Appendix A

Traffic Impact Assessment

Section 16 Planning Application for Proposed Hotel with Minor Relaxation of Plot Ratio and Building Height Restrictions at 201 and 203 Wai Yip Street, Kwun Tong, Kowloon

Traffic Impact Assessment
Final Report
August 2024

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Section 16 Planning Application for Proposed Hotel with Minor Relaxation of Plot Ratio and Building Height Restrictions at 201 and 203 Wai Yip Street, Kwun Tong, Kowloon

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1.0 INTRODUCTION

Background

1.1 The Subject Site comprises of 2 existing buildings, i.e. the Siu Fu Factory Building at 201 Wai Yip Street, and the Tungtex Building at 203 Wai Yip Street (the "2 Existing Buildings"). Figure 1.1 shows the location of the Subject Site.

1.2 On 17th January 2020, the Town Planning Board ("TPB") approved the S16 Planning Application for Industrial Building at 203 Wai Yip Street (TPB ref: A/K14/778). On 4th March 2022, the Town Planning Board ("TPB") approved the S16 Planning Application for Commercial Building at 201 Wai Yip Street (TPB ref: A/K14/808).

1.3 The Applicant now intends to redevelop the 2 Existing Buildings into a hotel, with 20% increase in plot ratio, i.e., from the maximum permitted plot ratio of 12.0 to plot ratio of 14.4 (the "Proposed Redevelopment"). CKM Asia Limited, a traffic and transportation planning consultancy firm, was commissioned by the Applicant to prepare a Traffic Impact Assessment ("TIA") in support of the Proposed Redevelopment.

Scope of the Assessment

1.4 The main objectives of this TIA are as follows:

- To assess the existing traffic issues in the vicinity of the Subject Site;
- To quantify the amount of traffic generated by the Proposed Redevelopment; and
- To examine the traffic impact on the local road network in the vicinity of the Subject Site.

Contents of the Report

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

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

2.0 THE EXISTING SITUATION

The Subject Site

2.1 The Subject Site fronts onto Wai Yip Street to the south, the Wai Yip Street CLP Substation to the west and a rear lane to the north. The section of Wai Yip Street fronting the Subject Site is a dual carriageway 3-lane road. The run-in/out of the Tungtex Building is provided at Wai Yip Street.

Traffic Survey

2.2 To quantify the traffic flows at the junctions chosen for the conduct of capacity analysis, manual classified counts were undertaken on Friday, 15th March 2024 during the AM and PM peak periods. The location of the junctions and area of influence is presented in Figure 2.1 and their layout is shown in Figures 2.2 to 2.8.

2.3 The surveyed junctions include the following:

- J1: Hung To Road / Hoi Yuen Road / Wai Yip Street;
- J2: Wai Yip Street / Hoi Yuen Road;
- J3: Hung To Road / Tsun Yip Street;
- J4: Wai Yip Street / Tsun Yip Street;
- J5: Wai Yip Street / How Ming Street;
- J6: Kei Yip Street / Kei Yip Lane; and
- J7: Wai Yip Street / Kei Yip Street.

2.4 In view that the junction of Tsun Yip Street / Hoi Bun Road is not a signal controlled or priority junction, the junction performance assessment is not conducted. 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.

Review of the Traffic Flows obtained from the Traffic Survey

2.5 The traffic flows obtained from the survey in March 2024 are adjusted based on the Annual Average Daily Traffic ("AADT") of station 3020 Wai Yip Street (from Lai Yip Street to Hoi Yuen Road) found in the Annual Traffic Census ("ATC"). The adjusted 2024 peak hour traffic flows are presented in Figure 2.9.

Operational Performance of the Key Junctions

2.6 The existing operational performance of the key 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 results of the existing operational performance of the junctions are summarised in Table 2.1 and the detailed calculations are found in Appendix 1.

TABLE 2.1 EXISTING JUNCTION OPERATIONAL PERFORMANCE

Ref.	Junction	Type of Junction	Parameter(1)	AM Peak Hour	PM Peak Hour
J1	Hung To Road / Hoi Yuen Road / Wai Yip Street	Signal	RC	87%	90%
J2	Wai Yip Street / Hoi Yuen Road	Roundabout	RFC	0.683	0.607
J3	Hung To Road / Tsun Yip Street(2)	Signal	RC	52%	89%

Ref.	Junction	Type of Junction	Parameter(1)	AM Peak Hour	PM Peak Hour
J4	Wai Yip Street / Tsun Yip Street(2)	Signal	RC	78%	97%
J5	Wai Yip Street / How Ming Street(2)	Signal	RC	79%	87%
J6	Kei Yip Street / Kei Yip Lane	Priority	RFC	0.021	0.028
J7	Wai Yip Street / Kei Yip Street	Not a signal controlled or priority junction			

Notes: (1) RC – Reserve Capacity RFC – Ratio of Flow to Capacity
(2) Kerbside on-street activities are reflected in the junction performance

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

Pedestrian Facilities

2.8 Good pedestrian facilities provided in the vicinity of the Subject Site, including footpaths, and at-grade pedestrian crossings at the signalised road junctions.

Availability of Public Transport Facilities

2.9 The Subject Site is well-served by various public transport services, including franchised bus and green minibus (“GMB”), and these services operate mainly along Hoi Yuen Road, Wai Yip Street and Kwun Tong Road. The closest entrance to the MTR Kwun Tong Station is at Hoi Yuen Road, which is some 670 metres or 10 minutes’ walk away. Details of the franchised bus and GMB routes operating in the vicinity of the Subject Site are presented in Figure 2.10 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 11X	On Tai (North) – Hung Hom Station	10 – 25
KMB 13D	Po Tat – Island Harbourview	15 – 25
KMB 13M	Kwun Tong (Elegance Road) – Po Tat (Circular)	15 – 30
KMB 13P	Po Tat – Cheung Sha Wan (Lai Kok Estate)	AM Peak
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
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 16M	Kwun Tong (Yue Man Square) – Lam Tin (Hong Wah Court) (Circular)	15 – 30
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 23	Kwun Tong Ferry – Shun Lee (Circular)	14 – 25
KMB 23M	Lok Wah – Shun Lee (Circular)	12 – 20
KMB 28B	Choi Fook – Kai Tak (Kai Ching Estate)	15 – 25
KMB 33	Tsuen Wan West Station – Yau Tong	15 – 30

Route	Routing	Frequency (minutes)
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 62X	Tuen Mun Central – Lei Yue Mun Estate	8 – 25
KMB 62P	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 Tung 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 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 93A	Po Lam – Kwun Tong Ferry	20 – 25
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 215P	Lam Tin (Kwong Tin Estate) – Kowloon Station	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
KMB 259D	Tuen Mun (Lung Mun Oasis) – Lei Yue Mun Estate	7 – 25
KMB 259S	Tuen Mun (Lung Mun Oasis) – Kwun Tong Ferry	AM Peak
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

Route	Routing	Frequency (minutes)
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 292P	Sai Kung – Kwun Tong	AM Peak
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	6 – 20
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	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	Hong Sing Garden – Tung Chung Station	Overnight
CTB N796	Lohas Park / Tseung Kwan O Station – Mongkok	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 62S	Kwong Tin Estate – Tsim Sha Tsui (Haiphong Road)	Overnight
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

Route	Routing	Frequency (minutes)
GMB 103	Clear Water Bay – Kwun Tong Ferry	10 – 15
GMB 104	HKUST – 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 – Citybus GMB – Green Minibus

3.0 THE PROPOSED REDEVELOPMENT

Development Schedule

3.1 The Proposed Redevelopment is a Hotel with 448 guest rooms and 1,232.237m^2 GFA of conference or banqueting facilities.

Provision of Internal Transport Facilities

3.2 A comparison of the internal transport facilities recommended by the Hong Kong Planning Standards and Guidelines ("HKPSG") and the internal transport facilities provided are presented in **Table 3.1**.

TABLE 3.1 COMPARISONS OF THE INTERNAL TRANSPORT FACILITIES FOR THE PROPOSED REDEVELOPMENT

HKPSG Recommendation for a Hotel with (i) 448 guest rooms, (ii) 1,232.237m^2 GFA conference and banquet facilities	**Proposed Provision**
Car Parking Space	
(i) 1 car parking space per 100 rooms. 448 / 100 = 4.5, say **5 nos.** (ii) 0.5-1 car space per 200m^2 GFA of conference and banquet facilities Minimum = 1,232.237 / 200 x 0.5 = 3.1, say **4 nos.** Maximum = 1,232.237 / 200 x 1 = 6.2, say **7 nos.** **Total [(i) + (ii)]** Minimum = 5 + 4 = **9 nos.** Maximum = 5 + 7 = **12 nos.**	**9 nos.** including (i) 8 nos. @ 5m (L) x 2.5m (W) x 2.4m (H), (ii) 1 no. @ 5m (L) x 3.5m (W) x 2.4m (H) for persons with disabilities **= HKPSG recommendation**
Motorcycle Parking Space	
5 to 10% of the total provision for private cars Minimum = 9 x 5% = 0.5, **say 1 no.** Maximum = 9 x 10% = 0.9, **say 1 no.**	**1 no.** @ 2.4m (L) x 1m (W) x 2.4m (H) **= HKPSG recommendation**
Taxi and Private Car Layby	
Minimum 3 lay-by for taxis and private cars for 300-599 rooms **= 3 nos.**	**3 nos.** @ 5m (L) x 2.5m (W) x 2.4m (H) **= HKPSG recommendation**
Single-Deck Tour Bus Layby	
Minimum 2-3 lay-by for single-deck tour buses for 300-899 rooms **= 2-3 nos.**	**3 nos.** @ 12m (L) x 3.5m (W) x 3.8m (H) **= HKPSG recommendation**
Goods Vehicle Loading / Unloading Bay	
0.5 - 1 goods vehicle bay per 100 rooms Minimum = 448 / 100 x 0.5 = 2.2, say **3 nos.** Maximum = 448 / 100 x 1 = 4.5, say **5 nos.**	**2 nos.** @ 7m (L) x 3.5m (W) x 3.6m (H) for Light Goods Vehicles, plus **1 no.** @ 11m (L) x 3.5m (W) x 4.7m (H) for Heavy Goods Vehicles **= HKPSG recommendation**

3.3 **Table 3.1** shows that the internal transport facilities provided agree with the recommendations of the HKPSG. The carpark layout plans for G/F and B1/F are shown in **Figures 3.1 – 3.2**.

Swept Path Analysis

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

4.0 TRAFFIC IMPACT

Design Year

4.1 The Proposed Redevelopment 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 Forecasting

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 Redevelopment, and (iv) additional traffic generated by the Proposed Redevelopment.

Estimated Traffic Growth Rate from 2031 to 2032

4.3 Reference is made to the 2019 – based Territorial Population and Employment Data Matrix ("TPEDM") data produced by Planning Department for Kwun Tong District, which are for 2019, 2026 and 2031 and are presented in Table 4.1.

TABLE 4.1 2019-BASED TPEDM DATA PRODUCED BY PLANNING DEPARTMENT FOR KWUN TONG DISTRICT

Item	TPEDM Estimation / Projection		
	2019	2026	2031
Population	693,900	769,400	741,300
Employment	395,350	410,550	408,250
Total	1,089,250	1,179,950	1,149,550
Average Growth %	From 2019 to 2026: +1.15% From 2019 to 2031: +0.45%	From 2026 to 2031: -0.52%	N/A

4.4 Table 4.1 shows that the highest average annual growth rate is 1.15%. In view that there is no estimation beyond 2031 and to err on the high side, the growth rate of 1.15% per annum is adopted for the traffic growth between 2031 and 2032.

Planned Developments in the Vicinity of the Proposed Redevelopment

4.5 The planned developments included in the 2032 reference traffic flows are presented in Table 4.2.

TABLE 4.2 PLANNED DEVELOPMENTS IN THE VICINITY OF THE PROPOSED REDEVELOPMENT

Site	Planning Application No. / Plan No.	Address
1	A/K14/763	350 Kwun Tong Road
2	A/K14/766	41 King Yip Street
3	A/K14/771	32 Hung To Road
4	A/K14/773	82 Hung To Road
5	A/K14/774	7 Lai Yip Street
6	A/K14/775	132 Wai Yip Street
7	A/K14/777	71 How Ming Street
8	A/K14/780	107-109 Wai Yip Street
9	A/K14/782	4 Tai Yip Street
10	A/K14/787	33 Hung To Road
11	A/K14/796	28A Hung To Road

Site	Planning Application No. / Plan No.	Address
12	A/K14/804	334 -336 and 338 Kwun Tong Road
13	A/K14/806	11 Lai Yip Street
14	A/K14/807	Kun Tong Inland Lots 1 S.A , 1 RP, 3 and 15
15	A/K14/809	1 Tai Yip Street and 111 Wai Yip Street
16	A/K14/810	5 Lai Yip Street
17	A/K14/820	73 – 75 Hung To Road
18	A/K14/822	25 Tai Yip Street, Kwun Tong
19	S/K14S/URA1/3 Urban Renewal Authority's (URA) latest 'Vertical City' scheme of a mixed use development	Areas 4 and 5 of Kwun Tong Town Centre
20	N/A	EKEO Lai Yip Street Development
21	N/A	Kwun Tong Action Area
22	N/A	Kowloon Bay Action Area

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 Redevelopment

4.7 The trip rates found in the TPDM are not used because none of the surveyed hotels are located in Business Areas. Hence, the traffic generated by the Proposed Redevelopment is estimated based trip generation rates of surveyed hotels in Business Areas including the following:
(i) 254-room Nina Hotel Kowloon East at 38 Chong Yip St, Kwun Tong
(ii) 298-room Tuen Mun Pentahotel at 6 Tsun Wen Road, Tuen Mun

4.8 The adopted trip generation rates and the calculated traffic generation associated with the Proposed Redevelopment are presented in Table 4.3.

TABLE 4.3 TRAFFIC GENERATION OF THE PROPOSED REDEVELOPMENT

Item	AM Peak Hour			PM Peak Hour		
	In	Out	2-way	In	Out	2-way
Trip Generation Rates for hotel (pcu/hour/guest room)						
In-house trip generation for hotel	0.0591	0.0433	NA	0.0512	0.0472	NA
Traffic Generation of Proposed Redevelopment (pcu/hour)						
448 guest rooms	27	20	47	23	22	45

4.9 Table 4.3 shows the Proposed Redevelopment generates 47 and 45 more pcu (2-way) during the AM and PM peak hours respectively.

Comparison of Traffic Generation between the Approved S16 Scheme and the Proposed Redevelopment

4.10 The traffic generated by the Proposed Redevelopment is compared with the traffic generated by the Approved S16 Scheme at 201 and 203 Wai Yip Street, and is presented in Table 4.4.

TABLE 4.4 COMPARISON OF TRAFFIC GENERATION BETWEEN THE PROPOSED REDEVELOPMENT AND THE APPROVED S16 SCHEME

Scheme	Traffic Generation (pcu/hour)					
	AM Peak Hour			PM Peak Hour		
	In	Out	2-way	In	Out	2-way
Approved S16 Scheme at 203 Wai Yip Street (TPB ref: A/K14/778)	19	13	32	15	19	34
Approved S16 Scheme at 201 Wai Yip Street (TPB ref: A/K14/808)	35	25	60	20	25	45
Total [A]	54	38	92	35	44	79
Proposed Redevelopment [B]	27	20	47	23	22	45
Difference [B] – [A]	-27	-18	-45	-12	-22	-34

4.11 Table 4.4 shows that compared with the Approved S16 Scheme at 201 and 203 Wai Yip Street, the Proposed Redevelopment generates 45 pcu and 34 pcu (2-way) less during the AM and PM peak hours, respectively. Hence, the Proposed Redevelopment is a better-off scheme.

Planned Traffic Improvement in the Vicinity of the Proposed Redevelopment

4.12 The planned improvement schemes in the vicinity of the Proposed Redevelopment are summarized in Table 4.5.

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

Junction		Description of the Works	Indicative Layout	Source	Assumed Completion Year
J2	Wai Yip Street / Hoi Yuen Road	Modification of Wai Yip Street / Hoi Yuen Road roundabout into a signal controlled junction	Please refer to Appendix 3	Kwun Tong District Council	Before 2032
J6	Kei Yip Street / Kei Yip Lane	Change Kei Yip Lane from 2-way to 1-way			
J7	Wai Yip Street / Kei Yip Street	Change to 2-way direction			

2032 Traffic Flows

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

2032 without the Proposed Redevelopment [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 Redevelopment

2032 with the Proposed Redevelopment [B] = [A] + traffic generated by the Proposed Redevelopment (Table 4.3)

4.14 The 2032 peak hour traffic flows for the cases without and with the Proposed Redevelopment, are shown in Figures 4.1 - 4.2, respectively. The ingress / egress route for traffic generated by the Proposed Redevelopment are shown in Figures 4.3.

2032 Junction Operational Performance

4.15 Year 2032 capacity analysis for the cases without and with the Proposed Redevelopment are summarized 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(1)	Without the Proposed Redevelopment		With the Proposed Redevelopment	
			AM Peak	PM Peak	AM Peak	PM Peak
J1	Hung To Road / Hoi Yuen Road / Wai Yip Street	Signal / RC	57%	70%	57%	70%
J2	Wai Yip Street / Hoi Yuen Road(3)	Signal / RC	20%	32%	20%	32%
J3	Hung To Road / Tsun Yip Street(2)	Signal / RC	18%	37%	18%	37%
J4	Wai Yip Street / Tsun Yip Street(2)	Signal / RC	41%	49%	39%	49%
J5	Wai Yip Street / How Ming Street(2)	Signal / RC	39%	55%	38%	55%
J6	Kei Yip Street / Kei Yip Lane(3)	Priority - RFC	0.661	0.705	0.665	0.708
J7	Wai Yip Street / Kei Yip Street(3)	Priority - RFC	0.442	0.302	0.448	0.309

Notes: (1) RC – Reserve Capacity RFC – Ratio of Flow to Capacity
(2) Kerbside on-street activities are reflected in the junction performance
(3) Junction Improvement Scheme by other project has been incorporated in the Assessment as explained in Table 4.5

4.16 Table 4.6 shows that the key junctions operate with capacities during the AM and PM peak hours for the cases without and with the Proposed Redevelopment.

5.0 CONCLUSION

5.1 The Subject Site is located at 201 and 203 Wai Yip Street in Kwun Tong. It is currently occupied by the Siu Fu Factory Building and the Tungtex Building.

5.2 The Applicant intends to redevelop the 2 Existing Buildings into a hotel with 448 guest rooms and 1,232.237m^2 GFA of conference or banqueting facilities.

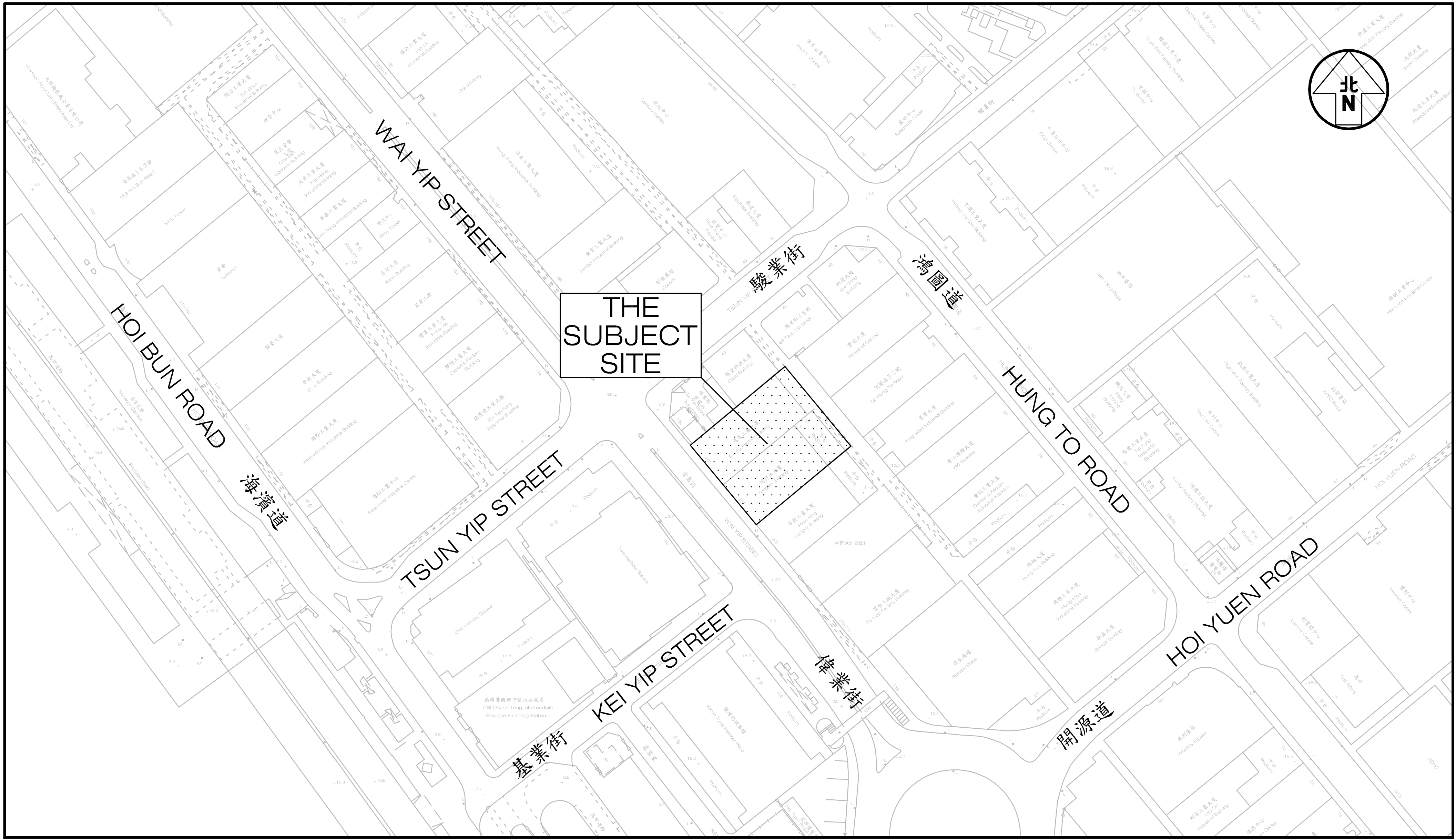
5.3 Manual classified counts were conducted at junctions located in the vicinity of the Proposed Redevelopment in order to establish the peak hour traffic flows. Currently, the junctions were found to operate with capacities during the AM and PM peak hours.

5.4 The Proposed Redevelopment run-in/out is provided at Wai Yip Street. The internal transport facilities provided comply with recommendations of the HKPSG.

5.5 The Proposed Redevelopment 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 Proposed Redevelopment.

5.6 It is concluded that the Proposed Redevelopment will result in no adverse traffic impact to the surrounding road network. From traffic engineering grounds, the Proposed Redevelopment is acceptable.

Figures


北
N
WAI YIP STREET
THE SUBJECT SITE
TSUN YIP
駿業街
鴻圖道
HUNG TO ROAD
HOI BUN ROAD
海濱道
TSUN YIP STREET
KEI YIP STREET
基業街
WAI YIP STREET
偉業街
HOI YUEN ROAD
開源道

Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON

J7360

Figure Title

LOCATION OF SUBJECT SITE

Figure No. 1.1

Revision A

Designed by C Y Y

Drawn by N C M

Checked by K C

Scale in A4 1 : 2000

Date 21 AUG 2024

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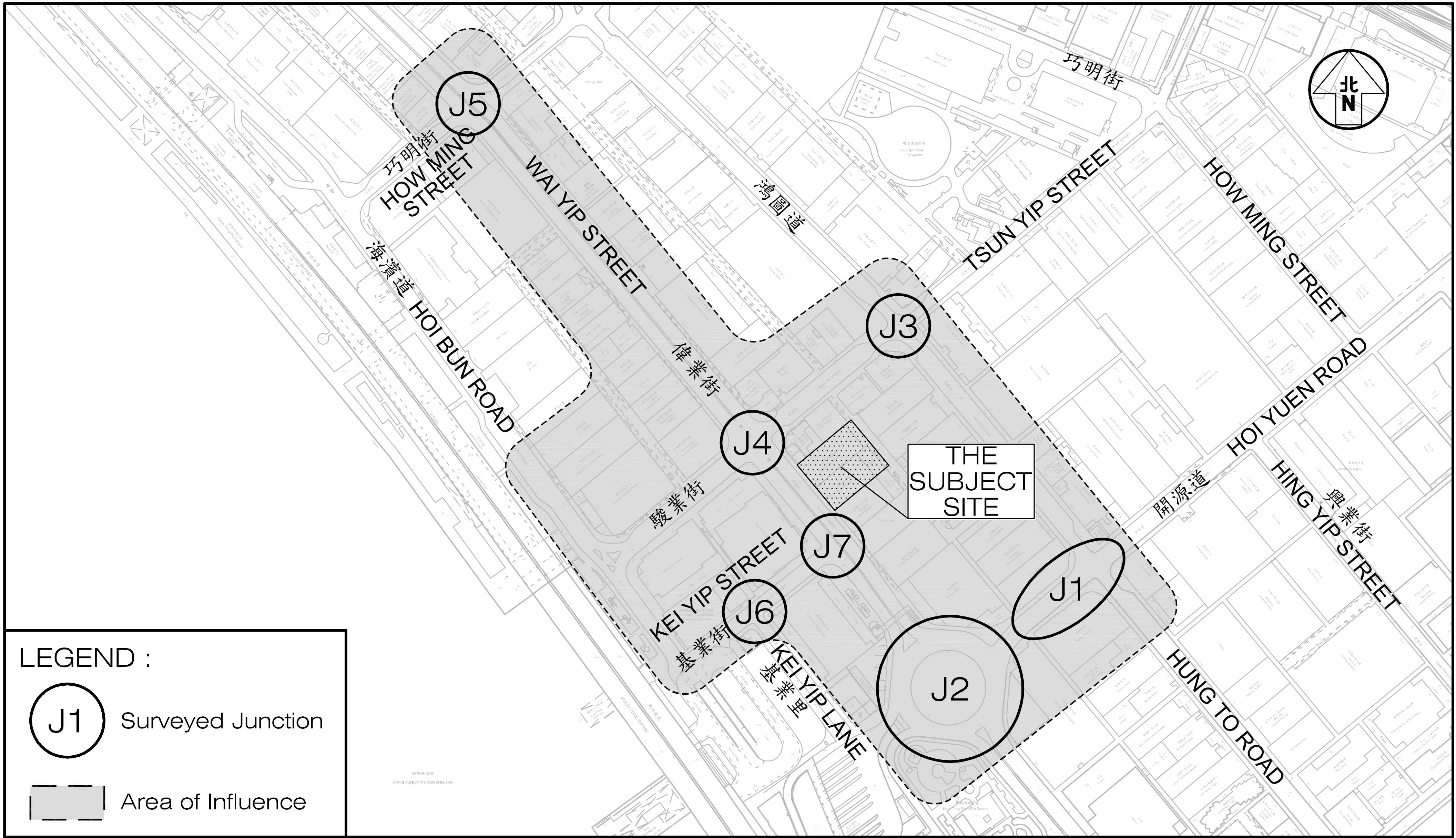
T:\JOB\J7350-J7399\J7360\2024 08\Fig 1.1 RevA.dwg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巧明街
HOW MING STREET
WAI YIP STREET
偉業街
鴻圖道
TSUN YIP STREET
巧明街
HOW MING STREET
北
N
海濱道
HOI BUN ROAD
J3
J4
THE SUBJECT SITE
駿業街
J7
KEI YIP STREET
基業街
J6
KEI YIP LANE
基業里
J1
J2
開源道
HOI YUEN ROAD
HING YIP STREET
興業街
HUNG TO ROAD
LEGEND :
J1
Surveyed Junction
Area of Influence

Project Title			
SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON	J7360	Figure No. 2.1	Revision A
Figure Title		Designed by C Y Y	Drawn by N C M
LOCATION OF SURVEYED JUNCTIONS AND AREA OF INFLUENCE		Checked by K C	Scale in A4 1 : 3500
		Date 21 AUG 2024	

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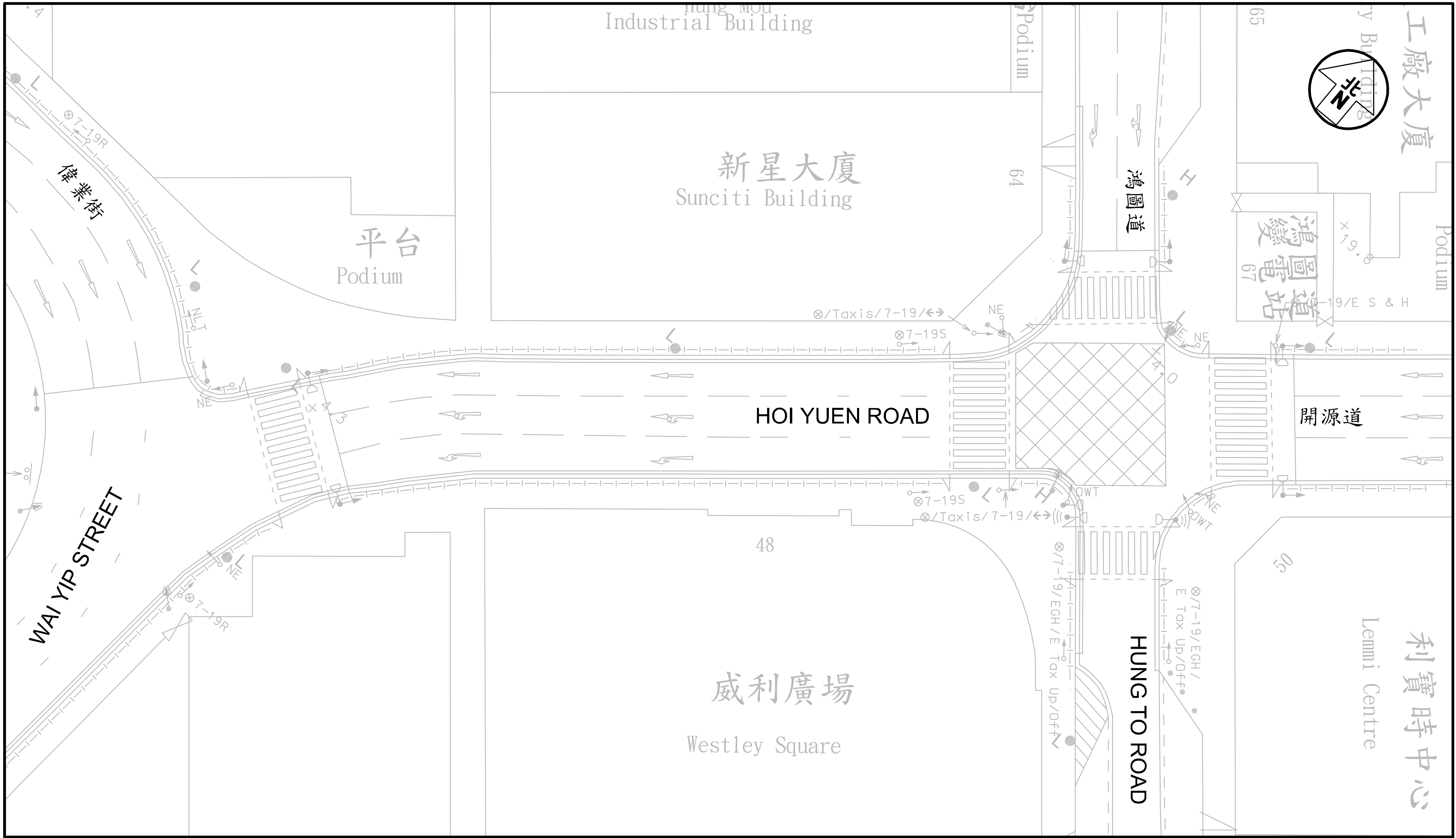
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新星大廈
Sunciti Building
平台
Podium
Podium
64
65
工廠大廈
鴻圖道
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67
Podium
偉業街
HOI YUEN ROAD
開源道
WAI YIP STREET
48
威利廣場
Westley Square
HUNG TO ROAD
50
Lemmi Centre
利寶時中心
⊗/Taxis/7-19/↔
⊗7-19S
⊗7-19R
⊗7-19/E S & H
⊗/7-19/EGH/E Tax Up/Off
⊗/7-19/EGH/E Tax Up/Off
NE
NLT
DWT
14.0
4.3

Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON

J7360

Figure Title

LAYOUT OF JUNCTION OF
HUNG TO ROAD / HOI YUEN ROAD / WAI YIP STREET

Figure No.	Revision
2.2	A

Designed by	Drawn by	Checked by
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Scale in A4	Date
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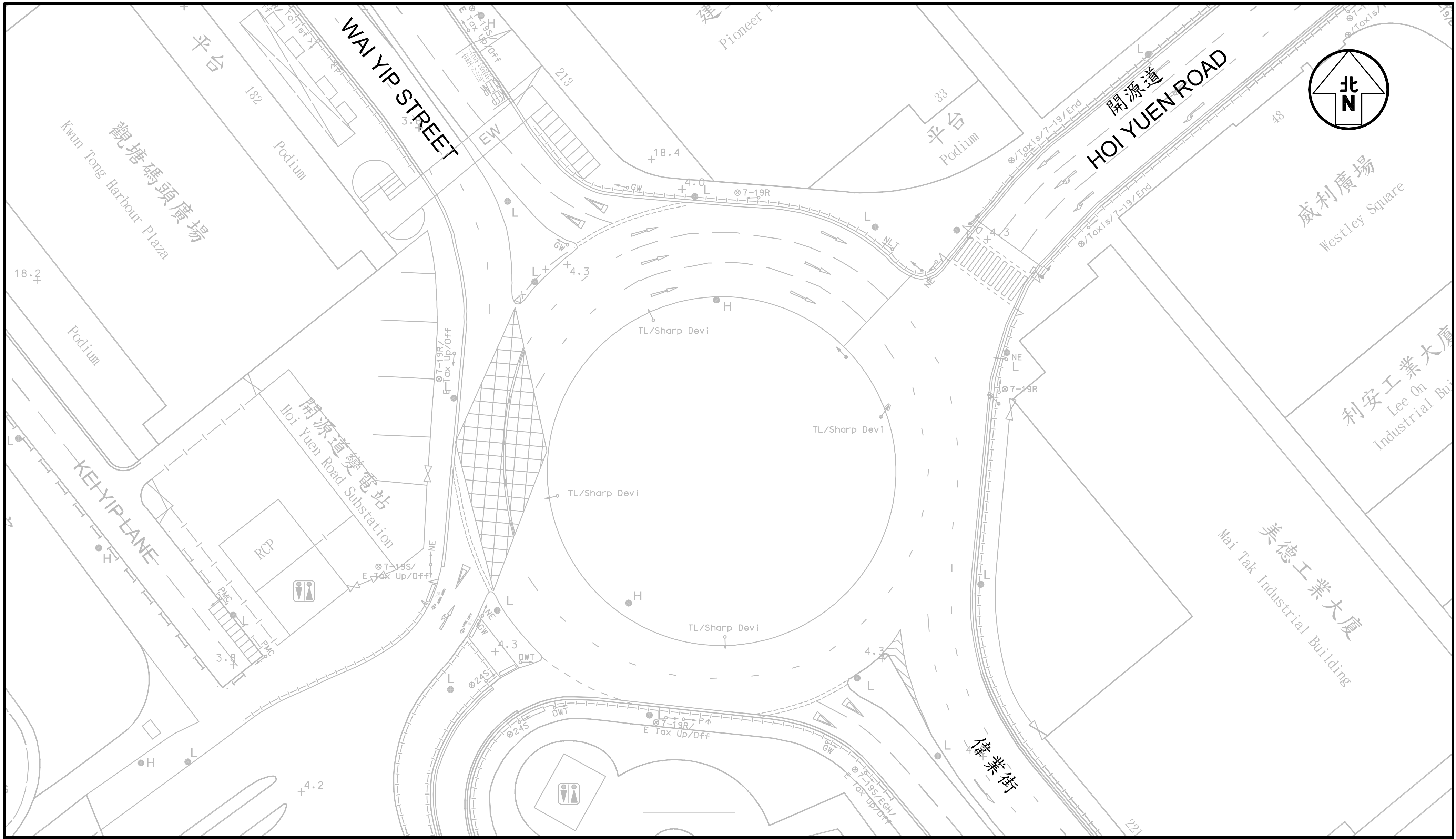
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KEI YIP LANE
偉業街
觀塘碼頭廣場
Kwun Tong Harbour Plaza
開源道變電站
Hoi Yuen Road Substation
威利廣場
Westley Square
利安工業大廈
Lee On Industrial Bui
美德工業大廈
Mai Tak Industrial Building
平台
Podium
Pioneer
RCP
TL/Sharp Devi
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N
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182
213
33
48
221
18.4
18.2
4.0
4.3
4.2
3.8

Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON

J7360

Figure Title

LAYOUT OF ROUNDABOUT OF WAI YIP STREET / HOI YUEN ROAD

Figure No. 2.3		Revision A
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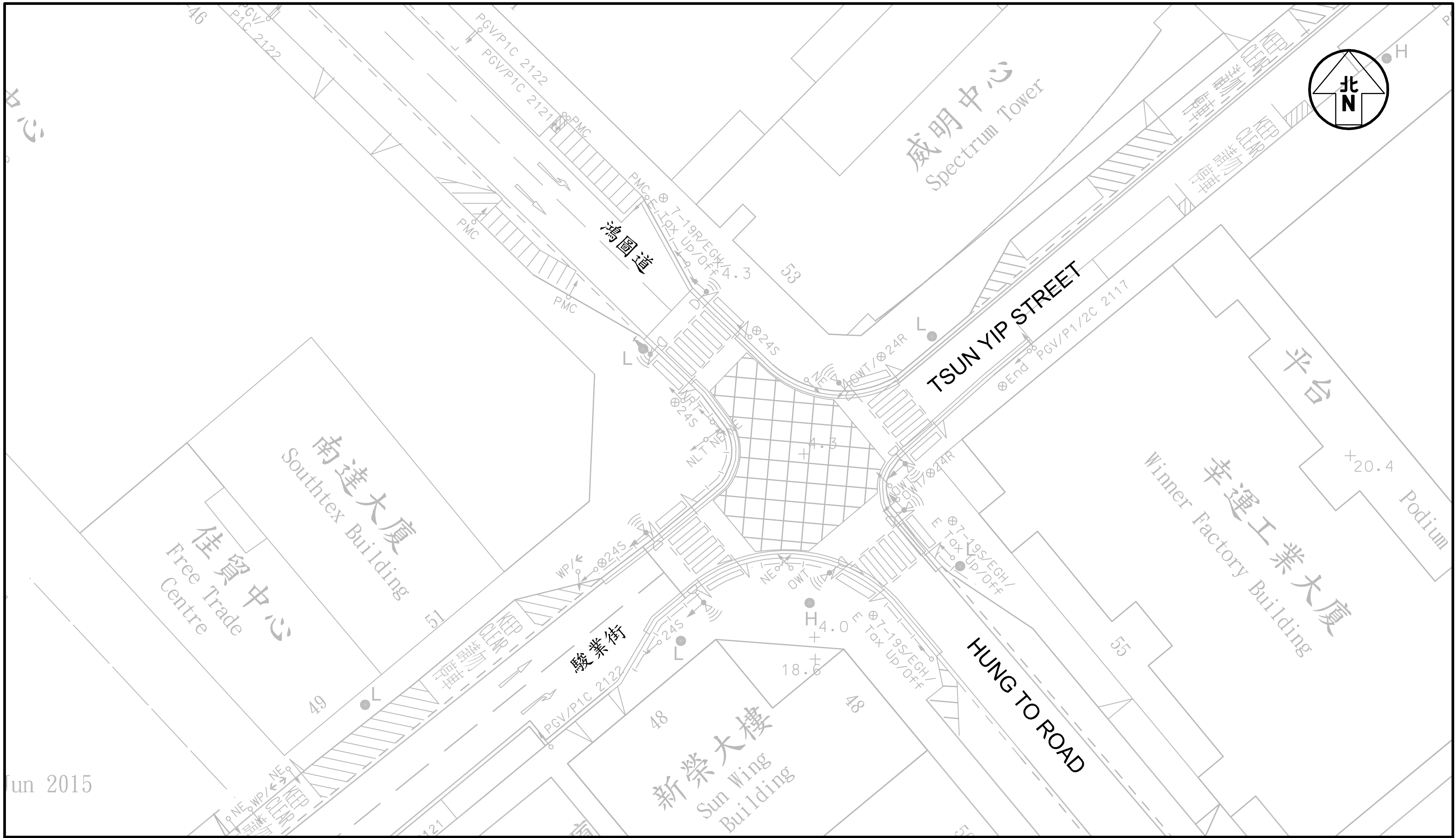
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Spectrum Tower
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Southtex Building
佳貿中心
Free Trade Centre
幸運工業大廈
Winner Factory Building
新榮大樓
Sun Wing Building
平台
Podium
KEEP CLEAR
PGV/P1C 2122
PGV/P1C 2121
PGV/P1/2C 2117
PMC
⊗24S
⊗24R
⊗End
⊗7-19R/EGH/
E Tax Up/Off
⊗7-19S/EGH/
E Tax Up/Off
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NLT
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Jun 2015

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Figure Title	LAYOUT OF JUNCTION OF HUNG TO ROAD / TSUN YIP STREET	

Figure No.	Revision
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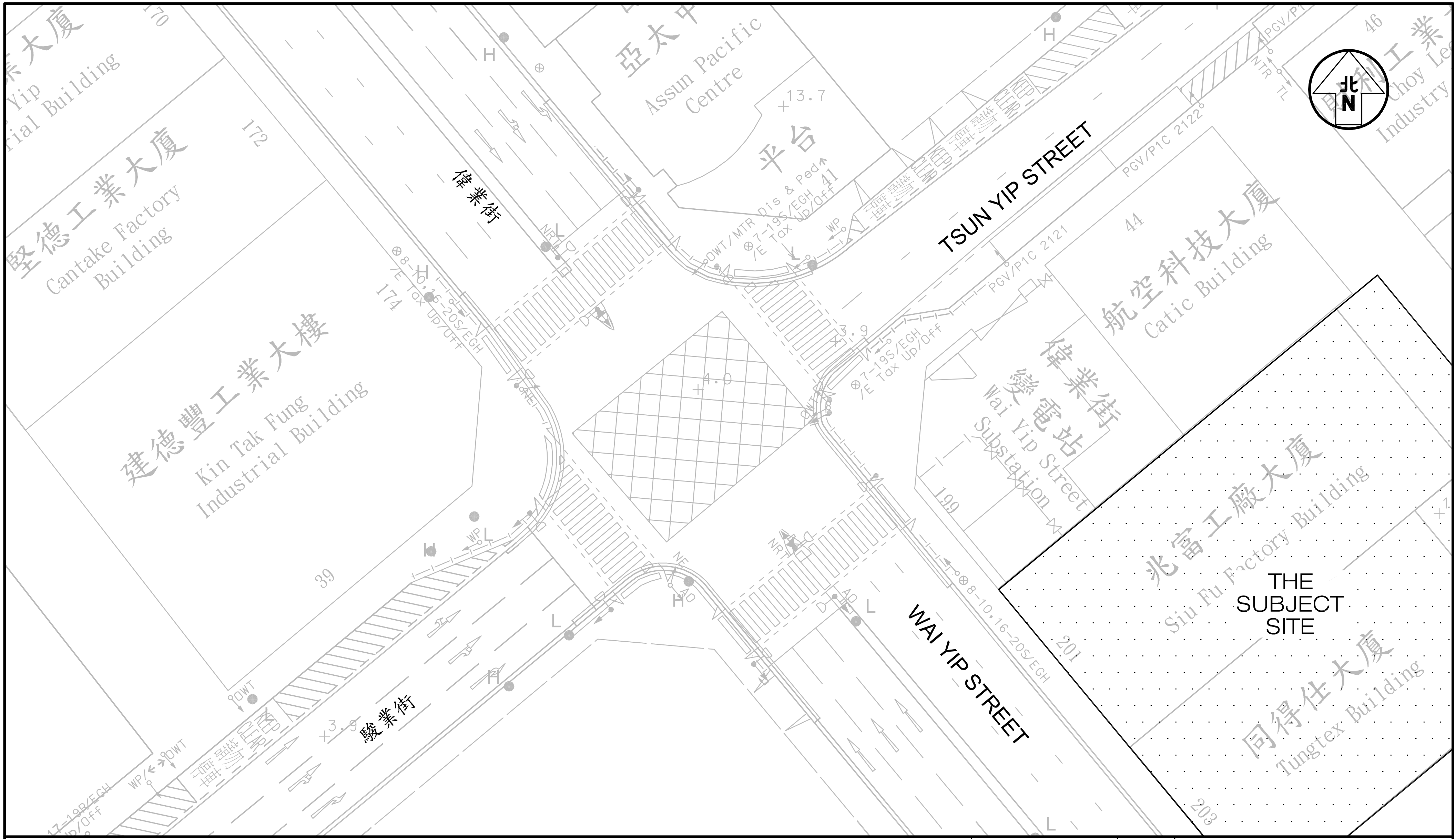
TSUN YIP STREET
WAI YIP STREET
偉業街
駿業街
THE SUBJECT SITE
亞太中心 Assun Pacific Centre
平台
堅德工業大廈 Cantake Factory Building
建德豐工業大樓 Kin Tak Fung Industrial Building
航空科技大廈 Catic Building
偉業街變電站 Wai Yip Street Substation
兆富工廠大廈 Siu Fu Factory Building
同得仕大廈 Tungtex Building
Choy Lee Industry
39
44
46
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172
174
199
201
203
PGV/P1C 2121
PGV/P1C 2122
⊗7-19S/EGH /E Tax Up/Off
⊗8-10.16-20S/EGH /E Tax Up/Off
⊗8-10.16-20S/EGH
DWT/MTR Dis & Ped
×13.7
×3.9
+4.0
WP
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D

Project Title	SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON	J7360	Figure No. 2.5	Revision A
Figure Title	LAYOUT OF JUNCTION OF WAI YIP STREET / TSUN YIP STREET		Designed by C Y Y	Drawn by N C M
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			Date 21 AUG 2024	

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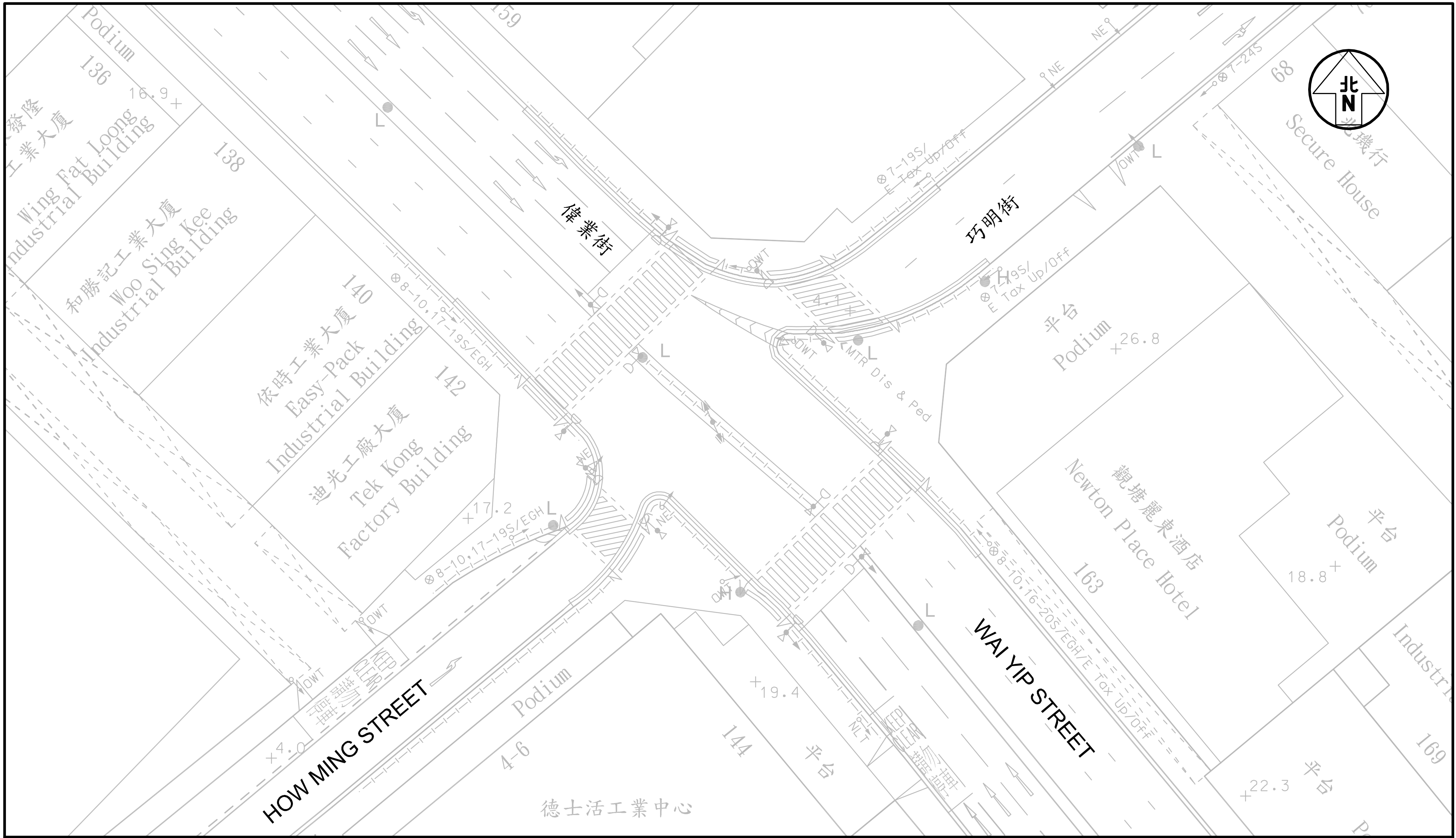
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巧明街
WAI YIP STREET
HOW MING STREET
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榮發隆工業大廈
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138
和勝記工業大廈
Woo Sing Kee Industrial Building
140
依時工業大廈
Easy-Pack Industrial Building
142
迪光工廠大廈
Tek Kong Factory Building
159
68
Secure House
安機行
平台
Podium
Newton Place Hotel
觀塘麗東酒店
163
169
Industrial
144
4-6
德士活工業中心
KEEP CLEAR
16.9
17.2
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18.8
19.4
22.3
4.0
4.1
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⊗8-10,16-20S/EGH/E Tax Up/Off
⊗7-19S/E Tax Up/Off
⊗7-24S
MTR Dis & Ped
OWT
NE
L
D
北
N

Project Title	SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON	J7360	Figure No. 2.6	Revision A
Figure Title	LAYOUT OF JUNCTION OF WAI YIP STREET / HOW MING STREET		Designed by C Y Y	Drawn by N C M	Checked by K C
			Scale in A4 1 : 500	Date 21 AUG 2024

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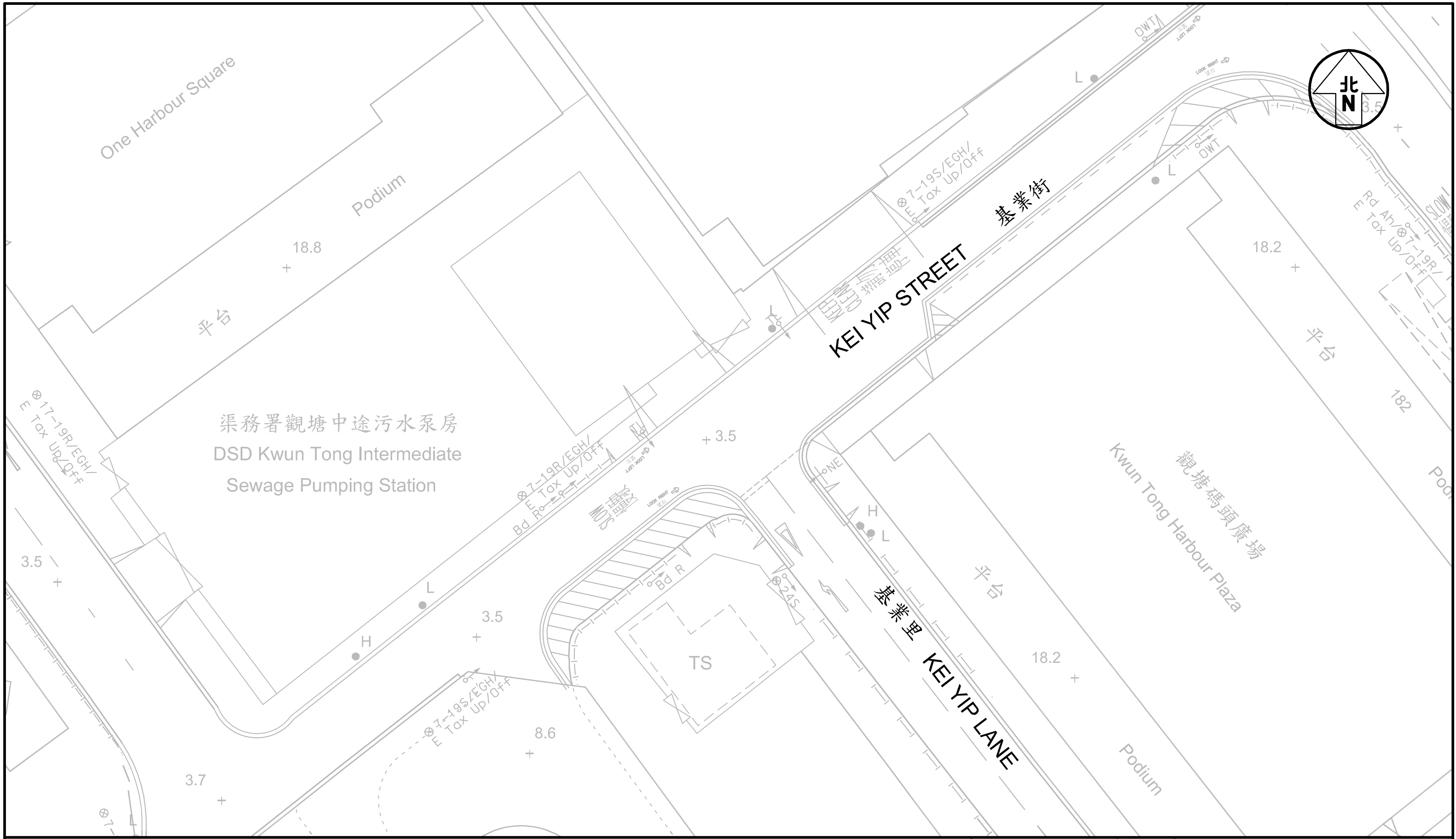
One Harbour Square
Podium
18.8
平台
渠務署觀塘中途污水泵房
DSD Kwun Tong Intermediate
Sewage Pumping Station
KEI YIP STREET
基業街
KEI YIP LANE
基業里
Kwun Tong Harbour Plaza
觀塘碼頭廣場
18.2
平台
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Podium
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3.5
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H
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ONE
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⊗7-19S/EGH/
E Tax Up/Off
⊗7-19R/EGH/
E Tax Up/Off
Bd R
⊗24S
Rd Ah/⊗17-19R/
E Tax Up/Off
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Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON

J7360

Figure Title

LAYOUT OF JUNCTION OF KEI YIP STREET / KEI YIP LANE

Figure No.	Revision
2.7	A

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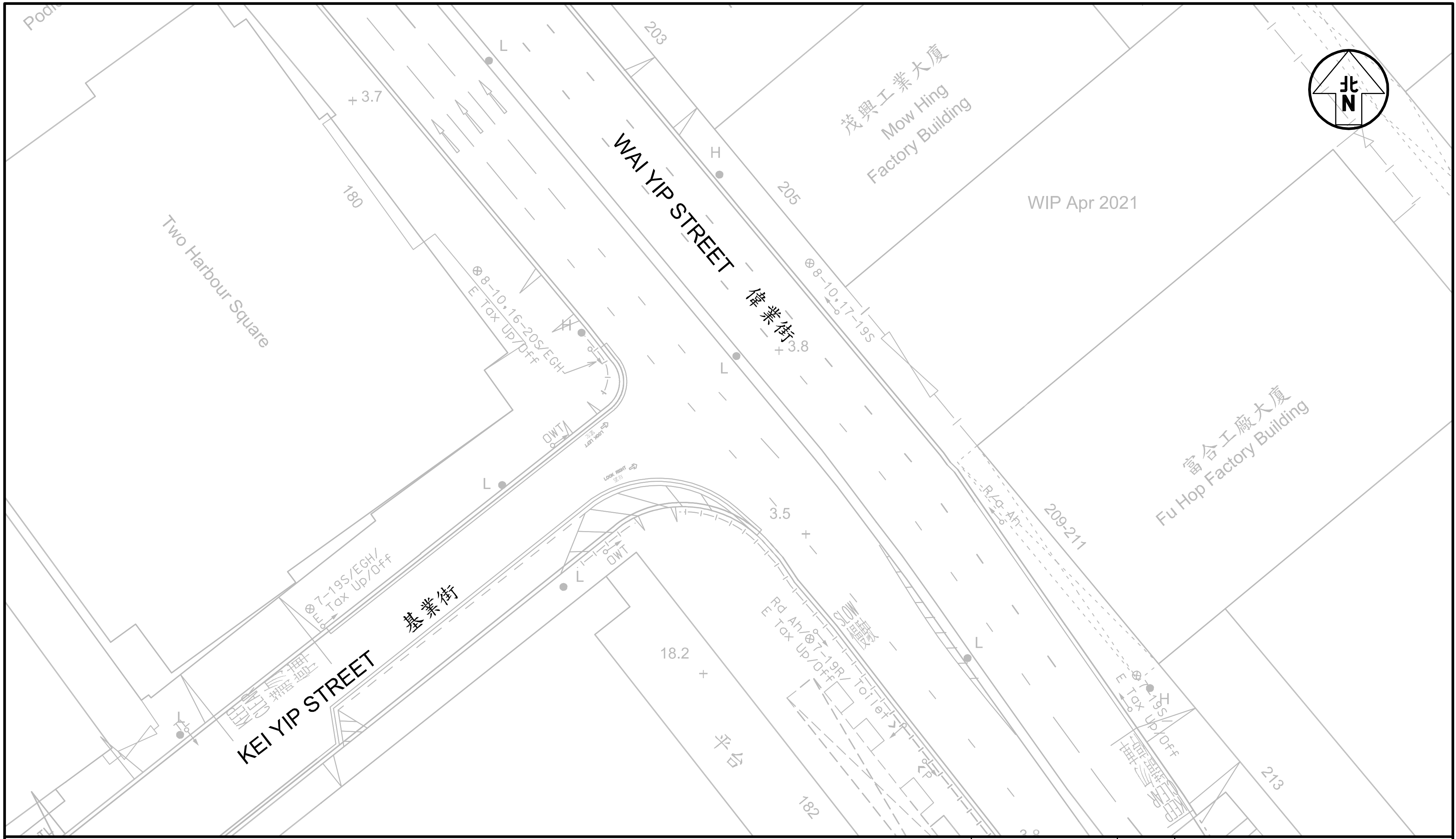
WAI YIP STREET
偉業街
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Two Harbour Square
茂興工業大廈
Mow Hing Factory Building
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富合工廠大廈
Fu Hop Factory Building
北
N
Podi
203
205
209-211
213
180
182
+3.7
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L
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⊗8-10,16-20S/EGH
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⊗7-19S/EGH/
E Tax Up/Off
Rd Ah/⊗7-19R/
E Tax Up/Off
Toilet
⊗7-19S
E Tax Up/Off
R/Q Ah
SLOW
慢駛
OWT
LOOK RIGHT
LOOK LEFT
平台

Project Title
SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON
J7360

Figure Title
LAYOUT OF JUNCTION OF WAI YIP STREET / KEI YIP STREET

Figure No.		Revision
2.8		A
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C Y Y	N C M	K C
Scale in A4	Date	
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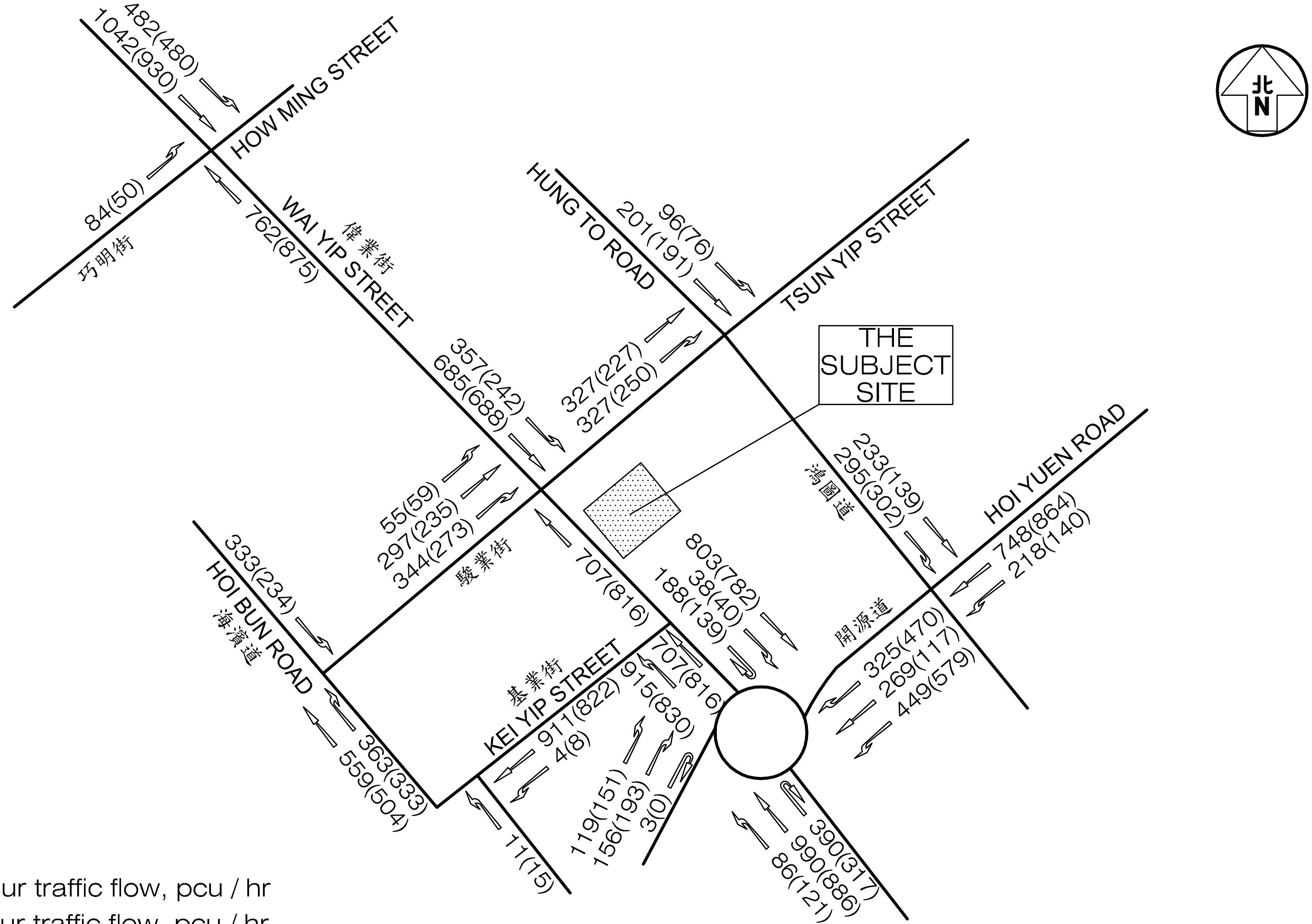
HOW MING STREET
巧明街
482(480)
1042(930)
84(50)
WAI YIP STREET
偉業街
762(875)
HUNG TO ROAD
鴻圖道
96(76)
201(191)
TSUN YIP STREET
駿業街
327(227)
327(250)
357(242)
685(688)
55(59)
297(235)
344(273)
THE SUBJECT SITE
707(816)
803(782)
38(40)
188(139)
233(139)
295(302)
HOI YUEN ROAD
開源道
748(864)
218(140)
325(470)
269(117)
449(579)
HOI BUN ROAD
海濱道
333(234)
363(333)
559(504)
KEI YIP STREET
基業街
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4(8)
707(816)
915(830)
119(151)
156(193)
3(0)
11(15)
390(317)
990(886)
86(121)
北
N

LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON

J7360

Figure Title

ADJUSTED 2024 PEAK HOUR TRAFFIC FLOWS

Figure No.	Revision
2.9	A

Designed by	Drawn by	Checked by
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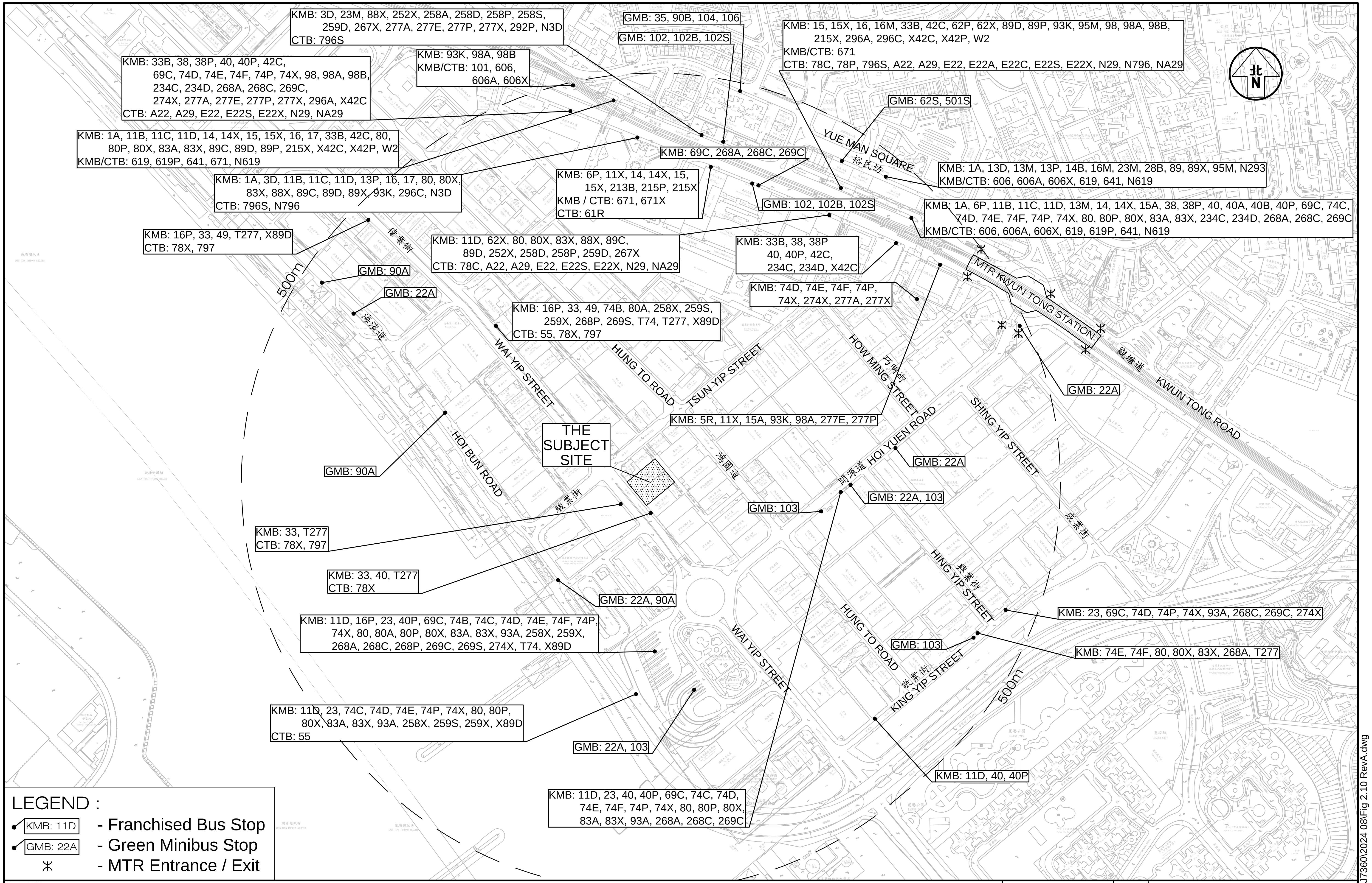
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GMB: 102, 102B, 102S
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KMB: 93K, 98A, 98B
KMB/CTB: 101, 606, 606A, 606X
GMB: 62S, 501S
YUE MAN SQUARE
裕民坊
KMB: 1A, 11B, 11C, 11D, 14, 14X, 15, 15X, 16, 17, 33B, 42C, 80, 80P, 80X, 83A, 83X, 89C, 89D, 89P, 215X, X42C, X42P, W2
KMB/CTB: 619, 619P, 641, 671, N619
KMB: 69C, 268A, 268C, 269C
KMB: 1A, 13D, 13M, 13P, 14B, 16M, 23M, 28B, 89, 89X, 95M, N293
KMB/CTB: 606, 606A, 606X, 619, 641, N619
KMB: 1A, 3D, 11B, 11C, 11D, 13P, 16, 17, 80, 80X, 83X, 88X, 89C, 89D, 89X, 93K, 296C, N3D
CTB: 796S, N796
KMB: 6P, 11X, 14, 14X, 15, 15X, 213B, 215P, 215X
KMB / CTB: 671, 671X
CTB: 61R
GMB: 102, 102B, 102S
KMB: 1A, 6P, 11B, 11C, 11D, 13M, 14, 14X, 15A, 38, 38P, 40, 40A, 40B, 40P, 69C, 74C, 74D, 74E, 74F, 74P, 74X, 80, 80P, 80X, 83A, 83X, 234C, 234D, 268A, 268C, 269C
KMB/CTB: 606, 606A, 606X, 619, 619P, 641, N619
KMB: 16P, 33, 49, T277, X89D
CTB: 78X, 797
偉業街
KMB: 11D, 62X, 80, 80X, 83X, 88X, 89C, 89D, 252X, 258D, 258P, 259D, 267X
CTB: 78C, A22, A29, E22, E22S, E22X, N29, NA29
KMB: 33B, 38, 38P, 40, 40P, 42C, 234C, 234D, X42C
MTR KWUN TONG STATION
GMB: 90A
KMB: 74D, 74E, 74F, 74P, 74X, 274X, 277A, 277X
500m
GMB: 22A
海濱道
KMB: 16P, 33, 49, 74B, 80A, 258X, 259S, 259X, 268P, 269S, T74, T277, X89D
CTB: 55, 78X, 797
HUNG TO ROAD
TSUN YIP STREET
WAI YIP STREET
巧明街
HOW MING STREET
觀塘道
KWUN TONG ROAD
GMB: 22A
SHING YIP STREET
KMB: 5R, 11X, 15A, 93K, 98A, 277E, 277P
HOI YUEN ROAD
THE SUBJECT SITE
HOI BUN ROAD
鴻圖道
GMB: 22A
GMB: 90A
開源道
駿業街
GMB: 22A, 103
GMB: 103
KMB: 33, T277
CTB: 78X, 797
成業街
興業街
HING YIP STREET
KMB: 33, 40, T277
CTB: 78X
GMB: 22A, 90A
KMB: 23, 69C, 74D, 74P, 74X, 93A, 268C, 269C, 274X
KMB: 11D, 16P, 23, 40P, 69C, 74B, 74C, 74D, 74E, 74F, 74P, 74X, 80, 80A, 80P, 80X, 83A, 83X, 93A, 258X, 259X, 268A, 268C, 268P, 269C, 269S, 274X, T74, X89D
GMB: 103
KMB: 74E, 74F, 80, 80X, 83X, 268A, T277
HUNG TO ROAD
敬業街
KING YIP STREET
WAI YIP STREET
500m
KMB: 11D, 23, 74C, 74D, 74E, 74P, 74X, 80, 80P, 80X, 83A, 83X, 93A, 258X, 259S, 259X, X89D
CTB: 55
GMB: 22A, 103
KMB: 11D, 40, 40P
KMB: 11D, 23, 40, 40P, 69C, 74C, 74D, 74E, 74F, 74P, 74X, 80, 80P, 80X, 83A, 83X, 93A, 268A, 268C, 269C
LEGEND :
KMB: 11D - Franchised Bus Stop
GMB: 22A - Green Minibus Stop
⚹ - MTR Entrance / Exit

Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON

J7360

Figure Title

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

Figure No. 2.10		Revision A
Designed by C Y Y	Drawn by N C M	Checked by
Scale in A3 1 : 4500	Date 21 AUG 2024	

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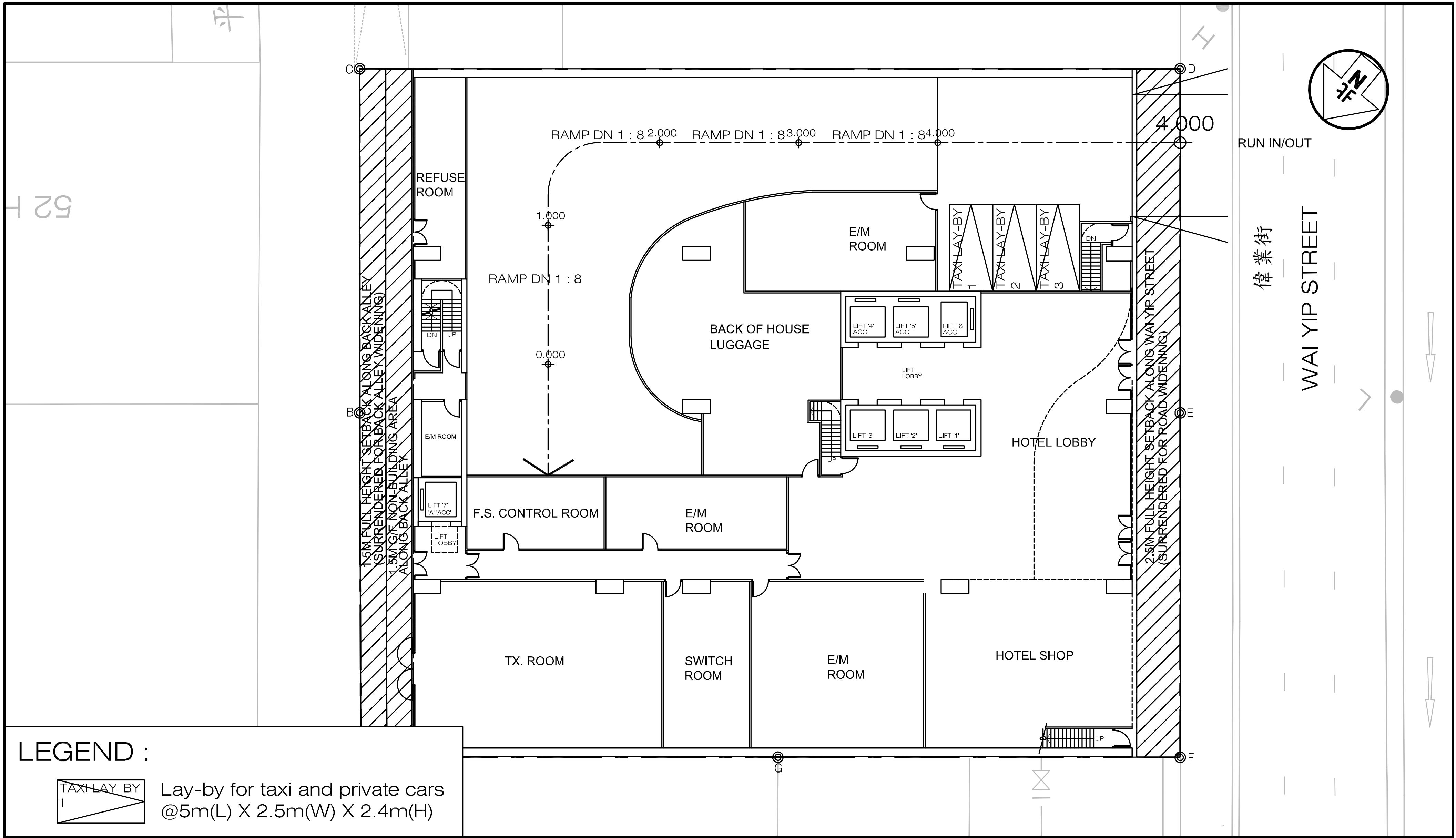
T:\JOB\J7350-J7399\J7360\2024 08\Fig 2.10 RevA.dwg


C
D
E
B
F
G
RAMP DN 1 : 8
2.000
RAMP DN 1 : 8
3.000
RAMP DN 1 : 8
4.000
4.000
RUN IN/OUT
REFUSE ROOM
1.000
0.000
RAMP DN 1 : 8
E/M ROOM
BACK OF HOUSE LUGGAGE
TAXI LAY-BY 1
TAXI LAY-BY 2
TAXI LAY-BY 3
DN
UP
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
HOTEL LOBBY
E/M ROOM
LIFT '7' 'A' 'ACC'
LIFT LOBBY
F.S. CONTROL ROOM
E/M ROOM
TX. ROOM
SWITCH ROOM
E/M ROOM
HOTEL SHOP
1.5M FULL HEIGHT SETBACK ALONG BACK ALLEY (SURRENDERED FOR BACK ALLEY WIDENING)
1.5M G/F NON-BUILDING AREA ALONG BACK ALLEY
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET (SURRENDERED FOR ROAD WIDENING)
偉業街
WAI YIP STREET
52
LEGEND :
TAXI LAY-BY 1
Lay-by for taxi and private cars @5m(L) X 2.5m(W) X 2.4m(H)

Project Title

SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON

J7360

Figure Title

G/F LAYOUT

Figure No.		Revision
3.1		A
Designed by	Drawn by	Checked by
C Y Y	N C M	K C
Scale in A4	Date	
1 : 300	21 AUG 2024	

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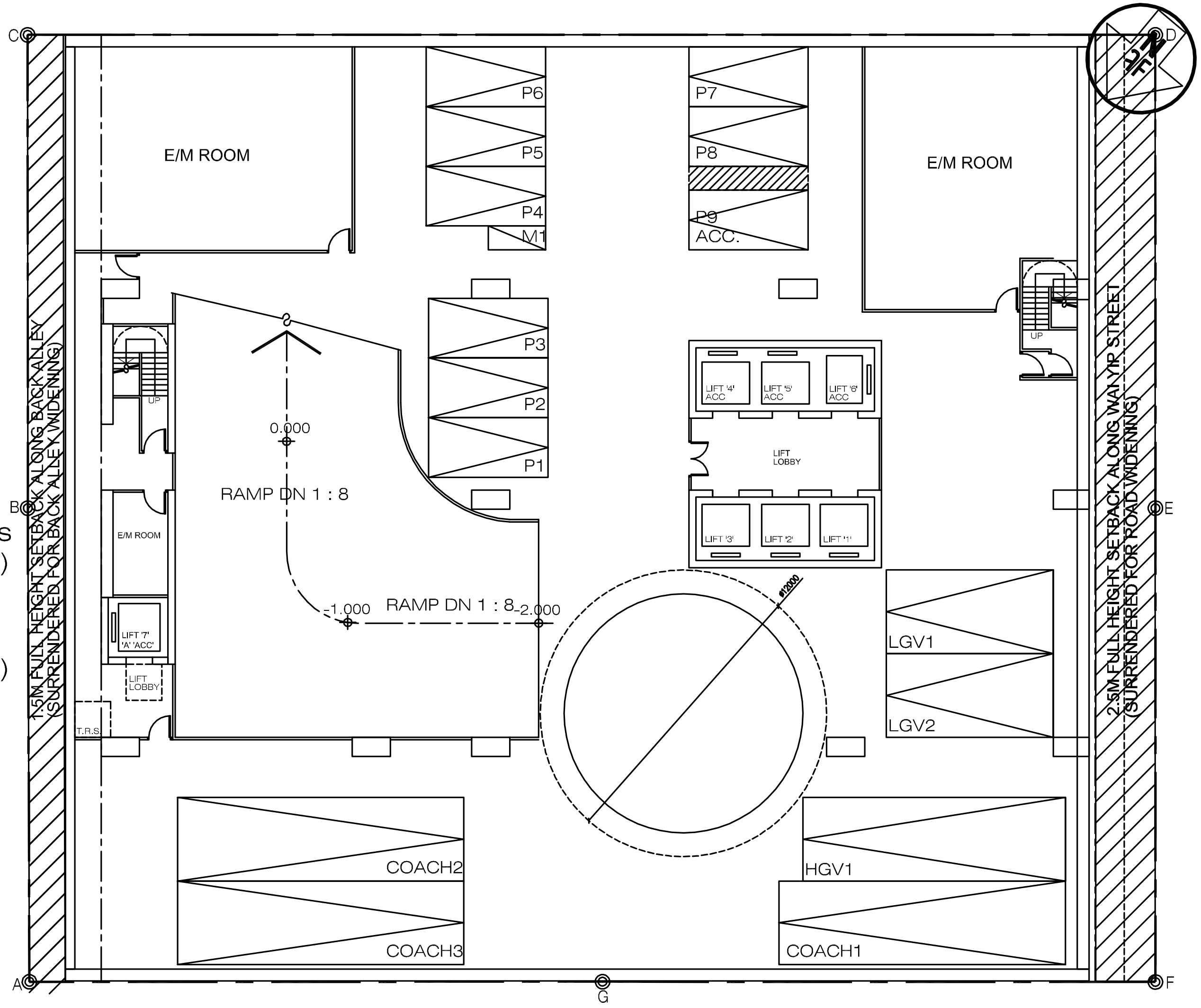
T:\JOB\J7350-J7399\J7360\2024 08\Fig 3.1 - 3.2 RevA.dwg


C
D
E/M ROOM
P6
P5
P4
M1
P7
P8
P9
ACC.
E/M ROOM
UP
UP
0.000
RAMP DN 1 : 8
P3
P2
P1
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
B
E
E/M ROOM
LIFT '7' 'A' 'ACC'
LIFT LOBBY
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
T.R.S.
1.5M FULL HEIGHT SETBACK ALONG BACK ALLEY (SURRENDERED FOR BACK ALLEY WIDENING)
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET (SURRENDERED FOR ROAD WIDENING)
COACH2
COACH3
HGV1
COACH1
A
G
F

LEGEND :

- COACH — Lay-by for single-deck tour bus @12m(L) X 3.5m(W) X 3.8m(H)
- HGV — HGV loading / unloading bay @11m(L) X 3.5m(W) X 4.7m(H)
- LGV — LGV loading / unloading bay @7m(L) X 3.5m(W) X 3.6m(H)
- P1 — Private car parking space @5m(L) X 2.5m(W) X 2.4m(H)
- P9 ACC. — Accessible car parking space @5m(L) X 3.5m(W) X 2.4m(H)
- M1 — Motorcycle parking space @2.4m(L) X 1m(W) X 2.4m(H)

Project Title
SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON
J7360

Figure Title
B1/F LAYOUT

Figure No.	Revision
3.2	A

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

Scale in A4	Date
1 : 300	21 AUG 2024

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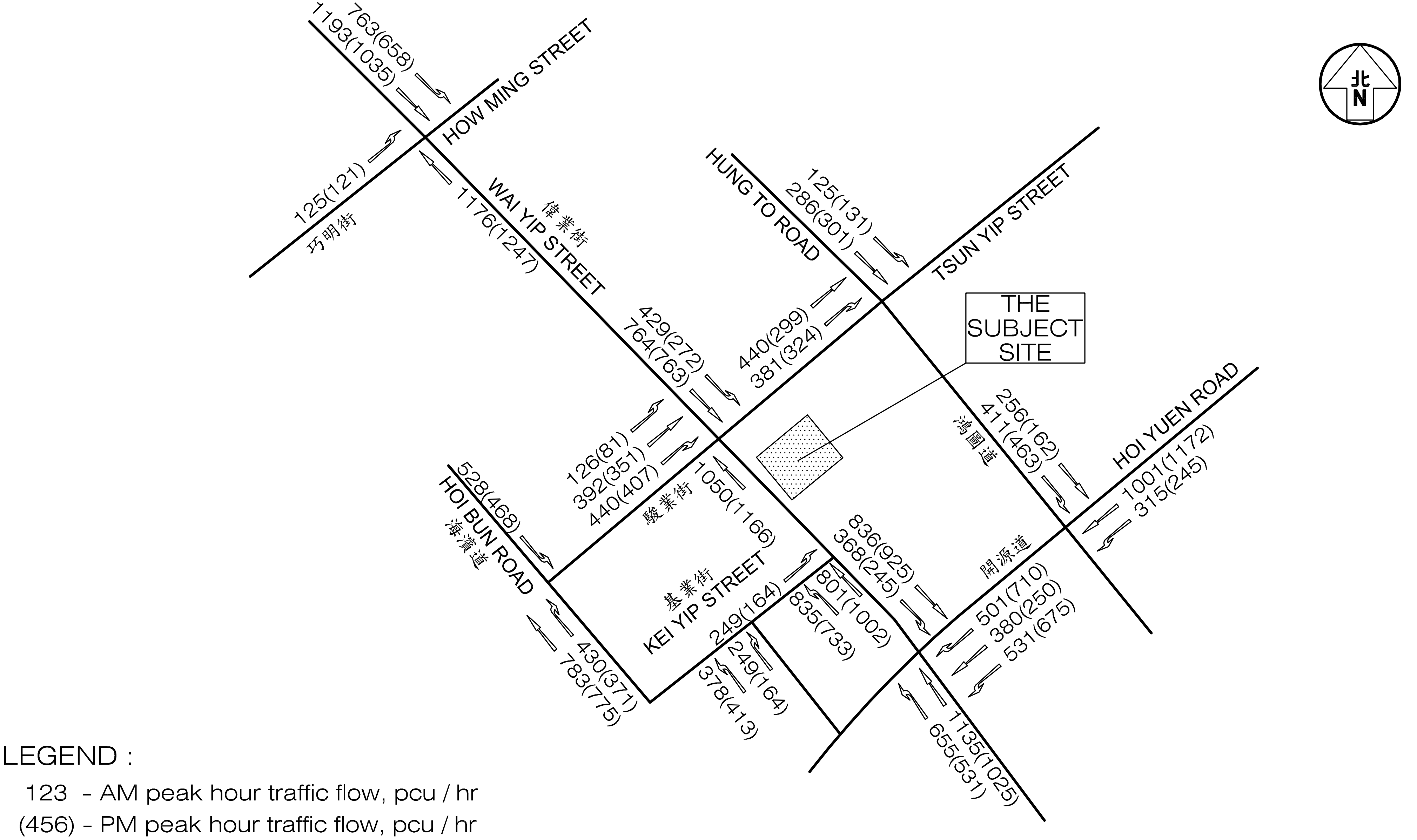
T:\JOB\J7350-J7399\J7360\2024 08\Fig 3.1 - 3.2 RevA.dwg


北
N
763(658)
1193(1035)
HOW MING STREET
125(121)
巧明街
1176(1247)
WAI YIP STREET
偉業街
HUNG TO ROAD
125(131)
286(301)
TSUN YIP STREET
429(272)
764(763)
440(299)
381(324)
THE SUBJECT SITE
鴻圖道
256(162)
411(463)
HOI YUEN ROAD
1001(1172)
315(245)
126(81)
392(351)
440(407)
駿業街
1050(1166)
528(468)
HOI BUN ROAD
海濱道
836(925)
368(245)
開源道
501(710)
380(250)
531(675)
基業街
KEI YIP STREET
249(164)
801(1002)
835(733)
430(371)
783(775)
249(164)
378(413)
1135(1025)
655(531)
LEGEND :
123 - AM peak hour traffic flow, pcu / hr
(456) - PM peak hour traffic flow, pcu / hr

Project Title
SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON
J7360

Figure Title
YEAR 2032 PEAK HOUR TRAFFIC FLOWS
WITHOUT THE PROPOSED REDEVELOPMENT

Figure No.	4.1
Revision	A
Designed by	C Y Y
Drawn by	N C M
Checked by	K C
Scale in A4	N.T.S.
Date	21 AUG 2024

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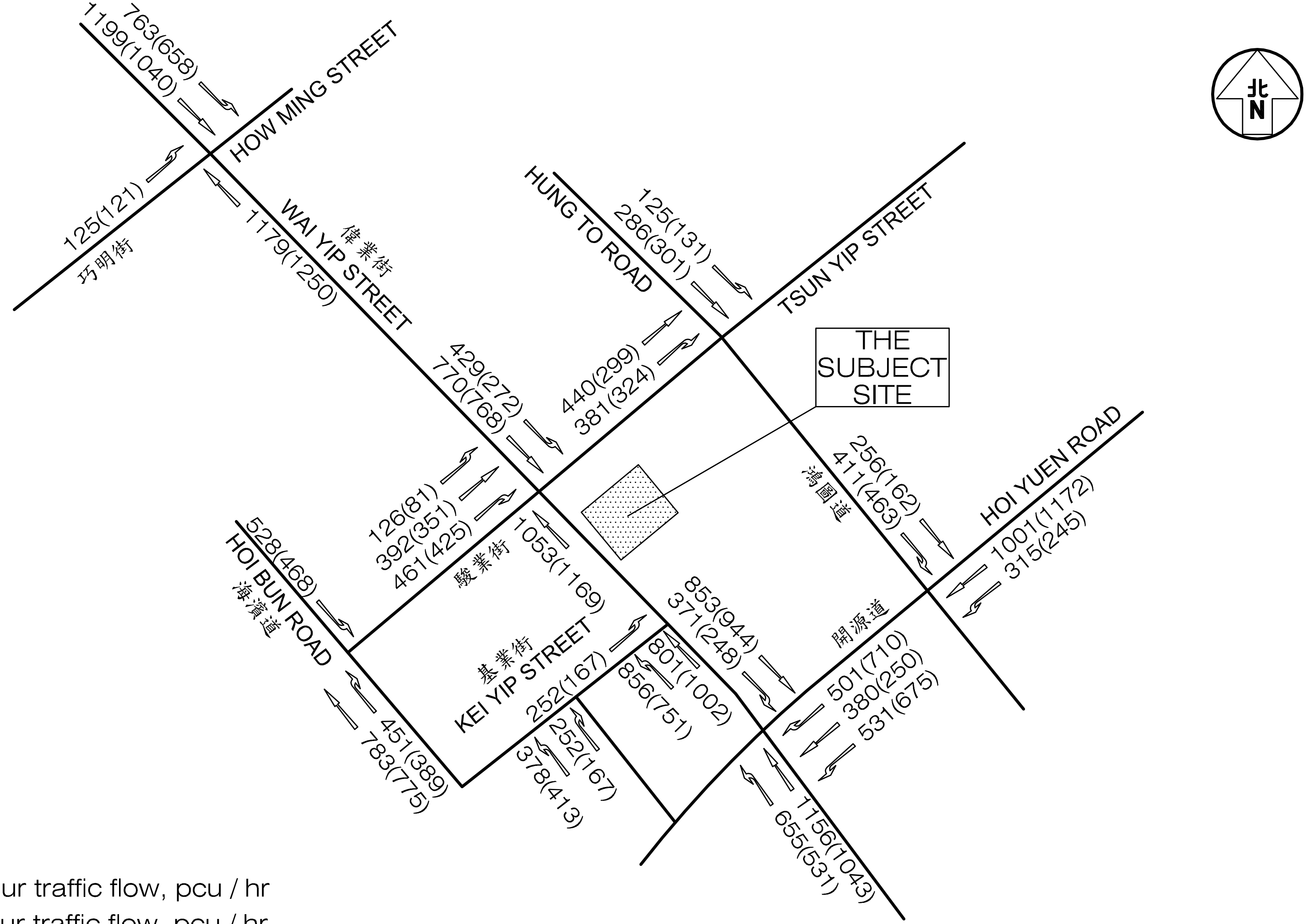
763(658)
1199(1040)
HOW MING STREET
125(121)
巧明街
1179(1250)
WAI YIP STREET
偉業街
HUNG TO ROAD
125(131)
286(301)
TSUN YIP STREET
北
N
THE SUBJECT SITE
429(272)
770(768)
440(299)
381(324)
126(81)
392(351)
461(425)
駿業街
1053(1169)
256(162)
411(463)
鴻圖道
HOI YUEN ROAD
1001(1172)
315(245)
528(468)
HOI BUN ROAD
海濱道
基業街
KEI YIP STREET
252(167)
801(1002)
856(751)
853(944)
371(248)
開源道
501(710)
380(250)
531(675)
451(389)
783(775)
252(167)
378(413)
1156(1043)
655(531)

LEGEND :

123 - AM peak hour traffic flow, pcu / hr

(456) - PM peak hour traffic flow, pcu / hr

Project Title
SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON
J7360

Figure Title

YEAR 2032 PEAK HOUR TRAFFIC FLOWS WITH THE PROPOSED REDEVELOPMENT

Figure No.	Revision
4.2	A

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

Scale in A4	Date
N.T.S.	21 AUG 2024

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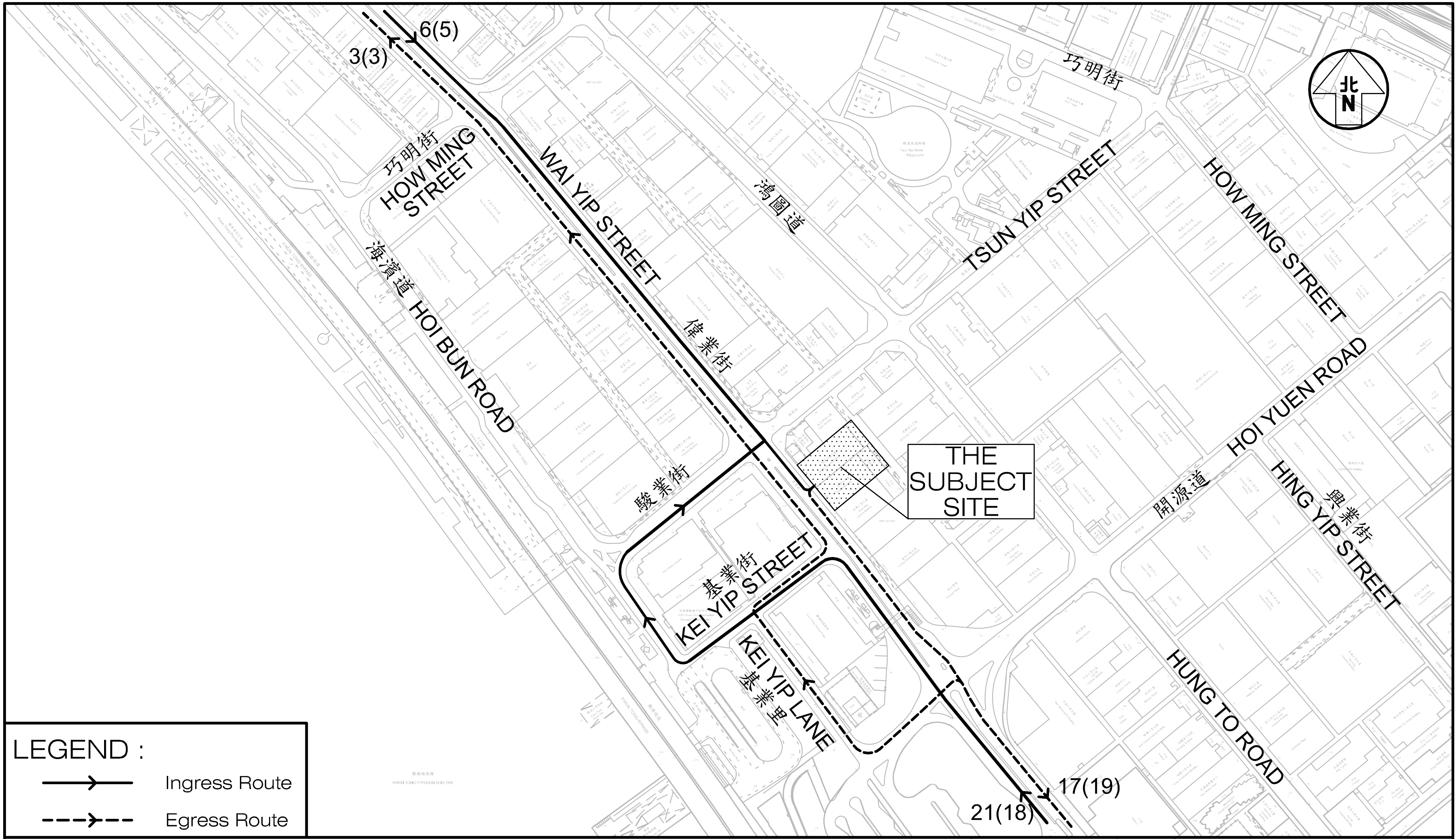
6(5)
3(3)
巧明街
HOW MING STREET
WAI YIP STREET
偉業街
鴻圖道
TSUN YIP STREET
HOW MING STREET
巧明街
海濱道
HOI BUN ROAD
駿業街
基業街
KEI YIP STREET
KEI YIP LANE
基業里
THE SUBJECT SITE
開源道
HOI YUEN ROAD
HING YIP STREET
興業街
HUNG TO ROAD
17(19)
21(18)
LEGEND :
Ingress Route
Egress Route

Project Title
SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON
J7360

Figure Title
THE INGRESS / EGRESS ROUTE FOR TRAFFIC GENERATED BY THE PROPOSED REDEVELOPMENT

Figure No.		Revision
4.3		A
Designed by	Drawn by	Checked by
C Y Y	N C M	K C
Scale in A4	Date	
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Appendix 1 – Calculation

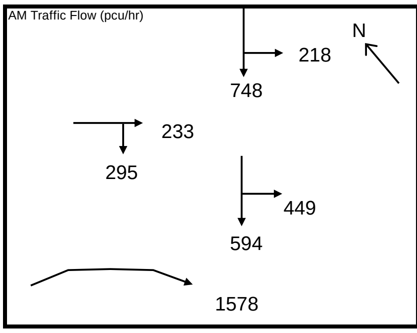
Signal Junction Analysis

Junction: Hung To Road / Hoi Yuen Road / Wai Yip Street
Job Number: J7360
Scenario: Existing Condition
Page 1
Design Year: 2023
Designed By:
Checked By:
Date: 20 August 2024

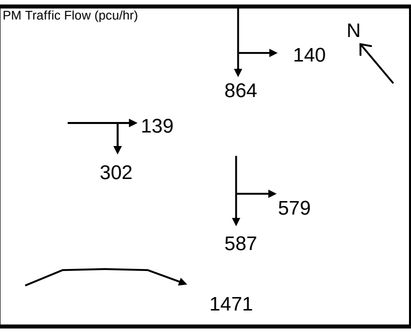
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %					PM Peak Turning %				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wai Yip Street EB	RT	A1	2,3	5.00	30.0		100	2014	521	0.259	0.259	100	2014	485	0.241	
	RT	A2	2,3	4.50	33.0		100	2109	545	0.258		100	2109	508	0.241	0.241
	RT	A3	2,3	4.50	36.0		100	1982	512	0.258		100	1982	478	0.241	
Hung To Road EB	SA+RT	B1	3	4.00	18.0		19	2121	288	0.136		42	2082	238	0.114	
	RT	B2	3	3.30	15.0		100	1768	240	0.136		100	1768	203	0.115	
Hoi Yuen Road SB	SA+LT	C1	1	3.50	15.0		73	1831	300	0.164		44	1882	317	0.168	
	SA	C2	1	3.50				2105	345	0.164			2105	355	0.169	
	SA	C3	1	3.50				1965	321	0.163			1965	332	0.169	
Hoi Yuen Road SB	LT	D1	1	3.50	40.0		100	1894	332	0.175		100	1894	372	0.196	
	SA+LT	D2	1	3.50	43.0		28	2085	366	0.176	0.176	47	2071	408	0.197	0.197
	SA	D3	1	3.50				1965	345	0.176			1965	386	0.196	

pedestrian phase	Ep	2,3		min crossing time =	7	sec GM +	10	sec FGM =	17	sec
	Fp	2		min crossing time =	6	sec GM +	8	sec FGM =	14	sec
	Gp	1,2		min crossing time =	9	sec GM +	13	sec FGM =	22	sec
	Hp	2		min crossing time =	7	sec GM +	11	sec FGM =	18	sec
	Ip	2,3		min crossing time =	8	sec GM +	11	sec FGM =	19	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



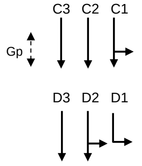
S = 1940+100(W-3.25) S = 2080+100(W-3.25)

S_M = S / (1 + 1.5 f/r) S_M = (S - 230) / (1 + 1.5 f/r)

	AM Peak		PM Peak	
	1+2,3	1+3	1+2,3	1+3
Sum y	0.434	0.311	0.438	0.312
L (s)	10	31	10	31
C (s)	100	100	130	130
practical y	0.810	0.621	0.831	0.685
R.C. (%)	87%	99%	90%	120%

Note:

1



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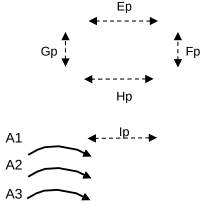

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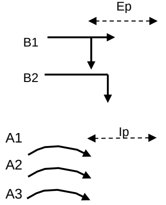


AM	G =	I/G = 7	G =	I/G =	G =	I/G = 5	G =	I/G =	G =
	G =	I/G = 3	G = 23	I/G = 2	G =	I/G = 5	G =	I/G =	G =
PM	G =	I/G = 7	G =	I/G =	G =	I/G = 5	G =	I/G =	G =
	G =	I/G = 3	G = 23	I/G = 2	G =	I/G = 5	G =	I/G =	G =

Signal Junction Analysis

Junction: Hung To Road / Hoi Yuen Road Job Number: J7360

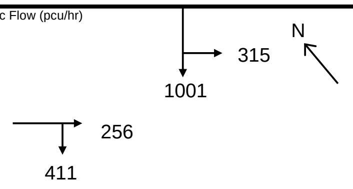
Scenario: Without the Proposed Redevelopment Page 2

Design Year: 2032 Designed By: Checked By: Date: 20 August 2024

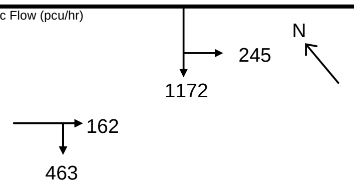
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hung To Road EB	SA+RT	B1	3	4.00	18.0		29	2104	362	0.172	0.173	52	2065	337	0.163	0.163
	RT	B2	3	3.30	15.0		100	1768	305	0.173		100	1768	288	0.163	
Hoi Yuen Road SB	SA+LT	C1	1	3.50	15.0		77	1825	407	0.223	0.223	55	1863	445	0.239	
	SA	C2	1	3.50				2105	470	0.223			2105	503	0.239	
	SA	C3	1	3.50				1965	439	0.223			1965	469	0.239	0.239

pedestrian phase	Ep	2,3	min crossing time =	7	sec GM +	10	sec FGM =	17	sec
	Fp	2	min crossing time =	6	sec GM +	8	sec FGM =	14	sec
	Gp	1,2	min crossing time =	9	sec GM +	13	sec FGM =	22	sec
	Hp	2	min crossing time =	7	sec GM +	11	sec FGM =	18	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



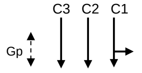
S = 1940+100(W-3.25) S = 2080+100(W-3.25)

S_M = S / (1 + 1.5 f/r) S_M = (S - 230) / (1 + 1.5 f/r)

	AM Peak		PM Peak	
	1+3		1+3	
Sum y	0.396		0.402	
L (s)	31		31	
C (s)	100		130	
practical y	0.621		0.685	
R.C. (%)	57%		70%	

Note:

1



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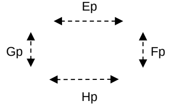

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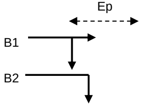


AM	G =	I/G =	3	G =	23	I/G =	2	G =	I/G =	5	G =	I/G =	G =
	G =	I/G =		G =		I/G =		G =	I/G =		G =	I/G =	G =
PM	G =	I/G =	3	G =	23	I/G =	2	G =	I/G =	5	G =	I/G =	G =
	G =	I/G =		G =		I/G =		G =	I/G =		G =	I/G =	G =

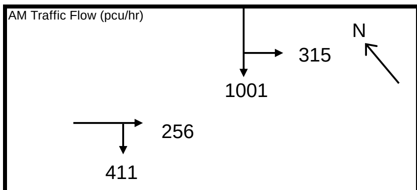
Signal Junction Analysis

Junction: Hung To Road / Hoi Yuen Road
Job Number: J7360
Scenario: With the Proposed Redevelopment
Page 3
Design Year: 2032
Designed By:
Checked By:
Date: 20 August 2024

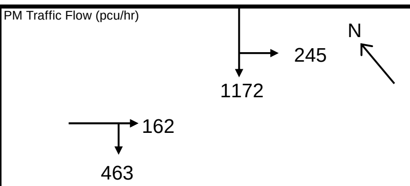
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Hung To Road EB	SA+RT	B1	3	4.00	18.0		29	2104	362	0.172	0.173	52	2065	337	0.163	0.163
	RT	B2	3	3.30	15.0		100	1768	305	0.173		100	1768	288	0.163	
Hoi Yuen Road SB	SA+LT	C1	1	3.50	15.0		77	1825	407	0.223	0.223	55	1863	445	0.239	
	SA	C2	1	3.50				2105	470	0.223			2105	503	0.239	
	SA	C3	1	3.50				1965	439	0.223			1965	469	0.239	0.239

pedestrian phase	Ep	2,3	min crossing time =	7	sec GM +	10	sec FGM =	17	sec
	Fp	2	min crossing time =	6	sec GM +	8	sec FGM =	14	sec
	Gp	1,2	min crossing time =	9	sec GM +	13	sec FGM =	22	sec
	Hp	2	min crossing time =	7	sec GM +	11	sec FGM =	18	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



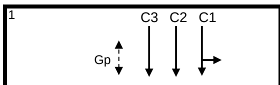
$S = 1940+100(W-3.25)$ $S = 2080+100(W-3.25)$

$S_M = S / (1 + 1.5 f/r)$ $S_M = (S - 230) / (1 + 1.5 f/r)$

	AM Peak		PM Peak	
	1+3		1+3	
Sum y	0.396		0.402	
L (s)	31		31	
C (s)	100		130	
practical y	0.621		0.685	
R.C. (%)	57%		70%	

Note:

1



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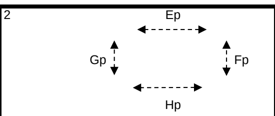

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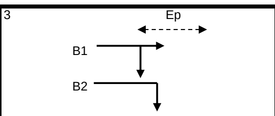


AM	G =	I/G = 3	G = 23	I/G = 2	G =	I/G = 5	G =	I/G =	G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =
PM	G =	I/G = 3	G = 23	I/G = 2	G =	I/G = 5	G =	I/G =	G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =

Roundabout Analysis

Location Wai Yip Street / Hoi Yuen Road
Scenario Existing Condition Page 4
Design Year: 2023 Job Number J7360 Date 20 August 2024

AM Peak

Arm	To A	To B	To C	To D	Total	q_c
From A	188	0	803	38	1029	549
From B	325	0	449	269	1043	1578
From C	990	0	390	86	1466	823
From D	119	0	156	3	278	1893
Total	1622	0	1798	396	3816	

PM Peak

Arm	To A	To B	To C	To D	Total	q_c
From A	139	0	782	40	961	510
From B	470	0	579	117	1166	1471
From C	886	0	317	121	1324	766
From D	151	0	193	0	344	1812
Total	1646	0	1871	278	3795	

Legend

Arm	Road (in clockwise order)
A	Wai Yip Street
B	Hoi Yuen Road
C	Wai Yip Street
D	Bus Terminal Road

Geometric Parameters

Arm	e (m)	v (m)	r (m)	L (m)	D (m)	∅ (°)	S
From A	8.5	7.3	25.0	3.0	75	25	0.6
From B	15.0	12.0	45.0	8.0	75	20	0.6
From C	10.0	7.0	20.0	10.0	75	20	0.5
From D	8.0	7.0	35.0	4.0	75	10	0.4

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

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

Limitation

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

Ratio-of-Flow to Capacity (RFC)

							Q_E		Entry Flow		RFC	
Arm	x_2	M	t_D	K	F	f_c	AM	PM	AM	PM	AM	PM
From A	7.826	4.482	1.091	1.027	2371.374	0.588	2104	2128	1029	961	0.489	0.452
From B	13.364	4.482	1.091	1.062	4049.182	0.842	2889	2985	1043	1166	0.361	0.391
From C	8.531	4.482	1.091	1.035	2584.776	0.620	2146	2183	1466	1324	0.683	0.607
From D	7.556	4.482	1.091	1.090	2289.333	0.575	1308	1359	278	344	0.212	0.253

Signal Junction Analysis

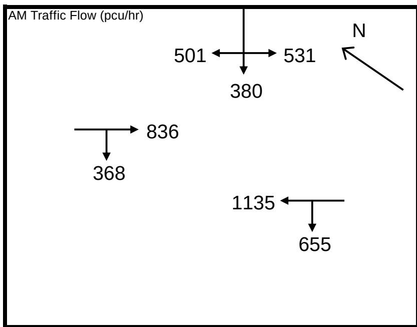
Junction: Wai Yip Street / Hoi Yuen Road
Job Number: J7360
Scenario: Without the Proposed Redevelopment

Design Year: 2032
Designed By:
Checked By:
Date: 20 August 2024

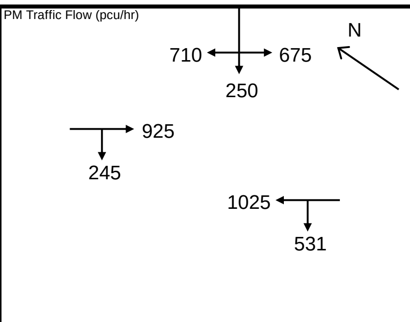
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street WB	LT	A1	1	3.60	17.0		100	1815	655	0.361	0.361	100	1815	531	0.293	0.293
	SA	A2	1	3.60				2115	568	0.269			2115	513	0.243	
	SA	A3	1	3.60				2115	567	0.268			2115	512	0.242	
Wai Yip Street EB	SA	B1	1	4.00				2015	404	0.200			2015	447	0.222	
	SA	B2	1	4.00				2155	432	0.200			2155	478	0.222	
	RT	B3	2	3.30	20.0		100	1940	185	0.095	0.096	100	1940	123	0.063	
	RT	B4	2	3.30	17.0		100	1916	183	0.096		100	1916	122	0.064	
Hoi Yuen Road SB	LT	C1	2,3	4.00	40.0		100	1942	531	0.273		100	1942	675	0.348	0.348
	SA	C2	3	4.40				2195	311	0.142	0.142		2195	250	0.114	
	SA+RT	C3	3	4.00	20.0		76	2039	289	0.142		100	2005	357	0.178	
	RT	C4	3	4.00	17.0		100	1980	281	0.142		100	1980	353	0.178	

	Phase	Stage							
pedestrian phase	Dp	1,2	min crossing time =	11	sec GM +	13	sec FGM =	24	sec
	Ep	2,3	min crossing time =	8	sec GM +	10	sec FGM =	18	sec
	Fp	1	min crossing time =	11	sec GM +	13	sec FGM =	24	sec
	Gp	1	min crossing time =	5	sec GM +	6	sec FGM =	11	sec
	Hp	2,3	min crossing time =	5	sec GM +	7	sec FGM =	12	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



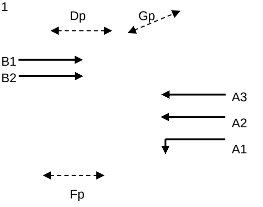
S = 1940 + 100 (W-3.25)
S = 2080 + 100 (W-3.25)
S_M = S / (1 + 1.5 f/r)
S_M = (S - 230) / (1 + 1.5 f/r)

	AM Peak		PM Peak	
	1+(2,3)	1+2+3	1+(2,3)	1+2+3
Sum y	0.634	0.598	0.640	0.535
L (s)	8	20	8	20
C (s)	100	100	130	130
practical y	0.828	0.720	0.845	0.762
R.C. (%)	31%	20%	32%	42%

Note:

Junction Improvement Scheme by Other Project

1



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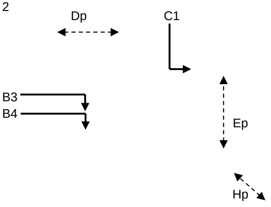

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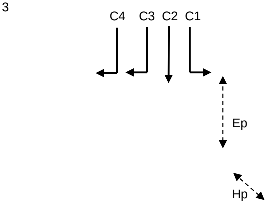


AM	G =	I/G = 5	G =	I/G =	G =	I/G = 5	G =	I/G =	G =	
	G =	I/G = 9	G =	I/G = 9	G =	I/G = 5	G =	I/G =	G =	
PM	G =	I/G = 5	G =	I/G =	G =	I/G = 5	G =	I/G =	G =	
	G =	I/G = 9	G =	I/G = 9	G =	I/G = 5	G =	I/G =	G =	

Signal Junction Analysis

Junction: Wai Yip Street / Hoi Yuen Road Job Number: J7360

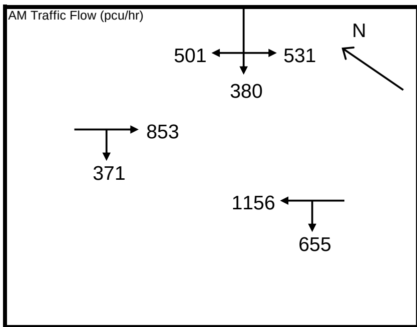
Scenario: With the Proposed Redevelopment Page 6

Design Year: 2032 Designed By: Checked By: Date: 20 August 2024

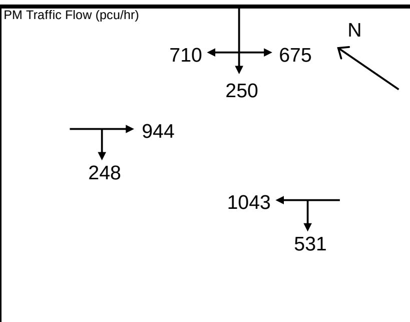
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street WB	LT	A1	1	3.60	17.0		100	1815	655	0.361	0.361	100	1815	531	0.293	0.293
	SA	A2	1	3.60				2115	578	0.273			2115	522	0.247	
	SA	A3	1	3.60				2115	578	0.273			2115	521	0.246	
Wai Yip Street EB	SA	B1	1	4.00				2015	412	0.204			2015	456	0.226	
	SA	B2	1	4.00				2155	441	0.205			2155	488	0.226	
	RT	B3	2	3.30	20.0		100	1940	187	0.096	0.096	100	1940	125	0.064	
	RT	B4	2	3.30	17.0		100	1916	184	0.096		100	1916	123	0.064	
Hoi Yuen Road SB	LT	C1	2,3	4.00	40.0		100	1942	531	0.273		100	1942	675	0.348	0.348
	SA	C2	3	4.40				2195	311	0.142	0.142		2195	250	0.114	
	SA+RT	C3	3	4.00	20.0		76	2039	289	0.142		100	2005	357	0.178	
	RT	C4	3	4.00	17.0		100	1980	281	0.142		100	1980	353	0.178	

pedestrian phase	Dp	1,2		min crossing time =	11	sec GM +	13	sec FGM =	24	sec	
	Ep	2,3		min crossing time =	8	sec GM +	10	sec FGM =	18	sec	
	Fp	1		min crossing time =	11	sec GM +	13	sec FGM =	24	sec	
	Gp	1		min crossing time =	5	sec GM +	6	sec FGM =	11	sec	
	Hp	2,3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25) S = 2080 + 100 (W-3.25)

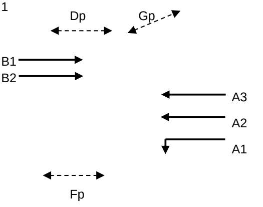
S_M = S / (1 + 1.5 f/r) S_M = (S - 230) / (1 + 1.5 f/r)

	AM Peak 1+(2,3)	AM Peak 1+2+3	PM Peak 1+(2,3)	PM Peak 1+2+3
Sum y	0.634	0.599	0.640	0.535
L (s)	8	20	8	20
C (s)	100	100	130	130
practical y	0.828	0.720	0.845	0.762
R.C. (%)	31%	20%	32%	42%

Note:

Junction Improvement Scheme by Other Project

1



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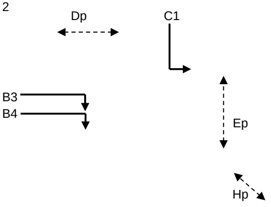

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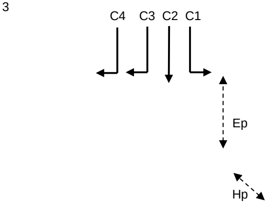


AM	G =	I/G = 5	G =	I/G =	G =	I/G = 5	G =	I/G =	G =
	G =	I/G = 9	G =	I/G = 9	G =	I/G = 5	G =	I/G =	G =
PM	G =	I/G = 5	G =	I/G =	G =	I/G = 5	G =	I/G =	G =
	G =	I/G = 9	G =	I/G = 9	G =	I/G = 5	G =	I/G =	G =

Signal Junction Analysis

Junction: Hung To Road / Tsun Yip Street — Job Number: J7360

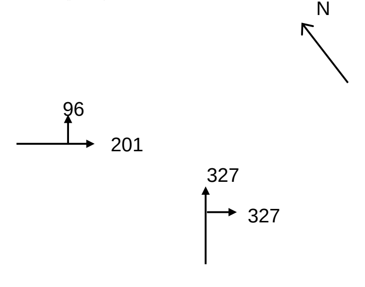
Scenario: Existing Condition — Page 7

Design Year: 2023 — Designed By: ______ — Checked By: ______ — Date: 20 August 2024

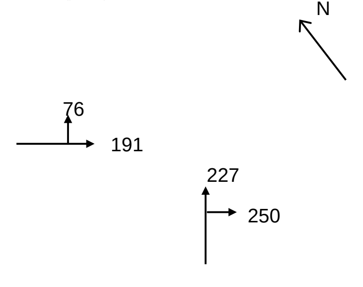
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Tsun Yip Street NB	SA	A1*	1	3.20												
	RT	A2	1	3.20	15.0		50	1843	654	0.355	0.355	52	1839	477	0.259	0.259
Hung To Road EB	LT	B1	2	3.50	10.0		100	1709	96	0.056		100	1709	76	0.044	
	SA	B2	2	3.50				1965	201	0.102	0.102		1965	191	0.097	0.097

	Phase	Stage							
pedestrian phase	Cp	1,3	min crossing time =	6	sec GM +	6	sec FGM =	12	sec
	Dp	2,3	min crossing time =	9	sec GM +	9	sec FGM =	18	sec
	Ep	3	min crossing time =	7	sec GM +	7	sec FGM =	14	sec
	Fp	3	min crossing time =	7	sec GM +	7	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100 (W-3.25)$ — $S = 2080 + 100 (W-3.25)$

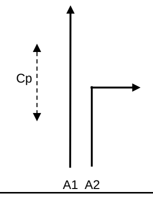
$S_M = S / (1 + 1.5 f/r)$ — $S_M = (S - 230) / (1 + 1.5 f/r)$

	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.457		0.357	
L (s)	27		27	
C (s)	118		108	
practical y	0.694		0.675	
R.C. (%)	52%		89%	

Note:

*Assume that phases A1 is blocked due to on-street parking activities along Tsun Yip Street

1



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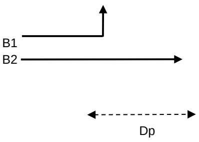

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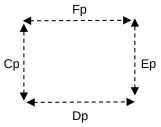


AM	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Signal Junction Analysis

Junction: Hung To Road / Tsun Yip Street Job Number: J7360

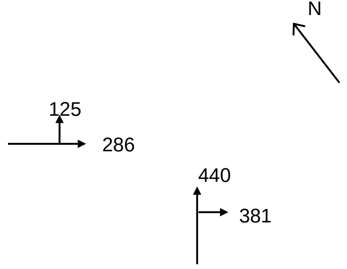
Scenario: Without the Proposed Redevelopment Page 8

Design Year: 2032 Designed By: ________ Checked By: ________ Date: 20 August 2024

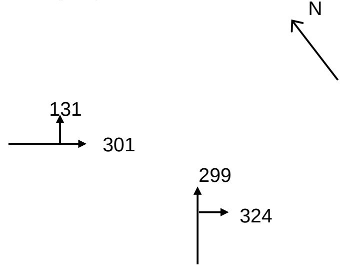
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Tsun Yip Street NB	SA	A1*	1	3.20												
	RT	A2	1	3.20	15.0		46	1850	821	0.444	0.444	52	1839	623	0.339	0.339
Hung To Road EB	LT	B1	2	3.50	10.0		100	1709	125	0.073		100	1709	131	0.077	
	SA	B2	2	3.50				1965	286	0.146	0.146		1965	301	0.153	0.153

pedestrian phase	Cp	1,3	min crossing time =	6	sec GM +	6	sec FGM =	12	sec
	Dp	2,3	min crossing time =	9	sec GM +	9	sec FGM =	18	sec
	Ep	3	min crossing time =	7	sec GM +	7	sec FGM =	14	sec
	Fp	3	min crossing time =	7	sec GM +	7	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



$S = 1940 + 100\ (W-3.25)$ $S = 2080 + 100\ (W-3.25)$

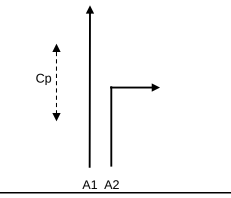
$S_M = S / (1 + 1.5\ f/r)$ $S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.589		0.492	
L (s)	27		27	
C (s)	118		108	
practical y	0.694		0.675	
R.C. (%)	18%		37%	

Note:

*Assume that phases A1 is blocked due to on-street parking activities along Tsun Yip Street

1



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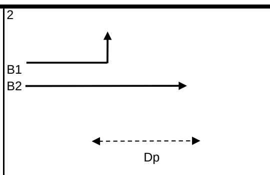
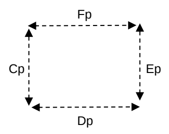


3



AM	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 2	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

Signal Junction Analysis

Junction: Hung To Road / Tsun Yip Street — Job Number: J7360

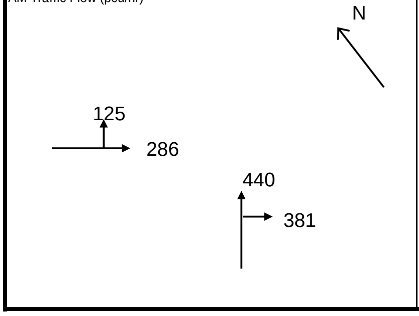
Scenario: With the Proposed Redevelopment — Page 9

Design Year: 2032 — Designed By: ____ — Checked By: ____ — Date: 20 August 2024

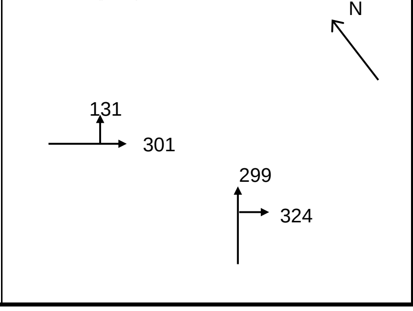
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Tsun Yip Street NB	SA	A1*	1	3.20												
	RT	A2	1	3.20	15.0		46	1850	821	0.444	0.444	52	1839	623	0.339	0.339
Hung To Road EB	LT	B1	2	3.50	10.0		100	1709	125	0.073		100	1709	131	0.077	
	SA	B2	2	3.50				1965	286	0.146	0.146		1965	301	0.153	0.153

pedestrian phase	Cp	1,3	min crossing time =	6	sec GM +	6	sec FGM =	12	sec
	Dp	2,3	min crossing time =	9	sec GM +	9	sec FGM =	18	sec
	Ep	3	min crossing time =	7	sec GM +	7	sec FGM =	14	sec
	Fp	3	min crossing time =	7	sec GM +	7	sec FGM =	14	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25) S = 2080 + 100 (W-3.25)

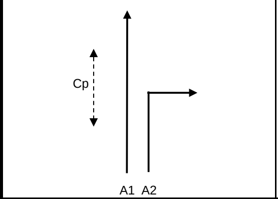
S_M = S / (1 + 1.5 f/r) S_M = (S - 230) / (1 + 1.5 f/r)

	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.589		0.492	
L (s)	27		27	
C (s)	118		108	
practical y	0.694		0.675	
R.C. (%)	18%		37%	

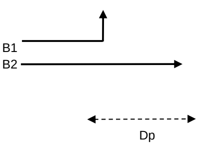
Note:

*Assume that phases A1 is blocked due to on-street parking activities along Tsun Yip Street

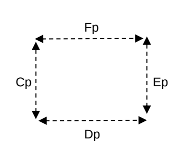
1



2



3



AM	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 2	G =	I/G =	G =					
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =					
PM	G =	I/G = 5	G =	I/G = 8	G = 14	I/G = 2	G =	I/G =	G =					
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =					

Signal Junction Analysis

Junction: Wai Yip Street / Tsun Yip Street — Job Number: J7360

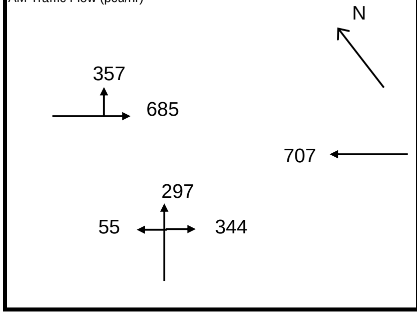
Scenario: Existing Condition — Page 10

Design Year: 2023 — Designed By: ________ — Checked By: ________ — Date: 20 August 2024

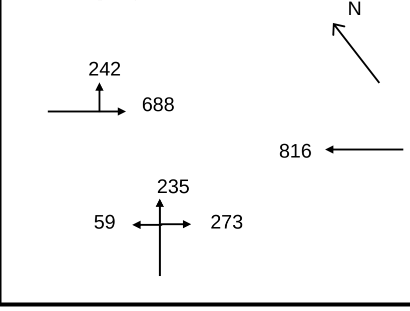
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wai Yip Street EB	LT	A1	1	3.00	10.0		100	1665	302	0.181	0.182	100	1665	242	0.145	
	SA+LT	A2	1	3.00	15.0		15	2025	367	0.181		0	2055	344	0.167	0.167
	SA	A3	1	3.00				2055	373	0.182			2055	344	0.167	
Wai Yip Street WB	SA	B1	1	3.00				1915	225	0.117			1915	259	0.135	
	SA	B2	1	3.00				2055	241	0.117			2055	278	0.135	
	SA	B3	1	3.00				2055	241	0.117			2055	279	0.136	
Tsun Yip Street NB	SA+LT	C1	2	3.80	15.0		16	1964	349	0.178	0.178	21	1954	283	0.145	0.145
	SA+RT	C2	2	3.30	22.0		99	1953	347	0.178		96	1957	284	0.145	
	RT	C3*	2	3.30	18.0											

pedestrian phase	Dp	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec	
	Ep	1,3		min crossing time =	14	sec GM +	14	sec FGM =	28	sec	
	Fp	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec	
	Gp	3		min crossing time =	12	sec GM +	12	sec FGM =	24	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



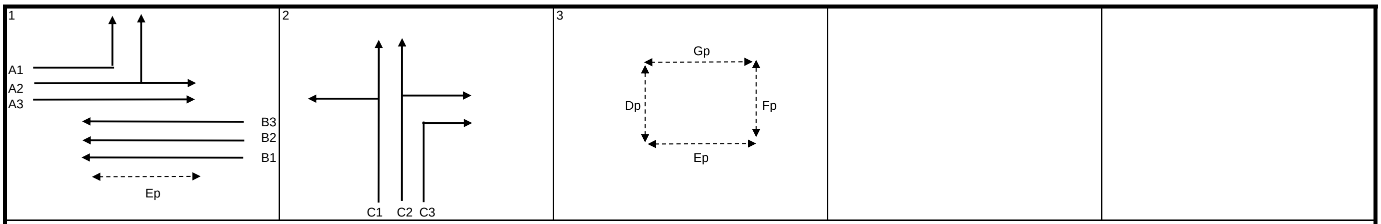
$S = 1940 + 100\ (W-3.25)$ $S = 2080 + 100\ (W-3.25)$

$S_M = S / (1 + 1.5\ f/r)$ $S_M = (S - 230) / (1 + 1.5\ f/r)$

	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.359		0.313	
L (s)	34		34	
C (s)	118		108	
practical y	0.641		0.617	
R.C. (%)	78%		97%	

Note:

*Assume that phase C3 is blocked due to on-street parking activities along Tsun Yip Street



AM	G =	I/G = 7	G =	I/G = 9	G = 17	I/G = 3	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	
PM	G =	I/G = 7	G =	I/G = 9	G = 17	I/G = 3	G =	I/G =	G =	
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =	

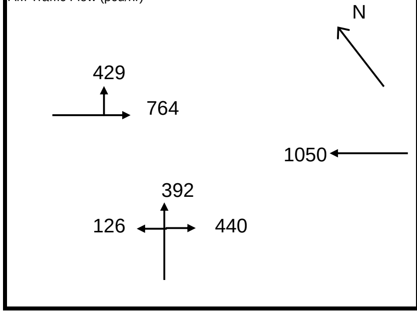
Signal Junction Analysis

Junction: Wai Yip Street / Tsun Yip Street — Job Number: J7360
Scenario: Without the Proposed Redevelopment — Page 11
Design Year: 2032 — Designed By: — Checked By: — Date: 20 August 2024

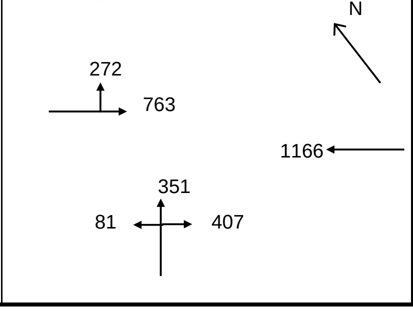
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street EB	LT	A1	1	3.00	10.0		100	1665	347	0.208	0.208	100	1665	272	0.163	
	SA+LT	A2	1	3.00	15.0		19	2017	419	0.208		0	2055	382	0.186	
	SA	A3	1	3.00				2055	427	0.208			2055	381	0.185	
Wai Yip Street WB	SA	B1	1	3.00				1915	334	0.174			1915	371	0.194	0.194
	SA	B2	1	3.00				2055	358	0.174			2055	398	0.194	
	SA	B3	1	3.00				2055	358	0.174			2055	397	0.193	
Tsun Yip Street NB	SA+LT	C1	2	3.80	15.0		26	1944	477	0.245	0.245	19	1958	432	0.221	
	SA+RT	C2	2	3.30	22.0		91	1963	481	0.245		100	1952	407	0.209	0.221
	RT	C3*	2	3.30	18.0											

	Phase	Stage								
pedestrian phase	Dp	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	Ep	1,3		min crossing time =	14	sec GM +	14	sec FGM =	28	sec
	Fp	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	Gp	3		min crossing time =	12	sec GM +	12	sec FGM =	24	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



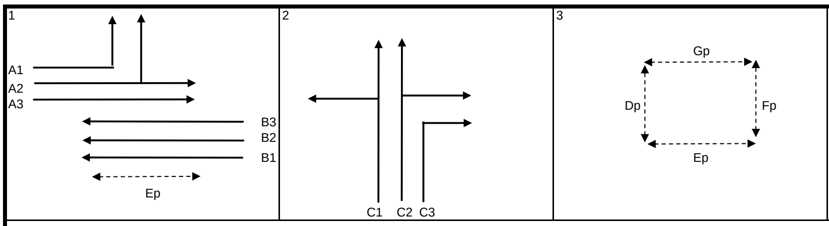
S = 1940 + 100 (W-3.25) S = 2080 + 100 (W-3.25)

$S_M = S / (1 + 1.5 f/r)$ $S_M = (S - 230) / (1 + 1.5 f/r)$

	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.454		0.414	
L (s)	34		34	
C (s)	118		108	
practical y	0.641		0.617	
R.C. (%)	41%		49%	

Note:

*Assume that phase C3 is blocked due to on-street parking activities along Tsun Yip Street



AM	G =	I/G = 7	G =	I/G = 9	G = 17	I/G = 3	G =	I/G =	G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =
PM	G =	I/G = 7	G =	I/G = 9	G = 17	I/G = 3	G =	I/G =	G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =

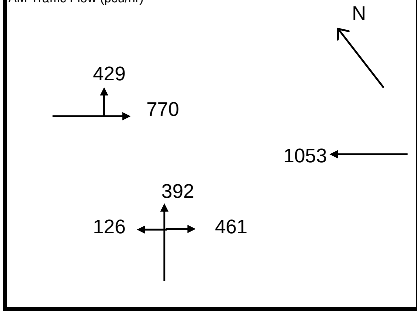
Signal Junction Analysis

Junction: Wai Yip Street / Tsun Yip Street
Job Number: J7360
Scenario: With the Proposed Redevelopment
Page 12
Design Year: 2032
Designed By:
Checked By:
Date: 20 August 2024

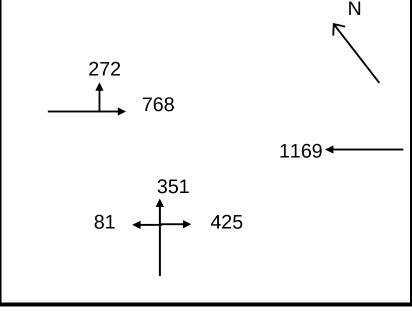
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street EB	LT	A1	1	3.00	10.0		100	1665	348	0.209	0.209	100	1665	272	0.163	
	SA+LT	A2	1	3.00	15.0		19	2017	422	0.209		0	2055	384	0.187	
	SA	A3	1	3.00				2055	429	0.209			2055	384	0.187	
Wai Yip Street WB	SA	B1	1	3.00				1915	335	0.175			1915	372	0.194	
	SA	B2	1	3.00				2055	359	0.175			2055	399	0.194	0.194
	SA	B3	1	3.00				2055	359	0.175			2055	398	0.194	
Tsun Yip Street NB	SA+LT	C1	2	3.80	15.0		26	1944	488	0.251	0.251	19	1958	432	0.221	
	SA+RT	C2	2	3.30	22.0		94	1959	491	0.251		100	1952	425	0.218	0.221
	RT	C3*	2	3.30	18.0											

pedestrian phase	Dp	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	Ep	1,3		min crossing time =	14	sec GM +	14	sec FGM =	28	sec
	Fp	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec
	Gp	3		min crossing time =	12	sec GM +	12	sec FGM =	24	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25)
S = 2080 + 100 (W-3.25)

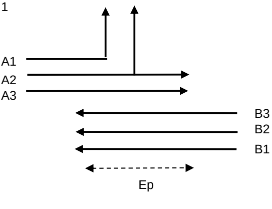
S_M = S / (1 + 1.5 f/r)
S_M = (S - 230) / (1 + 1.5 f/r)

	AM Peak		PM Peak	
	1+2		1+2	
Sum y	0.460		0.415	
L (s)	34		34	
C (s)	118		108	
practical y	0.641		0.617	
R.C. (%)	39%		49%	

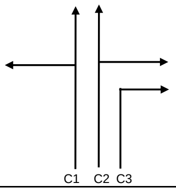
Note:

*Assume that phase C3 is blocked due to on-street parking activities along Tsun Yip Street

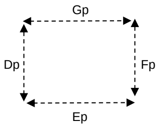
1



2



3



AM	G =		I/G =	7	G =		I/G =	9	G =	17	I/G =	3	G =		I/G =		G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =	
PM	G =		I/G =	7	G =		I/G =	9	G =	17	I/G =	3	G =		I/G =		G =	
	G =		I/G =		G =		I/G =		G =		I/G =		G =		I/G =		G =	

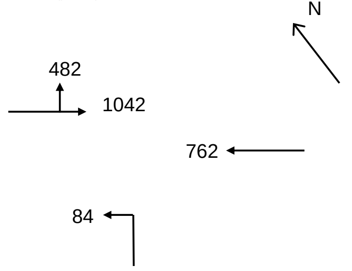
Signal Junction Analysis

Junction: Wai Yip Street / How Ming Street
Job Number: J7360
Scenario: Existing Condition
Page 13
Design Year: 2023
Designed By:
Checked By:
Date: 20 August 2024

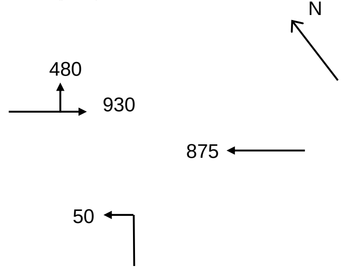
							AM Peak					PM Peak				
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wai Yip Street EB	LT	A1*	1,2	3.00	20.0											
	SA	A2	1,2	3.00	20.0		65	1959	744	0.380	0.380	70	1952	687	0.352	0.352
	SA	A3	1,2	3.00				2055	780	0.380			2055	723	0.352	
Wai Yip Street WB	SA	B1	1	2.60				1875	238	0.127			1875	275	0.147	
	SA	B2	1	3.00				2055	262	0.127			2055	300	0.146	
	SA	B3	1	3.00				2055	262	0.127			2055	300	0.146	
How Ming Street NB	LT	C1	2	3.50	20.0		100	1828	84	0.046		100	1828	50	0.027	

pedestrian phase	Dp	1,3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec	
	Ep	3		min crossing time =	10	sec GM +	9	sec FGM =	19	sec	
	Fp	3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec	
	Gp	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



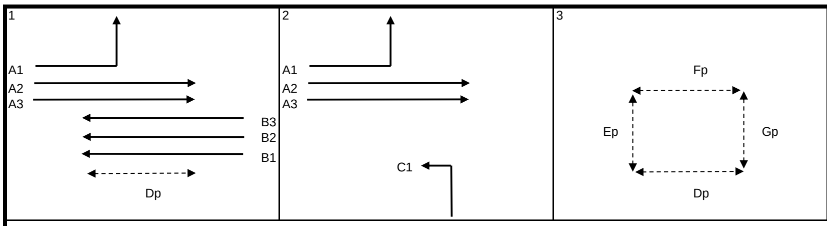
S = 1940 + 100 (W-3.25) S = 2080 + 100 (W-3.25)

S_M = S / (1 + 1.5 f/r) S_M = (S - 230) / (1 + 1.5 f/r)

	AM Peak		PM Peak	
	1,2		1,2	
Sum y	0.380		0.352	
L (s)	29		29	
C (s)	118		108	
practical y	0.679		0.658	
R.C. (%)	79%		87%	

Note:

*Assume that phase A1 is blocked due to on-street parking activities along Wai Yip Street



AM	G =	I/G =	G =	I/G = 8	G = 19	I/G = 3	G =	I/G =	G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =
PM	G =	I/G =	G =	I/G = 8	G = 19	I/G = 3	G =	I/G =	G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =

Signal Junction Analysis

Junction: Wai Yip Street / How Ming Street — Job Number: J7360

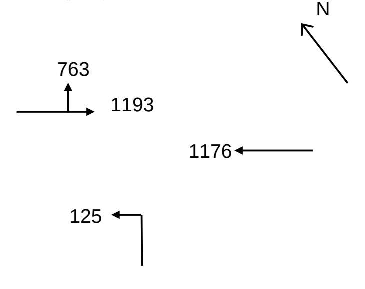
Scenario: Without the Proposed Redevelopment — Page 14

Design Year: 2032 — Designed By: — Checked By: — Date: 20 August 2024

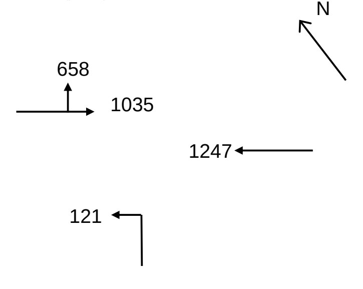
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak					PM Peak				
							Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y	Turning %	Sat. Flow (pcu/hr)	Flow (pcu/hr)	y value	Critical y
Wai Yip Street EB	LT	A1*	1,2	3.00	20.0											
	SA	A2	1,2	3.00	20.0		80	1939	950	0.490	0.490	80	1939	822	0.424	0.424
	SA	A3	1,2	3.00				2055	1006	0.490			2055	871	0.424	
Wai Yip Street WB	SA	B1	1	2.60				1875	368	0.196			1875	391	0.209	
	SA	B2	1	3.00				2055	404	0.197			2055	428	0.208	
	SA	B3	1	3.00				2055	404	0.197			2055	428	0.208	
How Ming Street NB	LT	C1	2	3.50	20.0		100	1828	125	0.068		100	1828	121	0.066	

pedestrian phase	Dp	1,3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec	
	Ep	3		min crossing time =	10	sec GM +	9	sec FGM =	19	sec	
	Fp	3		min crossing time =	5	sec GM +	7	sec FGM =	12	sec	
	Gp	3		min crossing time =	9	sec GM +	8	sec FGM =	17	sec	

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



S = 1940 + 100 (W-3.25)

S = 2080 + 100 (W-3.25)

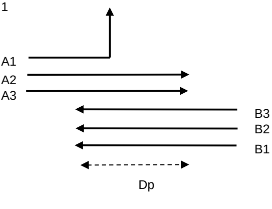
S_M = S / (1 + 1.5 f/r)

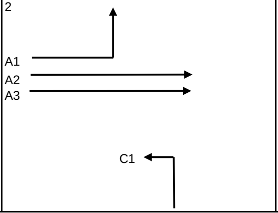
S_M = (S - 230) / (1 + 1.5 f/r)

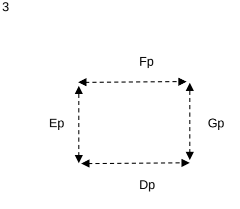
	AM Peak		PM Peak	
	1,2		1,2	
Sum y	0.490		0.424	
L (s)	29		29	
C (s)	118		108	
practical y	0.679		0.658	
R.C. (%)	39%		55%	

Note:

*Assume that phase A1 is blocked due to on-street parking activities along Wai Yip Street







AM	G =	I/G =	G =	I/G = 8	G = 19	I/G = 3	G =	I/G =	G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =
PM	G =	I/G =	G =	I/G = 8	G = 19	I/G = 3	G =	I/G =	G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =

Signal Junction Analysis

Junction: Wai Yip Street / How Ming Street — Job Number: J7360

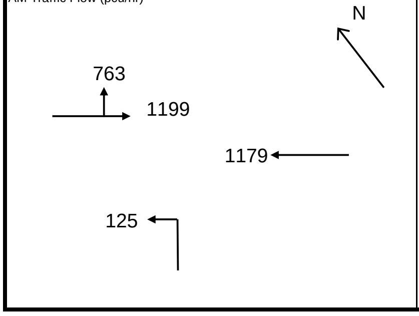
Scenario: With the Proposed Redevelopment — Page 15

Design Year: 2032 — Designed By: ____ — Checked By: ____ — Date: 20 August 2024

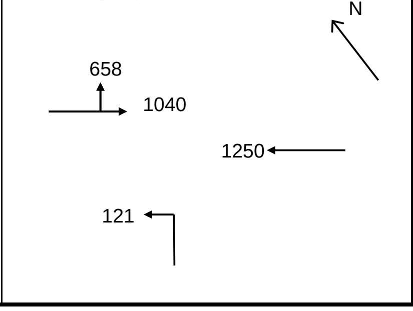
Approach		Phase	Stage	Width (m)	Radius (m)	% Up-hill Gradient	AM Peak Turning %	AM Peak Sat. Flow (pcu/hr)	AM Peak Flow (pcu/hr)	AM Peak y value	AM Peak Critical y	PM Peak Turning %	PM Peak Sat. Flow (pcu/hr)	PM Peak Flow (pcu/hr)	PM Peak y value	PM Peak Critical y
Wai Yip Street EB	LT	A1*	1,2	3.00	20.0											
	SA	A2	1,2	3.00	20.0		80	1939	953	0.491	0.491	80	1939	824	0.425	0.425
	SA	A3	1,2	3.00				2055	1009	0.491			2055	874	0.425	
Wai Yip Street WB	SA	B1	1	2.60				1875	369	0.197			1875	392	0.209	
	SA	B2	1	3.00				2055	405	0.197			2055	429	0.209	
	SA	B3	1	3.00				2055	405	0.197			2055	429	0.209	
How Ming Street NB	LT	C1	2	3.50	20.0		100	1828	125	0.068		100	1828	121	0.066	

pedestrian phase	Dp	1,3	min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	Ep	3	min crossing time =	10	sec GM +	9	sec FGM =	19	sec
	Fp	3	min crossing time =	5	sec GM +	7	sec FGM =	12	sec
	Gp	3	min crossing time =	9	sec GM +	8	sec FGM =	17	sec

AM Traffic Flow (pcu/hr)



PM Traffic Flow (pcu/hr)



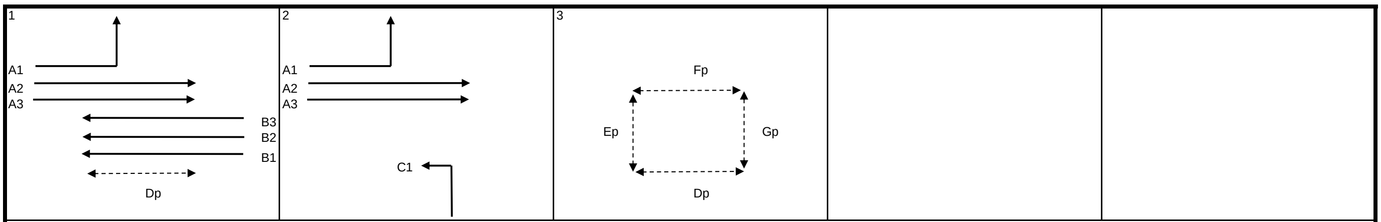
S = 1940 + 100 (W-3.25) — S = 2080 + 100 (W-3.25)

S_M = S / (1 + 1.5 f/r) — S_M = (S - 230) / (1 + 1.5 f/r)

	AM Peak		PM Peak	
	1,2		1,2	
Sum y	0.491		0.425	
L (s)	29		29	
C (s)	118		108	
practical y	0.679		0.658	
R.C. (%)	38%		55%	

Note:

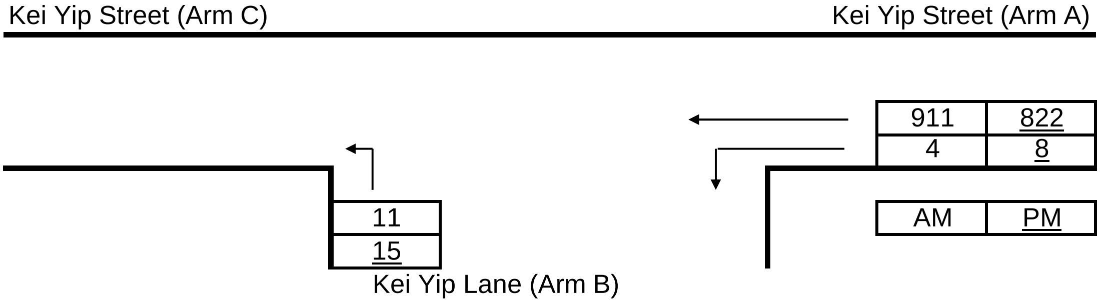
*Assume that phase A1 is blocked due to on-street parking activities along Wai Yip Street



AM	G =	I/G =	G =	I/G = 8	G = 19	I/G = 3	G =	I/G =	G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =
PM	G =	I/G =	G =	I/G = 8	G = 19	I/G = 3	G =	I/G =	G =
	G =	I/G =	G =	I/G =	G =	I/G =	G =	I/G =	G =

Priority Junction Analysis

Junction: Kei Yip Street / Kei Yip Lane
Design Year: 2023 Job Number: J7360 Date: 20 August 2024
Scenario: Existing Condition 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-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	13.00	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	0.00	V-lBA	0	w-BC	3.80	E	0.9320
		V-rBC	30	w-CB	0.00	F	0.5860
		V-rCB	0			Y	0.5515

Analysis :

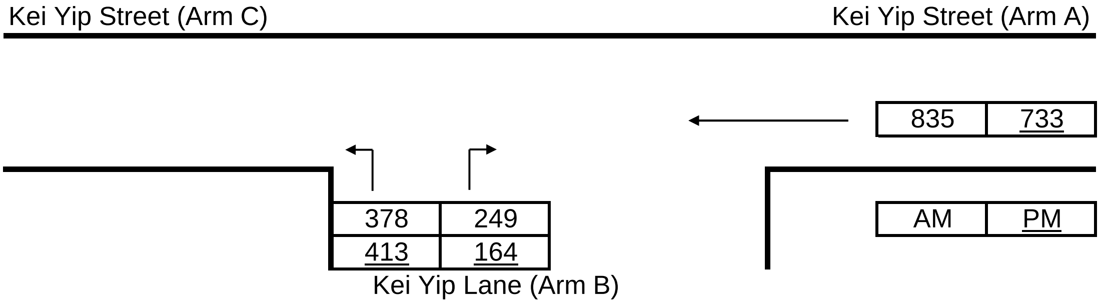
Traffic Flows, pcu/hr	AM	PM
q-CA	0	0
q-CB	0	0
q-AB	4	8
q-AC	911	822
q-BA	0	0
q-BC	11	15
f	1.000	1.000

Capacity, pcu/hr	AM	PM
Q-BA	237	246
Q-BC	524	540
Q-CB	329	339
Q-BAC	524	540

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.021	0.028
C-B	0.000	0.000

Priority Junction Analysis

Junction: Kei Yip Street / Kei Yip Lane
Design Year: 2023 Job Number: J7360 Date: 20 August 2024
Scenario: Without the Proposed Redevelopment P. 17



The predictive equations of capacity of movement are:

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

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

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

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

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

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

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

where $Y = 1 - 0.0345W$
q-AB, etc = the design flow of movement AB, etc
W = major road width
W-CR = central reserve width
w-BA, etc = lane width to vehicle
v-rBA, etc = visibility to the right for waiting vehicles in stream BA, etc
v-lBA, etc = visibility to the left for waiting vehicles in stream BA, etc

Geometry :

Input		Input		Input		Calculated	
W	17.00	V-rBA	20	w-BA	3.80	D	0.8536
W-CR	0.00	V-lBA	25	w-BC	3.80	E	0.9228
		V-rBC	20	w-CB	0.00	F	0.5860
		V-rCB	0			Y	0.4135

Analysis :

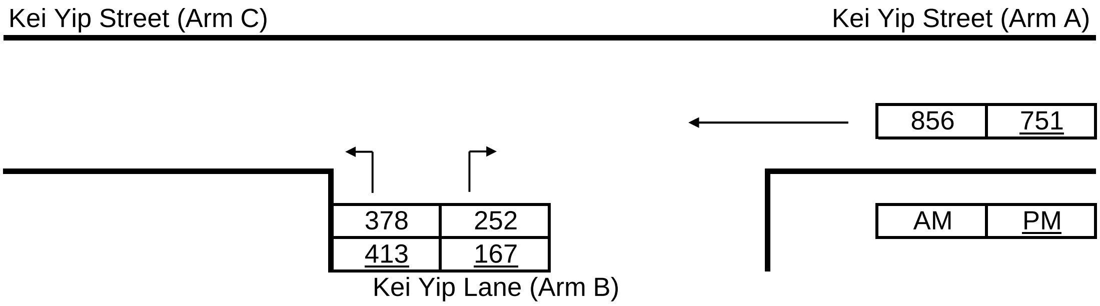
Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	428	441
q-CB	0	0	Q-BC	572	586
q-AB	0	0	Q-CB	363	372
q-AC	835	733	Q-BAC	504	536
q-BA	249	164			
q-BC	378	413			
f	0.603	0.716			

Ratio-of-flow to Capacity	AM	PM
B-A	0.582	0.372
B-C	0.661	0.705
C-B	0.000	0.000

Noted: Junction Improvement Scheme by Other Project

Priority Junction Analysis

Junction:	Kei Yip Street / Kei Yip Lane				
Design Year:	2023	Job Number:	J7360	Date:	20 August 2024
Scenario:	With the Proposed Redevelopment				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-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	17.00	V-rBA	20	w-BA	3.80	D	0.8536
W-CR	0.00	V-lBA	25	w-BC	3.80	E	0.9228
		V-rBC	20	w-CB	0.00	F	0.5860
		V-rCB	0			Y	0.4135

Analysis :

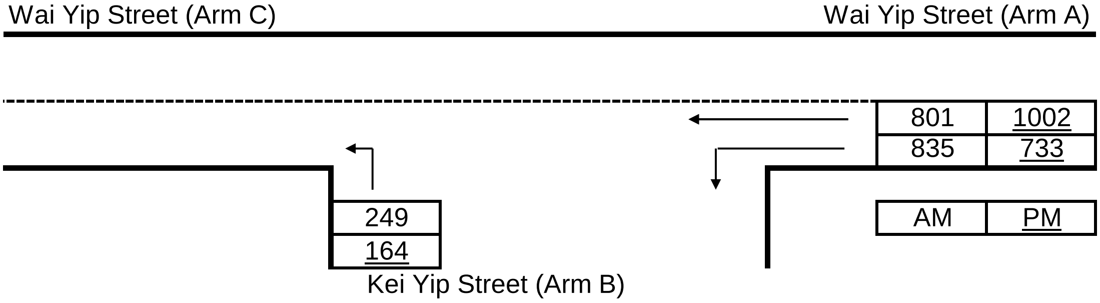
Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	425	439
q-CB	0	0	Q-BC	569	583
q-AB	0	0	Q-CB	361	370
q-AC	856	751	Q-BAC	501	533
q-BA	252	167			
q-BC	378	413			
f	0.600	0.712			

Ratio-of-flow to Capacity	AM	PM
B-A	0.593	0.381
B-C	0.665	0.708
C-B	0.000	0.000

Noted: Junction Improvement Scheme by Other Project

Priority Junction Analysis

Junction:	Wai Yip Street / Kei Yip Street				
Design Year:	2032	Job Number:	J7360	Date:	20 August 2024
Scenario:	Without the Proposed Redevelopment				P. 19



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	17.90	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	1.00	V-lBA	0	w-BC	3.80	E	0.9593
		V-rBC	60	w-CB	0.00	F	0.5860
		V-rCB	0			Y	0.3825

Analysis :

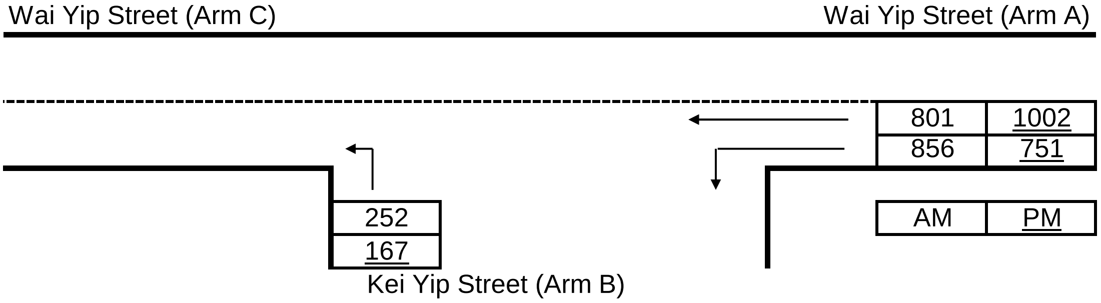
Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	258	246
q-CB	0	0	Q-BC	564	542
q-AB	835	733	Q-CB	303	295
q-AC	801	1002	Q-BAC	564	542
q-BA	0	0			
q-BC	249	164			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.442	0.302
C-B	0.000	0.000

Noted: Junction Improvement Scheme by Other Project

Priority Junction Analysis

Junction:	Wai Yip Street / Kei Yip Street				
Design Year:	2032	Job Number:	J7360	Date:	20 August 2024
Scenario:	With the Proposed Redevelopment				P. 20



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	17.90	V-rBA	0	w-BA	0.00	D	0.5332
W-CR	1.00	V-lBA	0	w-BC	3.80	E	0.9593
		V-rBC	60	w-CB	0.00	F	0.5860
		V-rCB	0			Y	0.3825

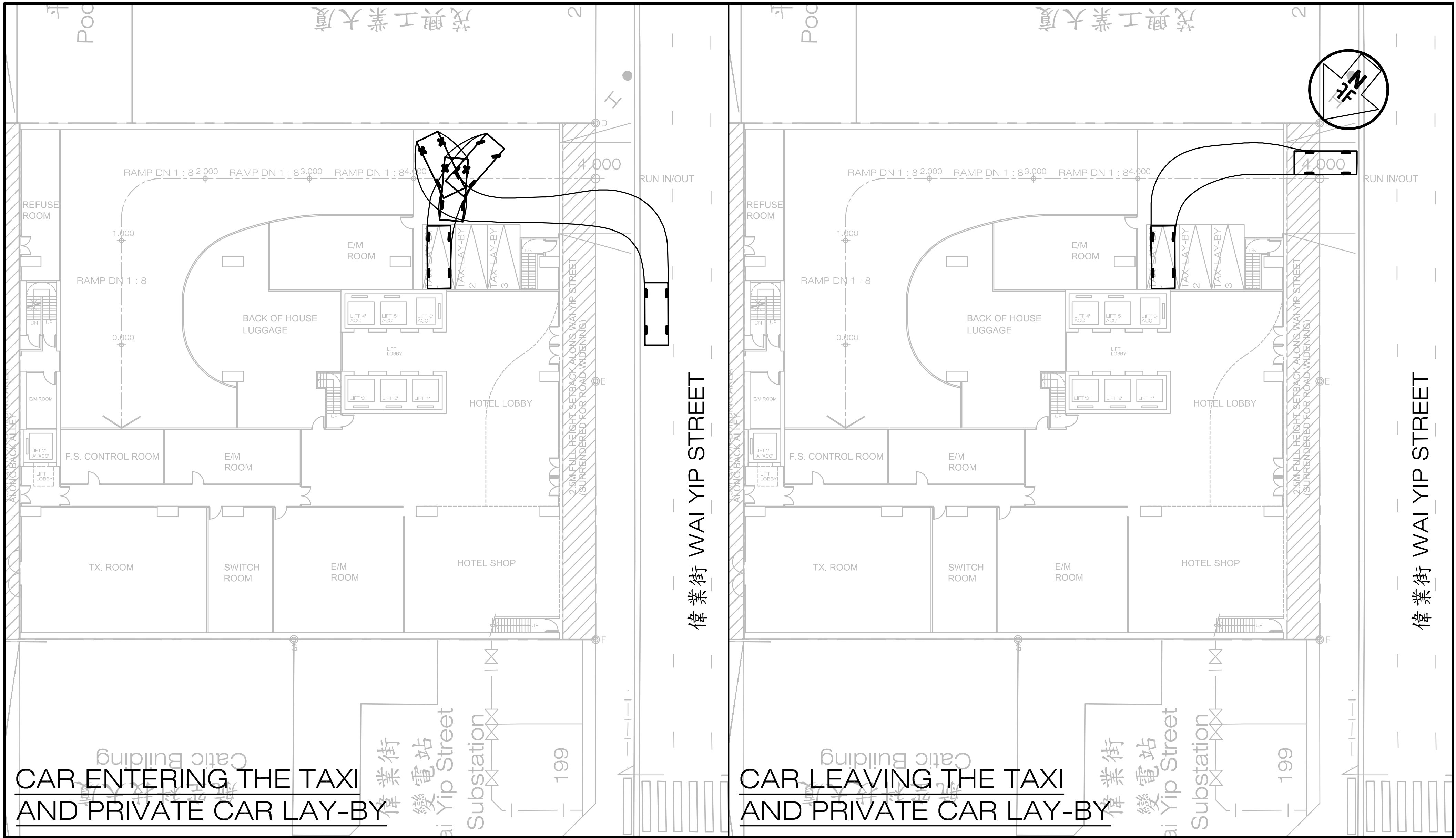
Analysis :

Traffic Flows, pcu/hr	AM	PM	Capacity, pcu/hr	AM	PM
q-CA	0	0	Q-BA	257	245
q-CB	0	0	Q-BC	563	541
q-AB	856	751	Q-CB	301	294
q-AC	801	1002	Q-BAC	563	541
q-BA	0	0			
q-BC	252	167			
f	1.000	1.000			

Ratio-of-flow to Capacity	AM	PM
B-A	0.000	0.000
B-C	0.448	0.309
C-B	0.000	0.000

Noted: Junction Improvement Scheme by Other Project

Appendix 2 –
Swept Path Analysis


RAMP DN 1 : 8
2.000
3.000
4.000
RUN IN/OUT
REFUSE ROOM
E/M ROOM
TAXI LAY-BY 2
TAXI LAY-BY 3
1.000
0.000
BACK OF HOUSE LUGGAGE
LIFT LOBBY
HOTEL LOBBY
F.S. CONTROL ROOM
E/M ROOM
TX. ROOM
SWITCH ROOM
HOTEL SHOP
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET (SURRENDERED FOR ROAD WIDENING)
偉業街 WAI YIP STREET
Catic Building
Wai Yip Street Substation
偉業街變電站
199
N
北

CAR ENTERING THE TAXI AND PRIVATE CAR LAY-BY

CAR LEAVING THE TAXI AND PRIVATE CAR LAY-BY

Project Title	SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON J7360	Figure No. SP1	Revision A
Figure Title	SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE TAXI AND PRIVATE CAR LAY-BY LAY-BY 1 ON G/F	Designed by C Y Y Scale in A4 1 : 400	Drawn by N C M Checked by K C Date 21 AUG 2024

CKM Asia Limited
Traffic and Transportation Planning Consultants
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Wan Chai, Hong Kong
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Email : mail@ckmasia.com.hk

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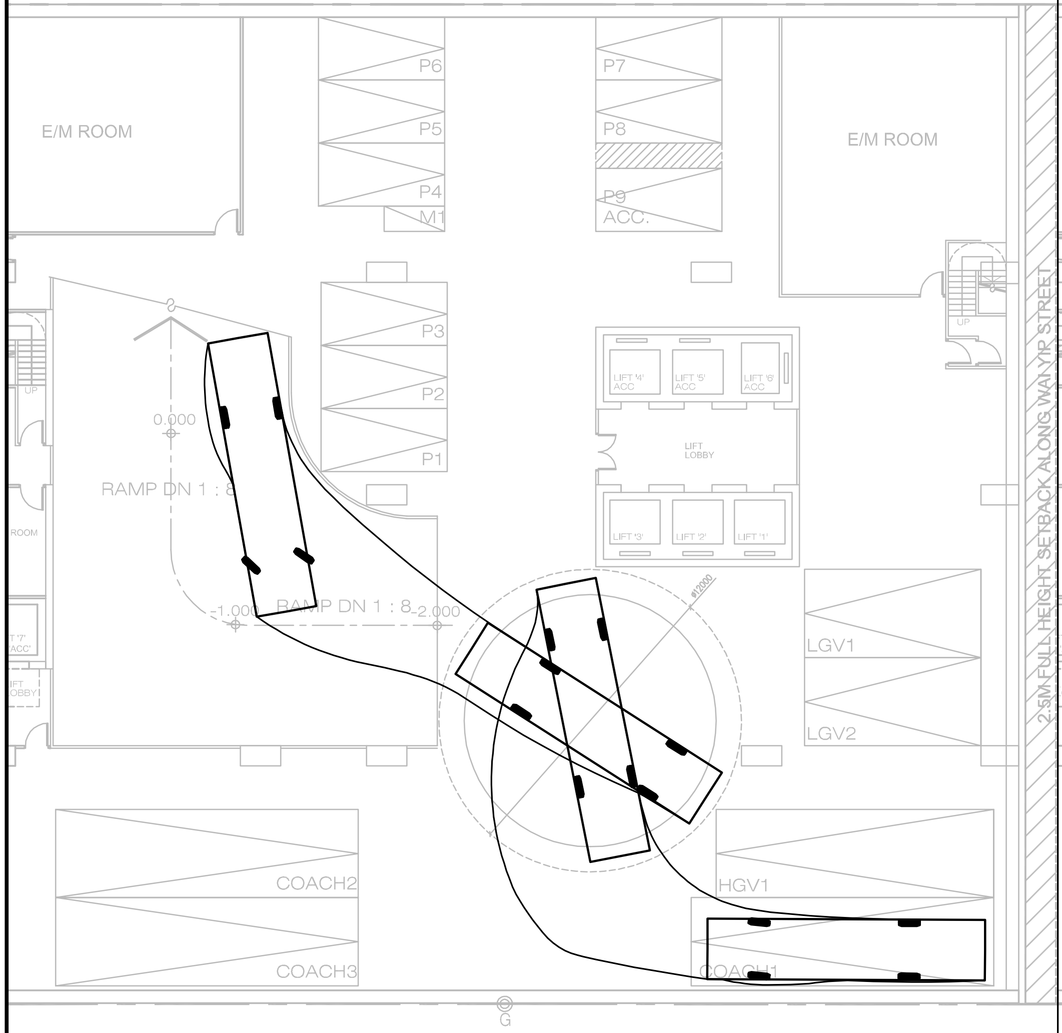
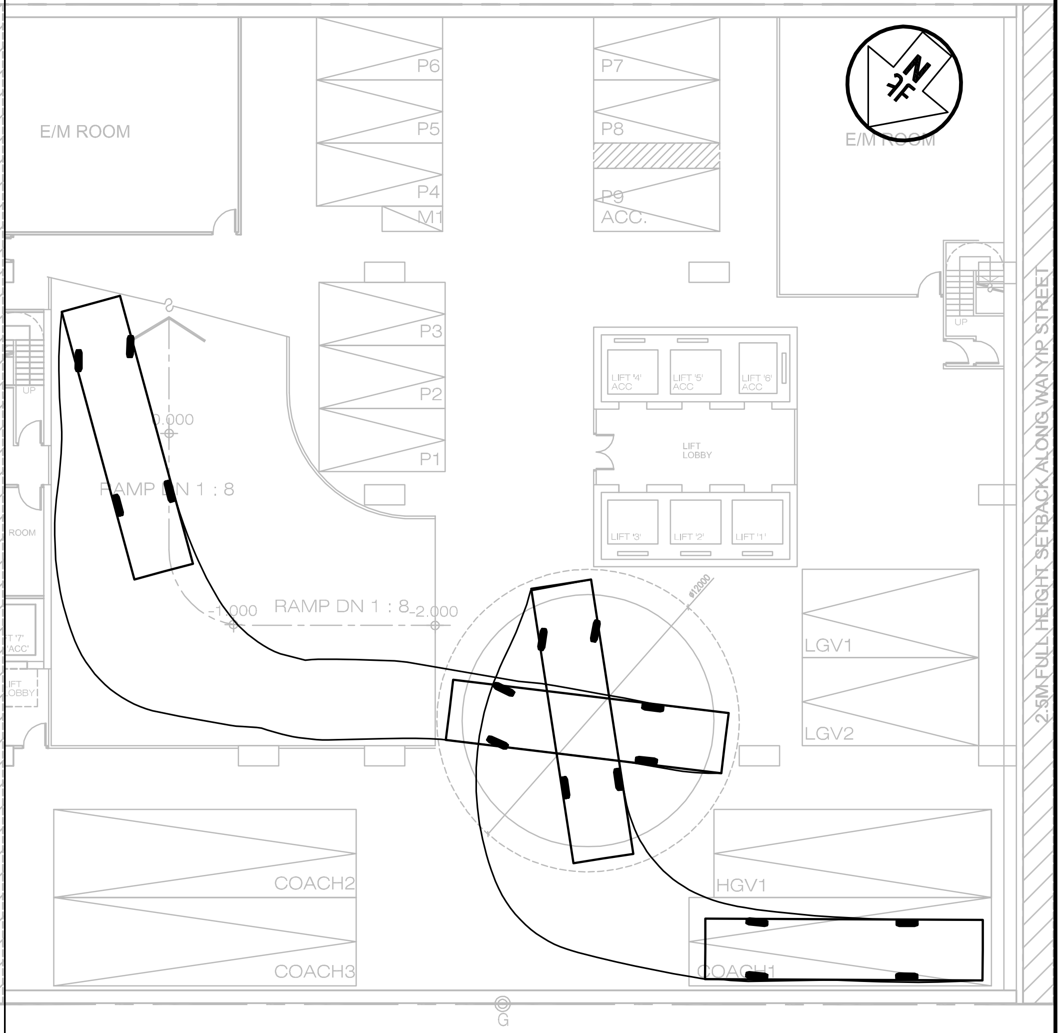

E/M ROOM
P6
P5
P4
M1
P7
P8
P9
ACC.
E/M ROOM
P3
P2
P1
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
UP
0.000
RAMP DN 1 : 8
ROOM
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
COACH2
COACH3
HGV1
COACH1
G
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET

COACH ENTERING THE LAY-BY


N
E/M ROOM
P6
P5
P4
M1
P7
P8
P9
ACC.
E/M ROOM
P3
P2
P1
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
UP
0.000
RAMP DN 1 : 8
ROOM
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
COACH2
COACH3
HGV1
COACH1
G
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET

COACH LEAVING THE LAY-BY

Project Title
SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON
J7360

Figure Title
SWEPT PATH OF COACH ENTERING AND LEAVING THE LAY-BY COACH1 ON B1/F

Figure No. SP2
Revision A
Designed by C Y Y
Drawn by N C M
Checked by K C
Scale in A4 1 : 300
Date 21 AUG 2024

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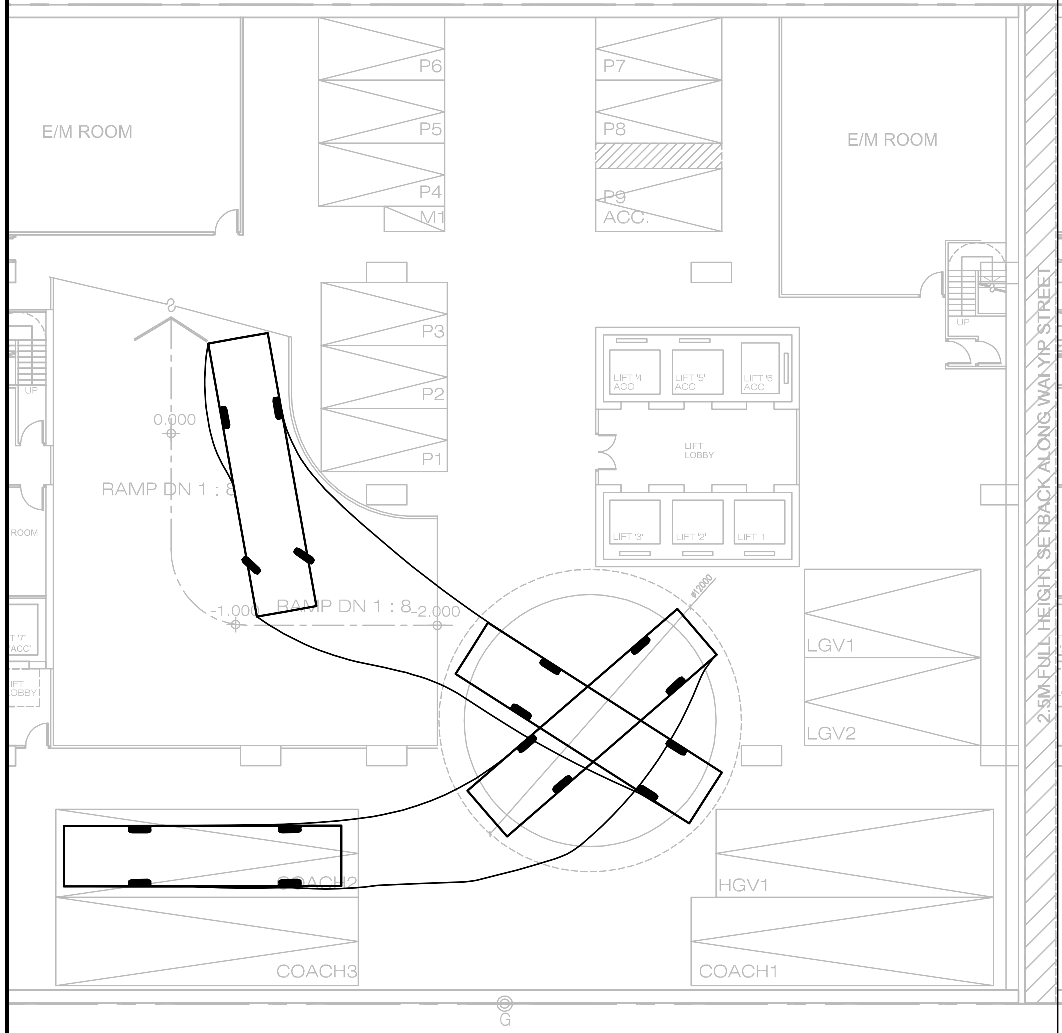
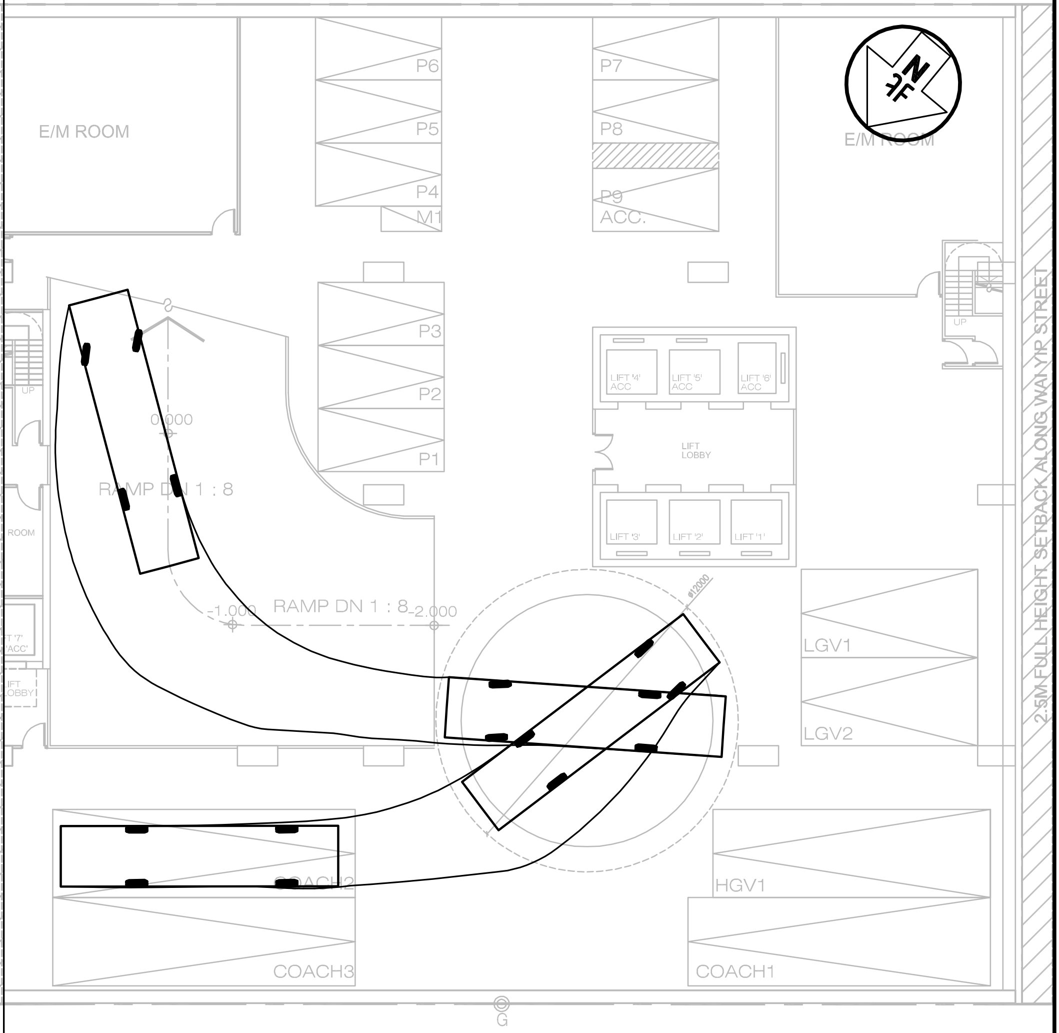

E/M ROOM
P6
P5
P4
M1
P7
P8
P9
ACC.
E/M ROOM
P3
P2
P1
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
UP
ROOM
LIFT '7' ACC
LIFT LOBBY
0.000
RAMP DN 1 : 8
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
COACH2
HGV1
COACH3
COACH1
G
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET

COACH ENTERING
THE LAY-BY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E/M ROOM
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P2
P1
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
UP
ROOM
LIFT '7' ACC
LIFT LOBBY
0.000
RAMP DN 1 : 8
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
COACH2
HGV1
COACH3
COACH1
G
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET

COACH LEAVING
THE LAY-BY

Project Title
SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON

J7360

Figure Title
SWEPT PATH OF COACH ENTERING AND LEAVING
THE LAY-BY COACH2 ON B1/F

Figure No. SP3
Revision A
Designed by C Y Y
Drawn by N C M
Checked by K C
Scale in A4 1 : 300
Date 21 AUG 2024

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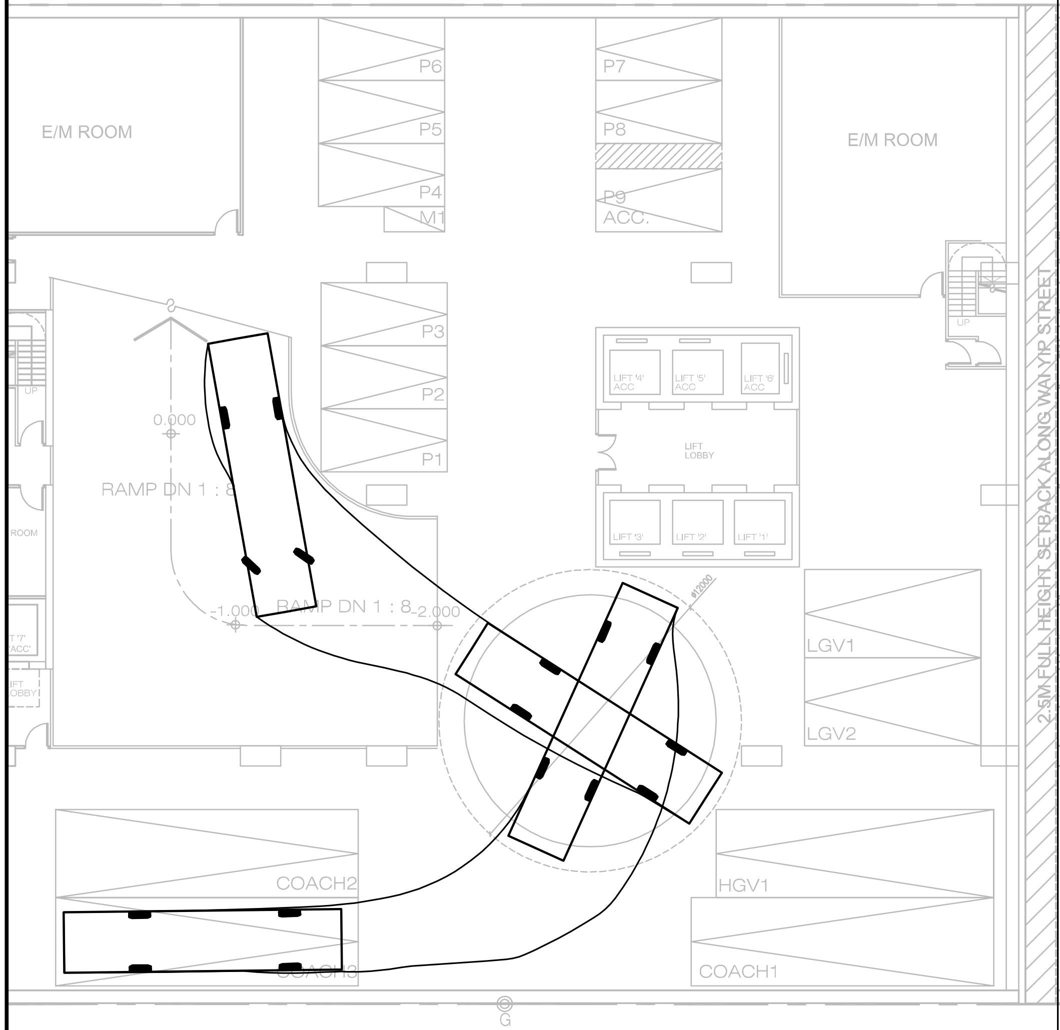
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P1
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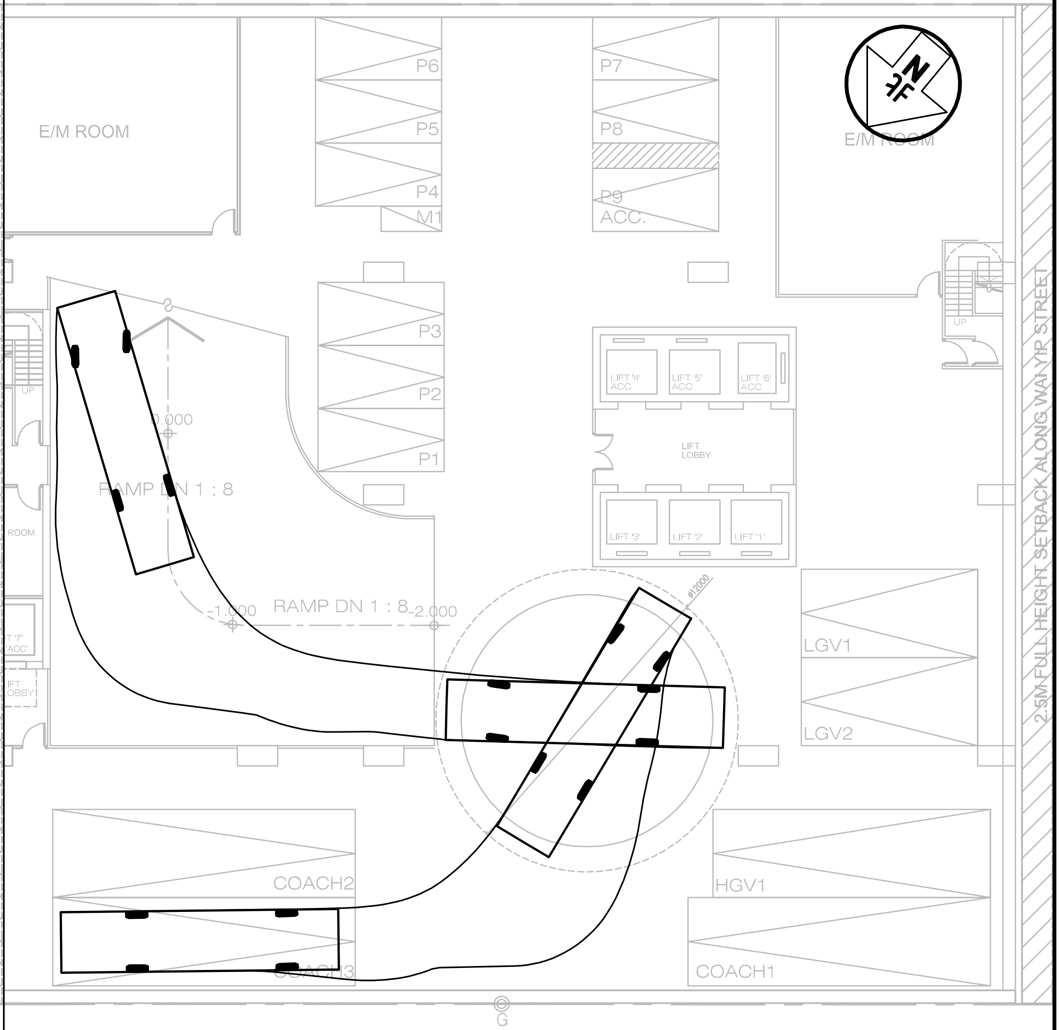
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
UP
0.000
RAMP DN 1 : 8
ROOM
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
COACH2
COACH3
HGV1
COACH1
G
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET

COACH ENTERING
THE LAY-BY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P4
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P7
P8
P9
ACC.
E/M ROOM
P3
P2
P1
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
UP
0.000
RAMP DN 1 : 8
ROOM
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
COACH2
COACH3
HGV1
COACH1
G
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET

COACH LEAVING
THE LAY-BY

Project Title
SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON
J7360

Figure Title
SWEPT PATH OF COACH ENTERING AND LEAVING
THE LAY-BY COACH3 ON B1/F

Figure No. SP4
Revision A
Designed by C Y Y
Drawn by N C M
Checked by K C
Scale in A4 1 : 300
Date 21 AUG 2024

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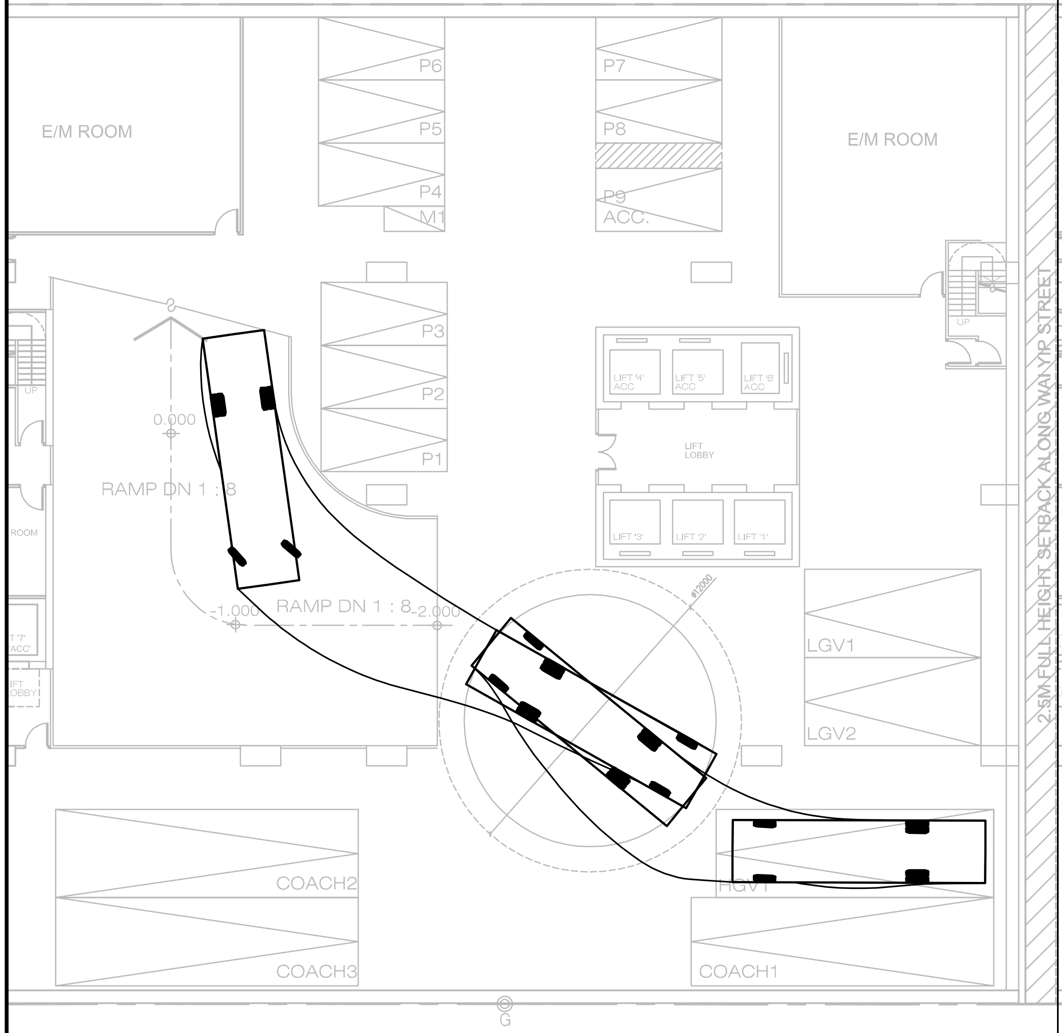
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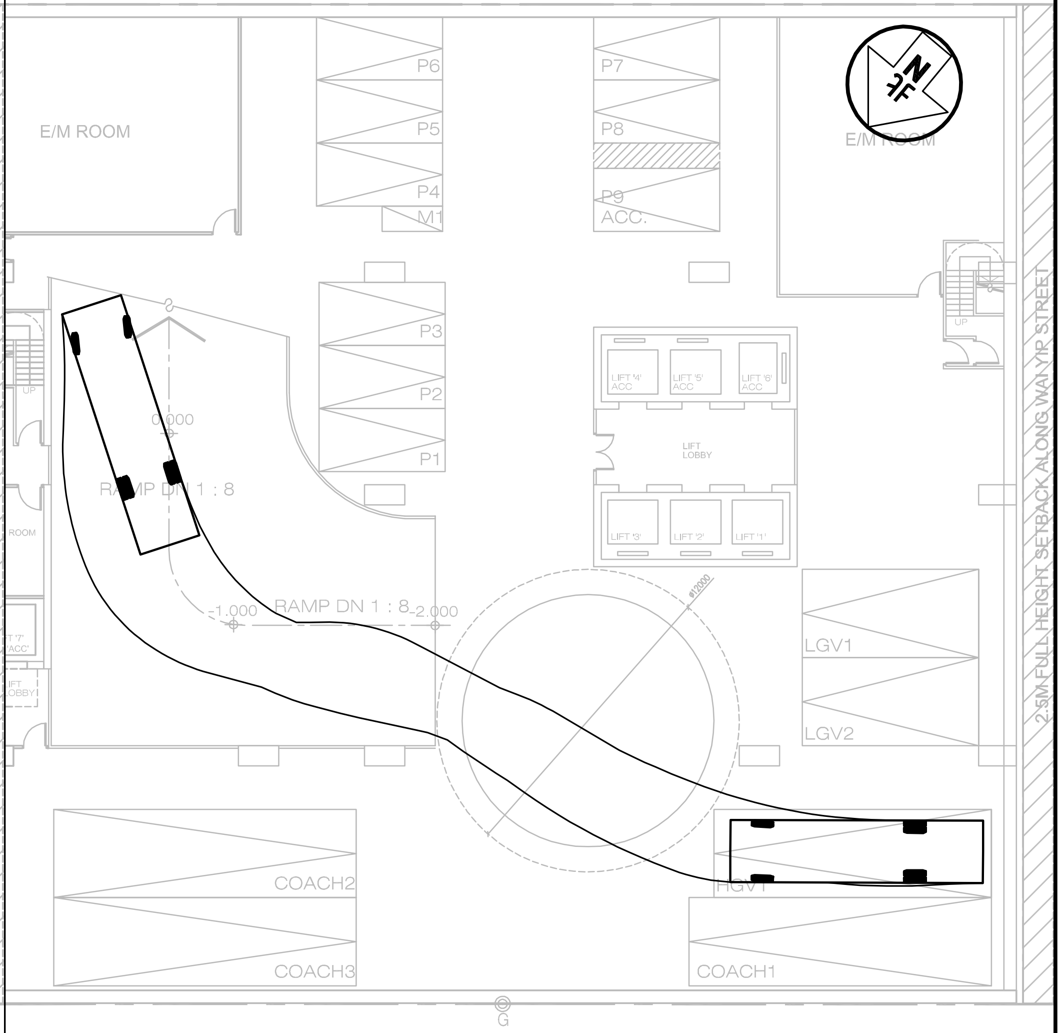
M1
P7
P8
P9
ACC.
E/M ROOM
P3
P2
P1
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
0.000
RAMP DN 1 : 8
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
COACH2
COACH3
HGV1
COACH1
UP
ROOM
G
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET

HGV ENTERING THE LOADING / UNLOADING BAY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P6
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M1
P7
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P9
ACC.
E/M ROOM
P3
P2
P1
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
0.000
RAMP DN 1 : 8
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
COACH2
COACH3
HGV1
COACH1
UP
ROOM
G
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET

HGV LEAVING THE LOADING / UNLOADING BAY

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Project Title	SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON J7360
Figure Title	SWEPT PATH OF HGV ENTERING AND LEAVING THE LOADING / UNLOADING BAY HGV1 ON B1/F

Figure No.	Revision		
SP5	A		
Designed by	Drawn by	Checked by	
C Y Y	N C M	K C	
Scale in A4	Date		
1 : 300	21 AUG 2024		

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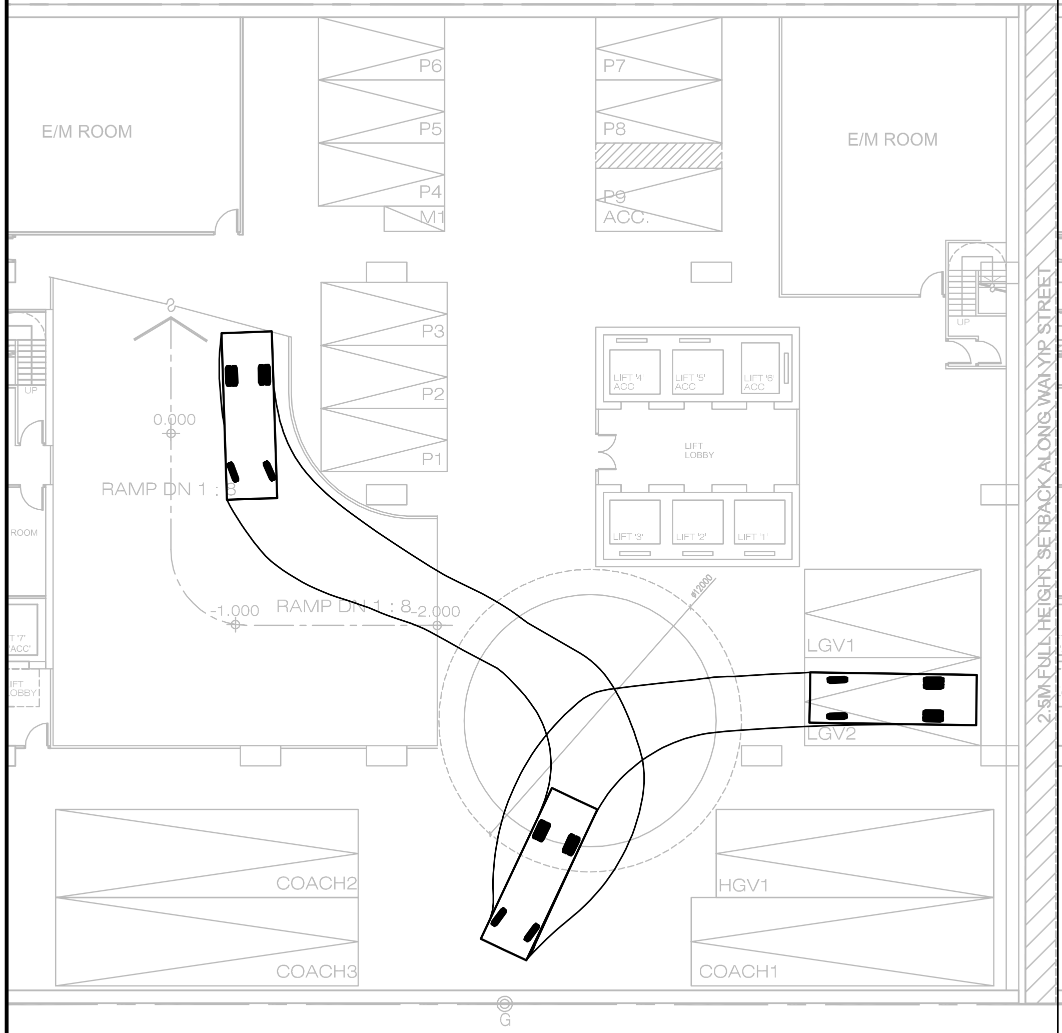
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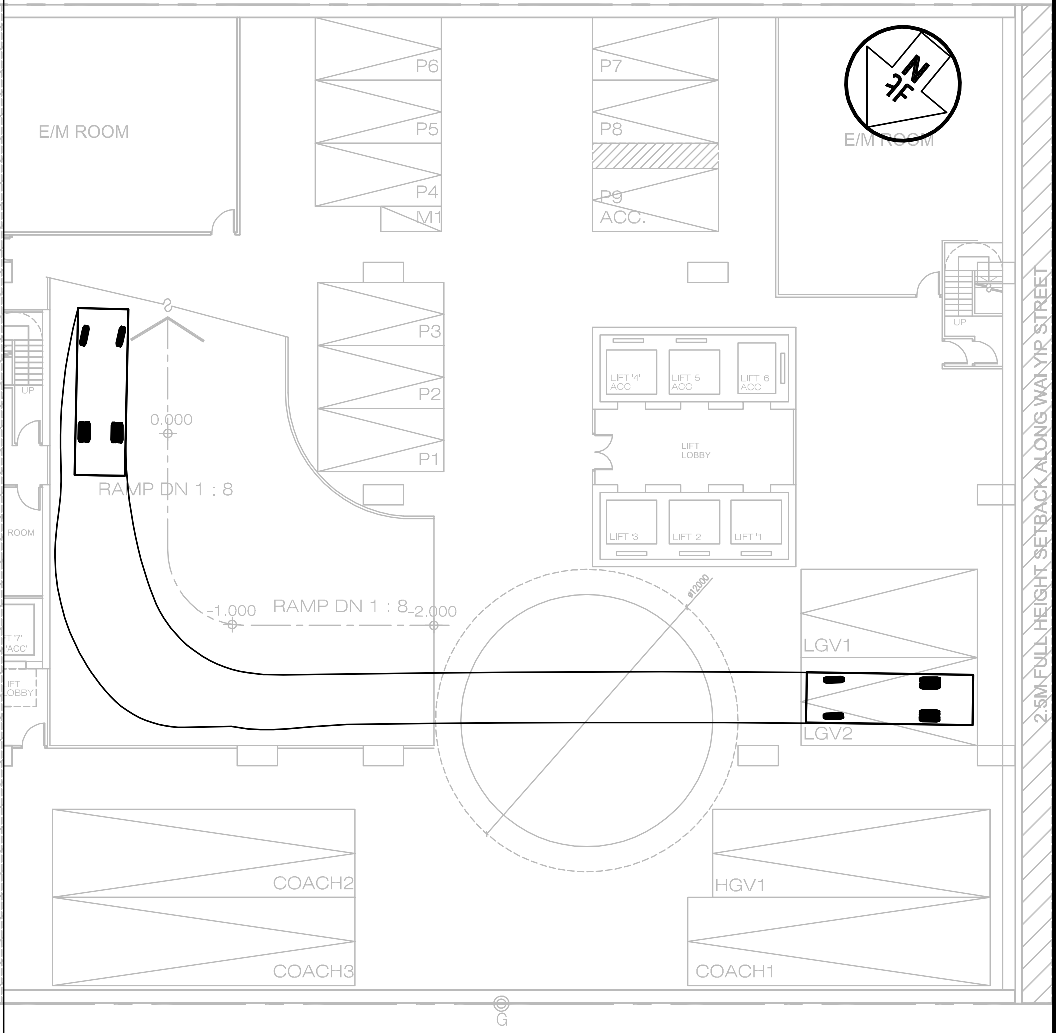
M1
P7
P8
P9
ACC.
E/M ROOM
P3
P2
P1
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
UP
0.000
RAMP DN 1 : 8
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
COACH2
COACH3
HGV1
COACH1
G
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET

LGV ENTERING THE LOADING / UNLOADING BAY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E/M ROOM
P6
P5
P4
M1
P7
P8
P9
ACC.
E/M ROOM
P3
P2
P1
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
UP
0.000
RAMP DN 1 : 8
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
COACH2
COACH3
HGV1
COACH1
G
2.5M FULL HEIGHT SETBACK ALONG WAI YIP STREET

LGV LEAVING THE LOADING / UNLOADING BAY

Project Title
SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON
J7360

Figure Title
SWEPT PATH OF LGV ENTERING AND LEAVING THE LOADING / UNLOADING BAY LGV2 ON B1/F

Figure No.	Revision
SP6	A

Designed by	Drawn by	Checked by
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Scale in A4	Date
1 : 300	21 AUG 2024

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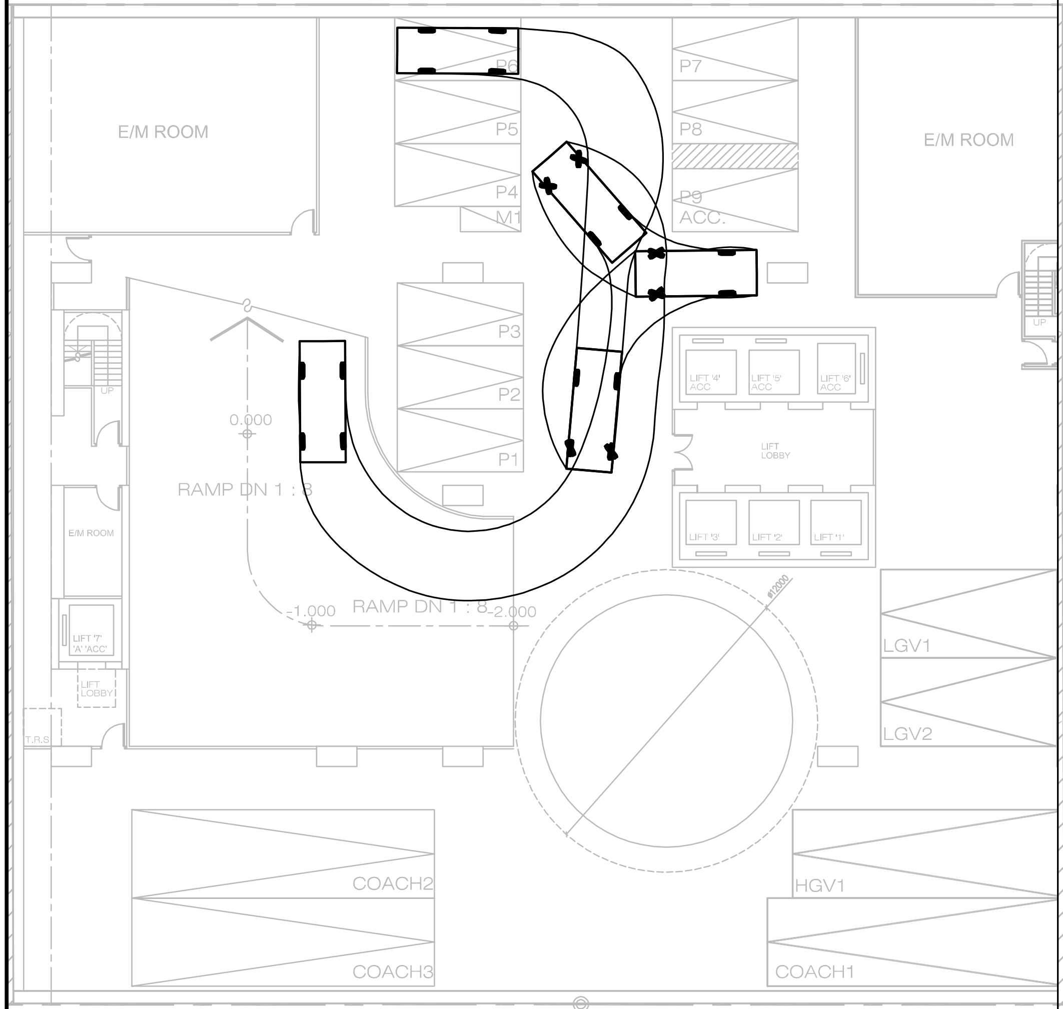
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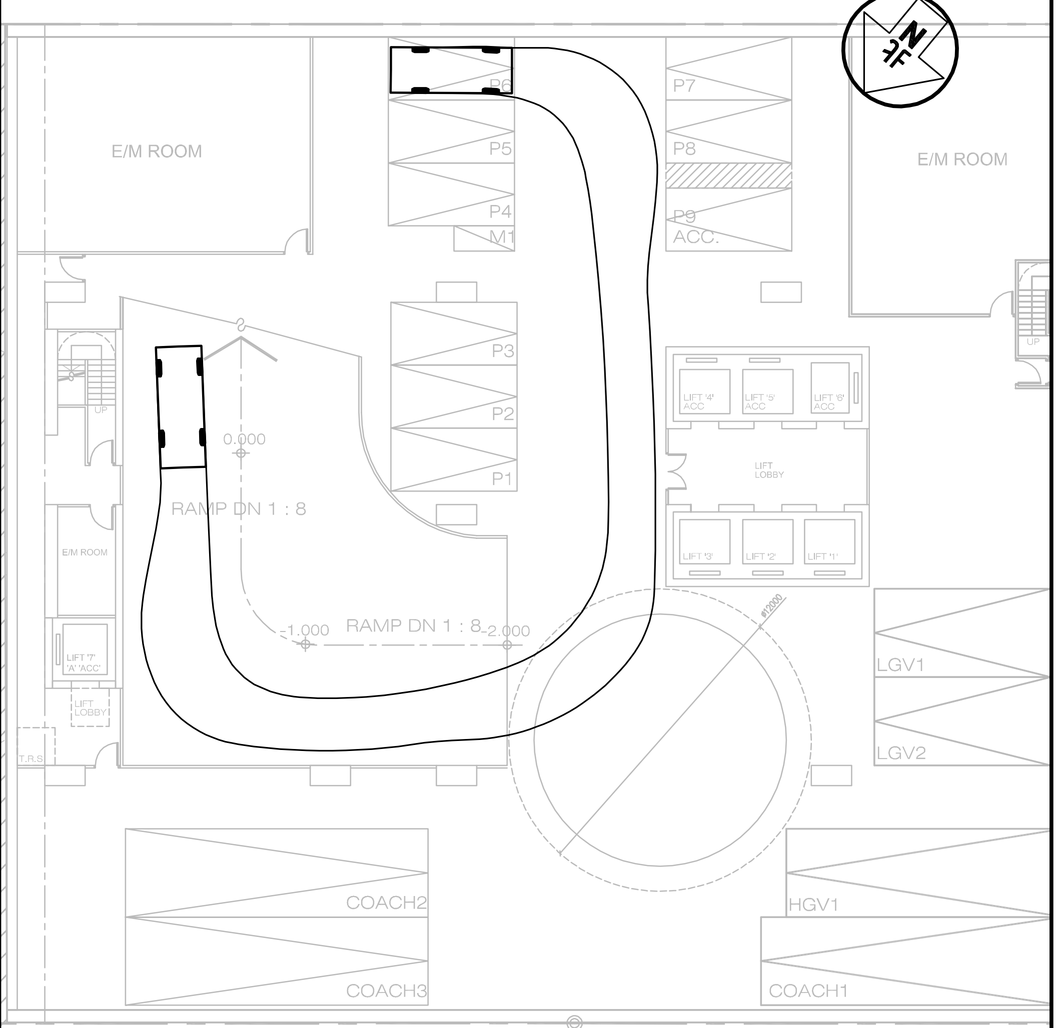
P4
M1
P7
P8
P9
ACC.
E/M ROOM
P3
P2
P1
UP
0.000
RAMP DN 1 : 8
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
E/M ROOM
LIFT '7' 'A' 'ACC'
LIFT LOBBY
T.R.S
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
COACH2
COACH3
HGV1
COACH1
G

CAR ENTERING THE
CAR PARKING SPACE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P6
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P4
M1
P7
P8
P9
ACC.
E/M ROOM
P3
P2
P1
UP
0.000
RAMP DN 1 : 8
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
E/M ROOM
LIFT '7' 'A' 'ACC'
LIFT LOBBY
T.R.S
-1.000
RAMP DN 1 : 8
-2.000
ø12000
LGV1
LGV2
COACH2
COACH3
HGV1
COACH1
G

CAR LEAVING THE
CAR PARKING SPACE

Project Title	SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON J7360
Figure Title	SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE P6 ON B1/F

Figure No.		Revision
SP7		A
Designed by	Drawn by	Checked by
C Y Y	N C M	K C
Scale in A4	Date	
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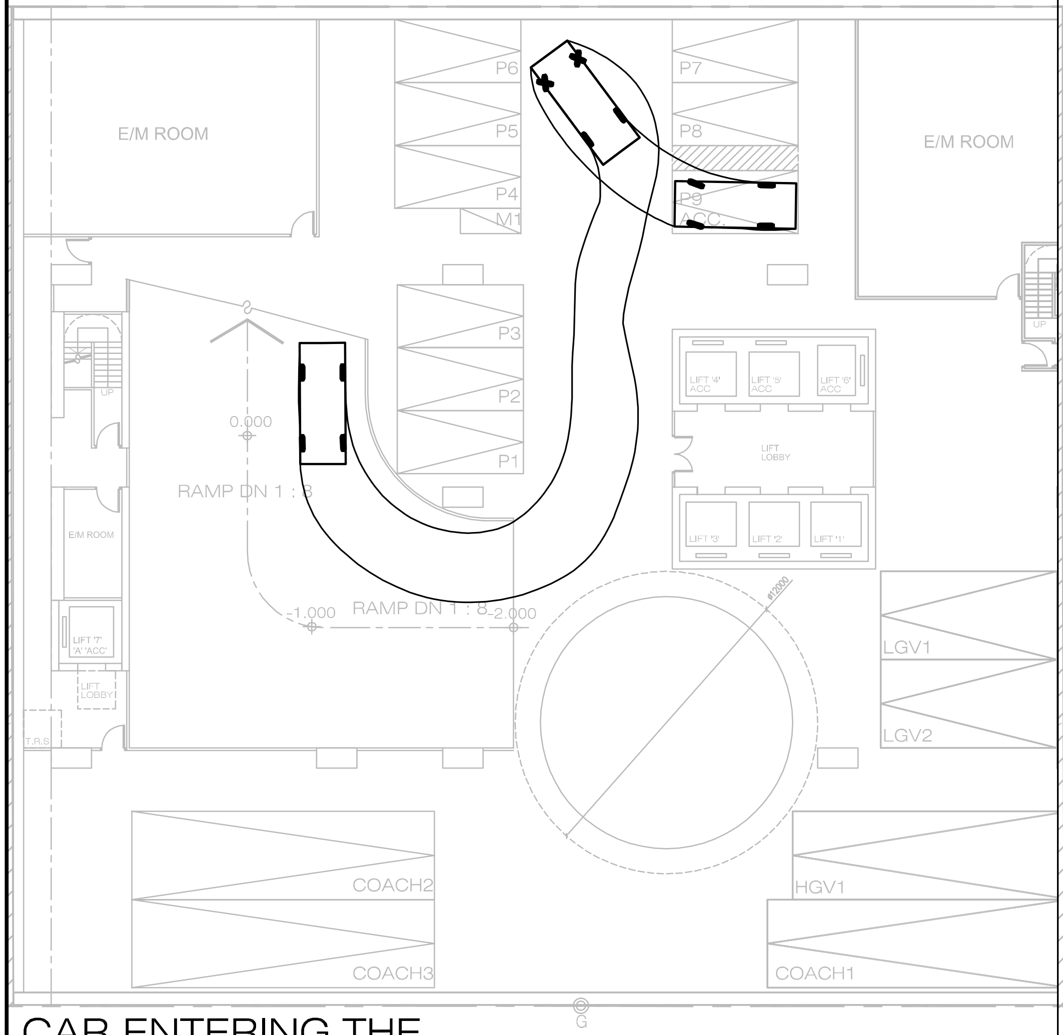
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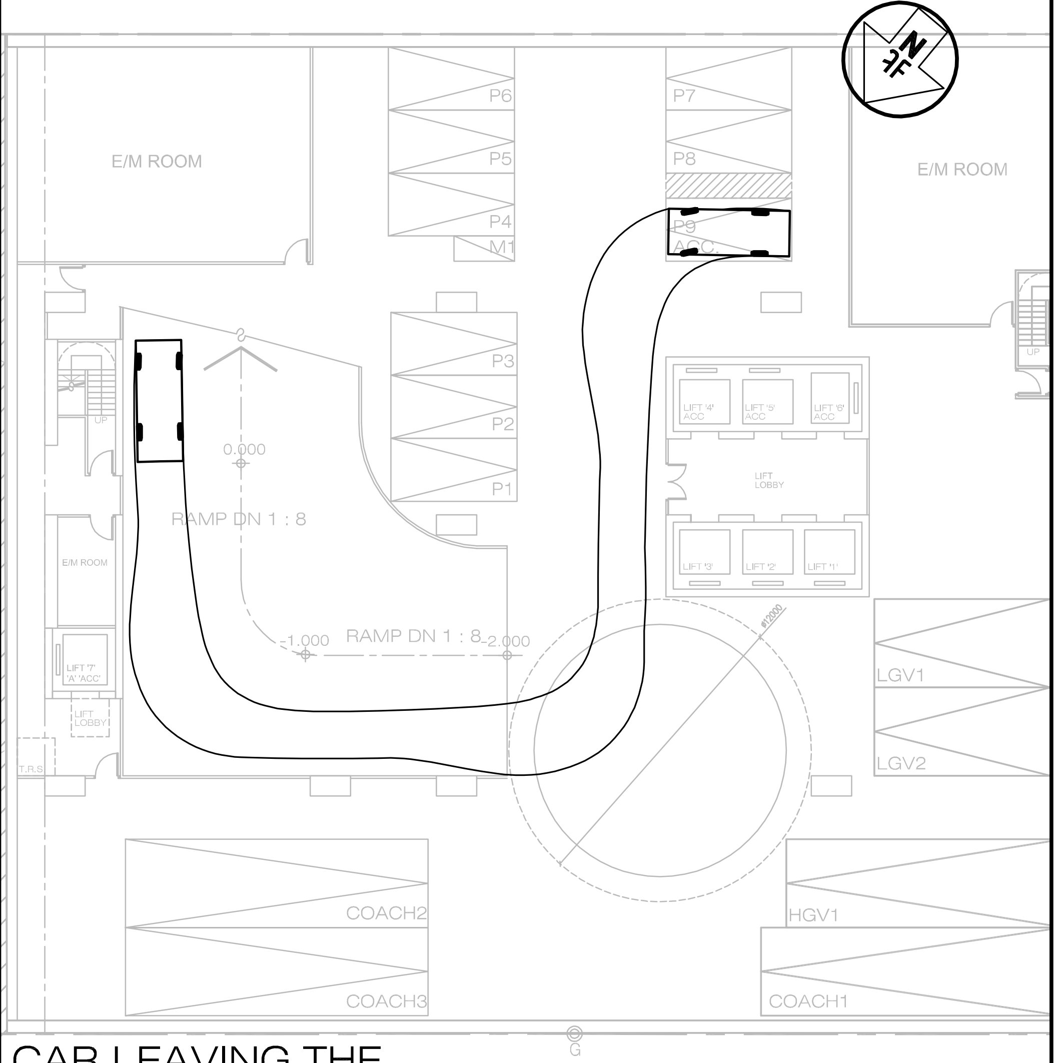
P6
P5
P4
M1
P7
P8
P9
ACC.
E/M ROOM
UP
P3
P2
P1
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
0.000
RAMP DN 1 : 8
E/M ROOM
LIFT '7' 'A' 'ACC'
LIFT LOBBY
T.R.S.
-1.000
RAMP DN 1 : 8
-2.000
Ø12000
LGV1
LGV2
COACH2
COACH3
HGV1
COACH1
G

CAR ENTERING THE
CAR PARKING SPACE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P6
P5
P4
M1
P7
P8
P9
ACC.
E/M ROOM
UP
P3
P2
P1
LIFT '4' ACC
LIFT '5' ACC
LIFT '6' ACC
LIFT LOBBY
LIFT '3'
LIFT '2'
LIFT '1'
0.000
RAMP DN 1 : 8
E/M ROOM
LIFT '7' 'A' 'ACC'
LIFT LOBBY
T.R.S.
-1.000
RAMP DN 1 : 8
-2.000
Ø12000
LGV1
LGV2
COACH2
COACH3
HGV1
COACH1
G

CAR LEAVING THE
CAR PARKING SPACE

Project Title	SECTION 16 PLANNING APPLICATION FOR PROPOSED HOTEL WITH MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT 201 AND 203 WAI YIP STREET, KWUN TONG, KOWLOON J7360	Figure No. SP8		Revision A
Figure Title	SWEPT PATH OF PRIVATE CAR ENTERING AND LEAVING THE CAR PARKING SPACE P9 ON B1/F	Designed by C Y Y	Drawn by N C M	Checked by K C
		Scale in A4 1 : 300	Date 21 AUG 2024	

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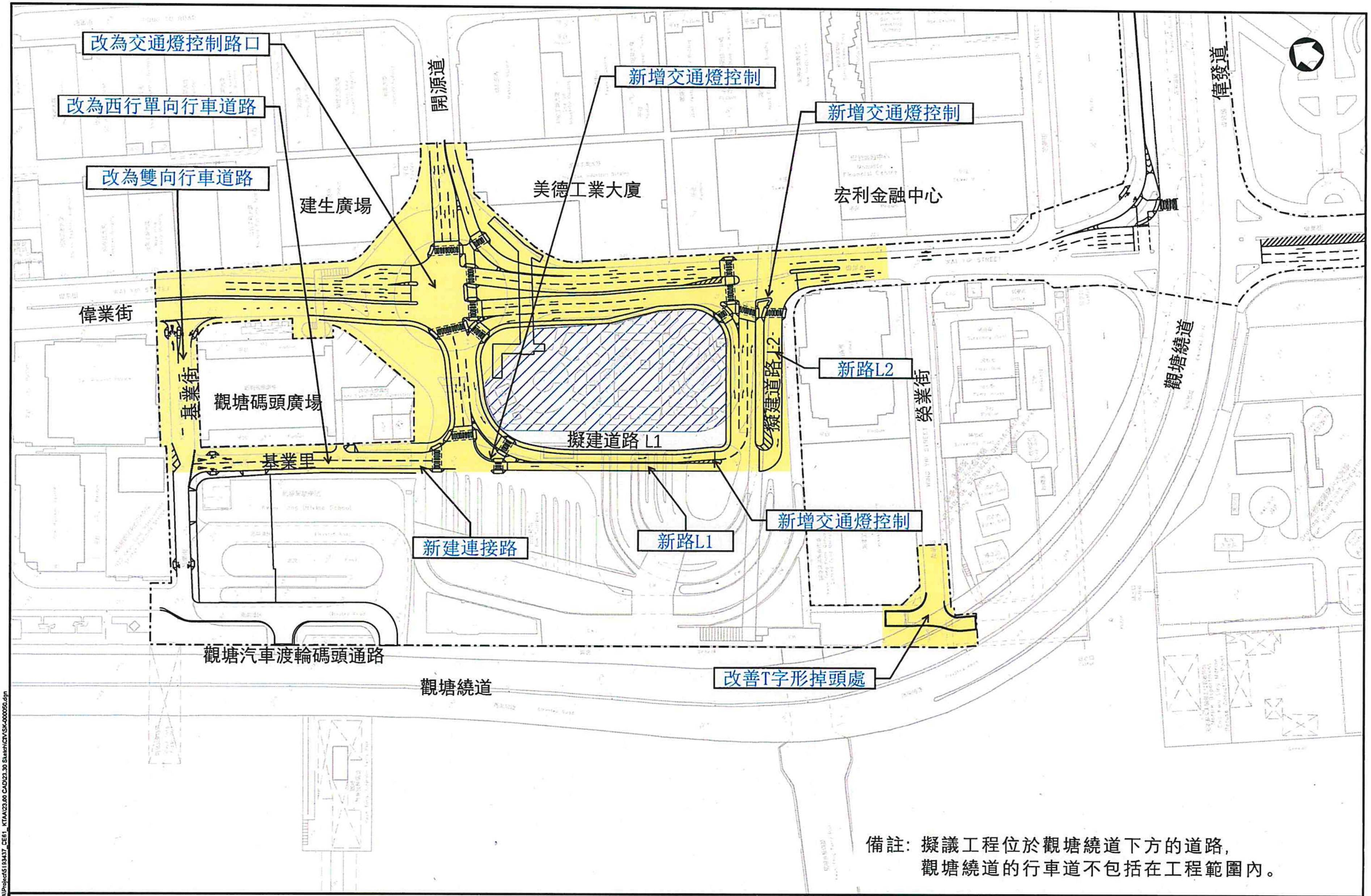
Appendix 3 –
Planned Developments in the Vicinity of the Proposed Redevelopment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改為西行單向行車道路
改為雙向行車道路
開源道
新增交通燈控制
新增交通燈控制
偉發道
建生廣場
美德工業大廈
宏利金融中心
偉業街
基業街
觀塘碼頭廣場
擬建道路 L1
擬建道路 L2
新路L2
榮業街
觀塘繞道
基業里
新建連接路
新路L1
新增交通燈控制
觀塘汽車渡輪碼頭通路
觀塘繞道
改善T字形掉頭處

備註：擬議工程位於觀塘繞道下方的道路，
觀塘繞道的行車道不包括在工程範圍內。

User name: CHAN9162 Date: 18/3/2021 Time: 12:28:26
Filename: P:\CNHKA\Project\5193437_CE61_KTAA\23.00 CAD\23.30 Sketch\CIVSK-000050.dgn

圖則名稱

道路工程計劃(一) － 擬議觀塘行動區道路工程

圖2a

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