Traffic Impact Assessment Report

Lots 471 S.B RP (Part), 472, 473, 474, 475,
476, 482Rp, 483, 484, 486, 487RP, 497S.A.R.P.,
501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89
and adjoining Government Land, Man Kam To Road,
Sha Ling, New Territories

Oct 2024

Prepared by

C&K Land Management Company Limited

Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years and Filling of Land for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475, 476, 483, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and Adjoining Government Land, Man Kam To Road, Sha Ling, New Territories

Traffic Impact Assessment

September 2023

CTA Consultants Limited
志達顧問有限公司

LIST OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

1. INTRODUCTION

1.1 Background

1.1.1 The applicant is re-submit a Section 16 Planning Application for proposed temporary cold storage for poultry and distribution centre for a period of 3 years with filling of land at Various Lots in D.D. 89 and adjoining government land, Man Kam To Road, Sha Ling, New Territories for the approval of Town Planning Board (TPB). The site location is shown in **Figure 1.1**. The proposed of use is the same with the previous approved application (No. A/NE-FTA/201) but the following major modifications have been proposed to the approved application:

- Changing the Site Area from 20,506 m^2 to 16,060 m^2 approximately;
- Changing the maximum building height from 10.4m to 20.675m;
- Combining Blocks 1 and 2 into one Main Block;
- Changing the Total Floor Area from 12,736 m^2 to 11,615 m^2 approximately;
- Changing the Plot Ratio from 0.621 to 0.723; and
- Changing the Site Coverage from 31.51% to 56.94%.

1.1.2 In support of the aforesaid application, a traffic impact assessment is required to review and appraise any possible traffic impact induced by the proposed development on the adjacent road network.

1.1.3 We, CTA Consultants Limited (CTA), are therefore commissioned as the traffic consultant to prepare the Traffic Impact Assessment (TIA) study in supporting the S16 Planning Application and provide technical justifications in supporting the application from traffic engineering point of view.

1.2 Study Objectives

1.2.1 Main objectives of this study are listed below:

- To assess the existing and proposed traffic arrangement & provision of internal transport facilities at the subject site;
- To assess the existing traffic condition in the vicinity of the proposed development;
- To estimate traffic trips related to the proposed development;
- To carry out forecasts about traffic demand of the adjacent road network in design year 2027;
- To appraise any possible traffic impact induced by the proposed development on the adjacent road network;
- To recommend traffic improvement measures to alleviate any foreseeable traffic problem to the surrounding road network, if any.

1.3 Structure of the Report

1.3.1 Following this introductory chapter, there are **FIVE** further chapters:

- **Chapter 2 – THE PROPOSED DEVELOPMENT**, which presents the site location and operation information of the proposed Temporary Cold Storage for Poultry and Distribution Centre;
- **Chapter 3 – EXISTING TRAFFIC CONDITION**, which describes the existing local road network and both vehicular and public transport conditions in the vicinity of the subject site;
- **Chapter 4 – FUTURE TRAFFIC CONDITION & TRAFFIC IMPACT ASSESSMENT**, which estimates future vehicular on the surrounding road network, and presents findings of the traffic impact assessment for the design year 2027;
- **Chapter 5 – PEDESTRIAN ARRANGEMENT,** which shows the existing and

proposed pedestrian arrangement;

- **Chapter 6 – SUMMARY AND CONCLUSION**, which summarizes the study findings and presents the conclusion regarding the proposed Temporary Cold Storage for Poultry and Distribution Centre.

2. THE PROPOSED DEVELOPMENT

2.1 Site Location

2.1.1 The proposed development is located near the junction Man Kam To Road/ Lo Wu Station Road in Sandy Ridge as shown in **Figure 1.1**.

2.1.2 The proposed layout plans of its Ground Floor and car park is shown in **Figure 2.1**.

2.1.3 As illustrated in **Figure 2.2**, the proposed run-in/out is located at Lo Wu Station Road.

2.2 Proposed Development

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

Table 2.1 Parameters of the Proposed Temporary Cold Storage for Poultry and Distribution Centre

Site Location	Lots 471 S.B RP (Part), 472, 473, 474, 475, 476, 483, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and Adjoining Government Land, Man Kam To Road, Sha Ling, New Territories
Proposed development	Temporary Cold Storage for Poultry and Distribution Centre
Site Area	16,060 m^2
Proposed Plot Ratio	0.723
Site Coverage	56.94%
Nos. of Block & Storey	1 Block with 2 Storeys
Total Accountable GFA (m^2)	11,615 m^2

2.2.2 Details of proposed uses of the Temporary Cold Storage for Poultry and Distribution Centre are tabulated in **Table 2.2**.

Table 2.2 Proposed Uses of the Temporary Cold Storage for Poultry and Distribution Centre

Block	Proposed Uses of the Temporary Cold Storage for Poultry and Distribution Centre	GFA
Main Block	Proposed Use: Cold Storage Area & Ancillary Storage/ Office	10,509m^2
	Nos. of Storeys: 2	

2.2.3 The proposed development intends to ensure a smooth operation for handling the chilled poultry imported from the Mainland for daily consumption of Hong Kong. Goods vehicles from the Mainland will stop at subject site to unload the chilled poultry. Poultry will be stored temporarily at the subject site and delivered to different places in Hong Kong mainly by HGVs.

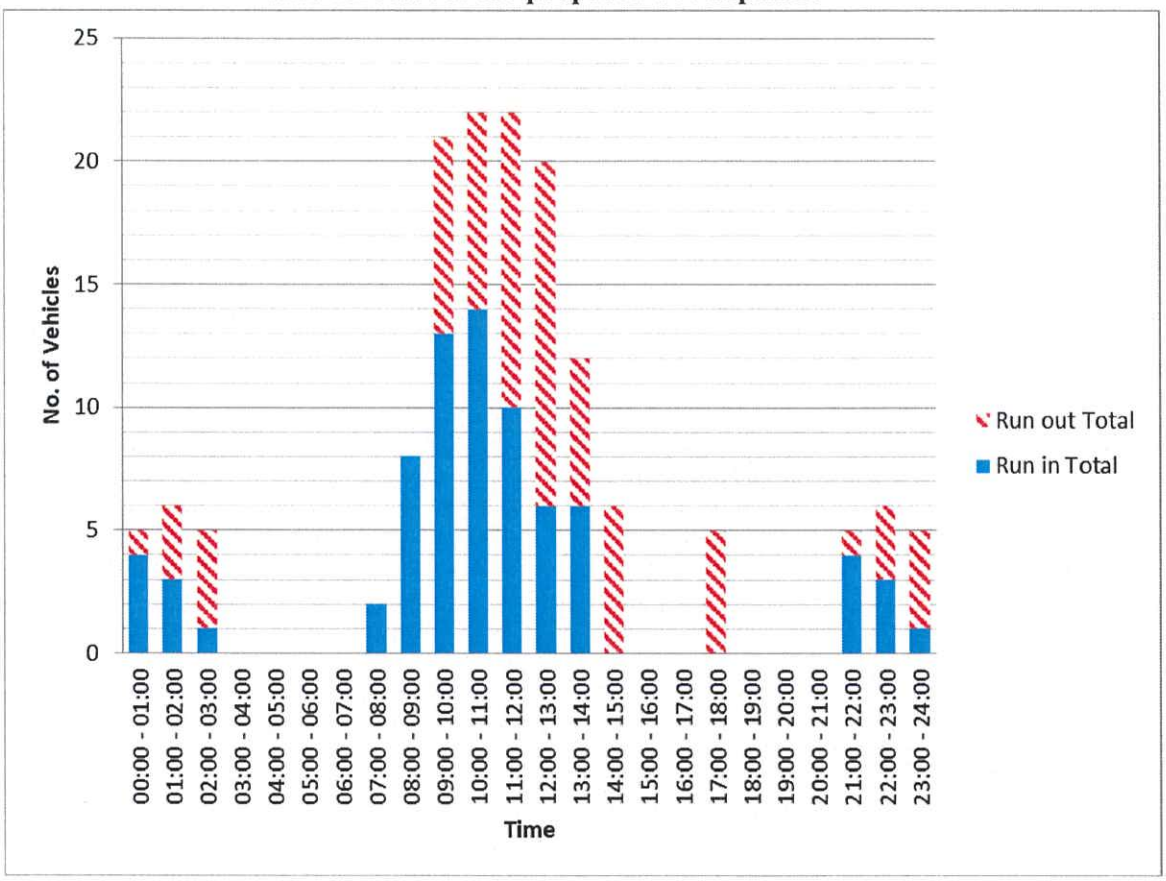
2.2.4 The proposed development will be operating 24 hours a day and 7 days per week on a year-round basis. The major operating hours are 9am – 8pm and 11pm – 3am.

2.3 Provision of Internal Transport Facilities

2.3.1 Due to the fact that requirements of provision of internal transport facilities for temporary cold storage for poultry and distribution centre are not specified in the latest Hong Kong Planning Standards and Guidelines (HKPSG), provision of internal transport facilities is estimated based on traffic forecast provided by the operator.

2.3.2 According to the data given by the applicant, **Table 2.3** shows the traffic forecast of proposed development.

Table 2.3 Traffic forecast of the proposed development



2.3.3 Referring to **Table 2.3**, the maximum number of vehicles stationed at the proposed development is 22, which takes place during 10:00 – 11:00.

2.3.4 According to the information provided by the main operator "Hong Kong Chilled Meat & Poultry Association", the operation of the proposed development will involve approximately 350,000 poultries to be delivered to the site daily and then distributed to different retailors accordingly.

2.3.5 The incoming poultries will be mainly delivered by containers and HGVs while the distribution of poultries to different retailors will be mainly by HGVs. The capacities of the truck load for containers and HGVs are summarized in **Table 2.4**.

Table 2.4 Capacity of Truck Load for Containers and HGVs

Type	Capacity per Truck(1)
Container	15,000 poultry
HGV	10,000 poultry

Note: (1) Reference has been made to information provided by the "Hong Kong Chilled Meat & Poultry Association".

2.3.6 According to the information provided by the main operator "Hong Kong Chilled Meat & Poultry Association", the number of times for trucks going into and out of the site is anticipated to be 75 each as shown in **Table 2.3**, to deliver approximately 350,000 poultries to the site daily. The estimated daily use of 75 trucks (i.e. assumed using HGV) could handle 750,000 poultries, the capacity will be sufficient and could even handle sudden surge of daily poultry demand.

2.3.7 **Table 2.5** below shows the total number of loading/ unloading bays and parking spaces in the development site, which is showing a surplus and the proposed provision is satisfying the peak demand.

Table 2.5 Provision of Internal Transport Facilities

Type		Numbers	Diementions
No. of Loading/ Unloading Bays	HGVs	22	11m(L)*3.5m(W)
	Containers	8	16m(L)*3.5m(W)
No. of Parking Spaces		7 (Including 1 disabled carparking space)	5m(L)*2.5m(W) / 5m(L)*3.5m(W) (1 disabled carparking space)
No. of Motorcycle Spaces		2	2.4m(L)*1m(W)
Total		**39**	-

2.3.8 Swept Path analysis has also been conducted on the Loading/Unloading Bays arrangement as shown in **Figures SP-01 and SP-02**. The result shows that goods vehicle can maneuver into and out of the bay seamlessly without conflicting other bay users.

2.4 Proposed Access Arrangement

2.4.1 The proposed vehicular and pedestrian accesses are shown in **Figure 2.2**.

2.4.2 Swept Path analysis has also been conducted on the proposed access arrangement as shown in **Figure SP-01.** The result shows that the entering traffic will not conflict with the exiting traffic. The access is also necessary to be 10m and 14m wide to avoid exiting vehicles running on the footpath.

2.4.3 To improve the safety for pedestrian at the site access, additional road markings and road signs have been proposed to alert the drivers and pedestrians, encourage them to proceed in a causation manner at site access.

2.4.4 As shown in **Figure 2.3**, revolving lanterns with sound will be provided at the vehicular access to alert pedestrian when there are vehicles passing through the vehicular access.

2.4.5 Considering that there are children and elderly living in Sha Ling village, traffic wardens will assist at the vehicular access especially during peak hour time when needed to ensure pedestrian safety when crossing the ingress/egress.

2.4.6 Directional road marking is being proposed to ensure that all drivers follow the proposed traffic arrangement at site access to avoid confusion at site entrance as shown in **Figure 2.3**.

2.4.7 The location of the site access is highly restricted by the existence of the box culvert on the west. The access also has to keep a distance from the junction on the east. Therefore, the proposed location is considered to be the only feasible location for site access as shown in **Figure 2.4**.

2.4.8 It is observed that vehicles driving out from the House 60/61 will stop at the junction with Lo Wu Station Road and view both sides carefully due to the level difference. Based on the sightline assessment (as shown in **Figure 2.5**), it is revealed that adequate visibility could still be provided for vehicles driving out from House 60/61 and will not be affected by the proposed development and its vehicular access.

2.4.9 In view of the existing street furniture, including beam barrier and type II railing, will be obstructed by the proposed ingress and egress at Lo Wu Station Road, modification works of existing street furniture for vehicular access is proposed and shown in **Figure 2.6**.

3 EXISTING TRAFFIC CONDITION

3.1 Existing Road Network

3.1.1 Man Kam To Road is located to the East of the application site. It is a rural road which provides major access for traffic commuting to/from Man Kam To Control Point and other areas of NE New Territories. It connects to Lin Ma Hang Road and Jockey Club Road at its both ends.

3.1.2 Lo Wu Station Road is located to the south of the application site. It is a rural road which provides access for traffic commuting to/from the Lo Wu Boundary Control Point.

3.2 Critical Junctions

3.2.1 Eight junctions are identified to be critical for the Traffic Impact Assessment due to the proposed development. Relevant details are listed in **Table 3.1** and shown in **Figure 3.1**. Existing junction layouts and corresponding method-of-control are tabulated in **Figures 3.2** to **Figure 3.9** respectively.

Table 3.1 Identified Critical Junctions

Ref.	Junction	Type	Figure No.
A	Lin Ma Hang Road / Man Kam To Road	Priority	3.2
B	Sha Leng Road/ Man Kam To Road	Priority	3.3
C	Lo Wu Station Road/ Man Kam To Road	Priority	3.4
D	Fu Tei Au Road / Man Kam To Road	Signalized	3.5
E	Po Wan Road/ Man Kam To Road	Signalized	3.6
F	Tin Ping Road/ Jockey Club Road	Signalized	3.7
G	Jockey Club Road/ Po Shek Wu Road	Roundabout	3.8
RC	Po Shek Wu Road/Fanling Highway	Roundabout	3.9

3.2.2 This planning application was first submitted in 2022. Traffic survey in the form of manual classified count was conducted on a typical weekday during AM and PM peak periods from 7:00am to 9:00am and 5:00pm to 7:00pm in 2021. It is noted that the traffic survey was within the outbreak of COVID-19. We have carried out a comparison of traffic flows for 2021 with in-house same available junction based in 2018 and summarized in **Table 3.2**.

Table 3.2 Comparison of 2018-based and 2021-based Traffic Flows for In-house Available Junction

Ref.	Junction	Peak	Total Traffic Flows			
			2021 [A]	2018 [B]	2021 (2018-based) [C] = [B] x (1+1.83%)$^{(2021-2018)}$	Result
RC	Po Shek Wu Road Interchange (Tai Tau Leng Roundabout)	AM Peak	4,920	4,720	4,985	[C]>[A], i.e.2018-based traffic flow is higher.
		PM Peak	4,715	4,920	5,195	

*Note: (1) Refer to **Section 4.2**.*

3.2.3 It is considered that the traffic survey data from year 2018 in which there is no public events, no school suspension/holiday and no-work-from-home arrangement can reflect the normal traffic condition. Hence, the existing traffic flow of critical junctions has been derived from the traffic survey data from year 2018 with appropriate growth factor applied. A **+1.83%** p.a. growth rate (detailed in **Section 4.2**) is applied to the 2018 surveyed traffic flow to estimate the 2023 existing traffic flow. The existing traffic flows are presented in **Figure 3.10 (Rev A)**.

3.2.4 Existing operational performance of the critical junctions are listed in **Table 3.3** and the junction calculation sheets are attached in **Appendix A**.

Table 3.3 Existing Operational Performance of Critical Junctions in 2023

Ref.	Junction	Method of Control	Year 2023 DFC/RC (1)	
			AM Peak	PM Peak
A	Lin Ma Hang Road / Man Kam To Road	Priority	0.75	0.78
B	Sha Leng Road/ Man Kam To Road	Priority	0.24	0.12
C	Lo Wu Station Road/ Man Kam To Road	Priority	0.25	0.16
D	Fu Tei Au Road / Man Kam To Road	Signalized	40%	35%
E	Po Wan Road/ Man Kam To Road	Signalized	82%	82%
F	Tin Ping Road/ Jockey Club Road	Signalized	85%	66%
G	Jockey Club Road/ Po Shek Wu Road	Roundabout	0.39	0.5
RC	Po Shek Wu Road Interchange (Tai Tau Leng Roundabout)	Roundabout	0.83	0.77

Note: (1) DFC = Design Ratio of Flow to Capacity for Priority Junction/Roundabout
RC = Reserve Capacity for Signalized Junction

3.2.5 The assessment results in **Table 3.3** indicate that all critical junctions are at present operating with ample capacities during the peak hours.

3.3 Public Transport Services in the Vicinity

3.3.1 While Lo Wu MTR Station is close to the application site, it is not accessible as the station is located inside the restricted zone.

3.3.2 Moreover, limited road-based public transport services are provided in vicinity of the proposed development. Details of the current services of franchised buses and GMB routes within the catchment area of 500 meters are listed in **Table 3.4**.

Table 3.4 Public Transport Services in the Vicinity of the Proposed Temporary Cold Storage for Poultry and Distribution Centre

Type	Route	Destination	Frequency (mins)
Franchised Bus	73K	Sheung Shui – Man Kam To	10 - 30
GMB	59K	Sheung Shui Station – Lin Ma Hang	30

3.4 Existing Public Transport Demand

3.4.1 Public transport survey has been conducted at Lo Wu Station Road bus stop (both bounds) to study the demand of public transport services in vicinity during peak hours. The results are detailed in below **Table 3.5**.

Table 3.5 Demand of Public Transport Services in Vicinity

	GMB 59K To Sheung Shui	GMB 59K To Lin Ma Hang	Bus 73K To Sheung Shui	Bus 73K To Man Kam To Road
AM Peak (0730-0830)				
Nos. of Services	1	2	3	3
Average headway (min)	60	30	20	20
Total Capacity (pax/hour)	19	38	243	243
Total nos. of Passengers on Board	19	37	94	37
Average Occupancy (%)	100.00%	97.37%	38.68%	15.23%
PM Peak (1700-1800)				
Nos. of Services	3	3	4	4
Average headway (min)	20	20	15	15
Total Capacity (pax/hour)	54	54	324	324
Total nos. of Passengers on Board	45	43	89	50
Average Occupancy (%)	83.33%	79.63%	27.47%	15.43%

4 FUTURE TRAFFIC CONDITION & TRAFFIC IMPACT ASSESSMENT

4.1 Design Year

4.1.1 It is anticipated that the proposed Temporary Cold Storage for Poultry and Distribution Centre will be operated in year 2024. In order to assess any related traffic impact incurred by the proposed development on the local road network, year 2027 (i.e. 3 years after the planned commencement year of the proposed Temporary Cold Storage for Poultry and Distribution Centre) is adopted as the design year for this study.

4.2 Traffic Forecast

4.2.1 To estimate the reference traffic flow in year 2027 (without the proposed Temporary Cold Storage for Poultry and Distribution Centre) in the local road network, an appropriate growth factor has to be identified for the area in the first instance. The following approaches have been adopted to derive the growth factor for the Area of Influence.

Historical Trend

4.2.2 Numerous traffic-count stations are located in the vicinity of the proposed development. The traffic counts reported in the Annual Traffic Census (ATC), which is published by Transport Department, over a period of eight years, i.e. 2011 to 2018 are summarized in **Table 4.1**.

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

Road Name	ATC Stn	From	To	Annual Average Daily Traffic (AADT)								Avg. Annual Growth 2011-2018 (%)
				2011	2012	2013	2014	2015	2016	2017	2018	
Jockey Club Road	5218	Po Shek Wu Road	Man Kam To Road	21,020	20,820	21,550	20,860	21,830	23,060	22,890	24,520	2.22%
Man Kam To Road	5465	Jockey Club Road	Boundary	15,920	15,830	15,960	15,660	16,310	16,990	16,720	17,130	1.05%
Po Wan Road	5865	Chuk Wan Road	Jockey Club Road	2,530	2,440	2,460	2,440	2,420	3,140	3,090	3,170	3.27%
Total				**39,470**	**39,090**	**39,970**	**38,960**	**40,560**	**43,190**	**42,700**	**44,820**	**+1.83%**

Note:
1. Due to the social movement activity and Covid-19, data for year 2019 and 2020 are considered not accurate and not included.

Planning Data

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

Table 4.2 2019-Based Planning Data from 2019 to 2031

Planning Data District	Population			Avg. Annual Growth Rate	Employment			Avg. Annual Growth Rate
	2019	2026	2031		2019	2026	2031	
NORTHEAST NEW TERRITORIES (Rural Area)	105,400	143,050	240,600	**7.12%**	36,050	38,300	65,550	**5.11%**

4.2.4 A.A.D.T. of ATC indicates that the traffic flow of the local road network has an average annual growth rate of 1.83% from year 2011 to year 2018.

4.2.5 Whilst, the planning data indicates that the population and employment of the study area are expected to grow with an average annual growth rate of +7.12% and +5.11% respectively from 2019 to 2031.

4.2.6 The traffic flows of selected critical junctions for assessment are mainly dominant by the traffic on Man Kam To Road. Traffic on Man Kam To Road is mainly contributed by Cross-Border vehicles and sites along both sides of it. Hence it is revealed that the ATC is more accurate than the planning data in terms of reflecting the actual changes in Cross-Border traffic. Moreover, the selected planning data, NORTHEAST NEW TERRITORIES (Rural Area) district covers a large extent of NENT including some major new developments which are far away from our development (e.g. Queen's Hill) and their trip generation would be insignificant and would not induce any traffic impact on those selected critical junctions for our assessment. Furthermore, it is anticipated that portion of Cross Border traffic will divert from Man Kam To to Lin Tong control point (also via the Lung Shan Tunnel) when Lin Tong control point start to operate. It is believed that the traffic flow on Man Kam To Road will be reduced due to the introduction of new road networks.

4.2.7 Taking into account the above, the annual growth rate of **+1.83%** p.a. from ATC has been adopted in the traffic forecast for assessment. It is deemed sufficient to include any unexpected future growth as a result of any change related to land use or development in the local area.

4.3 Reference Traffic Flow in Year 2027

4.3.1 The year 2027 reference traffic flow is estimated by applying the adopted growth rate to the year 2023 existing traffic flow.

4.3.2 The 2027 reference traffic flows are presented in **Figure 4.1 (Rev A)**.

2027 Reference Flows (without proposed development) = **2023 Existing Flows** x **Adopted Growth Factor i.e. +1.83% p.a. for 4 years**

4.4 Traffic Trips of the Proposed Development

4.4.1 Owing to the fact that traffic rates of both generation and attraction for cold store and distribution centre are not specified in the latest Transport Planning & Design Manual (TPDM), the traffic trips are estimated by referring to applicants' data as elaborated in **Chapter 2**.

4.4.2 The forecasted peak traffic generation and attraction of the development took place between 10am and 12pm, which is different from the identified AM and PM peak hour (7:30am-8:30am; 5:30pm-6:30pm). However, as a conservative approach, the peak traffic generation and attraction will be used for the junction assessment for AM and PM peak hours.

4.4.3 Based on the information in **Table 2.3**, estimation of the peak traffic trips of the proposed Temporary Cold Storage for Poultry and Distribution Centre is tabulated in **Table 4.3**.

Table 4.3 Estimated Peak Traffic Trips of the Proposed Development

	Peak	
	Gen. (pcu/hr)	Att. (pcu/hr)
Proposed Temporary Cold Storage for Poultry and Distribution Centre(pcu/hr)	30	25
Total Trip (2-ways) (pcu/hr)	**55**	

4.4.4 It is anticipated that the proposed development would generate and attract 30 pcu/hr and 25 pcu/hr respectively during peak hours.

4.5 Traffic Forecast for Design Year 2027

4.5.1 The traffic trips of the proposed Temporary Cold Storage for Poultry and Distribution Centre is then superimposed onto the year 2027 reference traffic flow (without the proposed Temporary Cold Storage for Poultry and Distribution Centre) as illustrated in **Figure 4.2** to derive the year 2027 design traffic flow (with the proposed Temporary Cold Storage for Poultry and Distribution Centre).

Year 2027 Design Flow (with the proposed Temporary Cold Storage for Poultry and Distribution Centre)	=	**Year 2027 Reference Flow (without the proposed Temporary Cold Storage for Poultry and Distribution Centre)**	+	**Traffic Trips of the Proposed Temporary Cold Storage for Poultry and Distribution Centre**

4.5.2 The traffic flow during AM and PM peak periods in the design year 2027 (with the proposed Temporary Cold Storage for Poultry and Distribution Centre) are shown in **Figure 4.2 (Rev A)**.

4.6 Operational Assessment

4.6.1 To assess traffic impacts due to the proposed Temporary Cold Storage for Poultry and Distribution Centre, operational assessment of the critical junctions identified in **Chapter 3** are carried out for both reference (without the proposed Temporary Cold Storage for Poultry and Distribution Centre) and design (with the proposed Temporary Cold Storage for Poultry and Distribution Centre) scenarios in year 2027. The results are summarized in **Table 4.4** and the junction calculation sheets are attached in **Appendix A**.

Table 4.4 Operational Performance of Critical Junctions in Year 2027

Ref.	Junction	Method of Control	Year 2027 DFC/RC(1)			
			Reference Scenario (Without the Proposed Temporary Cold Storage for Poultry and Distribution Centre)		Design Scenario (With the Proposed Temporary Cold Storage for Poultry and Distribution Centre)	
			AM Peak	PM Peak	AM Peak	PM Peak
A	Lin Ma Hang Road / Man Kam To Road	Priority	0.81	0.85	0.81	0.85
B	Sha Leng Road/ Man Kam To Road	Priority	0.26	0.13	0.26	0.13
C	Lo Wu Station Road/ Man Kam To Road	Priority	0.31	0.17	0.36	0.22
D	Fu Tei Au Road / Man Kam To Road	Signalized	22%	17%	20%	16%
E	Po Wan Road/ Man Kam To Road	Signalized	69%	70%	68%	68%
F	Tin Ping Road/ Jockey Club Road	Signalized	70%	54%	69%	52%
G	Jockey Club Road/ Po Shek Wu Road	Roundabout	0.43	0.54	0.43	0.54
RC	Po Shek Wu Road Interchange (Tai Tau Leng Roundabout)	Roundabout	**0.9**	**0.85**	**0.9**	**0.85**

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

4.6.2 The assessment results in **Table 4.4** revealed that all critical junctions would still operate within their capacities in both reference scenario (without proposed development) and design scenario (with proposed development) in 2027 during the peak hours except the following junction:

- Po Shek Wu Road Interchange (Tai Tau Leng Roundabout) (RC)

4.6.3 As mentioned in **Section 4.4.2**, the peak traffic generation and attraction of the development took place between 10am and 12pm. The 2027 design traffic flows (with

proposed development) during peak hour has included the traffic generation and attractions of the proposed development for assessment as a conservative approach. It is anticipated that the proposed development would generate and attract 30 pcu/hr and 25 pcu/hr respectively during peak hours.

4.6.4 The peak traffic generated by the proposed development is small and would induce insignificant impact on the surrounding road network.

4.7 Public Transport Demand Assessment

4.7.1 According to the information provided by the applicant, the working hours and number of staff anticipated is detailed in below **Table 4.5** and the assessment result is demonstrated in **Table 4.6**:

Table 4.5 Information of Working Hours and Number of Staff

Type	Working Hour	Number of Staff
Officer	9am – 6pm	20
Distributor	24 hours (Divided into 3 shifts)	20 workers per shift

Table 4.6 Demand of Public Transport Services in Vicinity (With the Proposed Development)

	GMB 59K To Sheung Shui	GMB 59K To Lin Ma Hang	Bus 73K To Sheung Shui	Bus 73K To Man Kam To Road
AM Peak (0730-0830)				
Nos. of Services	1	2	3	3
Average headway (min)	60	30	20	20
Total Capacity (pax/hour)	19	38	243	243
Total nos. of Passengers on Board	19	37	114	77
Average Occupancy (%)	100.00%	97.37%	46.91%	31.69%
PM Peak (1700-1800)				
Nos. of Services	3	3	4	4
Average headway (min)	20	20	15	15
Total Capacity (pax/hour)	54	54	324	324
Total nos. of Passengers on Board	45	43	129	70
Average Occupancy (%)	83.33%	79.63%	39.81%	21.61%

4.7.2 According to the assessment results, the public transport services will still be operated with ample capacity after the commencement of the proposed development. It is considered that the impact on the existing public transport services from the proposed development is negligible.

4.7.3 Even though there is limited public transport available in the vicinity, the site was not intended to make accessible for the public. Goods vehicles will stop at the site for loading/ unloading the chilled poultry. Therefore, the limited provision of public transport services should not be a concern.

4.8 Critical Link Assessment

4.8.1 To assess traffic impacts due to the proposed Temporary Cold Storage for Poultry and Distribution Centre, operational assessment of the Man Kam To Road and Lo Wu Station Road are carried out and the results are shown below **Tables 4.8** and **4.10**:

Critical Section of Man Kam To Road at Junction C in year 2027 Design Scenario (Two-way):

Table 4.7 Man Kam To Road lane capacity

Man Kam To Road north bound capacity(1) (veh/hr)	Man Kam To Road south bound capacity(2) (veh/hr)	Capacity reduction due to high proportion of heavy vehicles(3) (veh/hr)	Man Kam To Road north bound Total capacity(4) (pcu/hr)	Man Kam To Road south bound Total capacity(4) (pcu/hr)
1,900	850	275	2,736	1,224

Notes:

(1) Reference has been made to the TPDM Volume 2 Chapter 2.4 Table 2.4.1.1 13.5m district distributor undivided carriageway one directional of flow.

(2) Reference has been made to the TPDM Volume 2 Chapter 2.4 Table 2.4.1.1 6.75m district distributor 2 lane carriageway one directional of flow.

(3) Reference has been made to the TPDM Volume 2 Chapter 2.4 Table 2.4.1.2. Site adjustment factor has been applied with reference to the survey result of the HV% , road condition and road side activities on Man Kam To Road.

(4) Reference has been made to the survey result. PCU factor of 1.6 has been derived from the result of the on-site traffic count survey which has been applied to the calculation of the Lane capacity

Lane capacity (pcu/hr) for Man Kam To Road North Bound

=Designed flow * (1- Reduction in design flow level)* pcu factor

=1900 * (1-10%) * 1.6

= 2763 (pcu/hr)

Lane capacity (pcu/hr) for Man Kam To Road South Bound

=Designed flow * (1- Reduction in design flow level)* pcu factor / No. of lanes

=1700 * (1-10%) * 1.6 /2

= 1224 (pcu/hr)

Table 4.8 V/C ratio of Man Kam To Road lane

Man Kam To Road	Demand Flow (pcu/hr)		Lane Capacity (pcu/hr)	V/C ratio	
	AM Peak	PM Peak		AM Peak	PM Peak
North Bound	935	750	2,736	0.35	0.28
South Bound	815	900	1,224	0.67	0.74

Critical Section of Lo Wu Station Road at Junction C in year 2027 Design Scenario (Two-way):

Table 4.9 Lo Wu Station Road lane capacity

Lo Wu Station Road capacity(1) (veh/hr)	Capacity reduction due to high proportion of heavy vehicles(2) (veh/hr)	Total capacity(3) (pcu/hr)
1,400	140	2,016

Note:

(1) Reference has been made to the TPDM Volume 2 Chapter 2.4 Table 2.4.1.1 6.75m district distributor 2 lane carriageway two directional of flow.

(2) Reference has been made to the TPDM Volume 2 Chapter 2.4 Table 2.4.1.2. Site adjustment factor has been applied with reference to the survey result of the HV%, road condition and road side activities on Lo Wu Station Road.

(3) Reference has been made to the survey result. PCU factor of 1.6 has been derived from the result of the on-site traffic count survey which has been applied to the calculation of the Lane capacity

Lane capacity (pcu/hr) for each side of Lo Wu Station Road

= Designed flow * (1- Reduction in design flow level)* pcu factor / No. of lanes

=1400 * (1-10%) * 1.6 /2

= 1008 (pcu/hr)

Table 4.10 V/C ratio of Lo Wu Station Road lane

Lo Wu Station Road	Demand Flow (pcu/hr)		Lane Capacity (pcu/hr)	V/C ratio	
	AM Peak	PM Peak		AM Peak	PM Peak
West Bound	105	70	1,008	0.10	0.07
East Bound	130	85	1,008	0.13	0.08

4.8.2 The result shows that even with the proposed development, Man Kam To Road and Lo Wu Station Road will still operate with ample capacity. The additional traffic trips related to the proposed Temporary Cold Storage for Poultry and Distribution Centre are considered insignificant and can be absorbed by the road network.

5 PEDESTRIAN ARRANGEMENT

5.1 Existing Footpath Within the Site Area

5.1.1 There are two existing footpaths located in the site area as shown in **Figure 5.1**. To deliver a more convenient pedestrian access with better walking environment, it is proposed to have a new footpath with entrance (approximately 210m in length), as shown in **Figure 5.2 (REV A)** and the pedestrian routing (approximately 400m in length) for bus stop as shown in **Figure 5.3**.

5.1.2 Pedestrian flow assessment of the uncontrolled cautionary crossing at Lo Wu Station Road is summarized in **Table 5.1 & 5.2**.

Table 5.1 Assessment at Pedestrian Crossing

Pedestrian Crossing	Direction	Width	Observed Flow		Capacity	V/C ratio%	
			AM	PM		AM	PM
Lo Wu Station Road	2-ways	2.9m	5	5	1500(1)	1%	1%

Note:

(1) Reference to TPDM Volume2, Chapter 3.7 Table 3.7.2.1

Table 5.2 Assessment at Pedestrian Crossing (With Proposed Development)

Pedestrian Crossing	Direction	Width	Observed Flow		Capacity	V/C ratio%	
			AM	PM		AM	PM
Lo Wu Station Road	2-ways	2.9m	45	25	1500(1)	3%	2%

Note:

(1) Reference to TPDM Volume2, Chapter 3.7 Table 3.7.2.1

5.1.3 Based on the assessment results, the concerned crossing will still operate with amble capacity after the introduction of the proposed development. Moreover, the traffic flow at Lo Wu Station Road is considered to be insignificant, the impact on the Lo Wu Station Road from the additional pedestrian is considered to be negligible.

6 SUMMARY AND CONCLUSION

6.1 Summary

6.1.1 The applicant is re-submit a Section 16 Planning Application for proposed temporary cold storage for poultry and distribution centre for a period of 3 years with filling of land at Various Lots in D.D. 89 and adjoining government land, Man Kam To Road, Sha Ling, New Territories for the approval of Town Planning Board (TPB). The proposed of use is the same with the previous approved application (No. A/NE-FTA/201) but with some major modifications proposed to the approved application..

6.1.2 In support of the aforesaid application, a traffic impact assessment is required to review and appraise any possible traffic impact induced by the proposed development on the adjacent road network.

6.1.3 In order to study the existing traffic condition of the above critical junctions, traffic flow has been derived from the Traffic Consultant's year 2018 in-house traffic survey data with appropriate growth factor applied.

6.1.4 It is anticipated that the proposed Temporary Cold Storage for Poultry and Distribution Centre will be operated in year 2024. In order to assess any related traffic impact incurred by the proposed development on the local road network, year 2027 (i.e. 3 years after the planned commencement year of the proposed Temporary Cold Storage for Poultry and Distribution Centre) is adopted as the design year for this study.

6.1.5 By conservative approach, the annual growth rate of +1.83% p.a. is adopted in the traffic forecast for further assessment. It is deemed sufficient to include any unexpected future growth as a result of any change related to land use or development in the local area.

6.1.6 The assessment results revealed that all critical junctions would still operate within their capacities in both reference scenario (without proposed development) and design scenario (with proposed development) in 2027 during the peak hours except the following junction:

- Po Shek Wu Road Interchange (Tai Tau Leng Roundabout) (RC)

6.1.7 The peak traffic generation and attraction of the development took place between 10am and 12pm. The 2027 design traffic flows (with proposed development) during peak hour has included the traffic generation and attractions of the proposed development for assessment as a conservative approach. It is anticipated that the proposed development would generate and attract 30 pcu/hr and 25 pcu/hr respectively during peak hours.

6.1.8 The peak traffic generated by the proposed development is small and would induce insignificant impact on the surrounding road network.

6.1.9 There are two existing footpaths located in the site area. To deliver a more convenient pedestrian access with better walking environment, it is proposed to have a new footpath. The proposed footpath will be 5m wide along the western site boundary. Replacing the old footpath.

6.1.10 Pedestrian flow assessment was conducted at the uncontrolled cautionary crossing at Lo Wu Station Road. The assessment results indicated that the concerned crossing will still operate with amble capacity after the introduction of the proposed development.

6.2 Conclusion

6.2.1 In conclusion, this TIA has demonstrated that the traffic generated by the proposed development would induce insignificant impacts on the surrounding road network.

6.2.2 Therefore, the proposed development is considered acceptable and supported in traffic engineering point of view.

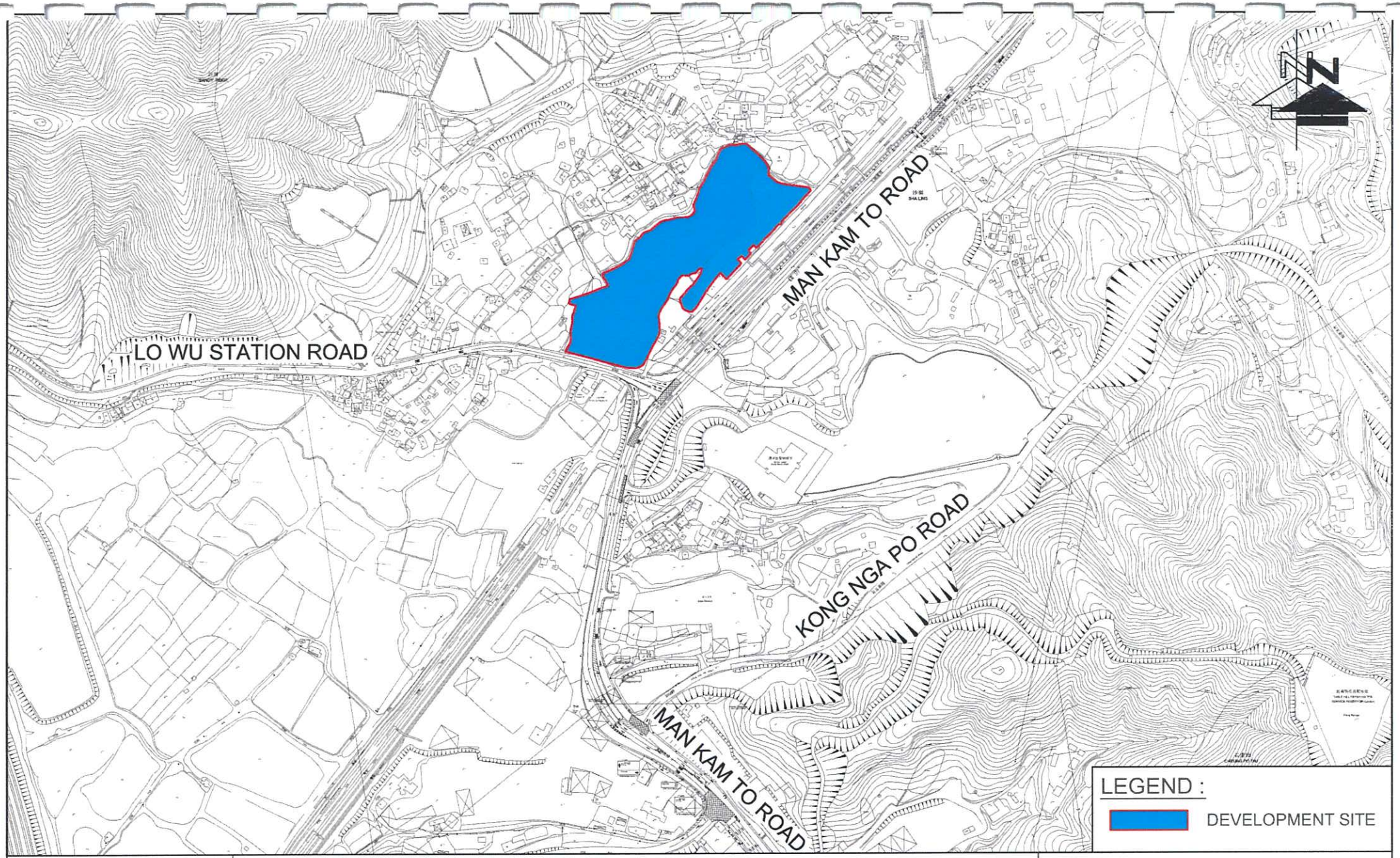


FIGURE NO.: 1.1		PROJECT TITLE:	Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years and Filling of Land for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475,476, 482Rp, 483, 484, 486, 487RP, 497S.A.R.P., 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sha Ling, New Territories
PROJECT NO.: 21148HK		DRAWING TITLE:	
SCALE: 1 : 5000 @A4	DATE: October 2024		

C&K Land Management Company Limited

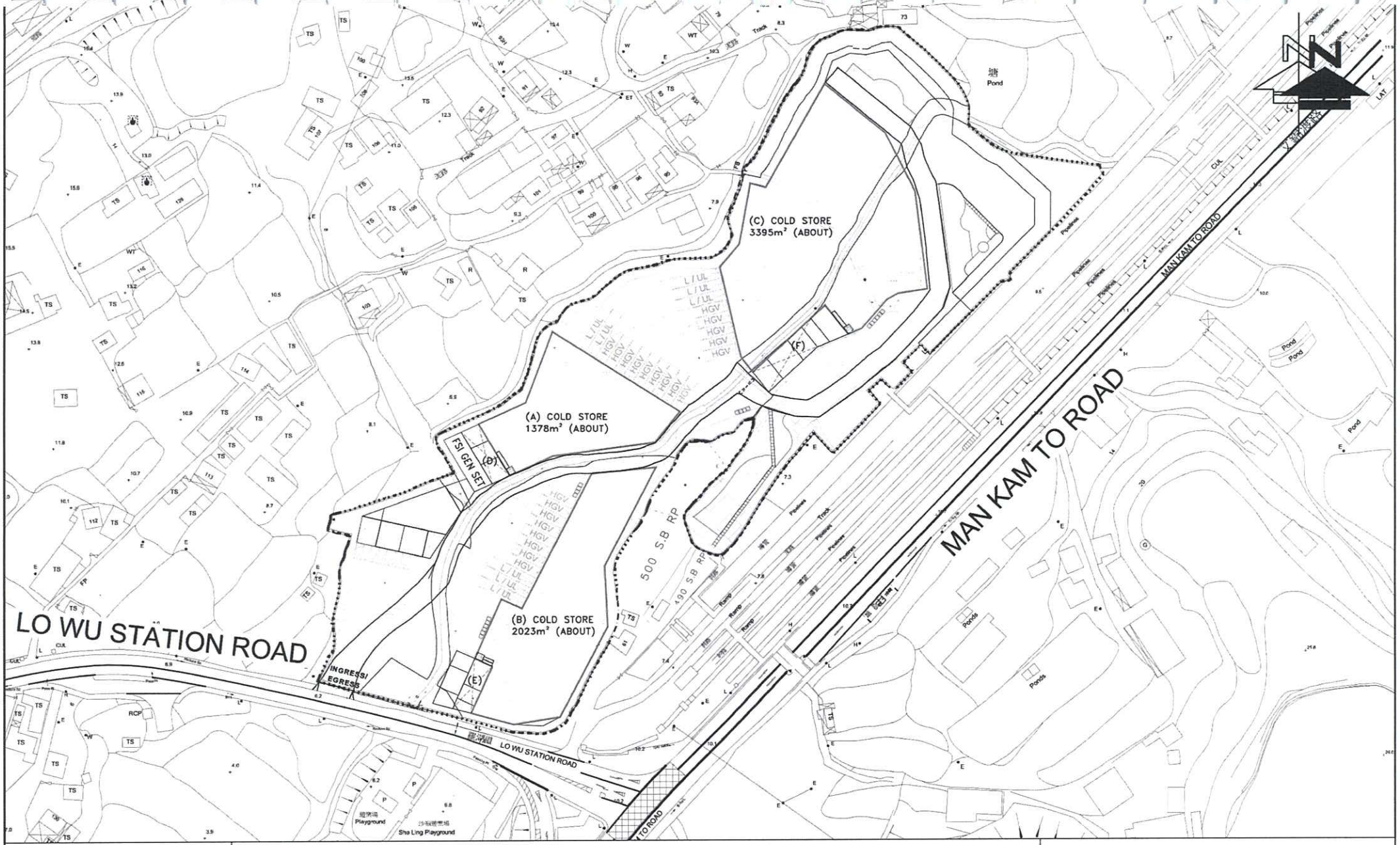


FIGURE NO.: 2.1		PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years and Filling of Land for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475,476, 482Rp, 483, 484, 486, 487RP, 497S.A.R.P., 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sha Ling, New Territories	C&K Land Management Company Limited
PROJECT NO.: 21148HK		DRAWING TITLE:	
SCALE: 1 : 1600 @A4	DATE: October 2024		

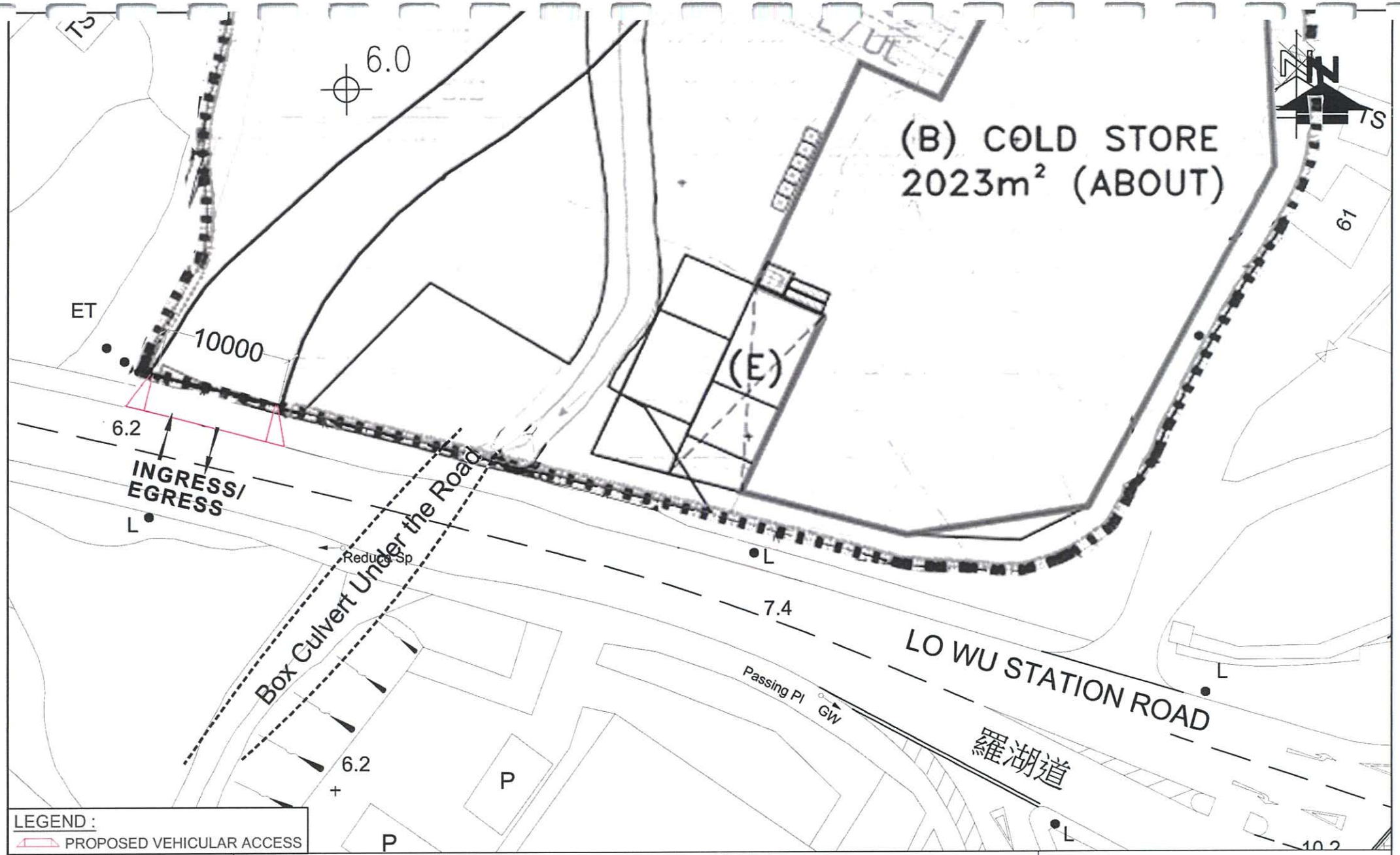


FIGURE NO.: 2.2		PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years and Filling of Land for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475,476, 482Rp, 483, 484, 486, 487RP, 497S.A.R.P., 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sha Ling, New Territories	C&K Land Management Company Limited
PROJECT NO.: 21148HK		DRAWING TITLE:	
SCALE: 1 : 400 @A4	DATE: October 2024		

FIGURE NO.: SP-02	PROJECT TITLE:	Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years and Filling of Land for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475,476, 482Rp, 483, 484, 486, 487RP, 497S.A.R.P., 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sha Ling, New Territories
PROJECT NO.: 21148HK	DRAWING TITLE:	
SCALE: 1 : 1000 @A4 / DATE: October 2024		C&K Land Management Company Limited

FIGURE NO.: SP-01	PROJECT TITLE:	Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years and Filling of Land for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475,476, 482Rp, 483, 484, 486, 487RP, 497S.A.R.P., 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sha Ling, New Territories
PROJECT NO.: 21148HK	DRAWING TITLE:	
SCALE: 1 : 1000 @A4 / DATE: October 2024		

C&K Land Management Company Limited

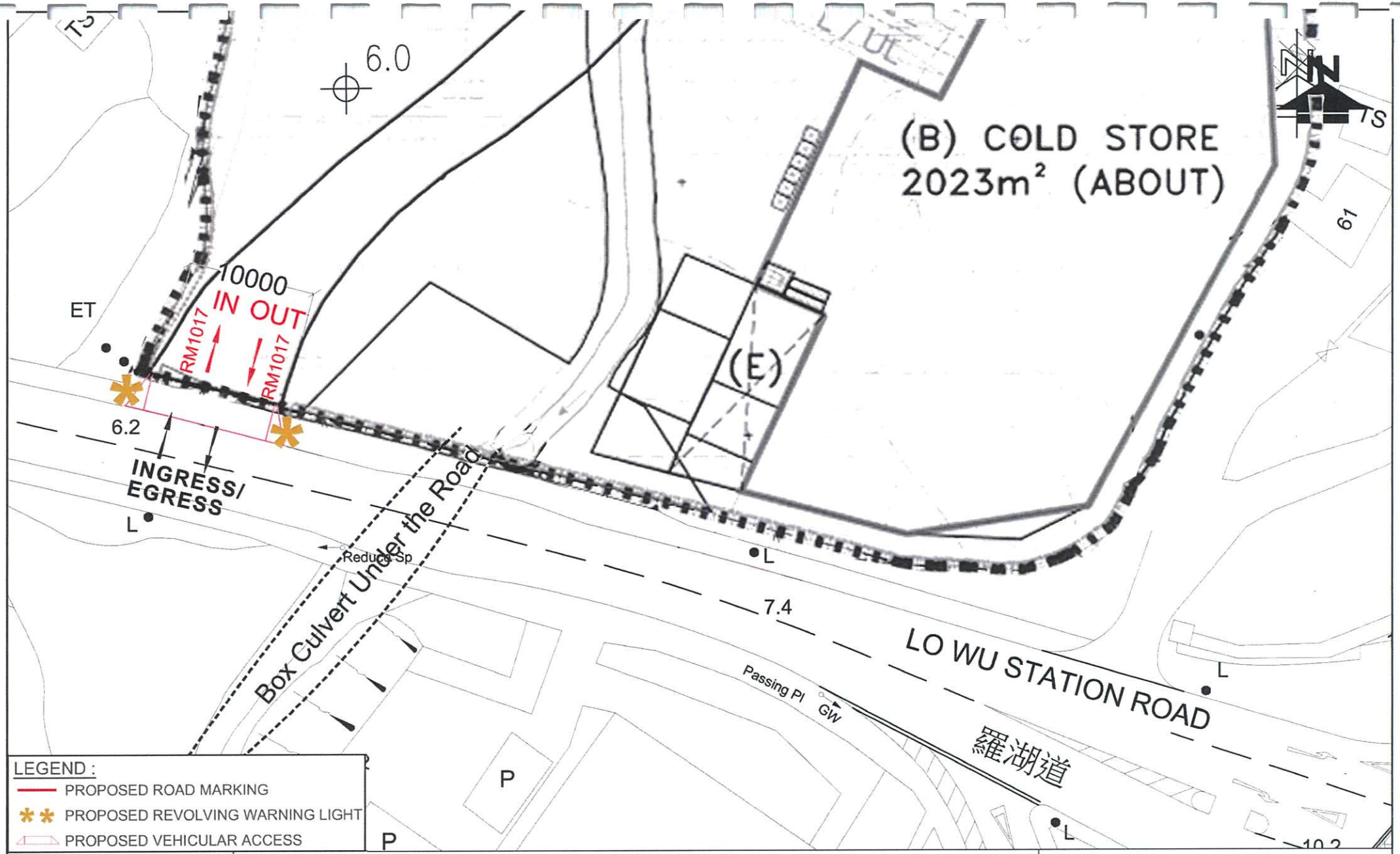


FIGURE NO.: 2.3	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years and Filling of Land for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475,476, 482Rp, 483, 484, 486, 487RP, 497S.A.R.P., 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sha Ling, New Territories	C&K Land Management Company Limited
PROJECT NO.: 21148HK	DRAWING TITLE:	
SCALE: 1 : 400 @A4 / DATE: October 2024		

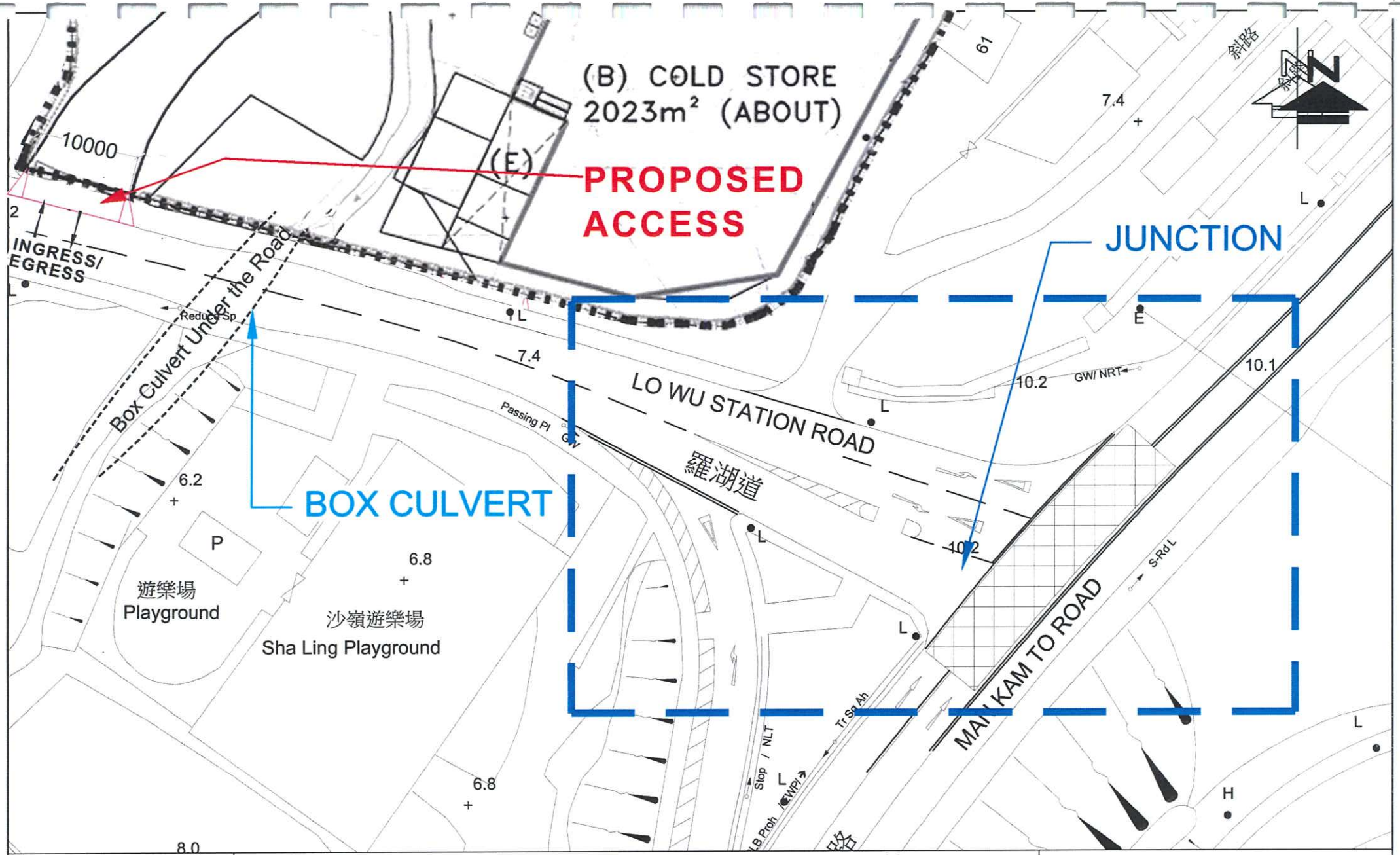


FIGURE NO.: 2.4	PROJECT TITLE:	Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years and Filling of Land for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475,476, 482Rp, 483, 484, 486, 487RP, 497S.A.R.P., 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sha Ling, New Territories	C&K Land Management Company Limited
PROJECT NO.: 21148HK	DRAWING TITLE:		
SCALE: 1 : 500 @A4 / DATE: October 2024			

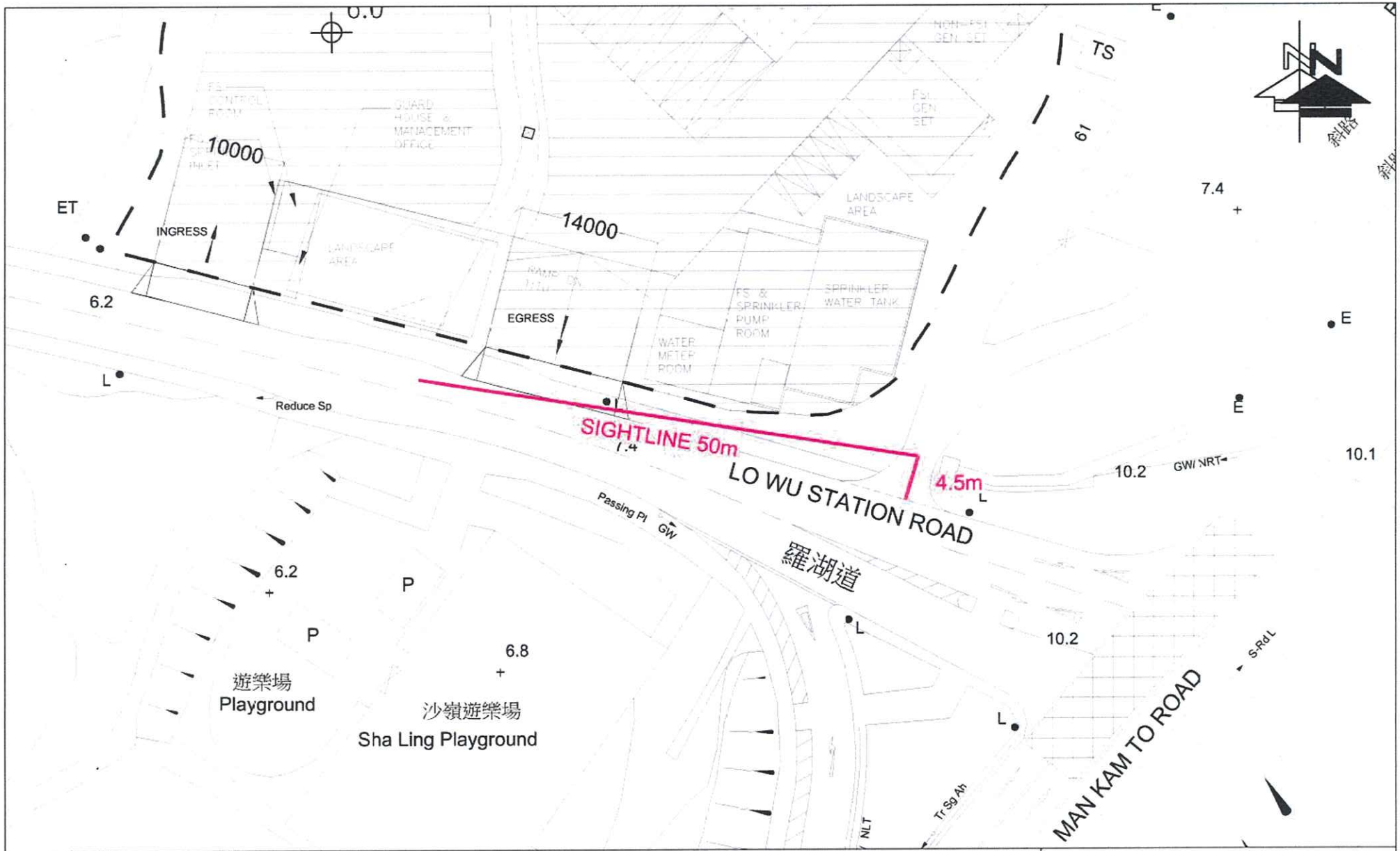
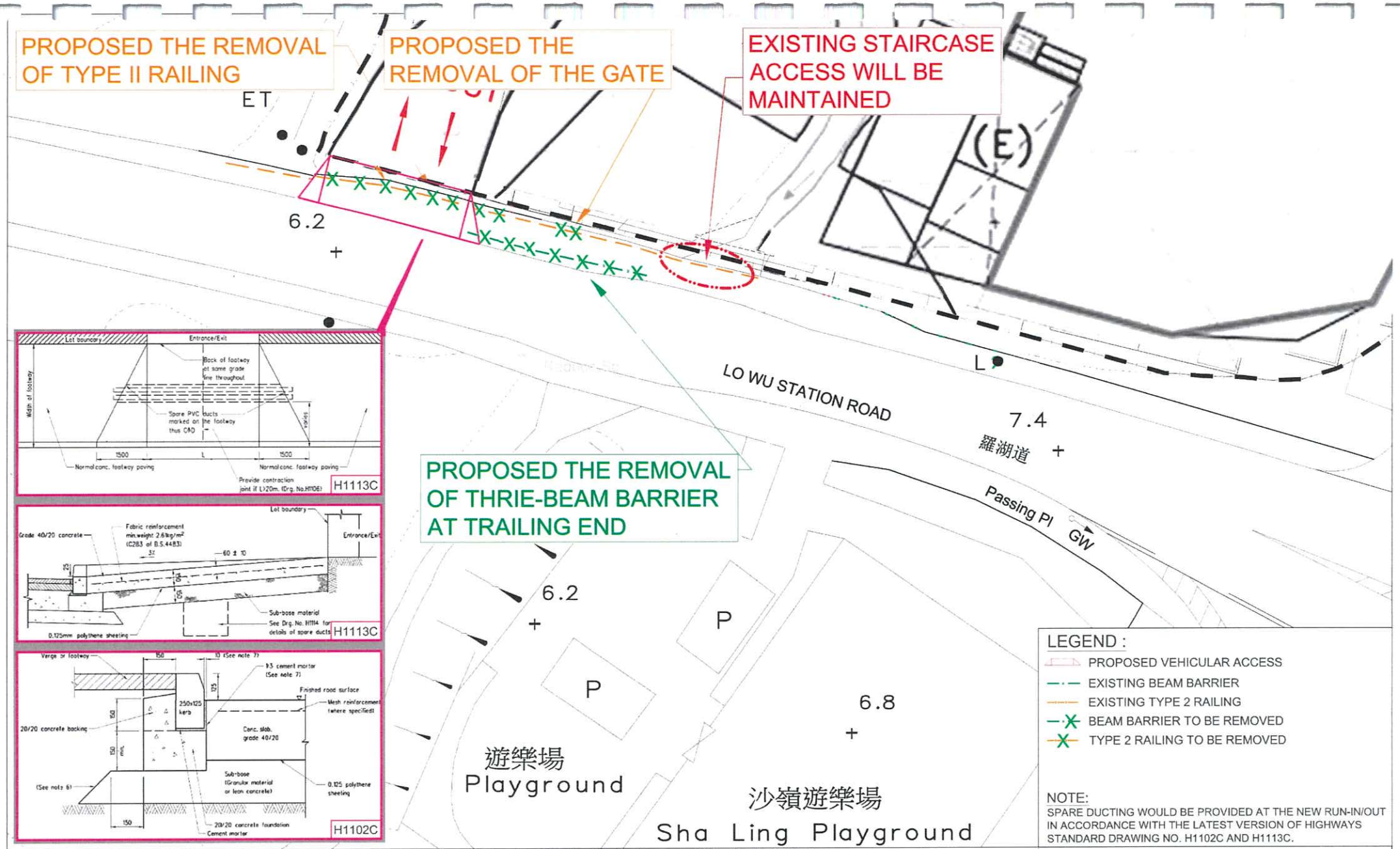


FIGURE NO.: 2.5	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 483, 501, 502, 504 S.B, 505 and 506 S.B RP* in D.D. 89 and adjoining Government Land, Man Kam To Road Sandy Ridge, New Territories	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 21148HK	DRAWING TITLE: SIGHTLINE ASSESSMENT AT ACCESS ROAD OF HOUSE 60/61	
SCALE: 1 : 500 @A4 / DATE: 02 AUG 2023		



NOTE:
SPARE DUCTING WOULD BE PROVIDED AT THE NEW RUN-IN/OUT IN ACCORDANCE WITH THE LATEST VERSION OF HIGHWAYS STANDARD DRAWING NO. H1102C AND H1113C.

FIGURE NO.: 2.6	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years and Filling of Land for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475,476, 482Rp, 483, 484, 486, 487RP, 497S.A.R.P., 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sha Ling, New Territories	C&K Land Management Company Limited
PROJECT NO.: 21148HK	DRAWING TITLE: MODIFICATION WORKS OF EXISTING STREET FURNITURE FOR VEHICULAR ACCESS	
SCALE: 1 : 250 @A3 / DATE: October 2024		

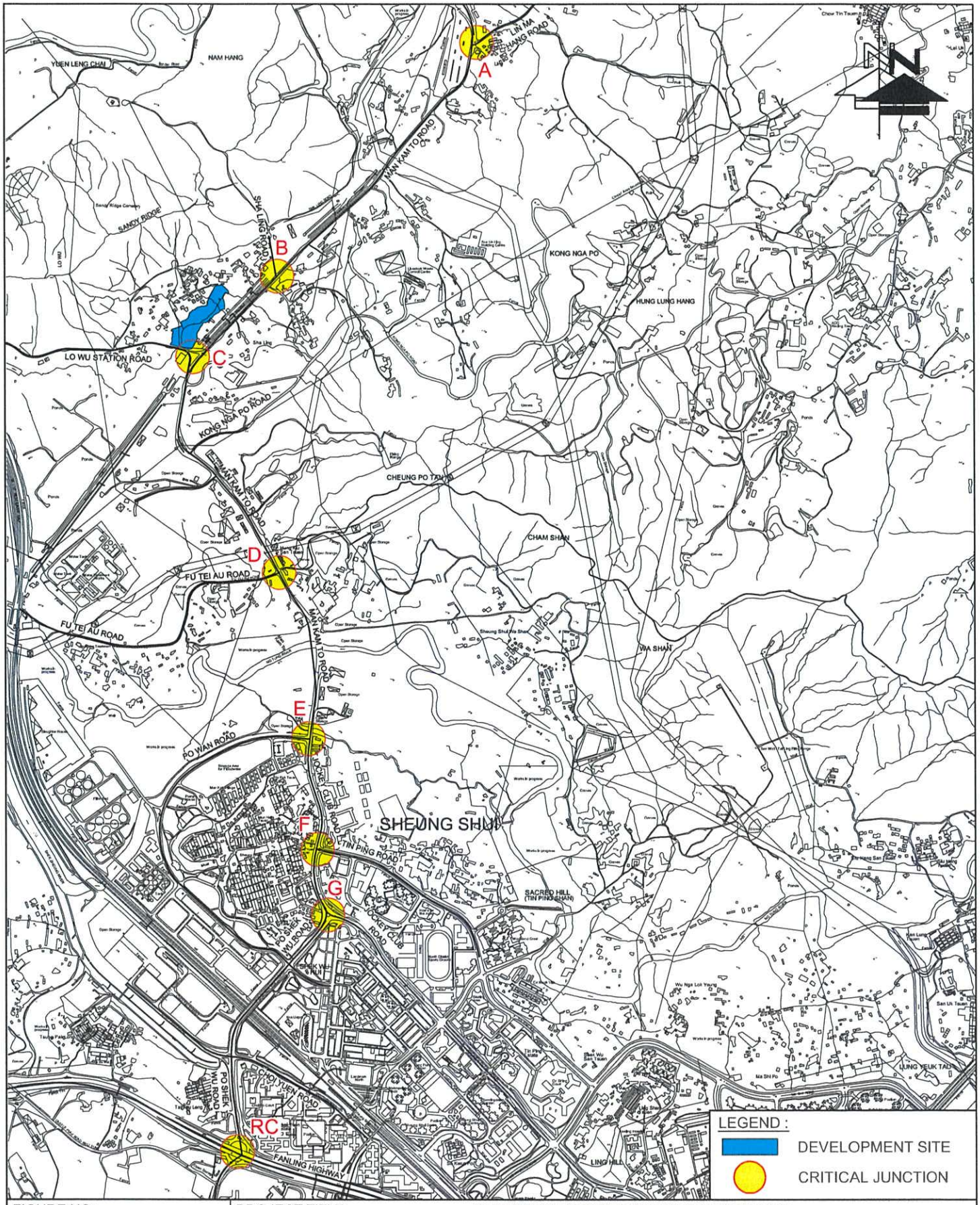


FIGURE NO.: 3.1	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 483, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sandy Ridge, New Territories	
PROJECT NO.: 21148HK	DRAWING TITLE: IDENTIFIED CRITICAL JUNCTIONS AND EXISTING ROAD NETWORK	CTA Consultants Limited 志達顧問有限公司
SCALE: 1 : 17000 @A4 / DATE: 25 JUL 2022		

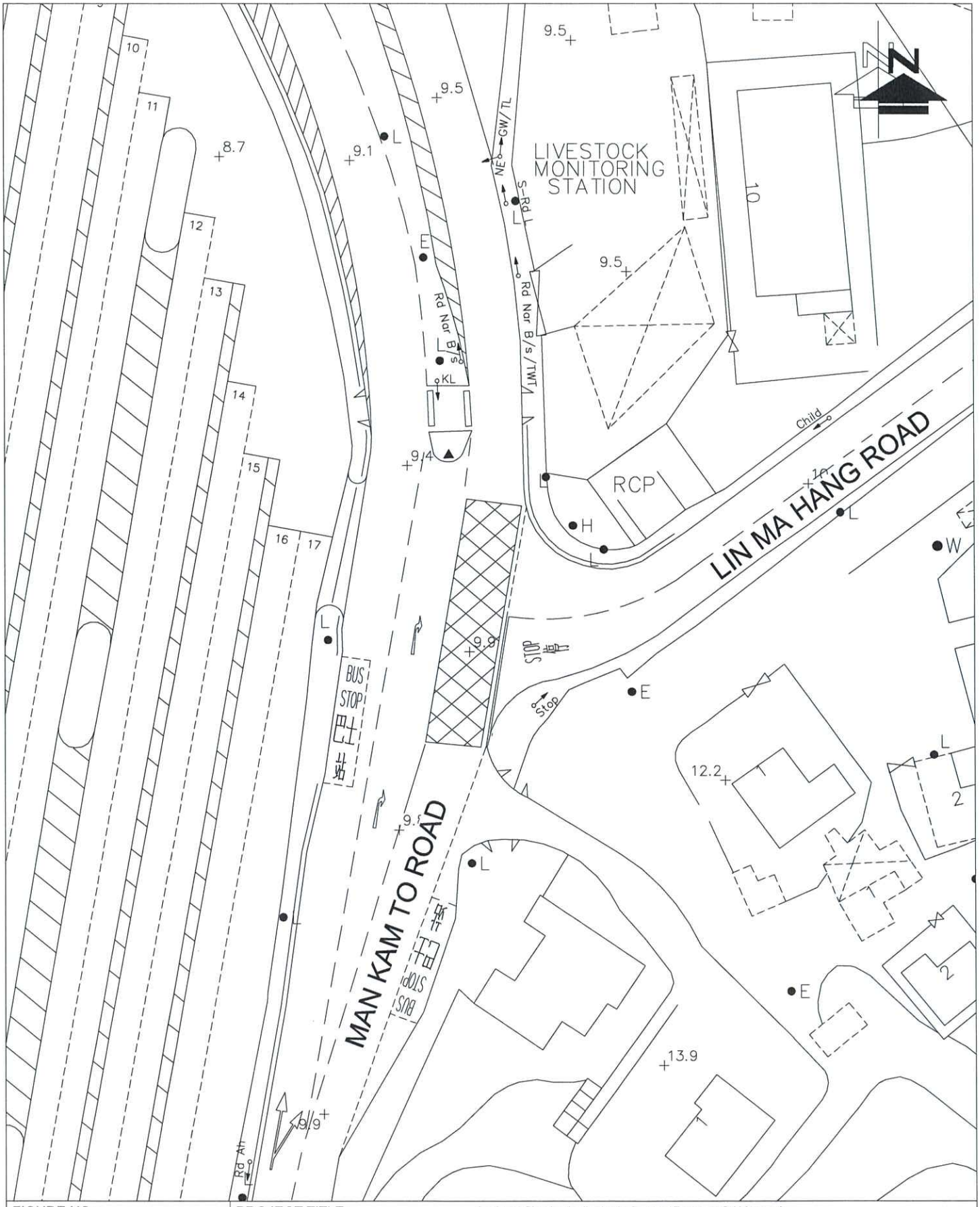


FIGURE NO.: 3.2	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 482 RP, 483, 484, 487 RP, 497 S.A RP, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sandy Ridge, New Territories	
PROJECT NO.: 21148HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF MAN KAM TO ROAD / LIN MA HANG ROAD (A)	CTA Consultants Limited 志達顧問有限公司
SCALE: 1 : 500 @A4 / DATE: 14 JAN 2022		

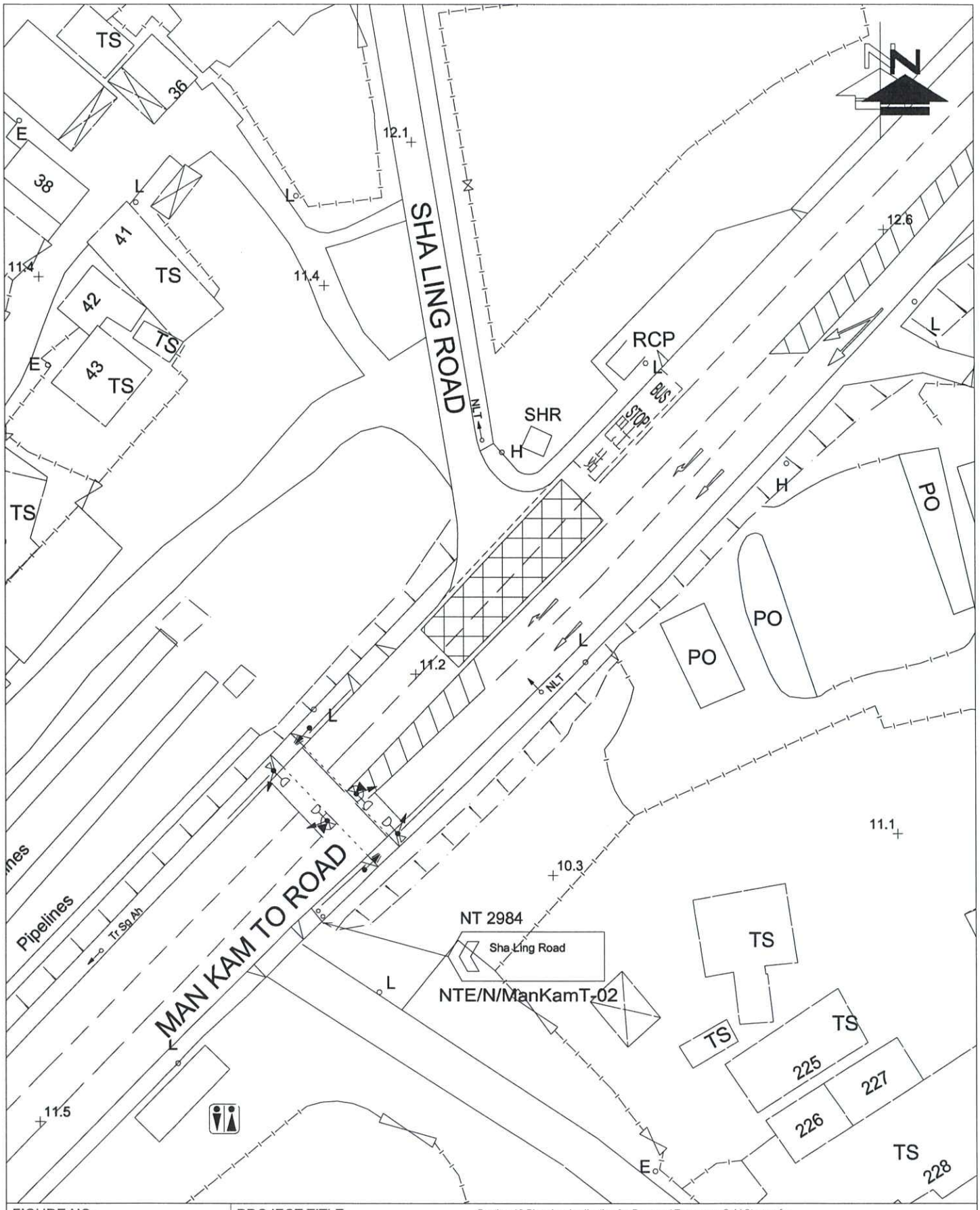


FIGURE NO.: 3.3	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 482 RP, 483, 484, 487 RP, 497 S.A RP, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sandy Ridge, New Territories	
PROJECT NO.: 21148HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF MAN KAM TO ROAD / SHA LING ROAD (B)	CTA Consultants Limited 志達顧問有限公司
SCALE: 1 : 500 @A4 / DATE: 14 JAN 2022		

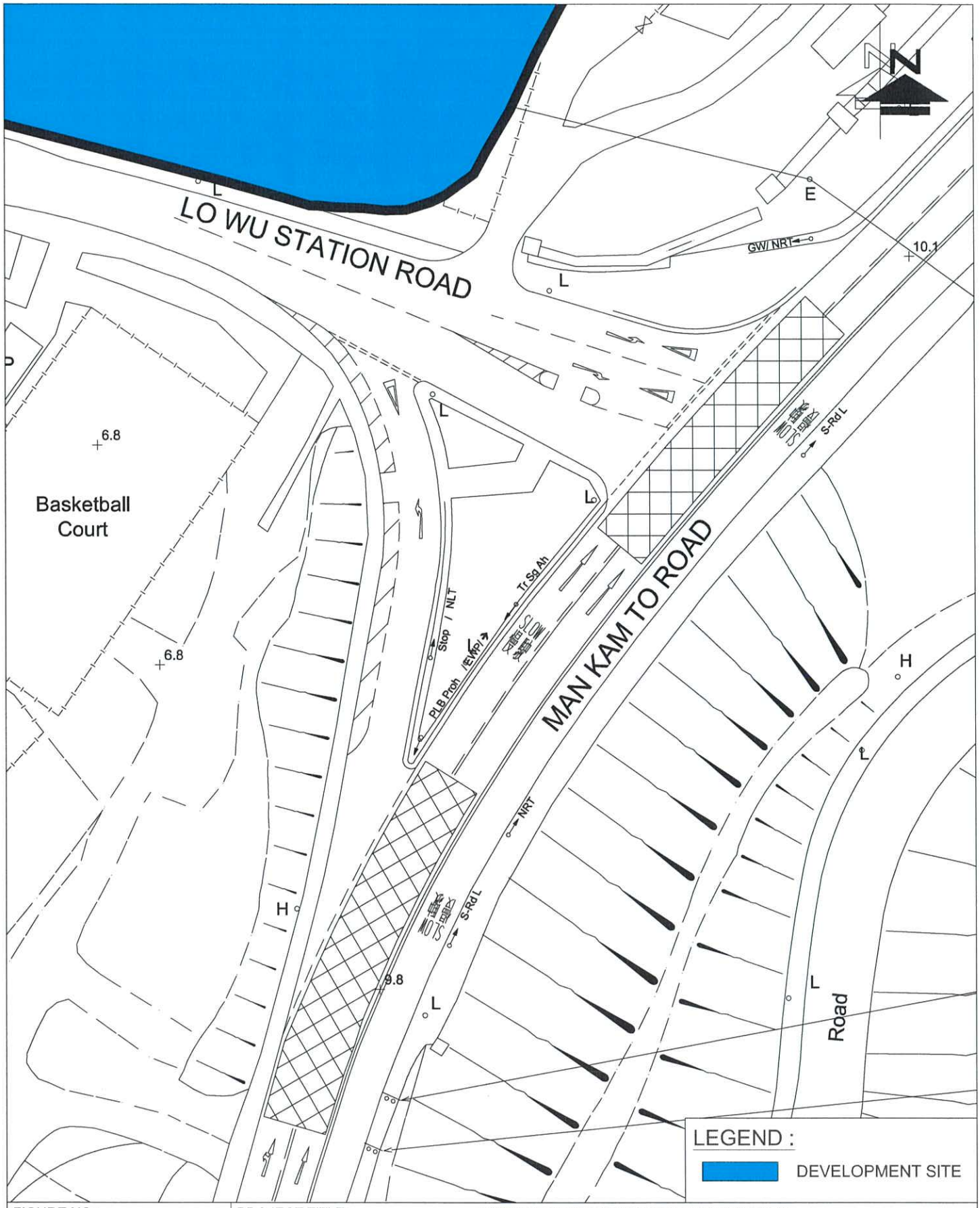
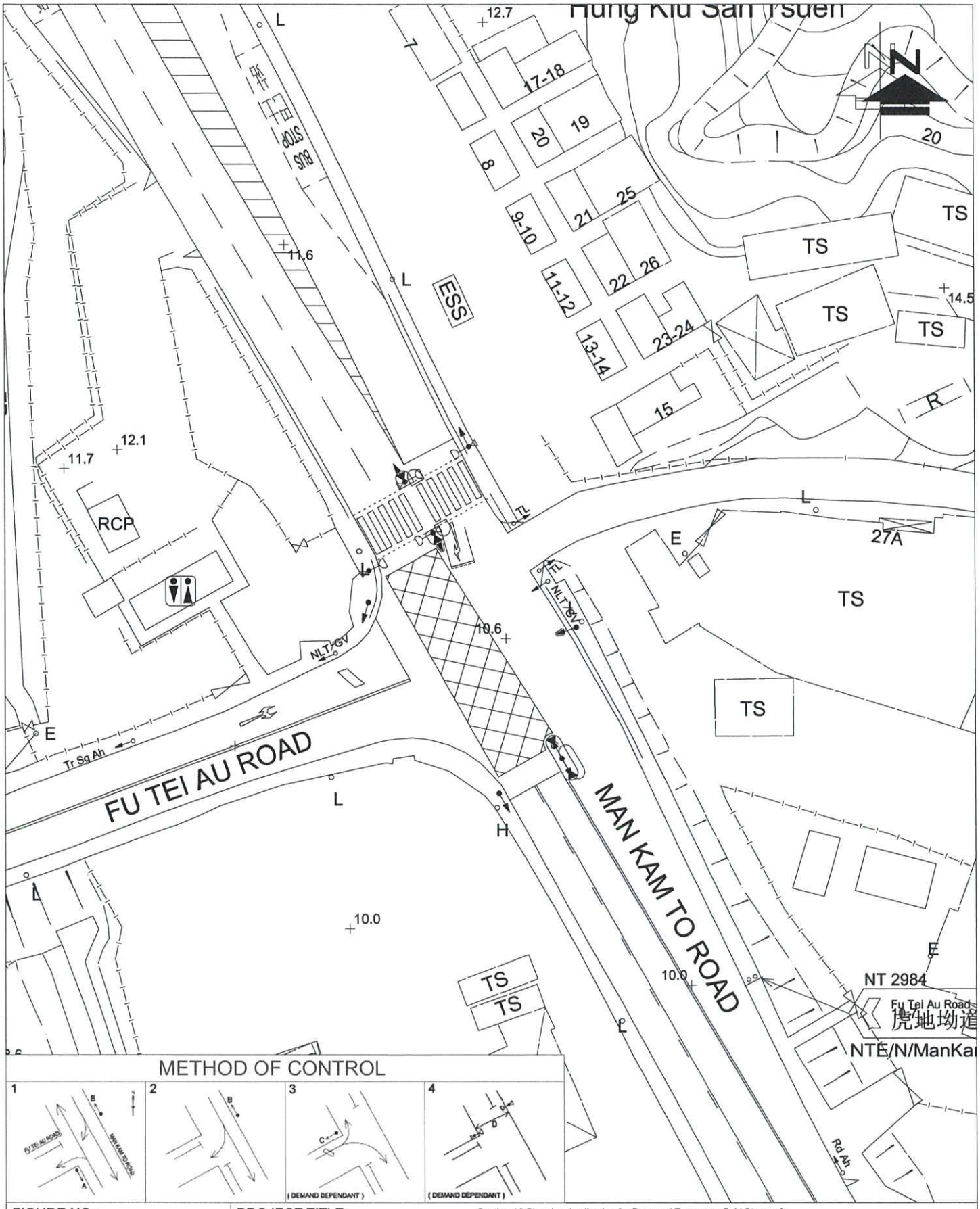


FIGURE NO.: 3.4	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 482 RP, 483, 484, 487 RP, 497 S.A RP, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sandy Ridge, New Territories
PROJECT NO.: 21148HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF MAN KAM TO ROAD / LO WU STATION ROAD(C)
SCALE: 1 : 500 @A4 / DATE: 14 JAN 2022	CTA Consultants Limited 志達顧問有限公司



METHOD OF CONTROL

FIGURE NO.: 3.5	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 482 RP, 483, 484, 487 RP, 497 S.A RP, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sandy Ridge, New Territories
PROJECT NO.: 21148HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF MAN KAM TO ROAD / FU TEI AU ROAD (D)
SCALE: 1 : 500 @A4 / DATE: 14 JAN 2022	CTA Consultants Limited 志達顧問有限公司

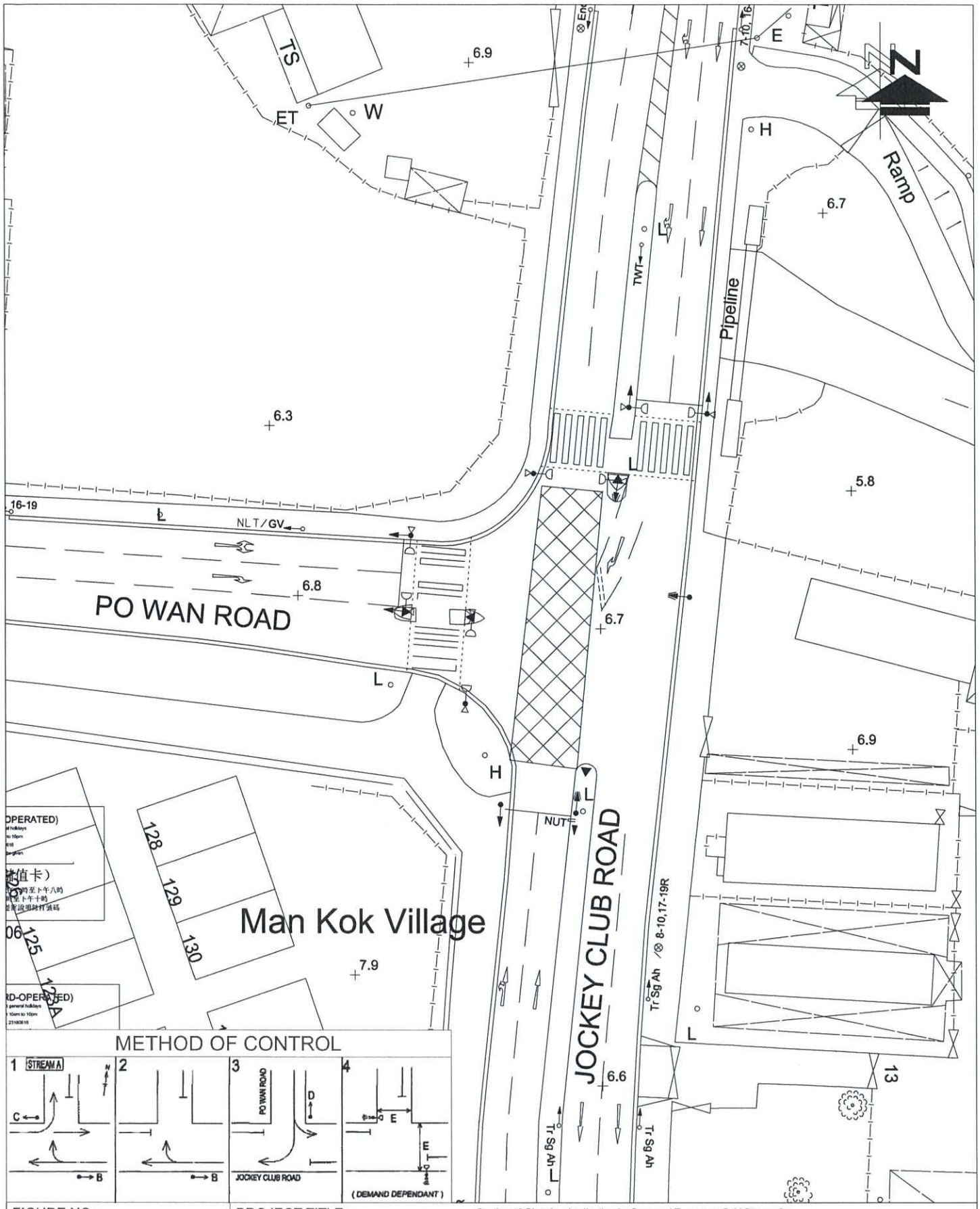


FIGURE NO.: 3.6	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 482 RP, 483, 484, 487 RP, 497 S.A RP, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sandy Ridge, New Territories
PROJECT NO.: 21148HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF JOCKEY CLUB ROAD / PO WAN ROAD (E)
SCALE: 1 : 500 @A4 / DATE: 14 JAN 2022	CTA Consultants Limited 志達顧問有限公司

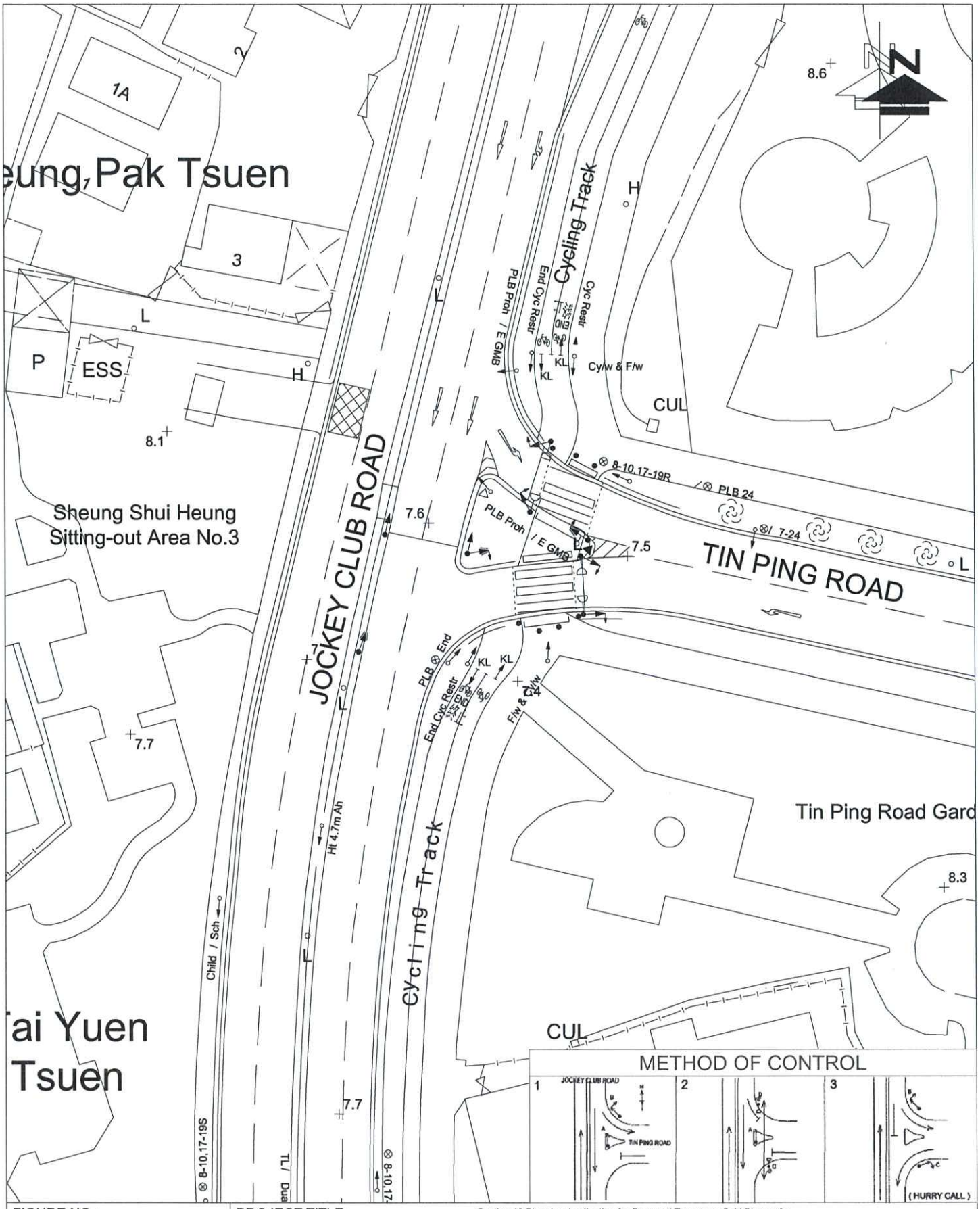


FIGURE NO.: 3.7	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 482 RP, 483, 484, 487 RP, 497 S.A RP, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sandy Ridge, New Territories
PROJECT NO.: 21148HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF JOCKEY CLUB ROAD / TIN PING ROAD (F)
SCALE: 1 : 500 @A4 / DATE: 14 JAN 2022	CTA Consultants Limited 志達顧問有限公司

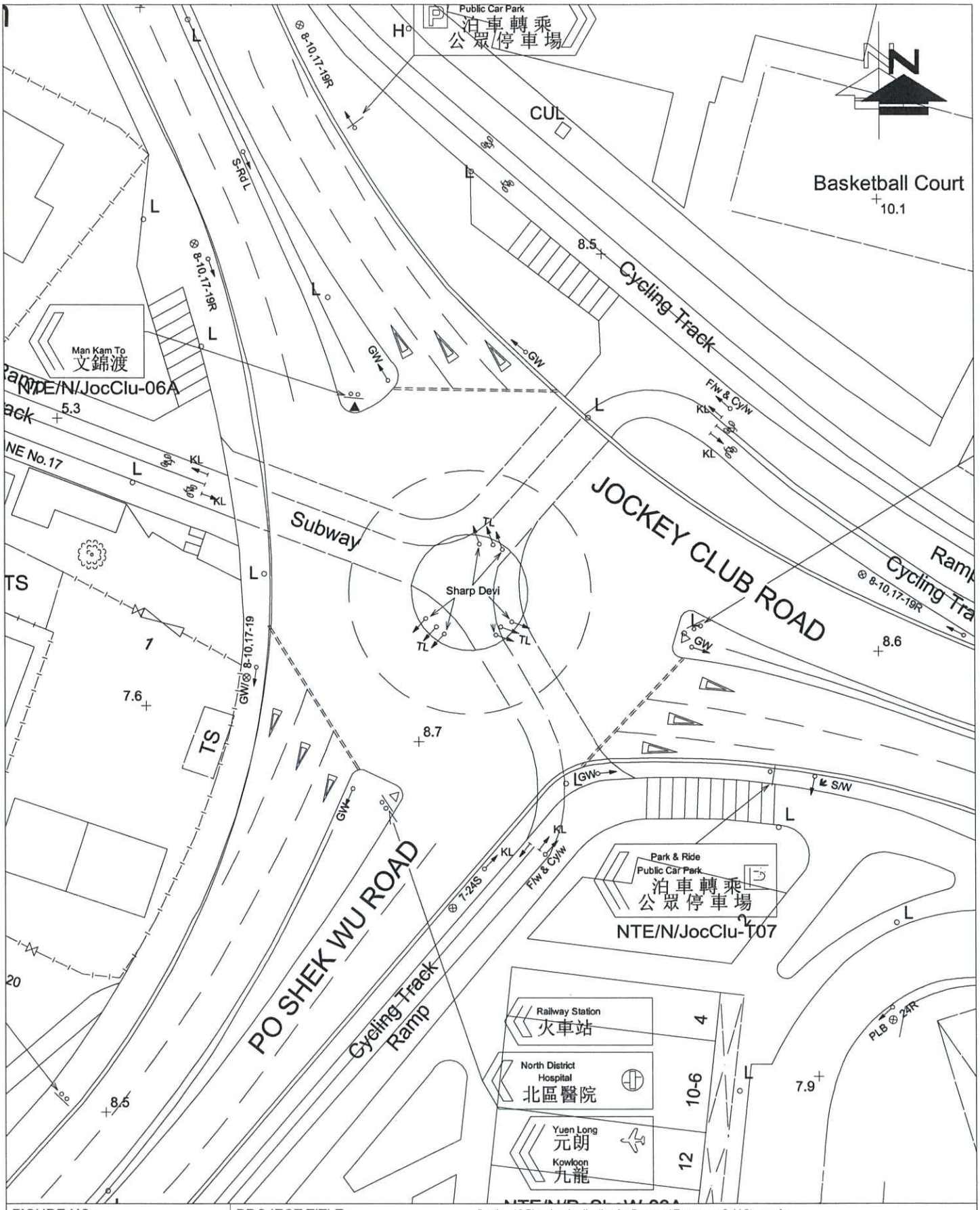


FIGURE NO.: 3.8	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 482 RP, 483, 484, 487 RP, 497 S.A RP, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sandy Ridge, New Territories	
PROJECT NO.: 21148HK	DRAWING TITLE: EXISTING JUNCTION LAYOUT OF JOCKEY CLUB ROAD / PO SHEK WU ROAD (G)	CTA Consultants Limited 志達顧問有限公司
SCALE: 1 : 500 @A4 / DATE: 14 JAN 2022		

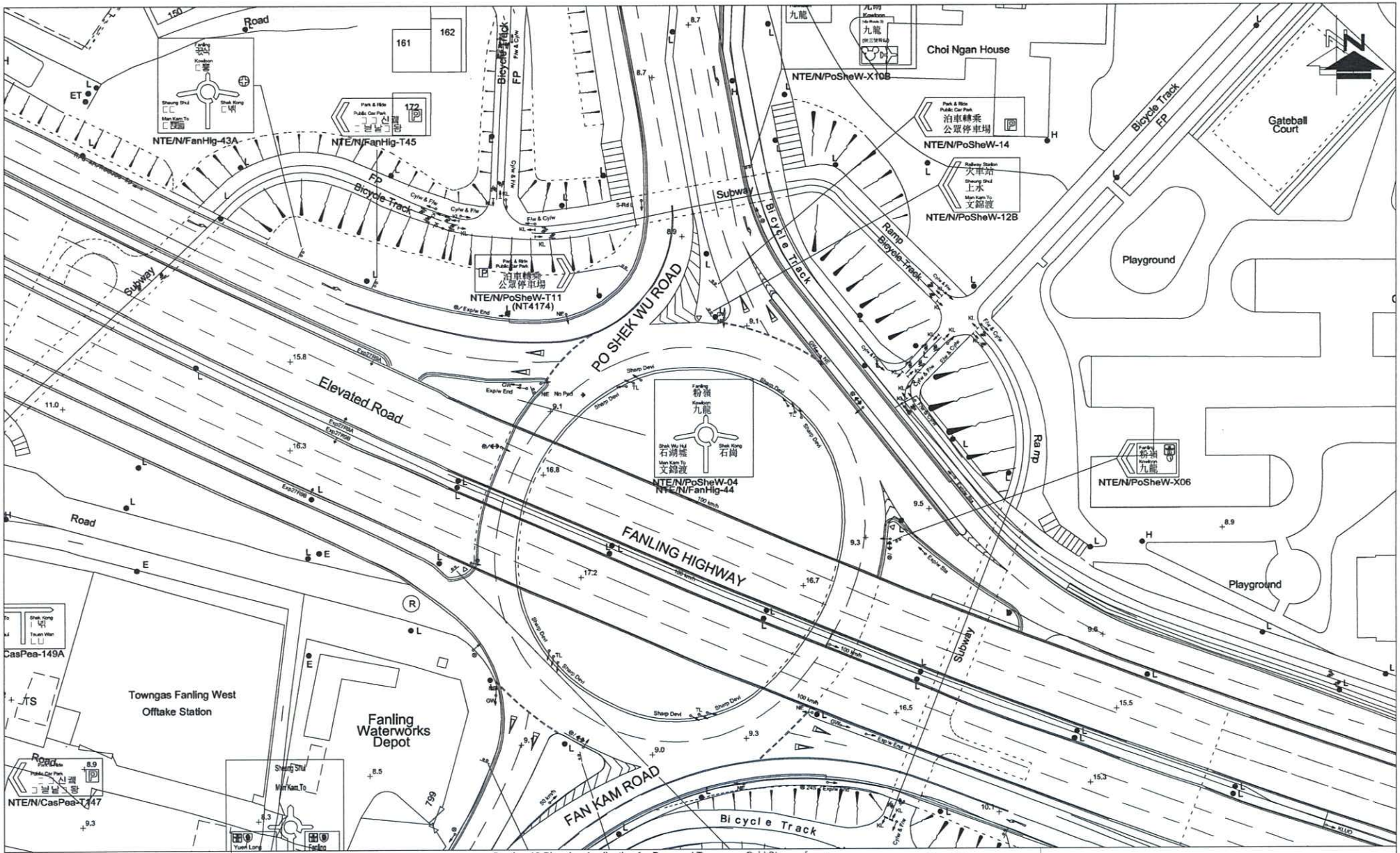


FIGURE NO.: 3.9	PROJECT TITLE:	Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years and Filling of Land for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475, 476, 483, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and Adjoining Government Land, Man Kam To Road, Sha Ling, New Territories.	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 21148HK	DRAWING TITLE: FANLIN		
SCALE: 1 : 1000 @A4 / DATE: 14 JAN 2022			

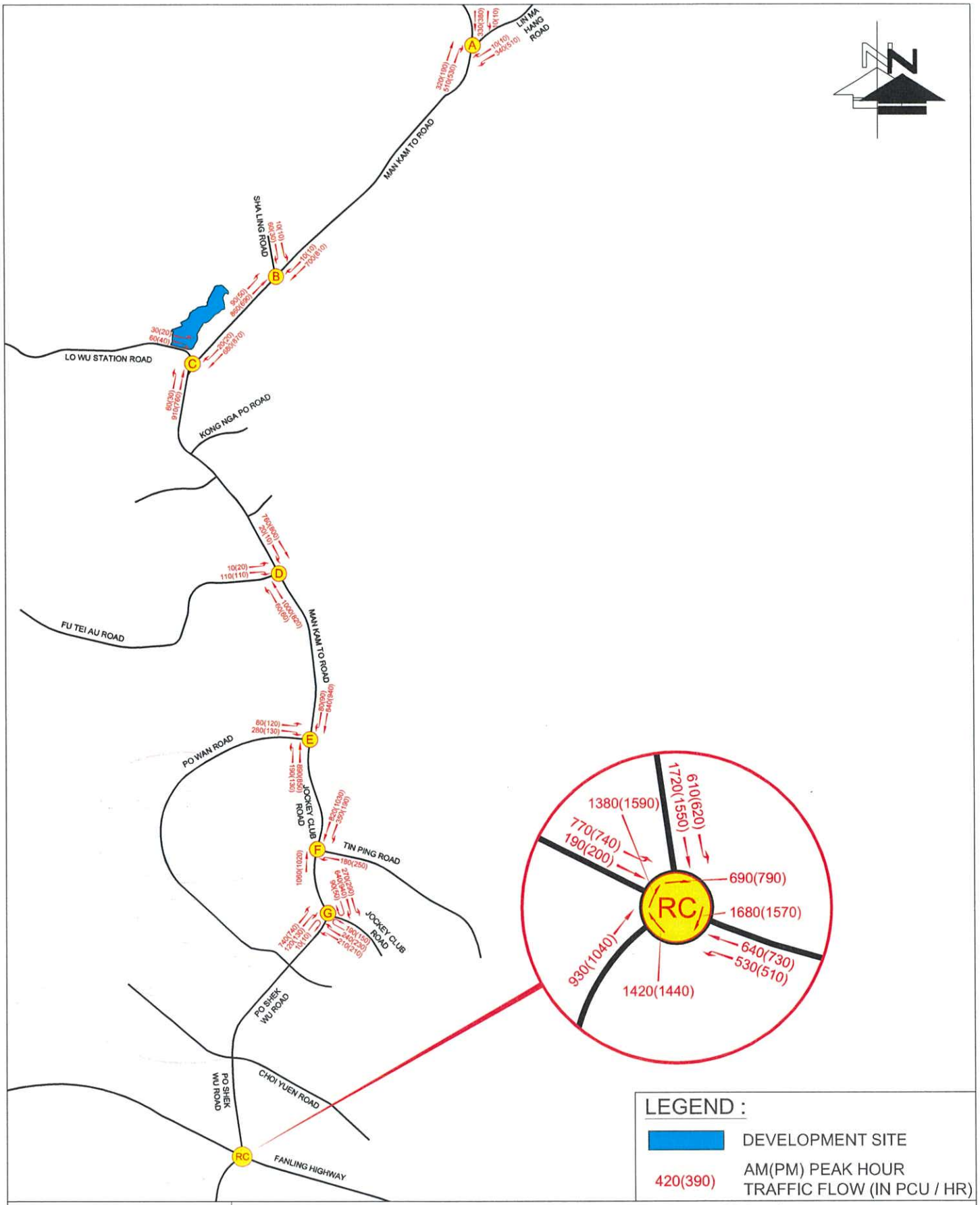


FIGURE NO.: 3.10 (REV A)	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 483, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sandy Ridge, New Territories	
PROJECT NO.: 21148HK	DRAWING TITLE: 2023 EXISTING TRAFFIC FLOW	CTA Consultants Limited 志達顧問有限公司
SCALE: N. T. S. @A4 / DATE: 07 SEP 2023		

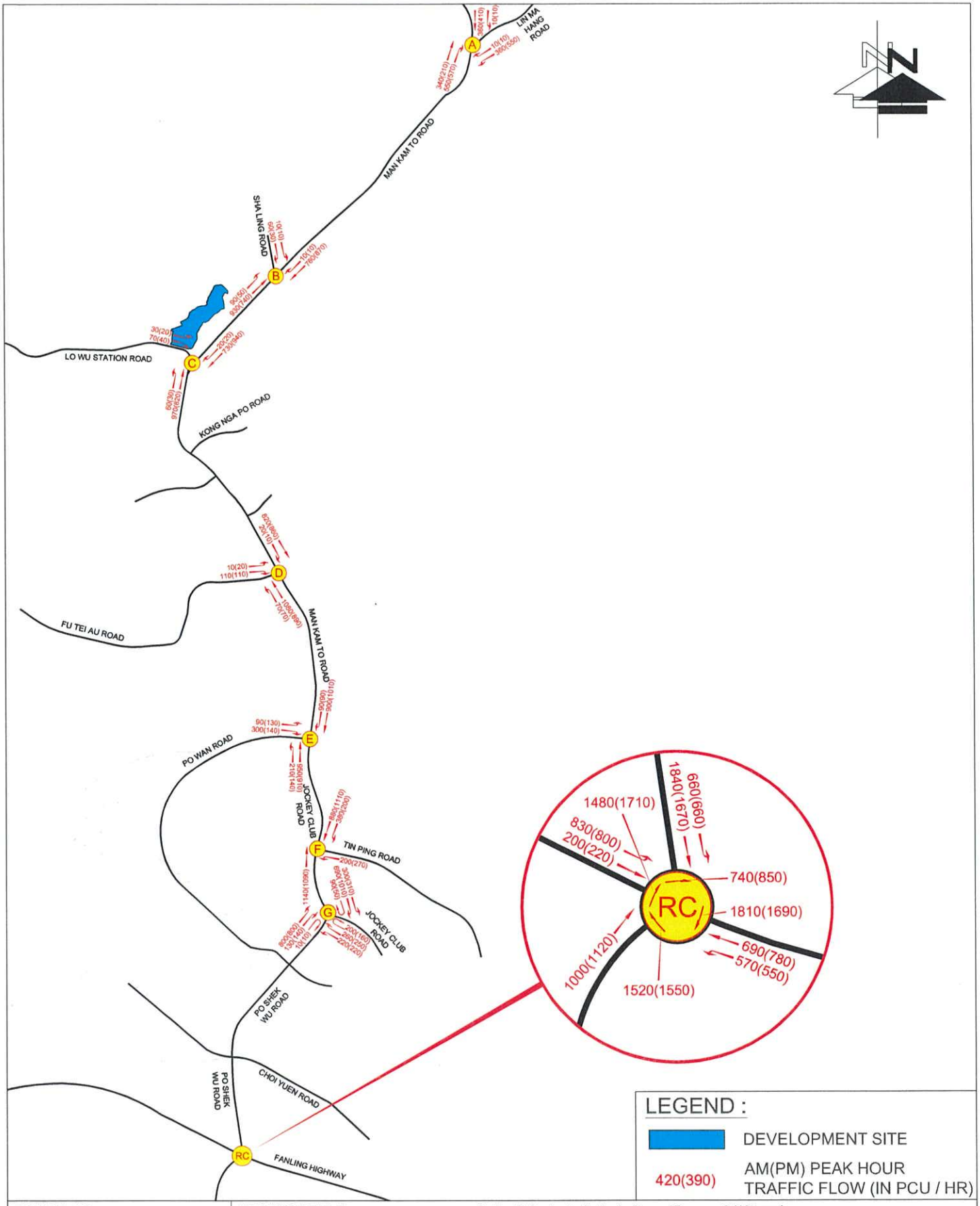


FIGURE NO.: 4.1 (REV A)	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 483, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sandy Ridge, New Territories	
PROJECT NO.: 21148HK	DRAWING TITLE: 2027 REFERENCE TRAFFIC FLOW	CTA Consultants Limited 志達顧問有限公司
SCALE: N. T. S. @A4 / DATE: 07 SEP 2023		

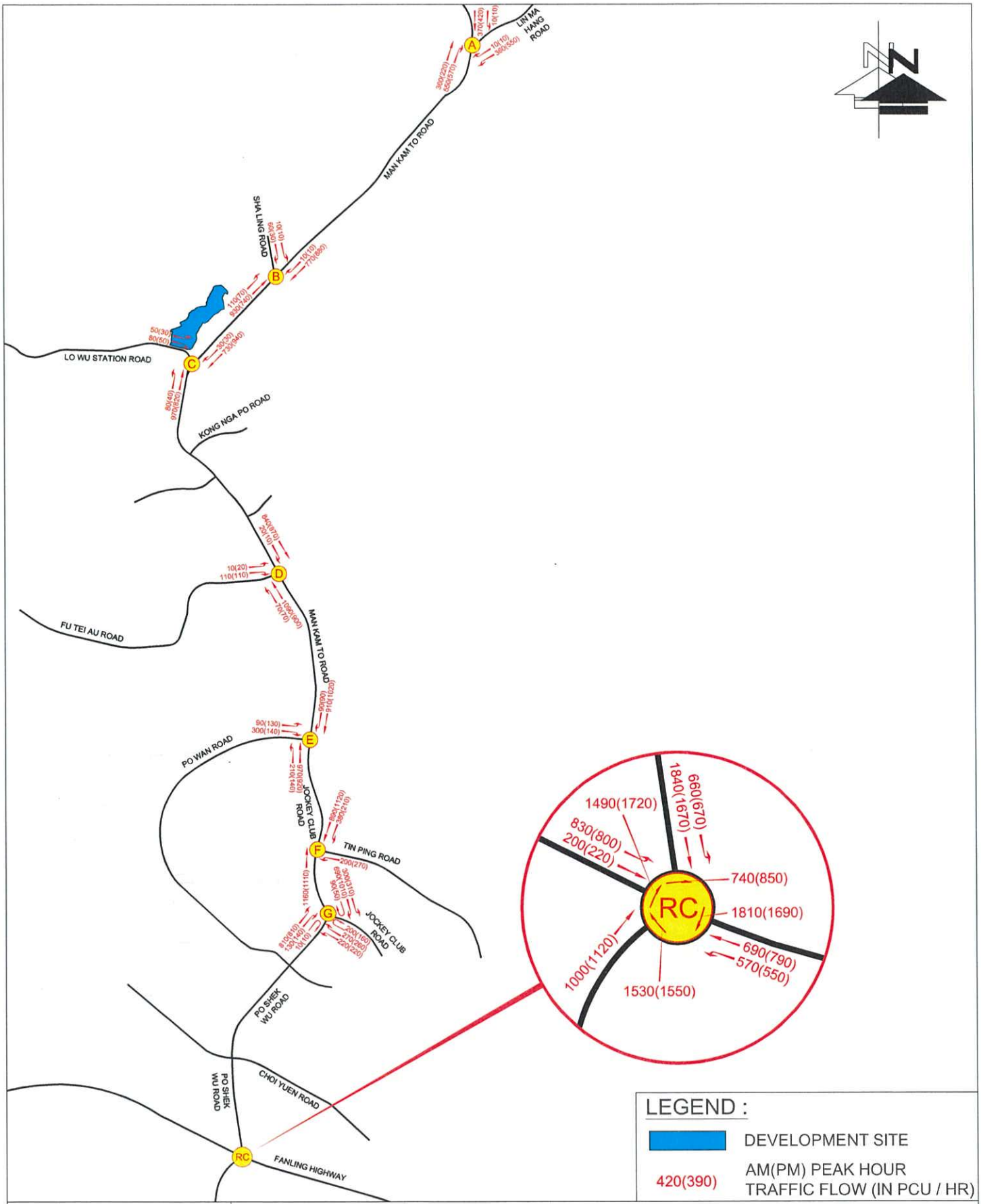


FIGURE NO.: 4.2 (REV A)	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 483, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sandy Ridge, New Territories	
PROJECT NO.: 21148HK	DRAWING TITLE: 2027 DESIGN TRAFFIC FLOW	CTA Consultants Limited 志達顧問有限公司
SCALE: N. T. S. @A4 / DATE: 07 SEP 2023		

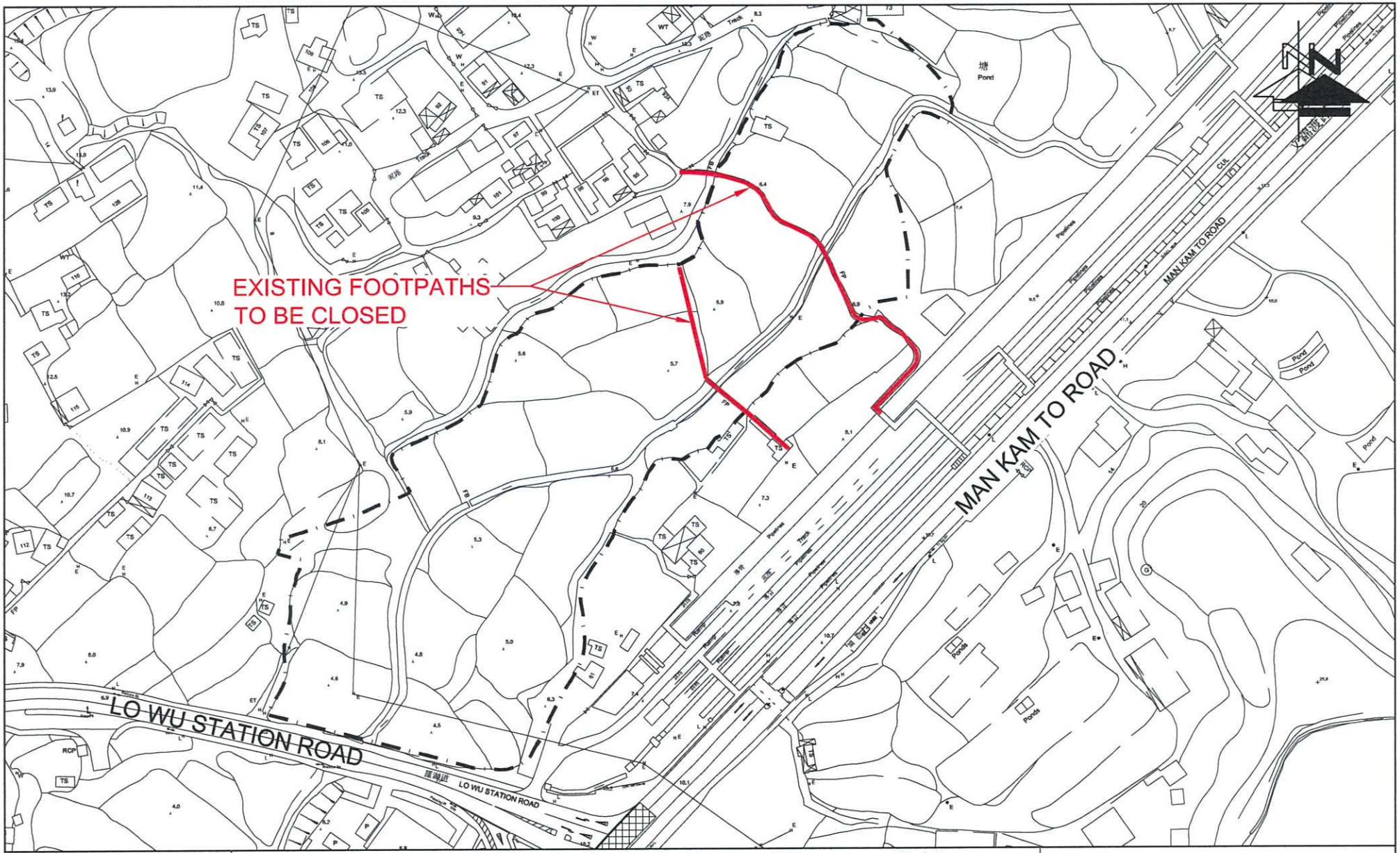


FIGURE NO.: 5.1		PROJECT TITLE:	Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years and Filling of Land for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475, 476, 483, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and Adjoining Government Land, Man Kam To Road, Sha Ling, New Territories.
PROJECT NO.: 21148HK		DRAWING TITLE:	
SCALE: 1 : 1500 @A4	DATE: 25 JUL 2022		

CTA Consultants Limited
志達顧問有限公司

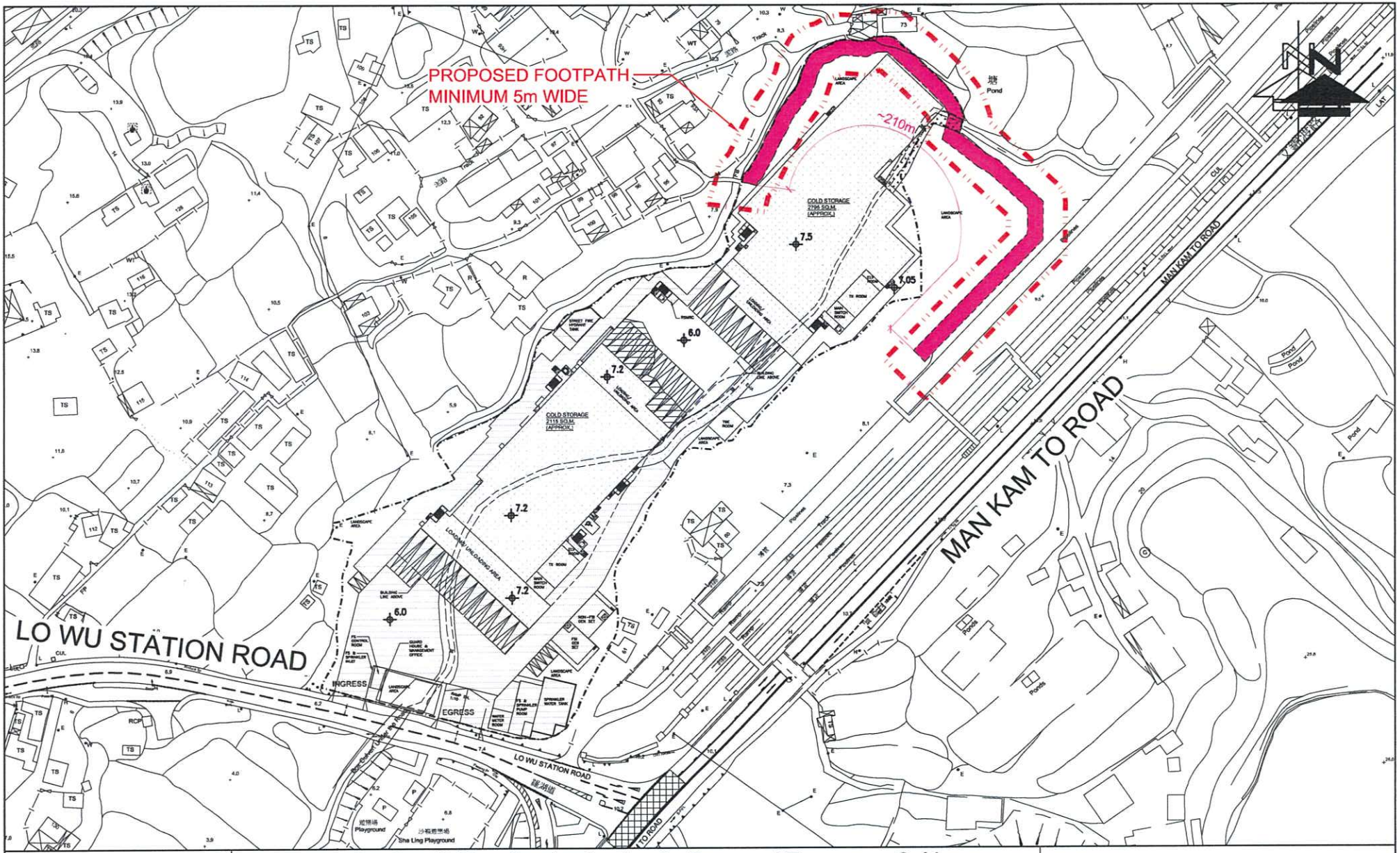


FIGURE NO.: 5.2(REV A)	PROJECT TITLE:	Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre for a Period of 3 Years and Filling of Land for Site Formation Works at Lots 471 S.B RP (Part), 472, 473, 474, 475, 476, 483, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and Adjoining Government Land, Man Kam To Road, Sha Ling, New Territories.
PROJECT NO.: 21148HK	DRAWING TITLE: PROF	
SCALE: 1 : 1600 @A4 / DATE: 08 AUG 2022		CTA Consultants Limited 志達顧問有限公司

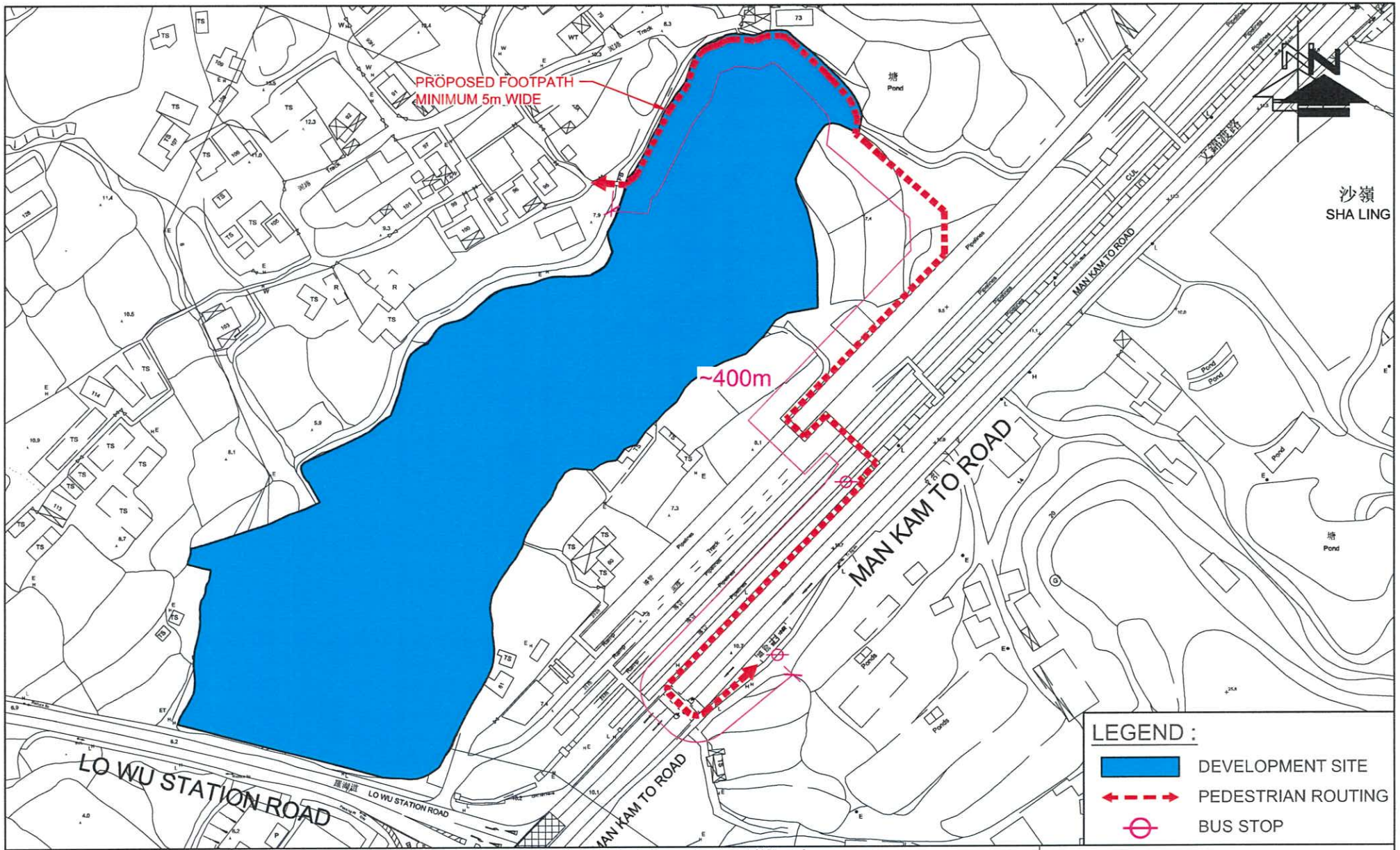


FIGURE NO.: 5.3	PROJECT TITLE: Section 16 Planning Application for Proposed Temporary Cold Storage for Poultry and Distribution Centre and Land Filling for Site Formation Works in "Agriculture" Zone for a Period of 3 Years at Lots 471 S.B RP, 472, 473, 474, 475, 476, 482 RP, 483, 484, 487 RP, 497 S.A RP, 501, 502, 504 S.B, 505 and 506 S.B RP in D.D. 89 and adjoining Government Land, Man Kam To Road, Sandy Ridge, New Territories	CTA Consultants Limited 志達顧問有限公司
PROJECT NO.: 21148HK	DRAWING TITLE: PEDESTRIAN ROUTING FOR PROPOSED RELOCATION OF FOOTPATH	
SCALE: 1 : 1500 @A4 / DATE: 11 SEP 2023		

Appendix A
Junction Calculation

Junctions 8

PICADY 8 - Priority Intersection Module

Filename: Junction A.arc8
Path: \\CTA_NAS01\Project\CTA Consultants Limited\CTA - Project (Completed)\21148HK - S16 for Prop Temp Cold Storage for Poultry and Distribution Centre at Man Kam To Rd, Sha Ling, NT\Calculation\1.83
Report generation date: 6/9/2023 15:03:21

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
Man Kam To Road/ Lin Ma Hang Rd - Design								
Stream B-AC	1.04	10.16	0.51	B	3.42	22.30	0.78	C
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	4.19	28.01	0.81	D	5.50	35.72	0.85	E
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
Man Kam To Road/ Lin Ma Hang Rd - Existing								
Stream B-AC	0.91	9.42	0.48	A	2.47	17.25	0.71	C
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	2.88	20.59	0.75	C	3.56	24.55	0.78	C
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
Man Kam To Road/ Lin Ma Hang Rd - Reference								
Stream B-AC	1.03	10.10	0.51	B	3.38	22.05	0.77	C
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	4.14	27.65	0.81	D	5.42	35.15	0.85	E
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - Existing, AM " model duration: 8:00 - 9:30
"D2 - Existing, PM" model duration: 8:00 - 9:30
"D3 - Reference, AM" model duration: 8:00 - 9:30
"D4 - Reference, PM" model duration: 8:00 - 9:30
"D5 - Design, AM" model duration: 8:00 - 9:30
"D6 - Design, PM" model duration: 8:00 - 9:30

Run using Junctions 8.0.5.523 at 6/9/2023 15:03:17

File summary

Title	Man Kam To Road/ Lin Ma Hang Rd
Location	Man Kam To Road/ Lin Ma Hang Rd
Site Number	
Date	19/10/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ITADMIN
Description	

Analysis Options

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

Units

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

Man Kam To Road/ Lin Ma Hang Rd - Existing, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Man Kam To Road/ Lin Ma Hang Rd	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	16.05	C

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Southbound		Major
B	B	Lin Ma Hang Road		Minor
C	C	Man Kam To Road Northbound		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	15.50		0.00	✓	4.00	80.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	One lane	5.00										80	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	652.522	0.070	0.176	0.111	0.252
1	B-C	809.317	0.073	0.184	-	-
1	C-B	741.808	0.169	0.169	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	340.00	100.000
B	FLAT	✓	350.00	100.000
C	FLAT	✓	830.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	10.000	330.000
	B	10.000	0.000	340.000
	C	320.000	510.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.03	0.00	0.97
	C	0.39	0.61	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.48	9.42	0.91	A
C-A	-	-	-	-
C-B	0.75	20.59	2.88	C
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	346.41	0.00	732.39	0.478	0.90	9.244	A
C-A	320.00	320.00	0.00	-	-	-	-	-
C-B	510.00	499.22	0.00	684.48	0.745	2.69	18.498	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	349.96	0.00	732.16	0.478	0.91	9.417	A
C-A	320.00	320.00	0.00	-	-	-	-	-
C-B	510.00	509.58	0.00	684.48	0.745	2.80	20.451	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	349.99	0.00	732.16	0.478	0.91	9.419	A
C-A	320.00	320.00	0.00	-	-	-	-	-
C-B	510.00	509.85	0.00	684.48	0.745	2.84	20.536	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	349.99	0.00	732.15	0.478	0.91	9.419	A
C-A	320.00	320.00	0.00	-	-	-	-	-
C-B	510.00	509.92	0.00	684.48	0.745	2.86	20.566	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	350.00	0.00	732.15	0.478	0.91	9.419	A
C-A	320.00	320.00	0.00	-	-	-	-	-
C-B	510.00	509.95	0.00	684.48	0.745	2.87	20.582	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	350.00	350.00	0.00	732.15	0.478	0.91	9.419	A
C-A	320.00	320.00	0.00	-	-	-	-	-
C-B	510.00	509.97	0.00	684.48	0.745	2.88	20.592	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	330.00	330.00	0.00	-	-	-	-	-

Man Kam To Road/ Lin Ma Hang Rd - Existing, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Man Kam To Road/ Lin Ma Hang Rd	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	20.94	C

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Southbound		Major
B	B	Lin Ma Hang Road		Minor
C	C	Man Kam To Road Northbound		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	15.50		0.00	✓	4.00	80.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	One lane	5.00										80	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	652.522	0.070	0.176	0.111	0.252
1	B-C	809.317	0.073	0.184	-	-
1	C-B	741.808	0.169	0.169	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	390.00	100.000
B	FLAT	✓	520.00	100.000
C	FLAT	✓	720.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	10.000	380.000
	B	10.000	0.000	510.000
	C	190.000	530.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.02	0.00	0.98
	C	0.26	0.74	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.71	17.25	2.47	C
C-A	-	-	-	-
C-B	0.78	24.55	3.56	C
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	520.00	510.63	0.00	728.64	0.714	2.34	15.902	C
C-A	190.00	190.00	0.00	-	-	-	-	-
C-B	530.00	517.00	0.00	676.04	0.784	3.25	21.192	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	380.00	380.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	520.00	519.71	0.00	728.46	0.714	2.41	17.181	C
C-A	190.00	190.00	0.00	-	-	-	-	-
C-B	530.00	529.32	0.00	676.04	0.784	3.42	24.247	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	380.00	380.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	520.00	519.90	0.00	728.45	0.714	2.44	17.224	C
C-A	190.00	190.00	0.00	-	-	-	-	-
C-B	530.00	529.74	0.00	676.04	0.784	3.49	24.427	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	380.00	380.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	520.00	519.95	0.00	728.45	0.714	2.45	17.240	C
C-A	190.00	190.00	0.00	-	-	-	-	-
C-B	530.00	529.86	0.00	676.04	0.784	3.52	24.497	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	380.00	380.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	520.00	519.97	0.00	728.44	0.714	2.46	17.246	C
C-A	190.00	190.00	0.00	-	-	-	-	-
C-B	530.00	529.92	0.00	676.04	0.784	3.54	24.533	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	380.00	380.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	520.00	519.98	0.00	728.44	0.714	2.47	17.252	C
C-A	190.00	190.00	0.00	-	-	-	-	-
C-B	530.00	529.94	0.00	676.04	0.784	3.56	24.555	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	380.00	380.00	0.00	-	-	-	-	-

Man Kam To Road/ Lin Ma Hang Rd - Reference, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Man Kam To Road/ Lin Ma Hang Rd	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	20.59	C

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Southbound		Major
B	B	Lin Ma Hang Road		Minor
C	C	Man Kam To Road Northbound		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	15.50		0.00	✓	4.00	80.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	One lane	5.00										80	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	652.522	0.070	0.176	0.111	0.252
1	B-C	809.317	0.073	0.184	-	-
1	C-B	741.808	0.169	0.169	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	370.00	100.000
B	FLAT	✓	370.00	100.000
C	FLAT	✓	890.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	10.000	360.000
	B	10.000	0.000	360.000
	C	340.000	550.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.03	0.00	0.97
	C	0.38	0.62	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.51	10.10	1.03	B
C-A	-	-	-	-
C-B	0.81	27.65	4.14	D
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	370.00	365.94	0.00	726.63	0.509	1.01	9.875	A
C-A	340.00	340.00	0.00	-	-	-	-	-
C-B	550.00	535.16	0.00	679.42	0.810	3.71	23.046	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	370.00	369.95	0.00	726.31	0.509	1.03	10.099	B
C-A	340.00	340.00	0.00	-	-	-	-	-
C-B	550.00	549.05	0.00	679.42	0.810	3.95	27.128	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	370.00	369.98	0.00	726.29	0.509	1.03	10.101	B
C-A	340.00	340.00	0.00	-	-	-	-	-
C-B	550.00	549.63	0.00	679.42	0.810	4.04	27.430	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	370.00	369.99	0.00	726.28	0.509	1.03	10.103	B
C-A	340.00	340.00	0.00	-	-	-	-	-
C-B	550.00	549.80	0.00	679.42	0.810	4.09	27.547	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	370.00	370.00	0.00	726.28	0.509	1.03	10.103	B
C-A	340.00	340.00	0.00	-	-	-	-	-
C-B	550.00	549.88	0.00	679.42	0.810	4.12	27.609	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	370.00	370.00	0.00	726.28	0.509	1.03	10.103	B
C-A	340.00	340.00	0.00	-	-	-	-	-
C-B	550.00	549.92	0.00	679.42	0.810	4.14	27.646	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	360.00	360.00	0.00	-	-	-	-	-

Man Kam To Road/ Lin Ma Hang Rd - Reference, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Man Kam To Road/ Lin Ma Hang Rd	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	28.66	D

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Southbound		Major
B	B	Lin Ma Hang Road		Minor
C	C	Man Kam To Road Northbound		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	15.50		0.00	✓	4.00	80.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	One lane	5.00										80	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	652.522	0.070	0.176	0.111	0.252
1	B-C	809.317	0.073	0.184	-	-
1	C-B	741.808	0.169	0.169	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	420.00	100.000
B	FLAT	✓	560.00	100.000
C	FLAT	✓	780.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	10.000	410.000
	B	10.000	0.000	550.000
	C	210.000	570.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.02	0.98
	B	0.02	0.00	0.98
	C	0.27	0.73	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.77	22.05	3.38	C
C-A	-	-	-	-
C-B	0.85	35.15	5.42	E
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	560.00	547.53	0.00	723.14	0.774	3.12	19.334	C
C-A	210.00	210.00	0.00	-	-	-	-	-
C-B	570.00	551.53	0.00	670.99	0.850	4.62	27.014	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	410.00	410.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	560.00	559.41	0.00	722.88	0.775	3.27	21.820	C
C-A	210.00	210.00	0.00	-	-	-	-	-
C-B	570.00	568.30	0.00	670.99	0.850	5.04	33.813	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	410.00	410.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	560.00	559.78	0.00	722.86	0.775	3.32	21.953	C
C-A	210.00	210.00	0.00	-	-	-	-	-
C-B	570.00	569.30	0.00	670.99	0.850	5.22	34.555	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	410.00	410.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	560.00	559.89	0.00	722.85	0.775	3.35	22.002	C
C-A	210.00	210.00	0.00	-	-	-	-	-
C-B	570.00	569.62	0.00	670.99	0.850	5.31	34.868	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	410.00	410.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	560.00	559.93	0.00	722.84	0.775	3.37	22.027	C
C-A	210.00	210.00	0.00	-	-	-	-	-
C-B	570.00	569.76	0.00	670.99	0.850	5.37	35.042	E
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	410.00	410.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	560.00	559.95	0.00	722.84	0.775	3.38	22.045	C
C-A	210.00	210.00	0.00	-	-	-	-	-
C-B	570.00	569.83	0.00	670.99	0.850	5.42	35.152	E
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	410.00	410.00	0.00	-	-	-	-	-

Man Kam To Road/ Lin Ma Hang Rd - Design, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Man Kam To Road/ Lin Ma Hang Rd	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	20.83	C

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Southbound		Major
B	B	Lin Ma Hang Road		Minor
C	C	Man Kam To Road Northbound		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	15.50		0.00	✓	4.00	80.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	One lane	5.00										80	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	652.522	0.070	0.176	0.111	0.252
1	B-C	809.317	0.073	0.184	-	-
1	C-B	741.808	0.169	0.169	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	380.00	100.000
B	FLAT	✓	370.00	100.000
C	FLAT	✓	910.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	10.000	370.000
	B	10.000	0.000	360.000
	C	360.000	550.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.03	0.97
	B	0.03	0.00	0.97
	C	0.40	0.60	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.51	10.16	1.04	B
C-A	-	-	-	-
C-B	0.81	28.01	4.19	D
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	370.00	365.92	0.00	724.58	0.511	1.02	9.930	A
C-A	360.00	360.00	0.00	-	-	-	-	-
C-B	550.00	535.01	0.00	677.73	0.812	3.75	23.262	C
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	370.00	370.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	370.00	369.95	0.00	724.25	0.511	1.03	10.157	B
C-A	360.00	360.00	0.00	-	-	-	-	-
C-B	550.00	549.02	0.00	677.73	0.812	3.99	27.459	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	370.00	370.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	370.00	369.98	0.00	724.23	0.511	1.04	10.160	B
C-A	360.00	360.00	0.00	-	-	-	-	-
C-B	550.00	549.62	0.00	677.73	0.812	4.09	27.776	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	370.00	370.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	370.00	369.99	0.00	724.22	0.511	1.04	10.162	B
C-A	360.00	360.00	0.00	-	-	-	-	-
C-B	550.00	549.80	0.00	677.73	0.812	4.14	27.899	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	370.00	370.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	370.00	370.00	0.00	724.22	0.511	1.04	10.162	B
C-A	360.00	360.00	0.00	-	-	-	-	-
C-B	550.00	549.87	0.00	677.73	0.812	4.17	27.966	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	370.00	370.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	370.00	370.00	0.00	724.22	0.511	1.04	10.162	B
C-A	360.00	360.00	0.00	-	-	-	-	-
C-B	550.00	549.91	0.00	677.73	0.812	4.19	28.007	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	370.00	370.00	0.00	-	-	-	-	-

Man Kam To Road/ Lin Ma Hang Rd - Design, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Man Kam To Road/ Lin Ma Hang Rd	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	(untitled)	T-Junction	Two-way	A,B,C	29.07	D

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Southbound		Major
B	B	Lin Ma Hang Road		Minor
C	C	Man Kam To Road Northbound		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	15.50		0.00	✓	4.00	80.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	One lane	5.00										80	80

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	652.522	0.070	0.176	0.111	0.252
1	B-C	809.317	0.073	0.184	-	-
1	C-B	741.808	0.169	0.169	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	430.00	100.000
B	FLAT	✓	560.00	100.000
C	FLAT	✓	790.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	10.000	420.000
	B	10.000	0.000	550.000
	C	220.000	570.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.02	0.98
	B	0.02	0.00	0.98
	C	0.28	0.72	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.78	22.30	3.42	C
C-A	-	-	-	-
C-B	0.85	35.72	5.50	E
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	560.00	547.40	0.00	721.22	0.776	3.15	19.513	C
C-A	220.00	220.00	0.00	-	-	-	-	-
C-B	570.00	551.31	0.00	669.30	0.852	4.67	27.294	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	420.00	420.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	560.00	559.39	0.00	720.96	0.777	3.30	22.070	C
C-A	220.00	220.00	0.00	-	-	-	-	-
C-B	570.00	568.25	0.00	669.30	0.852	5.11	34.304	D
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	420.00	420.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	560.00	559.77	0.00	720.93	0.777	3.36	22.209	C
C-A	220.00	220.00	0.00	-	-	-	-	-
C-B	570.00	569.27	0.00	669.30	0.852	5.29	35.088	E
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	420.00	420.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	560.00	559.88	0.00	720.92	0.777	3.39	22.261	C
C-A	220.00	220.00	0.00	-	-	-	-	-
C-B	570.00	569.60	0.00	669.30	0.852	5.39	35.419	E
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	420.00	420.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	560.00	559.93	0.00	720.92	0.777	3.40	22.288	C
C-A	220.00	220.00	0.00	-	-	-	-	-
C-B	570.00	569.75	0.00	669.30	0.852	5.46	35.605	E
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	420.00	420.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	560.00	559.95	0.00	720.91	0.777	3.42	22.303	C
C-A	220.00	220.00	0.00	-	-	-	-	-
C-B	570.00	569.82	0.00	669.30	0.852	5.50	35.722	E
A-B	10.00	10.00	0.00	-	-	-	-	-
A-C	420.00	420.00	0.00	-	-	-	-	-

Junctions 8

PICADY 8 - Priority Intersection Module

Filename: Junction B.arc8
Path: \\CTA_NAS01\Project\CTA Consultants Limited\CTA - Project (Completed)\21148HK - S16 for Prop Temp Cold Storage for Poultry and Distribution Centre at Man Kam To Rd, Sha Ling, NT\Calculation\1.83
Report generation date: 6/9/2023 15:11:44

» Sha Leng Road/ Man Kam To Road - Existing, AM
» Sha Leng Road/ Man Kam To Road - Existing, PM
» Sha Leng Road/ Man Kam To Road - Reference, AM
» Sha Leng Road/ Man Kam To Road - Reference, PM
» Sha Leng Road/ Man Kam To Road - Design, AM
» Sha Leng Road/ Man Kam To Road - Design, PM

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Sha Leng Road/ Man Kam To Road - Design							
Stream B-AC	0.35	18.06	0.26	C	0.14	13.08	0.13	B
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.03	9.01	0.02	A	0.02	8.14	0.02	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	Sha Leng Road/ Man Kam To Road - Existing							
Stream B-AC	0.31	16.07	0.24	C	0.13	12.17	0.12	B
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.02	8.65	0.02	A	0.02	7.90	0.02	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	Sha Leng Road/ Man Kam To Road - Reference							
Stream B-AC	0.34	17.81	0.26	C	0.14	12.94	0.13	B
Stream C-A	-	-	-	-	-	-	-	-
Stream C-B	0.02	8.92	0.02	A	0.02	8.07	0.02	A
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - Existing, AM " model duration: 8:00 - 9:30
"D2 - Existing, PM" model duration: 8:00 - 9:30
"D3 - Reference, AM" model duration: 8:00 - 9:30
"D4 - Reference, PM" model duration: 8:00 - 9:30
"D5 - Design, AM" model duration: 8:00 - 9:30
"D6 - Design, PM" model duration: 8:00 - 9:30

Run using Junctions 8.0.5.523 at 6/9/2023 15:11:41

File summary

Title	Lo Wu Station Road/ Man Kam To Road
Location	Lo Wu Station Road/ Man Kam To Road
Site Number	
Date	19/10/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ITADMIN
Description	

Analysis Options

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

Units

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

Sha Leng Road/ Man Kam To Road - Existing, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Sha Leng Road/ Man Kam To Road	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Lo Wu Station Rd/ Man Kam To Rd	T-Junction	Two-way	A,B,C	15.14	C

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Westbound		Major
B	B	Lo Wu station road		Minor
C	C	Man Kam To Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.70		0.00		2.20	50.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	One lane	3.50										50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	544.462	0.079	0.199	0.125	0.285
1	B-C	688.222	0.084	0.212	-	-
1	C-B	602.919	0.186	0.186	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	950.00	100.000
B	FLAT	✓	70.00	100.000
C	FLAT	✓	710.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	90.000	860.000
	B	60.000	0.000	10.000
	C	700.000	10.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.86	0.00	0.14
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.24	16.07	0.31	C
C-A	-	-	-	-
C-B	0.02	8.65	0.02	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	68.78	0.00	294.02	0.238	0.31	15.898	C
C-A	700.00	700.00	0.00	-	-	-	-	-
C-B	10.00	9.90	0.00	426.37	0.023	0.02	8.642	A
A-B	90.00	90.00	0.00	-	-	-	-	-
A-C	860.00	860.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	69.99	0.00	293.99	0.238	0.31	16.068	C
C-A	700.00	700.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	426.37	0.023	0.02	8.645	A
A-B	90.00	90.00	0.00	-	-	-	-	-
A-C	860.00	860.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	70.00	0.00	293.99	0.238	0.31	16.070	C
C-A	700.00	700.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	426.37	0.023	0.02	8.645	A
A-B	90.00	90.00	0.00	-	-	-	-	-
A-C	860.00	860.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	70.00	0.00	293.99	0.238	0.31	16.071	C
C-A	700.00	700.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	426.37	0.023	0.02	8.645	A
A-B	90.00	90.00	0.00	-	-	-	-	-
A-C	860.00	860.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	70.00	0.00	293.99	0.238	0.31	16.071	C
C-A	700.00	700.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	426.37	0.023	0.02	8.645	A
A-B	90.00	90.00	0.00	-	-	-	-	-
A-C	860.00	860.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	70.00	0.00	293.99	0.238	0.31	16.071	C
C-A	700.00	700.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	426.37	0.023	0.02	8.645	A
A-B	90.00	90.00	0.00	-	-	-	-	-
A-C	860.00	860.00	0.00	-	-	-	-	-

Sha Leng Road/ Man Kam To Road - Existing, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Sha Leng Road/ Man Kam To Road	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Lo Wu Station Rd/ Man Kam To Rd	T-Junction	Two-way	A,B,C	11.32	B

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Westbound		Major
B	B	Lo Wu station road		Minor
C	C	Man Kam To Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.70		0.00		2.20	50.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	One lane	3.50										50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	544.462	0.079	0.199	0.125	0.285
1	B-C	688.222	0.084	0.212	-	-
1	C-B	602.919	0.186	0.186	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	740.00	100.000
B	FLAT	✓	40.00	100.000
C	FLAT	✓	820.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	50.000	690.000
	B	30.000	0.000	10.000
	C	810.000	10.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.07	0.93
	B	0.75	0.00	0.25
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.12	12.17	0.13	B
C-A	-	-	-	-
C-B	0.02	7.90	0.02	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	39.47	0.00	335.82	0.119	0.13	12.126	B
C-A	810.00	810.00	0.00	-	-	-	-	-
C-B	10.00	9.91	0.00	465.40	0.021	0.02	7.904	A
A-B	50.00	50.00	0.00	-	-	-	-	-
A-C	690.00	690.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	335.80	0.119	0.13	12.169	B
C-A	810.00	810.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	465.40	0.021	0.02	7.904	A
A-B	50.00	50.00	0.00	-	-	-	-	-
A-C	690.00	690.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	335.80	0.119	0.13	12.169	B
C-A	810.00	810.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	465.40	0.021	0.02	7.904	A
A-B	50.00	50.00	0.00	-	-	-	-	-
A-C	690.00	690.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	335.80	0.119	0.13	12.169	B
C-A	810.00	810.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	465.40	0.021	0.02	7.904	A
A-B	50.00	50.00	0.00	-	-	-	-	-
A-C	690.00	690.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	335.80	0.119	0.13	12.169	B
C-A	810.00	810.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	465.40	0.021	0.02	7.904	A
A-B	50.00	50.00	0.00	-	-	-	-	-
A-C	690.00	690.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	335.80	0.119	0.13	12.169	B
C-A	810.00	810.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	465.40	0.021	0.02	7.904	A
A-B	50.00	50.00	0.00	-	-	-	-	-
A-C	690.00	690.00	0.00	-	-	-	-	-

Sha Leng Road/ Man Kam To Road - Reference, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Sha Leng Road/ Man Kam To Road	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Lo Wu Station Rd/ Man Kam To Rd	T-Junction	Two-way	A,B,C	16.70	C

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Westbound		Major
B	B	Lo Wu station road		Minor
C	C	Man Kam To Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.70		0.00		2.20	50.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	One lane	3.50										50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	544.462	0.079	0.199	0.125	0.285
1	B-C	688.222	0.084	0.212	-	-
1	C-B	602.919	0.186	0.186	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	1020.00	100.000
B	FLAT	✓	70.00	100.000
C	FLAT	✓	770.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	90.000	930.000
	B	60.000	0.000	10.000
	C	760.000	10.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.86	0.00	0.14
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.26	17.81	0.34	C
C-A	-	-	-	-
C-B	0.02	8.92	0.02	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	68.65	0.00	272.21	0.257	0.34	17.575	C
C-A	760.00	760.00	0.00	-	-	-	-	-
C-B	10.00	9.90	0.00	413.37	0.024	0.02	8.921	A
A-B	90.00	90.00	0.00	-	-	-	-	-
A-C	930.00	930.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	69.98	0.00	272.18	0.257	0.34	17.800	C
C-A	760.00	760.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	413.37	0.024	0.02	8.924	A
A-B	90.00	90.00	0.00	-	-	-	-	-
A-C	930.00	930.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	69.99	0.00	272.18	0.257	0.34	17.803	C
C-A	760.00	760.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	413.37	0.024	0.02	8.924	A
A-B	90.00	90.00	0.00	-	-	-	-	-
A-C	930.00	930.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	70.00	0.00	272.18	0.257	0.34	17.803	C
C-A	760.00	760.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	413.37	0.024	0.02	8.924	A
A-B	90.00	90.00	0.00	-	-	-	-	-
A-C	930.00	930.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	70.00	0.00	272.18	0.257	0.34	17.805	C
C-A	760.00	760.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	413.37	0.024	0.02	8.924	A
A-B	90.00	90.00	0.00	-	-	-	-	-
A-C	930.00	930.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	70.00	0.00	272.18	0.257	0.34	17.805	C
C-A	760.00	760.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	413.37	0.024	0.02	8.924	A
A-B	90.00	90.00	0.00	-	-	-	-	-
A-C	930.00	930.00	0.00	-	-	-	-	-

Sha Leng Road/ Man Kam To Road - Reference, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Sha Leng Road/ Man Kam To Road	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Lo Wu Station Rd/ Man Kam To Rd	T-Junction	Two-way	A,B,C	11.97	B

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Westbound		Major
B	B	Lo Wu station road		Minor
C	C	Man Kam To Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.70		0.00		2.20	50.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	One lane	3.50										50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	544.462	0.079	0.199	0.125	0.285
1	B-C	688.222	0.084	0.212	-	-
1	C-B	602.919	0.186	0.186	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	790.00	100.000
B	FLAT	✓	40.00	100.000
C	FLAT	✓	880.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	50.000	740.000
	B	30.000	0.000	10.000
	C	870.000	10.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.06	0.94
	B	0.75	0.00	0.25
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.13	12.94	0.14	B
C-A	-	-	-	-
C-B	0.02	8.07	0.02	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	39.43	0.00	318.10	0.126	0.14	12.893	B
C-A	870.00	870.00	0.00	-	-	-	-	-
C-B	10.00	9.91	0.00	456.11	0.022	0.02	8.065	A
A-B	50.00	50.00	0.00	-	-	-	-	-
A-C	740.00	740.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	318.08	0.126	0.14	12.945	B
C-A	870.00	870.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	456.11	0.022	0.02	8.069	A
A-B	50.00	50.00	0.00	-	-	-	-	-
A-C	740.00	740.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	318.08	0.126	0.14	12.945	B
C-A	870.00	870.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	456.11	0.022	0.02	8.069	A
A-B	50.00	50.00	0.00	-	-	-	-	-
A-C	740.00	740.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	318.08	0.126	0.14	12.945	B
C-A	870.00	870.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	456.11	0.022	0.02	8.069	A
A-B	50.00	50.00	0.00	-	-	-	-	-
A-C	740.00	740.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	318.08	0.126	0.14	12.945	B
C-A	870.00	870.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	456.11	0.022	0.02	8.071	A
A-B	50.00	50.00	0.00	-	-	-	-	-
A-C	740.00	740.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	318.08	0.126	0.14	12.945	B
C-A	870.00	870.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	456.11	0.022	0.02	8.071	A
A-B	50.00	50.00	0.00	-	-	-	-	-
A-C	740.00	740.00	0.00	-	-	-	-	-

Sha Leng Road/ Man Kam To Road - Design, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Sha Leng Road/ Man Kam To Road	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Lo Wu Station Rd/ Man Kam To Rd	T-Junction	Two-way	A,B,C	16.93	C

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Westbound		Major
B	B	Lo Wu station road		Minor
C	C	Man Kam To Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.70		0.00		2.20	50.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	One lane	3.50										50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	544.462	0.079	0.199	0.125	0.285
1	B-C	688.222	0.084	0.212	-	-
1	C-B	602.919	0.186	0.186	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	1040.00	100.000
B	FLAT	✓	70.00	100.000
C	FLAT	✓	780.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	110.000	930.000
	B	60.000	0.000	10.000
	C	770.000	10.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.11	0.89
	B	0.86	0.00	0.14
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.26	18.06	0.35	C
C-A	-	-	-	-
C-B	0.02	9.01	0.03	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	68.63	0.00	269.33	0.260	0.34	17.821	C
C-A	770.00	770.00	0.00	-	-	-	-	-
C-B	10.00	9.90	0.00	409.65	0.024	0.02	9.004	A
A-B	110.00	110.00	0.00	-	-	-	-	-
A-C	930.00	930.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	69.98	0.00	269.31	0.260	0.35	18.056	C
C-A	770.00	770.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	409.65	0.024	0.02	9.007	A
A-B	110.00	110.00	0.00	-	-	-	-	-
A-C	930.00	930.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	69.99	0.00	269.31	0.260	0.35	18.060	C
C-A	770.00	770.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	409.65	0.024	0.02	9.007	A
A-B	110.00	110.00	0.00	-	-	-	-	-
A-C	930.00	930.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	70.00	0.00	269.31	0.260	0.35	18.060	C
C-A	770.00	770.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	409.65	0.024	0.03	9.007	A
A-B	110.00	110.00	0.00	-	-	-	-	-
A-C	930.00	930.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	70.00	0.00	269.31	0.260	0.35	18.062	C
C-A	770.00	770.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	409.65	0.024	0.03	9.007	A
A-B	110.00	110.00	0.00	-	-	-	-	-
A-C	930.00	930.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	70.00	70.00	0.00	269.31	0.260	0.35	18.062	C
C-A	770.00	770.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	409.65	0.024	0.03	9.007	A
A-B	110.00	110.00	0.00	-	-	-	-	-
A-C	930.00	930.00	0.00	-	-	-	-	-

Sha Leng Road/ Man Kam To Road - Design, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Sha Leng Road/ Man Kam To Road	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Lo Wu Station Rd/ Man Kam To Rd	T-Junction	Two-way	A,B,C	12.09	B

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Westbound		Major
B	B	Lo Wu station road		Minor
C	C	Man Kam To Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.70		0.00		2.20	50.00		

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	One lane	3.50										50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	544.462	0.079	0.199	0.125	0.285
1	B-C	688.222	0.084	0.212	-	-
1	C-B	602.919	0.186	0.186	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	810.00	100.000
B	FLAT	✓	40.00	100.000
C	FLAT	✓	890.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	70.000	740.000
	B	30.000	0.000	10.000
	C	880.000	10.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.09	0.91
	B	0.75	0.00	0.25
	C	0.99	0.01	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-AC	0.13	13.08	0.14	B
C-A	-	-	-	-
C-B	0.02	8.14	0.02	A
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	39.43	0.00	315.23	0.127	0.14	13.028	B
C-A	880.00	880.00	0.00	-	-	-	-	-
C-B	10.00	9.91	0.00	452.39	0.022	0.02	8.133	A
A-B	70.00	70.00	0.00	-	-	-	-	-
A-C	740.00	740.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	315.20	0.127	0.14	13.080	B
C-A	880.00	880.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	452.39	0.022	0.02	8.137	A
A-B	70.00	70.00	0.00	-	-	-	-	-
A-C	740.00	740.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	315.20	0.127	0.14	13.080	B
C-A	880.00	880.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	452.39	0.022	0.02	8.137	A
A-B	70.00	70.00	0.00	-	-	-	-	-
A-C	740.00	740.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	315.20	0.127	0.14	13.080	B
C-A	880.00	880.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	452.39	0.022	0.02	8.137	A
A-B	70.00	70.00	0.00	-	-	-	-	-
A-C	740.00	740.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	315.20	0.127	0.14	13.080	B
C-A	880.00	880.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	452.39	0.022	0.02	8.137	A
A-B	70.00	70.00	0.00	-	-	-	-	-
A-C	740.00	740.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-AC	40.00	40.00	0.00	315.20	0.127	0.14	13.080	B
C-A	880.00	880.00	0.00	-	-	-	-	-
C-B	10.00	10.00	0.00	452.39	0.022	0.02	8.137	A
A-B	70.00	70.00	0.00	-	-	-	-	-
A-C	740.00	740.00	0.00	-	-	-	-	-

Junctions 8

PICADY 8 - Priority Intersection Module

Version: 8.0.5.523 [19102,19/06/2015]

Filename: Junction C.arc8
Path: \\CTA_NAS01\Project\CTA Consultants Limited\CTA - Project (Completed)\21148HK - S16 for Prop Temp Cold Storage for Poultry and Distribution Centre at Man Kam To Rd, Sha Ling, NT\Calculation\1.83
Report generation date: 6/9/2023 15:32:42

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Lo Wu Station Road/ Man Kam To Road - Design							
Stream B-C	0.15	10.58	0.13	B	0.07	8.86	0.07	A
Stream B-A	0.56	25.49	0.36	D	0.28	20.30	0.22	C
Stream C-AB	0.08	9.53	0.07	A	0.07	8.71	0.07	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	Lo Wu Station Road/ Man Kam To Road - Existing							
Stream B-C	0.08	9.34	0.07	A	0.05	8.27	0.04	A
Stream B-A	0.33	19.81	0.25	C	0.19	17.19	0.16	C
Stream C-AB	0.05	8.94	0.05	A	0.05	8.25	0.04	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-
	Lo Wu Station Road/ Man Kam To Road - Reference							
Stream B-C	0.08	9.80	0.08	A	0.05	8.52	0.05	A
Stream B-A	0.45	23.19	0.31	C	0.21	18.89	0.17	C
Stream C-AB	0.05	9.19	0.05	A	0.05	8.47	0.04	A
Stream C-A	-	-	-	-	-	-	-	-
Stream A-B	-	-	-	-	-	-	-	-
Stream A-C	-	-	-	-	-	-	-	-

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

"D1 - Existing, AM " model duration: 8:00 - 9:30
"D2 - Existing, PM" model duration: 8:00 - 9:30
"D3 - Reference, AM" model duration: 8:00 - 9:30
"D4 - Reference, PM" model duration: 8:00 - 9:30
"D5 - Design, AM" model duration: 8:00 - 9:30
"D6 - Design, PM" model duration: 8:00 - 9:30

Run using Junctions 8.0.5.523 at 6/9/2023 15:32:38

File summary

Title	Lo Wu Station Road/ Man Kam To Road
Location	Lo Wu Station Road/ Man Kam To Road
Site Number	
Date	19/10/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ITADMIN
Description	

Analysis Options

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

Units

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

Lo Wu Station Road/ Man Kam To Road - Existing, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Mode[1]	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Lo Wu Station Road/ Man Kam To Road	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Lo Wu Station Rd/ Man Kam To Rd	T-Junction	Two-way	A,B,C	14.98	B

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Westbound		Major
B	B	Lo Wu station road		Minor
C	C	Man Kam To Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.70		0.00		2.20	50.00	✓	5.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	Two lanes		2.50	2.50								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	492.551	0.071	0.180	0.113	0.258
1	B-C	622.604	0.076	0.192	-	-
1	C-B	602.919	0.186	0.186	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	970.00	100.000
B	FLAT	✓	90.00	100.000
C	FLAT	✓	700.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	60.000	910.000
	B	60.000	0.000	30.000
	C	680.000	20.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.06	0.94
	B	0.67	0.00	0.33
	C	0.97	0.03	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.07	9.34	0.08	A
B-A	0.25	19.81	0.33	C
C-AB	0.05	8.94	0.05	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	29.69	0.00	415.91	0.072	0.08	9.307	A
B-A	60.00	58.72	0.00	241.79	0.248	0.32	19.535	C
C-AB	20.00	19.80	0.00	422.66	0.047	0.05	8.933	A
C-A	680.00	680.00	0.00	-	-	-	-	-
A-B	60.00	60.00	0.00	-	-	-	-	-
A-C	910.00	910.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	415.31	0.072	0.08	9.342	A
B-A	60.00	59.98	0.00	241.74	0.248	0.33	19.797	C
C-AB	20.00	20.00	0.00	422.66	0.047	0.05	8.940	A
C-A	680.00	680.00	0.00	-	-	-	-	-
A-B	60.00	60.00	0.00	-	-	-	-	-
A-C	910.00	910.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	415.31	0.072	0.08	9.342	A
B-A	60.00	59.99	0.00	241.74	0.248	0.33	19.803	C
C-AB	20.00	20.00	0.00	422.66	0.047	0.05	8.940	A
C-A	680.00	680.00	0.00	-	-	-	-	-
A-B	60.00	60.00	0.00	-	-	-	-	-
A-C	910.00	910.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	415.30	0.072	0.08	9.342	A
B-A	60.00	60.00	0.00	241.74	0.248	0.33	19.806	C
C-AB	20.00	20.00	0.00	422.66	0.047	0.05	8.940	A
C-A	680.00	680.00	0.00	-	-	-	-	-
A-B	60.00	60.00	0.00	-	-	-	-	-
A-C	910.00	910.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	415.30	0.072	0.08	9.342	A
B-A	60.00	60.00	0.00	241.74	0.248	0.33	19.806	C
C-AB	20.00	20.00	0.00	422.66	0.047	0.05	8.940	A
C-A	680.00	680.00	0.00	-	-	-	-	-
A-B	60.00	60.00	0.00	-	-	-	-	-
A-C	910.00	910.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	415.30	0.072	0.08	9.342	A
B-A	60.00	60.00	0.00	241.74	0.248	0.33	19.808	C
C-AB	20.00	20.00	0.00	422.66	0.047	0.05	8.940	A
C-A	680.00	680.00	0.00	-	-	-	-	-
A-B	60.00	60.00	0.00	-	-	-	-	-
A-C	910.00	910.00	0.00	-	-	-	-	-

Lo Wu Station Road/ Man Kam To Road - Existing, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Lo Wu Station Road/ Man Kam To Road	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Lo Wu Station Rd/ Man Kam To Rd	T-Junction	Two-way	A,B,C	12.73	B

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Westbound		Major
B	B	Lo Wu station road		Minor
C	C	Man Kam To Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.70		0.00		2.20	50.00	✓	5.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	Two lanes		2.50	2.50								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	492.551	0.071	0.180	0.113	0.258
1	B-C	622.604	0.076	0.192	-	-
1	C-B	602.919	0.186	0.186	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	790.00	100.000
B	FLAT	✓	60.00	100.000
C	FLAT	✓	890.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	30.000	760.000
	B	40.000	0.000	20.000
	C	870.000	20.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.67	0.00	0.33
	C	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.04	8.27	0.05	A
B-A	0.16	17.19	0.19	C
C-AB	0.04	8.25	0.05	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	20.00	19.82	0.00	455.46	0.044	0.05	8.260	A
B-A	40.00	39.25	0.00	249.43	0.160	0.19	17.071	C
C-AB	20.00	19.82	0.00	456.11	0.044	0.05	8.248	A
C-A	870.00	870.00	0.00	-	-	-	-	-
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	760.00	760.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	20.00	20.00	0.00	455.10	0.044	0.05	8.273	A
B-A	40.00	39.99	0.00	249.38	0.160	0.19	17.191	C
C-AB	20.00	20.00	0.00	456.11	0.044	0.05	8.254	A
C-A	870.00	870.00	0.00	-	-	-	-	-
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	760.00	760.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	20.00	20.00	0.00	455.09	0.044	0.05	8.273	A
B-A	40.00	40.00	0.00	249.38	0.160	0.19	17.193	C
C-AB	20.00	20.00	0.00	456.11	0.044	0.05	8.254	A
C-A	870.00	870.00	0.00	-	-	-	-	-
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	760.00	760.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	20.00	20.00	0.00	455.09	0.044	0.05	8.273	A
B-A	40.00	40.00	0.00	249.38	0.160	0.19	17.193	C
C-AB	20.00	20.00	0.00	456.11	0.044	0.05	8.254	A
C-A	870.00	870.00	0.00	-	-	-	-	-
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	760.00	760.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	20.00	20.00	0.00	455.09	0.044	0.05	8.273	A
B-A	40.00	40.00	0.00	249.38	0.160	0.19	17.193	C
C-AB	20.00	20.00	0.00	456.11	0.044	0.05	8.254	A
C-A	870.00	870.00	0.00	-	-	-	-	-
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	760.00	760.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	20.00	20.00	0.00	455.09	0.044	0.05	8.273	A
B-A	40.00	40.00	0.00	249.38	0.160	0.19	17.193	C
C-AB	20.00	20.00	0.00	456.11	0.044	0.05	8.254	A
C-A	870.00	870.00	0.00	-	-	-	-	-
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	760.00	760.00	0.00	-	-	-	-	-

Lo Wu Station Road/ Man Kam To Road - Reference, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Lo Wu Station Road/ Man Kam To Road	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Lo Wu Station Rd/ Man Kam To Rd	T-Junction	Two-way	A,B,C	17.51	C

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Westbound		Major
B	B	Lo Wu station road		Minor
C	C	Man Kam To Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.70		0.00		2.20	50.00	✓	5.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	Two lanes		2.50	2.50								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	492.551	0.071	0.180	0.113	0.258
1	B-C	622.604	0.076	0.192	-	-
1	C-B	602.919	0.186	0.186	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	1030.00	100.000
B	FLAT	✓	100.00	100.000
C	FLAT	✓	750.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	60.000	970.000
	B	70.000	0.000	30.000
	C	730.000	20.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.06	0.94
	B	0.70	0.00	0.30
	C	0.97	0.03	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.08	9.80	0.08	A
B-A	0.31	23.19	0.45	C
C-AB	0.05	9.19	0.05	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	29.68	0.00	398.35	0.075	0.08	9.757	A
B-A	70.00	68.26	0.00	225.29	0.311	0.43	22.692	C
C-AB	20.00	19.80	0.00	411.51	0.049	0.05	9.185	A
C-A	730.00	730.00	0.00	-	-	-	-	-
A-B	60.00	60.00	0.00	-	-	-	-	-
A-C	970.00	970.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	397.51	0.075	0.08	9.795	A
B-A	70.00	69.97	0.00	225.24	0.311	0.44	23.181	C
C-AB	20.00	20.00	0.00	411.51	0.049	0.05	9.194	A
C-A	730.00	730.00	0.00	-	-	-	-	-
A-B	60.00	60.00	0.00	-	-	-	-	-
A-C	970.00	970.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	397.50	0.075	0.08	9.795	A
B-A	70.00	69.99	0.00	225.24	0.311	0.45	23.176	C
C-AB	20.00	20.00	0.00	411.51	0.049	0.05	9.194	A
C-A	730.00	730.00	0.00	-	-	-	-	-
A-B	60.00	60.00	0.00	-	-	-	-	-
A-C	970.00	970.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	397.49	0.075	0.08	9.795	A
B-A	70.00	69.99	0.00	225.24	0.311	0.45	23.184	C
C-AB	20.00	20.00	0.00	411.51	0.049	0.05	9.194	A
C-A	730.00	730.00	0.00	-	-	-	-	-
A-B	60.00	60.00	0.00	-	-	-	-	-
A-C	970.00	970.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	397.49	0.075	0.08	9.795	A
B-A	70.00	70.00	0.00	225.24	0.311	0.45	23.183	C
C-AB	20.00	20.00	0.00	411.51	0.049	0.05	9.194	A
C-A	730.00	730.00	0.00	-	-	-	-	-
A-B	60.00	60.00	0.00	-	-	-	-	-
A-C	970.00	970.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	397.49	0.075	0.08	9.795	A
B-A	70.00	70.00	0.00	225.24	0.311	0.45	23.187	C
C-AB	20.00	20.00	0.00	411.51	0.049	0.05	9.194	A
C-A	730.00	730.00	0.00	-	-	-	-	-
A-B	60.00	60.00	0.00	-	-	-	-	-
A-C	970.00	970.00	0.00	-	-	-	-	-

Lo Wu Station Road/ Man Kam To Road - Reference, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Lo Wu Station Road/ Man Kam To Road	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Lo Wu Station Rd/ Man Kam To Rd	T-Junction	Two-way	A,B,C	13.69	B

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Westbound		Major
B	B	Lo Wu station road		Minor
C	C	Man Kam To Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.70		0.00		2.20	50.00	✓	5.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	Two lanes		2.50	2.50								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	492.551	0.071	0.180	0.113	0.258
1	B-C	622.604	0.076	0.192	-	-
1	C-B	602.919	0.186	0.186	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	850.00	100.000
B	FLAT	✓	60.00	100.000
C	FLAT	✓	960.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	30.000	820.000
	B	40.000	0.000	20.000
	C	940.000	20.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.04	0.96
	B	0.67	0.00	0.33
	C	0.98	0.02	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.05	8.52	0.05	A
B-A	0.17	18.89	0.21	C
C-AB	0.04	8.47	0.05	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	20.00	19.81	0.00	442.89	0.045	0.05	8.505	A
B-A	40.00	39.18	0.00	230.66	0.173	0.20	18.724	C
C-AB	20.00	19.81	0.00	444.96	0.045	0.05	8.464	A
C-A	940.00	940.00	0.00	-	-	-	-	-
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	820.00	820.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	20.00	20.00	0.00	442.48	0.045	0.05	8.520	A
B-A	40.00	39.99	0.00	230.61	0.173	0.21	18.881	C
C-AB	20.00	20.00	0.00	444.96	0.045	0.05	8.471	A
C-A	940.00	940.00	0.00	-	-	-	-	-
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	820.00	820.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	20.00	20.00	0.00	442.47	0.045	0.05	8.520	A
B-A	40.00	40.00	0.00	230.61	0.173	0.21	18.884	C
C-AB	20.00	20.00	0.00	444.96	0.045	0.05	8.471	A
C-A	940.00	940.00	0.00	-	-	-	-	-
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	820.00	820.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	20.00	20.00	0.00	442.47	0.045	0.05	8.520	A
B-A	40.00	40.00	0.00	230.61	0.173	0.21	18.886	C
C-AB	20.00	20.00	0.00	444.96	0.045	0.05	8.471	A
C-A	940.00	940.00	0.00	-	-	-	-	-
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	820.00	820.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	20.00	20.00	0.00	442.47	0.045	0.05	8.520	A
B-A	40.00	40.00	0.00	230.61	0.173	0.21	18.886	C
C-AB	20.00	20.00	0.00	444.96	0.045	0.05	8.471	A
C-A	940.00	940.00	0.00	-	-	-	-	-
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	820.00	820.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	20.00	20.00	0.00	442.47	0.045	0.05	8.520	A
B-A	40.00	40.00	0.00	230.61	0.173	0.21	18.886	C
C-AB	20.00	20.00	0.00	444.96	0.045	0.05	8.471	A
C-A	940.00	940.00	0.00	-	-	-	-	-
A-B	30.00	30.00	0.00	-	-	-	-	-
A-C	820.00	820.00	0.00	-	-	-	-	-

Lo Wu Station Road/ Man Kam To Road - Design, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Lo Wu Station Road/ Man Kam To Road	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Lo Wu Station Rd/ Man Kam To Rd	T-Junction	Two-way	A,B,C	17.84	C

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Westbound		Major
B	B	Lo Wu station road		Minor
C	C	Man Kam To Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.70		0.00		2.20	50.00	✓	5.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	Two lanes		2.50	2.50								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	492.551	0.071	0.180	0.113	0.258
1	B-C	622.604	0.076	0.192	-	-
1	C-B	602.919	0.186	0.186	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	1050.00	100.000
B	FLAT	✓	130.00	100.000
C	FLAT	✓	760.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	80.000	970.000
	B	80.000	0.000	50.000
	C	730.000	30.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.08	0.92
	B	0.62	0.00	0.38
	C	0.96	0.04	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.13	10.58	0.15	B
B-A	0.36	25.49	0.56	D
C-AB	0.07	9.53	0.08	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	50.00	49.42	0.00	391.49	0.128	0.14	10.506	B
B-A	80.00	77.83	0.00	221.29	0.362	0.54	24.750	C
C-AB	30.00	29.69	0.00	407.79	0.074	0.08	9.513	A
C-A	730.00	730.00	0.00	-	-	-	-	-
A-B	80.00	80.00	0.00	-	-	-	-	-
A-C	970.00	970.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	50.00	49.99	0.00	390.42	0.128	0.15	10.574	B
B-A	80.00	79.95	0.00	221.21	0.362	0.55	25.463	D
C-AB	30.00	30.00	0.00	407.79	0.074	0.08	9.528	A
C-A	730.00	730.00	0.00	-	-	-	-	-
A-B	80.00	80.00	0.00	-	-	-	-	-
A-C	970.00	970.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	50.00	50.00	0.00	390.39	0.128	0.15	10.575	B
B-A	80.00	79.98	0.00	221.21	0.362	0.56	25.478	D
C-AB	30.00	30.00	0.00	407.79	0.074	0.08	9.528	A
C-A	730.00	730.00	0.00	-	-	-	-	-
A-B	80.00	80.00	0.00	-	-	-	-	-
A-C	970.00	970.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	50.00	50.00	0.00	390.39	0.128	0.15	10.575	B
B-A	80.00	79.99	0.00	221.21	0.362	0.56	25.483	D
C-AB	30.00	30.00	0.00	407.79	0.074	0.08	9.528	A
C-A	730.00	730.00	0.00	-	-	-	-	-
A-B	80.00	80.00	0.00	-	-	-	-	-
A-C	970.00	970.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	50.00	50.00	0.00	390.38	0.128	0.15	10.575	B
B-A	80.00	80.00	0.00	221.21	0.362	0.56	25.486	D
C-AB	30.00	30.00	0.00	407.79	0.074	0.08	9.528	A
C-A	730.00	730.00	0.00	-	-	-	-	-
A-B	80.00	80.00	0.00	-	-	-	-	-
A-C	970.00	970.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	50.00	50.00	0.00	390.38	0.128	0.15	10.575	B
B-A	80.00	80.00	0.00	221.21	0.362	0.56	25.488	D
C-AB	30.00	30.00	0.00	407.79	0.074	0.08	9.528	A
C-A	730.00	730.00	0.00	-	-	-	-	-
A-B	80.00	80.00	0.00	-	-	-	-	-
A-C	970.00	970.00	0.00	-	-	-	-	-

Lo Wu Station Road/ Man Kam To Road - Design, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Lo Wu Station Road/ Man Kam To Road	N/A			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Major Road Direction	Arm Order	Junction Delay (s)	Junction LOS
1	Lo Wu Station Rd/ Man Kam To Rd	T-Junction	Two-way	A,B,C	14.02	B

Junction Network Options

Driving Side	Lighting
Right	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description	Arm Type
A	A	Man Kam To Road Westbound		Major
B	B	Lo Wu station road		Minor
C	C	Man Kam To Road East		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Width of kerbed central reserve (m)	Has left turn bay	Width For Left Turn (m)	Visibility For Left Turn (m)	Blocks?	Blocking Queue (PCU)
C	10.70		0.00		2.20	50.00	✓	5.00

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

Minor Arm Geometry

Arm	Minor Arm Type	Lane Width (m)	Lane Width (Right) (m)	Lane Width (Left) (m)	Width at give-way (m)	Width at 5m (m)	Width at 10m (m)	Width at 15m (m)	Width at 20m (m)	Estimate Flare Length	Flare Length (PCU)	Visibility To Right (m)	Visibility To Left (m)
B	Two lanes		2.50	2.50								50	50

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Junction	Stream	Intercept (PCU/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
1	B-A	492.551	0.071	0.180	0.113	0.258
1	B-C	622.604	0.076	0.192	-	-
1	C-B	602.919	0.186	0.186	-	-

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

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

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

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
A	FLAT	✓	860.00	100.000
B	FLAT	✓	80.00	100.000
C	FLAT	✓	970.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.000	40.000	820.000
	B	50.000	0.000	30.000
	C	940.000	30.000	0.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		A	B	C
From	A	0.00	0.05	0.95
	B	0.63	0.00	0.38
	C	0.97	0.03	0.00

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

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

Heavy Vehicle Percentages - Junction 1 (for whole period)

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

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
B-C	0.07	8.86	0.07	A
B-A	0.22	20.30	0.28	C
C-AB	0.07	8.71	0.07	A
C-A	-	-	-	-
A-B	-	-	-	-
A-C	-	-	-	-

Main Results for each time segment

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	29.71	0.00	436.80	0.069	0.07	8.837	A
B-A	50.00	48.90	0.00	227.37	0.220	0.27	20.056	C
C-AB	30.00	29.71	0.00	443.10	0.068	0.07	8.702	A
C-A	940.00	940.00	0.00	-	-	-	-	-
A-B	40.00	40.00	0.00	-	-	-	-	-
A-C	820.00	820.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	436.23	0.069	0.07	8.861	A
B-A	50.00	49.98	0.00	227.29	0.220	0.28	20.298	C
C-AB	30.00	30.00	0.00	443.10	0.068	0.07	8.714	A
C-A	940.00	940.00	0.00	-	-	-	-	-
A-B	40.00	40.00	0.00	-	-	-	-	-
A-C	820.00	820.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	436.22	0.069	0.07	8.861	A
B-A	50.00	49.99	0.00	227.29	0.220	0.28	20.302	C
C-AB	30.00	30.00	0.00	443.10	0.068	0.07	8.714	A
C-A	940.00	940.00	0.00	-	-	-	-	-
A-B	40.00	40.00	0.00	-	-	-	-	-
A-C	820.00	820.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	436.22	0.069	0.07	8.861	A
B-A	50.00	50.00	0.00	227.29	0.220	0.28	20.302	C
C-AB	30.00	30.00	0.00	443.10	0.068	0.07	8.714	A
C-A	940.00	940.00	0.00	-	-	-	-	-
A-B	40.00	40.00	0.00	-	-	-	-	-
A-C	820.00	820.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	436.22	0.069	0.07	8.861	A
B-A	50.00	50.00	0.00	227.29	0.220	0.28	20.304	C
C-AB	30.00	30.00	0.00	443.10	0.068	0.07	8.714	A
C-A	940.00	940.00	0.00	-	-	-	-	-
A-B	40.00	40.00	0.00	-	-	-	-	-
A-C	820.00	820.00	0.00	-	-	-	-	-

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

Stream	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
B-C	30.00	30.00	0.00	436.22	0.069	0.07	8.861	A
B-A	50.00	50.00	0.00	227.29	0.220	0.28	20.304	C
C-AB	30.00	30.00	0.00	443.10	0.068	0.07	8.714	A
C-A	940.00	940.00	0.00	-	-	-	-	-
A-B	40.00	40.00	0.00	-	-	-	-	-
A-C	820.00	820.00	0.00	-	-	-	-	-

TRAFFIC SIGNALS CALCULATION

CTA Consultants Ltd.

Junction: Junctoin D - Man Kam To Road / Fu Tei Au Road

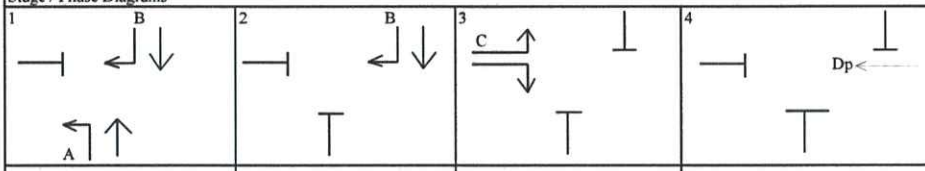
Description: 2023 Existing Case

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Man Kam To Road	N		A	1	3.0	12.5	0	1	12%	14%	1890	1885	3945	3940	508	0.269		421	0.223	
	N		A	1	3.0	0	0	0	0%	0%	2055	2055	0	0	552	0.269		459	0.223	
Man Kam To Road	S		B	1,2	5.5	0	15	1	3%	1%	1930	1935	1930	1935	780	0.404	0.404	810	0.419	0.419
Fu Tei Au Road	E		C	3	4.0	7.5	15	1	8% / 92%	5% / 85%	1820	1805	1820	1805	120	0.066	0.066	130	0.072	0.072
Pedestrian crossing			Dp	4		Min Crossing time = 8Gm+12Fm=20s											*			*

Notes:

	Check Phase	Check Phase
εy	0.470	0.491
L (sec)	32	32
C (sec)	120	120
y pract.	0.660	0.660
R.C. (%)	40%	35%

Stage / Phase Diagrams



TRAFFIC SIGNALS CALCULATION

CTA Consultants Ltd.

Junction: Junctoin D - Man Kam To Road / Fu Tei Au Road

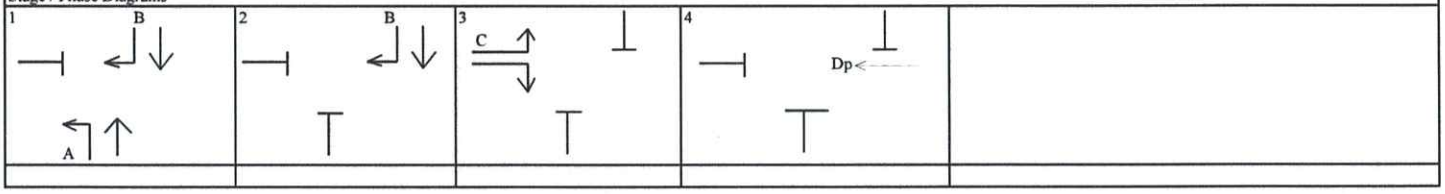
Description: 2027 Reference Case

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Man Kam To Road	N		A	1	3.0	12.5	0	1	13%	15%	1885	1880	3940	3935	550	0.292		459	0.244	
	N		A	1	3.0	0	0	0	0%	0%	2055	2055	0	0	600	0.292		501	0.244	
Man Kam To Road	S		B	1,2	5.5	0	15	1	2%	1%	1930	1935	1930	1935	840	0.435	0.435	870	0.450	0.450
Fu Tei Au Road	E		C	3	4.0	7.5	15	1	8% / 92%	5% / 85%	1820	1805	1820	1805	120	0.066	0.066	130	0.072	0.072
Pedestrian crossing			Dp	4		Min Crossing time = 8Gm+12Fm=20s											*			*

Notes:

	Check Phase	Check Phase
εy	0.501	0.522
L (sec)	34	34
C (sec)	106	106
y pract.	0.611	0.611
R.C. (%)	22%	17%

Stage / Phase Diagrams



TRAFFIC SIGNALS CALCULATION

CTA Consultants Ltd.

Junction: Junctoin D - Man Kam To Road / Fu Tei Au Road

Description: 2027 Design Case

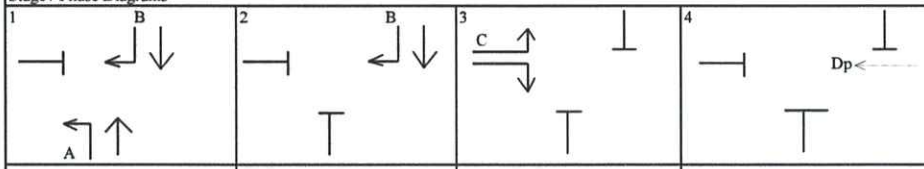
Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Man Kam To Road	N		A	1	3.0	12.5	0	1	13%	15%	1885	1880	3940	3935	555	0.295		464	0.247	
	N		A	1	3.0	0	0	0	0%	0%	2055	2055	0	0	605	0.294		506	0.246	
Man Kam To Road	S		B	1,2	5.5	0	15	1	2%	1%	1930	1935	1930	1935	860	0.446	0.446	880	0.455	0.455
Fu Tei Au Road	E		C	3	4.0	7.5	15	1	8% / 92%	5% / 85%	1820	1805	1820	1805	120	0.066	0.066	130	0.072	0.072
Pedestrian crossing			Dp	4													*			*

Min Crossing time = 8Gm+12Fm=20s

Notes:

	Check Phase		Check Phase
εy	0.512	εy	0.527
L (sec)	34	L (sec)	34
C (sec)	106	C (sec)	106
y pract.	0.611	y pract.	0.611
R.C. (%)	20%	R.C. (%)	16%

Stage / Phase Diagrams



TRAFFIC SIGNALS CALCULATION

CTA Consultants Ltd.

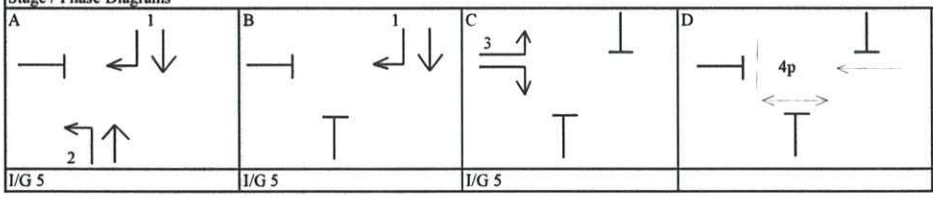
Junction: Junctoin E - Jockey Club Road / Po Wan Road
Description: 2023 Existing Case

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Jockey Club Road	N		2	A	2.5	12.5	0	1	38%	28%	1785	1805	3840	3860	502	0.281		458	0.254	
	N		2	A	3.0	0	0	0	0%	0%	2055	2055	0	0	578	0.281		522	0.254	
Jockey Club Road	S		1	A,B	3.0	0	20	0	18%	18%	1800	1800	0	0	446	0.248	0.248	499	0.277	0.277
	S		1	A,B	3.0	0	0	1	0%	0%	1915	1915	3715	3715	474	0.248		531	0.277	
Po Wan Road	E		3	C	3.0	12.5	25	1	17% / 53%	39% / 1%	1760	1710	3670	3620	170	0.097	0.097	116	0.068	0.068
	E		3	C	3.0	0	20	0	100%	100%	1910	1910	0	0	185	0.097		129	0.068	
Pedestrian crossing			4p	D	Min Crossing time = 22												*			*

Notes:

Check Phase		Check Phase	
εy	0.344	εy	0.345
L (sec)	34	L (sec)	34
C (sec)	112	C (sec)	112
y pract.	0.627	y pract.	0.627
R.C. (%)	82%	R.C. (%)	82%

Stage / Phase Diagrams



TRAFFIC SIGNALS CALCULATION

CTA Consultants Ltd.

Junction: Junctoin E - Jockey Club Road / Po Wan Road
Description: 2027 Reference Case

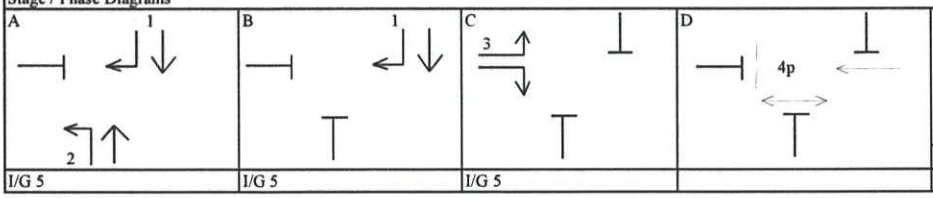
Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Jockey Club Road	N		2	A	2.5	12.5	0	1	39%	29%	1780	1805	3835	3860	539	0.303		491	0.272	
	N		2	A	3.0	0	0	0	0%	0%	2055	2055	0	0	621	0.302		559	0.272	
Jockey Club Road	S		1	A,B	3.0	0	20	0	19%	17%	1800	1800	0	0	480	0.266	0.267	533	0.296	0.296
	S		1	A,B	3.0	0	0	1	0%	0%	1915	1915	3715	3715	510	0.267		567	0.296	
Po Wan Road	E		3	C	3.0	12.5	25	1	46% / 54%	46% / 4	1760	1715	3670	3625	185	0.105	0.105	125	0.073	0.073
	E		3	C	3.0	0	20	0	100%	100%	1910	1910	0	0	200	0.105		140	0.073	
Pedestrian crossing			4p	D													*			*

Min Crossing time = 22

Notes:

Check Phase		Check Phase	
εy	0.371	εy	0.369
L (sec)	34	L (sec)	34
C (sec)	112	C (sec)	112
y pract.	0.627	y pract.	0.627
R.C. (%)	69%	R.C. (%)	70%

Stage / Phase Diagrams



I/G 5	I/G 5	I/G 5			

TRAFFIC SIGNALS CALCULATION

CTA Consultants Ltd.

Junction: Junctoin E - Jockey Club Road / Po Wan Road

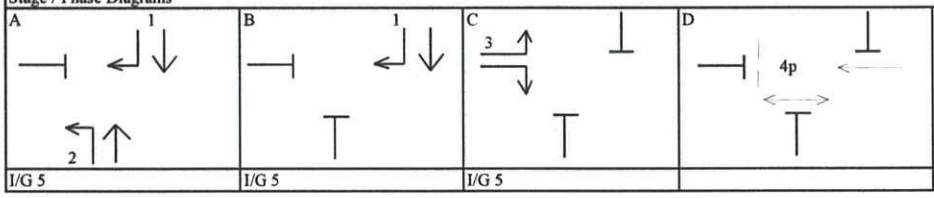
Description: 2027 Design Case

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Jockey Club Road	N		2	A	2.5	12.5	0	1	38%	28%	1785	1805	3840	3860	548	0.307		496	0.275	
	N		2	A	3.0	0	0	0	0%	0%	2055	2055	0	0	632	0.307		564	0.275	
Jockey Club Road	S		1	A,B	3.0	0	20	0	19%	17%	1800	1800	0	0	485	0.269	0.269	538	0.299	0.299
	S		1	A,B	3.0	0	0	1	0%	0%	1915	1915	3715	3715	515	0.269		572	0.299	
Po Wan Road	E		3	C	3.0	12.5	25	1	46% / 54%	46% / 4%	1760	1715	3670	3625	185	0.105	0.105	125	0.073	0.073
	E		3	C	3.0	0	20	0	100%	100%	1910	1910	0	0	200	0.105		140	0.073	
Pedestrian crossing			4p	D		Min Crossing time = 22											*			*

Notes:

Check Phase		Check Phase	
εy	0.374	εy	0.372
L (sec)	34	L (sec)	34
C (sec)	112	C (sec)	112
y pract.	0.627	y pract.	0.627
R.C. (%)	68%	R.C. (%)	68%

Stage / Phase Diagrams



TRAFFIC SIGNALS CALCULATION

CTA Consultants Ltd.

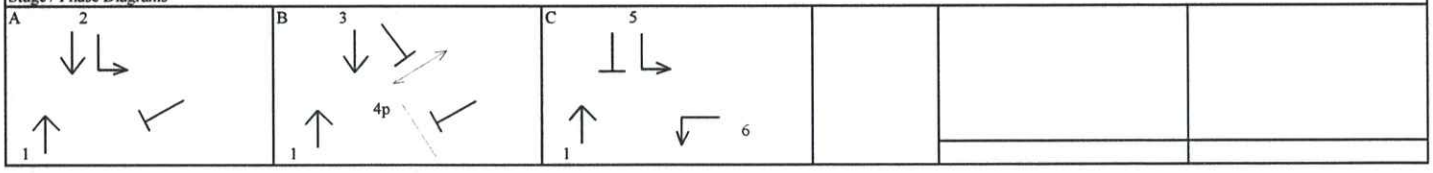
Junction: Junctoin F - Jockey Club Road / Tin Ping Road
Description: 2023 Existing Case

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Jockey Club Road	N	↑	1	A,B,C	3.5	0	0	1	0%	0%	1965	1965	4070	4070	512	0.260		492	0.251	
	N	↑	1	A,B,C	3.5	0	0	0	0%	0%	2105	2105	0	0	548	0.260		528	0.251	
Jockey Club Road	S	↓→	2	A,B,C	3.5	12.5	0	1	64%	33%	1825	1890	3930	3995	543	0.298		577	0.305	
	S	↓	3	A,B	3.5	0	0	0	0%	0%	2105	2105	0	0	627	0.298	0.298	643	0.305	0.305
Tin Ping Road	W	↓	6	C	5.0	10	0	1	100%	100%	1840	1840	1840	1840	180	0.098	0.098	250	0.136	0.136

Notes:

Check Phase		Check Phase	
Εy	0.396	Εy	0.441
L (sec)	12	L (sec)	12
C (sec)	64	C (sec)	64
y pract.	0.731	y pract.	0.731
R.C. (%)	85%	R.C. (%)	66%

Stage / Phase Diagrams



TRAFFIC SIGNALS CALCULATION

CTA Consultants Ltd.

Junction: Junctoin F - Jockey Club Road / Tin Ping Road

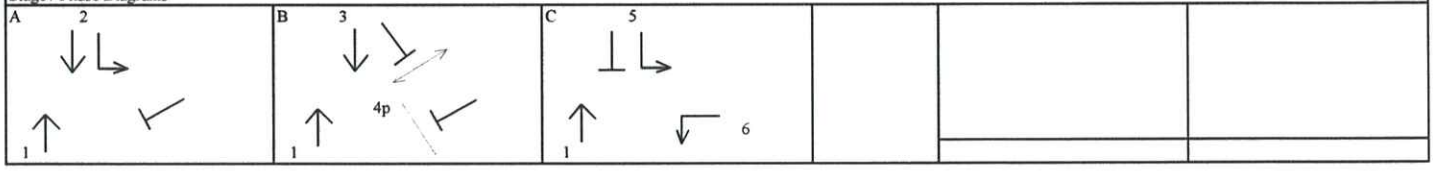
Description: 2027 Reference Case

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Jockey Club Road	N	↑	1	A,B,C	3.5	0	0	1	0%	0%	1965	1965	4070	4070	550	0.280		526	0.268	
	N	↑	1	A,B,C	3.5	0	0	0	0%	0%	2105	2105	0	0	590	0.280		564	0.268	
Jockey Club Road	S	↓→	2	A,B,C	3.5	12.5	0	1	65%	32%	1825	1890	3930	3995	585	0.320		620	0.328	
	S	↓	3	A,B	3.5	0	0	0	0%	0%	2105	2105	0	0	675	0.321	0.321	690	0.328	0.328
Tin Ping Road	W	↓	6	C	5.0	10	0	1	100%	100%	1840	1840	1840	1840	200	0.109	0.109	270	0.147	0.147

Notes:

Check Phase		Check Phase	
Εy	0.429	Εy	0.475
L (sec)	12	L (sec)	12
C (sec)	64	C (sec)	64
y pract.	0.731	y pract.	0.731
R.C. (%)	70%	R.C. (%)	54%

Stage / Phase Diagrams



TRAFFIC SIGNALS CALCULATION

CTA Consultants Ltd.

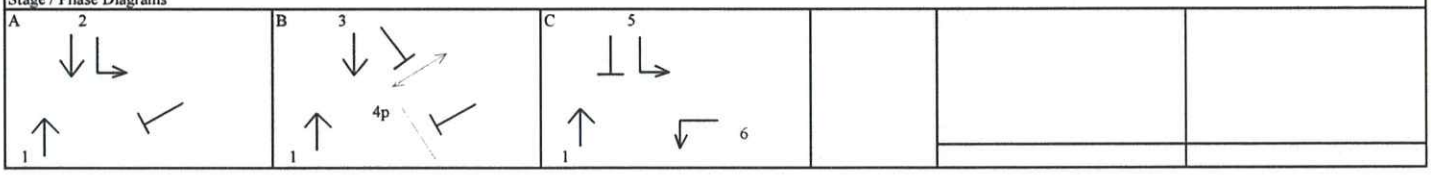
Junction: Junctoin F - Jockey Club Road / Tin Ping Road
Description: 2027 Design Case

Approach	Direction	Movement notation	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Nearside 0/1	Pro. Turning (%) A.M.	Pro. Turning (%) P.M.	Revised Saturation Flow (pcu/hr) A.M.	Revised Saturation Flow (pcu/hr) P.M.	Total Revised Saturation Flow (pcu/hr) A.M.	Total Revised Saturation Flow (pcu/hr) P.M.	A.M. Peak Flow (pcu/hr)	A.M. Peak y Value	A.M. Peak Critical y	P.M. Peak Flow (pcu/hr)	P.M. Peak y Value	P.M. Peak Critical y
Jockey Club Road	N	↑	1	A,B,C	3.5	0	0	1	0%	0%	1965	1965	4070	4070	560	0.285		536	0.273	
	N	↑	1	A,B,C	3.5	0	0	0	0%	0%	2105	2105	0	0	600	0.285		574	0.273	
Jockey Club Road	S	↓↳	2	A,B,C	3.5	12.5	0	1	64%	33%	1825	1890	3930	3995	590	0.323		629	0.333	
	S	↓	3	A,B	3.5	0	0	0	0%	0%	2105	2105	0	0	680	0.323	0.323	701	0.333	0.333
Tin Ping Road	W	↓↲	6	C	5.0	10	0	1	100%	100%	1840	1840	1840	1840	200	0.109	0.109	270	0.147	0.147

Notes:

Check Phase		Check Phase	
Εy	0.432	Εy	0.480
L (sec)	12	L (sec)	12
C (sec)	64	C (sec)	64
y pract.	0.731	y pract.	0.731
R.C. (%)	69%	R.C. (%)	52%

Stage / Phase Diagrams



Junctions 8

ARCADY 8 - Roundabout Module

Version: 8.0.5.523 [19102,19/06/2015]

Filename: Junction G.arc8
Path: \\CTA_NAS01\Project\CTA Consultants Limited\CTA - Project (Completed)\21148HK - S16 for Prop Temp Cold Storage for Poultry and Distribution Centre at Man Kam To Rd, Sha Ling, NT\Calculation\1.83
Report generation date: 6/9/2023 15:42:43

Summary of junction performance

	AM				PM			
	Queue (PCU)	Delay (s)	RFC	LOS	Queue (PCU)	Delay (s)	RFC	LOS
	Junction G - Design							
Arm 1	0.50	2.62	0.33	A	0.54	3.04	0.35	A
Arm 2	0.68	2.59	0.41	A	0.66	2.47	0.40	A
Arm 3	0.75	2.49	0.43	A	1.16	3.04	0.54	A
	Junction G - Existing							
Arm 1	0.44	2.46	0.30	A	0.46	2.78	0.31	A
Arm 2	0.58	2.40	0.37	A	0.56	2.29	0.36	A
Arm 3	0.65	2.33	0.39	A	0.99	2.79	0.50	A
	Junction G - Reference							
Arm 1	0.49	2.60	0.33	A	0.53	3.01	0.35	A
Arm 2	0.67	2.56	0.40	A	0.64	2.44	0.39	A
Arm 3	0.75	2.49	0.43	A	1.16	3.04	0.54	A

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

"D1 - Existing, AM " model duration: 8:00 - 9:30
"D2 - Existing, PM" model duration: 8:00 - 9:30
"D3 - Reference, AM" model duration: 8:00 - 9:30
"D4 - Reference, PM" model duration: 8:00 - 9:30
"D5 - Design, AM" model duration: 8:00 - 9:30
"D6 - Design, PM" model duration: 8:00 - 9:30

Run using Junctions 8.0.5.523 at 6/9/2023 15:42:41

File summary

Title	Jockey Club Road/ Po Shek Wu Road
Location	Jockey Club Road/ Po Shek Wu Road
Site Number	
Date	16/10/2018
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ITADMIN
Description	

Analysis Options

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

Units

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

Junction G - Existing, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Junction G	ARCADY			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3			2.39	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	(untitled)	
2	2	(untitled)	
3	3	(untitled)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.00	10.60	10.00	100.00	42.80	29.50	
2	7.00	10.60	10.00	72.00	42.80	18.00	
3	7.30	9.90	10.00	100.00	42.80	21.40	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.851	2735.239
2		(calculated)	(calculated)	0.881	2830.110
3		(calculated)	(calculated)	0.877	2824.114

The slope and intercept shown above include any corrections and adjustments.

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	FLAT	✓	640.00	100.000
2	FLAT	✓	870.00	100.000
3	FLAT	✓	1000.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	190.000	210.000	240.000
	2	120.000	10.000	740.000
	3	270.000	640.000	90.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.30	0.33	0.38
	2	0.14	0.01	0.85
	3	0.27	0.64	0.09

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.0	0.0	0.0
	2	0.0	0.0	0.0
	3	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.30	2.46	0.44	A
2	0.37	2.40	0.58	A
3	0.39	2.33	0.65	A

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	640.00	638.26	738.09	0.00	2106.98	0.304	0.43	2.447	A
2	870.00	867.69	518.60	0.00	2373.37	0.367	0.58	2.388	A
3	1000.00	997.42	319.14	0.00	2544.18	0.393	0.64	2.323	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	640.00	640.00	740.00	0.00	2105.36	0.304	0.44	2.456	A
2	870.00	869.99	520.00	0.00	2372.14	0.367	0.58	2.396	A
3	1000.00	999.99	320.00	0.00	2543.43	0.393	0.65	2.332	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	640.00	640.00	740.00	0.00	2105.36	0.304	0.44	2.456	A
2	870.00	870.00	520.00	0.00	2372.14	0.367	0.58	2.396	A
3	1000.00	1000.00	320.00	0.00	2543.43	0.393	0.65	2.332	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	640.00	640.00	740.00	0.00	2105.36	0.304	0.44	2.456	A
2	870.00	870.00	520.00	0.00	2372.14	0.367	0.58	2.396	A
3	1000.00	1000.00	320.00	0.00	2543.43	0.393	0.65	2.332	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	640.00	640.00	740.00	0.00	2105.36	0.304	0.44	2.456	A
2	870.00	870.00	520.00	0.00	2372.14	0.367	0.58	2.396	A
3	1000.00	1000.00	320.00	0.00	2543.43	0.393	0.65	2.332	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	640.00	640.00	740.00	0.00	2105.36	0.304	0.44	2.456	A
2	870.00	870.00	520.00	0.00	2372.14	0.367	0.58	2.396	A
3	1000.00	1000.00	320.00	0.00	2543.43	0.393	0.65	2.332	A

Junction G - Existing, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Junction G	ARCADY			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3			2.63	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	(untitled)	
2	2	(untitled)	
3	3	(untitled)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.00	10.60	10.00	100.00	42.80	29.50	
2	7.00	10.60	10.00	72.00	42.80	18.00	
3	7.30	9.90	10.00	100.00	42.80	21.40	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.851	2735.239
2		(calculated)	(calculated)	0.881	2830.110
3		(calculated)	(calculated)	0.877	2824.114

The slope and intercept shown above include any corrections and adjustments.

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	FLAT	✓	590.00	100.000
2	FLAT	✓	880.00	100.000
3	FLAT	✓	1280.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	150.000	210.000	230.000
	2	130.000	10.000	740.000
	3	290.000	940.000	50.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.25	0.36	0.39
	2	0.15	0.01	0.84
	3	0.23	0.73	0.04

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.0	0.0	0.0
	2	0.0	0.0	0.0
	3	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.31	2.78	0.46	A
2	0.36	2.29	0.56	A
3	0.50	2.79	0.99	A

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	590.00	588.19	996.92	0.00	1886.67	0.313	0.45	2.769	A
2	880.00	877.77	428.68	0.00	2452.56	0.359	0.56	2.283	A
3	1280.00	1276.06	289.18	0.00	2570.46	0.498	0.99	2.773	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	590.00	589.99	999.99	0.00	1884.06	0.313	0.45	2.781	A
2	880.00	879.99	429.99	0.00	2451.40	0.359	0.56	2.290	A
3	1280.00	1279.99	290.00	0.00	2569.75	0.498	0.99	2.790	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	590.00	590.00	1000.00	0.00	1884.05	0.313	0.46	2.781	A
2	880.00	880.00	430.00	0.00	2451.40	0.359	0.56	2.290	A
3	1280.00	1280.00	290.00	0.00	2569.74	0.498	0.99	2.790	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	590.00	590.00	1000.00	0.00	1884.05	0.313	0.46	2.781	A
2	880.00	880.00	430.00	0.00	2451.40	0.359	0.56	2.290	A
3	1280.00	1280.00	290.00	0.00	2569.74	0.498	0.99	2.790	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	590.00	590.00	1000.00	0.00	1884.05	0.313	0.46	2.781	A
2	880.00	880.00	430.00	0.00	2451.40	0.359	0.56	2.290	A
3	1280.00	1280.00	290.00	0.00	2569.74	0.498	0.99	2.790	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	590.00	590.00	1000.00	0.00	1884.05	0.313	0.46	2.781	A
2	880.00	880.00	430.00	0.00	2451.40	0.359	0.56	2.290	A
3	1280.00	1280.00	290.00	0.00	2569.74	0.498	0.99	2.790	A

Junction G - Reference, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Junction G	ARCADY			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3			2.54	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	(untitled)	
2	2	(untitled)	
3	3	(untitled)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.00	10.60	10.00	100.00	42.80	29.50	
2	7.00	10.60	10.00	72.00	42.80	18.00	
3	7.30	9.90	10.00	100.00	42.80	21.40	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.851	2735.239
2		(calculated)	(calculated)	0.881	2830.110
3		(calculated)	(calculated)	0.877	2824.114

The slope and intercept shown above include any corrections and adjustments.

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	FLAT	✓	680.00	100.000
2	FLAT	✓	940.00	100.000
3	FLAT	✓	1080.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	200.000	220.000	260.000
	2	130.000	10.000	800.000
	3	300.000	690.000	90.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.29	0.32	0.38
	2	0.14	0.01	0.85
	3	0.28	0.64	0.08

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.0	0.0	0.0
	2	0.0	0.0	0.0
	3	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.33	2.60	0.49	A
2	0.40	2.56	0.67	A
3	0.43	2.49	0.75	A

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	680.00	678.04	787.83	0.00	2064.65	0.329	0.49	2.593	A
2	940.00	937.34	548.43	0.00	2347.10	0.400	0.66	2.549	A
3	1080.00	1077.03	339.03	0.00	2526.74	0.427	0.74	2.478	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	680.00	679.99	789.99	0.00	2062.80	0.330	0.49	2.602	A
2	940.00	939.99	550.00	0.00	2345.72	0.401	0.67	2.560	A
3	1080.00	1079.99	340.00	0.00	2525.89	0.428	0.75	2.489	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	680.00	680.00	790.00	0.00	2062.80	0.330	0.49	2.602	A
2	940.00	940.00	550.00	0.00	2345.72	0.401	0.67	2.560	A
3	1080.00	1080.00	340.00	0.00	2525.89	0.428	0.75	2.489	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	680.00	680.00	790.00	0.00	2062.80	0.330	0.49	2.602	A
2	940.00	940.00	550.00	0.00	2345.71	0.401	0.67	2.560	A
3	1080.00	1080.00	340.00	0.00	2525.89	0.428	0.75	2.489	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	680.00	680.00	790.00	0.00	2062.80	0.330	0.49	2.602	A
2	940.00	940.00	550.00	0.00	2345.71	0.401	0.67	2.560	A
3	1080.00	1080.00	340.00	0.00	2525.89	0.428	0.75	2.489	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	680.00	680.00	790.00	0.00	2062.80	0.330	0.49	2.602	A
2	940.00	940.00	550.00	0.00	2345.71	0.401	0.67	2.560	A
3	1080.00	1080.00	340.00	0.00	2525.89	0.428	0.75	2.489	A

Junction G - Reference, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Junction G	ARCADY			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3			2.84	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	(untitled)	
2	2	(untitled)	
3	3	(untitled)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.00	10.60	10.00	100.00	42.80	29.50	
2	7.00	10.60	10.00	72.00	42.80	18.00	
3	7.30	9.90	10.00	100.00	42.80	21.40	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.851	2735.239
2		(calculated)	(calculated)	0.881	2830.110
3		(calculated)	(calculated)	0.877	2824.114

The slope and intercept shown above include any corrections and adjustments.

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	FLAT	✓	630.00	100.000
2	FLAT	✓	950.00	100.000
3	FLAT	✓	1370.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	160.000	220.000	250.000
	2	140.000	10.000	800.000
	3	310.000	1010.000	50.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.25	0.35	0.40
	2	0.15	0.01	0.84
	3	0.23	0.74	0.04

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.0	0.0	0.0
	2	0.0	0.0	0.0
	3	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.35	3.01	0.53	A
2	0.39	2.44	0.64	A
3	0.54	3.04	1.16	A

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	630.00	627.91	1066.41	0.00	1827.52	0.345	0.52	2.996	A
2	950.00	947.44	458.47	0.00	2426.33	0.392	0.64	2.430	A
3	1370.00	1365.40	309.06	0.00	2553.02	0.537	1.15	3.020	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	630.00	629.99	1069.99	0.00	1824.48	0.345	0.53	3.013	A
2	950.00	949.99	459.99	0.00	2424.98	0.392	0.64	2.440	A
3	1370.00	1369.98	310.00	0.00	2552.20	0.537	1.15	3.044	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	630.00	630.00	1070.00	0.00	1824.47	0.345	0.53	3.013	A
2	950.00	950.00	460.00	0.00	2424.98	0.392	0.64	2.440	A
3	1370.00	1369.99	310.00	0.00	2552.20	0.537	1.16	3.044	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	630.00	630.00	1070.00	0.00	1824.47	0.345	0.53	3.013	A
2	950.00	950.00	460.00	0.00	2424.98	0.392	0.64	2.440	A
3	1370.00	1370.00	310.00	0.00	2552.20	0.537	1.16	3.044	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	630.00	630.00	1070.00	0.00	1824.47	0.345	0.53	3.013	A
2	950.00	950.00	460.00	0.00	2424.98	0.392	0.64	2.440	A
3	1370.00	1370.00	310.00	0.00	2552.20	0.537	1.16	3.044	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	630.00	630.00	1070.00	0.00	1824.47	0.345	0.53	3.013	A
2	950.00	950.00	460.00	0.00	2424.98	0.392	0.64	2.440	A
3	1370.00	1370.00	310.00	0.00	2552.20	0.537	1.16	3.044	A

Junction G - Design, AM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Junction G	ARCADY			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3			2.56	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	(untitled)	
2	2	(untitled)	
3	3	(untitled)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.00	10.60	10.00	100.00	42.80	29.50	
2	7.00	10.60	10.00	72.00	42.80	18.00	
3	7.30	9.90	10.00	100.00	42.80	21.40	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.851	2735.239
2		(calculated)	(calculated)	0.881	2830.110
3		(calculated)	(calculated)	0.877	2824.114

The slope and intercept shown above include any corrections and adjustments.

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	FLAT	✓	690.00	100.000
2	FLAT	✓	950.00	100.000
3	FLAT	✓	1080.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	200.000	220.000	270.000
	2	130.000	10.000	810.000
	3	300.000	690.000	90.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.29	0.32	0.39
	2	0.14	0.01	0.85
	3	0.28	0.64	0.08

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.0	0.0	0.0
	2	0.0	0.0	0.0
	3	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.33	2.62	0.50	A
2	0.41	2.59	0.68	A
3	0.43	2.49	0.75	A

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	690.00	688.00	787.83	0.00	2064.65	0.334	0.50	2.612	A
2	950.00	947.28	558.39	0.00	2338.32	0.406	0.68	2.584	A
3	1080.00	1077.03	339.02	0.00	2526.75	0.427	0.74	2.478	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	690.00	689.99	789.99	0.00	2062.80	0.335	0.50	2.621	A
2	950.00	949.99	559.99	0.00	2336.91	0.407	0.68	2.595	A
3	1080.00	1079.99	340.00	0.00	2525.89	0.428	0.75	2.489	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	690.00	690.00	790.00	0.00	2062.80	0.335	0.50	2.621	A
2	950.00	950.00	560.00	0.00	2336.91	0.407	0.68	2.595	A
3	1080.00	1080.00	340.00	0.00	2525.89	0.428	0.75	2.489	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	690.00	690.00	790.00	0.00	2062.80	0.335	0.50	2.621	A
2	950.00	950.00	560.00	0.00	2336.91	0.407	0.68	2.595	A
3	1080.00	1080.00	340.00	0.00	2525.89	0.428	0.75	2.489	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	690.00	690.00	790.00	0.00	2062.80	0.335	0.50	2.621	A
2	950.00	950.00	560.00	0.00	2336.91	0.407	0.68	2.595	A
3	1080.00	1080.00	340.00	0.00	2525.89	0.428	0.75	2.489	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	690.00	690.00	790.00	0.00	2062.80	0.335	0.50	2.621	A
2	950.00	950.00	560.00	0.00	2336.91	0.407	0.68	2.595	A
3	1080.00	1080.00	340.00	0.00	2525.89	0.428	0.75	2.489	A

Junction G - Design, PM

Data Errors and Warnings

No errors or warnings

Analysis Set Details

Name	Roundabout Capacity Model	Description	Locked	Network Flow Scaling Factor (%)	Reason For Scaling Factors
Junction G	ARCADY			100.000	

Demand Set Details

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

Junction Network

Junctions

Junction	Name	Junction Type	Arm Order	Grade Separated	Large Roundabout	Junction Delay (s)	Junction LOS
1	(untitled)	Roundabout	1,2,3			2.86	A

Junction Network Options

Driving Side	Lighting
Left	Normal/unknown

Arms

Arms

Arm	Arm	Name	Description
1	1	(untitled)	
2	2	(untitled)	
3	3	(untitled)	

Capacity Options

Arm	Minimum Capacity (PCU/hr)	Maximum Capacity (PCU/hr)
1	0.00	99999.00
2	0.00	99999.00
3	0.00	99999.00

Roundabout Geometry

Arm	V - Approach road half-width (m)	E - Entry width (m)	l' - Effective flare length (m)	R - Entry radius (m)	D - Inscribed circle diameter (m)	PHI - Conflict (entry) angle (deg)	Exit Only
1	7.00	10.60	10.00	100.00	42.80	29.50	
2	7.00	10.60	10.00	72.00	42.80	18.00	
3	7.30	9.90	10.00	100.00	42.80	21.40	

Slope / Intercept / Capacity

Roundabout Slope and Intercept used in model

Arm	Enter slope and intercept directly	Entered slope	Entered intercept (PCU/hr)	Final Slope	Final Intercept (PCU/hr)
1		(calculated)	(calculated)	0.851	2735.239
2		(calculated)	(calculated)	0.881	2830.110
3		(calculated)	(calculated)	0.877	2824.114

The slope and intercept shown above include any corrections and adjustments.

Traffic Flows

Demand Set Data Options

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

Entry Flows

General Flows Data

Arm	Profile Type	Use Turning Counts	Average Demand Flow (PCU/hr)	Flow Scaling Factor (%)
1	FLAT	✓	640.00	100.000
2	FLAT	✓	960.00	100.000
3	FLAT	✓	1370.00	100.000

Turning Proportions

Turning Counts / Proportions (PCU/hr) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	160.000	220.000	260.000
	2	140.000	10.000	810.000
	3	310.000	1010.000	50.000

Turning Proportions (PCU) - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.25	0.34	0.41
	2	0.15	0.01	0.84
	3	0.23	0.74	0.04

Vehicle Mix

Average PCU Per Vehicle - Junction 1 (for whole period)

		To		
		1	2	3
From	1	1.000	1.000	1.000
	2	1.000	1.000	1.000
	3	1.000	1.000	1.000

Heavy Vehicle Percentages - Junction 1 (for whole period)

		To		
		1	2	3
From	1	0.0	0.0	0.0
	2	0.0	0.0	0.0
	3	0.0	0.0	0.0

Results

Results Summary for whole modelled period

Arm	Max RFC	Max Delay (s)	Max Queue (PCU)	Max LOS
1	0.35	3.04	0.54	A
2	0.40	2.47	0.66	A
3	0.54	3.04	1.16	A

Main Results for each time segment

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	640.00	637.86	1066.41	0.00	1827.52	0.350	0.54	3.021	A
2	960.00	957.38	468.42	0.00	2417.56	0.397	0.66	2.461	A
3	1370.00	1365.40	309.05	0.00	2553.03	0.537	1.15	3.020	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	640.00	639.99	1069.99	0.00	1824.48	0.351	0.54	3.038	A
2	960.00	959.99	469.99	0.00	2416.18	0.397	0.66	2.471	A
3	1370.00	1369.98	310.00	0.00	2552.20	0.537	1.15	3.044	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	640.00	640.00	1070.00	0.00	1824.47	0.351	0.54	3.038	A
2	960.00	960.00	470.00	0.00	2416.17	0.397	0.66	2.471	A
3	1370.00	1369.99	310.00	0.00	2552.20	0.537	1.16	3.044	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	640.00	640.00	1070.00	0.00	1824.47	0.351	0.54	3.038	A
2	960.00	960.00	470.00	0.00	2416.17	0.397	0.66	2.471	A
3	1370.00	1370.00	310.00	0.00	2552.20	0.537	1.16	3.044	A

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

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	640.00	640.00	1070.00	0.00	1824.47	0.351	0.54	3.038	A
2	960.00	960.00	470.00	0.00	2416.17	0.397	0.66	2.471	A
3	1370.00	1370.00	310.00	0.00	2552.20	0.537	1.16	3.044	A

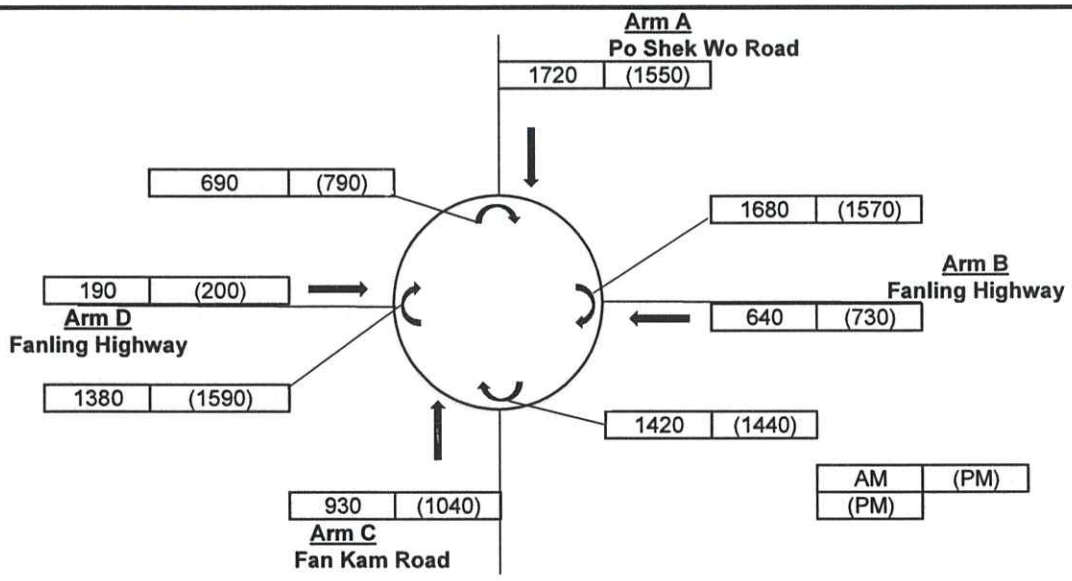
Main results: (09:15-09:30)

Arm	Total Demand (PCU/hr)	Entry Flow (PCU/hr)	Circulating Flow (PCU/hr)	Pedestrian Demand (Ped/hr)	Capacity (PCU/hr)	RFC	End Queue (PCU)	Delay (s)	LOS
1	640.00	640.00	1070.00	0.00	1824.47	0.351	0.54	3.038	A
2	960.00	960.00	470.00	0.00	2416.17	0.397	0.66	2.471	A
3	1370.00	1370.00	310.00	0.00	2552.20	0.537	1.16	3.044	A

Roundabout Junction Calculation

Junction : (RC) Po Shek Wu Inerchange (Tai Tau Leng Roundabout) Job No.: 21148HK

Scenario : Year 2023 Observed Flow



Input Parameters				Arm A	Arm B	Arm C	Arm D
V	=	Approach half width (m)		6.5	7.3	7	5.9
E	=	Entry width (m)		8.4	8.5	10.5	7.9
L	=	Effective length of flare (m)		9	31	12	30
R	=	Entry radius		70	73	20	25
D	=	Inscribed circle diameter (m)		80	80	80	80
A	=	Entry angle (degree)		19	50	40	20
Q	=	Entry flow (pcu/hr)	AM	1720	640	930	190
			PM	(1550)	(730)	(1040)	(200)
Qc	=	Circulating flow across entry (pcu/h	AM	690	1680	1420	1380
			PM	(790)	(1570)	(1440)	(1590)

Output Parameters				Arm A	Arm B	Arm C	Arm D
S	=	Sharpness of flare = 1.6*(E-V)/L		0.34	0.06	0.47	0.11
K	=	1-0.00347*(A-30)-0.978*(1/R-0.05)		1.07	0.97	0.97	1.04
X_2	=	V+((E-V)/(1+2*S))		7.63	8.37	8.81	7.55
M	=	Exp((D-60)/10)		7.39	7.39	7.39	7.39
F	=	303*X_2		2313	2535	2670	2287
Td	=	1+(0.5/(1+M))		1.06	1.06	1.06	1.06
Fc	=	0.21*Td*(1+0.2*X_2)		0.56	0.59	0.61	0.56
Qe	=	Capacity = K*(F-Fc*Qc)	AM	2066	1484	1734	1584
			PM	2006	1547	1723	1461
DFC	=	Entry Flow/Capacity = Q/Qe	AM	0.83	0.43	0.54	0.12
			PM	0.77	0.47	0.60	0.14

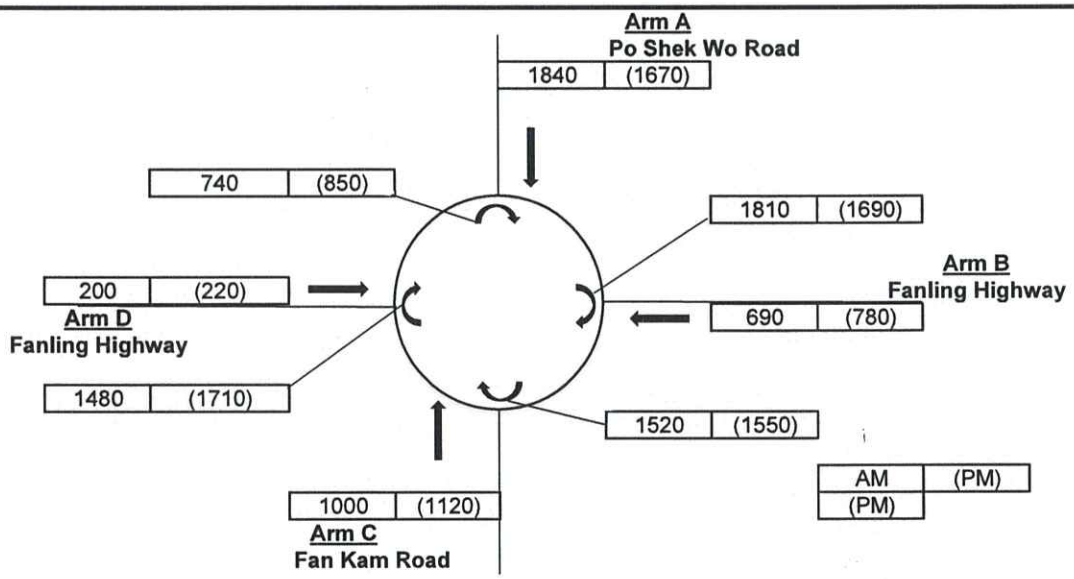
DFC of Critical Approach = AM 0.83
PM 0.77

CTA Consultants Ltd.

Roundabout Junction Calculation

Junction : (RC) Po Shek Wu Inerchange (Tai Tau Leng Roundabout) Job No.: 21148HK

Scenario : Year 2027 Reference Flow



Input Parameters				Arm A	Arm B	Arm C	Arm D
V	=	Approach half width (m)		6.5	7.3	7	5.9
E	=	Entry width (m)		8.4	8.5	10.5	7.9
L	=	Effective length of flare (m)		9	31	12	30
R	=	Entry radius		70	73	20	25
D	=	Inscribed circle diameter (m)		80	80	80	80
A	=	Entry angle (degree)		19	50	40	20
Q	=	Entry flow (pcu/hr)	AM	1840	690	1000	200
			PM	(1670)	(780)	(1120)	(220)
Qc	=	Circulating flow across entry (pcu/h	AM	740	1810	1520	1480
			PM	(850)	(1690)	(1550)	(1710)

Output Parameters				Arm A	Arm B	Arm C	Arm D
S	=	Sharpness of flare = 1.6*(E-V)/L		0.34	0.06	0.47	0.11
K	=	1-0.00347*(A-30)-0.978*(1/R-0.05)		1.07	0.97	0.97	1.04
X_2	=	V+((E-V)/(1+2*S))		7.63	8.37	8.81	7.55
M	=	Exp((D-60)/10)		7.39	7.39	7.39	7.39
F	=	303*X_2		2313	2535	2670	2287
Td	=	1+(0.5/(1+M))		1.06	1.06	1.06	1.06
Fc	=	0.21*Td*(1+0.2*X_2)		0.56	0.59	0.61	0.56
Qe	=	Capacity = K*(F-Fc*Qc)	AM	2036	1409	1675	1526
			PM	1969	1478	1657	1391
DFC	=	Entry Flow/Capacity = Q/Qe	AM	0.90	0.49	0.60	0.13
			PM	0.85	0.53	0.68	0.16

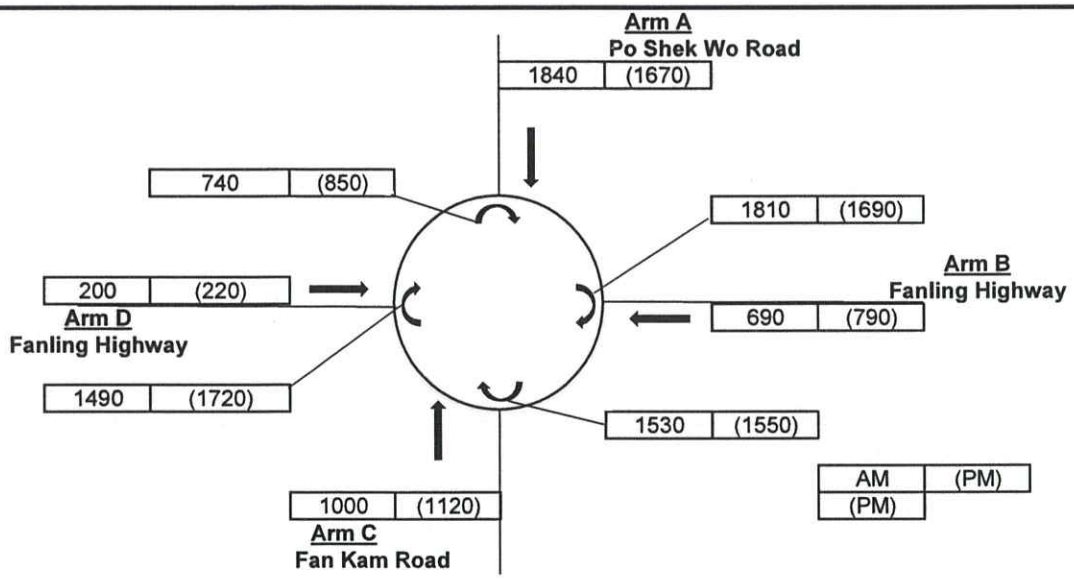
DFC of Critical Approach = AM 0.90
PM 0.85

CTA Consultants Ltd.

Roundabout Junction Calculation

Junction : (RC) Po Shek Wu Inerchange (Tai Tau Leng Roundabout) Job No.: 21148HK

Scenario : Year 2027 Design Flow



Input Parameters				Arm A	Arm B	Arm C	Arm D
V	=	Approach half width (m)		6.5	7.3	7	5.9
E	=	Entry width (m)		8.4	8.5	10.5	7.9
L	=	Effective length of flare (m)		9	31	12	30
R	=	Entry radius		70	73	20	25
D	=	Inscribed circle diameter (m)		80	80	80	80
A	=	Entry angle (degree)		19	50	40	20
Q	=	Entry flow (pcu/hr)	AM	1840	690	1000	200
			PM	(1670)	(790)	(1120)	(220)
Qc	=	Circulating flow across entry (pcu/h	AM	740	1810	1530	1490
			PM	(850)	(1690)	(1550)	(1720)

Output Parameters				Arm A	Arm B	Arm C	Arm D
S	=	Sharpness of flare = 1.6*(E-V)/L		0.34	0.06	0.47	0.11
K	=	1-0.00347*(A-30)-0.978*(1/R-0.05)		1.07	0.97	0.97	1.04
X_2	=	V+((E-V)/(1+2*S))		7.63	8.37	8.81	7.55
M	=	Exp((D-60)/10)		7.39	7.39	7.39	7.39
F	=	303*X_2		2313	2535	2670	2287
Td	=	1+(0.5/(1+M))		1.06	1.06	1.06	1.06
Fc	=	0.21*Td*(1+0.2*X_2)		0.56	0.59	0.61	0.56
Qe	=	Capacity = K*(F-Fc*Qc)	AM	2036	1409	1669	1520
			PM	1969	1478	1657	1386
DFC	=	Entry Flow/Capacity = Q/Qe	AM	0.90	0.49	0.60	0.13
			PM	0.85	0.53	0.68	0.16

DFC of Critical Approach = AM 0.90
PM 0.85

CTA Consultants Ltd.