ARUP

Appendix D

Traffic Impact Assessment

Document Status Control Record

Application for Planning Permission
Under Section 16 of the Town Planning Ordinance (Cap. 131)
for Proposed Hotel Use and Minor Relaxation
of Plot Ratio and Building Height Restrictions
at "Other Specified Uses" Annotated "Business" Zone
at Tsun Wan Inland Lot No. 46 S.C,
Nos. 46-48 Pak Tin Par Street, Tsuen Wan,
New Territories

Traffic Impact Assessment Report

Originating Organisation : LLA Consultancy Limited Unit 610, 6/F, Island Place Tower, 510 King's Road, North Point, Hong Kong	Prepared by: SKL	SKL	Date: 15 September 2025
	Approved by: SLN		Date: 15 September 2025
	Revision No.: -		Date of Issue: 15 September 2025

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1 INTRODUCTION

1.1 Background

1.1.1 The owner of Tsuen Wan Inland Lot 46 S.C, Nos. 46-48 (even numbers only) Pak Tin Par Street, Tsuen Wan (hereinafter called "the Site"), intends to redevelop the Site into a hotel development (hereinafter called "the Proposed Hotel Development"). The location of the Site is shown in **Figure 1.1**.

1.1.2 On 28th January 2022, the Site was approved by the Town Planning Board (Application No. A/TW/529) for an office development cum shop and services and eating place uses with minor relaxation of plot ratio and building height restrictions (hereinafter called "the Previous Approved Scheme").

1.1.3 LLA Consultancy Limited has been commissioned by the owner to undertake a traffic impact assessment study to support the planning application of the Proposed Hotel Development. This report presents the findings of the study.

1.2 Study Objectives

1.2.1 The objectives of this study can be summarised as follows:

- to review the existing traffic conditions in vicinity of the Proposed Hotel Development;
- to estimate the volume of traffic that will be induced by the Proposed Hotel Development;
- to assess the future traffic situation of the surrounding network in vicinity of the Proposed Hotel Development;
- to appraise the potential traffic impact of the Proposed Hotel Development;
- to recommend the transport facilities provisions for the Proposed Hotel Development.

2 THE PROPOSED DEVELOPMENT

2.1 The Development Site

2.1.1 As shown in **Figure 1.1**, the Site is located at Nos. 46 – 48 (even numbers only) Pak Tin Par Street, Tsuen Wan and has a site area of about 721.59 m^2. The Site was previously occupied by an industrial building, named the Ideal Plaza, and is currently vacant. The Site has a single frontage at Pak Tin Par Street only.

2.2 Proposed Development Content

2.2.1 The Proposed Hotel Development will comprise of 299 hotel guestrooms and **Table 2.1** summarizes the key development parameters.

Table 2.1 Development Parameters

Item	Parameter
Site Area (about)	721.59 m^2
Plot Ratio (about)	11.4
Total GFA (about)	8,226.13 m^2
No. of hotel guestrooms (about)	299

3 EXISTING TRAFFIC SITUATION

3.1 Existing Traffic Conditions

3.1.1 Pak Tin Par Street is a one-way 2-lane eastbound local distributor which connects Sha Tsui Road to Tai Chung Road.

3.1.2 Tai Chung Road is a dual 3-lane primary distributor which connects Castle Peak Road – Tsuen Wan and Sha Tsui Road.

3.1.3 Sha Tsui Road is a dual 2-lane district distributor. The road connects to Pak Tin Par Street and Tai Ho Road, in the west and east of Tai Chung Road, respectively. The section of Sha Tsui Road between Pun Shan Street and Tso Kung Street carried an Annual Average Daily Traffic (AADT) of 17,430 vehicles in 2023.

3.2 Traffic Count Survey

3.2.1 In order to assess the existing traffic conditions, a traffic count survey was carried out at the following locations in the vicinity of the Site on 4 September 2025 (Thursday) during the peak hour period, i.e., from 07:30 to 09:30 and 17:00 to 19:00. The locations of the surveyed junctions, which are the same as the approved TIA report for the Previous Scheme, are as follows and presented in **Figure 3.1**.

J1 – Castle Peak Road – Tsuen Wan / Tai Chung Road

J2 – Tai Chung Road / Pak Tin Par Street; and

J3 – Tai Chung Road / Sha Tsui Road

3.2.2 The identified AM and PM peak hours are 08:30 – 09:30 and 17:30 – 18:30, respectively. The recorded peak hour traffic flows are presented in **Figure 3.2**.

3.3 Junction Capacity Assessment

3.3.1 Junction capacity assessment was carried out to reveal the existing performance of the key junctions with the 2025 surveyed traffic flows. The assessment results are tabulated in **Table 3.1** and the detailed calculation sheets are presented in **Appendix A**.

Table 3.1 Existing Junction Performance

No.	Junction	Type /Capacity Index(1)	AM Peak	PM Peak
J1	Castle Peak Road – Tsuen Wan / Tai Chung Road	Signalized/RC	54%	61%
J2	Tai Chung Road / Pak Tin Par Street	Priority/DFC	0.51	0.55
J3	Tai Chung Road / Sha Tsui Road	Signalized/RC	53%	55%

Note: (1) RC = Reserve Capacity for signalized junction; DFC = Design Flow to Capacity ratio for priority junction.

3.3.2 **Table 3.1** has indicated that the concerned junctions are operating satisfactorily during both AM and PM peak hours.

3.4 Existing Public Transport Facilities

3.4.1 Numerous franchised bus and scheduled minibus (GMB) routes operate in the vicinity of the Site along Sha Tsui Road, Tai Chung Road and Castle Peak Road – Tsuen Wan. **Table 3.2 and Figure 3.3** show the existing bus and minibus routes running in the vicinity of the Site.

Table 3.2 Existing Public Transport Routes

Mode	Route No.	Origin - Destination	Frequency (min)
Bus	30	Tsuen Wan (Allway Gardens) – Cheung Sha Wan	25 – 30
	30X	Tsuen Wan (Allway Gardens) – Whampoa Garden	13 – 30
	33R	Tsuen Wan (Discovery Park) – Pak Tam Chung	60
	34	Kwai Shing(Central) – Tsuen Wan (Bayview Garden)	14 – 25
	34M	Tsuen Wan (Bayview Garden) – Tsuen Wan Station (Circular)	8 – 25
	39A	Tsuen Wan West Station – Allway Gardens (Circular)	15 – 25
	39M	Tsuen Wan (Allway Gardens) – Tsuen Wan Station (Circular)	7 – 15
	40	Tsuen Wan (Belvedere Garden) – Laguna City	10 – 25
	48P	Fo Tan Chun Yeung Estate – Tsing Lung Tau	9 trips per day
	48X	Wo Che – Tsuen Wan (Bayview Garden)	5 – 20
	53	Yoho Mall (Yuen Long) – Tsuen Wan (Nina Tower)	25 – 35
	57M	Tuen Mun (Shan King Estate) – Lai King (North)	10 – 30
	58M	Tuen Mun (Leung King Estate) – Kwai Fong Station	3 – 20
	58P	Kwai Fong Station – Tin King Estate (Tin Yue House)	15 – 20
	59A	Tuen Mun Pier Head – Kwai Fong (Kwai Tsui Estate)	6 – 60
	59M	Tuen Mun Pier Head – Tsuen Wan Station	3 – 20
	60M	Tuen Mun Station – Tsuen Wan Station	7 – 30
	61M	Tuen Mun (Yau Oi South) – Lai King (North)	8 – 25
	61P	So Kwun Wat – Tsuen Wan Station	6 trips per day
	66M	Tuen Mun (Tai Hing Estate) – Tsuen Wan (Nina Tower)	15 – 30
	67A	Tuen Mun (Po Tin Estate) – Kwai Fong (Kwai Tsui Estate)	20 – 30
	67M	Tuen Mun (Siu Hong Court) – Kwai Fong Station	5 – 20
	68A	Long Ping Estate – Tsing Yi Station	12 – 30
	68M	Tsuen Wan Station – Yuen Long (West) B/T	5 – 20
	69M	Kwai Fong Station – Tin Shui Wai Town Centre	6 – 30
	69P	Tin Shui Wai Station – Kwai Fong Station	12 – 20
	230X	Tsuen Wan (Allway Gardens) – Whampoa Garden	3 trips per day
	234A	Sham Tseng (Sea Crest Villa) – Tsuen Wan West Station	12 – 27
	234B	Tsuen Wan West Station – Sham Tseng (Sea Crest Villa)	12 – 30
	234C	Sham Tseng – Kwun Tong (Tsui Ping North Estate)	6 trips per day
	234D	Tsing Lung Tau – Kwun Tong (Tsui Ping North Estate)	5 trips per day
	234P	Tsuen Wan (Bayview Garden) – Star Ferry	1 trip per day
	234X	Tsim Sha Tsui East (Mody Road) – Tsuen Wan (Bayview Garden)	15 – 25
	235	Kwai Chung (On Yam Estate) – Tsuen Wan (Circular)	8 – 20

Mode	Route No.	Origin - Destination	Frequency (min)
	243P	Tsing Yi (Mayfair Garden) – Tsuen Wan (Allway Gardens)	2 trips per day
	251M	Sheung Tsuen – Tsuen Wan	3 trips per day
	259E	Tuen Mun (Lung Mun Oasis) – Tsuen Wan Station	3 trips per day
	260C	Tuen Mun (Sam Shing Estate) – Kwai Fong Station	15 – 30
	265M	Tin Heng Estate – Lai Yiu	5 – 35
	265P	Tin Yan – Tsuen Wan	4 trips per day
	268M	Park Yoho – Tsuen Wan West Station	10 – 30
	269A	Wetland Park Road – Kwai Chung (Kwai Fong Estate)	9 trips per day
	269M	Tin Yan Estate – Cho Yiu	15 – 30
	269P	Kwai Chung (Kwai Fong Estate) – Wetland Park Road	7 trips per day
	930	Exhibition Centre Station – Tsuen Wan (Discovery Park)	10 – 25
	930X	Causeway Bay (Moreton Terrace) – Tsuen Wan (Discovery Park)	8 – 25
	934	Tsuen Wan (Bayview Garden) – Wan Chai (Fleming Road)	5 – 30
	934A	Tsuen Wan (Allway Gardens) – Wan Chai (Fleming Road)	4 trips per day
	A31	Tsuen Wan (Nina Tower) – Airport (Ground Transportation Centre)	15 – 30
	A38	Tsuen Wan (Allway Gardens) – Airport (Ground Transportation Centre)	30 – 60
	E32A	Tung Chung Development Pier – Kwai Fong (South)	12 – 30
	N39	Tsuen Wan Station – Allway Gardens (Circular)	30
	N252	Mei Foo – Tuen Mun (Sam Shing Estate)	2 trips per day
	N260	Tuen Mun Pier Head – Mei Foo	30
	N269	Tin Tsz – Mei Foo	20 – 25
	N930	Tsuen Wan (Discovery Park) – Causeway Bay (Moreton Terrace)	3 trips per day
	NA31	HZMB Hong Kong Port – Tsuen Wan (Nina Tower)	5 trips per day
	XR	Tsuen Wan – Huanggang(Night)	-
	XR	Tsuen Wan – Huanggang	-
GMB	84	Tsuen Wan Chung On Street – Allway Gardens	7 – 15
	95	Tsuen Wan Centre – Hoi Kwai Road Public Transport Interchange	5 – 25
	95A	Tsuen Tak Garden – Tsuen Wan Staion (Circular route)	7 – 15
	95M	Tsuen Wan Station – Tsuen Wan Centre	2 – 20
	96	Tsuen Wan (Hoi Pa Street) – Tsing Lung Tau	6 – 25
	96A	Yau Kom Tau Village – Tsuen Wan Station (Circular route)	15 – 30
	96B	Belvedere Garden – Tsuen Wan Station (Circular route)	2 – 20
	96C	Tsuen Wan Station – Bellagio	15 – 30
	96M	Tsuen Wan Station – Tsing Lung Tau	10 – 25
	301	Clague Garden Estate – Tsuen Wan Station (Circular route)	15 – 20
	301M	Tsuen Wan West Station Public Transport Interchange – Tsuen Wan Station (Circular route)	2 trips per day
	302	Hong Kong Garden – Kwai Fong (Circular route)	8 – 30
	313	Tsuen Wan (Tso Kung Street) – Princess Margaret Hospital	6 – 11

4 FUTURE TRAFFIC SITUATION

4.1 Design Year

4.1.1 It is anticipated that the Proposed Hotel Development can be operated by 2030. To consider 3 years after the planned completion of the Proposed Hotel Development, a design year of 2033 will be adopted in this study.

4.2 Traffic Generation for the Previous Approved Scheme and the Proposed Hotel Development

4.2.1 Based on the development parameters as listed in **Table 2.1**, the development traffic generation of the Previous Approved Scheme and the Proposed Hotel Development were estimated and compared in **Table 4.1**, based on the trip rates as documented in the Transport Planning and Design Manual, Volume 1 Chapter 3 – Transport Considerations of Town Plans (TPDM) published by the Transport Department.

Table 4.1 Traffic Generation of the Previous Approved Scheme and the Proposed Hotel Development

Use	Unit/Content	AM Peak Hour			PM Peak Hour		
		Gen.	Att.	Total	Gen.	Att.	Total
Adopted Trip Rates (1)							
Office	pcu/hr/100m^2	0.1703	0.2452	-	0.1573	0.1175	-
Retail	pcu/hr/100m^2	0.2296	0.2434	-	0.3100	0.3563	-
Hotel	pcu/hr/room	0.1329	0.1457	-	0.1290	0.1546	-
Traffic Generation of the Previous Approved Scheme [A]							
Office	7,793 m^2 GFA	14	20	34	13	10	23
Retail	433 m^2 GFA	1	2	3	2	2	4
	Total	15	22	37	15	12	27
Traffic Generation of the Proposed Hotel Development [B]							
Hotel	299 guestrooms	40	44	84	39	47	86
Change in traffic generation: [B] – [A]		**25**	**22**	**47**	**24**	**35**	**59**

Note: (1) Mean trip rates are adopted from TPDM, Transport Department.

4.2.2 As shown in **Table 4.1**, the Proposed Hotel Development will generate a two-way traffic of 84 pcu and 86 pcu during the AM peak hour and PM peak hour, respectively. As compared with the Previous Approved scheme, the Proposed Hotel Development would result in generating additional traffic volumes of 47 pcu/hr and 59 pcu/hr during the AM and PM peak hour, respectively. The additional development traffic flows are distributed onto the road network as shown in **Figure 4.1**.

4.3 Traffic Generation for Planned/Committed Developments

4.3.1 To estimate the future traffic flows, updated information is being obtained from public domain regarding the planned and committed developments in the vicinity. The details of these developments are provided in **Table 4.2**.

Table 4.2 Planned / Committed Developments

Site Ref.	Reference	Location	Proposed Use	Content
1	Planning Application No. A/TW/522	18 – 20 Pun Shan Street	Data Centre	26,477.15 m^2
2	BD Monthly Digest (March 2023)	23 – 33 Chai Wan Kok Street	Data Centre	22,032.9 m^2

4.3.2 The traffic flows that would be generated by these developments have been considered, by making reference to the trip generation rates in the TPDM. The traffic generation and attraction numbers are shown in **Table 4.3**.

Table 4.3 Traffic Generation and Attraction of Planned / Committed Developments

Type / Development	Use	Unit / Content	AM Peak Hour			PM Peak Hour		
			Gen.	Att.	2-way	Gen.	Att.	2-way
Adopted Trip Rates								
Data Centre (1)		pcu/hr/100 m^2 GFA	0.0227	0.017	-	0.0170	0.0113	-
Traffic Generation of the Planned Developments								
Site 1	Data Centre	26,477.15 m^2	7	5	12	5	3	8
Site 2	Data Centre	22,032.9 m^2	6	4	10	4	3	7
		Total	**13**	**9**	**22**	**9**	**6**	**15**

Notes: Gen. – Generation; Att. – Attraction
(1) Trip rates from the TIA report of A/TW/522 are adopted.

4.4 Traffic Forecast

Annual Traffic Census (ATC) – Historical Data

4.4.1 In order to establish the traffic growth rate in the vicinity of the Site, reference was made to the 2019 to 2023 Annual Traffic Census Reports published by the Transport Department, reporting on the AADT at the counting stations in the territory. The details of the counting stations in the vicinity and the corresponding counts are shown in **Table 4.4**.

Table 4.4 Annual Traffic Census Data

Stn. No.	Road Section			AADT(1)					Avg. Growth%
	Road	From	To	2019	2020	2021	2022	2023	
5227	Sha Tsui Rd	Pun Shan St	Tso Kung St	19,260	19,080 (-0.9%)	19,810 (3.8%)	19,610 (-1%)	17,430 (-11.1%)	-2.5%
5409	Castle Peak Rd - Tsuen Wan	Tai Ho Rd	Tai Chung Rd	31,620	28,220 (-10.8%)	27,420 (-2.8%)	26,450 (-3.5%)	29,880 (13%)	-1.4%
Total				**50,880**	**47,300 (-7%)**	**47,230 (-0.1%)**	**46,060 (-2.5%)**	**47,310 (2.7%)**	**-1.8%**

Note: (1) Figures in bracket indicated the % increase between two years.

4.4.2 **Table 4.4** showed that the recorded average annual growth rate of the concerned counting stations is -1.8% between years 2019 to 2023.

Territorial Population and Employment Data Matrix (TPEDM) – Projection Data

4.4.3 Reference was also made to the 2021 based Territorial Population and Employment Data Matrix (TPEDM) published by the Planning Department. The population and employment data of year 2021 and 2031 are summarized in **Table 4.5**.

Table 4.5 Population and Employment Data in Tsuen Wan District

Year	2021	2026	2031
Population	320,100	296,150	295,850
Employment	167,350	168,150	163,800
Total	487,450	464,300	459,650
Average Annual Growth %		-1.0% (2021 to 2026)	-0.2% (2026 to 2031)

4.4.4 As shown in **Table 4.5**, the average annual growth rate for both population and employment of Tsuen Wan district is -1.0% and -0.2% during 2021–2026 and 2026–2031, respectively. Having considered the rates derived from the ATC and the TPEDM data, to be conservative, a nominal growth rate of +1.0% will be adopted for the subsequent traffic forecasting.

4.5 Reference and Design Flows

4.5.1 The 2033 Reference Flows, i.e., the traffic flows in the vicinity **without** the traffic flows generated by the Proposed Hotel Development, were estimated based on the following equation.

2033 Reference Flows = 2025 Existing Flows x $(1 + 1.0\%)^8$ + Traffic Flows Generated by the Approved and Planned/Committed Developments

4.5.2 The 2033 Design Flows, i.e., the traffic flows in the vicinity **with** the traffic flows generated by the Proposed Hotel Development, were estimated based on the following equation:

2033 Design Flows = 2033 Reference Flows + Traffic Flows Generated by the Proposed Hotel Development

4.5.3 The 2033 Reference and Design Flows are shown in **Figures 4.2 and 4.3**, respectively.

4.6 Junction Capacity Assessment

4.6.1 Junction capacity analysis was carried out for the assessment year 2033. The assessment results are shown in **Table 4.6** and the detailed calculation sheets are attached in **Appendix B**.

Table 4.6 2033 Junction Capacity Assessment

No.	Junction	Type /Capacity Index(1)	2033 Reference		2033 Design	
			AM	PM	AM	PM
J1	Castle Peak Road – Tsuen Wan / Tai Chung Road	Signalized/RC	42%	49%	41%	48%
J2	Tai Chung Road / Pak Tin Par Street	Priority/DFC	0.56	0.60	0.56	0.60
J3	Tai Chung Road / Sha Tsui Road	Signalized/RC	40%	42%	40%	41%

Note: (1) RC = Reserve Capacity for signalized junction; DFC = Design Flow to Capacity ratio for priority junction.

4.6.2 As shown in **Table 4.6**, the assessed junctions will operate with capacities during the peak hours in 2033 with the expected traffic growth and the additional traffic flows generated by the Proposed Development.

5 PROVISION OF TRANSPORT FACILITIES

5.1 Access Arrangement

5.1.1 There is an existing vehicular access located at Pak Tin Par Street serving the Site and it will be maintained as the vehicular access for the Proposed Hotel Development.

5.2 HKPSG Requirements in Car Parking and Loading/Unloading Provisions

5.2.1 The requirements of car parking and loading/unloading facilities are being estimated, taking into consideration of the latest requirements set out in the Hong Kong Planning Standards and Guidelines (HKPSG). The required car parking and loading/unloading facilities for the Proposed Hotel Development are outlined in **Table 5.1**.

Table 5.1 Car Parking and Loading/Unloading Facilities as Required by HKPSG

Facility	HKPSG Requirements	Required Nos.	Proposed Provision
Car Parking	1 car parking space per 100 rooms	3	3
Goods Vehicle Loading/ Unloading	0.5-1 goods vehicle bay per 100 rooms	2 – 3	2
Motorcycle Parking	10% of total car parking space	1	1
Lay-by for taxi and private car	2 lay-bys for hotel less than 299 rooms	2	2
Lay-by for single deck tour bus	1 lay-by for hotel less than 299 rooms	1	1

5.2.2 As shown in **Table 5.1**, 3 nos. of private car parking spaces (including 1 no. of parking space for disabled users), 2 nos. of goods vehicle loading / unloading bays, 1 no. of motorcycle parking space, 1 no. of lay-by for taxi and private car and 1 no. lay-by for single deck tour bus will be provided to fulfil the requirements of the HKPSG. The indicative ground floor car park layout plan is enclosed in **Appendix C**.

5.2.3 According to "Section 3: Parking Standards for Commercial Facilities" under HKPSG, goods vehicle provision is divided into 65% LGV and 35% HGV, which the proposed 2 goods vehicle loading/unloading bays, 1 no. (2 x 65% = 1.3, say 1 no.) should be for LGV and the remaining should be for HGV. **Table 5.2** lists out a summary of the numbers and the dimensions required for each type of space in the Proposed Development.

Table 5.2 Summary of Overall Transport Facilities Provisions

Facilities	Dimensions	Proposed Provision
Car Parking Space	2.5m (W) x 5.0m (L) x 2.4m (H)	2
Disabled Car Parking Space	3.5m (W) x 5.0m (L) x 2.4m (H)	1
Motorcycle Parking Space	1.0m (W) x 2.4m (L) x 2.4m (H)	1
Goods Vehicle Loading / Unloading Bay	3.5m (W) x 11.0m (L) x 4.7m (H)	1
	3.5m (W) x 7.0m (L) x 3.6m (H)	1
Lay-by for Taxi and Private Car	2.5m (W) x 5.0m (L) x 2.4m (H)	2
Lay-by for Single Deck Tour Bus	3.5m (W) x 12.0m (L) x 3.8m (H)	1

6 SUMMARY AND CONCLUSION

6.1 Summary

6.1.1 The owner of Tsuen Wan Inland Lot No. 46 S.C intends to redevelop the Site into a hotel development.

6.1.2 A traffic count survey was carried out on 4 September 2025 (Thursday) during the peak hour period from 07:30 to 9:30 and 17:00 to 19:00 at the identified key junctions, and the AM and PM peak hours were found to be 08:30 – 09:30 and 17:30 – 18:30, respectively. The capacity of the key junctions in the vicinity of the Site was analysed and they are operating satisfactorily.

6.1.3 The Proposed Hotel Development would generate two-way traffic flows of 84 pcu/hr in the AM peak, 86 pcu/hr in the PM peak. By assigning the additional development traffic to the 2033 Reference Flows, the 2033 Design Flows were obtained.

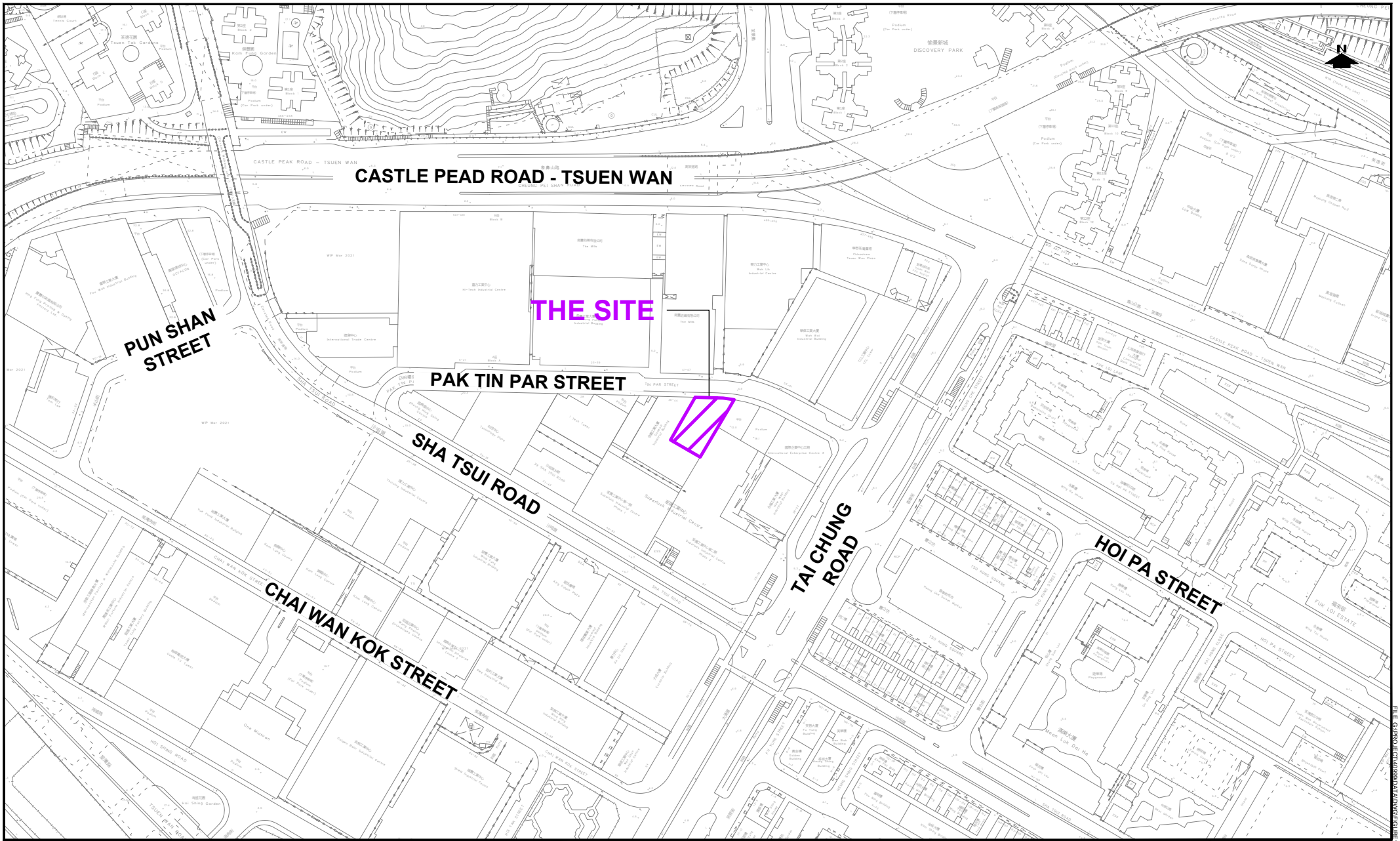
6.1.4 Junction capacity assessments were carried out at the key junctions in the vicinity for the year 2033. The results have indicated that all junctions will operate satisfactorily for both reference and design scenarios. Therefore, it is anticipated that the Proposed Hotel Development will not induce significant traffic impact to the surrounding road network.

6.1.5 There is an existing vehicular access located at Pak Tin Par Street serving the Site and it will be maintained as the vehicular access for the Proposed Hotel Development.

6.1.6 It is proposed to provide a total of 3 car parking spaces, 2 loading/unloading bays, 1 motorcycle parking space, 1 lay-by for taxi and private cars and 1 lay-by for single-deck tour buses within the Proposed Hotel Development. The internal transport facilities of the Proposed Hotel Development can meet the requirements as set out in the latest HKPSG.

6.2 Conclusion

6.2.1 Based on the findings of the traffic impact assessment, it can be concluded that the Proposed Hotel Development will not induce adverse traffic impact onto the adjacent road network and shall be approved in traffic viewpoint.



PROJECT NO.	PROJECT TITLE	DRAWING NO.	REV.
40999	APPLICATION FOR PLANNING PERMISSION UNDER SECTION 16 OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED HOTEL USE AND MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE AT TSUN WAN INLAND LOT NO. 46 S.C, NOS. 46-48 PAK TIN PAR STREET, TSUEN WAN, NEW TERRITORIES	FIGURE 1.1	·

DESIGNED	SKL	DATE	JUL 2025	DRAWING TITLE
DRAWN	CLL	SCALE	1:3000	LOCATION PLAN
CHECKED	SLN			

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FILE. G:\PROJECT\40999\DATA\DWG\FIGURE1.1.DWG PLOT SCALE : 1 = 1

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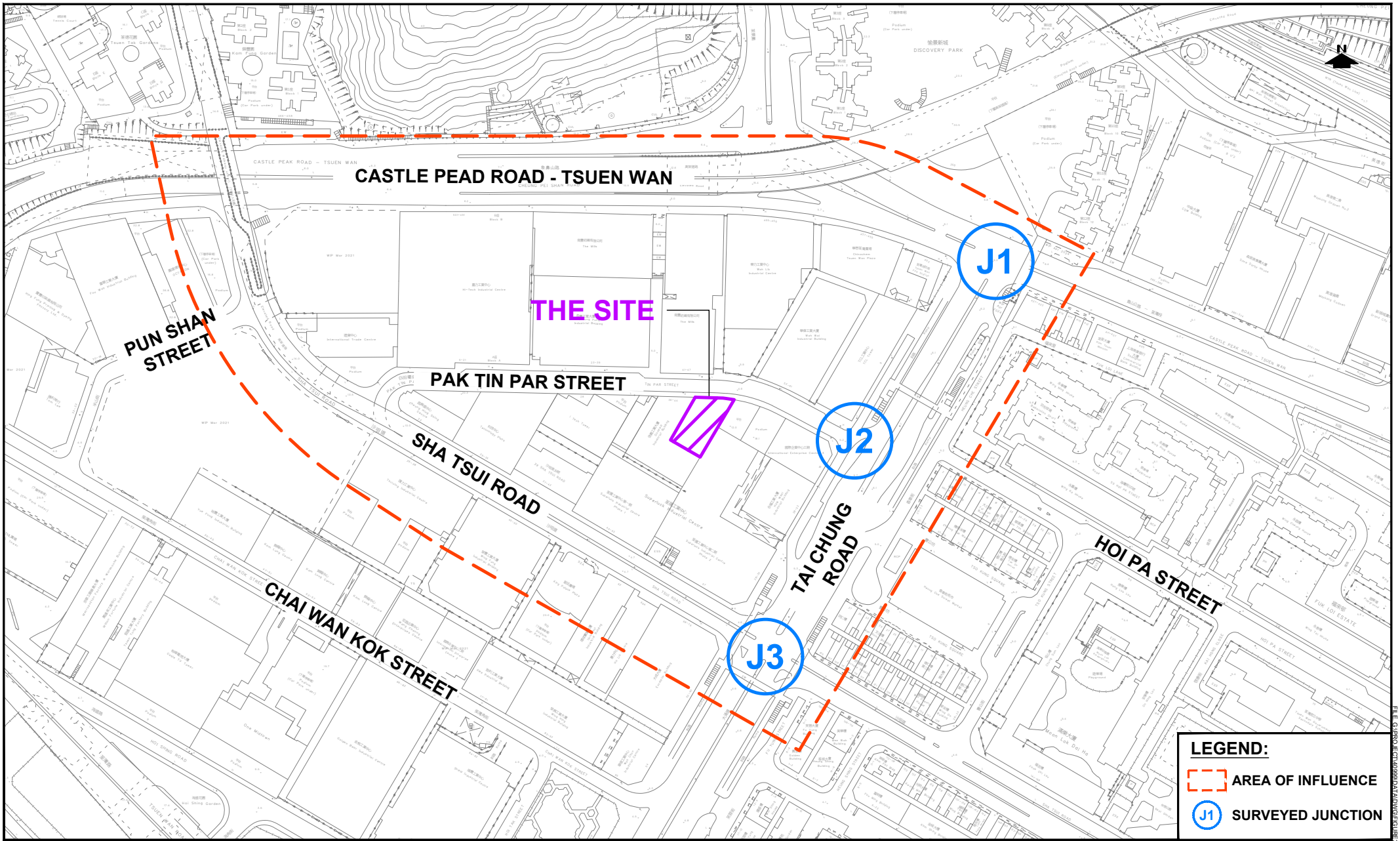

PROJECT NO.	PROJECT TITLE	DRAWING NO.	REV.
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DESIGNED	DATE	DRAWING TITLE
SKL	JUL 2025	AREA OF INFLUENCE AND LOCATION OF SURVEYED JUNCTIONS
DRAWN CLL	SCALE 1:3000	
CHECKED SLN		

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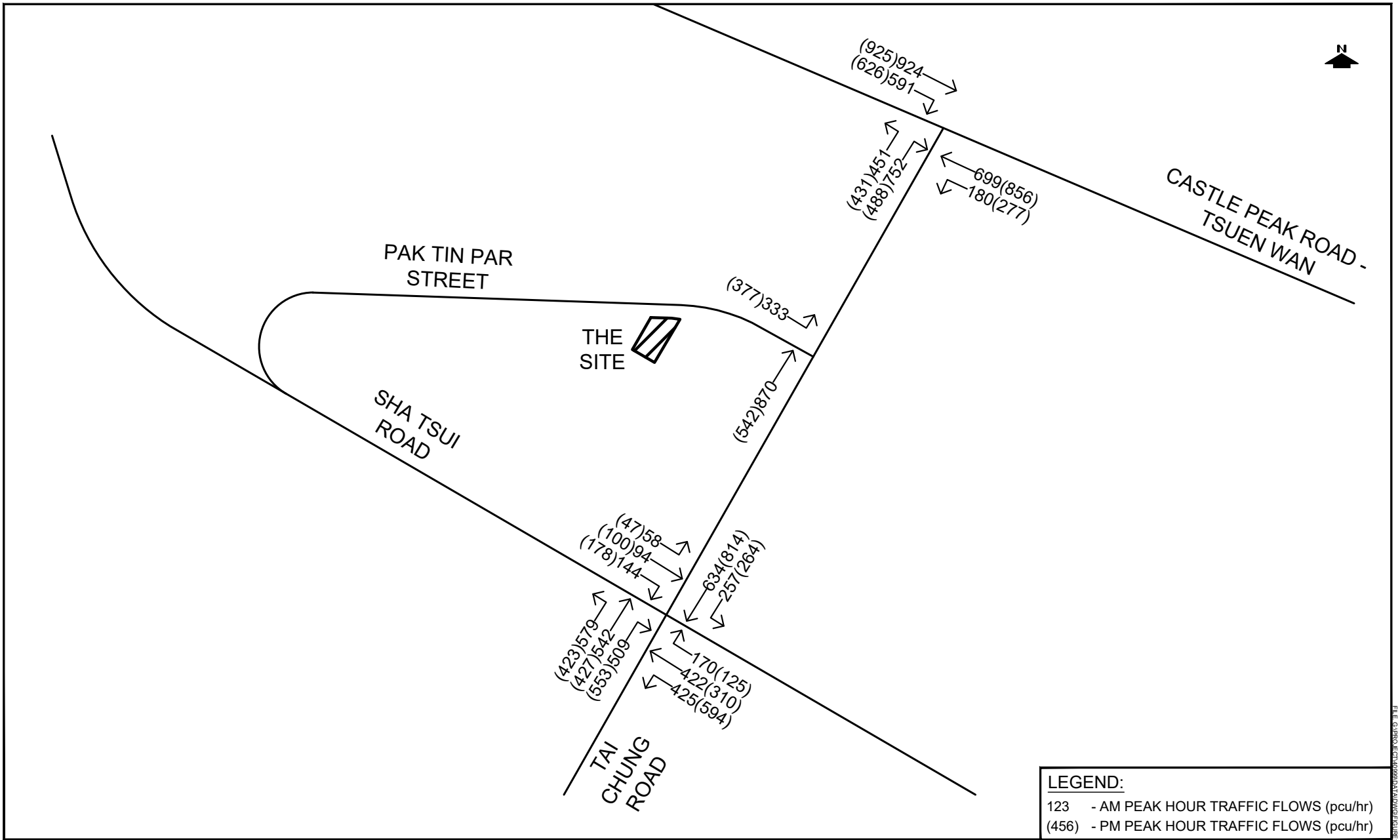
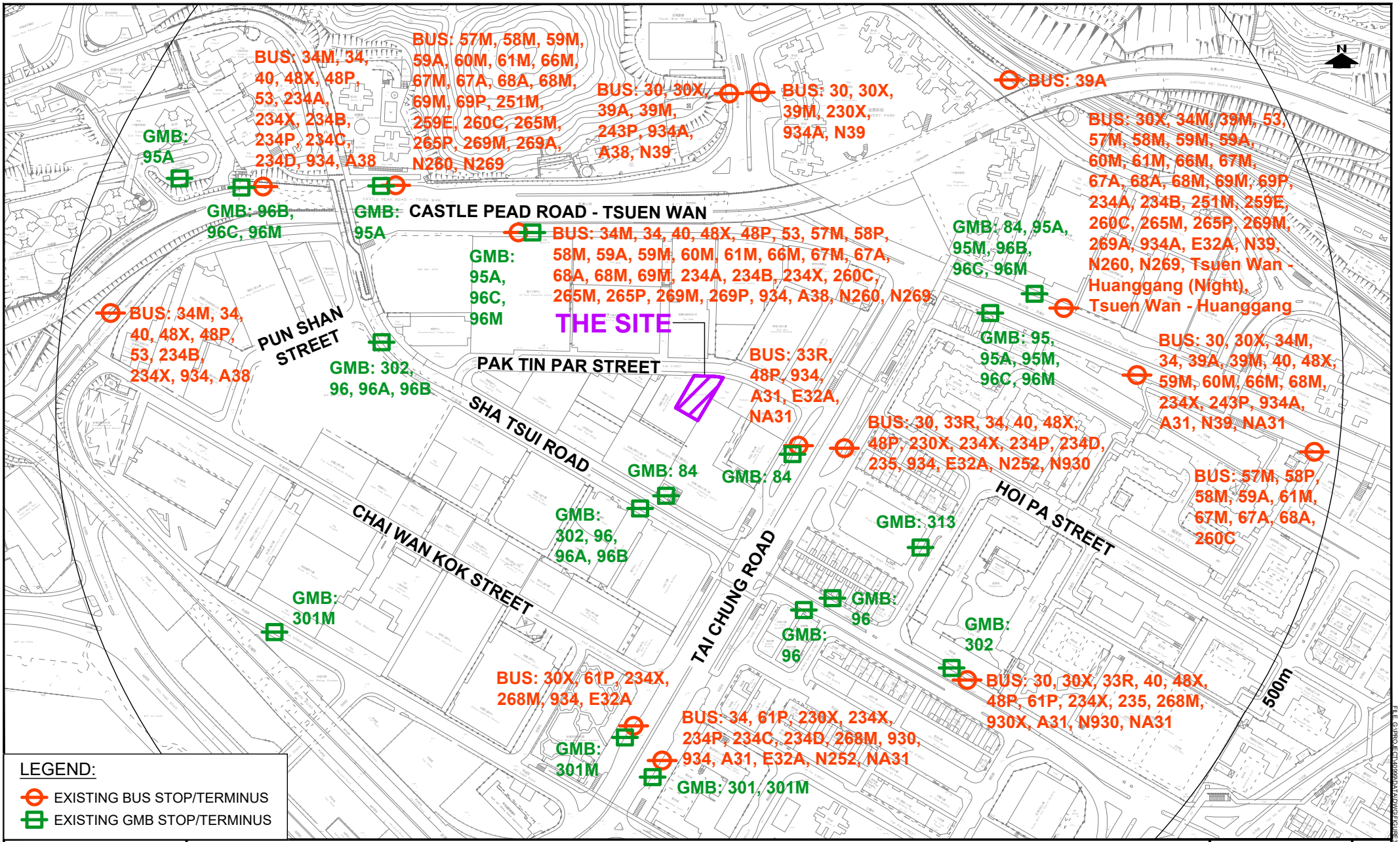
FILE. G:\PROJECT\40999\DATA\DWG\FIGURE3.1.DWG PLOT SCALE : 1 = 1



PROJECT NO. 40999	PROJECT TITLE APPLICATION FOR PLANNING PERMISSION UNDER SECTION 16 OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED HOTEL USE AND MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE AT TSUN WAN INLAND LOT NO. 46 S.C, NOS. 46-48 PAK TIN PAR STREET, TSUEN WAN, NEW TERRITORIES	DRAWING NO. FIGURE 3.2	REV. ·
DESIGNED SKL / DATE SEP 2025 / DRAWN CLL / SCALE N.T.S. / CHECKED SLN	DRAWING TITLE **2025 EXISTING PEAK HOUR TRAFFIC FLOW**	LLA 顧問有限公司 Consultancy Limited	

FILE. G:\PROJECT\40999\DATA\DWG\FIGURE3.2.DWG PLOT SCALE : 1 = 1

FILE. G:\PROJECT\40999\DATA\DWG\FIGURE3.2.DWG PLOT SCALE : 1 = 1



PROJECT NO.	PROJECT TITLE	DRAWING NO.	REV.
40999	APPLICATION FOR PLANNING PERMISSION UNDER SECTION 16 OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED HOTEL USE AND MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE AT TSUN WAN INLAND LOT NO. 46 S.C, NOS. 46-48 PAK TIN PAR STREET, TSUEN WAN, NEW TERRITORIES	FIGURE 3.3	·

DESIGNED	SKL	DATE	JUL 2025	DRAWING TITLE
DRAWN	CLL	SCALE	1:4000	PUBLIC TRANSPORT SERVICES IN THE VICINITY
CHECKED	SLN			

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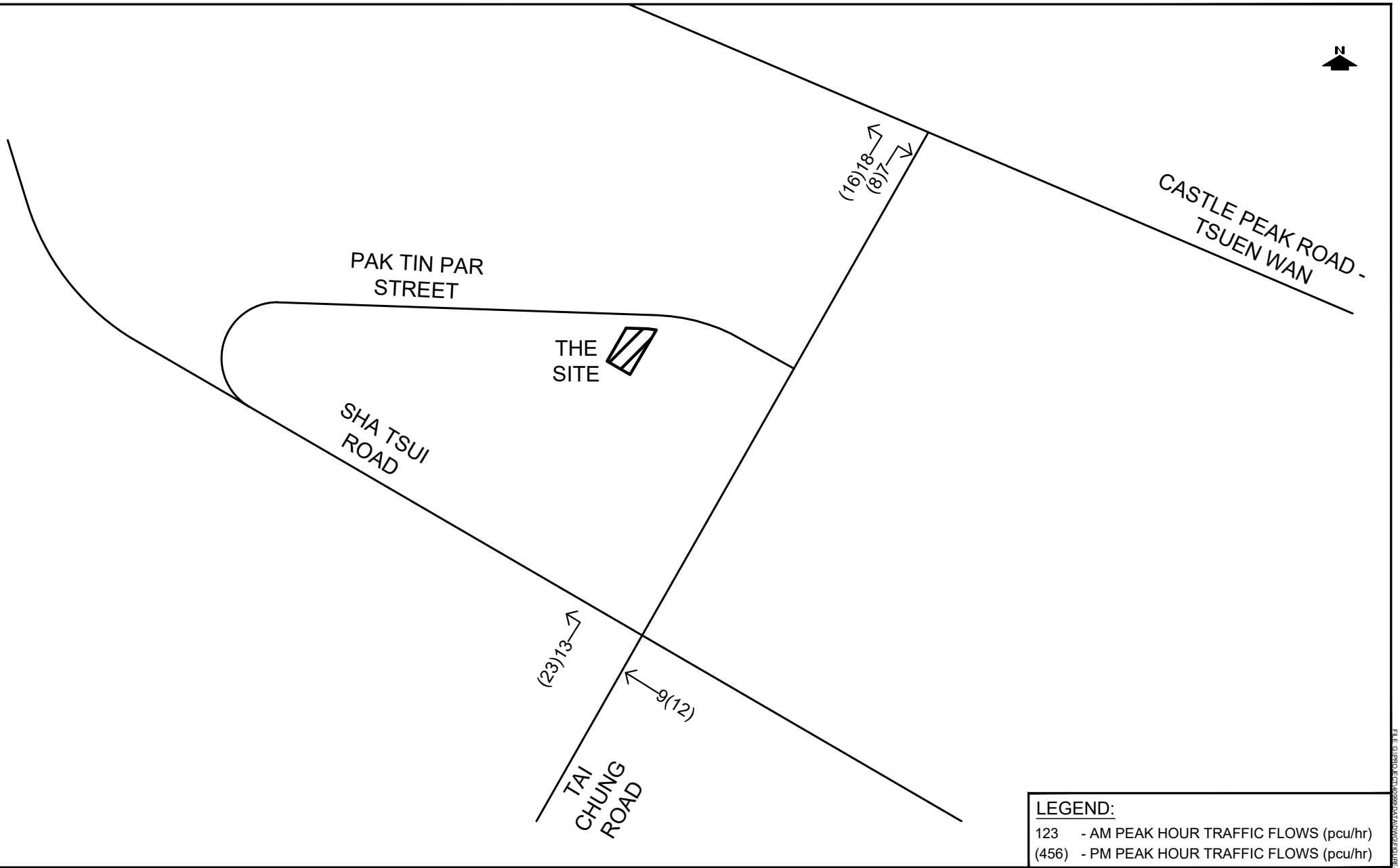
FILE. G:\PROJECT\40999\DATA\DWG\FIGURE3.3.DWG PLOT SCALE : 1 = 1



LEGEND:

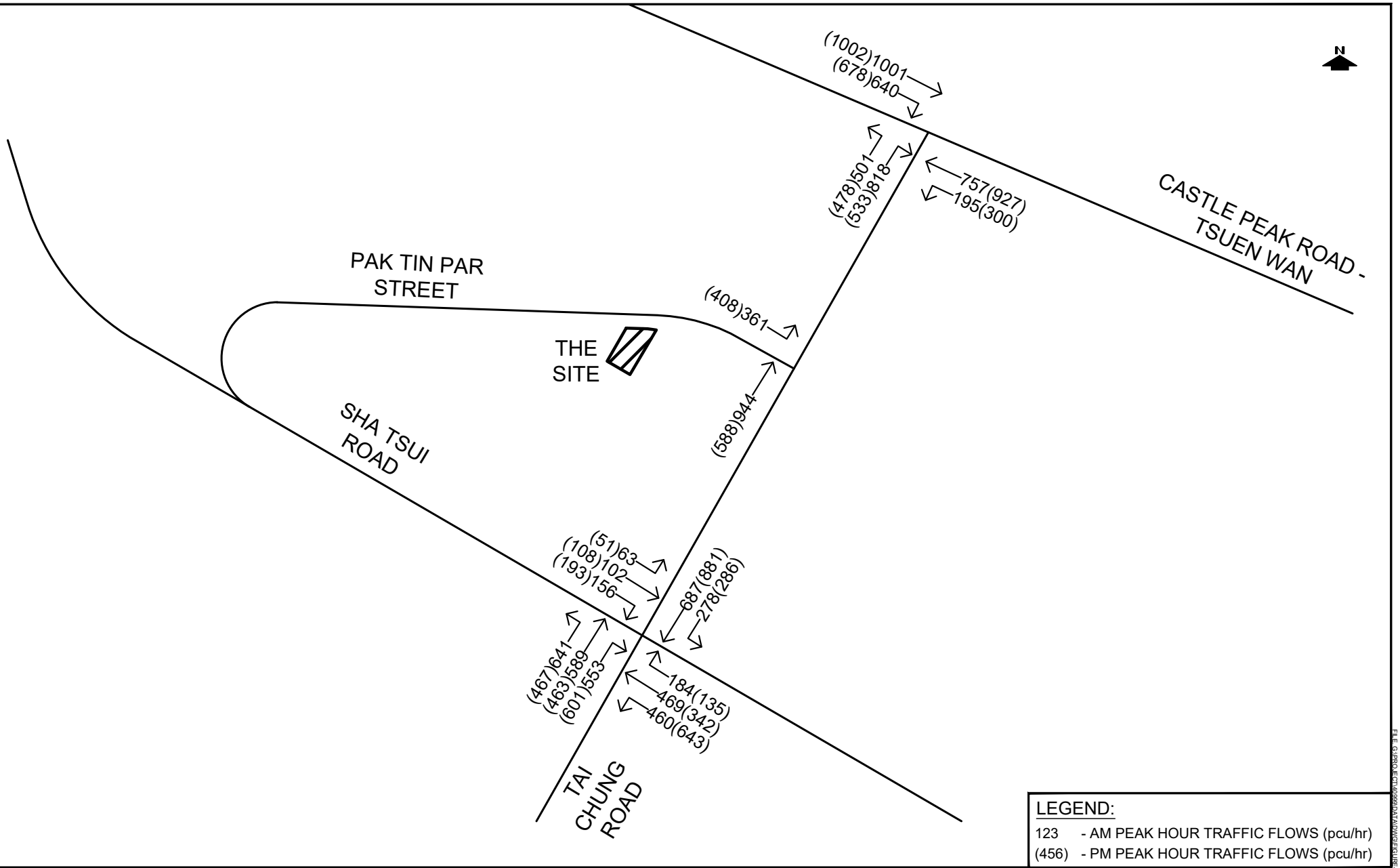
123 - AM PEAK HOUR TRAFFIC FLOWS (pcu/hr)

(456) - PM PEAK HOUR TRAFFIC FLOWS (pcu/hr)

PROJECT NO. 40999	PROJECT TITLE APPLICATION FOR PLANNING PERMISSION UNDER SECTION 16 OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED HOTEL USE AND MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE AT TSUN WAN INLAND LOT NO. 46 S.C, NOS. 46-48 PAK TIN PAR STREET, TSUEN WAN, NEW TERRITORIES	DRAWING NO. FIGURE 4.1	REV. ·
DESIGNED SKL / DATE SEP 2025	DRAWING TITLE ADDITIONAL DEVELOPMENT TRAFFIC FLOW	LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL / SCALE N.T.S.			
CHECKED SLN			

FILE. G:\PROJECT\40999\DATA\DWG\FIGURE4.1.DWG PLOT SCALE : 1 = 1

FILE. G:\PROJECT\40999\DATA\DWG\FIGURE4.1.DWG PLOT SCALE : 1 = 1



LEGEND:

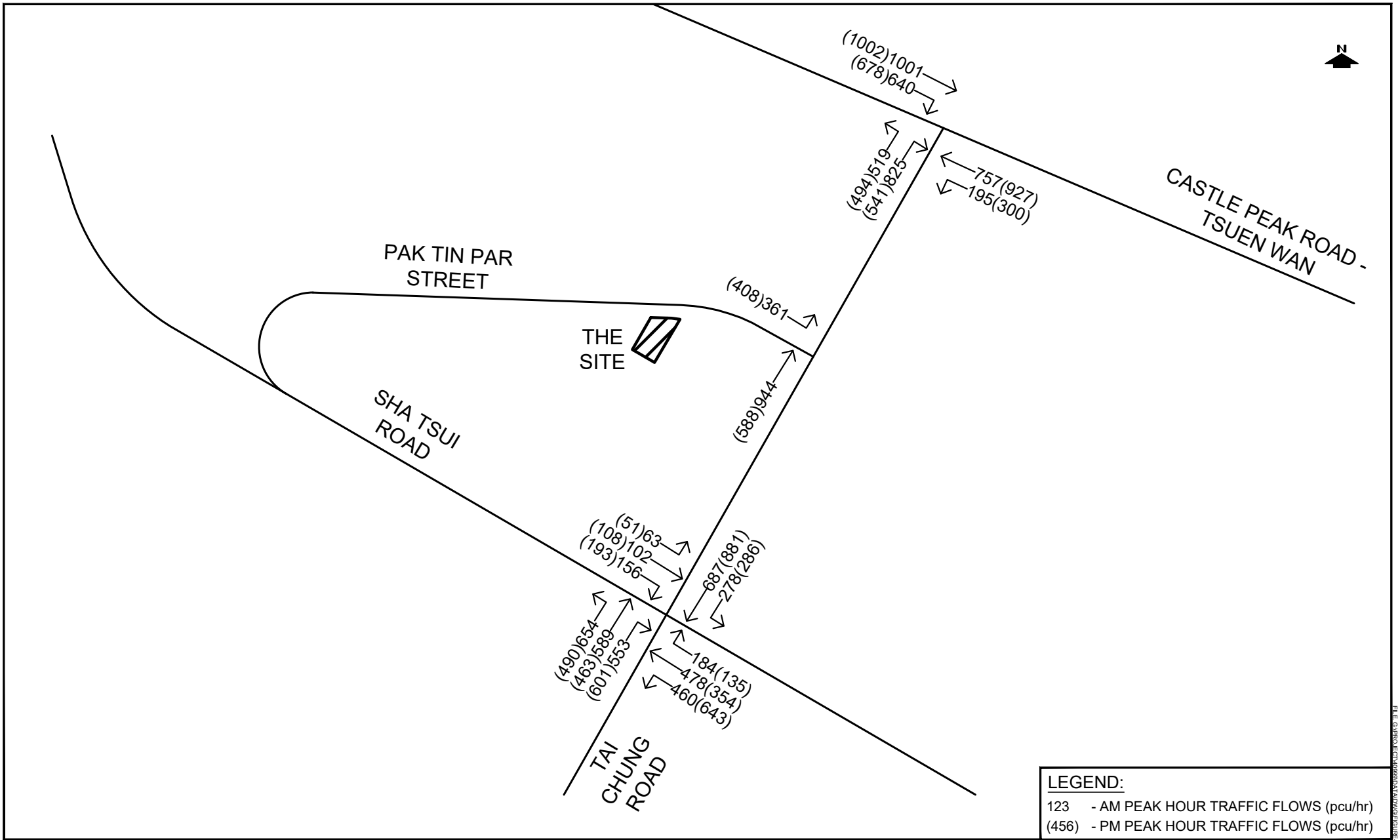
123 - AM PEAK HOUR TRAFFIC FLOWS (pcu/hr)

(456) - PM PEAK HOUR TRAFFIC FLOWS (pcu/hr)

PROJECT NO. 40999	PROJECT TITLE APPLICATION FOR PLANNING PERMISSION UNDER SECTION 16 OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED HOTEL USE AND MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE AT TSUN WAN INLAND LOT NO. 46 S.C, NOS. 46-48 PAK TIN PAR STREET, TSUEN WAN, NEW TERRITORIES	DRAWING NO. FIGURE 4.2	REV. ·
DESIGNED SKL / DATE SEP 2025 / DRAWN CLL / CHECKED SLN / SCALE N.T.S.	DRAWING TITLE 2033 REFERENCE PEAK HOUR TRAFFIC FLOW	LLA 顧問有限公司 Consultancy Limited	

FILE. G:\PROJECT\40999\DATA\DWG\FIGURE4.2.DWG PLOT SCALE : 1 = 1

FILE. G:\PROJECT\40999\DATA\DWG\FIGURE4.2.DWG PLOT SCALE : 1 = 1



PROJECT NO.	PROJECT TITLE	DRAWING NO.	REV.
40999	APPLICATION FOR PLANNING PERMISSION UNDER SECTION 16 OF THE TOWN PLANNING ORDINANCE (CAP. 131) FOR PROPOSED HOTEL USE AND MINOR RELAXATION OF PLOT RATIO AND BUILDING HEIGHT RESTRICTIONS AT "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ZONE AT TSUN WAN INLAND LOT NO. 46 S.C, NOS. 46-48 PAK TIN PAR STREET, TSUEN WAN, NEW TERRITORIES	FIGURE 4.3	·

DESIGNED	DATE	DRAWING TITLE
SKL	SEP 2025	2033 DESIGN PEAK HOUR TRAFFIC FLOW
DRAWN CLL	SCALE N.T.S.	
CHECKED SLN		

LLA 顧問有限公司 Consultancy Limited

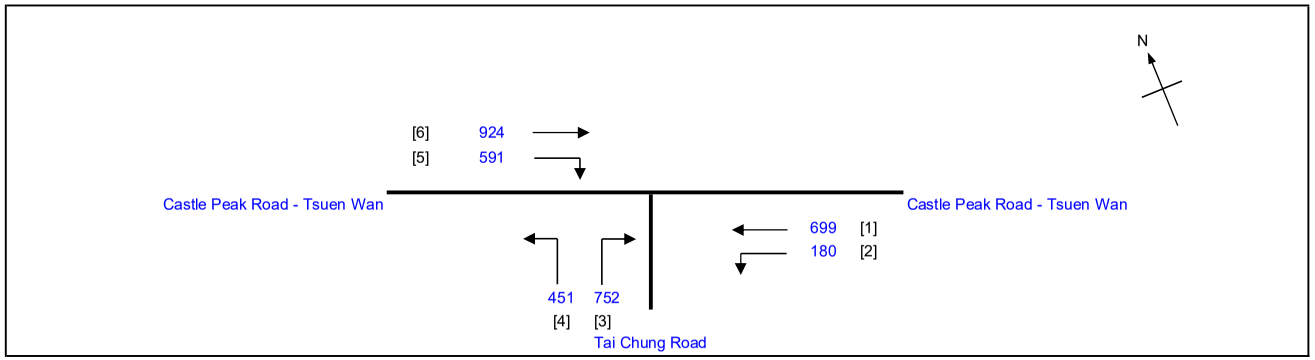
FILE. G:\PROJECT\40999\DATA\DWG\FIGURE4.3.DWG PLOT SCALE : 1 = 1

FILE. G:\PROJECT\40999\DATA\DWG\FIGURE4.3.DWG PLOT SCALE : 1 = 1

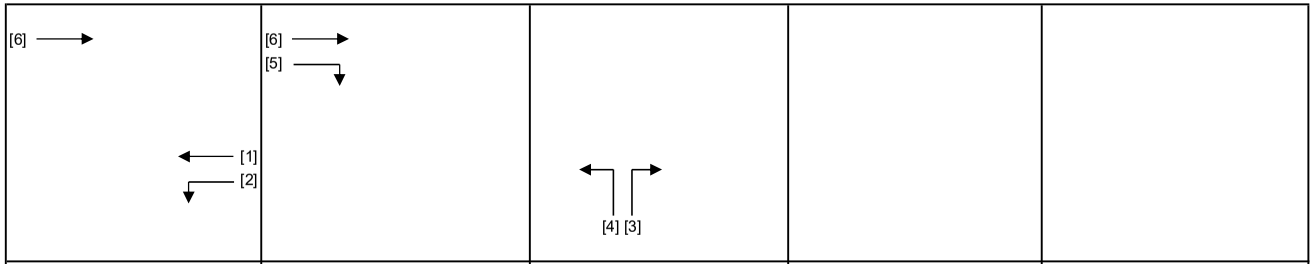
Appendix A

Junction Calculation Sheets
- Existing Scenario

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2025 Existing AM**	PROJECT NO.: 40999	Prepared By:	SKL	Sep-25
J1 Castle Peak Road – Tsuen Wan / Tai Chung Road		FILENAME : J1_CPRTW_TCR.xlsx	Checked By:	SLN	Sep-25
			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	3
Cycle time		C =	112 sec
Sum(y)		Y =	0.512
Loss time		L =	14 sec
Total Flow		=	3597 pcu
Co	= (1.5*L+5)/(1-Y)	=	53.3 sec
Cm	= L/(1-Y)	=	28.7 sec
Yult		=	0.795
R.C.ult	= (Yult-Y)/Y*100%	=	55.2 %
Cp	= 0.9*L/(0.9-Y)	=	32.5 sec
Ymax	= 1-L/C	=	0.875
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**54 %**



Stage 1	G= 27	Stage 2	G= 30	Stage 3	G= 38
	Int = 6		Int = 5		Int = 6

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
6	1,2	3.00	2			N	3970		924		924	0.00	3970							3970	0.233			45	59	0.585	51	25
5	2	3.00	2	13			4110			591	591	1.00	3685							3685	0.160	0.160		31	31	0.585	39	34
1,2	1	3.40	1	12		N	1955	180	86		266	0.68	1803							1803	0.148			28	28	0.585	36	38
1	1	3.20	2				4150		613		613	0.00	4150							4150	0.148	0.148		28	28	0.585	42	35
4	2,3	3.00	2	13		N	3970	451			451	1.00	3559							3559	0.127			24	70	0.585	30	38
3	3	3.00	2	13			4110			752	752	1.00	3685							3685	0.204	0.204		39	39	0.585	45	29

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED

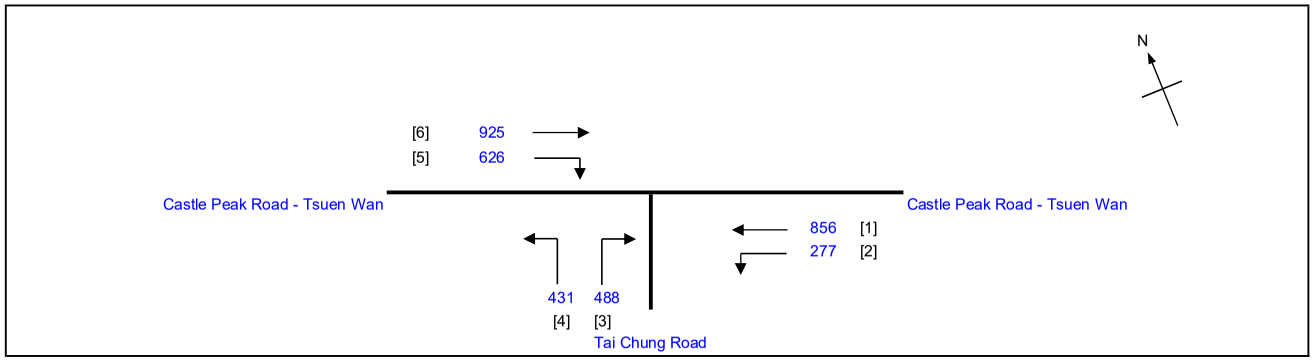
TRAFFIC SIGNAL CALCULATION

Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories

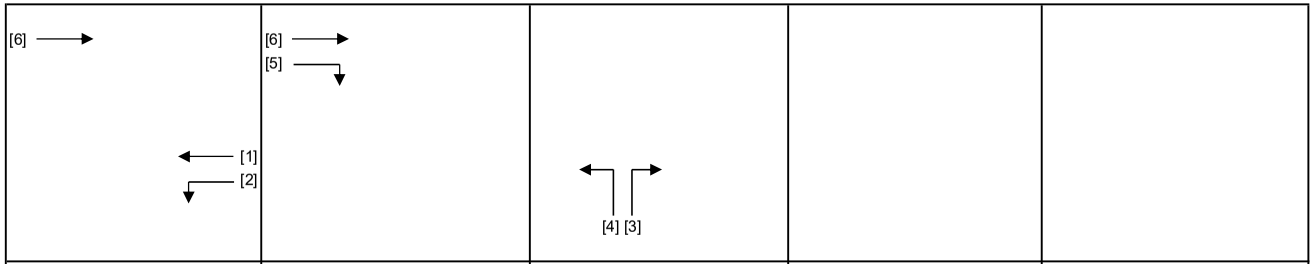
J1 Castle Peak Road – Tsuen Wan / Tai Chung Road

2025 Existing PM

			INITIALS	DATE
PROJECT NO.:	40999	Prepared By:	SKL	Sep-25
FILENAME :	J1_CPRTW_TCR.xlsx	Checked By:	SLN	Sep-25
		Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	3
Cycle time		C =	122 sec
Sum(y)		Y =	0.494
Loss time		L =	14 sec
Total Flow		=	3603 pcu
Co	= (1.5*L+5)/(1-Y)	=	51.3 sec
Cm	= L/(1-Y)	=	27.6 sec
Yult		=	0.795
R.C.ult	= (Yult-Y)/Y*100%	=	61.0 %
Cp	= 0.9*L/(0.9-Y)	=	31.0 sec
Ymax	= 1-L/C	=	0.885
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**61 %**



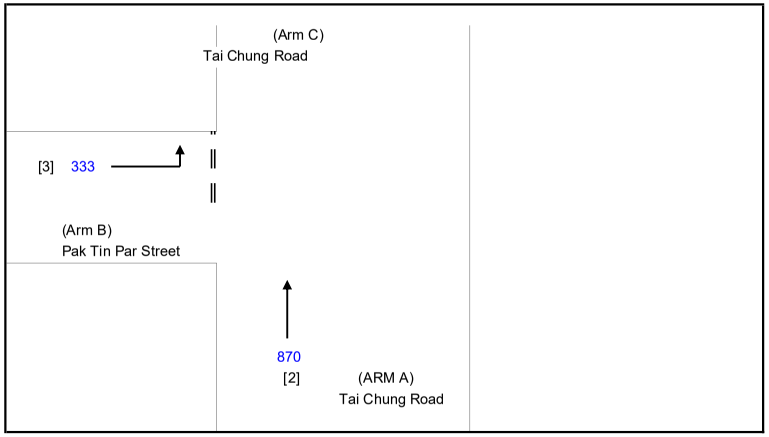
Stage 1	G= 41	Stage 2	G= 36	Stage 3	G= 28
	Int = 6		Int = 5		Int = 6

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
6	1,2	3.00	2			N	3970		925		925	0.00	3970							3970	0.233			51	79	0.558	54	25
5	2	3.00	2	13			4110			626	626	1.00	3685							3685	0.170	0.170		37	37	0.558	42	34
1,2	1	3.40	1	12		N	1955	277	62		339	0.82	1774							1774	0.191			42	42	0.558	42	33
1	1	3.20	2				4150		794		794	0.00	4150							4150	0.191	0.191		42	42	0.558	51	31
4	2,3	3.00	2	13		N	3970	431			431	1.00	3559							3559	0.121			26	66	0.558	33	41
3	3	3.00	2	13			4110			488	488	1.00	3685							3685	0.132	0.132		29	29	0.558	36	39

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2025 Existing AM**	PROJECT NO.: 40999	PREPARED BY:	SKL	Sep-25
		FILENAME : J2_TCR_PTP	CHECKED BY:	SLN	Sep-25
J2 Tai Chung Road / Pak Tin Par Street		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	20.00	(metres)
W cr	=	3.4	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	870	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.50	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	40	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	333	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.00215
F	=	0.58595
Y	=	0.31000
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

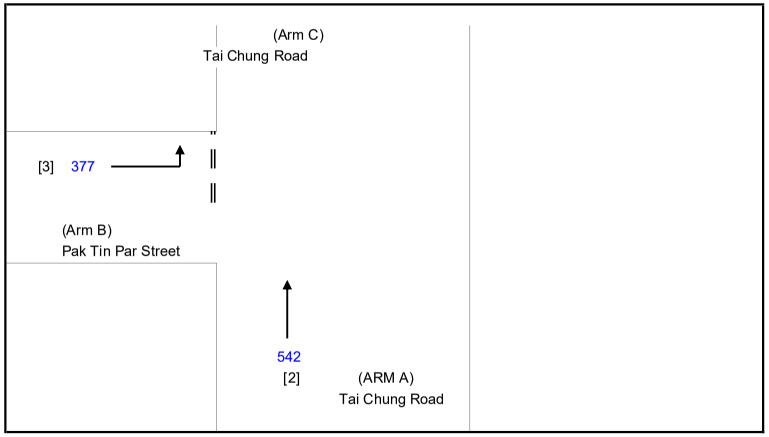
Q b-a	=	307		
Q b-c	=	648	Q b-c (O) =	648
Q c-b	=	379		
Q b-ac	=	648		
TOTAL FLOW	=	1203	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.5139
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.5139

CRITICAL DFC = 0.51

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2025 Existing PM**	PROJECT NO.: 40999	PREPARED BY:	SKL	Sep-25
		FILENAME : J2_TCR_PTP	CHECKED BY:	SLN	Sep-25
J2 Tai Chung Road / Pak Tin Par Street		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	20.00	(metres)
W cr	=	3.4	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	542	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.50	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	40	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	377	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.00215
F	=	0.58595
Y	=	0.31000
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

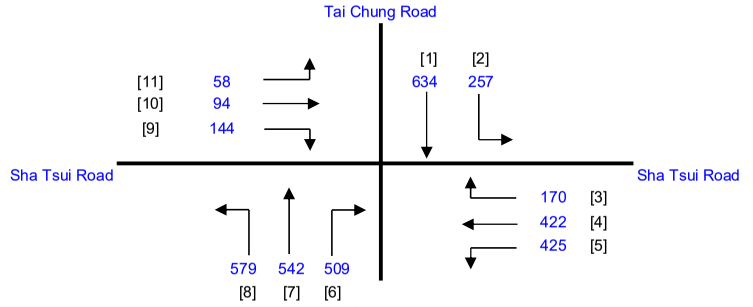
Q b-a	=	327		
Q b-c	=	685	Q b-c (O) =	685
Q c-b	=	401		
Q b-ac	=	685		
TOTAL FLOW	=	919	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

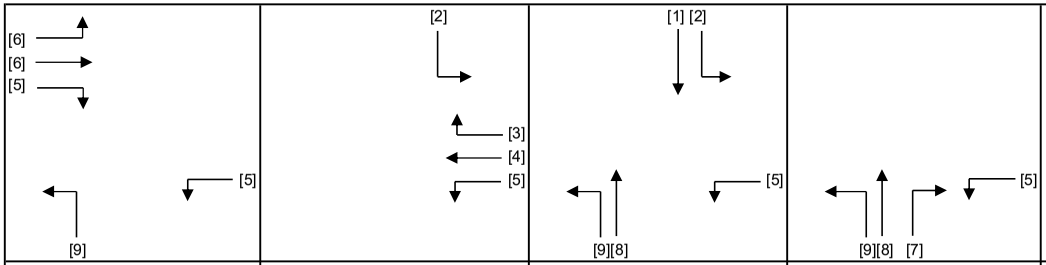
DFC b-a	=	0.0000
DFC b-c	=	0.5504
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.5504

CRITICAL DFC = 0.55

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2025 Existing AM**	PROJECT NO.: 40999	Prepared By:	SKL	Sep-25
		FILENAME : J3_TCR_STR.xlsx	Checked By:	SLN	Sep-25
J3 Tai Chung Road / Sha Tsui Road			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	4
Cycle time		C =	112 sec
Sum(y)		Y =	0.488
Loss time		L =	19 sec
Total Flow		=	3409 pcu
Co	= (1.5*L+5)/(1-Y)	=	65.5 sec
Cm	= L/(1-Y)	=	37.1 sec
Yult		=	0.758
R.C.ult	= (Yult-Y)/Y*100%	=	55.1 %
Cp	= 0.9*L/(0.9-Y)	=	41.5 sec
Ymax	= 1-L/C	=	0.830
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**53 %**



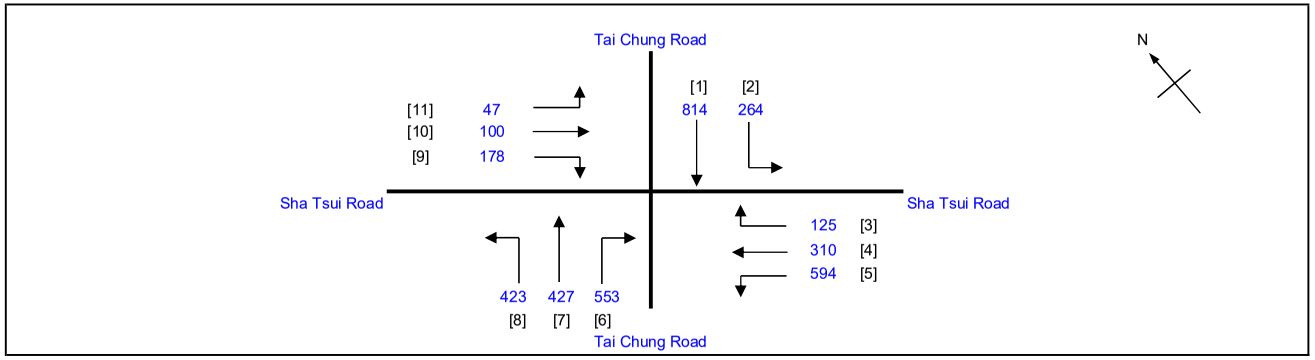
Stage 1	G= 14	Stage 2	G= 27	Stage 3	G= 20	Stage 4	G= 29
	Int = 7		Int = 8		Int =		Int = 7

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG

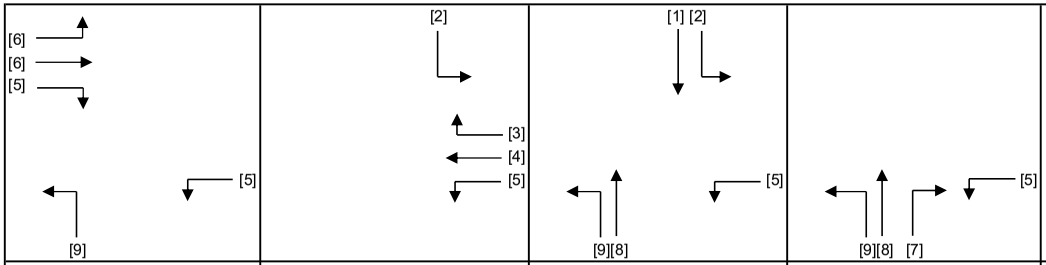
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							19					
10,11	1	3.40	1	8		N	1955	58	88		146	0.40	1819							1819	0.080			15	15	0.588	18	50
9,10	1	3.20	1	13			2075		6	144	150	0.96	1868							1868	0.080	0.080		15	15	0.588	24	50
2	2,3	3.00	2	12		N	3970	257			257	1.00	3529							3529	0.073			14	47	0.588	21	47
1	3	3.00	3				6165		634		634	0.00	6165							6165	0.103			20	20	0.588	32	40
4	2	3.80	1				2135		310		310	0.00	2135							2135	0.145			28	28	0.588	42	38
3,4	2	3.00	1	15			2055		112	170	282	0.60	1938							1938	0.145	0.145		28	28	0.588	36	38
8	1,3,4	3.10	1	20		N	1925	579			579	1.00	1791							1791	0.323			62	65	0.588	48	17
7	3,4	3.10	1				2065		542		542	0.00	2065							2065	0.262	0.262		50	50	0.588	54	23
6	4	3.10	2	12			4130			509	509	1.00	3671							3671	0.139			26	30	0.588	36	37

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2025 Existing PM**	PROJECT NO.: 40999	Prepared By:	SKL	Sep-25
		FILENAME : J3_TCR_STR.xlsx	Checked By:	SLN	Sep-25
J3 Tai Chung Road / Sha Tsui Road			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	4
Cycle time		C =	120 sec
Sum(y)		Y =	0.485
Loss time		L =	20 sec
Total Flow		=	3241 pcu
Co	= (1.5*L+5)/(1-Y)	=	68.0 sec
Cm	= L/(1-Y)	=	38.8 sec
Yult		=	0.750
R.C.ult	= (Yult-Y)/Y*100%	=	54.6 %
Cp	= 0.9*L/(0.9-Y)	=	43.4 sec
Ymax	= 1-L/C	=	0.833
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**55 %**



Stage 1	G= 19	Stage 2	G= 21	Stage 3	G= 26	Stage 4	G= 30
	Int = 7		Int = 5		Int = 5		Int = 7

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG

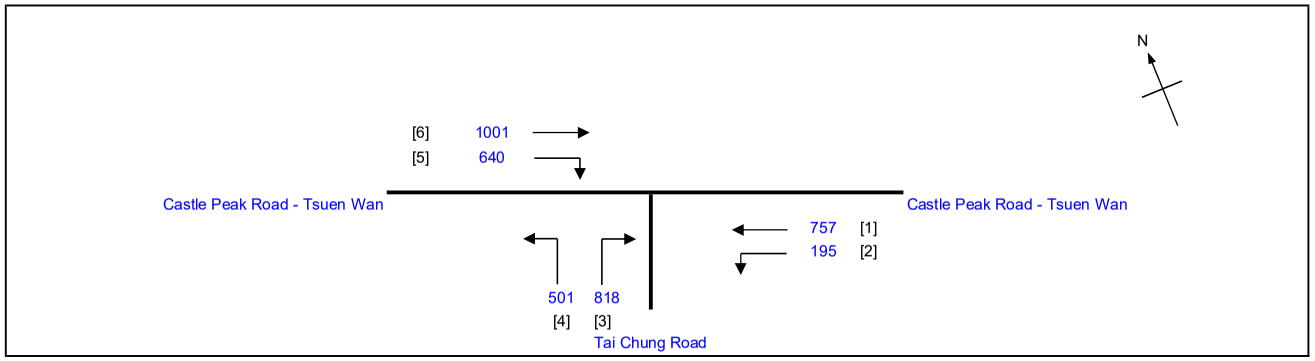
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
10,11	1	3.40	1	8		N	1955	47	100		147	0.32	1844							1844	0.080			16	20	0.582	24	53
9,10	1	3.20	1	13			2075		0	178	178	1.00	1860							1860	0.096	0.096		20	20	0.582	24	49
2	2,3	3.00	2	12		N	3970	264			264	1.00	3529							3529	0.075			15	49	0.582	21	49
1	3	3.00	3				6165		814		814	0.00	6165							6165	0.132	0.132		27	27	0.582	40	39
4	2	3.80	1				2135		228		228	0.00	2135							2135	0.107			22	22	0.582	36	46
3,4	2	3.00	1	15			2055		82	125	207	0.60	1938							1938	0.107	0.107		22	22	0.582	30	47
8	1,3,4	3.10	1	20		N	1925	423			423	1.00	1791							1791	0.236			49	78	0.582	48	28
7	3,4	3.10	1				2065		427		427	0.00	2065							2065	0.207			43	58	0.582	54	31
6	4	3.10	2	12			4130			553	553	1.00	3671							3671	0.151	0.151		31	31	0.582	39	37

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

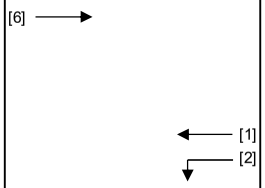
Appendix B

Junction Calculation Sheets
- Reference & Design Scenarios

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2033 Reference AM**	PROJECT NO.: 40999	Prepared By:	SKL	Sep-25
J1 Castle Peak Road – Tsuen Wan / Tai Chung Road		FILENAME : J1_CPRTW_TCR.xlsx	Checked By:	SLN	Sep-25
			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	3
Cycle time		C =	112 sec
Sum(y)		Y =	0.556
Loss time		L =	14 sec
Total Flow		=	3912 pcu
Co	= (1.5*L+5)/(1-Y)	=	58.5 sec
Cm	= L/(1-Y)	=	31.5 sec
Yult		=	0.795
R.C.ult	= (Yult-Y)/Y*100%	=	43.1 %
Cp	= 0.9*L/(0.9-Y)	=	36.6 sec
Ymax	= 1-L/C	=	0.875
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**42 %**



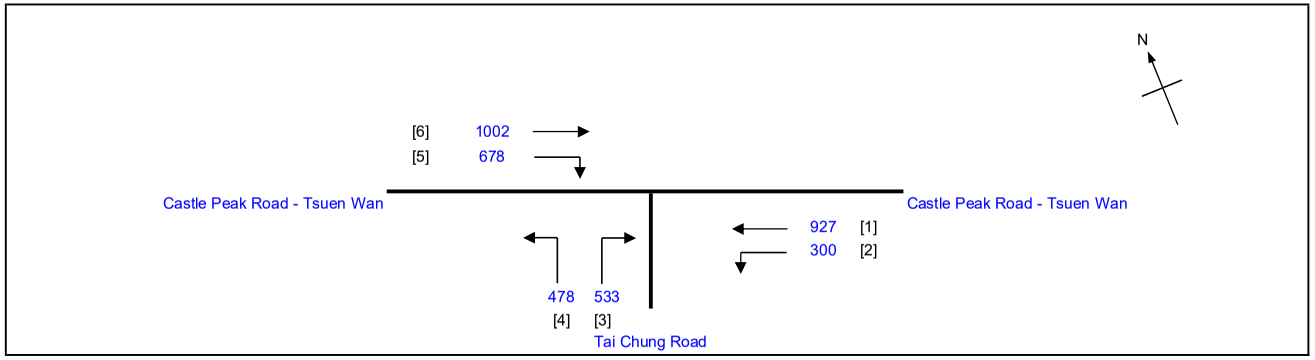
Stage 1	G= 27	Stage 2	G= 30	Stage 3	G= 38
	Int = 6		Int = 5		Int = 6

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
6	1,2	3.00	2			N	3970		1001		1001	0.00	3970							3970	0.252			44	59	0.635	54	26
5	2	3.00	2	13			4110			640	640	1.00	3685							3685	0.174	0.174		31	31	0.635	42	35
1,2	1	3.40	1	12		N	1955	195	93		288	0.68	1802							1802	0.160			28	28	0.635	36	40
1	1	3.20	2				4150		664		664	0.00	4150							4150	0.160	0.160		28	28	0.635	45	36
4	2,3	3.00	2	13		N	3970	501			501	1.00	3559							3559	0.141			25	70	0.635	36	39
3	3	3.00	2	13			4110			818	818	1.00	3685							3685	0.222	0.222		39	39	0.635	48	30

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2033 Reference PM**	PROJECT NO.: 40999	Prepared By:	SKL	Sep-25
		FILENAME : J1_CPRTW_TCR.xlsx	Checked By:	SLN	Sep-25
J1 Castle Peak Road – Tsuen Wan / Tai Chung Road			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	3
Cycle time		C =	122 sec
Sum(y)		Y =	0.536
Loss time		L =	14 sec
Total Flow		=	3918 pcu
Co	= (1.5*L+5)/(1-Y)	=	56.0 sec
Cm	= L/(1-Y)	=	30.2 sec
Yult		=	0.795
R.C.ult	= (Yult-Y)/Y*100%	=	48.3 %
Cp	= 0.9*L/(0.9-Y)	=	34.6 sec
Ymax	= 1-L/C	=	0.885
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**49 %**

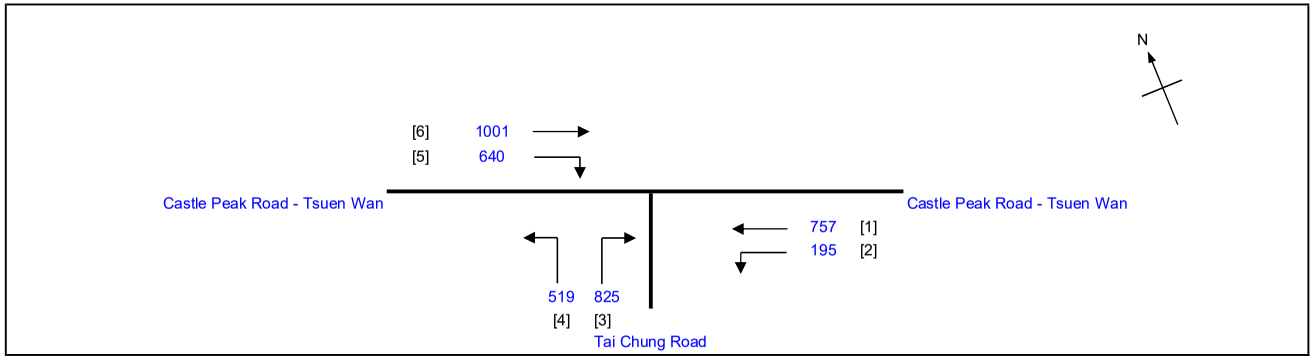
Stage 1	Stage 2	Stage 3		
[6] [1] [2]	[6] [5]	[4] [3]		
G= 41	G= 36	G= 28		
Int = 6	Int = 5	Int = 6		

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG

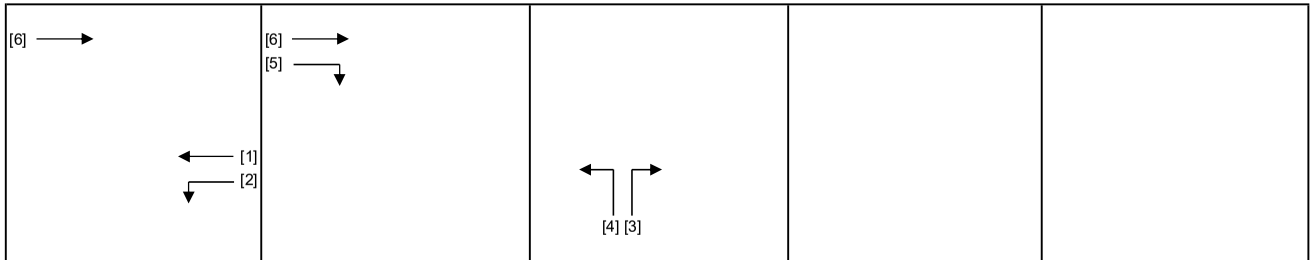
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
6	1,2	3.00	2			N	3970		1002		1002	0.00	3970							3970	0.252			51	79	0.606	57	26
5	2	3.00	2	13			4110			678	678	1.00	3685							3685	0.184	0.184		37	37	0.606	45	35
1,2	1	3.40	1	12		N	1955	300	68		368	0.82	1774							1774	0.207	0.207		42	42	0.606	48	34
1	1	3.20	2				4150		859		859	0.00	4150							4150	0.207			42	42	0.606	57	32
4	2,3	3.00	2	13		N	3970	478			478	1.00	3559							3559	0.134			27	66	0.606	36	42
3	3	3.00	2	13			4110			533	533	1.00	3685							3685	0.145	0.145		29	29	0.606	39	40

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2033 Design AM**	PROJECT NO.: 40999	Prepared By:	SKL	Sep-25
J1 Castle Peak Road – Tsuen Wan / Tai Chung Road		FILENAME : J1_CPRTW_TCR.xlsx	Checked By:	SLN	Sep-25
			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	3
Cycle time		C =	112 sec
Sum(y)		Y =	0.558
Loss time		L =	14 sec
Total Flow		=	3937 pcu
Co	= (1.5*L+5)/(1-Y)	=	58.8 sec
Cm	= L/(1-Y)	=	31.6 sec
Yult		=	0.795
R.C.ult	= (Yult-Y)/Y*100%	=	42.6 %
Cp	= 0.9*L/(0.9-Y)	=	36.8 sec
Ymax	= 1-L/C	=	0.875
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**41 %**



Stage 1	G= 27	Stage 2	G= 30	Stage 3	G= 38		
	Int = 6		Int = 5		Int = 6		

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
6	1,2	3.00	2			N	3970		1001		1001	0.00	3970							3970	0.252			44	59	0.637	54	26
5	2	3.00	2	13			4110			640	640	1.00	3685							3685	0.174	0.174		31	31	0.637	42	35
1,2	1	3.40	1	12		N	1955	195	93		288	0.68	1802							1802	0.160			28	28	0.637	36	40
1	1	3.20	2				4150		664		664	0.00	4150							4150	0.160	0.160		28	28	0.637	45	36
4	2,3	3.00	2	13		N	3970	519			519	1.00	3559							3559	0.146			26	70	0.637	36	39
3	3	3.00	2	13			4110			825	825	1.00	3685							3685	0.224	0.224		39	39	0.637	48	30

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED

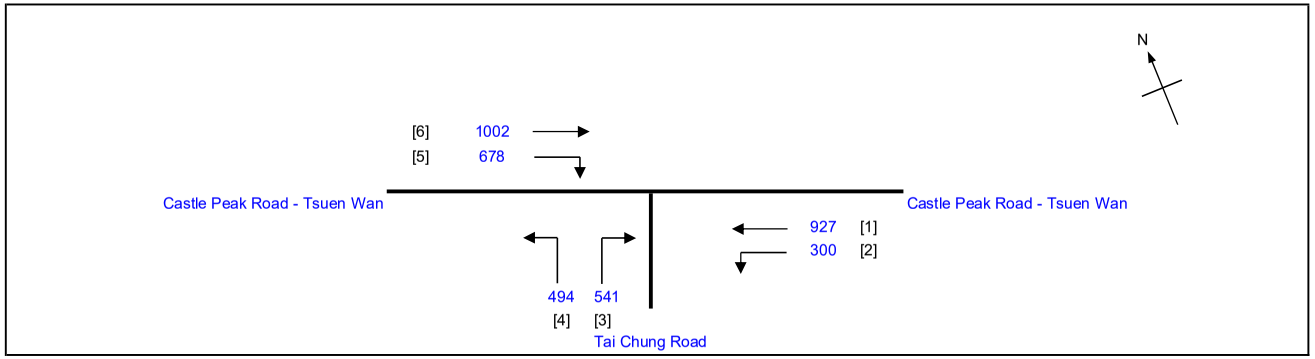
TRAFFIC SIGNAL CALCULATION

Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories

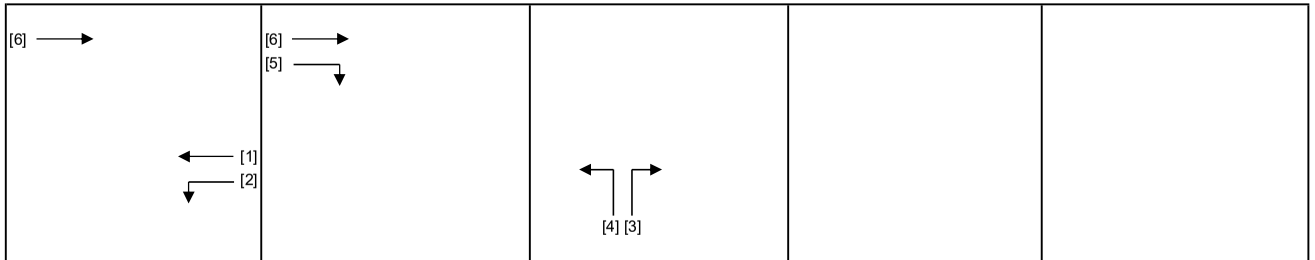
J1 Castle Peak Road – Tsuen Wan / Tai Chung Road

2033 Design PM

			INITIALS	DATE
PROJECT NO.:	40999	Prepared By:	SKL	Sep-25
FILENAME :	J1_CPRTW_TCR.xlsx	Checked By:	SLN	Sep-25
		Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	3
Cycle time		C =	122 sec
Sum(y)		Y =	0.538
Loss time		L =	14 sec
Total Flow		=	3942 pcu
Co	= (1.5*L+5)/(1-Y)	=	56.3 sec
Cm	= L/(1-Y)	=	30.3 sec
Yult		=	0.795
R.C.ult	= (Yult-Y)/Y*100%	=	47.7 %
Cp	= 0.9*L/(0.9-Y)	=	34.8 sec
Ymax	= 1-L/C	=	0.885
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**48 %**



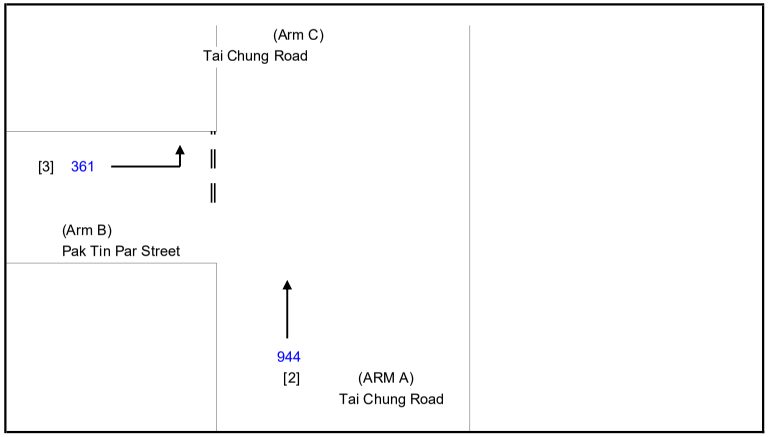
Stage 1	G= 41	Stage 2	G= 36	Stage 3	G= 28
	Int = 6		Int = 5		Int = 6

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							14					
6	1,2	3.00	2			N	3970		1002		1002	0.00	3970							3970	0.252			51	79	0.608	57	27
5	2	3.00	2	13			4110			678	678	1.00	3685							3685	0.184	0.184		37	37	0.608	48	35
1,2	1	3.40	1	12		N	1955	300	68		368	0.82	1774							1774	0.207	0.207		42	42	0.608	48	34
1	1	3.20	2				4150		859		859	0.00	4150							4150	0.207			42	42	0.608	57	32
4	2,3	3.00	2	13		N	3970	494			494	1.00	3559							3559	0.139			28	66	0.608	36	41
3	3	3.00	2	13			4110			541	541	1.00	3685							3685	0.147	0.147		29	29	0.608	39	40

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2033 Reference AM**	PROJECT NO.: 40999	PREPARED BY:	SKL	Sep-25
		FILENAME : J2_TCR_PTP	CHECKED BY:	SLN	Sep-25
J2 Tai Chung Road / Pak Tin Par Street		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	20.00	(metres)
W cr	=	3.4	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	944	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.50	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	40	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	361	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.00215
F	=	0.58595
Y	=	0.31000
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

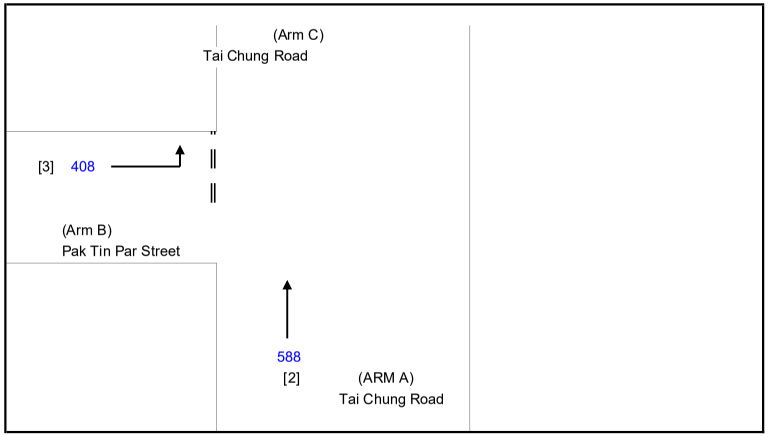
Q b-a	=	303		
Q b-c	=	640	Q b-c (O) =	640
Q c-b	=	374		
Q b-ac	=	640		
TOTAL FLOW	=	1305	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.5641
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.5641

CRITICAL DFC = 0.56

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2033 Reference PM**	PROJECT NO.: 40999	PREPARED BY:	SKL	Sep-25
		FILENAME : J2_TCR_PTP	CHECKED BY:	SLN	Sep-25
J2 Tai Chung Road / Pak Tin Par Street		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	20.00	(metres)
W cr	=	3.4	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	588	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.50	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	40	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	408	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.00215
F	=	0.58595
Y	=	0.31000
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

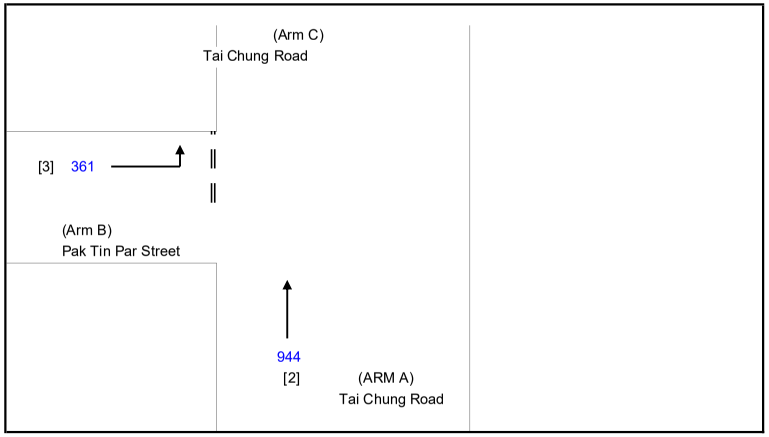
Q b-a	=	324		
Q b-c	=	680	Q b-c (O) =	680
Q c-b	=	398		
Q b-ac	=	680		
TOTAL FLOW	=	996	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.6000
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.6000

CRITICAL DFC = 0.60

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2033 Design AM**	PROJECT NO.: 40999	PREPARED BY:	SKL	Sep-25
		FILENAME : J2_TCR_PTP	CHECKED BY:	SLN	Sep-25
J2 Tai Chung Road / Pak Tin Par Street		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	20.00	(metres)
W cr	=	3.4	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	944	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.50	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	40	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	361	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.00215
F	=	0.58595
Y	=	0.31000
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

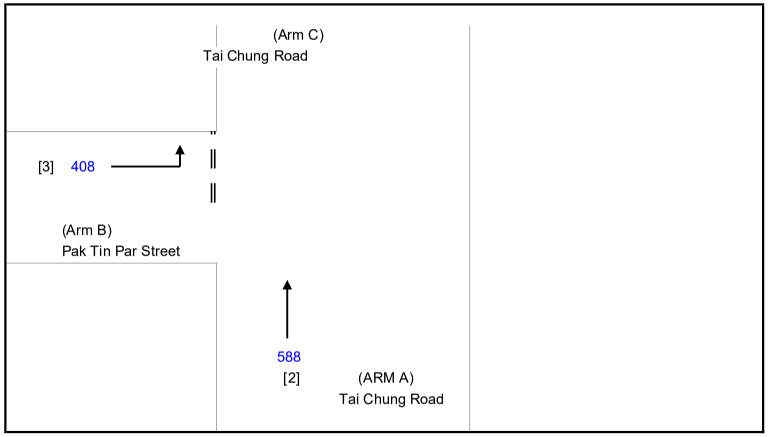
Q b-a	=	303		
Q b-c	=	640	Q b-c (O) =	640
Q c-b	=	374		
Q b-ac	=	640		
TOTAL FLOW	=	1305	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

DFC b-a	=	0.0000
DFC b-c	=	0.5641
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.5641

CRITICAL DFC = 0.56

LLA CONSULTANCY LIMITED	PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2033 Design PM**	PROJECT NO.: 40999	PREPARED BY:	SKL	Sep-25
		FILENAME : J2_TCR_PTP	CHECKED BY:	SLN	Sep-25
J2 Tai Chung Road / Pak Tin Par Street		REFERENCE NO.:	REVIEWED BY:	SLN	Sep-25



NOTES : (GEOMETRIC INPUT DATA)

W	=	MAJOR ROAD WIDTH
W cr	=	CENTRAL RESERVE WIDTH
W b-a	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-a
W b-c	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM b-c
W c-b	=	LANE WIDTH AVAILABLE TO VEHICLE WAITING IN STREAM c-b
Vl b-a	=	VISIBILITY TO THE LEFT FOR VEHICLES WAITING IN STREAM b-a
Vr b-a	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-a
Vr b-c	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM b-c
Vr c-b	=	VISIBILITY TO THE RIGHT FOR VEHICLES WAITING IN STREAM c-b
D	=	STREAM-SPECIFIC B-A
E	=	STREAM-SPECIFIC B-C
F	=	STREAM-SPECIFIC C-B
Y	=	(1-0.0345W)

GEOMETRIC DETAILS:

MAJOR ROAD (ARM A)

W	=	20.00	(metres)
W cr	=	3.4	(metres)
q a-b	=	0	(pcu/hr)
q a-c	=	588	(pcu/hr)

MAJOR ROAD (ARM C)

W c-b	=	0.00	(metres)
Vr c-b	=	0	(metres)
q c-a	=	0	(pcu/hr)
q c-b	=	0	(pcu/hr)

MINOR ROAD (ARM B)

W b-a	=	0.00	(metres)
W b-c	=	4.50	(metres)
Vl b-a	=	0	(metres)
Vr b-a	=	0	(metres)
Vr b-c	=	40	(metres)
q b-a	=	0	(pcu/hr)
q b-c	=	408	(pcu/hr)

GEOMETRIC FACTORS :

D	=	0.53322
E	=	1.00215
F	=	0.58595
Y	=	0.31000
F for (Qb-ac)	=	1

THE CAPACITY OF MOVEMENT :

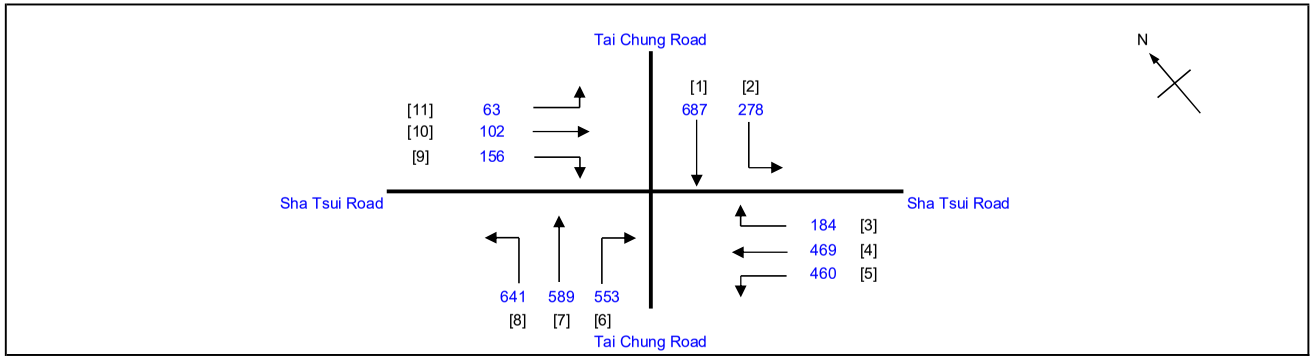
Q b-a	=	324		
Q b-c	=	680	Q b-c (O) =	680
Q c-b	=	398		
Q b-ac	=	680		
TOTAL FLOW	=	996	(PCU/HR)	

COMPARISION OF DESIGN FLOW TO CAPACITY:

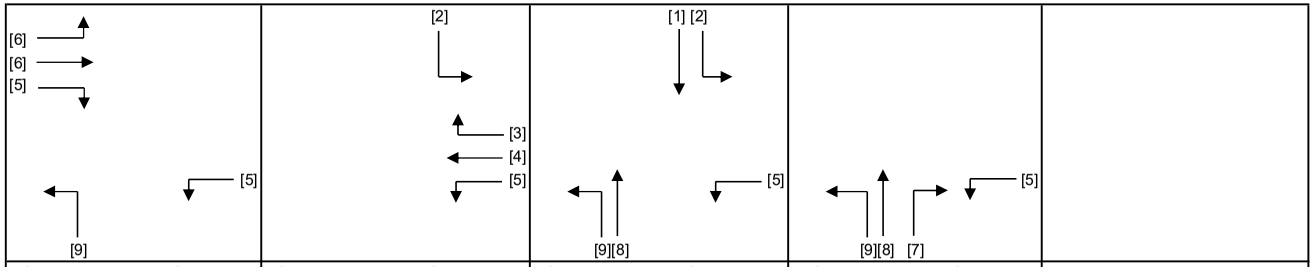
DFC b-a	=	0.0000
DFC b-c	=	0.6000
DFC c-b	=	0.0000
DFC b-c (share lane)	=	0.6000

CRITICAL DFC = 0.60

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2033 Reference AM**	PROJECT NO.: 40999	Prepared By:	SKL	Sep-25
		FILENAME : J3_TCR_STR.xlsx	Checked By:	SLN	Sep-25
J3 Tai Chung Road / Sha Tsui Road			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	4
Cycle time		C =	112 sec
Sum(y)		Y =	0.533
Loss time		L =	19 sec
Total Flow		=	3722 pcu
Co	= (1.5*L+5)/(1-Y)	=	71.7 sec
Cm	= L/(1-Y)	=	40.7 sec
Yult		=	0.758
R.C.ult	= (Yult-Y)/Y*100%	=	42.1 %
Cp	= 0.9*L/(0.9-Y)	=	46.6 sec
Ymax	= 1-L/C	=	0.830
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**40 %**



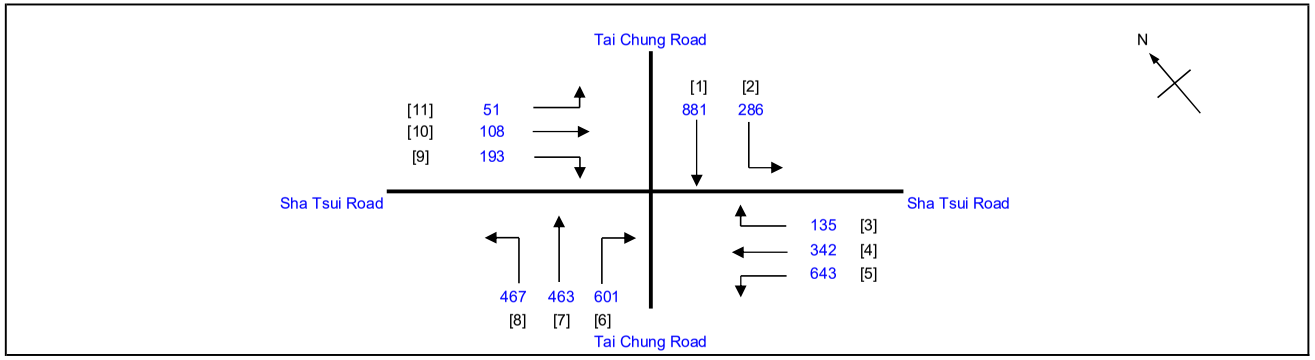
Stage 1	G= 14	Stage 2	G= 27	Stage 3	G= 19	Stage 4	G= 29
	Int = 7		Int = 8		Int =		Int = 7

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG

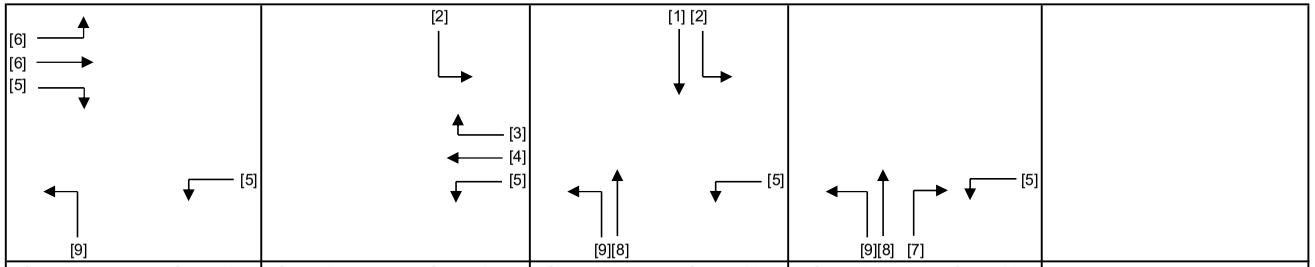
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							19					
10,11	1	3.40	1	8		N	1955	63	96		159	0.40	1820							1820	0.087	0.087		15	15	0.642	24	53
9,10	1	3.20	1	13			2075		6	156	162	0.96	1868							1868	0.087			15	15	0.642	24	53
2	2,3	3.00	2	12		N	3970	278			278	1.00	3529							3529	0.079			14	47	0.642	21	49
1	3	3.00	3				6165		687		687	0.00	6165							6165	0.111			19	19	0.642	34	41
4	2	3.80	1				2135		342		342	0.00	2135							2135	0.160			28	28	0.642	42	39
3,4	2	3.00	1	15			2055		127	184	311	0.59	1940							1940	0.160	0.160		28	28	0.642	42	40
8	1,3,4	3.10	1	20		N	1925	641			641	1.00	1791							1791	0.358			62	65	0.642	48	18
7	3,4	3.10	1				2065		589		589	0.00	2065							2065	0.285	0.285		50	50	0.642	60	25
6	4	3.10	2	12			4130			553	553	1.00	3671							3671	0.151			26	30	0.642	39	38

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2033 Reference PM**	PROJECT NO.: 40999	Prepared By:	SKL	Sep-25
		FILENAME : J3_TCR_STR.xlsx	Checked By:	SLN	Sep-25
J3 Tai Chung Road / Sha Tsui Road			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	4
Cycle time		C =	120 sec
Sum(y)		Y =	0.527
Loss time		L =	20 sec
Total Flow		=	3527 pcu
Co	= (1.5*L+5)/(1-Y)	=	74.1 sec
Cm	= L/(1-Y)	=	42.3 sec
Yult		=	0.750
R.C.ult	= (Yult-Y)/Y*100%	=	42.2 %
Cp	= 0.9*L/(0.9-Y)	=	48.3 sec
Ymax	= 1-L/C	=	0.833
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**42 %**



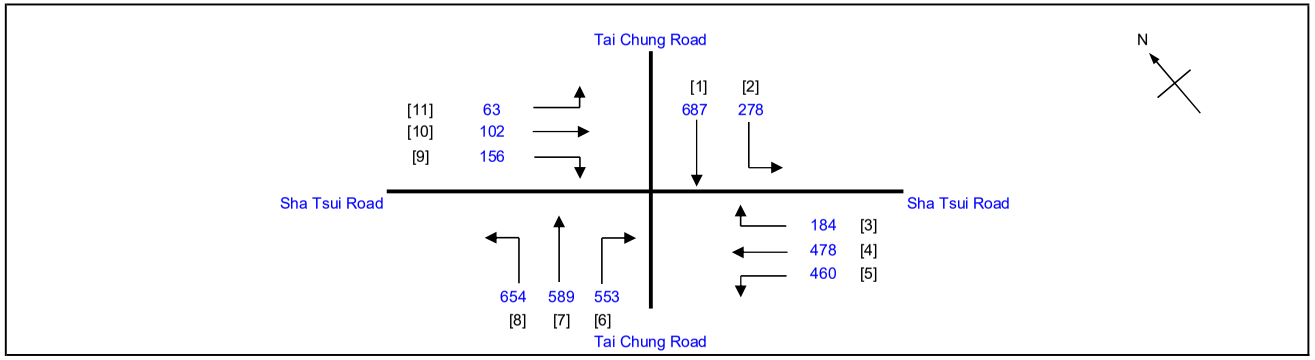
Stage 1	G= 19	Stage 2	G= 21	Stage 3	G= 26	Stage 4	G= 30
	Int = 7		Int = 5		Int = 5		Int = 7

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG

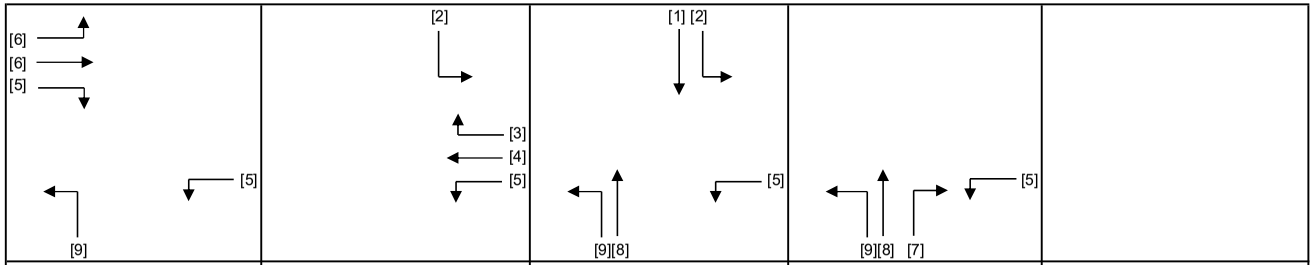
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
10,11	1	3.40	1	8		N	1955	51	108		159	0.32	1844							1844	0.086			16	20	0.633	24	55
9,10	1	3.20	1	13			2075		0	193	193	1.00	1860							1860	0.104	0.104		20	20	0.633	30	51
2	2,3	3.00	2	12		N	3970	286			286	1.00	3529							3529	0.081			15	49	0.633	24	51
1	3	3.00	3				6165		881		881	0.00	6165							6165	0.143	0.143		27	27	0.633	44	40
4	2	3.80	1				2135		250		250	0.00	2135							2135	0.117	0.117		22	22	0.633	36	48
3,4	2	3.00	1	15			2055		92	135	227	0.59	1940							1940	0.117			22	22	0.633	36	48
8	1,3,4	3.10	1	20		N	1925	467			467	1.00	1791							1791	0.261			49	78	0.633	54	29
7	3,4	3.10	1				2065		463		463	0.00	2065							2065	0.224			43	58	0.633	54	33
6	4	3.10	2	12			4130			601	601	1.00	3671							3671	0.164	0.164		31	31	0.633	42	38

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2033 Design AM**	PROJECT NO.: 40999	Prepared By:	SKL	Sep-25
		FILENAME : J3_TCR_STR.xlsx	Checked By:	SLN	Sep-25
J3 Tai Chung Road / Sha Tsui Road			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	4
Cycle time		C =	112 sec
Sum(y)		Y =	0.535
Loss time		L =	19 sec
Total Flow		=	3744 pcu
Co	= (1.5*L+5)/(1-Y)	=	72.1 sec
Cm	= L/(1-Y)	=	40.9 sec
Yult		=	0.758
R.C.ult	= (Yult-Y)/Y*100%	=	41.6 %
Cp	= 0.9*L/(0.9-Y)	=	46.9 sec
Ymax	= 1-L/C	=	0.830
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**40 %**



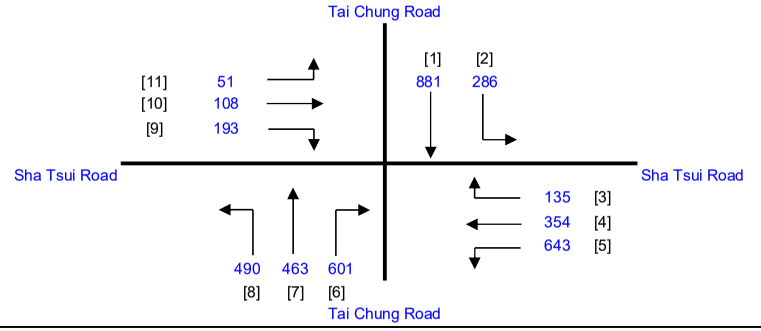
Stage 1	G= 14	Stage 2	G= 27	Stage 3	G= 19	Stage 4	G= 29
	Int = 7		Int = 8		Int =		Int = 7

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG

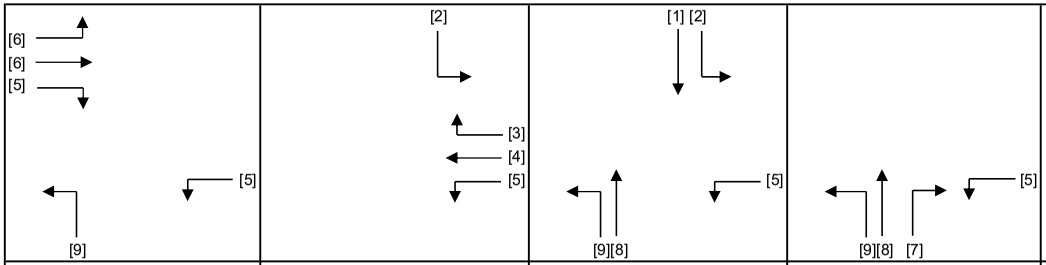
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							19					
10,11	1	3.40	1	8		N	1955	63	96		159	0.40	1820							1820	0.087	0.087		15	15	0.644	24	53
9,10	1	3.20	1	13			2075		6	156	162	0.96	1868							1868	0.087			15	15	0.644	24	53
2	2,3	3.00	2	12		N	3970	278			278	1.00	3529							3529	0.079			14	48	0.644	21	49
1	3	3.00	3				6165		687		687	0.00	6165							6165	0.111			19	19	0.644	34	42
4	2	3.80	1				2135		347		347	0.00	2135							2135	0.163	0.163		28	28	0.644	48	39
3,4	2	3.00	1	15			2055		131	184	315	0.58	1942							1942	0.162			28	28	0.644	42	40
8	1,3,4	3.10	1	20		N	1925	654			654	1.00	1791							1791	0.365			63	65	0.644	48	18
7	3,4	3.10	1				2065		589		589	0.00	2065							2065	0.285	0.285		50	50	0.644	60	25
6	4	3.10	2	12			4130			553	553	1.00	3671							3671	0.151			26	30	0.644	39	38

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

LLA CONSULTANCY LIMITED	**TRAFFIC SIGNAL CALCULATION**			INITIALS	DATE
Application for Planning Permission Under Section 16 of the Town Planning Ordinance (Cap. 131) for Proposed Hotel Use and Minor Relaxation of Plot Ratio and Building Height Restrictions at "Other Specified Uses" Annotated "Business" Zone at Tsun Wan Inland Lot No. 46 S.C, Nos. 46-48 Pak Tin Par Street, Tsuen Wan, New Territories	**2033 Design PM**	PROJECT NO.: 40999	Prepared By:	SKL	Sep-25
		FILENAME : J3_TCR_STR.xlsx	Checked By:	SLN	Sep-25
J3 Tai Chung Road / Sha Tsui Road			Reviewed By:	SLN	Sep-25



No. of stages per cycle		N =	4
Cycle time		C =	120 sec
Sum(y)		Y =	0.530
Loss time		L =	20 sec
Total Flow		=	3562 pcu
Co	= (1.5*L+5)/(1-Y)	=	74.5 sec
Cm	= L/(1-Y)	=	42.6 sec
Yult		=	0.750
R.C.ult	= (Yult-Y)/Y*100%	=	41.4 %
Cp	= 0.9*L/(0.9-Y)	=	48.7 sec
Ymax	= 1-L/C	=	0.833
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	**=**	**41 %**



Stage 1	G= 19	Stage 2	G= 22	Stage 3	G= 26	Stage 4	G= 30
	Int = 7		Int = 5		Int = 5		Int = 7

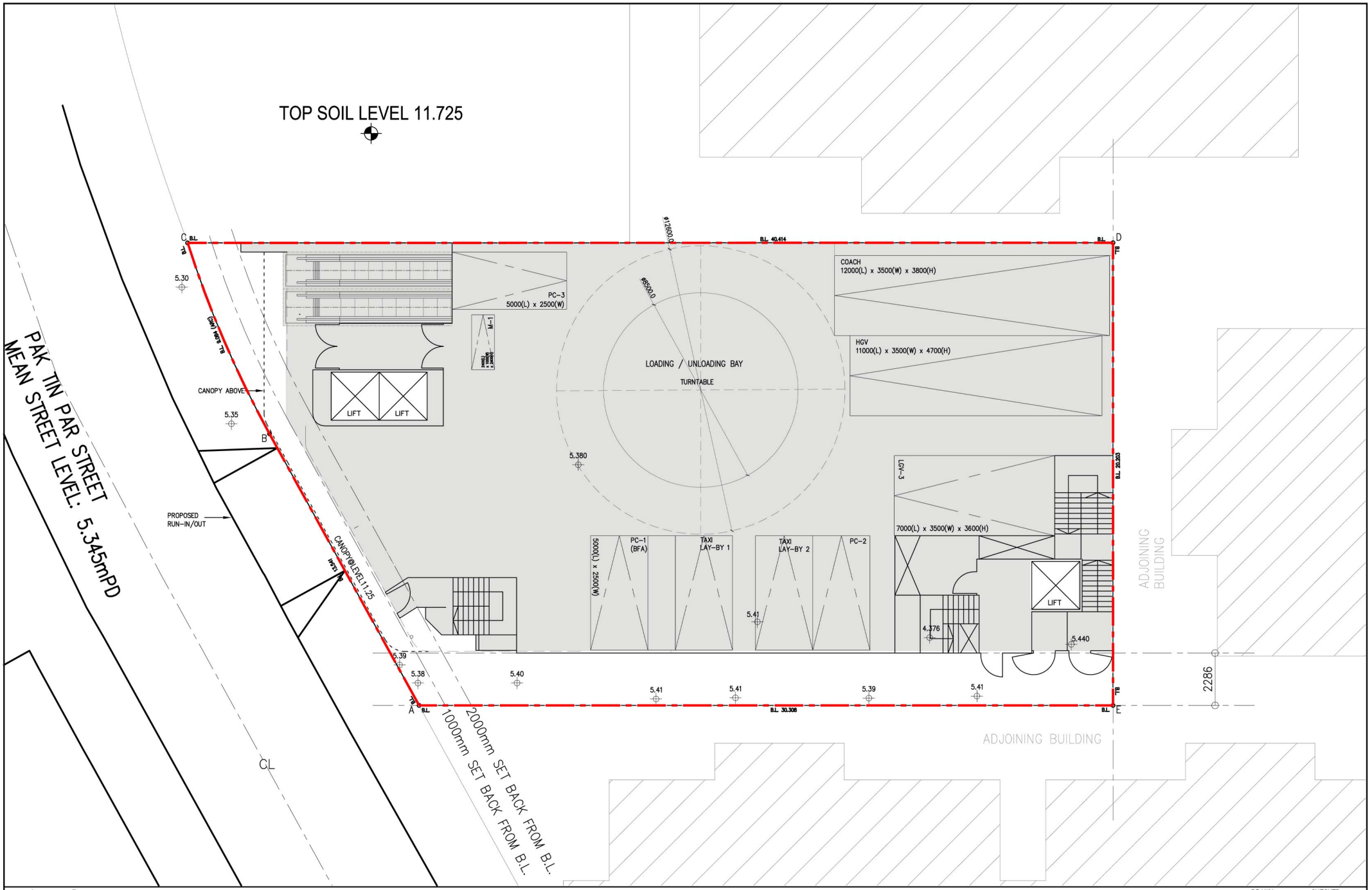
Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG

Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total Flow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. Flow pcu/h	y	Greater y	L sec	g (required) sec	g (input) sec	Degree of Saturation X	Queue Length (m / lane)	Average Delay (seconds)
																							20					
10,11	1	3.40	1	8		N	1955	51	108		159	0.32	1844							1844	0.086			16	20	0.636	24	56
9,10	1	3.20	1	13			2075		0	193	193	1.00	1860							1860	0.104	0.104		20	20	0.636	30	52
2	2,3	3.00	2	12		N	3970	286			286	1.00	3529							3529	0.081			15	50	0.636	24	51
1	3	3.00	3				6165		881		881	0.00	6165							6165	0.143	0.143		27	27	0.636	44	40
4	2	3.80	1				2135		256		256	0.00	2135							2135	0.120			23	23	0.636	36	47
3,4	2	3.00	1	15			2055		98	135	233	0.58	1942							1942	0.120	0.120		23	23	0.636	36	48
8	1,3,4	3.10	1	20		N	1925	490			490	1.00	1791							1791	0.274			52	77	0.636	54	28
7	3,4	3.10	1				2065		463		463	0.00	2065							2065	0.224			42	58	0.636	54	33
6	4	3.10	2	12			4130			601	601	1.00	3671							3671	0.164	0.164		31	31	0.636	42	39

NOTE : O - OPPOSING TRAFFIC N - NEAR SIDE LANE SG - STEADY GREEN FG - FLASHING GREEN PEDESTRAIN WALKING SPEED = 1.2m/s QUEUING LENGTH = AVERAGE QUEUE * 6m

Appendix C

Indicative Ground Floor Layout Plan



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REVISION

PROJECT
PROPOSED MINOR RELAXATION OF PLOT RATIO (PR) AND BUILDING HEIGHT RESTRICTIONS (BHR) FOR PROPOSED HOTEL USE IN "OTHER SPECIFIED USES" ANNOTATED "BUSINESS" ("OU(B)") ZONE AT TSUEN WAN INLAND LOT (TWIL) 46 S.C

TITLE
GROUND FLOOR PLAN

DRAWN	CHECKED
RC	NH
SCALE 1:150	DATE 01-09-25
JOB NO. 2520	DRAWING NO. 2520-DWG-01