

Appendix 4

Traffic Impact Assessment

Yuen Long Theater DD 120 Lot 3678

Traffic Impact Assessment Report

March 2024



CTA Consultants Limited

志達顧問有限公司



1. INTRODUCTION

1.1 Background

1.1.1 CTA Consultants Limited (“CTA”) is commissioned by the Applicant to prepare a Traffic Impact Assessment Study for a proposed development of Lot 3678 in DD120, Yuen Long for RCHE, residential and retail uses.

1.1.2 The client intends to provide 220 beds for the RCHE purpose and 72 units for the residential use and shops (the “Proposed Development”).

1.1.3 This TIA study aims to examine the impact of the traffic generated by the proposed number of beds in the vicinity. Improvement proposals where needed would be recommended if necessary to resolve any foreseeable traffic issues.

1.2 Study Objectives

1.2.1 The main objectives of this study are listed below:

- To assess the existing traffic condition in the vicinity of the proposed development;
- To forecast traffic flows on the adjacent road network in the design year 2030;
- To estimate the likely traffic generated by the proposed development;
- To appraise the traffic impact induced by the proposed development on the adjacent road network;
- To recommend traffic improvement measures to alleviate any foreseeable traffic problem to the surrounding road network, if any.



2. THE PROPOSED DEVELOPMENT

2.1 Site Location

2.1.1 The proposed development is located at Lot 3678 in D.D. 120, Yuen Long as shown in **Figure 2.1**.

2.2 Development Proposal

2.2.1 Development parameters of the proposed development are listed in **Table 2.1**.

Table 2.1 Development Parameters of the Proposed Development

	Development Parameters	
Proposed Use	Flats, Residential Care Home for the Elderly (RCHE) & Shops and services	
Site Area	~780m ²	
Accountable GFA	Shop and services	1,740 m ²
	RCHE	4,730 m ²
	Flats	2,983 m ²
	Total	9,453 m ²
No of blocking	1	
No of beds & units	220 beds (RCHE) & 72 units (Flats)	
No of storey	21 storeys and 2 basement floors	

2.2.2 It is anticipated that the proposed development will be commissioned in year 2027. Therefore, design year 2030 (i.e., 3 years after the planned commencement year of the proposed development) is adopted for the Traffic Impact Assessment.



2.2.3 Staffs are not allowed to use the parking spaces unless they are authorised by their management team.

2.2.4 Therefore, staffs will take the public transport to/ from their work.

2.3 Provision of Access Arrangement

2.3.1 Yuen Long Pau Cheung Square is the only road connects to the proposed development. The vehicular access of the proposed development will be also located at the Yuen Long Pau Cheung Square. The location of the vehicular access is shown in the **Figure 2.2**.

2.4 Car lift Assessment

2.4.1 The details breakdown of the car park are listed in the **Table 2.2**, and the car park layout plans are shown in the **Figure 2.3, Figure 2.4 and Figure 2.5**.

Table 2.2 Breakdown of the Car Parking Spaces

Total Car Park Nos	23(PV) + 2 (Disable Parking) + 1 (L/UL for 7m) +1(L/UL for ambulance) nos.	
the Breakdown of the car parking spaces	G/F	2 L/UL spaces
	B1/F	10 (PV) +1 (Disable Parking)
	B2/F	13 (PV) spaces +1(Disable Parking)
Car Entry/Exit	1 no.	
Waiting Spaces at G/F	1 no.	

2.4.2 The Queue Length / Waiting Space Assessment

Methodology

The queuing situation can be assessed based on a single channel queuing system, thus Poisson distribution and multi-server queuing (M/M/N) theory is used.

The assessment is work out the probability that n vehicles are in the car-lift system.

The formula in deriving the probability is given by:

$$P(n) = \frac{1}{\sum_{n=0}^{N-1} \frac{e^n}{n!} + \frac{e^N}{N! \left(1 - \frac{e}{N}\right)}} \quad \text{for } n = 0$$

$$P(n) = \frac{e^n}{n!} P(0) \quad \text{for } 0 < n \leq N$$

$$P(n) = \frac{e^n}{N^{n-N} N!} P(0) \quad \text{for } n > N$$

where:	$P(n)$	= Probability of n vehicles in the system
	λ	= Peak 15-minutes arrival rate
	μ	= Servicing rate
	n	= Number of vehicles in the system
	N	= Number of car lift
	e	= λ / μ

2.4.3 The Derivation of Arrival Rate (λ)

In house trip generation/ attraction data due to the parking space for both proposed development is shown in the **Table 2.3**.

Table 2.3 Peak 15 Minutes Arrival Rate of Redevelopment

Trip Generations (pcu/hr/parking spaces) at Weekday			
AM Peak		PM Peak	
Generation	Attraction	Generation	Attraction
0.01	0.17	0.13	0.02

Based on the Table 2.3 above, the maximum peak 15 minutes arrival rate is 0.0425 veh/15 minutes/ space (=0.17 x 15 mins /60 mins).

The peak 15 minutes arrival rate (λ) = 0.0425 x 25 = **1.0625**

2.4.4 Servicing Rate (μ)

The vertical speed of the car lifts in the proposed development is assumed to be 0.5



m/s (“s”) in this assessment.

The average servicing rate is:

	Distance in m (d)	Travelling Time in sec (t) (=d/s)	Parking Spaces (P)	P x t
G/F to B1/F	5 m	10	11	110
G/F to B2/F	10m	20	14	280
		Total	25	390
			Weighted Average	$\mu = 390/25$ $= 15.6\text{sec}$

2.4.5 Estimate Car Lift Round Trip Time

Estimate Trip Time for Arrival	Required Time
Door Opening time at G/F	3.0 sec
Car existing lift (for departing vehicle, if any)	10.0 sec
Car entering lift (for arriving vehicle)	10.0 sec
Safety Buffer	5.0 sec
Door Closing time at G/F	3.0 sec
Travelling time from G/F to parking floors	15.6 sec
Door opening time at parking floors	3.0 sec
Car existing lift (for arriving vehicle)	10.0 sec
Car entering lift (for departing vehicle)	10.0 sec
Safety Buffer	5.0 sec
Door Closing time at parking floor	3.0 sec
Travelling time from parking floor to G/F	15.6 sec
Total Round Trip Time	<u>93.2sec</u>

Servicing rate (μ) = 15 mins x 60/93.2 = 9.6567 veh/ 15 mins

The probability that n vehicles are in the car-lift system is given by:

$$P(n) = \frac{1}{\sum_{n=0}^{N-1} \frac{e^n}{n!} + \frac{e^N}{N! \left(1 - \frac{e}{N}\right)}} \quad \text{for } n = 0$$

$$P(n) = \frac{e^n}{n!} P(0) \quad \text{for } 0 < n \leq N$$

$$P(n) = \frac{e^n}{N^{n-N} N!} P(0) \quad \text{for } n > N$$

where:	$P(n)$	= Probability of n vehicles in the system	
	λ	= Peak 15-minutes arrival rate	= 1.0625
	μ	= Servicing rate	= <u>9.6567 veh/15mins</u>
	N	= Number of car lift	= <u>1</u>
	e	= λ / μ	= <u>0.11</u>
	n	= Number of vehicles in the system	

2.4.6 Probability of requiring Waiting Space

Table 2.4 Probability of requiring waiting space

n	λ	μ	e	N	P(n)
0	1	9.6567	0.11	1	0.889972765
1	1	9.6567	0.11	1	0.097921243
2	1	9.6567	0.11	1	0.010774004
Total					0.998668011

As can be seen, it is anticipated that the probability for car park traffic will require waiting space is 0.0013 (= 1 - 0.998668011), i.e. approximately 1 out of 769 times.



2.4.7 Probability of requiring 1 no. Waiting Space

Table 2.5 Probability of requiring more than 1 waiting space

n	λ	μ	e	N	P(n)
0	1	9.6567	0.11	1	0.889972765
1	1	9.6567	0.11	1	0.097921243
2	1	9.6567	0.11	1	0.010774004
3	1	9.6567	0.11	1	0.001185434
Total					0.999853445

As can be seen, it is anticipated that the probability for car park traffic will require more than “one” waiting spaces is negligible and is 0.0001 (= 1-0.999853445), i.e. approximately 1 out of 10000 times.

2.4.8 Summary and Conclusion

The above assessment shows that there’s a chance for creating a queue for car waiting, more than “one” waiting space provided is negligible. The results are given as:

Probability of requiring a waiting space = 0.0013
(1 out of 769 times)

Probability of requiring more than “one” waiting spaces = 0.0001
(1 out of 10000 times)

Based on the assessment results, it is concluded that the proposed development requires 1 waiting space on the G/F.



3. EXISTING TRAFFIC CONDITIONS

3.1 Existing Road Network

- 3.1.1 The proposed development is located in Lot 3678 in D.D. 120, Yuen Long as shown in **Figure 2.1**.
- 3.1.2 Wang Chau Road is a single two-lane Local Distributor road, which connects Yuen Long On Lok Road and Yuen Long On Ning Road.
- 3.1.3 Yuen Long On Ning Road is a District Distributor road parallel to Castle Peak Road Yuen Long Section, connecting many north-south Local Distributor roads of the direction of this area.
- 3.1.4 Yuen Long Pau Cheung Square is the only vehicular access to Yuen Long Cinema, it is a cul-de-sac in the south end, but a turnaround back to the Yuen Long On Ning Road in the north.
- 3.1.5 Long Yip Street and Yuen Long On Lok Road are the two Primary Distributor road connect the east-west direction of the area where Yuen Long Cinema situated.

3.2 Critical Junctions in Surrounding Area

- 3.2.1 In order to study the existing traffic condition of the area as requested by the Transport Department, a comprehensive traffic survey has been conducted.
- 3.2.2 Based on the location of the Lot and the road network in the vicinity, eight key junctions are identified for this Traffic Impact Assessment (TIA) due to the Proposed Development and listed in **Table 2.1**. The location of the junctions is shown in **Figure 3.1**, while the details of each are illustrated in **Figures** from **3.2** to **3.5** respectively.
- 3.2.3 The traffic count surveys were carried out at the critical junctions in the vicinity of the Proposed Development.



Table 3.1 Identified Key Junctions

Ref.	Junction	Type	Figure No.
A	Long Yip Street/ Po Yip Street/ Yuen Long On Lok Road	Signal	3.2
B	Wang Chau Road/ Yuen Long On Ling Road	Signal	3.3
C	Yuen Long On Ning Road/ Yuen Long Pau Cheung	Priority	3.4
D	Yuen long Tai Hang Street/ Yuen long Tung Tai Street	Priority	3.5

Traffic Survey

3.2.4 In order to appraise the existing traffic conditions of these junctions, a traffic survey in the form of manual classified was conducted on 08 January 2024 during AM and PM peak. The conducted survey time would be from 7:30am to 9:30am, and from 5:30pm to 7:30pm.

3.2.5 Throughout the survey, the peak hour flows occurred from 7:45am to 8:45am and from 5:30pm to 6:30 pm respectively. The 2024 observed traffic flows are presented in **Figure 3.6**.

Junction Assessments

3.2.6 Operation performance of the critical junctions has been examined in accordance with the existing traffic flow and the results are summarised in the **Table 3.2** below. Details of the junction assessment are enclosed in the **Appendix A**.



Table 3.2 Existing Operational Performance of Key Junctions in 2024

Ref.	Junction		Method of Control	Year 2024 RC/DFC ⁽¹⁾	
				AM Peak	PM Peak
A	A1	Long Yip Street/ Po Yip Street/	Signal	59%	75%
	A2	Long Yip Street/ Po Yip Street		92%	135%
	A3	Yuen Long On Lok Road/ Long Yip Street		130%	112%
B	Wang Chau Road/ Yuen Long On Ling Road		Signal	90%	66%
C	Yuen Long On Ning Road/ Yuen Long Pau Cheung		Priority	0.04	0.04
D	Yuen long Tai Hang Street/ Yuen long Tung Tai Street		Priority	0.28	0.35

Notes: (1) RC = Reserve Capacity; DFC = Ratio of Flow to Capacity for Priority Junction

3.2.7 The assessment results in **Table 3.2** indicate that all key junctions are operating with ample capacities during the peak hours in 2024.

3.3 Internal Transport Facilities Provisions

3.3.1 There is no requirements stipulated in the latest Hong Kong Planning Standards and Guidelines (HKPSG). Yet, the parking provision of other existing RCHE have been referenced and summarized in the **Table 3.3**.

Table 3.3 Examples of Existing RCHE

Name of RCHE	Location	No. of beds	No. of Staff	Observed no. of Parking Provision	Parking Facilities ⁽¹⁾⁽²⁾⁽³⁾ (Category 1/2/3)
Assemblies of God Holy Light Church Aged Home	91 Sung Ching Sun Tsuen, Tai Tong Road, Yuen Long	60	19	Nil	Category 1
Chinese Christian Worker's Fellowship Wah Hei Elderly Home (Comet Mansion)	G/F & M/F, Shop 27, Comet Mansion, 45-67 Fung Cheung Road, Yuen Long	105	29	Nil	Category 1
Pok Oil Hospital Jockey Club Care and Attention Home	Lot 1392 & 837 R.P. in D.D. 115, Au Tau, Yuen Long	213	124	Nil	Category 2
Po Leung Kuk Tin Yan Home for the Elderly cum Green Joy Day Care Centre for the Elderly	3/F and 4/F, Ancillary Facilities Block, Tin Yan Estate, Tin Shui Wai	106	74	Nil	Category 2
Yan Oi Tong Tin Ka Ping Care and Attention Home	G/F & 1/F, Wah Ping House, Long Ping Estate, Yuen Long	85	51	Nil	Category 2
T.W.G.Hs. Y. C. Liang Memorial Home for the Elderly	G/F & 1/F, Yiu Yat House, Tin Yiu Estate, Tin Shui Wai	88	47	Nil	Category 1
Caritas Ying Shui Home	3/F, Ying Shui House, Shui Pin Wai Estate, Yuen Long	75	47	Nil	Category 2
Salvation Army Kam Tin Residence for Senior Citizens (The)	103 Kam Tin Road, Yuen Long	150	81	1 car parking space + 1 light bus parking spaces	Category 3
Pok Oi Hospital Yeung Chun Pui Care and Attention Home	58 Sha Chau Lei Tsuen, Ha Tsuen, Yuen Long	143	92	2 car parking spaces + 1 light bus parking spaces	Category 3
Pok Oi Hospital Tai Kwan Care & Attention Home	G/F-3/F & KW307, Shui Kwok House, Tin Shui Estate, Tin Shui Wai, Yuen Long	109	75	Nil	Category 2
Ching Chung Taoist Association of Hong Kong Limited Ching Chung Care and Attention Home for the Aged	57 Sha Chau Lei Chuen, Ping Ha Road, Yuen Long	120	61	1 car parking space + 1 light bus parking spaces	Category 3

Note: (1) Category 1 refers to homes with nil provision of car parking spaces within the Site and no public car parking spaces can be found in the close proximity.

(2) Category 2 refers to homes with nil provision of car parking spaces within the Site but may use the public car parking spaces of nearby car park.

(3) Category 3 refers to homes with provision of car parking spaces within the Site.

3.3.2 The proposed internal transport facilities provision for the proposed development is summarized in **Table 3.4**.

Table 3.4 Car Parking Provision Requirement for RCHE

Type	Proposed Dimensions	Proposed Number of Spaces Parameters
Private Cars	5m(L) x 2.5m(W) x min.2.4m(H)	8
Private Cars for Disabilities	5m(L) x 3.5m(W) x min.2.4m(H)	1
L/UL (for ambulance)	9m(L) x 3m(W)	1

3.3.3 Whilst, for the development of the residential units and shops, the transport provision requirements will be referenced to the Hong Kong Planning Standards and Guidelines (HKPSG). The provision requirement is summarized in the **Table 3.5**.

Table 3.5. Proposed Internal Transportation Provision under the HKPSG Requirements

Residential Development										
Proposed Development		Parking Requirement					Loading/Unloading Requirement			
		Private Car Parking Space (5m(L) x 2.5m(W) x 2.4m(H))			Visitors Car parking	Bicycle Parking Space	Loading / Unloading Bay for Goods Vehicles (LGV: 7m(L) x 3.5 m(W) x 3.6m(H)) (HGV: 11m(L) x 3.5 m(W) x 4.7m(H))			
Private Housing (1 towers; P.R= 3.82)	GF A	No. of Flat	GPS: 1 space per 4-7 flats			GPS x R1 X R2 X R3	More than 75 units per block should provide at 5 visitor space per block in addition in the requirement	Outside 2 km radius of rail station	1 per 30 flats with flat size less than 70 m ²	Provision of minimum 1 L/UL 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 or as determined by the Authority
			R1 (1)	R2 ⁽¹⁾	R3 ⁽¹⁾					
	40 ≤ FS ≤ 70	72	1.2	0.75	1.0	10-17	/	0	1	
Sub- total						10-17	/	0	1	
Shops and Services										
Shops and services	1740 sqm		1 car space per 150-300m ² GFA			/	/	1 loading/ unloading bay for goods vehicle for every 800 to 1200 sqm, or part thereof GFA		
	Sub- total		6-12			/	/	2-3 LGV: 1-2 HGV: 1		
Total		16-29⁽³⁾			/	/	LGV 1-2 HGV 2			

Note

- (1) GPS = Global Parking Standard; R1= Demand Adjustment Ratio; R2= Accessibility Adjustment Ratio; R3= Development Intensity Adjustment Ratio
- (2) Including 1 accessible car parking spaces for 1-50 car parking spaces

3.3.4 According to Table 3.5, the HKPSG requires to provide in total of 2 HGV for both residential, shops and services. However, the existing Yuen Long Pau Cheung Square does not allow 11m vehicle to pass through. Hence, no HGV parking space will be provided in the proposed development.

3.3.5 The overall parking provision for the proposed development is summarized in the **Table 3.6**, and the layout of the car park is also shown in **Figure 3.7**, **Figure 3.8** and **Figure 3.9**.

Table 3.6 Car Parking Provision Requirement for the Proposed Development

Type	Internal Transport Provision		
	RCHE Use	Residential Use + Shops and services	Total
Private Cars	8	15	23
Disable Private Car Park	1	1	2
L/UL (for ambulance)	1	/	1
L/UL (7m x 3.5m)	/	1	1

3.4 Public Transport Services in the Vicinity of the Proposed Development

3.4.1 Numerous road-based public transport services are provided in vicinity of the proposed development. Details of the current services of franchised buses and GMB routes within 500 meters catchment area are listed in **Table 3.7**, and the location of the nearby public transport stations is shown in **Figure 3.9**.



Table 3.7 Public Transport Services in the Vicinity of the Proposed

Service	Route	Origin - Destination	Headway (min)
Franchised Buses	251C	Kong Ha Wai – Tuen Long	30
	264R	Tai Po Market Station – Tin Yiu	30 ⁽¹⁾
	265S	Tin Shui Wai Town Center – Tai Po Industrial Estate (via Yuen Long)	07:25 ⁽²⁾
	268A	Long Ping Estate – Kwun Tong Ferry	15 ⁽²⁾
	268B	Long Ping Station – Hung Hom (Hung Luen Road)	20 ⁽²⁾
	268C	Long Ping Station – Kwun Tong Ferry	5-20 ⁽²⁾ ; 7-20 ⁽³⁾ ; 10-20 ⁽⁴⁾
		Kwun Tong Ferry – Long Ping Station (omit Sze Mei Street)	30 ⁽²⁾
	268P	Kwun Tong Ferry – Long Ping Station	17:50; 18:10 ⁽⁵⁾
		Ma Wang Road (San Shui House) – Kwun Tong Ferry	07:10 ⁽⁵⁾ ; 07:20 ⁽⁵⁾ ; 07:30 ⁽⁵⁾
	268x	Jordan (West Kowloon Station) – Hung Shui Kiu (Hung Fuk Estate)	6-30 ⁽⁵⁾ ; 10-30 ⁽³⁾ ; 12-30 ⁽⁴⁾
		Hung Shui Kiu (Hung Fuk Estate) - Jordan (West Kowloon Station)	10-30 ⁽⁵⁾ ; 12-30 ⁽³⁾ ; 12-30 ⁽⁴⁾
		Yuet Ping House Long Ping Estate – Jordan (West Kowloon Station)	08:00 ⁽²⁾
	269D	Lek Yuen – Tin Fu	7-20 ⁽²⁾ ; 7-20 ⁽³⁾ ; 10-25 ⁽⁴⁾
		Tin Fu –Lek Yuen	7-25 ⁽⁵⁾ ; 7-20 ⁽³⁾ ; 10-20 ⁽⁴⁾
		Tin Shui Wai Station – Lek Yuen	07:20 ⁽⁵⁾
	276	Sheung Shui – Tin Tsz	15-30 ⁽⁵⁾ ; 25-30 ⁽³⁾ (4)
		Tin Tsz - Sheung Shui	15-30 ⁽²⁾ ; 25-30 ⁽³⁾
	276C	Fangling (Cheung Wah) – Tin Shui Wai Station	06:50 ⁽⁵⁾ ; 07:20 ⁽⁵⁾ ; 18:00 ⁽⁵⁾ ; 18:20 ⁽⁵⁾
		Tin Shui Wai Station – Fangling (Cheung Wah)	07:10 ⁽⁵⁾ ; 07:20 ⁽⁵⁾ ; 18:00 ⁽⁵⁾ ; 18:30 ⁽⁵⁾
	276P	Sheung Shui – Tin Shui Wai Station	7-25 ⁽⁵⁾ ; 7-25 ⁽³⁾ ; 8-25 ⁽⁴⁾
		Tin Shui Wai Station – Tin Shui Wai	7-20 ⁽⁵⁾ ; 5-25 ⁽³⁾ ; 8-20 ⁽⁴⁾
	53	YOHO Mall (Yuen Long) – Tsuen Wan (Nina Tower)	30-35 ⁽⁵⁾ ; 25-35 ⁽¹⁾
		Tsuen Wan (Nina Tower) - YOHO Mall (Yuen Long)	30-35 ⁽⁵⁾ ; 30-35 ⁽¹⁾
	54	Yuen Long (West) – Sheung Tsuen (Circular)	30 ⁽⁵⁾ ; 20-30 ⁽¹⁾
	64K	Tai Po Market Station – Yuen Long (West)	7-15 ⁽⁵⁾ ; 7-15 ⁽³⁾ ; 8-15 ⁽⁴⁾
		Shueng Tusen Playground – Yuen Long (West)	07:00 ⁽⁵⁾ ; 07:30 ⁽⁵⁾
		Yuen Long (West) – Tai Po Market Station	6-15 ⁽⁵⁾ ; 8-15 ⁽³⁾ ; 7-15 ⁽⁴⁾
	64X	Yuen Long (West) – Hong Kong Science Park	07:15 ⁽⁵⁾
	68M	Tsuen Wan Station – Yuen Long (West)	5-20 ⁽⁵⁾ ; 8-20 ⁽³⁾ ; 9-20 ⁽⁴⁾
		Yuen Long (West) - Tsuen Wan Station	7-20 ⁽⁵⁾ ; 7-20 ⁽³⁾ ; 9-20 ⁽⁴⁾
	68X	Mong Kok (Park Avenue) –Hung Shui Kiu (Hung Fuk Estate)	9-25 ⁽⁵⁾ ; 10-25 ⁽³⁾ ; 15-25 ⁽⁴⁾
		Hung Shui Kiu (Hung Fuk Estate) - Mong Kok (Park Avenue)	10 ⁽⁵⁾ ; 15-20 ⁽³⁾ ; 12-20 ⁽⁴⁾
		Yuen Long (West) – Mong Kok (Park Avenue)	07:40 ⁽⁵⁾ ; 08: 10 ⁽⁵⁾
Yuet Ping House Long Ping Estate – Mong Kok (Park Avenue)		07:50 ⁽⁵⁾	
69	Yuen Long (Tak Yip Street) – Tin Shui Wai Town Center	15-20	
	Tsin Shui Wai Town Centre – Yuen Long (Tak Yip Stree)		



Service	Route	Origin - Destination	Headway (min)
		Yuen Ling (Tak Yip Street) – Tin Shui Wai Town Centre	
76K		Sheung Shui (Ching Ho) – Long Ping Estate	25-30 ⁽⁵⁾ ; 25-30 ⁽³⁾ ; 30 ⁽⁴⁾
		Long Ping Estate – Fanling (Wah Ming)	
77K		Sheung Shui – Yuen Long (West)	06:55; school days
968		Causeway bay (Tin Hau) – Yuen Long (West)	5-20 ⁽⁵⁾ ; 6-15 ⁽³⁾ ; 6-15 ⁽⁴⁾
		Yuen Long (West) - Causeway bay (Tin Hau)	
968A		Yuen Long (West) – Causeway Bay (Tin Hau)	15 ⁽⁵⁾
968X		Quarry Bay (King's Road) – Yuen Long (Tak Yip Street)	17:40 ⁽⁵⁾ ; 17:55 ⁽⁵⁾ ; 18:10 ⁽⁵⁾ ; 18:25 ⁽⁵⁾ ; 18:40 ⁽⁵⁾
		Yuen Long (Tak Yip Street) – Quarry Bay (King's Road)	
B1		Lok Ma Chau Station – Tin Tsz	12-20 ⁽⁵⁾ ; 8-15 ⁽³⁾⁽⁴⁾
		Lok Ma Chau Station – Ma Wang Road (San Shui House) / Ma Wang Road (San Shui House) - Lok Ma Chau Station	15-20 ⁽⁵⁾⁽³⁾⁽⁴⁾
		Tin Tsz –Lok Ma Chau Station	10-20 ⁽⁵⁾ ; 12-20 ⁽³⁾⁽⁴⁾
N269		Mei Foo – Tin Tsz	10-20
		Tin Tsz - Mei Foo	14-20
N368		Central (Macau Ferry) – Yuen Long (West)	20-24
		Yuen Long (West) - Central (Macau Ferry)	20-25
P968		Long Ping Station – Causeway Bay (Tin Hau)	06:50 ⁽⁵⁾ ; 07:10 ⁽⁵⁾ ; 07:30 ⁽⁵⁾ ; 08:00 ⁽⁵⁾ ; 08:30 ⁽⁵⁾
		Causeway Bay (Tin Hau) - Long Ping Station	
		Yuen Long (West) – Causeway Bay (Tin Hau)	
A36		Airport (Ground Transportation Center) – Kam Sheung Road Station/ Kam Sheung Road Station – Airport (Ground Transportation Centre)	20-60
		Airport (Ground Transportation Center) – Kam Sheung Road Station (via Cad Headquarter)	17:15; 17:55
		Kam Sheung Road Station – Airport (Ground Transportation Center) (via Cathy city and Cad Headquarter)	07:25
		Kam Sheung Road Station – Airport (Ground Transportation Center) (via Cathy city)	07:40 ⁽⁵⁾⁽¹⁾ ; 07:25 ⁽⁵⁾
A37		Long Ping Station – Airport (Ground Transportation Centre)	20-30
		Long Ping Station – Airport (Ground Transportation Centre via Asia World Expo)	06:00:06:20; 06:40: 07:00; 07:20
		Airport (Ground Transportation Centre) – Long Ping Station	30-40
		Airport (Ground Transportation Centre) – Pat Heung Road	12-25 ⁽⁴⁾ ; 15-30 ⁽⁵⁾
E36		Airport (Ground Transportation Centre) – Pat Heung Road / Pat Heung Road – Airport (Ground Transportation Center)	15-25 ⁽⁵⁾⁽³⁾ ; 12-25 ⁽⁴⁾
E36A		Yuen Long (Tak Yip Street) – Tung Chung (Yat Tung)	25-35 ⁽⁵⁾ ; 30-35; 25-60 ⁽³⁾ ; 35-40 ⁽⁴⁾
		Tung Chung (Yat Tung) - Yuen Long (Tak Yip Street)	
E36S		Airport (Ground Transportation Center) – Yuen Long (Ma Wang Road)	20-30 ⁽³⁾⁽²⁾
		Yuen Long (Ma Wang Road) – Airprot (Ground Transportation Center)	15-25 ⁽³⁾⁽²⁾
N30		Yuen Long Station – Airport (Cheong Tat Road)	03:25; 04:20
		Airport (Cheong Tat Road) - Yuen Long Station	00:20; 01:10



Service	Route	Origin - Destination	Headway (min)
	NA36	Cathy Pacific City – Kam Sheung Road Station	00:35; 01:05; 01:30; 02:00; 02:30
		Kam Sheung Road Station- Cathy Pacific City	03:45; 04:20; 04:55
	B2	Yuen Long Station – Shenzhen Bay Port / Shenzhen Bay Port - Yuen Long Station	20-30
	K65	Lau Fau Shan – Yuen Long Station / Yuen Long Station - Lau Fau Shan	9-16 ⁽³⁾ ⁽²⁾
	K66	Tai Tong Wong Nai Tun Tsuen – Long Ping	4-25 ⁽²⁾ ; 8-15 ⁽³⁾ ; 10-15 ⁽⁴⁾
	K68	Yuen Long Industrial Estate – Yuen Long Park (Circular)	10-15 ⁽¹⁾ ⁽³⁾ ; 12-15 ⁽⁴⁾
	K73	Yuen Ling West – Tin Heng	4-10 ⁽²⁾ ; 7-10 ⁽³⁾ ⁽⁴⁾
K74	Tins Shui Wai Town Centre – A Tau (Circular)	20-60 ⁽²⁾ ⁽³⁾ ; 30/60 ⁽⁴⁾	
GMB	31	Yuen Long (Hong King Street) – Tong Yan San Tsuen (circular)	6-10
		Tong Yan San Tsuen (circular) – Yuen Long (Hong King Street) (evening service)	15-20
	32	Yuen Long Station (North) Public Transport Interchange – Tan Kwai Tsuen/ Tan Kwai Tsuen – Yuen Long Station (North) Public Transport Interchange	10-15
	33	Ha Pak Nai – Yuen Long (Tai Fung Street)	10-15
	35	Sha Kiu (Tsim Bei Tsui) – Yuen Long (Tai Fung Street)	18-23
		Mong Tseng Wai – Yuen Long (Tai Fung Street)	13-14
		Yuen Long (Tai Fung Street) – Mong Tseng Wai	18-23
	36	Tai Shang Wai Rural Office - Yuen Long (Fook Hong Street)/ Yuen Long (Fook Hong Street) - Tai Shang Wai Rural Office	10-15
	37	Yau Tam Mei Village - Yuen Long (Fook Hong Street)/ Yuen Long (Fook Hong Street) - Yau Tam Mei Village Office	12-15
	38	Ha Chuk Yuen (Near Ho Sang Farm) - Yuen Long (Fook Hong Street)/ Yuen Long (Fook Hong Street) - Ha Chuk Yuen (Near Ho Sang Farm)	10-15
	39	Kung Um - Yuen Long Station/ Yuen Long (Fung Cheung Road) - Kung Um	5-8
	39A	Kung Um Road (Near Muk Kiu Tau) - Yuen Long (Kau Yuk Road) (Circular)	7-20
	601	Pak Wai Tsuen - Yuen Long (Fung Cheung Road)	20
	601C	Pak Wai Tsuen - Yuen Long (Fung Cheung Road - Kam Sheung Road Station (Circular)	20
	602	Tai Kong Po - Yuen Long (Fung Cheung Road)	20
	603	Fung Kat Heung - Yuen Long (Fung Cheung Road)	25
	604	Shan Ha Tsuen - Yuen Long (Fung Cheung Road)	10-20
	608	Wang Toi Shan (Pat Heung) - Yuen Long (Fung Cheung Road) (Circular)	10-13
	609	Yuen Long Stadium - Pok Oi Hospital (Circular)	6-15
	609s	Long Shin Estate - Yuen Long Station (North) Public Transport Interchange	10
	611	Shan Pui Road - Fau Tsoi Street (Circular)	8-15
	611B	Tak Yip Street - Fau Tsoi Street (Circular)	30
	611P	Shan Pui Road - On Shun Street (Circular)	20-30
	71	Shek Wu Tong (Ho Pui) - Yuen Long (Yuen Long Tai Hang Street)	15
	72	Lui Kung Tin - Yuen Long (Yuen Long Tai Hang Street)	10
	73A	Yuen Long (Sung Shan San Tsuen) - Yuen Long (Fook Hong	10-20



Service	Route	Origin - Destination	Headway (min)
		Street) Public Light Bus Terminus	
	74	Shing Uk Tsuen - Yuen Long (Fook Hong Street)	8-15
	74A	Tung Tau Wai - Yuen Long (Fook Hong Street)	15
	75	Ha Wan Tsuen – Yuen Long (Fook Hong Street)	15-30
	76	Siu Hum Tsuen - Yuen Long (Fook Hong Street)	15-20
	79S	Lok Ma Chau Control Poing - Tin Shui Wai (Grandeur Terrace	30-60
MTR	Tuen Ma Line	To Tuen Mun	2.7-7.3
		To Wu Kai Sha	2.7-7.3
		To Hung Hum	2.7-7.3
Light Rail	610	Tuen Mun Ferry Pier – Yuen Long/ Yuen Long – Tuen Mun Ferry Pier	8-17
	614	Tuen Mun Ferry Pier – Yuen Long/ Yuen Long – Tuen Mun Ferry Pier	12-23
	615	Tuen Mun Ferry Pier – Yuen Long/ Yuen Long – Tuen Mun Ferry Pier	13-25
	761P	Tin Yat – Yuen Long	5-15

- Note: (1) Saturdays, Sundays, and Public Holidays
 (2) Monday to Friday
 (3) Saturdays (Except Public Holidays)
 (4) Sunday and Public Holidays
 (5) Monday to Friday (Except for public holidays)

3.4.2 It reveals that the proposed development is currently well-served by the comprehensive public transport services in the vicinity.



4. FUTURE TRAFFIC CONDITION & TRAFFIC IMPACT ASSESSMENT

4.1 Design Year

4.1.1 It is anticipated that the proposed development would be completed in 2027 tentatively. In order to assess the possible traffic impacts to the local road network due to the proposed development, year 2030 (i.e., 3 years after construction work completion) has been adopted as the design year for this TIA.

4.2 Traffic Forecast

4.2.1 The traffic growth can be estimated by applying growth factor, based on the following information sources:

- I. Historical traffic growth in Annual Traffic Census (ATC) published by the Transport Department (TD).
- II. Territorial planning assumptions prepared by the Planning Department.

Historical Trend

4.2.2 Transport Department has traffic count stations in the vicinity of the proposed development. The traffic counts reported in the Annual Traffic Census over a period of seven years, i.e., 2012 to 2018 are summarized in **Table 4.1**.



Table 4.1 Historical Traffic Data from Annual Traffic Census (ATC)

ATC Stn	Road Name	Annual Average Daily Traffic (AADT)							Avg. Annual Growth Rate
		2012	2013	2014	2015	2016	2017	2018	
5011	Wang Chau Road (From Yuen Long On Ning Rd to Yuen Long On Lok Rd)	5,380	5,240*	5,010*	4,880*	5,150	5,400	5,970	1.75%
5837	Yuen Long On Ning Rd (From Tai Kiu Rd to Wang Chau Rd)	17,080	17,220	17,040*	16,890*	11,900*	9,900	10,140	-8.32%
5812	Long Yip St & Yuen Long On Lok Rd (From Tai Kiu Rd to Wang Chau Rd)	19,860	20,700	20,570	21,520	22,950	23,050	23,790	3.06%
6032	Yuen Long On Ning Rd (From Wang Chau Rd to Tai Cheung Rd)	15,730	14,280	14,130	14,020	14,600	15,350	16,080	0.37%
6008	Long Yip St & Yuen Long On Lok Rd (From Wang Chau Rd to Tai Cheung St)	32,000	29,280	29,090	30,440	32,160	31,810	32,160	0.08%
Total		90,050	86,720	85,840	87,750	86,760	85,510	84,140	-0.36%

Note: *AADT estimated by Growth factor

**Due to the social movement in 2019 and COVID in 2020, the traffic flow will not be reliable and hence the growth rate will only take into account from 2016 to 2018

***As the traffic flow listed in the designated ATC stations are predicted, yet the flow will not be reliable and will not take it into the account.

Planning Data

4.2.3 Reference has also been made to the latest 2019-Based Territorial Population Employment Data Matrices (TPEDM) planning data published by the Planning Department for projection of population and employment within the study district from years 2019 to 2031. The average annual growth rates in terms of population and employment from 2019 to 2031 are tabulated in **Table 4.2**.

Table 4.2 2019-Based Planning Data from 2019 to 2031

Yuen Long District				
Data	Year			Average Annual Growth Rate
	2019	2026	2031	
Population	175,150	172,350	159,850	-0.76%
Employment	68,100	70,700	70,250	0.26%
Total	243,250	243,050	230,100	<u>-0.46%</u>

Adopted Growth Rate

- 4.2.4 A.A.D.T. of ATC indicates that the traffic flow of the local road network has an average annual growth rate of **-0.36%** from year 2012 to year 2018.
- 4.2.5 Whilst, the planning data indicates that the population and employment data of the study area are expected to grow with an average annual growth rate of -0.76% and 0.26% respectively from 2019 to 2030.
- 4.2.6 Therefore, as the conservative approach, the annual growth rate **+1%** p.a. has been adopted for projecting traffic forecasts from year 2019 to year 2030.

4.3 Traffic Generations of Planned Adjacent New Developments

- 4.3.1 To fully reflect the growth traffic, trip generation of the future vicinity developments have been taken into consideration. The planned development is detailed in **Table 4.3**, shows the detailed location in **Figure 4.1**.

Table 4.3 Planned Adjacent Developments in the Vicinity

Planning Application No.	Development Site	Site area	Applied use	Use	Total floor area	Development Parameter
Wang Chau Phase 1		3.97ha	Public Housing	Domestic	219,600ha	4,400 Flats
A/ YL/290	Tung Tau Industrial Area Playground, Keung Yip Street, Tung Tau Industrial Area, Yuen Long	14,417 m ²	Proposed Underground Public Vehicle Park (excluding Container Vehicle) and Re-provisioning of Permitted Sports Facilities	Non-domestic	/	/
Multi storey Building in YLE	West of the existing YLIE, bounded by Fuk Hi Street to the east and Kai Shan to the west	1.0-1.4 ha	Industrial uses	Non-domestic	291,500 m ²	/
A/YL/304	21-35 Wang Yip Street East, Tung Tau Industrial Area, Yuen Long, New Territories (Yuen Long Town Lot No. 362)	7,271 m ²	Proposed Minor Relaxation of Plot Ratio and Building Height Restrictions for Flat with Shop and Services/Eating Place and Social Welfare Facility Uses	Domestic	43,662 m ²	1019 Flats
				Non-domestic	1,600 m ²	/

4.3.2 The estimation on trip generations and attractions of the adjacent planned developments is shown in **Table 4.4**.

Table 4.4 Estimated Trip Generations and Attractions of Adjacent Developments

Development Type	Average Flat Size m ²	Range	Trip Rates			
			Weekday AM Peak		Weekday PM Peak	
			Gen.	Att.	Gen.	Att.
			pcu/hr			
Private Housing	60 m ²	Mean	0.0718	0.0425	0.0286	0.0370
Public Housing	40 m ²	Mean	0.0432	0.0326	0.0237	0.0301
Commercial	/	Mean	0.2296	0.2434	0.31	0.3563
Industrial		Mean	0.0926	0.1386	0.135	0.1049
Planning Application No.	Development Site	Uses	Trip Rates			
			Weekday AM Peak		Weekday PM Peak	
			Gen.	Att.	Gen.	Att.
	Wang Chau Phase 1	Domestic	190	143	104	132



A/ YL/290	Tung Tau Industrial Area Playground, Keung Yip Street, Tung Tau Industrial Area, Yuen Long	Non-domestic	27 ⁽¹⁾	42 ⁽¹⁾	33 ⁽¹⁾	31 ⁽¹⁾
Multi storey Building in YLE	West of the existing YLIE, bounded by Fuk Hi Street to the east and Kai Shan to the west	Non-domestic	270	404	394	306
A/YL/304	21-35 Wang Yip Street East, Tung Tau Industrial Area, Yuen Long, New Territories (Yuen Long Town Lot No. 362)	Domestic	73	43	29	38
		Non-domestic	4	4	5	6
Total			564	636	565	513

Note:

(1) According to its TIA report

4.3.3 The above-mentioned traffic flows were added to the traffic flows to obtain the reference traffic flows as described in Section 4.4.

4.4 Reference Traffic Flow in Year 2030

4.4.1 The reference traffic flow is estimated by applying the adopted growth rate to the observed traffic flow in the current year, and the 2030 reference traffic flows for Junction A to C can be computed with the following calculation:

$$\begin{array}{l}
 \text{2030 Reference} \\
 \text{Traffic Flows} \\
 \text{(without proposed} \\
 \text{development)} \\
 \end{array}
 =
 \begin{array}{l}
 \text{2024} \\
 \text{(Observed} \\
 \text{Traffic} \\
 \text{Flows} \\
 \end{array}
 \times
 \begin{array}{l}
 \text{Adopted Growth} \\
 \text{Factor} \\
 \text{i.e. +1\% p.a. for 6} \\
 \text{years} \\
 \end{array}
 \left. \vphantom{\begin{array}{l} \text{Adopted Growth} \\ \text{Factor} \\ \text{i.e. +1\% p.a. for 6} \\ \text{years} \end{array}} \right)
 +
 \begin{array}{l}
 \text{Traffic Flows} \\
 \text{of Planned} \\
 \text{Adjacent} \\
 \text{Developments} \\
 \end{array}$$

4.4.2 The 2030 reference traffic flows at surrounding critical junctions are shown in **Figure 4.2**.

4.5 Traffic Generations of the Proposed Development

- 4.5.1 As the use of RCHE does not specify in the latest Transport Planning & Design Manual (TPDM), the estimation of the traffic trips related to the RCHE is based on the in-house survey.
- 4.5.2 The estimation of the traffic trips related to the proposed development is based on the in-house survey carried out at Tung Wah Group Hospital – Wong Cho Social Services Building and summarised in the **Table 4.5**.

Table 4.5 Adopted Trip Rates for the Proposed Development

Use	Units / Parameters	AM		PM	
		Gen.	Att.	Gen.	Att.
TWGHs Wong Cho Tong Social Service Building – IN/OUT of Building	(pcu/hr)	14	11	14	11
TWGHs Wong Cho Tong Social Service Building – Loading/Unloading activities of Building	(pcu/hr)	10	8	10	8
Total Trip	(pcu/hr)	24	19	24	19
Adopted Traffic Trip Rates (278beds)	(pcu/hr/bed)	0.08633	0.06835	0.04317	0.05755
Estimated Traffic Trips (220 beds)	(pcu/hr)	19	15	9	13

- 4.5.3 While for the traffic generation and attraction of the proposed development of the residential and shops, references have been made to the trip generation rates as stipulated in Volume 1 Chapter 3 Appendix C Table 1 of the latest T.P.D.M. published by Transport Department. The adopted trip rates are also summarized in below **Table 4.6**.
- 4.5.4 Based on the adopted trip rate listed above and the development parameters in Table 2.1, the trip generated and attracted by the proposed development are estimated and summarized in the **Table 4.6**



Table 4.6 Adopted Trip Rate and Trips of Proposed Development

Residential Use										
			Trips Rates				Trips			
Use	Average Flat Size (sq. m.)	No. of Flats	Weekday AM Peak (pcu/hr/flat)		Weekday PM Peak (pcu/hr/flat)		Weekday AM Peak (pcu/hr)		Weekday PM Peak (pcu/hr)	
			Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.
Private Housing: High-Density	FS ≤ 60	72	0.0718	0.0425	0.0286	0.0370	6	4	3	3
<i>Total</i>			<i>Sub-Total</i>				6	4	3	3
RCHE										
			Trips Rates				Trips			
Use	No of beds	Weekday AM Peak (pcu/hr/bed)		Weekday PM Peak (pcu/hr/bed)		Weekday AM Peak (pcu/hr)		Weekday PM Peak (pcu/hr)		
		Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.	
RCHE	220	0.08633 ⁽¹⁾	0.06835 ⁽¹⁾	0.04317 ⁽¹⁾	0.05755 ⁽¹⁾	19	15	9	13	
<i>Sub-Total</i>						19	15	9	13	
Shops and services										
			Trips Rates				Trips			
Use	Average Size (sq. m.)	Weekday AM Peak (pcu/hr/flat)		Weekday PM Peak (pcu/hr/flat)		Weekday AM Peak		Weekday PM Peak (pcu/hr)		
		Gen.	Att.	Gen.	Att.	Gen.	Att.	Gen.	Att.	
Shops and services	1740	0.2296	0.2434	0.31	0.3563	4	5	6	6	
<i>Sub-Total</i>						4	5	6	6	
Total						29	24	18	22	

Note (1) : Reference to the Table 4.5 in the TIA report



4.6 Traffic Forecast for Design Year 2030

4.6.1 The net traffic trips of the proposed development, which is shown in the Figure 4.2, is then superimposed onto the year 2030 reference traffic flow (without the proposed development) as:

$$\begin{array}{ccc} \text{2030 Design} & & \text{2030 Reference} \\ \text{Traffic Flows} & & \text{Traffic Flows} \\ \text{(with proposed)} & = & \text{(without proposed)} \\ \text{development)} & & \text{development)} \\ & & + \text{Proposed} \\ & & \text{Development} \\ & & \text{Traffic Flows} \end{array}$$

4.6.2 The 2030 design traffic flows at surrounding critical junctions are shown in **Figure 4.3**.

4.7 Operational Assessment

4.7.1 To assess traffic impacts due to the proposed development, operational assessment of the critical junctions identified in **Chapter 3** are carried out for both the reference (without the proposed development) and the design scenario (with the proposed development) in year 2032. The results are summarized in **Table 4.7**.

Table 4.7 Operational Performance of Key Junctions in Year 2030

Ref.	Junction		Method of Control ⁽¹⁾	Year 2030 RC/DFC			
				Reference Scenario (without the proposed development)		Design Scenario (with the proposed development)	
				AM Peak	PM Peak	AM Peak	PM Peak
A	A1	Long Yip Street/ Po Yip Street/	Signal	47%	64%	47%	63%
	A2	Long Yip Street/ Po Yip Street		69%	104%	68%	104%
	A3	Yuen Long On Lok Road/ Long Yip Street		86%	82%	85%	81%
B	Wang Chau Road/ Yuen Long On Ling Road		Signal	79%	56%	70%	49%
C	Yuen Long On Ning Road/ Yuen Long Pau Cheung Square		Priority	0.04	0.04	0.10	0.07
D	Yuen long Tai Hang Street/ Yuen long Tung Tai Street		Priority	0.30	0.36	0.34	0.38

Notes: (1) RC = Reserve Capacity for Signalized Junction
DFC = Ratio of Flow to Capacity for Priority Junction

4.7.2 Based on the assessment results given in **Table 4.7**, all key junctions would operate with ample capacities in both reference and design scenarios in year 2030.



5. SUMMARY AND CONCLUSION

5.1 Summary

5.1.1 CTA Consultants Limited (CTA) is commissioned as the traffic consultant to prepare the Traffic Impact Assessment (TIA) and technical justifications in supporting the S16 Town Planning Application for proposed development in Lots 3678 in DD 120.

5.1.2 To appraise the existing traffic condition, a vehicular survey in the form of manual classified count was conducted at the surrounding road network of the proposed development. Current operational performance of the critical junctions has been assessed with the observed traffic flow. The results reveal that all critical junctions are at present operating within its capacities.

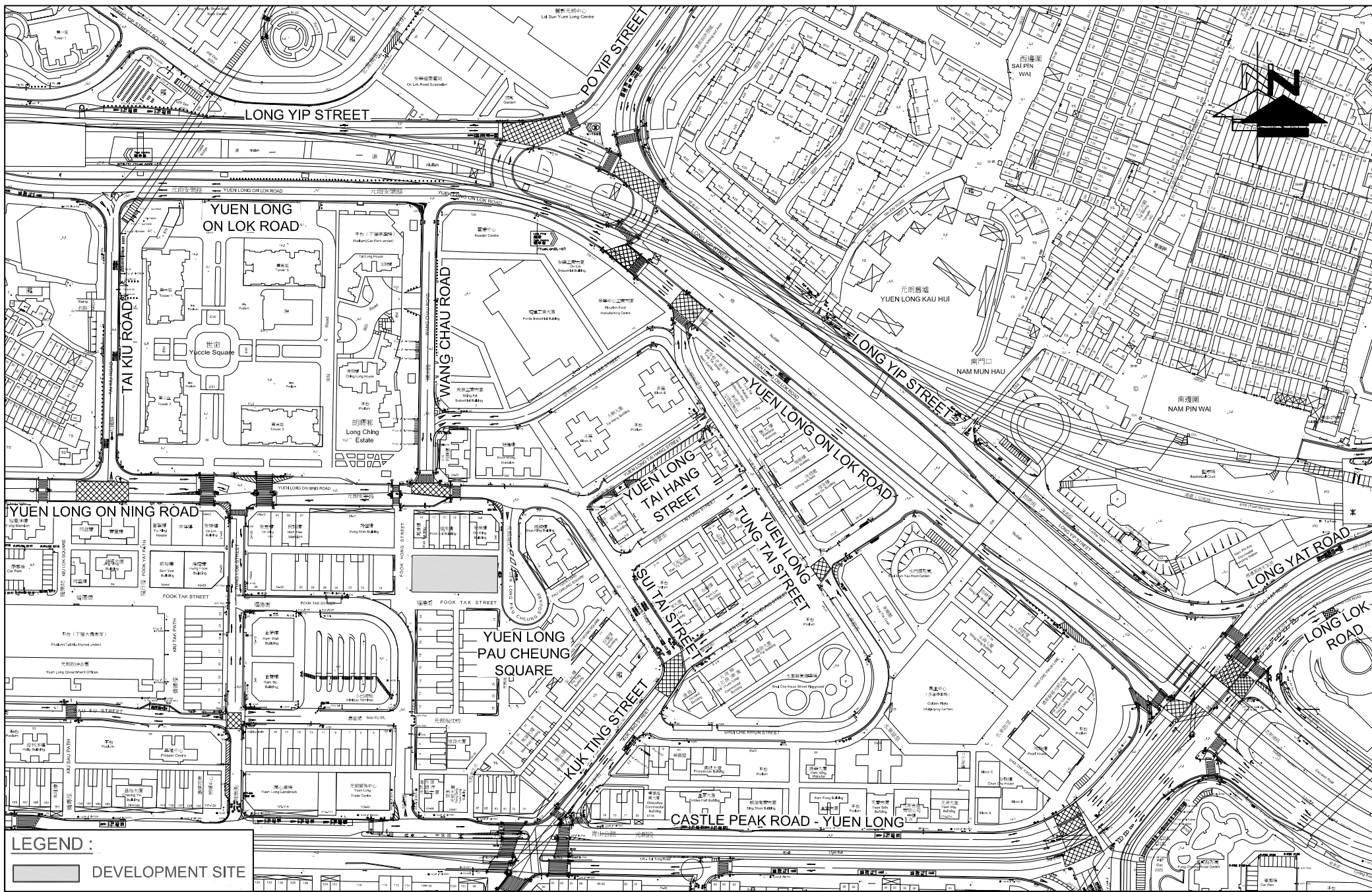
5.1.3 Assessment of operational performance of the critical junctions indicates that all critical junctions will still operate within their capacities in both reference and design scenarios in year 2030.

5.1.4 As the traffic trips of both committed planning and proposed development do not produce significant impact on the surrounding road network. Therefore, the application is supported from the traffic points of view.

5.2 Conclusion

5.2.1 Traffic Impact Assessment (TIA) study indicates that no adverse traffic impact will be induced by the proposed development.

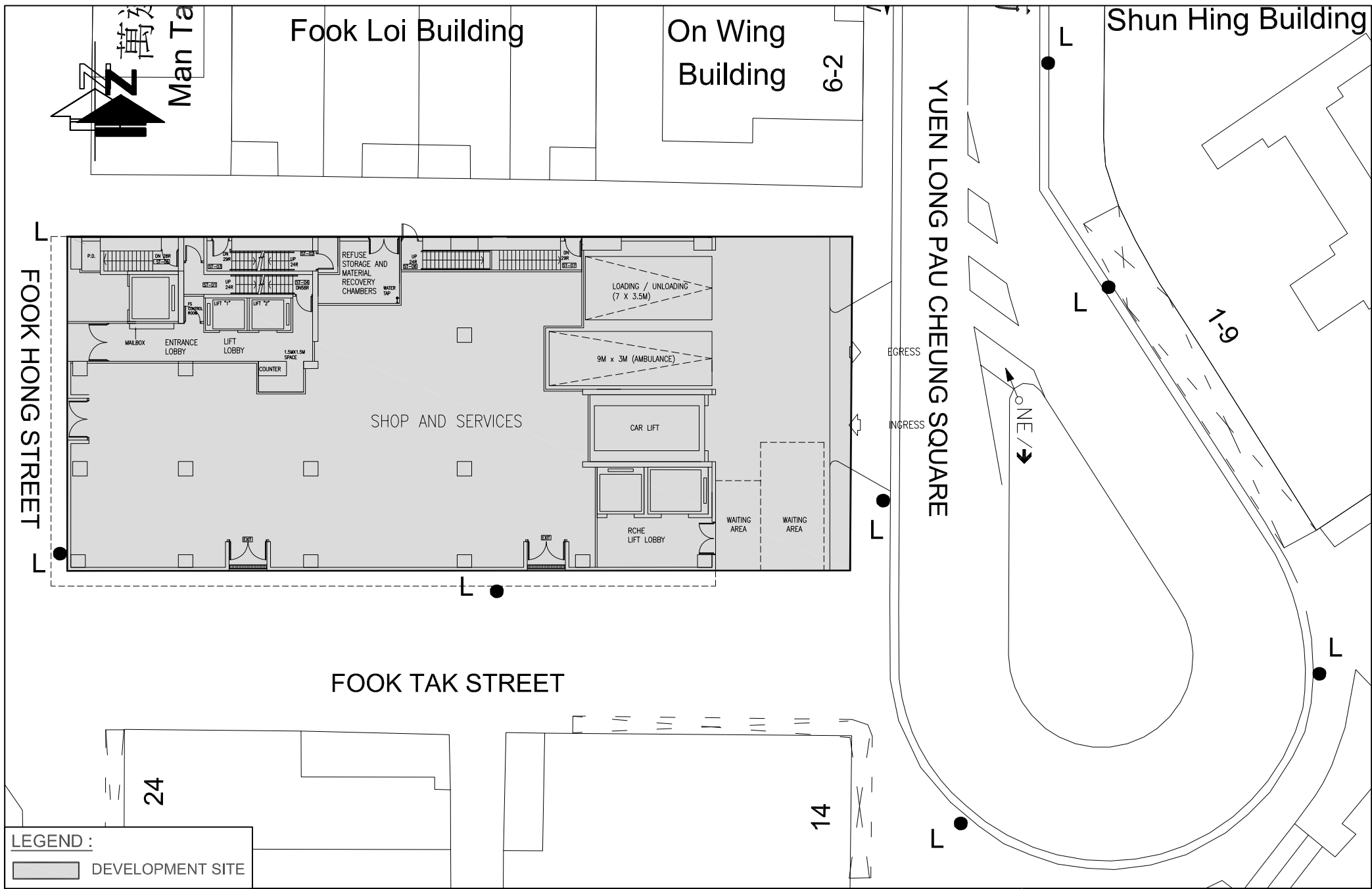
5.2.2 Therefore, the proposed development at Lots 3678 in DD 120 is reckoned feasible from traffic engineering point of view.



LEGEND :	
	DEVELOPMENT SITE

FIGURE NO.:	2.1	PROJECT TITLE:	Yuen Long Theatre DD120 Lot 3678
PROJECT NO.:	23122HK	DRAWING TITLE:	SITE LOCATION PLAN
SCALE:	DATE:		
1 : 2500 @A4	06 FEB 2024		





LEGEND :	
	DEVELOPMENT SITE

FIGURE NO.:	2.2	PROJECT TITLE:	Yuen Long Theatre DD120 Lot 3678
PROJECT NO.:	23122HK	DRAWING TITLE:	THE ACCESS ROAD OF THE PROPOSED DEVELOPMENT
SCALE:	DATE:		
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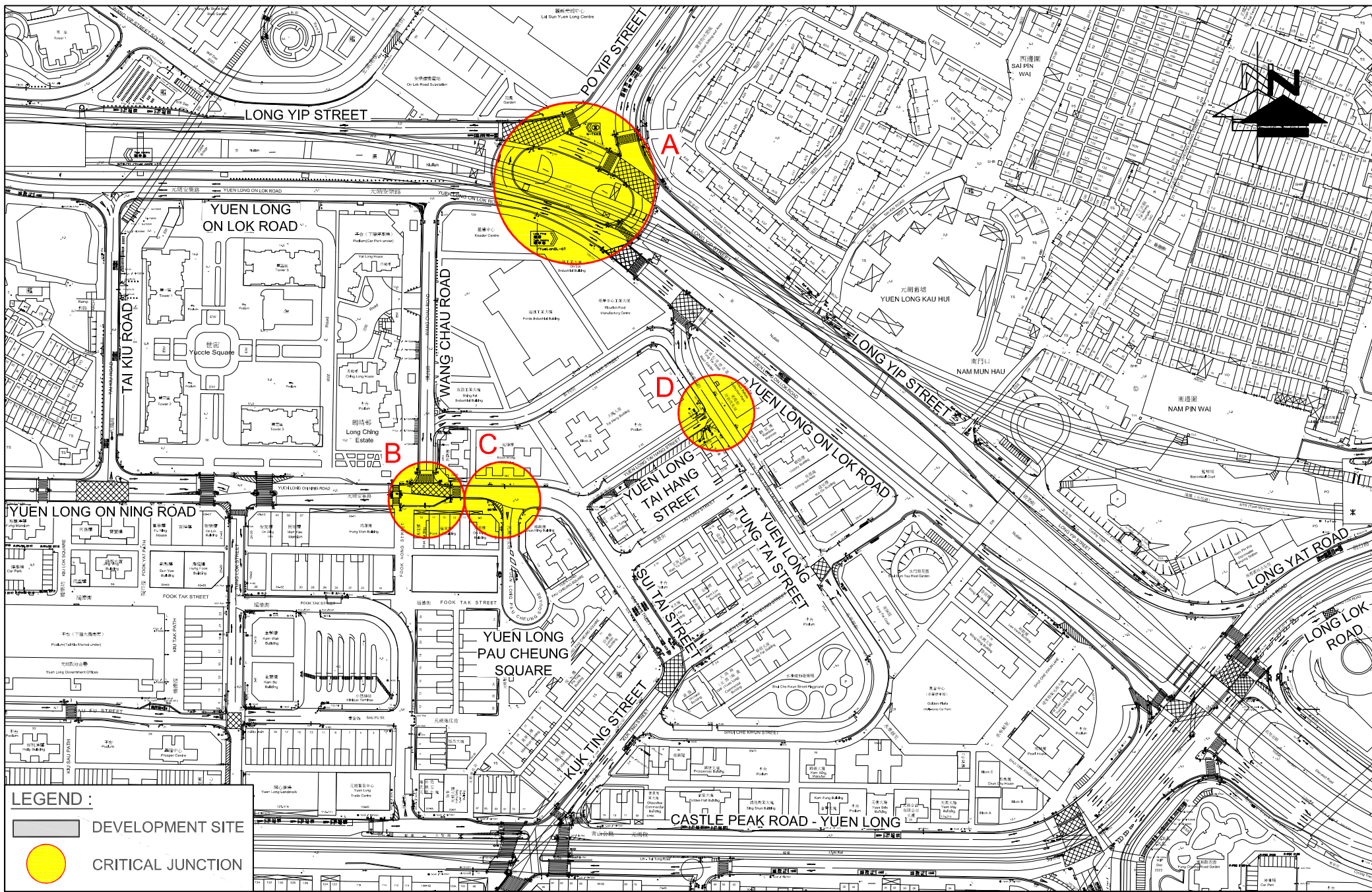
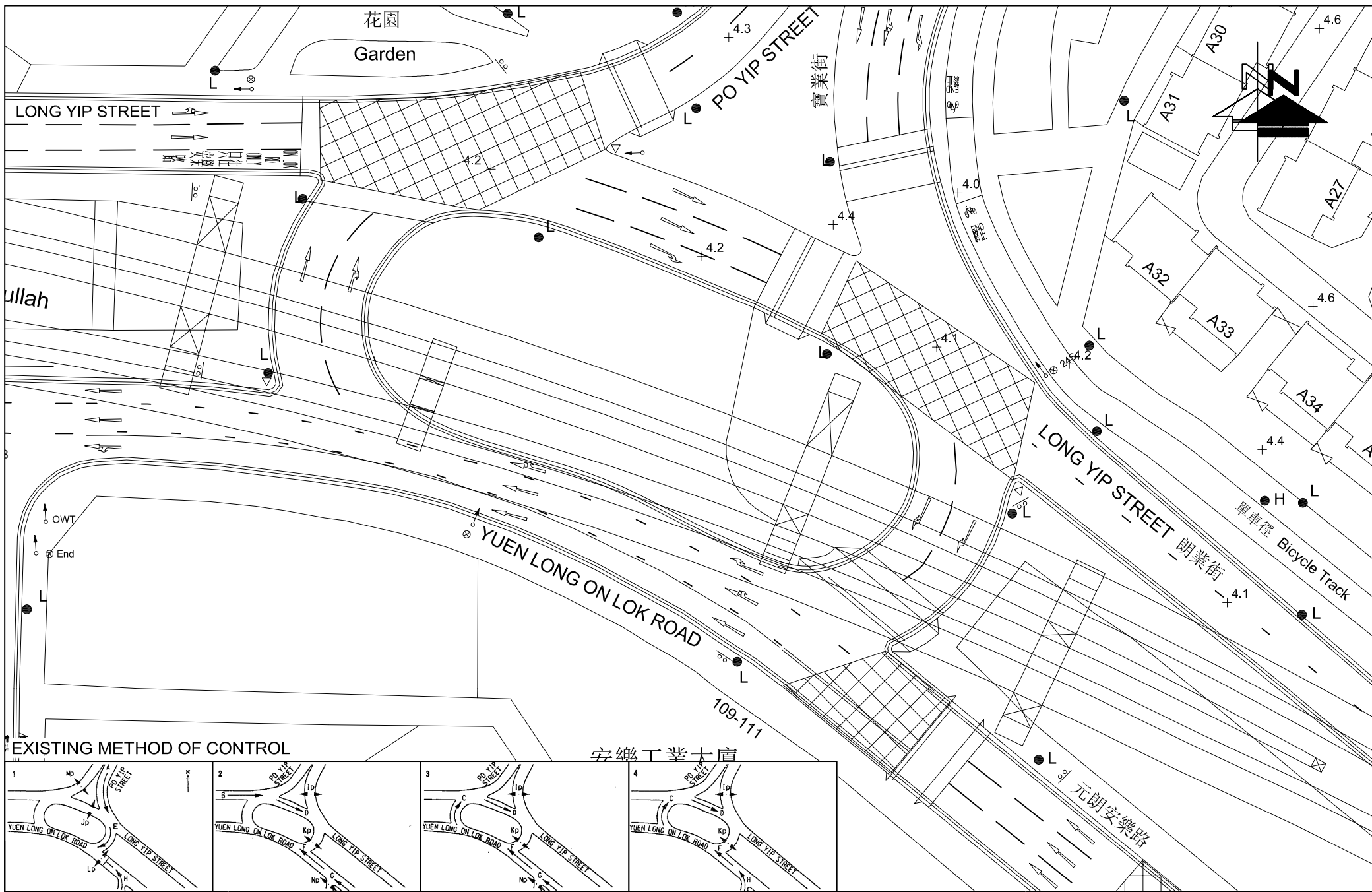


FIGURE NO.: 3.1		PROJECT TITLE: Yuen Long Theatre DD120 Lot 3678	
PROJECT NO.: 23122HK		DRAWING TITLE: IDENTIFIED KEY JUNCTIONS	
SCALE: 1 : 2500 @A4	DATE: 29 FEB 2024		



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EXISTING METHOD OF CONTROL

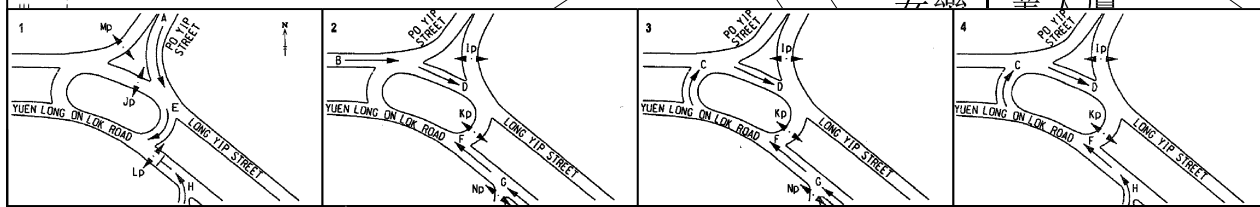
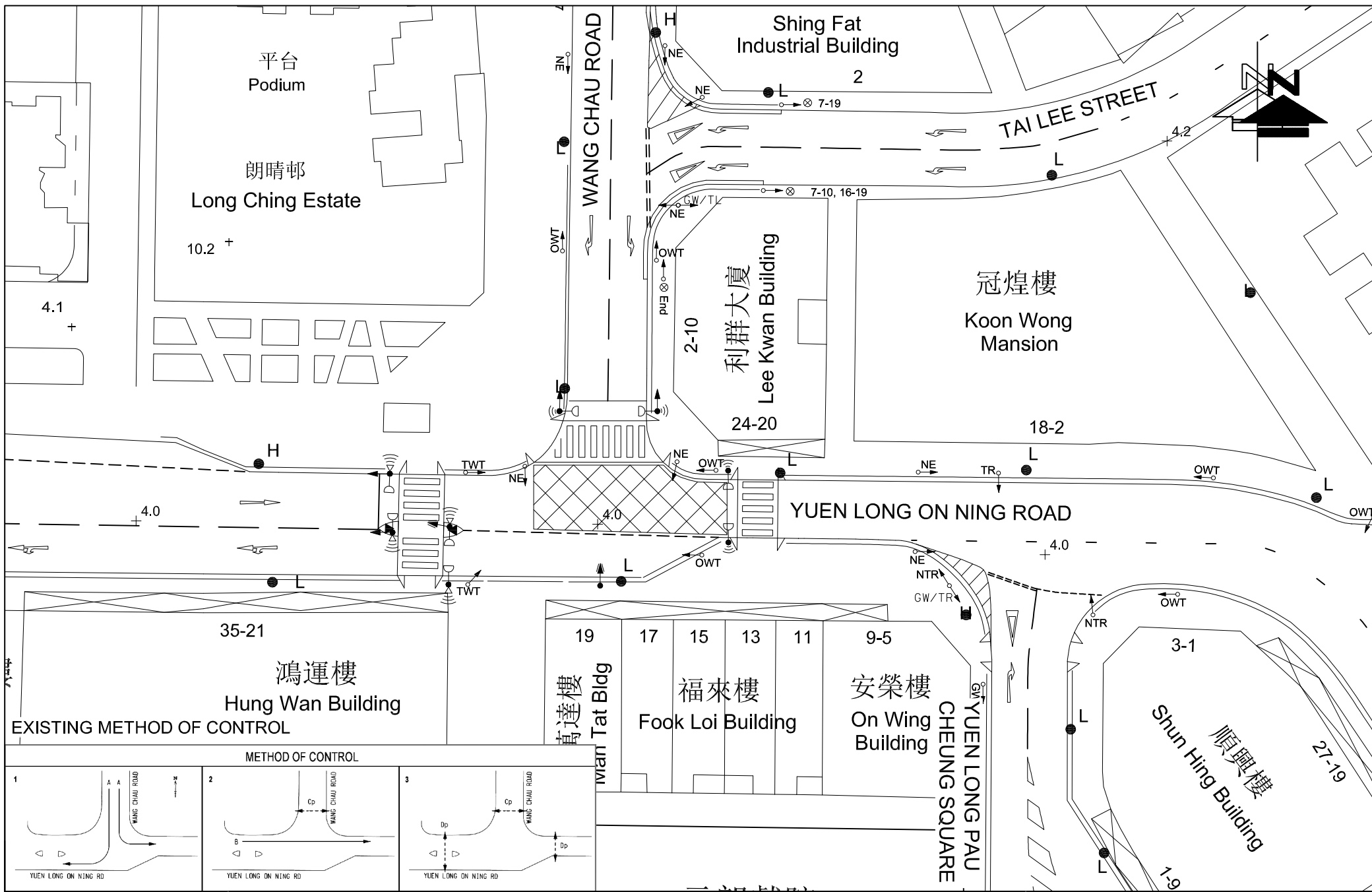


FIGURE NO.: 3.2		PROJECT TITLE: Yuen Long Theatre DD120 Lot 3678	
PROJECT NO.: 23122HK		DRAWING TITLE: EXISTING JUNCTION LAYOUT OF YUEN LONG ON LOK ROAD / LONG YIP STREET / PO YIP STREET (A)	
SCALE: 1 : 550 @A4	DATE: 29 FEB 2024		





EXISTING METHOD OF CONTROL

METHOD OF CONTROL

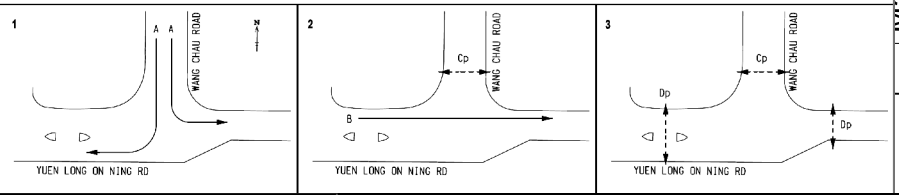


FIGURE NO.:	3.3
PROJECT NO.:	23122HK
SCALE:	DATE:
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PROJECT TITLE:	Yuen Long Theatre DD120 Lot 3678
DRAWING TITLE:	EXISTING JUNCTION LAYOUT OF YUEN LONG ON NING ROAD / WANG CHAU ROAD (B)

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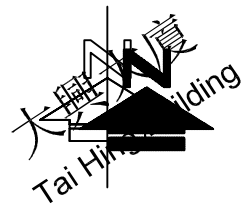
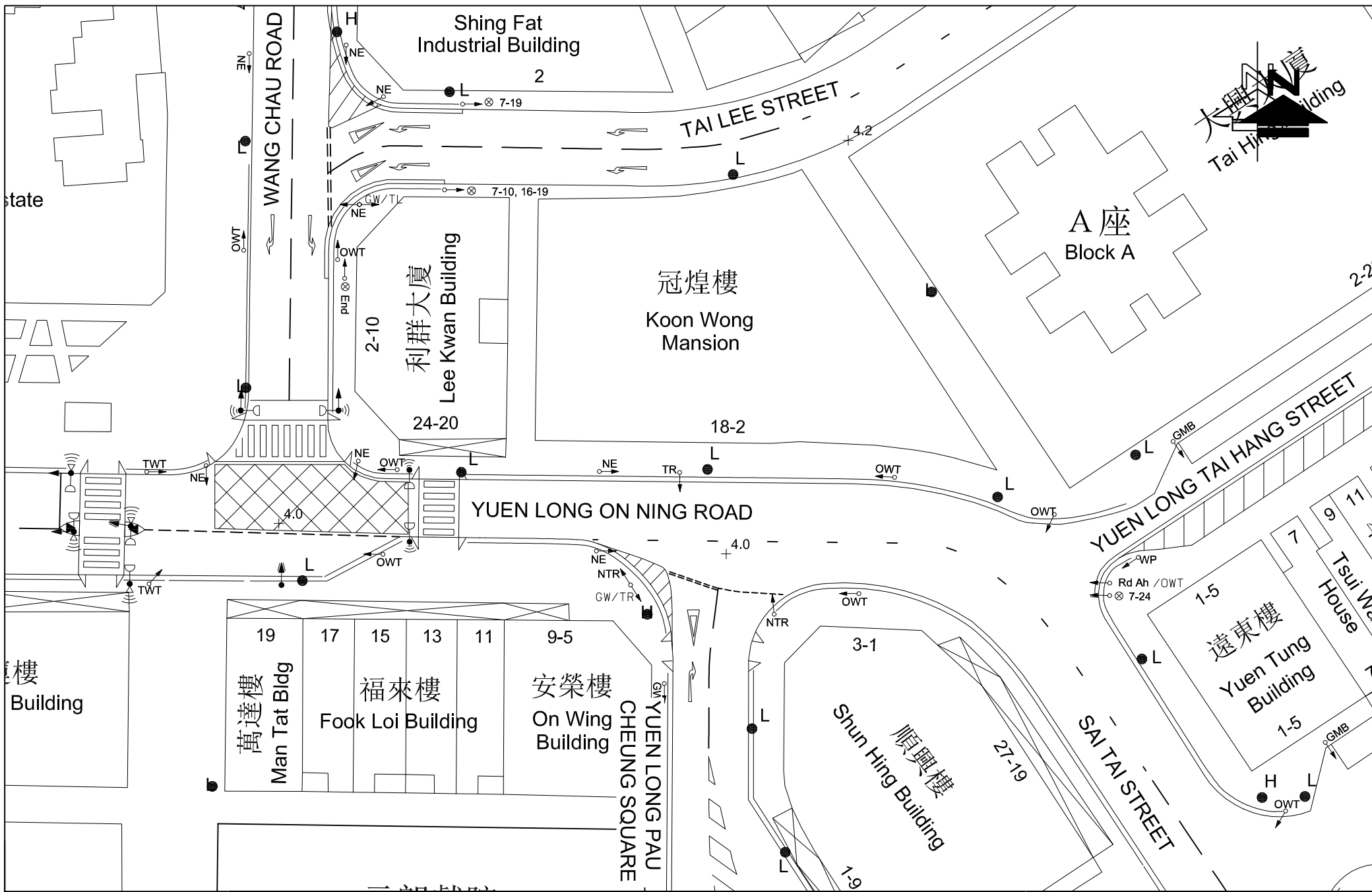


FIGURE NO.:	3.4	PROJECT TITLE:	Yuen Long Theatre DD120 Lot 3678
PROJECT NO.:	23122HK	DRAWING TITLE:	EXISTING JUNCTION LAYOUT OF YUEN LONG ON NING ROAD / YUEN LONG PAU CHEUNG SQUARE (C)
SCALE:	DATE:		
1 : 500 @A4	29 FEB 2024		



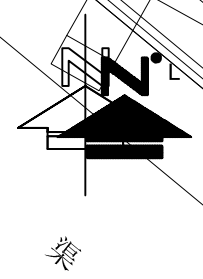
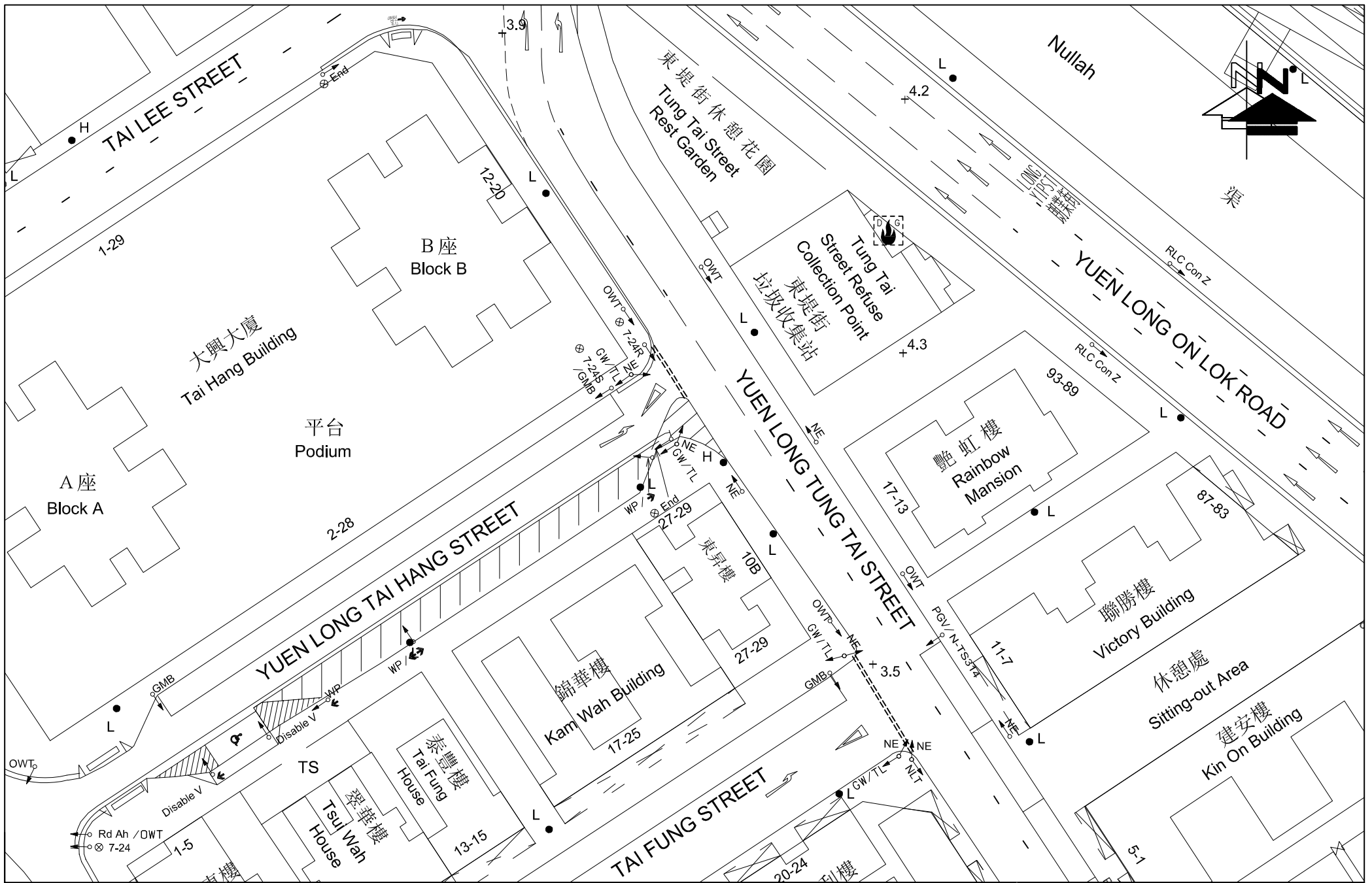
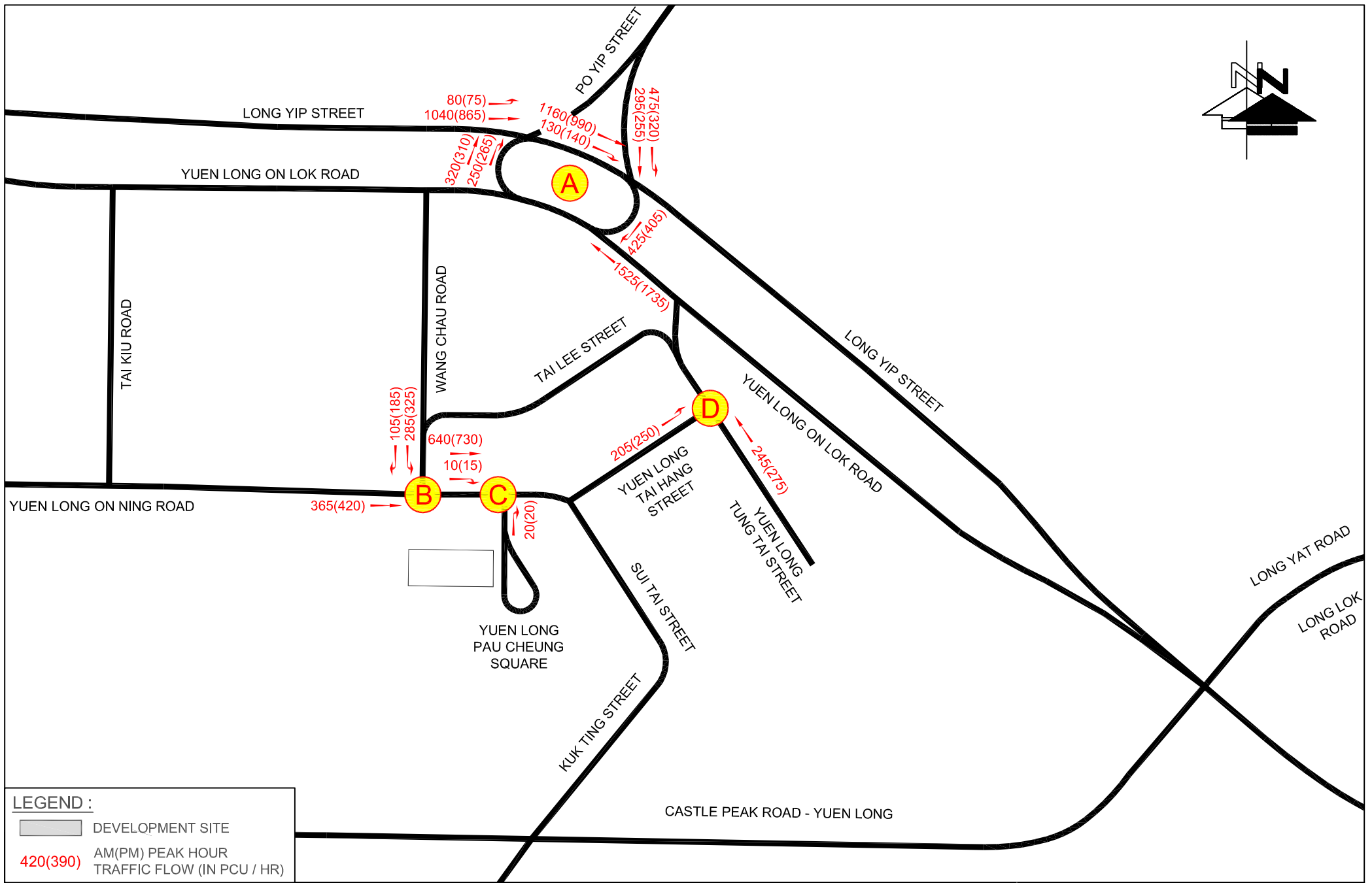
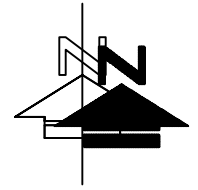


FIGURE NO.: 3.5		PROJECT TITLE: Yuen Long Theatre DD120 Lot 3678
PROJECT NO.: 23122HK		DRAWING TITLE: EXISTING JUNCTION LAYOUT OF YUEN LONG TAI HANG STREET / YUEN LONG TUNG TAI STREET (D)
SCALE: 1 : 500 @A4	DATE: 29 FEB 2024	

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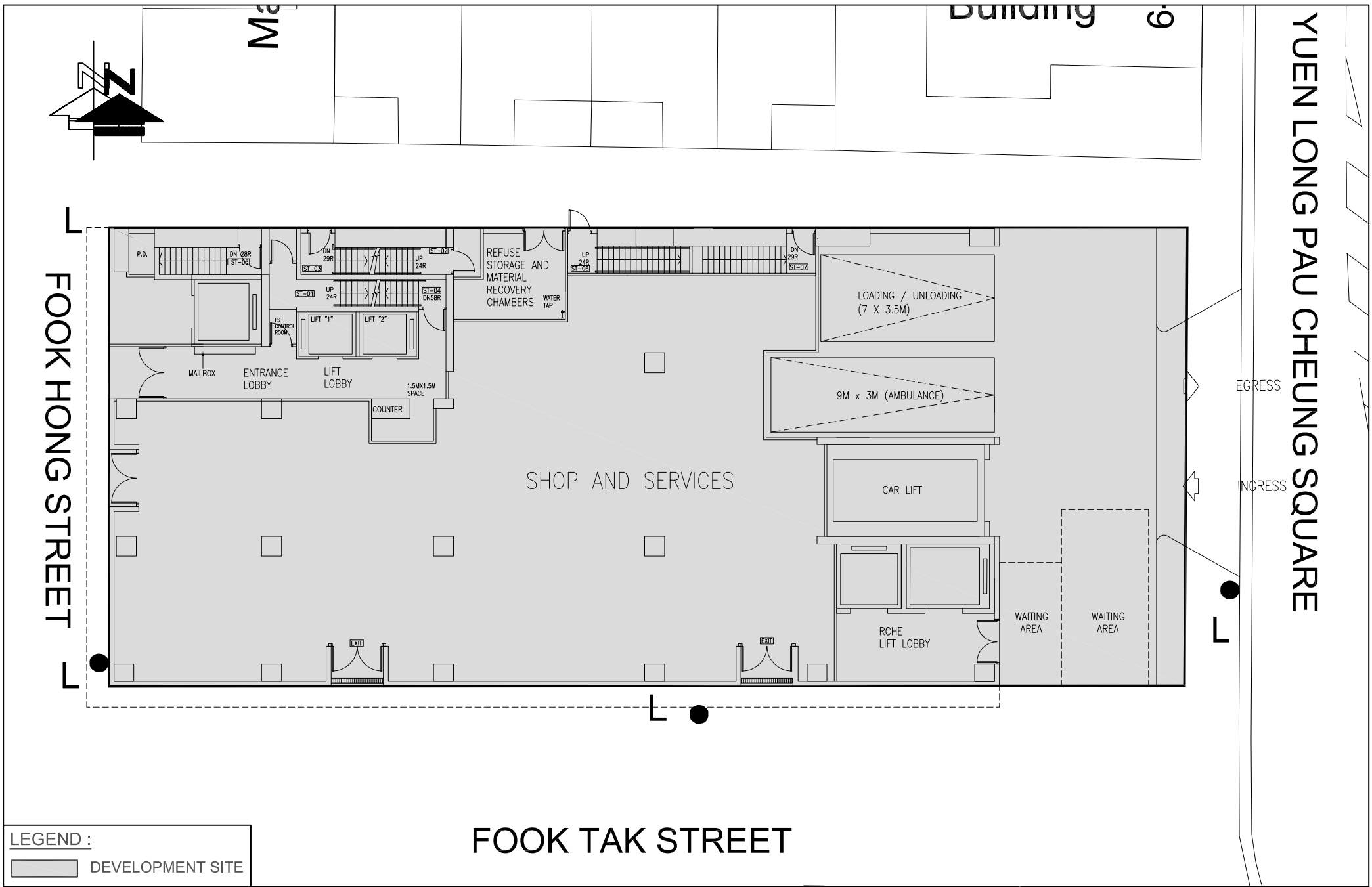
LEGEND :
 DEVELOPMENT SITE
420(390) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.:	3.6	PROJECT TITLE:	Yuen Long Theatre DD120 Lot 3678
PROJECT NO.:	23122HK	DRAWING TITLE:	2024 OBSERVED TRAFFIC FLOWS
SCALE:	N.T.S. @A4	DATE:	29 FEB 2024





LEGEND :	
	DEVELOPMENT SITE

FIGURE NO.:	3.7	PROJECT TITLE:	Yuen Long Theatre DD120 Lot 3678
PROJECT NO.:	23122HK	DRAWING TITLE:	G/F LAYOUT PLAN
SCALE:	DATE:		
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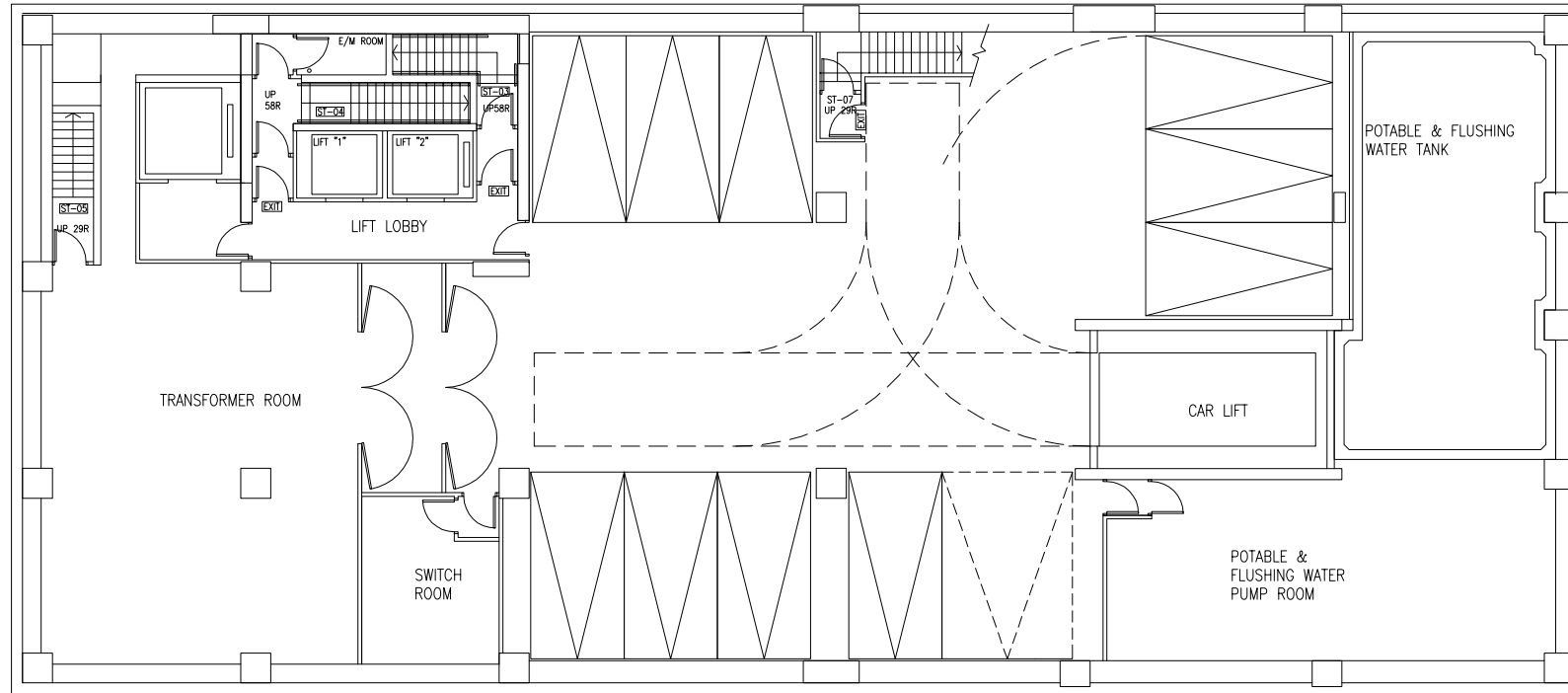
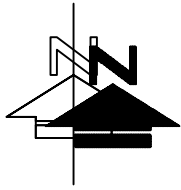


FIGURE NO.: 3.8

PROJECT TITLE: Yuen Long Theatre DD120 Lot 3678

PROJECT NO.: 23122HK

DRAWING TITLE: B1/F CARPARK LAYOUT PLAN

SCALE: 1 : 200 @A4

DATE: 13 MAR 2024



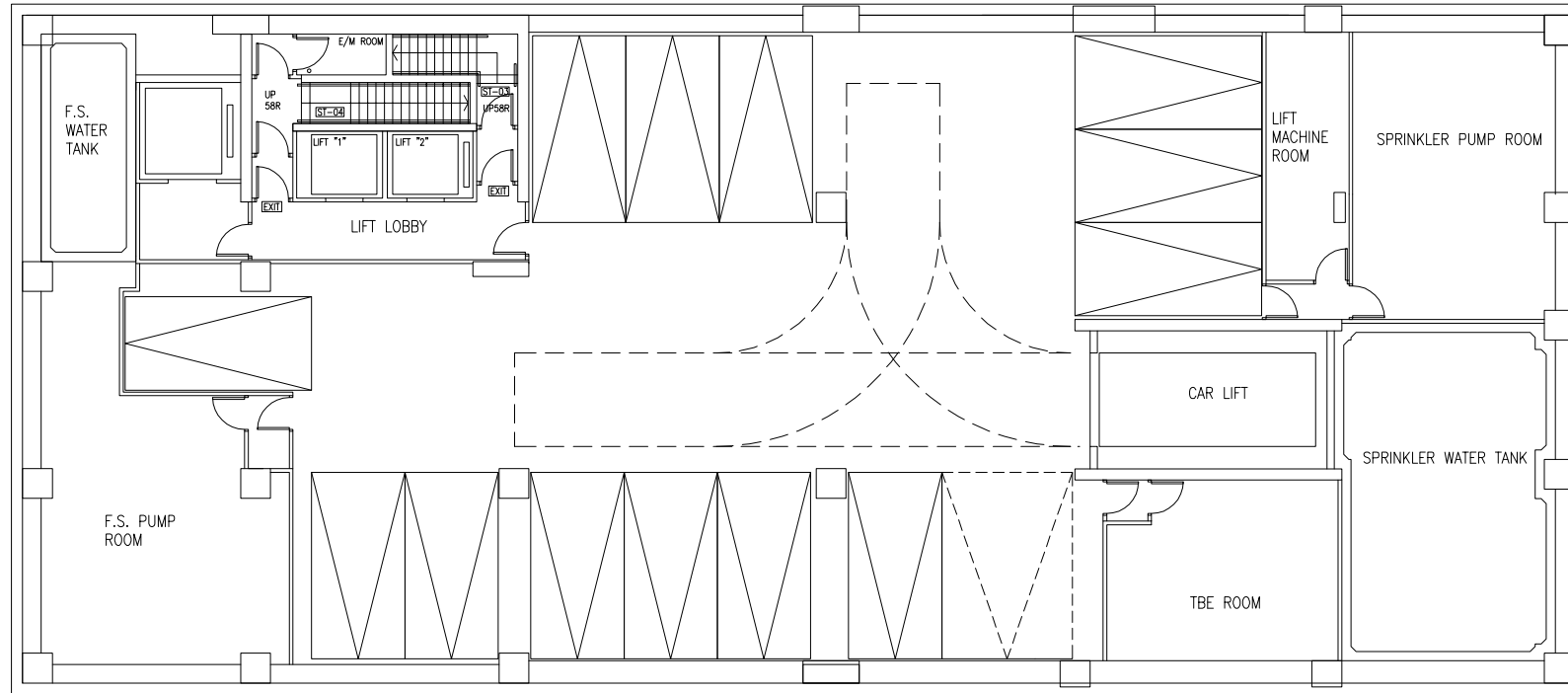
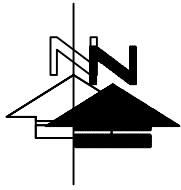


FIGURE NO.: 3.9

PROJECT TITLE: Yuen Long Theatre DD120 Lot 3678

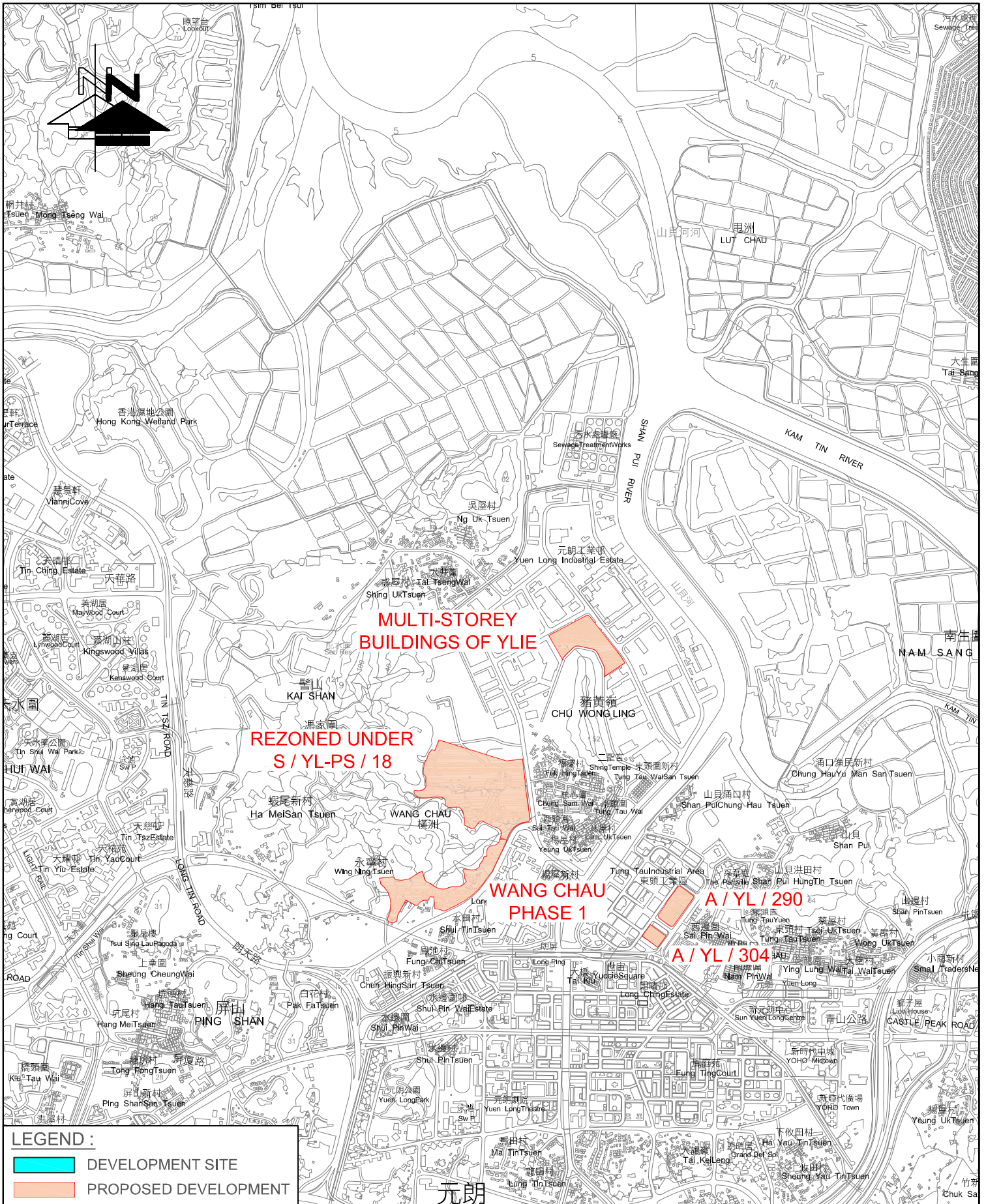
PROJECT NO.: 23122HK

DRAWING TITLE: B2/F CARPARK LAYOUT PLAN

SCALE: 1 : 200 @A4

DATE: 13 MAR 2024





LEGEND :	
	DEVELOPMENT SITE
	PROPOSED DEVELOPMENT

FIGURE NO.: 4.1		PROJECT TITLE: Yuen Long Theatre DD120 Lot 3678	
PROJECT NO.: 23122HK		DRAWING TITLE: PLANNED COMMITTED FUTURE DEVELOPMENT IN THE VICINITY	
SCALE: 1 : 22000 @A4	DATE: 29 FEB 2024		
		 CTA Consultants Limited 志達顧問有限公司	

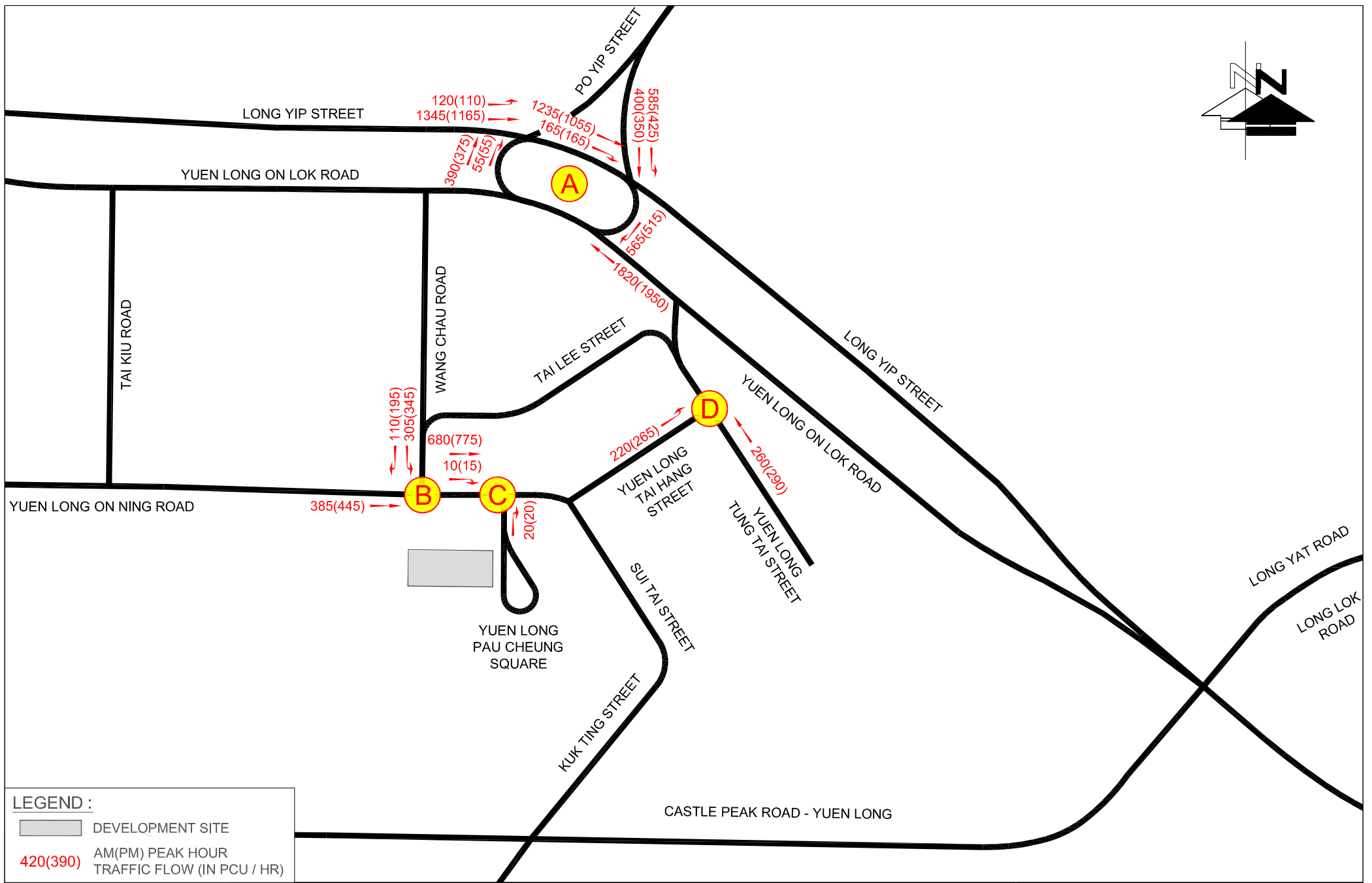
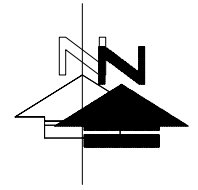
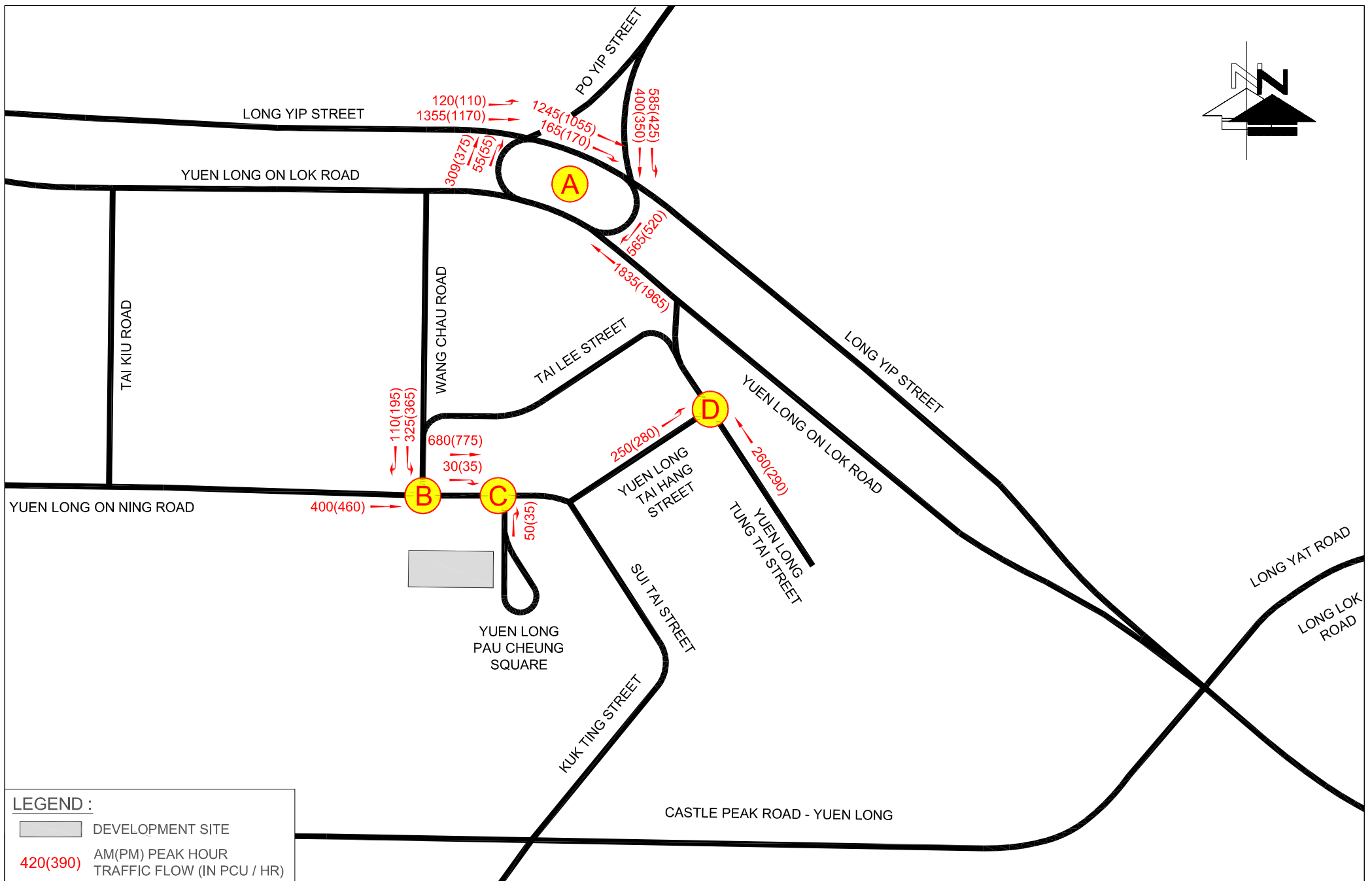
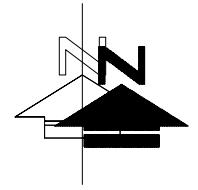



FIGURE NO.:	4.2	PROJECT TITLE:	Yuen Long Theatre DD120 Lot 3678
PROJECT NO.:	23122HK	DRAWING TITLE:	2030 REFERENCE TRAFFIC FLOWS
SCALE:	N.T.S. @A4	DATE:	29 FEB 2024



CTA Consultants Limited
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LEGEND :

 DEVELOPMENT SITE

420(390) AM(PM) PEAK HOUR TRAFFIC FLOW (IN PCU / HR)

FIGURE NO.:	4.3	PROJECT TITLE:	Yuen Long Theatre DD120 Lot 3678
PROJECT NO.:	23122HK	DRAWING TITLE:	2030 DESIGN TRAFFIC FLOWS
SCALE:	N.T.S. @A4	DATE:	29 FEB 2024



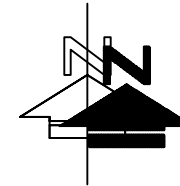
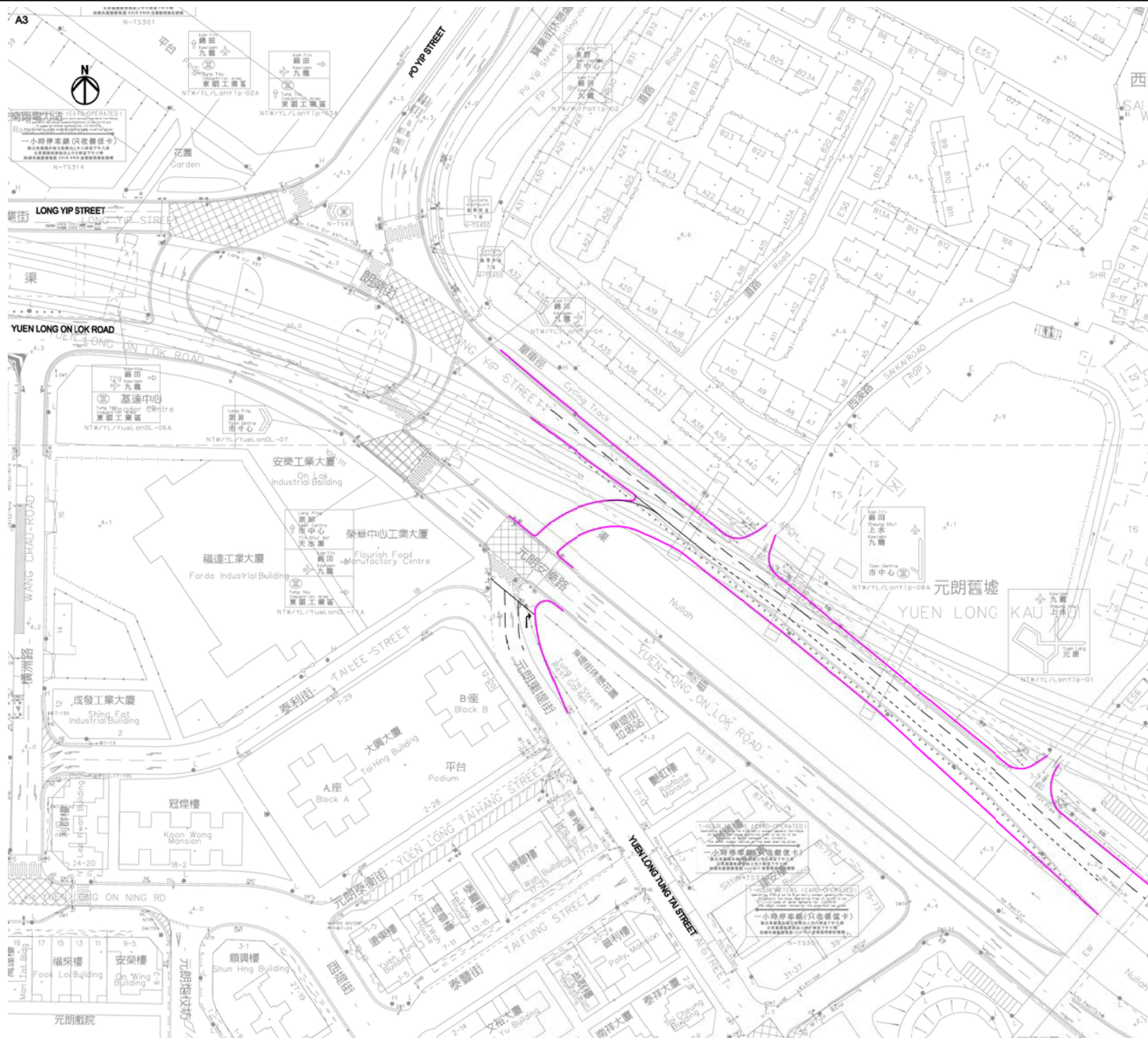


FIGURE NO.: 4.4
 PROJECT NO.: 23122HK
 SCALE: N.T.S. @A4
 DATE: 28 FEB 2024

PROJECT TITLE: Yuen Long Theatre DD120 Lot 3678
 DRAWING TITLE: PROPOSED IMPROVEMENT JUNCTION LAYOUT OF PO YIP STREET / LONG YIP STREET / YUEN LONG ON LOK ROAD (A)









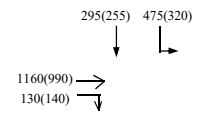


APPENDIX 1






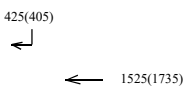
JUNCTION CALCULATION SHEETS

Junction: Junction A1 - Po Yip Street/ Long Yip Street																						
Description: 2024 Observed Traffic Flow																						
Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m)		Nearside 0/1	Pro. Turning (%)		Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr)		Total Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
						Left	Right		AM	PM			AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Long Yip Street	E		1	A	3.1	10.0	0	1	23%	26%	1925	6115	1860	1855	6050	6045	344	0.185	0.185	288	0.155	0.156
Long Yip Street	E		1	A	3.4	0.0	0	0	0%	0%	2095	0	2095	2095	0	0	388	0.185		326	0.156	
Long Yip Street	E		1	A	3.4	0.0	0	0	0%	0%	2095	0	2095	2095	0	0	388	0.185		326	0.156	
Po Yip Street	N		2	B	3.5	0.0	0	0	0%	0%	2105	4210	2105	2105	4140	4140	290	0.138	0.138	292	0.139	0.139
Po Yip Street	N		2	B	3.5	0.0	40	0	89%	94%	2105	0	2035	2035	0	0	280	0.138		283	0.139	
Pedestrian Crossing			3p	C	Min. Crossing Time = 27Gm + 6FGm = 33s																	
Notes: (Nil)											Traffic Flow (pcu / hr) 						AM Peak Check Phase E _y 0.323 L (sec) 51 C (sec) 119 y pract. 0.514 R.C. (%) 59%			PM Peak Check Phase E _y 0.295 L (sec) 51 C (sec) 119 y pract. 0.514 R.C. (%) 75%		
Stage / Phase Diagrams																						
I/G = 7							I/G = 6							I/G = 5								

Junction: Junction A2 - Po Yip Street/ Long Yip Street																						
Description: 2030 Observed Traffic Flow																						
Approach	Direction	Movement notation	Phase	Stage	Width (m)			Nearside 0/1	Pro. Turning (%)		Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr)		Total Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right	AM		PM	AM			PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y	
Po Yip Street	S		1	A	2.7	15.0	0	1	100%	100%	1885	5965	1715	1715	5650	5675	234	0.136	0.136	174	0.101	0.101
Po Yip Street	S		1	A	3.5	18.0	0	0	90%	73%	2105	0	1960	1985	0	0	267	0.136		201	0.101	
Po Yip Street	S		1	A	3.6	0.0	0	0	0%	0%	1975	0	1975	1975	0	0	269	0.136		200	0.101	
Long Yip Street	E		2	B	3.4	0.0	0	1	0%	0%	1955	4060	1955	1955	4060	4060	559	0.286	0.286	477	0.244	0.244
Long Yip Street	E		2	B	3.5	0.0	0	0	0%	0%	2105	0	2105	2105	0	0	601	0.286		513	0.244	
Long Yip Street	E		2	B	2.5	0.0	15	0	100%	100%	2005	2005	1825	1825	1825	1825	130	0.071		140	0.077	
Pedestrian Crossing			3p	B	Min. Crossing Time = 72Gm + 12FGm = 84s																	
			4p	A	Min. Crossing Time = 21Gm + 9FGm = 30s																	

Notes: (Nil)	Traffic Flow (pcu / hr)	AM Peak Check Phase		PM Peak Check Phase	
		Ey 0.422	Ey 0.345	L (sec) 12	L (sec) 12
		C (sec) 120	C (sec) 120	y pract. 0.810	y pract. 0.810
		R.C. (%) 92%	R.C. (%) 92%		R.C. (%) 135%

Stage / Phase Diagrams			
I/G = 7	I/G = 7		

Junction: Junction B3 - Long Yip Street /Yuen Long On Lok Road																							
Description: 2030 Observed Traffic Flow																							
Approach	Direction	Movement notation	Phase	Stage	Width (m)		Radius (m)		Nearside 0/1	Pro. Turning (%)		Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr)		Total Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right	AM	PM		AM	PM			AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y		
Po Yip Street	S		2	B	3.5	0.0	43	0	100%	100%	2105	4160	2035	2035	4015	4015	215	0.106	0.106	205	0.101	0.101	
Po Yip Street	S		2	B	3.0	0.0	40	0	100%	100%	2055	0	1980	1980	0	0	210	0.106		200	0.101		
On Lok Road	NW		1	A	2.8	0.0	0	0	0%	0%	2035	6175	2035	2035	6175	6175	503	0.247	0.247	572	0.281	0.281	
On Lok Road	NW		1	A	3.5	0.0	0	0	0%	0%	2105	0	2105	2105	0	0	520	0.247		591	0.281		
On Lok Road	NW		1	A	2.8	0.0	0	0	0%	0%	2035	0	2035	2035	0	0	503	0.247		572	0.281		
Pedestrian Crossing			3p	A	Min. Crossing Time =70Gm + 12FGm =82s																		
			4p	B	Min. Crossing Time = 23Gm + 9FGm =32s																		
Notes:										Traffic Flow (pcu / hr)						AM Peak Check Phase			PM Peak Check Phase				
(Nil)																Ey 0.353 L (sec) 12 C (sec) 120 y pract. 0.810 R.C. (%) 130%			Ey 0.382 L (sec) 12 C (sec) 120 y pract. 0.810 R.C. (%) 112%				
Stage / Phase Diagrams																							
I/G = 7																							

TRAFFIC SIGNALS CALCULATION

Job No: 23122HK

CTA Consultants Ltd.

Junction: **Junction B - Wang Chau Street/ Yuen Long On Ning Road**
 Description: **2024 Observed Traffic Flow**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m)		Nearside O/I	Pro. Turning (%)		Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr)		Total Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
						Left	Right		AM	PM			AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Wang Chau Street	S	→	1	A	4.0	10.0	0	1	100%	100%	2015	2015	1750	1750	1750	1750	285	0.163	0.163	325	0.186	0.186
Wang Chau Street	S	↘	1	A	4.0	0.0	15	0	100%	100%	2155	2155	1960	1960	1960	1960	105	0.054		185	0.094	
Yuen Long On Ning Road	E	→	2	B	5.2	0.0	0	1	0%	0%	2135	2135	2135	2135	2135	2135	365	0.171	0.171	420	0.197	0.197
Pedestrian Crossing			Cp	B,C	Min. Crossing Time = 8Gm + 8FGm = 16s																	
			Dp	A,C	Min. Crossing Time = 6Gm + 8FGm = 14s																	

Notes: (Nil)	Traffic Flow (pcu / hr)	AM Peak Check Phase	PM Peak Check Phase
		ey 0.334 L (sec) 32 C (sec) 108 y pract. 0.633 R.C. (%) 90%	ey 0.382 L (sec) 32 C (sec) 108 y pract. 0.633 R.C. (%) 66%






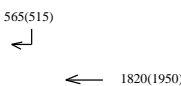
Stage / Phase Diagrams			
I/G = 5	I/G = 7	I/G = 22	

Junction: Junction A1 - Po Yip Street/ Long Yip Street																						
Description: 2030 Reference Traffic Flow																						
Approach	Direction	Movement notation	Phase	Stage	Radius (m)			Nearside 0/1	Pro. Turning (%)		Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr)		Total Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Width (m)	Left	Right		AM	PM			AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Long Yip Street	E		1	A	3.1	10.0	0	1	27%	28%	1925	6115	1850	1845	6040	6035	449	0.243	0.243	390	0.211	0.211
Long Yip Street	E		1	A	3.4	0.0	0	0	0%	0%	2095	0	2095	2095	0	0	508	0.243		442	0.211	
Long Yip Street	E		1	A	3.4	0.0	0	0	0%	0%	2095	0	2095	2095	0	0	508	0.243		442	0.211	
Po Yip Street	N		2	B	3.5	0.0	0	0	0%	0%	2105	4210	2105	2105	4190	4190	224	0.106	0.106	216	0.103	0.103
Po Yip Street	N		2	B	3.5	0.0	40	0	25%	26%	2105	0	2085	2085	0	0	221	0.106		214	0.103	
Pedestrian Crossing			3p	C	Min. Crossing Time = 27Gm + 6FGm = 33s																	
Notes: (Nil)											Traffic Flow (pcu / hr) 						AM Peak Check Phase E _y 0.349 L (sec) 51 C (sec) 119 y pract. 0.514 R.C. (%) 47%			PM Peak Check Phase E _y 0.314 L (sec) 51 C (sec) 119 y pract. 0.514 R.C. (%) 64%		
Stage / Phase Diagrams																						
I/G = 7				I/G = 6								I/G = 5										

Junction: Junction A2 - Po Yip Street/ Long Yip Street																						
Description: 2030 Reference Traffic Flow																						
Approach	Direction	Movement notation	Phase	Stage	Width (m)			Nearside 0/1	Pro. Turning (%)		Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr)		Total Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right	AM		PM	AM			PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y	
Po Yip Street	S		1	A	2.7	15.0	0	1	100%	100%	1885	5965	1715	1715	5660	5680	299	0.174	0.174	234	0.136	0.136
Po Yip Street	S		1	A	3.5	18.0	0	0	84%	70%	2105	0	1970	1990	0	0	343	0.174		271	0.136	
Po Yip Street	S		1	A	3.6	0.0	0	0	0%	0%	1975	0	1975	1975	0	0	344	0.174		270	0.136	
Long Yip Street	E		2	B	3.4	0.0	0	1	0%	0%	1955	4060	1955	1955	4060	4060	595	0.304	0.304	508	0.260	0.260
Long Yip Street	E		2	B	3.5	0.0	0	0	0%	0%	2105	0	2105	2105	0	0	640	0.304		547	0.260	
Long Yip Street	E		2	B	2.5	0.0	15	0	100%	100%	2005	2005	1825	1825	1825	1825	165	0.090		165	0.090	
Pedestrian Crossing			3p	B	Min. Crossing Time = 72Gm + 12FGm = 84s																	
			4p	A	Min. Crossing Time = 21Gm + 9FGm = 30s																	

Notes: (Nil)	Traffic Flow (pcu / hr)	AM Peak Check Phase		PM Peak Check Phase	
		Ey 0.478	Ey 0.396	L (sec) 12	L (sec) 12
		C (sec) 120	C (sec) 120	y pract. 0.810	y pract. 0.810
		R.C. (%) 69%	R.C. (%) 104%		

Stage / Phase Diagrams			
I/G = 7	I/G = 7		

Junction: Junction A3 - Long Yip Street /Yuen Long On Lok Road																						
Description: 2030 Reference Traffic Flow																						
Approach	Direction	Movement notation	Phase	Stage	Width (m)		Radius (m)	Nearside 0/1	Pro. Turning (%)		Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr)		Total Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right			AM	PM			AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Po Yip Street	S		2	B	3.5	0.0	43	0	100%	100%	2105	4160	2035	2035	4015	4015	286	0.141	0.141	261	0.128	0.128
Po Yip Street	S		2	B	3.0	0.0	40	0	100%	100%	2055	0	1980	1980	0	0	279	0.141		254	0.128	
On Lok Road	NW		1	A	2.8	0.0	0	0	0%	0%	2035	6175	2035	2035	6175	6175	600	0.295	0.295	643	0.316	0.316
On Lok Road	NW		1	A	3.5	0.0	0	0	0%	0%	2105	0	2105	2105	0	0	620	0.295		665	0.316	
On Lok Road	NW		1	A	2.8	0.0	0	0	0%	0%	2035	0	2035	2035	0	0	600	0.295		643	0.316	
Pedestrian Crossing			3p	A	Min. Crossing Time = 70Gm + 12FGm = 82s																	
			4p	B	Min. Crossing Time = 23Gm + 9FGm = 32s																	
Notes: (Nil)											Traffic Flow (pcu / hr)					AM Peak Check Phase			PM Peak Check Phase			
																Ey 0.435 L (sec) 12 C (sec) 120 y pract. 0.810 R.C. (%) 86%			Ey 0.444 L (sec) 12 C (sec) 120 y pract. 0.810 R.C. (%) 82%			
Stage / Phase Diagrams																						
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I/G = 7				I/G = 7																		

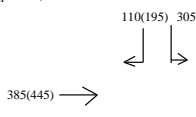
TRAFFIC SIGNALS CALCULATION

Job No: 23122HK

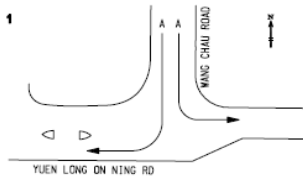
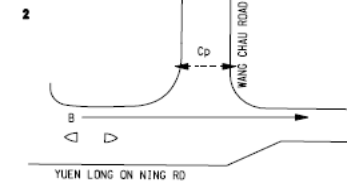
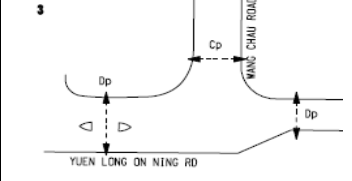
CTA Consultants Ltd.

Junction: **Junction B - Wang Chau Street/ Yuen Long On Ning Road**
 Description: **2030 Reference Traffic Flow**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m)		Nearside O/I	Pro. Turning (%)		Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr)		Total Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
						Left	Right		AM	PM			AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Wang Chau Street	S	→	1	A	4.0	10.0	0	1	100%	100%	2015	2015	1750	1750	1750	1750	305	0.174	0.174	345	0.197	0.197
Wang Chau Street	S	↘	1	A	4.0	0.0	15	0	100%	100%	2155	2155	1960	1960	1960	1960	110	0.056		195	0.099	
Yuen Long On Ning Road	E	→	2	B	5.2	0.0	0	1	0%	0%	2135	2135	2135	2135	2135	2135	385	0.180	0.180	445	0.208	0.208
Pedestrian Crossing			Cp	B,C	Min. Crossing Time = 8Gm + 8FGm = 16s																	
			Dp	A,C	Min. Crossing Time = 6Gm + 8FGm = 14s																	

Notes: (Nil)	Traffic Flow (pcu / hr) 	AM Peak Check Phase ey 0.355 L (sec) 32 C (sec) 108 y pract. 0.633 R.C. (%) 79%	PM Peak Check Phase ey 0.406 L (sec) 32 C (sec) 108 y pract. 0.633 R.C. (%) 56%
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Stage / Phase Diagrams






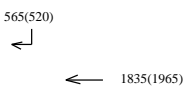
 <p>I/G = 5</p>	 <p>I/G = 7</p>	 <p>I/G = 22</p>		
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Junction: Junction A1 - Po Yip Street/ Long Yip Street																						
Description: 2030 Design Traffic Flow																						
Approach	Direction	Movement notation	Phase	Stage	Radius (m)			Nearside 0/1	Pro. Turning (%)		Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr)		Total Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Width (m)	Left	Right		AM	PM			AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y
Long Yip Street	E		1	A	3.1	10.0	0	1	27%	28%	1925	6115	1850	1845	6040	6035	452	0.244	0.244	392	0.212	0.212
Long Yip Street	E		1	A	3.4	0.0	0	0	0%	0%	2095	0	2095	2095	0	0	512	0.244		444	0.212	
Long Yip Street	E		1	A	3.4	0.0	0	0	0%	0%	2095	0	2095	2095	0	0	512	0.244		444	0.212	
Po Yip Street	N		2	B	3.5	0.0	0	0	0%	0%	2105	4210	2105	2105	4190	4190	224	0.106	0.106	216	0.103	0.103
Po Yip Street	N		2	B	3.5	0.0	40	0	25%	26%	2105	0	2085	2085	0	0	221	0.106		214	0.103	
Pedestrian Crossing			3p	C	Min. Crossing Time = 27Gm + 6FGm = 33s																	
Notes: (Nil)											Traffic Flow (pcu / hr) 						AM Peak Check Phase E _y 0.351 L (sec) 51 C (sec) 119 y pract. 0.514 R.C. (%) 47%			PM Peak Check Phase E _y 0.315 L (sec) 51 C (sec) 119 y pract. 0.514 R.C. (%) 63%		
Stage / Phase Diagrams																						
I/G = 7							I/G = 6							I/G = 5								

Junction: Junction A2 - Po Yip Street/ Long Yip Street																						
Description: 2030 Design Traffic Flow																						
Approach	Direction	Movement notation	Phase	Stage	Width (m)			Nearside 0/1	Pro. Turning (%)		Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr)		Total Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right	AM		PM	AM			PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y	
Po Yip Street	S	↓	1	A	2.7	15.0	0	1	100%	100%	1885	5965	1715	1715	5660	5680	299	0.174	0.174	234	0.136	0.136
Po Yip Street	S	↓	1	A	3.5	18.0	0	0	84%	70%	2105	0	1970	1990	0	0	343	0.174		271	0.136	
Po Yip Street	S	↓	1	A	3.6	0.0	0	0	0%	0%	1975	0	1975	1975	0	0	344	0.174		270	0.136	
Long Yip Street	E	→	2	B	3.4	0.0	0	1	0%	0%	1955	4060	1955	1955	4060	4060	600	0.307	0.307	508	0.260	0.260
Long Yip Street	E	→	2	B	3.5	0.0	0	0	0%	0%	2105	0	2105	2105	0	0	645	0.307		547	0.260	
Long Yip Street	E	↘	2	B	2.5	0.0	15	0	100%	100%	2005	2005	1825	1825	1825	1825	165	0.090		170	0.093	
Pedestrian Crossing			3p	B	Min. Crossing Time = 72Gm + 12FGm = 84s																	
			4p	A	Min. Crossing Time = 21Gm + 9FGm = 30s																	

Notes: (Nil)	Traffic Flow (pcu / hr)	AM Peak Check Phase		PM Peak Check Phase	
		Ey 0.481	Ey 0.396	L (sec) 12	L (sec) 12
		C (sec) 120	C (sec) 120	y pract. 0.810	y pract. 0.810
		R.C. (%) 68%	R.C. (%) 104%		

Stage / Phase Diagrams			
I/G = 7	I/G = 7		

Junction: Junction A3 - Long Yip Street/ Yuen Long On Lok Road																							
Description: 2030 Design Traffic Flow																							
Approach	Direction	Movement notation	Phase	Stage	Width (m)		Radius (m)		Nearside 0/1	Pro. Turning (%)		Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr)		Total Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
					Left	Right	Left	Right		AM	PM			AM	PM	AM	PM	AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)
Po Yip Street	S		2	B	3.5	0.0	43	0	100%	100%	2105	4160	2035	2035	4015	4015	286	0.141	0.141	264	0.130	0.130	
Po Yip Street	S		2	B	3.0	0.0	40	0	100%	100%	2055	0	1980	1980	0	0	279	0.141		256	0.130		
On Lok Road	NW		1	A	2.8	0.0	0	0	0%	0%	2035	6175	2035	2035	6175	6175	605	0.297	0.297	648	0.318	0.318	
On Lok Road	NW		1	A	3.5	0.0	0	0	0%	0%	2105	0	2105	2105	0	0	626	0.297		670	0.318		
On Lok Road	NW		1	A	2.8	0.0	0	0	0%	0%	2035	0	2035	2035	0	0	605	0.297		648	0.318		
Pedestrian Crossing			3p	A	Min. Crossing Time = 70Gm + 12FGm = 82s																		
			4p	B	Min. Crossing Time = 23Gm + 9FGm = 32s																		
Notes:										Traffic Flow (pcu / hr)						AM Peak Check Phase			PM Peak Check Phase				
(Nil)																E _y 0.438 L (sec) 12 C (sec) 120 y pract. 0.810 R.C. (%) 85%			E _y 0.448 L (sec) 12 C (sec) 120 y pract. 0.810 R.C. (%) 81%				
Stage / Phase Diagrams																							
I/G = 7																							

TRAFFIC SIGNALS CALCULATION

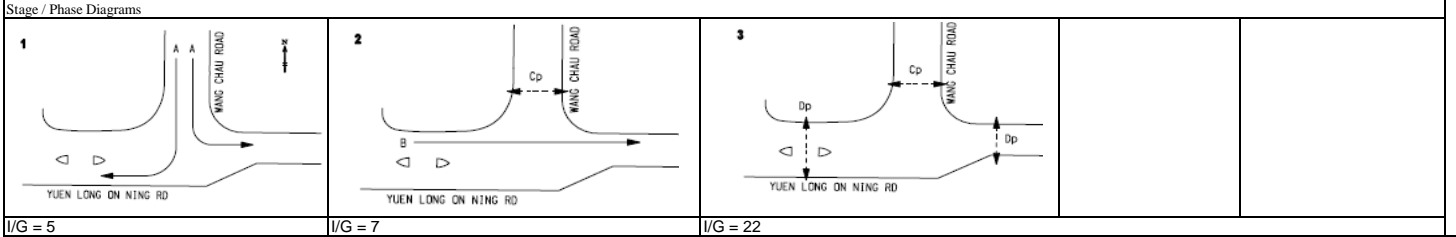
Job No: 23122HK

CTA Consultants Ltd.

Junction: **Junction B - Wang Chau Street/ Yuen Long On Ning Road**
 Description: **2030 Design Traffic Flow**

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m)		Nearside O/I	Pro. Turning (%)		Saturation Flow (pcu/hr)	Total Saturation Flow (pcu/hr)	Revised Saturation Flow (pcu/hr)		Total Revised Saturation Flow (pcu/hr)		AM Peak			PM Peak		
						Left	Right		AM	PM			AM	PM	Flow (pcu/hr)	y Value	Critical y	Flow (pcu/hr)	y Value	Critical y		
Wang Chau Street	S	→	1	A	4.0	10.0	0	1	100%	100%	2015	2015	1750	1750	1750	1750	325	0.186	0.186	365	0.209	0.209
Wang Chau Street	S	↘	1	A	4.0	0.0	15	0	100%	100%	2155	2155	1960	1960	1960	1960	110	0.056		195	0.099	
Yuen Long On Ning Road	E	→	2	B	5.2	0.0	0	1	0%	0%	2135	2135	2135	2135	2135	2135	400	0.187	0.187	460	0.215	0.215
Pedestrian Crossing			Cp	B,C	Min. Crossing Time = 8Gm + 8FGm = 16s																	
			Dp	A,C	Min. Crossing Time = 6Gm + 8FGm = 14s																	

Notes: (Nil)	Traffic Flow (pcu / hr) 	AM Peak Check Phase		PM Peak Check Phase	
		γy 0.373 L (sec) 32 C (sec) 108 y pract. 0.633 R.C. (%) 70%	γy 0.424 L (sec) 32 C (sec) 108 y pract. 0.633 R.C. (%) 49%		



Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.5.523 [19102,19/06/2015]
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Filename: JUNCTION C.arc8

Path: \\CTA_NAS01\Project\CTA Consultants Limited\CTA - Project\23122HK (mwy) - Yuen Long Theatre DD120 Lot 3678
\Cal\Junction\28.02.2024

Report generation date: 14/3/2024 11:30:14

« JUNCTION C - OBSERVED, AM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
JUNCTION C - DESIGN								
Stream B-C	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream B-A	0.11	8.07	0.10	A	0.08	8.04	0.07	A
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.05	6.28	0.05	A	0.06	6.34	0.06	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
JUNCTION C - OBSERVED								
Stream B-C	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream B-A	0.04	7.40	0.04	A	0.04	7.59	0.04	A
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.02	6.07	0.02	A	0.03	6.12	0.02	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
JUNCTION C - REFERENCE								
Stream B-C	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream B-A	0.04	7.47	0.04	A	0.04	7.69	0.04	A
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.02	6.07	0.02	A	0.03	6.12	0.02	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - OBSERVED, AM" model duration: 8:00 - 9:30

"D2 - OBSERVED, PM" model duration: 8:00 - 9:30

"D3 - REFERENCE, AM" model duration: 8:00 - 9:30

"D4 - REFERENCE, PM" model duration: 8:00 - 9:30

"D5 - DESIGN, AM" model duration: 8:00 - 9:30

"D6 - DESIGN, PM" model duration: 8:00 - 9:30

Run using Junctions 8.0.5.523 at 14/3/2024 11:30:14

File summary

Title	JUNCTION B
Location	
Site Number	
Date	18/1/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ITADMIN
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

JUNCTION C - OBSERVED, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
JUNCTION C	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
OBSERVED, AM	OBSERVED	AM		FLAT	08:00	09:30	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
C	(untitled)	T-Junction	One-way from C to A	A,B,C	6.95	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	(untitled)		Major
B	B	(untitled)		Minor
C	C	(untitled)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	6.00		0.00		2.20	50.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	Two lanes		4.23	4.39								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
C	B-A	590.664	0.079	0.201	0.126	0.287
C	B-C	736.124	0.083	0.211	-	-
C	C-B	602.919	0.173	0.173	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	0.00	100.000
B	FLAT	✓	20.00	100.000
C	FLAT	✓	650.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction C (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	0.000
	B	20.000	0.000	0.000
	C	640.000	10.000	0.000

Turning Proportions (PCU) - Junction C (for whole period)

		To		
		A	B	C
From	A	0.33	0.33	0.33
	B	1.00	0.00	0.00
	C	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction C (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction C (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.00	0.00	0.00	A
B-A	0.04	7.40	0.04	A
C-A	-	-	-	-
C-B	0.02	6.07	0.02	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	0.00	0.00	0.00	728.86	0.000	0.00	0.000	A
B-A	20.00	19.84	0.00	506.89	0.039	0.04	7.390	A
C-A	640.00	640.00	0.00	-	-	-	-	-
C-B	10.00	9.93	0.00	602.92	0.017	0.02	6.070	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	0.00	0.00	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	0.00	0.00	0.00	728.80	0.000	0.00	0.000	A
B-A	20.00	20.00	0.00	506.87	0.039	0.04	7.393	A
C-A	640.00	640.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	602.92	0.017	0.02	6.070	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	0.00	0.00	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	0.00	0.00	0.00	728.80	0.000	0.00	0.000	A
B-A	20.00	20.00	0.00	506.87	0.039	0.04	7.393	A
C-A	640.00	640.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	602.92	0.017	0.02	6.070	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	0.00	0.00	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	0.00	0.00	0.00	728.80	0.000	0.00	0.000	A
B-A	20.00	20.00	0.00	506.87	0.039	0.04	7.393	A
C-A	640.00	640.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	602.92	0.017	0.02	6.073	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	0.00	0.00	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	0.00	0.00	0.00	728.80	0.000	0.00	0.000	A
B-A	20.00	20.00	0.00	506.87	0.039	0.04	7.393	A
C-A	640.00	640.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	602.92	0.017	0.02	6.073	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	0.00	0.00	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	0.00	0.00	0.00	728.80	0.000	0.00	0.000	A
B-A	20.00	20.00	0.00	506.87	0.039	0.04	7.396	A
C-A	640.00	640.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	602.92	0.017	0.02	6.073	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	0.00	0.00	0.00	-	-	-	-	-

Junctions 8

PICADY 8 - Priority Intersection Module

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Filename: JUNCTION D .arc8

Path: \\CTA_NAS01\Project\CTA Consultants Limited\CTA - Project\23122HK (mwy) - Yuen Long Theatre DD120 Lot 3678
\Cal\Junction\28.02.2024

Report generation date: 14/3/2024 11:31:04

« JUNCTION D - OBSERVED, AM

- » Junction Network
- » Arms
- » Traffic Flows
- » Entry Flows
- » Turning Proportions
- » Vehicle Mix
- » Results

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
JUNCTION D - DESIGN								
Stream B-AC	0.51	7.32	0.34	A	0.61	7.88	0.38	A
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
JUNCTION D - OBSERVED								
Stream B-AC	0.38	6.67	0.28	A	0.54	7.03	0.35	A
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
JUNCTION D - REFERENCE								
Stream B-AC	0.42	6.90	0.30	A	0.56	7.63	0.36	A
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.00	0.00	0.00	A	0.00	0.00	0.00	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

Values shown are the maximum values over all time segments. Delay is the maximum value of average delay per arriving vehicle.

"D1 - OBSERVED, AM" model duration: 8:00 - 9:30

"D2 - OBSERVED, PM" model duration: 8:00 - 9:30

"D3 - REFERENCE, AM" model duration: 8:00 - 9:30

"D4 - REFERENCE, PM" model duration: 8:00 - 9:30

"D5 - DESIGN, AM" model duration: 8:00 - 9:30

"D6 - DESIGN, PM" model duration: 8:00 - 9:30

Run using Junctions 8.0.5.523 at 14/3/2024 11:31:04

File summary

Title	JUNCTION B
Location	
Site Number	
Date	18/1/2019
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ITADMIN
Description	

Analysis Options

Vehicle Length (m)	Do Queue Variations	Calculate Residual Capacity	Residual Capacity Criteria Type	RFC Threshold	Average Delay Threshold (s)	Queue Threshold (PCU)
5.75			N/A	0.85	36.00	20.00

Units

Distance Units	Speed Units	Traffic Units Input	Traffic Units Results	Flow Units	Average Delay Units	Total Delay Units	Rate Of Delay Units
m	kph	PCU	PCU	perHour	s	-Min	perMin

JUNCTION D - OBSERVED, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
JUNCTION D	N/A			100.000	

Demand Set Details

Name	Scenario Name	Time Period Name	Description	Traffic Profile Type	Model Start Time (HH:mm)	Model Finish Time (HH:mm)	Model Time Period Length (min)	Time Segment Length (min)	Single Time Segment Only	Locked
OBSERVED, AM	OBSERVED	AM		FLAT	08:00	09:30	90	15		

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
D	(untitled)	T-Junction	One-way from A to C	A,B,C	6.67	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	(untitled)		Major
B	B	(untitled)		Minor
C	C	(untitled)		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has right turn bay	Width For Right Turn (m)	Visibility For Right Turn (m)	Blocks?	Blocking Queue (PCU)
C	8.00		0.00		2.20	50.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Left) (m)	Lane Width (Right) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Left (m)	Visibility To Right (m)
B	One lane	5.00										50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
D	B-A	622.329	0.064	0.162	0.102	0.231
D	B-C	786.649	0.068	0.172	-	-
D	C-B	602.919	0.132	0.132	-	-

The slopes and intercepts shown above do NOT include any corrections or adjustments.

Streams may be combined, in which case capacity will be adjusted.

Values are shown for the first time segment only; they may differ for subsequent time segments.

Traffic Flows

Demand Set Data Options

Default Vehicle Mix	Vehicle Mix Varies Over Time	Vehicle Mix Varies Over Turn	Vehicle Mix Varies Over Entry	Vehicle Mix Source	PCU Factor for a HV (PCU)	Default Turning Proportions	Estimate from entry/exit counts	Turning Proportions Vary Over Time	Turning Proportions Vary Over Turn	Turning Proportions Vary Over Entry
		✓	✓	HV Percentages	2.00				✓	✓

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	245.00	100.000
B	FLAT	✓	205.00	100.000
C	FLAT	✓	0.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction D (for whole period)

		To		
		A	B	C
From	A	0.000	0.000	245.000
	B	0.000	0.000	205.000
	C	0.000	0.000	0.000

Turning Proportions (PCU) - Junction D (for whole period)

		To		
		A	B	C
From	A	0.00	0.00	1.00
	B	0.00	0.00	1.00
	C	0.33	0.33	0.33

Vehicle Mix

Average PCU Per Vehicle - Junction D (for whole period)

		To		
		A	B	C
From	A	1.000	1.000	1.000
	B	1.000	1.000	1.000
	C	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction D (for whole period)

		To		
		A	B	C
From	A	0.0	0.0	0.0
	B	0.0	0.0	0.0
	C	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-A-C	0.28	6.67	0.38	A
C-A	-	-	-	-
C-B	0.00	0.00	0.00	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

Main results: (08:00-08:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-A-C	205.00	203.50	0.00	744.46	0.275	0.38	6.636	A
C-A	0.00	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	570.59	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	245.00	245.00	0.00	-	-	-	-	-

Main results: (08:15-08:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	205.00	204.99	0.00	744.46	0.275	0.38	6.672	A
C-A	0.00	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	570.59	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	245.00	245.00	0.00	-	-	-	-	-

Main results: (08:30-08:45)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	205.00	205.00	0.00	744.46	0.275	0.38	6.672	A
C-A	0.00	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	570.59	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	245.00	245.00	0.00	-	-	-	-	-

Main results: (08:45-09:00)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	205.00	205.00	0.00	744.46	0.275	0.38	6.672	A
C-A	0.00	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	570.59	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	245.00	245.00	0.00	-	-	-	-	-

Main results: (09:00-09:15)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	205.00	205.00	0.00	744.46	0.275	0.38	6.672	A
C-A	0.00	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	570.59	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	245.00	245.00	0.00	-	-	-	-	-

Main results: (09:15-09:30)

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	205.00	205.00	0.00	744.46	0.275	0.38	6.672	A
C-A	0.00	0.00	0.00	-	-	-	-	-
C-B	0.00	0.00	0.00	570.59	0.000	0.00	0.000	A
A-B	0.00	0.00	0.00	-	-	-	-	-
A-C	245.00	245.00	0.00	-	-	-	-	-