



Date: 16th October 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 THE ELDERLY) IN
“VILLAGE TYPE DEVELOPMENT” ZONE ON APPROVED NAM SANG WAI OUTLINE ZONING
PLAN NO. S/YL-NSW/10 AT LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART) AND 3673
RP (PART) IN D.D.104, NAM SANG WAI, YUEN LONG**

Town Planning Application No. A/YL-NSW/349 - Submission of Further Information (3)

References are made to the emails dated 27th June 2025, 18th July 2025, 24th July 2025, 25th August 2025 and 9th September 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 Development Scheme at **Appendix 1**, the revised Environmental Assessment (EA) at **Appendix 2**, revised Sewerage Impact Assessment (SIA) at **Appendix 3**, revised Traffic Impact Assessment (TIA) at **Appendix 4** and Supplementary Traffic Information in response to TD's Comments at **Appendix 5**.

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

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



Greg Lam



Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in “Village Type Development” Zone, Lots 3670 RP (Part), 3671 RP (Part), 3672 RP (Part), 3673 RP (Part) and adjoining Government Land in D.D.104, Nam Sang Wai, Yuen Long (TPB ref.: A/YL-NSW/349)

Response-to-Comment Table

| Departmental Comments | | Responses |
|--|---|--|
| Email dated 9th September 2025 refers: | | |
| <u>Comment from the Commissioner for Transport</u> | | |
| General Comment:- | | |
| <ul style="list-style-type: none"> Based on the proposed G/F layout plan, the location light bus/ambulance layby, PC/taxis pick-up/drop off as well as the LGV L/UL bay is too close to the site entrance. We have grave concern on the vehicle may queuing back to the public road. The applicant should address TD's concern by critically review the site layout under this application. The applicant is requested to demonstrated the operation arrangement at the area co-used as pick-up/drop off activities, access and parking and demonstrate there will be no queuing back to the public road. | | <p>A car park management staff will be deployed to manage vehicles entering and leaving the Proposed RCHE. For example, if one vehicle is entering and another is leaving at the same time, the management staff will halt the vehicle leaving momentarily to allow the vehicle to enter the Proposed RCHD in order to ensure that no queue will occur at Kam Pok Road East.</p> |
| Specific comment:- | | |
| 1. | Should there be any delay of improvement works for junction of Castle Peak Road - Tam Mi/Kam Pok Rad East, the applicant should undertake the works before the commissioning of proposed development. | Noted. |
| 2. | The adopted trip rates in this application is underestimated. Please make reference to the trip rates from the nearby approved RCHE under planning application no. Y/YL-NTM/9 and update the report. | <p>A review of the TIA for planning application no. Y/YL-NTM/9 found that the trip rate adopted for RCHE use is based on the Tung Wah Group of Hospitals – Wong Cho Tong Social Service Building, which has multiple uses, including:</p> <ul style="list-style-type: none"> RCHE with 278 beds District Elderly Community Centre Day Care Centre for the Elderly Home Care Services Centre Integrated Vocational Rehabilitation Centre RCHD with 120 beds <p>In view that the surveyed building has multiple uses but share a common entrance, it is not possible to distinguish traffic generated only by RCHE use. Hence, this trip rate is <u>not suitable</u> for the captioned project.</p> |

3. Taking into consideration of the proposed visiting hour as well as the light bus service frequency, please provide 24-hr detailed breakdown of trip rate (both generation and attraction) for the visitor car park, light bus service, LGV L/UL, PCs/taxis PU/DO and other possible source of trip generation due to the proposed development. The total breakdown of 24-hr trip rate should be provided as well.

[See **Appendix 5** of the R-to-C table.]

Reference is made to the on-site survey from Caritas Li Ka Shing Care and Attention Home in Tuen Mun and the result is shown in **Appendix A**.

Based on result in **Appendix A**, the estimated 24-hour breakdown of traffic generation of the Proposed RCHE is shown in **Table R1**.

TABLE R1 24-HOUR BREAKDOWN OF TRAFFIC GENERATION OF THE PROPOSED RCHE

| Period | Vehicle Type | | | | Traffic generation | |
|--------------------|--------------------------------|----------|----------|---------------------|--------------------|-----------|
| | Car | Taxi | LGV | Rehabus / Ambulance | veh/hr | pcu/hr |
| <i>In</i> | | | | | | |
| 08:00-08:59 | 0 | 4 | 1 | 0 | 5 | 6 |
| 09:00-09:59 | 5 | 3 | 1 | 1 | 10 | 12 |
| 10:00-10:59 | 0 | 4 | 0 | 0 | 4 | 4 |
| 11:00-11:59 | 1 | 2 | 0 | 1 | 4 | 5 |
| 12:00-12:59 | 0 | 5 | 0 | 0 | 5 | 5 |
| 13:00-13:59 | 0 | 2 | 0 | 1 | 3 | 4 |
| 14:00-14:59 | 3 | 1 | 0 | 0 | 4 | 4 |
| 15:00-15:59 | 2 | 1 | 1 | 1 | 5 | 7 |
| 16:00-16:59 | 1 | 4 | 0 | 1 | 6 | 7 |
| 17:00-17:59 | 0 | 1 | 0 | 0 | 1 | 1 |
| 18:00-18:59 | 0 | 2 | 0 | 0 | 2 | 2 |
| 19:00-19:59 | 0 | 1 | 0 | 0 | 1 | 1 |
| 20:00-07:59 | Ambulance in the event of need | | | | | |
| <i>Out</i> | | | | | | |
| 08:00-08:59 | 0 | 4 | 1 | 0 | 5 | 6 |
| 09:00-09:59 | 3 | 3 | 0 | 1 | 7 | 8 |
| 10:00-10:59 | 0 | 4 | 1 | 0 | 5 | 6 |
| 11:00-11:59 | 1 | 2 | 0 | 1 | 4 | 5 |
| 12:00-12:59 | 0 | 5 | 0 | 0 | 5 | 5 |
| 13:00-13:59 | 0 | 2 | 0 | 1 | 3 | 4 |
| 14:00-14:59 | 1 | 1 | 0 | 0 | 2 | 2 |
| 15:00-15:59 | 1 | 0 | 0 | 0 | 1 | 1 |
| 16:00-16:59 | 4 | 4 | 1 | 1 | 10 | 12 |
| 17:00-17:59 | 1 | 1 | 0 | 1 | 3 | 4 |
| 18:00-18:59 | 1 | 1 | 0 | 0 | 2 | 2 |
| 19:00-19:59 | 0 | 2 | 0 | 0 | 2 | 2 |
| 20:00-07:59 | Ambulance in the event of need | | | | | |

| | | |
|-----|---|--|
| 4. | Please confirm no RCV would enter the subject site. | Please note that no RCV would enter the Proposed RCHE. |
| 5. | In the site entrance, please provide a clear segregation between vehicles and pedestrians from road safety perspective. For the proposed pedestrian entrance in the building in Figure 3.1, apparently pedestrian is expected to walk across the vehicle manoeuvring area (i.e. light/ambulance, LGV, PCs/taxis) which poses a safety concern. Please review. | Pedestrian entrance provided for the Proposed RCHE is separated from the manoeuvring area. Please refer to the Figure 3.1 in the revised TIA report. |
| 6. | Figure 3.3: Unless otherwise agreed by the relevant departments including but not limited to EPD and HyD that the existing noise barrier can be demolished, please demonstrate adequate sight line can be provided at the ingress/egress with the presence of existing noise barrier. | The noise barriers have been indicated in the Figure 3.3 in the revised TIA. The measured length of visibility splay for the motorists leaving the Proposed RCHE is 60m to the left and 60m to the right, so adequate sight line can be provided at the ingress/egress. The detailed design for necessary alterations of affected noise barrier and planters will be further dealt with at the land exchange stage. |
| 7. | Please clearly state the width of the site entrance and provide swept path analysis to demonstrate the width of site entrance could allow vehicle to enter and leave the site simultaneously. | 7.3m-wide run-in/out is provided for the Proposed RCHD to allow vehicle including 8m-long Light Bus to enter and leave simultaneously, please refer to Figure R1 . [See Appendix 5 of the R-to-C table.] |
| 8. | From SP1 to SP3, the vehicle manoeuvring of coach, ambulance, LGV and taxi would conflict with each other. Please elaborate how to manage the traffic there such that no vehicle would queue back onto the public road at all time. | Please note that the manoeuvring area is a common area for vehicles to manoeuvre to enter and leave their respective space. In addition, a car park management staff will be deployed to manage vehicle manoeuvring to enter and leave their respective space in order to ensure that no queue will occur at Kam Pok Road East. |
| 9. | From SP7, it is unsafe for PCs/taxis to reverse back to the driveway as the drivers could not see the vehicle entering the site and vehicle driving up from the basement carpark. Please review. | A car park management staff will be deployed to assist vehicle manoeuvring to ensure the safety. |
| 10. | Please review para. 2.2 for the road classification. | Noted. Please refer to the revised Paragraph 2.2 in the revised TIA. |
| 11. | Table 2.6: please review the adopted GMB capacity. | Noted. Please refer to the revised Table 2.6 in the revised TIA. |
| 12. | Please provide swept path analysis for the longest vehicle under this application to demonstrate no vehicle would encroach into the opposite lane when leaving the site. | The 8m-long Light Bus which is the longest vehicle expected to enter the Proposed RCHE can leave without encroaching into the opposite lane of Kam Pok Road East. Please refer to Figure R1 . [See Appendix 5 of the R-to-C table.] |

Email dated 11th September 2025 refers:

Comment from the Environmental Protection Department

| | |
|--|---|
| <p>Based on the revised noise impact assessment chapter, please advise to the following points:</p> <p>1. The applicant is recommended to submit an updated Noise Impact Assessment under suitable mechanism (e.g., planning approval condition if the planning application is approved) to ensure that any changes in the layout of the proposed development after the planning approval can be taken into account and addressed in the updated NIA accordingly and thus full compliance with relevant noise criteria and relevant requirements under Professional Persons Environmental Consultative Committee Practice Notes, Hong Kong Planning Standards and Guidelines and Cap. 400 Noise Control Ordinance.</p> | <p>Noted.</p> |
| <p>2. S3.3.1 (last RtC item 2)</p> <p>i. The first sentence is still misleading and unclear. As it is not necessary to explain the control mechanism of NEL in the construction phase impact review, please consider removing it.</p> | <p>The first sentence is removed accordingly.</p> |
| <p>3. S3.4.10 (last RtC item 6)</p> <p>i. Noted that the endorsement of the 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>Noted, the endorsement of the traffic forecast by TD will be provided once available.</p> |
| <p>4. S.3.4.14 (last RtC item 9)</p> <p>i. Please supplement the explanation in RtC to the noise chapter too.</p> <p>ii. Additionally, the consultant mentioned that a typical dormitory room is 40-50 m². Please clarify how the cells are separated (and if the walls are full height), and if there are windows facing the corridor.</p> | <p>The Section is updated accordingly.</p> <p>From the layout, typically 1 dormitory room comprises of 8 beds enclosed by full height partitions with opening next to common toilet. No window facing the corridor.</p> |
| <p>5. Appendix 3.3</p> <p>i. Please supplement the date and time for site survey.</p> | <p>The Appendix is updated accordingly.</p> |

| | |
|--|---|
| <p>6. Appendix 3.4.22</p> <p>i. Please add “(Excluding Container Vehicle)” after the “public parking area”.</p> | <p>The Section 3.4.22 is revised accordingly.</p> |
| <p>7. Appendix 3.4 and fig 3.4 , S3.4.23</p> <p>i. There is a fixed noise assessment point located at 2F_N01, as indicated in Appendix 3.4. Please include the corresponding fixed noise assessment point in Figure 3.4.</p> <p>ii. Additionally, in the main text section S3.4.23 or any where appropriate, please provide an explanation for the selection of this fixed noise assessment point. It should be clarified if this point was chosen due to it being the most affected direction / the shortest distance to the noise sources.</p> <p>iii. Please also provide the calculation excel sheet for our checking.</p> | <p>The Figure is updated accordingly.</p> <p>The explanation is provided in S3.4.23.</p> <p>Noted.</p> |
| <p>8. Table 3.8</p> <p>i. For better presentation, please directly present them with the “name” for such fixed noise source, rather than “open storage” under the column of “location”,</p> | <p>The Table is revised accordingly.</p> |
| <p>9. Last RtC item 3 in Comments on road traffic noise model</p> <p>i. Please explain if “EVA” stands for emergency vehicle access.</p> <p>ii. For the proposal to remove a portion of the noise barrier for the entrance for EVA, please confirm if this has been discussed with the relevant authority. Additionally, please document this communication.</p> | <p>Yes, “EVA” stands for emergency vehicle access.</p> <p>In relation to the Traffic Impact Assessment and comments from Highways Development, the proposed removal of noise barrier is submitted for comment, the information is provided in S3.4.7. Details of modification please refer to Appendix 3.5.</p> |
| <p>10. Appendix 3.1, and last RtC item 7 in comments on road traffic noise model</p> <p>i. As Link9 has been set to 100 km/h in accordance with the last RtC item 7 regarding comments on the road traffic noise model, please check and update the speed limit in Appendix 3.1 as well.</p> | <p>Appendix 3.1 is updated accordingly.</p> |
| <p>11. Fixed noise assessment from existing source</p> <p>i. There is open storage located at the SW direction from the proposed development site. Please review and justify if not included into the fixed noise assessment.</p> | <p>The shown open storage located at the SW direction near the Proposed Site are for storage of materials only. No noisy activities and noise</p> |

| | |
|---|--|
| | generating equipment are expected in the area and therefore, not considered as noise source. |
| 12. Fixed noise assessment from planning source i. Please include the discussion of planned fixed noise source in the main text, where appropriate. And state the possible noise mitigation measure in the planning and relevant noise standard. | Discussion of planned fixed noise source is provided in S3.4.16 to S3.4.20. |
| 13. Appendix 3.4 and table 3.8 i. Distances are not tally, please check. | Table 3.8 is updated. |
| 14. Appendix 3.4 and Road traffic noise model i. Coordinates for 2F_N01 are not tally, please check. | The coordinates of 2F_N01 in Appendix 3.4 is updated. |
| <u>Email dated 25th August 2025 refers:</u> | |
| <u>Comment from the Director of Environmental Protection</u> | |
| Based on the revised EA, please advise to the following points on the Air Quality Chapter: | |
| 1. S.2.2.4 – Please delete “open” in line 3 | The Section is revised accordingly. |
| 2. S.2.3.1, Table 2.3 and Figure 2.1 – it is noted that there are some structures to the north and to the southeast of the site as shown below. Please review if these structures are considered as ASRs. | New ASR was added for structures to the north of the site. Structures to the southeast of the site should be incorporated in A01. The corresponding Section, Table and Figure are updated accordingly. |
| 3. Rtc 4(d) – The construction programme and relevant information are not provided in S.2.4.2. Please review. | The approximate time period of different construction stages were provided in Table 2.4. A description is provided in Section 2.4.2. |
| 4. Rtc 7(a) – Please be reminded to provide TD’s endorsement on the road type once available. | The TD’s endorsement on the road type is provided in Appendix 2.1. |
| 5. S.2.5.5 – Please clarify which register is referring to. | The Section is revised accordingly. |
| 6. S.2.5.6 - Please be reminded that it should be the responsibility of the applicant and their consultant to ensure the validity of the information by their own site surveys. | Noted. |

| | |
|---|---|
| Should the information be subsequently found to be incorrect, the assessment results as presented in the submission would be invalidated. | |
| 7. S.2.6.2 – Please delete “chimney” in line 2 and 3. | The Section is revised accordingly. |
| <u>Email dated 24th July 2025 refers:</u> <u>Comment from the Director of Environmental Protection</u> | |
| <u>Water Quality</u> - S.4.2 - Please be reminded that ProPECC PN 2/23 has been superseded by ProPECC PN2/24; - S4.3.1 and Table 4.1 – Beside Kam Tin River, please review if there are others WSRs (e.g. ponds, watercourses) within the assessment area. Please also indicate the estimated distance of the WSRs to the project site; | The version is updated accordingly. Figure 4.1 and Table 4.1 is updated with others WSRs and its distance to the project site. |
| <u>Waste Management</u> - Construction Phase <ul style="list-style-type: none"> • S.5.3.3 - Please provide the estimated quantity of inert and non-inert C&D materials to be generated, including details on how much will be reused on-site and how much will be delivered or disposed of off-site. Please specify the outlets, such as Tuen Mun 38 Fill Bank and/or the WENT landfill; • S.5.3.6 - Provide the estimated quantity of chemical waste, e.g., in the order of a few liters per month; • S.5.3.9 - For general refuse, please provide the estimated quantity to be generated, specify the disposal outlet, and describe the arrangement of separating and handling recyclables; - Operation Phase <ul style="list-style-type: none"> • Please adopt the latest disposal figures and recovery rates from the Monitoring of Solid Waste 2023 report to calculate | Details of the waste generation is updated in Table 5.1 in S.5.3.3. Estimated quantity of chemical waste is updated accordingly. Estimated quantity of general refuse is updated accordingly. Latest disposal figures and recovery rates from the Monitoring of Solid Waste 2023 report have been adopted. |

| | |
|--|---|
| <p>the generation rate. Please also specify the disposal outlet, such as the WENT landfill, and provide details on the arrangements for separating and handling recyclables;</p> <ul style="list-style-type: none"> • S.5.4.4 Other waste: Please explain how the maximum amount of “other waste” to be generated, estimated at approximately 1.608 kg per day during the operation phase, was derived; <p>- Mitigation Measures</p> <ul style="list-style-type: none"> • S.5.5.7 & S.5.5.8 - Remove the detailed description of chemical waste storage requirements; • Please include any measure and outlet for recycling of food waste; • Please clarify whether trip ticket system will be adopted and advise whether dump truck will be equipped by GPS monitoring; | <p>The chemical waste and clinic waste generation rate is updated based on the Monitoring of Solid Waste 2023 report. The maximum amount of other waste is generated from $(0.001+0.003)\times 268 = 1.13\text{kg/day}$.</p> <p>The Section has been removed accordingly.</p> <p>Food waste is mentioned in S.5.5.10.</p> <p>Trip ticket system is mentioned in S.5.5.5.</p> |
| <p><u>Land Contamination</u></p> <p>- S.6.4.2 - From the aerial photos taken between 2019 and 2021, please elaborate on the types of storage visible and describe any visible ground conditions, if identifiable, to provide further justification for the conclusion that no land contamination impact is expected;</p> <p>- Please provide site walkover checklist and site photos;</p> <p>- Appendix 6.1 The EPD and FSD’s response was not attached; and</p> <p>- The checking record for the Chemical Waste Producer (CWP) license should be provided, with an explanation of whether this has any implications for potential land contamination.</p> | <p>Elaboration on aerial photos is provided in S.6.4.2.</p> <p>Site walkover checklist and site photo are provided in Appendix 6.2 and 6.3.</p> <p>The EPD and FSD responses are supplemented in Appendix 6.1.</p> <p>No record of registered chemical waste producers was found on 10/7/2025 during the visit to the EPD Territory Control Office.</p> |

Email dated 18th July 2025 refers:

Comment from the Director of Environmental Protection

Noise

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 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

The statement is revised accordingly.

| | |
|---|---|
| <p>in Table 3.1 below. "</p> | |
| <p>3. S3.4.2</p> <p>i. Please suggest the type of area and justify the corresponding area sensitive rating. Please also add the following after this sub-section: <i>"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."</i></p> | <p>The ASR is discussed and the sub-section is added in Section 3.4.3 and 3.4.4 accordingly.</p> |
| <p>4. S3.4.3</p> <p>i. Please explicitly state the use of "Multi-purpose area" on the G & 1st floor to substantiate they don't require a stringent road traffic noise standard lower than 70 dB(A) for the purposed development (i.e. diagnostic rooms and wards for RCHE).</p> | <p>The use of Multi-purpose area is explained accordingly.</p> |
| <p>5. S3.4.7</p> <p>i. Please check if it is a typo for "Thee".</p> | <p>The typo is corrected accordingly.</p> |
| <p>6. S.3.4.8</p> <p>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</p> | <p>The TD endorsement and written confirmation from traffic consultant to be provided once available.</p> |

| | |
|---|--|
| <p>data can be confirmed.</p> | |
| <p>7. S.3.4.9 Table 3.6 and Appendix 3.2 i. From Appendix 3.2, the maximum L10(1 hr) under base case scenario would be 75 dB(A) for G/F-1/F Multi-purpose Area; 73 dB(A) for G/F Rehab zone; and 77 dB(A) for 1/F-2/F Communal area. 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, (i.e. predicted maximum L10(1 hr) for each floor in G/F-2/F RCHE dormitory), for better presentation.</p> | <p>Table 3.6 is revised accordingly.</p> |
| <p>8. 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>9. 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 m² 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 21 NAPs, please provide the room size in the tentative layout and any room size correction, justifying a noise attenuation of 7 dB(A) by Type 2 AW(BT) are appropriate.</p> | <p>Please be clarified that the room size of dormitory is typically 40 to 50 m², which is larger than 18 m², therefore, no room size correction is included for conservative approach.</p> |
| <p>10. 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.</p> | <p>Discussion of prevailing background noise measurement is added in Section 3.4.16.</p> |
| <p>11. S.3.4.18 and Table 3.7 i. Figure 3.3 is Location of Proposed Acoustic Window. Please update</p> | <p>Location of existing major noise sources and site inspection record are</p> |

| | |
|--|--|
| <p>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.</p> <p>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.</p> <p>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.</p> | <p>presented in Figure 3.4 and Appendix 3.3 respectively.</p> <p>Sound measurements are presented in Appendix 3.3.</p> <p>Discussion of public vehicle parking is added in Section 3.4.22.</p> |
| <p>12. Figure 1.1 and Figure 3.1</p> <p>i. Please separate the site boundary for the projects A/YL-NSW/348 and A/YL-NSW/349 respectively.</p> | <p>The Figure is revised accordingly.</p> |
| <p>13. Appendix 3.2</p> <p>i. Typo of "Multi-prupose room", please check should it be "multi-purpose room"</p> | <p>Appendix 3.2 is revised accordingly.</p> |
| <p>14. Planning statement S5.7.2</p> <p>i. It is noted in the planning statement that "during the operation</p> | <p>Please be clarified that air conditioning will be provided for the project</p> |

| | |
|---|---|
| <p>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>ii. Additionally, even equipped with fixed-glazing with air-conditioning, a more stringent indoor noise criteria for fixed noise source (i.e. 10 dB(A) below the ANL) should be applied to the proposed development. Please note and review.</p> | <p>while openable window for ventilation is also provided for Dormitory.</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. 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>3. 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>4. 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>5. 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>6. The speed limit for flow link 9 is 100 km/h. Only the zone refers 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>7. We noted that the is NSR '2F_N30' in the appendix 3.2, but not in the figure and model, please clarify.</p> | <p>Appendix 3.2 is revised accordingly.</p> |

| Email dated 27th June 2025 refers: | |
|---|--|
| <u>Comment from the Environmental Protection Department</u> | |
| <u>General</u> | |
| 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. | Note. |
| <u>Air Quality</u> | |
| 1. Section 2.2.2 and Table 2.1 - The AQOs were updated on 11 April 2025. Please revise Table 2.1 to present the updated AQOs. | The table is updated accordingly. |
| 2. Section 2.2.4 a. Please delete “active and passive” in line 1. Please revise “open road” in line 3 to “vehicular”. | The section is revised accordingly. The section is revised accordingly. |
| 3. 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. |
| 4. Sections 2.4.1 and 2.4.2 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. 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 estimation is provided in Section 2.4.2 to 2.4.3 accordingly. The section is revised accordingly. |

| | |
|--|--|
| <p>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.</p> <p>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.</p> | <p>The discussion is provided in Section 2.4.3 accordingly.</p> <p>The construction programme is provided in Section 2.4.2 accordingly.</p> |
| <p>5. Section 2.4.2</p> <p>a. Please revise “dust” in line 1 to “air quality”.</p> <p>Please revise “minimise the dust impact” in line 3 to “control the air pollutant emissions”, and revise “fugitive dust” to “air quality”.</p> | <p>The section is revised accordingly.</p> <p>The section is revised accordingly.</p> |
| <p>6. Section 2.4.3</p> <p>a. Please revise “minimized” in line 1 to “controlled”.</p> <p>b. Please revise “dust” in line 2 to “air quality”.</p> <p>c. Please revise “suppression” in line 5 to “control”.</p> <p>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.) Please supplement in the additional bullets.</p> | <p>The section is revised accordingly.</p> <p>The section is revised accordingly.</p> <p>The section is revised accordingly.</p> <p>Additional bullets is added accordingly.</p> |
| <p>7. Section 2.5.2 and Table 2.4</p> <p>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.</p> <p>b. Please delete “of mechanical ventilation” in the 2nd last line, and revise “area” in the last line to “space”.</p> <p>Also please advise if there is any proposed carpark, PTI/public transport lay-by, etc. in the</p> | <p>TD’s endorsement to be provided once available.</p> <p>The section is revised accordingly.</p> <p>Discussion of proposed carpark is added in</p> |

| | |
|--|---|
| <p>proposed development. If any, their air quality impacts should be assessed.</p> | <p>Section 2.5.4.</p> |
| <p>8. Section 2.5 – Industrial/chimney emission</p> <p>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.</p> <p>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.</p> | <p>Discussion of industrial/chimney emission is added in Section2.5.5.</p> <p>Discussion of industrial/chimney emission is added in Section2.5.5.</p> |
| <p>9. Section 2.5 – Odour emission - 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 sub-section under Section 2.5.</p> | <p>Discussion of odour emission is added in Section 2.5.6.</p> |
| <p>10. Section 2.6.1</p> <p>a. Please add “and gaseous” after “Fugitive dust” in line 1.</p> <p>b. Please revise “dust” in line 2 to “air quality”.</p> <p>c. Please delete “at source to acceptable levels” in the 2nd last line, and add “adverse” before “air”.</p> <p>d. Please delete “to be adverse” in the last line.</p> | <p>The section is revised accordingly.</p> |

Email dated 25th August 2025 refers:

Comment from the Chief Engineer/Mainland North, Drainage Services Department

Based on the submitted SIA, please advise on the following points:

| | |
|--|---|
| 1. Section 2.2,3: Please clarify sentence, i.e.'..... will be implemented and maintained by other development.'. | Please refer to Section 2.4 to 2.5 for revise paragraph. |
| 2. Figure 3: Information of existing sewerage system shown on the submitted sewerage plan is different from our sewerage record. The applicant should clarify discrepancies and advise whether modification of existing sewerage system is required and would be implemented by the applicant for the proposed development. Also, the applicant should clarify management and maintenance responsibilities of the proposed sewerage system after modification work (if any). | More information of existing sewerage system and proposed sewerage system including management and maintenance responsibilities are provided in Section 2.2 to 2.5. |
| 3. Section 3.1.2 & Figure 3: The applicant should clarify whether 300 mm dia. sewers are existing sewers or newly proposed sewers. Also, the applicant should clarify words, i.e. '...existing sewerage system...' | 300 mm dia. sewers are proposed by approved planning application A/YL-NSW/314. |
| 4. Figure 3: For Catchment A, the applicant should provide information regarding the proposed development at private lots (Lot No.: 3670 RP, 3671 RP, 3672 RP and 3673 RP in D.D. I 04). The applicant should also clarify whether Catchment B is referring to another planning application (No.: ANL-NSW/314). Besides, please clarify the mitigation measures if the sewerage works proposed under other planning applications, such as A/YL-NSW/314, Y/YL-MP/10 and etc., could not match with the programme of the proposed development. | Figure 3 is revised accordingly. For situation if the sewerage works proposed under other planning applications, such as A/YL-NSW/314, Y/YL-MP/10 and etc., could not match with the programme, there will be no population intake for the proposed development until proposed sewerage system becomes available. Relevant explanation is provided in Section 2.4. |
| 5. Figure 3: Please clarify the '-' sign of cover levels and invert levels shown on the submitted drawing. | '-' sign refer to height below m.P.D. level. |
| 6. Figure 3: The applicant should clarify invert levels of the proposed foul water manhole P3. Invert levels of the proposed sewerage facilities at the upstream shall be higher than that at the downstream. | The invert level is revised. |

| | |
|--|--|
| <p>7. Figure 3: The ID nos of the existing government manholes to which sewerage connection is made should be indicated on the submitted sewerage plan.</p> | <p>Noted.</p> |
| <p>8. Figure 3: The applicant should clarify cover levels of the proposed manholes PI-P15. Also, the applicant should clarify whether manhole E1 shown on the submitted sewerage plan is existing foul water manhole FSH1001886. The applicant should indicate cover level and invert levels of existing foul water manhole FSI-11001886 on the submitted sewerage plan for reference.</p> | <p>Cover levels are provided. Manhole E1 is revised to manhole FSH1001886.</p> |
| <p>9. Figure 3 & Appendix B: The applicant should clarify discrepancy of size of sewer connecting the proposed manholes MH235 and PI. Also, the applicant should clarify invert level of the proposed sewer connecting to manhole E1.</p> | <p>Size of sewer and invert level is revised and corrected.</p> |
| <p>10. Appendix B': Design flow velocity is suggested to be within a range, i.e. 0.7 m/s to 3.0 in/s. The applicant should review hydraulic calculation for the sewers connecting the proposed manholes MH235 and P3.</p> | <p>Flow velocity is reviewed and all within 0.7 m/s to 3.0 m/s.</p> |
| <p>11. According to the submitted SIA, the applicant would like to connect the proposed sewerage system of the subject application site to existing sewerage system which has not yet been commissioned and the proposed sewerage system under other planning applications (No.: A/YL-NSW/314 and etc.). Satisfaction of the submission and implementation of SIA under the subject planning application is subject to acceptance and satisfactory implementation of SIA under other planning applications (No.: A/YL-NSW/314 and etc.).</p> | <p>Noted, further liaison with EPD/DSD and the other future developments near the Proposed Site would be in later stage.</p> |
| <p>12. Figure 3: The applicant should note that there are several planning applications/proposed developments in the vicinity of the application site and the sewerage system proposed under the subject planning application may have conflict with that proposed under other planning applications (No.: Y/YL-NSW/7 and etc.). The applicant should liaise and coordinate with EPD and other project proponents to confirm the proposed sewerage design and ascertain responsibilities of implementation and maintenance of the proposed sewerage works.</p> | <p>Noted, further liaison with EPD/DSD and the other future developments near the Proposed Site would be in later stage.</p> |
| <p>13. The SIA needs to meet full satisfaction of Sewerage Infrastructure Group (SIG) of</p> | <p>Noted, further liaison with EPD/DSD and the</p> |

| | |
|---|--|
| <p>Environmental Protection Department (EPD), the planning authority of sewerage infrastructure. Since there are various proposed developments which are planned to dispose sewage to Nam Sang Wai Sewage Pumping Station (NSWSPS), advice from SIG of EPD should be sought for holistically review of the sewerage arrangement and confirming whether capacity has been reserved at NSWSPS for the subject proposed development. Comments of this department on the sewerage aspect are subject to the views and agreement of EPD.</p> | <p>other future developments near the Proposed Site would be in later stage.</p> |
|---|--|

| | |
|---|---|
| <p>Email dated 18th July 2025 refers:</p> | |
| <p><u>Comment from the Director of Environmental Protection</u></p> | |
| <p>Based on the submitted SIA, please advise to the following points:</p> <p>1. RtC item 1, Section 2.2.2, Figures 2 & 3 – As shown in Figure 2, there is no existing public sewerage along Kam Pok Road East and Pok Wai South Road. Please clarify and provide information to support the existence of sewer mentioned under S.2.2.2. Please supplement with information of the upgrading works under A/YL-NSW/314 proposed to be utilised for discharging sewage from the application site. Please also clarify the party responsible for the construction of the sewers along Kam Pok Road East and Pok Wai South Road etc. proposed to serve the application site for sewage disposal as shown under Figure 3.</p> | <p>More information of existing sewerage and the proposed sewerage system is discussed in Section 2.2 to 2.5.</p> |
| <p>2. RtC item 2 & Appendix B – The hydraulic assessment should take into account the existing and planned developments utilising the proposed communal gravity sewer along Pok Wai South Road. Please revise.</p> | <p>Appendix B is revised, existing and planned developments have been considered.</p> |
| <p>3. As the current sewage disposal scheme solely relies on sewerage to be constructed by others, please provide a fallback disposal option in case of programme mismatch with the construction of such sewerage work to be carried out by others.</p> | <p>There will be no population intake for the proposed development until proposed sewerage system becomes available. Discussion is provided in Section 2.4.</p> |

Email dated 23th July 2025 refers:

Comment from the Director of Social Welfare

Regarding the plan of G/F to 2/F in the updated development scheme, the applicant should note that at least 1 accessible water closet shall be provided on each floor with bedroom(s) or sitting/dining room. If the number of residents is more than 50 on that floor, an additional accessible water closet shall be provided for every 50 residents (or less) (Please refer to para. 4.5.2, CoP).

Noted. Detailed design will be considered and submitted at the licensing application stage.

Regarding the end-of-life room, isolation room and sick bay on 1st floor, applicant should note that if there are more than 50 beds, an additional isolation room/facility shall be provided for every extra 50 beds (or less). For RCHEs providing 200 beds or above, 4 isolation rooms/facilities (including at least 1 designated isolation room) shall be provided (Please refer to note 42 of para. 13.4.1, CoP).

Noted. Detailed design will be considered and submitted at the licensing application stage.

Regarding the updated SoA table, the changes in the proposed provision is noted.

Noted.

It is necessary for the applicant to indicate the “number of operators” of the RCHE in view that the requirement of facilities and design will be different if there is more than one RCHE operator. On the floor plans of proposed RCHE, there is only one laundry, one kitchen cum store and one general office. These facilities are basically provided only one RCHE operator

The proposed development will only be operated by one operator.

It is noted that there are indications for emergency vehicular access on the layout. Would the applicant please indicate/elaborate regarding the location for ambulance layby.

The ambulance layby will share with the light goods vehicle layby (3.5m x 7m) near the emergency vehicular access on the G/F.

Appendix 1

Revised Development Scheme

NOTES:

LEGEND:

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

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|-----------|----------------|----|------|
| A | 22.9.2025 | CONCEPT DESIGN | KC | PC |
| - | 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DRAWING : EVA PLAN

SCALE : 1:400 @A3

PROJECT NO : 25001_KPR

Drawing No. : Date:

FIGURE 2 MAY 2025





NOTES:

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|----------|----------------|----|------|
| A | 9.7.2025 | CONCEPT DESIGN | KC | PC |
| - | 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

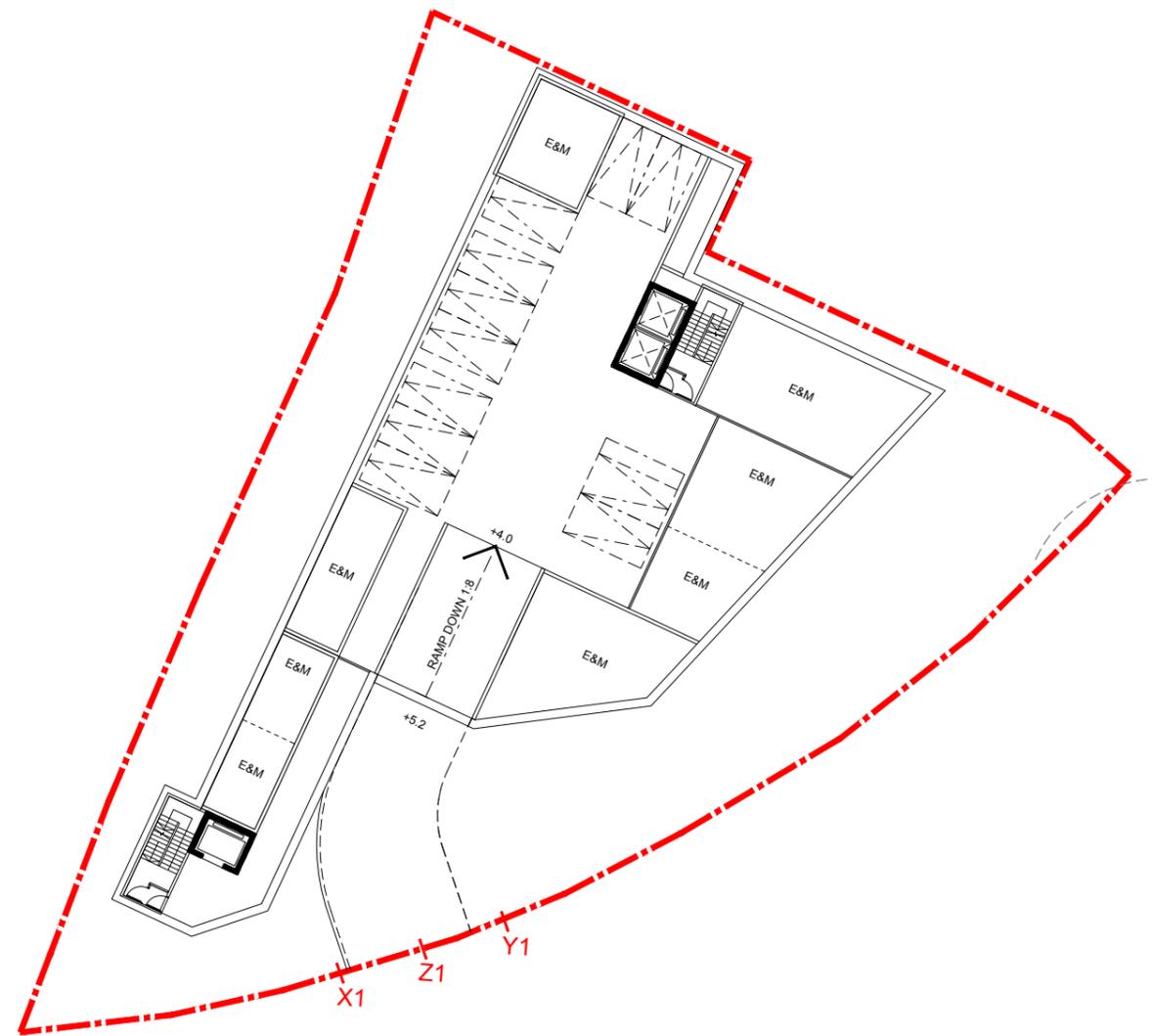
DRAWING : BASEMENT FLOOR PLAN

SCALE : 1:400 @A3 Rev: —

PROJECT NO: 25001_KPR

Drawing No. : Date:

CP-B102 MAY 2025



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

NOTES:

LEGEND:

 PROPOSED PEDESTRIAN ACCESS

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|-----------|----------------|----|------|
| B | 22.9.2025 | CONCEPT DESIGN | KC | PC |
| A | 9.7.2025 | CONCEPT DESIGN | KC | PC |
| - | 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

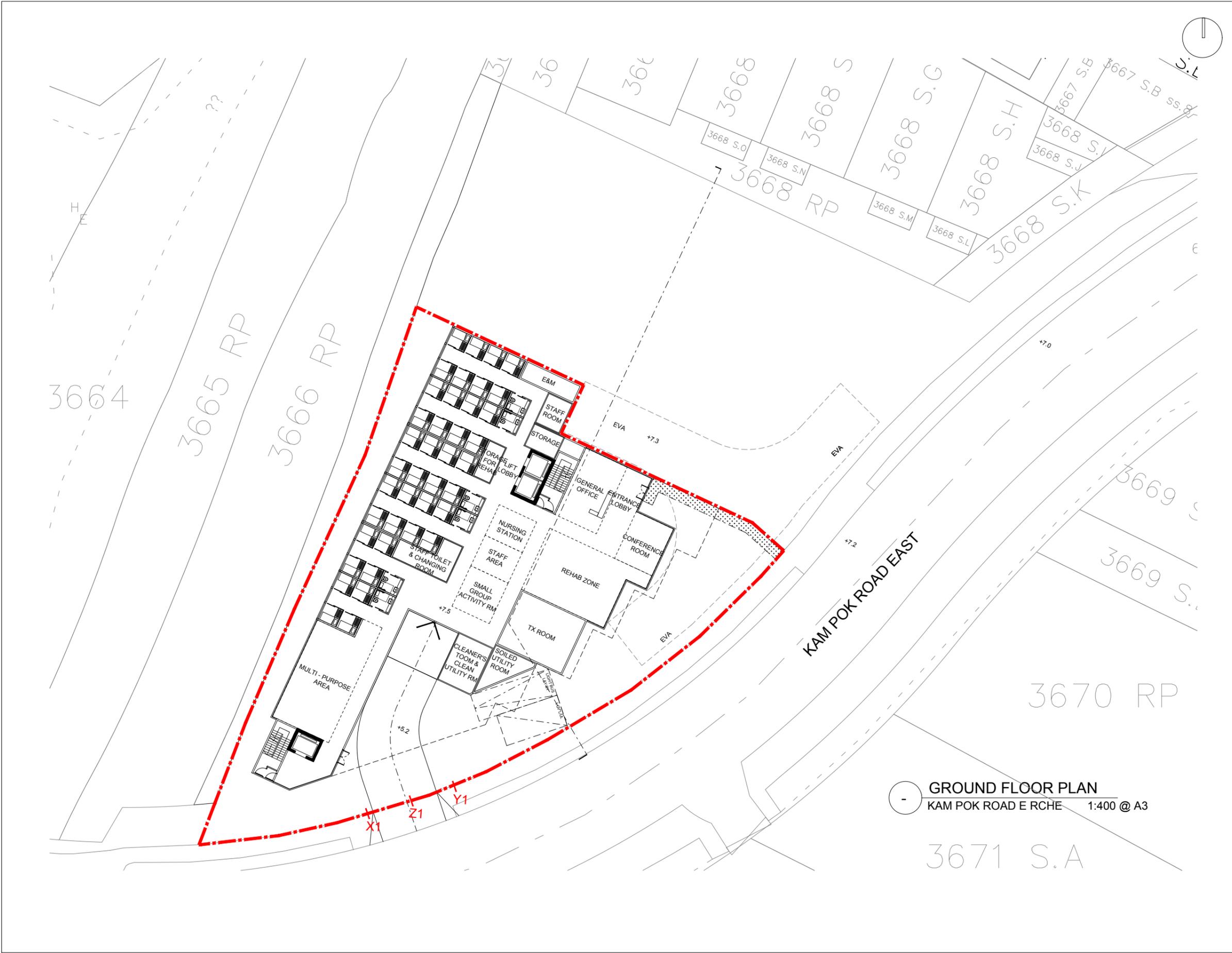
DRAWING : GROUND FLOOR PLAN

SCALE : 1:400 @A3

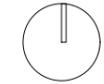
PROJECT NO: 25001_KPR

Drawing No. : Date:

CP-B103 MAY 2025



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



NOTES:

 PROPOSED BALCONIES

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|----------|----------------|----|------|
| A | 9.7.2025 | CONCEPT DESIGN | KC | PC |
| - | 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 the Elderly (RCHE)) 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: -

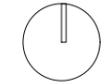
PROJECT NO : 25001_KPR

Drawing No. : Date:

CP-B104 MAY 2025



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



NOTES:

 PROPOSED BALCONIES

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|----------|----------------|----|------|
| A | 9.7.2025 | CONCEPT DESIGN | KC | PC |
| - | 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

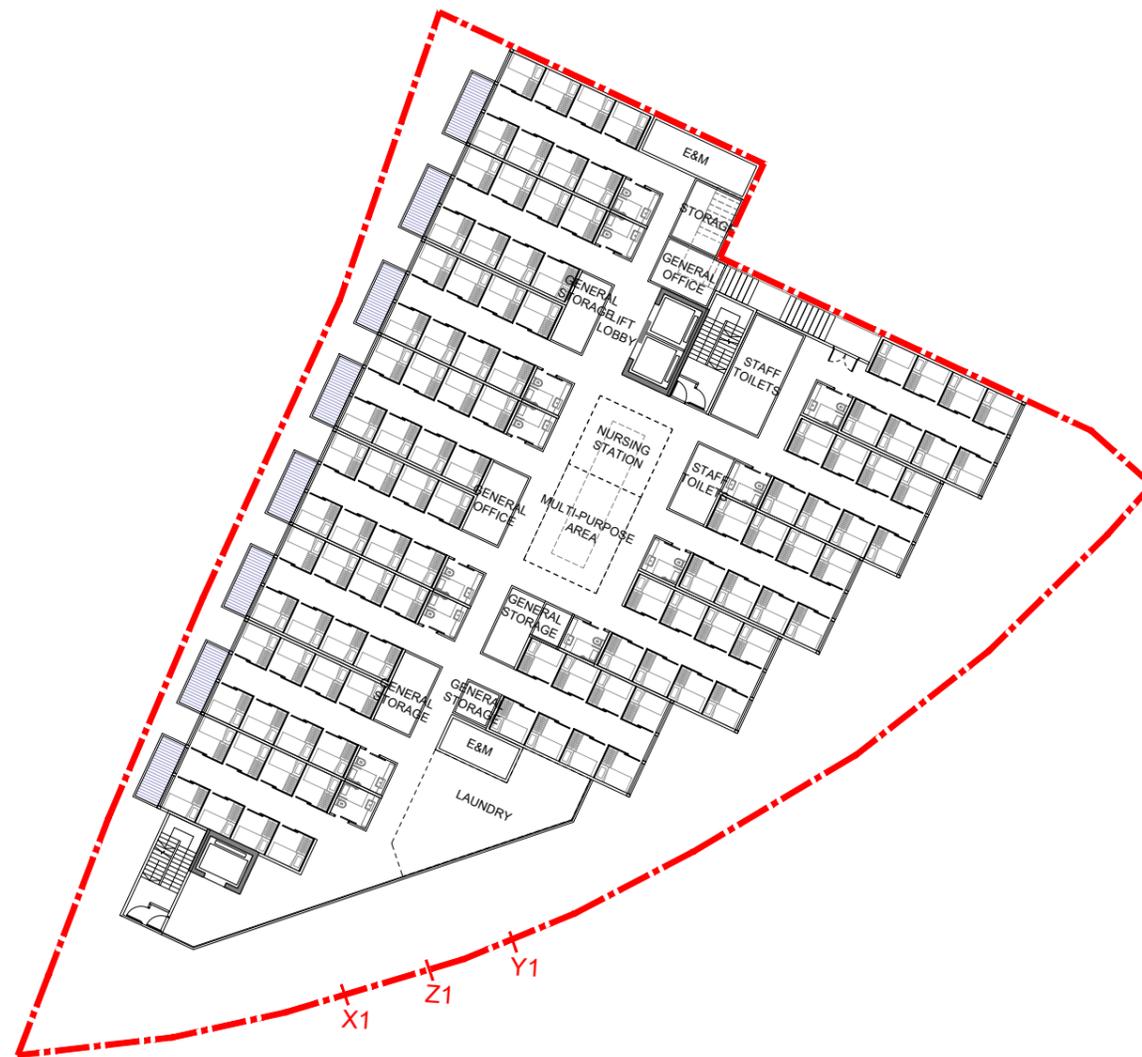
DRAWING : SECOND FLOOR PLAN

SCALE : 1:400 @A3 Rev: -

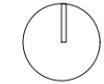
PROJECT NO : 25001_KPR

Drawing No. : Date:

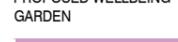
CP-B105 MAY 2025



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



NOTES:

| | |
|---|---|
|  |  |
| PROPOSED PLANTERS | PROPOSED LAWN |
|  |  |
| PROPOSED SKYLIGHT | PROPOSED WELLBEING GARDEN |
|  |  |
| PROPOSED VIEWING DECK | PROPOSED INTERACTIVE CONNECTION ZONE |

| 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DRAWING : ROOF PLAN

SCALE : 1:400 @A3 Rev: -

PROJECT NO : 25001_KPR

Drawing No. : Date:

CP-B106 MAY 2025



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

NOTES:

LEGEND:

- THE SITE
- WETLAND BUFFER AREA
- WETLAND CONSERVATION AREA
- VILLAGE ENVIRON

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|----------|----------------|----|------|
| 1 | 9.5.2025 | 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

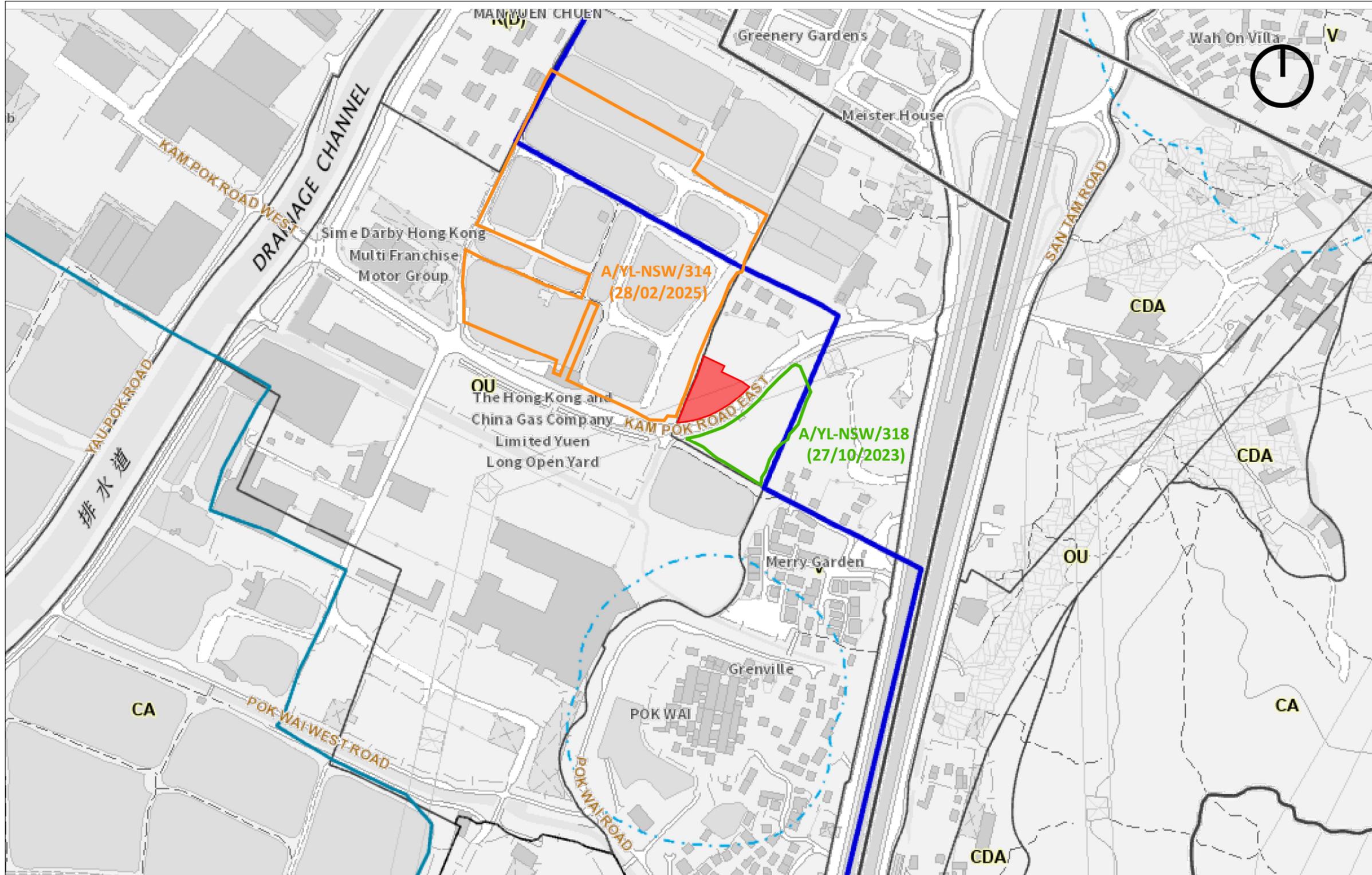
DRAWING : LOCATION PLAN

SCALE : NTS Rev: —

PROJECT NO: 25001_KPR

Drawing No. : Date:

FIGURE 1 MAY 2025



NOTES:

LEGEND:



PROPOSED OPEN SPACE : 253 SQ. M.

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|-----------|----------------|----|------|
| A | 22.9.2025 | CONCEPT DESIGN | KC | PC |
| - | 14.5.2025 | 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DRAWING : OPEN SPACE DIAGRAM

SCALE : 1:400 @A3

PROJECT NO : 25001_KPR

Drawing No. :

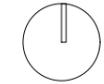
Rev:

A

Date:

CP-B108 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

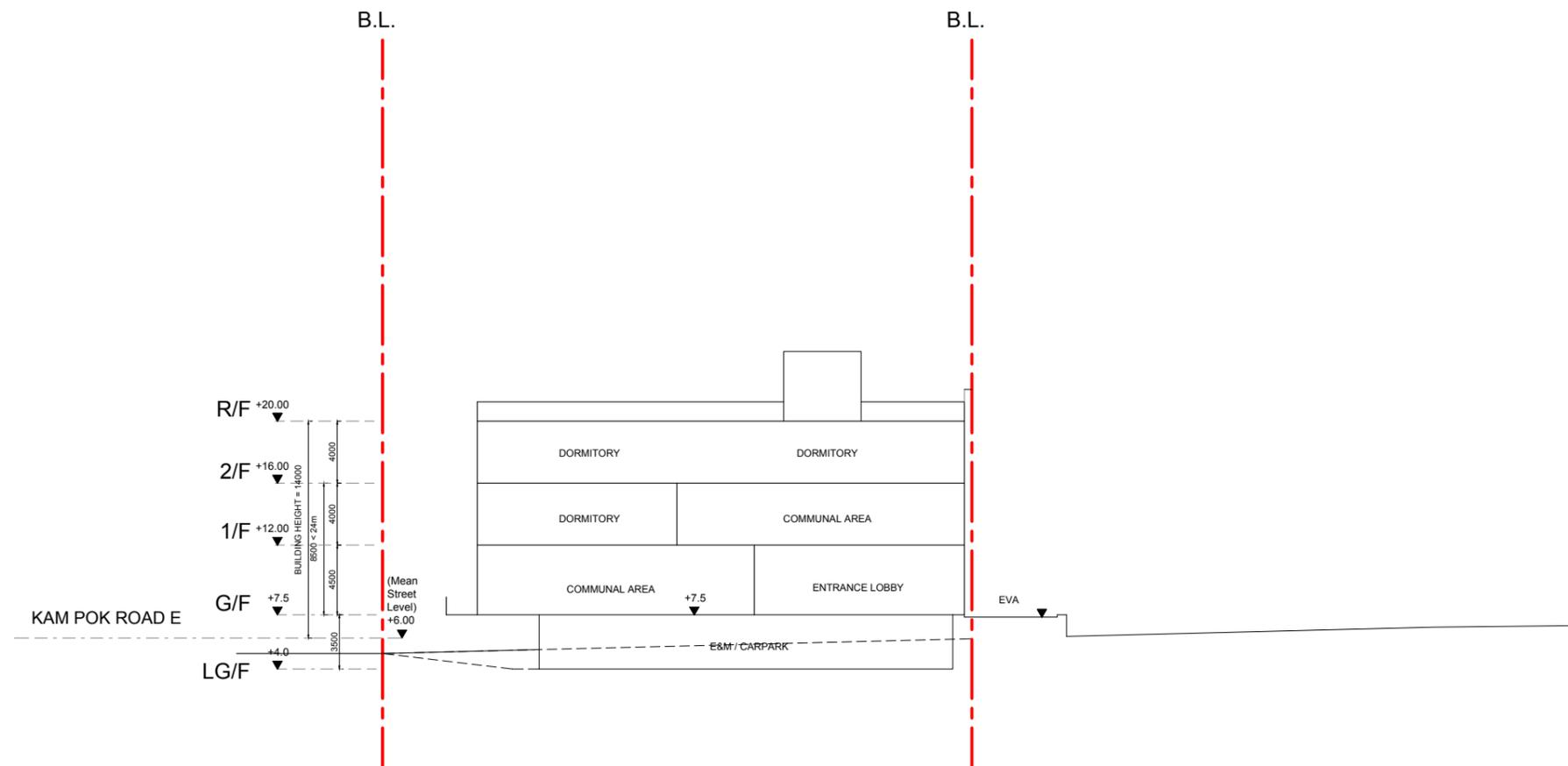
DRAWING : SCHEMATIC SECTION

SCALE : 1: 400 @A3 Rev: —

PROJECT NO: 25001_KPR

Drawing No. : Date:

CP-B201 MAY 2025



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

Appendix 2

Revised Environmental Assessment
(EA)

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

ENVIRONMENTAL ASSESSMENT

10 Oct 2025

Report No.: RT25285-EA-01C

Prepared By:



BeeXergy Consulting Limited (BXG)

Phone:

Address:

Email:



| | | | | | |
|--------------------|---|----------------------|---------------|----------------|-----------------|
| Project: | PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG ENVIRONMENTAL ASSESSMENT | | | | |
| Report No.: | RT25285-EA-01C | | | | |
| Revision | Issue Date | Description | Author | Checker | Approver |
| 0 | 20/05/2025 | Issued for Comment | Various | LY | HM |
| A | 08/07/2025 | Issued for Comment | Various | LY | HM |
| B | 25/07/2025 | Updated AQIA and NIA | Various | LY | HM |
| C | 10/10/2025 | Response to Comment | Various | LY | HM |
| | | | | | |
| | | | | | |
| | | | | | |

Prepared By:

Checked by

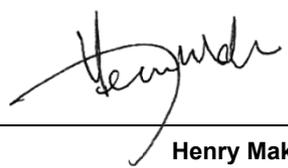
Various



Leo Yu

Consultant

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.

TABLE OF CONTENT

| | | |
|------|---|----|
| 1. | INTRODUCTION..... | 1 |
| 1.1. | BACKGROUND..... | 1 |
| 1.2. | PROJECT LOCATION..... | 1 |
| 1.3. | PROJECT DESCRIPTION..... | 1 |
| 1.4. | SCOPE OF THE ENVIRONMENTAL ASSESSMENT..... | 2 |
| 1.5. | STRUCTURE OF THE REPORT..... | 2 |
| 2. | AIR QUALITY IMPACT..... | 3 |
| 2.1. | INTRODUCTION..... | 3 |
| 2.2. | RELEVANT LEGISLATION, STANDARDS AND GUIDELINES..... | 3 |
| 2.3. | AIR SENSITIVE RECEIVERS..... | 6 |
| 2.4. | CONSTRUCTION PHASE IMPACT REVIEW..... | 6 |
| 2.5. | OPERATION PHASE IMPACT REVIEW..... | 9 |
| 2.6. | CONCLUSION..... | 11 |
| 3. | NOISE IMPACT..... | 12 |
| 3.1. | INTRODUCTION..... | 12 |
| 3.2. | RELEVANT LEGISLATION, STANDARDS AND GUIDELINES..... | 12 |
| 3.3. | CONSTRUCTION PHASE IMPACT REVIEW..... | 13 |
| 3.4. | OPERATION PHASE..... | 15 |
| 3.5. | CONCLUSION..... | 23 |
| 4. | WATER QUALITY IMPACT..... | 24 |
| 4.1. | INTRODUCTION..... | 24 |
| 4.2. | RELEVANT LEGISLATION, STANDARDS AND GUIDELINES..... | 24 |
| 4.3. | WATER SENSITIVE RECEIVERS..... | 24 |
| 4.4. | CONSTRUCTION PHASE IMPACT REVIEW..... | 25 |
| 4.5. | OPERATION PHASE IMPACT REVIEW..... | 28 |
| 5. | WASTE MANAGEMENT..... | 30 |
| 5.1. | INTRODUCTION..... | 30 |
| 5.2. | RELEVANT LEGISLATION, STANDARDS AND GUIDELINES..... | 30 |
| 5.3. | CONSTRUCTION PHASE IMPACT REVIEW..... | 30 |
| 5.4. | OPERATION PHASE IMPACT REVIEW..... | 33 |
| 5.5. | WASTE MANAGEMENT STRATEGIES..... | 34 |
| 5.6. | CONCLUSION..... | 36 |
| 6. | LAND CONTAMINATION..... | 37 |
| 6.1. | INTRODUCTION..... | 37 |

| | | |
|------|--|----|
| 6.2. | RELEVANT LEGISLATION, STANDARDS AND GUIDELINES | 37 |
| 6.3. | ACQUISITION OF LOCAL AUTHORITY | 37 |
| 6.4. | SITE HISTORY | 38 |
| 6.5. | CONCLUSION..... | 38 |
| 7. | CONCLUSION | 39 |

FIGURES

| | |
|------------|--|
| Figure 1.1 | Location of Project Site |
| Figure 2.1 | Location of Representative Air Sensitive Receivers |
| Figure 2.2 | Buffer Distance |
| Figure 3.1 | Location of Representative Noise Sensitive Receivers |
| Figure 3.2 | Location of Representative Traffic Noise Sensitive Receivers |
| Figure 3.3 | Location of Proposed Acoustic Window |
| Figure 3.4 | Location of Background Noise Measurement and Major Fixed Noise Sources |
| Figure 4.1 | Location of Water Sensitive Receiver |
| Figure 6.1 | Aerial Photos |

APPENDICES

| | |
|---------------------|--|
| Appendix 1.1 | Indicative Building Plan |
| Appendix 2.1 | TD's Endorsement on the Road Type |
| Appendix 3.1 | Traffic Forecast Data |
| Appendix 3.2 | Traffic Noise Impact Assessment Results |
| Appendix 3.3 | Fixed Noise Site Survey Record |
| Appendix 3.4 | Detailed Calculation for Fixed Noise Impact Assessment |
| Appendix 3.5 | Modification Plan of Existing Noise Barrier |
| Appendix 6.1 | Enquiries to Governmental Authority |
| Appendix 6.2 | Site Walkover Checklist |
| Appendix 6.3 | Site Photo |

1. INTRODUCTION

1.1. BACKGROUND

- 1.1.1. The Project Proponent proposes to develop a 3-storey Residential Care Home for the Elderly (RCHE 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 1845m², 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 RCHE 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

| | |
|---|--|
| No. of Storeys | 3 storeys |
| Total Gross Floor Area (GFA) | Approx. 4,243.5m ² |
| Building Height | +20.00 mPD |
| Proposed Major Floor Use | LG/F: Carpark G/F to 2/F: Dormitory for RCHE(s), Communal Area, Carpark Entrance and Lay-by |
| Tentative Population Intake Year | 2030 |
| Total No. of Beds | 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 ^[i] ($\mu\text{g}/\text{m}^3$) | Number of Exceedances Allowed |
|--|----------------|--|-------------------------------|
| Sulphur Dioxide (SO_2) | 10-minute | 500 | 3 |
| | 24-hour | 40 | 3 |
| Respirable Suspended Particulates (PM_{10}) ^[ii] | 24-hour | 75 | 9 |
| | Annual | 30 | N/A |
| Fine Suspended Particulates ($\text{PM}_{2.5}$) ^[iii] | 24-hour | 37.5 | 18 |
| | Annual | 15 | N/A |

| Pollutant | Averaging Time | Concentration Limit ^[i] ($\mu\text{g}/\text{m}^3$) | Number of Exceedances Allowed |
|--|----------------|--|-------------------------------|
| Nitrogen Dioxide (NO ₂) | 1-hour | 200 | 18 |
| | 24-hour | 120 | 9 |
| | Annual | 40 | N/A |
| Ozone (O ₃) | 8-hour | 160 | 9 |
| | Peak season | 100 | N/A |
| Carbon Monoxide (CO) | 1-hour | 30,000 | 0 |
| | 8-hour | 10,000 | 0 |
| | 24-hour | 4,000 | 0 |
| Lead | Annual | 0.5 | N/A |
| Notes: [i] All measurements of the concentration of gaseous air pollutants, i.e., SO ₂ , NO ₂ , O ₃ and CO, are to be adjusted to a reference temperature of 293 K and a reference pressure of 101.325 kPa. [ii] PM ₁₀ means suspended particles in air with a nominal aerodynamic diameter of 10 μm or less. [iii] PM _{2.5} means suspended particles in air with a nominal aerodynamic diameter of 2.5 μm 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 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"> 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. 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. 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. Amenity areas are permitted in any situation. | | | |

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 |
| A09 | Prospera Villa | Residential | Existing | 45 |

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. **From the information available, the construction works will tentatively be commenced no later than 2028 with total construction period of 15 months, the tentative construction period**

of each construction stage are presented in **Table 2.4**. The area of excavation is approximately 1845m², 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 2.4** below.

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) | 832m ³ C&D Material (Inert C&D: 830m ³ , Non-inert C&D: 1.5m ³) | <1 Trip per Day |
| Superstructure Stage (~10 Months) | 424m ³ C&D Material (Inert C&D: 339m ³ , Non-inert C&D: 85m ³) | <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 ³ 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 2.5** and illustrated in **Figure 2.2**. **The TD's endorsement on the road type of Kam Pok Road East is provided in Appendix 2.1**. 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 | Rural Road | — | >5m |
| Note: As advised by the Project's Traffic Consultant and clarified by the Transport Department (TD), Kam Pok Road East (from Castle Peak Road - Tam Mi to Kam Pok Road) is classified as a rural road. There is no buffer distance requirement for rural road specified in HKPSG, a 5m buffer distance is still allowed to minimize air quality impact on the Proposed Development. | | | |

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 and license for specified processes (SP) available on Hong Kong Environmental Database (HKED) 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 emission and odour emission have been evaluated. No industrial 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. 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 ₁₀ (1 hour), dB(A) |
|-----------|-----------------------------------|---------------------------------|
| G/F – 2/F | RCHE Dormitory | 70 |
| G/F – 1/F | Multi-Purpose Area ^[2] | 70 |
| G/F | Rehab Zone | 70 |
| 1/F | Dining Area | 70 |
| 1/F | End-of-Life Area ^[3] | 70 |
| 1/F | Isolation Room ^[3] | 70 |
| 1/F | Sick Bay ^[3] | 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.

[3] As advised by the Project Team, the Sick Bay, Isolation Room and End-of-Life rooms are designated as an isolation room for infection control purposes. No medical operation and/or diagnostic activities will be carried out in the concerned room. Therefore, the noise planning standard of 70 dB(A) for domestic uses as stipulated in Table 4.1 of Chapter 9 of the HKPSG is adopted.

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. **There are parts of the existing noise barriers at the south boundary of the site adjoining Kam Pok Road East are proposed to be demolished, details of modification plan is provided in Appendix 3.5.** 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 ₁₀ (1 hour), dB(A) |
|-------|--------------------|-----------------------|---|
| G/F | RCHE Dormitory | 70 | 66 |
| G/F | Multi-Purpose Area | 70 | 66 |
| G/F | Rehab Zone | 70 | 68 |
| 1/F | RCHE Dormitory | 70 | 67 |
| 1/F | Multi-Purpose Area | 70 | 73 |
| 1/F | Communal Area | 70 | 75 |
| 1/F | Dining Area | 70 | 75 |
| 2/F | RCHE Dormitory | 70 | 77 |
| 2/F | Communal Area | 70 | 77 |

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. It is understood that the room size would also affect the sound attenuation performance. A conservative approach is adopted by

adjusting the sound attenuation based on the relative room size of the project case and reference case. The sound attenuation is adjusted (downward only) based on the ratio of the room size of the project case and the reference case in order to reflect the difference in the base case (using conventional window). On the other hand, in case the room size of the project case is larger than the reference case or opening size of the conventional window in the project case is smaller than the reference case, no adjustment is made as a conservative approach. the room size of dormitory is typically 40 to 50 m², which is larger than 18 m² of the reference case, therefore, no room size correction is included for conservative approach.

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.

Planned 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⁻¹ or wind with gusts exceeding 10ms⁻¹. 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 ^[1] | 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 48kg/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**.

Table 3.8 Information of the Identified Fixed Noise Sources

| Location | Source ID | Equipment | Approximate Shortest Horizontal Distance to the Project Site |
|-------------------------------------|-----------|-------------|--|
| 祥發五金貿易有限公司 | S01 | Lorry Crane | 172m |
| Hung Kee Metal Recycling Int'l Ltd. | S02 | Lorry Crane | 200m |
| Dorfield Ltd. | S03 | Fork Lift | 234m |

- 3.4.22. An approved Section 16 application (Application No. A/YL-NSW/318) for the development of a public vehicle parking area **excluding Container Vehicle** 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**, **fixed noise assessment point with shortest distance to the noise sources is selected to demonstrate worst case scenario**, 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 Fitments, Plumbing, Drainage Works and Latrines) Regulations”; and
- Professional Persons Environmental Consultative Committee (ProPECC) Practice Note **PN 2/24** “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 | Approximate Distance from Site Boundary |
|--------|----------------------|---|
| W01 | Ngau Tam Mei Channel | 380m |
| W02 | River Channel | 30.5m |
| W03 | Ponds | 38m |
| W04 | Ponds | 25m |

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 2/24**, 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. A summary of the estimated generation of the C&D materials is provided in **Table 5.1**.

Table 5.1 Government Waste Facilities for Construction Waste

| Type of C&D Materials | | Volume (m ³) |
|--|--|--------------------------|
| Inert C&D materials | Total generation | 1,169 |
| | On-site reuse (i.e., backfilling) | 117 |
| | Transferred to surplus at public fill reception facilities (i.e., Tuen Mun 38 Fill Bank) | 1052 |
| Non-inert C&D materials to dispose of landfill (i.e., WENT landfill) | | 86.5 |
| Total | | 1,255.5 |

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 (i.e., a few litres per month). 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. It is estimated that a maximum of about 15 construction workers will be working on site at any one time during the construction phase of the Project. With a general refuse generation rate of 0.89 kg per worker per day, the maximum amount of general refuse to be generated will be about 13.35 kg per day. 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 208 residents, 90 workers and visitors will be occupied in the development. With a general refuse generation rate of **0.89kg** per person per day, the maximum amount of general refuse to be generated will be about **265.2kg** 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 **0.003kg/day** and a clinic waste generation rate of **0.001kg/day and the total occupancy of 298 person**, it is anticipated that the maximum amount of other waste to be generated will be about **1.19kg 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. **Trip ticket system will be adopted to avoid illegal dumping. GPS monitoring on dump trucks will be considered to include as one of the contractual**

requirements for contractors.

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. 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.

Measures for Management of General Refuse

- 5.5.8. General refuse will be stored in enclosed bins and delivered separately from C&D materials for offsite disposal on a daily basis to reduce odour, pest and litter impacts.
- 5.5.9. 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.
- 5.5.10. 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, food waste) during operation stage. Food waste, with potential odour nuisance and hygiene problems, is suggested to collect and send to the O Park in a daily basis. 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/RCHE-0002 | Environmental Protection Department | 3 Jul 2025 | No record of chemical spillage/ leakage within the site boundary in the past ten years. No record of registered chemical waste producers was found on 10/7/2025 during the visit to the EPD Territory Control Office. |
| W25185/RCHE-0001 | Fire Services Department | 24 Jul 2025 | No record of chemical spillage/ leakage within the site boundary in the past three years. |

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. **Vegetation on the ground was removed, and the ground remains unpaved since 2019. The ground condition was generally good.** From 2019 to 2021, there were construction materials and construction equipment, **such as metal steel, and casing**, stored at the Project Site. Due to short period of time for open storage use **and the good ground condition**, 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 and responses from HKSAR Government Departments, 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 RCHE 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 Elderly (RCHE)) 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

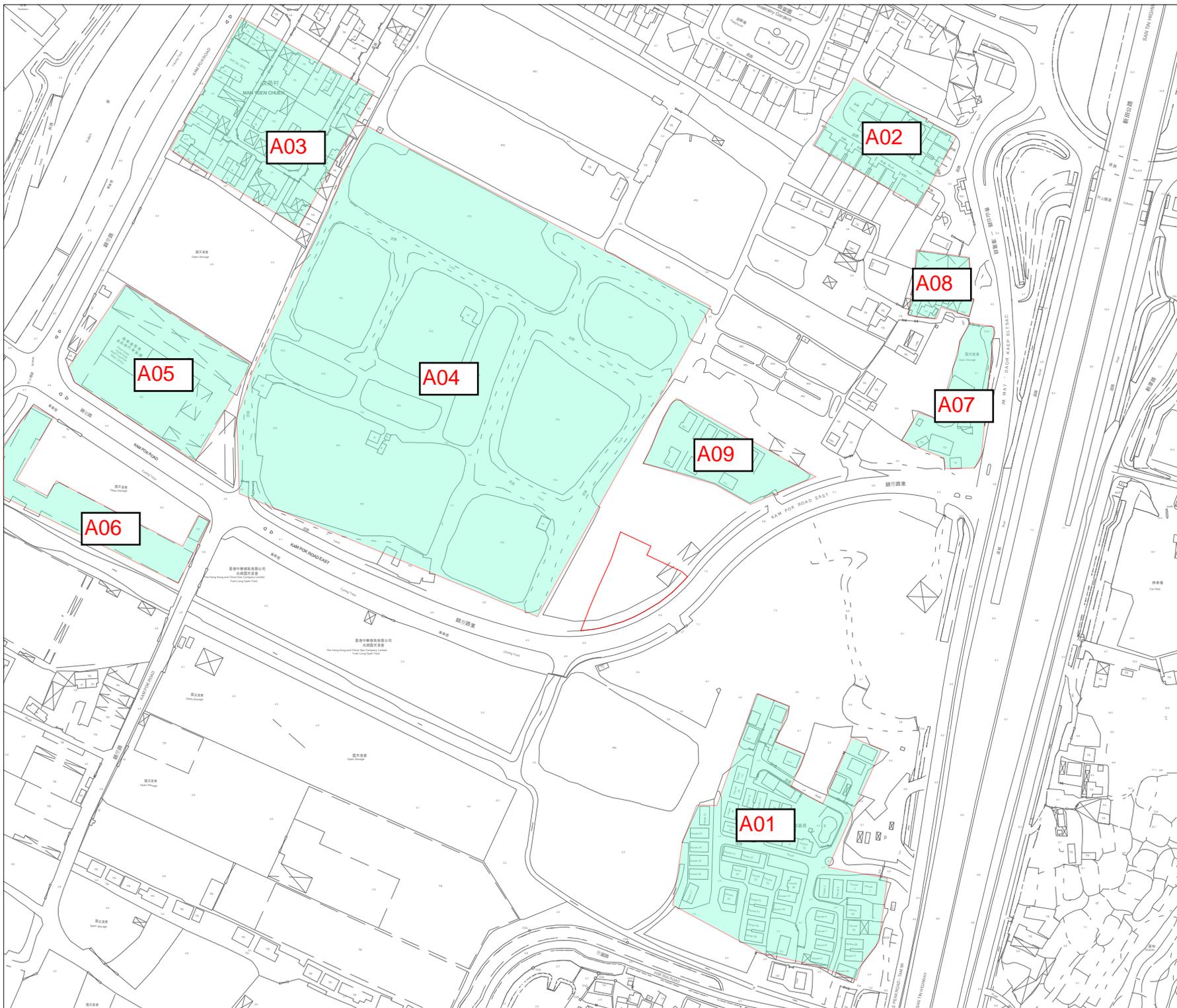
| | |
|--------------------------------|------------------|
| Drawing No. FIGURE 1 | Rev. 0 |
|--------------------------------|------------------|

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 Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

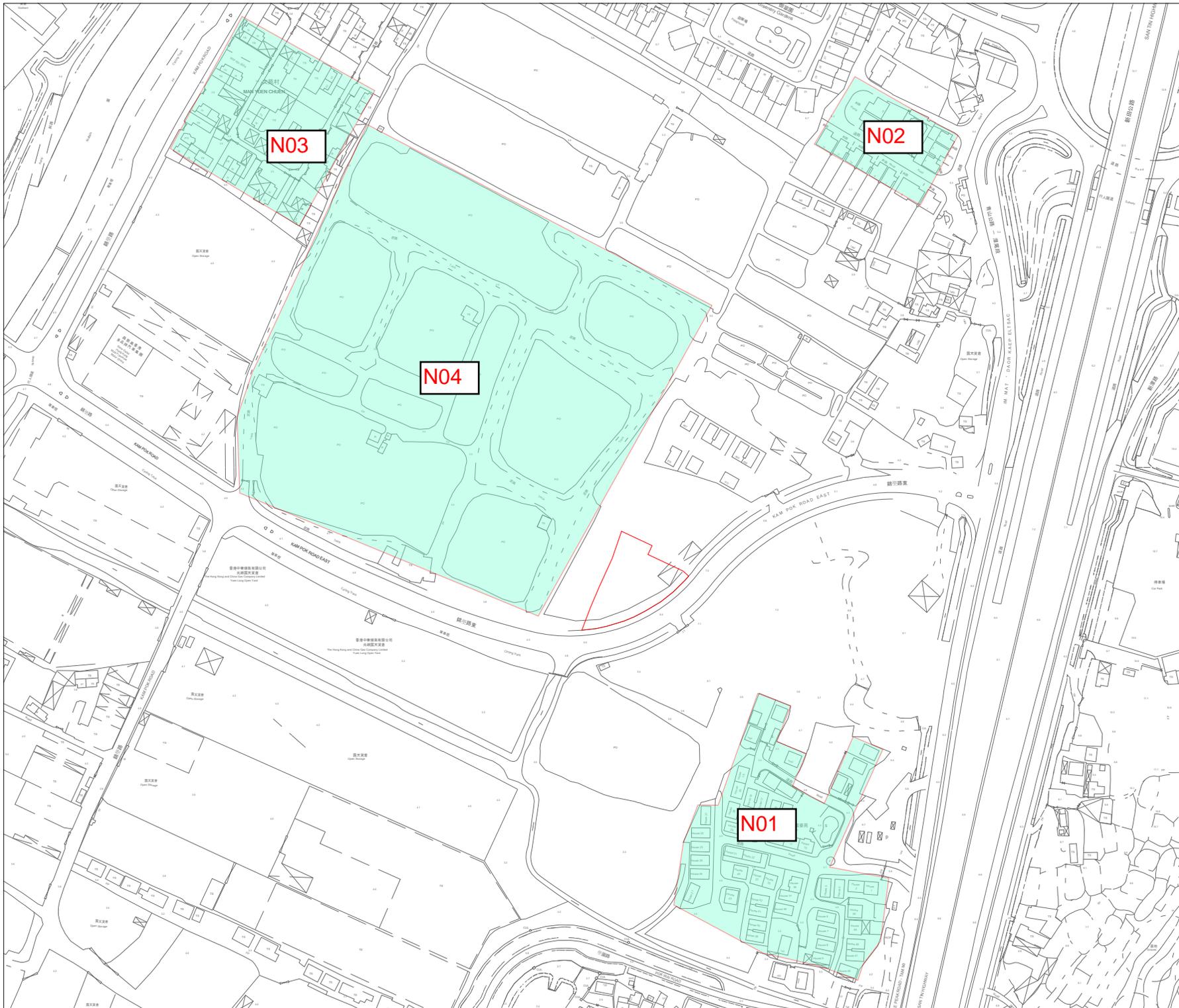
Drawing Title
 LOCATION OF REPRESENTATIVE AIR SENSITIVE RECEIVERS

| | |
|----------------------------------|------------------|
| Drawing No. FIGURE 2.1 | Rev. 0 |
|----------------------------------|------------------|

Scale:
 A4 - 1:3000

**FIGURE 2.2
BUFFER DISTANCES**

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 Elderly (RCHE)) 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 ELDERLY (RCHE)) 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)

| | |
|-------------------|-------------|
| Figure No. | Rev. |
| Figure 3.2a | 0 |

LEGEND:

- Project Site
- Noise Sensitive Receiver



| | | | |
|---------|----------|----------|----------|
| | Prepared | Checked | Approved |
| Initial | LY | YS | HM |
| Date | 20250930 | 20250930 | 20250930 |

Project Title
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) 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)

| | |
|-------------------|-------------|
| Figure No. | Rev. |
| Figure 3.2b | 0 |

LEGEND:

- Project Site
- Noise Sensitive Receiver



| | | | |
|---------|----------|----------|----------|
| | Prepared | Checked | Approved |
| Initial | LY | YS | HM |
| Date | 20250930 | 20250930 | 20250930 |

Project Title
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) 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)

| | |
|-------------------|-------------|
| Figure No. | Rev. |
| Figure 3.2c | 0 |

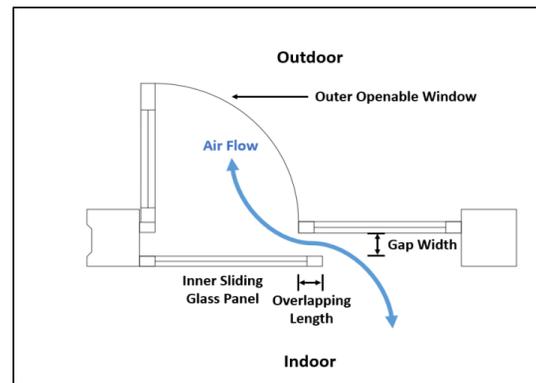
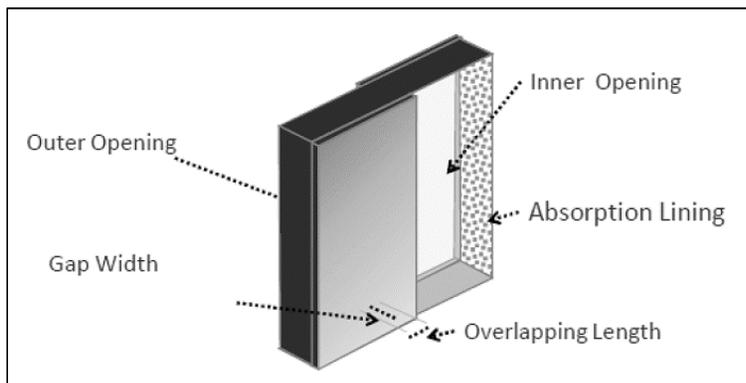
**FIGURE 3.3
LOCATION OF PROPOSED ACOUSTIC
WINDOW**

Proposed Types of Acoustic Window (Baffle Type)

| Type of AW(BT) | Reference Case | Room Area, m ² | Noise Attenuation, dB(A) | Inner Window Opening, mm | | Outer Window Opening, mm | | Window Overlapping Length, mm | Window Pane Separation, mm | MPA ^[1] Applied? |
|----------------|----------------|---------------------------|--------------------------|--------------------------|-------|--------------------------|-------|-------------------------------|----------------------------|-----------------------------|
| | | | | Height | Width | Height | Width | | | |
| Type 1 | EPD | 8 | 6 | 870 | 580 | 870 | 600 | 100 | 100 | No |
| Type 2 | EPD | 18 | 7 | 1500 | 750 | 1500 | 750 | 100 | 100 | No |

Notes:

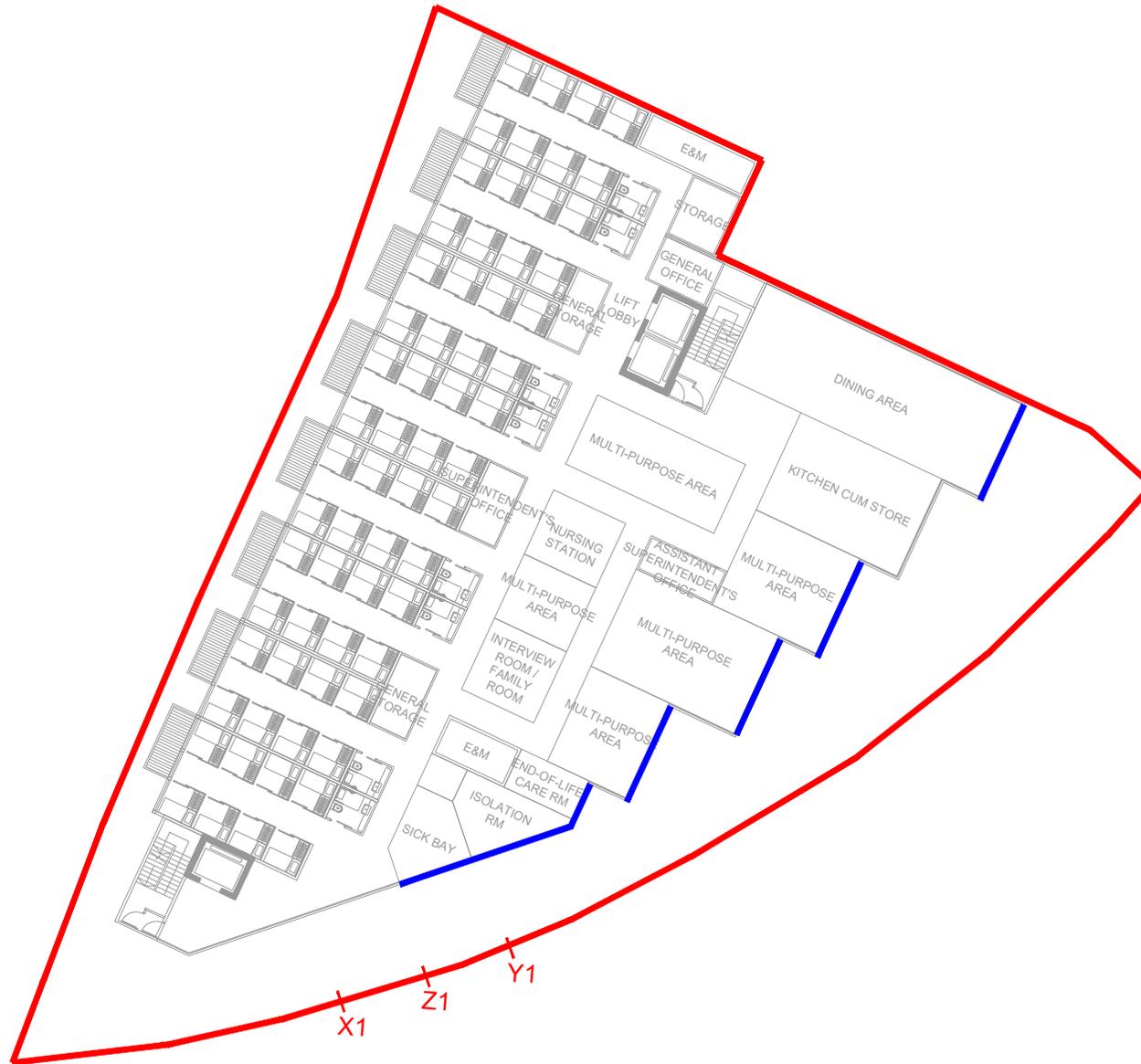
[1] MPA: Micro-Perforated Absorber



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 ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG

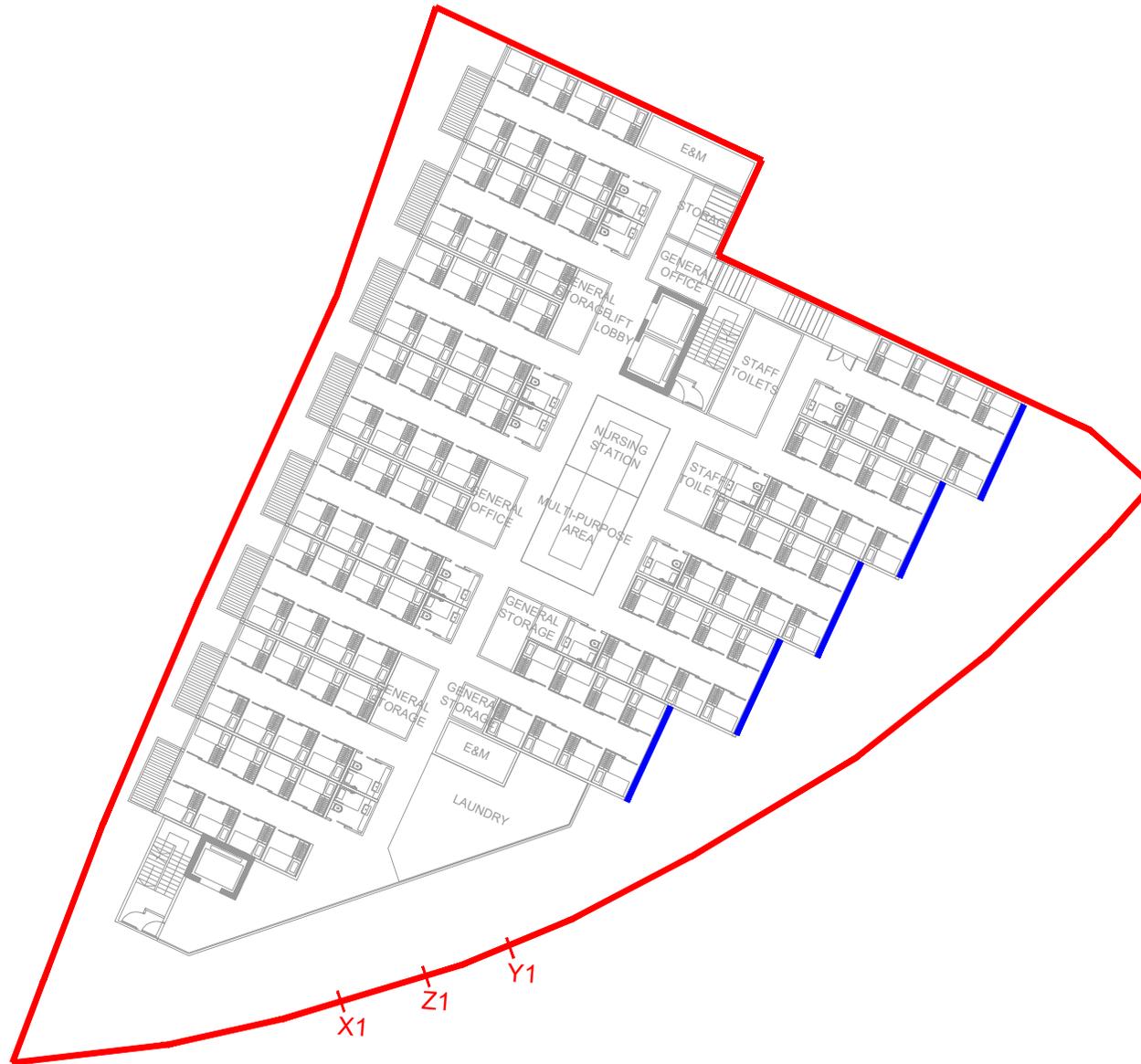
Figure Title
 Location of Proposed Acoustic Window (1/F)

| | |
|-------------------|-------------|
| Figure No. | Rev. |
| Figure 3.3a | 0 |

LEGEND:

 Project Site

 Type 2 AW (BT)



| | Prepared | Checked | Approved |
|---------|----------|----------|----------|
| Initial | LY | YS | HM |
| Date | 20250930 | 20250930 | 20250930 |

Project Title

PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) 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)

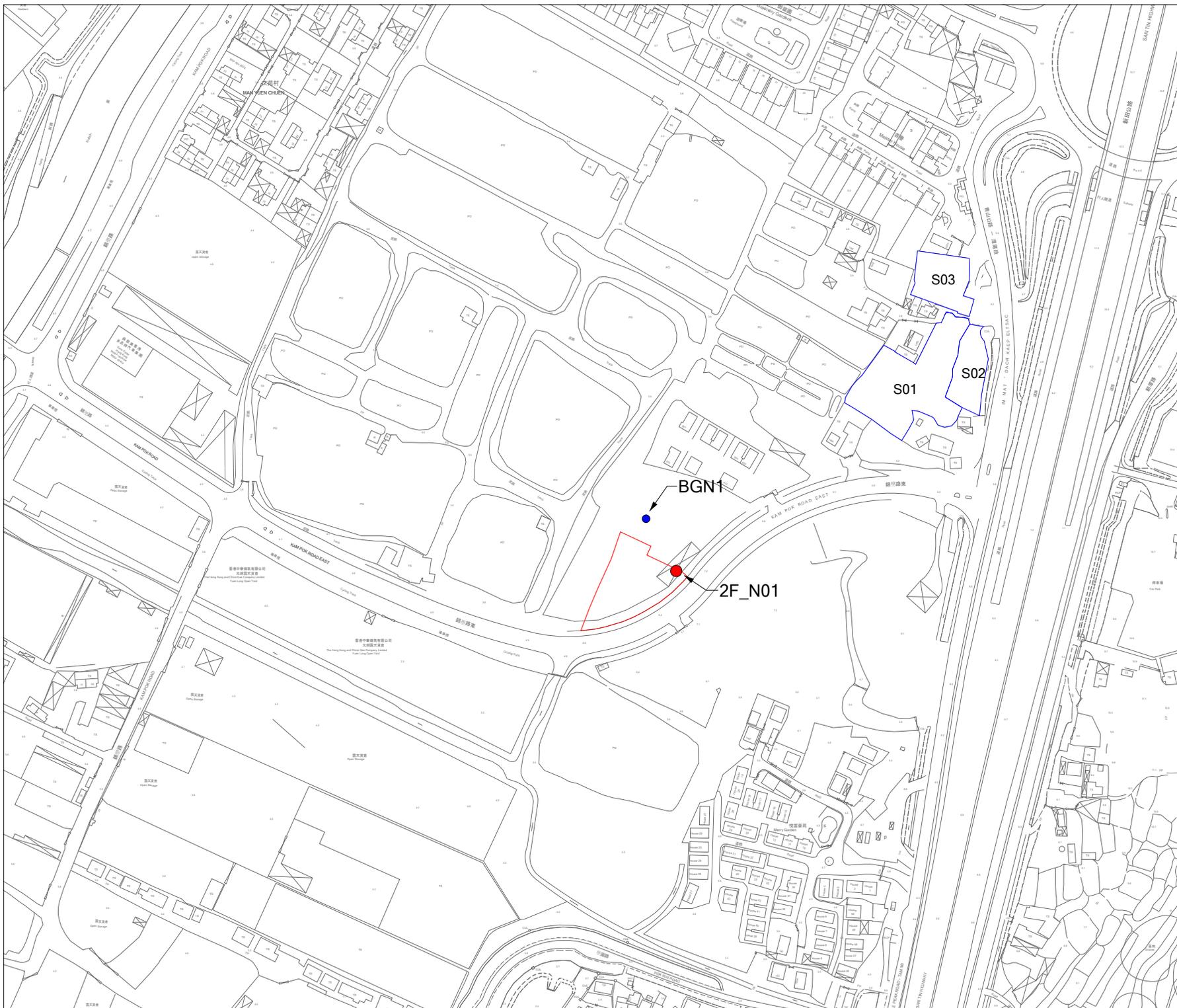
| Figure No. | Rev. |
|-------------|------|
| Figure 3.3b | 0 |



FIGURE 3.4
LOCATION OF BACKGROUND NOISE
MEASUREMENT AND MAJOR FIXED NOISE
SOURCES

LEGEND:

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



| | Prepared | Checked | Approved |
|---------|----------|----------|----------|
| Initial | LY | YS | HM |
| Date | 20250915 | 20250915 | 20250915 |

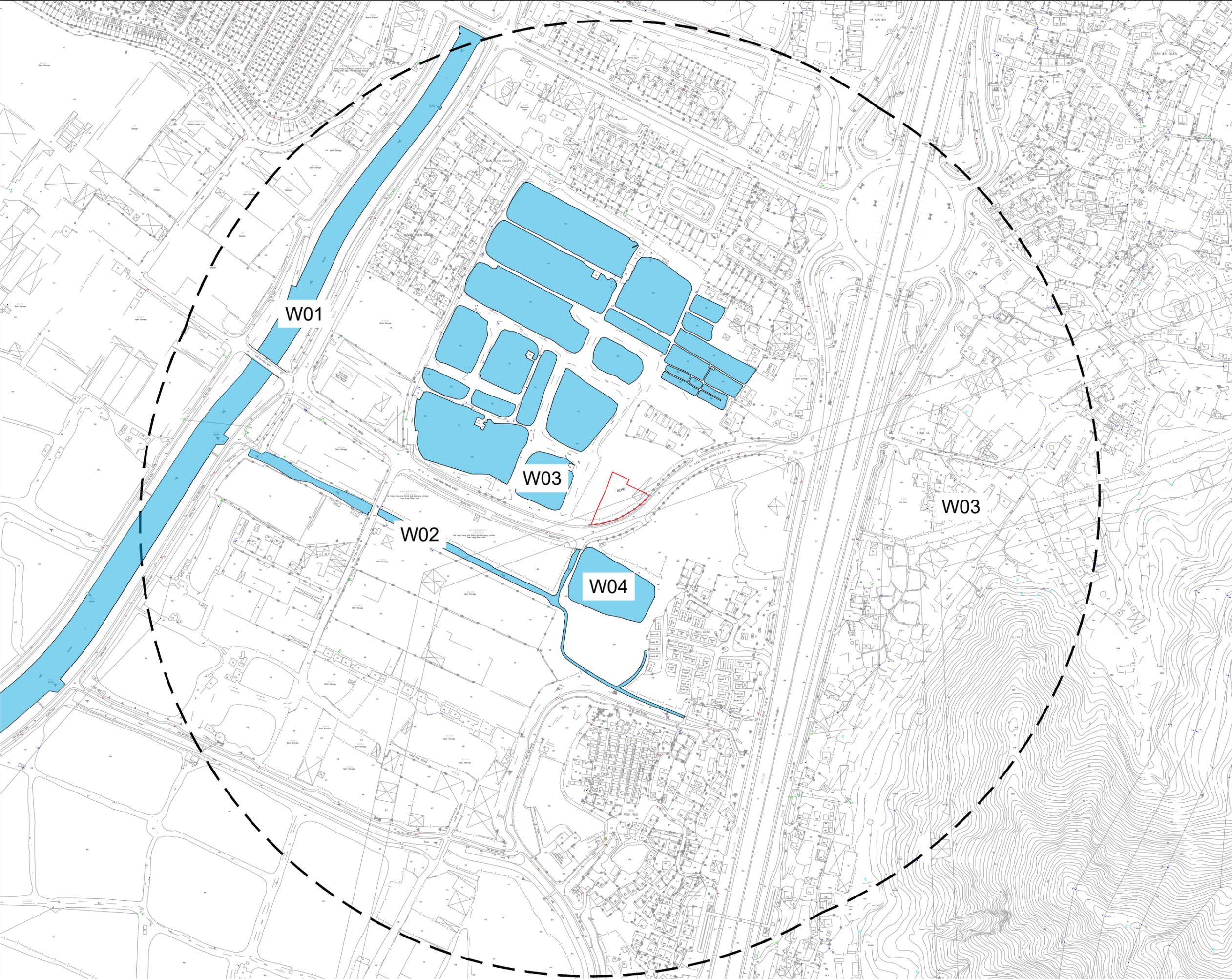
Project Title
 Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

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

| | |
|----------------------------------|------------------|
| Drawing No. FIGURE 3.4 | Rev. 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 | 20250923 | 20250923 | 20250923 |

Project Title
 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) 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 | 1 |

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 Elderly (RCHE)) 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 Elderly (RCHE)) 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
- EVA
- GOVERNMENT LAND
- OVERHEAD LINES
- EXISTING NOISE BARRIER

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|-----------|----------------|----|------|
| A | 22.9.2025 | CONCEPT DESIGN | KC | PC |
| - | 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DRAWING : EVA PLAN

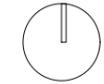
SCALE : 1:400 @A3

PROJECT NO : 25001_KPR

Drawing No. : Date:

FIGURE 2 MAY 2025





NOTES:

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|----------|----------------|----|------|
| A | 9.7.2025 | CONCEPT DESIGN | KC | PC |
| - | 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

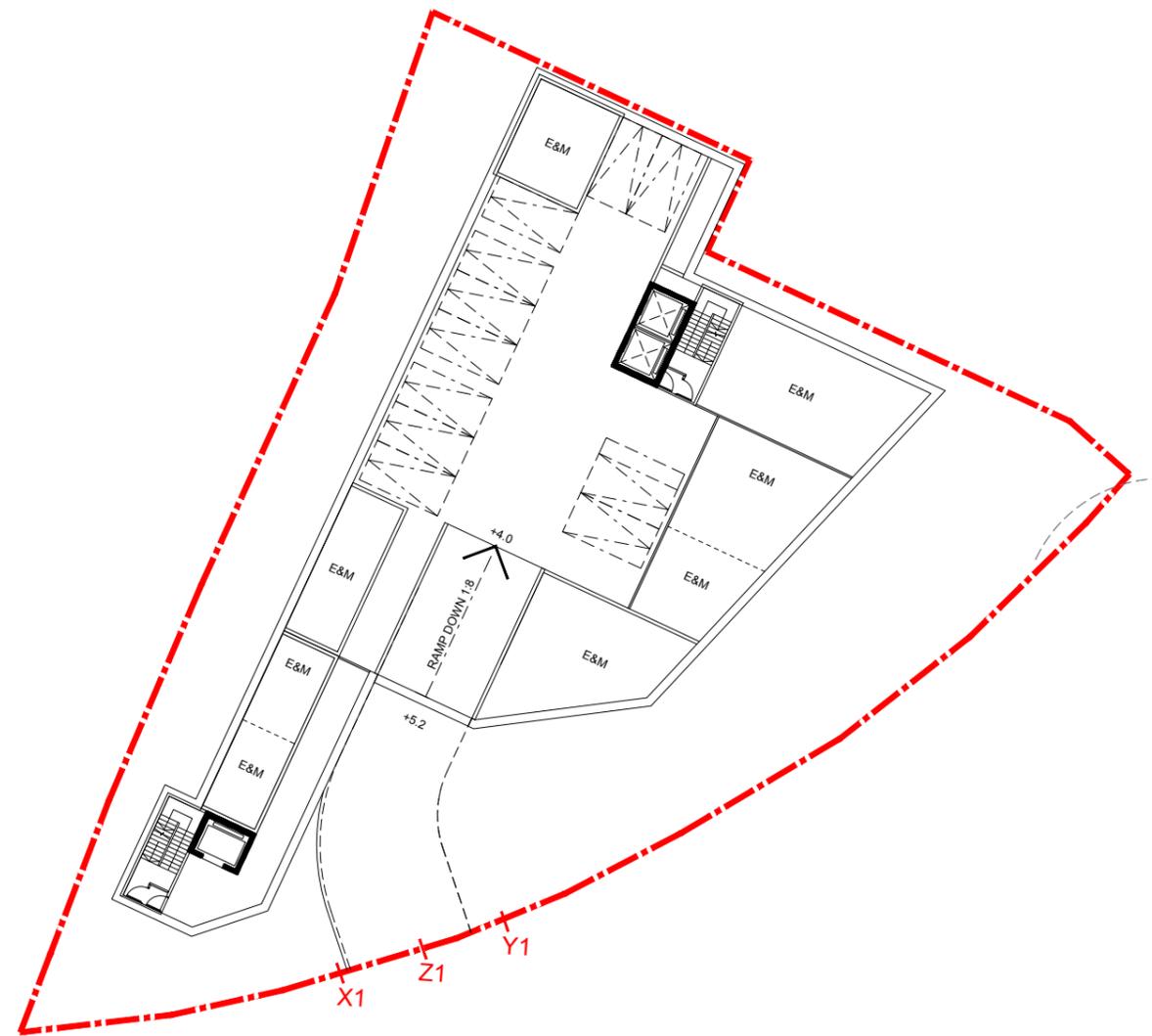
DRAWING : BASEMENT FLOOR PLAN

SCALE : 1:400 @A3 Rev: —

PROJECT NO: 25001_KPR

Drawing No. : Date:

CP-B102 MAY 2025



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

NOTES:

LEGEND:

 PROPOSED PEDESTRIAN ACCESS

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|-----------|----------------|----|------|
| B | 22.9.2025 | CONCEPT DESIGN | KC | PC |
| A | 9.7.2025 | CONCEPT DESIGN | KC | PC |
| - | 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

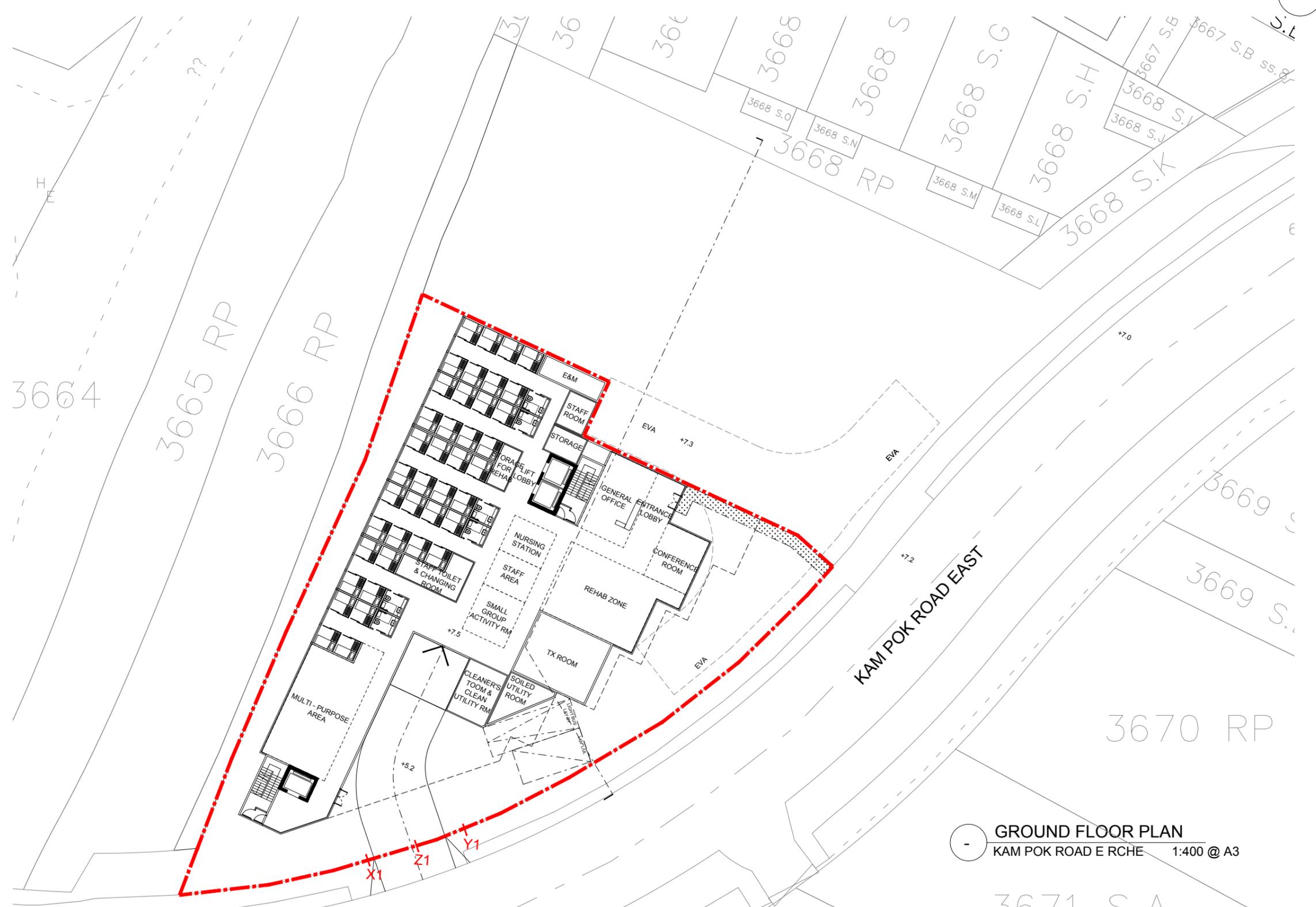
DRAWING : GROUND FLOOR PLAN

SCALE : 1:400 @A3

PROJECT NO: 25001_KPR

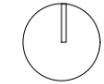
Drawing No. : Date:

CP-B103 MAY 2025



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

3671 S.A



NOTES:


PROPOSED BALCONIES

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|----------|----------------|----|------|
| A | 9.7.2025 | CONCEPT DESIGN | KC | PC |
| - | 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 the Elderly (RCHE)) 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: -

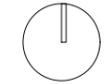
PROJECT NO : 25001_KPR

Drawing No. : Date:

CP-B104 MAY 2025



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



NOTES:

 PROPOSED BALCONIES

| REV | DATE | DESCRIPTION | BY | CHKD |
|-----|----------|----------------|----|------|
| A | 9.7.2025 | CONCEPT DESIGN | KC | PC |
| - | 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

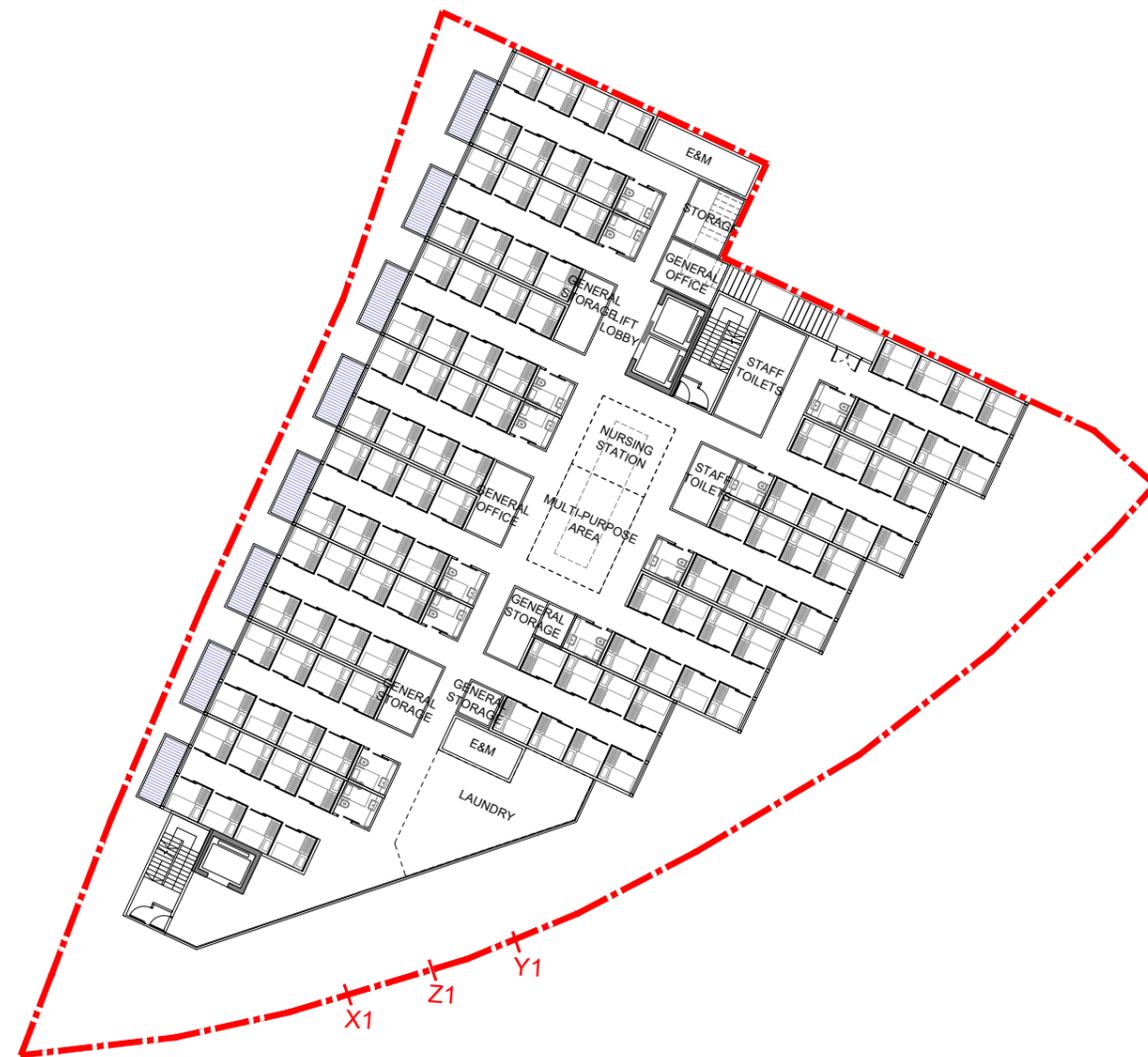
DRAWING : SECOND FLOOR PLAN

SCALE : 1:400 @A3 Rev: -

PROJECT NO : 25001_KPR

Drawing No. : Date:

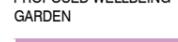
CP-B105 MAY 2025



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



NOTES:

| | |
|---|---|
|  |  |
| PROPOSED PLANTERS | PROPOSED LAWN |
|  |  |
| PROPOSED SKYLIGHT | PROPOSED WELLBEING GARDEN |
|  |  |
| PROPOSED VIEWING DECK | PROPOSED INTERACTIVE CONNECTION ZONE |

| 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

DRAWING : ROOF PLAN

SCALE : 1:400 @A3 Rev: -

PROJECT NO : 25001_KPR

Drawing No. : Date:

CP-B106 MAY 2025



ROOF PLAN
KAM POK ROAD E RCHE 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 the Elderly (RCHE)) in "Village Type Development" Zone, Various Lots in D.D. 104 and Adjoining Government Land, Nam Sang Wai, Yuen Long

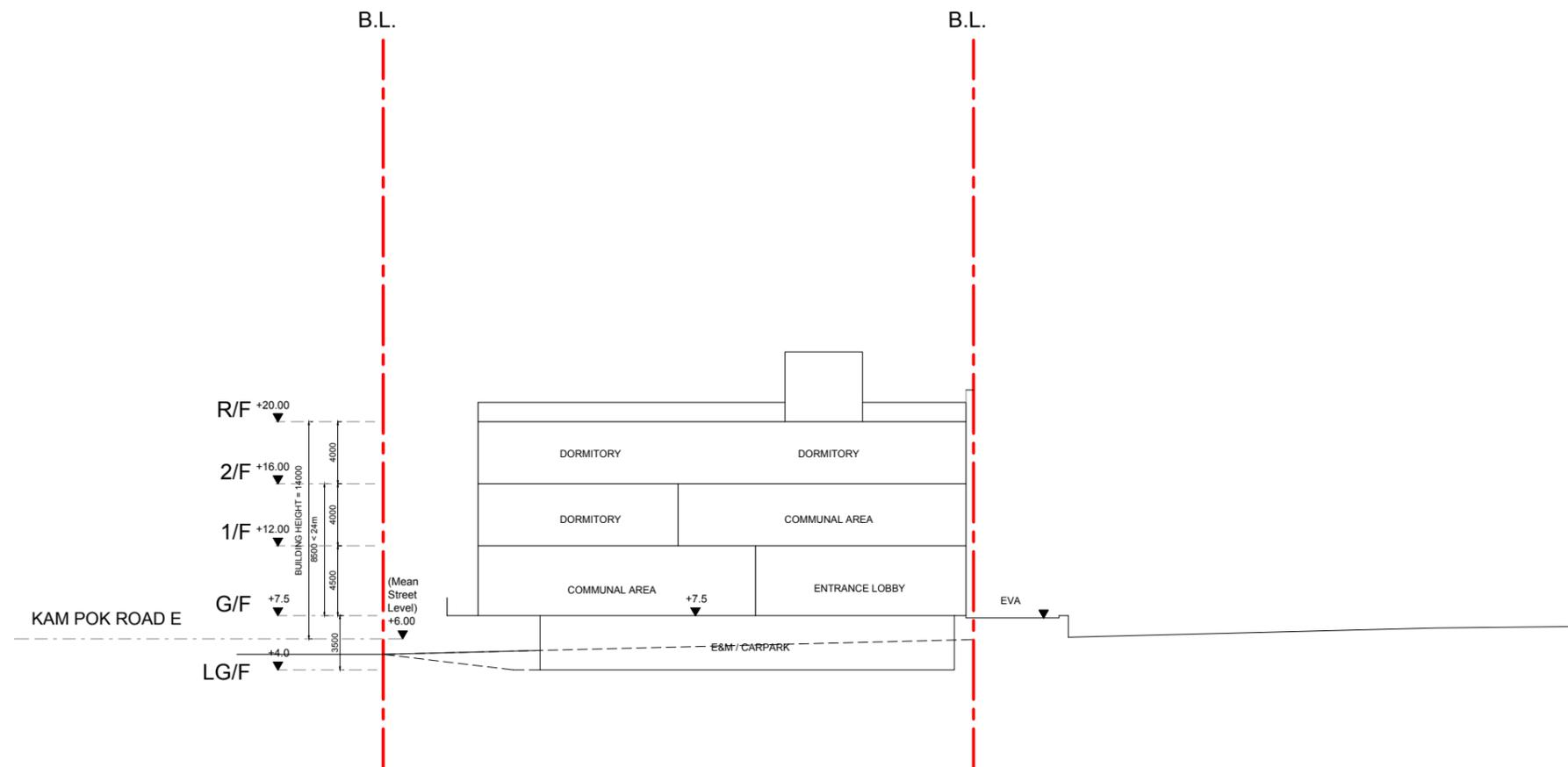
DRAWING : SCHEMATIC SECTION

SCALE : 1: 400 @A3 Rev: —

PROJECT NO: 25001_KPR

Drawing No. : Date:

CP-B201 MAY 2025



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

APPENDIX 2.1

TD'S ENDORSEMENT ON THE ROAD TYPE

From: Chi Kong LEUNG <chikongleung@td.gov.hk>
Sent: Tuesday, September 2, 2025 4:50 PM
To: CKM Asia
Cc: Vincent Ming Kin LAI
Subject: Re: Section 16 Planning Application No. A/YL-NSW/348 and A/YL-NSW/349
Attachments: item 1 - comments from EPD.PDF

Dear Tommy,

Your preceding email refers.

TD has no comment on your interpretation of the road type classification on Kam Pok Road and Kam Pok Road East.

Thank you.

Regards,
Donald Leung
E/BP, TE/NTW
Transport Department
Tel. 2399 2778

From: "CKM Asia" <[REDACTED]>
To: "chikongleung@td.gov.hk" <chikongleung@td.gov.hk>
Date: 02/09/2025 01:48 PM
Subject: Section 16 Planning Application No. A/YL-NSW/348 and A/YL-NSW/349

Attn: Transport Department – Mr. LEUNG Chi Kong, Donald (Engr/Boundary Projects)

Dear Donald,

As per our discussion this morning, Environmental Protection Department in their comment for the captioned project (see item 7 in attached **item 1**), requested for road type for Kam Pok Road East.

We refer to the Annual Traffic Census from Transport Department, Castle Peak Road – Tam Mi is classified as a Rural Road. With the consideration of the road connection with Castle Peak Road – Tam Mi, we have assumed as follows:

- 1) Kam Pok Road East – Rural Road
- 2) Kam Pok Road – Rural Road

It is much appreciated if you could confirm if you agree to the road types above. Should you have any queries, please do not hesitate to contact the undersigned.

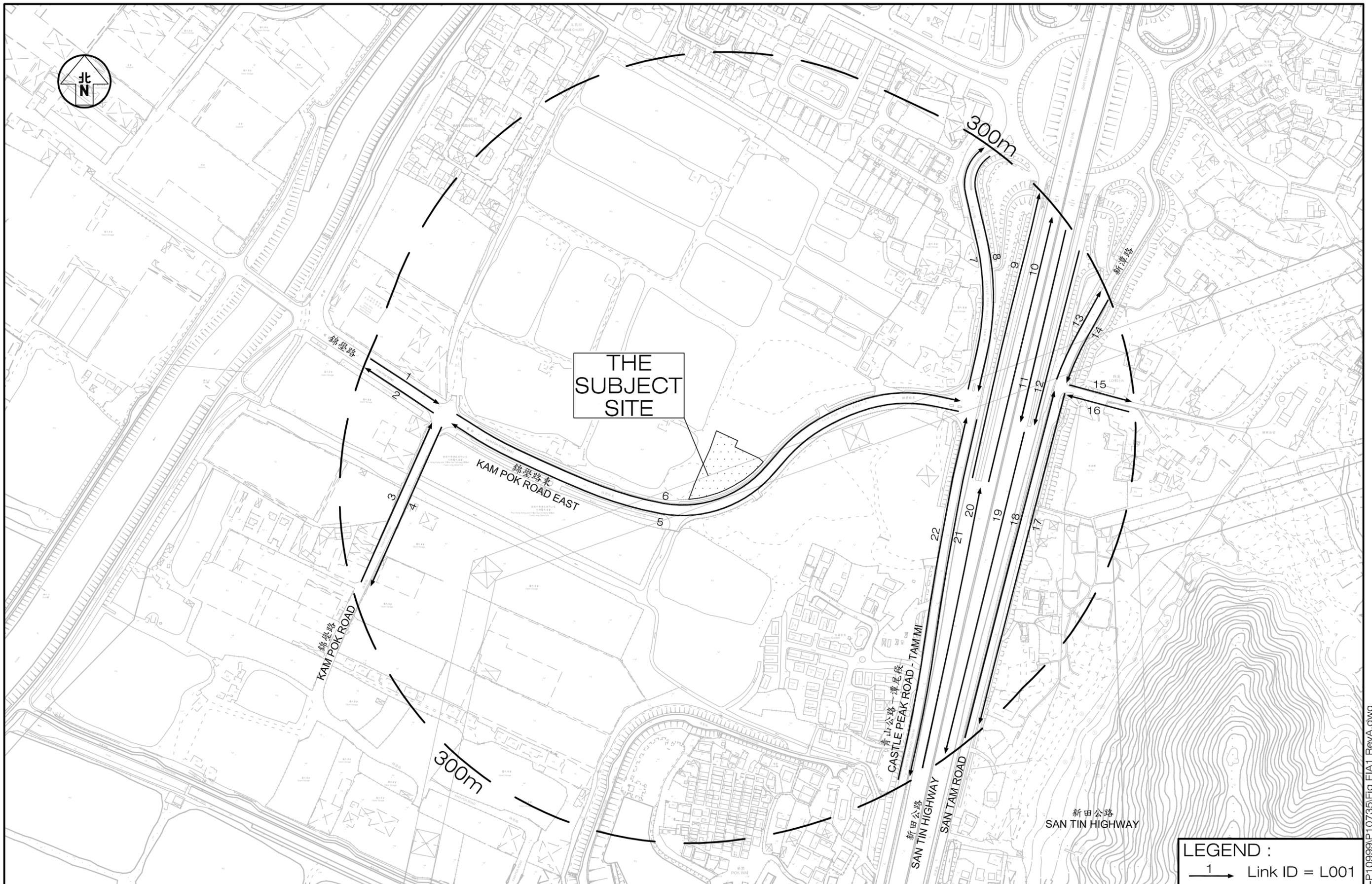
Thank you for your attention.

Regards,

Tommy Law
CKM Asia Limited
Traffic and Transportation Planning Consultant



APPENDIX 3.1 TRAFFIC FORECAST DATA



LEGEND :
 1 → Link ID = L001

Project PROPOSED SOCIAL WELFARE FACILITIES (RCHE) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 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 |
| Scale in A3 | 1 : 3,000 | Checked by | - |
| Date | 26 MAY 2025 | | |

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 | RR | 80 | 43% | 57% |
| L002 | Kam Pok Road (WB) | Kam Pok Road East | Pok Wai South Road | 50 | RR | 130 | 42% | 58% |
| L003 | Kam Pok Road (NB) | Pok Wai West Road | Kam Pok Road East | 50 | RR | 80 | 18% | 82% |
| L004 | Kam Pok Road (SB) | Kam Pok Road East | Pok Wai West Road | 50 | RR | 70 | 48% | 52% |
| L005 | Kam Pok Road East (WB) | Castle Peak Road - Tam Mi | Kam Pok Road | 50 | RR | 170 | 43% | 57% |
| L006 | Kam Pok Road East (EB) | Kam Pok Road | Castle Peak Road - Tam Mi | 50 | RR | 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 | 100 | 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 | RR | 120 | 40% | 60% |
| L002 | Kam Pok Road (WB) | Kam Pok Road East | Pok Wai South Road | 50 | RR | 100 | 39% | 61% |
| L003 | Kam Pok Road (NB) | Pok Wai West Road | Kam Pok Road East | 50 | RR | 70 | 43% | 57% |
| L004 | Kam Pok Road (SB) | Kam Pok Road East | Pok Wai West Road | 50 | RR | 70 | 20% | 80% |
| L005 | Kam Pok Road East (WB) | Castle Peak Road - Tam Mi | Kam Pok Road | 50 | RR | 150 | 33% | 67% |
| L006 | Kam Pok Road East (EB) | Kam Pok Road | Castle Peak Road - Tam Mi | 50 | RR | 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 | 100 | 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) ¹ , dB(A) | Proposed Noise Mitigation Measures | Estimated Noise Attenuation, dB(A) | Mitigated Noise Level, L ₁₀ (1 hour) ¹ , dB(A) | Compliance |
|--------|--------|--------------------|-------------------|------------------------|-----------------------|--|------------------------------------|------------------------------------|--|------------|
| | | | | | | AM | | | | |
| G/F | GF_N01 | Rehab Zone | +7.50 | +8.7 | 70 | 68 | N/A | N/A | 68 | Yes |
| | GF_N02 | Multi-purpose Room | | | 70 | 66 | N/A | N/A | 66 | Yes |
| | GF_N03 | Multi-purpose Room | | | 70 | 66 | N/A | N/A | 66 | Yes |
| | GF_N04 | RCHE Dormitory | | | 70 | 66 | N/A | N/A | 66 | Yes |
| | GF_N05 | RCHE Dormitory | | | 70 | 65 | N/A | N/A | 65 | Yes |
| | GF_N06 | RCHE Dormitory | | | 70 | 65 | N/A | N/A | 65 | Yes |
| | GF_N07 | RCHE Dormitory | | | 70 | 65 | N/A | N/A | 65 | Yes |
| | GF_N08 | RCHE Dormitory | | | 70 | 65 | N/A | N/A | 65 | Yes |
| | GF_N09 | RCHE Dormitory | | | 70 | 64 | N/A | N/A | 64 | Yes |
| | GF_N10 | RCHE Dormitory | | | 70 | 64 | N/A | N/A | 64 | Yes |
| | GF_N11 | RCHE Dormitory | | | 70 | 64 | N/A | N/A | 64 | Yes |
| | GF_N12 | RCHE Dormitory | | | 70 | 64 | N/A | N/A | 64 | Yes |
| | GF_N13 | RCHE Dormitory | | | 70 | 64 | N/A | N/A | 64 | Yes |
| | GF_N14 | RCHE Dormitory | | | 70 | 63 | N/A | N/A | 63 | Yes |
| | GF_N15 | RCHE Dormitory | | | 70 | 64 | N/A | N/A | 64 | Yes |
| 1/F | 1F_N01 | Dining Area | +12.00 | +13.2 | 70 | 75 | Type 2 | 7 | 68 | Yes |
| | 1F_N03 | Multi-purpose Room | | | 70 | 73 | Type 2 | 7 | 66 | Yes |
| | 1F_N04 | Multi-purpose Room | | | 70 | 73 | Type 2 | 7 | 66 | Yes |
| | 1F_N05 | Multi-purpose Room | | | 70 | 72 | Type 2 | 7 | 65 | Yes |
| | 1F_N06 | End-of-Life Room | | | 70 | 74 | Type 2 | 7 | 67 | Yes |
| | 1F_N07 | Isolation Room | | | 70 | 75 | Type 2 | 7 | 68 | Yes |
| | 1F_N08 | Sick Bay | | | 70 | 75 | Type 2 | 7 | 68 | Yes |
| | 1F_N09 | RCHE Dormitory | | | 70 | 67 | N/A | N/A | 67 | Yes |
| | 1F_N10 | RCHE Dormitory | | | 70 | 66 | N/A | N/A | 66 | Yes |
| | 1F_N11 | RCHE Dormitory | | | 70 | 66 | N/A | N/A | 66 | Yes |
| | 1F_N12 | RCHE Dormitory | | | 70 | 66 | N/A | N/A | 66 | Yes |
| | 1F_N13 | RCHE Dormitory | | | 70 | 66 | N/A | N/A | 66 | Yes |
| | 1F_N14 | RCHE Dormitory | | | 70 | 65 | N/A | N/A | 65 | Yes |
| | 1F_N15 | RCHE Dormitory | | | 70 | 65 | N/A | N/A | 65 | Yes |
| | 1F_N16 | RCHE Dormitory | | | 70 | 65 | N/A | N/A | 65 | Yes |
| | 1F_N17 | RCHE Dormitory | | | 70 | 65 | N/A | N/A | 65 | Yes |
| | 1F_N18 | RCHE Dormitory | | | 70 | 64 | N/A | N/A | 64 | Yes |
| | 1F_N19 | RCHE Dormitory | | | 70 | 64 | N/A | N/A | 64 | Yes |
| | 1F_N20 | RCHE Dormitory | | | 70 | 64 | N/A | N/A | 64 | Yes |
| | 1F_N21 | RCHE Dormitory | | | 70 | 64 | N/A | N/A | 64 | Yes |
| | 1F_N22 | RCHE Dormitory | | | 70 | 64 | N/A | N/A | 64 | Yes |
| | 1F_N23 | RCHE Dormitory | | | 70 | 63 | N/A | N/A | 63 | Yes |
| | 1F_N24 | RCHE Dormitory | | | 70 | 65 | N/A | N/A | 65 | Yes |
| | 2/F | 2F_N01 | | | RCHE Dormitory | +16.00 | +17.2 | 70 | 77 | Type 2 |
| 2F_N02 | | RCHE Dormitory | 70 | 77 | Type 2 | | | 7 | 70 | Yes |
| 2F_N03 | | RCHE Dormitory | 70 | 76 | Type 2 | | | 7 | 69 | Yes |
| 2F_N04 | | RCHE Dormitory | 70 | 77 | Type 2 | | | 7 | 70 | Yes |
| 2F_N05 | | RCHE Dormitory | 70 | 75 | Type 2 | | | 7 | 68 | Yes |
| 2F_N06 | | RCHE Dormitory | 70 | 77 | Type 2 | | | 7 | 70 | Yes |
| 2F_N07 | | RCHE Dormitory | 70 | 75 | Type 2 | | | 7 | 68 | Yes |
| 2F_N08 | | RCHE Dormitory | 70 | 77 | Type 2 | | | 7 | 70 | Yes |
| 2F_N09 | | RCHE Dormitory | 70 | 74 | Type 2 | | | 7 | 67 | Yes |
| 2F_N10 | | RCHE Dormitory | 70 | 77 | Type 2 | | | 7 | 70 | Yes |
| 2F_N14 | | RCHE Dormitory | 70 | 67 | N/A | | | N/A | 67 | Yes |
| 2F_N15 | | RCHE Dormitory | 70 | 67 | N/A | | | N/A | 67 | Yes |
| 2F_N16 | | RCHE Dormitory | 70 | 67 | N/A | | | N/A | 67 | Yes |
| 2F_N17 | | RCHE Dormitory | 70 | 66 | N/A | | | N/A | 66 | Yes |
| 2F_N18 | | RCHE Dormitory | 70 | 66 | N/A | | | N/A | 66 | Yes |
| 2F_N19 | | RCHE Dormitory | 70 | 66 | N/A | | | N/A | 66 | Yes |
| 2F_N20 | | RCHE Dormitory | 70 | 66 | N/A | | | N/A | 66 | Yes |
| 2F_N21 | | RCHE Dormitory | 70 | 65 | N/A | | | N/A | 65 | Yes |
| 2F_N22 | | RCHE Dormitory | 70 | 65 | N/A | | | N/A | 65 | Yes |
| 2F_N23 | | RCHE Dormitory | 70 | 65 | N/A | | | N/A | 65 | Yes |
| 2F_N24 | | RCHE Dormitory | 70 | 65 | N/A | | | N/A | 65 | Yes |
| 2F_N25 | | RCHE Dormitory | 70 | 65 | N/A | | | N/A | 65 | Yes |
| 2F_N26 | | RCHE Dormitory | 70 | 64 | N/A | | | N/A | 64 | Yes |
| 2F_N27 | | RCHE Dormitory | 70 | 64 | N/A | | | N/A | 64 | Yes |
| 2F_N28 | | RCHE Dormitory | 70 | 64 | N/A | | | N/A | 64 | Yes |
| 2F_N29 | | RCHE Dormitory | 70 | 66 | N/A | | | N/A | 66 | Yes |

| Results Summary | |
|-----------------------------------|------|
| Total No. of NAPs | 68 |
| 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 | |

Site Survey Record (conducted 23 July 2025 14:00 – 17:00)



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 Elderly (RCHE) in Nam Sang Wai, Yuen Long |
| Title: | Assessment for Noise from Fixed Sources |
| Subtitle: | Calculation of SPL at Assessment Points |
| NSR ID: | 2F_N01 |
| NSR x coord: | 823476.7 |
| NSR y coord: | 836538.3 |
| NSR floor (/F) | 2 |
| NSR height (mPD) | 17.2 |
| 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 | 172 | -53 | 0 | 3 | 48 | 48 | 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 | 200 | -54 | 0 | 3 | 46 | 46 | |
| S03 | Dorfield Ltd. | Fork Lift | Y | Y | 93.8 | 93.8 | 234 | -55 | 0 | 3 | 41 | 41 | |
| Total SPL | | | | | | | | | | | 51 | 51 | |
| Criteria ANL | | | | | | | | | | | 65 | 55 | |
| Exceedance | | | | | | | | | | | - | - | |

APPENDIX 3.5
MODIFICATION PLAN OF EXISTING NOISE
BARRIER

| | |
|--|--|
| 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. |

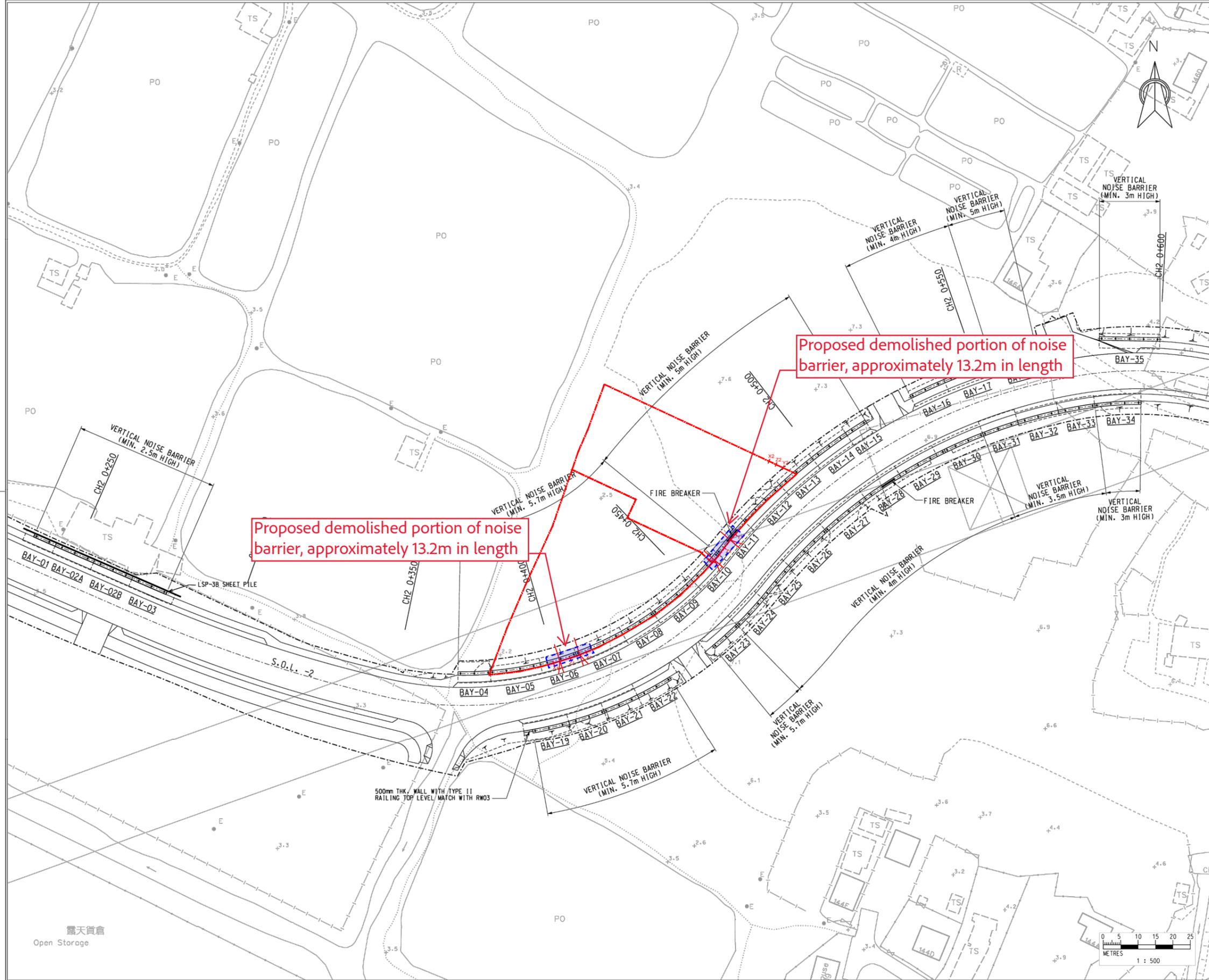
Email dated 4th July 2025 refers:

Comments of the Chief Highway Engineer/New Territories West, Highways Department:

| | |
|--|--|
| 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 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

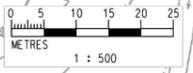
Consultants
MANNINGS
 (Asia) Consultants Limited

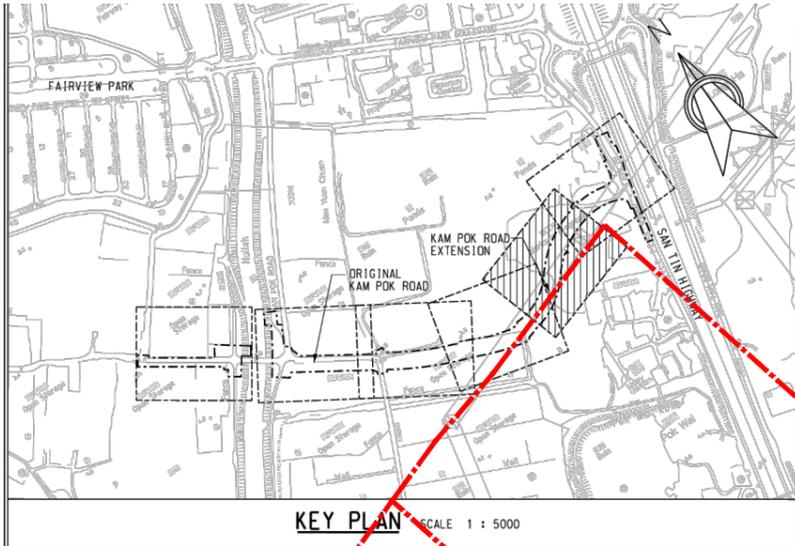
| | |
|---------------------------|------------------|
| Scale in A1 1 : 500 | Date DEC 2010 |
| Designed FT | Drawn TWN |
| Design Team Leader SNG | Checked JM |
| Approved KTC | Date DEC 2010 |
| | Date DEC 2010 |

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 Z | Rev. Z |
|--------------------------------|------------|-----------|





| KEY | BOTANICAL NAME | CHINESE NAME | SIZE (HT x SPD) | SPACING | TOTAL QUANTITY | REMARKS |
|----------------------|---------------------------|--------------|-----------------|-----------|----------------|---------------------------|
| GROUNDCOVERS: | | | | | | |
| 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 | - |
| SHRUBS: | | | | | | |
| 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 2011 | SIGNED |
| A | GENERAL REVISION | AUG 13 2011 | SIGNED |
| Rev. | Description of Revision | Date | Ckd. |

Client
 路政署 (工程部)
 HIGHWAYS DEPARTMENT
 WORKS DIVISION

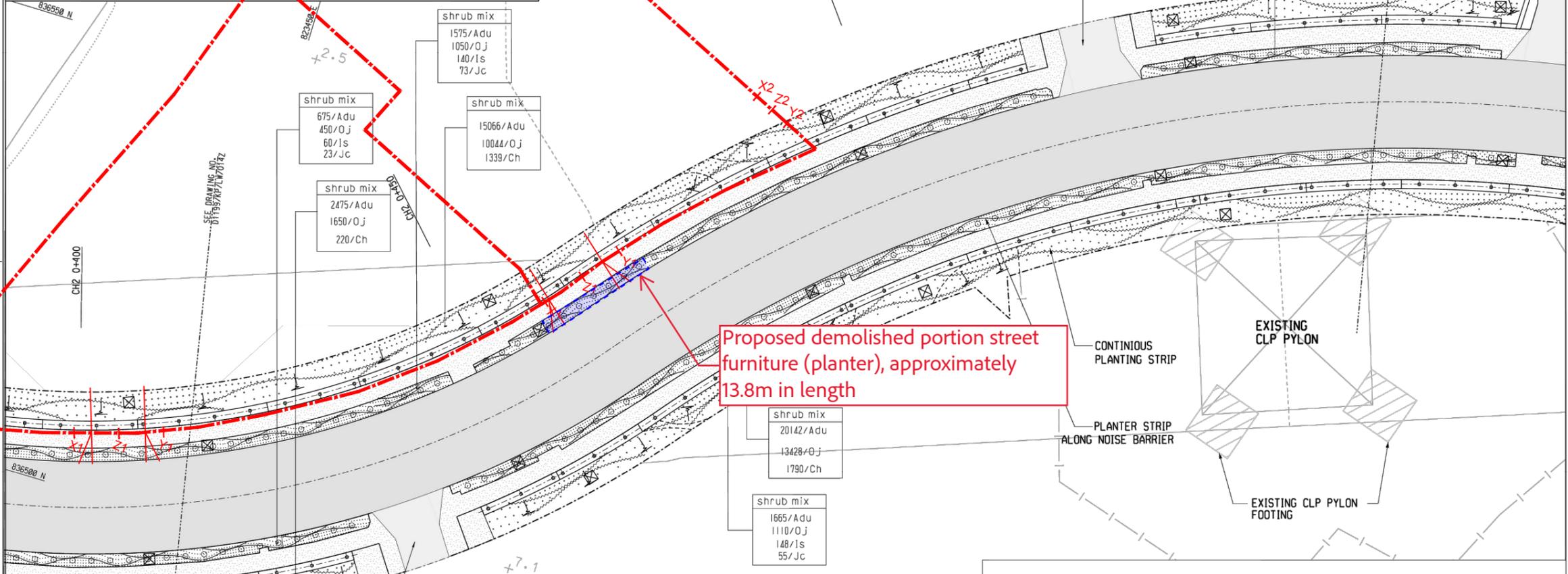
Consultants
MANNINGS
 (Asia) Consultants Limited

| | | | |
|--------------------|-----------|------------|----------|
| Scale In A1 | 1 : 250 | Date | FEB 2011 |
| Designed GK | Drawn SAN | Checked JM | |
| Design Team Leader | | Date | FEB 2011 |
| Approved KTC | | Date | FEB 2011 |

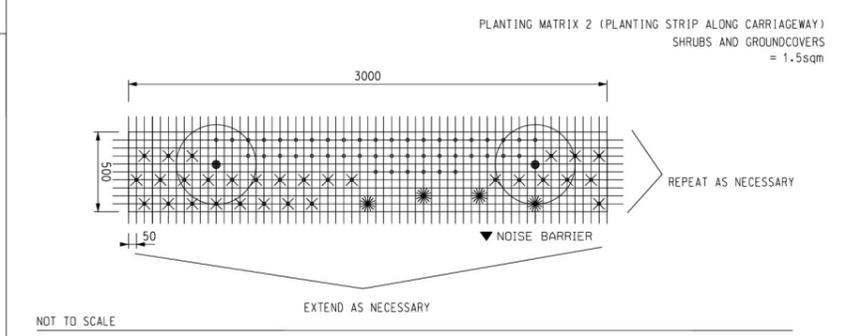
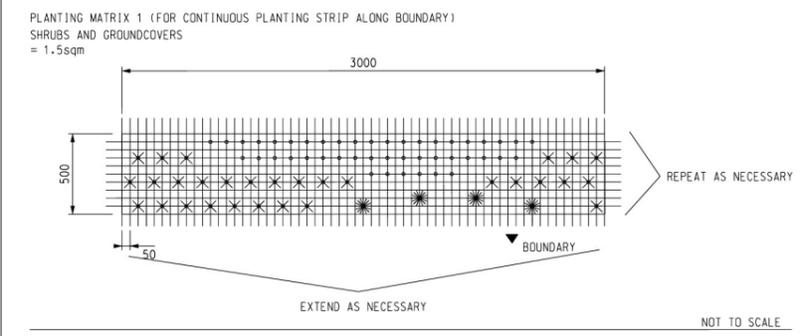
Project
Contract No. HY/2010/09
Improvement and Extension of Kam Pok Road

Title
LANDSCAPE LAYOUT PLAN

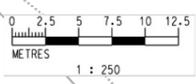
| | | |
|-----------------|-------|------|
| Drawing No. | Stage | Rev. |
| D1199/KP/LW/015 | | Z |

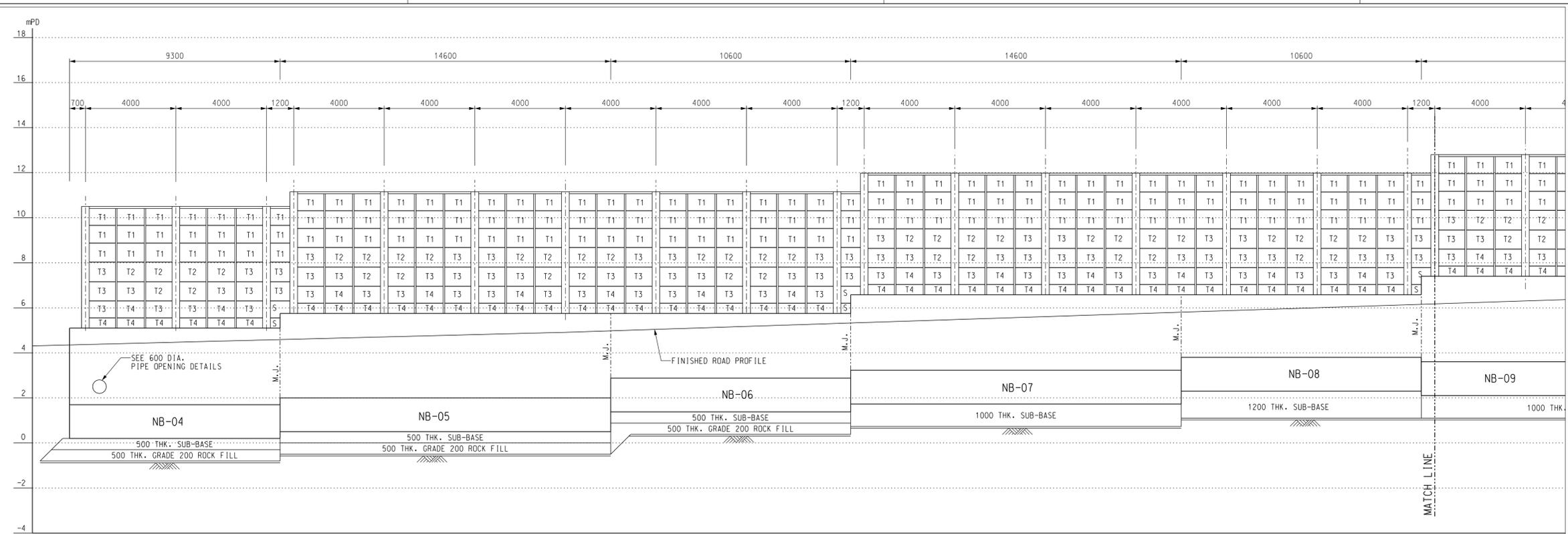


Proposed demolished portion street furniture (planter), approximately 13.8m in length

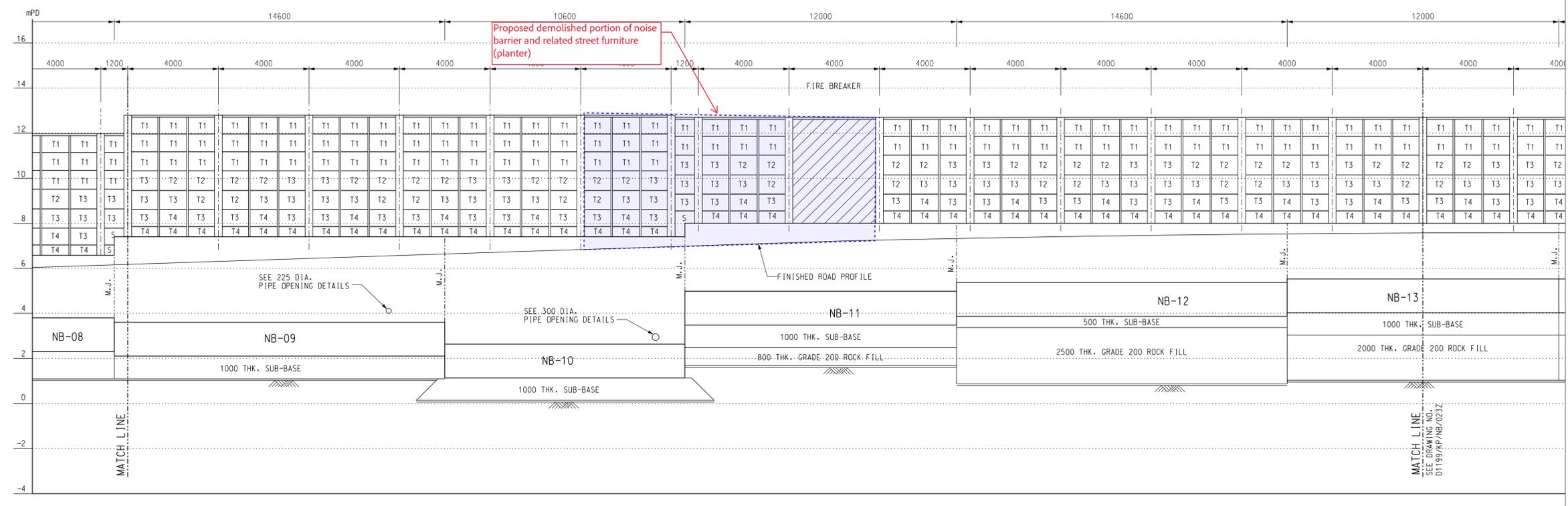


- LEGEND :**
- ARACHIS DURANENSIS (APPROX. 45NDS.)
 - OPHIPOGON JAPONICUS (APPROX. 30NDS.)
 - IXORA STRICTA (APPROX. 4NDS.)
 - JUNIPERUS CHINENSIS (APPROX. 2NDS. ; PLANTED IN SINGLE ROW IRRELEVANT OF PLANTER WIDTH)

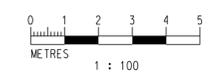




ELEVATION FROM NB-04 TO NB-15



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 |
|--------------------------------|-------|-----------|

APPENDIX 6.1

ENQUIRIES TO GOVERNMENTAL AUTHORITY

本署檔案
OUR REF :
來函檔案
YOUR REF : W25185/RCHE-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 the Elderly (RCHE)) 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

Re: Request for Information of Registered Dangerous Goods Records and Historical Records of Chemical Spillage / Leakage

From ado_lea_cs@hkfsd.gov.hk <ado_lea_cs@hkfsd.gov.hk>

Date Thu 7/24/2025 12:12 PM

To Leo Yu <[REDACTED]>

Cc OE8 CS/FSD <oe_cs_8@hkfsd.gov.hk>

Our reference: (19) in FSD GR 6-5/4 R Pt. 59

Your reference: W25185/RCHE-0001, W25185/RCHD-0001

Dear Mr. YU,

Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE) and 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
Request for Information of Dangerous Goods & Incident Records

I refer to your email of 27.6.2025 regarding the captioned request and reply below in response to your questions:-

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

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

Best regards,

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

Tel.: 2733 7896

Remark:

Lift incidents are excluded unless otherwise required.

Disclaimer:

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

From: Leo Yu <[REDACTED]>

Sent: Friday, July 4, 2025 16:01

To: ADO LEA CS/FSD

Cc: OE8 CS/FSD

Subject: Re: Fw: Request for Information of Registered Dangerous Goods Records and Historical Records of Chemical Spillage / Leakage

Dear Mr. Chow,

Thank you for the prompt response. Please find enclosed the appointment letters for your record as requested.

Best regards,

Leo Yu

BeeXergy Consulting Limited | [REDACTED]
[REDACTED]
[REDACTED]

Virus-

free.www.avast.com

On Fri, 4 Jul 2025 at 08:29, <ado_lea_cs@hkfsd.gov.hk> wrote:

Our reference: (19) in FSD GR 6-5/4 R Pt. 59

Your reference: W25185/RCHE-0001, W25185/RCHD-0001

Dear Mr. YU,

Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE) and 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
Request for Information of Dangerous Goods & Incident Records

I refer to your email on 27.6.2025 regarding the captioned subject.

Your case is being handled, and a reply will be furnished to you as soon as possible. Please be advised that due to time lapse, this Department can only provide the following information for your requested information:

- (i) Dangerous Goods Licence Record: from the year of 1990 to present moment.
- (ii) Incident Record: Past three years of fire and special services incidents. Lift incidents will be excluded unless otherwise required.

Please also submit the appointment letter from your client for record.

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

Best regards,

CHOW Yin-hei
Assistant Divisional Officer (Legal Affairs)
Corporate Services Division
Fire Services Department

Tel.: 2733 7896

From: "Leo Yu" <[REDACTED]>
To: hkfsdenq@hkfsd.gov.hk
Date: 27/06/2025 17:42
Subject: Request for Information of Registered Dangerous Goods Records and Historical Records of Chemical Spillage / Leakage

Dear Sir/Madam,

We are commissioned to conduct Environmental Assessment to support the Planning Application No. A/YL-NSW/348 and A/YL-NSW/349 at Kam Pok Road East.

We would like to request information for our assessment, please find enclosed the cover letter for your follow up. Thank you.

Please contact the undersigned if you have any queries.

Best regards,
Leo Yu

BeeXergy Consulting Limited | [REDACTED]

[REDACTED]
[REDACTED] [attachment "RCHE-0001 Letter_FSD.pdf" deleted by yin_hei CHOW/FSD/HKSARG] [attachment "RCHD-0001 Letter_FSD.pdf" deleted by yin_hei CHOW/FSD/HKSARG]

APPENDIX 6.2

SITE WALKOVER CHECKLIST

Site Walkover Checklist (24 July 2025)

GENERAL SITE DETAILS

SITE OWNER/CLIENT Right Top Limited

PROPERTY ADDRESS Various lots in D.D. 104 and adjoining government land, Nam Sang Wai, Yuen Long

PERSON CONDUCTING THE QUESTIONNAIRE

NAME Leo Yu

POSITION Consultant (Beexergy Consulting Limited)

AUTHORIZED OWNER/CLIENT REPRESENTATIVE (IF APPLICABLE)

NAME Law Yau Hung

POSITION Director

TELEPHONE [REDACTED]

SITE ACTIVITIES

Briefly describe activities carried out on site, including types of products/chemicals/materials handled.

Obtain a flow schematic if possible.

Number of employees: Full-time: Not applicable

Part-time: Not applicable

Temporary/Seasonal: Not applicable

Maximum no. of people on site at any time: Not applicable

Typical hours of operation: Not applicable

Number of shifts: Not applicable

Days per week: Not applicable

Weeks per year: Not applicable

Scheduled plant shut-down: Not applicable

Detail the main sources of energy at the site:

| | |
|-------------|--------|
| Gas | Yes/No |
| Electricity | Yes/No |
| Coal | Yes/No |
| Oil | Yes/No |
| Other | Yes/No |

SITE DESCRIPTION

This section is intended to gather information on site setting and environmental receptors on, adjacent or close to the site.

What is the total site area: Approximately 1,845sqm

What area of the site is covered by buildings (%): 0

Please list all current and previous owners/occupiers if possible. Right Top Limited

Is a site plan available? If yes, please attach. Yes/No

Are there any other parties on site as tenants or sub-tenants? Yes/No

If yes, identify those parties: _____

Describe surrounding land use (residential, industrial, rural, etc.) and identify neighbouring facilities and types of industry.

North: Residential development

South: Kam Pok Road East and temporary storage

East: Kam Pok Road East and temporary storage

West: Ponds (to be redevelop as residential development according to A/YL-NSW/314)

Describe the topography of the area (flat terrain, rolling hills, mountains, by a large body of water, vegetation, etc.).

The site is a flat terrain in general.

State the size and location of the nearest residential communities.

The proposed residential development at the north and west is around 3 to 5 storeys.

Are there any sensitive habitats nearby, such as nature reserves, parks, wetlands or sites of special scientific interest?

Ponds is found at the west, to be redevelop as residential development according to A/YL-NSW/314.

Questionnaire with Existing/Previous Site Owner or Occupier

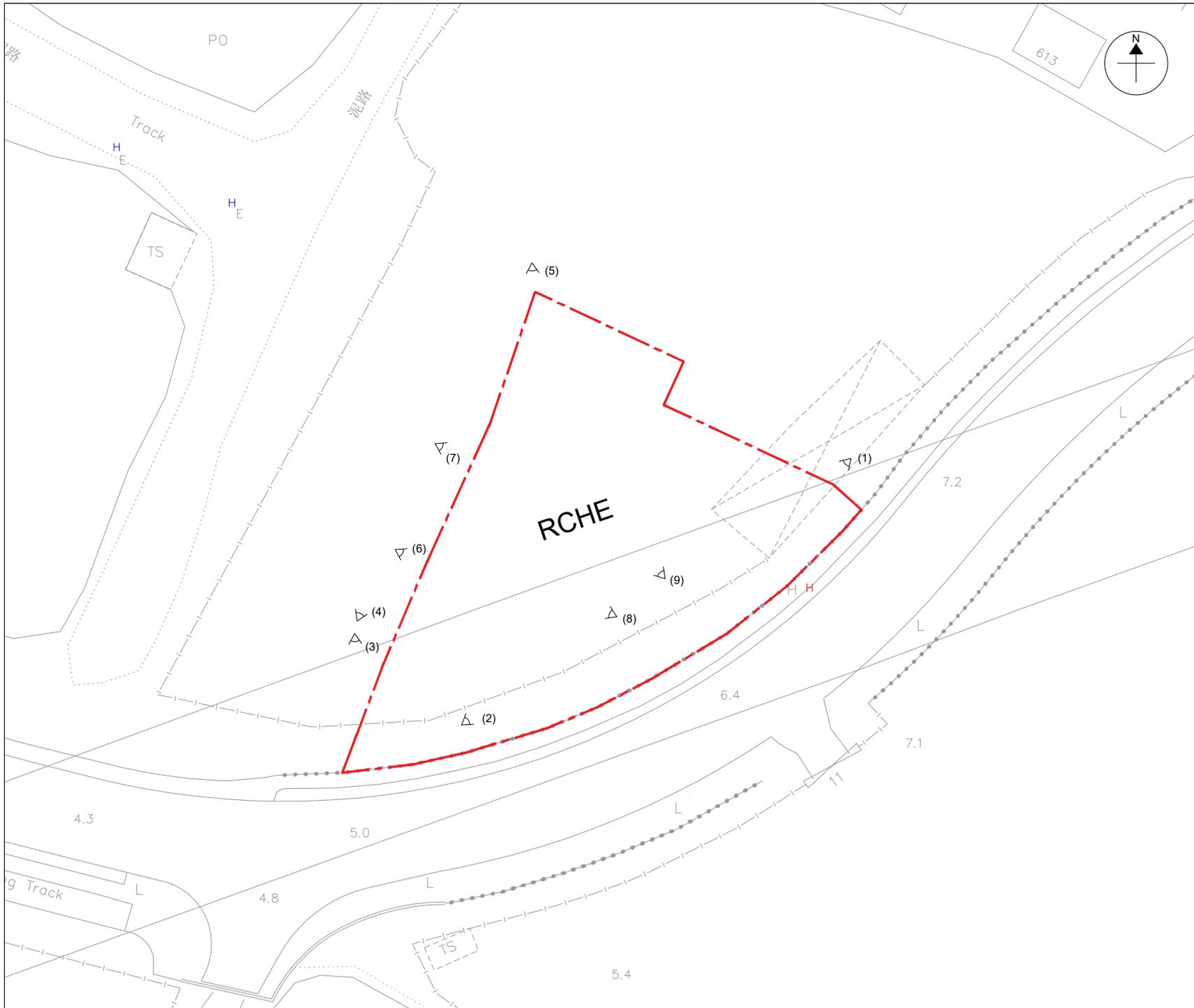
| Ref. | | Yes/No | Notes |
|------|--|--------|----------------|
| 1. | What are the main activities/operations at the above address? | No | |
| 2. | How long have you been occupying the site? | No | |
| 3. | Were you the first occupant on site? (If yes, what was the usage of the site prior to occupancy?) | No | |
| 4. | Prior to your occupancy, who occupied the site? | No | |
| 5. | What were the main activities/operations during their occupancy? | No | |
| 6. | Have there been any major changes in operations carried out at the site in the last 10 years? | No | |
| 7. | Have any polluting activities been carried out in the vicinity of the site in the past? | - | |
| 8. | To the best of your knowledge, has the site ever been used as a petrol filling station/car service garage? | - | |
| 9. | Are there any boreholes/wells or natural springs either on the site or in the surrounding area? | - | |
| 10. | Do you have any registered hazardous installations as defined under relevant ordinances? (If yes, please provide details.) | No | |
| 11. | Are any chemicals used in your daily operations? (If yes, please provide details.) | No | |
| | • Where do you store these chemicals? | - | Not applicable |
| 12. | Material inventory lists, including quantities and locations available? (If yes, how often are these inventories updated?) | - | Not applicable |
| 13. | Has the facility produced a separate hazardous substance inventory? | No | |
| 14. | Have there ever been any incidents or accidents (e.g. spills, fires, injuries, etc.) involving any of these materials? (If yes, please provide details.) | No | |
| 15. | How are materials received (e.g. rail, truck, etc.) and stored on site (e.g. drums, tanks, carboys, bags, silos, cisterns, | No | |

| | | | |
|-----|---|----|----------------|
| | vaults and cylinders)? | | |
| 16. | Do you have any underground storage tanks? (If yes, please provide details.) | No | |
| | <ul style="list-style-type: none"> ▪ How many underground storage tanks do you have on site? | No | |
| | <ul style="list-style-type: none"> ▪ What are the tanks constructed of? | No | |
| | <ul style="list-style-type: none"> ▪ What are the contents of these tanks? | No | |
| | <ul style="list-style-type: none"> ▪ Are the pipelines above or below ground? | No | |
| | <ul style="list-style-type: none"> ▪ If the pipelines are below ground, has any leak and integrity testing been performed? | No | |
| | <ul style="list-style-type: none"> ▪ Have there been any spills associated with these tanks? | No | |
| 17. | Are there any disused underground storage tanks? | No | |
| 18. | Do you have regular check for any spillage and monitoring of chemicals handled? (If yes, please provide details.) | - | Not applicable |
| 19. | How are the wastes disposed of? | - | Not applicable |
| 20. | Have you ever received any notices of violation of environmental regulations or received public complaints? (If yes, please provide details.) | No | |
| 21. | Have any spills occurred on site? (If yes, please provide details.) | No | |
| | <ul style="list-style-type: none"> • When did the spill occur? | - | |
| | <ul style="list-style-type: none"> • What were the substances spilled? | - | |
| | <ul style="list-style-type: none"> • What was the quantity of material spilled? | - | |
| | <ul style="list-style-type: none"> • Did you notify the relevant departments of the spill? | - | |
| | <ul style="list-style-type: none"> • What were the actions taken to clean up the spill? | - | |
| | <ul style="list-style-type: none"> • What were the areas affected? | - | |
| 22. | Do you have any records of major renovation of your site or rearrangement of underground utilities, pipe work/underground tanks (If yes, please provide details.) | No | |
| 23. | Have disused underground tanks been removed or otherwise secured (e.g. concrete, sand, etc.)? | - | Not applicable |
| 24. | Are there any known contaminations on site? (If yes, please provide details.) | - | |
| 25. | Has the site ever been remediated? (If yes, please provide details.) | - | |

Observations

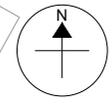
| | | | |
|-----|---|-----|--------------------------|
| 1. | Are chemical storage areas provided with secondary containment (i.e. bund walls and floors)? | N/A | No chemical storage area |
| 2. | What are the conditions of the bund walls and floors? | N/A | No chemical storage area |
| 3. | Are any surface water drains located near to drum storage and unloading areas? | No | |
| 4. | Are any solid or liquid waste (other than wastewater) generated at the site? (If yes, please provide details.) | No | |
| 5. | Is there a storage site for the wastes? | No | |
| 6. | Is there an on-site landfill? | No | |
| 7. | Were any stressed vegetation noted on site during the site reconnaissance? (If yes, please indicate location and approximate size.) | No | |
| 8. | Were any stained surfaces noted on-site during the site reconnaissance? (If yes, please provide details.) | No | |
| 9. | Are there any potential off-site sources of contamination? | No | |
| 10. | Does the site have any equipment which might contain polychlorinated biphenyls (PCBs)? | No | |
| 11. | Are there any sumps, effluent pits, interceptors or lagoons on site? | No | |
| 12. | Any noticeable odours during site walkover? | No | |
| 13. | Are any of the following chemicals used on site: fuels, lubricating oils, hydraulic fluids, cleaning solvents, used chemical solutions, acids, anti-corrosive paints, thinners, coal, ash, oily tanks and bilge sludge, metal wastes, wood preservatives and polyurethane foam? | No | |

APPENDIX 6.3
SITE PHOTO



LEGEND:

- Project Site
- Viewpoint



| | | | |
|---------|----------|----------|----------|
| | Prepared | Checked | Approved |
| Initial | Various | Various | HM |
| Date | 20250926 | 20250926 | 20250926 |

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

Figure Title
 Viewpoint of photo record

| | |
|-------------------|-------------|
| Figure No. | Rev. |
| Appendix 6.3 | 0 |

Photo Record of Site Survey (24/07/2025)



Photo 1: Site perimeter at northeast of the site



Photo 2: Site perimeter at southeast of the site



Photo 3: Site perimeter at southwest of the site



Photo 4: Site perimeter at southwest of the site



Photo 5: Site perimeter at northwest of the site



Photo 6: General view of the site



Photo 7: The site was vacant and unpaved



Photo 8: No oil stain is observed on the ground



Photo 9: No oil stain is observed on the ground

Appendix 3

Revised Sewerage Impact
Assessment (SIA)

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

SEWERAGE IMPACT ASSESSMENT

14 Oct 2025

Report No: RT25285-SIA-01B

Prepared By:

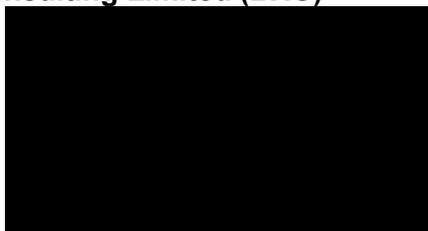


BeeXergy Consulting Limited (BXG)

Phone:

Address:

Email:



| Project: | PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, NAM SANG WAI, YUEN LONG SEWERAGE IMPACT ASSESSMENT | | | | |
|-------------|--|--------------------|--------|---------|----------|
| Report No.: | Ref: RT25285-SIA-01B | | | | |
| Revision | Issue Date | Description | Author | Checker | Approver |
| 0 | 20/05/2025 | Issued for Comment | LY | YS | HM |
| A | 08/07/2025 | Issued for Comment | LY | YS | HM |
| B | 14/10/2025 | Issued for Comment | VS | LY | HM |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

Prepared By:

Checked by

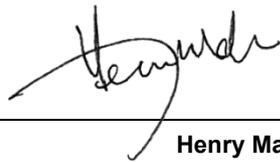


Various

Leo Yu

Consultant

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.

TABLE OF CONTENTS

| | | |
|------------|--|----------|
| 1 | INTRODUCTION | 1 |
| 1.1 | PROJECT BACKGROUND..... | 1 |
| 1.2 | PROJECT LOCATION | 1 |
| 1.3 | DESCRIPTION OF THE SUBJECT SITE AND PROPOSED DEVELOPMENT | 1 |
| 2 | SEWERAGE IMPACT ASSESSMENT | 1 |
| 2.1 | SCOPE OF WORKS..... | 1 |
| 2.2 | EXISTING SEWERAGE FACILITIES..... | 1 |
| 2.3 | OTHER PLANNED SEWERAGE FACILITIES | 2 |
| 2.4 | PROPOSED SEWERAGE FACILITIES | 2 |
| 2.5 | MAINTENANCE RESPONSIBILITY | 3 |
| 2.6 | ASSESSMENT CRITERIA, METHODOLOGY, AND ASSUMPTIONS..... | 3 |
| 2.7 | RESULTS AND DISCUSSION | 4 |
| 3 | CONCLUSION | 5 |

LIST OF FIGURES

| | |
|----------|---|
| FIGURE 1 | LOCATION OF THE PROJECT SITE AND ITS SURROUNDING AREA |
| FIGURE 2 | EXISTING SEWERAGE SYSTEM |
| FIGURE 3 | PROPOSED TERMINAL MANHOLE AND CONNECTION |

LIST OF APPENDICES

| | |
|-------------------|---|
| APPENDIX A | MASTER LAYOUT PLAN |
| APPENDIX B | SEWAGE CALCULATION AND HYDRAULIC CAPACITY CHECK |
| APPENDIX C | EXISTING SEWERS IDENTIFIED UNDER APPROVED APPLICATION NO. A/YL-NSW/314 |
| APPENDIX D | PLANNED COMMUNAL GRAVITY SEWERS UNDER OTHER APPROVED APPLICATION |

1 INTRODUCTION

1.1 PROJECT BACKGROUND

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

1.1.1. BeeXergy Consulting Limited was appointed by DeSPACE (International) Limited (the Town Planner) to conduct a Sewerage Impact Assessment (SIA) for the Proposed Development to support the application under Section 16 of the Town Planning Ordinance. The latest architectural drawings and technical information on the Project Site were largely provided by the Project Architect.

1.2 PROJECT LOCATION

1.2.1. The Project Site is approximately 1844m², currently bounded by abandoned fishponds to the north and west, Kam Pok Road East to the south. **Figure 1** shows the location of the Project Site and its surrounding area.

1.3 DESCRIPTION OF THE SUBJECT SITE AND PROPOSED DEVELOPMENT

1.3.1. The Project Site area is approximately 1,844m². The Proposed Development is an 3-storey building consisting of RCHE dormitory and communal area. The master layout plan provided by the Project Architect is enclosed in **Appendix A**. The tentative population intake year is 2030.

2 SEWERAGE IMPACT ASSESSMENT

2.1 SCOPE OF WORKS

2.1.1. The objective of this SIA is to assess whether the capacity of the sewerage networking is sufficient to cope with the peak sewage flow arising from the Proposed Development during its operation stage or not and to recommend appropriate mitigation measures to alleviate unacceptable sewerage impact, if any.

2.2 EXISTING SEWERAGE FACILITIES

2.2.1. The existing sewerage record from the Lands Department (LandsD) and Drainage Service Department (DSD) are obtained for this SIA and attached in **Figure 2**. There are no existing manholes **identified in the sewerage plan**. The public sewerage facility located closest to the Project Site is Nam Sang Wai Sewage Pumping Station which is located approximately 800m away from the boundary of the Project Site. **Reference**

was made to the approved planning application (A/YL-NSW/314), a set of existing 225mm public sewerage system (from feature no. MH540 to MH235) is identified along Kam Pok Road East, which is currently not in use, the relevant information is extracted in **Appendix C**.

2.3 OTHER PLANNED SEWERAGE FACILITIES

2.3.1. Reference was made to the approved planning application (A/YL-NSW/314), newly proposed sewers (P1 to P15) and upgrading works of the existing sewers identified along Kam Pok Road East (MH540 to MH235) were proposed to serve its own development and planned development sites in vicinity. The proposed communal sewers will also become public sewers and maintained by relevant government department such as DSD. The location of the proposed connection are shown in **Figure 3**.

2.3.2. It is noted that downstream sections of the communal gravity sewer, from manhole at the junction with Kam Pok Road connecting proposed manhole P3 to existing manhole FSH1001886, which connect along Pok Wai South Road to Nam Sang Wai Sewage Pumping Station (NSWSPS), have been proposed by several approved planning applications (No.: A/YL-NSW/314, Y/YL-NSW/7 and Y/YL-MP/10). The proposed alignment of this downstream section of the communal gravity sewer of different planning applications are shown in **Appendix D**. The proposed communal sewers ranged from twin 675 mm to twin 750 mm for sewer P3 to FSH1001886 along the Pok Wai South Road which will be sufficient to cater the additional sewage due to other nearby developments.

2.4 PROPOSED SEWERAGE FACILITIES

2.4.1. New terminal manhole (namely S1, MH660, MH620 and MH580) will be built to collect the sewage generated from the Proposed Development and connect to the communal sewer via a new 225mm diameter sewer pipe. The location of the proposed connection are shown in **Figure 3**. The cover level of proposed terminal manhole should be higher than that of the downstream public manhole(s). The proposed new terminal manhole and 225mm sewer pipe within site boundary will be implemented and maintained by the Project Proponent, other proposed manhole and sewer outside site boundary will become a public sewage system serving multiple users and will be handed over to government for future maintenance. The capacity check of the sewer will start from the proposed terminal manhole S1. The proposed development would not have population intake before the sewerage infrastructure of the project is functionally connected to the public sewerage system by other development mentioned in Section 2.3.

2.4.2. For other proposed sewers and upgrading works from MH540 to FSH100188, the Project Proponent will be responsible for the liaison and coordination with the other interfacing projects for the implementation of the required sewerage works in later stage. In case these planned sewers are not available at the time of completion of the Proposed Development, there will be no population intake until proposed sewerage system becomes available, or otherwise the Project Proponent will, after liaison with DSD and the other future developments near the Proposed Site, construct the sewers in order to secure discharge during operation of Proposed Development should a population intake be required.

2.5 MAINTENANCE RESPONSIBILITY

2.5.1. All sewers and sewerage facilities within the proposed development will be constructed, operated, and maintained by the Proposed Development.

2.5.2. For downstream sections of the communal gravity sewer that are proposed along Kam Pok East and Pok Wai South Rod to NSWSPS will become public sewers and handed over to the DSD for future maintenance.

2.6 ASSESSMENT CRITERIA, METHODOLOGY, AND ASSUMPTIONS

2.6.1. The Unit Flow Factors and Global Peaking Factor are adopted from the figures in the Guidelines for Estimating Sewage Flows for Sewage Infrastructure Planning (Version 1.0)¹ (GESF) issued by the Environmental Protection Department (EPD) in March 2005 to estimate the sewage flows generated from the Project Site.

2.6.2. The Unit Flow Factors and Catchment Inflow Factors as shown in **Table 2.1** below are adopted in the assessment and the surrounding catchments are shown in **Figure 3**.

Table 2.1 Unit Flow Factors and Catchment Inflow Factors Extracted from GESF

| Parameter | Value | Justification |
|-----------------------------------|-------------------------|--|
| <i>Population</i> | | |
| Residents in Proposed Development | 208 people | 208 beds |
| Employees in Proposed Development | 90 people | Advised by Project Proponent |
| <i>Unit Flow Factors</i> | | |
| Residents and Visitors in | 0.19m ³ /day | “Institutional and special class” based on EPD’s |

¹ http://www.epd.gov.hk/epd/sites/default/files/epd/english/environmentinhk/water/guide_ref/files/gesf.pdf

| | | |
|--|-------------------------|--|
| Proposed Development | | GESF Table T-1. |
| Employees in Proposed Development | 0.28m ³ /day | J11 “Community, Social & Personal Services” based on EPD’s GESF Table T-2. |
| <i>Catchment Inflow Factor (P_{CIF})</i> | | |
| Discharge from the Project Site and all Catchments | 1.0 | Yuen Long Catchment based on EPD's GESF Table T-4. |

- 2.6.3. With reference to Table T-5 of GESF, a global peaking factor of 8 and 6 (including stormwater allowance) are adopted according to the contributing population.
- 2.6.4. With reference to Table 5 in the Sewerage Manual (Part 1)² issued by the DSD in May 2013, slimed sewer of k_s of 0.6mm under “Poor” condition is assumed for both the sewers from the Subject Site and existing sewerage system in the worst-case scenario. The Colebrook-White Equation will be used to analyse the flow conditions. Equation (ii) for circular pipes flowing partially full is adopted to estimate the sewage flow for the Subject Site and following sewers.

2.7 RESULTS AND DISCUSSION

- 2.7.1. The estimated average flow rate and total peak flow of the Proposed Development are approximately 64.7m³/day and 5.99L/s.
- 2.7.2. Sewage generated from the Proposed Development and surrounding catchment areas will be connected at the downstream of sewage network. The cumulative flow is generally no more than 30% of sewer capacity and no adverse sewerage impacts to the existing sewerage system are identified. Therefore, no upgrading or improvement works of the sewerage system are required. Details of the sewage calculation are included in **Appendix B**.

² http://www.dsd.gov.hk/EN/Files/Technical_Manual/technical_manuals/Sewerage_Manual_1_Eurocodes.pdf

3 CONCLUSION

- 3.1.1. A Social Welfare Facility (Residential Care Home for the Elderly) is proposed to develop at various lots in D.D. 104, Nam Sang Wai. This is the SIA to support the application under Section 16 of the Town Planning Ordinance.
- 3.1.2. Based on the SIA results, it is found that the existing sewerage system serving the area has sufficient capacity to cater for the sewage generation from the proposed development and the surrounding catchment areas. Adverse sewerage impacts are not anticipated, and thus no upgrading or improvement works are required.

FIGURE 1
LOCATION OF THE PROJECT SITE AND ITS
SURROUNDING AREA

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 Elderly (RCHE)) 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

| | |
|-------------------------|-----------|
| Drawing No. FIGURE 1 | Rev. 0 |
|-------------------------|-----------|

Scale:
 A4 - 1:5500

FIGURE 2
EXISTING SEWERAGE SYSTEM

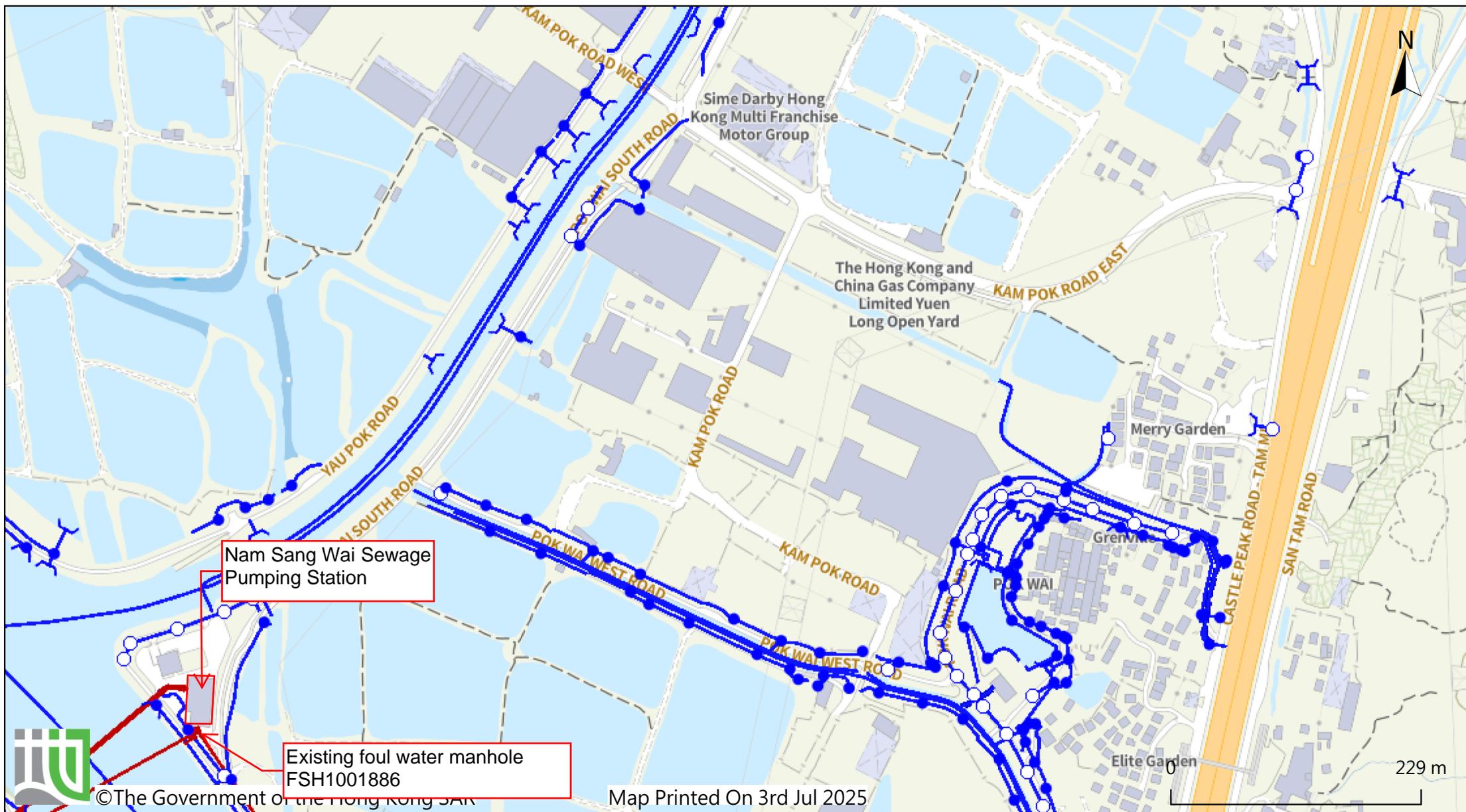
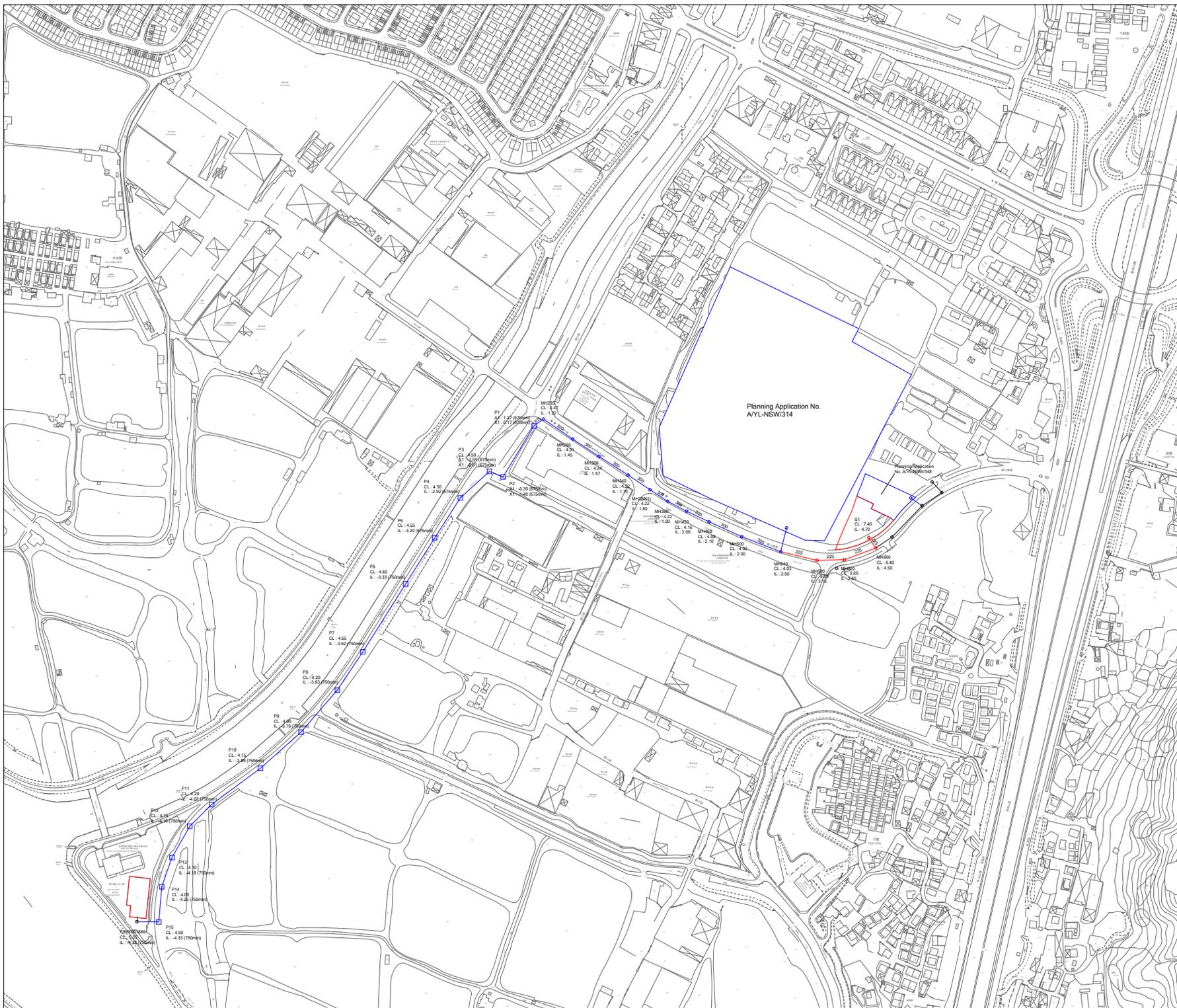


FIGURE 3
PROPOSED TERMINAL MANHOLE AND
CONNECTION

LEGEND:

- Site Boundary
- Proposed Manhole
- Proposed Sewer
- Existing Manhole
- Existing Sewer
- Proposed Manhole (by App. No. A/YL-NSW/314)
- Proposed Sewer (by App. No. A/YL-NSW/314)



| | Prepared | Checked | Approved |
|---------|----------|----------|----------|
| Initial | VS | LY | HM |
| Date | 20251014 | 20251014 | 20251014 |

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

Drawing Title
 PROPOSED TERMINAL MANHOLE AND CONNECTION

| Drawing No. | Rev. |
|-------------|------|
| FIGURE 3 | 0 |

Scale: A4 - 1:5500

APPENDIX A

MASTER LAYOUT PLAN

APPENDIX B
SEWAGE CALCULATION AND HYDRAULIC
CAPACITY CHECK

APPENDIX B - CALCULATION OF SEWAGE FLOW

| Development | GFA (m ²) | No. of Flat | Occupancy Density ^{(a), (b)} (Number of Persons) (Workers per GFA in 100m ²) | Estimated Population | Unit Flow Factor (m ³ /day) | Estimated Average Dry Weather Flow (m ³ /day) | Catchment Inflow Factor | Estimated Average Dry Weather Flow X Catchment Inflow Factor (m ³ /day) | Remarks |
|---|-----------------------|-------------|---|----------------------|--|--|-------------------------|--|--|
| 1) Proposed Development | | | | | | | | | |
| Residents in Proposed Development | 3850 | - | - | 208 | 0.19 | 39.520 | 1.0 | 39.520 | Estimated Population: The proposed development scheme will provide 178 bed spaces. Unit Flow Factor: 0.190m ³ /day for 'Institutional and special class' based on EPD's GESF Table T-1 |
| Employees in Proposed Development | | - | - | 90 | 0.28 | 25.200 | | 25.200 | Estimated Population: Number of staff advised by Project Proponent . Unit Flow Factor: 0.280m ³ /day for 'Institutional and special class' based on EPD's GESF Table T-1 |
| Total Average Daily Dry Weather Flow of Proposed Development (m³/day) | | | | | | | | 64.720 | |

Sewage Flow of Planned Development

| Planning Application No. | ADWF (m3/day) | Contributing Populatoin |
|--------------------------|---------------|-------------------------|
| A/YL-NSW/348 | 59.02 | 268 |
| A/YL-NSW/314 | 125.3 | 464 |
| Y/YL-MP/10 | 1972.76 | 6878 |
| Y/YL-NSW/7 | 1565 | 5742 |

| Section | Contributing Development | Total ADWF (m3/day) | Total Contributing Population | Peaking Factor | Peak Flow (L/s) |
|------------------|--|---------------------|-------------------------------|----------------|-----------------|
| S2 to MH540 | Proposed Development A/YL-NSW/348 | 123.740 | 566 | 8 | 11.46 |
| MH540 to P3 | Proposed Development A/YL-NSW/348 A/YL-NSW/314 | 249.040 | 1030 | 6 | 17.29 |
| P3 to P8 | Proposed Development A/YL-NSW/348 A/YL-NSW/314 Y/YL-MP/10 | 2221.800 | 7908 | 5 | 128.58 |
| P8 to FSH1001886 | Proposed Development A/YL-NSW/348 A/YL-NSW/314 Y/YL-MP/10 Y/YL-NSW/7 | 3786.800 | 13650 | 4 | 175.31 |

Appendix B - Hydraulic Capacity of the Proposed and Downstream Sewers

| Manhole Reference | Manhole Reference | Pipe Dia. | Pipe Length | Upstream Invert Level | Downstream Invert Level | g ⁽¹⁾ | k _s ^{(1),(2)} | s ⁽¹⁾ | v ⁽¹⁾ | v ^{(1),(2)} | A | Q ⁽⁴⁾ | Estimated Capacity | ADWF | Contributing Population | Peaking Factor | Peak Flow | Capacity | Compliance | Remarks |
|-------------------|-------------------|-----------|-------------|-----------------------|-------------------------|------------------|-----------------------------------|-------------------|------------------|----------------------|-------------------|------------------|---------------------|---------|-------------------------|----------------|-----------|----------|------------|-----------|
| | | mm | m | mPD | mPD | m/s ² | m | m ² /s | m/s | m ² | m ³ /s | L/s | m ³ /day | L/s | | | | | | |
| S1 | S2 | 225 | 27.0 | 4.700 | 4.500 | 9.81 | 0.0006 | 0.0074 | 1.306E-06 | 1.1196 | 0.0398 | 0.0445 | 44.52 | 64.72 | 298 | 8 | 5.99 | 13.5% | Yes | |
| S2 | S3 | 225 | 42.0 | 4.500 | 3.650 | 9.81 | 0.0006 | 0.0202 | 1.306E-06 | 1.8611 | 0.0398 | 0.0740 | 74.00 | 123.74 | 566 | 8 | 11.46 | 15.5% | Yes | |
| S3 | S4 | 225 | 31.0 | 3.650 | 3.150 | 9.81 | 0.0006 | 0.0161 | 1.306E-06 | 1.6597 | 0.0398 | 0.0660 | 65.99 | 123.74 | 566 | 8 | 11.46 | 17.4% | Yes | |
| S4 | MH540 | 225 | 38.0 | 3.150 | 2.500 | 9.81 | 0.0006 | 0.0171 | 1.306E-06 | 1.7097 | 0.0398 | 0.0680 | 67.98 | 123.74 | 566 | 8 | 11.46 | 16.9% | Yes | |
| MH540 | MH500 | 300 | 46.0 | 2.500 | 2.300 | 9.81 | 0.0006 | 0.0043 | 1.306E-06 | 1.0286 | 0.0707 | 0.0727 | 72.71 | 249.04 | 1030 | 6 | 17.29 | 23.8% | Yes | |
| MH500 | MH460 | 300 | 40.0 | 2.300 | 2.100 | 9.81 | 0.0006 | 0.0050 | 1.306E-06 | 1.1042 | 0.0707 | 0.0781 | 78.05 | 249.04 | 1030 | 6 | 17.29 | 22.2% | Yes | |
| MH460 | MH420 | 300 | 27.0 | 2.100 | 2.000 | 9.81 | 0.0006 | 0.0037 | 1.306E-06 | 0.9482 | 0.0707 | 0.0670 | 67.02 | 249.04 | 1030 | 6 | 17.29 | 25.8% | Yes | |
| MH420 | MH380 | 300 | 24.0 | 2.000 | 1.900 | 9.81 | 0.0006 | 0.0042 | 1.306E-06 | 1.0066 | 0.0707 | 0.0712 | 71.16 | 249.04 | 1030 | 6 | 17.29 | 24.3% | Yes | |
| MH380 | MH380(1) | 300 | 23.0 | 1.900 | 1.800 | 9.81 | 0.0006 | 0.0043 | 1.306E-06 | 1.0286 | 0.0707 | 0.0727 | 72.71 | 249.04 | 1030 | 6 | 17.29 | 23.8% | Yes | |
| MH380(1) | MH340 | 300 | 29.0 | 1.800 | 1.700 | 9.81 | 0.0006 | 0.0034 | 1.306E-06 | 0.9144 | 0.0707 | 0.0646 | 64.63 | 249.04 | 1030 | 6 | 17.29 | 26.8% | Yes | |
| MH340 | MH300 | 300 | 38.0 | 1.700 | 1.570 | 9.81 | 0.0006 | 0.0034 | 1.306E-06 | 0.9107 | 0.0707 | 0.0644 | 64.37 | 249.04 | 1030 | 6 | 17.29 | 26.9% | Yes | |
| MH300 | MH260 | 300 | 35.0 | 1.570 | 1.450 | 9.81 | 0.0006 | 0.0034 | 1.306E-06 | 0.9117 | 0.0707 | 0.0644 | 64.44 | 249.04 | 1030 | 6 | 17.29 | 26.8% | Yes | |
| MH260 | MH235 | 300 | 39.0 | 1.450 | 1.320 | 9.81 | 0.0006 | 0.0033 | 1.306E-06 | 0.8987 | 0.0707 | 0.0635 | 63.53 | 249.04 | 1030 | 6 | 17.29 | 27.2% | Yes | |
| MH235 | P1 | 675 | 13.0 | 1.320 | 1.270 | 9.81 | 0.0006 | 0.0038 | 1.306E-06 | 1.6166 | 0.3578 | 0.5785 | 1157.03 | 249.04 | 1030 | 6 | 17.29 | 1.5% | Yes | Twin pipe |
| P1 | P2 | 675 | 66.0 | 0.170 | -0.300 | 9.81 | 0.0006 | 0.0071 | 1.306E-06 | 2.2057 | 0.3578 | 0.7893 | 1578.57 | 249.04 | 1030 | 6 | 17.29 | 1.1% | Yes | Twin pipe |
| P2 | P3 | 675 | 16.0 | -1.400 | -1.510 | 9.81 | 0.0006 | 0.0069 | 1.306E-06 | 2.1669 | 0.3578 | 0.7754 | 1550.84 | 249.04 | 1030 | 6 | 17.29 | 1.1% | Yes | Twin pipe |
| P3 | P4 | 675 | 43.0 | -2.610 | -2.920 | 9.81 | 0.0006 | 0.0072 | 1.306E-06 | 2.2194 | 0.3578 | 0.7942 | 1588.38 | 2221.80 | 7908 | 5 | 128.58 | 8.1% | Yes | Twin pipe |
| P4 | P5 | 675 | 52.0 | -2.920 | -3.200 | 9.81 | 0.0006 | 0.0054 | 1.306E-06 | 1.9158 | 0.3578 | 0.6856 | 1371.14 | 2221.80 | 7908 | 5 | 128.58 | 9.4% | Yes | Twin pipe |
| P5 | P6 | 750 | 60.0 | -3.200 | -3.330 | 9.81 | 0.0006 | 0.0022 | 1.306E-06 | 1.2920 | 0.4418 | 0.5708 | 1141.60 | 2221.80 | 7908 | 5 | 128.58 | 11.3% | Yes | Twin pipe |
| P6 | P7 | 750 | 88.0 | -3.330 | -3.520 | 9.81 | 0.0006 | 0.0022 | 1.306E-06 | 1.2897 | 0.4418 | 0.5698 | 1139.58 | 2221.80 | 7908 | 5 | 128.58 | 11.3% | Yes | Twin pipe |
| P7 | P8 | 750 | 50.0 | -3.520 | -3.630 | 9.81 | 0.0006 | 0.0022 | 1.306E-06 | 1.3020 | 0.4418 | 0.5752 | 1150.45 | 2221.80 | 7908 | 5 | 128.58 | 11.2% | Yes | Twin pipe |
| P8 | P9 | 750 | 61.0 | -3.630 | -3.760 | 9.81 | 0.0006 | 0.0021 | 1.306E-06 | 1.2813 | 0.4418 | 0.5660 | 1132.09 | 2221.80 | 7908 | 5 | 128.58 | 11.4% | Yes | Twin pipe |
| P9 | P10 | 750 | 59.0 | -3.760 | -3.890 | 9.81 | 0.0006 | 0.0022 | 1.306E-06 | 1.3031 | 0.4418 | 0.5757 | 1151.35 | 3786.80 | 13650 | 4 | 175.31 | 15.2% | Yes | Twin pipe |
| P10 | P11 | 750 | 67.0 | -3.890 | -4.030 | 9.81 | 0.0006 | 0.0021 | 1.306E-06 | 1.2685 | 0.4418 | 0.5604 | 1120.85 | 3786.80 | 13650 | 4 | 175.31 | 15.6% | Yes | Twin pipe |
| P11 | P12 | 750 | 34.0 | -4.030 | -4.100 | 9.81 | 0.0006 | 0.0021 | 1.306E-06 | 1.2591 | 0.4418 | 0.5562 | 1112.48 | 3786.80 | 13650 | 4 | 175.31 | 15.8% | Yes | Twin pipe |
| P12 | P13 | 750 | 40.0 | -4.100 | -4.180 | 9.81 | 0.0006 | 0.0020 | 1.306E-06 | 1.2407 | 0.4418 | 0.5481 | 1096.27 | 3786.80 | 13650 | 4 | 175.31 | 16.0% | Yes | Twin pipe |
| P13 | P14 | 750 | 34.0 | -4.180 | -4.250 | 9.81 | 0.0006 | 0.0021 | 1.306E-06 | 1.2591 | 0.4418 | 0.5562 | 1112.48 | 3786.80 | 13650 | 4 | 175.31 | 15.8% | Yes | Twin pipe |
| P14 | P15 | 750 | 39.0 | -4.250 | -4.330 | 9.81 | 0.0006 | 0.0021 | 1.306E-06 | 1.2567 | 0.4418 | 0.5552 | 1110.41 | 3786.80 | 13650 | 4 | 175.31 | 15.8% | Yes | Twin pipe |
| P15 | FSH1001886 | 750 | 24.0 | -4.330 | -4.380 | 9.81 | 0.0006 | 0.0021 | 1.306E-06 | 1.2666 | 0.4418 | 0.5596 | 1119.16 | 3786.80 | 13650 | 4 | 175.31 | 15.7% | Yes | Twin pipe |

Note:

(1) g=gravitational acceleration; k_s=equivalent sand roughness; s=gradient; v=kinematic viscosity of water; V=mean velocity

(2) The mean velocity (V) is calculated by the Colebrook-White Equation for circular pipes:

$$V = -\sqrt{(8gDs)} \log\left(\frac{k_s}{3.7D} + \frac{2.51v}{D\sqrt{(2gDs)}}\right)$$

where V = mean velocity (m/s)
g = gravitational acceleration (m/s²)
D = internal pipe diameter (m)
s = slope
k_s = roughness coefficient(m)
v = kinematic viscosity of fluid (m²/s)

(3) The value of k_s = 0.6mm is used for the calculation of existing pipe for conservative approach and 0.6mm for proposed new clayware pipe in poor condition based on DSD's "Sewerage Manual" Table 5: Recommended roughness values

(4) Peak flow (Q) is calculated by Q = V x A

APPENDIX C
EXISTING SEWERS IDENTIFIED UNDER
APPROVED APPLICATION NO. A/YL-NSW/314

2. SEWERAGE IMPACT ASSESSMENT (“SIA”)

2.1 Introduction

2.1.1 The Proposed Development is a comprehensive development scheme to include wetland restoration proposal. This section gives a brief discussion on the current environmental legislation and standards and assess the impacts arising from the proposed development. Recommendations of mitigation measures have been made if there is any adverse effect induced by the proposed development.

2.2 Existing and Planned Sewerage Infrastructure

2.2.1 The site currently falls within the Yuen Long / Kam Tin sewerage catchment and is classified as an ~~unsewered area under the Yuen Long / Kam Tin Sewerage Master Plan (YLKT SMP)~~. A set of existing 225mm public sewerage system (from feature no. MH540 to MH235) is identified along Kam Pok Road East, which is currently not in use and could serve the Project Site.

2.2.2 The existing Yuen Long Sewage Treatment Works (YLSTW) serves Yuen Long Town, Yuen Long Industrial Estate and Kam Tin areas with a design capacity of 70,000m³/day (ADWF). It provides primary and secondary treatment to the effluent, which is discharged to the Shan Pui River and then to Deep Bay.

2.2.3 The public sewerage facility located at the Project Site is a Sewerage Pumping Station (SPS), as shown in Figure 2-1.

Existing public sewers under Approved Planning Application No. A/YL-NSW/314

2.3 Assessment Methodology and Assumptions

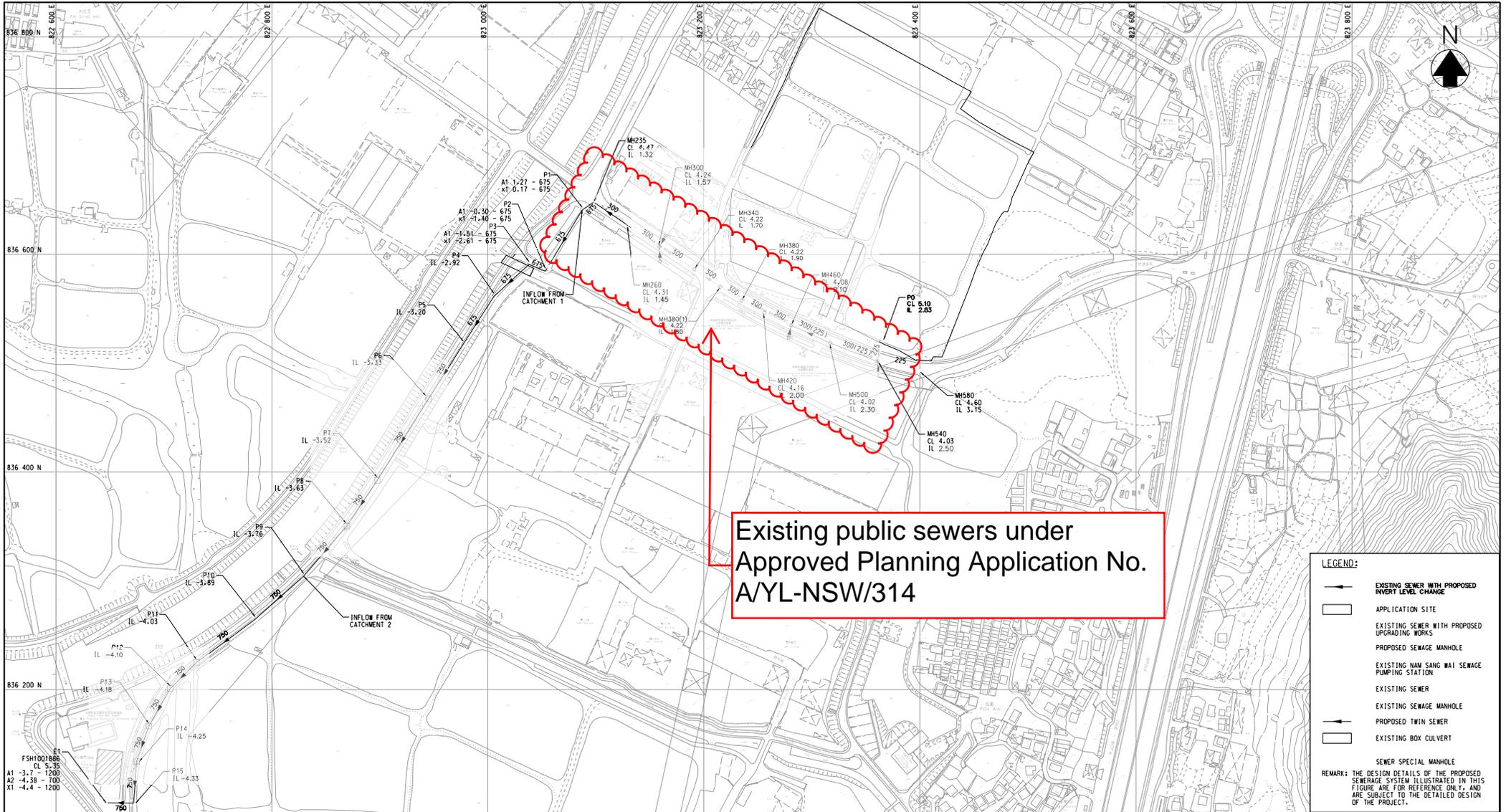
2.3.1 An analysis of the capacity of the sewage pipes and the SPS has been carried out to evaluate the adequacy of the proposed sewerage system. The design assumptions and basis are shown in **Table 2-1**.

Table 2-1 Design Assumption and Basis

| Items | Values |
|-------------------|--|
| Design Standard | DSD Sewerage Design Manual, Part 1 & 2 |
| Flow Formula Used | Colebrook White Formula |
| Unit Flow Factor | EPD Guideline for Estimating Sewerage Flows for Sewerage Infrastructure Planning (GESF) 0.37 m ³ /d/head (Domestic, Private R3) for residents 0.28 m ³ /d/head (Commercial, J11) for clubhouse staff 1.58 m ³ /d/head (Restaurant, J10) for restaurant |

2.4 Estimate of Sewage Flow

2.4.1 The sewage flow to be generated from the projected residential population, as well as activities at the clubhouse and the associated facilities has been estimated following “EPD Guideline for Estimating Sewerage Flows for Sewerage Infrastructure Planning”. Major contributions of sewage flow from the Proposed Development include projected 270 residents. The estimated sewage flow is shown in **Table 2-2**.



Existing public sewers under
Approved Planning Application No.
A/YL-NSW/314

LEGEND:

-  EXISTING SEWER WITH PROPOSED INVERT LEVEL CHANGE
-  APPLICATION SITE
-  EXISTING SEWER WITH PROPOSED UPGRADING WORKS
-  PROPOSED SEWAGE MANHOLE
-  EXISTING NAM SANG WAI SEWAGE PUMPING STATION
-  EXISTING SEWER
-  EXISTING SEWAGE MANHOLE
-  PROPOSED TWIN SEWER
-  EXISTING BOX CULVERT
-  SEWER SPECIAL MANHOLE

REMARK: THE DESIGN DETAILS OF THE PROPOSED SEWERAGE SYSTEM ILLUSTRATED IN THIS FIGURE ARE FOR REFERENCE ONLY, AND ARE SUBJECT TO THE DETAILED DESIGN OF THE PROJECT.

| | |
|--|--|
| Figure: 2.1 | |
| Title: PROPOSED SEWERAGE SYSTEM FOR THE APPLICATION SITE | |
| Project: PLANNING APPLICATION FOR PROPOSED COMPREHENSIVE DEVELOPMENT SCHEME TO INCLUDE WETLAND RESTORATION PROPOSAL AND PROPOSED FILLING OF PONDS/LAND AND EXCAVATION OF LAND IN "OU(CDWRA)" ZONE AT VARIOUS LOTS IN D.D. 104, NORTH OF KAM POK ROAD EAST, POK WAI, YUEN LONG, NEW TERRITORIES | |

| | |
|---|----------|
|  | |
| Drawn by: | CL |
| Checked by: | NH |
| Rev: | 6.1 |
| Date: | Aug 2023 |

User : Che15660
Plot date : 2023/11/16

APPENDIX D

**PLANNED COMMUNAL GRAVITY SEWERS
UNDER OTHER APPROVED APPLICATION**

| Total Flow from Proposed Development | | | |
|--|---|-------|--|
| Flow rate | = | 125.3 | m ³ /day |
| Contributing population * | = | 464 | People |
| Peaking factor | = | 8 | – (Table T-5 of GESF for population <1,000 incl. stormwater allowance) |
| Peak flow | = | 11.60 | litre/sec |
| <p>Note:</p> <ol style="list-style-type: none"> 1. According to the submitted planning statement for current proposed development, the concerned dwellings will comprise 2-storeys to 4-storeys housing units with an average household size is assumed to be 3 people. 2. * according to the calculation method in GESF for the so-called "Contributing Population" for peaking factor selection. | | | |

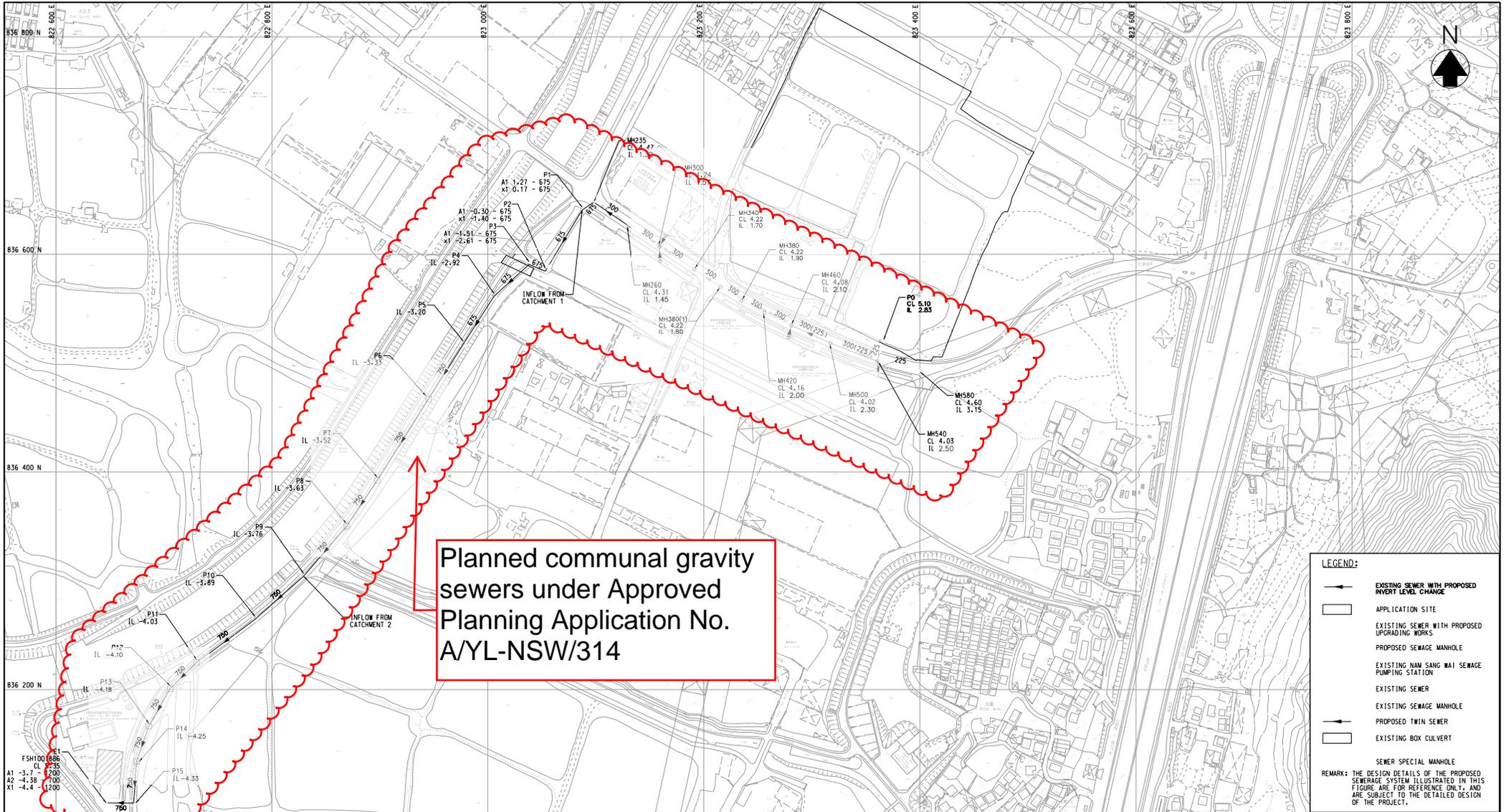
2.4.2 The average flow and the peak flow from the Application Site will be approximately 125.3 m³/day and 11.60 L/s, respectively.

2.5 Sewerage Impact Assessment

2.5.1 It is proposed that the sewage generated from the Proposed Development will be discharged into the existing 225mm diameter communal sewer at the south of the Application Site for disposal at YLSTW via Nam Sang Wai SPS (**Figure 2.1** refers). Relevant proposed upgrading works and proposed change in invert levels at some of the existing sewers, are also illustrated in **Figure 2.1** such as those between sewer MH540 to MH460, and between MH460 and MH235. The hydraulic checking of existing and proposed sewers starting from the discharge point to Nam Sang Wai SPS is provided in **Appendix 2.1** and it is found to be adequate to serve the Proposed Development with upgrading and modification works on several sewer segments.

2.5.2 There are existing stormwater pipe and box culvert along Pok Wai South Road, which are in vicinity of the proposed sewage system. **Planned communal gravity sewers under Approved Planning Application No. A/YL-NSW/314** drawings **2.3**.

2.5.3 It is understood there are other planned developments in the vicinity of the proposed sewer P1 to E1 as shown in **Figure 2.1**. However, none of these have a solid development schedule. The proposed sewer P1 to E1 should become public sewers. Manhole P1, P2 and P3 are designed as backdrop manhole to cater for the high velocity flow and to avoid the box culvert located at the outfall at Pok Wai South Road at the same time. In order to ensure there is sufficient capacity reserved, a sensitivity test has also been undertaken and provided in **Appendix 2.2**. It is understood that the gravity sewer P1 to E1 should have sufficient capacity to cater the additional sewage of around 15,000 m³/d due to other nearby developments (**Appendix 4.1** refers). This is considered to be a very conservative approach. It is therefore suggested to provide twin 675 mm to 750 mm gravity sewers for sewer P1 to E1 along the Pok Wai South Road. The design checking of proposed sewage system, considering a capacity of 15,000 m³/d from nearby developments, is provided in



Planned communal gravity
sewers under Approved
Planning Application No.
A/YL-NSW/314

LEGEND:

- EXISTING SEWER WITH PROPOSED INVERT LEVEL CHANGE
- APPLICATION SITE
- EXISTING SEWER WITH PROPOSED UPGRADING WORKS
- PROPOSED SEWAGE MANHOLE
- EXISTING NAM SANG WAI SEWAGE PUMPING STATION
- EXISTING SEWER
- EXISTING SEWAGE MANHOLE
- PROPOSED TWIN SEWER
- EXISTING BOX CULVERT
- SEWER SPECIAL MANHOLE

REMARK: THE DESIGN DETAILS OF THE PROPOSED SEWERAGE SYSTEM ILLUSTRATED IN THIS FIGURE ARE FOR REFERENCE ONLY, AND ARE SUBJECT TO THE DETAILED DESIGN OF THE PROJECT.

Figure: 2.1

Title: PROPOSED SEWERAGE SYSTEM FOR THE APPLICATION SITE

Project: PLANNING APPLICATION FOR PROPOSED COMPREHENSIVE DEVELOPMENT SCHEME TO INCLUDE WETLAND RESTORATION PROPOSAL AND PROPOSED FILLING OF PONDS/LAND AND EXCAVATION OF LAND IN "OU(CDWRA)" ZONE AT VARIOUS LOTS IN D.D. 104, NORTH OF KAM POK ROAD EAST, POK WAI, YUEN LONG, NEW TERRITORIES

| | |
|----------------|----------|
| RAMBOLL | |
| Drawn by: | CL |
| Checked by: | NH |
| Rev: | 6.1 |
| Date: | Aug 2023 |

User : Che15660
Plot date : 2023/11/16

Appendix 2.2 Hydraulic Calculation of the Proposed Sewers for the Application Site (Sensitivity Analysis)

Note:

- 1) Colebrook-White's equation is adopted for full-bore pipe velocity calculation.
- 2) Backwash Flowrate generated by swimming pool from developments, if any, has been included in the Design Peak Flowrate.
- 3) Catchment 1 is the planned development in the upstream
- 4) Catchment 2 is the application Y/YL-NSW/7, the ADFW is obtained from the approved SIA Report at October 2023

Catchment 1, ADFW = 13435 m³/day Proposed Deve. ADFW = 125.3 m³/day Catchment 2, ADFW = 1565 m³/day
 = 13435/3600/24 = 125.3/3600/24 = 1565/3600/24
 = 0.1555 m³/s = 0.0015 m³/s = 0.0181 m³/s

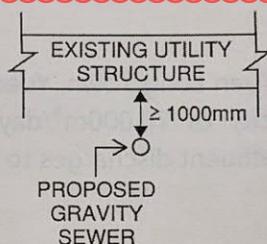
| Pipe | Diameter (mm) | Diameter for calculation | Original Diameter | Upstream Invert Level (mPD) | Downstream Invert Level (mPD) | Pipe Length (m) | Gradient (1 in) | Roughness (mm) | No. of Pipes | Inflow | ADWF (m ³ /s) | Contributing Population | Peak Factor | Design Peak Flowrate (m ³ /s) | Full Bore Velocity (m/s) | Full Bore Capacity (m ³ /s) | Utilization (%) |
|-------------------|---------------|--------------------------|-------------------|-----------------------------|-------------------------------|-----------------|-----------------|----------------|--------------|--|--------------------------|-------------------------|-------------|--|--------------------------|--|-----------------|
| P0 to MH540 | 225 | 225 | 225 | 2.83 | 2.50 | 18,910 | 57 | 3,000 | 1 | Proposed Deve. | 0.0015 | 464 | 8 | 0.012 | 1.354 | 0.054 | 21.6% |
| MH540 to MH500 | 300 | 300 | 300 | 2.50 | 2.30 | 46,020 | 230 | 3,000 | 1 | Proposed Deve. | 0.0015 | 464 | 8 | 0.012 | 0.819 | 0.058 | 20.0% |
| MH500 to MH460 | 300 | 300 | 300 | 2.30 | 2.10 | 39,640 | 198 | 3,000 | 1 | Proposed Deve. | 0.0015 | 464 | 8 | 0.012 | 0.882 | 0.062 | 18.6% |
| MH460 to MH420 | 300 | 300 | 300 | 2.10 | 2.00 | 27,370 | 274 | 3,000 | 1 | Proposed Deve. | 0.0015 | 464 | 8 | 0.012 | 0.751 | 0.053 | 21.9% |
| MH420 to MH380 | 300 | 300 | 300 | 2.00 | 1.90 | 23,630 | 236 | 3,000 | 1 | Proposed Deve. | 0.0015 | 464 | 8 | 0.012 | 0.808 | 0.057 | 20.3% |
| MH380 to MH300(1) | 300 | 300 | 300 | 1.90 | 1.80 | 23,230 | 232 | 3,000 | 1 | Proposed Deve. | 0.0015 | 464 | 8 | 0.012 | 0.815 | 0.058 | 20.1% |
| MH380(1) to MH340 | 300 | 300 | 300 | 1.80 | 1.70 | 28,910 | 289 | 3,000 | 1 | Proposed Deve. | 0.0015 | 464 | 8 | 0.012 | 0.730 | 0.052 | 22.5% |
| MH340 to MH300 | 300 | 300 | 300 | 1.70 | 1.57 | 38,240 | 294 | 3,000 | 1 | Proposed Deve. | 0.0015 | 464 | 8 | 0.012 | 0.724 | 0.051 | 22.7% |
| MH300 to MH260 | 300 | 300 | 300 | 1.57 | 1.45 | 34,900 | 291 | 3,000 | 1 | Proposed Deve. | 0.0015 | 464 | 8 | 0.012 | 0.728 | 0.051 | 22.5% |
| MH260 to MH235 | 300 | 300 | 300 | 1.45 | 1.32 | 38,840 | 299 | 3,000 | 1 | Proposed Deve. | 0.0015 | 464 | 8 | 0.012 | 0.718 | 0.051 | 22.9% |
| MH235 to P1 | 300 | 300 | 300 | 1.32 | 1.27 | 12,590 | 252 | 3,000 | 1 | Proposed Deve. | 0.0015 | 464 | 8 | 0.012 | 0.783 | 0.055 | 21.0% |
| P1 to P2 | 675 | 675 | 675 | 0.17 | -0.30 | 65,790 | 140 | 3,000 | 2 | Catchment 1, Proposed Deve. | 0.1569 | 50,223 | 4.05684 | 0.637 | 1.794 | 1.284 | 49.6% |
| P2 to P3 | 675 | 675 | 675 | -1.40 | -1.51 | 16,250 | 148 | 3,000 | 2 | Catchment 1, Proposed Deve. | 0.1569 | 50,223 | 4.05684 | 0.637 | 1.746 | 1.250 | 50.9% |
| P3 to P4 | 675 | 675 | 675 | -2.61 | -2.92 | 43,380 | 140 | 3,000 | 2 | Catchment 1, Proposed Deve. | 0.1569 | 50,223 | 4.05684 | 0.637 | 1.794 | 1.284 | 49.6% |
| P4 to P5 | 675 | 675 | 675 | -2.92 | -3.20 | 52,150 | 186 | 3,000 | 2 | Catchment 1, Proposed Deve. | 0.1569 | 50,223 | 4.05684 | 0.637 | 1.555 | 1.113 | 57.2% |
| P5 to P6 | 750 | 750 | 750 | -3.20 | -3.33 | 59,790 | 460 | 3,000 | 2 | Catchment 1, Proposed Deve. | 0.1569 | 50,223 | 4.05684 | 0.637 | 1.058 | 0.935 | 68.1% |
| P6 to P7 | 750 | 750 | 750 | -3.33 | -3.52 | 88,210 | 464 | 3,000 | 2 | Catchment 1, Proposed Deve. | 0.1569 | 50,223 | 4.05684 | 0.637 | 1.053 | 0.931 | 68.4% |
| P7 to P8 | 750 | 750 | 750 | -3.52 | -3.63 | 50,460 | 459 | 3,000 | 2 | Catchment 1, Proposed Deve. | 0.1569 | 50,223 | 4.05684 | 0.637 | 1.060 | 0.936 | 68.0% |
| P8 to P9 | 750 | 750 | 750 | -3.63 | -3.76 | 61,240 | 471 | 3,000 | 2 | Catchment 1, Proposed Deve. | 0.1569 | 50,223 | 4.05684 | 0.637 | 1.046 | 0.924 | 68.9% |
| P9 to P10 | 750 | 750 | 750 | -3.76 | -3.89 | 59,460 | 457 | 3,000 | 2 | Catchment 1, Catchment 2, Proposed Deve. | 0.1751 | 56,020 | 3.991 | 0.699 | 1.061 | 0.938 | 74.5% |
| P10 to P11 | 750 | 750 | 750 | -3.89 | -4.03 | 67,200 | 480 | 3,000 | 2 | Catchment 1, Catchment 2, Proposed Deve. | 0.1751 | 56,020 | 3.991 | 0.699 | 1.036 | 0.915 | 76.3% |
| P11 to P12 | 750 | 750 | 750 | -4.03 | -4.10 | 34,060 | 487 | 3,000 | 2 | Catchment 1, Catchment 2, Proposed Deve. | 0.1751 | 56,020 | 3.991 | 0.699 | 1.029 | 0.909 | 76.8% |
| P12 to P13 | 750 | 750 | 750 | -4.10 | -4.18 | 39,540 | 494 | 3,000 | 2 | Catchment 1, Catchment 2, Proposed Deve. | 0.1751 | 56,020 | 3.991 | 0.699 | 1.021 | 0.902 | 77.5% |
| P13 to P14 | 750 | 750 | 750 | -4.18 | -4.25 | 33,830 | 483 | 3,000 | 2 | Catchment 1, Catchment 2, Proposed Deve. | 0.1751 | 56,020 | 3.991 | 0.699 | 1.032 | 0.912 | 76.6% |
| P14 to P15 | 750 | 750 | 750 | -4.25 | -4.33 | 36,830 | 485 | 3,000 | 2 | Catchment 1, Catchment 2, Proposed Deve. | 0.1751 | 56,020 | 3.991 | 0.699 | 1.030 | 0.910 | 76.7% |
| P15 to E1 | 750 | 750 | 750 | -4.33 | -4.38 | 23,630 | 473 | 3,000 | 2 | Catchment 1, Catchment 2, Proposed Deve. | 0.1751 | 56,020 | 3.991 | 0.699 | 1.044 | 0.923 | 75.7% |

Details of the planned communal gravity sewers under the Approved Application No. A/YL-NSW/314

with necessary manholes will be constructed from the Proposed Development and connect to the existing NSWSPS. No private land will be affected for making such connection.

4.1.3 As per EPD request, the proposed gravity sewers have taken account the sewage flow from other sites in the vicinity leading to NSWSPS via Pok Wai South Road. The proposed sewage disposal scheme, proposed sewer longitudinal profile and calculations of design flow and manhole schedule are shown in **Figure 2**, **Figure 3** and **Annex 4** respectively. Clearance of not less than 1000mm will be maintained between the proposed sewers and existing utility structures (i.e. 2 cells 4000x2950 Box Culvert at J/O Kam Pok Road and Pok Wai West Road and 4 cells 2500x2000 trunk box culvert at Pok Wai South Road near Pok Wai West Road).

planned communal gravity sewers under Approved Planning Application No. Y/YL-NSW/7



Section showing the interface between existing utility structure and proposed gravity sewer

4.1.4 The design capacity of NSWSPS is 42,921m³/day in ADWF and the average daily flow recorded in December 2021 is around 3,600m³/day (see **Annex 3**). Based on the calculations shown in **Table 2**, the estimated sewage to be generated from the Proposed Development is 1,565m³/day, which is only equivalent to 3.6% of existing NSWSPS design capacity and 2.2% of existing YLSTW design capacity. Therefore, it is considered that sewage generated by the Proposed Development would not overload NSWSPS and YLSTW.

4.1.5 A matrix for different type of proposed sewerage system is provided in **Table 3** to summarize the construction and maintenance responsibilities.

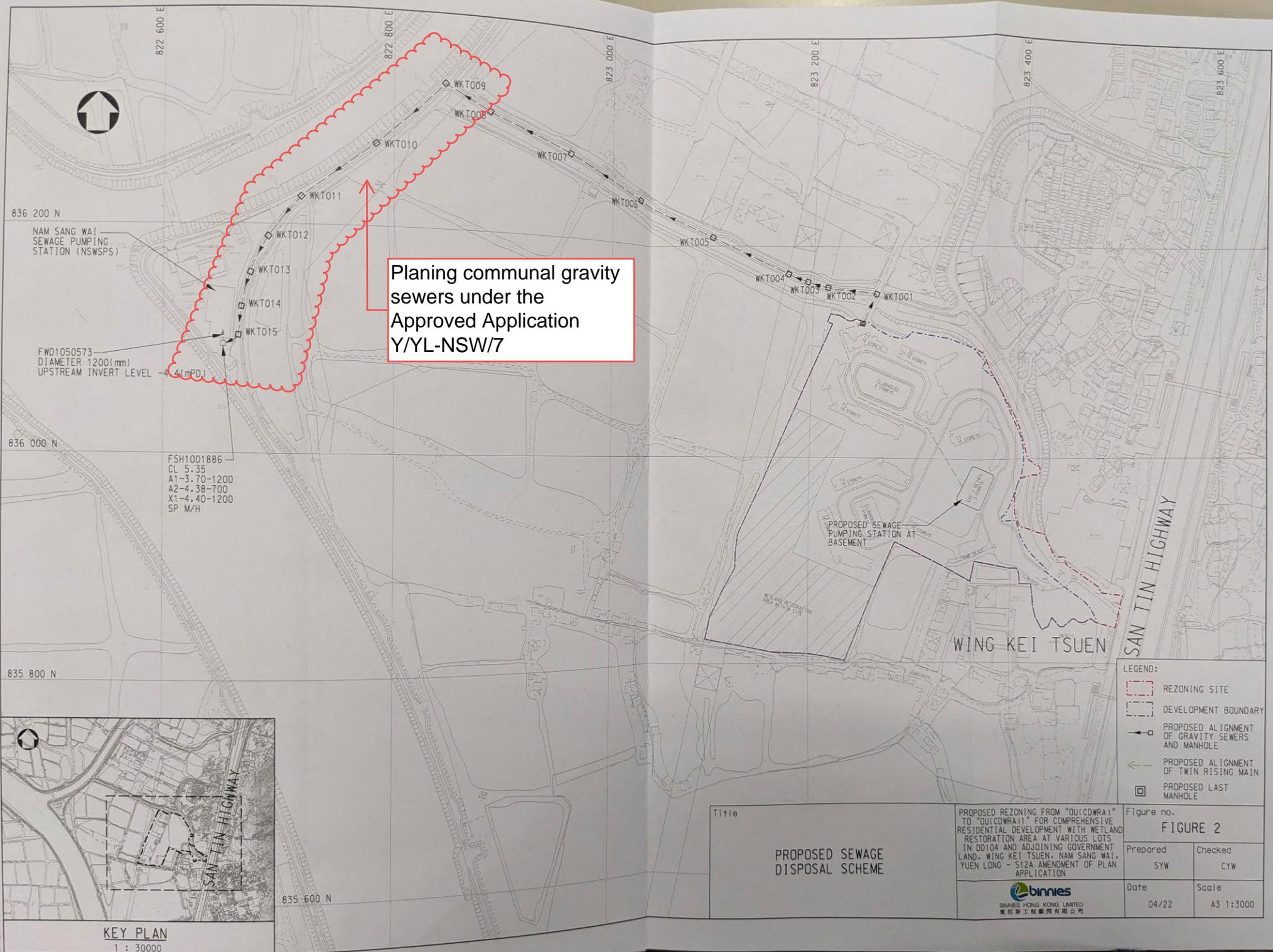
Table 3 – Matrix of construction and maintenance responsibilities

| Element | Location | Construction Responsibility | Maintenance Responsibility |
|---------------------------------|------------------------------|-----------------------------|----------------------------|
| Proposed Sewage Pumping Station | Within Development Boundary | The Developer | The Developer |
| Proposed Rising Mains | Within Development Boundary | The Developer | The Developer |
| Proposed Terminal Manhole | Within Development Boundary | The Developer | The Developer |
| Proposed Sewers and Manholes | Outside Development Boundary | The Developer | DSD |

5. EVALUATION OF THE STRATEGY AND RECOMMENDATIONS

5.1 Regional sewerage strategy

Matrix of construction and maintenance responsibilities under the Approved Application Y/YL-NSW/7



Planing communal gravity sewers under the Approved Application Y/YL-NSW/7

NAM SANG WAI SEWAGE PUMPING STATION (NSWSPS)

FWD1050573
DIAMETER 1200(mm)
UPSTREAM INVERT LEVEL -4.4(mPD)

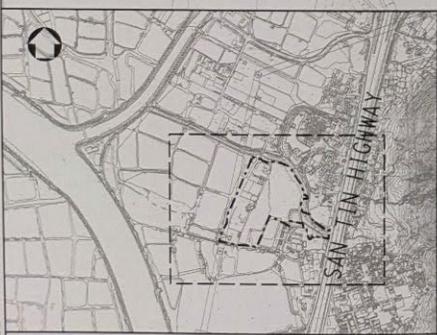
FSH1001886
CL 5.35
A1-3.70-1200
A2-4.38-700
X1-4.40-1200
SP M/H

PROPOSED SEWAGE PUMPING STATION AT BASEMENT

WING KEI TSUEN

LEGEND:

- REZONING SITE
- DEVELOPMENT BOUNDARY
- PROPOSED ALIGNMENT OF GRAVITY SEWERS AND MANHOLE
- PROPOSED ALIGNMENT OF TWIN RISING MAIN
- PROPOSED LAST MANHOLE



KEY PLAN
1 : 30000

| | | |
|---|-------------------------------|--------------------|
| Title PROPOSED SEWAGE DISPOSAL SCHEME | Figure no. FIGURE 2 | |
| | Prepared SYW | Checked CYW |
| Date 04/22 | | Scale A3 1:3000 |

PROPOSED REZONING FROM "QUICDWR1" TO "QUICDWR11" FOR COMPREHENSIVE RESIDENTIAL DEVELOPMENT WITH WETLAND RESTORATION AREA AT VARIOUS LOTS IN DD104 AND ADJOINING GOVERNMENT LAND, WING KEI TSUEN, NAM SANG WAI, YUEN LONG - S12A AMENDMENT OF PLAN APPLICATION



BINNIES HONG KONG LIMITED
賓尼士工程顧問有限公司

Plot date : 8/3/2022

**PROPOSED REZONING FROM "OU(CDWRA)" TO "OU(CDWRA)1"
FOR COMPREHENSIVE RESIDENTIAL DEVELOPMENT WITH WETLAND RESTORATION AREA
AT VARIOUS LOTS IN DD104 AND ADJOINING GOVERNMENT LAND,
WING KEI TSUEN, NAM SANG WAI, YUEN LONG – S12A AMENDMENT OF PLAN APPLICATION**

Manhole Schedule - Wing Kei Tsuen

| Manhole No. | Manhole type | Backdrop manhole required | Manhole type (Combine) | To Manhole | From Manhole | Ground Level (mPD) | PIPE IN | | | PIPE OUT | | | |
|-------------|----------------|---------------------------|------------------------|------------|--------------|--------------------|--------------------|-------------------|-------------------|--------------------|----------|-------------------|-------------------|
| | | | | | | | Invert Level (mPD) | Pipe Size (mm) DN | Pipe Size (mm) OD | Invert Level (mPD) | IL Check | Pipe Size (mm) DN | Pipe Size (mm) OD |
| WKT000 | L | - | L | WKT001 | WKT000 | 4.70 | -0.27 | 351.35 | 400.00 | -0.36 | OK | 351.35 | 400.00 |
| WKT001 | L | No | L | WKT002 | WKT001 | 4.60 | -0.36 | 491.85 | 560.00 | -0.50 | OK | 491.85 | 560.00 |
| WKT002 | L | No | L | WKT003 | WKT002 | 4.90 | -0.50 | 491.85 | 560.00 | -0.56 | OK | 491.85 | 560.00 |
| WKT003 | L | No | L | WKT004 | WKT003 | 4.85 | -0.56 | 491.85 | 560.00 | -0.63 | OK | 491.85 | 560.00 |
| WKT004 | L | No | L | WKT005 | WKT004 | 4.80 | -0.63 | 491.85 | 560.00 | -0.90 | OK | 491.85 | 560.00 |
| WKT005 | L | No | L | WKT006 | WKT005 | 4.75 | -0.90 | 491.85 | 560.00 | -1.16 | OK | 491.85 | 560.00 |
| WKT006 | L | No | L | WKT007 | WKT006 | 4.70 | -1.16 | 491.85 | 560.00 | -1.43 | OK | 491.85 | 560.00 |
| WKT007 | L | No | L | WKT008 | WKT007 | 4.50 | -1.43 | 491.85 | 560.00 | -1.70 | OK | 491.85 | 560.00 |
| WKT008 | Special Type 1 | No | Special Type 1 | WKT009 | WKT008 | 4.70 | -1.70 | 491.85 | 560.00 | -1.85 | OK | 491.85 | 560.00 |
| WKT009 | L | No | L | WKT010 | WKT009 | 4.20 | -1.85 | 623.60 | 710.00 | -2.11 | OK | 623.60 | 710.00 |
| WKT010 | L | No | L | WKT011 | WKT010 | 4.00 | -2.11 | 623.60 | 710.00 | -2.38 | OK | 623.60 | 710.00 |
| WKT011 | Special Type 1 | No | Special Type 1 | WKT012 | WKT011 | 4.15 | -2.38 | 623.60 | 710.00 | -2.53 | OK | 623.60 | 710.00 |
| WKT012 | Special Type 1 | No | Special Type 1 | WKT013 | WKT012 | 4.20 | -2.53 | 623.60 | 710.00 | -2.65 | OK | 623.60 | 710.00 |
| WKT013 | Special Type 1 | No | Special Type 1 | WKT014 | WKT013 | 4.15 | -2.65 | 623.60 | 710.00 | -2.75 | OK | 623.60 | 710.00 |
| WKT014 | Special Type 1 | No | Special Type 1 | WKT015 | WKT014 | 4.10 | -2.75 | 623.60 | 710.00 | -2.83 | OK | 623.60 | 710.00 |
| WKT015 | Special Type 1 | No | Special Type 1 | Existing | WKT015 | 4.05 | -2.83 | 623.60 | 710.00 | -2.88 | OK | 623.60 | 710.00 |

| Manhole No. | Material of pipe | Velocity (m/s) | Velocity check | Cumulative Design Flow (m3/s) | Full Bore Capacity (m3/s) | Full Bore Capacity with 10% reduction (m3/s) | Usage percentage (%) | Capacity check | TYPE OF BEDDING |
|-------------|------------------|----------------|----------------|-------------------------------|---------------------------|--|----------------------|----------------|-----------------|
| WKT000 | HDPE | 1.22 | OK | 0.072 | 0.118 | 0.107 | 67.98 | OK | TYPE B BEDDING |
| WKT001 | HDPE | 1.51 | OK | 0.166 | 0.287 | 0.258 | 64.46 | OK | TYPE B BEDDING |
| WKT002 | HDPE | 1.51 | OK | 0.166 | 0.287 | 0.258 | 64.46 | OK | TYPE B BEDDING |
| WKT003 | HDPE | 1.51 | OK | 0.166 | 0.287 | 0.258 | 64.46 | OK | TYPE B BEDDING |
| WKT004 | HDPE | 1.51 | OK | 0.166 | 0.287 | 0.258 | 64.46 | OK | TYPE B BEDDING |
| WKT005 | HDPE | 1.51 | OK | 0.166 | 0.287 | 0.258 | 64.46 | OK | TYPE B BEDDING |
| WKT006 | HDPE | 1.51 | OK | 0.166 | 0.287 | 0.258 | 64.46 | OK | TYPE B BEDDING |
| WKT007 | HDPE | 1.51 | OK | 0.166 | 0.287 | 0.258 | 64.46 | OK | TYPE B BEDDING |
| WKT008 | HDPE | 1.51 | OK | 0.166 | 0.287 | 0.258 | 64.46 | OK | TYPE B BEDDING |
| WKT009 | HDPE | 1.75 | OK | 0.320 | 0.535 | 0.481 | 66.56 | OK | TYPE B BEDDING |
| WKT010 | HDPE | 1.75 | OK | 0.320 | 0.535 | 0.481 | 66.56 | OK | TYPE B BEDDING |
| WKT011 | HDPE | 1.75 | OK | 0.320 | 0.535 | 0.481 | 66.56 | OK | TYPE B BEDDING |
| WKT012 | HDPE | 1.75 | OK | 0.320 | 0.535 | 0.481 | 66.56 | OK | TYPE B BEDDING |
| WKT013 | HDPE | 1.75 | OK | 0.320 | 0.535 | 0.481 | 66.56 | OK | TYPE B BEDDING |
| WKT014 | HDPE | 1.75 | OK | 0.320 | 0.535 | 0.481 | 66.56 | OK | TYPE B BEDDING |
| WKT015 | HDPE | 1.75 | OK | 0.320 | 0.535 | 0.481 | 66.56 | OK | TYPE B BEDDING |

Details of the planned communal gravity sewers under the Approved Application No. Y/YL-NSW/7

| Manhole No. | Velocity (m/s) | Capacity (m3/s) |
|-------------|----------------|-----------------|
| WKT008 | 45.00 | 300 |
| WKT009 | 80.00 | 300 |
| WKT010 | 45.00 | 300 |
| WKT011 | 35.00 | 300 |
| WKT012 | 30.00 | 300 |
| WKT013 | 25.00 | 300 |
| WKT014 | 15.00 | 300 |

Table 4-2: Comparison of Additional Sewage Flow with Capacity of Public Sewerage

| Sewerage Facilities | Design Capacity (m ³ /day) ⁽¹⁾ | Current Average Daily Flow (m ³ /day) | Estimated Future Flow ⁽²⁾ (m ³ /day) | Total Future Flow (m ³ /day) | Spare Capacity (m ³ /day) |
|---------------------|--|--|--|---|--------------------------------------|
| NSWSPS | 42,921 | 3,900 | 16,561 | 20,461 | 22,460 |

Notes:

- 1) For NSWSPS and YLEPP, the design capacity and current average daily flow comparison refer to ADWF.
- 2) The estimated future flow includes the EPD initial estimation for the communal gravity sewers (i.e., 15,500 m³/d) and the estimated sewage flow from light public housing (i.e., 1,061 m³/d). The estimated sewage flow from light public housing is based on the technical schedule of "Light Public Housing at Yau Pok Road, Yuen Long - Project Profile". **Appendix 3 and 4** refers.

4.2.2. The sewage from the Development (i.e. 1,973m³/day) merely occupies 5% of the design capacity of existing NSWSPS, 2% of the design capacity of existing YLEPP (phase I) and 1% of the design capacity of planned YLEPP (Phase II). Hence no adverse impact on the existing NSWSPS, existing YLEPP (Phase I) and planned YLEPP (Phase II) is envisaged. The assessment also shows that the existing and planned sewerage system would be sufficient to cater for the proposed development.

4.2.3. It is noted a light public housing site is located within the vicinity. The location of the light public housing site is as shown in **Figure 3**. The sewage (i.e. ADWF=1,061m³/day) generated will be conveyed to NSWSPS via exclusive sewerage rising mains from the site only.

4.3. Proposed Planned communal gravity sewers under Approved Planning Application No.

4.3.1. The proposed development will be conveyed to a private underground sewage pumping station (SPS) located at the western boundary of the site. It is proposed that twin 200mm dia. rising mains will lay along Kam Pok Road to convey the sewage to a proposed common conversion chamber at Pok Wai South Road. The conversion chamber connected to proposed communal gravity sewers downstream is designed to cater for other existing and planned developments within the area. The proposed communal gravity sewers and manholes also facilitate future discharge of sewage from other development in the vicinity. The proposed downstream communal gravity sewers and manholes are proposed public sewerage system serving multiple users. The sewer will be constructed to discharge the sewage from the proposed development to the existing NSWSPS and ultimately discharge to YLEPP. The proposed alignment of the rising mains and the gravity sewers is shown in **Figure 3**. The tentative location of the proposed private SPS is shown in **Figure 4**.

4.3.2. Hydraulic checking of the proposed rising mains has been conducted. It is found to be adequate to serve the proposed development, **Appendix 2** refers.

V of water = 0.000001 m³/s 20 °C

| Manhole No. | | Cover Level | | | | Invert Level | | | | Pipe | | | | | | | | | | | Remark |
|--------------------|------------|-------------|------|-------|-------|-------------------------------------|-----------------------------|-------------|-----------------------------|--------------------------|----------------------|---|--------------------------------|--|-------------------------|-------------------------------|---|---------------------|--|--|--------|
| U/S | D/S | U/S | D/S | U/S | D/S | Nominal Outside Diameter (OD) mm | Nominal Diameter (DN) mm | Length m | Flow Area m ² | Pipe Gradient (1 in) | Pipe Velocity m/s | Capacity (Twin Pipe) m ³ /s | Roughness ⁽⁴⁾ mm | Accumulated ADWF ⁽⁵⁾ m ³ /d | Contributing Population | Peaking Factor ⁽⁶⁾ | Estimated Peak Discharge m ³ /s | Capacity Check % | | | |
| | | mPD | mPD | mPD | mPD | | | | | | | | | | | | | | | | |
| Conversion Chamber | FMH001 | 4.50 | 4.50 | -2.68 | -2.87 | 800 | 675 | 75.0 | 0.36 | 400 | 1.09 | 0.78 | 1.5 | 15,500 | 57,408 | 3.98 | 0.713 | 91 | | | |
| FMH001 | FMH002 | 4.50 | 4.55 | -2.87 | -3.04 | 800 | 675 | 70.0 | 0.36 | 400 | 1.09 | 0.78 | 1.5 | 15,500 | 57,408 | 3.98 | 0.713 | 91 | | | |
| FMH002 | FMH003 | 4.55 | 4.60 | -3.04 | -3.22 | 800 | 675 | 70.0 | 0.36 | 400 | 1.09 | 0.78 | 1.5 | 15,500 | 57,408 | 3.98 | 0.713 | 91 | | | |
| FMH003 | FMH004 | 4.60 | 4.65 | -3.22 | -3.41 | 800 | 675 | 75.0 | 0.36 | 400 | 1.09 | 0.78 | 1.5 | 15,500 | 57,408 | 3.98 | 0.713 | 91 | | | |
| FMH004 | FMH005 | 4.65 | 4.20 | -3.41 | -3.61 | 800 | 675 | 80.0 | 0.36 | 400 | 1.09 | 0.78 | 1.5 | 15,500 | 57,408 | 3.98 | 0.713 | 91 | | | |
| FMH005 | FMH006 | 4.20 | 4.00 | -3.61 | -3.81 | 800 | 675 | 80.0 | 0.36 | 400 | 1.09 | 0.78 | 1.5 | 15,500 | 57,408 | 3.98 | 0.713 | 91 | | | |
| FMH006 | FMH007 | 4.00 | 4.15 | -3.81 | -4.01 | 800 | 675 | 80.0 | 0.36 | 400 | 1.09 | 0.78 | 1.5 | 15,500 | 57,408 | 3.98 | 0.713 | 91 | | | |
| FMH007 | FMH008 | 4.15 | 4.20 | -4.01 | -4.12 | 800 | 675 | 45.0 | 0.36 | 400 | 1.09 | 0.78 | 1.5 | 15,500 | 57,408 | 3.98 | 0.713 | 91 | | | |
| FMH008 | FMH009 | 4.20 | 4.15 | -4.12 | -4.21 | 800 | 675 | 35.0 | 0.36 | 400 | 1.09 | 0.78 | 1.5 | 15,500 | 57,408 | 3.98 | 0.713 | 91 | | | |
| FMH009 | FMH010 | 4.15 | 4.10 | -4.21 | -4.28 | 800 | 675 | 30.0 | 0.36 | 400 | 1.09 | 0.78 | 1.5 | 15,500 | 57,408 | 3.98 | 0.713 | 91 | | | |
| FMH010 | FMH011 | 4.10 | 4.05 | -4.28 | -4.34 | 800 | 675 | 25.0 | 0.36 | 400 | 1.09 | 0.78 | 1.5 | 15,500 | 57,408 | 3.98 | 0.713 | 91 | | | |
| FMH011 | FSH1001886 | 4.05 | 5.35 | -4.34 | -4.38 | 800 | 675 | 15.0 | 0.36 | 400 | 1.09 | 0.78 | 1.5 | 15,500 | 57,408 | 3.98 | 0.713 | 91 | | | |

Note:

1. Contributing population = Projected Flow + Flow from Development (ADWF in m³/day) / 0.27 (m³/person/day).
2. Peaking factor with stormwater allowance is adopted.
3. The proposed gravity sewer shall be constructed to discharge the sewage to from the both R(D) and REC Development and other residential development which has similar sewerage arrangement in the vicinity to the existing NSWSPS and ultimately to YLEPP.
4. Concrete sewers slied to about half depth; velocity, when flowing half full, approximately 1.2 m/s, normal condition is as
5. Base on EPD initial estimation, the communal gravity sewer need to cater for design sewage flow of at least 15,500 m³/d.
6. The communal gravity sewer is subject to detailed design, the hydraulic calculation demonstrate the feasibility in terms of

Details of the planned communal gravity sewers under the Approved Application No. Y/YL-MP/10

Appendix 4

Revised Traffic Impact Assessment
(TIA)

Proposed Social Welfare Facilities
(Residential Care Home for the Elderly (RCHE))
in "Village Type Development" Zone,
Lots 3670 RP (Part), 3671 RP (Part),
3672 RP (Part), 3673 RP (Part)
and adjoining Government Land in D.D.104,
Nam Sang Wai, Yuen Long

Traffic Impact Assessment
Revised Report
October 2025

Prepared by: CKM Asia Limited

Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in “Village Type Development” Zone, Lots 3670 RP (Part), 3671 RP (Part), 3672 RP (Part), 3673 RP (Part) and adjoining Government Land in D.D.104, Nam Sang Wai, Yuen Long

CONTENTS

| <u>CHAPTER</u> | | <u>PAGE</u> |
|----------------|--|-------------|
| 1.0 | INTRODUCTION Background Scope of the Assessment Contents of the Report | 1 |
| 2.0 | THE EXISTING SITUATION The Subject Site Existing Road Network Traffic Survey Operational Performance of the Surveyed Junctions Public Transport Facilities Trip Generation Rates for RCHE Pedestrian Generation Rates for RCHE Utilisation of surveyed Bus Stops | 2 |
| 3.0 | THE PROPOSED RCHE Proposed RCHE Provision of Internal Transport Facilities Swept Path Analysis | 7 |
| 4.0 | TRAFFIC IMPACT Design Year Traffic Forecasting 2033 Traffic Flows 2033 Junction Operational Performance Impact on Utilisation of surveyed Bus Stops | 9 |
| 5.0 | CONCLUSION | 13 |
| | FIGURES Appendix 1 – Calculation Appendix 2 – Swept Path Analysis | |

Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in “Village Type Development” Zone, Lots 3670 RP (Part), 3671 RP (Part), 3672 RP (Part), 3673 RP (Part) and adjoining Government Land in D.D.104, Nam Sang Wai, Yuen Long

TABLES

NUMBER

- 2.1 Existing junction operational performance
- 2.2 Franchised bus and GMB services operating close to the Subject Site
- 2.3 Details of the surveyed RCHEs
- 2.4 Trip Rates of the surveyed RCHEs
- 2.5 Pedestrian Trip Rates of the surveyed RCHEs
- 2.6 Results of the utilisation survey at Tai Sang Wai (towards San Tin) bus stop
- 2.7 Results of the utilisation survey at Long Ha (towards Yuen Long) bus stop
- 3.1 Internal transport facilities provided in surveyed RCHEs
- 3.2 Provision of internal transport facilities for the Proposed RCHE
- 4.1 Hong Kong Population Projections 2022 – 2046
- 4.2 AADT of the station located in the vicinity of the Subject Site
- 4.3 Details of major planned developments
- 4.4 Traffic generation of the Proposed RCHE
- 4.5 2033 Junction operational performance
- 4.6 Public transport passengers generated by the Proposed RCHE
- 4.7 The utilisation of the public transport services for the case with the Proposed RCHE

Proposed Social Welfare Facilities (Residential Care Home for the Elderly (RCHE)) in “Village Type Development” Zone, Lots 3670 RP (Part), 3671 RP (Part), 3672 RP (Part), 3673 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 RCHE 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 RCHE at Kam Pok Road East
- 4.1 The vehicular ingress / egress routes of the Proposed RCHE
- 4.2 Year 2033 peak hour traffic flows without the Proposed RCHE
- 4.3 Year 2033 peak hour traffic flows with the Proposed RCHE

1.0 INTRODUCTION

Background

- 1.1 The Subject Site is located at lots 3670 RP (Part), 3671 RP (Part), 3672 RP (Part), 3673 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 the Elderly with no more than 240 beds (the "Proposed RCHE").
- 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 RCHE. The report presents the findings and recommendations of the TIA for the Proposed RCHE.

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 RCHE; 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 rural road, 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, 7th 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 ⁽¹⁾ | 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: ⁽¹⁾ 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 RCHE

2.11 In view that the TPDM does not have trip generation rates for RCHE, trip generation surveys were conducted at 4 RCHEs. Details of these RCHEs are found in Table 2.3, and survey results are presented in Table 2.4.

TABLE 2.3 DETAILS OF THE SURVEYED RCHEs

| Ref. | RCHE | Address | No. of beds | Distance from nearest MTR Station |
|------|--|--|-------------|-----------------------------------|
| 1 | The Hong Kong Society for the Aged Bradbury Home for the Elderly and Quan Chuen Home for the Elderly | 60 - 62 Tin Wan Street, Tin Wan | 392 | 2.8 km (Wong Chuk Hang Station) |
| 2 | Caritas Li Ka Shing Care and Attention Home, Tuen Mun | 16 Wah Fat Street, Tuen Mun | 260 | 2.2 km (Tuen Mun Station) |
| 3 | Chuk Lam Ming Tong Care and Attention Home for the Aged | 5 Sha Wan Drive, Pok Fu Lam, Hong Kong | 175 | 3.5km (Kennedy Town Station) |
| 4 | Forward Living | 9 Fu Tei Road, Tuen Mun | 229 | 1km (Siu Hong Station) |

TABLE 2.4 TRIP RATES OF THE SURVEYED RCHEs

| Ref. | RCHE | AM Peak Hour | | PM Peak Hour | |
|-----------------------------|--|--------------|--------|--------------|--------|
| | | IN | OUT | IN | OUT |
| Traffic Generation (pcu/hr) | | | | | |
| 1 | The Hong Kong Society for the Aged Bradbury Home for the Elderly and Quan Chuen Home for the Elderly | 6 | 3 | 4 | 6 |
| 2 | Caritas Li Ka Shing Care and Attention Home, Tuen Mun | 12 | 8 | 7 | 13 |
| 3 | Chuk Lam Ming Tong Care and Attention Home for the Aged | 6 | 2 | 3 | 7 |
| 4 | Forward Living | 7 | 5 | 6 | 10 |
| Trip Rates (pcu/hour/ bed) | | | | | |
| 1 | The Hong Kong Society for the Aged Bradbury Home for the Elderly and Quan Chuen Home for the Elderly | 0.0153 | 0.0077 | 0.0102 | 0.0153 |
| 2 | Caritas Li Ka Shing Care and Attention Home, Tuen Mun | 0.0462 | 0.0308 | 0.0269 | 0.0500 |
| 3 | Chuk Lam Ming Tong Care and Attention Home for the Aged | 0.0343 | 0.0114 | 0.0171 | 0.0400 |
| 4 | Forward Living | 0.0306 | 0.0218 | 0.0262 | 0.0437 |
| Adopted (maximum rates) = | | 0.0462 | 0.0308 | 0.0269 | 0.0500 |

Pedestrian Generation Rates for RCHE

- 2.12 In view that the TPDM does not have pedestrian generation rates for RCHE, pedestrian generation surveys were also conducted at the 4 RCHEs found in Table 2.3, and the survey results are presented in Table 2.5.

TABLE 2.5 PEDESTRIAN TRIP RATES OF THE SURVEYED RCHEs

| Ref. | RCHE | AM Peak Hour | | PM Peak Hour | |
|---|--|--------------|--------|--------------|--------|
| | | IN | OUT | IN | OUT |
| Pedestrian Generation (pedestrian/15 min) | | | | | |
| 1 | The Hong Kong Society for the Aged Bradbury Home for the Elderly and Quan Chuen Home for the Elderly | 16 | 7 | 5 | 18 |
| 2 | Caritas Li Ka Shing Care and Attention Home, Tuen Mun | 16 | 5 | 3 | 17 |
| 3 | Chuk Lam Ming Tong Care and Attention Home for the Aged | 9 | 2 | 1 | 7 |
| 4 | Forward Living | 14 | 4 | 2 | 13 |
| Pedestrian Generation Rates (pedestrian/15 min/bed) | | | | | |
| 1 | The Hong Kong Society for the Aged Bradbury Home for the Elderly and Quan Chuen Home for the Elderly | 0.0408 | 0.0179 | 0.0128 | 0.0459 |
| 2 | Caritas Li Ka Shing Care and Attention Home, Tuen Mun | 0.0615 | 0.0192 | 0.0115 | 0.0654 |
| 3 | Chuk Lam Ming Tong Care and Attention Home for the Aged | 0.0514 | 0.0114 | 0.0057 | 0.0400 |
| 4 | Forward Living | 0.0611 | 0.0175 | 0.0087 | 0.0568 |
| Adopted (maximum rates) = | | 0.0615 | 0.0192 | 0.0128 | 0.0654 |

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 ⁽¹⁾ | No. of Vehicle | No. of Passengers on-board ⁽²⁾ [a] | Capacity ⁽³⁾ [b] | Vacancy [b] – [a] | Occupancy [a] / [b] |
|----------------------|----------------|---|-----------------------------|-------------------|---------------------|
| AM Peak | | | | | |
| 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% |
| PM Peak | | | | | |
| 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: ⁽¹⁾ KMB – Kowloon Motor Bus GMB – Green Minibus
⁽²⁾ Passengers counted the moment before the vehicles departed from the bus stop
⁽³⁾ 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 ⁽¹⁾ | No. of Vehicle | No. of Passengers on-board ⁽²⁾ [a] | Capacity ⁽³⁾ [b] | Vacancy [b] – [a] | Occupancy [a] / [b] |
|----------------------|----------------|---|-----------------------------|-------------------|---------------------|
| AM Peak | | | | | |
| 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 | 5 | 70 | 86 | 16 | 81.4% |
| GMB 76 | 2 | 16 | 32 | 16 | 50.0% |
| Total | 20 | 282 | 757 | 475 | 37.3% |
| PM Peak | | | | | |
| 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 | 3 | 33 | 51 | 18 | 64.7% |
| Total | 20 | 248 | 694 | 446 | 35.7% |

Note: ⁽¹⁾ KMB – Kowloon Motor Bus GMB – Green Minibus
⁽²⁾ Passengers counted the moment before the vehicles departed from the bus stop
⁽³⁾ 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 37.3% during the AM Peak Hour and 35.7% during the PM Peak Hour.

3.0 THE PROPOSED RCHE

Proposed RCHE

- 3.1 The Proposed RCHE consists of 1 building block with no more than 240 beds and is targeted for completion by 2030. The vehicular assess of Proposed RCHE 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 RCHE, hence, reference is made to the 4 RCHEs listed in Table 2.3. The internal transport facilities provision rate derived from the 4 RCHEs are found in Table 3.1.

TABLE 3.1 INTERNAL TRANSPORT FACILITIES PROVIDED IN SURVEYED RCHEs

| Ref. | RCHE | No. of beds | Internal Transport Facilities | | |
|-------------------------------------|--|-------------|-------------------------------|-----------------------|-------|
| | | | Car | Light Bus / Ambulance | LGV |
| Parking Provision | | | | | |
| 1 | The Hong Kong Society for the Aged Bradbury Home for the Elderly and Quan Chuen Home for the Elderly | 392 | 8 | 0 | 1 |
| 2 | Caritas Li Ka Shing Care and Attention Home, Tuen Mun | 260 | 5 | 1 | 0 |
| 3 | Chuk Lam Ming Tong Care and Attention Home for the Aged | 175 | 8 | 0 | 0 |
| 4 | Forward Living | 229 | 4 | 0 | 0 |
| Provision rate (space / bed) | | | | | |
| 1 | The Hong Kong Society for the Aged Bradbury Home for the Elderly and Quan Chuen Home for the Elderly | 392 | 0.020 | 0.000 | 0.003 |
| 2 | Caritas Li Ka Shing Care and Attention Home, Tuen Mun | 260 | 0.019 | 0.004 | 0.000 |
| 3 | Chuk Lam Ming Tong Care and Attention Home for the Aged | 175 | 0.045 | 0.000 | 0.000 |
| 4 | Forward Living | 229 | 0.018 | 0.000 | 0.000 |
| Adopted provision rate = | | | 0.045 | 0.004 | 0.003 |

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

TABLE 3.2 PROVISION OF INTERNAL TRANSPORT FACILITIES THE FOR PROPOSED RCHE

| Use | No. of beds | Internal Transport facilities | Provision | Dimensions |
|------|-------------|-------------------------------------|-----------|---|
| RCHE | 240 | 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 RCHE 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.

4.0 TRAFFIC IMPACT

Design Year

- 4.1 The Proposed RCHE 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 RCHE.

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 RCHE; and
- (iv) Traffic generated by the Proposed RCHE.

- 4.3 The (ii) estimated traffic growth from 2031 to 2033, (iii) the other development in the vicinity of the Proposed RCHE and (iv) traffic generated by the Proposed RCHE 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 RCHE

- 4.6 The major planned developments in the vicinity of the Proposed RCHE 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 | <u>TPB ref.: A/YL-KTN/663-1:</u> 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 | <u>TPB ref.: A/YL-MP/205-1:</u> 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 | <u>TPB ref.: A/YL-MP/344:</u> Lots 50 S.A and 77 in D.D.101, Wo Shang Wai, Mai Po, Yuen Long | Residential | Around 789 flats |
| 4 | <u>TPB ref.: A/YL-NTM/178:</u> 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 | <u>TPB ref.: A/YL-MP/341:</u> Various Lots in D.D. 104 and Adjoining Government Land, Yau Pok Road, Mai Po, Yuen Long | Residential | Around 2150 flats |
| 6 | <u>TPB ref.: A/YL-MP/247:</u> Lots 3054 S.B RP and 3055 in D.D.104, near Yau Mei San Tsuen, Yuen Long | Residential | Around 105 flats |
| 7 | <u>TPB ref.: A/YL-MP/287:</u> 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 ² 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 RCHE

4.7 Traffic generation associated with the Proposed RCHE 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 RCHE

| Item | AM Peak Hour | | | PM Peak Hour | | |
|--|--------------|----------|-----------|--------------|-----------|-----------|
| | In | Out | 2-way | In | Out | 2-way |
| Trip Generation Rates for RCHE (pcu/hour/bed) in Table 2.4 | | | | | | |
| RCHE | 0.0462 | 0.0308 | NA | 0.0269 | 0.0500 | NA |
| Traffic Generation of Proposed RCHE (pcu/hour) | | | | | | |
| RCHE: 240 beds | <u>12</u> | <u>8</u> | <u>20</u> | <u>7</u> | <u>12</u> | <u>19</u> |

4.8 Table 4.4 shows that the total 2-way traffic generated by the Proposed Development is only 20 and 19 pcu/hour (2-way) during the AM and PM peak hours respectively. Ingress and egress routes for traffic generated by the Proposed RCHE 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 RCHE [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 RCHE

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

4.10 The 2033 peak hour traffic flows for the cases without and with the Proposed RCHE, 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 RCHE 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 ⁽¹⁾ | Without the Proposed RCHE | | With the Proposed RCHE | |
|-------------------|--|---|---------------------------|---------|------------------------|---------|
| | | | AM Peak | PM Peak | AM Peak | PM Peak |
| J1 | Kam Pok Road / Kam Pok Road East | Priority / RFC | 0.337 | 0.240 | 0.338 | 0.240 |
| J2 ⁽²⁾ | Castle Peak Road – Tam Mi / Kam Pok Road | Signal / RC | 26% | 34% | 25% | 33% |
| J3 | The Fairview Roundabout | Roundabout / RFC | 0.660 | 0.743 | 0.662 | 0.745 |

Notes: ⁽¹⁾ RC – reserve capacity RFC – Ratio of Flow to Capacity

⁽²⁾ 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 RCHE.

Impact on Utilisation of Surveyed bus stops

- 4.13 To be conservative, it is assumed that all pedestrians generated by the Proposed RCHE will use public transport services. The number of public transport passengers generated by the Proposed RCHE is calculated based on the pedestrian generation of the Proposed RCHE, 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 RCHE

| Item | AM Peak Hour | | | PM Peak Hour | | |
|---|--------------|--------|-------|--------------|--------|-------|
| | In | Out | 2-way | In | Out | 2-way |
| Pedestrian Generation Rates for RCHE (pedestrian/15 min/bed) in Table 2.5 | | | | | | |
| RCHE | 0.0615 | 0.0192 | NA | 0.0128 | 0.0654 | NA |
| Pedestrian Generation of Proposed RCHE (pedestrian/15 min) | | | | | | |
| RCHE: 240 beds | 15 | 5 | 20 | 4 | 16 | 20 |
| Pedestrian Generation of Proposed RCHE (pedestrian/1 hour) | | | | | | |
| RCHE: 240 beds | 60 | 20 | 80 | 16 | 64 | 80 |

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

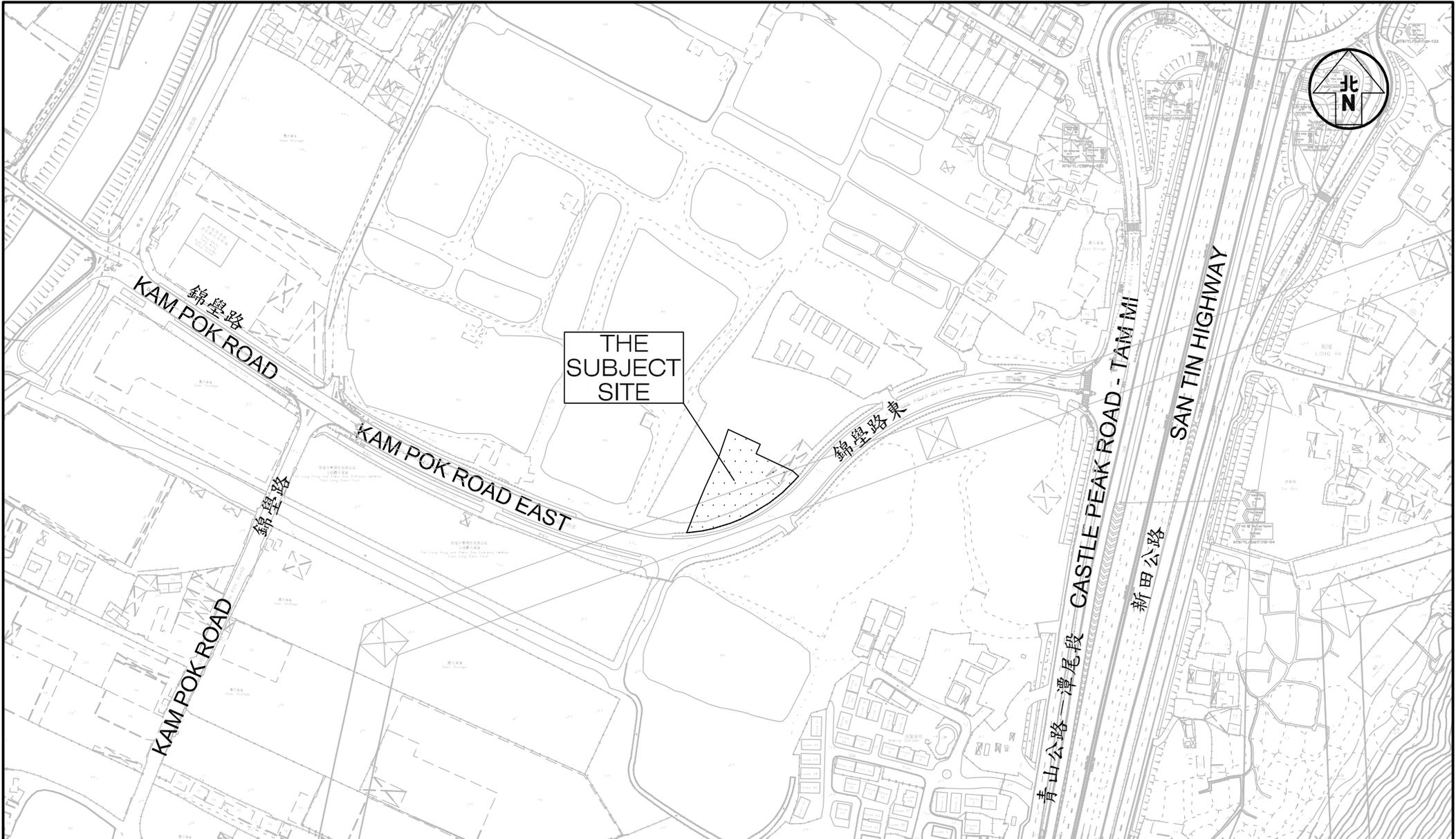
TABLE 4.7 THE UTILISATION OF THE PUBLIC TRANSPORT SERVICES FOR THE CASE WITH THE PROPOSED RCHE

| No. | Location | Occupancy of Public Transport Service | |
|-----|---|---------------------------------------|---------|
| | | AM Peak | PM Peak |
| 1 | Tai Sang Wai (towards San Tin) Bus Stop | 48.5% | 51.7% |
| 2 | Long Ha (towards Yuen Long) Bus Stop | 42.5% | 41.5% |

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

5.0 CONCLUSION

- 5.1 The Subject Site is located at lots 3670 RP (Part), 3671 RP (Part), 3672 RP (Part), 3673 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 RCHE with no more than 240 beds.
- 5.2 Manual classified counts were conducted at junctions located in the vicinity of the Proposed RCHE 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 RCHE are provided based on the operational needs with the reference to 4 surveyed RCHEs.
- 5.4 The Proposed RCHE 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 RCHE.
- 5.5 The public transport services at 2 surveyed bus stops have capacity to accommodate the passenger demand generated by the Proposed RCHE.
- 5.6 It is concluded that the Proposed RCHE will result in no adverse traffic impact to the surrounding road network. From traffic engineering grounds, the Proposed RCHE is acceptable.



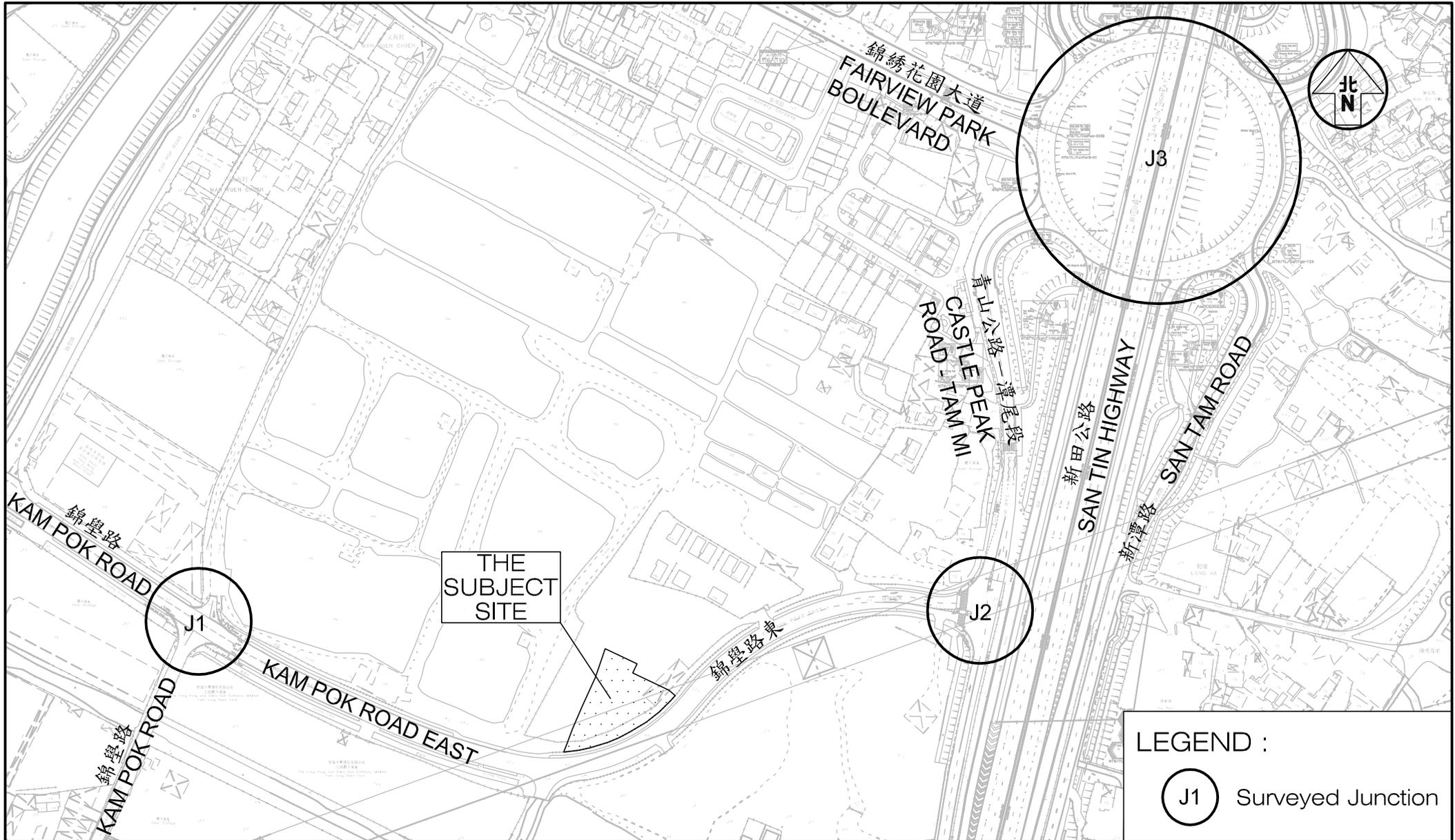
Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG J7401

Figure No. 1.1 Revision C

CKM Asia Limited
Traffic and Transportation Planning Consultants

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 03 OCT 2025 | |



LEGEND :

(J1) Surveyed Junction

Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG J7401

Figure No. 2.1
Revision C

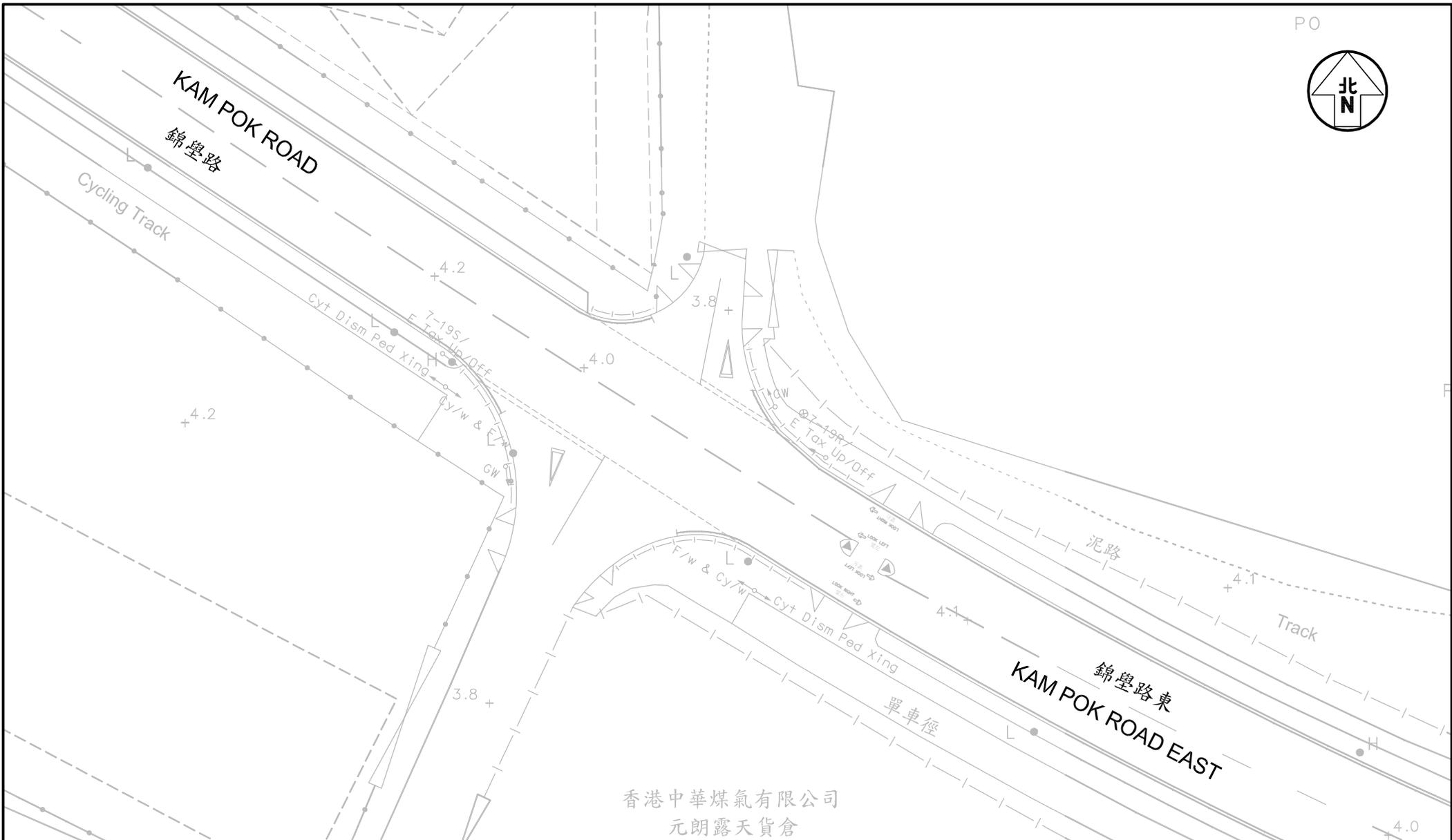
CKM Asia Limited
Traffic and Transportation Planning Consultants

Figure Title
LOCATION OF SURVEYED JUNCTIONS

| | | |
|-------------------------|---------------------|-------------------|
| Designed by L C H | Drawn by N C M | Checked by K C |
| Scale in A4 1 : 3000 | Date 03 OCT 2025 | |



PO



Project Title **PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG**

Figure No. **2.2**

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

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

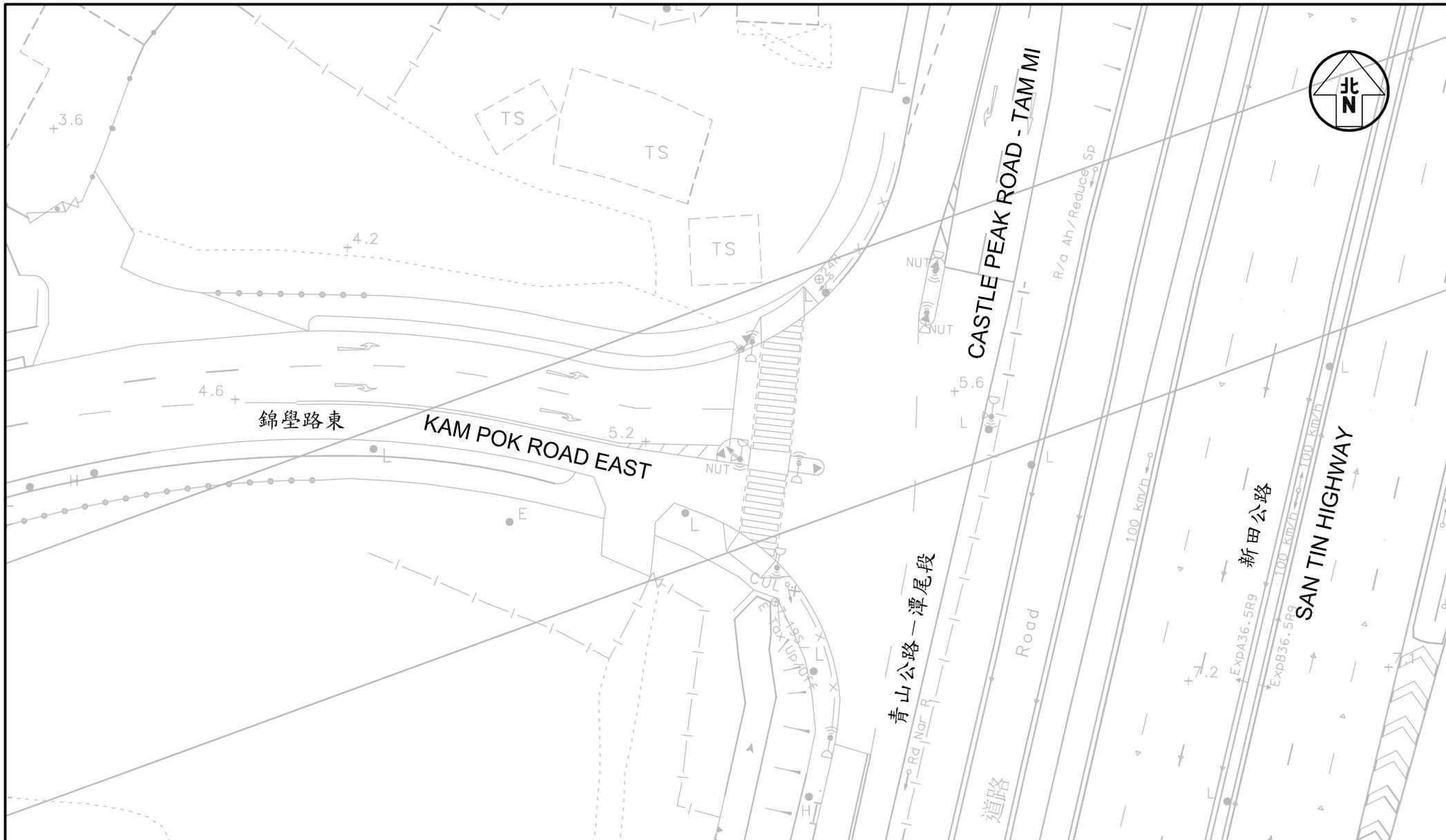
Designed by **L C H**
 Drawn by **N C M**
 Checked by **K C**



Scale in A4 **1 : 500**

Date **03 OCT 2025**

T:\JOB\J7400-J7449\J7401\2025 10\Fig 2.2 - 2.4 RevC.dwg



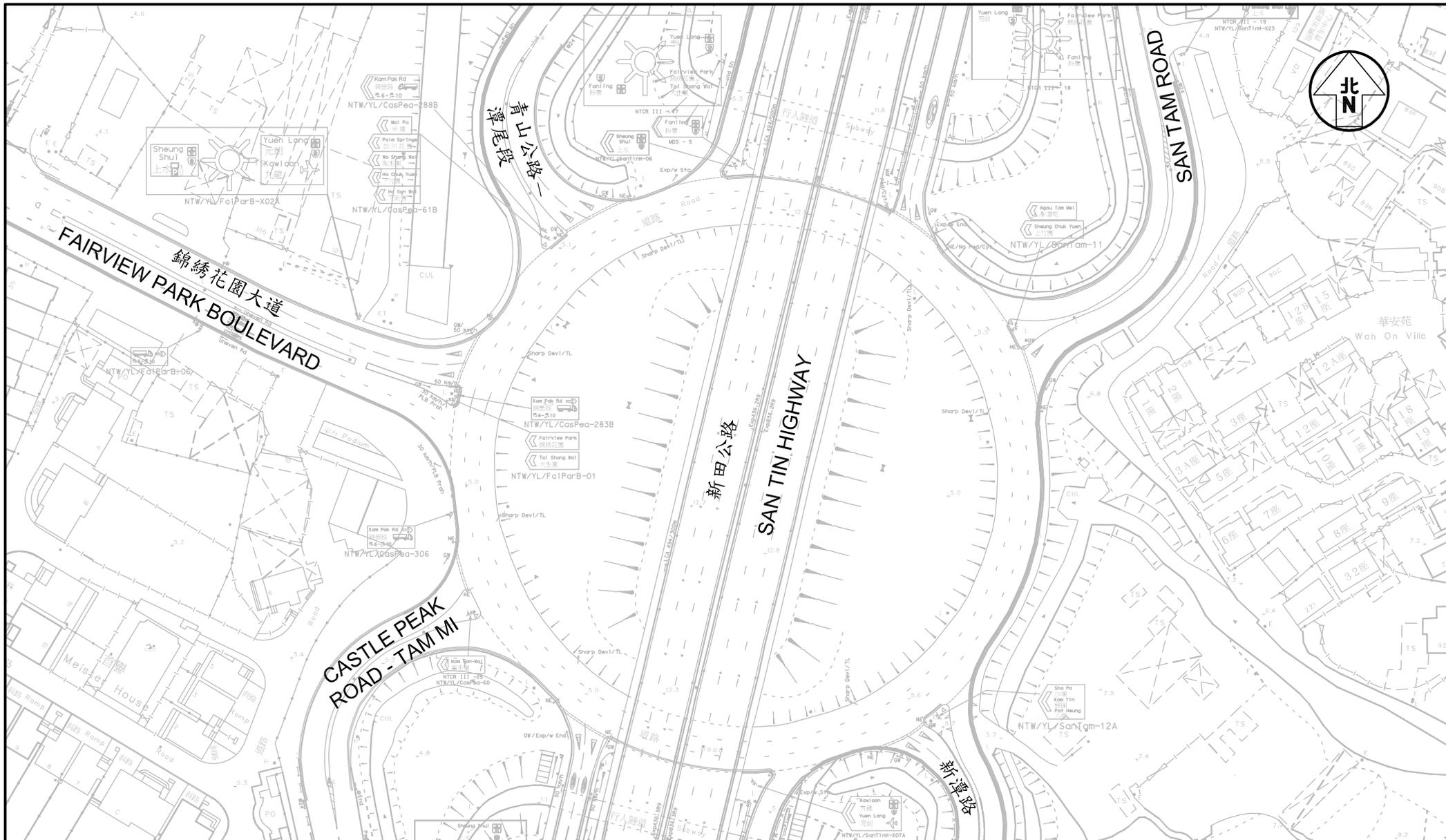
Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG J7401

Figure No. 2.3 Revision C

CKM Asia Limited
Traffic and Transportation Planning Consultants

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 03 OCT 2025 | |



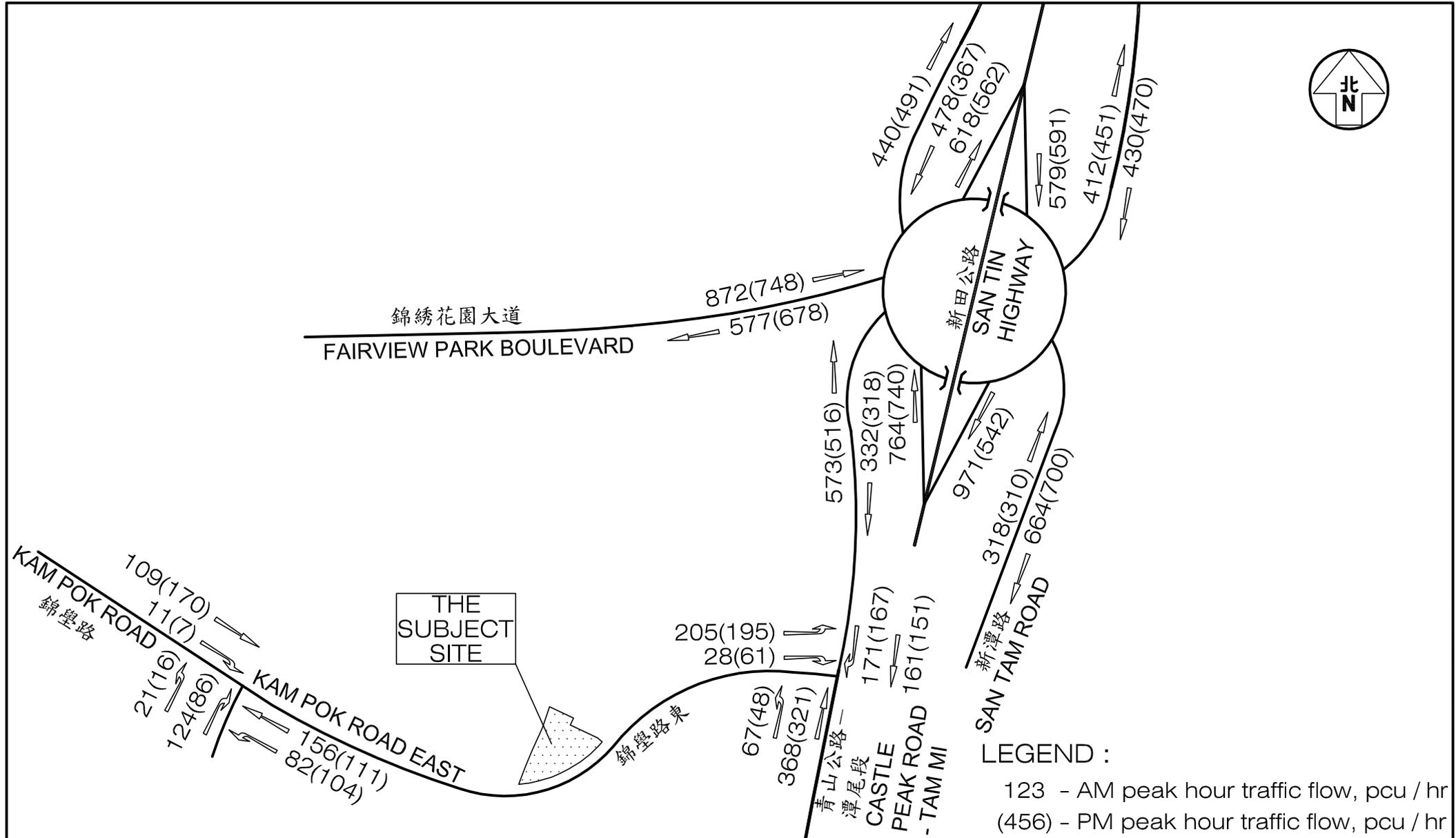
Project Title **PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG**

Figure No. **2.4**

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

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

Designed by **LCH** Drawn by **NCM** Checked by **KC**
 Scale in A4 **1 : 1250** Date **03 OCT 2025**



Project Title **PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG**

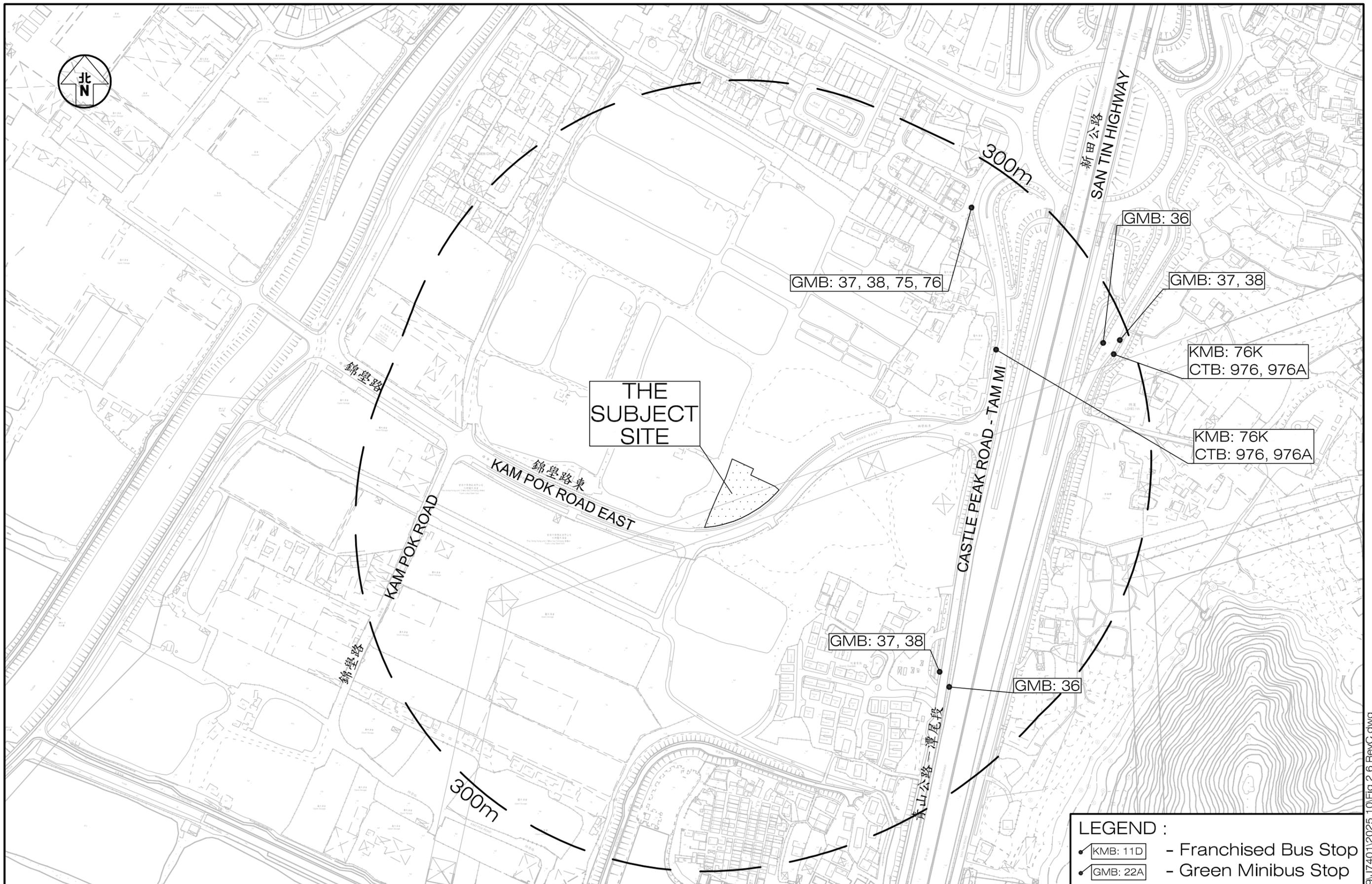
Figure No. **2.5**
 Revision **C**

CKM Asia Limited
 Traffic and Transportation Planning Consultants

Figure Title **EXISTING PEAK HOUR TRAFFIC FLOWS**

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

Scale in A4 **N.T.S.**
 Date **03 OCT 2025**



Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG J7401

Figure No. 2.6 Revision C

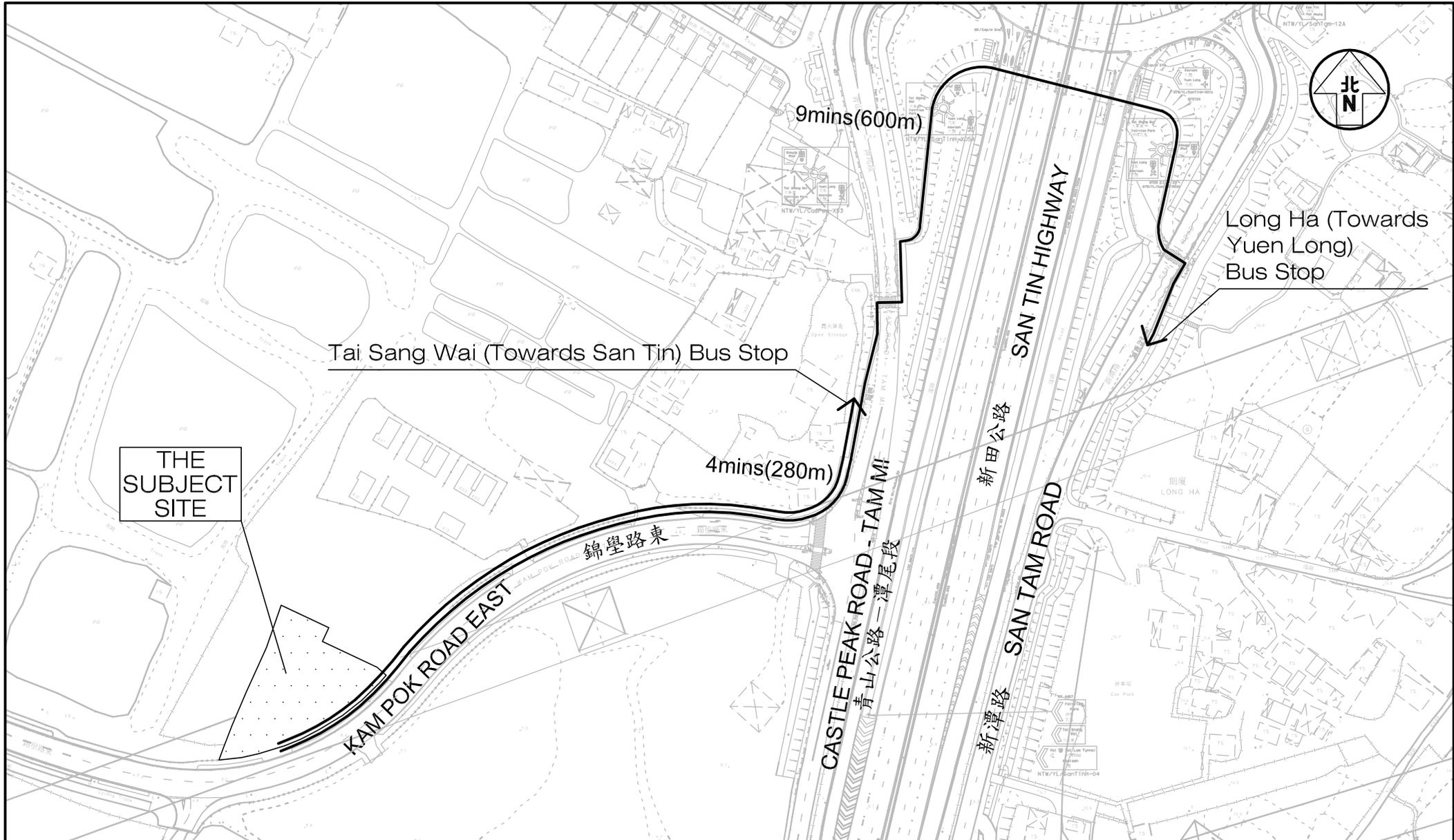
CKM Asia Limited
Traffic and Transportation Planning Consultants

Figure Title THE PUBLIC TRANSPORT SERVICES PROVIDED IN THE VICINITY OF THE SUBJECT SITE

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

Scale in A3 1 : 3,000 Date 03 OCT 2025

T:\JOB\J7400-J7449\J7401\2025 10\Fig 2.6 RevC.dwg



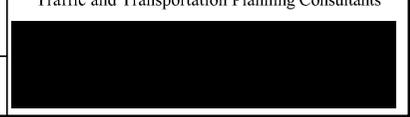
Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG J7401

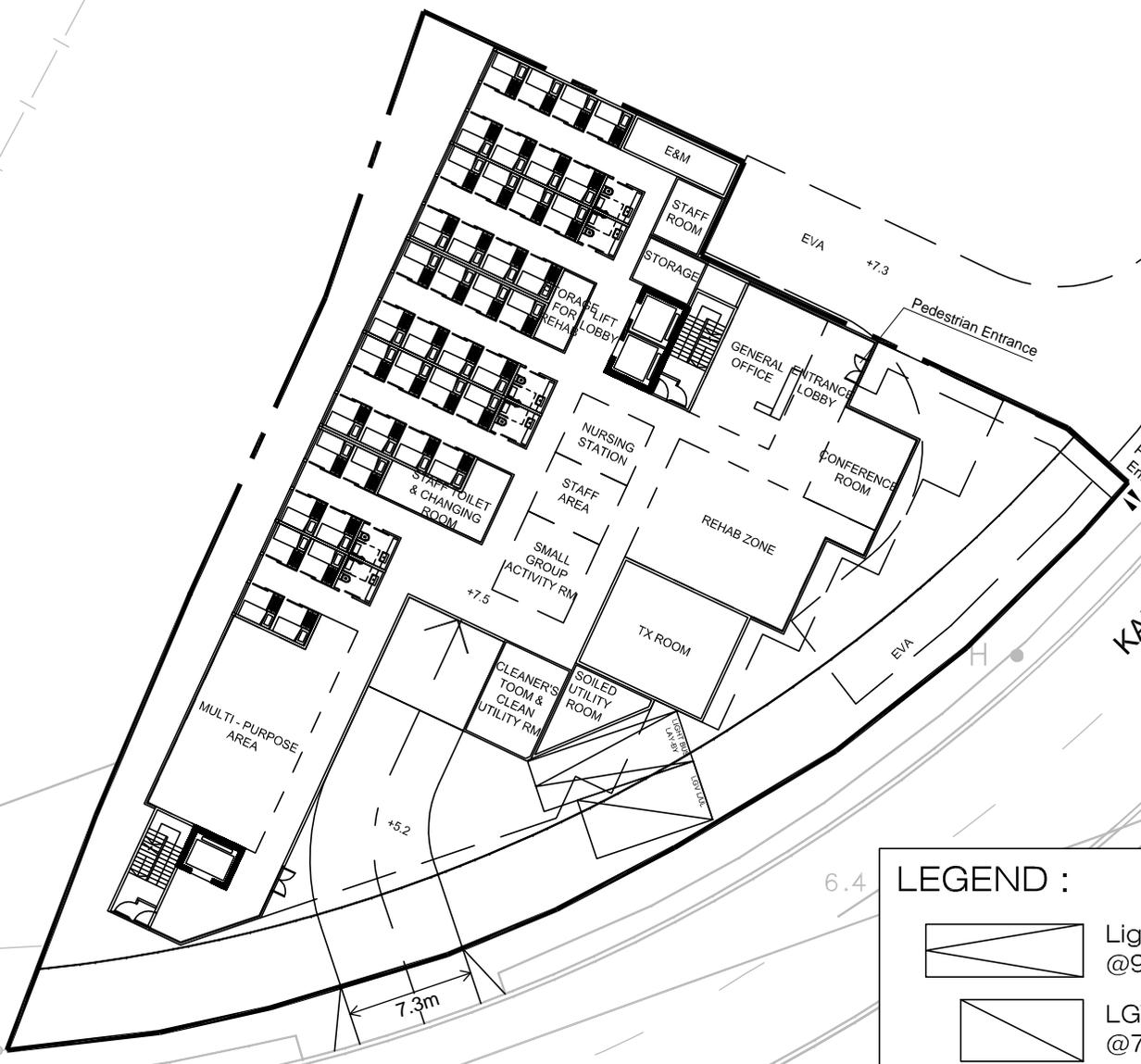
Figure No. 2.7 Revision C

CKM Asia Limited
Traffic and Transportation Planning Consultants

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

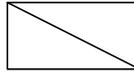
| | | |
|-------------------------|---------------------|-------------------|
| Designed by L C H | Drawn by N C M | Checked by K C |
| Scale in A4 1 : 2000 | Date 03 OCT 2025 | |





KAM POK ROAD EAST
錦屏路東

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 THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG**

Figure No. **3.1**

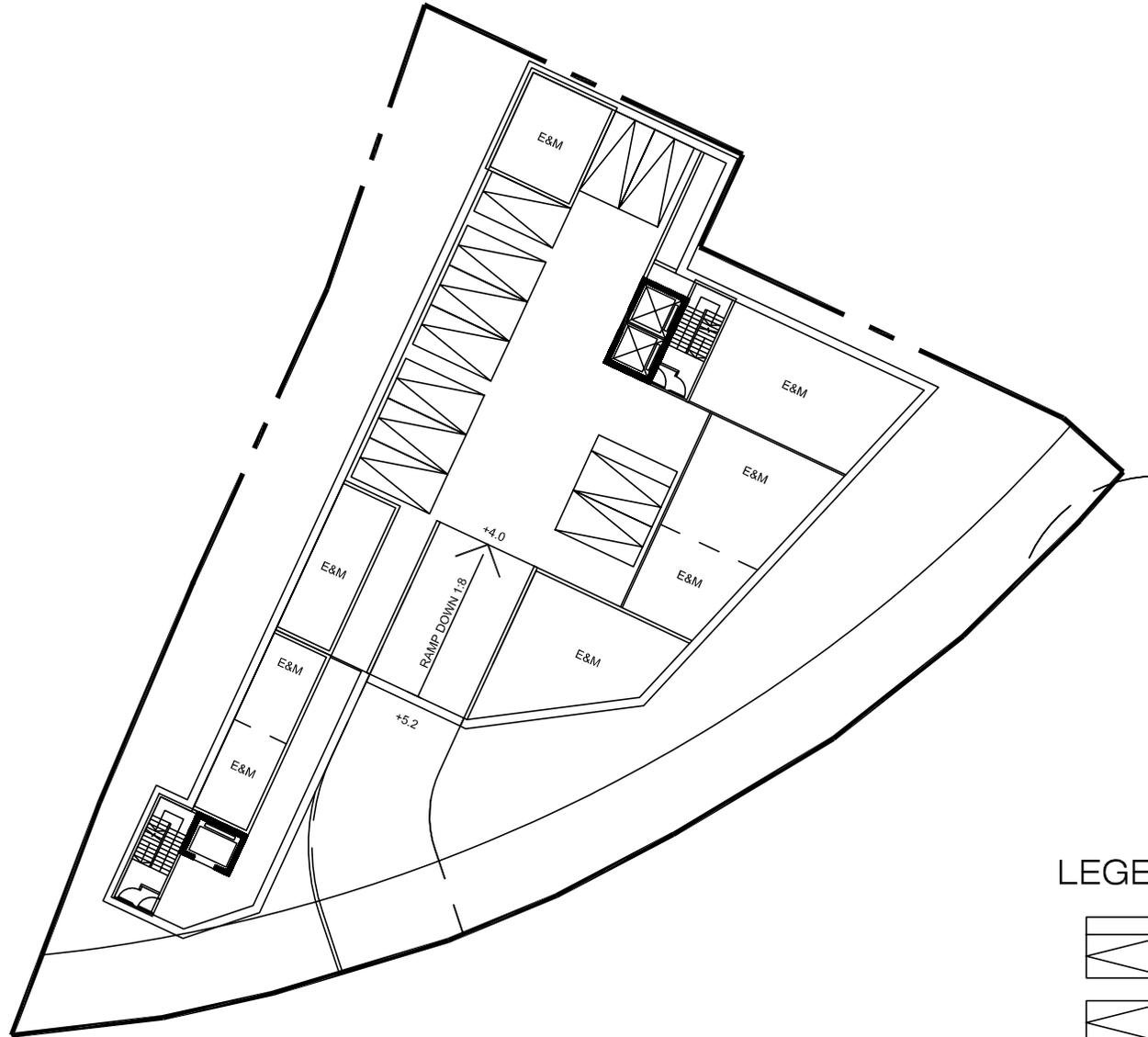
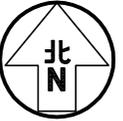
Revision **C**
CKM Asia Limited
Traffic and Transportation Planning Consultants

Figure Title **G/F LAYOUT PLAN**

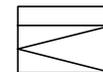
Designed by **L C H** Drawn by **N C M** Checked by **K C**

Scale in A4 **1 : 400** Date **03 OCT 2025**

T:\JOB\J7400-J7449\J7401\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 PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN
"VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART)
AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG

J7401

Figure No.

3.2

Revision

C

CKM Asia Limited

Traffic and Transportation Planning Consultants

Figure Title

B/F LAYOUT PLAN

Designed by

L C H

Drawn by

N C M

Checked by

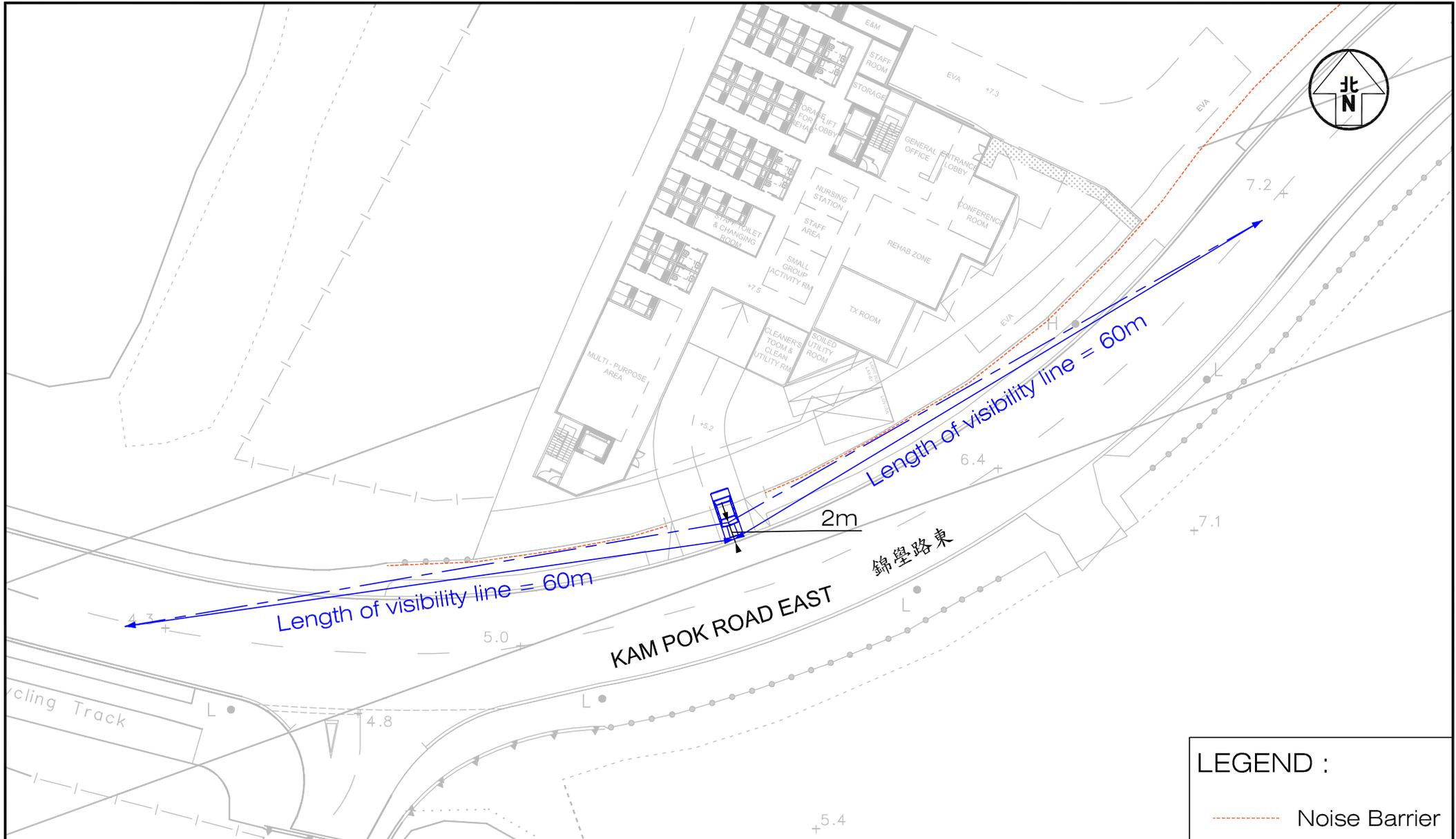
K C

Scale in A4

1 : 400

Date

03 OCT 2025



LEGEND :
 ----- Noise Barrier

Project Title **PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG**

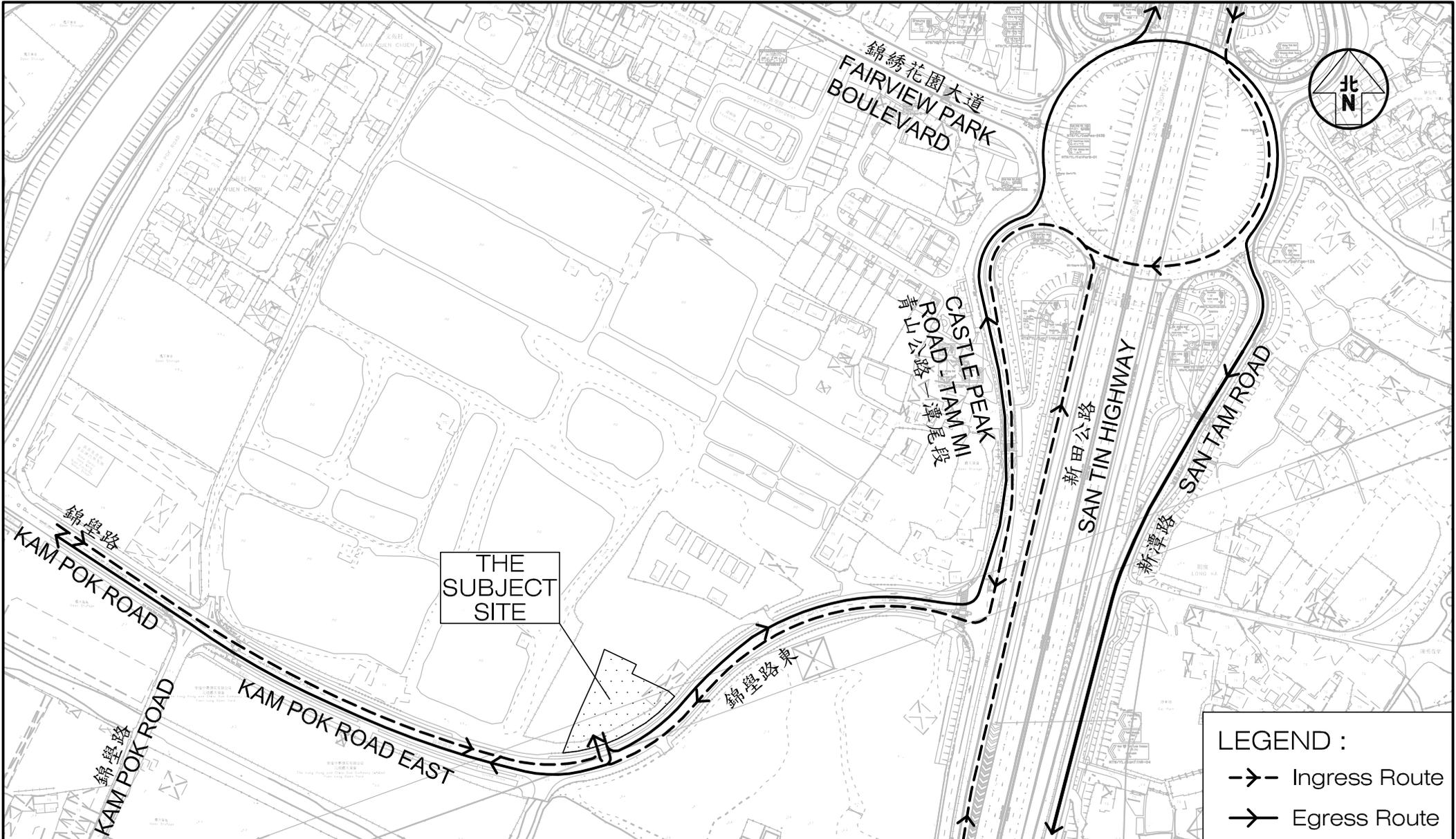
Figure No. **3.3** Revision **C**

CKM Asia Limited
 Traffic and Transportation Planning Consultants

Figure Title **LENGTH OF VISIBILITY LINE FOR THE MOTORIST LEAVING THE PROPOSED RCHE AT KAM POK ROAD EAST**

Designed by **C Y Y** Drawn by **N C M** Checked by **K C**
 Scale in A4 **1 : 500** Date **03 OCT 2025**

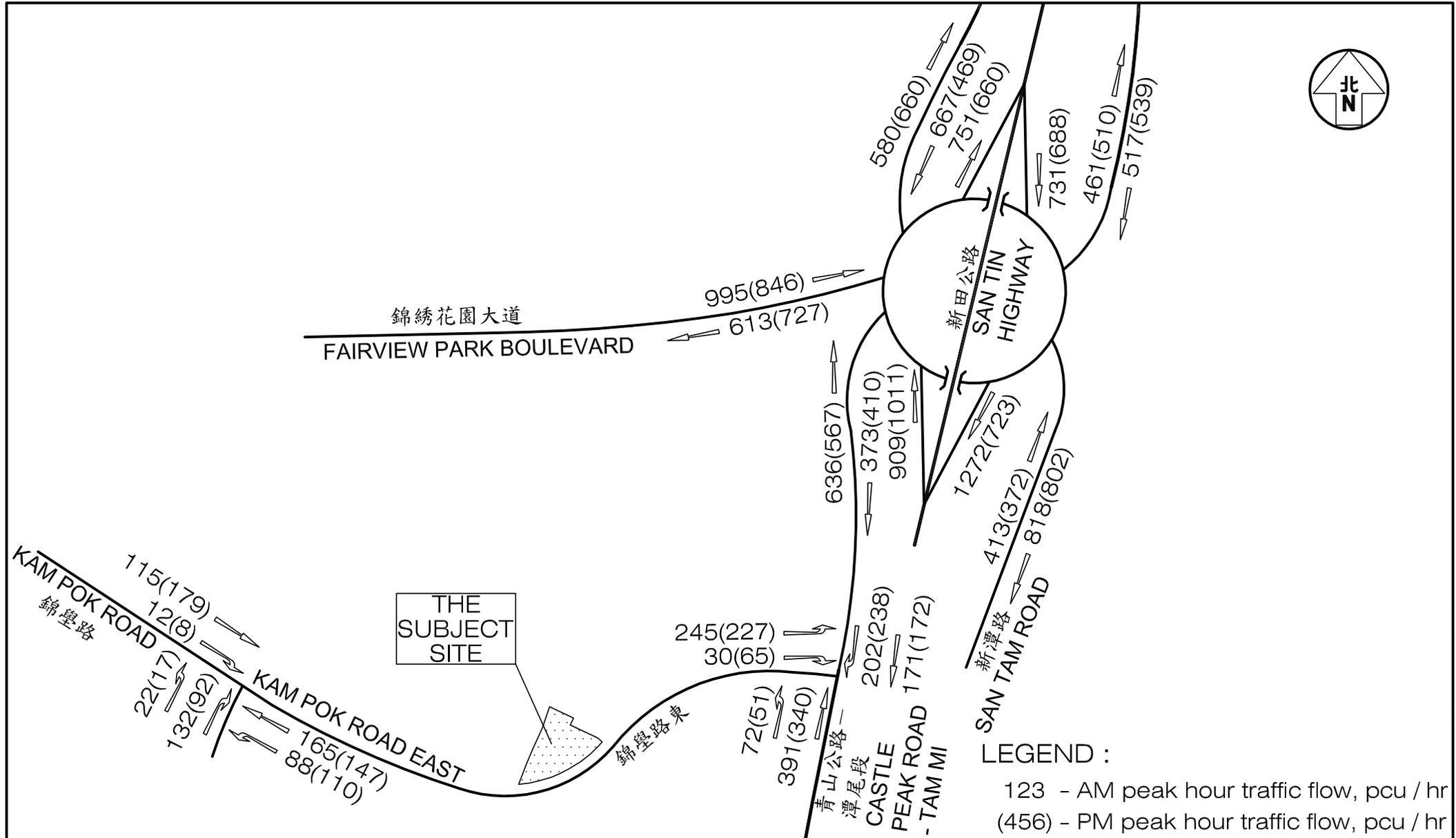
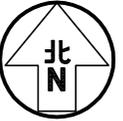
T:\JOB\J7400-J7449\J7401\2025 10\Fig 3.3 RevC.dwg



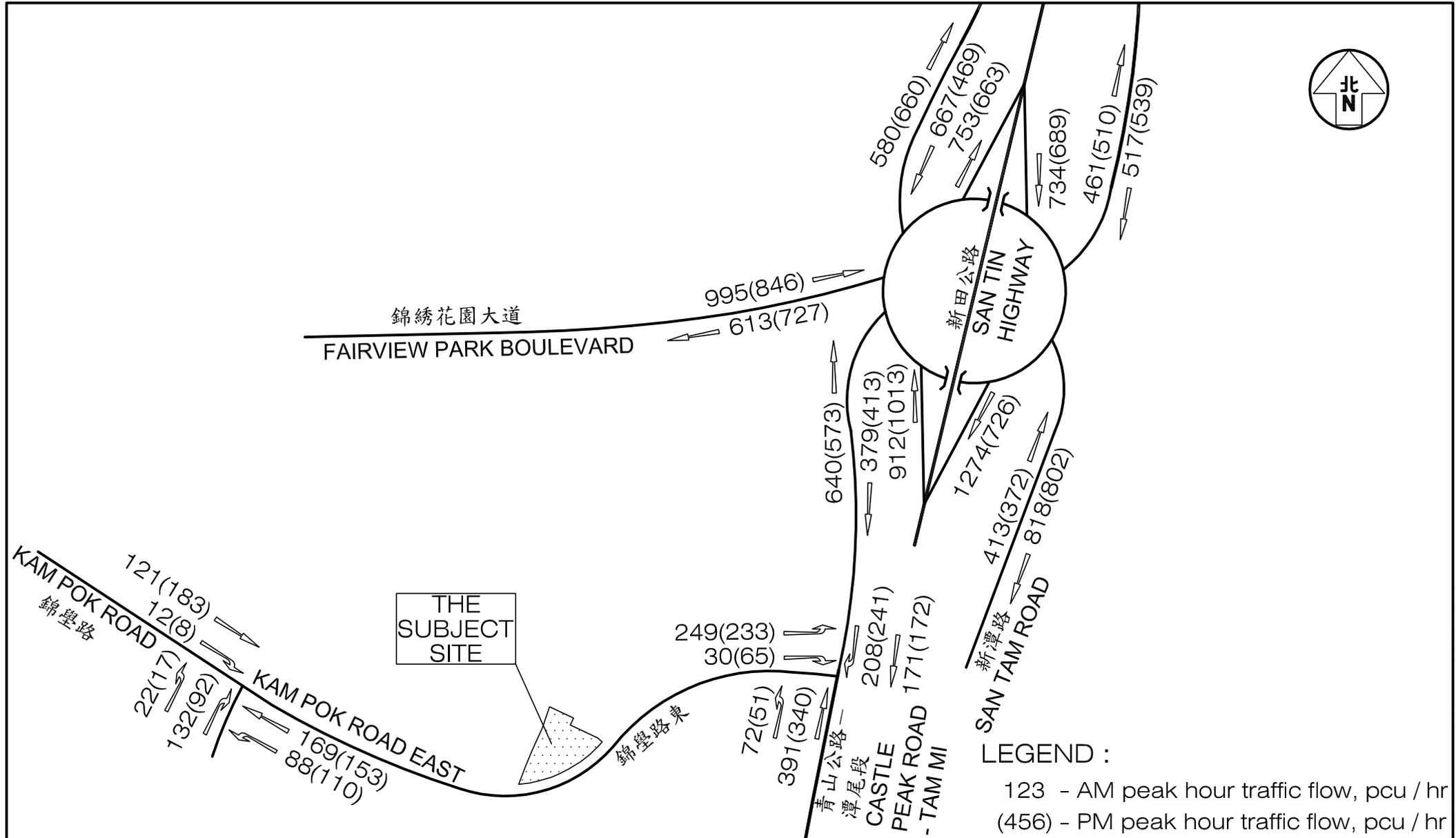
THE
SUBJECT
SITE

LEGEND :
 - - - - - Ingress Route
 ———— Egress Route

| | | | | |
|--|----------------------|-------------------|--|-------------------|
| Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG | Figure No. 4.1 | Revision C | CKM Asia Limited Traffic and Transportation Planning Consultants | |
| Figure Title THE VEHICULAR INGRESS / EGRESS ROUTES OF THE PROPOSED RCHE | Designed by L C H | Drawn by N C M | | Checked by K C |
| Scale in A4 1 : 3000 | Date 03 OCT 2025 | | | |



| | | | | | | | |
|---------------|---|-------------|---|----------|-------------|---|-------|
| Project Title | PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG | Figure No. | 4.2 | Revision | C | CKM Asia Limited Traffic and Transportation Planning Consultants | |
| | Figure Title | | YEAR 2033 PEAK HOUR TRAFFIC FLOWS WITHOUT THE PROPOSED RCHE | | Designed by | | L C H |
| | | Scale in A4 | N.T.S. | Date | 03 OCT 2025 | | |

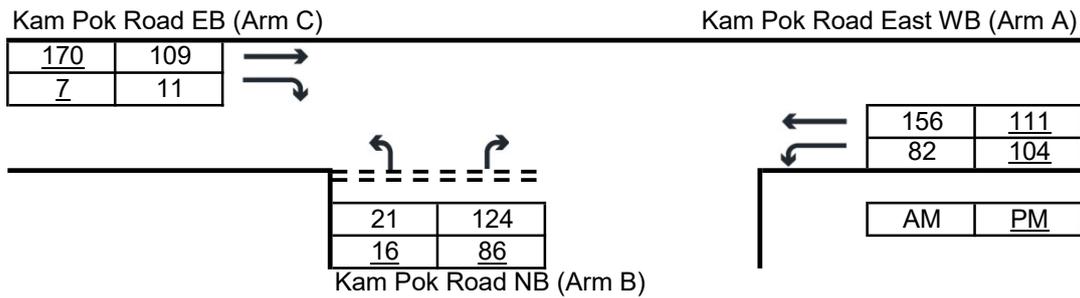


LEGEND :
 123 - AM peak hour traffic flow, pcu / hr
 (456) - PM peak hour traffic flow, pcu / hr

| | | | | |
|--|--------------------------|----------------------|--|-------------------|
| Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG | Figure No. 4.3 | Revision C | CKM Asia Limited Traffic and Transportation Planning Consultants | |
| Figure Title YEAR 2033 PEAK HOUR TRAFFIC FLOWS WITH THE PROPOSED RCHE | Designed by L C H | Drawn by N C M | | Checked by K C |
| Scale in A4 N.T.S. | Date 03 OCT 2025 | | | |

Priority Junction Analysis

| | | | |
|--------------|----------------------------------|-------------|------------|
| Junction: | Kam Pok Road / Kam Pok Road East | | |
| Design Year: | 2025 | Job Number: | J7401 |
| Scenario: | Existing Condition | Date: | 3 Oct 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 |

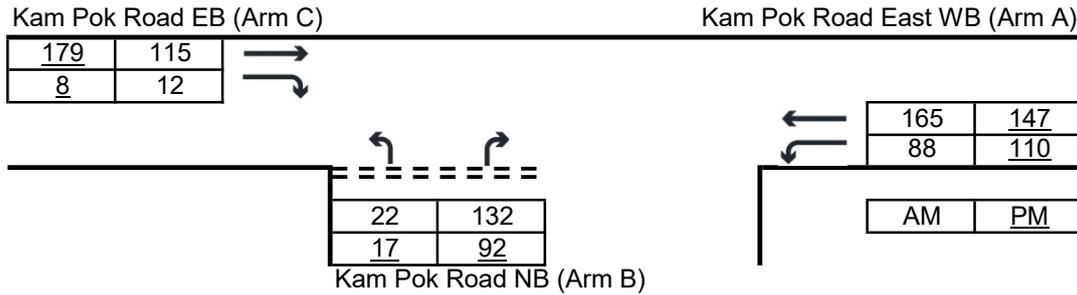
Analysis :

| 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: | J7401 |
| Scenario: | Future Condition (Without Proposed RCHE) | Date: | 3 Oct 2025 |
| | | Page | 2 |



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 |

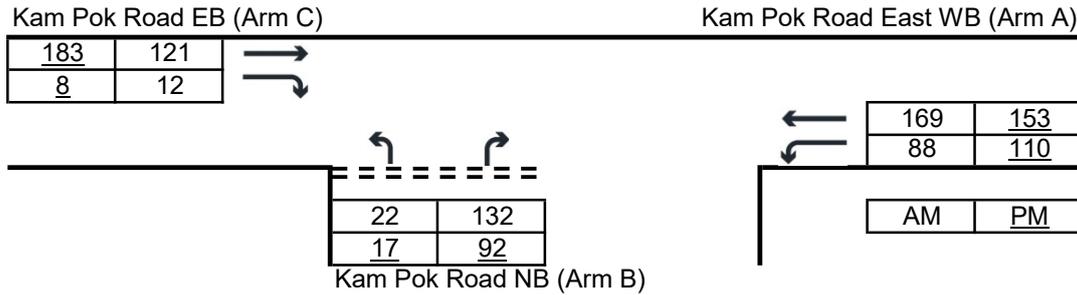
Analysis :

| Traffic Flows, pcu/hr | AM | PM | Capacity, pcu/hr | AM | PM |
|-----------------------|-------|-------|------------------|-----|-----|
| q-CA | 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: | J7401 |
| Scenario: | Future Condition (With Proposed RCHE) | | Date: 3 Oct 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 | 594 |
| q-AB | 88 | 110 | Q-CB | | 709 | 708 |
| q-AC | 169 | 153 | 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 | 0.240 |

Signal Junction Analysis

Junction: Castle Peak Road - Tam Mi / Kam Pok Road Job Number: J7401
 Scenario: Existing Condition P. 4
 Design Year: 2025 Designed By: _____ Checked By: _____ Date: 3 Oct 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 |
|------------------|------|---|---------------------|----|----------|----|-----------|----|-----|

| <p>AM Traffic Flow (pcu/hr)</p> | <p>PM Traffic Flow (pcu/hr)</p> | <p>$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$</p> <p>$S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$</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>0.424</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: J7401
 Scenario: Future Condition (Without Proposed RCHE) P. 5
 Design Year: 2033 Designed By: _____ Checked By: _____ Date: 3 Oct 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 |
|------------------|------|---|---------------------|----|----------|----|-----------|----|-----|

| <p>AM Traffic Flow (pcu/hr)</p> | <p>PM Traffic Flow (pcu/hr)</p> | <p>$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$</p> <p>$S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$</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> <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% |
|---------------------------------|---------------------------------|--|--|---------|---------|-------|-------|-------|-------|-------|-------|-------|----|----|-------|-----|-----|-------------|-------|-------|----------|-----|-----|
| | 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 = I/G = 5 | G = 25 I/G = 2 |

Signal Junction Analysis

Junction: Castle Peak Road - Tam Mi / Kam Pok Road Job Number: J7401
 Scenario: Future Condition (With Proposed RCHE) P. 6
 Design Year: 2033 Designed By: _____ Checked By: _____ Date: 3 Oct 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 | 208 | 0.109 | 0.109 | 100 | 1905 | 241 | 0.127 | 0.127 |
| Kam Pok Road EB | | | | | | | | | | | | | | | | |
| | LT | C1 | 3 | 3.50 | 28.0 | | 100 | 1865 | 249 | 0.134 | 0.134 | 100 | 1865 | 233 | 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>$S=1940+100(W-3.25)$ $S=2080+100(W-3.25)$</p> <p>$S_M=S+(1+1.5f/r)$ $S_M=(S-230)/(1+1.5f/r)$</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <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>0.481</td> <td>0.452</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>33%</td> </tr> </tbody> </table> <p>Note:</p> | | AM Peak | PM Peak | Group | 1+2+3 | 1+2+3 | Sum y | 0.481 | 0.452 | L (s) | 40 | 40 | C (s) | 120 | 120 | practical y | 0.600 | 0.600 | R.C. (%) | 25% | 33% |
|---------------------------------|---------------------------------|--|--|---------|---------|-------|-------|-------|-------|-------|-------|-------|----|----|-------|-----|-----|-------------|-------|-------|----------|-----|-----|
| | AM Peak | PM Peak | | | | | | | | | | | | | | | | | | | | | |
| Group | 1+2+3 | 1+2+3 | | | | | | | | | | | | | | | | | | | | | |
| Sum y | 0.481 | 0.452 | | | | | | | | | | | | | | | | | | | | | |
| L (s) | 40 | 40 | | | | | | | | | | | | | | | | | | | | | |
| C (s) | 120 | 120 | | | | | | | | | | | | | | | | | | | | | |
| practical y | 0.600 | 0.600 | | | | | | | | | | | | | | | | | | | | | |
| R.C. (%) | 25% | 33% | | | | | | | | | | | | | | | | | | | | | |

| | | | | |
|----|-------------|-------------|-------------|----------------|
| 1 | 2 | 3 | 4 | 5 |
| | | | | |
| 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 Job Number: J7401
 Scenario: Existing Condition P. 7
 Design Year: 2025 Designed By: _____ Checked By: _____ Date: 3 Oct 2025

AM Peak

| Arm | To A | To B | To C | To D | To E | to F | to G | Total | q _c |
|--------|------|------|------|------|------|------|------|-------|----------------|
| 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 |
| Total | 577 | 332 | 971 | 664 | 412 | 618 | 440 | 4014 | |

PM Peak

| Arm | To A | To B | To C | To D | To E | to F | to G | Total | q _c |
|--------|------|------|------|------|------|------|------|-------|----------------|
| 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 |
| Total | 678 | 318 | 542 | 700 | 451 | 562 | 491 | 3742 | |

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 | 1987.75 | 2039 | 872 | 748 | 0.44 | 0.37 |
| From B | 7.15 | 3640.95 | 1.00 | 0.98 | 2166.74 | 0.51 | 1230.86 | 1330 | 573 | 516 | 0.47 | 0.39 |
| From C | 7.51 | 3640.95 | 1.00 | 1.01 | 2274.80 | 0.53 | 1552.77 | 1460 | 764 | 740 | 0.49 | 0.51 |
| From D | 7.72 | 3640.95 | 1.00 | 1.02 | 2339.01 | 0.53 | 1568.05 | 1506 | 318 | 310 | 0.20 | 0.21 |
| From E | 7.19 | 3640.95 | 1.00 | 0.98 | 2180.08 | 0.51 | 1438.03 | 1404 | 430 | 470 | 0.30 | 0.33 |
| From F | 7.12 | 3640.95 | 1.00 | 0.98 | 2157.57 | 0.51 | 1502.60 | 1421 | 579 | 591 | 0.39 | 0.42 |
| From G | 5.69 | 3640.95 | 1.00 | 1.00 | 1722.94 | 0.45 | 1121.91 | 1066 | 478 | 367 | 0.43 | 0.34 |
| From H | | | | | | | | | | | | |

Roundabout Analysis

Junction: The Fairview Park Roundabout Job Number: J7401
 Scenario: Future Condition (Without Proposed RCHE) P. 8
 Design Year: 2033 Designed By: _____ Checked By: _____ Date: 3 Oct 2025

AM Peak

| Arm | To A | To B | To C | To D | To E | to F | to G | Total | q _c |
|--------|------|------|------|------|------|------|------|-------|----------------|
| 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 |
| Total | 613 | 373 | 1272 | 818 | 461 | 751 | 580 | 4868 | |

PM Peak

| Arm | To A | To B | To C | To D | To E | to F | to G | Total | q _c |
|--------|------|------|------|------|------|------|------|-------|----------------|
| 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 |
| Total | 727 | 410 | 723 | 802 | 510 | 660 | 660 | 4492 | |

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 | 1753 | 1856 | 995 | 846 | 0.57 | 0.46 |
| From B | 7.15 | 3640.95 | 1.00 | 0.98 | 2166.74 | 0.51 | 989 | 1170 | 636 | 567 | 0.64 | 0.48 |
| From C | 7.51 | 3640.95 | 1.00 | 1.01 | 2274.80 | 0.53 | 1423 | 1361 | 909 | 1011 | 0.64 | 0.74 |
| From D | 7.72 | 3640.95 | 1.00 | 1.02 | 2339.01 | 0.53 | 1440 | 1311 | 413 | 372 | 0.29 | 0.28 |
| From E | 7.19 | 3640.95 | 1.00 | 0.98 | 2180.08 | 0.51 | 1296 | 1223 | 517 | 539 | 0.40 | 0.44 |
| From F | 7.12 | 3640.95 | 1.00 | 0.98 | 2157.57 | 0.51 | 1385 | 1257 | 731 | 688 | 0.53 | 0.55 |
| From G | 5.69 | 3640.95 | 1.00 | 1.00 | 1722.94 | 0.45 | 1010 | 949 | 667 | 469 | 0.66 | 0.49 |
| From H | | | | | | | | | | | | |

Roundabout Analysis

Junction: The Fairview Park Roundabout Job Number: J7401
 Scenario: Future Condition (With Proposed RCHE) P. 9
 Design Year: 2033 Designed By: _____ Checked By: _____ Date: 3 Oct 2025

AM Peak

| Arm | To A | To B | To C | To D | To E | to F | to G | Total | q _c |
|--------------|------------|------------|-------------|------------|------------|------------|------------|-------------|----------------|
| From A | 36 | 58 | 444 | 156 | 79 | 148 | 74 | 995 | 1658 |
| 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 | 103 | 120 | 161 | 27 | 32 | 123 | 734 | 1450 |
| From G | 57 | 92 | 216 | 184 | 59 | 38 | 21 | 667 | 1604 |
| Total | 613 | 379 | 1274 | 818 | 461 | 753 | 580 | 4878 | |

PM Peak

| Arm | To A | To B | To C | To D | To E | to F | to G | Total | q _c |
|--------------|------------|------------|------------|------------|------------|------------|------------|-------------|----------------|
| From A | 30 | 58 | 191 | 110 | 103 | 286 | 68 | 846 | 1479 |
| From B | 73 | 17 | 97 | 49 | 83 | 128 | 126 | 573 | 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 | 86 | 60 | 188 | 56 | 30 | 135 | 689 | 1708 |
| From G | 66 | 62 | 120 | 124 | 48 | 34 | 15 | 469 | 1737 |
| Total | 727 | 413 | 726 | 802 | 510 | 663 | 660 | 4501 | |

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 | $= 1.6(e - v)/L$ |

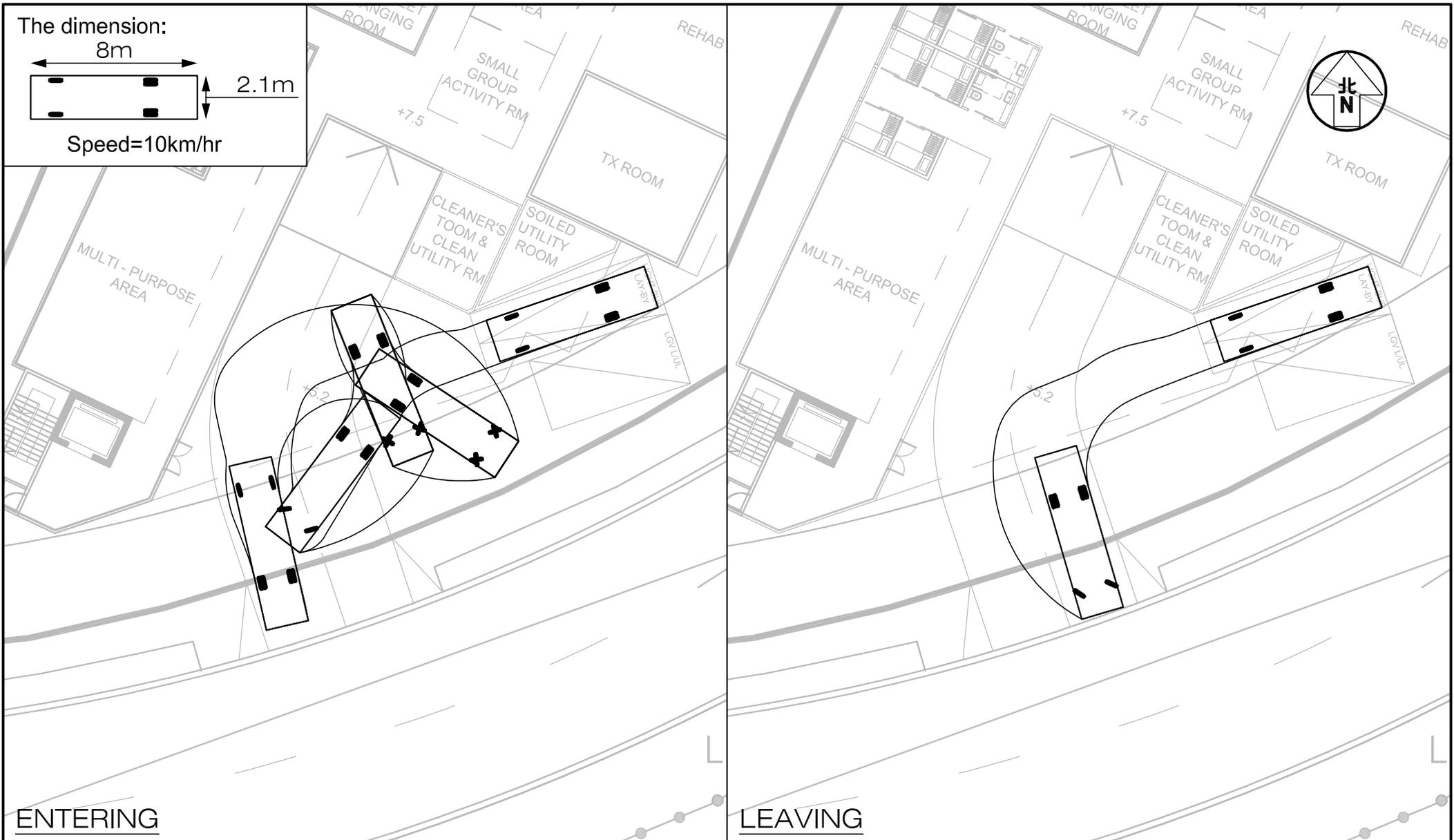
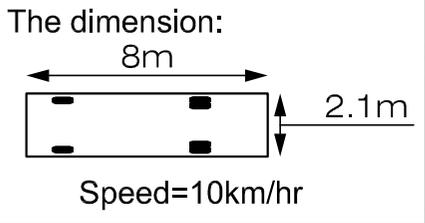
Limitation

| | | |
|---|---------------------------|---------------|
| 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 | 1750 | 1855 | 995 | 846 | 0.57 | 0.46 |
| From B | 7.15 | 3640.95 | 1.00 | 0.98 | 2166.74 | 0.51 | 989 | 1170 | 640 | 573 | 0.65 | 0.49 |
| From C | 7.51 | 3640.95 | 1.00 | 1.01 | 2274.80 | 0.53 | 1422 | 1359 | 912 | 1013 | 0.64 | 0.75 |
| From D | 7.72 | 3640.95 | 1.00 | 1.02 | 2339.01 | 0.53 | 1437 | 1309 | 413 | 372 | 0.29 | 0.28 |
| From E | 7.19 | 3640.95 | 1.00 | 0.98 | 2180.08 | 0.51 | 1294 | 1220 | 517 | 539 | 0.40 | 0.44 |
| From F | 7.12 | 3640.95 | 1.00 | 0.98 | 2157.57 | 0.51 | 1384 | 1256 | 734 | 689 | 0.53 | 0.55 |
| From G | 5.69 | 3640.95 | 1.00 | 1.00 | 1722.94 | 0.45 | 1007 | 947 | 667 | 469 | 0.66 | 0.50 |
| From H | | | | | | | | | | | | |

Appendix 2 –
Swept Path Analysis



ENTERING

LEAVING

| | | | | |
|--|----------------------|-------------------|--|-------------------|
| Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG | Figure No. SP1 | Revision C | CKM Asia Limited Traffic and Transportation Planning Consultants | |
| Figure Title SWEPT PATH OF LIGHT BUS 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 03 OCT 2025 | | | |

T:\JOB\J7400-J7449\J7401\2025 10\Fig SP1 - SP7 RevC.dwg

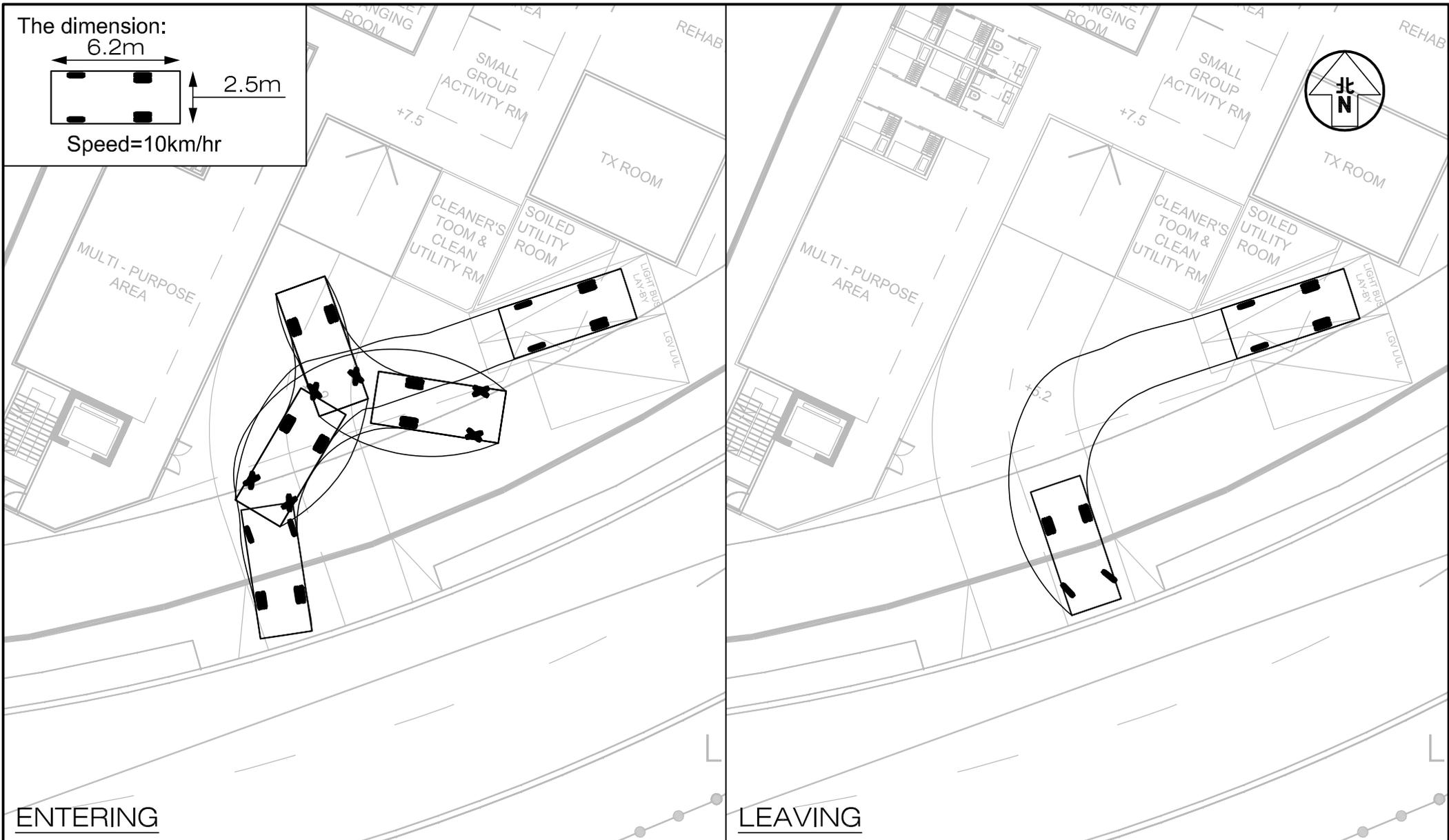
The dimension:

6.2m



2.5m

Speed=10km/hr



ENTERING

LEAVING

Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG

J7401

Figure No.

SP2

Revision

C

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

L C H

Drawn by

N C M

Checked by

K C

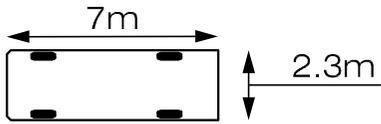
Scale in A4

1 : 250

Date

03 OCT 2025

The dimension:



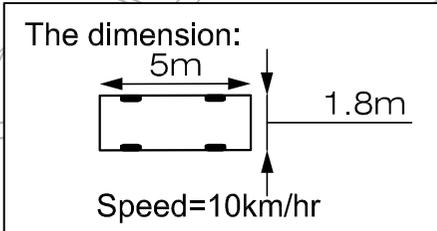
Speed=10km/hr



ENTERING

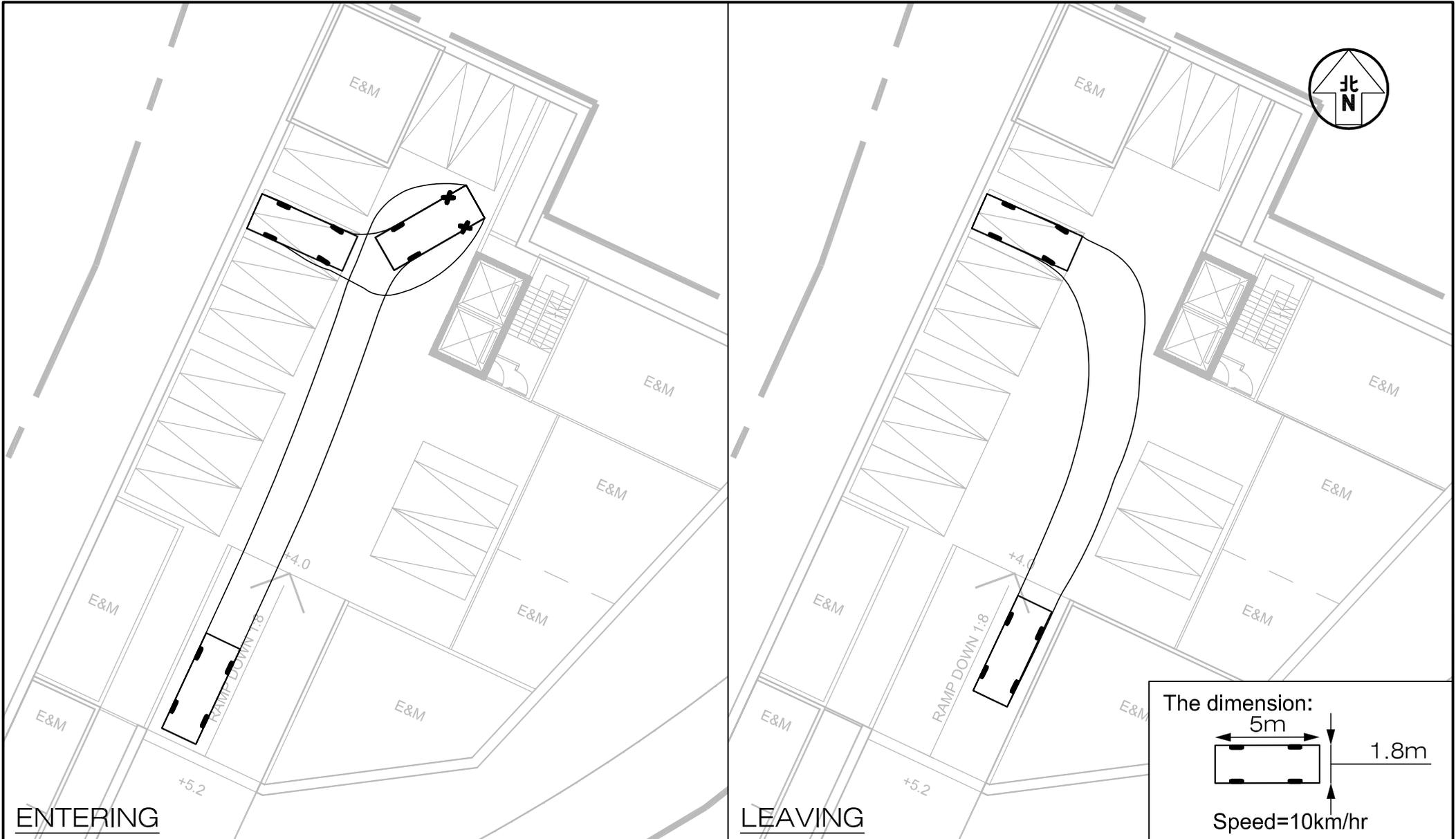
LEAVING

| | | | |
|---|---|--|---|
| <p>Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG</p> | <p>Figure No. SP3</p> | <p>Revision C</p> | <p>CKM Asia Limited Traffic and Transportation Planning Consultants</p> |
| <p>Figure Title SWEPT PATH OF LGV ENTERING AND LEAVING THE LOADING / UNLOADING BAY ON G/F</p> | <p>Designed by L C H</p> | <p>Drawn by N C M</p> | <p>Checked by K C</p> |
| <p>Scale in A4 1 : 250</p> | <p>Date 03 OCT 2025</p> | | |



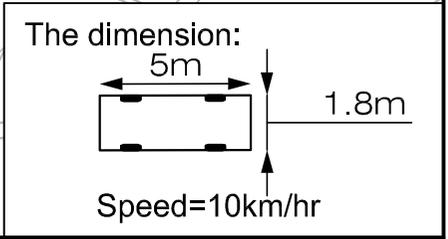
| | | |
|--|--|--|
| Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG | Figure No. J7401 SP4 | Revision C 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 03 OCT 2025 | [Redacted] |

T:\JOB\J7400-J7449\J7401\2025 10\Fig SP1 - SP7 RevC.dwg



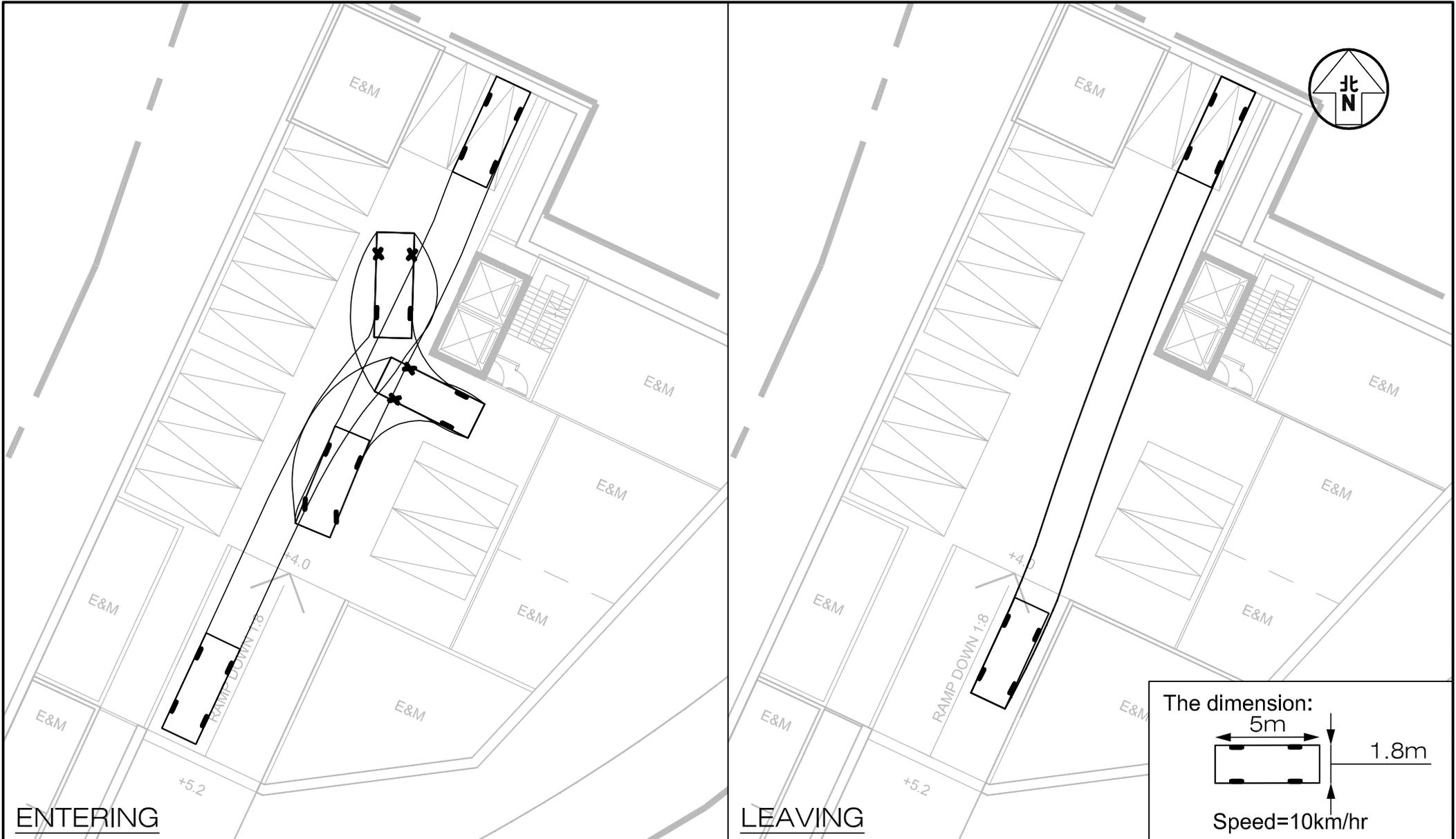
ENTERING

LEAVING



| | | | |
|--|-----------------------------|--------------------------|--|
| Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG | Figure No. J7401 | Revision C | 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 03 OCT 2025 | | |

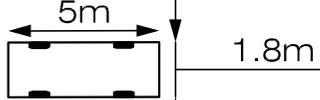
T:\JOB\J7400-J7449\J7401\2025 10\Fig SP1 - SP7 RevC.dwg



| | | | |
|--|-----------------------------|--------------------------|--|
| Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG | Figure No. J7401 | Revision C | 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 03 OCT 2025 | | |

T:\JOB\J7400-J7449\J7401\2025 10\Fig SP1 - SP7 RevC.dwg

The dimension:



Speed=10km/hr



ENTERING

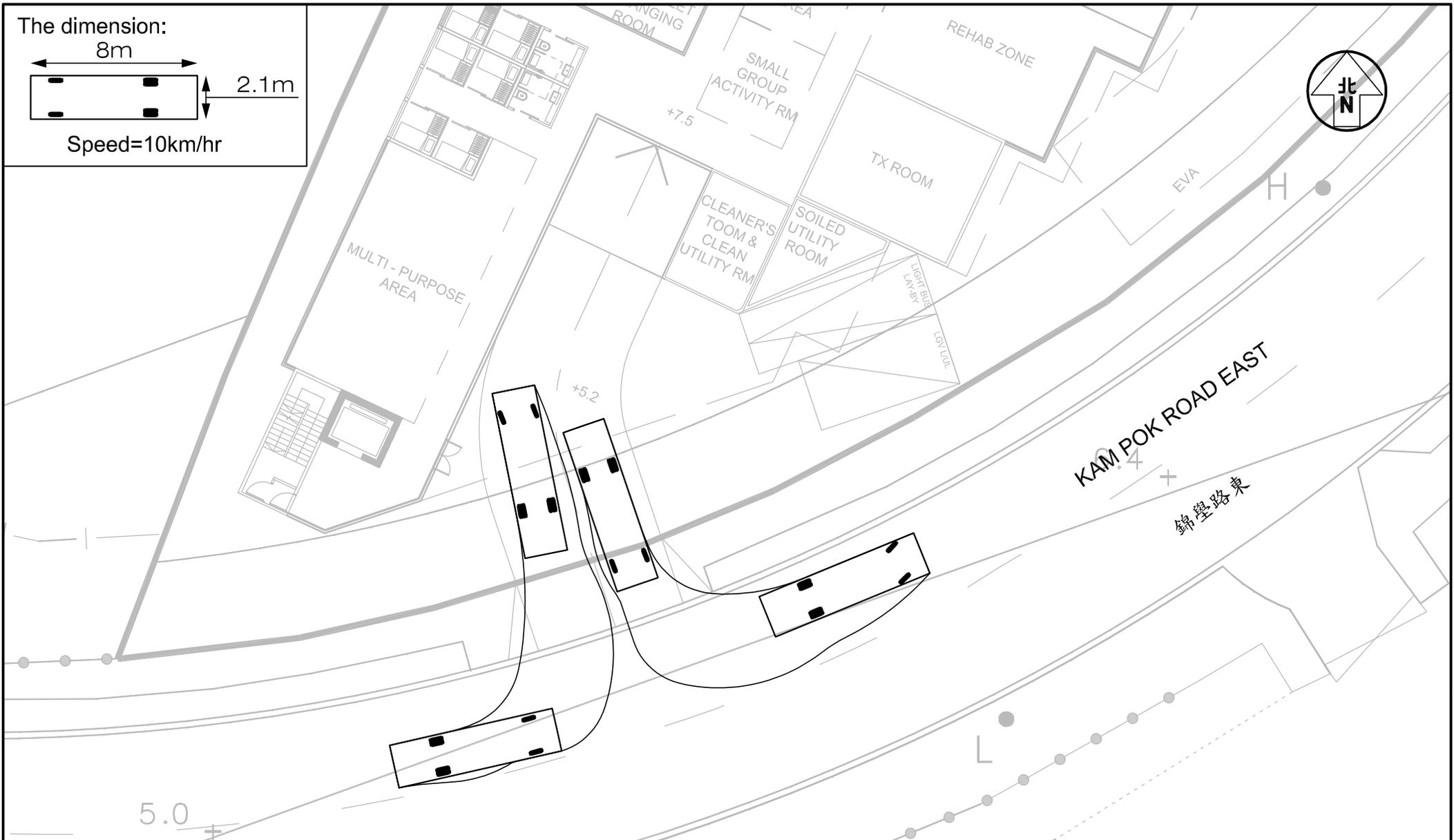
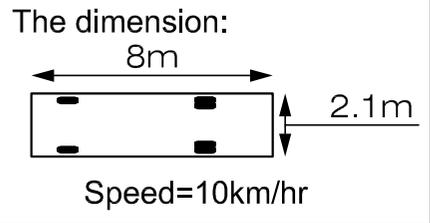
LEAVING

| | | | |
|---|---|--|---|
| <p>Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG</p> | <p>Figure No. SP7</p> | <p>Revision C</p> | <p>CKM Asia Limited Traffic and Transportation Planning Consultants</p> |
| <p>Figure Title SWEPT PATH OF TAXI ENTERING AND LEAVING THE SUBJECT SITE</p> | <p>Designed by L C H</p> | <p>Drawn by N C M</p> | <p>Checked by K C</p> |
| <p>Scale in A4 1 : 250</p> | <p>Date 03 OCT 2025</p> | | |

Appendix 5

Supplementary Traffic Information In
Response to TD's Comments

Figure



Project Title PROPOSED SOCIAL WELFARE FACILITIES (RESIDENTIAL CARE HOME FOR THE ELDERLY (RCHE)) IN "VILLAGE TYPE DEVELOPMENT" ZONE, LOTS 3670 RP (PART), 3671 RP (PART), 3672 RP (PART), 3673 RP (PART) AND ADJOINING GOVERNMENT LAND IN D.D.104, NAM SANG WAI, YUEN LONG J7401

Figure No. R1 Revision A

CKM Asia Limited
Traffic and Transportation Planning Consultants

Figure Title
SWEPT PATH OF LIGHT BUS ENTERTING AND LEAVEING THE SUBJECT SITE

| | | |
|------------------------|---------------------|-------------------|
| Designed by L C H | Drawn by N C M | Checked by K C |
| Scale in A4 1 : 250 | Date 03 OCT 2025 | |



Appendix A
Vehicle Composition of
Traffic Generation Survey

APPENDIX A VEHICLE COMPOSITION OF TRAFFIC GENERATION SURVEY

The survey results with detail breakdown of vehicle composition are presented in **Tables A and B.**

TABLE A TRAFFIC GENERATED BY CARITAS LI KA SHING CARE AND ATTENTION HOME

| Period | Vehicle Type (veh/hr) | | | | Traffic generation | |
|-------------|-----------------------|------|-----|---------------------|--------------------|-----------|
| | Car | Taxi | LGV | Rehabus / Ambulance | veh/hr | pcu/hr |
| <i>In</i> | | | | | | |
| 08:00-08:59 | 0 | 4 | 1 | 0 | 5 | 6 |
| 09:00-09:59 | 5 | 3 | 1 | 1 | 10 | 12 |
| 10:00-10:59 | 0 | 4 | 0 | 0 | 4 | 4 |
| 11:00-11:59 | 1 | 2 | 0 | 1 | 4 | 5 |
| 12:00-12:59 | 0 | 5 | 0 | 0 | 5 | 5 |
| 13:00-13:59 | 0 | 2 | 0 | 1 | 3 | 4 |
| 14:00-14:59 | 3 | 1 | 0 | 0 | 4 | 4 |
| 15:00-15:59 | 2 | 1 | 1 | 1 | 5 | 7 |
| 16:00-16:59 | 1 | 4 | 0 | 1 | 6 | 7 |
| 17:00-17:59 | 0 | 1 | 0 | 0 | 1 | 1 |
| 18:00-18:59 | 0 | 2 | 0 | 0 | 2 | 2 |
| 19:00-19:59 | 0 | 1 | 0 | 0 | 1 | 1 |
| <i>Out</i> | | | | | | |
| 08:00-08:59 | 0 | 4 | 1 | 0 | 5 | 6 |
| 09:00-09:59 | 3 | 3 | 0 | 1 | 7 | 8 |
| 10:00-10:59 | 0 | 4 | 1 | 0 | 5 | 6 |
| 11:00-11:59 | 1 | 2 | 0 | 1 | 4 | 5 |
| 12:00-12:59 | 0 | 5 | 0 | 0 | 5 | 5 |
| 13:00-13:59 | 0 | 2 | 0 | 1 | 3 | 4 |
| 14:00-14:59 | 1 | 1 | 0 | 0 | 2 | 2 |
| 15:00-15:59 | 1 | 0 | 0 | 0 | 1 | 1 |
| 16:00-16:59 | 4 | 5 | 1 | 1 | 11 | 13 |
| 17:00-17:59 | 1 | 1 | 0 | 1 | 3 | 4 |
| 18:00-18:59 | 1 | 1 | 0 | 0 | 2 | 2 |
| 19:00-19:59 | 0 | 2 | 0 | 0 | 2 | 2 |

TABLE B TRIP RATE OF CARITAS LI KA SHING CARE AND ATTENTION HOME

| Period | Vehicle Type (veh/hr/bed) | | | | Trip Rate (pcu/hr/bed) |
|-------------|---------------------------|--------|--------|---------------------|------------------------|
| | Car | Taxi | LGV | Rehabus / Ambulance | |
| <i>In</i> | | | | | |
| 08:00-08:59 | 0.0000 | 0.0154 | 0.0038 | 0.0000 | 0.0231 |
| 09:00-09:59 | 0.0192 | 0.0115 | 0.0038 | 0.0038 | 0.0462 |
| 10:00-10:59 | 0.0000 | 0.0154 | 0.0000 | 0.0000 | 0.0154 |
| 11:00-11:59 | 0.0038 | 0.0077 | 0.0000 | 0.0038 | 0.0192 |
| 12:00-12:59 | 0.0000 | 0.0192 | 0.0000 | 0.0000 | 0.0192 |
| 13:00-13:59 | 0.0000 | 0.0077 | 0.0000 | 0.0038 | 0.0154 |
| 14:00-14:59 | 0.0115 | 0.0038 | 0.0000 | 0.0000 | 0.0154 |
| 15:00-15:59 | 0.0077 | 0.0038 | 0.0038 | 0.0038 | 0.0269 |
| 16:00-16:59 | 0.0038 | 0.0154 | 0.0000 | 0.0038 | 0.0269 |
| 17:00-17:59 | 0.0000 | 0.0038 | 0.0000 | 0.0000 | 0.0038 |
| 18:00-18:59 | 0.0000 | 0.0077 | 0.0000 | 0.0000 | 0.0077 |
| 19:00-19:59 | 0.0000 | 0.0038 | 0.0000 | 0.0000 | 0.0038 |
| <i>Out</i> | | | | | |
| 08:00-08:59 | 0.0000 | 0.0154 | 0.0038 | 0.0000 | 0.0231 |
| 09:00-09:59 | 0.0115 | 0.0115 | 0.0000 | 0.0038 | 0.0308 |
| 10:00-10:59 | 0.0000 | 0.0154 | 0.0038 | 0.0000 | 0.0231 |
| 11:00-11:59 | 0.0038 | 0.0077 | 0.0000 | 0.0038 | 0.0192 |
| 12:00-12:59 | 0.0000 | 0.0192 | 0.0000 | 0.0000 | 0.0192 |
| 13:00-13:59 | 0.0000 | 0.0077 | 0.0000 | 0.0038 | 0.0154 |
| 14:00-14:59 | 0.0038 | 0.0038 | 0.0000 | 0.0000 | 0.0077 |
| 15:00-15:59 | 0.0038 | 0.0000 | 0.0000 | 0.0000 | 0.0038 |
| 16:00-16:59 | 0.0154 | 0.0154 | 0.0038 | 0.0038 | 0.0500 |
| 17:00-17:59 | 0.0038 | 0.0038 | 0.0000 | 0.0038 | 0.0154 |
| 18:00-18:59 | 0.0038 | 0.0038 | 0.0000 | 0.0000 | 0.0077 |
| 19:00-19:59 | 0.0000 | 0.0077 | 0.0000 | 0.0000 | 0.0077 |