleted and replaced by "Good Practices on the Control of Noise from Electrical & Mechanical Systems". Please note and update.	The guideline has been updated accordingly.
2. S3.3.1	
i. The statement of "There is no statutory control for noise arising from construction activities (except for percussive piling and the use of hand-held percussive breakers and air compressors) during non-restricted hours" is misleading and unclear. Please note that the Cap 400C&D Regulations require that such equipment comply with the noise emission standard and shall be fitted with NEL, rather than controlled under the aspect of “non-restricted hours/restricted hour”. Please rephrase respective sentences.	The statement is revised accordingly.
ii. Please also consider to replace the relevant part in S3.3.1 with below: "ProPECC PN1/24 offers guidance on the existing control on noise from construction activities under the Noise Control Ordinance (NCO) and Environmental Impact Assessment Ordinance (EIAO). It also outlines the requirements and recommendations on the practices	The statement is revised accordingly.

<p>for minimizing construction noise. The noise generated by construction activities for the project during non-restricted hours (7 a.m. to 7 p.m. on any day that is not a Sunday or general holiday) should be minimized to the greatest extent practicable. Additionally, the construction noise at the facade of the respective noise-sensitive receivers should not exceed the following noise levels, as summarised in Table 3.1 below. "</p>	
<p>3. S3.4.2 i. Please suggest the type of area and justify the corresponding area sensitive rating. Please also add the following after this sub-section: "In any event, the ASR assumed in this report is for indicative assessment only. It should be noted that the noise emanating from any place other than domestic premises, a public place or a construction site is controlled under Section 13 of the Noise Control Ordinance. At the time of investigation, the Noise Control Authority shall determine the noise impact from concerned sources on the basis of prevailing legislation and practices being in force and taking account of contemporary conditions/situations of adjoining land uses. Nothing in this report shall bind the Noise Control Authority in the context of law enforcement against all the sources being assessed.</p>	<p>The ASR is discussed and the sub-section is added in Section 3.4.3 and 3.4.4 accordingly.</p>
<p>1. S3.4.3 i. Please explicitly state the use of "Multi-purpose area" on the 1st floor to substantiate it doesn't require a stringent road traffic noise standard lower than 70 dB(A).</p>	<p>The use of Multi-purpose area is explained accordingly.</p>
<p>2. S3.4.7 i. Please check if it is a typo for "Thee".</p>	<p>The typo is corrected accordingly.</p>
<p>3. S.3.4.8 i. Noted that the endorsement of the revised traffic forecast by TD is to be provided. In case TD has no comment on the methodology for traffic forecast only, the consultant should provide written confirmation from the respective competent party (e.g., traffic consultant) that TD's endorsed methodology has been strictly adopted in preparing the traffic forecast data, and hence the validity of traffic data can be confirmed.</p>	<p>The TD endorsement and written confirmation from traffic consultant to be provided once available.</p>
<p>4. S.3.4.9 Table 3.6 and Appendix 3.2 i. From Appendix 3.2, the maximum L10(1 hr) under unmitigated would be 78 dB(A) at 2F_N01 and 2F_N02. This does not align with S.3.4.9 Table 3.6. Please check. Besides, it is suggested to further separate the table by floor for each facility / room type, for better presentation.</p>	<p>Table 3.6 is revised accordingly.</p>
<p>5. S.3.4.11 i. Please aware of the inconsistency of block letter for the name of PN.</p>	<p>The letter is revised accordingly.</p>
<p>6. S.3.4.12 and Fig.3.3, Appendix 3.2 i. As shown on Fig 3.3, the reference case for Type 2 AW(BT) is under room size of 18 m<sup>2</sup> with a specified window design, providing a noise attenuation of 7 dB(A). S.3.4.12 also suggests that noise reduction depends on room size. While Appendix 3.2 proposes the use of Type 2 AW(BT) at 23 NSPs, please provide the room size in the tentative layout and any room size correction, justifying a noise attenuation of 7 dB(A)</p>	<p>Please be clarified that the room size of dormitory is typically 40 to 50 m<sup>2</sup>, which is larger than 18 m<sup>2</sup>, therefore, no room size correction is included for conservative approach.</p>

by Type 2 AW(BT) are appropriate.	
ii. Additionally, it has been noted that absorptive material is suggested for 2F_N01 and 2F_N02, which is proposed to provide an additional noise attenuation of 1 dB(A). Please include this information in S.3.4.12 as well. Furthermore, please provide supporting details on the noise reduction efficiency and the design of how it is incorporated into the acoustic window in the appendix.	According to the latest road traffic noise results, please note that no absorptive material is required.
7. S.3.4.16 i. In order to provide a guidance for future development, please supplement the prevailing background noise levels with full details of the prevailing background noise measurement, including personnel, equipment, weather, field observations, etc., shall be documented and included in the report for easy future reference.	Discussion of prevailing background noise measurement is added in Section 3.4.16.
8. S.3.4.18 and Table 3.7	
i. Figure 3.3 is Location of Proposed Acoustic Window. Please update and provide the corresponding figure indicating the location of existing major noise sources. Please also attach the site inspection report with photo of the open storage in site visit.	Location of existing major noise sources and site inspection record are presented in Figure 3.4 and Appendix 3.3 respectively.
ii. The location of S01 is currently unknown, but it is reported to be approximately 100 meters away from the project site. If there are no building separations between S01 and the proposed site, we recommend conducting sound measurements and providing calculations for a noise assessment. This will help to demonstrate that open storage will not negatively impact the proposed site.	Sound measurements are presented in Appendix 3.3.
iii. There was a Section 16 application (Application No. A/YL-NSW/318) for the development of a public vehicle parking area with EV charging facilities near the project site. Please confirm whether this car park is currently in operation. Even though the development may cease operations (since the planning permission for the Section 16 application is for only 5 years) upon the commencement of the proposed development, it is important to note that similar fixed noise sources may arise. Please include this information under the identification of fixed noise sources for future reference.	Discussion of public vehicle parking is added in Section 3.4.22.
9. Figure 3.3 i. For 1st floor plan, the legend for blue line is missing, please indicated what the blue line means. Is it the acoustic window?	Figure 3.3 is revised for easy reference.
10. Appendix 3.2 i. Typo of "RCHE", please check should it be "RCHD". ii. Typo of "Multi-prupose room", please check should it be "multi-purpose room".	Appendix 3.2 is revisd accordingly.
11. Figure 1.1 and Figure 3.1 i. Please separate the site boundary for the projects A/YL-NSW/348 and A/YL-NSW/349 respectively.	The Figure is revised accordingly.
12. Planning statement S6.3.2	

<p>i. It is noted in the planning statement that "during the operation stage, air conditioning will be provided for the proposed development and not relied on openable window for ventilation, no adverse fixed noise impact and road traffic impact to the Proposed Scheme is expected". However, this differs from the description provided in the NIA report. Please review this discrepancy.</p>	<p>Please be clarified that air conditioning will be provided for the project while openable window for ventilation is also provided for Dormitory.</p>
<p>ii. Additionally, even it is equipped with fixed glazed window with installation of air conditioning, a more stringent indoor assessment for fixed noise (10 dB(A) smaller) will be applied to the proposed development. Please note and review.</p>	<p>Noted.</p>
<p><u>Comments on the Road Traffic Noise Model</u></p>	
<p>1. Please check the noise model, the unmitigated noise level in the model generated is not tally with the appendix 3.2.</p>	<p>Noise model and Appendix 3.2 are revised accordingly.</p>
<p>2. Please check and ensure the site boundary of A/YL/NSW/348 and A/YL/NSW/349 does not overlap in the model.</p>	<p>Noted.</p>
<p>3. There are breaks on the noise barrier in the model, please check, and revise if needed.</p>	<p>Refer to building plan in Appendix, part of the noise barrier will be removed for entrance of EVA.</p>
<p>4. Please provide information of the height of existing noise barrier, for our checking.</p>	<p>The height of existing noise barrier is obtained by site observation.</p>
<p>5. Texture depth is usually 1.2m, in the model it is 1.0m. Please check.</p>	<p>The texture depth is set to 1.2m accordingly.</p>
<p>6. Please check if the surface for the below segments at San Tin Highway, such as should it be bitumen instead of pervious?</p>	<p>Bitumen is set for the mentioned segments accordingly.</p>
<p>7. The speed limit for flow link 9 is 100 km/h. Only the zone refer to green coloured below is limited to 50 km/h, but it is located near the roundabout that outside 300m assessment area. Please check.</p>	<p>The speed limit for flow link 9 is set to 100 km/h accordingly.</p>
<p><b><u>Email dated 17<sup>th</sup> July 2025 refers:</u></b>  <b><u>Comment from the Commissioner for Transport</u></b>  <b><u>(Please refer to Appendix 2 for the Revised Traffic Impact Assessment)</u></b></p>	
<p>1. Please advise the estimated number of staff for the proposed RCHD and justify the sufficiency of parking space for staff;</p>	<p>As stated in the planning statement, the estimated number of staff is 45. The car parking spaces are provided for visitors only.</p>
<p>2. Please demonstrate there are sufficient queuing area for the car lift;</p>	<p>A waiting space is now provided on G/F as shown in Figure 3.1. The vehicle lift analysis found that the car lift system is acceptable and can serve the Proposed RCHD - please refer to Appendix 3 in the revised Traffic Impact Assessment ("TIA").</p>
<p>3. Should there be vehicles waiting to enter the car lift on G/F, from the swept path analysis, it appears that Light bus/LGV loading/unloading activities could not be carried out since there is no more space allowed for the vehicle manoeuvring. Please review;</p>	<p>The waiting space provided on the G/F will not obstruct the manoeuvring of light bus and LGV. Please refer to Figures SP1 and SP2 in revised TIA.</p>
<p>4. Please advise how to handle the situation if the car lift is malfunction or temporary suspension due to maintenance service;</p>	<p>If the car lift breaks down, the Property Management will immediately contact: (1) the car lift maintenance company, and (2) Fire Services Department. Then, notice will be displayed at the entrance of the car park to inform motorists of the suspension of service.</p>

<p>5. Please explain why the J2 junction performance in Year 2033 reference case (without RCHD) is better than that in Year 2025 existing case;</p>	<p>Reference is made to the improvement scheme for Junction of Castle Peak Road – Tam Mi / Kam Pok Road proposed by the approved Section 16 Planning Application A/YL-NSW/314, where the cycle time is increased from 94 to 120 seconds during AM peak period, and from 90 to 120 second during PM peak period. The junction performance is “better than that in Year 2025 existing case” after adopting this approved improvement scheme.</p>
<p>6. As the subject site is in Yuen Long district, please explain why this application makes reference to the RCHD in Kwai Chung;</p>	<p>Reference is made to RCHDs in Yuen Long listed in the web site of Social Welfare Department, and found that most of these RCHDs are located within buildings where there are other uses, and access to the RCHD is shared with other uses. Hence, it is not possible to distinguish: (i) pedestrians and traffic generated by the RCHD and other uses, and (ii) users of the internal transport facilities provided.</p> <p>Therefore, reference is made to RCHDs with similar characteristics, e.g., RCHD located within a standalone building, accessibility to public transport services and those with internal transport facilities.</p>
<p>7. Please provide justification on providing two (2) run-in/out. Please elaborate the function of each run-in/out;</p>	<p>X<sub>1</sub>Y<sub>1</sub>Z<sub>1</sub> serves as the major ingress/egress of the Site for the operation of the proposed development. X<sub>2</sub>Y<sub>2</sub>Z<sub>2</sub> is held under a valid Deed of Grant of Right of Way that has been obtained at Lot 3668 S.K connecting Kam Pok Road East. X<sub>2</sub>Y<sub>2</sub>Z<sub>2</sub> may serve as an access for the installation and maintenance of transformer room and E&amp;M facilities.</p>
<p>8. The existing traffic flow in J3 is underestimated. Please review;</p>	<p>Reference is made to the 2023 Annual Traffic Census (“ATC”) of the closest core station 5016 San Tin Highway, Castle Peak Road &amp; San Tam Road (from Kam Tin Rd to Fairview Park Boulevard), and found that traffic flow for the month of March, when the traffic survey for the captioned was conducted, is around 1.5% lower than the annual monthly average. Hence, an adjustment factor of 1.015 is applied to the traffic flows obtained from the March 2025 survey. Please refer to Figure 2.5 in revised TIA for the revised traffic flow and Appendix 2 in revised TIA for Junction Capacity Analysis.</p>
<p>9. Please advise the PCs/taxis pick-up/drop off location. The PCs/taxis pick-up/drop off activities should not affect the car lift operation and Light bus/LGV loading/unloading activities;</p>	<p>The pick-up / drop-off activities can be conducted on G/F near the pedestrian entrance, please refer to Figure SP8 in the revised TIA.</p>
<p>10. Please advise the refuse collection arrangement. Should RCV would enter the subject site, swept path analysis of RCV should be provided for comment;</p>	<p>Reference is made to the common practice amongst many operating RCHDs in Hong Kong, where the RCHD staff is responsible for disposing refuse from the Proposed RCHD to nearby Public Refuse Collection Point. For the subject site, there nearest Public Refuse Collection Point is the Pok Wai Refuse Collection Point, which is 500m or 7 minutes’ walk away.</p>
<p>11. Please provide a plan showing the vehicular ingress and egress routing to the subject site. Entrance for pedestrian should be shown on plan as well;</p>	<p>Noted. Please refer to Figure 4.1 in the revised TIA for the vehicular route and Figure 3.1 in the revised TIA for the pedestrian entrance.</p>

12. Please provide a plan showing the pedestrian routing to the nearby franchised bus stop (both Yuen Long and Sheung Shui bound). Please specify the corresponding walking distance as well;	Noted. Please refer to Figure 2.7 in the revised TIA for the pedestrian route to the nearby franchised bus stops.
13. Para. 4.8: traffic trips specified here does not tally with the number in Table 4.4.;	Noted. Please refer to section 4.8 in revised TIA
14. Appendix 2: please specify the vehicular dimension (i.e. length and width) and driving speed adopted in the swept path analysis. Please adopt the largest possible vehicle that would enter the subject site in the swept path analysis;	Noted. Please refer to the Appendix 2 in the revised TIA.
15. Please provide a plan to demonstrate sufficient sightline could be maintained at the proposed site access;	The measured length of visibility splay for the motorists leaving the Proposed RCHD is 60m to the left and 60m to the right, which is illustrated in Figure 3.3 in the revised TIA.
16. There are noise barriers positioned at the proposed site access. Please provide details on the site access arrangement;	Portion of the existing noise barriers and related street furniture (planter) will be demolished for the proposed site access. Please refer to Appendix 3 for the proposed alterations.
17. From the planning statement, noted there is a separate planning application by the same applicant at the adjoining site for an RCHE. Please explore the feasibility of having a shared site access for the RCHD and RCHE site as well as the car ramp to the basement carpark; and	Please note that the proposed RCHD and RCHE are structurally independent and self-contained. Site access and car ramp to the basement carpark will not be shared.
18. Noted only two loading/ unloading spaces are provided in the subject site and given the loading/unloading activities for persons with disabilities would take extra time, please critically review the site layout to ensure the loading/unloading activities would not block the site entrance or causing queuing back problem.	Based on survey of RCHDs with similar characteristics, it is expected there are no more than 2 goods deliveries a day and these vehicles stay for less than 20 minutes. If required by Transport Department, the Applicant is willing to arrange for goods delivery to be conducted during the non-peak hours and for these deliveries not to be conducted concurrently.
<b><u>Email dated 4<sup>th</sup> July 2025 refers:</u></b> <b><u>Comments of the Chief Highway Engineer/New Territories West, Highways Department:</u></b>	
1. The applicant should ensure the run-in/out at Kam Pok Road East is constructed in accordance with the latest version of HyD Standard Drawings no. H1113 and H1114, or H5133, H5134 and H5135, whichever set if appropriate to match with the existing adjacent pavement;	Noted.
2. It is noted that there are existing noise barriers under HyD's maintenance purview at the south-east boundary of the site, adjoining Kam Pok Road East. Please advise if there are any modification or alteration of the noise barriers among other road features (e.g. the existing footpath/ carriageway adjoining the site) be required arising from the proposed development.	Please refer to Appendix 3 for the Modification Plans of Noise Barrier and Street Furniture.

## **Appendix 1**

Revised Environmental Assessment (EA)

# PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE DISABILITIES (RCHD)) IN “VILLAGE TYPE DEVELOPMENT” ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

## ENVIRONMENTAL ASSESSMENT

25 Jul 2025

Report No.: RT25285-EA-02B

**Prepared By:**



**BeeXergy Consulting Limited (BXG)**

Phone:

Address:

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<b>Project:</b>	PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG ENVIRONMENTAL ASSESSMENT				
<b>Report No.:</b>	RT25285-EA-02B				
<b>Revision</b>	<b>Issue Date</b>	<b>Description</b>	<b>Author</b>	<b>Checker</b>	<b>Approver</b>
0	20/05/2025	Issued for Comment	LY	YS	HM
A	08/07/2025	Issued for Comment	LY	YS	HM
B	25/07/2025	Updated AQIA and NIA	LY	YS	HM

Prepared By:



**Leo Yu**

*Consultant*

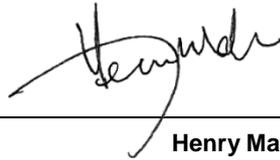
Checked by



**Sui Hang Yan**

*Technical Director*

Approved by:



**Henry Mak**

*Director*

**Disclaimer:**

- This report is prepared and submitted by BeeXergy Consulting Limited with all reasonable skill to the best of our knowledge, incorporating our Terms and Conditions and taking account of the resources devoted to it by agreement with the client.
- We disclaim any responsibility to the client and others in respect of any matters outside the project scope.
- This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies upon the report at their own risk.

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## 1. INTRODUCTION

### 1.1. BACKGROUND

1.1.1. The Project Proponent proposes to develop a 3-storey Residential Care Home for the Disabilities (RCHD in various lots in D.D. 104, Nam Sang Wai (hereafter called “the Proposed Development”).

1.1.2. BeeXergy Consulting Limited was commissioned by DeSPACE (International) Limited (the Project Planner) to undertake an Environmental Assessment (EA) in support of its planning application under Section 16 of the Town Planning Ordinance (TPO) for the Proposed Development.

### 1.2. PROJECT LOCATION

1.2.1. The Project Site is approximately 1605m<sup>2</sup>, currently bounded by abandoned fishponds to the north and west, Kam Pok Road East to the south. The Project Site is currently zoned as “Village Type Development” (“V”) under the Approved Nam Sang Wai Outline Zoning Plan No. S/YL-NSW/10. **Figure 1.1** shows the location of Project Site and its environs.

### 1.3. PROJECT DESCRIPTION

1.3.1. The Proposed Development will comprise one 3-storey building (excluding carpark) comprising RCHD dormitory and communal area. The key development parameters are summarised in **Table 1.1** and the Master Layout Plan is enclosed in **Appendix 1.1**.

**Table 1.1 Key Development Parameters of the Proposed Development**

<b>No. of Storeys</b>	3 storeys
<b>Total Gross Floor Area (GFA)</b>	Approx. 3,691.5m <sup>2</sup>
<b>Building Height</b>	+21.00 mPD
<b>Proposed Major Floor Use</b>	LG/F: Carpark G/F to 2/F: Dormitory for RCHD(s), Communal Area
<b>Tentative Population Intake Year</b>	2030
<b>Total No. of Beds</b>	208

## **1.4. SCOPE OF THE ENVIRONMENTAL ASSESSMENT**

1.4.1. This EA Report covers the following key issues arising from the construction and operation of the Proposed Scheme:

- Air Quality Impact;
- Noise Impact;
- Water Quality Impact;
- Waste Management; and
- Land Contamination;

## **1.5. STRUCTURE OF THE REPORT**

1.5.1. This EA Report includes the following sections:

- Section 1 introduces the project background and outlines the scope of this EA;
- Section 2 evaluates the air quality impact;
- Section 3 presents the noise impact assessment;
- Section 4 evaluates the water quality impact;
- Section 5 evaluates the waste management implications;
- Section 6 presents the land contamination review; and
- Section 7 summarizes the findings of this EA study.

## 2. AIR QUALITY IMPACT

### 2.1. INTRODUCTION

2.1.1. This section identifies the potential air quality impact associated with the construction and operation of the Proposed Scheme. It also recommends practical pollution control and mitigation measures, where necessary.

### 2.2. RELEVANT LEGISLATION, STANDARDS AND GUIDELINES

2.2.1. The relevant legislation, standards and guidelines applicable to the present review of air quality impact include:

- Air Pollution Control Ordinance (APCO) (Cap. 311);
- Air Pollution Control (Smoke) Regulations (Cap. 311C);
- Air Pollution Control (Fuel Restriction) Regulations (Cap. 311I);
- Air Pollution Control (Construction Dust) Regulation (Cap. 311R);
- Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation (Cap. 311Z);
- Hong Kong Planning Standards and Guidelines (HKPSG); and
- EPD's Guidelines on "Control of Oily Fume and Cooking Odour from Restaurants and Food Business".

#### Air Quality Objectives

2.2.2. The APCO provides a statutory framework for establishing the Air Quality Objectives (AQOs) and stipulating the anti-pollution requirements for air pollution sources. The AQOs stipulate concentration for a range of pollutants, which are summarized below in **Table 2.1**.

**Table 2.1 Hong Kong Air Quality Objectives**

Pollutant	Averaging Time	Concentration Limit <sup>[i]</sup> ( $\mu\text{g}/\text{m}^3$ )	Number of Exceedances Allowed
Sulphur Dioxide ( $\text{SO}_2$ )	10-minute	500	3
	24-hour	40	3
Respirable Suspended Particulates ( $\text{PM}_{10}$ ) <sup>[ii]</sup>	24-hour	75	9
	Annual	30	N/A
Fine Suspended Particulates ( $\text{PM}_{2.5}$ ) <sup>[iii]</sup>	24-hour	37.5	18
	Annual	15	N/A

Pollutant	Averaging Time	Concentration Limit <sup>[i]</sup> ( $\mu\text{g}/\text{m}^3$ )	Number of Exceedances Allowed
Nitrogen Dioxide (NO <sub>2</sub> )	1-hour	200	18
	24-hour	120	9
	Annual	40	N/A
Ozone (O <sub>3</sub> )	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	Annual	0.5	N/A
Notes: [i] All measurements of the concentration of gaseous air pollutants, i.e., SO <sub>2</sub> , NO <sub>2</sub> , O <sub>3</sub> and CO, are to be adjusted to a reference temperature of 293 K and a reference pressure of 101.325 kPa. [ii] PM <sub>10</sub> means suspended particles in air with a nominal aerodynamic diameter of 10 $\mu\text{m}$ or less. [iii] PM <sub>2.5</sub> means suspended particles in air with a nominal aerodynamic diameter of 2.5 $\mu\text{m}$ or less.			

### Hong Kong Planning Standards and Guidelines

2.2.3. Environmental requirements to be considered in land use planning are outlined in Chapter 9 of the HKPSG. The standards and guidelines provide recommendation on suitable locations for developments and sensitive users, provision of environmental facilities and design, layout, phasing and operational controls to minimize adverse environmental impacts. It also lists out environmental factors influencing the land use planning and recommends buffer distances for land uses.

2.2.4. Buffer distances on usage of open space site for recreational uses are also recommended. Evaluation of potential air quality impact on the Proposed Scheme due to the open vehicular emissions and industrial emissions shall make reference to the guidelines as stipulated in the HKPSG. The buffer distance requirements in HKPSG are extracted below in **Table 2.2**.

**Table 2.2 HKPSG Recommended Buffer Distance**

Pollution Source	Parameter	Buffer Distance	Permitted Uses
Roads and Highways	<i>Type of Road</i>	/	
	Trunk Road and Primary Distributor	> 20m	Active and Passive Recreational Uses
		3 – 20m	Passive Recreational Uses
		< 3m	Amenity Areas
District Distributor	> 10m	Active and Passive Recreational Uses	
Roads and Highways	District Distributor	< 10m	Passive Recreational Uses
	Local Distributor	> 5m	Active and Passive Recreational Uses
		< 5m	Passive Recreational Uses
Under Flyover	N/A	Passive Recreational Uses	
Industrial Areas	<i>Difference in Height between Industrial Chimney Exit and the Site</i>	/	
	< 20m	> 200m	Active and Passive Recreational Uses
		5 – 200m	Passive Recreational Uses
	20 – 30m (*)	> 100m	Active and Passive Recreational Uses
		5 – 100m	Passive Recreational Uses
	30 – 40m	> 50m	Active and Passive Recreational Uses
		5 – 50m	Passive Recreational Uses
> 40m	> 10m	Active and Passive Recreational Uses	
Remarks: <ol style="list-style-type: none"> <li>In situations where the height of chimneys is not known, use the set of guidelines marked with an asterisk for preliminary planning purpose and refine as and when more information is available.</li> <li>The buffer distance is the horizontal, shortest distance from the boundary of the industrial lot, the position of existing chimneys or the edge of road kerb, to the boundary of open space sites.</li> <li>The guidelines are generally applicable to major industrial areas but not individual large industrial establishments which are likely to be significant air pollution sources. Consult EPD when planning open space sites close to such establishments.</li> <li>Amenity areas are permitted in any situation.</li> </ol>			

### 2.3. AIR SENSITIVE RECEIVERS

2.3.1. Representative air sensitive receivers (ASRs) within 500m assessment area have

been identified based on topographic maps supplemented by site surveys, outline zoning plans and other published plans in the vicinity of the Project Site. Within the 500m assessment area, ASRs that are closest to the Project Site are anticipated to be the most affected and therefore considered the most representative ASRs for the worst-case scenario air quality impact assessment, whilst other ASRs located further away from these first-tier representative ASRs are expected to be less impacted. Details of the identified representative ASRs are summarized in **Table 2.3** below and their locations are shown in **Figure 2.1**.

**Table 2.3 Representative Air Sensitive Receivers**

ASR ID	Description	Use	Existing/Planned	Approximate Shortest Distance from Project Site, m
A01	Merry Garden	Residential	Existing	90
A02	Meister House	Residential	Existing	256
A03	Man Yuen Chun	Residential	Existing	265
A04	Planned Residential Development	Residential	Planned	27
A05	JAC Auto Repair Shop	Workshop	Existing	249
A06	FUSO Fairview Park Service Center	Workshop	Existing	239
A07	Hung Kee Metal Recycling Int'l Ltd.	Workshop	Existing	154
A08	Dorfield Ltd.	Workshop	Existing	206

## 2.4. CONSTRUCTION PHASE IMPACT REVIEW

### Impact Identification and Evaluation

2.4.1. Major construction activities include construction works for site set up, foundation, excavation, superstructure and fitting out, etc of the new building. Potential fugitive dust emission and gaseous emissions from construction machinery arising from these construction activities is anticipated.

2.4.2. Based on the latest development scheme and information provided by Project Team, deep foundation excavation and large-scale site formation will not be required. The area of excavation is approximately 1605m<sup>2</sup>, it is expected that only 1 dump truck per day is required. The estimated amount of excavated materials to be handled and number of truck trips per day are summarized in **Table 2.6** below.

[Redacted]

**Table 2.4 Estimated Volume of Excavated Materials and Number of Truck Trips Per Day**

Construction Stage	Estimated Total Volume of Excavated / Backfill Material during the Construction Stage	Estimated Number of Truck Trips per Day
Foundation Stage (~5 Months)	353m <sup>3</sup> C&D Material (Inert C&D: 351m <sup>3</sup> , Non-inert C&D: 2.5m <sup>3</sup> )	<1 Trip per Day
Superstructure Stage (~10 Months)	369m <sup>3</sup> C&D Material (Inert C&D: 295m <sup>3</sup> , Non-inert C&D: 74m <sup>3</sup> )	<1 Trip per Day
Remarks: a) Assumed that there will be 22 working days per month. b) Assumed that the average dump truck capacity will be 7.5m <sup>3</sup> per trip.		

2.4.3. In addition, there would be on average 3 nos. of Powered Mechanical Equipment (PME) operated simultaneously within the Project Site. Gaseous emissions from PMEs are expected to be limited. Provided that the Air Pollution Control (Fuel Restriction) Regulation, Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation and Motor Vehicle Idling (Fixed Penalty) Ordinance shall be followed, no adverse air quality impacts associated with gaseous emission from construction is anticipated.

2.4.4. With the implementation of appropriate air quality control measures and the requirements as listed in the Air Pollution Control (Construction Dust) Regulation of APCO to control the air pollutant emissions, adverse air quality impact is not anticipated during construction.

### Recommended Mitigation Measures

2.4.5. To ensure that dust and gaseous emissions are controlled during the construction phase of the Project, relevant air quality control requirements stipulated in Air Pollution Control (Construction Dust) Regulation, Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation and Air Pollution Control (Fuel Restriction) Regulations should be implemented. The proposed control measures are listed below.

- The designated haul road should be hard paved to minimize fugitive dust emission;
- During the site formation works, the active works areas should be water sprayed with water browser or sprayed manually hourly during construction period. The Contractor should ensure that the amount of water spraying is just enough to dampen the exposed surfaces without over-watering which could

result in surface water runoff;

- Any excavated dusty materials or stockpile of dusty materials should be covered entirely by impervious sheeting or sprayed with water so as to maintain the entire surface wet, and recovered or backfilled or reinstated as soon as possible;
- Dusty materials remaining after a stockpile is removed should be wetted with water;
- 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 or similar;
- The Contractor(s) shall only transport adequate amount of fill materials to the Project Site to minimize stockpiling of fill materials on-site, thus reducing fugitive dust emission due to wind erosion;
- Should temporary stockpiling of dusty materials be required, it shall be either covered entirely by impervious sheeting, placed in an area sheltered on the top and the 3 sides; or sprayed with water so as to maintain the entire surface wet;
- All dusty materials shall be sprayed with water prior to any loading, unloading or transfer operation so as to maintain the dusty material wet;
- Vehicle speed to be limited to 10 kph except on completed access roads;
- The portion of road leading only to a construction site that is within 30 m of a designated vehicle entrance or exit should be kept clear of dusty materials;
- Every vehicle should be washed to remove any dusty materials from its body and wheels immediately before leaving the construction site;
- The load of dusty materials carried by vehicle leaving the construction site should be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle;
- The working area of excavation should be sprayed with water immediately before, during and immediately after (as necessary) the operations so as to maintain the entire surface wet;
- Restricting height from which materials are to be dropped as far as practicable to minimize the fugitive dust arising from loading/unloading activities;
- Every stock of more than 20 bags of cement or dry pulverized fuel ash shall be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides;
- Cement, pulverized fuel ash or any other dusty materials collected by fabric

filters or other air pollution control system or equipment shall be disposed of in totally enclosed containers;

- Electric power supply shall be provided for on-site machinery as far as practicable;
- Regular maintenance of construction equipment deployed on-site should be conducted to minimize gaseous and prevent black smoke emission;
- Hoarding of not less than 2.4m high from ground level shall be provided along the site boundary except for a site entrance or exit to minimise dust nuisance to the nearby sensitive receivers. For locations with ASRs in immediate proximity to the Project Site, higher hoarding shall be erected; and
- Regular site audit shall be conducted to ensure all the mitigation measures are properly implemented.
- Electrified Non-road Mobile Machinery shall be provided as far as practicable.
- Non-road Mobile Machinery exempted from regulatory control shall be avoided as far as practicable.

2.4.6. With the implementation of above mitigation measures, no adverse construction phase air quality impact is anticipated.

## 2.5. OPERATION PHASE IMPACT REVIEW

### Impact Identification and Evaluation

#### Vehicular Emission

2.5.1. Vehicular emission from existing open roads is the potential air pollution source to the Proposed Scheme during operation phase.

2.5.2. The Application Site is bounded by Kam Pok Road East and is subject to the air quality impact associated with the vehicular emission from existing open roads. In order to comply with the buffer distance requirements as stipulated in the HKPSG, the air-sensitive uses at the Proposed Development have been positioned away from Kam Pok Road East. The required buffer distances from the surrounding road were summarized in **Table 2.4** and illustrated in **Figure 2.2**. No air sensitive uses, including openable windows, fresh air intake and recreational uses in the open space, would be located within the buffer zones.

**Table 2.5 Relevant Buffer Distance Requirements**

Road Name	Road Type	Recommended Buffer Distance in HKPSG	Buffer Distance allowed for the Proposed Scheme
Kam Pok Road East	Local Distributor	5m	>5m
Note: The road type of Kam Pok Road East is not available in the latest Annual Traffic Census (ATC) of the Transport Department (TD). As advised by the Project's Traffic Consultant, Kam Pok Road East (from Castle Peak Road - Tam Mi to Kam Pok Road) is classified as a Local Distributor			

2.5.3. As the required buffer distances between ASRs and the surrounding roads could be achieved, no adverse air quality impact associated with vehicular emission on the Proposed Scheme is anticipated.

#### Emission from carpark within the Proposed Development

2.5.4. The car parks within the Proposed Development will be designed and operated in accordance with ProPECC PN 2/96 Control of Air Pollution in Car Parks. The car parks are mainly used for private car parking and the starting emissions generated by the vehicles are expected to be limited. Nonetheless, the idling period of vehicles will be governed by Cap. 611 Motor Vehicle Idling (Fixed Penalty) Ordinance which excessive emissions from idling vehicles within the Application Site is not expected. Given the above, no adverse air quality impact from car park operations is anticipated.

#### Industrial Emission from nearby chimney

2.5.5. A review of chimney locations based on EPD's register was carried out. No chimneys were identified within the 200m assessment area. Additional chimney surveys were also conducted in July 2025 to verify the findings. As no chimneys were identified within the assessment area and no active and heavy industrial operation in the vicinity is observed, no adverse air quality impact on the proposed development related to chimney emissions is anticipated.

#### Odour Emission

2.5.6. Based on the desktop review and site surveys conducted in July 2025, no particular air and odour emission sources were identified within 200m radius from the proposed development. During the site visit, no particular odour source was detected, and no odour source from the nearby nullahs, including Ngau Tam Mei Drainage Channel and its subsidiary nullahs, and nearby ponds was identified.

#### **Recommended Mitigation Measures**

2.5.7. The setback distance between the building façades and the fresh air intakes/opened windows is recommended to be at least 5m away from Kam Pok

Road East to satisfy the recommended buffer distance from the carriageway as per Chapter 9 of HKPSG

## 2.6. CONCLUSION

- 2.6.1. Fugitive dust and gaseous emission is the major source of air pollution during the construction phase of the Project. Through proper implementation of air quality control measures as required under the Air Pollution Control (Construction Dust) Regulation, Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation and Air Pollution Control (Fuel Restriction) Regulations, construction dust and gaseous emissions can be controlled. Therefore, adverse air quality impact during construction phase is not anticipated.
- 2.6.2. The potential operation phase air quality impact due to vehicular emission from the surrounding roads, industrial chimney emission and odour emission have been evaluated. No industrial chimney and odour sources is identified during site survey and the HKPSG buffer distance requirements could be complied, therefore, no adverse operation phase air quality impact on the Proposed Scheme is expected.

### 3. NOISE IMPACT

#### 3.1. INTRODUCTION

3.1.1. The Project will have potential noise impacts during the construction and operation phases. During the construction phase, potential construction airborne noise impact may be generated due to the use of powered mechanical equipment (PME) for various construction works including site formation, foundation and superstructure. During the operation phase of the Project, noise due to building equipment will also have potential noise impacts to the NSRs nearby.

#### 3.2. RELEVANT LEGISLATION, STANDARDS AND GUIDELINES

3.2.1. The relevant legislation, standards and guidelines applicable to the present noise impact assessment include:

- Noise Control Ordinance (NCO) (Cap. 400);
- Technical Memorandum for the Assessment of Noise from Places Other Than Domestic Premises, Public Places or Construction Sites (IND-TM);
- Technical Memorandum on Noise from Construction Work Other Than Percussive Piling (GW-TM);
- Technical Memorandum on Noise from Construction Work in Designated Areas (DA-TM);
- Technical Memorandum on Noise from Percussive Piling (PP-TM);
- Hong Kong Planning Standards and Guidelines (HKPSG);
- Professional Persons Environmental Consultative Committee (ProPECC) Practice Note PN 1/24 "Minimizing Noise from Construction Activities"; and
- **Good Practices on the Control of Noise from Electrical & Mechanical Systems**

### 3.3. CONSTRUCTION PHASE IMPACT REVIEW

#### Noise Standards for Construction Works during Non-restricted Hours

- 3.3.1. Noise from construction works is controlled by the Noise Control Ordinance Cap 400 C&D Regulations, which require equipment such as air compressor and hand held percussive breakers to comply with the noise emission standard and shall be fitted with noise emission label (NEL). ProPECC PN1/24 offers guidance on the existing control on noise from construction activities under the Noise Control Ordinance (NCO) and Environmental Impact Assessment Ordinance (EIAO). It also outlines the requirements and recommendations on the practices for minimizing construction noise. The noise generated by construction activities for the project during non-restricted hours (7 a.m. to 7 p.m. on any day that is not a Sunday or general holiday) should be minimized to the greatest extent practicable. Additionally, the construction noise at the facade of the respective noise-sensitive receivers should not exceed the following noise levels, as summarized in **Table 3.1** below.

**Table 3.1 Noise Standards for Construction Works during Non-restricted Hours**

Uses	$L_{eq}$ (30 mins), dB(A)
All domestic premises Temporary housing accommodation Hostels Convalescences homes Homes for the aged	75
Places of public worship Courts of law Hospitals and medical clinics	70
Educational institutions (including kindergartens and nurseries)	70 (65 during examination)
Note: The above standards apply to uses which rely on opened windows for ventilation and are assessed at 1m from the external façade.	

#### Noise Standards for Construction Works during Restricted Hours

- 3.3.2. Noise impacts arising from construction activities (excluding percussive piling) conducted during the restricted hours (1900 to 0700 hours on any day and anytime on Sunday and general holiday) are governed by the NCO.
- 3.3.3. All the proposed construction works are expected to be carried out during non-restricted hours. In case of any construction activities during restricted hours, it is the Contractor's responsibility to ensure compliance with the NCO and the relevant

technical memoranda. The Contractor will be required to submit a construction noise permit (CNP) application to the Noise Control Authority and abide by any conditions stated in the CNP, should one be issued. It should be noted that description made in this report does not guarantee that a CNP will be granted for the project construction. The Noise Control Authority would take into account the contemporary condition of adjoining land uses and other considerations when processing the CNP application based on the NCO and relevant technical memoranda issued under the NCO. The findings in this report shall not bind the Noise Control Authority in making the decision.

### **Noise Standards for Percussive Piling**

- 3.3.4. Noise impact arising from percussive piling at any time is also governed by the NCO. The noise criteria and the assessment procedures for issuing a CNP for percussive piling are specified in the PP-TM. Separate application to EPD for a CNP is required.
- 3.3.5. Should percussive piling be required, the requirements in the PP-TM shall be followed.

### **Impact Identification and Evaluation**

- 3.3.6. The potential source of noise impact during the construction phase would be the use of PME for various construction activities. The key construction works would include:
- Site clearance, including demolition of existing structures and tree removal;
  - Site formation;
  - Foundation; and
  - Construction of superstructure.
- 3.3.7. No construction works will be carried out during restricted hours. Should restricted hours works or percussive piling work be required, the Contractor shall apply for a CNP and ensure full compliance with the NCO.

### **Recommended Mitigation Measures**

- 3.3.8. Standard construction noise control measures such as adoption of quieter construction method, use of quality PME (QPME) with lower sound power level (SWL), use of movable noise barriers and noise enclosures to screen noise from PME, and implementation of good site practices to limit noise emissions at source are recommended.
- 3.3.9. Good site practices and noise management can further minimize the potential construction noise impact. The following good site practices are recommended for

implementation during construction phase:

- Contractor shall devise and execute working methods that will minimize the noise impact on the surrounding environment; and shall provide experienced personnel with suitable training to ensure these methods are properly implemented;
- Noisy activities should be scheduled to minimize exposure of nearby NSRs to high levels of construction noise. For example, noisy activities can be scheduled for midday or at times coinciding with periods of high background noise (such as during peak traffic hours);
- The Contractor should arrange construction activities with care so that concurrent construction activities are avoided as much as possible;
- Only well-maintained plant should be operated on-site and plant will be serviced regularly during the construction phase;
- Machines and plant that may be in intermittent use should be shut down between work periods or throttled down to a minimum;
- Silencers or mufflers on construction equipment should be utilized and properly maintained during the construction phase;
- Noisy equipment such as emergency generators shall always be sited as far away as possible from NSRs;
- Mobile plants should be sited as far away from NSRs as possible;
- Plant known to emit noise strongly in one direction should be orientated so that the noise is directed away from the nearby NSRs; and
- Material stockpiles and other structures should be effectively utilized in screening noise from on-site construction activities.

### **3.4. OPERATION PHASE**

#### **Noise Standards for Fixed Noise Impact Assessment**

3.4.1. IND-TM stipulates the appropriate Acceptable Noise Level (ANL) for fixed noise sources. The ANL is dependent on the area sensitivity rating of a noise sensitive receivers (NSR), as defined in Table 1 of the IND-TM (reproduced in **Table 3.2**). The area sensitivity rating of a NSR is determined by the type of area where the NSR is located and the presence of any influencing factors (IFs) such as major roads and industrial areas.

**Table 3.2 Area Sensitivity Ratings**

Type of Area Containing NSR	Degree to which NSR is affected by IF		
	Not Affected	Indirectly Affected	Directly Affected
Rural area, including country parks or village type developments	A	B	B
Low density residential area consisting of low-rise or isolated high-rise developments	A	B	C
Urban area	B	C	C
Area other than those above	B	B	C

3.4.2. The HKPSG also states that in order to plan for a better environment, all planned fixed noise sources should be located and designed that when assessed in accordance with the IND-TM, the level of the intruding noise at the façade of the nearest existing sensitive use should be at least 5 dB(A) below the appropriate ANL shown in Table 2 of IND-TM or, in the case of the background being 5 dB(A) lower than the ANL, should not be higher than the background. The ANLs stipulated in the IND-TM are provided in **Table 3.3**.

**Table 3.3 Acceptable Noise Levels**

Time Period	Area Sensitivity Rating		
	A	B	C
Day (0700 to 1900 hours)	60	65	70
Evening (1900 to 2300 hours)			
Night (2300 to 0700 hours)	50	55	60

3.4.3. The Project Site is located in an area contains mainly residential and village type developments, with some open storage uses in the vicinity. In view of this, the type of area is classified as “village type developments”. According to the Annual Traffic Census 2023 published by the Transport Department, San Tin Highway is classified as Primary Distributors with an annual average daily traffic (AADT) of 88,760 in excess of 30,000. Hence, San Tin Highway is considered as major roads under the IND-TM and thereby an influencing factor. As the planned NSRs within the Proposed Development will be located from approximately 170m from San Tin Highway with vegetation and plants in between blocking direct line of sight, they will not be directly affected by major roads. As such, Area Sensitivity Rating of “B” has been assigned for the NSR.

3.4.4. In any event, the ASR assumed in this report is for indicative assessment only. It should be noted that the noise emanating from any place other than domestic

premises, a public place or a construction site is controlled under Section 13 of the Noise Control Ordinance. At the time of investigation, the Noise Control Authority shall determine the noise impact from concerned sources on the basis of prevailing legislation and practices being in force and taking account of contemporary conditions/situations of adjoining land uses. Nothing in this report shall bind the Noise Control Authority in the context of law enforcement against all the sources being assessed.

### Noise Standards for Road Traffic Noise Impact Assessment

3.4.5. Table 4.1 of Chapter 9 of the HKPSG provides the assessment criteria for road traffic noise impact at noise sensitive uses which rely on opened windows for ventilation. **Table 3.4** summarizes the adopted road traffic noise criteria for noise sensitive uses with openable windows at the Proposed Scheme.

**Table 3.4 Road Traffic Noise Criteria for Noise Sensitive Uses**

Location	Use	L <sub>10</sub> (1 hour), dB(A)
G/F – 2/F	RCHD Dormitory	70
1/F	Multi-Purpose Area <sup>[2]</sup>	70
Notes: [1] The above standards apply to noise sensitive uses which rely on opened windows for ventilation and should be viewed as the maximum permissible noise levels assessed at 1m from the external façade. [2] The multi-purpose area is mainly dedicated for providing space for daily exercise and holding events during different festival and functions for the occupants. No diagnostic, public worship and educational activities is anticipated in the area.		

### Noise sensitive receivers

3.4.6. Existing NSRs and planned/committed noise sensitive uses identified on the relevant Outline Zoning Plans, Development Permission Area Plans, Outline Development Plans, Layout Plans and other relevant published land use plans, including plans and drawings published by the Lands Department and any land use and development applications approved by the Town Planning Board have been identified. The first layer of representative NSRs within the 300m assessment area are listed in **Table 3.5** below and their locations are illustrated in **Figure 3.1**.

**Table 3.5 Representative Noise Sensitive Receivers**

NSR ID	Description	Nature of Use	Existing/Planned	Approximate Shortest Distance from Project Site, m
N01	Merry Garden	Residential	Existing	90
N02	Meister House	Residential	Existing	256
N03	Man Yuen Chun	Residential	Existing	265
N04	Planned Residential Development	Residential	Planned	27

### Road Traffic Noise Impact on the Proposed Scheme

#### Impact Identification

3.4.7. The Project Site is bounded by Kam Pok Road East to the south, Castle Peak Road – Tam Mi and San Tin Highway to the east. The key noise impact during operation phase would be road traffic noise from the abovementioned roads and other local roads.

#### Noise Sensitive Uses

3.4.8. Noise assessment points have been provided for all noise sensitive uses with openable windows at the Proposed Development. The respective criteria for all types of noise sensitive uses with openable windows have been listed in **Table 3.4**. The locations of all NSRs for road traffic noise impact assessment are shown in **Figures 3.2a to 3.2c**.

#### Assessment Methodology

3.4.9. The road traffic noise impact from the existing and planned road network has been assessed within 300m assessment area on the future NSRs within the Proposed Development. The road traffic noise model adopts the methodology outlined in the Calculation of Road Traffic Noise (CRTN) developed by the UK Department of Transport. The road traffic noise would be presented in terms of noise levels exceeded for 10% of the one-hour period for the hour having the peak traffic flow  $L_{10(1hour)}$  under various traffic forecast scenarios. Representative NAPs, key building structures with noise screening effects, topographical contours and road segments with traffic flow data have been inputted into the model in predicting the potential traffic noise impacts.

3.4.10. Traffic flow of the existing and planned roads within 300m assessment area have been forecasted by the traffic consultant of the Project. As stated in CRTN, the traffic flow used for assessment shall be the maximum traffic projection within 15

years upon occupancy of the development. The assessment has been undertaken based on the projected AM peak hourly traffic flows in Year 2045, which corresponds to the maximum projected traffic conditions within 15 years upon occupancy of the Proposed Development, i.e. Year 2030. The traffic forecast data is enclosed in **Appendix 3.1**. The traffic forecasting methodology for producing the adopted traffic data has been submitted to the Transport Department (TD) for endorsement.

### Predicted Road Traffic Noise Impact on the Proposed Development under Base Case Scenario

3.4.11. Predicted peak hourly road traffic noise levels at all NSRs within the Proposed Development are summarized in **Table 3.6** below. Detailed breakdown of the road traffic noise impact assessment results under base case scenario are presented in **Appendix 3.2**.

**Table 3.6 Summary of Predicted Road Traffic Noise Levels (Base Case Scenario)**

Floor	Facility / Room	Noise Criteria, dB(A)	Predicted Maximum L <sub>10</sub> (1 hour), dB(A)
G/F	RCHD Dormitory	70	69
1/F	RCHD Dormitory	70	71
2/F	RCHD Dormitory	70	77
1/F	Multi-Purpose Area	70	76

3.4.12. In view of the predicted traffic noise level exceeded noise standard, mitigation measures are required to ensure the noise level would be comply with relevant noise standard.

3.4.13. With reference to "Practice Note on Application of **Innovative Noise Mitigation Designs** in Planning Private Residential Developments against Road Traffic Noise Impact", the design of AW(BT) and corresponding noise reduction is shown in **Appendix 3.3**. The locations of the proposed acoustic window (baffle type) are shown in **Figure 3.3**.

3.4.14. The proposed reference cases can provide noise reduction from 6dB(A) to 7dB(A) based on their corresponding room size.

3.4.15. The assessment results revealed that all NSRs within the Proposed Development could comply with the respective noise criteria under the mitigated scenario. Hence, no adverse road traffic noise impact on the Proposed Development is anticipated and no road traffic noise mitigation measure is required.

## Fixed Noise Impact from the Proposed Scheme

### Prevailing Background noise Levels

3.4.16. Prevailing background noise measurement was conducted on 23 July 2025 for both daytime time and night-time periods. The measurement location is shown in **Figure 3.4**. The weather was fine during measurement. Measurements shall be accepted as valid only if the calibration levels from before and after the acoustic measurement agree to within 1.0dB(A). Noise measurement will not be made in the presence of fog, rain and wind with a steady speed exceeding 5ms<sup>-1</sup> or wind with gusts exceeding 10ms<sup>-1</sup>. The background noise monitoring results is summarized in **Table 3.7**.

**Table 3.7 Background Noise Monitoring Results**

Measurement Location	Period	Noise Level, dB(A)
BGN1 <sup>[1]</sup>	Day/Evening time	62.8
	Night time	51.6
Notes: [1] +3 façade correction is included for free-field measurement. [2] The noise measurement descriptor is A-weighted equivalent continuous sound pressure level (Leq) measured using Type 1 sound level meter (SVAN 979 Sound Level Meter).		

### Impact Identification and Evaluation

3.4.17. According to the latest development scheme, potential fixed noise sources within the Proposed Scheme include the transformer room and E&M rooms. During the operation phase, potential fixed noise sources will be fully enclosed and located inside the building structure. Noise impact arising from fixed plants is expected to be minimal.

3.4.18. To ensure the fixed plant noise generated by the Proposed Scheme would not cause excessive impact to neighbouring noise sensitive uses, potential fixed noise sources within the Proposed Scheme shall be properly designed to meet the relevant noise criteria as stipulated in Chapter 9 of the HKPSG.

3.4.19. Provisions shall be made to control the fixed noise sources by suitable at source noise control measures such as silencers and acoustic linings when necessary. As such, it is anticipated that the fixed plant noise impact on the surrounding NSRs due to the operation of the Proposed Scheme will not exceed the relevant noise criteria under the HKPSG and NCO.

### Recommended Mitigation Measures

3.4.20. The following noise mitigation measures are recommended to control noise

emissions from planned fixed plant noise sources within the Proposed Scheme:

- All the noisy plants should be installed within plant room or with acoustic enclosure;
- Proper selection of quiet plant aiming to reduce the tonality at NSRs;
- Installation of silencer / acoustic enclosure / acoustic louvre for the exhaust of ventilation system;
- Openings of ventilation systems should be located away from NSRs as far as practicable and oriented away from the NSRs;
- Installation of absorptive noise barrier (with density of absorption material of  $48\text{kg/m}^3$ ) for the aerator which would duly shield the engine and other noisy parts of the aerator as far as practicable, and;
- Provide suitable at source noise control measures with reference to EPD's "Good Practices on Ventilation System Noise Control" and "Good Practices on Pumping System Noise Control" such as silencers and acoustic linings when necessary.

### Fixed Noise Impact on the Proposed Development

#### Identification of Fixed Noise Sources

3.4.21. A number of existing fixed noise sources have been identified within 300m assessment area through desktop study and site visit conducted on 12 May 2025 and 23 July 2025. **Figure 3.4** indicates the locations of existing major fixed noise sources with details summarized in **Table 3.8**. Detailed site survey record is shown in **Appendix 3.3**.

**Table 3.8 Information of the Identified Fixed Noise Sources**

Location	Source ID	Equipment	Approximate Shortest Horizontal Distance to the Project Site
Open Storage	S01	Lorry Crane	145m
Open Storage	S02	Lorry Crane	175m
Open Storage	S03	Fork Lift	205m

3.4.22. An approved Section 16 application (Application No. A/YL-NSW/318) for the development of a public vehicle parking area with EV charging facilities near the project site is identified as potential noise source to the Proposed Development. During site survey, car park is currently in operation, however, no noticeable noise is recorded. Given the development only allowed for 5 years operation, no adverse

fixed noise impact is anticipated.

- 3.4.23. Detailed calculations of fixed noise assessment at NSRs are shown in **Appendix 3.4**, all results complied with relevant noise standard, therefore, no adverse fixed noise impact to the Proposed Development is expected.

### 3.5. CONCLUSION

#### Construction Phase

- 3.5.1. Evaluation on construction noise impact associated with different construction activities has been conducted. With the implementation of practical mitigation measures including good site management practices, use of quieter construction methods and equipment, and use of movable noise barriers and noise enclosures, the construction noise impact on the nearby NSRs would be minimized.

#### Operation Phase

- 3.5.2. Traffic noise impact has been identified and assessed based on the maximum traffic flow within 15 years upon commencement of operation of the Proposed Development. With the implementation of noise mitigation measures (i.e., Acoustic Windows (Baffle Type)), no adverse traffic noise impact is anticipated.
- 3.5.3. To ensure the fixed plant noise generated by the Proposed Scheme would not cause excessive impact to neighbouring noise sensitive uses, potential fixed noise sources within the Proposed Scheme shall be properly designed to meet the relevant noise criteria as stipulated in Chapter 9 of the HKPSG. Provisions shall be made to control the fixed noise sources by suitable at source noise control measures such as silencers and acoustic linings when necessary. As such, no adverse fixed plant noise impact on the surrounding NSRs due to the operation of the Proposed Scheme is expected.

## 4. WATER QUALITY IMPACT

### 4.1. INTRODUCTION

4.1.1. This section identifies the potential water quality impact that could arise from the Project during its construction and operation phases. It also recommends the corresponding measures to pre-empt and mitigate potential impacts as necessary.

### 4.2. RELEVANT LEGISLATION, STANDARDS AND GUIDELINES

4.2.1. The relevant legislation, standards and guidelines applicable to the present environmental review of water quality impacts include:

- Water Pollution Control Ordinance (WPCO) (Cap. 358);
- Water Pollution Control (General) Regulations (Cap. 358D);
- Water Pollution Control (Sewerage) Regulation (Cap. 358AL);
- Technical Memorandum on Standards for Effluents Discharged into Drainage and Sewerage Systems, Inland and Coastal Waters (TM-DSS);
- Hong Kong Planning Standards and Guidelines (HKPSG);
- Professional Persons Environmental Consultative Committee (ProPECC) Practice Note PN 1/23 “Drainage Plans subject to Comment by the Environmental Protection Department – Building (Standards of Sanitary Fittings, Plumbing, Drainage Works and Latrines) Regulations”; and
- Professional Persons Environmental Consultative Committee (ProPECC) Practice Note PN 2/23 “Construction Site Drainage”.

4.2.2. Under the WPCO, Hong Kong waters are divided into ten Water Control Zones (WCZs) and four supplementary water control zones. Corresponding statements of Water Quality Objectives (WQOs) are stipulated for different water regimes (marine waters, inland waters, bathing beaches subzones, secondary contact recreation subzones and fish culture subzones) in each of the WCZ based on their beneficial uses. The Project Site falls within the Deep Bay WCZ and the respective WQOs shall be followed.

### 4.3. WATER SENSITIVE RECEIVERS

4.3.1. The assessment area for water quality is defined by a distance of 500m from the Project Site boundary. Water sensitive receiver (WSR) located within 500m assessment area is listed in **Table 4.1** and its location is shown in **Figure 4.1**.

**Table 4.1 Water Sensitive Receiver**

WSR ID	Description
W01	Kam Tin River

#### 4.4. CONSTRUCTION PHASE IMPACT REVIEW

##### Impact Identification and Evaluation

- 4.4.1. The major water quality concerns during the construction phase shall be the on-site runoff from dust suppression activities and rainfall, sewage effluent from construction workforce, and chemical spillage. The key pollutants would be suspended solids from surface runoff and other pollutants would include fuel and lubricant oil from the construction vehicles and powered mechanical equipment (PME) on-site.
- 4.4.2. The Contractor is required to apply discharge license for the discharge of effluent from the construction site under the WPCO and all discharges during the construction should comply with the TM-DSS issued under the WPCO.
- 4.4.3. During the construction of the Project, the workforce on-site will generate sewage effluents, which are characterized by high levels of Biochemical Oxygen Demand (BOD), ammonia and *E. coli* counts. Potential water quality impacts upon the local drainage and freshwater system may arise from these sewage effluents, if uncontrolled. The construction sewage should be handled by interim sewage treatment facilities, such as portable chemical toilets. Appropriate number of portable toilets should be provided by a licensed contractor to serve the large number of construction workers over the construction site. Provided that sewage is not discharged directly into the storm drains or watercourses adjacent to the construction site, and temporary sanitary facilities are used and properly maintained, it is unlikely that sewage generated from the Project Site would have a significant water quality impact.
- 4.4.4. A large variety of chemicals may be used during construction activities. These may include petroleum products, surplus adhesives, spent lubrication oil, grease and mineral oil, spent acid and alkaline solutions/solvent and other chemicals. The use of these chemicals and their storage as waste materials has the potential to create impacts on the water quality of adjacent watercourses or storm drains if spillage occurs. Waste oil may infiltrate into the surface soil layer, or runoff into local watercourses, increasing hydrocarbon levels. The potential impact could however be mitigated by practical mitigation measures and good site practices as given in the Waste Disposal Ordinance (Cap. 354), its subsidiary regulations in particular the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) and the

Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes.

### **Recommended Mitigation Measures**

4.4.5. To mitigate the water quality impact during construction phase, construction practices outlined in the ProPECC PN 2/23, where applicable, shall be implemented. Typical relevant wastewater control measures include:

- Surface runoff from construction sites should be discharged into storm water drains via adequately designed sand/silt removal facilities such as sand traps, silt traps, sedimentation tanks and sediment basins. Channels or earth bunds or sand bag barriers should be provided on site to properly direct surface runoff to such silt removal facilities. Perimeter channels at site boundaries should be provided where necessary to intercept surface run-off from outside the site so that it will not wash across the site. Catchpits and perimeter channels should be constructed in advance of site formation works and earthworks;
- Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly, at the onset of and after each rainstorm to ensure that these facilities are functioning properly at all times;
- Construction works should be programmed to minimize soil excavation works in rainy seasons (generally from April to September). If soil excavation works could not be avoided in these months or at any time of year when rainstorms are likely, for the purpose of preventing soil erosion, temporarily exposed slope surfaces should be covered (e.g. by tarpaulin), and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds. Intercepting channels should be provided (e.g. along the crest/edge of excavation) to prevent surface runoff from washing across exposed soil surfaces. Arrangements should always be in place to ensure that adequate surface protection measures can be safely carried out well before the arrival of a rainstorm;
- Earthworks final surfaces should be well compacted and the subsequent permanent works or surface protection works should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms. Appropriate drainage like intercepting channels should be provided where necessary;
- Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar impermeable fabric during rainstorms. Measures should be taken to prevent washing away construction materials, soil, silt or debris into any drainage system;
- Manholes (including newly constructed ones) should always be adequately

covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent surface runoff from getting into foul sewers. Discharge of surface runoff into foul sewers must always be prevented in order not to unduly overload the foul sewerage system;

- Wastewater generated from the washing down of mixer trucks and drum mixers and similar equipment should wherever practicable be recycled. The discharge of wastewater should be kept to a minimum;
- All vehicles and plants should be cleaned before they leave a construction site to ensure no earth, mud, debris and the like is deposited by them on roads. A wheel washing bay should be provided at every site exit if practicable and wash-water should have sand and silt settled out or removed before discharging into storm water drains. The section of construction road between the wheel washing bay and the public road should be paved to reduce vehicle tracking of soil and to prevent site run-off from entering public road drains;
- Before commencing any demolition works, all sewer and drainage connections should be sealed to prevent building debris, soil, sand, etc. from entering public sewers/drains;
- Wastewater generated from building construction activities including concreting, plastering, internal decoration, cleaning of works and similar activities should not be discharged into the storm water drainage system;
- Sewage from toilets, kitchens and similar facilities should be discharged into a foul sewer. If there is no foul sewer in the vicinity, chemical toilets, a septic tank and soakaway system will have to be provided as appropriate;
- Vehicle and plant servicing areas, vehicle wash bays and lubrication bays should as far as possible be located within roofed areas. The drainage in these covered areas should be connected to the foul sewer via petrol interceptor(s). Oil leakage or spillage should be contained and cleaned up immediately. Waste oil should be collected and stored for recycling or disposal in accordance with the Waste Disposal Ordinance (Cap. 354);
- Sufficient number of chemical toilets shall be provided by a licensed contractor and properly maintained; and
- The construction solid waste, debris and rubbish on-site should be collected, handled and disposed of properly to avoid causing any water quality impacts.

4.4.6. By adopting the above mitigation measures with best management practices, the impacts arisen during the construction phase would be reduced to an acceptable level and adverse water quality impacts would not be anticipated.

## 4.5. OPERATION PHASE IMPACT REVIEW

### Impact Identification and Evaluation

- 4.5.1. During operation phase, stormwater runoff from paved surfaces within the Project Site would be directed to a managed stormwater drainage system following the requirements in the ProPECC PN 1/23. Runoff from the roofs of buildings and road surfaces within the Project Site may carry suspended solids and other pollutants such as fuel, oils and heavy metals that could enter nearby surface water bodies or storm drains if uncontrolled. With implementation of stormwater best management practices including provision of trapped gullies and catchpits, adverse impact to the water quality is not anticipated.
- 4.5.2. Effluent discharge from the kitchen within the Proposed Development during operation phase is also governed by the WPCO. All restaurants and food processing factories are required to install grease traps so that greasy materials will be separated from wastewater before passing to communal sewers. The operator shall ensure that the grease traps are properly designed, constructed and maintained so as to effectively remove greasy materials from wastewater before discharge to the sewerage system. Materials removed from a grease trap shall be handled and disposed of properly in order to maintain kitchen hygiene and protect Hong Kong's environment. "Grease Traps for Restaurants and Food Processors" published by the EPD detailed the requirements of such discharge.
- 4.5.3. Sewage discharge would be the major water pollution source throughout the operation phase of the Proposed Development. Sewage generated from the Proposed Development would be collected and conveyed to the nearest public sewerage system, which is the Nam Sang Wai Sewage Pumping Station and Yuen Long Sewage Treatment Works, via proper connections. No sewage will be released to the environment without treatment.

### Recommended Mitigation Measures

- 4.5.4. The following mitigation measures are recommended to avoid causing any water quality impacts during the operation phase:
- Grease traps should be properly designed and constructed so as to effectively remove greasy materials from the kitchen wastewater before discharge to the sewerage system;
  - Grease traps should be properly maintained so that it can continue to function as an effective grease removal device; and
  - Materials removed from a grease trap should be handled and disposed of properly.

## **5. WASTE MANAGEMENT**

### **5.1. INTRODUCTION**

5.1.1. This section aims to assess the potential environmental impacts that may be resulted from the waste generation during the construction and operation of the Proposed Development. Options of reuse, minimization, recycling, treatment, storage, collection, transport and disposal of such wastes were examined. Where appropriate, procedures for waste reduction and management were considered, with environmental control measures to avoid or to minimize the impacts.

### **5.2. RELEVANT LEGISLATION, STANDARDS AND GUIDELINES**

5.2.1. The Waste Disposal Ordinance (WDO) (Cap. 354) prohibits unauthorized disposal of wastes, with waste defined as any substance that is abandoned. All wastes should be properly stored and disposed in accordance with relevant waste management regulations and guidelines listed below:

- Waste Disposal Ordinance (Cap. 354);
- Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C);
- Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N);
- Waste Disposal (Clinical Waste) (General) Regulation (Cap. 354O);
- Land (Miscellaneous Provisions) Ordinance (Cap. 28);
- Public Health and Municipal Services Ordinance (Cap. 132);
- Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK);
- Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes; and
- Code of Practice for the Management of Clinical Waste – Small Clinical Waste Producers.

### **5.3. CONSTRUCTION PHASE IMPACT REVIEW**

5.3.1. The construction activities to be carried out for the Proposed Development would result in the generation of a variety of wastes (i.e. construction and demolition (C&D) materials, chemical waste and general refuse). These C&D materials and wastes if not properly stored, handled and disposed of would give rise to environmental impacts, such as dust, odour, water quality and visual impacts.

5.3.2. Waste disposal during the construction phase would follow the trip ticket system

and comply with legislation requirements including:

- Application for a billing account in accordance with the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N); and
- Registration as a Chemical Waste Producer and storage/disposal of chemical wastes in accordance with the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C).

### Construction and Demolition Materials

5.3.3. C&D materials would be generated from the demolition and construction activities. All C&D materials generated shall be sorted into inert (i.e. excavated soil, rock, broken concrete) and non-inert C&D materials (i.e. vegetation, wood, plastics, packaging materials, etc). Inert C&D material reused on-site shall be encouraged to minimize material volumes requiring off-site transport. On-site reuse opportunities for inert materials will be identified prior to delivery to public fill reception facilities. Non-inert C&D materials should be reused or recycled, and landfill disposal should be considered as the last resort for waste handling. Outlets for each of the identified construction waste are summarized in below **Table 5.1**.

**Table 5.1 Government Waste Facilities for Construction Waste**

Government Waste Facilities	Type of Construction Waste Accepted
Public fill reception facilities	Consisting entirely of inert C&D materials <sup>(a)</sup>
Sorting facilities	Containing more than 50% by weight inert C&D materials <sup>(a)</sup>
Landfills <sup>(b)</sup>	Containing not more than 50% by weight of inert C&D materials <sup>(a)</sup>
Outlying Islands Transfer Facilities <sup>(b)</sup>	Containing any percentage of inert C&D materials <sup>(a)</sup>
Notes: (a) Inert C&D materials means rock, rubble, boulder, earth, soil, sand, concrete, asphalt, brick, tile, masonry or used bentonite. (b) If a load of waste contains construction waste and other wastes, that load will be regarded as consisting entirely of construction waste for the purpose of calculating the applicable charge.	

### Chemical Waste

5.3.4. The maintenance and servicing of the construction plants and vehicles may generate a small amount of chemical waste, such as cleaning fluids, solvents,

lubrication oil and fuels.

5.3.5. Chemical waste arising during the construction phase may pose environmental, health and safety hazards if not stored and disposed of appropriately as outlined in the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) and the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. The potential hazards include:

- Toxic effects on the construction workforce;
- Adverse impact on air quality and water quality due to spills; and
- Fire hazards.

5.3.6. Chemical waste may be generated any time throughout the construction phase of the Project. The amount of chemical waste that will arise from the construction activities will be highly dependent on the Contractor's on-site maintenance activities and the quantity of plant and equipment utilised. With respect to the scale of the construction activities, it is anticipated that the quantity of chemical waste to be generated will be small. The chemical waste will be properly stored on site and will be collected by licensed chemical waste collectors regularly for disposal at the licensed chemical waste treatment facilities (i.e. Chemical Waste Treatment Centre (CWTC) in Tsing Yi). Reuse and recycle shall be prioritized, where disposal shall be the last resort for waste handling.

5.3.7. Storage, handling, transport and disposal of chemical waste should be arranged in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Waste published by the EPD. A trip-ticket system should be operated in accordance with the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C) to monitor all movements of chemical wastes which would be collected by licensed chemical waste collectors to a licensed facility for final treatment and disposal.

5.3.8. Provided that the chemical waste is properly stored, handled, transported and disposed of, no adverse environmental impact would result from a minimal quantity of chemical waste arising from the Project.

### **General Refuse**

5.3.9. The construction workforce would generate refuse comprising food scraps, paper waste, empty containers, etc. The amount of general refuse which is likely to produce cannot be quantified at this time as it will be largely dependent on the size of the workforce employed by the contractor. General refuse will be produced any time throughout the construction phase of the Project. Such refuse will be properly stored in a designated area prior to collection and disposal. Disposal of refuse at site other than approved waste transfer or disposal facilities is prohibited. Effective

collection of the on-site waste will prevent waste materials being blown around by wind, or creating an odour nuisance or pest and vermin problems. Waste storage areas will be well maintained and cleaned regularly.

5.3.10. The daily generation of general refuse during the construction phase would be minimal and those waste generated could be effectively controlled by normal measures. With the implementation of good waste management practices on-site, adverse environmental impacts are not expected to arise from the storage, handling and transportation of general refuse.

## **5.4. OPERATION PHASE IMPACT REVIEW**

### **General Refuse**

5.4.1. General refuse is anticipated during the operation of the Proposed Development. It would be generated from the daily activities of elders, staff and visitors. General refuse would include food waste, paper waste and domestic waste. It is estimated that a maximum of 178 residents, 90 workers and visitors will be occupied in the development. With a general refuse generation rate of 0.93kg per person per day, the maximum amount of general refuse to be generated will be about 294.2kg per day during the operation phase. The storage of general refuse has potential to give rise to adverse environmental impacts. These include odour if waste is not collected frequently, windblown litter and visual impact. The Proposed Development may also attract pests and vermin if the waste storage area is not well maintained and cleaned regularly.

5.4.2. General refuse generated during the operation phase will be collected at the refuse collection point provided within the Proposed Development for further collection. The waste management practice will comply with the statutory requirements.

5.4.3. With the implementation of good waste management practices on-site, the environmental impacts caused by storage, handling, transportation and disposal of general refuse are expected to be minimal.

### **Other Waste**

5.4.4. Small amount of chemical waste (e.g. lubricant generated from maintenance of equipment) and clinical waste (e.g. cartridges, ampoules, surgical dressings, swabs) may be generated during operation when the need arises. With a chemical waste generation rate of 0.004kg/day and a clinic waste generation rate of 0.002kg/day, it is anticipated that the maximum amount of other waste to be generated will be about 1.608kg per day during the operation phase. The handling, storage, transportation and disposal of chemical and clinical waste shall comply

with the requirements stipulated in the following legislation and code of practice:

- Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C);
- Waste Disposal (Clinical Waste) (General) Regulation (Cap. 354O);
- Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes; and
- Code of Practice for the Management of Clinical Waste – Small Clinical Waste Producers.

5.4.5. Provided that relevant legislation and code of practice are strictly followed during the handling, storage, transportation and disposal of chemical waste and clinical waste, no adverse environmental impact is anticipated.

## 5.5. WASTE MANAGEMENT STRATEGIES

5.5.1. In line with Government's position on waste minimization, the practice of avoiding and minimizing waste generation and waste recycling should be adopted. It is recommended that waste reduction and management would be implemented, including the provision of recycling bins and adequate space to facilitate separation, collection and storage of recyclable materials for recycling in the refuse storage and material recovery chamber.

### Waste Management Hierarchy

5.5.2. The various waste management options are categorised in terms of preference from an environmental viewpoint. The options considered to be most preferable have the least environmental impacts and are more sustainable in the long term. The waste management hierarchy is as follows:

- Avoidance and reduction;
- Re-use of materials;
- Recovery and recycling; and
- Treatment and disposal.

5.5.3. The above hierarchy is used to evaluate and select waste management options. The aim is to reduce waste generation and reduce waste handling and disposal costs. Good site practices and mitigation measures recommended shall be implemented:-

- Nomination of approved personnel to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility of all wastes generated at the site;
- Training of site personnel in proper waste management and chemical handling

procedures;

- Provision of sufficient waste disposal points and regular collection for disposal;
- Adoption of appropriate measures to reduce windblown/ floating litter and dust during transportation of waste by either covering trucks or by transporting wastes in enclosed containers;
- Separation of chemical wastes for special handling and appropriate treatment at the Chemical Waste Treatment Centre; and
- A recording system for the amount of wastes generated, recycled and disposed of and the disposal sites.

### **Waste Reduction Measures**

5.5.4. Good management and control can prevent the generation of significant amount of waste. Waste reduction is best achieved at the planning and design stage, as well as by ensuring the implementation of good site practices. Recommendations to achieve waste reduction include:

- Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance re-use or recycling of waste materials and their proper disposal;
- Encourage collection of aluminum cans and waste paper by individual collectors during construction with separate labelled bins provided to segregate these wastes from other general refuse by the workforce;
- Any unused chemicals, and those with remaining functional capacity, shall be prioritized to recycle;
- Use of reusable non-timber formwork to reduce the amount of C&D materials;
- Prior to disposal of C&D materials, wood, steel and other metals will be separated, to the extent practical for re-use and/or recycling to reduce the quantity of waste to be disposed in a landfill;
- Proper storage and site practices to reduce the potential for damage or contamination of construction materials; and
- Plan and stock construction materials carefully to reduce amount of waste generated and avoid unnecessary generation of waste.

### **Measures for Management of C&D Materials**

5.5.5. C&D materials will be segregated on-site into public fill and non-inert C&D materials and stored in different containers or skips to facilitate re-use of the public fill and proper disposal of the non-inert C&D materials. Specific areas within the construction sites will be designated for such segregation and storage, if

immediate re-use is not practicable. The C&D materials generated during the construction phase will be transported by trucks with cover or enclosed containers to minimize the potential environmental impact.

### **Measures for Management of Chemical Waste & Other Waste**

5.5.6. The Contractor will register as a chemical waste producer with the EPD. Chemical waste will be handled in accordance with the *Code of Practice on the Packaging, Handling and Storage of Chemical Wastes* as listed below.

5.5.7. Containers used for storage of chemical wastes will:

- Be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed;
- Have a capacity of less than 450L unless the specifications have been approved by the EPD; and
- Display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations.

5.5.8. The storage area for chemical wastes will:

- Be clearly labelled and used solely for the storage of chemical waste;
- Be enclosed on at least 3 sides;
- Have an impermeable floor and bunding, of capacity to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is the greatest;
- Have adequate ventilation;
- Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed of as chemical waste, if necessary); and
- Be arranged so that incompatible materials are appropriately separated.

5.5.9. Chemical waste will be disposed of:

- Via a licensed waste collector; and
- To a facility licensed to receive chemical waste, such as the CWTC which also offers a chemical waste collection service and can supply the necessary chemical waste storage containers.

### **Measures for Management of General Refuse**

5.5.10. General refuse will be stored in enclosed bins separately from C&D materials and chemical wastes. General refuse will be delivered separately from C&D materials and chemical wastes for offsite disposal on a daily basis to reduce odour, pest and

litter impacts.

5.5.11. Recycling bins will be provided at strategic locations within the construction site to facilitate recovery of recyclable materials (including aluminium can, waste paper, glass bottles and plastic bottles) from the construction site. Materials recovered will be sold for recycling.

5.5.12. Recycling bins will be provided at strategic locations in the Proposed Development to facilitate recovery of recyclable materials (including aluminium can, waste paper, glass bottles and plastic bottles) during operation stage. Materials recovered will be collected by the recyclers appointed by the facility management team.

## **5.6. CONCLUSION**

5.6.1. The potential impacts of wastes arising from construction and operation of the Proposed Development have been assessed. With the recommended procedures/ measures in place, the wastes generated/ disposed of during the construction and operation phases should not be result in any adverse environmental impacts.

## 6. LAND CONTAMINATION

### 6.1. INTRODUCTION

6.1.1. The potential environmental issues associated with land contamination have been reviewed and are presented in this section. The implications of land contamination for the proposed land uses in the Project Site have been assessed.

### 6.2. RELEVANT LEGISLATION, STANDARDS AND GUIDELINES

6.2.1. The relevant legislation, standards and guidelines applicable to the present review of land contamination include:

- Guidance Note for Contaminated Land Assessment and Remediation;
- Practice Guide for Investigation and Remediation of Contaminated Land;
- Guidance Manual for Use of Risk-based Remediation Goals for Contaminated Land Management.

### 6.3. ACQUISITION OF LOCAL AUTHORITY

6.3.1. 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 **Table 6.1** below. Copy of the letters replied from various Government Departments are included in **Appendix 6.1** for reference.

**Table 6.1 Enquiries and Responses on Land Contamination Related Records**

Consultant's Letter Ref.	Department	Response Date	Summary
W25185/RCHD-0002	Environmental Protection Department	3 Jul 2025	No record of chemical spillage/ leakage within the site boundary in the past ten years.
W25185/RCHD-0001	Fire Services Department	-	Pending response from FSD

### 6.4. SITE HISTORY

6.4.1. Selected historical aerial photographs between year 1977 and 2024 of the Project Site have been reviewed in order to ascertain any historical land uses with the potential for land contamination. The historical photographs in 1977, 1988, 1992, 2005, 2018, 2019, 2021 and 2024 are provided in **Figure 6.1** to indicate the past

land use. Referring to **Table 6.2**, the Project Site was used as farmland in late 1970s to 1990s. Later, the land use was vacant and covered with vegetation till 2018. Afterwards, the land was converted to an open storage area in 2019 till 2021. The land was vacant again in 2024.

- 6.4.2. Before 2019, no potentially polluting activities were carried out in the Project Site. From 2019 to 2021, there were construction materials and construction equipment stored at the Project Site. Due to short period of time for open storage use, no land contamination were anticipated.

**Table 6.2 Chronological Changes in Land Use Activities of the Project Site**

Year	Land Use Condition/ Activities
1977	Farmland
1988	Farmland
1992	Farmland
2005	Vacant land covered with vegetation
2018	Vacant land covered with vegetation
2019	Open Storage Area
2021	Open Storage Area
2024	Vacant land

## 6.5. CONCLUSION

- 6.5.1. The potential issues on land contamination of the Proposed Development have been assessed. Based on the aerial photographs, the Project Site should unlikely to have any previous land contamination history. Hence, it is anticipated that no potentially contaminating activities have been carried out and no potential sources and signs of contamination have been discovered.

## 7. CONCLUSION

- 7.1.1. The Project is to construct a 3-storey RCHD dormitory and communal area. This EA Report addressed the potential environmental issues arising from the construction and operation of the Proposed Scheme, which include the air quality, noise, water quality, waste and land contamination.
- 7.1.2. With the recommended environmental mitigation measures in place, no unacceptable environmental impact on or arising from the Proposed Scheme is anticipated.

**FIGURE 1.1  
LOCATION OF PROJECT SITE**

LEGEND:

- Site Boundary
- 300/500m Assessment Area



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250530	20250530	20250530

**Project Title**  
 Proposed Social Welfare Facilities (Residential Care Home for the Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

**Drawing Title**  
 PROPOSED DEVELOPMENT LOCATION

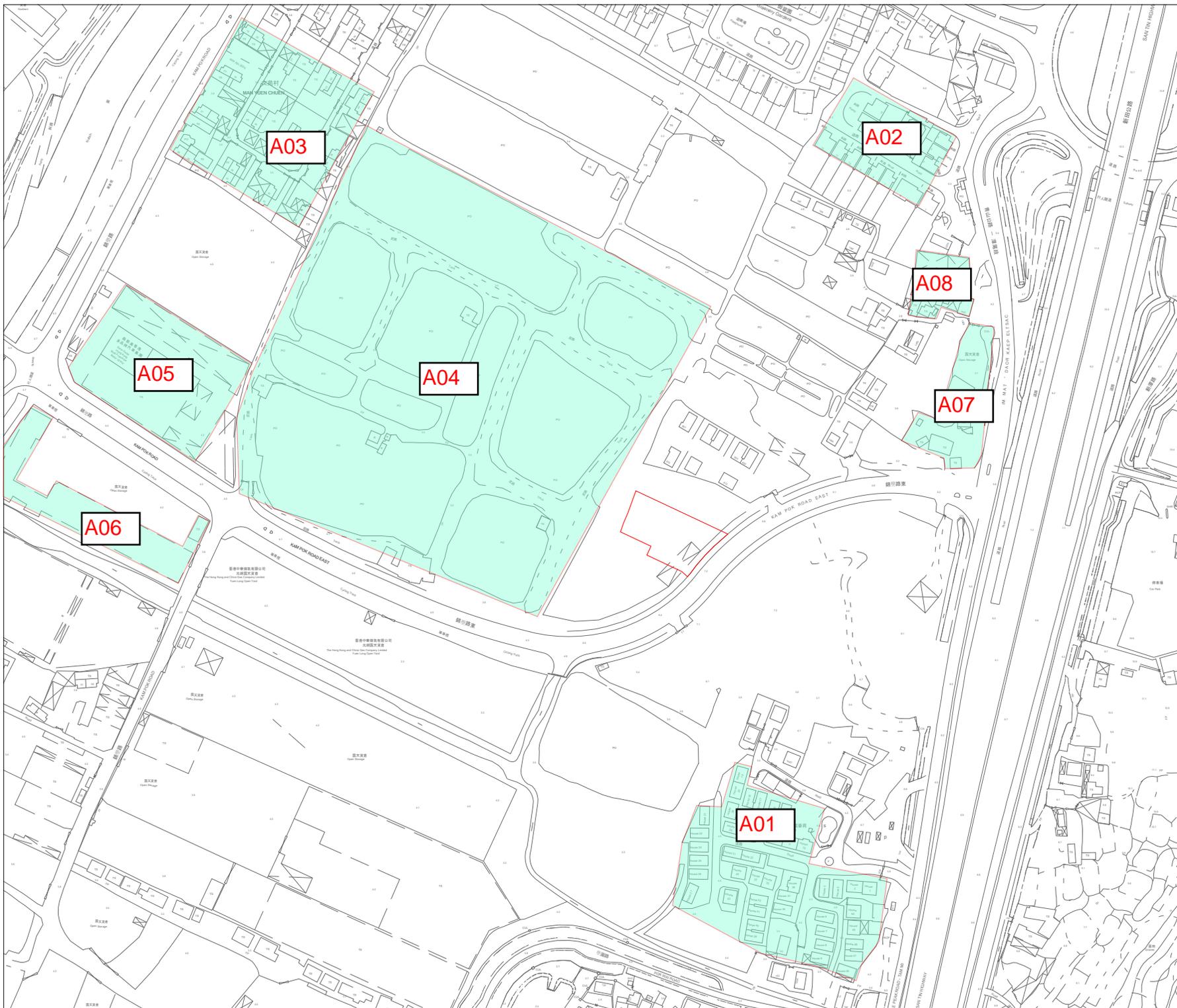
<b>Drawing No.</b> FIGURE 1	<b>Rev.</b> 0
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**Scale:**  
 A4 - 1:5500

**FIGURE 2.1**  
**LOCATION OF REPRESENTATIVE AIR**  
**SENSITIVE RECEIVERS**

LEGEND:

 Site Boundary



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250530	20250530	20250530

**Project Title**  
 Proposed Social Welfare Facilities (Residential Care Home for the Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

**Drawing Title**  
 LOCATION OF REPRESENTATIVE AIR SENSITIVE RECEIVERS

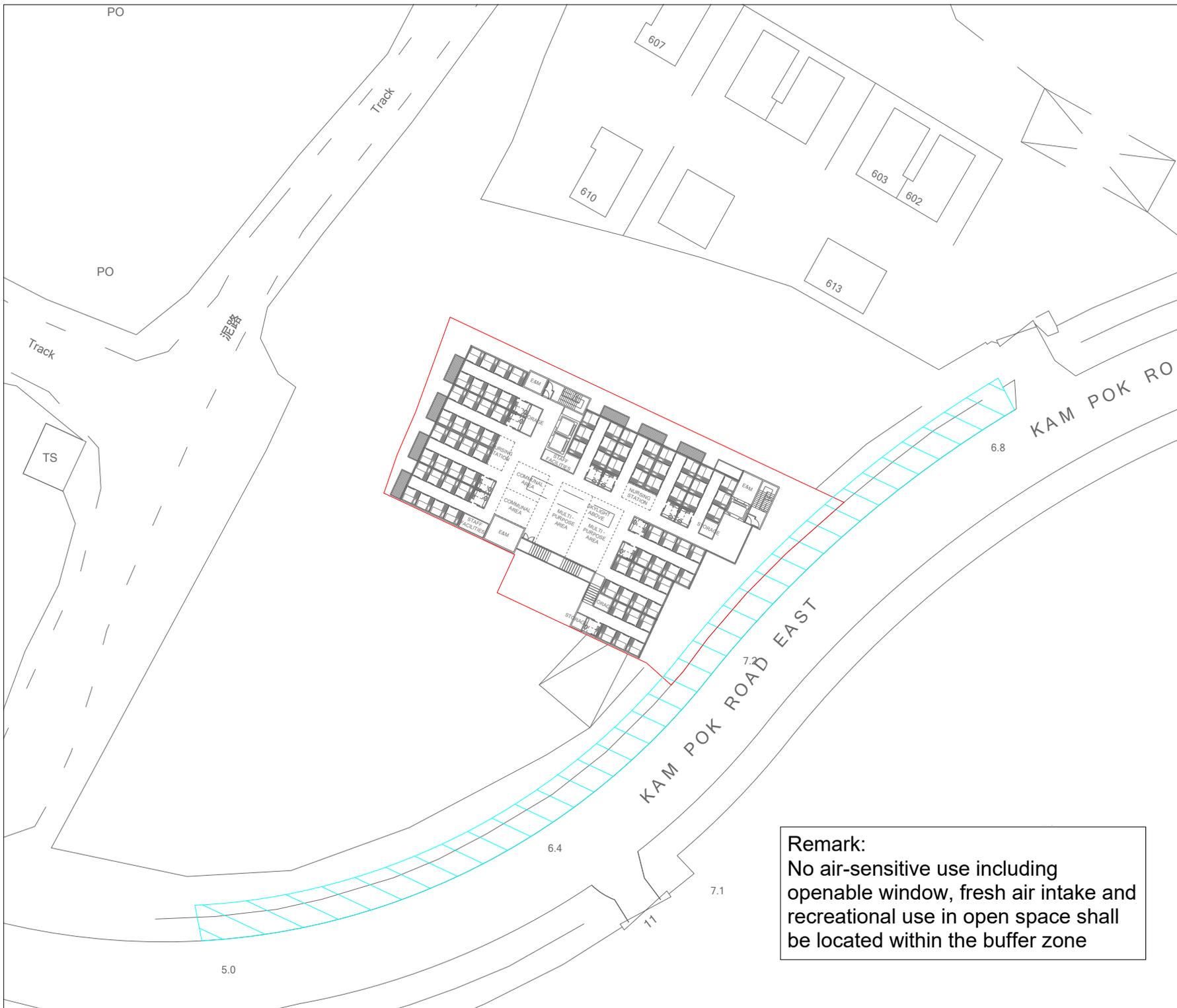
<b>Drawing No.</b> FIGURE 2.1	<b>Rev.</b> 0
----------------------------------	------------------

**Scale:**  
 A4 - 1:3000

**FIGURE 2.2  
BUFFER DISTANCES**

LEGEND:

- Site Boundary
- 5m Buffer Distance



**Remark:**  
 No air-sensitive use including openable window, fresh air intake and recreational use in open space shall be located within the buffer zone

	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250707	20250707	20250707

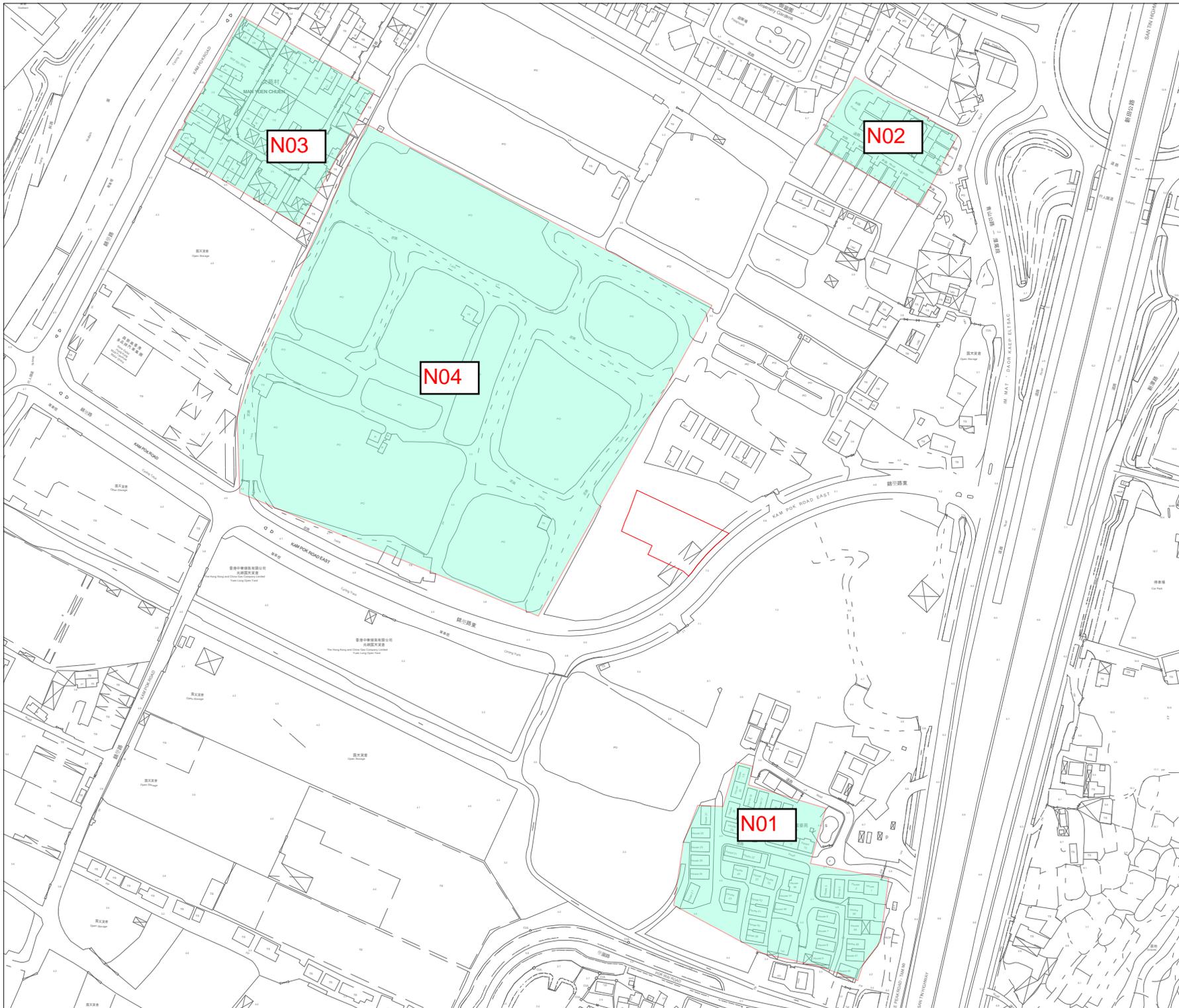
**Project Title**  
 Proposed Social Welfare Facilities (Residential Care Home for the Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

**DrawingTitle**  
 BUFFER DISTANCE

<b>Drawing No.</b> FIGURE 2.2	<b>Rev.</b> 0
----------------------------------	------------------

**Scale:**  
 A4 - 1:700

**FIGURE 3.1**  
**LOCATION OF REPRESENTATIVE NOISE**  
**SENSITIVE RECEIVERS**



LEGEND:

Site Boundary

	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250530	20250530	20250530

**Project Title**  
 Proposed Social Welfare Facilities (Residential Care Home for the Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

**Drawing Title**  
 LOCATION OF REPRESENTATIVE NOISE SENSITIVE RECEIVERS

Drawing No. FIGURE 3.1	Rev. 0
---------------------------	-----------

Scale:  
 A4 - 1:3000

**FIGURE 3.2**  
**LOCATION OF REPRESENTATIVE TRAFFIC**  
**NOISE SENSITIVE RECEIVERS**

**LEGEND:**

- Project Site
- Noise Sensitive Receiver



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250526	20250526	20250526

**Project Title**  
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Figure Title**  
 Location of Representative Traffic Noise Sensitive Receivers (G/F)

<b>Figure No.</b>	<b>Rev.</b>
Figure 3.2a	0

**LEGEND:**

- Project Site
- Noise Sensitive Receiver



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250526	20250526	20250526

**Project Title**  
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Figure Title**  
 Location of Representative Traffic Noise Sensitive Receivers (1/F)

<b>Figure No.</b>	<b>Rev.</b>
Figure 3.2b	0

**LEGEND:**

- Project Site
- Noise Sensitive Receiver



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250526	20250526	20250526

**Project Title**  
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Figure Title**  
 Location of Representative Traffic Noise Sensitive Receivers (2/F)

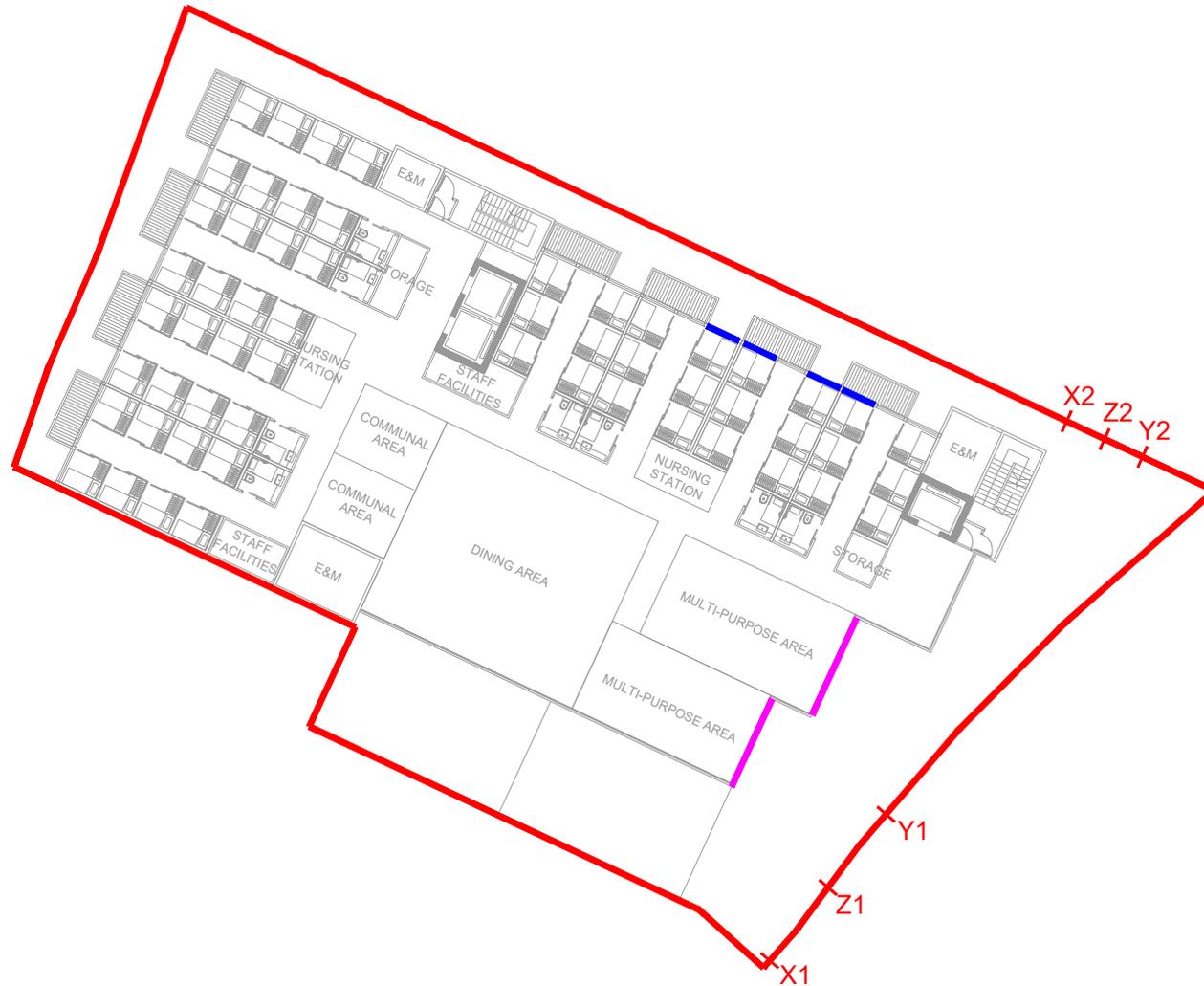
<b>Figure No.</b>	<b>Rev.</b>
Figure 3.2c	0



**FIGURE 3.3  
LOCATION OF PROPOSED ACOUSTIC  
WINDOW**

**LEGEND:**

- Project Site
- Type 2 AW (BT)
- Fixed Glazing



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250526	20250526	20250526

**Project Title**  
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Figure Title**  
 Location of Proposed Acoustic Window (1/F)

<b>Figure No.</b>	<b>Rev.</b>
Figure 3.3a	0

**LEGEND:**

 Project Site

 Type 2 AW (BT)



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250526	20250526	20250526

**Project Title**

PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Figure Title**

Location of Proposed Acoustic Window (2/F)

<b>Figure No.</b>	<b>Rev.</b>
Figure 3.3b	0



**FIGURE 3.4**  
**LOCATION OF EXISTING MAJOR NOISE**  
**SOURCES**

LEGEND:

- Site Boundary
- Major Fixed Noise Sources
- Background Noise Measurement Location



	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250725	20250725	20250725

**Project Title**  
 Proposed Social Welfare Facilities (Residential Care Home for the Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

**Drawing Title**  
 LOCATION OF BACKGROUND NOISE MEASUREMENT AND MAJOR FIXED NOISE SOURCES

Drawing No.	Rev.
FIGURE 3.4	0

Scale:  
 A4 - 1:3000

**FIGURE 4.1**  
**LOCATION OF WATER SENSITIVE RECEIVER**



- Project Site
- 500m Assessment Boundary
- Water Sensitive Receiver

	Prepared	Checked	Approved
Initial	Various	TL	HM
Date	20250623	20250623	20250623

**Project Title**  
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

**Drawing Title**  
 Location of Water Sensitive Receiver

Drawing No.	Rev.
Figure 4.1	0

Scale: A3

**FIGURE 6.1  
AERIAL PHOTOS**

LEGEND:

 Site Boundary



Year 1977



Year 1988



Year 1992



Year 2005

	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250630	20250630	20250630

Project Title  
 Proposed Social Welfare Facilities (Residential Care Home for the Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DrawingTitle  
 AERIAL PHOTOS

Drawing No. FIGURE 6.1a	Rev. 0
----------------------------	-----------

Scale:  
 A4 - N.T.S

LEGEND:

 Site Boundary



Year 2018



Year 2019



Year 2021



Year 2024

	Prepared	Checked	Approved
Initial	LY	YS	HM
Date	20250630	20250630	20250630

Project Title  
 Proposed Social Welfare Facilities (Residential Care Home for the Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DrawingTitle  
 AERIAL PHOTOS

Drawing No. FIGURE 6.1b	Rev. 0
----------------------------	-----------

Scale:  
 A4 - N.T.S

# **APPENDIX 1.1 INDICATIVE BUILDING PLAN**

NOTES:

LEGEND:

- THE SITE
- SHARED EVA
- GOVERNMENT LAND
- OVERHEAD LINES
- EXISTING NOISE BARRIER

REV	DATE	DESCRIPTION	BY	CHKD
5.5.2025		CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for Persons with Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DRAWING : MASTER LAYOUT PLAN

SCALE : 1:400 @A3 Rev: —

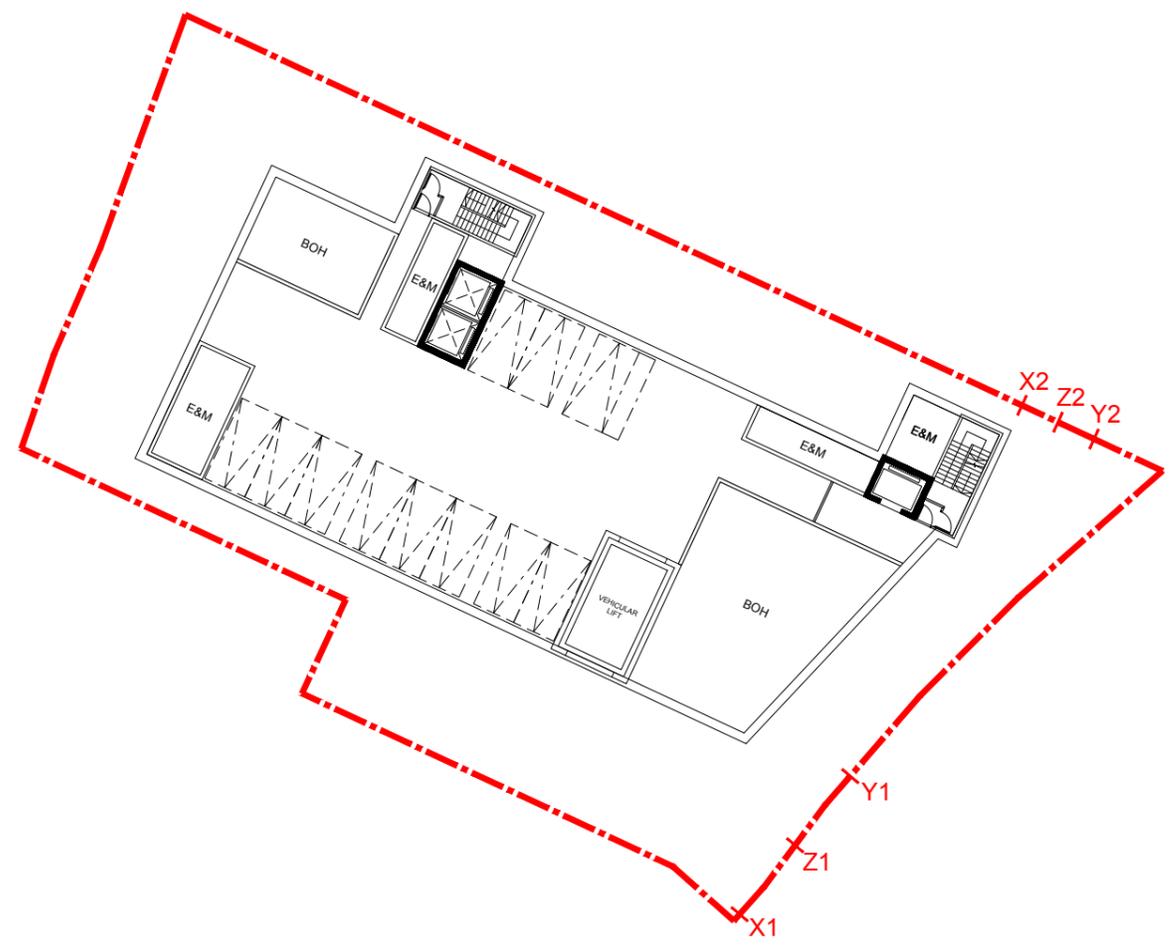
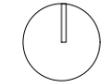
PROJECT NO: 25001\_KPR

Drawing No. : Date:

FIGURE 2 MAY 2025



MASTER LAYOUT PLAN  
KAM POK ROAD E RCHD 1:400 @ A3



NOTES:

REV	DATE	DESCRIPTION	BY	CHKD
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

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TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for Persons with Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

**BASEMENT FLOOR PLAN**  
KAM POK ROAD E RCHD 1:400 @ A3

DRAWING : BASEMENT FLOOR PLAN

SCALE : 1:400 @A3 Rev: —

PROJECT NO: 25001\_KPR

Drawing No. : Date:

CP-A102 MAY 2025

NOTES:

REV	DATE	DESCRIPTION	BY	CHKD
1	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for Persons with Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

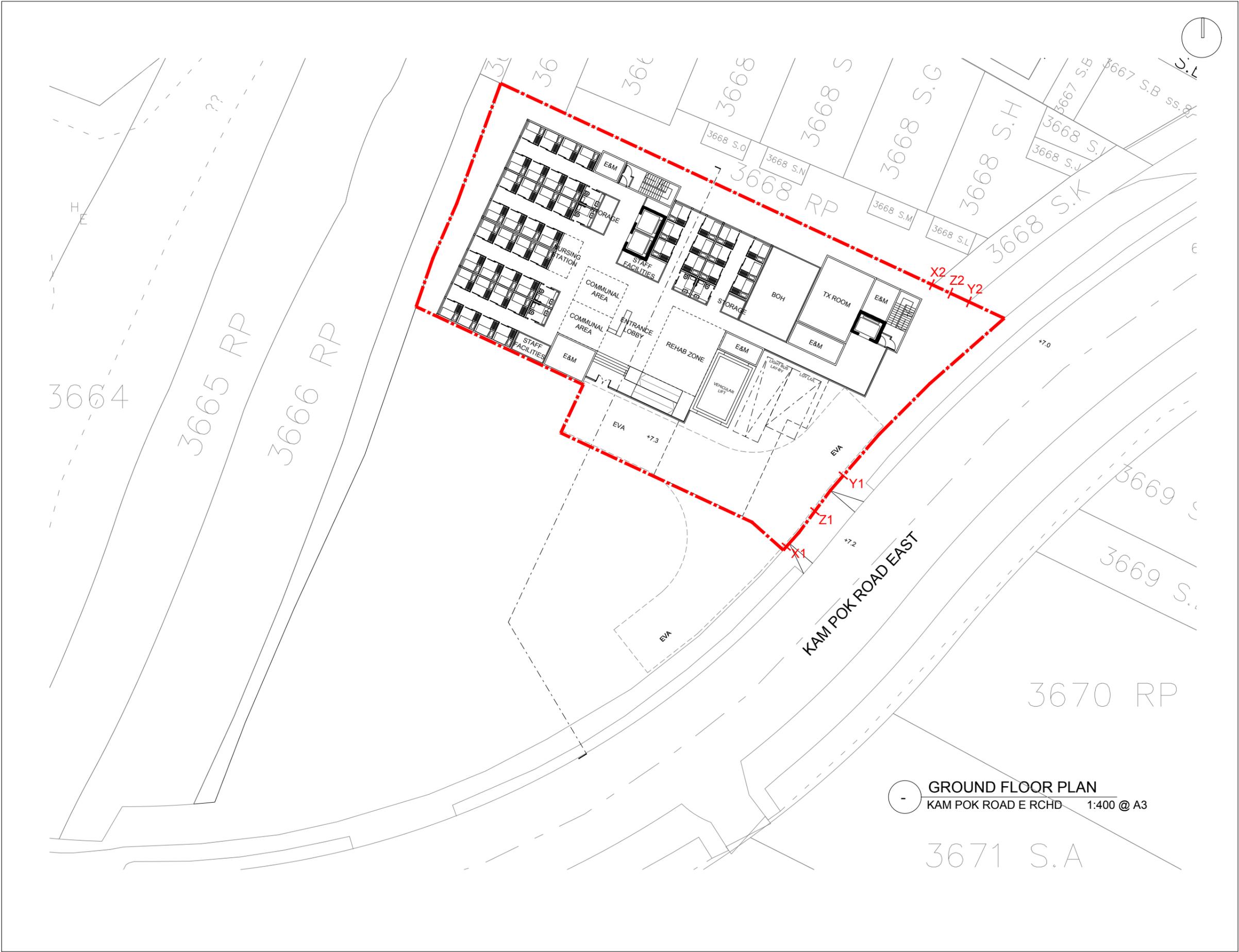
DRAWING : GROUND FLOOR PLAN

SCALE : 1:400 @A3 Rev: —

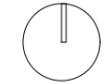
PROJECT NO: 25001\_KPR

Drawing No. : Date:

CP-A103 MAY 2025



GROUND FLOOR PLAN  
KAM POK ROAD E RCHD 1:400 @ A3



1ST FLOOR PLAN  
KAM POK ROAD E RCHD 1:400 @ A3

NOTES:

REV	DATE	DESCRIPTION	BY	CHKD
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for Persons with Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

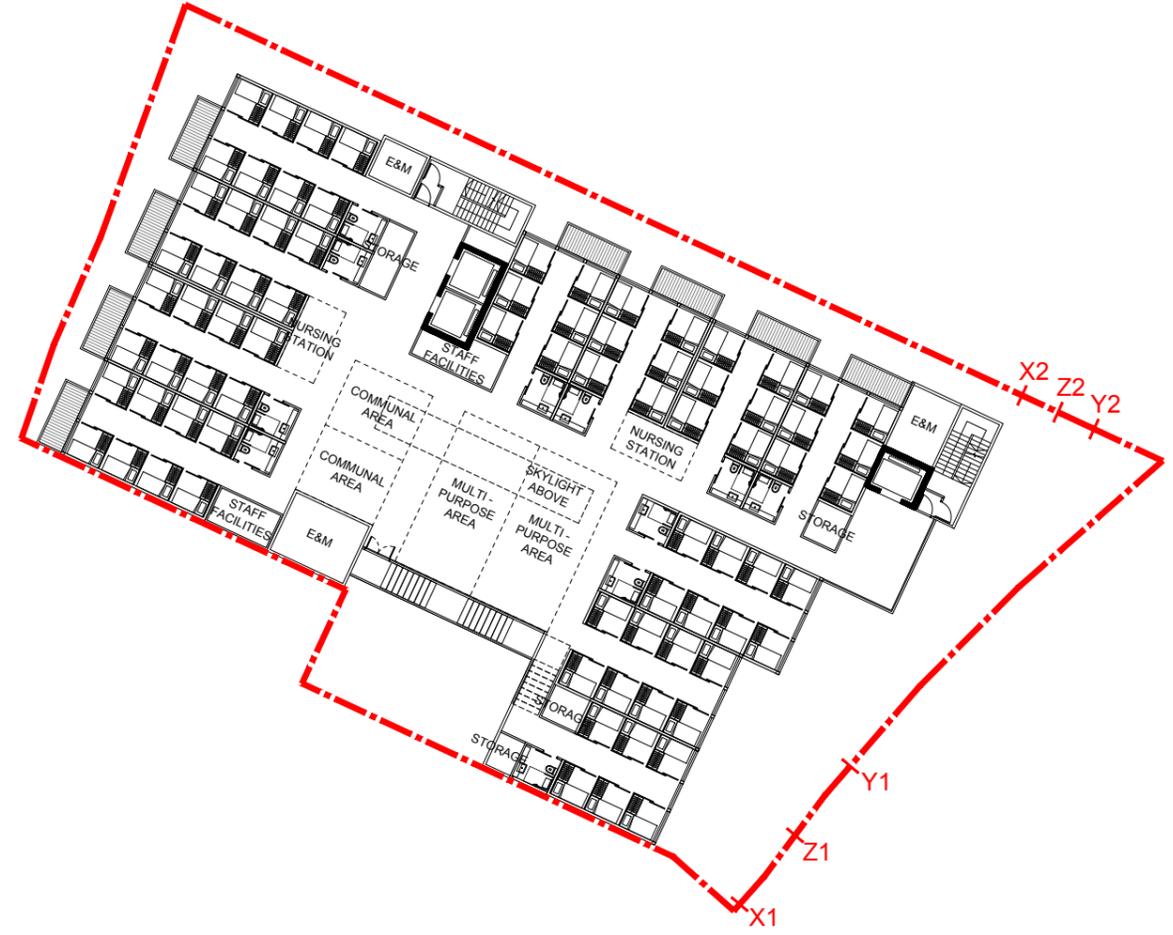
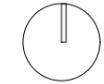
DRAWING : FIRST FLOOR PLAN

SCALE : 1:400 @A3 Rev: —

PROJECT NO: 25001\_KPR

Drawing No. : Date:

CP-A104 MAY 2025



NOTES:

REV	DATE	DESCRIPTION	BY	CHKD
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



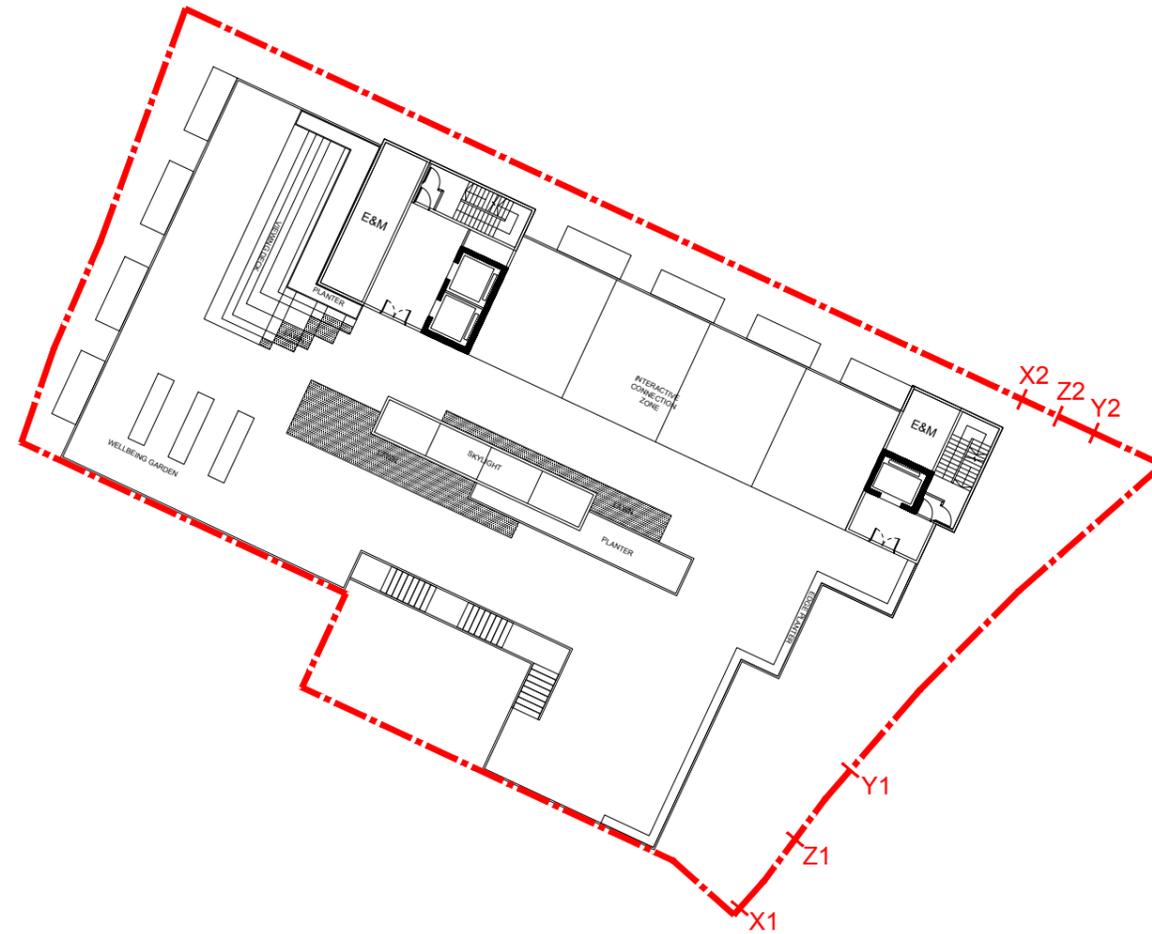
PROJECT : Proposed Social Welfare Facilities (Residential Care Home for Persons with Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

2ND FLOOR PLAN  
KAM POK ROAD E RCHD 1:400 @ A3

DRAWING : SECOND FLOOR PLAN

SCALE : 1:400 @A3 Rev: —  
PROJECT NO: 25001\_KPR

Drawing No. : CP-A105 Date: MAY 2025



NOTES:

REV	DATE	DESCRIPTION	BY	CHKD
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for Persons with Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

ROOF PLAN  
KAM POK ROAD E RCHD 1:400 @ A3

DRAWING : ROOF PLAN

SCALE : 1:400 @A3 Rev: —

PROJECT NO: 25001\_KPR

Drawing No. : Date:

CP-A106 MAY 2025



NOTES:

REV	DATE	DESCRIPTION	BY	CHKD
-	5.5.2025	CONCEPT DESIGN	KC	PC

Do not scale from drawings. All dimensions must be checked and verified on site before any works are undertaken. Any discrepancies must be reported in writing to Architect.

CLIENT

TOWN PLANNER

DeSPACE (International) Limited



ARCHITECT

Vessel International Limited  
Syn Plus Design Limited



PROJECT : Proposed Social Welfare Facilities (Residential Care Home for Persons with Disabilities (RCHD)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

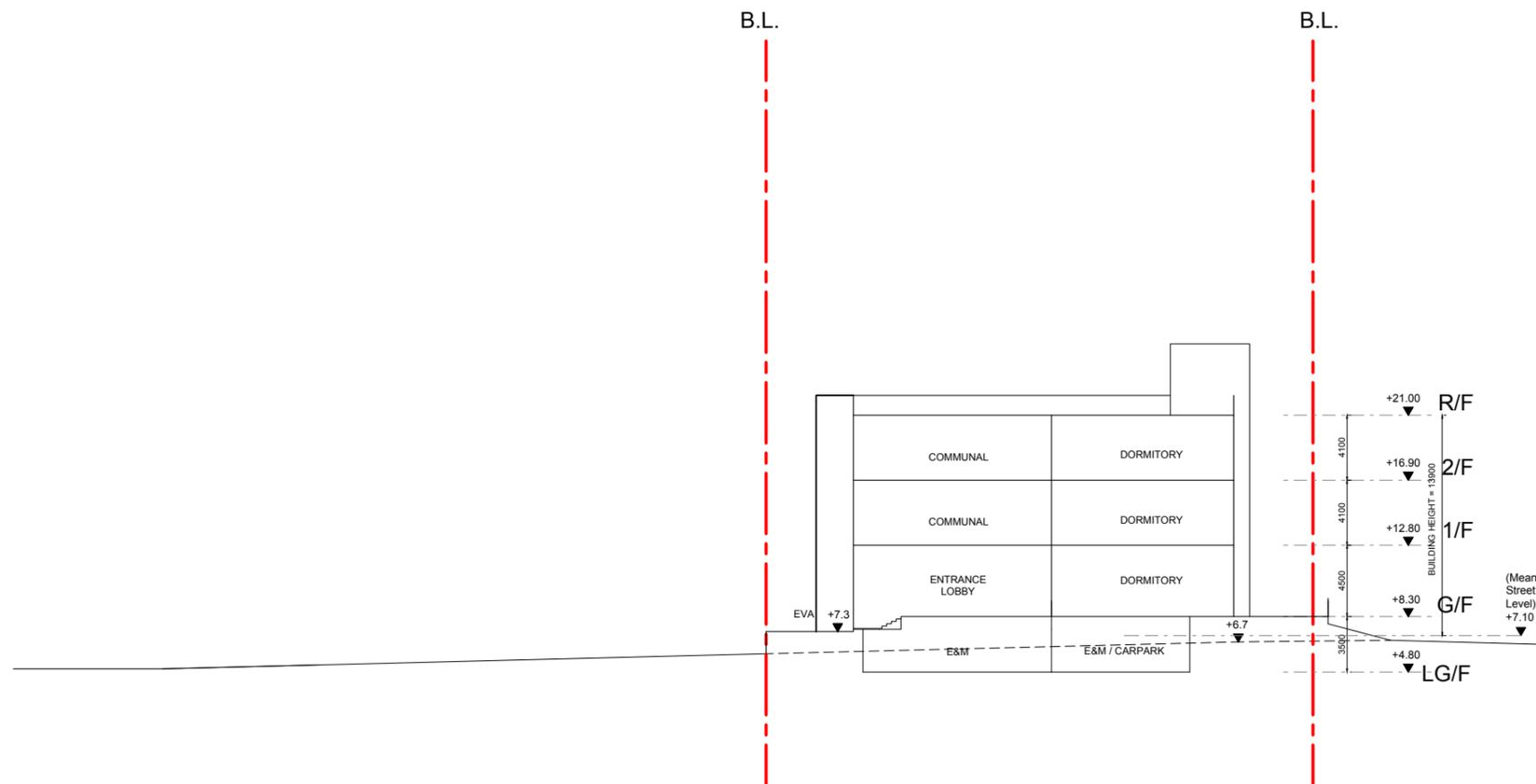
DRAWING : SCHEMATIC SECTION

SCALE : 1: 400 @A3 Rev: —

PROJECT NO: 25001\_KPR

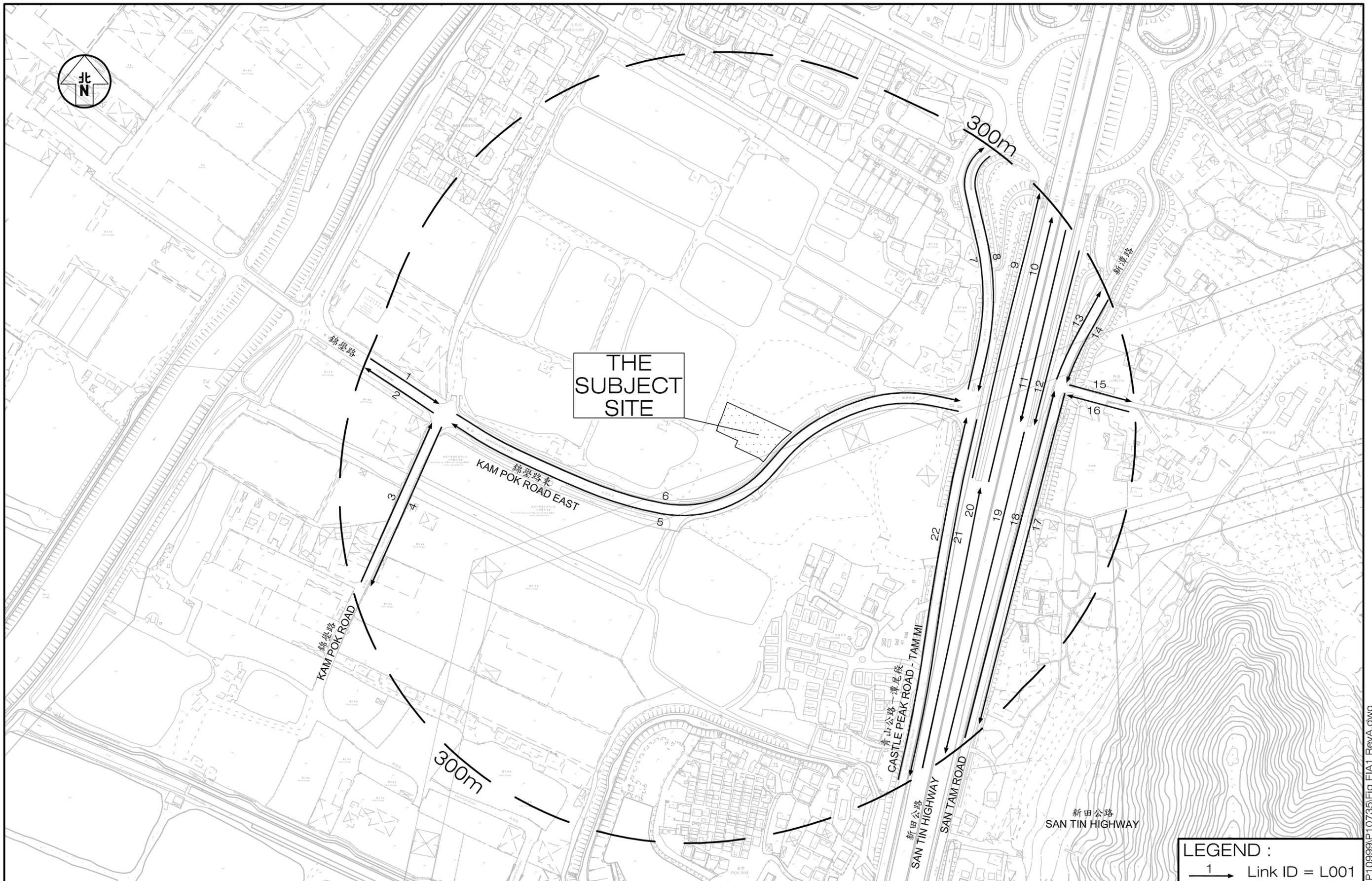
Drawing No. : Date:

CP-A201 MAY 2025



SCHEMATIC SECTION  
KAM POK ROAD E RCHD 1:400 @ A3

## **APPENDIX 3.1 TRAFFIC FORECAST DATA**



LEGEND :  
 1 → Link ID = L001

Project: PROPOSED SOCIAL WELFARE FACILITIES (RCHD) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG

Figure Title: LOCATION OF TRAFFIC DATA

Figure No.	EIA1	Revision	A
Designed by	K C	Drawn by	C C L
Checked by	-	Date	26 MAY 2025
Scale in A3	1 : 3,000		

**CKM Asia Limited**  
 Traffic and Transportation Planning Consultants

T:\Proposal\10000-P10999\P10735\Fig EIA1 RevA.dwg

# YEAR 2045 TRAFFIC FORECAST

Date: 23 May 2025

Job No.: J7400 & J7401

Link ID	Road Section	From Road	To Road	Speed Limit (kph)	Road Classification	AM Peak Hour		
						Traffic Flows (veh/hr)	Vehicle Composition	
							LV	HV
L001	Kam Pok Road (EB)	Pok Wai South Road	Kam Pok Road East	50	LD	80	43%	57%
L002	Kam Pok Road (WB)	Kam Pok Road East	Pok Wai South Road	50	LD	130	42%	58%
L003	Kam Pok Road (NB)	Pok Wai West Road	Kam Pok Road East	50	LD	80	18%	82%
L004	Kam Pok Road (SB)	Kam Pok Road East	Pok Wai West Road	50	LD	70	48%	52%
L005	Kam Pok Road East (WB)	Castle Peak Road - Tam Mi	Kam Pok Road	50	LD	170	43%	57%
L006	Kam Pok Road East (EB)	Kam Pok Road	Castle Peak Road - Tam Mi	50	LD	140	27%	73%
L007	Castle Peak Road - Tam Mi (NB)	Kam Pok Road East	Fairview Park Interchange	50	RR	460	49%	51%
L008	Castle Peak Road - Tam Mi (SB)	Fairview Park Interchange	Kam Pok Road East	50	RR	290	51%	49%
L009	San Tin Highway (NB)	San Tin Highway	Fairview Park Interchange	50	DD	820	72%	28%
L010	San Tin Highway (NB)	San Tin Highway	San Tin Highway	100	PD	3,940	68%	32%
L011	San Tin Highway (SB)	San Tin Highway	San Tin Highway	100	PD	3,610	57%	43%
L012	San Tin Highway (SB)	Fairview Park Interchange	San Tin Highway	50	DD	1,130	75%	25%
L013	San Tam Road (NB)	Unnamed Road	Fairview Park Interchange	50	RR	340	62%	38%
L014	San Tam Road (SB)	Fairview Park Interchange	Unnamed Road	50	RR	700	68%	32%
L015	Unnamed Road (EB)	San Tam Road	Cul-de-sac	50	RR	10	75%	25%
L016	Unnamed Road (WB)	Cul-de-sac	San Tam Road	50	RR	10	80%	20%
L017	San Tam Road (SB)	Unnamed Road	Fung Kat Heung Road	50	RR	700	68%	32%
L018	San Tam Road (NB)	Fung Kat Heung Road	Unnamed Road	50	RR	330	62%	38%
L019	San Tin Highway (SB)	San Tin Highway	Yuen Long Highway	100	PD	4,740	61%	39%
L020	San Tin Highway (NB)	Yuen Long Highway	San Tin Highway	100	PD	4,760	69%	31%
L021	Castle Peak Road - Tam Mi (SB)	Kam Pok Road East	Access Road to Merry Garden	50	RR	160	62%	38%
L022	Castle Peak Road - Tam Mi (NB)	Access Road to Merry Garden	Kam Pok Road East	50	RR	370	57%	43%

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

PD – Primary Distributor

DD – District Distributor

LD – Local Distributor

RR – Rural Road

# YEAR 2045 TRAFFIC FORECAST

Date: 23 May 2025

Job No.: J7400 & J7401

Link ID	Road Section	From Road	To Road	Speed Limit (kph)	Road Classification	PM Peak Hour		
						Traffic Flows (veh/hr)	Vehicle Composition	
							LV	HV
L001	Kam Pok Road (EB)	Pok Wai South Road	Kam Pok Road East	50	LD	120	40%	60%
L002	Kam Pok Road (WB)	Kam Pok Road East	Pok Wai South Road	50	LD	100	39%	61%
L003	Kam Pok Road (NB)	Pok Wai West Road	Kam Pok Road East	50	LD	70	43%	57%
L004	Kam Pok Road (SB)	Kam Pok Road East	Pok Wai West Road	50	LD	70	20%	80%
L005	Kam Pok Road East (WB)	Castle Peak Road - Tam Mi	Kam Pok Road	50	LD	150	33%	67%
L006	Kam Pok Road East (EB)	Kam Pok Road	Castle Peak Road - Tam Mi	50	LD	170	42%	58%
L007	Castle Peak Road - Tam Mi (NB)	Kam Pok Road East	Fairview Park Interchange	50	RR	450	56%	44%
L008	Castle Peak Road - Tam Mi (SB)	Fairview Park Interchange	Kam Pok Road East	50	RR	270	51%	49%
L009	San Tin Highway (NB)	San Tin Highway	Fairview Park Interchange	50	DD	880	73%	27%
L010	San Tin Highway (NB)	San Tin Highway	San Tin Highway	100	PD	3,750	71%	29%
L011	San Tin Highway (SB)	San Tin Highway	San Tin Highway	100	PD	3,900	68%	32%
L012	San Tin Highway (SB)	Fairview Park Interchange	San Tin Highway	50	DD	680	76%	24%
L013	San Tam Road (NB)	Unnamed Road	Fairview Park Interchange	50	RR	330	67%	33%
L014	San Tam Road (SB)	Fairview Park Interchange	Unnamed Road	50	RR	700	66%	34%
L015	Unnamed Road (EB)	San Tam Road	Cul-de-sac	50	RR	10	100%	0%
L016	Unnamed Road (WB)	Cul-de-sac	San Tam Road	50	RR	10	100%	0%
L017	San Tam Road (SB)	Unnamed Road	Fung Kat Heung Road	50	RR	700	66%	34%
L018	San Tam Road (NB)	Fung Kat Heung Road	Unnamed Road	50	RR	330	67%	33%
L019	San Tin Highway (SB)	San Tin Highway	Yuen Long Highway	100	PD	4,570	69%	31%
L020	San Tin Highway (NB)	Yuen Long Highway	San Tin Highway	100	PD	4,630	71%	29%
L021	Castle Peak Road - Tam Mi (SB)	Kam Pok Road East	Access Road to Merry Garden	50	RR	160	62%	38%
L022	Castle Peak Road - Tam Mi (NB)	Access Road to Merry Garden	Kam Pok Road East	50	RR	340	59%	41%

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

PD – Primary Distributor

DD – District Distributor

LD – Local Distributor

RR – Rural Road

# **APPENDIX 3.2 TRAFFIC NOISE IMPACT ASSESSMENT RESULTS**

Predicted Road Traffic Noise Levels for 2045 (Mitigated Case Scenario)

Floor	NAP ID	Description	Floor Height, mPD	Assessment Height, mPD	Noise Criteria, dB(A)	Unmitigated Noise Level, $L_{10}$ (1 hour) <sup>1</sup> , dB(A)	Proposed Noise Mitigation Measures	Estimated Noise Attenuation, dB(A)	Mitigated Noise Level, $L_{10}$ (1 hour) <sup>1</sup> , dB(A)	Compliance
						AM				
G/F	GF N01	RCHD Dormitory	+8.30	+9.5	70	69	N/A	N/A	69	Yes
	GF N02	RCHD Dormitory			70	68	N/A	N/A	68	Yes
	GF N03	RCHD Dormitory			70	68	N/A	N/A	68	Yes
	GF N04	RCHD Dormitory			70	68	N/A	N/A	68	Yes
	GF N05	RCHD Dormitory			70	62	N/A	N/A	62	Yes
	GF N06	RCHD Dormitory			70	62	N/A	N/A	62	Yes
	GF N07	RCHD Dormitory			70	62	N/A	N/A	62	Yes
	GF N08	RCHD Dormitory			70	62	N/A	N/A	62	Yes
	GF N09	RCHD Dormitory			70	63	N/A	N/A	63	Yes
	GF N10	RCHD Dormitory			70	63	N/A	N/A	63	Yes
	GF N11	RCHD Dormitory			70	63	N/A	N/A	63	Yes
	GF N12	RCHD Dormitory			70	64	N/A	N/A	64	Yes
1/F	1F N01	Multi-purpose Room	+12.80	+14.0	70	76	Fixed Glazing	N/A	N/A	Yes
	1F N02	Multi-purpose Room			70	75	Fixed Glazing	N/A	N/A	Yes
	1F N03	RCHD Dormitory			70	69	N/A	N/A	69	Yes
	1F N04	RCHD Dormitory			70	71	Type 2	7	64	Yes
	1F N05	RCHD Dormitory			70	71	Type 2	7	64	Yes
	1F N06	RCHD Dormitory			70	71	Type 2	7	64	Yes
	1F N07	RCHD Dormitory			70	71	Type 2	7	64	Yes
	1F N08	RCHD Dormitory			70	70	N/A	N/A	70	Yes
	1F N09	RCHD Dormitory			70	70	N/A	N/A	70	Yes
	1F N10	RCHD Dormitory			70	70	N/A	N/A	70	Yes
	1F N11	RCHD Dormitory			70	63	N/A	N/A	63	Yes
	1F N12	RCHD Dormitory			70	62	N/A	N/A	62	Yes
	1F N13	RCHD Dormitory			70	62	N/A	N/A	62	Yes
	1F N14	RCHD Dormitory			70	63	N/A	N/A	63	Yes
	1F N15	RCHD Dormitory			70	63	N/A	N/A	63	Yes
	1F N16	RCHD Dormitory			70	63	N/A	N/A	63	Yes
	1F N17	RCHD Dormitory			70	63	N/A	N/A	63	Yes
	1F N18	RCHD Dormitory			70	64	N/A	N/A	64	Yes
2/F	2F N01	RCHD Dormitory	+16.90	+18.1	70	77	Type 2	7	70	Yes
	2F N02	RCHD Dormitory			70	77	Type 2	7	70	Yes
	2F N03	RCHD Dormitory			70	77	Type 2	7	70	Yes
	2F N04	RCHD Dormitory			70	76	Type 2	7	69	Yes
	2F N05	RCHD Dormitory			70	77	Type 2	7	70	Yes
	2F N06	RCHD Dormitory			70	75	Type 2	7	68	Yes
	2F N07	RCHD Dormitory			70	70	N/A	N/A	70	Yes
	2F N08	RCHD Dormitory			70	73	Type 2	7	66	Yes
	2F N09	RCHD Dormitory			70	73	Type 2	7	66	Yes
	2F N10	RCHD Dormitory			70	72	Type 2	7	65	Yes
	2F N11	RCHD Dormitory			70	72	Type 2	7	65	Yes
	2F N12	RCHD Dormitory			70	72	Type 2	7	65	Yes
	2F N13	RCHD Dormitory			70	72	Type 2	7	65	Yes
	2F N14	RCHD Dormitory			70	72	Type 2	7	65	Yes
	2F N15	RCHD Dormitory			70	65	N/A	N/A	65	Yes
	2F N16	RCHD Dormitory			70	63	N/A	N/A	63	Yes
	2F N17	RCHD Dormitory			70	63	N/A	N/A	63	Yes
	2F N18	RCHD Dormitory			70	63	N/A	N/A	63	Yes
	2F N19	RCHD Dormitory			70	63	N/A	N/A	63	Yes
	2F N20	RCHD Dormitory			70	64	N/A	N/A	64	Yes
	2F N21	RCHD Dormitory			70	64	N/A	N/A	64	Yes
	2F N22	RCHD Dormitory			70	65	N/A	N/A	65	Yes

Results Summary	
Total No. of NAPs	52
Total No. of NAPs with exceedance	0
Compliance Rate	100%

## **APPENDIX 3.3**

# **FIXED NOISE SITE SURVEY RECORD**

Title: Inventory of Major Fixed Noise Sources

Source Location	Source Description	Source ID	Avg. Measured SPL, dB(A)	Measurement Dist. from Source (d), m	Distance Correction, dB(A)	SWL adopted in Fixed Noise Assessment, dB(A)	Remarks
祥發五金貿易有限公司	Open Storage	S01	65.8	15	31.5	97.3	
Hung Kee Metal Recycling Int'l Ltd.	Open Storage	S02	-	-	-	97.3	No operation was observed during site survey. SWL reference to S01
Dorfield Ltd.	Open Storage	S03	68.9	7	24.9	93.8	



Photo 1: 祥發五金貿易有限公司 (S01)



Photo 2: Hung Kee Metal Recycling Int'l Ltd. (S02)



Photo 3: Dorfield Ltd. (S03)

**APPENDIX 3.4**  
**DETAILED CALCULATION FOR FIXED NOISE**  
**IMPACT ASSESSMENT**

Project:	Proposed Residential Care Home for the Disabilities (RCHD) in Nam Sang Wai, Yuen Long
Title:	Assessment for Noise from Fixed Sources
Subtitle:	Calculation of SPL at Assessment Points
NSR ID:	2F_N07
NSR x coord:	823492.8
NSR y coord:	836563.7
NSR floor (/F)	2
NSR height (mPD)	18.1
ASR	B

Noise Source ID	Description	Activities/Equipment	Operation		SWL, dB(A)		Horizontal Distance from NSR, m	Correction, dB(A)			Day-time Corrected Noise Level, Leq dB(A)	Night-time Corrected Noise Level, Leq dB(A)	Remark	
			Daytime	Night-time	Daytime	Night-time		Distance	Barrier	Façade				
S01	祥發五金貿易有限公司	Lorry Crane	Y	Y	97.3	97.3	144	-51	0	3	49	49	Night time operation is assumed as worst case scenario	
S02	Hung Kee Metal Recycling Int'l Ltd.	Lorry Crane	Y	Y	97.3	97.3	174	-53	0	3	48	48		
S03	Dorfield Ltd.	Fork Lift	Y	Y	93.8	93.8	205	-54	0	3	43	43		
											<b>Total SPL</b>	52	52	
											<b>Criteria ANL</b>	65	55	
											<b>Exceedance</b>	-	-	

# **APPENDIX 6.1**

## **ENQUIRIES TO GOVERNMENTAL AUTHORITY**

本署檔案  
OUR REF :  
來函檔案  
YOUR REF : W25185/RCHD-0002  
電話  
TEL NO : 3162 8418  
圖文傳真  
FAX NO : 3162 8584  
網址  
HOMEPAGE : <http://www.epd.gov.hk/>

**Environmental Protection Department**  
**Environmental Compliance Division**  
**Regional Office (North)**  
10/F., Shatin Government Offices,  
1 Sheung Wo Che Road,  
Sha Tin, New Territories,  
Hong Kong.

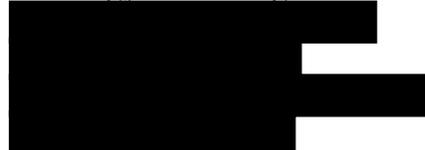


環境保護署  
環保法規管理科  
區域辦事處(北)  
香港新界沙田  
上禾輦路一號  
沙田政府合署 10 樓

By email only ( [REDACTED] )

3 July 2025

BeeXergy Consulting Limited



(Attn: Mr. Leo YU)

Dear Mr. YU,

**Proposed Social Welfare Facilities (Residential Care Home for Persons with Disabilities (RCHD)) in “Village Type Development” Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long**

**RE: Request for Information of Registered Chemical Waste Producer Records and Historical Records of Chemical Spillage / Leakage**

Regarding your enquiries in the letter under reference dated 30 June 2025, this Regional Office has no record of spillage or leakage of chemicals within the site boundary in the past ten years.

Concerning the records of registered chemical waste producers, a register of chemical waste producers is available for inspection in the Territorial Control Office of the department. If you would like to inspect, please contact Mr. Tim H. T. CHAN at 2835 1017 for making an appointment to view the records.

Should you have any query on the matter, please contact the undersigned at 3162 8418.

Yours sincerely,

(Ken NG)

For Director of Environmental Protection

## **Appendix 2**

### Revised Traffic Impact Assessment (TIA)

Proposed Social Welfare Facilities (Residential Care Home for persons with disabilities (RCHD))  
in "Village Type Development" Zone,  
Lots 3669 S.A RP (Part), 3669 S.B RP (Part),  
3670 RP (Part) and adjoining  
Government Land in D.D.104,  
Nam Sang Wai, Yuen Long

Traffic Impact Assessment  
Revised Report  
July 2025

Prepared by: CKM Asia Limited

Proposed Social Welfare Facilities (Residential Care Home for persons with disabilities (RCHD)) in “Village Type Development” Zone, Lots 3669 S.A RP (Part), 3669 S.B RP (Part), 3670 RP (Part) and adjoining Government Land in D.D.104, Nam Sang Wai, Yuen Long

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3.0 THE PROPOSED RCHD Proposed RCHD Provision of Internal Transport Facilities Swept Path Analysis Vehicle Lift Analysis	6
4.0 TRAFFIC IMPACT Design Year Traffic Forecasting 2033 Traffic Flows 2033 Junction Operational Performance Impact on Utilisation of Surveyed Bus Stops	8
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Proposed Social Welfare Facilities (Residential Care Home for persons with disabilities (RCHD)) in “Village Type Development” Zone, Lots 3669 S.A RP (Part), 3669 S.B RP (Part), 3670 RP (Part) and adjoining Government Land in D.D.104, Nam Sang Wai, Yuen Long

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NUMBER

- 2.1 Existing junction operational performance
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- 2.3 Details of the surveyed RCHDs
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- 2.5 Pedestrian Trip Rates of the surveyed RCHDs
- 2.6 Results of the utilisation survey at Tai Sang Wai (towards San Tin) bus stop
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- 3.1 Internal transport facilities provided in surveyed RCHDs
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- 4.6 Public transport passengers generated by the Proposed RCHD
- 4.7 The utilisation of the public transport services for the case with the Proposed RCHD

Proposed Social Welfare Facilities (Residential Care Home for persons with disabilities (RCHD)) in “Village Type Development” Zone, Lots 3669 S.A RP (Part), 3669 S.B RP (Part), 3670 RP (Part) and adjoining Government Land in D.D.104, Nam Sang Wai, Yuen Long

FIGURES

NUMBER

- 1.1 Location of Subject Site
- 2.1 Location of surveyed junctions
- 2.2 Existing junction layout of Kam Pok Road / Kam Pok Road East
- 2.3 Existing junction layout of Castle Peak Road – Tam Mi / Kam Pok Road
- 2.4 Existing junction layout of The Fairview Park Roundabout
- 2.5 Existing peak hour traffic flows
- 2.6 The public transport services provided in the vicinity of the Subject Site
- 2.7 The walking path between the Proposed RCHD and the nearby franchised bus stops
- 3.1 G/F layout plan
- 3.2 B/F layout plan
- 3.3 Length of visibility line for the motorist leaving the Proposed RCHD at Kam Pok Road East
- 4.1 The vehicular ingress / egress routes of the Proposed RCHD
- 4.2 Year 2033 peak hour traffic flows without the Proposed RCHD
- 4.3 Year 2033 peak hour traffic flows with the Proposed RCHD

## 1.0 INTRODUCTION

### Background

- 1.1 The Subject Site is located at lots 3669 S.A RP (Part), 3669 S.B RP (Part), 3670 RP (Part) and adjoining Government Land in D.D.104, Nam Sang Wai, Yuen Long. The location of the Subject Site is shown in Figure 1.1.
- 1.2 The owner has the intention to develop the Subject Site into a Residential Care Home for persons with disabilities with no more than 220 beds (the "Proposed RCHD").
- 1.3 Against this background, CKM Asia Limited, a traffic and transportation planning consultancy firm, was commissioned to conduct a Traffic Impact Assessment ("TIA") in support of the Proposed RCHD. The report presents the findings and recommendations of the TIA for the Proposed RCHD.

### Scope of the Assessment

- 1.4 The main objectives of this TIA are as follows:
- To assess the existing traffic issues in the vicinity of the Subject Site;
  - To quantify the amount of traffic generated by the Proposed RCHD; and
  - To examine the traffic impact on the local road network in the vicinity of the Subject Site.

### Contents of the Report

- 1.5 After this introduction, the remaining chapters contain the following:

Chapter Two	- describes the existing situation;
Chapter Three	- outlines the development proposal;
Chapter Four	- presents the traffic impact analysis; and
Chapter Five	- summarises the overall conclusion

## 2.0 THE EXISTING SITUATION

### The Subject Site

- 2.1 The Subject Site is located to the immediate north of Kam Pok Road East. At present, the Subject Site has no vehicular access.

### Existing Road Network

- 2.2 Kam Pok Road East is a local distributor, and it is of single carriageway 2-lane standard. It connects with Kam Pok Road to the west and Castle Peak Road – Tam Mi to the east.
- 2.3 Castle Peak Road – Tam Mi is a rural road, and it is of single carriageway 2-lane standard. It connects with The Fairview Park Roundabout to the north and Kam Pok Road East to the south.

### Traffic Survey

- 2.4 To quantify the traffic flows at the junctions chosen for the capacity analysis, manual classified counts were conducted on Friday, 7<sup>th</sup> March 2025 during the AM and PM peak periods. The locations of the surveyed junctions are presented in Figure 2.1 and their layouts are shown in Figures 2.2 to 2.4.
- 2.5 The surveyed junctions include the following:
- J1: Kam Pok Road / Kam Pok Road East;
  - J2: Castle Peak Road – Tam Mi / Kam Pok Road; and
  - J3: The Fairview Park Roundabout
- 2.6 The counts were classified by vehicle type to enable traffic flows in passenger car units ("pcu") to be calculated. From the survey, the AM and PM peak hours were found to be between 0800 – 0900 and 1700 – 1800 hours respectively.
- 2.7 Reference is made to the 2023 Annual Traffic Census ("ATC") closest core station, which is 5016 San Tin Highway, Castle Peak Road & San Tam Road (from Kam Tin Road to Fairview Park Boulevard), and found that traffic flow for the month of March, when the traffic survey for the captioned was conducted, is around 1.5% lower than the annual monthly average. Hence, the observed traffic flows are adjusted upwards by 1.5%. The revised existing AM and PM peak hour traffic flows are presented in Figure 2.5.

### Operational Performance of the Surveyed Junctions

- 2.8 The existing operational performance of the surveyed junctions is calculated based on the observed traffic counts and the analysis is undertaken using the methods outlined in Volume 2 of Transport Planning and Design Manual ("TPDM"). The existing operational performance of the junctions are summarised in Table 2.1 and the detailed calculations are found in Appendix 1.

TABLE 2.1 EXISTING JUNCTION OPERATIONAL PERFORMANCE

Ref.	Junction	Type of Junction	Parameter <sup>(1)</sup>	AM Peak Hour	PM Peak Hour
J1	Kam Pok Road / Kam Pok Road East	Priority	RFC	0.315	0.220
J2	Castle Peak Road – Tam Mi / Kam Pok Road	Signal	RC	22%	35%
J3	The Fairview Roundabout	Roundabout	RFC	0.492	0.507

Notes: <sup>(1)</sup> RC – reserve capacity RFC – Ratio of Flow to Capacity

2.9 Table 2.1 shows that the junctions now operate with capacity.

### Public Transport Facilities

2.10 The Subject Site is located close to public transport services with franchised bus and public light bus routes operating in the vicinity. Details of the franchised bus and green minibus ("GMB") routes operating in the vicinity of the Subject Site are presented in Figure 2.6 and Table 2.2.

TABLE 2.2 FRANCHISED BUS AND GMB SERVICES OPERATING CLOSE TO THE SUBJECT SITE

Route	Routing	Frequency (minutes)
KMB 76K	Long Ping Estate – Ching Ho Estate	20 – 30
KMB 268	Sham Tseng – Kwun Tong (Tsui Ping North Estate)	30 – 35
CTB 976	Sai Wan Ho – Lok Ma Chau (San Tin)	6 per day
CTB 976A	Siu Sai Wan (Island Resort) – Lok Ma Chau (San Tin)	2 per day
GMB 36	Yuen Long (Fook Hong Street) – Tai Sang Wai Rural Office	10 – 15
GMB 37	Yuen Long (Fook Hong Street) – Yau Tan Mei Village Office	12 – 15
GMB 38	Yuen Long (Fook Hong Street) – Yau Tam Mei West	10 – 15
GMB 75	Yuen Long (Fook Hong Street) – Lok Ma Chau Spur Line Public Transport Interchange	7 – 9
GMB 76	Yuen Long (Fook Hong Street) – Siu Hum Tsuen	15 – 20
GMB 78	Pat Heung Road (near Tai Lam Bus-Bus Interchange) – Lok Ma Chau (San Tin) Public Transport Interchange	20 – 25

Note: KMB – Kowloon Motor Bus CTB – Citybus GMB – Green Minibus

### Trip Generation Rates for RCHD

2.11 In view that the TPDM does not have trip generation rates for RCHD, trip generation surveys were conducted at 3 RCHDs. Details of these RCHDs are found in Table 2.3, and survey results are presented in Table 2.4.

TABLE 2.3 DETAILS OF THE SURVEYED RCHDs

Ref.	RCHD	Address	No. of beds	Distance from nearest MTR Station
1	Caritas Jockey Club Lai King Rehabilitation Centre	31 Lai Chi Ling Road, Kwai Chung, New Territories	505	1.5 km (Lai King Station)
2	Salvation Army Lai King Home	200-210 Lai King Hill Road, Kwai Chung, New Territories	100	1 km (Lai King Station)
3	Tung Hoi Association for the Gifted Child Limited	Section A, B, C, D, E and F of Lot No. 2340 in DD No. 104, Yuen Long, New Territories	111	4.5 km (Yuen Long Station)

TABLE 2.4 TRIP RATES OF THE SURVEYED RCHDs

Ref.	RCHD	AM Peak Hour		PM Peak Hour	
		IN	OUT	IN	OUT
Traffic Generation (pcu/hour)					
1	Caritas Jockey Club Lai King Rehabilitation Centre	11	9	1	3
2	Salvation Army Lai King Home	5	2	2	6
3	Tung Hoi Association for the Gifted Child Limited	5	4	4	5
Trip Rates (pcu/hour/ bed)					
1	Caritas Jockey Club Lai King Rehabilitation Centre	0.0218	0.0178	0.0020	0.0059
2	Salvation Army Lai King Home	0.0500	0.0200	0.0200	0.0600
3	Tung Hoi Association for the Gifted Child Limited	0.0450	0.0360	0.0360	0.0450
Adopted (maximum rates) =		0.0500	0.0360	0.0360	0.0600

Pedestrian Generation Rates for RCHD

- 2.12 In view that the TPDM does not have pedestrian generation rates for RCHD, hence, pedestrian generation surveys were also conducted at the 3 RCHDs found in Table 2.3. The survey results are presented in Tables 2.5.

TABLE 2.5 PEDESTRIAN TRIP RATES OF THE SURVEYED RCHDs

Ref.	RCHD	AM Peak Hour		PM Peak Hour	
		IN	OUT	IN	OUT
Pedestrian Generation (pedestrian/15 min)					
1	Caritas Jockey Club Lai King Rehabilitation Centre	22	2	4	9
2	Salvation Army Lai King Home	5	1	1	4
3	Tung Hoi Association for the Gifted Child Limited	1	1	1	2
Pedestrian Generation Rates (pedestrian/15 min/bed)					
1	Caritas Jockey Club Lai King Rehabilitation Centre	0.0436	0.0040	0.0079	0.0178
2	Salvation Army Lai King Home	0.0500	0.0100	0.0100	0.0400
3	Tung Hoi Association for the Gifted Child Limited	0.0090	0.0090	0.0090	0.0180
Adopted (maximum rates) =		0.0500	0.0100	0.0100	0.0400

Utilisation of Surveyed Bus Stops

- 2.13 An utilisation survey was conducted during the AM and PM peak periods at Tai Sang Wai (towards San Tin) and Long Ha (towards Yuen Long) bus stops and the pedestrian route to 2 surveyed bus stops is presented in Figure 2.7. The results are presented in Tables 2.6 and 2.7 respectively.

TABLE 2.6 RESULTS OF THE UTILISATION SURVEY AT TAI SANG WAI (TOWARDS SAN TIN) BUS STOP

Route <sup>(1)</sup>	No. of Vehicle	No. of Passengers on-board <sup>(2)</sup> [a]	Capacity <sup>(3)</sup> [b]	Vacancy [b] – [a]	Occupancy [a] / [b]
<b>AM Peak</b>					
KMB 76K	3	146	384	238	38.0%
KMB 268	2	14	124	110	11.3%
GMB 37	5	65	86	21	75.6%
GMB 38	6	77	102	25	75.5%
GMB 75	3	27	51	24	52.9%
GMB 76	2	15	32	17	46.9%
GMB 78	2	12	38	26	31.6%
Total	23	356	817	461	43.6%
<b>PM Peak</b>					
KMB 76K	3	154	384	230	40.1%
KMB 268	2	14	124	110	11.3%
GMB 37	7	93	118	25	78.8%
GMB 38	9	95	147	52	64.6%
GMB 75	3	36	48	12	75.0%
GMB 76	1	10	19	9	52.6%
GMB 78	2	12	38	26	31.6%
Total	27	414	878	464	47.2%

Note: <sup>(1)</sup> KMB – Kowloon Motor Bus GMB – Green Minibus

<sup>(2)</sup> Passengers counted the moment before the vehicles departed from the bus stop

<sup>(3)</sup> Assumed capacities: Double-decker = 128, Single-decker = 62

TABLE 2.7 RESULTS OF THE UTILISATION SURVEY AT LONG HA (TOWARDS YUEN LONG) BUS STOP

Route <sup>(1)</sup>	No. of Vehicle	No. of Passengers on-board <sup>(2)</sup> [a]	Capacity <sup>(3)</sup> [b]	Vacancy [b] – [a]	Occupancy [a] / [b]
<b>AM Peak</b>					
KMB 76K	3	89	384	295	23.2%
KMB 268	2	14	124	110	11.3%
GMB 37	6	71	99	28	71.7%
GMB 38	2	22	32	10	68.8%
GMB 75	2	83	102	19	81.4%
GMB 76	2	16	32	16	50.0%
Total	17	295	773	478	38.2%
<b>PM Peak</b>					
KMB 76K	2	70	256	186	27.3%
KMB 268	3	21	186	165	11.3%
GMB 37	5	46	86	40	53.5%
GMB 38	4	40	67	27	59.7%
GMB 75	3	38	48	10	79.2%
GMB 76	2	33	51	18	64.7%
Total	19	248	694	446	35.7%

Note: <sup>(1)</sup> KMB – Kowloon Motor Bus GMB – Green Minibus

<sup>(2)</sup> Passengers counted the moment before the vehicles departed from the bus stop

<sup>(3)</sup> Assumed capacities: Double-decker = 128, Single-decker = 62

2.14 Table 2.6 shows that the utilisation of the franchised buses at Tai Sang Wai (towards San Tin) bus stop is 43.6% during the AM Peak Hour and 47.2% during the PM Peak Hour. Whilst, Table 2.7 shows that the utilisation of the franchised buses at Long Ha (towards Yuen Long) bus stop is 38.2% during the AM Peak Hour and 35.7% during the PM Peak Hour.

### 3.0 THE PROPOSED RCHD

#### Proposed RCHD

- 3.1 The Proposed RCHD consists of 1 building block with no more than 220 beds and is targeted for completion by 2030. The vehicular assess of Proposed RCHD is provided at Kam Pok Road East.

#### Provision of Internal Transport Facilities

- 3.2 The HKPSG has no recommendation on the provision of internal transport facilities for RCHD, hence, reference is made to the 3 RCHDs listed in Table 2.3. The internal transport facilities provision rate derived from the 3 RCHDs are found in Table 3.1.

TABLE 3.1 INTERNAL TRANSPORT FACILITIES PROVIDED IN SURVEYED RCHDs

Ref.	RCHD	No. of beds	Internal Transport Facilities		
			Car	Light Bus / Ambulance	LGV
<b>Parking Provision</b>					
1	Caritas Jockey Club Lai King Rehabilitation Centre	505	6	1	1
2	Salvation Army Lai King Home	100	5	0	0
3	Tung Hoi Association for the Gifted Child Limited	111	4	0	0
<b>Provision rate (space / bed)</b>					
1	Caritas Jockey Club Lai King Rehabilitation Centre	505	0.0119	0.0020	0.0020
2	Salvation Army Lai King Home	100	0.0500	0.0000	0.0000
3	Tung Hoi Association for the Gifted Child Limited	111	0.0360	0.0000	0.0000
Adopted provision rate =			0.0500	0.0020	0.0020

- 3.3 Based on the adopted provision rate in Table 3.1, the calculated internal transport facilities for the Proposed RCHD are presented in Table 3.2.

TABLE 3.2 PROVISION OF INTERNAL TRANSPORT FACILITIES FOR THE PROPOSED RCHD

Use	No. of beds	Internal Transport facilities	Provision	Dimensions
RCHD	220	Car Parking Space	11	10 @ 5m (L) x 2.5m (W) x 2.4m (H), and 1 @ 5m (L) x 3.5m (W) x 2.4m (H) for persons with disabilities
		LGV loading / unloading bay	1	1 @ 7m (L) x 3.5m (W) x 3.6m (H)
		Light Bus / Ambulance Parking Space	1	1 @ 9m (L) x 3.0m (W) x 3.3m (H)

- 3.4 The carpark layout plans for G/F and B/F are shown in Figures 3.1 – 3.2.
- 3.5 The measured length of visibility splay for the motorists leaving the Proposed RCHD is 60m to the left and 60m to the right, which is illustrated in Figure 3.3.

#### Swept Path Analysis

- 3.6 The CAD-based swept path analysis program, Autodesk Vehicle Tracking, was used to check the ease of vehicle manoeuvring. Vehicles are found to have no manoeuvring problems and all vehicles could enter and leave the spaces with ease. The swept path analysis drawings for critical movements are found in Appendix 2.

#### Vehicle Lift Analysis

- 3.7 A vehicle lift is provided to access B/F from G/F. A vehicle lift analysis was conducted to check on the operation of the vehicle lift system, and it was found that the vehicle lift system is acceptable and can serve the Proposed RCHD. The vehicle lift analysis is attached in Appendix 3.

## 4.0 TRAFFIC IMPACT

### Design Year

- 4.1 The Proposed RCHD is expected to be completed by 2030, and the design year adopted for the capacity analysis is 2033, i.e. 3 years after the completion of the Proposed RCHD.

### Traffic Forecasting

- 4.2 The 2033 traffic flows used for the junction analysis are produced with reference to the following:

- (i) 2031 traffic flows derived based on the NTW1 Base District Traffic Model (“BDTM”);
- (ii) estimated traffic growth from 2031 to 2033 based on the higher of: (a) Hong Kong Population Projections 2022 – 2046, published by Census and Statistics Department, or (b) historic Annual Average Daily Traffic (“AADT”) in ATC produced by Transport Department;
- (iii) the other developments in the vicinity of the Proposed RCHD; and
- (iv) Traffic generated by the Proposed RCHD.

- 4.3 The (ii) estimated traffic growth from 2031 to 2033, (iii) the other development in the vicinity of the Proposed RCHD and (iv) traffic generated by the Proposed RCHD are presented in the paragraphs below.

### Estimated Growth Rate from 2031 to 2033

- 4.4 The (a) Hong Kong Population Projections 2022 – 2046, and (b) historic AADT in ATC are summarised in Tables 4.1 – 4.2 respectively.

TABLE 4.1 HONG KONG POPULATION PROJECTIONS 2022 – 2046

Whole Territory Population		Annual Growth Rate
Year 2031	Year 2033	2031 to 2033
7,820,200	7,903,600	0.53%

TABLE 4.2 AADT OF THE STATION IN THE VICINITY OF THE SUBJECT SITE

Year \ Station	5016	5019	5257	5297	5505	5508	5496	Overall
2013	90,610	34,530	12,620	8,220	9,030	68,040	35,980	259,030
2014	88,800	36,490	10,600	6,200	11,990	72,580	30,750	257,410
2015	86,180	34,380	10,510	6,140	12,090	85,910	27,750	262,960
2016	92,230	31,990	10,940	6,400	12,590	90,760	28,900	273,810
2017	90,650	30,040	10,770	6,300	12,390	90,110	28,450	268,710
2018	86,230	29,300	11,980	8,540	12,700	92,980	29,150	270,880
2019	90,860	30,160	11,910	7,530	13,330	80,460	26,970	261,220
2020	81,870	27,640	11,420	7,220	13,420	82,010	13,100	236,680
2021	86,620	29,600	11,880	7,510	13,960	86,000	13,630	249,200
2022	82,820	28,180	11,520	7,280	13,540	82,190	13,210	238,740
2023	88,760	55,700	10,740	10,960	13,860	87,340	13,520	280,880
Average Annual Growth								0.81%

Note: 5016 – San Tin Highway, Castle Peak Road & San Tam Road (From Kam Tin Road to Fairview Park Boulevard)  
 5019 – Castle Peak Road – Yuen Long (From Yuen Long On Lok Road to Kam Tin Road)  
 5257 – Castle Peak Road – Tam Mi, Mai Po & San Tin (From Fairview Park Boulevard to Lok Ma Chau Road)  
 5297 – San Tam Road (From Castle Peak Road – Mai Po to Fairview Park Boulevard Roundabout)  
 5505 – Sam Tam Road (From Fairview Park Boulevard RA to End)  
 5508 – San Tin Highway (From Fairview Park Boulevard to Lok Ma Chau Road)  
 5496 – San Sham Road (From San Tin Interchange to End of San Sham Road)

4.5 Table 4.1 shows that the annual growth rate from 2031 to 2033 is +0.53%. Table 4.2 shows that in the historic AADT of the stations between 2013 and 2023 in the vicinity has average annual growth rate of +0.81% per annum. To be conservative, the growth rate of +1.00% per annum is adopted for the traffic growth between 2031 and 2033.

Other Developments in the Vicinity of the Proposed RCHD

4.6 The major planned developments in the vicinity of the Proposed RCHD are summarized in Table 4.3, and are included in the traffic forecast.

TABLE 4.3 DETAILS OF MAJOR PLANNED DEVELOPMENTS

Site	Address	Use	Development Parameter (Approx.)
1	TPB ref.: A/YL-KTN/663-1: Lots 1783 (Part), 1784 RP, 1788 RP, 1789 RP, 1790 RP (Part), 1791 RP, 1795 (Part), 1796 (Part), 1797 (Part), 1836 (Part), 1927 S.A and 1927 RP (Part) in D.D. 107 and Adjoining Government Land, Kam Tin, Yuen Long	Residential	Around 1,154 flats
2	TPB ref.: A/YL-MP/205-1: Lots 3054 S.A RP, 3098 RP (Part), 3108 (Part), 3109 (Part), 3100 (Part), 3110, 3111, 3112, 3113, 3114, 3115 RP, 3119 RP, 3122 RP, 3123, 3124, 3126, 3131 S.A, 3131 S.B, 3131 S.C, 3131 S.D, 3131 RP, 3132, 3138, 3146, 3147 RP (Part), 3148, 3150 RP, 3156 RP, 3158 RP, 3162, 3163, 3164 S.A, 3164 RP, 3167, 3168, 3171, 3173, 3176, 3177, 3178, 3179, 3180 RP, 3181 RP, 3182 RP, 3189 RP, 3190, 3191, 3192 RP, 3193RP and 3194 RP in D.D. 104 and Adjoining Government Land, Mai Po, Yuen Long, New Territories	Residential	Around 71 flats
3	TPB ref.: A/YL-MP/344: Lots 50 S.A and 77 in D.D.101, Wo Shang Wai, Mai Po, Yuen Long	Residential	Around 789 flats
4	TPB ref.: A/YL-NTM/178: Lots 435(Part), 436(Part), 438, 439, 442-444, 445(Part), 446-454, 456(Part), 457(Part), 459, 460, 461(Part), 462(Part), 463(Part), 464(Part), 465-474, 476, 478-483, 484(Part), 485, 486(Part), 492495(Part), 516-518, 520, 521(Part), 522(Part), 541(Part), 542(Part), 543-545, 547-552, 555, 556, 559, 560, 562, 563(Part), 564(Part), 572(Part), 573, 574, 575(Part), 576(Part) and Adjoining Government Land in DD 105, Shek Wu Wai, Ngau Tam Mei, Yuen Long	Residential	Around 322 flats
5	TPB ref.: A/YL-MP/341: Various Lots in D.D. 104 and Adjoining Government Land, Yau Pok Road, Mai Po, Yuen Long	Residential	Around 2150 flats
6	TPB ref.: A/YL-MP/247: Lots 3054 S.B RP and 3055 in D.D.104, near Yau Mei San Tsuen, Yuen Long	Residential	Around 105 flats
7	TPB ref.: A/YL-MP/287: Lots 3207 RP, 3209 RP, 3220 RP, 3221 RP, 3224 RP, 3225 S.A RP, 3225 S.C RP, 3225 RP, 3226 S.A RP, 3226 RP, 3228, 3229, 3230 RP, 3250 S.B ss.21 RP, 3250 S.B ss.33 S.B, 3250 S.B ss.40 S.A RP, 3250 S.B ss.40 RP and 4658 RP in D.D. 104 and Adjoining Government Land, Mai Po, Yuen Long, New Territories	Residential	Around 65 flats

Site	Address	Use	Development Parameter (Approx.)
8	TPB ref.: Y/YL-NSW/4: Lots 594, 595 (Part), 600 (Part), 1288 S.B RP (Part), 1289 S.B RP (Part) and 1292 S.B RP (Part) in D.D. 115, Nam Sang Wai, Yuen Long	Residential	Around 57 flats
9	TPB ref.: A/YL-NSW/274: Lots 592 S.C ss.1 S.A, 592 S.C ss.4 and 1252 S.C in D.D. 115, Tung Shing Lei, Yuen Long	Residential, Office and RCHE	Around 1518 flats, office with 1800m <sup>2</sup> GFA and RCHE with no more than 10 beds
10	TPB ref.: A/YL-NSW/314: Various lots in D.D.104, North of Kam Pok Road East, Pok Wai, Yuen Long, New Territories	Residential	Around 90 flats

#### Traffic Generated by the Proposed RCHD

- 4.7 Traffic generation associated with the Proposed RCHD is calculated based on results presented in Table 2.4, and the calculation is presented in Table 4.4.

TABLE 4.4 TRAFFIC GENERATION OF THE PROPOSED RCHD

Item	AM Peak Hour			PM Peak Hour		
	In	Out	2-way	In	Out	2-way
Trip Generation Rates for RCHD (pcu/hour/bed) in Table 2.4						
RCHD	0.0500	0.0360	NA	0.0360	0.0600	NA
Traffic Generation of Proposed RCHD (pcu/hour)						
RCHD: 220 beds	<u>11</u>	<u>8</u>	<u>19</u>	<u>8</u>	<u>14</u>	<u>22</u>

- 4.8 Table 4.4 shows that the total 2-way traffic generated by the Proposed Development is only 19 and 22 pcu/hour (2-way) during the AM and PM peak hours respectively. Ingress and egress routes for traffic generated by the Proposed RCHD are presented in Figure 4.1.

#### 2033 Traffic Flows

- 4.9 Year 2033 traffic flows for the following cases are derived:

2033 without the Proposed RCHD [A] = (i) 2031 traffic flows derived with reference to BDTM + (ii) estimated total growth from 2031 to 2033 + (iii) Other Developments in the Vicinity of the Proposed RCHD

2033 with the Proposed RCHD [B] = [A] + (iv) traffic generated by the Proposed RCHD (Table 4.4)

- 4.10 The 2033 peak hour traffic flows for the cases without and with the Proposed RCHD, are shown in Figures 4.2 - 4.3, respectively.

### 2033 Junction Operational Performance

- 4.11 Year 2033 capacity analysis for the cases without and with the Proposed RCHD are summarised in Table 4.5 and detailed calculations are found in the Appendix 1.

TABLE 4.5 2033 JUNCTION OPERATIONAL PERFORMANCE

Ref.	Junction	Type of Junction / Parameter <sup>(1)</sup>	Without the Proposed RCHD		With the Proposed RCHD	
			AM Peak	PM Peak	AM Peak	PM Peak
J1	Kam Pok Road / Kam Pok Road East	Priority / RFC	0.34	0.24	0.34	0.24
J2 <sup>(2)</sup>	Castle Peak Road – Tam Mi / Kam Pok Road	Signal / RC	26%	34%	25%	32%
J3	The Fairview Roundabout	Roundabout / RFC	0.66	0.71	0.66	0.72

Notes: <sup>(1)</sup> RC – reserve capacity RFC – Ratio of Flow to Capacity

<sup>(2)</sup> Cycle time increased from 94s to 120s as proposed by the approved A/YL-NSW/314

- 4.12 Table 4.5 shows that the junctions operate with capacities during the AM and PM peak hours for the cases without and with the Proposed RCHD.

### Impact on Utilisation of Surveyed bus stops

- 4.13 To be conservative, it is assumed that all pedestrians generated by the Proposed RCHD will use public transport services. The number of public transport passengers generated by the Proposed RCHD is calculated based on the pedestrian generation of the Proposed RCHD, as presented in Table 2.5, and the calculation is found in Table 4.6.

TABLE 4.6 PUBLIC TRANSPORT PASSENGERS GENERATED BY THE PROPOSED RCHD

Item	AM Peak Hour			PM Peak Hour		
	In	Out	2-way	In	Out	2-way
Pedestrian Generation Rates for RCHD (pedestrian/15 min/bed) in Table 2.5						
RCHD	0.0500	0.0100	NA	0.0100	0.0400	NA
Pedestrian Generation of Proposed RCHD (pedestrian/15 min)						
RCHD: 220 beds	11	3	14	3	9	12
Pedestrian Generation of Proposed RCHD (pedestrian/1 hour)						
RCHD: 220 beds	44	12	56	12	36	48

- 4.14 The public transport utilisation analysis is presented in Table 4.7.

TABLE 4.7 THE UTILISATION OF THE PUBLIC TRANSPORT SERVICES FOR THE CASE WITH THE PROPOSED RCHD

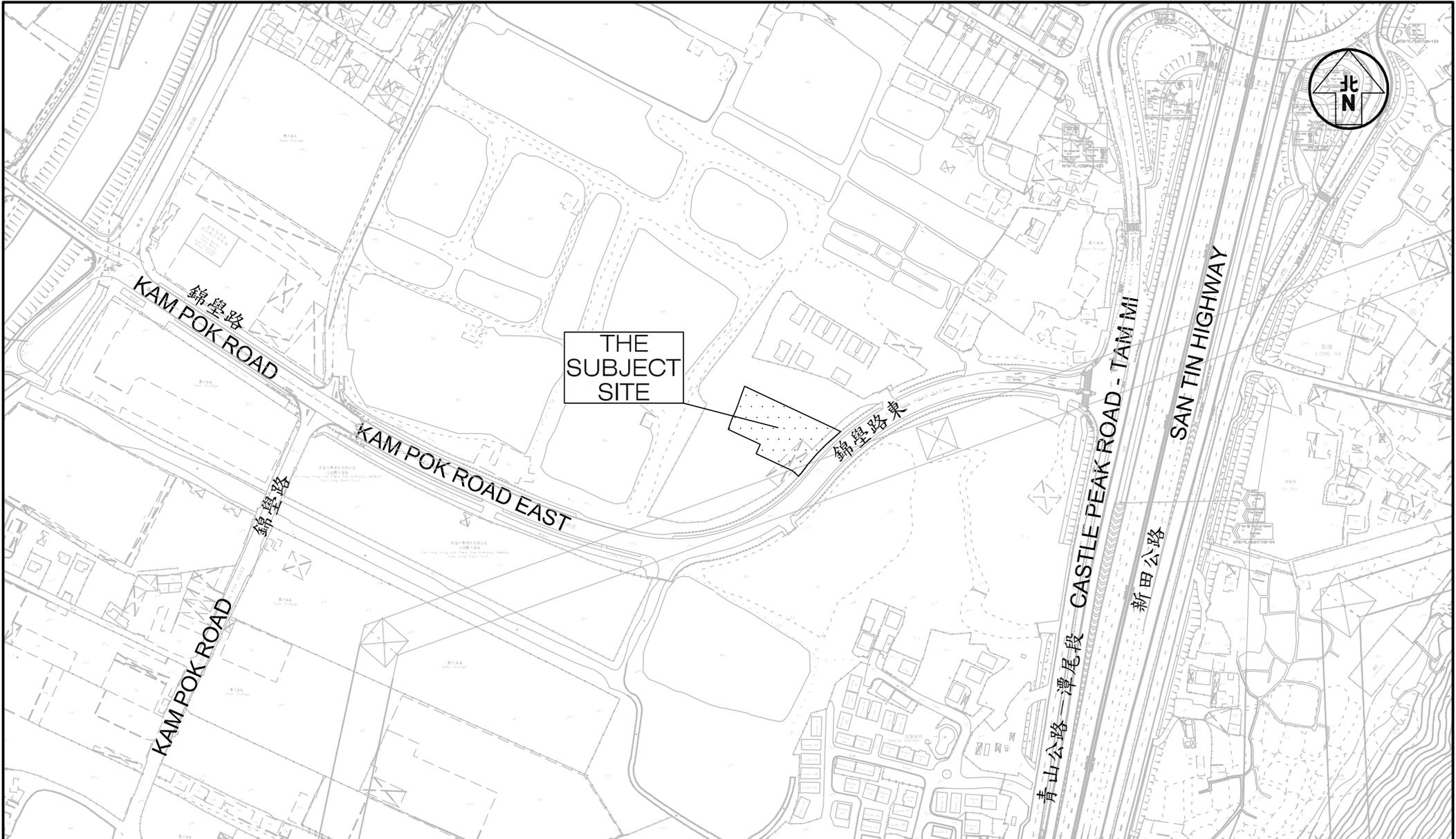
No.	Location	Occupancy of Public Transport Service	
		AM Peak	PM Peak
1	Tai Sang Wai (towards San Tin) Bus Stop	47.0%	49.9%
2	Long Ha (towards Yuen Long) Bus Stop	41.8%	39.2%

- 4.15 Table 4.7 shows that the public transport service have capacity to accommodate the passenger demand generated by the Proposed RCHD.

## 5.0 CONCLUSION

- 5.1 The Subject Site is located at lots 3669 S.A RP (Part), 3669 S.B RP (Part), 3670 RP (Part) and adjoining Government Land in D.D. 104, Nam Sang Wai, Yuen Long. The owner has the intention to develop the Subject Site into a RCHD with no more than 220 beds.
- 5.2 Manual classified counts were conducted at junctions located in the vicinity of the Proposed RCHD in order to establish the peak hour traffic flows. Currently, these junctions operate with capacities during the AM and PM peak hours.
- 5.3 The internal transport facilities for the Proposed RCHD are provided based on the operational needs with the reference to 3 surveyed RCHDs.
- 5.4 The Proposed RCHD is expected to be completed by 2030, and the junction capacity analysis is undertaken for year 2033. For the design year 2033, the junctions analysed are expected to operate with capacities during the peak hours for the case without and with the Proposed RCHD.
- 5.5 The public transport services at 2 surveyed bus stops have capacity to accommodate the passenger demand generated by the Proposed RCHD.
- 5.6 It is concluded that the Proposed RCHD will result in no adverse traffic impact to the surrounding road network. From traffic engineering grounds, the Proposed RCHD is acceptable.





Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG J7400

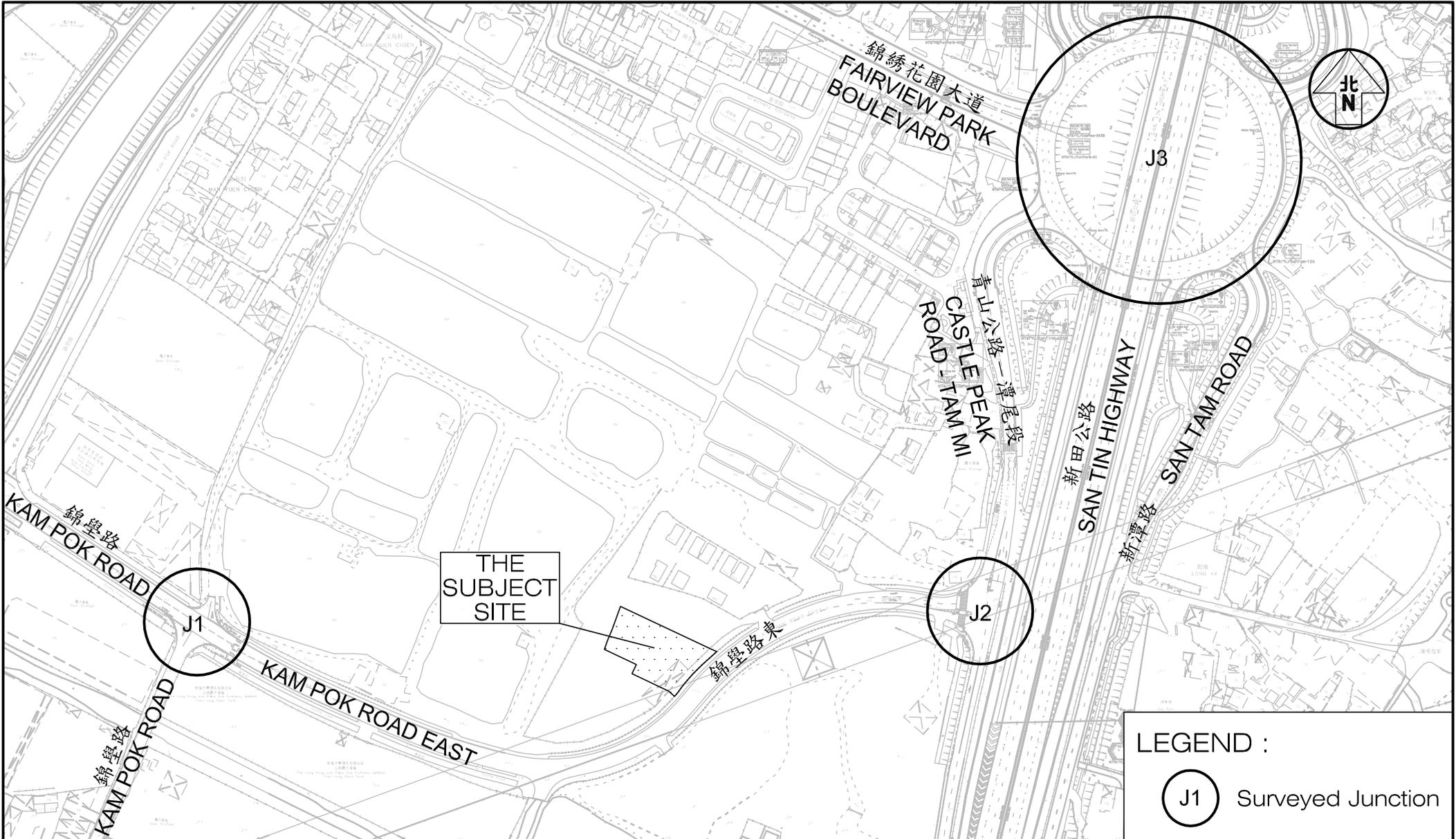
Figure No. 1.1 Revision B

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Figure Title LOCATION OF SUBJECT SITE

Designed by L C H	Drawn by N C M	Checked by K C
Scale in A4 1 : 3000	Date 28 JUL 2025	





THE  
SUBJECT  
SITE

LEGEND :

(J1) Surveyed Junction

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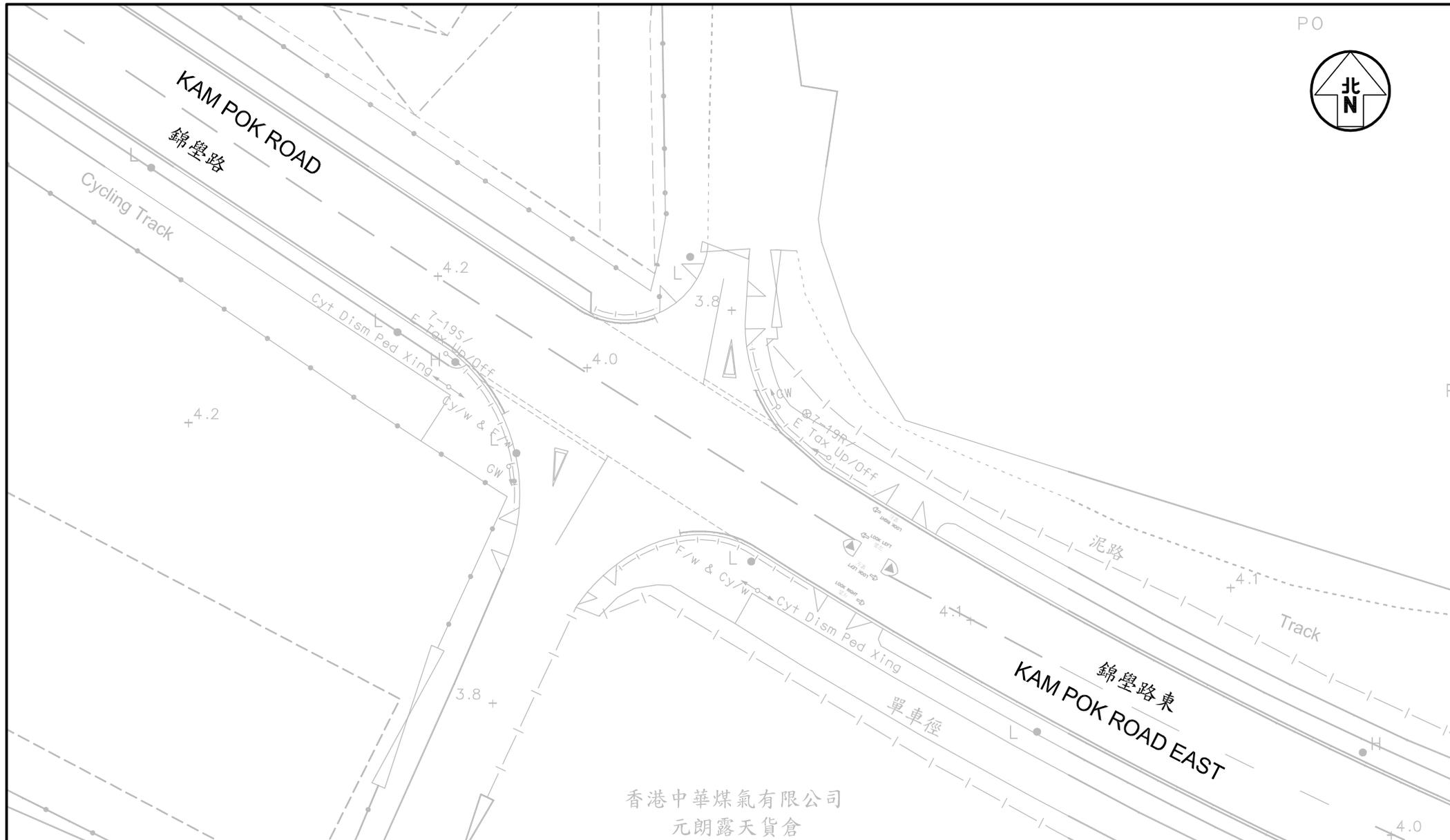
Figure No. 2.1  
Revision B

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Figure Title LOCATION OF SURVEYED JUNCTIONS

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Figure No. **2.2**

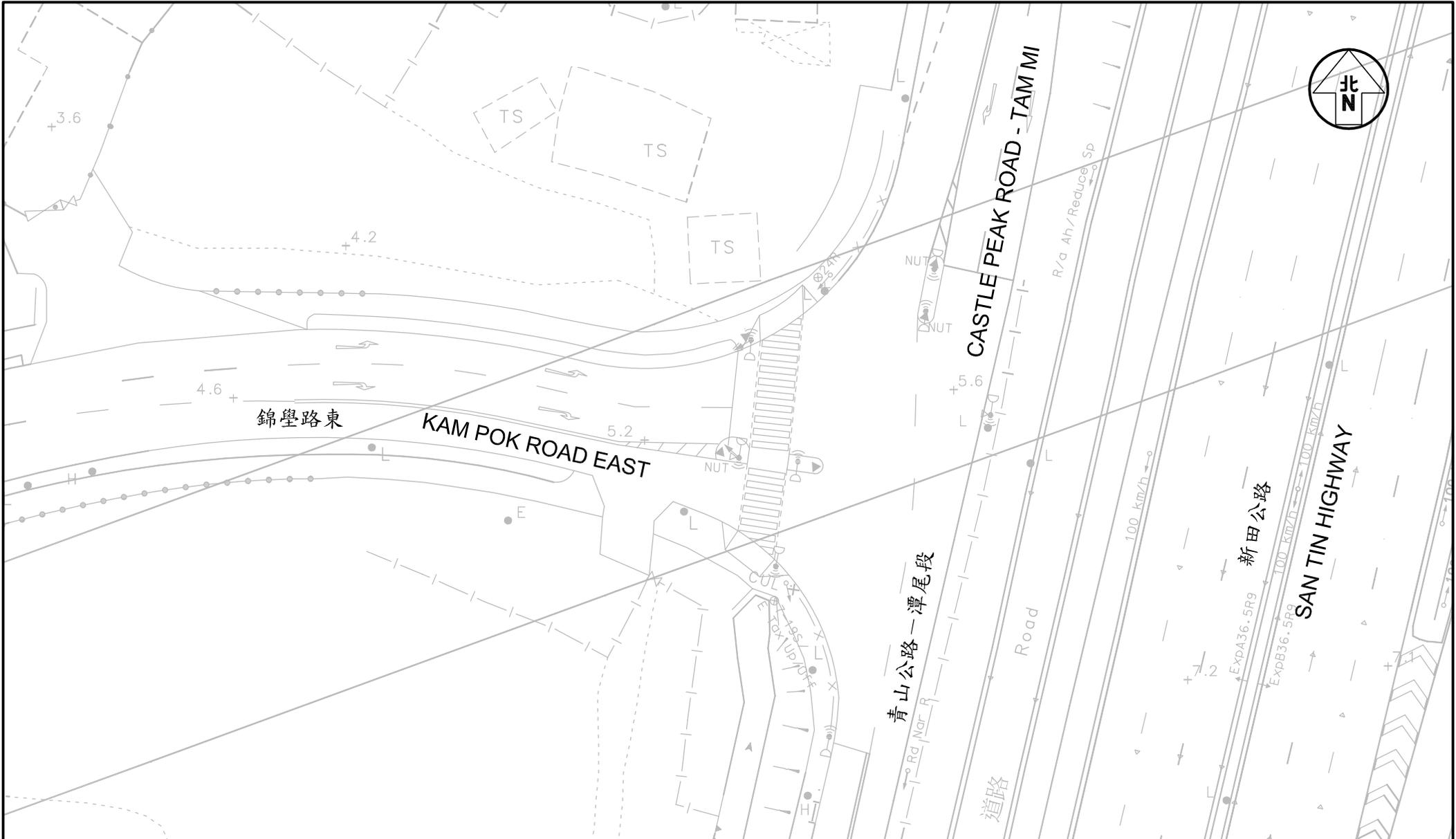
Revision **B**

Figure Title **EXISTING JUNCTION LAYOUT OF KAM POK ROAD / KAM POK ROAD EAST**

Designed by **L C H**  
 Drawn by **N C M**  
 Checked by **K C**  
 Scale in A4 **1 : 500**  
 Date **28 JUL 2025**

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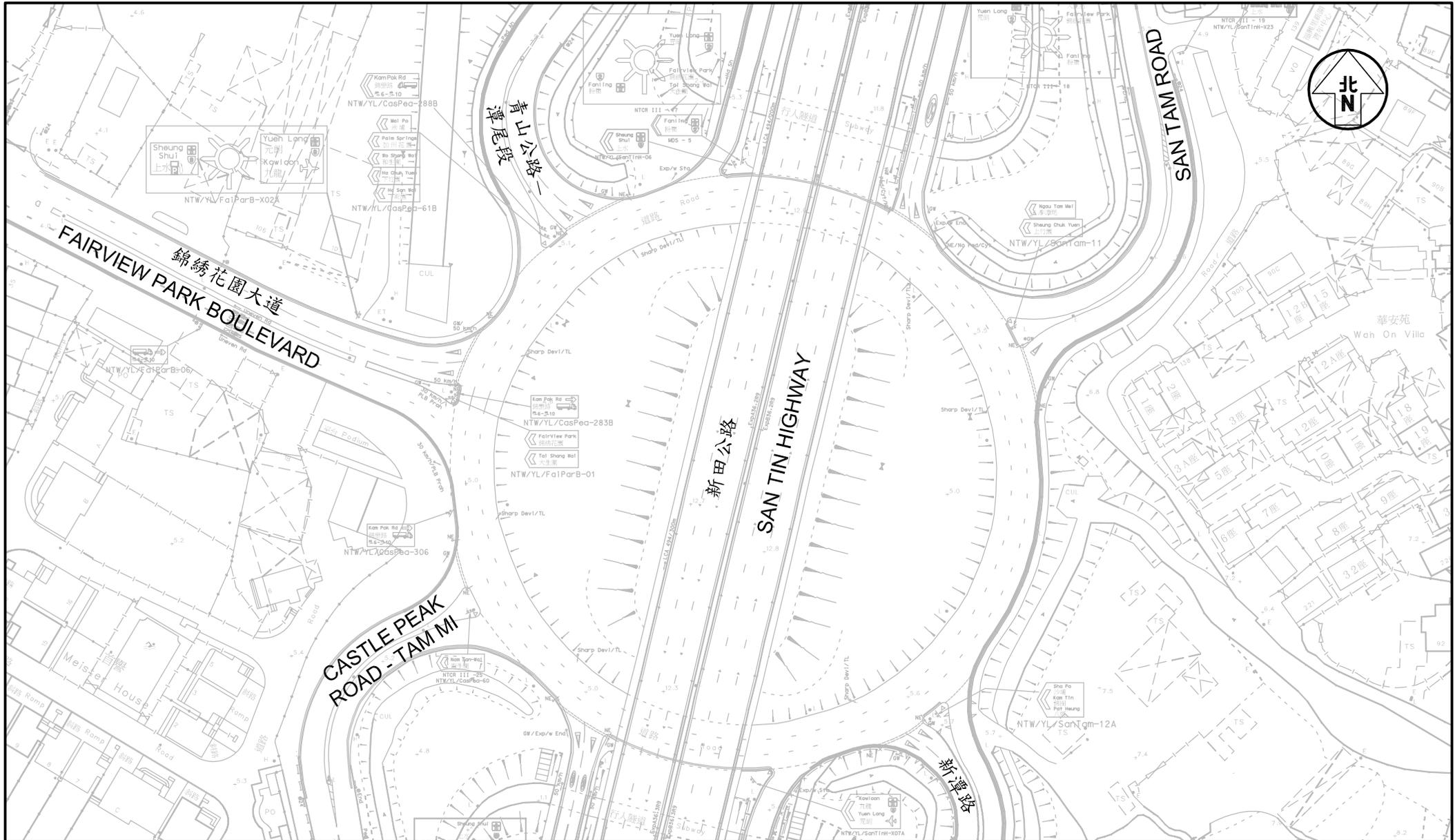
Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG J7400

Figure No. 2.3 Revision B

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Figure Title  
**EXISTING JUNCTION LAYOUT OF  
CASTLE PEAK ROAD - TAM MI / KAM POK ROAD**

Designed by L C H	Drawn by N C M	Checked by K C
Scale in A4 1 : 500	Date 28 JUL 2025	



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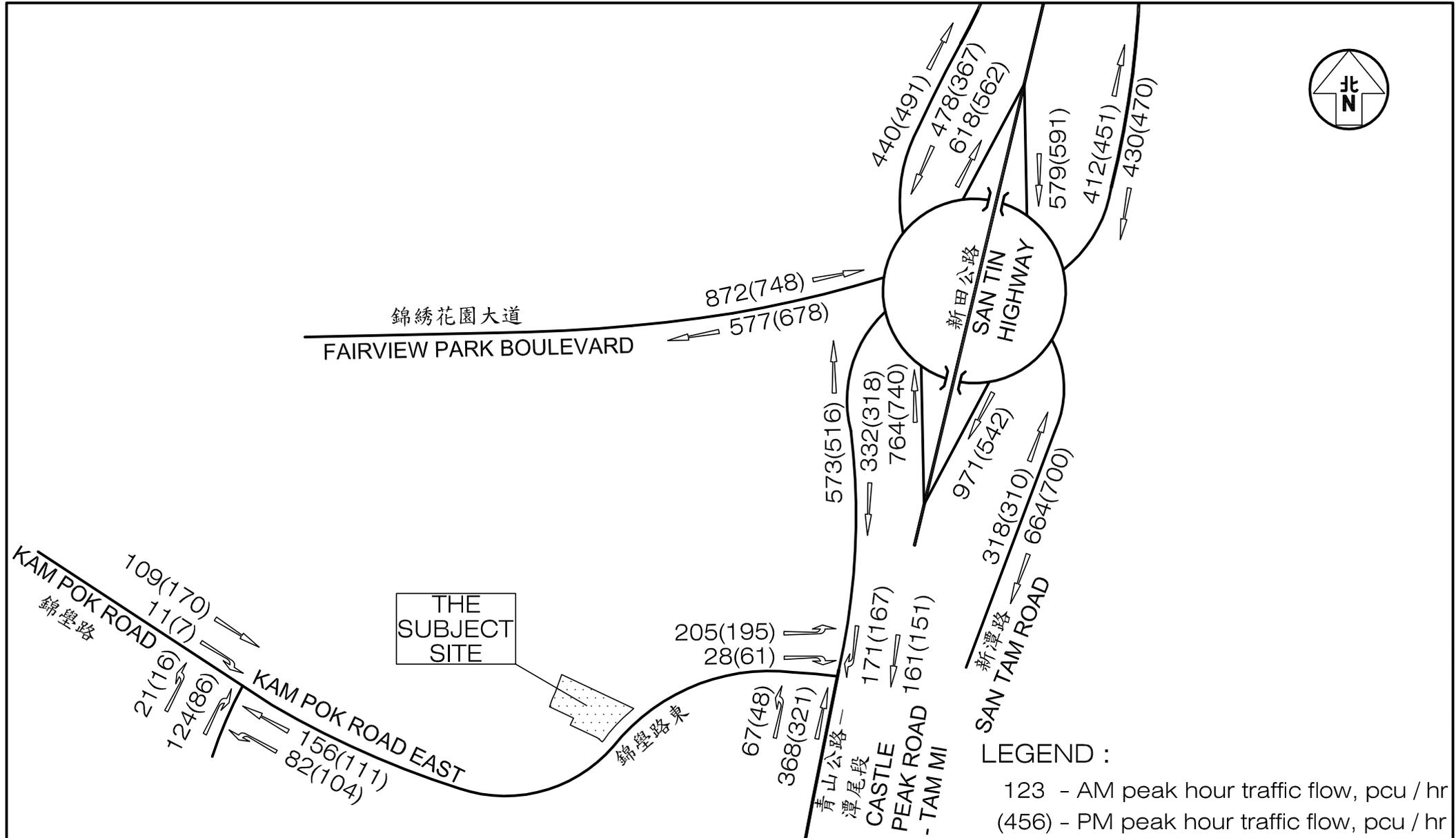
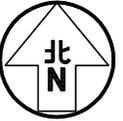
Figure No. **2.4**

Revision **B**  
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Figure Title **EXISTING JUNCTION LAYOUT OF THE FAIRVIEW PARK ROUNDABOUT**

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Scale in A4 **1 : 1250** Date **28 JUL 2025**



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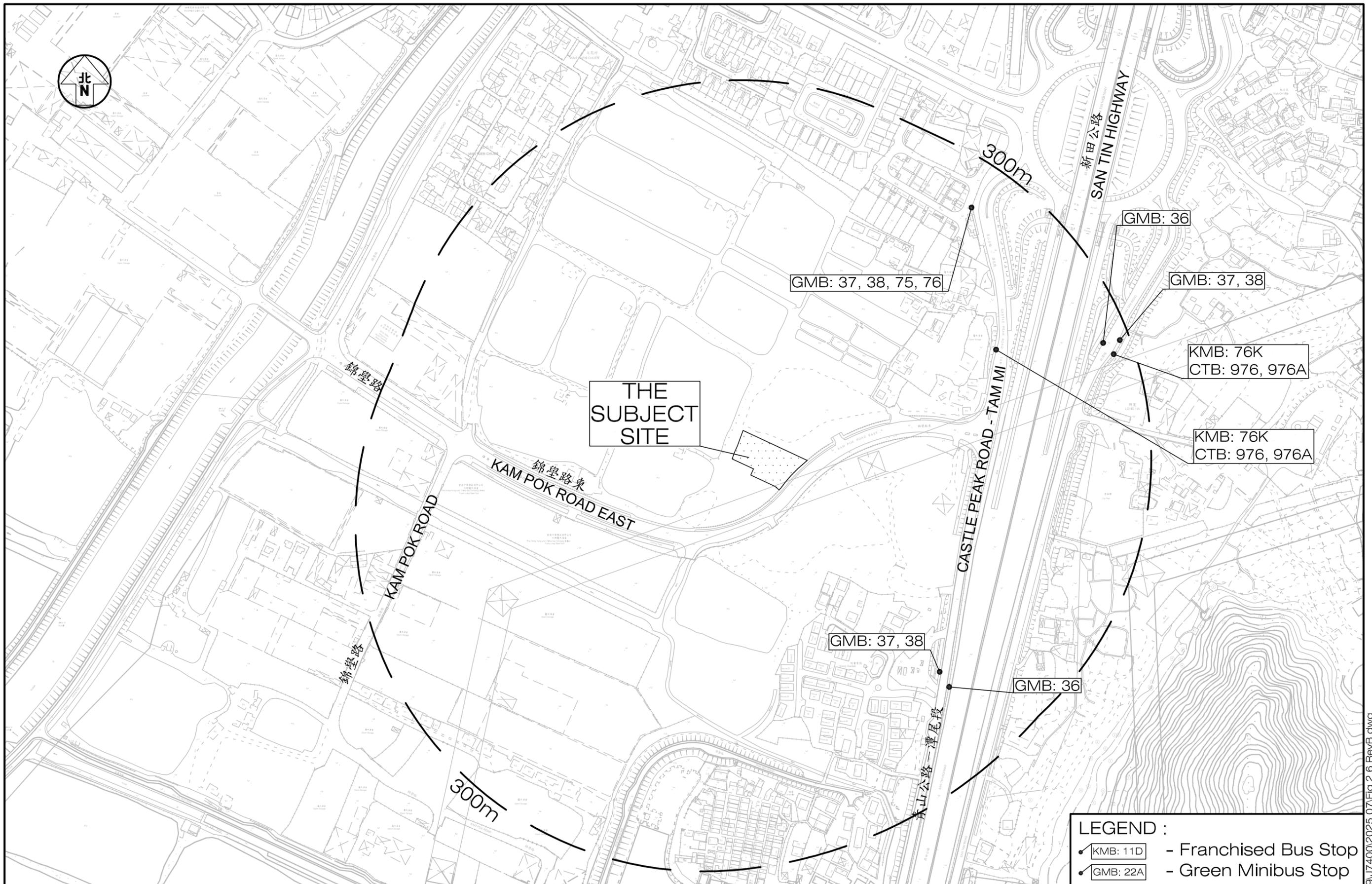
Figure No. 2.5  
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Figure Title **EXISTING PEAK HOUR TRAFFIC FLOWS**

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 Date 28 JUL 2025





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J7400

Figure No. 2.6  
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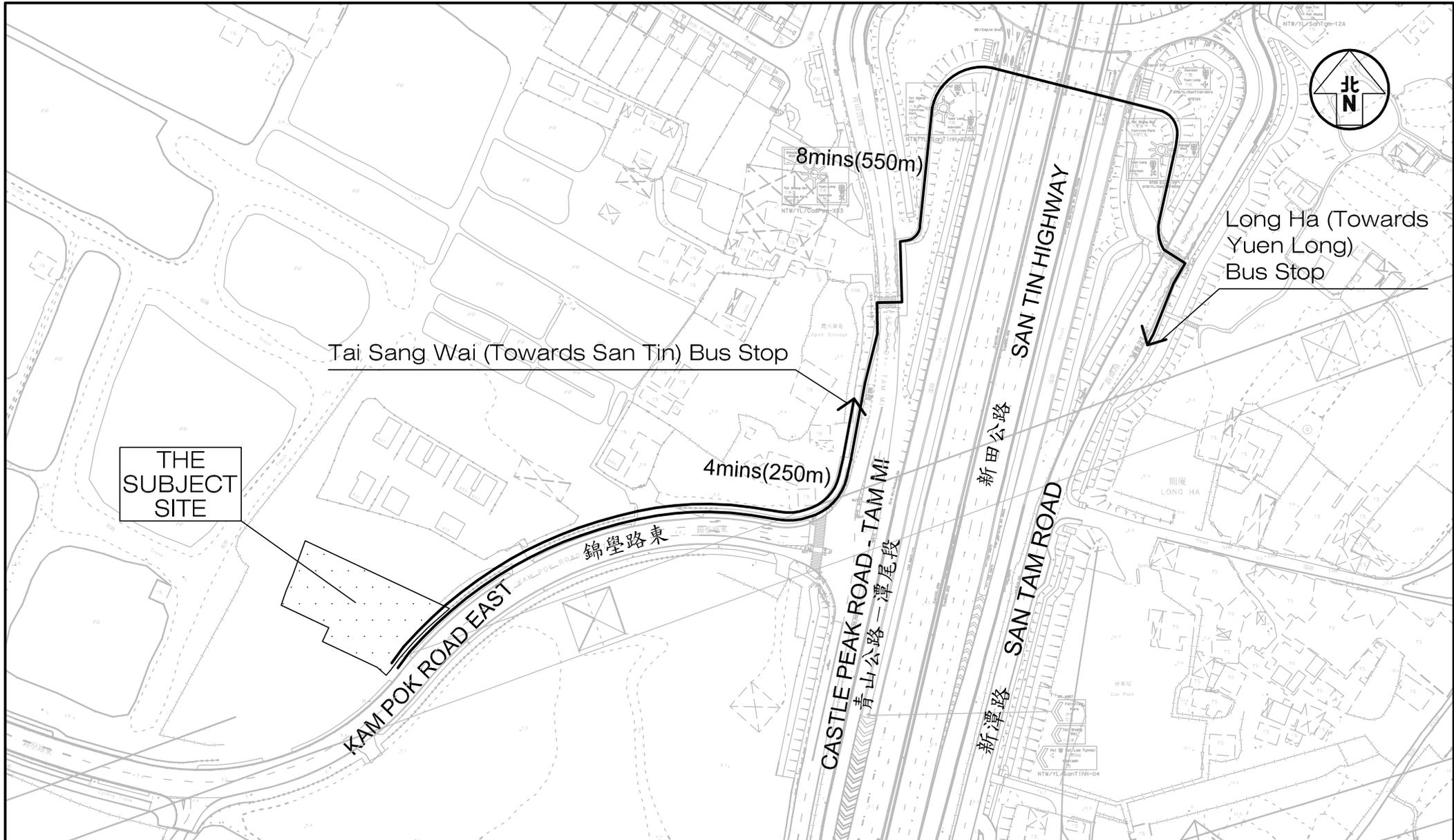
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Figure Title THE PUBLIC TRANSPORT SERVICES PROVIDED IN THE VICINITY OF THE SUBJECT SITE

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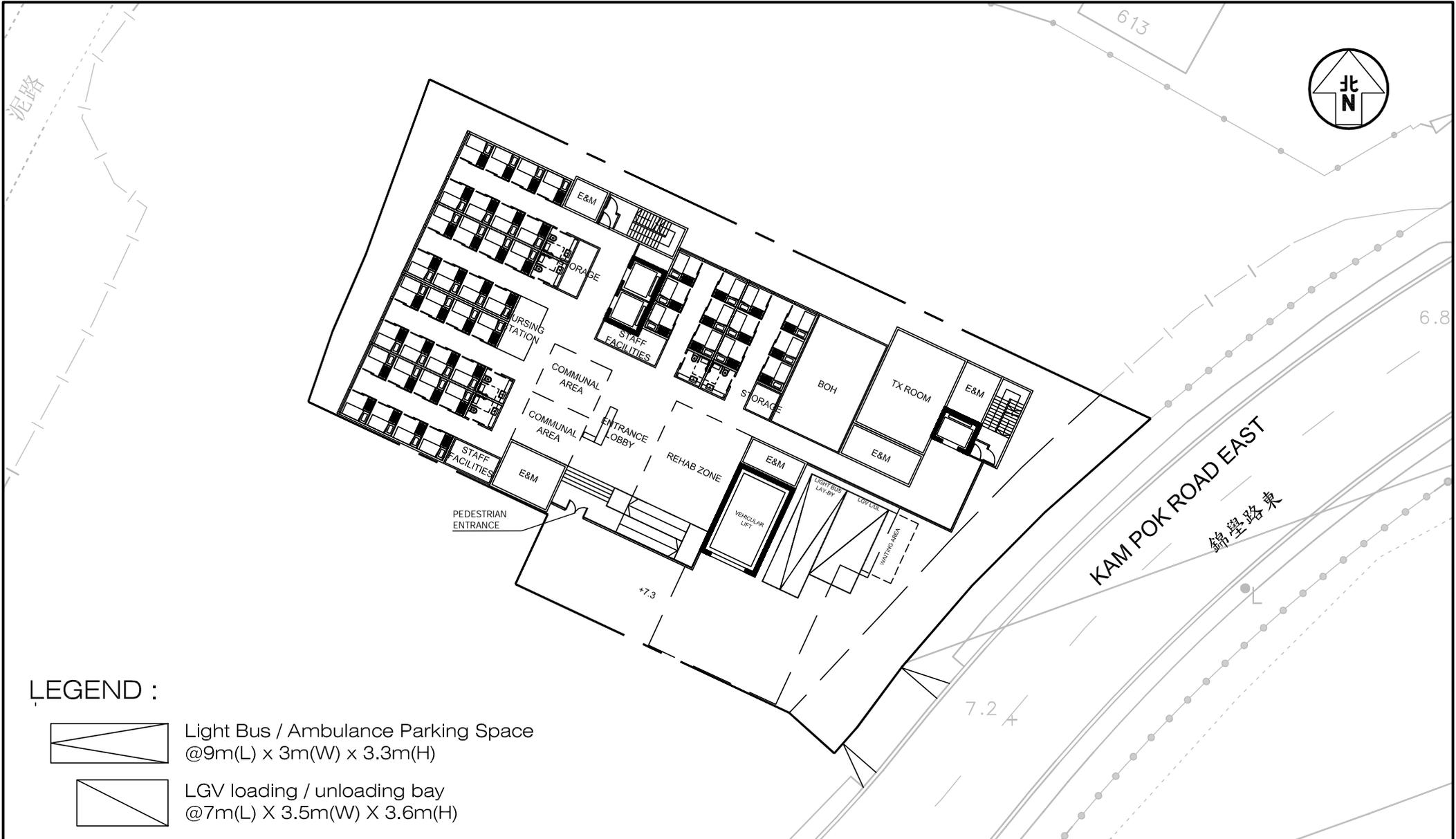
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Figure No. **2.7** Revision **B**

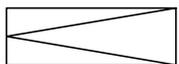
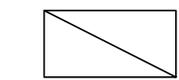
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Figure Title **THE WALKING PATH BETWEEN THE PROPOSED RCHD AND THE NEARBY FRANCHISED BUS STOPS**

Designed by **LCH** Drawn by **NCM** Checked by **KC**  
Scale in A4 **1 : 2000** Date **28 JUL 2025**



**LEGEND :**

-  Light Bus / Ambulance Parking Space  
@9m(L) x 3m(W) x 3.3m(H)
-  LGV loading / unloading bay  
@7m(L) X 3.5m(W) X 3.6m(H)

Project Title **PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG** J7400

Figure No. **3.1** Revision **B**

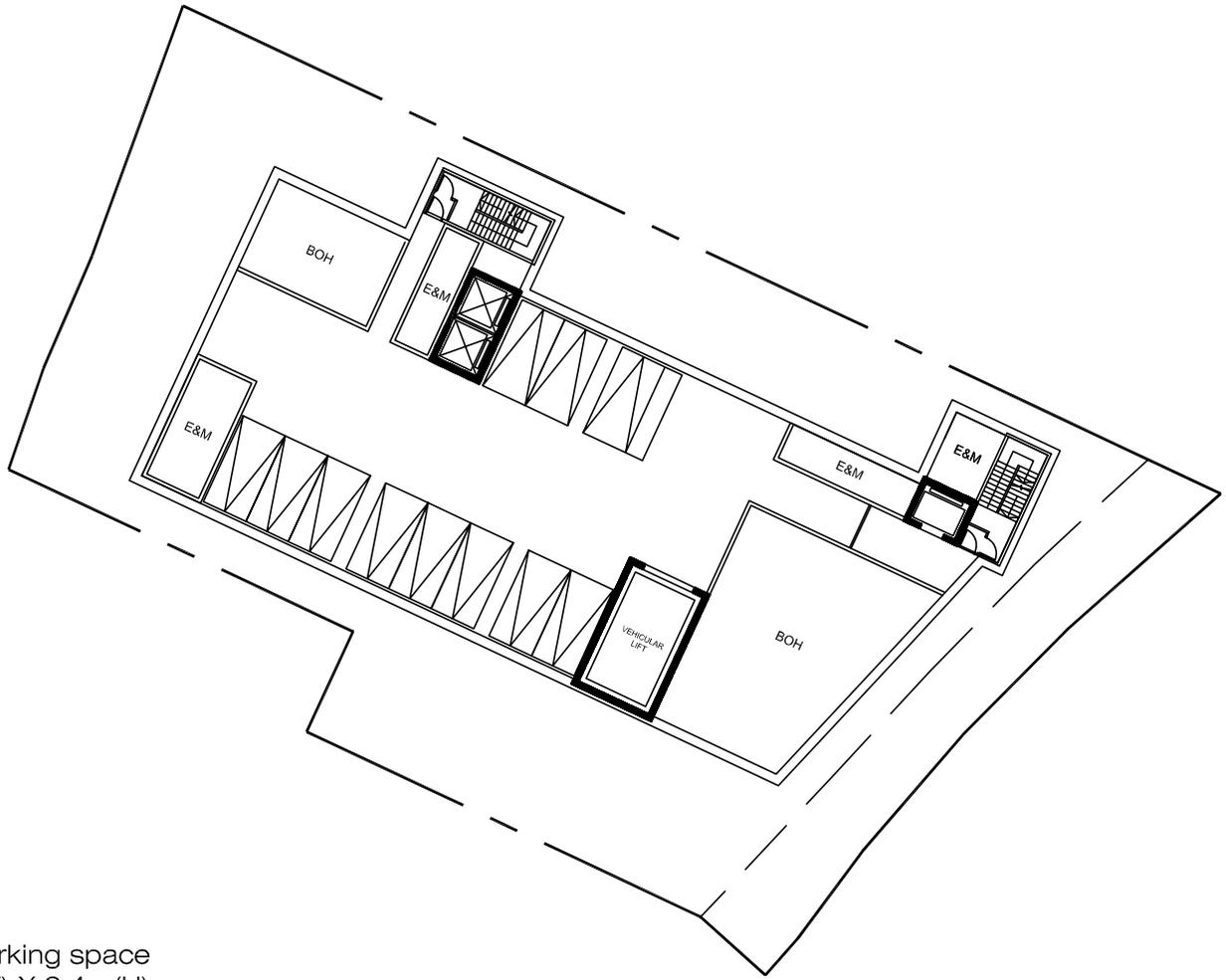
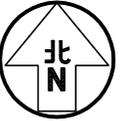
**CKM Asia Limited**  
Traffic and Transportation Planning Consultants

Figure Title **G/F LAYOUT PLAN**

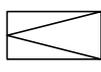
Designed by **L C H** Drawn by **N C M** Checked by **K C**

Scale in A4 **1 : 400** Date **28 JUL 2025**

T:\JOB\J7400-J7449\J7400\2025 07\Fig 3.1 - 3.2 RevB.dwg

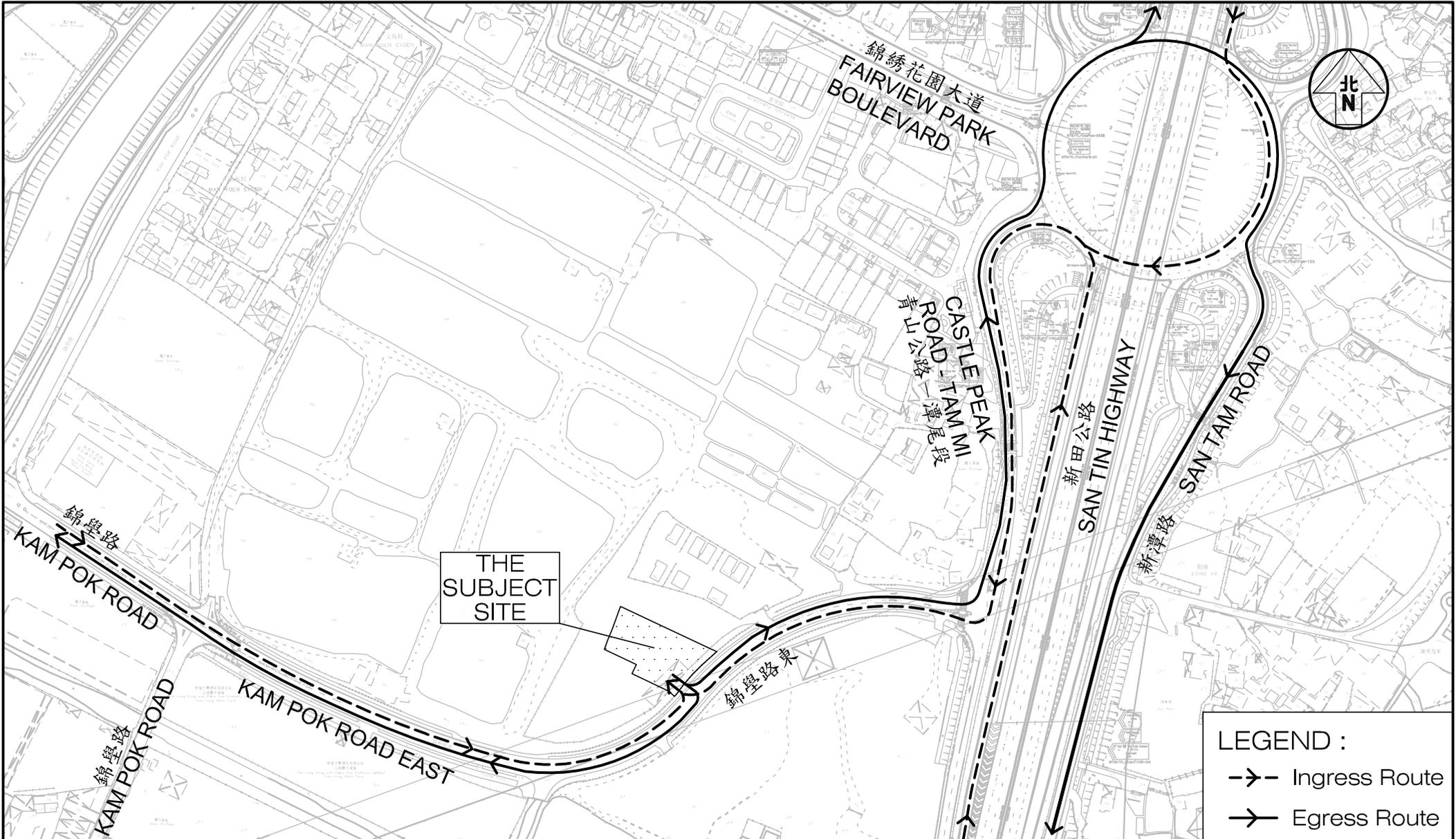


**LEGEND :**

-  Accessible car parking space  
@5m(L) X 3.5m(W) X 2.4m(H)
-  Private car parking space  
@5m(L) X 2.5m(W) X 2.4m(H)

Project Title <b>PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG</b>	Figure No. <b>3.2</b>	Revision <b>B</b>	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants	
Figure Title <b>B/F LAYOUT PLAN</b>	Designed by <b>L C H</b>	Drawn by <b>N C M</b>		Checked by <b>K C</b>
	Scale in A4 <b>1 : 400</b>	Date <b>28 JUL 2025</b>		





THE  
SUBJECT  
SITE

**LEGEND :**

- - -> Ingress Route
- > Egress Route

Project Title **PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG**

Figure No. **4.1**

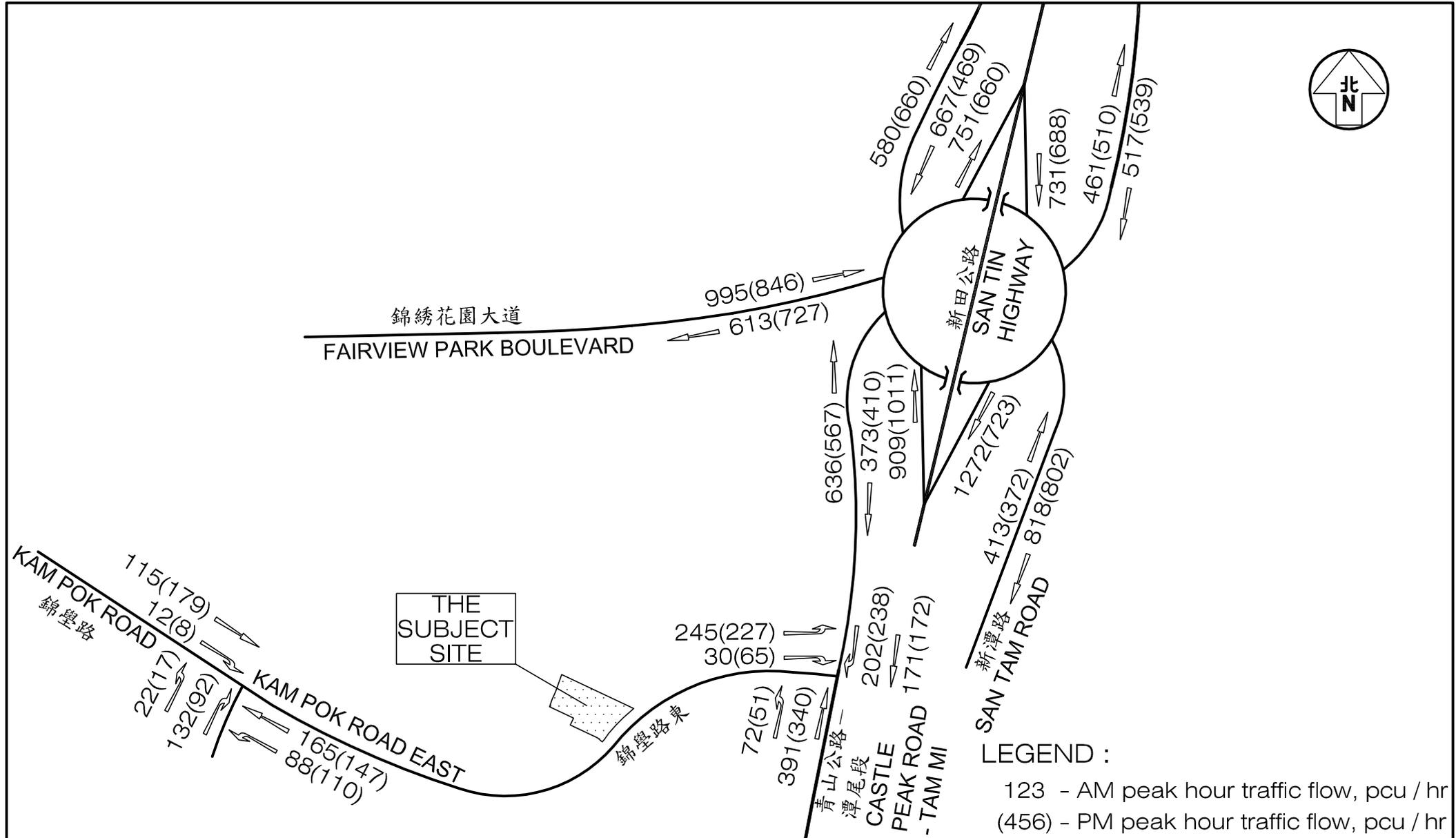
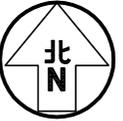
Revision **B**

Figure Title **THE VEHICULAR INGRESS / EGRESS ROUTES OF THE PROPOSED RCHD**

Designed by **L C H**    Drawn by **N C M**    Checked by **K C**

**CKM Asia Limited**  
Traffic and Transportation Planning Consultants

Scale in A4 **1 : 3000**    Date **28 JUL 2025**



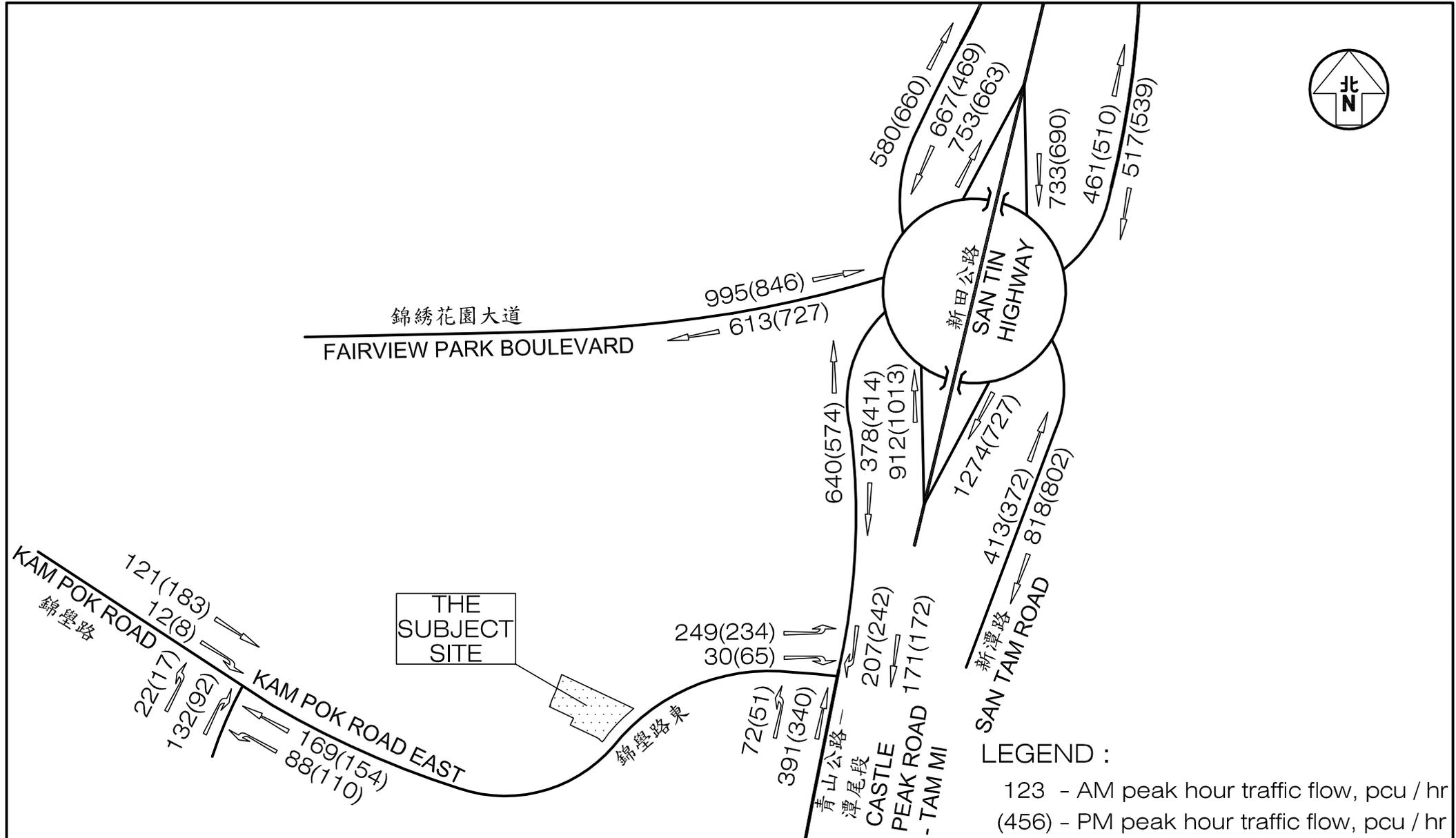
Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG J7400

Figure No. 4.2 Revision B

**CKM Asia Limited**  
Traffic and Transportation Planning Consultants

Figure Title YEAR 2033 PEAK HOUR TRAFFIC FLOWS WITHOUT THE PROPOSED RCHD

Designed by L C H	Drawn by N C M	Checked by K C
Scale in A4 N.T.S.	Date 28 JUL 2025	



Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG

Figure No. 4.3  
 Revision B

**CKM Asia Limited**  
 Traffic and Transportation Planning Consultants

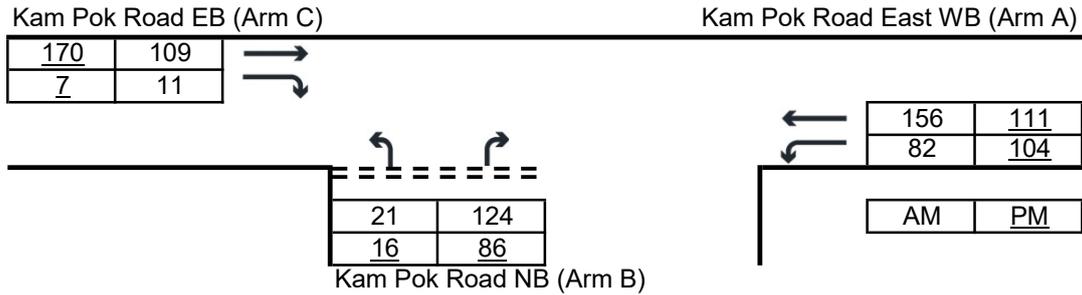
Figure Title  
**YEAR 2033 PEAK HOUR TRAFFIC FLOWS WITH THE PROPOSED RCHD**

Designed by L C H	Drawn by N C M	Checked by K C
Scale in A4 N.T.S.	Date 28 JUL 2025	



### Priority Junction Analysis

Junction:	Kam Pok Road / Kam Pok Road East		
Design Year:	2025	Job Number:	J7400
Scenario:	Existing Condition	Date:	25 Jul 2025
			Page 1



The predictive equations of capacity of movement are:

$$Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]$$

$$Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]$$

$$Q-CB = F[745 - 0.364Y(q-AC + q-AB)]$$

The geometric parameters represented by D, E, F are:

$$D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-IBA - 150)]$$

$$E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]$$

$$F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]$$

where  $Y = 1 - 0.0345W$

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	10.30	V-rBA	45	w-BA	2.70	D	0.7881
	W-CR	0.00	V-IBA	30	w-BC	2.70	E	0.8492
			V-rBC	45	w-CB	5.00	F	1.0356
			V-rCB	30			Y	0.6447

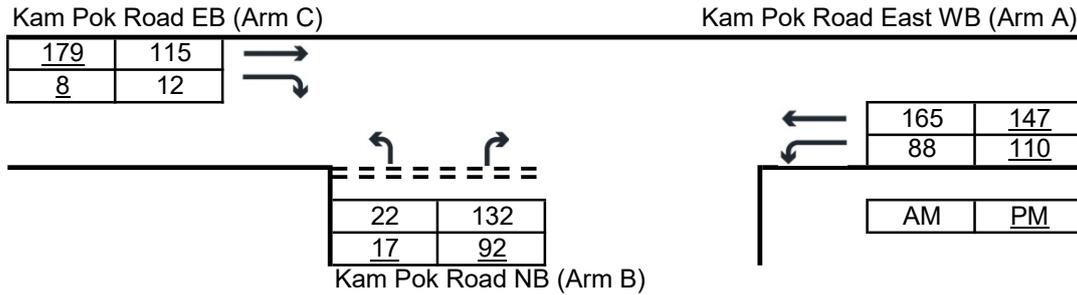
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	109	170	Q-BA	444	444
q-CB	11	7	Q-BC	595	602
q-AB	82	104	Q-CB	714	719
q-AC	156	111	Q-BAC	461	463
q-BA	124	86			
q-BC	21	16			
f	0.145	0.157			

Ratio-of-flow to Capacity	AM	PM
B-A	0.279	0.194
B-C	0.035	0.027
C-B	0.015	0.010
B-AC	0.315	0.220

### Priority Junction Analysis

Junction:	Kam Pok Road / Kam Pok Road East		
Design Year:	2033	Job Number:	J7400
Scenario:	Future Condition (Without Proposed RCHD)		Date: 25 Jul 2025
			Page 2



The predictive equations of capacity of movement are:

$$Q\text{-BA} = D[627 + 14W\text{-CR} - Y(0.364q\text{-AC} + 0.144q\text{-AB} + 0.229q\text{-CA} + 0.52q\text{-CB})]$$

$$Q\text{-BC} = E[745 - Y(0.364q\text{-AC} + 0.144q\text{-AB})]$$

$$Q\text{-CB} = F[745 - 0.364Y(q\text{-AC} + q\text{-AB})]$$

The geometric parameters represented by D, E, F are:

$$D = [1 + 0.094(w\text{-BA} - 3.65)][1 + 0.0009(V\text{-rBA} - 120)][1 + 0.0006(V\text{-IBA} - 150)]$$

$$E = [1 + 0.094(w\text{-BC} - 3.65)][1 + 0.0009(V\text{-rBC} - 120)]$$

$$F = [1 + 0.094(w\text{-CB} - 3.65)][1 + 0.0009(V\text{-rCB} - 120)]$$

where  $Y = 1 - 0.0345W$

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	10.30	V-rBA	45	w-BA	2.70	D	0.7881
	W-CR	0.00	V-IBA	30	w-BC	2.70	E	0.8492
			V-rBC	45	w-CB	5.00	F	1.0356
			V-rCB	30			Y	0.6447

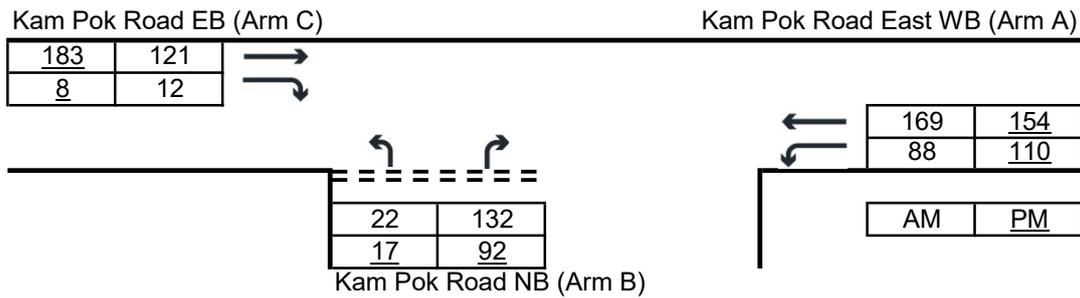
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	115	179	Q-BA	441	436
q-CB	12	8	Q-BC	593	595
q-AB	88	110	Q-CB	710	709
q-AC	165	147	Q-BAC	457	455
q-BA	132	92			
q-BC	22	17			
f	0.143	0.156			

Ratio-of-flow to Capacity	AM	PM
B-A	0.300	0.211
B-C	0.037	0.029
C-B	0.017	0.011
B-AC	0.337	0.240

### Priority Junction Analysis

Junction:	Kam Pok Road / Kam Pok Road East		
Design Year:	2033	Job Number:	J7400
Scenario:	Future Condition (With Proposed RCHD)		Date: 25 Jul 2025
			Page 3



The predictive equations of capacity of movement are:

$$Q-BA = D[627 + 14W-CR - Y(0.364q-AC + 0.144q-AB + 0.229q-CA + 0.52q-CB)]$$

$$Q-BC = E[745 - Y(0.364q-AC + 0.144q-AB)]$$

$$Q-CB = F[745 - 0.364Y(q-AC + q-AB)]$$

The geometric parameters represented by D, E, F are:

$$D = [1 + 0.094(w-BA - 3.65)][1 + 0.0009(V-rBA - 120)][1 + 0.0006(V-IBA - 150)]$$

$$E = [1 + 0.094(w-BC - 3.65)][1 + 0.0009(V-rBC - 120)]$$

$$F = [1 + 0.094(w-CB - 3.65)][1 + 0.0009(V-rCB - 120)]$$

where  $Y = 1 - 0.0345W$

q-AB, etc = the design flow of movement AB, etc

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc

v-IBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :	Input		Input		Input		Calculated	
	W	10.30	V-rBA	45	w-BA	2.70	D	0.7881
	W-CR	0.00	V-IBA	30	w-BC	2.70	E	0.8492
			V-rBC	45	w-CB	5.00	F	1.0356
			V-rCB	30			Y	0.6447

Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr		AM	PM
q-CA	121	183	Q-BA		439	434
q-CB	12	8	Q-BC		592	593
q-AB	88	110	Q-CB		709	707
q-AC	169	154	Q-BAC		456	453
q-BA	132	92				
q-BC	22	17				
f	0.143	0.156				

Ratio-of-flow to Capacity	AM	PM
B-A	0.301	0.212
B-C	0.037	0.029
C-B	0.017	0.011
B-AC	0.338	0.241

# Signal Junction Analysis

Junction: Castle Peak Road - Tam Mi / Kam Pok Road Job Number: J7400  
 Scenario: Existing Condition P. 4  
 Design Year: 2025 Designed By: \_\_\_\_\_ Checked By: \_\_\_\_\_ Date: 25 Jul 2025

Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak					
						Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	
Castle Peak Road -	LT+SA	A1	1	3.50	20.0		17	1940	435	0.224	0.224	14	1945	369	0.190	0.190
Tam Mi NB																
Castle Peak Road - Tam Mi SB	SA	B1	2	3.30				2085	161	0.077			2085	151	0.072	
	RT	B2	2	3.40	15.0		100	1905	171	0.090	0.090	100	1905	167	0.088	0.088
Kam Pok Road EB																
	LT	C1	3	3.50	28.0		100	1865	205	0.110	0.110	100	1865	195	0.105	0.105
	RT	C2	3	3.50	13.0		100	1887	28	0.015		100	1887	61	0.032	

pedestrian phase	D(p)	4	min crossing time =	13	sec GM +	12	sec FGM =	25	sec
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<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p><math>S=1940+100(W-3.25)</math>      <math>S=2080+100(W-3.25)</math></p> <p><math>S_M=S+(1+1.5f/r)</math>      <math>S_M=(S-230)/(1+1.5f/r)</math></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>PM Peak</th> </tr> </thead> <tbody> <tr> <td>Group</td> <td>1+2+3</td> <td>1+2+3</td> </tr> <tr> <td>Sum y</td> <td>0.424</td> <td>0.382</td> </tr> <tr> <td>L (s)</td> <td>40</td> <td>40</td> </tr> <tr> <td>C (s)</td> <td>94</td> <td>94</td> </tr> <tr> <td>practical y</td> <td>0.517</td> <td>0.517</td> </tr> <tr> <td>R.C. (%)</td> <td>22%</td> <td>35%</td> </tr> </tbody> </table> <p>Note:</p>		AM Peak	PM Peak	Group	1+2+3	1+2+3	Sum y	0.424	0.382	L (s)	40	40	C (s)	94	94	practical y	0.517	0.517	R.C. (%)	22%	35%
	AM Peak	PM Peak																					
Group	1+2+3	1+2+3																					
Sum y	0.424	0.382																					
L (s)	40	40																					
C (s)	94	94																					
practical y	0.517	0.517																					
R.C. (%)	22%	35%																					

1	2	3	4	5
A1	B2 B1	C1 C2	Dp	
AM	G = I/G = 6	G = I/G = 5	G = I/G = 5	G = 25 I/G = 2
PM	G = I/G = 6	G = I/G = 5	G = I/G = 5	G = 25 I/G = 2

# Signal Junction Analysis

Junction: Castle Peak Road - Tam Mi / Kam Pok Road Job Number: J7400  
 Scenario: Future Condition (Without Proposed RCHD) P. 5  
 Design Year: 2033 Designed By: \_\_\_\_\_ Checked By: \_\_\_\_\_ Date: 25 Jul 2025

Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak					
						Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	
Castle Peak Road -	LT+SA	A1	1	3.50	20.0		14	1945	463	0.238	0.238	10	1950	391	0.201	0.201
Tam Mi NB																
Castle Peak Road - Tam Mi SB	SA	B1	2	3.30				2085	171	0.082			2085	172	0.082	
	RT	B2	2	3.40	15.0		100	1905	202	0.106	0.106	100	1905	238	0.125	0.125
Kam Pok Road EB																
	LT	C1	3	3.50	28.0		100	1865	245	0.131	0.131	100	1865	227	0.122	0.122
	RT	C2	3	3.50	13.0		100	1887	30	0.016		100	1887	65	0.034	

pedestrian phase	D(p)	4	min crossing time =	13	sec GM +	12	sec FGM =	25	sec
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<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p>S=1940+100(W-3.25)      S=2080+100(W-3.25)                  S<sub>M</sub>=S÷(1+1.5f/r)      S<sub>M</sub>=(S-230)÷(1+1.5f/r)</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>PM Peak</th> </tr> </thead> <tbody> <tr> <td>Group</td> <td>1+2+3</td> <td>1+2+3</td> </tr> <tr> <td>Sum y</td> <td>0.475</td> <td>0.447</td> </tr> <tr> <td>L (s)</td> <td>40</td> <td>40</td> </tr> <tr> <td>C (s)</td> <td>120</td> <td>120</td> </tr> <tr> <td>practical y</td> <td>0.600</td> <td>0.600</td> </tr> <tr> <td>R.C. (%)</td> <td>26%</td> <td>34%</td> </tr> </tbody> </table>		AM Peak	PM Peak	Group	1+2+3	1+2+3	Sum y	0.475	0.447	L (s)	40	40	C (s)	120	120	practical y	0.600	0.600	R.C. (%)	26%	34%	<p>Note:</p>
	AM Peak	PM Peak																						
Group	1+2+3	1+2+3																						
Sum y	0.475	0.447																						
L (s)	40	40																						
C (s)	120	120																						
practical y	0.600	0.600																						
R.C. (%)	26%	34%																						

1	2	3	4	5
A1	B2 B1	C1 C2	Dp1	
AM	G = I/G = 6	G = I/G = 5	G = I/G = 5	G = 25 I/G = 2
PM	G = I/G = 6	G = I/G = 5	G = 25 I/G = 2	G = I/G =

# Signal Junction Analysis

Junction: Castle Peak Road - Tam Mi / Kam Pok Road Job Number: J7400  
 Scenario: Future Condition (With Proposed RCHD) P. 6  
 Design Year: 2033 Designed By: \_\_\_\_\_ Checked By: \_\_\_\_\_ Date: 25 Jul 2025

Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak					
						Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	
Castle Peak Road -	LT+SA	A1	1	3.50	20.0		14	1945	463	0.238	0.238	10	1950	391	0.201	0.201
Tam Mi NB																
Castle Peak Road - Tam Mi SB	SA	B1	2	3.30				2085	171	0.082			2085	172	0.082	
	RT	B2	2	3.40	15.0		100	1905	207	0.109	0.109	100	1905	242	0.127	0.127
Kam Pok Road EB																
	LT	C1	3	3.50	28.0		100	1865	249	0.134	0.134	100	1865	234	0.125	0.125
	RT	C2	3	3.50	13.0		100	1887	30	0.016		100	1887	65	0.034	

pedestrian phase	D(p)	4	min crossing time =	13	sec GM +	12	sec FGM =	25	sec
------------------	------	---	---------------------	----	----------	----	-----------	----	-----

<p>AM Traffic Flow (pcu/hr)</p>	<p>PM Traffic Flow (pcu/hr)</p>	<p><math>S=1940+100(W-3.25)</math>      <math>S=2080+100(W-3.25)</math></p> <p><math>S_M=S+(1+1.5f/r)</math>      <math>S_M=(S-230)/(1+1.5f/r)</math></p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>AM Peak</th> <th>PM Peak</th> </tr> </thead> <tbody> <tr> <td>Group</td> <td>1+2+3</td> <td>1+2+3</td> </tr> <tr> <td>Sum y</td> <td>0.480</td> <td>0.453</td> </tr> <tr> <td>L (s)</td> <td>40</td> <td>40</td> </tr> <tr> <td>C (s)</td> <td>120</td> <td>120</td> </tr> <tr> <td>practical y</td> <td>0.600</td> <td>0.600</td> </tr> <tr> <td>R.C. (%)</td> <td>25%</td> <td>32%</td> </tr> </tbody> </table> <p>Note:</p>		AM Peak	PM Peak	Group	1+2+3	1+2+3	Sum y	0.480	0.453	L (s)	40	40	C (s)	120	120	practical y	0.600	0.600	R.C. (%)	25%	32%
	AM Peak	PM Peak																					
Group	1+2+3	1+2+3																					
Sum y	0.480	0.453																					
L (s)	40	40																					
C (s)	120	120																					
practical y	0.600	0.600																					
R.C. (%)	25%	32%																					

1	2	3	4	5
A1	B2 B1	C1 C2	Dp1	
AM	G = I/G = 6	G = I/G = 5	G = I/G = 5	G = 25 I/G = 2
PM	G = I/G = 6	G = I/G = 5	G = I/G = 5	G = 25 I/G = 2

# Roundabout Analysis

Junction: The Fairview Park Roundabout  
 Scenario: Existing Condition  
 Design Year: 2025      Designed By: \_\_\_\_\_      Checked By: \_\_\_\_\_

Job Number: J7400  
 P. 7  
 Date: 25 Jul 2025

### AM Peak

Arm	To A	To B	To C	To D	To E	to F	to G	Total	q <sub>c</sub>
From A	35	54	379	140	73	122	69	872	1251
From B	30	11	141	32	53	208	98	573	1791
From C	210	42	43	131	144	69	125	764	1393
From D	29	17	73	14	52	120	13	318	1493
From E	63	35	133	110	10	47	32	430	1399
From F	157	87	112	85	25	29	84	579	1211
From G	53	86	90	152	55	23	19	478	1350
<b>Total</b>	<b>577</b>	<b>332</b>	<b>971</b>	<b>664</b>	<b>412</b>	<b>618</b>	<b>440</b>	<b>4014</b>	

### PM Peak

Arm	To A	To B	To C	To D	To E	to F	to G	Total	q <sub>c</sub>
From A	28	54	153	98	96	255	64	748	1164
From B	68	16	77	45	78	112	120	516	1594
From C	228	77	22	142	102	36	133	740	1568
From D	67	17	49	24	64	72	17	310	1608
From E	100	21	129	135	14	38	33	470	1467
From F	126	74	55	148	52	25	111	591	1375
From G	61	59	57	108	45	24	13	367	1475
<b>Total</b>	<b>678</b>	<b>318</b>	<b>542</b>	<b>700</b>	<b>451</b>	<b>562</b>	<b>491</b>	<b>3742</b>	

### Legend

Arm	Road (in clockwise order)
A	Fairview Park Boulevard EB
B	Castle Peak Road NB
C	San Tin Road NB
D	San Tam Road NB
E	San Tam Road SB
F	San Tin Road SB
G	Castle Peak Road SB
H	

### Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	11.0	7.0	22.0	14.0	142	35	0.5
From B	9.0	5.5	20.0	10.0	142	35	0.6
From C	8.5	6.4	23.0	7.5	142	30	0.4
From D	8.5	6.5	20.0	10.0	142	25	0.3
From E	8.0	6.0	20.0	9.5	142	35	0.3
From F	8.5	6.0	25.0	6.5	142	40	0.6
From G	6.0	5.0	22.0	7.0	142	30	0.2
From H							

### Predictive Equation $Q_E = K(F - f_c q_c)$

Q <sub>E</sub>	Entry Capacity
q <sub>c</sub>	Circulating Flow across the Entry
K	= 1-0.00347(∅-30)-0.978[(1/r)-0.05]
F	= 303x <sub>2</sub>
f <sub>c</sub>	= 0.210t <sub>D</sub> (1+0.2x <sub>2</sub> )
t <sub>D</sub>	= 1+0.5/(1+M)
M	= exp[(D-60)/10]
x <sub>2</sub>	= v+(e-v)/(1+2S)
S	= 1.6(e-v)/L

### Limitation

e	Entry Width	4.0 - 15.0 m
v	Approach Half Width	2.0 - 7.3 m
r	Entry Radius	6.0 - 100.0 m
L	Effective Length of Flare	1.0 - 100.0 m
D	Inscribed Circle Diameter	15 - 100 m
∅	Entry Angle	10° - 60°
S	Sharpness of Flare	0.0 - 3.0

### Ratio-of-Flow to Capacity (RFC)

Arm	x <sub>2</sub>	M	t <sub>D</sub>	K	F	f <sub>c</sub>	Q <sub>E</sub>		Entry Flow		RFC	
							AM	PM	AM	PM	AM	PM
From A	9.09	3640.95	1.00	0.99	2754.13	0.59	1987.75	2039	872	748	0.439	0.367
From B	7.15	3640.95	1.00	0.98	2166.74	0.51	1230.86	1330	573	516	0.466	0.388
From C	7.51	3640.95	1.00	1.01	2274.80	0.53	1552.77	1460	764	740	0.492	0.507
From D	7.72	3640.95	1.00	1.02	2339.01	0.53	1568.05	1506	318	310	0.203	0.206
From E	7.19	3640.95	1.00	0.98	2180.08	0.51	1438.03	1404	430	470	0.299	0.335
From F	7.12	3640.95	1.00	0.98	2157.57	0.51	1502.60	1421	579	591	0.385	0.416
From G	5.69	3640.95	1.00	1.00	1722.94	0.45	1121.91	1066	478	367	0.426	0.344
From H												

# Roundabout Analysis

Junction: The Fairview Park Roundabout  
 Scenario: Future Condition (Without Proposed RCHD)  
 Design Year: 2033      Designed By: \_\_\_\_\_      Checked By: \_\_\_\_\_

Job Number: J7400  
 P. 8  
 Date: 25 Jul 2025

### AM Peak

Arm	To A	To B	To C	To D	To E	to F	to G	Total	q <sub>c</sub>
From A	36	58	444	156	79	148	74	995	1652
From B	32	12	165	37	57	229	104	636	2274
From C	222	55	55	139	167	75	196	909	1638
From D	31	20	78	15	61	180	28	413	1729
From E	67	36	194	126	11	49	34	517	1681
From F	168	100	120	161	27	32	123	731	1447
From G	57	92	216	184	59	38	21	667	1598
<b>Total</b>	<b>613</b>	<b>373</b>	<b>1272</b>	<b>818</b>	<b>461</b>	<b>751</b>	<b>580</b>	<b>4868</b>	

### PM Peak

Arm	To A	To B	To C	To D	To E	to F	to G	Total	q <sub>c</sub>
From A	30	58	191	110	103	286	68	846	1476
From B	73	17	94	49	83	125	126	567	1912
From C	245	146	36	155	134	42	253	1011	1756
From D	72	20	52	26	71	103	28	372	1965
From E	107	22	170	150	15	40	35	539	1827
From F	134	85	60	188	56	30	135	688	1706
From G	66	62	120	124	48	34	15	469	1734
<b>Total</b>	<b>727</b>	<b>410</b>	<b>723</b>	<b>802</b>	<b>510</b>	<b>660</b>	<b>660</b>	<b>4492</b>	

### Legend

Arm	Road (in clockwise order)
A	Fairview Park Boulevard EB
B	Castle Peak Road NB
C	San Tin Road NB
D	San Tam Road NB
E	San Tam Road SB
F	San Tin Road SB
G	Castle Peak Road SB
H	

### Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	11.0	7.0	22.0	14.0	142	35	0.5
From B	9.0	5.5	20.0	10.0	142	35	0.6
From C	8.5	6.4	23.0	7.5	142	30	0.4
From D	8.5	6.5	20.0	10.0	142	25	0.3
From E	8.0	6.0	20.0	9.5	142	35	0.3
From F	8.5	6.0	25.0	6.5	142	40	0.6
From G	6.0	5.0	22.0	7.0	142	30	0.2
From H							

### Predictive Equation $Q_E = K(F - f_c q_c)$

$Q_E$	Entry Capacity
$q_c$	Circulating Flow across the Entry
$K$	$= 1 - 0.00347(\emptyset - 30) - 0.978[(1/r) - 0.05]$
$F$	$= 303x_2$
$f_c$	$= 0.210t_D(1 + 0.2x_2)$
$t_D$	$= 1 + 0.5/(1 + M)$
$M$	$= \exp[(D - 60)/10]$
$x_2$	$= v + (e - v)/(1 + 2S)$
$S$	$= 1.6(e - v)/L$

### Limitation

e	Entry Width	4.0 - 15.0 m
v	Approach Half Width	2.0 - 7.3 m
r	Entry Radius	6.0 - 100.0 m
L	Effective Length of Flare	1.0 - 100.0 m
D	Inscribed Circle Diameter	15 - 100 m
∅	Entry Angle	10° - 60°
S	Sharpness of Flare	0.0 - 3.0

### Ratio-of-Flow to Capacity (RFC)

Arm	x <sub>2</sub>	M	t <sub>D</sub>	K	F	f <sub>c</sub>	Q <sub>E</sub>		Entry Flow		RFC	
							AM	PM	AM	PM	AM	PM
From A	9.09	3640.95	1.00	0.99	2754.13	0.59	1753	1856	995	846	0.567	0.456
From B	7.15	3640.95	1.00	0.98	2166.74	0.51	989	1170	636	567	0.643	0.485
From C	7.51	3640.95	1.00	1.01	2274.80	0.53	1423	1361	909	1011	0.639	0.743
From D	7.72	3640.95	1.00	1.02	2339.01	0.53	1440	1311	413	372	0.287	0.284
From E	7.19	3640.95	1.00	0.98	2180.08	0.51	1296	1223	517	539	0.399	0.441
From F	7.12	3640.95	1.00	0.98	2157.57	0.51	1385	1257	731	688	0.528	0.547
From G	5.69	3640.95	1.00	1.00	1722.94	0.45	1010	949	667	469	0.660	0.494
From H												

# Roundabout Analysis

Junction: The Fairview Park Roundabout  
 Scenario: Future Condition (With Proposed RCHD)  
 Design Year: 2033      Designed By: \_\_\_\_\_      Checked By: \_\_\_\_\_

Job Number: J7400  
 P. 9  
 Date: 25 Jul 2025

### AM Peak

Arm	To A	To B	To C	To D	To E	to F	to G	Total	q <sub>c</sub>
From A	36	58	444	156	79	148	74	995	1657
From B	32	12	167	37	57	231	104	640	2274
From C	222	58	55	139	167	75	196	912	1640
From D	31	20	78	15	61	180	28	413	1734
From E	67	36	194	126	11	49	34	517	1686
From F	168	102	120	161	27	32	123	733	1450
From G	57	92	216	184	59	38	21	667	1603
<b>Total</b>	<b>613</b>	<b>378</b>	<b>1274</b>	<b>818</b>	<b>461</b>	<b>753</b>	<b>580</b>	<b>4877</b>	

### PM Peak

Arm	To A	To B	To C	To D	To E	to F	to G	Total	q <sub>c</sub>
From A	30	58	191	110	103	286	68	846	1480
From B	73	17	98	49	83	128	126	574	1912
From C	245	148	36	155	134	42	253	1013	1759
From D	72	20	52	26	71	103	28	372	1970
From E	107	22	170	150	15	40	35	539	1832
From F	134	87	60	188	56	30	135	690	1708
From G	66	62	120	124	48	34	15	469	1738
<b>Total</b>	<b>727</b>	<b>414</b>	<b>727</b>	<b>802</b>	<b>510</b>	<b>663</b>	<b>660</b>	<b>4503</b>	

### Legend

Arm	Road (in clockwise order)
A	Fairview Park Boulevard EB
B	Castle Peak Road NB
C	San Tin Road NB
D	San Tam Road NB
E	San Tam Road SB
F	San Tin Road SB
G	Castle Peak Road SB
H	

### Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	11.0	7.0	22.0	14.0	142	35	0.5
From B	9.0	5.5	20.0	10.0	142	35	0.6
From C	8.5	6.4	23.0	7.5	142	30	0.4
From D	8.5	6.5	20.0	10.0	142	25	0.3
From E	8.0	6.0	20.0	9.5	142	35	0.3
From F	8.5	6.0	25.0	6.5	142	40	0.6
From G	6.0	5.0	22.0	7.0	142	30	0.2
From H							

### Predictive Equation $Q_E = K(F - f_c q_c)$

$Q_E$	Entry Capacity
$q_c$	Circulating Flow across the Entry
$K$	$= 1 - 0.00347(\emptyset - 30) - 0.978[(1/r) - 0.05]$
$F$	$= 303x_2$
$f_c$	$= 0.210t_D(1 + 0.2x_2)$
$t_D$	$= 1 + 0.5/(1 + M)$
$M$	$= \exp[(D - 60)/10]$
$x_2$	$= v + (e - v)/(1 + 2S)$
$S$	$= 1.6(e - v)/L$

### Limitation

e	Entry Width	4.0 - 15.0 m
v	Approach Half Width	2.0 - 7.3 m
r	Entry Radius	6.0 - 100.0 m
L	Effective Length of Flare	1.0 - 100.0 m
D	Inscribed Circle Diameter	15 - 100 m
∅	Entry Angle	10° - 60°
S	Sharpness of Flare	0.0 - 3.0

### Ratio-of-Flow to Capacity (RFC)

Arm	$x_2$	M	$t_D$	K	F	$f_c$	$Q_E$		Entry Flow		RFC	
							AM	PM	AM	PM	AM	PM
From A	9.09	3640.95	1.00	0.99	2754.13	0.59	1751	1854	995	846	0.568	0.456
From B	7.15	3640.95	1.00	0.98	2166.74	0.51	989	1170	640	574	0.647	0.491
From C	7.51	3640.95	1.00	1.01	2274.80	0.53	1422	1359	912	1013	0.641	0.745
From D	7.72	3640.95	1.00	1.02	2339.01	0.53	1437	1309	413	372	0.287	0.284
From E	7.19	3640.95	1.00	0.98	2180.08	0.51	1294	1220	517	539	0.400	0.442
From F	7.12	3640.95	1.00	0.98	2157.57	0.51	1384	1256	733	690	0.530	0.549
From G	5.69	3640.95	1.00	1.00	1722.94	0.45	1008	947	667	469	0.662	0.495
From H												

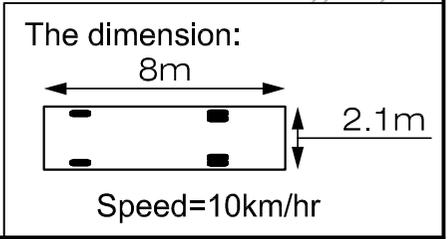
Appendix 2 –  
Swept Path Analysis

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**LEAVING**



Project Title **PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG**

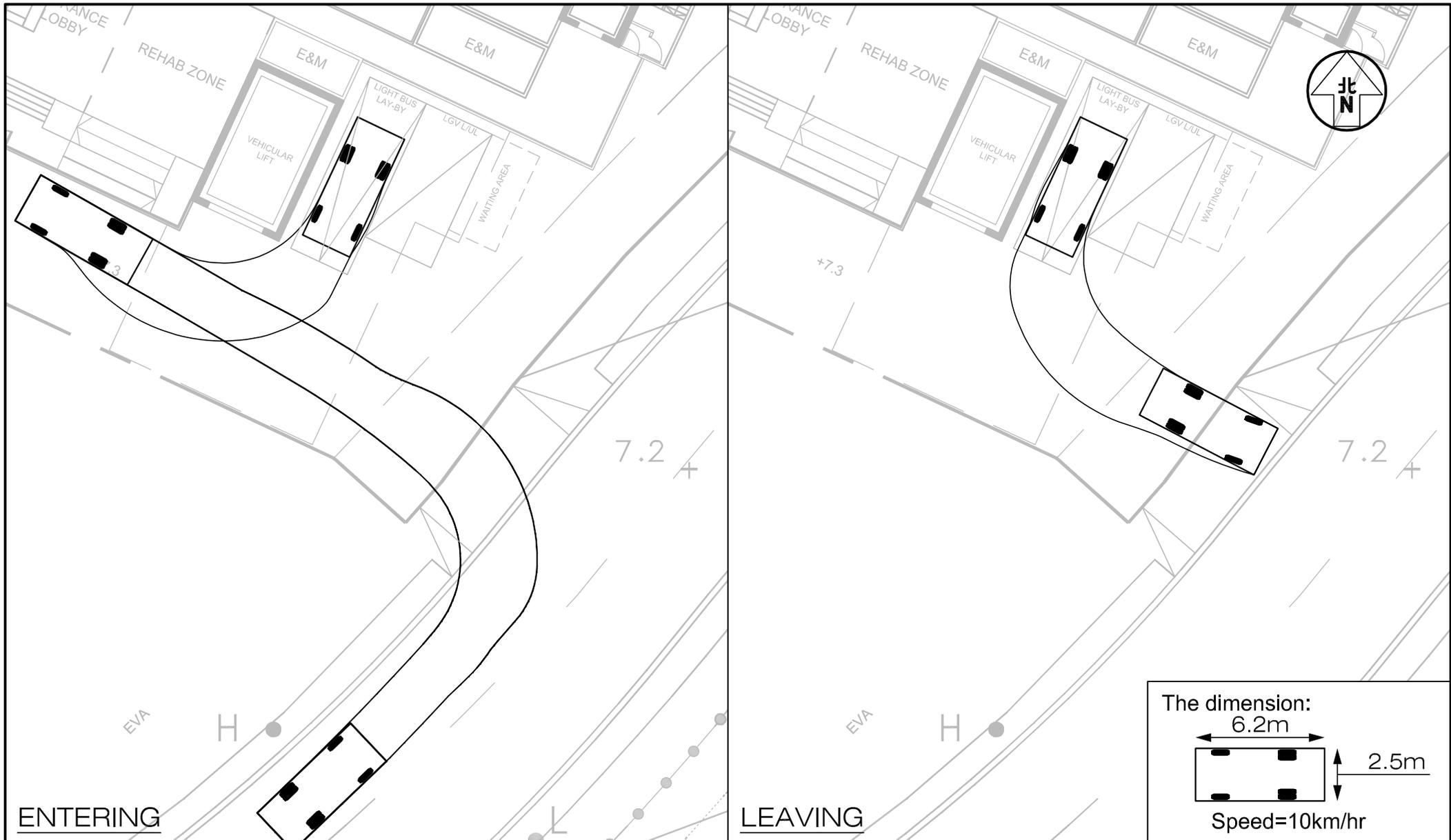
Figure No. **SP1**  
 Revision **B**

**CKM Asia Limited**  
 Traffic and Transportation Planning Consultants

Figure Title **SWEPT PATH OF MINI COACH ENTERING AND LEAVING THE LIGHT BUS / AMBULANCE PARKING SPACE ON G/F**

Designed by **L C H**  
 Drawn by **N C M**  
 Checked by **K C**  
 Scale in A4 **1 : 250**  
 Date **28 JUL 2025**

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Project Title **PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG**

J7400

Figure No. **SP2** Revision **B**

**CKM Asia Limited**  
Traffic and Transportation Planning Consultants

Figure Title **SWEPT PATH OF AMBULANCE ENTERING AND LEAVING THE LIGHT BUS / AMBULANCE PARKING SPACE ON G/F**

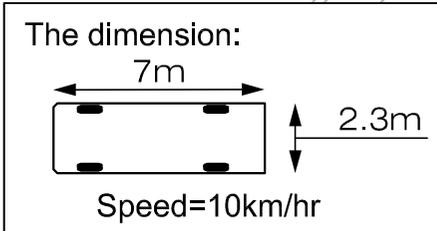
Designed by <b>L C H</b>	Drawn by <b>N C M</b>	Checked by <b>K C</b>
Scale in A4 <b>1 : 250</b>		Date <b>28 JUL 2025</b>



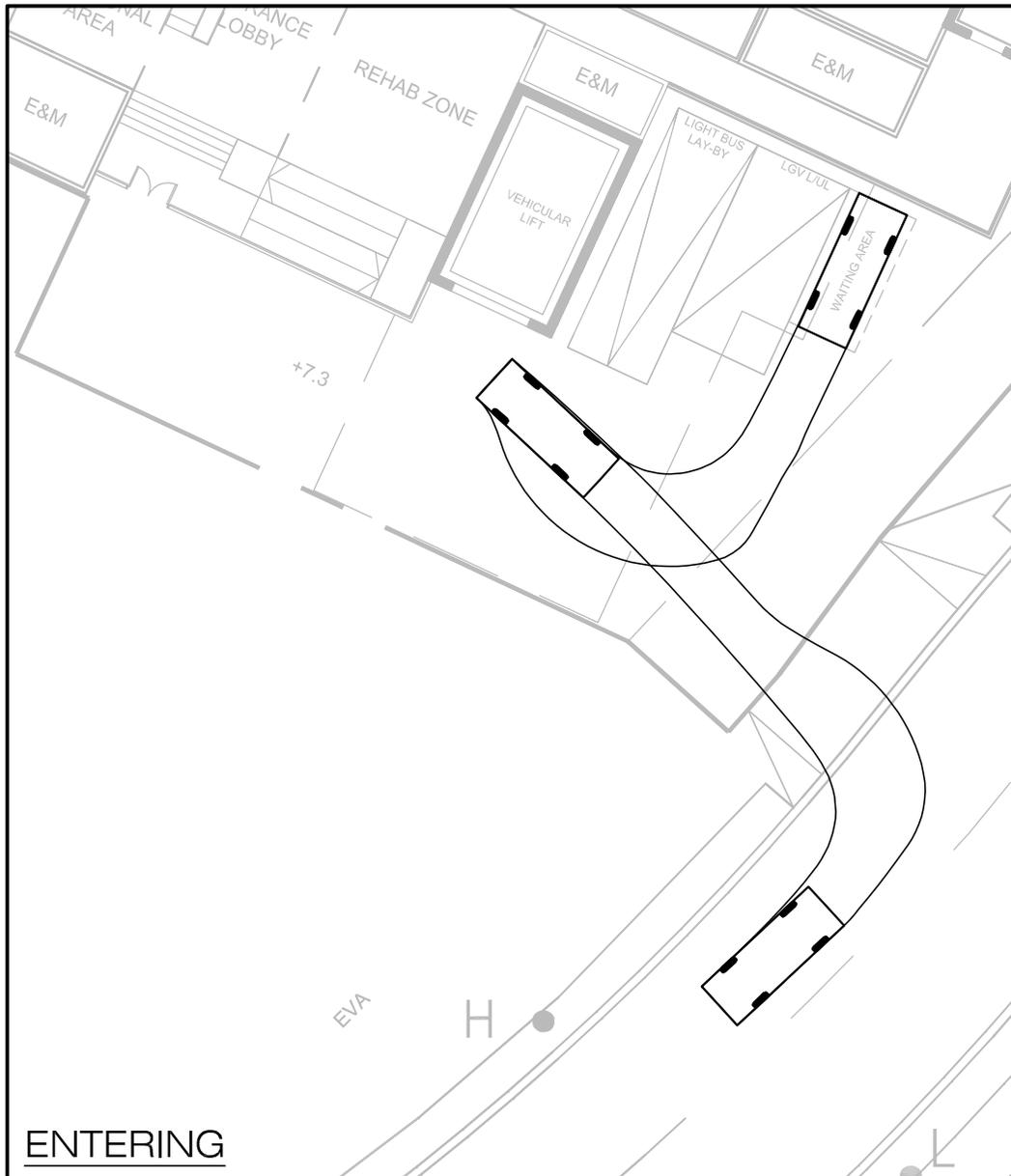


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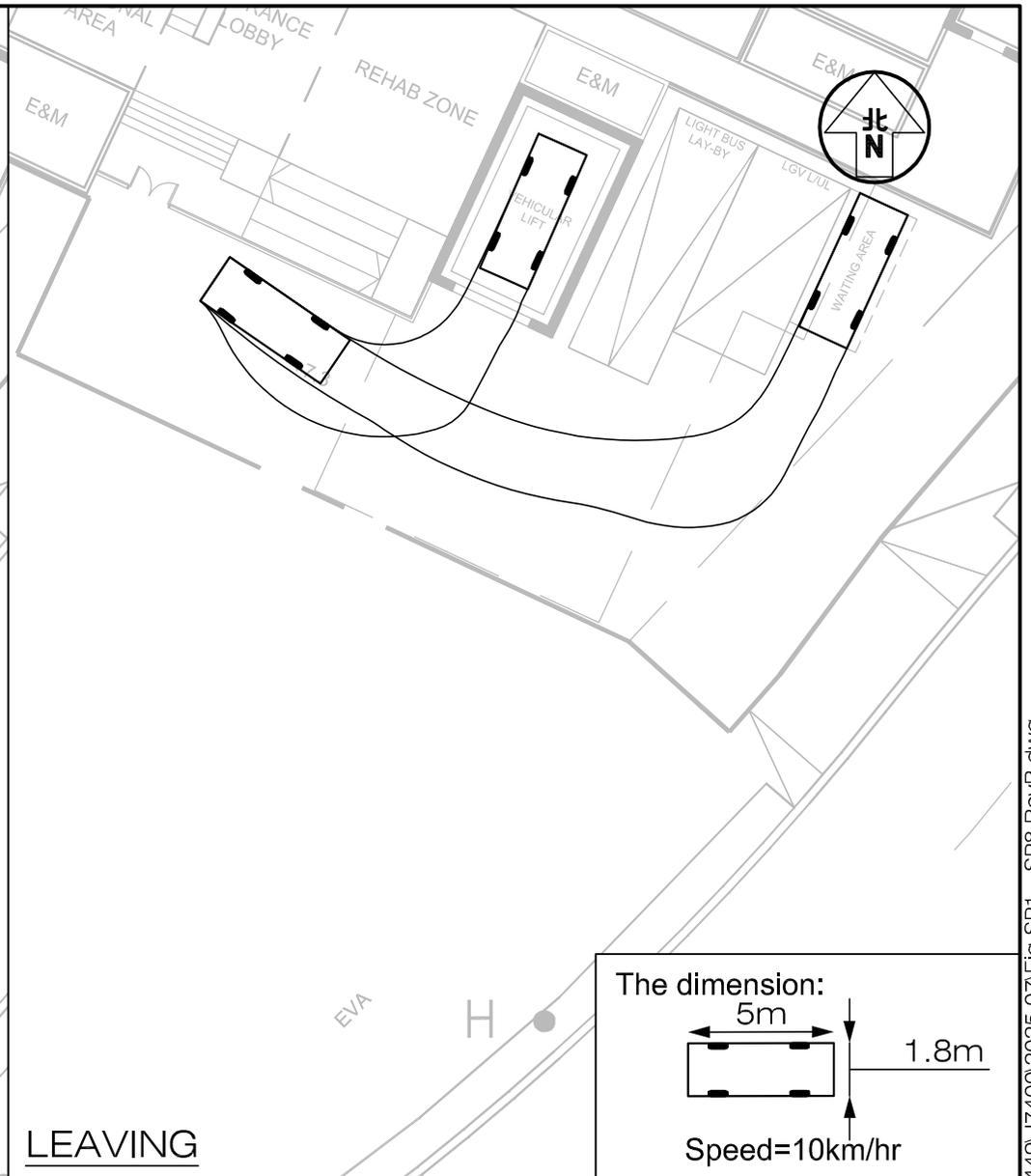
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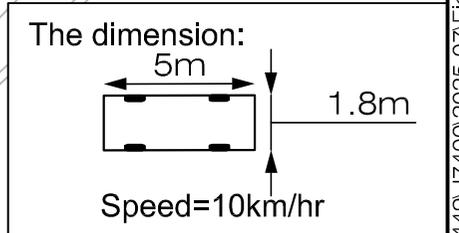
Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG	Figure No. <b>J7400</b>	Revision <b>B</b>	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants
Figure Title <b>SWEPT PATH OF LGV ENTERING AND LEAVING          THE LOADING / UNLOADING BAY ON G/F</b>	Designed by <b>L C H</b>	Drawn by <b>N C M</b>	Checked by <b>K C</b>
Scale in A4 <b>1 : 250</b>	Date <b>28 JUL 2025</b>		



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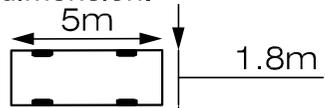


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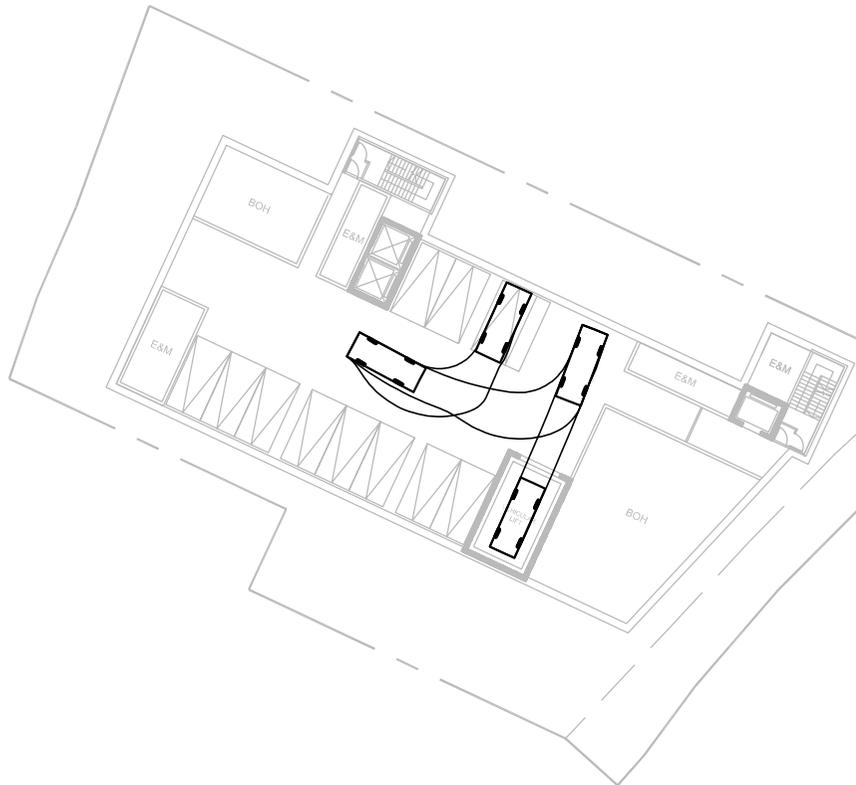


Project Title <b>PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG</b>	Figure No. <b>SP4</b>	Revision <b>B</b>	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants	
Figure Title <b>SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE WAITING AREA</b>	Designed by <b>L C H</b>	Drawn by <b>N C M</b>		Checked by <b>K C</b>
Scale in A4 <b>1 : 250</b>	Date <b>28 JUL 2025</b>			

The dimension:



Speed=10km/hr



ENTERING

LEAVING



Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG

J7400

Figure No.

SP5

Revision

B

**CKM Asia Limited**

Traffic and Transportation Planning Consultants

Figure Title

**SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING  
THE CAR PARKING SPACE ON B/F**

Designed by

L C H

Drawn by

N C M

Checked by

K C

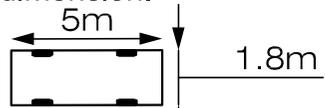
Scale in A4

1 : 250

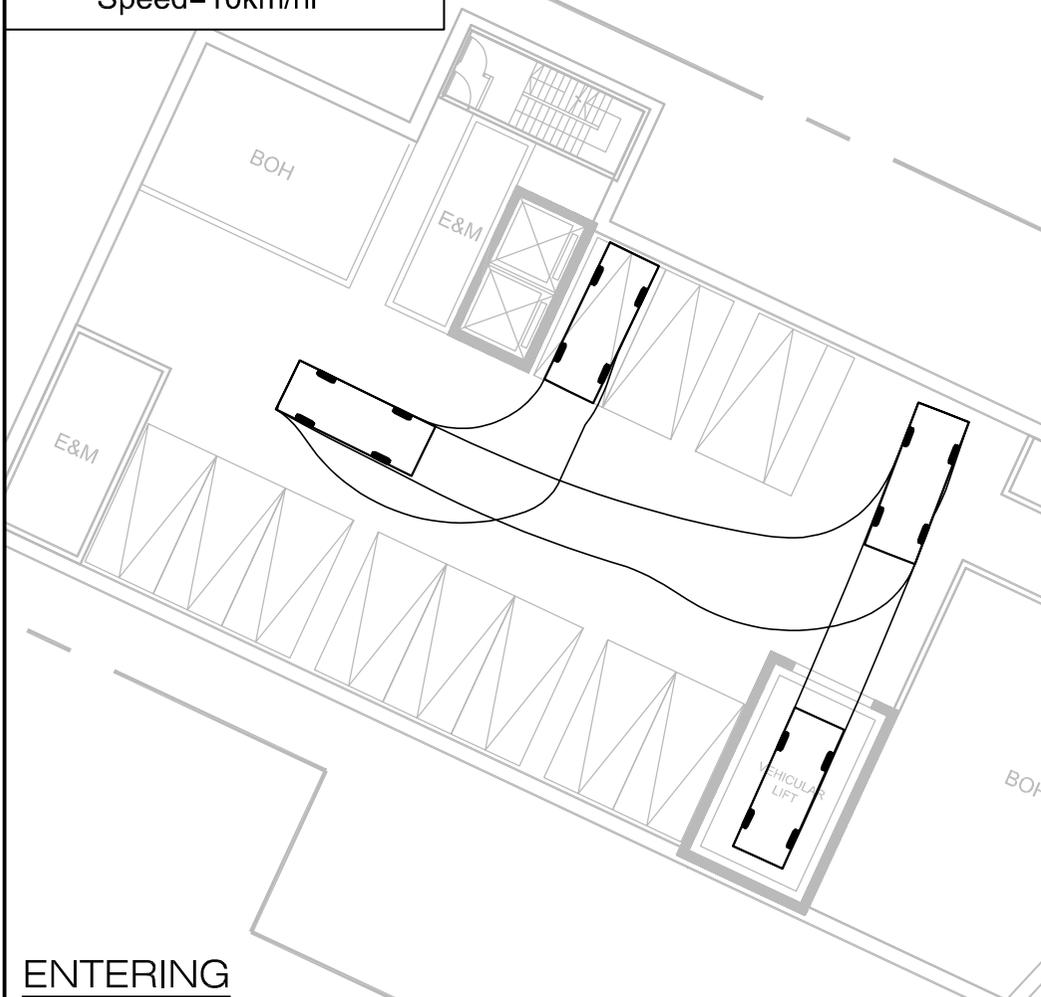
Date

28 JUL 2025

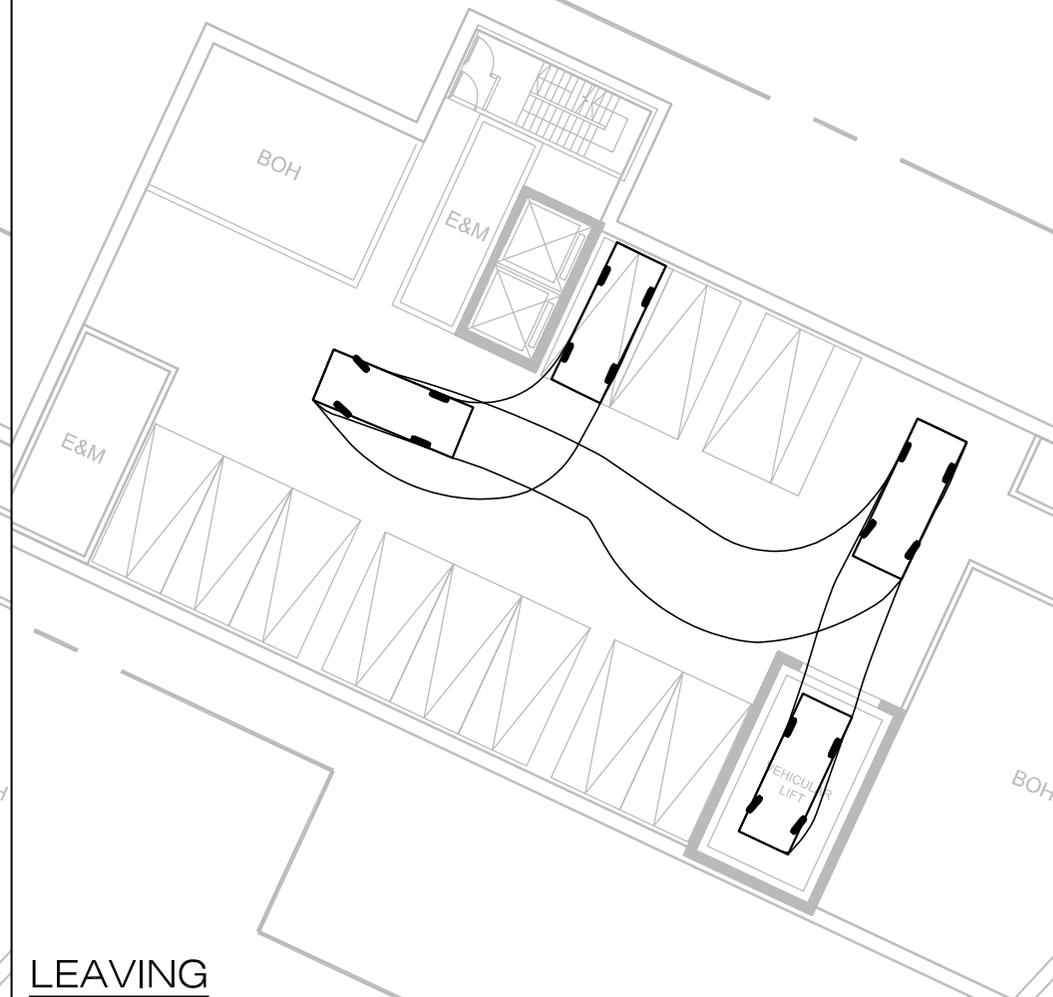
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Speed=10km/hr



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LEAVING

Project Title **PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG**

Figure No. **J7400** SP6

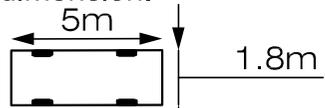
Revision **B**  
**CKM Asia Limited**  
Traffic and Transportation Planning Consultants

Figure Title **SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE ON B/F**

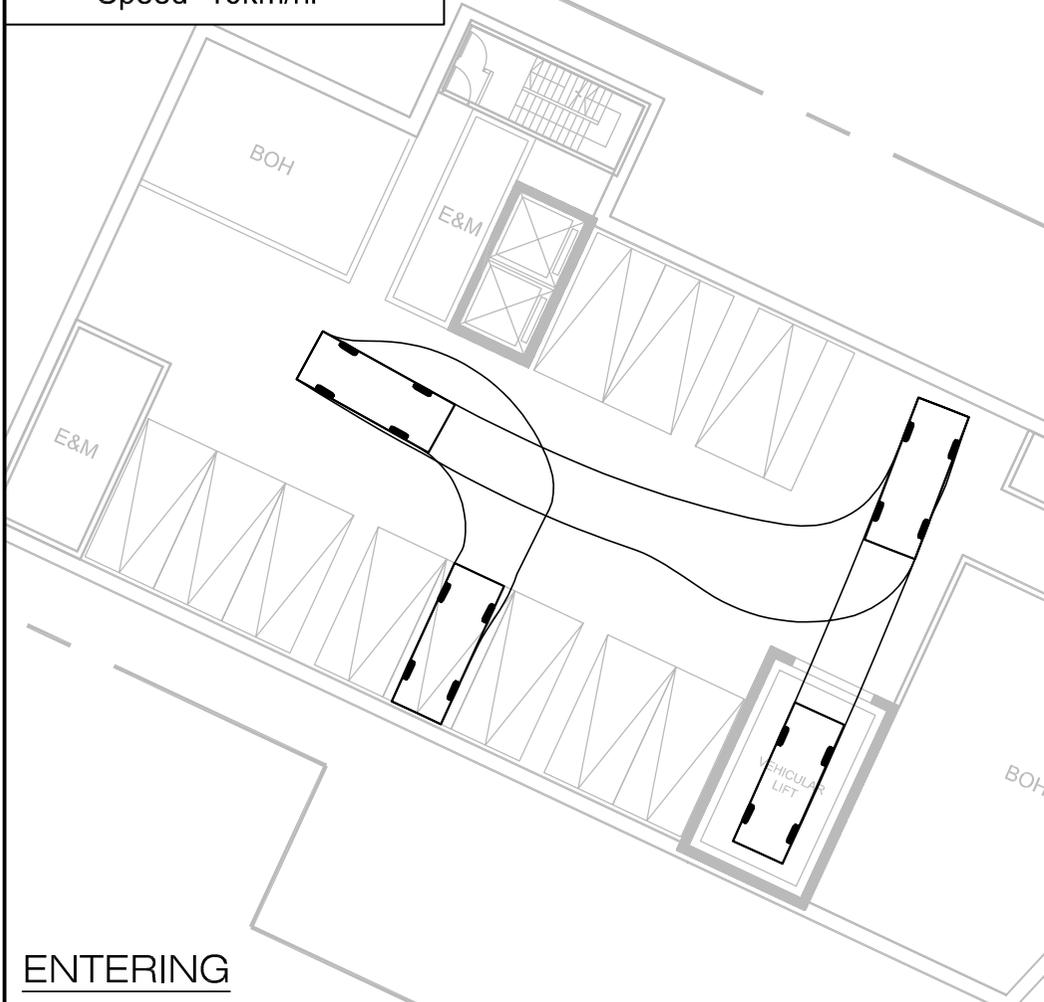
Designed by **L C H** Drawn by **N C M** Checked by **K C**  
Scale in A4 **1 : 250** Date **28 JUL 2025**

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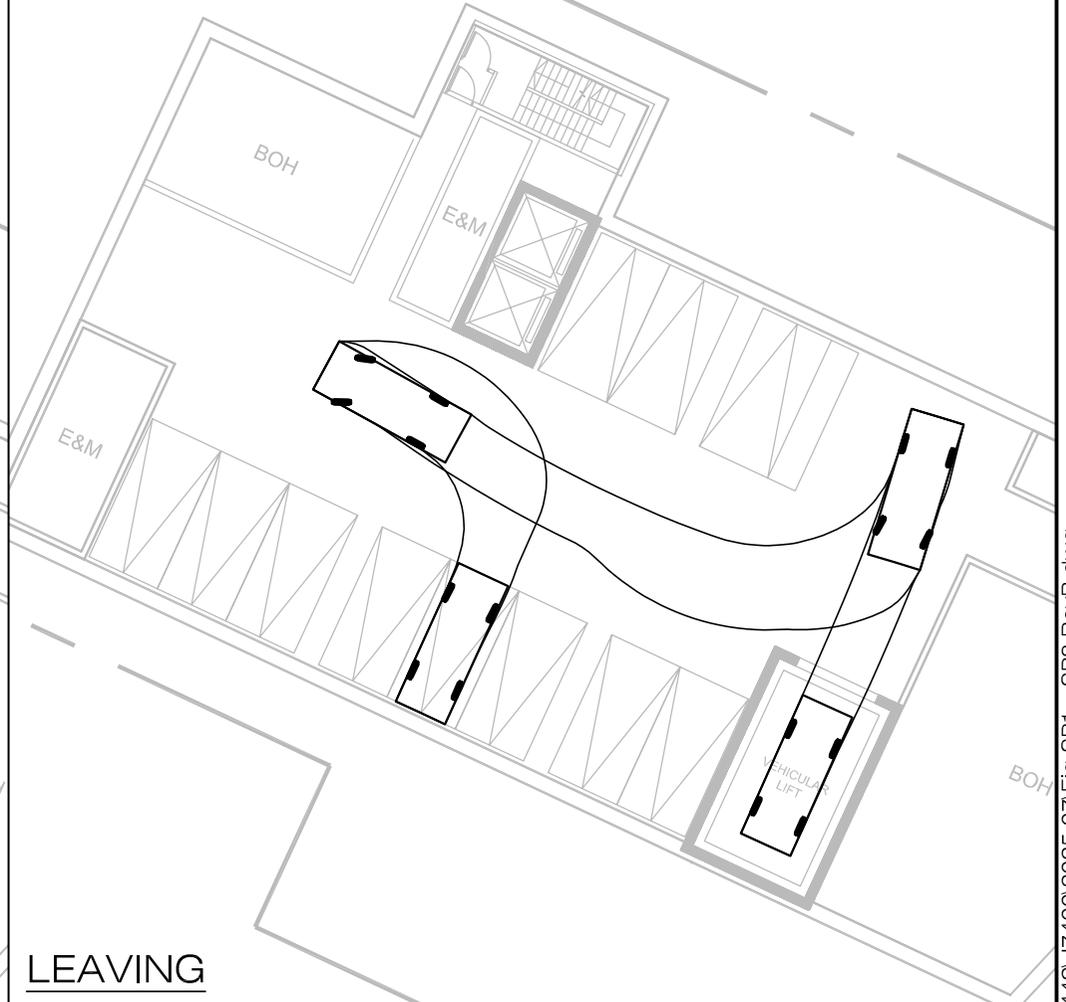
The dimension:



Speed=10km/hr



ENTERING



LEAVING

Project Title **PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG** J7400

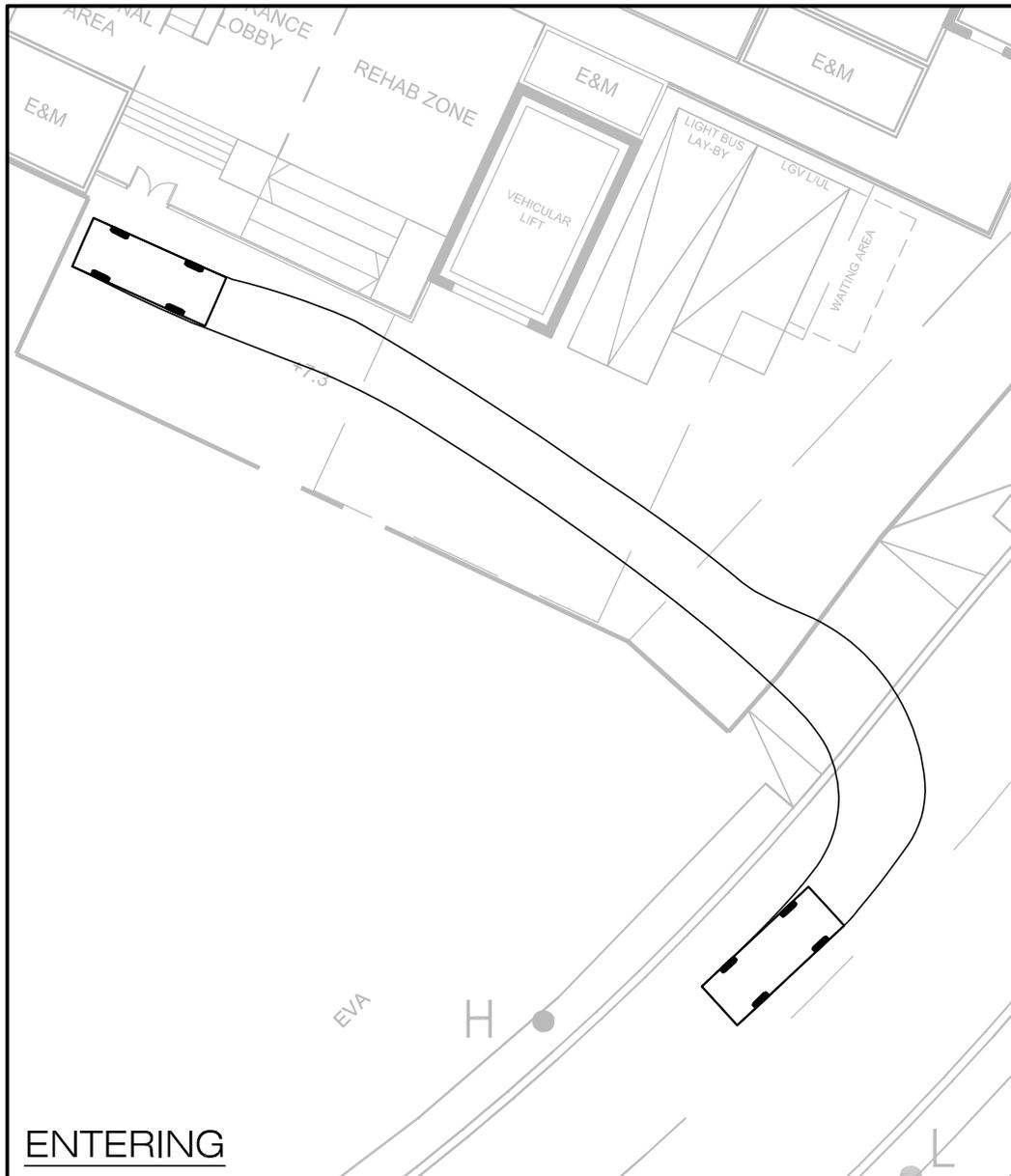
Figure No. **SP7** Revision **B**

**CKM Asia Limited**  
Traffic and Transportation Planning Consultants

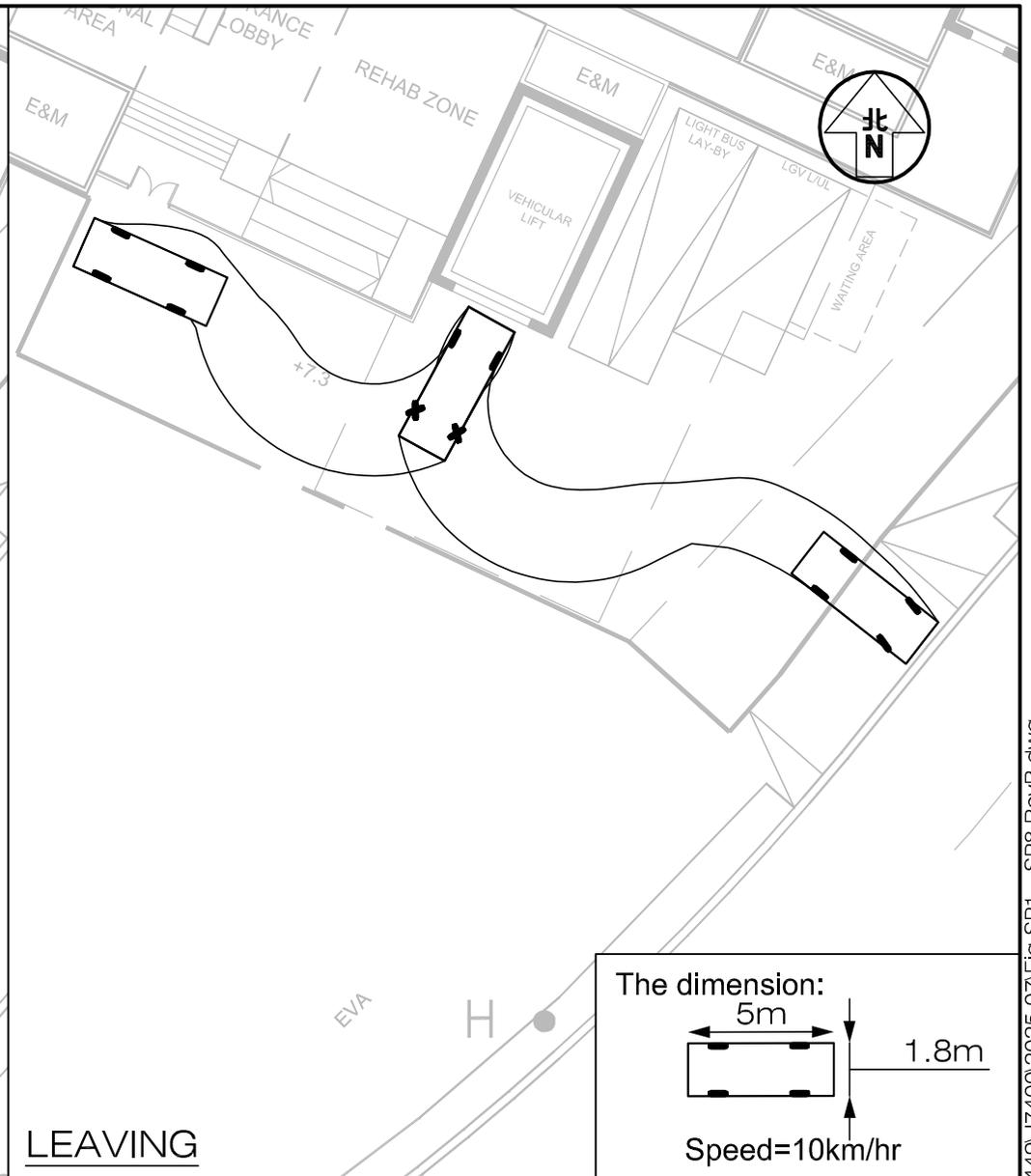
Figure Title **SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE ON B/F**

Designed by **L C H** Drawn by **N C M** Checked by **K C**  
Scale in A4 **1 : 250** Date **28 JUL 2025**

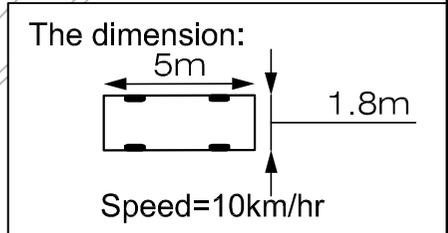
T:\JOB\J7400-J7449\J7400\2025 07\Fig SP1 - SP8 RevB.dwg



**ENTERING**



**LEAVING**



Project Title <b>PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR PERSONS WITH DISABILITIES (RCHD)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3669 S.A RP (PART), 3669 S.B RP (PART), 3670 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG</b>	Figure No. <b>J7400</b>	Revision <b>B</b>	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants
Figure Title <p style="text-align: center;"><b>SWEPT PATH OF TAXI ENTERING AND LEAVING THE SUBJECT SITE</b></p>	Designed by <b>L C H</b>	Drawn by <b>N C M</b>	Checked by <b>K C</b>
Scale in A4 <b>1 : 250</b>		Date <b>28 JUL 2025</b>	

Appendix 3 –  
Vehicle Lift Analysis

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## Vehicle Lift Analysis

**Job Title** Proposed RCHD in “Village Type Development” Zone, Lots 3669 S.A RP (Part), 3669 S.B RP (Part), 3670 RP (Part) and adjoining Government Land in D.D.104, Nam Sang Wai, Yuen Long

Ground floor to typical car park floor (m)	3.50
Average Speed (m/s)	0.50
Travel time (s)	7.00

<u>Activity</u>	<u>Time (s)</u>
Car lift travels from ground floor to typical car park floor	7
Lift door opens	5
Car exits lift in forward gear on typical car park floor	5
Car enters lift in reverse gear on typical car park floor	15
Door closes	5
Car lift travels from typical car park floor to ground floor	7
Lift door opens	5
Car exits lift in forward gear on ground floor	5
Car enters lift in reverse gear on ground floor	15
Door closes	5
<b>Total</b>	<b>74</b>

Number of lift servers, $k$	1
Number of waiting space(s)	1
Cycle time $\omega$ (s)	74
Arrival rate $\lambda$ (veh / hr)	10
Service rate $\mu$ of one lift server (veh / hr)	49

<u>Number of Cars N</u>	<u>Probability of Exact N Cars in the Lift System</u>	<u>Probability of N Cars or Less in the Lift System</u>	<u>Probability of More Than N Cars in the Lift System</u>
0	79.44%	79.44%	20.56%
1	16.33%	95.77%	4.23%
<b>2</b>	<b>3.36%</b>	<b>99.13%</b>	<b>0.87%</b>
3	0.69%	99.82%	0.18%
4	0.14%	99.96%	0.04%
5	0.03%	99.99%	0.01%
6	0.01%	100.00%	0.00%
7	0.00%	100.00%	0.00%

### Conclusion

The probability of 1 car arriving when 1 car lift and 1 waiting space being occupied is 0.87%. The provision of 1 waiting space is sufficient.

Formulae:		[A]	[B]	[A] * [B]
Floor	Level (m)	Distance from G/F	No. of parking spaces	
8/F		0		0
7/F		0		0
6/F		0		0
5/F		0		0
4/F		0		0
3/F		0		0
2/F		0		0
1/F		0		0
G/F	0.00	0		0
B1	-3.50	3.5	10	35
B2		0.0		0
B3		0		0
B4		0		0
B5		0		0
B6		0		0
B7		0		0
B8		0		0
			total parking spaces	typical floor distance
			10	3.5

Note:

**k** is the number of lift servers.

$\lambda$  is the arrival rate in vehicles per hour.

$\mu$  is the service rate of a lift server in vehicles per hour.

N  $1/N! * (\lambda/\mu)^N$  summation from N=0 to N=k-1

0	1	1
1	0	1
2	0	1
3	0	1
4	0	1
5	0	1
6	0	1
7	0	1
8	0	1
9	0	1
10	0	1

The assessment is based on the multi-server queuing (M/M/N) theory, and the equations applied are listed below:

Probability of having exactly zero cars in the lift system:

$$P(0) = \frac{1}{\left[ \sum_{N=0}^{k-1} \frac{1}{N!} \left( \frac{\lambda}{\mu} \right)^N \right] + \frac{1}{k!} \left( \frac{\lambda}{\mu} \right)^k \frac{k\mu}{k\mu - \lambda}}$$

Probability of having exactly N cars in the lift system:

For  $N < k$ :

$$P(N) = \frac{1}{N!} \left( \frac{\lambda}{\mu} \right)^N P(0)$$

For  $N \geq k$ :

$$P(N) = \frac{1}{k! k^{N-k}} \left( \frac{\lambda}{\mu} \right)^N P(0)$$

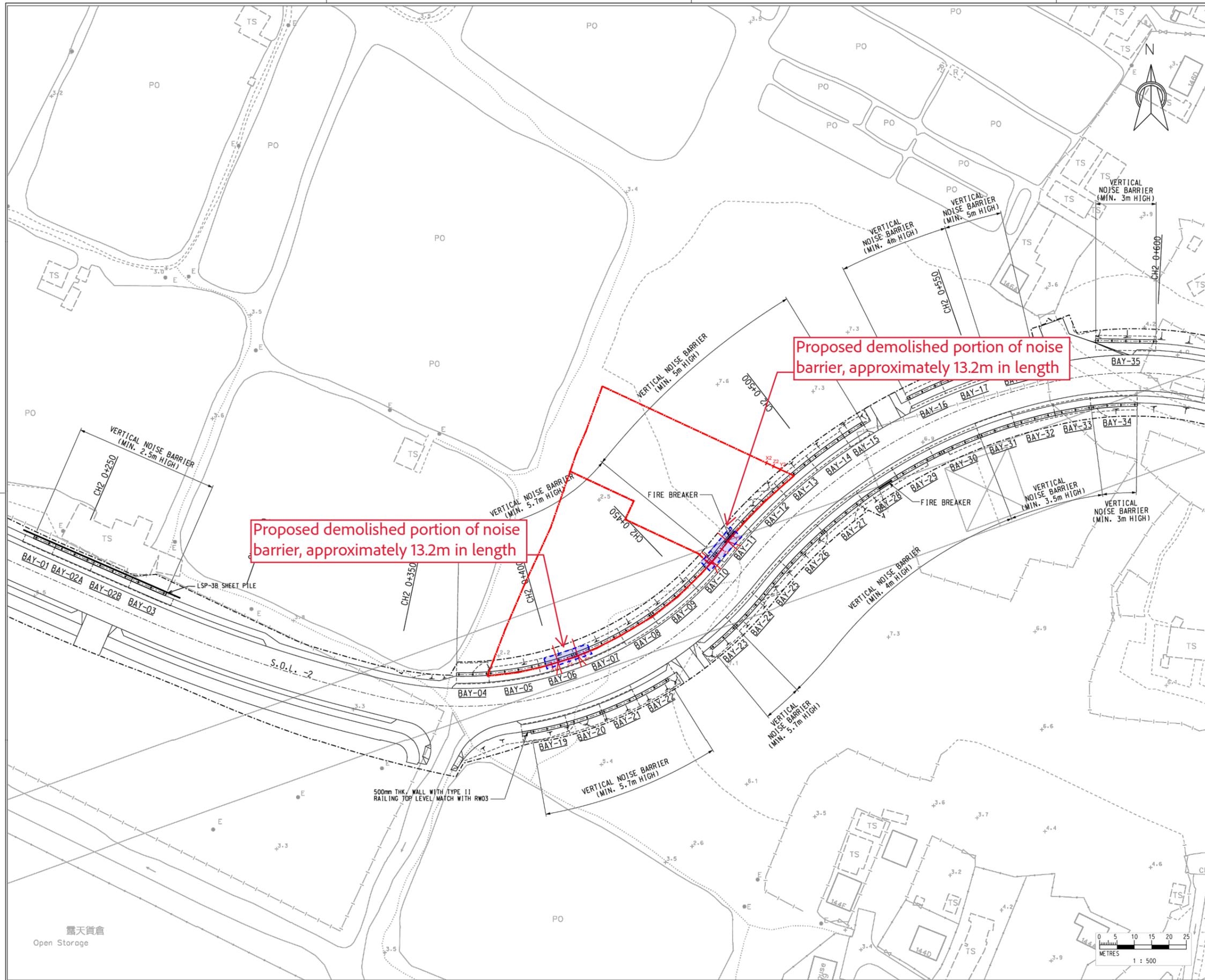
k -- number of lift servers

$\lambda$  -- arrival rate

$\mu$  -- service rate

## **Appendix 3**

### Modification Plans of Noise Barrier and Street Furniture



**NOTES :**  
 1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.  
 2. ALL LEVELS ARE IN MPD (METRE ABOVE HONG KONG PRINCIPAL DATUM).

**LEGEND :**  
 [Symbol] SITE BOUNDARY  
 [Symbol] NOISE BARRIER  
 [Symbol] FIRE BREAKER  
 [Symbol] LSP-3B SHEET PILE



Proposed demolished portion of noise barrier, approximately 13.2m in length

Proposed demolished portion of noise barrier, approximately 13.2m in length

Rev.	Description of Revision	Date	Ckd.
Z	AS BUILT	OCT 13	SIGNED
E	SHEET PILE ADDED	DEC 12	SIGNED
D	GENERAL REVISION	JUN 12	SIGNED
C	GENERAL REVISION	JAN 12	SIGNED
B	GENERAL REVISION	JAN 12	SIGNED
A	GENERAL REVISION	NOV 11	JM

Client  
 路政署 (工程部)  
 HIGHWAYS DEPARTMENT  
 WORKS DIVISION

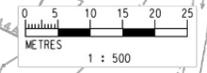
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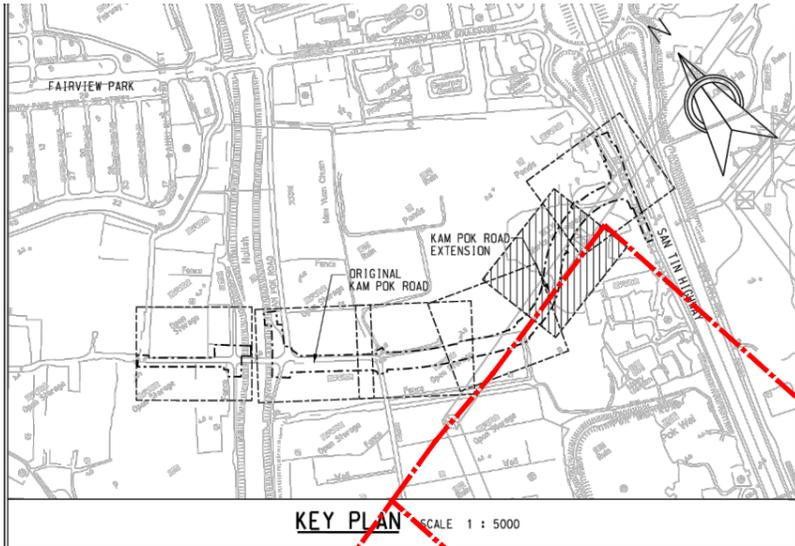
Scale in A1 1 : 500	Date DEC 2010	
Designed FT	Drawn TWN	Checked JM
Design Team Leader SNG	Date DEC 2010	
Approved KTC	Date DEC 2010	

Project  
 Contract No. HY/2010/09  
 Improvement and Extension of  
 Kam Pok Road

Title  
 NOISE BARRIER  
 LAYOUT PLAN

Drawing No. D1199/KP/NB/011	Stage	Rev. Z
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KEY	BOTANICAL NAME	CHINESE NAME	SIZE (HT x SPD)	SPACING	TOTAL QUANTITY	REMARKS
<b>GROUNDCOVERS:</b>						
Adu	Arachis duranensis	蔓花生	100 x 150	100 o.c.	45063	-
Oj	Ophiopogon japonicus	山麥冬	200 x 200	150 o.c.	30042	-
<b>SHRUBS:</b>						
Is	Ixora stricta	細葉紅花 龍船花	300 x 400	400 o.c.	400	-
Ch	Calliandra haematocephala	紅絨球	600 x 450	400 o.c.	3605	flowering, shaped to form
Jc	Juniperus chinensis	洋白柏	1500 x 600	2000 o.c.	169	-

- NOTES :**
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
  - ALL LEVELS ARE IN MPD (METRE ABOVE HONG KONG PRINCIPAL DATUM).
  - ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE SPECIFICATION FOR LANDSCAPE AND ALL RELEVANT DRAWINGS AND SPECIFICATIONS.
  - ALL PLANTS TO BE TRUE TO SPECIES; PLANTS TO BE HEALTHY AND WITH THE HABIT AND SIZE OF THE PLANT SPECIFIED. PLANTS TO BE FREE FROM PESTS, DISEASE, PARASITES, DISCOLORATION AND DAMAGE AND SHALL HAVE A VIGOROUS FIBROUS ROOT SYSTEM WITH WELL DEVELOPED SHAPE FOR THE SPECIES AS SPECIFIED.
  - ALL PLANTS AND TREES SHALL BE PLANTED ON GRADE AND OPEN-BOTTOM PLANTERS. TREE LOCATIONS SHALL BE REFERRED TO RELEVANT APPROVED TREE REMOVAL APPLICATION.
  - SOIL LEVEL SHALL BE LOWERED BY 50MM FROM THE FINISHED LEVEL AND SLIGHTLY MOUND TO CENTRE.
  - SOIL MIX TO BE BACKFILLED TO A DEPTH OF 600MM WHERE SHRUB AND GROUND COVER PLANTINGS SHALL BE LOCATED AND 1200MM WHERE TREES SHALL BE LOCATED.
  - ORIGINAL SUB-SOIL SHALL BE BROKEN UP TO FACILITATE NATURAL DRAINAGE.

- LEGEND :**
- SITE BOUNDARY
  - C/W CARRIAGEWAY
  - F/P FOOTPATH
  - C/T CYCLE TRACK
  - RUN-IN
  - VERTICAL NOISE BARRIER
  - RETAINING WALL
  - PEDESTRIAN CROSSING
  - PLANTING
  - TRANSPLANTED TREES
  - COMPENSATORY TREES
  - ⊗ WATER POINT @ 40M INTERVAL

Z	AS BUILT	APR 15	SIGNED
A	GENERAL REVISION	AUG 13	SIGNED
Rev.	Description of Revision	Date	Ckd.

Client  
 路政署 (工程部)  
 HIGHWAYS DEPARTMENT  
 WORKS DIVISION

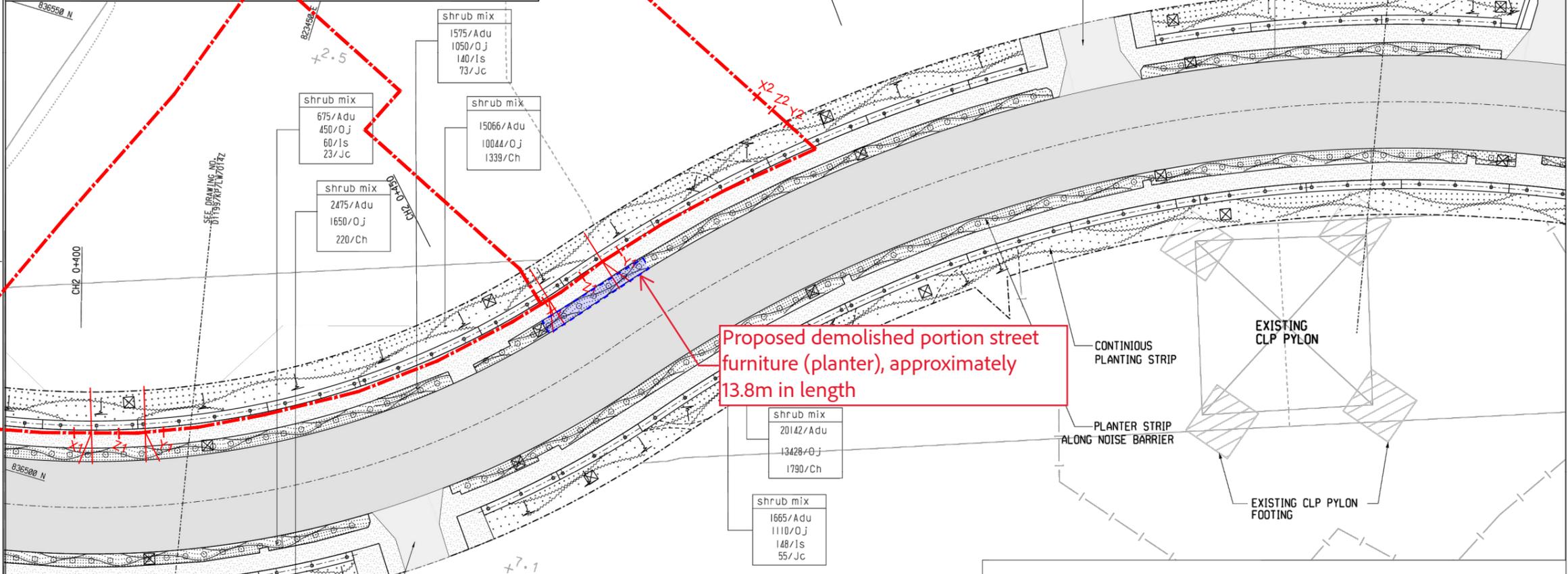
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Scale In At	Date	
1 : 250	FEB 2011	
Designed GK	Drawn SAN	Checked JM
Design Team Leader	Date	FEB 2011
Approved KTC	Date	FEB 2011

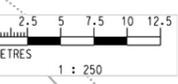
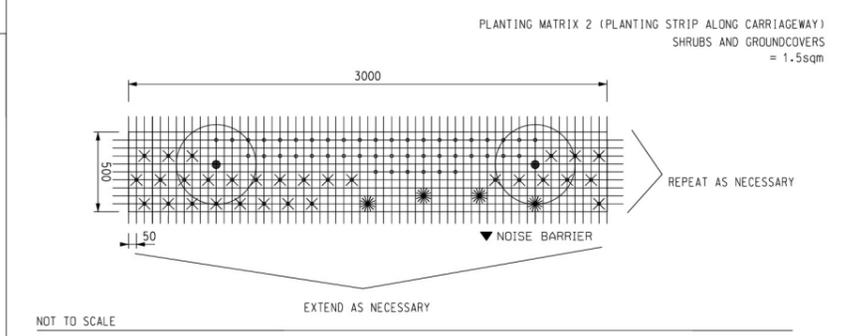
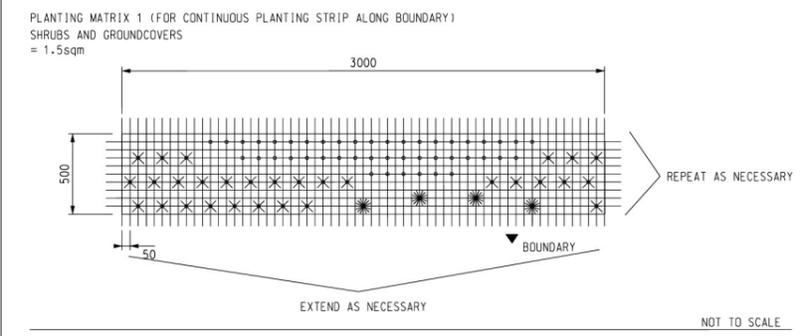
Project  
**Contract No. HY/2010/09**  
**Improvement and Extension of Kam Pok Road**

Title  
**LANDSCAPE LAYOUT PLAN**

Drawing No.	Stage	Rev.
D1199/KP/LW/015		Z

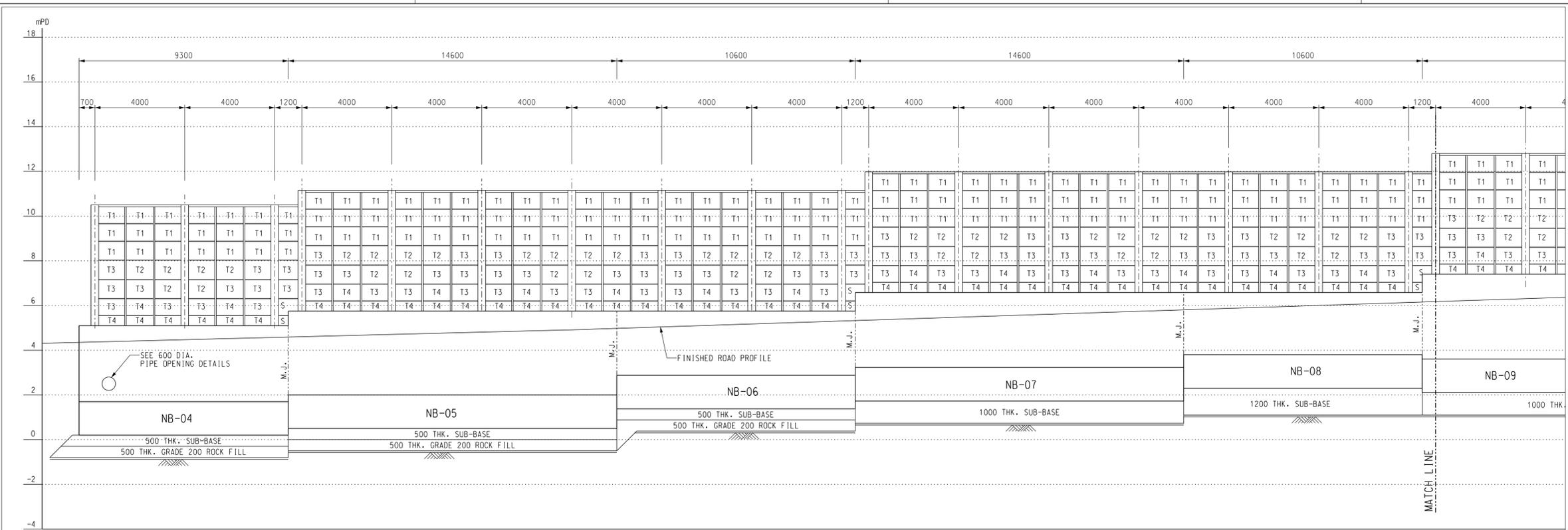


Proposed demolished portion street furniture (planter), approximately 13.8m in length

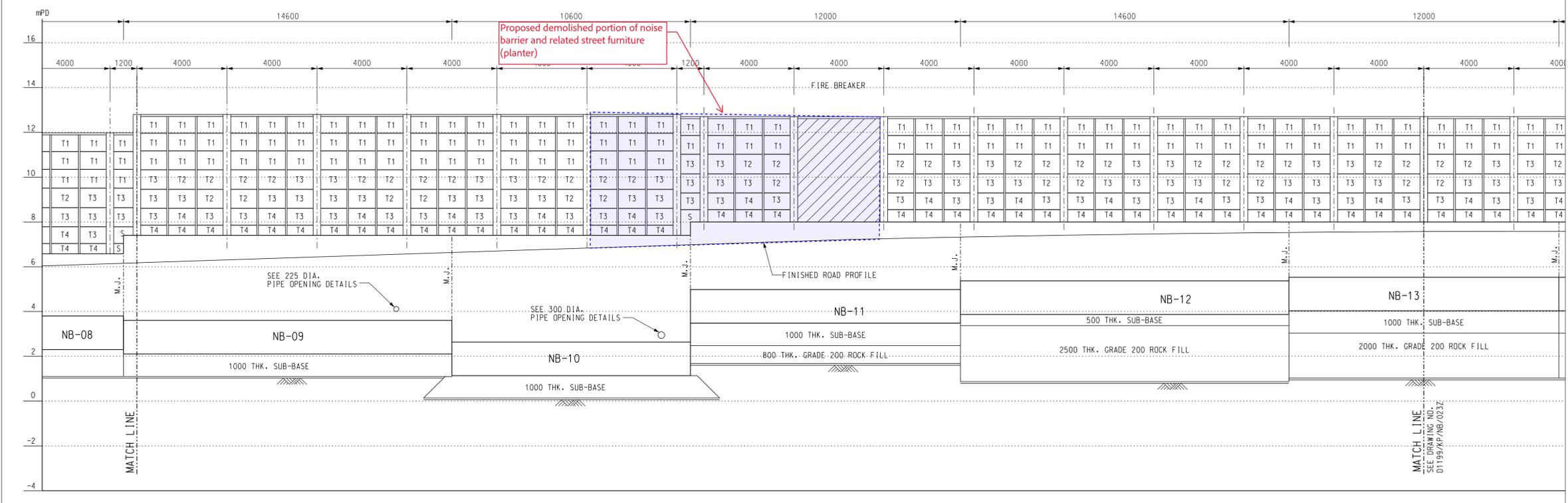


- LEGEND :**
- ARACHIS DURANENSIS (APPROX. 45NDS.)
  - ⊗ OPHIOPOGON JAPONICUS (APPROX. 30NDS.)
  - ⊗ CALLIANDRA HAEMATOCEPHALA (APPROX. 4NDS.)

- LEGEND :**
- ARACHIS DURANENSIS (APPROX. 45NDS.)
  - ⊗ OPHIOPOGON JAPONICUS (APPROX. 30NDS.)
  - ⊗ IXORA STRICTA (APPROX. 4NDS.)
  - JUNIPERUS CHINENSIS (APPROX. 2NDS. ; PLANTED IN SINGLE ROW IRRELEVANT OF PLANTER WIDTH)



ELEVATION FROM NB-04 TO NB-15



ELEVATION FROM NB-04 TO NB-15

- NOTES :
- FOR NOTES & LEGEND REFER TO DRAWING NO. D1199/KP/NB/021Z.
  - FOR ALL PIPE OPENING DETAILS REFER TO DRAWING NO. D1199/KP/NB/018Z.
  - ALL PIPES ARE SHOWN FOR INDICATIVE ONLY.

Rev.	AS BUILT	OCT 13	SIGNED M.S. FONG RE/NT1-53
Rev.	Description of Revision	Date	Ckd.

Client  
 路政署 (工程部)  
 HIGHWAYS DEPARTMENT  
 WORKS DIVISION

Consultants  
**MANNINGS**  
 (Asia) Consultants Limited

Scale in A1 1 : 100	Date DEC 2010	
Designed GK	Drawn TWN	Checked JM
Design Team Leader SNG	Date DEC 2010	
Approved KTC	Date DEC 2010	

Project  
 Contract No. HY/2010/09  
 Improvement and Extension of  
 Kam Pok Road

Title  
 NOISE BARRIER  
 ELEVATIONS

Drawing No. D1199/KP/NB/022	Stage	Rev. Z
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