



Section 16 Planning Application for Proposed Religious Institution and Columbarium (Partial Redevelopment of Prajna Dhyana Temple)

**Traffic Impact Assessment
Final Report
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S16 Planning Application for Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung Chung at Lot No. 112, 113, 114, 116, 117 and 118 D.D.2

Traffic Impact Assessment Final Report December 2025

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1 INTRODUCTION

1.1 Background

1.1.1 Prajna Dhyana Temple is located at Shek Mun Kap, Tung Chung (hereafter referred as the “Application Site”). The Application Site is a religious institution with columbarium of a total of 872 nos. of niches at Lot No. 112, 113, 114, 116, 117 and 118 D.D.2.

1.1.2 The Applicant proposes a partial redevelopment of the existing religious institution, with proposed columbarium of a total nos. of 7,500 niches.

1.1.3 Ozzo Technology (HK) Limited has been commissioned to undertake a Traffic Impact Assessment (TIA) Study to assess the potential traffic impact on the road network in the vicinity.

1.2 Study Objectives

1.2.1 The objectives of the TIA study are as follows:

- To review the existing traffic situation of the surrounding road network during grave sweeping festival day;
- To estimate the traffic generations/attractions to be induced by the Proposed Development during grave sweeping festival day;
- To assess the future traffic situation of the surrounding road network during grave sweeping festival day;
- To appraise the potential traffic impact of the Proposed Development on the surrounding road network during grave sweeping festival day;
- To recommend traffic and crowd management and control plans to be implemented if necessary.

1.3 Report Structure

1.3.1 Following this introductory chapter, this report is arranged as follow:

- Chapter 2 summarizes the existing traffic condition in the vicinity of the Application Site during grave sweeping festival day;
- Chapter 3 describes the Proposed Development;
- Chapter 4 describes the proposed Crowd Management Plan to be implemented;
- Chapter 5 provides the forecast traffic to be generated by the Proposed Development;
- Chapter 6 describes the traffic impact assessment approach and reports the assessment results; and
- a summary of the findings and conclusion of this TIA study are given in Chapter 7.

2 EXISTING TRAFFIC SITUATION

2.1 Site Location and Study Area

2.1.1 The Application Site is located at Shek Mun Kap, Tung Chung as shown in **Figure 2-1**.

2.1.2 **Figure 2-1** also shows the proposed Study Area for this TIA study. The proposed Study Area covers the key junctions along the major vehicular routes to be used by the traffic to be induced by the Proposed Development.

2.2 Existing Road Network

2.2.1 The Application Site is served by a feeder road named Shek Mun Kap Road which sits next to Tung Chung Road. Tung Chung Road can be connected to Tung Chung town centre via Chung Yan Road and Yu Tung Road.

2.2.2 Shek Mun Kap Road is a feeder road connects the Application Site and Tung Chung Road, and it is also serving Shek Mun Kap Village, which is at the West of Application Site.

2.2.3 Tung Chung Road is a 2-lane Rural Road serving two-way traffic, connecting Tung Chung and South Lantau.

2.3 Existing Public Transport Services

2.3.1 There are several existing public transport provisions in the vicinity of the Application Site as shown in **Figure 2-2**. **Table 2-1** lists out the regular and special franchised bus routes serving the area.

Table 2-1 Existing Public Transport Services

Route No.	Terminating Points		Remarks
3M	Tung Chung Station	Mui Wo Fery Pier	Daily service between 06:00 to 00:50
11	Tung Chung Station	Tai O	Daily service between 05:15 to 01:20
11A	Tung Chung Station	Shek Pik	Weekend service between 09:40 – 18:35
23	Tung Chung (Tat Tung Road)	Ngong Ping	Daily service between 07:15 to 19:10
34	Tung Chung (Tat Tung Road)	Shek Mun Kap	Daily service between 07:00 to 22:15

Route No.	Terminating Points		Remarks
34S	Tung Chung (Tat Tung Road)	Cemetery Area No.18	Special service during grave sweeping period
A35	Mui Wo Fery Pier	HZMB Hong Kong Port	Daily service between 05:30 to 00:15

Note: Information is updated as of date of 10 July 2025.

2.4 Existing Traffic Conditions

2.4.1 To gain an understanding of the existing traffic condition of the vicinity of the Application Site, traffic count surveys were undertaken at the key locations on Ching Ming Festival in 2025, the survey period of 09:00-18:00. The locations of the traffic surveys are shown in **Figure 2-3**.

2.4.2 All vehicular flows in the subsequent analysis are converted to passenger car unit (PCU) based on the PCU factors for signal and priority traffic according to Table 2.3.1.1 of Volume 2 of Transport Planning and Design Manual (TPDM) as shown in **Table 2-2**.

Table 2-2 Passenger Car Unit Conversion Factors

	PCU Conversion Factor	
	Traffic Signal	Priority
Car / Taxi	1.00	1.00
Public Light Bus / Minibus	1.50	1.50
Light Goods Vehicle	1.50	1.50
Medium/ Heavy Goods Vehicle	1.75	2.80
Bus / Coach	2.00	2.80

2.4.3 By applying the above PCU factors, the hourly vehicular traffic flows in PCUs are calculated and the peak hour is identified to occur at 15:00 – 16:00. The peak hour traffic flows are shown in **Figure 2-4**.

2.4.4 Based on the observed peak hour traffic flows, the performances of the key junctions in the Study Area are assessed. The results are summarized in **Table 2-3** and detailed junction capacity calculation sheets are given in **Appendix A**.

2.4.5 For signal-controlled junctions, the reserve capacity index, R.C. is calculated based on current cycle time in accordance with the methods stated in Chapter 2.4 of Volume 4 TPDM.

Table 2-3 2025 Ching Ming Festival Peak Hour Junction Capacity Assessment

Ref No.	Location ⁽¹⁾	Junction Type	Capacity Index ⁽²⁾	Observed Peak
J1	Tung Chung Road / Shek Mun Kap Road	Roundabout	DFC	0.20
J2 ⁽³⁾	Yu Tung Road / Chung Yan Road	Signalized	R.C.	99%
J3 ⁽³⁾	Yu Tung Road / Shun Tung Road	Signalized	R.C.	70%
J4	Tung Cheung Eastern Interchange	Roundabout	DFC	0.38
J5	Yi Tung Road / Ying Hei Road / Tung Chung Waterfront Road	Signalized	R.C.	100%+
J6	Tung Chung Waterfront Road / Wai Tung Road	Signalized	R.C.	100%+
J7	Wai Tung Road / Man Tung Road	Priority	DFC	0.37
J8 ⁽³⁾	Tat Tung Road / Shun Tung Road (West)	Signalized	R.C.	76%
J9	Tat Tung Road / Shun Tung Road (East)	Signalized	R.C.	77%

Notes: (1) Locations refer to **Figure 2-3**.

(2) DFC = Design Flow to Capacity for Priority junction

R.C. = Reserve Capacity under Current cycle time

(3) Under existing TTM scheme

2.4.6 The performances of the key road links in the Study Area are also assessed based on the observed peak hour traffic flows. The results are summarized in **Table 2-4**.

Table 2-4 2025 Ching Ming Festival Peak Hour Road Link Capacity Assessment

Ref No.	Location ⁽¹⁾	Direction	Capacity ⁽²⁾	Flow (veh/hr)	V/C Ratio
L1 ⁽³⁾	Shek Mun Kap Road	Eastbound	50	27	0.54
		Westbound	50	26	0.52

Notes: (1) Locations refer to **Figure 2-3**.

(2) According to TPDM V2 Ch3.11 Cl3.11.3.1, design flow of a single track access road is 100 veh/hr, 2-way

(3) Under existing TTM scheme

2.4.7 The results reveal that the assessed junction and road link are currently operating satisfactorily during the peak hours of 2025 Ching Ming Festival.

3 THE PROPOSED DEVELOPMENT

3.1 The Proposed Development

3.1.1 The development parameters of the Proposed Development are summarized in **Table 3-1**.

Table 3-1 Summary of Development Parameters

	Proposed Development – G/IC	Proposed Development – Green Belt
Site Area	About 3,434.58m ²	
Plot Ratio	1.59 (approximate)	0.56 (approximate)
Proposed GFA	Not exceeding 2,889.19m ²	
Site Coverage	68.99% (approximate)	20.01% (approximate)
No. of Blocks		7
Building Height	3 storeys max. (not exceeding 13.8m)	

3.1.2 The Application Site is proposed to provide a total of 7,500 niches. As summarized in **Table 3-2**, among the total of 7,500 niches, 872 niches were sold before 2025 (with 667 occupied and 205 not occupied), and 6,628 niches are additionally proposed.

Table 3-2 Occupation Statuses

Occupation Statuses	Niche Number
Sold and Occupied	667
Sold but Not Yet Occupied	205
Proposed Additional	6,628
Proposed Total	7,500

3.2 Internal Transport Facilities

3.2.1 The detailed internal layout is shown in **Figure 3-1**. 3 nos. of shuttle bus loading and unloading space are provided for the proposed shuttle bus service under the Crowd Management Plan in **Chapter 4**. In addition, 1 no. of accessible parking space is provided. The swept path demonstration of light bus is provided in **Appendix D**.

4 CROWD MANAGEMENT PLAN

4.1 Opening Hours

4.1.1 The columbarium operates daily from 09:00 to 18:00 during both grave-sweeping and non-grave-sweeping festival periods

4.1.2 To minimize the traffic impact to the vicinity, crowd management plans are proposed to be implemented. Expecting large volume of visitors during the grave sweeping festival periods, special crowd control would be implemented on the following Peak Grave Sweeping Days:

- i. 2nd Saturday before Ching Ming / Chung Yeung Festival Day,
- ii. 2nd Sunday before Ching Ming / Chung Yeung Festival Day,
- iii. 1st Saturday before Ching Ming / Chung Yeung Festival Day,
- iv. 1st Sunday before Ching Ming / Chung Yeung Festival Day,
- v. Ching Ming / Chung Yeung Festival Day,
- vi. 1st Saturday after Ching Ming / Chung Yeung Festival,
- vii. 1st Sunday after Ching Ming / Chung Yeung Festival,
- viii. 2nd Saturday after Ching Ming / Chung Yeung Festival,
- ix. 2nd Sunday after Ching Ming / Chung Yeung Festival,
- x. Other public holidays within (i) and (ix).

4.1.3 The detailed crowd management measures include the followings.

4.2 Admission Control

4.2.1 Admission control will be performed at the entrance. The advanced booking procedures are mandatory. Only visitors with the valid booking confirmations will be allowed to admit the columbarium buildings.

4.2.2 Only niche owners and their family members with proofs of memberships are allowed to enter the Columbarium. Other visitors will only be allowed to access the Columbarium when leaded and permitted by the niches owners and their family members of the Columbarium.

4.2.3 Niche purchasers are required to accept a set of Sale Agreement at time of purchase, which will include House Rules. These House Rules are legally binding on the purchasers in their use of the niches and effective in controlling their conduct.

4.2.4 The House Rules regulates visitors of the columbarium must use the visit by appointment system. It also includes special management measures such as visitors must take the free shuttle bus (30-seater light bus) on Peak Grave Sweeping Days (**Shuttle Bus Only Policy**).

4.2.5 By signing the Sales Agreement which includes the "Shuttle Bus Only Policy ", the purchasers of the niches are supposed to follow the signed agreement and not to travel by private car or taxi to visit but only shuttle bus to/from Application Site.

4.3 Visit by Appointment System

4.3.1 During the Peak Grave Sweeping Days, "Visit-By-Appointment" system will be implemented to control the number of visitors entering the Application Site. Booking by telephone and WhatsApp messages will be available for all visitors. Successful booking confirmation will be sent to visitors together with the successful reservation on the shuttle bus seat. Only visitors with the valid booking confirmations will be allowed to admit the columbarium buildings. The admission time will be 60-minute.

4.3.2 Visitors will be guided to wait in the waiting areas within the Application Site as shown in **Figure 3-1**. When some visitors leave the columbarium building, certain number of visitors will be allowed to enter the columbarium building.

4.3.3 The columbarium building has limited area and has maximum holding capacity of a total of 250 persons in view of fire safety according to "Code of Practice for Fire Safety in Buildings". Thus, for safety concerns, the Columbarium will be restricted to accommodate not more than 250 persons staying in the building at any time.

4.3.4 **Table 4-2** present the number of visitors with implementation of visit-by-appointment. A limit of 250 visitors per each 60-minute session will be allowed to enter the columbarium building, i.e., 2,250 visitors per day during Peak Grave Sweeping Days.

Table 4-1 Daily Visitor Profile with Visit-by-Appointment System on Peak Grave Sweeping Days

Session	Time Period (60-Minutes Session)	Number of Visitors	
		In	Out
1	0900-1000	250	250
2	1000-1100	250	250
3	1100-1200	250	250
4	1200-1300	250	250
5	1300-1400	250	250
6	1400-1500	250	250
7	1500-1600	250	250
8	1600-1700	250	250
9	1700-1800	250	250
Daily Total		2,250	2,250

4.4 Proposed Shuttle Bus Services

4.4.1 3 nos. of shuttle bus loading and unloading space are provided within the Application Site. To minimize the traffic impact to the vicinity of the Proposed Development, and to minimize the amount of vehicular traffic and in line with the Government Policy to encourage public transport use with railway as the backbone, the Applicant proposes to provide free shuttle bus services for visitors between the Application Site and MTR Tung Chung West Station.

4.4.2 As signed up in the Sales Agreement, visitors must take the shuttle bus to the Proposed Development with valid booking confirmation. Advance booking for the shuttle bus service is always required before a visit. The proposed routing is shown in **Figure 4-1**. Free shuttle bus operation details are summarized in **Table 4-2**.

Table 4-2 Proposed Shuttle Bus Services

Proposed Free Shuttle Bus Schedules	Peak Grave Sweeping Days
Origins and Destinations	Between a) Prajna Dhyana Temple b) Public Lay-by at Yu Tung Road, connecting to MTR Tung Chung West Station (circulating point for pick-up and drop-off)
Journey Time	Approx. 10 mins for round-trip (Travel distance approx. 5km and average speed 30km/hr)
Operation Time	08:50 – 18:00
Frequencies	Departure every 6-7 mins, 9 Departures per hour
Vehicle Details	30-seat light bus
Fleet Size	3 vehicles

4.4.3 As Tung Chung West Station is scheduled to be completed in 2029, the proposed shuttle bus services will be connecting the Application Site to MTR Tung Chung Station instead of Tung Chung West Station before its commencement. The temporary shuttle bus route is presented in **Figure 4-2**, with the pick-up/drop-off point at the bus lay-by at Shun Tung Road Southbound. The round-trip journey time and travelling distance would be approx. 13min and 7km respectively, with a fleet size of 5 vehicles. An alternative shuttle bus pick-up/drop-off point other than bus lay-by at Shun Tung Road for connecting Tung Chung Station would be at Citygate North drop off area.

5 TRAFFIC FORECAST OF THE PROPOSED DEVELOPMENT

5.1 Visitor Trip Generations during Festival Period

5.1.1 The traffic trip generation on Grave Sweeping Festival Day of the reference columbarium with similar locality and the Application Site is shown in the table as below:

Table 5-1 Observed Peak Hour Visitor Trip Generations at Reference Columbarium on Grave Sweeping Festival Day

Location	Survey Date	Peak Hour	Visitor Trips			
			Peak Hour Flows (person/hr)		Trip Rates (person/hr/niches)	
			In	Out	In	Out
Filial Park ⁽¹⁾ , Tuen Mun (6265 niches + 7,150 tablets, with 1,331 niches + 136 memorial tablets occupied)	2017 Ching Ming	10:30 – 11:30	180 (two-way)		0.127 (two-way / niches) 0.093 (two-way / tablets)	
	2018 Chung Yeung	11:15 – 12:15	164 (two-way)		0.115 (two-way / niches) 0.084 (two-way / tablets)	
Fat Yuen Ching Shea ⁽²⁾ , Tuen Mun (9,160 niches, with 4,105 niches occupied)	2017 Ching Ming	11:15 – 12:15	643	929	0.157	0.226
	2018 Ching Ming	11:00 – 12:00	733	712	0.131	0.124
Ling Hin Fat Yuen ⁽³⁾ , Tai Po (757 niches, with 299 niches occupied)	2018 Chung Yeung	-	22 (two-way)		0.074 (two-way)	
Pun Chun Yuen ⁽⁴⁾ , Tai Po (3,595 niches, with 2,466 niches occupied) With visit-by-appointment	2021 Ching Ming	11:00 – 12:00	186	170	0.075	0.069
Application Site Prajna Dhyana Temple, Tung Chung (872 niches, with 667 niches occupied) With visit-by-appointment	2025 Ching Ming	14:45-15:45	21	21	0.031	0.031
Pook Fook Hill Columbarium (93,360 niches, with 59,474 niches occupied)	2019 Ching Ming	11:30 – 12:30	3,950	4,400	0.066	0.074
Sai Lam Temple, Sha Tin (10,960 niches, with 3,618 niches occupied)	2024 Ching Ming	11:00 – 12:00	502	489	0.139	0.135

Note: (1) Information extracted from TIA report of its approved planning application [A/TM/527];

(2) Information extracted from TIA report of the approved planning application [A/TM/548];

(3) Information extracted from TIA report of its approved planning application [ATP/652].

(4) Information extracted from TIA report of its approved planning application [A/TP/681].
 (5) Information extracted from FEHD published management plan of Po Fook Columbarium by August 2022
 (6) Information extracted from TIA report of its approved planning application [Y/ST/60].

5.1.2 By comparing the observed trip generation rates among the reference columbarium, the rate observed on Ching Ming Day in 2017 from Fat Yuen Ching Shea was higher than the others and the subject trip rate will be adopted in estimating the future trips by the proposed columbarium at the Application Site without visit-by-appointment.

5.1.3 As described in Chapter 4, the Applicant proposes to adopt “Visit-by-Appointment” system to manage and strictly control the Application Site to accommodate not more than 250 visitors staying within the columbarium building at any time for safety concerns.

5.1.4 The proposed appointment system is to smoothen and diversify the concentration of peak hour visitor demands by dividing the daily operation into several 45-minutes sessions during grave sweeping periods and assigning a quota of maximum of 300 visitors for each session.

5.1.5 As described in Chapter 4, given the implementation of the visit-by-appointment system, a maximum visitor trips of 2,250 in and 2,250 out are allowed for admission for 9 sessions (60 minutes for each time slot) during the opening hour 09:00 – 18:00. The visitor trips accessing the Application Site will be controlled and limited to 250 in and 250 out per hour. The future trips for the proposed columbarium at the Application Site is summarized in **Table 5-2**.

Table 5-2 Estimated Peak Hour Visitor Trip Generations at Proposed Columbarium on Grave Sweeping Festival Day

Proposed Columbarium (7,500 niches)	Peak Hour Visitor Trips			
	Peak Hour Trip Rates (person/ niches)		Estimated Peak Hour Flows (person)	
	In	Out	In	Out
Without Visit by Appointment ⁽¹⁾	0.157	0.226	1,178	1,695
With Visit by Appointment ⁽²⁾	0.033	0.033	250	250

Note: (1) Refer to **Table 5-1** for the Fat Yuen Ching Shea peak hour trip rates without visit by appointment
 (2) Refer to **Table 4-2** for the number of peak hour visits under Visit-by-Appointment System during Grave Sweeping Days

5.1.6 **Table 5-3** indicates that the estimated trip generations will be greatly decreased with the implementation of the crowd management plan.

5.2 Vehicular Trip Generations during Festival Period

5.2.1 As mentioned in Chapter 4, with implementation of crowd management by Applicant, i.e., all the visitors should make an appointment before visiting and take the free shuttle bus travelling between the Application Site and MTR Tung Chung West Station, the estimated traffic generation by the proposed columbarium will be regulated. The estimated traffic generation of the proposed columbarium is summarized in **Table 5-3**.

Table 5-3 Estimated Peak Hour Vehicular Trip Generations at Proposed Columbarium on Grave Sweeping Festival Day

Transportation Mode	Percentage	In			Out		
		Visitors /hr	Vehicles /hr	PCU/hr	Visitors /hr	Vehicles /hr	PCU/hr
With Visit-By-Appointment							
Shuttle Bus ⁽¹⁾	100%	250	9	14	250	9	44

Note: (1) Based on 30-seat light bus.

5.2.2 As indicated in **Table 5-4**, with implementation of TCMP, a total of 28 pcu's (14 in and 14 out) will be induced during peak hour during Ching Ming / Chung Yeung Festival. For conservative, the vehicular trips will be added along the route to MTR Tung Chung Station instead of Tung Chung West Station to demonstrate the vehicular trips induced by the Proposed Development before the commence of MTR Tung Chung West Station.

6 TRAFFIC IMPACT ASSESSMENT

6.1 Assessment Approach

6.1.1 The anticipated licensing year is 2027. The assessment year for this traffic impact assessment study is set as 2030, i.e. 3 years after commissioning of the columbarium.

6.1.2 In forecasting the future traffic flows on the road network in the Study Area, due considerations are given to the following information and factors:

- The forecast population and employment from the 2019-based Territorial Population and Employment Data Matrices (TPEDM) planning data published by Planning Department;
- Historical traffic data from Annual Traffic Census (ATC) published by Transport Department;
- Committed and planned developments in the Study Area.

6.1.3 The following steps are undertaken to derive the 2030 Peak Hour Reference Flows (i.e. without the proposed redevelopment) and Design Flows (i.e. with the proposed redevelopment):

- 2030 Background Flows = 2025 Observed Flows x annual growth
- 2030 Reference Flows = 2030 Background Flows + additional traffic by planned and committed developments
- 2030 Design Flows = 2030 Reference Flows + Development traffic

6.1.4 The traffic impact to be induced by the Redevelopment is assessed by comparing the Peak Hour Reference Traffic Flows against the Design Traffic Flows for both Design Years.

6.2 2030 Peak Hour Background Flows

6.2.1 Reference is made to the 2021-based Territorial Population and Employment Data Matrices (TPEDM) planning data published by Planning Department. **Table 6-1** presents the population and employment data in Islands District for 2021, 2026 and 2031. As indicated in the table, the population and employment places in Islands District are anticipated to increase by +5.00% over the period of 2021 – 2031.

Table 6-1 2021-Based TPEDM for Islands District

Category	2021	2026	2031	2021-2031 Average Growth (% p.a.)
Population	185,300	229,900	352,500	5.51%
Employment Places	118,000	147,150	191,950	4.14%
Total	303,300	377,050	544,450	5.00%

Source: 2021, 2026 & 2031 population and employment places are extracted from 2021-based TPEDM published by Planning Department.

6.2.2 Reference is also made to the historical traffic data from Annual Traffic Census (ATC) published by Transport Department. **Table 6-2** shows the AADT recorded at the relevant stations in the Study Area and the percent changes from 2018 to 2023. On average, there was an increase of +4.97% per annum in the area over the period from 2018 to 2023.

Table 6-2 Historical Traffic Data from Annual Traffic Census

Stn. No.	Road Name	Between		Average Annual Daily Traffic (AADT)						Growth (p.a.)			
				2018	2019	2020	2021	2022	2023				
5256	Tung Chung Rd	South Lantau Rd	Tung Chung Rd nr Mun Hong House	5,210	4,750	4,570	4,790	4,580	6,130	3.31%			
				--	-8.83%	-3.79%	4.81%	-4.38%	33.84%				
5706	Yu Tung Rd	Shun Tung Rd	Chung Mun Rd	20,320	24,560	25,000	26,230	25,390	28,540	7.03%			
				--	20.87%	1.79%	4.92%	-3.20%	12.41%				
5036	Shun Tung Rd	Yu Tung Rd	Tat Tung Rd	21,350	20,890	18,640	20,180	19,480	21,920	0.53%			
				--	-2.15%	-10.77%	8.26%	-3.47%	12.53%				
5705	Shun Tung Rd	Tat Tung Rd	Tung Chung Waterfront Rd	17,650	19,670	16,540	17,340	18,720	21,680	4.20%			
				--	11.44%	-15.91%	4.84%	7.96%	15.81%				
5905	Tung Chung Waterfront Rd & Ying Hei Rd	Shun Tung Rd RA	Man Tung Rd	12,320	13,000	10,790	10,630	10,560	13,220	1.42%			
				--	5.52%	-17.00%	-1.48%	-0.66%	25.19%				
5311	Yi Tung Rd	Tung Chung Eastern INT	Ying Hei Rd	9,590	11,520	12,540	13,120	12,970	16,500	11.46%			
				--	20.13%	8.85%	4.63%	-1.14%	27.22%				
5511	Yu Tung Rd	Shung Tung Rd	Tung Chung Eastern INT	16,800	20,200	19,660	19,910	21,540	23,560	7.00%			
				--	20.24%	-2.67%	1.27%	8.19%	9.38%				
Total				103,240	114,590	107,740	112,200	113,240	131,550	4.97%			
				--	10.99%	-5.98%	4.14%	0.93%	16.17%				

Source: Annual Traffic Census published by Transport Department.

6.2.3 For conservative, the annual growth rate derived from TPEDM (i.e. +5.00%) will be adopted and applied to the 2025 Peak Hour Observed Flows to derive the 2030 background flows.

6.3 2030 Peak Hour Reference Flows

6.3.1 According to the published information from Town Planning Board, there are some planned developments with proposed use of private housing, public housing, and commercial development. The major planned developments are summarized in **Table 6-3**.

Table 6-3 Estimated Peak Hour Trip Generations by Planned Developments

Location	Land Use	Year of Completion	Trip Generations (pcu/hr)			
			AM Peak		PM Peak	
			In	Out	In	Out
Government Land at Area 42 and Area 46, Tung Chung, Lantau [A/I-TCTC/67] ⁽¹⁾ ⁽²⁾	Area 42 PRH (6,372 flats)	Phase 1: 2027/28	208	275	192	151
	Area 42 Non-domestic (GFA 11,940m ²)		29	27	43	37
	Area 46 PRH (1,566 flats)	Phase 2: 2028/29	51	68	47	37
	Area 42 Non-domestic (GFA 2,220m ²)		5	5	8	7
Various Lots in D.D.1 TC and Adjoining Government Land, Tung Chung, Lantau Island [Y/I-TCV/1] ⁽³⁾	Private Housing (1,783 flats)	2030	17	49	33	19
	Retail (GFA 3,215m ²)		5	4	8	7
	Kindergarten (6 classrooms)		14	14	1	1
Area 23 Phase 1 ⁽²⁾ ⁽⁴⁾	PRH (495 flats)	2027/28	16	21	15	12
Lots 1766 RP, 1768 (Part), 1770 (Part), 1771 RP (Part), 1774 (Part) in D.D.3 TC and Adjoining Government Land, Tung Chung, Lantau Island [A/I-TCTC/59] ⁽⁵⁾ ⁽⁶⁾	Private Housing (187 flats)	2026	8	13	7	5
Tung Chung Valley [S/I-TCV-2] ⁽⁷⁾ ⁽⁸⁾	Commercial (33,990m ²)	2030	83	78	121	105
Tung Chung West Site A to Site F ⁽⁷⁾ ⁽⁸⁾	Private Housing (about 1,564 flats)	2030	183	354	232	169
		Total	619	908	707	550

Notes: (1) Land use and completion year extracted from Gist and Planning Statement of A/I-TCTC/67

(2) Trip generation estimated by mean trip rate for PRH with average flat size 40m² from TPDM V1 Appendix 1 Annex C

(3) Land use, completion year and trip generation extracted from Traffic Impact Assessment of Y/I-TCV/1

(4) Land use, completion year extracted from Planning Brief from Hong Kong Housing Authority

(5) Land use and completion year extracted from RNTPC Paper No. A/I-TCTC/59A

(6) Trip generation estimated by mean trip rate for retail from TPDM V1 Appendix 1 Annex C

(7) Land use and completion year extracted from Legislative Council Brief of S/I-TCV/2

(8) Trip generation estimated by mean trip rate for R(B) with average flat size 120m² and accessibility level A from TPDM V1 Appendix 1 Annex C

6.3.2 The additional development trips by the planned developments and that will affect the traffic of the study area are then added to the 2030 Peak Hour Background Flows to derive the 2030 Peak Hour Reference Flows (i.e., without the proposed development). For conservative, the larger two-way trip generation (i.e. trip generation at AM peak) are adopted. The results are shown in **Figure 6-1**.

6.4 2030 Peak Hour Design Flows on Festival Day

6.4.1 By adding the peak hour development flows (**Figure 6-2**) to the forecast 2030 Peak Hour Reference Flows, the 2030 Design Flows are derived and is shown in **Figure 6-3**. Junction capacity assessments are undertaken and the results are shown in **Table 6-4** and with detailed calculation sheets provided in **Appendix B**.

6.4.2 It is noted that junction improvement schemes are proposed at J1 under CEDD PWP Item No. 7786CL, at J2 under application Y/I-TCV/1, and at J3, J8, J9 under Tung Chung Town Extension. The junction capacity assessments for J1, J2, J3, J8 and J9 have taken in the account the improvement schemes, and the modified junction layout is provided in **Appendix C** for information.

Table 6-4 2030 Peak Hour Junction Capacity Assessment

Ref No.	Junction Location	Junction Type	Capacity Index ⁽¹⁾	2030 Ref	2030 Des
J1 ⁽²⁾	Tung Chung Road / Shek Mun Kap Road	Priority	DFC	0.18	0.21 ⁽⁷⁾
J2 ⁽³⁾	Yu Tung Road / Chung Yan Road	Signalized	R.C.	28%	27% ⁽⁷⁾
J3 ⁽⁴⁾	Yu Tung Road / Shun Tung Road	Signalized	R.C.	32%	32% ⁽⁷⁾
J4	Tung Cheung Eastern Interchange	Roundabout	DFC	0.63	0.64 ⁽⁸⁾
J5	Yi Tung Road / Ying Hei Road / Tung Chung Waterfront Road	Signalized	R.C.	67%	63% ⁽⁸⁾
J6	Tung Chung Waterfront Road / Wai Tung Road	Signalized	R.C.	99%	91% ⁽⁸⁾
J7	Wai Tung Road / Man Tung Road	Priority	DFC	0.49	0.51 ⁽⁸⁾
J8 ⁽⁵⁾	Tat Tung Road / Shun Tung Road (West)	Signalized	R.C.	30%	30% ⁽⁷⁾
J9 ⁽⁶⁾	Tat Tung Road / Shun Tung Road (East)	Signalized	R.C.	60%	59% ⁽⁷⁾

Notes: (1) DFC = Design Flow to Capacity ratio.

R.C. = Reserve Capacity under Current cycle time

(2) J1 is modified to a priority junction under improvement scheme by CEDD PWP Item No. 7786CL

(3) J2 is modified to provide additional traffic lanes under improvement scheme by application Y/I-TCV/1

- (4) *J3 is modified to provide a left turn exclusive lane at Yu Tung Road NB by Tung Chung Town Extension*
- (5) *J8 is modified to provide additional traffic lane at Shun Tung Road SB by Tung Chung Town Extension*
- (6) *J9 is modified to provide additional traffic lane at Shun Tung Road SB and Tat Tung Road WB by Tung Chung Town Extension*
- (7) *With vehicular trips induced by the Proposed Development added along the route to Shun Tung Road*
- (8) *With vehicular trips induced by the Proposed Development added along the route to Citygate North*

6.4.3 The performances of the key road links in the Study Area are also assessed based on the observed peak hour traffic flows. The results are summarized in **Table 6-5**.

Table 6-5 2030 Ching Ming Festival Peak Hour Road Link Capacity Assessment

Ref No.	Location ⁽¹⁾	Direction	Capacity ⁽²⁾	2030 Ref		2030 Des	
				Flow (veh/hr)	V/C Ratio	Flow (veh/hr)	V/C Ratio
L1	Shek Mun Kap Road	Eastbound	400	107	0.27	116	0.29
		Westbound	400	93	0.23	102	0.26

Notes: (1) Locations refer to **Figure 2-3**.

(2) According to TPDM V2 Ch2.4 Cl2.4.1.2, design flow of a 2-lane single local road is 800 veh/hr, 2-way

6.4.4 The results reveal that all the key junctions and road links in the Study Area would perform satisfactorily for both the Reference Scenario (i.e., without proposed development) and Design Scenario (i.e., with proposed development).

7 Summary and Conclusion

7.1 Summary of Findings

7.1.1 The Applicant proposes a partial redevelopment of the existing religious institution, with proposed columbarium of a total nos. of 7,500 niches. Ozzo Technology (HK) Limited are commissioned to undertake a Traffic Impact Assessment (TIA) Study to assess the potential traffic impact to be induced by the Proposed Development.

7.1.2 The assessment year is set as 2030, i.e., 3 years from the licencing year in 2027.

7.1.3 In order to minimise the amount of vehicular traffic in the area, the Applicant proposes to provide free shuttle bus services for visitors between the Proposed Development and MTR Tung Chung West Station. Also, a maximum of 250 visitors per hour would be allowed to access the proposed columbarium and visitors are required to make appointment via Visit-by-Appointment system before their visits.

7.1.4 It is estimated that around 28 pcu's (14 in and 14 out) are to be induced by the Proposed Development during the peak hour during the festival day.

7.1.5 The 2030 Peak Hour Reference Traffic Flows (i.e., without the proposed columbarium) are estimated taking into account the planned and committed developments, as well as the future population and employment in Islands District.

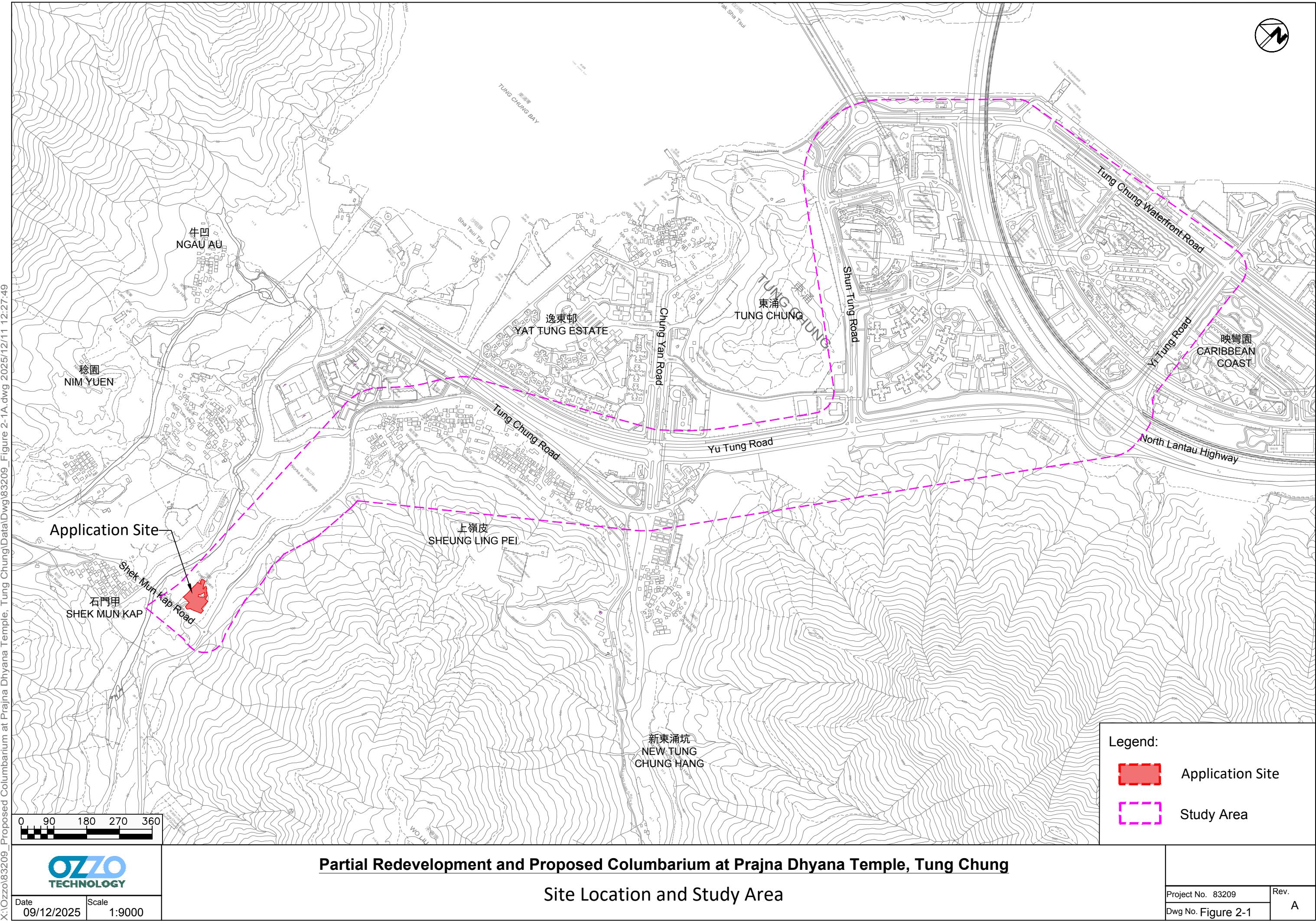
7.1.6 The additional traffic to be induced by the Proposed Development is added to the 2030 Reference Flows to obtain the 2030 Design Flows (i.e. with the Proposed Development).

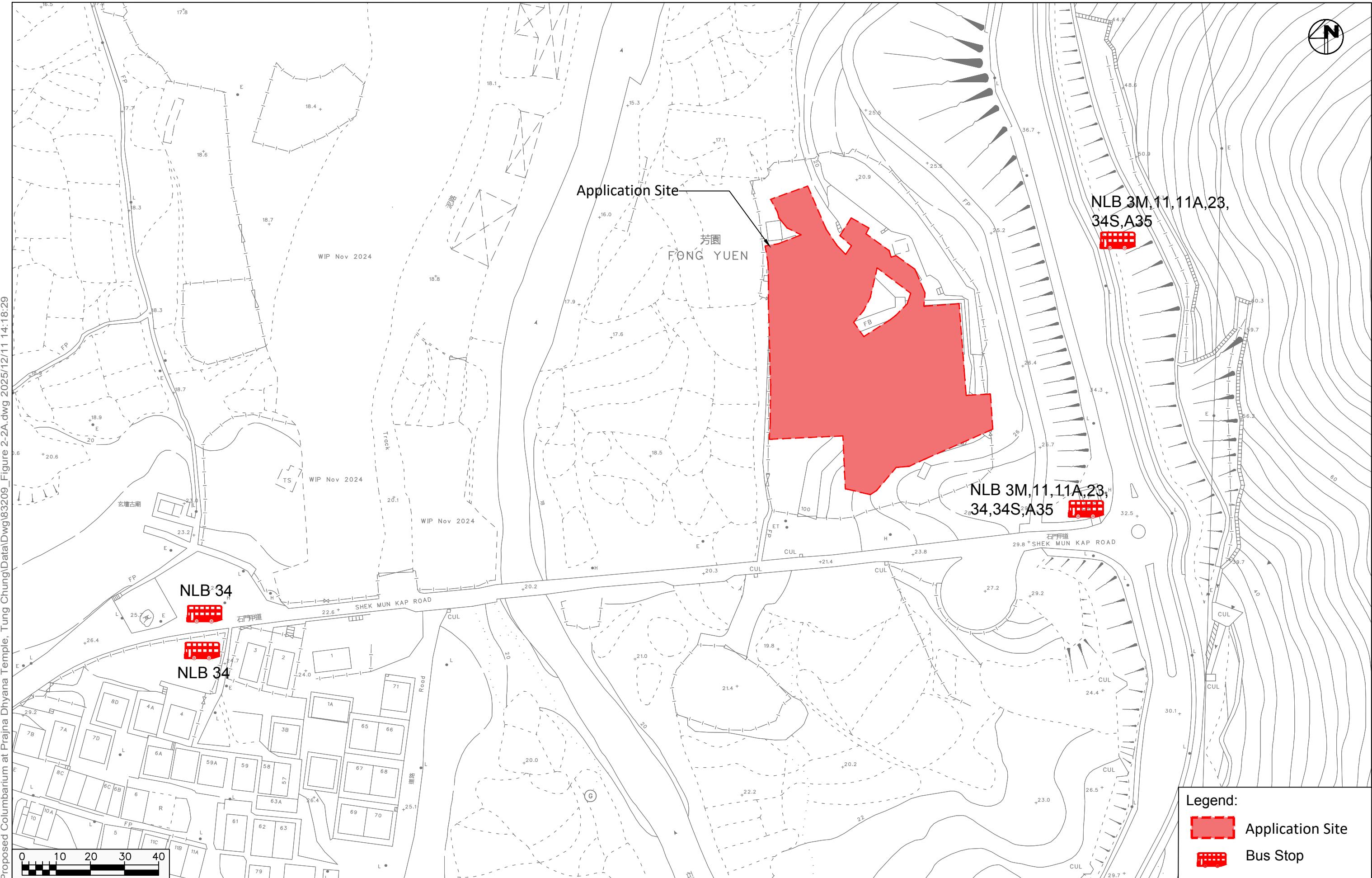
7.1.7 Junction capacity assessments are carried out for all the key junctions within the study area. The results indicated that the key junctions in the study area would perform satisfactorily in the design year of 2030 with the proposed management plans by the Proposed Development. The traffic impact to be induced by the Proposed Development would be acceptable without creating adverse impact on the nearby road network with the proposed management plans.

7.2 Conclusion

7.2.1 The results of the assessment indicate that, with the provision of free shuttle bus services to be provided by the Applicant, the amount of traffic to be induced by the Proposed Development would be small and hence the potential traffic impact to be induced by the proposed columbarium would not pose adverse traffic impacts to the road network in the vicinity of the Application Site.

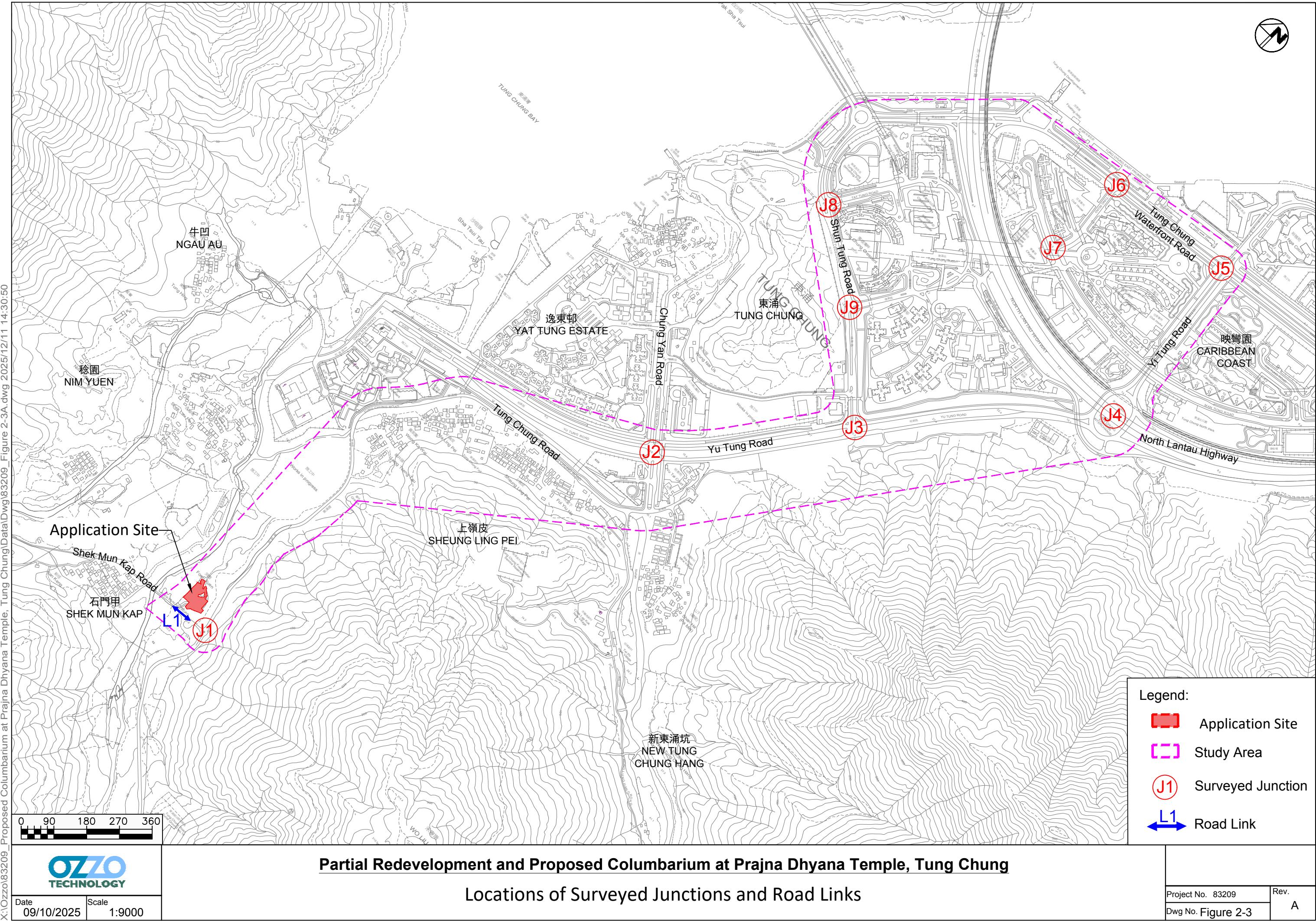
Figures

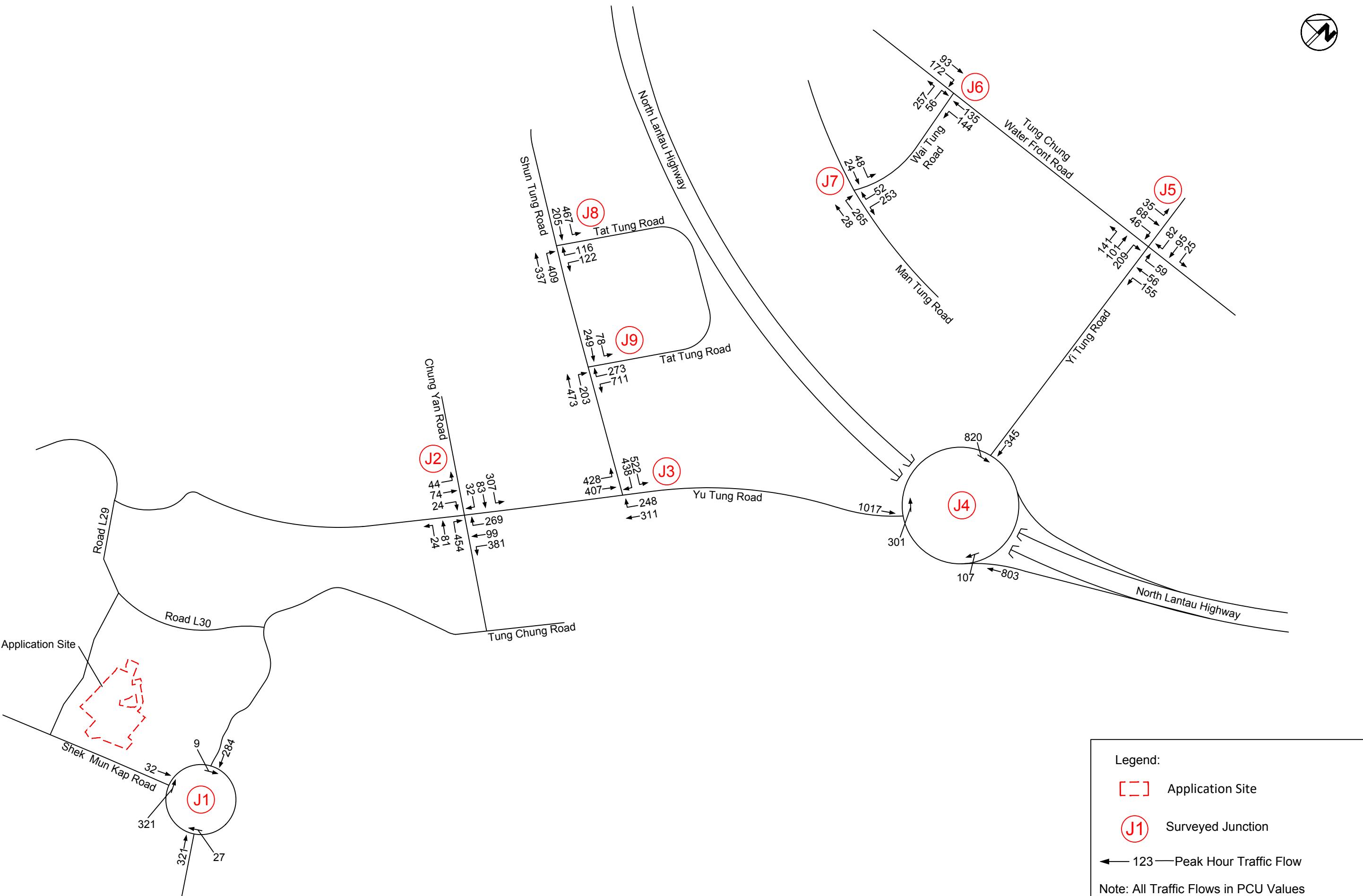




Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung Chung

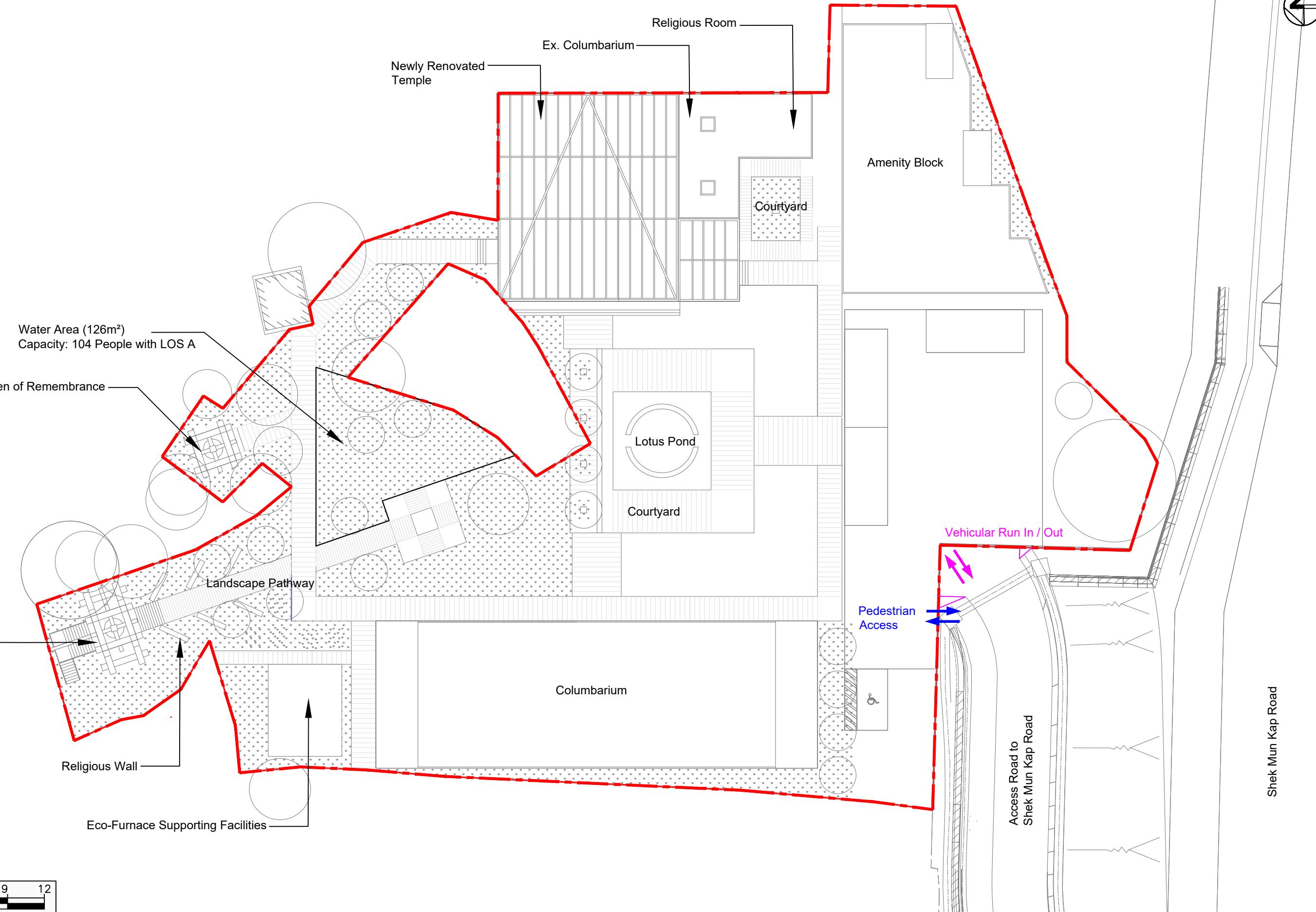
Existing Public Transport in the Vicinity of the Application Site



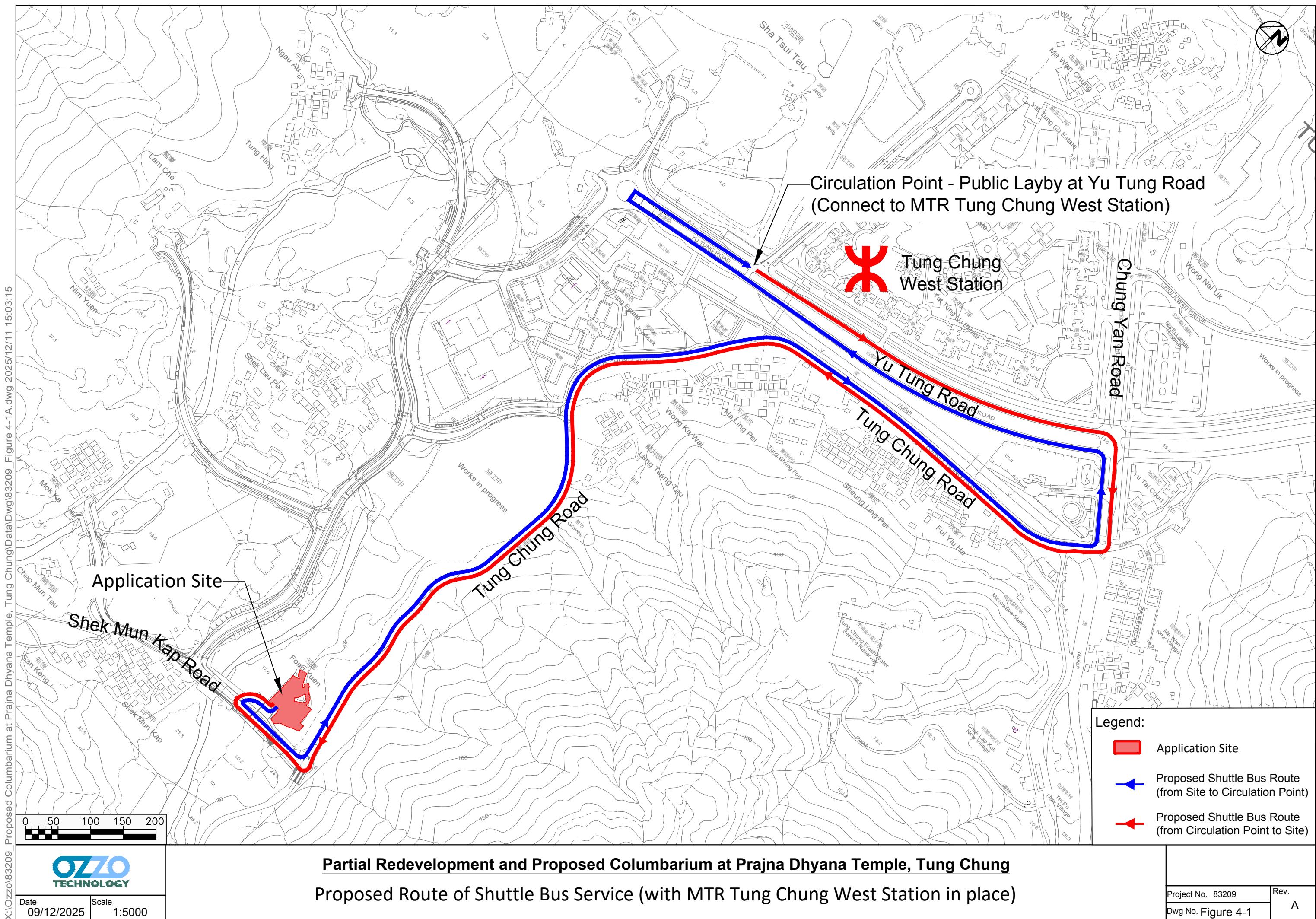


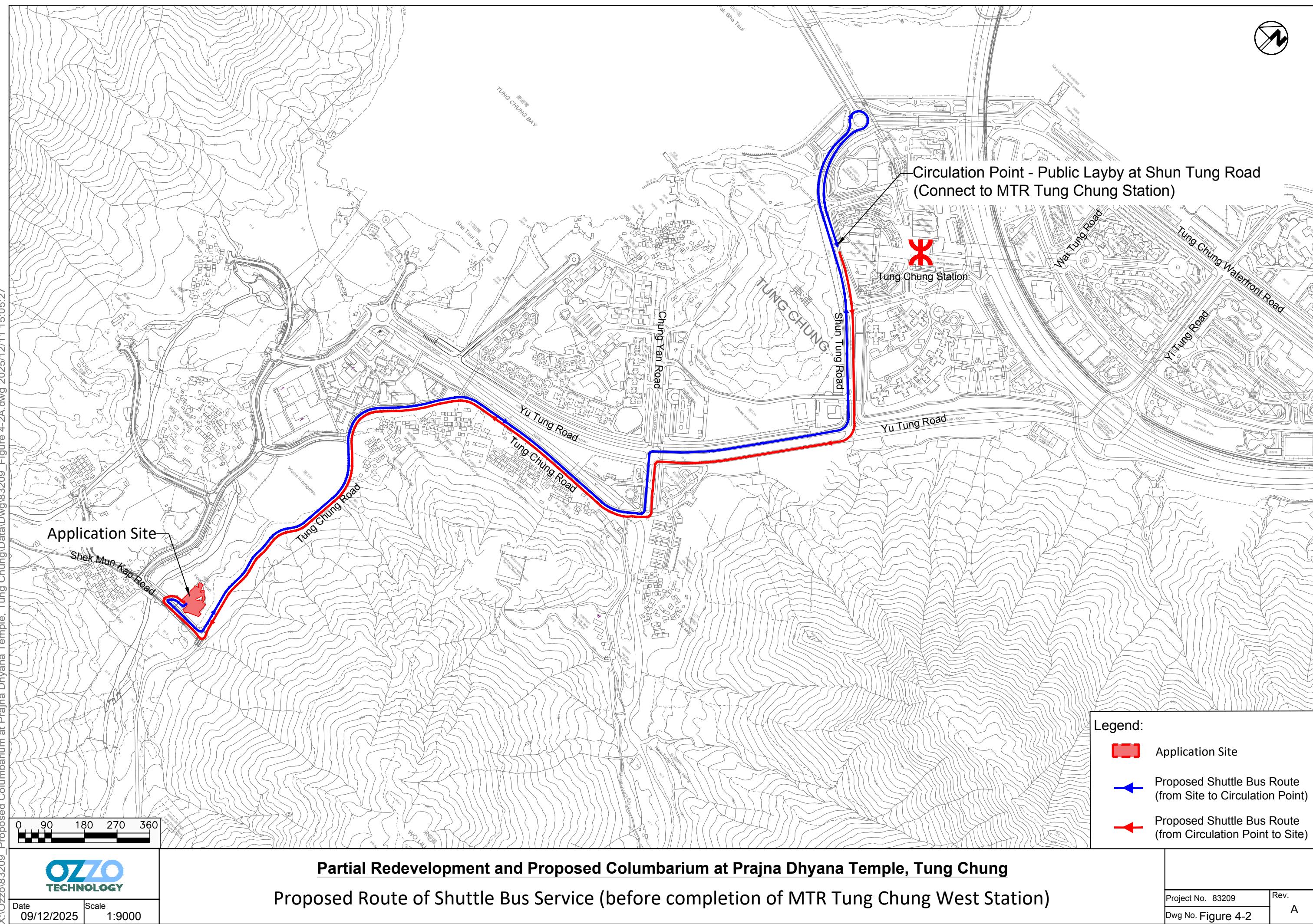
Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung Chung

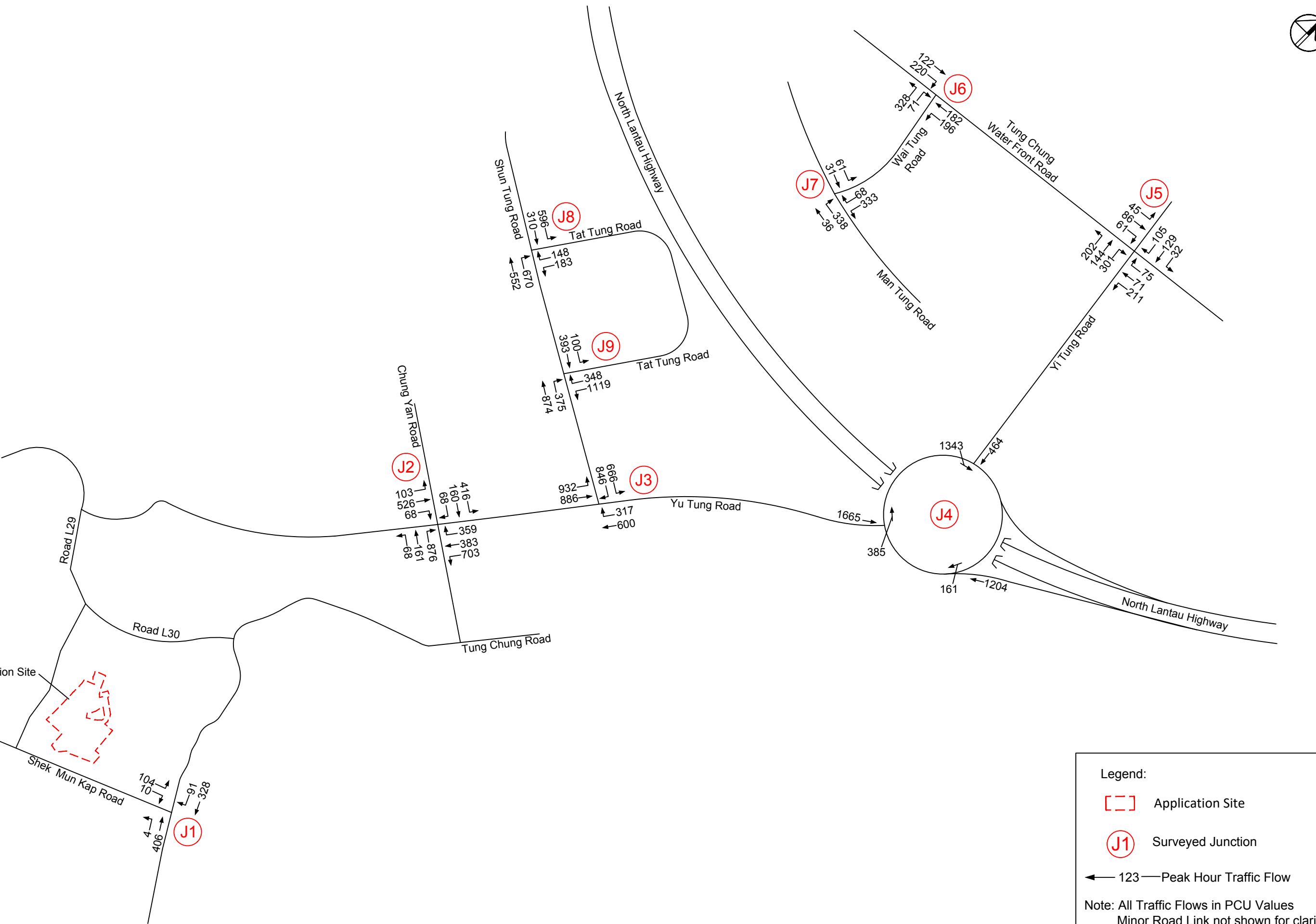
2025 Ching Ming Observed Peak Hour Traffic Flows

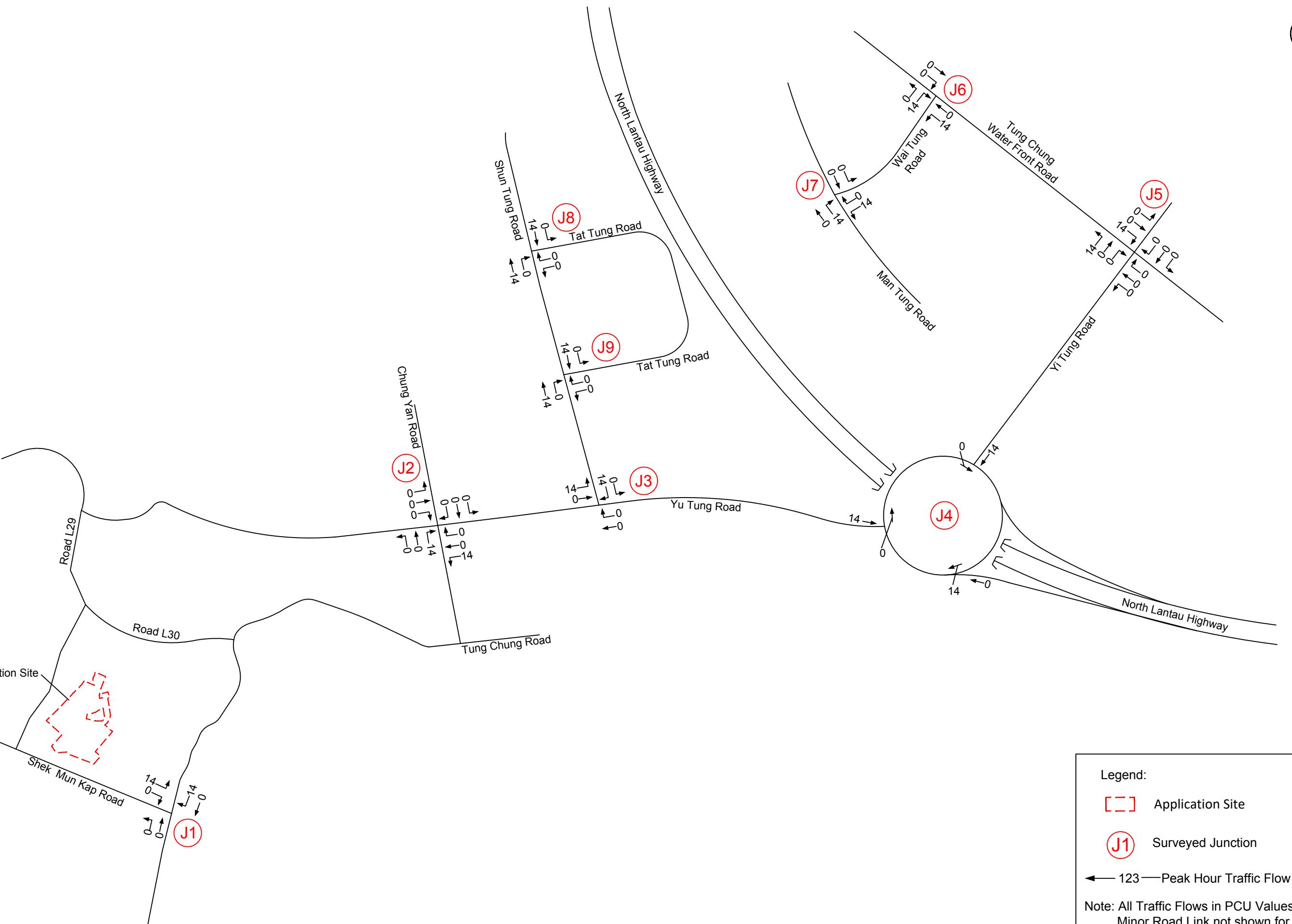


Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung Chung
Layout of Application Site

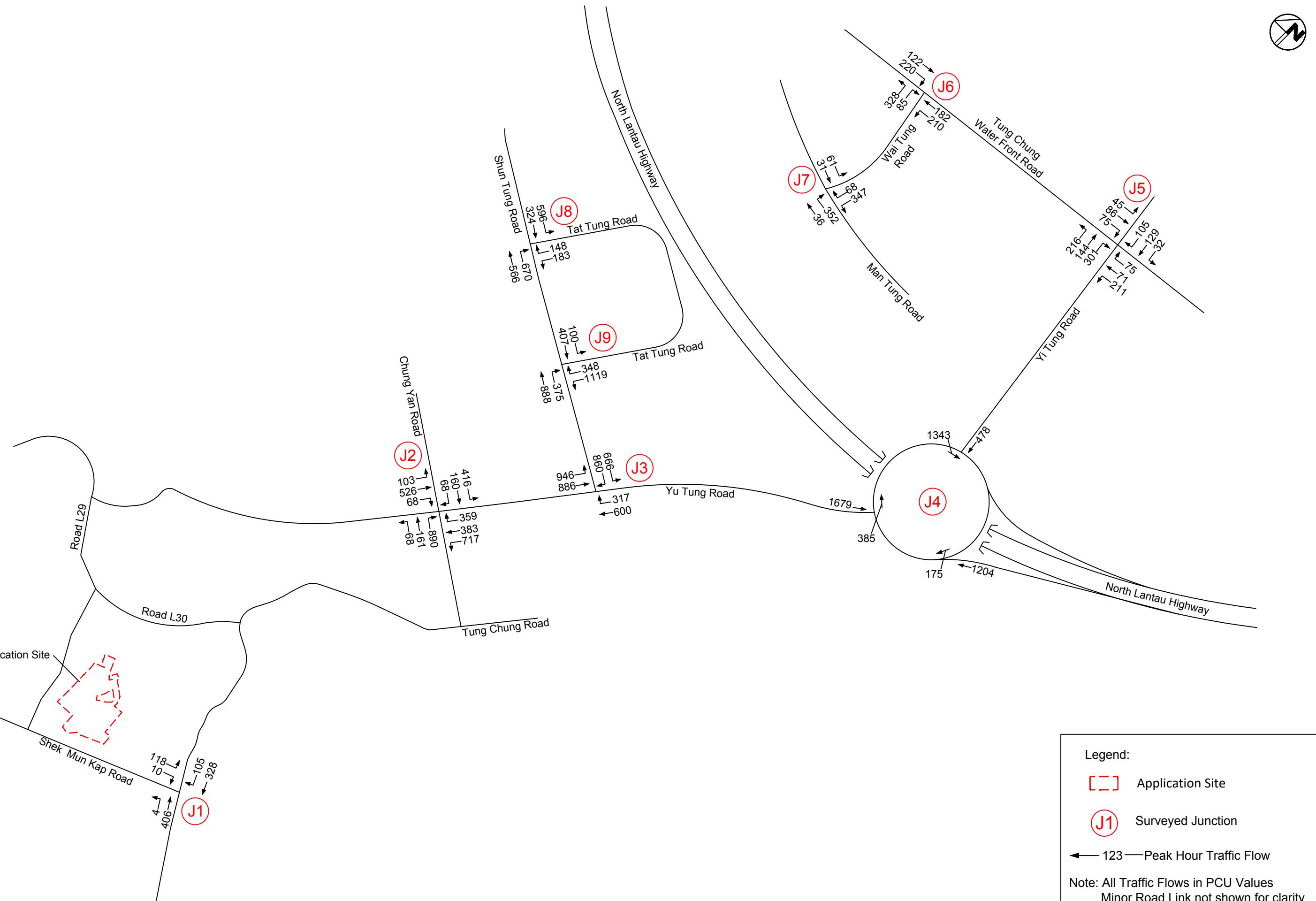








Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung Chung
Peak Hour Development Traffic Flows



Legend:

Application Site

J1 Surveyed Junction

Note: All Traffic Flows in PCU Values
Minor Road Link not shown for clarity

Appendix A

2025 Junction Calculation Sheets

0ZZO TECHNOLOGY (HK) LIMITED

 Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple,
 J1: Tung Chung Road / Shek Mun Kap Road
 2025 Observed Ching Ming Festival Day Peak Hour Traffic Flows

TRAFFIC SIGNAL CALCULATION
2025Obs_CM

PROJECT NO.: 83209

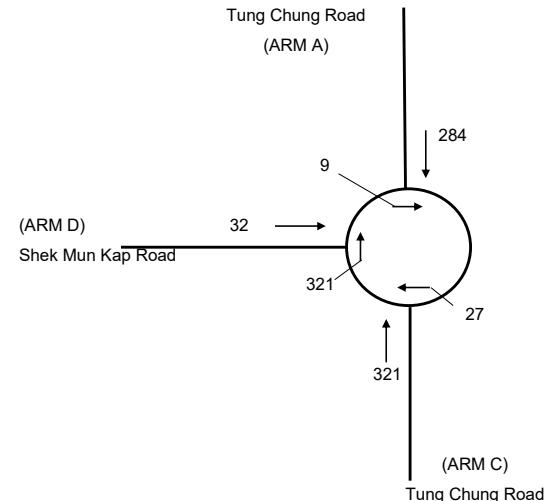
 INITIALS DATE
 AH Dec-25
 CW Dec-25
 SC Dec-25

FILENAME :

J1_Tung Chung Road_Shek Mun Kap Roa

CHECKED BY:

REVIEWED BY:



ARM	A	C	D
INPUT PARAMETERS:			
V = Approach half width (m)	4.0	4.5	3.3
E = Entry width (m)	5.0	5.5	4.5
L = Effective length of flare (m)	10.0	10.0	10.0
R = Entry radius (m)	30.0	20.0	10.0
D = Inscribed circle diameter (m)	19.0	19.0	19.0
A = Entry angle (degree)	10.0	20.0	55.0
Q = Entry flow (pcu/h)	284	321	32
Qc = Circulating flow across entry (pcu/h)	9	27	321
OUTPUT PARAMETERS:			
S = Sharpness of flare = $1.6(E-V)/L$	0.16	0.16	0.19
K = $1-0.00347(A-30)-0.978(1/R-0.05)$	1.09	1.03	0.86
X2 = $V + ((E-V)/(1+2S))$	4.76	5.26	4.17
M = $\text{EXP}((D-60)/10)$	0	0	0
F = $303 \times X2$	1442	1593	1263
Td = $1+(0.5/(1+M))$	1.49	1.49	1.49
Fc = $0.21 \times Td(1+0.2 \times X2)$	0.61	0.64	0.57
Qe = $K(F-Fc)Qc$	1559	1630	932
Total In Sum =			637 PCU
DFC = Design flow/Capacity = Q/Qe	0.18	0.20	0.03
DFC of Critical Approach =			0.20

OZZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung

J2: Yu Tung Road / Chung Yan Road

2025 Observed Ching Ming Festival Day Peak Hour Traffic Flow (under existing TTM scheme)

2025Obs_CM(TTM)

PROJECT NO.: 83209

Prepared By:

AH

Dec-25

FILENAME:

Checked By:

CW

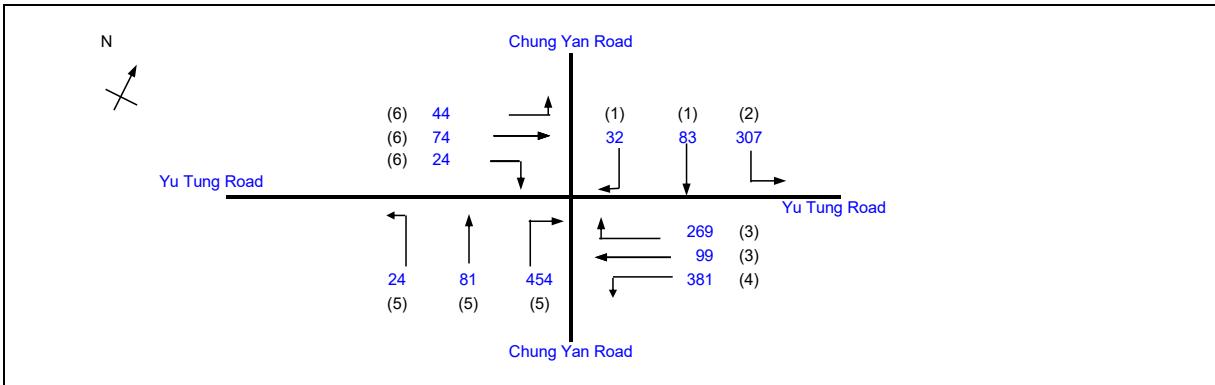
Dec-25

J2_Yu Tung Rd-Chung Yan Road_S.xlsx

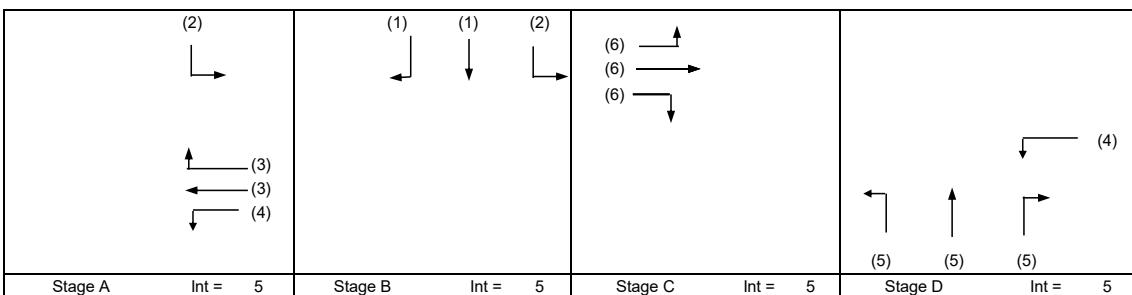
Reviewed By:

SC

Dec-25



Existing Cycle Time	
No. of stages per cycle	N = 4
Cycle time	C = 120 sec
Sum(y)	Y = 0.393
Loss time	L = 16 sec
Total Flow	= 1872 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.780
R.C.ult	= $(Yult-Y)/Y*100\%$
Cp	= $0.9*L/(0.9-Y)$
Ymax	= $1-L/C$
R.C.(C)	= $(0.9*Ymax-Y)/Y*100\%$
	= 99 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)						
									Left pcu/h	Straight pcu/h	Right pcu/h																				
LT SA,RT	A,B	3.60	2	2	15	N	N	4090 2115	307 83	83 32	115 307	1.00 0.28	3718 2086	0.083 0.055	16	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055	0.055		
	B	3.60	1	1	30																										
LT SA,RT	A,D	3.70	4	1	15	N	N	1985 2125	381 99	99 269	368 381	1.00 0.73	1805 2068	0.211 0.159	48	240	0.159	0.159	0.159	0.159	0.159	0.159	0.159	0.159	0.159	0.159	0.159	0.159	0.159	0.159	
	A	3.70	3	1	40																										
LT,SA,RT RT	D	3.60	5	1	25	N	N	2115 1975	24 271	81 271	183 288	0.72 1.00	2028 1904	0.142 0.142	38	240	0.142	0.142	0.142	0.142	0.142	0.142	0.142	0.142	0.142	0.142	0.142	0.142	0.142	0.142	
	D	3.60	5	1	40																										
LT,SA SA,RT	C	3.70	6	1	15	N	N	1985 2125	44 51	23 24	67 75	0.66 0.32	1862 2092	0.036 0.036	10	240	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036	0.036
	C	3.70	6	1	30																										

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung

J3: Yu Tung Road / Shun Tung Road

2025 Observed Ching Ming Festival Day Peak Hour Traffic Flow (under existing TTM scheme)

2025Obs_CM(TTM)

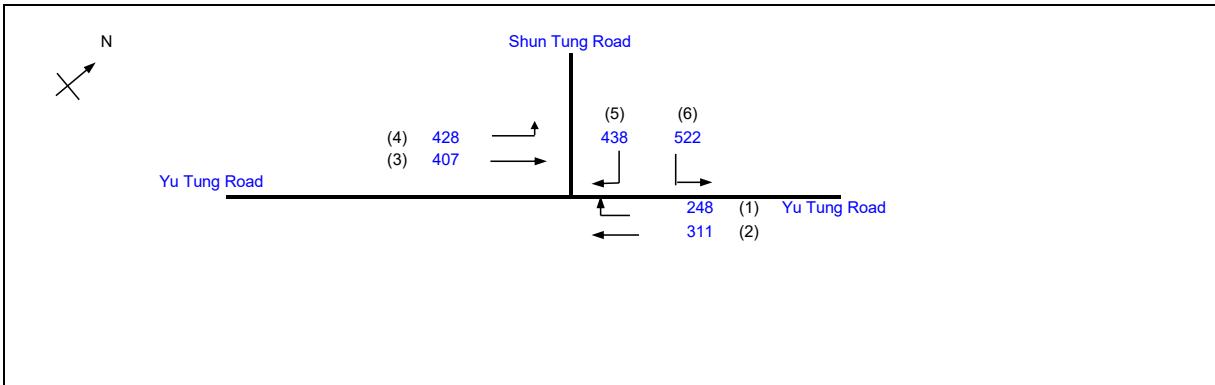
PROJECT NO.: 83209

Prepared By: AH Dec-25

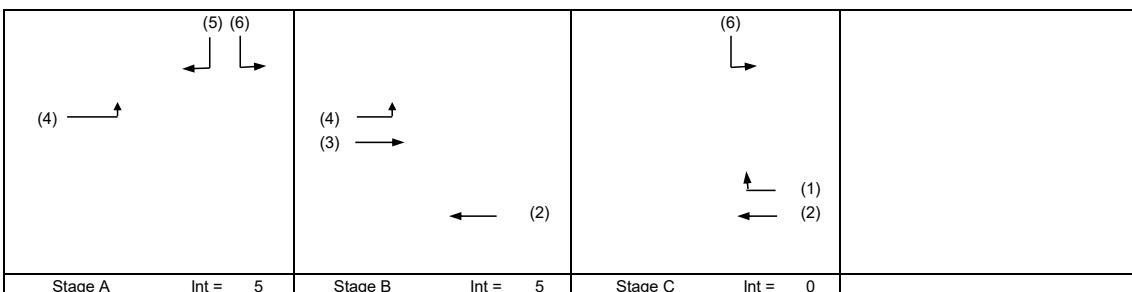
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Checked By: CW Dec-25

Reviewed By: SC Dec-25

INITIALS
DATE


Existing Cycle Time	
No. of stages per cycle	N = 3
Cycle time	C = 75 sec
Sum(y)	Y = 0.472
Loss time	L = 8 sec
Total Flow	= 2354 pcu
Co	= (1.5*L+5)/(1-Y) = 32.2 sec
Cm	= L/(1-Y) = 15.1 sec
Yult	= 0.840
R.C.ult	= (Yult-Y)/Y*100% = 78.1 %
Cp	= 0.9*L/(0.9-Y) = 16.8 sec
Ymax	= 1-L/C = 0.893
R.C.(C)	= (0.9*Ymax-Y)/Y*100% = 70 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s)	Green Time Provided (s)
SG	FG	Delay	SG	FG

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT	A,C	3.70	6	1	20		N	1985 4250	522 438		522 438	1.00 1.00	1847 4048	0.283 0.108	0.283 0.283	8	40 15	40 16	0.528 0.502	30 21	12 25				
	RT	3.70	5	2	30			428 407		407 311	428 311	1.00 0.00	1874 2155	0.228 0.189	0.189 0.189		32 27	39 27	0.439 0.528	24 30	11 20				
LT	A,B	4.00	4	1	20		N	2015 2155	428 407		428 407	1.00 0.00	1874 2155	0.228 0.189	0.189 0.189		27	27	0.528	30	20				
	SA	4.00	3	1																					
SA	B,C	3.70	2	2	30		N	4110 2125	311 248		311 248	0.00 1.00	4110 2024	0.076 0.123	0.123 0.123		11 17	64 31	0.089 0.296	0 18	1 14				
	RT	3.70	1	1																					

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

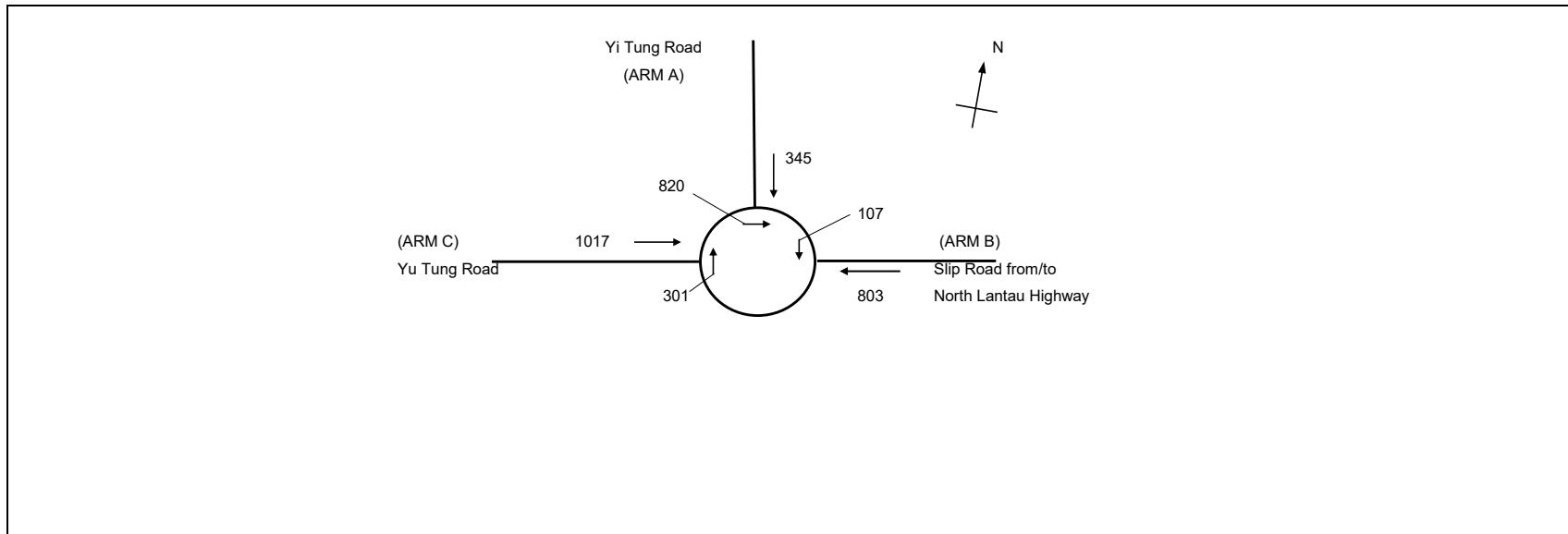
QUEUING LENGTH = AVERAGE QUEUE * 6m

0ZZO TECHNOLOGY (HK) LIMITED

 Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple,
 J4: Tung Chung Eastern Interchange
 2025 Observed Ching Ming Festival Day Peak Hour Traffic Flows

TRAFFIC SIGNAL CALCULATION
2025Obs_CM

PROJECT NO.:	83209	PREPARED BY:	AH	DATE	Dec-25
FILENAME :		CHECKED BY:	CW	Dec-25	
	J4_Tung Chung Eastern Interchange_R.xls	REVIEWED BY:	SC	Dec-25	



ARM	A	B	C
INPUT PARAMETERS:			
V = Approach half width (m)	8.0	7.0	8.0
E = Entry width (m)	12.0	12.0	12.0
L = Effective length of flare (m)	10.0	10.0	10.0
R = Entry radius (m)	60.0	60.0	40.0
D = Inscribed circle diameter (m)	105.0	105.0	105.0
A = Entry angle (degree)	45.0	45.0	45.0
Q = Entry flow (pcu/h)	345	803	1017
Qc = Circulating flow across entry (pcu/h)	820	107	301
OUTPUT PARAMETERS:			
S = Sharpness of flare = $1.6(E-V)/L$	0.64	0.80	0.64
K = $1-0.00347(A-30)-0.978(1/R-0.05)$	0.98	0.98	0.97
X2 = $V + ((E-V)/(1+2S))$	9.75	8.92	9.75
M = $\text{EXP}((D-60)/10)$	90	90	90
F = $303 \times X2$	2956	2704	2956
Td = $1+(0.5/(1+M))$	1.01	1.01	1.01
Fc = $0.21 \times Td(1+0.2 \times X2)$	0.62	0.59	0.62
Qe = $K(F-Fc \times Qc)$	2397	2589	2692
Total In Sum =			2165 PCU
DFC = Design flow/Capacity = Q/Qe	0.14	0.31	0.38
DFC of Critical Approach =			0.38

OWZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

 Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung
 J5: Ying Hei Road / Tung Chung Waterfront Road / Yi Tung Road
 2025 Observed Ching Ming Festival Day Peak Hour Traffic Flow

2025Obs_CM

PROJECT NO.: 83209

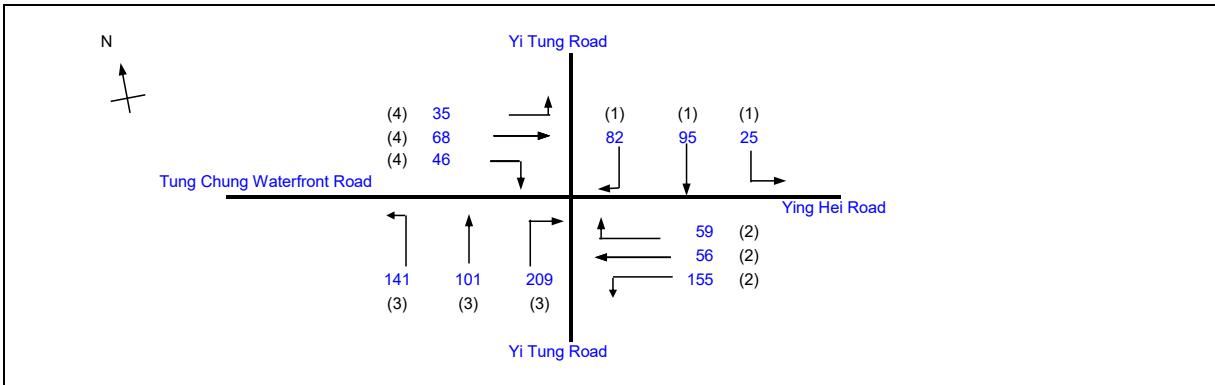
Prepared By: AH Dec-25

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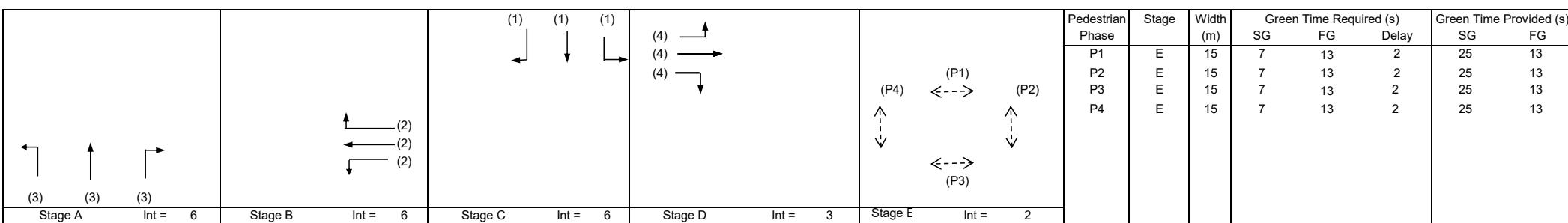
Checked By: CW Dec-25

Reviewed By: SC Dec-25

INITIALS DATE



Existing Cycle Time	
No. of stages per cycle	N = 5
Cycle time	C = 130 sec
Sum(y)	Y = 0.221
Loss time	L = 58 sec
Total Flow	= 1072 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.465
R.C.ult	= $(Yult-Y)/Y*100\%$
Cp	= $0.9*L/(0.9-Y)$
Ymax	= $1-L/C$
R.C.(C)	= $(0.9*Ymax-Y)/Y*100\%$
	= 125 %



Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total FFlow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT,SA SA,RT	C	3.70	1	1	20		N	1985 2125	25	74 21	82	99 103	0.25 0.79	1948 2044	0.051 0.051	0.051	0.051	19	16 16	16 16	0.400 0.400	18 18	51 51		
	C	3.70	1	1	30				84	21		84 92	1.00 0.77	1828 1990	0.046 0.046	0.046	0.046	15 15	15 15	15 15	0.400 0.400	12 12	53 53		
LT LT,SA SA,RT	B	3.50	2	1	20		N	1965 2105 2105	71	21	59	84 92 94	1.00 0.77 0.63	1828 1990 2041	0.046 0.046 0.046	0.046	0.046	15 15 15	15 15 15	15 15 15	0.400 0.400 0.400	12 12 18	53 53 53		
	B	3.50	2	1	30				141	0	152	141 158 152	1.00 0.36 1.00	1828 2068 2005	0.077 0.076 0.076	0.077	0.077	25 25 25	25 25 25	25 25 25	0.400 0.396 0.393	24 24 24	44 44 44		
LT,SA,RT RT	A	3.50	3	1	20		N	1965 2105 2105	101	57	152	141 158 152	1.00	1828 2068 2005	0.077 0.076 0.076	0.077	0.077	25 25 25	25 25 25	25 25 25	0.400 0.396 0.393	24 24 24	44 44 44		
	D	3.70	4	1	20		N	1985 2125	35	68 46	0	103 46	0.34 1.00	1936 2024	0.048 0.023	0.048	0.048	15 7	15 15	15 15	0.400 0.191	18 6	52 48		
PED	E																		39						

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

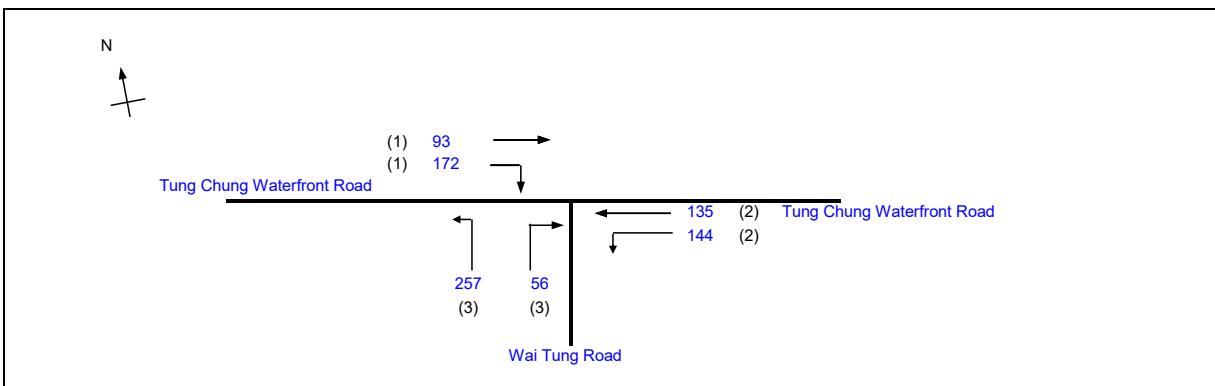
QUEUING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

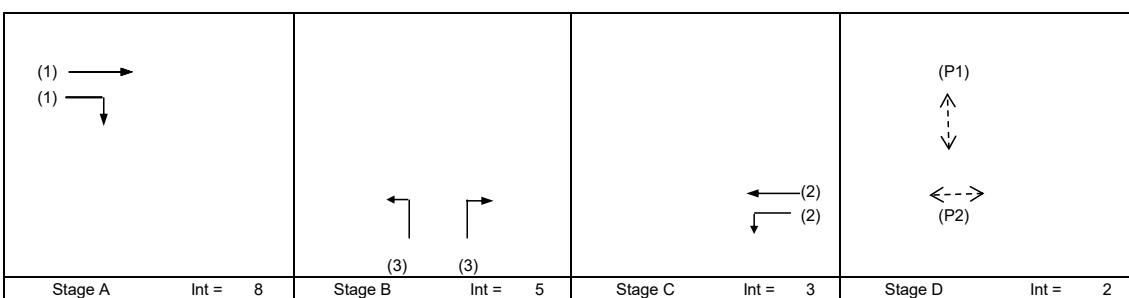
 Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung
 J6: Tung Chung Waterfront Road / Wai Tung Road
 2025 Observed Ching Ming Festival Day Peak Hour Traffic Flow

2025Obs_CM Peak

PROJECT NO.:	83209	Prepared By:	AH	DATE	Dec-25
FILENAME:		Checked By:	CW	DATE	Dec-25
J6_Tung Chung Waterfront Rd-Wai Tung Rd		Reviewed By:	SC	DATE	Dec-25



Existing Cycle Time	
No. of stages per cycle	N = 4
Cycle time	C = 120 sec
Sum(y)	Y = 0.228
Loss time	L = 41 sec
Total Flow	= 857 pcu
Co	= (1.5*L+5)/(1-Y)
Cm	= L/(1-Y)
Yult	= 0.593
R.C.ult	= (Yult-Y)/Y*100%
Cp	= 0.9*L/(0.9-Y)
Ymax	= 1-L/C
R.C.(C)	= (0.9*Ymax-Y)/Y*100%
	= 160 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	D	10	5	8	2	16	8
P2	D	7	5	6	2	18	6

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)
									Left pcu/h	Straight pcu/h	Right pcu/h														
SA,RT	A	4.00	1	1	30		N	2015 2155	93	37	130	0.29	1987			1987	0.066	0.066	15	23	23	0.346	18	40	
	RT	A	4.00	1	1	30			135	135	1.00	2052	0.066			2052	0.066			23	23	0.346	18	40	
LT,SA	C	4.00	2	1	20		N	2015 2155	144	0	144	1.00	1874			1874	0.077	0.077		27	27	0.346	18	37	
	SA	C	4.00	2	1	20			135	135	0.00	2155	0.063			2155	0.063			22	22	0.346	18	41	
LT	B	3.30	3	1	15		N	1945 2085	151	56	151	1.00	1768			1768	0.085	0.085		30	30	0.346	18	35	
	LT,RT	B	3.30	3	1	15			106	162	1.00	1895	0.085			1895	0.085			30	30	0.346	24	35	
PED	D																			26					

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED

Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung Chung

J7 : Man Tung Road / Wai Tung Road

2025 Observed Ching Ming Festival Day Peak Hour Traffic Flow

PRIORITY JUNCTION CALCULATION

INITIALS DATE

2025Obs_CM Peak

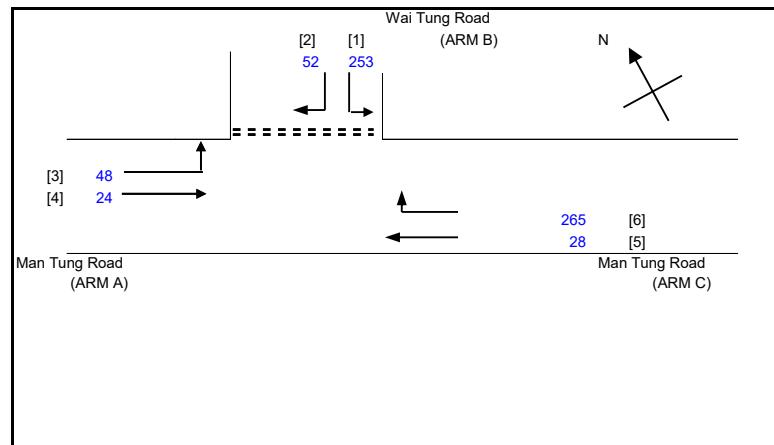
PROJECT NO.: 83209

PREPARED BY: BK Dec-25

FILENAME : J7 Tung Rd-Wai Tung Rd_P.xlsx

CHECKED BY: CC Dec-25

REVIEWED BY: CC Dec-25


NOTES: (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:
GEOMETRIC FACTORS :
THE CAPACITY OF MOVEMENT :
**COMPARISON OF DESIGN FLOW
TO CAPACITY:**
MAJOR ROAD (ARM A)

W = 7.00 (metres) D = 0.8628183
 W cr = 0 (metres) E = 0.9237883
 q a-b = 48 (pcu/hr) F = 1.2083931
 q a-c = 24 (pcu/hr) Y = 0.7585

Q b-a = 436
 Q b-c = 677 Q b-c (O) = 656.8
 Q c-b = 876

DFC b-a = 0.1193
 DFC b-c = 0.3737
 DFC c-b = 0.3025

MAJOR ROAD (ARM C)

W c-b = 7.00 (metres)
 Vr c-b = 30 (metres)
 q c-a = 28 (pcu/hr)
 q c-b = 265 (pcu/hr)

TOTAL FLOW = 670 (PCU/HR)

CRITICAL DFC = 0.37

MINOR ROAD (ARM B)

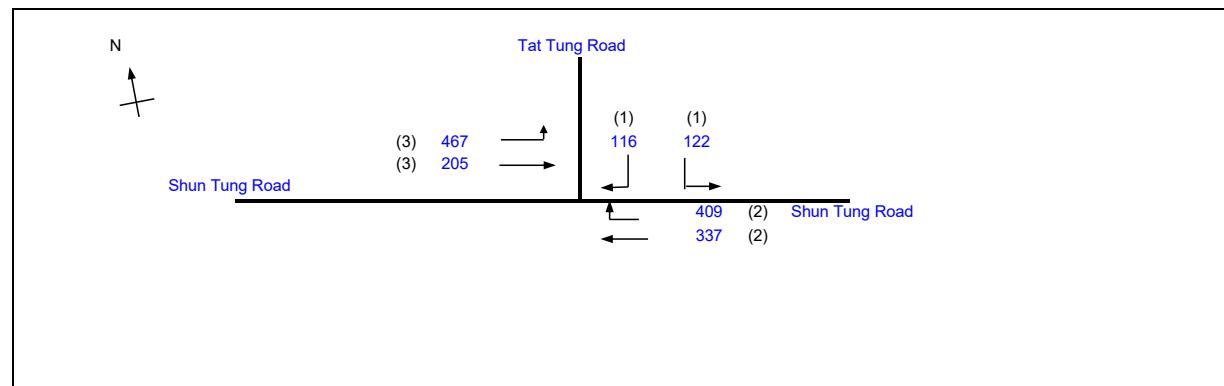
W b-a = 3.50 (metres)
 W b-c = 3.50 (metres)
 VI b-a = 40 (metres)
 Vr b-a = 50 (metres)
 Vr b-c = 50 (metres)
 q b-a = 52 (pcu/hr)
 q b-c = 253 (pcu/hr)

OZZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

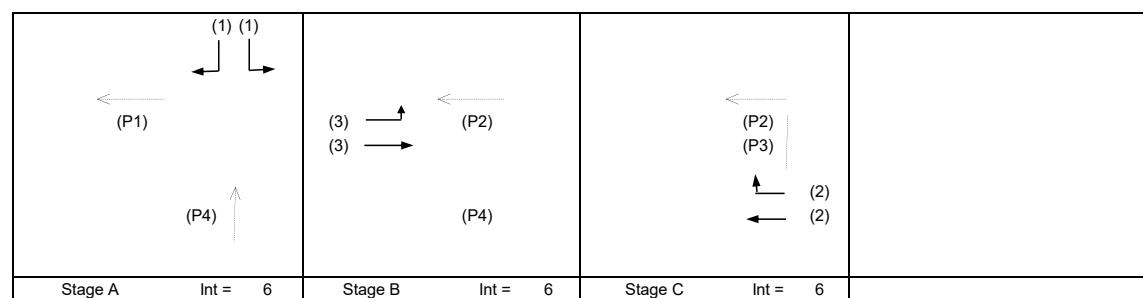
Proposed Columbarium at Prajna Dhyana Temple, Tung Chung
 J8: Tat Tung Road / Shun Tung Road (West)
 2025 Ching Ming Festival Day Peak Hour Traffic Flow (under existing TTM scheme)

2025Obs_CM

PROJECT NO.:	83209	Prepared By:	AH	INITIALS	DATE
FILENAME :		Checked By:	CW		Dec-25
J8_Tat Tung Rd-Shun Tung Road (West).S		Reviewed By:	SC		Dec-25



Existing Cycle Time	
No. of stages per cycle	N = 3
Cycle time	C = 110 sec
Sum(y)	Y = 0.441
Loss time	L = 15 sec
Total Flow	= 1656 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.788
R.C.ult	= $(Yult-Y)/Y*100\%$
Cp	= $0.9*L/(0.9-Y)$
Ymax	= $1-L/C$
R.C.(C)	= $(0.9*Ymax-Y)/Y*100\%$
	= 76 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	A	13	7	11	2	7	11
P2	B,C	8	5	6	2	82	6
P3	C	10	5	8	2	40	8
P4	A,B	11	6	9	2	49	9

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane	Share 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)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT	A	3.40	1	1	15	N	1955	122	116	122	1.00	1777	1.00	1976	1777	0.069	0.069	15	15	15	0.511	18	47		
	RT	A	3.40	1	1		2095	298		116	1.00	1976							13	15	0.436	18	44		
LT	B	3.80	3	1	16	N	1995	298	205	298	1.00	1824	0.45	2048	45	245	0.163	0.163	35	35	35	0.511	36	30	
	LT,SA	B	3.80	3	1		2135	169		374	0.45	2048								35	35	0.510	42	30	
SA	C	3.70	2	1	20	N	1965	337	409	337	0.00	1965	1.00	1958	40	218	0.154	0.209	33	45	45	0.377	36	22	
	RT	C	3.70	2	1		2105	409		409	1.00	1958								45	45	0.511	42	24	

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

Proposed Columbarium at Prajna Dhyana Temple, Tung Chung

J9: Tat Tung Road / Shun Tung Road (East)

2025 Ching Ming Festival Day Peak Hour Traffic Flow

2025Obs_CM Peak

PROJECT NO.: 83209

Prepared By:

AH

DATE

FILENAME:

Checked By:

CW

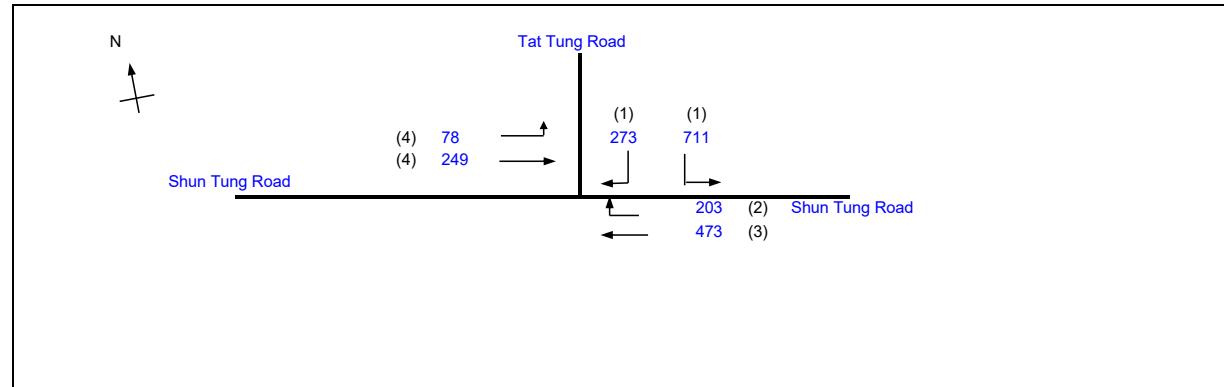
Dec-25

J9_Tat Tung Rd-Shun Tung Road (East)_S

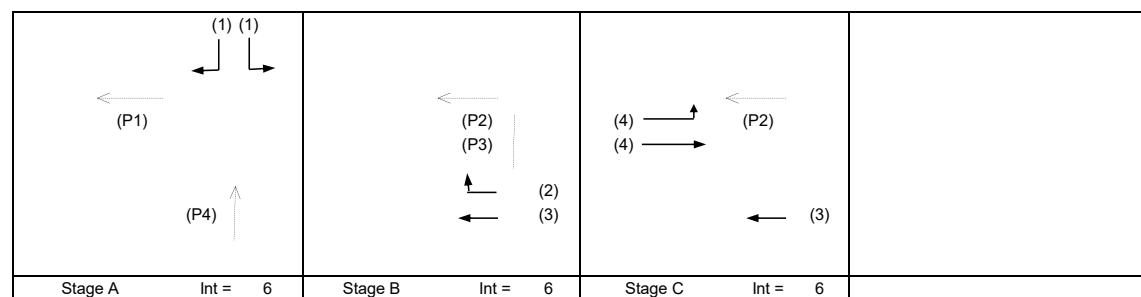
Reviewed By:

SC

Dec-25



Existing Cycle Time	
No. of stages per cycle	N = 3
Cycle time	C = 110 sec
Sum(y)	Y = 0.440
Loss time	L = 15 sec
Total Flow	= 1987 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.788
R.C.ult	= 78.9 %
Cp	= $0.9*L/(0.9-Y)$
Ymax	= 0.864
R.C.(C)	= $(0.9*Ymax-Y)/Y*100\%$
	= 77 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	A	13	7	11	2	47	11
P2	B,C	8	5	6	2	41	6
P3	B	8	5	7	2	18	7
P4	A	13	7	11	2	48	11

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT	A	3.50	1	1	18		N	1965 2105	467 244		273	467 517	1.00 1.00	1814 2005			1814 2005	0.258 0.258	0.258	15	56 56	56 56	0.510 0.510	42 42	18 18
	A	3.50	1	1	30																				
LT,SA	C	3.70	4	1	15		N	1985 2125	78 173	76 173	273	154 173	0.51 0.00	1889 2125			1889 2125	0.081 0.081	0.081	18 18	18 18	18 18	0.510 0.510	18 24	44 43
	C	3.70	4	1	1																				
SA	B,C	3.75	3	2	25		N	4120 2130	473 203		203	473 203	0.00 1.00	4120 2009			4120 2009	0.115 0.101	0.101	25 22	41 22	31 22	0.311 0.510	27 24	23 40
	B	3.75	2	1	1																				

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

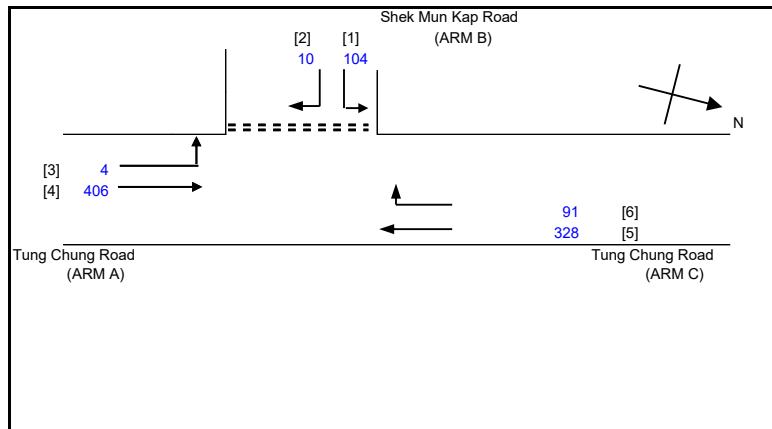
PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

Appendix B

2030 Junction Calculation Sheets

OZZO TECHNOLOGY (HK) LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung Chung						
J1: Tung Chung Road / Shek Mun Kap Road		2030Ref_CM(IMP)	PROJECT NO.: 83209	PREPARED BY: AH	Dec-25	
2030 Reference Ching Ming Festival Day Peak Hour Traffic Flow (with improvement scheme by others)			FILENAME : J1_Tung Chung Road_Shek Mun Kap Road_R.xls	CHECKED BY: CW	Dec-25	
				REVIEWED BY: SC	Dec-25	

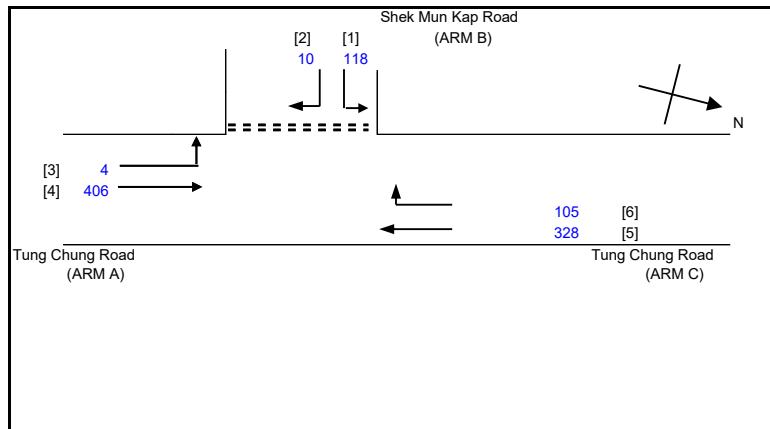


NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISION OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A)			
W = 8.00 (metres)	D = 0.8490055	Q b-a = 390	DFC b-a = 0.0256
W cr = 2 (metres)	E = 0.8974688	Q b-c = 572	DFC b-c = 0.1818
q a-b = 4 (pcu/hr)	F = 0.8004791	Q c-b = 510	DFC c-b = 0.1784
q a-c = 406 (pcu/hr)	Y = 0.724		
MAJOR ROAD (ARM C)		TOTAL FLOW = 943 (PCU/HR)	
W c-b = 2.10 (metres)			
Vr c-b = 50 (metres)			
q c-a = 328 (pcu/hr)			
q c-b = 91 (pcu/hr)			
MINOR ROAD (ARM B)			
W b-a = 3.30 (metres)			
W b-c = 3.30 (metres)			
Vl b-a = 60 (metres)			
Vr b-a = 40 (metres)			
Vr b-c = 40 (metres)			
q b-a = 10 (pcu/hr)			
q b-c = 104 (pcu/hr)			
CRITICAL DFC = 0.18			

OZZO TECHNOLOGY (HK) LIMITED		PRIORITY JUNCTION CALCULATION			INITIALS	DATE
Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung Chung						
		2030Des_CM(IMP)	PROJECT NO.: 83209	PREPARED BY: AH	Dec-25	
J1: Tung Chung Road / Shek Mun Kap Road			FILENAME : J1_Tung Chung Road_Shek Mun Kap Road_R.xls	CHECKED BY: CW	Dec-25	
2030 Design Ching Ming Festival Day Peak Hour Traffic Flow (with improvement scheme by others)				REVIEWED BY: SC	Dec-25	



NOTES : (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:	GEOMETRIC FACTORS :	THE CAPACITY OF MOVEMENT :	COMPARISION OF DESIGN FLOW TO CAPACITY:
MAJOR ROAD (ARM A)			
$W = 8.00$ (metres) $W_{cr} = 2$ (metres) $q_{a-b} = 4$ (pcu/hr) $q_{a-c} = 406$ (pcu/hr)	$D = 0.8490055$ $E = 0.8974688$ $F = 0.8004791$ $Y = 0.724$	$Q_{b-a} = 385$ $Q_{b-c} = 572$ $Q_{c-b} = 510$ $Q_{b-c}(O) = 568.3$	$DFC_{b-a} = 0.0260$ $DFC_{b-c} = 0.2063$ $DFC_{c-b} = 0.2059$
MAJOR ROAD (ARM C)		TOTAL FLOW = 971 (PCU/HR)	
$W_{c-b} = 2.10$ (metres) $Vr_{c-b} = 50$ (metres) $q_{c-a} = 328$ (pcu/hr) $q_{c-b} = 105$ (pcu/hr)			
MINOR ROAD (ARM B)			CRITICAL DFC = 0.21
$W_{b-a} = 3.30$ (metres) $W_{b-c} = 3.30$ (metres) $Vi_{b-a} = 60$ (metres) $Vr_{b-a} = 40$ (metres) $Vr_{b-c} = 40$ (metres) $q_{b-a} = 10$ (pcu/hr) $q_{b-c} = 118$ (pcu/hr)			

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung

J2: Yu Tung Road / Chung Yan Road

2030 Reference Ching Ming Festival Day Peak Hour Traffic Flow (with improvement scheme by others)

2030Ref_CM(IMP)

PROJECT NO.: 83209

Prepared By: AH Dec-25

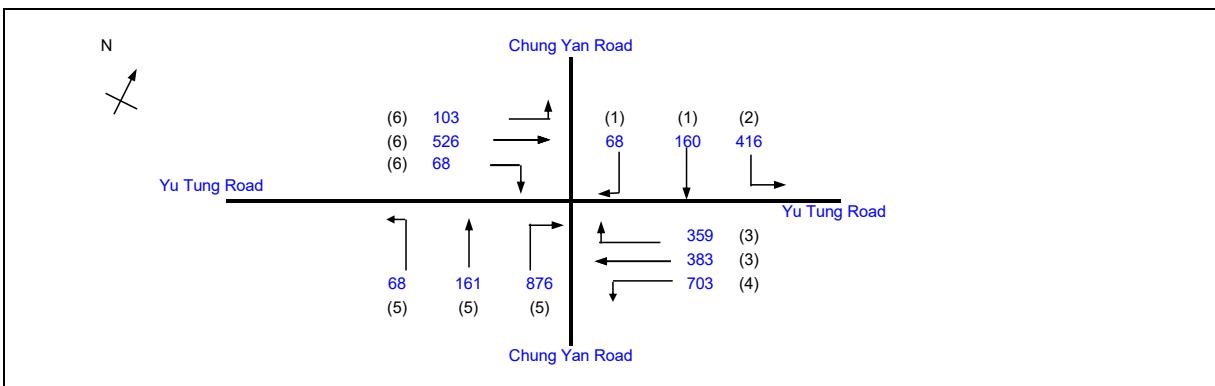
FILENAME: J2_Yu Tung Rd-Chung Yan Road_S.xlsx

Checked By: CW Dec-25

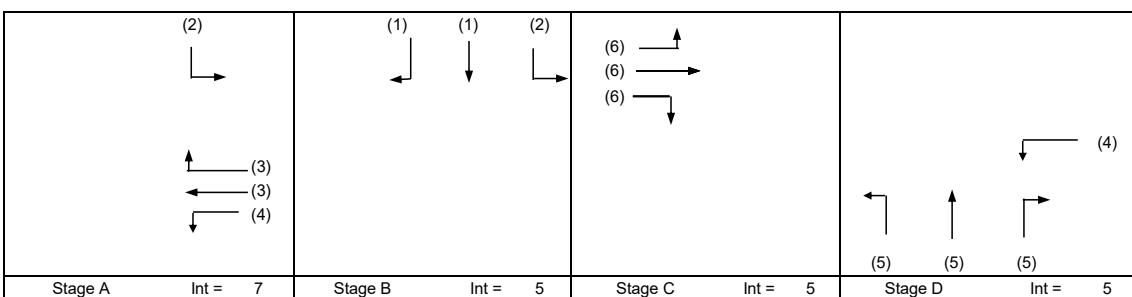
Reviewed By: SC Dec-25

INITIALS

DATE



Existing Cycle Time	
No. of stages per cycle	N = 4
Cycle time	C = 120 sec
Sum(y)	Y = 0.600
Loss time	L = 18 sec
Total Flow	= 3891 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.765
R.C.ult	= 27.6 %
Cp	= $0.9*L/(0.9-Y)$
Ymax	= 0.850
R.C.(C)	= $(0.9*Ymax-Y)/Y*100%$
	= 28 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s) SG	Green Time Provided (s) SG	Green Time Required (s) FG	Green Time Provided (s) FG

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)	
									Left pcu/h	Straight pcu/h	Right pcu/h															
LT	A,B	3.60	2	1	20		N	1975 2115	416		416	1.00	1837			1837	0.226	0.056	0.056	18	39	36	0.760	54	44	
	RT	B	3.60	1	1	30		2115		112	112	1.00	2014			2014	0.056				9	9	9	0.705	18	73
	SA,RT	B	3.60	1	1	30		2115	68	48	116	0.41	2072			2072	0.056				9	9	9	0.705	24	72
LT	A,D	3.70	4	1	20		N	1985 2125	703		703	1.00	1847			1847	0.381	0.119	0.119		65	20	0.000	138	54	
	SA	A	3.70	3	1	30		2125		253	253	0.00	2125			2125	0.119				20	20	20	0.705	42	53
	SA,RT	A	3.70	3	1	30		2125	130	118	247	0.48	2076			2076	0.119				20	20	20	0.705	42	53
LT,SA,RT	RT	A	3.70	3	1	30		2125		241	241	1.00	2024			2024	0.119				20	20	20	0.705	36	54
	RT	D	3.60	5	1	30		N	1975 2115	68	161	304	0.70	1877			1877	0.284	0.284	0.284		48	48	0.705	60	32
	SA,RT	D	3.60	5	1	30		2115		572	572	1.00	2014			2014	0.284				48	48	48	0.705	66	32
LT	C	3.70	6	1	20		N	1985 2125	103		103	1.00	1847			1847	0.056	0.141	0.141		9	24	0.000	0	0	
	SA	C	3.70	6	1	30		2125		299	299	0.00	2125			2125	0.141				24	24	24	0.000	0	0
	SA,RT	C	3.70	6	1	30		2125	227	68	295	0.23	2101			2101	0.141				24	24	24	0.000	0	0

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung

J2: Yu Tung Road / Chung Yan Road

2030 Design Ching Ming Festival Day Peak Hour Traffic Flow (with improvement scheme by others)

2030Des_CM(IMP)

PROJECT NO.: 83209

Prepared By:

AH

DATE

Dec-25

CW

Dec-25

Checked By:

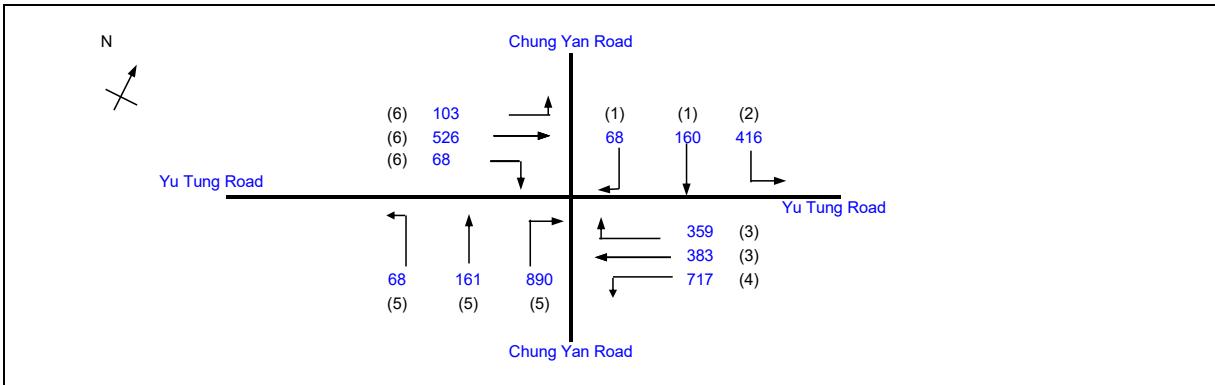
SC

Dec-25

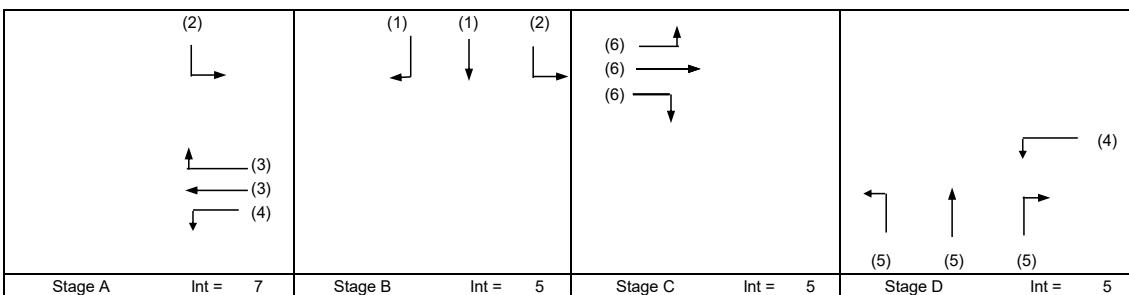
Reviewed By:

SC

Dec-25



Existing Cycle Time	
No. of stages per cycle	N = 4
Cycle time	C = 120 sec
Sum(y)	Y = 0.603
Loss time	L = 18 sec
Total Flow	= 3919 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.765
R.C.ult	= $(Yult-Y)/Y*100\%$
Cp	= $0.9*L/(0.9-Y)$
Ymax	= $1-L/C$
R.C.(C)	= $(0.9*Ymax-Y)/Y*100\%$
	= 27 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s) SG	Green Time Provided (s) SG	Green Time Required (s) FG	Green Time Provided (s) FG

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total FFlow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)		
									Left pcu/h	Straight pcu/h	Right pcu/h																
LT	A,B	3.60	2	1	20		N	1975	416		416	1.00	1837			1837	0.226	0.056	0.056	18	38	36	0.763	54	44		
	RT	B	3.60	1	1	30		2115		112	112	1.00	2014			2014	0.056		0.056		9	9	9	0.710	24	74	
	SA,RT	B	3.60	1	1	30		2115		68	48	0.41	2072			2072	0.056		0.056		9	9	9	0.710	24	73	
LT	A,D	3.70	4	1	20		N	1985	717		717	1.00	1847			1847	0.388	0.119	0.119		66	20	20	0.000	138	54	
	SA	A	3.70	3	1	30		2125		253	253	0.00	2125			2125	0.119		0.119		20	20	20	0.710	42	54	
	SA,RT	A	3.70	3	1	30		2125		130	118	0.48	2076			2076	0.119		0.119		20	20	20	0.710	42	54	
LT,SA,RT	RT	A	3.70	3	1	30		2125		241	241	1.00	2024			2024	0.119		0.119		20	20	20	0.710	36	54	
	LT	D	3.60	5	1	20		N	1975	68	161	311	0.70	1876			1876	0.288	0.288	0.288		49	49	49	0.710	60	32
	RT	D	3.60	5	1	30		2115		579	579	1.00	2014			2014	0.288		0.288		49	49	49	0.710	66	32	
LT	C	3.70	6	1	20		N	1985	103		103	1.00	1847			1847	0.056	0.141	0.141		9	24	24	0.000	0	0	
	SA	C	3.70	6	1	30		2125		299	299	0.00	2125			2125	0.141		0.141		24	24	24	0.000	0	0	
	SA,RT	C	3.70	6	1	30		2125		227	68	0.23	2101			2101	0.141		0.141		24	24	24	0.000	0	0	

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

OZZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung

J3: Yu Tung Road / Shun Tung Road

2030 Reference Ching Ming Festival Day Peak Hour Traffic Flow (with improvement scheme by others)

2030Ref_CM(IMP)

PROJECT NO.: 83209

Prepared By:

AH

Dec-25

FILENAME:

Checked By:

CW

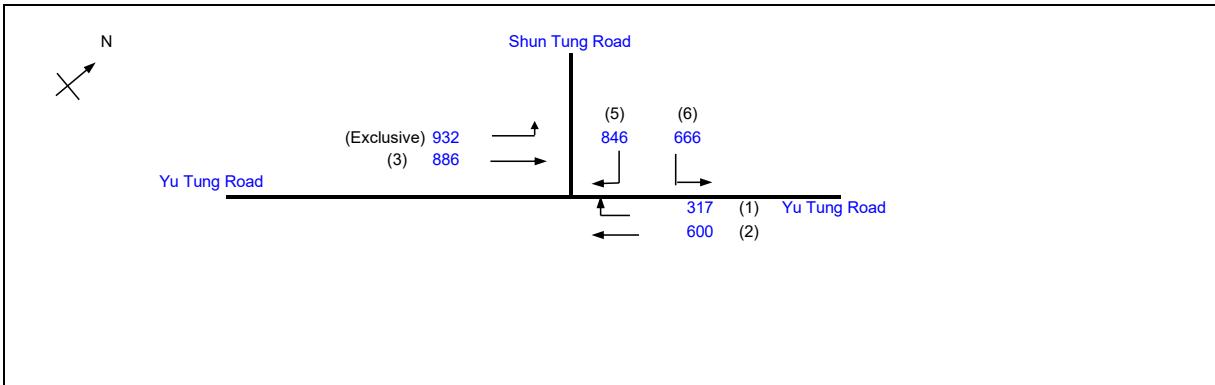
Dec-25

J3_Yu Tung Rd-Shun Tung Road_S.xlsx

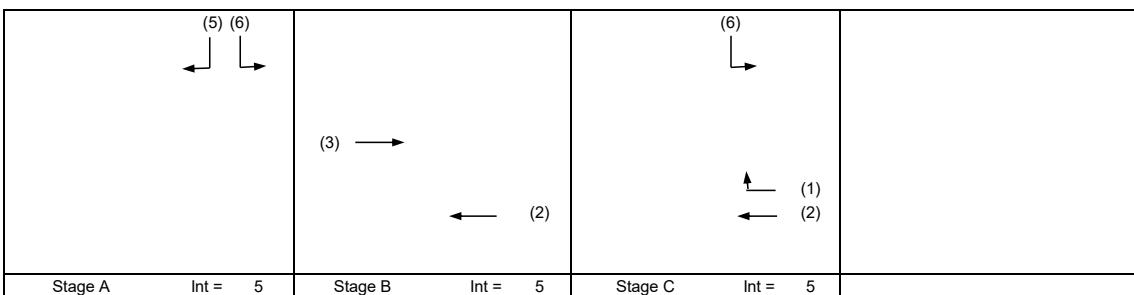
Reviewed By:

SC

Dec-25



Existing Cycle Time	
No. of stages per cycle	N = 3
Cycle time	C = 75 sec
Sum(y)	Y = 0.571
Loss time	L = 12 sec
Total Flow	= 3315 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.810
R.C.ult	= 41.8 %
Cp	= $0.9*L/(0.9-Y)$
Ymax	= 0.840
R.C.(C)	= $(0.9*Ymax-Y)/Y*100%$
	= 32 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s)	Green Time Provided (s)
SG	FG	Delay	SG	FG

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT	A,C	3.70	6	1	20		N	1985 4250	666		846	666 846	1.00 1.00	1847 4048			1847 4048	0.361 0.209	0.209	12	40 23	44 23	0.610 0.680	30 36	11 23
SA	B	4.00	3	2			N	4310	886		886	0.00	4310				4310	0.206	0.206	23	23	0.680	36	23	
SA	B,C	3.70	2	2	1	30		N	4110 2125	600	317	600 317	0.00 1.00	4110 2024				4110 2024	0.146 0.157	0.157	16 17	44 17	0.249 0.680	15 30	7 31

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

OZZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung

J3: Yu Tung Road / Shun Tung Road

2030 Design Ching Ming Festival Day Peak Hour Traffic Flow (with improvement scheme by others)

2030Des_CM(IMP)

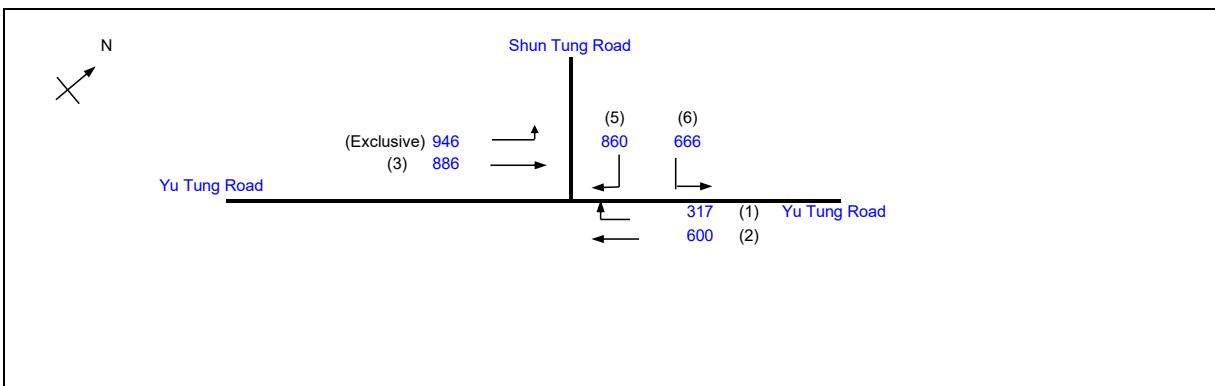
PROJECT NO.: 83209

Prepared By: AH Dec-25

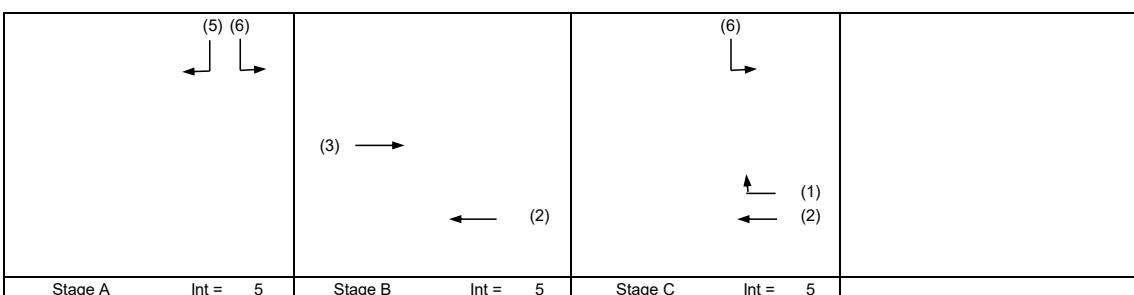
FILENAME: J3_Yu Tung Rd-Shun Tung Road_S.xlsx

Checked By: CW Dec-25

Reviewed By: SC Dec-25

INITIALS
DATE


Existing Cycle Time	
No. of stages per cycle	N = 3
Cycle time	C = 75 sec
Sum(y)	Y = 0.575
Loss time	L = 12 sec
Total Flow	= 3329 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.810
R.C.ult	= 40.9 %
Cp	= 33.2 sec
Ymax	= 0.840
R.C.(C)	= $(0.9*Ymax-Y)/Y*100\%$
	= 32 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s)	Green Time Provided (s)
SG	FG	Delay	SG	FG

Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total FFlow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT	A,C	3.70	6	1	20		N	1985 4250	666		860	666 860	1.00 1.00	1847 4048	0.361 0.212	0.212	12	40 23	44 23	0.608 0.684	30 36	11 23			
RT	A	3.70	5	2	30			4310		886		886	0.00	4310	0.206	0.206		23	23	0.684	36	23			
SA	B	4.00	3	2			N	4110 2125		600	317	600 317	0.00 1.00	4110 2024	0.146 0.157	0.157		16 17	44 17	0.251 0.684	15 30	7 31			
SA	B,C	3.70	2	2	1		N	4110 2125		600	317	600 317	0.00 1.00	4110 2024	0.146 0.157	0.157									
RT	C	3.70	1	1	30																				

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUING LENGTH = AVERAGE QUEUE * 6m

0ZZO TECHNOLOGY (HK) LIMITED

 Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple,
 J4: Tung Chung Eastern Interchange
 2030 Reference Ching Ming Festival Day Peak Hour Traffic Flows

TRAFFIC SIGNAL CALCULATION
2030Ref_CM

PROJECT NO.: 83209

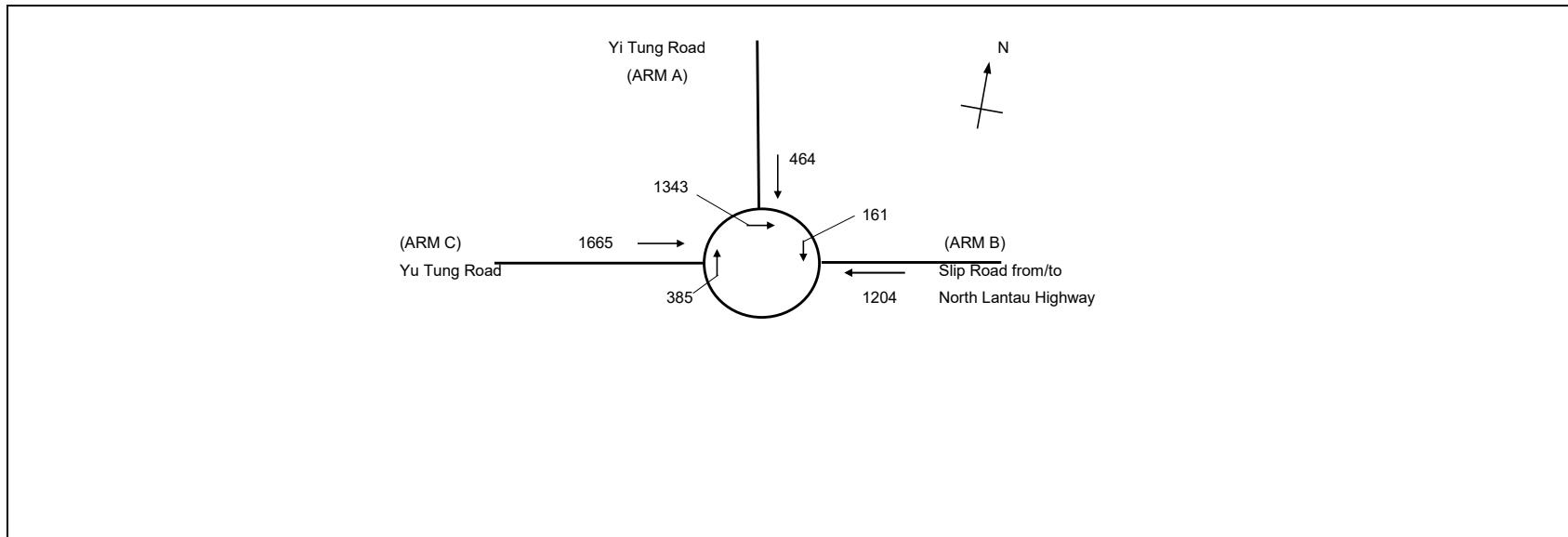
PREPARED BY: AH Dec-25

FILENAME :

CHECKED BY: CW Dec-25

J4_Tung Chung Eastern Interchange_R.xls

REVIEWED BY: SC Dec-25



ARM	A	B	C
INPUT PARAMETERS:			
V = Approach half width (m)	8.0	7.0	8.0
E = Entry width (m)	12.0	12.0	12.0
L = Effective length of flare (m)	10.0	10.0	10.0
R = Entry radius (m)	60.0	60.0	40.0
D = Inscribed circle diameter (m)	105.0	105.0	105.0
A = Entry angle (degree)	45.0	45.0	45.0
Q = Entry flow (pcu/h)	464	1204	1665
Qc = Circulating flow across entry (pcu/h)	1343	161	385
OUTPUT PARAMETERS:			
S = Sharpness of flare = $1.6(E-V)/L$	0.64	0.80	0.64
K = $1-0.00347(A-30)-0.978(1/R-0.05)$	0.98	0.98	0.97
X2 = $V + ((E-V)/(1+2S))$	9.75	8.92	9.75
M = $\text{EXP}((D-60)/10)$	90	90	90
F = $303 \times X2$	2956	2704	2956
Td = $1+(0.5/(1+M))$	1.01	1.01	1.01
Fc = $0.21 \times Td(1+0.2 \times X2)$	0.62	0.59	0.62
Qe = $K(F-Fc \times Qc)$	2078	2558	2641
Total In Sum =			3333 PCU
DFC = Design flow/Capacity = Q/Qe	0.22	0.47	0.63
DFC of Critical Approach =			0.63

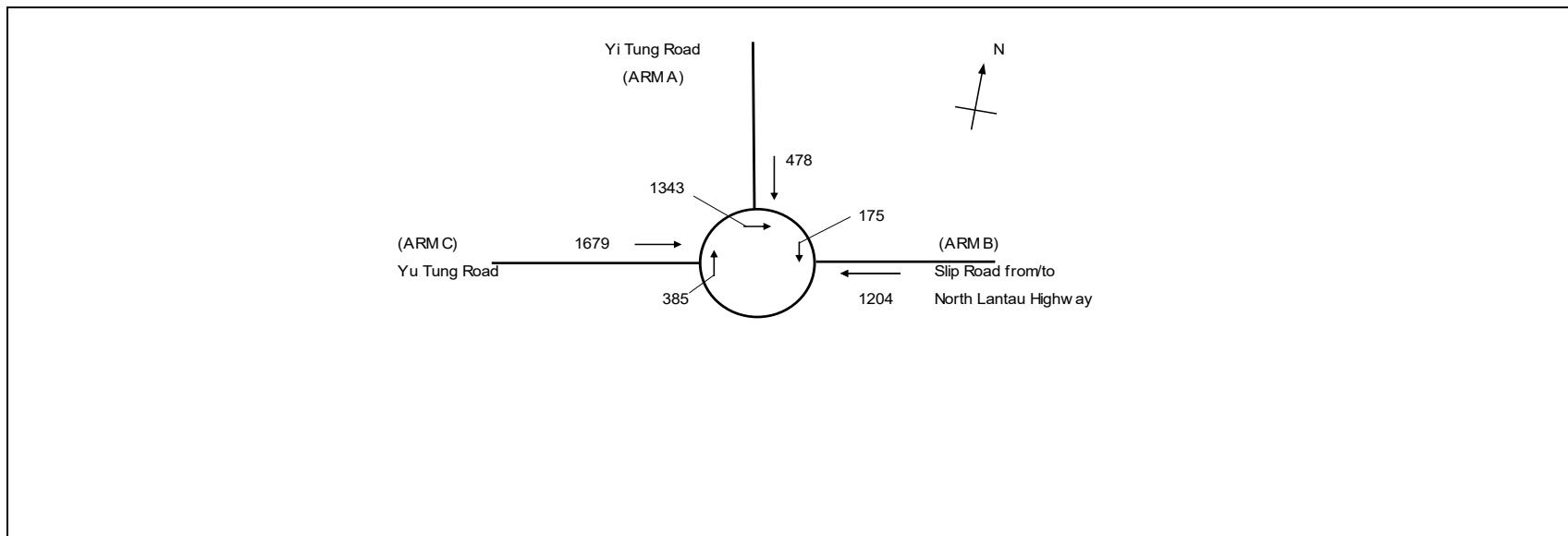
OZZO TECHNOLOGY (HK) LIMITED

Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple,
J4: Tung Chung Eastern Interchange
2030 Design Ching Ming Festival Day Peak Hour Traffic Flows

TRAFFIC SIGNAL CALCULATION

2030Des_CM

PROJECT NO.:	83209	PREPARED BY:	AH	DATE	Dec-25
FILENAME :		CHECKED BY:	CW	Dec-25	
	J4_Tung Chung Eastern Interchange_R.xls	REVIEWED BY:	SC	Dec-25	



ARM	A	B	C
INPUT PARAMETERS:			
V = Approach half width (m)	8.0	7.0	8.0
E = Entry width (m)	12.0	12.0	12.0
L = Effective length of flare (m)	10.0	10.0	10.0
R = Entry radius (m)	60.0	60.0	40.0
D = Inscribed circle diameter (m)	105.0	105.0	105.0
A = Entry angle (degree)	45.0	45.0	45.0
Q = Entry flow (pcu/h)	478	1204	1679
Qc = Circulating flow across entry (pcu/h)	1343	175	385
OUTPUT PARAMETERS:			
S = Sharpness of flare = $1.6(E-V)/L$	0.64	0.80	0.64
K = $1-0.00347(A-30)-0.978(1/R-0.05)$	0.98	0.98	0.97
X2 = $V + ((E-V)/(1+2S))$	9.75	8.92	9.75
M = $\text{EXP}((D-60)/10)$	90	90	90
F = $303 \times X2$	2956	2704	2956
Td = $1+(0.5/(1+M))$	1.01	1.01	1.01
Fc = $0.21 \times Td(1+0.2 \times X2)$	0.62	0.59	0.62
Qe = $K(F-Fc \times Qc)$	2078	2550	2641
Total In Sum =			3361 PCU
DFC = Design flow/Capacity = Q/Qe	0.23	0.47	0.64
DFC of Critical Approach =			0.64

ozzo technology (hk) limited
TRAFFIC SIGNAL CALCULATION

 Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung
 J5: Ying Hei Road / Tung Chung Waterfront Road / Yi Tung Road
 2030 Reference Ching Ming Festival Day Peak Hour Traffic Flow

2030Ref_CM

PROJECT NO.: 83209

Prepared By:

AH

Dec-25

FILENAME:

Checked By:

CW

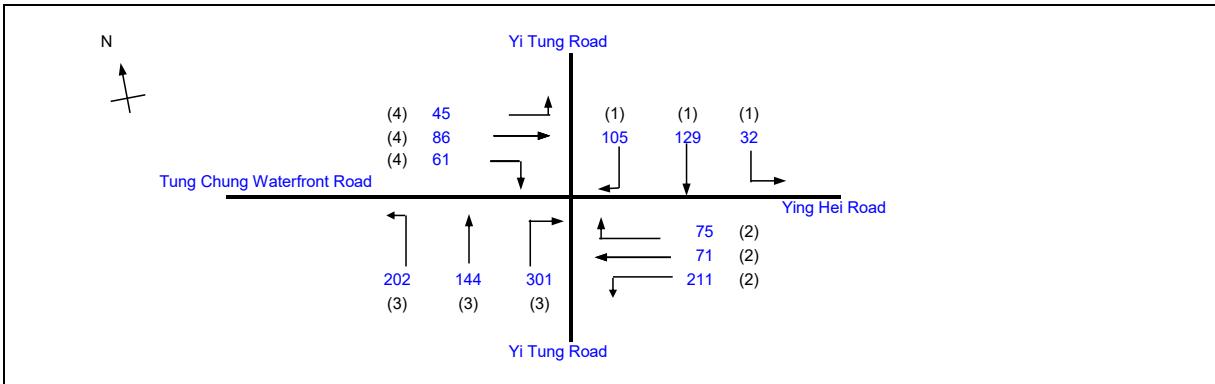
Dec-25

J5_Ying Hei Rd-Yu Tung Road_S.xlsx

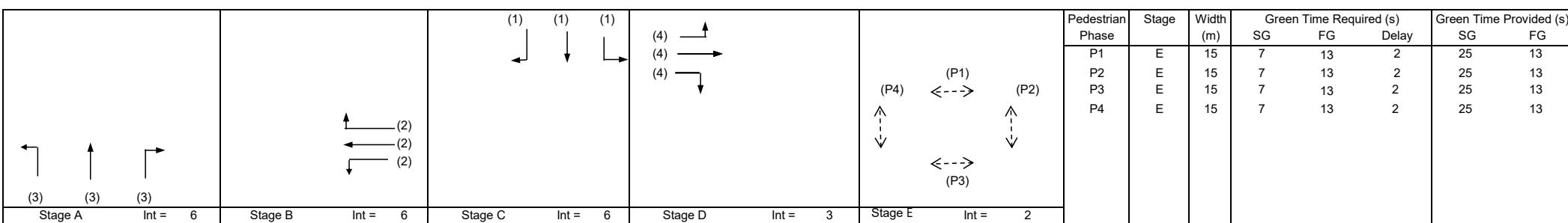
Reviewed By:

SC

Dec-25



Existing Cycle Time	
No. of stages per cycle	N = 5
Cycle time	C = 130 sec
Sum(y)	Y = 0.299
Loss time	L = 58 sec
Total Flow	= 1462 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.465
R.C.ult	= $Yult-Y)/Y*100\%$
Cp	= $0.9*L/(0.9-Y)$
Ymax	= $1-L/C$
R.C.(C)	= $(0.9*Ymax-Y)/Y*100\%$
	= 67 %



Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total FFlow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)		
									Left pcu/h	Straight pcu/h	Right pcu/h																
LT,SA	C	3.70	1	1	20		N	1985 2125	32	98 31	105 136	130	0.25 0.77	1949 2046	0.067 0.067	0.067 0.067	1949 2046	0.067 0.067	0.067 0.067	19	16 16	16 16	0.539 0.539	24 24	56 56		
	C	3.70	1	1	30																						
LT,SA	B	3.50	2	1	20		N	1965 2105 2105	111 100 50	21 75	121 125	111	1.00	1828			1828 1983 2044	0.061 0.061 0.061	0.061 0.061 0.061	15 15 15	15 15 15	15 15 15	0.539 0.539 0.539	18 18 18	58 57 57		
	B	3.50	2	1	30																						
	B	3.50	2	1	30																						
LT,SA,RT	A	3.50	3	1	20		N	1965 2105 2105	202 2105 2105	0 144 219	202 226 219	1.00	1828 2067 2005	0.111 0.109 0.109	0.111 0.109 0.109	1828 2067 2005	0.111 0.109 0.109	0.111 0.109 0.109	27 26 26	27 27 27	27 27 27	0.539 0.533 0.533	30 36 36	47 46 46			
	A	3.50	3	1	30																						
	RT	A	3.50	3	1	30																					
LT,SA,RT	D	3.70	4	1	20		N	1985 2125	45	86 61	0 61	131 61	0.34 1.00	1935 2024	50	231	2166 2024	0.060 0.030	0.060 0.030	15 7	15 15	15 15	0.539 0.269	24 6	57 50		
	D	3.70	4	1	30																						
PED	E																										

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

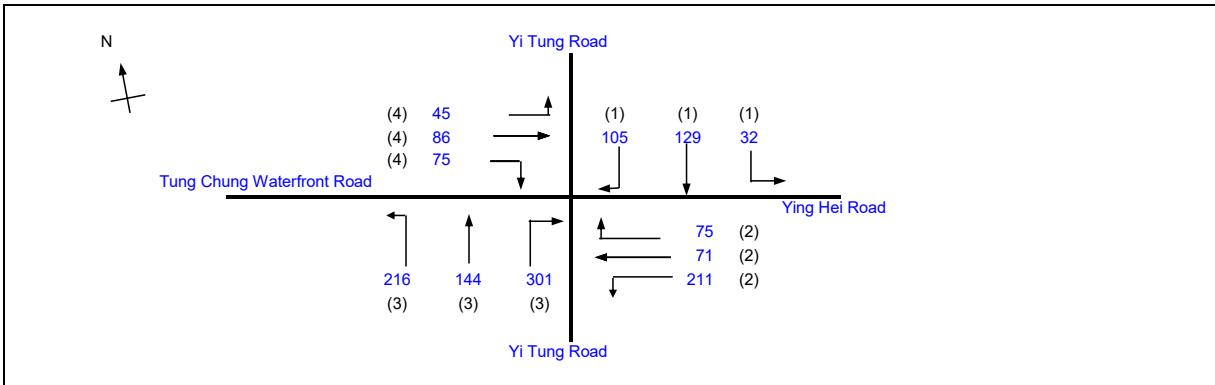
QUEUING LENGTH = AVERAGE QUEUE * 6m

OWZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

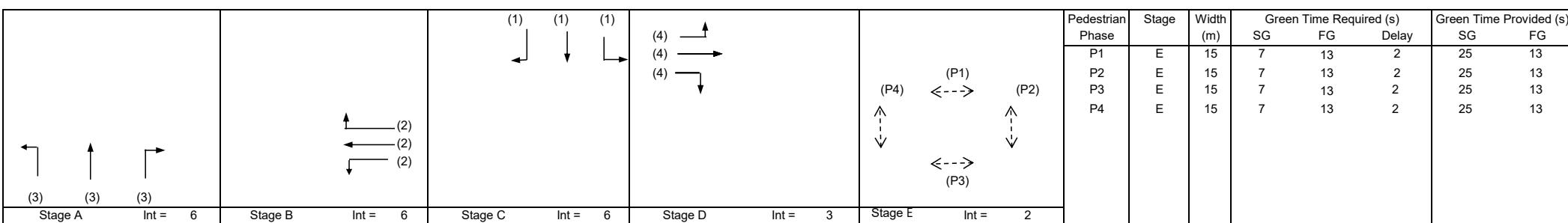
 Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung
 J5: Ying Hei Road / Tung Chung Waterfront Road / Yi Tung Road
 2030 Design Ching Ming Festival Day Peak Hour Traffic Flow

2030Des_CM

 PROJECT NO.: 83209
 FILENAME: J5_Ying Hei Rd-Yu Tung Road_S.xlsx

 Prepared By: AH Dec-25
 Checked By: CW Dec-25
 Reviewed By: SC Dec-25


Existing Cycle Time	
No. of stages per cycle	N = 5
Cycle time	C = 130 sec
Sum(y)	Y = 0.306
Loss time	L = 58 sec
Total Flow	= 1490 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.465
R.C.ult	= $(Yult-Y)/Y*100\%$
Cp	= $0.9*L/(0.9-Y)$
Ymax	= $1-L/C$
R.C.(C)	= $(0.9*Ymax-Y)/Y*100\%$
	= 63 %



Move- ment	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight- Ahead Sat. Flow	Movement			Total FFlow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT,SA SA,RT	C	3.70	1	1	20		N	1985 2125	32	98 31	105 136	130	0.25 0.77	1949 2046	0.067 0.067	0.067 0.067	1949 2046	0.067 0.067	0.067 0.067	19	16 16	16 16	0.553 0.553	24 24	57 57
	C	3.70	1	1	30																				
LT LT,SA SA,RT	B	3.50	2	1	20		N	1965 2105 2105	111 100 50	21 75	111 121 125	111	1.00	1828			1828 1983 2044	0.061 0.061 0.061	0.061 0.061 0.061	14 14 14	14 14 14	14 14 14	0.553 0.553 0.553	18 18 24	59 58 58
	B	3.50	2	1	30																				
	B	3.50	2	1	30																				
LT,SA SA,RT RT	A	3.50	3	1	20		N	1965 2105 2105	216 144 219	0 82 219	216 226 219	216	1.00	1828 2067 2005			1828 2067 2005	0.118 0.109 0.109	0.118 0.109 0.109	28 26 26	28 28 28	0.553 0.511 0.511	36 36 36	46 44 45	
	A	3.50	3	1	30																				
	A	3.50	3	1	30																				
LT,SA,RT RT	D	3.70	4	1	20		N	1985 2125	45	86 75	0 75	131	0.34 1.00	1935 2024	50	231	2166 2024	0.060 0.037	0.060 0.037	14 9	14 14	0.553 0.339	24 12	58 52	
	D	3.70	4	1	30																				
PED	E																								

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

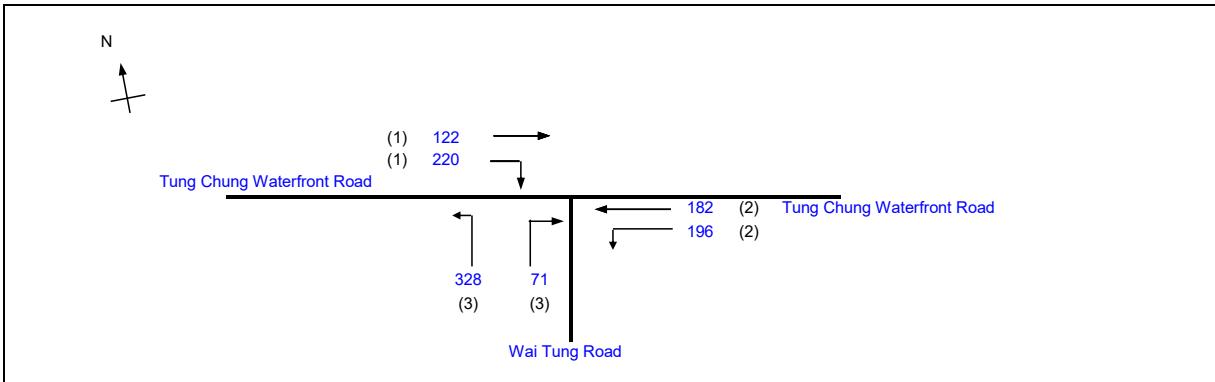
QUEUEING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

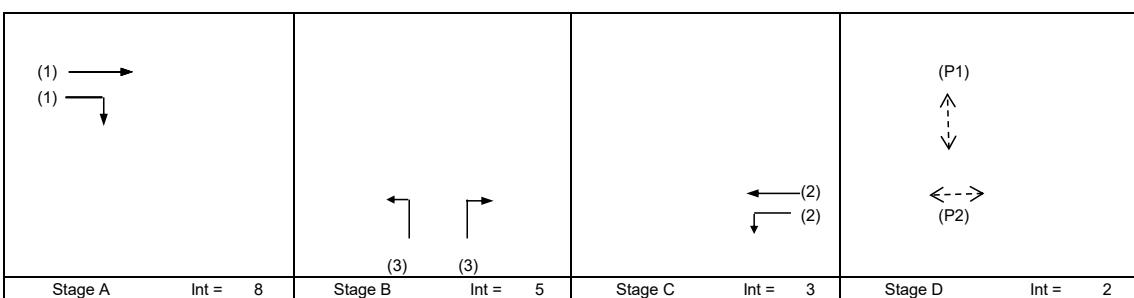
 Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung
 J6: Tung Chung Waterfront Road / Wai Tung Road
 2030 Reference Ching Ming Festival Day Peak Hour Traffic Flow

2030Ref_CM Peak

PROJECT NO.:	83209	Prepared By:	AH	DATE	Dec-25
FILENAME:		Checked By:	CW	DATE	Dec-25
J6_Tung Chung Waterfront Rd-Wai Tung Rd		Reviewed By:	SC	DATE	Dec-25



Existing Cycle Time	
No. of stages per cycle	N = 4
Cycle time	C = 120 sec
Sum(y)	Y = 0.298
Loss time	L = 41 sec
Total Flow	= 1119 pcu
Co	= (1.5*L+5)/(1-Y)
Cm	= L/(1-Y)
Yult	= 0.593
R.C.ult	= (Yult-Y)/Y*100%
Cp	= 0.9*L/(0.9-Y)
Ymax	= 1-L/C
R.C.(C)	= (0.9*Ymax-Y)/Y*100%
	= 99 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	D	10	5	8	2	16	8
P2	D	7	5	6	2	18	6

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)
									Left pcu/h	Straight pcu/h	Right pcu/h														
SA,RT	A	4.00	1	1	30		N	2015 2155	122	46	168	0.27	1988 2052	0.085 0.085	0.085	0.085	15	22	22	0.453	24	43			
RT	A	4.00	1	1	30				174	174	174	1.00	2052					22	22	0.453	24	42			
LT,SA	C	4.00	2	1	20		N	2015 2155	196	0	196	1.00	1874 2155	0.105 0.084	0.105	0.105	28	28	0.453	30	39				
SA	C	4.00	2	1	20				182	182	0.00	2155					22	22	0.453	24	42				
LT	B	3.30	3	1	15		N	1945 2085	193	71	193	1.00	1768 1895	0.109 0.109	0.109	0.109	29	29	0.453	24	38				
LT,RT	B	3.30	3	1	15				135	206	1.00	1895					29	29	0.453	30	38				
PED	D																26								

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

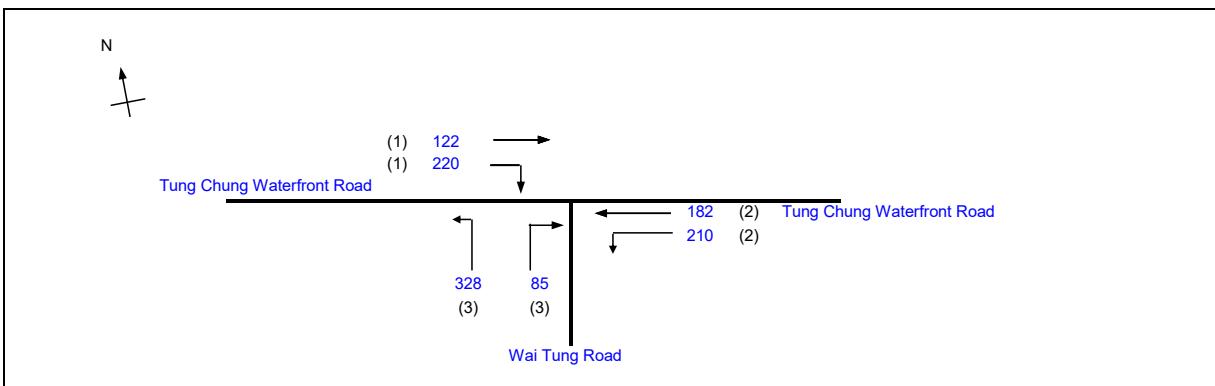
QUEUEING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

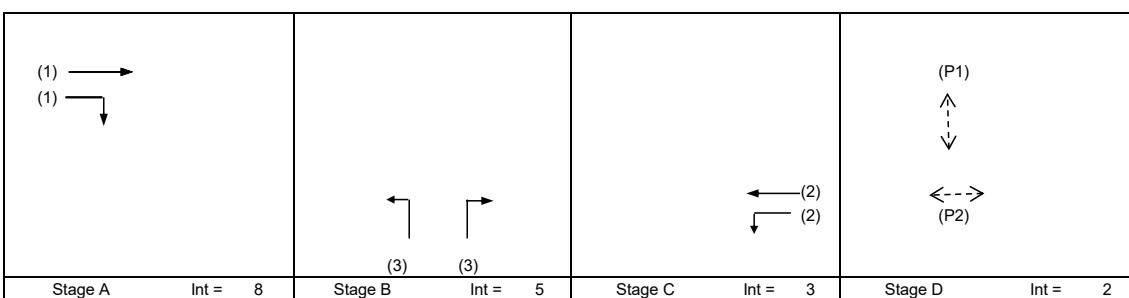
 Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung
 J6: Tung Chung Waterfront Road / Wai Tung Road
 2030 Design Ching Ming Festival Day Peak Hour Traffic Flow

2030Des_CM Peak

PROJECT NO.:	83209	Prepared By:	AH	DATE	Dec-25
FILENAME :		Checked By:	CW	DATE	Dec-25
J6_Tung Chung Waterfront Rd-Wai Tung Rd		Reviewed By:	SC	DATE	Dec-25



Existing Cycle Time	
No. of stages per cycle	N = 4
Cycle time	C = 120 sec
Sum(y)	Y = 0.309
Loss time	L = 41 sec
Total Flow	= 1147 pcu
Co	= (1.5*L+5)/(1-Y)
Cm	= L/(1-Y)
Yult	= 0.593
R.C.ult	= (Yult-Y)/Y*100%
Cp	= 0.9*L/(0.9-Y)
Ymax	= 1-L/C
R.C.(C)	= (0.9*Ymax-Y)/Y*100%
	= 91 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	D	10	5	8	2	16	8
P2	D	7	5	6	2	18	6

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane	Share 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)
									Left pcu/h	Straight pcu/h	Right pcu/h														
SA,RT	A	4.00	1	1	30		N	2015 2155	122	46	168	0.27	1988 2052	0.085 0.085	0.085	0.085	15	22	22	0.470	24	44			
	RT	A	4.00	1	1	30			174	174	174	1.00	2052					22	22	0.470	24	44			
LT,SA	C	4.00	2	1	20		N	2015 2155	210	0	210	1.00	1874 2155	0.112 0.084	0.112	0.112	29	29	0.470	30	38				
	SA	C	4.00	2	1	20			182	182	182	0.00	2155					22	22	0.470	24	43			
LT	B	3.30	3	1	15		N	1945 2085	199	129	199	1.00	1768 1895	0.113 0.113	0.113	0.113	29	29	0.470	30	39				
	LT,RT	B	3.30	3	1	15			85	214	214	1.00	1895					29	29	0.470	30	38			
PED	D																26								

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

PEDESTRAIN WALKING SPEED = 1.2m/s

QUEUEING LENGTH = AVERAGE QUEUE * 6m

OZZO TECHNOLOGY (HK) LIMITED

Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung Chung

J7 : Man Tung Road / Wai Tung Road

2030 Reference Ching Ming Festival Day Peak Hour Traffic Flow

PRIORITY JUNCTION CALCULATION

INITIALS DATE

2030Ref_CM

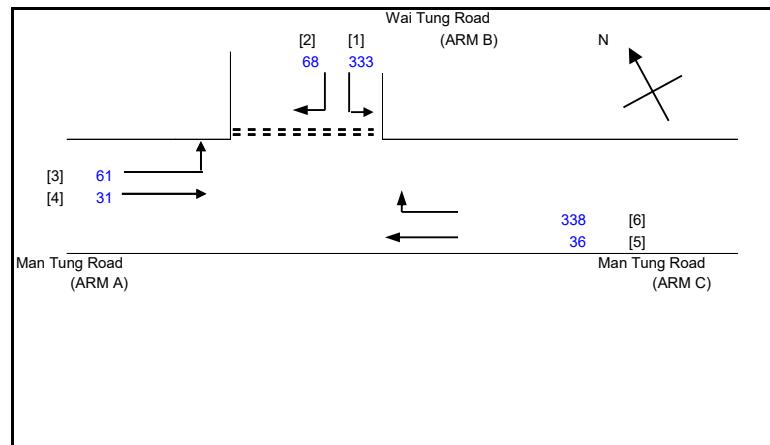
PROJECT NO.: 83209

PREPARED BY: BK Dec-25

FILENAME : J7 Tung Rd-Wai Tung Rd_P.xlsx

CHECKED BY: CC Dec-25

REVIEWED BY: CC Dec-25


NOTES: (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:
GEOMETRIC FACTORS :
THE CAPACITY OF MOVEMENT :
**COMPARISON OF DESIGN FLOW
TO CAPACITY:**
MAJOR ROAD (ARM A)

W = 7.00 (metres) D = 0.8628183
 W cr = 0 (metres) E = 0.9237883
 q a-b = 61 (pcu/hr) F = 1.2083931
 q a-c = 31 (pcu/hr) Y = 0.7585

Q b-a = 407
 Q b-c = 674 Q b-c (O) = 645.8
 Q c-b = 870

DFC b-a = 0.1671
 DFC b-c = 0.4941
 DFC c-b = 0.3885

MAJOR ROAD (ARM C)

W c-b = 7.00 (metres)
 Vr c-b = 30 (metres)
 q c-a = 36 (pcu/hr)
 q c-b = 338 (pcu/hr)

TOTAL FLOW = 867 (PCU/HR)

CRITICAL DFC = 0.49

MINOR ROAD (ARM B)

W b-a = 3.50 (metres)
 W b-c = 3.50 (metres)
 Vl b-a = 40 (metres)
 Vr b-a = 50 (metres)
 Vr b-c = 50 (metres)
 q b-a = 68 (pcu/hr)
 q b-c = 333 (pcu/hr)

OZZO TECHNOLOGY (HK) LIMITED

Partial Redevelopment and Proposed Columbarium at Prajna Dhyana Temple, Tung Chung

J7 : Man Tung Road / Wai Tung Road

2030 Design Ching Ming Festival Day Peak Hour Traffic Flow

PRIORITY JUNCTION CALCULATION

INITIALS DATE

2030Des_CM

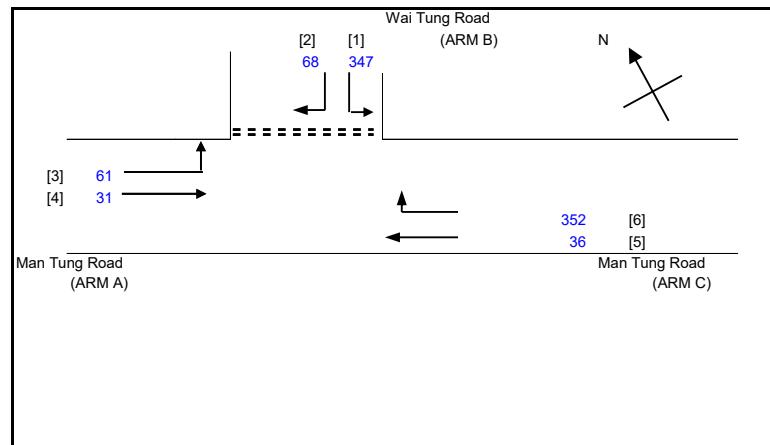
PROJECT NO.: 83209

PREPARED BY: BK Dec-25

FILENAME : J7 Tung Rd-Wai Tung Rd_P.xlsx

CHECKED BY: CC Dec-25

REVIEWED BY: CC Dec-25


NOTES: (GEOMETRIC INPUT DATA)

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

GEOMETRIC DETAILS:
GEOMETRIC FACTORS :
THE CAPACITY OF MOVEMENT :
**COMPARISON OF DESIGN FLOW
TO CAPACITY:**
MAJOR ROAD (ARM A)

W = 7.00 (metres) D = 0.8628183
 W cr = 0 (metres) E = 0.9237883
 q a-b = 61 (pcu/hr) F = 1.2083931
 q a-c = 31 (pcu/hr) Y = 0.7585

Q b-a = 403
 Q b-c = 674 Q b-c (O) = 645.6
 Q c-b = 870

DFC b-a = 0.1687
 DFC b-c = 0.5148
 DFC c-b = 0.4046

MAJOR ROAD (ARM C)

W c-b = 7.00 (metres)
 Vr c-b = 30 (metres)
 q c-a = 36 (pcu/hr)
 q c-b = 352 (pcu/hr)

TOTAL FLOW = 895 (PCU/HR)

CRITICAL DFC = 0.51

MINOR ROAD (ARM B)

W b-a = 3.50 (metres)
 W b-c = 3.50 (metres)
 Vl b-a = 40 (metres)
 Vr b-a = 50 (metres)
 Vr b-c = 50 (metres)
 q b-a = 68 (pcu/hr)
 q b-c = 347 (pcu/hr)

OZZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

Proposed Columbarium at Prajna Dhyana Temple, Tung Chung

J8: Tat Tung Road / Shun Tung Road (West)

2030 Reference Ching Ming Festival Day Peak Hour Traffic Flow (with improvement scheme by others)

2030Ref_CM

PROJECT NO.: 83209

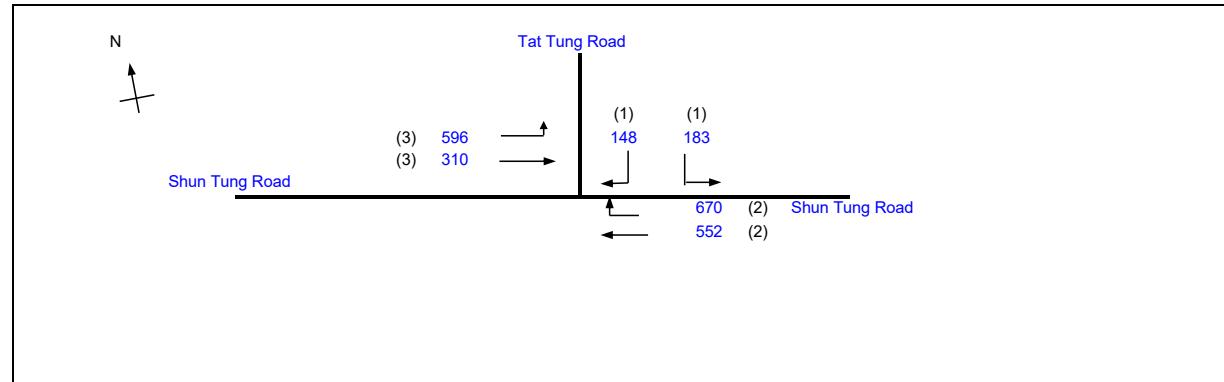
Prepared By: AH Dec-25

FILENAME:

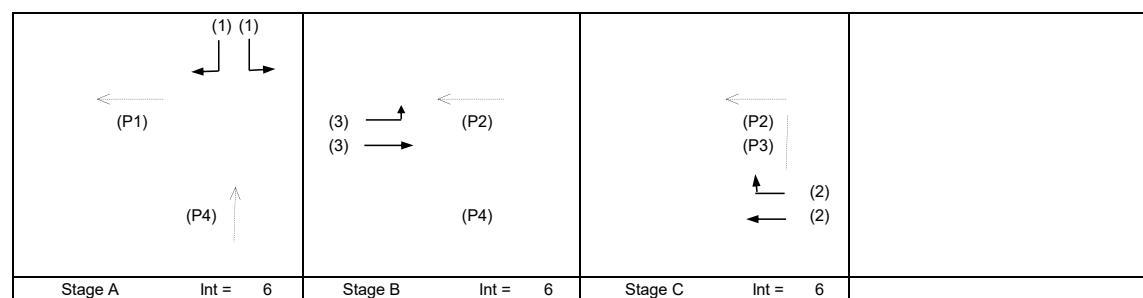
Checked By: CW Dec-25

J8_Tat Tung Rd-Shun Tung Road (West)

Reviewed By: SC Dec-25



Existing Cycle Time	
No. of stages per cycle	N = 3
Cycle time	C = 110 sec
Sum(y)	Y = 0.600
Loss time	L = 15 sec
Total Flow	= 2459 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.788
R.C.ult	= 31.3 %
Cp	= 45.0 sec
Ymax	= 0.864
R.C.(C)	= $(0.9*Ymax-Y)/Y*100\%$ = 30 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	A	13	7	11	2	8	11
P2	B,C	8	5	6	2	81	6
P3	C	10	5	8	2	49	8
P4	A,B	11	6	9	2	40	9

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT	A	3.50	1	1	20	N	1965	183	183	148	1.00	1828	0.100	0.100	15	16	16	0.694	30	54					
	RT	A	3.50	1	1		2105	148				2005													
LT	B	3.50	3	2	20	N	4070	596	596	310	1.00	3786	0.157	0.157	25	25	0.694	42	39						
	SA	B	3.50	3	2		4210	310				4210													
SA	C	3.50	2	2	20	N	4070	552	552	670	0.00	4070	0.136	0.342	21	54	0.275	24	15						
	RT	C	3.50	2	1		2105	670				1958													

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

OWZO TECHNOLOGY (HK) LIMITED
TRAFFIC SIGNAL CALCULATION

Proposed Columbarium at Prajna Dhyana Temple, Tung Chung

J9: Tat Tung Road / Shun Tung Road (East)

2030 Reference Ching Ming Festival Day Peak Hour Traffic Flow (with improvement scheme by others)

2030Ref_CM Peak

PROJECT NO.: 83209

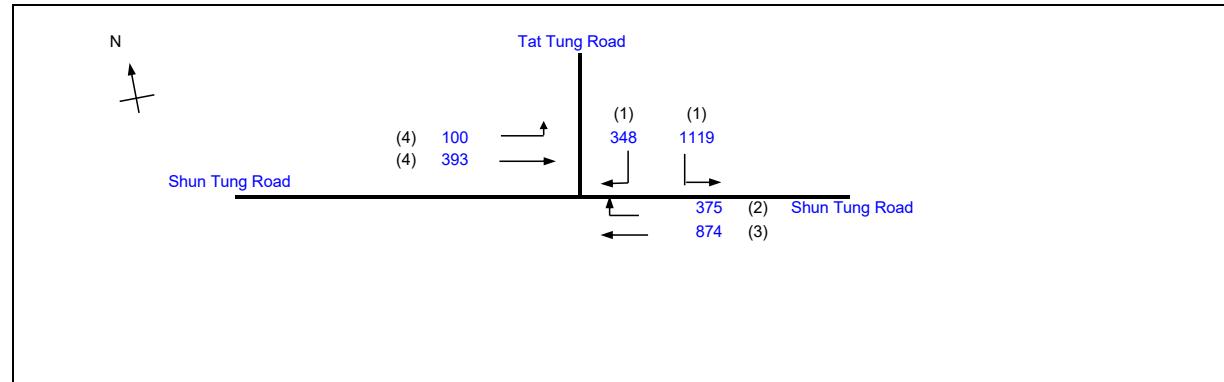
Prepared By: AH Dec-25

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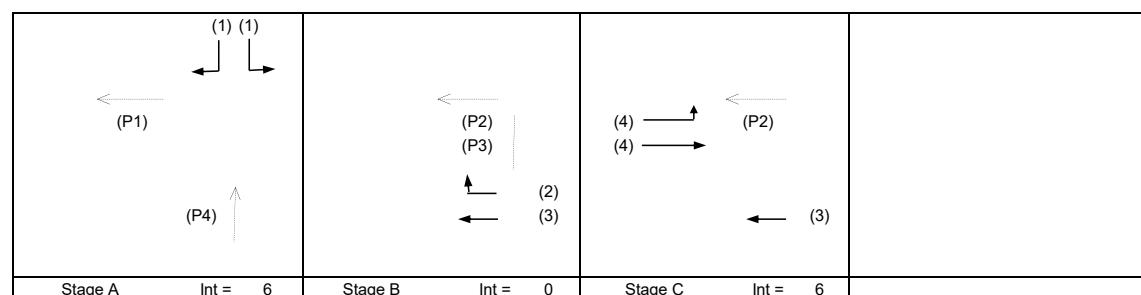
Checked By: CW Dec-25

J9_Tat Tung Rd-Shun Tung Road (East)_S

Reviewed By: SC Dec-25



Existing Cycle Time	
No. of stages per cycle	N = 3
Cycle time	C = 110 sec
Sum(y)	Y = 0.510
Loss time	L = 10 sec
Total Flow	= 3209 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.825
R.C.ult	= 61.7 %
Cp	= $0.9*L/(0.9-Y)$
Ymax	= 20.4 sec
R.C.(C)	= $0.9*Ymax-Y)/Y*100\%$
	= 0.909
	= 60 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	A	13	7	11	2	50	11
P2	B,C	8	5	6	2	39	6
P3	B	8	5	7	2	14	7
P4	A	13	7	11	2	50	11

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)
									Left pcu/h	Straight pcu/h	Right pcu/h														
LT	A	3.50	1	2	20		N	4070 2105	1119 348		1119 348	1.00 1.00	3786 1986			3786 1986	0.296 0.175	0.296	10	58 34	58 58	0.561 0.333	48 30	17 14	
	RT	A	3.50	1	1	25																			
LT	C	3.50	4	1	15		N	1965 4210	100 393		100 393	1.00 0.00	1786 4210			1786 4210	0.056 0.093	0.056	11	19 18	19 19	0.323 0.538	12 27	38 40	
	SA	C	3.50	4	2																				
SA	B,C	3.50	3	2	30		N	4070 4210	874 375		874 375	0.00 1.00	4070 4010			4070 4010	0.215 0.094	0.215	42 18	60 18	60 18	0.391 0.572	36 27	13 41	
	RT	B	3.50	2																					

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

OZZO TECHNOLOGY (HK) LIMITED

TRAFFIC SIGNAL CALCULATION

Proposed Columbarium at Prajna Dhyana Temple, Tung Chung

J9: Tat Tung Road / Shun Tung Road (East)

2030 Design Ching Ming Festival Day Peak Hour Traffic Flow (with improvement scheme by others)

2030Des_CM Peak

PROJECT NO.: 83209

Prepared By:

AH

INITIALS DATE

Dec-25

FILENAME :

Checked By:

CW

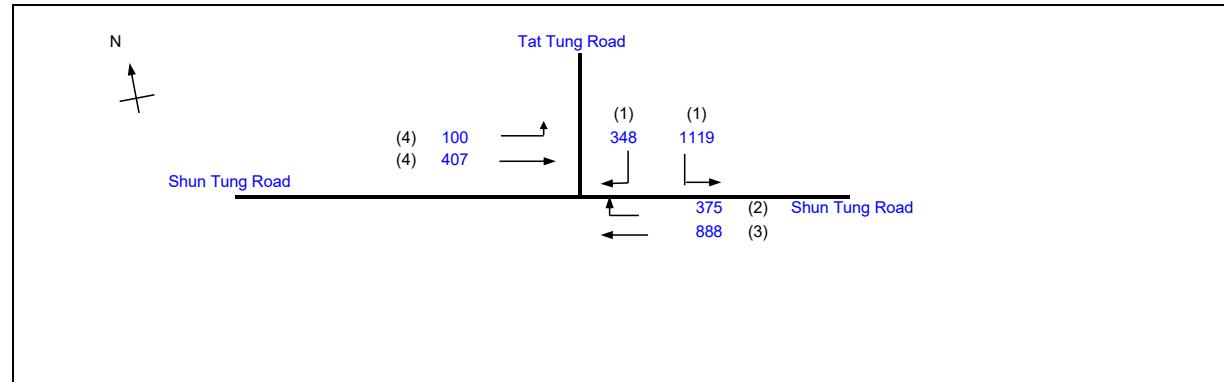
Dec-25

J9_Tat Tung Rd-Shun Tung Road (East)_S

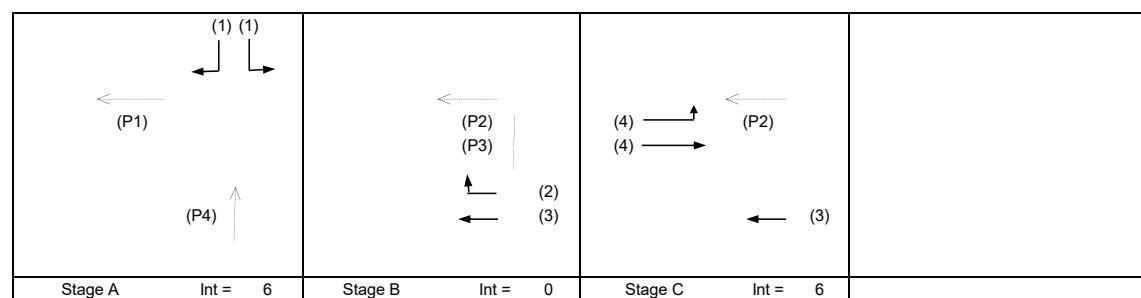
Reviewed By:

SC

Dec-25



Existing Cycle Time	
No. of stages per cycle	N = 3
Cycle time	C = 110 sec
Sum(y)	Y = 0.514
Loss time	L = 10 sec
Total Flow	= 3237 pcu
Co	= $(1.5*L+5)/(1-Y)$
Cm	= $L/(1-Y)$
Yult	= 0.825
R.C.ult	= $(Yult-Y)/Y*100\%$
Cp	= $0.9*L/(0.9-Y)$
Ymax	= $1-L/C$
R.C.(C)	= $(0.9*Ymax-Y)/Y*100\%$
	= 59 %



Pedestrian Phase	Stage	Width (m)	Green Time Required (s)			Green Time Provided (s)	
			SG	FG	Delay	SG	FG
P1	A	13	7	11	2	49	11
P2	B,C	8	5	6	2	39	6
P3	B	8	5	7	2	14	7
P4	A	13	7	11	2	50	11

Movement	Stage	Lane Width m.	Phase	No. of lane	Radius m.	O	N	Straight-Ahead Sat. Flow	Movement			Total FLow pcu/h	Proportion of Turning Vehicles	Sat. Flow pcu/h	Flare lane Length m.	Share 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)	
									Left pcu/h	Straight pcu/h	Right pcu/h															
LT	A	3.50	1	2	20		N	4070 2105	1119 348		1119 348	1.00 1.00	3786 1986			3786 1986	0.296 0.175	0.296		10	58 34	58 58	0.565 0.335	48 30	17 14	
RT	A	3.50	1	1	25																					
LT	C	3.50	4	1	15		N	1965 4210	100 407		100 407	1.00 0.00	1786 4210			1786 4210	0.056 0.097	0.056		11 19	19 19	0.316 0.546	12 30	38 40		
SA	C	3.50	4	2																						
SA	B,C	3.50	3	2	30		N	4070 4210	888 375		888 375	0.00 1.00	4070 4010			4070 4010	0.218 0.094	0.218		42 18	61 18	0.396 0.572	36 27	13 41		
RT	B	3.50	2																							

NOTE : O - OPPOSING TRAFFIC

N - NEAR SIDE LANE

SG - STEADY GREEN

FG - FLASHING GREEN

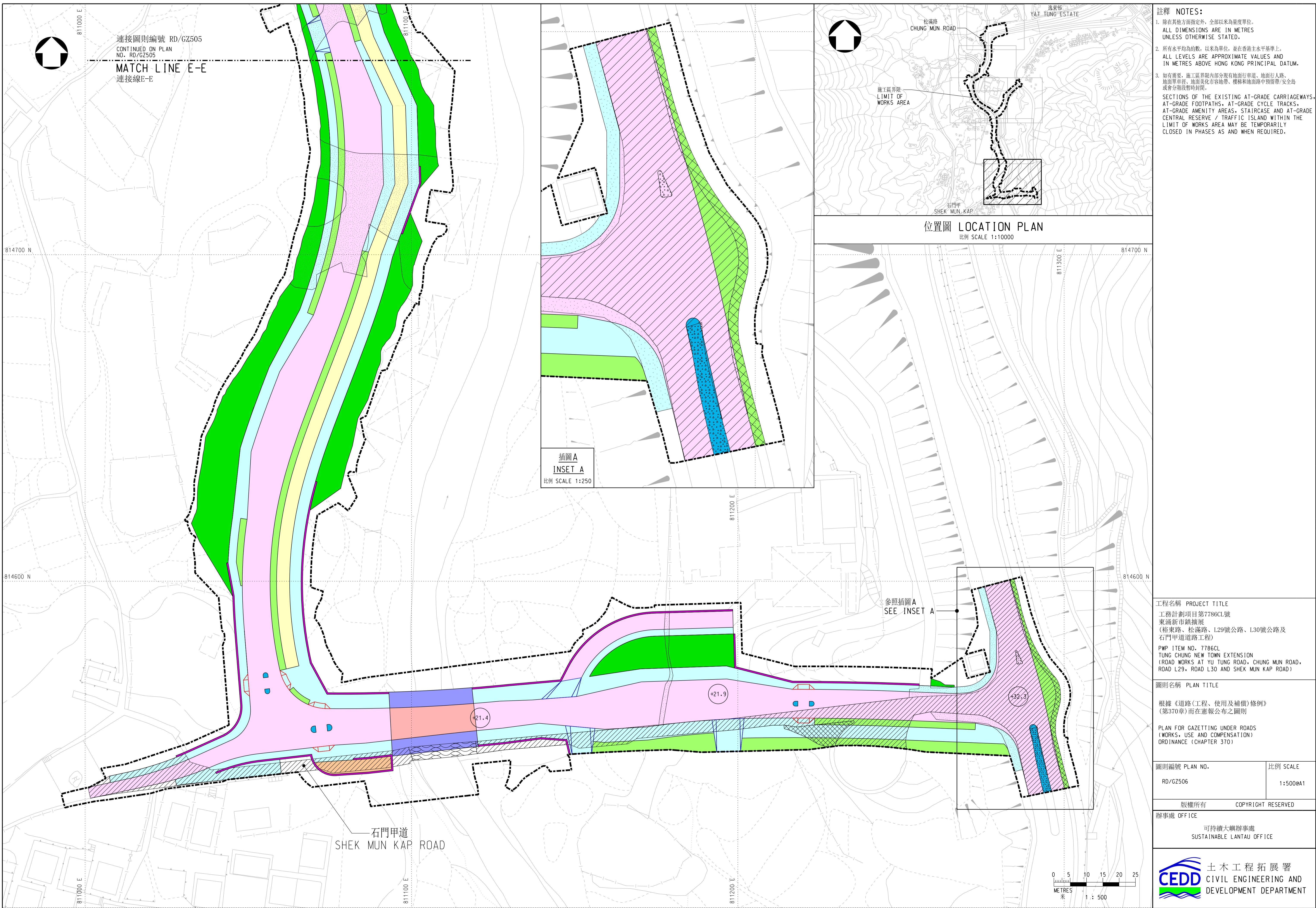
PEDESTRAIN WALKING SPEED = 1.2m/s

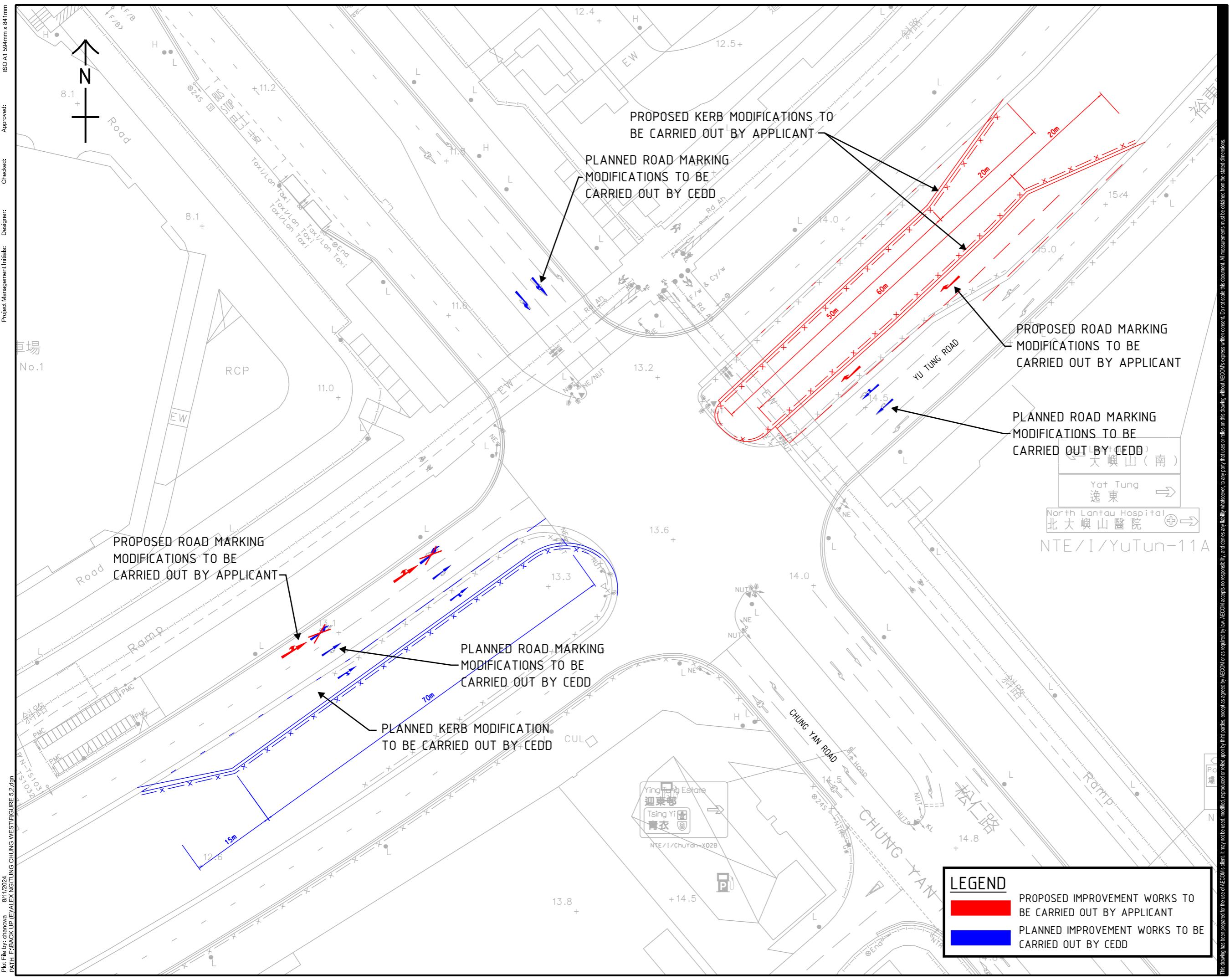
QUEUEING LENGTH = AVERAGE QUEUE * 6m

Appendix C

Junction Improvement Works

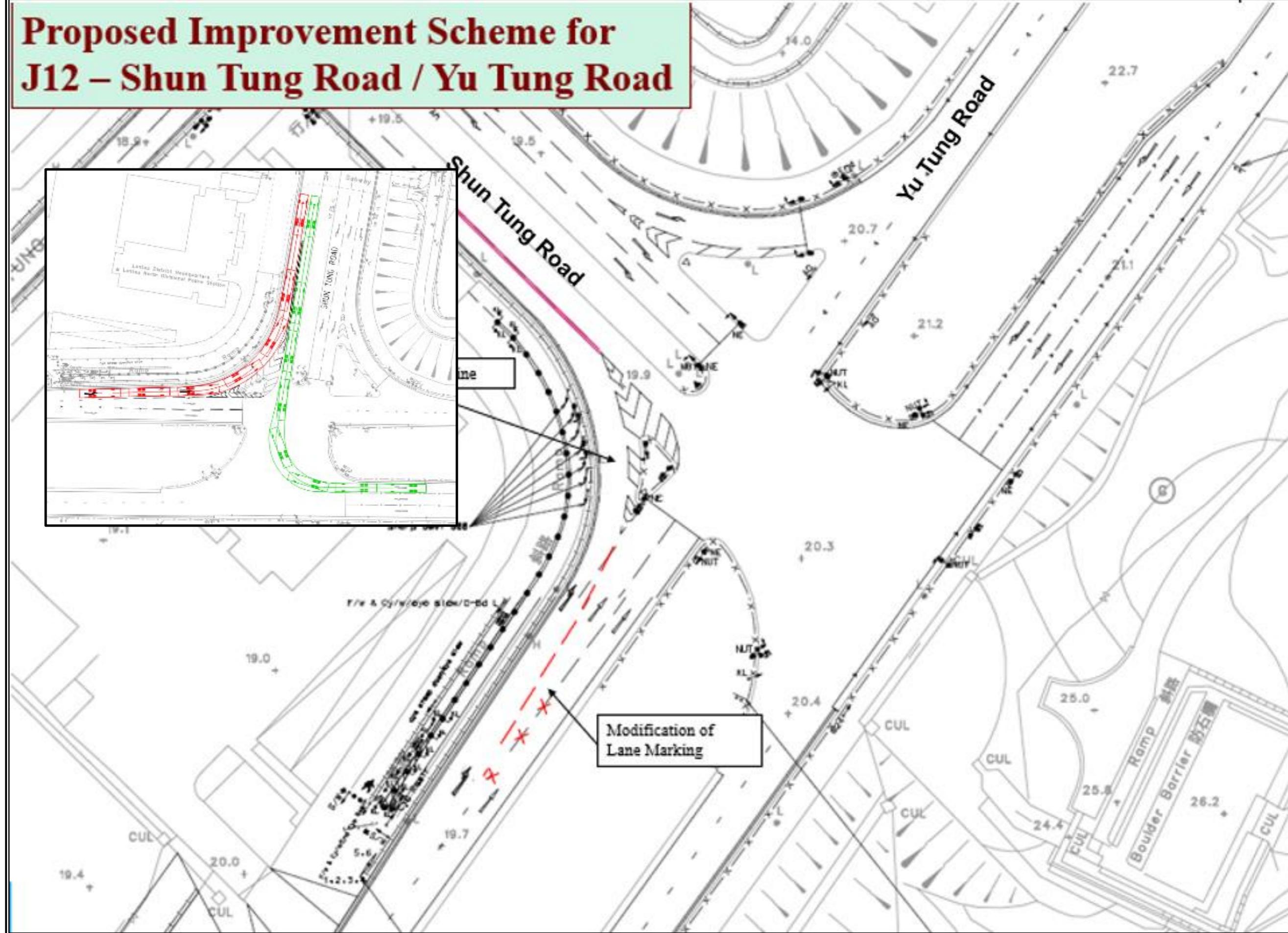
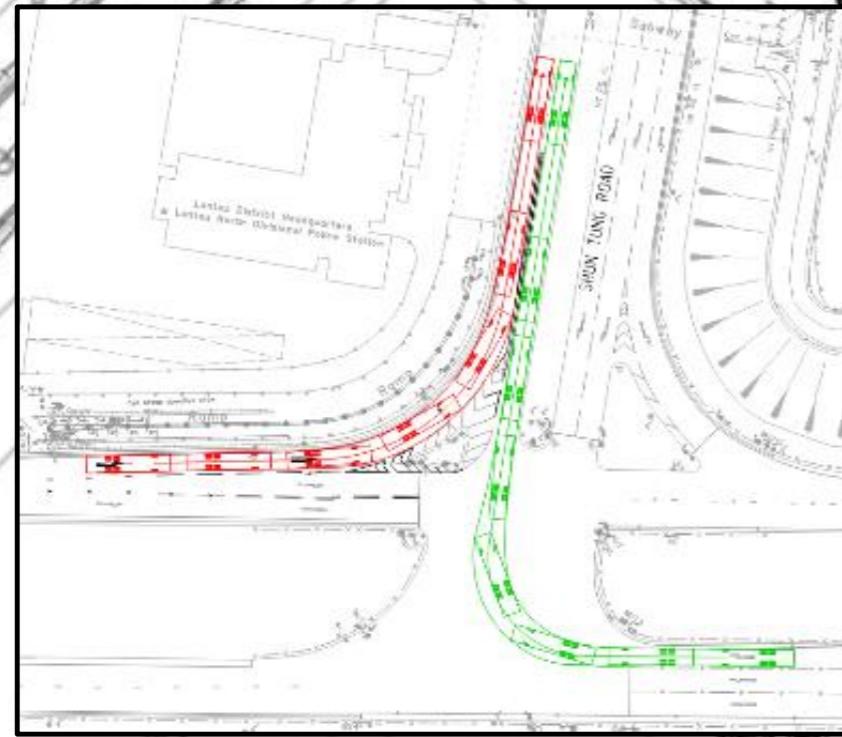
Proposed by Others



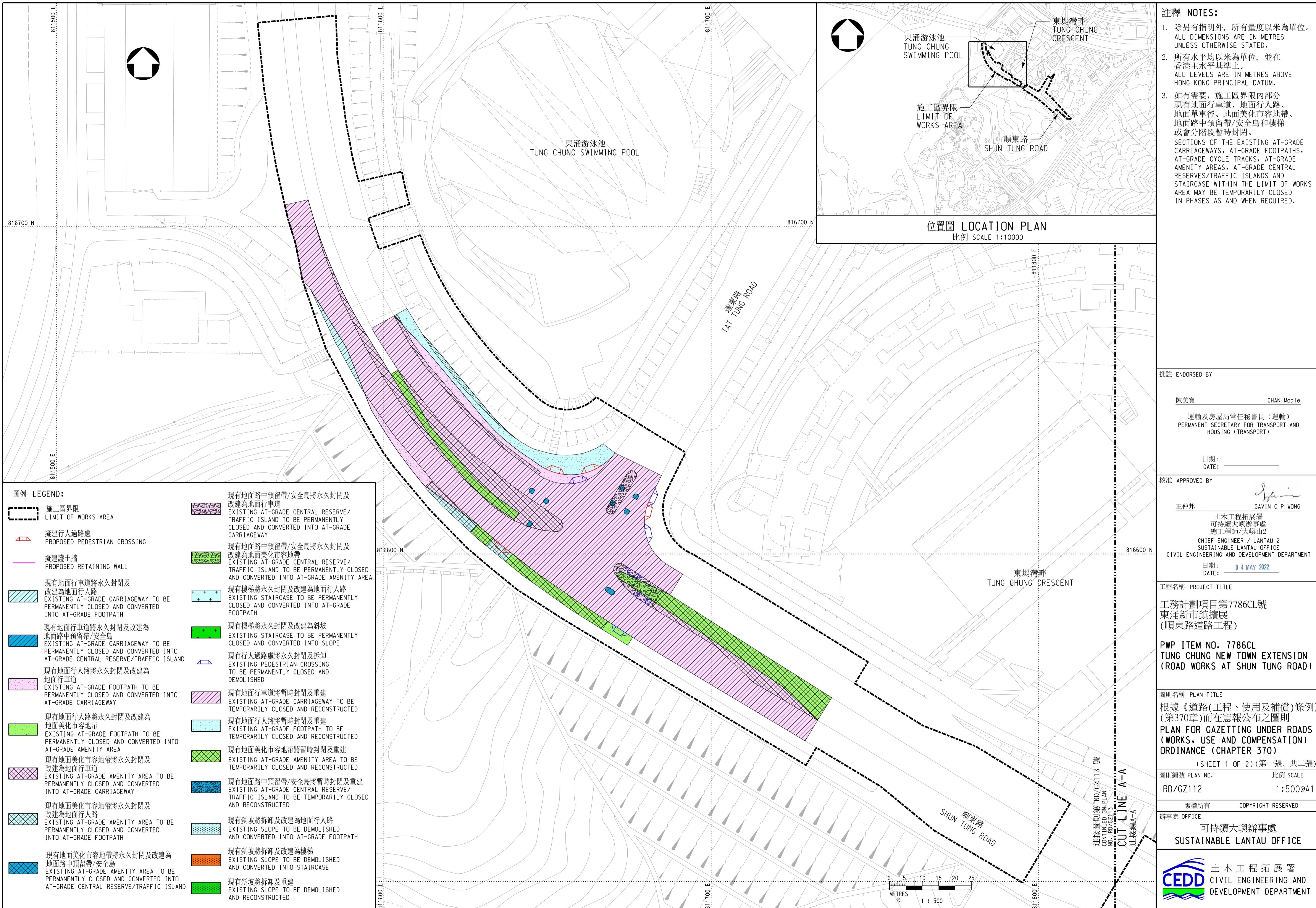


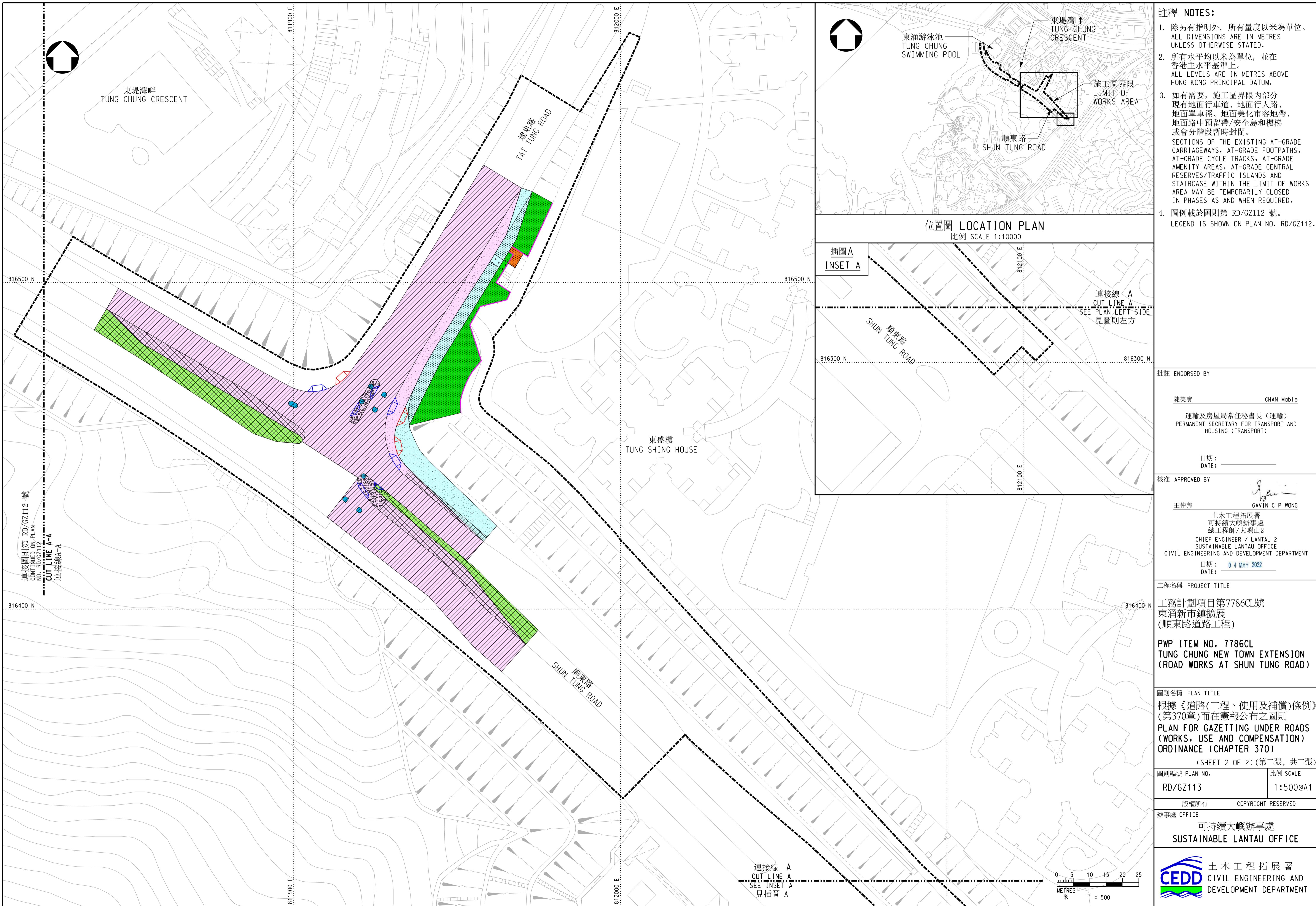


Proposed Improvement Scheme for J12 – Shun Tung Road / Yu Tung Road



Modification of
Lane Marking





Appendix D

Swept Path Demonstration

