Appendix Ia of
MPC Paper No. A/H6/98

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

Planning Statement

July 2026

Silver Nicety Company Limited and Patchway Holdings (HK) Limited

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

Planning Statement

Document No. 001

URBIS Limited

July 2026

In association with
Ronald Lu & Partners (Hong Kong) Ltd.
ARUP
WSP
Otherland Limited
MVA Hong Kong Ltd.
Arcadis Hong Kong Ltd.
Colliers International (HK) Limited

Prepared by :	*Samantha Yung MRTPI*	16 July 2026 Date
Checked by :	*David Morkel MRTPI MHKIP MHKIUD RPP*	16 July 2026 Date
Approved for Issue by:	*Alan Macdonald MRTPI FHKIP FHKIUD RPP*	16 July 2026 Date

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Executive Summary

This planning application is prepared and submitted under Section 16 of the Town Planning Ordinance (Cap.131) on behalf of Silver Nicety Company Limited and Patchway Holdings (HK) Limited ('the Applicants'), to seek approval from the Town Planning Board (TPB/the Board) for a proposed underground vehicular tunnel ('Tunnel T3') connecting Lee Garden Three and Lee Garden Eight below Leighton Road and Sunning Road in Causeway Bay, Hong Kong Island.

The Project Site, which has an area of approximately 830 m^2, falls within the Approved Causeway Bay Outline Zoning Plan (OZP) No. S/H6/17 and the Approved Wong Nai Chung OZP No. S/H7/21. Most of the Project Site (i.e. approximately 610 m^2 or 73.5%) falls within an area shown on the respective OZPs as 'Road', and part of it (i.e. approximately 220 m^2 or 26.5%) falls within areas zoned "Commercial (2)" on the Approved Wong Nai Chung OZP No. S/H7/21.

The Application Site comprises that part of the Project Site (with an area of approximately 610 m^2) falling within areas shown as 'Road' on the respective OZPs. In these areas, the proposed Tunnel T3 requires permission from the TPB, according to the Notes of the OZPs (Paras. 7 and 8 of each respective OZP).

Hysan Development Company Limited ('Hysan'), being one of the parent companies of the Applicants, has more than 100 years of curating the physical and social dimensions of the Lee Gardens Area in Causeway Bay. It has established an overall plan, envisioned to enhance the walkability and accessibility of the area through development of a system of covered walkways, pedestrian covered footbridges and underground vehicular tunnels.

The proposed Tunnel T3 connecting Lee Garden Three and Lee Garden Eight forms part of Hysan's overall plan for fostering a well-connected community in the area. As well as providing improved access to parking, the project will address existing traffic conditions and projected traffic demand in future, aiming to enhance the vehicular connectivity and improve the pedestrian environment in Causeway Bay.

This Application establishes that the proposed Tunnel T3 has the following planning merits:

- It complies with material requirements and development parameters of the Approved Causeway Bay Outline OZP No. S/H6/17 and the Approved Wong Nai Chung OZP No. S/H7/21;
- It reduces at-grade traffic demand;
- It facilitates efficient utilization of car parking spaces across the surrounding area for optimal use, thereby minimizing vehicle queuing and traffic circulation on public roads;
- It enhances roadside air-quality;
- It preserves the Old and Valuable Tree (OVT) on Leighton Road; and
- It poses no insurmountable adverse impacts in terms of environmental or technical aspects.

The Applicants therefore respectfully request the Town Planning Board, exercising its powers under Section 16 of the Town Planning Ordinance (Cap 131), to approve the proposed Tunnel T3, with or without condition.

內容摘要

（內容如有差異，請以英文版本為準）

本規劃申請由 Silver Nicety Company Limited 和博威控股 (香港)有限公司（下稱「申請人」）代表，根據《城市規劃條例》（第 131 章）第 16 條規定準備及提交，旨在向城市規劃委員會（下稱「城規會」）申請批准在香港島銅鑼灣利園三期與利園八期之間，於禮頓道及新寧道下方興建擬議地下行車隧道。

項目地點面積約 830 平方米，位於銅鑼灣分區計劃大綱圖編號 S/H6/17 及黃泥涌分區計劃大綱圖編號 S/H7/21 範圍內，其中大部分用地（即約 610 平方米，佔 73.5%）位於各該分區計劃大綱圖顯示爲「道路」的地方內，另一部分用地（即約 220 平方米，佔 26.5%）則位於黃泥涌分區計劃大綱圖編號 S/H7/21 的「商業(2)」地帶。

申請地點為該項目地點中約 610 平方米、位於各該分區計劃大綱圖顯示爲「道路」範圍的部分。根據各該分區計劃大綱圖的「註釋」（各該分區計劃大綱圖的第 7 及第 8 段），擬議地下行車隧道需取得城規會的許可。

作為申請人其中一家母公司的希慎興業有限公司（下稱「希慎」），在銅鑼灣利園區的建設及社區營造方面擁有超過 100 年的經驗。希慎已制定整體規劃，旨在透過發展有蓋行人通道、行人天橋及地下行車隧道系統，提升該區的步行便利性及可達性。

擬議連接利園三期與利園八期的地下行車隧道，為希慎整體規劃中促進該區社區良好連繫的一部分。除改善泊車設施的便利性外，本項目應對現有交通狀況及未來預計的交通需求，旨在提升銅鑼灣的道路連接及優化行人環境。

本申請證明擬議地下行車隧道具備以下規劃優點：

- 符合銅鑼灣分區計劃大綱圖編號 S/H6/17 及黃泥涌分區計劃大綱圖編號 S/H7/21 的主要要求及發展參數；
- 減少路面交通需求；
- 更有效利用周邊區域的泊車設施，以減少地面車龍及交通流動；
- 改善路邊空氣質素；
- 保留古樹名木；以及
- 在環境或技術方面不會造成無法克服的不良影響。

因此，申請人懇請城規會行使《城市規劃條例》（第 131 章）第 16 條所賦予的權力，批准擬議地下行車隧道（可附帶或不附帶條件）。

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LIST OF ABBREVIATIONS

BRRD	Brown Root Rot Disease
C(2)	Commercial (2)
GFA	Gross Floor Area
GIC	Government, Institution or Community
GMB	Green Mini Bus
MTR	Mass Transit Railway
OVT	Old and Valuable Trees
OZP	Outline Zoning Plan
TPB	Town Planning Board
TPZ	Tree Protection Zone

1 Introduction

1.1 BACKGROUND

1.1.1 URBIS Limited is commissioned by Silver Nicety Company Limited and Patchway Holdings (HK) Limited ('the Applicants') to seek approval from the Town Planning Board (TPB) under Section 16 of the Town Planning Ordinance (Cap.131) for a proposed underground vehicular tunnel ('Tunnel T3') connecting Lee Garden Three and Lee Garden Eight below Leighton Road and Sunning Road in Causeway Bay, Hong Kong Island. (**Figure 1.1** refers).

1.1.2 Hysan Development Company Limited ('Hysan'), being one of the parent companies of the Applicants, has more than 100 years of curating the physical and social dimensions of the Lee Gardens Area in Causeway Bay. It has established an overall plan, envisioned to enhance the walkability and accessibility of the area through development of a system of covered walkways, pedestrian covered footbridges and underground vehicular tunnels. The proposed Tunnel T3 connecting Lee Garden Three and Lee Garden Eight forms part of Hysan's overall plan for fostering a well-connected community in the area.

1.1.3 The purpose of this Planning Statement is to present the indicative development proposal for Tunnel T3 and also relevant technical assessments; and to provide supporting planning justifications, for the consideration of the TPB in the exercise of its powers under Section 16 of the Town Planning Ordinance (Cap.131) .

1.1.4 The full tunnel alignment (i.e. the 'Project Site'), has an area of approximately 830 m^2, and falls within the Approved Causeway Bay Outline Zoning Plan (OZP) No. S/H6/17 and the Approved Wong Nai Chung OZP No. S/H7/21. **Figure 1.2** depicts the current OZP zonings of the Site and its environs.

1.1.5 Most of the **Project Site** (i.e. approximately 610 m^2 or 73.5%) falls within an area shown on the respective OZPs as 'Road', and part of it (i.e. approximately 220 m^2 or 26.5%) falls within areas zoned "Commercial (2)" ("C(2)") on the Approved Wong Nai Chung OZP No. S/H7/21.

1.1.6 The **Application Site** is defined by that part of the Project Site having an area of approximately 610 m^2 and falling within areas shown as 'Road' on the respective OZPs, in which the proposed Tunnel T3 requires permission from the TPB, according to the Notes of the OZPs (Paras. 7 and 8 of each respective OZP).

1.1.7 The remaining portion of the Project Site, an area of approximately 220 m^2 zoned "C(2)" on the Approved Wong Nai Chung OZP No. S/H7/21, is considered an ancillary use to the commercial development within the "C(2)" zone and is always permitted. Therefore, no planning permission from the TPB is required within the area zoned "C(2)". Please refer to details of relevant OZP provisions, parameters and requirements in Section 3 below.

1.2 THE NEED FOR THE PROJECT

1.2.1 There is a need for the proposed Tunnel T3 for the following principle reasons:

Existing Traffic Conditions

1.2.2 Currently, the Lee Gardens Area, situated at the core of Causeway Bay with a well-developed, high-density mix of commercial and residential developments, experiences heavy at-grade traffic conditions.

1.2.3 It has been frequently observed from traffic surveys that the existing green minibus (GMB) termini and the on-street loading/unloading areas on Lan Fong Road are fully occupied during peak hours by GMBs and illegally parked vehicles. Consequently, necessary pick-up/drop-off activities for private cars and taxis have to occur on the carriageway. Together with the movements of GMB traffic in and out of the termini, this has led to traffic queues extending from Lan Fong Road to Yun Ping Road.

1.2.4 Meanwhile, it has been observed that illegal parking and prolonged vehicle waiting frequently occupy the nearside lane of Hysan Avenue during peak hours, reducing the effective road capacity. Combined with vehicle conflicts at junctions on the road, traffic queues on Hysan Avenue extend to the junction with Percival Street during critical peak periods.

1.2.5 Furthermore, traffic queues have also occasionally been found on Hoi Ping Road, extending from the key access road junction heading to Caroline Hill Road, i.e., the junction of Leighton Road and Caroline Hill Road (West). This further exacerbates traffic issues on Hysan Avenue.

1.2.6 In view of the above, it is desirable to explore possible measures to reduce traffic circulation on at-grade roads in order to improve both the traffic and pedestrian conditions in Causeway Bay.

Future Traffic Context

1.2.7 Lee Garden Eight, a mixed-use, commercial development located to the south of Leighton Road is currently under construction and is anticipated to be completed by 2026. With a Gross Floor Area (GFA) of 102,000 m^2, it will comprise offices, retail uses, social welfare facilities, performing arts and cultural facilities, public open spaces, and basement car parks with parking spaces all equipped with EV chargers. It is set to become a new landmark in the Lee Gardens Area.

1.2.8 Apart from Lee Garden Eight, other planned developments in the vicinity include the following:

- The planned District Court at Caroline Hill Road with a maximum GFA of 70,000 m^2 as stipulated on the Approved Wong Nai Chung OZP No. S/H7/21;
- The proposed commercial redevelopment of the Crowne Plaza Hong Kong Causeway Bay at 8 Leighton Road with a GFA of about 14,945 m^2 as approved by TPB under Section 16 application no. A/H7/183;
- The proposed redevelopment of the Po Leung Kuk Headquarters at 66 Leighton Road with an increase of nearly 140 no. service quotas[1]; and
- The proposed new comprehensive sports and recreation centre of the South China Athletic Association at 88 Caroline Hill Road, Wong Nai Chung with a GFA of about 31,327 m^2 as approved by TPB under Section 16 application no. A/H7/189.

1.2.9 Notwithstanding that the proposed road improvement works at Caroline Hill Road, Link Road, Hoi Ping Road, and Leighton Road have been planned and gazetted, in response to the increasing traffic generated by future development projects, Hysan recognizes the need to develop underground vehicular linkages to minimize at-grade traffic flows and achieve a more sustainable environment in the Lee Gardens Area.

Realising the Overall Plan for Enhancing Connectivity in Causeway Bay

1.2.10 Hysan has established an overall plan to improve connectivity and walkability at the core areas of Causeway Bay. The overall plan will enhance vehicular and pedestrian connectivity in Causeway Bay as a whole, by reducing at-grade traffic demand and improving the walking environment.

1.2.11 Five covered footbridges and a walkway cover were proposed and gazetted under the Roads (Works, Use and Compensation) Ordinance (Cap. 370) in May 2023 (**Figures 1.3a – 1.3b** refer). These will provide seamless weather-proof pedestrian routes from Causeway Bay Mass Transit Railway (MTR) Station to various commercial developments and will divert pedestrians away from the existing network of busy at-grade roads.

1.2.12 In addition, two underground vehicular tunnels (i.e. Tunnel T1 and Tunnel T2) connecting Lee Garden

[1] As stated in the Annual Report 2025 – 2026 of Po Leung Kuk
(Source: https://www.poleungkuk.org.hk/f/annual_report/40541/Po%20Leung%20Kuk_AnnualReport_2526.pdf)

One, Lee Garden Two and Lee Garden Three have been proposed as part of the overall plan to alleviate existing heavy at-grade traffic flows in Causeway Bay. These two tunnels were the subject of two Section 16 applications (i.e. No. A/H6/93 and No. A/H6/94), which were approved by the TPB in February 2025.

1.2.13 The proposed Tunnel T3 leverages the underground vehicular network established by Tunnel T1 and Tunnel T2 and expands its benefits further south to the vicinity of Leighton Road and Caroline Hill Road by linking the proposed basement car park in the new Lee Garden Eight development with existing basement car parks in Lee Garden One, Lee Garden Two and Lee Garden Three. The integration of basement car parks will enhance the accessibility of this underground vehicular network through multiple entrances across the various commercial developments and will encourage more efficient use of car parking spaces.

1.2.14 It is for the reasons noted above that, Tunnel T3 connecting Lee Garden Three and Lee Garden Eight is proposed in this subject application.

1.3 LAND STATUS

1.3.1 The Application Site includes Government land underneath Leighton Road and Sunning Road, and part of Inland Lot No. 29 ("IL29") S.J ss.2 & IL 29 S.J RP where Lee Garden Three is located. The southern end of the Application Site abuts Inland Lot No. 8945 ("IL8945") where Lee Garden Eight is located. All three private lots - as illustrated in **Figure 1.4** below - are held by subsidiary companies of Hysan.

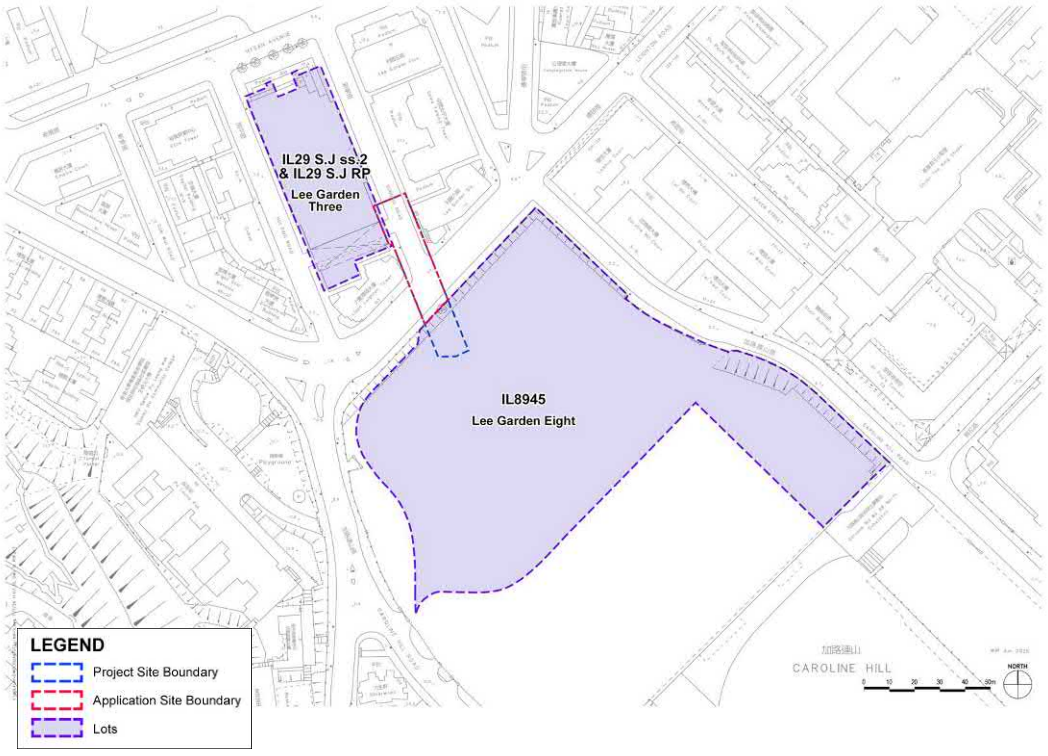


Figure 1.4 - A Plan showing IL29 S.J ss.2 & IL29 S.J RP and IL8945 (Source: GeoinfoMap)

IL29 S.J ss.2 & S.J RP (Lee Garden Three)

1.3.2 The Government Lease governing IL29 S.J ss.2 & S.J RP is virtually unrestricted except for a rate and range clause and offensive trades clause. The term of the Government Lease is 982 years commencing on 25 June 1860. A Modification Letter was executed on 10 January 2025 to allow erection of a covered footbridge connecting Lee Garden Three and Lee Garden Five. Another lease modification application for the vehicular Tunnel T1 connecting Lee Garden One and Lee Garden Three is currently being

processed.

IL8945 (Proposed Lee Garden Eight)

1.3.3 IL 8945 is held under Conditions of Sale No. 20379 (as varied or modified by a Modification Letter dated 7 November 2024). IL8945 was sold by Government tender on 10 June 2021 and is restricted to non-industrial (excluding residential, godown and petrol filling station) uses, and is subject to a total maximum GFA of 102,000m^2.

1.3.4 The proposed Tunnel T3 falls within the Edged Pecked Purple Area and the Pink Hatched Green Area defined in the Conditions of Sale for IL8945. According to Special Conditions No. ("SC")(2)(a)(ii) of the Conditions of Sale, there is a Government-identified Old and Valuable Tree (OVT) (Registration No. LANDSD(LEASED) WCH/1) growing partly within IL8945, with its crown, trunk and roots spreading into the approximate area shown as Edged Pecked Purple on PLAN I of the Conditions of Sale. The Pink Hatched Green Area indicates the area of tree HKP WCH/1 within the boundary of IL8945.

1.3.5 Under SC (13)(j), *"save with the prior written consent of the Director, no alteration or addition works may be carried out …. on, over, above, under, below or within the Pink Hatched Green Area"* on PLAN I of the Conditions of Sale.

1.3.6 Therefore, to proceed with the proposed Tunnel T3, relevant land application(s) will be made to Lands Department accordingly.

1.4 PLANNING HISTORY

Application Site

1.4.1 There have been no previous planning applications on the Application Site.

Project Site (i.e. area falling outside the Application Site)

1.4.2 However, the southern portion of the Project Site, which falls outside the Application Site and which falls within an area zoned "C(2)" on the Approved Wong Nai Chung OZP No. S/H7/21, has been the subject of multiple planning applications.

1.4.3 The development options and development potential of the area were reviewed and assessed in consultancy studies in 2013 commissioned by the Government, followed by a rezoning of the area from "Other Specified Uses" annotated "Sports and Recreation Club" ("OU(SRC)") to "C(2)" as approved by the TPB on 11 September 2020. The OZP incorporating the rezoning of the area was approved by the Chief Executive in Council on 24 November 2020. A requirement was imposed by the OZP for the submission of a Layout Plan to the Board under the Section 16 planning application system of the Town Planning Ordinance (Cap.131).

1.4.4 In March 2022, submission of a Layout Plan application was made by Patchway Holdings (HK) Limited (i.e. one of the Applicants of the current application for the proposed Tunnel T3) to the TPB under Section 16 of the Town Planning Ordinance (Application No. A/H7/181). This was for use as proposed permitted commercial development (Office, Eating Place, Shop and Services) with Social Welfare Facility, Public Clinic, Place of Recreation, Sports or Culture, Public Transport Station and Public Vehicle Park (excluding Container Vehicle), and also for minor relaxation of gross floor area restriction (from 100,000m^2 to 102,000m^2 (2%) to accommodate 2,000m^2 of additional PACF on 5/F of Towers 1 and 2). The application was approved on 6 May 2022.

1.4.5 Subsequent to this approved Section 16 application, a Section 16A application (No. A/H7/181-2) for amendments to the approved Layout Plan was approved by the Director of Planning, under the delegated authority of the TPB, on 29 May 2025.

1.4.6 In September 2025, a Section 16 application (No. A/H7/188) for further amendments to the approved Layout Plan was approved by the TPB on 24 October 2025.

2 Site Context and Features

2.1 SITE LOCATION AND EXISTING CONDITION

2.1.1 The alignment of the proposed Tunnel T3 will be beneath Leighton Road and Sunning Road, with the southern end connecting to Lee Garden Eight and the northern end connecting to Lee Garden Three (**Figure 1.1** refers).

2.1.2 The Project Site of approximately 830 m^2 includes the Application Site of approximately 610 m^2 beneath Leighton Road and Sunning Road, whilst the remaining portion of the Project Site lies below Lee Garden Eight, which is currently under construction.

2.2 SURROUNDING DEVELOPMENT AND ENVIRONMENT CONTEXT

Land Use and Development

2.2.1 In terms of surrounding land use context, the areas to the north of the proposed Tunnel T3 consist mainly of office/commercial developments (**Figures 2.1 to 2.3** refer). Causeway Bay MTR Station is located within 500m of the Site. Government, Institution or Community (GIC) uses for the Po Leung Kuk, residential developments and schools are located to the west and south across Caroline Hill Road. The South China Athletics Association, the Hong Kong Stadium and other sports clubs/recreational grounds are located to the southeast and east. St. Paul's Hospital and approximately 13-storey high residential uses in Haven Street - zoned "Other Specified Uses" annotated "Mixed Use" - are located to the southeast and east, with some sites undergoing redevelopment/renovation. There are car repair workshops and eating places on the ground floors of developments along the eastern section of Caroline Hill Road near the Haven Street cluster.

Traffic Conditions

2.2.2 The proposed Tunnel T3 is located in an area subject to occasional heavy traffic and traffic congestion. Leighton Road is a district distributor serving the southern part of Causeway Bay as a major east-west connection with high traffic volumes at road junctions and several bus stops located along the road. Sunning Road is a one-way local road with southbound traffic connecting Leighton Road and Hysan Avenue.

Old and Valuable Tree (OVT)

2.2.3 A large Rubber Tree (*Ficus elastica)* is located above the alignment of Tunnel T3 within Lee Garden Eight and abutting Leighton Road. It sits on a 3.5m-wide existing slope (see **Figure 2.4**). The tree has numerous pillar roots and is some 29m in height and has a spread of approximately 40m. On account of its qualities, it has been recognised by Government as a designated Old and Valuable Tree (OVT (Registration No. LANDSD(LEASED) WCH/1).

Figure 2.4 – Photo of the Old and Valuable Tree

2.2.4 It was confirmed during the development of Lee Garden Eight that the OVT is suffering from Brown Root Rot Disease (BRRD), a fungal infection that requires that the tree be monitored and periodically undergo horticultural treatment as necessary.

3 Outline Zoning Plan Provisions, Parameters and Requirements

3.1 PLANNING INTENTION AND USES PERMITTED UNDER THE OZP

3.1.1 The entire alignment of the proposed Tunnel T3 (i.e. the 'Project Site'), has an area of approximately 830 m^2, and falls within the Approved Causeway Bay OZP No. S/H6/17 and the Approved Wong Nai Chung OZP No. S/H7/21 (**Figure 1.2** refers).

3.1.2 Most of the Project Site (i.e. approximately 610 m^2 or 73.5%) falls within an area shown on the respective OZPs as 'Road', and this area has been defined as the **Application Site**.

3.1.3 The remaining portion of the Project Site (i.e. approximately 220 m^2 or 26.5%) falls within an area zoned "C(2)" on the Approved Wong Nai Chung OZP No. S/H7/21.

Area Shown as 'Road'

3.1.4 The Notes of the Approved Causeway Bay Outline OZP No. S/H6/17 and the Approved Wong Nai Chung OZP No. S/H7/21 both state:

"(7) The following uses or developments are always permitted on land falling within the boundaries of the Plan except where the uses or developments are specified in Column 2 of the Notes of individual zones:

(a) provision, maintenance or repair of plant nursery, amenity planting, open space, rain shelter, refreshment kiosk, road, bus/tram/public light bus stop or lay-by, cycle track, Mass Transit Railway station entrance, Mass Transit Railway structure below ground level, taxi rank, nullah, public utility pipeline, electricity mast, lamp pole, telephone booth, telecommunications radio base station, automatic teller machine and shrine;

(b) geotechnical works, local public works, road works, sewerage works, drainage works, environmental improvement works, marine related facilities, waterworks (excluding works on service reservoir) and such other public works co-ordinated or implemented by Government; and

(c) maintenance or repair of watercourse and grave.

(8) In any area shown as 'Road', all uses or developments except those specified in paragraph (7) above and those specified below require permission from the Town Planning Board :

toll-plaza, on-street vehicle park, railway track and tram track"

3.1.5 It should be noted that an underground vehicular tunnel is not one of the uses specified in Paras. 7 and 8 of the Notes above. Therefore, the proposed project requires planning permission from the TPB under Section 16 of the Town Planning Ordinance (Cap.131) in areas shown as 'Road'.

"C(2)" Zone

3.1.6 Under the Schedule of Uses of the Approved Wong Nai Chung OZP No. S/H7/21, the "C(2)" zone is stated to be *"intended primarily for commercial development, which may include uses such as office, shop, services, place of entertainment, eating place and hotel, functioning as territorial business/financial centre(s) and regional or district commercial/shopping centre. These areas are usually major employment nodes"*.

3.1.7 The Remarks in the OZP state that *'On land designated "C(2)", for any new development or redevelopment of an existing building, a layout plan shall be submitted for the approval of the Town Planning Board."*

3.1.8 'Underground vehicular tunnel' is not listed as one of the uses always permitted under Column 1 nor

uses that may be permitted under Column 2 of this zone. However, the proposed Tunnel T3, together with the proposed Tunnel T1 and Tunnel T2 previously approved under S.16 applications no. A/H6/93 and no. A/H6/94, form part of an integrated car park network within the commercial development of the Lee Gardens Area and can be regarded as an ancillary use to the commercial development within "C(2)" zone. As stated in Para. 9 of the OZP Notes:

"Unless otherwise specified, all building, engineering and other operations incidental to and all uses directly related and ancillary to the permitted uses and developments within the same zone are always permitted and no separate permission is required."

3.1.9 Therefore, the proposed Tunnel T3 is considered an ancillary use to the commercial development within "C(2)" zone and is always permitted. It will not involve any new development or redevelopment of an existing building. Therefore, the proposed project does not require planning permission from the TPB nor submission of layout plan for the approval of the TPB in areas zoned "C(2)".

4 Development Proposal

4.1 INTRODUCTION

4.1.1 This section of the Planning Statement describes the indicative tunnel development proposal that is the subject of this planning application under Section 16 of the Town Planning Ordinance.

4.2 DESIGN CONSIDERATIONS

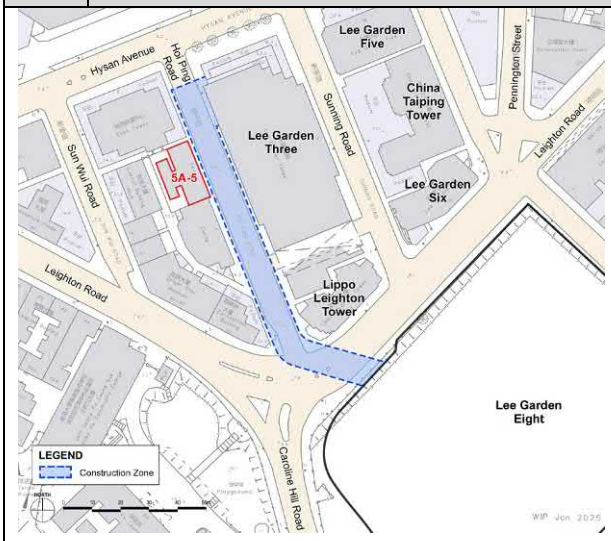
4.2.1 The proposed project is an underground vehicular tunnel on two levels connecting B3/F and B4/F of the basement carparks at Lee Garden Three (i.e. at -6.25mPD and -9.75mPD respectively) and Lee Garden Eight (i.e. at -8.25mPD and -11.80mPD respectively).

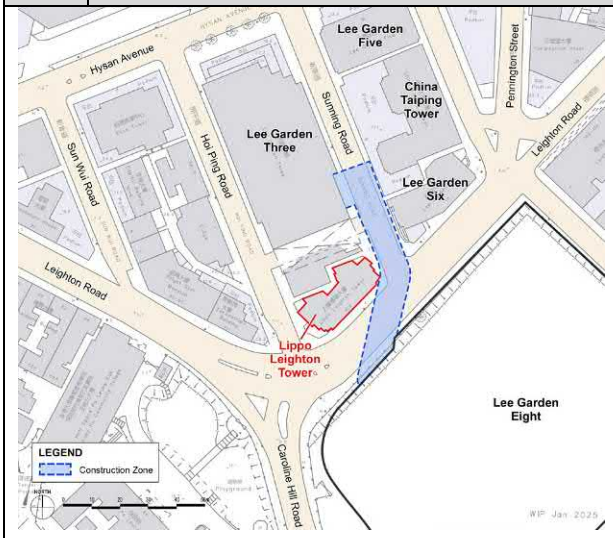
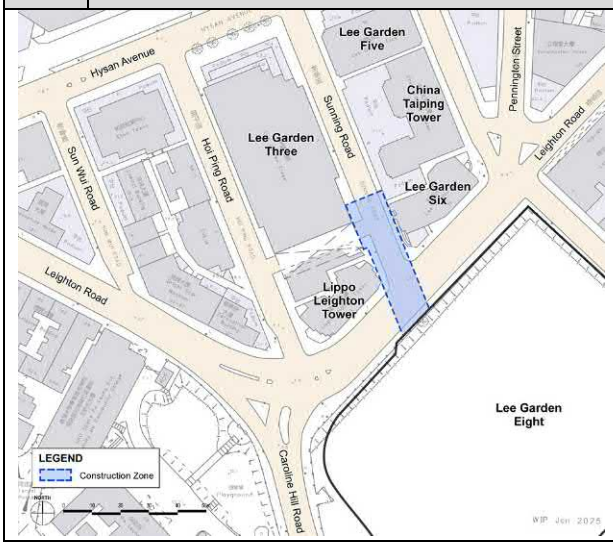
4.2.2 As the Site is in close proximity to adjacent private lots and as the adjoining Sunning Road is relatively narrow, it is considered unfeasible to construct a single-level tunnel serving two-way traffic without works encroaching into adjoining private properties on either side of Sunning Road. Therefore, a two-level tunnel is proposed to accommodate two-way traffic between the basement carparks of Lee Garden Three and Lee Garden Eight.

4.2.3 The alignment of the proposed tunnel has been developed with due consideration to its technical feasibility and potential impacts on external stakeholders and the general public. As Leighton Road serves as a district distributor, any disruption to road traffic during construction activities would be highly undesirable. To minimize such disturbance and avoid ground-level excavation, the tunnel alignment is proposed to be straight, following the alignment of Sunning Road after crossing Leighton Road, avoiding changes of tunnel direction which would otherwise necessitate underground shafts to be formed from ground level.

4.2.4 A detailed analysis of the different design options for the tunnel alignment, which have been considered during the design process is set out below.

Table 4.1: Design Options of Tunnel Alignment

No.	Design Option	Conflict with Existing Buildings	Disturbance to At-grade Road Traffic	Preferred Option
1	**Alignment along Hoi Ping Road**			
		An existing building at 5A-5 Hoi Ping Road (built in 1958) adjoining the tunnel alignment is supported by on-grade footings, and is highly sensitive to settlement. Hence, this tunnel alignment will cause substantial risk of a significant impact to the existing building and is	Changes of tunnel direction will require underground shafts to be formed from ground level, which will cause disruption to road traffic during construction. Thus, this alignment is not preferred.	X

No.	Design Option	Conflict with Existing Buildings	Disturbance to At-grade Road Traffic	Preferred Option
		considered not feasible.		
2	**Alignment along Sunning Road (with changes of tunnel direction)**			
		The construction zone at the junction of Sunning Road and Leighton Road will encroach into the adjacent Lippo Leighton Tower and be very close to their pile foundations under this proposed alignment. Hence, it will cause significant risk of impact to the existing foundations and the stability of the adjacent Lippo Leighton Tower and is considered not feasible.	Changes of tunnel direction will require underground shafts to be formed from ground level, which will cause disruption to road traffic during construction. Thus, this alignment is not preferred.	X
3	**Alignment along Sunning Road with straight alignment**			
		No significant impact on existing buildings are anticipated.	Construction will take place from underground with no underground shaft required to be formed from ground level, and, therefore, no road closure will be involved. See details of construction method in Section 4.4.	✓

4.2.5 In view of the analysis above, the alignment of the proposed tunnel in **Design Option 3** is considered the most feasible with the least potential impacts on external stakeholders and the general public.

4.3 INDICATIVE DEVELOPMENT PROPOSAL

4.3.1 The major features and development parameters of the project are listed in **Table 4.2** below and illustrated in **Figures 4.1 to 4.2**.

Table 4.2: Major Development Parameters

Major Development Parameters	Measurement
Application Site Area*	Approx. 610 m^2
Length of the Proposed Tunnel	Approx. 70 m
Width of the Proposed Tunnel	Approx. 12 m
Minimum Internal Clear Width of the Proposed Tunnel	5m (i.e. including a minimum clear width of 4m for driveway)
Elevation	Top of the Proposed Tunnel: Approx. +0.25mPD Base of the Proposed Tunnel: Approx. -14.80mPD
Gradient	Approx. 1: 10
Minimum Clear Headroom	2.4 m
Completion year	Q3 2033

Note: The Application Site forms part of the Project Site which is approx. 830 m^2.

4.3.2 The opening hours of the car park at Lee Garden Three are currently 24 hours, whilst the opening hours of the car park at Lee Garden Eight will also be 24 hours.

4.4 METHOD OF CONSTRUCTION

4.4.1 The traditional 'cut-and-cover' method of tunnelling (by which a tunnel is excavated from the surface) is considered impractical since the closure of Sunning Road or Leighton Road for tunnelling work will cause substantial disturbance to vehicular and pedestrian traffic and circulation.

4.4.2 More appropriately for these circumstances therefore, the *'drill and excavation'* method will be used, whereby excavation is carried out horizontally from a starting point below ground.

4.4.3 Launching the tunnel excavation from Lee Garden Eight is considered most preferable as it causes less disturbance to existing traffic at Sunning Road and Hoi Ping Road from the ingress and egress of construction vehicles into Lee Garden Three that would otherwise be required. No excavation work will take place at-grade on public roads nor will any road closure be involved. As planned, excavated spoil will be removed via a works yard in the basement of Lee Garden Eight.

4.4.4 Preliminary geotechnical investigations show that the tunnel construction will be in soft / mixed ground (namely, fill and alluvium). Excavation in soft ground will generate minimal noise and vibration.

4.4.5 As construction works will take place solely underground, noise disruption to nearby sensitive receivers will be significantly reduced and is expected to be insignificant. Existing geotechnical information indicates that rock is not expected to be encountered on the alignment.

4.4.6 A section of the proposed tunnel is shown in **Figure 4.3**.

4.5 VEHICULAR / PEDESTRIAN CIRCULATION AND INTERNAL PARKING PROVISION

4.5.1 The availability of Tunnel T3 will enable an alternative ingress route for future traffic to access Lee Garden Eight from Percival Street and Leighton Road eastbound via the existing run-in of Lee Garden Three at Hoi Ping Road. This alternative route will bypass the two signal junctions of Leighton Road / Caroline Hill Road (West) and Caroline Hill Road (West) / Link Road. The anticipated re-routing is

illustrated in **Figure 4.4a**.

4.5.2 In addition, the ingress and egress traffic of Lee Garden One and Lee Garden Three from / to the south (i.e. Link Road) will also benefit from the development of Tunnel T3. With its provision, this traffic will no longer need to travel along Caroline Hill Road (West), Leighton Road, Yun Ping Road, Hysan Avenue, Hoi Ping Road, Lan Fong Road and Lee Garden Road. The re-routing of ingress and egress traffic for Lee Garden One and Lee Garden Three is presented in **Figures 4.4b** and **4.4c** respectively.

4.5.3 After the construction of the proposed Tunnel T3, 6 nos. car parking spaces out of 195 nos. car parking spaces (i.e. approximately 3%) as provided at Lee Garden Three and 5 nos. car parking spaces out of 612 nos. car parking spaces (i.e. approximately 0.8%) as provided at Lee Garden Eight will be permanently suspended to allow for the opening of tunnel entrances. Since the suspension of parking spaces will account for not more than 2% of total provision at Lee Garden Three and Lee Garden Eight, and because the future parking provision rate of Lee Garden Eight is significantly higher than that of surrounding developments, the traffic impact of their suspension will be negligible.

4.5.4 Furthermore, the parking provision during and after construction of Tunnel T3 remains compliance with the prevailing lease requirements, including that required for the Public Vehicle Park at Lee Garden Eight. The no. of suspended parking spaces lies within the range of flexibility (i.e. 5% of total number of spaces) allowed for parking space provision under the lease of Lee Garden Eight.

4.5.5 Notwithstanding the above, possible reprovisioning of some of the suspended parking spaces will be further reviewed at detailed design stage.

4.6 TREE PROTECTION PROPOSAL

4.6.1 As shown in **Figures 4.5 and 4.6** below, although the tunnel alignment passes below the dripline of the OVT (LANDSD (LEASED) WCH/1), the tunnel will be constructed entirely underground at approximately –1.35mPD, which is at least 10m below the top of soil of the OVT (approximately +9.30mPD) and approximately 7m below the ground level at Leighton Road (approximately +6.10mPD). In accordance with Paragraph 26 of *Development Bureau Technical Circular (Works) No. 5/2020 – Registration and Preservation of Old and Valuable Trees*, *"a zone encompassing the tree along its dripline, projecting vertically from the tree canopy and extending 2m below the ground level and 2m above the top of an OVT, shall be designated as the Tree Protection Zone ("TPZ")."* The tunnel is located outside the statutory Tree Protection Zone (TPZ), and no excavation or works at ground level within the dripline are proposed. In addition, the proposed tunnel will pass at least 8m below the 2m deep TPZ (as defined above by DEVB TC 5/2020). Accordingly, direct impacts on the OVT are anticipated to be insignificant.

4.6.2 Notwithstanding the above, precautionary tree protection and monitoring measures are proposed given the OVT status and its existing BRRD condition. These include strict prohibition of ground-level works within the dripline, control of site access to prevent contamination, implementation of BRRD precautionary measures in accordance with GLTMS guidelines, and regular tree monitoring by qualified arboricultural professionals throughout the construction period. An Independent Tree Expert will be engaged at a later stage once the detailed construction methodology for the tunnel has been developed. A further method statement, incorporating the advice of the Independent Tree Expert will be provided prior to the commencement of any construction works. Regular tree inspections, photographic records, and tree risk assessments will be undertaken as appropriate to ensure the health, stability, and long-term preservation of the OVT during and after the construction works. Details can be referred to **Annex B – Tree Protection Proposal**.

4.6.3 Furthermore, one of the Applicants, who is also the project proponent for Lee Garden Eight, has proposed a series of protection and rehabilitation measures for the OVT under a separate S.16 application (No. A/H7/188), which was approved on 24 October 2025. These measures are currently

being implemented and will not be undermined by the development of Tunnel T3.

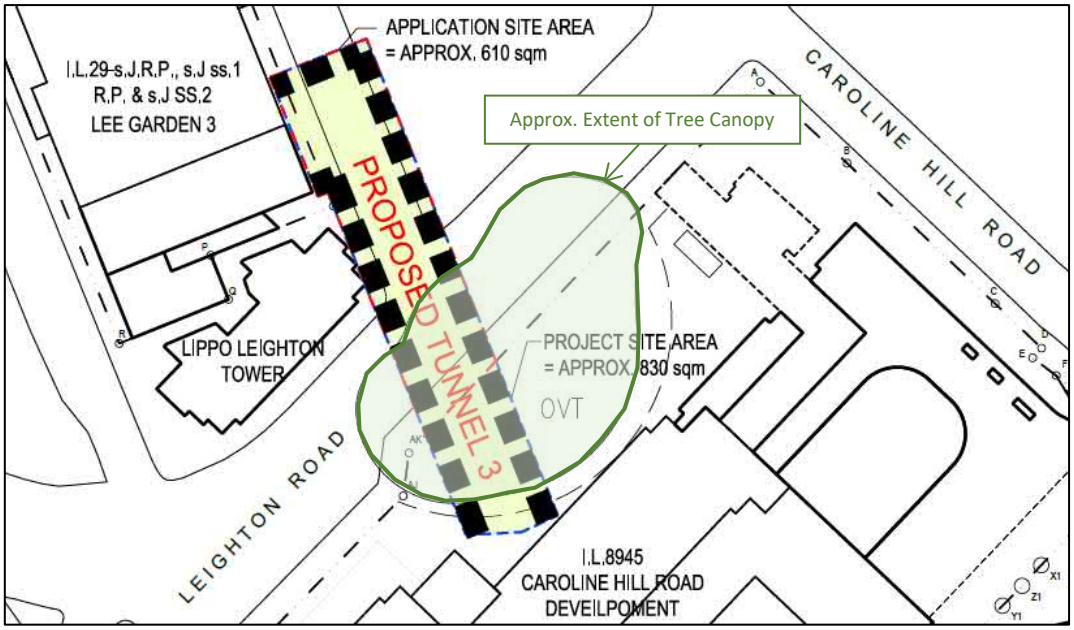


Figure 4.5 – Plan Showing Location of the OVT

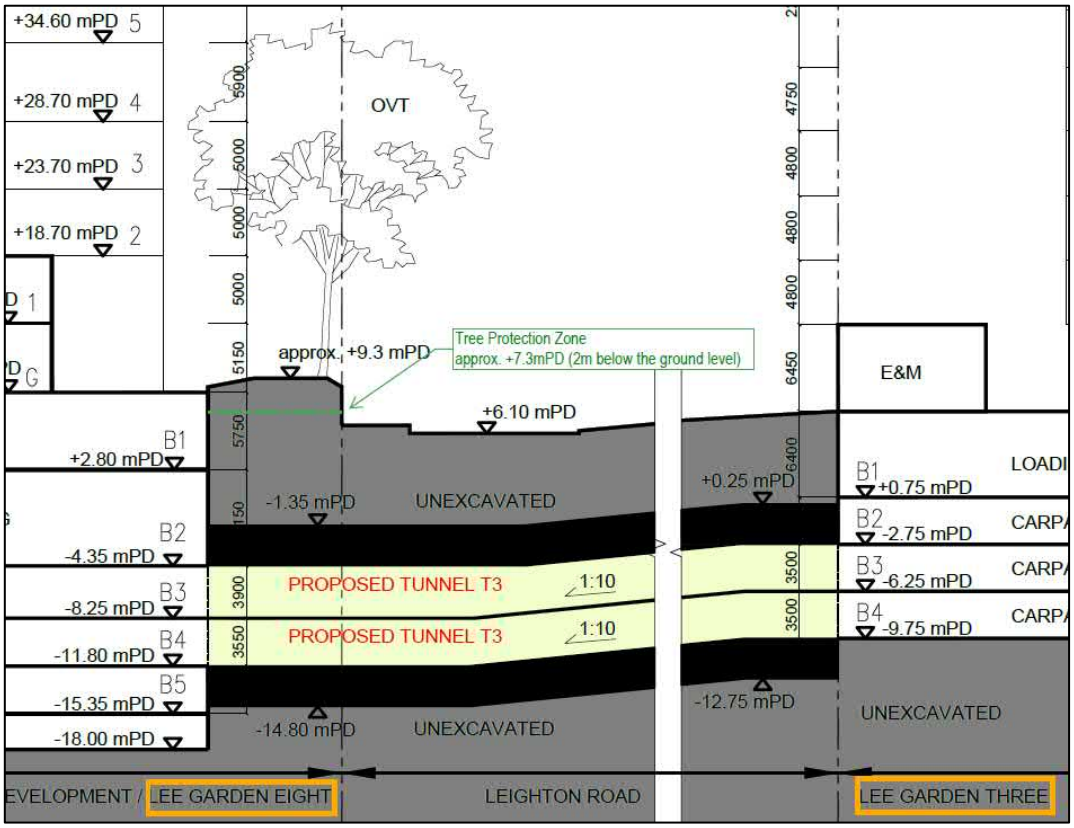


Figure 4.6 – Section Showing the Tree Protection Zone (2m below the Ground Level) of the OVT

5 Technical Assessments

5.1 INTRODUCTION

5.1.1 The following is a summary of technical assessments carried out for the proposed underground vehicular tunnel.

5.2 TRAFFIC IMPACTS

5.2.1 A Traffic Impact Assessment to assess potential traffic impacts due to the proposed tunnel project during both operational and construction stages has been conducted. It has been concluded that the proposed tunnel will not cause adverse traffic impacts on the local road network, and all the assessed junctions will operate within their capacities during peak hours.

5.2.2 The proposed tunnel is supported from a traffic engineering point of view as it is considered to be beneficial to the local area, with the following expected benefits:

- Reduction of at-grade traffic on local roads will help to enhance road traffic conditions, improve the air quality and pedestrian safety in the area;
- Accessibility of car parks will be maximized for efficient use of available car parking spaces and way-finding to vacant parking spaces can be taken place internally and thus vehicle queuing at car park entrances and traffic circulation on public roads will be minimized;
- Availability of route choices for vehicles will help to achieve a better balanced use of roads/junctions' capacities under different road traffic situations; and
- Access and traffic management will be more flexible for car park operators to manage the ingress and egress of vehicles to suit different traffic conditions in the area.

5.2.3 Findings of the Traffic Impact Assessment are contained in **Annex A**.

5.3 TREE IMPACTS

5.3.1 While the proposed underground vehicular tunnel will pass beneath the dripline of the OVT, in accordance with Paragraph 26 of *Development Bureau Technical Circular (Works) No. 5/2020 – Registration and Preservation of Old and Valuable Trees*, *"a zone encompassing the tree along its dripline, projecting vertically from the tree canopy and extending 2m below the ground level and 2m above the top of an OVT, shall be designated as the Tree Protection Zone ("TPZ")."* The proposed tunnel will be constructed entirely underground at approximately –1.35mPD, which is at least 10m below the top of soil of the OVT (approximately +9.30mPD) and approximately 7m below the ground level at Leighton Road (approximately +6.10mPD), as shown in the floor plan and section in **Figures 4.5** and **4.6**.

5.3.2 As all construction works will be carried out entirely underground and no ground-level excavation will take place within the dripline of the OVT, the proposed tunnel is considered to be outside the statutory TPZ. Accordingly, the potential impact on the OVT is expected to be insignificant with the implementation of appropriate precautionary measures (see above).

5.3.3 Details of the Tree Protection Proposal are contained in **Annex B**.

5.4 GEOTECHNICAL IMPACTS

5.4.1 In accordance with 'GEO Advice Note for Planning Applications under Town Planning Ordinance (Cap.131): Requirements for a Geotechnical Planning Review Report in support of planning applications ', the proposed tunnel does not require a Geotechnical Planning Review Report under the subject planning application. Nonetheless, the proposed tunnel will not cause damage to the adjacent buildings, structures, land, streets or services. Precautionary measures, such as ground investigations, will be conducted before construction. During construction, regular monitoring of settlement, tilting, vibration

and ground water drawdown at adjacent sites, utilities, and buildings will be implemented.

5.5 AIR QUALITY IMPACTS

5.5.1 The project team will observe all relevant environmental protection ordinances and requirements and implement pollution control measures to minimise any potential environmental impact/nuisance during the construction stage.

5.5.2 The proposed tunnel will be designed with supply and exhaust ventilating fans to ensure sufficient outdoor air is drawn in and polluted air is extracted from the car parks and tunnels.

5.6 NOISE IMPACTS

5.6.1 As construction works will take place underground, noise disruption to nearby sensitive receivers will be significantly reduced and is expected to be insignificant.

5.6.2 The project team will observe all relevant environmental protection ordinances and requirements and implement noise control measures to minimise any potential environmental impact/nuisance during the construction stage.

5.7 HERITAGE IMPACTS

5.7.1 The proposed vehicular tunnel will be constructed entirely underground at approximately -1.35mPD within Lee Garden Eight, which is approximately 7m below the ground level at Leighton Road (approximately +6.10mPD), as shown in the floor plan and section in **Figure 4.3**. The graded structures in the vicinity, including the graded Masonry Walls and Earthenware Pipes at Caroline Hill Road, as well as Main Building of Po Leung Kuk at Leighton Road, are at-grade structures with a horizontal distance of more than 50m from the proposed vehicular tunnel. Given this separation and because all construction works will be carried out entirely underground and no ground-level excavation will take place, the impact on these graded structures is expected to be insignificant.

5.7.2 The project team will conduct regular monitoring and inspection of the graded structures to preserve and protect the historic fabric during the construction stage.

5.8 OVERVIEW

5.8.1 As stated above, all relevant technical assessments have been undertaken, demonstrating that the proposed project will not generate unmitigable impacts on the surrounding environment.

6 Planning Justifications

6.1 IN CONFORMITY WITH OZP INTENTION

6.1.1 The proposed Tunnel T3 is situated within the Approved Causeway Bay Outline OZP No. S/H6/17 and the Approved Wong Nai Chung OZP No. S/H7/21.

6.1.2 The majority of the Project Site (i.e. Application Site of approximately 610 m^2 or 73.5%) falls within areas shown as 'Road' on the respective OZPs, whilst the remaining portion of the Project Site (i.e. approximately 220 m^2 or 26.5%) falls within an area zoned "C(2)" on the Approved Wong Nai Chung OZP No. S/H7/21.

Area Shown as 'Road'

6.1.3 The areas shown as 'Road' on the OZPs are designated for road (including vehicular) transportation purposes. According to the TPB 'Definition of Terms', the definition of "Road":

> *"Includes the whole or any part of any square, court or alley, highway, lane, road, road-bridge, flyover, underpass, tunnel, footpath, footbridge, path, pedestrian subway, pedestrian area, travelator or passage whether a thoroughfare or not".*

6.1.4 Therefore, the proposed Tunnel T3 is considered to be a development which does not deviate from the purpose of the areas shown as 'Road' on the OZPs.

"C(2)" Zone

6.1.5 The planning intention of the "C(2)" zone is primarily for commercial development, which may include uses such as office, shop, services, place of entertainment, eating place and hotel, functioning as territorial business/financial centre(s) and regional or district commercial/shopping centre. The proposed Tunnel T3, together with the Tunnel T1 and Tunnel T2 (proposed elsewhere), form part of an integrated car park network within the commercial development of the Lee Gardens Area. This is considered to be an ancillary use to the commercial development within the "C(2)" zone and can therefore be regarded as permitted as of right.

6.1.6 Therefore, the proposed Tunnel T3 project does not require a planning permission from the TPB, nor submission of layout plan for the approval of the TPB in area zoned "C(2)".

6.1.7 Since the proposed Tunnel T3 only involves the use of underground space as an alternative to at-grade vehicular routes, no land use incompatibility with the surrounding development context is anticipated.

6.1.8 The proposed Tunnel T3 set out in this application contains a number of significant planning merits. These and other considerations are described below.

6.2 REDUCTION OF AT-GRADE TRAFFIC DEMAND

6.2.1 The proposed Tunnel T3 will serve as an alternative underground route, diverting vehicles accessing Lee Garden One, Lee Garden Two, Lee Garden Three and Lee Garden Eight from the at-grade to underground level. It is estimated that the traffic flows will be reduced along both key road link, such as Leighton Road, and local roads, including Yun Ping Road, Hoi Ping Road, Sunning Road, Lan Fong Road and Lee Garden Road, as well as their road junctions.

6.2.2 With the proposed Tunnel T3 implemented, route choices will be available to help achieve a better balanced use of roads and junctions' capacities under different road traffic situations.

6.2.3 The diversion of traffic from the at-grade to underground level will reduce the at-grade traffic flow and enhance road traffic conditions.

6.2.4 Upon completion of Lee Garden Eight and other development projects in the vicinity, higher

concentrations of commercial, retail and other economic activity are anticipated, attracting greater pedestrian flows into Causeway Bay. Enhancement of road traffic conditions will improve the public realm in Causeway Bay and contribute to a safer and more pleasant walking environment for pedestrians.

6.3 FACILITATION OF EFFICIENT UTILISATION OF CAR PARKING SPACES

6.3.1 The proposed Tunnel T3, together with the approved Tunnel T1 and Tunnel T2, will link up the basement carparks in Lee Garden One, Lee Garden Two, Lee Garden Three, and Lee Garden Eight, forming an integrated car park network. The higher accessibility of these car parks will facilitate shared use of car parking spaces amongst these commercial developments. With a more efficient use of parking provision where wayfinding for available car parking spaces can take place internally within car parks, the vehicle queuing at car park entrances and traffic circulation on public roads will be minimised.

6.4 ENHANCEMENT IN AIR QUALITY

6.4.1 As the proposed Tunnel T3 will reduce at-grade road traffic demand and the traffic queuing time along roads and road junctions, as well as car parks entrances, pollutants emitted from vehicles on the roads will be reduced. The air quality of the area will be improved.

6.5 NO IMPACTS TO THE OVT

6.5.1 The proposed Tunnel T3 will be constructed entirely underground at an elevation of approx. -1.35mPD, which is at least 10m below the top of soil of the OVT. In accordance with *DEVB TC(W) No. 5/2020*, the tunnel is located outside the statutory TPZ, and no excavation or works at ground level within the dripline are proposed. Accordingly, direct impacts on the OVT are anticipated to be insignificant with the implementation of precautionary measures, such as tree protection and monitoring measures which are proposed given the tree's OVT status and its existing BRRD condition.

6.6 NO INSURMOUNTABLE TECHNICAL IMPACTS

6.6.1 As demonstrated in **Section 5** and in technical assessments at **Annexes A and B**, the current scheme will not create any adverse traffic, tree, geotechnical, air quality, noise, and heritage impacts.

6.6.2 As such, the proposed project will not result in any insurmountable environmental or technical impacts.

7 Implementation

7.1 PROGRAMME AND PHASING

7.1.1 The construction of the proposed underground vehicular tunnel is anticipated to commence in 2029 (i.e. upon completion of Lee Garden Eight) and to be completed by Q3 2033.

7.2 RESPONSIBILITY FOR CONSTRUCTION AND MANAGEMENT

7.2.1 The proposed project will be constructed and maintained at the Applicants' cost.

7.2.2 The detailed design of structural features, services, utilities, etc. as well as necessary regulatory and Lease submissions will be made in the future at the appropriate point in time.

8 Conclusion

8.1 SUMMARY

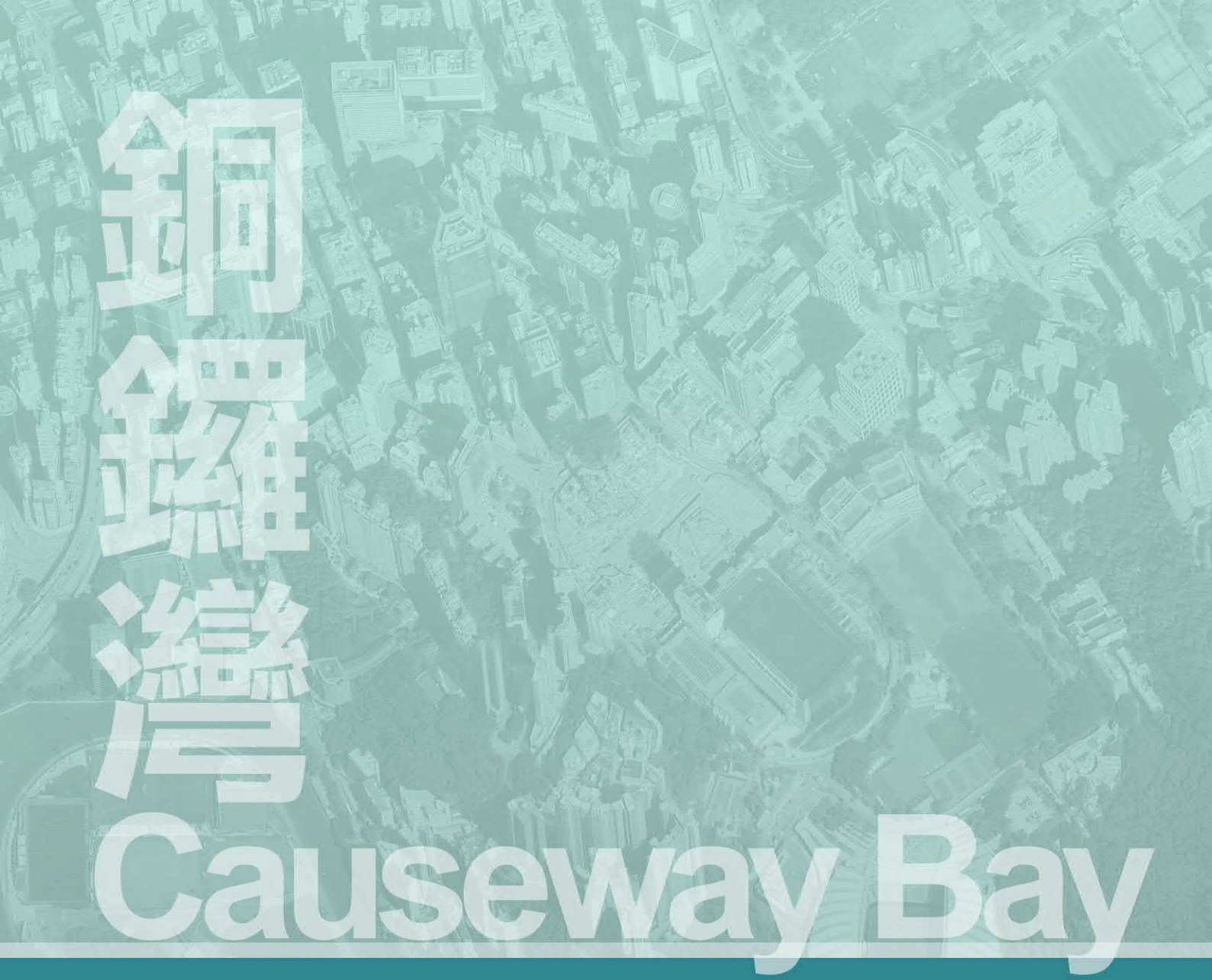
8.1.1 This Application presents the proposed Tunnel T3 connecting Lee Garden Three and Lee Garden Eight below Leighton Road and Sunning Road to form an integrated basement car park network within the commercial developments of the Lee Gardens Area.

8.1.2 The project will improve access to parking and address existing traffic conditions and the projected traffic demand in future, aiming to enhance vehicular connectivity and improve the pedestrian environment in Causeway Bay.

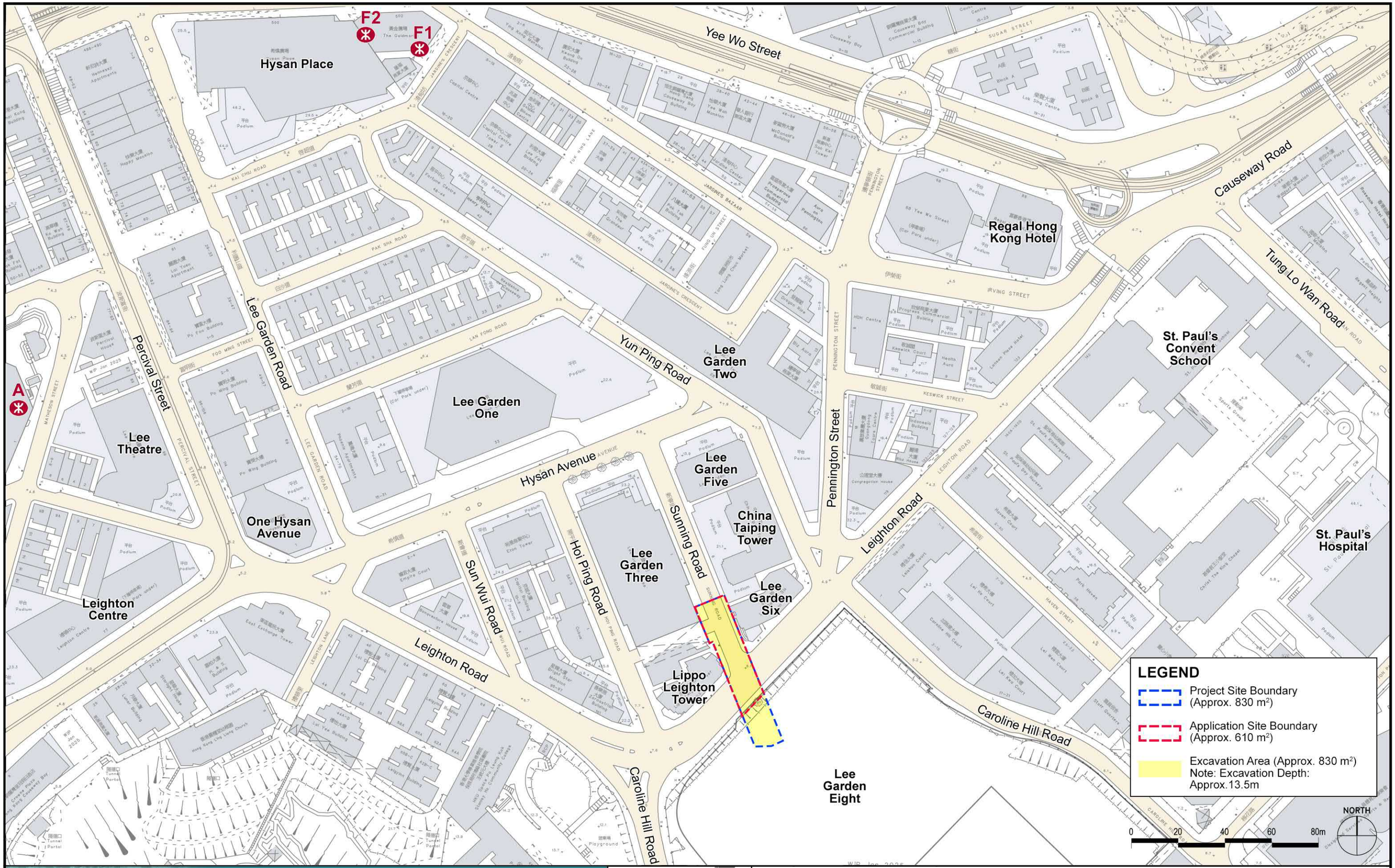
8.1.3 This Application establishes that the proposed Tunnel T3 has the following planning merits:

- It complies with material requirements and development parameters of the Approved Causeway Bay Outline OZP No. S/H6/17 and the Approved Wong Nai Chung OZP No. S/H7/21;
- It reduces at-grade traffic demand;
- It facilitates efficient utilization of car parking spaces across the surrounding area for optimal use, thereby minimizing vehicle queuing and traffic circulation on public roads;
- It enhances roadside air-quality;
- It preserves the Old and Valuable Tree (OVT) on Leighton Road; and
- It poses no insurmountable adverse impacts in terms of environmental or technical aspects.

8.1.4 The Applicants therefore respectfully requests the Town Planning Board, exercising its powers under Section 16 of the Town Planning Ordinance (Cap 131), to approve the proposed Tunnel T3, with or without condition.



Figures

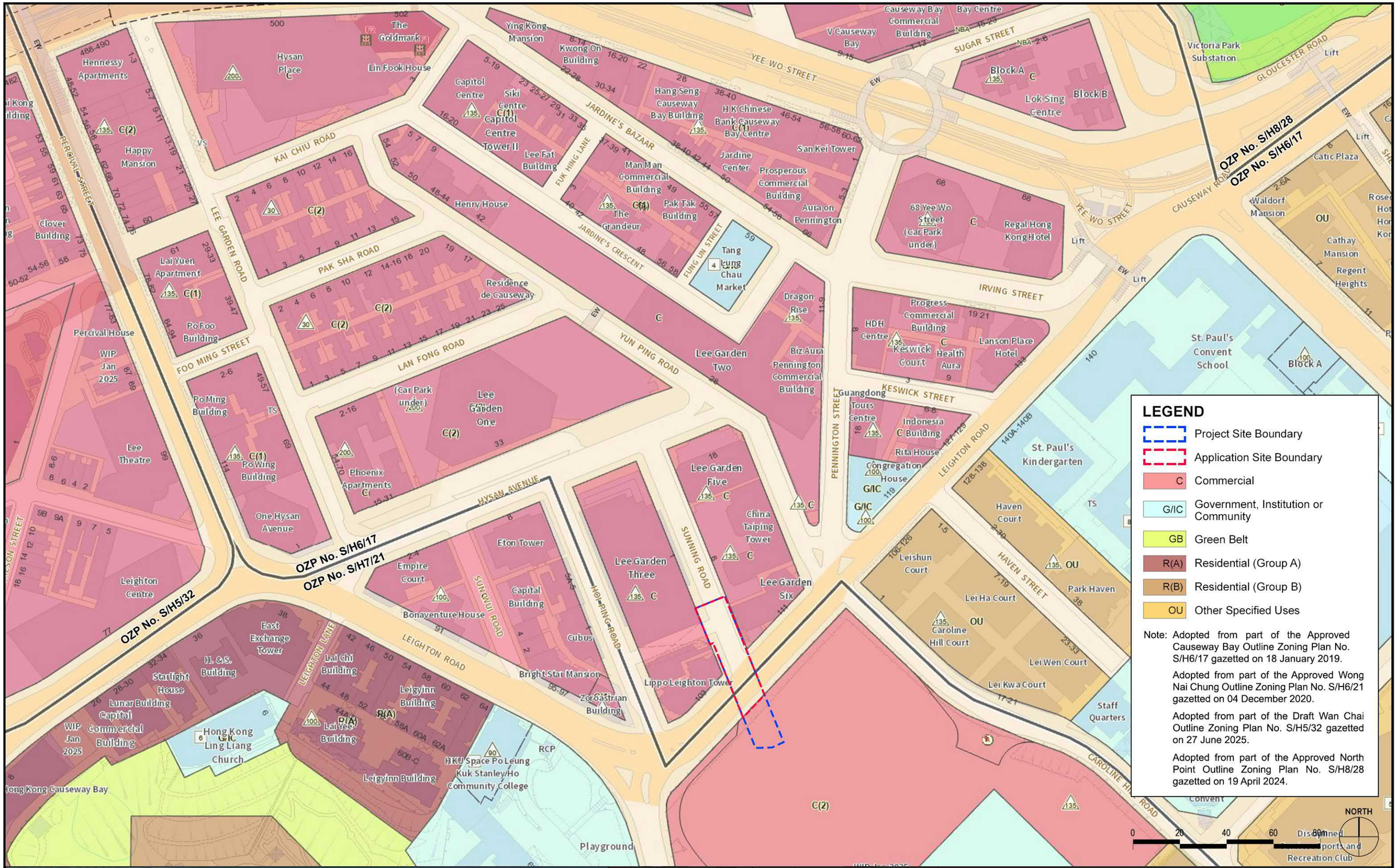


銅鑼灣 Causeway Bay

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

Title: Site Location Plan and Excavation Area

Scale	Date	Figure No.
1:1,500 @ A3	July 2026	1.1

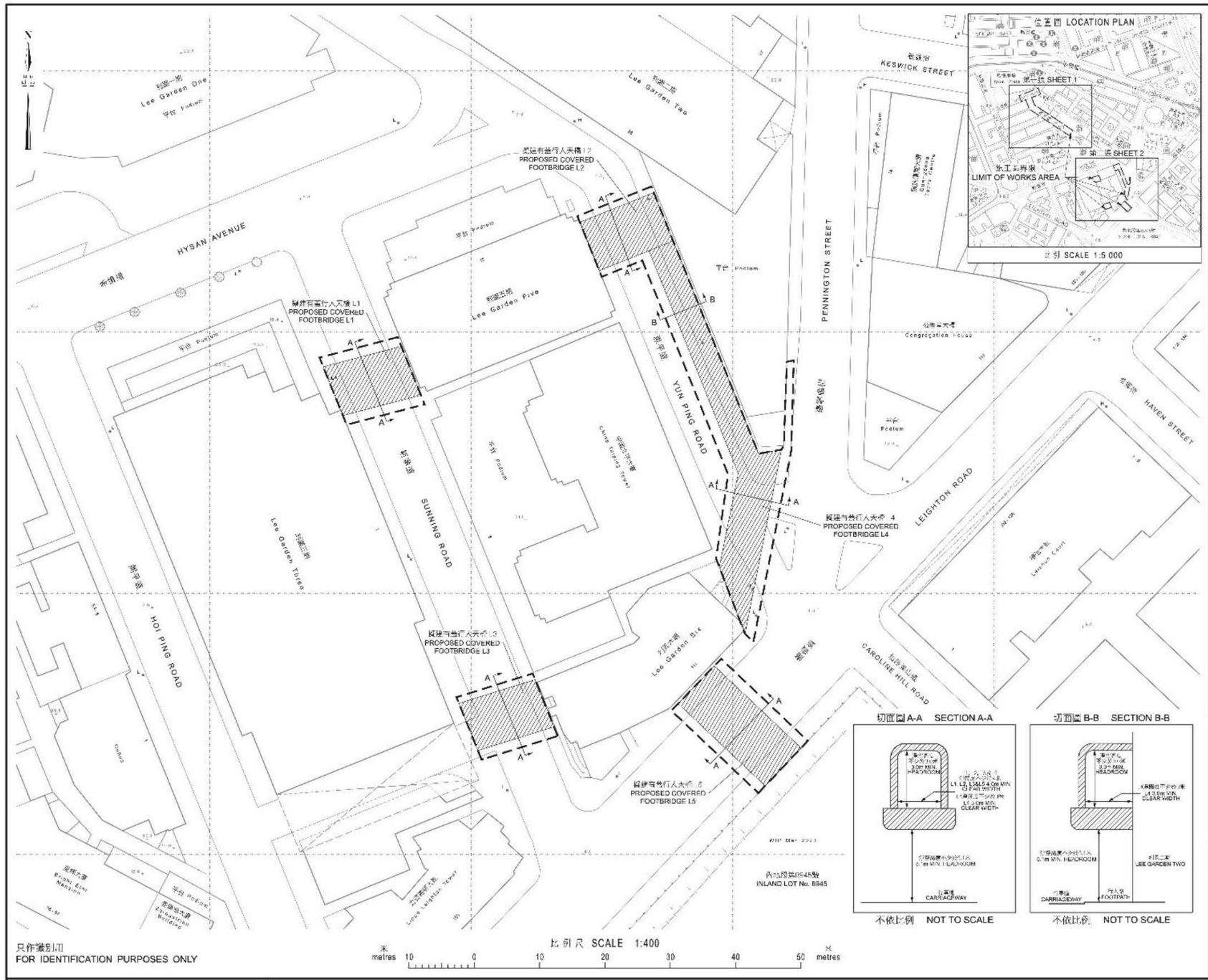


銅鑼灣 Causeway Bay

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

Title: Outline Zoning Plan

Scale	Date	Figure No.
1:1,500 @ A3	January 2026	1.2



備註
NOTES :

1. 除另有說明外，所有度量以米為單位。
ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
2. 所有水平線為概約數，數值為量度，基於香港主水平基準上。
ALL LEVELS ARE APPROXIMATE VALUES AND IN METRES ABOVE HONG KONG PRINCIPAL DATUM
3. 分區開放，施工期間範內的現有道路、行人路及交通島或會分區暫時封閉。
SECTIONS OF THE EXISTING CARRIAGEWAYS, FOOTPATHS AND TRAFFIC ISLANDS WITHIN THE LIMIT OF WORKS AREA MAY BE TEMPORARILY CLOSED IN PHASES AS AND WHEN REQUIRED.

圖例
LEGEND :

- 施工範圍
LIMIT OF WORKS AREA
- 擬建有蓋行人天橋
PROPOSED COVERED FOOTBRIDGE

擬計 Endorsed

陳美寶 CHAN Mable
運輸及物流局常任秘書長
Permanent Secretary for Transport and Logistics

日期 Date

核准 Approved

署理 Lawrance S C CHAN
地政專員／港島東
地政總署
District Lands Officer / Hong Kong East
Lands Department

日期 Date

地政總署 港島東區地政處
District Lands Office, Hong Kong East
Lands Department
圖則由地政總署測繪
Plan Prepared by District Survey Office, Hong Kong
© 香港特別行政區政府一版權所有 Copyright reserved - Hong Kong SAR Government

圖則名稱 PLAN TITLE
根據《道路(工程、使用及補償)條例》(第370章)而在憲報公布之圖測
PLAN FOR GAZETTING UNDER ROADS (WORKS, USE AND COMPENSATION) ORDINANCE (CHAPTER 370)

工程名稱 PROJECT TITLE
銅鑼灣恩平道和啓超道的擬建行人道上蓋及恩平道、新寧道和禮頓道的擬建有蓋行人天橋
PROPOSED WALKWAY COVER AT YUN PING ROAD AND KAI CHIU ROAD AND PROPOSED COVERED FOOTBRIDGES AT YUN PING ROAD, SUNNING ROAD AND LEIGHTON ROAD, CAUSEWAY BAY

檔案編號 File No. DLO/HE L/M 1067/47A GAZ
測量圖編號 Survey Sheet No. 11-SW-15B
發展藍圖編號 Layout Plan No. ---
參考圖編號 Reference Plan No. [illegible]
圖則編號 PLAN No. HKM10983 (兩張的第二張) (SHEET 2 OF 2)

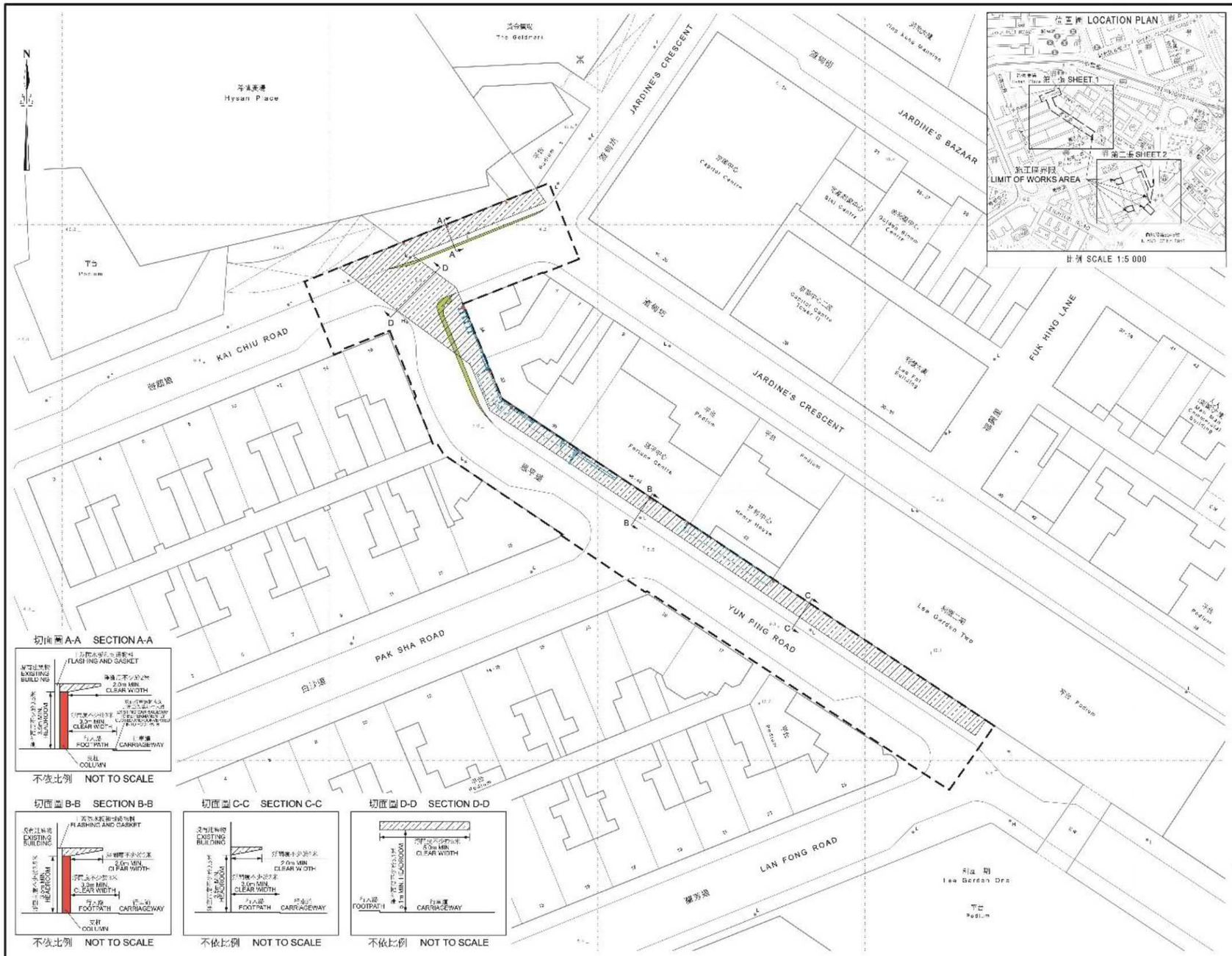
Causeway Bay 銅鑼灣

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

Arup 雅邦

Title: Proposed Covered Footbridges at Yun Ping Road, Sunning Road and Leighton Road as Gazetted under the Roads (Works, Use and Compensation) Ordinance (Cap. 370)

Scale	Date	Figure No.
As Shown @ A3	January 2026	**1.3a**



註釋
NOTES :

1. 除另有說明外，所有度量以米為單位。
   ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE STATED.
2. 所有水平標高約數，以米為單位，並按香港主水平基面上。
   ALL LEVELS ARE APPROXIMATE VALUES AND IN METRES ABOVE HONG KONG PRINCIPAL DATUM.
3. 現有行車道、行人通道及交通島的部分或會分階段暫時封閉。
   SECTIONS OF THE EXISTING CARRIAGEWAYS, FOOTPATHS AND TRAFFIC ISLANDS WITHIN THE LIMIT OF WORKS AREA MAY BE TEMPORARILY CLOSED IN PHASES AS AND WHEN REQUIRED.

圖例
LEGEND :

- 施工地界線 LIMIT OF WORKS AREA
- 建議行人天橋 PROPOSED WALKWAY COVER
- 現有行車道將永久封閉並改作行人路 EXISTING CARRIAGEWAY TO BE PERMANENTLY CLOSED AND CONVERTED INTO FOOTPATH
- 現有行人路將永久封閉並改建成支柱 EXISTING FOOTPATH TO BE PERMANENTLY CLOSED AND CONVERTED INTO COLUMN
- 現有自鄰近建築物伸出或構成障礙物的建築物部分須被拆除 EXISTING OBJECTS OR STRUCTURES PROJECTED FROM ADJACENT BUILDINGS WILL BE REQUIRED TO BE COMPLETELY REMOVED

批核 Endorsed

陳美寶 CHAN Mable
運輸及物流局常任秘書長
Permanent Secretary for Transport and Logistics

日期 Date

核准 Approved

陳承澤 Lawrance S C CHAN
港島東區地政專員
District Lands Officer / Hong Kong East
Lands Department

日期 Date

地政總署 港島東區地政處
District Lands Office, Hong Kong East
Lands Department

Plan Prepared by District Survey Office, Hong Kong

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圖則名稱 PLAN TITLE

工程名稱 PROJECT TITLE

根據《道路(工程、使用及補償)條例》(第370章)而作憲報公布之圖則
PLAN FOR GAZETTING UNDER ROADS (WORKS, USE AND COMPENSATION) ORDINANCE (CHAPTER 370)

銅鑼灣恩平道和開道的擬建行人通上蓋及恩平道、新華道和禮頓道的擬建有蓋行人天橋
PROPOSED WALKWAY COVER AT YUN PING ROAD AND KAI CHIU ROAD AND PROPOSED COVERED FOOTBRIDGES AT YUN PING ROAD, SUNNING ROAD AND LEIGHTON ROAD, CAUSEWAY BAY

檔案編號 File No.	DLO/HE L/M 1067/47A GAZ
測量圖編號 Survey Sheet No.	11-SW-10D & 15B
發展藍圖編號 Layout Plan No.	—
參考圖編號 Reference Plan No.	—
圖則編號 PLAN No.	HKM10983 (兩張的第一張) (SHEET 1 OF 2)

銅鑼灣 Causeway Bay

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

雅邦 Limited

Title

Proposed Walkway Cover at Yun Ping Road and Kai Chiu Road as Gazetted under the Roads (Works, Use and Compensation) Ordinance (Cap. 370)

Scale	Date	Figure No.
As Shown @ A3	January 2026	**1.3b**

LEGEND

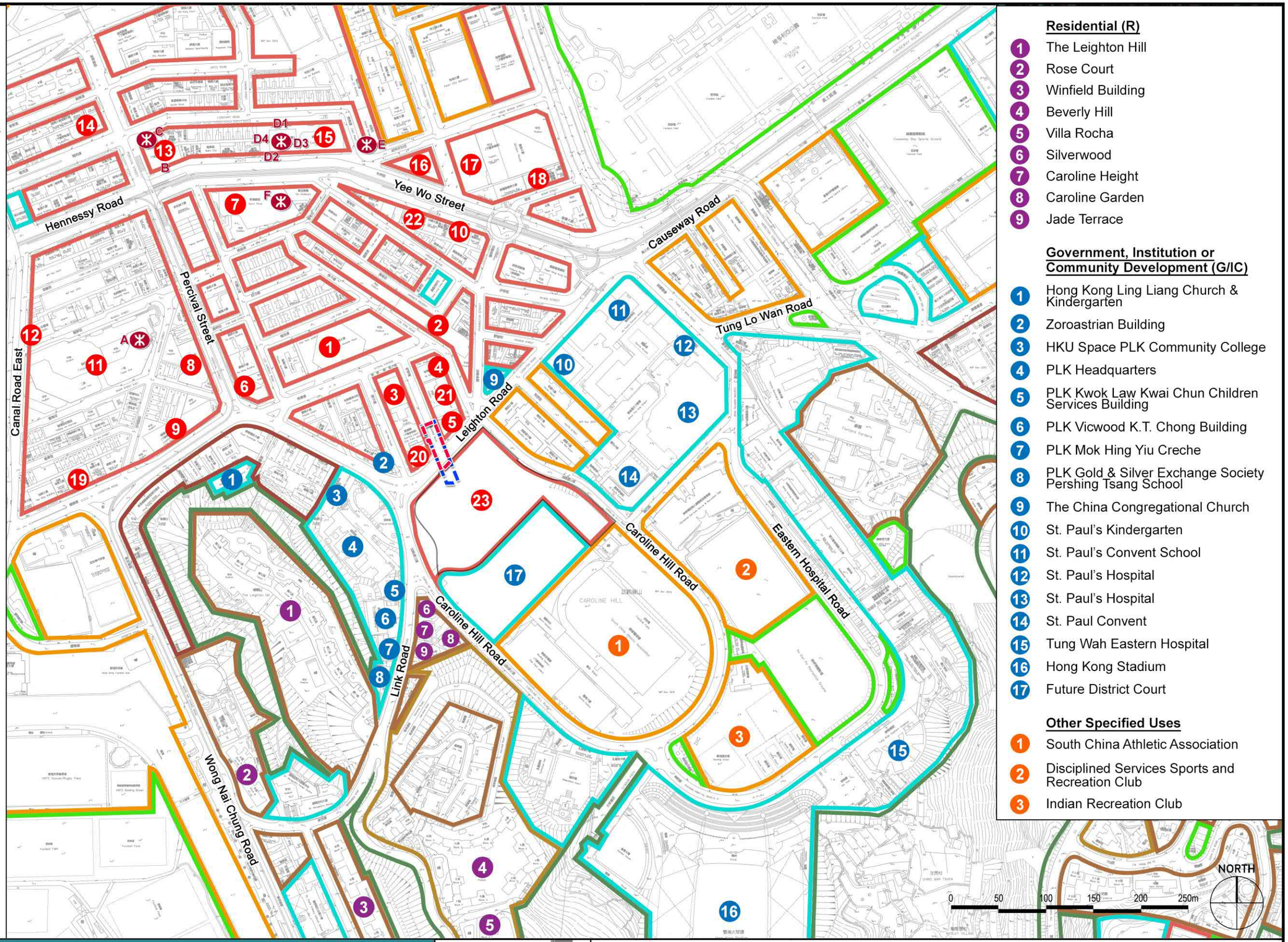
- Project Site Boundary
- Application Site Boundary

Land Use Zoning

- Commercial
- Government, Institution or Community
- Open Space
- Green Belt
- Residential (Group A)
- Residential (Group B)
- Residential (Group C)
- Other Specified Uses

Commercial

1. Lee Garden One
2. Lee Garden Two
3. Lee Garden Three
4. Lee Garden Five
5. Lee Garden Six
6. One Hysan Avenue
7. Hysan Place
8. Lee Theatre Plaza
9. Leighton Centre
10. McDonald's Building
11. Times Square
12. Plaza 2000
13. Causeway Bay Plaza 1
14. Causeway Bay Plaza 2
15. SOGO
16. Causeway Place
17. Hang Lung Centre
18. Causeway Bay Centre
19. Chinachem Leighton Plaza
20. Lippo Leighton Tower
21. China Taiping Tower
22. Hang Seng Causeway Bay Building
23. Lee Garden Eight



Residential (R)

1. The Leighton Hill
2. Rose Court
3. Winfield Building
4. Beverly Hill
5. Villa Rocha
6. Silverwood
7. Caroline Height
8. Caroline Garden
9. Jade Terrace

Government, Institution or Community Development (G/IC)

1. Hong Kong Ling Liang Church & Kindergarten
2. Zoroastrian Building
3. HKU Space PLK Community College
4. PLK Headquarters
5. PLK Kwok Law Kwai Chun Children Services Building
6. PLK Vicwood K.T. Chong Building
7. PLK Mok Hing Yiu Creche
8. PLK Gold & Silver Exchange Society Pershing Tsang School
9. The China Congregational Church
10. St. Paul's Kindergarten
11. St. Paul's Convent School
12. St. Paul's Hospital
13. St. Paul's Hospital
14. St. Paul Convent
15. Tung Wah Eastern Hospital
16. Hong Kong Stadium
17. Future District Court

Other Specified Uses

1. South China Athletic Association
2. Disciplined Services Sports and Recreation Club
3. Indian Recreation Club

銅鑼灣 Causeway Bay

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

Urbis Limited 雅邦

Title: Surrounding Development Context

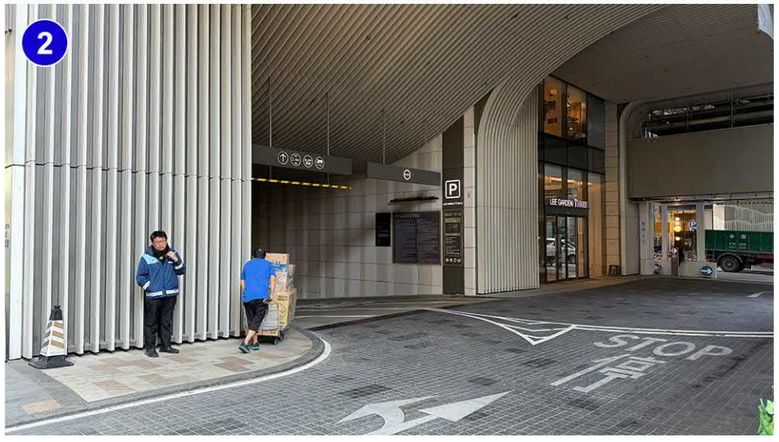
Scale	Date	Figure No.
1:4,000 @ A3	January 2026	2.1

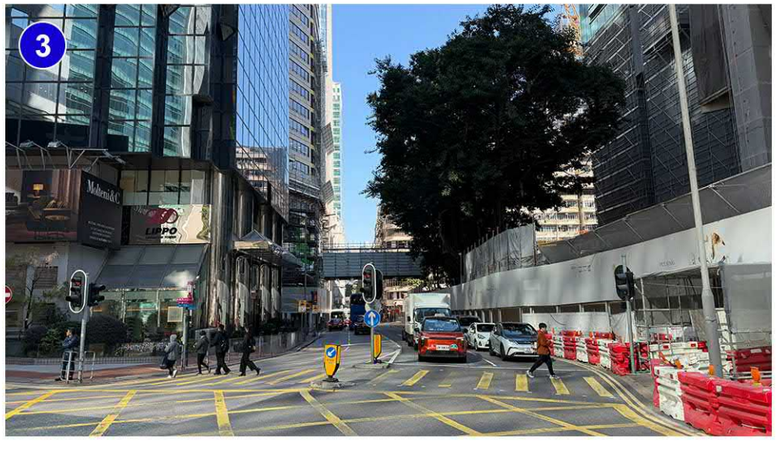
銅鑼灣 Causeway Bay

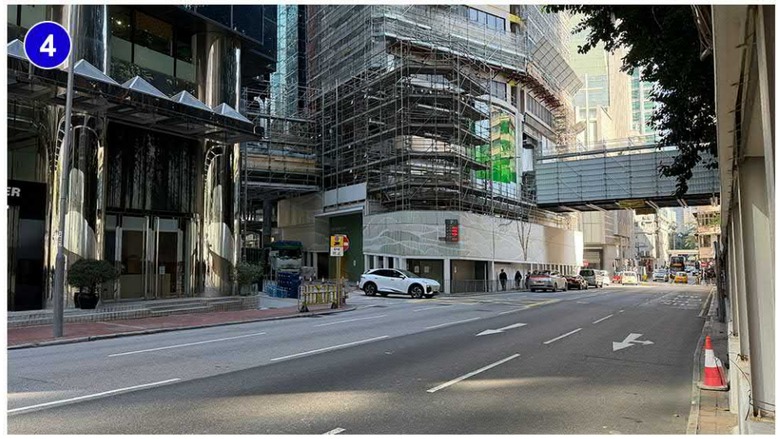
Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

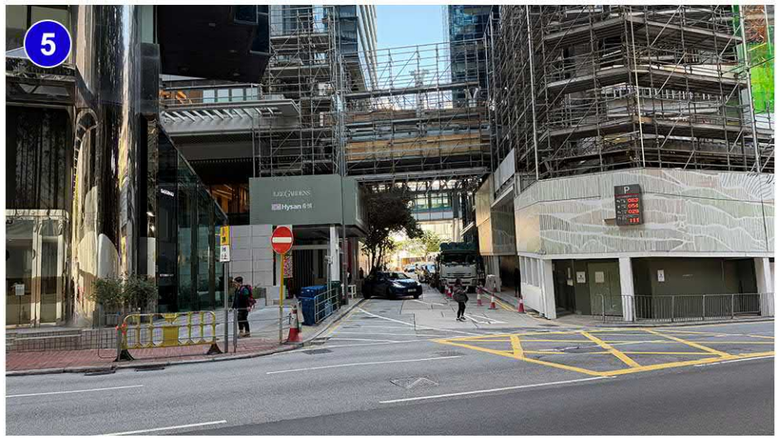
Title: Aerial Photo of the Site

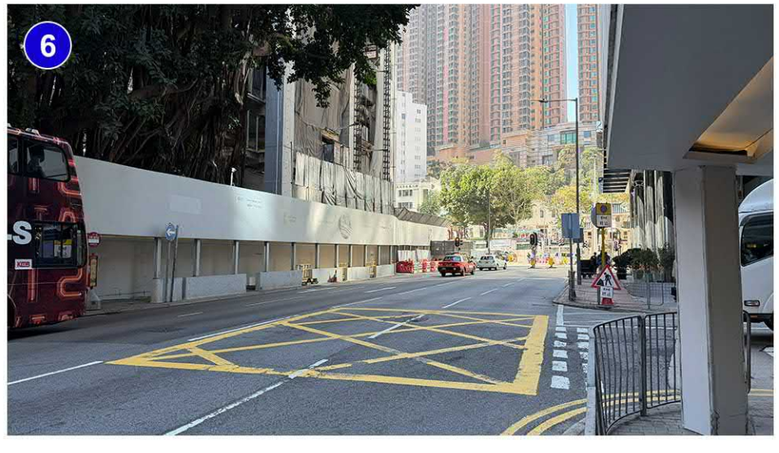
Scale	Date	Figure No.
1:1,500 @ A3	January 2026	2.2

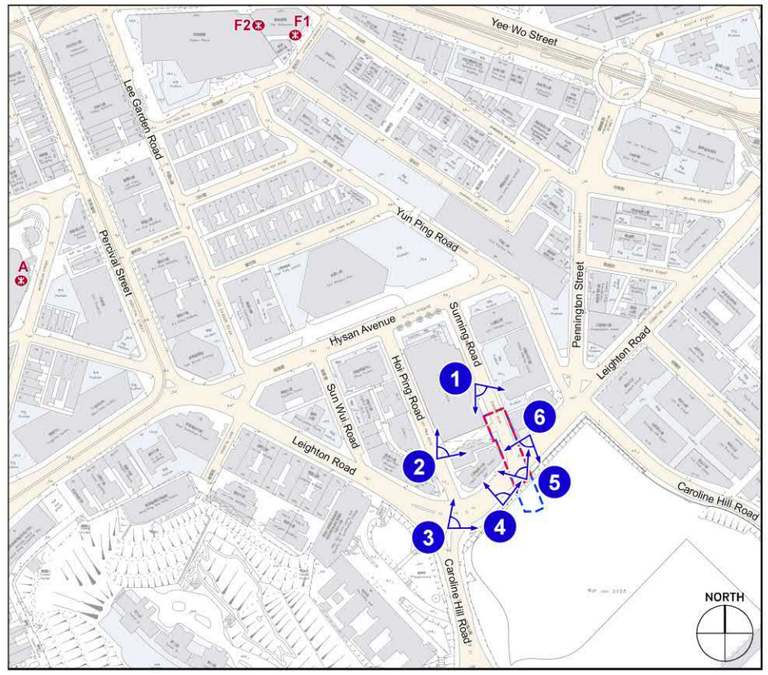












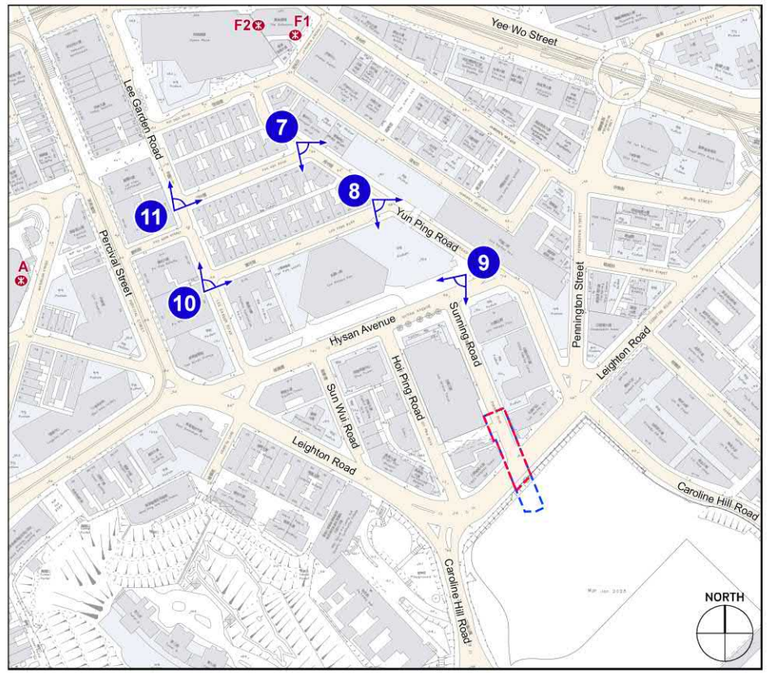
Causeway Bay 銅鑼灣

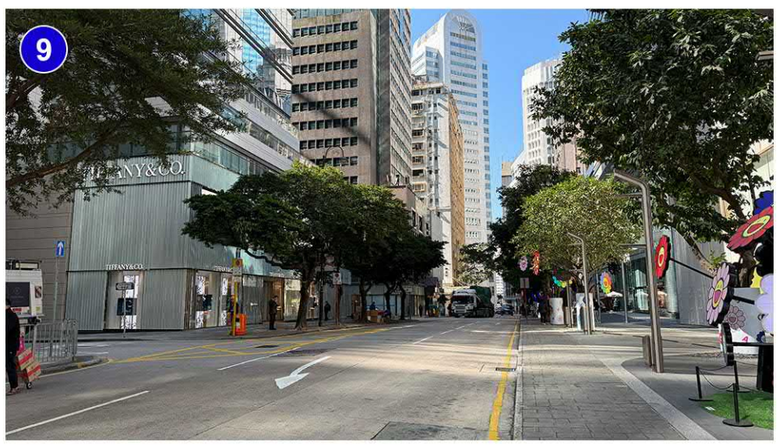
Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

Urbis Limited 雅邦

Title: Photos of the Site and Surrounding Context (1 of 2)

Scale	Date	Figure No.
N.T.S. @ A3	January 2026	**2.3a**





Causeway Bay 銅鑼灣

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

Ramboll Environ Limited 雅邦

Title: Photos of the Site and Surrounding Context (2 of 2)

Scale	Date	Figure No.
N.T.S. @ A3	January 2026	**2.3b**

HOI PING ROAD

SUNNING ROAD

YUN PING ROAD

CAROLINE HILL ROAD

LEIGHTON ROAD

I.L.29-s.J.R.P., s.J ss.1
R.P. & s.J SS.2
LEE GARDEN 3

APPLICATION SITE AREA
= APPROX. 610 sqm

APPROX
EXTENT OF OVT
CANOPY

PROPOSED TUNNEL 3

PROJECT SITE AREA
= APPROX. 830 sqm

OVT

LIPPO LEIGHTON
TOWER

I.L.8945
CAROLINE HILL ROAD
DEVEILPOMENT

+5.6

SITE OF FUTURE
DISTRICT COURT

LEGEND

- Project Site Boundary
- Application Site Boundary
- Carpark (Private)

NORTH

0 10 20 30 40 50m

Causeway Bay 銅鑼灣

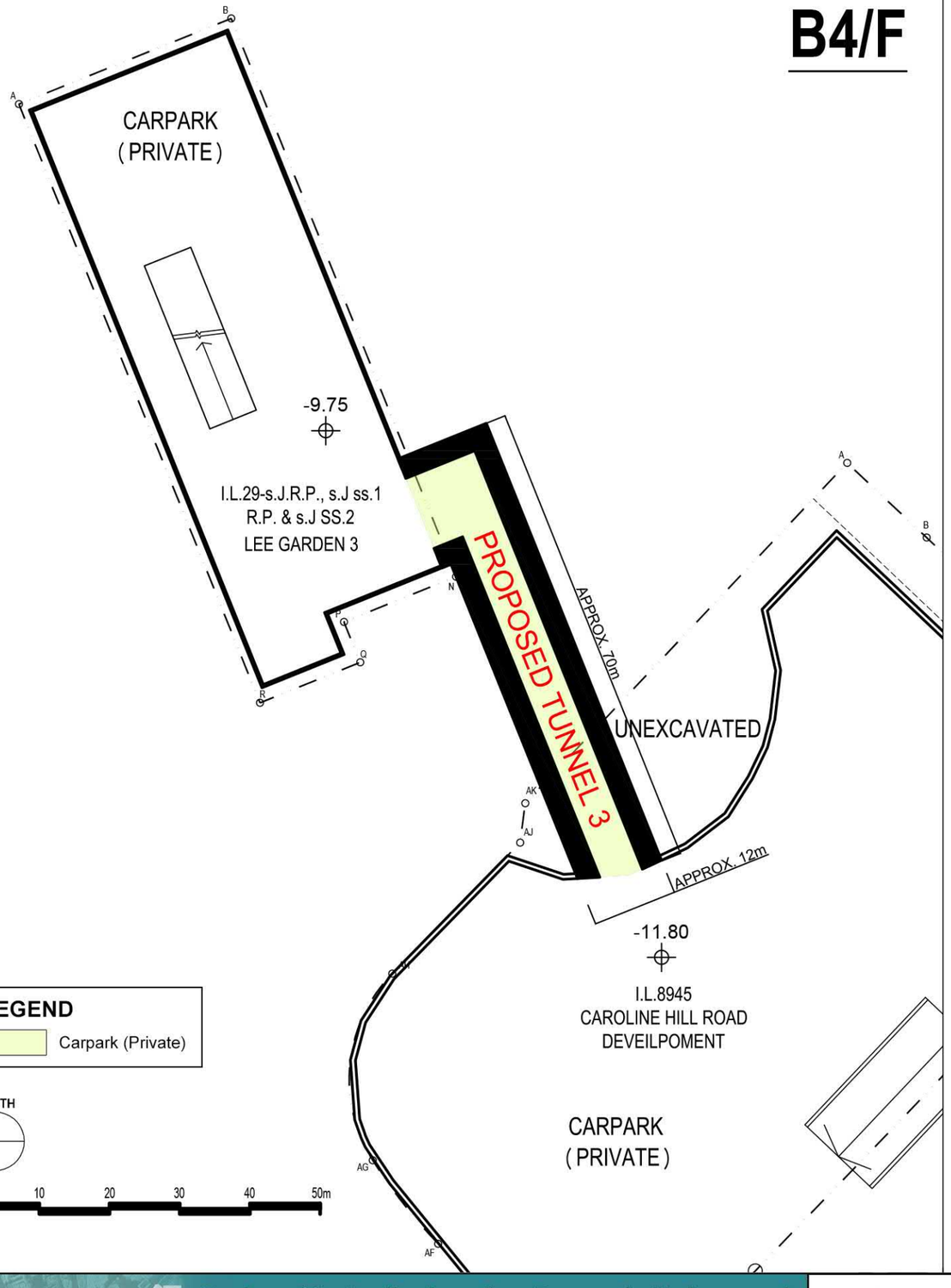
Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

雅邦 Limited

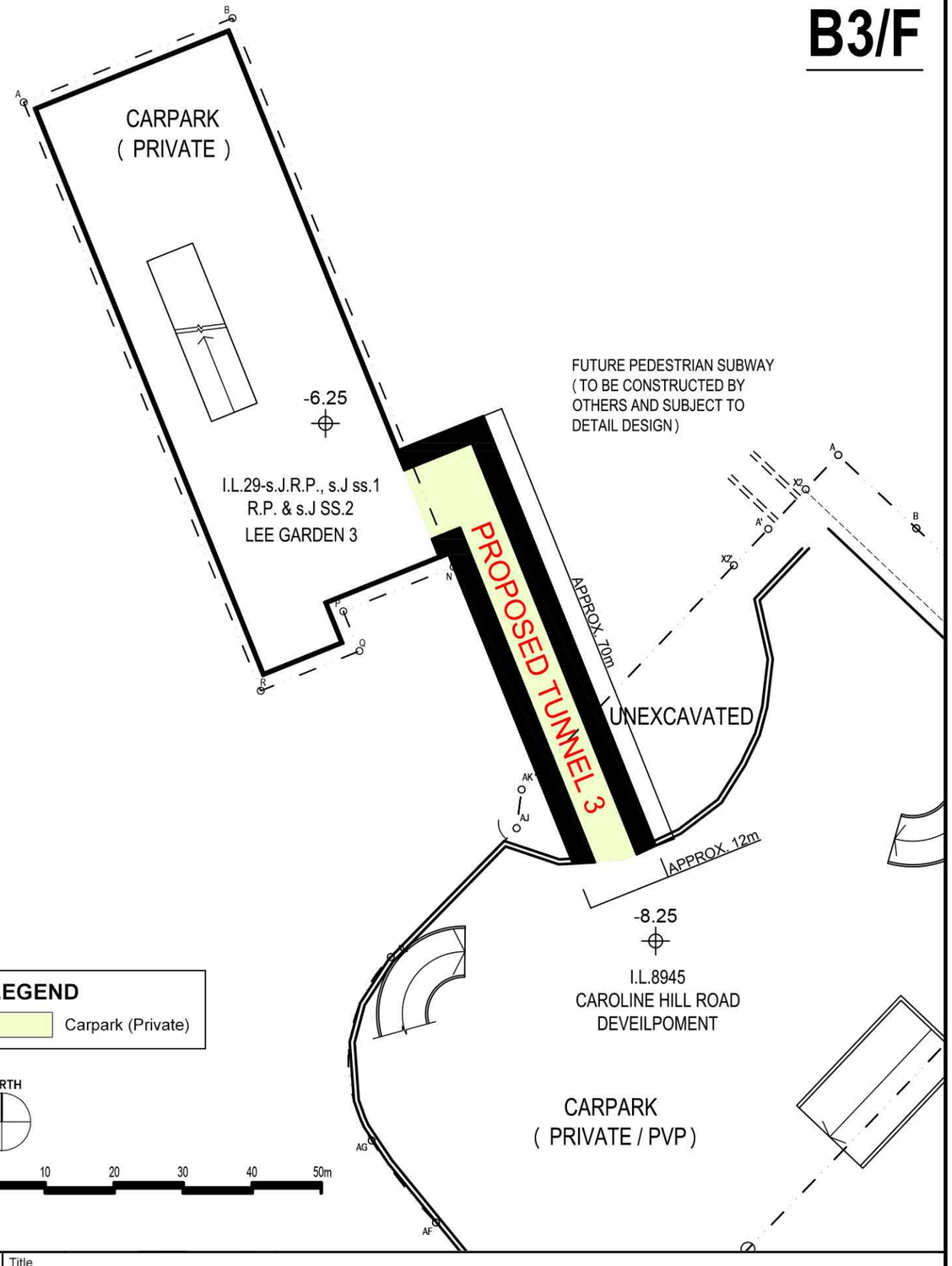
Title: Master Layout Plan

Scale	Date	Figure No.
1:750 @ A3	July 2026	**4.1**

B4/F



B3/F



銅鑼灣 Causeway Bay

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

雅邦 Urbis Limited

Title: B3 & B4 Floor Plan

Scale	Date	Figure No.
1:750 @ A3	July 2026	**4.2**

PERFORMING ARTS & CULTURAL FACILITIES

6

+34.60 mPD 5

E&M

+28.70 mPD 4

COMMERCIAL / E&M

+23.70 mPD 3

COMMERCIAL / E&M

+18.70 mPD 2

COMMERCIAL / E&M

+13.70 mPD 1

COMMERCIAL / E&M

+8.55 mPD G

COMMERCIAL / E&M

B1

+2.80 mPD

LOADING & UNLOADING

B2

-4.35 mPD

CARPARK (PRIVATE)

B3

-8.25 mPD

CARPARK (PRIVATE)

B4

-11.80 mPD

CARPARK (PRIVATE)

B5

-15.35 mPD

-18.00 mPD

8500

5900

5000

5000

5000

5150

5750

150

3900

3550

OVT

approx. +9.3 mPD

+6.10 mPD

-1.35 mPD

UNEXCAVATED

PROPOSED TUNNEL T3 1:10

PROPOSED TUNNEL T3 1:10

-14.80 mPD

UNEXCAVATED

22 STOREYS

4750

4800

4800

4800

6450

6400

3500

3500

E&M

7 COMMERCIAL / E&M

6

5 +32.75 mPD

4 +28.00 mPD

3 +23.20 mPD

2 +18.40 mPD

1 +13.60 mPD

G +7.15 mPD

+0.25 mPD

-12.75 mPD

B1 +0.75 mPD LOADING & UNLOADING

B2 -2.75 mPD CARPARK (PRIVATE)

B3 -6.25 mPD CARPARK (PRIVATE)

B4 -9.75 mPD CARPARK (PRIVATE)

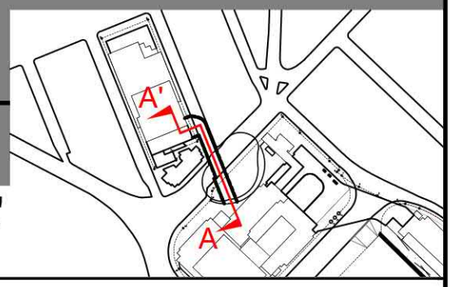
UNEXCAVATED

CAROLINE HILL ROAD DEVELOPMENT / LEE GARDEN EIGHT

LEIGHTON ROAD

LEE GARDEN THREE

A 0 10 20 30 A'



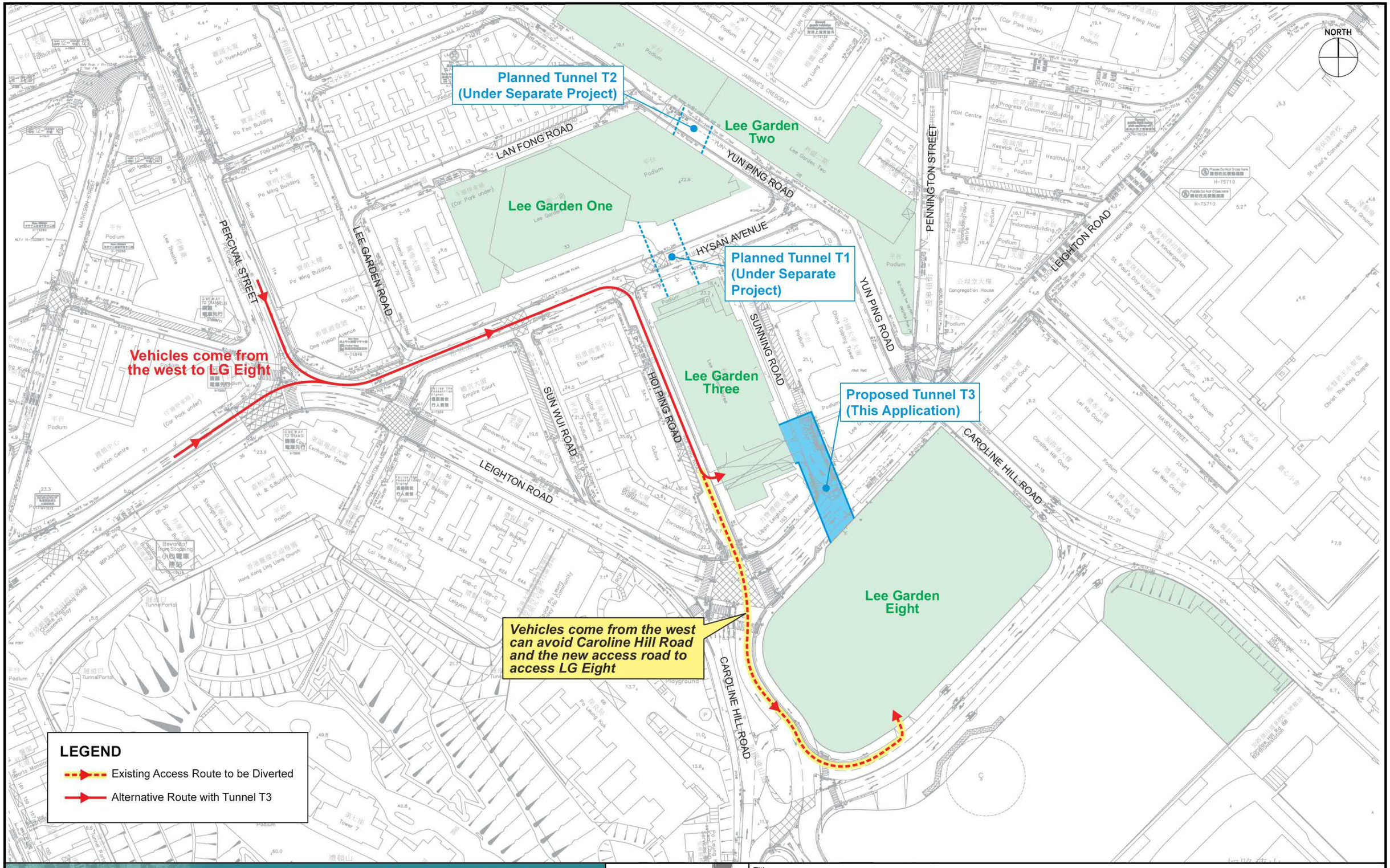
Causeway Bay 銅鑼灣

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

雅邦 Limited

Title: Section AA'

Scale	Date	Figure No.
1:300 @ A3	July 2026	**4.3**

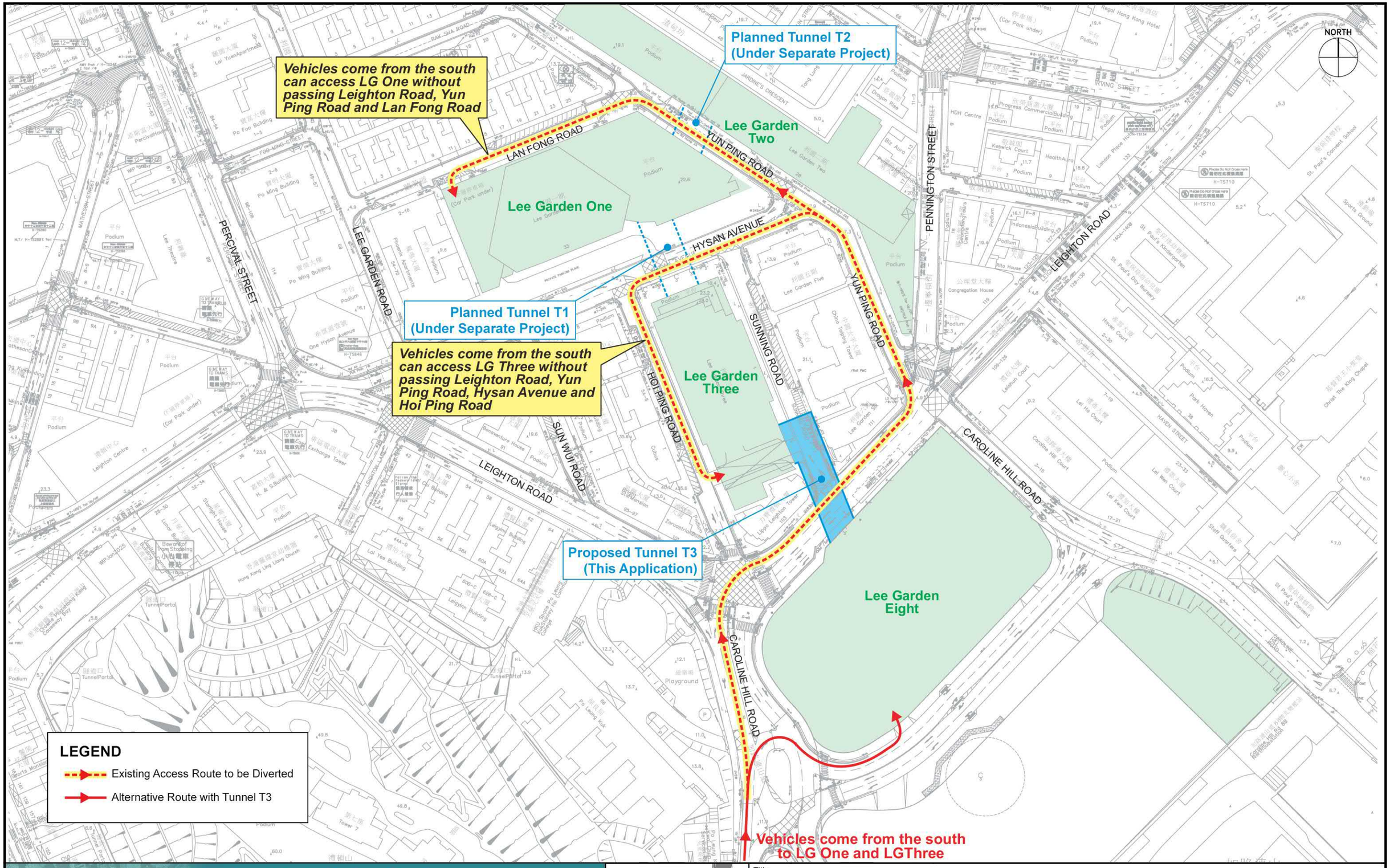


Causeway Bay 銅鑼灣

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

Title: Anticipated Traffic Re-routing Due to Tunnel T3 (1 of 3)

Scale	Date	Figure No.
N.T.S. @ A3	April 2026	**4.4a**



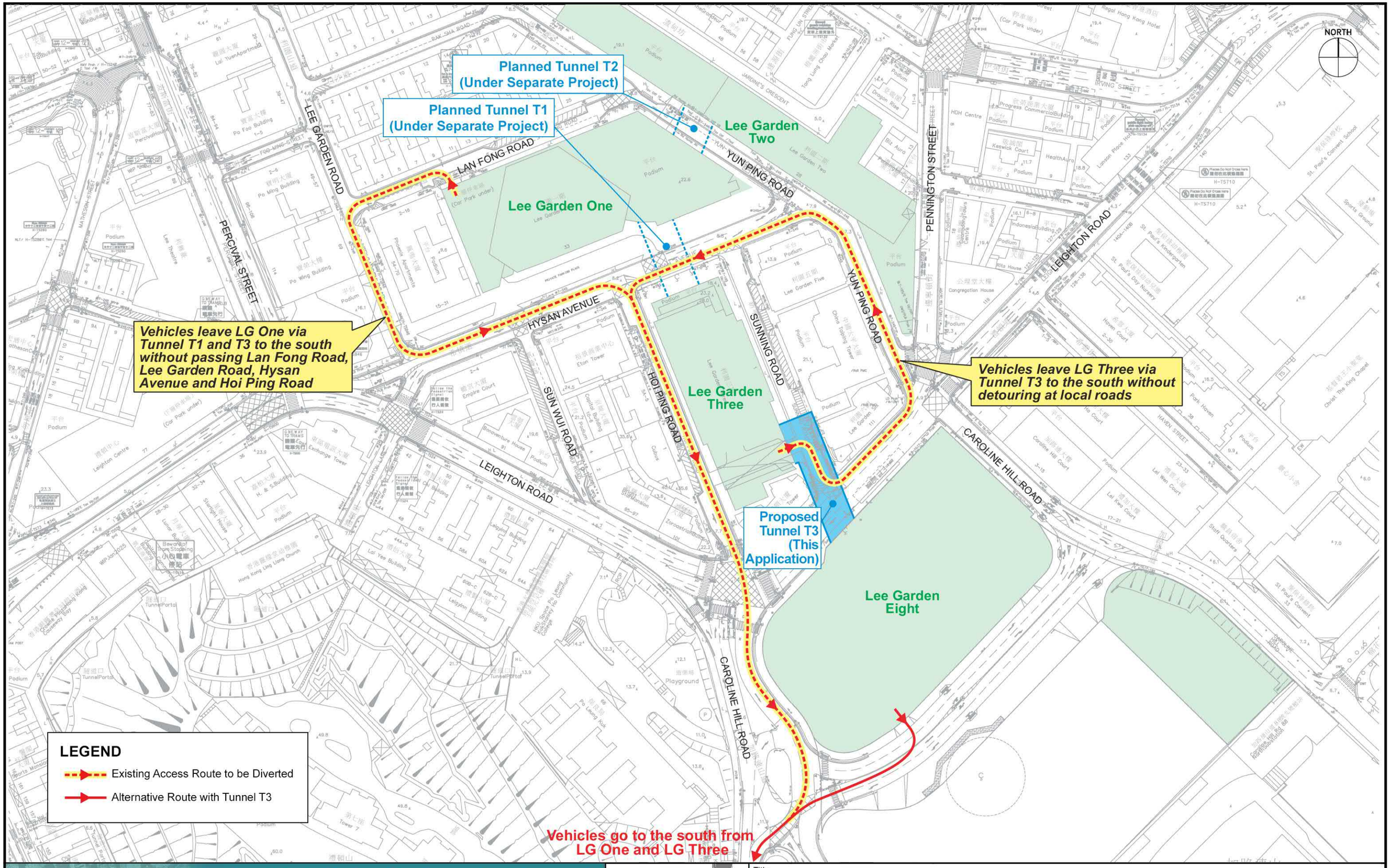
銅鑼灣 Causeway Bay

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

雅邦 Limited

Title: Anticipated Traffic Re-routing Due to Tunnel T3 (2 of 3)

Scale	Date	Figure No.
N.T.S. @ A3	April 2026	**4.4b**



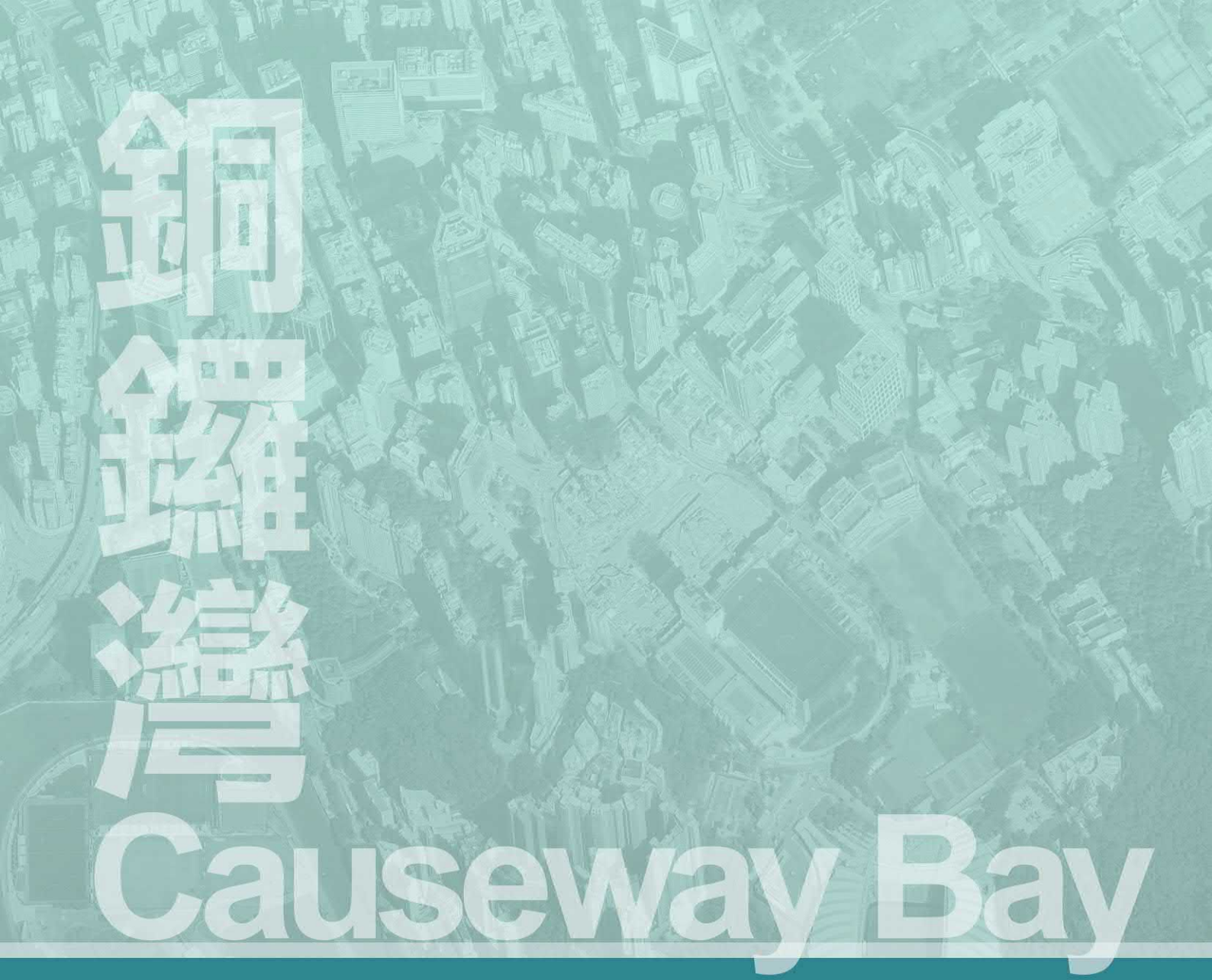
銅鑼灣 Causeway Bay

Section 16 Application for Proposed Underground Vehicular Tunnel Connecting Lee Garden Three (10 Hysan Avenue) and Lee Garden Eight (8 Caroline Hill Road) below Leighton Road and Sunning Road, Causeway Bay

雅邦 Arbis Limited

Title: Anticipated Traffic Re-routing Due to Tunnel T3 (3 of 3)

Scale	Date	Figure No.
N.T.S. @ A3	April 2026	**4.4c**



Annex A
Traffic Impact Assessment

16/07/2026

Reference number: CHK50865910/CHC/L2601171/sys

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT)

TRAFFIC IMPACT ASSESSMENT

SYSTRA MVA

IDENTIFICATION TABLE	
Project	Section 16 Planning Application of Proposed Underground Vehicular Tunnel T3 (Connecting Lee Garden Three and Lee Garden Eight)
Study	Traffic Impact Assessment
Type of document	Final Report
Date	16/07/2026
File name	L2601171 T3_TIA (20260716).docx
Reference number	CHK50865910/CHC/L2601171/sys

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1. INTRODUCTION

1.1 Background

1.1.1 To enhance the traffic condition in the Causeway Bay south area, two vehicle tunnels, namely Tunnel T1 and Tunnel T2 were proposed beneath Hysan Avenue and Yun Ping Road respectively. Tunnel T1 would connect the basement car parks at Lee Garden One (LG One) and Lee Garden Three (LG Three), while Tunnel T2 would connect the basement car parks at Lee LG One and Lee Garden Two (LG Two). The latest Section 16 (S16) planning applications (nos. A/H6/93 and A/H6/94) for Tunnels T1 and T2 were approved by the Town Planning Board (TPB) in February 2025. The locations of the planned Tunnel T1 and Tunnel T2 are shown in **Drawing No. 1.1**.

1.1.2 A commercial development, namely Lee Garden Eight (LG Eight), is being constructed on Inland Lot No. 8945 at Caroline Hill Road, and its completion is anticipated in 2026. Given that LG Eight is situated at close proximity of LG Three, it offers an opportunity to further enhance the accessibility of underground car parks in the area by introducing another vehicular tunnel (Tunnel T3) to link up the basement car parks of LG Three and LG Eight. The location of Tunnel T3 is indicated in **Drawing No. 1.1**.

1.1.3 The improved accessibility to car parks via Tunnel T3 will reduce at-grade traffic circulation, further enhancing future traffic conditions in the area.

1.1.4 Since the proposed Tunnel T3 would run on Sunning Road and across Leighton Road, where are zoned as 'Road' in the Causeway Bay Outline Zoning Plan (OZP), S16 planning application for the proposed underground vehicular tunnel is required for obtaining permission from TPB.

1.1.5 MVA Hong Kong Limited (MVA) is commissioned as a traffic consultant to conduct a traffic study and prepare a Traffic Impact Assessment (TIA) in support of the proposed Tunnel T3 and the S16 planning application.

1.1.6 The purposes of this study are to review the current traffic conditions in the area, assess the traffic impacts and identify potential benefits to the local traffic due to Tunnel T3.

1.2 Study Objectives

1.2.1 The main objectives of the traffic review are as follows:

- to present the proposed scheme of the proposed Tunnel T3;
- to review the existing traffic arrangement and undertake manual classified count traffic surveys to determine the existing traffic conditions in the vicinity of LG Three and LG Eight;
- to identify further potential changes in traffic routing and reductions in at-grade traffic resulting from the proposed vehicle Tunnel T3, accounting for the implementation of planned Tunnels T1 and T2;
- to estimate the future traffic flows in the design year on the surrounding road network;
- to assess the traffic impacts and identify benefits to the local traffic due to the tunnel for the design year; and

- to present the proposed traffic arrangement and measures for the tunnel construction and review if any adverse traffic impact during the tunnel construction.

1.3 Structure of the Report

1.3.1 Following this introductory chapter, there are four further chapters.

1.3.2 **Chapter 2** – *Proposed Tunnel T3*, which describes the details of Tunnel T3 and identifies its role in further diverting at-grade traffic underground.

1.3.3 **Chapter 3** – *Existing Traffic Situation*, which reviews the existing road network and traffic arrangement in the vicinity of the proposed Tunnel T3, presents the findings from traffic count surveys and assesses the existing traffic conditions.

1.3.4 **Chapter 4** – *Future Traffic Forecast*, which discusses the design year and the future scenarios for assessment in this study and presents the methodology for traffic forecasts.

1.3.5 **Chapter 5** – *Traffic Impact Assessment*, which presents the assessment results and summarises the findings of the assessments.

1.3.6 **Chapter 6** – *Expected Benefits*, which discusses the benefits to the local traffic due to the proposed Tunnel T3.

1.3.7 **Chapter 7** –*Traffic Arrangement and Impact During Construction Stage*, which discusses the proposed traffic arrangement and the associated measures to facilitate the tunnel construction and review if any traffic impact during the tunnel construction.

1.3.8 **Chapter 8 –** *Summary and Conclusion*, which summarizes the study findings and presents the conclusion for this TIA report.

2. PROPOSED TUNNEL T3

2.1 Tunnel Alignment

2.1.1 Tunnel T3 will branch from the southeast corner of LG Three underneath Sunning Road and run across Leighton Road. To avoid any encroachment into the adjoining private lots at Sunning Road while allowing the connection to serve both traffic directions, the tunnel is proposed with two levels serving private cars in one traffic direction at each level. The proposed alignment of Tunnel T3 is shown in **Drawing No. 1.1.**

2.1.2 The double-deck tunnel will connect from the south-east corner of basement levels 3 and 4 car park of LG Three to the northern side of basement levels 3 and 4 car park of LG Eight.

2.2 Traffic Arrangement

2.2.1 As mentioned in the above **Section 2.1,** the Tunnel T3 is proposed with two levels serving one traffic direction at each level for private cars use only. For compliance of the relevant standards/requirement, a minimum 4m clear width of driveway and a minimum clear headroom of 2.4m will be provided for the one-way driveway at each level within the tunnel. The B3/F and B4/F plans as well as the sectional design of Tunnel T3 are presented in **Drawing Nos. 2.1** and **2.2**. Swept path analysis has been conducted and demonstrated in **Appendix A**.

2.2.2 Tunnel T3 is proposed for vehicular traffic only, and no pedestrian passage will be provided at the entire Tunnel T3.

2.3 Tunnel Construction

2.3.1 To avoid excavation works on public roads and hence minimizing disturbance to the at-grade vehicular and pedestrian traffic of Sunning Road and Leighton Road during the construction, “Drill and Excavation Method” with launching from LG Eight will be adopted.

2.3.2 In addition, construction of Tunnel T3 will be commenced not earlier than the construction works for the planned Tunnels T1 and T2.

2.3.3 Appropriate internal temporary traffic arrangement will be implemented within the car parks at LG Three and LG Eight to maintain the operation during the construction works. Details of the proposed traffic arrangement during the construction stage of the tunnel are presented in **Chapter 7** of this report.

2.4 Further Diversion of At-grade Traffic to Underground by Tunnel T3

2.4.1 With the planned Tunnels T1 and T2, the availability of Tunnel T3 will further expand the connectivity of underground car parks and enable at-grade traffic to access the car parks via alternative underground routes, given that the diverted route would be shorter. Travel distances and travel time between the original at-grade access routes and some identified traffic diversion routes due to the proposed Tunnel T3 has been reviewed.

Ingress Route of LG Eight Car Park from the West

2.4.2 Without the proposed Tunnel T3, traffic from the West, i.e. Percival Street and Leighton Road eastbound, will access LG Eight with passing through Hysan Avenue, Hoi Ping Road and Caroline Hill Road (west), including two at-grade signalised junctions with Leighton Road and Link Road.

2.4.3 With the proposed tunnel, LG Eight traffic can access via the existing run-in of LG Three at Hoi Ping Road. Although the travel distance of underground route (680m) would be slightly longer than the at-grade route (600m), vehicles would potentially wait for the green signals at the two at-grade signalised junctions, and increase the travelling time upto about 6 mins, compared with about 4 mins for the underground route. Therefore, diverting this ingress route to the underground is considered reasonable. The anticipated re-routing is illustrated in **Drawing No. 2.3.**

Ingress Route of LG Eight Car Park from the East

2.4.4 Traffic from the East, i.e. Leighton Road westbound, will access LG Eight with either passing through Caroline Hill Road (East) or Caroline Hill Road (West) without the planned tunnels.

2.4.5 Although the vehicular access of LG Two will provide the nearest entrance to the underground network, the travelling distance of this underground ingress route will be increased from 450m to 550m while drivers will spend more travelling time from 3 mins to 4 mins. Therefore, it is assumed that the route choice will not to be affected by the proposed Tunnel T3.

Ingress Route of LG Three Car Park from the South

2.4.6 Ingress traffic of LG Three from the Link Road or Caroline Hill Road (West) will pass through Leighton Road, Yun Ping Road, Hysan Avenue and Hoi Ping Road where the run-in situates, including three at-grade signalised junctions along the route. The approximate travelling distance and potential maximum travel time to the car park are 900m and 7.5 mins respectively.

2.4.7 The proposed Tunnel T3 will offer an alternative underground route for this ingress traffic via New Access Road, LG Eight and Tunnel T3 at B4/F of the LG Eight's car park. The travelling distance and travelling time will be shorter with 520m and 4 mins respectively. Additionally, the underground route will bypass the two at-grade signalised junctions along Leighton Road, avoiding potential waiting time at the junctions. Therefore, diverting this ingress route to the underground has been taken into account in the study. The anticipated re-routing is illustrated in **Drawing No. 2.4.**

Ingress Route of LG One Car Park from the South

2.4.8 Ingress traffic to LG One originating from the South will route via Leighton Road, Yun Ping Road and Lan Fong Road to the run-in, passing through three at-grade signalised junctions. The approximate travel distance to the car park is 700m, with a potential maximum travel time of 6.5 mins.

2.4.9 Similar to the ingress traffic route of LG Three, the proposed Tunnel T3 will enable this ingress traffic demand to access LG One car park without passing through the at-grade signalised junctions. Although the travelling distance via underground route would be slightly longer with about 750m, drivers would spend less travelling time (6 mins) to access the car park.

Thus, it is still worth for LG One car park traffic to access via LG Eight. The anticipated re-routing is also illustrated in **Drawing No. 2.4.**

Ingress Route of LG Two Car Park from the South

2.4.10 Ingress traffic route of LG Two from the South is relatively direct, with just passing Leighton Road and access at Pennington Street. Travelling distance will be doubled and travelling time will be significantly increased by 2 mins via the underground access route since it is necessary to traverse the proposed Tunnel T3 as well as the planned Tunnels T1 and T2. Therefore, the underground route choice may not be attractive for the concerned users.

Egress Route of LG Eight Car Park to the West

2.4.11 Without the proposed Tunnel T3, LG Eight traffic leaving the car park to the West will route through New Access Road, Caroline Hill Road (West) and Leighton Road beyond Percival Street with travelling distance of about 630m and travelling time upto 6.5 mins.

2.4.12 Although the underground tunnel connections will enable the westbound LG Eight traffic to leave the car park via LG One vehicular access at Lan Fong Road, this underground egress route will not be direct as compared with the at-grade route from drivers' perspective. Also, it is less attractive to travel a longer distance (860m) with similar travelling time (6.5 mins). In view of that, it is considered LG Eight exiting traffic will follow their original route toward the West.

Egress Route of LG Eight Car Park to the East

2.4.13 LG Eight egress traffic to the East could route through Caroline Hill Road (East), Cotton Path, Eastern Hospital Road, Tung Lo Wan Road, Moreton Terrace and turning right at the junction with Causeway Road. Alternatively, the egress traffic could pass through Caroline Hill Road (West), Leighton Road, Pennington Street and Yee Wo Street to reach Causeway Road. Both routes will travel around 1km with 7.5 mins.

2.4.14 Although vehicles may possibly leave the car park via Tunnel T3 and LG Three's exit, this underground route would need additional travelling distance (about 100m) without significant improvement in terms of travelling time. In view of that, the egress route of LG Eight will be remained original as this would not be attractive for drivers.

Egress Route of LG Three Car Park to the South

2.4.15 For egress traffic of LG Three to the South, it has to circulate around via Leighton Road and local roads including Yun Ping Road, Hysan Avenue and Hoi Ping Road before approaching Caroline Hill Road (West). The approximate travelling distance is 720m and the journey time is about 7 mins.

2.4.16 Nevertheless, the proposed Tunnel T3 will allow a more direct route to bypass the at-grade local roads and junctions. It would reduce the travelling distance by about 260m and spend less travelling time by about 3 mins. Thus, this egress traffic is considered to be diverted via the underground route. The anticipated re-routing is shown in **Drawing No. 2.5.**

Egress Route of LG One Car Park to the South

2.4.17 Egress traffic of LG One to the South needs to route through local roads Lan Fong Road, Lee Garden Road, Hysan Avenue and Hoi Ping Road before reaching Caroline Hill Road (West). It could require approximate 720m travelling distance and 7 mins travelling time.

2.4.18 Once the proposed Tunnel T3 becomes available, together with the planned Tunnel T1, the southbound underground route will enable this egress traffic to bypass the local roads and the signalised junction at Leighton Road / Caroline Hill Road (West). Taken into account that the travelling distance (570m) and travelling time (4.5 mins) would be reduced, it is assumed that the egress traffic will be diverted as shown in **Drawing No. 2.5.**

Egress Route of LG Two Car Park to the South

2.4.19 Similar to the ingress route of LG Two from the South as mentioned in **paragraph 2.4.10**, the travelling distance of underground egress route via the three tunnels (approx. 650m) will be longer than that of the at-grade route (approx. 570m). Moreover, the travelling time will not be shorter even though the underground route will bypass the signalised junctions. Therefore, it is considered that this underground egress route will not be preferable for drivers.

2.4.20 To summarize, the identified ingress / egress routes to be diverted due to the proposed Tunnel T3 in this study will be:

a) Ingress route of LG Eight car park from the West (**Drawing No. 2.3**)
b) Ingress route of LG Three car park from the South (**Drawing No. 2.4**)
c) Ingress route of LG One car park from the South (**Drawing No. 2.4**)
d) Egress route of LG Three car park to the South (**Drawing No. 2.5**)
e) Egress route of LG One car park to the South (**Drawing No. 2.5**)

2.5 Overall Traffic Management Strategy

2.5.1 Based on the findings from the traffic route analysis as discussed in **Section 2.4**, an overall traffic management strategy is formulated.

2.5.2 In order to clearly guide drivers on the routes to the other connected car parks via the corresponding tunnels and avoid any unreasonable traffic diversion, appropriate directional signages will be provided in the connected car parks and entrances of the tunnels. For example, names of the LG One, LG Two, LG Three and LG Eight would be provided on the directional signs at the entrances of the tunnels.

2.5.3 Apart from providing directions of the original exits of each car parks, new directional signages will provide destinations to guide drivers to exit the car parks via the identified underground egress routes as discussed in **Section 2.4**, which includes:

i. Vehicles leaving from LG Three heading the south via Tunnel T3 and LG Eight's western exit at the New Access Road; and
ii. Vehicles leaving from LG One heading the south via Tunnel T1, LG Three, Tunnel T3 and LG Eight's exit at the New Access Road.

2.5.4 Additionally, since the planned Tunnel T2 will facilitate the egress traffic of LG One toward the East via LG Two's exit, appropriate destinations will be provided in the new directional signages. Overall traffic management strategy is illustrated in **Drawing No. 2.6**.

2.5.5 With the proposed traffic management strategy, vehicles should leave the car parks via its original exit route or the anticipated diverted route, which will not cause adverse traffic impact in terms of traffic re-routing. Detailed traffic management plan will be further reviewed at a later stage before the commencement of the tunnel connection.

3. EXISTING TRAFFIC SITUATION

3.1 Existing Road Network

3.1.1 LG Three is bounded by Hysan Avenue to the north, Sunning Road to the east, Lippo Leighton Tower to the south and Hoi Ping Road to the west. It is served by the separated run-in and run-out at Hoi Ping Road and Sunning Road respectively. Besides, LG Eight is served by the district distributor Leighton Road, the local distributor Caroline Hill Road and Link Road.

3.1.2 Hysan Avenue is a two-way road with a total carriageway width of some 9m wide. It connects Yun Ping Road to the east and Percival Street to the west, and it also provides the only access to Sun Wui Road, Hoi Ping Road and Sunning Road.

3.1.3 Both Sunning Road and Hoi Ping Road are one-way local roads in southbound traffic direction. The latter is also a key access route for traffic access to Caroline Hill Road from the west such as via Percival Street and Leighton Road eastbound.

3.1.4 Leighton Road serves the southern part of Causeway Bay as a major east-west connection. It connects Causeway Road and Tung Lo Wan Road to the east and Morrison Hill Road to the west. Leighton Road is generally a two-way road with one to three traffic lanes in each direction, except that the road section between Tung Lo Wan Road and Caroline Hill Road (East) is a one-way carriageway running along southbound direction.

3.1.5 Caroline Hill Road is a U-shaped local distributor serving the developments near Hong Kong Stadium. Its western section, i.e. road section connecting the junction of Leighton Road / Hoi Ping Road, is a single 2-lane carriageway running in north-south direction. Its eastern section, i.e. road section connecting the junction of Leighton Road / Pennington Street / Yun Ping Road, is mainly a one-way northbound road between Stadium Path and Cotton Path.

3.1.6 Link Road is a single-2 carriageway connecting Caroline Hill Road (West) with Broadwood Road to the south. It mainly serves the local residential developments and is one of the corridors leading to the Jardine's Lookout area.

3.1.7 The existing road network in the vicinity of the subject site is shown in **Drawing No. 3.1**.

3.2 Existing Traffic Conditions

3.2.1 As discussed in **Section 2.4**, ingress and egress routes for LG One, LG Three and LG Eight would be further changed by the proposed Tunnel T3. The junctions with anticipated changes in traffic pattern due to Tunnel T3 are identified and indicated in **Drawing No. 3.1**.

3.2.2 To obtain the updated traffic flows for the review on the existing traffic condition, traffic count surveys have been conducted at the identified junctions for this study. The surveys were carried out during hours of 08:00 – 10:00, 11:30 - 13:30 and 17:30 - 19:30 on a typical weekday and 11:30 - 13:30 on a weekend (Saturday) in mid-October 2025. The surveyed road junctions are identified in **Drawing No. 3.1** and listed in below **Table 3.1**.

Table 3.1 Surveyed Junctions

Ref No.	Junctions	Method of Control	Drawing No.
J1	Caroline Hill Road (West) / Link Road	Priority	3.2
J2	Leighton Road / Caroline Hill Road (West) / Hoi Ping Road	Signal	3.3
J3	Leighton Road / Sunning Road	Priority	3.4
J4	Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill Road (East)	Signal	3.4
J5	Hysan Avenue / Hoi Ping Road	Priority	3.5
J6	Hysan Avenue / Sunning Road	Priority	3.5
J7	Hysan Avenue / Hoi Ping Road	Priority	3.5

3.2.3 Observed traffic data indicated that the AM, Noon and PM peak hour flows occurred during hours of 08:15-09:15, 12:00-13:00 and 17:45-18:45 respectively on a typical weekday, and the weekend peak hour flows occurred during the hours of 11:45-12:45. The observed weekday and weekend peak hour traffic flows are shown in **Drawing No. 3.6**.

3.2.4 Apart from the traffic survey at junctions, vehicular Origin-Destination (O-D) surveys have also been conducted for the existing car parks at LG One, LG Two and LG Three. The surveyed weekday and weekend peak hours O-D distributions of the car park related traffic of LG One, LG Two and LG Three are presented in **Drawing Nos. 3.7 – 3.9** correspondingly.

3.2.5 The operational performance of the identified road junctions was assessed with the observed traffic flows and existing layouts. The assessment results are summarised in **Table 3.2**.

Table 3.2 Year 2025 Operational Performance of Identified Road Junctions

Ref No.	Junctions	Method of Control	Year 2025 RC[(1)] / DFC[(2)]			
			Weekday			Weekend
			AM Peak	Noon Peak	PM Peak	Noon Peak
J1	Caroline Hill Road (West) / Link Road	Priority	0.36	0.44	0.29	0.38
J2	Leighton Road / Caroline Hill Road (West) / Hoi Ping Road	Signal	35%	36%	26%	29%
J3	Leighton Road / Sunning Road	Priority	0.25	0.36	0.32	0.36
J4	Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill Road (East)	Signal	64%	38%	41%	22%
J5	Hysan Avenue / Yun Ping Road	Priority	0.23	0.50	0.40	0.50
J6	Hysan Avenue / Sunning Road	Priority	0.16	0.22	0.21	0.20
J7	Hysan Avenue / Hoi Ping Road	Priority	0.53	0.59	0.58	0.57

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

3.2.6 The above results indicated that all identified junctions are currently operating with adequate reserve capacities during the peak hours on weekdays and weekends.

3.2.7 Although surveyed traffic flows and junction assessments indicate that all road junctions are currently operating within capacity, it was frequently observed that the existing GMB termini and the on-street loading/unloading areas along Lan Fong Road were fully occupied by GMBs and illegally parked vehicles during peak hours. Consequently, necessary pick-up/drop-off activities for private cars and taxis had to occur on the carriageway. Together with the weaving of GMB traffic in and out of the termini, this led to traffic queues extending from Lan Fong Road to Yun Ping Road.

3.2.8 Meanwhile, it was observed that illegal parking and prolonged vehicle waiting frequently occupy the nearside lane of Hysan Avenue during peak hours, reducing the effective road capacity. Combined with vehicle conflicts at the junctions along the road, traffic queues on Hysan Avenue extended to its junction with Percival Street during the critical peak periods.

3.2.9 Furthermore, traffic queues were also occasionally found on Hoi Ping Road, extending from the key access road junction heading Caroline Hill Road, i.e., the junction of Leighton Road and Caroline Hill Road (West). This further exacerbated the traffic issues along Hysan Avenue.

3.2.10 While the planned Tunnels T1 and T2 are measures proposed to reduce traffic circulation on the above-mentioned local roads and improve traffic conditions to a certain extent, it is worthwhile to explore other opportunities for further improvement. Consequently, Tunnel T3 is proposed.

4. FUTURE TRAFFIC FORECAST

4.1 Design Year and Future Scenarios to be Assessed

Design Year

4.1.1 Taking in consideration the necessary government submission/consultation procedures and the required construction periods, it is anticipated that Tunnel T3 would be completed by the end of 2033. Therefore, a design year of 2036 is adopted for assessment in this study.

4.1.2 According to the latest project programme of the planned Tunnels T1 and T2, their construction works would be completed by 2029. Therefore, the construction period of proposed Tunnel T3 will not overlap with that of Tunnels T1 and T2.

Future Scenarios to be Assessed

4.1.3 To evaluate the effect to the surrounding road conditions due to the proposed Tunnel T3, the below future scenarios will be assessed:

- Reference Scenario in Year 2036 – Future scenario under the planned traffic arrangement with the planned Tunnels T1 and T2 in place; and
- Design Scenario in Year 2036 – Future scenario under the planned traffic arrangement with the planned Tunnels T1 and T2 as well as the proposed Tunnel T3 in place.

4.2 Traffic Forecasts for Reference Scenario

4.2.1 To derive the year 2036 reference traffic flows, the background growth in traffic should be reviewed and identified for the area, which are made reference to the historical growth trend and the population and employment projections from Planning Department.

Historical Trend

4.2.2 Transport Department has traffic count stations on the road sections in the vicinity of the subject site. The Average Annual Daily Traffic (A.A.D.T.) data from year 2019 to 2024 as reported in the Annual Traffic Census (ATC) are summarized in **Table 4.1**.

Table 4.1 Average Annual Daily Traffic (A.A.D.T.) Data from ATC

Stn. No.	Road	AADT (Vehicle/Day)						Annual Growth Rate (% p.a.)
		2019	2020	2021	2022	2023	2024	
1212	Irving Street and Pennington Street (Leighton Rd – Yee Wo St)	12,290	11,730	12,250	11,690	10,590	11,620	-1.11%
1436	Percival Street (Hennessy Rd – Leighton Rd)	12,180	12,170	12,410	11,760	12,340	12,990	1.30%
1819	Hennessy Road and Yee Wo Street (Percival St – Pennington St)	18,530	16,700	17,240	16,980	17,910	17,740	-0.87%
2016	Yee Wo Street (Pennington St – Tung Lo Wan Rd)	16,390	14,770	15,240	14,820	15,870	15,720	-0.83%

Table 4.1 Average Annual Daily Traffic (A.A.D.T.) Data from ATC (cont'd)

2035	Leighton Road (Wong Nai Chung Rd – Percival St)	27,830	26,470	27,000	21,860	23,770	23,550	-3.28%
2036	Leighton Road (Irving St – Percival St)	14,950	14,220	14,510	13,940	16,170	16,020	1.39%
2608	Caroline Hill Road (Leighton Rd – Yun Ping Rd)	4,550	4,800	4,610	4,890	5,330	5,780	4.90%
2623	Lee Garden Road (Hennessy Rd – Hysan Ave)	3,470	2,870	2,980	2,540	2,730	2,680	-5.04%
Total		**110,190**	**103,730**	**106,240**	**98,480**	**104,710**	**106,100**	**-0.75%**

Source: The Annual Traffic Census 2019 – 2024 as available on TD's website.

4.2.3 The A.A.D.T. flows in **Table 4.1** show that the overall average traffic growth on the road sections in the vicinity of the subject site decreased at the rate of -0.75% per annum for year 2019 to 2024.

Planning Data

4.2.4 Other than the historical trend, the population and employment estimates from Territorial Population and Employment Data Matrix (TPEDM) as available on Planning Department's website are also referred for the review on the background traffic growth. The population and employment estimates for Wan Chai in years 2026 and 2031 are presented in **Table 4.2**.

Table 4.2 Population and Employment Estimates from TPEDM

Planning Data for Wan Chai District	Year		Growth Rate (% p.a.)
	2026	**2031**	**2031/2026**
Population	156,000	145,700	-1.36%
Employment	301,700	287,250	-0.98%
Population + Employment	457,700	432,950	-1.11%

Source: 2021-based Territorial Population and Employment Data Matrix as available on Planning Department's website.

4.2.5 As presented in **Table 4.2**, the growth rates as derived from TPEDM estimates for Wan Chai District from year 2026 to 2031 are ranged from -1.36% to -0.98% p.a.

Adopted Background Growth Factor

4.2.6 Although both the historical trend and planning data have reflected the negative growths for the area, a nominal traffic growth rate of +0.1% is adopted in this review to reflect the background traffic growth in the area from year 2025 to 2036 for a conservative approach.

Planned / Potential Future Developments

4.2.7 Other than the background traffic growth, the potential traffic induced by the planned future developments in the vicinity of the tunnels are also taken into account in the traffic forecast. The planning parameters of the identified planned developments are shown in the below **Table 4.3**.

Table 4.3 Planning Parameter for Planned Future Developments

Site Ref. No.	Planned Future Developments (1)	Use	Details
1	Lee Garden Eight (2)	Commercial	Total GFA: 102,000 m^2
2	District Court Building (3)	District Court	Total GFA: 70,000 m^2
3	Commercial Development in 8 Leighton Road (4) (A/H7/183)	Commercial	Total GFA: 14,945 m^2
4	Redevelopment of Po Leung Kuk Headquarters (5)	Social Services	The service quotas for social services will be increased by about 140 upon the completion of the redevelopment
5	SCAA Sports Link (6)	Recreation	Total GFA: 31,327.12 m^2

Notes: (1) Locations are indicated in **Drawing No. 4.1.**
(2) Refer to the latest development parameters in the approved GBP submission
(3) Refer to MPC Paper No.5/19 as available on Town Planning Board's website
(4) Refer to information on the approved application no. A/H7/183 as available from the Statutory Planning Portal 3 by Town Planning Board
(5) Refer to information in Po Leung Kuk Annual Report 2025 – 2026 as available from Po Leung Kuk's website
(6) Refer to the TIA of the approved application no. A/H7/189

4.2.8 The trip generations from the future developments as listed in **Table 4.3** are estimated with reference to the adopted trip rates in Traffic Review Report for LG Eight with the latest development parameters. The adopted trip rates and estimated traffic generations of these future developments are summarized in **Tables 4.4** and **4.5**. The estimated car park related traffic flows and its distribution is shown in **Drawing No. 4.2**.

Table 4.4 Traffic Generation and Attraction of Future Developments at Caroline Hill Road

Development Component	Weekday						Weekend	
	AM Peak		Noon Peak		PM Peak		Noon Peak	
	GEN	ATT	GEN	ATT	GEN	ATT	GEN	ATT
Adopted Trip Rates								
Office (1) (2) (pcu/hr/100 m^2)	0.1703	0.2452	0.1835	0.1748	0.1573	0.1175	0.1431	0.1589
Retail (3) (4) (pcu/hr/100 m^2)	0.2296	0.2434	0.3617	0.5302	0.3100	0.3563	0.2821	0.4817
GIC - Performing Arts and Cultural Facilities (5) (pcu/hr/100 m^2)	0.0600	0.0920	0.0626	0.1024	0.1644	0.0569	0.1492	0.1723
Child Care Centre (6) (pcu/hr/100 m^2)	0.9434	1.0377	0.5660	0.6604	0.2830	0.2830	0.0943	0.0943
Day Care Centre for the Elderly (7) (pcu/hr/100 m^2)	1.5094	0.5660	0.2830	1.1321	1.1321	1.3208	0.3774	0.5660
District Health Centre (8) (pcu/hr/100 m^2)	0.1770	0.3540	0.5310	0.7965	0.0973	0.0973	0.0885	0.0885
Public Vehicle Park (9) (pcu/hr/parking space)	0.0929	0.5897	0.2340	0.2000	0.4619	0.1500	0.6000	0.3220
Lay-bys for Light Bus (10) (pcu/hr/layby)	21.50	21.50	15.75	15.75	16.50	16.50	15.00	15.00
District Court (11) (pcu/hr/100 m^2)	0.0606	0.0918	0.0483	0.0450	0.0466	0.0437	N/A(12)	N/A(12)

Table 4.4 Traffic Generation and Attraction of Future Developments at Caroline Hill Road (cont'd)

Estimated Traffic Generation and Attraction (pcu/hr)								
1. Lee Garden Eight – 102,000m² GFA								
Office (85,281.276 m²)	146	210	157	150	135	101	123	136
Retail (9,999.788 m²)	23	25	37	54	31	36	29	49
GIC - Performing Arts and Cultural Facilities (2,000 m²)	2	2	2	3	4	2	3	4
Child Care Centre (877.336 m²)	9	10	5	6	3	3	1	1
Day Care Centre for the Elderly (657.990 m²)	10	4	2	8	8	9	3	4
District Health Centre (1566.551 m²)	3	6	9	13	2	2	2	2
Public Vehicle Park – Private Car Parking Spaces (100 spaces)	10	59	24	20	47	15	60	33
Public Vehicle Park – Goods Vehicle & Coach Parking Spaces (25 spaces)	3	15	6	5	12	4	15	9
Lay-bys for Light Bus (4 Nos.)	86	86	63	63	66	66	60	60
Car Park Related Traffic (13)	**203**	**316**	**236**	**254**	**230**	**168**	**221**	**229**
Sub-total	**292**	**417**	**305**	**322**	**308**	**238**	**296**	**298**
2. District Court Building – 70,000m² GFA								
District Court (70,000m² GFA)	**43**	**65**	**34**	**32**	**33**	**31**	**5**(12)	**5**(12)
Grand Total	**335**	**482**	**339**	**354**	**341**	**269**	**301**	**303**

Notes:
(1) TPDM mean trip rates for office adopted for Weekday AM and PM Peaks
(2) Trip rates for weekday and weekend noon peaks are derived from the surveyed variance to the weekday PM peak trips of office development and applied onto the TPDM trip rates for office
(3) TPDM mean trip rates for retail/shopping complex
(4) Trip rates for weekday and weekend noon peaks are derived from the surveyed variance to the weekday PM peak trips of retail development and applied onto the TPDM trip rates for retail/shopping complex
(5) Trip rates derived from the consultant's surveyed highest trip rates from Yao Tsung-I Academy, Kwai Tsing Theatre and M+
(6) Trip rates derived from the consultant's surveyed trip rates from SIA Shaukiwan Day Creche
(7) Trip rates derived from the consultant's surveyed trip rates from T.W.G.Hs. Anita Mui Day Care Centre for the Elderly
(8) Trip rates derived from the consultant's surveyed trip rates from Central District Health Centre General Outpatient Clinic
(9) Trip rates derived from the consultant's surveyed trip rates from ex-Murray Road Multi-storey Car Park
(10) Trip rates derived from the consultant's surveyed average actual peak frequencies of green mini-bus services at Lan Fong Road.
(11) Trip rates derived from the consultant's surveyed trip rates from Wanchai Tower and Lands Tribunal
(12) Since the existing Wanchai Tower and Lands Tribunal are closed in weekend, a nominal trips of 5 pcu/hr is adopted
(13) For conservative assessment, LG Eight's car park related traffic includes all the traffic generation and attraction of the development excluding 25 nos. provisions of public vehicle park and lay-bys for light bus.

Table 4.5 Adopted Trip Rates and Estimated Traffic Generation of Other Planned Future Developments in the Vicinity

Other Planned Future Developments	Weekday						Weekend	
	AM Peak		Noon Peak		PM Peak		Noon Peak	
	GEN	ATT	GEN	ATT	GEN	ATT	GEN	ATT
3. Commercial Development in 8 Leighton Road – 14,945 m² GFA (1)								
Adopted Trip Rates (3) (4) (pcu/hr/100 m²)	0.1703	0.2452	0.1835	0.1748	0.1573	0.1175	0.1431	0.1589
Estimated Trips (pcu/hr)	26	37	28	27	24	18	22	24
4. Redevelopment of Po Leung Kuk Headquarters – Additional 140 Service Quotas (2)								
Adopted Trip Rates (5) (pcu/hr/quota)	0.0487	0.0200	0.0200	0.0243	0.0177	0.0222	0.0155	0.0200
Estimated Trips (pcu/hr)	7	3	3	4	3	4	3	3
5. SCAA Sports Link (6)								
Estimated Trips (pcu/hr)	13	28	34 (7)	25 (7)	34	25	22	26

Notes: (1) Refer to information on the approved application no. A/H7/183 as available from the Statutory Planning Portal 3 by Town Planning Board
(2) Refer to information in Po Leung Kuk Annual Report 2025 – 2026 as available from Po Leung Kuk's website
(3) TPDM mean trip rates for office adopted for Weekday AM and PM Peaks
(4) Trip rates for weekday and weekend noon peaks are derived from the surveyed variance to the weekday PM peak trips of office development and applied onto the TPDM trip rates for office
(5) Trip rates derived from the consultant's surveyed trip rates from the existing Po Leung Kuk
(6) Refer to the adopted traffic generation and attraction in the TIA of the approved application no. A/H7/189
(7) Since a scenario during weekday noon peak has not been assessed in the TIA of the approved application no. A/H7/189, trip generation during the most critical peak (i.e. the weekday PM peak) is adopted for conservative assessment

Re-routing of Traffic due to the Planned Tunnels T1 and T2

4.2.9 The planned Tunnels T1 and T2 will enable alternative ingress routes for LG One via the existing vehicular entrances of LG Two and LG Three on Pennington Street and Hoi Ping Road respectively. As a result, vehicles coming from Percival Street, Leighton Road, Caroline Hill Road can avoid entering the busy road sections of Yun Ping Road and Lan Fong Road.

4.2.10 Besides, the existing vehicular access of LG Two will allow egress traffic of LG One to the east directly with the proposed Tunnel T2. In other words, traffic circulation at Lan Fong Road, Lee Garden Road, Hysan Avenue and Sunning Road can be avoided.

4.2.11 The above-mentioned re-routing of traffic with the proposed Tunnels T1 and T2 are shown in **Drawing Nos. 4.3, 4.4** and **4.5**.

4.2.12 As mentioned in **Section 4.1**, the Tunnels T1 and T2 will be available before the construction works of the proposed Tunnel T3. Therefore, the traffic re-routing due to Tunnels T1 and T2 will be taken into account in the reference scenario. The estimated net differences of traffic due to these two tunnels are shown in **Drawing No. 4.6**.

Planned Road Scheme at Leighton Road and Caroline Hill Road

4.2.13 To support the new developments in Caroline Hill Road, including LG Eight and the future District Court Building, a road scheme with improvement works at Caroline Hill Road, Link Road, Hoi Ping Road and Leighton Road will be implemented. It has included the conversion of existing priority to the proposed signal control arrangement at the junction of Link Road / Caroline Hill Road (West).

4.2.14 In addition, a new access road to connect both the eastern and western section of Caroline Hill Road will be formed to facilitate accesses to the CHR Developments. The overall road improvement scheme is presented in **Drawing No. 4.7**. The future junction layouts of Junctions J1 and J2 are shown in **Drawing Nos. 4.8** and **4.9** respectively.

Year 2036 Reference Traffic Flows

4.2.15 Given that there is no plan for any major road infrastructure in the vicinity by the design year 2036, the 2036 reference traffic flows are derived by:

(i) Applying a growth rate of 0.1% p.a. on the 2025 observed flows upto the design year 2036;

(ii) Superimposing the potential additional traffic as induced by the planned future developments in the vicinity of the subject site (**Table 4.3**); and

(iii) Superimposing the estimated net differences of traffic due to the planned Tunnels T1 and T2 (**Drawing No. 4.6**).

4.2.16 The anticipated year 2036 weekday and weekend reference traffic flows are presented in **Drawing No. 4.10**.

4.3 Traffic Forecasts for Design Scenario

4.3.1 To derive the year 2036 traffic flows for Design Scenario (i.e. with Tunnel T3), the changes in traffic flows in the local road network due to the proposed Tunnel T3 are quantified with reference to the anticipated re-routing of traffic as illustrated in **Drawing Nos. 2.3 – 2.5** and the demands and patterns of the car park related traffic of LG One, LG Two, LG Three (**Drawing Nos. 3.7** – **3.9**) and LG Eight (**Drawing No. 4.2)**. For a conservative assessment on potential impact due to the diversions, it is assumed that all the traffic flows of identified routes would be diverted. The overall estimated net difference of car park related traffic flows in the local network is presented in **Drawing No. 4.11**.

4.3.2 By superimposing the estimated net differences of traffic due to the proposed Tunnel T3 (**Drawing No. 4.11**) onto the year 2036 reference traffic flows (**Drawing No. 4.10**), the year 2036 future traffic flows for Design Scenario can be derived and presented in **Drawing No. 4.12**.

5. TRAFFIC IMPACT ASSESSMENT

5.1 Assessment for Year 2036 Reference Scenario and Design Scenario

5.1.1 The operational performances of the affected junctions identified in **Section 3.2** are assessed with the derived year 2036 reference and design traffic flows under the existing/planned junction layouts and method of control. The assessment results are summarised in **Table 5.1**, and the details of junction assessments are attached in **Appendix B**.

Table 5.1 Year 2036 Operational Performance of Affected Road Junctions

Ref No.	Junctions	Method of Control	Year 2036 RC(1)/DFC(2)							
			Reference Scenario (with Tunnels T1 & T2)				Design Scenario (with Tunnels T1, T2 & T3)			
			Weekday			Weekend	Weekday			Weekend
			AM Peak	Noon Peak	PM Peak	Noon Peak	AM Peak	Noon Peak	PM Peak	Noon Peak
J1	Caroline Hill Rd (West) / Link Rd	Signal	36%	54%	44%	38%	36%	54%	44%	38%
J2	Leighton Rd / Caroline Hill Rd (West) / Hoi Ping Rd	Signal	26%	33%	34%	32%	35%	41%	41%	41%
J3	Leighton Rd / Sunning Rd	Priority	0.26	0.37	0.32	0.36	0.25	0.35	0.30	0.35
J4	Leighton Rd / Yun Ping Rd / Pennington St / Caroline Hill Rd (East)	Signal	56%	34%	37%	19%	58%	37%	39%	21%
J5	Hysan Ave / Yun Ping Rd	Priority	0.21	0.44	0.34	0.45	0.21	0.44	0.34	0.45
J6	Hysan Ave / Sunning Rd	Priority	0.16	0.21	0.21	0.19	0.16	0.21	0.20	0.19
J7	Hysan Ave / Hoi Ping Rd	Priority	0.78	0.83	0.80	0.79	0.78	0.82	0.78	0.78

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

5.1.2 Assessment results in **Table 5.1** show that Tunnel T3 will not cause any negative impact to the local road network, and all the assessed junctions would operate within capacities during peak hours on both weekday and weekend in both Reference and Design Scenarios.

5.1.3 Even though the magnitude of the traffic diversion due to the proposed Tunnel T3 is less than the estimated, the traffic conditions will only tend to the Reference Scenario (i.e. the scenario without the proposed Tunnel T3). Therefore, no adverse traffic impact will be caused.

5.1.4 In the contrary, improvements in operational performances of all the identified junctions would be witnessed since the proposed Tunnel T3 would further divert traffic away from the at-grade roads to the underground levels.

5.1.5 As discussed in **Section 3.2.8**, the existing illegal parking and prolonged vehicle waiting on Hysan Avenue have reduced the effective road capacity. If this issue persists, the DFC of Junction J7, as presented in **Table 5.1**, would potentially increase. This potential issue would, however, be subject to further traffic improvement or management measures. Nevertheless, the assessment results indicate that the proposed Tunnel T3 would help reduce traffic on the concerned road section, thereby improving conditions compared to the reference scenario.

6. EXPECTED BENEFITS

6.1 Further Reduce At-grade Traffic on Local Roads

6.1.1 As discussed in **Section 2.3**, Tunnel T3 will enable an alternative underground ingress route for LG Eight from Percival Street and Leighton Road eastbound via the existing run-in of LG Three at Hoi Ping Road. Additionally, ingress and egress traffic of LG One and LG Three from / to the south would enter the basement level via LG Eight and Tunnel T3.

6.1.2 It was estimated that the traffic flows on Hoi Ping Road at Junction J2 would be reduced upto 103 pcu/hr (about 32% of existing traffic flows on Hoi Ping Road), while the traffic flows on Caroline Hill Road (West) would be reduced upto 23 pcu/hr (about 4% of existing traffic flows on northbound of Caroline Hill Road (West)). The RC of this junction would be improved as shown in **Table 5.1**.

6.1.3 Apart from the Junction J2, majority of the identified junctions would be improved with the Tunnel T3. It will not only help on reduction of at-grade traffic on key road links such as Leighton Road (reduced upto 29 pcu/hr, about 3% of existing eastbound traffic flows), but also divert away the car park related traffic from the local roads including Yun Ping Road (reduced upto 18 pcu/hr, about 3% of existing traffic flows), Hysan Avenue (reduced upto 18 pcu/hr, about 10% of existing westbound traffic flows), Hoi Ping Road, Sunning Road, Lan Fong Road and Lee Garden Road.

6.1.4 Furthermore, the air quality and pedestrian safety in the area will be improved with minimizing unnecessary vehicle circulation.

6.2 Maximize Accessibility of Car Parks for Efficient Use of Available Parking Spaces

6.2.1 With the basement car parks further linked by the Tunnel T3, the available car parking spaces within LG One, LG Two, LG Three and LG Eight can be shared used for the vehicles. The accessibility of the car parks will be improved without the need of any additional vehicular access points. As a result, utilizations of available car parking spaces can be maximized while the way-finding of vacant spaces can take place internally. Thus, vehicle queuing at car park entrances and traffic circulation on public roads will be minimized.

6.3 Better Balanced Use of Roads/Junctions' Capacities

6.3.1 The Tunnel T3 will further provide more route choices for drivers to enter or leave the car parks in different traffic situation on the surrounding roads, and hence a more balanced use of spare capacities of the surrounding roads and junctions can be achieved.

6.4 More Flexible for Access and Traffic Management

6.4.1 With the Tunnel T3, alternative ingress and egress points can be available for the car parks, which allows flexibility for the car park operators to manage ingress and egress of vehicles to suit with different traffic conditions in the area. Besides, the proposed vehicle tunnels will provide opportunities to implement short-term or temporary traffic management schemes for special events without affecting the vehicular accesses.

7. TRAFFIC ARRANGEMENT AND IMPACT DURING CONSTRUCTION STAGE

7.1 No Excavation Work on Public Road for Tunnel Construction

7.1.1 As discussed in **Section 2.3**, "Drill and Excavation Method" with launching from LG Eight is proposed for the construction in order to avoid any excavation work on the at-grade public roads and hence minimize disturbance to the at-grade vehicular and pedestrian traffic. The works areas for the tunnel construction will be situated at the basements of LG Three and LG Eight**.**

7.2 Suspension of Parking Spaces during and after the Construction

7.2.1 With the proposed tunnelling construction method to avoid any work to be carried out on the public roads, it is unavoidable that some of the existing car parking spaces have to be temporarily suspended to facilitate tunnel construction works at the basement levels. Nevertheless, the extents of the works areas at the car parks will be well planned to ensure the daily operation of the car parks can be maintained throughout the construction period and to minimize the impact to parking provision.

7.2.2 LG Eight will provide 612 nos. car parking spaces, 5 nos. public medium/heavy goods vehicles parking spaces and 5 nos. public coach parking spaces. It is preliminarily reviewed that about 24 nos. car parking spaces would be temporarily suspended (approx. 4% of total LG Eight provision) for the working areas and equipment storage in B3/F and B4/F. Furthermore, if public goods vehicles and/or coach parking spaces are affected during construction stage, the ancillary loading bays would be temporarily converted into the affected public parking spaces to maintain the 24-hr provision for the public needs, if necessary. Similarly, 6 nos. car parking spaces in LG Three (approx. 3% of LG Three provision upon completion of Tunnels T1 and T2) will be temporarily suspended for the working areas. The indicative works area and the affected parking spaces at the tunnel connection points at LG Three and LG Eight are shown in **Drawing No. 7.1.** Besides, the car park provision rates are summarized in **Table 7.1**.

Table 7.1 Car Park Provision Rates in Lee Gardens Area

Commercial Development	GFA (m^2)	Private Car Parking Space (1)	Provision Rate (1 space per GFA)
LG One	83,600	187	447
LG Two	58,200	163	357
LG Three	43,300	195	222
LG Three (During T3 construction)		195 – 6 = 189	229
LG Eight	102,000	612	167
LG Eight (During T3 construction)		612 – 24 = 588	173

Note: (1) Car parking provision upon the completion of works for Tunnels T1 and T2

7.2.3 As shown in **Table 7.1**, the provision rate of LG Eight is much higher than the existing car parks in Lee Gardens Area, even though the temporary suspension of parking spaces during the construction stage of Tunnel T3 has been considered. Therefore, the temporary reduction is considered acceptable.

7.2.4 Furthermore, as reviewed the latest car park utilization rates of LG Three, it would be 94% for weekdays and 96% for weekends during the most peak period upon completion of Tunnels T1 and T2 (i.e. 195 nos. private car parking spaces). Therefore, the remaining surplus can still be able to absorb the temporary suspension of parking spaces. Together with the high car park provision rates in LG Eight, the temporary suspension will not affect the operation of LG Three car park.

7.2.5 In addition, the car park operators would dedicate staffs for patrolling traffic at the car park entrances and guiding the motorists to park their cars at other car parks in the vicinity with vacant spaces when necessary.

7.2.6 After the completion of tunnel construction, the temporarily suspended car parking spaces will be reinstated except for 6 spaces in LG Three and 5 spaces in LG Eight which are considered necessary to be permanently suspended for the opening of accesses for the tunnels.

7.2.7 As the suspended car parking spaces, including those in LG Three, account for not more than 2% of the total provision at LG Eight, the traffic impact of their suspension should be negligible. This is especially the case as the future parking provision rate of LG Eight is already significantly higher than that in the surrounding developments. Nevertheless, the possible reprovision of these affected spaces will be reviewed further at the detailed design stage.

7.2.8 On the other hand, the available car parking spaces within the LG One, LG Two, LG Three and LG Eight can be shared used for the vehicles upon the car parks to be linked by the tunnels, and the accessibility of the car parks will also be improved without the need of any additional car park ingress and egress points. As a result, the utilizations of available car parking spaces can be maximised while the way-finding of vacant spaces can be taken place internally, therefore minimizing queuing at car park entrances.

7.3 Access Arrangement and Management during Construction

7.3.1 Given that the works areas required for the tunnel construction are all within the basement car park of LG Three and LG Eight, it is proposed that the accesses of construction traffic to the works areas will be via the vehicular accesses of LG Three and LG Eight which can avoid any new opening of construction access on the public roads. The access routes of construction traffic would be similar to the those of the car park traffic. The proposed access arrangement for construction traffic is shown in **Drawing No. 7.2**.

7.3.2 To avoid traffic queueing for car park at public road, car park vacancy information signs will be erected at the car park entrances of LG One, LG Two, LG Three and LG Eight to guide the drivers to use the adjacent car parks with vacant parking spaces.

7.3.3 Furthermore, as mentioned in **paragraph 7.2.5,** the car park operators would dedicate staffs for patrolling traffic at the car park entrances and guiding the motorists to park their cars at other car parks in the vicinity with vacant spaces when necessary to prevent any obstruction at the car park entrances leading to adverse impact to the operation of public transportation and the traffic on public roads. Besides, the loading/unloading activities for the buildings would be well coordinated and managed by the car park operators to avoid such activities to be carried out during the peaks of the car parks and/or during the access periods of construction traffic.

7.4 Review on Construction Traffic Impact

7.4.1 To minimize traffic impact, the overall construction traffic (including dump trucks) demand of the two tunnels will be kept minimal and limited to 20 vehicles per day only. Taking into consideration the necessity of maintaining the daily operation of the car parks as well as the headroom constraints at the car park floors, it is planned that only small-sized trucks will be adopted for the tunnel construction.

7.4.2 Besides, time management for construction traffic will be implemented, by which the access of construction traffic will only be arranged outside the communal weekday's peak periods of 08:00-10:00, 12:00-14:00 and 16:00-20:00 except General Holidays in order to further minimize traffic impact to the surrounding road network during the communal peak periods.

7.4.3 With the above proposed time management for accesses of construction traffic, the hourly construction traffic demand will be kept at 5 vehicles per hour only. Therefore, the traffic impact to the surrounding roads caused by the construction traffic of the proposed tunnel would be very minimal.

7.5 Construction Traffic Management Scheme

7.5.1 To minimize traffic impact on the surrounding road network, a Construction Traffic Management Scheme (CTMS) which to be reviewed and approved by Transport Department will be implemented during the tunnel construction.

7.5.2 The CTMS shall include but not limited to:

- The tunnel construction works shall only be carried out underground without at-grade excavation works leading to any closure of public road;
- The overall construction traffic demand shall be kept minimal and limited to 20 vehicles per day. The construction vehicles shall access to/from the underground construction site via the existing vehicular access of LG Three and future vehicular access of LG Eight;
- The access of construction traffic shall only be arranged outside peak period of 08:00-10:00, 12:00-14:00 and 16:00-20:00 during weekdays except General Holidays;
- The car park operators of LG Three and LG Eight shall deploy staff for patrolling traffic at the car park entrance and guiding the motorists to park their cars at other car parks in the vicinity with vacant spaces when necessary;
- The suspension of car parking spaces at LG Three and LG Eight shall be minimised as far as possible;
- Loading/unloading activities of LG Three and LG Eight shall be well coordinated and managed by the car park operators to avoid carry out during access period of construction traffic;
- Adequate car park vacancy information signs shall be erected at the car park entrance to alert motorists;
- The tunnel construction works for Tunnel T3 shall not commence earlier than the construction of Tunnels T1 and T2, provision of covered walkway and footbridge at the area and full provision of private car parking spaces of LG Eight; and
- Such other measures as stipulated in the approved CTMS.

8. SUMMARY AND CONCULSION

8.1 Summary

8.1.1 In order to enhance the traffic condition in the Causeway Bay south area, Tunnels T1 and T2 were proposed beneath Hysan Avenue and Yun Ping Road respectively. Tunnel T1 would connect the basement car parks at LG One and LG Three, while Tunnel T2 would connect the basement car parks at Lee LG One and LG Two.

8.1.2 With the completion of LG Eight in 2026, it offers opportunities to further enhance the accessibility of underground car parks in the area by introducing Tunnel T3 running on Sunning Road and across Leighton Road to link up LG Three and LG Eight.

8.1.3 Since the proposed Tunnel T3 would run on 'Road' zone in the Causeway Bay OZP, S16 Planning Application for the proposed underground vehicular tunnel is required for obtaining permission from TPB. MVA was commissioned as a traffic consultant to conduct a traffic study and prepare a TIA in support of the proposed Tunnel T3 and the S16 planning application.

8.1.4 Tunnel T3 will branch from the southeast corner of LG Three. To avoid any encroachment into the adjoining private lots at Sunning Road while allowing the connection to serve both traffic directions, the tunnel is proposed with two levels serving private cars in one traffic direction at each level.

8.1.5 The availability of Tunnel T3 will enable an alternative underground ingress route for LG Eight from Percival Street and Leighton Road eastbound via the existing run-in of LG Three at Hoi Ping Road. In addition, the ingress and egress traffic of LG One and LG Three from/to the South would also benefit from Tunnel T3.

8.1.6 As a traffic management strategy, appropriate directional signages will be provided in the connected car parks and entrances of the tunnels to clearly guide drivers on the routes to the other connected car parks as well as the exits via a shorter and more direct alternative routes as enabled by the tunnels.

8.1.7 To obtain the updated traffic flows for the review on the existing traffic condition, traffic count surveys and O-D surveys at the identified junctions have been conducted.

8.1.8 The identified junctions under existing traffic conditions have been assessed and the results indicated that they are currently operating with adequate reserve capacities during the peak hours on weekdays and weekends.

8.1.9 However, it was frequently observed that the GMB activities and illegal parking along Lan Fong Road led to traffic queues extending to Yun Ping Road. Meanwhile, the illegal parking and prolonged vehicle waiting on the nearside lane of Hysan Avenue during peak hours reduced the effective road capacity. Combined with vehicle conflicts at the junctions along the road and traffic queues on Hoi Ping Road occasionally extending from the junction of Leighton Road and Caroline Hill Road (West), traffic issues are exacerbated along Hysan Avenue and its junction with Percival Street during the critical peak periods. Therefore, it is worthwhile to explore other opportunities for further improvement apart from the planned Tunnels T1 and T2, and the Tunnel T3 is proposed consequently.

8.1.10 Taking in consideration the Tunnel T3 would be completed by the end of 2033, a design year of 2036 was adopted for assessment in this study. Two future scenarios were reviewed: (i) Reference Scenario – with the planned Tunnels T1 and T2; (ii) Design Scenario – with the planned Tunnels T1 and T2 and the proposed Tunnel T3.

8.1.11 Traffic forecasts for Reference Scenario in the design year 2036 were derived with reference to the historical traffic data and planning data, future traffic induced by the future developments in the vicinity as well as the anticipated traffic re-routing due to the planned Tunnels T1 and T2.

8.1.12 Traffic forecasts for Design Scenario in the design year 2036 were derived by superimposing the estimated net differences of traffic due to the proposed Tunnel T3 onto the year 2036 reference traffic flows.

8.1.13 Operational traffic impact assessments have been conducted for the two forecasted scenarios, and the results demonstrated that the Tunnel T3 would not cause negative traffic impact to the local road network, and all the assessed junctions would operate within capacities during peak hours.

8.1.14 Even though the magnitude of the traffic diversion due to the proposed Tunnel T3 is less than the estimated, the traffic conditions will only tend to the Reference Scenario. Therefore, no adverse traffic impact will be caused.

8.1.15 Apart from the operational assessment, the traffic arrangement and impact during the construction stage of the tunnels were also reviewed. To avoid any excavation work on the at-grade public roads and hence minimize disturbance to the at-grade vehicular and pedestrian traffic, “Drill and Excavation Method” with launching from LG Eight was proposed. The works areas for the tunnel construction would be situated at the basements of LG Three and LG Eight. The accesses of construction traffic to the works areas would be via the vehicular accesses of LG Three and LG Eight.

8.1.16 It would be unavoidable that some of the existing car parking spaces would be temporarily suspended to facilitate tunnel construction works at the basement levels; however, the extents of the works areas at the car parks would be well planned and minimized for the daily operation throughout the construction period. Besides, the ancillary provision would be temporarily converted into public vehicle park for the affected parking spaces, if necessary, during the construction of the tunnels so that the 24-hr provision for the public can be maintained.

8.1.17 Besides, the overall construction traffic demand of the two tunnels would be kept minimal, and time management for construction traffic would be implemented, by which the access of construction traffic would only be arranged outside the communal weekday’s peak periods of 08:00-10:00, 12:00-14:00 and 16:00-20:00 except General Holidays. With the proposed time management, the hourly construction traffic demand would be kept at 5 vehicles per hour only. Therefore, the traffic impact to the surrounding roads caused by the construction traffic of the tunnel would be very minimal.

8.1.18 Furthermore, a CTMS which to be reviewed and approved by Transport Department would be implemented during the tunnel construction to ensure minimized traffic impact on the surrounding road network.

8.2 Conclusion

8.2.1 In conclusion, the proposed Tunnel T3 will not cause adverse traffic impact to the local road network. With the proposed CTMS, impact on the surrounding road conditions will also be minimized.

8.2.2 Besides, the proposed Tunnel T3 is supported from a traffic engineering point of view as it is considered beneficial to the local area with the following expected benefits:

- Reduction in at-grade traffic on local roads would help to enhance the road traffic conditions, improve the air quality and pedestrian safety in the area;
- Accessibility of car parks would be maximized for efficient use of available car parking spaces and the way-finding of vacant parking spaces can be taken place internally, and thus vehicle queuing at car park entrances and traffic circulation on public roads would be minimized;
- Available of route choices for vehicles would help to achieve better balanced use of roads/junctions' capacities under different road traffic situations; and
- Access and traffic management would be more flexible for car park operators to manage the ingress and egress of vehicles to suit different traffic conditions in the area.

Drawings

Planned Tunnel T2

Lee Garden Two

Lee Garden One

Planned Tunnel T1

Lee Garden Three

Proposed Tunnel T3

Lee Garden Eight

LAN FONG ROAD

YUN PING ROAD

PERCIVAL STREET

LEE GARDEN ROAD

HYSAN AVENUE

SUNNING ROAD

PENNINGTON STREET

LEIGHTON ROAD

HOI PING ROAD

SUN WUI ROAD

CAROLINE HILL ROAD

IRVING STREET

LEGEND :

EXISTING / PLANNED CAR PARK INGRESS / EGRESS

Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

SECTION 16 PLANNING APPLICATION OF
PROPOSED UNDERGROUND VEHICULAR TUNNEL T3
(CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT)
- TRAFFIC IMPACT ASSESSMENT

Drawing Title

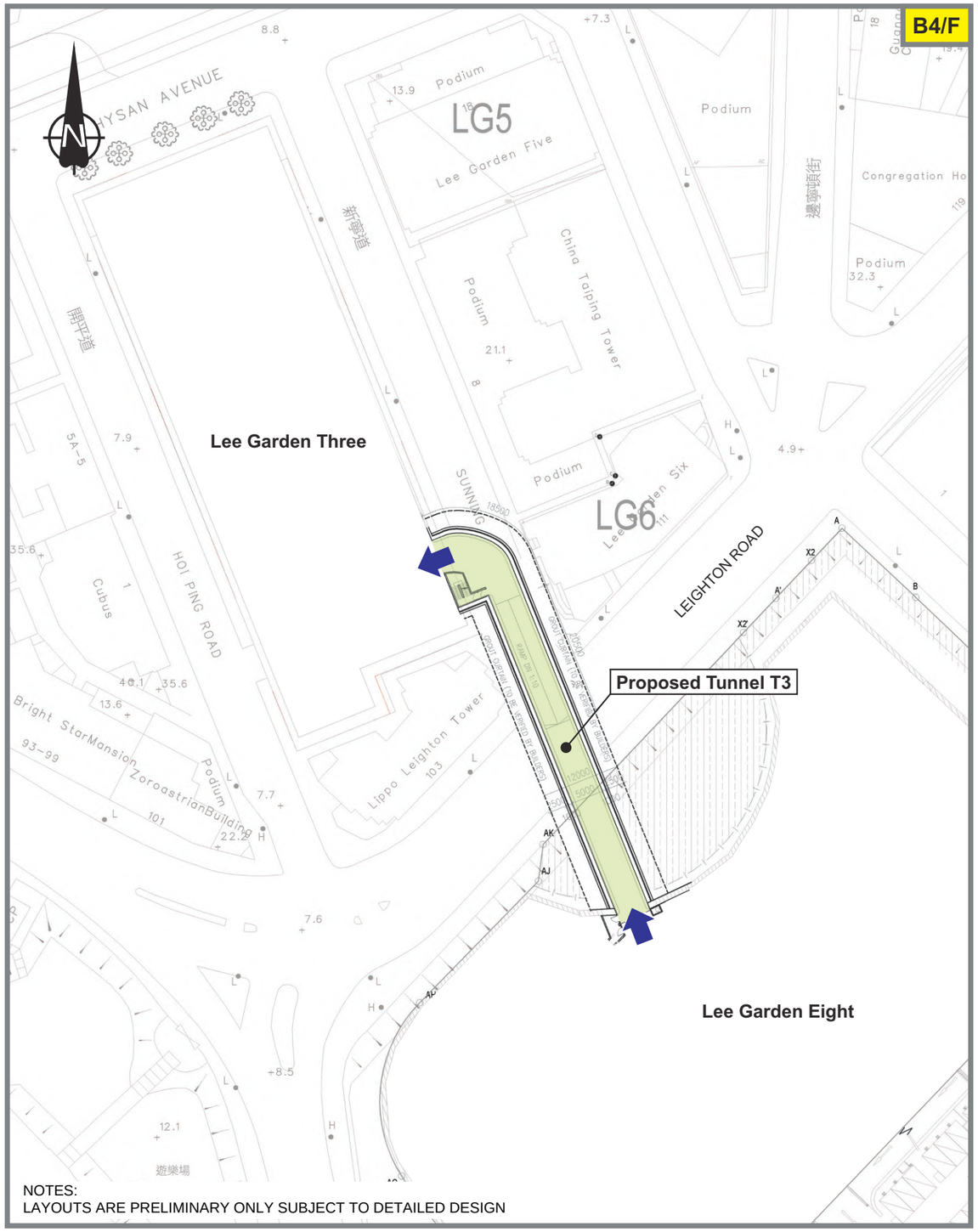
LOCATION PLAN OF PROPOSED TUNNELS T1, T2 AND T3

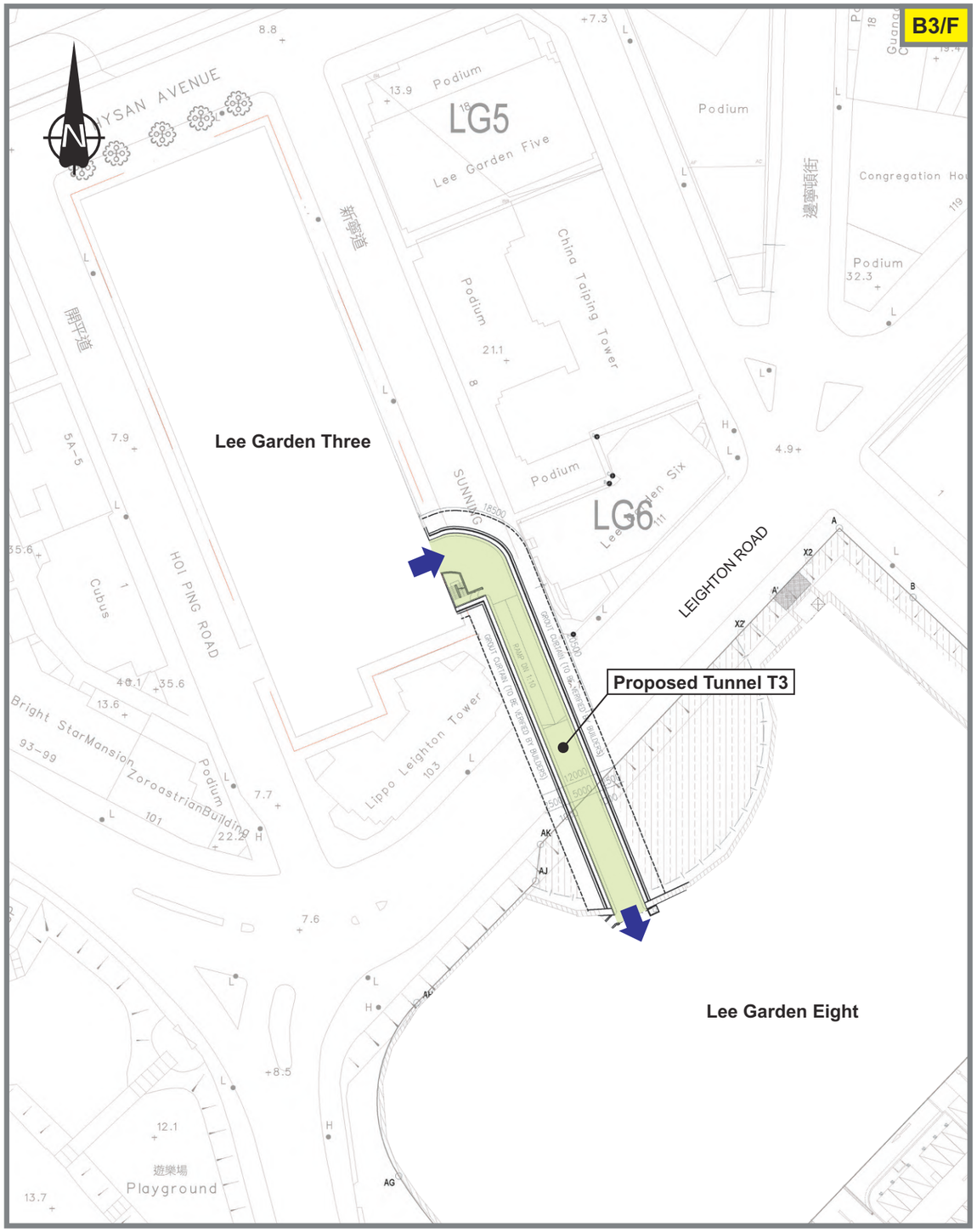
Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	1.1	-

SYSTRA MVA

CHK50865910/TIA/F11.CDR/LLH/13APR26

Original Size : A3





Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF
PROPOSED UNDERGROUND VEHICULAR TUNNEL T3
(CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT)
- TRAFFIC IMPACT ASSESSMENT

Drawing Title

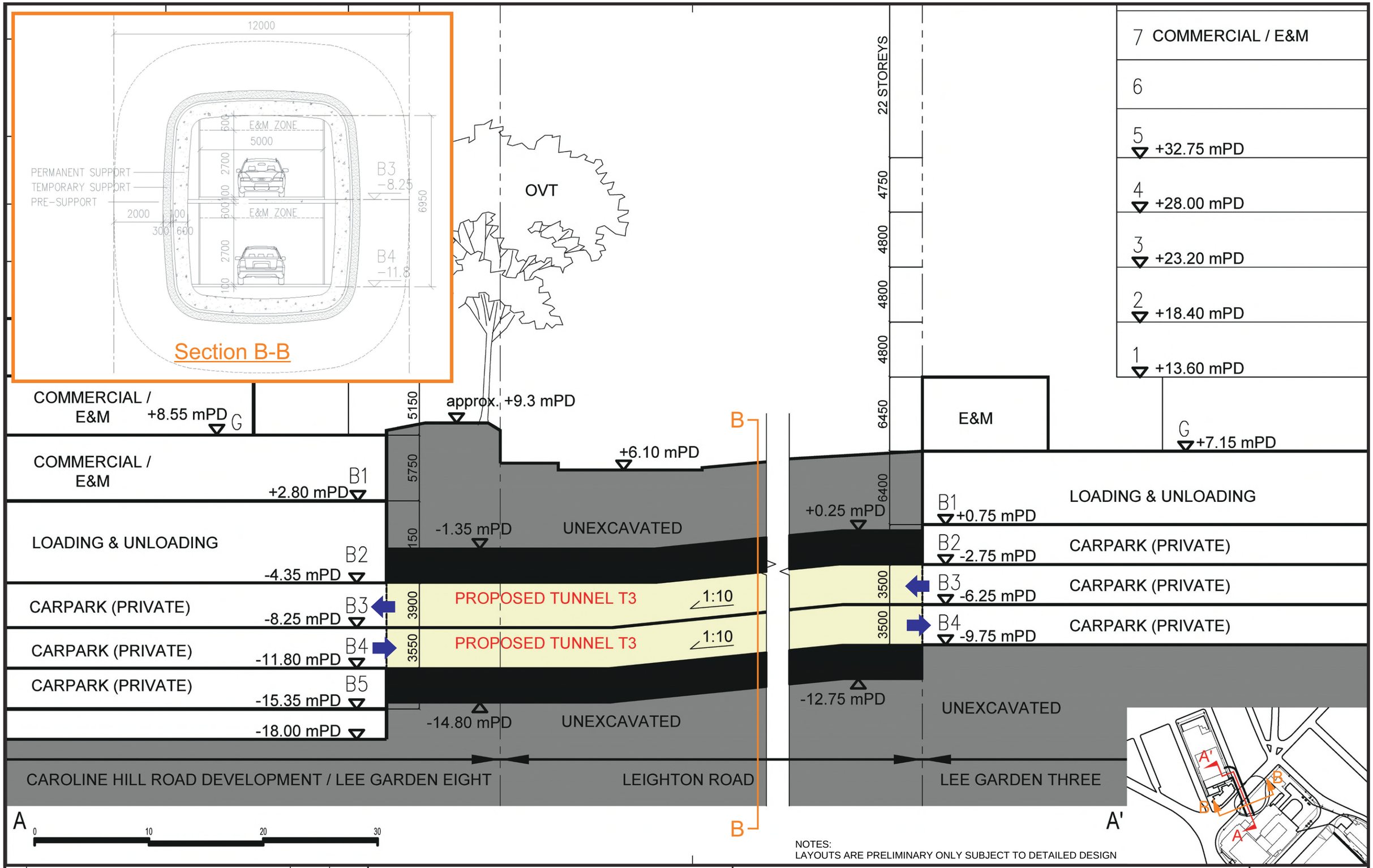
FLOOR PLAN AT BASEMENT LEVELS 3 AND 4 WITH TUNNEL T3

Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	CHC	NTS	JUL 2026	2.1	-

SYSTRA MVA

CHK50865910/TIA/F21.CDR/LLH/15JUL26

Original Size : A3



NOTES:
LAYOUTS ARE PRELIMINARY ONLY SUBJECT TO DETAILED DESIGN

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

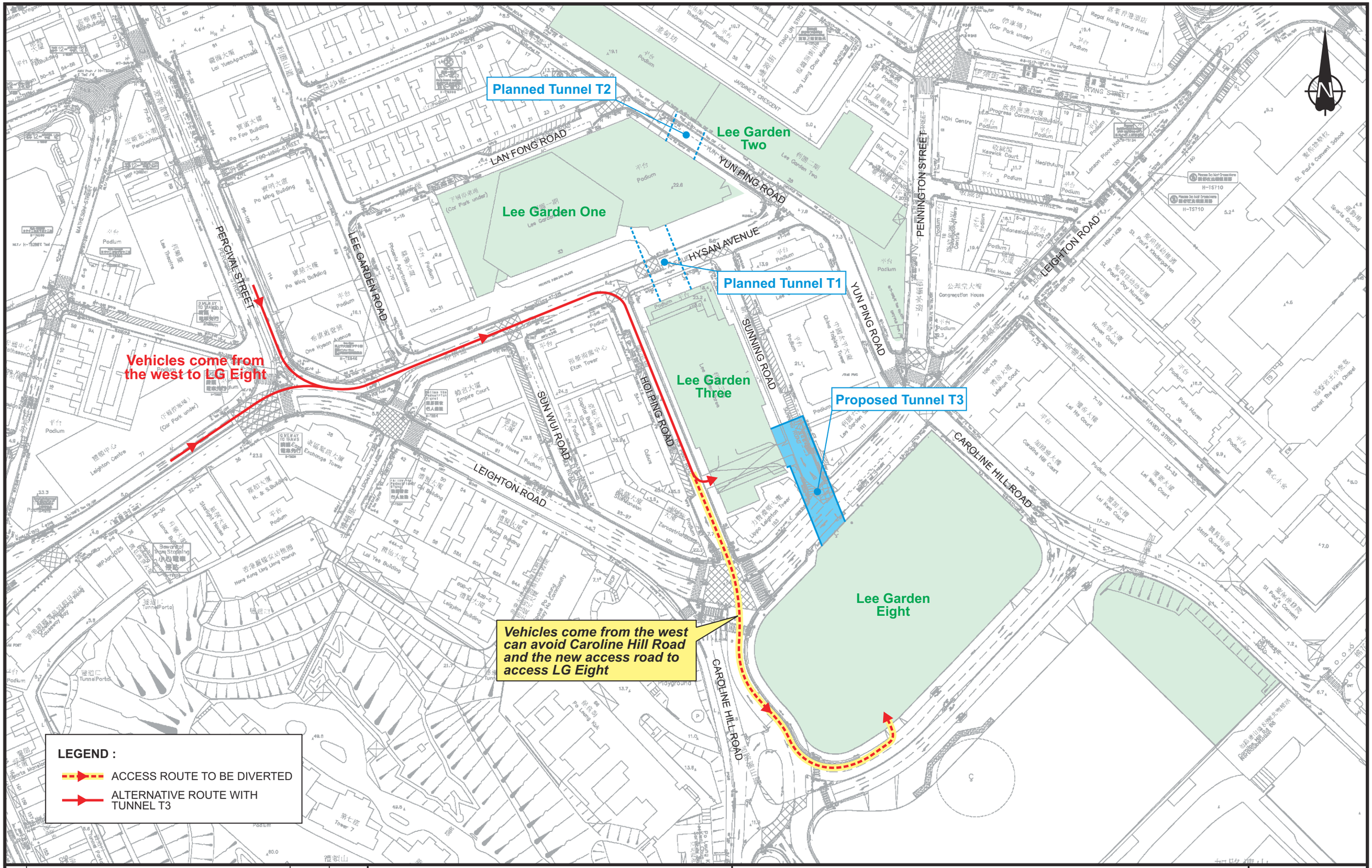
SECTION PLAN OF TUNNEL T3

Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	CHC	NTS	JUL 2026	2.2	-

SYSTRA MVA

CHK50865910/TIA/F22.CDR/LLH/16JUL26

Original Size : A3



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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

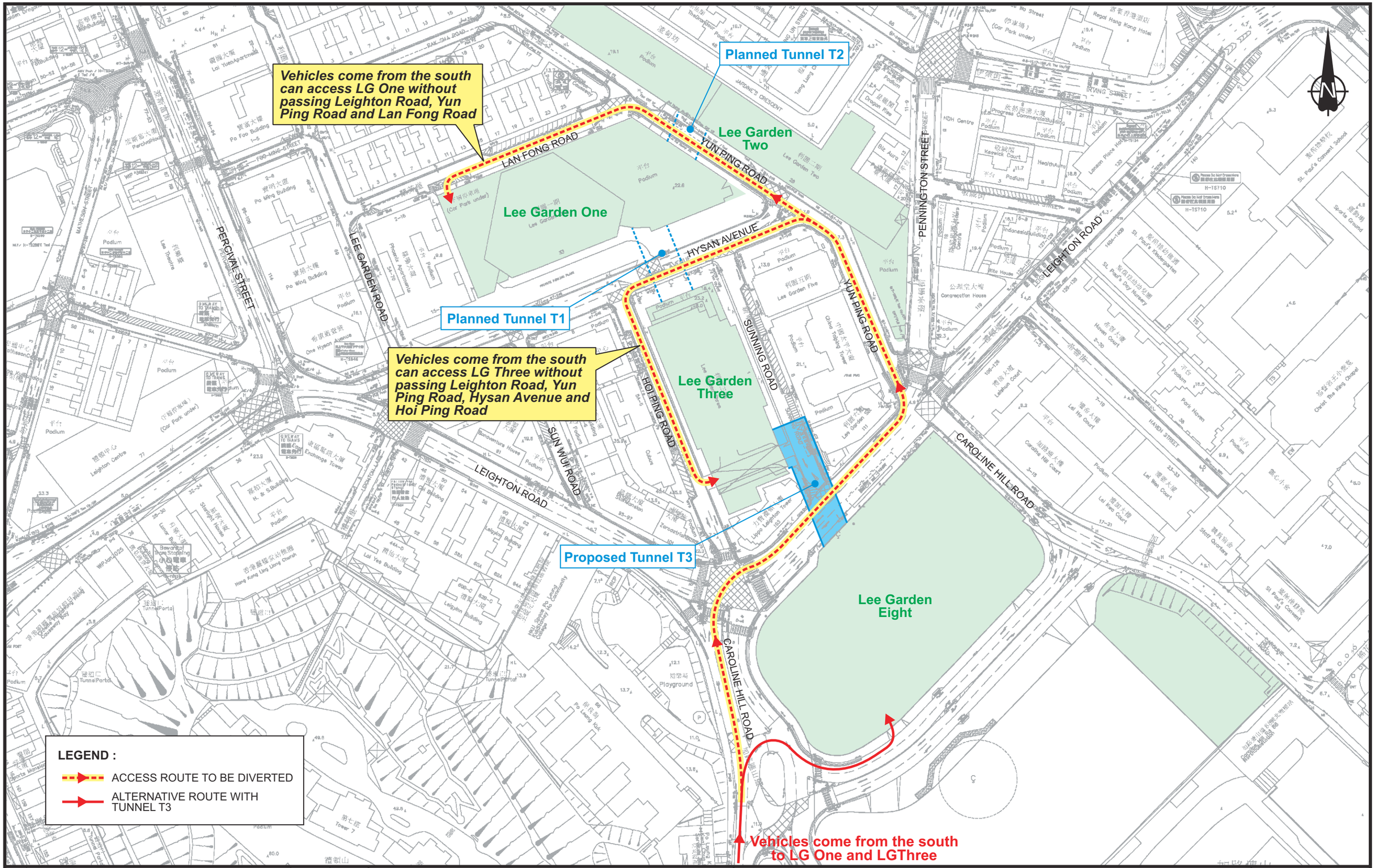
ANTICIPATED TRAFFIC RE-ROUTING DUE TO TUNNEL T3 (1 OF 3)

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	2.3	-

SYSTRA MVA

CHK50865910/TIA/F23.CDR/LLH/13APR26

Original Size : A3



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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

ANTICIPATED TRAFFIC RE-ROUTING DUE TO TUNNEL T3 (2 OF 3)

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	2.4	-

SYSTRA MVA

CHK50865910/TIA/F24.CDR/LLH/13APR26

Original Size : A3

Planned Tunnel T2

Planned Tunnel T1

Lee Garden Two

Lee Garden One

Lee Garden Three

Lee Garden Eight

Proposed Tunnel T3

LEE GARDEN ROAD

LAN FONG ROAD

YUN PING ROAD

PERCIVAL STREET

HYSAN AVENUE

HOI PING ROAD

SUNNING ROAD

SUN WUI ROAD

LEIGHTON ROAD

PENNINGTON STREET

IRVING STREET

CAROLINE HILL ROAD

Vehicles leave LG One via Tunnel T1 and T3 to the south without passing Lan Fong Road, Lee Garden Road, Hysan Avenue and Hoi Ping Road

Vehicles leave LG Three via Tunnel T3 to the south without detouring at local roads

Vehicles go to the south from LG One and LG Three

LEGEND :

ACCESS ROUTE TO BE DIVERTED

ALTERNATIVE ROUTE WITH TUNNEL T3

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

ANTICIPATED TRAFFIC RE-ROUTING DUE TO TUNNEL T3 (3 OF 3)

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	2.5	-

SYSTRA MVA

CHK50865910/TIA/F25.CDR/LLH/13APR26

Original Size : A3

Lee Garden Two
Pennington Street
at B3/F

Lee Garden One
Lee Garden Three
Lee Garden Eight
at B2/F

Lee Garden Three
Lee Garden Eight
Caroline Hill Road / Link Road
at B3/F

Planned Tunnel T2

Lee Garden Two

LAN FONG ROAD

YUN PING ROAD

Lee Garden One

Planned Tunnel T1

PERCIVAL STREET

LEE GARDEN ROAD

HYSAN AVENUE

PENNINGTON STREET

LEIGHTON ROAD

YUN PING ROAD

Lee Garden One
Lee Garden Two
at B3/F

Lee Garden Three

SUNNING ROAD

SUN WUI ROAD

HOI PING ROAD

Lee Garden Three
Lee Garden One
Lee Garden Two
at B4/F

Access at B3/F

Proposed Tunnel T3

at B3/F

LEIGHTON ROAD

at B4/F

Access at B4/F

Lee Garden Eight

Lee Garden Eight
Caroline Hill Road / Link Road
at B3/F

CAROLINE HILL ROAD

CAROLINE HILL ROAD

LEGEND :

- EXISTING / FUTURE AT-GRADE CARPARK ACCESS
- PROPOSED VEHICULAR TUNNEL ACCESS
- PROPOSED DIRECTIONAL SIGNAGE

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF
PROPOSED UNDERGROUND VEHICULAR TUNNEL T3
(CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT)
- TRAFFIC IMPACT ASSESSMENT

Drawing Title

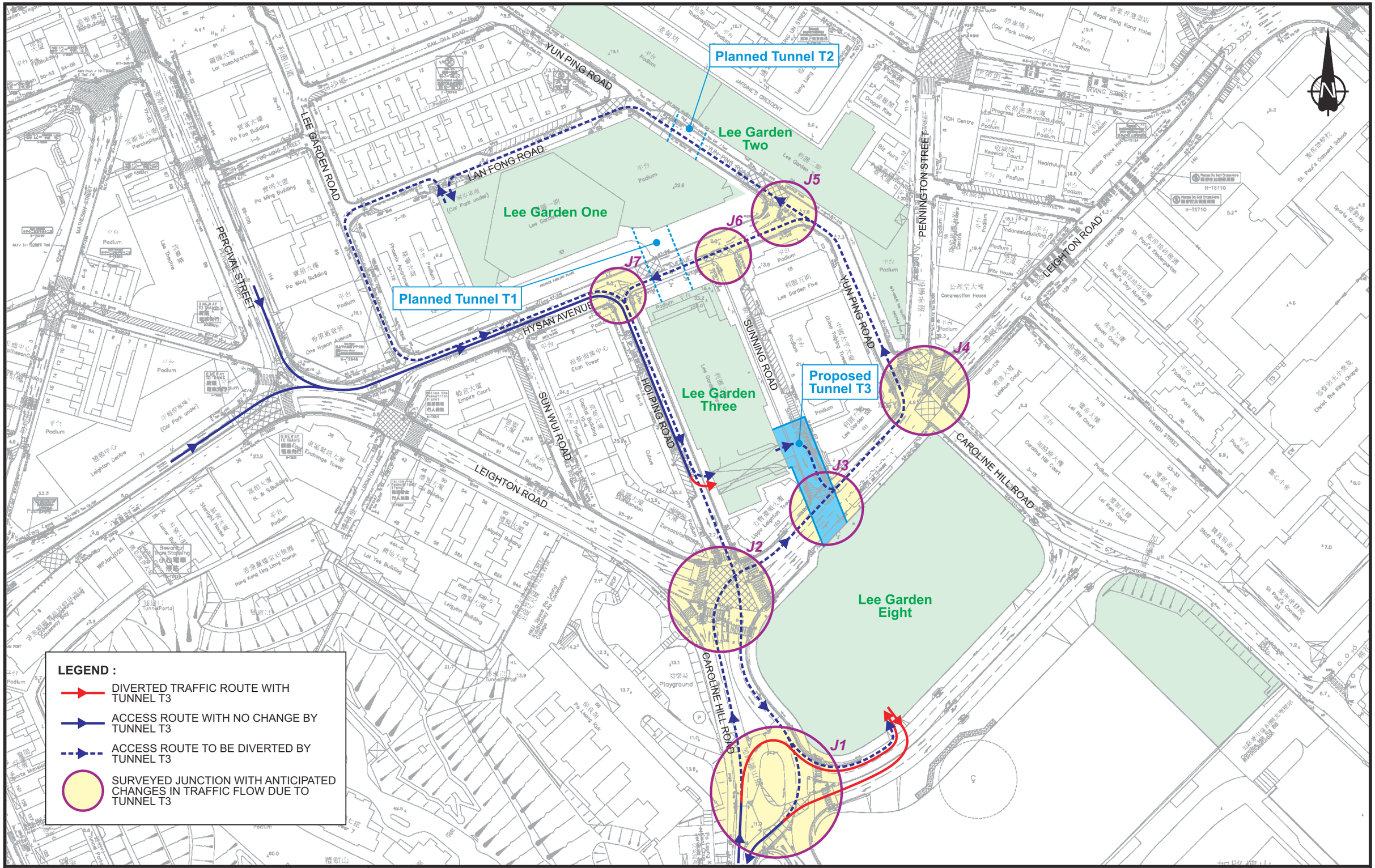
OVERALL TRAFFIC MANAGEMENT STRATEGY

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	2.6	-

SYSTRA MVA

CHK50865910/TIA/F26.CDR/LLH/14APR26

Original Size : A3



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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

EXISTING ROAD NETWORK AND IDENTIFIED JUNCTIONS TO BE ASSESSED

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	3.1	-

SYSTRA MVA

CHK50865910/TIA/F31.CDR/LLH/13APR26

Original Size : A3

FILENAME: D:\ONEDRIVE - SYSTRAGROUP\JOBS(NEW)\CHK50865910\TIA\F32.DWG
PRINTED BY: CCHAN DATE: 9-Apr-26 TIME: 3:49 PM

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

EXISTING JUNCTION LAYOUT OF CAROLINE HILL ROAD (WEST) / LINK ROAD (J1)

Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	TCW	1:500(A3)	APR 2026	3.2	-

SYSTRA MVA

Original Size : A3

HOI PING ROAD

SUNNING ROAD

LEIGHTON ROAD

CAROLINE HILL ROAD (WEST)

Except goods vehicles loading/unloading 貨車上落貨除外

H-TS132

Caroline Hill Road 加路連山道

HT7653/100mm/2300x700(H)
H/WA/Lei-06

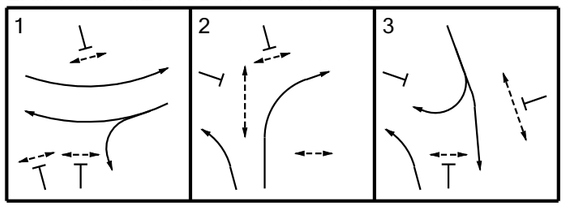
Caroline Hill Road 加路連山道

HT7649/100mm/2200x700(H)
H/WA/Lei-05

IL8945

WIP Mar 2021

EXISTING METHOD OF CONTROL



Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

EXISTING JUNCTION LAYOUT OF LEIGHTON ROAD / CAROLINE HILL ROAD (WEST) / HOI PING ROAD (J2)

Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	TCW	1:500(A3)	APR 2026	3.3	-

SYSTRA MVA

Original Size : A3

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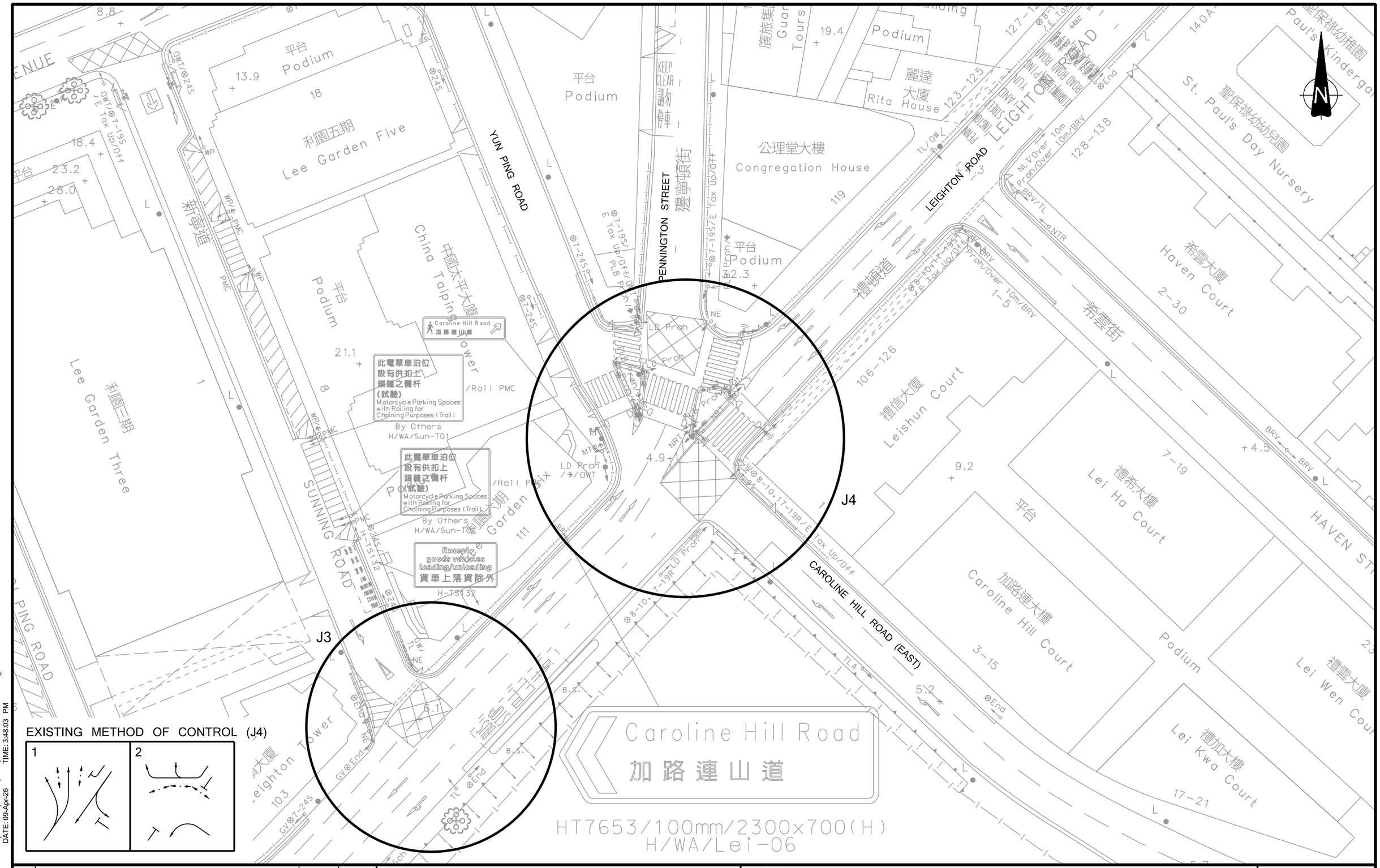

EXISTING METHOD OF CONTROL (J4)

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

EXISTING JUNCTION LAYOUTS OF LEIGHTON ROAD / SUNNING ROAD (J3) AND LEIGHTON ROAD / YUN PING ROAD / PENNINGTON STREET / CAROLINE HILL ROAD (EAST) (J4)

Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	TCW	1:500(A3)	APR 2026	3.4	-

SYSTRA MVA

Original Size : A3

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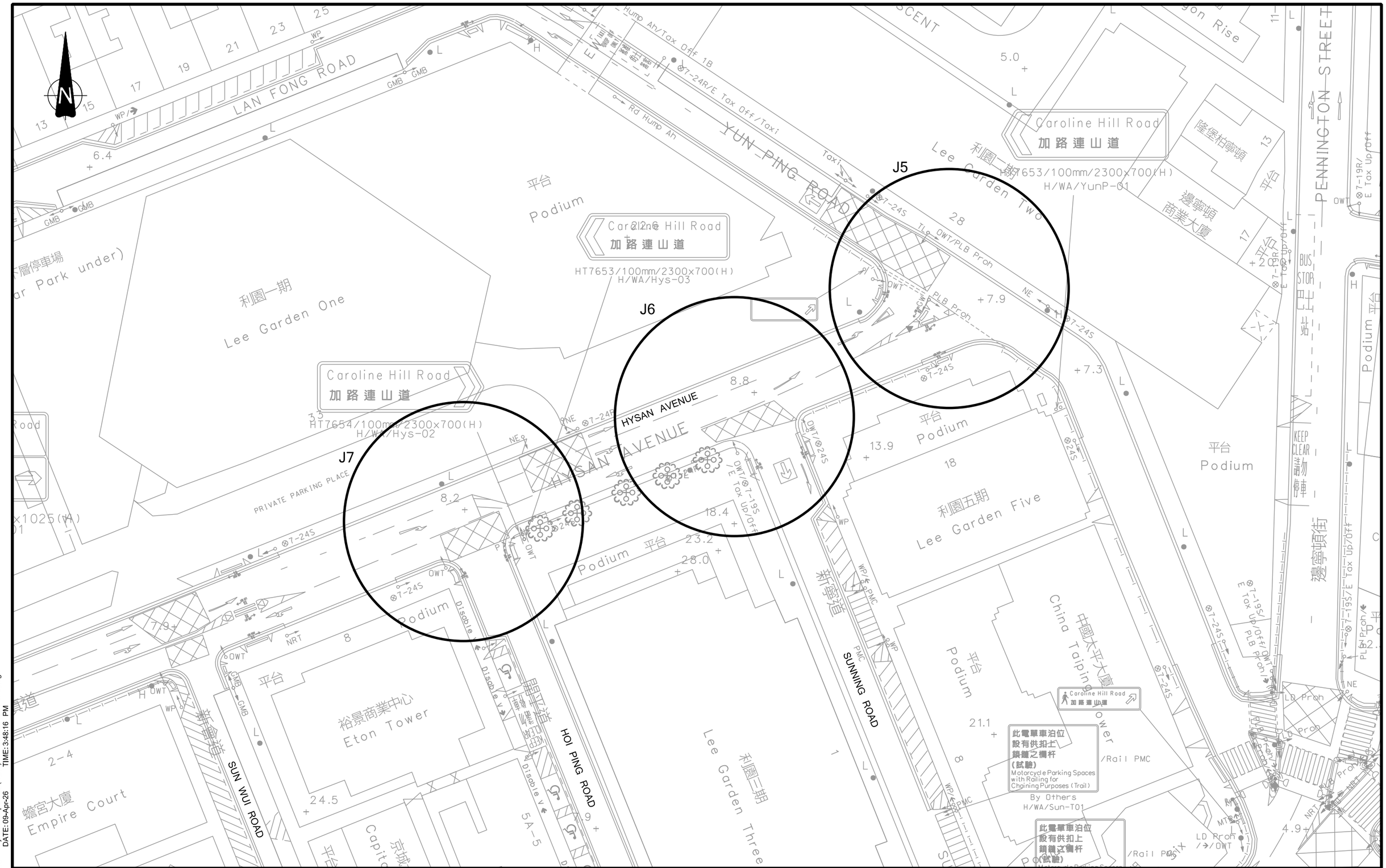

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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

EXISTING JUNCTION LAYOUTS OF HYSAN AVENUE / YUN PING ROAD (J5), HYSAN AVENUE / SUNNING ROAD (J6) AND HYSAN AVENUE / HOI PING ROAD (J7)

Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	TCW	1:500(A3)	APR 2026	3.5	-

FILENAME: D:\OneDrive - SystraGroup\JOBS(NEW)\CHK50865910\TIA\F35.dgn
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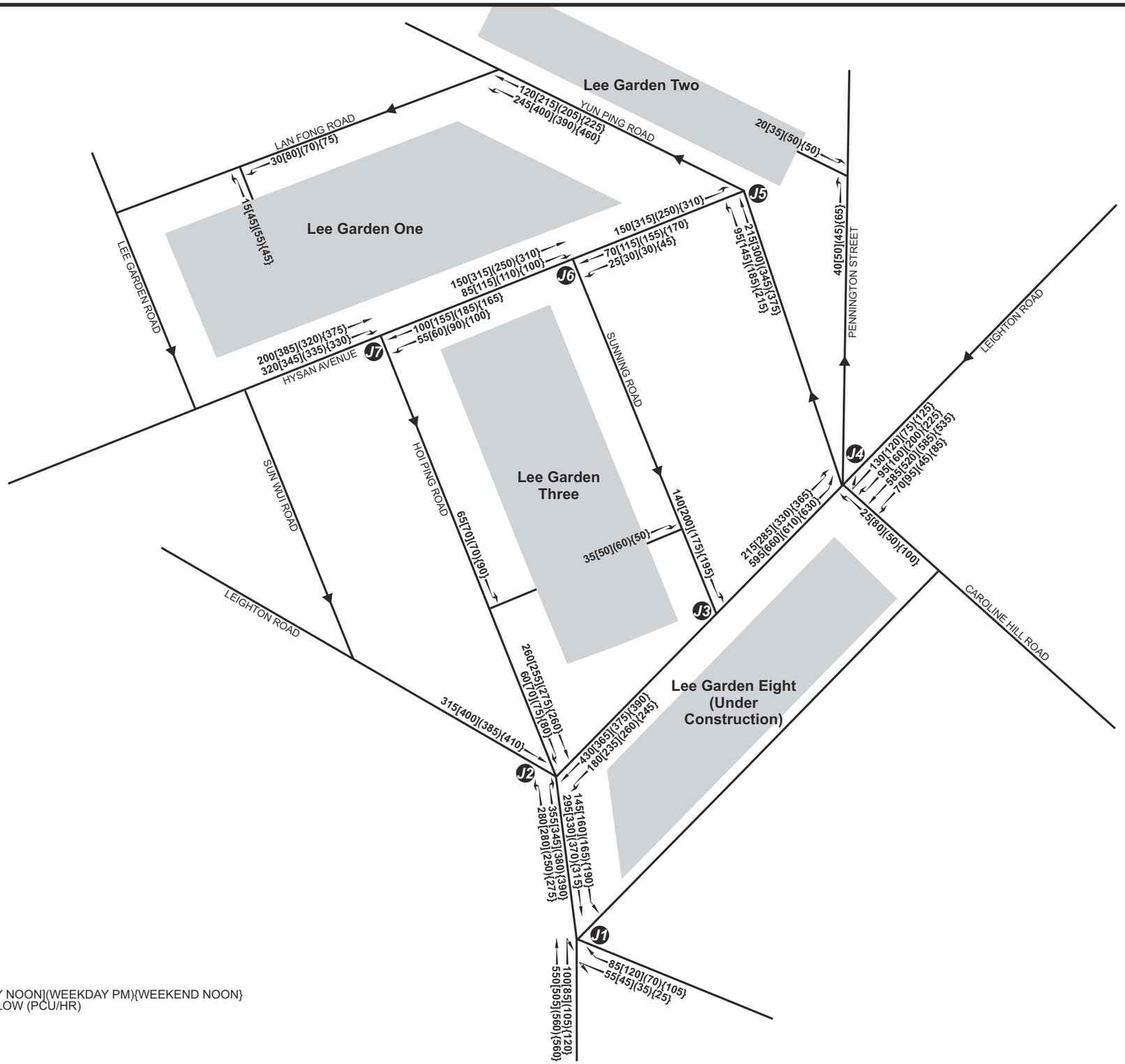

LEGEND :

70[115](155){170} WEEKDAY AM[WEEKDAY NOON](WEEKDAY PM){WEEKEND NOON}
PEAK HOUR TRAFFIC FLOW (PCU/HR)

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF
PROPOSED UNDERGROUND VEHICULAR TUNNEL T3
(CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT)
- TRAFFIC IMPACT ASSESSMENT

Drawing Title

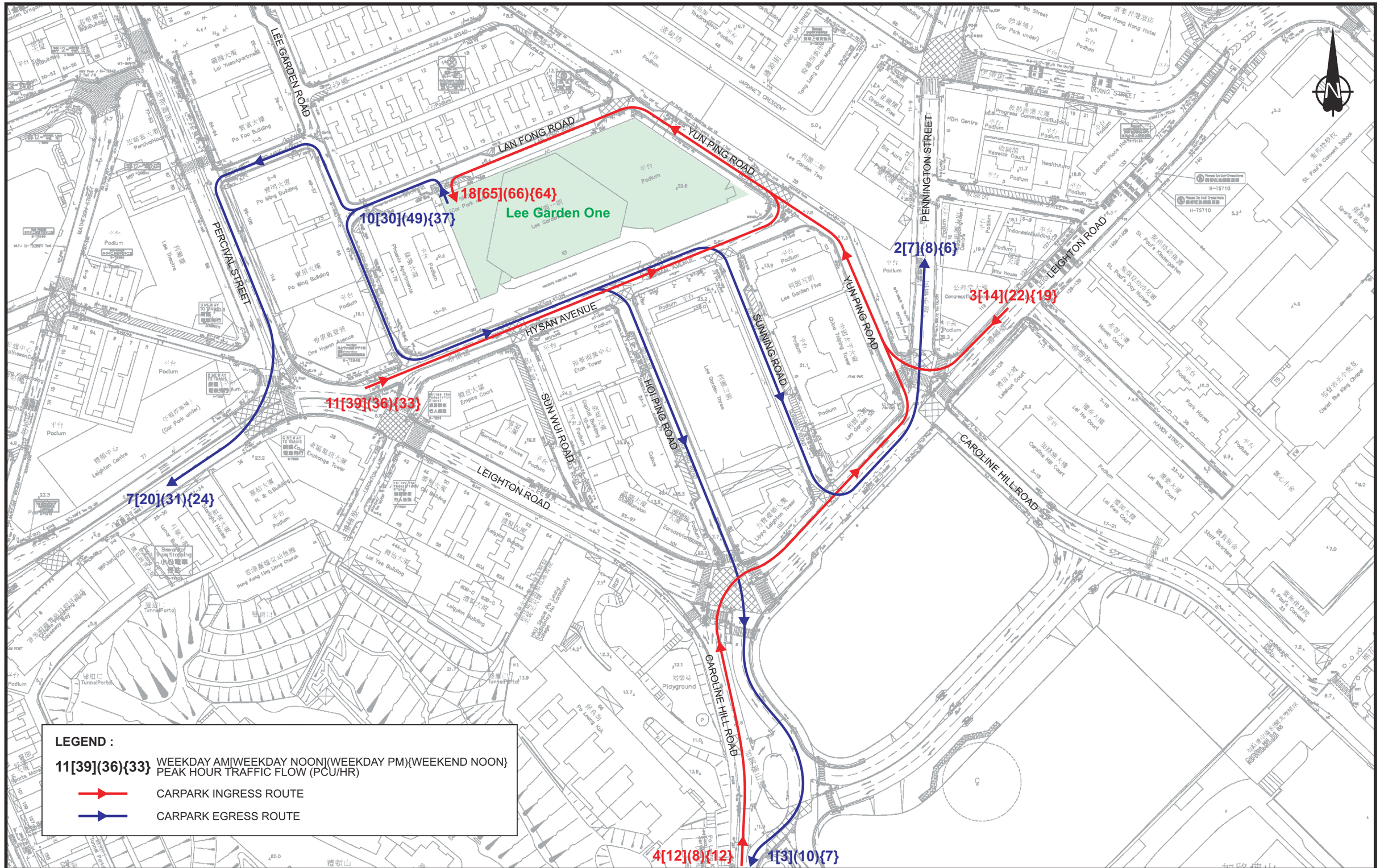
YEAR 2025 OBSERVED TRAFFIC FLOWS

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	3.6	-

SYSTRA MVA

CHK50865910/TIA/F36.CDR/LLH/9APR26

Original Size : A3



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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

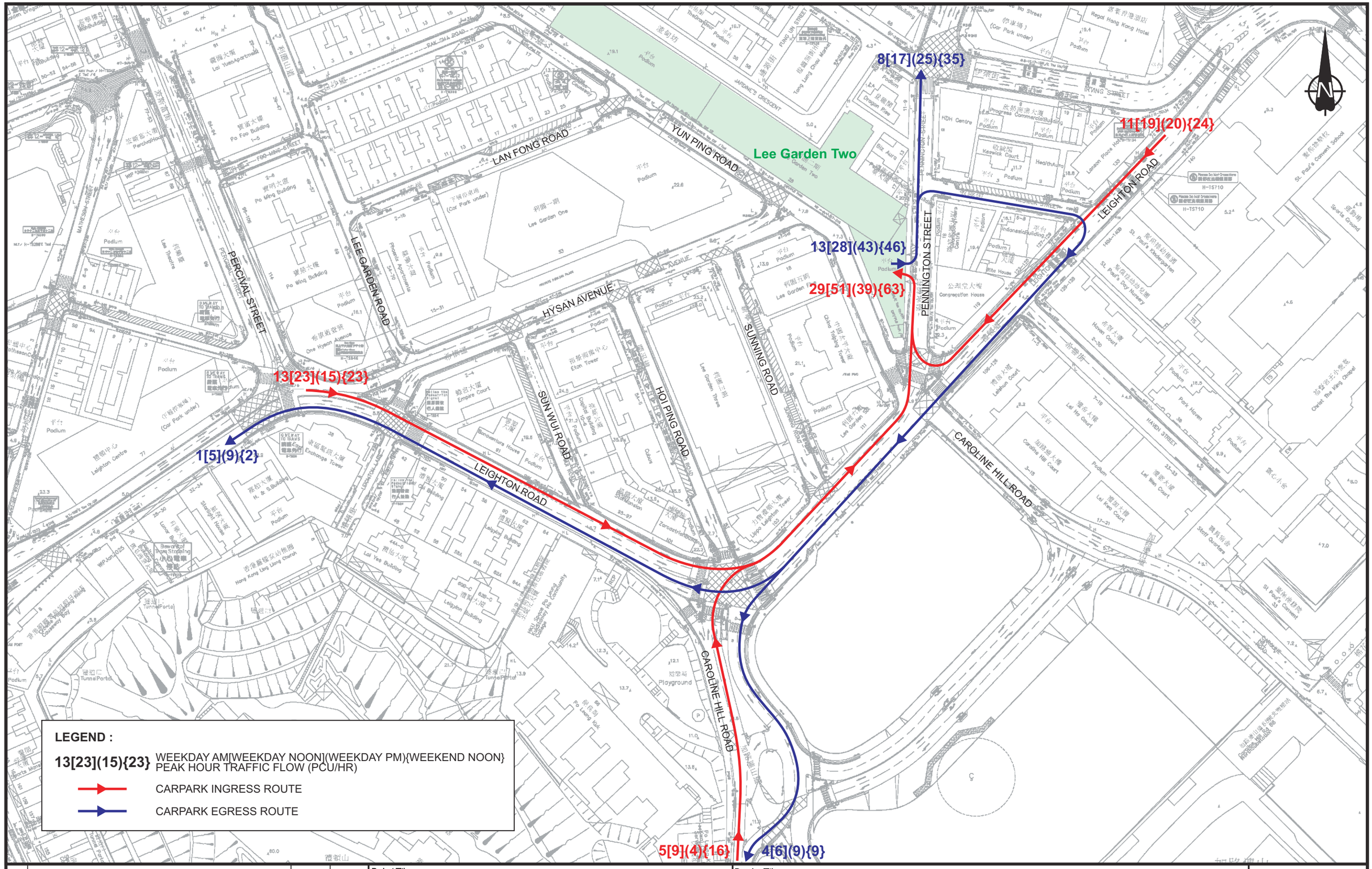
YEAR 2025 SURVEYED CAR PARK RELATED TRAFFIC FLOWS AND PATTERNS OF LEE GARDEN ONE

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	3.7	-

SYSTRA MVA

CHK50865910/TIA/F37.CDR/LLH/8APR26

Original Size : A3



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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

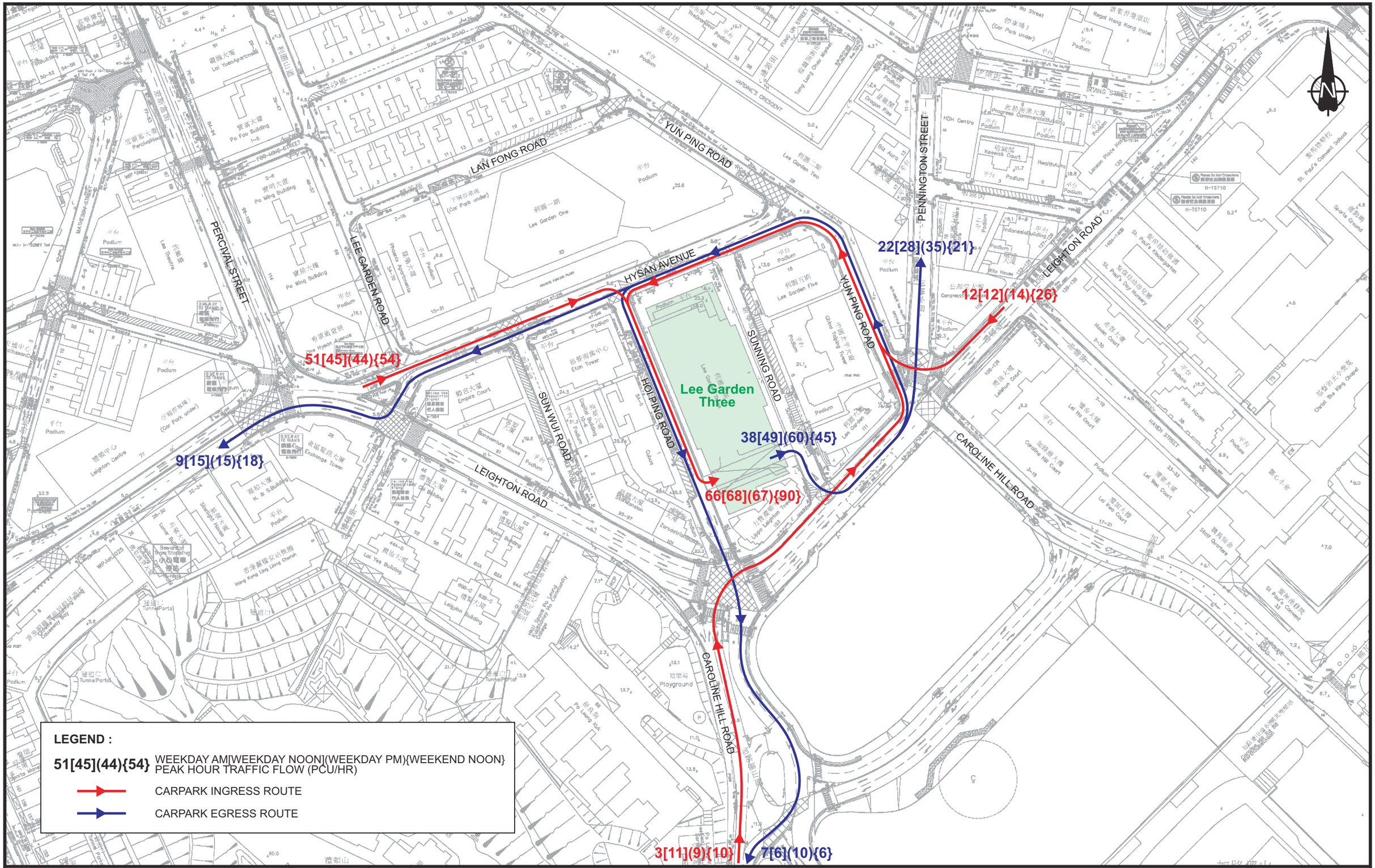
YEAR 2025 SURVEYED CAR PARK RELATED TRAFFIC FLOWS AND PATTERNS OF LEE GARDEN TWO

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	3.8	-

SYSTRA MVA

CHK50865910/TIA/F38.CDR/LLH/8APR26

Original Size : A3



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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

YEAR 2025 SURVEYED CAR PARK RELATED TRAFFIC FLOWS AND PATTERNS OF LEE GARDEN THREE

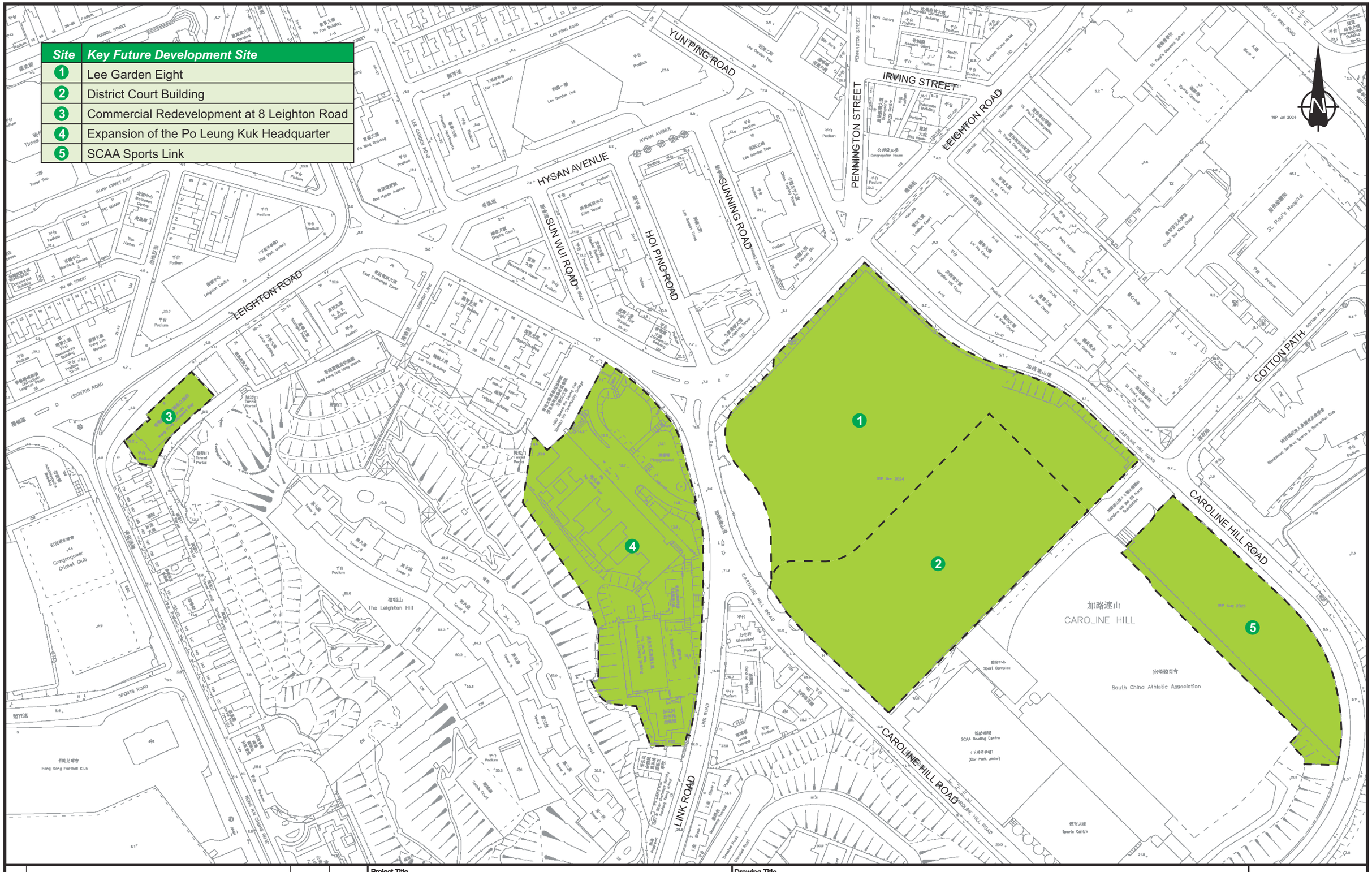
Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	3.9	-

SYSTRA MVA

CHK50865910/TIA/F39.CDR/LLH/8APR26

Original Size : A3

Site	Key Future Development Site
1	Lee Garden Eight
2	District Court Building
3	Commercial Redevelopment at 8 Leighton Road
4	Expansion of the Po Leung Kuk Headquarter
5	SCAA Sports Link



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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

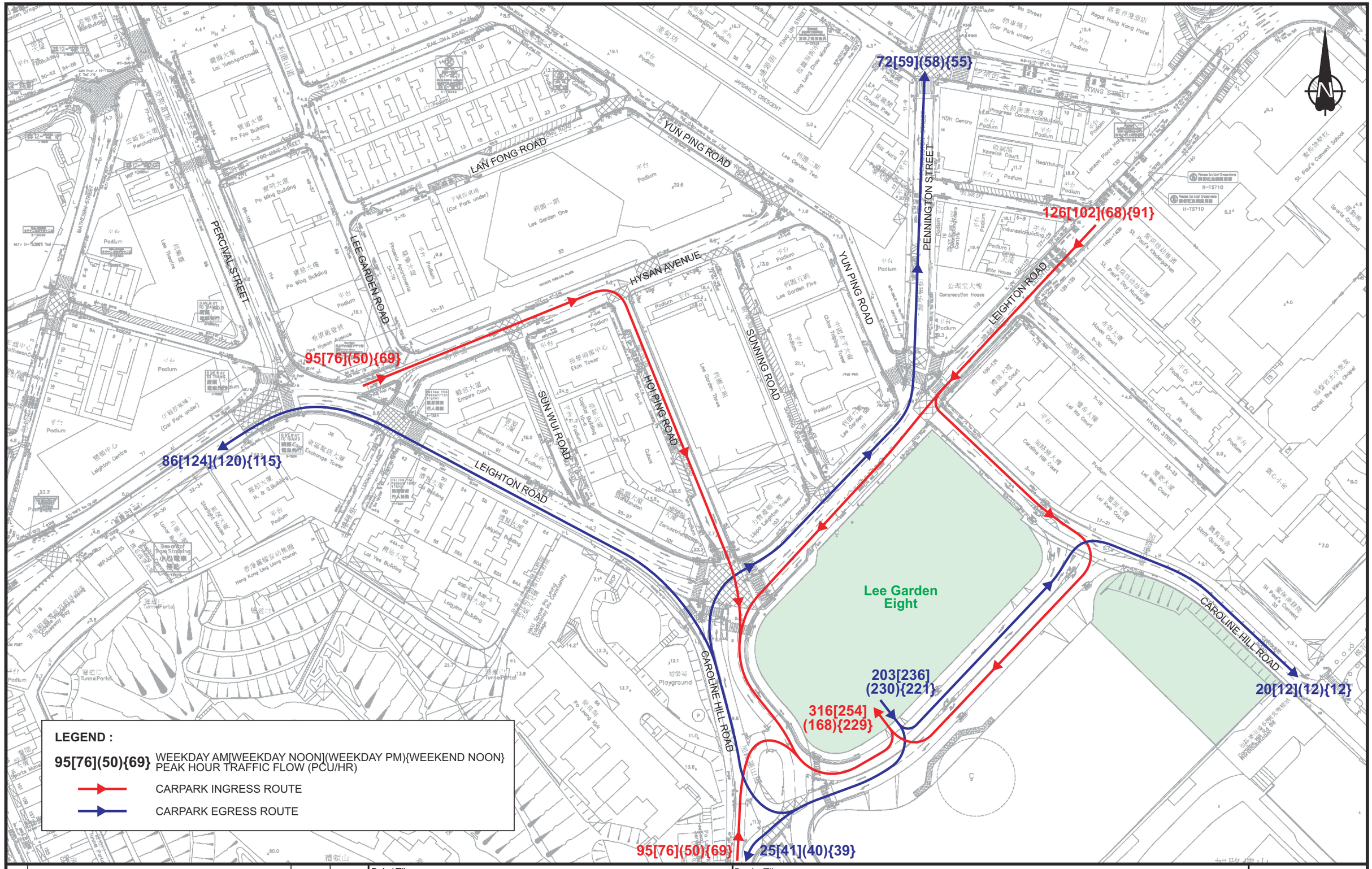
PLANNED FUTURE DEVELOPMENTS IN THE VICINITY

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	JUN 2026	4.1	-

SYSTRA MVA

CHK50865910/TIA/F41.CDR/LLH/11JUN26

Original Size : A3



Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

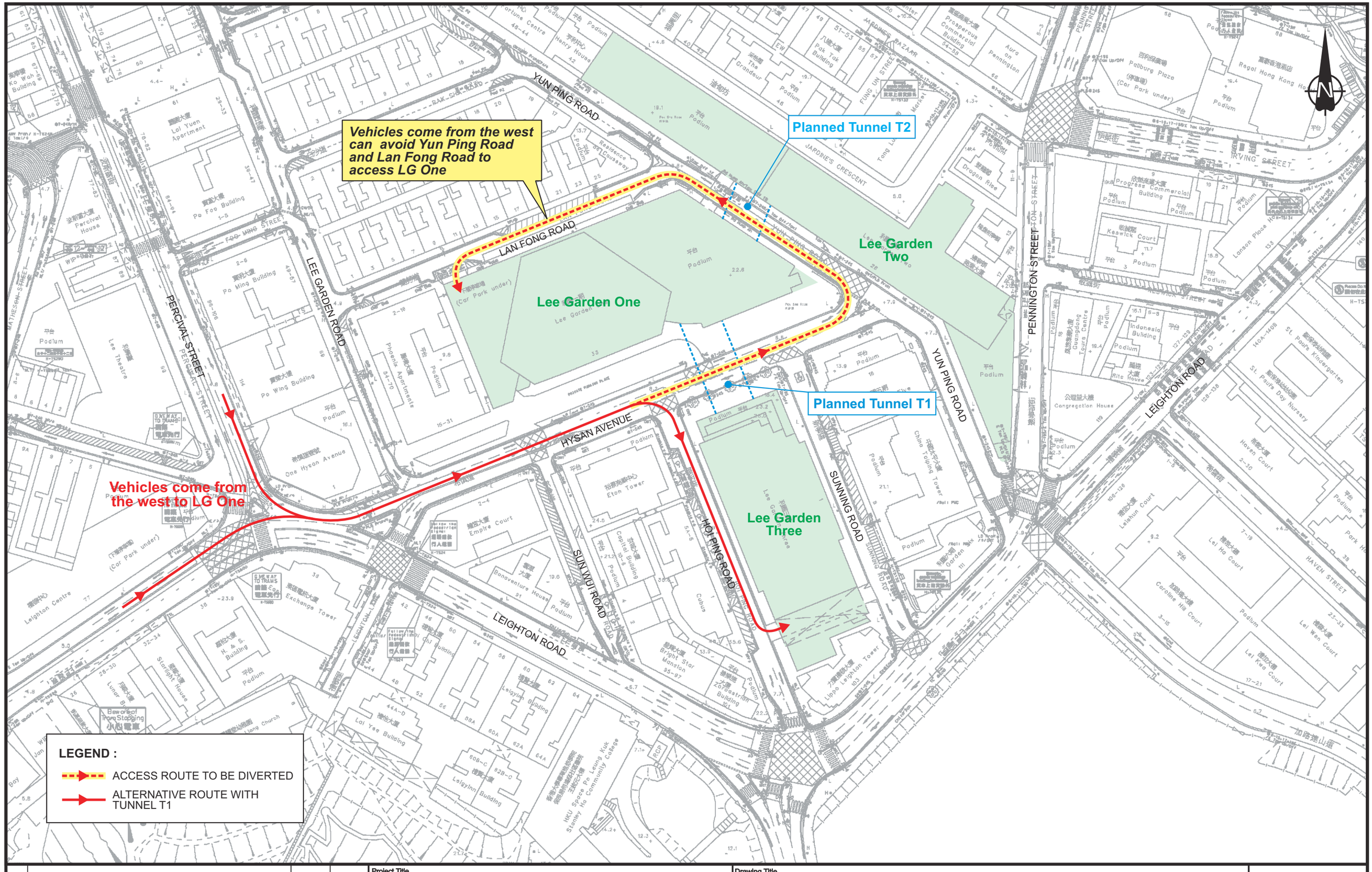
ANTICIPATED CAR PARK RELATED TRAFFIC FLOWS AND PATTERNS OF LEE GARDEN EIGHT

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	4.2	-

SYSTRA MVA

CHK50865910/TIA/F42.CDR/LLH/10APR26

Original Size : A3



Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

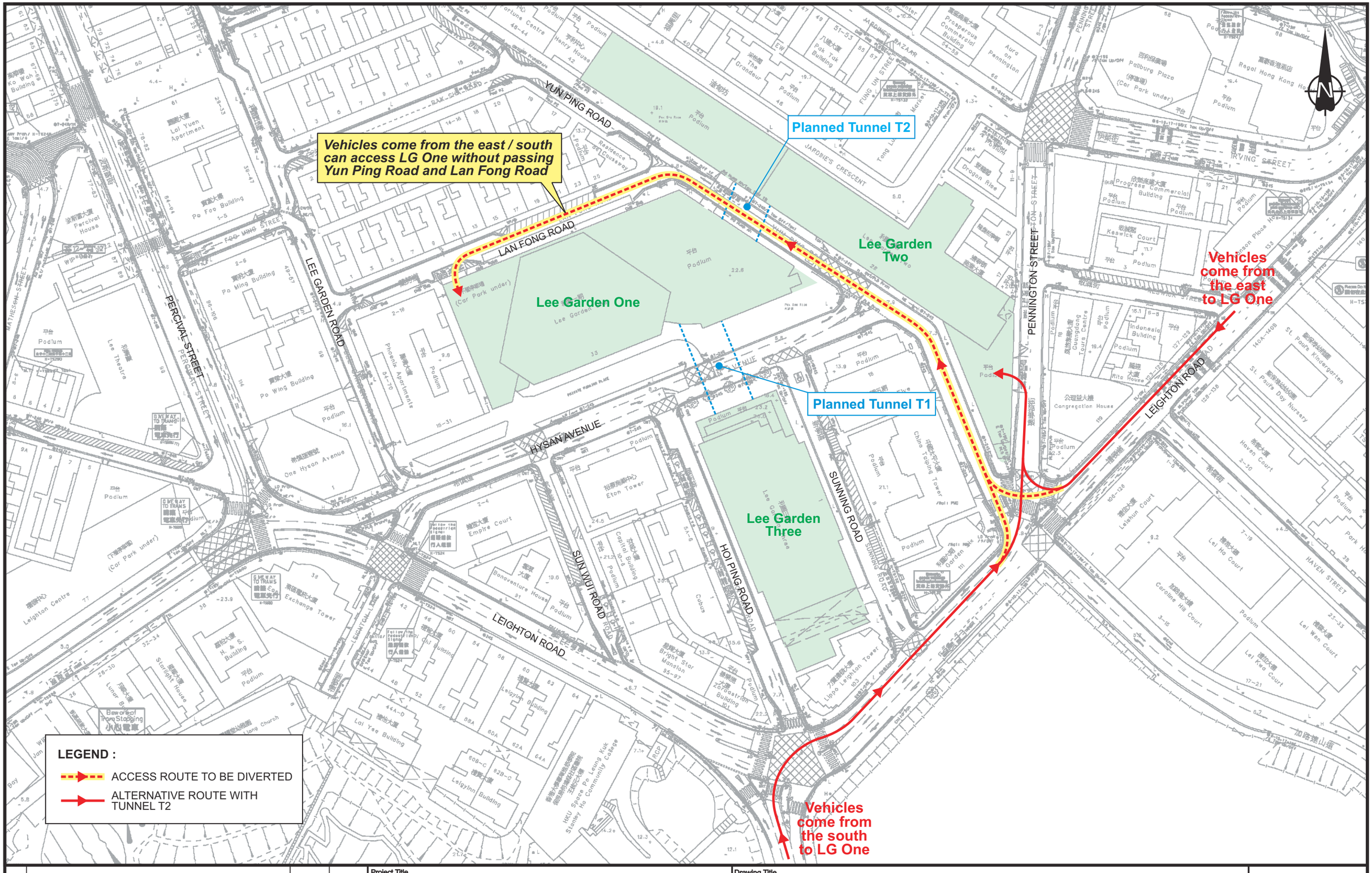
ANTICIPATED TRAFFIC RE-ROUTING DUE TO TUNNELS T1 AND T2 (1 OF 3)

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	4.3	-

SYSTRA MVA

CHK50865910/TIA/F43.CDR/LLH/8APR26

Original Size : A3



Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

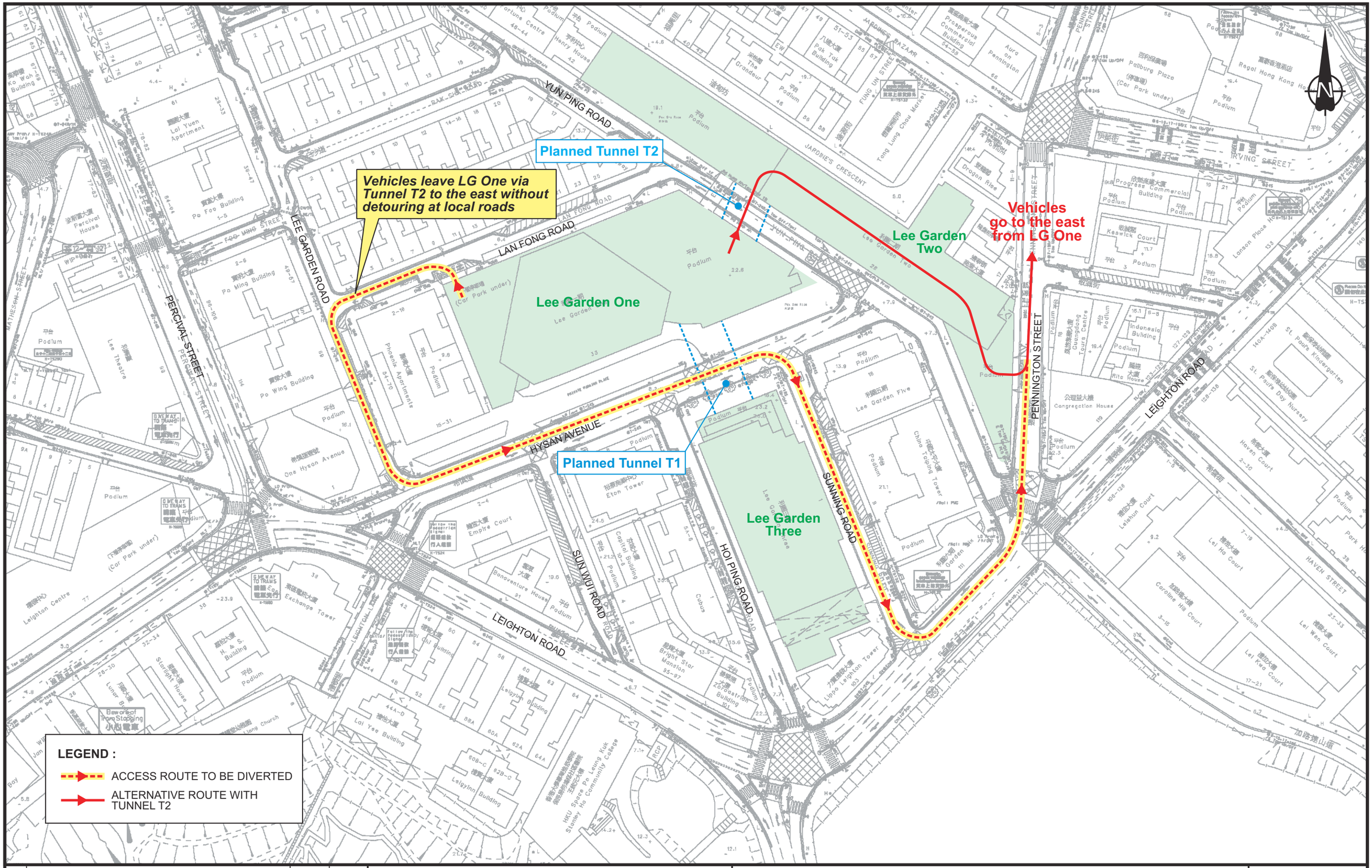
ANTICIPATED TRAFFIC RE-ROUTING DUE TO TUNNELS T1 AND T2 (2 OF 3)

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	4.4	-

SYSTRA MVA

CHK50865910/TIA/F44.CDR/LLH/8APR26

Original Size : A3



Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

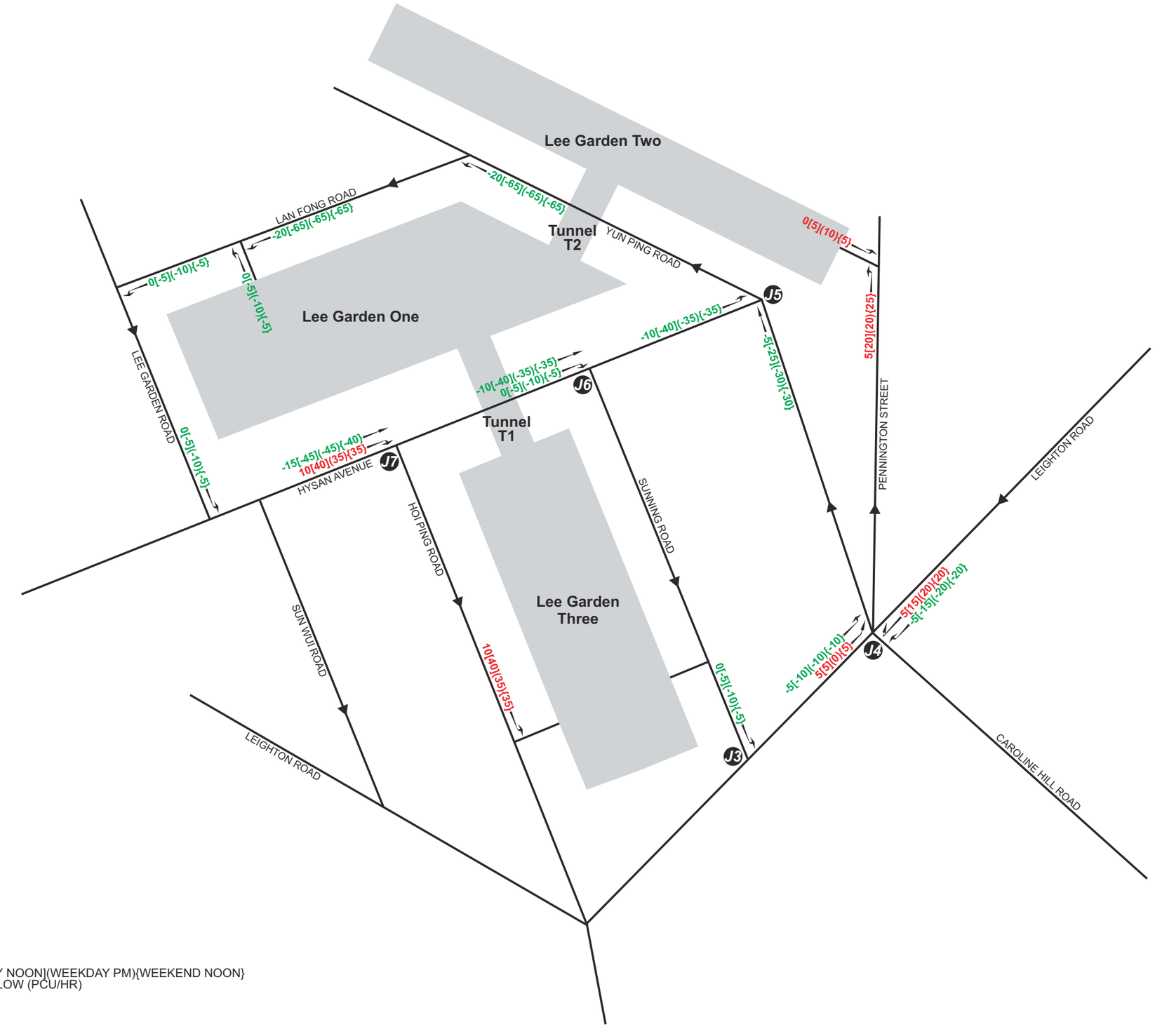
ANTICIPATED TRAFFIC RE-ROUTING DUE TO TUNNELS T1 AND T2 (3 OF 3)

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	4.5	-

SYSTRA MVA

CHK50865910/TIA/F45.CDR/LLH/8APR26

Original Size : A3



LEGEND :

5[15](20){20} WEEKDAY AM[WEEKDAY NOON](WEEKDAY PM){WEEKEND NOON}
PEAK HOUR TRAFFIC FLOW (PCU/HR)

Rev.	Description	Checked	Date
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Project Title

SECTION 16 PLANNING APPLICATION OF
PROPOSED UNDERGROUND VEHICULAR TUNNEL T3
(CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT)
- TRAFFIC IMPACT ASSESSMENT

Drawing Title

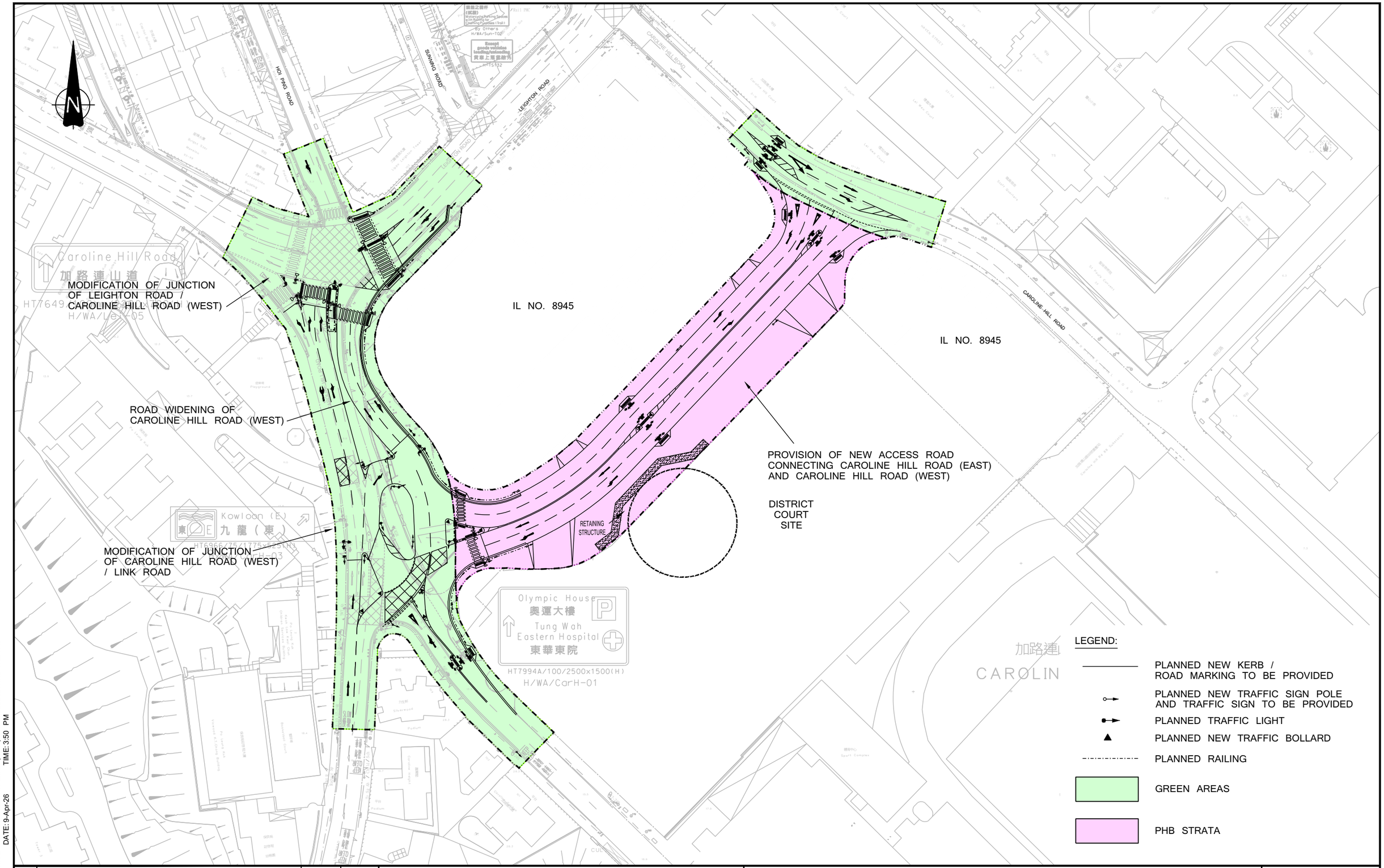
NET DIFFERENCES IN TRAFFIC FLOWS DUE TO TUNNELS T1 AND T2

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	4.6	-

SYSTRA MVA

CHK50865910/TIA/F46.CDR/LLH/13APR26

Original Size : A3



Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

PLANNED ROAD IMPROVEMENT SCHEME

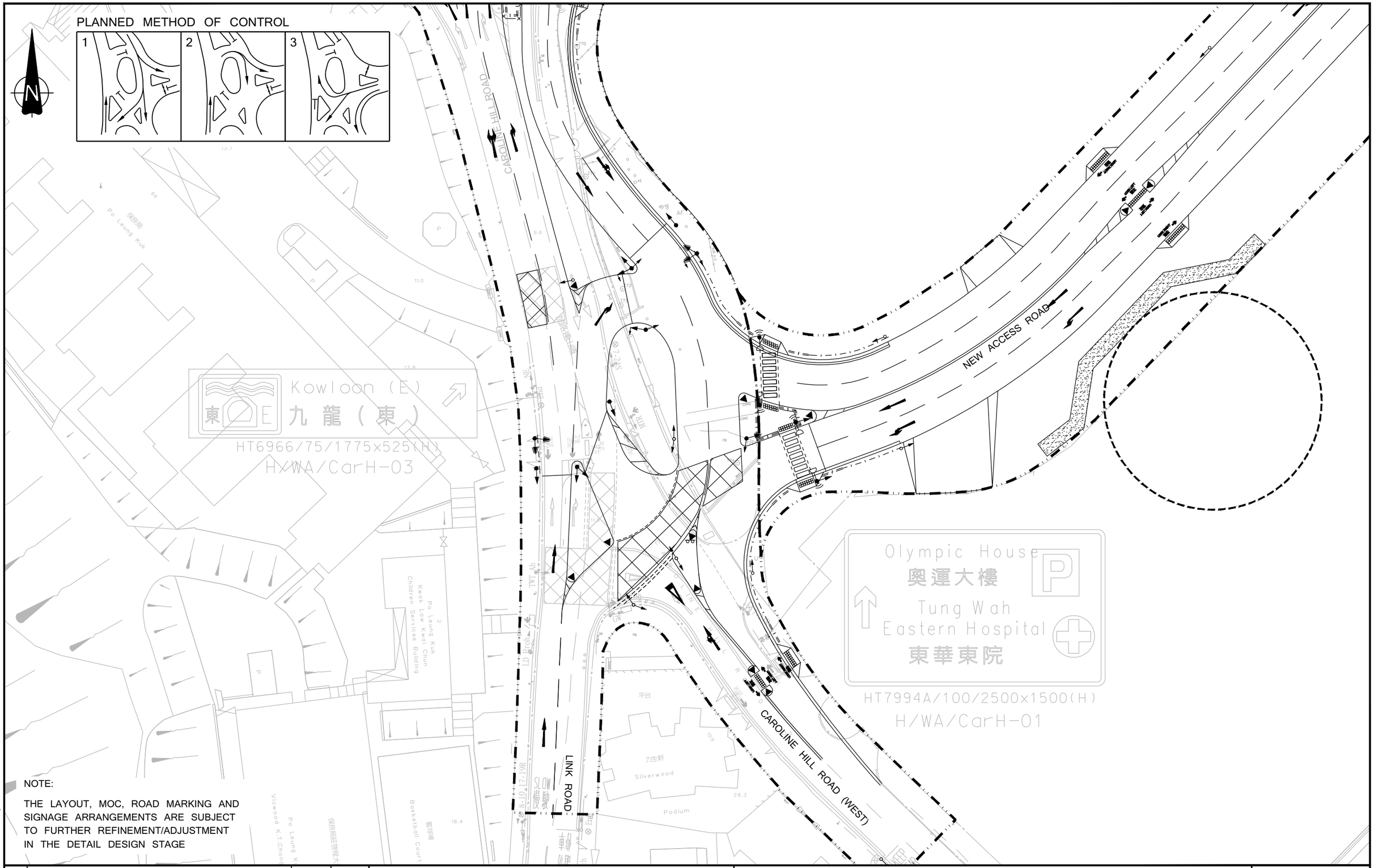
Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	TCW	1:1000(A3)	APR 2026	4.7	-

SYSTRA MVA

Original Size : A3

FILENAME: D:\ONEDRIVE - SYSTRAGROUP\JOBS(NEW)\CHK50865910\TIA\F47.DWG
PRINTED BY: CCHAN DATE: 9-Apr-26 TIME: 3:50 PM

PLANNED METHOD OF CONTROL



NOTE:

THE LAYOUT, MOC, ROAD MARKING AND SIGNAGE ARRANGEMENTS ARE SUBJECT TO FURTHER REFINEMENT/ADJUSTMENT IN THE DETAIL DESIGN STAGE

Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

PLANNED JUNCTION LAYOUT OF CAROLINE HILL ROAD (WEST) / LINK ROAD (J1)

Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	TCW	1:500(A3)	APR 2026	**4.8**	-

SYSTRA MVA

Original Size : A3

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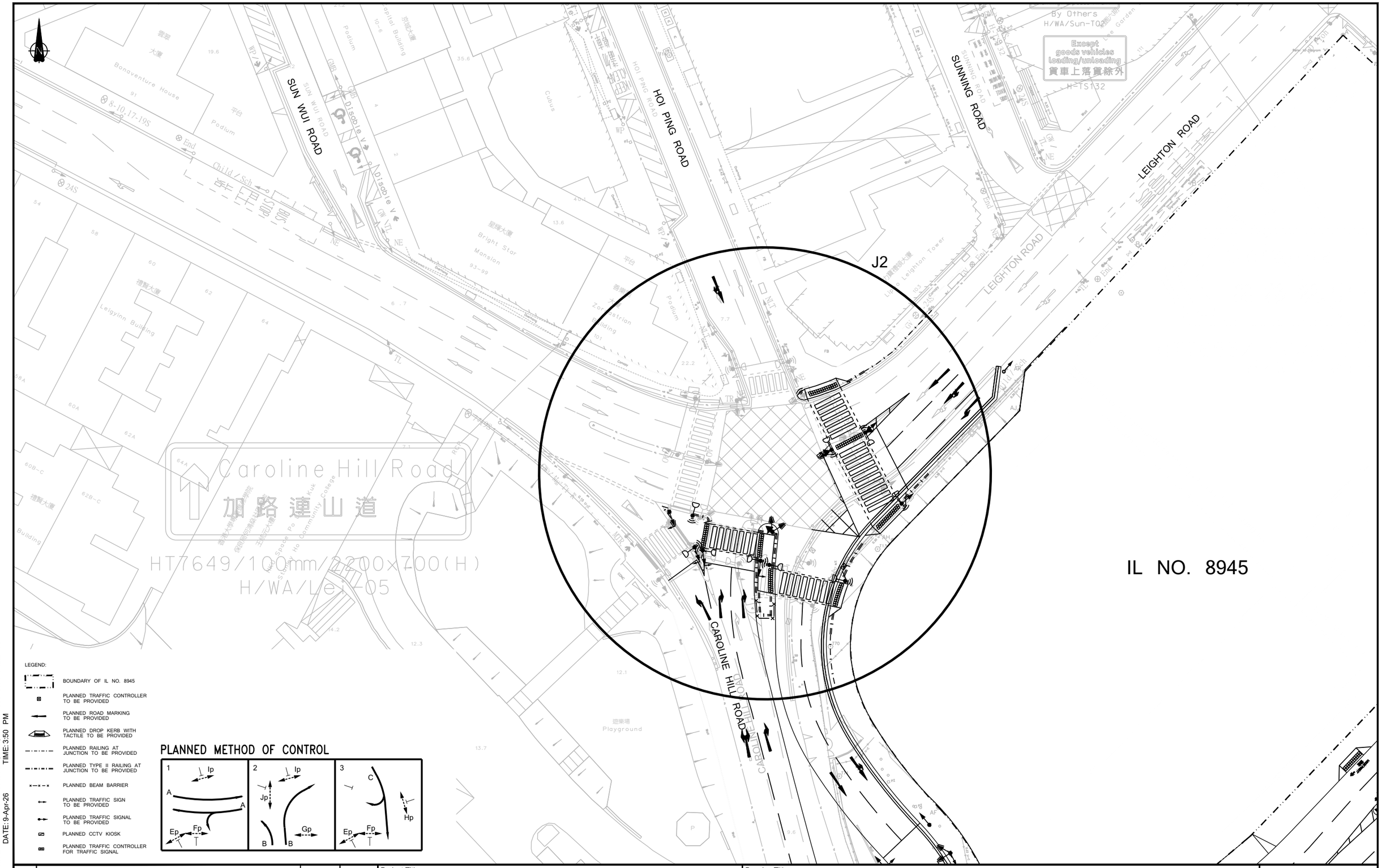
PRINTED BY: CCHAN DATE:9-Apr-26 TIME:3:50 PM



LEGEND:

- BOUNDARY OF IL NO. 8945
- PLANNED TRAFFIC CONTROLLER TO BE PROVIDED
- PLANNED ROAD MARKING TO BE PROVIDED
- PLANNED DROP KERB WITH TACTILE TO BE PROVIDED
- PLANNED RAILING AT JUNCTION TO BE PROVIDED
- PLANNED TYPE II RAILING AT JUNCTION TO BE PROVIDED
- PLANNED BEAM BARRIER
- PLANNED TRAFFIC SIGN TO BE PROVIDED
- PLANNED TRAFFIC SIGNAL TO BE PROVIDED
- PLANNED CCTV KIOSK
- PLANNED TRAFFIC CONTROLLER FOR TRAFFIC SIGNAL

PLANNED METHOD OF CONTROL

IL NO. 8945

Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

PLANNED JUNCTION LAYOUT OF LEIGHTON ROAD / CAROLINE HILL ROAD (WEST) / HOI PING ROAD (J2)

Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	TCW	1:500(A3)	APR 2026	**4.9**	-

SYSTRA MVA

Original Size : A1

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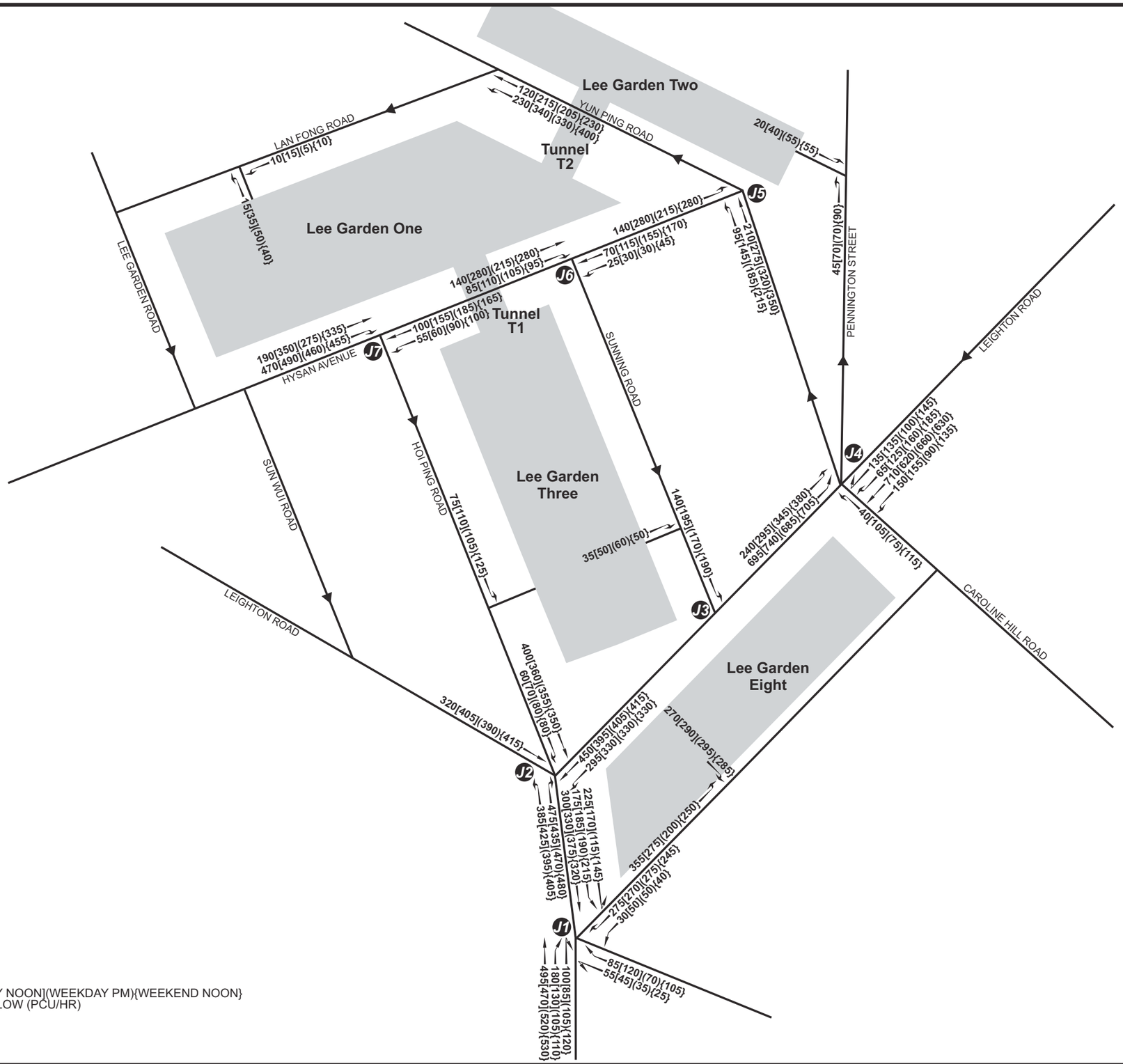
PRINTED BY: CCHAN DATE: 9-Apr-26 TIME: 3:50 PM



LEGEND :

70[115](155){170} WEEKDAY AM[WEEKDAY NOON](WEEKDAY PM){WEEKEND NOON}
PEAK HOUR TRAFFIC FLOW (PCU/HR)

Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

SECTION 16 PLANNING APPLICATION OF
PROPOSED UNDERGROUND VEHICULAR TUNNEL T3
(CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT)
- TRAFFIC IMPACT ASSESSMENT

Drawing Title

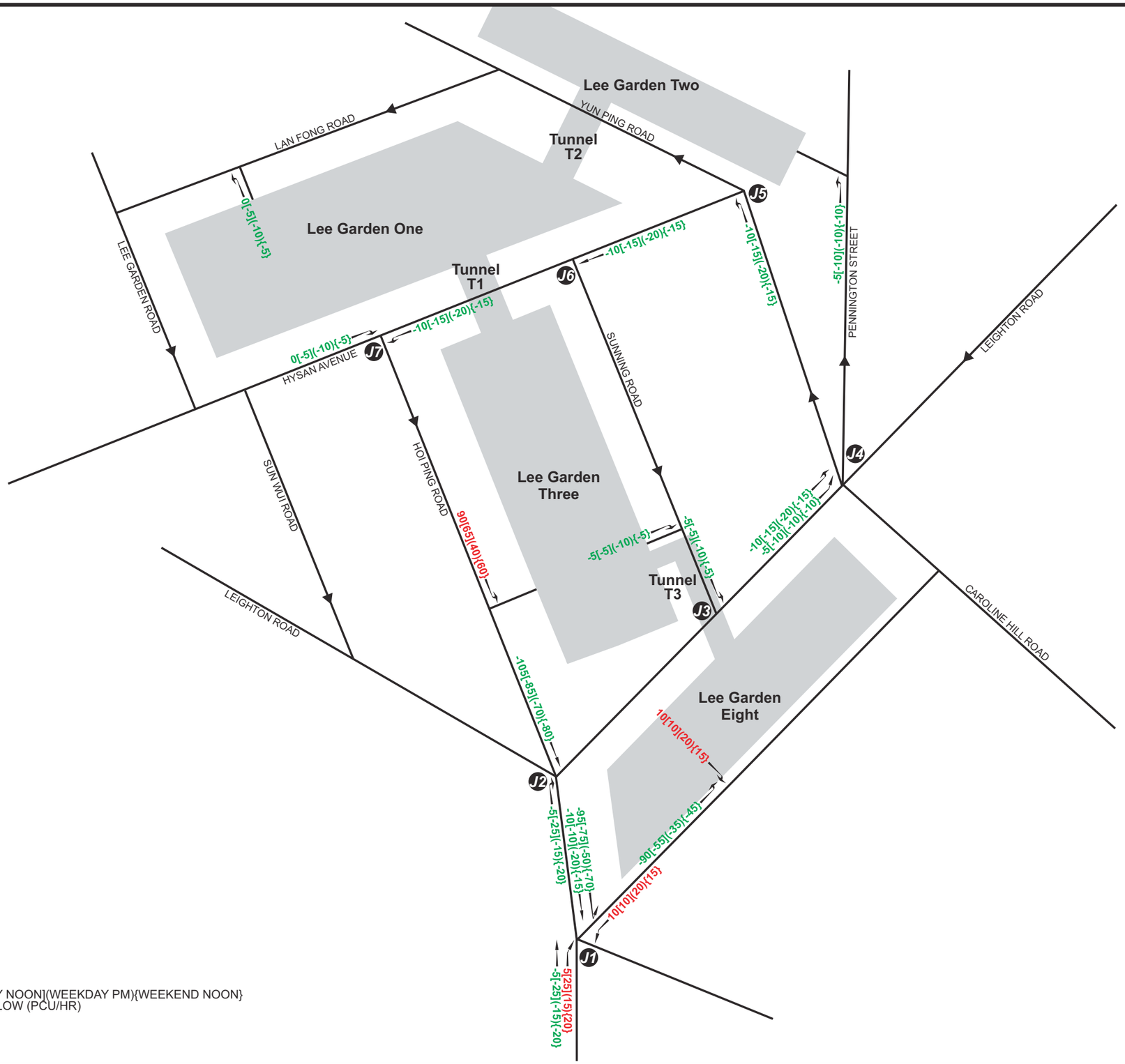
YEAR 2036 REFERENCE TRAFFIC FLOWS

Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	CHC	NTS	JUL 2026	4.10	-

SYSTRA MVA

CHK50865910/TIA/F410.CDR/LLH/16JUL26

Original Size : A3



LEGEND :

-10[-15](-20){-15} WEEKDAY AM[WEEKDAY NOON](WEEKDAY PM){WEEKEND NOON}
PEAK HOUR TRAFFIC FLOW (PCU/HR)

Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

SECTION 16 PLANNING APPLICATION OF
PROPOSED UNDERGROUND VEHICULAR TUNNEL T3
(CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT)
- TRAFFIC IMPACT ASSESSMENT

Drawing Title

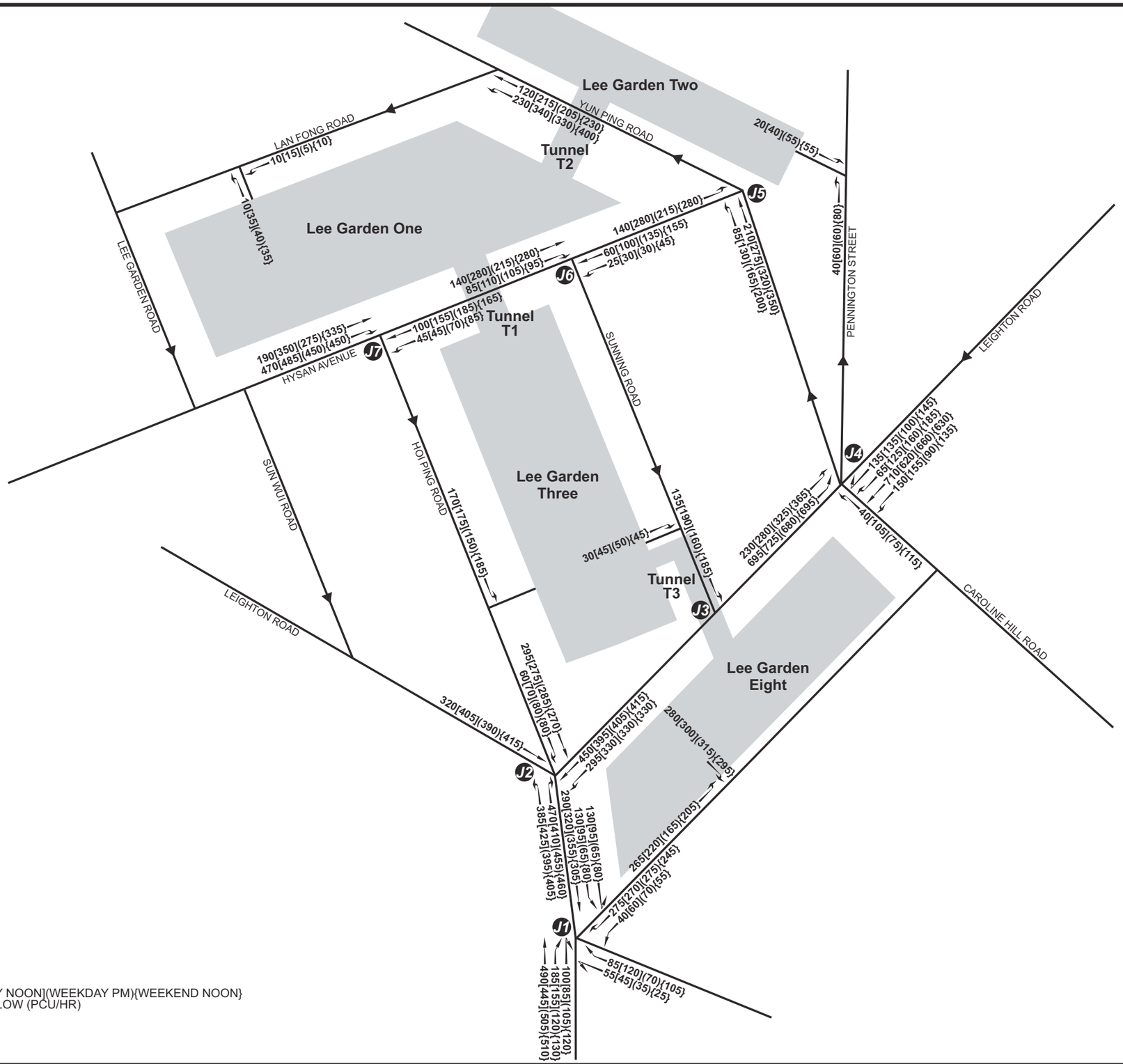
NET DIFFERENCES IN TRAFFIC FLOWS DUE TO TUNNELS T3

Designed	Checked	Scale	Date	Drawing No.	Rev.
CNM	CHC	NTS	APR 2026	4.11	-

SYSTRA MVA

CHK50865910/TIA/F411.CDR/LLH/8APR26

Original Size : A3



LEGEND :

60[100](135){155} WEEKDAY AM[WEEKDAY NOON](WEEKDAY PM){WEEKEND NOON}
PEAK HOUR TRAFFIC FLOW (PCU/HR)

Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

SECTION 16 PLANNING APPLICATION OF
PROPOSED UNDERGROUND VEHICULAR TUNNEL T3
(CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT)
- TRAFFIC IMPACT ASSESSMENT

Drawing Title

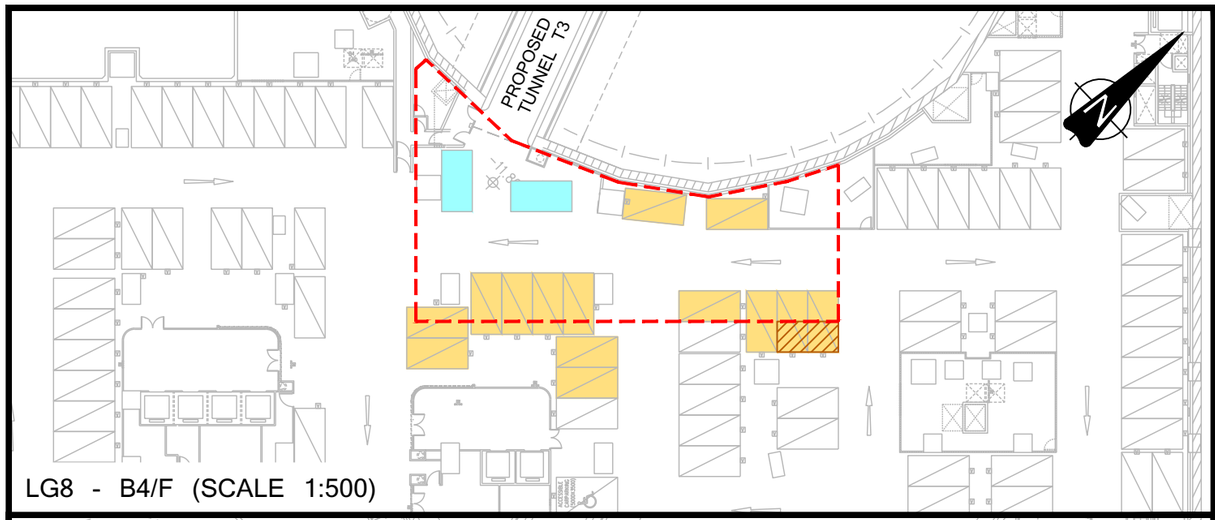
YEAR 2036 DESIGN TRAFFIC FLOWS

Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	CHC	NTS	JUL 2026	4.12	-

SYSTRA MVA

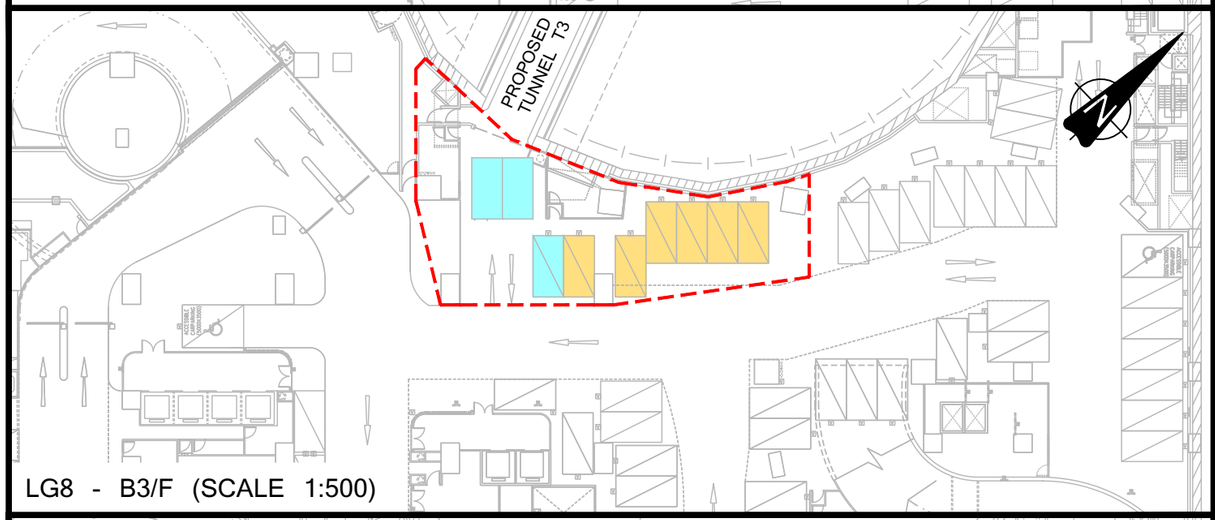
CHK50865910/TIA/F412.CDR/LLH/16JUL26

Original Size : A3



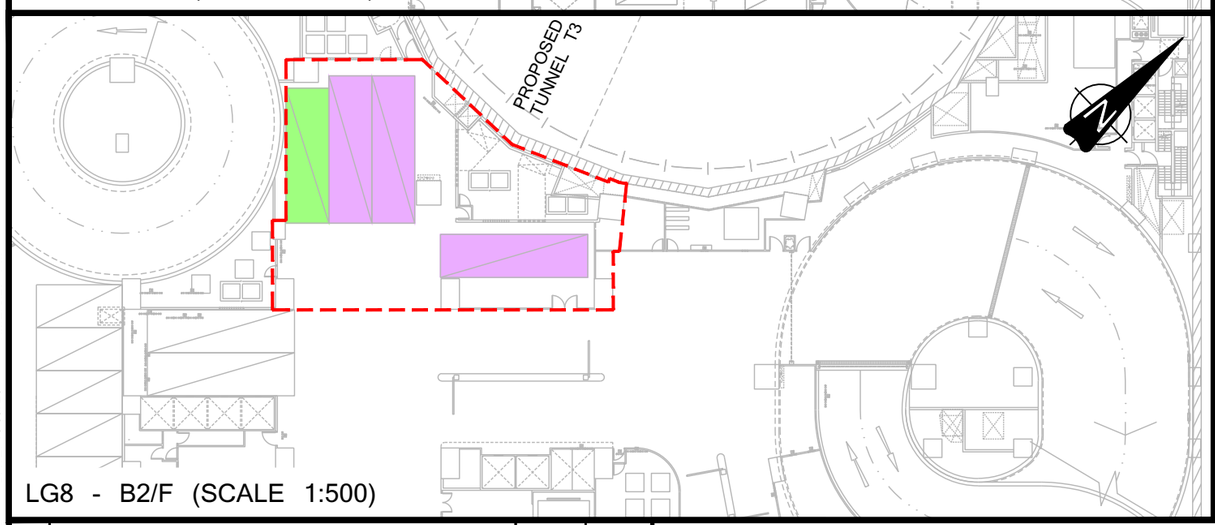
LG8 - B4/F (SCALE 1:500)

LG3 - B4/F (SCALE 1:250)



LG8 - B3/F (SCALE 1:500)

LG3 - B3/F (SCALE 1:250)



LG8 - B2/F (SCALE 1:500)

LEGEND:

- WORK AREA (INDICATIVE ONLY)
- CAR PARKING SPACE TO BE PERMANENTLY REMOVED
- CAR PARKING SPACE TO BE TEMPORARILY SUSPENDED DURING CONSTRUCTION
- CAR PARKING SPACE TO BE PERMANENTLY RE-PROVIDED
- CAR PARKING SPACE TO BE TEMPORARILY RE-PROVIDED DURING CONSTRUCTION
- PUBLIC MGV / HGV PARKING SPACE TO BE TEMPORARILY RELOCATED DURING CONSTRUCTION
- PUBLIC COACH PARKING SPACE TO BE TEMPORARILY RELOCATED DURING CONSTRUCTION

NOTE:
EXTENT OF WORK AREA AND AFFECTED PARKING SPACES ARE SUBJECT TO FURTHER REVIEW AT DETAILED DESIGN STAGE.

Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

SECTION 16 PLANNING APPLICATION OF
PROPOSED UNDERGROUND VEHICULAR TUNNEL T3
(CONNECTION LEE GARDEN THREE AND LEE GARDEN EIGHT)
- TRAFFIC IMPACT ASSESSMENT

Drawing Title

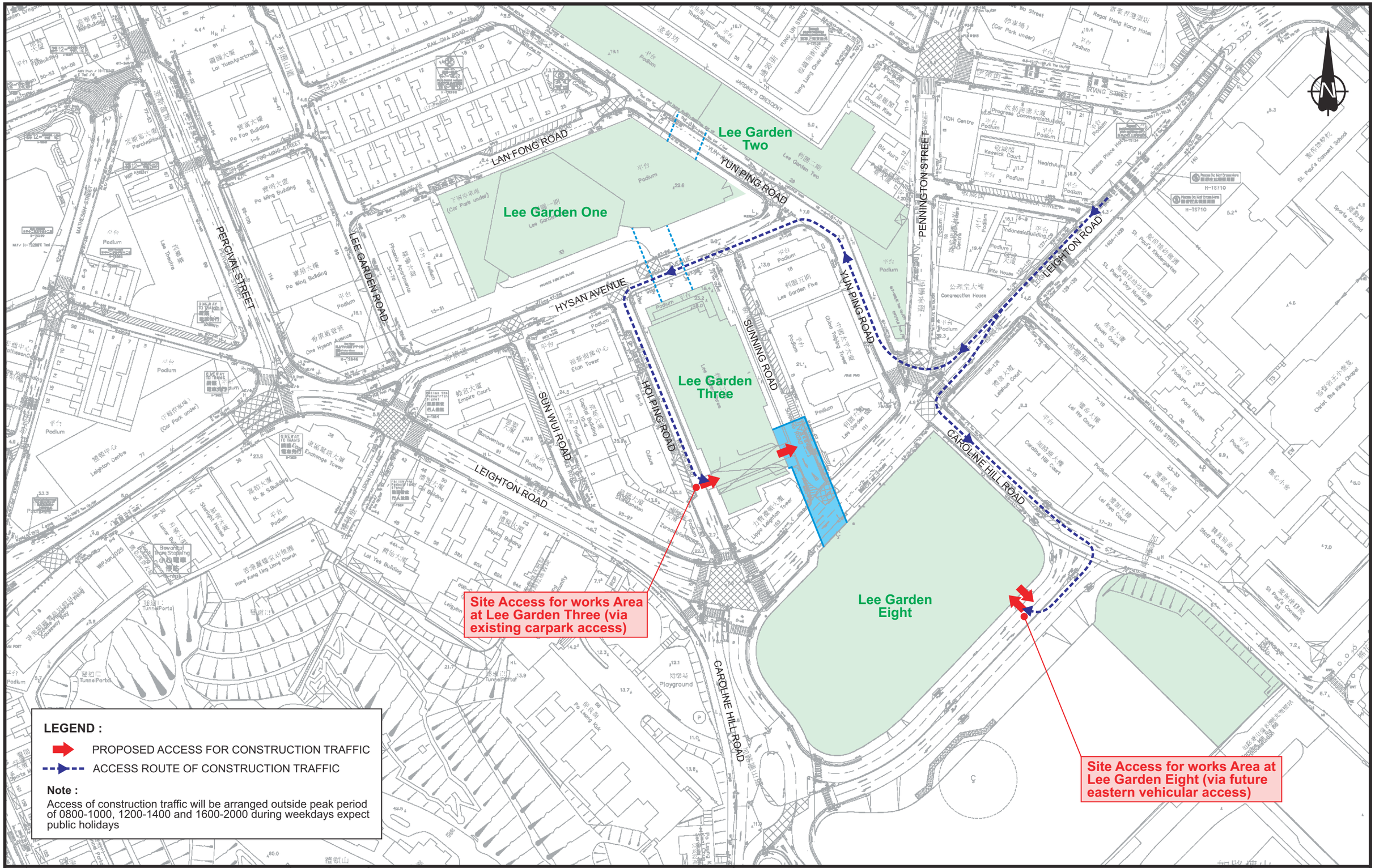
INDICATIVE WORKS AREA FOR TUNNEL CONSTRUCTION AT LEE GARDEN EIGHT AND LEE GARDEN THREE

Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	TCW	As Shown(A3)	JUL 2026	7.1	-

SYSTRA MVA

Original Size : A3

FILENAME: C:\USERS\LKWONG\ONEDRIVE - SYSTRAGROUP\WORKING\20260716\CHK50865910\TIA\F71.DWG
PRINTED BY: LKWONG DATE: 16-Jul-26 TIME:5:27 PM



Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

SECTION 16 PLANNING APPLICATION OF PROPOSED UNDERGROUND VEHICULAR TUNNEL T3 (CONNECTING LEE GARDEN THREE AND LEE GARDEN EIGHT) - TRAFFIC IMPACT ASSESSMENT

Drawing Title

PROPOSED ACCESS ARRANGEMENT OF CONSTRUCTION TRAFFIC

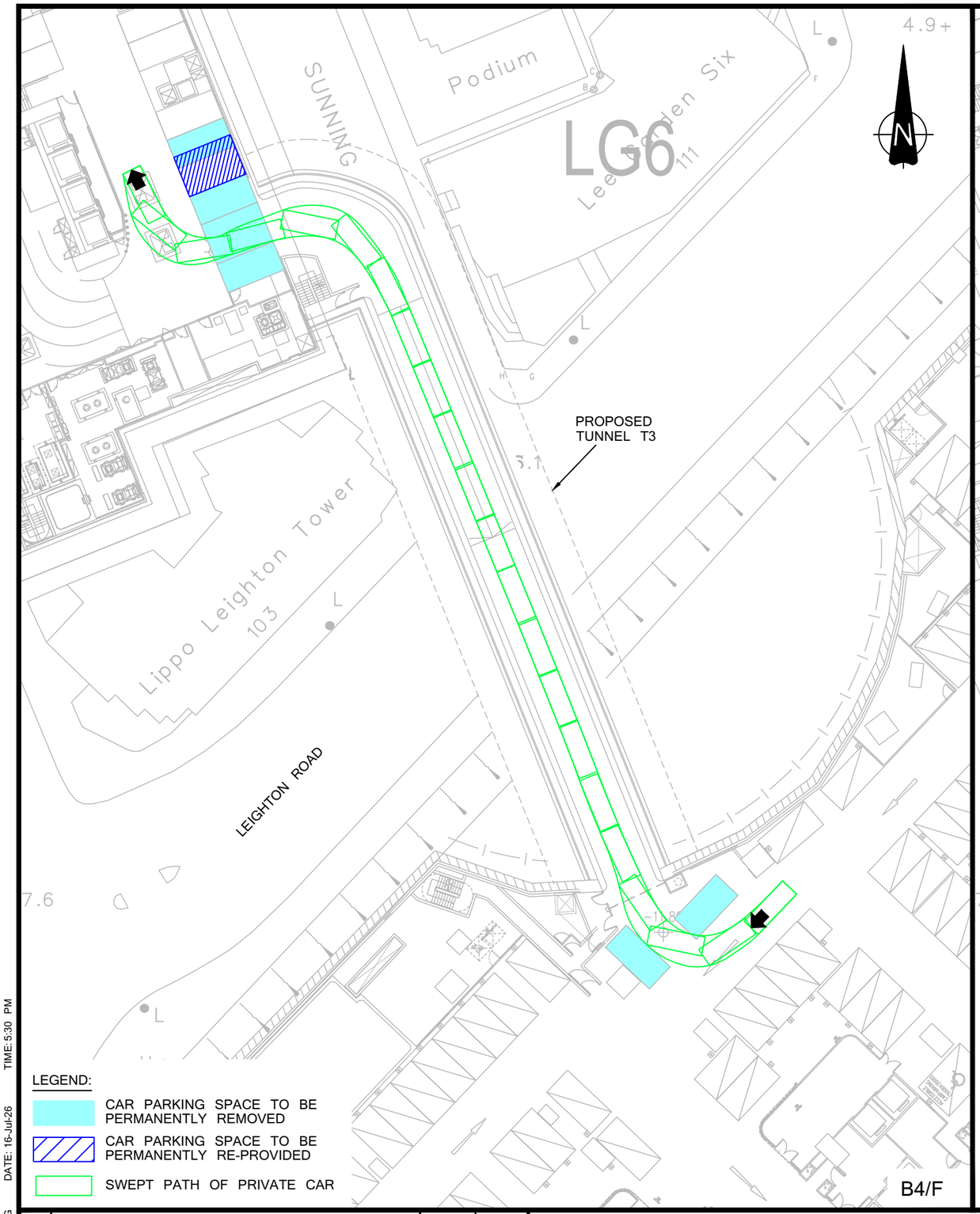
Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	CHC	NTS	JUL 2026	7.2	-

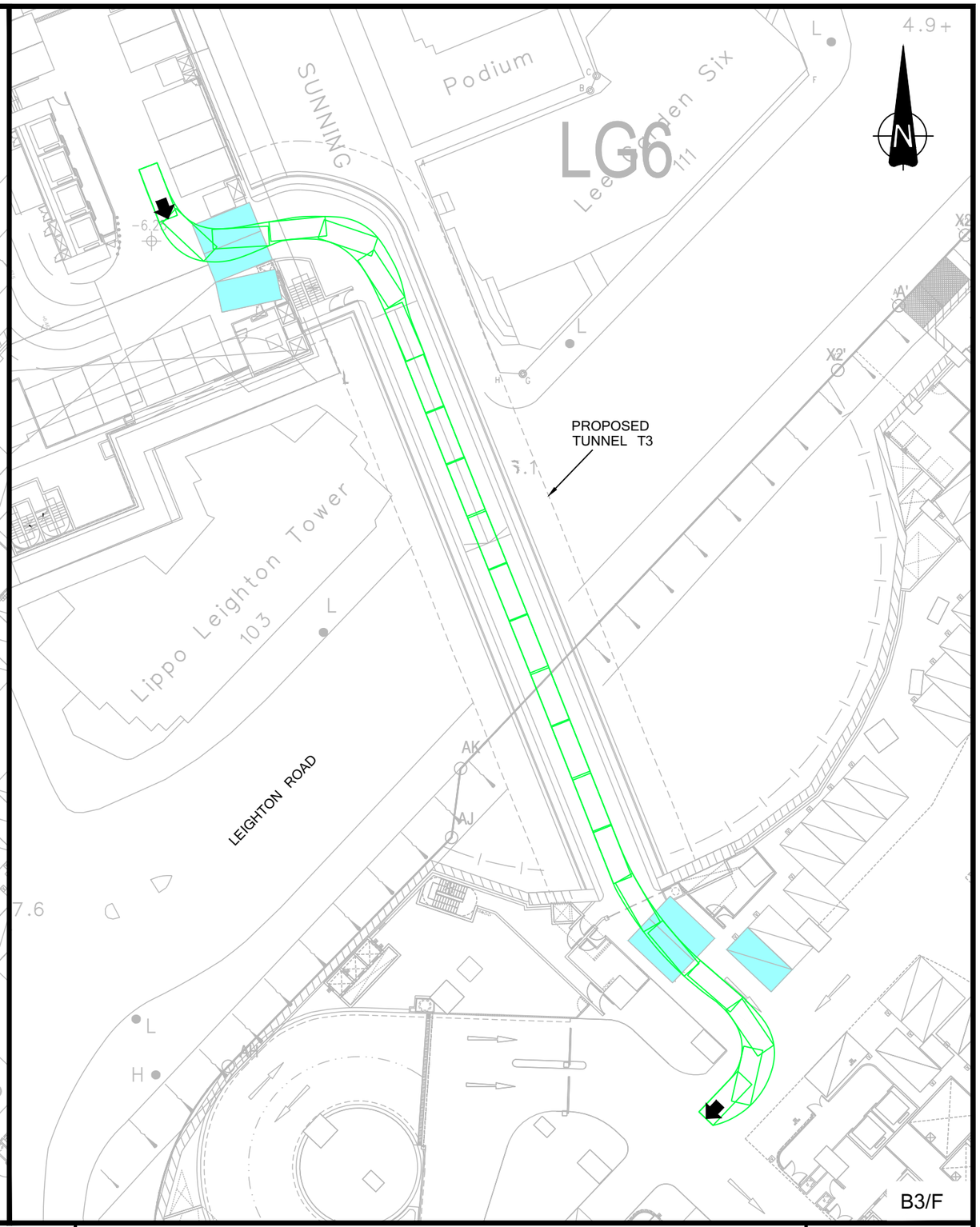
SYSTRA MVA

CHK50865910/TIA/F72.CDR/LLH/16JUL26

Original Size : A3

APPENDIX A – Swept Path Analysis





LEGEND:

- CAR PARKING SPACE TO BE PERMANENTLY REMOVED
- CAR PARKING SPACE TO BE PERMANENTLY RE-PROVIDED
- SWEPT PATH OF PRIVATE CAR

Rev.	Description	Checked	Date
-	-	-	-
-	-	-	-
-	-	-	-
-	-	-	-

Project Title

SECTION 16 PLANNING APPLICATION OF
PROPOSED UNDERGROUND VEHICULAR TUNNEL T3
(CONNECTION LEE GARDEN THREE AND LEE GARDEN EIGHT)
- TRAFFIC IMPACT ASSESSMENT

Drawing Title

SWEPT PATH AT BASEMENT LEVEL 3 AND 4 WITH TUNNEL T3

Designed	Checked	Scale	Date	Drawing No.	Rev.
MHC	TCW	1:500 (A3)	JUL 2026	A1	-

SYSTRA MVA

Original Size : A3

FILENAME: C:\USERS\LKWONG\ONEDRIVE - SYSTRAGROUP\WORKING\20260716\CHK5086591 0\TIAVA1.DWG
PRINTED BY: LKWONG DATE: 16-Jul-26 TIME: 5:30 PM

APPENDIX B – Junction Calculation Worksheets

Year 2025 Observe

Generated on 17/12/2025 3:07:30 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J1 link chr - AM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J1
Report generation date: 17/12/2025 3:07:08 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.5	2.6	12.94	0.36	B	2.04	A	50 % [Stream B-AC]
Stream C-B	0.2	0.7	6.94	0.18	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.04	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	50	Stream B-AC	2.04	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	9.40		✓	3.90	100.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.00	100	20

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	572	0.089	0.224	0.141	0.320
B-C	700	0.091	0.231	-	-
C-B	749	0.247	0.247	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	440	100.000
B		ONE HOUR	✓	140	100.000
C		ONE HOUR	✓	650	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	145	295
	B	85	0	55
	C	550	100	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.36	12.94	0.5	2.6	B	128	193
C-A						505	757
C-B	0.18	6.94	0.2	0.7	A	92	138
A-B						133	200
A-C						271	406

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	26	493	0.214	104	0.0	0.3	9.236	A
C-A	414	104			414				
C-B	75	19	667	0.113	75	0.0	0.1	6.074	A
A-B	109	27			109				
A-C	222	56			222				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	31	468	0.269	125	0.3	0.4	10.501	B
C-A	494	124			494				
C-B	90	22	651	0.138	90	0.1	0.2	6.412	A
A-B	130	33			130				
A-C	265	66			265				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	154	39	432	0.356	153	0.4	0.5	12.869	B
C-A	606	151			606				
C-B	110	28	629	0.175	110	0.2	0.2	6.931	A
A-B	160	40			160				
A-C	325	81			325				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	154	39	432	0.357	154	0.5	0.5	12.935	B
C-A	606	151			606				
C-B	110	28	629	0.175	110	0.2	0.2	6.936	A
A-B	160	40			160				
A-C	325	81			325				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	31	468	0.269	127	0.5	0.4	10.570	B
C-A	494	124			494				
C-B	90	22	651	0.138	90	0.2	0.2	6.422	A
A-B	130	33			130				
A-C	265	66			265				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	26	493	0.214	106	0.4	0.3	9.310	A
C-A	414	104			414				
C-B	75	19	667	0.113	75	0.2	0.1	6.089	A
A-B	109	27			109				
A-C	222	56			222				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C-B	0.13	0.00	0.00	0.13	0.13			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.36	0.00	0.00	0.36	0.36			N/A	N/A
C-B	0.16	0.00	0.00	0.16	0.16			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.54	0.03	0.26	0.54	0.54			N/A	N/A
C-B	0.21	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.55	0.03	0.30	1.38	2.57			N/A	N/A
C-B	0.21	0.03	0.27	0.48	0.68			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.37	0.00	0.00	0.37	0.37			N/A	N/A
C-B	0.16	0.00	0.00	0.16	0.16			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.28	0.03	0.25	0.45	0.48			N/A	N/A
C-B	0.13	0.00	0.00	0.13	0.13			N/A	N/A

Generated on 17/12/2025 3:07:51 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J1 link chr - NN.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J1
Report generation date: 17/12/2025 3:07:44 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.8	3.5	15.80	0.44	C	2.56	A	33 % [Stream B-AC]
Stream C-B	0.2	0.5	6.90	0.15	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.56	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	33	Stream B-AC	2.56	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	9.40		✓	3.90	100.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.00	100	20

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	572	0.089	0.224	0.141	0.320
B-C	700	0.091	0.231	-	-
C-B	749	0.247	0.247	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	490	100.000
B		ONE HOUR	✓	165	100.000
C		ONE HOUR	✓	590	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	160	330
	B	120	0	45
	C	505	85	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.44	15.80	0.8	3.5	C	151	227
C-A						463	695
C-B	0.15	6.90	0.2	0.5	A	78	117
A-B						147	220
A-C						303	454

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	124	31	472	0.263	123	0.0	0.4	10.269	B
C-A	380	95			380				
C-B	64	16	658	0.097	64	0.0	0.1	6.056	A
A-B	120	30			120				
A-C	248	62			248				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	148	37	446	0.333	148	0.4	0.5	12.050	B
C-A	454	113			454				
C-B	76	19	640	0.119	76	0.1	0.1	6.385	A
A-B	144	36			144				
A-C	297	74			297				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	182	45	410	0.444	181	0.5	0.8	15.638	C
C-A	556	139			556				
C-B	94	23	615	0.152	93	0.1	0.2	6.895	A
A-B	176	44			176				
A-C	363	91			363				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	182	45	409	0.444	182	0.8	0.8	15.795	C
C-A	556	139			556				
C-B	94	23	615	0.152	94	0.2	0.2	6.897	A
A-B	176	44			176				
A-C	363	91			363				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	148	37	446	0.333	149	0.8	0.5	12.191	B
C-A	454	113			454				
C-B	76	19	640	0.119	77	0.2	0.1	6.394	A
A-B	144	36			144				
A-C	297	74			297				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	124	31	472	0.263	125	0.5	0.4	10.389	B
C-A	380	95			380				
C-B	64	16	658	0.097	64	0.1	0.1	6.068	A
A-B	120	30			120				
A-C	248	62			248				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.35	0.00	0.00	0.35	0.35			N/A	N/A
C-B	0.11	0.00	0.00	0.11	0.11			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.49	0.00	0.00	0.49	0.49			N/A	N/A
C-B	0.13	0.00	0.00	0.13	0.13			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.77	0.03	0.26	0.77	0.77			N/A	N/A
C-B	0.18	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.79	0.03	0.29	1.28	3.48			N/A	N/A
C-B	0.18	0.03	0.25	0.45	0.48			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.51	0.05	0.47	1.29	1.39			N/A	N/A
C-B	0.14	0.00	0.00	0.14	0.14			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.36	0.03	0.30	0.93	1.22			N/A	N/A
C-B	0.11	0.00	0.00	0.11	0.11			N/A	N/A

Generated on 17/12/2025 3:08:04 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J1 link chr - PM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J1
Report generation date: 17/12/2025 3:07:59 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.4	1.7	12.85	0.29	B	1.63	A	51 % [Stream B-AC]
Stream C-B	0.2	1.1	7.38	0.19	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		1.63	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	51	Stream B-AC	1.63	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	9.40		✓	3.90	100.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.00	100	20

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	572	0.089	0.224	0.141	0.320
B-C	700	0.091	0.231	-	-
C-B	749	0.247	0.247	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	535	100.000
B		ONE HOUR	✓	105	100.000
C		ONE HOUR	✓	665	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	165	370
	B	70	0	35
	C	560	105	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.29	12.85	0.4	1.7	B	96	145
C-A						514	771
C-B	0.19	7.38	0.2	1.1	A	96	145
A-B						151	227
A-C						340	509

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	79	20	466	0.170	78	0.0	0.2	9.267	A
C-A	422	105			422				
C-B	79	20	649	0.122	78	0.0	0.1	6.303	A
A-B	124	31			124				
A-C	279	70			279				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	94	24	437	0.216	94	0.2	0.3	10.498	B
C-A	503	126			503				
C-B	94	24	630	0.150	94	0.1	0.2	6.719	A
A-B	148	37			148				
A-C	333	83			333				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	116	29	396	0.292	115	0.3	0.4	12.800	B
C-A	617	154			617				
C-B	116	29	603	0.192	115	0.2	0.2	7.376	A
A-B	182	45			182				
A-C	407	102			407				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	116	29	396	0.292	116	0.4	0.4	12.848	B
C-A	617	154			617				
C-B	116	29	603	0.192	116	0.2	0.2	7.382	A
A-B	182	45			182				
A-C	407	102			407				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	94	24	437	0.216	95	0.4	0.3	10.552	B
C-A	503	126			503				
C-B	94	24	630	0.150	95	0.2	0.2	6.727	A
A-B	148	37			148				
A-C	333	83			333				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	79	20	466	0.170	79	0.3	0.2	9.324	A
C-A	422	105			422				
C-B	79	20	649	0.122	79	0.2	0.1	6.319	A
A-B	124	31			124				
A-C	279	70			279				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.20	0.00	0.00	0.20	0.20			N/A	N/A
C-B	0.14	0.00	0.00	0.14	0.14			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C-B	0.17	0.00	0.00	0.17	0.17			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.40	0.03	0.26	0.46	0.49			N/A	N/A
C-B	0.23	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.41	0.03	0.31	1.31	1.65			N/A	N/A
C-B	0.24	0.03	0.28	0.63	1.07			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.28	0.00	0.00	0.28	0.28			N/A	N/A
C-B	0.18	0.00	0.00	0.18	0.18			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.21	0.00	0.00	0.21	0.21			N/A	N/A
C-B	0.14	0.00	0.00	0.14	0.14			N/A	N/A

Generated on 17/12/2025 3:08:17 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J1 link chr - WE.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J1
Report generation date: 17/12/2025 3:08:11 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.6	2.9	15.42	0.38	C	2.21	A	36 % [Stream B-AC]
Stream C-B	0.3	1.3	7.51	0.22	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Two-way	Two-way		2.21	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	36	Stream B-AC	2.21	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	9.40		✓	3.90	100.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	4.00	100	20

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	572	0.089	0.224	0.141	0.320
B-C	700	0.091	0.231	-	-
C-B	749	0.247	0.247	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	505	100.000
B		ONE HOUR	✓	130	100.000
C		ONE HOUR	✓	680	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	190	315
	B	105	0	25
	C	560	120	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.38	15.42	0.6	2.9	C	119	179
C-A						514	771
C-B	0.22	7.51	0.3	1.3	A	110	165
A-B						174	262
A-C						289	434

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	98	24	447	0.219	97	0.0	0.3	10.261	B
C-A	422	105			422				
C-B	90	23	655	0.138	90	0.0	0.2	6.364	A
A-B	143	36			143				
A-C	237	59			237				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	117	29	417	0.280	116	0.3	0.4	11.949	B
C-A	503	126			503				
C-B	108	27	637	0.169	108	0.2	0.2	6.805	A
A-B	171	43			171				
A-C	283	71			283				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	143	36	377	0.380	142	0.4	0.6	15.311	C
C-A	617	154			617				
C-B	132	33	611	0.216	132	0.2	0.3	7.502	A
A-B	209	52			209				
A-C	347	87			347				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	143	36	376	0.380	143	0.6	0.6	15.423	C
C-A	617	154			617				
C-B	132	33	611	0.216	132	0.3	0.3	7.511	A
A-B	209	52			209				
A-C	347	87			347				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	117	29	417	0.280	118	0.6	0.4	12.057	B
C-A	503	126			503				
C-B	108	27	637	0.169	108	0.3	0.2	6.815	A
A-B	171	43			171				
A-C	283	71			283				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	98	24	446	0.219	98	0.4	0.3	10.359	B
C-A	422	105			422				
C-B	90	23	655	0.138	91	0.2	0.2	6.381	A
A-B	143	36			143				
A-C	237	59			237				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.28	0.00	0.00	0.28	0.28			N/A	N/A
C-B	0.16	0.00	0.00	0.16	0.16			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C-B	0.20	0.00	0.00	0.20	0.20			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.60	0.03	0.26	0.60	0.60			N/A	N/A
C-B	0.27	0.03	0.26	0.46	0.48			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.61	0.03	0.30	1.42	2.86			N/A	N/A
C-B	0.27	0.03	0.30	0.96	1.26			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.40	0.03	0.28	0.64	1.07			N/A	N/A
C-B	0.21	0.00	0.00	0.21	0.21			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.28	0.03	0.25	0.45	0.48			N/A	N/A
C-B	0.16	0.00	0.00	0.16	0.16			N/A	N/A

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

Junction: Leighton Road / Caroline Hill Road (West) / Hoi Ping Road (J2) Design Year: 2025

Description: 2025 Observed Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD AM	Pro. Turning (%) WD PM	Revised Saturation Flow (pcu/hr) WD AM	Revised Saturation Flow (pcu/hr) WD PM	WD AM Flow (pcu/hr)	WD AM y Value	WD AM Critical y	WD PM Flow (pcu/hr)	WD PM y Value	WD PM Critical y
Leighton Road	^	A	1	3.500	25			83%	100%	1125	1110	216	0.192	0.192	260	0.234	0.234
WB		A	1	3.000						2055	2055	394	0.192		375	0.182	
Caroline Hill Road		D	2,3	3.500	65					1920	1920	280	0.146		250	0.130	
NB	**	B	2	3.500		20				1665	1665	355	0.213	0.213	380	0.228	0.228
Leighton Road	#	A	1	3.500						1570	1570	135	0.086		165	0.105	
EB		A	1	3.300						2085	2085	180	0.086		220	0.106	
Hoi Ping Road		C	3	3.000						1915	1915	260	0.136	0.136	275	0.144	0.144
SB	*	C	3	3.000		10				715	715	60	0.084		75	0.105	

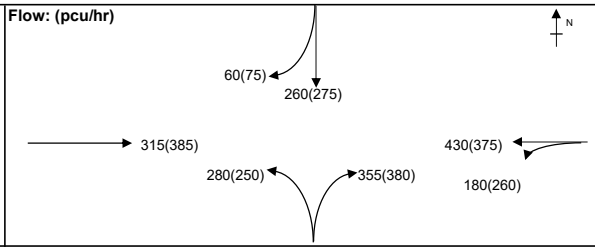
Pedestrian Crossing	Ep	1	MIN GREEN + FLASH =	10	+	5	=	15
	Fp	1,3	MIN GREEN + FLASH =	14	+	5	=	19
	Gp	2	MIN GREEN + FLASH =	14	+	5	=	19
	Hp	3	MIN GREEN + FLASH =	10	+	7	=	17
	Ip	1,2	MIN GREEN + FLASH =	11	+	6	=	17
	Jp	2	MIN GREEN + FLASH =	10	+	7	=	17

Notes:

#N/A
^ = Site Factor of 0.6 adopted due to merging traffic ahead
* = Site Factor of 0.4 adopted due to flare lane
** = Site Factor of 0.85 adopted

= Site Factor of 0.8 adopted

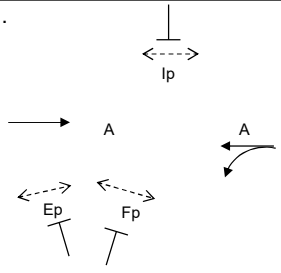
Flow: (pcu/hr)



Group	A,B,Hp	A,B,C	Group	A,B,Hp	A,B,C
y	0.405	0.541	y	0.462	0.606
L (sec)	38	20	L (sec)	38	20
C (sec)	105	105	C (sec)	130	130
y pract.	0.574	0.729	y pract.	0.637	0.762
R.C. (%)	42%	35%	R.C. (%)	38%	26%

Stage / Phase Diagrams

1.



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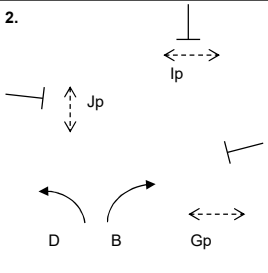

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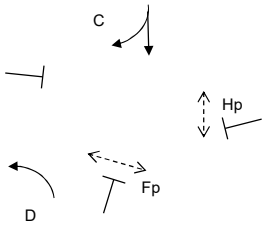


4.

5.

I/G= 8		I/G= 8		I/G= 7		I/G=	
I/G= 8		I/G= 8		I/G= 7		I/G=	

Date: DEC, 2025 **Junction:** J2 - Obs
Leighton Road / Caroline Hill Road (West) / Hoi Ping Road (J2)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

Junction: Leighton Road / Caroline Hill Road (West) / Hoi Ping Road (J2) Design Year: 2025

Description: 2025 Observed Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD Noon	Pro. Turning (%) WE Noon	Revised Saturation Flow (pcu/hr) WD Noon	Revised Saturation Flow (pcu/hr) WE Noon	WD Noon Flow (pcu/hr)	WD Noon y Value	WD Noon Critical y	WE Noon Flow (pcu/hr)	WE Noon y Value	WE Noon Critical y
Leighton Road WE	^	A	1	3.500	25			100%	100%	1110	1110	235	0.212	0.212	245	0.221	0.221
		A	1	3.000						2055	2055	365	0.178		390	0.190	
Caroline Hill Road		D	2,3	3.500	65					1920	1920	280	0.146		275	0.143	
NB	**	B	2	3.500		20				1665	1665	345	0.207	0.207	390	0.234	0.234
Leighton Road	#	A	1	3.500						1570	1570	172	0.110		176	0.112	
EB		A	1	3.300						2085	2085	228	0.109		234	0.112	
Hoi Ping Road		C	3	3.000						1915	1915	255	0.133	0.133	260	0.136	0.136
SB	*	C	3	3.000		10				715	715	70	0.098		80	0.112	

Pedestrian Crossing	Ep	1	MIN GREEN + FLASH =	10	+	5	=	15
	Fp	1,3	MIN GREEN + FLASH =	14	+	5	=	19
	Gp	2	MIN GREEN + FLASH =	14	+	5	=	19
	Hp	3	MIN GREEN + FLASH =	10	+	7	=	17
	Ip	1,2	MIN GREEN + FLASH =	11	+	6	=	17
	Jp	2	MIN GREEN + FLASH =	10	+	7	=	17

Notes:

#N/A

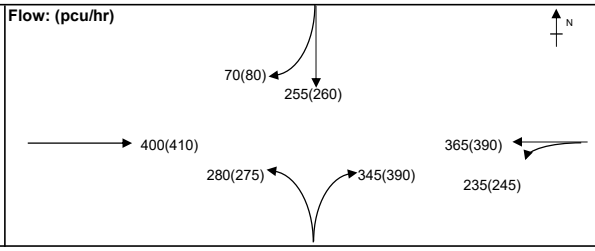
^ = Site Factor of 0.6 adopted due to merging traffic ahead

* = Site Factor of 0.4 adopted due to flare lane

** = Site Factor of 0.85 adopted

= Site Factor of 0.8 adopted

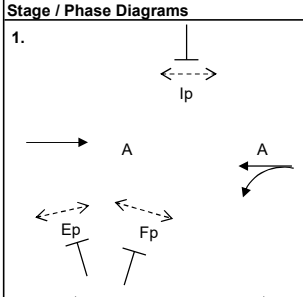
Flow: (pcu/hr)



Group	A,B,Hp	A,B,C	Group	A,B,Hp	A,B,C
y	0.419	0.552	y	0.455	0.591
L (sec)	38	20	L (sec)	38	20
C (sec)	120	120	C (sec)	130	130
y pract.	0.615	0.750	y pract.	0.637	0.762
R.C. (%)	47%	36%	R.C. (%)	40%	29%

Stage / Phase Diagrams

1.



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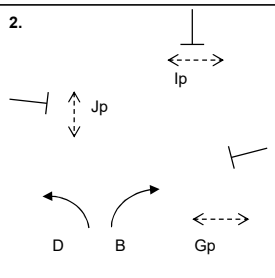

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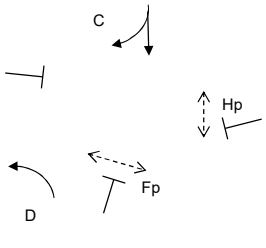

4.

5.

I/G= 8		I/G= 8		I/G= 7		I/G=	
I/G= 8		I/G= 8		I/G= 7		I/G=	

Date: DEC, 2025

Junction: J2 - Obs

Leighton Road / Caroline Hill Road (West) / Hoi Ping Road (J2)

Generated on 17/12/2025 3:08:30 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J3 sunning leighton - AM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J3
Report generation date: 17/12/2025 3:08:25 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.3	1.4	7.63	0.25	A	1.32	A	121 % [Stream B-AC]
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		1.32	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	121	Stream B-AC	1.32	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	13.15			40.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	55	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	618	0.078	0.196	0.123	0.280
B-C	779	0.082	0.208	-	-
C-B	597	0.159	0.159	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	670	100.000
B		ONE HOUR	✓	140	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	670
	B	0	0	140
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.25	7.63	0.3	1.4	A	128	193
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						0	0
A-C						615	922

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	26	674	0.156	105	0.0	0.2	6.313	A
C-A	0	0			0				
C-B	0	0	517	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	504	126			504				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	31	654	0.192	126	0.2	0.2	6.812	A
C-A	0	0			0				
C-B	0	0	501	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	602	151			602				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	154	39	626	0.246	154	0.2	0.3	7.624	A
C-A	0	0			0				
C-B	0	0	480	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	738	184			738				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	154	39	626	0.246	154	0.3	0.3	7.633	A
C-A	0	0			0				
C-B	0	0	480	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	738	184			738				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	31	654	0.192	126	0.3	0.2	6.826	A
C-A	0	0			0				
C-B	0	0	501	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	602	151			602				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	26	674	0.156	106	0.2	0.2	6.333	A
C-A	0	0			0				
C-B	0	0	517	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	504	126			504				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.32	0.03	0.25	0.46	0.48			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.33	0.03	0.31	1.13	1.44			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:08:45 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J3 sunning leighton - NN.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J3
Report generation date: 17/12/2025 3:08:40 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.6	2.6	9.27	0.36	A	1.96	A	74 % [Stream B-AC]
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		1.96	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	74	Stream B-AC	1.96	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	13.15			40.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	55	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	618	0.078	0.196	0.123	0.280
B-C	779	0.082	0.208	-	-
C-B	597	0.159	0.159	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	745	100.000
B		ONE HOUR	✓	200	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	745
	B	0	0	200
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.36	9.27	0.6	2.6	A	184	275
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						0	0
A-C						684	1025

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	151	38	662	0.227	149	0.0	0.3	7.001	A
C-A	0	0			0				
C-B	0	0	508	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	561	140			561				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	180	45	640	0.281	179	0.3	0.4	7.813	A
C-A	0	0			0				
C-B	0	0	490	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	670	167			670				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	220	55	609	0.362	220	0.4	0.6	9.238	A
C-A	0	0			0				
C-B	0	0	466	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	820	205			820				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	220	55	609	0.362	220	0.6	0.6	9.270	A
C-A	0	0			0				
C-B	0	0	466	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	820	205			820				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	180	45	640	0.281	180	0.6	0.4	7.849	A
C-A	0	0			0				
C-B	0	0	490	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	670	167			670				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	151	38	662	0.227	151	0.4	0.3	7.045	A
C-A	0	0			0				
C-B	0	0	508	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	561	140			561				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.39	0.00	0.00	0.39	0.39			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.56	0.03	0.26	0.56	0.56			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.56	0.03	0.30	1.32	2.63			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.40	0.00	0.00	0.40	0.40			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:08:57 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J3 sunning leighton - PM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J3
Report generation date: 17/12/2025 3:08:52 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.5	2.0	8.75	0.32	A	1.63	A	85 % [Stream B-AC]
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		1.63	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	85	Stream B-AC	1.63	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	13.15			40.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	55	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	618	0.078	0.196	0.123	0.280
B-C	779	0.082	0.208	-	-
C-B	597	0.159	0.159	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	765	100.000
B		ONE HOUR	✓	175	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	765
	B	0	0	175
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.32	8.75	0.5	2.0	A	161	241
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						0	0
A-C						702	1053

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	132	33	659	0.200	131	0.0	0.2	6.798	A
C-A	0	0			0				
C-B	0	0	505	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	576	144			576				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	157	39	636	0.247	157	0.2	0.3	7.509	A
C-A	0	0			0				
C-B	0	0	488	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	688	172			688				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	193	48	604	0.319	192	0.3	0.5	8.731	A
C-A	0	0			0				
C-B	0	0	463	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	842	211			842				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	193	48	604	0.319	193	0.5	0.5	8.753	A
C-A	0	0			0				
C-B	0	0	463	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	842	211			842				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	157	39	636	0.247	158	0.5	0.3	7.538	A
C-A	0	0			0				
C-B	0	0	488	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	688	172			688				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	132	33	659	0.200	132	0.3	0.3	6.833	A
C-A	0	0			0				
C-B	0	0	505	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	576	144			576				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.33	0.00	0.00	0.33	0.33			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.46	0.03	0.26	0.46	0.49			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.47	0.03	0.30	1.36	2.01			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.33	0.00	0.00	0.33	0.33			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:09:09 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J3 sunning leighton - WE.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J3
Report generation date: 17/12/2025 3:09:04 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.6	2.6	9.44	0.36	A	1.85	A	71 % [Stream B-AC]
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		1.85	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	71	Stream B-AC	1.85	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	13.15			40.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	55	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	618	0.078	0.196	0.123	0.280
B-C	779	0.082	0.208	-	-
C-B	597	0.159	0.159	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	800	100.000
B		ONE HOUR	✓	195	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	800
	B	0	0	195
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.36	9.44	0.6	2.6	A	179	268
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						0	0
A-C						734	1101

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	147	37	654	0.225	146	0.0	0.3	7.068	A
C-A	0	0			0				
C-B	0	0	501	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	602	151			602				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	175	44	630	0.278	175	0.3	0.4	7.912	A
C-A	0	0			0				
C-B	0	0	482	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	719	180			719				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	215	54	596	0.360	214	0.4	0.6	9.409	A
C-A	0	0			0				
C-B	0	0	457	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	881	220			881				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	215	54	596	0.360	215	0.6	0.6	9.443	A
C-A	0	0			0				
C-B	0	0	457	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	881	220			881				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	175	44	630	0.278	176	0.6	0.4	7.950	A
C-A	0	0			0				
C-B	0	0	482	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	719	180			719				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	147	37	654	0.225	147	0.4	0.3	7.110	A
C-A	0	0			0				
C-B	0	0	501	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	602	151			602				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.55	0.03	0.26	0.55	0.55			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.56	0.03	0.30	1.33	2.62			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.39	0.00	0.00	0.39	0.39			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

Junction: Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill Road (East) (J4) Design Year: 2025

Description: 2025 Observed Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD AM	Pro. Turning (%) WD PM	Revised Saturation Flow (pcu/hr) WD AM	Revised Saturation Flow (pcu/hr) WD PM	WD AM Flow (pcu/hr)	WD AM y Value	WD AM Critical y	WD PM Flow (pcu/hr)	WD PM y Value	WD PM Critical y
Leighton Road WB	↓ *	A	1	3.000	7			31%	20%	1080	1100	229	0.212		223	0.203	
	←	A	1	2.500						2005	2005	426	0.212		407	0.203	
Leighton Road WB	↑ **	C	2	3.500		9				1180	1180	225	0.191	0.191	275	0.233	0.233
Caroline Hill Road NB	↰ *	C	2	4.000	5					930	930	25	0.027		50	0.054	
Leighton Road EB	↗ **	A	1	3.000	15			57%	76%	1270	1245	380	0.299	0.299	436	0.350	0.350
	→ **	A	1	3.000						1440	1440	430	0.299		504	0.350	
Pedestrian Crossing		Bp	1	MIN GREEN + FLASH =			5	+	8	=	13						
		Dp	2	MIN GREEN + FLASH =			10	+	8	=	18						

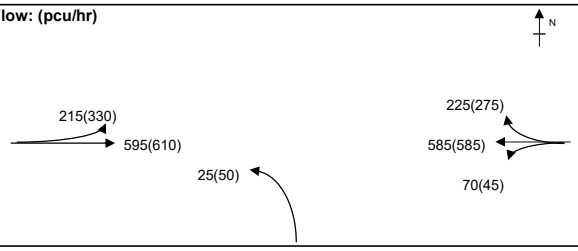
Notes:

#N/A

* = Site factor of 0.6 adopted

** = Site factor of 0.7 adopted

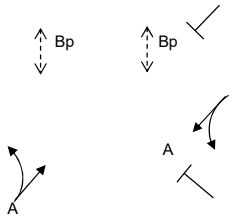
Flow: (pcu/hr)



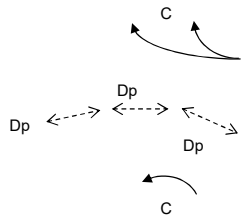
Group	A,Dp	A,C	Group	A,Dp	A,C
y	0.299	0.490	y	0.350	0.583
L (sec)	27	11	L (sec)	27	11
C (sec)	105	105	C (sec)	130	130
y pract.	0.669	0.806	y pract.	0.713	0.824
R.C. (%)	123%	64%	R.C. (%)	104%	41%

Stage / Phase Diagrams

1.



2.



3.

4.

5.

I/G= 7		I/G= 6		I/G=		I/G=		I/G=	
I/G= 7		I/G= 6		I/G=		I/G=		I/G=	

Date: DEC, 2025 **Junction:** J4 - Obs

Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

Junction: Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill Road (East) (J4) Design Year: 2025

Description: 2025 Observed Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD Noon	Pro. Turning (%) WE Noon	Revised Saturation Flow (pcu/hr) WD Noon	Revised Saturation Flow (pcu/hr) WE Noon	WD Noon Flow (pcu/hr)	WD Noon y Value	WD Noon Critical y	WE Noon Flow (pcu/hr)	WE Noon y Value	WE Noon Critical y
Leighton Road WE	*	A	1	3.000	7			45%	40%	1050	1060	211	0.201		214	0.202	
		A	1	2.500						2005	2005	404	0.201		406	0.202	
Leighton Road WE	**	C	2	3.500		9				1180	1180	280	0.237	0.237	350	0.297	0.297
Caroline Hill Road NB	*	C	2	4.000	5					930	930	80	0.086		100	0.108	
Leighton Road EB	**	A	1	3.000	15			65%	79%	1260	1240	441	0.350	0.350	461	0.372	0.372
	**	A	1	3.000						1440	1440	504	0.350		534	0.371	
Pedestrian Crossing		Bp	1	MIN GREEN + FLASH =			5	+	8	=	13						
		Dp	2	MIN GREEN + FLASH =			10	+	8	=	18						

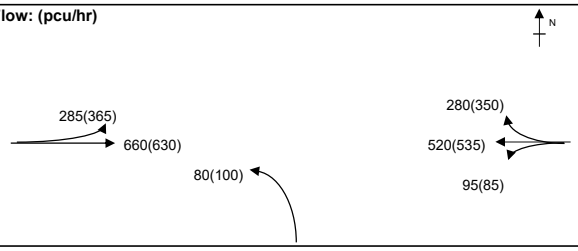
Notes:

#N/A

* = Site factor of 0.6 adopted

** = Site factor of 0.7 adopted

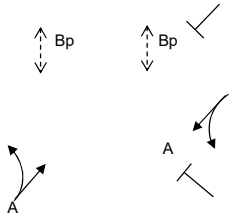
Flow: (pcu/hr)



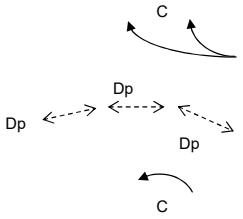
Group	A,Dp	A,C	Group	A,Dp	A,C
y	0.350	0.587	y	0.372	0.668
L (sec)	27	11	L (sec)	27	11
C (sec)	110	110	C (sec)	120	120
y pract.	0.679	0.810	y pract.	0.698	0.818
R.C. (%)	94%	38%	R.C. (%)	88%	22%

Stage / Phase Diagrams

1.



2.



3.

4.

5.

I/G= 7		I/G= 6		I/G=		I/G=		I/G=	
I/G= 7		I/G= 6		I/G=		I/G=		I/G=	

Date: DEC, 2025 **Junction:** J4 - Obs

Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill

Generated on 17/12/2025 3:12:02 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J5 hysan yun ping - AM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J5
Report generation date: 17/12/2025 3:11:56 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-C	0.3	1.3	6.48	0.23	A	2.11	A	209 % [Stream B-C]
Stream B-A	0.0	~1	0.00	0.00	A			
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	J5
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Entry Only	Two-way	Exit Only		2.11	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	209	Stream B-C	2.11	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00					

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	5.00	5.00	45	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	611	0.107	0.269	0.169	0.385
B-C	775	0.077	0.196	-	-
C-B	597	0.186	0.186	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	310	100.000
B		ONE HOUR	✓	150	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	95	215
	B	0	0	150
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.23	6.48	0.3	1.3	A	138	206
B-A	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						87	131
A-C						197	296

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	113	28	738	0.153	112	0.0	0.2	5.746	A
B-A	0	0	560	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	554	0.000	0	0.0	0.0	0.000	A
A-B	72	18			72				
A-C	162	40			162				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	135	34	731	0.185	135	0.2	0.2	6.037	A
B-A	0	0	550	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	545	0.000	0	0.0	0.0	0.000	A
A-B	85	21			85				
A-C	193	48			193				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	165	41	721	0.229	165	0.2	0.3	6.472	A
B-A	0	0	537	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	534	0.000	0	0.0	0.0	0.000	A
A-B	105	26			105				
A-C	237	59			237				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	165	41	721	0.229	165	0.3	0.3	6.477	A
B-A	0	0	537	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	534	0.000	0	0.0	0.0	0.000	A
A-B	105	26			105				
A-C	237	59			237				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	135	34	731	0.185	135	0.3	0.2	6.045	A
B-A	0	0	550	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	545	0.000	0	0.0	0.0	0.000	A
A-B	85	21			85				
A-C	193	48			193				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	113	28	738	0.153	113	0.2	0.2	5.763	A
B-A	0	0	560	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	554	0.000	0	0.0	0.0	0.000	A
A-B	72	18			72				
A-C	162	40			162				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.18	0.00	0.00	0.18	0.18			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.22	0.00	0.00	0.22	0.22			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.29	0.03	0.25	0.46	0.48			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.30	0.03	0.31	1.04	1.34			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.23	0.00	0.00	0.23	0.23			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.18	0.00	0.00	0.18	0.18			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:11:49 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J5 hysan yun ping - NN.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J5
Report generation date: 17/12/2025 3:11:44 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-C	1.0	2.7	10.24	0.50	B	4.24	A	60 % [Stream B-C]
Stream B-A	0.0	~1	0.00	0.00	A			
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	J5
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Entry Only	Two-way	Exit Only		4.24	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	60	Stream B-C	4.24	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00					

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	5.00	5.00	45	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	611	0.107	0.269	0.169	0.385
B-C	775	0.077	0.196	-	-
C-B	597	0.186	0.186	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	445	100.000
B		ONE HOUR	✓	315	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	145	300
	B	0	0	315
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.50	10.24	1.0	2.7	B	289	434
B-A	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						133	200
A-C						275	413

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	237	59	723	0.328	235	0.0	0.5	7.359	A
B-A	0	0	539	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	535	0.000	0	0.0	0.0	0.000	A
A-B	109	27			109				
A-C	226	56			226				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	283	71	712	0.398	283	0.5	0.7	8.360	A
B-A	0	0	525	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	523	0.000	0	0.0	0.0	0.000	A
A-B	130	33			130				
A-C	270	67			270				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	347	87	698	0.497	346	0.7	1.0	10.169	B
B-A	0	0	505	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	506	0.000	0	0.0	0.0	0.000	A
A-B	160	40			160				
A-C	330	83			330				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	347	87	698	0.497	347	1.0	1.0	10.239	B
B-A	0	0	505	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	506	0.000	0	0.0	0.0	0.000	A
A-B	160	40			160				
A-C	330	83			330				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	283	71	712	0.398	284	1.0	0.7	8.435	A
B-A	0	0	525	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	523	0.000	0	0.0	0.0	0.000	A
A-B	130	33			130				
A-C	270	67			270				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	237	59	723	0.328	238	0.7	0.5	7.436	A
B-A	0	0	539	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	535	0.000	0	0.0	0.0	0.000	A
A-B	109	27			109				
A-C	226	56			226				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.48	0.00	0.00	0.48	0.48			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.65	0.18	0.92	1.38	1.44			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.97	0.03	0.26	0.97	0.97			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.98	0.03	0.28	0.98	2.73			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.67	0.09	0.82	1.37	1.44			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.49	0.04	0.44	1.27	1.39			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:11:33 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J5 hysan yun ping - PM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J5
Report generation date: 17/12/2025 3:11:28 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-C	0.7	2.8	8.78	0.40	A	2.81	A	86 % [Stream B-C]
Stream B-A	0.0	~1	0.00	0.00	A			
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	J5
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Entry Only	Two-way	Exit Only		2.81	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	86	Stream B-C	2.81	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00					

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	5.00	5.00	45	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	611	0.107	0.269	0.169	0.385
B-C	775	0.077	0.196	-	-
C-B	597	0.186	0.186	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	530	100.000
B		ONE HOUR	✓	250	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	185	345
	B	0	0	250
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.40	8.78	0.7	2.8	A	229	344
B-A	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						170	255
A-C						317	475

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	188	47	714	0.264	187	0.0	0.4	6.815	A
B-A	0	0	527	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	523	0.000	0	0.0	0.0	0.000	A
A-B	139	35			139				
A-C	260	65			260				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	225	56	702	0.320	224	0.4	0.5	7.535	A
B-A	0	0	510	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	508	0.000	0	0.0	0.0	0.000	A
A-B	166	42			166				
A-C	310	78			310				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	275	69	685	0.402	274	0.5	0.7	8.749	A
B-A	0	0	487	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	489	0.000	0	0.0	0.0	0.000	A
A-B	204	51			204				
A-C	380	95			380				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	275	69	685	0.402	275	0.7	0.7	8.780	A
B-A	0	0	487	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	489	0.000	0	0.0	0.0	0.000	A
A-B	204	51			204				
A-C	380	95			380				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	225	56	702	0.320	226	0.7	0.5	7.574	A
B-A	0	0	510	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	508	0.000	0	0.0	0.0	0.000	A
A-B	166	42			166				
A-C	310	78			310				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	188	47	714	0.264	189	0.5	0.4	6.862	A
B-A	0	0	527	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	523	0.000	0	0.0	0.0	0.000	A
A-B	139	35			139				
A-C	260	65			260				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.35	0.00	0.00	0.35	0.35			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.47	0.00	0.00	0.47	0.47			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.66	0.03	0.26	0.66	0.66			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.67	0.03	0.29	1.04	2.79			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.48	0.00	0.00	0.48	0.48			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.36	0.03	0.26	0.46	0.49			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:11:19 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J5 hysan yun ping - WE.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J5
Report generation date: 17/12/2025 3:11:11 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-C	1.0	2.8	10.75	0.50	B	3.70	A	54 % [Stream B-C]
Stream B-A	0.0	~1	0.00	0.00	A			
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	J5
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Entry Only	Two-way	Exit Only		3.70	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	54	Stream B-C	3.70	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00					

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	5.00	5.00	45	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	611	0.107	0.269	0.169	0.385
B-C	775	0.077	0.196	-	-
C-B	597	0.186	0.186	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	590	100.000
B		ONE HOUR	✓	310	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	215	375
	B	0	0	310
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.50	10.75	1.0	2.8	B	284	427
B-A	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						197	296
A-C						344	516

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	233	58	707	0.330	231	0.0	0.5	7.533	A
B-A	0	0	518	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	514	0.000	0	0.0	0.0	0.000	A
A-B	162	40			162				
A-C	282	71			282				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	279	70	694	0.401	278	0.5	0.7	8.632	A
B-A	0	0	500	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	498	0.000	0	0.0	0.0	0.000	A
A-B	193	48			193				
A-C	337	84			337				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	341	85	676	0.505	340	0.7	1.0	10.666	B
B-A	0	0	475	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	476	0.000	0	0.0	0.0	0.000	A
A-B	237	59			237				
A-C	413	103			413				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	341	85	676	0.505	341	1.0	1.0	10.748	B
B-A	0	0	475	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	476	0.000	0	0.0	0.0	0.000	A
A-B	237	59			237				
A-C	413	103			413				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	279	70	694	0.401	280	1.0	0.7	8.717	A
B-A	0	0	500	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	498	0.000	0	0.0	0.0	0.000	A
A-B	193	48			193				
A-C	337	84			337				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	233	58	707	0.330	234	0.7	0.5	7.618	A
B-A	0	0	518	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	514	0.000	0	0.0	0.0	0.000	A
A-B	162	40			162				
A-C	282	71			282				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.49	0.00	0.00	0.49	0.49			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.66	0.18	0.92	1.38	1.44			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	1.00	0.03	0.26	1.00	1.00			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	1.01	0.03	0.28	1.01	2.83			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.68	0.09	0.81	1.37	1.44			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.50	0.04	0.44	1.27	1.39			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:11:01 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J6 sunning hysan - AM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J6
Report generation date: 17/12/2025 3:10:54 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	1.90	A	345 % [Stream C-B]
Stream C-B	0.2	0.5	7.36	0.16	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		1.90	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	345	Stream C-B	1.90	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			50.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	603	0.193	0.193	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	95	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	235	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	25	70
	B	0	0	0
	C	150	85	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						138	206
C-B	0.16	7.36	0.2	0.5	A	78	117
A-B						23	34
A-C						64	96

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	469	0.000	0	0.0	0.0	0.000	A
C-A	113	28			113				
C-B	64	16	589	0.109	64	0.0	0.1	6.843	A
A-B	19	5			19				
A-C	53	13			53				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	464	0.000	0	0.0	0.0	0.000	A
C-A	135	34			135				
C-B	76	19	586	0.130	76	0.1	0.1	7.054	A
A-B	22	6			22				
A-C	63	16			63				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	456	0.000	0	0.0	0.0	0.000	A
C-A	165	41			165				
C-B	94	23	583	0.161	93	0.1	0.2	7.355	A
A-B	28	7			28				
A-C	77	19			77				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	456	0.000	0	0.0	0.0	0.000	A
C-A	165	41			165				
C-B	94	23	583	0.161	94	0.2	0.2	7.358	A
A-B	28	7			28				
A-C	77	19			77				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	463	0.000	0	0.0	0.0	0.000	A
C-A	135	34			135				
C-B	76	19	586	0.130	77	0.2	0.2	7.061	A
A-B	22	6			22				
A-C	63	16			63				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	469	0.000	0	0.0	0.0	0.000	A
C-A	113	28			113				
C-B	64	16	589	0.109	64	0.2	0.1	6.857	A
A-B	19	5			19				
A-C	53	13			53				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.12	0.00	0.00	0.12	0.12			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.15	0.00	0.00	0.15	0.15			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.19	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.19	0.03	0.26	0.46	0.49			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.15	0.00	0.00	0.15	0.15			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.12	0.00	0.00	0.12	0.12			N/A	N/A

Generated on 17/12/2025 3:10:48 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J6 sunning hysan - NN.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J6
Report generation date: 17/12/2025 3:10:43 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	1.62	A	221 % [Stream C-B]
Stream C-B	0.3	1.3	8.08	0.22	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		1.62	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	221	Stream C-B	1.62	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			50.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	603	0.193	0.193	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	145	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	430	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	30	115
	B	0	0	0
	C	315	115	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						289	434
C-B	0.22	8.08	0.3	1.3	A	106	158
A-B						28	41
A-C						106	158

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	450	0.000	0	0.0	0.0	0.000	A
C-A	237	59			237				
C-B	87	22	582	0.149	86	0.0	0.2	7.247	A
A-B	23	6			23				
A-C	87	22			87				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	440	0.000	0	0.0	0.0	0.000	A
C-A	283	71			283				
C-B	103	26	578	0.179	103	0.2	0.2	7.584	A
A-B	27	7			27				
A-C	103	26			103				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	427	0.000	0	0.0	0.0	0.000	A
C-A	347	87			347				
C-B	127	32	572	0.221	126	0.2	0.3	8.071	A
A-B	33	8			33				
A-C	127	32			127				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	427	0.000	0	0.0	0.0	0.000	A
C-A	347	87			347				
C-B	127	32	572	0.221	127	0.3	0.3	8.080	A
A-B	33	8			33				
A-C	127	32			127				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	440	0.000	0	0.0	0.0	0.000	A
C-A	283	71			283				
C-B	103	26	578	0.179	104	0.3	0.2	7.598	A
A-B	27	7			27				
A-C	103	26			103				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	450	0.000	0	0.0	0.0	0.000	A
C-A	237	59			237				
C-B	87	22	582	0.149	87	0.2	0.2	7.275	A
A-B	23	6			23				
A-C	87	22			87				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.17	0.00	0.00	0.17	0.17			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.22	0.00	0.00	0.22	0.22			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.28	0.03	0.26	0.46	0.48			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.28	0.03	0.31	1.01	1.32			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.22	0.00	0.00	0.22	0.22			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.18	0.00	0.00	0.18	0.18			N/A	N/A

Generated on 17/12/2025 3:10:36 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J6 sunning hysan - PM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J6
Report generation date: 17/12/2025 3:10:32 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	1.64	A	215 % [Stream C-B]
Stream C-B	0.3	1.3	8.13	0.21	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		1.64	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	215	Stream C-B	1.64	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			50.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	603	0.193	0.193	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	185	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	360	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	30	155
	B	0	0	0
	C	250	110	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						229	344
C-B	0.21	8.13	0.3	1.3	A	101	151
A-B						28	41
A-C						142	213

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	449	0.000	0	0.0	0.0	0.000	A
C-A	188	47			188				
C-B	83	21	576	0.144	82	0.0	0.2	7.280	A
A-B	23	6			23				
A-C	117	29			117				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	439	0.000	0	0.0	0.0	0.000	A
C-A	225	56			225				
C-B	99	25	571	0.173	99	0.2	0.2	7.624	A
A-B	27	7			27				
A-C	139	35			139				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	425	0.000	0	0.0	0.0	0.000	A
C-A	275	69			275				
C-B	121	30	564	0.215	121	0.2	0.3	8.128	A
A-B	33	8			33				
A-C	171	43			171				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	425	0.000	0	0.0	0.0	0.000	A
C-A	275	69			275				
C-B	121	30	564	0.215	121	0.3	0.3	8.135	A
A-B	33	8			33				
A-C	171	43			171				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	439	0.000	0	0.0	0.0	0.000	A
C-A	225	56			225				
C-B	99	25	571	0.173	99	0.3	0.2	7.638	A
A-B	27	7			27				
A-C	139	35			139				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	449	0.000	0	0.0	0.0	0.000	A
C-A	188	47			188				
C-B	83	21	576	0.144	83	0.2	0.2	7.305	A
A-B	23	6			23				
A-C	117	29			117				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.17	0.00	0.00	0.17	0.17			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.21	0.00	0.00	0.21	0.21			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.27	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.27	0.03	0.30	0.96	1.28			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.21	0.00	0.00	0.21	0.21			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.17	0.00	0.00	0.17	0.17			N/A	N/A

Generated on 17/12/2025 3:10:26 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J6 sunning hysan - WE.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J6
Report generation date: 17/12/2025 3:10:20 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	1.29	A	224 % [Stream C-B]
Stream C-B	0.2	1.2	8.05	0.20	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		1.29	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	224	Stream C-B	1.29	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			50.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	603	0.193	0.193	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	215	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	410	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	45	170
	B	0	0	0
	C	310	100	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						284	427
C-B	0.20	8.05	0.2	1.2	A	92	138
A-B						41	62
A-C						156	234

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	444	0.000	0	0.0	0.0	0.000	A
C-A	233	58			233				
C-B	75	19	572	0.132	75	0.0	0.2	7.234	A
A-B	34	8			34				
A-C	128	32			128				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	433	0.000	0	0.0	0.0	0.000	A
C-A	279	70			279				
C-B	90	22	566	0.159	90	0.2	0.2	7.563	A
A-B	40	10			40				
A-C	153	38			153				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	418	0.000	0	0.0	0.0	0.000	A
C-A	341	85			341				
C-B	110	28	557	0.198	110	0.2	0.2	8.042	A
A-B	50	12			50				
A-C	187	47			187				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	418	0.000	0	0.0	0.0	0.000	A
C-A	341	85			341				
C-B	110	28	557	0.198	110	0.2	0.2	8.050	A
A-B	50	12			50				
A-C	187	47			187				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	433	0.000	0	0.0	0.0	0.000	A
C-A	279	70			279				
C-B	90	22	566	0.159	90	0.2	0.2	7.576	A
A-B	40	10			40				
A-C	153	38			153				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	444	0.000	0	0.0	0.0	0.000	A
C-A	233	58			233				
C-B	75	19	572	0.132	75	0.2	0.2	7.258	A
A-B	34	8			34				
A-C	128	32			128				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.15	0.00	0.00	0.15	0.15			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.19	0.00	0.00	0.19	0.19			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.24	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.24	0.03	0.29	0.79	1.16			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.19	0.00	0.00	0.19	0.19			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.15	0.00	0.00	0.15	0.15			N/A	N/A

Generated on 17/12/2025 4:09:12 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: Future WO HPR AM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J7
Report generation date: 17/12/2025 4:08:45 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	5.49	A	55 % [Stream C-B]
Stream C-B	1.1	2.8	11.59	0.53	B			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		5.49	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	55	Stream C-B	5.49	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.30	90.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	701	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	155	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	520	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	55	100
	B	0	0	0
	C	200	320	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						184	275
C-B	0.53	11.59	1.1	2.8	B	294	440
A-B						50	76
A-C						92	138

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	431	0.000	0	0.0	0.0	0.000	A
C-A	151	38			151				
C-B	241	60	675	0.357	239	0.0	0.5	8.214	A
A-B	41	10			41				
A-C	75	19			75				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	416	0.000	0	0.0	0.0	0.000	A
C-A	180	45			180				
C-B	288	72	670	0.430	287	0.5	0.7	9.382	A
A-B	49	12			49				
A-C	90	22			90				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	396	0.000	0	0.0	0.0	0.000	A
C-A	220	55			220				
C-B	352	88	663	0.532	351	0.7	1.1	11.487	B
A-B	61	15			61				
A-C	110	28			110				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	395	0.000	0	0.0	0.0	0.000	A
C-A	220	55			220				
C-B	352	88	663	0.532	352	1.1	1.1	11.589	B
A-B	61	15			61				
A-C	110	28			110				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	416	0.000	0	0.0	0.0	0.000	A
C-A	180	45			180				
C-B	288	72	670	0.430	289	1.1	0.8	9.491	A
A-B	49	12			49				
A-C	90	22			90				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	430	0.000	0	0.0	0.0	0.000	A
C-A	151	38			151				
C-B	241	60	675	0.357	242	0.8	0.6	8.327	A
A-B	41	10			41				
A-C	75	19			75				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.55	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.74	0.20	0.93	1.39	1.45			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.11	0.03	0.27	1.11	1.22			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.12	0.03	0.27	1.12	2.76			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.77	0.09	0.83	1.10	1.10			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.56	0.05	0.49	1.33	1.43			N/A	N/A

Generated on 17/12/2025 4:10:17 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: Future WO HPR NN.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J7
Report generation date: 17/12/2025 4:10:08 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	4.90	A	40 % [Stream C-B]
Stream C-B	1.4	3.2	13.41	0.59	B			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		4.90	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	40	Stream C-B	4.90	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.30	90.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	701	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	215	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	730	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	60	155
	B	0	0	0
	C	385	345	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						353	530
C-B	0.59	13.41	1.4	3.2	B	317	475
A-B						55	83
A-C						142	213

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	408	0.000	0	0.0	0.0	0.000	A
C-A	290	72			290				
C-B	260	65	665	0.391	257	0.0	0.6	8.781	A
A-B	45	11			45				
A-C	117	29			117				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	388	0.000	0	0.0	0.0	0.000	A
C-A	346	87			346				
C-B	310	78	658	0.472	309	0.6	0.9	10.299	B
A-B	54	13			54				
A-C	139	35			139				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	360	0.000	0	0.0	0.0	0.000	A
C-A	424	106			424				
C-B	380	95	648	0.586	378	0.9	1.4	13.228	B
A-B	66	17			66				
A-C	171	43			171				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	360	0.000	0	0.0	0.0	0.000	A
C-A	424	106			424				
C-B	380	95	648	0.586	380	1.4	1.4	13.412	B
A-B	66	17			66				
A-C	171	43			171				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	388	0.000	0	0.0	0.0	0.000	A
C-A	346	87			346				
C-B	310	78	658	0.472	312	1.4	0.9	10.473	B
A-B	54	13			54				
A-C	139	35			139				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	407	0.000	0	0.0	0.0	0.000	A
C-A	290	72			290				
C-B	260	65	665	0.391	261	0.9	0.7	8.934	A
A-B	45	11			45				
A-C	117	29			117				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.63	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.87	0.16	0.94	1.28	1.28			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.37	0.03	0.27	1.37	2.87			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.39	0.03	0.28	1.39	3.25			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.91	0.08	0.84	1.53	1.90			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.65	0.05	0.48	1.48	1.55			N/A	N/A

Generated on 17/12/2025 4:09:57 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: Future WO HPR PM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J7
Report generation date: 17/12/2025 4:09:51 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	4.90	A	38 % [Stream C-B]
Stream C-B	1.4	3.3	13.61	0.58	B			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		4.90	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	38	Stream C-B	4.90	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.30	90.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	701	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	275	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	655	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	90	185
	B	0	0	0
	C	320	335	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						294	440
C-B	0.58	13.61	1.4	3.3	B	307	461
A-B						83	124
A-C						170	255

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	408	0.000	0	0.0	0.0	0.000	A
C-A	241	60			241				
C-B	252	63	655	0.385	250	0.0	0.6	8.839	A
A-B	68	17			68				
A-C	139	35			139				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	388	0.000	0	0.0	0.0	0.000	A
C-A	288	72			288				
C-B	301	75	646	0.467	300	0.6	0.9	10.392	B
A-B	81	20			81				
A-C	166	42			166				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	360	0.000	0	0.0	0.0	0.000	A
C-A	352	88			352				
C-B	369	92	633	0.583	367	0.9	1.3	13.419	B
A-B	99	25			99				
A-C	204	51			204				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	360	0.000	0	0.0	0.0	0.000	A
C-A	352	88			352				
C-B	369	92	633	0.583	369	1.3	1.4	13.605	B
A-B	99	25			99				
A-C	204	51			204				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	388	0.000	0	0.0	0.0	0.000	A
C-A	288	72			288				
C-B	301	75	646	0.467	303	1.4	0.9	10.568	B
A-B	81	20			81				
A-C	166	42			166				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	407	0.000	0	0.0	0.0	0.000	A
C-A	241	60			241				
C-B	252	63	655	0.385	253	0.9	0.6	8.994	A
A-B	68	17			68				
A-C	139	35			139				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.62	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.86	0.16	0.94	1.10	1.10			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.35	0.03	0.27	1.35	2.81			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.37	0.03	0.28	1.37	3.35			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.89	0.07	0.83	1.47	1.86			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.64	0.05	0.48	1.46	1.48			N/A	N/A

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: Future WO HPR WE.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Obs\J7
Report generation date: 17/12/2025 4:09:27 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	4.49	A	41 % [Stream C-B]
Stream C-B	1.3	3.2	13.21	0.57	B			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		4.49	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	41	Stream C-B	4.49	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.30	90.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	701	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	265	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	705	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	100	165
	B	0	0	0
	C	375	330	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						344	516
C-B	0.57	13.21	1.3	3.2	B	303	454
A-B						92	138
A-C						151	227

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	407	0.000	0	0.0	0.0	0.000	A
C-A	282	71			282				
C-B	248	62	656	0.379	246	0.0	0.6	8.726	A
A-B	75	19			75				
A-C	124	31			124				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	387	0.000	0	0.0	0.0	0.000	A
C-A	337	84			337				
C-B	297	74	648	0.458	296	0.6	0.8	10.203	B
A-B	90	22			90				
A-C	148	37			148				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	359	0.000	0	0.0	0.0	0.000	A
C-A	413	103			413				
C-B	363	91	636	0.572	361	0.8	1.3	13.042	B
A-B	110	28			110				
A-C	182	45			182				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	359	0.000	0	0.0	0.0	0.000	A
C-A	413	103			413				
C-B	363	91	636	0.572	363	1.3	1.3	13.209	B
A-B	110	28			110				
A-C	182	45			182				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	387	0.000	0	0.0	0.0	0.000	A
C-A	337	84			337				
C-B	297	74	648	0.458	298	1.3	0.9	10.366	B
A-B	90	22			90				
A-C	148	37			148				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	407	0.000	0	0.0	0.0	0.000	A
C-A	282	71			282				
C-B	248	62	656	0.379	249	0.9	0.6	8.871	A
A-B	75	19			75				
A-C	124	31			124				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.60	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.83	0.17	0.93	1.42	1.48			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.29	0.03	0.27	1.29	2.27			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.31	0.03	0.28	1.31	3.20			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.86	0.08	0.83	1.33	1.76			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.62	0.05	0.48	1.30	1.30			N/A	N/A

Year 2036 Reference

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

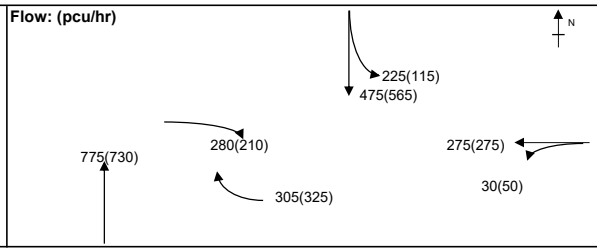
Junction: Caroline Hill Road (West) / Link Road (J1) Design Year: 2036

Description: 2036 Reference Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD AM	Pro. Turning (%) WD PM	Revised Saturation Flow (pcu/hr) WD AM	Revised Saturation Flow (pcu/hr) WD PM	WD AM Flow (pcu/hr)	WD AM y Value	WD AM Critical y	WD PM Flow (pcu/hr)	WD PM y Value	WD PM Critical y
Link Road NB	↑	A	1,2	3.650						1980	1980	775	0.391	0.391	730	0.369	0.369
U-turn Slip Road EB	↱	B	2,3	5.000		5				1625	1625	280	0.172		210	0.129	
Access Road	←	C	4	3.650						2120	2120	275	0.130		275	0.130	
WB	↰	C	4	3.650	15					1800	1800	30	0.017		50	0.028	
Caroline Hill Road SB	↓	D	1	3.650	20			68%	35%	1885	1930	329	0.175		324	0.168	
		D	1	3.650						2120	2120	371	0.175		356	0.168	
U-turn Slip Road WB	←	E	3,4	5.000						2115	2115	305	0.144		325	0.154	
Pedestrian Crossing		Fp	4	MIN GREEN + FLASH =			11	+	7	=	18						
		Gp	1,2,3	MIN GREEN + FLASH =			9	+	7	=	16						

Notes:

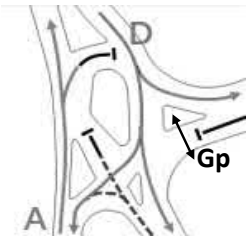
Flow: (pcu/hr)



Group	D,B,C	A,E.	Group	D,B,C	A,E.
y	0.477	0.391	y	0.427	0.369
L (sec)	19	43	L (sec)	19	43
C (sec)	105	105	C (sec)	105	105
y pract.	0.737	0.531	y pract.	0.737	0.531
R.C. (%)	55%	36%	R.C. (%)	73%	44%

Stage / Phase Diagrams

1.



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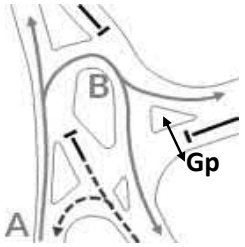

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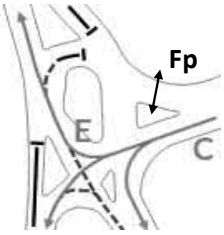


5.

I/G= 5		I/G=		I/G= 5		I/G=		I/G=	
I/G= 5		I/G=		I/G= 5		I/G=		I/G=	

Date: JUL, 2026 **Junction:** J1-Ref(AM&PM) Caroline Hill Road (West) / Link Road (J1)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

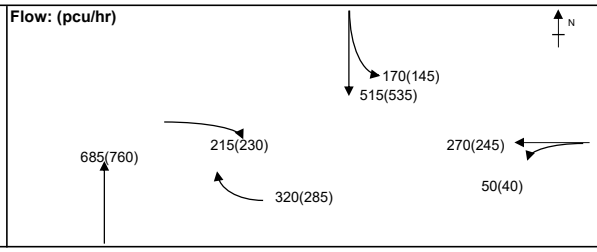
Junction: Caroline Hill Road (West) / Link Road (J1) Design Year: 2036

Description: 2036 Reference Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD NN	Pro. Turning (%) WE NN	Revised Saturation Flow (pcu/hr) WD NN	Revised Saturation Flow (pcu/hr) WE NN	WD NN Flow (pcu/hr)	WD NN y Value	WD NN Critical y	WE NN Flow (pcu/hr)	WE NN y Value	WE NN Critical y
Link Road NB	↑	A	1,2	3.650						1980	1980	685	0.346	0.346	760	0.384	0.384
U-turn Slip Road EB	↱	B	2,3	5.000		5				1625	1625	215	0.132		230	0.142	
Access Road	←	C	4	3.650						2120	2120	270	0.127		245	0.116	
WB	↰	C	4	3.650	15					1800	1800	50	0.028		40	0.022	
Caroline Hill Road SB	↓	D	1	3.650	20			52%	45%	1905	1915	324	0.170		323	0.169	
		D	1	3.650						2120	2120	361	0.170		357	0.168	
U-turn Slip Road WB	←	E	3,4	5.000						2115	2115	320	0.151		285	0.135	
Pedestrian Crossing		Fp	4	MIN GREEN + FLASH =			11	+	7	=	18						
		Gp	1,2,3	MIN GREEN + FLASH =			9	+	7	=	16						
		E.	4,5	MIN GREEN + FLASH =			19	+	15	=	34			*			*

Notes:

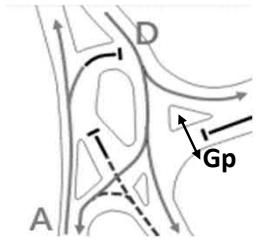
Flow: (pcu/hr)



Group	D,B,C	A,E.	Group	D,B,C	A,E.
y	0.430	0.346	y	0.426	0.384
L (sec)	19	43	L (sec)	19	43
C (sec)	105	105	C (sec)	105	105
y pract.	0.737	0.531	y pract.	0.737	0.531
R.C. (%)	71%	54%	R.C. (%)	73%	38%

Stage / Phase Diagrams

1.



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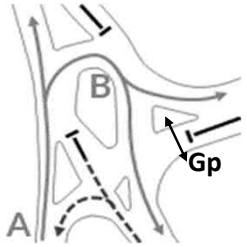

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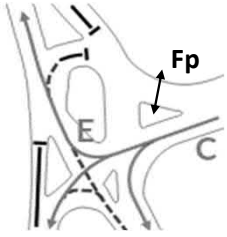


5.

I/G=		I/G=		I/G= 5		I/G=	34	I/G=	
I/G=		I/G=		I/G= 5		I/G=	34	I/G=	

Date: JUL, 2026 **Junction:** J1-Ref(NN&W) Caroline Hill Road (West) / Link Road (J1)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

Junction: Leighton Road / Caroline Hill Road (West) / Hoi Ping Road (J2) Design Year: 2036

Description: 2036 Reference Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD AM	Pro. Turning (%) WD PM	Revised Saturation Flow (pcu/hr) WD AM	Revised Saturation Flow (pcu/hr) WD PM	WD AM Flow (pcu/hr)	WD AM y Value	WD AM Critical y	WD PM Flow (pcu/hr)	WD PM y Value	WD PM Critical y
Leighton Road WB	*, ^,	A	1	3.500	20			70%	88%	730	730	136	0.186		135	0.185	0.185
		A	1	3.500	25					1210	1200	226	0.187	0.187	221	0.184	
		A	1	3.000						2055	2055	383	0.186		379	0.184	
Caroline Hill Road NB		B	2	3.500	65	25		91% / 9%	92% / 8%	1915	1915	425	0.222		428	0.223	0.223
		B	2	3.500		20				1960	1960	435	0.222	0.222	437	0.223	
Leighton Road EB		A	1	3.500						1965	1965	155	0.079		189	0.096	
		A	1	3.300						2085	2085	165	0.079		201	0.096	
Hoi Ping Road SB		C	3	3.500						1965	1965	334	0.170		318	0.162	0.162
	*	C	3	3.500		12		48%	68%	740	725	126	0.170	0.170	117	0.161	

Pedestrian Crossing	Ep	1	MIN GREEN + FLASH =	10	+	5	=	15
	Fp	1,3	MIN GREEN + FLASH =	14	+	5	=	19
	Gp	2	MIN GREEN + FLASH =	14	+	5	=	19
	Hp	3	MIN GREEN + FLASH =	10	+	7	=	17
	Ip	1,2	MIN GREEN + FLASH =	11	+	6	=	17
	Jp	2	MIN GREEN + FLASH =	10	+	7	=	17

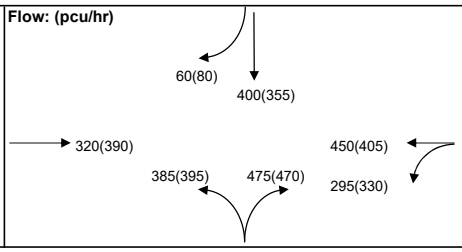
Notes:

TAC junction: Cycle time of 105s and 130s are adopted for AM and PM Peak

^Site Factor of 0.6 adopted due to merging traffic ahead

*Site factor of 0.4 applied due to flare lane

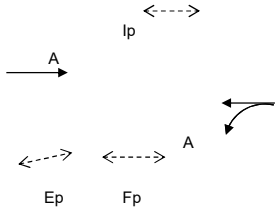
Flow: (pcu/hr)



Group	A,B,Hp	A,B,C	Group	A,B,Hp	A,B,C
y	0.409	0.579	y	0.408	0.570
L (sec)	38	20	L (sec)	38	20
C (sec)	105	105	C (sec)	130	130
y pract.	0.574	0.729	y pract.	0.637	0.762
R.C. (%)	41%	26%	R.C. (%)	56%	34%

Stage / Phase Diagrams

1.



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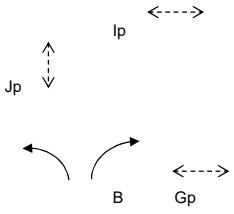

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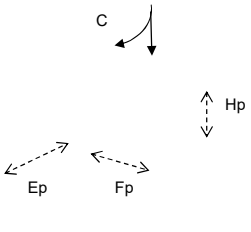


4.

5.

I/G= 8		I/G= 8		I/G= 7		I/G=	
I/G= 8		I/G= 8		I/G= 7		I/G=	

Date: JUL, 2026

Junction: J2 - Ref

Leighton Road / Caroline Hill Road (West) / Hoi Ping Road (J2)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

Junction: Leighton Road / Caroline Hill Road (West) / Hoi Ping Road (J2) Design Year: 2036

Description: 2036 Reference Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD Noon	Pro. Turning (%) WE Noon	Revised Saturation Flow (pcu/hr) WD Noon	Revised Saturation Flow (pcu/hr) WE Noon	WD Noon Flow (pcu/hr)	WD Noon y Value	WD Noon Critical y	WE Noon Flow (pcu/hr)	WE Noon y Value	WE Noon Critical y
Leighton Road WB	*	A	1	3.500	20					730	730	133	0.182	0.182	136	0.186	
	^	A	1	3.500	25			90%	86%	1200	1200	218	0.182		225	0.188	0.188
		A	1	3.000						2055	2055	374	0.182		384	0.187	
Caroline Hill Road NB		B	2	3.500	65	25		100% / 0%	93% / 7%	1920	1915	426	0.222	0.222	437	0.228	
		B	2	3.500		20				1960	1960	434	0.221		448	0.229	0.229
Leighton Road EB		A	1	3.500						1965	1965	197	0.100		201	0.102	
		A	1	3.300						2085	2085	208	0.100		214	0.103	
Hoi Ping Road SB		C	3	3.500						1965	1965	313	0.159		314	0.160	
	*	C	3	3.500		12		60%	69%	730	725	117	0.160	0.160	116	0.160	0.160

	Phase	Stage						
Pedestrian Crossing	Ep	1	MIN GREEN + FLASH =	10	+	5	=	15
	Fp	1,3	MIN GREEN + FLASH =	14	+	5	=	19
	Gp	2	MIN GREEN + FLASH =	14	+	5	=	19
	Hp	3	MIN GREEN + FLASH =	10	+	7	=	17
	Ip	1,2	MIN GREEN + FLASH =	11	+	6	=	17
	Jp	2	MIN GREEN + FLASH =	10	+	7	=	17

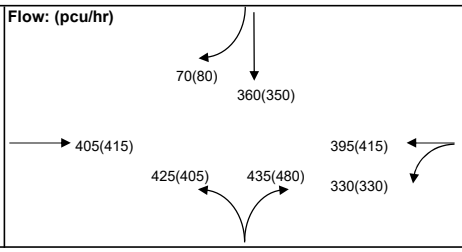
Notes:

TAC junction: Cycle time of 120s and 130s are adopted for WD and WE Noon Peak

^Site Factor of 0.6 adopted due to merging traffic ahead

*Site factor of 0.4 applied due to flare lane

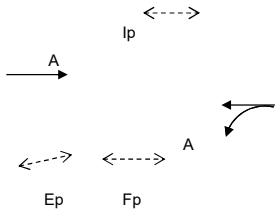
Flow: (pcu/hr)



Group	A,B,Hp	A,B,C	Group	A,B,Hp	A,B,C
y	0.404	0.564	y	0.416	0.576
L (sec)	38	20	L (sec)	38	20
C (sec)	120	120	C (sec)	130	130
y pract.	0.615	0.750	y pract.	0.637	0.762
R.C. (%)	52%	33%	R.C. (%)	53%	32%

Stage / Phase Diagrams

1.



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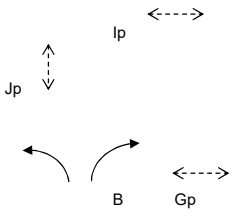

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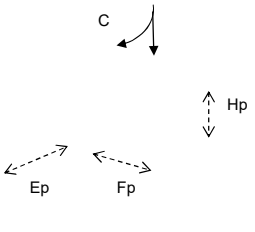

4.

5.

I/G= 8		I/G= 8		I/G= 7		I/G=	
I/G= 8		I/G= 8		I/G= 7		I/G=	

Date: JUL, 2026

Junction: J2 - Ref

Leighton Road / Caroline Hill Road (West) / Hoi Ping Road (J2)

TRL THE FUTURE OF TRANSPORT

Generated on 16/7/2026 4:41:12 pm using Junctions 11 (11.1.1.2424)

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424
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Filename: Import of J3 sunning leighton - AM.j11
Path: O:\mhc\T3\PRINT\SIGCAL\Ref\J3
Report generation date: 16/7/2026 4:40:50 pm

«D1 - 2025 | | AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.3	1.1	8.13	0.26	A	1.22	A	102 % [Stream B-AC]
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75	✓				✓	Delay	0.85	36.00	20.00		

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

D1 - 2025 | | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way	1.22	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	102	Stream B-AC	1.22	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	13.15			40.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	55	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	618	0.078	0.196	0.123	0.280
B-C	779	0.082	0.208	-	-
C-B	597	0.159	0.159	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	795	100.000
B		ONE HOUR	✓	140	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	795
	B	0	0	140
	C	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.26	8.13	0.3	1.1	A	128	193
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						0	0
A-C						730	1094

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	26	0.00	655	0.161	105	0.0	0.2	6.535	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	502	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	599	150	0.00			599				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	31	0.00	630	0.200	126	0.2	0.2	7.127	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	483	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	715	179	0.00			715				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	154	39	0.00	597	0.258	154	0.2	0.3	8.113	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	458	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	875	219	0.00			875				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	154	39	0.00	597	0.258	154	0.3	0.3	8.127	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	458	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	875	219	0.00			875				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	126	31	0.00	630	0.200	126	0.3	0.3	7.144	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	483	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	715	179	0.00			715				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	105	26	0.00	655	0.161	106	0.3	0.2	6.562	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	502	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	599	150	0.00			599				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.34	0.03	0.26	0.46	0.48			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.35	0.03	0.31	1.05	1.05			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.19	0.00	0.00	0.19	0.19			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424
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Filename: Import of J3 sunning leighton - NN.j11
Path: O:\mhc\T3\PRINT\SIGCAL\Ref\J3
Report generation date: 16/7/2026 4:41:33 pm

«D1 - 2025 | | AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.6	2.7	9.67	0.37	A	1.82	A	67 % [Stream B-AC]
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75	✓				✓	Delay	0.85	36.00	20.00		

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

D1 - 2025 | | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way	1.82	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	67	Stream B-AC	1.82	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	13.15			40.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	55	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	618	0.078	0.196	0.123	0.280
B-C	779	0.082	0.208	-	-
C-B	597	0.159	0.159	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	840	100.000
B		ONE HOUR	✓	195	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	840
	B	0	0	195
	C	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.37	9.67	0.6	2.7	A	179	268
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						0	0
A-C						771	1156

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	147	37	0.00	648	0.227	146	0.0	0.3	7.157	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	496	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	632	158	0.00			632				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	175	44	0.00	622	0.282	175	0.3	0.4	8.043	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	477	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	755	189	0.00			755				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	215	54	0.00	587	0.366	214	0.4	0.6	9.637	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	450	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	925	231	0.00			925				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	215	54	0.00	587	0.366	215	0.6	0.6	9.675	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	450	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	925	231	0.00			925				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	175	44	0.00	622	0.282	176	0.6	0.4	8.083	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	477	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	755	189	0.00			755				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	147	37	0.00	648	0.227	147	0.4	0.3	7.202	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	496	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	632	158	0.00			632				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.39	0.00	0.00	0.39	0.39			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.57	0.03	0.26	0.57	0.57			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.57	0.03	0.30	1.33	2.68			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.40	0.00	0.00	0.40	0.40			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424
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Filename: Import of J3 sunning leighton - PM.j11
Path: O:\mhc\T3\PRINT\SIGCAL\Ref\J3
Report generation date: 16/7/2026 4:41:49 pm

«D1 - 2025 | | AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.5	2.0	9.11	0.32	A	1.50	A	77 % [Stream B-AC]
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75	✓				✓	Delay	0.85	36.00	20.00		

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

D1 - 2025 | | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way	1.50	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	77	Stream B-AC	1.50	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	13.15			40.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	55	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	618	0.078	0.196	0.123	0.280
B-C	779	0.082	0.208	-	-
C-B	597	0.159	0.159	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	860	100.000
B		ONE HOUR	✓	170	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	860
	B	0	0	170
	C	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.32	9.11	0.5	2.0	A	156	234
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						0	0
A-C						789	1184

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	128	32	0.00	644	0.199	127	0.0	0.2	6.945	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	494	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	647	162	0.00			647				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	38	0.00	618	0.247	153	0.2	0.3	7.723	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	474	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	773	193	0.00			773				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	187	47	0.00	582	0.322	187	0.3	0.5	9.088	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	446	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	947	237	0.00			947				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	187	47	0.00	582	0.322	187	0.5	0.5	9.113	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	446	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	947	237	0.00			947				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	153	38	0.00	618	0.247	153	0.5	0.3	7.753	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	474	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	773	193	0.00			773				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	128	32	0.00	644	0.199	128	0.3	0.3	6.981	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	494	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	647	162	0.00			647				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.32	0.00	0.00	0.32	0.32			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.47	0.03	0.26	0.47	0.49			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.47	0.03	0.30	1.36	2.05			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.33	0.00	0.00	0.33	0.33			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.25	0.00	0.00	0.25	0.25			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

THE FUTURE OF TRANSPORT

Generated on 16/7/2026 4:42:13 pm using Junctions 11 (11.1.1.2424)

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424
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Filename: Import of J3 sunning leighton - WE.j11
Path: O:\mhc\T3\PRINT\SIGCAL\Ref\J3
Report generation date: 16/7/2026 4:42:05 pm

«D1 - 2025 | | AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.6	2.7	9.86	0.36	A	1.73	A	64 % [Stream B-AC]
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75	✓				✓	Delay	0.85	36.00	20.00		

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

D1 - 2025 | | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way	1.73	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	64	Stream B-AC	1.73	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	13.15			40.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	55	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	618	0.078	0.196	0.123	0.280
B-C	779	0.082	0.208	-	-
C-B	597	0.159	0.159	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	895	100.000
B		ONE HOUR	✓	190	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	895
	B	0	0	190
	C	0	0	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.36	9.86	0.6	2.7	A	174	262
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						0	0
A-C						821	1232

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	143	36	0.00	639	0.224	142	0.0	0.3	7.227	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	490	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	674	168	0.00			674				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	171	43	0.00	612	0.279	170	0.3	0.4	8.149	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	469	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	805	201	0.00			805				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	209	52	0.00	574	0.364	208	0.4	0.6	9.824	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	440	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	985	246	0.00			985				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	209	52	0.00	574	0.364	209	0.6	0.6	9.861	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	440	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	985	246	0.00			985				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	171	43	0.00	612	0.279	172	0.6	0.4	8.191	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	469	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	805	201	0.00			805				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	143	36	0.00	639	0.224	143	0.4	0.3	7.270	A
C-A	0	0	0.00			0				
C-B	0	0	0.00	490	0.000	0	0.0	0.0	0.000	A
A-B	0	0	0.00			0				
A-C	674	168	0.00			674				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.56	0.03	0.26	0.56	0.56			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.57	0.03	0.30	1.34	2.67			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.39	0.00	0.00	0.39	0.39			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.29	0.00	0.00	0.29	0.29			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

Junction: Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill Road (East) (J4) Design Year: 2036

Description: 2036 Reference Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD AM	Pro. Turning (%) WD PM	Revised Saturation Flow (pcu/hr) WD AM	Revised Saturation Flow (pcu/hr) WD PM	WD AM Flow (pcu/hr)	WD AM y Value	WD AM Critical y	WD PM Flow (pcu/hr)	WD PM y Value	WD PM Critical y
Leighton Road WB	*	A	1	3.000	7			51%	34%	1035	1070	293	0.283		261	0.244	
		A	1	2.500						2005	2005	567	0.283		489	0.244	
Leighton Road WB	**	C	2	3.500		9				1180	1180	200	0.169	0.169	260	0.220	0.220
Caroline Hill Road NB	*	C	2	4.000	5					930	930	40	0.043		75	0.081	
Leighton Road EB	**	A	1	3.000	15			55%	72%	1270	1250	439	0.346	0.346	479	0.383	0.383
	**	A	1	3.000						1440	1440	496	0.344		551	0.383	
Pedestrian Crossing		Bp	1	MIN GREEN + FLASH =			5	+	8	=	13						
		Dp	2	MIN GREEN + FLASH =			10	+	8	=	18						

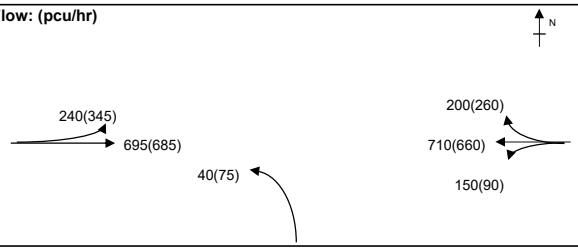
Notes:

TAC junction: Cycle time of 105s and 130s are adopted for AM and PM Peak

* = Site factor of 0.6 adopted

** = Site factor of 0.7 adopted

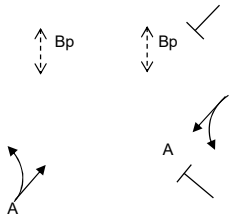
Flow: (pcu/hr)



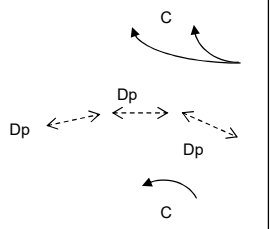
Group	A,Dp	A,C	Group	A,Dp	A,C
y	0.346	0.515	y	0.383	0.604
L (sec)	27	11	L (sec)	27	11
C (sec)	105	105	C (sec)	130	130
y pract.	0.669	0.806	y pract.	0.713	0.824
R.C. (%)	93%	56%	R.C. (%)	86%	37%

Stage / Phase Diagrams

1.



2.



3.

4.

5.

I/G= 7		I/G= 6		I/G=		I/G=		I/G=	
I/G= 7		I/G= 6		I/G=		I/G=		I/G=	

Date: JUL, 2026 **Junction:** J4 - Ref

Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

Junction: Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill Road (East) (J4) Design Year: 2036

Description: 2036 Reference Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD Noon	Pro. Turning (%) WE Noon	Revised Saturation Flow (pcu/hr) WD Noon	Revised Saturation Flow (pcu/hr) WE Noon	WD Noon Flow (pcu/hr)	WD Noon y Value	WD Noon Critical y	WE Noon Flow (pcu/hr)	WE Noon y Value	WE Noon Critical y
Leighton Road WB	*	A	1	3.000	7			59%	52%	1020	1035	261	0.256		260	0.251	
		A	1	2.500						2005	2005	514	0.256		505	0.252	
Leighton Road WB	**	C	2	3.500		9				1180	1180	260	0.220	0.220	330	0.280	0.280
Caroline Hill Road NB	*	C	2	4.000	5					930	930	105	0.113		115	0.124	
Leighton Road EB	**	A	1	3.000	15			61%	75%	1265	1245	484	0.383		504	0.405	0.405
	**	A	1	3.000						1440	1440	551	0.383	0.383	581	0.403	
Pedestrian Crossing		Bp	1	MIN GREEN + FLASH =			5	+	8	=	13						
		Dp	2	MIN GREEN + FLASH =			10	+	8	=	18						

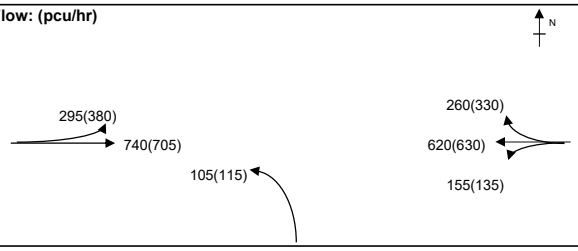
Notes:

TAC junction: Cycle time of 110s and 120s are adopted for WD and WE Noon

* = Site factor of 0.6 adopted

** = Site factor of 0.7 adopted

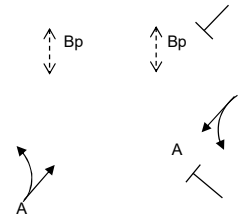
Flow: (pcu/hr)



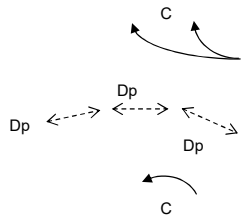
Group	A,Dp	A,C	Group	A,Dp	A,C
y	0.383	0.603	y	0.405	0.684
L (sec)	27	11	L (sec)	27	11
C (sec)	110	110	C (sec)	120	120
y pract.	0.679	0.810	y pract.	0.698	0.818
R.C. (%)	77%	34%	R.C. (%)	72%	19%

Stage / Phase Diagrams

1.



2.



3.

4.

5.

I/G= 7		I/G= 6		I/G=		I/G=		I/G=	
I/G= 7		I/G= 6		I/G=		I/G=		I/G=	

Date: JUL, 2026 **Junction:** J4 - Ref

Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill

Generated on 17/12/2025 3:15:49 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J5 hysan yun ping - AM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Ref\J5
Report generation date: 17/12/2025 3:15:42 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-C	0.3	1.2	6.34	0.21	A	1.99	A	227 % [Stream B-C]
Stream B-A	0.0	~1	0.00	0.00	A			
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	J5
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Entry Only	Two-way	Exit Only		1.99	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	227	Stream B-C	1.99	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00					

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	5.00	5.00	45	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	611	0.107	0.269	0.169	0.385
B-C	775	0.077	0.196	-	-
C-B	597	0.186	0.186	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	305	100.000
B		ONE HOUR	✓	140	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	95	210
	B	0	0	140
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.21	6.34	0.3	1.2	A	128	193
B-A	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						87	131
A-C						193	289

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	105	26	739	0.143	105	0.0	0.2	5.671	A
B-A	0	0	561	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	554	0.000	0	0.0	0.0	0.000	A
A-B	72	18			72				
A-C	158	40			158				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	126	31	732	0.172	126	0.2	0.2	5.938	A
B-A	0	0	551	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	546	0.000	0	0.0	0.0	0.000	A
A-B	85	21			85				
A-C	189	47			189				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	154	39	722	0.214	154	0.2	0.3	6.334	A
B-A	0	0	538	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	535	0.000	0	0.0	0.0	0.000	A
A-B	105	26			105				
A-C	231	58			231				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	154	39	722	0.214	154	0.3	0.3	6.339	A
B-A	0	0	538	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	535	0.000	0	0.0	0.0	0.000	A
A-B	105	26			105				
A-C	231	58			231				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	126	31	732	0.172	126	0.3	0.2	5.948	A
B-A	0	0	551	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	546	0.000	0	0.0	0.0	0.000	A
A-B	85	21			85				
A-C	189	47			189				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	105	26	739	0.143	106	0.2	0.2	5.688	A
B-A	0	0	561	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	554	0.000	0	0.0	0.0	0.000	A
A-B	72	18			72				
A-C	158	40			158				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.00	0.00	0.17	0.17			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.27	0.03	0.25	0.46	0.48			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.27	0.03	0.30	0.93	1.24			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.00	0.00	0.17	0.17			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:15:35 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J5 hysan yun ping - NN.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Ref\J5
Report generation date: 17/12/2025 3:15:30 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-C	0.8	2.8	9.10	0.44	A	3.64	A	79 % [Stream B-C]
Stream B-A	0.0	~1	0.00	0.00	A			
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Entry Only	Two-way	Exit Only		3.64	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	79	Stream B-C	3.64	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00					

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	5.00	5.00	45	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	611	0.107	0.269	0.169	0.385
B-C	775	0.077	0.196	-	-
C-B	597	0.186	0.186	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	420	100.000
B		ONE HOUR	✓	280	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	145	275
	B	0	0	280
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.44	9.10	0.8	2.8	A	257	385
B-A	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						133	200
A-C						252	379

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	211	53	726	0.290	209	0.0	0.4	6.941	A
B-A	0	0	544	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	538	0.000	0	0.0	0.0	0.000	A
A-B	109	27			109				
A-C	207	52			207				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	252	63	717	0.351	251	0.4	0.5	7.723	A
B-A	0	0	531	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	527	0.000	0	0.0	0.0	0.000	A
A-B	130	33			130				
A-C	247	62			247				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	308	77	704	0.438	307	0.5	0.8	9.062	A
B-A	0	0	513	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	511	0.000	0	0.0	0.0	0.000	A
A-B	160	40			160				
A-C	303	76			303				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	308	77	704	0.438	308	0.8	0.8	9.103	A
B-A	0	0	513	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	511	0.000	0	0.0	0.0	0.000	A
A-B	160	40			160				
A-C	303	76			303				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	252	63	717	0.351	253	0.8	0.5	7.771	A
B-A	0	0	531	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	527	0.000	0	0.0	0.0	0.000	A
A-B	130	33			130				
A-C	247	62			247				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	211	53	726	0.290	211	0.5	0.4	7.000	A
B-A	0	0	544	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	538	0.000	0	0.0	0.0	0.000	A
A-B	109	27			109				
A-C	207	52			207				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.40	0.00	0.00	0.40	0.40			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.53	0.53	1.00	1.40	1.45			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.77	0.03	0.26	0.77	0.77			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.77	0.03	0.28	0.77	2.81			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.55	0.07	0.71	1.34	1.42			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.41	0.03	0.31	1.00	1.25			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J5 hysan yun ping - PM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Ref\J5
Report generation date: 17/12/2025 3:15:17 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-C	0.5	2.4	7.93	0.34	A	2.37	A	111 % [Stream B-C]
Stream B-A	0.0	~1	0.00	0.00	A			
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Entry Only	Two-way	Exit Only		2.37	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	111	Stream B-C	2.37	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00					

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	5.00	5.00	45	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	611	0.107	0.269	0.169	0.385
B-C	775	0.077	0.196	-	-
C-B	597	0.186	0.186	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	505	100.000
B		ONE HOUR	✓	215	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	185	320
	B	0	0	215
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.34	7.93	0.5	2.4	A	197	296
B-A	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						170	255
A-C						294	440

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	162	40	717	0.226	161	0.0	0.3	6.454	A
B-A	0	0	532	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	526	0.000	0	0.0	0.0	0.000	A
A-B	139	35			139				
A-C	241	60			241				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	193	48	706	0.274	193	0.3	0.4	7.011	A
B-A	0	0	516	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	513	0.000	0	0.0	0.0	0.000	A
A-B	166	42			166				
A-C	288	72			288				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	237	59	691	0.343	236	0.4	0.5	7.912	A
B-A	0	0	495	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	494	0.000	0	0.0	0.0	0.000	A
A-B	204	51			204				
A-C	352	88			352				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	237	59	691	0.343	237	0.5	0.5	7.932	A
B-A	0	0	495	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	494	0.000	0	0.0	0.0	0.000	A
A-B	204	51			204				
A-C	352	88			352				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	193	48	706	0.274	194	0.5	0.4	7.034	A
B-A	0	0	516	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	513	0.000	0	0.0	0.0	0.000	A
A-B	166	42			166				
A-C	288	72			288				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	162	40	717	0.226	162	0.4	0.3	6.490	A
B-A	0	0	532	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	526	0.000	0	0.0	0.0	0.000	A
A-B	139	35			139				
A-C	241	60			241				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.37	0.00	0.00	0.37	0.37			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.51	0.03	0.25	0.51	0.51			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.52	0.03	0.30	1.31	2.40			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.38	0.00	0.00	0.38	0.38			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:15:08 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J5 hysan yun ping - WE.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Ref\J5
Report generation date: 17/12/2025 3:15:03 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-C	0.8	2.9	9.64	0.45	A	3.20	A	69 % [Stream B-C]
Stream B-A	0.0	~1	0.00	0.00	A			
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Entry Only	Two-way	Exit Only		3.20	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	69	Stream B-C	3.20	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00					

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	5.00	5.00	45	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	611	0.107	0.269	0.169	0.385
B-C	775	0.077	0.196	-	-
C-B	597	0.186	0.186	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	565	100.000
B		ONE HOUR	✓	280	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	215	350
	B	0	0	280
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.45	9.64	0.8	2.9	A	257	385
B-A	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						197	296
A-C						321	482

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	211	53	711	0.296	209	0.0	0.4	7.148	A
B-A	0	0	523	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	518	0.000	0	0.0	0.0	0.000	A
A-B	162	40			162				
A-C	263	66			263				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	252	63	699	0.360	251	0.4	0.6	8.032	A
B-A	0	0	506	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	503	0.000	0	0.0	0.0	0.000	A
A-B	193	48			193				
A-C	315	79			315				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	308	77	682	0.452	307	0.6	0.8	9.592	A
B-A	0	0	482	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	481	0.000	0	0.0	0.0	0.000	A
A-B	237	59			237				
A-C	385	96			385				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	308	77	682	0.452	308	0.8	0.8	9.643	A
B-A	0	0	482	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	481	0.000	0	0.0	0.0	0.000	A
A-B	237	59			237				
A-C	385	96			385				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	252	63	699	0.360	253	0.8	0.6	8.089	A
B-A	0	0	506	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	503	0.000	0	0.0	0.0	0.000	A
A-B	193	48			193				
A-C	315	79			315				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	211	53	711	0.296	211	0.6	0.4	7.210	A
B-A	0	0	523	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	518	0.000	0	0.0	0.0	0.000	A
A-B	162	40			162				
A-C	263	66			263				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.42	0.00	0.00	0.42	0.42			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.56	0.55	1.00	1.40	1.45			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.81	0.03	0.26	0.81	0.81			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.82	0.03	0.28	0.82	2.86			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.57	0.07	0.74	1.35	1.42			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.43	0.03	0.34	1.12	1.31			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:19:04 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J6 sunning hysan - AM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Ref\J6
Report generation date: 17/12/2025 3:18:59 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	1.95	A	345 % [Stream C-B]
Stream C-B	0.2	0.5	7.36	0.16	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		1.95	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	345	Stream C-B	1.95	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			50.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	603	0.193	0.193	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	95	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	225	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	25	70
	B	0	0	0
	C	140	85	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						128	193
C-B	0.16	7.36	0.2	0.5	A	78	117
A-B						23	34
A-C						64	96

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	470	0.000	0	0.0	0.0	0.000	A
C-A	105	26			105				
C-B	64	16	589	0.109	64	0.0	0.1	6.843	A
A-B	19	5			19				
A-C	53	13			53				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	464	0.000	0	0.0	0.0	0.000	A
C-A	126	31			126				
C-B	76	19	586	0.130	76	0.1	0.1	7.054	A
A-B	22	6			22				
A-C	63	16			63				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	456	0.000	0	0.0	0.0	0.000	A
C-A	154	39			154				
C-B	94	23	583	0.161	93	0.1	0.2	7.355	A
A-B	28	7			28				
A-C	77	19			77				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	456	0.000	0	0.0	0.0	0.000	A
C-A	154	39			154				
C-B	94	23	583	0.161	94	0.2	0.2	7.358	A
A-B	28	7			28				
A-C	77	19			77				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	464	0.000	0	0.0	0.0	0.000	A
C-A	126	31			126				
C-B	76	19	586	0.130	77	0.2	0.2	7.061	A
A-B	22	6			22				
A-C	63	16			63				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	470	0.000	0	0.0	0.0	0.000	A
C-A	105	26			105				
C-B	64	16	589	0.109	64	0.2	0.1	6.857	A
A-B	19	5			19				
A-C	53	13			53				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.12	0.00	0.00	0.12	0.12			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.15	0.00	0.00	0.15	0.15			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.19	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.19	0.03	0.26	0.46	0.49			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.15	0.00	0.00	0.15	0.15			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.12	0.00	0.00	0.12	0.12			N/A	N/A

Generated on 17/12/2025 3:18:52 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J6 sunning hysan - NN.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Ref\J6
Report generation date: 17/12/2025 3:18:47 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	1.64	A	233 %
Stream C-B	0.3	1.3	7.98	0.21	A			[Stream C-B]

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		1.64	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	233	Stream C-B	1.64	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			50.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	603	0.193	0.193	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	145	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	390	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	30	115
	B	0	0	0
	C	280	110	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						257	385
C-B	0.21	7.98	0.3	1.3	A	101	151
A-B						28	41
A-C						106	158

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	453	0.000	0	0.0	0.0	0.000	A
C-A	211	53			211				
C-B	83	21	582	0.142	82	0.0	0.2	7.196	A
A-B	23	6			23				
A-C	87	22			87				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	444	0.000	0	0.0	0.0	0.000	A
C-A	252	63			252				
C-B	99	25	578	0.171	99	0.2	0.2	7.513	A
A-B	27	7			27				
A-C	103	26			103				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	431	0.000	0	0.0	0.0	0.000	A
C-A	308	77			308				
C-B	121	30	572	0.212	121	0.2	0.3	7.974	A
A-B	33	8			33				
A-C	127	32			127				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	431	0.000	0	0.0	0.0	0.000	A
C-A	308	77			308				
C-B	121	30	572	0.212	121	0.3	0.3	7.981	A
A-B	33	8			33				
A-C	127	32			127				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	443	0.000	0	0.0	0.0	0.000	A
C-A	252	63			252				
C-B	99	25	578	0.171	99	0.3	0.2	7.524	A
A-B	27	7			27				
A-C	103	26			103				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	453	0.000	0	0.0	0.0	0.000	A
C-A	211	53			211				
C-B	83	21	582	0.142	83	0.2	0.2	7.217	A
A-B	23	6			23				
A-C	87	22			87				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.16	0.00	0.00	0.16	0.16			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.20	0.00	0.00	0.20	0.20			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.27	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.27	0.03	0.30	0.94	1.26			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.21	0.00	0.00	0.21	0.21			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.17	0.00	0.00	0.17	0.17			N/A	N/A

Generated on 17/12/2025 3:18:40 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J6 sunning hysan - PM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Ref\J6
Report generation date: 17/12/2025 3:18:35 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	1.67	A	226 % [Stream C-B]
Stream C-B	0.3	1.2	8.03	0.21	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		1.67	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	226	Stream C-B	1.67	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			50.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	603	0.193	0.193	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	185	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	320	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	30	155
	B	0	0	0
	C	215	105	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						197	296
C-B	0.21	8.03	0.3	1.2	A	96	145
A-B						28	41
A-C						142	213

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	452	0.000	0	0.0	0.0	0.000	A
C-A	162	40			162				
C-B	79	20	576	0.137	78	0.0	0.2	7.225	A
A-B	23	6			23				
A-C	117	29			117				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	442	0.000	0	0.0	0.0	0.000	A
C-A	193	48			193				
C-B	94	24	571	0.165	94	0.2	0.2	7.552	A
A-B	27	7			27				
A-C	139	35			139				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	429	0.000	0	0.0	0.0	0.000	A
C-A	237	59			237				
C-B	116	29	564	0.205	115	0.2	0.3	8.027	A
A-B	33	8			33				
A-C	171	43			171				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	429	0.000	0	0.0	0.0	0.000	A
C-A	237	59			237				
C-B	116	29	564	0.205	116	0.3	0.3	8.035	A
A-B	33	8			33				
A-C	171	43			171				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	442	0.000	0	0.0	0.0	0.000	A
C-A	193	48			193				
C-B	94	24	571	0.165	95	0.3	0.2	7.565	A
A-B	27	7			27				
A-C	139	35			139				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	451	0.000	0	0.0	0.0	0.000	A
C-A	162	40			162				
C-B	79	20	576	0.137	79	0.2	0.2	7.247	A
A-B	23	6			23				
A-C	117	29			117				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.16	0.00	0.00	0.16	0.16			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.20	0.00	0.00	0.20	0.20			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.26	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.26	0.03	0.30	0.88	1.22			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.20	0.00	0.00	0.20	0.20			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.16	0.00	0.00	0.16	0.16			N/A	N/A

Generated on 17/12/2025 3:18:26 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J6 sunning hysan - WE.j10
Path: O:\mhc\Tunnel 3\Cal\J10\Ref\J6
Report generation date: 17/12/2025 3:18:21 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	1.28	A	236 % [Stream C-B]
Stream C-B	0.2	1.1	7.95	0.19	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		1.28	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	236	Stream C-B	1.28	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			50.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	603	0.193	0.193	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	215	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	375	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	45	170
	B	0	0	0
	C	280	95	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						257	385
C-B	0.19	7.95	0.2	1.1	A	87	131
A-B						41	62
A-C						156	234

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	446	0.000	0	0.0	0.0	0.000	A
C-A	211	53			211				
C-B	72	18	572	0.125	71	0.0	0.1	7.182	A
A-B	34	8			34				
A-C	128	32			128				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	436	0.000	0	0.0	0.0	0.000	A
C-A	252	63			252				
C-B	85	21	566	0.151	85	0.1	0.2	7.492	A
A-B	40	10			40				
A-C	153	38			153				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	422	0.000	0	0.0	0.0	0.000	A
C-A	308	77			308				
C-B	105	26	557	0.188	104	0.2	0.2	7.946	A
A-B	50	12			50				
A-C	187	47			187				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	422	0.000	0	0.0	0.0	0.000	A
C-A	308	77			308				
C-B	105	26	557	0.188	105	0.2	0.2	7.952	A
A-B	50	12			50				
A-C	187	47			187				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	436	0.000	0	0.0	0.0	0.000	A
C-A	252	63			252				
C-B	85	21	566	0.151	86	0.2	0.2	7.504	A
A-B	40	10			40				
A-C	153	38			153				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	446	0.000	0	0.0	0.0	0.000	A
C-A	211	53			211				
C-B	72	18	572	0.125	72	0.2	0.1	7.200	A
A-B	34	8			34				
A-C	128	32			128				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.14	0.00	0.00	0.14	0.14			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.18	0.00	0.00	0.18	0.18			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.23	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.23	0.03	0.28	0.62	1.07			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.18	0.00	0.00	0.18	0.18			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.14	0.00	0.00	0.14	0.14			N/A	N/A

Generated on 16/7/2026 3:47:48 pm using Junctions 11 (11.1.1.2424)

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424
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Filename: Import of Future WO HPR AM.j11
Path: O:\mhc\T3\New folder\Ref\J7
Report generation date: 16/7/2026 3:46:37 pm

«D1 - 2025 | | AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	14.07	B	9 % [Stream C-B]
Stream C-B	3.4	17.3	24.40	0.78	C			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75	✓				✓	Delay	0.85	36.00	20.00		

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

D1 - 2025 | | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way	14.07	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	9	Stream C-B	14.07	B

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.30	90.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	701	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	155	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	660	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	55	100
	B	0	0	0
	C	190	470	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						174	262
C-B	0.78	24.40	3.4	17.3	C	431	647
A-B						50	76
A-C						92	138

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	410	0.000	0	0.0	0.0	0.000	A
C-A	143	36	0.00			143				
C-B	354	88	0.00	675	0.524	350	0.0	1.1	10.929	B
A-B	41	10	0.00			41				
A-C	75	19	0.00			75				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	390	0.000	0	0.0	0.0	0.000	A
C-A	171	43	0.00			171				
C-B	423	106	0.00	670	0.631	420	1.1	1.6	14.291	B
A-B	49	12	0.00			49				
A-C	90	22	0.00			90				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	362	0.000	0	0.0	0.0	0.000	A
C-A	209	52	0.00			209				
C-B	517	129	0.00	663	0.781	511	1.6	3.2	22.822	C
A-B	61	15	0.00			61				
A-C	110	28	0.00			110				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	361	0.000	0	0.0	0.0	0.000	A
C-A	209	52	0.00			209				
C-B	517	129	0.00	663	0.781	517	3.2	3.4	24.403	C
A-B	61	15	0.00			61				
A-C	110	28	0.00			110				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	389	0.000	0	0.0	0.0	0.000	A
C-A	171	43	0.00			171				
C-B	423	106	0.00	670	0.631	429	3.4	1.8	15.313	C
A-B	49	12	0.00			49				
A-C	90	22	0.00			90				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	409	0.000	0	0.0	0.0	0.000	A
C-A	143	36	0.00			143				
C-B	354	88	0.00	675	0.524	356	1.8	1.1	11.396	B
A-B	41	10	0.00			41				
A-C	75	19	0.00			75				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.07	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.64	0.09	1.17	3.45	4.67			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.21	0.03	0.34	7.08	17.32			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.37	0.03	0.30	3.37	14.63			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.78	0.05	0.46	4.74	7.70			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.13	0.04	0.36	2.83	5.31			N/A	N/A

THE FUTURE OF TRANSPORT

Generated on 16/7/2026 3:50:00 pm using Junctions 11 (11.1.1.2424)

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424
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Filename: Import of Future WO HPR NN.j11
Path: O:\mhc\T3\New folder\Ref\J7
Report generation date: 16/7/2026 3:49:52 pm

«D1 - 2025 | | AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	14.84	B	2 % [Stream C-B]
Stream C-B	4.5	23.7	31.94	0.83	D			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75	✓				✓	Delay	0.85	36.00	20.00		

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

D1 - 2025 | | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way	14.84	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	2	Stream C-B	14.84	B

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.30	90.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	701	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	215	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	840	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	60	155
	B	0	0	0
	C	350	490	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						321	482
C-B	0.83	31.94	4.5	23.7	D	450	674
A-B						55	83
A-C						142	213

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	389	0.000	0	0.0	0.0	0.000	A
C-A	263	66	0.00			263				
C-B	369	92	0.00	665	0.555	364	0.0	1.2	11.791	B
A-B	45	11	0.00			45				
A-C	117	29	0.00			117				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	364	0.000	0	0.0	0.0	0.000	A
C-A	315	79	0.00			315				
C-B	440	110	0.00	658	0.670	438	1.2	1.9	16.139	C
A-B	54	13	0.00			54				
A-C	139	35	0.00			139				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	328	0.000	0	0.0	0.0	0.000	A
C-A	385	96	0.00			385				
C-B	540	135	0.00	648	0.833	530	1.9	4.2	28.550	D
A-B	66	17	0.00			66				
A-C	171	43	0.00			171				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	325	0.000	0	0.0	0.0	0.000	A
C-A	385	96	0.00			385				
C-B	540	135	0.00	648	0.833	538	4.2	4.5	31.944	D
A-B	66	17	0.00			66				
A-C	171	43	0.00			171				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	361	0.000	0	0.0	0.0	0.000	A
C-A	315	79	0.00			315				
C-B	440	110	0.00	658	0.670	450	4.5	2.1	18.061	C
A-B	54	13	0.00			54				
A-C	139	35	0.00			139				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	387	0.000	0	0.0	0.0	0.000	A
C-A	263	66	0.00			263				
C-B	369	92	0.00	665	0.555	372	2.1	1.3	12.449	B
A-B	45	11	0.00			45				
A-C	117	29	0.00			117				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.21	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.93	0.08	1.23	4.33	5.96			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	4.22	0.04	0.41	11.42	22.25			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	4.53	0.03	0.33	7.76	23.66			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	2.13	0.04	0.43	5.82	10.03			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.28	0.03	0.34	3.03	6.48			N/A	N/A

Generated on 16/7/2026 3:50:14 pm using Junctions 11 (11.1.1.2424)

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424
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Filename: Import of Future WO HPR PM.j11
Path: O:\mhc\T3\New folder\Ref\J7
Report generation date: 16/7/2026 3:50:09 pm

«D1 - 2025 | | AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	12.66	B	5 % [Stream C-B]
Stream C-B	3.7	18.9	27.79	0.80	D			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75	✓				✓	Delay	0.85	36.00	20.00		

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

D1 - 2025 | | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way	12.66	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	5	Stream C-B	12.66	B

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.30	90.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	701	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	275	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	735	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	90	185
	B	0	0	0
	C	275	460	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						252	379
C-B	0.80	27.79	3.7	18.9	D	422	633
A-B						83	124
A-C						170	255

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	393	0.000	0	0.0	0.0	0.000	A
C-A	207	52	0.00			207				
C-B	346	87	0.00	655	0.529	342	0.0	1.1	11.364	B
A-B	68	17	0.00			68				
A-C	139	35	0.00			139				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	369	0.000	0	0.0	0.0	0.000	A
C-A	247	62	0.00			247				
C-B	414	103	0.00	646	0.641	411	1.1	1.7	15.185	C
A-B	81	20	0.00			81				
A-C	166	42	0.00			166				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	335	0.000	0	0.0	0.0	0.000	A
C-A	303	76	0.00			303				
C-B	506	127	0.00	633	0.800	499	1.7	3.5	25.545	D
A-B	99	25	0.00			99				
A-C	204	51	0.00			204				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	333	0.000	0	0.0	0.0	0.000	A
C-A	303	76	0.00			303				
C-B	506	127	0.00	633	0.800	506	3.5	3.7	27.793	D
A-B	99	25	0.00			99				
A-C	204	51	0.00			204				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	367	0.000	0	0.0	0.0	0.000	A
C-A	247	62	0.00			247				
C-B	414	103	0.00	646	0.641	421	3.7	1.9	16.522	C
A-B	81	20	0.00			81				
A-C	166	42	0.00			166				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	391	0.000	0	0.0	0.0	0.000	A
C-A	207	52	0.00			207				
C-B	346	87	0.00	655	0.529	349	1.9	1.2	11.893	B
A-B	68	17	0.00			68				
A-C	139	35	0.00			139				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.09	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.71	0.09	1.18	3.65	4.93			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.53	0.04	0.37	8.66	18.91			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.73	0.03	0.31	4.53	17.79			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.86	0.04	0.45	4.98	8.33			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.15	0.04	0.35	2.82	5.58			N/A	N/A

TRL THE FUTURE OF TRANSPORT

Generated on 16/7/2026 3:49:11 pm using Junctions 11 (11.1.1.2424)

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424

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Filename: Import of Future WO HPR WE.j11
Path: O:\mhc\T3\New folder\Ref\J7
Report generation date: 16/7/2026 3:49:05 pm

«D1 - 2025 | | AM
- »Junction Network
- »Arms
- »Traffic Demand
- »Origin-Destination Data
- »Vehicle Mix
- »Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	11.32	B	7 % [Stream C-B]
Stream C-B	3.5	17.9	26.25	0.79	D			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75	✓				✓	Delay	0.85	36.00	20.00		

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

D1 - 2025 | | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way	11.32	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	7	Stream C-B	11.32	B

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.30	90.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	701	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	265	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	790	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	100	165
	B	0	0	0
	C	335	455	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						307	461
C-B	0.79	26.25	3.5	17.9	D	418	626
A-B						92	138
A-C						151	227

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	392	0.000	0	0.0	0.0	0.000	A
C-A	252	63	0.00			252				
C-B	343	86	0.00	656	0.522	338	0.0	1.1	11.175	B
A-B	75	19	0.00			75				
A-C	124	31	0.00			124				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	368	0.000	0	0.0	0.0	0.000	A
C-A	301	75	0.00			301				
C-B	409	102	0.00	648	0.632	407	1.1	1.6	14.795	B
A-B	90	22	0.00			90				
A-C	148	37	0.00			148				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	333	0.000	0	0.0	0.0	0.000	A
C-A	369	92	0.00			369				
C-B	501	125	0.00	636	0.788	494	1.6	3.3	24.350	C
A-B	110	28	0.00			110				
A-C	182	45	0.00			182				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	331	0.000	0	0.0	0.0	0.000	A
C-A	369	92	0.00			369				
C-B	501	125	0.00	636	0.788	500	3.3	3.5	26.254	D
A-B	110	28	0.00			110				
A-C	182	45	0.00			182				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	365	0.000	0	0.0	0.0	0.000	A
C-A	301	75	0.00			301				
C-B	409	102	0.00	648	0.632	416	3.5	1.8	15.961	C
A-B	90	22	0.00			90				
A-C	148	37	0.00			148				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	390	0.000	0	0.0	0.0	0.000	A
C-A	252	63	0.00			252				
C-B	343	86	0.00	656	0.522	345	1.8	1.1	11.672	B
A-B	75	19	0.00			75				
A-C	124	31	0.00			124				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.06	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.65	0.09	1.17	3.46	4.69			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.32	0.04	0.35	7.76	17.86			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.50	0.03	0.30	3.63	16.01			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.79	0.05	0.45	4.78	7.83			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.12	0.04	0.36	2.78	5.33			N/A	N/A

Year 2036 Design

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

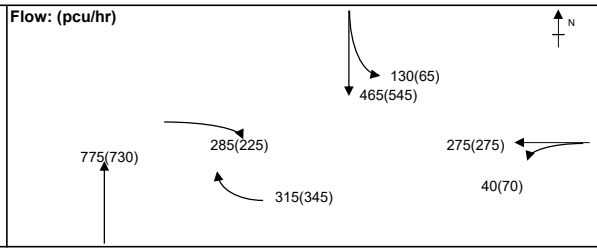
Junction: Caroline Hill Road (West) / Link Road (J1) Design Year: 2036

Description: 2036 Design Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD AM	Pro. Turning (%) WD PM	Revised Saturation Flow (pcu/hr) WD AM	Revised Saturation Flow (pcu/hr) WD PM	WD AM Flow (pcu/hr)	WD AM y Value	WD AM Critical y	WD PM Flow (pcu/hr)	WD PM y Value	WD PM Critical y
Link Road NB	↑	A	1,2	3.650						1980	1980	775	0.391	0.391	730	0.369	0.369
U-turn Slip Road EB	↱	B	2,3	5.000		5				1625	1625	285	0.175		225	0.138	
Access Road	←	C	4	3.650						2120	2120	275	0.130		275	0.130	
WB	↰	C	4	3.650	15					1800	1800	40	0.022		70	0.039	
Caroline Hill Road	↓	D	1	3.650	20			46%	22%	1915	1945	282	0.147		292	0.150	
SB	↓	D	1	3.650						2120	2120	313	0.148		318	0.150	
U-turn Slip Road WB	←	E	3,4	5.000						2115	2115	315	0.149		345	0.163	
Pedestrian Crossing		Fp	4	MIN GREEN + FLASH =			11	+	7	=	18						
		Gp	1,2,3	MIN GREEN + FLASH =			9	+	7	=	16						

Notes:

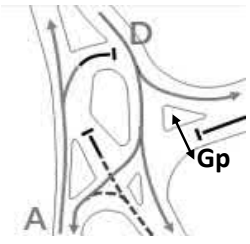
Flow: (pcu/hr)



Group	D,B,C	A,E.	Group	D,B,C	A,E.
y	0.453	0.391	y	0.418	0.369
L (sec)	19	43	L (sec)	19	43
C (sec)	105	105	C (sec)	105	105
y pract.	0.737	0.531	y pract.	0.737	0.531
R.C. (%)	63%	36%	R.C. (%)	76%	44%

Stage / Phase Diagrams

1.



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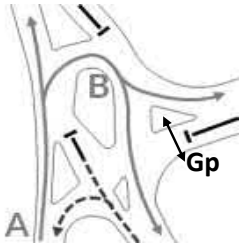

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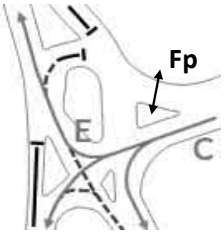


5.

I/G= 5		I/G=		I/G= 5		I/G=		I/G=	
I/G= 5		I/G=		I/G= 5		I/G=		I/G=	

Date: JUL, 2026

Junction: J1-Des(AM&PM)
Caroline Hill Road (West) / Link Road (J1)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

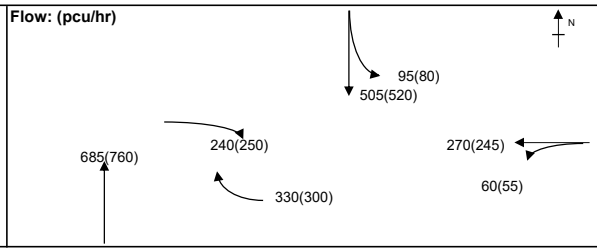
Junction: Caroline Hill Road (West) / Link Road (J1) Design Year: 2036

Description: 2036 Design Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD NN	Pro. Turning (%) WE NN	Revised Saturation Flow (pcu/hr) WD NN	Revised Saturation Flow (pcu/hr) WE NN	WD NN Flow (pcu/hr)	WD NN y Value	WD NN Critical y	WE NN Flow (pcu/hr)	WE NN y Value	WE NN Critical y
Link Road NB	↑	A	1,2	3.650						1980	1980	685	0.346	0.346	760	0.384	0.384
U-turn Slip Road EB	↱	B	2,3	5.000		5				1625	1625	240	0.148		250	0.154	
Access Road	←	C	4	3.650						2120	2120	270	0.127		245	0.116	
WB	↰	C	4	3.650	15					1800	1800	60	0.033		55	0.031	
Caroline Hill Road	↓	D	1	3.650	20			33%	28%	1930	1940	286	0.148		287	0.148	
SB	↓	D	1	3.650						2120	2120	314	0.148		313	0.148	
U-turn Slip Road WB	←	E	3,4	5.000						2115	2115	330	0.156		300	0.142	
Pedestrian Crossing		Fp	4	MIN GREEN + FLASH =			11	+	7	=	18						
		Gp	1,2,3	MIN GREEN + FLASH =			9	+	7	=	16						
		E.	4,5	MIN GREEN + FLASH =			19	+	15	=	34			*			*

Notes:

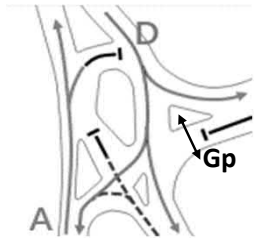
Flow: (pcu/hr)



Group	D,B,C	A,E.	Group	D,B,C	A,E.
y	0.423	0.346	y	0.417	0.384
L (sec)	19	43	L (sec)	19	43
C (sec)	105	105	C (sec)	105	105
y pract.	0.737	0.531	y pract.	0.737	0.531
R.C. (%)	74%	54%	R.C. (%)	77%	38%

Stage / Phase Diagrams

1.



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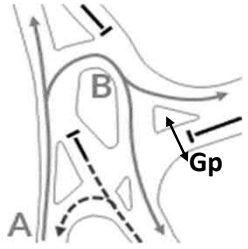

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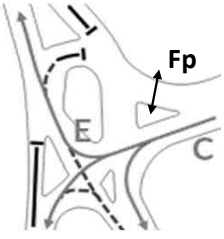


5.

I/G=		I/G=		I/G= 5		I/G=	34	I/G=	
I/G=		I/G=		I/G= 5		I/G=	34	I/G=	

Date: JUL, 2026

Junction: J1-Des(NN&WE)

Caroline Hill Road (West) / Link Road (J1)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

Junction: Leighton Road / Caroline Hill Road (West) / Hoi Ping Road (J2) Design Year: 2036

Description: 2036 Design Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD AM	Pro. Turning (%) WD PM	Revised Saturation Flow (pcu/hr) WD AM	Revised Saturation Flow (pcu/hr) WD PM	WD AM Flow (pcu/hr)	WD AM y Value	WD AM Critical y	WD PM Flow (pcu/hr)	WD PM y Value	WD PM Critical y
Leighton Road WB	*	A	1	3.500	20					730	730	136	0.186		135	0.185	0.185
	^	A	1	3.500	25			70%	88%	1210	1200	226	0.187	0.187	221	0.184	
		A	1	3.000						2055	2055	383	0.186		379	0.184	
Caroline Hill Road NB		B	2	3.500	65	25		91% / 9%	94% / 6%	1915	1915	422	0.220		420	0.219	
		B	2	3.500		20				1960	1960	433	0.221	0.221	430	0.219	0.219
Leighton Road EB		A	1	3.500						1965	1965	155	0.079		189	0.096	
		A	1	3.300						2085	2085	165	0.079		201	0.096	
Hoi Ping Road SB		C	3	3.500						1965	1965	259	0.132	0.132	268	0.136	0.136
	*	C	3	3.500		12		63%	82%	730	715	96	0.132		97	0.136	

Pedestrian Crossing	Ep	1	MIN GREEN + FLASH =	10	+	5	=	15
	Fp	1,3	MIN GREEN + FLASH =	14	+	5	=	19
	Gp	2	MIN GREEN + FLASH =	14	+	5	=	19
	Hp	3	MIN GREEN + FLASH =	10	+	7	=	17
	Ip	1,2	MIN GREEN + FLASH =	11	+	6	=	17
	Jp	2	MIN GREEN + FLASH =	10	+	7	=	17

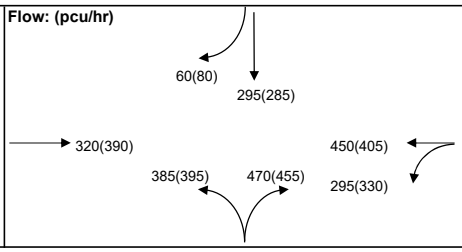
Notes:

TAC junction: Cycle time of 105s and 130s are adopted for AM and PM Peak

^Site Factor of 0.6 adopted due to merging traffic ahead

*Site factor of 0.4 applied due to flare lane

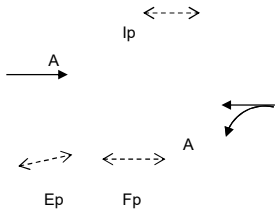
Flow: (pcu/hr)



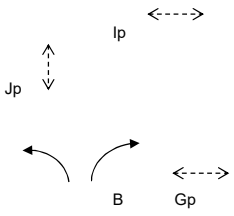
Group	A,B,Hp	A,B,C	Group	A,B,Hp	A,B,C
y	0.408	0.540	y	0.404	0.541
L (sec)	38	20	L (sec)	38	20
C (sec)	105	105	C (sec)	130	130
y pract.	0.574	0.729	y pract.	0.637	0.762
R.C. (%)	41%	35%	R.C. (%)	58%	41%

Stage / Phase Diagrams

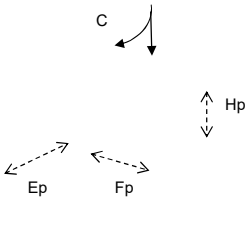
1.



2.



3.



4.

5.

I/G= 8		I/G= 8		I/G= 7		I/G=	
I/G= 8		I/G= 8		I/G= 7		I/G=	

Date: JUL, 2026

Junction: J2 - design

Leighton Road / Caroline Hill Road (West) / Hoi Ping Road (J2)

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

Junction: Leighton Road / Caroline Hill Road (West) / Hoi Ping Road (J2) Design Year: 2036

Description: 2036 Design Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD Noon	Pro. Turning (%) WE Noon	Revised Saturation Flow (pcu/hr) WD Noon	Revised Saturation Flow (pcu/hr) WE Noon	WD Noon Flow (pcu/hr)	WD Noon y Value	WD Noon Critical y	WE Noon Flow (pcu/hr)	WE Noon y Value	WE Noon Critical y
Leighton Road WB	*, ^,	A	1	3.500	20					730	730	133	0.182	0.182	136	0.186	
		A	1	3.500	25			90%	86%	1200	1200	218	0.182		225	0.188	0.188
		A	1	3.000						2055	2055	374	0.182		384	0.187	
Caroline Hill Road NB		B	2	3.500	65	25		100% / 0%	95% / 5%	1920	1915	425	0.221	0.221	428	0.223	0.223
		B	2	3.500		20				1960	1960	410	0.209		437	0.223	
Leighton Road EB		A	1	3.500						1965	1965	197	0.100		201	0.102	
		A	1	3.300						2085	2085	208	0.100		214	0.103	
Hoi Ping Road SB		C	3	3.500						1965	1965	253	0.129	0.129	257	0.131	
	*	C	3	3.500		12		76%	86%	720	710	92	0.128		93	0.131	0.131

Pedestrian Crossing	Ep	1	MIN GREEN + FLASH =	10	+	5	=	15	
	Fp	1,3	MIN GREEN + FLASH =	14	+	5	=	19	
	Gp	2	MIN GREEN + FLASH =	14	+	5	=	19	
	Hp	3	MIN GREEN + FLASH =	10	+	7	=	17	
	Ip	1,2	MIN GREEN + FLASH =	11	+	6	=	17	
	Jp	2	MIN GREEN + FLASH =	10	+	7	=	17	

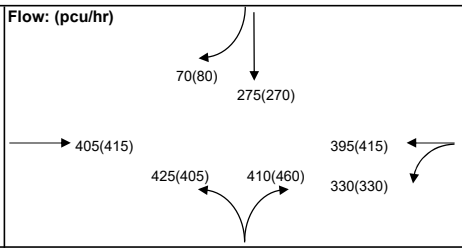
Notes:

TAC junction: Cycle time of 120s and 130s are adopted for WD and WE Noon Peak

^Site Factor of 0.6 adopted due to merging traffic ahead

*Site factor of 0.4 applied due to flare lane

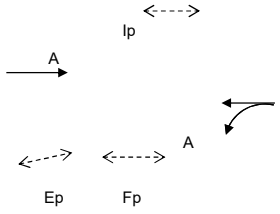
Flow: (pcu/hr)



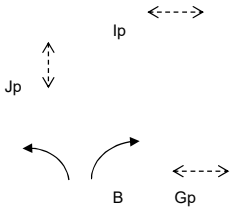
Group	A,B,Hp	A,B,C	Group	A,B,Hp	A,B,C
y	0.404	0.532	y	0.411	0.542
L (sec)	38	20	L (sec)	38	20
C (sec)	120	120	C (sec)	130	130
y pract.	0.615	0.750	y pract.	0.637	0.762
R.C. (%)	52%	41%	R.C. (%)	55%	41%

Stage / Phase Diagrams

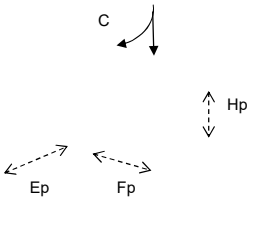
1.



2.



3.



4.

5.

I/G= 8		I/G= 8		I/G= 7		I/G=	
I/G= 8		I/G= 8		I/G= 7		I/G=	

Date: JUL, 2026

Junction: J2 - design

Leighton Road / Caroline Hill Road (West) / Hoi Ping Road (J2)

Generated on 15/4/2026 2:39:47 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J3 sunning leighton - AM.j10
Path: O:\mhc\print\des\J3
Report generation date: 15/4/2026 2:39:39 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.3	1.4	7.99	0.25	A	1.17	A	107 % [Stream B-AC]
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		1.17	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	107	Stream B-AC	1.17	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	13.15			40.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	55	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	618	0.078	0.196	0.123	0.280
B-C	779	0.082	0.208	-	-
C-B	597	0.159	0.159	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	785	100.000
B		ONE HOUR	✓	135	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	785
	B	0	0	135
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.25	7.99	0.3	1.4	A	124	186
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						0	0
A-C						720	1080

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	25	656	0.155	101	0.0	0.2	6.475	A
C-A	0	0			0				
C-B	0	0	503	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	591	148			591				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	121	30	632	0.192	121	0.2	0.2	7.039	A
C-A	0	0			0				
C-B	0	0	485	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	706	176			706				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	149	37	599	0.248	148	0.2	0.3	7.974	A
C-A	0	0			0				
C-B	0	0	459	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	864	216			864				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	149	37	599	0.248	149	0.3	0.3	7.987	A
C-A	0	0			0				
C-B	0	0	459	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	864	216			864				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	121	30	632	0.192	122	0.3	0.2	7.057	A
C-A	0	0			0				
C-B	0	0	485	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	706	176			706				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	102	25	656	0.155	102	0.2	0.2	6.496	A
C-A	0	0			0				
C-B	0	0	503	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	591	148			591				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.33	0.03	0.26	0.46	0.48			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.33	0.03	0.31	1.14	1.45			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.24	0.00	0.00	0.24	0.24			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.18	0.00	0.00	0.18	0.18			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J3 sunning leighton - NN.j10
Path: O:\mhc\print\des\J3
Report generation date: 15/4/2026 2:39:25 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.5	2.5	9.42	0.35	A	1.77	A	71 % [Stream B-AC]
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		1.77	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	71	Stream B-AC	1.77	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	13.15			40.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	55	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	618	0.078	0.196	0.123	0.280
B-C	779	0.082	0.208	-	-
C-B	597	0.159	0.159	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	820	100.000
B		ONE HOUR	✓	190	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	820
	B	0	0	190
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.35	9.42	0.5	2.5	A	174	262
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						0	0
A-C						752	1129

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	143	36	651	0.220	142	0.0	0.3	7.059	A
C-A	0	0			0				
C-B	0	0	499	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	617	154			617				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	171	43	626	0.273	170	0.3	0.4	7.899	A
C-A	0	0			0				
C-B	0	0	480	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	737	184			737				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	209	52	591	0.354	209	0.4	0.5	9.387	A
C-A	0	0			0				
C-B	0	0	453	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	903	226			903				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	209	52	591	0.354	209	0.5	0.5	9.420	A
C-A	0	0			0				
C-B	0	0	453	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	903	226			903				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	171	43	626	0.273	171	0.5	0.4	7.936	A
C-A	0	0			0				
C-B	0	0	480	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	737	184			737				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	143	36	651	0.220	143	0.4	0.3	7.103	A
C-A	0	0			0				
C-B	0	0	499	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	617	154			617				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.28	0.00	0.00	0.28	0.28			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.37	0.00	0.00	0.37	0.37			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.54	0.03	0.26	0.54	0.54			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.54	0.03	0.30	1.35	2.54			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.38	0.00	0.00	0.38	0.38			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.28	0.00	0.00	0.28	0.28			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:21:19 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J3 sunning leighton - PM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\des\J3
Report generation date: 17/12/2025 3:21:13 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.4	1.8	8.79	0.30	A	1.40	A	84 % [Stream B-AC]
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		1.40	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	84	Stream B-AC	1.40	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	13.15			40.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	55	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	618	0.078	0.196	0.123	0.280
B-C	779	0.082	0.208	-	-
C-B	597	0.159	0.159	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	845	100.000
B		ONE HOUR	✓	160	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	845
	B	0	0	160
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.30	8.79	0.4	1.8	A	147	220
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						0	0
A-C						775	1163

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	120	30	647	0.186	120	0.0	0.2	6.817	A
C-A	0	0			0				
C-B	0	0	496	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	636	159			636				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	144	36	621	0.232	144	0.2	0.3	7.532	A
C-A	0	0			0				
C-B	0	0	476	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	760	190			760				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	176	44	586	0.301	176	0.3	0.4	8.771	A
C-A	0	0			0				
C-B	0	0	449	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	930	233			930				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	176	44	586	0.301	176	0.4	0.4	8.791	A
C-A	0	0			0				
C-B	0	0	449	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	930	233			930				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	144	36	621	0.232	144	0.4	0.3	7.557	A
C-A	0	0			0				
C-B	0	0	476	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	760	190			760				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	120	30	647	0.186	121	0.3	0.2	6.849	A
C-A	0	0			0				
C-B	0	0	496	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	636	159			636				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.42	0.03	0.26	0.46	0.49			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.43	0.03	0.31	1.33	1.78			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.30	0.00	0.00	0.30	0.30			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.23	0.00	0.00	0.23	0.23			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 15/4/2026 2:39:14 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J3 sunning leighton - WE.j10
Path: O:\mhc\print\des\J3
Report generation date: 15/4/2026 2:38:48 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.5	2.5	9.60	0.35	A	1.68	A	68 % [Stream B-AC]
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Entry Only	Two-way		1.68	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	68	Stream B-AC	1.68	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	13.15			40.0		-

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)	Visibility to left (m)	Visibility to right (m)
B	One lane	5.00	55	40

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	618	0.078	0.196	0.123	0.280
B-C	779	0.082	0.208	-	-
C-B	597	0.159	0.159	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	875	100.000
B		ONE HOUR	✓	185	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	0	875
	B	0	0	185
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.35	9.60	0.5	2.5	A	170	255
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						0	0
A-C						803	1204

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	139	35	642	0.217	138	0.0	0.3	7.127	A
C-A	0	0			0				
C-B	0	0	492	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	659	165			659				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	42	616	0.270	166	0.3	0.4	8.001	A
C-A	0	0			0				
C-B	0	0	472	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	787	197			787				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	204	51	579	0.352	203	0.4	0.5	9.564	A
C-A	0	0			0				
C-B	0	0	444	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	963	241			963				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	204	51	579	0.352	204	0.5	0.5	9.598	A
C-A	0	0			0				
C-B	0	0	444	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	963	241			963				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	166	42	616	0.270	167	0.5	0.4	8.037	A
C-A	0	0			0				
C-B	0	0	472	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	787	197			787				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	139	35	642	0.217	140	0.4	0.3	7.172	A
C-A	0	0			0				
C-B	0	0	492	0.000	0	0.0	0.0	0.000	A
A-B	0	0			0				
A-C	659	165			659				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.27	0.00	0.00	0.27	0.27			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.37	0.00	0.00	0.37	0.37			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.53	0.03	0.26	0.53	0.53			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.54	0.03	0.30	1.36	2.52			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.37	0.00	0.00	0.37	0.37			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.28	0.00	0.00	0.28	0.28			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

Junction: Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill Road (East) (J4) Design Year: 2036

Description: 2036 Design Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD AM	Pro. Turning (%) WD PM	Revised Saturation Flow (pcu/hr) WD AM	Revised Saturation Flow (pcu/hr) WD PM	WD AM Flow (pcu/hr)	WD AM y Value	WD AM Critical y	WD PM Flow (pcu/hr)	WD PM y Value	WD PM Critical y
Leighton Road WB	*	A	1	3.000	7			51%	34%	1035	1070	293	0.283		261	0.244	
		A	1	2.500						2005	2005	567	0.283		489	0.244	
Leighton Road WB	**	C	2	3.500		9				1180	1180	200	0.169	0.169	260	0.220	0.220
Caroline Hill Road NB	*	C	2	4.000	5					930	930	40	0.043		75	0.081	
Leighton Road EB	**	A	1	3.000	15			53%	69%	1275	1255	434	0.340		468	0.373	
	**	A	1	3.000						1440	1440	491	0.341	0.341	537	0.373	0.373
Pedestrian Crossing		Bp	1	MIN GREEN + FLASH =			5	+	8	=	13						
		Dp	2	MIN GREEN + FLASH =			10	+	8	=	18						

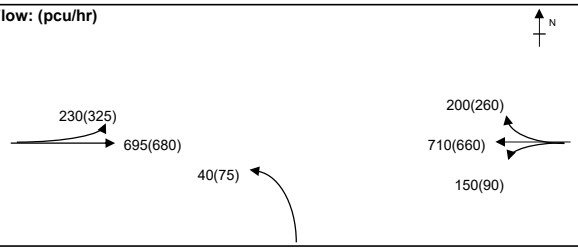
Notes:

TAC junction: Cycle time of 105s and 130s are adopted for AM and PM Peak

* = Site factor of 0.6 adopted

** = Site factor of 0.7 adopted

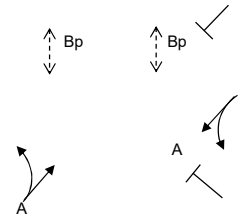
Flow: (pcu/hr)



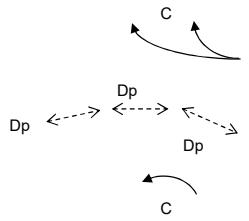
Group	A,Dp	A,C	Group	A,Dp	A,C
y	0.341	0.510	y	0.373	0.593
L (sec)	27	11	L (sec)	27	11
C (sec)	105	105	C (sec)	130	130
y pract.	0.669	0.806	y pract.	0.713	0.824
R.C. (%)	96%	58%	R.C. (%)	91%	39%

Stage / Phase Diagrams

1.



2.



3.

4.

5.

I/G= 7		I/G= 6		I/G=		I/G=		I/G=	
I/G= 7		I/G= 6		I/G=		I/G=		I/G=	

Date: JUL, 2026 **Junction:** J4 - design

Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50865910 **MVA HONG KONG LIMITED**

Junction: Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill Road (East) (J4) Design Year: 2036

Description: 2036 Design Flows Designed By: TCW Checked By: CHC

Approach	Movements	Phase	Stage	Width (m)	Radius (m) Left	Radius (m) Right	Gradient (%)	Pro. Turning (%) WD Noon	Pro. Turning (%) WE Noon	Revised Saturation Flow (pcu/hr) WD Noon	Revised Saturation Flow (pcu/hr) WE Noon	WD Noon Flow (pcu/hr)	WD Noon y Value	WD Noon Critical y	WE Noon Flow (pcu/hr)	WE Noon y Value	WE Noon Critical y
Leighton Road WB	*	A	1	3.000	7			59%	52%	1020	1035	261	0.256		260	0.251	
		A	1	2.500						2005	2005	514	0.256		505	0.252	
Leighton Road WB	**	C	2	3.500		9				1180	1180	260	0.220	0.220	330	0.280	0.280
Caroline Hill Road NB	*	C	2	4.000	5					930	930	105	0.113		115	0.124	
Leighton Road EB	**	A	1	3.000	15			60%	74%	1265	1250	470	0.372	0.372	492	0.394	
	**	A	1	3.000						1440	1440	535	0.372		568	0.394	0.394
Pedestrian Crossing		Bp	1	MIN GREEN + FLASH =			5	+	8	=	13						
		Dp	2	MIN GREEN + FLASH =			10	+	8	=	18						

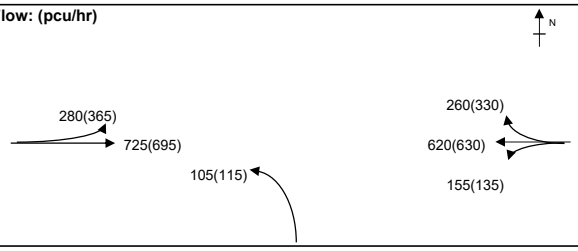
Notes:

TAC junction: Cycle time of 110s and 120s are adopted for WD and WE Noon

* = Site factor of 0.6 adopted

** = Site factor of 0.7 adopted

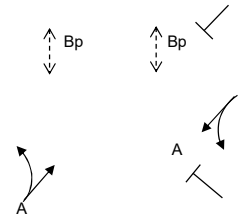
Flow: (pcu/hr)



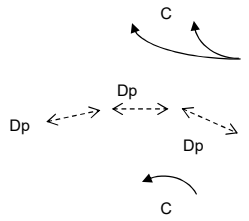
Group	A,Dp	A,C	Group	A,Dp	A,C
y	0.372	0.592	y	0.394	0.674
L (sec)	27	11	L (sec)	27	11
C (sec)	110	110	C (sec)	120	120
y pract.	0.679	0.810	y pract.	0.698	0.818
R.C. (%)	83%	37%	R.C. (%)	77%	21%

Stage / Phase Diagrams

1.



2.



3.

4.

5.

I/G= 7		I/G= 6		I/G=		I/G=		I/G=	
I/G= 7		I/G= 6		I/G=		I/G=		I/G=	

Date: JUL, 2026 **Junction:** J4 - design

Leighton Road / Yun Ping Road / Pennington Street / Caroline Hill

Generated on 17/12/2025 3:20:54 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J5 hysan yun ping - AM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\des\J5
Report generation date: 17/12/2025 3:20:49 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-C	0.3	1.2	6.33	0.21	A	2.04	A	229 % [Stream B-C]
Stream B-A	0.0	~1	0.00	0.00	A			
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Entry Only	Two-way	Exit Only		2.04	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	229	Stream B-C	2.04	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00					

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	5.00	5.00	45	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	611	0.107	0.269	0.169	0.385
B-C	775	0.077	0.196	-	-
C-B	597	0.186	0.186	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	295	100.000
B		ONE HOUR	✓	140	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	85	210
	B	0	0	140
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.21	6.33	0.3	1.2	A	128	193
B-A	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						78	117
A-C						193	289

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	105	26	739	0.143	105	0.0	0.2	5.666	A
B-A	0	0	562	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	556	0.000	0	0.0	0.0	0.000	A
A-B	64	16			64				
A-C	158	40			158				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	126	31	732	0.172	126	0.2	0.2	5.932	A
B-A	0	0	552	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	548	0.000	0	0.0	0.0	0.000	A
A-B	76	19			76				
A-C	189	47			189				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	154	39	723	0.213	154	0.2	0.3	6.325	A
B-A	0	0	539	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	537	0.000	0	0.0	0.0	0.000	A
A-B	94	23			94				
A-C	231	58			231				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	154	39	723	0.213	154	0.3	0.3	6.330	A
B-A	0	0	539	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	537	0.000	0	0.0	0.0	0.000	A
A-B	94	23			94				
A-C	231	58			231				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	126	31	732	0.172	126	0.3	0.2	5.941	A
B-A	0	0	552	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	548	0.000	0	0.0	0.0	0.000	A
A-B	76	19			76				
A-C	189	47			189				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	105	26	739	0.143	106	0.2	0.2	5.680	A
B-A	0	0	562	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	556	0.000	0	0.0	0.0	0.000	A
A-B	64	16			64				
A-C	158	40			158				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.00	0.00	0.17	0.17			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.27	0.03	0.25	0.46	0.48			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.27	0.03	0.30	0.93	1.24			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.21	0.00	0.00	0.21	0.21			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.17	0.00	0.00	0.17	0.17			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:20:41 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J5 hysan yun ping - NN.j10
Path: O:\mhc\Tunnel 3\Cal\J10\des\J5
Report generation date: 17/12/2025 3:20:36 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-C	0.8	2.8	9.07	0.44	A	3.71	A	79 % [Stream B-C]
Stream B-A	0.0	~1	0.00	0.00	A			
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Entry Only	Two-way	Exit Only		3.71	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	79	Stream B-C	3.71	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00					

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	5.00	5.00	45	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	611	0.107	0.269	0.169	0.385
B-C	775	0.077	0.196	-	-
C-B	597	0.186	0.186	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	405	100.000
B		ONE HOUR	✓	280	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	130	275
	B	0	0	280
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.44	9.07	0.8	2.8	A	257	385
B-A	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						119	179
A-C						252	379

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	211	53	727	0.290	209	0.0	0.4	6.929	A
B-A	0	0	545	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	540	0.000	0	0.0	0.0	0.000	A
A-B	98	24			98				
A-C	207	52			207				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	252	63	718	0.351	251	0.4	0.5	7.706	A
B-A	0	0	532	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	529	0.000	0	0.0	0.0	0.000	A
A-B	117	29			117				
A-C	247	62			247				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	308	77	705	0.437	307	0.5	0.8	9.033	A
B-A	0	0	515	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	514	0.000	0	0.0	0.0	0.000	A
A-B	143	36			143				
A-C	303	76			303				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	308	77	705	0.437	308	0.8	0.8	9.074	A
B-A	0	0	515	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	514	0.000	0	0.0	0.0	0.000	A
A-B	143	36			143				
A-C	303	76			303				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	252	63	718	0.351	253	0.8	0.5	7.754	A
B-A	0	0	532	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	529	0.000	0	0.0	0.0	0.000	A
A-B	117	29			117				
A-C	247	62			247				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	211	53	727	0.290	211	0.5	0.4	6.988	A
B-A	0	0	545	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	540	0.000	0	0.0	0.0	0.000	A
A-B	98	24			98				
A-C	207	52			207				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.40	0.00	0.00	0.40	0.40			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.53	0.53	1.00	1.40	1.45			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.76	0.03	0.26	0.76	0.76			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.77	0.03	0.28	0.77	2.80			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.55	0.07	0.71	1.34	1.42			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.41	0.03	0.31	0.99	1.24			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:20:29 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J5 hysan yun ping - PM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\des\J5
Report generation date: 17/12/2025 3:20:23 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-C	0.5	2.4	7.90	0.34	A	2.43	A	112 % [Stream B-C]
Stream B-A	0.0	~1	0.00	0.00	A			
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Entry Only	Two-way	Exit Only		2.43	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	112	Stream B-C	2.43	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00					

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	5.00	5.00	45	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	611	0.107	0.269	0.169	0.385
B-C	775	0.077	0.196	-	-
C-B	597	0.186	0.186	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	485	100.000
B		ONE HOUR	✓	215	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	165	320
	B	0	0	215
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.34	7.90	0.5	2.4	A	197	296
B-A	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						151	227
A-C						294	440

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	162	40	719	0.225	161	0.0	0.3	6.441	A
B-A	0	0	533	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	529	0.000	0	0.0	0.0	0.000	A
A-B	124	31			124				
A-C	241	60			241				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	193	48	707	0.273	193	0.3	0.4	6.992	A
B-A	0	0	518	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	516	0.000	0	0.0	0.0	0.000	A
A-B	148	37			148				
A-C	288	72			288				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	237	59	692	0.342	236	0.4	0.5	7.884	A
B-A	0	0	497	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	498	0.000	0	0.0	0.0	0.000	A
A-B	182	45			182				
A-C	352	88			352				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	237	59	692	0.342	237	0.5	0.5	7.902	A
B-A	0	0	497	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	498	0.000	0	0.0	0.0	0.000	A
A-B	182	45			182				
A-C	352	88			352				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	193	48	707	0.273	194	0.5	0.4	7.015	A
B-A	0	0	518	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	516	0.000	0	0.0	0.0	0.000	A
A-B	148	37			148				
A-C	288	72			288				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	162	40	719	0.225	162	0.4	0.3	6.477	A
B-A	0	0	533	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	529	0.000	0	0.0	0.0	0.000	A
A-B	124	31			124				
A-C	241	60			241				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.37	0.00	0.00	0.37	0.37			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.51	0.03	0.25	0.51	0.51			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.52	0.03	0.30	1.31	2.39			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.38	0.00	0.00	0.38	0.38			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.29	0.00	0.00	0.29	0.29			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:20:16 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J5 hysan yun ping - WE.j10
Path: O:\mhc\Tunnel 3\Cal\J10\des\J5
Report generation date: 17/12/2025 3:20:11 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-C	0.8	2.9	9.61	0.45	A	3.24	A	69 % [Stream B-C]
Stream B-A	0.0	~1	0.00	0.00	A			
Stream C-B	0.0	~1	0.00	0.00	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Minor arm visibility to right	Arm B - Minor arm geometry	Visibility to right expected to have two components if the arm has two lanes, or two lanes in a flared section.
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Entry Only	Two-way	Exit Only		3.24	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	69	Stream B-C	3.24	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	7.00					

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 (Left) (m)	Lane Width (Right) (m)	Visibility to left (m)	Visibility to right (m)
B	Two lanes	5.00	5.00	45	35

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	611	0.107	0.269	0.169	0.385
B-C	775	0.077	0.196	-	-
C-B	597	0.186	0.186	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	550	100.000
B		ONE HOUR	✓	280	100.000
C		ONE HOUR	✓	0	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	200	350
	B	0	0	280
	C	0	0	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-C	0.45	9.61	0.8	2.9	A	257	385
B-A	0.00	0.00	0.0	~1	A	0	0
C-A						0	0
C-B	0.00	0.00	0.0	~1	A	0	0
A-B						184	275
A-C						321	482

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	211	53	712	0.296	209	0.0	0.4	7.136	A
B-A	0	0	524	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	520	0.000	0	0.0	0.0	0.000	A
A-B	151	38			151				
A-C	263	66			263				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	252	63	700	0.360	251	0.4	0.6	8.015	A
B-A	0	0	508	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	505	0.000	0	0.0	0.0	0.000	A
A-B	180	45			180				
A-C	315	79			315				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	308	77	683	0.452	307	0.6	0.8	9.559	A
B-A	0	0	484	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	484	0.000	0	0.0	0.0	0.000	A
A-B	220	55			220				
A-C	385	96			385				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	308	77	683	0.452	308	0.8	0.8	9.610	A
B-A	0	0	484	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	484	0.000	0	0.0	0.0	0.000	A
A-B	220	55			220				
A-C	385	96			385				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	252	63	700	0.360	253	0.8	0.6	8.071	A
B-A	0	0	508	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	505	0.000	0	0.0	0.0	0.000	A
A-B	180	45			180				
A-C	315	79			315				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-C	211	53	712	0.296	211	0.6	0.4	7.200	A
B-A	0	0	524	0.000	0	0.0	0.0	0.000	A
C-A	0	0			0				
C-B	0	0	520	0.000	0	0.0	0.0	0.000	A
A-B	151	38			151				
A-C	263	66			263				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.42	0.00	0.00	0.42	0.42			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.55	0.55	1.00	1.40	1.45			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.81	0.03	0.26	0.81	0.81			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.82	0.03	0.28	0.82	2.85			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.57	0.07	0.74	1.35	1.42			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-C	0.43	0.03	0.34	1.11	1.31			N/A	N/A
B-A	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.00	0.00	0.00	0.00	0.00			N/A	N/A

Generated on 17/12/2025 3:24:35 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J6 sunning hysan - AM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\des\J6
Report generation date: 17/12/2025 3:24:29 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	2.01	A	353 % [Stream C-B]
Stream C-B	0.2	0.5	7.33	0.16	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		2.01	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	353	Stream C-B	2.01	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			50.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	603	0.193	0.193	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	85	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	225	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	25	60
	B	0	0	0
	C	140	85	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						128	193
C-B	0.16	7.33	0.2	0.5	A	78	117
A-B						23	34
A-C						55	83

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	471	0.000	0	0.0	0.0	0.000	A
C-A	105	26			105				
C-B	64	16	591	0.108	64	0.0	0.1	6.825	A
A-B	19	5			19				
A-C	45	11			45				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	466	0.000	0	0.0	0.0	0.000	A
C-A	126	31			126				
C-B	76	19	588	0.130	76	0.1	0.1	7.030	A
A-B	22	6			22				
A-C	54	13			54				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	458	0.000	0	0.0	0.0	0.000	A
C-A	154	39			154				
C-B	94	23	585	0.160	93	0.1	0.2	7.324	A
A-B	28	7			28				
A-C	66	17			66				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	458	0.000	0	0.0	0.0	0.000	A
C-A	154	39			154				
C-B	94	23	585	0.160	94	0.2	0.2	7.326	A
A-B	28	7			28				
A-C	66	17			66				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	466	0.000	0	0.0	0.0	0.000	A
C-A	126	31			126				
C-B	76	19	588	0.130	77	0.2	0.2	7.040	A
A-B	22	6			22				
A-C	54	13			54				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	471	0.000	0	0.0	0.0	0.000	A
C-A	105	26			105				
C-B	64	16	591	0.108	64	0.2	0.1	6.841	A
A-B	19	5			19				
A-C	45	11			45				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.12	0.00	0.00	0.12	0.12			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.15	0.00	0.00	0.15	0.15			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.19	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.19	0.03	0.26	0.46	0.49			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.15	0.00	0.00	0.15	0.15			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.12	0.00	0.00	0.12	0.12			N/A	N/A

Generated on 17/12/2025 3:24:23 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J6 sunning hysan - NN.j10
Path: O:\mhc\Tunnel 3\Cal\J10\des\J6
Report generation date: 17/12/2025 3:24:17 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	1.68	A	240 %
Stream C-B	0.3	1.2	7.93	0.21	A			[Stream C-B]

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		1.68	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	240	Stream C-B	1.68	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			50.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	603	0.193	0.193	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	130	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	390	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	30	100
	B	0	0	0
	C	280	110	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						257	385
C-B	0.21	7.93	0.3	1.2	A	101	151
A-B						28	41
A-C						92	138

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	455	0.000	0	0.0	0.0	0.000	A
C-A	211	53			211				
C-B	83	21	584	0.142	82	0.0	0.2	7.164	A
A-B	23	6			23				
A-C	75	19			75				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	446	0.000	0	0.0	0.0	0.000	A
C-A	252	63			252				
C-B	99	25	580	0.170	99	0.2	0.2	7.473	A
A-B	27	7			27				
A-C	90	22			90				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	434	0.000	0	0.0	0.0	0.000	A
C-A	308	77			308				
C-B	121	30	575	0.211	121	0.2	0.3	7.918	A
A-B	33	8			33				
A-C	110	28			110				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	434	0.000	0	0.0	0.0	0.000	A
C-A	308	77			308				
C-B	121	30	575	0.211	121	0.3	0.3	7.925	A
A-B	33	8			33				
A-C	110	28			110				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	446	0.000	0	0.0	0.0	0.000	A
C-A	252	63			252				
C-B	99	25	580	0.170	99	0.3	0.2	7.486	A
A-B	27	7			27				
A-C	90	22			90				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	455	0.000	0	0.0	0.0	0.000	A
C-A	211	53			211				
C-B	83	21	584	0.142	83	0.2	0.2	7.189	A
A-B	23	6			23				
A-C	75	19			75				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.16	0.00	0.00	0.16	0.16			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.20	0.00	0.00	0.20	0.20			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.26	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.27	0.03	0.30	0.93	1.25			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.21	0.00	0.00	0.21	0.21			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.17	0.00	0.00	0.17	0.17			N/A	N/A

Generated on 17/12/2025 3:24:08 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J6 sunning hysan - PM.j10
Path: O:\mhc\Tunnel 3\Cal\J10\des\J6
Report generation date: 17/12/2025 3:24:02 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	1.72	A	236 % [Stream C-B]
Stream C-B	0.3	1.2	7.96	0.20	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		1.72	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	236	Stream C-B	1.72	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			50.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	603	0.193	0.193	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	165	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	320	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	30	135
	B	0	0	0
	C	215	105	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						197	296
C-B	0.20	7.96	0.3	1.2	A	96	145
A-B						28	41
A-C						124	186

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	454	0.000	0	0.0	0.0	0.000	A
C-A	162	40			162				
C-B	79	20	579	0.137	78	0.0	0.2	7.183	A
A-B	23	6			23				
A-C	102	25			102				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	445	0.000	0	0.0	0.0	0.000	A
C-A	193	48			193				
C-B	94	24	574	0.164	94	0.2	0.2	7.497	A
A-B	27	7			27				
A-C	121	30			121				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	433	0.000	0	0.0	0.0	0.000	A
C-A	237	59			237				
C-B	116	29	568	0.204	115	0.2	0.3	7.952	A
A-B	33	8			33				
A-C	149	37			149				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	433	0.000	0	0.0	0.0	0.000	A
C-A	237	59			237				
C-B	116	29	568	0.204	116	0.3	0.3	7.959	A
A-B	33	8			33				
A-C	149	37			149				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	445	0.000	0	0.0	0.0	0.000	A
C-A	193	48			193				
C-B	94	24	574	0.164	95	0.3	0.2	7.510	A
A-B	27	7			27				
A-C	121	30			121				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	454	0.000	0	0.0	0.0	0.000	A
C-A	162	40			162				
C-B	79	20	579	0.137	79	0.2	0.2	7.207	A
A-B	23	6			23				
A-C	102	25			102				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.16	0.00	0.00	0.16	0.16			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.19	0.00	0.00	0.19	0.19			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.25	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.25	0.03	0.30	0.86	1.20			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.20	0.00	0.00	0.20	0.20			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.16	0.00	0.00	0.16	0.16			N/A	N/A

Generated on 17/12/2025 3:23:55 pm using Junctions 10 (10.0.1.1519)

Junctions 10

PICADY 10 - Priority Intersection Module

Version: 10.0.1.1519
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Filename: J6 sunning hysan - WE.j10
Path: O:\mhc\Tunnel 3\Cal\J10\des\J6
Report generation date: 17/12/2025 3:23:49 pm

«2025, AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	1.30	A	243 % [Stream C-B]
Stream C-B	0.2	1.1	7.90	0.19	A			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use iterations with HCM roundabouts	Max number of iterations for roundabouts
5.75	✓				✓	Delay	0.85	36.00	20.00		500

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Scenario name	Time Period name	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

2025, AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix		HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Use circulating lanes	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way		1.30	A

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	243	Stream C-B	1.30	A

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00			50.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	603	0.193	0.193	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Vehicle mix varies over turn	Vehicle mix varies over entry	Vehicle mix source	PCU Factor for a HV (PCU)
✓	✓	HV Percentages	2.00

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	200	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	375	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	45	155
	B	0	0	0
	C	280	95	0

Vehicle Mix

Heavy Vehicle Percentages

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						257	385
C-B	0.19	7.90	0.2	1.1	A	87	131
A-B						41	62
A-C						142	213

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	448	0.000	0	0.0	0.0	0.000	A
C-A	211	53			211				
C-B	72	18	574	0.125	71	0.0	0.1	7.151	A
A-B	34	8			34				
A-C	117	29			117				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	438	0.000	0	0.0	0.0	0.000	A
C-A	252	63			252				
C-B	85	21	568	0.150	85	0.1	0.2	7.452	A
A-B	40	10			40				
A-C	139	35			139				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	425	0.000	0	0.0	0.0	0.000	A
C-A	308	77			308				
C-B	105	26	560	0.187	104	0.2	0.2	7.891	A
A-B	50	12			50				
A-C	171	43			171				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	425	0.000	0	0.0	0.0	0.000	A
C-A	308	77			308				
C-B	105	26	560	0.187	105	0.2	0.2	7.897	A
A-B	50	12			50				
A-C	171	43			171				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	438	0.000	0	0.0	0.0	0.000	A
C-A	252	63			252				
C-B	85	21	568	0.150	86	0.2	0.2	7.461	A
A-B	40	10			40				
A-C	139	35			139				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	448	0.000	0	0.0	0.0	0.000	A
C-A	211	53			211				
C-B	72	18	574	0.125	72	0.2	0.1	7.169	A
A-B	34	8			34				
A-C	117	29			117				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.14	0.00	0.00	0.14	0.14			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.18	0.00	0.00	0.18	0.18			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.23	0.03	0.26	0.46	0.49			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.23	0.03	0.28	0.60	1.06			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.18	0.00	0.00	0.18	0.18			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	0.14	0.00	0.00	0.14	0.14			N/A	N/A

Generated on 16/7/2026 3:51:00 pm using Junctions 11 (11.1.1.2424)

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424
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Filename: Import of Future WO HPR AM.j11
Path: O:\mhc\T3\New folder\des\J7
Report generation date: 16/7/2026 3:50:50 pm

«D1 - 2025 | | AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	14.02	B	9 % [Stream C-B]
Stream C-B	3.3	17.1	24.01	0.78	C			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75	✓				✓	Delay	0.85	36.00	20.00		

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

D1 - 2025 | | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way	14.02	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	9	Stream C-B	14.02	B

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.30	90.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	701	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	145	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	660	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	45	100
	B	0	0	0
	C	190	470	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						174	262
C-B	0.78	24.01	3.3	17.1	C	431	647
A-B						41	62
A-C						92	138

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	411	0.000	0	0.0	0.0	0.000	A
C-A	143	36	0.00			143				
C-B	354	88	0.00	677	0.523	350	0.0	1.1	10.874	B
A-B	34	8	0.00			34				
A-C	75	19	0.00			75				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	391	0.000	0	0.0	0.0	0.000	A
C-A	171	43	0.00			171				
C-B	423	106	0.00	672	0.629	420	1.1	1.6	14.178	B
A-B	40	10	0.00			40				
A-C	90	22	0.00			90				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	363	0.000	0	0.0	0.0	0.000	A
C-A	209	52	0.00			209				
C-B	517	129	0.00	665	0.778	511	1.6	3.2	22.505	C
A-B	50	12	0.00			50				
A-C	110	28	0.00			110				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	362	0.000	0	0.0	0.0	0.000	A
C-A	209	52	0.00			209				
C-B	517	129	0.00	665	0.778	517	3.2	3.3	24.014	C
A-B	50	12	0.00			50				
A-C	110	28	0.00			110				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	389	0.000	0	0.0	0.0	0.000	A
C-A	171	43	0.00			171				
C-B	423	106	0.00	672	0.629	429	3.3	1.8	15.166	C
A-B	40	10	0.00			40				
A-C	90	22	0.00			90				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	409	0.000	0	0.0	0.0	0.000	A
C-A	143	36	0.00			143				
C-B	354	88	0.00	677	0.523	356	1.8	1.1	11.335	B
A-B	34	8	0.00			34				
A-C	75	19	0.00			75				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.07	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.63	0.09	1.16	3.41	4.62			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.17	0.03	0.34	6.87	17.06			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.31	0.03	0.30	3.31	14.19			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.76	0.05	0.46	4.69	7.59			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.12	0.04	0.37	2.82	5.24			N/A	N/A

Generated on 16/7/2026 3:51:15 pm using Junctions 11 (11.1.1.2424)

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424
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Filename: Import of Future WO HPR NN.j11
Path: O:\mhc\T3\New folder\des\J7
Report generation date: 16/7/2026 3:51:10 pm

«D1 - 2025 | | AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	13.91	B	3 % [Stream C-B]
Stream C-B	4.2	21.0	29.69	0.82	D			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75	✓				✓	Delay	0.85	36.00	20.00		

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

D1 - 2025 | | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way	13.91	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	3	Stream C-B	13.91	B

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.30	90.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	701	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	200	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	835	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	45	155
	B	0	0	0
	C	350	485	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						321	482
C-B	0.82	29.69	4.2	21.0	D	445	668
A-B						41	62
A-C						142	213

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	391	0.000	0	0.0	0.0	0.000	A
C-A	263	66	0.00			263				
C-B	365	91	0.00	667	0.547	360	0.0	1.2	11.565	B
A-B	34	8	0.00			34				
A-C	117	29	0.00			117				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	366	0.000	0	0.0	0.0	0.000	A
C-A	315	79	0.00			315				
C-B	436	109	0.00	661	0.660	433	1.2	1.9	15.635	C
A-B	40	10	0.00			40				
A-C	139	35	0.00			139				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	330	0.000	0	0.0	0.0	0.000	A
C-A	385	96	0.00			385				
C-B	534	133	0.00	652	0.819	526	1.9	3.9	26.907	D
A-B	50	12	0.00			50				
A-C	171	43	0.00			171				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	328	0.000	0	0.0	0.0	0.000	A
C-A	385	96	0.00			385				
C-B	534	133	0.00	652	0.819	533	3.9	4.2	29.692	D
A-B	50	12	0.00			50				
A-C	171	43	0.00			171				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	363	0.000	0	0.0	0.0	0.000	A
C-A	315	79	0.00			315				
C-B	436	109	0.00	661	0.660	445	4.2	2.0	17.259	C
A-B	40	10	0.00			40				
A-C	139	35	0.00			139				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	389	0.000	0	0.0	0.0	0.000	A
C-A	263	66	0.00			263				
C-B	365	91	0.00	667	0.547	368	2.0	1.2	12.166	B
A-B	34	8	0.00			34				
A-C	117	29	0.00			117				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.17	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.85	0.08	1.21	4.05	5.64			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.92	0.04	0.39	10.24	20.99			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	4.18	0.03	0.32	6.13	20.98			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	2.04	0.04	0.44	5.55	9.43			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.24	0.03	0.35	2.98	6.17			N/A	N/A

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424
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Filename: Import of Future WO HPR PM.j11
Path: O:\mhc\T3\New folder\des\J7
Report generation date: 16/7/2026 3:51:21 pm

«D1 - 2025 | | AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	11.42	B	8 % [Stream C-B]
Stream C-B	3.3	16.9	24.86	0.78	C			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75	✓				✓	Delay	0.85	36.00	20.00		

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

D1 - 2025 | | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way	11.42	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	8	Stream C-B	11.42	B

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.30	90.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	701	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	255	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	725	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	70	185
	B	0	0	0
	C	275	450	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						252	379
C-B	0.78	24.86	3.3	16.9	C	413	619
A-B						64	96
A-C						170	255

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	395	0.000	0	0.0	0.0	0.000	A
C-A	207	52	0.00			207				
C-B	339	85	0.00	658	0.515	335	0.0	1.0	11.000	B
A-B	53	13	0.00			53				
A-C	139	35	0.00			139				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	372	0.000	0	0.0	0.0	0.000	A
C-A	247	62	0.00			247				
C-B	405	101	0.00	650	0.623	402	1.0	1.6	14.422	B
A-B	63	16	0.00			63				
A-C	166	42	0.00			166				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	339	0.000	0	0.0	0.0	0.000	A
C-A	303	76	0.00			303				
C-B	495	124	0.00	638	0.777	489	1.6	3.1	23.247	C
A-B	77	19	0.00			77				
A-C	204	51	0.00			204				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	337	0.000	0	0.0	0.0	0.000	A
C-A	303	76	0.00			303				
C-B	495	124	0.00	638	0.777	495	3.1	3.3	24.864	C
A-B	77	19	0.00			77				
A-C	204	51	0.00			204				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	370	0.000	0	0.0	0.0	0.000	A
C-A	247	62	0.00			247				
C-B	405	101	0.00	650	0.623	411	3.3	1.7	15.445	C
A-B	63	16	0.00			63				
A-C	166	42	0.00			166				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	394	0.000	0	0.0	0.0	0.000	A
C-A	207	52	0.00			207				
C-B	339	85	0.00	658	0.515	341	1.7	1.1	11.457	B
A-B	53	13	0.00			53				
A-C	139	35	0.00			139				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.04	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.59	0.09	1.15	3.26	4.42			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.13	0.03	0.34	6.91	16.88			N/A	N/A

08:45 - 09:00

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.28	0.03	0.30	3.28	14.38			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.72	0.05	0.46	4.56	7.37			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.09	0.04	0.36	2.72	5.06			N/A	N/A

Generated on 16/7/2026 3:51:37 pm using Junctions 11 (11.1.1.2424)

Junctions 11

PICADY 11 - Priority Intersection Module

Version: 11.1.1.2424
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Filename: Import of Future WO HPR WE.j11
Path: O:\mhc\T3\New folder\des\J7
Report generation date: 16/7/2026 3:51:33 pm

«D1 - 2025 | | AM
»Junction Network
»Arms
»Traffic Demand
»Origin-Destination Data
»Vehicle Mix
»Results

Summary of junction performance

	AM							
	Queue (Veh)	95% Queue (Veh)	Delay (s)	RFC	LOS	Junction Delay (s)	Junction LOS	Network Residual Capacity
	2025							
Stream B-AC	0.0	~1	0.00	0.00	A	10.72	B	8 % [Stream C-B]
Stream C-B	3.3	16.8	24.66	0.78	C			

There are warnings associated with this model run - see the 'Data Errors and Warnings' tables.

Values shown are the highest values encountered over all time segments. Delay is the maximum value of average delay per arriving vehicle. Junction LOS and Junction Delay are demand-weighted averages. Network Residual Capacity indicates the amount by which network flow could be increased before a user-definable threshold (see Analysis Options) is met.

File summary

File Description

Title	
Location	
Site number	
Date	1/8/2025
Version	
Status	(new file)
Identifier	
Client	
Jobnumber	
Enumerator	ADSYSTRA\mvahkuser
Description	

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	Veh	Veh	perHour	s	-Min	perMin

Analysis Options

PICADY short flare model	Vehicle length (m)	Calculate Queue Percentiles	Calculate detailed queueing delay	Show lane queues in feet / metres	Show all PICADY stream intercepts	Calculate residual capacity	Residual capacity criteria type	RFC Threshold	Average Delay threshold (s)	Queue threshold (PCU)	Use simulation for HCM roundabouts	Use iterations for HCM roundabouts
PICADY 4.1	5.75	✓				✓	Delay	0.85	36.00	20.00		

Analysis Set Details

ID	Include in report	Network flow scaling factor (%)	Network capacity scaling factor (%)
A1	✓	100.000	100.000

Demand Set Details

ID	Year	Time period	Traffic profile type	Start time (HH:mm)	Finish time (HH:mm)	Time segment length (min)	Run automatically
D1	2025	AM	ONE HOUR	08:00	09:30	15	✓

D1 - 2025 | | AM

Data Errors and Warnings

Severity	Area	Item	Description
Warning	Vehicle Mix	Junction 1	HV% is zero for all movements / time segments. Vehicle Mix matrix should be completed whether working in PCUs or Vehs. If HV% at the junction is genuinely zero, please ignore this warning.
Warning	Queue variations	Analysis Options	Queue percentiles may be unreliable if the mean queue in any time segment is very low or very high.

Junction Network

Junctions

Junction	Name	Junction type	Arm A Direction	Arm B Direction	Arm C Direction	Junction Delay (s)	Junction LOS
1	untitled	T-Junction	Two-way	Exit Only	Two-way	10.72	B

Junction Network

Driving side	Lighting	Network residual capacity (%)	First arm reaching threshold	Network delay (s)	Network LOS
Left	Normal/unknown	8	Stream C-B	10.72	B

Arms

Arms

Arm	Name	Description	Arm type
A	untitled		Major
B	untitled		Minor
C	untitled		Major

Major Arm Geometry

Arm	Width of carriageway (m)	Has kerbed central reserve	Has right-turn storage	Width for right-turn storage (m)	Visibility for right turn (m)	Blocks?	Blocking queue (PCU)
C	10.00		✓	3.30	90.0		-

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)	Visibility to left (m)	Visibility to right (m)
B				

Slope / Intercept / Capacity

Priority Intersection Slopes and Intercepts

Stream	Intercept (Veh/hr)	Slope for A-B	Slope for A-C	Slope for C-A	Slope for C-B
B-A	440	0.066	0.167	0.105	0.239
B-C	574	0.073	0.184	-	-
C-B	701	0.224	0.224	-	-

The slopes and intercepts shown above include custom intercept adjustments only.

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 Demand

Demand overview (Traffic)

Arm	Linked arm	Profile type	Use O-D data	Average Demand (Veh/hr)	Scaling Factor (%)
A		ONE HOUR	✓	250	100.000
B		ONE HOUR	✓	0	100.000
C		ONE HOUR	✓	785	100.000

Origin-Destination Data

Demand (Veh/hr)

		To		
		A	B	C
From	A	0	85	165
	B	0	0	0
	C	335	450	0

Vehicle Mix

HV data entry mode	PCU Factor for a HV (PCU)
HV Percentages	2.00

Heavy Vehicle %

		To		
		A	B	C
From	A	0	0	0
	B	0	0	0
	C	0	0	0

Results

Results Summary for whole modelled period

Stream	Max RFC	Max Delay (s)	Max Queue (Veh)	Max 95th percentile Queue (Veh)	Max LOS	Average Demand (Veh/hr)	Total Junction Arrivals (Veh)
B-AC	0.00	0.00	0.0	~1	A	0	0
C-A						307	461
C-B	0.78	24.66	3.3	16.8	C	413	619
A-B						78	117
A-C						151	227

Main Results for each time segment

08:00 - 08:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	393	0.000	0	0.0	0.0	0.000	A
C-A	252	63	0.00			252				
C-B	339	85	0.00	659	0.514	335	0.0	1.0	10.973	B
A-B	64	16	0.00			64				
A-C	124	31	0.00			124				

08:15 - 08:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	369	0.000	0	0.0	0.0	0.000	A
C-A	301	75	0.00			301				
C-B	405	101	0.00	651	0.622	402	1.0	1.6	14.365	B
A-B	76	19	0.00			76				
A-C	148	37	0.00			148				

08:30 - 08:45

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	335	0.000	0	0.0	0.0	0.000	A
C-A	369	92	0.00			369				
C-B	495	124	0.00	639	0.775	489	1.6	3.1	23.081	C
A-B	94	23	0.00			94				
A-C	182	45	0.00			182				

08:45 - 09:00

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	334	0.000	0	0.0	0.0	0.000	A
C-A	369	92	0.00			369				
C-B	495	124	0.00	639	0.775	495	3.1	3.3	24.660	C
A-B	94	23	0.00			94				
A-C	182	45	0.00			182				

09:00 - 09:15

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	368	0.000	0	0.0	0.0	0.000	A
C-A	301	75	0.00			301				
C-B	405	101	0.00	651	0.622	411	3.3	1.7	15.370	C
A-B	76	19	0.00			76				
A-C	148	37	0.00			148				

09:15 - 09:30

Stream	Total Demand (Veh/hr)	Junction Arrivals (Veh)	Pedestrian demand (Ped/hr)	Capacity (Veh/hr)	RFC	Throughput (Veh/hr)	Start queue (Veh)	End queue (Veh)	Delay (s)	Unsignalised level of service
B-AC	0	0	0.00	392	0.000	0	0.0	0.0	0.000	A
C-A	252	63	0.00			252				
C-B	339	85	0.00	659	0.514	341	1.7	1.1	11.427	B
A-B	64	16	0.00			64				
A-C	124	31	0.00			124				

Queue Variation Results for each time segment

08:00 - 08:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.03	0.55	1.00	1.40	1.45			N/A	N/A

08:15 - 08:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.58	0.09	1.15	3.23	4.39			N/A	N/A

08:30 - 08:45

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.11	0.03	0.34	6.80	16.75			N/A	N/A

08:45 - 09:00

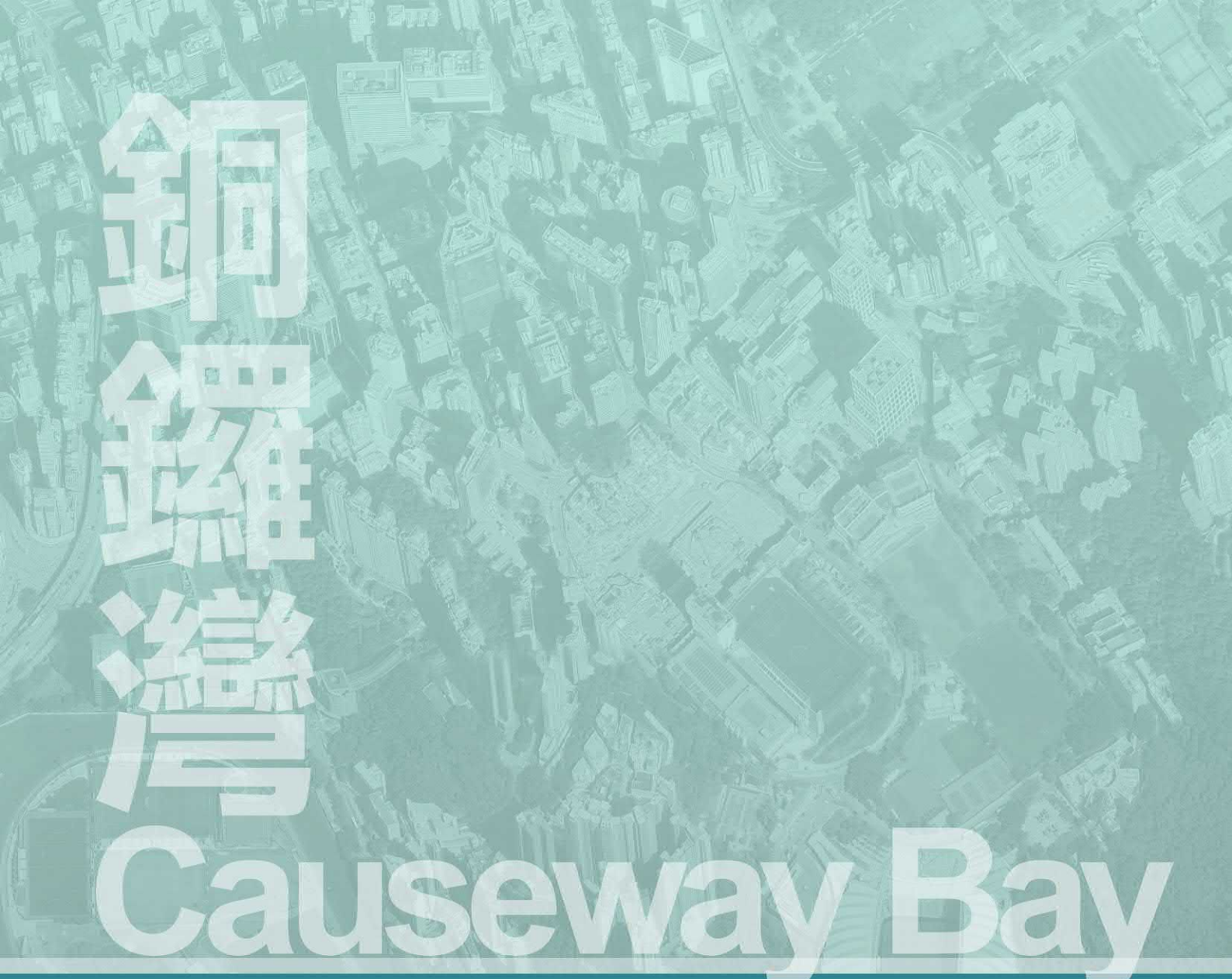
Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	3.26	0.03	0.30	3.26	14.17			N/A	N/A

09:00 - 09:15

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.71	0.05	0.46	4.53	7.31			N/A	N/A

09:15 - 09:30

Stream	Mean (Veh)	Q05 (Veh)	Q50 (Veh)	Q90 (Veh)	Q95 (Veh)	Percentile message	Marker message	Probability of reaching or exceeding marker	Probability of exactly reaching marker
B-AC	0.00	0.00	0.00	0.00	0.00			N/A	N/A
C-B	1.08	0.04	0.36	2.72	5.03			N/A	N/A



Annex B
Tree Protection Proposal

Tree Protection Proposal

for the Old and Valuable Tree (LANDSD (LEASED) WCH/1) prior Commencement of Construction Works

(Rev.3)

April 2026

Prepared by Landscape Consultant

Otherland Ltd.

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Introduction

1.1. Otherland Ltd. was commissioned by Patchway Holdings (HK) Ltd. to prepare a Tree Protection Proposal for the Old and Valuable Tree (LANDSD (LEASED) WCH/1) ("OVT") prior to the commencement of construction works for the proposed underground vehicular tunnel connecting Lee Garden Three and Lee Garden Eight beneath Leighton Road and Sunning Road ("the proposal tunnel"), in support of the Section 16 Planning Application under the Town Planning Ordinance (Cap. 131).

1.2. This Tree Protection Proposal is prepared to setup criteria of tree protection for the OVT within the Lot No. IL8945, currently maintained by the Lot Owner prior commencement of construction works, during and after works completion of underground vehicular tunnel.

1.3. Relevant government guidelines, practice notes, references and standards on preparation of this report: -

- DEVB TC(W) No. 5/2020 – Registration and Preservation of Old and Valuable Trees;
- EVB TC(W) No. 6/2015 – Maintenance of Vegetation and Hard Landscape Features;
- GLTMS, DEVB – Guidelines on Tree Preservation during Construction;
- GLTMS, DEVB – Manual on the Management of Brown Root Rot Disease
- GLTMS, DEVB – Guidelines on Soil Volume for Urban Trees
- GLTMS, DEVB – Guidelines for Tree Risk Assessment and Management Arrangement (10th Edition)
- LAO, LandsD, PN. No.6/2023 – Processing of Tree Preservation and Removal Proposals for Building Development in Private Projects Compliance with Tree Preservation Clause under Lease

2. Background

2.1. The proposed underground vehicular tunnel is to constructed below the ground of OVT along Leighton Road, which is shown in **Figure 2.1**.

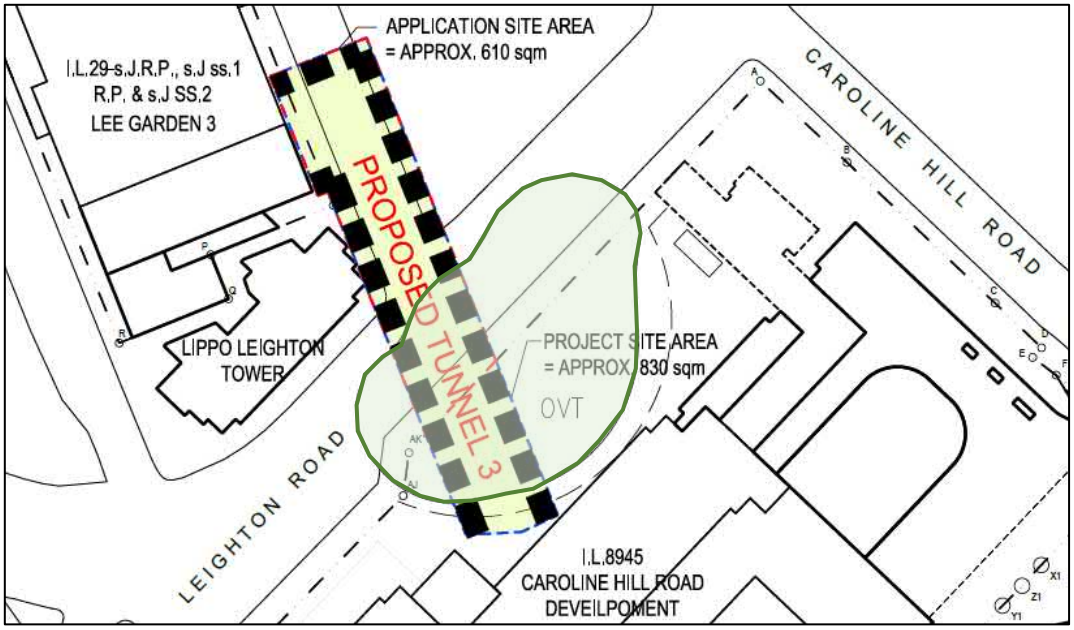

Figure 2.1 OVT Location with Tunnel Alignment

2.2. The proposed tunnel will be located beneath Leighton Road and Sunning Road, and the *drill-and-excavation* method will be adopted, whereby excavation is carried out horizontally from a below-ground starting point.

2.3. Although the proposed tunnel will pass beneath the dripline of the OVT, in accordance with Paragraph 26 of *Development Bureau Technical Circular (Works) No. 5/2020 – Registration and Preservation of Old and Valuable Trees*, "a zone encompassing the tree along its dripline, projecting vertically from the tree canopy and extending **2m below the ground level** and 2m above the top of an OVT, shall be designated as the Tree Protection Zone ("TPZ")." The proposed tunnel will be located at approximately –1.35mPD, which is at least 10m below the top of soil of OVT (approximately +9.3mPD), and approximately 7m below the ground level at Leighton Road (approximately +6.10mPD) which is shown in **Figure 2.2**. As all construction works will be carried out entirely underground and no ground excavation will take place within the dripline of the OVT, the proposed tunnel is considered to be outside the statutory TPZ. Accordingly, the potential impact on the OVT is expected to be minimal.

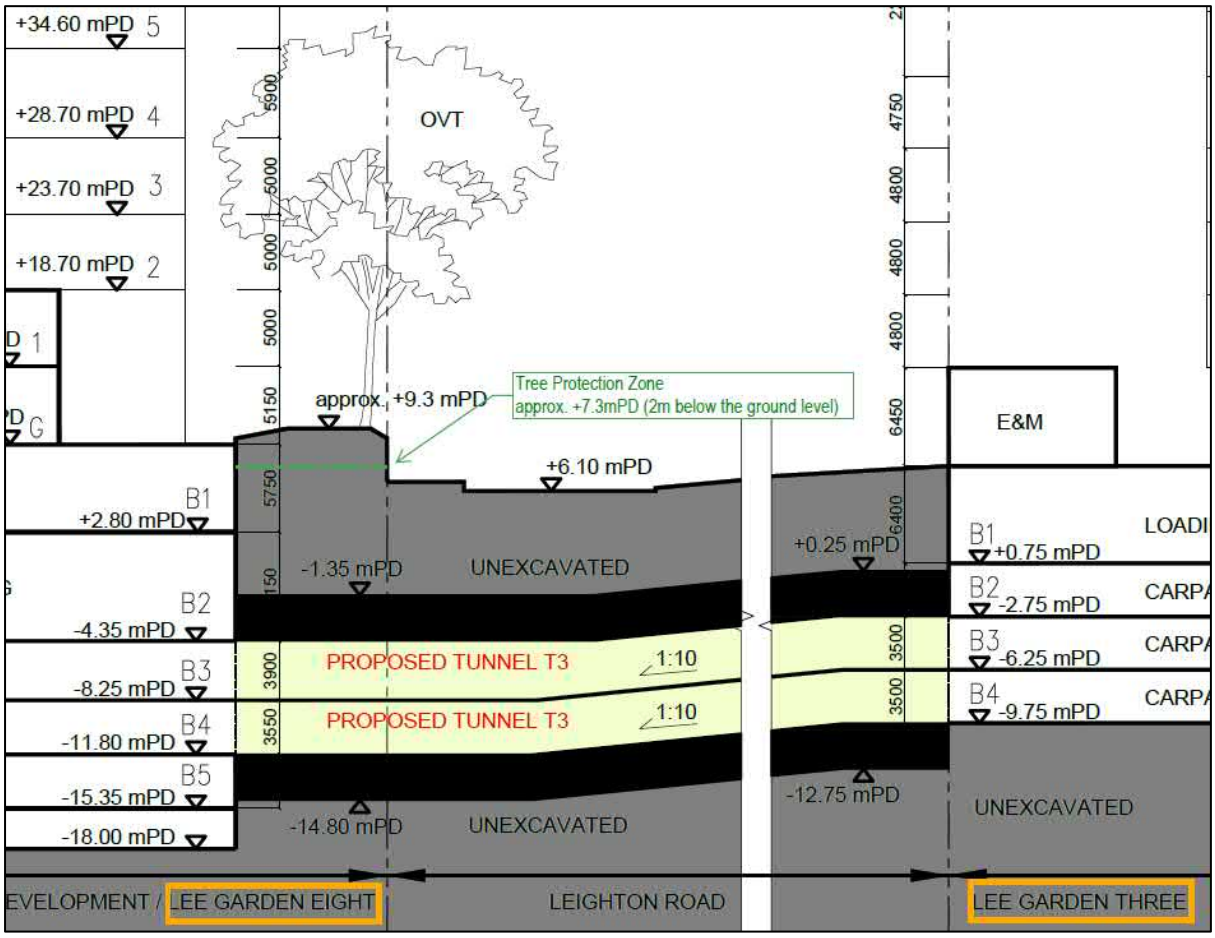

Figure 2.2 Tree Protection Zone (2m below the ground level)

3. Tree Protection Measure

3.1. As mentioned above, no excavation works are proposed to be carried out under this construction method. However, in order to prevent any adverse impacts on the OVT arising from associated works, all open-cut excavation, open trenching, and any works carried out at ground level within the dripline of the OVT shall be strictly prohibited. As no works will be undertaken at ground level or within the TPZ, no additional protective fencing is required for this project, given the access control is already in place.

Precautionary Measures on Brown Root Rot Disease

3.2. In addition, it is noted that the OVT is located at the top of an existing slope and is infected by Brown Root Rot Disease ("BRRD"). The planting area of the OVT has already been fenced off to prevent the spread of the disease; therefore, no additional screening for BRRD is required.

3.3. However, all unwanted incursions into the planting area shall be strictly prohibited, including but not limited to site personnel, solid debris, contaminated materials, water, fluids, machinery, tools, vehicles, fumes, and hot air or water.

Tree Protection Zone Consideration

3.4. With reference to the Greening, Landscape and Tree Management Section (GLTMS) of the Development Bureau – Guidelines on Soil Volume for Urban Trees, it is noted that "over 90% of tree roots are located within the top 1 m of soil." In addition, according to Paragraph 26 of *DEVB Technical Circular (Works) No. 5/2020*, "a zone encompassing the tree along its dripline projecting vertically from the tree canopy and extending 2 m below ground level and 2 m above the top of an OVT shall be designated as the TPZ." As the proposed tunnel works will not interfere with any part of the tree roots, no adverse impact on the OVT is anticipated.

Regular Tree Inspection with Tree Assessment

3.5. While the tunnel alignment is located outside the statutory TPZ and no adverse impact is anticipated, routine monitoring is proposed as a precautionary measure given the OVT status and existing BRRD condition. The monitoring reports shall be carried out by qualified

professional(s) during the whole construction phase. Such qualified professional(s) shall meet the registration requirements for "Arborist" under the Registration Scheme for Tree Management Personnel maintained by the GLTMS of the Development Bureau, with academic qualifications at Level 4 or above under the Hong Kong Qualifications Framework (HKQF), or equivalent, in an appropriate discipline, and shall be one of the following: -

3.6. Such qualified professional(s) shall meet shall meet the Registration Requirements of "Arborist" under the "Registration Scheme for Tree Management Personnel" maintained by the GLTMS of DevB with Academic Qualification up to or above the standard of Level 4 in the Hong Kong Qualifications Framework (HKQF) or equivalent in appropriate discipline, and; be a Registered Tree Management Professional (Arborist) registered in Hong Kong; or attained professional qualifications (i) Certified Arborist, Certified Arborist Utility Specialist, Certified Arborist Municipal Specialist or Board-Certified Master Arborist of the International Society of Arboriculture; or (ii) Technician Member, Professional Member or Fellow Member of the Arboricultural Association of the United Kingdom; or (iii) European Tree Worker or European Tree Technician of the European Arboricultural Council; or (vi) General Member of the National Arborists Association of Australia (issued on or before 31 Dec 2010); or (v) Registered Qualified Arborist, Registered Practicing Arborist, Registered Consulting Arborist, Registered Consulting & Practicing Arborist of the Arboriculture Australia; or (vi) Accredited Arborist of the Hong Kong Institute of Landscape Architects; or equivalent; With a minimum of 5 years' full-time experiences working in the professional tree care, especially for Trees of Particular Interest ("TPIs") or OVT. Requirements of "Arborist" for Registered Tree Management Professional shall be referred to the link as follows:

https://www.greening.gov.hk/rstmp/en/types_of_registered_tree_management_personnel/index.html

4. Method Statement on Protection Measure

4.1. In addition to the requirements that no open-cut excavation, trenching, or other ground-level works shall be carried out within the dripline / TPZ of the OVT, grouting beneath the TPZ shall be avoided as far as practicable, with strict control measures to be implemented in the event that such works are unavoidably required. Appropriate settlement / subsidence prevention and monitoring measures shall also be implemented. Training shall be provided to relevant site staff on the proper care and protection of the OVT within the works area to ensure high-quality implementation and consistent compliance with all tree protection requirements. A competent supervisory staff member shall be stationed on site throughout the implementation stage to oversee the works, ensure that there is no intrusion into the TPZ of the OVT, and verify that all works are carried out strictly in accordance with the Method Statements for the respective measures described below.

Precautionary Measures on BRRD

4.2. Given that the OVT is infected with BRRD, appropriate precautionary measures shall be implemented whenever works, tools, or equipment may come into direct contact with the OVT. All precautionary measures shall be in accordance with the *GLTMS, DEVB – Manual on the Management of Brown Root Rot Disease*, including but not limited to the following measures: -

4.2.1. Appropriate Tools and Equipment

(i) Shielding material for cordoning off the works area, if site conditions allow. The shielding material should meet the following criteria:

- ≥ 2m in height;
- Minimum 9% shade weave;
- Light weight and easy to transport;
- Closed-bottom; and
- No holes, rips or tears.

(ii) Stakes, ties, cables and footings to anchor and stabilise the shielding materials

(iii) Warning signage to be displayed at prominent locations.

(iv) Disinfection materials and equipment include but not limited to:

- Disinfectant (e.g. 70% ethanol or 1:49 bleach solution);
- Fungicides or soil fumigants for site disinfection;
- Personal protection equipment (PPE) for handling disinfectant and other chemicals; and
- Disinfection mats made of absorbents materials and not smaller than 60 cm x 90 cm in size or disinfection trays that are made of durable material and not be smaller than 30 cm (W) x 60 cm (L) X 5 cm (D).

4.2.2. Disinfect Procedures

(i) Disinfect all tools, equipment and PPE used in the tree removal operation thoroughly, and ensure they will not be taken out of the works area before the completion of disinfection;

(ii) Disinfect the whole delineated works area with disinfectant thoroughly;

(iii) Dispose of disposable PPE; and

(iv) Disinfect hands and footwear at the end of the operation. (During the operation, any personnel exiting the works area shall have their footwear disinfected thoroughly on the disinfection mat/ tray at the entrance if any)

Regular Tree Monitoring

4.3. Regular Tree Monitoring Reports shall be prepared by a service provider or qualified professional(s) with recognised qualifications and proven expertise in tree risk assessment and related tree inspection works, in accordance with the requirements stipulated in Section 3.6 – Qualification of Certified Arborist. In compliance with Special Condition (13)(c) of IL No. 8945, a quarterly inspection report shall be submitted to the Lands Department ("LandsD") upon request. In addition, while no direct works will be affected the OVT, thus monitoring inspection on a quarterly basis is recommended

4.4. Quarterly Monitoring Reports, including but not limited to the following information: -

4.4.1. A text on the background information, including but not limited to the followings –

- The existing site condition of OVT;
- The survey methodology; and
- The explanatory notes of the conditions of OVT.

4.4.2. Tree Survey Plan to shown the location of OVT, and the crown spread in true scale with reasonable presentation of its physical form, existing ground level at trunk base of OVT.

4.4.3. Tree assessment schedule for the OVT shall include but not limited to the following information: -

- The OVT Register No;
- Scientific name, Chinese name of the tree species;
- Existing soil level above root collar of individual tree;
- Diameter at breast height of the tree (at a height of 1300mm above ground level);
- Tree crown spread;
- Tree height;
- Condition of the OVT, including the followings: -
- Amenity value;
- Form / Health / Structural Condition; and
- Highlighting any structural defects or unhealthy or decaying symptoms.

4.4.4. A set of tree photographic records, complying with the following: -

- At least eight (8) photographs for the OVT; the photograph of OVT shall show clearly the whole tree as far as possible (including the tree crown, the tree trunk and the surrounding ground near the root collar of the OVT);
- All photographs shall be of reasonable size and quality, in color, and well-annotated, as well as the dates on which the photographs were taken; and
- Close-ups of tree defects with descriptions of defective parts shall be included where appropriate.

4.4.5. A summary of the observations and comments on the tree conditions.

4.4.6. A summary of recommendations for necessary mitigation measures.

4.5. As the OVT is infected by BRRD, Tree Risk Assessment (Form 2) for the OVT shall be conducted every three (3) months in accordance with the *GLTMS, DEVB* – Guidelines for Tree Risk Assessment and Management Arrangement (10th Edition)

https://www.greening.gov.hk/filemanager/greening/common/pdf/tree_care/TRAM_10th.pdf

4.6. Additional site inspections of the OVT shall be conducted within 72 hours following the cancellation of Red or Black Rainstorm Warning Signals, Tropical Cyclone Warning Signal No. 8 or above, Extreme Conditions announced by the HKSAR Government, or upon identification of any signs of tree health decline caused by pests or diseases. Any defects observed on the OVT shall be documented in a tree assessment, together with photographic records, and reported in the regular Tree Monitoring Report. Where substantial damage is identified, a separate tree risk assessment may be undertaken and included in the next Tree Monitoring Report.

-End-