

# **Appendix 5**

## **Traffic Impact Assessment**

**Proposed Minor Relaxation  
of Plot Ratio and Building Height Restrictions  
for Proposed Hotel Use in “Other Specified Uses”  
annotated “Business” Zone,  
107-109 Wai Yip Street, Kwun Tong**

**Traffic Impact Assessment  
Final Report  
August 2025**

**Prepared by: CKM Asia Limited**

**Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions  
for Proposed Hotel Use in “Other Specified Uses”  
annotated “Business” Zone, 107-109 Wai Yip Street, Kwun Tong**

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## 1.0 INTRODUCTION

### Background

- 1.1 The Subject Site is located at Nos. 107 – 109 Wai Yip Street in Kwun Tong, which is now vacant. **Figure 1.1** shows the location of the Subject Site.
- 1.2 On 29<sup>th</sup> May 2020, the Town Planning Board (“TPB”) approved the S16 Planning Application for Office, Shop and Services & Eating Place Uses at 107-109 Wai Yip Street (TPB ref: A/K14/780) (“Approved S16 Scheme”). The Applicant has the intention to construct a hotel (“Proposed Development”) at the Subject Site.
- 1.3 CKM Asia Limited, a traffic and transportation planning consultancy firm, was commissioned by the Applicant, to conduct a traffic impact assessment (“TIA”) in support of Proposed Development. This report presents the findings of the TIA of the Proposed Development.

### Scope of the Assessment

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

### Contents of the Report

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

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

## 2.0 THE EXISTING SITUATION

### The Subject Site

- 2.1 The Subject Site fronts onto Wai Yip Street to the south, and is bounded by a service lane to the north. The section of Wai Yip Street fronting the Subject Site is a dual carriageway 3-lane road.

### Traffic Survey

- 2.2 To quantify the traffic flows at the junctions chosen for the capacity analysis, manual classified counts were conducted on Thursday, 12<sup>th</sup> June 2025 during the AM and PM peak periods. The locations of the surveyed junctions are presented in **Figure 2.1** and their layout is shown in **Figures 2.2 to 2.13**.
- 2.3 The surveyed junctions include the following:
- J1: Hoi Bun Road / Shun Yip Street;
  - J2: Wai Yip Street / Shun Yip Street;
  - J3: Tai Yip Street / Service Lane;
  - J4: Hong Tak Road / Tai Yip Street;
  - J5: Tai Yip Street / Tai Yip Lane;
  - J6: Kwun Tong Road / Hong Tak Road;
  - J7: Wai Yip Street / Lai Yip Street;
  - J8: Kwun Tong Road / Lai Yip Street;
  - J9: Hoi Bun Road / Lai Yip Street;
  - J10: Lai Yip Street / Hung To Road;
  - J11: Tai Yip Street / Siu Yip Street and;
  - J12: Wai Yip Street / Siu Yip Street
- 2.4 The counts were classified by vehicle type to enable traffic flows in passenger car units (“pcu”) to be calculated. From the survey, the AM and PM peak hours were found to be between 0845 – 0945 and 1730 – 1830 hours respectively and the existing AM and PM peak hour traffic flows are presented in **Figure 2.14**.

### Operational Performance of the Surveyed Junctions

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

TABLE 2.1 EXISTING JUNCTION OPERATIONAL PERFORMANCE

Ref	Junction	Type of Junction	Parameter <sup>(1)</sup>	AM Peak	PM Peak
J1	Hoi Bun Road / Shun Yip Street	Signal	RC	56%	43%
J2	Wai Yip Street / Shun Yip Street	Signal	RC	66%	62%
J3	Tai Yip Street / Service Lane	Priority	RFC	0.010	0.010
J4	Hong Tak Road / Tai Yip Street	Priority	RFC	0.224	0.177
J5	Tai Yip Street / Tai Yip Lane	Priority	RFC	0.049	0.023
J6	Kwun Tong Road / Hong Tak Road	Priority	RFC	0.366	0.451
J7	Wai Yip Street / Lai Yip Street	Signal	RC	80%	87%
J8	Kwun Tong Road / Lai Yip Street	Signal	RC	60%	44%
J9	Hoi Bun Road / Lai Yip Street <sup>(2)</sup>	Signal	RC	82%	85%
J10	Lai Yip Street / Hung To Road <sup>(2)</sup>	Signal	RC	80%	98%
J11	Tai Yip Street / Siu Yip Street	Priority	RFC	0.322	0.403
J12	Wai Yip Street/ Siu Yip Street	Priority	RFC	0.421	0.361

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

<sup>(2)</sup> Site factor applied to reflect kerbside / on-street activities

- 2.6 The results in **Table 2.1** indicate that the junctions now operate with capacities during the AM and PM peak hours.

### Pedestrian Facilities

- 2.7 There are good pedestrian facilities provided in the vicinity of the Subject Site, including footpaths, and at-grade pedestrian crossings are provided at the signalised road junctions.

### Availability of Public Transport Facilities

- 2.8 The Subject Site is well-served by various types of public transport services, including road-based franchised bus and public light bus. These services operate along Kwun Tong Road and Wai Yip Street within 500m or about 10 minutes' walk away. The Subject Site is located close to the Ngau Tau Kok MTR Station and the nearest entrance is at Lai Yip Street, which is some 400 metres or 6 minutes' walk away.
- 2.9 Details of the road-based public transport services operating in the vicinity of the Subject Site are shown in **Figure 2.15** and **Table 2.2**.

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

Route	Routing	Frequency (minutes)
KMB 1A	Sau Mau Ping (Central) – Star Ferry	5 – 15
KMB 3D	Tsz Wan Shan (Central) – Kwun Tong (Yue Man Square)	4 – 16
KMB 5R	Kai Tak Cruise Terminal – Kwun Tong (apm) (Circular)	30
KMB 6P	Cheung Sha Wan (So Uk Estate) – Lei Yue Mun Estate	AM, PM Peak
KMB 11B	Kwun Tong (Tsui Ping Road) – Kowloon City Ferry	10 – 25
KMB 11C	Chuk Yuen Estate – Sau Mau Ping (Upper)	15 – 25
KMB 11D	Lok Fu – Kwun Tong Ferry	15 – 30
KMB 13D	Po Tat – Island Harbourview	15 – 25
KMB 13M	Kwun Tong (Elegance Road) – Po Tat (Circular)	15 – 30
KMB 14	Lei Yue Mun Estate – China Ferry Terminal	12 – 25
KMB 14B	Ngau Tau Kok – Lam Tin (Kwong Tin Estate)	15 – 25
KMB 14X	Yau Tong (Shung Tak Wai) – Tsim Sha Tsui (Circular)	15 – 30
KMB 15	Ping Tin – Hung Hom (Hung Luen Road)	12 – 20
KMB 15A	Ping Tin – Tsz Wan Shan (North)	20 – 30

Route	Routing	Frequency (minutes)
KMB 15X	Lam Tin (Kwong Tin Estate) – Hung Hom Station	AM, PM Peak
KMB 16	Lam Tin (Kwong Tin Estate) – Mong Kok (Park Avenue)	8 – 20
KMB 16P	Kwun Tong Ferry – Mong Kok (Park Avenue)	AM, PM Peak
KMB 17	Kwun Tong (Yue Man Square) – Ho Man Tin (Oi Man Estate)	5 – 20
KMB 23M	Lok Wah – Shun Lee (Circular)	12 – 20
KMB 28B	Choi Fook – Kai Tak (Kai Ching Estate)	15 – 25
KMB 28S	Kwun Tong (Yue Mun Square) – Lok Wah	AM Peak
KMB 33	Tsuen Wan West Station – Yau Tong	15 – 30
KMB 33B	Tsuen Wan West Station – Yau Tong	20 – 25
KMB 38	Kwai Shing (East) – Ping Tin	5 – 20
KMB 38P	Kwai Shing (Central) – Ping Tin	AM Peak
KMB 40	Tsuen Wan (Belvedere Garden) – Laguna City	12 – 25
KMB 40A	Ping Tin – Kwai Hing Station	AM, PM Peak
KMB 40B	Kwai Chung Estate – Ping Tin	AM Peak
KMB 40P	Kwun Tong Ferry – Tsuen Wan (Shek Wai Kok)	AM, PM Peak
KMB 42C	Tsing Yi (Cheung Hang Estate) – Lam Tin Station	5 – 15
KMB 49	Ching Fu Court – Tseung Kwan O Industrial Estate	AM, PM Peak
KMB 62P	Tuen Mun Central – Lei Yue Mun Estate	8 – 25
KMB 62X	Tuen Mun Central – Lei Yue Mun Estate	8 – 25
KMB 69C	Tin Yan Estate – Kwun Tong Ferry	AM, PM Peak
KMB 74C	Kau Lung Hang – Kwun Tong Ferry	AM Peak
KMB 74D	Kau Lung Hang – Kwun Tong Ferry	25 – 60
KMB 74E	Tai Mei Tuk – Kwun Tong Ferry	AM, PM Peak
KMB 74F	Kwun Tong Ferry – Education University of Hong Kong	AM Peak
KMB 74P	Kwun Tong Ferry – Tai Po Central	AM Peak
KMB 74X	Tai Po Central – Kwun Tong Ferry	3 – 15
KMB 80	Mei Lam – Kwun Tong Ferry	5 – 20
KMB 80A	Mei Lam – Kwun Tong Ferry	AM Peak
KMB 80P	Hin Keng – Kwun Tong Ferry	AM Peak
KMB 80X	Chun Shek – Kwun Tong Ferry	8 – 25
KMB 83A	Shui Chuen O – Kwun Tong Ferry	AM Peak
KMB 83X	Shui Chuen O – Kwun Tong Ferry	8 – 30
KMB 88X	Fo Tan Chung Yeung Estate – Ping Tin (Circular)	20 – 30
KMB 89	Lek Yuen – Kwun Tong Station	8 – 20
KMB 89B	Shatin Wai – Kwun Tong Station	10 – 25
KMB 89C	Heng On – Kwun Tong (Tsui Ping Road)	12 – 30
KMB 89D	Wu Kai Sha Station – Lam Tin Station	3 – 20
KMB 89P	Ma On Shan Town Centre – Lam Tin Station Bus Terminus	AM Peak
KMB 89X	Shatin Station – Kwun Tong (Tsui Ping Road)	7 – 20
KMB 93K	Po Lam – Mong Kok East Station	15 – 30
KMB 95M	Tsui Lam – Kwun Tong Road (Elegance Road)	20 – 30
KMB 98	Tseung Kwan O Industrial Estate – Ngau Tau Kok Station (Circular)	15 – 20
KMB 98A	Hang Hau (North) (Tseung Kwan O Hospital) – Ngau Tau Kok Station (Circular)	8 – 20
KMB 98B	Hang Hau (North) (Tseung Kwan O Hospital) – Kwun Tong Station	AM Peak
KMB 213B	On Tai – Ting Fu Street (Circular)	AM Peak
KMB 215X	Lam Tin (Kwong Tin Estate) – Kowloon Station	5 – 20
KMB 234C	Sham Tseng – Kwun Tong Station	AM, PM Peak
KMB 234D	Tsing Lung Tau – Kwun Tong Station	AM, PM Peak
KMB 252X	Handsome Court – Lam Tin Station	AM, PM Peak
KMB 258A	Hung Shui Kiu (Hung Fuk Estate) – Lam Tin Station	AM Peak
KMB 258D	Tuen Mun (Po Tin Estate) – Lam Tin Station	5 – 20
KMB 258P	Hung Shui Kiu (Hung Fuk Estate) – Lam Tin Station	AM, PM Peak
KMB 258S	Tuen Mun (Shan King Estate) – Lam Tin Station	AM Peak
KMB 258X	Tuen Mun (Po Tin Estate) – Kwun Tong Ferry	AM, PM Peak

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Route	Routing	Frequency (minutes)
KMB 259D	Tuen Mun (Lung Mun Oasis) – Lei Yue Mun Estate	7 – 25
KMB 259X	Lung Mun Oasis – Kwun Tong Ferry	AM, PM Peak
KMB 267X	Tuen Mun (Siu Hong Court) – Lam Tin Station	AM, PM Peak
KMB 268A	Long Ping Estate – Kwun Tong Ferry	AM, PM Peak
KMB 268C	Long Ping Station – Kwun Tong Ferry	5 – 20
KMB 268P	Ma Wang Road (Shan Shui House) – Kwun Tong Ferry Kwun Tong Ferry – Long Ping Station	AM, PM Peak
KMB 269C	Tin Shui Wai Town Centre – Kwun Tong Ferry	5 – 20
KMB 269S	Tin Shui Wai Town Centre – Kwun Tong Ferry	AM, PM Peak
KMB 274X	Kwun Tong Ferry – Tai Po Central	PM Peak
KMB 277A	Sha Tau Kok – Lam Tin Station	AM, PM Peak
KMB 277E	Lam Tin Station – Sheung Shui (Tin Ping)	15 – 30
KMB 277P	Sheung Shui (Tin Ping) – Lam Tin Station	AM, PM Peak
KMB 277X	Fanling (Luen Wo Hui) – Lam Tin Station	5 – 30
KMB 296A	Sheung Tak – Ngau Tau Kok Station (Circular)	7 – 15
KMB 296C	Sheung Tak – Cheung Sha Wan (Hoi Ying Estate)	15 – 30
KMB N3D	Kwun Tong (Yue Man Square) – Tsz Wan Shan (Central)	Overnight
KMB N293	Sheung Yak – Mong Kok East Station	Overnight
KMB T74	Tai Po (Tai Wo) – Kwun Tong Ferry	AM Peak
KMB T277	Sheung Shui – Lam Tin Station	AM, PM Peak
KMB W2	Jordan (West Kowloon Station) – Kwun Tong (Circular)	30 – 60
KMB X42C	Tsing Yi (Cheung Hang Estate) – Yau Tong	7-30
KMB X42P	Tsing Yi (Cheung On Estate) – Lam Tin Station	AM Peak
KMB X89D	Nai Chung – Kwun Tong Ferry	AM, PM Peak
KMB/CTB 101	Kwun Tong (Yue Man Square) – Kennedy Town	3 – 20
KMB/CTB 101X	Kwun Tong (Yue Man Square) – Kennedy Town	AM, PM Peak
KMB/CTB 606	Siu Sai Wan (Island Resort) – Choi Wan (Fung Shing Street)	20 – 25
KMB/CTB 606A	Shau Kei Wan (Yiu Tung Estate) – Choi Wan (Fung Shing Street)	AM Peak
KMB/CTB 606X	Siu Sai Wan (Island Resort) – Kowloon Bay	AM, PM Peak
KMB/CTB 619	Shun Lee – Central (Macau Ferry)	4 – 25
KMB/CTB 619P	Shun Lee – Central (Macau Ferry)	AM Peak
KMB/CTB 641	Kai Tak (Kai Ching Estate) – Central (Macau Ferry)	AM, PM Peak
KMB/CTB 671	Diamond Hill Station – Ap Lei Chau Lee Lok Street	15 – 45
KMB/CTB 671X	Ap Lei Chau Lee Lok Street – Diamond Hill Station	AM Peak
KMB/CTB N619	Shun Lee – Central (Macau Ferry)	Overnight
CTB 55	Ching Tin and Wo Tin – Kwun Tong Ferry Pier	AM, PM Peak
CTB 61R	Lam Tin Station – City One Shatin	12 – 20
CTB 78C	Queen's Hill Fanling – Kai Tak	AM, PM Peak
CTB 78P	Queen's Hill Fanling – Kwun Tong	AM Peak
CTB 78X	Queen's Hill Fanling – Kai Tak	30 – 60
CTB 796S	Tseung Kwan O Station – Ngau Tau Kok Station (Circular)	Overnight
CTB 797	Lohas Park – Kowloon Bay (Circular)	15 – 20
CTB A22	Lam Tin Station – Airport	15 – 40
CTB A29	Tseung Kwan O (Po Lam) – Airport / HZMB Hong Kong Port	20 – 60
CTB E22	Lam Tin (North) – AsiaWorld-Expo	8 – 20
CTB E22A	Tseung Kwan O (Hong Sing Garden) – AsiaWorld-Expo	25 – 30
CTB E22C	Tiu Keng Leng Station – Aircraft Maintenance Area	AM, PM Peak
CTB E22S	Tung Chung (Mun Tung Estate) – Tseung Kwan O (Po Lam)	AM, PM Peak
CTB E22X	Yau Tong – AsiaWorld-Expo	AM, PM Peak
CTB N29	Tseung Kwan O (Hong Sing Garden) – Tung Chung Station	Overnight
CTB NA29	Tseung Kwan O (Po Lam) – Airport / HZMB Hong Kong Port	Overnight
GMB 22A	Lok Wah Estate – Cheung Yip Street / Kwun Tong Ferry Pier (Circular)	20
GMB 35	Choi Ha Estate – Hong Lee Court	5 – 7
GMB 36A	Crocodile Hill (Hong Lee Court) To Yue Man Square Public Transport Interchange (Circular)	4 – 5



Route	Routing	Frequency (minutes)
GMB 56	Richland Gardens – Kwun Tong (Shung Yan St)	10 – 20
GMB 62S	Kwong Tin Estate – Tsim Sha Tsui (Haiphong Road)	Overnight
GMB 68	Choi Wan Estate – Kowloon Bay (Enterprise Square)	8 – 12
GMB 86	Kai Tak Cruise Terminal – Telford Gardens	8 – 20
GMB 90A	Yau Lai Estate – HK Children’s Hospital	20
GMB 90B	Sau Mau Ping Estate Phase 5 – HK Children’s Hospital	15 – 20
GMB 102	Hang Hau Station – San Po Kong (Hong Keung Street)	2 – 15
GMB 102B	Hang Hau (Yuk Ming Court) – Choi Hung	12 – 20
GMB 102S	Hang Hau Station – San Po Kong (Hong Keung Street)	Overnight
GMB 104	The HK University of Science and Technology – Ngau Tau Kok Station	12 – 25
GMB 106	Tseung Kwan O (Po Lam) – Kowloon Bay (Enterprise Square)	7 – 25
GMB 501S	Sheung Shui Station – Kwun Tong (Yue Man Square)	Overnight

Note: KMB – Kowloon Motor Bus

CTB – City Bus

GMB – Green Minibus

### 3.0 THE PROPOSED DEVELOPMENT

#### Development Parameters and Provision of Internal Transport Facilities

- 3.1 The Proposed Development is a Hotel with 984 guest rooms. The internal transport facilities for the Proposed Development are provided in accordance to the recommendations of the Hong Kong Planning Standards and Guidelines (“HKPSG”), and are presented in **Table 3.1**.

TABLE 3.1 COMPARISON OF THE HKPSG RECOMMENDATION AND THE PROPOSED PROVISION

HKPSG Recommendation for a Hotel with 984 guest rooms	Proposed Provision
<b>Car Parking Space</b>	
1 car parking space per 100 rooms. $984 / 100 = 9.8$ , say <b><u>10 nos.</u></b>	<b>10 nos.</b> comprising of: (i) 9 nos. @ 5m (L) x 2.5m (W) x 2.4m, (ii) 1 no. @ 5m (L) x 3.5m (W) x 2.4m (H) for persons with disabilities <b>= HKPSG recommendation</b>
<b>Motorcycle Parking Space</b>	
5 to 10% of the total provision for private cars Minimum = $10 \times 5\% = 0.05$ , say <b><u>1 no.</u></b> Maximum = $10 \times 10\% = 0.1$ , say <b><u>1 no.</u></b>	<b>1 no.</b> @ 2.4m (L) x 1m (W) x 2.4m (H) <b>= HKPSG recommendation</b>
<b>Taxi and Private Car Layby</b>	
Minimum 4 lay-bys for taxi and private cars for $\geq 600$ rooms <b>= 4 nos.</b>	<b>4 nos.</b> @ 5m (L) x 2.5m (W) x 2.4m (H) <b>= HKPSG recommendation</b>
<b>Single-Deck Tour Bus Layby</b>	
Minimum 3 lay-bys for single-deck tour buses for $\geq 900$ rooms <b>= 3 nos.</b>	<b>3 nos.</b> @ 12m (L) x 3.5m (W) x 3.8m (H) <b>= HKPSG recommendation</b>
<b>Goods Vehicle Loading / Unloading Bay</b>	
0.5 - 1 goods vehicle bay per 100 rooms Minimum = $984 / 100 \times 0.5 = 4.9$ , say <b><u>5 nos. (X LGV, X HGV)</u></b> Maximum = $984 / 100 \times 1 = 9.8$ , say <b><u>10 nos. (7 LGV, 3 HGV)</u></b>	<b>8 nos.</b> comprising of: (i) 7 nos. LGV @ 7m (L) x 3.5m (W) x 3.6m (H) & (ii) 1 no. M/HGV @ 11m (L) x 3.5m (W) x 4.7m (H) <b>&gt; HKPSG minimum &amp; &lt; HKPSG maximum recommendation</b>

#### Reasons for Deviation from the HKPSG Maximum Recommendation

- 3.2 The only internal transport facility which deviates from the HKPSG maximum recommendation is the provision of 8 loading / unloading bays, which is 2 less than the maximum HKPSG recommendation, but, 3 more than the HKPSG minimum recommendation.
- 3.3 The provision of 2 nos. more M/HGV loading / unloading bays was considered, but not found to be possible due site constraint, and is explained as follows:
- (1) The Outline Development Plan no. D/K14A/1H require the Subject Site to setback (i) along Wai Yip Street of 2.3m, and (ii) 1.5m setback and 1.5m non-building area along the service lane;

- (2) With the above setback requirements, the length of the Subject Site (i.e. measured from Wai Yip Street to the service lane) which is originally 21.3m is reduced to only 17.5m (reduction of substantial length of 17.8%)
- (3) The ground floor layout has maximised the provision of M/HGV loading / unloading bays which need to front onto the turntable so vehicles could enter and leave the loading / unloading bay.
- 3.4 After accommodating the essential facilities such as, structural columns, staircases, escalators, lift lobby and car lift to the basement car park, etc, the provision of 2 more M/HGV loading / unloading bay is not possible.

### **Layout Plans**

- 3.5 The carpark layout plans for G/F and B1/F are found in **Figures 3.1 – 3.2**. Similar to the Approved S16 Planning Application (TPB ref: A/K14/809), two vehicular access points are provided and these are located at:
- (i) The service lane at the northern side of the Proposed Development;
  - (ii) Wai Yip Street

### **Swept Path Analysis**

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

### **Vehicle Lift Analysis**

- 3.7 A light goods vehicle lift is provided to access B1/F from G/F, and to prevent potential tailback to Wai Yip Street, a waiting space provided on G/F. A vehicle lift analysis was conducted to check on the operation of the vehicle lift system, and it was found that the vehicle lift system is acceptable and can serve the Proposed Development. The vehicle lift analysis is found in **Appendix 3**.

### **Traffic Management Plan**

#### **#1 Turntable**

- 3.8 A traffic management plan will be implemented by the Applicant, which includes the following:
- Loading / unloading related to goods deliveries will be undertaken during the non-peak hours.
  - All users have to make reservation with the property management prior to the use of the goods vehicle loading/unloading bay and coach lay-by.
  - The Management Office will ensure that maintenance of the turntable will be carried out during the non-peak period.
  - The Management Office will ensure that should the turntable breaks down, the Management Office will immediately contact the turntable maintenance company to repair, and all users will be notified that the use of HGV loading/unloading bay and coach lay-by will be suspended.

#### **#2 Car Lift**

##### **(i) Operation and Maintenance of the lift**

- 3.9 A management staff will be deployed to guide the driver to enter the vehicle lift. Regular inspection will be arranged, and prior to the conduct of the regular

maintenance, all occupants will be notified of the date and duration of the suspension of the vehicle lift.

*(ii) Breakdown of the lift*

- 3.10 If a vehicle lift breaks down, the Property Management will immediately call the vehicle lift maintenance company. However, if a vehicle is trapped inside the vehicle lift, the Fire Services Department will be contacted, and notice will be displayed at the entrance of the car park to inform motorists of the suspension of service.

*(iii) Management of passages between compartments of the carpark and L/UL at B/F in case of opposing traffic*

- 3.11 A management staff will be deployed on B/F to ensure smooth operation on B/F to guide the drive to enter and leave the vehicle lift.

## 4.0 TRAFFIC IMPACT

### Design Year

- 4.1 The Proposed Development is expected to be completed by 2029, and the design year adopted for the capacity analysis is 2032, i.e. 3 years after the completion of the development.

### Traffic Forecast

- 4.2 The 2032 traffic flows used for the junction analysis are produced with reference to: (i) 2031 traffic flows from the Base District Traffic Model ("BDTM"); (ii) estimated traffic growth from 2031 to 2032; (iii) the planned developments in the vicinity of the Proposed Development, and (iv) additional traffic generated by the Proposed Development.

### Estimated Traffic Growth Rate from 2031 to 2032

- 4.3 Reference is made to the 2021 – based Territorial Population and Employment Data Matrix ("TPEDM") data produced by Planning Department for Kwun Tong District, which are for 2021, 2026 and 2031 and are presented in **Table 4.1**.

TABLE 4.1 2021-BASED TPEDM DATA PRODUCED BY PLANNING DEPARTMENT FOR KWUN TONG DISTRICT

Item	TPEDM Estimates and Projections		
	2021	2026	2031
Population	673,150	682,500	690,750
Employment	395,900	400,050	441,300
Total	1,069,050	1,082,550	1,132,050
<b>Average Growth</b>	From 2021 to 2026: +0.25% From 2021 to 2031: +0.57%	From 2026 to 2031: +0.90%	N/A

- 4.4 **Table 4.1** shows that the highest average annual growth rate is +0.90%. In view that there is no estimation beyond 2031 and to err on the high side, the growth rate of **1%** per annum is adopted for the traffic growth between 2031 and 2032.

### Planned Developments in the Vicinity of the Proposed Development

- 4.5 The planned developments included in the 2032 reference traffic flows are presented in **Table 4.2**, and the locations of planned developments are shown in **Figure 4.1**.

TABLE 4.2 PLANNED DEVELOPMENTS IN THE VICINITY OF THE PROPOSED DEVELOPMENT

Site	Planning Application No. / Plan No.	Address	Use	Development Parameters (Approx.)
1	A/K14/763	350 Kwun Tong Road	Commercial	GFA = 25,658m <sup>2</sup>
2	A/K14/766	41 King Yip Street	Commercial	GFA = 30,576m <sup>2</sup>
3	A/K14/771	32 Hung To Road	Commercial	GFA = 13,122m <sup>2</sup>
4	A/K14/773	82 Hung To Road	Industrial	GFA = 13,378m <sup>2</sup>
5	A/K14/774	7 Lai Yip Street	Commercial	GFA = 14,775m <sup>2</sup>
6	A/K14/775	132 Wai Yip Street	Commercial	GFA = 6,021m <sup>2</sup>
7	A/K14/777	71 How Ming Street	Office	GFA = 18,312m <sup>2</sup>
8	A/K14/782	4 Tai Yip Street	Retail	GFA = 8,027m <sup>2</sup>
9	A/K14/787	33 Hung To Road	Industrial	GFA = 13,830m <sup>2</sup>

Site	Planning Application No. / Plan No.	Address	Use	Development Parameters (Approx.)
10	A/K14/796	28A Hung To Road	Hotel	No. of rooms = 89
11	A/K14/804	334 -336 and 338 Kwun Tong Road	Commercial	GFA = 23,211m <sup>2</sup>
12	A/K14/806	11 Lai Yip Street	Office	GFA = 15,051m <sup>2</sup>
13	A/K14/807	Kun Tong Inland Lots 1 S.A , 1 RP, 3 and 15	Commercial	GFA = 66,890m <sup>2</sup>
14	A/K14/809	1 Tai Yip Street and 111 Wai Yip Street	Commercial	GFA = 13,349m <sup>2</sup>
15	A/K14/810	5 Lai Yip Street	Commercial	GFA = 14,788m <sup>2</sup>
16	A/K14/820	73 – 75 Hung To Road	Commercial	GFA = 26,757m <sup>2</sup>
17	A/K14/822	25 Tai Yip Street, Kwun Tong	Commercial	GFA = 5,572m <sup>2</sup>
18	A/K14/832	201 and 203 Wai Yip Street	Hotel	No. of rooms = 448
19	A/K14/819 & S/K14S/URA1/3 Urban Renewal Authority ‘Vertical City’ mixed use development	Areas 4 and 5 of Kwun Tong Town Centre	Commercial	GFA = 65,000m <sup>2</sup> , Office GFA = 127,619m <sup>2</sup> and GIC GFA = 8,601m <sup>2</sup>
20	N/A	EKEO Lai Yip Street Development	Commercial	GFA = 23,000m <sup>2</sup>
21	N/A	Kwun Tong Action Area	Commercial	GFA = 89,350m <sup>2</sup>
22	N/A	Kowloon Bay Action Area	Commercial	GFA = 500,000m <sup>2</sup>

4.6 The infrastructure and road network included in the BDTM are as follows:

- Kai Tak Development
- Tseung Kwan O – Lam Tin Tunnel
- Central Kowloon Route
- Trunk Road T2 between Central Kowloon Route and Tseung Kwan O – Lam Tin Tunnel

#### **Traffic Generated by the Proposed Development**

4.7 Surveys were conducted on Tuesday, 26<sup>th</sup> November 2024 between 0800 – 1100 and 1600 – 1900 hours at 4 hotels which are of similar class, number of hotel rooms and traffic characteristics, i.e. proximity to the MTR and road-based public transport services. The surveyed hotels are shown below:

- 254-room Nina Hotel Kowloon East at 38 Chong Yip Street, Kwun Tong
- 298-room Tuen Mun Pentahotel at 6 Tsun Wen Road, Tuen Mun
- 360-room Dorsett Kwun Tong at 84 Hung To Road, Kwun Tong
- 598-room Hotel Cozi Harbour View at 163 Wai Yip Street, Kwun Tong

4.8 In addition, reference is made the survey of the Regal Riverside Hotel found in TD 05/2006 Trip Generation Survey 2006 Report. The comparison of these trip generation rates with the TPDM lower limit is found in **Table 4.3**.

TABLE 4.3 COMPARISON OF TRIP GENERATION RATES

Items	Trip Generation rate in pcu/hr/room			
	AM Peak		PM Peak	
	In	Out	In	Out
(i) Nina Hotel <sup>(1)</sup>	0.0591	0.0433	0.0512	0.0472
(ii) Tuen Mun Pentahotel <sup>(1)</sup>	0.0369	0.0336	0.0336	0.0336
(iii) Dorsett Kwun Tong <sup>(1)</sup>	0.0361	0.0333	0.0361	0.0333
(iv) Hotel Cozi Harbour View <sup>(1)</sup>	0.0084	0.0151	0.0134	0.0167
(v) Regal Riverside Hotel <sup>(2)</sup>	<b>0.0837</b>	<b>0.0993</b>	<b>0.1005</b>	<b>0.0909</b>
(iv) Lower limit of rates from TPDM	0.0832	0.0843	0.0908	0.0883
Maximum rate	<b>0.0837</b>	<b>0.0993</b>	<b>0.1005</b>	<b>0.0909</b>

Note <sup>(1)</sup> CKM survey

<sup>(2)</sup> From TD 05/2006 – Traffic Generation Survey 2006 Final Report

- 4.9 To be conservative, trip generation rates from the Regal Riverside Hotel is adopted to estimate the traffic generation for Proposed Development, and the calculated traffic generation associated with the Proposed Development are found in **Table 4.4**.

TABLE 4.4 TRAFFIC GENERATION OF THE PROPOSED DEVELOPMENT

Item	AM Peak Hour			PM Peak Hour		
	In	Out	2-way	In	Out	2-way
<b>Trip Generation Rates for hotel (pcu/hour/guest room)</b>						
Rates from <b>Table 4.3</b>	0.0837	0.0993	NA	0.1005	0.0909	NA
<b>Traffic Generation of Proposed Development (pcu/hour)</b>						
984 guest rooms	<b>83</b>	<b>98</b>	<b>181</b>	<b>99</b>	<b>90</b>	<b>189</b>

- 4.10 **Table 4.4** shows the Proposed Development generates 181 and 189 more pcu (2-way) during the AM and PM peak hours respectively.

#### Planned Junction Improvement Schemes

- 4.11 The planned junction improvement schemes found in the vicinity of the Subject Site are summarised in **Table 4.5** and shown in **Appendix 4**.

TABLE 4.5 PLANNED TRAFFIC IMPROVEMENT SCHEMES IN THE VICINITY OF THE PROPOSED DEVELOPMENT

Junction		Description of Work	Project Proponent	Estimated Completion Year
J1	Hoi Bun Road / Shun Yip Street	The road markings are changed at Shun Yip Street Westbound and Eastbound	Kowloon Bay Action Area – Feasibility Study	Before 2032
J8	Kwun Tong Road / Lai Yip Street	The road alignment is adjusted at Lai Yip Street Northbound	Kwun Tong Action Area – Feasibility Study	
J9	Hoi Bun Road / Lai Yip Street	A new pedestrian crossing across Hoi Bun Road Eastbound is added and existing staggered pedestrian crossing at Lai Yip Street to be converted to straight crossing	Technical study on the Lai Yip Street site in Kowloon East	

### 2032 Traffic Flows

4.12 Year 2032 traffic flows for the following cases are derived:

*2032 without the Proposed Development [A]* = *2031 traffic flows derived with reference to BDTM + estimated total growth from 2031 to 2032+ Traffic generated by the planned developments in the vicinity of the Proposed Development*

*2032 with the Proposed Development [B]* = *[A] + traffic generated by the Proposed Development (Table 4.4)*

4.13 The 2032 peak hour traffic flows for the cases without and with the Proposed Development, are shown in **Figures 4.2 - 4.3**, respectively. The ingress/egress vehicular routings to/from the Proposed Development via Wai Yip Street and the service lane at the northern side of the Proposed Development are shown in **Figures 4.4 - 4.5**.

### 2032 Junction Operational Performance

4.14 Year 2032 capacity analysis for the cases without and with the Proposed Development are summarised in **Table 4.6** and detailed calculations are found in the **Appendix 1**.

TABLE 4.6 2032 JUNCTION OPERATIONAL PERFORMANCE

Ref.	Junction	Type of Junction / Parameter <sup>(1)</sup>	Without the Proposed Development		With the Proposed Development	
			AM Peak	PM Peak	AM Peak	PM Peak
J1	Hoi Bun Road / Shun Yip Street <sup>(3)</sup>	Signal / RC	22%	17%	21%	16%
J2	Wai Yip Street / Shun Yip Street	Signal / RC	22%	19%	18%	15%
J3	Tai Yip Street / Service Lane	Priority / RFC	0.044	0.036	0.046	0.037
J4	Hong Tak Road / Tai Yip Street	Priority / RFC	0.384	0.294	0.498	0.420
J5	Tai Yip Street / Tai Yip Lane	Priority / RFC	0.135	0.116	0.137	0.117
J6	Kwun Tong Road / Hong Tak Road	Priority / RFC	0.655	0.740	0.743	0.841
J7	Wai Yip Street / Lai Yip Street	Signal / RC	32%	44%	31%	43%
J8	Kwun Tong Road / Lai Yip Street <sup>(3)</sup>	Signal / RC	23%	18%	22%	18%
J9	Hoi Bun Road / Lai Yip Street <sup>(2)(3)</sup>	Signal / RC	18%	21%	18%	21%
J10	Lai Yip Street / Hung To Road <sup>(2)</sup>	Signal / RC	29%	37%	29%	36%
J11	Tai Yip Street / Siu Yip Street	Priority / RFC	0.384	0.503	0.387	0.505
J12	Wai Yip Street / Siu Yip Street	Priority / RFC	0.750	0.715	0.805	0.748

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

<sup>(2)</sup> Site factor to reflect kerbside / on-street activities

<sup>(3)</sup> Junction Improvement Scheme has been incorporated in the assessment

4.15 **Table 4.6** shows that the junctions operate with capacities during the AM and PM peak hours for the cases without and with the Proposed Development.



## 5.0 PEDESTRIAN ASSESSMENT

### Surveyed Pedestrian Locations

- 5.1 In order to quantify the existing pedestrian flows, pedestrian counts were conducted between AM (0800 – 1000 hours), Noon (1200 – 1400 hours) and PM (1700 – 1900 hours) on Thursday, 12<sup>th</sup> June 2025 at the footpaths and waiting area of the pedestrian crossing shown in **Figure 5.1**. The survey locations are summarised in **Table 5.1**.

TABLE 5.1 SURVEYED PEDESTRIAN LOCATIONS

Ref.	Location
<i>Footpath</i>	
F1	Northern footpath of Wai Yip Street between Shun Yip Lane and Tai Yip Street (Eastern side)
F2	Northern footpath of Wai Yip Street between Shun Yip Lane and Tai Yip Street (Western side)
F3	Shun Yip Lane between Wai Yip Street and Service Lane
<i>Waiting area of pedestrian crossing</i>	
W1	Western pedestrian crossing of Wai Yip Street / Shun Yip Street
W2	Eastern pedestrian crossing of Wai Yip Street / Shun Yip Street

### Existing Pedestrian Flows

- 5.2 The existing peak 15-minute 2-way pedestrian flows are also presented in **Figure 5.1**.

### Estimated growth from 2025 to 2032

- 5.3 The 2032 reference pedestrian flows are estimated with the reference of the existing pedestrian flows and a growth rate of 1% per annum, which is derived from the latest TPEDM data.

### Pedestrian Generated by the Proposed Development

- 5.4 The pedestrian generated by the Proposed Development is calculated based on the pedestrian generation rates of 4 surveyed hotels listed in **paragraph 4.7** and the adopted pedestrian generation rates are presented in **Table 5.2**. The calculated pedestrian generation is found in **Table 5.3**.

TABLE 5.2 PEDESTRIAN GENERATION RATES OF THE SURVEYED HOTELS

Development	No. of rooms	Pedestrian Generation Rates (ped / 15 min / room)					
		AM Peak		Noon Peak		PM Peak	
		In	Out	In	Out	In	Out
Nina Hotel	254	<b>0.0512</b>	0.1732	<b>0.1063</b>	<b>0.1614</b>	<b>0.1575</b>	<b>0.1772</b>
Tuen Mun Pentahotel	298	0.0134	0.1174	0.0638	0.1007	0.1141	0.0805
Dorsett Kwun Tong	360	0.0444	<b>0.1972</b>	0.0500	0.0750	0.0750	0.0722
Hotel Cozi Harbour View	598	0.0318	0.0769	0.0368	0.0234	0.0401	0.0485
Adopted maximum rate		<b>0.0512</b>	<b>0.1972</b>	<b>0.1063</b>	<b>0.1614</b>	<b>0.1972</b>	<b>0.1772</b>

TABLE 5.3 PEDESTRIAN GENERATED BY THE PROPOSED DEVELOPMENT

Use	Pedestrian Generation (ped / 15 min)								
	AM Peak			Noon Peak			PM Peak		
	In	Out	2-way	In	Out	2-way	In	Out	2-way
Proposed Development with 984 Rooms	<u>51</u>	<u>195</u>	<u>246</u>	<u>105</u>	<u>159</u>	<u>264</u>	<u>155</u>	<u>175</u>	<u>330</u>

### Year 2032 Pedestrian Flows

- 5.5 The 2032 pedestrian flow with and without the Proposed Development are derived using the following method:

*Without the Proposed Development [a]* = 2025 observed pedestrian flows + growth from 2025 to 2032 + pedestrian generated by the planned developments in the vicinity of the Subject Site

*With the Proposed Development [b]* = [a] + pedestrian generated by the Proposed Development (**Table 5.3**)

- 5.6 The 2032 pedestrian flows without and with the Proposed Development are presented in **Figures 5.2 and 5.3**.

### Level-Of-Service (“LOS”) Assessment

- 5.7 The pedestrian assessment method adopted is referenced to Exhibit 18-3 of Chapter 18 of the Highway Capacity Manual (“HCM”) 2000 and the extract of Exhibit 18-3 is summarised in **Table 5.4**.

TABLE 5.4 EXTRACT OF EXHIBIT 18-3 OF THE HCM 2000

LOS	Space (m <sup>2</sup> /p)	Flow Rate (p/min/m)
A	> 5.6	≤ 16
B	> 3.7-5.6	> 16-23
C	> 2.2-3.7	> 23-33
D	> 1.4-2.2	> 33-49
E	> 0.75-1.4	> 49-75
F	≤ 0.75	variable

- 5.8 As stated in Volume 6 Section 10.5 of TPDM, “In general, LOS C is desirable for most design at streets with dominant ‘living’ pedestrian activities”.

#### (a) LOS of the Footpaths

- 5.9 The effective width of the surveyed footpaths and the year 2032 LOS without and with the Proposed Development are presented in **Tables 5.5 and 5.6**.

TABLE 5.5 EFFECTIVE WIDTH OF SURVEYED FOOTPATHS

Ref.	Footpath width (m)	Effective width (m) <sup>(1)</sup>
F1	3.5	2.5
F2	2.7	1.7
F3	9.8	8.8

Note:<sup>(1)</sup> The effective width does not include 0.5m dead zone on both sides, i.e. 1m

TABLE 5.6 YEAR 2032 LOS OF FOOTPATH WITHOUT AND WITH THE PROPOSED DEVELOPMENT

Ref.	Peak Period	Year 2032 without the Proposed Development			Year 2032 with the Proposed Development		
		Flow (Ped/15 min)	Rate <sup>(1)</sup> (Ped/min/m)	LOS	Flow (Ped/15 min)	Rate <sup>(1)</sup> (Ped/min/m)	LOS
F1	AM	315	8.4	A	376	10.0	A
	Noon	98	3.0	A	223	6.0	A
	PM	251	6.7	A	333	8.9	A
F2	AM	442	17.3	B	469	18.4	B
	Noon	266	11.0	A	370	15.0	A
	PM	320	12.5	A	359	14.1	A
F3	AM	911	6.9	A	1024	7.8	A
	Noon	530	5.0	A	753	6.0	A
	PM	558	4.2	A	717	5.4	A

Note: <sup>(1)</sup> pedestrian flow rate = pedestrian flow ÷ 15 minutes ÷ effective width

- 5.10 **Table 5.6** shows that the footpaths achieve LOS A and B during AM, Noon and PM peak for the 2032 cases without and with the Proposed Development, both which are acceptable.

(b) Waiting area of the Pedestrian Crossing

- 5.11 The year 2032 LOS of pedestrian crossing waiting areas without and with the Proposed Development are presented in **Table 5.7**.

TABLE 5.7 YEAR 2032 LOS OF PEDESTRIAN CROSSING WAITING AREAS WITHOUT AND WITH THE PROPOSED DEVELOPMENT

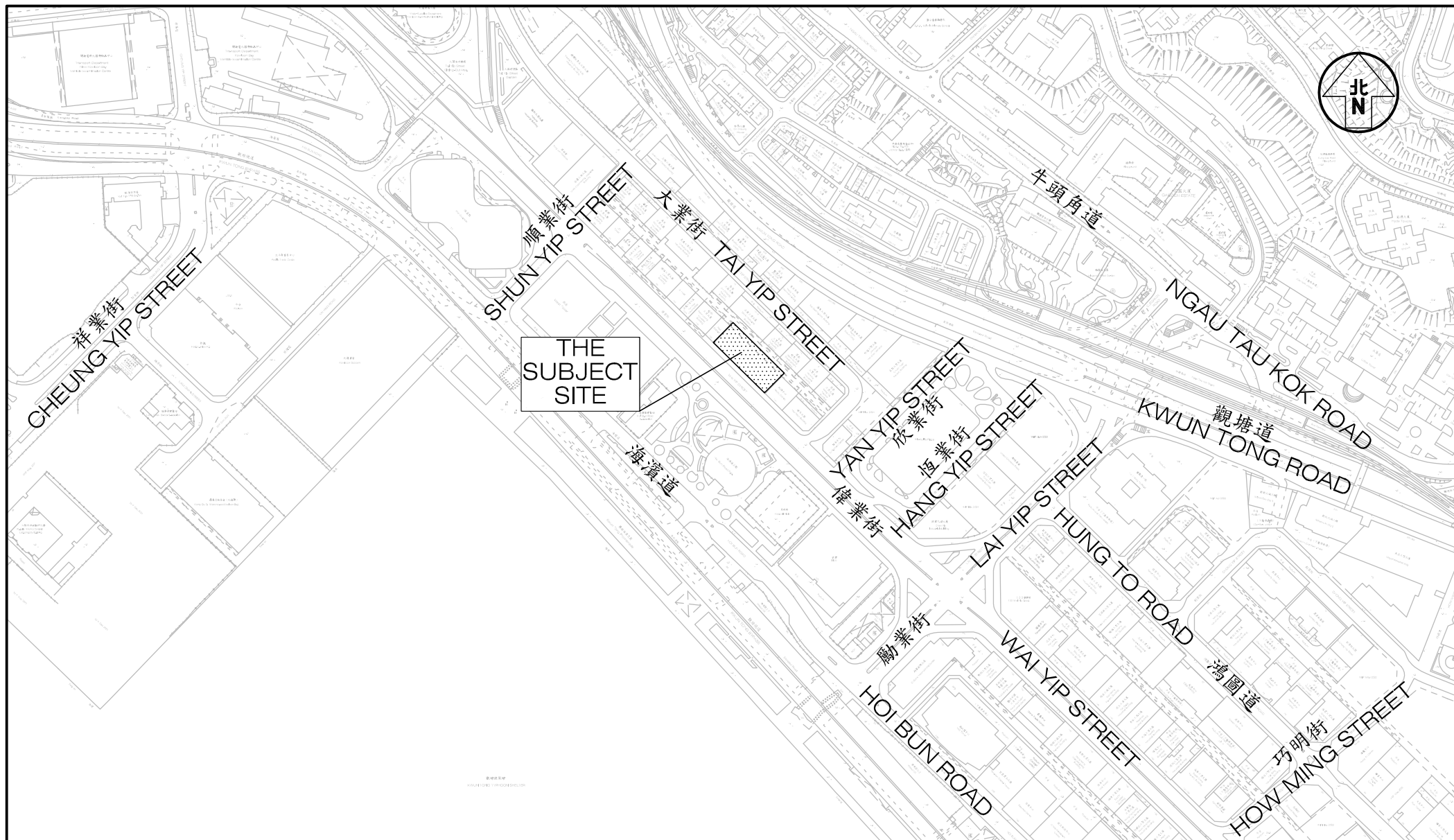
Ref.	Area (m²)	Average No. of Pedestrians at the waiting area (ped/signal cycle)			Pedestrian Space (m²/ped)			LOS		
		AM	Noon	PM	AM	Noon	PM	AM	Noon	PM
Without the Proposed Development										
W1	150	34	12	8	4.4	12.5	18.8	B	A	A
W2	63	25	8	2	2.5	7.9	31.5	C	A	A
With the Proposed Development										
W1	150	36	14	10	4.2	10.7	15.0	B	A	A
W2	63	27	10	4	2.3	6.3	15.8	C	A	A

- 5.12 **Table 5.7** shows that the pedestrian crossing waiting areas achieve LOS A and C during AM, Noon and PM peak for the 2032 cases without and with the Proposed Development, both which are acceptable.

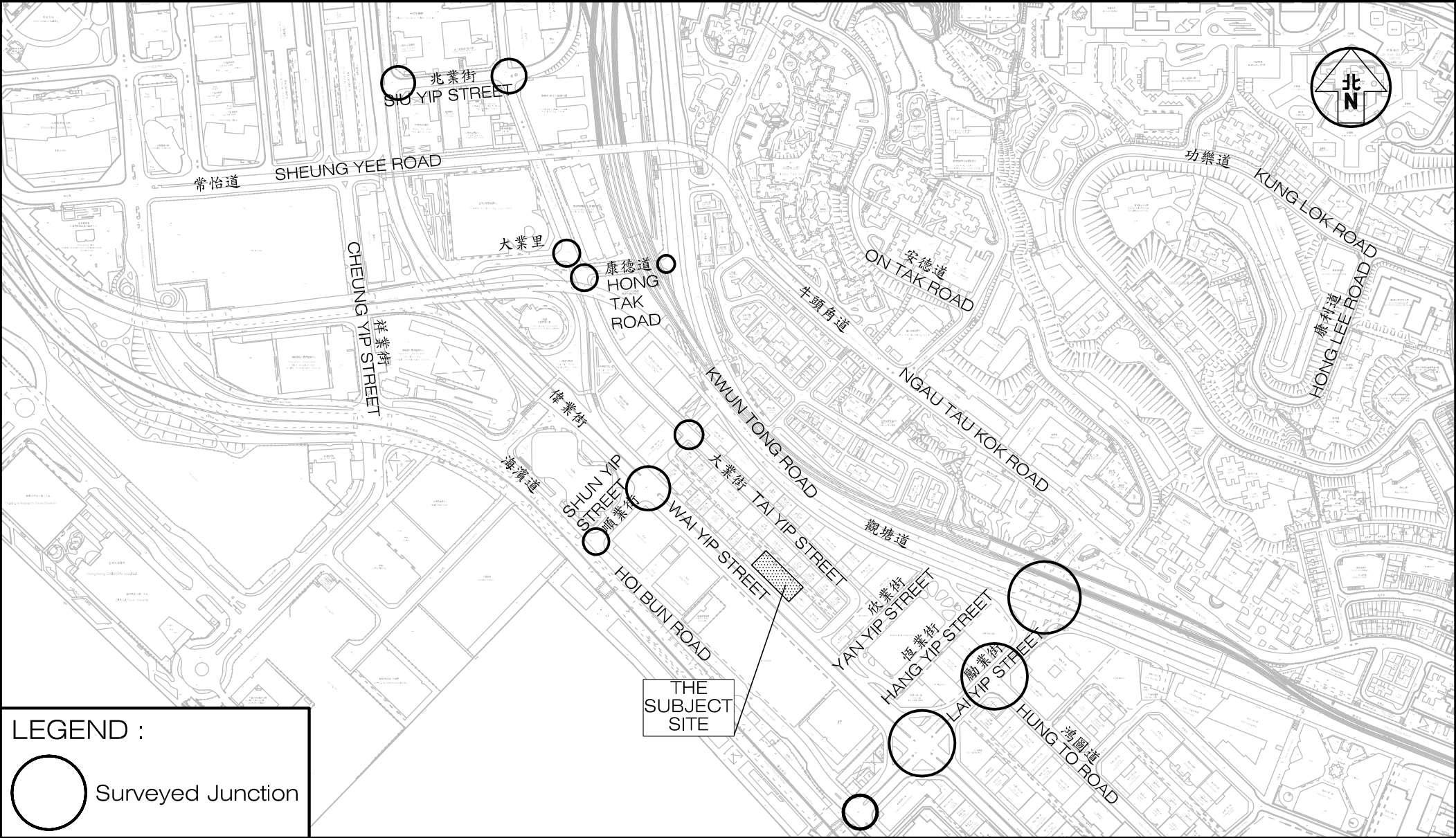
## 6.0 CONCLUSION

- 6.1 The Subject Site is located at Nos. 107 - 109 Wai Yip Street in Kwun Tong. On 29<sup>th</sup> May 2020, the TPB approved the S16 Planning Application (TPB ref: A/K14/780) for Office, Shop and Services & Eating Place Uses at the Subject Site. Subsequent to the Approved S16 Scheme (TPB ref: A/K14/780), the Applicant has the intention to construct a hotel with 984 rooms.
- 6.2 Manual classified counts were conducted at junctions located in the vicinity of the Subject Site in order to establish the peak hour traffic flows. Currently, the surveyed junctions operate with capacities during the AM and PM peak hours.
- 6.3 Similar to the Approved S16 Scheme (TPB ref: A/K14/780), two vehicular access points are provided for the Proposed Development, including, (i) The service lane at the northern side of the Proposed Development, and (ii) Wai Yip Street.
- 6.4 The internal transport facilities for the Proposed Development are provided with reference to the recommendation of the HKPSG. Swept path analysis was conducted to ensure that all vehicles could enter and leave the development and the spaces provided with ease.
- 6.5 The Proposed Development is expected to be completed by 2029, and the junction capacity analysis is undertaken for year 2032. For the design year 2032, the junctions analysed are expected to operate with capacities during the peak hours for the case without and with the Proposed Development.
- 6.6 The pedestrian assessment conducted found that the surveyed footpaths and waiting area of the pedestrian crossing would operate with LOS A to C in 2032 for the cases without and with the Proposed Development.
- 6.7 It is concluded that the Proposed Development will result in **no** adverse traffic impact to the surrounding road network.

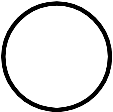




Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON		Figure No. 1.1		Revision B	
Figure Title  LOCATION OF THE SUBJECT SITE		Designed by C Y Y	Drawn by N C M	Checked by K C	
		Scale in A4 1 : 4000		Date 11 AUG 2025	
<div>CKM Asia Limited</div> <div>Traffic and Transportation Planning Consultants</div> <div>21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong</div> <div>Tel : (852) 2520 5990 Fax : (852) 2528 6343</div> <div>Email : mail@ckmasia.com.hk</div>					



LEGEND :

 Surveyed Junction

Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON J7409

Figure Title

LOCATION OF THE SURVEYED JUNCTIONS

Figure No. 2.1		Revision B
Designed by C Y Y	Drawn by N C M	Checked by K C
Scale in A4 1 : 5500		Date 11 AUG 2025

CKM Asia Limited

Traffic and Transportation Planning Consultants

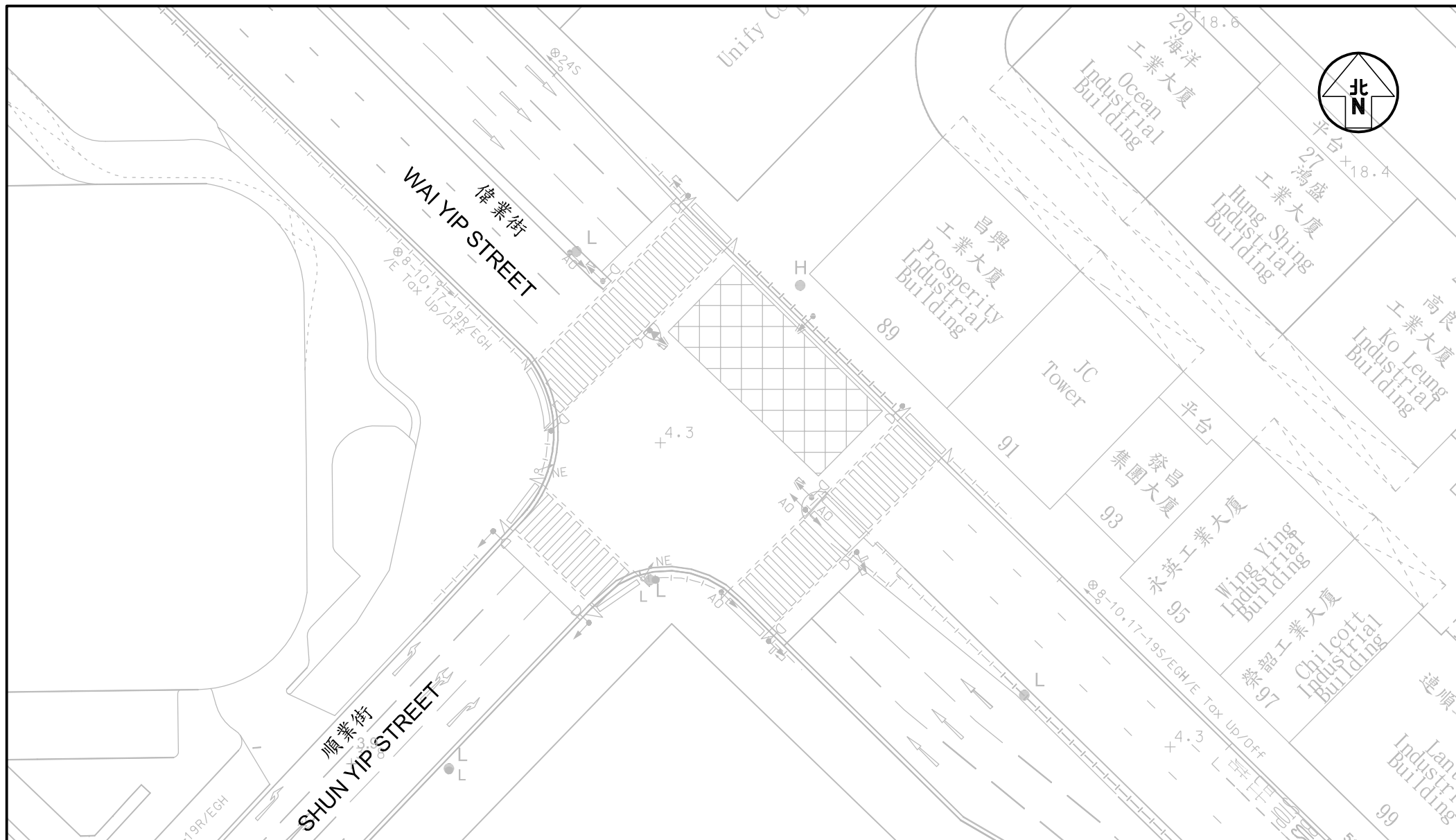
21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong

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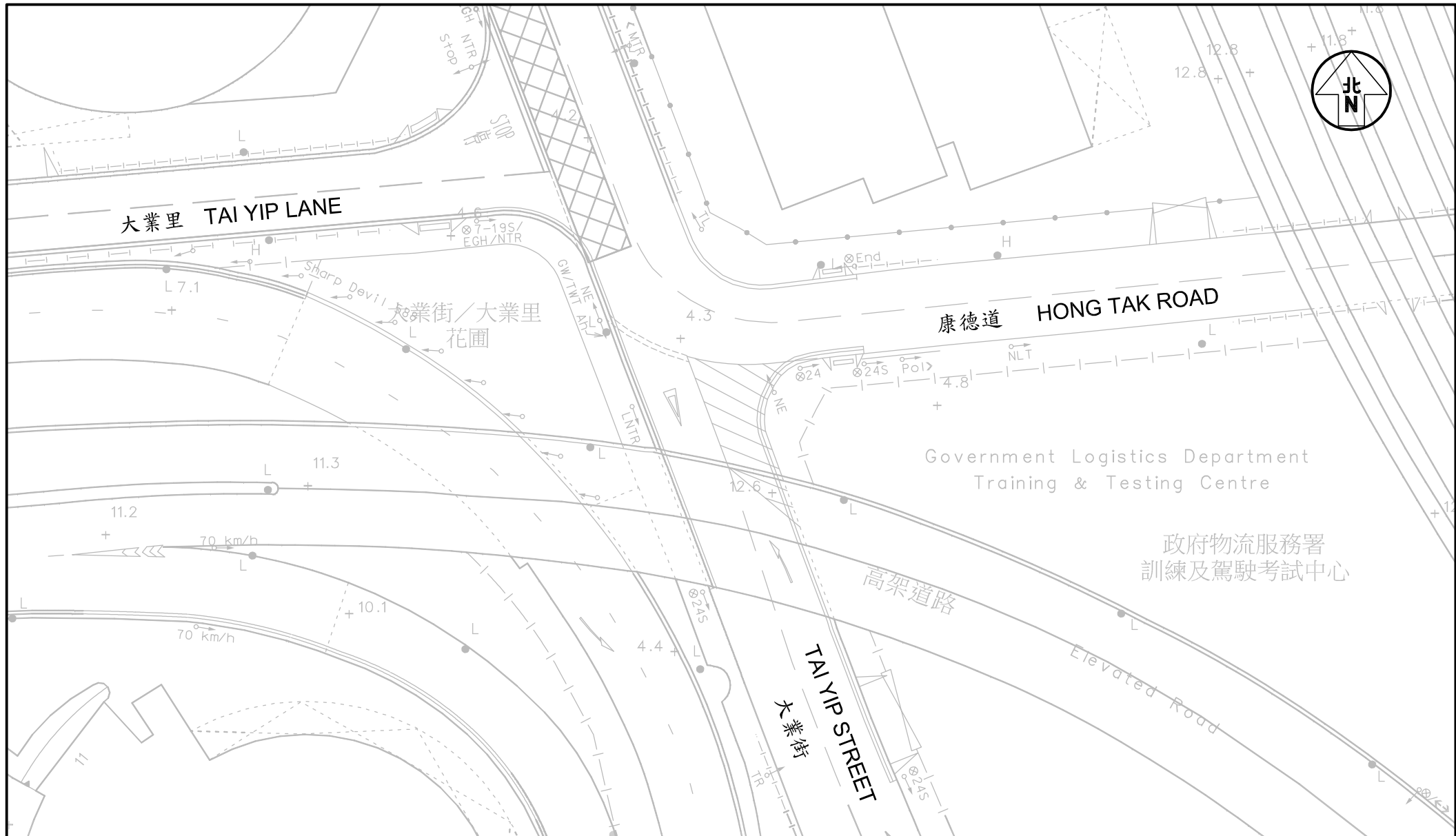




Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON	Figure No. <b>2.3</b>	Revision <b>B</b>
Figure Title <b>LAYOUT OF JUNCTION OF WAI YIP STREET / SHUN YIP STREET</b>	Designed by <b>C Y Y</b> Drawn by <b>N C M</b> Checked by <b>K C</b> Scale in A4 <b>1 : 500</b>	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk



<b>Project Title</b> PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON	<b>Figure No.</b> 2.4	<b>Revision</b> B	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
<b>Figure Title</b>  LAYOUT OF JUNCTION OF TAI YIP STREET / SERVICE LANE	<b>Designed by</b> C Y Y	<b>Drawn by</b> N C M	<b>Checked by</b> K C
	<b>Scale in A4</b> 1 : 500	<b>Date</b> 11 AUG 2025	



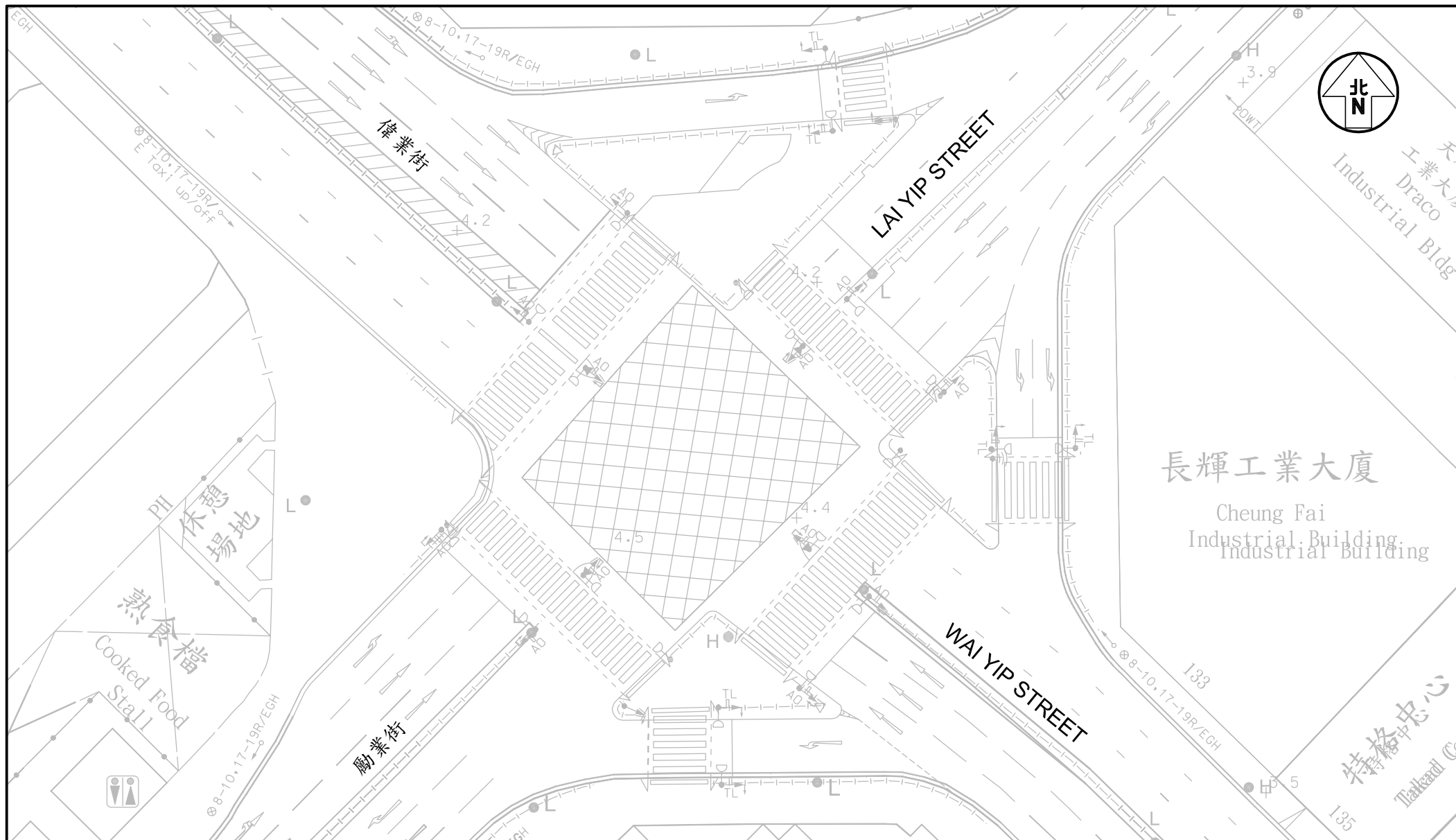
Project Title		Figure No.		Revision		CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990    Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON		2.5		B		
Figure Title		Designed by	Drawn by	Checked by		
LAYOUT OF JUNCTION OF HONG TAK ROAD / TAI YIP STREET		C Y Y	N C M	K C		
		Scale in A4		Date		
		1 : 500		11 AUG 2025		

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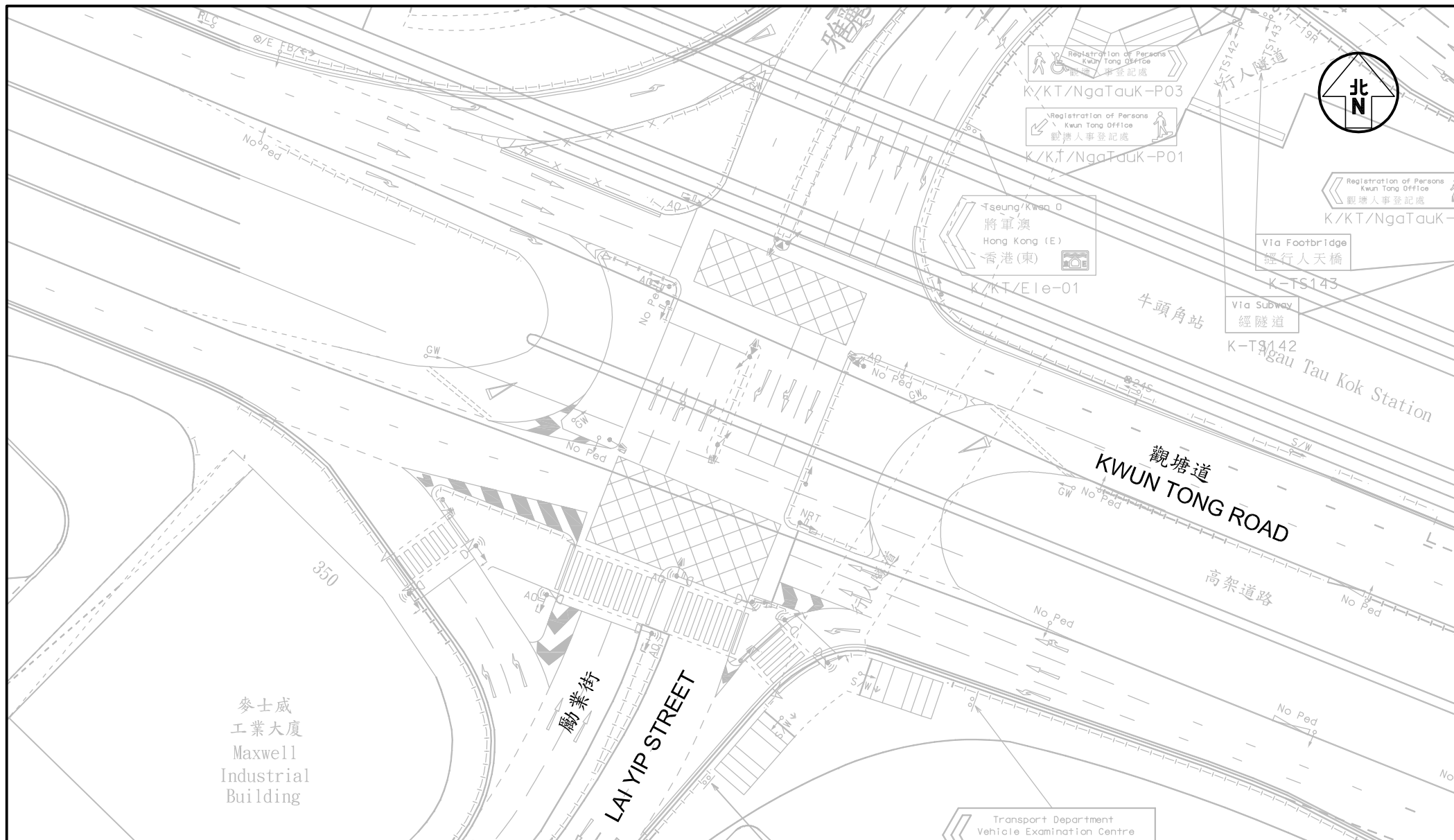




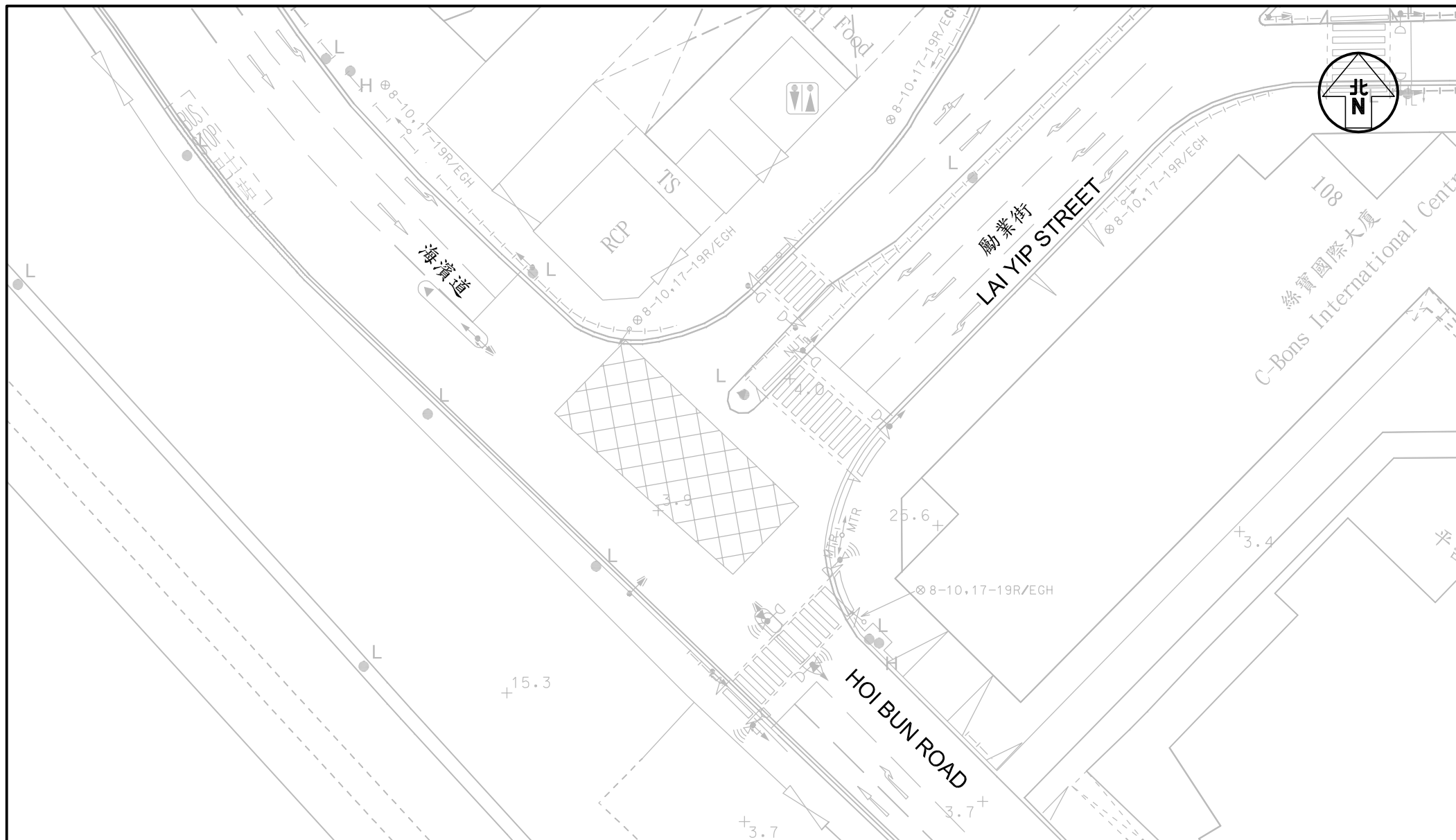
Project Title		Figure No.		Revision		CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON		2.7		B		
Figure Title		Designed by	Drawn by	Checked by		
LAYOUT OF JUNCTION OF KWUN TONG ROAD / HONG TAK ROAD		C Y Y	N C M	K C		
		Scale in A4		Date		
		1 : 500		11 AUG 2025		



<b>Project Title</b> PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON	<b>Figure No.</b> 2.8 <b>Revision</b> B	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
<b>Figure Title</b>  LAYOUT OF JUNCTION OF WAI YIP STREET / LAI YIP STREET	<b>Designed by</b> C Y Y <b>Drawn by</b> N C M <b>Checked by</b> K C	
	<b>Scale in A4</b> 1 : 500 <b>Date</b> 11 AUG 2025	



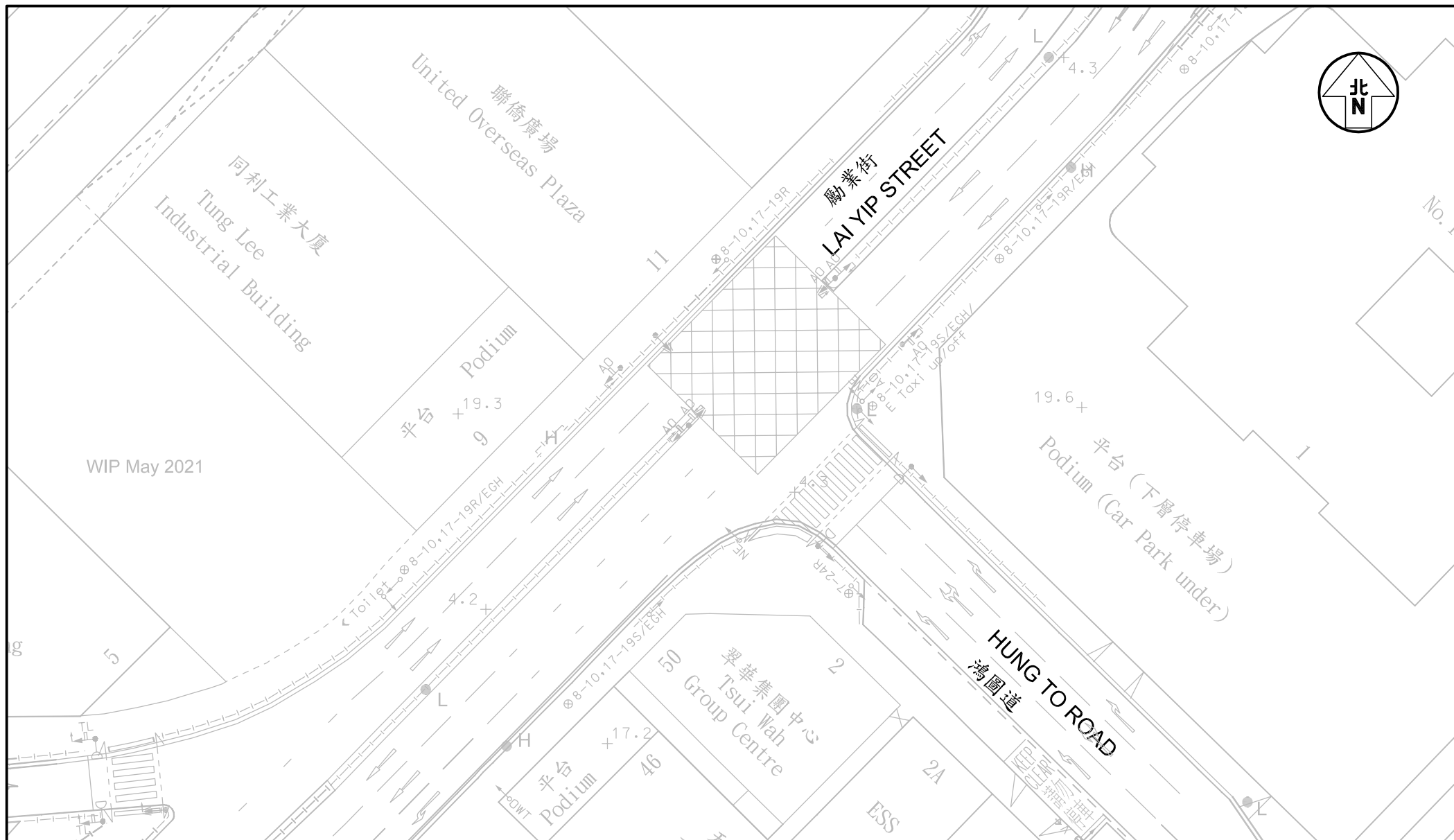
<b>Project Title</b> PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON	<b>Figure No.</b> 2.9	<b>Revision</b> B
<b>Figure Title</b> LAYOUT OF JUNCTION OF KWUN TONG ROAD / LAI YIP STREET	<b>Designed by</b> C Y Y <b>Drawn by</b> N C M <b>Checked by</b> K C <b>Scale in A4</b> 1 : 600 <b>Date</b> 11 AUG 2025	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk



<b>Project Title</b> PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON	<b>Figure No.</b> 2.10 <b>Revision</b> B	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
<b>Figure Title</b>  LAYOUT OF JUNCTION OF HOI BUN ROAD / LAI YIP STREET	<b>Designed by</b> C Y Y <b>Drawn by</b> N C M <b>Checked by</b> K C	
	<b>Scale in A4</b> 1 : 500 <b>Date</b> 11 AUG 2025	

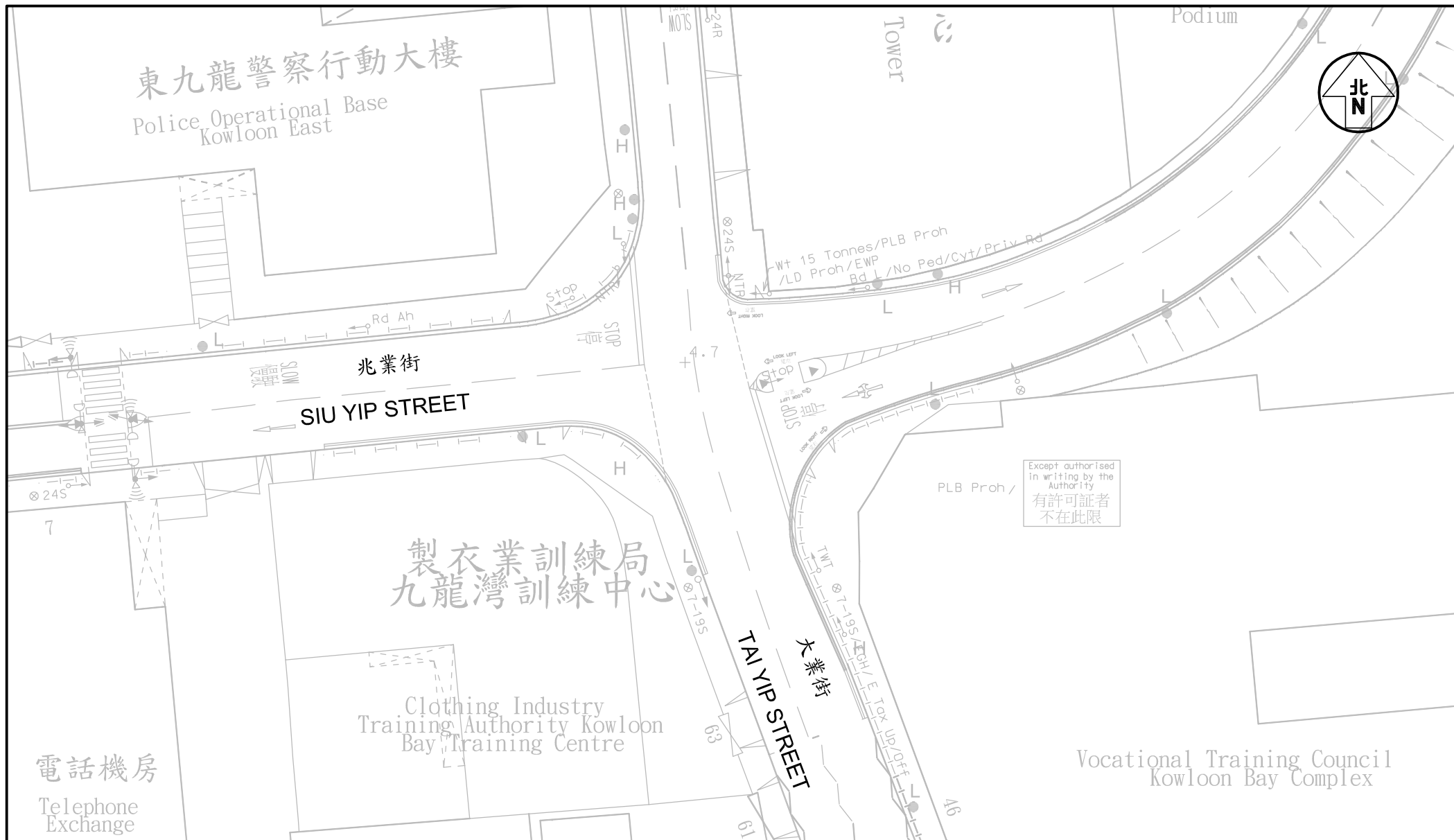
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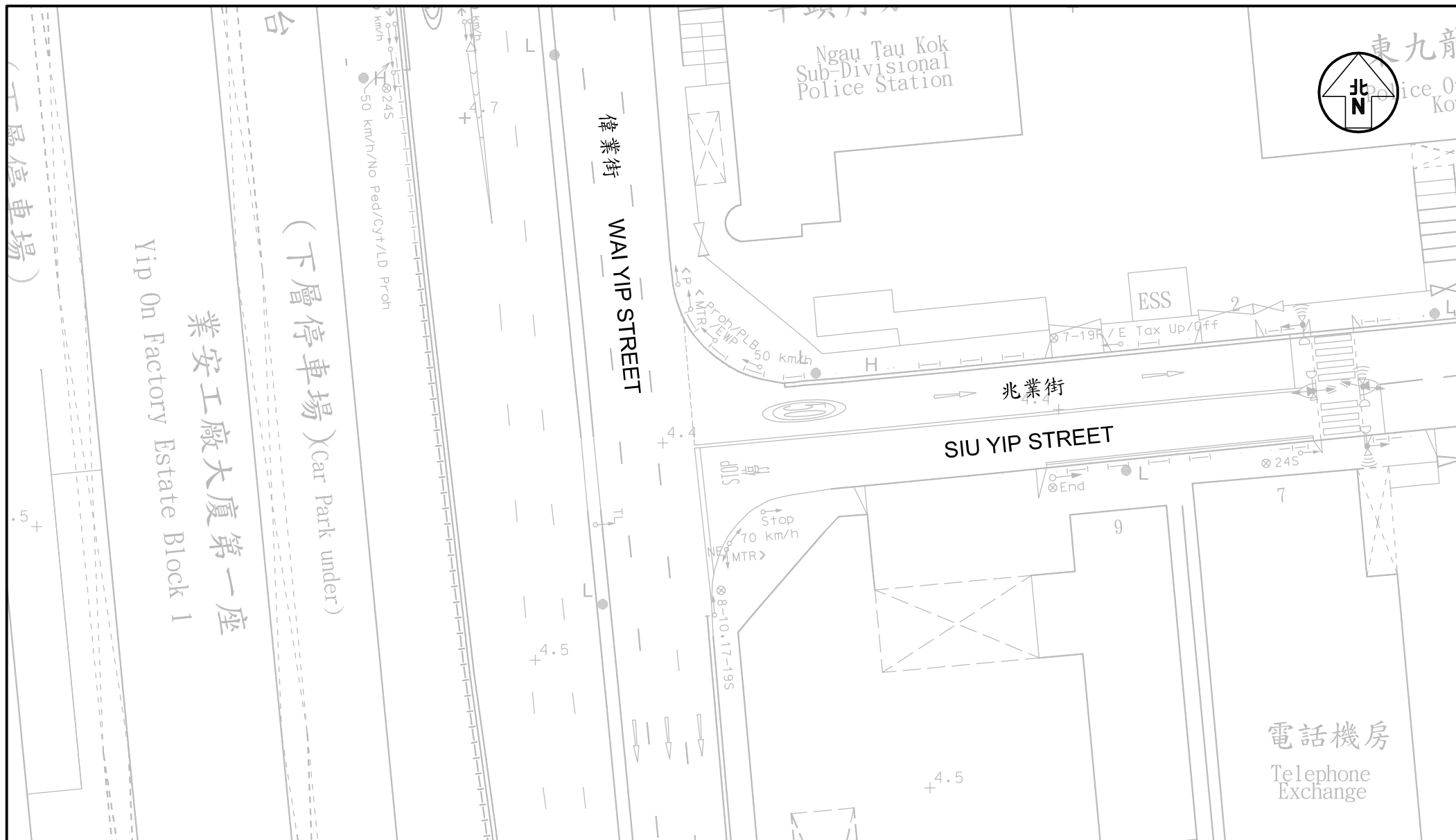


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<b>Figure Title</b> LAYOUT OF JUNCTION OF LAI YIP STREET / HUNG TO ROAD	<table> <tr> <td><b>Designed by</b> C Y Y</td><td><b>Drawn by</b> N C M</td><td><b>Checked by</b> K C</td></tr> <tr> <td colspan="2"><b>Scale in A4</b> 1 : 500</td><td><b>Date</b> 11 AUG 2025</td></tr> </table>	<b>Designed by</b> C Y Y	<b>Drawn by</b> N C M	<b>Checked by</b> K C	<b>Scale in A4</b> 1 : 500		<b>Date</b> 11 AUG 2025	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
<b>Designed by</b> C Y Y	<b>Drawn by</b> N C M	<b>Checked by</b> K C						
<b>Scale in A4</b> 1 : 500		<b>Date</b> 11 AUG 2025						

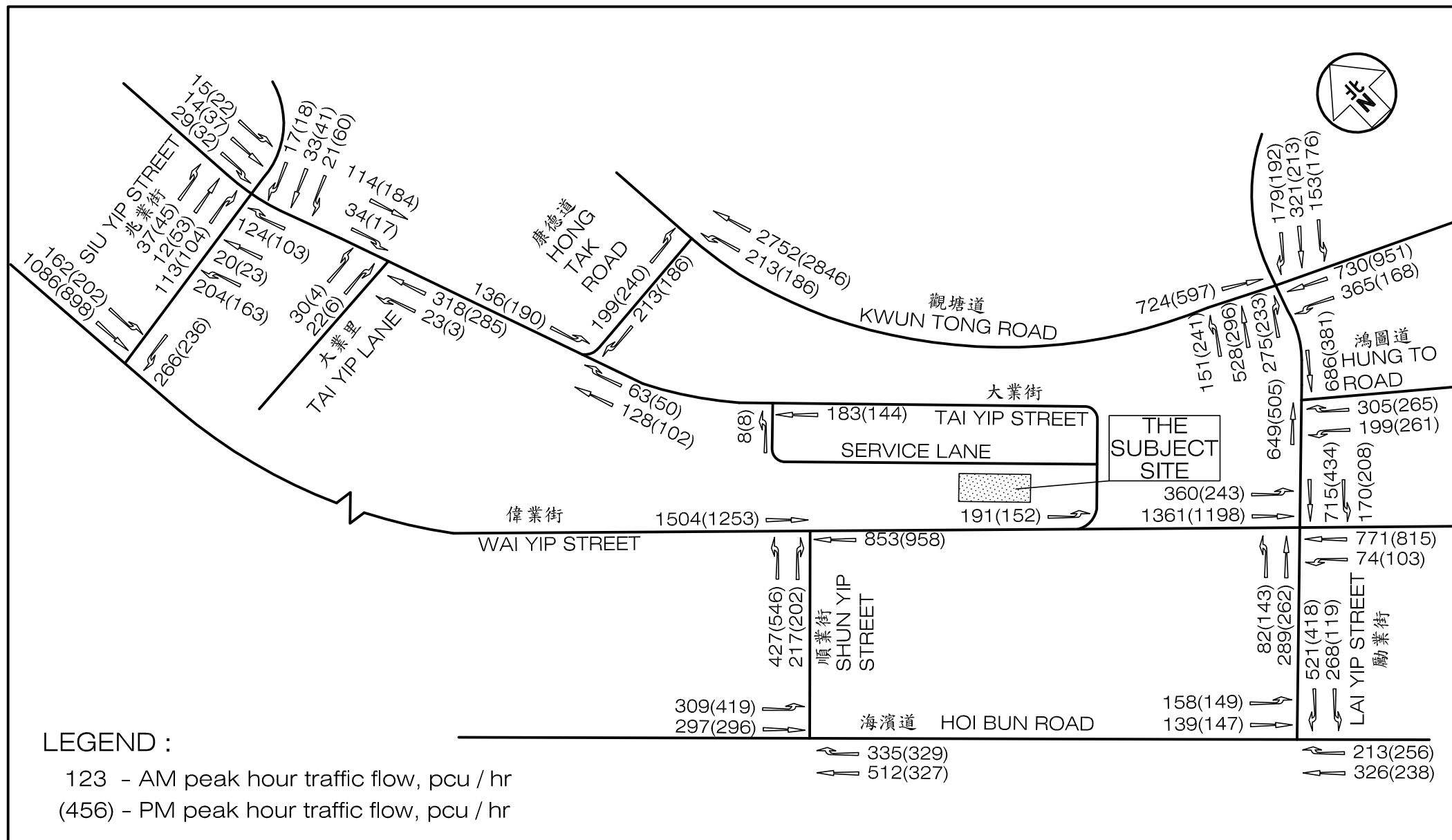
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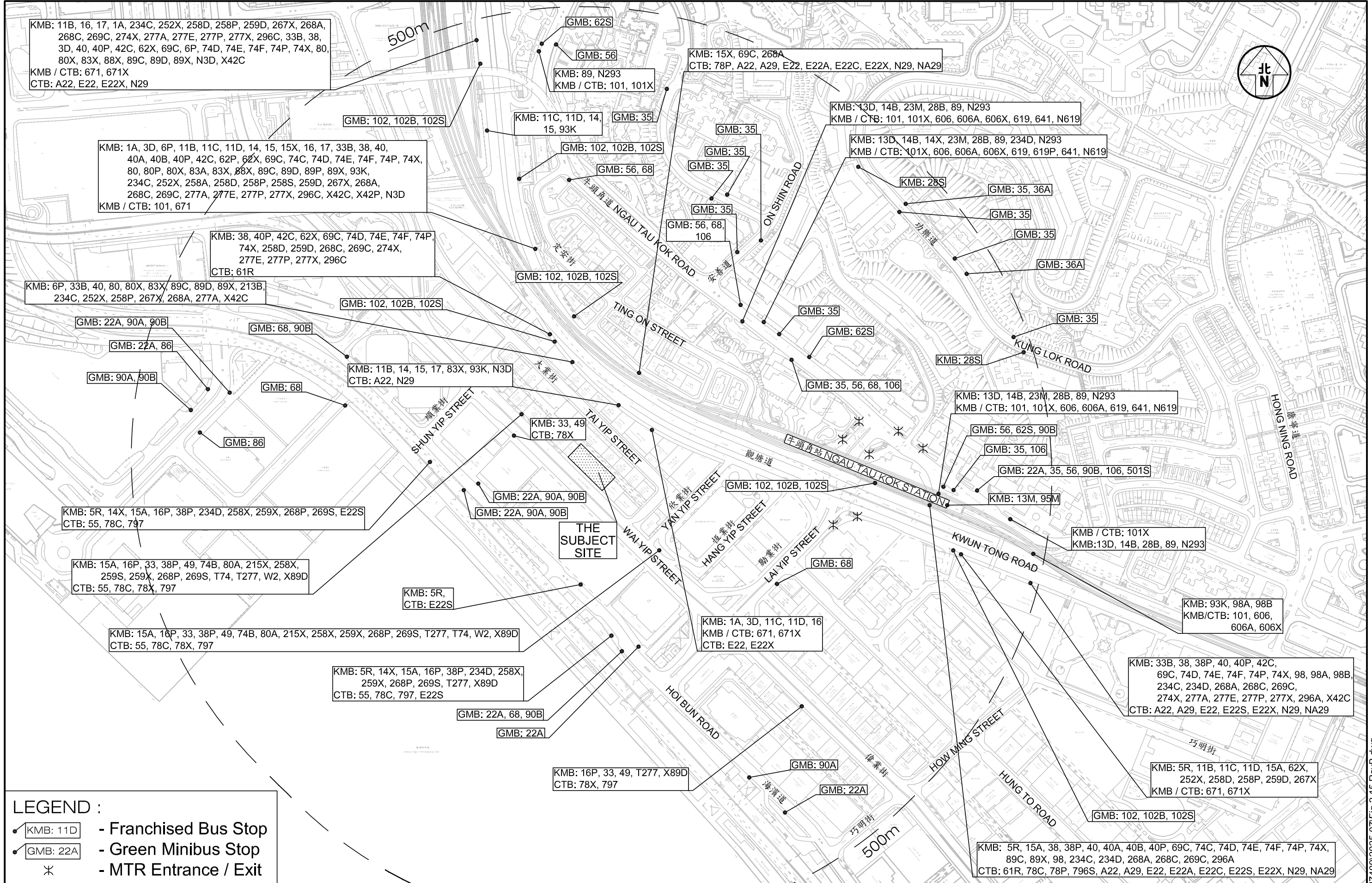
<b>Project Title</b> PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON	<b>Figure No.</b> 2.12	<b>Revision</b> B						
<b>Figure Title</b> LAYOUT OF JUNCTION OF TAI YIP STREET / SIU YIP STREET	<table> <tr> <td><b>Designed by</b> C Y Y</td><td><b>Drawn by</b> N C M</td><td><b>Checked by</b> K C</td></tr> <tr> <td colspan="2"><b>Scale in A4</b> 1 : 500</td><td><b>Date</b> 11 AUG 2025</td></tr> </table>	<b>Designed by</b> C Y Y	<b>Drawn by</b> N C M	<b>Checked by</b> K C	<b>Scale in A4</b> 1 : 500		<b>Date</b> 11 AUG 2025	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
<b>Designed by</b> C Y Y	<b>Drawn by</b> N C M	<b>Checked by</b> K C						
<b>Scale in A4</b> 1 : 500		<b>Date</b> 11 AUG 2025						



Project Title		PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON		Figure No.	2.13	Revision	B
Figure Title		J7409		Designed by	C Y Y	Drawn by	N C M
LAYOUT OF JUNCTION OF WAI YIP STREET / SIU YIP STREET				Checked by	K C	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk	
				Scale in A4	1 : 500	Date	11 AUG 2025

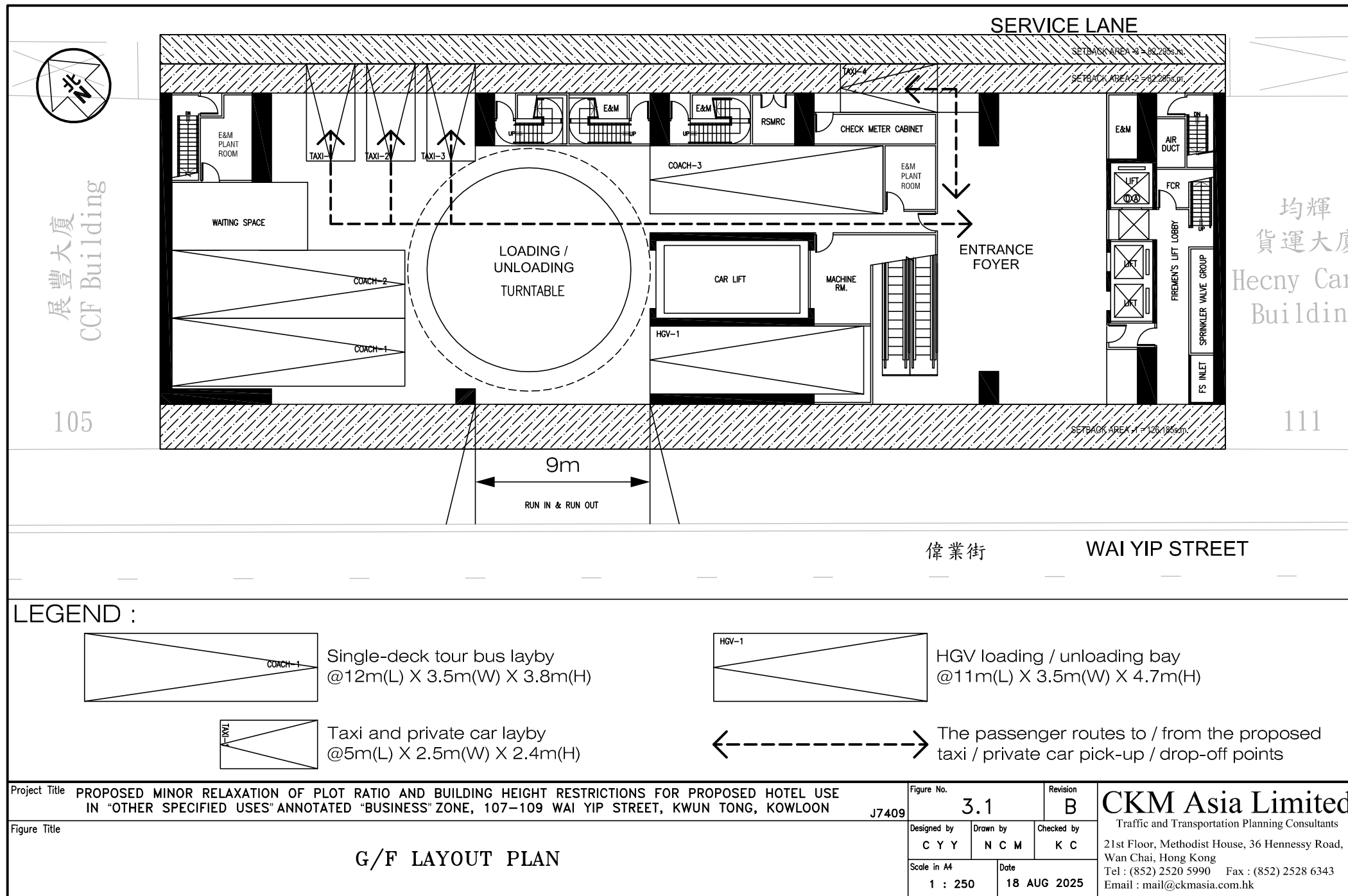


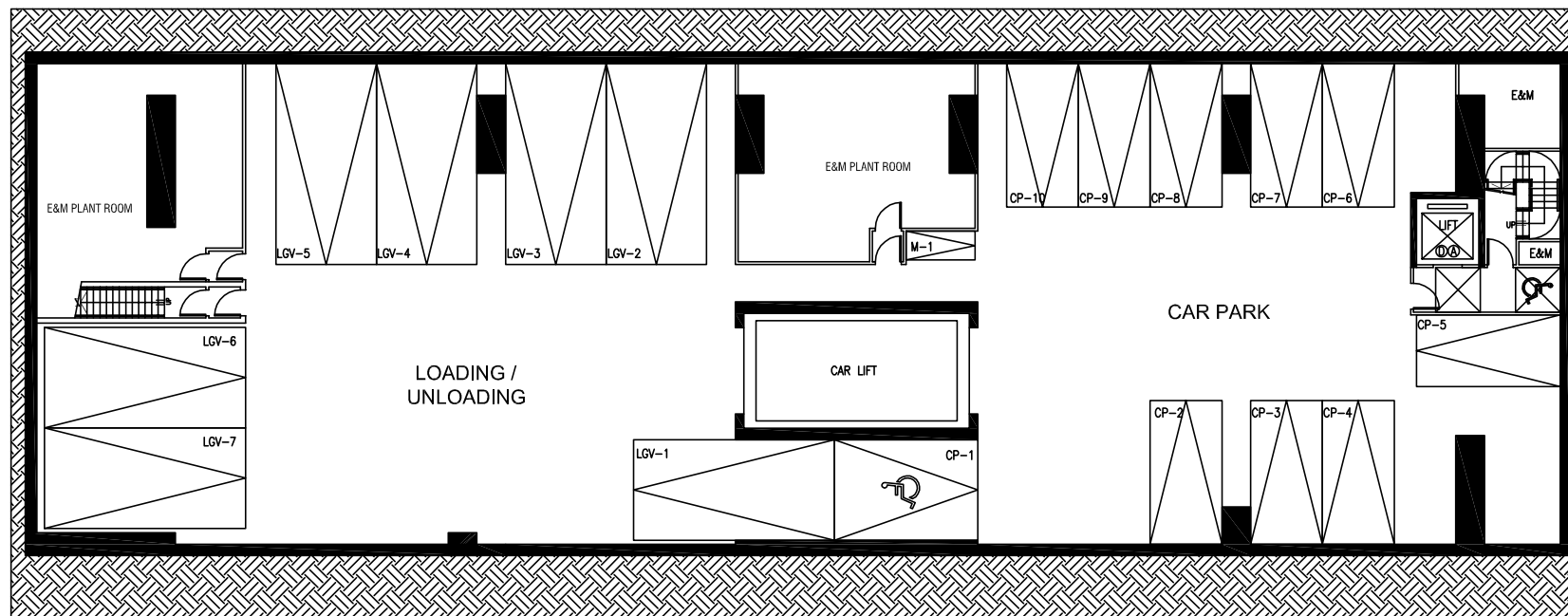
Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON J7409		Figure No. 2.14		Revision B		CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
Figure Title  2025 PEAK HOUR TRAFFIC FLOWS		Designed by C Y Y	Drawn by N C M	Checked by K C		
		Scale in A4 N.T.S.		Date 11 AUG 2025		



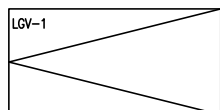
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		J7409			Designed by C Y Y		Drawn by N C M			Checked by
Figure Title		THE PUBLIC TRANSPORT SERVICES PROVIDED IN THE VICINITY OF THE SUBJECT SITE			Scale in A3 1 : 4000		Date 11 AUG 2025			

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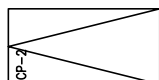




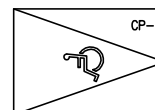
## LEGEND :



LGV loading / unloading bay  
@7m(L) X 3.5m(W) X 3.6m(H)



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



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



Motorcycle parking space  
@2.4m(L) X 1m(W) X 2.4m(H)

Project Title **PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE  
IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON** J7409

Figure Title  
**B1/F LAYOUT PLAN**

Figure No. **3.2**

Revision  
**B**

Designed by **C Y Y** Drawn by **N C M** Checked by **K C**

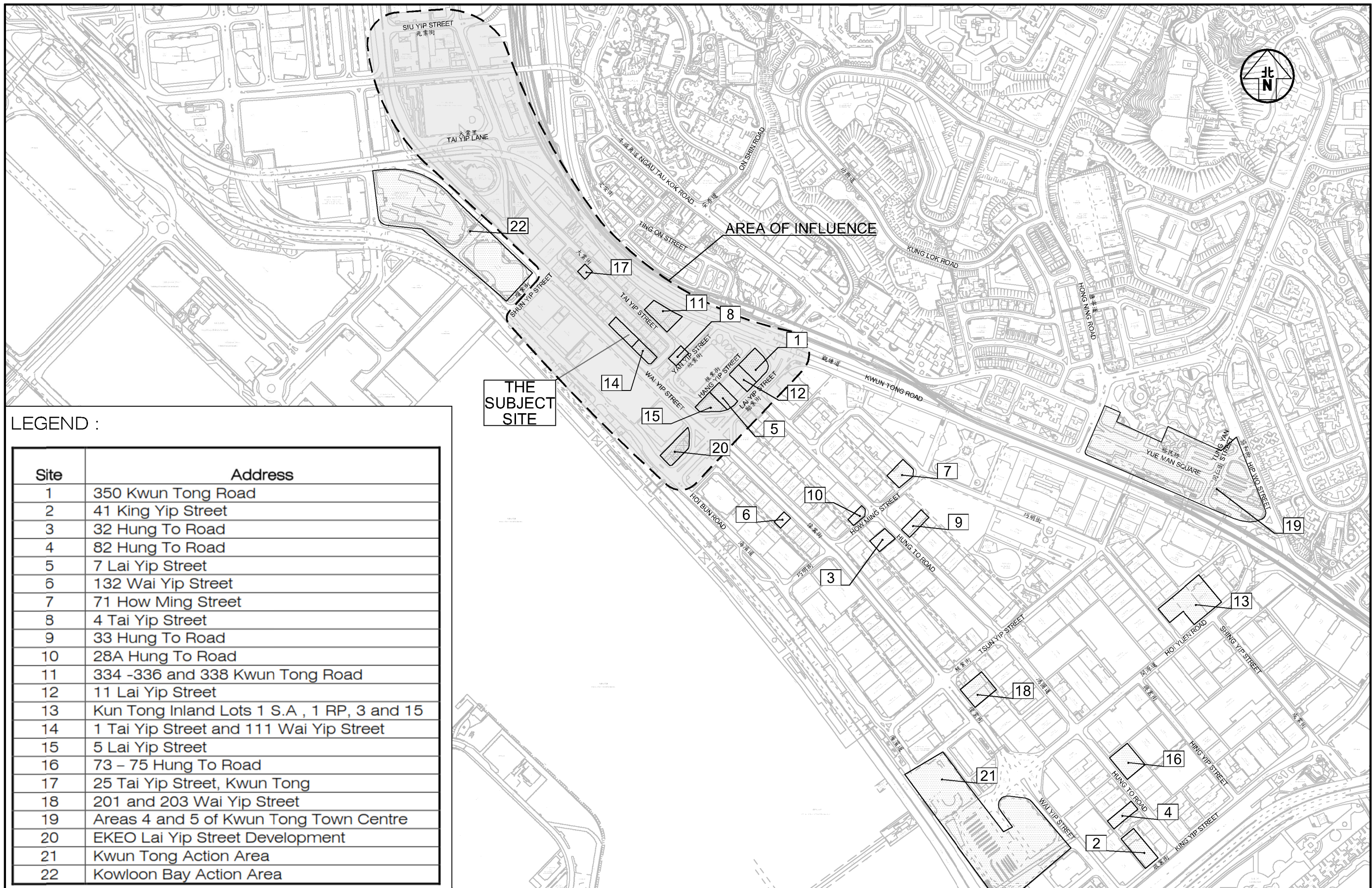
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**1 : 250** Date  
**18 AUG 2025**

**CKM Asia Limited**

Traffic and Transportation Planning Consultants

21st Floor, Methodist House, 36 Hennessy Road,  
Wan Chai, Hong Kong  
Tel : (852) 2520 5990 Fax : (852) 2528 6343  
Email : mail@ckmasia.com.hk





LEGEND :

Site	Address
1	350 Kwun Tong Road
2	41 King Yip Street
3	32 Hung To Road
4	82 Hung To Road
5	7 Lai Yip Street
6	132 Wai Yip Street
7	71 How Ming Street
8	4 Tai Yip Street
9	33 Hung To Road
10	28A Hung To Road
11	334 -336 and 338 Kwun Tong Road
12	11 Lai Yip Street
13	Kun Tong Inland Lots 1 S.A , 1 RP, 3 and 15
14	1 Tai Yip Street and 111 Wai Yip Street
15	5 Lai Yip Street
16	73 - 75 Hung To Road
17	25 Tai Yip Street, Kwun Tong
18	201 and 203 Wai Yip Street
19	Areas 4 and 5 of Kwun Tong Town Centre
20	EKEO Lai Yip Street Development
21	Kwun Tong Action Area
22	Kowloon Bay Action Area

Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE  
IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON

Figure Title LOCATION OF PLANNED DEVELOPMENTS IN THE VICINITY OF THE PROPOSED DEVELOPMENT

Figure No.  
J7409

4.1

Revision  
B

CKM Asia Limited

Traffic and Transportation Planning Consultants  
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Wan Chai, Hong Kong  
Tel : (852) 2520 5990 Fax : (852) 2528 6343  
Email : mail@ckmasia.com.hk

Designed by  
C Y Y

Drawn by  
N C M

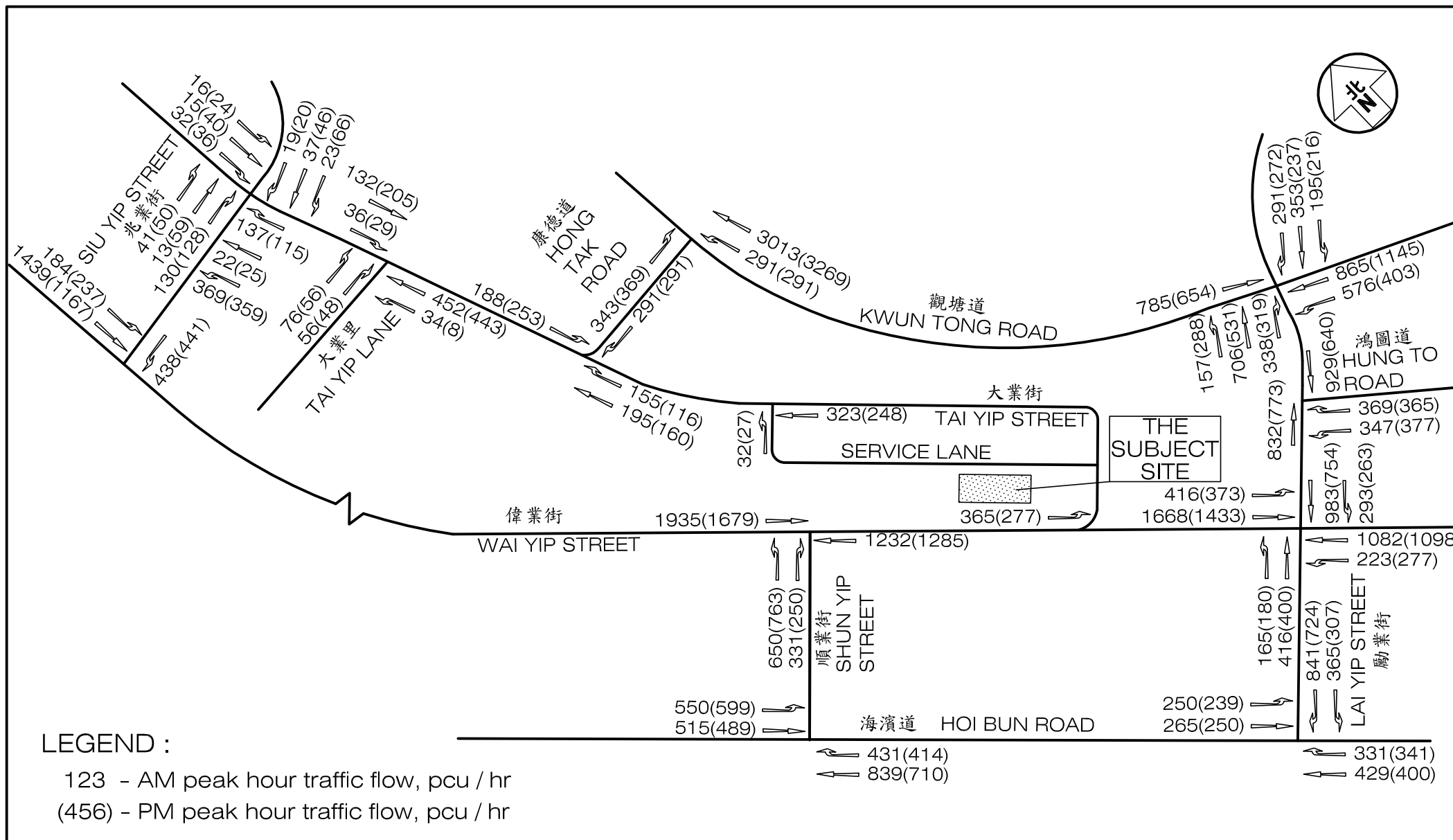
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K C

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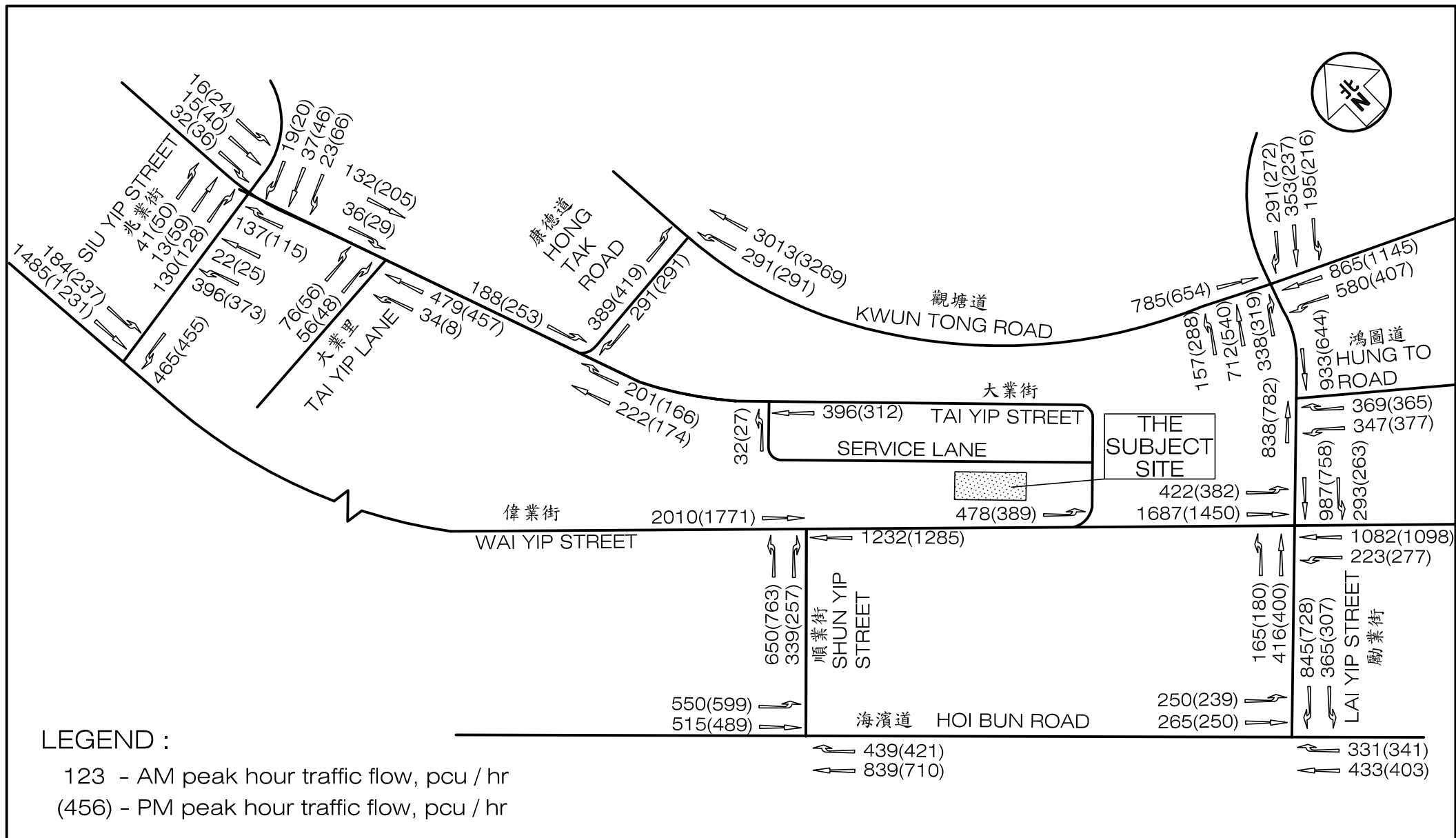
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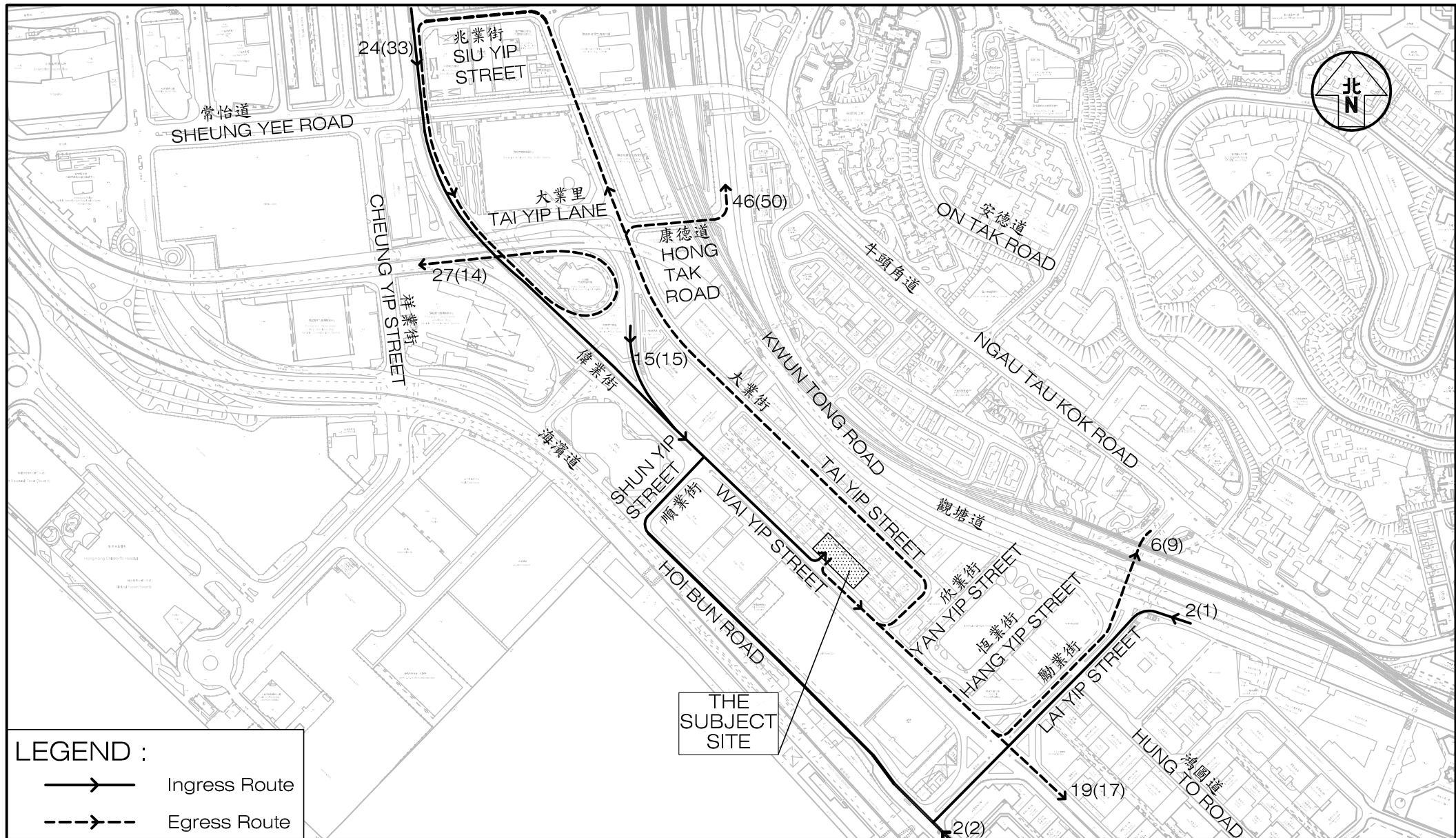




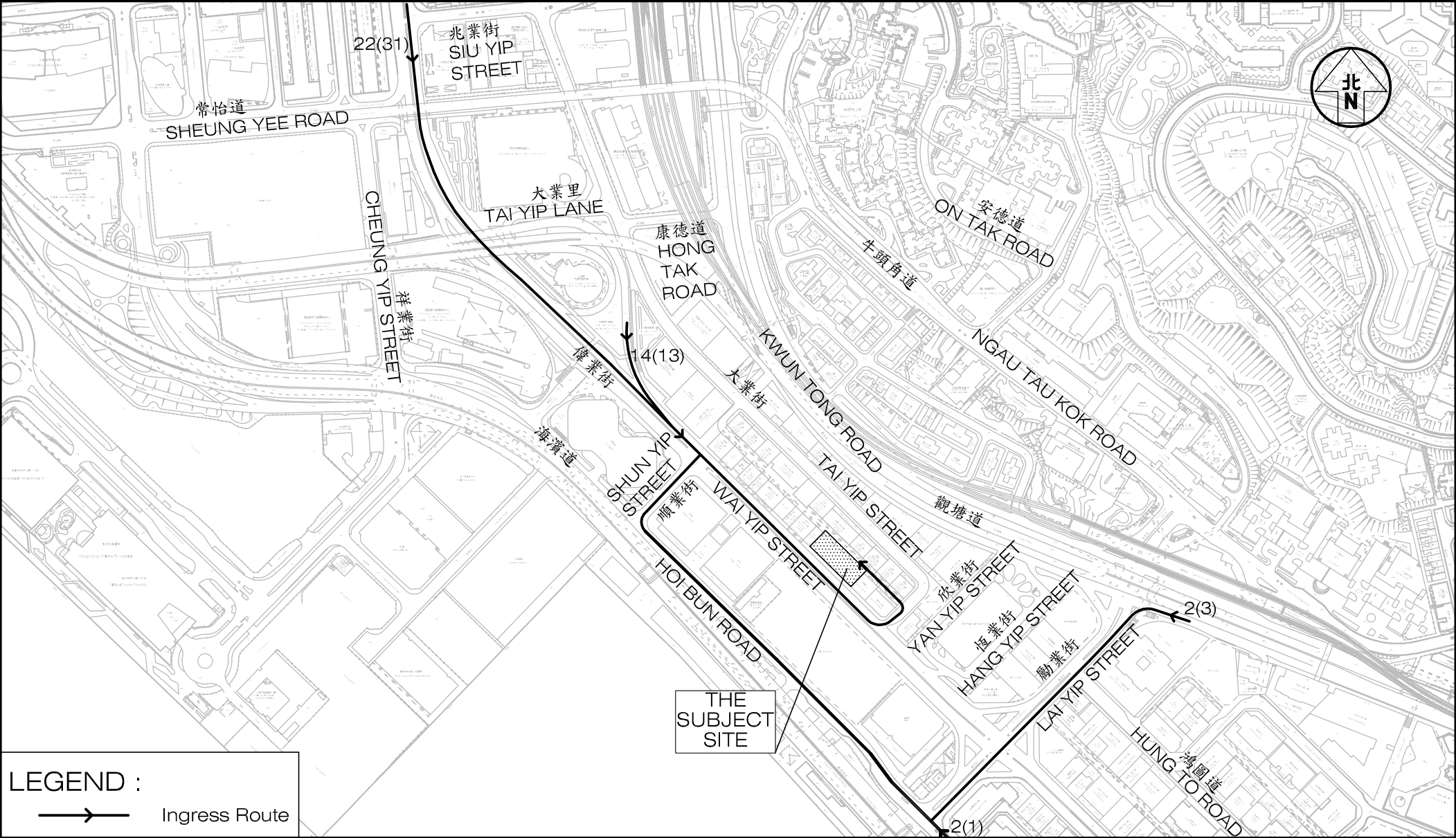
Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON	Figure No. 4.2	Revision B
Figure Title  <b>YEAR 2032 PEAK HOUR TRAFFIC FLOWS          WITHOUT THE PROPOSED DEVELOPMENT</b>	Designed by C Y Y Drawn by N C M Checked by K C Scale in A4 N.T.S. Date 11 AUG 2025	<b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk



Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON	Figure No. <b>4.3</b>	Revision <b>B</b> <b>CKM Asia Limited</b> Traffic and Transportation Planning Consultants
Figure Title <p style="text-align: center;"><b>YEAR 2032 PEAK HOUR TRAFFIC FLOWS WITH THE PROPOSED DEVELOPMENT</b></p>	Designed by <b>C Y Y</b> Drawn by <b>N C M</b> Checked by <b>K C</b> Scale in A4 <b>N.T.S.</b> Date <b>18 AUG 2025</b>	21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk



Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON				Figure No. 4.4		Revision B		CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk		
Figure Title THE INGRESS / EGRESS ROUTE FOR TRAFFIC GENERATED BY THE PROPOSED DEVELOPMENT (VIA WAI YIP STREET)				Designed by C Y Y		Drawn by N C M			Checked by K C C	
				Scale in A4 1 : 5000		Date 18 AUG 2025				



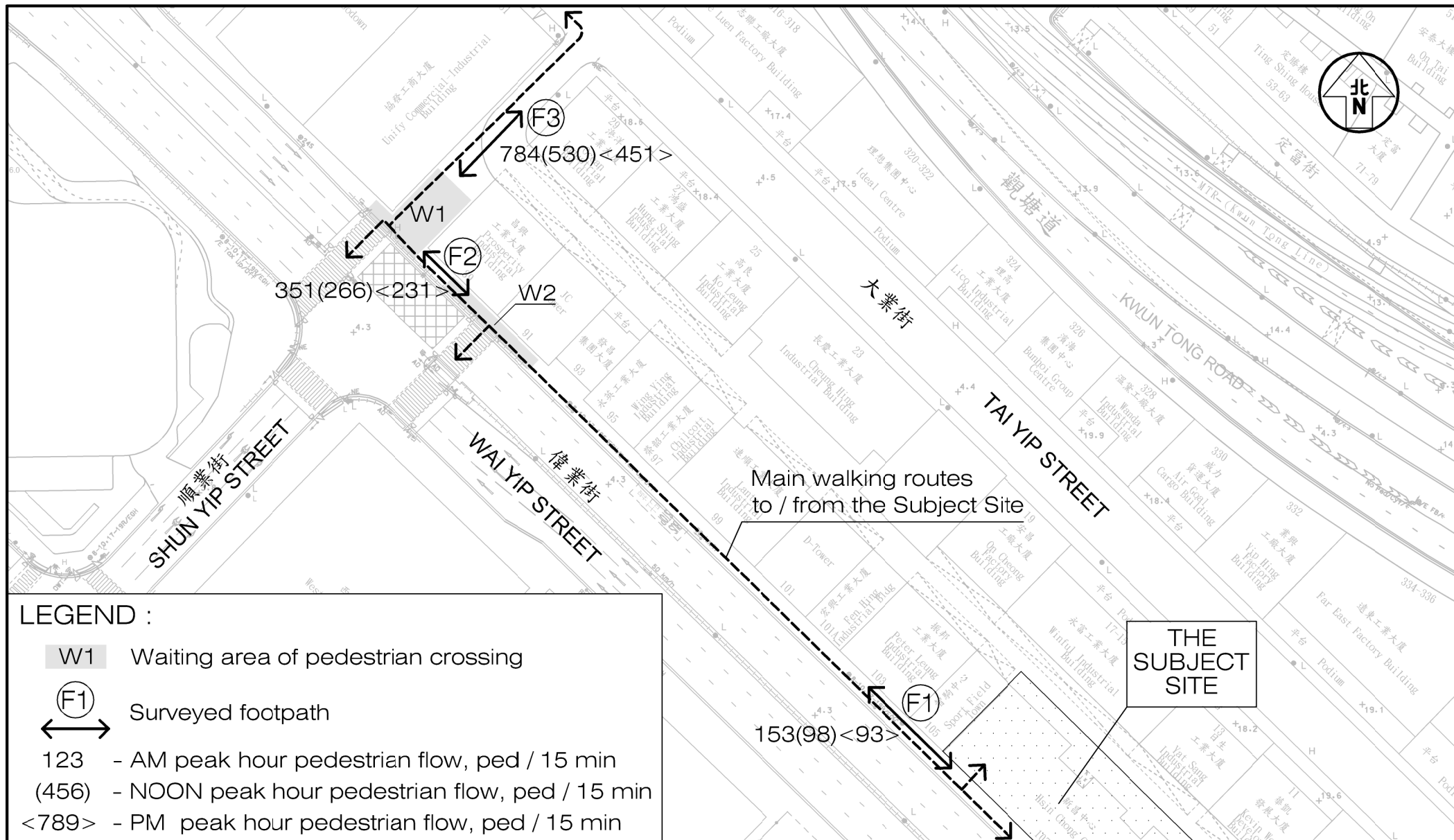
LEGEND :  
→ Ingress Route

Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE  
IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON J7409

Figure Title  
**THE INGRESS ROUTE FOR TRAFFIC GENERATED BY  
THE PROPOSED DEVELOPMENT (VIA THE SERVICE LANE)**

Figure No.	4.5	Revision	B
Designed by	C Y Y	Drawn by	N C M
Checked by	K C		
Scale in A4	1 : 5000	Date	18 AUG 2025

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Wan Chai, Hong Kong  
Tel : (852) 2520 5990 Fax : (852) 2528 6343  
Email : mail@ckmasia.com.hk



Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure No.

5.1

Revision

B

Figure Title

# OBSERVED EXISTING PEDESTRIAN FLOWS AND MAIN WALKING ROUTES TO / FROM THE SUBJECT SITE

Designed by  
C Y Y

Drawn by  
N C M

Checked by  
K C

Scale in A4  
1 : 1000

Date  
11 AUG 2025

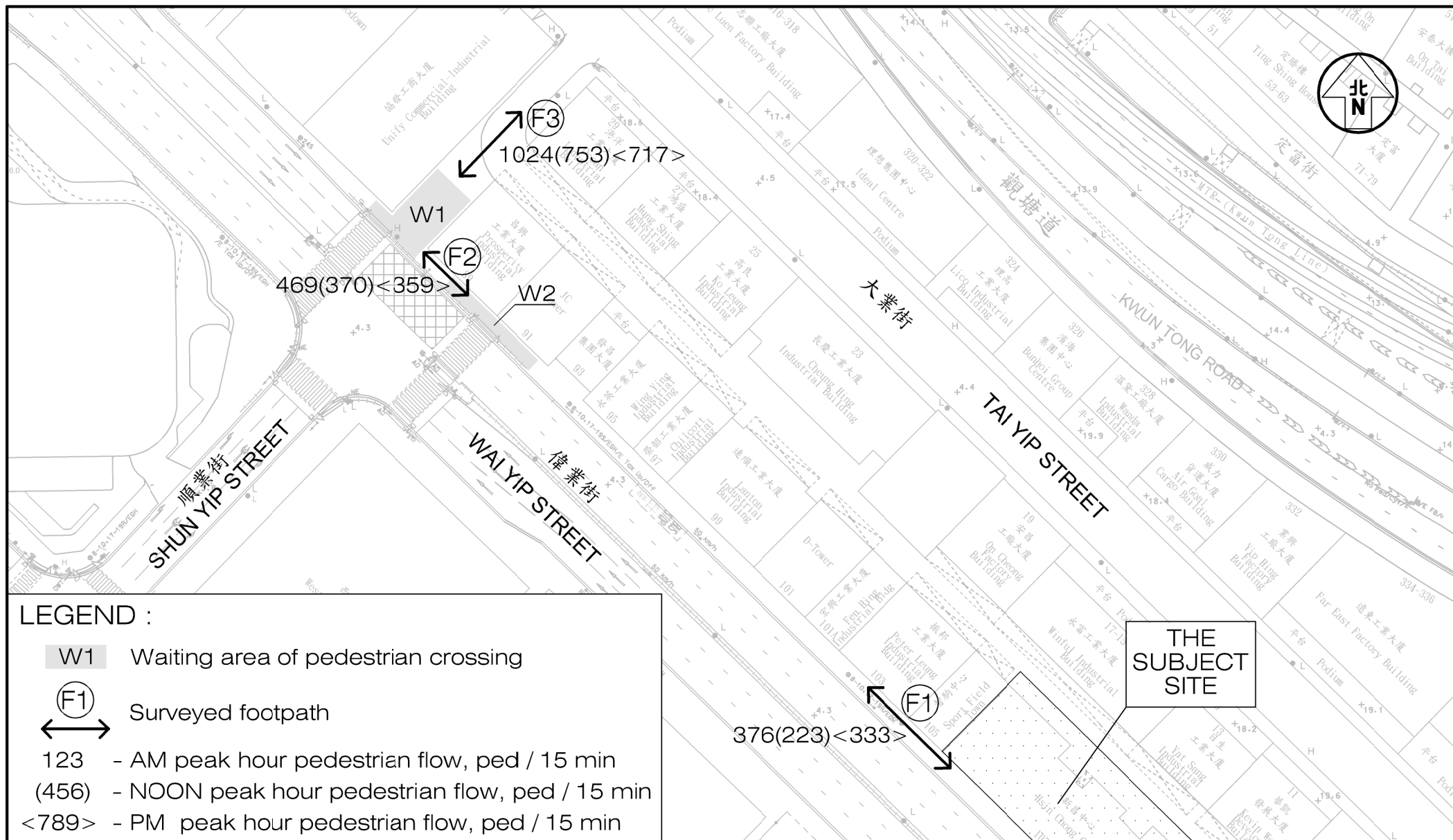
**CKM Asia Limited**

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Wan Chai, Hong Kong  
Tel : (852) 2520 5990 Fax : (852) 2528 6343  
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Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON J7409

Figure Title YEAR 2032 PEDESTRIAN FLOWS WITH THE PROPOSED DEVELOPMENT

Figure No. 5.3

Revision B

Designed by C Y Y

Drawn by N C M

Checked by K C

Scale in A4 1 : 1000

Date 11 AUG 2025

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Tel : (852) 2520 5990 Fax : (852) 2528 6343

Email : mail@ckmasia.com.hk

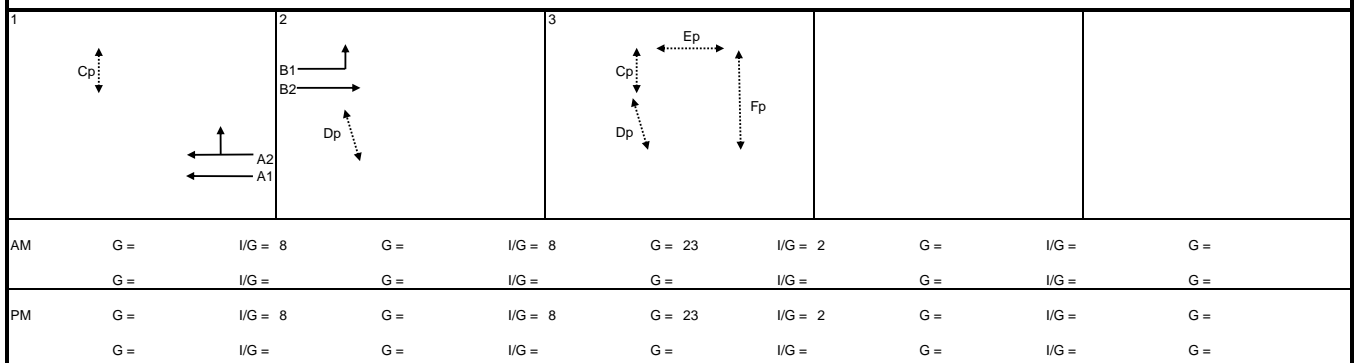
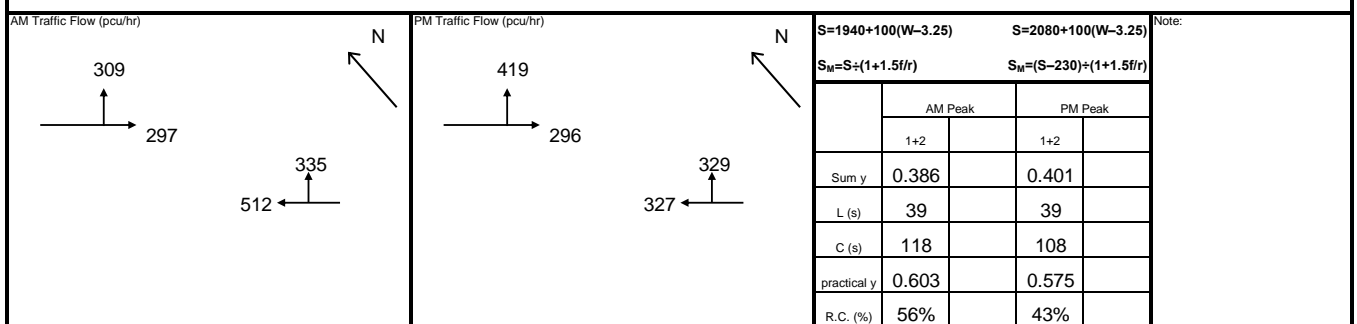
## **Appendix 1 – Calculation**

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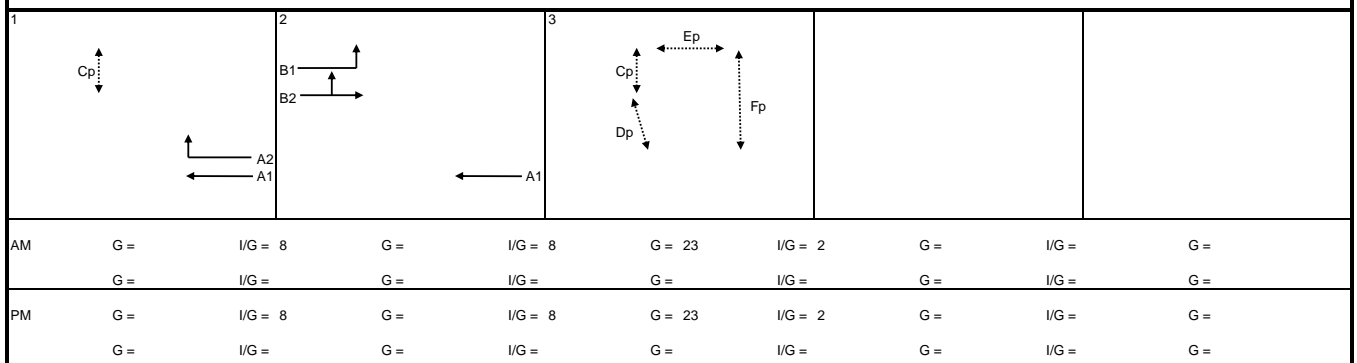
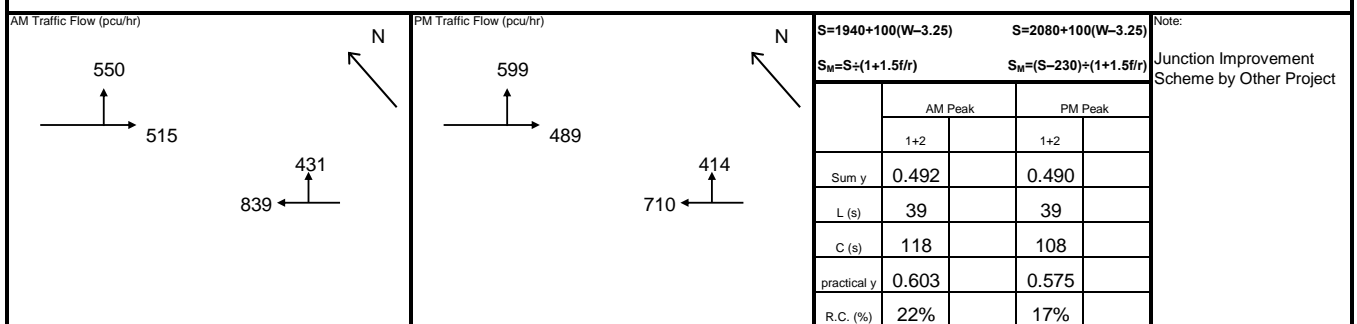
## Signal Junction Analysis

Junction:	Hoi Bun Road / Shun Yip Street	Job Number:	J7409
Scenario:	Existing Condition		P. 1
Design Year:	2025	Designed By:	Checked By:
			Date:
			18 August 2025

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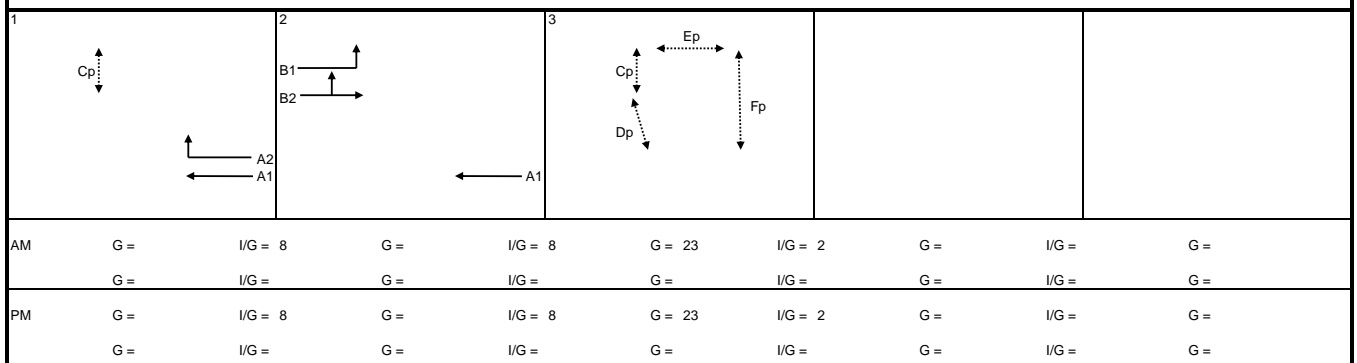
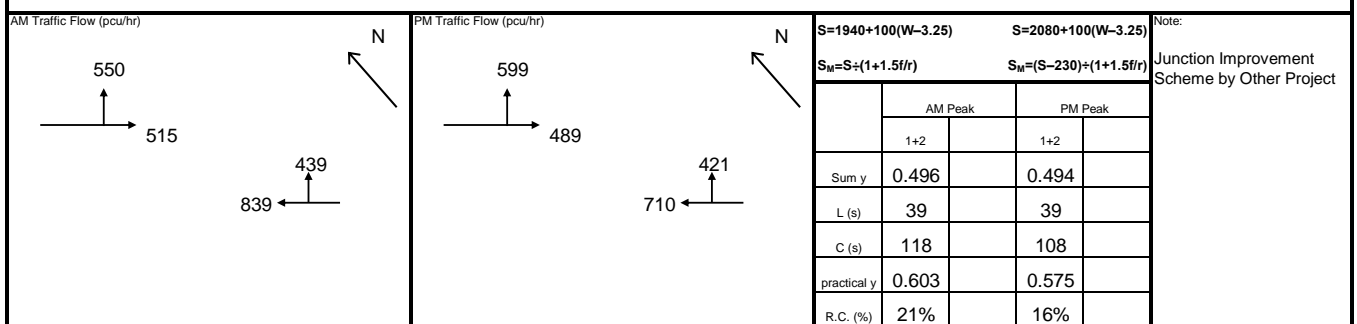
## Signal Junction Analysis

Junction:	Hoi Bun Road / Shun Yip Street	Job Number:	J7409		
Scenario:	Without the Proposed Development	P.	2		
Design Year:	2032	Designed By:	Checked By:	Date:	18 August 2025

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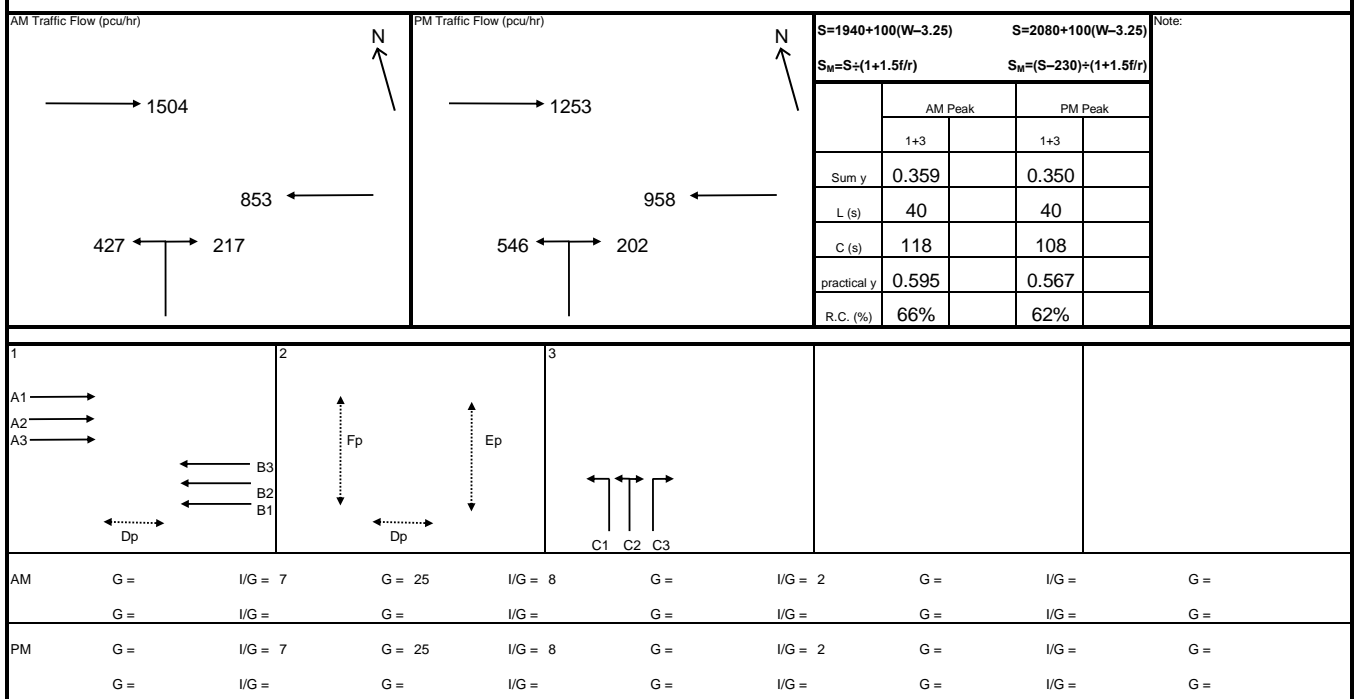
## Signal Junction Analysis

Junction:	Hoi Bun Road / Shun Yip Street			Job Number:	J7409
Scenario:	With the Proposed Development			P. 3	
Design Year:	2032	Designed By:		Checked By:	
				Date:	18 August 2025

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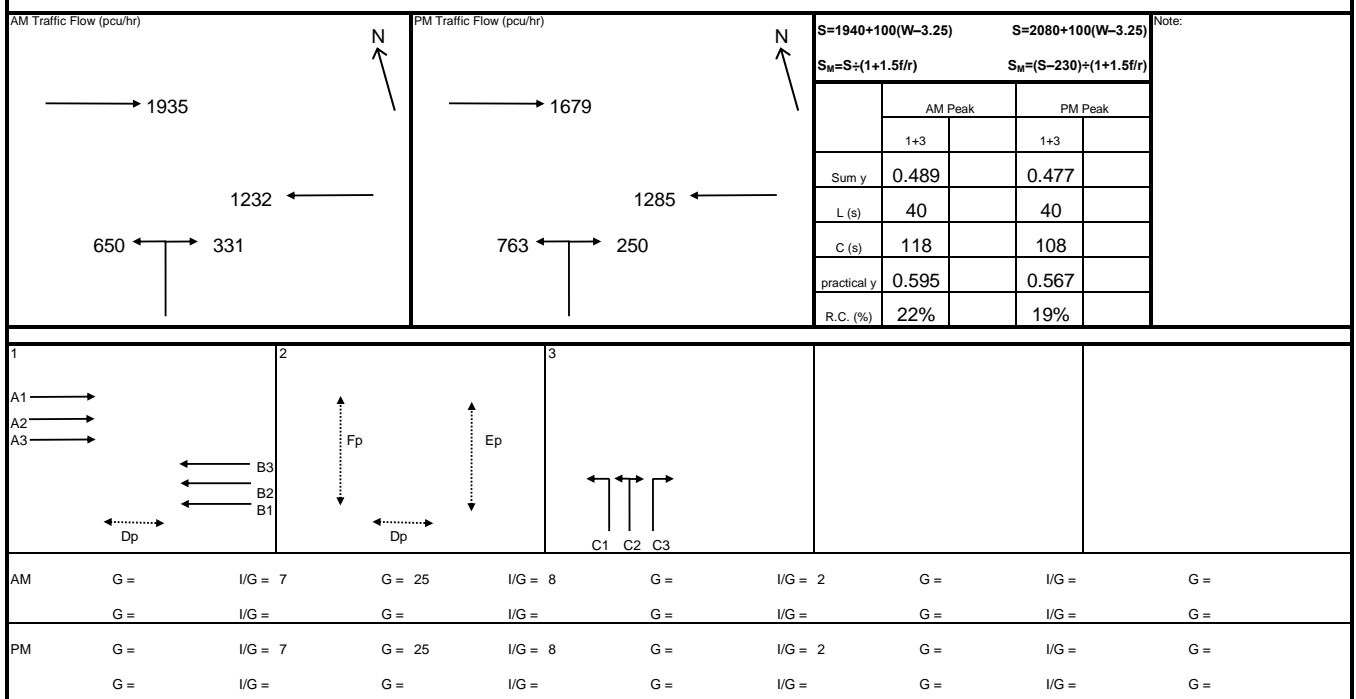
## Signal Junction Analysis

Junction:	Wai Yip Street / Shun Yip Street			Job Number:	J7409
Scenario:	Existing Condition			P. 4	
Design Year:	2025	Designed By:		Checked By:	
				Date:	18 August 2025

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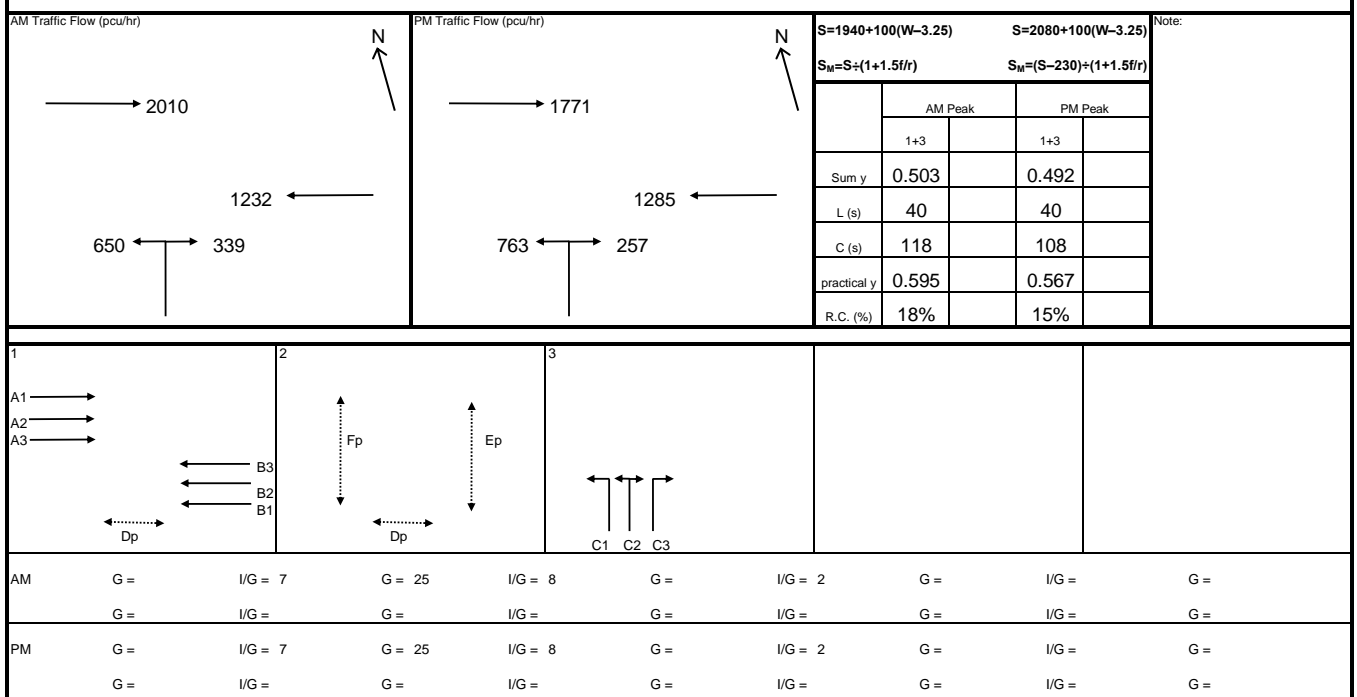
## Signal Junction Analysis

Junction:	Wai Yip Street / Shun Yip Street			Job Number:	J7409
Scenario:	Without the Proposed Development				P. 5
Design Year:	2032	Designed By:		Checked By:	
				Date:	18 August 2025

[illegible]

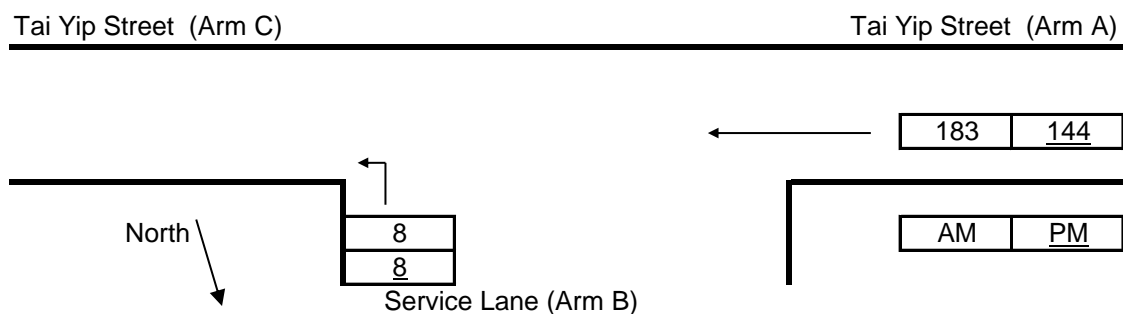
## Signal Junction Analysis

Junction:	Wai Yip Street / Shun Yip Street			Job Number:	J7409
Scenario:	With the Proposed Development			P. 6	
Design Year:	2032	Designed By:		Checked By:	
				Date:	18 August 2025

[illegible]

### Priority Junction Analysis

Junction:	Tai Yip Street / Service Lane		
Design Year:	2025	Job Number:	J7409
Scenario:	Existing Condition	Date:	18 August 2025
			P. 7



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :	Input		Input		Input		Calculated	
	W	6.25	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-IBA	0	w-BC	6.00	E	1.1077
			V-rBC	17	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7844

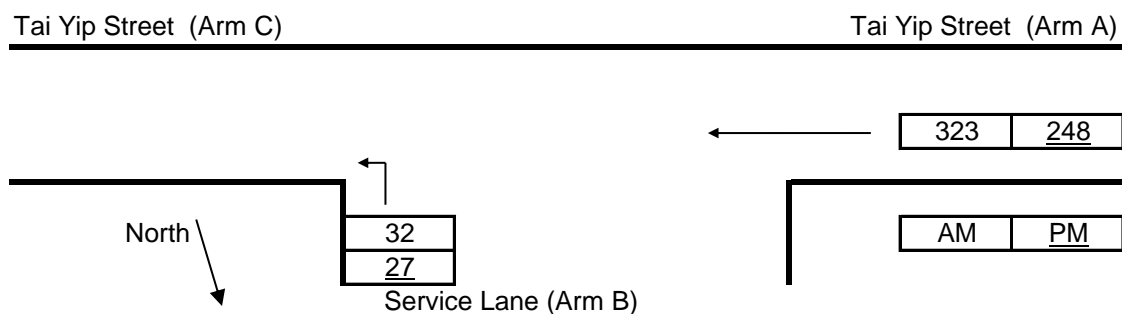
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	306	312
q-CB	0	0	Q-BC	767	780
q-AB	0	0	Q-CB	406	412
q-AC	183	144	Q-BAC	767	780
q-BA	0	0			
q-BC	8	8			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.010	0.010
C-B	0.000	0.000

## Priority Junction Analysis

Junction:	Tai Yip Street / Service Lane		
Design Year:	2032	Job Number:	J7409
Scenario:	Without the Proposed Development		Date: 18 August 2025
			P. 8



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :	Input		Input		Input		Calculated	
	W	6.25	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-IBA	0	w-BC	6.00	E	1.1077
			V-rBC	17	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7844

Analysis :

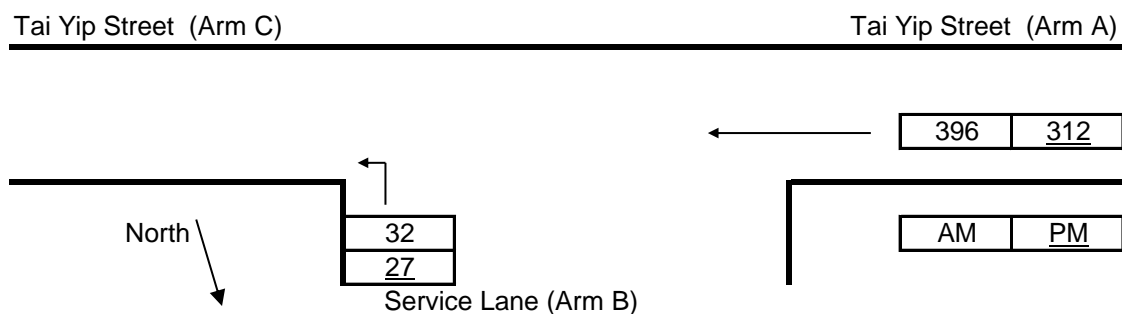
Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	285	297
q-CB	0	0	Q-BC	723	747
q-AB	0	0	Q-CB	382	395
q-AC	323	248	Q-BAC	723	747
q-BA	0	0			
q-BC	32	27			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.044	0.036
C-B	0.000	0.000



### Priority Junction Analysis

Junction:	Tai Yip Street / Service Lane		
Design Year:	2032	Job Number:	J7409
Scenario:	With the Proposed Development		Date: 18 August 2025
			P. 9



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :	Input		Input		Input		Calculated	
	W	6.25	V-rBA	0	w-BA	0.00	D	0.5332
	W-CR	0.00	V-IBA	0	w-BC	6.00	E	1.1077
			V-rBC	17	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7844

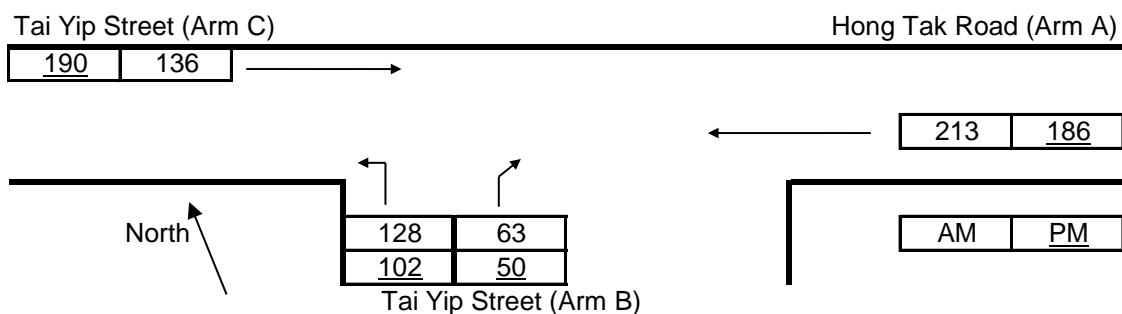
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	274	287
q-CB	0	0	Q-BC	700	727
q-AB	0	0	Q-CB	370	384
q-AC	396	312	Q-BAC	700	727
q-BA	0	0			
q-BC	32	27			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.046	0.037
C-B	0.000	0.000

### Priority Junction Analysis

Junction:	Hong Tak Road / Tai Yip Street		
Design Year:	2025	Job Number:	J7409
Scenario:	Existing Condition	Date:	18 August 2025
			P. 10



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :	Input		Input		Input		Calculated	
	W	7.75	V-rBA	42	w-BA	2.50	D	0.7795
	W-CR	0.00	V-lBA	50	w-BC	2.50	E	0.8293
			V-rBC	42	w-CB	0.00	F	0.5860
			V-lCB	0			Y	0.7326

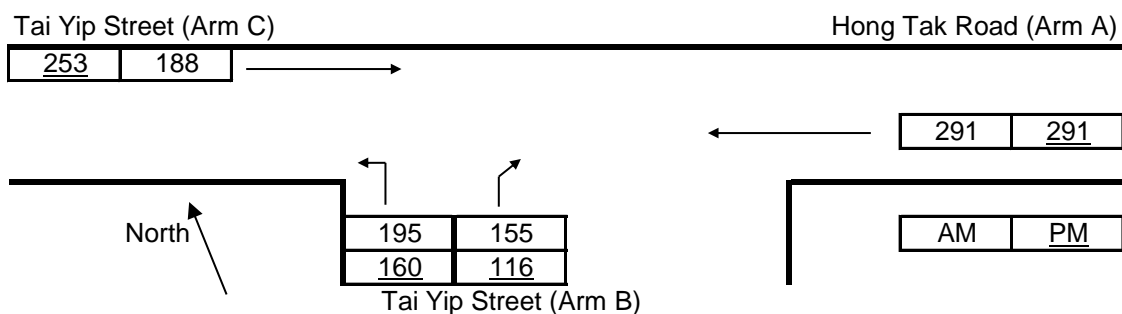
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	136	190	Q-BA	427	425
q-CB	0	0	Q-BC	571	577
q-AB	0	0	Q-CB	403	407
q-AC	213	186	Q-BAC	514	516
q-BA	63	50			
q-BC	128	102			
f	0.670	0.671			

Ratio-of-flow to Capacity	AM	PM
B-A	0.148	0.118
B-C	0.224	0.177
C-B	0.000	0.000

### Priority Junction Analysis

Junction:	Hong Tak Road / Tai Yip Street		
Design Year:	2032	Job Number:	J7409
Scenario:	Without the Proposed Development		Date: 18 August 2025
			P. 11



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :	Input		Input		Input		Calculated	
	W	7.75	V-rBA	42	w-BA	2.50	D	0.7795
	W-CR	0.00	V-IBA	50	w-BC	2.50	E	0.8293
			V-rBC	42	w-CB	0.00	F	0.5860
			V-rCB	0			Y	0.7326

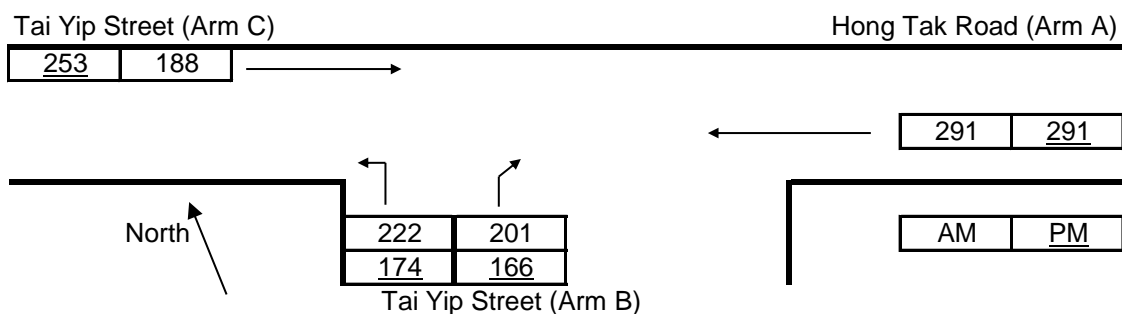
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	188	253	Q-BA	404	395
q-CB	0	0	Q-BC	553	553
q-AB	0	0	Q-CB	391	391
q-AC	291	291	Q-BAC	475	474
q-BA	155	116			
q-BC	195	160			
f	0.557	0.580			

Ratio-of-flow to Capacity	AM	PM
B-A	0.384	0.294
B-C	0.352	0.289
C-B	0.000	0.000

## Priority Junction Analysis

Junction: Hong Tak Road / Tai Yip Street  
 Design Year: 2032 Job Number: J7409 Date: 18 August 2025  
 Scenario: With the Proposed Development P. 12



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

$W$  = major road width

$W-CR$  = central reserve width

$w-BA$ , etc = lane width to vehicle

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

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

Geometry :

Input	Input	Input	Calculated
$W$	7.75	$V-rBA$	42
$W-CR$	0.00	$V-lBA$	50
		$V-rBC$	42
		$V-rCB$	0
		$w-BA$	2.50
		$w-BC$	2.50
		$w-CB$	0.00
		$D$	0.7795
		$E$	0.8293
		$F$	0.5860
		$Y$	0.7326

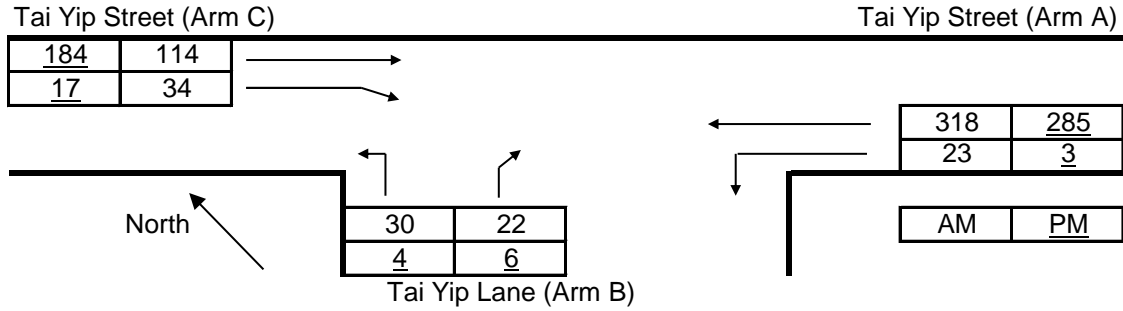
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
$q-CA$	188	253	$Q-BA$	404	395
$q-CB$	0	0	$Q-BC$	553	553
$q-AB$	0	0	$Q-CB$	391	391
$q-AC$	291	291	$Q-BAC$	471	463
$q-BA$	201	166			
$q-BC$	222	174			
$f$	0.525	0.512			

Ratio-of-flow to Capacity	AM	PM
B-A	0.498	0.420
B-C	0.401	0.314
C-B	0.000	0.000

### Priority Junction Analysis

Junction:	Tai Yip Street / Tai Yip Lane		
Design Year:	2025	Job Number:	J7409
Scenario:	Existing Condition	Date:	18 August 2025
			P. 13



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :	Input		Input		Input		Calculated	
	W	10.50	V-rBA	50	w-BA	3.30	D	0.8518
	W-CR	0.00	V-IBA	50	w-BC	3.80	E	0.9502
			V-rBC	50	w-CB	5.25	F	1.0738
			V-rCB	46			Y	0.6378

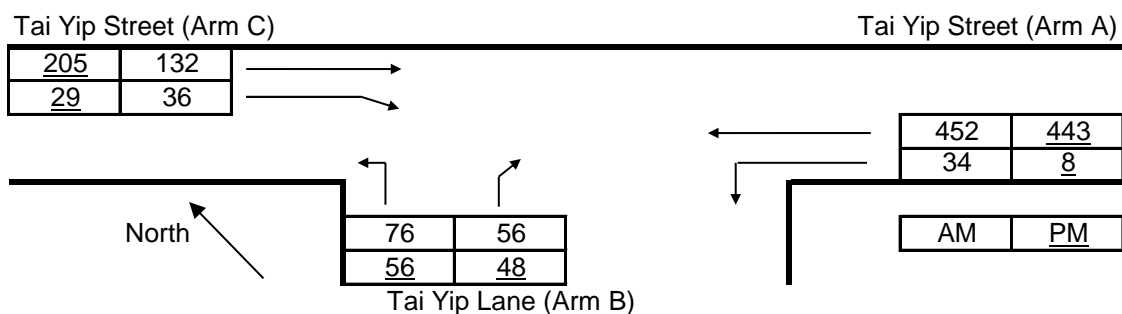
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	114	184	Q-BA	446	450
q-CB	34	17	Q-BC	636	645
q-AB	23	3	Q-CB	715	728
q-AC	318	285	Q-BAC	539	512
q-BA	22	6			
q-BC	30	4			
f	0.577	0.400			

Ratio-of-flow to Capacity	AM	PM
B-A	0.049	0.013
B-C	0.047	0.006
C-B	0.048	0.023

## Priority Junction Analysis

Junction:	Tai Yip Street / Tai Yip Lane				
Design Year:	2032	Job Number:	J7409	Date:	18 August 2025
Scenario:	Without the Proposed Development				P. 14



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :	Input		Input		Input		Calculated	
	W	10.50	V-rBA	50	w-BA	3.30	D	0.8518
	W-CR	0.00	V-IBA	50	w-BC	3.80	E	0.9502
			V-rBC	50	w-CB	5.25	F	1.0738
			V-rCB	46			Y	0.6378

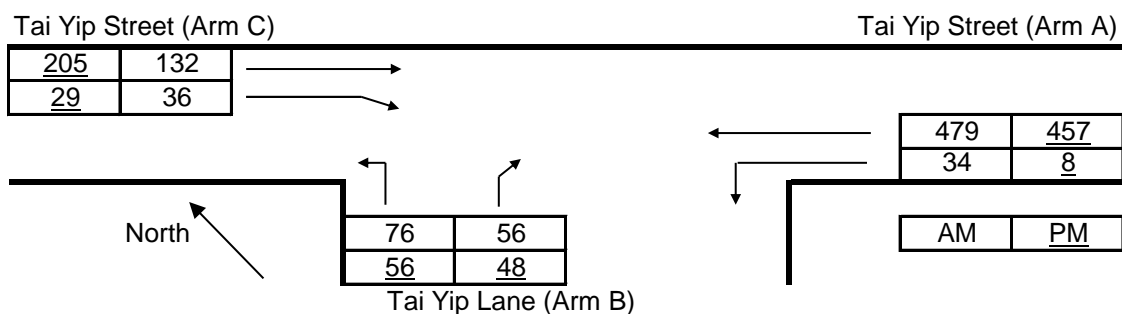
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	132	205	Q-BA	415	412
q-CB	36	29	Q-BC	605	609
q-AB	34	8	Q-CB	679	688
q-AC	452	443	Q-BAC	507	499
q-BA	56	48			
q-BC	76	56			
f	0.576	0.538			

Ratio-of-flow to Capacity	AM	PM
B-A	0.135	0.116
B-C	0.126	0.092
C-B	0.053	0.042

## Priority Junction Analysis

Junction:	Tai Yip Street / Tai Yip Lane		
Design Year:	2032	Job Number:	J7409
Scenario:	With the Proposed Development		Date: 18 August 2025
			P. 15



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :	Input		Input		Input		Calculated	
	W	10.50	V-rBA	50	w-BA	3.30	D	0.8518
	W-CR	0.00	V-lBA	50	w-BC	3.80	E	0.9502
			V-rBC	50	w-CB	5.25	F	1.0738
			V-rCB	46			Y	0.6378

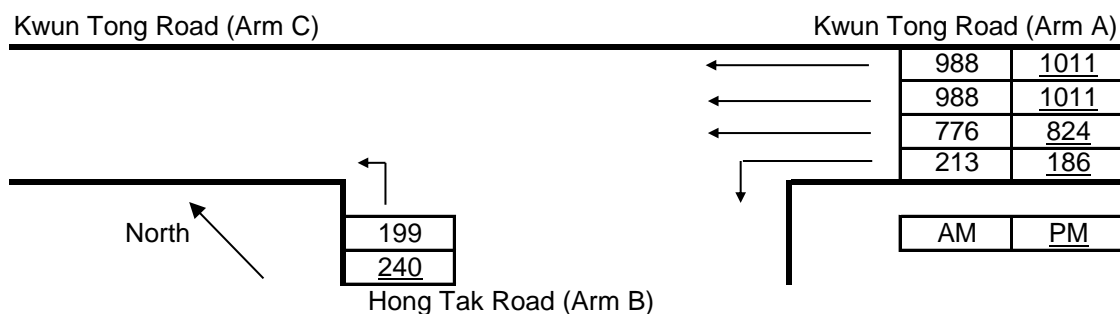
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	132	205	Q-BA	410	409
q-CB	36	29	Q-BC	599	606
q-AB	34	8	Q-CB	672	684
q-AC	479	457	Q-BAC	501	496
q-BA	56	48			
q-BC	76	56			
f	0.576	0.538			

Ratio-of-flow to Capacity	AM	PM
B-A	0.137	0.117
B-C	0.127	0.092
C-B	0.054	0.042

### Priority Junction Analysis

Junction:	Kwun Tong Road / Hong Tak Road		
Design Year:	2025	Job Number:	J7409
Scenario:	Existing Condition	Date:	18 August 2025
			P. 16



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :

Input	Input	Input	Calculated
W	6.70	V-rBA	0
W-CR	0.00	V-IBA	0
		V-rBC	50
		V-rCB	0
		w-BA	0.00
		w-BC	5.25
		w-CB	0.00
		D	0.5332
		E	1.0779
		F	0.5860
		Y	0.7689

Analysis :

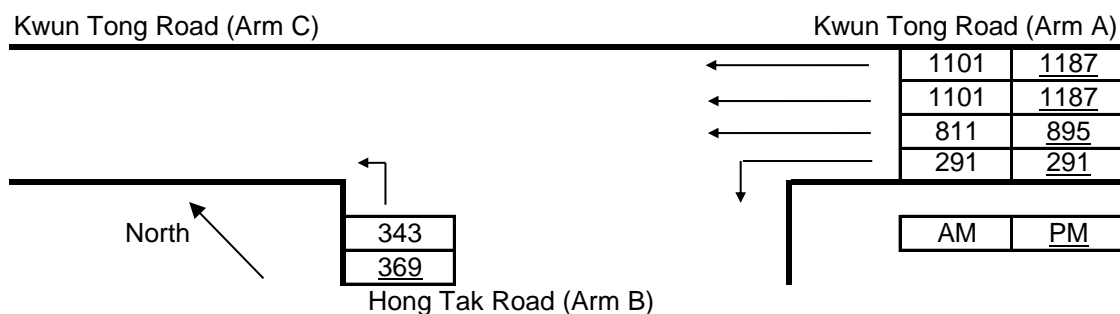
Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	206	200
q-CB	0	0	Q-BC	544	532
q-AB	213	186	Q-CB	274	271
q-AC	776	824	Q-BAC	544	532
q-BA	0	0			
q-BC	199	240			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.366	0.451
C-B	0.000	0.000



### Priority Junction Analysis

Junction:	Kwun Tong Road / Hong Tak Road		
Design Year:	2032	Job Number:	J7409
Scenario:	Without the Proposed Development		Date: 18 August 2025
			P. 17



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :

Input	Input	Input	Calculated
W	6.70	V-rBA	0
W-CR	0.00	V-IBA	0
		V-rBC	50
		V-rCB	0
		w-BA	0.00
		w-BC	5.25
		w-CB	0.00
		D	0.5332
		E	1.0779
		F	0.5860
		Y	0.7689

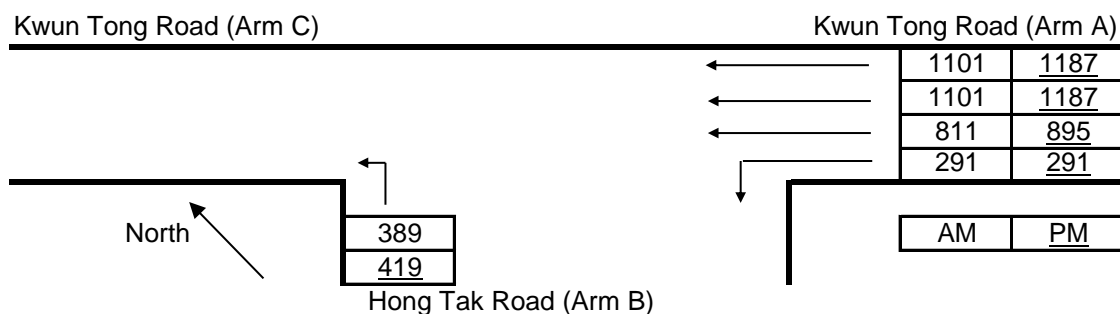
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	196	184
q-CB	0	0	Q-BC	524	498
q-AB	291	291	Q-CB	256	242
q-AC	811	895	Q-BAC	524	498
q-BA	0	0			
q-BC	343	369			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.655	0.740
C-B	0.000	0.000

### Priority Junction Analysis

Junction: Kwun Tong Road / Hong Tak Road  
 Design Year: 2032 Job Number: J7409 Date: 18 August 2025  
 Scenario: With the Proposed Development P. 18



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :

Input	Input	Input	Calculated
W	6.70	V-rBA	0
W-CR	0.00	V-IBA	0
		V-rBC	50
		V-rCB	0
		w-BA	0.00
		w-BC	5.25
		w-CB	0.00
		D	0.5332
		E	1.0779
		F	0.5860
		Y	0.7689

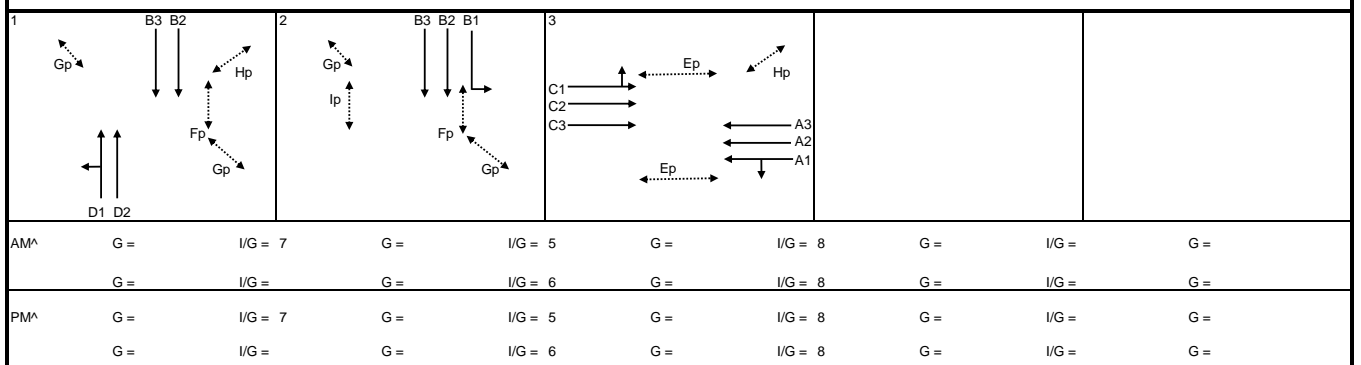
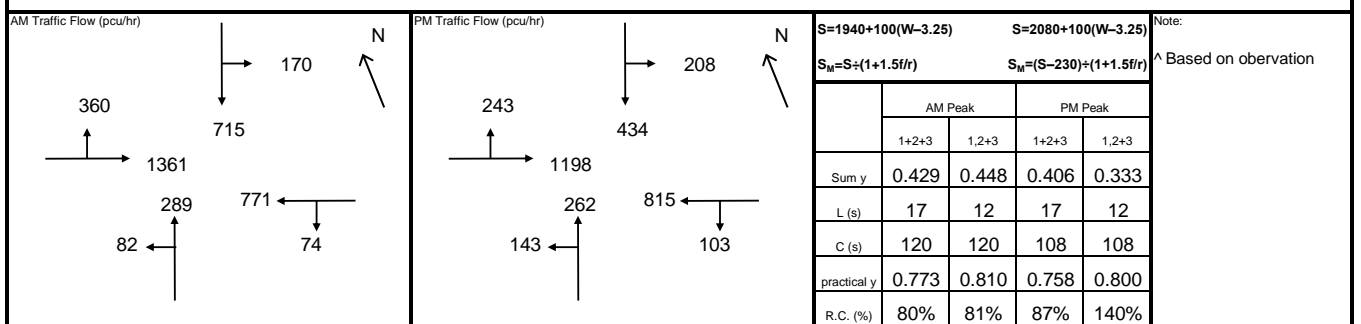
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	196	184
q-CB	0	0	Q-BC	524	498
q-AB	291	291	Q-CB	256	242
q-AC	811	895	Q-BAC	524	498
q-BA	0	0			
q-BC	389	419			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.743	0.841
C-B	0.000	0.000

## Signal Junction Analysis

Junction:	Wai Yip Street / Lai Yip Street			Job Number:	J7409
Scenario:	Existing Condition			P. 19	
Design Year:	2025	Designed By:		Checked By:	
				Date:	18 August 2025

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## Signal Junction Analysis

Junction:Wai Yip Street / Lai Yip Street

Scenario:Without the Proposed Development

Design Year:2032

Job Number:J7409

P. 20

Designed By:

Checked By:

Date:18 August 2025

Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	Turning %	AM Peak				Turning %	PM Peak				
							Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y		Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	
Wai Yip Street WB	SA+LT	A1	3	2.80	20.0		52	1944	422	0.217		62	1944	444	0.228	
	SA	A2	3	2.80				2035	442	0.217			2035	465	0.229	
	SA	A3	3	2.80				2035	441	0.217			2035	466	0.229	
Lai Yip Street SB	LT	B1	2	3.10	20.0		100	2638	293	0.111	0.111	100	2638	263	0.100	
	SA	B2	1,2	3.10				2065	492	0.238			2065	377	0.183	
	SA	B3	1,2	3.10				2065	491	0.238			2065	377	0.183	
Wai Yip Street EB	SA+LT	C1	3	3.30	20.0		60	2101	698	0.332		61	2127	610	0.287	
	SA	C2	3	3.30				2085	693	0.332	0.332		2085	598	0.287	
	SA	C3	3	3.30				2085	693	0.332			2085	598	0.287	
Lai Yip Street NB	SA+LT	D1	1	4.00	15.0		58	2025	285	0.141	0.141	63	2029	285	0.140	
	SA	D2	1	3.50				2105	296	0.141			2105	295	0.140	
pedestrian phase	Ep	3						min crossing time =	11		sec GM +	10		sec FGM =	21	sec
	Fp	1,2						min crossing time =	7		sec GM +	11		sec FGM =	18	sec
	Gp	1,2						min crossing time =	5		sec GM +	10		sec FGM =	15	sec
	Hp	1,3						min crossing time =	5		sec GM +	7		sec FGM =	12	sec
	Ip	2						min crossing time =	7		sec GM +	11		sec FGM =	18	sec
</																

# Signal Junction Analysis

Junction: Wai Yip Street / Lai Yip Street Job Number: J7409  
 Scenario: With the Proposed Development P. 21  
 Design Year: 2032 Designed By: \_\_\_\_\_ Checked By: \_\_\_\_\_ Date: 18 August 2025

Approach	Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
						Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wai Yip Street WB	SA+LT	A1	3	2.80	20.0	52	1944	422	0.217		62	1944	444	0.228	
	SA	A2	3	2.80			2035	442	0.217			2035	465	0.229	
	SA	A3	3	2.80			2035	441	0.217			2035	466	0.229	
Lai Yip Street SB	LT	B1	2	3.10	20.0	100	2638	293	0.111	0.111	100	2638	263	0.100	0.140
	SA	B2	1,2	3.10			2065	494	0.239			2065	379	0.184	
	SA	B3	1,2	3.10			2065	493	0.239			2065	379	0.184	
Wai Yip Street EB	SA+LT	C1	3	3.30	20.0	60	2101	707	0.337		62	2126	619	0.291	0.291
	SA	C2	3	3.30			2085	701	0.336	0.337		2085	607	0.291	
	SA	C3	3	3.30			2085	701	0.336			2085	606	0.291	
Lai Yip Street NB	SA+LT	D1	1	4.00	15.0	58	2025	285	0.141	0.141	63	2029	285	0.140	0.140
	SA	D2	1	3.50			2105	296	0.141			2105	295	0.140	

pedestrian phase	Ep	3		min crossing time =	11	sec GM +	10	sec FGM =	21	sec	
	Fp	1,2		min crossing time =	7	sec GM +	11	sec FGM =	18	sec	
	Gp	1,2		min crossing time =	5	sec GM +	10	sec FGM =	15	sec	
	Hp	1,3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec	
	Ip	2		min crossing time =	7	sec GM +	11	sec FGM =	18	sec	

AM Traffic Flow (pcu/hr)		PM Traffic Flow (pcu/hr)		<div>S=1940+100(W-3.25)S=2080+100(W-3.25)</div> <div>S<sub>M</sub>=S÷(1+1.5f/r)S<sub>M</sub>=(S-230)÷(1+1.5f/r)</div> <table><tr><td></td><td colspan="2">AM Peak</td><td colspan="2">PM Peak</td></tr><tr><td></td><td>1+2+3</td><td>1,2+3</td><td>1+2+3</td><td>1,2+3</td></tr><tr><td>Sum y</td><td>0.588</td><td>0.576</td><td>0.531</td><td>0.475</td></tr><tr><td>L (s)</td><td>17</td><td>12</td><td>17</td><td>12</td></tr><tr><td>C (s)</td><td>120</td><td>120</td><td>108</td><td>108</td></tr><tr><td>practical y</td><td>0.773</td><td>0.810</td><td>0.758</td><td>0.800</td></tr><tr><td>R.C. (%)</td><td>31%</td><td>41%</td><td>43%</td><td>69%</td></tr></table>					AM Peak		PM Peak			1+2+3	1,2+3	1+2+3	1,2+3	Sum y	0.588	0.576	0.531	0.475	L (s)	17	12	17	12	C (s)	120	120	108	108	practical y	0.773	0.810	0.758	0.800	R.C. (%)	31%	41%	43%	69%	<div>Note:</div> <div>^ Based on observation</div>	
	AM Peak		PM Peak																																									
	1+2+3	1,2+3	1+2+3	1,2+3																																								
Sum y	0.588	0.576	0.531	0.475																																								
L (s)	17	12	17	12																																								
C (s)	120	120	108	108																																								
practical y	0.773	0.810	0.758	0.800																																								
R.C. (%)	31%	41%	43%	69%																																								

1	2	3		
AM	G = I/G = 7	G = I/G = 5	G = I/G = 8	G = I/G =
	G = I/G =	G = I/G = 6	G = I/G = 8	G = I/G =
PM	G = I/G = 7	G = I/G = 5	G = I/G = 8	G = I/G =
	G = I/G =	G = I/G = 6	G = I/G = 8	G = I/G =

## Signal Junction Analysis

Junction: Kwun Tong Road / Lai Yip Street Job Number: J7409  
 Scenario: Existing Condition P. 22  
 Design Year: 2025 Designed By: \_\_\_\_\_ Checked By: \_\_\_\_\_ Date: 18 August 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Kwun Tong Road EB	SA	A1	1,2	3.20				1935	349	0.180			1935	288	0.149	
	SA	A2	1,2	3.20				2075	375	0.181	0.181		2075	309	0.149	
Lai Yip Street NB	LT+SA	B1	5	3.50	30.0		32	2117	478	0.226		63	2105	385	0.183	0.183
	SA	B2	5	3.50				2105	476	0.226	0.226		2105	385	0.183	
Elegance Road NB	SA	B3	5	3.50				2105	277	0.132			2105	184	0.087	
	SA+RT	B4	5	3.50	18.0		9	2089	275	0.132		37	2042	178	0.087	
	RT	B5	5	3.50	15.0		100	1914	251	0.131		100	1914	167	0.087	
Kwun Tong Road WB	LT	C1	1,5	3.30	15.0		100	1768	365	0.206		100	1768	168	0.095	
	SA	C2	1,2	3.50				2105	365	0.173			2105	476	0.226	0.226
	SA	C3	1,2	3.50				2105	365	0.173			2105	475	0.226	
Elegance Road SB	LT	D1	3,4	3.50	15.0		100	1786	153	0.086	0.086	100	1786	176	0.099	0.099
	SA	D2	3,4	3.50				2105	173	0.082			2105	141	0.067	
	SA+RT	D3	3,4	3.50	18.0		13	2082	171	0.082		47	2026	136	0.067	
	RT	D4	3,4	3.50	15.0		100	1914	156	0.082		100	1914	128	0.067	
pedestrian phase		Ep	1,2		min crossing time =			12	sec GM +		10	sec FGM =		22	sec	
		Fp	1,2,3,4		min crossing time =			5	sec GM +		7	sec FGM =		12	sec	
		Gp	2,3		min crossing time =			5	sec GM +		5	sec FGM =		10	sec	

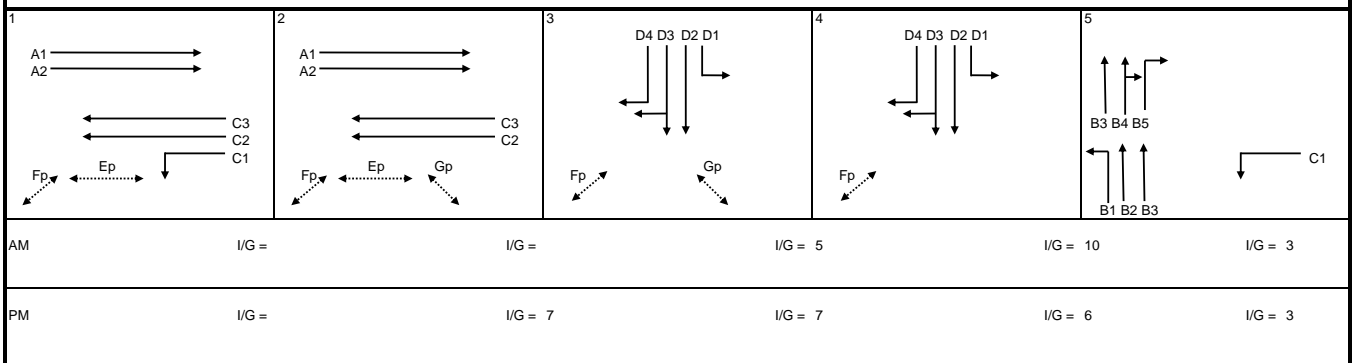
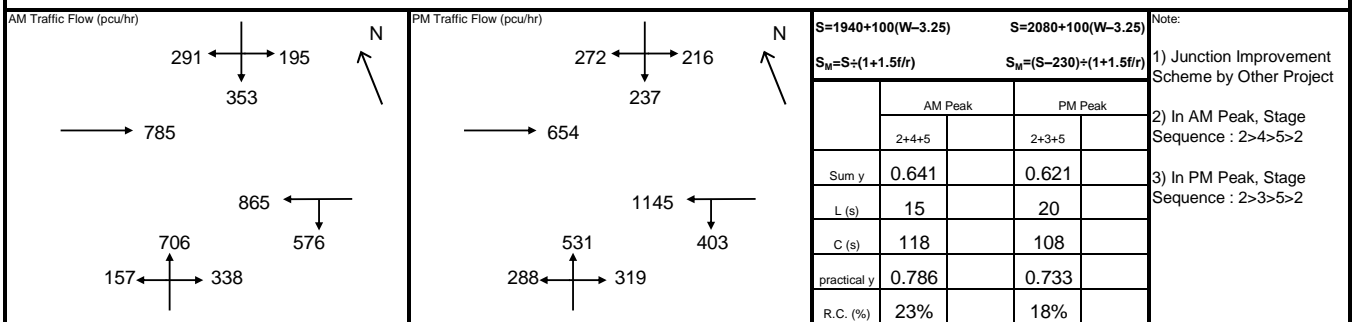
AM Traffic Flow (pcu/hr)		PM Traffic Flow (pcu/hr)		$S=1940+100(W-3.25)$ $S_M=S \div (1+1.5f/r)$		$S=2080+100(W-3.25)$ $S_M=S \div (1+1.5f/r)$		Note:  1) In AM Peak, Stage Sequence : 2>4>5>2  2) In PM Peak, Stage Sequence : 2>3>5>2		
				AM Peak		PM Peak				
				2+4+5		2+3+5				
				Sum y		0.493			0.508	
				L (s)		15			20	
				C (s)		118			108	
				practical y		0.786			0.733	
				R.C. (%)		60%		44%		

1	2	3	4	5	
AM	I/G =	I/G =	I/G = 5	I/G = 10	I/G = 3
PM	I/G =	I/G = 7	I/G = 7	I/G = 6	I/G = 3

## Signal Junction Analysis

Junction: Kwun Tong Road / Lai Yip Street Job Number: J7409  
 Scenario: Without the Proposed Development P. 23  
 Design Year: 2032 Designed By: \_\_\_\_\_ Checked By: \_\_\_\_\_ Date: 18 August 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Kwun Tong Road EB	SA	A1	1,2	3.20				1935	379	0.196			1935	316	0.163	
	SA	A2	1,2	3.20				2075	406	0.196			2075	338	0.163	
Lai Yip Street NB	LT	B1	5	3.30	30.0		100	2035	157	0.077		100	2052	288	0.140	
	SA	B2	5	3.30				2085	522	0.250			2085	425	0.204	
	SA	B3	5	3.30				2085	522	0.250			2085	425	0.204	
Elegance Road NB	SA	B4	5	3.50				2105	359	0.171			2105	294	0.140	
	SA+RT	B5	5	3.50	18.0		3	2100	358	0.170		18	2074	289	0.139	
	RT	B6	5	3.50	15.0		100	1914	327	0.171		100	1914	267	0.139	
Kwun Tong Road WB	LT	C1	1,5	3.30	15.0		100	1768	576	0.326	0.326	100	1768	403	0.228	0.228
	SA	C2	1,2	3.50				2105	433	0.206	0.206		2105	573	0.272	0.272
	SA	C3	1,2	3.50				2105	432	0.205			2105	572	0.272	
Elegance Road SB	LT	D1	3,4	3.50	15.0		100	1786	195	0.109	0.109	100	1786	216	0.121	0.121
	SA	D2	3,4	3.50				2105	224	0.106			2105	178	0.085	
	SA+RT	D3	3,4	3.50	18.0		41	2035	216	0.106		65	1997	169	0.085	
	RT	D4	3,4	3.50	15.0		100	1914	204	0.107		100	1914	162	0.085	
pedestrian phase		Ep	1,2		min crossing time =			12	sec GM +		10	sec FGM =		22	sec	
		Fp	1,2,3,4		min crossing time =			5	sec GM +		7	sec FGM =		12	sec	
		Gp	2,3		min crossing time =			5	sec GM +		5	sec FGM =		10	sec	



## Signal Junction Analysis

Junction: Kwun Tong Road / Lai Yip Street Job Number: J7409  
 Scenario: With the Proposed Development P. 24  
 Design Year: 2032 Designed By: \_\_\_\_\_ Checked By: \_\_\_\_\_ Date: 18 August 2025

Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Kwun Tong Road EB	SA	A1	1,2	3.20				1935	379	0.196			1935	316	0.163	
	SA	A2	1,2	3.20				2075	406	0.196			2075	338	0.163	
Lai Yip Street NB	LT	B1	5	3.30	30.0		100	2035	157	0.077		100	2052	288	0.140	
	SA	B2	5	3.30				2085	525	0.252			2085	430	0.206	
	SA	B3	5	3.30				2085	525	0.252			2085	429	0.206	
Elegance Road NB	SA	B4	5	3.50				2105	361	0.171			2105	297	0.141	
	SA+RT	B5	5	3.50	18.0		3	2100	360	0.171		17	2076	293	0.141	
	RT	B6	5	3.50	15.0		100	1914	329	0.172		100	1914	269	0.141	
Kwun Tong Road WB	LT	C1	1,5	3.30	15.0		100	1768	580	0.328	0.328	100	1768	407	0.230	0.230
	SA	C2	1,2	3.50				2105	433	0.206	0.206		2105	573	0.272	0.272
	SA	C3	1,2	3.50				2105	432	0.205			2105	572	0.272	
Elegance Road SB	LT	D1	3,4	3.50	15.0		100	1786	195	0.109	0.109	100	1786	216	0.121	0.121
	SA	D2	3,4	3.50				2105	224	0.106			2105	178	0.085	
	SA+RT	D3	3,4	3.50	18.0		41	2035	216	0.106		65	1997	169	0.085	
	RT	D4	3,4	3.50	15.0		100	1914	204	0.107		100	1914	162	0.085	
pedestrian phase		Ep	1,2		min crossing time =			12	sec GM +		10	sec FGM =		22	sec	
		Fp	1,2,3,4		min crossing time =			5	sec GM +		7	sec FGM =		12	sec	
		Gp	2,3		min crossing time =			5	sec GM +		5	sec FGM =		10	sec	

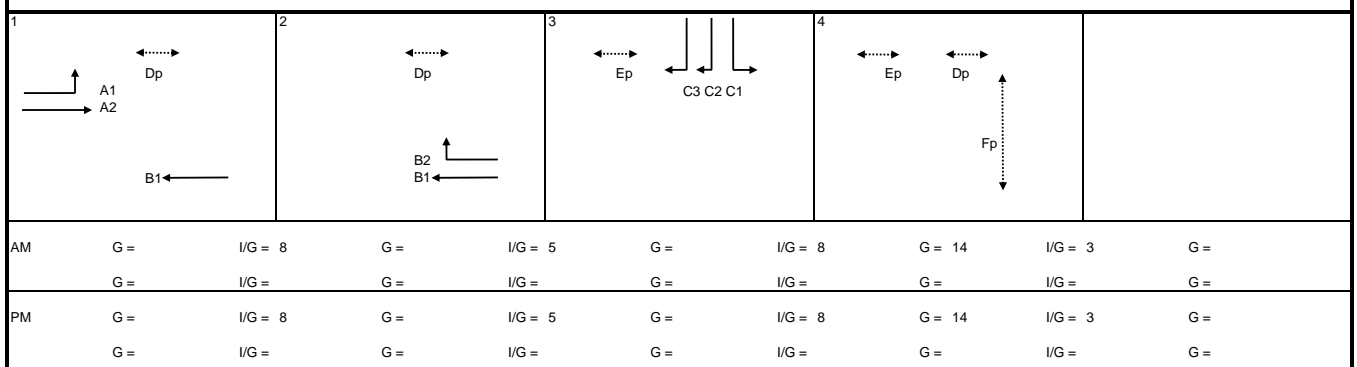
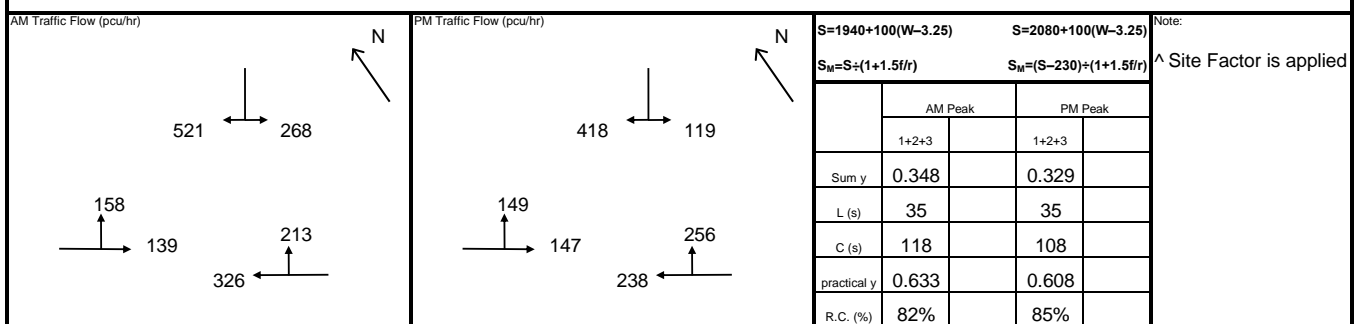
AM Traffic Flow (pcu/hr)		PM Traffic Flow (pcu/hr)		<div><div><div><div><div><div>S=1940+100(W-3.25)</div><div>S<sub>M</sub>=S÷(1+1.5f/r)</div></div></div><div><div><div>AM Peak</div><div>2+4+5</div></div><div><div>PM Peak</div><div>2+3+5</div></div></div><div><div>Sum y</div><div>0.643</div><div></div><div>0.623</div><div></div></div><div><div>L (s)</div><div>15</div><div></div><div>20</div><div></div></div><div><div>C (s)</div><div>118</div><div></div><div>108</div><div></div></div><div><div>practical y</div><div>0.786</div><div></div><div>0.733</div><div></div></div><div><div>R.C. (%)</div><div>22%</div><div></div><div>18%</div><div></div></div></div></div><div><div>Note:</div><div>1) Junction Improvement Scheme by Other Project</div><div>2) In AM Peak, Stage Sequence : 2&gt;4&gt;5&gt;2</div><div>3) In PM Peak, Stage Sequence : 2&gt;3&gt;5&gt;2</div></div></div>			
<div><div><div><div><div>291</div><div>195</div></div><div><div>353</div><div>785</div></div><div><div>865</div><div>580</div></div><div><div>712</div><div>157</div><div>338</div></div></div><div><div>N</div></div></div></div>		<div><div><div><div><div>272</div><div>216</div></div><div><div>237</div><div>654</div></div><div><div>1145</div><div>407</div></div><div><div>540</div><div>288</div><div>319</div></div></div><div><div>N</div></div></div></div>					

1	2	3	4	5	
AM	I/G =	I/G =	I/G = 5	I/G = 10	I/G = 3
PM	I/G =	I/G = 7	I/G = 7	I/G = 6	I/G = 3



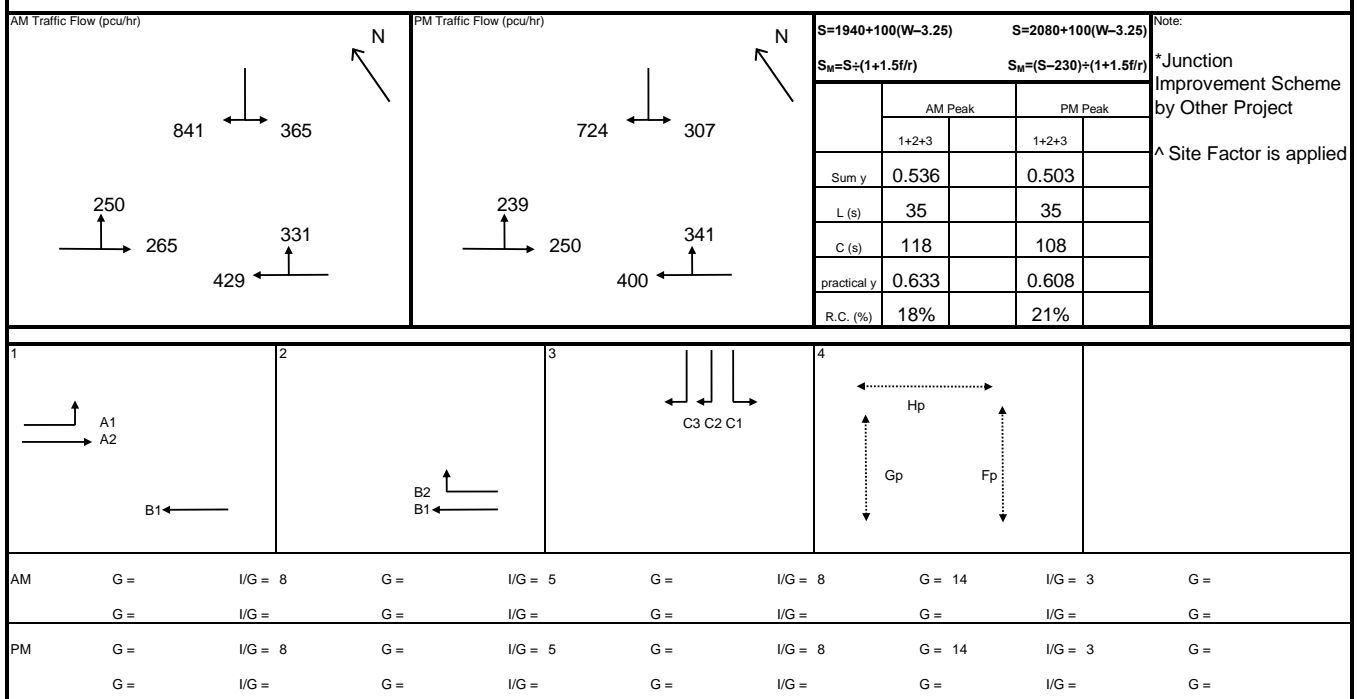
## Signal Junction Analysis

Junction:	Hoi Bun Road / Lai Yip Street	Job Number:	J7409
Scenario:	Existing Condition	P. 25	
Design Year:	2025	Designed By:	Checked By:
			Date:
			18 August 2025

[illegible][illegible]

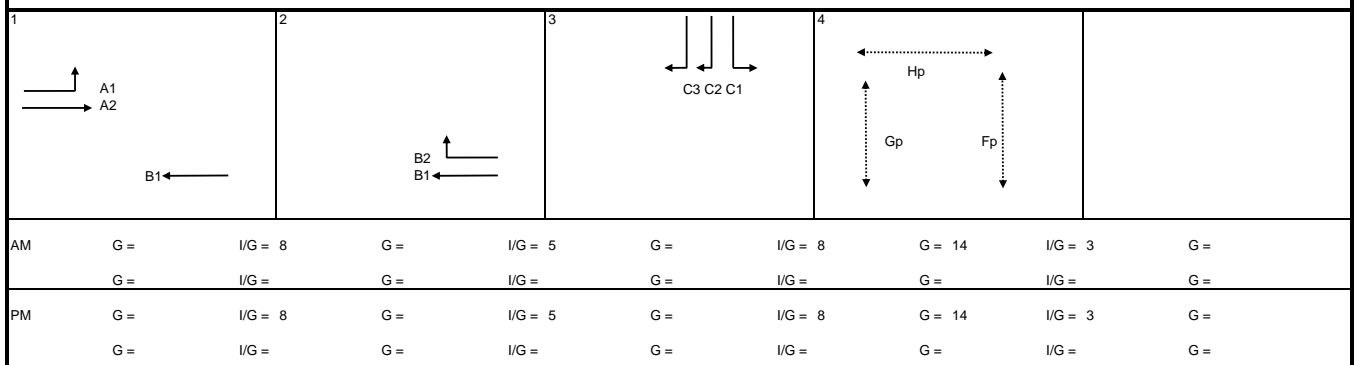
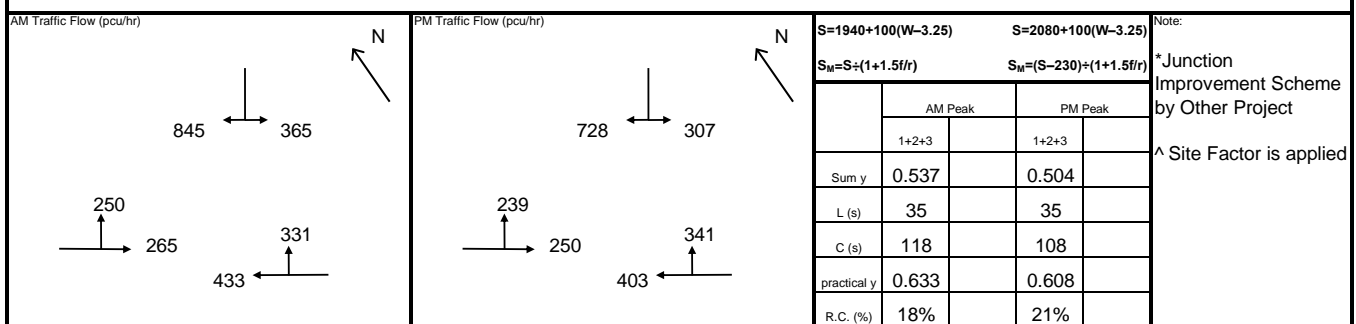
## Signal Junction Analysis

Junction:	Hoi Bun Road / Lai Yip Street			Job Number:	J7409
Scenario:	Without the Proposed Development				P. 26
Design Year:	2032	Designed By:		Checked By:	
				Date:	18 August 2025

[illegible]

## Signal Junction Analysis

Junction:	Hoi Bun Road / Lai Yip Street			Job Number:	J7409
Scenario:	With the Proposed Development			P. 27	
Design Year:	2032	Designed By:		Checked By:	
				Date:	18 August 2025

[illegible]

## Signal Junction Analysis

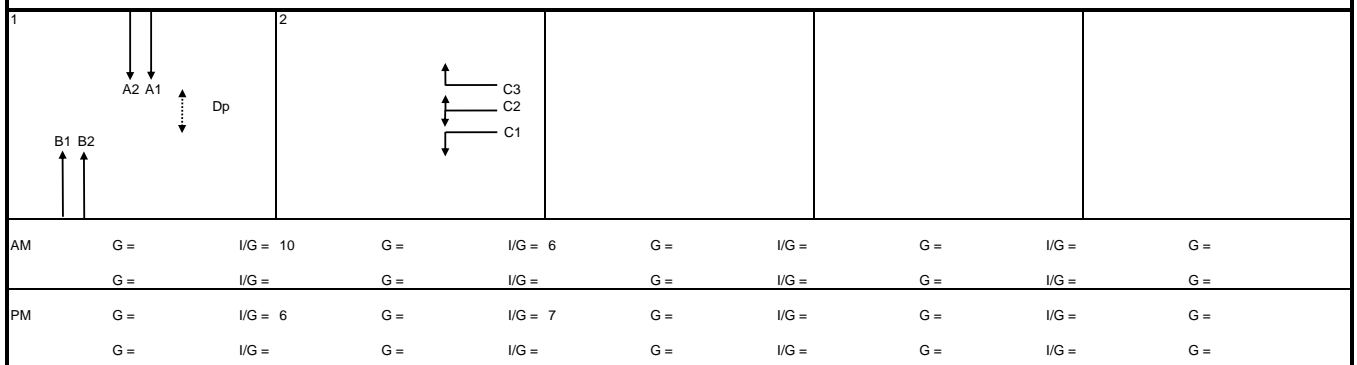
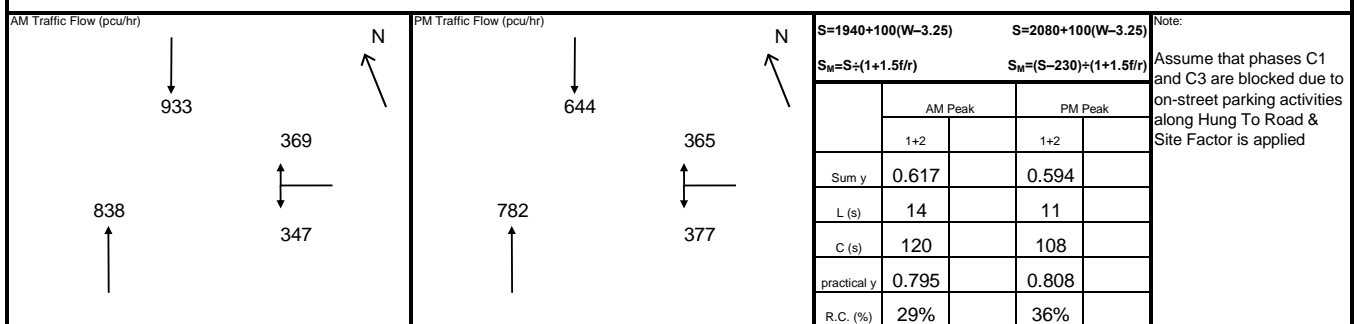
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## Signal Junction Analysis

[illegible]

## Signal Junction Analysis

Junction:	Lai Yip Street / Hung To Road	Job Number:	J7409
Scenario:	With the Proposed Development	P.	30
Design Year:	2032	Designed By:	_____
		Checked By:	_____
		Date:	18 August 2025

[illegible]

## Priority Junction Analysis

Junction:	Tai Yip Street / Siu Yip Street				
Design Year:	2025	Job Number:	J7409	Date:	18 Aug 2025
Scheme:	Existing Condition				Page 31



Tai Yip Street SB - Arm C

22	15
37	14
32	29

Siu Yip Street WB - Arm D

18	41	60
17	33	21

124	103
20	23
204	163

Tai Yip Street NB - Arm A

AM	PM
----	----

37	12	113
45	53	104

Siu Yip Street EB - Arm B

$$Y = 1 - 0.0345W$$

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

where W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

		Input				Input				Input			
Geometry :	W	7.80	V-CB	250		V-AD	100		w-BA	5.00			
	W-CR	0.00	V-lBA	35		V-IDC	55		w-BC	5.00			
	W-CB	4.00	V-rBC	40		V-rDA	20		w-DA	5.00			
	W-AD	4.00							w-DC	5.00			

Traffic Flows, pcu/hr		AM	PM	Capacity, pcu/hr		AM	PM
Analysis :	q-B-ACD	178	222		Q-B-ACD	554	552
	q-A-BCD	201	157		Q-A-BCD	777	742
	q-A-B	166	141				
	q-A-C	16	20				
	q-D-ABC	78	131		Q-D-ABC	513	554
	q-C-ABD	34	39		Q-C-ABD	626	667
	q-C-D	16	23				
	q-C-A	15	38				

Ratio-of-flow to Capacity		AM	PM
	B-ACD	0.322	0.403
	A-BCD	0.258	0.212
	D-ABC	0.152	0.237
	C-ABD	0.054	0.059

## Priority Junction Analysis

Junction:	Tai Yip Street / Siu Yip Street				
Design Year:	2032	Job Number:	J7409	Date:	18 Aug 2025
Scheme:	Without the Proposed Development				Page 32



Tai Yip Street SB - Arm C

24	16
40	15
36	32

Siu Yip Street WB - Arm D

20	46	66
19	37	23

137	115
22	25
369	359

Tai Yip Street NB - Arm A

AM	PM
----	----

Siu Yip Street EB - Arm B

41	13	130
50	59	128

$$Y = 1 - 0.0345W$$

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

where W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Input		Input		Input		Input	
W	7.80	V-CB	250	V-AD	100	w-BA	5.00
W-CR	0.00	V-lBA	35	V-IDC	55	w-BC	5.00
W-CB	4.00	V-rBC	40	V-rDA	20	w-DA	5.00
W-AD	4.00					w-DC	5.00

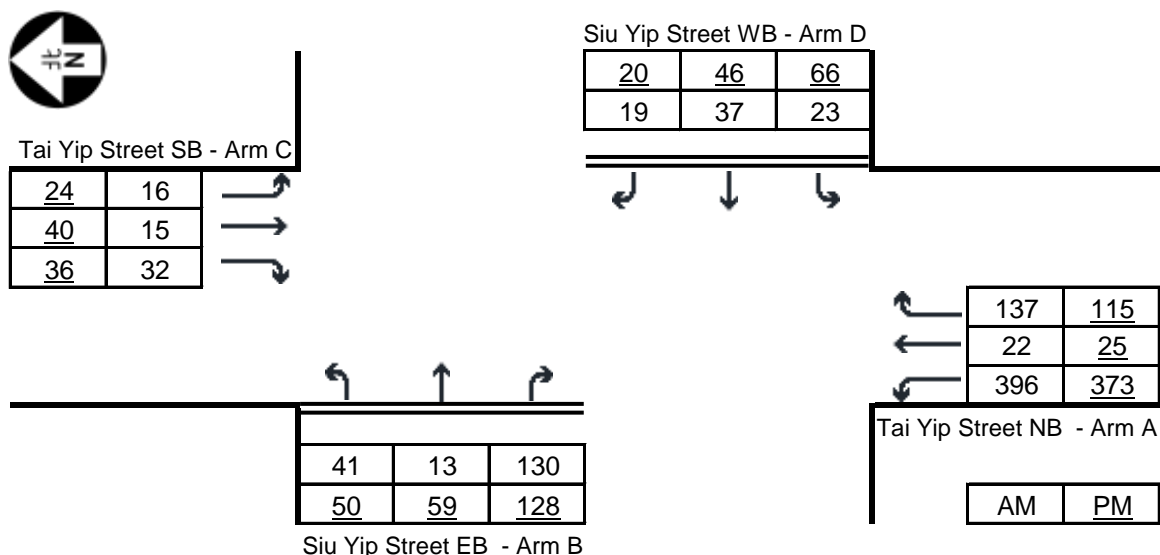
Traffic Flows, pcu/hr		AM	PM	Capacity, pcu/hr		AM	PM
Analysis :	q-B-ACD	203	261	Q-B-ACD	527	519	
	q-A-BCD	292	244	Q-A-BCD	898	885	
	q-A-B	273	286				
	q-A-C	16	20				
	q-D-ABC	87	145	Q-D-ABC	489	530	
	q-C-ABD	37	45	Q-C-ABD	576	611	
	q-C-D	16	24				
	q-C-A	15	41				

Ratio-of-flow to Capacity		AM	PM
	B-ACD	0.384	0.503
	A-BCD	0.325	0.276
	D-ABC	0.178	0.274
	C-ABD	0.065	0.073



## Priority Junction Analysis

Junction:	Tai Yip Street / Siu Yip Street				
Design Year:	2032	Job Number:	J7409	Date:	18 Aug 2025
Scheme:	With the Proposed Development				Page 33



### Geometry :

$$Y = 1 - 0.0345W$$

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

where W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

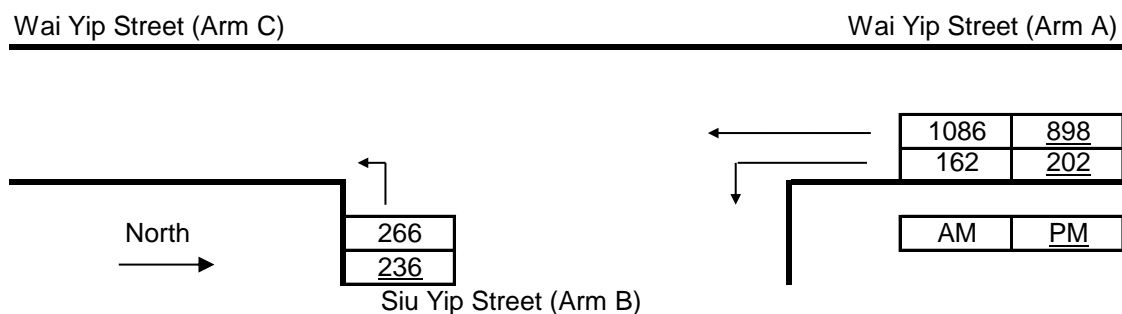
Geometry :	Input		Input		Input		Input	
	W	7.80	V-CB	250	V-AD	100	w-BA	5.00
	W-CR	0.00	V-lBA	35	V-IDC	55	w-BC	5.00
	W-CB	4.00	V-rBC	40	V-rDA	20	w-DA	5.00
	W-AD	4.00					w-DC	5.00

	Traffic Flows, pcu/hr	AM	PM		Capacity, pcu/hr	AM	PM
Analysis :	q-B-ACD	203	261		Q-B-ACD	524	517
	q-A-BCD	305	250		Q-A-BCD	917	895
	q-A-B	290	295				
	q-A-C	16	20				
	q-D-ABC	87	145		Q-D-ABC	486	529
	q-C-ABD	38	45		Q-C-ABD	568	608
	q-C-D	16	24				
	q-C-A	15	41				

Ratio-of-flow to Capacity		AM	PM
	B-ACD	0.387	0.505
	A-BCD	0.332	0.279
	D-ABC	0.179	0.275
	C-ABD	0.066	0.074

## Priority Junction Analysis

Junction: Wai Yip Street / Siu Yip Street  
 Design Year: 2025 Job Number: J7409 Date: 18 August 2025  
 Scenario: Existing Condition P. 34



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :

Input	Input	Input	Calculated
W	19.00	V-rBA	45
W-CR	0.00	V-IBA	45
		V-rBC	45
		V-rCB	250
		w-BA	5.00
		w-BC	5.00
		w-CB	0.00
		D	0.9846
		E	1.0508
		F	0.7338
		Y	0.3445

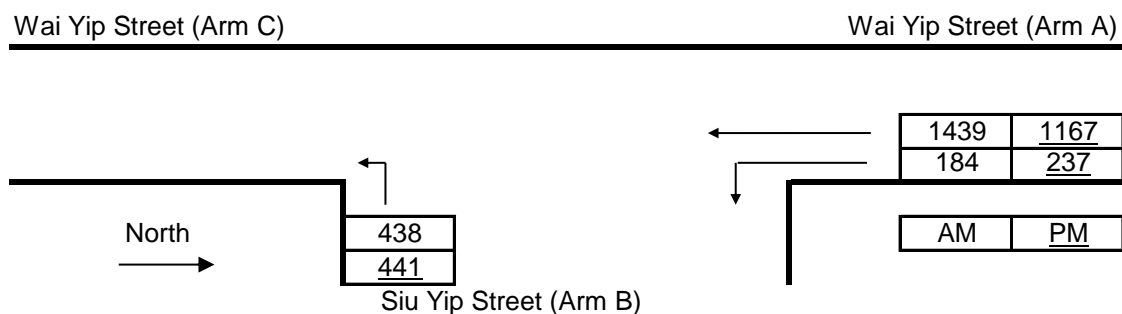
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	475	497
q-CB	0	0	Q-BC	631	654
q-AB	162	202	Q-CB	432	445
q-AC	1086	898	Q-BAC	631	654
q-BA	0	0			
q-BC	266	236			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.421	0.361
C-B	0.000	0.000

## Priority Junction Analysis

Junction: Wai Yip Street / Siu Yip Street  
 Design Year: 2032 Job Number: J7409 Date: 18 August 2025  
 Scenario: Without the Proposed Development P. 35



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :	Input		Input		Input		Calculated	
	W	19.00	V-rBA	45	w-BA	5.00	D	0.9846
	W-CR	0.00	V-IBA	45	w-BC	5.00	E	1.0508
			V-rBC	45	w-CB	0.00	F	0.7338
			V-rCB	250			Y	0.3445

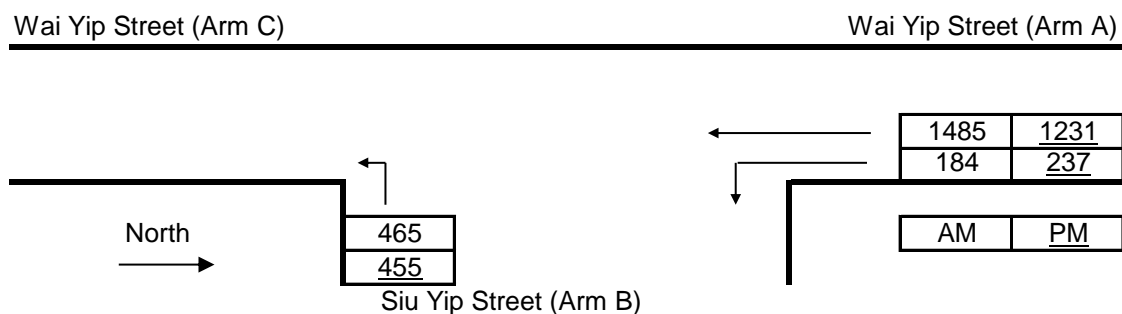
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	431	462
q-CB	0	0	Q-BC	584	617
q-AB	184	237	Q-CB	397	417
q-AC	1439	1167	Q-BAC	584	617
q-BA	0	0			
q-BC	438	441			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.750	0.715
C-B	0.000	0.000

## Priority Junction Analysis

Junction: Wai Yip Street / Siu Yip Street  
 Design Year: 2032 Job Number: J7409 Date: 18 August 2025  
 Scenario: With the Proposed Development P. 36



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where  $Y = 1 - 0.0345W$

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

W = major road width

W-CR = central reserve width

w-BA, etc = lane width to vehicle

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

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

Geometry :

Input	Input	Input	Calculated
W	19.00	V-rBA	45
W-CR	0.00	V-IBA	45
		V-rBC	45
		V-rCB	250
		w-BA	5.00
		w-BC	5.00
		w-CB	0.00
		D	0.9846
		E	1.0508
		F	0.7338
		Y	0.3445

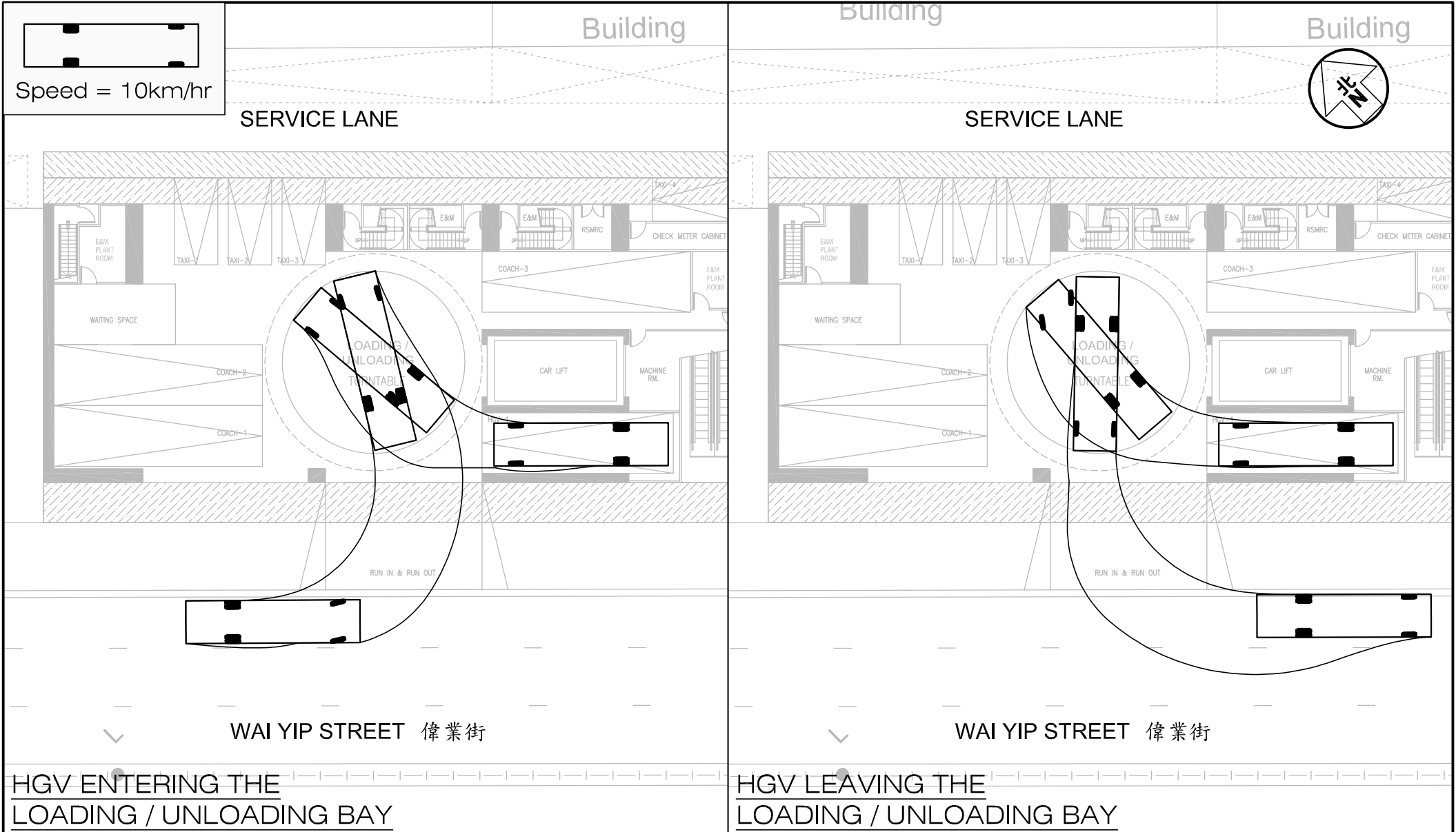
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	425	454
q-CB	0	0	Q-BC	578	608
q-AB	184	237	Q-CB	393	412
q-AC	1485	1231	Q-BAC	578	608
q-BA	0	0			
q-BC	465	455			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.805	0.748
C-B	0.000	0.000

## **Appendix 2 – Swept Path Analysis**

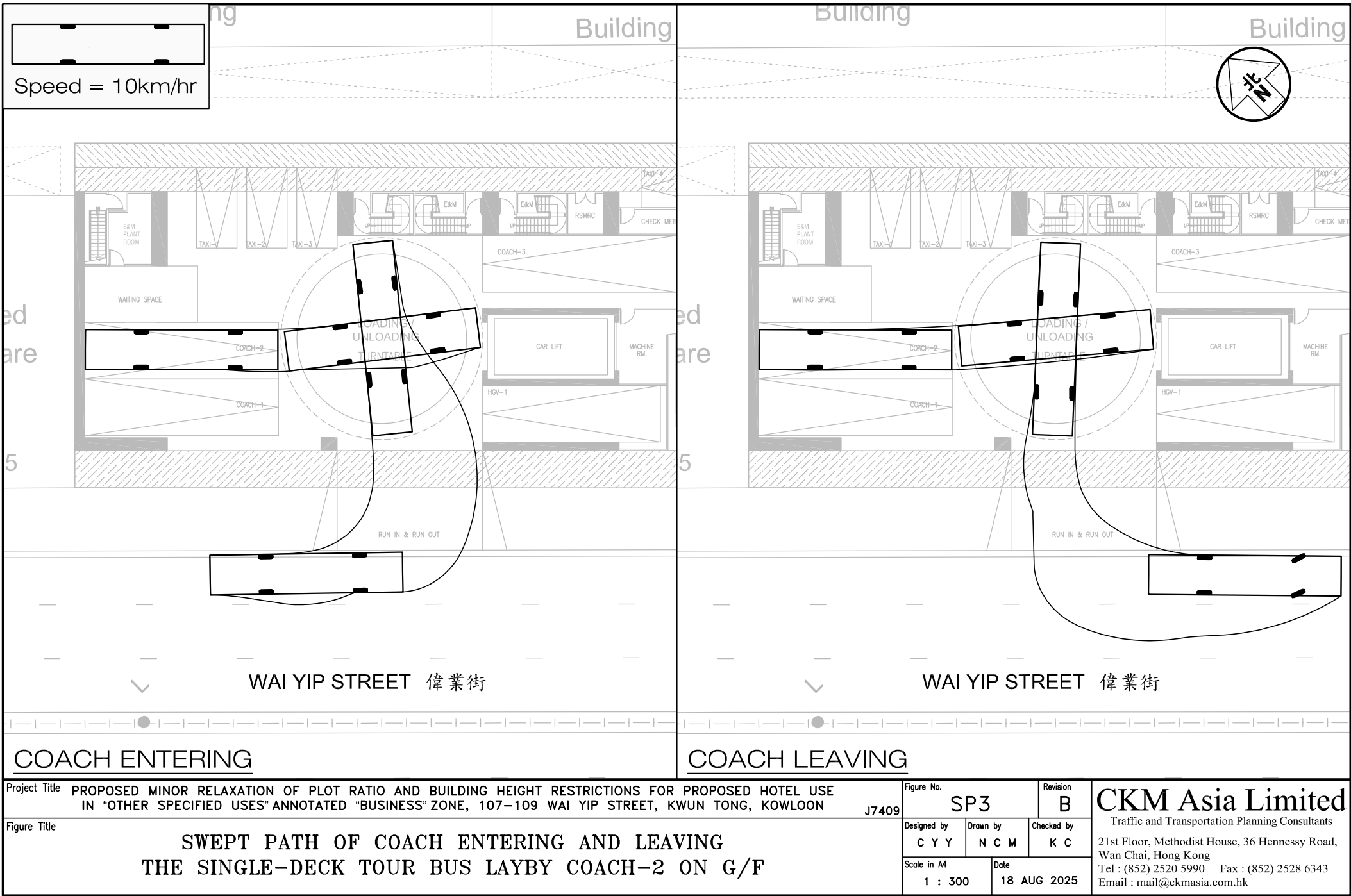
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Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON			Figure No. SP1		Revision B
Figure Title SWEPT PATH OF HEAVY GOODS VEHICLE ENTERING AND LEAVING THE HGV LOADING / UNLOADING BAY HGV-1 ON G/F			Designed by C Y Y	Drawn by N C M	Checked by K C
			Scale in A4 1 : 300	Date 18 AUG 2025	
			CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk		

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Project Title

PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE  
IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON

J7409

Figure Title

SWEPT PATH OF COACH ENTERING AND LEAVING  
THE SINGLE-DECK TOUR BUS LAYBY COACH-2 ON G/F

Figure No.

SP3

Revision

B

Designed by

C Y Y

Drawn by

N C M

Checked by

K C

Scale in A4

1 : 300

Date

18 AUG 2025

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Wan Chai, Hong Kong

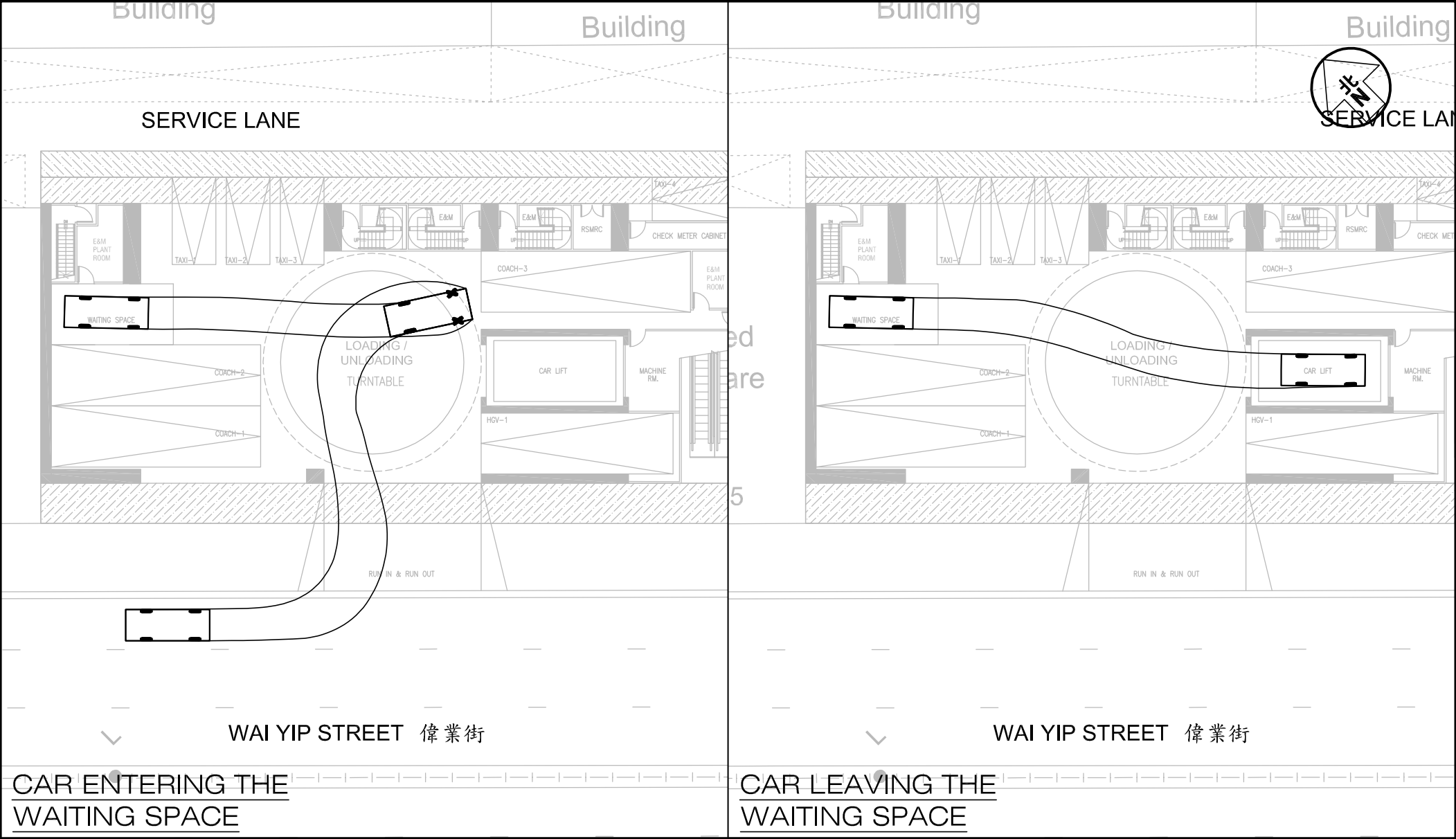
Tel : (852) 2520 5990 Fax : (852) 2528 6343  
Email : mail@ckmasia.com.hk

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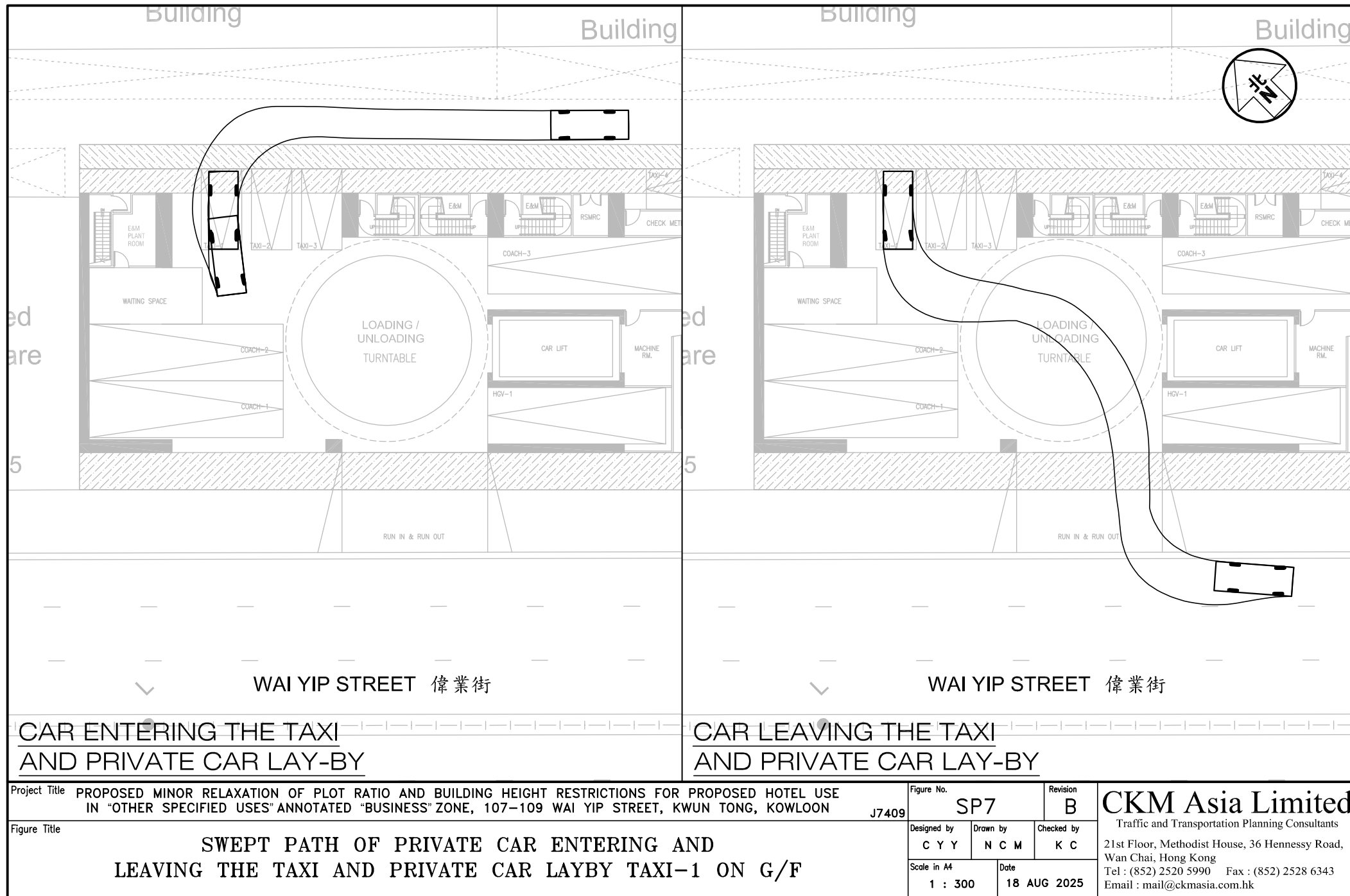


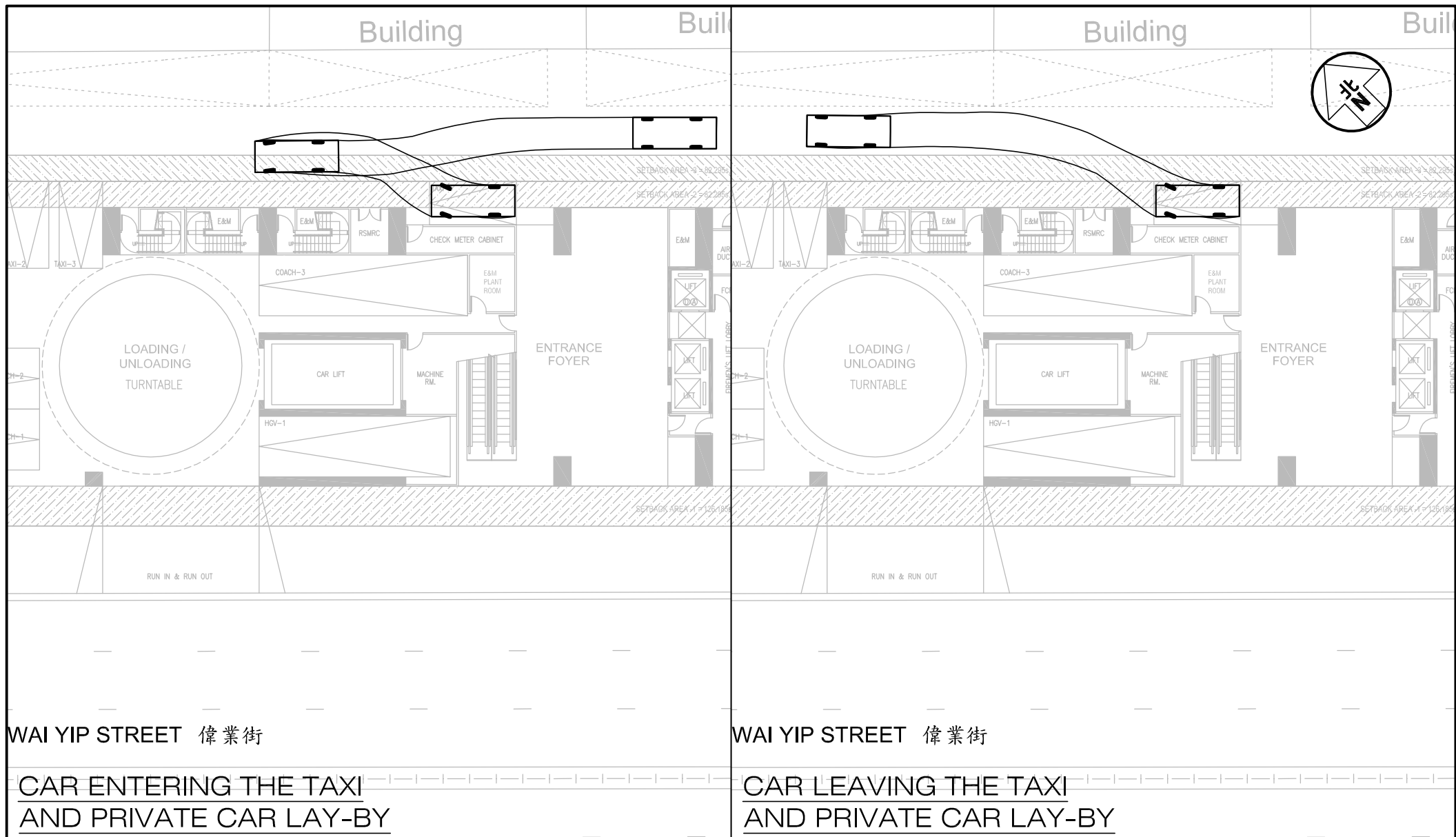




Project Title			Figure No.			Revision		CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk	
PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON			J7409			SP6			
Figure Title			Designed by		Drawn by		Checked by		
			C Y Y		N C M		K C		
SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE WAITING SPACE ON G/F			Scale in A4			Date			
			1 : 300			18 AUG 2025			

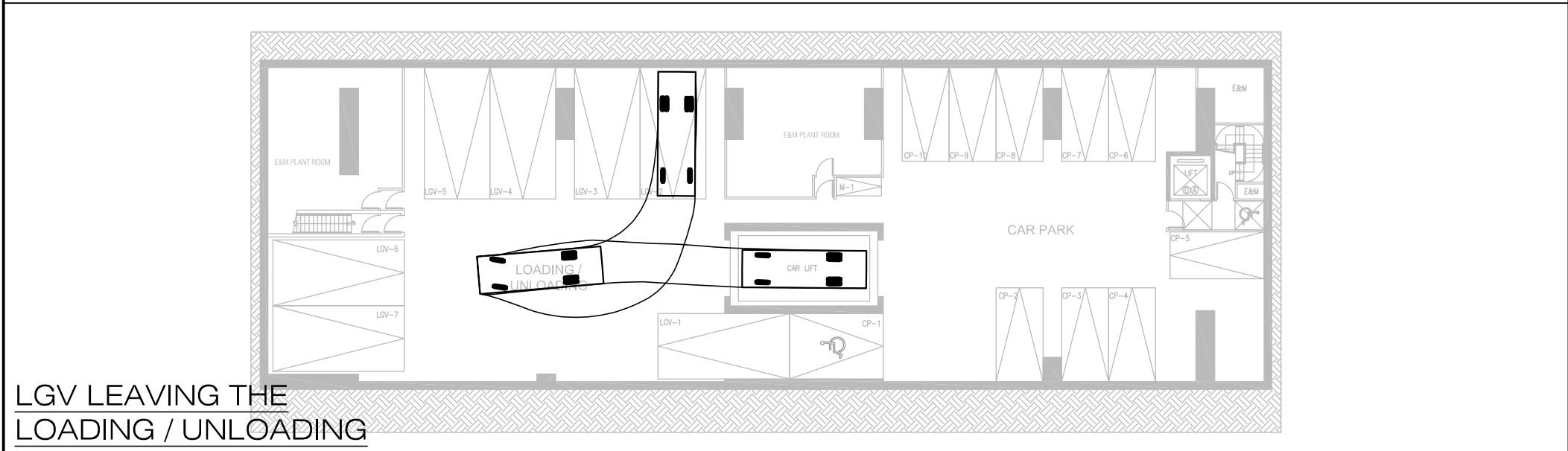
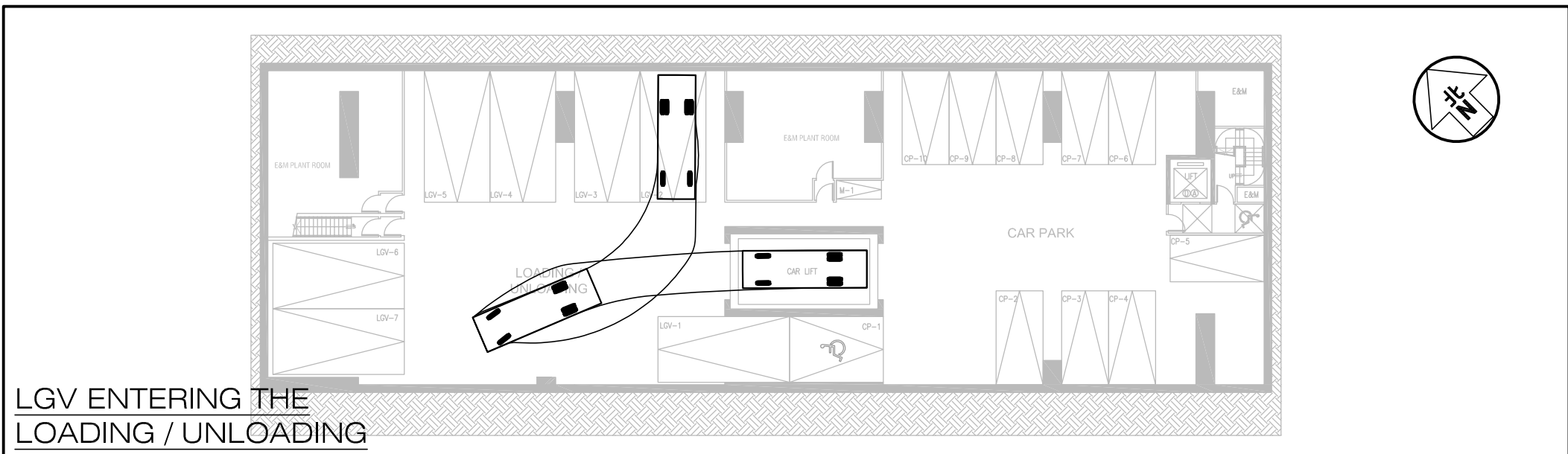
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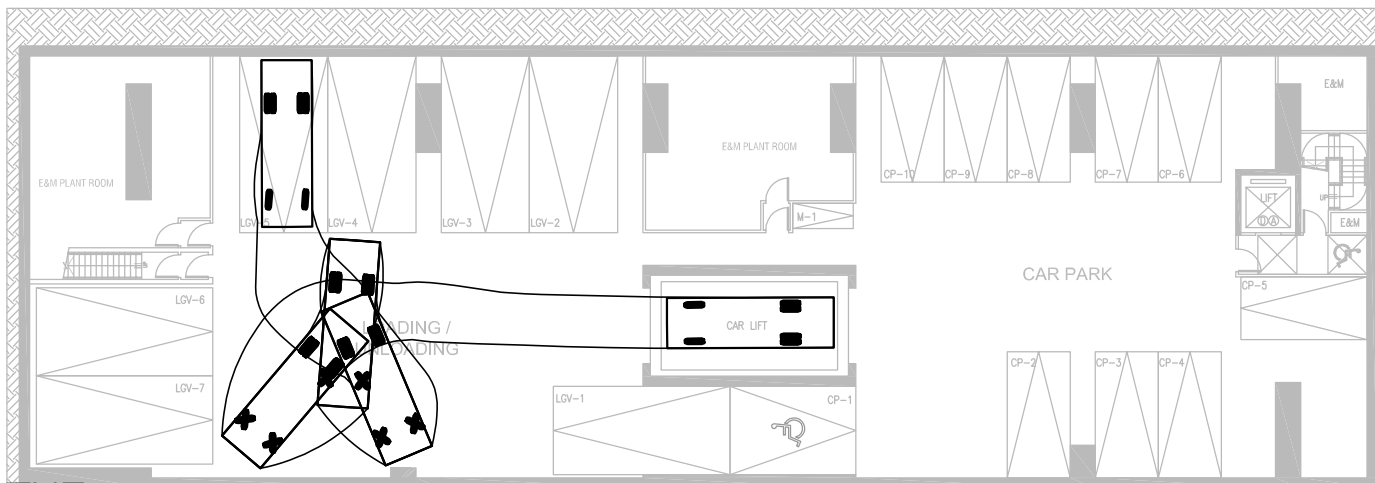
Project Title			Figure No.		Revision		CKM Asia Limited Traffic and Transportation Planning Consultants 21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong Tel : (852) 2520 5990 Fax : (852) 2528 6343 Email : mail@ckmasia.com.hk
PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON			SP8		B		
J7409			Designed by	Drawn by	Checked by		
Figure Title			C Y Y	N C M	K C		
SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE TAXI AND PRIVATE CAR LAYBY TAXI-4 ON G/F			Scale in A4		Date		
			1 : 300		18 AUG 2025		

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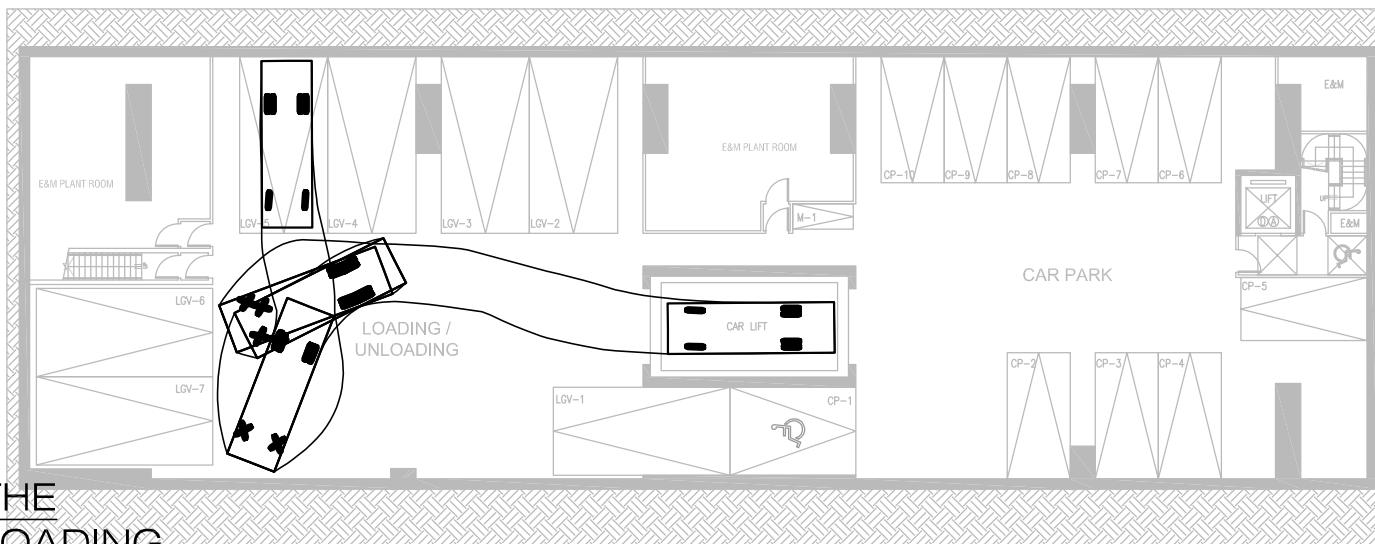


Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON			Figure No. SP9		Revision B
Figure Title			Designed by C Y Y	Drawn by N C M	Checked by K C
SWEPT PATH OF LGV ENTERING AND LEAVING THE LGV LOADING / UNLOADING BAY LGV-2 ON B1/F			Scale in A4		Date
			1 : 300		18 AUG 2025
			CKM Asia Limited		
			Traffic and Transportation Planning Consultants		
			21st Floor, Methodist House, 36 Hennessy Road, Wan Chai, Hong Kong		
			Tel : (852) 2520 5990 Fax : (852) 2528 6343		
			Email : mail@ckmasia.com.hk		

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**LGV ENTERING THE  
LOADING / UNLOADING**



**LGV LEAVING THE  
LOADING / UNLOADING**

Project Title **PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE  
IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON** J7409

Figure Title **SWEPT PATH OF LGV ENTERING AND LEAVING  
THE LGV LOADING / UNLOADING BAY LGV-5 ON B1/F**

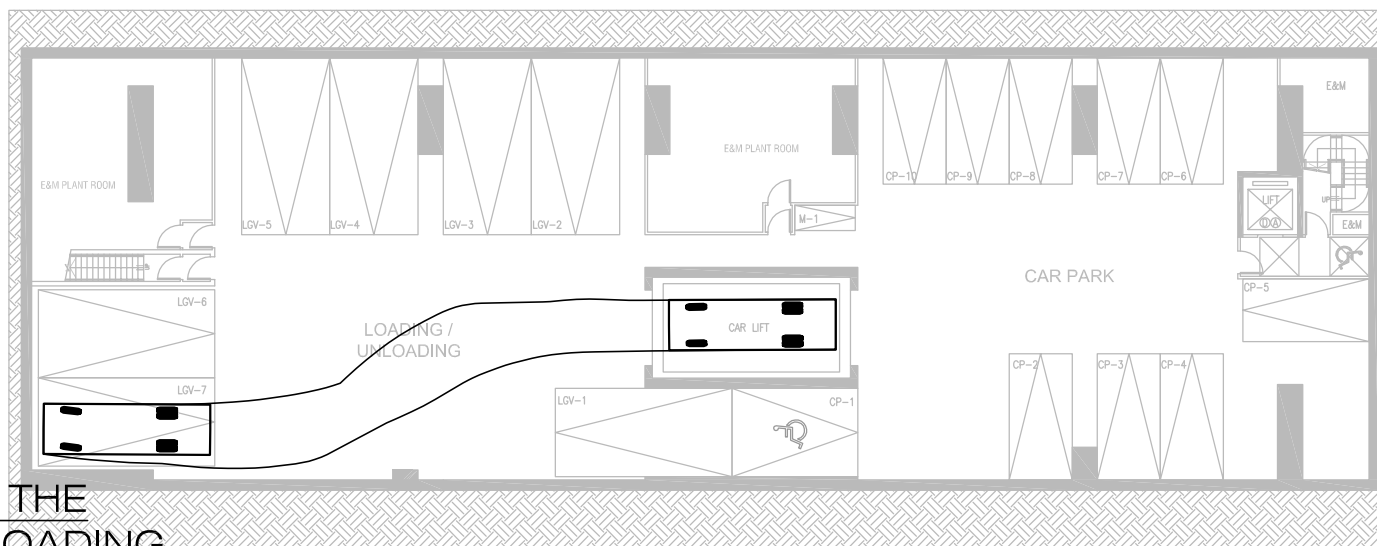
Figure No. **SP10** Revision **B**

Designed by **C Y Y** Drawn by **N C M** Checked by **K C**

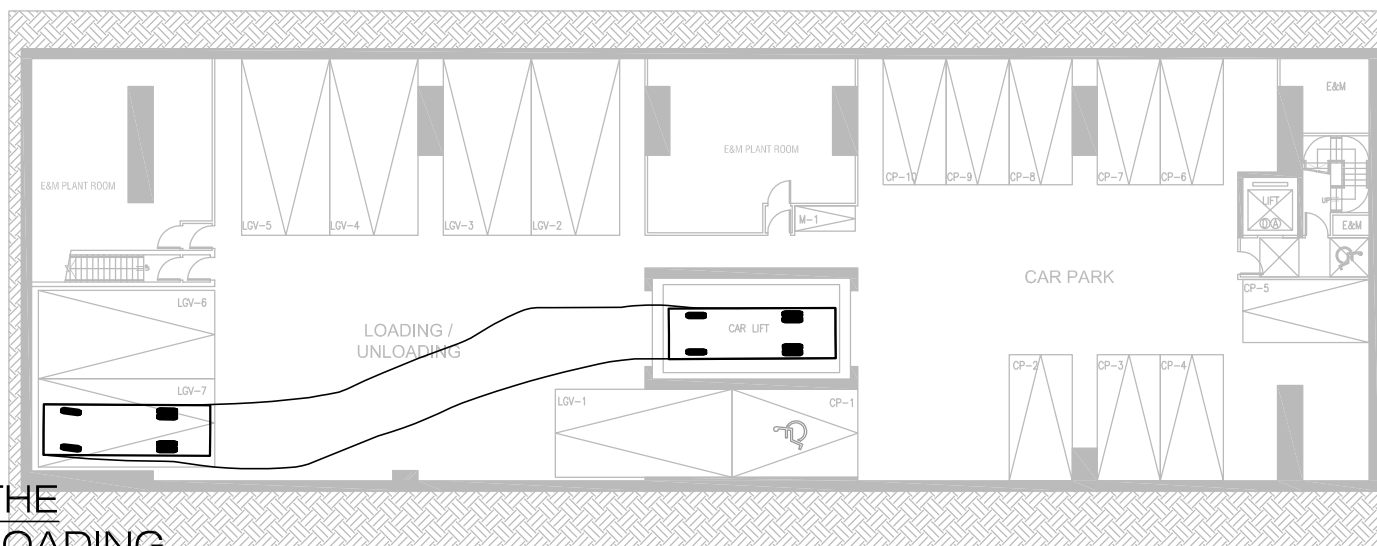
Scale in A4 **1 : 300** Date **18 AUG 2025**

**CKM Asia Limited**

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Email : mail@ckmasia.com.hk



**LGV ENTERING THE  
LOADING / UNLOADING**



**LGV LEAVING THE  
LOADING / UNLOADING**

Project Title **PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE  
IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON** J7409

Figure Title **SWEPT PATH OF LGV ENTERING AND LEAVING  
THE LGV LOADING / UNLOADING BAY LGV-7 ON B1/F**

Figure No. **SP11** Revision **B**

Designed by **C Y Y** Drawn by **N C M** Checked by **K C**

Scale in A4 **1 : 300** Date **18 AUG 2025**

**CKM Asia Limited**

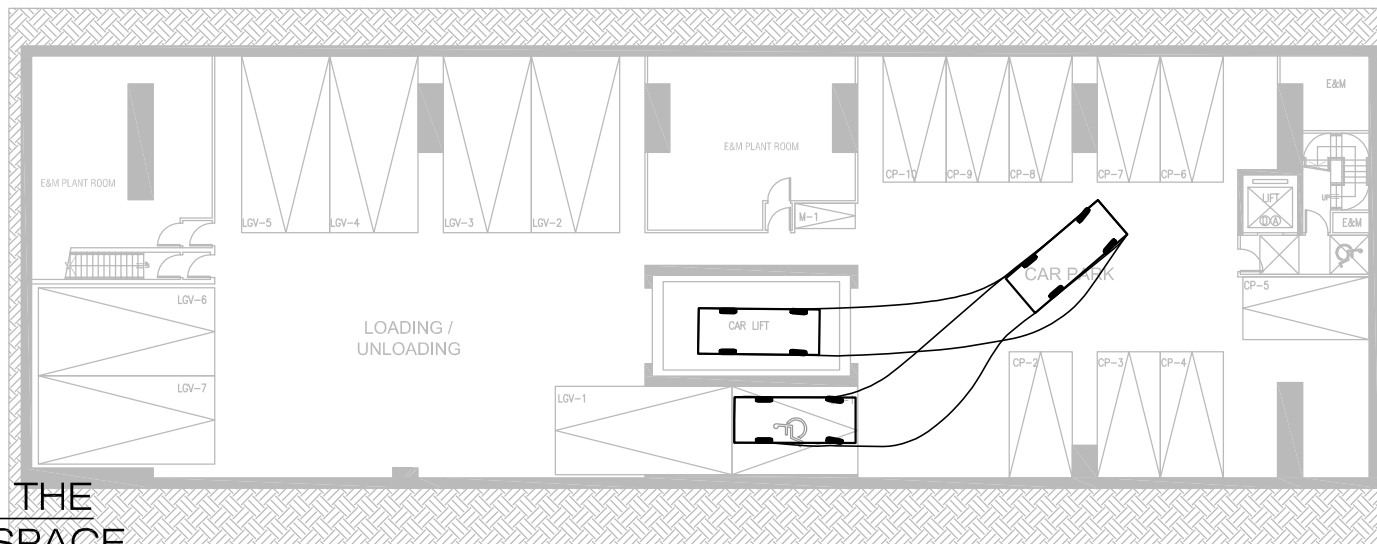
Traffic and Transportation Planning Consultants

21st Floor, Methodist House, 36 Hennessy Road,  
Wan Chai, Hong Kong  
Tel : (852) 2520 5990 Fax : (852) 2528 6343  
Email : mail@ckmasia.com.hk

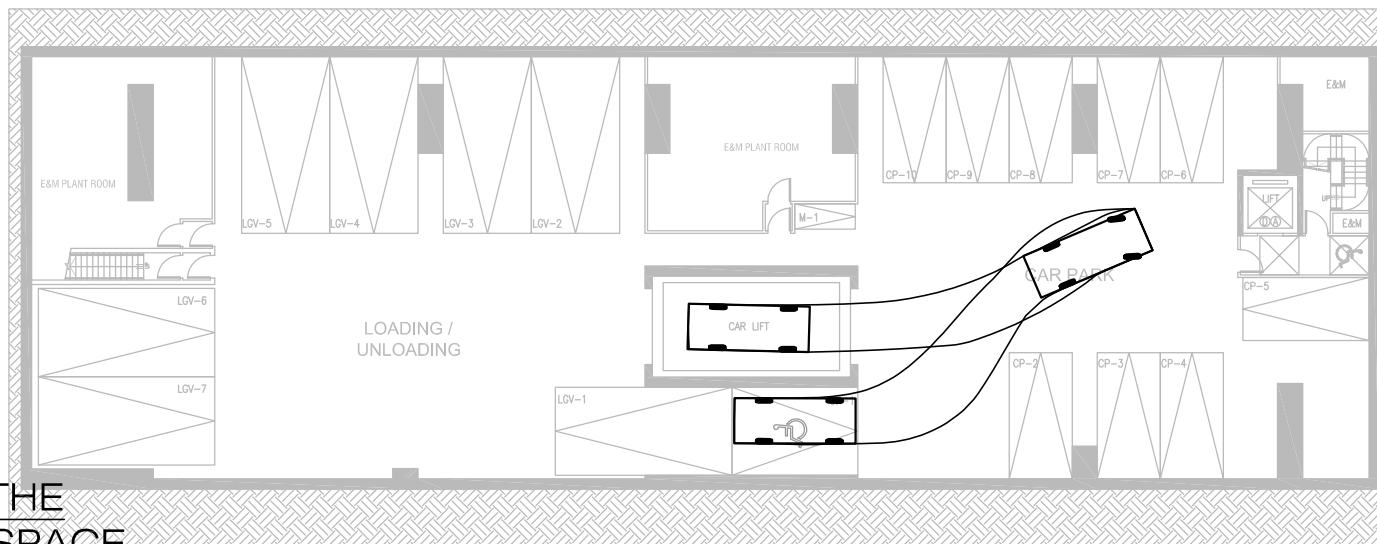
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**CAR ENTERING THE  
CAR PARKING SPACE**



**CAR LEAVING THE  
CAR PARKING SPACE**



Project Title **PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE  
IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON** J7409

Figure Title **SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING  
THE CAR PARKING SPACE CP-1 ON B1/F**

Figure No. **SP12** Revision **B**

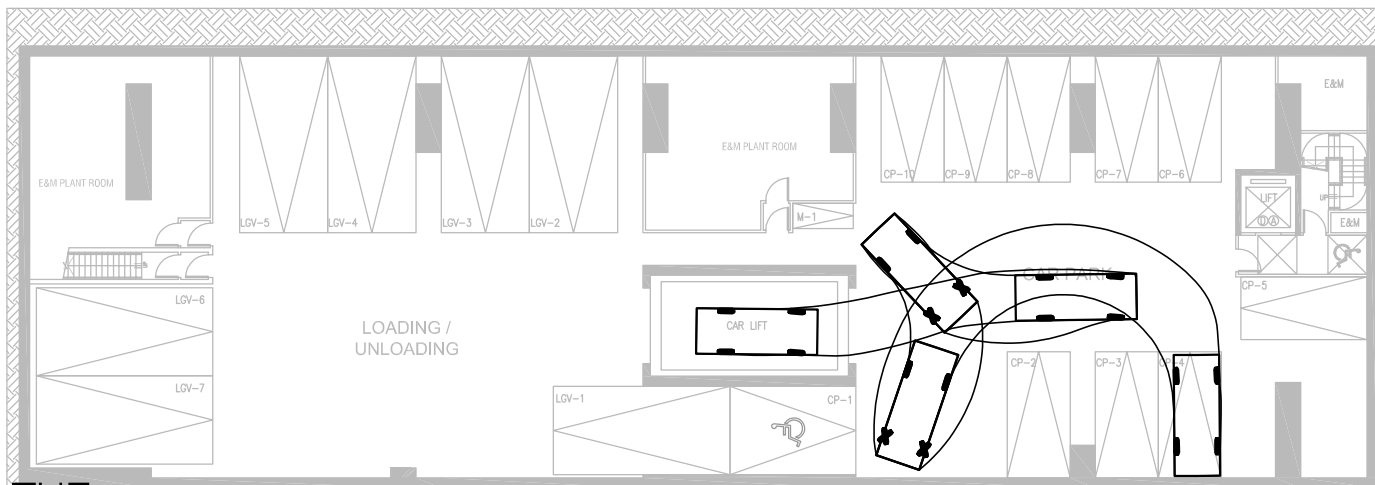
Designed by **C Y Y** Drawn by **N C M** Checked by **K C**

Scale in A4 **1 : 300** Date **18 AUG 2025**

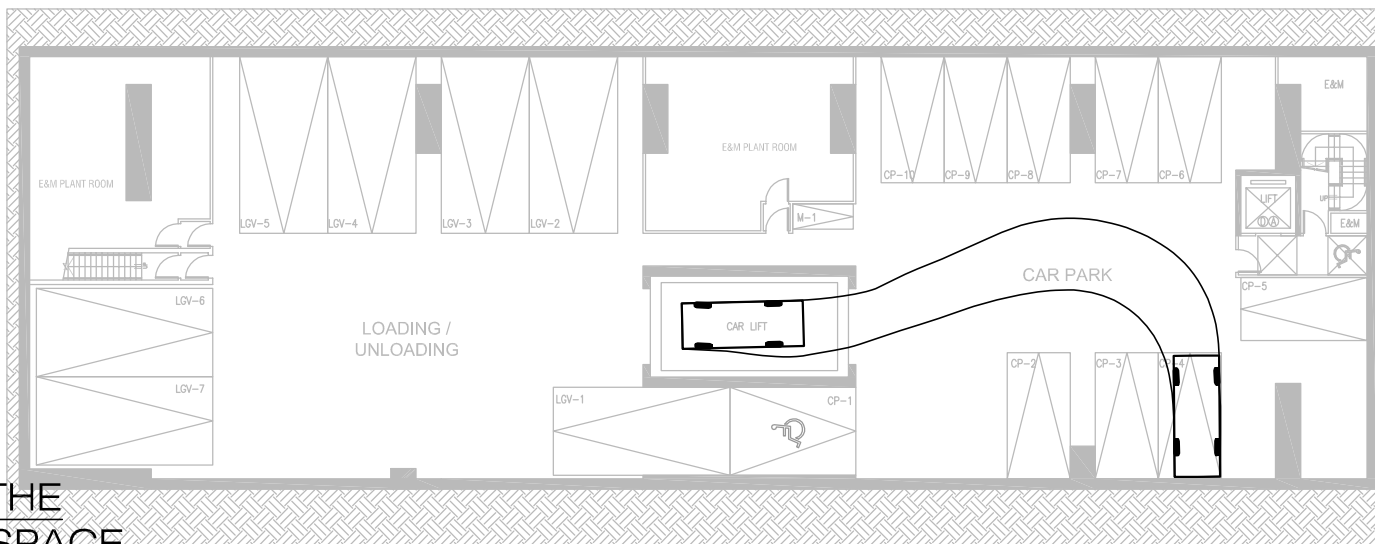
**CKM Asia Limited**

Traffic and Transportation Planning Consultants  
21st Floor, Methodist House, 36 Hennessy Road,  
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Email : mail@ckmasia.com.hk

CAR ENTERING THE  
CAR PARKING SPACE



CAR LEAVING THE  
CAR PARKING SPACE



Project Title PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE  
IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON J7409

Figure No. SP13 Revision B

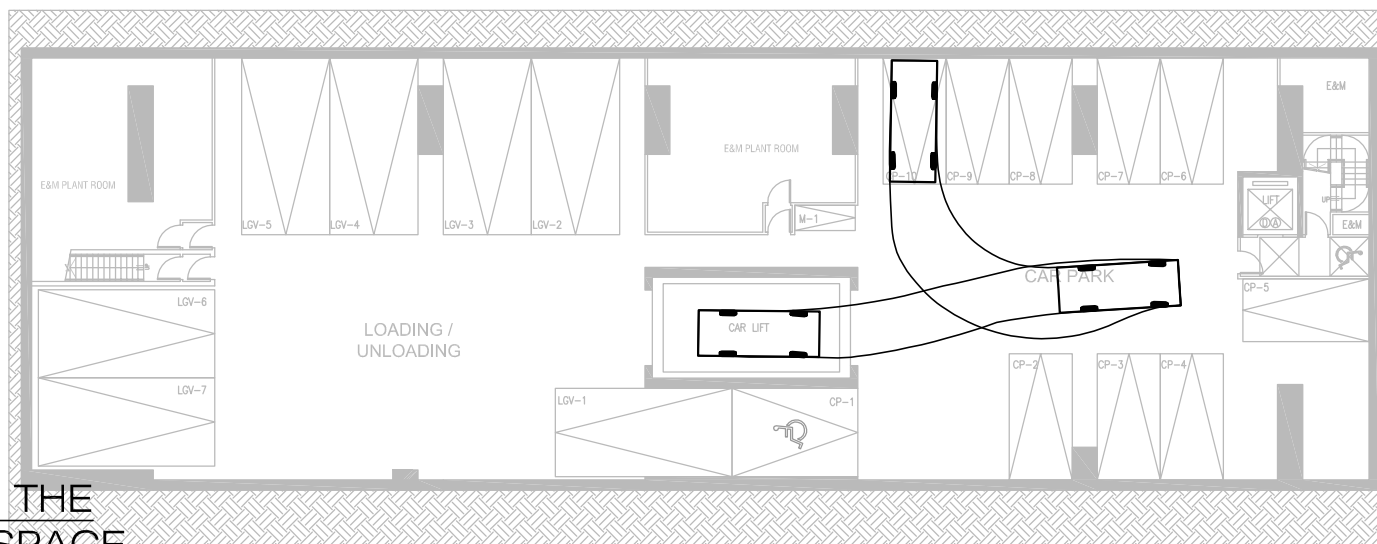
Figure Title SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING  
THE CAR PARKING SPACE CP-4 ON B1/F

Designed by C Y Y Drawn by N C M Checked by K C  
Scale in A4 1 : 300 Date 18 AUG 2025

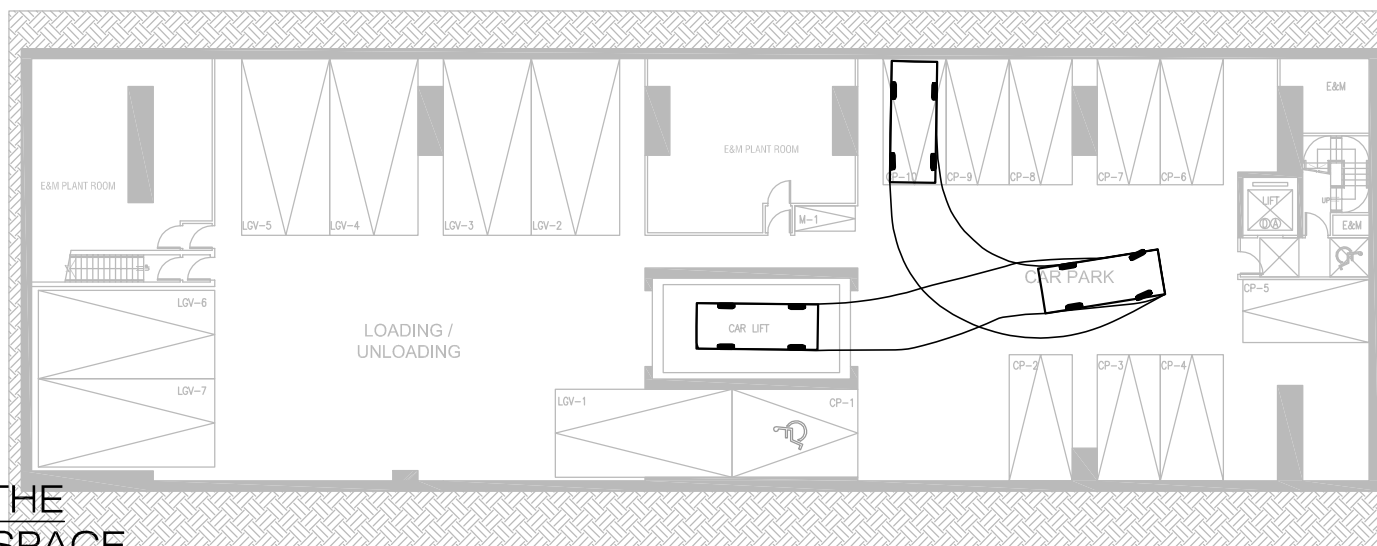
**CKM Asia Limited**

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**CAR ENTERING THE  
CAR PARKING SPACE**



**CAR LEAVING THE  
CAR PARKING SPACE**



Project Title **PROPOSED MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS FOR PROPOSED HOTEL USE  
IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE, 107-109 WAI YIP STREET, KWUN TONG, KOWLOON** J7409

Figure Title **SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING  
THE CAR PARKING SPACE CP-10 ON B1/F**

Figure No. <b>SP14</b>		Revision <b>B</b>
Designed by <b>C Y Y</b>	Drawn by <b>N C M</b>	Checked by <b>K C</b>
Scale in A4 <b>1 : 300</b>		Date <b>18 AUG 2025</b>

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## **Appendix 3 – Vehicle Lift Analysis**

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## Car Lift Analysis

**Job Title** Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions for  
Proposed Hotel Use in "Other Specified Uses" annotated "Business" Zone, 107-109  
Wai Yip Street, Kwun Tong

Ground floor to typical car park floor (m)	5.00
Average Speed (m/s)	0.50
Travel time (s)	10.00

<b><u>Activity</u></b>	<b><u>Time (s)</u></b>
Car lift travels from ground floor to typical car park floor	10
Lift door opens	5
Car exits lift in forward gear on typical car park floor	5
Car enters lift in reverse gear on typical car park floor	10
Door closes	5
Car lift travels from typical car park floor to ground floor	10
Lift door opens	5
Car exits lift in forward gear on ground floor	5
Car enters lift in reverse gear on ground floor	10
Door closes	5
<b><u>Total</u></b>	<b>70</b>

Number of lift servers, $k$	1
Number of waiting space(s)	1
Cycle time $\omega$ (s)	70
Arrival rate $\lambda$ (veh / hr)	18
Service rate $\mu$ of one lift server (veh / hr)	51

<b><u>Number of Cars N</u></b>	<b><u>Probability of Exact N Cars in the Lift System</u></b>	<b><u>Probability of N Cars or Less in the Lift System</u></b>	<b><u>Probability of More Than N Cars in the Lift System</u></b>
0	65.00%	65.00%	35.00%
1	22.75%	87.75%	12.25%
<b>2</b>	<b>7.96%</b>	<b>95.71%</b>	<b>4.29%</b>
3	2.79%	98.50%	1.50%
4	0.98%	99.47%	0.53%
5	0.34%	99.82%	0.18%
6	0.12%	99.94%	0.06%
7	0.04%	99.98%	0.02%

### **Conclusion**

The probability of a vehicle arriving when 1 car lift and 1 waiting space are occupied is 4.29%.

Formulae:		[A]	[B]	
Floor	Level (m)	Distance from G/F	No. of parking spaces	[A] * [B]
8/F				
7/F				
6/F				
5/F				
4/F				
3/F				
2/F				
1/F				
G/F	0.00	0.0	0	0
B1/F	-5.00	5.0	18	90
B2/F				
B3/F				
B4/F				
B5/F				
B6/F				
B7/F				
B8/F				
		total parking spaces	typical floor distance	
			18	5

Note:

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

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

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

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

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

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

Probability of having exactly zero cars in the lift system:

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

Probability of having exactly N cars in the lift system:

For  $N < k$ :

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

For  $N \geq k$ :

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

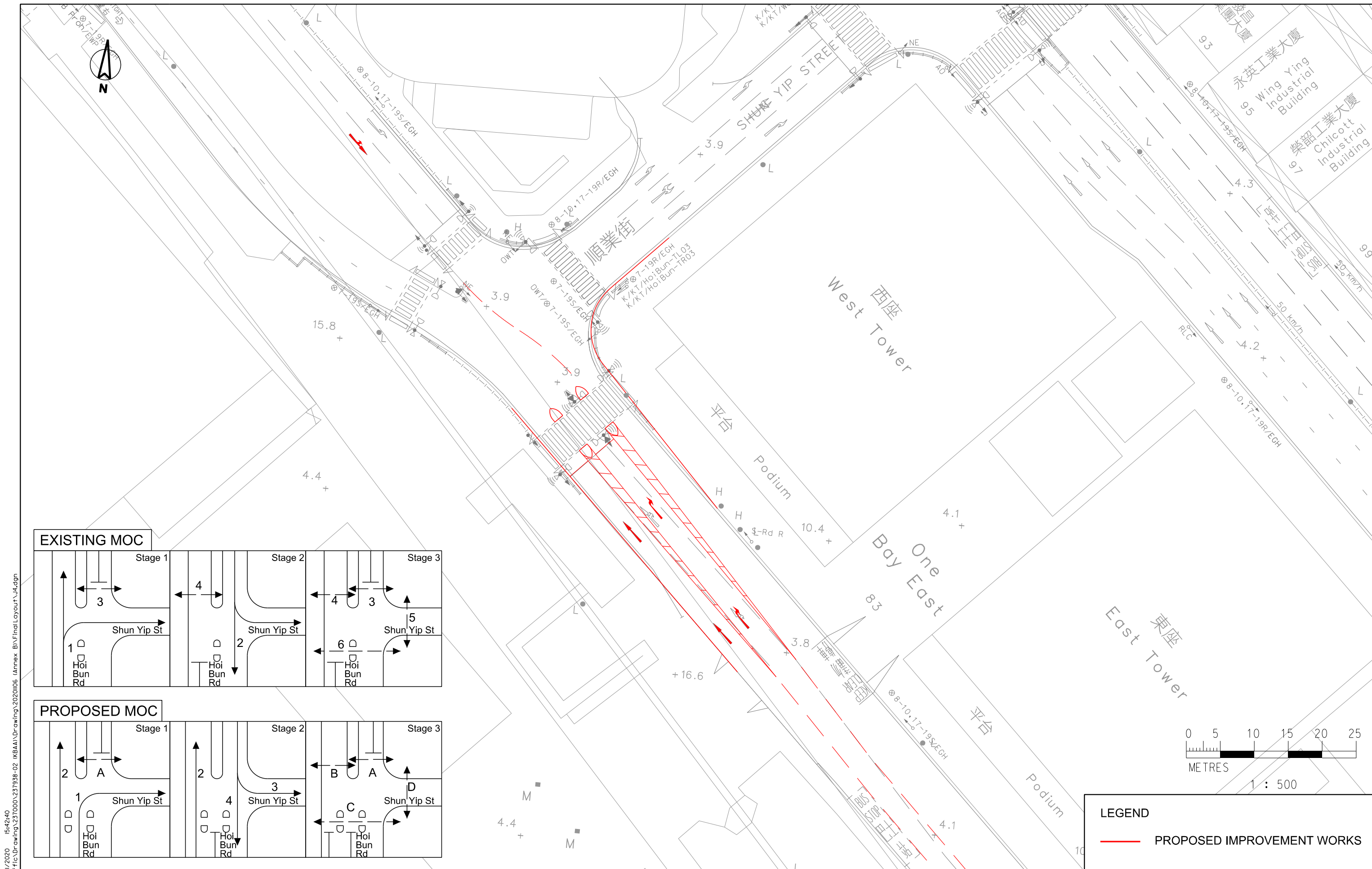
k - -number of lift servers

$\lambda$  - -arrival rate

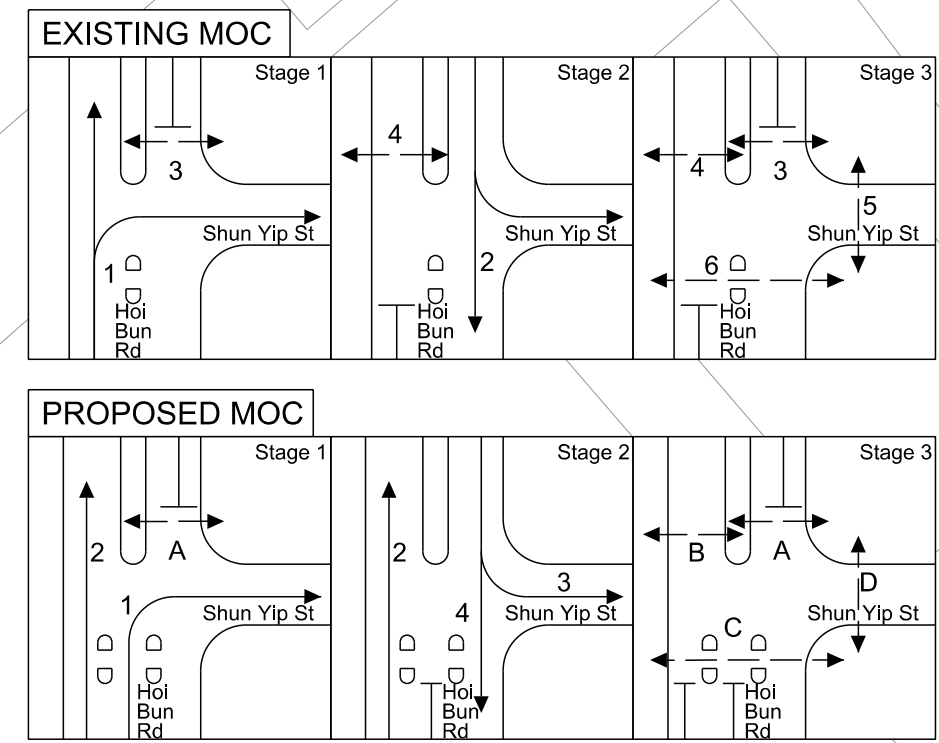
$\mu$  - -service rate

**Appendix 4 –  
Planned Junction Improvement Schemes**

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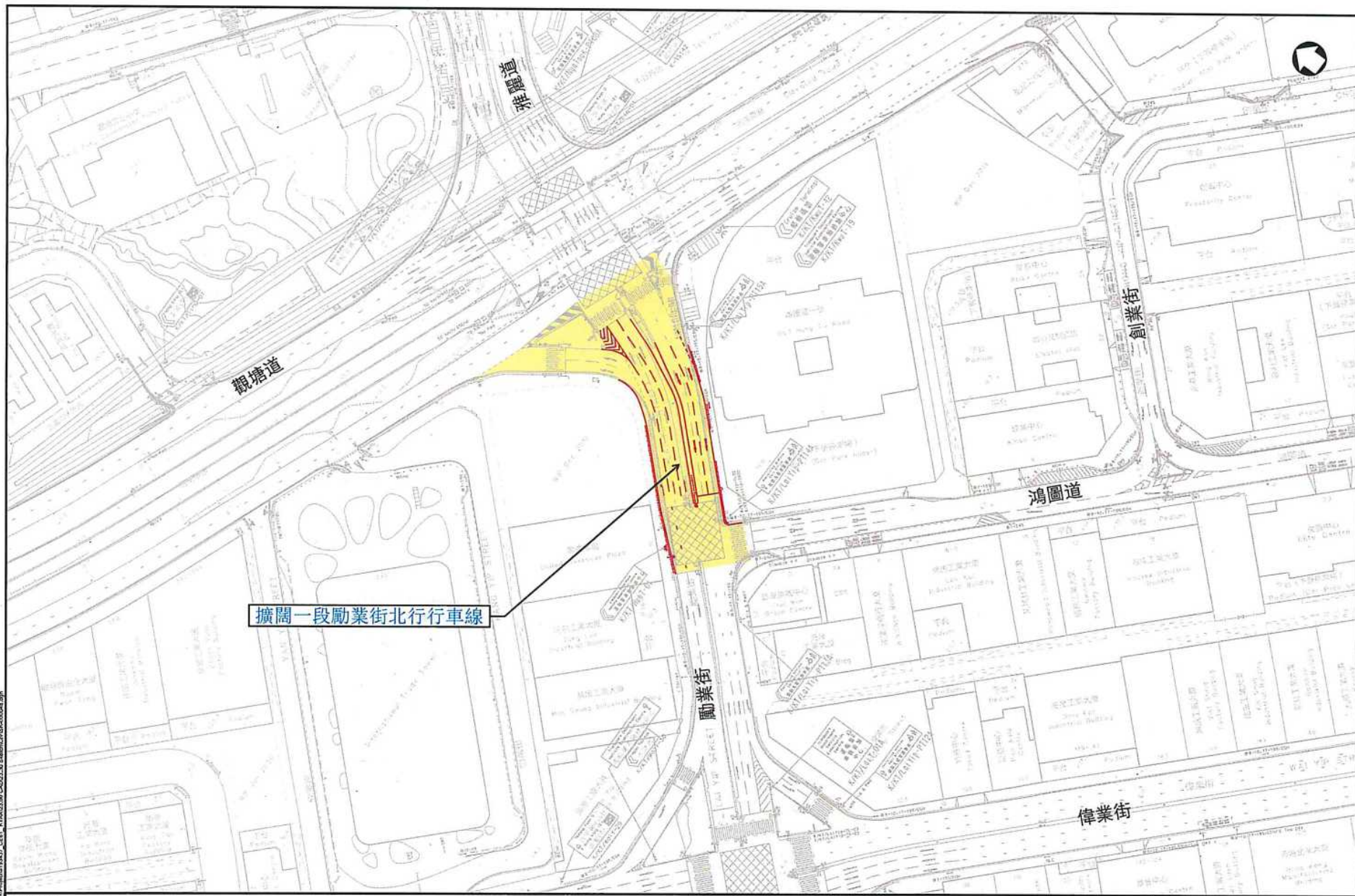
**LEGEND**

— PROPOSED IMPROVEMENT WORKS

Job Title			AGREEMENT NO. CE 4/2014 (TP) PLANNING AND ENGINEERING STUDY FOR THE DEVELOPMENT AT KOWLOON BAY ACTION AREA OF KOWLOON EAST - FEASIBILITY STUDY		FIGURE 6.4.2	
Date	Scale	Drawing Title				ARUP
20MAR20	1:500 @ A3					
Drawn	Job No.					
WSTW	237938	PROPOSED JUNCTION IMPROVEMENT AT J4 - HOI BUN ROAD / SHUN YIP STREET				



Drawn: YS/04/047 Date: 2/1/2021 Time: 11:25:19 AM  
Project: Kowloon East District Council  
Drawing: KTD/2018/0055/0004.dgn



擴闊一段勵業街北行行車線

圖則名稱

### 道路工程計劃(三) - 擬議擴闊勵業街道路工程

圖2c

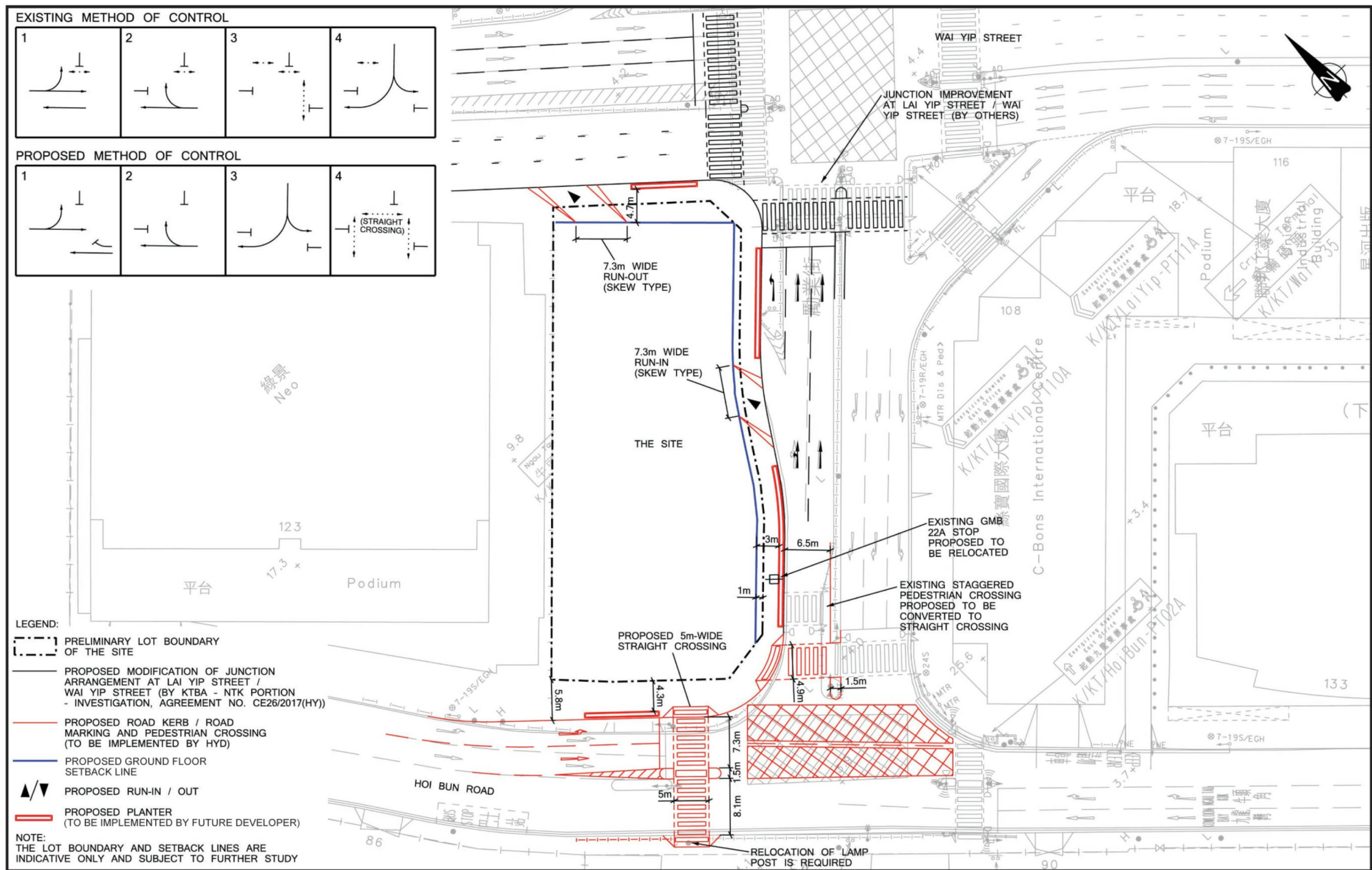


FIGURE 4.1.4 PROPOSED JUNCTION MODIFICATION

(資料來源：由起動九龍東辦事處提供)  
(Source: Provided by Energizing Kowloon East Office)

參考編號  
REFERENCE No.  
M/K14S/23/35

繪圖  
DRAWING  
5b