

Annex D

Updated Report of the Traffic Impact Assessment

**PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822
IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST
OF KAM POK ROAD, MAI PO, YUEN LONG**

TRAFFIC IMPACT ASSESSMENT



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1. INTRODUCTION

1.1 Background

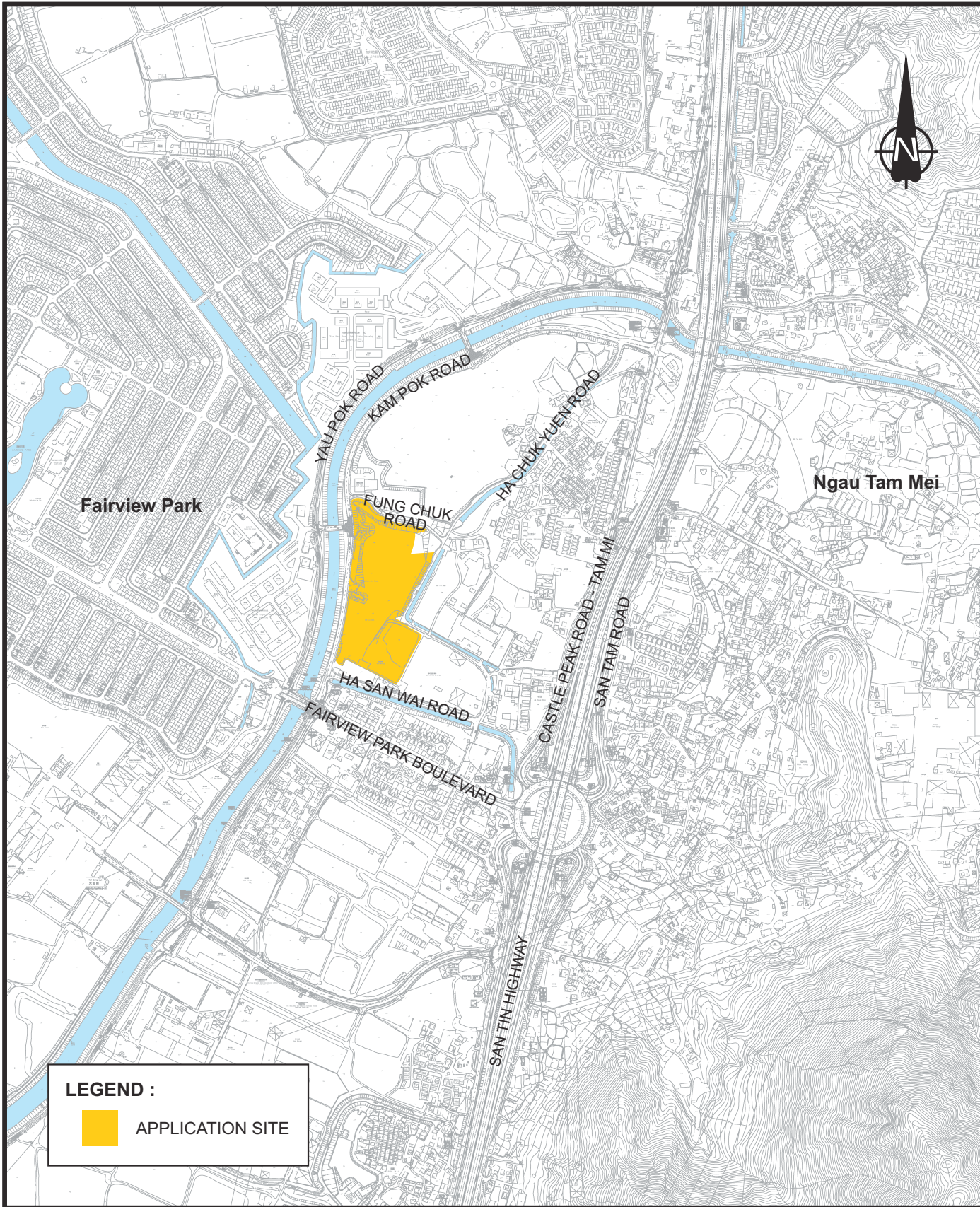
- 1.1.1 The application site comprises lot No. 4822 in D.D. 104 and adjoining government Land, east Kam Pok Road, Mai Po, Yuen Long, as indicated in **Drawing 1.1**. It falls within an area zoned as “Residential (Group D)” on the Approved Mai Po and Fairview Park Outline Zoning Plan No. S/YL-MP/8.
- 1.1.2 The application site is the subject of a previous approved Section 16 planning application (No. A/YL-MP/287) for a residential development of 65 houses (Approved Scheme). The Applicant proposes to increase its domestic plot ratio from 0.2 to 1.5. Under the current scheme, the proposed development will provide 5 medium-rise residential blocks with total 1,303 units, a 6-classroom kindergarten and an Elderly Activity Centre (“EAC”).
- 1.1.3 MVA Hong Kong Limited has been commissioned by the Applicant to carry out a traffic impact assessment to assess the traffic impact for the proposed residential development to support this rezoning application.

1.2 Study Objectives

- 1.2.1 The objectives of this study are summarised as follows:
- review the current traffic condition and circulation pattern in the adjacent local road network;
 - review the proposed development schedule;
 - produce future traffic forecasts on the adjacent local road network with considerations of the planned developments in the vicinity; and
 - investigate the traffic impact on the adjacent local road network with operation of the proposed development at Design Year, including the cumulative traffic impact induced by the proposed/potential residential developments in the locality.

1.3 Report Structure

- 1.3.1 Following this introductory chapter, there are five further chapters:
- **Chapter 2** – Proposed Development, presents the development parameters and the internal transport provisions of the proposed scheme;
 - **Chapter 3** – Traffic Context, describes the current traffic condition in the vicinity;
 - **Chapter 4** – Traffic Forecasting, describes the methodology of traffic forecasting exercise and presents the results;
 - **Chapter 5** – Traffic Impact Assessment, presents the assessment findings of the anticipated traffic condition upon occupation of the proposed development, and suggests, if necessary, improvement measures to alleviate the foreseeable traffic problem;
 - **Chapter 6** –Conclusion, summarises the study findings and presents the conclusion accordingly.



LEGEND :

APPLICATION SITE

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Project Title
 PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D.104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
SITE LOCATION



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2. PROPOSED DEVELOPMENT

2.1 Site Location

2.1.1 As indicated in **Drawing 1.1**, the application site is bounded by Kam Pok Road to its west, Fung Chuk Road to its north, Ha Chuk Yuen Road to its east and Ha San Wai Road to its south.

2.2 Development Parameters

2.2.1 The application site has a total land area of about 37,870m². It will be developed into a medium-rise residential development of about 1,303 units with an average flat size of about 43.6m². Comparison on the key development parameters between the approved and proposed schemes are summarized in **Table 2.1**. The proposed scheme is anticipated to complete in year 2031. The Master Layout Plan (MLP) is illustrated in **Drawing 2.1** respectively.

Table 2.1 Key Development Parameters

| Item | Approved Scheme (A/YL-MP/287) | Proposed Scheme |
|-------------------------|----------------------------------|----------------------------|
| Domestic Plot Ratio | 0.2 | 1.5 |
| Domestic GFA | 7,540.4m ² | 56,805m ² |
| No. of Unit | 65 house | 1,303 flats |
| Average flat Size (GFA) | about 116 m ² | about 43.6 m ² |
| Kindergarten | - | a 6-classroom kindergarten |
| GIC | - | an EAC |

2.3 Vehicular Access Arrangement

2.3.1 The vehicular access arrangements in the current proposed scheme basically follow the approved scheme and those under the present government lease of the application site. Two vehicular accesses are proposed for the proposed development. The vehicular access at Kam Pok Road is the main access for residential use and kindergarten. Whilst, the second access at Ha Chuk Yuen Road is reserved for the proposed EAC and other serving vehicle. The locations of these two proposed vehicular accesses are illustrated in **Drawing No. 2.1**.

2.3.2 Considering Fairview Park Boulevard is a private road, a left-turn ban is proposed at the main development egress would be provided to avoid development traffic using Fairview Park Boulevard to access Fairview Park Interchange. The potential access arrangement (with the left-turn ban) is shown in **Appendix A**, subject to detailed design.

2.3.3 Currently, vehicles exceeding 7m in length are prohibited from accessing Ha Chuk Yuen Road. Swept path analysis for a 12.8m long vehicle and a 7m long vehicle have been conducted at the main entrance and secondary access respectively in **Appendices B2 & B4**. The result demonstrated that sufficient manoeuvring space has been provided for vehicles turning into and out from the proposed vehicular accesses.

2.4 Internal Transport Facility

2.4.1 The proposed development would be provided with internal transport facilities in accordance with the latest Hong Kong Planning Standards and Guidelines (HKPSG) and the comments from Transport Department. The proposed provisions are summarised in **Table 2.2**.

Table 2.2 Proposed Internal Transport Facility Provisions

| Item | High-end of HKPSG Requirements | | | | Parameters | Provision (nos.) | |
|----------------------------------|--|--|-----|-------------------|-------------------|---------------------------|-----|
| Residential Development | | | | | | | |
| Private Car | GPS ⁽¹⁾ | R1 ⁽¹⁾ | | R2 ⁽¹⁾ | R3 ⁽¹⁾ | | |
| | 1 space per 4 units | FS ≤ 40m ² | 0.5 | 1 | 1.1 | 407 units | 56 |
| | | 40m ² < FS ≤ 70m ² | 1.2 | | | 896 units | 296 |
| Visitor Parking | 5 spaces for each block with more than 75 units | | | | 5 blocks | 25 | |
| Total | | | | | | 377⁽²⁾ | |
| Motorcycle Parking | 1 space per 10 residential car parking spaces ⁽³⁾ | | | | 352 spaces | 36 | |
| HGV Loading/ Unloading Bays | 1 bay per residential block | | | | 5 blocks | 5 | |
| Bicycle Parking Space | 1 space per 7.5 flats ⁽³⁾ | | | | 1,303 units | 174 | |
| Kindergarten | | | | | | | |
| Private Car | 1 space per 4 classrooms | | | | 6 classrooms | 2 | |
| Lay-by for taxis and Private Car | 1 for every 5 classrooms | | | | 6 classrooms | 2 | |
| Lay-by for school buses | 5 lay-bys of size 3m x 7m for mini-bus/nanny van | | | | - | 5 lay-bys of size 3m x 7m | |

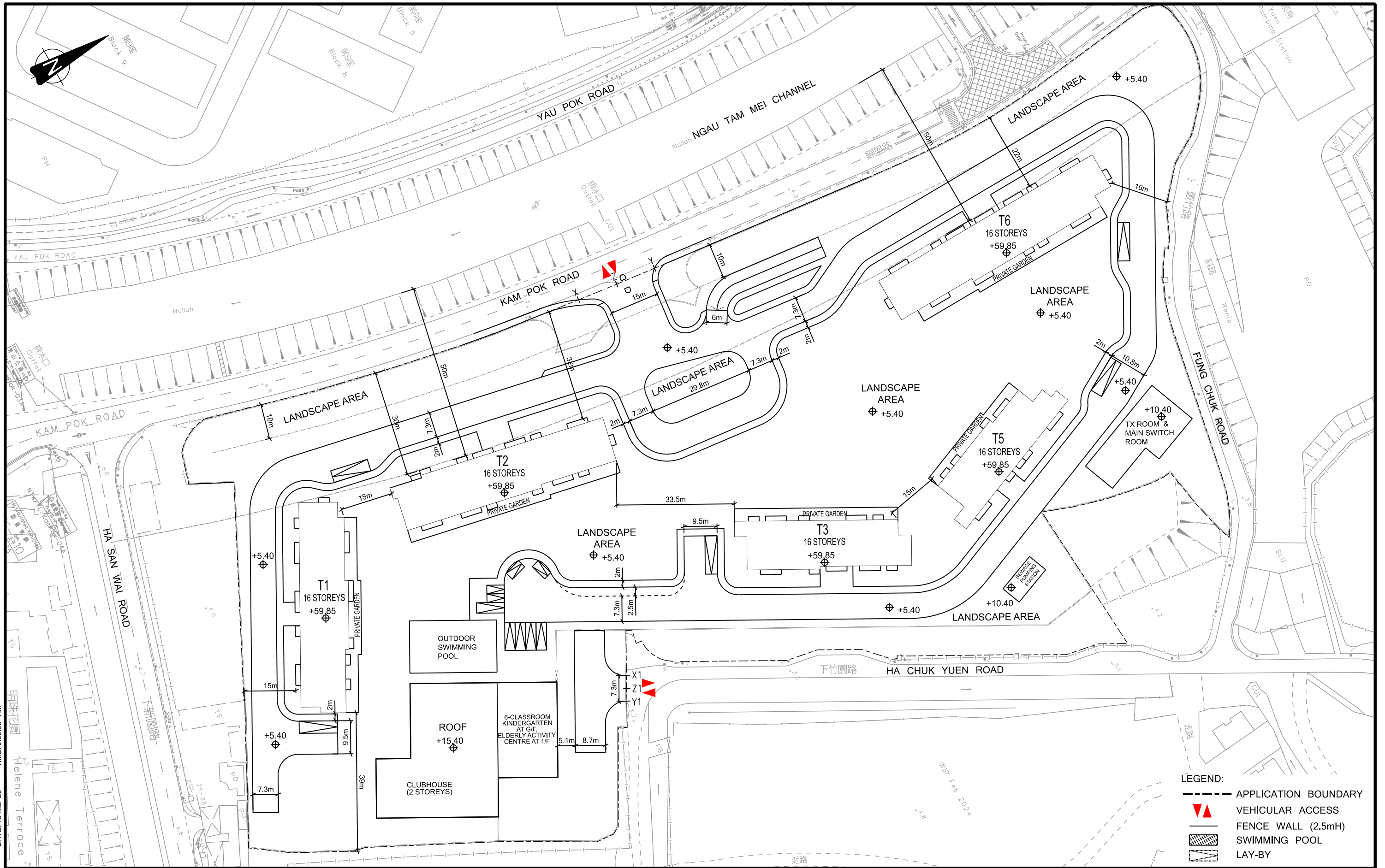
Remarks:

- (1) Parking Requirement = GPS x R1 x R2 x R3, where GPS = 1 car space per 4 flats, R1=1.2 for flat size 40m²<FS≤70m², R2=1 for the site outside a 500-radius of rail station, R3=1.1 for domestic plot ratio 1<PR≤2.
- (2) Minimum 5 accessible parking spaces will be reserved for persons with disabilities with reference to HKPSG (at least 1 space for visitor parking).
- (3) Based on the comments from TD.

2.4.2 The proposed EAC (with same nature of neighbourhood elderly centre) would mainly serve local residents. Nil parking provision is proposed for EAC with reference to the recently agreed rezoning application (No. Y/YL-MP/10) nearby.

2.4.3 Under the current MLP, the residential carpark would be located in the basement, whilst the loading/unloading bays would be located on the ground floor level along 7.3m wide main internal driveway. For kindergarten carpark and drop-off area, it would be located on ground floor level at the southern end of the main driveway, which will not cause potential traffic queue back onto Kam Pok Road. **Appendix B1** shows the indicative internal traffic arrangement and the relevant swept path analysis is shown in **Appendix B**. The design of the traffic arrangement is subject to further review and study during detailed design stage.

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- LEGEND:
- APPLICATION BOUNDARY
 - VEHICULAR ACCESS
 - FENCE WALL (2.5mH)
 - SWIMMING POOL
 - LAY-BY

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| B | MINOR AMENDMENT | PTC | 18MAR26 |
| A | MINOR AMENDMENT | PTC | 04DEC25 |

Project Title
PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

| | | | |
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| Drawing Title MASTER LAYOUT PLAN | | | |
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3. TRAFFIC CONTEXT

3.1 Surrounding Road Network

- 3.1.1 With the traffic management measure as described in **Section 2.3.3**, the development traffic from San Tin Highway would access the site via Castle Peak Road – Tam Mi Section and Kam Pok Road. The major ingress and egress routes of the application site are illustrated in **Drawing 3.1**.
- 3.1.2 Kam Pok Road is a standard single-two lane carriageway of 7.3m wide with a 2m wide footpath along its eastern side. It mainly serves the local developments in the vicinity.
- 3.1.3 Ha Chuk Yuen Road and Fung Chuk Road are single track access roads. Vehicles exceeding 7m in length are prohibited from accessing these roads.
- 3.1.4 Fairview Park Boulevard is a dual 2-lane carriageway. It connects the traffic from San Tin Highway to the local developments including Fairview Park.

3.2 Existing Traffic Condition

- 3.2.1 A total of seven local junctions and six road links have been identified with reference to the major ingress and egress routes of the proposed development for assessment purposes. The key local junctions are listed in **Table 3.1**, whilst their locations are indicated in **Drawing 3.2**.

Table 3.1 Identified Local Key Junctions and Road Links

| Ref. ⁽¹⁾ | Junction | Type | Drawing No. |
|---------------------|--|--------------|-------------|
| Junction | | | |
| J1 | Fairview Park Interchange | Roundabout | 3.3 |
| J2 | Fairview Park Boulevard / Kam Pok Road | Signal | 3.4 |
| J3 | Kam Pok Road / Vehicular Bridge (South) | Signal | 3.5 |
| J4 | Kam Pok Road / Vehicular Bridge (North) | Signal | 3.6 |
| J5 | Kam Pok Road / Ha Chuk Yuen Road | Priority | 3.7 |
| J6 | Castle Peak Road – Tam Mi / Kam Pok Road | Priority | 3.7 |
| J7 | Kam Pok Road / Fung Chuk Road | Priority | 3.8 |
| Road Link | | | |
| L1 | Castle Peak Road – Tam Mi | Single-2 | 3.2 |
| L2 | Fairview Park Boulevard | Dual-2 | 3.2 |
| L3 | Kam Pok Road | Single 2 | 3.2 |
| L4 | Fung Chuk Road | Single track | 3.2 |
| L5 | Ha Chuk Yuen Road | Single track | 3.2 |
| L6 | San Tin Highway | Dual-3 | 3.2 |

Remark: (1) Locations refer to **Drawing 3.2**.

Traffic Surveys

- 3.2.2 A manual classified traffic survey was conducted at the identified junctions and road links to establish the current traffic condition in the vicinity of the site. The survey was carried out during 07:30-09:30 and 17:00-19:00 in the morning and evening peak hour periods on a typical weekday in April 2025.

3.2.3 The results of the survey have indicated that the morning and evening peak hours occur during 08:00 – 09:00 and 17:45 – 18:45 respectively. Based on the survey result, the year 2025 peak-hour traffic flows are shown in **Drawing 3.9**.

Junction Operational Performance

3.2.4 Junction capacity assessments have been conducted to evaluate the current operational performance of the identified junctions. The assessment results are summarised in **Table 3.2**.

Table 3.2 Current Junction Operational Performance

| Ref. (1) | Junction | Type | RC/RFC ⁽²⁾ | |
|-------------|--|------------|-----------------------|---------|
| | | | AM Peak | PM Peak |
| J1 | Fairview Park Interchange | Roundabout | 0.56 | 0.61 |
| J2 | Fairview Park Boulevard / Kam Pok Road | Signal | 85% | 69% |
| J3 | Kam Pok Road / Vehicular Bridge (South) | Signal | >100% | >100% |
| J4 | Kam Pok Road / Vehicular Bridge (North) | Signal | >100% | >100% |
| J5 | Kam Pok Road / Ha Chuk Yuen Road | Priority | 0.05 | 0.05 |
| J6 | Castle Peak Road – Tam Mi / Kam Pok Road | Priority | 0.13 | 0.12 |
| J7 | Kam Pok Road / Fung Chuk Road | Priority | 0.01 | 0.01 |

Remarks: (1) Refer to **Drawing 3.2** for junction locations.

(2) RC = reserved capacity for signal junction, RFC = ratio-of-flow to capacity for roundabout/priority junction.

3.2.5 The assessment results in **Table 3.2** indicated that all the identified key junctions are currently operating within capacities during peak hours.

Road Link Operational Performance

3.2.6 Besides, road link assessments have also been conducted to evaluate the current operational performance of the identified links. The Volume to Capacity (V/C) ratios of each identified road links have been evaluated and the results are summarised in **Table 3.3**.

Table 3.3 Current Road Link Operational Performance

| Ref. ⁽¹⁾ | Road Link | Dir | Link Capacity (pcu/hr) | Observed Flows (pcu/hr) | | V/C Ratio | |
|---------------------|---------------------------|---------|------------------------|-------------------------|------|-----------|------|
| | | | | AM | PM | AM | PM |
| L1 | Castle Peak Road – Tam Mi | Two-way | 2,125 ⁽²⁾ | 895 | 720 | 0.42 | 0.34 |
| L2 | Fairview Park Boulevard | EB | 2,600 ⁽³⁾ | 870 | 675 | 0.33 | 0.26 |
| | | WB | 2,600 ⁽³⁾ | 575 | 805 | 0.22 | 0.31 |
| L3 | Kam Pok Road | Two-way | 1,800 ⁽⁴⁾ | 145 | 135 | 0.08 | 0.08 |
| L4 | Fung Chuk Road | Two-way | 100 ⁽⁵⁾ | 5 | 10 | 0.05 | 0.1 |
| L5 | Ha Chuk Yuen Road | Two-way | 100 ⁽⁵⁾ | 5 | 10 | 0.05 | 0.1 |
| L6 | San Tin Highway | NB | 6,100 ⁽⁶⁾ | 4905 | 4985 | 0.80 | 0.82 |
| | | SB | 6,100 ⁽⁶⁾ | 5080 | 4595 | 0.83 | 0.75 |

Remarks: (1) Refer to **Drawing 3.2**.

(2) Road capacity for single 2-lane rural road, with consideration of roadside activities.

(3) Road capacity for dual-2 lane local distributor.

(4) Road capacity for single-2 lane local distributor.

(5) Road capacity for single-track access road.

(6) Road capacity for dual-3 lane trunk road.

3.2.7 The assessment results in **Table 3.3** indicated that all the identified sections are currently operating within capacities.

3.3 Existing Public Transport Services

3.3.1 Franchised bus and minibus are the major public transport services in the vicinity of the site. The nearby public transport facilities of the site are indicated in **Drawing 3.10**, whilst the details and servicing schedules are summarised in **Table 3.4**.

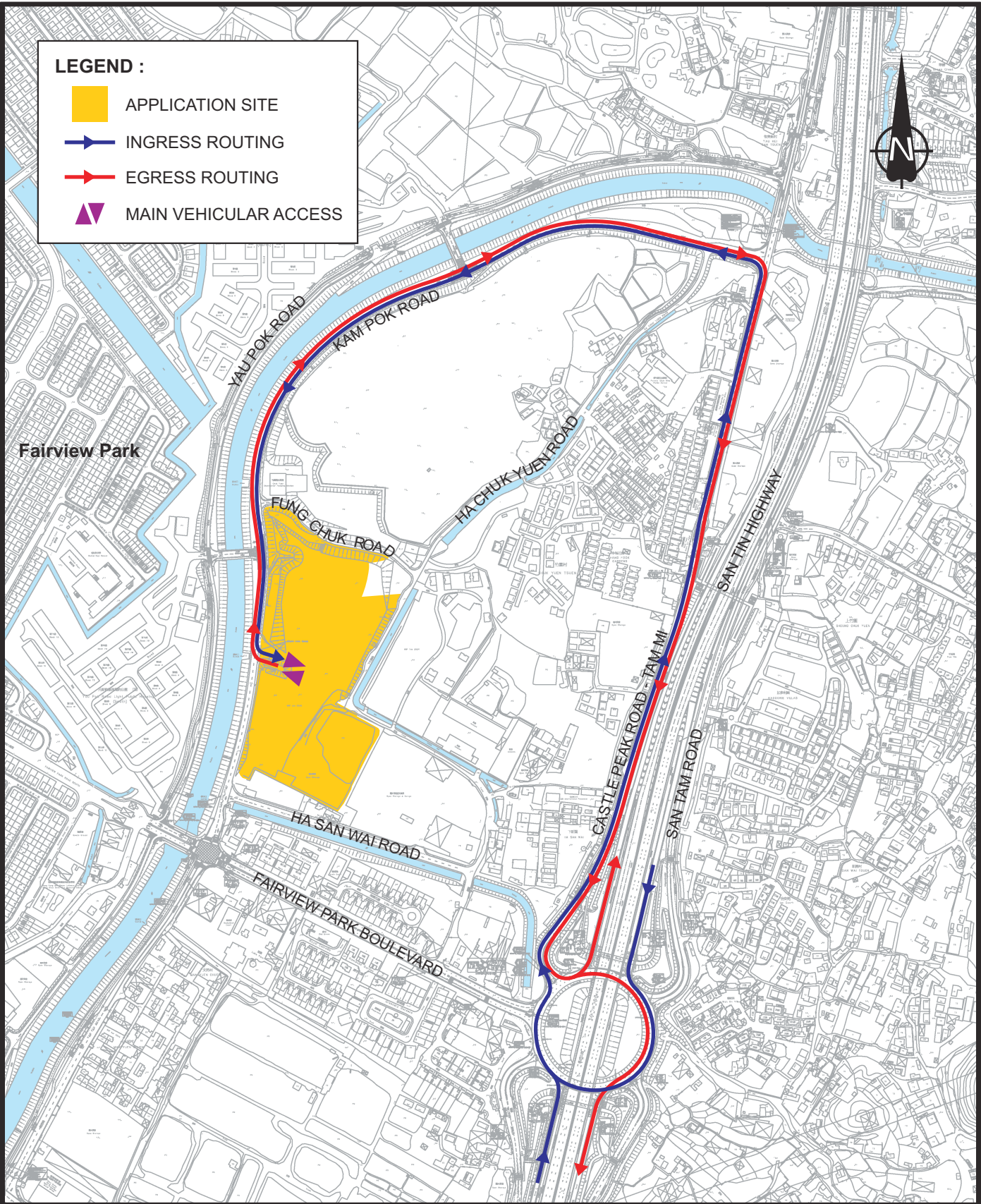
Table 3.4 Existing Public Transport Services

| Route | Origin/Destination | Frequency (min.) | Remark |
|-----------------------|--|------------------|---|
| Franchised Bus | | | |
| 76 ⁽¹⁾ | Yau Pok Road Public Housing (South) Terminus <--> Sheung Shui Station (Choi Yuen Road) | 30 | Circular Route |
| 76K | Ching Ho Estate <--> Long Ping Estate | 20-30 | - |
| 268 ⁽¹⁾ | Yau Pok Road Public Housing (South) Terminus <--> Pat Heung Road | 30-35 | |
| 976 | Lok Ma Chau (San Tin) <--> Sai Wan Ho | - | Monday to Friday (except public holidays); From Lok Ma Chau (San Tin): 06:25, 07:15, 07:45 From Sai Wan Ho: 18:10, 18:40, 19:10 |
| 976A | Lok Ma Chau (San Tin) <--> Siu Sai Wan (Island Resort) | - | Monday to Friday (except public holidays); From Lok Ma Chau (San Tin): 06:55 From Siu Sai Wan (Island Resort): 17:30 |
| Green Minibus | | | |
| 36 | Yuen Long (Fook Hong St) <--> Tai Sang Wai | 15-20 | - |
| 36A ⁽¹⁾ | Yuen Long (Fook Hong Street) <--> Yau Pok Road Light Public Housing | 20 | Evening Departures (omits Kik Yeung Road); |
| 37 | Yuen Long (Fook Hong St) <--> Yau Tam Mei | 15-20 | - |
| 38 | Yuen Long (Fook Hong St) <--> Tai Sang Wai (W) | 15-20 | - |
| 75 | Yuen Long (Fook Hong Street) <--> Lok Ma Chau Spur Line Public Transport Interchange | 15-30 | - |
| 76 | Yuen Long (Fook Hong Street) <--> Siu Hum Tsuen | 15-20 | - |

Remark: (1) The routes were introduced for temporary Light Public Housing at Yau Pok Road.

LEGEND :

- APPLICATION SITE
- INGRESS ROUTING
- EGRESS ROUTING
- MAIN VEHICULAR ACCESS



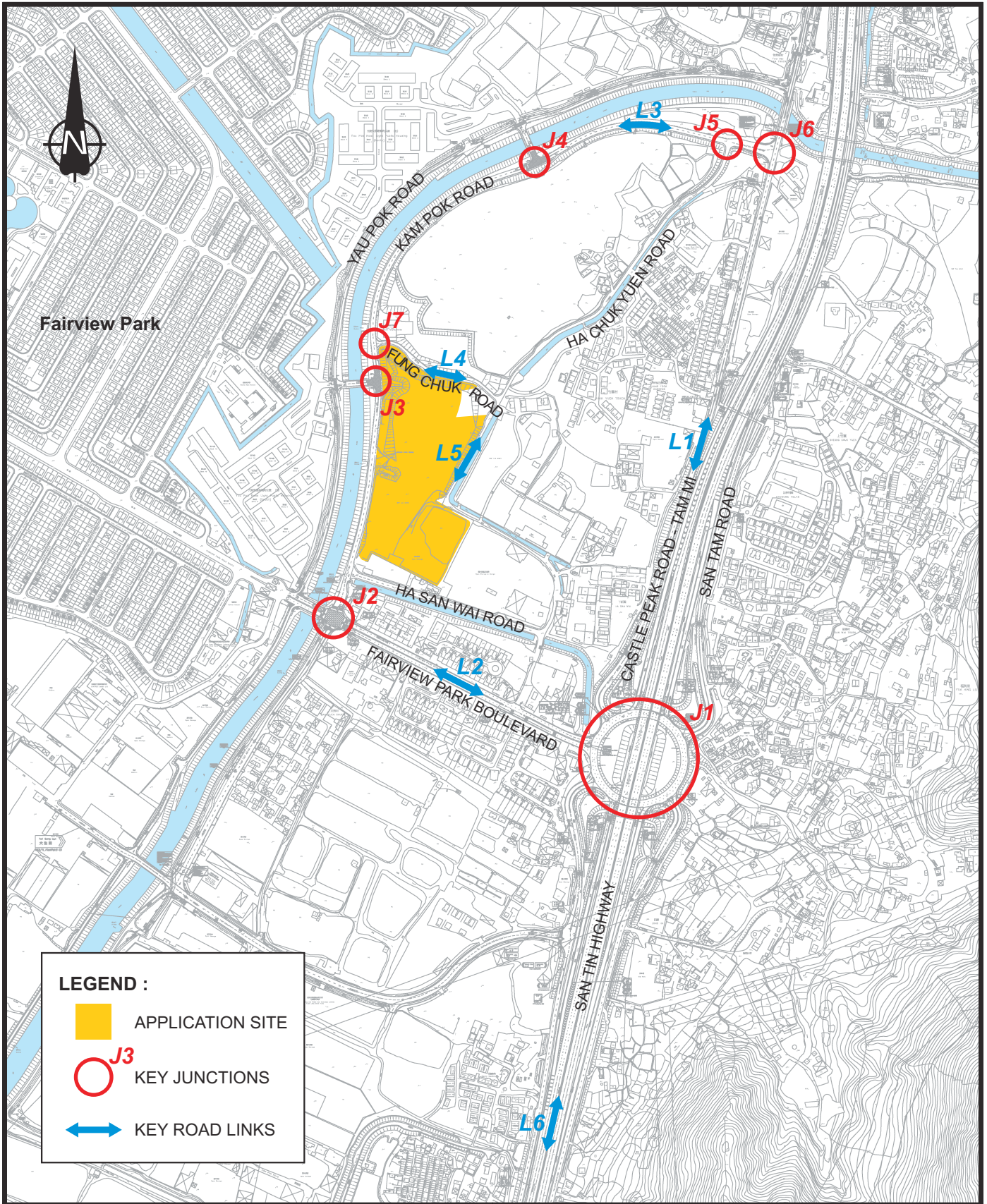
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| A | TRAFFIC ROUTE UPDATED | PTC | 9DEC25 | - | - | - | - |
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Project Title
PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D.104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
MAJOR INGRESS AND EGRESS ROUTES



| | | | | | | | | | | | |
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LEGEND :

- APPLICATION SITE
- ^{J3} KEY JUNCTIONS
- KEY ROAD LINKS

| | | | | | | | |
|------|-----------------|---------|---------|------|-------------|---------|------|
| B | MINOR AMENDMENT | PTC | 16MAR26 | - | - | - | - |
| A | MINOR AMENDMENT | PTC | 19DEC25 | - | - | - | - |
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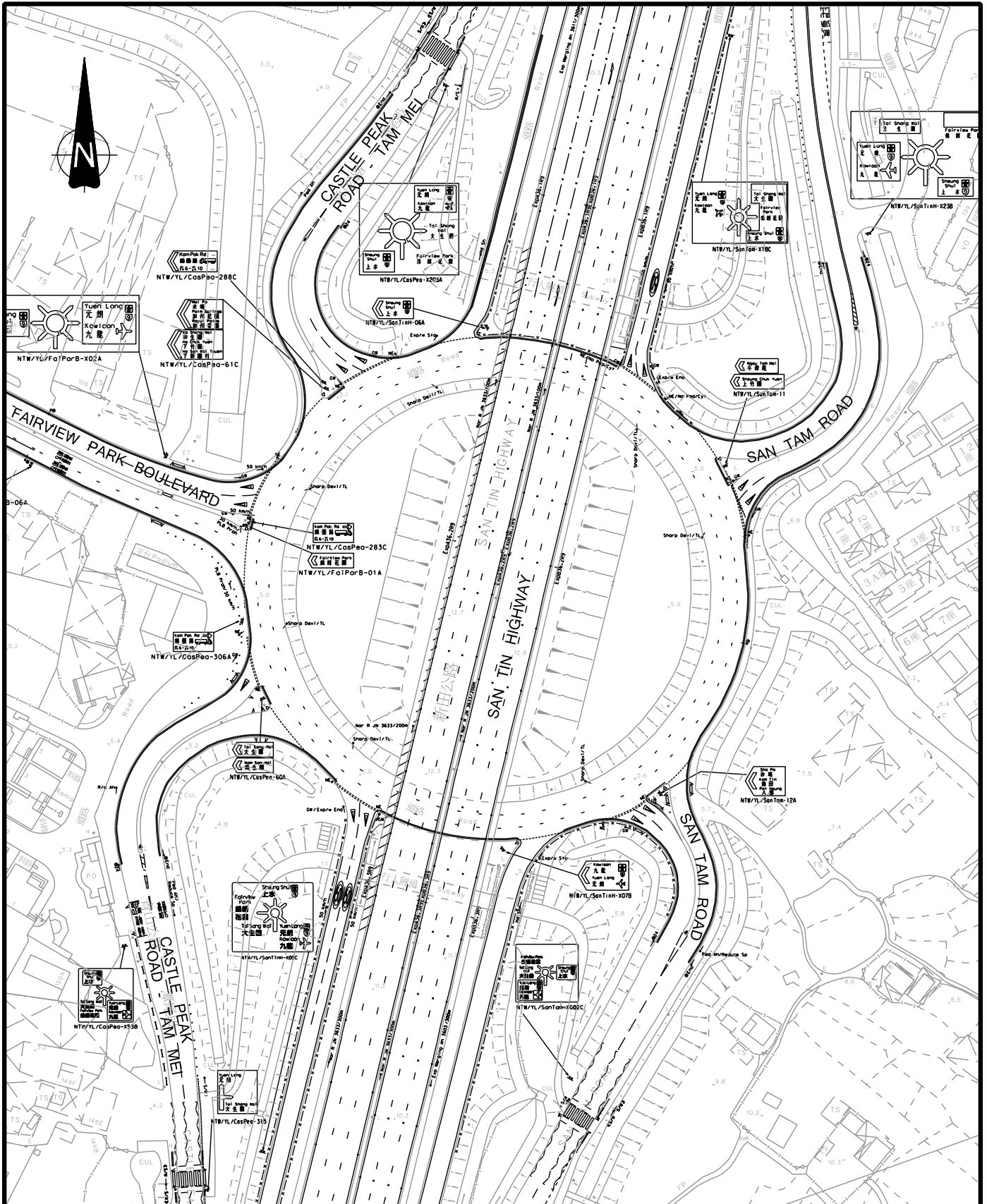
Project Title
PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D.104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
IDENTIFIED KEY JUNCTIONS AND ROAD LINKS



| | | | | | | | | | | | |
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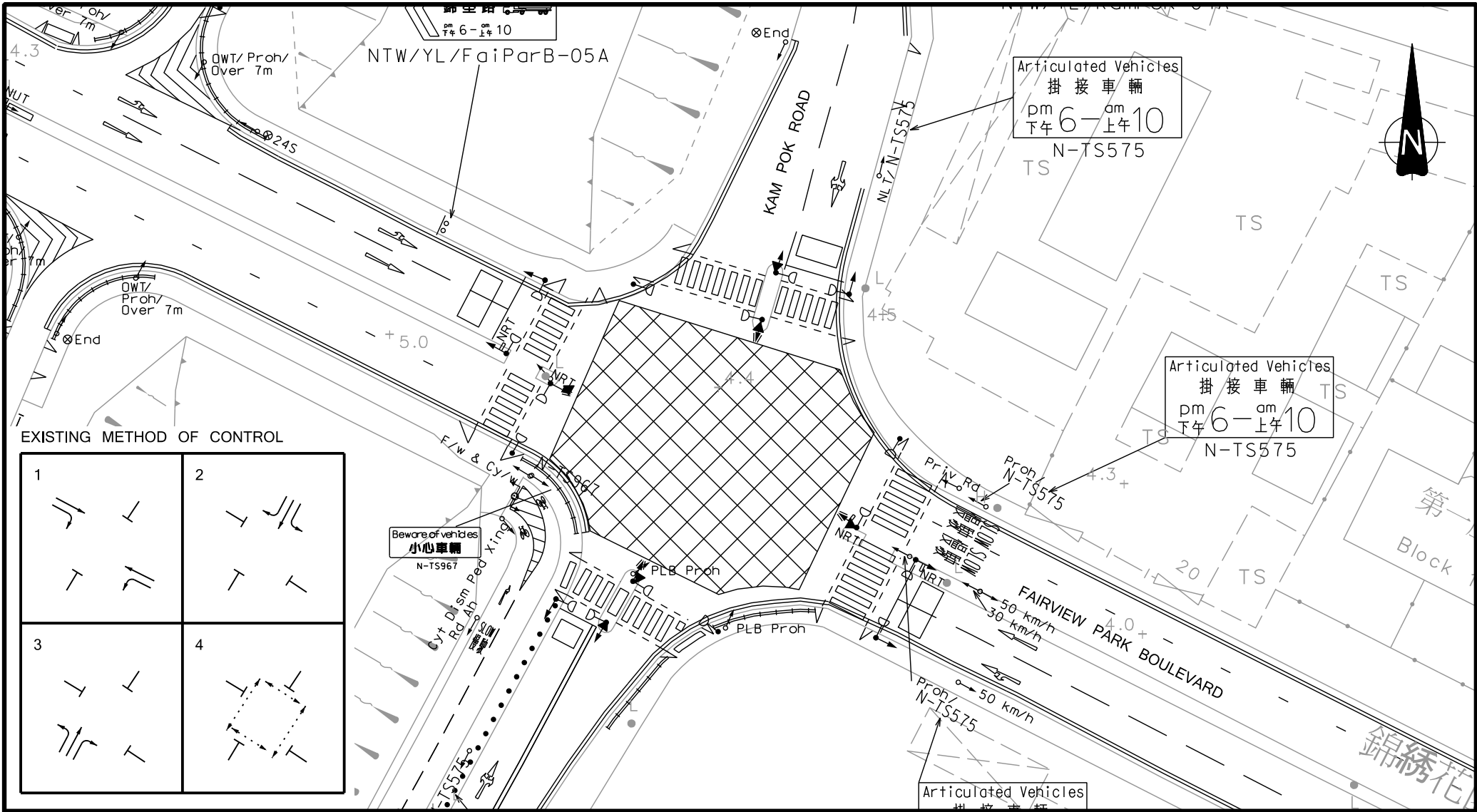
Project Title
 PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D. 104 AND
 ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
**EXISTING JUNCTION LAYOUT OF
 FAIRVIEW PARK INTERCHANGE (J1)**

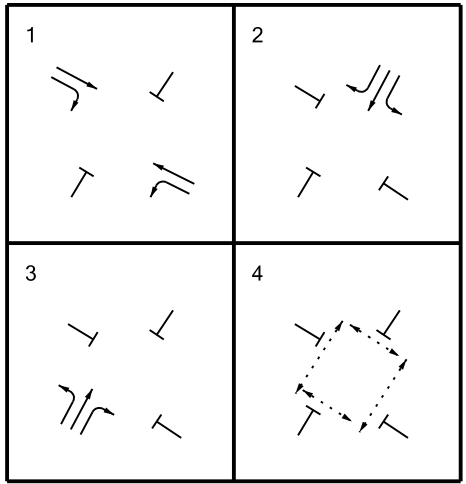


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EXISTING METHOD OF CONTROL



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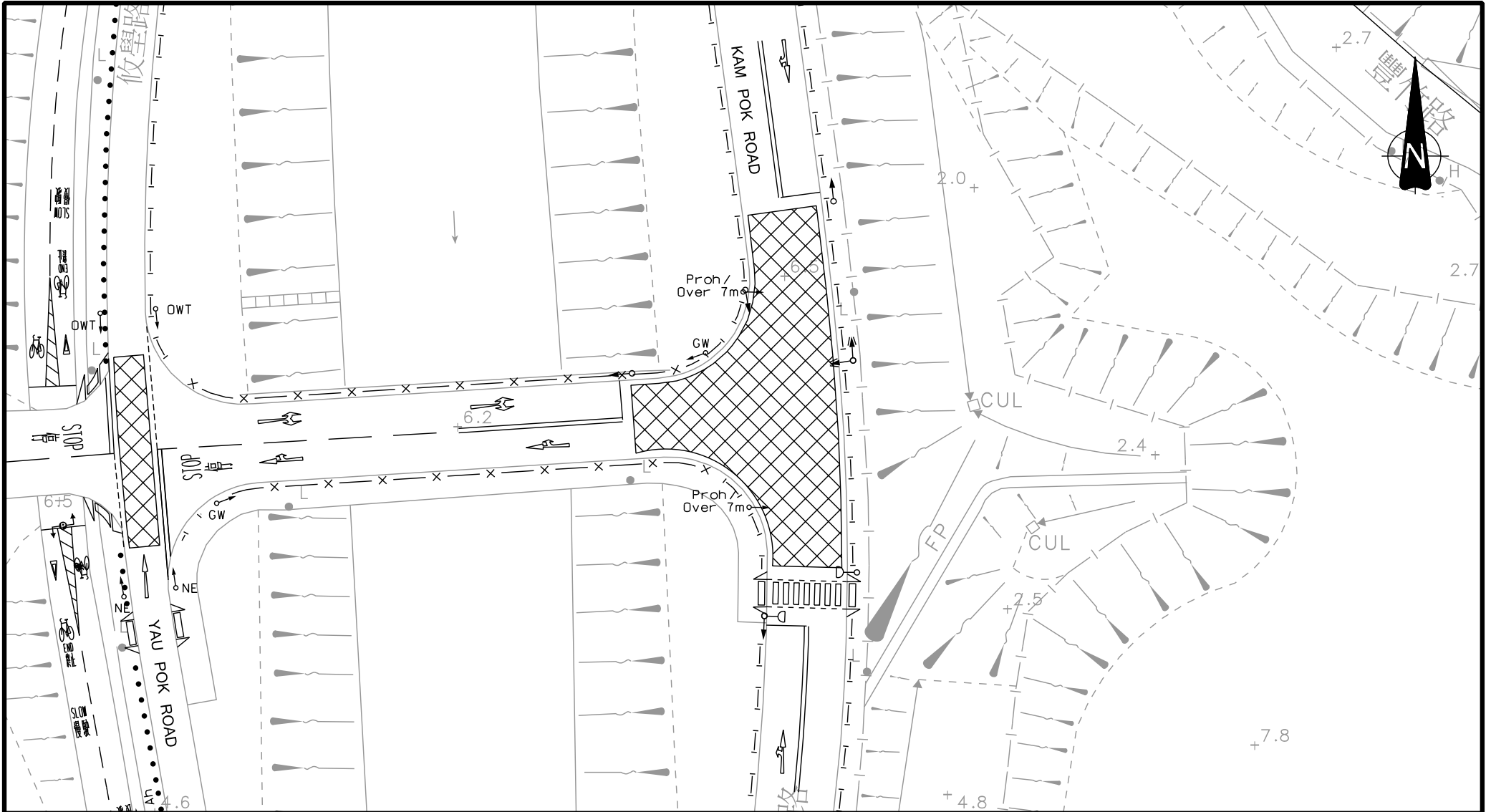
Project Title
**PROPOSED RESIDENTIAL DEVELOPMENT
 AT LOT NO. 4822 IN D.D. 104 AND
 ADJOINING GOVERNMENT LAND,
 EAST OF KAM POK ROAD, MAI PO, YUEN LONG**

Drawing Title
**EXISTING JUNCTION LAYOUT OF KAM POK ROAD /
 FAIRVIEW PARK BOULEVARD (J2)**

Designed HZF Checked PTC Scale 1:500(A4) Date JUN 2025 Drawing No. **3.4** Rev. -

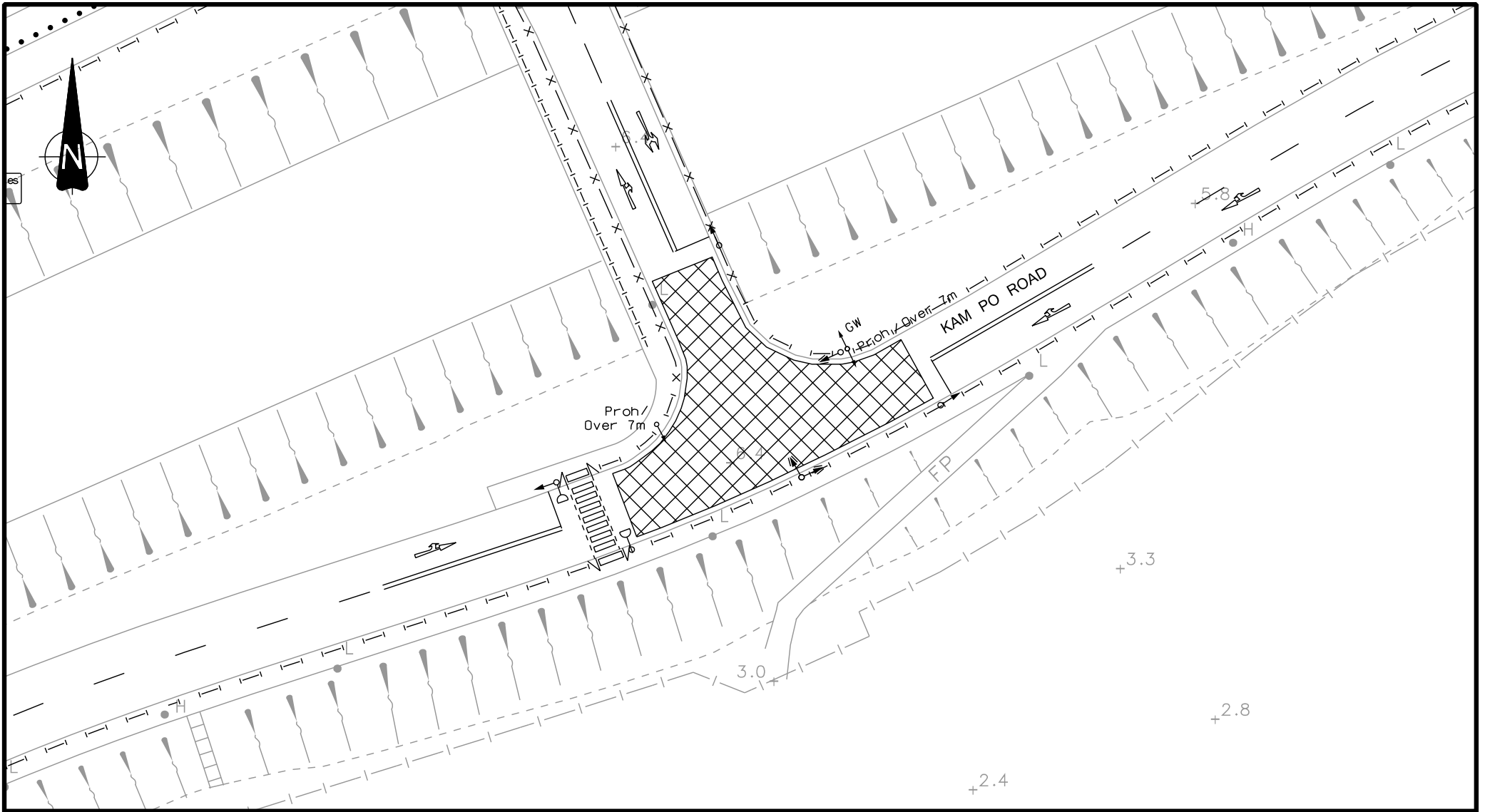


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| Project Title | | | | Drawing Title | | | | | | | |
| PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG | | | | EXISTING JUNCTION LAYOUT OF KAM POK ROAD / VEHICULAR BRIDGE - SOUTH (J3) | | | | | | | |
| Designed | HZF | Checked | PTC | Scale | 1:500(A4) | Date | JUN 2025 | | | | |

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| Project Title | | | | Drawing Title | | | | | | | |
| PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG | | | | EXISTING JUNCTION LAYOUT OF KAM PO ROAD / VEHICULAR BRIDGE - NORTH (J4) | | | | | | | |
| Designed | HZF | Checked | PTC | Scale | 1:500(A4) | Date | JUN 2025 | | | | |

General Advice to Public

- This cycle parking place may be suspended for use from time to time to clear any pedal cycles left.
- A notice regarding suspension of use will be posted at least 14 days prior to the suspension. The public should not leave their pedal cycles in this parking place after the date specified in the notice.
- No parking of pedal cycles is allowed during the suspension period of this parking place.
- The Authority will take possession of and remove all pedal cycles left in this parking place during the period of suspension.

公眾一般須知

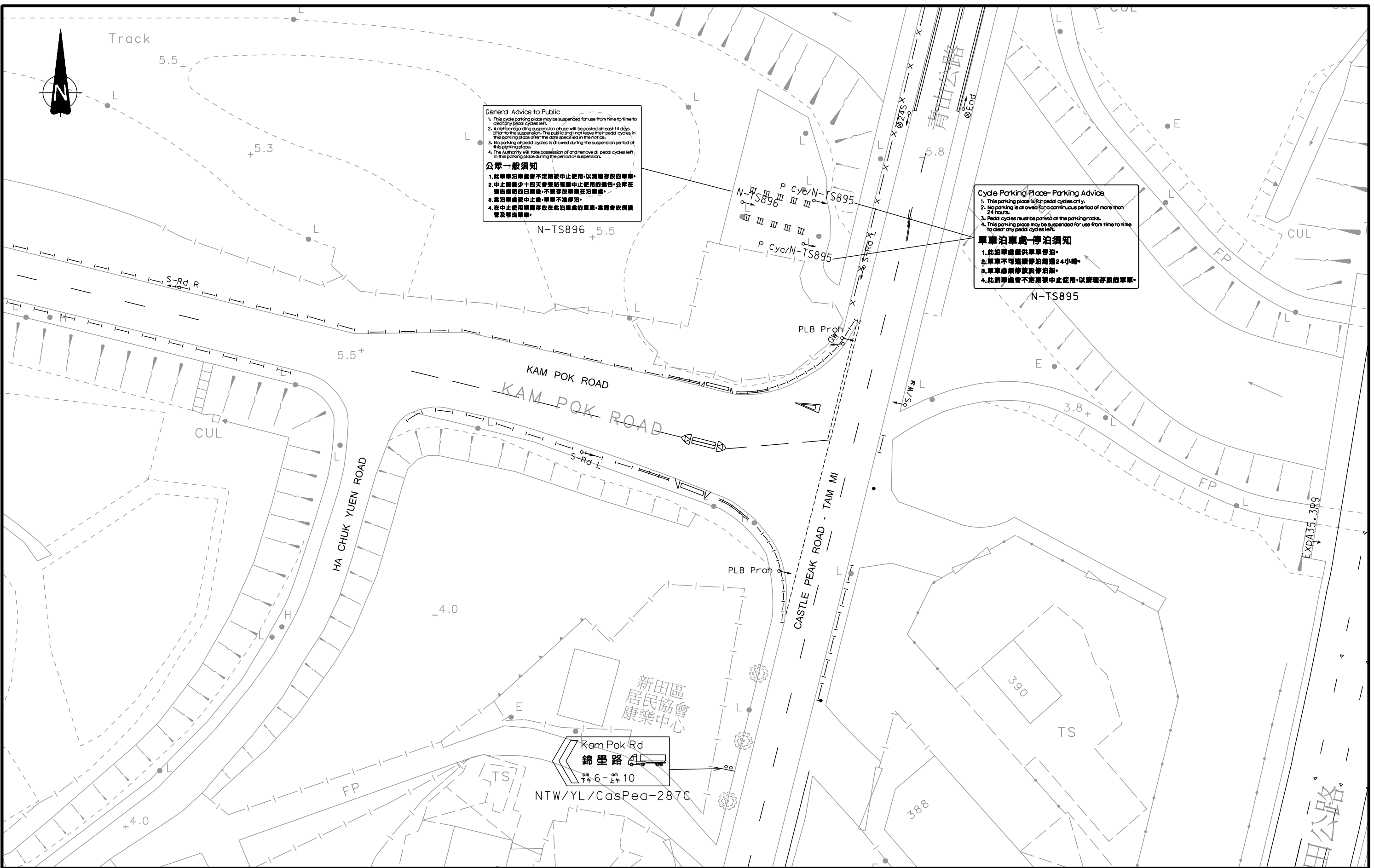
- 此單車泊車處會不定期被中止使用，以清場存放的單車。
- 中止前最少十四天會張貼有關中止使用的通告，公眾在通告規定的日期後，不要存放單車在泊車處。
- 當泊車處被中止後，單車不准停放。
- 在中止使用期間存放在此泊車處的單車，當局會依例搬走及移走單車。

Cycle Parking Place - Parking Advice

- This parking place is for pedal cycles only.
- No parking is allowed for a continuous period of more than 24 hours.
- Pedal cycles must be parked at the parking racks.
- This parking place may be suspended for use from time to time to clear any pedal cycles left.

單車泊車處 - 停泊須知

- 此泊車處僅供單車停泊。
- 單車不可連續停泊超過24小時。
- 單車必須停放在停泊架。
- 此泊車處會不定期被中止使用，以清場存放的單車。



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Project Title

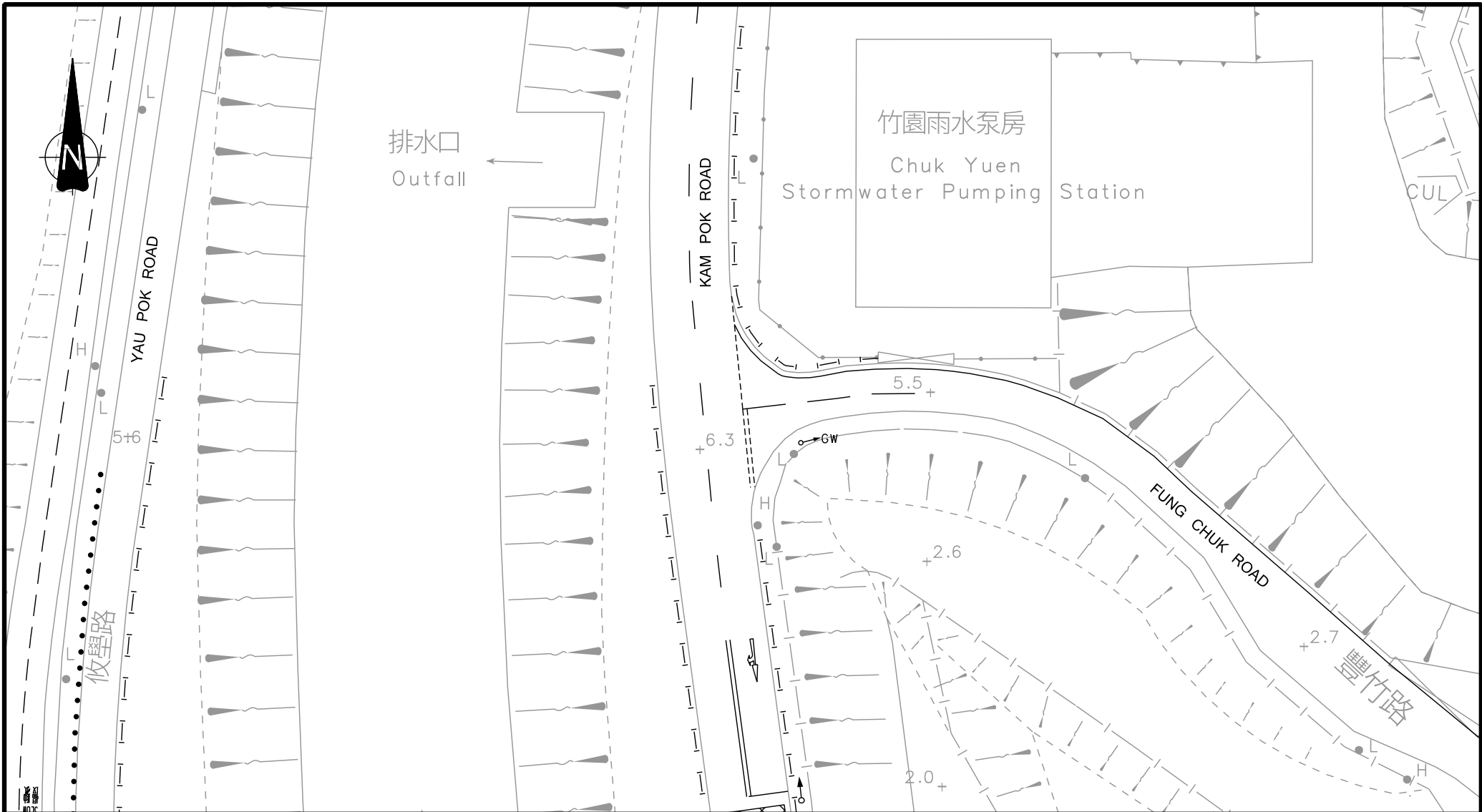
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Drawing Title

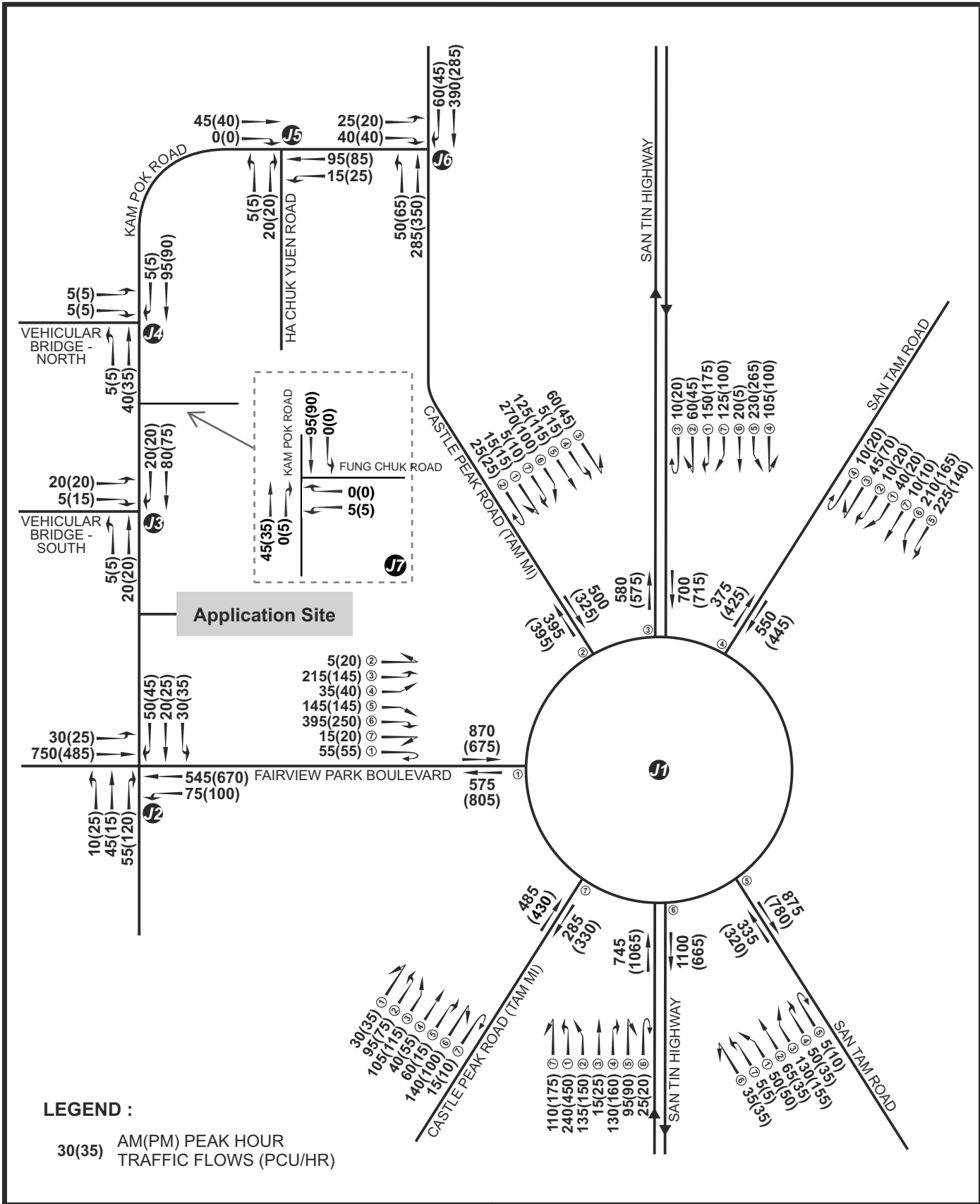
EXISTING JUNCTION LAYOUT OF KAM POK ROAD / HA CHUK YUEN ROAD (J5) AND KAM POK ROAD / CASTLE PEAK ROAD - TAM MI (J6)

Designed HZF Checked PTC Scale 1:500(A3) Date JUN 2025 Drawing No. **3.7** Rev. -





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| Project Title | | | | Drawing Title | | | | | | | |
| PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG | | | | EXISTING JUNCTION LAYOUT OF KAM POK ROAD / FUNG CHUK ROAD (J7) | | | | | | | |
| Designed | HZF | Checked | PTC | Scale | 1:500(A4) | Date | DEC 2025 | | | | |



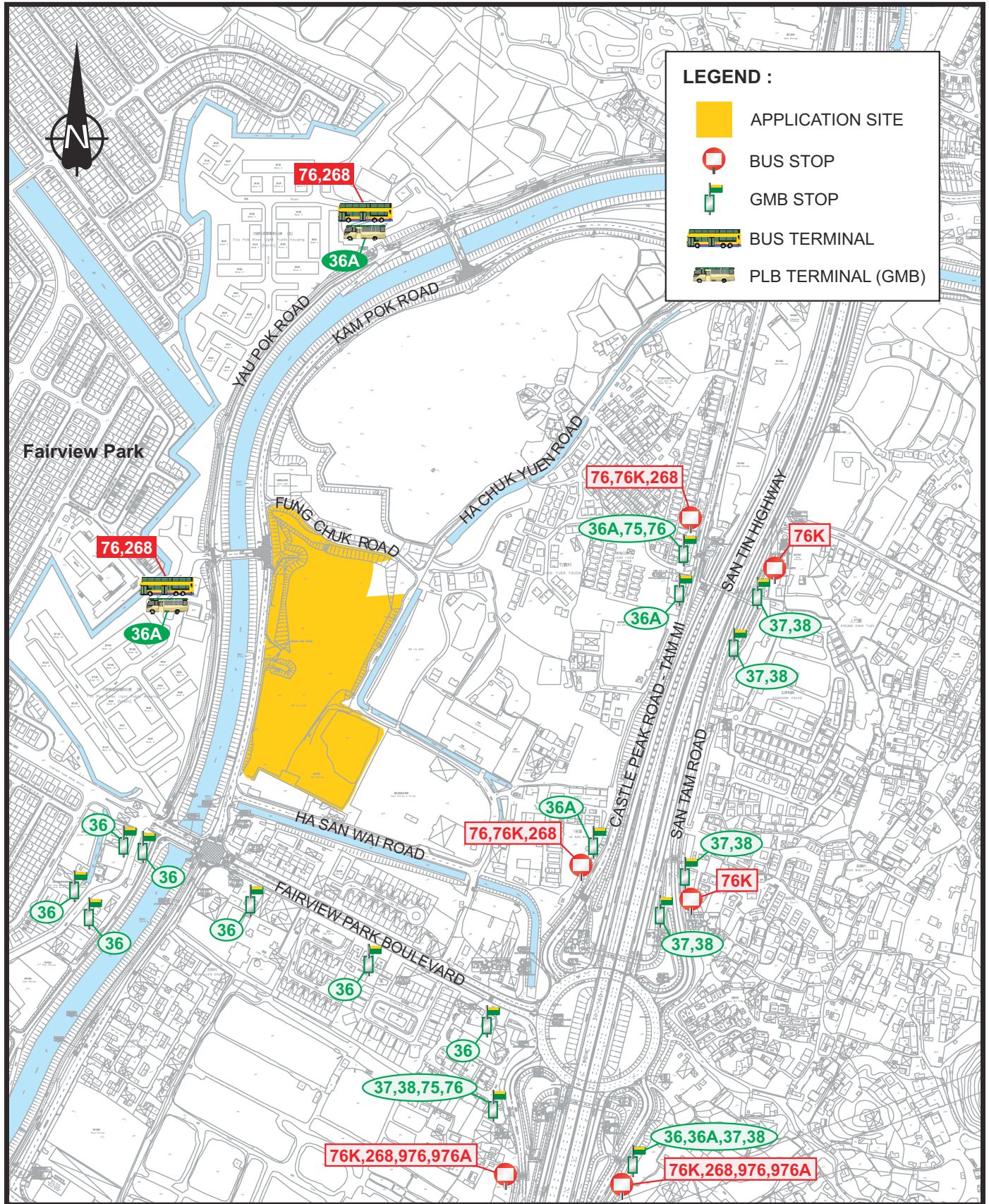
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| A | MINOR AMENDMENT | PTC | 19MAR26 | - | - | - | - |
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Project Title
 PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D.104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
YEAR 2025 OBSERVED TRAFFIC FLOWS



| | | | | | | | | | | | |
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| Designed | HZF | Checked | PTC | Scale | NTS | Date | DEC 2025 | Drawing No. | 3.9 | Rev. | A |
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Project Title
PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D.104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
EXISTING PUBLIC TRANSPORT SERVICES



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4. TRAFFIC FORECASTING

4.1 Design Year

4.1.1 The tentative completion year of the proposed development is year 2031. Hence, the design year of 2034 three years upon operation of the proposed development, has been adopted for traffic forecast and assessment purposes.

4.2 Traffic forecast

4.2.1 In order to produce the traffic forecast at the design year of 2034, reference has been made to the TD's Base District Traffic Model (BDTM) "NTW1" covering Tuen Man and Yuen Long Area.

4.2.2 The available BDTMs are validated to base year 2019 with forecast years of 2026 and 2031. Considering the BDTM is only validated to year 2019, it has been checked against the observed year 2025 traffic flows to replicate the base year traffic patterns and volume. The basic road network and trips of the existing developments in the study area under the base year BDTM has been reviewed and updated to 2025 condition. Same adjustment were also carried forward to year 2031 BDTM.

4.2.3 The assumptions in year 2031 BDTM has been reviewed and updated based on the available public information. Details are discussed in the following paragraphs.

Toll Plans Changes for Tai Lam Tunnel

4.2.4 The Government has taken over the Tai Lam Tunnel on 31 May 2025 and implemented new tolls with substantially reduced tolls for all vehicle types. With reference to the preliminary traffic assessment under Legislative Council paper No. CB(1)976/2024(05), it is anticipated that some traffic trips on San Tin Highway originally via Tuen Mun Road and Tolo Highway would be diverted via Tai Lam Tunnel to/from urban areas. The resulting impact on San Tin Highway (particularly the section adjacent to the application site) is considered limited after the toll change. With reference to the result of the above-mentioned assessment, adjustment due to new tolls has been applied into the traffic forecast.

Effect of Northern Link (NOL)

4.2.5 The planned NOL Main Line will be a railway of about 10.7km long, connecting the existing Kam Sheung Road Station of the Tuen Ma Line and the planned Kwu Tung Station of the East Rail Line, with three intermediate stations at San Tin, Ngau Tam Mei and Au Tau. The NOL Main Line would become the public transportation backbone in the Northern Metropolis (NM) and connect East Rail Line and Tuen Ma Line, forming a railway loop linking the New Territories and the Kowloon urban areas. The NOL Main Line is anticipated for commissioning in Year 2034. The NOL has been considered in Base District Traffic Model (BDTM).

Effect of Northern Metropolis (NM) Highway

4.2.6 The planned NM Highway is a major east-west corridor of about 24 km long, linking the development nodes in the NM including Ngau Tam Mei, San Tin Technopole, Kwu Tung North/Fanling North and New Territories North New Town. Upon commissioning of the NM Highway, it would divert traffic flows between the New Territories East and West during peak hours, thereby alleviating the traffic pressure on existing major highways, in particular for San Tin Highway.

4.2.7 The San Tin Section of NM Highway is expected to be commissioned in Year 2036 while its remaining sections are expected to be commissioned in 2039 and beyond. As the NM Highway will be commissioned after the design year 2034, the impact of NM has not been reflected in the traffic forecast. Nevertheless, the existing road and junction performance is expected to be improved significantly after its commissioning.

Adjacent Planned/Committed Developments

- *San Tin Technopole*

4.2.8 San Tin Technopole, located at the core of the NM, is planned as a hub for clustered innovation and technology development in the San Tin area. According to the preliminary phasing plan under the relevant government study (**Appendix C**), the project is planned to be implemented in three phases – Initial Phase, Main Phase and Remaining Phase. The population intakes for Initial Phase, Main Phase and Remaining Phase are anticipated in 2031, 2034 and 2039 respectively. Considering that the developments in Initial Phase and Main Phase would be completed on or before the design year 2034, the Year 2034 traffic forecast has been included the relevant trips of San Tin Technopole.

- *Ngau Tam Mei New Development Area (NTM NDA)*

4.2.9 The NTM NDA is planned for the development of the NM University Town with integrated residential neighbourhood. The planned Ngau Tam Mei Station of NOL Main Line would be located around the integrated residential community to serve the residents in the areas. The NTM NDA is expected to be served by the planned NM Highway, San Tam Road, San Tin Highway and connected to San Tin Technopole. According to the “Land Use Review Study for Ngau Tam Mei Area – Feasibility Study” (**Appendix D**), the project is planned to be implemented in three phases – First Phase, Second Phase and Remaining Phases. The population intakes for First, Second and Remaining Phases are anticipated in 2033, 2034 and 2036 respectively. Considering that the developments in First and Second Phases would be completed on or before the design year 2034, the Year 2034 traffic forecast has been included the relevant trips of NTM NDA.

- *Other Planned/Committed Developments.*

4.2.10 Apart from the above, there are other planned developments located in the vicinity of the site that are expected to be completed by year 2034 according to the latest available information from public domain. The planned/committed developments considered in the traffic forecast are listed in **Table 4.1**. Their locations are indicated in **Drawing 4.1** while the estimated trips of these developments are shown in **Appendix E**.

Table 4.1 Estimated Trip Generations of Planned/Committed Developments

| Ref. | Planned/Committed Developments | Key Development Parameters |
|------|--|---|
| 1 | Tung Shing Lei Development (A/YL-NSW/274) | <ul style="list-style-type: none"> • 1,518 residential units (average flat size = about 46m²) |
| 2 | Sha Po North Phase 2 Residential Development (A/YL-KTN/663) | <ul style="list-style-type: none"> • 1,154 residential units (average flat size = about 42.57m²) |
| 3 | Residential Development at west of Castle Peak Road - Tam Mi, Yuen Long (Y/YL-NSW/9) | <ul style="list-style-type: none"> • 3,115 residential units • 2,900m² retail GFA • 1 primary school, 1 kindergarten • Soy Factory |
| 4 | Kam Tin South Priority Sites Development | <ul style="list-style-type: none"> • 9,060 units of public housing (average flat size = about 50m²) • 3,490 units of private housing (average flat size = about 60m²) |
| 5 | Residential Development at west of Castle Peak Road - Tam Mi, Yuen Long (Y/YL-NSW/8) | <ul style="list-style-type: none"> • 6,825 residential units • 3,950m² retail GFA • 2 GIC facilities and 1 kindergarten |

| Ref. | Planned/Committed Developments | Key Development Parameters |
|------|---|---|
| 6 | Tung Shing Lei Land Sharing Pilot Scheme Application No. LSPS/002 | <ul style="list-style-type: none"> • 1,261 units of private housing (average flat size = about 40m²) • 1,868 units of public housing (average flat size = about 50m²) |
| 7 | Sha Po North Comprehensive Residential Development (A/YL-KTN/604) | <ul style="list-style-type: none"> • 3,891 residential units (average flat size = about 49m²) • 5,500 m² retail GFA |
| 8 | Sha Po Public Housing Development | <ul style="list-style-type: none"> • 16,300 Flats • 20,668m² retail GFA • 5 Kindergarten and 1 Primary School • 38,384m² Welfare Facilities • 19,267m² GIC |
| 9 | Kam Tin North Residential Development (A/YL-KTN/791) | <ul style="list-style-type: none"> • 330 flats and 87 houses (average flat/house size = about 38.73m²) |
| 10 | Residential Development at Sha Po South (A/YL-KTN/964) | <ul style="list-style-type: none"> • 615 residential units (average flat size = about 38m²) |
| 11 | Development at Wing Kei Tsuen, Nam Sang Wai, Yuen Long (Y/YL-NSW/7) | <ul style="list-style-type: none"> • 1,997 residential units (average flat size = 48.9m²) |
| 12 | Residential Development at Tung Shing Lei, Nam Sang Wai, Yuen Long (A/YL-NSW/293) | <ul style="list-style-type: none"> • 3,566 Flats and 9 Houses • 5,358m² Non Domestic GFA |
| 13 | Comprehensive Development Scheme at north of Kam Pok Road East, Pok Wai, Yuen Long (A/YL-NSW/314) | <ul style="list-style-type: none"> • 90 residential units |
| 14 | Ngau Tam Mei Area New Development Area ⁽⁴⁾ | <ul style="list-style-type: none"> • Third Medical School and Integrated Medical Teaching and Research Hospital • UniTown • Residential Developments Sites R3, R4 & RSc1 • GIC Facilities |
| 15 | Social Welfare Facilities at Siu Sheung Road, Nam Sang Wai, Yuen Long (A/YL-NSW/303) | <ul style="list-style-type: none"> • 127 beds for Residential Care Home for the Elderly • 100 beds for senior hostel |
| 16 | Social Welfare Facilities at Siu Sheung Road, Nam Sang Wai, Yuen Long (A/YL-NSW/292) | <ul style="list-style-type: none"> • 9,180m² GFA |
| 17 | Residential Care Homes for the Elderly at 81 San Tam Road, Ngau Tam Mei, Yuen Long (Y/YL-NTM/9) | <ul style="list-style-type: none"> • 142 beds (5,400m² GFA) |
| 18 | Residential Development at Yau Pok Road, Yuen Long (Y/YL-MP/3) ⁽²⁾ | <ul style="list-style-type: none"> • 106 houses |
| 19 | Proposed Residential Development at Kam Pok Road, Yuen Long (Y/YL-MP/10) | <ul style="list-style-type: none"> • 2,322 residential units (average flat size = about 42.4m²) • 2,363m² retail GFA • 1 kindergarten and 1 NEC |
| 20 | Proposed Comprehensive Development at Wo Shang Wai, Yuen Long (Y/YL-MP/9) | <ul style="list-style-type: none"> • 3,562 residential units (average flat size = about 75m²) • a 100-place Residential Care Home for the elderly |
| 21 | San Tin Technopole ⁽³⁾ | <ul style="list-style-type: none"> • Information and Technology (I&T) Section of 120,000 employment • ~760,000m² Logistics & Storage and Workshop • Public housing of ~25,800 units • Private housing of ~12,200 units |

Remarks:

- (1) The development schedules under First and Second Phases are assumed based on the planning assumptions in the Recommended Outline Development Plan (RODP) from the EIA report of "Land Use Review Study For Ngau Tam Mei Area – Feasibility Study"
- (2) The site is currently occupied by the existing temporary Light Public Housing at Yau Pok Road. The surveyed trip generations of Light Public Housing were separately excluded from the traffic forecast.
- (3) According to the "EIA study of First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node – Investigation", the population intakes for Initial Phase and Main Phase are anticipated on or before 2034. The development schedules under Initial and Main Phases are assumed based on the planning assumptions in the revised RODP.

Proposed Development Flows

- 4.2.11 The proposed development will provide 1,303 units with an average flat size of about 43.6m² a kindergarten and an EAC. In order to estimate the trips of the proposed development for residential portion, reference has been made to the trip rates in Transport Planning Design Manual (TPDM) published by the TD.
- 4.2.12 For kindergarten, a trip generation survey has been conducted at the existing similar kindergarten in Yuen Long, Saint Lorraine Kindergarten (Yuen Long) in December 2025. The surveyed trip rates are summarized in **Table 4.2**. The adopted trip rates of kindergarten under the Planning Application Y/YL-MP/10 are also listed below for comparison.

Table 4.2 Trip Rates of Kindergarten

| | Trip Rate (pcu/hr/100 student) | | | |
|---|--------------------------------|------|---------|------|
| | AM Peak | | PM Peak | |
| | Gen | Attr | Gen | Attr |
| Existing Saint Lorraine Kindergarten (Yuen Long) | 8 | 8 | 1 | 1 |
| Trip rates with reference to the TIA report under Planning Application Y/YL-MP/10 | 26 | 26 | 1 | 1 |

- 4.2.13 Based on **Table 4.2**, the trip rates with reference to the planning application Y/YL-MP/10 are higher and has been adopted for conservative approach. The adopted trip rates are presented in **Table 4.3**.

Table 4.3 Adopted Trip Rates

| Use | Unit | Trip Rate | | | |
|-----------------------------|----------------------|-----------|--------|---------|-------|
| | | AM Peak | | PM Peak | |
| | | Gen | Attr | Gen | Attr |
| Residential ⁽¹⁾ | (pcu/hr/flat) | 0.0718 | 0.0425 | 0.0286 | 0.037 |
| Kindergarten ⁽²⁾ | (pcu/hr/100 student) | 26 | 26 | 1 | 1 |

Remarks: (1) Mean value of trip rates for Private Housing R(A) with average flat size of 60m² from TPDM is adopted.

(2) Adopted trip rates with reference to the TIA report under Planning Application Y/YL-MP/10.

- 4.2.14 For the proposed EAC, considering that the target group is mainly the elderly living in the locality and the corresponding peak hour would not overlap with the commuting peak hours, it is anticipated that its trip generations are limited during the commuting peak hours.
- 4.2.15 Based on the above adopted trips rates, the trip generations of the proposed development is estimated. **Table 4.4** summarises the estimated trip generations of the proposed scheme against the approved scheme.

Table 4.4 Estimated Trip Generation of Proposed Development

| Scheme | Development Parameter | | Estimated Trip Generations (pcu/hr) | | | |
|---|------------------------------------|--------------|-------------------------------------|-------------|------------|------------|
| | | | AM Peak | | PM Peak | |
| | | | Gen | Attr | Gen | Attr |
| Approved Scheme | Residential ⁽¹⁾ | 65 houses | 15 | 9 | 9 | 11 |
| Proposed Scheme | Residential | 1,303 units | 94 | 55 | 37 | 48 |
| | Kindergarten | 6 classrooms | 47 | 47 | 5 | 5 |
| | EAC ⁽²⁾ | | 10 | 10 | 10 | 10 |
| | Shuttle bus Service ⁽³⁾ | | 22 | 22 | 22 | 22 |
| Total | | | 173 | 134 | 74 | 85 |
| Difference (Proposed Scheme – Approved Scheme) | | | +158 | +125 | +65 | +74 |

Remarks: (1) Trip generation extracted from the TIA report for the approved scheme.
 (2) Nominal Trips.
 (3) Shuttle bus service is proposed to serve the proposed development. Details of the shuttle bus trips refers to **Section 4.2.28**.

4.2.16 Compared to the approved scheme, the proposed scheme would generate an additional two-way trips of 283 pcu/hr and 139 pcu/hr during the morning and evening peak hour periods respectively as indicated in **Table 4.4**.

4.2.17 The estimated traffic flows generated from the proposed development are presented in **Appendix F**. As presented in **Appendix F**, the development trips on adjacent strategic road (San Tin Highway) is less than 100 pcu at the critical bound during peak hour. According to the latest “TIA Checklist for Development Project” (February 2026 Edition) published by TD, 2-tier transport models are not required for this project.

Trips of Public Transport

4.2.18 With reference to Travel Characteristics Survey 2011 (TCS 2011) published by TD, the pedestrian trips of the proposed development during peak hour is derived as shown in **Table 4.5**.

Table 4.5 Anticipated Peak-Hour Pedestrian Trips of the Proposed development

| Location | Estimated Population [i] | Average daily mechanized trips per person ⁽²⁾ [ii] | Peak hour factor ⁽³⁾ [iii] | Peak hour Pedestrian Trips (pax/hr) = [i] x [ii] x [iii] |
|------------------------------------|--------------------------|---|---------------------------------------|--|
| Proposed Development (1,303 units) | 3,519 | 1.83 | 12% | 773 |

Remarks: (1) Adopting the average domestic household size of 2.7.
 (2) Average daily mechanised trips per person as extracted from TCS 2011.
 (3) Weekday morning peak hour factor for all merchandised trips of 20% as a conservative approach (with reference to TCS 2011) and peak direction split of 60% assumed (i.e. 1-way Peak hour factor = 20% x 60% = 12%).

4.2.19 Based on the calculation in **Table 4.5**, it is anticipated that the pedestrian trips of the proposed development is 773 pax/hr during peak hour.

4.2.20 To identify the transport mode shares in local area, reference has been made to the Population Census 2021 published by Census and Statistics Department. The transport modal splits of Yuen Long District are reviewed and summarized in **Table 4.6**.

Table 4.6 Transport Modal Split of Yuen Long District

| Transport Mode | Main Mode of Transport | Modal Split ⁽¹⁾⁽²⁾ |
|------------------------|---------------------------------------|-------------------------------|
| PT Mode (81.7%) | Mass Transit Railway (MTR/Light Rail) | 48.3% |
| | Coach | 4.1% |
| | Franchised Bus | 25.8% |
| | Public light bus | 3.5% |
| Non-PT Mode (18.3%) | Private car / Passenger van/ Taxi | 11% |
| | On foot only | 7.3% |
| Total | | 100% |

Note : (1) With reference to the data in Population Census 2021.

(2) The transport mode “Ferry/Vessel” and “Others” has been excluded from the data in the Population Census.

4.2.21 As shown in **Table 4.6**, the modal splits for PT mode is 81.7%. Considering the existing available public transport modes in the study area, the PT mode are further split to “short-haul” and “long-haul” services as summarized in **Table 4.7**.

4.2.22 By applying the derived modal splits to the estimated peak-hour pedestrian trips of the proposed development in **Table 4.5**, the pedestrian trips of the proposed development by transport mode are shown in **Table 4.7**.

Table 4.7 Transport Modal Split of Proposed Development

| Transport Mode | | Modal Split ⁽¹⁾ | Peak-hour Pedestrian Trip of the Proposed Development |
|--------------------|--------------------|----------------------------|---|
| PT Mode (81.7%) | Short-Haul Service | 52.4% ⁽²⁾ | 405 |
| | Long-Haul Service | 29.3% ⁽³⁾ | 227 |
| Non-PT Mode | | 18.3% | 141 |
| Total | | 100% | 773 |

Remarks:

(1) Refer to **Table 4.6**.

(2) Split of short-haul service refer to the shuttle bus to the nearby railway station, which includes the modal splits of railway and coach services.

(3) Split of long-haul service includes the modal splits of franchise bus and public light bus.

4.2.23 Based on the calculation in **Table 4.7**, it is anticipated that the PT demand of the proposed development is 632 pax/hr during peak hour.

4.2.24 According to the recently agreed rezoning application Y/YL-MP/10 nearby, a new transport layby is planned to be provided within the applicant site of Y/YL-MP/10. Under its TIA report, a long-haul bus service to/from urban areas (such as, Hong Kong Island, Kowloon and Kowloon East) and a short-haul bus service to/from Yuen Long Station PTI are proposed to serve the future public transport demand in the area. The proposed bus frequency for both short-haul and long-haul bus services are 15 veh/hr and 8 veh/hr respectively, which has taken into account of the future transport demand arising from the 3 application sites of Y/YL-MP/7, Y/YL-MP/MP/8 and Y/YL-MP/MP/10 nearby.

4.2.25 By taking into account the bus demand arising from the nearby 3 application sites, the anticipated peak-hour bus demand in the area is calculated and summarized in **Table 4.8**.

Table 4.8 Transport Modal Split of Proposed Development

| Bus Service | Anticipated Peak-hour Bus Demand arising from the nearby application sites ⁽¹⁾ (pax/hr) | Anticipated Peak-hour Bus Demand arising from the proposed development ⁽²⁾ | Total Peak-hour Bus Demand |
|--|--|---|----------------------------|
| Short-Haul Bus Service to/from Yuen Long Station PTI | 1350 | 405 | 1755 |
| Long-Haul Bus Service to/from Urban Areas | 727 | 227 | 954 |

Remarks:

(1) Extracted from the TIA report of the approved application site Y/YL-MP/10. The nearby application sites include Y/YL-MP/7, Y/YL-MP/8 and Y/YL-MP/10.

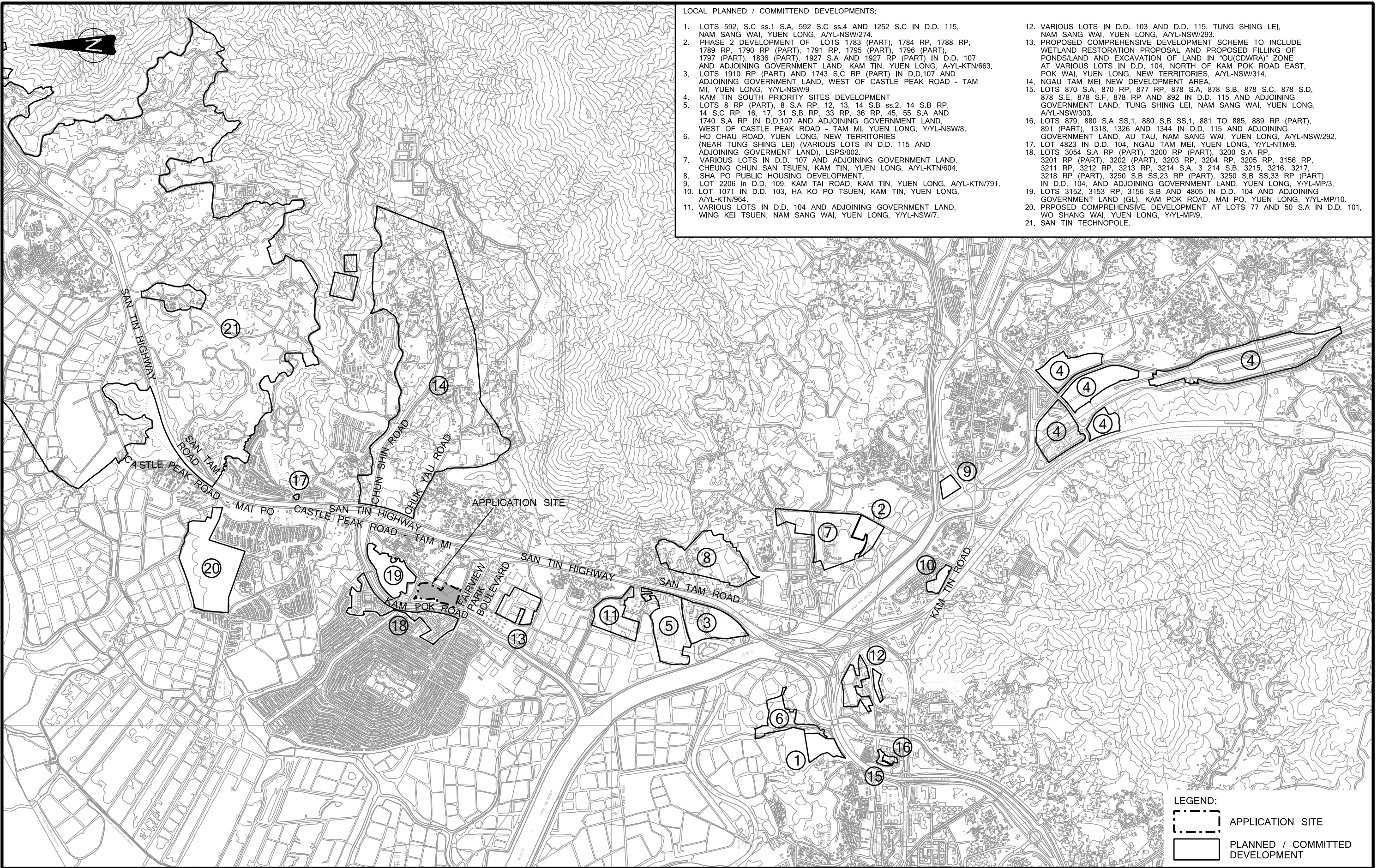
(2) Refer to **Table 4.7**.

- 4.2.26 To cater the future public transport demand of the proposed development, enhancement of the above-mentioned short-haul and long-haul bus services are suggested. According to assessment result in **Table 4.8**, it is suggested to increase the bus trip of short-haul and long-haul bus service to 20 veh/hr and 11 veh/hr based on a bus capacity of 90 pax/hr. The actual frequency of bus services is subject to the Transport Department's review at a later stage.
- 4.2.27 The application site will be located about 1 km radius of future Ngau Tam Mei Station upon completion of Northern Link (NOL) project in year 2034. Apart from the above-mentioned bus services, a circular shuttle bus route travelling between the application site and the future public transport interchange near Ngau Tam Mei Station is also suggested for further enhancement. A layby for residents' shuttle bus service/potential bus service will be reserved within the site for pick-up/drop-off, as illustrated in **Appendix B7**. The arrangement of the shuttle bus service is subject to the future application to TD and the future bus route plan in the area.
- 4.2.28 Under the traffic forecast, the trips of the shuttle bus service has been included in the traffic forecast to present the conservative approach. By adopting the occupancy of 60 persons/coach, an additional trip of 11 coach/hr during peak hours will be included.

Year 2034 Traffic Forecast

- 4.2.29 The traffic forecast data 2031 was projected up to Year 2034 with reference to the latest planning data (i.e. Territorial Population and Employment Data Matrix (TPEDM)) published by Planning Department and the population estimates published by Census and Statistics Department.
- 4.2.30 The anticipated 2034 reference traffic flows was produced by including the trips of the approved scheme of the application site. The 2034 reference traffic flows (with approved scheme) are shown in **Drawing 4.2**.
- 4.2.31 The net increase of the development trips due to proposed scheme as derived in **Table 4.4** are superimposed onto the year 2034 reference traffic flows, to produce the anticipated year 2034 design traffic flows. The net increase in the development flows between the approved and proposed schemes are presented in **Drawing 4.3** whilst the year 2034 design traffic flows (with proposed scheme) are shown in **Drawing 4.4**.

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LOCAL PLANNED / COMMITTED DEVELOPMENTS:

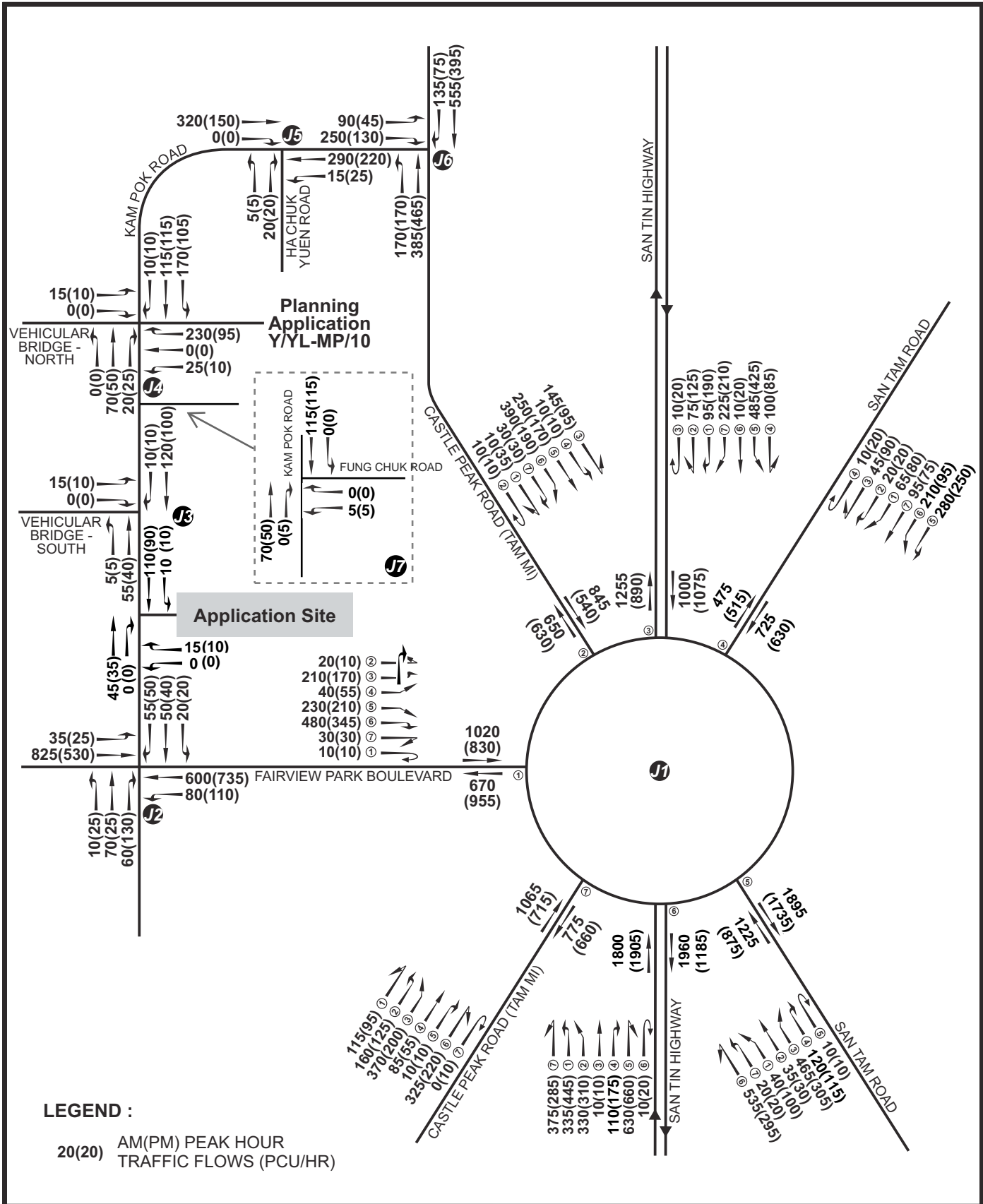
1. LOTS 592, S.C ss.1 S.A, 592 S.C ss.4 AND 1252 S.C IN D.D. 115, NAM SANG WAI, YUEN LONG, A/YL-NSW/274.
2. PHASE 2 DEVELOPMENT OF LOTS 1783 (PART), 1784 RP, 1788 RP, 1789 RP, 1790 RP (PART), 1791 RP, 1795 (PART), 1796 (PART), 1797 (PART), 1836 (PART), 1927 S.A AND 1927 RP (PART) IN D.D. 107 AND ADJOINING GOVERNMENT LAND, KAM TIN, YUEN LONG, A-YL-KTN/663.
3. LOTS 1910 RP (PART) AND 1743 S.C RP (PART) IN D.D.107 AND ADJOINING GOVERNMENT LAND, WEST OF CASTLE PEAK ROAD - TAM MI, YUEN LONG, Y/YL-NSW/9
4. KAM TIN SOUTH PRIORITY SITES DEVELOPMENT
5. LOTS 8 RP (PART), 8 S.A RP, 12, 13, 14 S.B ss.2, 14 S.B RP, 14 S.C RP, 16, 17, 31 S.B RP, 33 RP, 36 RP, 45, 55 S.A AND 1740 S.A RP IN D.D.107 AND ADJOINING GOVERNMENT LAND, WEST OF CASTLE PEAK ROAD - TAM MI, YUEN LONG, Y/YL-NSW/8.
6. HO CHAU ROAD, YUEN LONG, NEW TERRITORIES (NEAR TUNG SHING LEI) (VARIOUS LOTS IN D.D. 115 AND ADJOINING GOVERNMENT LAND), LSPS/002.
7. VARIOUS LOTS IN D.D. 107 AND ADJOINING GOVERNMENT LAND, CHEUNG CHUN SAN TSUEN, KAM TIN, YUEN LONG, A/YL-KTN/604.
8. SHA PO PUBLIC HOUSING DEVELOPMENT.
9. LOT 2206 IN D.D. 109, KAM TAI ROAD, KAM TIN, YUEN LONG, A/YL-KTN/791.
10. LOT 1071 IN D.D. 103, HA KO PO TSUEN, KAM TIN, YUEN LONG, A/YL-KTN/964.
11. VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, WING KEI TSUEN, NAM SANG WAI, YUEN LONG, Y/YL-NSW/7.
12. VARIOUS LOTS IN D.D. 103 AND D.D. 115, TUNG SHING LEI, NAM SANG WAI, YUEN LONG, A/YL-NSW/293.
13. 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, A/YL-NSW/314.
14. NGAU TAM MEI NEW DEVELOPMENT AREA.
15. LOTS 870 S.A, 870 RP, 877 RP, 878 S.A, 878 S.B, 878 S.C, 878 S.D, 878 S.E, 878 S.F, 878 RP AND 892 IN D.D. 115 AND ADJOINING GOVERNMENT LAND, TUNG SHING LEI, NAM SANG WAI, YUEN LONG, A/YL-NSW/303.
16. LOTS 879, 880 S.A SS.1, 880 S.B SS.1, 881 TO 885, 889 RP (PART), 891 (PART), 1318, 1326 AND 1344 IN D.D. 115 AND ADJOINING GOVERNMENT LAND, AU TAU, NAM SANG WAI, YUEN LONG, A/YL-NSW/292.
17. LOT 4823 IN D.D. 104, NGAU TAM MEI, YUEN LONG, Y/YL-NTM/9.
18. LOTS 3054 S.A RP (PART), 3200 RP (PART), 3200 S.A RP, 3201 RP (PART), 3202 (PART), 3203 RP, 3204 RP, 3205 RP, 3156 RP, 3211 RP, 3212 RP, 3213 RP, 3214 S.A, 3 214 S.B, 3215, 3216, 3217, 3218 RP (PART), 3250 S.B SS.23 RP (PART), 3250 S.B SS.33 RP (PART) IN D.D. 104, AND ADJOINING GOVERNMENT LAND, YUEN LONG, Y/YL-MP/3.
19. LOTS 3152, 3153 RP, 3156 S.B AND 4805 IN D.D. 104 AND ADJOINING GOVERNMENT LAND (GL), KAM POK ROAD, MAI PO, YUEN LONG, Y/YL-MP/10.
20. PROPOSED COMPREHENSIVE DEVELOPMENT AT LOTS 77 AND 50 S.A IN D.D. 101, WO SHANG WAI, YUEN LONG, Y/YL-MP/9.
21. SAN TIN TECHNOPOLE.

| Rev. | Description | Checked | Date |
|------|----------------------------|---------|---------|
| - | - | - | - |
| B | REVISION OF DRAWING NUMBER | PTC | 02JAN26 |
| A | MINOR AMENDMENT | PTC | 11DEC25 |

Project Title
PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

| | | | |
|---|---------|-------------|----------|
| Drawing Title LOCATIONS OF PLANNED / COMMITTED DEVELOPMENTS | | | |
| Designed | Checked | Scale | Date |
| HZF | PTC | 1:25000(A3) | JUN 2025 |
| Drawing No. | 4.1 | | Rev. B |





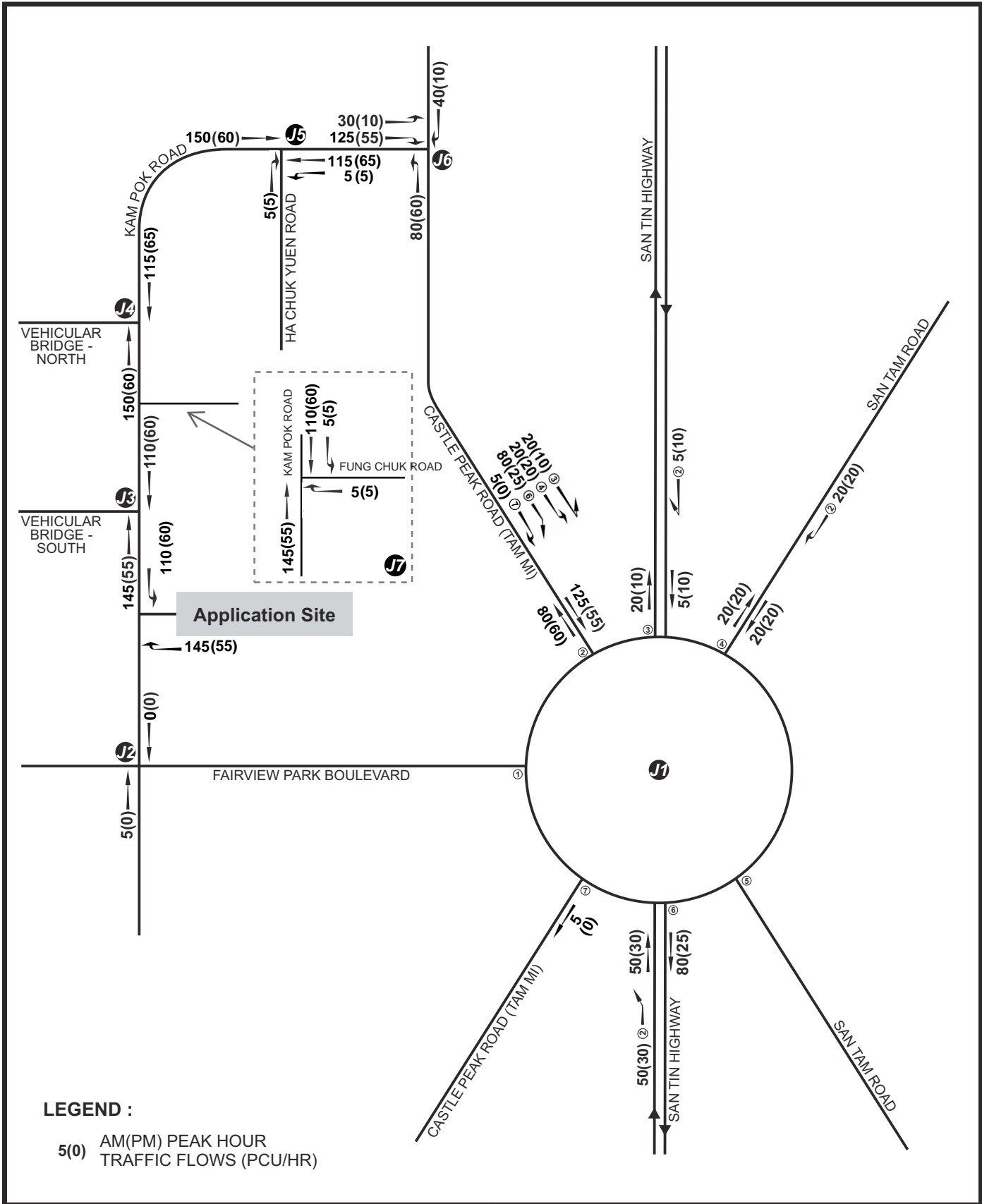
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| B | TRAFFIC FLOWS UPDATED | PTC | 9JAN26 | C | TRAFFIC FLOWS UPDATED | PTC | 11MAY26 |
| A | TRAFFIC FLOWS UPDATED | PTC | 11DEC25 | - | - | - | - |
| Rev. | Description | Checked | Date | Rev. | Description | Checked | Date |

Project Title
 PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D.104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
YEAR 2034 REFERENCE TRAFFIC FLOWS



| | | | | | | | | | | | |
|----------|-----|---------|-----|-------|-----|------|----------|-------------|-----|------|---|
| Designed | HZF | Checked | PTC | Scale | NTS | Date | JUL 2025 | Drawing No. | 4.2 | Rev. | C |
|----------|-----|---------|-----|-------|-----|------|----------|-------------|-----|------|---|



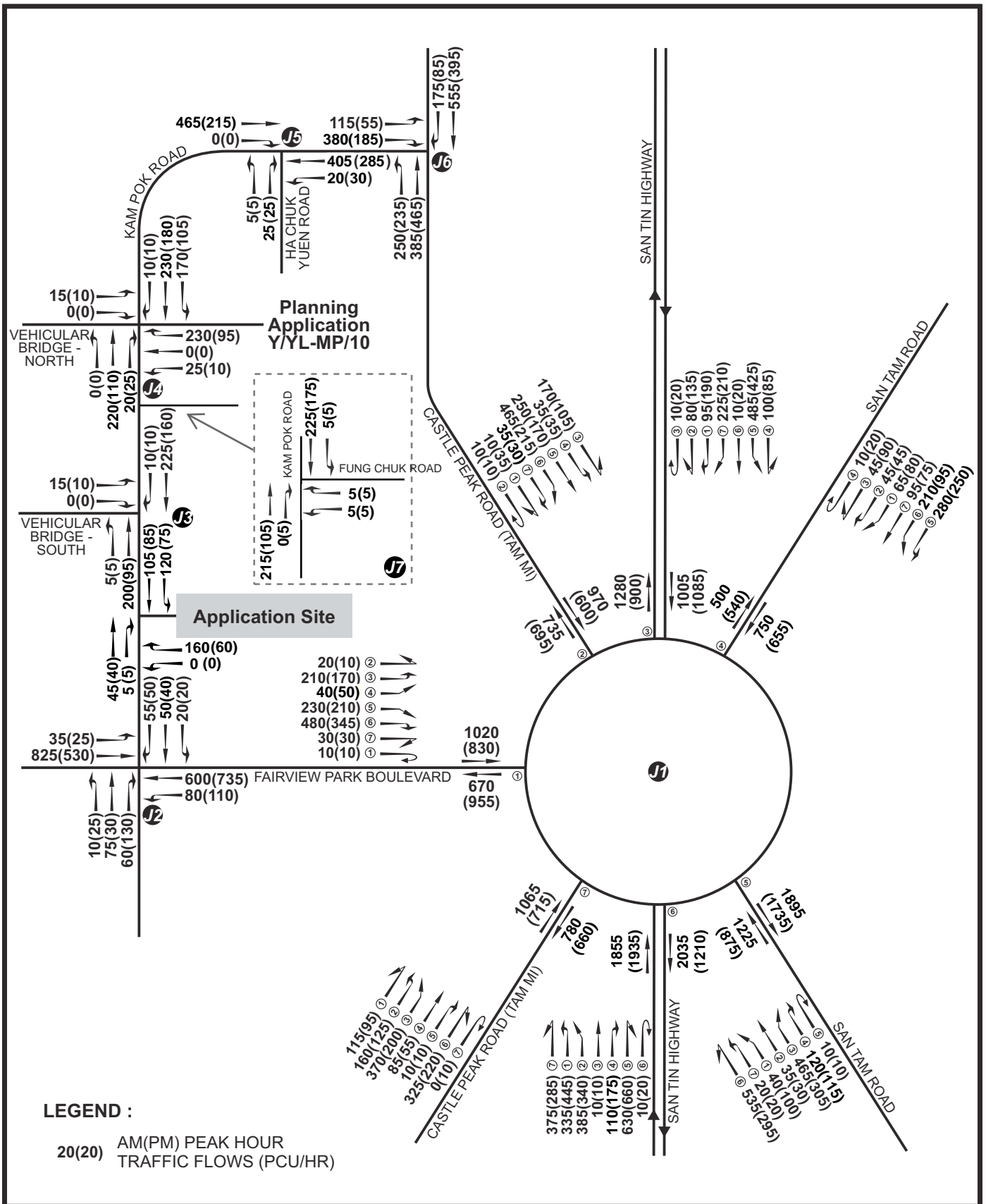
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|------|-----------------------|---------|---------|------|-----------------------|---------|---------|
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| A | TRAFFIC FLOWS UPDATED | PTC | 11DEC25 | C | TRAFFIC FLOWS UPDATED | PTC | 11MAY26 |
| Rev. | Description | Checked | Date | Rev. | Description | Checked | Date |

Project Title
 PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D.104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
DEVELOPMENT TRAFFIC FLOWS (NET INCREASE)



| | | | | | | | | | | | |
|----------|-----|---------|-----|-------|-----|------|----------|-------------|------------|------|----------|
| Designed | HZF | Checked | PTC | Scale | NTS | Date | JUL 2025 | Drawing No. | 4.3 | Rev. | C |
|----------|-----|---------|-----|-------|-----|------|----------|-------------|------------|------|----------|



| | | | | | | | |
|------|-----------------------|---------|---------|------|-------------|---------|------|
| A | TRAFFIC FLOWS UPDATED | PTC | 11MAY26 | - | - | - | - |
| Rev. | Description | Checked | Date | Rev. | Description | Checked | Date |

Project Title
 PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D.104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
YEAR 2034 DESIGN TRAFFIC FLOWS



| | | | | | | | | | | | |
|----------|-----|---------|-----|-------|-----|------|----------|-------------|-----|------|---|
| Designed | HZF | Checked | PTC | Scale | NTS | Date | JAN 2026 | Drawing No. | 4.4 | Rev. | A |
|----------|-----|---------|-----|-------|-----|------|----------|-------------|-----|------|---|

5. TRAFFIC IMPACT ASSESSMENT

5.1 Traffic Impact Assessment

5.1.1 To investigate the traffic impact of the proposed development on the surrounding road network at the design year 2034, operational performance of the identified key local junctions and critical links have been assessed for both reference and design scenarios.

Planned Improvement at Fairview Park Interchange (J1)

5.1.2 According to RNTPC Paper No. 10/22 dated 9 December 2022 for the CEDD's project "Agreement No. CE 10/2020 (CE)- Site Formation and Infrastructure Works for Proposed Public Housing Developments at Sha Po, Shap Pat Heung and Tai Kei Leng, Yuen Long – Feasibility Study", an improvement works has been planned to Fairview Park Interchange (J1) as illustrated in **Drawing 5.1**. Under the improvement scheme, the southern arm of San Tam Road and the approach arms of Castle Peak Road – Tam Mi (northbound) and San Tin Highway Slip Road (southbound) would be widened. An additional exclusive left-turn lane at San Tin Highway Slip Road (northbound) would also be provided.

5.1.3 Besides, further improvement to this planned junction (J1) has been proposed under the recently agreed rezoning application no. Y/YL-MP/10 as illustrated in **Drawing 5.1**. This improvement works is expected to be completed prior to its commissioning (i.e. before the year 2034). Thus, this planned improvement layout has been adopted in the assessment.

Planned Improvements at junction Kam Pok Road/Vehicular Bridge (North) (J4) and junction Castle Peak Road – Tam Mi/Kam Pok Road (J6)

5.1.4 Apart from junction J1, two additional junction improvements for Kam Pok Road/Vehicular Bridge (North) (J4) and Castle Peak Road – Tam Mi/Kam Pok Road (J6) have also been proposed under the agreed rezoning application no. Y/YL-MP/10.

5.1.5 For junction Kam Pok Road/Vehicular Bridge (North) (J4), the existing 3-arm signal-controlled junction is planned to be converted to 4-arm junction, and an additional exclusive left-turn lane would be provided at the approach arm of Kam Pok Road westbound. The planned junction improvement layout is illustrated in **Drawing 5.2**. For junction Castle Peak Road – Tam Mi/Kam Pok Road (J6), separate turning would be allowed at the approach arm of Yau Pok Road as illustrated in **Drawing 5.3**. These planned junction improvement works have been adopted in the assessment.

Junction Operational Performance

5.1.6 The main access of the proposed development will be on Kam Pok Road, in the form of a priority junction, as illustrated in **Drawing 5.4**. This priority junction (J8) will be included in the design scenario. The access design is subject to change in the detailed design.

5.1.7 Based on the existing/planned layouts, the junction assessment results for the 2034 reference and design scenarios are summarized in **Table 5.1**. The junction calculation sheets are attached in **Appendix J**.

Table 5.1 Junction Operational Performance at Year 2034

| Ref (2) | Junction | Junction Type | 2034 RC/RFC ⁽¹⁾ | | | |
|------------|--|---------------|-------------------------------------|---------|----------------------------------|---------|
| | | | Reference (with approved Scheme) | | Design (with Proposed Scheme) | |
| | | | AM Peak | PM Peak | AM Peak | PM Peak |
| J1 | Fairview Park Interchange ⁽³⁾ | Roundabout | 0.87 | 0.89 | 0.91 | 0.92 |
| J2 | Fairview Park Boulevard / Kam Pok Road | Signal | 61% | 55% | 61% | 54% |
| J3 | Kam Pok Road / Vehicular Bridge (South) | Signal | >100% | >100% | 88% | >100% |
| J4 | Kam Pok Road / Vehicular Bridge (North) ⁽⁴⁾ | Signal | >100% | >100% | 58% | >100% |
| J5 | Kam Pok Road / Ha Chuk Yuen Road | Priority | 0.06 | 0.06 | 0.08 | 0.07 |
| J6 | Castle Peak Road -Tam Mi / Kam Pok Road ⁽⁵⁾ | Priority | 0.71 | 0.34 | 1.15 | 0.50 |
| J7 | Kam Pok Road / Fung Chuk Road | Priority | 0.01 | 0.01 | 0.04 | 0.04 |
| J8 | Kam Pok Road / Site Main Entrance ⁽⁶⁾ | Priority | - | - | 0.26 | 0.10 |

Remarks: (1) RC = reserve capacity, RFC = ratio of flow to capacity.

(2) Locations refer to **Drawing 3.2**.

(3) Based on the planned junction layout as illustrated in **Drawing 5.1**.

(4) Based on the planned junction layout as illustrated in **Drawing 5.2**.

(5) Based on the planned junction layout as illustrated in **Drawing 5.3**.

(6) Based on the junction layout as illustrated in **Drawing 5.4**.

5.1.8 The results of the assessment as shown in **Table 5.1** indicated that all identified key junctions would operate within capacities under reference case (with approved scheme), except the junction Fairview Park Interchange (J1). Whilst, for the design case (with proposed scheme), all identified key junctions would operate within capacities, except the junction Fairview Park Interchange (J1) and Castle Peak Road – Tam Mi/Kam Pok Road (J6).

Road Link Performance

5.1.9 Apart from junction capacity assessment, the road link operation performance was also undertaken for both reference and design scenarios. Based on the existing road layouts with traffic forecast, the results of the assessment are summarized in **Table 5.2**.

Table 5.2 Year 2034 Road Link Operational Performance for Reference Case and Design Case

| Ref. (1) | Road Link | Dir | Link Capacity (pcu/hr) | Reference Case (with Approved Scheme) | | | | Design Case (with Current Scheme) | | | |
|-------------|---------------------------|-------|------------------------|--|-------|-----------|------|--------------------------------------|-------|-----------|------|
| | | | | Traffic Flows (pcu/hr) | | V/C Ratio | | Traffic Flows (pcu/hr) | | V/C Ratio | |
| | | | | AM | PM | AM | PM | AM | PM | AM | PM |
| L1 | Castle Peak Road – Tam Mi | 2-way | 2,125 ⁽²⁾ | 1,500 | 1,175 | 0.71 | 0.55 | 1,710 | 1,295 | 0.80 | 0.61 |
| L2 | Fairview Park Boulevard | EB | 2,600 ⁽³⁾ | 1,020 | 830 | 0.39 | 0.32 | 1,020 | 830 | 0.39 | 0.32 |
| | | WB | 2,600 ⁽³⁾ | 670 | 955 | 0.26 | 0.37 | 670 | 955 | 0.26 | 0.37 |
| L3 | Kam Pok Road | 2-way | 1,800 ⁽⁴⁾ | 615 | 380 | 0.34 | 0.21 | 880 | 505 | 0.49 | 0.28 |

| Ref. (1) | Road Link | Dir | Link Capacity (pcu/hr) | Reference Case (with Approved Scheme) | | | | Design Case (with Current Scheme) | | | |
|-------------|-------------------|-------|------------------------------|--|-------|-----------|------|--------------------------------------|-------|-----------|------|
| | | | | Traffic Flows (pcu/hr) | | V/C Ratio | | Traffic Flows (pcu/hr) | | V/C Ratio | |
| | | | | AM | PM | AM | PM | AM | PM | AM | PM |
| L4 | Fung Chuk Road | 2-way | 100 ⁽⁵⁾ | 5 | 10 | 0.05 | 0.1 | 15 | 20 | 0.15 | 0.2 |
| L5 | Ha Chuk Yuen Road | 2-way | 100 ⁽⁵⁾ | 5 | 10 | 0.05 | 0.1 | 25 | 30 | 0.25 | 0.30 |
| L6 | San Tin Highway | NB | 6,100 ⁽⁶⁾ | 7,015 | 6,415 | 1.15 | 1.05 | 7,065 | 6,445 | 1.16 | 1.06 |
| | | SB | 6,100 ⁽⁶⁾ | 6,130 | 5,635 | 1.00 | 0.92 | 6,210 | 5,660 | 1.02 | 0.93 |

Remarks: (1) Refer to **Drawing 3.2**.

(2) Road capacity for single 2-lane rural road, with consideration of roadside activities.

(3) Road capacity for dual-2 lane local distributor.

(4) Road capacity for single-2 lane local distributor.

(5) Road capacity for single-track access road.

(6) Road capacity for dual-3 lane trunk road.

5.1.10 The results of the assessment as shown in **Table 5.2** indicated that all identified road links, except San Tin Highway (L1) would operate within capacities under reference case (with approved scheme) and design case (with current scheme).

5.1.11 Under the design year 2034, the v/c ratio of San Tin Highway would reach between 1.0 and 1.2, meaning that the traffic speed would be reduced, but would still be manageable. As mentioned in **Section 4.2**, a NM Highway has been planned by the government, and the traffic pressure at the existing San Tin Highway would be alleviated upon commissioning of NM Highway.

Proposed Junction Improvements for Fairview Park Interchange (J1) and Castle Peak Road – Tam Mi /Kam Pok Road (J6)

5.1.12 To resolve the foreseeable traffic problems, local junction improvement measures have been proposed for the planned junctions Fairview Park Interchange (J1) and Castle Peak Road – Tam Mi / Kam Pok Road (J6).

5.1.13 For the planned junction Fairview Park Interchange (J1), it is proposed to widen the approach arms of Fairview Park Boulevard, San Tin Highway Slip Road northbound and San Tam Road southbound, and also provide an exclusive left-turn for San Tin Highway Slip Road southbound to enhance the junction capacity. The indicative junction improvement scheme is shown in **Drawing 5.5**. For Castle Peak Road – Tam Mi /Kam Pok Road (J6), it is proposed to convert the junction from priority-controlled to roundabout. The indicative junction improvement scheme is shown in **Drawing 5.6** and the relevant swept path analysis, which demonstrates the adequacy of turning areas provided, is presented in **Appendix G**. The proposed junction improvement works, as shown in **Drawings 5.5 and 5.6**, will be implemented by the proposed development.

Proposed Junction Improvement for Kam Pok Road/Ha Chuk Yuen Road (J5) and Proposed Road Improvement at Fung Chuk Road

5.1.14 Currently, Fung Chuk Road and Ha Chuk Yuen Road are single track access roads. Considering the development traffic will access the second access via both roads, enhancements have been proposed on these two roads under the proposed development, with a view to enhance the resilience of Fung Chuk Road and Ha Chuk Yuen Road.

5.1.15 For the junction Kam Pok Road/Ha Chuk Yuen Road (J5), the arm of Ha Chuk Yuen Road is proposed to be widened to provide a passing place and allow vehicles to turn onto Ha Chuk Yuen Road without being obstructed by the vehicle waiting to exit. The indicative junction improvement scheme is shown in **Drawing 5.6**. For Fung Chuk Road, an additional passing place is proposed to allow vehicle to pass each other. The indicative road improvement scheme is shown in **Drawing 5.7**. The above road improvement works, as shown in **Drawings 5.6 and 5.7**, will be implemented under the proposed development.

Junction Operational Performance with Improvement Schemes

5.1.16 The operational performances of the junction Fairview Park Interchange (J1) and Castle Peak Road – Tam Mi/Kam Pok Road (J6) were re-assessed based on the proposed improvement schemes. The results are summarized in **Table 5.3**.

Table 5.3 Year 2034 Junction Operational Performance with Proposed Improvement Schemes

| Ref. | Junction | Type | 2034 Design Case | |
|------|--|------------|-----------------------|---------|
| | | | Reserve Capacity (RC) | |
| | | | AM Peak | PM Peak |
| J1 | Fairview Park Interchange ⁽¹⁾ | Roundabout | 0.84 | 0.80 |
| J6 | Castle Peak Road – Tam Mi/ Kam Pok Road ⁽²⁾ | Roundabout | 0.46 | 0.48 |

Remarks: (1) Based on the proposed junction improvement works on **Drawing 5.5**.

(2) Based on the proposed junction improvement works on **Drawing 5.6**.

5.1.17 The results of the junction assessments as shown in **Table 5.3** indicated that the junction Fairview Park Interchange (J1) and Castle Peak Road – Tam Mi/Kam Pok Road (J6) could be alleviated with the proposed improvement schemes at the design year 2034.

Queue Length Assessment

5.1.18 Queue length assessment on identified junctions has also been conducted based on the existing/proposed junction layouts. The results with the calculation sheets are shown in **Appendix I**.

5.1.19 The results of the assessment in **Appendix I** indicated that the trips generated/attracted by the proposed development will not cause traffic queue back to the adjacent junction.

Junction Assessment under the Scenario without Y/YL-MP/10 and Sha Po Public Housing Development

5.1.20 The above junction assessment has taken into account of the planned junction improvement works proposed by Y/YL-MP/10 and Sha Po Public Housing Development. In case there is a programme mismatch between the subject site and these two planned developments, an alternative junction improvement works at Fairview Park Interchange (J1) is proposed by the subject application. It is proposed to widen the approach arms of Castle Peak Road-Tam Mi northbound, San Tin Highway Slip Road southbound and provide an additional exclusive left-turn lane at San Ting Highway Slip Road northbound. The indicative junction improvement works is illustrated in **Drawing 5.8**. The road improvement works as shown in **Drawing 5.8** will be implemented under the proposed development if there is a programme mismatch between the subject site and the development of Y/YL-MP10 and Sha Po Public Housing Development. The junction design/arrangement would be submitted to the satisfaction of the relevant departments during detailed design stage.

5.1.21 The design flows at Fairview Park Interchange (J1) excluding these two planned developments are presented in **Appendix H**. The operational performance of the junction Fairview Park Interchange (J1) was re-assessed based on the improvement scheme in **Drawing 5.8** and the design flows in **Appendix H**. The result is summarized in **Table 5.4**.

Table 5.4 Year 2034 Junction Operational Performance with Junction Improvement Scheme (under the scenario without Y/YL-MP/10 and Sha Po Public Housing Development)

| Ref. | Junction | Type | 2034 Design Case | |
|------|--|------------|---------------------------|---------|
| | | | Ratio of flow to capacity | |
| | | | AM Peak | PM Peak |
| J1 | Fairview Park Interchange ⁽¹⁾ | Roundabout | 0.79 | 0.74 |

Remarks: (1) Based on the proposed junction improvement works on **Drawing 5.8**.

5.1.22 The results of the junction assessment as shown in **Table 5.4** indicated that the junction Fairview Park Interchange (J1) could be alleviated with the improvement scheme at the design year 2034 (under the scenario without Y/YL-MP/10 and Sha Po Public Housing Development).

5.2 Sensitivity Test 1

5.2.1 It is noted that the rezoning applications under nos. Y/YL-MP/7, Y/YL-MP/8 in close vicinity to the site are currently under processing for increasing their development densities. Thus, a sensitivity test was conducted to assess the traffic impact by assuming these potential residential developments will be completed before the design year 2034. The locations of the potential sites are illustrated in **Drawing 5.9**.

5.2.2 The development schedules and estimated trip generations of these planning applications are summarized in **Table 5.5**. The estimated trip generations were included in the traffic forecast for Sensitivity Test 1. The year 2034 design traffic flows under Sensitivity Test 1 is shown in **Drawing 5.10**.

Table 5.5 Estimated Trip Generations of Potential Residential Developments

| Planning Application | Current Zoning | Proposed Domestic Plot Ratio | No. of Units. | Trip Generations (pcu/hr) ⁽¹⁾ | | | |
|--|----------------|------------------------------|---------------|--|------|---------|------|
| | | | | AM Peak | | PM Peak | |
| | | | | GEN | ATTR | GEN | ATTR |
| Proposed Residential Development at west of Yau Pok Road (Y/YL-MP/7 & MP/8) ⁽²⁾ | REC & R(C) | about 1.2 | 2,477 | 246 | 174 | 109 | 131 |

Remarks: (1) Trip Generations extracted from the latest submitted TIA report of the planning application.

(2) The site is the subject of the previous approved planning application Y/YL-MP/3. Trip generations of the previous approved applications were excluded separately from the traffic forecast.

Junction Operational Performance for Sensitivity Test 1

5.2.3 Based on the existing/planned layouts, the results of the junction assessment for the design case under Sensitivity Test 1 are summarized in **Table 5.6**. The junction calculation sheets are attached in **Appendix J**.

Table 5.6 Junction Operational Performance at Year 2034 under Sensitivity Test 1

| Ref ⁽²⁾ | Junction | 2034 RC/RFC ⁽¹⁾ | |
|--------------------|---|--------------------------------------|---------|
| | | Design Case under Sensitivity Test 1 | |
| | | AM Peak | PM Peak |
| J1 | Fairview Park Interchange ⁽³⁾ | 0.97 | 0.83 |
| J2 | Fairview Park Boulevard / Kam Pok Road | 46% | 46% |
| J3 | Kam Pok Road / Vehicular Bridge (South) | 36% | >100% |
| J4 | Kam Pok Road / Vehicular Bridge (North) ⁽⁴⁾ | 16% | >100% |
| J5 | Kam Pok Road / Ha Chuk Yuen Road | 0.1 | 0.08 |
| J6 | Castle Peak Road – Tam Mi / Kam Pok Road ⁽⁵⁾ | 0.52 | 0.53 |
| J7 | Kam Pok Road / Fung Chuk Road | 0.04 | 0.04 |
| J8 | Kam Pok Road / Site Main Entrance ⁽⁶⁾ | 0.38 | 0.14 |

Remarks:

(1) RC = reserve capacity, RFC = ratio of flow to capacity.

(2) Locations refer to **Drawing 3.2**.

(3) Based on the proposed junction layout as illustrated in **Drawing 5.5**.

(4) Based on the planned junction layout as illustrated in **Drawing 5.2**.

(5) Based on the proposed junction layout as illustrated in **Drawing 5.6**.

(6) Based on the junction layout as illustrated in **Drawing 5.4**.

5.2.4 The results of the assessment as shown in **Table 5.6** indicated that all identified key junctions would operate within capacities under the design case in Sensitivity Test 1, except Fairview Park Interchange (J1).

Road Link Performance for Sensitivity Test 1

5.2.5 Apart from junction capacity assessment, the road link operation performance was also undertaken for both reference and design scenarios. Based on the existing road layouts with traffic forecast, the results of the assessment are summarized in **Table 5.7**.

Table 5.7 Year 2034 Road Link Operational Performance for Design Case under Sensitivity Test 1

| Ref. (1) | Road Link | Dir | Link Capacity (pcu/hr) | Design Case under Sensitivity Test 1 | | | |
|-------------|---------------------------|-------|------------------------|--------------------------------------|-------|-----------|------|
| | | | | Traffic Flows (pcu/hr) | | V/C Ratio | |
| | | | | AM | PM | AM | PM |
| L1 | Castle Peak Road – Tam Mi | 2-way | 2,125 ⁽²⁾ | 1,915 | 1,420 | 0.90 | 0.67 |
| L2 | Fairview Park Boulevard | EB | 2,600 ⁽³⁾ | 1,020 | 830 | 0.39 | 0.32 |
| | | WB | 2,600 ⁽³⁾ | 670 | 955 | 0.26 | 0.37 |
| L3 | Kam Pok Road | 2-way | 1,800 ⁽⁴⁾ | 1,170 | 665 | 0.65 | 0.37 |
| L4 | Fung Chuk Road | 2-way | 100 ⁽⁵⁾ | 15 | 20 | 0.15 | 0.20 |
| L5 | Ha Chuk Yuen Road | 2-way | 100 ⁽⁵⁾ | 25 | 30 | 0.25 | 0.30 |
| L6 | San Tin Highway | NB | 6,100 ⁽⁶⁾ | 7,145 | 6,510 | 1.17 | 1.07 |
| | | SB | 6,100 ⁽⁶⁾ | 6,335 | 5,710 | 1.04 | 0.94 |

Remarks: (1) Refer to **Drawing 3.2**.

(2) Road capacity for single 2-lane rural road, with consideration of roadside activities.

(3) Road capacity for dual-2 lane local distributor.

(4) Road capacity for single-2 lane local distributor.

(5) Road capacity for single-track access road.

(6) Road capacity for dual-3 lane trunk road.

5.2.6 The assessment results in **Table 5.7** indicated that all identified road links except San Tin Highway (L6) would operate within capacities under the design case in Sensitivity Test 1. Similar to the design case, the v/c ratio of San Tin Highway would reach between 1.0 and 1.2 under the design 2034 meaning that the traffic speed would be reduced, but would still be manageable. The traffic pressure at the existing San Tin Highway would be alleviated upon commissioning of NM Highway.

Suggested Junction Improvement for Fairview Park Interchange (J1)

To resolve the foreseeable traffic problem under the sensitivity test, a local junction improvement measure has been suggested for the proposed junction Fairview Park Interchange (J1). It is further proposed to widen the approach arms of Castle Peak Road – Tam Mi northbound and provide an exclusive left-turn for Castle Peak Road – Tam Mi southbound to enhance the junction capacity. Details of junction improvement scheme are shown in **Drawing 5.11**. The above junction improvement works, as shown in **Drawing 5.11**, will be implemented under the proposed development, if the rezoning of applications Y/YL/MP7 and Y/YL/MP8 are approved by RNTPC prior to the approval of this application.

5.2.7 The operational performance of the junction Fairview Park Interchange (J1) was re-assessed based on the suggested improvement scheme. The result is summarized in **Table 5.8**.

Table 5.8 Year 2034 Junction Operational Performance with Suggested Improvement Scheme

| Ref. | Junction | Type | 2034 Design Case | |
|------|--|------------|---------------------------|---------|
| | | | Ratio of flow to capacity | |
| | | | AM Peak | PM Peak |
| J1 | Fairview Park Interchange ⁽¹⁾ | Roundabout | 0.84 | 0.83 |

Remarks: (1) Based on the suggested junction improvement works on **Drawing 5.11**.

5.2.8 The results of the junction assessment as shown in **Table 5.8** indicated that the junction Fairview Park Interchange (J1) could be alleviated with the suggested improvement scheme at the design year 2034.

5.3 Pedestrian Assessment

5.3.1 The footpaths at Kam Pok Road and Fairview Park Boulevard would be the main pedestrian route to/from the application site. Two sections of the concerned footpaths have been identified for assessment and the location of the two sections are shown in **Drawing 5.12**. Based on a pedestrian head count survey on a typical weekday in April 2025, the observed two-way pedestrian flows at the concerned footpaths during the critical AM peak hour are summarized in **Table 5.9**. The observed pedestrian flows are found to be minimal.

Table 5.9 Observed Pedestrian Flows during Peak Hours

| Ref ⁽¹⁾ | Section | Existing Footpath Width | Observed Two-way Pedestrian Flows during AM Peak (ped/hr) |
|--------------------|-------------------------|-------------------------|---|
| P1 | Kam Pok Road | 1.5m | 75 |
| P2 | Fairview Park Boulevard | 2m | 45 |

Remark: (1) Locations refer to **Drawing 5.12**.

5.3.2 The proposed development will provide 1,303 units with about 3,519 population. There is a planned residential development at Kam Pok Road (i.e. approved planning application Y/YL-MP/10) to the north of the application site. Two other application sites under rezoning applications nos. Y/YL-MP/7 & Y/YL-MP/8 are also located in the close proximity to the site. The estimated pedestrian trips of the proposed development together with these planned/potential developments are summarised in **Table 5.10**.

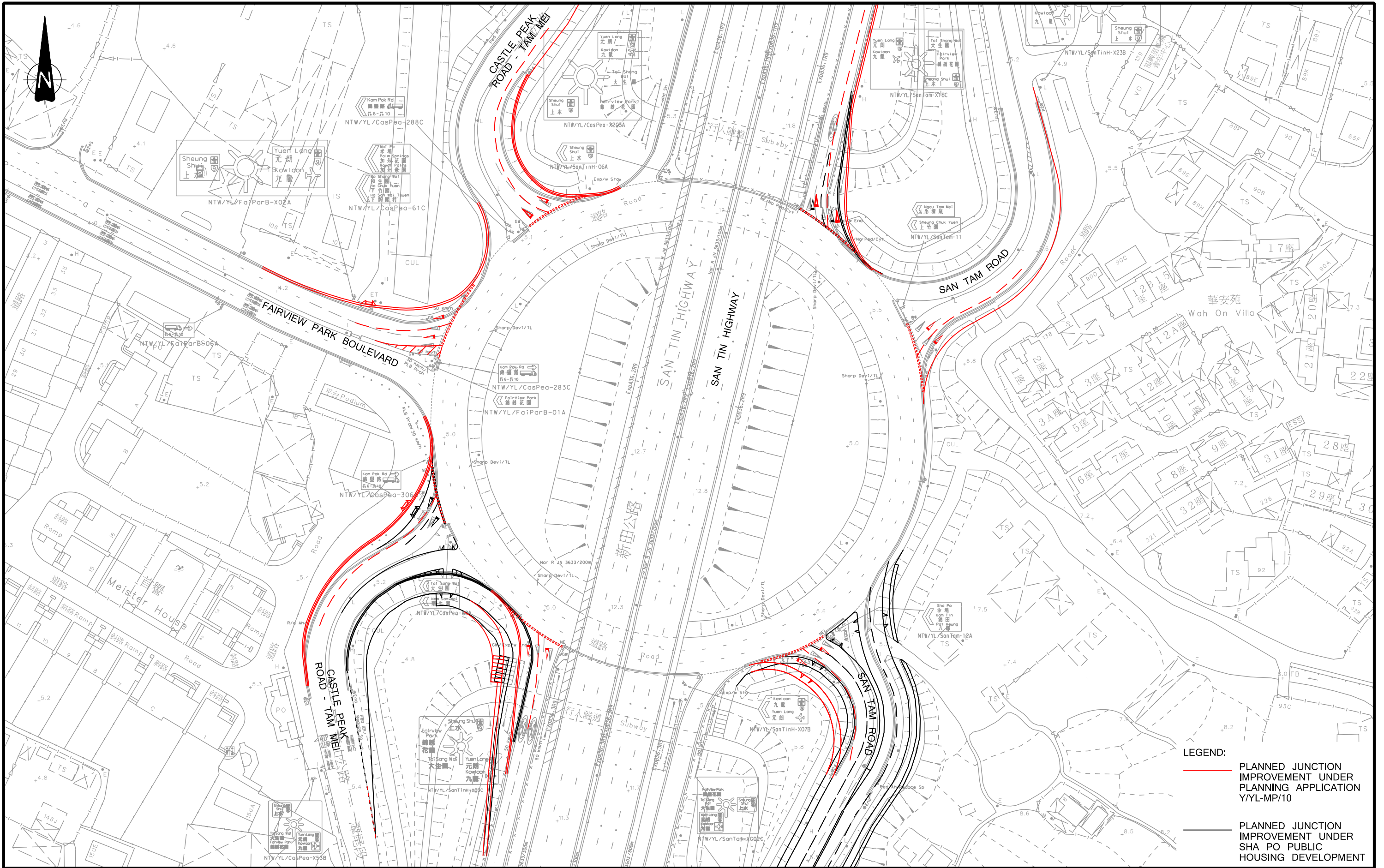
Table 5.10 Estimated Pedestrian Trips during Peak Hours

| Development | No. of Units | Estimated Population | Estimated Pedestrian Trips during peak hours (ped/hr) |
|---|--------------|----------------------|--|
| Proposed Development | 1,303 | 3,519 ⁽¹⁾ | 773 ⁽¹⁾ |
| Planned Residential Development at Kam Pok Road with Transport Layby (Approved planning application Y/YL-MP/10) | 2,322 | 6,270 ⁽²⁾ | 1,005 for PT trips and 372 non-PT trips ⁽²⁾ |
| Potential Residential Development at Yau Pok Road with Transport Laybys under planning applications Y/YL-MP/7 & Y/YL-MP/8 | 2,477 | 6,688 ⁽²⁾ | 1,072 for PT trips and 397 for non-PT trips ⁽²⁾ |

Remark: (1) Refer to **Table 4.5**.

(2) Information extracted from its planning application.

5.3.3 As discussed in **Section 4.2.24**, the public transport demands of the planned/potential developments (i.e. Y/YL-MP/7, Y/YL-MP/8 & Y/YL-MP/10) would be served by the future bus services in their proposed Transport Layby within their sites. By assuming that all the pedestrian trips of the proposed development and the non-PT trips of the adjacent developments would all be loaded into the two concerned footpaths for a worst-case scenario, the pedestrian trips generated from all the proposed/planned/potential developments to the nearby footpaths are 1542 ped/hr (i.e. 773 + 372 + 397 = 1,542) during peak hours. The 1.5m wide footpaths at Kam Pok Road, which can serve at a capacity of 2970 ped/hr based on satisfactory LOS C at flow rate of 33 ped/min/m, and the 2m wide footpath at Fairview Park Boulevard, which can serve at a capacity of 3,960 based on satisfactory LOS C at flow rate of 33 ped/min/m, should have sufficient capacities to cater for the future pedestrian demands in the area.



LEGEND:

- PLANNED JUNCTION IMPROVEMENT UNDER PLANNING APPLICATION Y/YL-MP/10
- PLANNED JUNCTION IMPROVEMENT UNDER SHA PO PUBLIC HOUSING DEVELOPMENT

| Rev. | Description | Checked | Date |
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Project Title

PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

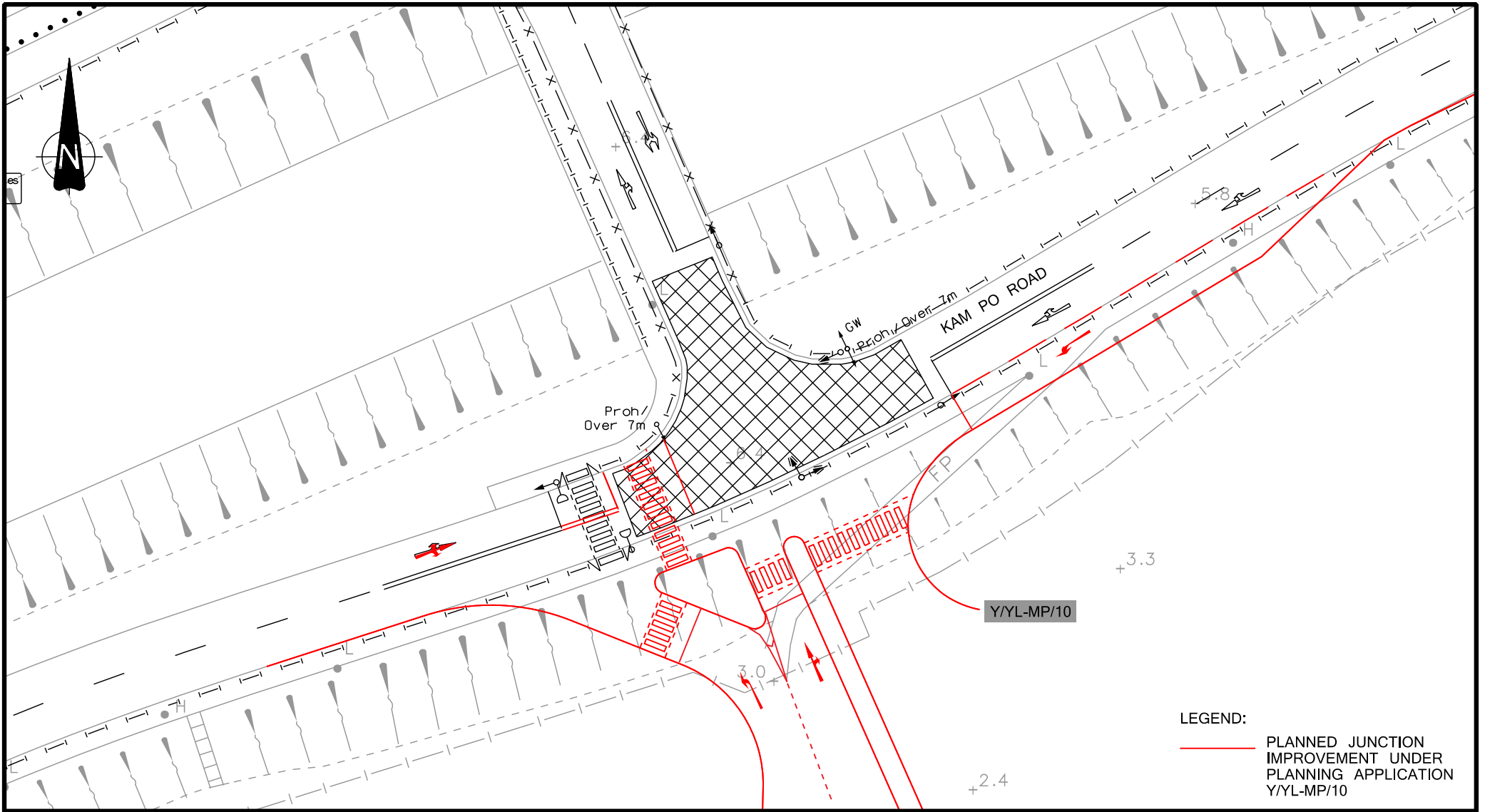
Drawing Title

PLANNED JUNCTION IMPROVEMENT LAYOUT OF FAIRVIEW PARK INTERCHANGE (J1)

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|----------|-----|---------|-----|-------|------------|------|----------|-------------|------------|------|---|
| Designed | HZF | Checked | PTC | Scale | 1:1000(A3) | Date | JUN 2025 | Drawing No. | 5.1 | Rev. | - |
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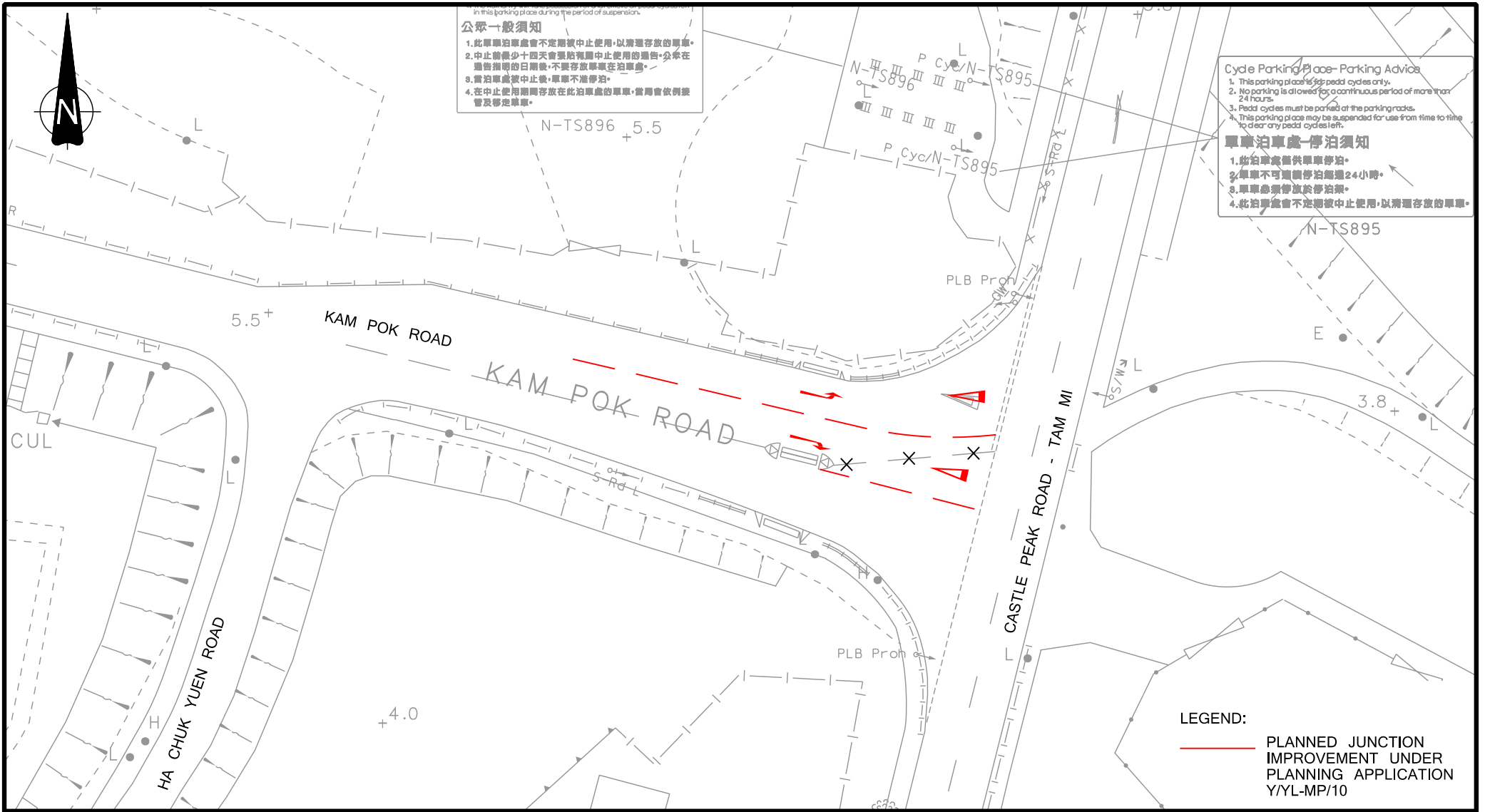


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| Project Title | | | | Drawing Title | | | | | | | |
| PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG | | | | PLANNED JUNCTION IMPROVEMENT LAYOUT OF KAM POK ROAD / VEHICULAR BRIDGE - NORTH / VEHICULAR ACCESS (J4) | | | | | | | |
| Designed | HZF | Checked | PTC | Scale | 1:500(A4) | Date | JUN 2025 | | | | |


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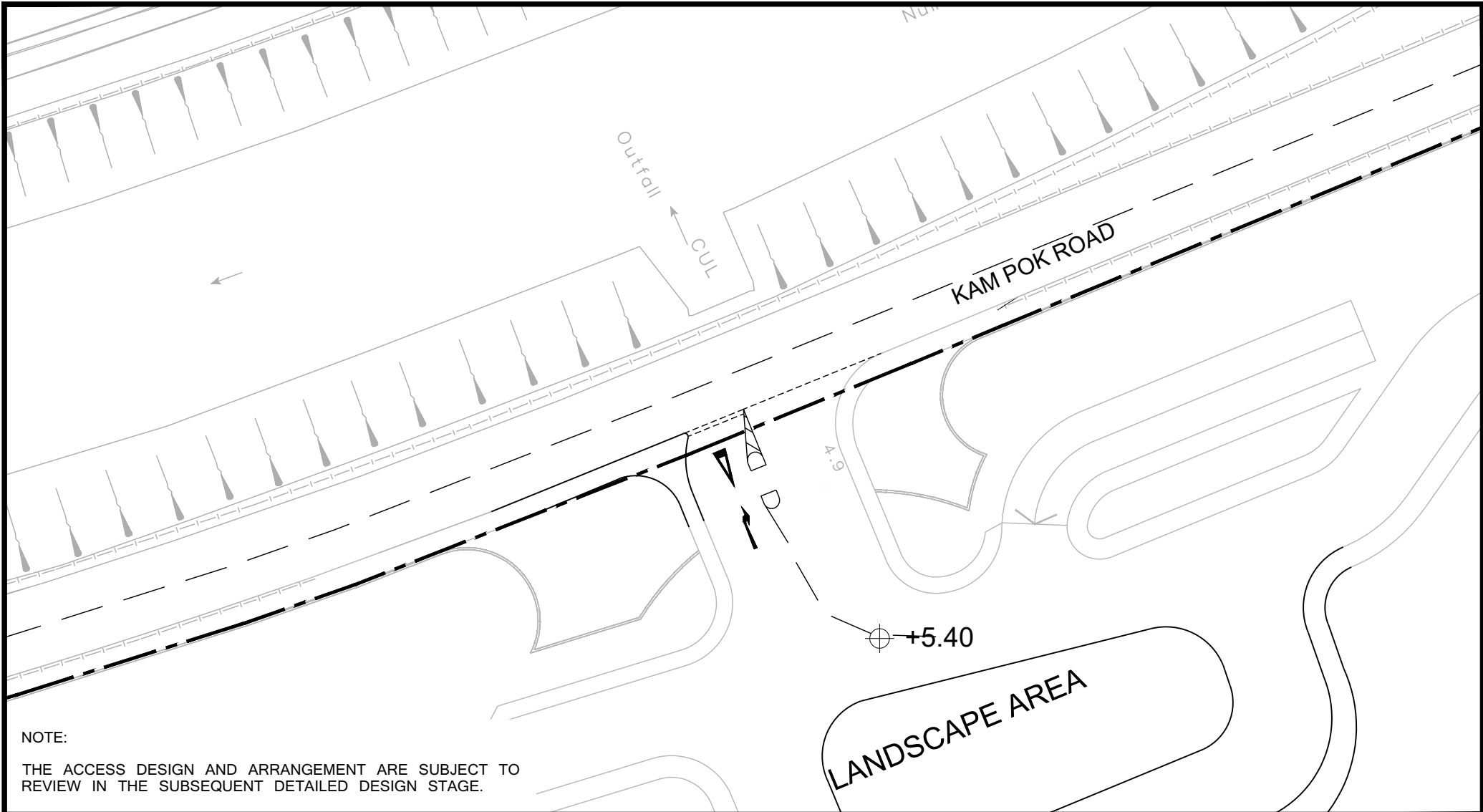
In this parking place during the period of suspension.
公眾一般須知
 1. 此單車泊車處會不定期被中止使用，以清理存放的單車。
 2. 中止前最少十四天會張貼有關中止使用的通告，公眾在通告指明的日期後，不要存放單車在泊車處。
 3. 當泊車處被中止後，單車不准停泊。
 4. 在中止使用期間存放在此泊車處的單車，當期會依例變賣及移走單車。

Cycle Parking Place- Parking Advice
 1. This parking place is for pedall cycles only.
 2. No parking is allowed for a continuous period of more than 24 hours.
 3. Pedall cycles must be parked at the parking racks.
 4. This parking place may be suspended for use from time to time to clear any pedall cycles left.
單車泊車處-停泊須知
 1. 此泊車處僅供單車停泊。
 2. 單車不可連續停泊超過24小時。
 3. 單車必須停放在停泊架。
 4. 此泊車處會不定期被中止使用，以清理存放的單車。


LEGEND:
 PLANNED JUNCTION IMPROVEMENT UNDER PLANNING APPLICATION Y/YL-MP/10

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| A MINOR AMENDMENT | | PTC | 11MAY26 | | | | | | | - | - |
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| Project Title | | | | Drawing Title | | | | | | | |
| PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4882 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG | | | | PLANNED JUNCTION IMPROVEMENT LAYOUT OF KAM POK ROAD / CASTLE PEAK ROAD - TAM MI (J6) | | | | | |  | |
| Designed | HZF | Checked | PTC | Scale | 1:500(A4) | Date | JUN 2025 | Drawing No. | 5.3 | | |

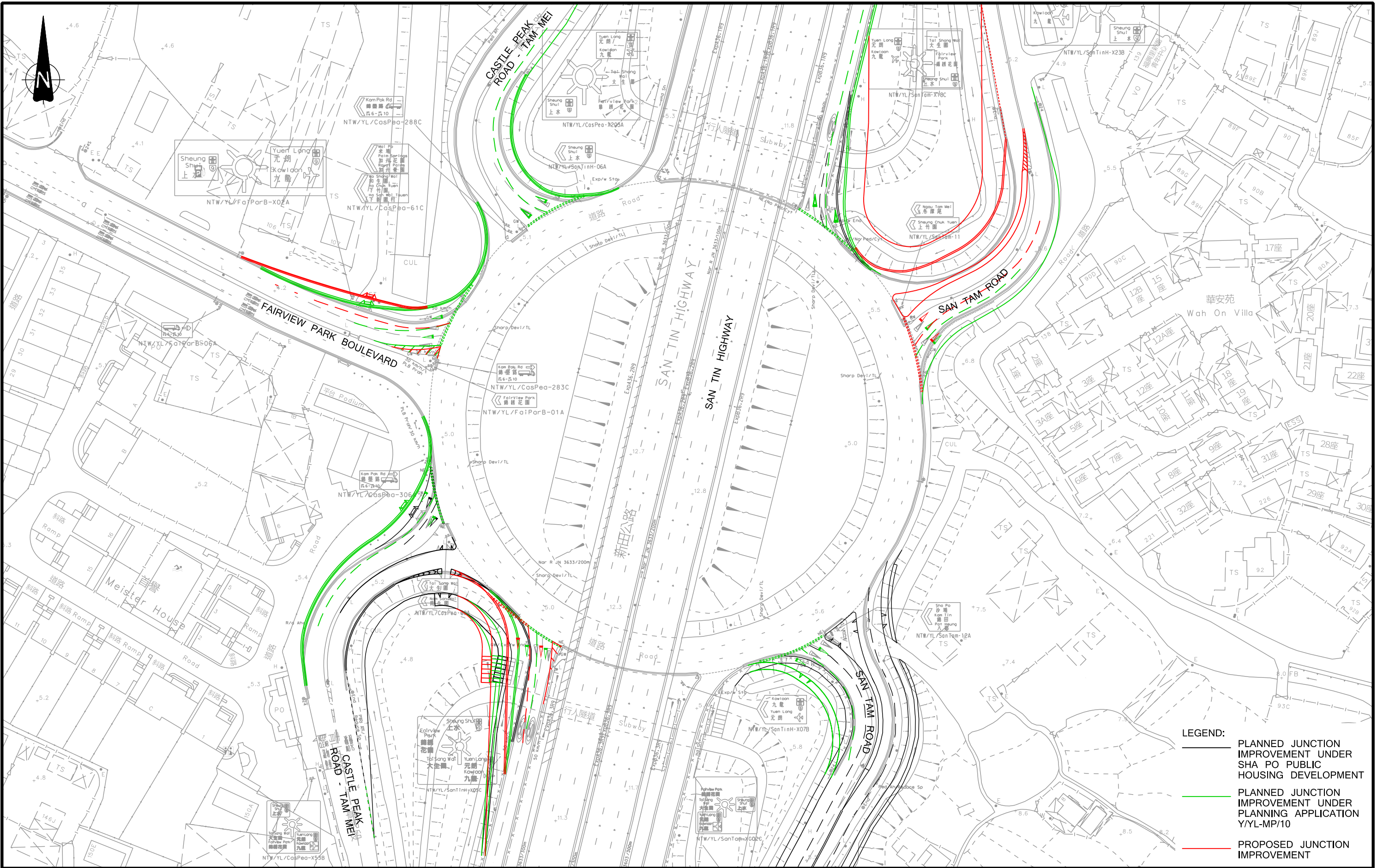
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NOTE:
 THE ACCESS DESIGN AND ARRANGEMENT ARE SUBJECT TO
 REVIEW IN THE SUBSEQUENT DETAILED DESIGN STAGE.

| A MINOR AMENDMENT | | | | B MINOR AMENDMENT | | | | | | | |
|---|-------------|---------|---------|---|-------------|----------|---------|---|-------------|---------|------|
| Rev. | Description | Checked | Date | Rev. | Description | Checked | Date | Rev. | Description | Checked | Date |
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| Project Title | | | | Drawing Title | | | | | | | |
| PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4882 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG | | | | JUNCTION LAYOUT OF KAM POK ROAD/SITE MAIN ENTRANCE (J8) | | | |  | | | |
| Designed | | Checked | | Scale | | Date | | Drawing No. | | Rev. | |
| CWH | | PTC | | 1:500(A4) | | MAY 2026 | | 5.4 | | B | |

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- LEGEND:**
- PLANNED JUNCTION IMPROVEMENT UNDER SHA PO PUBLIC HOUSING DEVELOPMENT
 - PLANNED JUNCTION IMPROVEMENT UNDER PLANNING APPLICATION Y/YL-MP/10
 - PROPOSED JUNCTION IMPROVEMENT

| Rev. | Description | Checked | Date |
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| - | - | - | - |
| B | MINOR AMENDMENT | PTC | 11MAY26 |
| A | MINOR AMENDMENT | PTC | 12MAR26 |

Project Title
 PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
PROPOSED JUNCTION IMPROVEMENT LAYOUT OF FAIRVIEW PARK INTERCHANGE (J1)

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General Advice to Public

- This cycle parking place may be suspended for use from time to time to clear any dead cycles left.
- A notice regarding suspension of use will be posted at least 14 days prior to the suspension. The public shall not leave their dead cycles in this parking place after the date specified in the notice.
- No parking of dead cycles is allowed during the suspension period of this parking place.
- The Authority will take possession of and remove all dead cycles left in this parking place during the period of suspension.

公眾一般須知

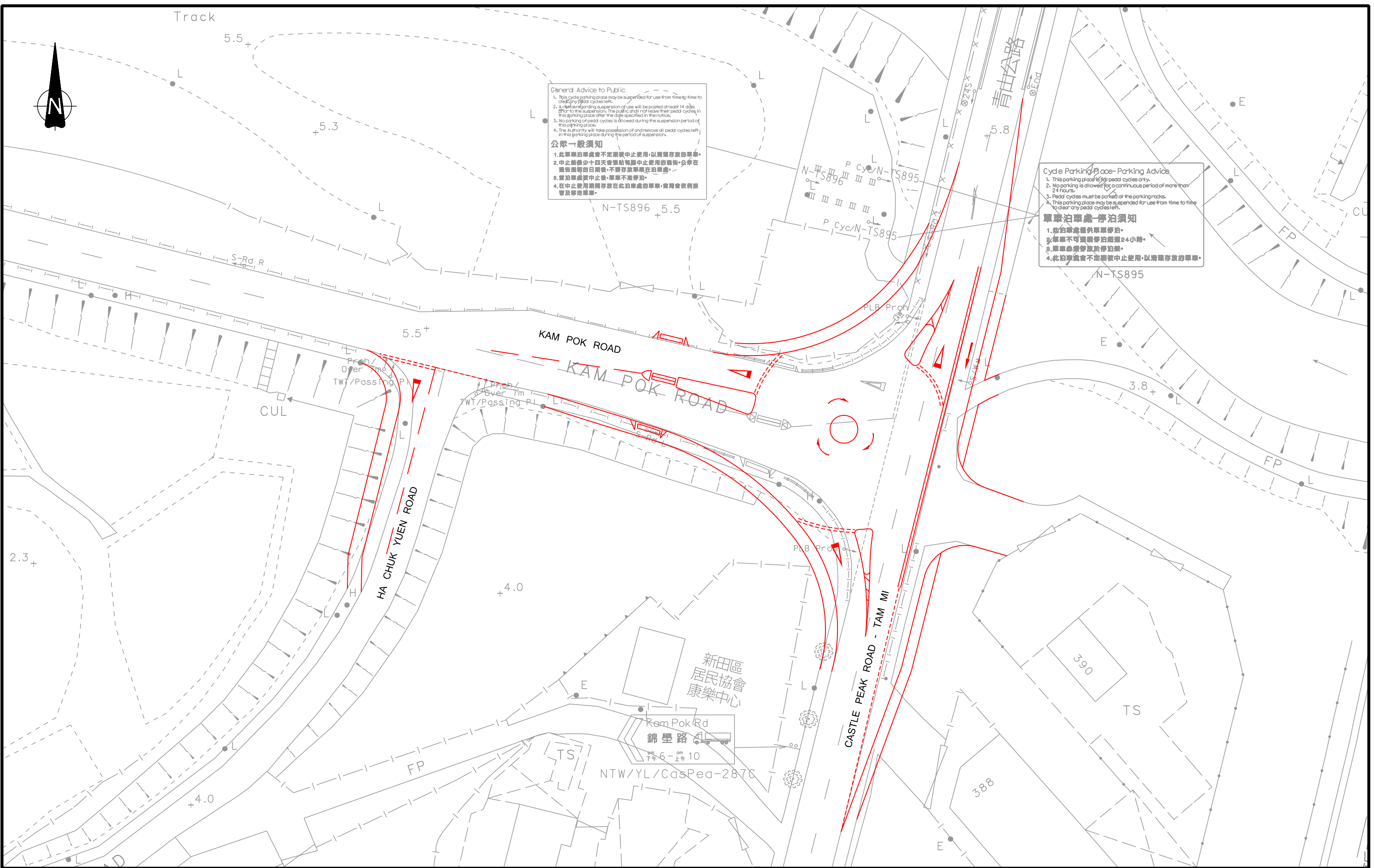
- 此單車泊車處會不定期被中止使用，以清理存放的單車。
- 中止前最少十四天會張貼有關中止使用的通告，公眾在通告指定的日期後，不要存放單車在泊車處。
- 當泊車處被中止後，單車不准停放。
- 在中止使用期間存放在此泊車處的單車，當局會依例接管及移走單車。

Cycle Parking Place - Parking Advice

- This parking place is for pedal cycles only.
- No parking is allowed for a continuous period of more than 24 hours.
- Pedal cycles must be parked at the parking racks.
- This parking place may be suspended for use from time to time to clear any dead cycles left.

單車泊車處 - 停泊須知

- 此泊車處僅供單車停泊。
- 單車不可連續停泊超過24小時。
- 單車必須停放在單車架。
- 此泊車處會不定期被中止使用，以清理存放的單車。



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| A | MINOR AMENDMENT | PTC | 11MAY26 |

Project Title

PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4882
 IN D.D. 104 AND ADJOINING GOVERNMENT LAND,
 EAST OF KAM POK ROAD, MAI PO, YUEN LONG

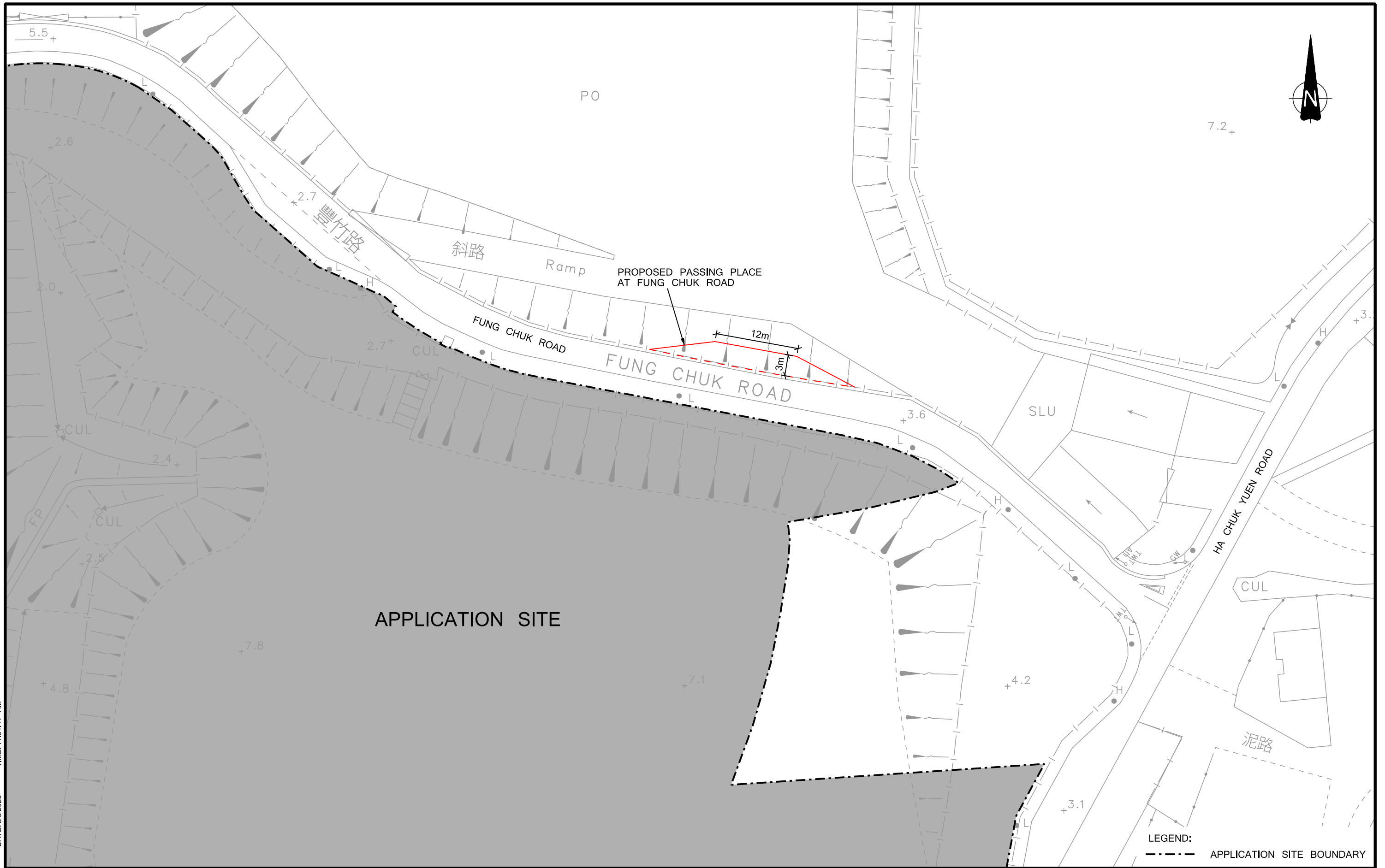
Drawing Title

**PROPOSED JUNCTION IMPROVEMENT LAYOUTS OF
 KAM POK ROAD / HA CHUK YUEN ROAD (J5) AND
 KAM POK ROAD / CASTLE PEAK ROAD - TAM MI (J6)**

Designed: HZF Checked: PTC Scale: 1:500(A3) Date: FEB 2026 Drawing No.: 5.6 Rev.: A



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APPLICATION SITE

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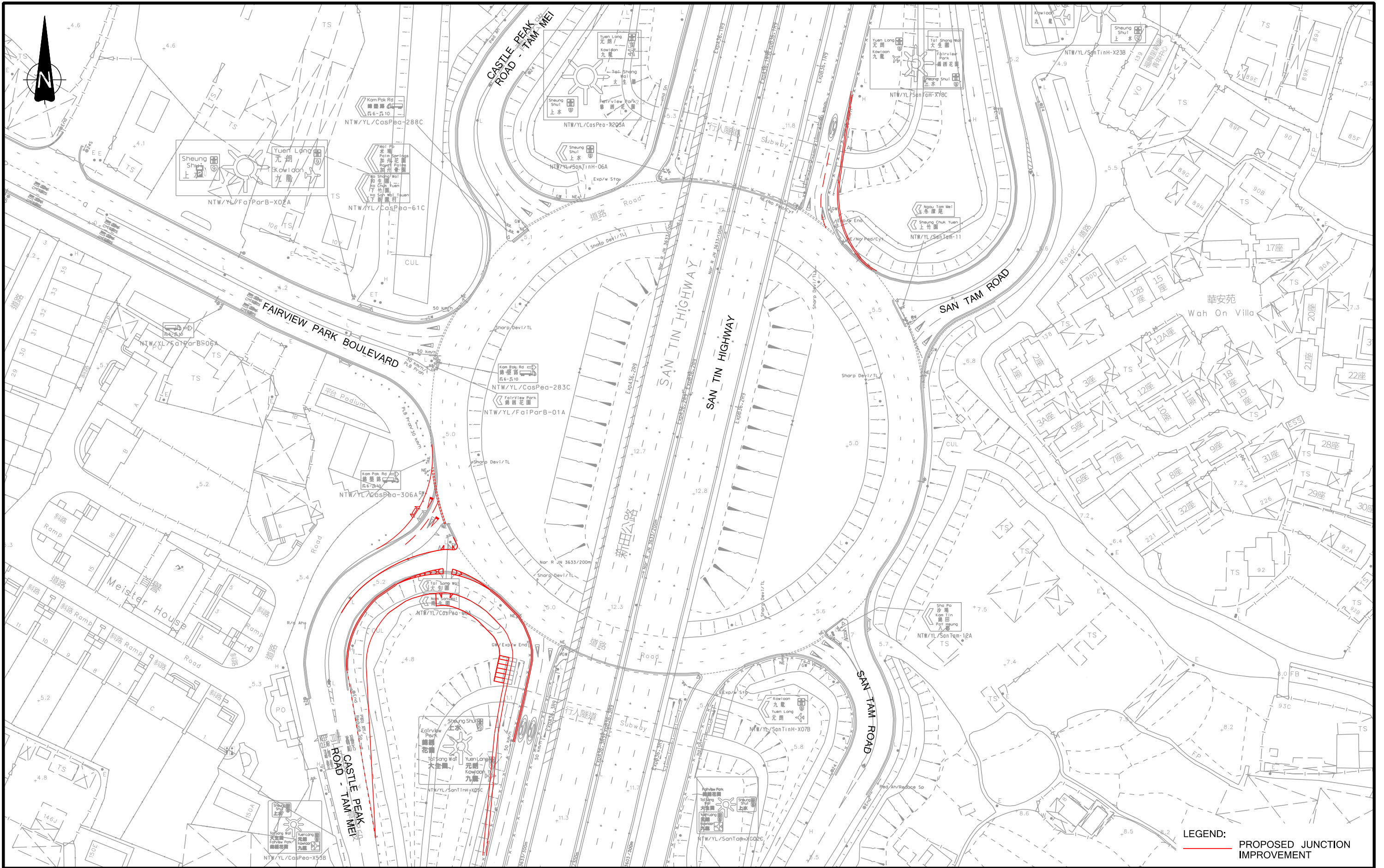
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| A | MINOR AMENDMENT | PTC | 08DEC25 |

Project Title
 PROPOSED RESIDENTIAL DEVELOPMENT AT
 LOT NO. 4882 IN D.D. 104 AND ADJOINING GOVERNMENT LAND,
 EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
PROPOSED IMPROVEMENT AT FUNG CHUK ROAD

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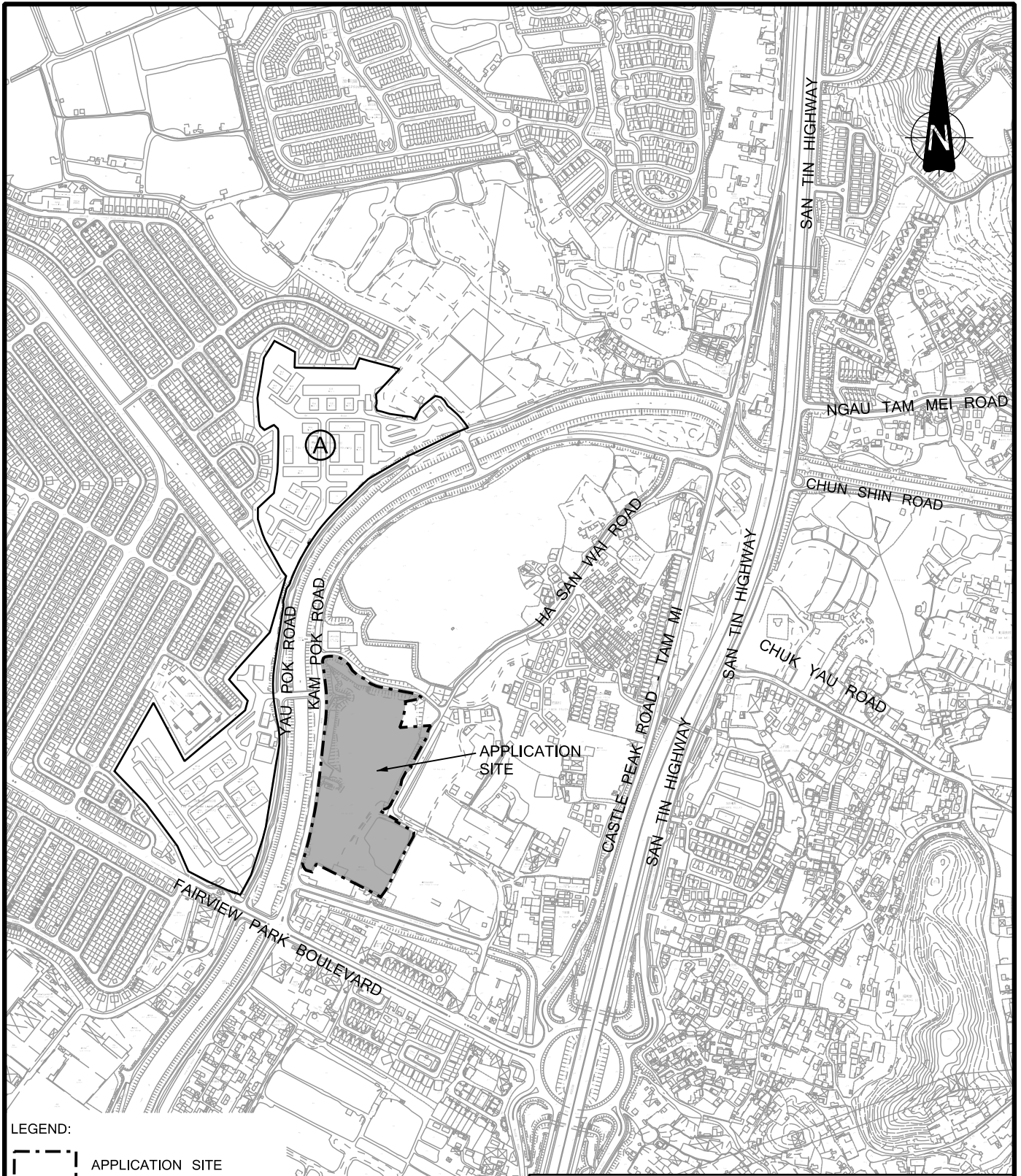
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| A | MINOR AMENDMENT | PTC | 11DEC25 |

Project Title
PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
PROPOSED JUNCTION IMPROVEMENT LAYOUT OF FAIRVIEW PARK INTERCHANGE (J1) (UNDER THE SCENARIO WITHOUT Y/YL-MP/10 AND SHA PO DEVELOPMENT)

Designed HZF Checked PTC Scale 1:1000(A3) Date MAR 2026 Drawing No. 5.8 Rev. C





LEGEND:

- APPLICATION SITE
- POTENTIAL DEVELOPMENT

POTENTIAL DEVELOPMENTS:

A) PROPOSED RESIDENTIAL DEVELOPMENTS IN REC & R(C) ZONES AT YAU POK ROAD (Y/L-MP/7 & MP/8).

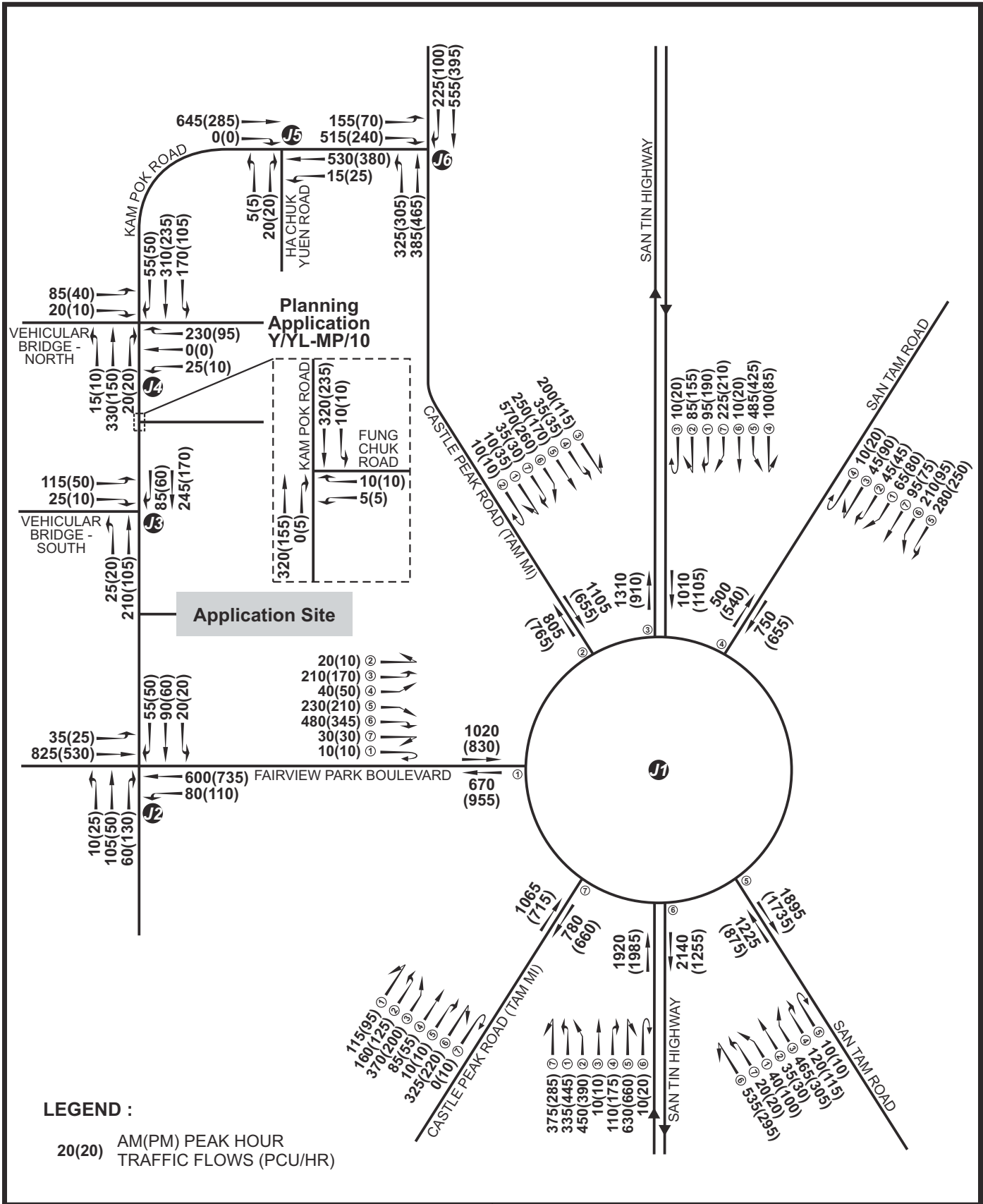
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| B | MINOR AMENDMENT | PTC | 5MAY26 | - | - | - | - |
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Project Title
 PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
LOCATIONS OF POTENTIAL DEVELOPMENTS



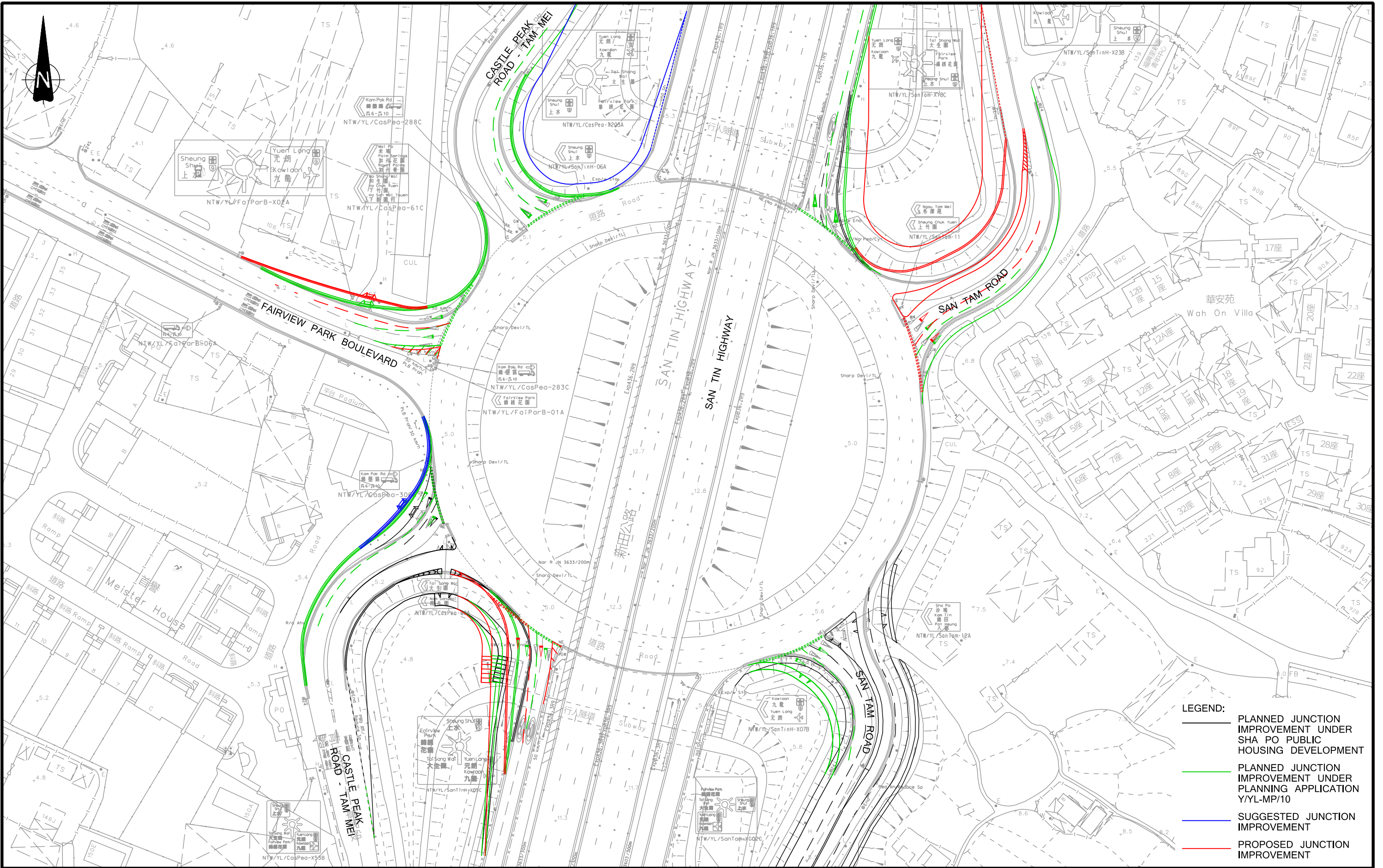
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| A | TRAFFIC FLOWS UPDATED | PTC | 11DEC25 | - | - | | |
| Rev. | Description | Checked | Date | Rev. | Description | Checked | Date |
| Project Title | | | | PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D.104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG | | | |
| Drawing Title | | | | YEAR 2034 DESIGN TRAFFIC FLOWS (SENSITIVITY TEST 1) | | | |
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| | | | | Drawing No. | 5.10 | Rev. | A |



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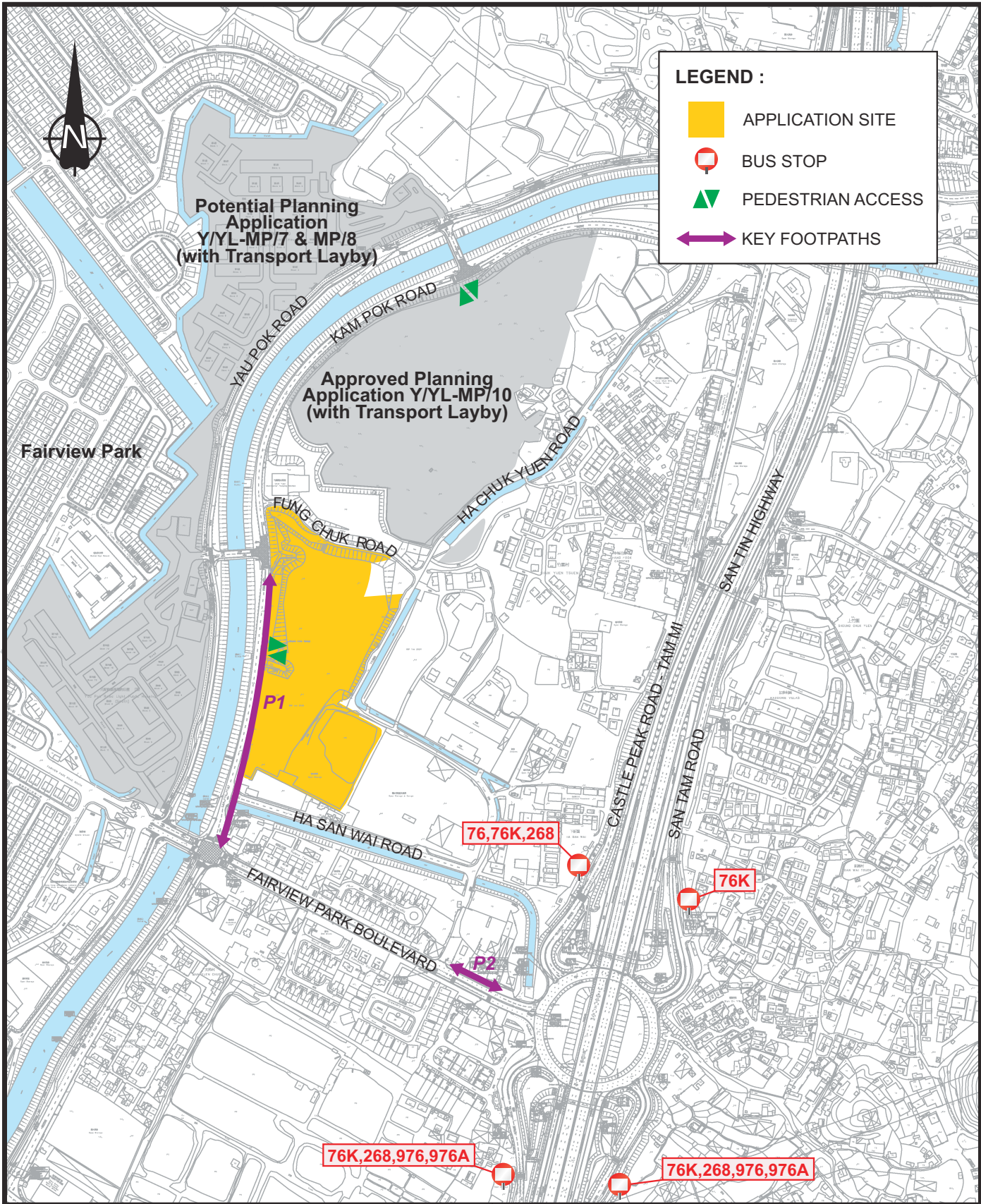
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Project Title
PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D. 104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
SUGGESTED JUNCTION IMPROVEMENT LAYOUT OF FAIRVIEW PARK INTERCHANGE (J1)

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Project Title
PROPOSED RESIDENTIAL DEVELOPMENT AT LOT NO. 4822 IN D.D.104 AND ADJOINING GOVERNMENT LAND, EAST OF KAM POK ROAD, MAI PO, YUEN LONG

Drawing Title
IDENTIFIED FOOTPATHS



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6. SUMMARY & CONCLUSION

6.1 Summary

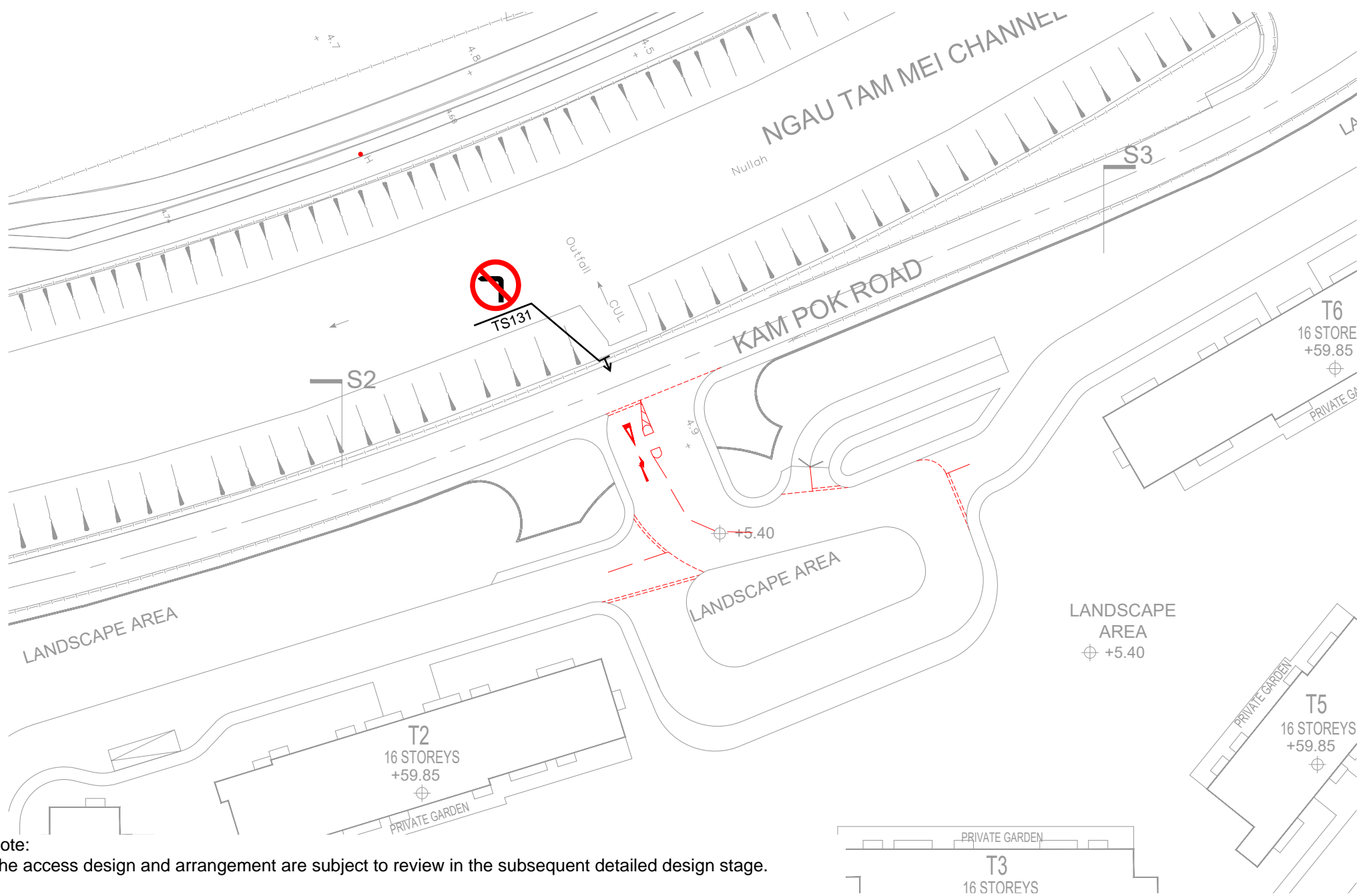
- 6.1.1 The application site comprises lot No. 4822 in D.D. 104 and adjoining government Land, east Kam Pok Road, Mai Po, Yuen Long, as indicated in **Drawing 1.1**. The Applicant proposes to increase its domestic plot ratio from 0.2 to 1.5. Under the current scheme, the proposed development will provide 5 medium-rise residential blocks of total 1,303 units, one 6-classroom kindergarten and one Elderly Activity Centre.
- 6.1.2 The main development vehicular access will be located at Kam Pok Road. The internal transport facilities provisions will be provided in accordance with the relevant guidelines stipulated in the latest HKPSG and the comments from TD.
- 6.1.3 Traffic surveys have been conducted to establish the current traffic condition in the vicinity of the site. The results of the junction and link capacity assessments have revealed that all the identified local junctions and road links are currently operating within capacities during peak hours.
- 6.1.4 The tentative operation year of proposed development is 2031. Thus, the design year of 2034 is adopted for traffic forecast and assessment purposes.
- 6.1.5 Operational performance of all identified local junctions and road links have been assessed based on the anticipated year 2034 traffic flows and the existing/planned layouts. The results of the assessment as shown in **Table 5.1** and **Table 5.2** revealed that all identified key junctions and road links will operate within capacities except the planned junctions Fairview Park Interchange (J1) and Castle Peak Road – Tam Mi/ Kam Pok Road (J6).
- 6.1.6 To resolve the foreseeable traffic problem, local junction improvement measures have been proposed for Fairview Park Interchange (J1) and Castle Peak Road – Tam Mi/Kam Pok Road (J6). According to the results of the junction assessment as shown in **Table 5.3**, the junctions J1 and J6 can operate within capacity under the proposed improvement schemes at the design year 2034. Besides, enhancements have also been proposed for junction Kam Pok Road/Ha Chun Yuen Road (J5) and Fung Chuk Road. The junction/ road improvement works as shown in **Drawings 5.5/5.8** (as appropriate), **5.6** and **5.7** will be implemented under the proposed development.
- 6.1.7 It is noted that two rezoning applications in the vicinity of the application site have been submitted for increasing their development densities. A sensitivity test (i.e. Sensitivity Test 1) has conducted to assess the traffic impact by assuming that these potential residential developments will be completed before the design year 2034. The results of the junction and link assessment under Sensitivity Test 1 revealed that all identified key junctions and road links will operate within capacities except Fairview Park Interchange (J1). A junction improvement scheme has been suggested for Fairview Park Interchange (J1). The junction improvement works, as shown in **Drawing 5.11**, will be implemented under the proposed development, if the rezoning of applications Y/YL/MP7 and Y/YL/MP8 are approved by RNTPC prior to the approval of this application.

6.2 Conclusion

- 6.2.1 In conclusion, the results of the traffic impact assessment have demonstrated that the development traffic generation by the subject site can be absorbed by the nearby road network (with implementation of junction improvement works at Fairview Park Interchange J1 and Castle Peak Road-Tam Mi/Kam Pok Road J6) and would not cause any adverse traffic impact. Hence it can be concluded that the proposed development is considered acceptable in traffic engineering perspective.

Appendix A

Potential Access Arrangement at Main Access



Note:
The access design and arrangement are subject to review in the subsequent detailed design stage.

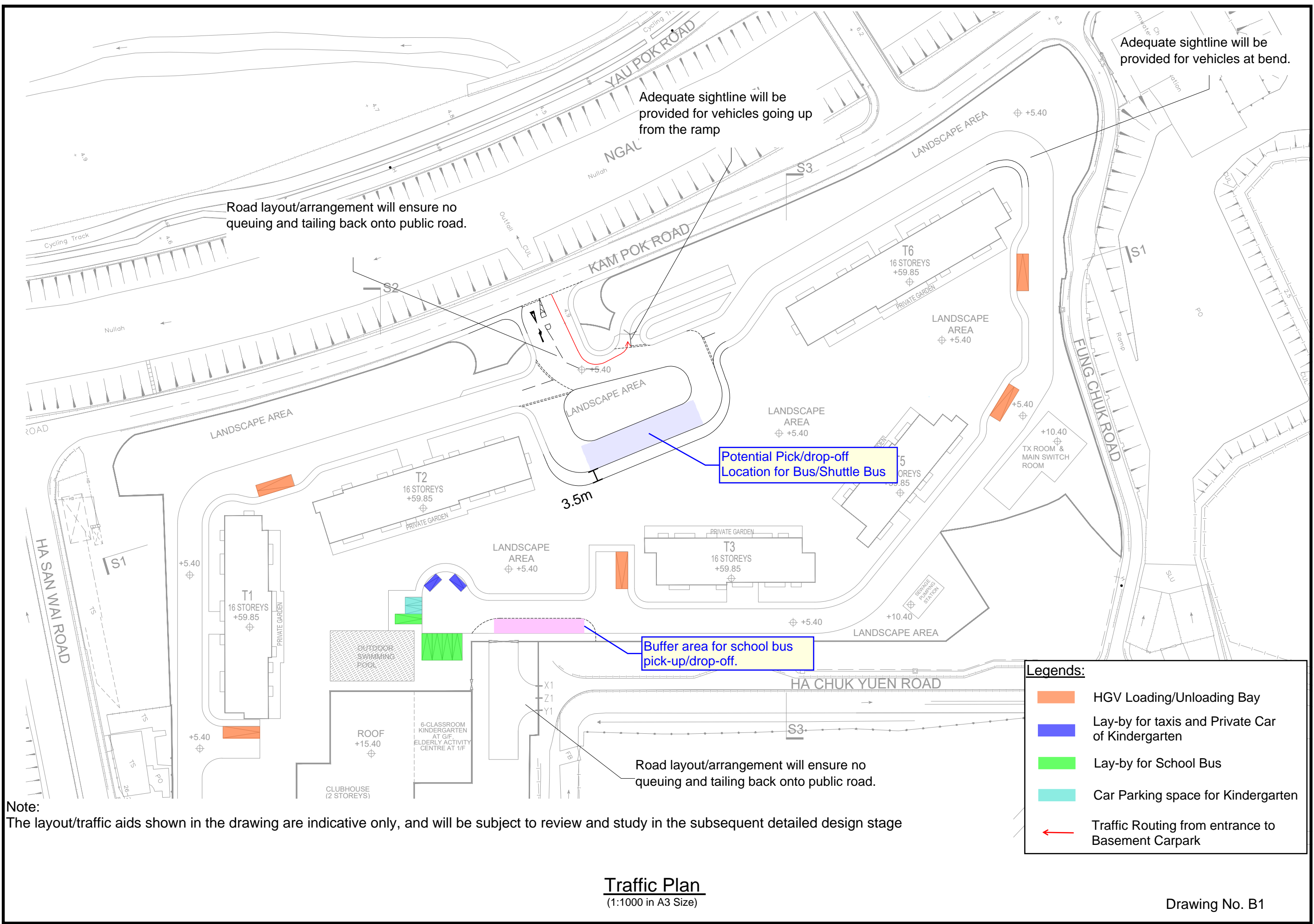
Potential Access Arrangement at Main Access

(1:800 in A4 Size)

Drawing No. A

Appendix B

Traffic Plan and Swept Path Analysis at the Proposed Vehicular Accesses and Internal Driveway



Adequate sightline will be provided for vehicles at bend.

Adequate sightline will be provided for vehicles going up from the ramp

Road layout/arrangement will ensure no queuing and tailing back onto public road.

Potential Pick/drop-off Location for Bus/Shuttle Bus

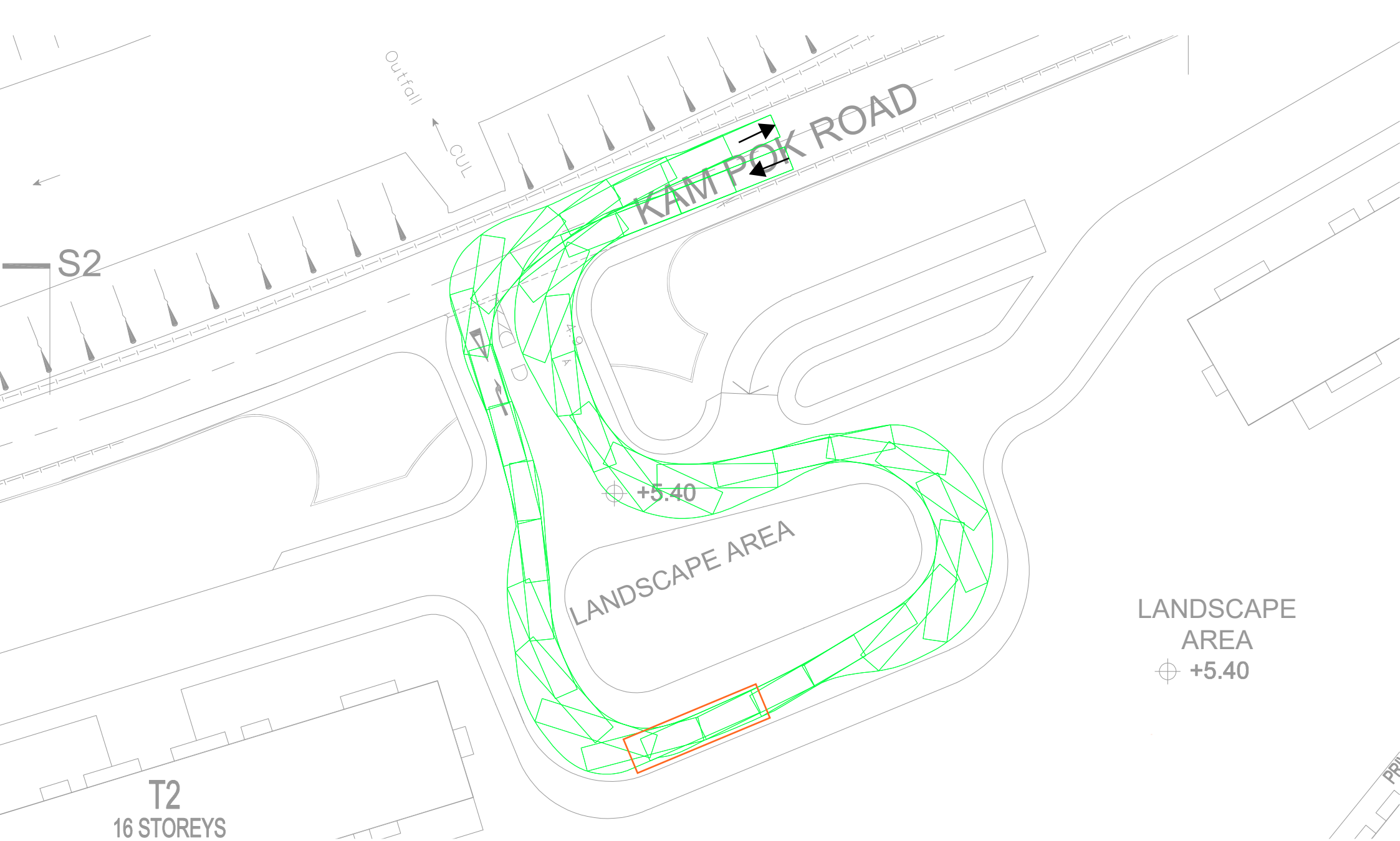
Buffer area for school bus pick-up/drop-off.

Road layout/arrangement will ensure no queuing and tailing back onto public road.

- Legends:**
- HGV Loading/Unloading Bay
 - Lay-by for taxis and Private Car of Kindergarten
 - Lay-by for School Bus
 - Car Parking space for Kindergarten
 - Traffic Routing from entrance to Basement Carpark

Note:
The layout/traffic aids shown in the drawing are indicative only, and will be subject to review and study in the subsequent detailed design stage

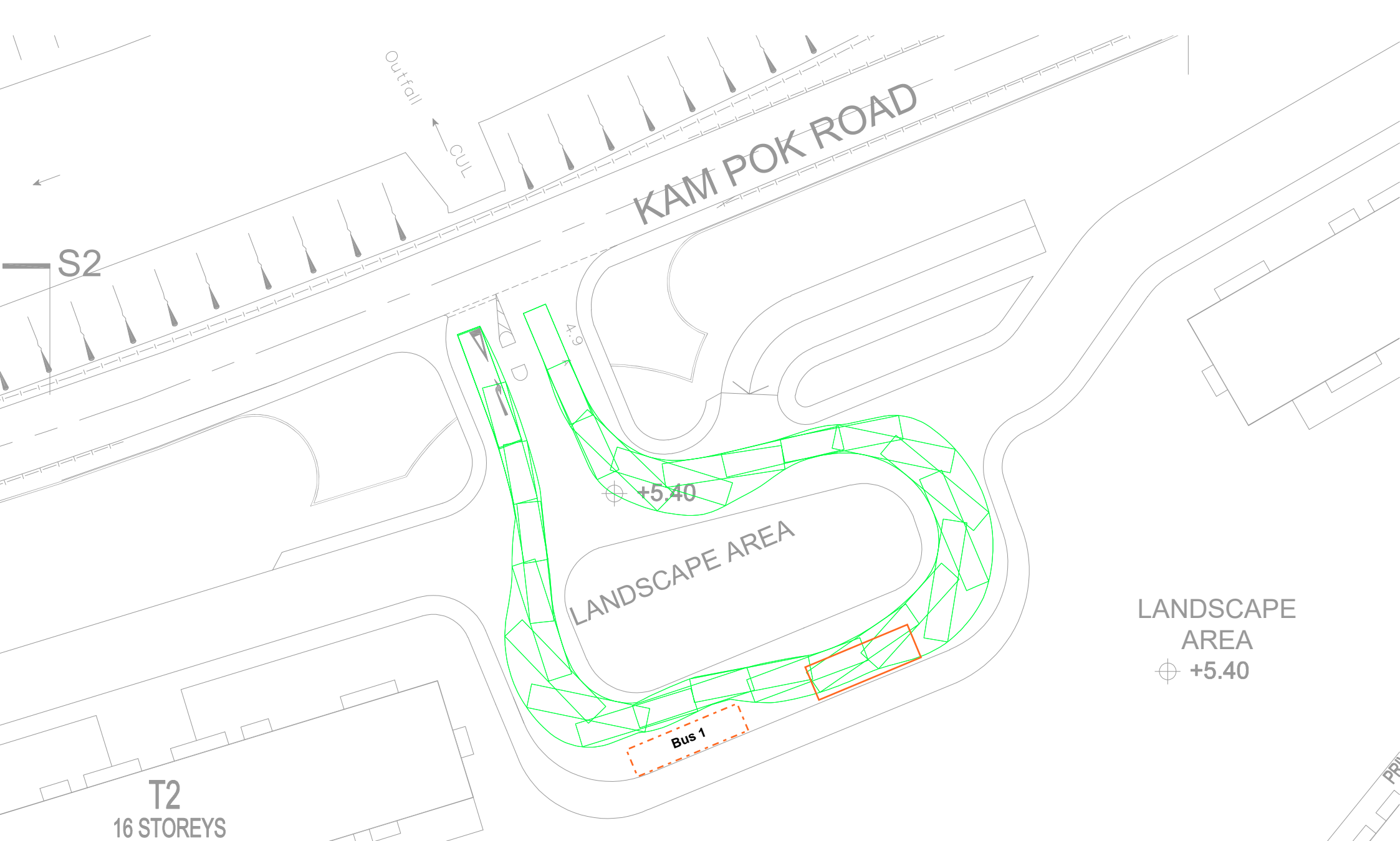
Traffic Plan
(1:1000 in A3 Size)



Remark: The internal road layout is subject to change in the detailed design

Swept Path Analysis for 12.8m Bus at the Main Entrance
1:500 in A4 Size

Drawing No. B2

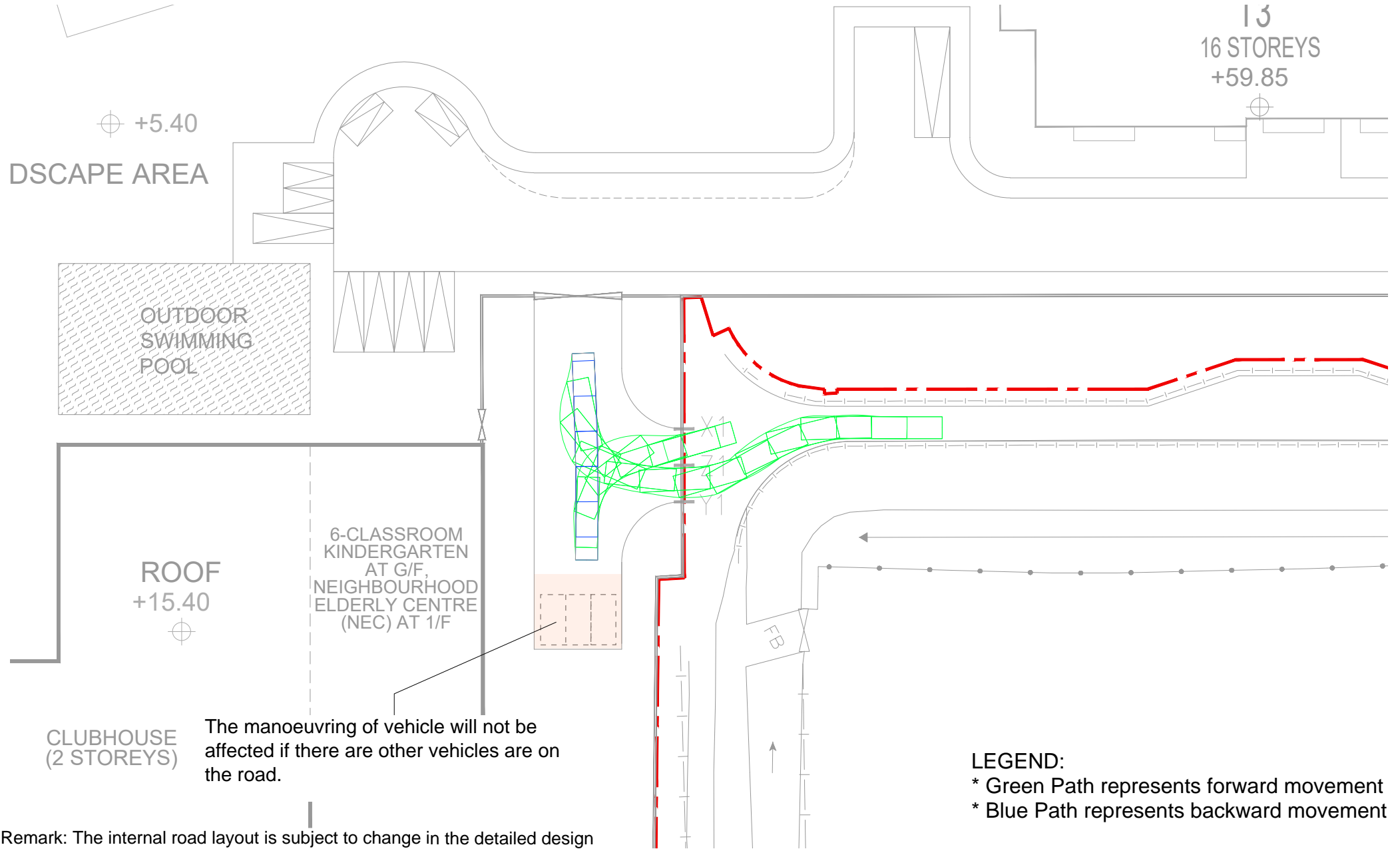


T2
16 STOREYS

Remark: The internal road layout is subject to change in the detailed design

Swept Path Analysis for 12.8m Bus
1:500 in A4 Size

Drawing No. B3





Swept Path Analysis for 7m Vehicle at the Second Entrance
 (1:500 in A4 Size)

LANDSCAPE AREA

+5.40

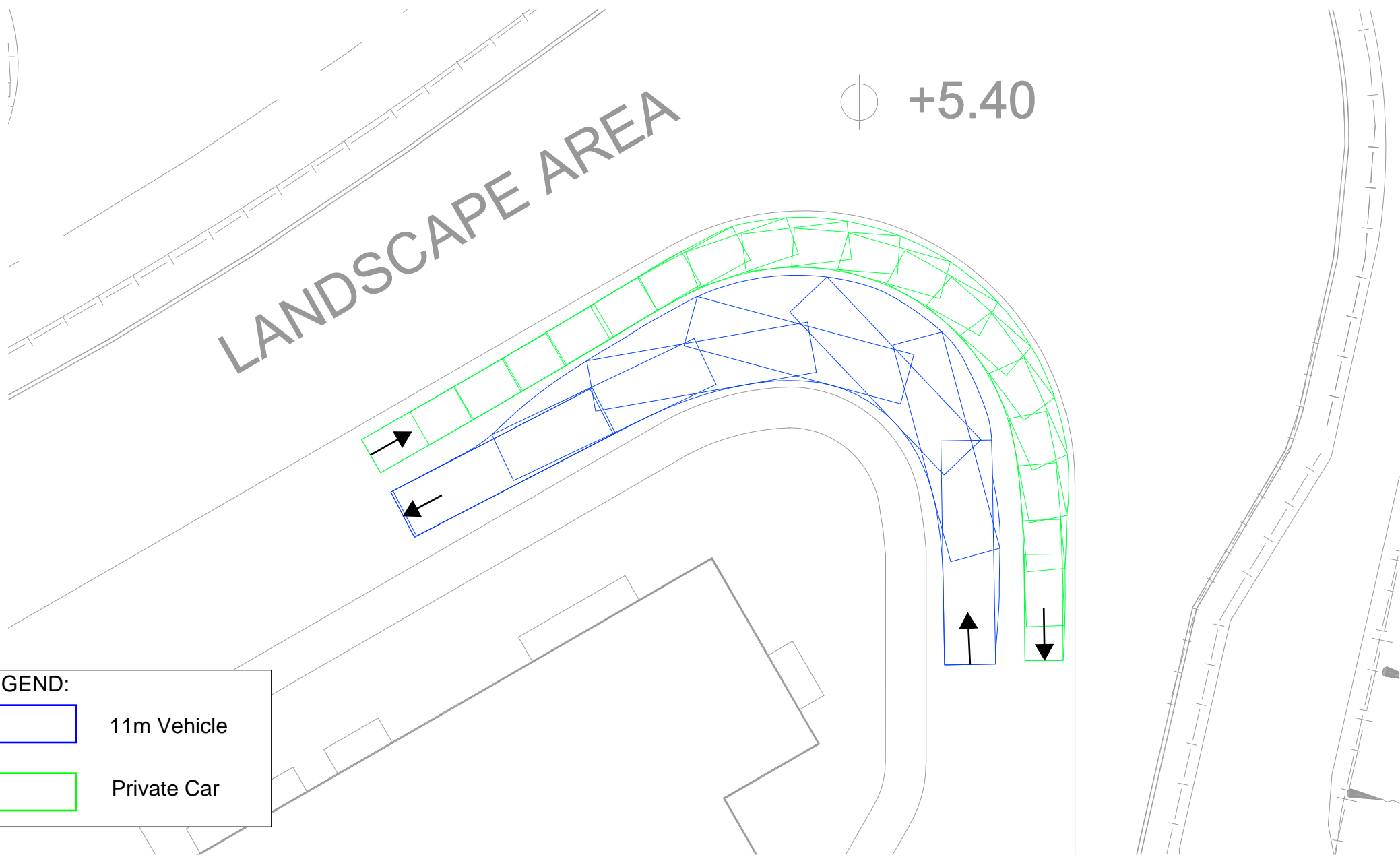
LEGEND:

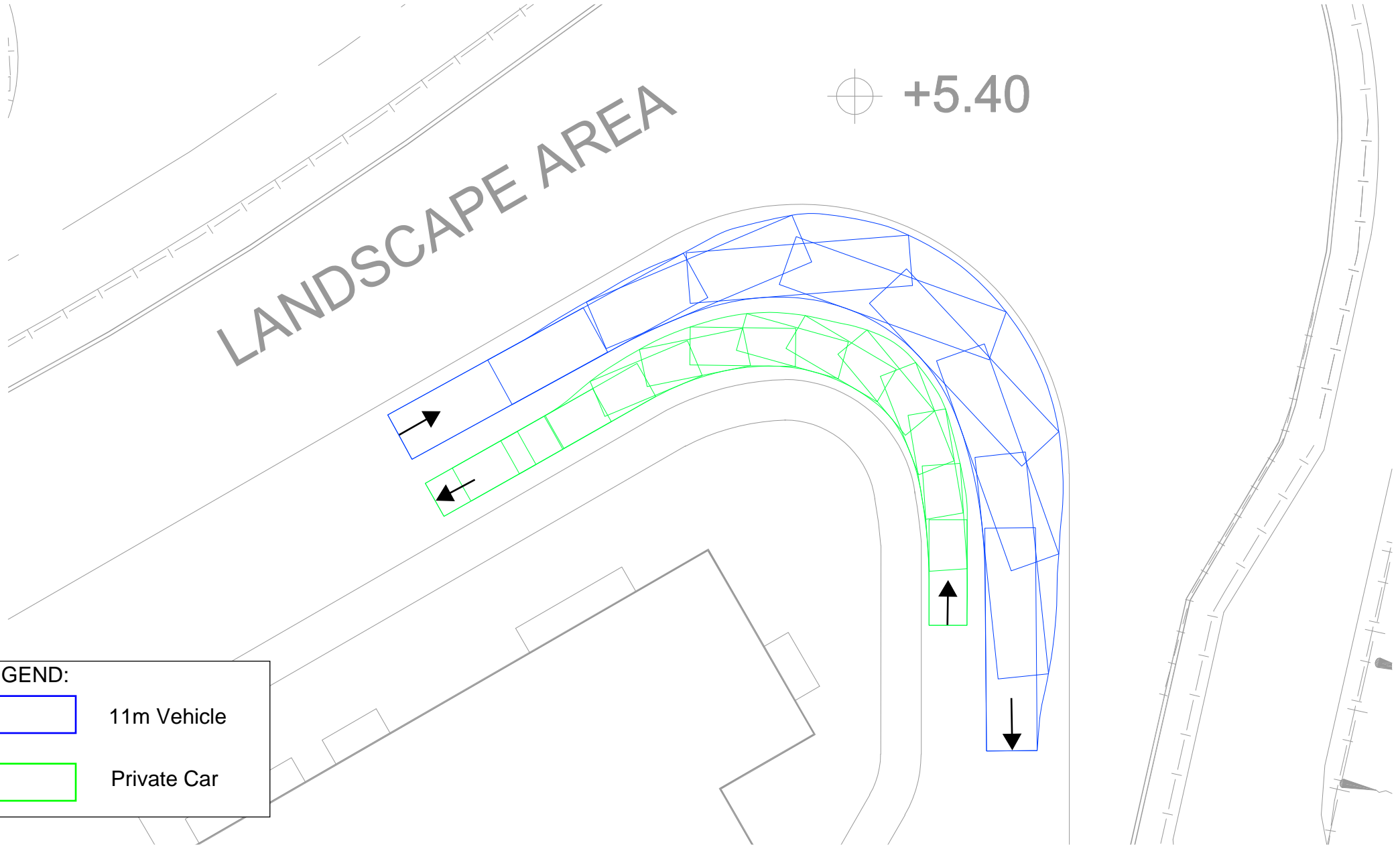
| | |
|--|-------------|
|  | 11m Vehicle |
|  | Private Car |

Swept Path Analysis for 11m Vehicle and Private Car at Internal Road

1:250 in A4 Size

Drawing No. B5







LANDSCAPE AREA

⊕ +5.40

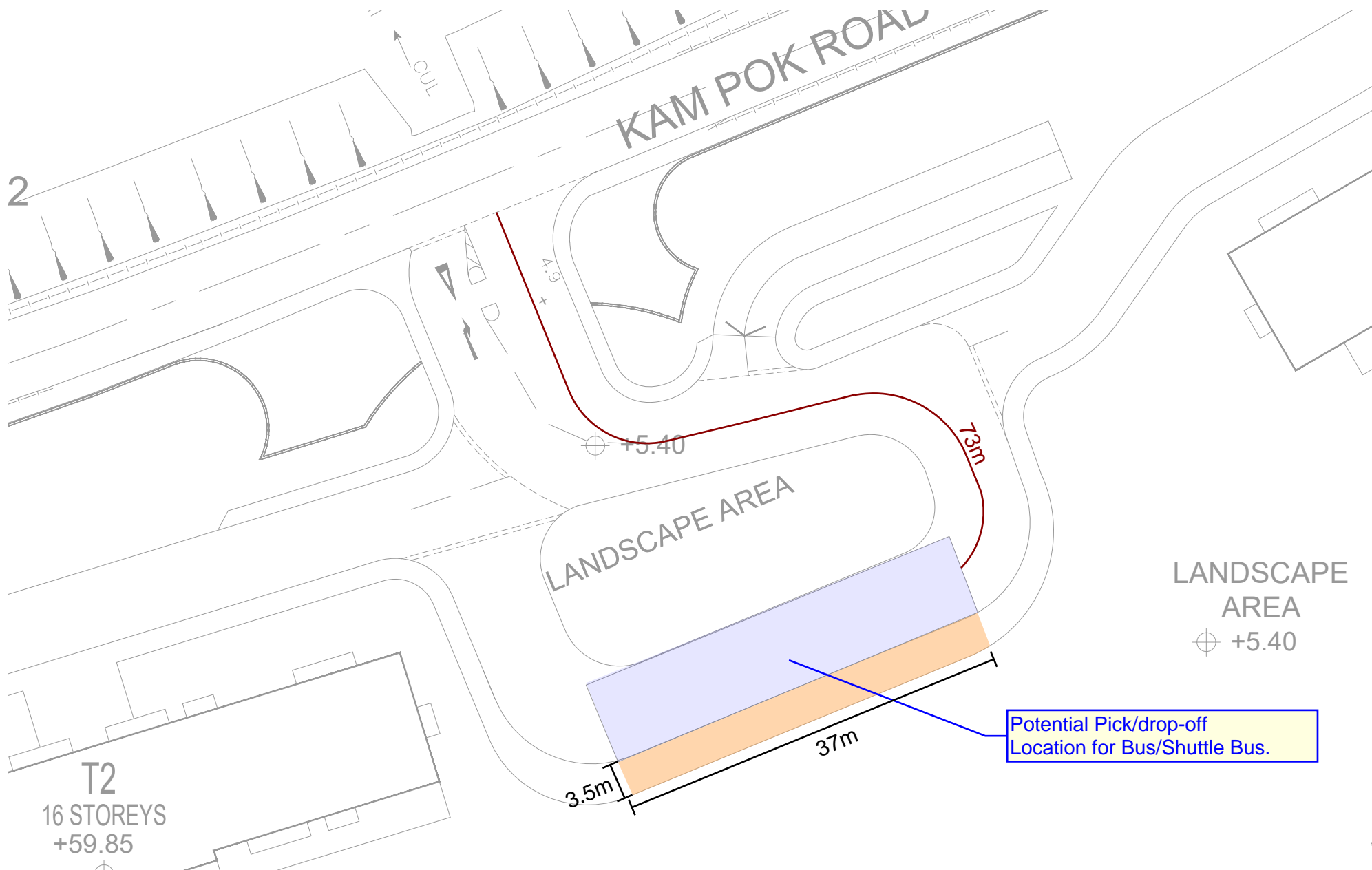
LEGEND:

| | |
|--|-------------|
|  | 11m Vehicle |
|  | Private Car |

Swept Path Analysis for 11m Vehicle and Private Car at Internal Road

1:250 in A4 Size

Drawing No. B6



Remark: The layout is subject to change in the detailed design

Scale: 1:500 (A4)

Potential Pick-up/drop-off Location for Bus/Shuttle Bus

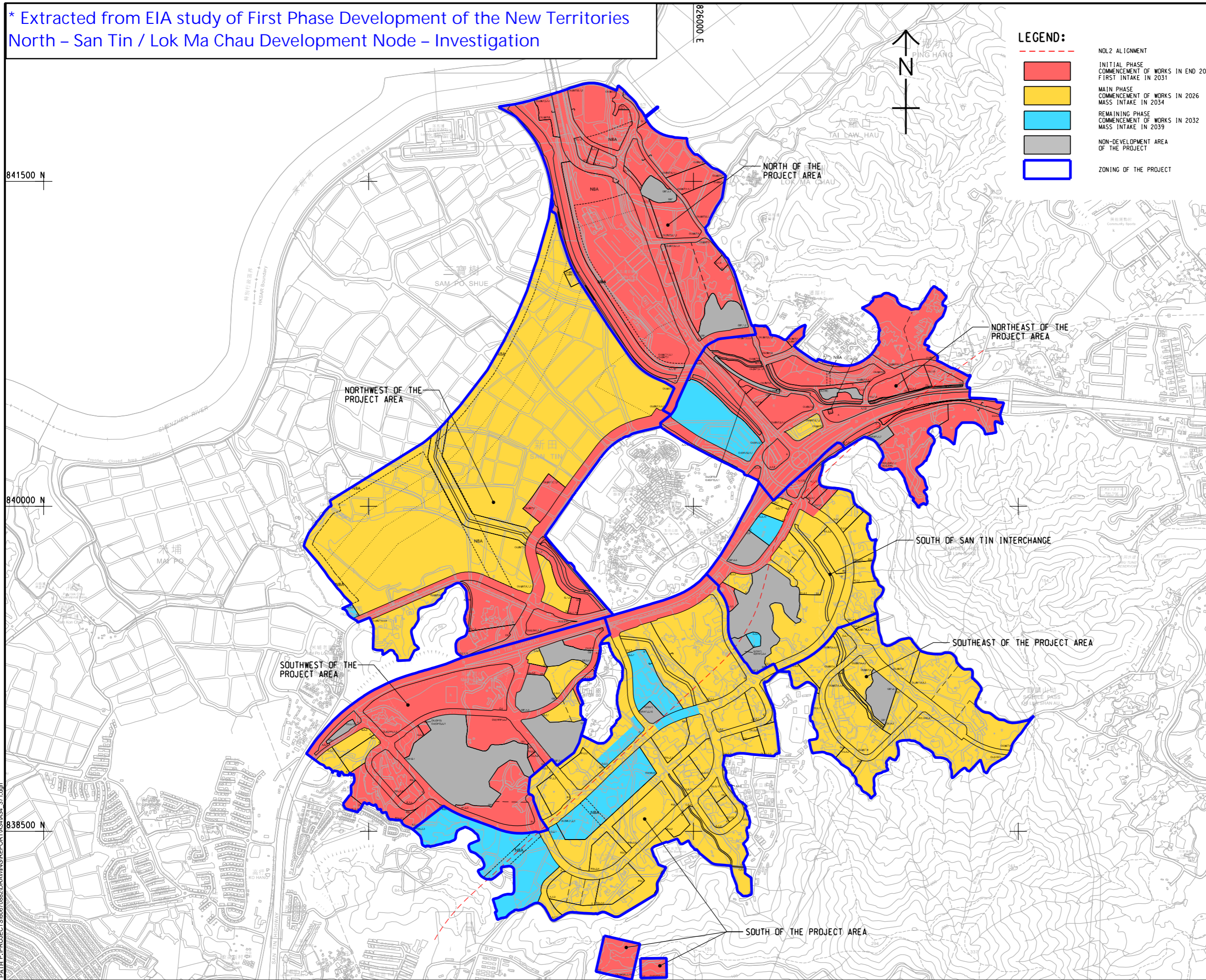
Appendix C

Preliminary Phasing Plan of San Tin Technopole

(Extracted from EIA study of First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node – Investigation)

* Extracted from EIA study of First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node – Investigation

ISO A1 594mm x 841mm
Approved:
Checked: 841500 N
Designer:
Project Management Initials: 840000 N
838500 N
Plot File by: RevS 2023/11/14
PATH P:\PROJECTS\60670882\DRAWING\REPORT\A34\A34_371.dgn



LEGEND:

- NOL2 ALIGNMENT
- INITIAL PHASE COMMENCEMENT OF WORKS IN END 2024
FIRST INTAKE IN 2031
- MAIN PHASE COMMENCEMENT OF WORKS IN 2026
MASS INTAKE IN 2034
- REMAINING PHASE COMMENCEMENT OF WORKS IN 2032
MASS INTAKE IN 2039
- NON-DEVELOPMENT AREA OF THE PROJECT
- ZONING OF THE PROJECT

AECOM

PROJECT
項目

FIRST PHASE DEVELOPMENT OF THE NEW TERRITORIES NORTH – SAN TIN / LOK MA CHAU DEVELOPMENT NODE – INVESTIGATION

CLIENT
業主

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

規劃署
Planning Department

CONSULTANT
顧問公司

AECOM Asia Company Ltd.

SUB-CONSULTANTS
分判工程師/顧問公司

ISSUE/REVISION
修訂

| IR | DATE | DESCRIPTION | CHK. |
|----|------|-------------|------|
| | | | |
| | | | |
| | | | |

STATUS
階段

SCALE
比例

DIMENSION UNIT
尺寸單位

A3 1 : 16000 METRES

KEY PLAN
索引圖

PROJECT NO.
項目編號

AGREEMENT NO.
協議編號

60670882 CE 20/2021

SHEET TITLE
圖紙名稱

PRELIMINARY CONSTRUCTION AND POPULATION INTAKE SCHEDULE

SHEET NUMBER
圖紙編號

60670882/A34/APPENDIX 2.1

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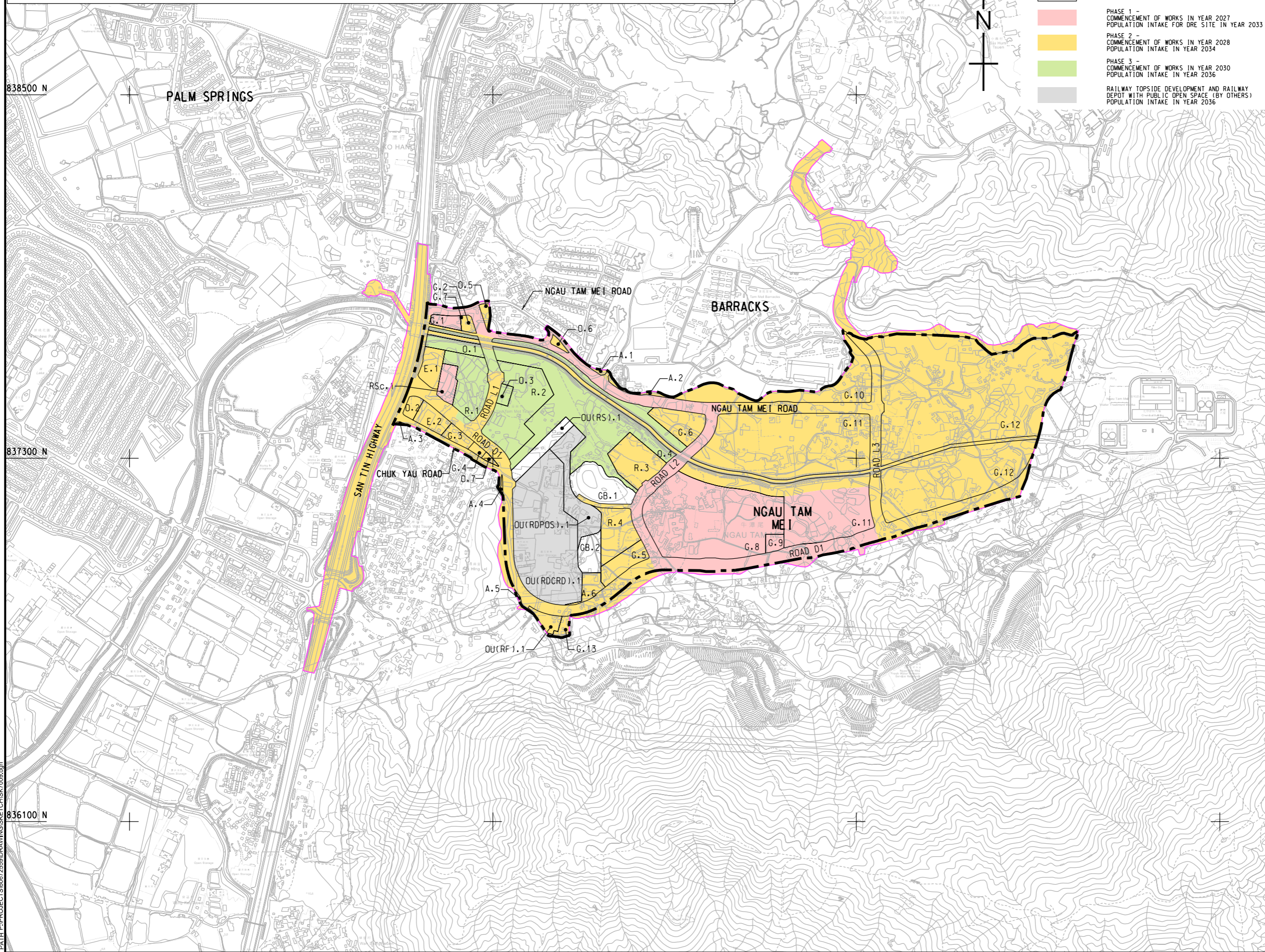
Appendix D

Preliminary Phasing Plan of Ngau Tam Mei New Development Area

(Extracted from EIA study of Land Use Review Study For Ngau Tam
Mei Area – Feasibility Study)

* Extracted from EIA study of Land Use Review Study For Ngau Tam Mei Area – Feasibility Study

ISO A1 594mm x 841mm
 Approved:
 Checked:
 Designer:
 Project Management Initials:
 V:\BAKU\55-BAK\CSWP\p1\dwg\Create Plot\files\new\CSWP-75\color.plt
 Plot File by: iu.yang
 2025/08/27
 PATH: P:\PROJECTS\60672559\DRAWING\SCHEMATIC\15K7008.dwg



LEGEND:

- DEVELOPMENT AREA BOUNDARY
- PROJECT SITE BOUNDARY
- LAND USE BOUNDARY
- PHASE 1 - COMMENCEMENT OF WORKS IN YEAR 2027
POPULATION INTAKE FOR DRE SITE IN YEAR 2033
- PHASE 2 - COMMENCEMENT OF WORKS IN YEAR 2028
POPULATION INTAKE IN YEAR 2034
- PHASE 3 - COMMENCEMENT OF WORKS IN YEAR 2030
POPULATION INTAKE IN YEAR 2036
- RAILWAY TOPSIDE DEVELOPMENT AND RAILWAY DEPOT WITH PUBLIC OPEN SPACE (BY OTHERS)
POPULATION INTAKE IN YEAR 2036

AECOM

PROJECT
 LAND USE REVIEW STUDY FOR NGAU TAM MEI AREA - FEASIBILITY STUDY

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

CONSULTANT
 AECOM Asia Company Ltd.

SUB-CONSULTANTS

ISSUE/REVISION

| IR | DATE | DESCRIPTION | CHK. |
|----|------|-------------|------|
| | | | |
| | | | |
| | | | |
| | | | |

STATUS

SCALE **DIMENSION UNIT**
 比例 尺寸單位
 A3 1: 12000 METRES

KEY PLAN

PROJECT NO. **AGREEMENT NO.**
 項目編號 協議編號
 60672559 CE 33/2021

SHEET TITLE
 圖紙名稱
 PRELIMINARY CONSTRUCTION PHASING AND POPULATION INTAKE SCHEDULE

SHEET NUMBER
 圖紙編號
 60672559/APPENDIX 2.1

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Appendix E - Estimated Trip Generations of the Planned developments

Table E1 Estimated Trip Generations of Planned/Committed Developments

| Ref. | Planned/Committed Developments | Key Development Parameters | Estimated Two-way Trips Generations (pcu/hr) | | | |
|------|---|---|--|-----|---------|-----|
| | | | AM Peak | | PM Peak | |
| | | | Gen | Att | Gen | Att |
| 1 | Tung Shing Lei Development (A/YL-NSW/274) | • 1,518 residential units ⁽¹⁾ (average flat size = about 46 m ²) | 109 | 65 | 43 | 56 |
| | | • 1800 m ² retail GFA ⁽¹⁾ | 4 | 4 | 6 | 6 |
| | | Wellness Centre and Special Child Care Centre ⁽²⁾ | 20 | 20 | 20 | 20 |
| | | Total | 133 | 89 | 69 | 82 |
| 2 | Sha Po North Phase 2 Residential Development ⁽¹⁾ (A/YL-KTN/663) | • 1,154 residential units (average flat size = ~42.57m ²) | 83 | 49 | 33 | 43 |
| 3 | Residential Development at west of Castle Peak Road - Tam Mi, Yuen Long (Y/YL-NSW/9) ⁽³⁾ | • 3,115 residential units • 2900m ² retail GFA • 1 primary school, 1 kindergarten • Soy Factory | 265 | 202 | 115 | 134 |
| 4 | Kam Tin South Priority Sites Development ⁽¹⁾ | • 9,060 units of public housing (average flat size = about 50 m ²) | 564 | 386 | 269 | 363 |
| | | • 3490 units of private housing (average flat size = about 60 m ²) | 251 | 148 | 100 | 129 |
| | | Total | 815 | 534 | 369 | 492 |
| 5 | Residential Development at west of Castle Peak Road - Tam Mi, Yuen Long (Y/YL-NSW/8) ⁽³⁾ | • 6,825 residential units • 3950m ² retail GFA • 2 GIC facilities and 1 kindergarten | 536 | 336 | 220 | 279 |
| 6 | Tung Shing Lei Land Sharing Pilot Scheme Application No. LSPS/002 ⁽¹⁾ | • 1,261 units of private housing (average flat size = about 40 m ²) | 91 | 54 | 37 | 47 |
| | | • 1,868 units of public housing (average flat size = about 50 m ²) | 117 | 80 | 56 | 75 |
| | | • 3045m ² retail GFA | 7 | 8 | 10 | 11 |
| | | Total | 215 | 142 | 103 | 133 |
| 7 | Sha Po North Comprehensive Residential Development (A/YL-KTN/604) | • 3,891 residential units ⁽¹⁾ (average flat size = about 49 m ²) | 279 | 166 | 111 | 144 |
| | | • 5,500m ² retail GFA ⁽¹⁾ | 13 | 13 | 17 | 20 |
| | | • 788m ² social welfare facility ⁽²⁾ | 10 | 10 | 10 | 10 |
| | | Total | 302 | 189 | 138 | 174 |
| 8 | Sha Po Public Housing Development | • 17,930 Flats ⁽¹⁾ (including 10% allowance) | 1155 | 764 | 533 | 719 |
| | | • 20,668 m ² retail GFA ⁽¹⁾ | 47 | 50 | 64 | 74 |
| | | • GIC facilities ⁽⁴⁾ | 130 | 125 | 60 | 60 |
| | | Total | 1292 | 974 | 657 | 853 |
| 9 | Kam Tin North Residential Development (A/YL-KTN/791) ⁽¹⁾ | • 330 flats (average flat/house size = about 38.73 m ²) | 24 | 14 | 9 | 12 |
| 10 | Residential Development at Sha Po South (A/YL-KTN/964) ⁽¹⁾ | • 615 residential units (average flat size = about 38 m ²) | 45 | 27 | 18 | 23 |
| | | • 1,165 m ² retail GFA | 3 | 3 | 4 | 5 |
| | | Total | 48 | 30 | 22 | 28 |
| 11 | Development at Wing Kei Tsuen, Nam Sang Wai, Yuen Long (Y/YL-NSW/7) | • 1,997 residential units ⁽¹⁾ (average flat size = 48.9 m ²) | 143 | 85 | 57 | 74 |
| | | • 900 m ² retail GFA ⁽¹⁾ | 2 | 2 | 3 | 3 |
| | | • 2000 m ² Kindergarten/Child Care Centre ⁽²⁾ | 10 | 10 | 10 | 10 |
| | | Total | 155 | 97 | 70 | 87 |
| 12 | Residential Development at Tung Shing Lei, Nam Sang Wai, Yuen Long (A/YL-NSW/293) ⁽¹⁾ | • 3,566 Flats (average flat size = 44 m ²) and 9 Houses (average flat size = 120 m ²) | 257 | 152 | 103 | 133 |
| | | • 5,358 Non Domestic GFA | 12 | 13 | 17 | 19 |
| | | Total | 269 | 165 | 120 | 152 |

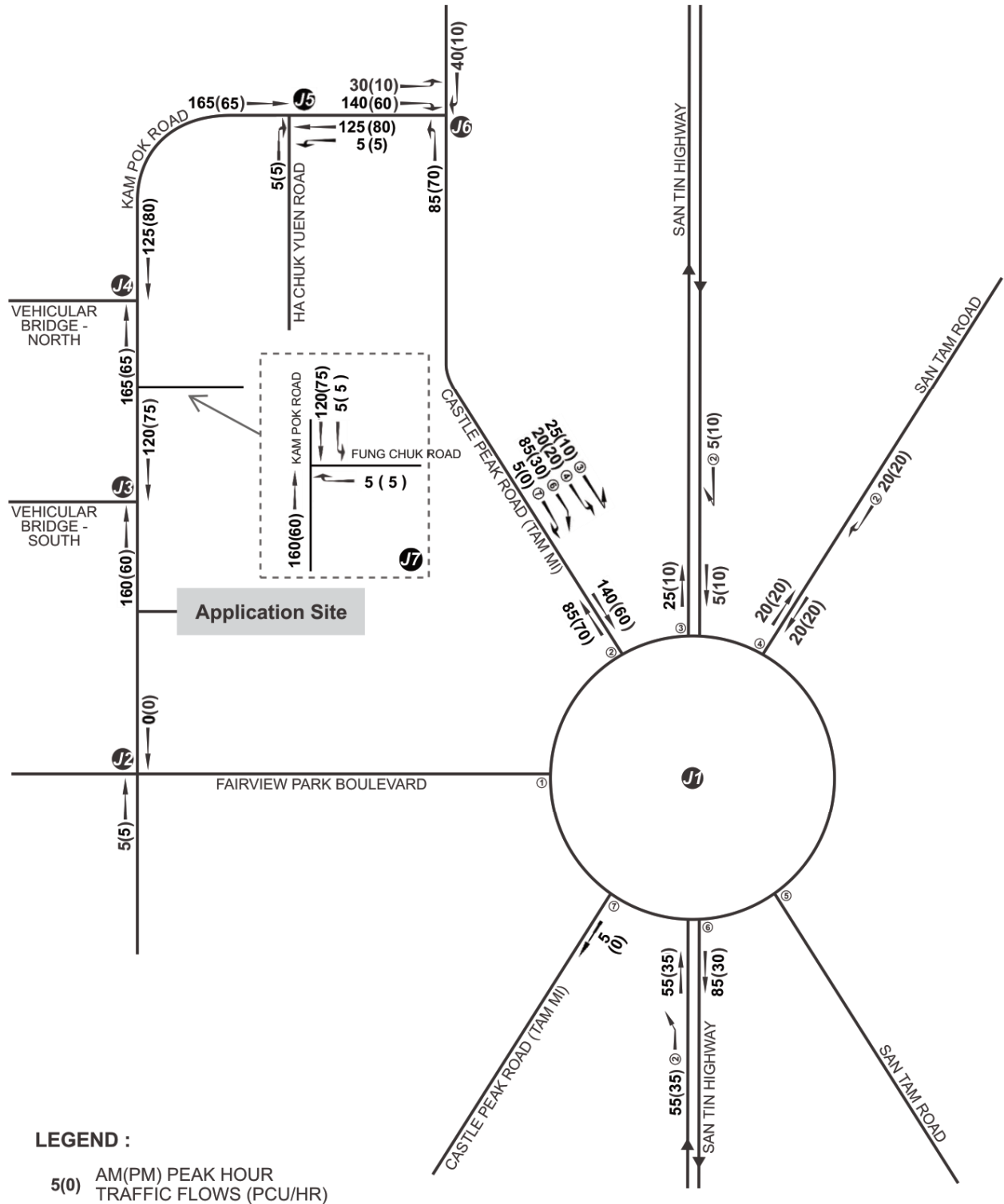
| Ref. | Planned/Committed Developments | Key Development Parameters | Estimated Two-way Trips Generations (pcu/hr) | | | |
|------|--|---|--|------|---------|------|
| | | | AM Peak | | PM Peak | |
| | | | Gen | Att | Gen | Att |
| 13 | Comprehensive Development Scheme at north of Kam Pok Road East, Pok Wai, Yuen Long (A/YL-NSW/314) ⁽³⁾ | • 90 residential units | 28 | 21 | 21 | 31 |
| 14 | Ngau Tam Mei Area New Development Area ⁽⁵⁾ | • Third Medical School and integrated medical teaching and research hospital, UniTown, Residential Developments Sites R3, R4 & RSc1, GIC Facilities | 726 | 859 | 762 | 723 |
| 15 | Social Welfare Facilities at Siu Sheung Road, Nam Sang Wai, Yuen Long (A/YL-NSW/303) | • 90 units ⁽¹⁾ (senior hostel, average flat size of about 66m ²) | 7 | 4 | 3 | 4 |
| | | • 127 beds for Residential Care Home for the Elderly ⁽²⁾ | 10 | 10 | 10 | 10 |
| | | Total | 17 | 14 | 13 | 14 |
| 16 | Social Welfare Facilities at Siu Sheung Road, Nam Sang Wai, Yuen Long (A/YL-NSW/292) ⁽³⁾ | • 9,180 m ² GFA | 23 | 27 | 21 | 27 |
| 17 | Residential Care Homes for the Elderly at 81 San Tam Road, Ngau Tam Mei, Yuen Long (Y/YL-NTM/9) | • 142 beds (5,400 m ² GFA) ⁽²⁾ | 10 | 10 | 10 | 10 |
| 18 | Residential Development at Yau Pok Road, Yuen Long (Y/YL-MP/3) | • 106 houses (average house size of about 163m ²) | 30 | 19 | 18 | 26 |
| | | • 607 m ² retail GFA | 2 | 2 | 2 | 3 |
| | | Total | 32 | 21 | 20 | 29 |
| 19 | Proposed Residential Development at Kam Pok Road, Yuen Long (Y/YL-MP/10) ⁽³⁾ | • 2,322 residential units (average flat size = about 42.4 m ²) • 2,363m ² retail GFA • 1 kindergarten and 1 NEC | 258 | 190 | 115 | 135 |
| 20 | Proposed Comprehensive Development at Wo Shang Wai, Yuen Long (Y/YL-MP/9) ⁽³⁾ | • 3,562 residential units (average flat size = about 75 m ²) • a 100-place Residential Care Home for the elderly | 396 | 248 | 196 | 251 |
| 21 | San Tin Technopole ⁽⁷⁾ | • Information and Technology (I&T) Section of 120,000 employment ⁽⁶⁾ | 2140 | 3080 | 1980 | 1480 |
| | | • ~760,000m ² Logistics & Storage and Workshop ⁽¹⁾ | 700 | 1050 | 1020 | 800 |
| | | • Public housing of ~25,800 units ⁽¹⁾ (average size of 50 m ²) | 1420 | 900 | 700 | 970 |
| | | • Private housing of ~12,200 units ⁽¹⁾ (average size of 60 m ²) | 610 | 270 | 240 | 370 |
| | | Total | 4870 | 5300 | 3940 | 3620 |

Remarks:

- (1) Trip generation estimated by the industrial, residential & retail trip rates extracted from TPDM.
- (2) Assumed nominal trips.
- (3) Trip generation from project's TIA report.
- (4) Trip generation estimated by the trip rates from the in-house survey.
- (5) Trip generations with reference to the EIA report of "Land Use Review Study For Ngau Tam Mei Area – Feasibility Study"
- (6) Trip generations for I&T Park are determined with reference to TD's TCS 2011.
- (7) Trip generations with reference to the "EIA study of First Phase Development of the New Territories North – San Tin / Lok Ma Chau Development Node – Investigation"

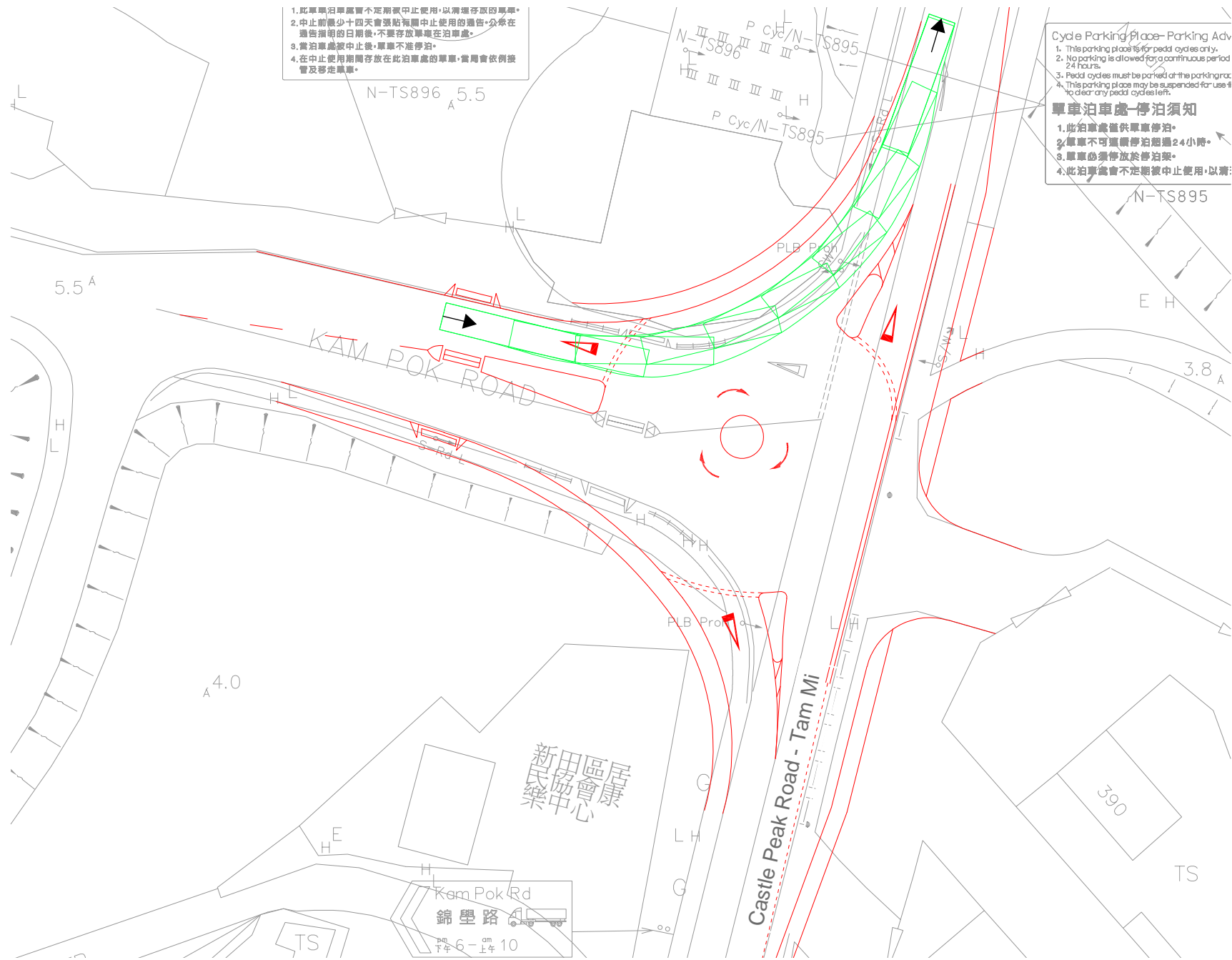
Appendix F

Estimated Trip Generation of Proposed Development



Appendix G

Swept Path Analysis at Junction Improvement Works at J1 and J6



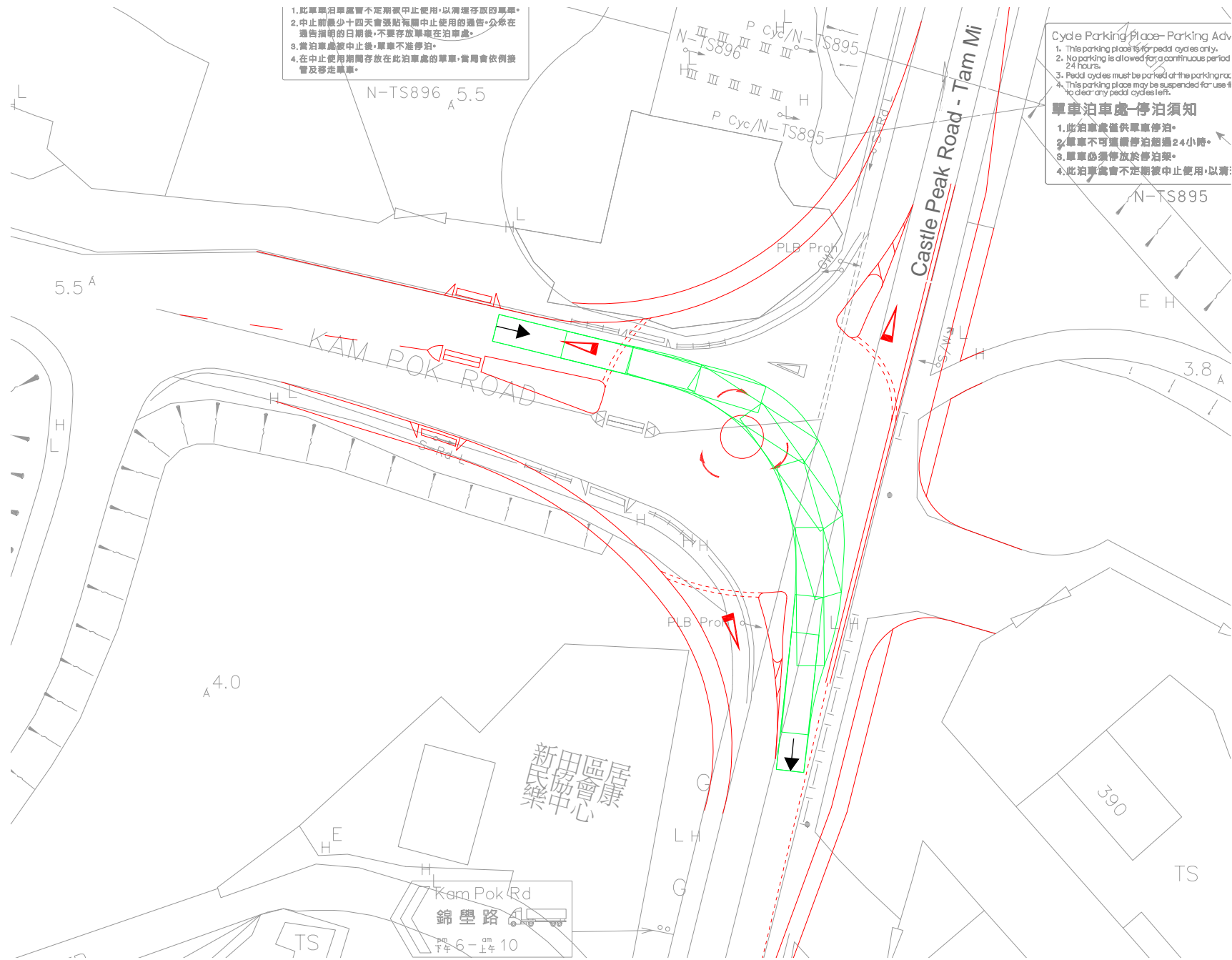
1. 此單車泊車區會不定期被中止使用,以清道存放的單車。
2. 中止前最少十四天會張貼有關中止使用的通告,公佈在通告指明的日期後,不要存放單車在泊車處。
3. 當泊車處被中止後,單車不准停泊。
4. 在中止使用期間存放在此泊車處的單車,當局會依例接管及移走單車。

- Cycle Parking Place-Parking Adv
1. This parking place is for peddl cycles only.
 2. No parking is allowed for a continuous period 24 hours.
 3. Peddl cycles must be parked at the parking place.
 4. This parking place may be suspended for use if no clear any peddl cycles left.
- 單車泊車處-停泊須知**
1. 此泊車處僅供單車停泊。
 2. 單車不可連續停泊超過24小時。
 3. 單車必須停放於泊車架。
 4. 此泊車處會不定期被中止使用,以清

Swept Path Analysis for 12.8m bus on Proposed Improvement Scheme at Junction J6

1:500 (A4)

Drawing No. J6-1



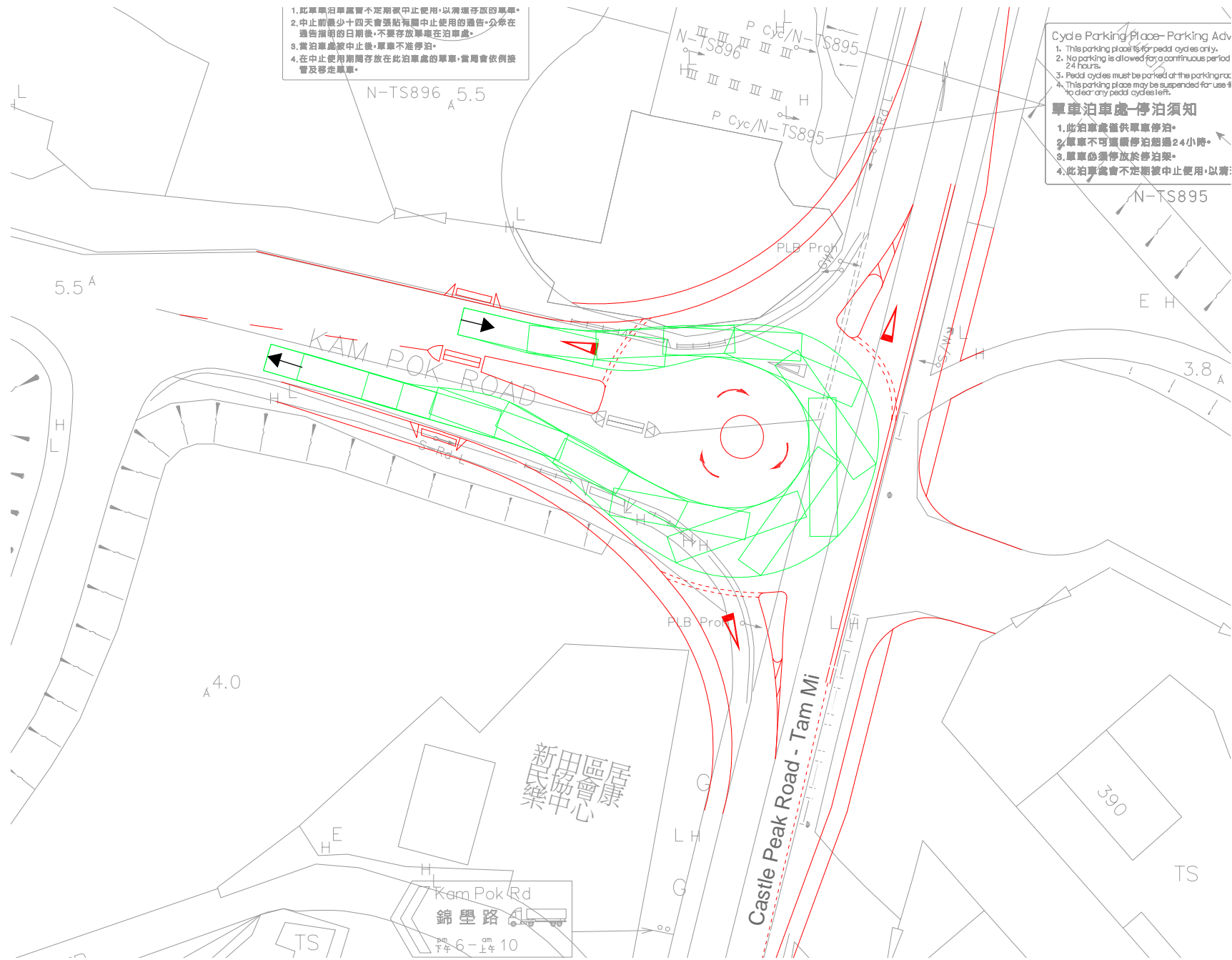
1. 此單車泊車區會不定期被中止使用,以清道存放的單車。
2. 中止前最少十四天會張貼有關中止使用的通告,公佈在通告指明的日期後,不要存放單車在泊車處。
3. 當泊車處被中止後,單車不准停泊。
4. 在中止使用期間存放在此泊車處的單車,當局會依例接管及移走單車。

- Cycle Parking Place-Parking Adv
1. This parking place is for peddl cycles only.
 2. No parking is allowed for a continuous period 24 hours.
 3. Peddl cycles must be parked at the parking place.
 4. This parking place may be suspended for use if no clear any peddl cycles left.
- 單車泊車處-停泊須知**
1. 此泊車處僅供單車停泊。
 2. 單車不可連續停泊超過24小時。
 3. 單車必須停放於停泊架。
 4. 此泊車處會不定期被中止使用,以清

Swept Path Analysis for 12.8m bus on Proposed Improvement Scheme at Junction J6

1:500 (A4)

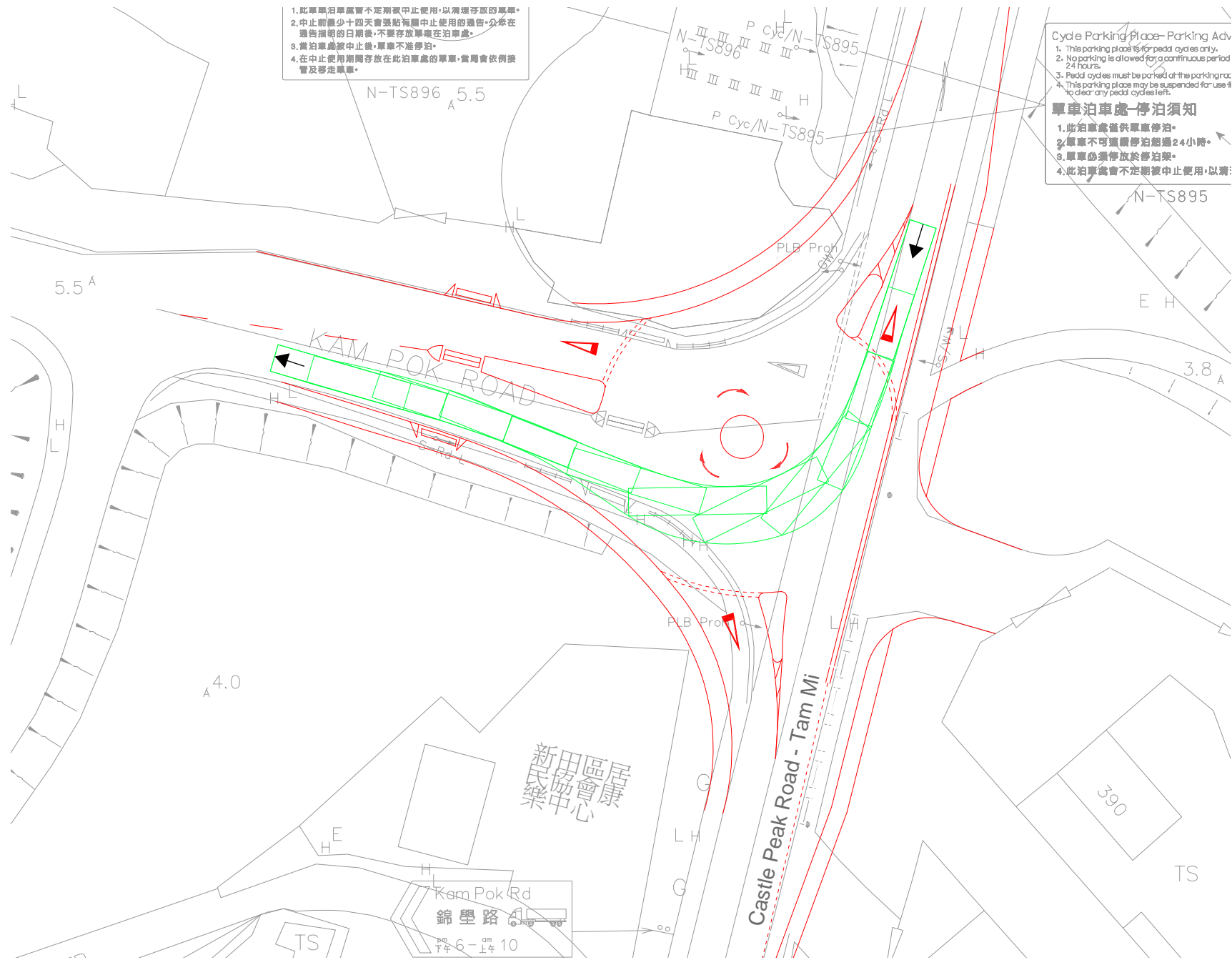
Drawing No. J6-2



Swept Path Analysis for 12.8m bus on Proposed Improvement Scheme at Junction J6

1:500 (A4)

Drawing No. J6-3



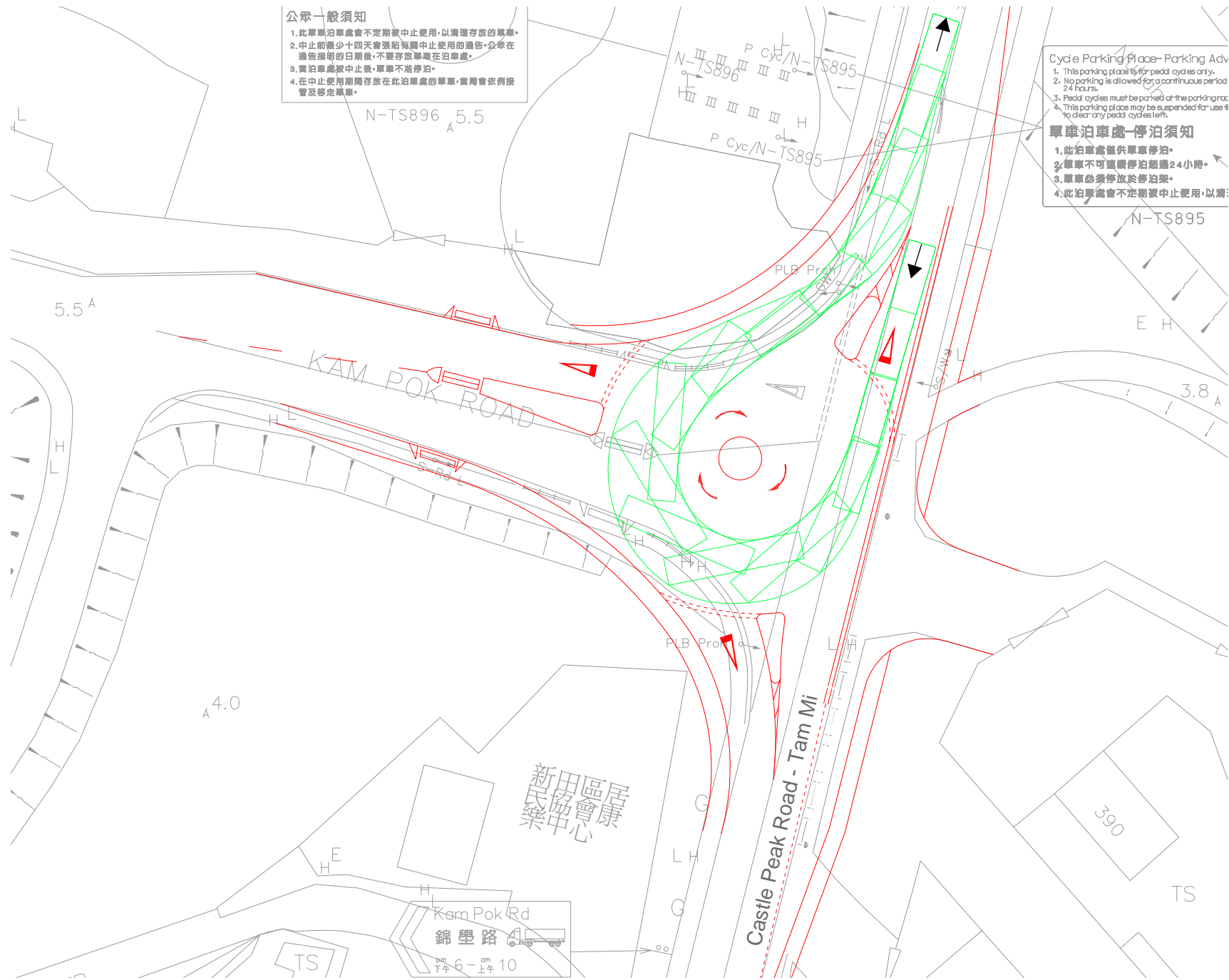
1. 此單車泊車處會不定期被中止使用,以清道存放的單車。
2. 中止前最少十四天會張貼有關中止使用的通告,公佈在通告指明的日期後,不要存放單車在泊車處。
3. 當泊車處被中止後,單車不准停泊。
4. 在中止使用期間存放在此泊車處的單車,當局會依例接管及移走單車。

- Cycle Parking Place-Parking Adv
1. This parking place is for peddl cycles only.
 2. No parking is allowed for a continuous period 24 hours.
 3. Peddl cycles must be parked at the parking place.
 4. This parking place may be suspended for use if no clear any peddl cycles left.
- 單車泊車處-停泊須知**
1. 此泊車處僅供單車停泊。
 2. 單車不可連續停泊超過24小時。
 3. 單車必須停放於停泊架。
 4. 此泊車處會不定期被中止使用,以清

Swept Path Analysis for 12.8m bus on Proposed Improvement Scheme at Junction J6

1:500 (A4)

Drawing No. J6-4



公眾一般須知

1. 此單車泊車處會不定期被中止使用，以清還存放的單車。
2. 中止前最少十四天會張貼有關中止使用的通告，公眾在通告指明的日期後，不要存放單車在泊車處。
3. 當泊車處被中止後，單車不准停泊。
4. 在中止使用期間存放在此泊車處的單車，當局會依例接管及移走單車。

Cycle Parking Place - Parking Adv

1. This parking place is for peddl cycles only.
2. No parking is allowed for a continuous period of 24 hours.
3. Peddl cycles must be parked at the parking place.
4. This parking place may be suspended for use if to clear any peddl cycles left.

單車泊車處-停泊須知

1. 此泊車處僅供單車停泊。
2. 單車不可連續停泊超過24小時。
3. 單車必須停放於泊車架。
4. 此泊車處會不定期被中止使用，以清還存放的單車。

Kam Pok Rd
 錦興路
 6:00 - 10:00

Swept Path Analysis for 12.8m bus on Proposed Improvement Scheme at Junction J6

1:500 (A4)

Drawing No. J6-5

Public General Notice

1. This parking place will be suspended for use for storage of peddle cycles in this parking place during the period of suspension.

公眾一般須知

1. 此單車泊車處會不定期被中止使用，以清還存放的單車。

2. 中止前最少十四天會張貼有關中止使用的通告，公眾在通告指明的日期後，不要存放單車在泊車處。

3. 當泊車處被中止後，單車不准停泊。

4. 在中止使用期間存放在此泊車處的單車，當局會依例接管及移走單車。

Cycle Parking Place - Parking Adv

1. This parking place is for peddle cycles only.

2. No parking is allowed for a continuous period of 24 hours.

3. Peddle cycles must be parked at the parking place.

4. This parking place may be suspended for use if no clear any peddle cycles left.

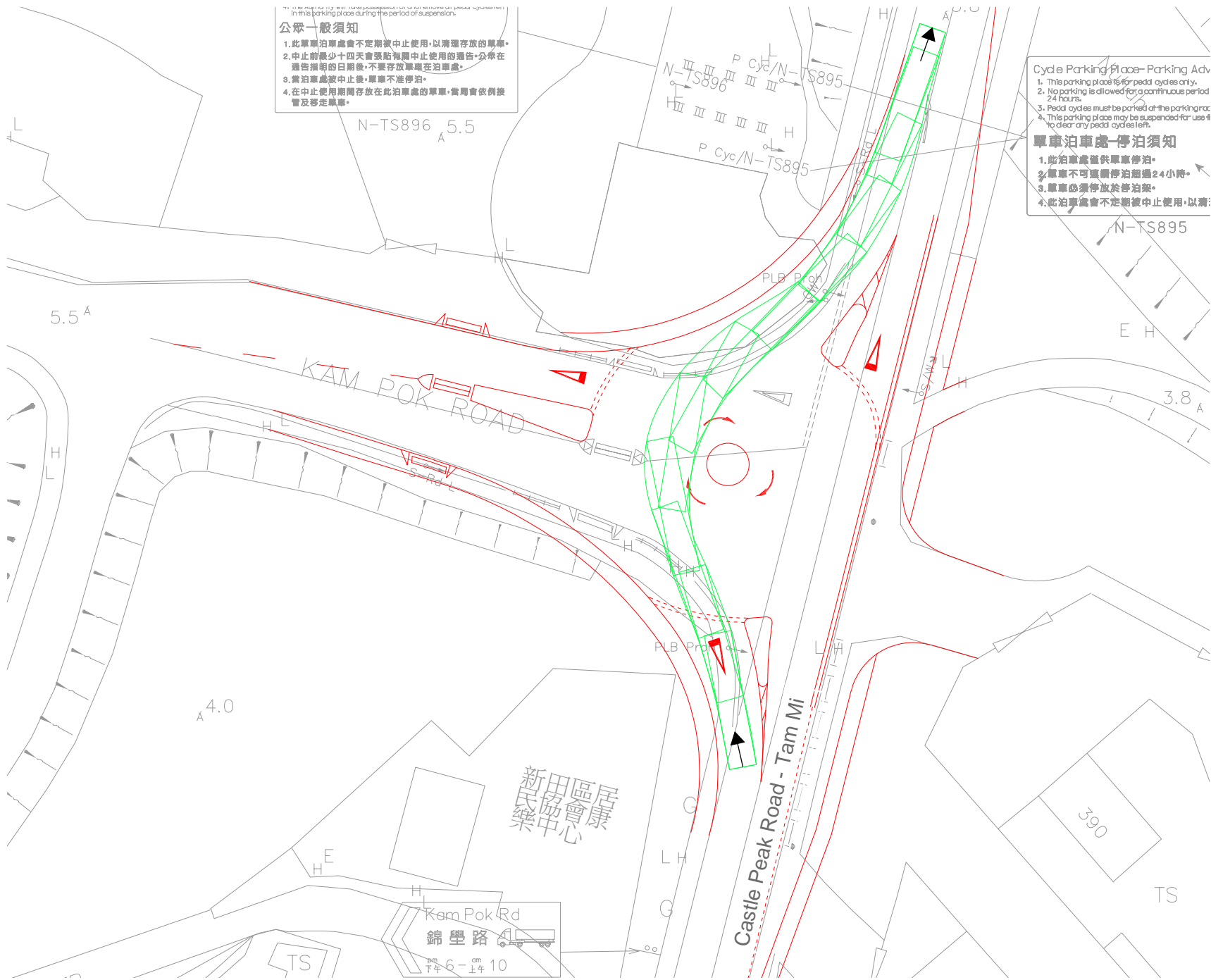
單車泊車處 - 停泊須知

1. 此泊車處僅供單車停泊。

2. 單車不可連續停泊超過24小時。

3. 單車必須停放於停泊架。

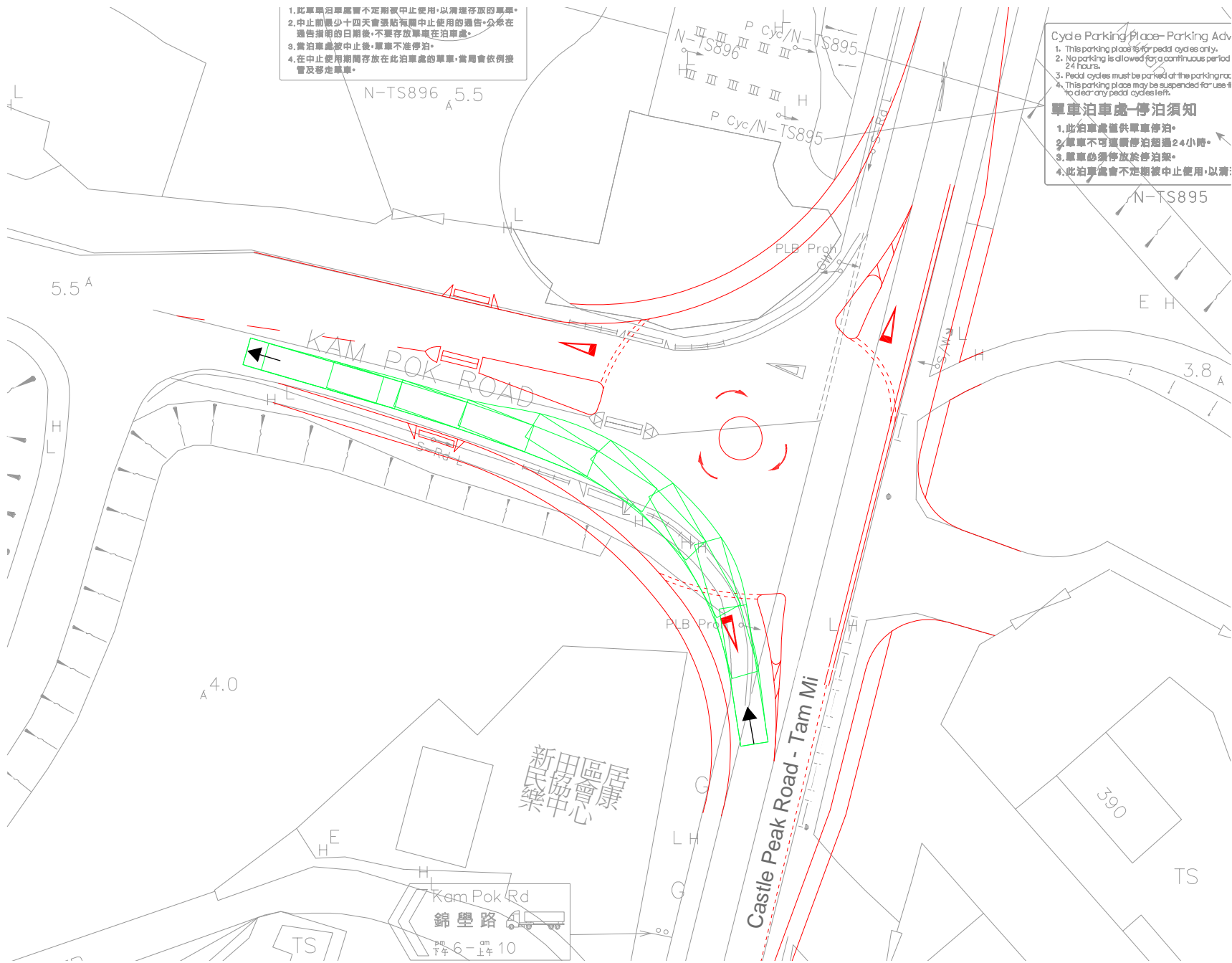
4. 此泊車處會不定期被中止使用，以清



Swept Path Analysis for 12.8m bus on Proposed Improvement Scheme at Junction J6

1:500 (A4)

Drawing No. J6-6



1. 此車場泊車處會不定期被中止使用，以清還存放的單車。
 2. 中止前最少十四天會張貼有關中止使用的通告，公眾在通告指明的日期後，不要存放單車在泊車處。
 3. 當泊車處被中止後，單車不准停泊。
 4. 在中止使用期間存放在此泊車處的單車，當局會依例接管及移走單車。

Cycle Parking Place - Parking Adv
 1. This parking place is for peddl cycles only.
 2. No parking is allowed for a continuous period 24 hours.
 3. Peddl cycles must be parked at the parking place.
 4. This parking place may be suspended for use if no clear any peddl cycles left.

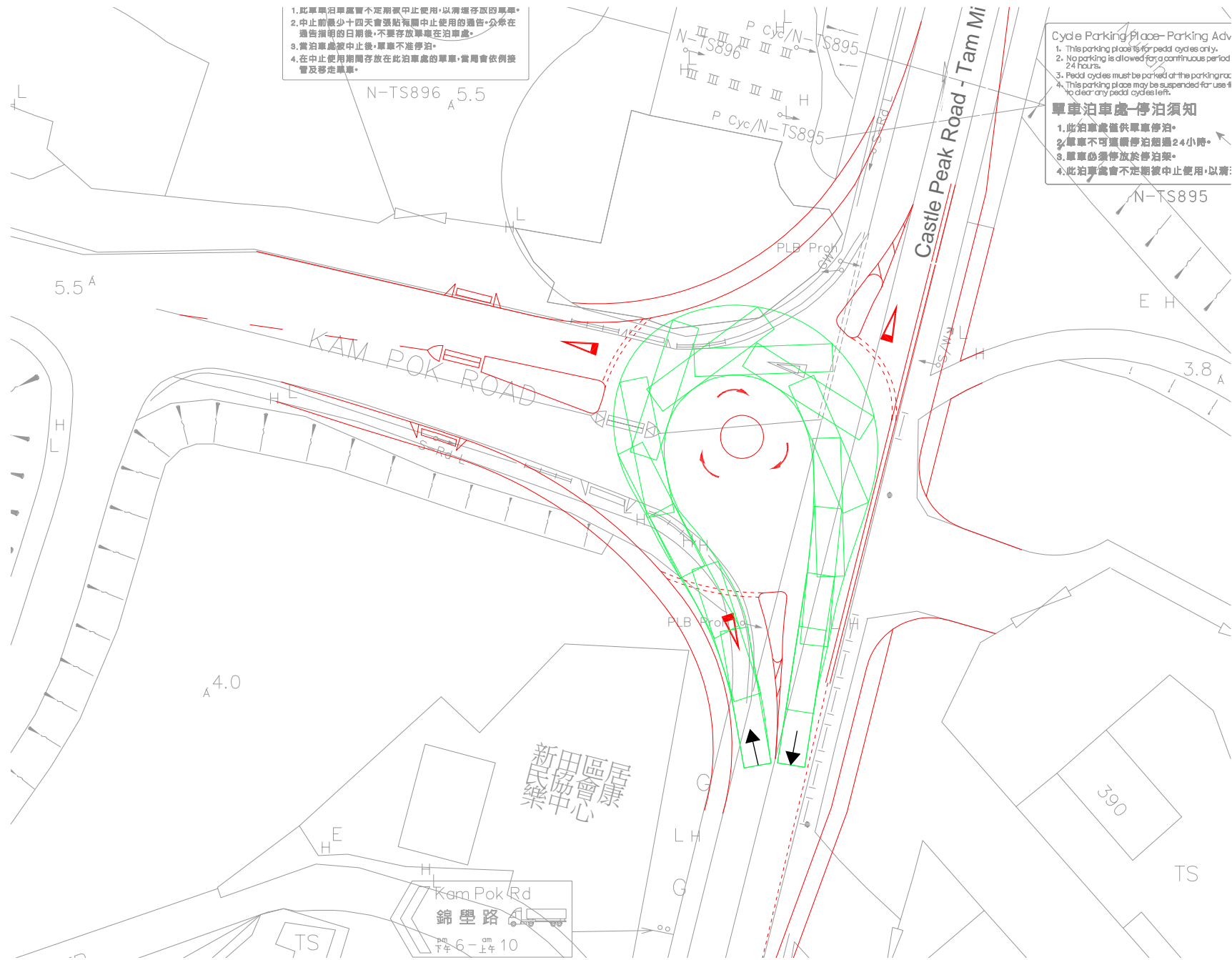
單車泊車處-停泊須知
 1. 此泊車處僅供單車停泊。
 2. 單車不可連續停泊超過24小時。
 3. 單車必須停放於指定泊架。
 4. 此泊車處會不定期被中止使用，以清還存放的單車。



Swept Path Analysis for 12.8m bus on Proposed Improvement Scheme at Junction J6

1:500 (A4)

Drawing No. J6-7



1. 此單車泊車區會不定期被中止使用，以清還存放的單車。
2. 中止前最少十四天會張貼有關中止使用的通告，公眾在通告指明的日期後，不要存放單車在泊車處。
3. 當泊車處被中止後，單車不准停泊。
4. 在中止使用期間存放在此泊車處的單車，當局會依例接管及移走單車。

- Cycle Parking Place - Parking Adv
1. This parking place is for peddl cycles only.
 2. No parking is allowed for a continuous period 24 hours.
 3. Peddl cycles must be parked at the parking place.
 4. This parking place may be suspended for use if to clear any peddl cycles left.

- 單車泊車處 - 停泊須知
1. 此泊車處僅供單車停泊。
 2. 單車不可連續停泊超過24小時。
 3. 單車必須停放於停泊架。
 4. 此泊車處會不定期被中止使用，以清：

Swept Path Analysis for 12.8m bus on Proposed Improvement Scheme at Junction J6

1:500 (A4)

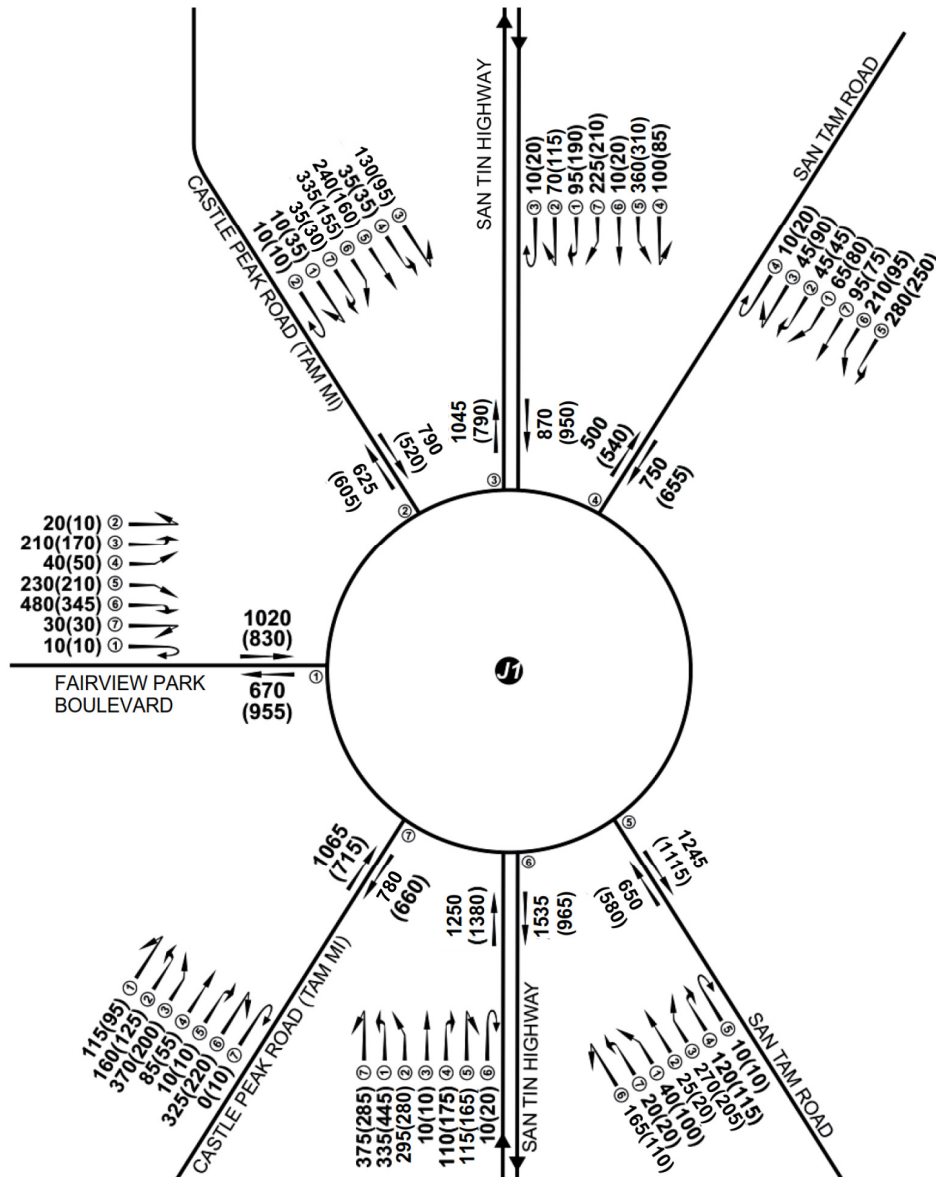
Drawing No. J6-8

Appendix H –

Design Traffic Flows at Junction (J1) under the scenario without Y/YL-MP/10 and Sha Po Public Housing Development

LEGEND :

20(20) AM(PM) PEAK HOUR
TRAFFIC FLOWS (PCU/HR)



Appendix I - Queue Length Assessment

J1. Queue length assessment at the approach arms of the identified junctions has been conducted for reference and design scenarios. The results under reference and design scenarios are summarized in **Table J1** and **Table J2** respectively. The calculation sheets are attached in this appendix.

Table J1 Year 2034 Queue Length Assessment for Reference Case

| Ref. (1) | Approach Arm | Road Length of each lane | Year 2034 Average Queue Length (m) | |
|-------------|--------------------------------|-----------------------------|---------------------------------------|---------|
| | | | Reference Case (with Approved Scheme) | |
| | | | AM Peak | PM Peak |
| J1 | Fairview Park Boulevard | 391 | 168 | 8 |
| | Castle Peak Road - Tam Mi (SB) | 590 | 26 | 2 |
| | San Tin Highway Slip Road (SB) | 329 | 53 | 18 |
| | San Tam Road (SB) | 563 | 95 | 8 |
| | San Tam Road (NB) | 202 | 15 | 4 |
| | San Tin Highway Slip Road (NB) | 410 | 17 | 132 |
| | Castle Peak Road - Tam Mi (NB) | 840 | 51 | 10 |
| J2 | Fairview Park Boulevard (EB) | 40 | 54 | 35 |
| | Fairview Park Boulevard (WB) | 252 | 43 | 54 |
| | Kam Pok Road (SB) | 39 | 22 | 20 |
| | Kam Pok Road (NB) | 160 | 25 | 30 |
| J3 | Vehicular Bridge (EB) | 55 | 1 | 1 |
| | Kam Pok Rd (SB) | 35 | 9 | 7 |
| | Kam Pok Rd (NB) | 78 | 5 | 4 |
| J4 | Vehicular Bridge (SB) | 54 | 2 | 1 |
| | Kam Pok Road (EB) | 334 | 13 | 10 |
| | R(D) Site Access | 27 | 13 | 3 |
| | Kam Pok Road (WB) | 242 | 17 | 12 |
| J5 | Ha Chuk Yuen Road | 226 | 0 | 0 |
| J6 | Kam Pok Road | 59 | 13 | 2 |
| J7 | Fung Chuk Road | 192 | 0 | 0 |

Table J2 Year 2034 Queue Length Assessment for Design Case

| Ref. (1) | Approach Arm | Road Length of each lane | Year 2034 Average Queue Length (m) | |
|-------------------|--------------------------------|-----------------------------|------------------------------------|---------|
| | | | Design Case (with Current Scheme) | |
| | | | AM Peak | PM Peak |
| J1 ⁽¹⁾ | Fairview Park Boulevard | 391 | 76 | 7 |
| | Castle Peak Road - Tam Mi (SB) | 590 | 150 | 3 |
| | San Tin Highway Slip Road (SB) | 329 | 30 | 15 |
| | San Tam Road (SB) | 563 | 27 | 5 |
| | San Tam Road (NB) | 202 | 22 | 4 |
| | San Tin Highway Slip Road (NB) | 410 | 11 | 32 |
| | Castle Peak Road - Tam Mi (NB) | 840 | 95 | 15 |

| Ref. (1) | Approach Arm | Road Length of each lane | Year 2034 Average Queue Length (m) | |
|-------------------|--------------------------------|-----------------------------|------------------------------------|---------|
| | | | Design Case (with Current Scheme) | |
| | | | AM Peak | PM Peak |
| J2 | Fairview Park Boulevard (EB) | 40 | 54 | 35 |
| | Fairview Park Boulevard (WB) | 252 | 43 | 54 |
| | Kam Pok Road (SB) | 39 | 21 | 20 |
| | Kam Pok Road (NB) | 160 | 26 | 31 |
| J3 | Vehicular Bridge (EB) | 55 | 1 | 1 |
| | Kam Pok Rd (SB) | 35 | 18 | 12 |
| | Kam Pok Rd (NB) | 78 | 16 | 9 |
| J4 | Vehicular Bridge (SB) | 54 | 2 | 1 |
| | Kam Pok Road (EB) | 334 | 28 | 16 |
| | R(D) Site Access | 27 | 15 | 7 |
| | Kam Pok Road (WB) | 242 | 24 | 15 |
| J5 | Ha Chuk Yuen Road | 226 | 0 | 0 |
| J6 ⁽²⁾ | Castle Peak Road – Tam Mi (NB) | 86 | 5 | 5 |
| | Castle Peak Road – Tam Mi (SB) | 41 | 2 | 2 |
| | Kam Pok Road | 57 | 8 | 3 |
| J7 | Fung Chuk Road | 192 | 0 | 0 |
| J8 | Site Main Entrance | 65 | 1 | 0 |

Remarks:

(1) Based on the proposed junction improvement works on **Drawing 5.5**.

(2) Based on the proposed junction improvement works on **Drawing 5.6**.

- J2. The results of the assessment as shown in **Table J2** indicated that with the improvement layouts, the trips generated/attracted by the proposed development will not cause traffic queue back to the adjacent junction during peak hours.

**Year 2034 Queue Length Assessment
Reference Case**

J1 - Reference Case in AM Peak

| |
|--|
| Junctions 11 |
| ARCADY 11 - Roundabout Module |
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Filename: Import of J1-REF-AM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J1

Report generation date: 8/5/2026 12:04:52 pm

- «D1 - 2025 | | AM
- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

Arms

| Arm | Name | Description | No give-way line |
|-----|-------------------------------|-------------|------------------|
| A | Fairview Park Boulevard | | |
| B | Castle Peak Road - Tam Mi (N) | | |
| C | San Tin Highway Slip Road (N) | | |
| D | San Tam Road (N) | | |
| E | San Tam Road (S) | | |
| F | San Tin Highway Slip Road (S) | | |
| G | Castle Peak Road - Tam Mi (S) | | |

Roundabout Geometry

| Arm | V - Approach road half-width (m) | E - Entry width (m) | l' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Entry only | Exit only |
|-----|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| 1 | 7.00 | 11.80 | 20.0 | 25.0 | 140.0 | 35.0 | | |
| 2 | 7.30 | 12.00 | 36.0 | 30.0 | 140.0 | 25.0 | | |
| 3 | 7.30 | 13.00 | 13.0 | 45.0 | 140.0 | 30.0 | | |
| 4 | 7.30 | 11.00 | 23.0 | 25.0 | 140.0 | 35.0 | | |
| 5 | 7.30 | 12.00 | 27.0 | 25.0 | 140.0 | 45.0 | | |
| 6 | 6.00 | 12.50 | 20.0 | 25.0 | 140.0 | 40.0 | | |
| 7 | 6.50 | 11.20 | 22.0 | 25.0 | 140.0 | 35.0 | | |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1 | | ONE HOUR | ✓ | 1020 | 100.000 |
| 2 | | ONE HOUR | ✓ | 845 | 100.000 |
| 3 | | ONE HOUR | ✓ | 1000 | 100.000 |
| 4 | | ONE HOUR | ✓ | 725 | 100.000 |
| 5 | | ONE HOUR | ✓ | 1225 | 100.000 |
| 6 | | ONE HOUR | ✓ | 1425 | 100.000 |
| 7 | | ONE HOUR | ✓ | 1065 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | | | |
|------|---|-----|-----|-----|-----|-----|-----|-----|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| From | 1 | 10 | 20 | 210 | 40 | 230 | 480 | 30 |
| | 2 | 10 | 10 | 145 | 10 | 250 | 390 | 30 |
| | 3 | 95 | 75 | 10 | 100 | 485 | 10 | 225 |
| | 4 | 65 | 20 | 45 | 10 | 280 | 210 | 95 |
| | 5 | 40 | 35 | 465 | 120 | 10 | 535 | 20 |
| | 6 | 335 | 330 | 10 | 110 | 630 | 10 | 0 |
| | 7 | 115 | 160 | 370 | 85 | 10 | 325 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | | | | | |
|------|---|----|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| From | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| 1 | 0.90 | 0.07 | 0.78 | 1.59 | 1.97 | | | N/A | N/A |
| 2 | 0.60 | 0.12 | 0.87 | 1.37 | 1.44 | | | N/A | N/A |
| 3 | 0.80 | 0.13 | 0.90 | 1.42 | 1.49 | | | N/A | N/A |
| 4 | 0.64 | 0.06 | 0.67 | 1.36 | 1.45 | | | N/A | N/A |
| 5 | 0.85 | 0.55 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |
| 6 | 1.04 | 0.55 | 1.02 | 1.43 | 1.49 | | | N/A | N/A |
| 7 | 0.88 | 0.17 | 0.95 | 1.30 | 1.30 | | | N/A | N/A |

08:15 - 08:30

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| 1 | 2.02 | 0.04 | 0.37 | 5.13 | 10.42 | | | N/A | N/A |
| 2 | 1.22 | 0.04 | 0.38 | 3.09 | 5.53 | | | N/A | N/A |
| 3 | 1.68 | 0.04 | 0.38 | 4.43 | 8.24 | | | N/A | N/A |
| 4 | 1.43 | 0.04 | 0.36 | 3.61 | 6.97 | | | N/A | N/A |
| 5 | 1.54 | 0.04 | 0.42 | 4.06 | 6.93 | | | N/A | N/A |
| 6 | 1.82 | 0.04 | 0.41 | 4.86 | 8.53 | | | N/A | N/A |
| 7 | 1.77 | 0.04 | 0.38 | 4.66 | 8.70 | | | N/A | N/A |

08:30 - 08:45

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| 1 | 29.15 | 5.76 | 24.65 | 54.11 | 65.27 | | | N/A | N/A |
| 2 | 6.88 | 0.05 | 0.63 | 19.87 | 34.54 | | | N/A | N/A |
| 3 | 12.11 | 0.14 | 4.57 | 32.82 | 47.42 | | | N/A | N/A |
| 4 | 16.85 | 1.35 | 12.05 | 36.50 | 46.70 | | | N/A | N/A |
| 5 | 4.67 | 0.03 | 0.33 | 7.71 | 24.16 | | | N/A | N/A |
| 6 | 5.40 | 0.03 | 0.34 | 9.99 | 28.75 | | | N/A | N/A |
| 7 | 12.33 | 0.13 | 4.47 | 33.67 | 48.93 | | | N/A | N/A |

08:45 - 09:00

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| 1 | 56.09 | 16.99 | 50.40 | 95.68 | 112.06 | | | N/A | N/A |
| 2 | 8.67 | 0.04 | 0.44 | 23.86 | 46.71 | | | N/A | N/A |
| 3 | 17.57 | 0.12 | 5.53 | 49.42 | 73.43 | | | N/A | N/A |
| 4 | 31.64 | 4.04 | 25.23 | 63.43 | 78.53 | | | N/A | N/A |
| 5 | 5.07 | 0.03 | 0.29 | 5.07 | 18.59 | | | N/A | N/A |
| 6 | 5.77 | 0.03 | 0.29 | 5.77 | 21.45 | | | N/A | N/A |
| 7 | 17.04 | 0.10 | 4.37 | 48.85 | 74.37 | | | N/A | N/A |

09:00 - 09:15

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| 1 | 2.56 | 0.03 | 0.35 | 5.90 | 13.65 | | | N/A | N/A |
| 2 | 1.86 | 0.06 | 0.74 | 4.74 | 7.14 | | | N/A | N/A |
| 3 | 2.48 | 0.05 | 0.47 | 6.85 | 11.43 | | | N/A | N/A |
| 4 | 2.49 | 0.04 | 0.44 | 6.85 | 11.82 | | | N/A | N/A |
| 5 | 2.04 | 0.07 | 1.12 | 4.87 | 6.96 | | | N/A | N/A |
| 6 | 2.02 | 0.05 | 0.64 | 5.32 | 8.24 | | | N/A | N/A |
| 7 | 1.99 | 0.04 | 0.37 | 5.16 | 10.15 | | | N/A | N/A |

09:15 - 09:30

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| 1 | 0.93 | 0.03 | 0.27 | 0.93 | 1.16 | | | N/A | N/A |
| 2 | 0.62 | 0.03 | 0.29 | 1.01 | 2.59 | | | N/A | N/A |
| 3 | 0.83 | 0.03 | 0.28 | 0.83 | 2.65 | | | N/A | N/A |
| 4 | 0.66 | 0.03 | 0.27 | 0.66 | 1.12 | | | N/A | N/A |
| 5 | 0.87 | 0.03 | 0.33 | 1.92 | 4.25 | | | N/A | N/A |
| 6 | 1.07 | 0.03 | 0.33 | 2.41 | 5.33 | | | N/A | N/A |
| 7 | 0.91 | 0.03 | 0.28 | 0.91 | 3.24 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm 1: 2 lanes

Arm 2: 2 lanes

Arm 3: 2 lanes

Arm 4: 2 lanes

Arm 5: 2 lanes

Arm 6: 2 lanes

Arm 7: 2 lanes

J1 - Reference Case in PM Peak

| |
|--|
| <h2>Junctions 11</h2> |
| <h3>ARCADY 11 - Roundabout Module</h3> |
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Filename: Import of J1-REF-PM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J1

Report generation date: 8/5/2026 8:32:05 pm

«D1 - 2025 | | AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

Arms

| Arm | Name | Description | No give-way line |
|-----|-------------------------------|-------------|------------------|
| A | Fairview Park Boulevard | | |
| B | Castle Peak Road - Tam Mi (N) | | |
| C | San Tin Highway Slip Road (N) | | |
| D | San Tam Road (N) | | |
| E | San Tam Road (S) | | |
| F | San Tin Highway Slip Road (S) | | |
| G | Castle Peak Road - Tam Mi (S) | | |

Roundabout Geometry

| Arm | V - Approach road half-width (m) | E - Entry width (m) | l' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Entry only | Exit only |
|-----|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| 1 | 7.00 | 11.80 | 20.0 | 25.0 | 140.0 | 35.0 | | |
| 2 | 7.30 | 12.00 | 36.0 | 30.0 | 140.0 | 25.0 | | |
| 3 | 7.30 | 13.00 | 13.0 | 45.0 | 140.0 | 30.0 | | |
| 4 | 7.30 | 11.00 | 23.0 | 25.0 | 140.0 | 35.0 | | |
| 5 | 7.30 | 12.00 | 27.0 | 25.0 | 140.0 | 45.0 | | |
| 6 | 6.00 | 12.50 | 20.0 | 25.0 | 140.0 | 40.0 | | |
| 7 | 6.50 | 11.20 | 22.0 | 25.0 | 140.0 | 35.0 | | |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| 1 | | ONE HOUR | ✓ | 830 | 100.000 |
| 2 | | ONE HOUR | ✓ | 540 | 100.000 |
| 3 | | ONE HOUR | ✓ | 1075 | 100.000 |
| 4 | | ONE HOUR | ✓ | 630 | 100.000 |
| 5 | | ONE HOUR | ✓ | 875 | 100.000 |
| 6 | | ONE HOUR | ✓ | 1620 | 100.000 |
| 7 | | ONE HOUR | ✓ | 715 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | | | |
|------|---|-----|-----|-----|-----|-----|-----|-----|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| From | 1 | 10 | 10 | 170 | 55 | 210 | 345 | 30 |
| | 2 | 35 | 10 | 95 | 10 | 170 | 190 | 30 |
| | 3 | 190 | 125 | 20 | 85 | 425 | 20 | 210 |
| | 4 | 80 | 20 | 90 | 20 | 250 | 95 | 75 |
| | 5 | 100 | 30 | 305 | 115 | 10 | 295 | 20 |
| | 6 | 445 | 310 | 10 | 175 | 660 | 20 | 0 |
| | 7 | 95 | 125 | 200 | 55 | 10 | 220 | 10 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | | | | | |
|------|---|----|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| From | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| 1 | 0.55 | 0.55 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |
| 2 | 0.27 | 0.00 | 0.00 | 0.27 | 0.27 | | | N/A | N/A |
| 3 | 0.75 | 0.55 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |
| 4 | 0.43 | 0.00 | 0.00 | 0.43 | 0.43 | | | N/A | N/A |
| 5 | 0.44 | 0.00 | 0.00 | 0.44 | 0.44 | | | N/A | N/A |
| 6 | 1.46 | 0.13 | 1.22 | 2.62 | 3.35 | | | N/A | N/A |
| 7 | 0.53 | 0.53 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |

08:15 - 08:30

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| 1 | 0.95 | 0.05 | 0.49 | 2.00 | 2.98 | | | N/A | N/A |
| 2 | 0.41 | 0.00 | 0.00 | 0.41 | 0.41 | | | N/A | N/A |
| 3 | 1.39 | 0.04 | 0.40 | 3.63 | 6.27 | | | N/A | N/A |
| 4 | 0.76 | 0.05 | 0.49 | 1.46 | 1.96 | | | N/A | N/A |
| 5 | 0.66 | 0.07 | 0.70 | 1.38 | 1.46 | | | N/A | N/A |
| 6 | 3.08 | 0.04 | 0.42 | 8.45 | 15.59 | | | N/A | N/A |
| 7 | 0.95 | 0.05 | 0.47 | 2.07 | 3.13 | | | N/A | N/A |

08:30 - 08:45

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| 1 | 2.57 | 0.03 | 0.28 | 2.57 | 8.48 | | | N/A | N/A |
| 2 | 0.81 | 0.03 | 0.25 | 0.81 | 0.81 | | | N/A | N/A |
| 3 | 5.28 | 0.04 | 0.36 | 12.11 | 28.85 | | | N/A | N/A |
| 4 | 2.37 | 0.03 | 0.29 | 2.37 | 8.79 | | | N/A | N/A |
| 5 | 1.20 | 0.03 | 0.26 | 1.20 | 1.20 | | | N/A | N/A |
| 6 | 27.16 | 1.67 | 19.72 | 59.14 | 75.60 | | | N/A | N/A |
| 7 | 3.01 | 0.03 | 0.30 | 3.38 | 14.07 | | | N/A | N/A |

08:45 - 09:00

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| 1 | 2.74 | 0.03 | 0.28 | 2.74 | 7.10 | | | N/A | N/A |
| 2 | 0.83 | 0.03 | 0.29 | 1.41 | 3.81 | | | N/A | N/A |
| 3 | 5.89 | 0.03 | 0.32 | 7.52 | 28.51 | | | N/A | N/A |
| 4 | 2.58 | 0.03 | 0.29 | 2.58 | 9.92 | | | N/A | N/A |
| 5 | 1.22 | 0.03 | 0.27 | 1.22 | 1.58 | | | N/A | N/A |
| 6 | 43.91 | 3.50 | 32.81 | 94.26 | 119.54 | | | N/A | N/A |
| 7 | 3.34 | 0.03 | 0.29 | 3.34 | 13.58 | | | N/A | N/A |

09:00 - 09:15

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| 1 | 1.09 | 0.08 | 0.92 | 1.90 | 2.60 | | | N/A | N/A |
| 2 | 0.44 | 0.00 | 0.00 | 0.44 | 0.44 | | | N/A | N/A |
| 3 | 1.58 | 0.05 | 0.49 | 4.02 | 6.34 | | | N/A | N/A |
| 4 | 0.85 | 0.06 | 0.74 | 1.46 | 1.88 | | | N/A | N/A |
| 5 | 0.67 | 0.37 | 0.96 | 1.39 | 1.45 | | | N/A | N/A |
| 6 | 3.43 | 0.04 | 0.38 | 8.82 | 18.31 | | | N/A | N/A |
| 7 | 1.16 | 0.07 | 0.86 | 2.35 | 3.20 | | | N/A | N/A |

09:15 - 09:30

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| 1 | 0.56 | 0.04 | 0.37 | 1.10 | 1.86 | | | N/A | N/A |
| 2 | 0.27 | 0.00 | 0.00 | 0.27 | 0.27 | | | N/A | N/A |
| 3 | 0.77 | 0.03 | 0.31 | 1.48 | 3.76 | | | N/A | N/A |
| 4 | 0.44 | 0.03 | 0.34 | 1.35 | 1.40 | | | N/A | N/A |
| 5 | 0.45 | 0.04 | 0.36 | 1.17 | 1.33 | | | N/A | N/A |
| 6 | 1.50 | 0.03 | 0.28 | 1.50 | 4.79 | | | N/A | N/A |
| 7 | 0.54 | 0.03 | 0.33 | 1.12 | 2.15 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm 1: 2 lanes

Arm 2: 2 lanes

Arm 3: 2 lanes

Arm 4: 2 lanes

Arm 5: 2 lanes

Arm 6: 2 lanes

Arm 7: 2 lanes

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Fairview Park Boulevard (J2) |
| Approach | Fairview Park Boulevard EB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|----------------------|
| Description | 2034 Reference Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | | Lane 2 | | | | | |
|-----------------------------|------------------|--------|----------|---------------|--------------------------|------------------|---------|-----------------------------|---------------|------------|
| AM peak | | | | | PM peak | | | | | |
| cycle time | c | 120 | sec | | cycle time | c | 120 | sec | | |
| effective green time | g | 45 | sec | | effective green time | g | 44 | sec | | |
| design flow | q | 860 | pcu/hr | 0.239 veh/sec | design flow | q | 555 | pcu/hr | 0.154 veh/sec | |
| saturation flow | Q | 3895 | pcu/hr | 1.082 veh/sec | saturation flow | Q | 3890 | pcu/hr | 1.081 veh/sec | |
| pcu factor | f | 1 | pcu/veh | | pcu factor | f | 1 | pcu/veh | | |
| no. of lanes | n | 2 | lane | | no. of lanes | n | 2 | lane | | |
| length of a vehicle | L | 6 | metre | | length of a vehicle | L | 6 | metre | | |
| Queue duration | t | 1 | hr | | Queue duration | t | 1 | hr | | |
| ratio of effective green | g/c | 0.375 | y | 0.221 | ratio of effective green | g/c | 0.367 | y | 0.143 | |
| degree of saturation | x | 0.589 | Qt | 1461 veh/sec | degree of saturation | x | 0.389 | Qt | 1426 veh/sec | |
| | M | 28.67 | | | | M | 18.50 | | | |
| | $x < 1$ | | $x > x'$ | | | $x < 1$ | | $x > x'$ | | |
| | A | 0.251 | sec/veh | Z | -0.411 | A | 0.234 | sec/veh | Z | -0.611 |
| | B | 0.422 | sec/veh | X' | 0.751 | B | 0.124 | sec/veh | X' | 0.749 |
| | C | 1.069 | sec/veh | No | -0.593 veh | C | 0.299 | sec/veh | No | -0.886 veh |
| Average Queue Delay | D | 31 | sec/veh | D | 29 | sec/veh | D | 26 | sec/veh | |
| Average Delay | | 31 | sec/veh | | | 29 | sec/veh | | | |
| Average Queue | $N = q(r/2 + d)$ | 16.310 | veh | | Average Queue | $N = q(r/2 + d)$ | 10.264 | veh | | |
| | $N = qr$ | 17.917 | veh | $N = qr + No$ | 17.323 | veh | | $N = qr + No$ | 10.831 | |
| Average Queue Length | NL/n | 49 | metre | NL/n | 52 | metre | | NL/n | 32 | |
| | NL/n | 54 | metre | | | | | NL/n | 35 | |
| Average Queue Length | | 54 | metre | | | | | Average Queue Length | 35 | |
| Maximum Queue Length | | 82 | metre | | | | | Maximum Queue Length | 59 | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Fairview Park Boulevard (J2) |
| Approach | Fairview Park Boulevard WB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|----------------------|
| Description | 2034 Reference Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | Lane 2 | | | |
|-----------------------------|------------------|-------------------|--------------------------|-----------------------------|------------------|-------------------|--------------------------|
| AM peak | | | | PM peak | | | |
| cycle time | c | 120 sec | | cycle time | c | 120 sec | |
| effective green time | g | 45 sec | | effective green time | g | 44 sec | |
| design flow | q | 680 pcu/hr | 0.189 veh/sec | design flow | q | 845 pcu/hr | 0.235 veh/sec |
| saturation flow | Q | 3890 pcu/hr | 1.081 veh/sec | saturation flow | Q | 3885 pcu/hr | 1.079 veh/sec |
| pcu factor | f | 1 pcu/veh | | pcu factor | f | 1 pcu/veh | |
| no. of lanes | n | 2 lane | | no. of lanes | n | 2 lane | |
| length of a vehicle | L | 6 metre | | length of a vehicle | L | 6 metre | |
| Queue duration | t | 1 hr | | Queue duration | t | 1 hr | |
| ratio of effective green | g/c | 0.375 | y 0.175 | ratio of effective green | g/c | 0.367 | y 0.218 |
| degree of saturation | x | 0.466 | Qt 1459 veh/sec | degree of saturation | x | 0.593 | Qt 1425 veh/sec |
| | M | 22.67 | | | M | 28.17 | |
| | $x < 1$ | | $x > x'$ | | $x < 1$ | | $x > x'$ |
| | A | 0.237 sec/veh | Z -0.534 | | A | 0.256 sec/veh | Z -0.407 |
| | B | 0.204 sec/veh | X' 0.751 | | B | 0.432 sec/veh | X' 0.749 |
| | C | 0.506 sec/veh | No -0.802 veh | | C | 1.138 sec/veh | No -0.576 veh |
| Average Queue Delay | D | 29 sec/veh | D 26 sec/veh | Average Queue Delay | D | 31 sec/veh | D 29 sec/veh |
| Average Delay | | 29 sec/veh | | Average Delay | | 31 sec/veh | |
| Average Queue | $N = q(r/2 + d)$ | 12.556 veh | | Average Queue | $N = q(r/2 + d)$ | 16.304 veh | |
| | $N = qr$ | 14.167 veh | $N = qr + No$ 13.365 veh | | $N = qr$ | 17.839 veh | $N = qr + No$ 17.263 veh |
| Average Queue Length | NL/n | 38 metre | NL/n 40 metre | Average Queue Length | NL/n | 49 metre | NL/n 52 metre |
| | NL/n | 43 metre | | | NL/n | 54 metre | |
| Average Queue Length | | 43 metre | | Average Queue Length | | 54 metre | |
| Maximum Queue Length | | 68 metre | | Maximum Queue Length | | 82 metre | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Fairview Park Boulevard (J2) |
| Approach | Kam Pok Road SB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|----------------------|
| Description | 2034 Reference Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

Lane 1

AM peak

| | | | | | |
|-----------------------------|----------------|-------|------------|-----------|---------|
| cycle time | c | 120 | sec | | |
| effective green time | g | 15 | sec | | |
| design flow | q | 125 | pcu/hr | 0.035 | veh/sec |
| saturation flow | Q | 2060 | pcu/hr | 0.572 | veh/sec |
| pcu factor | f | 1 | pcu/veh | | |
| no. of lanes | n | 1 | lane | | |
| length of a vehicle | L | 6 | metre | | |
| Queue duration | t | 1 | hr | | |
| ratio of effective green | g/c | 0.125 | y | 0.061 | |
| degree of saturation | x | 0.485 | Qt | 258 | veh/sec |
| | M | 4.17 | | | |
| | $x < 1$ | | $x > x'$ | | |
| | A | 0.408 | sec/veh Z | -0.515 | |
| | B | 0.229 | sec/veh X' | 0.684 | |
| | C | 4.519 | sec/veh No | -0.585 | veh |
| Average Queue Delay | D | 51 | sec/veh D | 41 | sec/veh |
| Average Delay | | 51 | sec/veh | | |
| Average Queue | $N = q(r/2+d)$ | 3.593 | veh | | |
| | $N=qr$ | 3.646 | veh | $N=qr+No$ | 3.061 |
| Average Queue Length | NL/n | 22 | metre | NL/n | 18 |
| | NL/n | 22 | metre | | |
| Average Queue Length | | 22 | metre | | |
| Maximum Queue Length | | 48 | metre | | |

Lane 2

PM peak

| | | | | | |
|-----------------------------|----------------|-------|------------|-----------|---------|
| cycle time | c | 120 | sec | | |
| effective green time | g | 11 | sec | | |
| design flow | q | 110 | pcu/hr | 0.031 | veh/sec |
| saturation flow | Q | 2055 | pcu/hr | 0.571 | veh/sec |
| pcu factor | f | 1 | pcu/veh | | |
| no. of lanes | n | 1 | lane | | |
| length of a vehicle | L | 6 | metre | | |
| Queue duration | t | 1 | hr | | |
| ratio of effective green | g/c | 0.092 | y | 0.054 | |
| degree of saturation | x | 0.584 | Qt | 188 | veh/sec |
| | M | 3.67 | | | |
| | $x < 1$ | | $x > x'$ | | |
| | A | 0.436 | sec/veh Z | -0.416 | |
| | B | 0.410 | sec/veh X' | 0.680 | |
| | C | 8.741 | sec/veh No | -0.351 | veh |
| Average Queue Delay | D | 57 | sec/veh D | 46 | sec/veh |
| Average Delay | | 57 | sec/veh | | |
| Average Queue | $N = q(r/2+d)$ | 3.406 | veh | | |
| | $N=qr$ | 3.331 | veh | $N=qr+No$ | 2.979 |
| Average Queue Length | NL/n | 20 | metre | NL/n | 18 |
| | NL/n | 20 | metre | | |
| Average Queue Length | | 20 | metre | | |
| Maximum Queue Length | | 47 | metre | | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Fairview Park Boulevard (J2) |
| Approach | Kam Pok Road NB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|----------------------|
| Description | 2034 Reference Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | Lane 2 | | | |
|-----------------------------|----------------|-------------------|---------------------|-----------------------------|----------------|-------------------|---------------------|
| AM peak | | | | PM peak | | | |
| cycle time | c | 120 sec | | cycle time | c | 120 sec | |
| effective green time | g | 15 sec | | effective green time | g | 19 sec | |
| design flow | q | 140 pcu/hr | 0.039 veh/sec | design flow | q | 180 pcu/hr | 0.050 veh/sec |
| saturation flow | Q | 1920 pcu/hr | 0.533 veh/sec | saturation flow | Q | 1865 pcu/hr | 0.518 veh/sec |
| pcu factor | f | 1 pcu/veh | | pcu factor | f | 1 pcu/veh | |
| no. of lanes | n | 1 lane | | no. of lanes | n | 1 lane | |
| length of a vehicle | L | 6 metre | | length of a vehicle | L | 6 metre | |
| Queue duration | t | 1 hr | | Queue duration | t | 1 hr | |
| ratio of effective green | g/c | 0.125 | y 0.073 | ratio of effective green | g/c | 0.158 | y 0.097 |
| degree of saturation | x | 0.583 | Qt 240 veh/sec | degree of saturation | x | 0.610 | Qt 295 veh/sec |
| | M | 4.67 | | | M | 6.00 | |
| | $x < 1$ | | $x > x'$ | | $x < 1$ | | $x > x'$ |
| | A | 0.413 sec/veh | Z -0.417 | | A | 0.392 sec/veh | Z -0.390 |
| | B | 0.408 sec/veh | X' 0.683 | | B | 0.476 sec/veh | X' 0.686 |
| | C | 6.786 sec/veh | No -0.363 veh | | C | 5.932 sec/veh | No -0.297 veh |
| Average Queue Delay | D | 53 sec/veh | D 44 sec/veh | Average Queue Delay | D | 51 sec/veh | D 43 sec/veh |
| Average Delay | | 53 sec/veh | | Average Delay | | 51 sec/veh | |
| Average Queue | $N = q(r/2+d)$ | 4.113 veh | | Average Queue | $N = q(r/2+d)$ | 5.056 veh | |
| | $N=qr$ | 4.083 veh | $N=qr+No$ 3.721 veh | | $N=qr$ | 5.050 veh | $N=qr+No$ 4.753 veh |
| Average Queue Length | NL/n | 25 metre | NL/n 22 metre | Average Queue Length | NL/n | 30 metre | NL/n 29 metre |
| | NL/n | 25 metre | | | NL/n | 30 metre | |
| Average Queue Length | | 25 metre | | Average Queue Length | | 30 metre | |
| Maximum Queue Length | | 45 metre | | Maximum Queue Length | | 56 metre | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – South (J3) |
| Approach | Vehicular Bridge (EB) |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|----------------------|
| Description | 2034 Reference Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | | Lane 2 | | | | |
|-----------------------------|----------------|-------------------|---------------|-------------|-----------------------------|----------------|-------------------|---------------|-------------|
| AM peak | | | | | PM peak | | | | |
| cycle time | c | 60 sec | | | cycle time | c | 60 sec | | |
| effective green time | g | 5 sec | | | effective green time | g | 5 sec | | |
| design flow | q | 15 pcu/hr | 0.004 veh/sec | | design flow | q | 10 pcu/hr | 0.003 veh/sec | |
| saturation flow | Q | 1715 pcu/hr | 0.476 veh/sec | | saturation flow | Q | 1715 pcu/hr | 0.476 veh/sec | |
| pcu factor | f | 1 pcu/veh | | | pcu factor | f | 1 pcu/veh | | |
| no. of lanes | n | 1 lane | | | no. of lanes | n | 1 lane | | |
| length of a vehicle | L | 6 metre | | | length of a vehicle | L | 6 metre | | |
| Queue duration | t | 1 hr | | | Queue duration | t | 1 hr | | |
| ratio of effective green | g/c | 0.083 | y | 0.009 | ratio of effective green | g/c | 0.083 | y | 0.006 |
| degree of saturation | x | 0.105 | Qt | 143 veh/sec | degree of saturation | x | 0.070 | Qt | 143 veh/sec |
| | M | 0.25 | | | | M | 0.17 | | |
| | $x < 1$ | | $x > x'$ | | | $x < 1$ | | $x > x'$ | |
| | A | 0.424 sec/veh | Z | -0.895 | | A | 0.423 sec/veh | Z | -0.930 |
| | B | 0.006 sec/veh | X' | 0.674 | | B | 0.003 sec/veh | X' | 0.674 |
| | C | 0.423 sec/veh | No | -0.968 veh | | C | 0.208 sec/veh | No | -0.989 veh |
| Average Queue Delay | D | 26 sec/veh | D | 1 sec/veh | Average Queue Delay | D | 26 sec/veh | D | 0 sec/veh |
| Average Delay | | 26 sec/veh | | | Average Delay | | 26 sec/veh | | |
| Average Queue | $N = q(r/2+d)$ | 0.225 veh | | | Average Queue | $N = q(r/2+d)$ | 0.149 veh | | |
| | $N = qr$ | 0.229 veh | $N = qr + No$ | -0.739 veh | | $N = qr$ | 0.153 veh | $N = qr + No$ | -0.836 veh |
| Average Queue Length | NL/n | 1 metre | NL/n | -4 metre | Average Queue Length | NL/n | 1 metre | NL/n | -5 metre |
| | NL/n | 1 metre | | | | NL/n | 1 metre | | |
| Average Queue Length | | 1 metre | | | Average Queue Length | | 1 metre | | |
| Maximum Queue Length | | 40 metre | | | Maximum Queue Length | | 40 metre | | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – South (J3) |
| Approach | Kam Pok Rd (SB) |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|----------------------|
| Description | 2034 Reference Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | Lane 2 | | | |
|-----------------------------|----------------|-------------------|-------------------------|-----------------------------|----------------|-------------------|-------------------------|
| AM peak | | | | PM peak | | | |
| cycle time | c | 60 sec | | cycle time | c | 60 sec | |
| effective green time | g | 20 sec | | effective green time | g | 21 sec | |
| design flow | q | 130 pcu/hr | 0.036 veh/sec | design flow | q | 110 pcu/hr | 0.031 veh/sec |
| saturation flow | Q | 1955 pcu/hr | 0.543 veh/sec | saturation flow | Q | 1935 pcu/hr | 0.538 veh/sec |
| pcu factor | f | 1 pcu/veh | | pcu factor | f | 1 pcu/veh | |
| no. of lanes | n | 1 lane | | no. of lanes | n | 1 lane | |
| length of a vehicle | L | 6 metre | | length of a vehicle | L | 6 metre | |
| Queue duration | t | 1 hr | | Queue duration | t | 1 hr | |
| ratio of effective green | g/c | 0.333 | y 0.066 | ratio of effective green | g/c | 0.350 | y 0.057 |
| degree of saturation | x | 0.199 | Qt 652 veh/sec | degree of saturation | x | 0.162 | Qt 677 veh/sec |
| | M | 2.17 | | | M | 1.83 | |
| | $x < 1$ | | $x > x'$ | | $x < 1$ | | $x > x'$ |
| | A | 0.238 sec/veh | Z -0.801 | | A | 0.224 sec/veh | Z -0.838 |
| | B | 0.025 sec/veh | X' 0.688 | | B | 0.016 sec/veh | X' 0.689 |
| | C | 0.063 sec/veh | No -0.919 veh | | C | 0.029 sec/veh | No -0.946 veh |
| Average Queue Delay | D | 15 sec/veh | D 9 sec/veh | Average Queue Delay | D | 14 sec/veh | D 8 sec/veh |
| Average Delay | | 15 sec/veh | | Average Delay | | 14 sec/veh | |
| Average Queue | $N = q(r/2+d)$ | 1.261 veh | | Average Queue | $N = q(r/2+d)$ | 1.021 veh | |
| | $N = qr$ | 1.444 veh | $N = qr + No$ 0.526 veh | | $N = qr$ | 1.192 veh | $N = qr + No$ 0.246 veh |
| Average Queue Length | NL/n | 8 metre | NL/n 3 metre | Average Queue Length | NL/n | 6 metre | NL/n 1 metre |
| | NL/n | 9 metre | | | NL/n | 7 metre | |
| Average Queue Length | | 9 metre | | Average Queue Length | | 7 metre | |
| Maximum Queue Length | | 32 metre | | Maximum Queue Length | | 32 metre | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – South (J3) |
| Approach | Kam Pok Rd (NB) |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|----------------------|
| Description | 2034 Reference Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | Lane 2 | | | |
|-----------------------------|----------------|-------------------|-------------------------|-----------------------------|----------------|-------------------|--------------------------|
| AM peak | | | | PM peak | | | |
| cycle time | c | 60 sec | | cycle time | c | 60 sec | |
| effective green time | g | 7 sec | | effective green time | g | 6 sec | |
| design flow | q | 60 pcu/hr | 0.017 veh/sec | design flow | q | 45 pcu/hr | 0.013 veh/sec |
| saturation flow | Q | 1945 pcu/hr | 0.540 veh/sec | saturation flow | Q | 1935 pcu/hr | 0.538 veh/sec |
| pcu factor | f | 1 pcu/veh | | pcu factor | f | 1 pcu/veh | |
| no. of lanes | n | 1 lane | | no. of lanes | n | 1 lane | |
| length of a vehicle | L | 6 metre | | length of a vehicle | L | 6 metre | |
| Queue duration | t | 1 hr | | Queue duration | t | 1 hr | |
| ratio of effective green | g/c | 0.117 | y 0.031 | ratio of effective green | g/c | 0.100 | y 0.023 |
| degree of saturation | x | 0.264 | Qt 227 veh/sec | degree of saturation | x | 0.233 | Qt 194 veh/sec |
| | M | 1.00 | | | M | 0.75 | |
| | $x < 1$ | | $x > x'$ | | $x < 1$ | | $x > x'$ |
| | A | 0.403 sec/veh | Z -0.736 | | A | 0.415 sec/veh | Z -0.767 |
| | B | 0.048 sec/veh | X' 0.676 | | B | 0.035 sec/veh | X' 0.675 |
| | C | 1.255 sec/veh | No -0.849 veh | | C | 1.232 sec/veh | No -0.876 veh |
| Average Queue Delay | D | 26 sec/veh | D 11 sec/veh | Average Queue Delay | D | 26 sec/veh | D 9 sec/veh |
| Average Delay | | 26 sec/veh | | Average Delay | | 26 sec/veh | |
| Average Queue | $N = q(r/2+d)$ | 0.871 veh | | Average Queue | $N = q(r/2+d)$ | 0.668 veh | |
| | $N = qr$ | 0.883 veh | $N = qr + No$ 0.035 veh | | $N = qr$ | 0.675 veh | $N = qr + No$ -0.201 veh |
| Average Queue Length | NL/n | 5 metre | NL/n 0 metre | Average Queue Length | NL/n | 4 metre | NL/n -1 metre |
| | NL/n | 5 metre | | | NL/n | 4 metre | |
| Average Queue Length | | 5 metre | | Average Queue Length | | 4 metre | |
| Maximum Queue Length | | 39 metre | | Maximum Queue Length | | 39 metre | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – North / Vehicular Access (J4) |
| Approach | Vehicular Bridge SB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|----------------------|
| Description | 2034 Reference Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | | Lane 2 | | | | |
|-----------------------------|----------------|-------------------|---------------|------------|-----------------------------|----------------|-------------------|---------------|------------|
| AM peak | | | | | PM peak | | | | |
| cycle time | c | 90 sec | | | cycle time | c | 90 sec | | |
| effective green time | g | 5 sec | | | effective green time | g | 5 sec | | |
| design flow | q | 15 pcu/hr | 0.004 veh/sec | | design flow | q | 10 pcu/hr | 0.003 veh/sec | |
| saturation flow | Q | 1735 pcu/hr | 0.482 veh/sec | | saturation flow | Q | 1725 pcu/hr | 0.479 veh/sec | |
| pcu factor | f | 1 pcu/veh | | | pcu factor | f | 1 pcu/veh | | |
| no. of lanes | n | 1 lane | | | no. of lanes | n | 1 lane | | |
| length of a vehicle | L | 6 metre | | | length of a vehicle | L | 6 metre | | |
| Queue duration | t | 1 hr | | | Queue duration | t | 1 hr | | |
| ratio of effective green | g/c | 0.056 | y | 0.009 | ratio of effective green | g/c | 0.056 | y | 0.006 |
| degree of saturation | x | 0.156 | Qt | 96 veh/sec | degree of saturation | x | 0.104 | Qt | 96 veh/sec |
| | M | 0.38 | | | | M | 0.25 | | |
| | $x < 1$ | | $x > x'$ | | | $x < 1$ | | $x > x'$ | |
| | A | 0.450 sec/veh | Z | -0.844 | | A | 0.449 sec/veh | Z | -0.896 |
| | B | 0.014 sec/veh | X' | 0.674 | | B | 0.006 sec/veh | X' | 0.674 |
| | C | 1.625 sec/veh | No | -0.943 veh | | C | 0.857 sec/veh | No | -0.976 veh |
| Average Queue Delay | D | 42 sec/veh | D | 5 sec/veh | Average Queue Delay | D | 42 sec/veh | D | 4 sec/veh |
| Average Delay | | 42 sec/veh | | | Average Delay | | 42 sec/veh | | |
| Average Queue | $N = q(r/2+d)$ | 0.353 veh | | | Average Queue | $N = q(r/2+d)$ | 0.234 veh | | |
| | $N = qr$ | 0.354 veh | $N = qr + No$ | -0.589 veh | | $N = qr$ | 0.236 veh | $N = qr + No$ | -0.740 veh |
| Average Queue Length | NL/n | 2 metre | NL/n | -4 metre | Average Queue Length | NL/n | 1 metre | NL/n | -4 metre |
| | NL/n | 2 metre | | | | NL/n | 1 metre | | |
| Average Queue Length | | 2 metre | | | Average Queue Length | | 1 metre | | |
| Maximum Queue Length | | 40 metre | | | Maximum Queue Length | | 40 metre | | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – North / Vehicular Access (J4) |
| Approach | Kam Pok Road EB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|----------------------|
| Description | 2034 Reference Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | Lane 2 | | | |
|-----------------------------|----------------|-------------------|---------------------|-----------------------------|----------------|-------------------|---------------------|
| AM peak | | | | PM peak | | | |
| cycle time | c | 90 sec | | cycle time | c | 90 sec | |
| effective green time | g | 8 sec | | effective green time | g | 12 sec | |
| design flow | q | 90 pcu/hr | 0.025 veh/sec | design flow | q | 75 pcu/hr | 0.021 veh/sec |
| saturation flow | Q | 1905 pcu/hr | 0.529 veh/sec | saturation flow | Q | 1895 pcu/hr | 0.526 veh/sec |
| pcu factor | f | 1 pcu/veh | | pcu factor | f | 1 pcu/veh | |
| no. of lanes | n | 1 lane | | no. of lanes | n | 1 lane | |
| length of a vehicle | L | 6 metre | | length of a vehicle | L | 6 metre | |
| Queue duration | t | 1 hr | | Queue duration | t | 1 hr | |
| ratio of effective green | g/c | 0.089 | y 0.047 | ratio of effective green | g/c | 0.133 | y 0.040 |
| degree of saturation | x | 0.531 | Qt 169 veh/sec | degree of saturation | x | 0.297 | Qt 253 veh/sec |
| | M | 2.25 | | | M | 1.88 | |
| | $x < 1$ | | $x > x'$ | | $x < 1$ | | $x > x'$ |
| | A | 0.436 sec/veh | Z -0.469 | | A | 0.391 sec/veh | Z -0.703 |
| | B | 0.301 sec/veh | X' 0.677 | | B | 0.063 sec/veh | X' 0.681 |
| | C | 7.267 sec/veh | No -0.472 veh | | C | 1.508 sec/veh | No -0.826 veh |
| Average Queue Delay | D | 44 sec/veh | D 29 sec/veh | Average Queue Delay | D | 37 sec/veh | D 23 sec/veh |
| Average Delay | | 44 sec/veh | | Average Delay | | 37 sec/veh | |
| Average Queue | $N = q(r/2+d)$ | 2.125 veh | | Average Queue | $N = q(r/2+d)$ | 1.577 veh | |
| | $N=qr$ | 2.050 veh | $N=qr+No$ 1.578 veh | | $N=qr$ | 1.625 veh | $N=qr+No$ 0.799 veh |
| Average Queue Length | NL/n | 13 metre | NL/n 9 metre | Average Queue Length | NL/n | 9 metre | NL/n 5 metre |
| | NL/n | 12 metre | | | NL/n | 10 metre | |
| Average Queue Length | | 13 metre | | Average Queue Length | | 10 metre | |
| Maximum Queue Length | | 39 metre | | Maximum Queue Length | | 38 metre | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – North / Vehicular Access (J4) |
| Approach | R(D) Site Access |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|----------------------|
| Description | 2034 Reference Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | Lane 2 | | | |
|-----------------------------|--------------|-------------------|-------------------|-----------------------------|--------------|-------------------|-------------------|
| AM peak | | | | PM peak | | | |
| cycle time | c | 90 sec | | cycle time | c | 60 sec | |
| effective green time | g | 29 sec | | effective green time | g | 21 sec | |
| design flow | q | 255 pcu/hr | 0.071 veh/sec | design flow | q | 105 pcu/hr | 0.029 veh/sec |
| saturation flow | Q | 3805 pcu/hr | 1.057 veh/sec | saturation flow | Q | 3805 pcu/hr | 1.057 veh/sec |
| pcu factor | f | 1 pcu/veh | | pcu factor | f | 1 pcu/veh | |
| no. of lanes | n | 2 lane | | no. of lanes | n | 2 lane | |
| length of a vehicle | L | 6 metre | | length of a vehicle | L | 6 metre | |
| Queue duration | t | 1 hr | | Queue duration | t | 1 hr | |
| ratio of effective green | g/c | 0.322 | y 0.067 | ratio of effective green | g/c | 0.350 | y 0.028 |
| degree of saturation | x | 0.208 | Qt 1226 veh/sec | degree of saturation | x | 0.079 | Qt 1332 veh/sec |
| | M | 6.38 | | | M | 1.75 | |
| | x<1 | | x>x' | | x<1 | | x>x' |
| | A | 0.246 sec/veh | Z -0.792 | | A | 0.217 sec/veh | Z -0.921 |
| | B | 0.027 sec/veh | X' 0.721 | | B | 0.003 sec/veh | X' 0.707 |
| | C | 0.059 sec/veh | No -0.974 veh | | C | 0.002 sec/veh | No -1.025 veh |
| Average Queue Delay | D | 22 sec/veh | D 19 sec/veh | Average Queue Delay | D | 13 sec/veh | D 10 sec/veh |
| Average Delay | | 22 sec/veh | | Average Delay | | 13 sec/veh | |
| Average Queue | N = q(r/2+d) | 3.753 veh | | Average Queue | N = q(r/2+d) | 0.952 veh | |
| | N=qr | 4.321 veh | N=qr+No 3.347 veh | | N=qr | 1.138 veh | N=qr+No 0.113 veh |
| Average Queue Length | NL/n | 11 metre | NL/n 10 metre | Average Queue Length | NL/n | 3 metre | NL/n 0 metre |
| | NL/n | 13 metre | | | NL/n | 3 metre | |
| Average Queue Length | | 13 metre | | Average Queue Length | | 3 metre | |
| Maximum Queue Length | | 25 metre | | Maximum Queue Length | | 16 metre | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – North / Vehicular Access (J4) |
| Approach | Kam Pok Road WB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|----------------------|
| Description | 2034 Reference Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | | Lane 2 | | | | | | |
|-----------------------------|----------------|-----------|----------------|---------------|--------------------------|-----------------------------|-------|-----------|----------------|------------|-------|
| AM peak | | | | | PM peak | | | | | | |
| cycle time | c | 90 | sec | | cycle time | c | 90 | sec | | | |
| effective green time | g | 21 | sec | | effective green time | g | 25 | sec | | | |
| design flow | q | 295 | pcu/hr | 0.082 veh/sec | design flow | q | 230 | pcu/hr | 0.064 veh/sec | | |
| saturation flow | Q | 3760 | pcu/hr | 1.044 veh/sec | saturation flow | Q | 3760 | pcu/hr | 1.044 veh/sec | | |
| pcu factor | f | 1 | pcu/veh | | pcu factor | f | 1 | pcu/veh | | | |
| no. of lanes | n | 2 | lane | | no. of lanes | n | 2 | lane | | | |
| length of a vehicle | L | 6 | metre | | length of a vehicle | L | 6 | metre | | | |
| Queue duration | t | 1 | hr | | Queue duration | t | 1 | hr | | | |
| ratio of effective green | g/c | 0.233 | y | 0.078 | ratio of effective green | g/c | 0.278 | y | 0.061 | | |
| degree of saturation | x | 0.336 | Qt | 877 veh/sec | degree of saturation | x | 0.220 | Qt | 1044 veh/sec | | |
| | M | 7.38 | | | | M | 5.75 | | | | |
| | $x < 1$ | | $x > x'$ | | | $x < 1$ | | $x > x'$ | | | |
| | A | 0.319 | sec/veh | Z | -0.664 | A | 0.278 | sec/veh | Z | -0.780 | |
| | B | 0.085 | sec/veh | X' | 0.707 | B | 0.031 | sec/veh | X' | 0.714 | |
| | C | 0.489 | sec/veh | No | -0.839 veh | C | 0.108 | sec/veh | No | -0.951 veh | |
| Average Queue Delay | D | 29 | sec/veh | D | 25 | Average Queue Delay | D | 25 | sec/veh | D | 22 |
| Average Delay | | 29 | sec/veh | | | Average Delay | | 25 | sec/veh | | |
| Average Queue | $N = q(r/2+d)$ | 5.224 | veh | | Average Queue | $N = q(r/2+d)$ | 3.698 | veh | | | |
| | $N=qr$ | 5.654 | veh | $N=qr+No$ | 4.815 | veh | | | $N=qr+No$ | 3.202 | veh |
| Average Queue Length | NL/n | 16 | metre | NL/n | 14 | metre | | | NL/n | 10 | metre |
| | NL/n | 17 | metre | | | | | | NL/n | 12 | metre |
| Average Queue Length | | 17 | metre | | | Average Queue Length | | 12 | metre | | |
| Maximum Queue Length | | 30 | metre | | | Maximum Queue Length | | 23 | metre | | |

J5 - Reference Case in AM Peak

| |
|--|
| <h2>Junctions 11</h2> |
| <h3>PICADY 11 - Priority Intersection Module</h3> |
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Filename: J5-REF-AM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J5

Report generation date: 8/5/2026 3:15:58 pm

- «D1 - 2025 | | AM
 - »Junction Network
 - »Arms
 - »Traffic Demand
 - »Origin-Destination Data
 - »Vehicle Mix
 - »Results

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|-------------------|-------------|----------|
| A | Kam Pok Road WB | | Major |
| B | Ha Chuk Yuen Road | | Minor |
| C | Kam Pok Road EB | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|------------------------|-------------------------------|---------|----------------------|
| C | 9.30 | | | 50.0 | ✓ | 0.00 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|----------------|------------------------|-------------------------|
| B | One lane | 2.20 | 50 | 50 |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 305 | 100.000 |
| B | | ONE HOUR | ✓ | 25 | 100.000 |
| C | | ONE HOUR | ✓ | 320 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|-----|----|-----|
| | | A | B | C |
| From | A | 0 | 15 | 290 |
| | B | 20 | 0 | 5 |
| | C | 320 | 0 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.04 | 0.00 | 0.00 | 0.04 | 0.04 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:15 - 08:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.04 | 0.03 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:30 - 08:45

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.06 | 0.03 | 0.26 | 0.46 | 0.49 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:45 - 09:00

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.06 | 0.00 | 0.00 | 0.06 | 0.06 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

09:00 - 09:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.05 | 0.00 | 0.00 | 0.05 | 0.05 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

09:15 - 09:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.04 | 0.00 | 0.00 | 0.04 | 0.04 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

Arm B: 2 lanes

Arm C: 2 lanes

J5 - Reference Case in PM Peak

| |
|--|
| <h2>Junctions 11</h2> |
| <h3>PICADY 11 - Priority Intersection Module</h3> |
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Filename: J5-REF-PM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J5

Report generation date: 8/5/2026 3:23:51 pm

- «D1 - 2025 | | AM
- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|-------------------|-------------|----------|
| A | Kam Pok Road WB | | Major |
| B | Ha Chuk Yuen Road | | Minor |
| C | Kam Pok Road EB | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|------------------------|-------------------------------|---------|----------------------|
| C | 9.30 | | | 50.0 | ✓ | 0.00 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|----------------|------------------------|-------------------------|
| B | One lane | 2.20 | 50 | 50 |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 245 | 100.000 |
| B | | ONE HOUR | ✓ | 25 | 100.000 |
| C | | ONE HOUR | ✓ | 150 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|-----|----|-----|
| | | A | B | C |
| From | A | 0 | 25 | 220 |
| | B | 20 | 0 | 5 |
| | C | 150 | 0 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.03 | 0.00 | 0.00 | 0.03 | 0.03 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:15 - 08:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.04 | 0.03 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:30 - 08:45

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.05 | 0.03 | 0.26 | 0.46 | 0.49 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:45 - 09:00

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.05 | 0.00 | 0.00 | 0.05 | 0.05 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

09:00 - 09:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.04 | 0.00 | 0.00 | 0.04 | 0.04 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

09:15 - 09:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.03 | 0.00 | 0.00 | 0.03 | 0.03 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

Arm B: 2 lanes

Arm C: 2 lanes

J6 - Reference Case in AM Peak

| |
|--|
| <h2>Junctions 11</h2> |
| <h3>PICADY 11 - Priority Intersection Module</h3> |
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Filename: Import of J6-REF-AM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J6

Report generation date: 8/5/2026 4:02:09 pm

- «D1 - 2025 | | AM
 - »Junction Network
 - »Arms
 - »Traffic Demand
 - »Origin-Destination Data
 - »Vehicle Mix
 - »Results

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|------------------------------|-------------|----------|
| A | Castle Peak Road - Tam Mi NB | | Major |
| B | Kam Pok Road EB | | Minor |
| C | Castle Peak Road - Tam Mi SB | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|-------------------------------------|------------------------|-------------------------------|---------|----------------------|
| C | 6.90 | ✓ | 1.50 | | 30.0 | ✓ | 0.00 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

| Arm | Minor arm type | Lane Width (Left) (m) | Lane Width (Right) (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|-----------------------|------------------------|------------------------|-------------------------|
| B | Two lanes | 4.30 | 4.30 | 70 | 70 |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 555 | 100.000 |
| B | | ONE HOUR | ✓ | 340 | 100.000 |
| C | | ONE HOUR | ✓ | 690 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|-----|-----|-----|
| | | A | B | C |
| From | A | 0 | 170 | 385 |
| | B | 250 | 0 | 90 |
| | C | 555 | 135 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-C | 0.13 | 0.00 | 0.00 | 0.13 | 0.13 | | | N/A | N/A |
| B-A | 0.77 | 0.55 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |
| C-AB | 0.62 | 0.55 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |

08:15 - 08:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-C | 0.17 | 0.00 | 0.00 | 0.17 | 0.17 | | | N/A | N/A |
| B-A | 1.33 | 0.09 | 1.06 | 2.55 | 3.37 | | | N/A | N/A |
| C-AB | 0.98 | 0.55 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |

08:30 - 08:45

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-C | 0.25 | 0.03 | 0.26 | 0.46 | 0.49 | | | N/A | N/A |
| B-A | 3.73 | 0.05 | 0.56 | 10.57 | 17.57 | | | N/A | N/A |
| C-AB | 1.87 | 0.03 | 0.28 | 1.87 | 6.12 | | | N/A | N/A |

08:45 - 09:00

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-C | 0.26 | 0.03 | 0.29 | 0.83 | 1.18 | | | N/A | N/A |
| B-A | 4.20 | 0.04 | 0.39 | 11.03 | 22.51 | | | N/A | N/A |
| C-AB | 1.91 | 0.04 | 0.36 | 4.84 | 9.86 | | | N/A | N/A |

09:00 - 09:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-C | 0.18 | 0.00 | 0.00 | 0.18 | 0.18 | | | N/A | N/A |
| B-A | 1.49 | 0.04 | 0.40 | 3.90 | 6.92 | | | N/A | N/A |
| C-AB | 1.03 | 0.55 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |

09:15 - 09:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-C | 0.13 | 0.00 | 0.00 | 0.13 | 0.13 | | | N/A | N/A |
| B-A | 0.82 | 0.03 | 0.31 | 1.55 | 4.03 | | | N/A | N/A |
| C-AB | 0.65 | 0.23 | 0.94 | 1.39 | 1.44 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

Arm B: 2 lanes

Arm C: 2 lanes

J6 - Reference Case in PM Peak

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|--|
| <h2>Junctions 11</h2> |
| <h3>PICADY 11 - Priority Intersection Module</h3> |
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Filename: Import of J6-REF-PM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J6

Report generation date: 8/5/2026 4:08:40 pm

«D1 - 2025 | | AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

| Arm | Name | Description | Arm type |
|-----|------------------------------|-------------|----------|
| A | Castle Peak Road - Tam Mi NB | | Major |
| B | Kam Pok Road EB | | Minor |
| C | Castle Peak Road - Tam Mi SB | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Width of kerbed central reserve (m) | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|-------------------------------------|------------------------|-------------------------------|---------|----------------------|
| C | 6.90 | ✓ | 1.50 | | 30.0 | ✓ | 0.00 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

| Arm | Minor arm type | Lane Width (Left) (m) | Lane Width (Right) (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|-----------------------|------------------------|------------------------|-------------------------|
| B | Two lanes | 4.30 | 4.30 | 70 | 70 |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 635 | 100.000 |
| B | | ONE HOUR | ✓ | 175 | 100.000 |
| C | | ONE HOUR | ✓ | 470 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|-----|-----|-----|
| | | A | B | C |
| From | A | 0 | 170 | 465 |
| | B | 130 | 0 | 45 |
| | C | 395 | 75 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-C | 0.06 | 0.00 | 0.00 | 0.06 | 0.06 | | | N/A | N/A |
| B-A | 0.28 | 0.00 | 0.00 | 0.28 | 0.28 | | | N/A | N/A |
| C-AB | 0.27 | 0.00 | 0.00 | 0.27 | 0.27 | | | N/A | N/A |

08:15 - 08:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-C | 0.07 | 0.03 | 0.25 | 0.46 | 0.48 | | | N/A | N/A |
| B-A | 0.39 | 0.00 | 0.00 | 0.39 | 0.39 | | | N/A | N/A |
| C-AB | 0.39 | 0.00 | 0.00 | 0.39 | 0.39 | | | N/A | N/A |

08:30 - 08:45

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-C | 0.10 | 0.03 | 0.26 | 0.47 | 0.49 | | | N/A | N/A |
| B-A | 0.63 | 0.03 | 0.26 | 0.63 | 0.63 | | | N/A | N/A |
| C-AB | 0.64 | 0.03 | 0.27 | 0.64 | 0.95 | | | N/A | N/A |

08:45 - 09:00

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-C | 0.10 | 0.03 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |
| B-A | 0.64 | 0.03 | 0.30 | 1.46 | 3.03 | | | N/A | N/A |
| C-AB | 0.64 | 0.05 | 0.55 | 1.21 | 1.21 | | | N/A | N/A |

09:00 - 09:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-C | 0.08 | 0.00 | 0.00 | 0.08 | 0.08 | | | N/A | N/A |
| B-A | 0.40 | 0.03 | 0.30 | 0.89 | 1.20 | | | N/A | N/A |
| C-AB | 0.41 | 0.00 | 0.00 | 0.41 | 0.41 | | | N/A | N/A |

09:15 - 09:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-C | 0.06 | 0.00 | 0.00 | 0.06 | 0.06 | | | N/A | N/A |
| B-A | 0.29 | 0.03 | 0.25 | 0.46 | 0.48 | | | N/A | N/A |
| C-AB | 0.28 | 0.00 | 0.00 | 0.28 | 0.28 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

Arm B: 2 lanes

Arm C: 2 lanes

J7 - Reference Case in AM Peak

| |
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| <h2>Junctions 11</h2> |
| <h3>PICADY 11 - Priority Intersection Module</h3> |
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Filename: Import of J7-REF-AM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J7

Report generation date: 11/5/2026 9:49:55 am

«D1 - 2025 | | AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|-----------------|-------------|----------|
| A | Kam Pok Road SB | | Major |
| B | Fung Chuk Road | | Minor |
| C | Kam Pok Road NB | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|------------------------|-------------------------------|---------|----------------------|
| C | 7.30 | | | 50.0 | ✓ | 0.00 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|----------------|------------------------|-------------------------|
| B | One lane | 2.20 | 50 | 50 |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 115 | 100.000 |
| B | | ONE HOUR | ✓ | 5 | 100.000 |
| C | | ONE HOUR | ✓ | 70 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|----|---|-----|
| | | A | B | C |
| From | A | 0 | 0 | 115 |
| | B | 0 | 0 | 5 |
| | C | 70 | 0 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:15 - 08:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.01 | 0.01 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:30 - 08:45

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:45 - 09:00

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

09:00 - 09:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

09:15 - 09:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

Arm B: 2 lanes

Arm C: 2 lanes

| |
|--|
| Junctions 11 |
| PICADY 11 - Priority Intersection Module |
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Filename: Import of J7-REF-PM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J7

Report generation date: 11/5/2026 9:57:25 am

- «D1 - 2025 | | AM
- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|-----------------|-------------|----------|
| A | Kam Pok Road SB | | Major |
| B | Fung Chuk Road | | Minor |
| C | Kam Pok Road NB | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|------------------------|-------------------------------|---------|----------------------|
| C | 7.30 | | | 50.0 | ✓ | 0.00 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|----------------|------------------------|-------------------------|
| B | One lane | 2.20 | 50 | 50 |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 115 | 100.000 |
| B | | ONE HOUR | ✓ | 5 | 100.000 |
| C | | ONE HOUR | ✓ | 55 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|----|---|-----|
| | | A | B | C |
| From | A | 0 | 0 | 115 |
| | B | 0 | 0 | 5 |
| | C | 50 | 5 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

08:15 - 08:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.01 | 0.01 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |
| C-AB | 0.01 | 0.01 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |

08:30 - 08:45

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

08:45 - 09:00

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

09:00 - 09:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

09:15 - 09:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

Arm B: 2 lanes

Arm C: 2 lanes

Year 2034 Queue Length Assessment

Design Case

J1 - Design Case with Improvement AM Peak

| |
|--|
| <h2>Junctions 11</h2> |
| <h3>ARCADY 11 - Roundabout Module</h3> |
| Version: 11.1.1.2424 © Copyright TRL Software Limited, 2026 |
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Filename: Import of J1-DES-IMP-AM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J1 IMP

Report generation date: 11/5/2026 3:52:26 pm

- «D1 - 2025 | | AM
 - »Junction Network
 - »Arms
 - »Traffic Demand
 - »Origin-Destination Data
 - »Vehicle Mix
 - »Results

Arms

Arms

| Arm | Name | Description | No give-way line |
|-----|-------------------------------|-------------|------------------|
| A | Fairview Park Boulevard | | |
| B | Castle Peak Road - Tam Mi (N) | | |
| C | San Tin Highway Slip Road (N) | | |
| D | San Tam Road (N) | | |
| E | San Tam Road (S) | | |
| F | San Tin Highway Slip Road (S) | | |
| G | Castle Peak Road - Tam Mi (S) | | |

Roundabout Geometry

| Arm | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Entry only | Exit only |
|-----|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| A | 7.00 | 12.20 | 34.0 | 25.0 | 140.0 | 35.0 | | |
| B | 7.30 | 12.00 | 36.0 | 30.0 | 140.0 | 25.0 | | |
| C | 7.30 | 13.00 | 13.0 | 45.0 | 140.0 | 30.0 | | |
| D | 7.30 | 13.00 | 40.0 | 25.0 | 140.0 | 45.0 | | |
| E | 7.30 | 12.00 | 27.0 | 25.0 | 140.0 | 45.0 | | |
| F | 6.00 | 13.00 | 36.0 | 25.0 | 140.0 | 40.0 | | |
| G | 6.50 | 11.20 | 22.0 | 25.0 | 140.0 | 35.0 | | |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 1020 | 100.000 |
| B | | ONE HOUR | ✓ | 975 | 100.000 |
| C | | ONE HOUR | ✓ | 905 | 100.000 |
| D | | ONE HOUR | ✓ | 750 | 100.000 |
| E | | ONE HOUR | ✓ | 1225 | 100.000 |
| F | | ONE HOUR | ✓ | 1480 | 100.000 |
| G | | ONE HOUR | ✓ | 1065 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | | | |
|------|---|-----|-----|-----|-----|-----|-----|-----|
| | | A | B | C | D | E | F | G |
| From | A | 10 | 20 | 210 | 40 | 230 | 480 | 30 |
| | B | 10 | 10 | 170 | 35 | 250 | 465 | 35 |
| | C | 95 | 80 | 10 | 0 | 485 | 10 | 225 |
| | D | 65 | 45 | 45 | 10 | 280 | 210 | 95 |
| | E | 40 | 35 | 465 | 120 | 10 | 535 | 20 |
| | F | 335 | 385 | 10 | 110 | 630 | 10 | 0 |
| | G | 115 | 160 | 370 | 85 | 10 | 325 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | | | | | |
|------|---|----|---|---|---|---|---|---|
| | | A | B | C | D | E | F | G |
| From | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | E | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | G | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.79 | 0.10 | 0.85 | 1.15 | 1.15 | | | N/A | N/A |
| B | 0.76 | 0.06 | 0.69 | 1.11 | 1.65 | | | N/A | N/A |
| C | 0.71 | 0.19 | 0.92 | 1.39 | 1.44 | | | N/A | N/A |
| D | 0.55 | 0.08 | 0.76 | 1.35 | 1.43 | | | N/A | N/A |
| E | 0.89 | 0.53 | 0.99 | 1.41 | 1.46 | | | N/A | N/A |
| F | 0.89 | 0.55 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |
| G | 0.92 | 0.10 | 0.92 | 1.36 | 1.75 | | | N/A | N/A |

08:15 - 08:30

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 1.65 | 0.04 | 0.36 | 4.20 | 8.31 | | | N/A | N/A |
| B | 1.72 | 0.04 | 0.35 | 4.19 | 8.91 | | | N/A | N/A |
| C | 1.46 | 0.04 | 0.39 | 3.80 | 6.74 | | | N/A | N/A |
| D | 1.13 | 0.04 | 0.38 | 2.86 | 5.00 | | | N/A | N/A |
| E | 1.68 | 0.04 | 0.40 | 4.49 | 7.88 | | | N/A | N/A |
| F | 1.46 | 0.04 | 0.41 | 3.84 | 6.55 | | | N/A | N/A |
| G | 1.93 | 0.04 | 0.38 | 5.00 | 9.72 | | | N/A | N/A |

08:30 - 08:45

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 15.59 | 0.35 | 8.77 | 38.35 | 51.97 | | | N/A | N/A |
| B | 25.59 | 3.89 | 20.87 | 49.58 | 60.72 | | | N/A | N/A |
| C | 8.07 | 0.06 | 1.30 | 23.49 | 38.50 | | | N/A | N/A |
| D | 6.86 | 0.06 | 0.92 | 19.88 | 33.44 | | | N/A | N/A |
| E | 6.25 | 0.04 | 0.39 | 15.68 | 34.02 | | | N/A | N/A |
| F | 3.58 | 0.03 | 0.29 | 3.58 | 12.16 | | | N/A | N/A |
| G | 19.37 | 1.10 | 13.14 | 43.75 | 56.88 | | | N/A | N/A |

08:45 - 09:00

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 25.42 | 0.62 | 15.07 | 62.03 | 83.41 | | | N/A | N/A |
| B | 49.96 | 13.02 | 44.00 | 88.35 | 104.71 | | | N/A | N/A |
| C | 10.15 | 0.05 | 0.49 | 28.89 | 53.23 | | | N/A | N/A |
| D | 9.14 | 0.05 | 0.56 | 26.35 | 47.31 | | | N/A | N/A |
| E | 7.15 | 0.03 | 0.33 | 11.31 | 36.72 | | | N/A | N/A |
| F | 3.74 | 0.03 | 0.27 | 3.74 | 4.34 | | | N/A | N/A |
| G | 31.73 | 1.59 | 22.40 | 70.77 | 91.28 | | | N/A | N/A |

09:00 - 09:15

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 2.08 | 0.04 | 0.38 | 5.44 | 10.58 | | | N/A | N/A |
| B | 2.62 | 0.04 | 0.39 | 6.94 | 13.54 | | | N/A | N/A |
| C | 2.31 | 0.06 | 0.84 | 6.08 | 9.29 | | | N/A | N/A |
| D | 1.78 | 0.05 | 0.70 | 4.52 | 6.82 | | | N/A | N/A |
| E | 2.24 | 0.06 | 0.87 | 5.83 | 8.83 | | | N/A | N/A |
| F | 1.56 | 0.07 | 0.99 | 3.48 | 4.85 | | | N/A | N/A |
| G | 2.16 | 0.03 | 0.35 | 5.00 | 11.34 | | | N/A | N/A |

09:15 - 09:30

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.81 | 0.03 | 0.27 | 0.81 | 1.93 | | | N/A | N/A |
| B | 0.78 | 0.03 | 0.26 | 0.78 | 0.94 | | | N/A | N/A |
| C | 0.73 | 0.03 | 0.28 | 0.97 | 2.94 | | | N/A | N/A |
| D | 0.57 | 0.03 | 0.28 | 0.83 | 2.26 | | | N/A | N/A |
| E | 0.92 | 0.03 | 0.31 | 1.59 | 4.57 | | | N/A | N/A |
| F | 0.90 | 0.04 | 0.39 | 2.17 | 3.68 | | | N/A | N/A |
| G | 0.95 | 0.03 | 0.27 | 0.95 | 2.09 | | | N/A | N/A |

Length of vehicle : 6m

No. of Lanes:

Arm 1: 2 lanes

Arm 2: 2 lanes

Arm 3: 2 lanes

Arm 4: 2 lanes

Arm 5: 2 lanes

Arm 6: 2 lanes

Arm 7: 2 lanes

J1 - Design Case with Improvement PM Peak

| |
|--|
| <h2>Junctions 11</h2> |
| <h3>ARCADY 11 - Roundabout Module</h3> |
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Filename: Import of J1-IMP-DES-PM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J1 IMP

Report generation date: 11/5/2026 4:42:52 pm

- «D1 - 2025 | | AM
 - »Junction Network
 - »Arms
 - »Traffic Demand
 - »Origin-Destination Data
 - »Vehicle Mix
 - »Results

Arms

Arms

| Arm | Name | Description | No give-way line |
|-----|-------------------------------|-------------|------------------|
| A | Fairview Park Boulevard | | |
| B | Castle Peak Road - Tam Mi (N) | | |
| C | San Tin Highway Slip Road (N) | | |
| D | San Tam Road (N) | | |
| E | San Tam Road (S) | | |
| F | San Tin Highway Slip Road (S) | | |
| G | Castle Peak Road - Tam Mi (S) | | |

Roundabout Geometry

| Arm | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Entry only | Exit only |
|-----|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| A | 7.00 | 12.20 | 34.0 | 25.0 | 140.0 | 35.0 | | |
| B | 7.30 | 12.00 | 36.0 | 30.0 | 140.0 | 25.0 | | |
| C | 7.30 | 13.00 | 13.0 | 45.0 | 140.0 | 30.0 | | |
| D | 7.30 | 13.00 | 40.0 | 25.0 | 140.0 | 35.0 | | |
| E | 7.30 | 12.00 | 27.0 | 25.0 | 140.0 | 45.0 | | |
| F | 6.00 | 13.00 | 36.0 | 25.0 | 140.0 | 40.0 | | |
| G | 6.50 | 11.20 | 22.0 | 25.0 | 140.0 | 35.0 | | |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 830 | 100.000 |
| B | | ONE HOUR | ✓ | 605 | 100.000 |
| C | | ONE HOUR | ✓ | 1000 | 100.000 |
| D | | ONE HOUR | ✓ | 655 | 100.000 |
| E | | ONE HOUR | ✓ | 875 | 100.000 |
| F | | ONE HOUR | ✓ | 1650 | 100.000 |
| G | | ONE HOUR | ✓ | 715 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | | | | | |
|------|---|-----|-----|-----|-----|-----|-----|-----|
| | | A | B | C | D | E | F | G |
| From | A | 10 | 10 | 170 | 55 | 210 | 345 | 30 |
| | B | 35 | 10 | 105 | 35 | 170 | 215 | 35 |
| | C | 190 | 135 | 20 | 0 | 425 | 20 | 210 |
| | D | 80 | 45 | 90 | 20 | 250 | 95 | 75 |
| | E | 100 | 30 | 305 | 115 | 10 | 295 | 20 |
| | F | 445 | 340 | 10 | 175 | 660 | 20 | 0 |
| | G | 95 | 125 | 200 | 55 | 10 | 220 | 10 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | | | | | |
|------|---|----|---|---|---|---|---|---|
| | | A | B | C | D | E | F | G |
| From | A | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | B | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | C | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | D | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | E | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | F | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | G | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.49 | 0.00 | 0.00 | 0.49 | 0.49 | | | N/A | N/A |
| B | 0.31 | 0.00 | 0.00 | 0.31 | 0.31 | | | N/A | N/A |
| C | 0.68 | 0.55 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |
| D | 0.36 | 0.00 | 0.00 | 0.36 | 0.36 | | | N/A | N/A |
| E | 0.45 | 0.00 | 0.00 | 0.45 | 0.45 | | | N/A | N/A |
| F | 1.16 | 0.43 | 1.11 | 1.58 | 1.83 | | | N/A | N/A |
| G | 0.54 | 0.54 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |

08:15 - 08:30

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.82 | 0.05 | 0.51 | 1.65 | 2.30 | | | N/A | N/A |
| B | 0.49 | 0.04 | 0.43 | 1.26 | 1.38 | | | N/A | N/A |
| C | 1.23 | 0.04 | 0.41 | 3.12 | 5.29 | | | N/A | N/A |
| D | 0.60 | 0.05 | 0.54 | 1.36 | 1.47 | | | N/A | N/A |
| E | 0.68 | 0.06 | 0.70 | 1.40 | 1.49 | | | N/A | N/A |
| F | 2.15 | 0.04 | 0.38 | 5.67 | 10.84 | | | N/A | N/A |
| G | 1.01 | 0.04 | 0.42 | 2.46 | 3.90 | | | N/A | N/A |

08:30 - 08:45

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 2.15 | 0.03 | 0.27 | 2.15 | 4.03 | | | N/A | N/A |
| B | 1.04 | 0.03 | 0.26 | 1.04 | 1.04 | | | N/A | N/A |
| C | 4.51 | 0.03 | 0.34 | 8.80 | 24.22 | | | N/A | N/A |
| D | 1.57 | 0.03 | 0.27 | 1.57 | 1.57 | | | N/A | N/A |
| E | 1.28 | 0.03 | 0.26 | 1.28 | 1.28 | | | N/A | N/A |
| F | 9.49 | 0.05 | 0.50 | 27.23 | 49.41 | | | N/A | N/A |
| G | 4.29 | 0.04 | 0.36 | 10.02 | 23.30 | | | N/A | N/A |

08:45 - 09:00

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 2.27 | 0.03 | 0.28 | 2.27 | 4.95 | | | N/A | N/A |
| B | 1.07 | 0.03 | 0.28 | 1.07 | 4.00 | | | N/A | N/A |
| C | 4.95 | 0.03 | 0.30 | 4.95 | 22.03 | | | N/A | N/A |
| D | 1.65 | 0.03 | 0.28 | 1.65 | 5.10 | | | N/A | N/A |
| E | 1.30 | 0.03 | 0.27 | 1.30 | 1.56 | | | N/A | N/A |
| F | 10.76 | 0.04 | 0.38 | 24.52 | 59.47 | | | N/A | N/A |
| G | 4.94 | 0.03 | 0.33 | 8.75 | 26.00 | | | N/A | N/A |

09:00 - 09:15

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.87 | 0.08 | 0.84 | 1.30 | 1.73 | | | N/A | N/A |
| B | 0.50 | 0.50 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |
| C | 1.30 | 0.05 | 0.47 | 3.22 | 4.98 | | | N/A | N/A |
| D | 0.63 | 0.08 | 0.76 | 1.36 | 1.43 | | | N/A | N/A |
| E | 0.70 | 0.29 | 0.95 | 1.39 | 1.45 | | | N/A | N/A |
| F | 2.26 | 0.04 | 0.42 | 6.17 | 10.98 | | | N/A | N/A |
| G | 1.08 | 0.04 | 0.44 | 2.65 | 4.14 | | | N/A | N/A |

09:15 - 09:30

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.50 | 0.04 | 0.39 | 1.21 | 1.21 | | | N/A | N/A |
| B | 0.31 | 0.03 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |
| C | 0.70 | 0.03 | 0.32 | 1.47 | 3.30 | | | N/A | N/A |
| D | 0.37 | 0.03 | 0.33 | 1.07 | 1.29 | | | N/A | N/A |
| E | 0.46 | 0.04 | 0.38 | 1.21 | 1.36 | | | N/A | N/A |
| F | 1.18 | 0.03 | 0.30 | 1.72 | 5.80 | | | N/A | N/A |
| G | 0.56 | 0.03 | 0.31 | 1.46 | 2.58 | | | N/A | N/A |

Length of vehicle : 6m

No. of Lanes:

- Arm 1: 2 lanes
- Arm 2: 2 lanes
- Arm 3: 2 lanes
- Arm 4: 2 lanes
- Arm 5: 2 lanes
- Arm 6: 2 lanes
- Arm 7: 2 lanes

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Fairview Park Boulevard (J2) |
| Approach | Fairview Park Boulevard EB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|-------------------|
| Description | 2034 Design Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | Lane 2 | | | |
|-----------------------------|----------------|-------------------|--------------------------|-----------------------------|----------------|-------------------|--------------------------|
| AM peak | | | | PM peak | | | |
| cycle time | c | 120 sec | | cycle time | c | 120 sec | |
| effective green time | g | 45 sec | | effective green time | g | 44 sec | |
| design flow | q | 860 pcu/hr | 0.239 veh/sec | design flow | q | 555 pcu/hr | 0.154 veh/sec |
| saturation flow | Q | 3895 pcu/hr | 1.082 veh/sec | saturation flow | Q | 3890 pcu/hr | 1.081 veh/sec |
| pcu factor | f | 1 pcu/veh | | pcu factor | f | 1 pcu/veh | |
| no. of lanes | n | 2 lane | | no. of lanes | n | 2 lane | |
| length of a vehicle | L | 6 metre | | length of a vehicle | L | 6 metre | |
| Queue duration | t | 1 hr | | Queue duration | t | 1 hr | |
| ratio of effective green | g/c | 0.375 | y 0.221 | ratio of effective green | g/c | 0.367 | y 0.143 |
| degree of saturation | x | 0.589 | Qt 1461 veh/sec | degree of saturation | x | 0.389 | Qt 1426 veh/sec |
| | M | 28.67 | | | M | 18.50 | |
| | $x < 1$ | | $x > x'$ | | $x < 1$ | | $x > x'$ |
| | A | 0.251 sec/veh | Z -0.411 | | A | 0.234 sec/veh | Z -0.611 |
| | B | 0.422 sec/veh | X' 0.751 | | B | 0.124 sec/veh | X' 0.749 |
| | C | 1.069 sec/veh | No -0.593 veh | | C | 0.299 sec/veh | No -0.886 veh |
| Average Queue Delay | D | 31 sec/veh | D 29 sec/veh | Average Queue Delay | D | 29 sec/veh | D 26 sec/veh |
| Average Delay | | 31 sec/veh | | Average Delay | | 29 sec/veh | |
| Average Queue | $N = q(r/2+d)$ | 16.310 veh | | Average Queue | $N = q(r/2+d)$ | 10.264 veh | |
| | $N = qr$ | 17.917 veh | $N = qr + No$ 17.323 veh | | $N = qr$ | 11.717 veh | $N = qr + No$ 10.831 veh |
| Average Queue Length | NL/n | 49 metre | NL/n 52 metre | Average Queue Length | NL/n | 31 metre | NL/n 32 metre |
| | NL/n | 54 metre | | | NL/n | 35 metre | |
| Average Queue Length | | 54 metre | | Average Queue Length | | 35 metre | |
| Maximum Queue Length | | 82 metre | | Maximum Queue Length | | 59 metre | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Fairview Park Boulevard (J2) |
| Approach | Fairview Park Boulevard WB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|-------------------|
| Description | 2034 Design Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | Lane 2 | | | | | |
|-----------------------------|----------------|-------------------|---------------|----------------------|-----------------------------|----------------|-------------------|-----------|--------------|
| AM peak | | | | PM peak | | | | | |
| cycle time | c | 120 sec | | cycle time | c | 120 sec | | | |
| effective green time | g | 45 sec | | effective green time | g | 44 sec | | | |
| design flow | q | 680 pcu/hr | 0.189 veh/sec | design flow | q | 845 pcu/hr | 0.235 veh/sec | | |
| saturation flow | Q | 3890 pcu/hr | 1.081 veh/sec | saturation flow | Q | 3885 pcu/hr | 1.079 veh/sec | | |
| pcu factor | f | 1 pcu/veh | | pcu factor | f | 1 pcu/veh | | | |
| no. of lanes | n | 2 lane | | no. of lanes | n | 2 lane | | | |
| length of a vehicle | L | 6 metre | | length of a vehicle | L | 6 metre | | | |
| Queue duration | t | 1 hr | | Queue duration | t | 1 hr | | | |
| ratio of effective green | g/c | 0.375 | y | 0.175 | ratio of effective green | g/c | 0.367 | y | 0.218 |
| degree of saturation | x | 0.466 | Qt | 1459 veh/sec | degree of saturation | x | 0.593 | Qt | 1425 veh/sec |
| | M | 22.67 | | | | M | 28.17 | | |
| | $x < 1$ | | $x > x'$ | | | $x < 1$ | | $x > x'$ | |
| | A | 0.237 sec/veh | Z | -0.534 | | A | 0.256 sec/veh | Z | -0.407 |
| | B | 0.204 sec/veh | X' | 0.751 | | B | 0.432 sec/veh | X' | 0.749 |
| | C | 0.506 sec/veh | No | -0.802 veh | | C | 1.138 sec/veh | No | -0.576 veh |
| Average Queue Delay | D | 29 sec/veh | D | 26 sec/veh | Average Queue Delay | D | 31 sec/veh | D | 29 sec/veh |
| Average Delay | | 29 sec/veh | | | Average Delay | | 31 sec/veh | | |
| Average Queue | $N = q(r/2+d)$ | 12.556 veh | | | Average Queue | $N = q(r/2+d)$ | 16.304 veh | | |
| | $N=qr$ | 14.167 veh | $N=qr+No$ | 13.365 veh | | $N=qr$ | 17.839 veh | $N=qr+No$ | 17.263 veh |
| Average Queue Length | NL/n | 38 metre | NL/n | 40 metre | Average Queue Length | NL/n | 49 metre | NL/n | 52 metre |
| | NL/n | 43 metre | | | | NL/n | 54 metre | | |
| Average Queue Length | | 43 metre | | | Average Queue Length | | 54 metre | | |
| Maximum Queue Length | | 68 metre | | | Maximum Queue Length | | 82 metre | | |

Queue Length Analysis

MVA Hong Kong Ltd.

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|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Fairview Park Boulevard (J2) |
| Approach | Kam Pok Road SB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|-------------------|
| Description | 2034 Design Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | | Lane 2 | | | | |
|-----------------------------|----------------|-------------------|---------------|-------------|-----------------------------|----------------|-------------------|---------------|-------------|
| AM peak | | | | | PM peak | | | | |
| cycle time | c | 120 sec | | | cycle time | c | 120 sec | | |
| effective green time | g | 15 sec | | | effective green time | g | 11 sec | | |
| design flow | q | 120 pcu/hr | 0.033 veh/sec | | design flow | q | 110 pcu/hr | 0.031 veh/sec | |
| saturation flow | Q | 2060 pcu/hr | 0.572 veh/sec | | saturation flow | Q | 2055 pcu/hr | 0.571 veh/sec | |
| pcu factor | f | 1 pcu/veh | | | pcu factor | f | 1 pcu/veh | | |
| no. of lanes | n | 1 lane | | | no. of lanes | n | 1 lane | | |
| length of a vehicle | L | 6 metre | | | length of a vehicle | L | 6 metre | | |
| Queue duration | t | 1 hr | | | Queue duration | t | 1 hr | | |
| ratio of effective green | g/c | 0.125 | y | 0.058 | ratio of effective green | g/c | 0.092 | y | 0.054 |
| degree of saturation | x | 0.466 | Qt | 258 veh/sec | degree of saturation | x | 0.584 | Qt | 188 veh/sec |
| | M | 4.00 | | | | M | 3.67 | | |
| | $x < 1$ | | $x > x'$ | | | $x < 1$ | | $x > x'$ | |
| | A | 0.406 sec/veh | Z | -0.534 | | A | 0.436 sec/veh | Z | -0.416 |
| | B | 0.203 sec/veh | X' | 0.684 | | B | 0.410 sec/veh | X' | 0.680 |
| | C | 4.171 sec/veh | No | -0.619 veh | | C | 8.741 sec/veh | No | -0.351 veh |
| Average Queue Delay | D | 51 sec/veh | D | 40 sec/veh | Average Queue Delay | D | 57 sec/veh | D | 46 sec/veh |
| Average Delay | | 51 sec/veh | | | Average Delay | | 57 sec/veh | | |
| Average Queue | $N = q(r/2+d)$ | 3.440 veh | | | Average Queue | $N = q(r/2+d)$ | 3.406 veh | | |
| | $N = qr$ | 3.500 veh | $N = qr + No$ | 2.881 veh | | $N = qr$ | 3.331 veh | $N = qr + No$ | 2.979 veh |
| Average Queue Length | NL/n | 21 metre | NL/n | 17 metre | Average Queue Length | NL/n | 20 metre | NL/n | 18 metre |
| | NL/n | 21 metre | | | | NL/n | 20 metre | | |
| Average Queue Length | | 21 metre | | | Average Queue Length | | 20 metre | | |
| Maximum Queue Length | | 41 metre | | | Maximum Queue Length | | 45 metre | | |

Queue Length Analysis

MVA Hong Kong Ltd.

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|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Fairview Park Boulevard (J2) |
| Approach | Kam Pok Road NB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|-------------------|
| Description | 2034 Design Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | | Lane 2 | | | | | | | | |
|-----------------------------|----------------|-----------|----------------|---------------|--------------------------|----------------|-----------------------------|----------|---------------|---------------|----------------|---------|-------|
| AM peak | | | | | PM peak | | | | | | | | |
| cycle time | c | 120 | sec | | cycle time | c | 120 | sec | | | | | |
| effective green time | g | 15 | sec | | effective green time | g | 20 | sec | | | | | |
| design flow | q | 145 | pcu/hr | 0.040 veh/sec | design flow | q | 185 | pcu/hr | 0.051 veh/sec | | | | |
| saturation flow | Q | 1920 | pcu/hr | 0.533 veh/sec | saturation flow | Q | 1865 | pcu/hr | 0.518 veh/sec | | | | |
| pcu factor | f | 1 | pcu/veh | | pcu factor | f | 1 | pcu/veh | | | | | |
| no. of lanes | n | 1 | lane | | no. of lanes | n | 1 | lane | | | | | |
| length of a vehicle | L | 6 | metre | | length of a vehicle | L | 6 | metre | | | | | |
| Queue duration | t | 1 | hr | | Queue duration | t | 1 | hr | | | | | |
| ratio of effective green | g/c | 0.125 | y | 0.076 | ratio of effective green | g/c | 0.167 | y | 0.099 | | | | |
| degree of saturation | x | 0.604 | Qt | 240 veh/sec | degree of saturation | x | 0.595 | Qt | 311 veh/sec | | | | |
| | M | 4.83 | | | | M | 6.17 | | | | | | |
| | $x < 1$ | | $x > x'$ | | | $x < 1$ | | $x > x'$ | | | | | |
| | A | 0.414 | sec/veh | Z | -0.396 | A | 0.385 | sec/veh | Z | -0.405 | | | |
| | B | 0.461 | sec/veh | X' | 0.683 | B | 0.438 | sec/veh | X' | 0.687 | | | |
| | C | 7.269 | sec/veh | No | -0.302 veh | C | 5.332 | sec/veh | No | -0.343 veh | | | |
| Average Queue Delay | D | 54 | sec/veh | D | 45 | sec/veh | D | 49 | sec/veh | D | 42 | sec/veh | |
| Average Delay | | 54 | sec/veh | | | 49 | sec/veh | | | 49 | sec/veh | | |
| Average Queue | $N = q(r/2+d)$ | 4.284 | veh | | Average Queue | $N = q(r/2+d)$ | 5.110 | veh | | | | | |
| | $N = qr$ | 4.229 | veh | $N = qr + No$ | 3.927 | veh | $N = qr$ | 5.139 | veh | $N = qr + No$ | 4.796 | veh | |
| Average Queue Length | NL/n | 26 | metre | NL/n | 24 | metre | Average Queue Length | NL/n | 31 | metre | NL/n | 29 | metre |
| | NL/n | 25 | metre | | | | | NL/n | 31 | metre | | | |
| Average Queue Length | | 26 | metre | | | | Average Queue Length | | 31 | metre | | | |
| Maximum Queue Length | | 49 | metre | | | | Maximum Queue Length | | 59 | metre | | | |

Queue Length Analysis

MVA Hong Kong Ltd.

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|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – South (J3) |
| Approach | Vehicular Bridge (EB) |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|-------------------|
| Description | 2034 Design Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | | Lane 2 | | | | |
|-----------------------------|----------------|-------------------|---------------|-------------|-----------------------------|----------------|-------------------|---------------|-------------|
| AM peak | | | | | PM peak | | | | |
| cycle time | c | 60 sec | | | cycle time | c | 60 sec | | |
| effective green time | g | 5 sec | | | effective green time | g | 5 sec | | |
| design flow | q | 15 pcu/hr | 0.004 veh/sec | | design flow | q | 10 pcu/hr | 0.003 veh/sec | |
| saturation flow | Q | 1715 pcu/hr | 0.476 veh/sec | | saturation flow | Q | 1715 pcu/hr | 0.476 veh/sec | |
| pcu factor | f | 1 pcu/veh | | | pcu factor | f | 1 pcu/veh | | |
| no. of lanes | n | 1 lane | | | no. of lanes | n | 1 lane | | |
| length of a vehicle | L | 6 metre | | | length of a vehicle | L | 6 metre | | |
| Queue duration | t | 1 hr | | | Queue duration | t | 1 hr | | |
| ratio of effective green | g/c | 0.083 | y | 0.009 | ratio of effective green | g/c | 0.083 | y | 0.006 |
| degree of saturation | x | 0.105 | Qt | 143 veh/sec | degree of saturation | x | 0.070 | Qt | 143 veh/sec |
| | M | 0.25 | | | | M | 0.17 | | |
| | $x < 1$ | | $x > x'$ | | | $x < 1$ | | $x > x'$ | |
| | A | 0.424 sec/veh | Z | -0.895 | | A | 0.423 sec/veh | Z | -0.930 |
| | B | 0.006 sec/veh | X' | 0.674 | | B | 0.003 sec/veh | X' | 0.674 |
| | C | 0.423 sec/veh | No | -0.968 veh | | C | 0.208 sec/veh | No | -0.989 veh |
| Average Queue Delay | D | 26 sec/veh | D | 1 sec/veh | Average Queue Delay | D | 26 sec/veh | D | 0 sec/veh |
| Average Delay | | 26 sec/veh | | | Average Delay | | 26 sec/veh | | |
| Average Queue | $N = q(r/2+d)$ | 0.225 veh | | | Average Queue | $N = q(r/2+d)$ | 0.149 veh | | |
| | $N = qr$ | 0.229 veh | $N = qr + No$ | -0.739 veh | | $N = qr$ | 0.153 veh | $N = qr + No$ | -0.836 veh |
| Average Queue Length | NL/n | 1 metre | NL/n | -4 metre | Average Queue Length | NL/n | 1 metre | NL/n | -5 metre |
| | NL/n | 1 metre | | | | NL/n | 1 metre | | |
| Average Queue Length | | 1 metre | | | Average Queue Length | | 1 metre | | |
| Maximum Queue Length | | 40 metre | | | Maximum Queue Length | | 40 metre | | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – South (J3) |
| Approach | Kam Pok Rd (SB) |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|-------------------|
| Description | 2034 Design Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | Lane 2 | | | |
|-----------------------------|----------------|-------------------|-------------------------|-----------------------------|----------------|-------------------|-------------------------|
| AM peak | | | | PM peak | | | |
| cycle time | c | 60 sec | | cycle time | c | 60 sec | |
| effective green time | g | 15 sec | | effective green time | g | 18 sec | |
| design flow | q | 235 pcu/hr | 0.065 veh/sec | design flow | q | 170 pcu/hr | 0.047 veh/sec |
| saturation flow | Q | 1970 pcu/hr | 0.547 veh/sec | saturation flow | Q | 1960 pcu/hr | 0.544 veh/sec |
| pcu factor | f | 1 pcu/veh | | pcu factor | f | 1 pcu/veh | |
| no. of lanes | n | 1 lane | | no. of lanes | n | 1 lane | |
| length of a vehicle | L | 6 metre | | length of a vehicle | L | 6 metre | |
| Queue duration | t | 1 hr | | Queue duration | t | 1 hr | |
| ratio of effective green | g/c | 0.250 | y 0.119 | ratio of effective green | g/c | 0.300 | y 0.087 |
| degree of saturation | x | 0.477 | Qt 493 veh/sec | degree of saturation | x | 0.289 | Qt 588 veh/sec |
| | M | 3.92 | | | M | 2.83 | |
| | $x < 1$ | | $x > x'$ | | $x < 1$ | | $x > x'$ |
| | A | 0.319 sec/veh | Z -0.523 | | A | 0.268 sec/veh | Z -0.711 |
| | B | 0.218 sec/veh | X' 0.684 | | B | 0.059 sec/veh | X' 0.686 |
| | C | 1.417 sec/veh | No -0.595 veh | | C | 0.253 sec/veh | No -0.842 veh |
| Average Queue Delay | D | 21 sec/veh | D 15 sec/veh | Average Queue Delay | D | 17 sec/veh | D 11 sec/veh |
| Average Delay | | 21 sec/veh | | Average Delay | | 17 sec/veh | |
| Average Queue | $N = q(r/2+d)$ | 2.845 veh | | Average Queue | $N = q(r/2+d)$ | 1.799 veh | |
| | $N = qr$ | 2.938 veh | $N = qr + No$ 2.342 veh | | $N = qr$ | 1.983 veh | $N = qr + No$ 1.142 veh |
| Average Queue Length | NL/n | 17 metre | NL/n 14 metre | Average Queue Length | NL/n | 11 metre | NL/n 7 metre |
| | NL/n | 18 metre | | | NL/n | 12 metre | |
| Average Queue Length | | 18 metre | | Average Queue Length | | 12 metre | |
| Maximum Queue Length | | 39 metre | | Maximum Queue Length | | 34 metre | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – South (J3) |
| Approach | Kam Pok Rd (NB) |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|-------------------|
| Description | 2034 Design Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | Lane 2 | | | |
|-----------------------------|----------------|-------------------|-------------------------|-----------------------------|----------------|-------------------|-------------------------|
| AM peak | | | | PM peak | | | |
| cycle time | c | 60 sec | | cycle time | c | 60 sec | |
| effective green time | g | 12 sec | | effective green time | g | 9 sec | |
| design flow | q | 205 pcu/hr | 0.057 veh/sec | design flow | q | 100 pcu/hr | 0.028 veh/sec |
| saturation flow | Q | 1970 pcu/hr | 0.547 veh/sec | saturation flow | Q | 1960 pcu/hr | 0.544 veh/sec |
| pcu factor | f | 1 pcu/veh | | pcu factor | f | 1 pcu/veh | |
| no. of lanes | n | 1 lane | | no. of lanes | n | 1 lane | |
| length of a vehicle | L | 6 metre | | length of a vehicle | L | 6 metre | |
| Queue duration | t | 1 hr | | Queue duration | t | 1 hr | |
| ratio of effective green | g/c | 0.200 | y 0.104 | ratio of effective green | g/c | 0.150 | y 0.051 |
| degree of saturation | x | 0.520 | Qt 394 veh/sec | degree of saturation | x | 0.340 | Qt 294 veh/sec |
| | M | 3.42 | | | M | 1.67 | |
| | $x < 1$ | | $x > x'$ | | $x < 1$ | | $x > x'$ |
| | A | 0.357 sec/veh | Z -0.480 | | A | 0.381 sec/veh | Z -0.660 |
| | B | 0.282 sec/veh | X' 0.681 | | B | 0.088 sec/veh | X' 0.678 |
| | C | 2.422 sec/veh | No -0.505 veh | | C | 1.430 sec/veh | No -0.775 veh |
| Average Queue Delay | D | 24 sec/veh | D 17 sec/veh | Average Queue Delay | D | 25 sec/veh | D 13 sec/veh |
| Average Delay | | 24 sec/veh | | Average Delay | | 25 sec/veh | |
| Average Queue | $N = q(r/2+d)$ | 2.731 veh | | Average Queue | $N = q(r/2+d)$ | 1.391 veh | |
| | $N = qr$ | 2.733 veh | $N = qr + No$ 2.228 veh | | $N = qr$ | 1.417 veh | $N = qr + No$ 0.642 veh |
| Average Queue Length | NL/n | 16 metre | NL/n 13 metre | Average Queue Length | NL/n | 8 metre | NL/n 4 metre |
| | NL/n | 16 metre | | | NL/n | 9 metre | |
| Average Queue Length | | 16 metre | | Average Queue Length | | 9 metre | |
| Maximum Queue Length | | 39 metre | | Maximum Queue Length | | 38 metre | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – North / Vehicular Access (J4) |
| Approach | Vehicular Bridge SB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|-------------------|
| Description | 2034 Design Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | | Lane 2 | | | | |
|-----------------------------|----------------|-------------------|---------------|------------|-----------------------------|----------------|-------------------|---------------|------------|
| AM peak | | | | | PM peak | | | | |
| cycle time | c | 90 sec | | | cycle time | c | 90 sec | | |
| effective green time | g | 5 sec | | | effective green time | g | 5 sec | | |
| design flow | q | 15 pcu/hr | 0.004 veh/sec | | design flow | q | 10 pcu/hr | 0.003 veh/sec | |
| saturation flow | Q | 1710 pcu/hr | 0.475 veh/sec | | saturation flow | Q | 1710 pcu/hr | 0.475 veh/sec | |
| pcu factor | f | 1 pcu/veh | | | pcu factor | f | 1 pcu/veh | | |
| no. of lanes | n | 1 lane | | | no. of lanes | n | 1 lane | | |
| length of a vehicle | L | 6 metre | | | length of a vehicle | L | 6 metre | | |
| Queue duration | t | 1 hr | | | Queue duration | t | 1 hr | | |
| ratio of effective green | g/c | 0.056 | y | 0.009 | ratio of effective green | g/c | 0.056 | y | 0.006 |
| degree of saturation | x | 0.158 | Qt | 95 veh/sec | degree of saturation | x | 0.105 | Qt | 95 veh/sec |
| | M | 0.38 | | | | M | 0.25 | | |
| | $x < 1$ | | $x > x'$ | | | $x < 1$ | | $x > x'$ | |
| | A | 0.450 sec/veh | Z | -0.842 | | A | 0.449 sec/veh | Z | -0.895 |
| | B | 0.015 sec/veh | X' | 0.674 | | B | 0.006 sec/veh | X' | 0.674 |
| | C | 1.680 sec/veh | No | -0.941 veh | | C | 0.874 sec/veh | No | -0.976 veh |
| Average Queue Delay | D | 42 sec/veh | D | 5 sec/veh | Average Queue Delay | D | 42 sec/veh | D | 3 sec/veh |
| Average Delay | | 42 sec/veh | | | Average Delay | | 42 sec/veh | | |
| Average Queue | $N = q(r/2+d)$ | 0.354 veh | | | Average Queue | $N = q(r/2+d)$ | 0.234 veh | | |
| | $N=qr$ | 0.354 veh | $N=qr+No$ | -0.587 veh | | $N=qr$ | 0.236 veh | $N=qr+No$ | -0.740 veh |
| Average Queue Length | NL/n | 2 metre | NL/n | -4 metre | Average Queue Length | NL/n | 1 metre | NL/n | -4 metre |
| | NL/n | 2 metre | | | | NL/n | 1 metre | | |
| Average Queue Length | | 2 metre | | | Average Queue Length | | 1 metre | | |
| Maximum Queue Length | | 40 metre | | | Maximum Queue Length | | 40 metre | | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – North / Vehicular Access (J4) |
| Approach | Kam Pok Road EB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|-------------------|
| Description | 2034 Design Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | | Lane 2 | | | | |
|-----------------------------|----------------|-------------------|---------------|-------------|-----------------------------|----------------|-------------------|---------------|-------------|
| AM peak | | | | | PM peak | | | | |
| cycle time | c | 90 sec | | | cycle time | c | 90 sec | | |
| effective green time | g | 19 sec | | | effective green time | g | 17 sec | | |
| design flow | q | 240 pcu/hr | 0.067 veh/sec | | design flow | q | 130 pcu/hr | 0.036 veh/sec | |
| saturation flow | Q | 1960 pcu/hr | 0.544 veh/sec | | saturation flow | Q | 1935 pcu/hr | 0.538 veh/sec | |
| pcu factor | f | 1 pcu/veh | | | pcu factor | f | 1 pcu/veh | | |
| no. of lanes | n | 1 lane | | | no. of lanes | n | 1 lane | | |
| length of a vehicle | L | 6 metre | | | length of a vehicle | L | 6 metre | | |
| Queue duration | t | 1 hr | | | Queue duration | t | 1 hr | | |
| ratio of effective green | g/c | 0.211 | y | 0.122 | ratio of effective green | g/c | 0.189 | y | 0.067 |
| degree of saturation | x | 0.580 | Qt | 414 veh/sec | degree of saturation | x | 0.356 | Qt | 366 veh/sec |
| | M | 6.00 | | | | M | 3.25 | | |
| | $x < 1$ | | $x > x'$ | | | $x < 1$ | | $x > x'$ | |
| | A | 0.355 sec/veh | Z | -0.420 | | A | 0.353 sec/veh | Z | -0.644 |
| | B | 0.401 sec/veh | X' | 0.687 | | B | 0.098 sec/veh | X' | 0.685 |
| | C | 3.354 sec/veh | No | -0.385 veh | | C | 1.271 sec/veh | No | -0.772 veh |
| Average Queue Delay | D | 35 sec/veh | D | 29 sec/veh | Average Queue Delay | D | 33 sec/veh | D | 24 sec/veh |
| Average Delay | | 35 sec/veh | | | Average Delay | | 33 sec/veh | | |
| Average Queue | $N = q(r/2+d)$ | 4.671 veh | | | Average Queue | $N = q(r/2+d)$ | 2.516 veh | | |
| | $N = qr$ | 4.733 veh | $N = qr + No$ | 4.349 veh | | $N = qr$ | 2.636 veh | $N = qr + No$ | 1.864 veh |
| Average Queue Length | NL/n | 28 metre | NL/n | 26 metre | Average Queue Length | NL/n | 15 metre | NL/n | 11 metre |
| | NL/n | 28 metre | | | | NL/n | 16 metre | | |
| Average Queue Length | | 28 metre | | | Average Queue Length | | 16 metre | | |
| Maximum Queue Length | | 55 metre | | | Maximum Queue Length | | 38 metre | | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – North / Vehicular Access (J4) |
| Approach | R(D) Site Access |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|-------------------|
| Description | 2034 Design Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | Lane 2 | | | |
|-----------------------------|----------------|-------------------|---------------------|-----------------------------|----------------|-------------------|---------------------|
| AM peak | | | | PM peak | | | |
| cycle time | c | 90 sec | | cycle time | c | 90 sec | |
| effective green time | g | 20 sec | | effective green time | g | 13 sec | |
| design flow | q | 255 pcu/hr | 0.071 veh/sec | design flow | q | 105 pcu/hr | 0.029 veh/sec |
| saturation flow | Q | 3805 pcu/hr | 1.057 veh/sec | saturation flow | Q | 3805 pcu/hr | 1.057 veh/sec |
| pcu factor | f | 1 pcu/veh | | pcu factor | f | 1 pcu/veh | |
| no. of lanes | n | 2 lane | | no. of lanes | n | 2 lane | |
| length of a vehicle | L | 6 metre | | length of a vehicle | L | 6 metre | |
| Queue duration | t | 1 hr | | Queue duration | t | 1 hr | |
| ratio of effective green | g/c | 0.222 | y 0.067 | ratio of effective green | g/c | 0.144 | y 0.028 |
| degree of saturation | x | 0.302 | Qt 846 veh/sec | degree of saturation | x | 0.191 | Qt 550 veh/sec |
| | M | 6.38 | | | M | 2.63 | |
| | $x < 1$ | | $x > x'$ | | $x < 1$ | | $x > x'$ |
| | A | 0.324 sec/veh | Z -0.698 | | A | 0.376 sec/veh | Z -0.809 |
| | B | 0.065 sec/veh | X' 0.705 | | B | 0.023 sec/veh | X' 0.693 |
| | C | 0.408 sec/veh | No -0.869 veh | | C | 0.339 sec/veh | No -0.934 veh |
| Average Queue Delay | D | 30 sec/veh | D 25 sec/veh | Average Queue Delay | D | 34 sec/veh | D 28 sec/veh |
| Average Delay | | 30 sec/veh | | Average Delay | | 34 sec/veh | |
| Average Queue | $N = q(r/2+d)$ | 4.582 veh | | Average Queue | $N = q(r/2+d)$ | 2.124 veh | |
| | $N=qr$ | 4.958 veh | $N=qr+No$ 4.089 veh | | $N=qr$ | 2.246 veh | $N=qr+No$ 1.311 veh |
| Average Queue Length | NL/n | 14 metre | NL/n 12 metre | Average Queue Length | NL/n | 6 metre | NL/n 4 metre |
| | NL/n | 15 metre | | | NL/n | 7 metre | |
| Average Queue Length | | 15 metre | | Average Queue Length | | 7 metre | |
| Maximum Queue Length | | 27 metre | | Maximum Queue Length | | 19 metre | |

Queue Length Analysis

MVA Hong Kong Ltd.

| | |
|-----------------------|---|
| Job No. | CHK50868310 |
| Job Title | Proposed Residential Development, East of Kam Pok Road, Mai Po, Yeun Long |
| Junction Name | Kam Pok Road / Vehicular Bridge – North / Vehicular Access (J4) |
| Approach | Kam Pok Road WB |
| Probability(1% / 5%)? | 5% |

| | |
|-------------|-------------------|
| Description | 2034 Design Flows |
| Design Year | 2034 |
| Designed By | CWH |
| Checked By | PTC |

| Lane 1 | | | | | Lane 2 | | | | | | | |
|-----------------------------|----------------|-------|----------|---------------|--------------------------|----------------|-------|----------|---------------|------------|-------|---------|
| AM peak | | | | | PM peak | | | | | | | |
| cycle time | c | 90 | sec | | cycle time | c | 90 | sec | | | | |
| effective green time | g | 19 | sec | | effective green time | g | 27 | sec | | | | |
| design flow | q | 410 | pcu/hr | 0.114 veh/sec | design flow | q | 295 | pcu/hr | 0.082 veh/sec | | | |
| saturation flow | Q | 3770 | pcu/hr | 1.047 veh/sec | saturation flow | Q | 3765 | pcu/hr | 1.046 veh/sec | | | |
| pcu factor | f | 1 | pcu/veh | | pcu factor | f | 1 | pcu/veh | | | | |
| no. of lanes | n | 2 | lane | | no. of lanes | n | 2 | lane | | | | |
| length of a vehicle | L | 6 | metre | | length of a vehicle | L | 6 | metre | | | | |
| Queue duration | t | 1 | hr | | Queue duration | t | 1 | hr | | | | |
| ratio of effective green | g/c | 0.211 | y | 0.109 | ratio of effective green | g/c | 0.300 | y | 0.078 | | | |
| degree of saturation | x | 0.515 | Qt | 796 veh/sec | degree of saturation | x | 0.261 | Qt | 1130 veh/sec | | | |
| | M | 10.25 | | | | M | 7.38 | | | | | |
| | $x < 1$ | | $x > x'$ | | | $x < 1$ | | $x > x'$ | | | | |
| | A | 0.349 | sec/veh | Z | -0.485 | A | 0.266 | sec/veh | Z | -0.739 | | |
| | B | 0.274 | sec/veh | X' | 0.703 | B | 0.046 | sec/veh | X' | 0.717 | | |
| | C | 1.634 | sec/veh | No | -0.583 veh | C | 0.141 | sec/veh | No | -0.928 veh | | |
| Average Queue Delay | D | 32 | sec/veh | D | 29 | sec/veh | D | 24 | sec/veh | D | 21 | sec/veh |
| Average Delay | | 32 | sec/veh | | | | 24 | sec/veh | | | | |
| Average Queue | $N = q(r/2+d)$ | 7.709 | veh | | Average Queue | $N = q(r/2+d)$ | 4.576 | veh | | | | |
| | $N=qr$ | 8.086 | veh | $N=qr+No$ | 7.503 | veh | | | $N=qr+No$ | 4.235 | veh | |
| Average Queue Length | NL/n | 23 | metre | NL/n | 23 | metre | | | NL/n | 13 | metre | |
| | NL/n | 24 | metre | | | | | | NL/n | 15 | metre | |
| Average Queue Length | | 24 | metre | | | | | | 15 | metre | | |
| Maximum Queue Length | | 45 | metre | | | | | | 30 | metre | | |

J5 - Design Case in AM Peak

| |
|--|
| <h2>Junctions 11</h2> |
| <h3>PICADY 11 - Priority Intersection Module</h3> |
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Filename: J5-DES-AM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J5

Report generation date: 8/5/2026 2:45:23 pm

«D1 - 2025 | | AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|-------------------|-------------|----------|
| A | Kam Pok Road WB | | Major |
| B | Ha Chuk Yuen Road | | Minor |
| C | Kam Pok Road EB | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|------------------------|-------------------------------|---------|----------------------|
| C | 9.30 | | | 50.0 | ✓ | 0.00 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|----------------|------------------------|-------------------------|
| B | One lane | 2.20 | 50 | 50 |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 425 | 100.000 |
| B | | ONE HOUR | ✓ | 30 | 100.000 |
| C | | ONE HOUR | ✓ | 470 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|-----|----|-----|
| | | A | B | C |
| From | A | 0 | 20 | 405 |
| | B | 25 | 0 | 5 |
| | C | 470 | 0 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.05 | 0.00 | 0.00 | 0.05 | 0.05 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:15 - 08:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.06 | 0.03 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:30 - 08:45

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.08 | 0.03 | 0.26 | 0.47 | 0.49 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:45 - 09:00

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.08 | 0.00 | 0.00 | 0.08 | 0.08 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

09:00 - 09:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.06 | 0.00 | 0.00 | 0.06 | 0.06 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

09:15 - 09:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.05 | 0.00 | 0.00 | 0.05 | 0.05 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

Arm B: 2 lanes

Arm C: 2 lanes

J5 - Design Case in PM Peak

| |
|--|
| <h2>Junctions 11</h2> |
| <h3>PICADY 11 - Priority Intersection Module</h3> |
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Filename: J5-DES-PM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J5

Report generation date: 8/5/2026 3:03:14 pm

«D1 - 2025 | | AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|-------------------|-------------|----------|
| A | Kam Pok Road WB | | Major |
| B | Ha Chuk Yuen Road | | Minor |
| C | Kam Pok Road EB | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|------------------------|-------------------------------|---------|----------------------|
| C | 9.30 | | | 50.0 | ✓ | 0.00 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|----------------|------------------------|-------------------------|
| B | One lane | 2.20 | 50 | 50 |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 315 | 100.000 |
| B | | ONE HOUR | ✓ | 30 | 100.000 |
| C | | ONE HOUR | ✓ | 210 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|-----|----|-----|
| | | A | B | C |
| From | A | 0 | 30 | 285 |
| | B | 25 | 0 | 5 |
| | C | 210 | 0 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.04 | 0.00 | 0.00 | 0.04 | 0.04 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:15 - 08:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.05 | 0.03 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:30 - 08:45

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.07 | 0.03 | 0.26 | 0.47 | 0.49 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:45 - 09:00

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.07 | 0.00 | 0.00 | 0.07 | 0.07 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

09:00 - 09:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.05 | 0.00 | 0.00 | 0.05 | 0.05 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

09:15 - 09:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.04 | 0.00 | 0.00 | 0.04 | 0.04 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

Arm B: 2 lanes

Arm C: 2 lanes

J6 - Design Case with Improvement Scheme in AM Peak

| |
|--|
| <h2>Junctions 11</h2> |
| <h3>ARCADY 11 - Roundabout Module</h3> |
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Filename: Import of J6 Design_AM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J6 IMP

Report generation date: 8/5/2026 6:11:25 pm

«D1 - 2026 | | AM

- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

Arms

| Arm | Name | Description | No give-way line |
|-----|------------------------------|-------------|------------------|
| A | Castle Peak Road - Tam Mi NB | | |
| B | Kam Pok Road EB | | |
| C | Castle Peak Road - Tam Mi SB | | |

Roundabout Geometry

| Arm | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Entry only | Exit only |
|-----|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| A | 3.50 | 6.10 | 7.0 | 25.0 | 26.0 | 15.5 | | |
| B | 4.60 | 6.00 | 2.0 | 28.7 | 26.0 | 19.5 | | |
| C | 3.30 | 5.60 | 5.3 | 80.0 | 26.0 | 4.5 | | |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 635 | 100.000 |
| B | | ONE HOUR | ✓ | 495 | 100.000 |
| C | | ONE HOUR | ✓ | 175 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|-----|-----|-----|
| | | A | B | C |
| From | A | 0 | 250 | 385 |
| | B | 380 | 0 | 115 |
| | C | 0 | 175 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.50 | 0.50 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |
| B | 0.36 | 0.00 | 0.00 | 0.36 | 0.36 | | | N/A | N/A |
| C | 0.12 | 0.00 | 0.00 | 0.12 | 0.12 | | | N/A | N/A |

08:15 - 08:30

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.68 | 0.11 | 0.85 | 1.37 | 1.44 | | | N/A | N/A |
| B | 0.48 | 0.00 | 0.00 | 0.48 | 0.48 | | | N/A | N/A |
| C | 0.15 | 0.00 | 0.00 | 0.15 | 0.15 | | | N/A | N/A |

08:30 - 08:45

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 1.01 | 0.03 | 0.26 | 1.01 | 1.01 | | | N/A | N/A |
| B | 0.69 | 0.03 | 0.25 | 0.69 | 0.69 | | | N/A | N/A |
| C | 0.19 | 0.03 | 0.25 | 0.46 | 0.48 | | | N/A | N/A |

08:45 - 09:00

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 1.5 | 0.03 | 0.27 | 1.02 | 1.36 | | | N/A | N/A |
| B | 2.7 | 0.03 | 0.28 | 0.88 | 2.74 | | | N/A | N/A |
| C | 0.5 | 0.03 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |

09:00 - 09:15

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.69 | 0.34 | 0.96 | 1.39 | 1.45 | | | N/A | N/A |
| B | 0.48 | 0.00 | 0.00 | 0.48 | 0.48 | | | N/A | N/A |
| C | 0.15 | 0.00 | 0.00 | 0.15 | 0.15 | | | N/A | N/A |

09:15 - 09:30

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.51 | 0.05 | 0.50 | 1.30 | 1.40 | | | N/A | N/A |
| B | 0.36 | 0.00 | 0.00 | 0.36 | 0.36 | | | N/A | N/A |
| C | 0.12 | 0.00 | 0.00 | 0.12 | 0.12 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

Arm B: 2 lanes

Arm C: 2 lanes

J6 - Design Case with Improvement Scheme in PM Peak

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| <h2>Junctions 11</h2> |
| <h3>ARCADY 11 - Roundabout Module</h3> |
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Filename: Import of J6 Design_PM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J6 IMP

Report generation date: 8/5/2026 6:21:27 pm

- «D1 - 2026 | | AM
 - »Junction Network
 - »Arms
 - »Traffic Demand
 - »Origin-Destination Data
 - »Vehicle Mix
 - »Results

Arms

Arms

| Arm | Name | Description | No give-way line |
|-----|------------------------------|-------------|------------------|
| A | Castle Peak Road - Tam Mi NB | | |
| B | Kam Pok Road EB | | |
| C | Castle Peak Road - Tam Mi SB | | |

Roundabout Geometry

| Arm | V - Approach road half-width (m) | E - Entry width (m) | I' - Effective flare length (m) | R - Entry radius (m) | D - Inscribed circle diameter (m) | PHI - Conflict (entry) angle (deg) | Entry only | Exit only |
|-----|----------------------------------|---------------------|---------------------------------|----------------------|-----------------------------------|------------------------------------|------------|-----------|
| A | 3.50 | 6.10 | 7.0 | 25.0 | 26.0 | 15.5 | | |
| B | 4.60 | 6.00 | 2.0 | 28.7 | 26.0 | 19.5 | | |
| C | 3.30 | 5.60 | 5.3 | 80.0 | 26.0 | 4.5 | | |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 700 | 100.000 |
| B | | ONE HOUR | ✓ | 240 | 100.000 |
| C | | ONE HOUR | ✓ | 85 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|-----|-----|-----|
| | | A | B | C |
| From | A | 0 | 235 | 465 |
| | B | 185 | 0 | 55 |
| | C | 0 | 85 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.56 | 0.55 | 1.00 | 1.40 | 1.45 | | | N/A | N/A |
| B | 0.15 | 0.00 | 0.00 | 0.15 | 0.15 | | | N/A | N/A |
| C | 0.05 | 0.00 | 0.00 | 0.05 | 0.05 | | | N/A | N/A |

08:15 - 08:30

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.75 | 0.10 | 0.85 | 1.41 | 1.48 | | | N/A | N/A |
| B | 0.19 | 0.00 | 0.00 | 0.19 | 0.19 | | | N/A | N/A |
| C | 0.06 | 0.03 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |

08:30 - 08:45

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 1.5 | 0.03 | 0.26 | 1.13 | 1.13 | | | N/A | N/A |
| B | 1.1 | 0.03 | 0.25 | 0.46 | 0.48 | | | N/A | N/A |
| C | 0.7 | 0.03 | 0.26 | 0.47 | 0.49 | | | N/A | N/A |

08:45 - 09:00

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 1.13 | 0.03 | 0.27 | 1.13 | 1.37 | | | N/A | N/A |
| B | 0.26 | 0.03 | 0.28 | 0.64 | 1.07 | | | N/A | N/A |
| C | 0.08 | 0.00 | 0.00 | 0.08 | 0.08 | | | N/A | N/A |

09:00 - 09:15

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.77 | 0.35 | 0.96 | 1.39 | 1.45 | | | N/A | N/A |
| B | 0.19 | 0.00 | 0.00 | 0.19 | 0.19 | | | N/A | N/A |
| C | 0.06 | 0.00 | 0.00 | 0.06 | 0.06 | | | N/A | N/A |

09:15 - 09:30

| Arm | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|-----|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| A | 0.57 | 0.06 | 0.68 | 1.34 | 1.42 | | | N/A | N/A |
| B | 0.15 | 0.00 | 0.00 | 0.15 | 0.15 | | | N/A | N/A |
| C | 0.05 | 0.00 | 0.00 | 0.05 | 0.05 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

Arm B: 2 lanes

Arm C: 2 lanes

| |
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| Junctions 11 |
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Filename: Import of J7-DES-AM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J7

Report generation date: 11/5/2026 9:42:00 am

- «D1 - 2025 | | AM
- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|-----------------|-------------|----------|
| A | Kam Pok Road SB | | Major |
| B | Fung Chuk Road | | Minor |
| C | Kam Pok Road NB | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|------------------------|-------------------------------|---------|----------------------|
| C | 7.30 | | | 50.0 | ✓ | 0.00 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|----------------|------------------------|-------------------------|
| B | One lane | 2.20 | 50 | 50 |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 230 | 100.000 |
| B | | ONE HOUR | ✓ | 10 | 100.000 |
| C | | ONE HOUR | ✓ | 215 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|-----|---|-----|
| | | A | B | C |
| From | A | 0 | 5 | 225 |
| | B | 5 | 0 | 5 |
| | C | 215 | 0 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.02 | 0.00 | 0.00 | 0.02 | 0.02 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:15 - 08:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.02 | 0.02 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:30 - 08:45

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.02 | 0.00 | 0.00 | 0.02 | 0.02 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

08:45 - 09:00

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.02 | 0.00 | 0.00 | 0.02 | 0.02 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

09:00 - 09:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.02 | 0.00 | 0.00 | 0.02 | 0.02 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

09:15 - 09:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.02 | 0.00 | 0.00 | 0.02 | 0.02 | | | N/A | N/A |
| C-AB | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

Arm B: 2 lanes

Arm C: 2 lanes

| |
|--|
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Filename: Import of J7-DES-PM.j11

Path: O:\cwh\KPR 2.0\12. Calculation of Queue Length Assessment\20260331_queue assessment\J7

Report generation date: 11/5/2026 9:46:47 am

- «D1 - 2025 | | AM
- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|-----------------|-------------|----------|
| A | Kam Pok Road SB | | Major |
| B | Fung Chuk Road | | Minor |
| C | Kam Pok Road NB | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|------------------------|-------------------------------|---------|----------------------|
| C | 7.30 | | | 50.0 | ✓ | 0.00 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|----------------|------------------------|-------------------------|
| B | One lane | 2.20 | 50 | 50 |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 180 | 100.000 |
| B | | ONE HOUR | ✓ | 10 | 100.000 |
| C | | ONE HOUR | ✓ | 110 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|-----|---|-----|
| | | A | B | C |
| From | A | 0 | 5 | 175 |
| | B | 5 | 0 | 5 |
| | C | 105 | 5 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.02 | 0.00 | 0.00 | 0.02 | 0.02 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

08:15 - 08:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.02 | 0.02 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |
| C-AB | 0.01 | 0.01 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |

08:30 - 08:45

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.02 | 0.00 | 0.00 | 0.02 | 0.02 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

08:45 - 09:00

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.02 | 0.00 | 0.00 | 0.02 | 0.02 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

09:00 - 09:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.02 | 0.00 | 0.00 | 0.02 | 0.02 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

09:15 - 09:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.02 | 0.00 | 0.00 | 0.02 | 0.02 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

J8 - Design Case in AM Peak

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| <h2>Junctions 11</h2> |
| <h3>PICADY 11 - Priority Intersection Module</h3> |
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Filename: Site Access_AM.j11

Path: O:\cwh\KPR 2.0\4, Main Access Queue Length\Site Main Access Junction 10

Report generation date: 8/5/2026 4:24:29 pm

- «D1 - 2025 | | AM
- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|--------------------|-------------|----------|
| A | Kam Pok Road SB | | Major |
| B | Site Main Entrance | | Minor |
| C | Kam Pok Road NB | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|------------------------|-------------------------------|---------|----------------------|
| C | 7.20 | | | 50.0 | ✓ | 0.00 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|----------------|------------------------|-------------------------|
| B | One lane | 5.00 | 50 | 50 |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 225 | 100.000 |
| B | | ONE HOUR | ✓ | 160 | 100.000 |
| C | | ONE HOUR | ✓ | 50 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|-----|-----|-----|
| | | A | B | C |
| From | A | 0 | 120 | 105 |
| | B | 160 | 0 | 0 |
| | C | 45 | 5 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.26 | 0.00 | 0.00 | 0.26 | 0.26 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

08:15 - 08:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.33 | 0.00 | 0.00 | 0.33 | 0.33 | | | N/A | N/A |
| C-AB | 0.01 | 0.01 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |

08:30 - 08:45

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.45 | 0.03 | 0.26 | 0.46 | 0.49 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

08:45 - 09:00

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.45 | 0.03 | 0.30 | 1.32 | 1.94 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

09:00 - 09:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.34 | 0.00 | 0.00 | 0.34 | 0.34 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

09:15 - 09:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.26 | 0.00 | 0.00 | 0.26 | 0.26 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

Arm B: 2 lanes

Arm C: 2 lanes

J8 - Design Case in PM Peak

| |
|--|
| <h2>Junctions 11</h2> |
| <h3>PICADY 11 - Priority Intersection Module</h3> |
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Filename: Site Access_PM.j11

Path: O:\cwh\KPR 2.0\4, Main Access Queue Length\Site Main Access Junction 10

Report generation date: 8/5/2026 4:41:44 pm

- «D1 - 2025 | | AM
- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Arms

Arms

| Arm | Name | Description | Arm type |
|-----|--------------------|-------------|----------|
| A | Kam Pok Road SB | | Major |
| B | Site Main Entrance | | Minor |
| C | Kam Pok Road NB | | Major |

Major Arm Geometry

| Arm | Width of carriageway (m) | Has kerbed central reserve | Has right-turn storage | Visibility for right turn (m) | Blocks? | Blocking queue (PCU) |
|-----|--------------------------|----------------------------|------------------------|-------------------------------|---------|----------------------|
| C | 7.20 | | | 50.0 | ✓ | 0.00 |

Geometries for Arm C are measured opposite Arm B. Geometries for Arm A (if relevant) are measured opposite Arm D.

Minor Arm Geometry

| Arm | Minor arm type | Lane width (m) | Visibility to left (m) | Visibility to right (m) |
|-----|----------------|----------------|------------------------|-------------------------|
| B | One lane | 5.00 | 50 | 50 |

Traffic Demand

Demand overview (Traffic)

| Arm | Linked arm | Profile type | Use O-D data | Average Demand (Veh/hr) | Scaling Factor (%) |
|-----|------------|--------------|--------------|-------------------------|--------------------|
| A | | ONE HOUR | ✓ | 160 | 100.000 |
| B | | ONE HOUR | ✓ | 60 | 100.000 |
| C | | ONE HOUR | ✓ | 40 | 100.000 |

Origin-Destination Data

Demand (Veh/hr)

| | | To | | |
|------|---|----|----|----|
| | | A | B | C |
| From | A | 0 | 75 | 85 |
| | B | 60 | 0 | 0 |
| | C | 35 | 5 | 0 |

Vehicle Mix

| HV data entry mode | PCU Factor for a HV (PCU) |
|--------------------|---------------------------|
| HV Percentages | 2.00 |

Heavy Vehicle %

| | | To | | |
|------|---|----|---|---|
| | | A | B | C |
| From | A | 0 | 0 | 0 |
| | B | 0 | 0 | 0 |
| | C | 0 | 0 | 0 |

Queue Variation Results for each time segment

08:00 - 08:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.08 | 0.00 | 0.00 | 0.08 | 0.08 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

08:15 - 08:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.10 | 0.03 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |
| C-AB | 0.01 | 0.01 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |

08:30 - 08:45

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.13 | 0.03 | 0.26 | 0.46 | 0.49 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

08:45 - 09:00

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.13 | 0.03 | 0.25 | 0.45 | 0.48 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

09:00 - 09:15

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.10 | 0.00 | 0.00 | 0.10 | 0.10 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

09:15 - 09:30

| Stream | Mean (Veh) | Q05 (Veh) | Q50 (Veh) | Q90 (Veh) | Q95 (Veh) | Percentile message | Marker message | Probability of reaching or exceeding marker | Probability of exactly reaching marker |
|--------|------------|-----------|-----------|-----------|-----------|--------------------|----------------|---|--|
| B-AC | 0.08 | 0.00 | 0.00 | 0.08 | 0.08 | | | N/A | N/A |
| C-AB | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | | | N/A | N/A |

Remarks:

Length of vehicle : 6m

No. of Lanes:

Arm A: 2 lanes

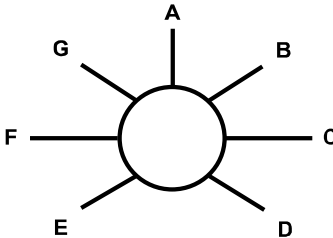
Arm B: 2 lanes

Arm C: 2 lanes

Appendix J

Junction Calculation Sheets

Roundabout Capacity Calculation

| | | | | | | | | | | | | |
|--|------|--|----------------------|------|----------------|-----------------|----------------|------|----------------------|------|-------------|-------------|
| Job Title: Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | | | | | | | | | | | |
| Junction: Fairview Park Interchange (J1) | | | | | | | Ref. No.: | | | | | |
| Scheme: Observed Case | | | | | | | | | | | | |
| Year: 2025 | | | Job No.: CHK50868310 | | | Rev.: - | | | | | | |
| AM | | PM | | | | | | | | | | |
| ARM A: | | Fairview Park Boulevard | | | | | | | | | | |
| ARM B: | | Castle Peak Road - Tam Mi (N) | | | | | | | | | | |
| ARM C: | | San Tin Highway Slip Road (N) | | | | | | | | | | |
| ARM D: | | San Tam Road (N) | | | | | | | | | | |
| ARM E: | | San Tam Road (S) | | | | | | | | | | |
| ARM F: | | San Tin Highway Slip Road (S) | | | | | | | | | | |
| ARM G: | | Castle Peak Road - Tam Mi (S) | | | | | | | | | | |
| | |  | | | | | | | | | | |
| GEOMETRY | | | | | | | | | | | | |
| ARM | v | e | L | r | D | Phi | S | | | | | |
| A | 7.00 | 11.00 | 14 | 22 | 142 | 35 | 0.46 | | | | | |
| B | 5.50 | 10.50 | 15 | 20 | 142 | 35 | 0.53 | | | | | |
| C | 5.50 | 8.50 | 7.5 | 23 | 142 | 30 | 0.64 | | | | | |
| D | 6.75 | 8.50 | 10 | 20 | 142 | 25 | 0.28 | | | | | |
| E | 6.00 | 8.00 | 9.5 | 20 | 142 | 35 | 0.34 | | | | | |
| F | 6.00 | 9.00 | 10 | 25 | 142 | 40 | 0.48 | | | | | |
| G | 5.50 | 6.00 | 7 | 22 | 142 | 30 | 0.11 | | | | | |
| AM FLOWS | | | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit | | |
| A | 55 | 5 | 215 | 35 | 145 | 395 | 15 | 1265 | 865 | 580 | | |
| B | 15 | 25 | 60 | 5 | 125 | 270 | 5 | 1735 | 505 | 395 | | |
| C | 150 | 60 | 10 | 105 | 230 | 20 | 125 | 1660 | 700 | 580 | | |
| D | 40 | 10 | 45 | 10 | 225 | 210 | 10 | 1985 | 550 | 375 | | |
| E | 50 | 65 | 130 | 50 | 5 | 35 | 5 | 1650 | 340 | 885 | | |
| F | 240 | 135 | 15 | 130 | 95 | 25 | 110 | 895 | 750 | 1095 | | |
| G | 30 | 95 | 105 | 40 | 60 | 140 | 15 | 1360 | 485 | 285 | | |
| PM FLOWS | | | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit | | |
| A | 55 | 20 | 145 | 40 | 145 | 250 | 20 | 1275 | 675 | 800 | | |
| B | 15 | 25 | 45 | 15 | 115 | 100 | 10 | 1555 | 325 | 395 | | |
| C | 175 | 45 | 20 | 100 | 265 | 5 | 100 | 1305 | 710 | 575 | | |
| D | 20 | 20 | 70 | 20 | 140 | 165 | 10 | 1590 | 445 | 425 | | |
| E | 50 | 35 | 155 | 35 | 10 | 35 | 5 | 1255 | 325 | 780 | | |
| F | 450 | 150 | 25 | 160 | 90 | 20 | 175 | 905 | 1070 | 675 | | |
| G | 35 | 100 | 115 | 55 | 15 | 100 | 10 | 1645 | 430 | 330 | | |
| CALCULATIONS | | | | | | | | | | | | |
| ARM | K | X ₂ | M | F | t _D | f _c | Q _E | AM | PM | RFC | AM | PM |
| A | 0.99 | 9.09 | 3640.95 | 2754 | 1.00 | 0.59 | | 1980 | 1974 | | 0.44 | 0.34 |
| B | 0.98 | 7.92 | 3640.95 | 2400 | 1.00 | 0.54 | | 1433 | 1529 | | 0.35 | 0.21 |
| C | 1.01 | 6.82 | 3640.95 | 2065 | 1.00 | 0.50 | | 1249 | 1427 | | 0.56 | 0.50 |
| D | 1.02 | 7.87 | 3640.95 | 2385 | 1.00 | 0.54 | | 1335 | 1552 | | 0.41 | 0.29 |
| E | 0.98 | 7.19 | 3640.95 | 2180 | 1.00 | 0.51 | | 1312 | 1511 | | 0.26 | 0.22 |
| F | 0.98 | 7.53 | 3640.95 | 2282 | 1.00 | 0.53 | | 1766 | 1760 | | 0.42 | 0.61 |
| G | 1.00 | 5.91 | 3640.95 | 1790 | 1.00 | 0.46 | | 1172 | 1041 | | 0.41 | 0.41 |
| | | | | | | | | | Critical Arm: | | C | F |
| | | | | | | | | | RFC: | | 0.56 | 0.61 |
| | | | | | | | | | | | AM | PM |
| - In accordance with TPDM V2.4 | | | | | | | | | | | | |
| Calculated by: HZF | | | Date: Mar-26 | | | Checked by: PTC | | | | | | |

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50868310**

MVA HONG KONG LIMITED

Junction: Kam Pok Road / Fairview Park Boulevard (J2)

Design Year: 2034

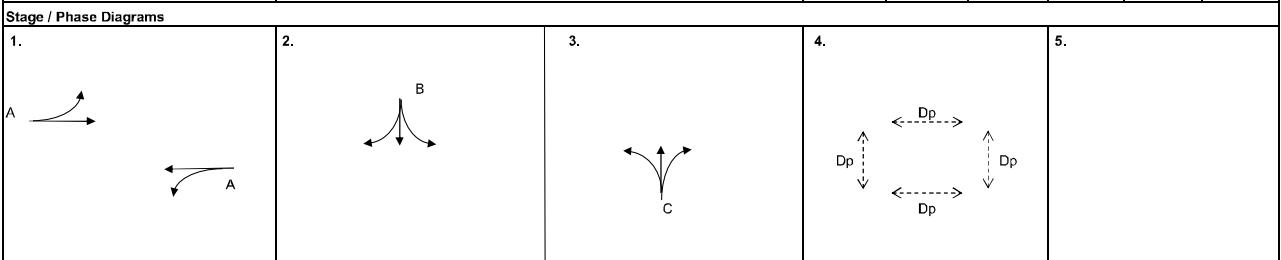
Description: Year 2025 Observed Traffic Flows

Designed By: HZF

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|----------------------------|-----------|-------|-------|---------------------|------------|-------|--------------|------------------|-----------|----------------------------------|-------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Fairview Park Boulevard EB | ↗ | A | 1 | 3.4 | 15 | | | 8% | 10% | 1940 | 1935 | 389 | 0.201 | 0.201 | 254 | 0.131 | |
| | → | A | 1 | 3.4 | | | | 1955 | 1955 | 391 | 0.200 | | 256 | 0.131 | | | |
| Fairview Park Boulevard WB | ↖ | A | 1 | 3.5 | 17 | | | 24% | 26% | 1925 | 1920 | 307 | 0.159 | | 381 | 0.198 | 0.198 |
| | ← | A | 1 | 3.5 | | | | 1965 | 1965 | 313 | 0.159 | | 389 | 0.198 | | | |
| Kam Pok Road SB | ↕ | B | 2 | 5.5 | 18 | 18 | | 30% / 50% | 33% / 43% | 2030 | 2035 | 100 | 0.049 | 0.049 | 105 | 0.052 | 0.052 |
| Kam Pok Road NB | ↕ | C | 3 | 3.8 | 13 | 20 | | 9% / 50% | 16% / 75% | 1905 | 1855 | 110 | 0.058 | 0.058 | 160 | 0.086 | 0.086 |
| Pedestrian Crossing | | Dp | 4 | MIN GREEN + FLASH = | | 10 | + | 9 | = | 19 | | | | * | | | * |

| Notes: | Flow: (pcu/hr) | Group | A.B.C.Dp | Group | A.B.C.Dp |
|--------|----------------|-----------------|----------|-----------------|----------|
| | | y | 0.308 | y | 0.336 |
| | | L (sec) | 44 | L (sec) | 44 |
| | | C (sec) | 120 | C (sec) | 120 |
| | | y pract. | 0.570 | y pract. | 0.570 |
| | | R.C. (%) | 85% | R.C. (%) | 69% |



| | | | | | | | | | |
|--------|--|--------|--|--------|--|---------|----|------|--|
| I/G= 3 | | I/G= 7 | | I/G= 7 | | I/G= 11 | 19 | I/G= | |
| I/G= 3 | | I/G= 7 | | I/G= 7 | | I/G= 11 | 19 | I/G= | |

Date: Jan, 2026 Junction: 2 J2

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50868310**

MVA HONG KONG LIMITED

Junction: Kam Pok Road / Vehicular Bridge – South (J3)

Design Year: 2034

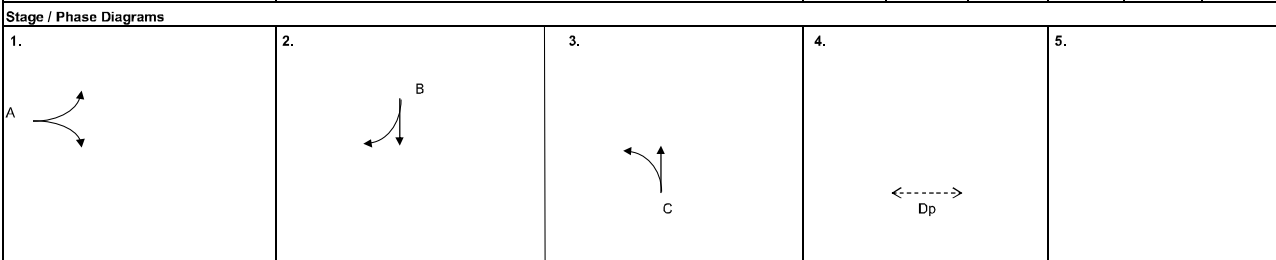
Description: Year 2025 Observed Traffic Flows

Designed By: HZF

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|-----------------------|-----------|-------|-------|---------------------|------------|-------|--------------|------------------|-----------|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Vehicular Bridge (EB) | ↑↑ | A | 1 | 3.600 | 10 | 10 | | 80% / 20% | 57% / 43% | 1715 | 1715 | 25 | 0.015 | 0.015 | 35 | 0.020 | 0.020 |
| Kam Pok Rd (SB) | ↑→ | B | 2 | 3.600 | | 10 | | 20% | 21% | 1915 | 1915 | 100 | 0.052 | 0.052 | 95 | 0.050 | 0.050 |
| Kam Pok Rd (NB) | ↑ | C | 3 | 3.600 | 10 | | | 20% | 20% | 1915 | 1915 | 25 | 0.013 | | 25 | 0.013 | |
| Pedestrian Crossing | | Dp | 4 | MIN GREEN + FLASH = | | 7 | + | 7 | = | 14 | | | | * | | | * |

| Notes: | Flow: (pcu/hr) | Group | A,B,C,Dp | Group | A,B,C,Dp |
|--------|----------------|----------|----------|----------|----------|
| | | y | 0.067 | y | 0.070 |
| | | L (sec) | 32 | L (sec) | 32 |
| | | C (sec) | 60 | C (sec) | 60 |
| | | y pract. | 0.420 | y pract. | 0.420 |
| | | R.C. (%) | 529% | R.C. (%) | 500% |



| | | | | | | | | | |
|--------|--|--------|--|--------|---|--------|----|------|--|
| I/G= 2 | | I/G= 5 | | I/G= 5 | 5 | I/G= 3 | 14 | I/G= | |
| I/G= 2 | | I/G= 5 | | I/G= 5 | 5 | I/G= 3 | 14 | I/G= | |

Date: Jan, 2026 Junction: 3 J3

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50868310**

MVA HONG KONG LIMITED

Junction: Kam Pok Road / Vehicular Bridge – North (J4)

Design Year: 2034

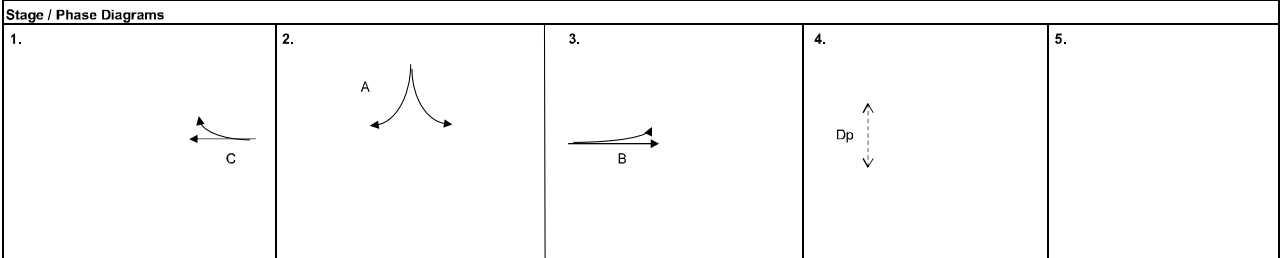
Description: Year 2025 Observed Traffic Flows

Designed By: HZF

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|---------------------|-----------|-------|-------|---------------------|------------|-------|--------------|------------------|-----------|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Kam Pok Road WB | ↔ | C | 1 | 3.650 | | 12 | | 5% | 5% | 1970 | 1965 | 100 | 0.051 | 0.051 | 95 | 0.048 | 0.048 |
| Kam Pok Road EB | ↔ | B | 3 | 3.650 | 10 | | | 11% | 13% | 1950 | 1945 | 45 | 0.023 | 0.023 | 40 | 0.021 | 0.021 |
| Vehicular Bridge SB | ↔ | A | 2 | 3.650 | 10 | 12 | | 50% / 50% | 50% / 50% | 1740 | 1740 | 10 | 0.006 | | 10 | 0.006 | |
| Pedestrian Crossing | | Dp | 4 | MIN GREEN + FLASH = | | | 7 | + | 7 | = | 14 | | | | * | | * |

| Notes: | Flow: (pcu/hr) | Group | A,B,C,Dp | Group | A,B,C,Dp |
|--------|----------------|----------|----------|----------|----------|
| | | y | 0.074 | y | 0.069 |
| | | L (sec) | 34 | L (sec) | 34 |
| | | C (sec) | 60 | C (sec) | 60 |
| | | y pract. | 0.390 | y pract. | 0.390 |
| | | R.C. (%) | 428% | R.C. (%) | 466% |

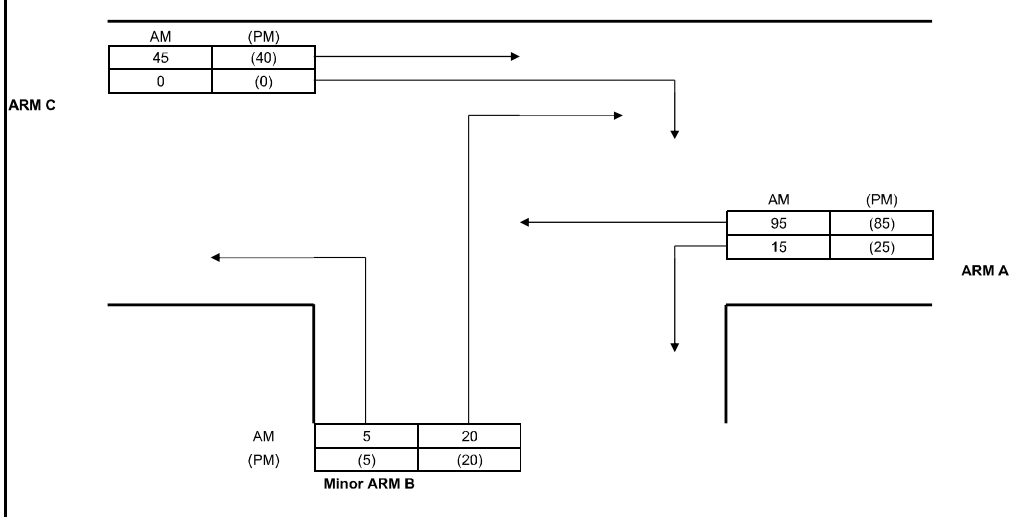


| | | | | | | | | | |
|--------|--|--------|---|--------|--|--------|----|------|--|
| I/G= 2 | | I/G= 5 | 5 | I/G= 5 | | I/G= 5 | 14 | I/G= | |
| I/G= 2 | | I/G= 5 | 5 | I/G= 5 | | I/G= 5 | 14 | I/G= | |

Date: Jan, 2026 Junction: 4 J4

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|-----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Ha Chuk Yuen Road (J5) | Ref. No.: | |
| Scheme: | Observed Case | | |
| Year: | 2025 | Job No.: | CHK50868310 |
| Rev.: | | | |
| ARM A: | Kam Pok Road WB | | |
| ARM B: | Ha Chuk Yuen Road | | |
| ARM C: | Kam Pok Road EB | | |



| GEOMETRY | | | | | |
|------------------------|---------|------|-------------|--------|------|
| Major road width | W | 9.30 | Lane widths | w(b-a) | 2.05 |
| Central Reserve width | Wcr | 0.00 | | w(b-c) | 2.05 |
| 2 Lane Minor Arm (Y/N) | | N | | w(c-b) | 3.50 |
| Visibilities | Vr(b-a) | 50 | Calculated | D | 0.75 |
| | VI(b-a) | 50 | | E | 0.80 |
| | Vr(b-c) | 50 | | F | 0.92 |
| | Vr(c-b) | 50 | | Y | 0.68 |

| ANALYSIS | | | | | |
|---------------|---------|--------|--------------|--------------|--|
| | | | AM PEAK | (PM) PEAK | |
| TRAFFIC FLOWS | q(c-a) | | 45 | 40 | |
| | q(c-b) | | 0 | | |
| | q(a-b) | | 15 | 25 | |
| | q(a-c) | | 95 | 85 | |
| | q(b-a) | | 20 | 20 | |
| | q(b-c) | | 5 | 5 | |
| | f | | 0.20 | 0.20 | |
| CAPACITIES | Q(b-a) | Factor | 445 | 447 | |
| | Q(b-c) | 1 | 573 | 574 | |
| | Q(c-b) | 1 | 663 | 663 | |
| | Q(b-ac) | 1 | 466 | 468 | |
| RFC's | b-a | | 0.045 | 0.045 | |
| | b-c | | 0.009 | 0.009 | |
| | c-b | | 0.000 | 0.000 | |
| | b-ac | | 0.054 | 0.053 | |
| Worst RFC | | | 0.054 | 0.053 | |

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c) \cdot Q(b-a) / (1-f) \cdot Q(b-c) + f \cdot Q(b-a)$$

Capacity of combined streams

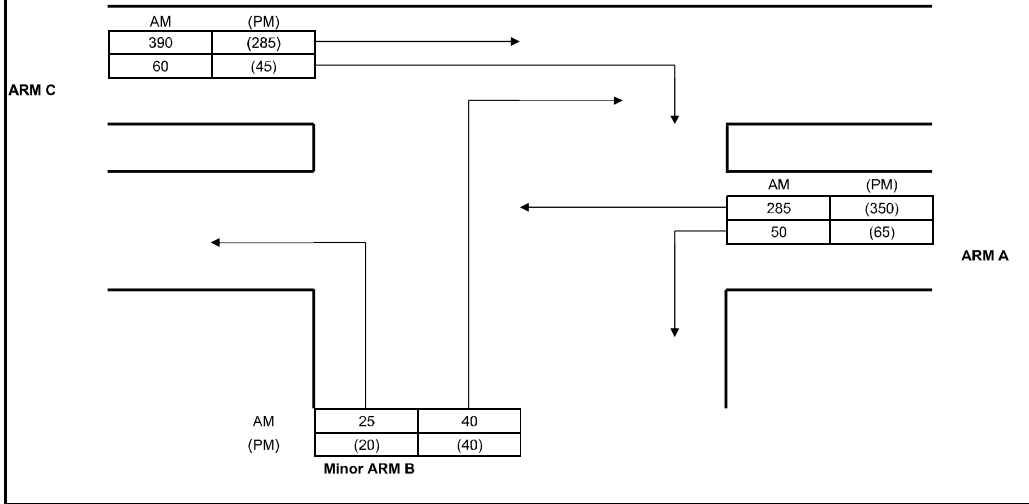
- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | Jan, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Castle Peak Road – Tam Mi (J6) | | Ref. No.: |
| Scheme: | Observed Case | | |
| Year: | 2025 | Job No.: | CHK50868310 |
| Rev.: | | | |
| ARM A: | Castle Peak Road - Tam Mi NB | | |
| ARM B: | Kam Pok Road EB | | |
| ARM C: | Castle Peak Road - Tam Mi SB | | |



| GEOMETRY | | | | | |
|------------------------|---------|------|-------------|--------|------|
| Major road width | W | 6.90 | Lane widths | w(b-a) | 4.50 |
| Central Reserve width | Wcr | 0.00 | | w(b-c) | 4.50 |
| 2 Lane Minor Arm (Y/N) | | N | | w(c-b) | 2.05 |
| Visibilities | Vr(b-a) | 53 | Calculated | D | 0.97 |
| | VI(b-a) | 70 | | E | 1.03 |
| | Vr(b-c) | 70 | | F | 0.78 |
| | Vr(c-b) | 30 | | Y | 0.76 |

| ANALYSIS | | | AM PEAK | (PM) PEAK |
|---------------|---------|--------|---------|-----------|
| TRAFFIC FLOWS | q(c-a) | | 390 | 285 |
| | q(c-b) | | 60 | 45 |
| | q(a-b) | | 50 | 65 |
| | q(a-c) | | 285 | 350 |
| | q(b-a) | | 40 | 40 |
| | q(b-c) | | 25 | 20 |
| | f | | 0.38 | 0.33 |
| CAPACITIES | Q(b-a) | Factor | 435 | 440 |
| | Q(b-c) | 1 | 681 | 661 |
| | Q(c-b) | 1 | 509 | 492 |
| | Q(b-ac) | 1 | 505 | 495 |
| RFC's | b-a | | 0.092 | 0.091 |
| | b-c | | 0.037 | 0.030 |
| | c-b | | 0.118 | 0.091 |
| | b-ac | | 0.129 | 0.121 |
| Worst RFC | | | 0.129 | 0.121 |

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c) \cdot Q(b-a) / (1-f) + f \cdot Q(b-a)$$

Capacity of combined streams

- in accordance with TPDM V2.4

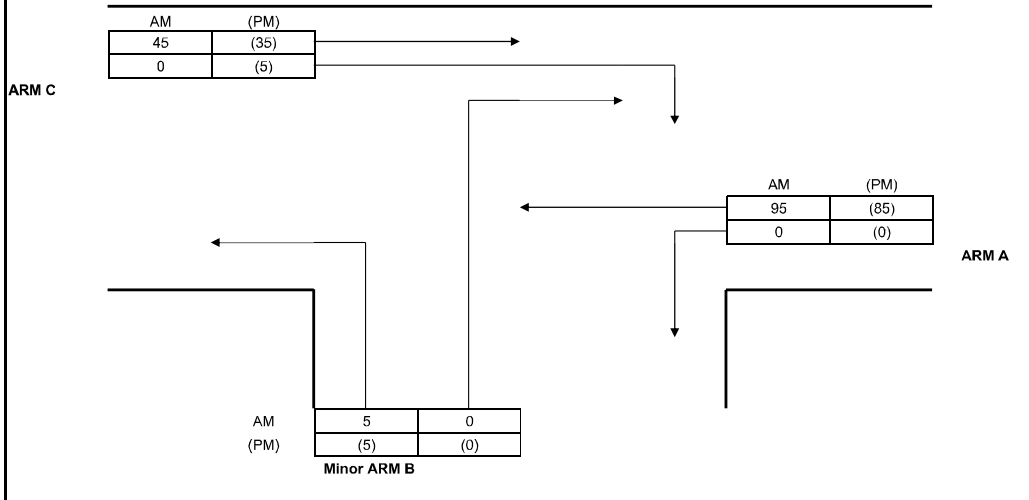
T.P.D.M.V.2.4

Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | Jan, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|-----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Fung Chuk Road (J7) | Ref. No.: | |
| Scheme: | Observed Case | | |
| Year: | 2025 | Job No.: | CHK50868310 |
| Rev.: | | | |
| ARM A: | Kam Pok Road SB | | |
| ARM B: | Fung Chuk Road | | |
| ARM C: | Kam Pok Road NB | | |



| GEOMETRY | | | | | |
|------------------------|---------|------|-------------|--------|------|
| Major road width | W | 7.30 | Lane widths | w(b-a) | 2.00 |
| Central Reserve width | Wcr | 0.00 | | w(b-c) | 2.00 |
| 2 Lane Minor Arm (Y/N) | | N | | w(c-b) | 3.50 |
| Visibilities | Vr(b-a) | 12 | Calculated | D | 0.70 |
| | VI(b-a) | 8.5 | | E | 0.76 |
| | Vr(b-c) | 12 | | F | 0.90 |
| | Vr(c-b) | 21 | | Y | 0.75 |

| ANALYSIS | | | AM PEAK | (PM) PEAK |
|---------------|---------|--------|---------|-----------|
| TRAFFIC FLOWS | q(c-a) | | 45 | 35 |
| | q(c-b) | | 0 | 5 |
| | q(a-b) | | 0 | 0 |
| | q(a-c) | | 95 | 85 |
| | q(b-a) | | 0 | 0 |
| | q(b-c) | | 5 | 5 |
| | f | | 1.00 | 1.00 |
| CAPACITIES | Q(b-a) | Factor | 414 | 416 |
| | Q(b-c) | 1 | 549 | 551 |
| | Q(c-b) | 1 | 646 | 648 |
| | Q(b-ac) | 1 | 549 | 551 |
| RFC's | b-a | | 0.000 | 0.000 |
| | b-c | | 0.009 | 0.009 |
| | c-b | | 0.000 | 0.008 |
| | b-ac | | 0.009 | 0.009 |
| Worst RFC | | | 0.009 | 0.009 |

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c) \cdot Q(b-a) / (1-f) + f \cdot Q(b-a)$$

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | Jan, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Roundabout Capacity Calculation

| | | | | | | | | | | |
|---|------|-------------------------------|-----------------------------|------|------------------|------------------------|----------------|------|-------------|-------------|
| Job Title: Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | | | | | | | | | |
| Junction: Fairview Park Interchange (J1) | | | | | Ref. No.: | | | | | |
| Scheme: Reference Case (with Planned Junction Layout) | | | | | | | | | | |
| Year: 2034 | | | Job No.: CHK50868310 | | | Rev.: - | | | | |
| AM | | PM | | | | | | | | |
| ARM A: | | Fairview Park Boulevard | | | | | | | | |
| ARM B: | | Castle Peak Road - Tam Mi (N) | | | | | | | | |
| ARM C: | | San Tin Highway Slip Road (N) | | | | | | | | |
| ARM D: | | San Tam Road (N) | | | | | | | | |
| ARM E: | | San Tam Road (S) | | | | | | | | |
| ARM F: | | San Tin Highway Slip Road (S) | | | | | | | | |
| ARM G: | | Castle Peak Road - Tam Mi (S) | | | | | | | | |
| | | | | | | | | | | |
| GEOMETRY | | | | | | | | | | |
| ARM | v | e | L | r | D | Phi | S | | | |
| A | 7.00 | 11.80 | 20 | 25 | 140 | 35 | 0.38 | | | |
| B | 7.30 | 12.00 | 36 | 30 | 140 | 25 | 0.21 | | | |
| C | 7.30 | 13.00 | 13 | 45 | 140 | 30 | 0.70 | | | |
| D | 7.30 | 11.00 | 23 | 25 | 140 | 35 | 0.26 | | | |
| E | 7.30 | 12.00 | 27 | 25 | 140 | 45 | 0.28 | | | |
| F | 6.00 | 12.50 | 20 | 25 | 140 | 40 | 0.52 | | | |
| G | 6.50 | 11.20 | 22 | 25 | 140 | 35 | 0.34 | | | |
| AM FLOWS | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit |
| A | 10 | 20 | 210 | 40 | 230 | 480 | 30 | 2840 | 1020 | 670 |
| B | 10 | 10 | 145 | 10 | 250 | 390 | 30 | 3210 | 845 | 650 |
| C | 95 | 75 | 10 | 100 | 485 | 10 | 225 | 2800 | 1000 | 1255 |
| D | 65 | 20 | 45 | 10 | 280 | 210 | 95 | 3325 | 725 | 475 |
| E | 40 | 35 | 465 | 120 | 10 | 535 | 20 | 2155 | 1225 | 1895 |
| F | 335 | 330 | 10 | 110 | 630 | 10 | Free Flow | 1420 | 1425 | 1960 |
| G | 115 | 160 | 370 | 85 | 10 | 325 | 0 | 2445 | 1065 | 400 |
| PM FLOWS | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit |
| A | 10 | 10 | 170 | 55 | 210 | 345 | 30 | 2540 | 830 | 955 |
| B | 35 | 10 | 95 | 10 | 170 | 190 | 30 | 2740 | 540 | 630 |
| C | 190 | 125 | 20 | 85 | 425 | 20 | 210 | 2390 | 1075 | 890 |
| D | 80 | 20 | 90 | 20 | 250 | 95 | 75 | 2950 | 630 | 515 |
| E | 100 | 30 | 305 | 115 | 10 | 295 | 20 | 1845 | 875 | 1735 |
| F | 445 | 310 | 10 | 175 | 660 | 20 | Free Flow | 1535 | 1620 | 1185 |
| G | 95 | 125 | 200 | 55 | 10 | 220 | 10 | 2780 | 715 | 375 |
| CALCULATIONS | | | | | | | | | | |
| ARM | K | X ₂ | M | F | t _D | f _c | Q _E | | RFC | |
| | | | | | | | AM | PM | AM | PM |
| A | 0.99 | 9.71 | 2980.96 | 2944 | 1.00 | 0.62 | 1179 | 1363 | 0.87 | 0.61 |
| B | 1.03 | 10.62 | 2980.96 | 3216 | 1.00 | 0.66 | 1148 | 1467 | 0.74 | 0.37 |
| C | 1.03 | 9.67 | 2980.96 | 2931 | 1.00 | 0.62 | 1238 | 1497 | 0.81 | 0.72 |
| D | 0.99 | 9.74 | 2980.96 | 2952 | 1.00 | 0.62 | 886 | 1117 | 0.82 | 0.56 |
| E | 0.96 | 10.32 | 2980.96 | 3127 | 1.00 | 0.64 | 1666 | 1857 | 0.74 | 0.47 |
| F | 0.98 | 9.19 | 2980.96 | 2783 | 1.00 | 0.60 | 1889 | 1822 | 0.75 | 0.89 |
| G | 0.99 | 9.29 | 2980.96 | 2815 | 1.00 | 0.60 | 1337 | 1138 | 0.80 | 0.63 |
| Critical Arm: | | | | | | | | | A | F |
| RFC: | | | | | | | | | 0.87 | 0.89 |
| | | | | | | | | | AM | PM |
| <i>- In accordance with TPDM V2.4</i> | | | | | | | | | | |
| Calculated by: HZF | | | Date: Jan-26 | | | Checked by: PTC | | | | |

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50868310**

MVA HONG KONG LIMITED

Junction: Kam Pok Road / Fairview Park Boulevard (J2)

Design Year: 2034

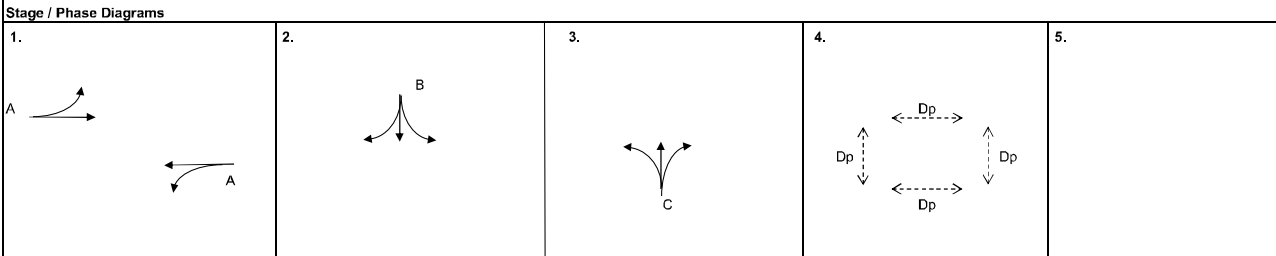
Description: Year 2034 Reference Traffic Flows

Designed By: HZF

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|----------------------------|-----------|-------|-------|---------------------|------------|-------|--------------|------------------|-----------|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Fairview Park Boulevard EB | ↗ | A | 1 | 3.4 | 15 | | | 8% | 9% | 1940 | 1935 | 428 | 0.221 | | 276 | 0.143 | |
| | → | A | 1 | 3.4 | | | | | | 1955 | 1955 | 432 | 0.221 | 0.221 | 279 | 0.143 | |
| Fairview Park Boulevard WB | ↖ | A | 1 | 3.5 | 17 | | | 24% | 26% | 1925 | 1920 | 336 | 0.175 | | 418 | 0.218 | 0.218 |
| | ← | A | 1 | 3.5 | | | | | | 1965 | 1965 | 344 | 0.175 | | 427 | 0.217 | |
| Kam Pok Road SB | ↕ | B | 2 | 5.5 | 18 | 18 | | 16% / 44% | 18% / 45% | 2060 | 2055 | 125 | 0.061 | 0.061 | 110 | 0.054 | 0.054 |
| Kam Pok Road NB | ↕ | C | 3 | 3.8 | 13 | 20 | | 7% / 43% | 14% / 72% | 1920 | 1865 | 140 | 0.073 | 0.073 | 180 | 0.097 | 0.097 |
| Pedestrian Crossing | | Dp | 4 | MIN GREEN + FLASH = | | 10 | + | 9 | = | 19 | | | | | | | * |

| Notes: | Flow: (pcu/hr) | Group | A.B.C.Dp | Group | A.B.C.Dp |
|--------|----------------|-----------------|----------|-----------------|----------|
| | | y | 0.355 | y | 0.368 |
| | | L (sec) | 44 | L (sec) | 44 |
| | | C (sec) | 120 | C (sec) | 120 |
| | | y pract. | 0.570 | y pract. | 0.570 |
| | | R.C. (%) | 61% | R.C. (%) | 55% |



| | | | | | | | | | |
|--------|--|--------|--|--------|--|---------|----|------|--|
| I/G= 3 | | I/G= 7 | | I/G= 7 | | I/G= 11 | 19 | I/G= | |
| I/G= 3 | | I/G= 7 | | I/G= 7 | | I/G= 11 | 19 | I/G= | |

Date: Jan, 2026 Junction: 2 J2

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50868310**

MVA HONG KONG LIMITED

Junction: Kam Pok Road / Vehicular Bridge – South (J3)

Design Year: 2034

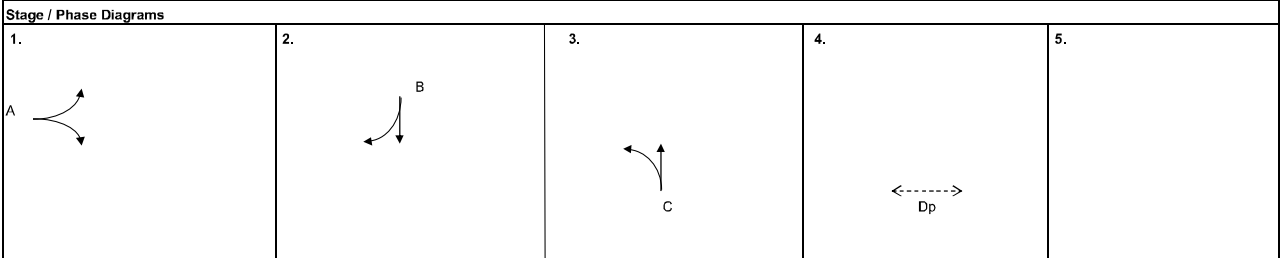
Description: Year 2034 Reference Traffic Flows

Designed By: HZF

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|-----------------------|-----------|-------|-------|---------------------|------------|-------|--------------|------------------|-----------|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Vehicular Bridge (EB) | ↑↑ | A | 1 | 3.600 | 10 | 10 | | 100% / 0% | 100% / 0% | 1715 | 1715 | 15 | 0.009 | | 10 | 0.006 | |
| Kam Pok Rd (SB) | ↑→ | B | 2 | 3.600 | | 10 | | 8% | 9% | 1950 | 1950 | 130 | 0.067 | 0.067 | 110 | 0.056 | 0.056 |
| Kam Pok Rd (NB) | ↑ | C | 3 | 3.600 | 10 | | | 8% | 11% | 1950 | 1945 | 60 | 0.031 | 0.031 | 45 | 0.023 | 0.023 |
| Pedestrian Crossing | | Dp | 4 | MIN GREEN + FLASH = | | 7 | + | 7 | = | 14 | | | | | * | | * |

| Notes: | Flow: (pcu/hr) | Group | A.B.C.Dp | Group | A.B.C.Dp |
|--------|----------------|----------|----------|----------|----------|
| | | y | 0.097 | y | 0.080 |
| | | L (sec) | 32 | L (sec) | 32 |
| | | C (sec) | 60 | C (sec) | 60 |
| | | y pract. | 0.420 | y pract. | 0.420 |
| | | R.C. (%) | 331% | R.C. (%) | 428% |



| | | | | | | | | | |
|--------|---|--------|--|--------|--|--------|----|------|--|
| I/G= 2 | 5 | I/G= 5 | | I/G= 5 | | I/G= 3 | 14 | I/G= | |
| I/G= 2 | 5 | I/G= 5 | | I/G= 5 | | I/G= 3 | 14 | I/G= | |

Date: Jan, 2026 Junction: 3 J3

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50868310**

MVA HONG KONG LIMITED

Junction: Kam Pok Road / Vehicular Bridge – North / Vehicular Access (J4)

Design Year: 2034

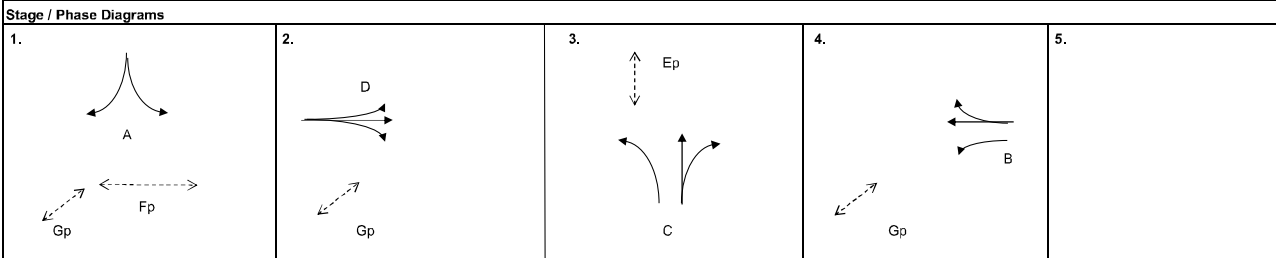
Description: Year 2034 Reference Traffic Flows (with Planned Junction Layout)

Designed By: HZF

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|---------------------|-----------|-------|---------------------|-----------|------------|-------|--------------|------------------|-----------|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Vehicular Bridge SB | ↕ | A | 1 | 3.500 | 10 | 12 | | 100% / 0% | 100% / 0% | 1710 | 1710 | 15 | 0.009 | | 10 | 0.006 | |
| Kam Pok Road EB | ↔ | D | 2 | 3.650 | 10 | 12 | | 0% / 22% | 0% / 33% | 1925 | 1900 | 90 | 0.047 | 0.047 | 75 | 0.039 | 0.039 |
| R(D) Site Access | ↕ | C | 3 | 5.500 | 20 | | | 100% | 100% | 2015 | 2015 | 25 | 0.012 | | 10 | 0.005 | |
| | ↔ | C | 3 | 4.000 | | 12 | | | | 1790 | 1790 | 230 | 0.128 | 0.128 | 95 | 0.053 | 0.053 |
| Kam Pok Road WB | ↕ | B | 4 | 3.650 | 15 | | | 8% | 8% | 1800 | 1800 | 170 | 0.094 | 0.094 | 105 | 0.058 | |
| | ↔ | B | 4 | 3.650 | | 12 | | | | 1960 | 1960 | 125 | 0.064 | | 125 | 0.064 | 0.064 |
| Pedestrian Crossing | Ep | 3 | MIN GREEN + FLASH = | | 10 | + | 10 | = | 20 | | | | | | | | |
| | Fp | 1 | MIN GREEN + FLASH = | | 11 | + | 10 | = | 21 | | | | | | | | |
| | Gp | 1,2,4 | MIN GREEN + FLASH = | | 5 | + | 5 | = | 10 | | | | | | | | |

| Notes: | Flow: (pcu/hr) | Group | Fp,D,C,B | A,D,C,B | Group | Fp,D,C,B | A,D,C,B |
|--------|----------------|-----------------|----------|---------|-----------------|----------|---------|
| | | y | 0.270 | 0.270 | y | 0.156 | 0.156 |
| | | L (sec) | 18 | 31 | L (sec) | 18 | 31 |
| | | C (sec) | 90 | 90 | C (sec) | 90 | 90 |
| | | y pract. | 0.720 | 0.590 | y pract. | 0.720 | 0.590 |
| | | R.C. (%) | 167% | 119% | R.C. (%) | 361% | 277% |

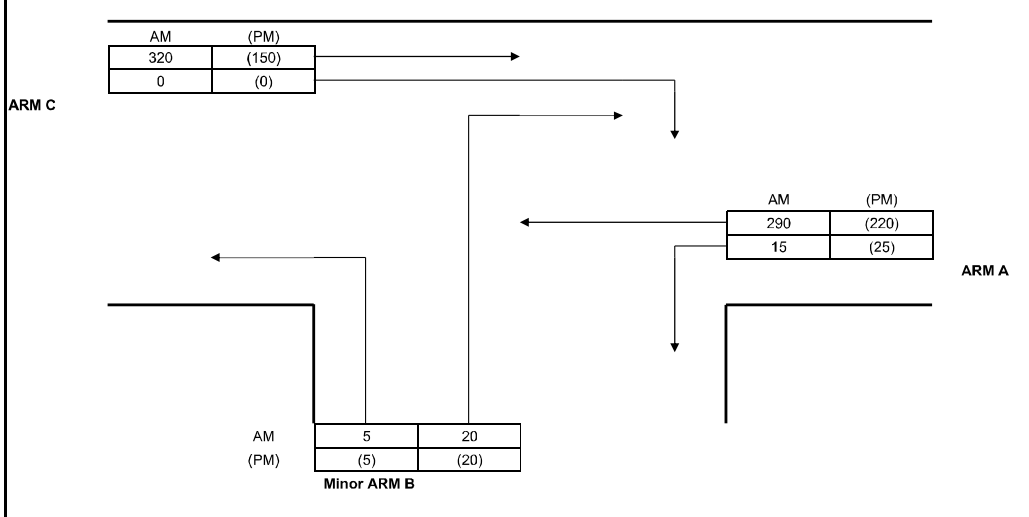


| | | | | | | | | | |
|--------|---|---------|--|--------|--|--------|--|------|--|
| I/G= 7 | 5 | I/G= 12 | | I/G= 5 | | I/G= 5 | | I/G= | |
| I/G= 7 | 5 | I/G= 12 | | I/G= 5 | | I/G= 5 | | I/G= | |

Date: Jan, 2026 Junction: 4 J4

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|-----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Ha Chuk Yuen Road (J5) | Ref. No.: | |
| Scheme: | Reference Case | | |
| Year: | 2034 | Job No.: | CHK50868310 |
| Rev.: | | | |
| ARM A: | Kam Pok Road WB | | |
| ARM B: | Ha Chuk Yuen Road | | |
| ARM C: | Kam Pok Road EB | | |



| GEOMETRY | | | | | |
|------------------------|---------|------|-------------|--------|------|
| Major road width | W | 9.30 | Lane widths | w(b-a) | 2.05 |
| Central Reserve width | Wcr | 0.00 | | w(b-c) | 2.05 |
| 2 Lane Minor Arm (Y/N) | | N | | w(c-b) | 3.50 |
| Visibilities | Vr(b-a) | 50 | Calculated | D | 0.75 |
| | VI(b-a) | 50 | | E | 0.80 |
| | Vr(b-c) | 50 | | F | 0.92 |
| | Vr(c-b) | 50 | | Y | 0.68 |

| ANALYSIS | | | | AM PEAK | (PM) PEAK |
|---------------|---------|--------|--|--------------|--------------|
| TRAFFIC FLOWS | q(c-a) | | | 320 | 150 |
| | q(c-b) | | | 0 | 0 |
| | q(a-b) | | | 15 | 25 |
| | q(a-c) | | | 290 | 220 |
| | q(b-a) | | | 20 | 20 |
| | q(b-c) | | | 5 | 5 |
| | f | | | 0.20 | 0.20 |
| CAPACITIES | Q(b-a) | Factor | | 377 | 409 |
| | Q(b-c) | 1 | | 535 | 548 |
| | Q(c-b) | 1 | | 619 | 632 |
| | Q(b-ac) | 1 | | 401 | 431 |
| | | | | | |
| RFC's | b-a | | | 0.053 | 0.049 |
| | b-c | | | 0.009 | 0.009 |
| | c-b | | | 0.000 | 0.000 |
| | b-ac | | | 0.062 | 0.058 |
| Worst RFC | | | | 0.062 | 0.058 |

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c) \cdot Q(b-a) / ((1-f) \cdot Q(b-c) + f \cdot Q(b-a))$$

Capacity of combined streams

- in accordance with TPDM V2.4

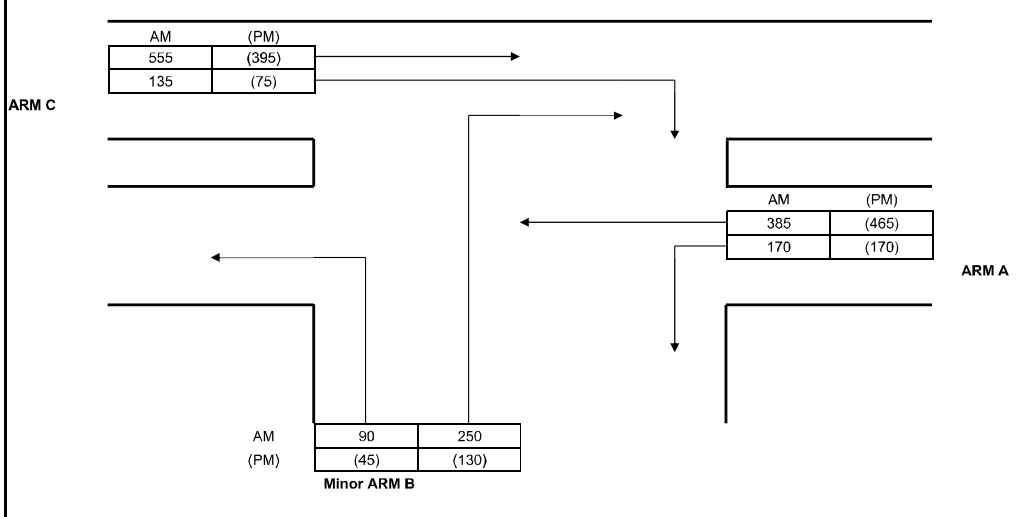
T.P.D.M.V.2.4

Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | Jan, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Castle Peak Road – Tam Mi (J6) | | Ref. No.: |
| Scheme: | Reference Case (with Planned Junction Layout) | | |
| Year: | 2034 | Job No.: | CHK50868310 |
| Rev.: | | | |
| ARM A: | Castle Peak Road - Tam Mi NB | | |
| ARM B: | Kam Pok Road EB | | |
| ARM C: | Castle Peak Road - Tam Mi SB | | |



| GEOMETRY | | | | | |
|------------------------|---------|------|-------------|--------|------|
| Major road width | W | 6.90 | Lane widths | w(b-a) | 4.30 |
| Central Reserve width | Wcr | 1.50 | | w(b-c) | 4.30 |
| 2 Lane Minor Arm (Y/N) | | Y | | w(c-b) | 2.05 |
| Visibilities | Vr(b-a) | 53 | Calculated | D | 0.95 |
| | VI(b-a) | 70 | | E | 1.01 |
| | Vr(b-c) | 70 | | F | 0.78 |
| | Vr(c-b) | 30 | | Y | 0.76 |

| ANALYSIS | | | | | |
|---------------|-----------|--------|---------|--------------|--------------|
| | | | AM PEAK | (PM) PEAK | |
| TRAFFIC FLOWS | q(c-a) | | 555 | 395 | |
| | q(c-b) | | 135 | 75 | |
| | q(a-b) | | 170 | 170 | |
| | q(a-c) | | 385 | 465 | |
| | q(b-a) | | 250 | 130 | |
| | q(b-c) | | 90 | 45 | |
| | f | | 0.26 | 0.26 | |
| CAPACITIES | Q(b-a) | Factor | 353 | 381 | |
| | Q(b-c) | 1 | 628 | 605 | |
| | Q(c-b) | 1 | 461 | 444 | |
| | Q(b-ac) | 1 | 399 | 421 | |
| | | | | | |
| RFC's | b-a | | 0.708 | 0.341 | |
| | b-c | | 0.143 | 0.074 | |
| | c-b | | 0.293 | 0.169 | |
| | b-ac | | 0.000 | 0.000 | |
| | Worst RFC | | | 0.708 | 0.341 |

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c) \cdot Q(b-a) / (1-f) \cdot Q(b-c) + f \cdot Q(b-a)$$

Capacity of combined streams

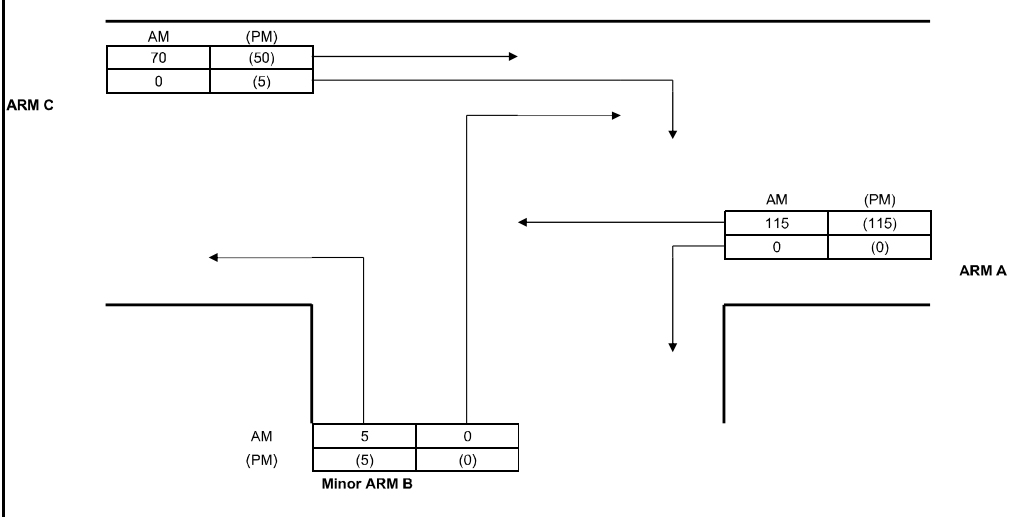
- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | Jan, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Fung Chuk Road (J7) | | Ref. No.: |
| Scheme: | Reference Case | | |
| Year: | 2025 | Job No.: | CHK50868310 |
| Rev.: | | | |
| ARM A: | Kam Pok Road SB | | |
| ARM B: | Fung Chuk Road | | |
| ARM C: | Kam Pok Road NB | | |



| GEOMETRY | | | | | |
|------------------------|---------|------|-------------|--------|------|
| Major road width | W | 7.30 | Lane widths | w(b-a) | 2.00 |
| Central Reserve width | Wcr | 0.00 | | w(b-c) | 2.00 |
| 2 Lane Minor Arm (Y/N) | | N | | w(c-b) | 3.50 |
| Visibilities | Vr(b-a) | 12 | Calculated | D | 0.70 |
| | VI(b-a) | 8.5 | | E | 0.76 |
| | Vr(b-c) | 12 | | F | 0.90 |
| | Vr(c-b) | 21 | | Y | 0.75 |

| ANALYSIS | | | | | |
|---------------|---------|--------|---------|-----------|--|
| | | | AM PEAK | (PM) PEAK | |
| TRAFFIC FLOWS | q(c-a) | | 70 | 50 | |
| | q(c-b) | | 0 | 5 | |
| | q(a-b) | | 0 | 0 | |
| | q(a-c) | | 115 | 115 | |
| | q(b-a) | | 0 | 0 | |
| | q(b-c) | | 5 | 5 | |
| | f | | 1.00 | 1.00 | |
| CAPACITIES | Q(b-a) | Factor | 407 | 408 | |
| | Q(b-c) | 1 | 544 | 544 | |
| | Q(c-b) | 1 | 641 | 641 | |
| | Q(b-ac) | 1 | 544 | 544 | |
| RFC's | b-a | | 0.000 | 0.000 | |
| | b-c | | 0.009 | 0.009 | |
| | c-b | | 0.000 | 0.008 | |
| | b-ac | | 0.009 | 0.009 | |
| Worst RFC | | | 0.009 | 0.009 | |

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c) \cdot Q(b-a) / ((1-f) \cdot Q(b-c) + f \cdot Q(b-a))$$

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | Jan, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Roundabout Capacity Calculation

| | | | | | | | | | | | |
|--|------|-------------------------------|---------|----------------------|----------------|----------------|-----------------|-----------|----------------------|-------------|-------------|
| Job Title: Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | | | | | | | | | | |
| Junction: Fairview Park Interchange (J1) | | | | | | | | Ref. No.: | | | |
| Scheme: Design Case (with Planned Junction Layout) | | | | | | | | | | | |
| Year: 2034 | | | | Job No.: CHK50868310 | | | | Rev.: - | | | |
| AM | | PM | | | | | | | | | |
| ARM A: | | Fairview Park Boulevard | | | | | | | | | |
| ARM B: | | Castle Peak Road - Tam Mi (N) | | | | | | | | | |
| ARM C: | | San Tin Highway Slip Road (N) | | | | | | | | | |
| ARM D: | | San Tam Road (N) | | | | | | | | | |
| ARM E: | | San Tam Road (S) | | | | | | | | | |
| ARM F: | | San Tin Highway Slip Road (S) | | | | | | | | | |
| ARM G: | | Castle Peak Road - Tam Mi (S) | | | | | | | | | |
| | | | | | | | | | | | |
| GEOMETRY | | | | | | | | | | | |
| ARM | v | e | L | r | D | Phi | S | | | | |
| A | 7.00 | 11.80 | 20 | 25 | 140 | 35 | 0.38 | | | | |
| B | 7.30 | 12.00 | 36 | 30 | 140 | 25 | 0.21 | | | | |
| C | 7.30 | 13.00 | 13 | 45 | 140 | 30 | 0.70 | | | | |
| D | 7.30 | 11.00 | 23 | 25 | 140 | 35 | 0.26 | | | | |
| E | 7.30 | 12.00 | 27 | 25 | 140 | 45 | 0.28 | | | | |
| F | 6.00 | 12.50 | 20 | 25 | 140 | 40 | 0.52 | | | | |
| G | 6.50 | 11.20 | 22 | 25 | 140 | 35 | 0.34 | | | | |
| AM FLOWS | | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit | |
| A | 10 | 20 | 210 | 40 | 230 | 480 | 30 | 2925 | 1020 | 670 | |
| B | 10 | 10 | 170 | 35 | 250 | 465 | 35 | 3210 | 975 | 735 | |
| C | 95 | 80 | 10 | 100 | 485 | 10 | 225 | 2905 | 1005 | 1280 | |
| D | 65 | 45 | 45 | 10 | 280 | 210 | 95 | 3410 | 750 | 500 | |
| E | 40 | 35 | 465 | 120 | 10 | 535 | 20 | 2265 | 1225 | 1895 | |
| F | 335 | 385 | 10 | 110 | 630 | 10 | Free Flow | 1455 | 1480 | 2035 | |
| G | 115 | 160 | 370 | 85 | 10 | 325 | 0 | 2530 | 1065 | 405 | |
| PM FLOWS | | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit | |
| A | 10 | 10 | 170 | 55 | 210 | 345 | 30 | 2605 | 830 | 955 | |
| B | 35 | 10 | 105 | 35 | 170 | 215 | 35 | 2740 | 605 | 695 | |
| C | 190 | 135 | 20 | 85 | 425 | 20 | 210 | 2445 | 1085 | 900 | |
| D | 80 | 45 | 90 | 20 | 250 | 95 | 75 | 2990 | 655 | 540 | |
| E | 100 | 30 | 305 | 115 | 10 | 295 | 20 | 1910 | 875 | 1735 | |
| F | 445 | 340 | 10 | 175 | 660 | 20 | Free Flow | 1575 | 1650 | 1210 | |
| G | 95 | 125 | 200 | 55 | 10 | 220 | 10 | 2845 | 715 | 380 | |
| CALCULATIONS | | | | | | | | | | | |
| ARM | K | X ₂ | M | F | t _D | f _c | Q _E | | RFC | | |
| | | | | | | | AM | PM | AM | PM | |
| A | 0.99 | 9.71 | 2980.96 | 2944 | 1.00 | 0.62 | 1127 | 1323 | 0.91 | 0.63 | |
| B | 1.03 | 10.62 | 2980.96 | 3216 | 1.00 | 0.66 | 1148 | 1467 | 0.85 | 0.41 | |
| C | 1.03 | 9.67 | 2980.96 | 2931 | 1.00 | 0.62 | 1171 | 1462 | 0.86 | 0.74 | |
| D | 0.99 | 9.74 | 2980.96 | 2952 | 1.00 | 0.62 | 834 | 1092 | 0.90 | 0.60 | |
| E | 0.96 | 10.32 | 2980.96 | 3127 | 1.00 | 0.64 | 1598 | 1817 | 0.77 | 0.48 | |
| F | 0.98 | 9.19 | 2980.96 | 2783 | 1.00 | 0.60 | 1869 | 1799 | 0.79 | 0.92 | |
| G | 0.99 | 9.29 | 2980.96 | 2815 | 1.00 | 0.60 | 1287 | 1099 | 0.83 | 0.65 | |
| | | | | | | | | | Critical Arm: | A | F |
| | | | | | | | | | RFC: | 0.91 | 0.92 |
| | | | | | | | | | | AM | PM |
| - In accordance with TPDM V2.4 | | | | | | | | | | | |
| Calculated by: HZF | | | | Date: Mar-26 | | | Checked by: PTC | | | | |

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50868310**

MVA HONG KONG LIMITED

Junction: Kam Pok Road / Fairview Park Boulevard (J2)

Design Year: 2034

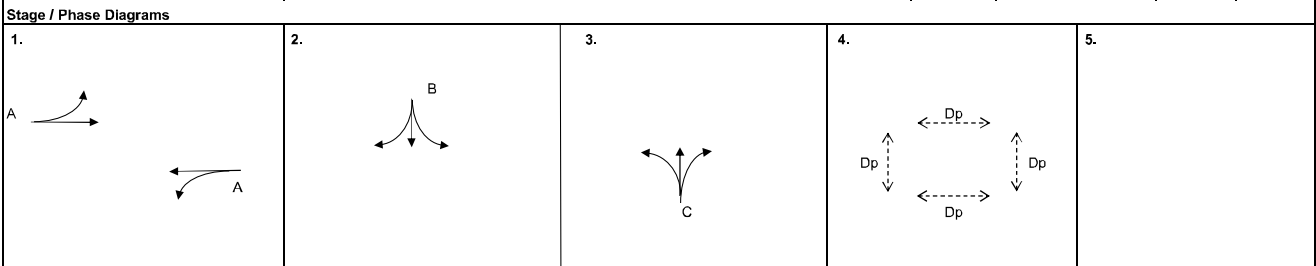
Description: Year 2034 Design Traffic Flows

Designed By: HZF

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|----------------------------|-----------|-------|-------|---------------------|------------|-------|--------------|------------------|-----------|----------------------------------|-------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Fairview Park Boulevard EB | ↗ | A | 1 | 3.4 | 15 | | | 8% | 9% | 1940 | 1935 | 428 | 0.221 | 0.221 | 276 | 0.143 | |
| | → | A | 1 | 3.4 | | | | 1955 | 1955 | 432 | 0.221 | 279 | 0.143 | | | | |
| Fairview Park Boulevard WB | ↖ | A | 1 | 3.5 | 17 | | | 24% | 26% | 1925 | 1920 | 336 | 0.175 | | 418 | 0.218 | 0.218 |
| | ← | A | 1 | 3.5 | | | | 1965 | 1965 | 344 | 0.175 | 427 | 0.217 | | | | |
| Kam Pok Road SB | ↔ | B | 2 | 5.5 | 18 | 18 | | 17% / 46% | 18% / 45% | 2060 | 2055 | 120 | 0.058 | 0.058 | 110 | 0.054 | 0.054 |
| Kam Pok Road NB | ↔ | C | 3 | 3.8 | 13 | 20 | | 7% / 41% | 14% / 70% | 1920 | 1865 | 145 | 0.076 | 0.076 | 185 | 0.099 | 0.099 |
| Pedestrian Crossing | | Dp | 4 | MIN GREEN + FLASH = | | | 10 | + | 9 | = | 19 | | | * | | | * |

| | | | | | | |
|--------|--|--|-----------------|----------|-----------------|----------|
| Notes: | | | Group | A,B,C,Dp | Group | A,B,C,Dp |
| | | | y | 0.355 | y | 0.370 |
| | | | L (sec) | 44 | L (sec) | 44 |
| | | | C (sec) | 120 | C (sec) | 120 |
| | | | y pract. | 0.570 | y pract. | 0.570 |
| | | | R.C. (%) | 61% | R.C. (%) | 54% |



| | | | | | |
|-----------------|--------|--------|---------|-------------|------|
| I/G= 3 | I/G= 7 | I/G= 7 | I/G= 11 | 19 | I/G= |
| I/G= 3 | I/G= 7 | I/G= 7 | I/G= 11 | 19 | I/G= |
| Date: Mar, 2026 | | | | Junction: 2 | |

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50868310**

MVA HONG KONG LIMITED

Junction: Kam Pok Road / Vehicular Bridge – South (J3)

Design Year: 2034

Description: Year 2034 Design Traffic Flows

Designed By: HZF

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|-----------------------|-----------|-------|-------|---------------------|------------|-------|--------------|------------------|-----------|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Vehicular Bridge (EB) | ↕ | A | 1 | 3,600 | 10 | 10 | | 100% / 0% | 100% / 0% | 1715 | 1715 | 15 | 0.009 | | 10 | 0.006 | |
| Kam Pok Rd (SB) | ↗ | B | 2 | 3,600 | | 10 | | 4% | 6% | 1960 | 1960 | 235 | 0.120 | 0.120 | 170 | 0.087 | 0.087 |
| Kam Pok Rd (NB) | ↖ | C | 3 | 3,600 | 10 | | | 2% | 5% | 1970 | 1960 | 205 | 0.104 | 0.104 | 100 | 0.051 | 0.051 |
| Pedestrian Crossing | | Dp | 4 | MIN GREEN + FLASH = | | | 7 | + | 7 | = | 14 | | | * | | | * |

| | | | | | |
|--------|--|-----------------|----------|-----------------|----------|
| Notes: | | Group | A,B,C,Dp | Group | A,B,C,Dp |
| | | y | 0.224 | y | 0.138 |
| | | L (sec) | 32 | L (sec) | 32 |
| | | C (sec) | 60 | C (sec) | 60 |
| | | y pract. | 0.420 | y pract. | 0.420 |
| | | R.C. (%) | 88% | R.C. (%) | 205% |

| Stage / Phase Diagrams | | | | |
|------------------------|----|----|----|----|
| 1. | 2. | 3. | 4. | 5. |

| | | | | | | | |
|-----------------|---|--------|--|--------|-------------|------|--|
| I/G= 2 | 5 | I/G= 5 | | I/G= 3 | 14 | I/G= | |
| I/G= 2 | 5 | I/G= 5 | | I/G= 3 | 14 | I/G= | |
| Date: Mar, 2026 | | | | | Junction: 3 | | |

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50868310**

MVA HONG KONG LIMITED

Junction: Kam Pok Road / Vehicular Bridge – North / Vehicular Access (J4)

Design Year: 2034

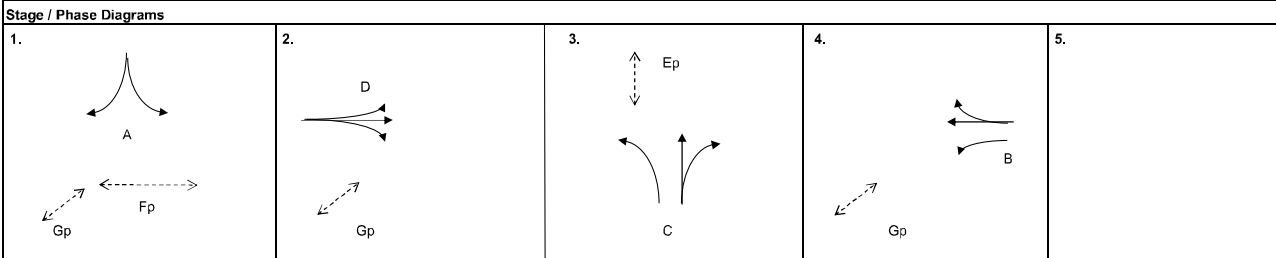
Description: Year 2034 Design Traffic Flows (with Planned Junction Layout)

Designed By: HZF

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|---------------------|-----------|-------|-------|---------------------|------------|-------|--------------|------------------|-----------|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Vehicular Bridge SB | ↔ | A | 1 | 3.500 | 10 | 12 | | 100% / 0% | 100% / 0% | 1710 | 1710 | 15 | 0.009 | | 10 | 0.006 | |
| Kam Pok Road EB | ↔ | D | 2 | 3.650 | 10 | 12 | | 0% / 8% | 0% / 19% | 1960 | 1935 | 240 | 0.122 | 0.122 | 130 | 0.067 | 0.067 |
| R(D) Site Access | ↑ | C | 3 | 5.500 | 20 | | | | | 2015 | 2015 | 25 | 0.012 | | 10 | 0.005 | |
| | ↔ | C | 3 | 4.000 | | 12 | | 100% | 100% | 1790 | 1790 | 230 | 0.128 | 0.128 | 95 | 0.053 | 0.053 |
| Kam Pok Road WB | ↑ | B | 4 | 3.650 | 15 | | | | | 1800 | 1800 | 170 | 0.094 | | 105 | 0.058 | |
| | ↔ | B | 4 | 3.650 | | 12 | | 4% | 5% | 1970 | 1965 | 240 | 0.122 | 0.122 | 190 | 0.097 | 0.097 |
| Pedestrian Crossing | Ep | 3 | | MIN GREEN + FLASH = | | 10 | + | 10 | = | 20 | | | | | | | |
| | Fp | 1 | | MIN GREEN + FLASH = | | 11 | + | 10 | = | 21 | | | | | | | |
| | Gp | 1,2,4 | | MIN GREEN + FLASH = | | 5 | + | 5 | = | 10 | | | | | | | |

| Notes: | Flow: (pcu/hr) | Group | Fp,D,C,B | A,D,C,B | Group | Fp,D,C,B | A,D,C,B |
|--------|----------------|-----------------|----------|---------|-----------------|----------|---------|
| | | y | 0.373 | 0.373 | y | 0.217 | 0.217 |
| | | L (sec) | 18 | 31 | L (sec) | 18 | 31 |
| | | C (sec) | 90 | 90 | C (sec) | 90 | 90 |
| | | y pract. | 0.720 | 0.590 | y pract. | 0.720 | 0.590 |
| | | R.C. (%) | 93% | 58% | R.C. (%) | 232% | 172% |

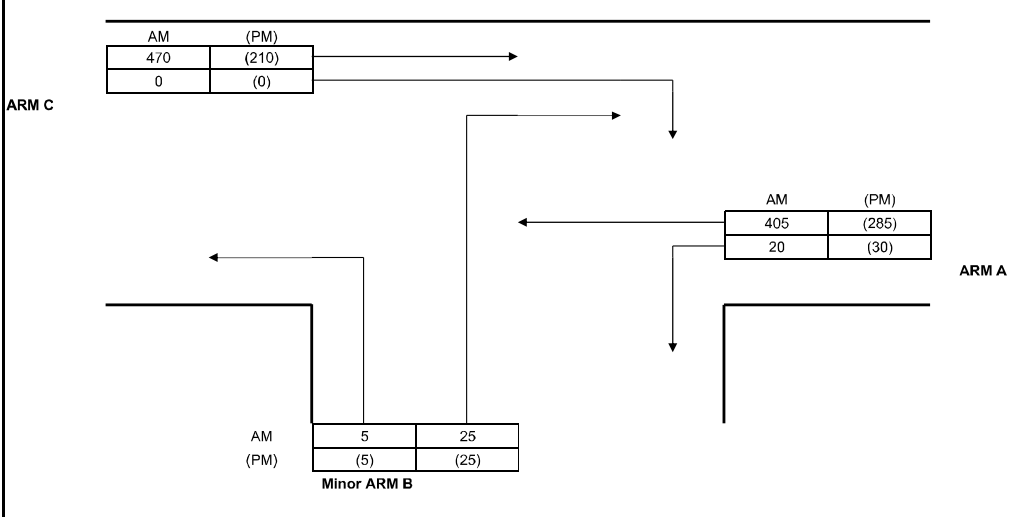


| | | | | | | | | | |
|--------|---|---------|--|--------|--|--------|--|------|--|
| I/G= 7 | 5 | I/G= 12 | | I/G= 5 | | I/G= 5 | | I/G= | |
| I/G= 7 | 5 | I/G= 12 | | I/G= 5 | | I/G= 5 | | I/G= | |

Date: May, 2026 Junction: 4 J4

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|-----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Ha Chuk Yuen Road (J5) | Ref. No.: | |
| Scheme: | Design Case | | |
| Year: | 2034 | Job No.: | CHK50868310 |
| Rev.: | | | |
| ARM A: | Kam Pok Road WB | | |
| ARM B: | Ha Chuk Yuen Road | | |
| ARM C: | Kam Pok Road EB | | |



| GEOMETRY | | | | | |
|------------------------|---------|------|-------------|--------|------|
| Major road width | W | 9.30 | Lane widths | w(b-a) | 2.05 |
| Central Reserve width | Wcr | 0.00 | | w(b-c) | 2.05 |
| 2 Lane Minor Arm (Y/N) | | N | | w(c-b) | 3.50 |
| Visibilities | Vr(b-a) | 50 | Calculated | D | 0.75 |
| | VI(b-a) | 50 | | E | 0.80 |
| | Vr(b-c) | 50 | | F | 0.92 |
| | Vr(c-b) | 50 | | Y | 0.68 |

| ANALYSIS | | | | | |
|---------------|---------|--------|--------------|--------------|--|
| | | | AM PEAK | (PM) PEAK | |
| TRAFFIC FLOWS | q(c-a) | | 470 | 210 | |
| | q(c-b) | | 0 | 0 | |
| | q(a-b) | | 20 | 30 | |
| | q(a-c) | | 405 | 285 | |
| | q(b-a) | | 25 | 25 | |
| | q(b-c) | | 5 | 5 | |
| | f | | 0.17 | 0.17 | |
| CAPACITIES | Q(b-a) | Factor | 338 | 390 | |
| | Q(b-c) | 1 | 512 | 535 | |
| | Q(c-b) | 1 | 591 | 616 | |
| | Q(b-ac) | 1 | 358 | 408 | |
| | | | | | |
| RFC's | b-a | | 0.074 | 0.064 | |
| | b-c | | 0.010 | 0.009 | |
| | c-b | | 0.000 | 0.000 | |
| | b-ac | | 0.084 | 0.074 | |
| Worst RFC | | | 0.084 | 0.074 | |

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c) \cdot Q(b-a) / (1-f) + f \cdot Q(b-a)$$

Capacity of combined streams

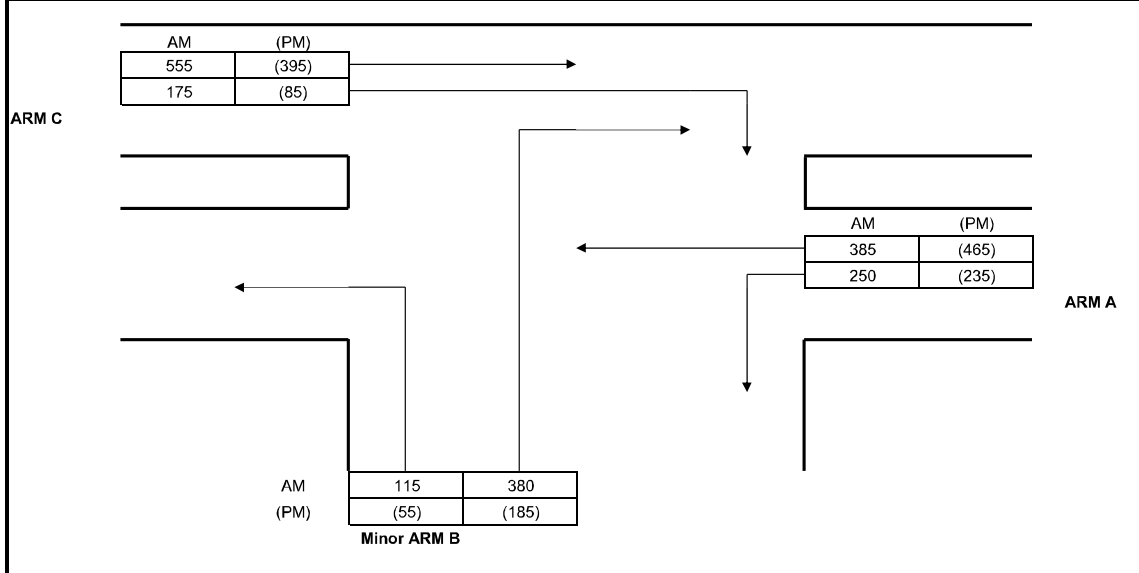
- in accordance with TPDM V2.4

T.P.D.M.V.2.4
Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | May, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|-----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Castle Peak Road – Tam Mi (J6) | Ref. No.: | |
| Scheme: | Design Case (with Planned Junction Layout) | | |
| Year: | 2034 | Job No.: | CHK50868310 |
| Rev.: | | | |
| ARM A: | Castle Peak Road - Tam Mi NB | | |
| ARM B: | Kam Pok Road EB | | |
| ARM C: | Castle Peak Road - Tam Mi SB | | |



| GEOMETRY | | | | | |
|------------------------|---------|------|-------------|--------|------|
| Major road width | W | 6.90 | Lane widths | w(b-a) | 4.30 |
| Central Reserve width | Wcr | 1.50 | | w(b-c) | 4.30 |
| 2 Lane Minor Arm (Y/N) | Y | | | w(c-b) | 2.05 |
| Visibilities | Vr(b-a) | 53 | Calculated | D | 0.95 |
| | Vl(b-a) | 70 | | E | 1.01 |
| | Vr(b-c) | 70 | | F | 0.78 |
| | Vr(c-b) | 30 | | Y | 0.76 |

| ANALYSIS | | | |
|---------------|---------|--------------|--------------|
| | | AM PEAK | (PM) PEAK |
| TRAFFIC FLOWS | q(c-a) | 555 | 395 |
| | q(c-b) | 175 | 85 |
| | q(a-b) | 250 | 235 |
| | q(a-c) | 385 | 465 |
| | q(b-a) | 380 | 185 |
| | q(b-c) | 115 | 55 |
| | f | 0.23 | 0.23 |
| CAPACITIES | Q(b-a) | 330 | 371 |
| | Q(b-c) | 619 | 598 |
| | Q(c-b) | 444 | 430 |
| | Q(b-ac) | 370 | 406 |
| RFC's | b-a | 1.152 | 0.499 |
| | b-c | 0.186 | 0.092 |
| | c-b | 0.394 | 0.198 |
| | b-ac | 0.000 | 0.000 |
| Worst RFC | | 1.152 | 0.499 |

Where Vl and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(Vl(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$$

Capacity of combined streams

- in accordance with TPDM V2.4

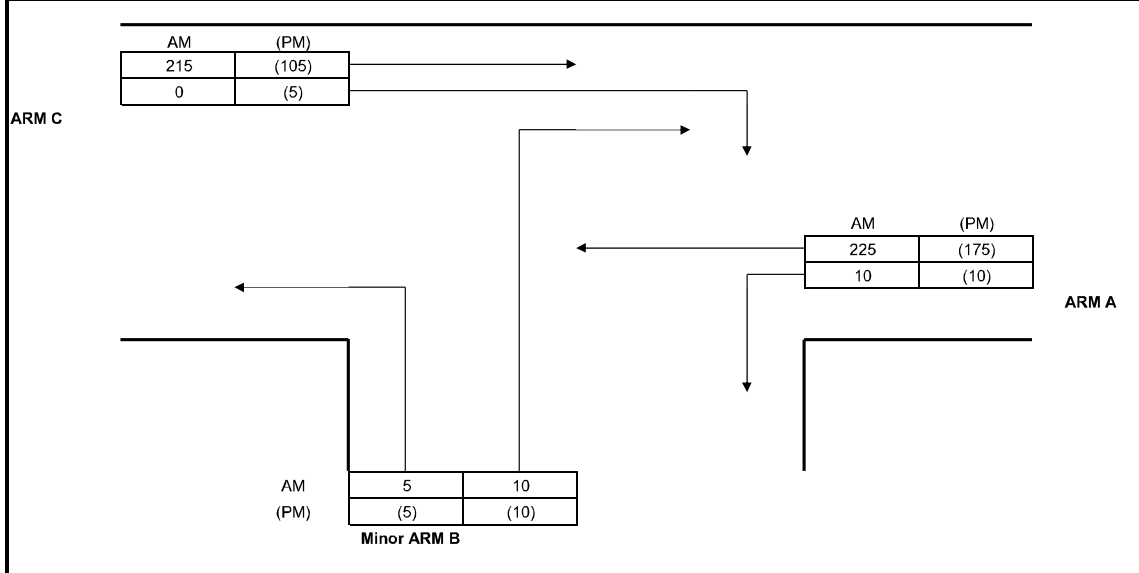
T.P.D.M.V.2.4

Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | Mar, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|-----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Fung Chuk Road (J7) | Ref. No.: | |
| Scheme: | Design Case | | |
| Year: | 2025 | Job No.: | CHK50868310 |
| Rev.: | | | |
| ARM A: | Kam Pok Road SB | | |
| ARM B: | Fung Chuk Road | | |
| ARM C: | Kam Pok Road NB | | |



| GEOMETRY | | | | | |
|------------------------|---------|------|-------------|------|------|
| Major road width | W | 7.30 | Lane widths | | |
| Central Reserve width | Wcr | 0.00 | w(b-a) | 2.00 | |
| 2 Lane Minor Arm (Y/N) | N | | w(b-c) | 2.00 | |
| | | | w(c-b) | 3.50 | |
| Visibilities | Vr(b-a) | 12 | Calculated | D | 0.70 |
| | VI(b-a) | 8.5 | | E | 0.76 |
| | Vr(b-c) | 12 | | F | 0.90 |
| | Vr(c-b) | 21 | | Y | 0.75 |

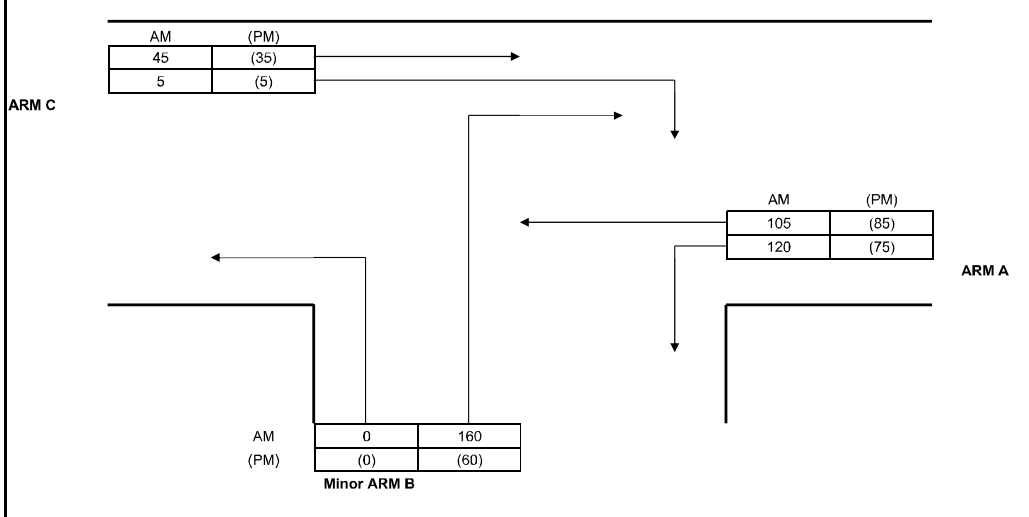
| ANALYSIS | | | |
|---------------|---------|--------------|--------------|
| | | AM PEAK | (PM) PEAK |
| TRAFFIC FLOWS | q(c-a) | 215 | 105 |
| | q(c-b) | 0 | 5 |
| | q(a-b) | 10 | 10 |
| | q(a-c) | 225 | 175 |
| | q(b-a) | 10 | 10 |
| | q(b-c) | 5 | 5 |
| | f | 0.33 | 0.33 |
| CAPACITIES | Q(b-a) | 368 | 390 |
| | Q(b-c) | 521 | 531 |
| | Q(c-b) | 612 | 624 |
| | Q(b-ac) | 408 | 428 |
| RFC's | b-a | 0.027 | 0.026 |
| | b-c | 0.010 | 0.009 |
| | c-b | 0.000 | 0.008 |
| | b-ac | 0.037 | 0.035 |
| Worst RFC | | 0.037 | 0.035 |

| | |
|---|-----------|
| Where VI and Vr are visibility distances to the left or right of the respective streams | |
| $D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$ | |
| $E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$ | |
| $F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$ | |
| $Y = 1-0.0345W$ | |
| f = proportion of minor traffic turning left | |
| $Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$ | |
| Capacity of combined streams | |
| - in accordance with TPDM V2.4 | |
| Calculated by: | HZF |
| Date: | Mar, 2026 |
| Checked by: | PTC |

T.P.D.M.V.2.4
Appendix 1

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|-----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Site Main Entrance (J8) | Ref. No.: | |
| Scheme: | Design Case | | |
| Year: | 2034 | Job No.: | CHK50868310 |
| Rev.: | | | |
| ARM A: | Kam Pok Road SB | | |
| ARM B: | Site Main Entrance | | |
| ARM C: | Kam Pok Road NB | | |



| GEOMETRY | | | | |
|------------------------|---------|------|-------------|-------------|
| Major road width | W | 7.20 | Lane widths | w(b-a) 5.70 |
| Central Reserve width | Wcr | 0.00 | | w(b-c) 5.70 |
| 2 Lane Minor Arm (Y/N) | | N | | w(c-b) 3.70 |
| Visibilities | Vr(b-a) | 50 | Calculated | D 1.05 |
| | VI(b-a) | 50 | | E 1.12 |
| | Vr(b-c) | 50 | | F 0.94 |
| | Vr(c-b) | 50 | | Y 0.75 |

| ANALYSIS | | | | |
|---------------|---------|----------|--------------|--------------|
| | | | AM PEAK | (PM) PEAK |
| TRAFFIC FLOWS | q(c-a) | | 45 | 35 |
| | q(c-b) | | 5 | 5 |
| | q(a-b) | | 120 | 75 |
| | q(a-c) | | 105 | 85 |
| | q(b-a) | | 160 | 60 |
| | q(b-c) | | 0 | 0 |
| | f | | 0.00 | 0.00 |
| CAPACITIES | Q(b-a) | Factor 1 | 605 | 617 |
| | Q(b-c) | 1 | 786 | 798 |
| | Q(c-b) | 1 | 643 | 660 |
| | Q(b-ac) | 1 | 605 | 617 |
| | RFC's | | | |
| | b-a | | 0.264 | 0.097 |
| | b-c | | 0.000 | 0.000 |
| | c-b | | 0.008 | 0.008 |
| | b-ac | | 0.264 | 0.097 |
| Worst RFC | | | 0.264 | 0.097 |

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c) \cdot Q(b-a) / ((1-f) \cdot Q(b-c) + f \cdot Q(b-a))$$

Capacity of combined streams

- in accordance with TPDM V2.4

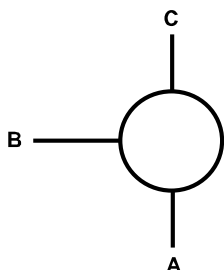
T.P.D.M.V.2.4
Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | May, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Roundabout Capacity Calculation

| | | | | | | | | | | |
|--|------|-------------------------------|---------|----------------------|----------------|----------------|-----------------|-----------|-------|-------------------|
| Job Title: Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | | | | | | | | | |
| Junction: Fairview Park Interchange (J1) | | | | | | | | Ref. No.: | | |
| Scheme: Design Case (with Proposed Junction Layout) | | | | | | | | | | |
| Year: 2034 | | | | Job No.: CHK50868310 | | | | Rev.: - | | |
| AM | | PM | | | | | | | | |
| ARM A: | | Fairview Park Boulevard | | | | | | | | |
| ARM B: | | Castle Peak Road - Tam Mi (N) | | | | | | | | |
| ARM C: | | San Tin Highway Slip Road (N) | | | | | | | | |
| ARM D: | | San Tam Road (N) | | | | | | | | |
| ARM E: | | San Tam Road (S) | | | | | | | | |
| ARM F: | | San Tin Highway Slip Road (S) | | | | | | | | |
| ARM G: | | Castle Peak Road - Tam Mi (S) | | | | | | | | |
| | | | | | | | | | | |
| GEOMETRY | | | | | | | | | | |
| ARM | v | e | L | r | D | Phi | S | | | |
| A | 7.00 | 12.20 | 34 | 25 | 140 | 35 | 0.24 | | | |
| B | 7.30 | 12.00 | 36 | 30 | 140 | 25 | 0.21 | | | |
| C | 7.30 | 13.00 | 13 | 45 | 140 | 30 | 0.70 | | | |
| D | 7.30 | 13.00 | 40 | 25 | 140 | 45 | 0.23 | | | |
| E | 7.30 | 12.00 | 27 | 25 | 140 | 45 | 0.28 | | | |
| F | 6.00 | 13.00 | 36 | 25 | 140 | 40 | 0.31 | | | |
| G | 6.50 | 11.20 | 22 | 25 | 140 | 35 | 0.34 | | | |
| AM FLOWS | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit |
| A | 10 | 20 | 210 | 40 | 230 | 480 | 30 | 2925 | 1020 | 670 |
| B | 10 | 10 | 170 | 35 | 250 | 465 | 35 | 3210 | 975 | 735 |
| C | 95 | 80 | 10 | Free Flow | 485 | 10 | 225 | 2905 | 905 | 1280 |
| D | 65 | 45 | 45 | 10 | 280 | 210 | 95 | 3410 | 750 | 400 |
| E | 40 | 35 | 465 | 120 | 10 | 535 | 20 | 2265 | 1225 | 1895 |
| F | 335 | 385 | 10 | 110 | 630 | 10 | Free Flow | 1455 | 1480 | 2035 |
| G | 115 | 160 | 370 | 85 | 10 | 325 | 0 | 2530 | 1065 | 405 |
| PM FLOWS | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit |
| A | 10 | 10 | 170 | 55 | 210 | 345 | 30 | 2605 | 830 | 955 |
| B | 35 | 10 | 105 | 35 | 170 | 215 | 35 | 2740 | 605 | 695 |
| C | 190 | 135 | 20 | Free Flow | 425 | 20 | 210 | 2445 | 1000 | 900 |
| D | 80 | 45 | 90 | 20 | 250 | 95 | 75 | 2990 | 655 | 455 |
| E | 100 | 30 | 305 | 115 | 10 | 295 | 20 | 1910 | 875 | 1735 |
| F | 445 | 340 | 10 | 175 | 660 | 20 | Free Flow | 1575 | 1650 | 1210 |
| G | 95 | 125 | 200 | 55 | 10 | 220 | 10 | 2845 | 715 | 380 |
| CALCULATIONS | | | | | | | | | | |
| ARM | K | X ₂ | M | F | t _D | f _c | Q _E | AM | PM | RFC |
| A | 0.99 | 10.49 | 2980.96 | 3179 | 1.00 | 0.65 | | 1266 | 1472 | 0.81 |
| B | 1.03 | 10.62 | 2980.96 | 3216 | 1.00 | 0.66 | | 1148 | 1467 | 0.84 |
| C | 1.03 | 9.67 | 2980.96 | 2931 | 1.00 | 0.62 | | 1171 | 1462 | 0.77 |
| D | 0.96 | 11.21 | 2980.96 | 3398 | 1.00 | 0.68 | | 1030 | 1304 | 0.73 |
| E | 0.96 | 10.32 | 2980.96 | 3127 | 1.00 | 0.64 | | 1598 | 1817 | 0.77 |
| F | 0.98 | 10.32 | 2980.96 | 3125 | 1.00 | 0.64 | | 2135 | 2060 | 0.69 |
| G | 0.99 | 9.29 | 2980.96 | 2815 | 1.00 | 0.60 | | 1287 | 1099 | 0.83 |
| | | | | | | | | | | Critical Arm: B F |
| | | | | | | | | | | RFC: 0.84 0.80 |
| | | | | | | | | | | AM PM |
| - In accordance with TPDM V2.4 | | | | | | | | | | |
| Calculated by: HZF | | | | Date: Mar-26 | | | Checked by: PTC | | | |

Roundabout Capacity Calculation

| | | | | | | | | | | | | | |
|---|------|------------------------------|-----------------------------|------|----------------|------------------------|-------|------|------|------|----|------|--|
| Job Title: Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | | | | | | | | | | | | |
| Junction: Kam Pok Road / Castle Peak Road – Tam Mi (J6) | | | | | | Ref. No.: | | | | | | | |
| Scheme: Design Case (with Junction Improvement Layout) | | | | | | | | | | | | | |
| Year: 2034 | | | Job No.: CHK50868310 | | | Rev.: - | | | | | | | |
| AM | | PM | | | | | | | | | | | |
| ARM A: | | Castle Peak Road - Tam Mi NB | | | | | | | | | | | |
| ARM B: | | Kam Pok Road EB | | | | | | | | | | | |
| ARM C: | | Castle Peak Road - Tam Mi SB | | | | | | | | | | | |
|  | | | | | | | | | | | | | |
| GEOMETRY | | | | | | | | | | | | | |
| ARM | v | e | L | r | D | Phi | S | | | | | | |
| A | 3.50 | 6.10 | 7 | 25 | 26 | 15.5 | 0.59 | | | | | | |
| B | 4.60 | 6.00 | 2 | 28.7 | 26 | 19.5 | 1.12 | | | | | | |
| C | 3.30 | 5.60 | 5.3 | 80 | 26 | 4.5 | 0.69 | | | | | | |
| AM FLOWS | | | | | | | | | | | | | |
| from \ to | A | B | C | Circ | | | Entry | Exit | | | | | |
| A | 0 | 250 | 385 | 175 | | | 635 | 380 | | | | | |
| B | 380 | 0 | 115 | 385 | | | 495 | 425 | | | | | |
| C | FF | 175 | 0 | 380 | | | 175 | 500 | | | | | |
| PM FLOWS | | | | | | | | | | | | | |
| from \ to | A | B | C | Circ | | | Entry | Exit | | | | | |
| A | 0 | 235 | 465 | 85 | | | 700 | 185 | | | | | |
| B | 185 | 0 | 55 | 465 | | | 240 | 320 | | | | | |
| C | FF | 85 | 0 | 185 | | | 85 | 520 | | | | | |
| CALCULATIONS | | | | | | | | | | | | | |
| ARM | K | X ₂ | M | F | t _D | f _c | AM | PM | RFC | AM | PM | | |
| A | 1.06 | 4.69 | 0.03 | 1420 | 1.48 | 0.60 | 1394 | 1451 | 0.46 | 0.48 | | | |
| B | 1.05 | 5.03 | 0.03 | 1525 | 1.48 | 0.63 | 1350 | 1297 | 0.37 | 0.19 | | | |
| C | 1.13 | 4.26 | 0.03 | 1292 | 1.48 | 0.58 | 1206 | 1333 | 0.15 | 0.06 | | | |
| Critical Arm: | | | | | | | | | | A | | A | |
| RFC: | | | | | | | | | | 0.46 | | 0.48 | |
| | | | | | | | | | | AM | | PM | |
| <i>- In accordance with TPDM V2.4</i> | | | | | | | | | | | | | |
| Calculated by: HZF | | | Date: May-26 | | | Checked by: PTC | | | | | | | |

Roundabout Capacity Calculation

| | | | | | | | | | | |
|--|------|-------------------------------|---------|----------------------|----------------|----------------|----------------|-----------------|----------------------|------|
| Job Title: Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | | | | | | | | | |
| Junction: Fairview Park Interchange (J1) | | | | | | | | Ref. No.: | | |
| Scheme: Design Case under Sensitivity Test 1 (with Proposed Junction Layout) | | | | | | | | | | |
| Year: 2034 | | | | Job No.: CHK50868310 | | | | Rev.: - | | |
| AM | | PM | | | | | | | | |
| ARM A: | | Fairview Park Boulevard | | | | | | | | |
| ARM B: | | Castle Peak Road - Tam Mi (N) | | | | | | | | |
| ARM C: | | San Tin Highway Slip Road (N) | | | | | | | | |
| ARM D: | | San Tam Road (N) | | | | | | | | |
| ARM E: | | San Tam Road (S) | | | | | | | | |
| ARM F: | | San Tin Highway Slip Road (S) | | | | | | | | |
| ARM G: | | Castle Peak Road - Tam Mi (S) | | | | | | | | |
| | | | | | | | | | | |
| GEOMETRY | | | | | | | | | | |
| ARM | v | e | L | r | D | Phi | S | | | |
| A | 7.00 | 12.20 | 34 | 25 | 140 | 35 | 0.24 | | | |
| B | 7.30 | 12.00 | 36 | 30 | 140 | 25 | 0.21 | | | |
| C | 7.30 | 13.00 | 13 | 45 | 140 | 30 | 0.70 | | | |
| D | 7.30 | 13.00 | 34 | 25 | 140 | 35 | 0.27 | | | |
| E | 7.30 | 12.00 | 27 | 25 | 140 | 45 | 0.28 | | | |
| F | 6.00 | 13.00 | 36 | 25 | 140 | 40 | 0.31 | | | |
| G | 6.50 | 11.20 | 22 | 25 | 140 | 35 | 0.34 | | | |
| AM FLOWS | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit |
| A | 10 | 20 | 210 | 40 | 230 | 480 | 30 | 2995 | 1020 | 670 |
| B | 10 | 10 | 200 | 35 | 250 | 570 | 35 | 3210 | 1110 | 805 |
| C | 95 | 85 | 10 | Free Flow | 485 | 10 | 225 | 3010 | 910 | 1310 |
| D | 65 | 45 | 45 | 10 | 280 | 210 | 95 | 3520 | 750 | 400 |
| E | 40 | 35 | 465 | 120 | 10 | 535 | 20 | 2375 | 1225 | 1895 |
| F | 335 | 450 | 10 | 110 | 630 | 10 | Free Flow | 1460 | 1545 | 2140 |
| G | 115 | 160 | 370 | 85 | 10 | 325 | 0 | 2600 | 1065 | 405 |
| PM FLOWS | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit |
| A | 10 | 10 | 170 | 55 | 210 | 345 | 30 | 2675 | 830 | 955 |
| B | 35 | 10 | 115 | 35 | 170 | 260 | 35 | 2740 | 660 | 765 |
| C | 190 | 155 | 20 | Free Flow | 425 | 20 | 210 | 2490 | 1020 | 910 |
| D | 80 | 45 | 90 | 20 | 250 | 95 | 75 | 3055 | 655 | 455 |
| E | 100 | 30 | 305 | 115 | 10 | 295 | 20 | 1975 | 875 | 1735 |
| F | 445 | 390 | 10 | 175 | 660 | 20 | Free Flow | 1595 | 1700 | 1255 |
| G | 95 | 125 | 200 | 55 | 10 | 220 | 10 | 2915 | 715 | 380 |
| CALCULATIONS | | | | | | | | | | |
| ARM | K | X ₂ | M | F | t _D | f _c | Q _E | | RFC | |
| | | | | | | | AM | PM | AM | PM |
| A | 0.99 | 10.49 | 2980.96 | 3179 | 1.00 | 0.65 | 1221 | 1427 | 0.84 | 0.58 |
| B | 1.03 | 10.62 | 2980.96 | 3216 | 1.00 | 0.66 | 1148 | 1467 | 0.97 | 0.45 |
| C | 1.03 | 9.67 | 2980.96 | 2931 | 1.00 | 0.62 | 1105 | 1434 | 0.82 | 0.71 |
| D | 0.99 | 11.01 | 2980.96 | 3336 | 1.00 | 0.67 | 961 | 1272 | 0.78 | 0.52 |
| E | 0.96 | 10.32 | 2980.96 | 3127 | 1.00 | 0.64 | 1531 | 1777 | 0.80 | 0.49 |
| F | 0.98 | 10.32 | 2980.96 | 3125 | 1.00 | 0.64 | 2132 | 2047 | 0.72 | 0.83 |
| G | 0.99 | 9.29 | 2980.96 | 2815 | 1.00 | 0.60 | 1245 | 1057 | 0.86 | 0.68 |
| | | | | | | | | | Critical Arm: | |
| | | | | | | | | | B | |
| | | | | | | | | | F | |
| | | | | | | | | | RFC: | |
| | | | | | | | | | 0.97 | |
| | | | | | | | | | 0.83 | |
| | | | | | | | | | AM | |
| | | | | | | | | | PM | |
| - In accordance with TPDM V2.4 | | | | | | | | | | |
| Calculated by: HZF | | | | Date: Mar-26 | | | | Checked by: PTC | | |

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50868310**

MVA HONG KONG LIMITED

Junction: Kam Pok Road / Fairview Park Boulevard (J2)

Design Year: 2034

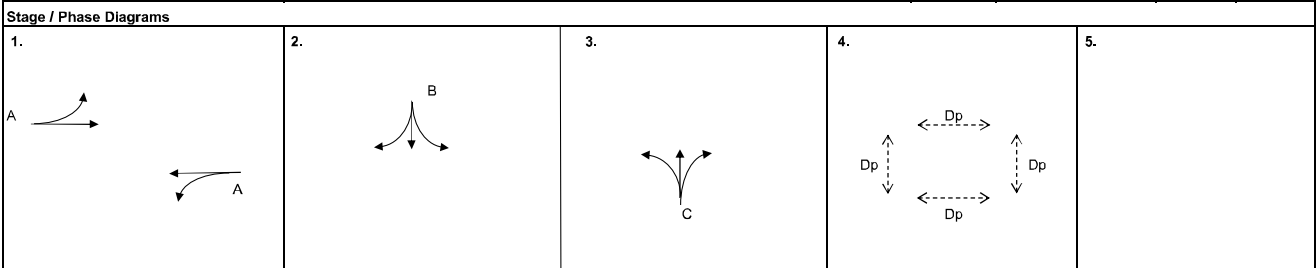
Description: Year 2034 Design Traffic Flows (Sensitivity Test 1)

Designed By: HZF

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|----------------------------|-----------|-------|-------|---------------------|------------|-------|--------------|------------------|-----------|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Fairview Park Boulevard EB | ↗ | A | 1 | 3.4 | 15 | | | 8% | 9% | 1940 | 1935 | 428 | 0.221 | | 276 | 0.143 | |
| | → | A | 1 | 3.4 | | | | | | 1955 | 1955 | 432 | 0.221 | 0.221 | 279 | 0.143 | |
| Fairview Park Boulevard WB | ↖ | A | 1 | 3.5 | 17 | | | 24% | 26% | 1925 | 1920 | 336 | 0.175 | | 418 | 0.218 | 0.218 |
| | ← | A | 1 | 3.5 | | | | | | 1965 | 1965 | 344 | 0.175 | | 427 | 0.217 | |
| Kam Pok Road SB | ↔ | B | 2 | 5.5 | 18 | 18 | | 12% / 33% | 15% / 38% | 2085 | 2070 | 165 | 0.079 | 0.079 | 130 | 0.063 | 0.063 |
| Kam Pok Road NB | ↔ | C | 3 | 3.8 | 13 | 20 | | 6% / 34% | 12% / 63% | 1935 | 1880 | 175 | 0.090 | 0.090 | 205 | 0.109 | 0.109 |
| Pedestrian Crossing | | Dp | 4 | MIN GREEN + FLASH = | | | 10 | + | 9 | = | 19 | | | * | | | * |

| | | | | | |
|--------|--|-----------------|----------|-----------------|----------|
| Notes: | | Group | A,B,C,Dp | Group | A,B,C,Dp |
| | | y | 0.391 | y | 0.390 |
| | | L (sec) | 44 | L (sec) | 44 |
| | | C (sec) | 120 | C (sec) | 120 |
| | | y pract. | 0.570 | y pract. | 0.570 |
| | | R.C. (%) | 46% | R.C. (%) | 46% |



| | | | | | |
|-----------------|--------|--------|---------|-------------|------|
| I/G= 3 | I/G= 7 | I/G= 7 | I/G= 11 | 19 | I/G= |
| I/G= 3 | I/G= 7 | I/G= 7 | I/G= 11 | 19 | I/G= |
| Date: Mar, 2026 | | | | Junction: 2 | |

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50868310**

MVA HONG KONG LIMITED

Junction: Kam Pok Road / Vehicular Bridge – South (J3)

Design Year: 2034

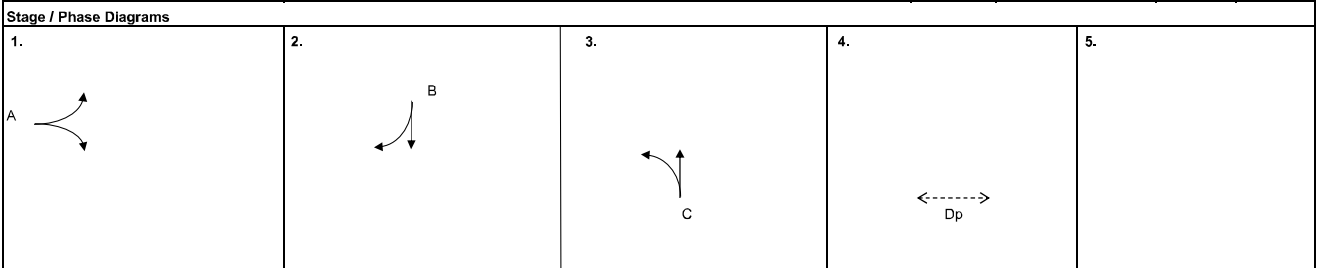
Description: Year 2034 Design Traffic Flows (Sensitivity Test 1)

Designed By: HZF

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|--------------------------|-----------|-------|-------|---------------------|------------|-------|--------------|------------------|-----------|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Vehicular Bridge (EB) ↑↑ | | A | 1 | 3,600 | 10 | 10 | | 82% / 18% | 83% / 17% | 1715 | 1715 | 140 | 0.082 | 0.082 | 60 | 0.035 | |
| Kam Pok Rd (SB) ↑ | | B | 2 | 3,600 | | 10 | | 26% | 26% | 1900 | 1900 | 330 | 0.174 | 0.174 | 230 | 0.121 | 0.121 |
| Kam Pok Rd (NB) ↑ | | C | 3 | 3,600 | 10 | | | 11% | 16% | 1945 | 1930 | 235 | 0.121 | 0.121 | 125 | 0.065 | 0.065 |
| Pedestrian Crossing | | Dp | 4 | MIN GREEN + FLASH = | | 7 | + | 7 | = | 14 | | | | | * | | * |

| | | | | | | | |
|--------|--|-----------------|--|----------|-----------------|--|----------|
| Notes: | | Group | | A,B,C,Dp | Group | | A,B,C,Dp |
| | | y | | 0.376 | y | | 0.186 |
| | | L (sec) | | 26 | L (sec) | | 32 |
| | | C (sec) | | 60 | C (sec) | | 60 |
| | | y pract. | | 0.510 | y pract. | | 0.420 |
| | | R.C. (%) | | 36% | R.C. (%) | | 126% |



| | | | | | | | |
|------------------------|---|--------|--|--------|----|--------------------|--|
| I/G= 2 | | I/G= 5 | | I/G= 3 | 14 | I/G= | |
| I/G= 2 | 5 | I/G= 5 | | I/G= 3 | 14 | I/G= | |
| Date: Mar, 2026 | | | | | | Junction: 3 | |

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50868310**

MVA HONG KONG LIMITED

Junction: Kam Pok Road / Vehicular Bridge – North / Vehicular Access (J4)

Design Year: 2034

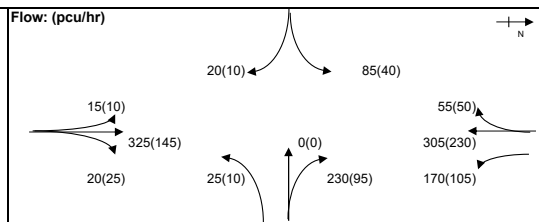
Description: Year 2034 Design Traffic Flows (Sensitivity Test 1) (with Planned Junction Layout)

Designed By: HZF

Checked By: PTC

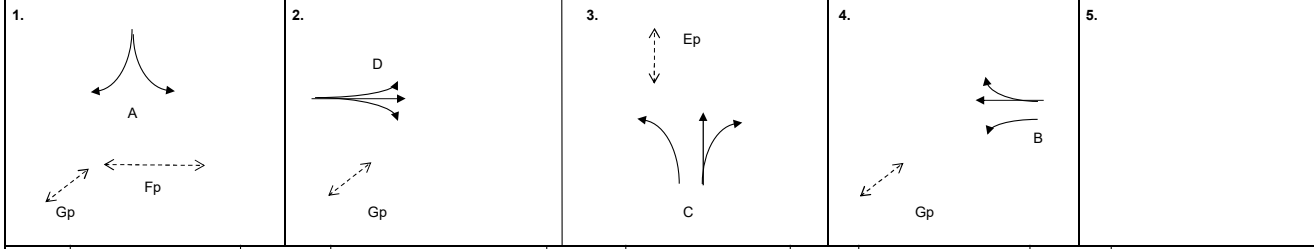
| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|---------------------|-----------|-------|---------------------|-----------|------------|-------|--------------|------------------|-----------|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Vehicular Bridge SB | ↕ | A | 1 | 3.500 | 10 | 12 | | 81% / 19% | 80% / 20% | 1715 | 1715 | 105 | 0.061 | 0.061 | 50 | 0.029 | |
| Kam Pok Road EB | ↔ | D | 2 | 3.650 | 10 | 12 | | 4% / 6% | 6% / 14% | 1955 | 1930 | 360 | 0.184 | 0.184 | 180 | 0.093 | 0.093 |
| R(D) Site Access | ↕ | C | 3 | 5.500 | 20 | | | | | 2015 | 2015 | 25 | 0.012 | | 10 | 0.005 | |
| | ↔ | C | 3 | 4.000 | | 12 | | 100% | 100% | 1790 | 1790 | 230 | 0.128 | 0.128 | 95 | 0.053 | 0.053 |
| Kam Pok Road WB | ↕ | B | 4 | 3.650 | 15 | | | | | 1800 | 1800 | 170 | 0.094 | | 105 | 0.058 | |
| | ↔ | B | 4 | 3.650 | | 12 | | 15% | 18% | 1945 | 1935 | 360 | 0.185 | 0.185 | 280 | 0.145 | 0.145 |
| Pedestrian Crossing | Ep | 3 | MIN GREEN + FLASH = | | 10 | + | 10 | = | 20 | | | | | | | | |
| | Fp | 1 | MIN GREEN + FLASH = | | 11 | + | 10 | = | 21 | | | | | | | | |
| | Gp | 1,2,4 | MIN GREEN + FLASH = | | 5 | + | 5 | = | 10 | | | | | | | | |

Notes:



| Group | Fp,D,C,B | A,D,C,B | Group | Fp,D,C,B | A,D,C,B |
|----------|----------|---------|----------|----------|---------|
| y | 0.498 | 0.559 | y | 0.291 | 0.291 |
| L (sec) | 18 | 25 | L (sec) | 18 | 31 |
| C (sec) | 90 | 90 | C (sec) | 90 | 90 |
| y pract. | 0.720 | 0.650 | y pract. | 0.720 | 0.590 |
| R.C. (%) | 45% | 16% | R.C. (%) | 147% | 103% |

Stage / Phase Diagrams

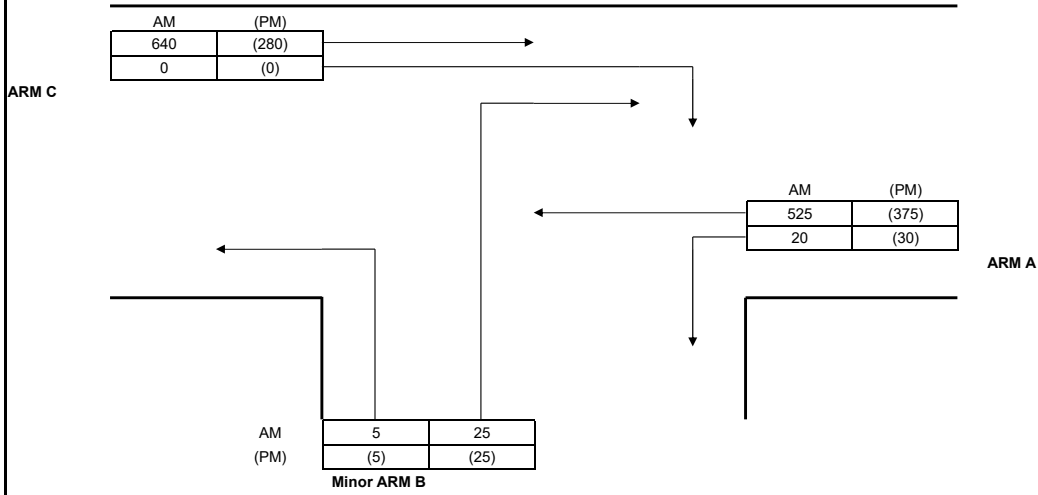


| | | | | | | | | | |
|--------|---|---------|--|--------|--|--------|--|------|--|
| I/G= 7 | | I/G= 12 | | I/G= 5 | | I/G= 5 | | I/G= | |
| I/G= 7 | 5 | I/G= 12 | | I/G= 5 | | I/G= 5 | | I/G= | |

Date: May, 2026 Junction: 4 (J4)

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|-----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Ha Chuk Yuen Road (J5) | Ref. No.: | |
| Scheme: | Design Case under Sensitivity Test 1 | | |
| Year: | 2034 | Job No.: | CHK50868310 |
| ARM A: | Kam Pok Road WB | | |
| ARM B: | Ha Chuk Yuen Road | | |
| ARM C: | Kam Pok Road EB | | |



GEOMETRY

| | | | | | |
|------------------------|---------|------|-------------|--------|------|
| Major road width | W | 9.30 | Lane widths | w(b-a) | 2.05 |
| Central Reserve width | Wcr | 0.00 | | w(b-c) | 2.05 |
| 2 Lane Minor Arm (Y/N) | | N | | w(c-b) | 3.50 |
| Visibilities | Vr(b-a) | 50 | Calculated | D | 0.75 |
| | VI(b-a) | 50 | | E | 0.80 |
| | Vr(b-c) | 50 | | F | 0.92 |
| | Vr(c-b) | 50 | | Y | 0.68 |

ANALYSIS

| | | | AM PEAK | (PM) PEAK |
|---------------|---------|--------|--------------|--------------|
| TRAFFIC FLOWS | q(c-a) | | 640 | 280 |
| | q(c-b) | | 0 | 0 |
| | q(a-b) | | 20 | 30 |
| | q(a-c) | | 525 | 375 |
| | q(b-a) | | 25 | 25 |
| | q(b-c) | | 5 | 5 |
| | f | | 0.17 | 0.17 |
| CAPACITIES | Q(b-a) | Factor | 296 | 365 |
| | Q(b-c) | 1 | 488 | 517 |
| | Q(c-b) | 1 | 564 | 596 |
| | Q(b-ac) | 1 | 317 | 384 |
| RFC's | b-a | | 0.084 | 0.068 |
| | b-c | | 0.010 | 0.010 |
| | c-b | | 0.000 | 0.000 |
| | b-ac | | 0.095 | 0.078 |
| Worst RFC | | | 0.095 | 0.078 |

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1 + 0.094(w(b-a) - 3.65))(1 + 0.0009(Vr(b-a) - 120))(1 + 0.0006(VI(b-a) - 150))$$

$$E = (1 + 0.094(w(b-c) - 3.65))(1 + 0.0009(Vr(b-c) - 120))$$

$$F = (1 + 0.094(w(c-b) - 3.65))(1 + 0.0009(Vr(c-b) - 120))$$

$$Y = 1 - 0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c) \cdot Q(b-a) / ((1-f) \cdot Q(b-c) + f \cdot Q(b-a))$$

Capacity of combined streams

- in accordance with TPDM V2.4

T.P.D.M.V.2.4

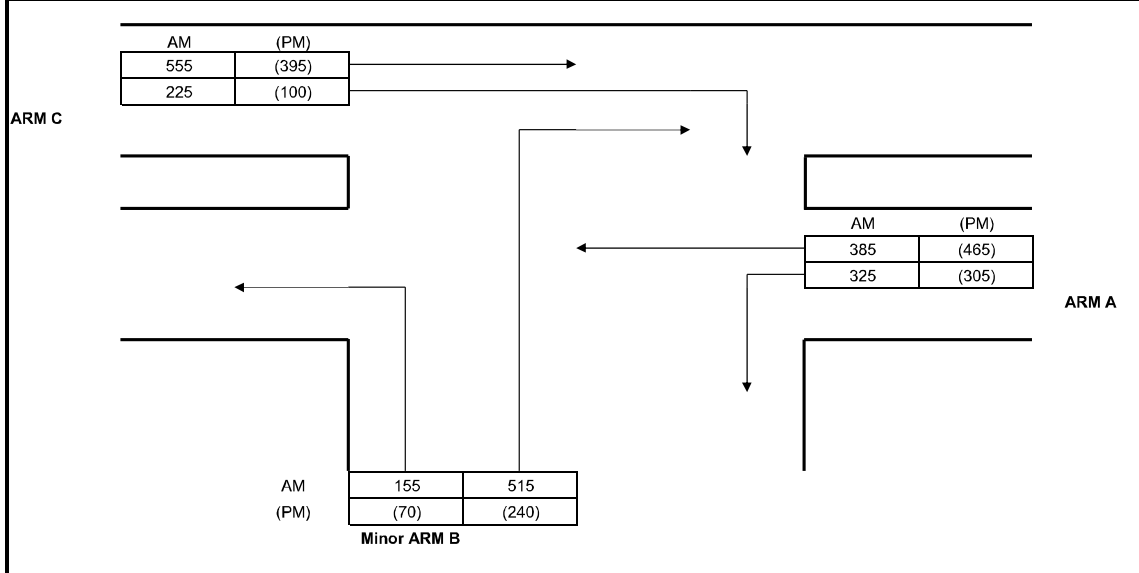
Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | May, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|-----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Castle Peak Road – Tam Mi (J6) | Ref. No.: | |
| Scheme: | Design Case under Sensitivity Test 1 (with Planned Junction Layout) | | |
| Year: | 2034 | Job No.: | CHK50868310 |
| | | Rev.: | |

| | |
|--------|------------------------------|
| ARM A: | Castle Peak Road - Tam Mi NB |
| ARM B: | Kam Pok Road EB |
| ARM C: | Castle Peak Road - Tam Mi SB |



| GEOMETRY | | | | | |
|------------------------|---------|------|-------------|--------|------|
| Major road width | W | 6.90 | Lane widths | w(b-a) | 4.30 |
| Central Reserve width | Wcr | 1.50 | | w(b-c) | 4.30 |
| 2 Lane Minor Arm (Y/N) | Y | | | w(c-b) | 2.05 |
| Visibilities | Vr(b-a) | 53 | Calculated | D | 0.95 |
| | VI(b-a) | 70 | | E | 1.01 |
| | Vr(b-c) | 70 | | F | 0.78 |
| | Vr(c-b) | 30 | | Y | 0.76 |

| ANALYSIS | | | |
|---------------|---------|---------|-----------|
| | | AM PEAK | (PM) PEAK |
| TRAFFIC FLOWS | q(c-a) | 555 | 395 |
| | q(c-b) | 225 | 100 |
| | q(a-b) | 325 | 305 |
| | q(a-c) | 385 | 465 |
| | q(b-a) | 515 | 240 |
| | q(b-c) | 155 | 70 |
| | f | 0.23 | 0.23 |
| CAPACITIES | Q(b-a) | 303 | 358 |
| | Q(b-c) | 611 | 590 |
| | Q(c-b) | 428 | 415 |
| | Q(b-ac) | 343 | 393 |
| RFC's | b-a | 1.700 | 0.670 |
| | b-c | 0.254 | 0.119 |
| | c-b | 0.526 | 0.241 |
| | b-ac | 0.000 | 0.000 |
| Worst RFC | | 1.700 | 0.670 |

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$$

Capacity of combined streams

- in accordance with TPDM V2.4

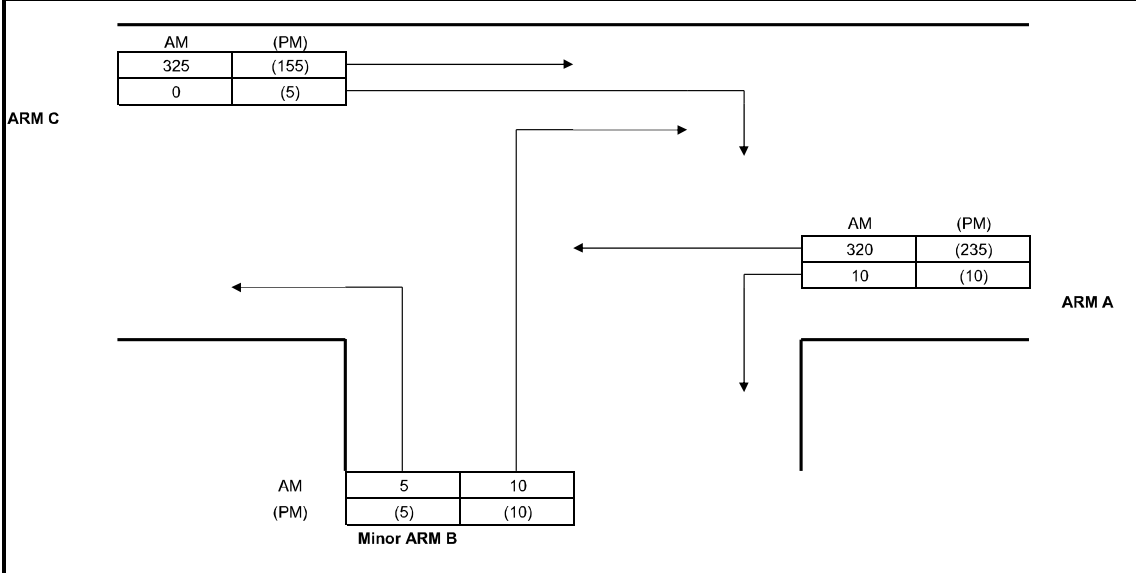
T.P.D.M.V.2.4

Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | Mar, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|-----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Fung Chuk Road (J7) | Ref. No.: | |
| Scheme: | Design Case under Sensitivity Test 1 | | |
| Year: | 2025 | Job No.: | CHK50868310 |
| Rev.: | | | |
| ARM A: | Kam Pok Road SB | | |
| ARM B: | Fung Chuk Road | | |
| ARM C: | Kam Pok Road NB | | |



| GEOMETRY | | | | | |
|------------------------|---------|------|-------------|------|------|
| Major road width | W | 7.30 | Lane widths | | |
| Central Reserve width | Wcr | 0.00 | w(b-a) | 2.00 | |
| 2 Lane Minor Arm (Y/N) | N | | w(b-c) | 2.00 | |
| | | | w(c-b) | 3.50 | |
| Visibilities | Vr(b-a) | 12 | Calculated | D | 0.70 |
| | VI(b-a) | 8.5 | | E | 0.76 |
| | Vr(b-c) | 12 | | F | 0.90 |
| | Vr(c-b) | 21 | | Y | 0.75 |

| ANALYSIS | | | |
|---------------|---------|--------------|--------------|
| | | AM PEAK | (PM) PEAK |
| TRAFFIC FLOWS | q(c-a) | 325 | 155 |
| | q(c-b) | 0 | 5 |
| | q(a-b) | 10 | 10 |
| | q(a-c) | 320 | 235 |
| | q(b-a) | 10 | 10 |
| | q(b-c) | 5 | 5 |
| | f | 0.33 | 0.33 |
| CAPACITIES | Q(b-a) | 337 | 372 |
| | Q(b-c) | 501 | 519 |
| | Q(c-b) | 588 | 609 |
| | Q(b-ac) | 378 | 410 |
| RFC's | b-a | 0.030 | 0.027 |
| | b-c | 0.010 | 0.010 |
| | c-b | 0.000 | 0.008 |
| | b-ac | 0.040 | 0.037 |
| Worst RFC | | 0.040 | 0.037 |

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c)*Q(b-a)/(1-f)*Q(b-c)+f*Q(b-a)$$

Capacity of combined streams

- in accordance with TPDM V2.4

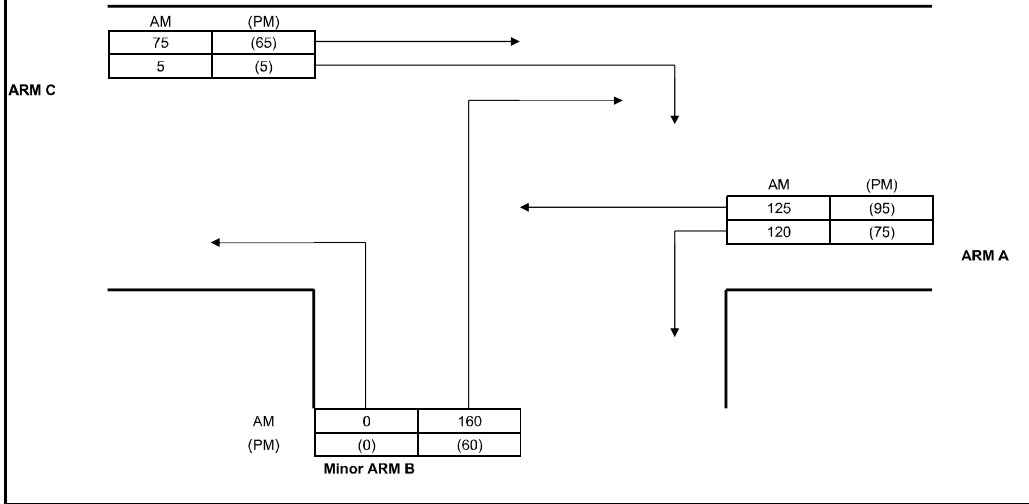
T.P.D.M.V.2.4

Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | Mar, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Simplified Priority Junction Capacity Calculation

| | | | |
|------------|---|-----------|-------------|
| Job Title: | Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | |
| Junction: | Kam Pok Road / Site Main Entrance (J8) | Ref. No.: | |
| Scheme: | Design Case under Sensitivity Test 1 | | |
| Year: | 2034 | Job No.: | CHK50868310 |
| Rev.: | | | |
| ARM A: | Kam Pok Road SB | | |
| ARM B: | Site Main Entrance | | |
| ARM C: | Kam Pok Road NB | | |



| GEOMETRY | | | | | |
|------------------------|---------|------|-------------|--------|------|
| Major road width | W | 9.30 | Lane widths | w(b-a) | 2.05 |
| Central Reserve width | Wcr | 0.00 | | w(b-c) | 2.05 |
| 2 Lane Minor Arm (Y/N) | | N | | w(c-b) | 3.50 |
| Visibilities | Vr(b-a) | 50 | Calculated | D | 0.75 |
| | VI(b-a) | 50 | | E | 0.80 |
| | Vr(b-c) | 50 | | F | 0.92 |
| | Vr(c-b) | 50 | | Y | 0.68 |

| ANALYSIS | | | | AM PEAK | (PM) PEAK |
|---------------|---------|--------|--|--------------|--------------|
| TRAFFIC FLOWS | q(c-a) | | | 75 | 65 |
| | q(c-b) | | | 5 | 5 |
| | q(a-b) | | | 120 | 75 |
| | q(a-c) | | | 125 | 95 |
| | q(b-a) | | | 160 | 60 |
| | q(b-c) | | | 0 | 0 |
| | f | | | 0.00 | 0.00 |
| CAPACITIES | Q(b-a) | Factor | | 427 | 437 |
| | Q(b-c) | 1 | | 559 | 569 |
| | Q(c-b) | 1 | | 632 | 649 |
| | Q(b-ac) | 1 | | 427 | 437 |
| RFC's | b-a | | | 0.375 | 0.137 |
| | b-c | | | 0.000 | 0.000 |
| | c-b | | | 0.008 | 0.008 |
| | b-ac | | | 0.375 | 0.137 |
| Worst RFC | | | | 0.375 | 0.137 |

Where VI and Vr are visibility distances to the left or right of the respective streams

$$D = (1+0.094(w(b-a)-3.65))(1+0.0009(Vr(b-a)-120))(1+0.0006(VI(b-a)-150))$$

$$E = (1+0.094(w(b-c)-3.65))(1+0.0009(Vr(b-c)-120))$$

$$F = (1+0.094(w(c-b)-3.65))(1+0.0009(Vr(c-b)-120))$$

$$Y = 1-0.0345W$$

f = proportion of minor traffic turning left

$$Q(b-ac) = Q(b-c) \cdot Q(b-a) / ((1-f) \cdot Q(b-c) + f \cdot Q(b-a))$$

Capacity of combined streams

- in accordance with TPDM V2.4

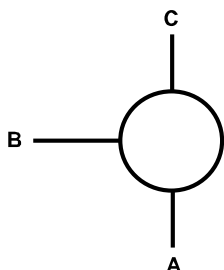
T.P.D.M.V.2.4
Appendix 1

| | | | | | |
|----------------|-----|-------|-----------|-------------|-----|
| Calculated by: | HZF | Date: | May, 2026 | Checked by: | PTC |
|----------------|-----|-------|-----------|-------------|-----|

Roundabout Capacity Calculation

| | | | | | | | | | | | |
|--|------|-------------------------------|-----------|----------------------|----------------|----------------|-----------------|-----------|----------------------|-------------|-------------|
| Job Title: Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | | | | | | | | | | |
| Junction: Fairview Park Interchange (J1) | | | | | | | | Ref. No.: | | | |
| Scheme: Design Case under Sensitivity Test 1 (with Suggested Junction Improvement Layout) | | | | | | | | | | | |
| Year: 2034 | | | | Job No.: CHK50868310 | | | | Rev.: - | | | |
| AM | | PM | | | | | | | | | |
| ARM A: | | Fairview Park Boulevard | | | | | | | | | |
| ARM B: | | Castle Peak Road - Tam Mi (N) | | | | | | | | | |
| ARM C: | | San Tin Highway Slip Road (N) | | | | | | | | | |
| ARM D: | | San Tam Road (N) | | | | | | | | | |
| ARM E: | | San Tam Road (S) | | | | | | | | | |
| ARM F: | | San Tin Highway Slip Road (S) | | | | | | | | | |
| ARM G: | | Castle Peak Road - Tam Mi (S) | | | | | | | | | |
| | | | | | | | | | | | |
| GEOMETRY | | | | | | | | | | | |
| ARM | v | e | L | r | D | Phi | S | | | | |
| A | 7.00 | 12.20 | 34 | 25 | 140 | 35 | 0.24 | | | | |
| B | 7.30 | 12.00 | 36 | 30 | 140 | 25 | 0.21 | | | | |
| C | 7.30 | 13.00 | 13 | 45 | 140 | 30 | 0.70 | | | | |
| D | 7.30 | 13.00 | 40 | 25 | 140 | 45 | 0.23 | | | | |
| E | 7.30 | 12.00 | 27 | 25 | 140 | 45 | 0.28 | | | | |
| F | 6.00 | 13.00 | 36 | 25 | 140 | 40 | 0.31 | | | | |
| G | 6.50 | 12.00 | 25 | 25 | 140 | 35 | 0.35 | | | | |
| AM FLOWS | | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit | |
| A | 10 | 20 | 210 | 40 | 230 | 480 | 30 | 2995 | 1020 | 670 | |
| B | 10 | 10 | Free Flow | 35 | 250 | 570 | 35 | 3210 | 910 | 805 | |
| C | 95 | 85 | 10 | Free Flow | 485 | 10 | 225 | 3010 | 910 | 1110 | |
| D | 65 | 45 | 45 | 10 | 280 | 210 | 95 | 3520 | 750 | 400 | |
| E | 40 | 35 | 465 | 120 | 10 | 535 | 20 | 2375 | 1225 | 1895 | |
| F | 335 | 450 | 10 | 110 | 630 | 10 | Free Flow | 1460 | 1545 | 2140 | |
| G | 115 | 160 | 370 | 85 | 10 | 325 | 0 | 2600 | 1065 | 405 | |
| PM FLOWS | | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit | |
| A | 10 | 10 | 170 | 55 | 210 | 345 | 30 | 2675 | 830 | 955 | |
| B | 35 | 10 | Free Flow | 35 | 170 | 260 | 35 | 2740 | 545 | 765 | |
| C | 190 | 155 | 20 | Free Flow | 425 | 20 | 210 | 2490 | 1020 | 795 | |
| D | 80 | 45 | 90 | 20 | 250 | 95 | 75 | 3055 | 655 | 455 | |
| E | 100 | 30 | 305 | 115 | 10 | 295 | 20 | 1975 | 875 | 1735 | |
| F | 445 | 390 | 10 | 175 | 660 | 20 | Free Flow | 1595 | 1700 | 1255 | |
| G | 95 | 125 | 200 | 55 | 10 | 220 | 10 | 2915 | 715 | 380 | |
| CALCULATIONS | | | | | | | | | | | |
| ARM | K | X ₂ | M | F | t _D | f _c | Q _E | | RFC | | |
| | | | | | | | AM | PM | AM | PM | |
| A | 0.99 | 10.49 | 2980.96 | 3179 | 1.00 | 0.65 | 1221 | 1427 | 0.84 | 0.58 | |
| B | 1.03 | 10.62 | 2980.96 | 3216 | 1.00 | 0.66 | 1148 | 1467 | 0.79 | 0.37 | |
| C | 1.03 | 9.67 | 2980.96 | 2931 | 1.00 | 0.62 | 1105 | 1434 | 0.82 | 0.71 | |
| D | 0.96 | 11.21 | 2980.96 | 3398 | 1.00 | 0.68 | 958 | 1262 | 0.78 | 0.52 | |
| E | 0.96 | 10.32 | 2980.96 | 3127 | 1.00 | 0.64 | 1531 | 1777 | 0.80 | 0.49 | |
| F | 0.98 | 10.32 | 2980.96 | 3125 | 1.00 | 0.64 | 2132 | 2047 | 0.72 | 0.83 | |
| G | 0.99 | 9.73 | 2980.96 | 2947 | 1.00 | 0.62 | 1329 | 1135 | 0.80 | 0.63 | |
| | | | | | | | | | Critical Arm: | A | F |
| | | | | | | | | | RFC: | 0.84 | 0.83 |
| | | | | | | | | | | AM | PM |
| - In accordance with TPDM V2.4 | | | | | | | | | | | |
| Calculated by: HZF | | | | Date: Mar-26 | | | Checked by: PTC | | | | |

Roundabout Capacity Calculation

| | | | | | | | | | | | |
|---|------|------------------------------|-----------------------------|------|------------------|------------------------|----------------|------|----------------------|------|------|
| Job Title: Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | | | | | | | | | | |
| Junction: Kam Pok Road / Castle Peak Road – Tam Mi (J6) | | | | | Ref. No.: | | | | | | |
| Scheme: Design Case under Sensitivity Test 1 (with Junction Improvement Layout) | | | | | | | | | | | |
| Year: 2034 | | | Job No.: CHK50868310 | | | Rev.: - | | | | | |
| AM | | PM | | | | | | | | | |
| ARM A: | | Castle Peak Road - Tam Mi NB | | | | | | | | | |
| ARM B: | | Kam Pok Road EB | | | | | | | | | |
| ARM C: | | Castle Peak Road - Tam Mi SB | | | | | | | | | |
|  | | | | | | | | | | | |
| GEOMETRY | | | | | | | | | | | |
| ARM | v | e | L | r | D | Phi | S | | | | |
| A | 3.50 | 6.10 | 7 | 25 | 26 | 15.5 | 0.59 | | | | |
| B | 4.60 | 6.00 | 2 | 28.7 | 26 | 19.5 | 1.12 | | | | |
| C | 3.30 | 5.60 | 5.3 | 80 | 26 | 4.5 | 0.69 | | | | |
| AM FLOWS | | | | | | | | | | | |
| from \ to | A | B | C | Circ | | | Entry | Exit | | | |
| A | 0 | 325 | 385 | 225 | | | 710 | 515 | | | |
| B | 515 | 0 | 155 | 385 | | | 670 | 550 | | | |
| C | FF | 225 | 0 | 515 | | | 225 | 540 | | | |
| PM FLOWS | | | | | | | | | | | |
| from \ to | A | B | C | Circ | | | Entry | Exit | | | |
| A | 0 | 305 | 465 | 100 | | | 770 | 240 | | | |
| B | 240 | 0 | 70 | 465 | | | 310 | 405 | | | |
| C | FF | 100 | 0 | 240 | | | 100 | 535 | | | |
| CALCULATIONS | | | | | | | | | | | |
| ARM | K | X ₂ | M | F | t _D | f _c | Q _E | | RFC | | |
| | | | | | | | AM | PM | AM | PM | |
| A | 1.06 | 4.69 | 0.03 | 1420 | 1.48 | 0.60 | 1362 | 1442 | 0.52 | 0.53 | |
| B | 1.05 | 5.03 | 0.03 | 1525 | 1.48 | 0.63 | 1350 | 1297 | 0.50 | 0.24 | |
| C | 1.13 | 4.26 | 0.03 | 1292 | 1.48 | 0.58 | 1119 | 1297 | 0.20 | 0.08 | |
| | | | | | | | | | Critical Arm: | A | A |
| | | | | | | | | | RFC: | 0.52 | 0.53 |
| | | | | | | | | | AM | PM | PM |
| <i>- In accordance with TPDM V2.4</i> | | | | | | | | | | | |
| Calculated by: HZF | | | Date: May-26 | | | Checked by: PTC | | | | | |

Roundabout Capacity Calculation

| | | | | | | | | | | |
|--|------|-------------------------------|---------|------|-----------------|----------------|------|----------------|-------|------|
| Job Title: Proposed Residential Development at Lot No. 4822 in D.D. 104 and Adjoining Government Land, East of Kam Pok Road, Mai Po, Yuen Long | | | | | | | | | | |
| Junction: Fairview Park Interchange (J1) | | | | | Ref. No.: | | | | | |
| Scheme: Design Case without MP-10 and Sha Po Public Housing (with proposed Junction Improvement Layout) | | | | | | | | | | |
| Year: 2034 | | Job No.: CHK50868310 | | | Rev.: - | | | | | |
| AM | | PM | | | | | | | | |
| ARM A: | | Fairview Park Boulevard | | | | | | | | |
| ARM B: | | Castle Peak Road - Tam Mi (N) | | | | | | | | |
| ARM C: | | San Tin Highway Slip Road (N) | | | | | | | | |
| ARM D: | | San Tam Road (N) | | | | | | | | |
| ARM E: | | San Tam Road (S) | | | | | | | | |
| ARM F: | | San Tin Highway Slip Road (S) | | | | | | | | |
| ARM G: | | Castle Peak Road - Tam Mi (S) | | | | | | | | |
| | | | | | | | | | | |
| GEOMETRY | | | | | | | | | | |
| ARM | v | e | L | r | D | Phi | S | | | |
| A | 7.00 | 11.00 | 14 | 22 | 142 | 35 | 0.46 | | | |
| B | 5.50 | 10.50 | 15 | 20 | 142 | 35 | 0.53 | | | |
| C | 5.50 | 10.00 | 30 | 23 | 142 | 30 | 0.24 | | | |
| D | 6.75 | 8.50 | 10 | 20 | 142 | 25 | 0.28 | | | |
| E | 6.00 | 8.00 | 9.5 | 20 | 142 | 35 | 0.34 | | | |
| F | 6.00 | 9.00 | 10 | 25 | 142 | 40 | 0.48 | | | |
| G | 5.50 | 8.00 | 25 | 22 | 142 | 30 | 0.16 | | | |
| AM FLOWS | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit |
| A | 10 | 20 | 210 | 40 | 230 | 480 | 30 | 2105 | 1020 | 670 |
| B | 10 | 10 | 130 | 35 | 240 | 335 | 35 | 2500 | 795 | 625 |
| C | 95 | 70 | 10 | 100 | 360 | 10 | 225 | 2250 | 870 | 1045 |
| D | 65 | 45 | 45 | 10 | 280 | 210 | 95 | 2620 | 750 | 500 |
| E | 40 | 25 | 270 | 120 | 10 | 165 | 20 | 2125 | 650 | 1245 |
| F | 335 | 295 | 10 | 110 | 115 | 10 | FF | 1240 | 875 | 1535 |
| G | 115 | 160 | 370 | 85 | 10 | 325 | 0 | 1710 | 1065 | 405 |
| PM FLOWS | | | | | | | | | | |
| from \ to | A | B | C | D | E | F | G | Circ | Entry | Exit |
| A | 10 | 10 | 170 | 55 | 210 | 345 | 30 | 1920 | 830 | 955 |
| B | 35 | 10 | 95 | 35 | 160 | 155 | 35 | 2145 | 525 | 605 |
| C | 190 | 115 | 20 | 85 | 310 | 20 | 210 | 1880 | 950 | 790 |
| D | 80 | 45 | 90 | 20 | 250 | 95 | 75 | 2290 | 655 | 540 |
| E | 100 | 20 | 205 | 115 | 10 | 110 | 20 | 1830 | 580 | 1115 |
| F | 445 | 280 | 10 | 175 | 165 | 20 | FF | 1445 | 1095 | 965 |
| G | 95 | 125 | 200 | 55 | 10 | 220 | 10 | 2160 | 715 | 380 |
| | | | | | | | | Q _E | RFC | |
| CALCULATIONS | | | | | | | | | | |
| ARM | K | X ₂ | M | F | t _p | f _c | AM | PM | AM | PM |
| A | 0.99 | 9.09 | 3640.95 | 2754 | 1.00 | 0.59 | 1489 | 1597 | 0.69 | 0.52 |
| B | 0.98 | 7.92 | 3640.95 | 2400 | 1.00 | 0.54 | 1025 | 1214 | 0.78 | 0.43 |
| C | 1.01 | 8.54 | 3640.95 | 2588 | 1.00 | 0.57 | 1316 | 1528 | 0.66 | 0.62 |
| D | 1.02 | 7.87 | 3640.95 | 2385 | 1.00 | 0.54 | 985 | 1167 | 0.76 | 0.56 |
| E | 0.98 | 7.19 | 3640.95 | 2180 | 1.00 | 0.51 | 1073 | 1221 | 0.61 | 0.47 |
| F | 0.98 | 7.53 | 3640.95 | 2282 | 1.00 | 0.53 | 1588 | 1483 | 0.55 | 0.74 |
| G | 1.00 | 7.39 | 3640.95 | 2240 | 1.00 | 0.52 | 1356 | 1121 | 0.79 | 0.64 |
| | | | | | | | | Critical Arm: | G | F |
| | | | | | | | | RFC: | 0.79 | 0.74 |
| | | | | | | | | | AM | PM |
| - In accordance with TPDM V2.4 | | | | | | | | | | |
| Calculated by: HZF | | Date: May-26 | | | Checked by: PTC | | | | | |