Appendix 2

Traffic Impact Assessment

Document Status Control Record

Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

Traffic Impact Assessment Report

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1 INTRODUCTION

1.1 Background

1.1.1 The owner of the Site at No. 29 On Chun Street, Ma On Shan (hereafter, referred as "the Site") proposes to develop the Site with 772 nos. of residential flats with commercial facilities and an Exhibition/Convention Hall (hereafter, referred as "the proposed development").

1.1.2 For this proposal, it is necessary to seek S16 approval from the Town Planning Board for the proposed Exhibition/Convention Hall at L1 under the Approved Ma On Shan Outline Zoning Plan ("Approved OZP") No. S/MOS/28. The location of the Site is shown in **Figure 1.1**.

1.1.3 LLA Consultancy Limited was commissioned to undertake a traffic impact assessment study to assess the potential traffic impact on the adjacent road networks generated by the proposed 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 Site;
- to estimate the volume of traffic that will be induced by the proposed development;
- to assess the future traffic situation of the surrounding network in vicinity of the Site;
- to appraise the potential vehicular and pedestrian traffic impact of the proposed development;
- to recommend the transport facilities provisions in the proposed development.

2 THE PROPOSED DEVELOPMENT

2.1 The Development Site

2.1.1 As shown in **Figure 1.1**, the existing 18-storey (including basement) hotel, namely Horizon Suite, is located at No. 29 On Chun Street, Ma On Shan, Shatin. The existing hotel has a single frontage at On Chun Street at the south-eastern side.

2.1.2 At present, a run-in and a run-out are located at On Chun Street and there are internal parking and loading/unloading facilities provided at the L1 floor (street level) and basement floor of the existing hotel.

2.2 Proposed Development Content

2.2.1 **Table 2.1** summarizes the key development parameters of the proposed development.

Table 2.1 Key Development Parameters

Parameters	Existing Hotel	Proposed Development
Site Area	8,000 m^2	
Number of Hotel Rooms	831	-
Number of Residential Flats	-	772
Average Flat Size between 40 – 70 m^2	-	722
Average Flat Size between 70 – 100 m^2	-	50
GFA for Commercial Facilities [a]	4,776 m^2	3,067 m^2
GFA for Exhibition/Convention Hall [b]	-	998 m^2 (1)
Sub-Total [a] + [b]	4,776 m^2	4,065m^2

Note: (1) The capacity of the proposed exhibition/convention hall is 500 persons, including 450 visitors and 50 staff.

2.2.2 It should be noted that an exhibition or convention hall is incorporated in the proposed development to meet the possible demand in the community. At present, around 212,400 residents are residing in Ma On Shan area. The area is served by only one community centre (i.e. Heng On Estate Community Centre) and one community hall (i.e. Lee On Community Hall) managed by the Home Affairs Department ("HAD"). According to the booking records of the HAD, community halls are often fully booked two months in advance. As there are demands for venues for holding exhibitions and events in Ma On Shan, the proposed Exhibition or Convention Hall with a spacious setting would help to complement the existing available facilities.

3 EXISTING TRAFFIC SITUATION

3.1 Existing Traffic Conditions

3.1.1 The existing hotel has a single frontage at On Chun Street in which the run-in and the run-out located. The section of On Chun Street adjacent to the existing hotel, is a one-way circulating local road connecting to On Yuen Street.

3.1.2 On Yuen Street is a dual carriageway connecting to Sai Sha Road. At both ends of On Yuen Road are signalised junctions with On Chun Street and Sai Sha Road, respectively.

3.1.3 Sai Sha Road is a district distributor and is the major road running through the centre of Ma On Shan area in north-south direction. The section of Sai Sha Road, between On Yuen Road and Sui Tai Road, carried an Average Annual Daily Traffic (AADT) of 26,640 vehicles in 2022.

3.2 Traffic Count Survey

3.2.1 In order to examine the traffic situation of the local road network, traffic count surveys were carried out on 4 September 2024 (Wednesday) during AM and PM peak periods at the following key junctions in the vicinity of the Site. The locations of the surveyed junctions and the Area of Influence are presented in **Figure 3.1.**

- On Chun Street / On Yuen Street
- On Yuen Street / Sai Sha Road
- Sai Sha Road / Hang Hong Street

3.2.2 The identified AM and PM peak hours are 07:30 – 08:30 and 18:30 – 19:30, 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. The assessment results are tabulated in **Table 3.2** and the detailed calculation sheets are presented in **Appendix A**.

Table 3.2 Existing Junction Performance

No.	Junction	Type/ Capacity Index(1)	AM Peak	PM Peak
J1	On Chun Street / On Yuen Street	Signalized/RC	70%	92%
J2	On Yuen Street / Sai Sha Road	Signalized/RC	25%	24%
J3	Sai Sha Road / Hang Hong Street	Signalized/RC	44%	72%

Note: (1) RC = Reserve capacity for signalized junction.

3.3.2 It can be seen from **Table 3.2** that all assessed junctions in vicinity of the Site are operating satisfactorily during both AM and PM peak hours.

3.4 Existing Public Transport Facilities

3.4.1 Public transport provision in this area is abundant with MTR, bus and minibus services. MTR Ma On Shan Station is located at 600m walking distance. Furthermore, there are many buses and green minibuses running along On Chun Street and Sai Sha Road. The Site, therefore, is highly accessible by public transport facilities. **Table 3.3** shows the existing bus/minibus routes serving in vicinity of the Site. The public transport facilities are presented in **Figure 3.3**.

Table 3.3 Existing Public Transport Routes

Mode	Route No.	Origin-Destination	Frequency (min)
Bus	33R(1)	Tsuen Wan (Discovery Park) – Pak Tam Chung	60
	40X	Wu Kai Sha Station – Kwai Chung Estate	9 – 25
	74R(1)	Tai Po (Tai Wo) – Pak Tam Chung	60
	85M(2)	Kam Ying Court – Wong Tai Sin	15 – 25
	85X	Ma On Shan Town Centre – Hung Hom (Hung Luen Road)	12 – 30
	86C	Lee On – Cheung Sha Wan	20 – 30
	86K	Kam Ying Court – Shatin Station	11 – 25
	86S(3)	Kam Ying Court – Shatin Station	9 trips per day
	87D	Kam Ying Court – Hung Hom Station	8 – 20
	87K(2)	University Station – Kam Ying Court	6 – 12
	87P(3)	Lee On – Chung On	3 trips per day
	89D	Wu Kai Sha Station – Lam Tin Station	6 – 25
	89P(3)	Ma On Shan Town Centre – Lam Tin Station	5 – 10
	89S(2)	Yuen Chau Kok – Wu Kai Sha Station	20 – 30
	97	Wu Kai Sha Station – Hong Sing Garden	2 trips per day
	99	Hung On – Sai Kung	15 – 30
	99R(1)	University Station – Sai Kung North (Sai Kung Police Station)	60
	274(3)	Sheung Shui (Tai Ping) – Wu Kai Sha Station	2 trips per day
	274P(3)	Wu Kai Sha Station – Tai Po Industrial Estate	18 trips per day
	286C(3)	Lee On – Cheung Sha Wan (Hoi Tat Estate)	9 – 30
	286M(2)	Ma On Shan Town Centre – Diamond Hill Station	4 trips per day
	287D(3)	Hung Hom Station – Kam Ying Court	2 trips per day
	581	Ma On Shan Town Centre – Sai Sha and Shap Sze Heung	30
	680	Lee On – Admiralty Station (East)	12 – 30
	680P(3)	Wu Kai Sha Station – Admiralty Station (East)	3 trips per day
	680X(3)	Wu Kai Sha Station – Central (Macau Ferry)	8 trips per day
	681	Central (Hong Kong Station) – Ma On Shan Town Centre	9 – 30
	682	Ma On Shan (Wu Kai Sha Station) – Chai Wan (East)	10 – 30

Mode	Route No.	Origin-Destination	Frequency (min)
	682A(3)	Nai Chung – Chai Wan (East)	5 trips per day
	682P(3)	Wu Kai Sha Station – Chai Wan (East)	3 trips per day
	980X(3)	Wu Kai Sha Station – Wan Chai (Fleming Road)	18 trips per day
	988(3)	Nai Chung – Chai Wan (East)	7 trips per day
	A41P	Wu Kai Sha Station – Airport (Ground Transportation Centre)	20 – 40
	N42(4)	Yiu On Bus Terminus – Tung Chung Station	3 trips per day
	N281(4)	Kam Ying Court – Hung Hom Station	25 – 30
	N287(4)	Tsim Sha Tsui East (Mody Road) – Wu Kai Sha Station	3 trips per day
	N680(4)	Central (Macau Ferry) – Kam Ying Court	20 – 30
	NA40(4)	Wu Kai Sha Station – HZMB Hong Kong Port	7 trips per day
GMB	26	The Education University of Hong Kong – Bayshore Towers, Ma On Shan	6 – 9
	803	Hin Keng – Lee On	5 – 15
	805S(4)	Kam Ying Court – Mong Kok	5 – 12
	807A	University Station – Ma On Shan Station (Bayshore Towers, Sai Sha Road)	6 – 20
	807B	Ma On Shan Station (Bayshore Towers Public Transport Interchange) – Wong Chuk Wan	12 – 15
	807C	University Station – Ma On Shan Station (Bayshore Towers Public Transport Interchange)	6 – 20
	807K	University Station – Tseng Tau	6 – 15
	808	Kam Ying Court – Prince of Wales Hospital	6 – 8
	810	Shatin Town Central – Ma On Shan (Villa Athena)	6 – 15
	810A	White Head – Sha Tin Central	30
	811S(2)	Sui Wo Court – Yiu On (Hang Hong Street)	20 – 30

Note: (1) Route operates during Sundays and Holidays only.
(2) Circular route.
(3) Route operates during morning and/or afternoon peak only.
(4) Overnight service.

3.5 Pedestrian Connectivity

3.5.1 The pedestrian route from the proposed development to Ma On Shan MTR Station and the nearest Public Transport Interchange is shown in **Figure 3.3**. On site observation along the route is not busy.

3.6 Existing Footpath Capacity Assessment

3.6.1 It is anticipated that most of the pedestrians to be generated and attracted by the proposed development will use the public transport services in its vicinity, i.e. MTR Ma On Shan Station The pedestrians to be generated by the proposed development are anticipated to access the public transport services on foot via the local footpath system as shown in **Figure 3.4**.

3.6.2 An assessment of the level-of-service (**LOS**) was conducted for the foregoing footpath sections to appraise their existing performances. **Table 3.4** is an extract of the definition of pedestrian walkway LOS according to the Highway Capacity Manual.

Table 3.4 Description of Level-of-service

LOS	Flow (ped/m/min)	Description
A	≤16	Pedestrians basically move in desired paths without altering their movements in response to other pedestrians. Walking speeds are freely selected, and conflicts between pedestrians are unlikely.
B	16-23	Sufficient space is provided for pedestrians to freely select their walking speeds, to bypass other pedestrians and to avoid crossing conflicts with others. At this level, pedestrians begin to be aware of other pedestrians and to respond to their presence in the selection of walking paths.
C	23-33	Sufficient space is available to select normal walking speeds and to bypass other pedestrians primarily in unidirectional stream. Where reverse direction or crossing movement exist, minor conflicts will occur, and speed and volume will be somewhat lower.
D	33-49	Freedom to select individual walking speeds and bypass other pedestrians is restricted. Where crossing or reverse flow movements exist, the probability of conflicts is high and its avoidance requires changes of speeds and position. The LOS provides reasonable fluid flow; however, considerable friction and interactions between pedestrians are likely to occur.
E	49-75	Virtually, all pedestrians would have their normal walking speeds restricted. At the lower range of this LOS, forward movement is possible only by shuffling. Space is insufficient to pass over slower pedestrians. Cross- and reverse-movement are possible only with extreme difficulties. Design volumes approach the limit of walking capacity with resulting stoppages and interruptions to flow.
F	>75	Walking speeds are severely restricted. Forward progress is made only by shuffling. There are frequent and unavoidable conflicts with other pedestrians. Cross- and reverse-movements are virtually impossible. Flow is sporadic and unstable. Space is more characteristics of queued pedestrians than of moving pedestrian streams.

Notes: (1) source: Highway Capacity Manual 2000 published by the US Transportation Research Board
(2) ped/m/min = pedestrians per metre per minute

3.6.3 Based on the pedestrian movements data collected during AM an PM peak periods on 13 January 2025 and 3 March 2025 the LOS of the footways in accommodating the existing pedestrian movements have been assessed and the results of the assessment are summarised in **Table 3.5**.

Table 3.5 Existing Capacity Analysis of the Concerned Footpaths

Ref.	Location	Actual Width (m)	Effective Width (m)(1)	Peak Hour flow (ped/hr)		Flow Rate(2) ped/m/min [LOS]	
				AM	PM	AM	PM
P1	Eastern footpath of On Chun Street	3.9	2.9	51	48	0.3 [A]	0.3 [A]
P2	Southern footpath of On Chun Street	3.9	2.9	453	401	2.6 [A]	2.3 [A]
P3	Southern footpath of On Chun Street (near The Waterside)	2.7	1.7	597	693	5.9 [A]	6.8 [A]
P4	Eastern footpath of On Yuen Street	3.7	2.7	523	370	3.2 [A]	2.3 [A]
P5	Northern footpath of Sai Sha Road	3.4	2.4	388	553	2.7 [A]	3.8 [A]

Notes: (1) A clearance zone of 0.5m on side with obstruction was adopted.
(2) For LOS "C" or above, flow volumes should be less than 33 ped/m/min.

3.6.4 The results of the assessment have indicated that the existing footpath conditions are satisfactory in both AM and PM Peak hours with LOS "A" according to the Highway Capacity Manual.

4 FUTURE TRAFFIC SITUATION

4.1 Design Year

4.1.1 It is anticipated that the proposed development can be operated by 2028. To consider 3 years after the planned completion of the proposed development, a design year of 2031 will be adopted in this study.

4.2 Planned/Committed Developments

4.2.1 To estimate the future traffic flows, updated information is being obtained from available information regarding the planned and approved developments in the vicinity of the study area and the details of these developments are given in **Table 4.1**.

Table 4.1 Planned / Committed Developments

Ref.	Development	Proposed Use	Content	Anticipated Completion Year
1	STTL 600 – CDA(1) (1)	Student Hostel	2,236 units	2025
2	STTL 611 – R(C)3	Private Housing	160 units	2022
3	Sai Sha Development (2)	Private Housing	9,700 units	2025/2030
		Commercial	12,077 m^2 GFA	
		Recreation & Sport Centre	17,500 m^2 GFA	
		Social Welfare	5,560 m^2 GFA	
4	Proposed School Development at Various Lots and Adjoining Government Land in DD167, Nai Chung (3)	School	29 classrooms	2025
5	Cheung Muk Tau Tsuen West Housing Development Site 1 (4)	Public Residential	1,660 units	2029/2030
		Retail	1,550 m^2 GFA	
		Kindergarten	7 classrooms	
		Child Care Centre	100 places	
6	Cheung Muk Tau East Housing Development Site 2 (4)	Public Residential	1,820 units	2029/2030
		Retail	1,700 m^2 GFA	
		Day Care Centre for the Elderly (DE)	80 places	
		RCHE	150 places	
7	Cheung Muk Tau Holiday Centre Expansion	RCHE	200 places	2026
8	Public Housing Development at Ma On Shan Tsuen	Public Housing	2,700 units	2029/2030
9	Kam Chun Court	Public Housing	2,079 units	2023
10	Kam Pak Court	Public Housing	1,900 units	2024/2025

Notes: (1) Reference was made to Planning Application No. A/MOS/96, the proposed development will have a total of 2,236 units (2,168 hostel units and 68 overnight staff accommodation units).
(2) Reference was made to the TIA report of Planning Application No. A/NE-SSH/142.
(3) Reference was made to the gist of Planning Application No. A/MOS/125.
(4) Reference was made to the planning brief published by the Planning Department in April 2023.

4.2.2 Reference was also made to the latest set of traffic generation and attraction rates published by TD for the estimation of the traffic generated by these developments. The traffic generation /attraction by these adjacent developments are taken into account in the following assessment.

4.3 Development Traffic Generation

Traffic Generation of Existing Hotel

4.3.1 A trip generation survey at the existing hotel was carried out previously on 4 September 2024 (Wednesday). Based on the survey result, the recorded traffic generation are presented in **Table 4.2**.

Table 4.2 Recorded Traffic Generation of the Existing Hotel

Type	Unit/Content	AM Peak Hour			PM Peak Hour		
		Gen.	Att.	2-way	Gen.	Att.	2-way
Surveyed Traffic Generation of the Existing Building							
Hotel	831 rooms	55	40	95	30	38	68
Retail	4,776m^2	3	4	7	6	8	14
Total		**58**	**44**	**102**	**36**	**46**	**82**

Traffic Generation of Residential and Retail Component of the Proposed Development

4.3.2 Based on the proposed development parameters as listed in **Section 2.2**, the traffic generated and attracted by the residential and retail component of proposed development is estimated and presented in **Table 4.3**.

Table 4.3 Traffic Generation of the Residential and Retail Components of the Proposed Development

Type		Unit/Content	AM Peak Hour			PM Peak Hour		
			Gen.	Att.	2-way	Gen.	Att.	2-way
Adopted Trip Rates								
Private Housing – 60m^2 (1)		pcu/hr/flat	0.0718	0.0425	-	0.0286	0.0370	-
Private Housing – 100m^2 (1)		pcu/hr/flat	0.1887	0.0942	-	0.0862	0.1214	-
Retail (1)		pcu/hr/100m^2	0.2296	0.2434	-	0.3100	0.3563	-
Traffic Generation of the Proposed Development								
Residential	40-70 m^2	722 flats	52	31	83	21	27	48
	70-100 m^2	50 flats	10	5	15	5	7	12
Retail		3,067 m^2	8	8	16	10	11	21
Sub-Total			**70**	**44**	**114**	**36**	**45**	**81**

Notes: Gen. – Generation; Att. – Attraction.
(1) Mean trip rates for private housing and retail use are adopted from the TPDM.

Traffic Generation of Exhibition/Convention Hall Component of the Proposed Development

4.3.3 Having considered the exhibition/convention hall aims to provide a venue for the public to arrange various events including exhibitions, conventions, conferences, receptions, trade fairs and ceremonies on a district basis, it is anticipated the visitors will travel to/from the Exhibition or Convention Hall on foot or by public transport facilities. For conservative assessment purpose, a nominal one-way trip of 10 pcu/hr will be adopted.

Additional Traffic Generation of the Proposed Development

4.3.4 Based on the above, the proposed development will generate a two-way traffic of 134 pcu/hour and 101 pcu/hour during AM peak hour and PM peak hour, respectively. As compared with the existing hotel in **Table 4.2**, the net change in development traffic is shown in **Table 4.4**.

Table 4.4 Net Change in Development Traffic Generation

Use	AM Peak Hour			PM Peak Hour		
	Gen.	Att.	Total	Gen.	Att.	Total
Existing Hotel **(A)**	58	44	102	36	46	82
Proposed Development **(B)**	**80**	**54**	**134**	**46**	**55**	**101**
Net Change **(B) – (A)**	**22**	**10**	**32**	**10**	**9**	**19**

4.3.5 As shown in **Table 4.4**, the proposed development would generate 32 pcu/hr and 19 pcu/hr additional traffic during AM peak hour and PM peak hour, respectively. The change in development traffic flows are assigned onto the road network based on the observed traffic pattern for assessment. The estimated distribution pattern of the development traffic is shown in **Figure 4.1**.

4.4 Traffic Forecast

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 Transport Department, reporting on the AADT at the counting stations in the territory. The details of the counting stations in the study area and the corresponding counts are shown in **Table 4.5**.

Table 4.5 Annual Traffic Census Data

Stn. No.	Road Section			AADT[(1)]					Avg. Growth%
	Road	From	To	2019	2020	2021	2022	2023	
5275	On Chiu Street	On Chun Street	Sai Sha Road	10,280	9890 (-3.8%)	10360 (4.8%)	9900 (-4.4%)	9030 (-8.8%)	-3.2%
5281	Sai Sha Road	On Chiu Street	On Yuen Street	12,560	12080 (-3.8%)	12650 (4.7%)	12100 (-4.3%)	14840 (22.6%)	4.3%
5683	Sai Sha Road	On Yuen Street	Sui Tai Road	23,270	24950 (7.2%)	27860 (11.7%)	26640 (-4.4%)	26670 (0.1%)	3.5%
5883	On Yuen Street	Sai Sha Road	On Chun Street	11,510	11070 (-3.8%)	12520 (13.1%)	10570 (-15.6%)	10580 (0.1%)	-2.1%
6072	On Chun Street	On Chiu Street	On Yuen Street	6,940	6680 (-3.7%)	6990 (4.6%)	6160 (-11.9%)	6000 (-2.6%)	-3.6%
6078	On Luk Street	Sai Sha Road	On Shing Street	12,780	12290 (-3.8%)	12870 (4.7%)	11380 (-11.6%)	11660 (2.5%)	-2.3%
Total				**77,340**	**76960 (-0.5%)**	**83250 (8.2%)**	**76750 (-7.8%)**	**78780 (2.6%)**	**+0.5%**

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

4.4.2 **Table 4.5** showed that the recorded average annual growth rate of the concerned counting stations is +0.5% between years 2019 to 2023.

4.4.3 Reference was also made to the 2019 based Territorial Population and Employment Data Matrix (TPEDM) published by the Planning Department. The population and employment data of year 2019 and 2031 are summarized in **Table 4.6**.

Table 4.6 TPEDM – Ma On Shan District

Year	Population	Employment	Total
2019	219,950	34,100	254,050
2031	229,800	35,100	264,900
		Average Annual Growth Rate	**0.35%**

4.4.4 As shown in **Table 4.6**, the average annual growth rate of Ma On Shan district is +0.35% between the years 2019 to 2031 and will be adopted for the subsequent traffic forecasting. Having considered the rates derived from ATC and TPEDM data, to be conservative, the largest growth rate of +0.5% will be adopted for the subsequent traffic forecasting.

4.5 2031 Reference and Design Flows

4.5.1 The 2031 Reference Flows, i.e. the traffic flows in the vicinity without the proposed development, were estimated based on the following equation.

2031 Reference Flows = 2024 Existing Flows x $(1 + 0.5\%)^7$ +Traffic Flows Generated by Planned/committed Developments

4.5.2 The 2031 Design Flows, i.e. the traffic flows in the local road network with the traffic generated by the proposed development, were estimated based on the following equation:

2031 Design Flows = 2031 Reference Flows + Change in Traffic Flows Generated by the Proposed Development

4.5.3 The 2031 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 2031. The assessment results are shown in **Table 4.7** and the detailed calculation sheets are presented in **Appendix B**.

Table 4.7 2031 Junction Capacity Assessment

No.	Junction	Type/Capacity Index(1)	2031 Reference		2031 Design	
			AM	PM	AM	PM
J1	On Chun Street / On Yuen Street	Signalized/RC	65%	85%	60%	81%
J2	On Yuen Street / Sai Sha Road	Signalized/RC	21%	16%	19%	15%
J3	Sai Sha Road / Hang Hong Street	Signalized/RC	33%	61%	32%	60%

Note: (1) RC = Reserve capacity for signalised junction.

4.7 As shown in **Table 4.7**, all junctions will operate satisfactorily in both 2031 Reference and Design scenarios. Therefore, the proposed development will not induce adverse traffic impact on junctions in the vicinity.

4.8 Pedestrian Traffic Generation

4.8.1 In order to identify the sufficiency of pedestrian facilities and public transport services, additional passenger generated by the proposed development should be estimated. As there are no pedestrian trip rates established in TPDM, two methodologies were introduced to estimate the pedestrian generation and attraction based on design population (for residential component) and in-house pedestrian trip generation surveys conducted at buildings with similar uses (for residential and retail components). The methodology that results in larger number would be adopted for conservative assessment purpose.

Estimated Pedestrian Trip Rates based on Design Population

4.8.2 The overall population of the residential component of the proposed development is 2,162.

4.8.3 Reference has been made to the published "Travel Characteristics Survey (TCS) 2011 Final Report". According to the Report, the daily mechanized trip rate per population is 1.83 trips (two-way) and the morning and evening peak hour accounted for about 12% of the daily trips for the two-way trips. It is assumed that 90% of the trips are in outbound direction in the AM peak hour. Based on the above, the estimated outbound and inbound trips in AM peak hour are about 428 persons/hr (i.e. 2,162 x 1.83 x 0.12 x 0.9) and 48 persons/hr (i.e. 2,162 x 1.83 x 0.12 x 0.1), respectively. The outbound and inbound trips are swapped for PM peak hour, which about 48 persons/hr (i.e. 2,162 x 1.83 x 0.12 x 0.1) would be generated and 428 persons/hr (i.e. 2,162 x 1.83 x 0.12 x 0.9) would be attracted by the proposed development.

4.8.4 The derived pedestrian generation and attraction trip rates during AM peak would be 0.55 persons/hr/unit (i.e. 428 / 772) and 0.06 persons/hr/unit (i.e. 48 / 772). The derived pedestrian generation and attraction trip rates during PM peak would be 0.06 persons/hr/unit (i.e. 48 / 772) and 0.55 persons/hr/unit (i.e. 428 / 772).

Estimated Pedestrian Trip Rates based on Trip Generation Survey

4.8.5 The pedestrian trip generation surveys were conducted on 8 December 2023 (Friday) to collect data for deriving the pedestrian trip rates for each type of development. The survey result and the derived trip rates are presented in **Table 4.8**.

Table 4.8 Pedestrian Trip Rates from Surveyed Buildings

Building (Type of Building)	Address	Unit/ Content	AM Peak Hour			PM Peak Hour		
			Gen.	Att.	2-way	Gen.	Att.	2-way
Pedestrian Generation – Residential (persons/hr)								
The Met. Bliss	15 Hang Kwong Street	364 units	292	81	373	62	182	244
The Entrance	1 Lok Wo Sha Lane	148 units	114	18	132	20	67	87
Pedestrian Generation – Retail (persons/hr)								
Marbella Mall	23 On Chun Street	Around 5,200 m^2	83	125	208	300	312	612
Derived Trip Rates for Residential (persons /hr/unit)								
The Met. Bliss			0.80	0.22	–	0.17	0.50	–
The Entrance			0.77	0.12	–	0.14	0.45	–
Largest Trip Rates (1)			**0.80**	**0.22**	**–**	**0.17**	**0.50**	**–**
Derived Trip Rates for Retail (persons /hr/100 m^2)								
Marbella Mall			**1.60**	**2.40**	**–**	**5.77**	**6.00**	**–**

Note: Gen. – Generation; Att. – Attraction.

(1) The largest rates are adopted for conservative assessment purpose.

4.8.6 By considering the pedestrian trip rates above, the additional pedestrian generation and attraction of the proposed development are also estimated and tabulated in **Table 4.9**.

Table 4.9 Estimated Pedestrian Traffic Generation of the Proposed Development

Use	Unit/ Content	AM Peak			PM Peak		
		Gen.	Att.	Total	Gen.	Att.	Total
Adopted Pedestrian Trip Rates (1)							
Residential (1)	persons/hr /units	0.80	0.22	–	0.17	0.50	–
Retail (2)	persons/hr /100 m^2	1.60	2.40	–	5.77	6.00	–
Estimated Pedestrian Generation of the Proposed Development							
Residential	772 units	618	170	788	132	386	518
Retail	3,067 m^2	50	74	124	177	185	362
Exhibition / Convention Hall (3)	998 m^2	0	500	500	500	0	500
Total		**668**	**744**	**1,412**	**809**	**571**	**1,380**

Notes: Gen. – Generation; Att. – Attraction.

(1) The pedestrian trip rates derived based on pedestrian survey are larger than that based on design population and therefore are adopted for conservative assessment purpose.

(2) The pedestrian trip rates derived in **Table 4.8** are adopted.

(3) Generally, staff will arrive earlier than the visitors to set up the exhibition hall and they will not arrive at the hall in the same hour. However, for conservative assessment purpose, it is assumed all visitors and staff will be attracted to the proposed development in the same hour.

4.8.7 The proposed development is estimated to generate 2-way pedestrian flows of 1,412 and 1,380 persons/ hour during AM and PM peak hours respectively.

4.8.8 In order to establish the mode of transport for the proposed development, reference was made to the 2021 Population Census as shown in **Table 4.10**. Since few mode of transports, such as ferry/vessel is not available in close proximity, company bus/van and school bus are not guarantee to be available, etc, they are excluded from the mode of transports for the proposed development. Their users will be distributed to the available mode of transports on a pro-rata basis.

Table 4.10 Estimated Modal Split for the Proposed Development

Mode	Number of Persons			Percentage	Adjusted Modal Split
	Work [a]	Study [b]	Total [a] + [b]		
MTR (Local line)	106,720	33,518	140,238	39.88%	43.28%
Bus	75,614	17,166	92,780	26.38%	28.63%
On foot only	18,460	25,218	43,678	12.42%	13.48%
Private car / Passenger van	20,746	6,363	27,109	7.71%	8.37%
Public light bus	11,989	5,755	17,744	5.05%	5.48%
Company bus / van	6,758	--	6758	1.92%	N.A. (2)
School Bus	--	14,361	14,361	4.08%	N.A. (2)
Taxi	2,021	439	2,460	0.70%	0.76%
Residential coach service	2,054	781	2,835	0.81%	N.A. (2)
Ferry / Vessel	154	47	201	0.06%	N.A. (2)
Others	3,262	266	3,528	1.00%	N.A. (2)
Total	247,778	103,914	351,692	100.00%	**100%**

Notes: (1) Source: Table B203 and Table C204 of Shatin District in 2021 Population Census.

(2) The transport mode is not applicable to the proposed development. Their users will be distributed to the available mode of transports on a pro-rata basis.

4.8.9 In **Table 4.10**, the adjusted modal split of MTR users for the proposed development is 43.28%. It should be noted that this figure is derived by making reference to the overall Shatin District. In fact, the proposed development site is located at 600m walking distance away from the Ma On Shan MTR Station, the percentage of the MTR users should be significantly more than 43.28% because the number includes remote developments in the Shatin District.

4.8.10 In the subsequent analysis, the pedestrian generation and attraction based on the above adjusted different mode of transports are estimated and presented in AM and PM hour is estimated in **Table 4.11**.

Table 4.11 Estimated Pedestrian Generation and Attraction Based on Different Mode of Transports during AM and PM Peak Hour

Mode of Transport	Adjusted Modal Split	Estimated Peak Hour Pedestrian Flows (persons / hr)					
		AM Peak Hour			PM Peak Hour		
		Gen.	Att.	Total	Gen.	Att.	Total
MTR Station	43.28%	289	322	611	350	248	598
Bus	28.63%	191	213	404	232	163	395
On foot only	13.48%	90	100	190	109	77	186
Private car / Passenger van	8.37%	56	62	118	68	48	116
Public light bus	5.48%	37	41	78	44	31	75
Taxi	0.76%	5	6	11	6	4	10
Total	**100.00%**	**668**	**744**	**1,412**	**809**	**571**	**1,380**

Note: Gen. – Generation; Att. – Attraction.

4.9 Reference and Design Pedestrian Flows

4.9.1 The 2031 Reference Pedestrian Flows, i.e. the pedestrian flows in the local road without the proposed development, were estimated based on the following equation.

2031 Reference Pedestrian Flows = 2025 Existing Pedestrian Flows x $(1 + 0.5\%)^6$ +

4.9.2 The 2031 Design Pedestrian Flows, i.e. the pedestrian flows in the local road network with the proposed development, were estimated based on the following equation:

2031 Design Pedestrian Flows = 2031 Reference Flows + Additional Pedestrians Induced by the proposed development

4.10 Footpath Capacity Assessment

4.10.1 Capacity analysis of the concerned footpath was carried out for the assessment year 2031. The pedestrians generated and attracted by the proposed development that anticipated to travel to/from MTR Ma On Shan Station will use the routings shown in **Figure 3.4**. However, for conservative assessment purposes, all pedestrians are assumed to use the routing at the south of the Site only. The assessment results are shown in **Table 4.12**.

Table 4.12 Year 2031 Capacity Analysis of the Concerned Footpaths

Ref.	Location	Actual Width (m)	Effective Width (m)(1)	Peak Hour flow (ped/hr)		Flow Rate(2) ped/m/min [LOS]	
				AM	PM	AM	PM
2031 Reference Scenario							
P1	Eastern footpath of On Chun Street	3.9	2.9	53	49	0.3 [A]	0.3 [A]
P2	Southern footpath of On Chun Street	3.9	2.9	467	413	2.7 [A]	2.4 [A]
P3	Southern footpath of On Chun Street (near The Waterside)	2.7	1.7	615	714	6.0 [A]	7.0 [A]
P4	Eastern footpath of On Yuen Street	3.7	2.7	539	381	3.3 [A]	2.4 [A]
P5	Northern footpath of Sai Sha Road	3.4	2.4	400	570	2.8 [A]	4.0 [A]
2031 Design Scenario							
P1	Eastern footpath of On Chun Street	3.9	2.9	53	49	0.3 [A]	0.3 [A]
P2	Southern footpath of On Chun Street (near The Tolo Place)	3.9	2.9	467	413	2.7 [A]	2.4 [A]
P3	Southern footpath of On Chun Street (near The Waterside)	2.7	1.7	1,898	1,968	18.6 [B]	19.3 [B]
P4	Eastern footpath of On Yuen Street	3.7	2.7	1,632	1,449	10.1 [A]	8.9 [A]
P5	Northern footpath of Sai Sha Road	3.4	2.4	1,493	1,638	10.4 [A]	11.4 [A]

Notes: (1) A clearance zone of 0.5m on side with obstruction was adopted.
(2) For LOS "C" or above, flow volumes should be less than 33 ped/m/min.

4.10.2 **Table 4.12** shows that the condition of the concerned footpaths will be satisfactory after accommodating the pedestrians generated and attracted by the proposed development in both AM and PM Peak hours with LOS "C" or above.

4.11 Public Transport Assessment – Railway Patronage Capacity

4.11.1 In order to ensure sufficient railway capacity will be able to accommodate for the proposed development, an assessment was conducted to review the rail patronage capacity. Since railway services in AM are generally busier than that in PM, AM peak hour is considered more than critical in conducting railway capacity assessment, the AM scenario is used for analysis purpose.

4.11.2 As shown in **Table 4.11**, 1,412 persons will be induced by the proposed development and 611 persons are anticipated to use railway services during AM peak hour. Taking into consideration the proposed development site is located at 600m walking distance away from the Ma On Shan MTR Station, a conservative assessment is carried out to assume ALL pedestrian traffic generated by the proposed development using the railway services, which 668 persons/hour will be generated from and 744 persons/hour will be attracted to the proposed development.

4.11.3 According to the Legislative Council Paper FCRI(2022-23)18 published in April 2023, the existing morning peak hour loading factor of Tuen Ma Line at critical section (Tsuen Wan West to Mei Foo) in 2022 is 61%, which the passenger demand and capacity (based on 6 passengers per square meter) are 34,700 persons/hour and 58,800 persons /hour, respectively.

4.11.4 In 2031, the passenger demand is projected to be increased to approximately 36,300 persons /hour. The 2031 railway capacity performance is then evaluated by considering the 2031 passenger demand and the additional passengers to be induced by the proposed development. The results are tabulated in **Table 4.13**.

Table 4.13 2031 Railway Capacity Performance

Items	Capacity (persons /hour /direction)	Reference Scenario (see Note 1)	Design Scenarios (see Notes 1, 2 and 3)
2031 Projected Morning Peak Hour Passenger Demand (persons/hour)	-	36,300	36,968 [+668]
Loading factor - Existing Peak Hour Capacity	58,800	62%	63%

Note 1: 2031 Reference Scenario = 2022 morning peak hour passenger demand x $(1+0.5\%)^9$

Note 2: 2031 Design Scenario = 2031 Reference Scenario + Additional passenger demand induced by the Proposed Development.

Note 3: Figures in square brackets indicate the increase in passengers due to the proposed development.

4.11.5 From **Table 4.13**, after accommodating the additional passengers induced by the proposed development, the 2031 morning peak hour loading factor of Tuen Ma Line at critical sections, based on existing peak hour capacity, will be 63% (6 passengers per square meter).

4.11.6 It should be noted that the increase in passenger during the morning peak hour at Tuen Ma Line due to the proposed development, are only 668 persons. The increase in passengers only constitute 1.8% of the passenger demand of Tuen Ma Line, which are considered insignificant.

5 PROVISION OF TRANSPORT FACILITIES

5.1 Access Arrangement

5.1.1 The proposed vehicular access of the proposed development will follow the location of the existing hotel at On Chun Street.

5.2 HKPSG Requirements in Car Parking and Loading/Unloading Provisions

5.2.1 Because of the change in development parameters the requirements of car parking and loading/unloading facilities should be reviewed, taking into consideration of the latest Hong Kong Planning Standards and Guidelines (HKPSG) requirements. The car parking and loading/unloading facilities for the proposed development as required under the HKPSG are listed in **Table 5.1**.

5.2.2 As discussed in Sections 2.2 and 4.3.3, the exhibition or convention hall is incorporated in the proposed development to meet the possible demand in the local community, it is anticipated that the visitors will travel to/from the Exhibition or Convention Hall on foot or by public transport facilities. However, for conservative purpose, the car parking and loading/unloading provision rate for retail use is adopted for the proposed Exhibition or Convention Hall.

Table 5.1 Car Parking and Loading/Unloading Facilities Provisions

Component	HKPSG Requirements[1]					Required Nos.	Proposed Nos.
A. Residential – Total 772 flats							
Car Parking Space	Parking Requirements = GPS x R1 x R2 x R3 where GPS = 1 space per 4 to 7 units						
	Unit Size	No. of Unit	R1	R2	R3		
	$40m^2$ < FS ≤ $70m^2$	722	1.2	0.75	1.0	93 – 163	
	$70m^2$ < FS ≤ $100m^2$	50	2.4	0.75	1.0	13 – 23	
					Sub-total	**106 – 186**	**148 (GPS equivalent to 1 space 5 units)**
Visitor parking Space	For private residential developments with more than 75 units per block should include 1-5 visitor spaces per block					1 – 5	5
Loading/ Unloading Bay	Minimum of 1 loading / unloading bay for goods vehicles within the site for every 800 flats or part thereof, subject to a minimum of 1 bay for each housing block					1	1
Motorcycle Parking Space	1 motorcycle parking space per 100-150 flats					6 – 8	8
Bicycle Parking Space	1 space for every 15 flats with flat size < $70m^2$					49	120 (See Section 5.2.3)

Component	HKPSG Requirements(1)	Required Nos.	Proposed Nos.
B. Retail – 3,067 m^2			
Car Parking Space	1 car space per 150 – 300m^2	11 – 21	21
Loading/ Unloading Bay	1 goods vehicle bay for every 800 – 1,200m^2	3 – 4	4
Motorcycle Parking Space	5 – 10% of the total provision for private cars	1 – 3	3
C. Exhibition/Convention Hall – 998 m^2 (Maximum Capacity 500 persons)			
Car Parking Space	1 car space per 150 – 300m^2 (See Note 1)	4 – 7	7
Loading/ Unloading Bay	1 goods vehicle bay for every 800 – 1,200m^2 (See Note 1)	1 – 2	2
Motorcycle Parking Space	5 – 10% of the total provision for private cars (See Note 1)	1	1

Note: (1) The provision rates for retail use are adopted.

5.2.3 For bicycle parking provision, having considered the proposed development is close to the Ma On Shan Promenade and the Ma On Shan MTR Station, to encourage people to adopt green and active transport modes, it is proposed to provide a total of 120 bicycle parking spaces for the entire proposed development.

5.2.4 From **Table 5.1**, it is recommended that 181 nos. of car parking spaces (148 nos. for residents, 5 nos. for visitors, 21 nos. for retail use and 7 nos. for exhibition/convention hall use), 7 nos. of loading/unloading bays, 12 nos. of motorcycle parking space and 120 nos. of bicycle parking spaces shall be provided to meet the HKPSG requirements. **Table 5.2** lists out the dimensions required for each type of spaces. The proposed car park layout plan is enclosed in **Appendix C**.

Table 5.2 Summary of Overall Transport Facilities Provisions

Facilities	Dimensions	Proposed Provision			
		Residential	Retail	Exhibition /Convention Hall	Total
Car Parking Space	2.5m (W) x 5.0m (L) x 2.4m (H)	150	20	6	**176**
Disabled Car Parking Space	3.5m (W) x 5.0m (L) x 2.4m (H)	3	1	1	**5**
Motorcycle Parking Space	1.0m (W) x 2.4m (L) x 2.4m (H)	8	3	1	**12**
Loading/Unloading Bay		1	4 (1)	2 (1)	**7**
LGV	3.5m (W) x 7.0m (L) x 3.6m (H)	0	3	1	**4**
HGV	3.5m (W) x 11.0m (L) x 4.7m (H)	1	1	1	**3**
Bicycle Parking Space	-	120			**120**

Note: (1) Goods vehicle provision is divided into 65% LGV and 35% HGV as per HKPSG requirement

5.2.5 The development proposal will follow the existing building footprint and building form. In the layout design, the carparking area in the basement will be maximized to accommodate more parking spaces for residential use to achieve the high-end of the HKPSG requirement as far as possible and there is no extra space to accommodate a Public Vehicle Park. However, there are 28 nos. of car parking spaces provided for the commercial use and exhibition/convention hall use and these spaces can be opened for public use as hourly parking.

6 SUMMARY AND CONCLUSION

6.1 Summary

6.1.1 The owner of the Site at No. 29 On Chun Street, Ma On Shan intends to develop 772 residential flats with commercial facilities and an Exhibition/Convention Hall.

6.1.2 Traffic count survey was conducted to establish the current traffic conditions at the concerned junctions during AM and PM peak periods on 4 September 2024 (Wednesday). Based on the existing traffic flows with the adjustment factors, the junction assessments show that all junctions are operating satisfactorily during the existing AM and PM peak hours.

6.1.3 As compare with the existing hotel, the proposed development would generate 32 pcu/hr additional traffic during AM peak hour and 19 pcu/hr additional traffic during PM peak hour. By assigning the development traffic to the 2031 Reference Flows, the 2031 Design Flows were obtained.

6.1.4 The junction capacity assessment shows that all junctions will operate satisfactorily for both the Reference and Design Scenarios.

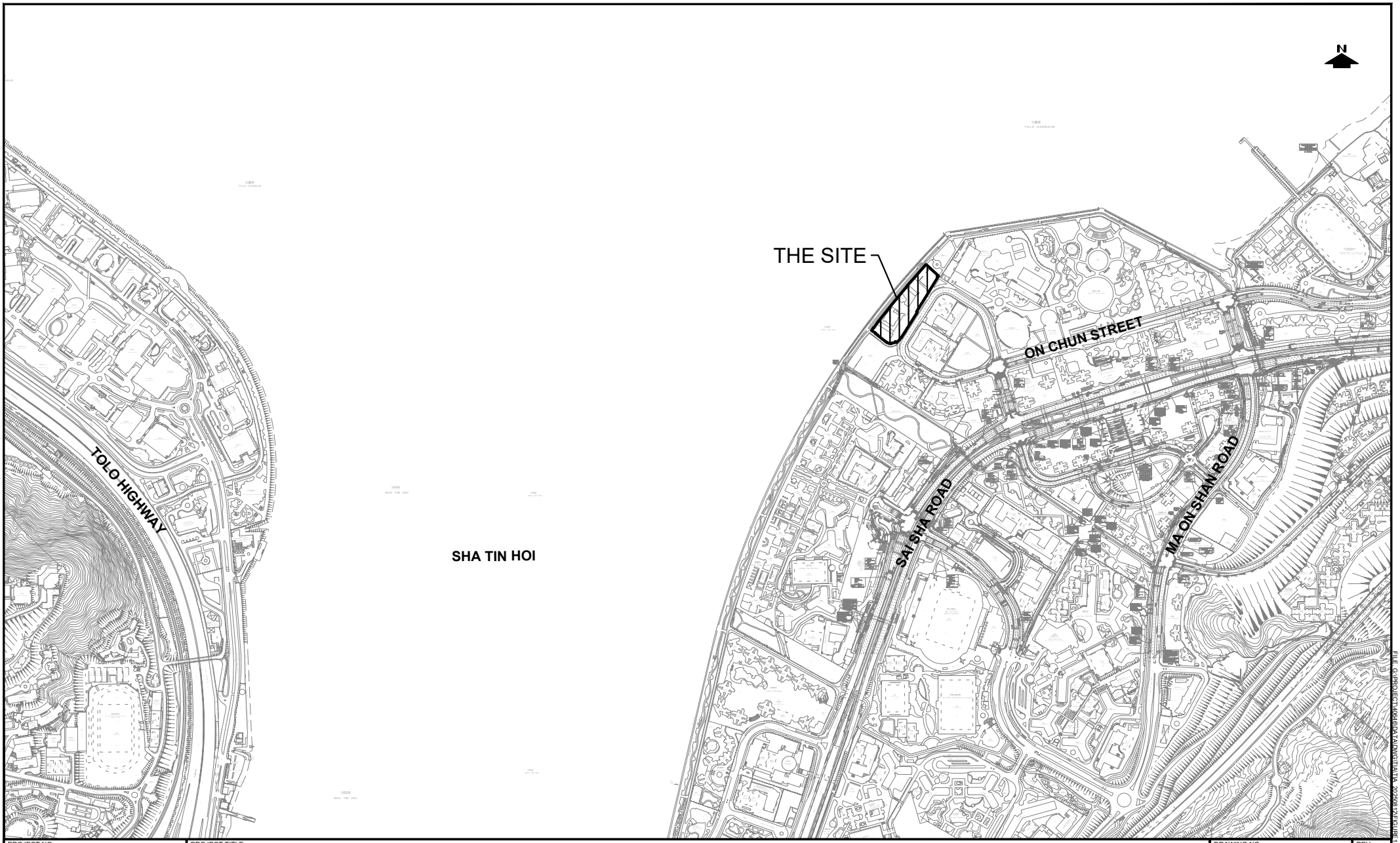
6.1.5 Footpath capacity assessment was carried out for the assessment year 2031. The condition of the concerned footpaths will be satisfactory after accommodating the pedestrians generated and attracted by the proposed development in both AM and PM Peak hours with LOS "C" or above.

6.1.6 Public transport assessment was also conducted for the future year. With the existing railway services, the public transport demand of proposed development can be fully accommodated.

6.1.7 The proposed development will provide 181 nos. of car parking spaces (148 nos. for residents, 5 nos. for visitors, 21 nos. for retail use and 7 nos. for exhibition/convention hall use), 7 nos. of loading/unloading bays, 12 nos. of motorcycle parking space and 120 nos. of bicycle parking spaces to meet the HKPSG requirements.

6.2 Conclusion

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



PROJECT NO. 40646	PROJECT TITLE PROPOSED EXHIBITION OR CONVENTION HALL WITHIN THE PERMITTED IN-SITU CONVERSION OF EXISTING HOTEL INTO RESIDENTIAL DEVELOPMENT CUM SHOP AND SERVICES/EATING PLACE IN "RESIDENTIAL (GROUP A) 12" ZONE, NO. 29 ON CHUN STREET, MA ON SHAN (SHA TIN TOWN LOT NO. 461)	DRAWING NO. FIGURE 1.1	REV. ·
DESIGNED SLN / DRAWN CLL / CHECKED SLN; DATE OCT 2024; SCALE 1:10000	DRAWING TITLE LOCATION PLAN	LLA 顧問有限公司 Consultancy Limited	

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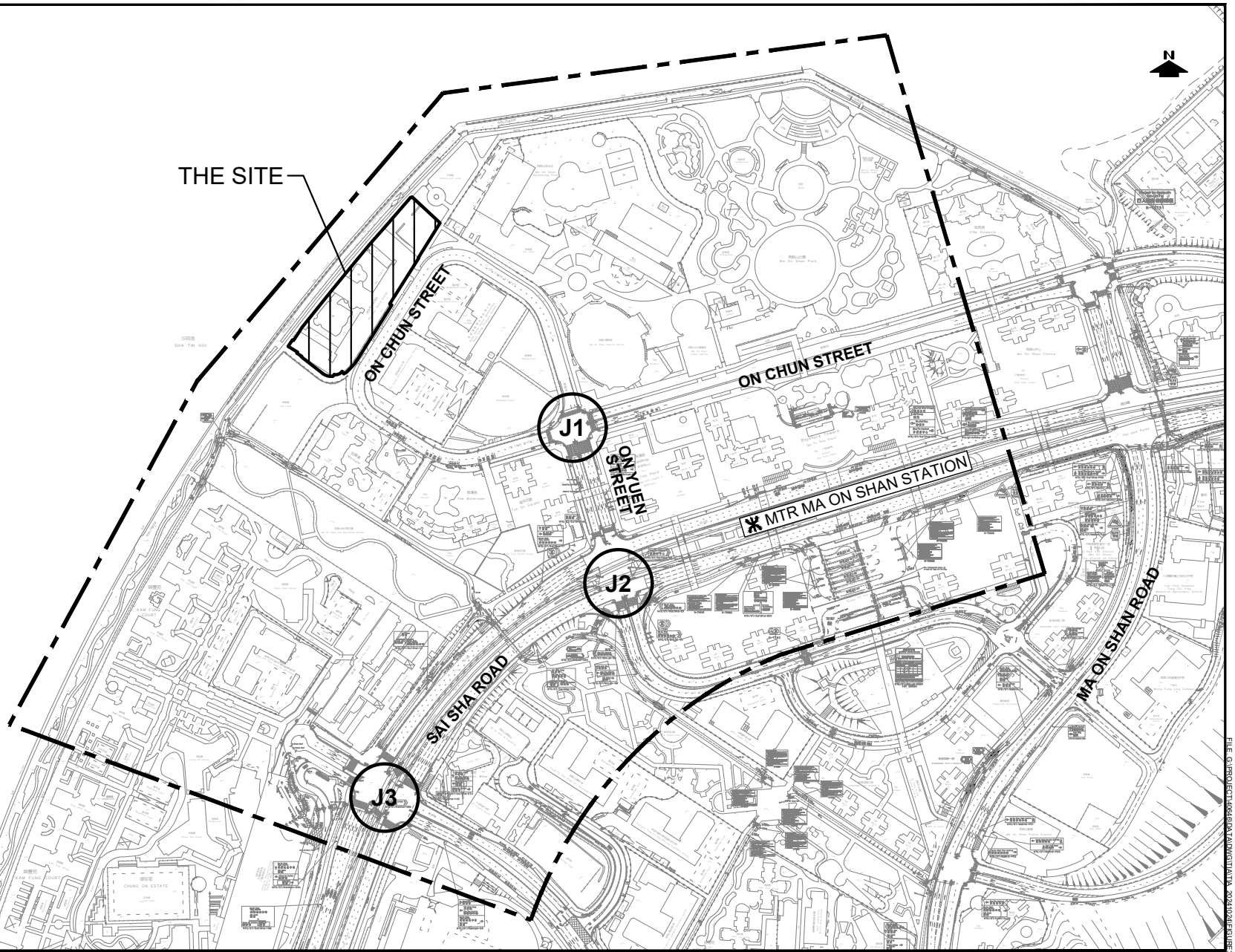

LEGEND:

- THE SITE
- J1 SURVEYED JUNCTIONS
- AREA OF INFLUENCE

PROJECT NO. 40646	PROJECT TITLE PROPOSED EXHIBITION OR CONVENTION HALL WITHIN THE PERMITTED IN-SITU CONVERSION OF EXISTING HOTEL INTO RESIDENTIAL DEVELOPMENT CUM SHOP AND SERVICES/EATING PLACE IN "RESIDENTIAL (GROUP A) 12" ZONE, NO. 29 ON CHUN STREET, MA ON SHAN (SHA TIN TOWN LOT NO. 461)	DRAWING NO. FIGURE 3.1	REV. ·
DESIGNED SLN / DATE OCT 2024	DRAWING TITLE LOCATION OF SURVEYED JUNCTIONS	LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL / SCALE 1:5000			
CHECKED SLN			

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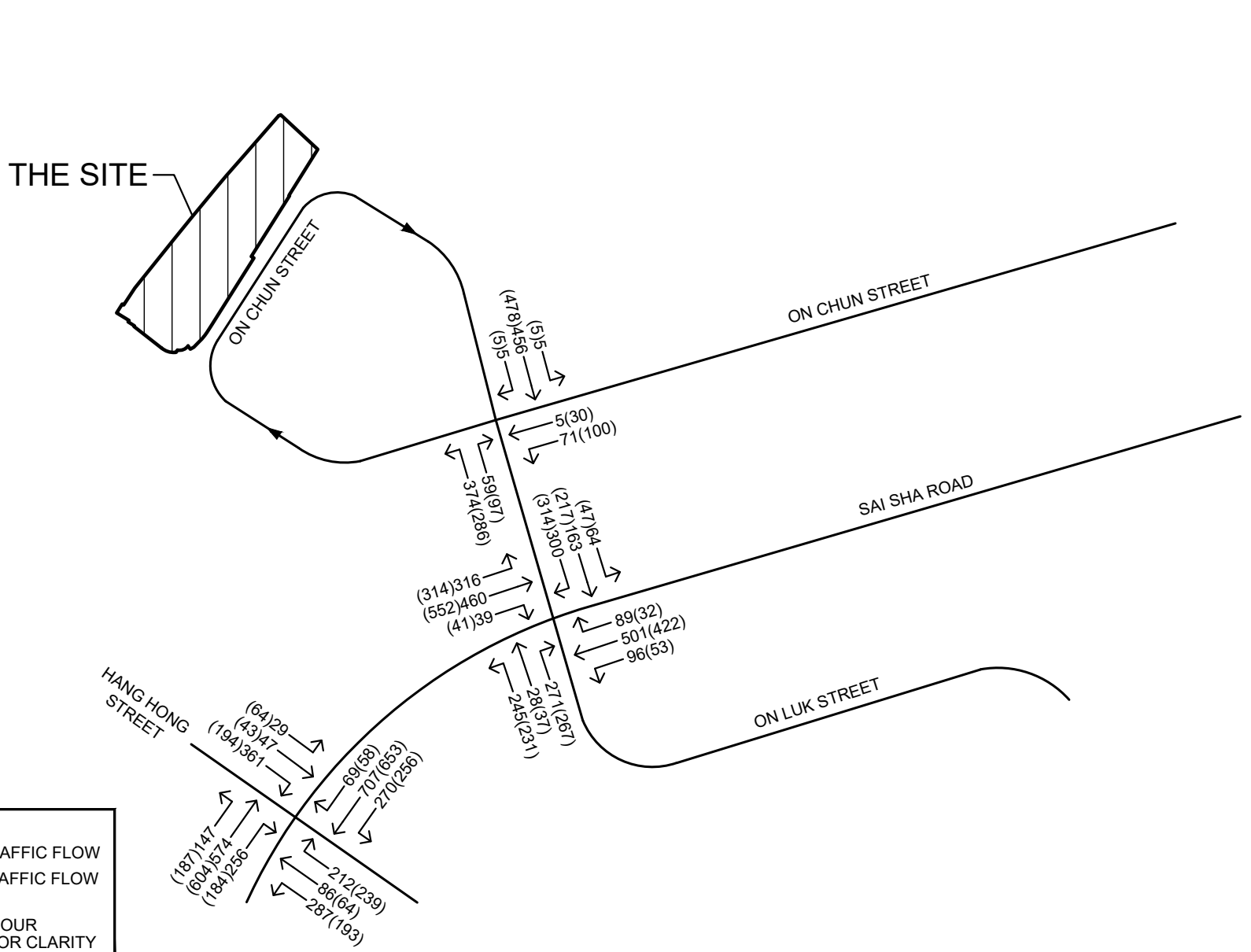

LEGEND:

312 (158) ← PM PEAK HOUR TRAFFIC FLOW

↖ AM PEAK HOUR TRAFFIC FLOW

NOTE:

1, ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY

PROJECT NO. 40646	PROJECT TITLE **PROPOSED EXHIBITION OR CONVENTION HALL WITHIN THE PERMITTED IN-SITU CONVERSION OF EXISTING HOTEL INTO RESIDENTIAL DEVELOPMENT CUM SHOP AND SERVICES/EATING PLACE IN "RESIDENTIAL (GROUP A) 12" ZONE, NO. 29 ON CHUN STREET, MA ON SHAN (SHA TIN TOWN LOT NO. 461)**	DRAWING NO. **FIGURE 3.2**	REV. ·
DESIGNED SLN / DRAWN CLL / CHECKED SLN	DATE OCT 2024 / SCALE N.T.S	DRAWING TITLE **2024 EXISTING TRAFFIC FLOWS**	LLA 顧問有限公司 Consultancy Limited

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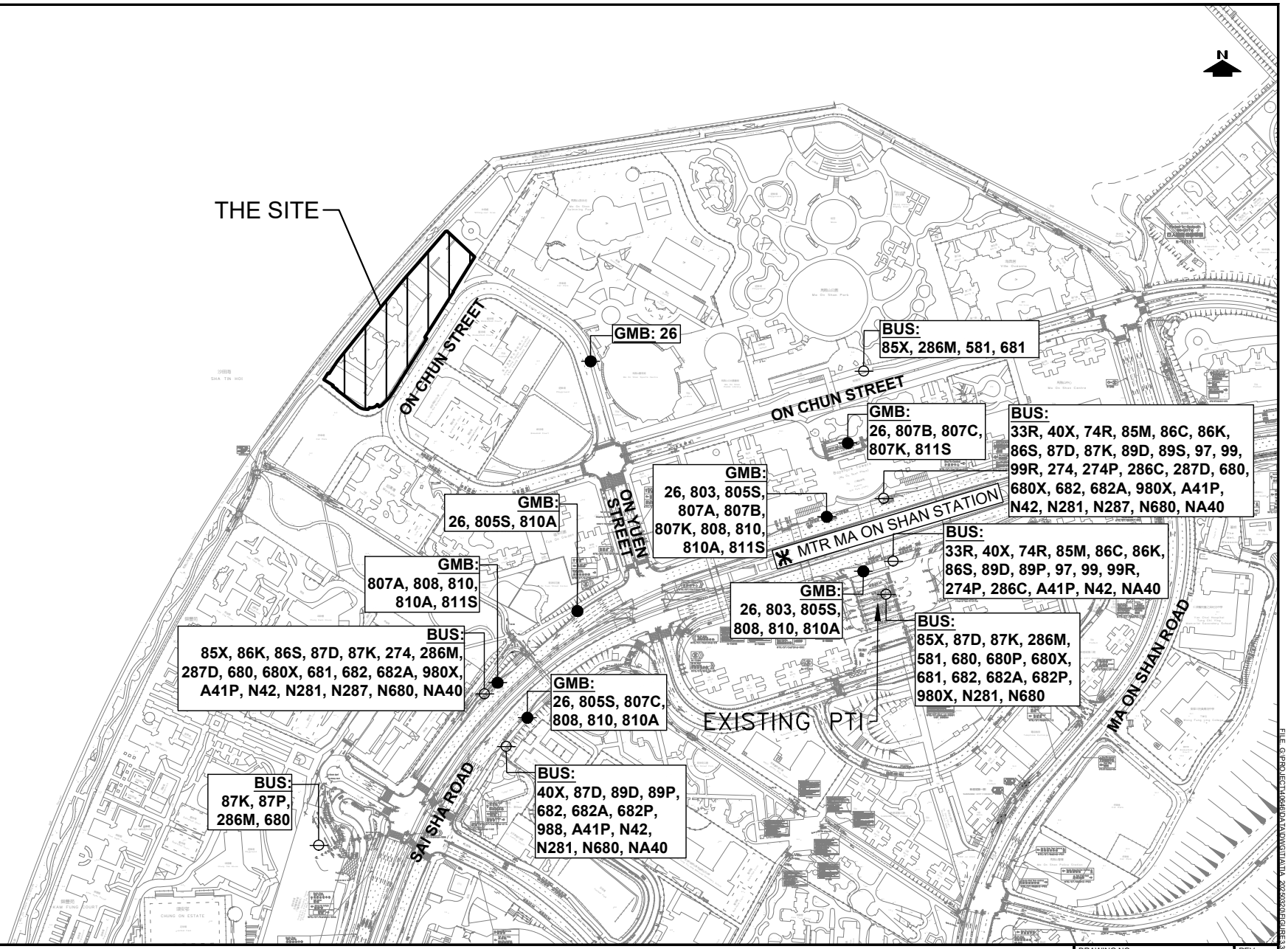

PROJECT NO. 40646	PROJECT TITLE PROPOSED EXHIBITION OR CONVENTION HALL WITHIN THE PERMITTED IN-SITU CONVERSION OF EXISTING HOTEL INTO RESIDENTIAL DEVELOPMENT CUM SHOP AND SERVICES/EATING PLACE IN "RESIDENTIAL (GROUP A) 12" ZONE, NO. 29 ON CHUN STREET, MA ON SHAN (SHA TIN TOWN LOT NO. 461)	DRAWING NO. FIGURE 3.3	REV. A
DESIGNED SLN / DATE MAR 2025	DRAWING TITLE PUBLIC TRANSPORT FACILITIES	LLA 顧問有限公司 Consultancy Limited	
DRAWN CLL / SCALE 1:5000			
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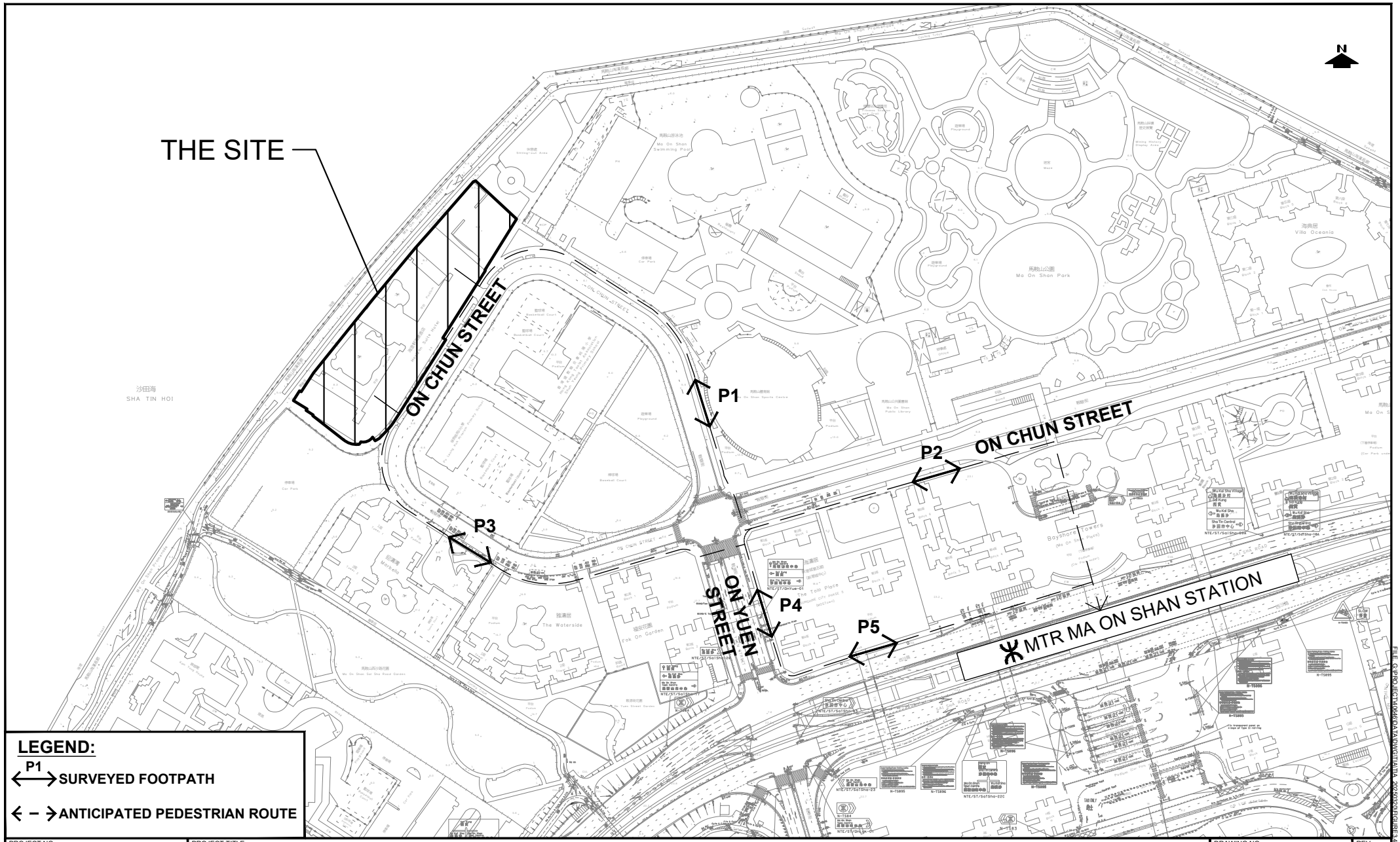
FILE: G:\PROJECT\40646\DATA\DWG\TIA\TIA_20250320\FIGURE3.3A.DWG PLOT SCALE : 1 = 1



LEGEND:

P1 ⟷ SURVEYED FOOTPATH

⟵ – ⟶ ANTICIPATED PEDESTRIAN ROUTE

PROJECT NO. 40646	PROJECT TITLE PROPOSED EXHIBITION OR CONVENTION HALL WITHIN THE PERMITTED IN-SITU CONVERSION OF EXISTING HOTEL INTO RESIDENTIAL DEVELOPMENT CUM SHOP AND SERVICES/EATING PLACE IN "RESIDENTIAL (GROUP A) 12" ZONE, NO. 29 ON CHUN STREET, MA ON SHAN (SHA TIN TOWN LOT NO. 461)	DRAWING NO. FIGURE 3.4	REV. A
DESIGNED SLN / DRAWN CLL / CHECKED SLN	DATE MAR 2025 / SCALE 1:3000	DRAWING TITLE ANTICIPATED PEDESTRIAN ROUTE AND LOCATION OF SURVEYED FOOTPATHS	LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\40646\DATA\DWG\TIA\TIA_20250320\FIGURE3.4A.DWG PLOT SCALE : 1 = 1

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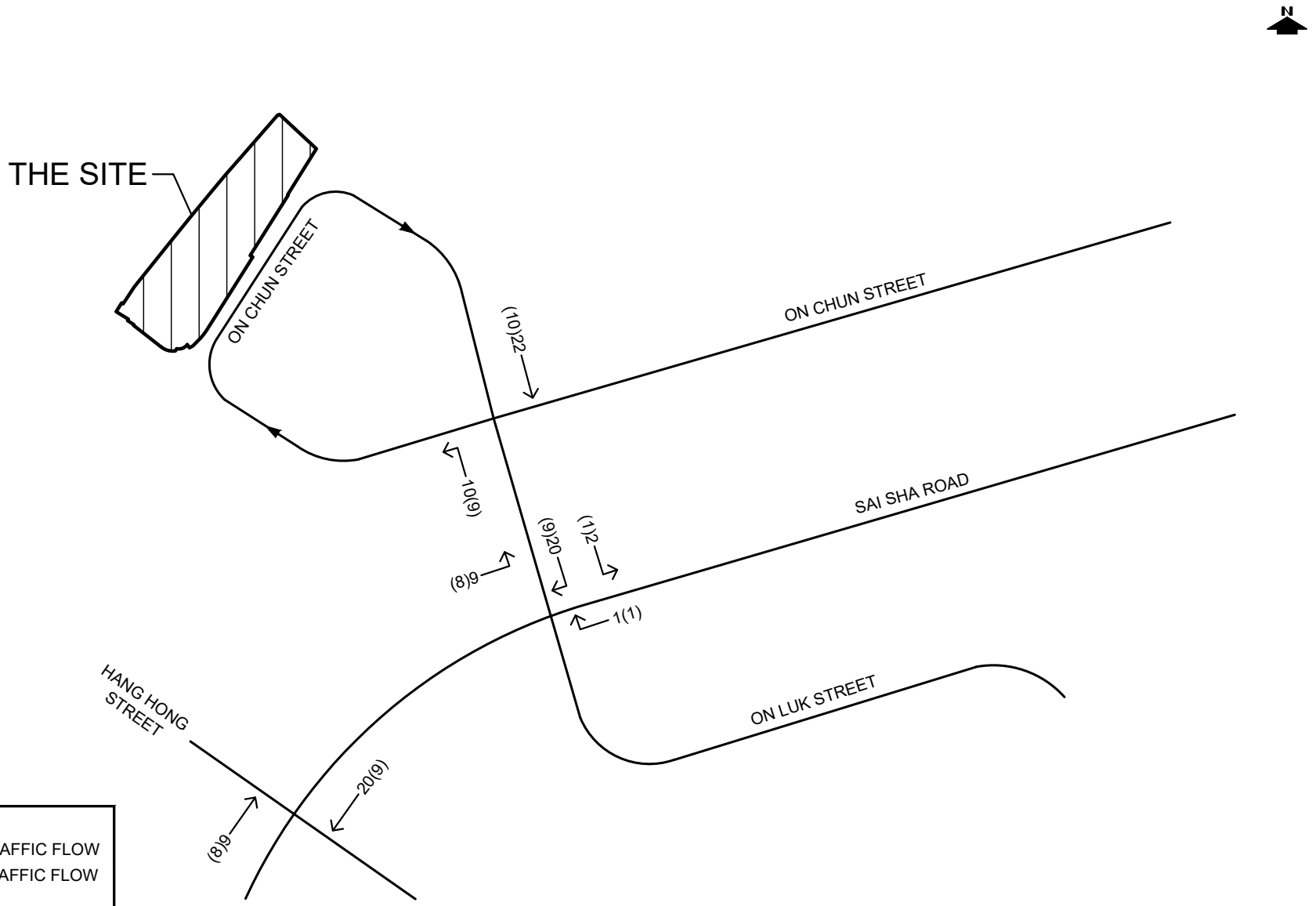

LEGEND:

312 (158) ← PM PEAK HOUR TRAFFIC FLOW

↑ AM PEAK HOUR TRAFFIC FLOW

NOTE:

1, ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY

PROJECT NO. 40646	PROJECT TITLE **PROPOSED EXHIBITION OR CONVENTION HALL WITHIN THE PERMITTED IN-SITU CONVERSION OF EXISTING HOTEL INTO RESIDENTIAL DEVELOPMENT CUM SHOP AND SERVICES/EATING PLACE IN "RESIDENTIAL (GROUP A) 12" ZONE, NO. 29 ON CHUN STREET, MA ON SHAN (SHA TIN TOWN LOT NO. 461)**	DRAWING NO. **FIGURE 4.1**	REV. **C**
DESIGNED **SLN** / DRAWN **CLL** / CHECKED **SLN**	DATE **MAY 2025** / SCALE **N.T.S**	DRAWING TITLE **ADDITIONAL DEVELOPMENT TRAFFIC FLOWS**	LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\40646\DATA\DWG\TIA\TIA_20250528\FIGURE4.1C.DWG PLOT SCALE : 1 = 1

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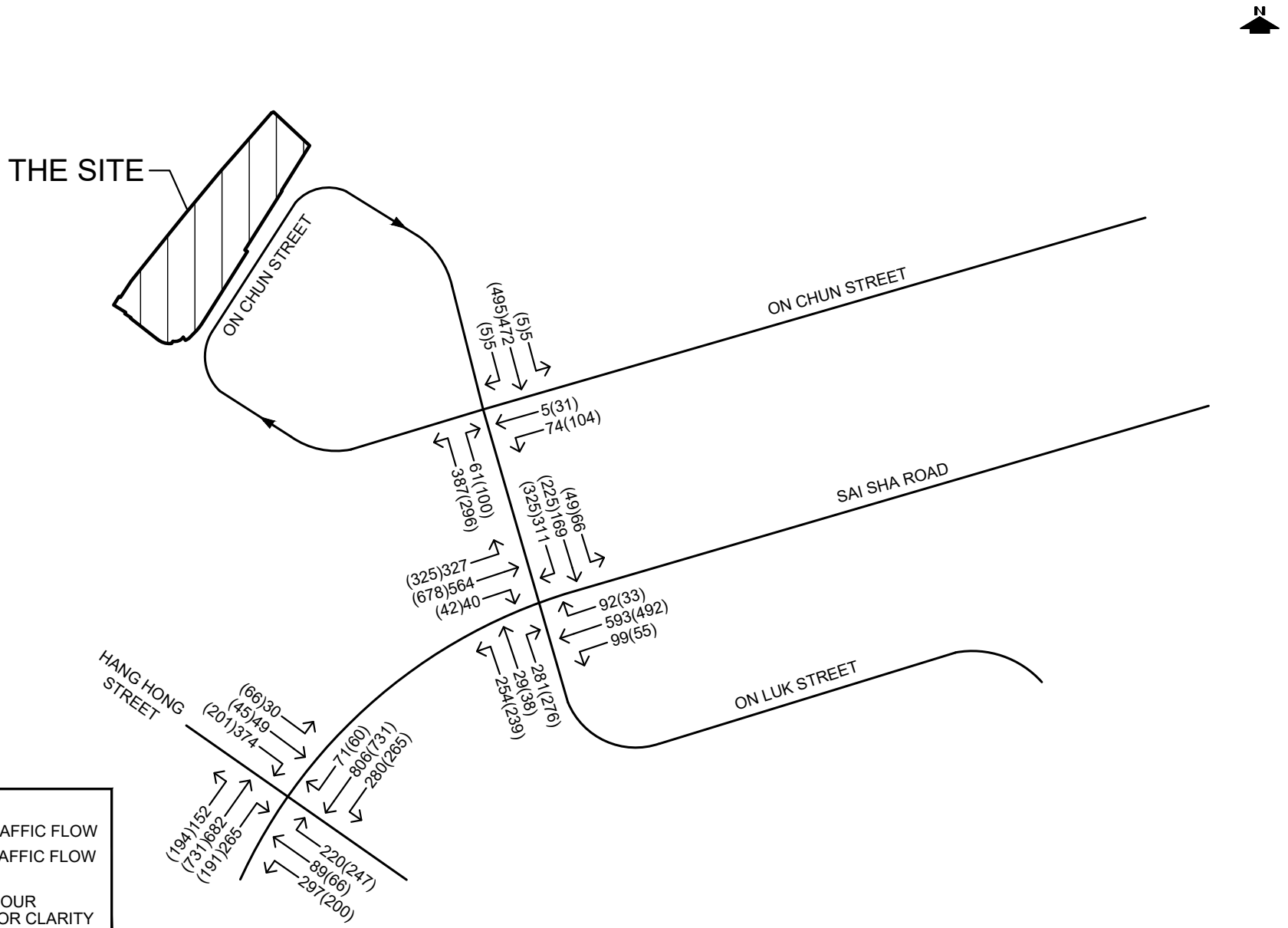


LEGEND:

312 (158) ← PM PEAK HOUR TRAFFIC FLOW

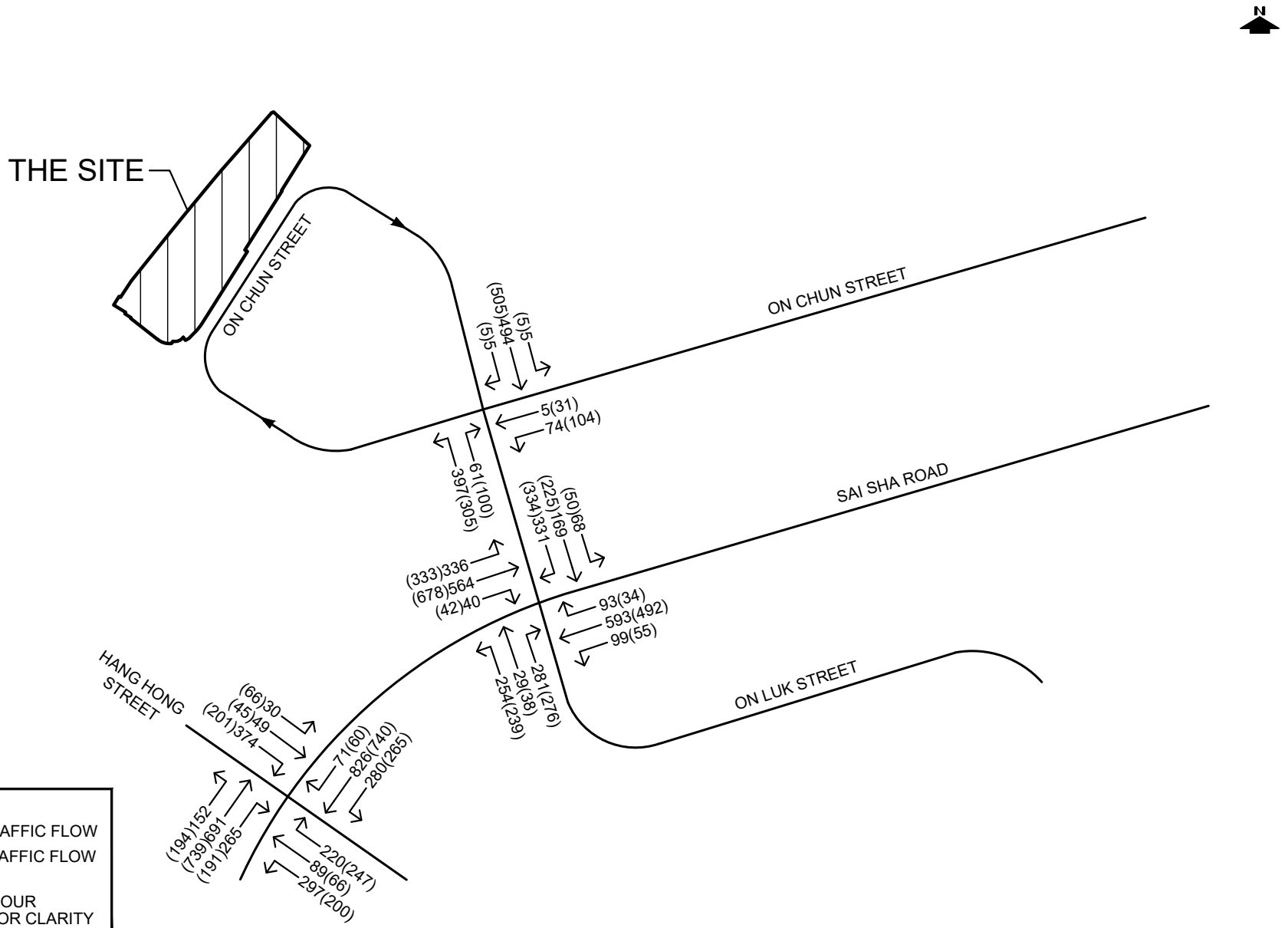
↖ AM PEAK HOUR TRAFFIC FLOW

NOTE:

1, ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY

PROJECT NO. 40646	PROJECT TITLE **PROPOSED EXHIBITION OR CONVENTION HALL WITHIN THE PERMITTED IN-SITU CONVERSION OF EXISTING HOTEL INTO RESIDENTIAL DEVELOPMENT CUM SHOP AND SERVICES/EATING PLACE IN "RESIDENTIAL (GROUP A) 12" ZONE, NO. 29 ON CHUN STREET, MA ON SHAN (SHA TIN TOWN LOT NO. 461)**	DRAWING NO. **FIGURE 4.2**	REV. **A**
DESIGNED **SLN** / DRAWN **CLL** / CHECKED **SLN**	DATE **JAN 2025** / SCALE **N.T.S**	DRAWING TITLE **2031 REFERENCE TRAFFIC FLOWS**	LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\40646\DATA\DWG\TIA\TIA_20250116\FIGURE4.2A.DWG PLOT SCALE : 1 = 1



LEGEND:

312 (158) ← PM PEAK HOUR TRAFFIC FLOW

↖ AM PEAK HOUR TRAFFIC FLOW

NOTE:

1, ALL TRAFFIC FLOWS ARE IN PCU/HOUR
2. MINOR ROADS ARE NOT SHOWN FOR CLARITY

PROJECT NO. 40646	PROJECT TITLE **PROPOSED EXHIBITION OR CONVENTION HALL WITHIN THE PERMITTED IN-SITU CONVERSION OF EXISTING HOTEL INTO RESIDENTIAL DEVELOPMENT CUM SHOP AND SERVICES/EATING PLACE IN "RESIDENTIAL (GROUP A) 12" ZONE, NO. 29 ON CHUN STREET, MA ON SHAN (SHA TIN TOWN LOT NO. 461)**	DRAWING NO. **FIGURE 4.3**	REV. **C**
DESIGNED **SLN** / DRAWN **CLL** / CHECKED **SLN**	DATE **MAY 2025** / SCALE **N.T.S**	DRAWING TITLE **2031 DESIGN TRAFFIC FLOWS**	LLA 顧問有限公司 Consultancy Limited

FILE: G:\PROJECT\40646\DATA\DWG\TIA\TIA_20250528\FIGURE4.3C.DWG PLOT SCALE : 1 = 1

Appendix A

Junction Capacity Assessments
- Existing Scenario

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Aug-25
Checked By:	SLN	Aug-25
Reviewed By:	SLN	Aug-25

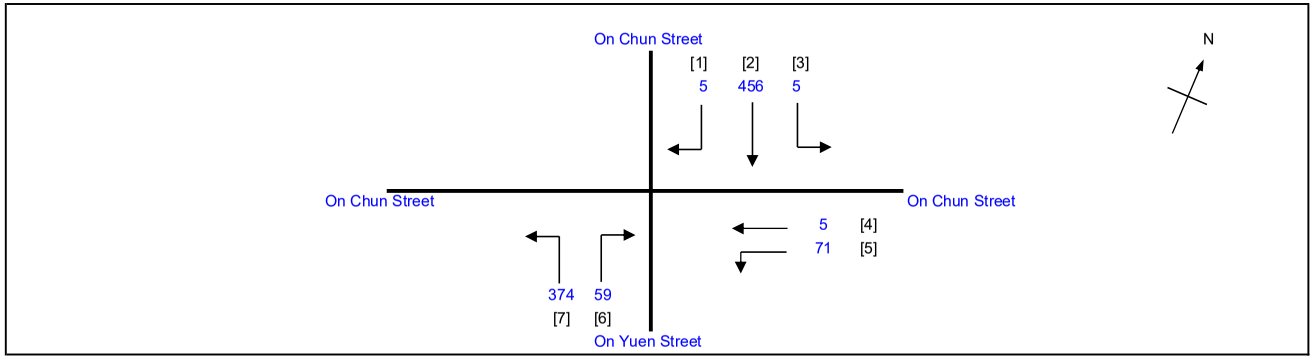
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J1 On Chun Street / On Yuen Street

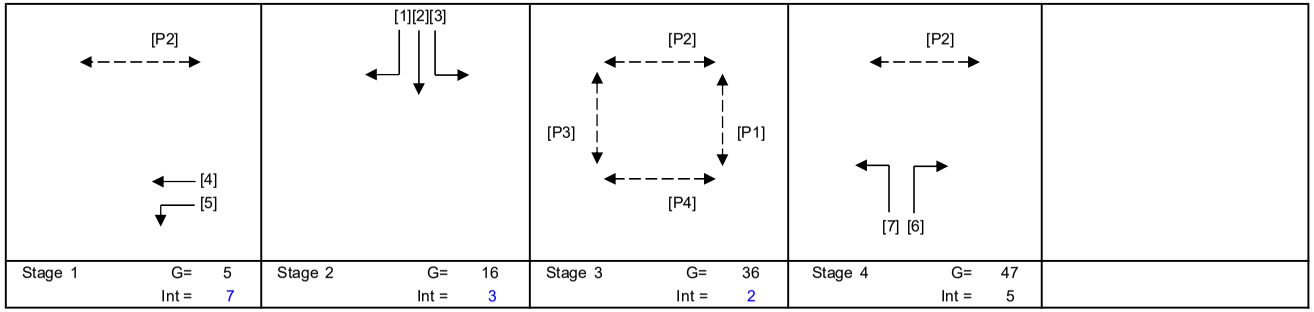
2024 Existing AM

PROJECT NO.: 40646

FILENAME : J1_OCS_OYS.xlsx



No. of stages per cycle	N =	4
Cycle time	C =	121 sec
Sum(y)	Y =	0.305
Loss time	L =	51 sec
Total Flow	=	975 pcu
Co = (1.5*L+5)/(1-Y)	=	117.4 sec
Cm = L/(1-Y)	=	73.4 sec
Yult	=	0.518
R.C.ult = (Yult-Y)/Y*100%	=	69.4 %
Cp = 0.9*L/(0.9-Y)	=	77.2 sec
Ymax = 1-L/C	=	0.579
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**70 %**



Stage 1	G= 5	Int = 7
Stage 2	G= 16	Int = 3
Stage 3	G= 36	Int = 2
Stage 4	G= 47	Int = 5

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3	9	10	5	23	10
P2	1,3,4	5	18	3	81	18
P3	3	5	12	8	18	12
P4	3	11	12	7	19	12

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					
4,5	1	3.30	1	15			2085	36	5		41	0.88	1917							1917	0.021	0.021	1	5	6	0.528	6	75
5	1	3.30	1	10		N	1945	35			35	1.00	1691							1691	0.021			5	6	0.528	6	79
1,2	2	5.50	1	30		N	2165		160	5	165	0.03	2162							2162	0.076	0.076		17	17	0.528	24	49
2	2	3.30	1				2085		158		158	0.00	2085							2085	0.076			17	17	0.528	24	49
2,3	2	2.80	1	15		N	1895	5	138		143	0.03	1888							1888	0.076			17	17	0.528	24	50
6	4	3.65	1	20			2120			59	59	1.00	1972							1972	0.030			7	48	0.528	12	66
7	4	3.65	1	15		N	1980	374			374	1.00	1800							1800	0.208	0.208		48	48	0.528	42	28
PED	3																						36					

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
Prepared By:		SKL	Aug-25
Checked By:		SLN	Aug-25
Reviewed By:		SLN	Aug-25

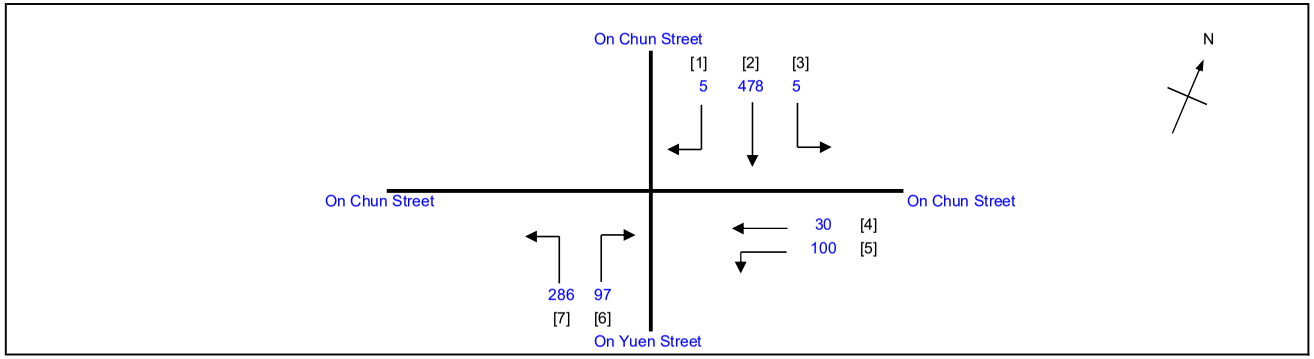
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J1 On Chun Street / On Yuen Street

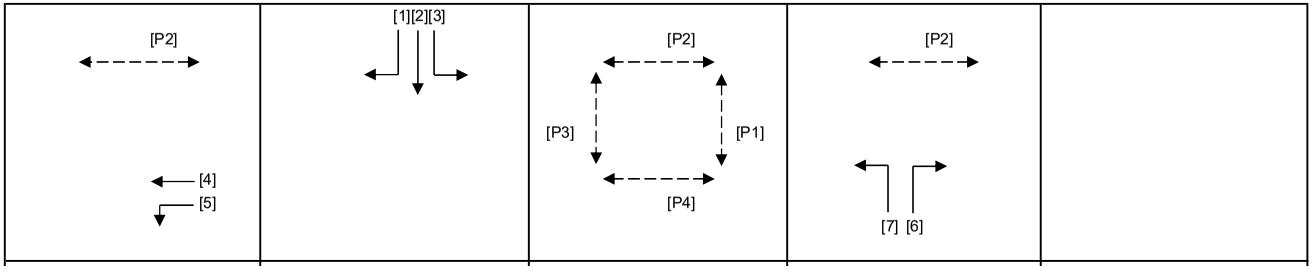
2024 Existing PM

PROJECT NO.: 40646

FILENAME : J1_OCS_OYS.xlsx



No. of stages per cycle	N =	4
Cycle time	C =	120 sec
Sum(y)	Y =	0.274
Loss time	L =	50 sec
Total Flow	=	1001 pcu
Co = (1.5*L+5)/(1-Y)	=	110.2 sec
Cm = L/(1-Y)	=	68.9 sec
Yult	=	0.525
R.C.ult = (Yult-Y)/Y*100%	=	91.6 %
Cp = 0.9*L/(0.9-Y)	=	71.9 sec
Ymax = 1-L/C	=	0.583
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**92 %**



Stage 1	G= 8	Int = 7
Stage 2	G= 19	Int = 3
Stage 3	G= 36	Int = 2
Stage 4	G= 40	Int = 5

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3	9	10	5	23	10
P2	1,3,4	5	18	3	77	18
P3	3	5	12	8	18	12
P4	3	11	12	7	19	12

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					
4,5	1	3.30	1	15			2085	40	30		70	0.57	1972							1972	0.035	0.035		9	9	0.470	12	57
5	1	3.30	1	10		N	1945	60			60	1.00	1691							1691	0.035			9	9	0.470	6	59
1,2	2	5.50	1	30		N	2165		167	5	172	0.03	2162							2162	0.080			20	20	0.470	24	44
2	2	3.30	1				2085		166		166	0.00	2085							2085	0.080	0.080		20	20	0.470	24	45
2,3	2	2.80	1	15		N	1895	5	145		150	0.03	1889							1889	0.079			20	20	0.470	24	45
6	4	3.65	1	20			2120			97	97	1.00	1972							1972	0.049			13	41	0.470	12	52
7	4	3.65	1	15		N	1980	286			286	1.00	1800							1800	0.159	0.159		41	41	0.470	36	30
PED	3																						36					

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
Prepared By:	SKL	Aug-25
Checked By:	SLN	Aug-25
Reviewed By:	SLN	Aug-25

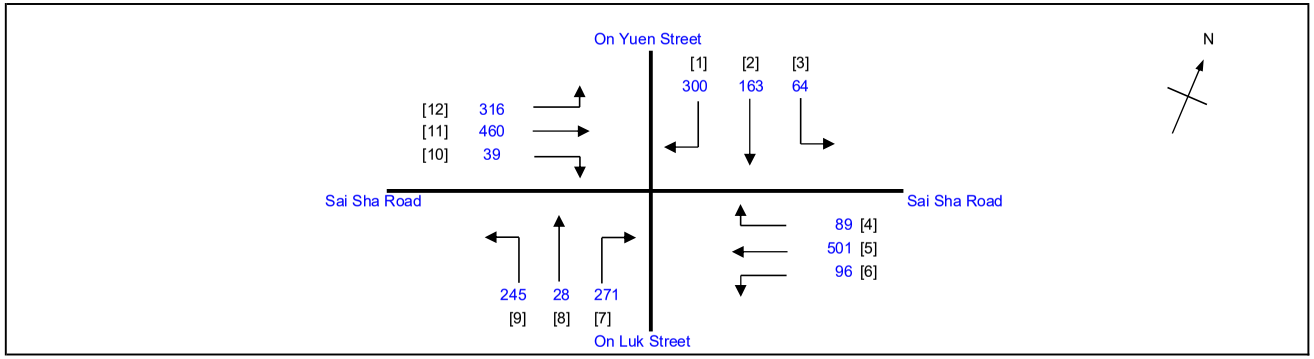
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J2 On Yuen Street / Sai Sha Road

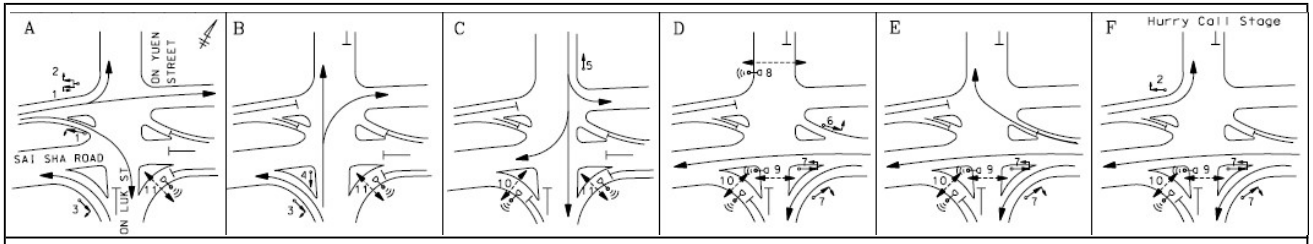
2024 Existing AM

PROJECT NO.: 40646

FILENAME : J2_SSR_OYS_OLS.xlsx



No. of stages per cycle		N =	6
Cycle time		C =	121 sec
Sum(y)		Y =	0.445
Loss time		L =	46 sec
Total Flow		=	2572 pcu
Co	= (1.5*L+5)/(1-Y)	=	133.3 sec
Cm	= L/(1-Y)	=	82.8 sec
Yult		=	0.555
R.C.ult	= (Yult-Y)/Y*100%	=	24.8 %
Cp	= 0.9*L/(0.9-Y)	=	90.9 sec
Ymax	= 1-L/C	=	0.620
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**25 %**



Stage 1	G=	17	Stage 2	G=	22	Stage 3	G=	14	Stage 4	G=	21
	Int =	5		Int =	11		Int =	4		Int =	2
Stage 5	G=	6	Stage 6	G=	11						
	Int =	7		Int =							

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4	11	9	1	13	9
P2	4,5,6	10	8	8	31	8
P3	3,4,5,6	5	5	2	59	5
P4	1,2,3	5	5	2	67	5

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)
																							25					
1	3	3.35	1	30			2090			179	179	1.00	1990							1990	0.090	0.090		15	15	0.718	30	62
1,2	3	3.45	1	35			2100		61	121	182	0.66	2042							2042	0.089			15	15	0.718	30	62
2,3	3	3.45	1	10		N	1960	64	102		166	0.39	1853							1853	0.090			15	15	0.718	30	64
4	5	5.00	1	35			2255			89	89	1.00	2162							2162	0.041	0.041		7	7	0.718	18	84
5	4,5,6	3.50	3				6315		501		501	0.00	6315							6315	0.079			13	39	0.718	28	53
6	4,5,6	4.00	1	35		N	2015	96			96	1.00	1932							1932	0.050			8	39	0.718	18	80
7	2	3.75	1	20			2130			271	271	1.00	1981							1981	0.137	0.137		23	23	0.718	42	52
8	2	3.50	1				2105		28		28	0.00	2105							2105	0.013			2	23	0.718	6	159
9	1,2	4.00	1	35		N	2015	245			245	1.00	1932							1932	0.127			21	41	0.718	42	54
10	1	3.50	1	40			2105			39	39	1.00	2029	25	124					2153	0.018			3	18	0.718	12	128
11	1	3.50	2				4210		460		460	0.00	4210							4210	0.109			18	18	0.718	39	50
12	1,6	3.50	1	15		N	1965	316			316	1.00	1786							1786	0.177	0.177		30	30	0.718	48	47
PED	4																						21					

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
Prepared By:	SKL	Aug-25
Checked By:	SLN	Aug-25
Reviewed By:	SLN	Aug-25

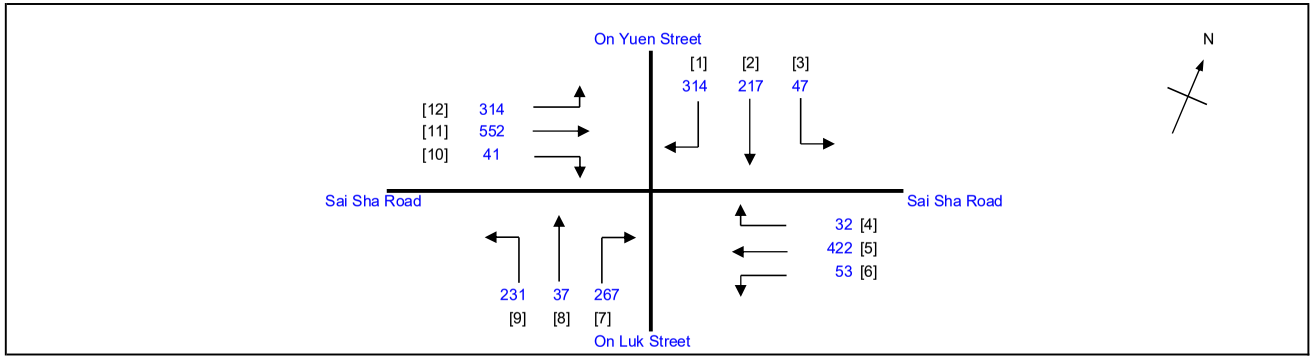
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J2 On Yuen Street / Sai Sha Road

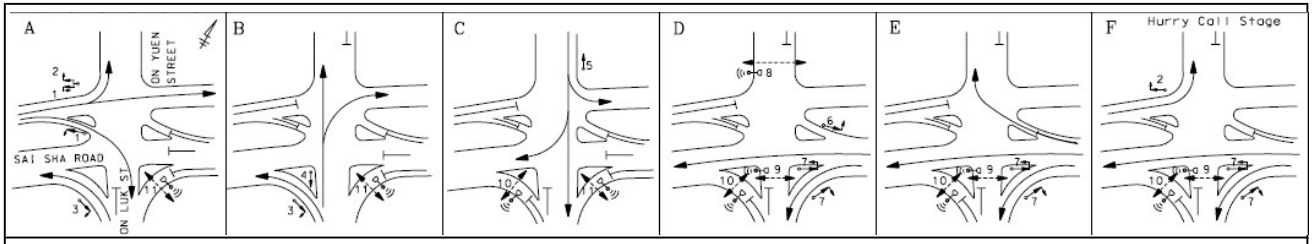
2024 Existing PM

PROJECT NO.: 40646

FILENAME : J2_SSR_OYS_OLS.xlsx



No. of stages per cycle		N =	6
Cycle time		C =	120 sec
Sum(y)		Y =	0.423
Loss time		L =	50 sec
Total Flow		=	2527 pcu
Co	= (1.5*L+5)/(1-Y)	=	138.7 sec
Cm	= L/(1-Y)	=	86.7 sec
Yult		=	0.525
R.C.ult	= (Yult-Y)/Y*100%	=	24.0 %
Cp	= 0.9*L/(0.9-Y)	=	94.4 sec
Ymax	= 1-L/C	=	0.583
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**24 %**



Stage 1	G= 21	Int = 5
Stage 2	G= 21	Int = 11
Stage 3	G= 15	Int = 4
Stage 4	G= 21	Int = 2
Stage 5	G= 5	Int = 7
Stage 6	G= 7	Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4	11	9	1	13	9
P2	4,5,6	10	8	8	27	8
P3	3,4,5,6	5	5	2	55	5
P4	1,2,3	5	5	2	70	5

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)
																							25					
1	3	3.35	1	30			2090			195	195	1.00	1990							1990	0.098			16	16	0.726	36	61
1,2	3	3.45	1	35			2100		79	119	198	0.60	2047							2047	0.097			16	16	0.726	36	61
2,3	3	3.45	1	10		N	1960	47	138		185	0.25	1888							1888	0.098	0.098		16	16	0.726	30	62
4	5	5.00	1	35			2255			32	32	1.00	2162							2162	0.015	0.015	4	2	6	0.726	6	150
5	4,5,6	3.50	3				6315		422		422	0.00	6315							6315	0.067			11	35	0.726	24	55
6	4,5,6	4.00	1	35		N	2015	53			53	1.00	1932							1932	0.027			5	35	0.726	12	110
7	2	3.75	1	20			2130			267	267	1.00	1981							1981	0.135	0.135		22	22	0.726	42	53
8	2	3.50	1				2105		37		37	0.00	2105							2105	0.018			3	22	0.726	12	136
9	1,2	4.00	1	35		N	2015	231			231	1.00	1932							1932	0.120			20	44	0.726	36	56
10	1	3.50	1	40			2105			41	41	1.00	2029	25	125					2154	0.019			3	22	0.726	12	128
11	1	3.50	2				4210		552		552	0.00	4210							4210	0.131			22	22	0.726	45	47
12	1,6	3.50	1	15		N	1965	314			314	1.00	1786							1786	0.176	0.176		29	29	0.726	48	48
PED	4																						21					

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
Prepared By:		SKL	Aug-25
Checked By:		SLN	Aug-25
Reviewed By:		SLN	Aug-25

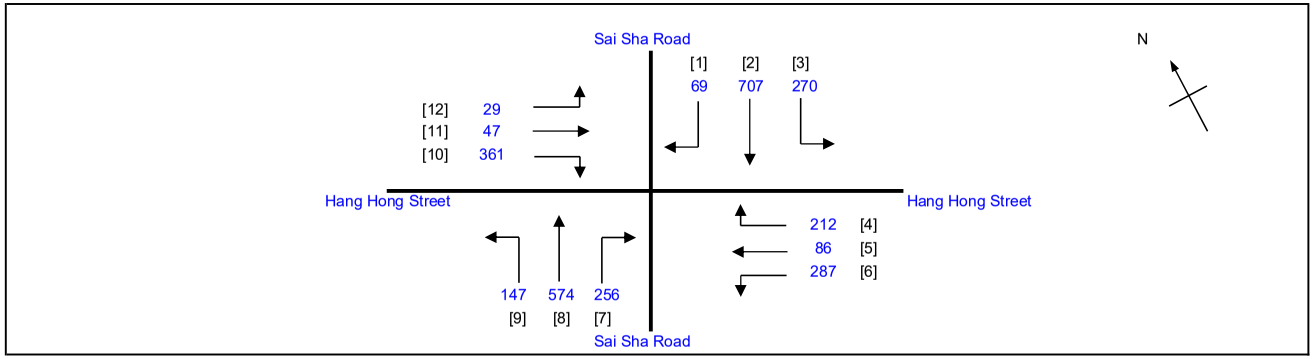
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J3 Sai Sha Road / Hang Hong Street

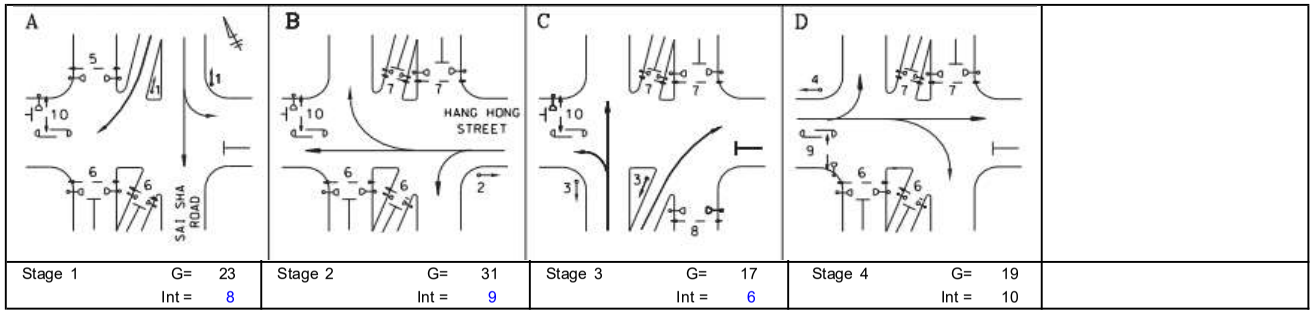
2024 Existing AM

PROJECT NO.: 40646

FILENAME : J3_SSR_HHS.xlsx



No. of stages per cycle	N =	4
Cycle time	C =	123 sec
Sum(y)	Y =	0.477
Loss time	L =	29 sec
Total Flow	=	3045 pcu
Co = (1.5*L+5)/(1-Y)	=	92.7 sec
Cm = L/(1-Y)	=	55.4 sec
Yult	=	0.683
R.C.ult = (Yult-Y)/Y*100%	=	43.2 %
Cp = 0.9*L/(0.9-Y)	=	61.6 sec
Ymax = 1-L/C	=	0.764
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**44 %**



Stage 1	G= 23	Int = 8
Stage 2	G= 31	Int = 9
Stage 3	G= 17	Int = 6
Stage 4	G= 19	Int = 10

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	5	10	4	17	10
P2	1,2,4	17	12	2	86	12
P3	2,3,4	19	12	1	79	12
P4	3	5	10	2	11	10
P5	4	5	7	6	16	7
P6	1,2,3	5	9	1	84	9

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)
																							29					
1	1	5.00	1	35			2255			69	69	1.00	2162							2162	0.032			6	24	0.624	12	76
2	1	3.50	2				4210		503		503	0.00	4210							4210	0.119	0.119		24	24	0.624	39	44
2,3	1	3.50	1	40			2105	45	204		249	0.18	2091							2091	0.119			23	24	0.624	36	48
3	1	3.50	1	35		N	1965	225			225	1.00	1884							1884	0.119			24	24	0.624	36	49
4	2	3.40	1	30			2095		0	212	212	1.00	1995							1995	0.106			21	32	0.624	36	51
4,5	2	3.40	1	35			2095		86		86	0.00	2095							2095	0.041			8	32	0.624	18	70
6	2	3.40	1	15		N	1955	287			287	1.00	1777							1777	0.161	0.161		32	32	0.624	42	42
7	3	4.00	1	30		N	2015			123	123	1.00	1919							1919	0.064			13	18	0.624	18	61
7	3	4.00	1	35			2155			133	133	1.00	2066							2066	0.064			13	18	0.624	24	60
8	3	3.30	3				6255		574		574	0.00	6255							6255	0.092	0.092		18	18	0.624	32	47
9	3	3.30	1	15		N	1945	147			147	1.00	1768							1768	0.083			16	18	0.624	24	57
10	4	3.30	1	20			2085			201	201	1.00	1940							1940	0.104			20	20	0.624	30	51
10,11,12	4	3.30	1	25			2085	0	47	160	207	0.77	1993							1993	0.104	0.104		20	20	0.624	30	51
12	4	3.30	1	15		N	1945	29			29	1.00	1768							1768	0.016			3	20	0.624	6	111

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
Prepared By:	SKL	Aug-25
Checked By:	SLN	Aug-25
Reviewed By:	SLN	Aug-25

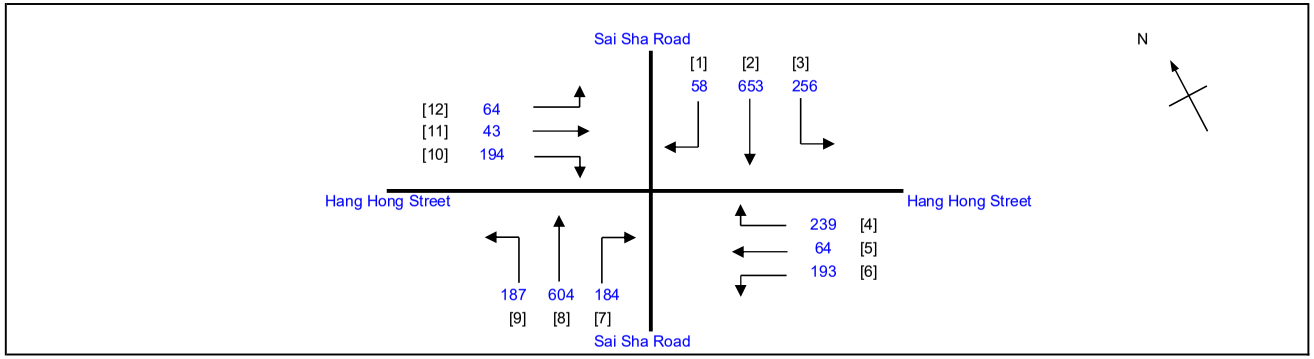
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J3 Sai Sha Road / Hang Hong Street

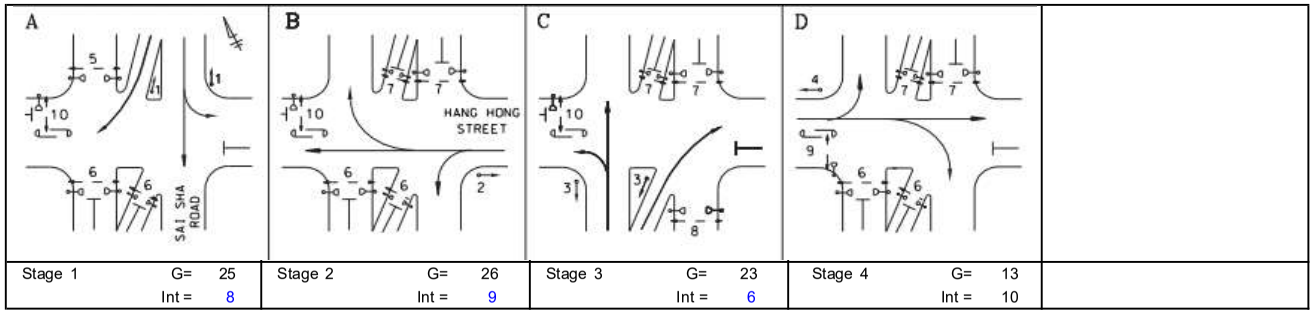
2024 Existing PM

PROJECT NO.: 40646

FILENAME : J3_SSR_HHS.xlsx



No. of stages per cycle		N =	4
Cycle time		C =	120 sec
Sum(y)		Y =	0.397
Loss time		L =	29 sec
Total Flow		=	2739 pcu
Co	= (1.5*L+5)/(1-Y)	=	80.5 sec
Cm	= L/(1-Y)	=	48.1 sec
Yult		=	0.683
R.C.ult	= (Yult-Y)/Y*100%	=	71.8 %
Cp	= 0.9*L/(0.9-Y)	=	51.9 sec
Ymax	= 1-L/C	=	0.758
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**72 %**



Stage 1	G= 25	Int = 8
Stage 2	G= 26	Int = 9
Stage 3	G= 23	Int = 6
Stage 4	G= 13	Int = 10

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	5	10	4	19	10
P2	1,2,4	17	12	2	77	12
P3	2,3,4	19	12	1	74	12
P4	3	5	10	2	17	10
P5	4	5	7	6	10	7
P6	1,2,3	5	9	1	87	9

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)
																							29					
1	1	5.00	1	35			2255			58	58	1.00	2162							2162	0.027			6	26	0.524	6	66
2	1	3.50	2				4210		469		469	0.00	4210							4210	0.111	0.111		26	26	0.524	36	40
2,3	1	3.50	1	40			2105	47	184		231	0.20	2089							2089	0.111			25	26	0.524	36	42
3	1	3.50	1	35		N	1965	209			209	1.00	1884							1884	0.111			25	26	0.524	30	42
4	2	3.40	1	30			2095		0	239	239	1.00	1995							1995	0.120	0.120		27	27	0.524	36	40
4,5	2	3.40	1	35			2095		64		64	0.00	2095							2095	0.031			7	27	0.524	12	64
6	2	3.40	1	15		N	1955	193			193	1.00	1777							1777	0.109			25	27	0.524	30	43
7	3	4.00	1	30		N	2015			89	89	1.00	1919							1919	0.046			11	24	0.524	12	58
7	3	4.00	1	35			2155			95	95	1.00	2066							2066	0.046			11	24	0.524	12	57
8	3	3.30	3				6255		604		604	0.00	6255							6255	0.097			22	24	0.524	32	41
9	3	3.30	1	15		N	1945	187			187	1.00	1768							1768	0.106	0.106		24	24	0.524	24	43
10	4	3.30	1	20			2085			117	117	1.00	1940							1940	0.060	0.060		14	14	0.524	18	53
10,11,12	4	3.30	1	25			2085	0	43	77	120	0.64	2008							2008	0.060			14	14	0.524	18	53
12	4	3.30	1	15		N	1945	64			64	1.00	1768							1768	0.036			8	14	0.524	12	63

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 Capacity Assessments - Reference & Design Scenarios

LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

	INITIALS	DATE
Prepared By:	SKL	Aug-25
Checked By:	SLN	Aug-25
Reviewed By:	SLN	Aug-25

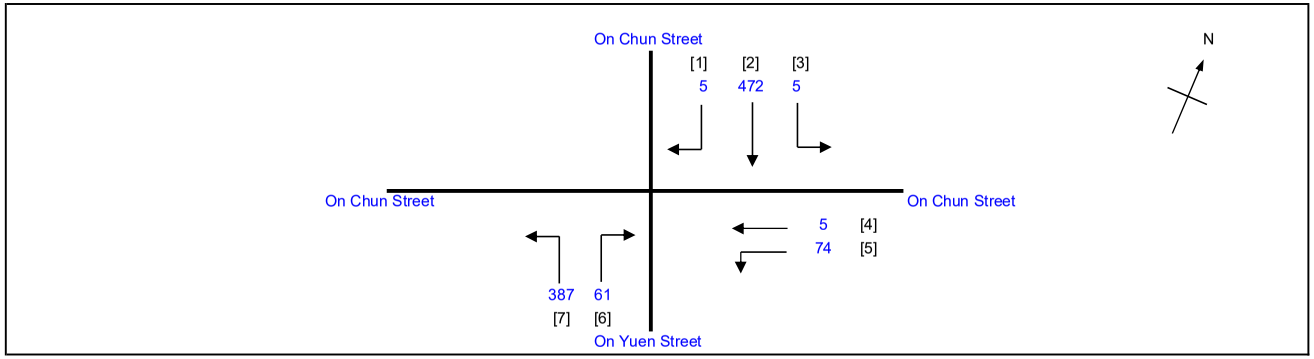
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J1 On Chun Street / On Yuen Street

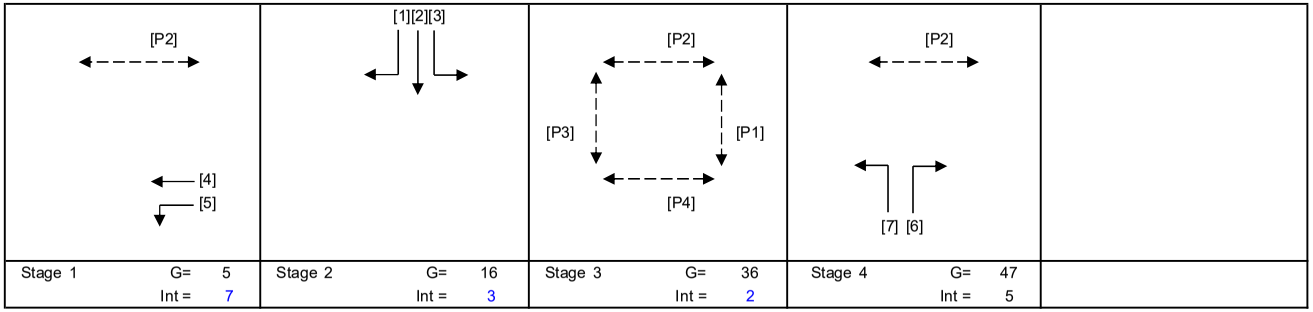
2031 Reference AM

PROJECT NO.: 40646

FILENAME : J1_OCS_OYS.xlsx



No. of stages per cycle		N =	4
Cycle time		C =	121 sec
Sum(y)		Y =	0.316
Loss time		L =	51 sec
Total Flow		=	1009 pcu
Co	= (1.5*L+5)/(1-Y)	=	119.1 sec
Cm	= L/(1-Y)	=	74.5 sec
Yult		=	0.518
R.C.ult	= (Yult-Y)/Y*100%	=	63.9 %
Cp	= 0.9*L/(0.9-Y)	=	78.6 sec
Ymax	= 1-L/C	=	0.579
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**65 %**



Stage 1	G= 5	Int = 7
Stage 2	G= 16	Int = 3
Stage 3	G= 36	Int = 2
Stage 4	G= 47	Int = 5

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3	9	10	5	23	10
P2	1,3,4	5	18	3	81	18
P3	3	5	12	8	18	12
P4	3	11	12	7	19	12

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					
4,5	1	3.30	1	15			2085	37	5		42	0.88	1916							1916	0.022	0.022	1	5	6	0.546	6	77
5	1	3.30	1	10		N	1945	37			37	1.00	1691							1691	0.022			5	6	0.546	6	80
1,2	2	5.50	1	30		N	2165		165	5	170	0.03	2162							2162	0.079			17	17	0.546	24	50
2	2	3.30	1				2085		163		163	0.00	2085							2085	0.078			17	17	0.546	24	50
2,3	2	2.80	1	15		N	1895	5	144		149	0.03	1889							1889	0.079	0.079		17	17	0.546	24	50
6	4	3.65	1	20			2120			61	61	1.00	1972							1972	0.031			7	48	0.546	12	67
7	4	3.65	1	15		N	1980	387			387	1.00	1800							1800	0.215	0.215		48	48	0.546	42	28
PED	3																						36					

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
Prepared By:	SKL	Aug-25
Checked By:	SLN	Aug-25
Reviewed By:	SLN	Aug-25

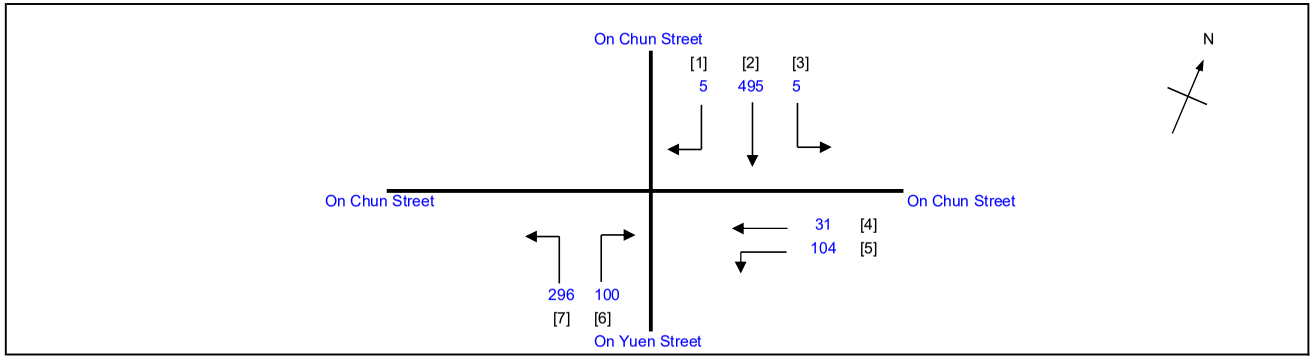
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J1 On Chun Street / On Yuen Street

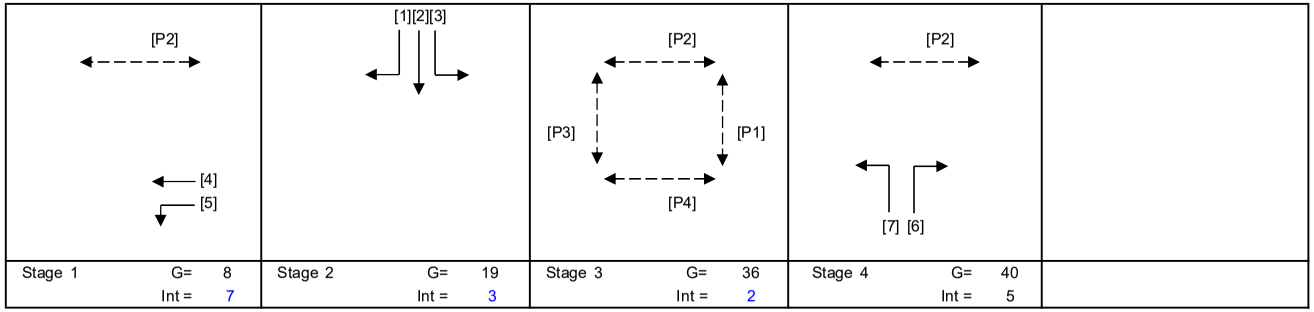
2031 Reference PM

PROJECT NO.: 40646

FILENAME : J1_OCS_OYS.xlsx



No. of stages per cycle	N =	4
Cycle time	C =	120 sec
Sum(y)	Y =	0.284
Loss time	L =	50 sec
Total Flow	=	1036 pcu
Co = (1.5*L+5)/(1-Y)	=	111.7 sec
Cm = L/(1-Y)	=	69.8 sec
Yult	=	0.525
R.C.ult = (Yult-Y)/Y*100%	=	84.9 %
Cp = 0.9*L/(0.9-Y)	=	73.0 sec
Ymax = 1-L/C	=	0.583
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**85 %**



Stage 1	G= 8	Int = 7
Stage 2	G= 19	Int = 3
Stage 3	G= 36	Int = 2
Stage 4	G= 40	Int = 5

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3	9	10	5	23	10
P2	1,3,4	5	18	3	77	18
P3	3	5	12	8	18	12
P4	3	11	12	7	19	12

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					
4,5	1	3.30	1	15			2085	42	31		73	0.58	1972							1972	0.037	0.037		9	9	0.487	12	58
5	1	3.30	1	10		N	1945	62			62	1.00	1691							1691	0.037			9	9	0.487	6	60
1,2	2	5.50	1	30		N	2165		173	5	178	0.03	2162							2162	0.082			20	20	0.487	24	45
2	2	3.30	1				2085		172		172	0.00	2085							2085	0.082	0.082		20	20	0.487	24	45
2,3	2	2.80	1	15		N	1895	5	150		155	0.03	1889							1889	0.082			20	20	0.487	24	45
6	4	3.65	1	20			2120			100	100	1.00	1972							1972	0.051			12	41	0.487	12	53
7	4	3.65	1	15		N	1980	296			296	1.00	1800							1800	0.164	0.164		41	41	0.487	36	31
PED	3																						36					

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
Prepared By:	SKL	Aug-25
Checked By:	SLN	Aug-25
Reviewed By:	SLN	Aug-25

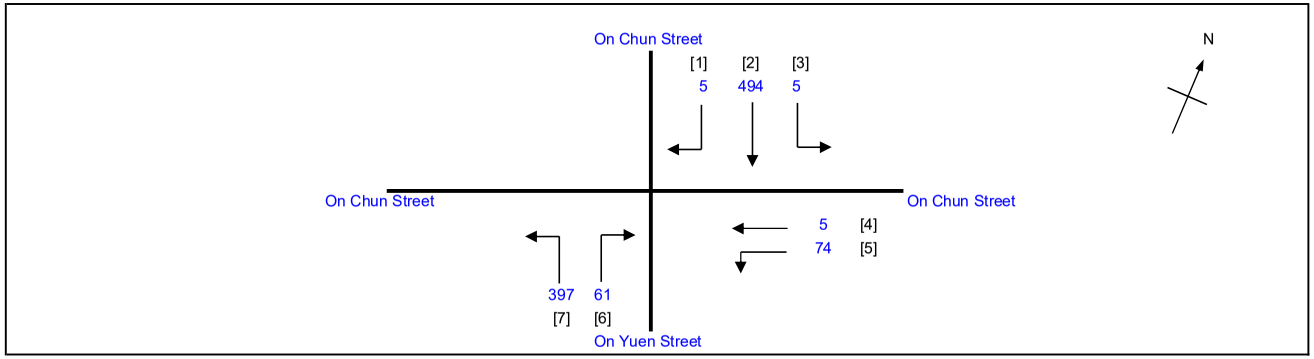
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J1 On Chun Street / On Yuen Street

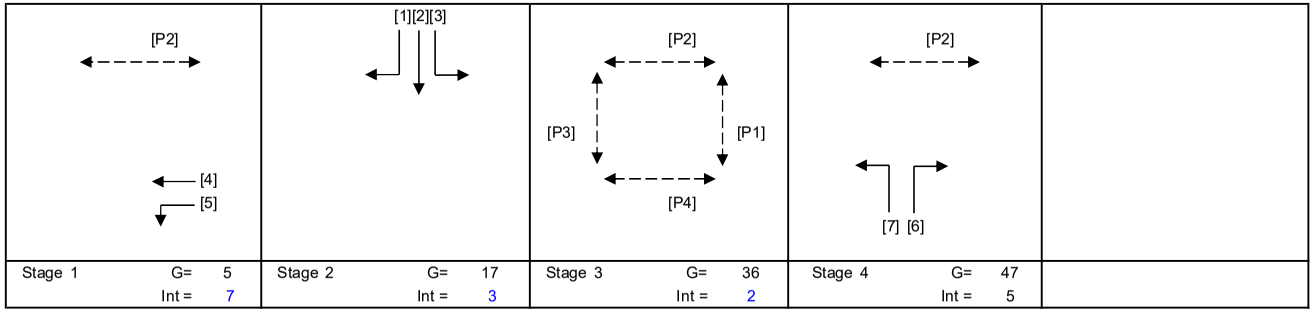
2031 Design AM

PROJECT NO.: 40646

FILENAME : J1_OCS_OYS.xlsx



No. of stages per cycle	N =	4
Cycle time	C =	121 sec
Sum(y)	Y =	0.325
Loss time	L =	51 sec
Total Flow	=	1041 pcu
Co = (1.5*L+5)/(1-Y)	=	120.7 sec
Cm = L/(1-Y)	=	75.6 sec
Yult	=	0.518
R.C.ult = (Yult-Y)/Y*100%	=	59.2 %
Cp = 0.9*L/(0.9-Y)	=	79.8 sec
Ymax = 1-L/C	=	0.579
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**60 %**



Stage 1	G= 5	Int = 7
Stage 2	G= 17	Int = 3
Stage 3	G= 36	Int = 2
Stage 4	G= 47	Int = 5

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3	9	10	5	23	10
P2	1,3,4	5	18	3	80	18
P3	3	5	12	8	18	12
P4	3	11	12	7	19	12

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					
4,5	1	3.30	1	15			2085	37	5		42	0.88	1916							1916	0.022	0.022	1	5	6	0.562	6	79
5	1	3.30	1	10		N	1945	37			37	1.00	1691							1691	0.022			5	6	0.562	6	83
1,2	2	5.50	1	30		N	2165		173	5	178	0.03	2162							2162	0.082			18	18	0.562	30	50
2	2	3.30	1				2085		172		172	0.00	2085							2085	0.082	0.082		18	18	0.562	24	50
2,3	2	2.80	1	15		N	1895	5	149		154	0.03	1889							1889	0.082			18	18	0.562	24	51
6	4	3.65	1	20			2120			61	61	1.00	1972							1972	0.031			7	48	0.562	12	69
7	4	3.65	1	15		N	1980	397			397	1.00	1800							1800	0.221	0.221		48	48	0.562	48	29
PED	3																						36					

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
Prepared By:	SKL	Aug-25
Checked By:	SLN	Aug-25
Reviewed By:	SLN	Aug-25

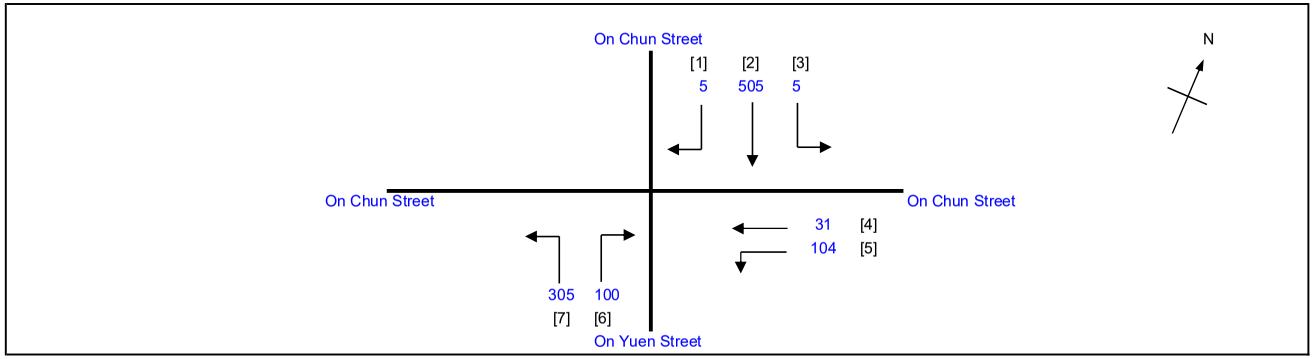
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J1 On Chun Street / On Yuen Street

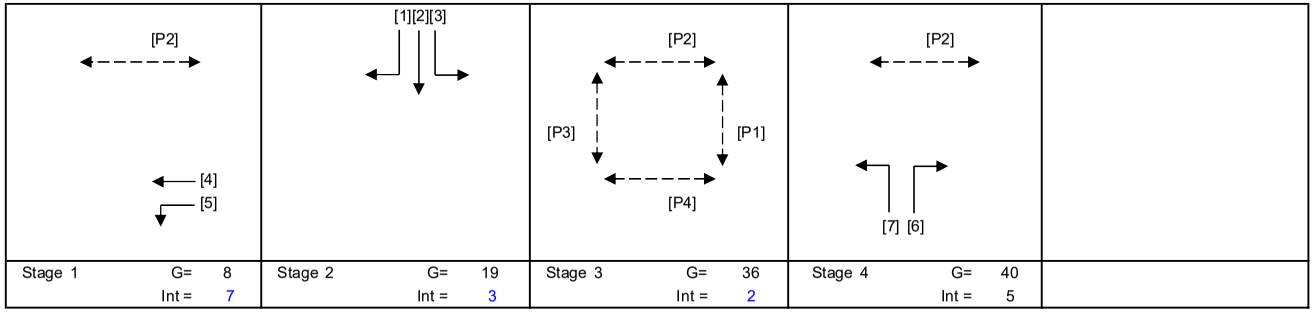
2031 Design PM

PROJECT NO.: 40646

FILENAME : J1_OCS_OYS.xlsx



No. of stages per cycle	N =	4
Cycle time	C =	120 sec
Sum(y)	Y =	0.291
Loss time	L =	50 sec
Total Flow	=	1055 pcu
Co = (1.5*L+5)/(1-Y)	=	112.8 sec
Cm = L/(1-Y)	=	70.5 sec
Yult	=	0.525
R.C.ult = (Yult-Y)/Y*100%	=	80.6 %
Cp = 0.9*L/(0.9-Y)	=	73.8 sec
Ymax = 1-L/C	=	0.583
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**81 %**



Stage 1	G= 8	Int = 7
Stage 2	G= 19	Int = 3
Stage 3	G= 36	Int = 2
Stage 4	G= 40	Int = 5

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	3	9	10	5	23	10
P2	1,3,4	5	18	3	77	18
P3	3	5	12	8	18	12
P4	3	11	12	7	19	12

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					
4,5	1	3.30	1	15			2085	42	31		73	0.58	1972							1972	0.037	0.037		9	9	0.498	12	59
5	1	3.30	1	10		N	1945	62			62	1.00	1691							1691	0.037			9	9	0.498	12	61
1,2	2	5.50	1	30		N	2165		177	5	182	0.03	2162							2162	0.084	0.084		20	20	0.498	30	45
2	2	3.30	1				2085		175		175	0.00	2085							2085	0.084			20	20	0.498	24	45
2,3	2	2.80	1	15		N	1895	5	153		158	0.03	1889							1889	0.084			20	20	0.498	24	46
6	4	3.65	1	20			2120			100	100	1.00	1972							1972	0.051			12	41	0.498	12	54
7	4	3.65	1	15		N	1980	305			305	1.00	1800							1800	0.169	0.169		41	41	0.498	36	31
PED	3																						36					

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
Prepared By:		SKL	Aug-25
Checked By:		SLN	Aug-25
Reviewed By:		SLN	Aug-25

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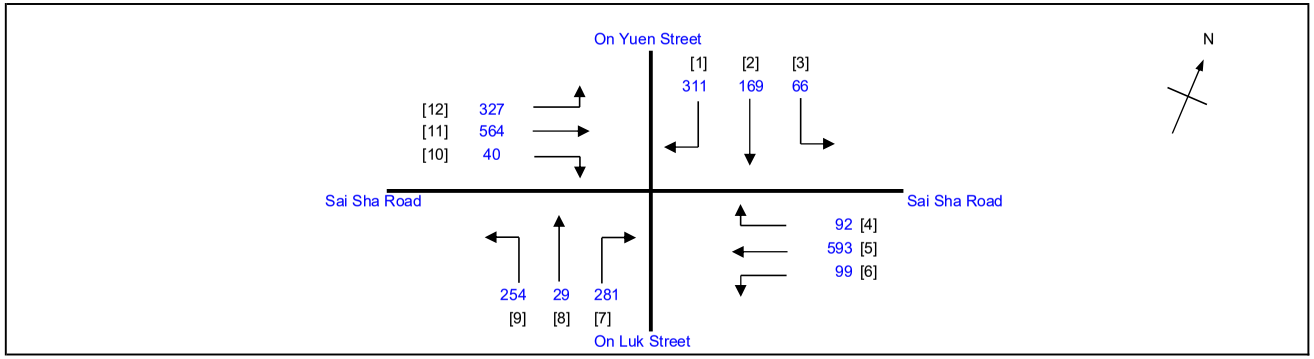
J2 On Yuen Street / Sai Sha Road

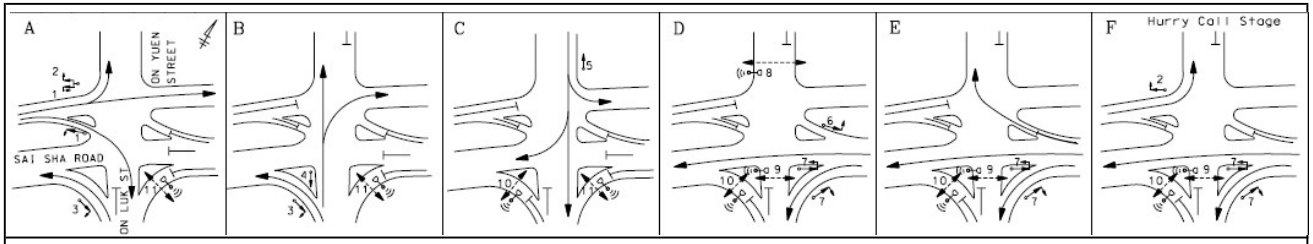
2031 Reference AM

PROJECT NO.: 40646

FILENAME : J2_SSR_OYS_OLS.xlsx



No. of stages per cycle	N =	6
Cycle time	C =	121 sec
Sum(y)	Y =	0.460
Loss time	L =	46 sec
Total Flow	=	2825 pcu
Co = (1.5*L+5)/(1-Y)	=	137.1 sec
Cm = L/(1-Y)	=	85.2 sec
Yult	=	0.555
R.C.ult = (Yult-Y)/Y*100%	=	20.6 %
Cp = 0.9*L/(0.9-Y)	=	94.2 sec
Ymax = 1-L/C	=	0.620
R.C.(C) = (0.9*Ymax-Y)/Y*100%	=	**21 %**



Stage 1	G= 21	Int = 5
Stage 2	G= 22	Int = 11
Stage 3	G= 14	Int = 4
Stage 4	G= 21	Int = 2
Stage 5	G= 6	Int = 7
Stage 6	G= 8	Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4	11	9	1	13	9
P2	4,5,6	10	8	8	28	8
P3	3,4,5,6	5	5	2	55	5
P4	1,2,3	5	5	2	70	5

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)
																							25					
1	3	3.35	1	30			2090			185	185	1.00	1990							1990	0.093	0.093		15	15	0.743	36	65
1,2	3	3.45	1	35			2100		63	126	189	0.67	2042							2042	0.093			15	15	0.743	36	64
2,3	3	3.45	1	10		N	1960	66	106		172	0.38	1853							1853	0.093			15	15	0.743	30	66
4	5	5.00	1	35			2255			92	92	1.00	2162							2162	0.043	0.043		7	7	0.743	18	88
5	4,5,6	3.50	3				6315		593		593	0.00	6315							6315	0.094			15	36	0.743	34	52
6	4,5,6	4.00	1	35		N	2015	99			99	1.00	1932							1932	0.051			8	36	0.743	18	85
7	2	3.75	1	20			2130			281	281	1.00	1981							1981	0.142	0.142		23	23	0.743	48	54
8	2	3.50	1				2105		29		29	0.00	2105							2105	0.014			2	23	0.743	6	173
9	1,2	4.00	1	35		N	2015	254			254	1.00	1932							1932	0.131			21	45	0.743	42	56
10	1	3.50	1	40			2105			40	40	1.00	2029	25	124					2153	0.019			3	22	0.743	12	140
11	1	3.50	2				4210		564		564	0.00	4210							4210	0.134			22	22	0.743	45	48
12	1,6	3.50	1	15		N	1965	327			327	1.00	1786							1786	0.183	0.183		30	30	0.743	48	48
PED	4																						21					

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
Prepared By:	SKL	Aug-25
Checked By:	SLN	Aug-25
Reviewed By:	SLN	Aug-25

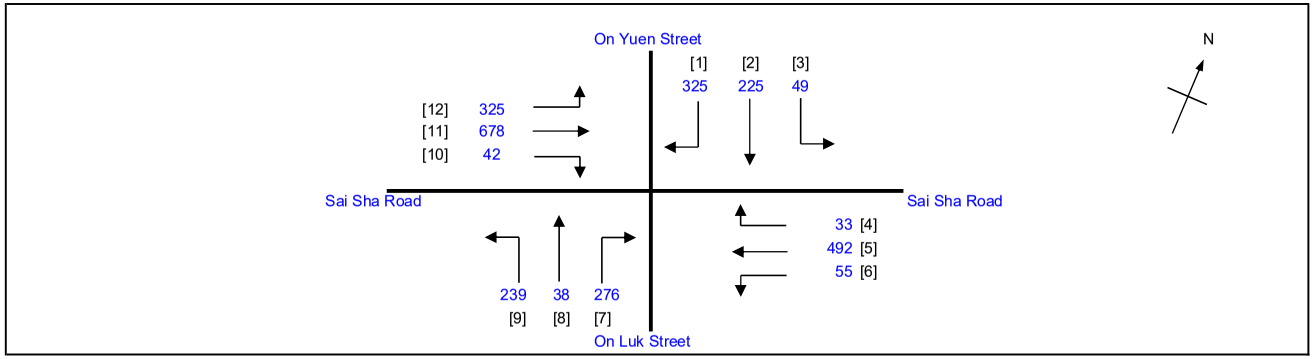
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J2 On Yuen Street / Sai Sha Road

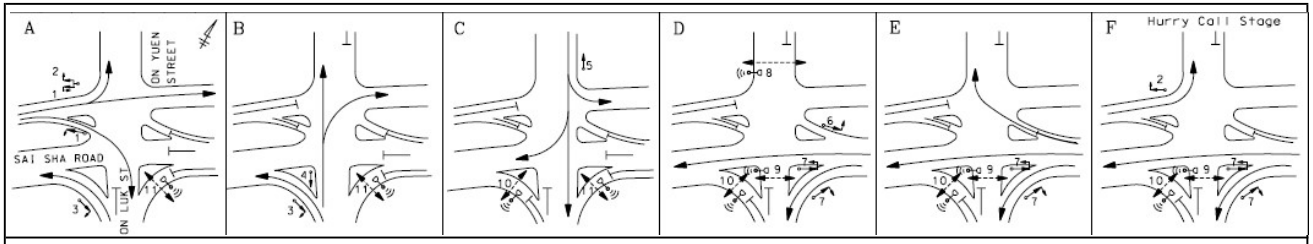
2031 Reference PM

PROJECT NO.: 40646

FILENAME : J2_SSR_OYS_OLS.xlsx



No. of stages per cycle		N =	6
Cycle time		C =	120 sec
Sum(y)		Y =	0.438
Loss time		L =	52 sec
Total Flow		=	2777 pcu
Co	= (1.5*L+5)/(1-Y)	=	147.7 sec
Cm	= L/(1-Y)	=	92.5 sec
Yult		=	0.510
R.C.ult	= (Yult-Y)/Y*100%	=	16.4 %
Cp	= 0.9*L/(0.9-Y)	=	101.3 sec
Ymax	= 1-L/C	=	0.567
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**16 %**



Stage 1	G= 24	Int = 5
Stage 2	G= 21	Int = 11
Stage 3	G= 15	Int = 4
Stage 4	G= 21	Int = 2
Stage 5	G= 5	Int = 7
Stage 6	G= 5	Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4	11	9	1	13	9
P2	4,5,6	10	8	8	25	8
P3	3,4,5,6	5	5	2	52	5
P4	1,2,3	5	5	2	72	5

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)
																							25					
1	3	3.35	1	30			2090			202	202	1.00	1990							1990	0.101	0.101		16	16	0.773	36	66
1,2	3	3.45	1	35			2100		84	123	207	0.59	2048							2048	0.101			16	16	0.773	36	66
2,3	3	3.45	1	10		N	1960	49	141		190	0.26	1887							1887	0.101			16	16	0.773	36	68
4	5	5.00	1	35			2255			33	33	1.00	2162							2162	0.015	0.015	4	2	6	0.773	12	182
5	4,5,6	3.50	3				6315		492		492	0.00	6315							6315	0.078			12	33	0.773	30	56
6	4,5,6	4.00	1	35		N	2015	55			55	1.00	1932							1932	0.028			4	33	0.773	12	129
7	2	3.75	1	20			2130			276	276	1.00	1981							1981	0.139	0.139		22	22	0.773	48	58
8	2	3.50	1				2105		38		38	0.00	2105							2105	0.018			3	22	0.773	12	165
9	1,2	4.00	1	35		N	2015	239			239	1.00	1932							1932	0.124			19	47	0.773	42	61
10	1	3.50	1	40			2105			42	42	1.00	2029	25	125					2154	0.019			3	25	0.773	12	154
11	1	3.50	2				4210		678		678	0.00	4210							4210	0.161			25	25	0.773	51	47
12	1,6	3.50	1	15		N	1965	325			325	1.00	1786							1786	0.182	0.182	2	28	30	0.773	48	52
PED	4																						21					

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
Prepared By:	SKL	Aug-25
Checked By:	SLN	Aug-25
Reviewed By:	SLN	Aug-25

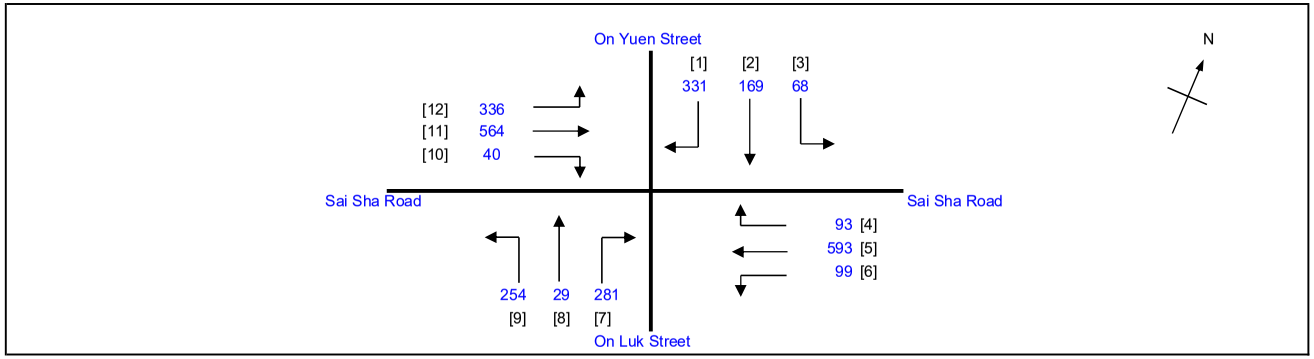
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J2 On Yuen Street / Sai Sha Road

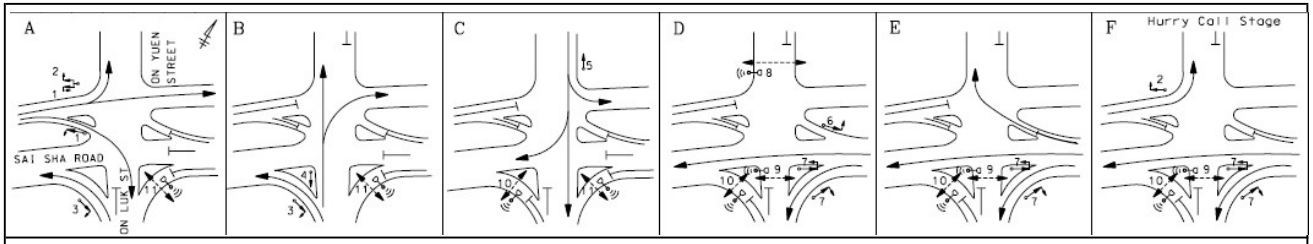
2031 Design AM

PROJECT NO.: 40646

FILENAME : J2_SSR_OYS_OLS.xlsx



No. of stages per cycle		N =	6
Cycle time		C =	121 sec
Sum(y)		Y =	0.470
Loss time		L =	46 sec
Total Flow		=	2857 pcu
Co	= (1.5*L+5)/(1-Y)	=	139.6 sec
Cm	= L/(1-Y)	=	86.8 sec
Yult		=	0.555
R.C.ult	= (Yult-Y)/Y*100%	=	18.1 %
Cp	= 0.9*L/(0.9-Y)	=	96.3 sec
Ymax	= 1-L/C	=	0.620
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**19 %**



Stage 1	G= 20	Stage 2	G= 22	Stage 3	G= 14	Stage 4	G= 21	Stage 5	G= 6	Stage 6	G= 9
	Int = 5		Int = 11		Int = 4		Int = 2		Int = 7		Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4	11	9	1	13	9
P2	4,5,6	10	8	8	29	8
P3	3,4,5,6	5	5	2	56	5
P4	1,2,3	5	5	2	69	5

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)
																							25					
1	3	3.35	1	30			2090			193	193	1.00	1990							1990	0.097	0.097		15	15	0.758	36	66
1,2	3	3.45	1	35			2100		59	138	197	0.70	2039							2039	0.097			15	15	0.758	36	65
2,3	3	3.45	1	10		N	1960	68	110		178	0.38	1854							1854	0.096			15	15	0.758	30	68
4	5	5.00	1	35			2255			93	93	1.00	2162							2162	0.043	0.043		7	7	0.758	18	92
5	4,5,6	3.50	3				6315		593		593	0.00	6315							6315	0.094			15	37	0.758	34	53
6	4,5,6	4.00	1	35		N	2015	99			99	1.00	1932							1932	0.051			8	37	0.758	18	89
7	2	3.75	1	20			2130			281	281	1.00	1981							1981	0.142	0.142		23	23	0.758	48	56
8	2	3.50	1				2105		29		29	0.00	2105							2105	0.014			2	23	0.758	6	186
9	1,2	4.00	1	35		N	2015	254			254	1.00	1932							1932	0.131			21	44	0.758	42	58
10	1	3.50	1	40			2105			40	40	1.00	2029	25	124					2153	0.019			3	21	0.758	12	149
11	1	3.50	2				4210		564		564	0.00	4210							4210	0.134			21	21	0.758	45	49
12	1,6	3.50	1	15		N	1965	336			336	1.00	1786							1786	0.188	0.188		30	30	0.758	48	49
PED	4																						21					

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
Prepared By:	SKL	Aug-25
Checked By:	SLN	Aug-25
Reviewed By:	SLN	Aug-25

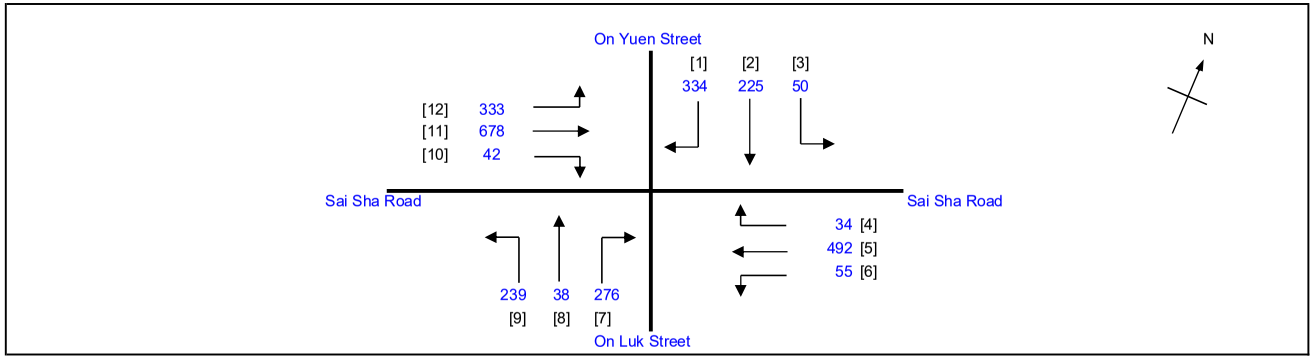
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J2 On Yuen Street / Sai Sha Road

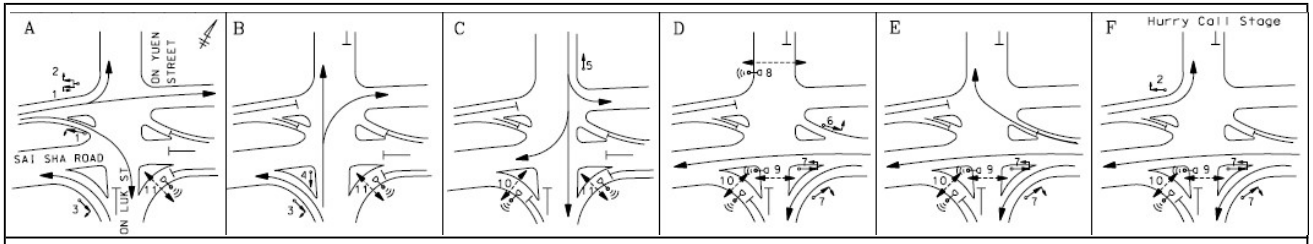
2031 Design PM

PROJECT NO.: 40646

FILENAME : J2_SSR_OYS_OLS.xlsx



No. of stages per cycle		N =	6
Cycle time		C =	120 sec
Sum(y)		Y =	0.445
Loss time		L =	52 sec
Total Flow		=	2796 pcu
Co	= (1.5*L+5)/(1-Y)	=	149.5 sec
Cm	= L/(1-Y)	=	93.7 sec
Yult		=	0.510
R.C.ult	= (Yult-Y)/Y*100%	=	14.6 %
Cp	= 0.9*L/(0.9-Y)	=	102.8 sec
Ymax	= 1-L/C	=	0.567
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**15 %**



Stage 1	G= 24	Int = 5
Stage 2	G= 20	Int = 11
Stage 3	G= 15	Int = 4
Stage 4	G= 21	Int = 2
Stage 5	G= 5	Int = 7
Stage 6	G= 6	Int =

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	4	11	9	1	13	9
P2	4,5,6	10	8	8	25	8
P3	3,4,5,6	5	5	2	53	5
P4	1,2,3	5	5	2	72	5

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)
																							25					
1	3	3.35	1	30			2090			206	206	1.00	1990							1990	0.103	0.103		16	16	0.785	36	68
1,2	3	3.45	1	35			2100		81	128	209	0.61	2046							2046	0.102			16	16	0.785	36	68
2,3	3	3.45	1	10		N	1960	50	144		194	0.26	1887							1887	0.103			16	16	0.785	36	69
4	5	5.00	1	35			2255			34	34	1.00	2162							2162	0.016	0.016	4	2	6	0.785	12	189
5	4,5,6	3.50	3				6315		492		492	0.00	6315							6315	0.078			12	12	0.785	30	57
6	4,5,6	4.00	1	35		N	2015	55			55	1.00	1932							1932	0.028			4	12	0.785	12	136
7	2	3.75	1	20			2130			276	276	1.00	1981							1981	0.139	0.139		21	21	0.785	48	59
8	2	3.50	1				2105		38		38	0.00	2105							2105	0.018			3	21	0.785	12	175
9	1,2	4.00	1	35		N	2015	239			239	1.00	1932							1932	0.124			19	46	0.785	42	63
10	1	3.50	1	40			2105			42	42	1.00	2029	25	125					2154	0.019			3	25	0.785	12	163
11	1	3.50	2				4210		678		678	0.00	4210							4210	0.161			25	25	0.785	51	48
12	1,6	3.50	1	15		N	1965	333			333	1.00	1786							1786	0.186	0.186	2	28	30	0.785	54	53
PED	4																						21					

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
Prepared By:		SKL	Aug-25
Checked By:		SLN	Aug-25
Reviewed By:		SLN	Aug-25

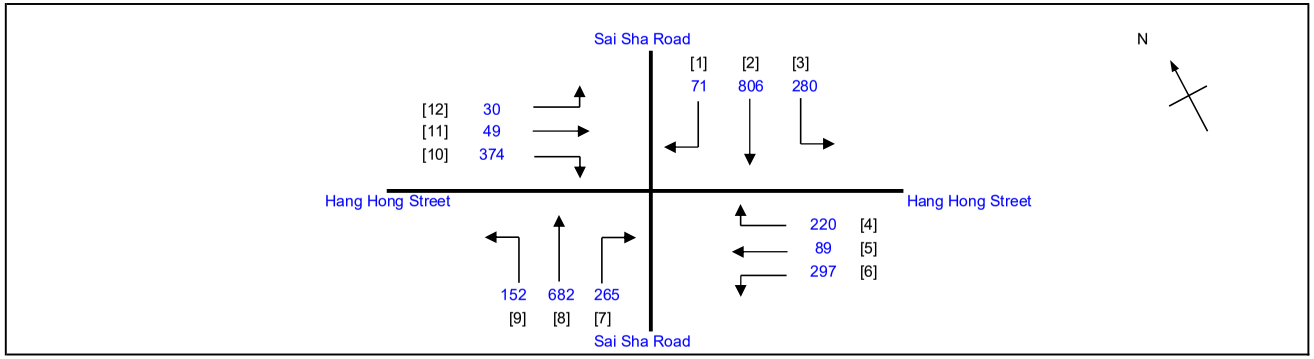
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J3 Sai Sha Road / Hang Hong Street

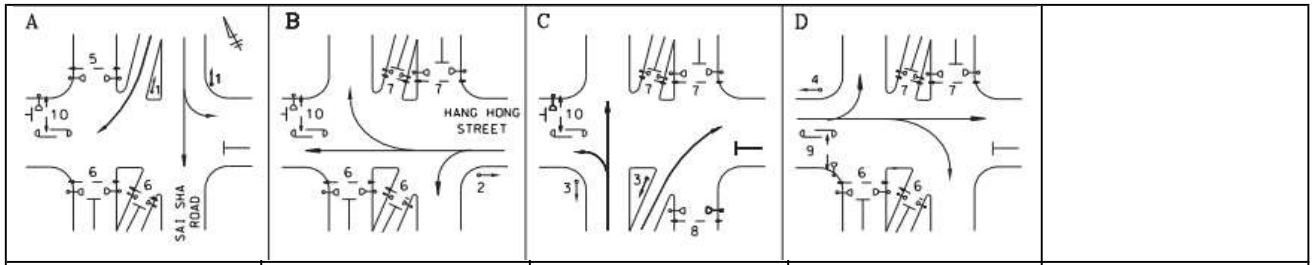
2031 Reference AM

PROJECT NO.: 40646

FILENAME : J3_SSR_HHS.xlsx



No. of stages per cycle		N =	4
Cycle time		C =	123 sec
Sum(y)		Y =	0.517
Loss time		L =	29 sec
Total Flow		=	3315 pcu
Co	= (1.5*L+5)/(1-Y)	=	100.3 sec
Cm	= L/(1-Y)	=	60.0 sec
Yult		=	0.683
R.C.ult	= (Yult-Y)/Y*100%	=	32.1 %
Cp	= 0.9*L/(0.9-Y)	=	68.1 sec
Ymax	= 1-L/C	=	0.764
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**33 %**



Stage 1	G= 23	Int = 8
Stage 2	G= 29	Int = 9
Stage 3	G= 19	Int = 6
Stage 4	G= 19	Int = 10

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	5	10	4	17	10
P2	1,2,4	17	12	2	84	12
P3	2,3,4	19	12	1	79	12
P4	3	5	10	2	13	10
P5	4	5	7	6	16	7
P6	1,2,3	5	9	1	84	9

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)
																							29					
1	1	5.00	1	35			2255			71	71	1.00	2162							2162	0.033			6	24	0.676	12	84
2	1	3.50	2				4210		558		558	0.00	4210							4210	0.133			24	24	0.676	45	45
2,3	1	3.50	1	40			2105	30	248		278	0.11	2097							2097	0.133			24	24	0.676	42	49
3	1	3.50	1	35		N	1965	250			250	1.00	1884							1884	0.133	0.133		24	24	0.676	36	50
4	2	3.40	1	30			2095		0	220	220	1.00	1995							1995	0.110			20	30	0.676	36	54
4,5	2	3.40	1	35			2095		89		89	0.00	2095							2095	0.042			8	30	0.676	18	76
6	2	3.40	1	15		N	1955	297			297	1.00	1777							1777	0.167	0.167		30	30	0.676	42	45
7	3	4.00	1	30		N	2015			128	128	1.00	1919							1919	0.067			12	20	0.676	24	66
7	3	4.00	1	35			2155			137	137	1.00	2066							2066	0.066			12	20	0.676	24	65
8	3	3.30	3				6255		682		682	0.00	6255							6255	0.109	0.109		20	20	0.676	38	47
9	3	3.30	1	15		N	1945	152			152	1.00	1768							1768	0.086			16	20	0.676	24	61
10	4	3.30	1	20			2085			209	209	1.00	1940							1940	0.108	0.108		20	20	0.676	36	55
10,11,12	4	3.30	1	25			2085	0	49	165	214	0.77	1993							1993	0.107			20	20	0.676	36	55
12	4	3.30	1	15		N	1945	30			30	1.00	1768							1768	0.017			3	20	0.676	6	130

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
Prepared By:	SKL	Aug-25
Checked By:	SLN	Aug-25
Reviewed By:	SLN	Aug-25

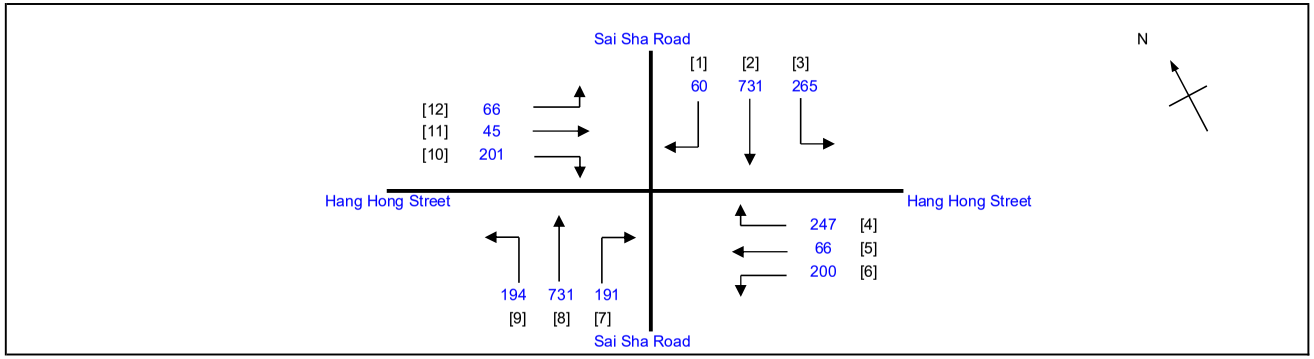
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J3 Sai Sha Road / Hang Hong Street

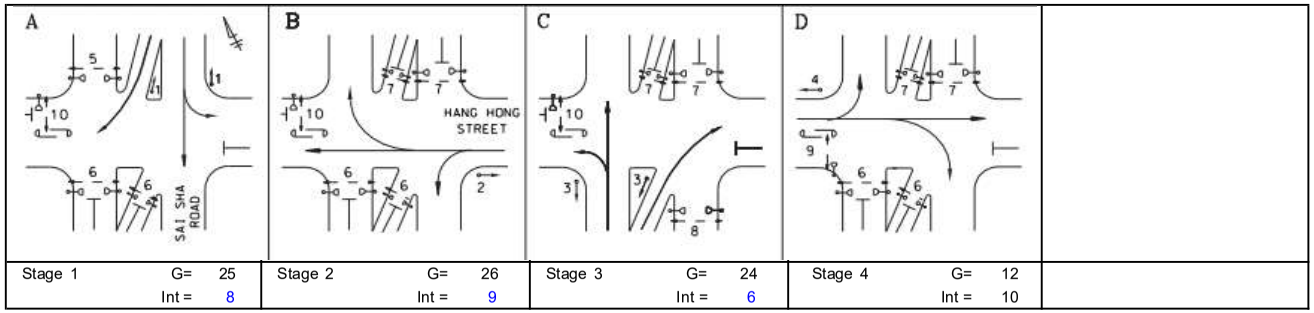
2031 Reference PM

PROJECT NO.: 40646

FILENAME : J3_SSR_HHS.xlsx



No. of stages per cycle		N =	4
Cycle time		C =	120 sec
Sum(y)		Y =	0.425
Loss time		L =	29 sec
Total Flow		=	2997 pcu
Co	= (1.5*L+5)/(1-Y)	=	84.3 sec
Cm	= L/(1-Y)	=	50.4 sec
Yult		=	0.683
R.C.ult	= (Yult-Y)/Y*100%	=	60.7 %
Cp	= 0.9*L/(0.9-Y)	=	54.9 sec
Ymax	= 1-L/C	=	0.758
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**61 %**



Stage 1	G= 25	Stage 2	G= 26	
	Int = 8		Int = 9	
Stage 3	G= 24	Stage 4	G= 12	
	Int = 6		Int = 10	

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	5	10	4	19	10
P2	1,2,4	17	12	2	76	12
P3	2,3,4	19	12	1	74	12
P4	3	5	10	2	18	10
P5	4	5	7	6	9	7
P6	1,2,3	5	9	1	88	9

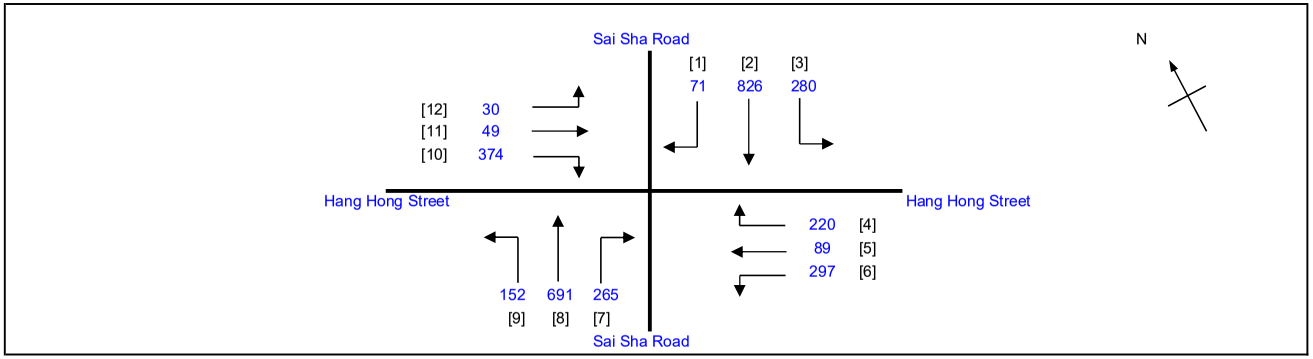
Move-ment	Stage	Lane Width m.	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement Left pcu/h	Straight pcu/h	Right pcu/h	Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare Lane m.	Flare Effect pcu/hr	Site Factor	Site Effect pcu/hr	Gradient %	Gradient Effect pcu/hr	Revised Sat. 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)
																							29					
1	1	5.00	1	35			2255			60	60	1.00	2162							2162	0.028			6	26	0.560	12	69
2	1	3.50	2				4210		512		512	0.00	4210							4210	0.122			26	26	0.560	39	40
2,3	1	3.50	1	40			2105	36	219		255	0.14	2094							2094	0.122	0.122		26	26	0.560	36	42
3	1	3.50	1	35		N	1965	229			229	1.00	1884							1884	0.122			26	26	0.560	30	43
4	2	3.40	1	30			2095		0	247	247	1.00	1995							1995	0.124	0.124		27	27	0.560	36	42
4,5	2	3.40	1	35			2095		66		66	0.00	2095							2095	0.032			7	27	0.560	12	67
6	2	3.40	1	15		N	1955	200			200	1.00	1777							1777	0.113			24	27	0.560	30	45
7	3	4.00	1	30		N	2015			92	92	1.00	1919							1919	0.048			10	25	0.560	12	60
7	3	4.00	1	35			2155			99	99	1.00	2066							2066	0.048			10	25	0.560	18	59
8	3	3.30	3				6255		731		731	0.00	6255							6255	0.117	0.117		25	25	0.560	38	40
9	3	3.30	1	15		N	1945	194			194	1.00	1768							1768	0.110			24	25	0.560	30	45
10	4	3.30	1	20			2085			121	121	1.00	1940							1940	0.062	0.062		13	13	0.560	18	55
10,11,12	4	3.30	1	25			2085	0	45	80	125	0.64	2008							2008	0.062			13	13	0.560	18	55
12	4	3.30	1	15		N	1945	66			66	1.00	1768							1768	0.037			8	13	0.560	12	66

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

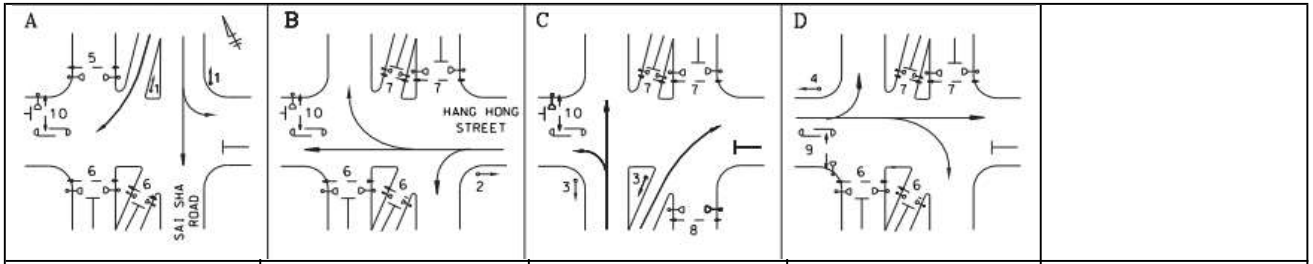
LLA CONSULTANCY LIMITED

TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)			
J3 Sai Sha Road / Hang Hong Street	**2031 Design AM**	Prepared By:	SKL	Aug-25
	PROJECT NO.: 40646	Checked By:	SLN	Aug-25
	FILENAME : J3_SSR_HHS.xlsx	Reviewed By:	SLN	Aug-25



No. of stages per cycle		N =	4
Cycle time		C =	123 sec
Sum(y)		Y =	0.521
Loss time		L =	29 sec
Total Flow		=	3344 pcu
Co	= (1.5*L+5)/(1-Y)	=	101.2 sec
Cm	= L/(1-Y)	=	60.5 sec
Yult		=	0.683
R.C.ult	= (Yult-Y)/Y*100%	=	31.1 %
Cp	= 0.9*L/(0.9-Y)	=	68.8 sec
Ymax	= 1-L/C	=	0.764
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**32 %**



Stage 1	G= 23	Int = 8
Stage 2	G= 29	Int = 9
Stage 3	G= 19	Int = 6
Stage 4	G= 18	Int = 10

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	5	10	4	17	10
P2	1,2,4	17	12	2	84	12
P3	2,3,4	19	12	1	79	12
P4	3	5	10	2	13	10
P5	4	5	7	6	15	7
P6	1,2,3	5	9	1	85	9

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)
																							29					
1	1	5.00	1	35			2255			71	71	1.00	2162							2162	0.033			6	24	0.681	12	85
2	1	3.50	2				4210		567		567	0.00	4210							4210	0.135			24	24	0.681	45	45
2,3	1	3.50	1	40			2105	25	259		284	0.09	2098							2098	0.135	0.135		24	24	0.681	42	49
3	1	3.50	1	35		N	1965	255			255	1.00	1884							1884	0.135			24	24	0.681	42	50
4	2	3.40	1	30			2095		0	220	220	1.00	1995							1995	0.110			20	30	0.681	36	54
4,5	2	3.40	1	35			2095		89		89	0.00	2095							2095	0.042			8	30	0.681	18	77
6	2	3.40	1	15		N	1955	297			297	1.00	1777							1777	0.167	0.167		30	30	0.681	42	46
7	3	4.00	1	30		N	2015			128	128	1.00	1919							1919	0.067			12	20	0.681	24	67
7	3	4.00	1	35			2155			137	137	1.00	2066							2066	0.066			12	20	0.681	24	66
8	3	3.30	3				6255		691		691	0.00	6255							6255	0.110	0.110		20	20	0.681	38	47
9	3	3.30	1	15		N	1945	152			152	1.00	1768							1768	0.086			16	20	0.681	24	62
10	4	3.30	1	20			2085			209	209	1.00	1940							1940	0.108	0.108		19	19	0.681	36	55
10,11,12	4	3.30	1	25			2085	0	49	165	214	0.77	1993							1993	0.107			19	19	0.681	36	55
12	4	3.30	1	15		N	1945	30			30	1.00	1768							1768	0.017			3	19	0.681	6	132

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

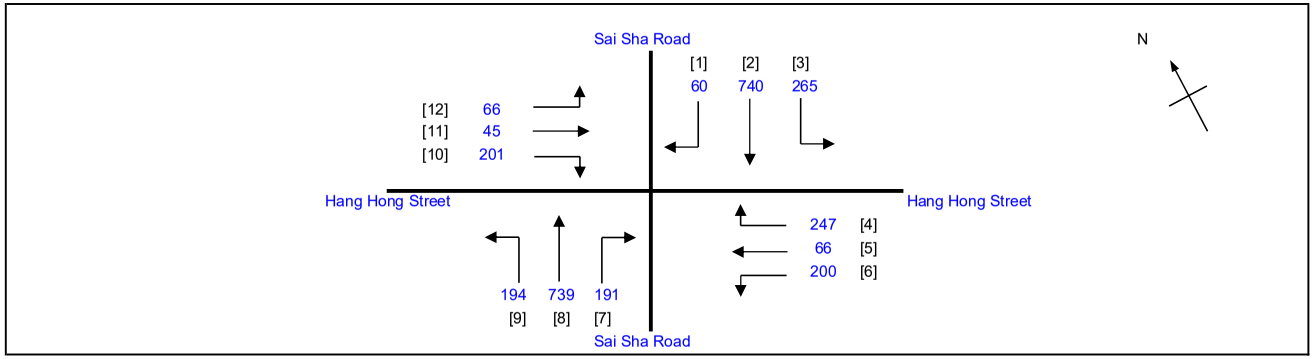
TRAFFIC SIGNAL CALCULATION

		INITIALS	DATE
PROJECT NO.: 40646	Prepared By:	SKL	Aug-25
FILENAME : J3_SSR_HHS.xlsx	Checked By:	SLN	Aug-25
	Reviewed By:	SLN	Aug-25

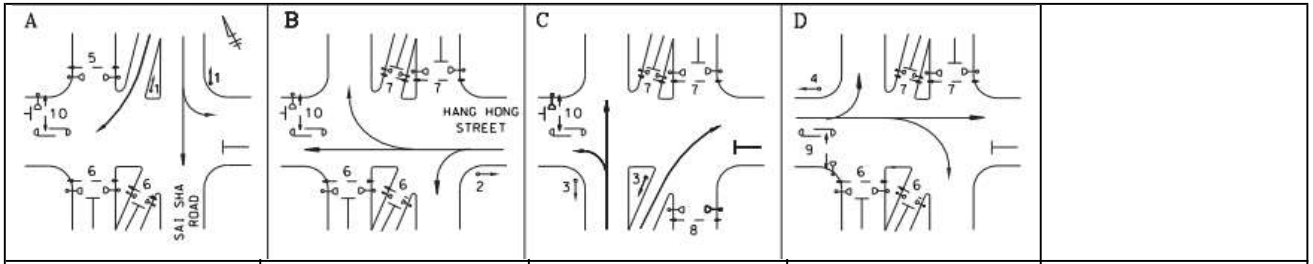
Proposed Exhibition or Convention Hall within the Permitted In-situ Conversion of Existing Hotel into Residential Development cum Shop and Services/Eating Place in "Residential (Group A) 12" Zone, No. 29 On Chun Street, Ma On Shan (Sha Tin Town Lot No. 461)

J3 Sai Sha Road / Hang Hong Street

2031 Design PM



No. of stages per cycle		N =	4
Cycle time		C =	120 sec
Sum(y)		Y =	0.427
Loss time		L =	29 sec
Total Flow		=	3014 pcu
Co	= (1.5*L+5)/(1-Y)	=	84.7 sec
Cm	= L/(1-Y)	=	50.7 sec
Yult		=	0.683
R.C.ult	= (Yult-Y)/Y*100%	=	59.7 %
Cp	= 0.9*L/(0.9-Y)	=	55.2 sec
Ymax	= 1-L/C	=	0.758
R.C.(C)	**= (0.9*Ymax-Y)/Y*100%**	=	**60 %**



Stage 1	G= 25	Int = 8
Stage 2	G= 25	Int = 9
Stage 3	G= 24	Int = 6
Stage 4	G= 12	Int = 10

Pedestrian Phase	Stage	Green Time Required SG	FG	Delay	Green Time Provided SG	FG
P1	1	5	10	4	19	10
P2	1,2,4	17	12	2	76	12
P3	2,3,4	19	12	1	74	12
P4	3	5	10	2	18	10
P5	4	5	7	6	9	7
P6	1,2,3	5	9	1	88	9

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)
																							29					
1	1	5.00	1	35			2255			60	60	1.00	2162							2162	0.028			6	26	0.564	12	70
2	1	3.50	2				4210		516		516	0.00	4210							4210	0.123			26	26	0.564	39	40
2,3	1	3.50	1	40			2105	33	224		257	0.13	2095							2095	0.123			26	26	0.564	36	42
3	1	3.50	1	35		N	1965	232			232	1.00	1884							1884	0.123	0.123		26	26	0.564	36	43
4	2	3.40	1	30			2095		0	247	247	1.00	1995							1995	0.124	0.124		26	26	0.564	36	42
4,5	2	3.40	1	35			2095		66		66	0.00	2095							2095	0.032			7	26	0.564	12	68
6	2	3.40	1	15		N	1955	200			200	1.00	1777							1777	0.113			24	26	0.564	30	45
7	3	4.00	1	30		N	2015			92	92	1.00	1919							1919	0.048			10	25	0.564	12	60
7	3	4.00	1	35			2155			99	99	1.00	2066							2066	0.048			10	25	0.564	18	59
8	3	3.30	3				6255		739		739	0.00	6255							6255	0.118	0.118		25	25	0.564	38	40
9	3	3.30	1	15		N	1945	194			194	1.00	1768							1768	0.110			23	25	0.564	30	45
10	4	3.30	1	20			2085			121	121	1.00	1940							1940	0.062	0.062		13	13	0.564	18	55
10,11,12	4	3.30	1	25			2085	0	45	80	125	0.64	2008							2008	0.062			13	13	0.564	18	55
12	4	3.30	1	15		N	1945	66			66	1.00	1768							1768	0.037			8	13	0.564	12	67

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

Proposed Car Park Layout Plan

Application Site Boundary

Residential

Commercial

Exhibition / Convention Hall

Covered Carpark & Driveway

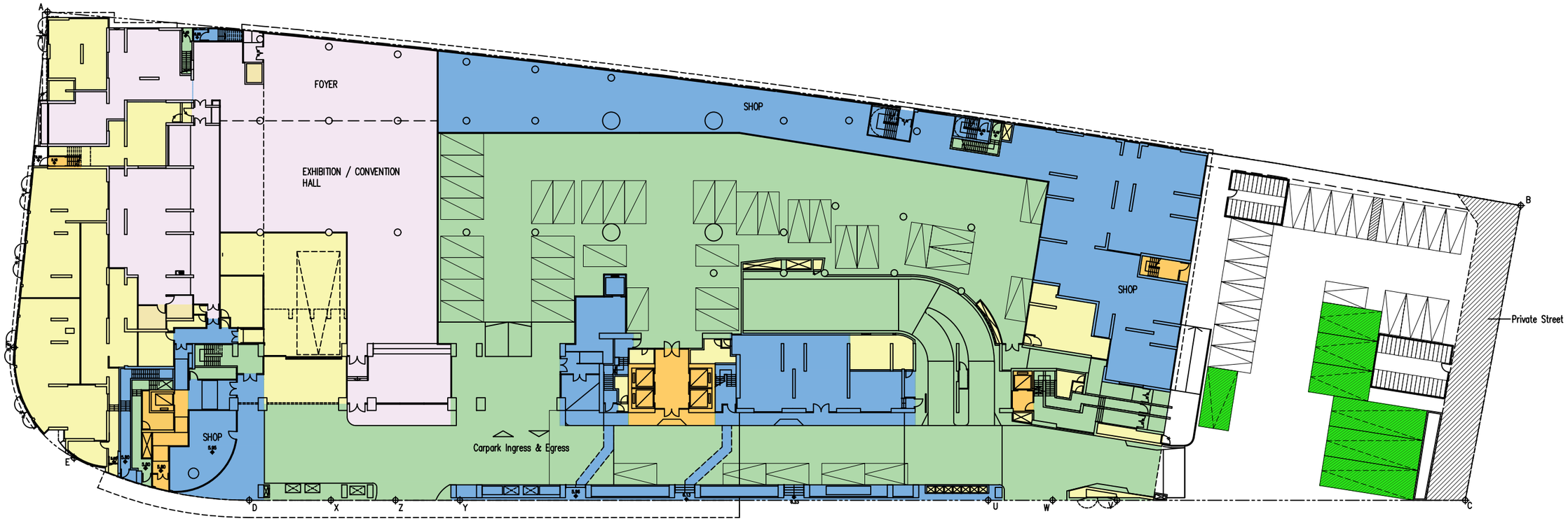
E&M

Double Decked Mechanical Car Parking

Car Parking Space

Double Decked Bicycle Parking

Loading / Unloading Bay



No.29 On Chun Street, Ma On Shan (STTL 461)
S16 Planning Application

PROPOSED SCHEME

L1 FLOOR
Scale : 1:500

CARPARK SCHEDULE:

RESIDENTIAL C/P	:	148 Nos.
RESIDENTIAL VISITOR	:	5 Nos.
COMMERCIAL C/P	:	21 Nos
EXHIBITION/CONVENTION HALL C/P	:	7 Nos.
TOTAL	:	181 Nos
Motorcycle	:	12 Nos
Bicycle	:	120 Nos

No.29 On Chun Street, Ma On Shan (STTL 461)

S16 Planning Application

PROPOSED SCHEME

BASEMENT FLOOR

Scale : 1:500