

**Broad Development Parameters of the Indicative
Development Proposal in Respect of Application No. Y/YL-LFS/14**
关于申请编号 Y/YL-LFS/14 而只作指示用途的拟议发展计划的概括发展规范

Revised broad development parameters in view of
the further information received on 22.11.2023
因应於 2023 年 11 月 22 日接获的进一步资料而修订的概括发展规范

| | |
|----------------------------------|---|
| Application No. 申请编号 | Y/YL-LFS/14 |
| Location/address 位置/地址 | <p>Lots 3 S.A ss.1, 3 S.B, 4, 5 S.A RP, 9, 10 RP, 12 S.A, 12 RP, 13, 14 S.A ss.1 S.A, 14 S.A ss.1 RP, 14 S.A ss.2, 14 S.A RP, 14 S.B ss.1 S.A, 14 S.B ss.1 RP, 14 S.B RP, 14 RP, 15 S.A ss.1, 15 S.A RP, 15 S.B, 15 RP, 16 S.A, 16 S.B, 16 RP, 17 S.A ss.1, 17 S.A RP, 17 S.B, 17 S.C and 17 RP in D.D. 128, Lots 2128, 2129, 2136 RP, 2138 RP, 2148, 2153 S.A and 2388 S.A ss.2 (Part) in D.D. 129, and adjoining Government Land, Lau Fau Shan, Yuen Long, New Territories</p> <p>新界元朗流浮山丈量约份第 128 约地段第 3 号 A 分段第 1 小分段、第 3 号 B 分段、第 4 号、第 5 号 A 分段余段、第 9 号、第 10 号余段、第 12 号 A 分段、第 12 号余段、第 13 号、第 14 号 A 分段第 1 小分段 A 分段、第 14 号 A 分段第 1 小分段余段、第 14 号 A 分段第 2 小分段、第 14 号 A 分段余段、第 14 号 B 分段第 1 小分段 A 分段、第 14 号 B 分段第 1 小分段余段、第 14 号 B 分段余段、第 14 号余段、第 15 号 A 分段第 1 小分段、第 15 号 A 分段余段、第 15 号 B 分段、第 15 号余段、第 16 号 A 分段、第 16 号 B 分段、第 16 号余段、第 17 号 A 分段第 1 小分段、第 17 号 A 分段余段、第 17 号 B 分段、第 17 号 C 分段及第 17 号余段、第 129 约地段第 2128 号、第 2129 号、第 2136 号余段、第 2138 号余段、第 2148 号、第 2153 号 A 分段及第 2388 号 A 分段第 2 小分段(部分)和毗连政府土地</p> |
| Site area 地盘面积 | About 约 20,455 sq. m 平方米 (Includes Government Land of about 包括政府土地约 4,594 sq. m 平方米) |
| Plan 图则 | <u>Section 12A application</u> 第 12A 条申请 Draft Lau Fau Shan & Tsim Bei Tsui Outline Zoning Plan No. S/YL-LFS/10 流浮山及尖鼻咀分区计划大纲草图编号 S/YL-LFS/10 |
| | <u>Further information received</u> 接获进一步资料 Approved Lau Fau Shan & Tsim Bei Tsui Outline Zoning Plan No. S/YL-LFS/11 流浮山及尖鼻咀分区计划大纲核准图编号 S/YL-LFS/11 |
| Zoning 地带 | <u>Section 12A application</u> 第 12A 条申请 "Residential (Group C)" and "Residential (Group D)" 「住宅(丙类)」及「住宅(丁类)」 |
| | <u>Further information received</u> 接获进一步资料 "Residential (Group C)" and "Residential (Group D)" 「住宅(丙类)」及「住宅(丁类)」 |

| | | | |
|--|--|-------------------------|----------------------------|
| Proposed Amendment(s) 拟议修订 | To rezone the application site from "Residential (Group C)" and "Residential (Group D)" to "Residential (Group B)" 把申请地点由「住宅(丙类)」及「住宅(丁类)」地带改划为「住宅(乙类)」地带 | | |
| Gross floor area and/or plot ratio 总楼面面积及/或地积比率 | | sq. m 平方米 | Plot ratio 地积比率 |
| | Domestic 住用 | About 约 61,365 | Not more than 不多於 3 |
| | Non-domestic 非住用 | About 约 1,166 | About 约 0.057 |
| No. of block 幢数 | Domestic 住用 | 13 | |
| | Non-domestic 非住用 | - | |
| | Composite 综合用途 | 1 | |
| Building height/No. of storeys 建筑物高度/层数 | Domestic 住用 | - | m 米 |
| | | Not more than 不多於 90 | mPD 米(主水平基准上) |
| | | 3 - 25 | Storey(s) 层 |
| | Non-domestic 非住用 | 2 | Exclude 不包括 Basement 地库 |
| | | - | m 米 |
| | | - | mPD 米(主水平基准上) |
| | Composite 综合用途 | - | Storey(s) 层 |
| | | Not more than 不多於 90 | m 米 |
| | | 24 | mPD 米(主水平基准上) |
| | Composite 综合用途 | 2 | Storey(s) 层 |
| | | - | Exclude 不包括 Basement 地库 |
| | | - | m 米 |
| Site coverage 上盖面积 | - | | |
| No. of units 单位数目 | 1,246 Flats 住宅单位 | | |
| Open space 休憩用地 | Private 私人 | Not less than 不少於 3,489 | sq. m 平方米 |
| | Public 公众 | - | sq. m 平方米 |

| | | |
|--|---|-----|
| No. of parking spaces and loading / unloading spaces 停车位及上落客货车位数目 | Total no. of vehicle spaces 停车位总数 | 595 |
| | Private Car Parking Spaces 私家车车位 | 417 |
| | Motorcycle Parking Spaces 电单车车位 | 13 |
| | Bicycle Parking Spaces 单车停泊位 | 165 |
| | Total no. of vehicle loading/unloading bays/lay-bys 上落客货车位/停车处总数 | 7 |
| | Heavy Goods Vehicle Spaces 重型货车车位 | 5 |
| | Lay-by 停车处 | 2 |

* 有关资料是为方便市民大众参考而提供。对于所载资料在使用上的问题及文义上的歧异，城市规划委员会概不负责。若有任何疑问，应查阅申请人提交的文件。

The information is provided for easy reference of the general public. Under no circumstances will the Town Planning Board accept any liabilities for the use of the information nor any inaccuracies or discrepancies of the information provided. In case of doubt, reference should always be made to the submission of the applicant.

Submitted Plans, Drawings and Documents 提交的图则、绘图及文件

| | <u>Chinese</u> 中文 | <u>English</u> 英文 |
|--|--------------------------|-------------------------------------|
| <u>Plans and Drawings 图则及绘图</u> | | |
| Master layout plan(s)/Layout plan(s) 总纲发展蓝图／布局设计图 | <input type="checkbox"/> | <input type="checkbox"/> |
| Block plan(s) 楼宇位置图 | <input type="checkbox"/> | <input type="checkbox"/> |
| Floor plan(s) 楼宇平面图 | <input type="checkbox"/> | <input type="checkbox"/> |
| Sectional plan(s) 截视图 | <input type="checkbox"/> | <input type="checkbox"/> |
| Elevation(s) 立视图 | <input type="checkbox"/> | <input type="checkbox"/> |
| Photomontage(s) showing the proposed development 显示拟议发展的合成照片 | <input type="checkbox"/> | <input type="checkbox"/> |
| Master landscape plan(s)/Landscape plan(s) 园境设计总图／园境设计图 | <input type="checkbox"/> | <input type="checkbox"/> |
| Others (please specify) 其他（请注明） | <input type="checkbox"/> | <input type="checkbox"/> |
| <u>Reports 报告书</u> | | |
| Planning Statement / Justifications 规划纲领 / 理据 | <input type="checkbox"/> | <input type="checkbox"/> |
| Environmental assessment (noise, air and/or water pollutions) 环境评估（噪音、空气及／或水的污染） | <input type="checkbox"/> | <input type="checkbox"/> |
| Traffic impact assessment (on vehicles) 就车辆的交通影响评估 | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| Traffic impact assessment (on pedestrians) 就行人的交通影响评估 | <input type="checkbox"/> | <input type="checkbox"/> |
| Visual impact assessment 视觉影响评估 | <input type="checkbox"/> | <input type="checkbox"/> |
| Landscape impact assessment 景观影响评估 | <input type="checkbox"/> | <input type="checkbox"/> |
| Tree Survey 树木调查 | <input type="checkbox"/> | <input type="checkbox"/> |
| Geotechnical impact assessment 土力影响评估 | <input type="checkbox"/> | <input type="checkbox"/> |
| Drainage impact assessment 排水影响评估 | <input type="checkbox"/> | <input type="checkbox"/> |
| Sewerage impact assessment 排污影响评估 | <input type="checkbox"/> | <input type="checkbox"/> |
| Risk Assessment 风险评估 | <input type="checkbox"/> | <input type="checkbox"/> |
| Others (please specify) 其他（请注明） | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| <u>Traffic Review Report 交通评审报告</u> | | |

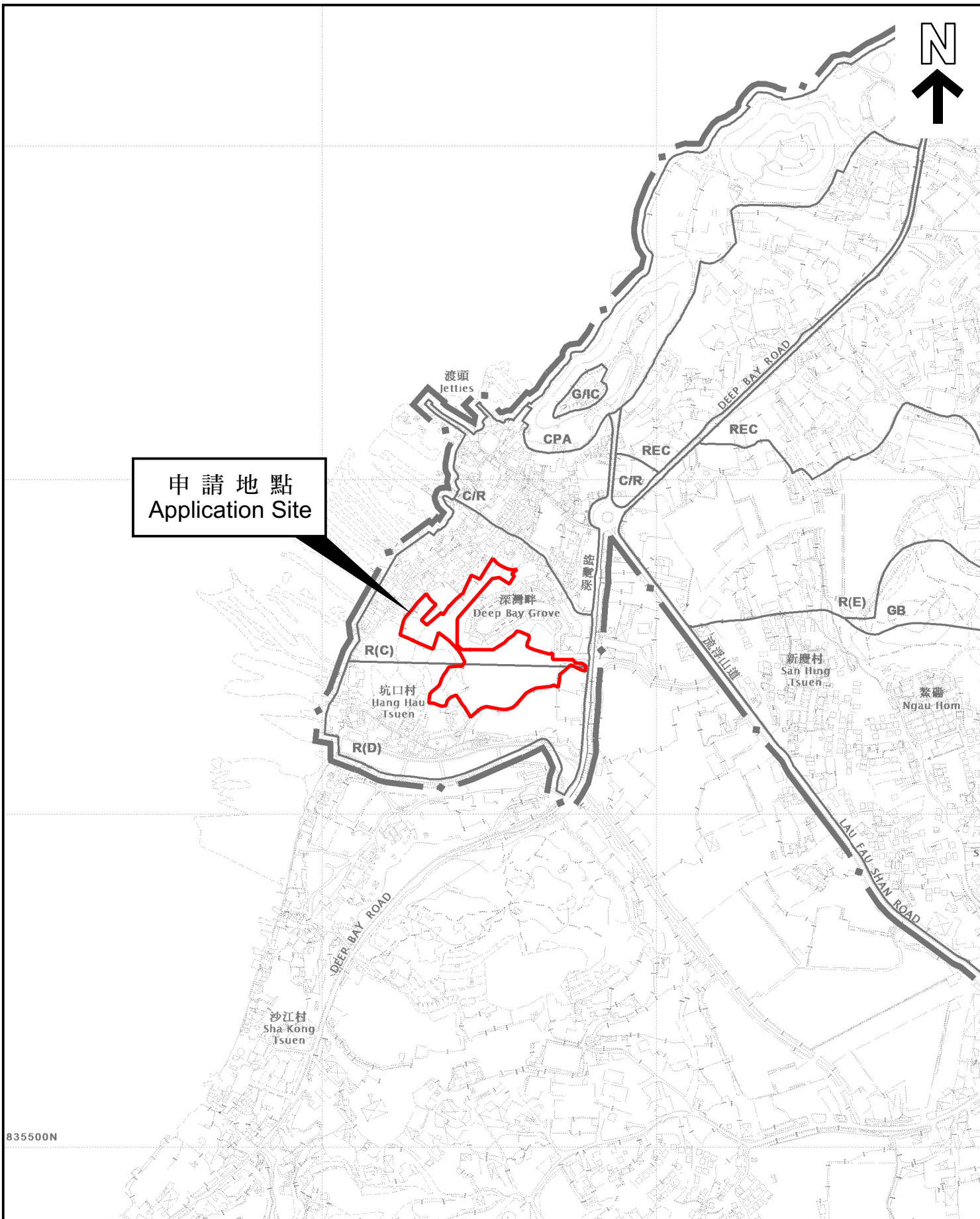
Note: May insert more than one 「✓」. 注：可在多於一个方格内加上「✓」号

Note: The information in the Gist of Application above is provided by the applicant for easy reference of the general public. Under no circumstances will the Town Planning Board accept any liabilities for the use of the information nor any inaccuracies or discrepancies of the information provided. In case of doubt, reference should always be made to the submission of the applicant.

注：上述申请摘要的资料是由申请人提供以方便市民大众参考。對於所载资料在使用上的问题及文义上的歧异，城市规划委员会概不负责。若有任何疑问，应查阅申请人提交的文件。



申請地點
Application Site

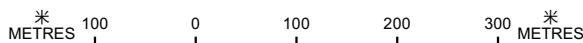


835500N

本摘要圖於2023年11月28日擬備，
所根據的資料為於2022年4月12日
核准的分區計劃大綱圖編號 S/YL-LFS/11
EXTRACT PLAN PREPARED ON 28.11.2023
BASED ON OUTLINE ZONING PLAN No.
S/YL-LFS/11 APPROVED ON 12.4.2022

位置圖 LOCATION PLAN

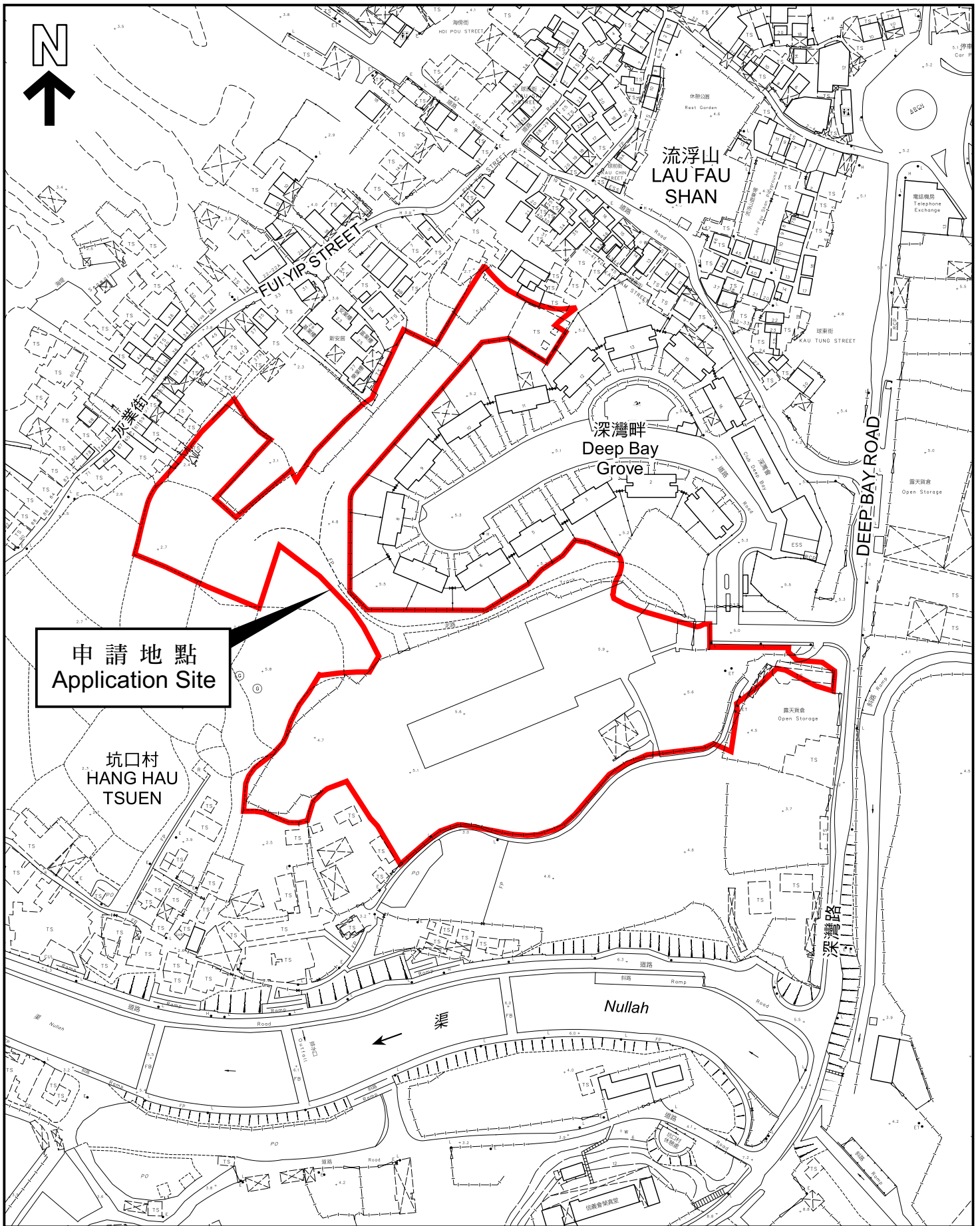
SCALE 1:7 500 比例尺



申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.

Y/YL-LFS/14



申請地點
Application Site

坑口村
HANG HAU
TSUEN

流浮山
LAU FAU
SHAN

深灣畔
Deep Bay
Grove

Nullah

DEEP BAY ROAD

本摘要圖於2023年11月28日擬備，
所根據的資料為測量圖編號
2-SW-21D
EXTRACT PLAN PREPARED ON 28.11.2023
BASED ON SURVEY SHEET No.
2-SW-21D

平面圖 SITE PLAN

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.

Y/YL-LFS/14

申請編號 Application No. : Y/YL-LFS/14

備註 Remarks

申請人提交進一步資料，以回應運輸署的意見，並提交經修訂的就車輛的交通影響評估及交通評審報告。

The applicant submitted Further Information in response to comments of Transport Department, and submitted a revised Traffic Impact Assessment and Traffic Review Report.

有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。The information is provided for easy reference of the general public. Under no circumstances will the Town Planning Board accept any liabilities for the use of the information nor any inaccuracies or discrepancies of the information provided. In case of doubt, reference should always be made to the submission of the applicant.

Your ref TPB/YL-LFS/14
Our ref 283826/01/MYNL/TKML/05179

ARUP

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22 November 2023

Dear Sir/Madam,

Application for Amendment of Plan Under Section 12A of the Town Planning Ordinance (Cap.131) for Proposed Residential Development and Social Welfare Facility (Child Care Centre) at Various Lots in D.D. 128 and D.D. 129, and Adjoining Government Land, Lau Fau Shan, Yuen Long, New Territories (Planning Application No. Y/YL-LFS/14)

Submission of Further Information

Thank you for agreeing to our deferral request for the captioned S12A Planning Application on 22 September 2023.

In response to Transport Department's request for a sensitivity analysis, we are pleased to submit a new Traffic Review Report (**Annex A**) for your kind consideration.

We sincerely seek favourable consideration from the Town Planning Board to approve the captioned S12A Planning Application.

Should you have any queries, please contact the undersigned or our Mr Mark Lim at 2268 3887.

Yours faithfully



Natalie LEUNG
Chief Urban Planner

Encl. - 70 copies of Traffic Review Report (Annex A)
cc - Client
- Tuen Mun and Yuen Long West District Planning Office - Mr WONG Pok Shaan, Keith (kpswong@pland.gov.hk)

Reference number CHK50605510/PTC/L2301861/sys

APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131) FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS LOTS IN D.D. 128 AND D.D. 129, AND ADJOINING GOVERNMENT LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES (PLANNING APPLICATION NO. Y/YL-LFS/14)

TRAFFIC REVIEW



1. INTRODUCTION

1.1 Background

- 1.1.1 The Application site is located at various Lots in D.D.128 and D.D. 129, and adjoining government land, Lau Fau Shan as indicated in **Drawing No. 1.1**. A section 12A application (Planning Application No. Y/YL-LFS/14) has been submitted to the Government to rezone the Application site for the proposed residential development and Social Welfare Facility (Child Care Centre).
- 1.1.2 The tentative completion year of the proposed development is 2030. A traffic impact assessment (TIA) report for the design year of 2033 was submitted to the Government in support of the application. During the application, a proposed temporary transitional housing, being located at the subject rezoning site, was approved by Town Planning Board in 2022 (Application No. A/YL-LFS/425). In this regard, a sensitivity test for another assessment year has been requested by Transport Department (TD) to assess in case there is a later development completion year.
- 1.1.3 In response to TD's request and taking into account of the planned operation period of transitional housing, a sensitivity test for the design year of 2036 was conducted by assuming that the completion year of the proposed development to be in year 2033. This traffic review is to review the traffic impact to the surrounding road network if the completion year of the proposed development is assumed to be in year 2033.

2. TRAFFIC FORECSATING

2.1 Design Year for Sensitivity Test

- 2.1.1 By assuming that the completion year of the proposed development to be in year 2033, the design year of 2036, three years upon operation of the proposed development, has been adopted for sensitivity test.

2.2 Identified Road Junction and Links

- 2.2.1 Same as previously submitted TIA report, a total of five junctions/road links, as listed in **Table 2.1**, have been identified for assessment purposes in accordance with the major ingress/egress routes. The locations of the identified junctions and road links are indicated in **Drawing 2.1**.

Table 2.1 Identified Key Junctions

| Ref. ⁽¹⁾ | Key Junction/Road Links | Type | Drawing No. |
|---------------------|--|--------------------------|-------------|
| Junction | | | |
| J1 | Lau Fau Shan Road / Deep Bay Road | Roundabout | 2.2 |
| J2 | Tin Wah Road/Lau Fau Shan Road/Ping Ha Ro | Priority | 2.3 |
| J3 | Tin Wah Road/Tin Ying Road | Signal | 2.4 |
| Road Link | | | |
| L1 | Deep Bay Road (section between Lau Fau Shan Roundabout and the subject site) | Single Track Access Road | 2.1 |
| L2 | Lau Fau Shan Road | Single-2 | 2.1 |

Remark: (1) Refer to **Drawing 2.1** for locations.

2.3 Forecasting Assumptions

2.3.1 According to the Legislative Council Paper No. CB(1)230/19-20(03) "Funding Applications for Hung Shui Kiu/Ha Tsuen New Development Area", the Hung Shui Kiu/Ha Tsuen New Development Area (HSK/HT NDA) will be developed in phases. Phase 1 and Phase 2 developments are scheduled to be completed by 2032 whilst the Phase 3 development is scheduled to be completed in 2037/2038.

2.3.2 Phase 1 and Phase 2 developments of HSK/HT NDA would be completed before the design year 2036 and has been considered in this traffic forecast. Nevertheless, taking into consideration that the Phases 1 & 2 developments are not in close proximity to the identified study area, their traffic impact would be limited on the identified study area. Therefore, same as the previously submitted TIA report, the 2036 reference traffic flows were derived by adopting appropriate growth rates onto the observed traffic flows.

2.3.3 To derive the 2036 reference traffic flows for sensitivity test, the year 2033 reference flows in the previously submitted TIA report are adopted as basis.

Traffic Growth Rate from 2033 to 2036

2.3.4 For the long-term traffic growth rate from Year 2033 up to 2036, reference has been made to the Hong Kong Resident Population extracted from "Hong Kong Population Projections 2022-2046" published by Census and Statistics Department. The average annual growth from year 2033 to 2036 is illustrated in **Table 2.2**.

Table 2.2 Hong Kong Resident Population for Years 2033-2036

| | Year 2033 (ppl) | Year 2036 (ppl) | Growth Rate per annum (2033/2036) |
|----------------------|-----------------|-----------------|-----------------------------------|
| Hong Kong Population | 7,903,600 | 8,022,400 | +0.50% |

2.3.5 As indicated in **Table 2.2**, the average growth rate of Hong Kong Resident Population is +0.5% p.a. from year 2033 to 2036, which was adopted to project the year 2033 traffic flows up to year 2036 traffic flows.

Adjacent Planned/Committed Developments

2.3.6 The planned/committed developments in the vicinity of the development that are expected to be completed by year 2036 will be included in the traffic forecast. The details of these committed developments and the estimated traffic flows are listed in **Table 2.3** and **Table 2.4** respectively. The locations of planned/committed developments in the vicinity are indicated in **Drawing 2.5**.

Table 2.3 Committed/Approved Developments

| Ref. (1) | Committed/Approved Developments | Parameter |
|-------------|---|--|
| 1 | Proposed Public Housing Development nearby Tin Wah Road | 4390 flats with 14580m ² retail GFA, 2906m ² GIC GFA and proposed ancillary facilities/carpark |
| 2 | Proposed Residential Development at Tin Shui Wai Area 112 | 2031 flats with 8403m ² retail GFA |
| 3 | Proposed Residential Development at Tin Shui Wai Area 115 | 1727 flats with 1858m ² retail GFA |
| 4 | Proposed Residential Development at Tin Shui Wai Area 33 | 1938 flats with 205m ² retail GFA |

Remark: (1) Locations refer to **Drawing No. 2.5**.

Table 2.4 Estimated Trips for other Committed/Approved Developments

| Ref. (1) | Committed/Approved Developments | Trip Generations (pcu/hr) | | | |
|-------------|--|---------------------------|------|---------|------|
| | | AM Peak | | PM Peak | |
| | | Gen | Attr | Gen | Attr |
| 1 | Proposed Public Housing Development nearby Tin Wah Road ⁽²⁾ | 400 | 287 | 232 | 341 |
| 2 | Proposed Residential Development at Tin Shui Wai Area 112 ⁽³⁾ | 176 | 124 | 109 | 119 |
| 3 | Proposed Residential Development at Tin Shui Wai Area 115 | 128 | 78 | 55 | 71 |
| 4 | Proposed Residential Development at Tin Shui Wai Area 33 | 139 | 82 | 56 | 73 |

Remarks: (1) Locations refer to **Drawing No. 2.5**.

(2) Trip Generations are based on its TIA report under RNTPC Paper No.4/21.

(3) Included the trips of Public Vehicle Park (90 car parking, 45 coach parking & 9 motorcycle parking).

2.4 Development Traffic Generations

2.4.1 The subject site is proposed to be developed into a residential development of 1,246 unit with average flat size of about 50m² with a 100-place child care center. The traffic generated from the proposed development as derived from the previously submitted TIA would be included for traffic forecasting. The estimated trip generation of the proposed development extracted from TIA report is listed in **Table 2.5**.

Table 2.5 Estimated Trip Generation of Proposed Development

| | | AM Peak | | PM Peak | |
|--------------|---|------------|-----------|-----------|-----------|
| | | Gen | Attr | Gen | Attr |
| Residential | Trip Rates (pcu/hr/flat) ⁽¹⁾ | 0.0718 | 0.0425 | 0.0286 | 0.037 |
| | No. of Unit | 1246 | | | |
| | Proposed Development (pcu/hr) | 89 | 53 | 36 | 46 |
| G/IC | Child Care Centre (pcu/hr) ⁽²⁾ | 20 | 20 | 20 | 20 |
| Total | | 109 | 73 | 56 | 66 |

Remarks: (1) Trip rates extracted from TPDM mean trip rates for Private Housing R(A) Average Flat Size of 60sqm.

(2) Nominal Trips.

2.5 Year 2036 Traffic Flows

- 2.5.1 According to the above, the anticipated 2036 peak hour reference traffic flows are obtained by applying the adopted growth rates to the 2033 traffic flows and superimposing the estimated trip generations of the planned developments. The 2036 reference peak-hour traffic flows are shown in **Drawing 2.6**.
- 2.5.2 The estimated development traffic trips as derived in **Table 2.5** are superimposed onto the year 2036 reference traffic flows, to produce the anticipated year 2036 peak hour design traffic flows. The year 2036 design peak-hour traffic flows are shown in **Drawings 2.7**.

3. TRAFFIC IMPACT ASSESSMENT FOR SENSITIVITY TEST

3.1 Junction Assessment

3.1.1 To investigate the traffic impact of the proposed development on the surrounding road network at the design year 2036, operational performance of the identified key local junctions and critical links have been assessed for both reference and design scenarios.

Government’s Planned Junction Improvement Work at Tin Wah Road/Lau Fau Shan Road/Ping Ha Road (J2) and Road Widening Works at Tin Wah Road

3.1.2 The Government gazetted on 18 November 2022 the road works for PWP Item No. B847CL Site Formation and Infrastructure works for Public Housing Development at Tin Wah Road, Lau Fau Shan. Under the Gazette Plan, the existing priority junction at Tin Wan Road/Lau Fau Shan Road/Ping Ha Road (J2) will be converted to a roundabout, and a section of Tin Wah Road between Tin Ying Road and Lau Fau Shan Road will be widened to a dual 2-lane road. The possible planned layout for junction and road improvement works are shown in **Drawing No. 3.1** and **Drawing No. 3.2** respectively. The works are scheduled to commence in March 2024 and will take about 46 months to complete. The planned schematic improvement layouts were adopted for assessment.

Junction Operation Performance

3.1.3 Based on the existing/planned layouts, the junction assessment results for the 2036 reference and design scenarios are summarized in **Table 3.1**. The junction calculation sheets are attached in **Annex A**.

Table 3.1 Year 2036 Junction Operational Performance

| Ref. (1) | Junction | Type | RC/RFC ⁽²⁾ | | | |
|-------------|--|---------------------------|-----------------------|---------|-------------|---------|
| | | | Reference Case | | Design Case | |
| | | | AM Peak | PM Peak | AM Peak | PM Peak |
| J1 | Lau Fau Shan Road / Deep Bay Road | Roundabout | 0.40 | 0.34 | 0.49 | 0.46 |
| J2 | Planned Junction of Tin Wah Road/Lau Fau Shan Road/Ping Ha Road ⁽²⁾ | Roundabout ⁽²⁾ | 0.72 | 0.81 | 0.76 | 0.84 |
| J3 | Planned Junction of Tin Wah Road/Tin Ying Road ⁽³⁾ | Signal | 15% | 25% | 11% | 21% |

Remarks:(1) Refer to **Drawing 2.1** for junction locations.

(2) Based on the planned junction improvement works on **Drawing No. 3.1**.

(3) Based on the planned road improvement works on **Drawing No. 3.2**.

(4) RC = reserved capacity for signal junction, RFC = ratio-of-flow to capacity for roundabout junction.

3.1.4 The assessment results in **Table 3.1** revealed that among the identified key junctions, the planned junction Tin Wah Road/Ting Ying Road (J3) would be operated with over-capacity under both reference and design cases.

3.2 Road Link Assessment

3.2.1 Apart from junction capacity assessment, the road link operation performance was also undertaken for both reference and design scenarios.

PWP Item No. 6878th (Part)- Government’s Planned Upgrading Works at Deep Bay Road

3.2.2 The Government gazetted on 10 December 2021 the widening works at a section of Deep Bay between Lau Fau Shan Roundabout and Nim Wan Road from a single track access road to a single two-lane carriageway to serve the traffic demand in the area. Under the Gazette Plan, a section of Deep Bay Road abutting the subject site will be widened to around 7m with footpath as illustrated in **Drawing No. 3.3**. The road widening works is anticipated to be completed in phases by around 2029 according to the LegCo Paper (No. CB(1)177/2022(05)). This road layout was adopted for assessment.

Link Operational Performance

3.2.3 Based on the existing/planned layouts with traffic forecast, the results of the assessment are summarized in **Table 3.2**.

Table 3.2 Year 2036 Road Link Operational Performance

| Ref. (1) | Road Link | Capacity (veh/hr) | Reference Case | | | | Design Case | | | |
|-------------|---------------------------------------|----------------------|---|------------|--------------------------------------|------------|---|------------|--------------------------------------|------------|
| | | | Two-way Traffic Flows (veh/hr) | | Volume to Capacity Ratio (V/C) | | Two-way Traffic Flows (veh/hr) | | Volume to Capacity Ratio (V/C) | |
| | | | AM Peak | PM Peak | AM Peak | PM Peak | AM Peak | PM Peak | AM Peak | PM Peak |
| L1 | Upgraded Deep Bay Road ⁽²⁾ | 1400 ⁽³⁾ | 205 | 320 | 0.15 | 0.23 | 375 | 435 | 0.27 | 0.31 |
| L2 | Lau Fau Shan Road | 1400 ⁽³⁾ | 390 | 525 | 0.28 | 0.38 | 565 | 640 | 0.40 | 0.46 |

Remarks:(1) Refer to **Drawing 2.1** for locations.

(2) Based on the planned road layout as shown in **Drawing No. 3.3**.

(3) According to TPDM Volume 2 Section.2.4.1, road capacity of single 2-lane carriageway with the road width of 6.75m, the peak hourly flow of 1400 veh/hr for both directions under district distributor.

3.2.4 The assessment result in **Table 3.2** revealed that all the identified key road links will operate with ample capacity under both reference and design cases.

3.3 Improvement Proposal

Proposed Junction Improvement at Tin Wah Road/Tin Ying Road (J3)

3.3.1 In the previously submitted TIA report, a local junction improvement measure has been proposed for the planned junction Tin Wah Road/Tin Ying Road (J3) to resolve the foreseeable traffic problems. It is proposed to provide an additional right-turn traffic lane at the approach arm of Tin Wah Road eastbound, increase the number of straight-ahead traffic lane at Tin Ying Road southbound from 2 to 3, and convert a shared traffic lane (straight ahead & right-turn) into a right-turn traffic lane at Tin Yin Road northbound. The detail of junction improvement scheme is shown in **Drawing No. 3.4**.

3.3.2 The operational performance of the junction of Tin Wah Road/Tin Ying Road (J3) was re-assessed based on the proposed improvement scheme. The result is summarized in **Table 3.3**.

Table 3.3 Year 2036 Junction Operational Performance with Proposed Improvement Scheme

| Ref. | Junction | Type | Reserve Capacity | |
|------|---|--------|------------------|---------|
| | | | AM Peak | PM Peak |
| J3 | Tin Wah Road/Tin Ying Road ⁽¹⁾ | Signal | 17% | 25% |

Remarks: (1) Based on the proposed junction improvement works on **Drawing 3.4**.

- 3.3.3 The junction assessment results shown in **Table 3.3** indicates that the planned junction Tin Wah Road/Tin Ying Road (J3) could be alleviated with the proposed improvement measure at the design year 2036.

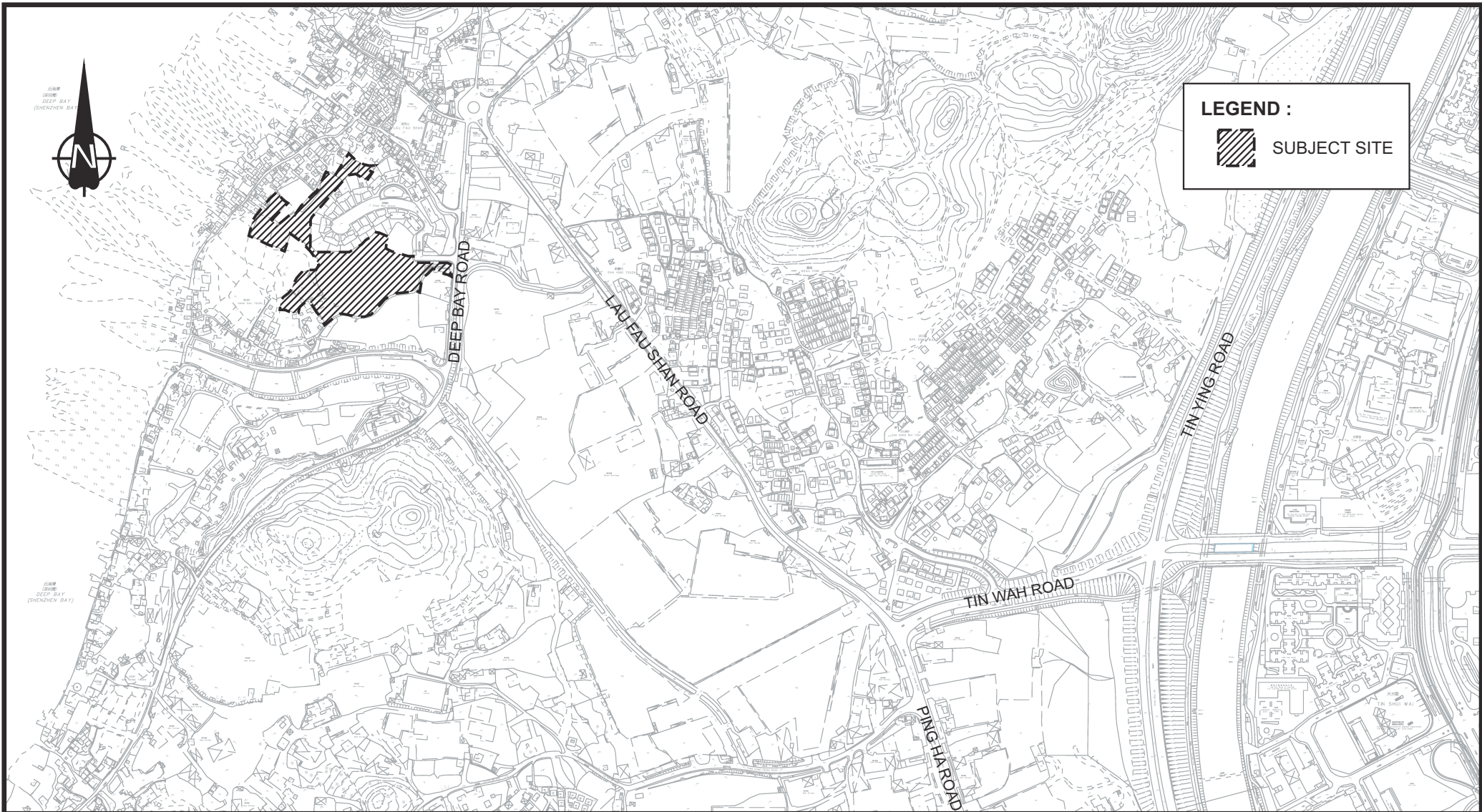
4. CONCLUSION

4.1 Summary

- 4.1.1 The Application site is located at various Lots in D.D.128 and D.D. 129, and adjoining government land, Lau Fau Shan as indicated in **Drawing No. 1.1**. A section 12A application (Planning Application No. Y/YL-LFS/14) has been submitted to the Government to rezone the Application site for the proposed residential development and Social Welfare Facility (Child Care Centre).
- 4.1.2 The tentative completion year of the proposed development is 2030. A traffic impact assessment (TIA) report for the design year of 2033 was submitted to the Government in support of the application. During the application, a proposed temporary transitional housing, being located at the subject rezoning site, was approved by Town Planning Board in 2022 (Application No. A/YL-LFS/425). In this regard, a sensitivity test for another assessment year has been requested by Transport Department (TD) to assess in case there is a later development completion year. In response to TD's request and taking into account of the planned operation period of transitional housing, a sensitivity test for the design year of 2036 was conducted by assuming that the completion year of the proposed development to be in year 2033.
- 4.1.3 The Government gazetted on 10 December 2021 the widening works at a section of Deep Bay between Lau Fau Shan Roundabout and Nim Wan Road from a single track access road to a single two-lane carriageway to serve the traffic demand in the area. Under the Gazette Plan, a section of Deep Bay Road abutting the subject site will be widened to around 7m with footpath as illustrated in **Drawing No. 3.3**. The road widening works is anticipated to be completed in phases by around 2029 according to the LegCo Paper. This planned road layout was adopted for assessment.
- 4.1.4 Peak-hour traffic forecast for year 2036 were generated based on the same methodology in the previously submitted TIA report. Operational performance of the identified local junctions and road links have been assessed based on the anticipated year 2036 traffic flows and the existing/planned layouts. The assessment results revealed that all identified key junctions and road links will operate with ample capacity, except the planned junction Tin Wah Road/Tin Ying Road (J3).
- 4.1.5 In the previously submitted TIA report, a local junction improvement measure has been proposed for the planned junction Tin Wah Road/Tin Ying Road (J3) to resolve the foreseeable traffic problems. According to the junction assessment result, the problematic junction Tin Wah Road/Tin Ying Road (J3) could still be alleviated upon completion of the proposed improvement measure at the design year of 2036.


4.2 Conclusion

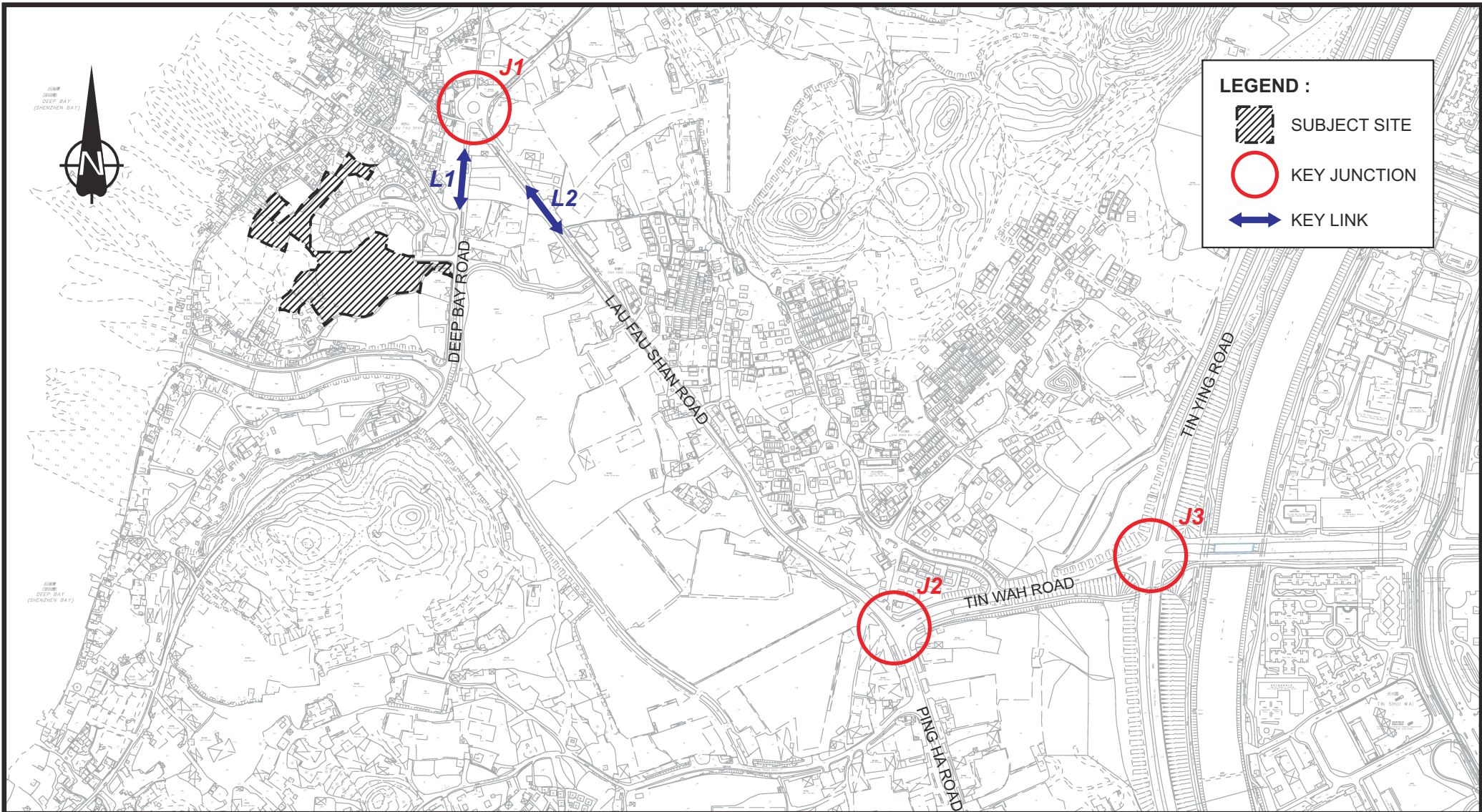
- 4.2.1 In conclusion, the result of the sensitivity test has demonstrated that even if the project completion year is postponed to 2033, the development traffic generation by the subject site can still be absorbed by the nearby road network and would not cause any adverse traffic impact (with the proposed local junction improvement).






LEGEND :

 SUBJECT SITE

| - | - | - | - | - | - | - | - | - | - | - | - |
|---|-------------|---------|------|--|-------------|---------|------|---|-------------|---------|------|
| Rev. | Description | Checked | Date | Rev. | Description | Checked | Date | Rev. | Description | Checked | Date |
| Project Title | | | | Drawing Title | | | | <p style="text-align: center;">SITE LOCATION</p>  | | | |
| <p>APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131) FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS LOTS IN D.D.128 AND D.D.129 AND ADJOINING GOVERNMENT LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES</p> | | | | <p>Designed FSC Checked PTC Scale NTS Date NOV 2023 Drawing No. 1.1 Rev. -</p> | | | | | | | |

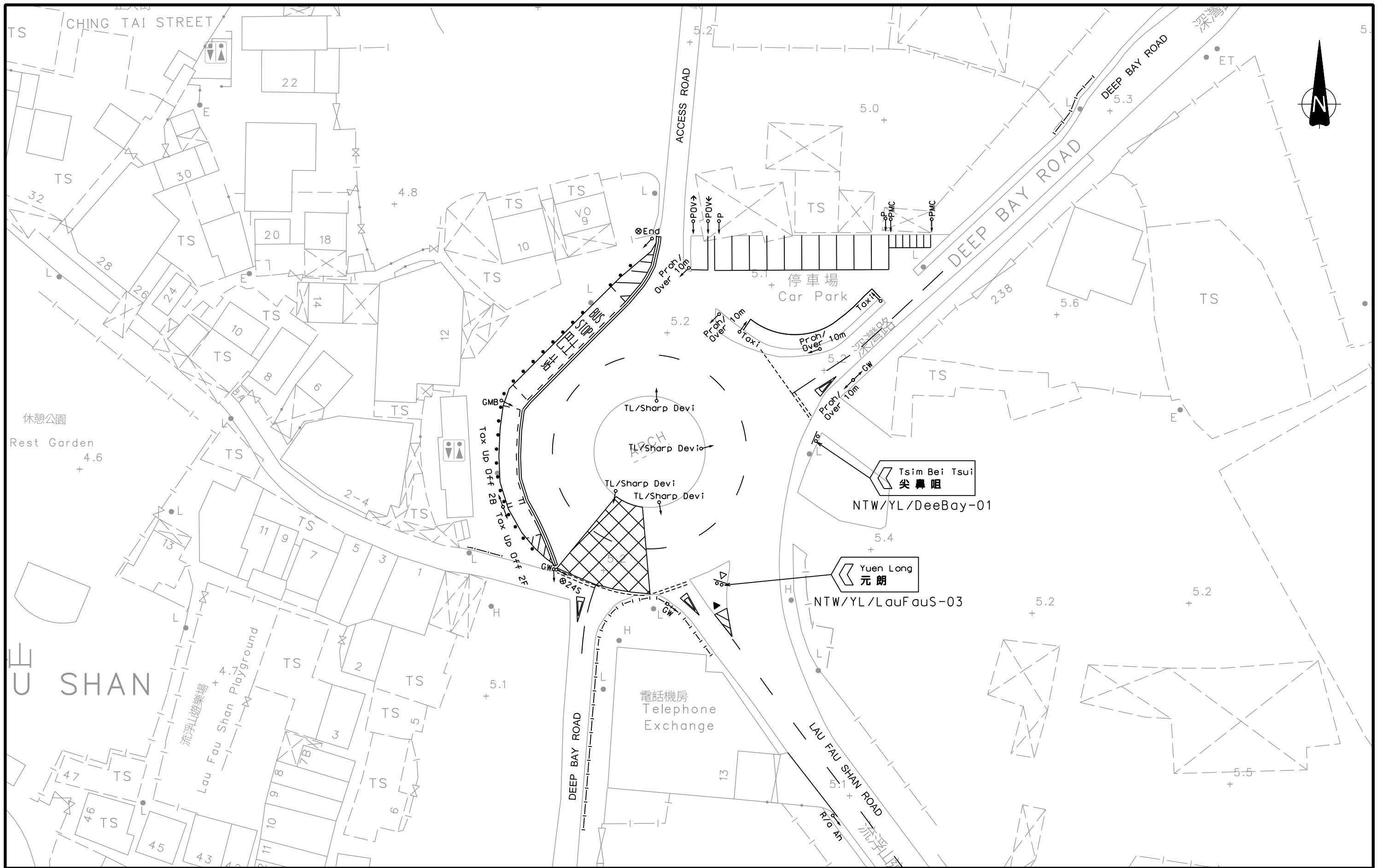


LEGEND :

-  SUBJECT SITE
-  KEY JUNCTION
-  KEY LINK

| | | | | | | | | | | | |
|--|-------------|---------|------|--------------------------|-------------|---------|------|-------|-------------|---------|----------|
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| Rev. | Description | Checked | Date | Rev. | Description | Checked | Date | Rev. | Description | Checked | Date |
| Project Title | | | | Drawing Title | | | | | | | |
| APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131) FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS LOTS IN D.D.128 AND D.D.129 AND ADJOINING GOVERNMENT LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES | | | | IDENTIFIED KEY JUNCTIONS | | | | | | | |
| | | | | Designed | FSC | Checked | PTC | Scale | NTS | Date | NOV 2023 |





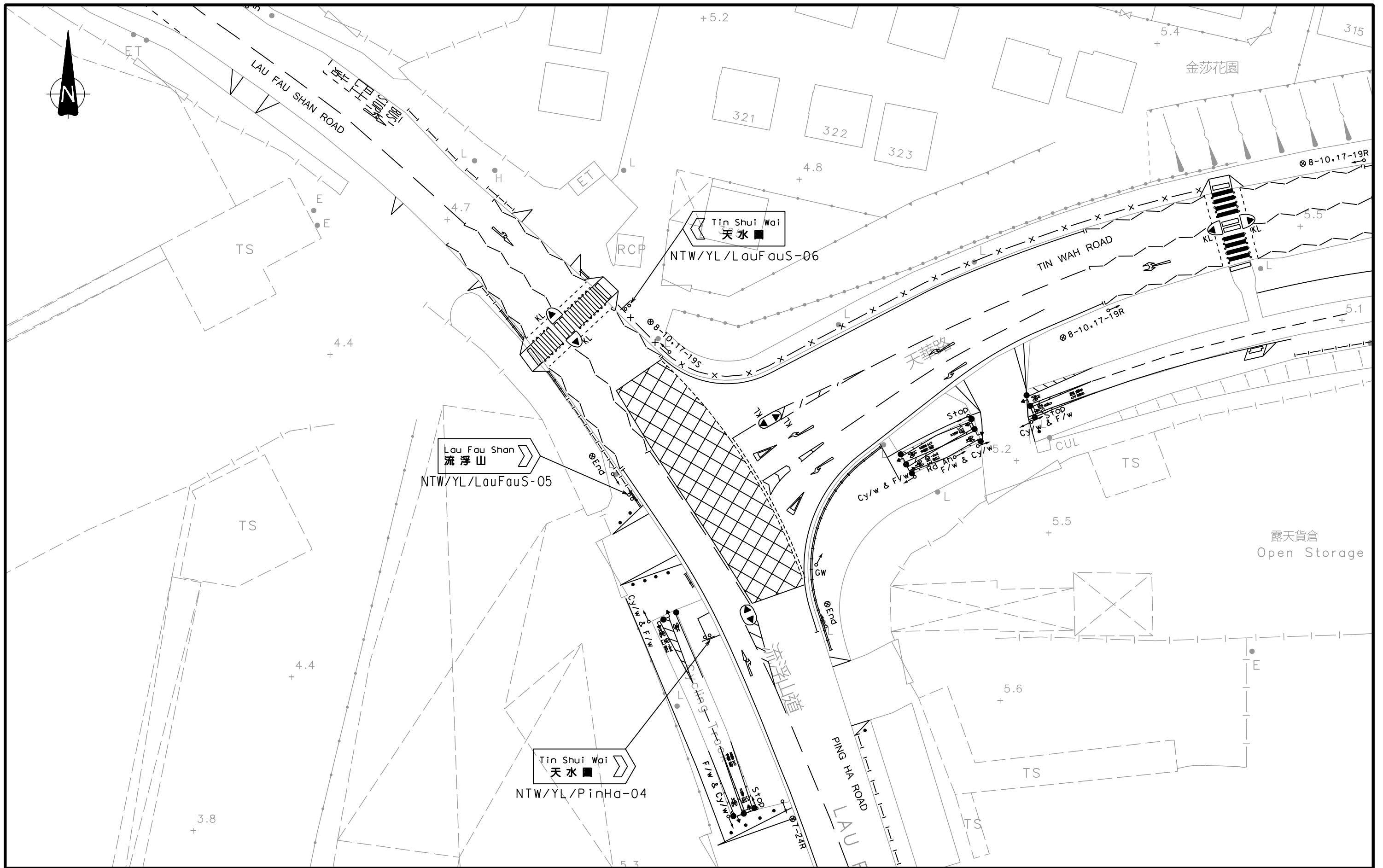
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| Rev. | Description | Checked | Date |

Project Title
APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131) FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS LOTS IN D.D.128 AND D.D.129, AND ADJOINING GOVERNMENT LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES

Drawing Title
EXISTING JUNCTION LAYOUT OF LAU FAU SHAN ROAD / DEEP BAY ROAD (J1)

| | | | | | | | | | | | |
|----------|-----|---------|-----|-------|-----------|------|----------|-------------|------------|------|---|
| Designed | FSC | Checked | PTC | Scale | 1:500(A3) | Date | NOV 2023 | Drawing No. | 2.2 | Rev. | - |
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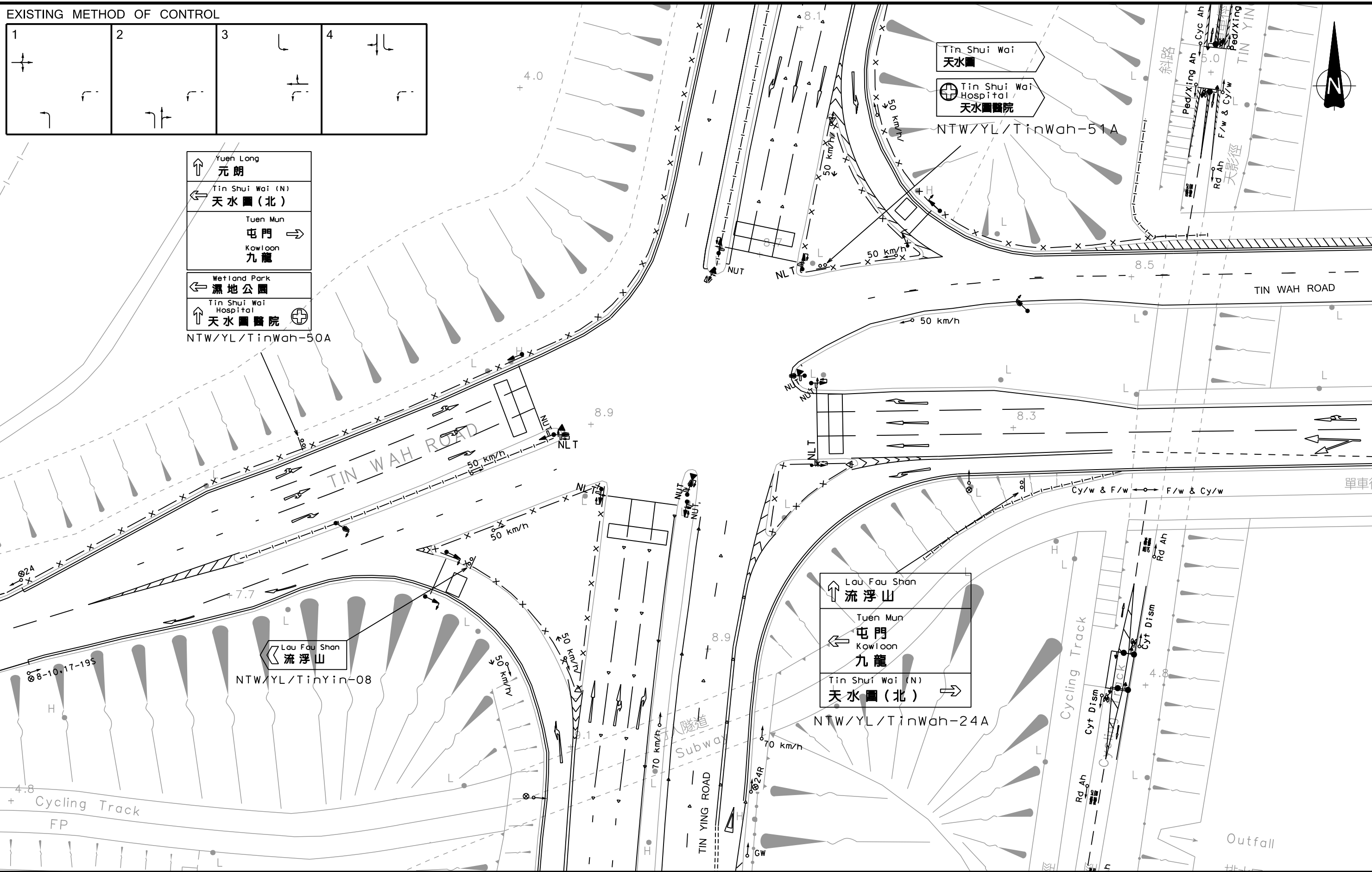
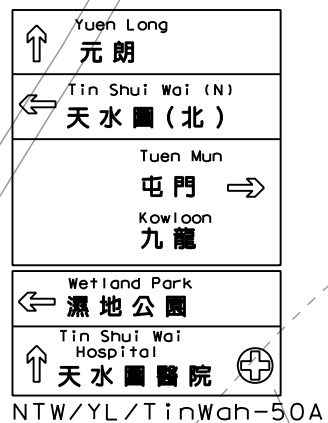
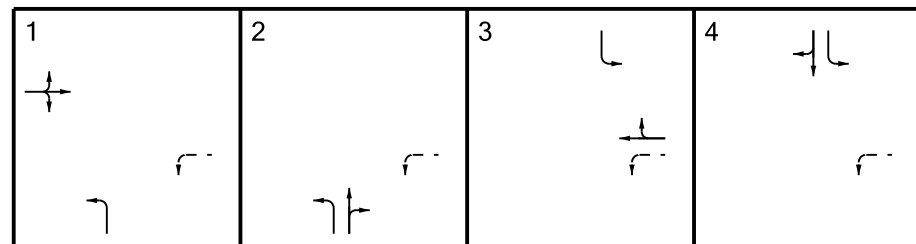
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APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131) FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS LOTS IN D.D.128 AND D.D.129, AND ADJOINING GOVERNMENT LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES

Drawing Title
EXISTING JUNCTION LAYOUT OF TIN WAH ROAD / LAU FAU SHAN ROAD / PING HA ROAD (J2)

Designed: FSC Checked: PTC Scale: 1:500(A3) Date: NOV 2023 Drawing No.: **2.3** Rev.: -



EXISTING METHOD OF CONTROL



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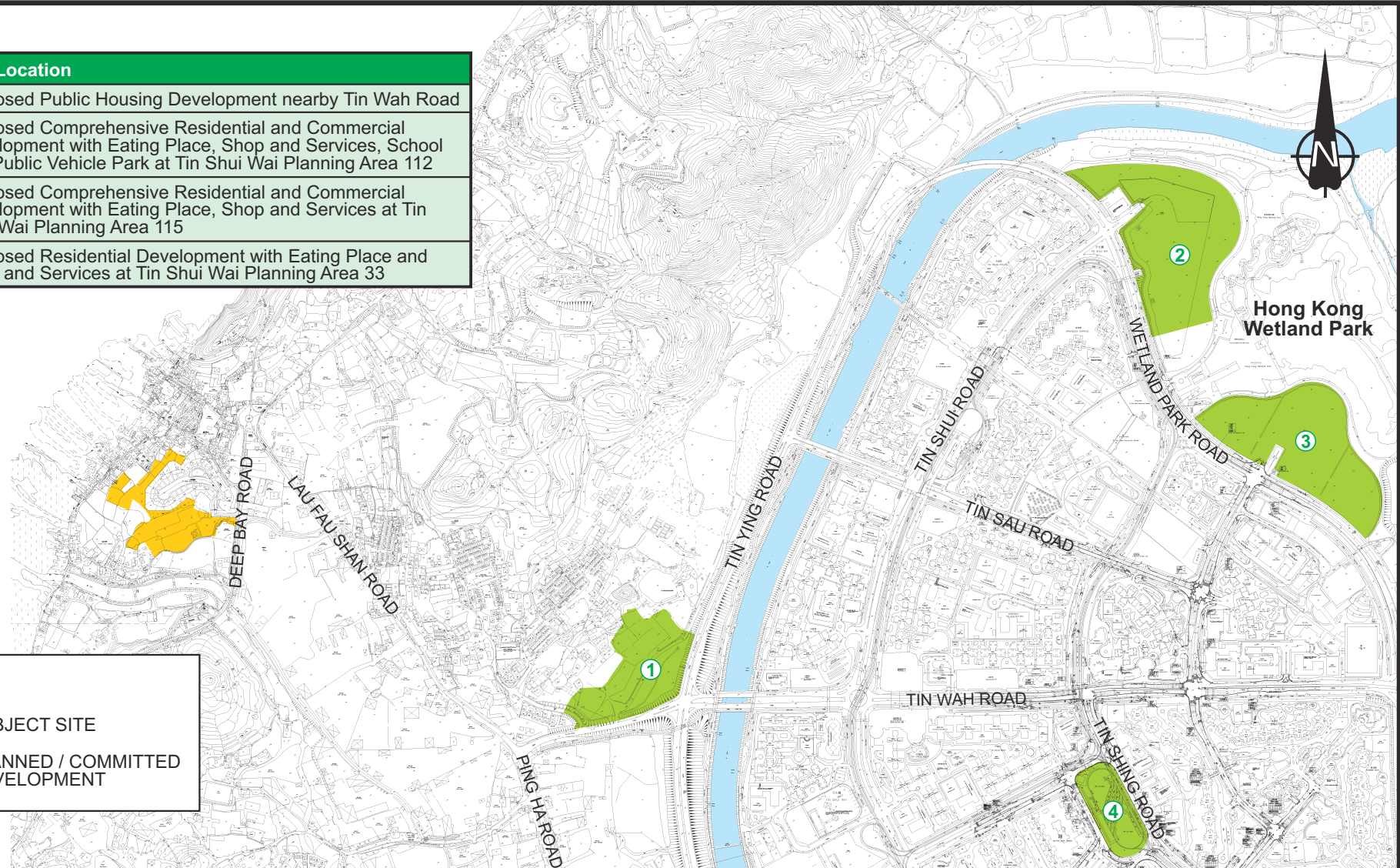
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 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131) FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS LOTS IN D.D.128 AND D.D.129, AND ADJOINING GOVERNMENT LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES

Drawing Title
EXISTING JUNCTION LAYOUT OF TIN WAH ROAD / TIN YING ROAD (J3)

Designed FSC Checked PTC Scale 1:500(A3) Date NOV 2023 Drawing No. **2.4** Rev. -



| Ref. No. | Site Location |
|----------|--|
| ① | Proposed Public Housing Development nearby Tin Wah Road |
| ② | Proposed Comprehensive Residential and Commercial Development with Eating Place, Shop and Services, School and Public Vehicle Park at Tin Shui Wai Planning Area 112 |
| ③ | Proposed Comprehensive Residential and Commercial Development with Eating Place, Shop and Services at Tin Shui Wai Planning Area 115 |
| ④ | Proposed Residential Development with Eating Place and Shop and Services at Tin Shui Wai Planning Area 33 |



LEGEND :

- SUBJECT SITE
- PLANNED / COMMITTED DEVELOPMENT

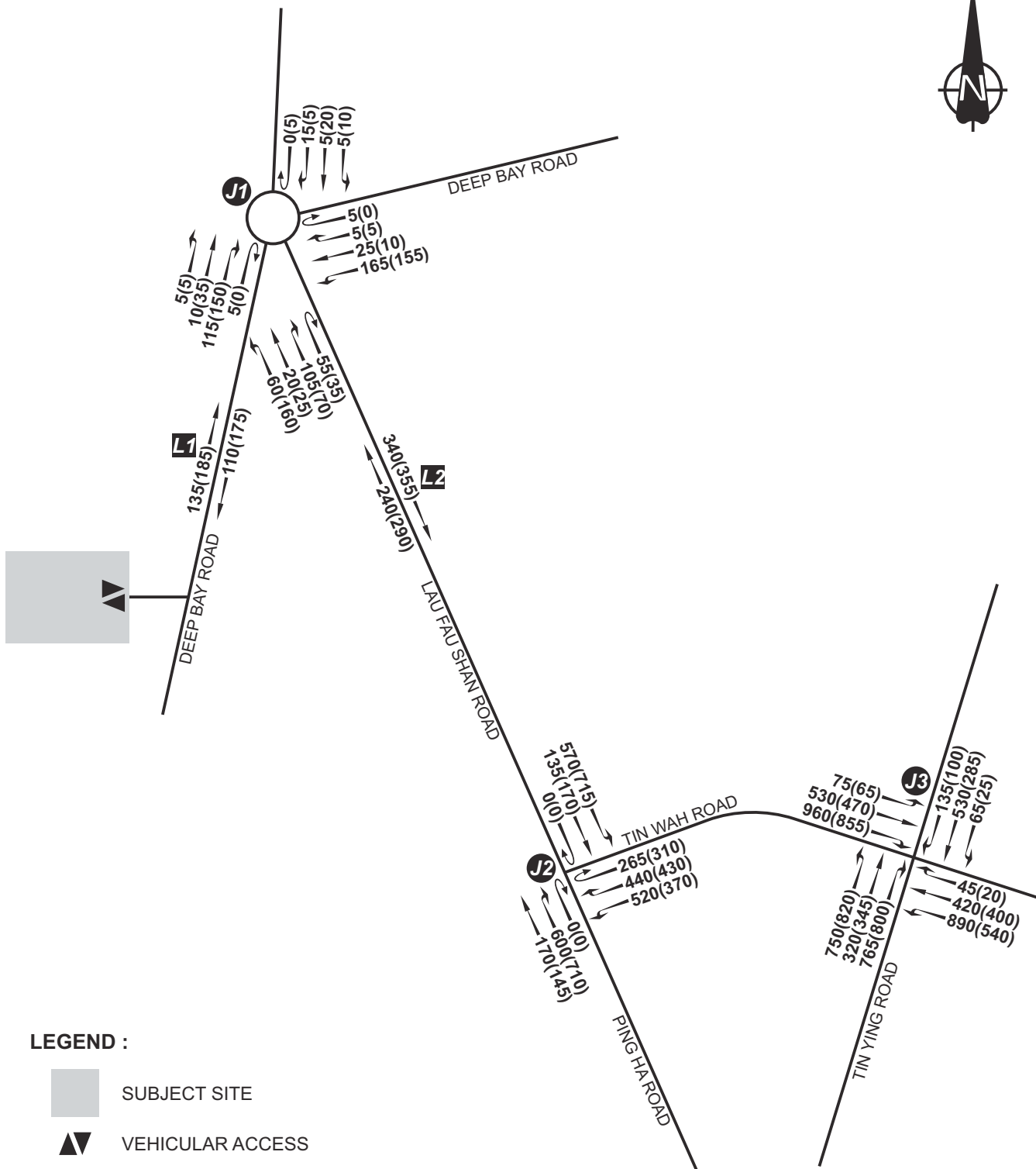
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Project Title
 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131) FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS LOTS IN D.D.128 AND D.D.129 AND ADJOINING GOVERNMENT LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES

Drawing Title
PLANNED / COMMITTED DEVELOPMENTS

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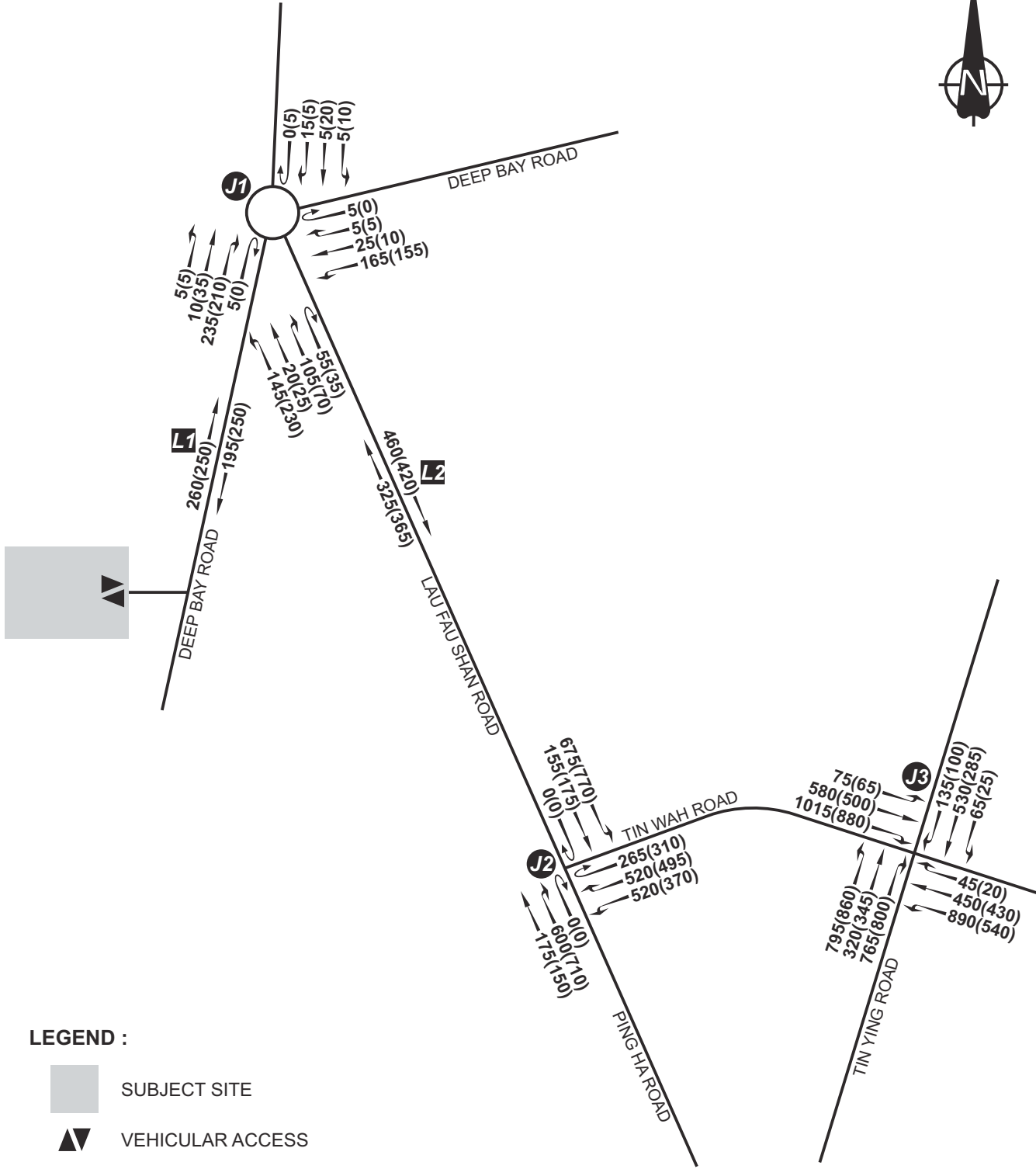
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Project Title
 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131) FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS LOTS IN D.D.128 AND D.D.129 AND ADJOINING GOVERNMENT LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES

Drawing Title
2036 REFERENCE TRAFFIC FLOWS



| | | | | | | | | | | | |
|----------|-----|---------|-----|-------|-----|------|----------|-------------|-----|------|---|
| Designed | FSC | Checked | PTC | Scale | NTS | Date | NOV 2023 | Drawing No. | 2.6 | Rev. | - |
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LEGEND :



SUBJECT SITE



VEHICULAR ACCESS

450(430) AM(PM) PEAK TRAFFIC FLOW (PCU/HR)

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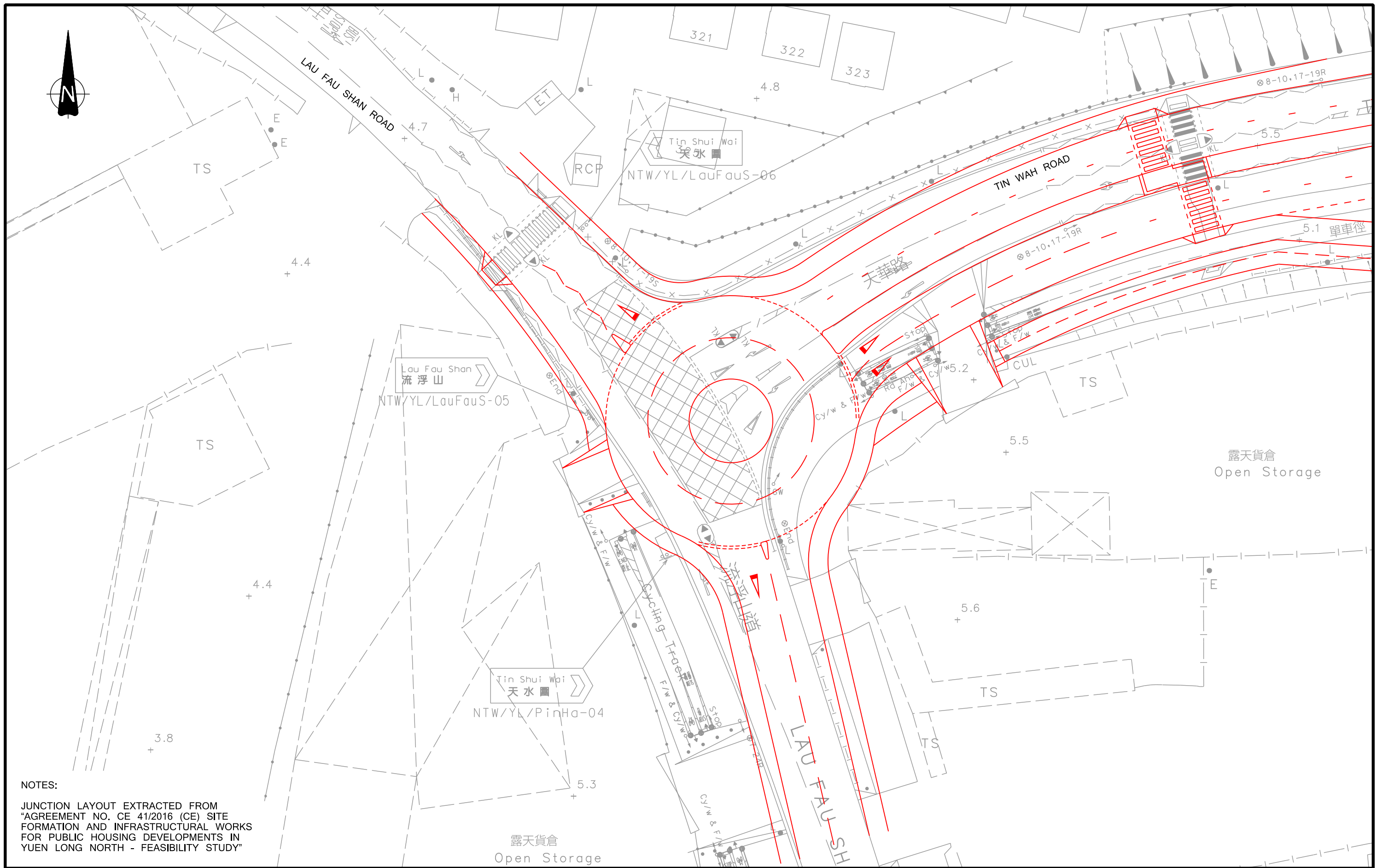
Project Title
 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131) FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS LOTS IN D.D.128 AND D.D.129 AND ADJOINING GOVERNMENT LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES

Drawing Title

2036 DESIGN TRAFFIC FLOWS



| | | | | | | | | | | | |
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NOTES:
 JUNCTION LAYOUT EXTRACTED FROM
 "AGREEMENT NO. CE 41/2016 (CE) SITE
 FORMATION AND INFRASTRUCTURAL WORKS
 FOR PUBLIC HOUSING DEVELOPMENTS IN
 YUEN LONG NORTH - FEASIBILITY STUDY"

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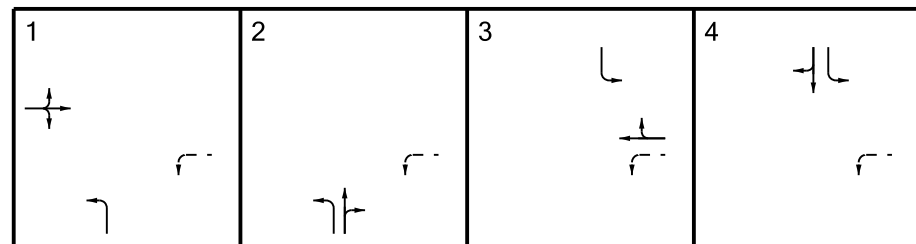
Project Title
 APPLICATION FOR AMENDMENT OF PLAN UNDER
 SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131)
 FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL
 WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS
 LOTS IN D.D.128 AND D.D.129, AND ADJOINING GOVERNMENT
 LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES

Drawing Title
**PLANNED JUNCTION IMPROVEMENT WORK AT
 TIN WAH ROAD / LAU FAU SHAN ROAD / PING HA ROAD (J2)
 AND ROAD WIDENING WORKS AT TIN WAH ROAD**

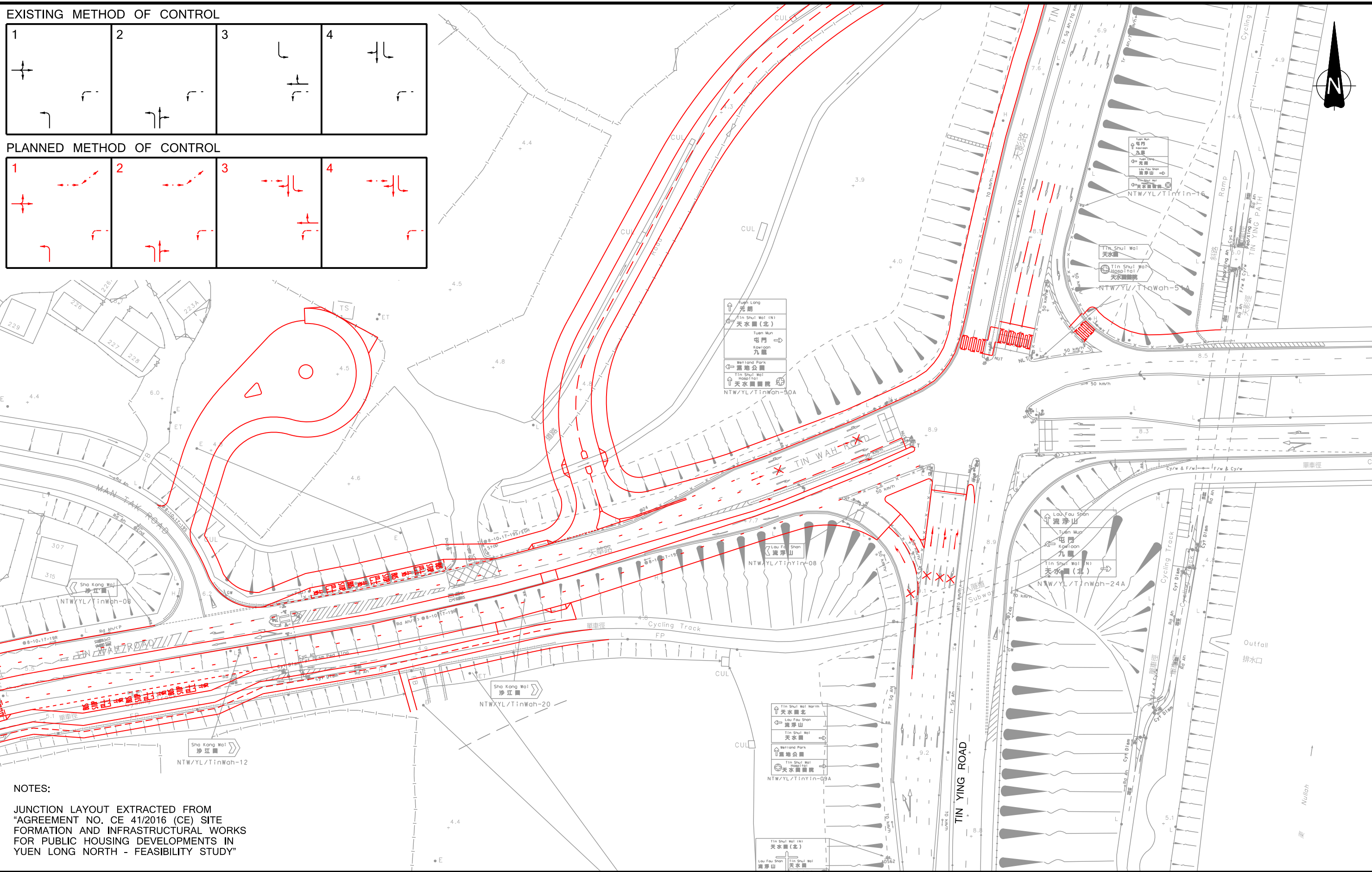
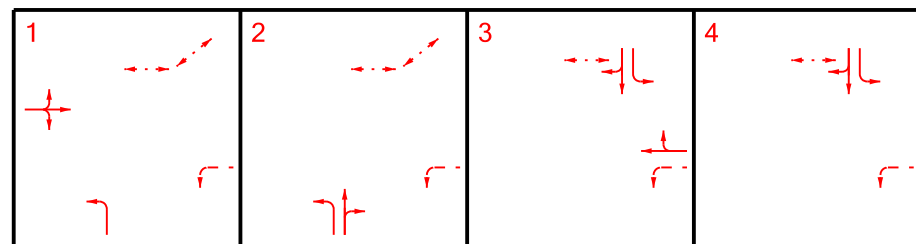
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EXISTING METHOD OF CONTROL



PLANNED METHOD OF CONTROL



NOTES:
 JUNCTION LAYOUT EXTRACTED FROM
 "AGREEMENT NO. CE 41/2016 (CE) SITE
 FORMATION AND INFRASTRUCTURAL WORKS
 FOR PUBLIC HOUSING DEVELOPMENTS IN
 YUEN LONG NORTH - FEASIBILITY STUDY"

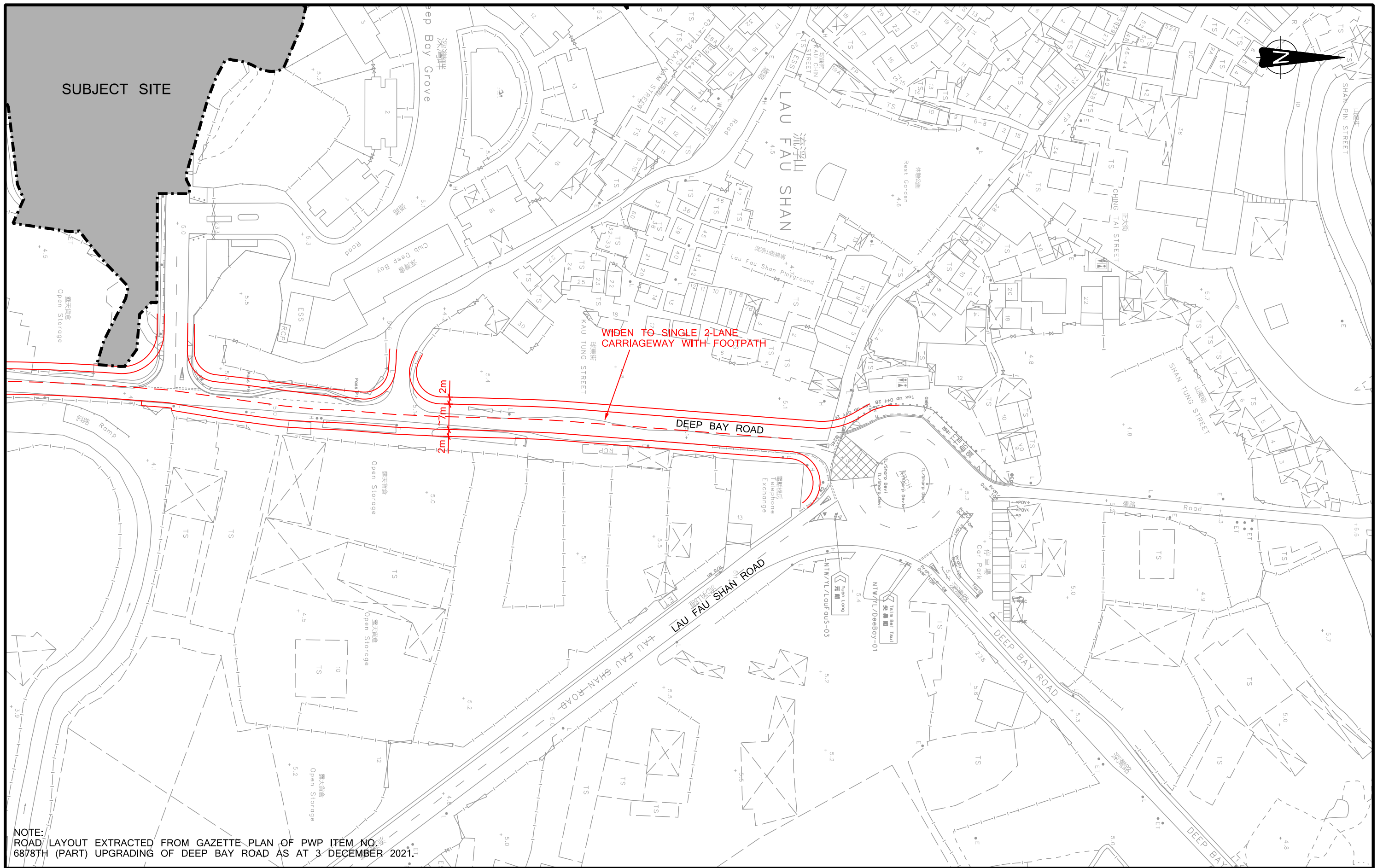
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Project Title
 APPLICATION FOR AMENDMENT OF PLAN UNDER
 SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131)
 FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL
 WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS
 LOTS IN D.D.128 AND D.D.129, AND ADJOINING GOVERNMENT
 LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES

Drawing Title
**PLANNED JUNCTION IMPROVEMENT WORK
 AT TIN WAH ROAD / TIN YING ROAD (J3)
 AND ROAD WIDENING WORKS AT TIN WAH ROAD**

Designed FSC Checked PTC Scale 1:1000(A3) Date NOV 2023 Drawing No. **3.2** Rev. -





NOTE:
ROAD LAYOUT EXTRACTED FROM GAZETTE PLAN OF PWP ITEM NO. 6878TH (PART) UPGRADING OF DEEP BAY ROAD AS AT 3 DECEMBER 2021.

| Rev. | Description | Checked | Date |
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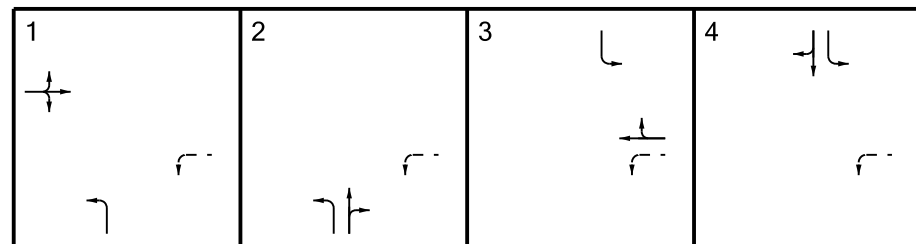
Project Title
APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131) FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS LOTS IN D.D.128 AND D.D.129, AND ADJOINING GOVERNMENT LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES

Drawing Title
PLANNED UPGRADING WORKS AT DEEP BAY ROAD

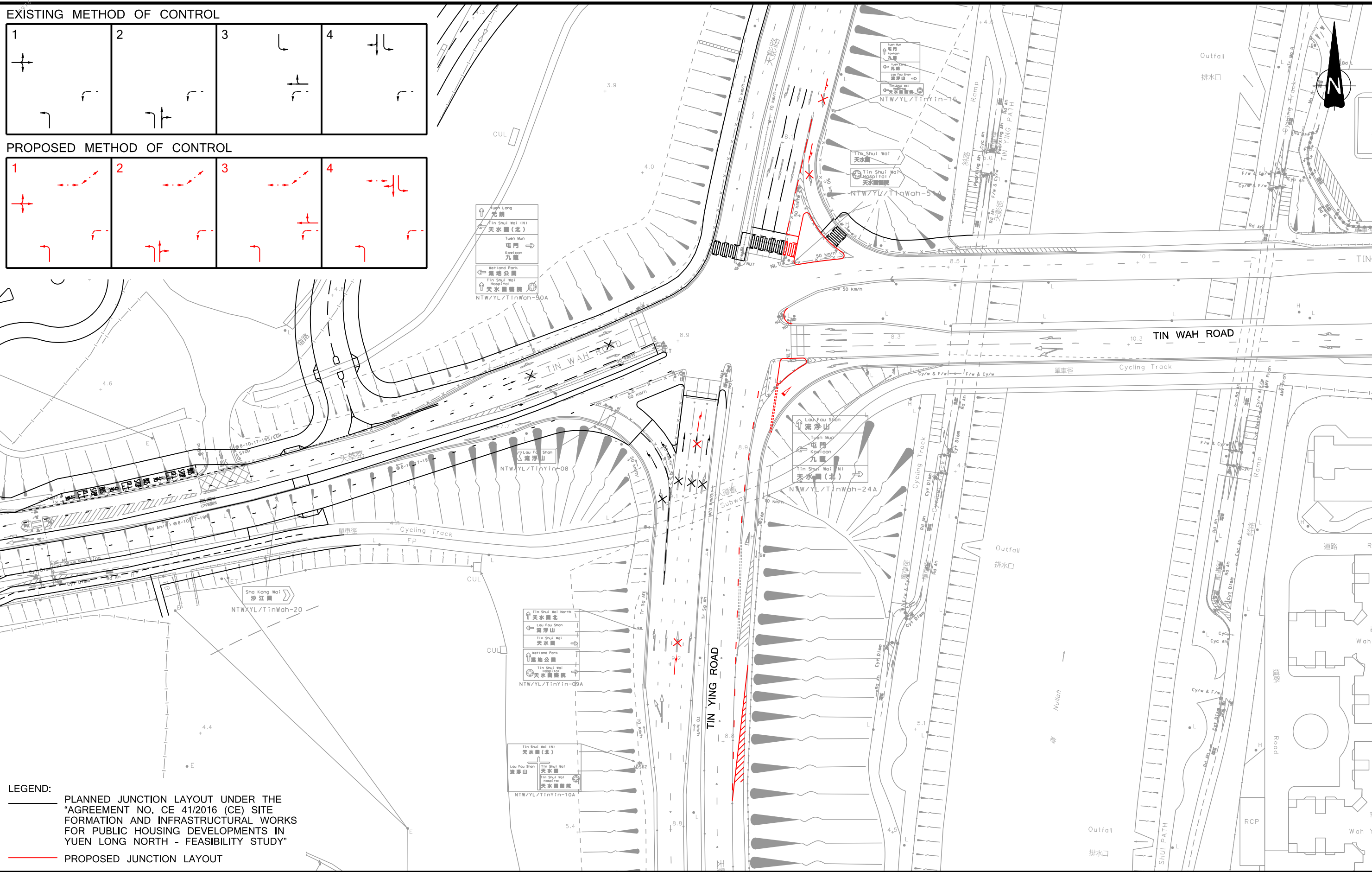
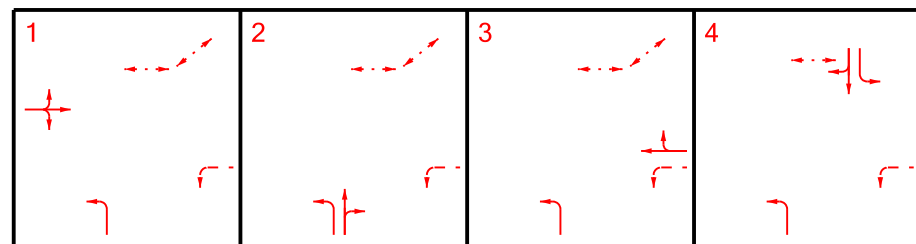
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EXISTING METHOD OF CONTROL



PROPOSED METHOD OF CONTROL



LEGEND:
 PLANNED JUNCTION LAYOUT UNDER THE "AGREEMENT NO. CE 41/2016 (CE) SITE FORMATION AND INFRASTRUCTURAL WORKS FOR PUBLIC HOUSING DEVELOPMENTS IN YUEN LONG NORTH - FEASIBILITY STUDY"
 PROPOSED JUNCTION LAYOUT

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| Rev. | Description | Checked | Date |
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Project Title
 APPLICATION FOR AMENDMENT OF PLAN UNDER SECTION 12A OF THE TOWN PLANNING ORDINANCE (CAP.131) FOR PROPOSED RESIDENTIAL DEVELOPMENT AND SOCIAL WELFARE FACILITY (CHILD CARE CENTRE) AT VARIOUS LOTS IN D.D.128 AND D.D.129, AND ADJOINING GOVERNMENT LAND, LAU FAU SHAN, YUEN LONG, NEW TERRITORIES

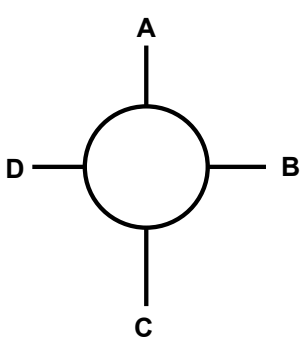
Drawing Title
PROPOSED JUNCTION IMPROVEMENT OF TIN WAH ROAD / TIN YING ROAD (J3)

Designed FSC Checked PTC Scale 1:1000(A3) Date NOV 2023 Drawing No. **3.4** Rev. -



Annex A – Junction Calculation Sheets

Roundabout Capacity Calculation

| | | | | | | | | | | |
|---|------|----------------|----------------------|------|----------------|----------------|----------------|------|------|------|
| Job Title: Section 12A Application for Proposed Residential Development in DD128 and DD129 Lau Fau Shan | | | | | | | | | | |
| Junction: J1 - Deep Bay Road / Lau Fau Shan Road | | | | | Ref. No.: J1 | | | | | |
| Scheme: 2036 - Reference | | | | | Ref. No.: | | | | | |
| Year: 2036 | | | Job No.: CHK50605510 | | | Rev.: | | | | |
| AM | PM | Weekend | | | | | | | | |
| ARM A: Deep Bay Road SB approach | | | | | | | | | | |
| ARM B: Lau Fau Shan Road | | | | | | | | | | |
| ARM C: Deep Bay Road NB approach | | | | | | | | | | |
| ARM D: Access Road | | | | | | | | | | |
|  | | | | | | | | | | |
| GEOMETRY | | | | | | | | | | |
| ARM | v | e | L | r | D | Phi | S | | | |
| A | 1.50 | 4.10 | 2.3 | 46 | 38 | 52 | 1.81 | | | |
| B | 3.20 | 4.20 | 1.5 | 7.4 | 38 | 19.5 | 1.07 | | | |
| C | 1.90 | 3.70 | 1.8 | 7.5 | 38 | 51 | 1.60 | | | |
| D | 1.50 | 1.50 | 1 | 14 | 38 | 42 | 0.00 | | | |
| AM FLOWS | | | | | | | | | | |
| from \ to | A | B | C | D | Circ | | Entry | | | |
| A | 5 | 165 | 27 | 5 | 198 | | 203 | | | |
| B | 104 | 55 | 60 | 22 | 60 | | 242 | | | |
| C | 11 | 115 | 5 | 5 | 192 | | 137 | | | |
| D | 5 | 5 | 16 | 0 | 297 | | 27 | | | |
| PM FLOWS | | | | | | | | | | |
| from \ to | A | B | C | D | Circ | | Entry | | | |
| A | 0 | 154 | 11 | 5 | 214 | | 170 | | | |
| B | 71 | 33 | 159 | 27 | 27 | | 291 | | | |
| C | 33 | 148 | 0 | 5 | 143 | | 187 | | | |
| D | 11 | 22 | 5 | 5 | 286 | | 44 | | | |
| CALCULATIONS | | | | | | | | | | |
| ARM | K | X ₂ | M | F | t _D | f _c | Q _E | | RFC | |
| | | | | | | | AM | PM | AM | PM |
| A | 0.95 | 2.06 | 0.11 | 625 | 1.45 | 0.43 | 514 | 507 | 0.40 | 0.34 |
| B | 0.95 | 3.52 | 0.11 | 1066 | 1.45 | 0.52 | 986 | 1003 | 0.25 | 0.29 |
| C | 0.85 | 2.33 | 0.11 | 706 | 1.45 | 0.45 | 524 | 543 | 0.26 | 0.34 |
| D | 0.94 | 1.50 | 0.11 | 455 | 1.45 | 0.40 | 316 | 320 | 0.09 | 0.14 |
| Critical Arm: | | | | | | | | | A | A |
| RFC: | | | | | | | | | 0.40 | 0.34 |
| | | | | | | | | | AM | PM |

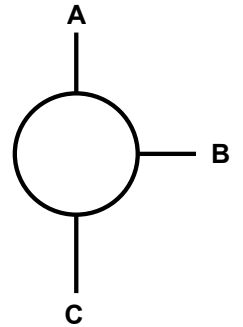
- In accordance with TPDM V2.4 & V2.Appendix 2

| | | |
|--------------------|----------------|-----------------|
| Calculated by: FSC | Date: Nov 2023 | Checked by: PTC |
|--------------------|----------------|-----------------|

Roundabout Capacity Calculation

| | | | |
|---|----------------------|--------------|--|
| Job Title: Section 12A Application for Proposed Residential Development in DD128 and DD129 Lau Fau Shan | | | |
| Junction: J2 - Deep Bay Road / Lau Fau Shan Road | | Ref. No.: J2 | |
| Scheme: 2036 - Reference (with planned layout) | | Ref. No.: | |
| Year: 2036 | Job No.: CHK50605510 | Rev.: | |

AM PM Weekend
 ARM A: Lau Fau Shan Road SB approach
 ARM B: Tin Wah Road WB approach
 ARM C: Lau Fau Shan Road NB approach



GEOMETRY

| ARM | v | e | L | r | D | Phi | S |
|-----|------|------|------|----|----|-----|------|
| A | 5.50 | 7.50 | 15.6 | 11 | 36 | 65 | 0.21 |
| B | 7.30 | 7.30 | 1 | 15 | 36 | 30 | 0.00 |
| C | 5.20 | 6.50 | 2.1 | 15 | 36 | 66 | 0.99 |
| D | | | | | | | |

AM FLOWS

| from \ to | A | B | C | Circ | Entry |
|-----------|-----|-----|-----|------|-------|
| A | 0 | 571 | 137 | 869 | 709 |
| B | 440 | 267 | 522 | 137 | 1229 |
| C | 170 | 602 | 0 | 707 | 773 |
| | | | | 1479 | 0 |

PM FLOWS

| from \ to | A | B | C | Circ | Entry |
|-----------|-----|-----|-----|------|-------|
| A | 0 | 714 | 170 | 1017 | 885 |
| B | 429 | 308 | 368 | 170 | 1105 |
| C | 143 | 709 | 0 | 736 | 852 |
| | | | | 1588 | 0 |

CALCULATIONS

| ARM | K | X ₂ | M | F | t _D | f _c | Q _E | | RFC | |
|-----|------|----------------|------|------|----------------|----------------|----------------|------|------|------|
| | | | | | | | AM | PM | AM | PM |
| A | 0.84 | 6.92 | 0.09 | 2096 | 1.46 | 0.73 | 1226 | 1135 | 0.58 | 0.78 |
| B | 0.98 | 7.30 | 0.09 | 2212 | 1.46 | 0.75 | 2074 | 2050 | 0.59 | 0.54 |
| C | 0.86 | 5.64 | 0.09 | 1708 | 1.46 | 0.65 | 1071 | 1055 | 0.72 | 0.81 |

Critical Arm: C C
RFC: 0.72 0.81
AM PM

- In accordance with TPDM V2.4 & V2. Appendix 2

| | | |
|--------------------|----------------|-----------------|
| Calculated by: FSC | Date: Nov 2023 | Checked by: PTC |
|--------------------|----------------|-----------------|

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50605510

MVA HONG KONG LIMITED

Junction: J3 - Tin Ying Road / Tin Wah Road

Design Year: 2036

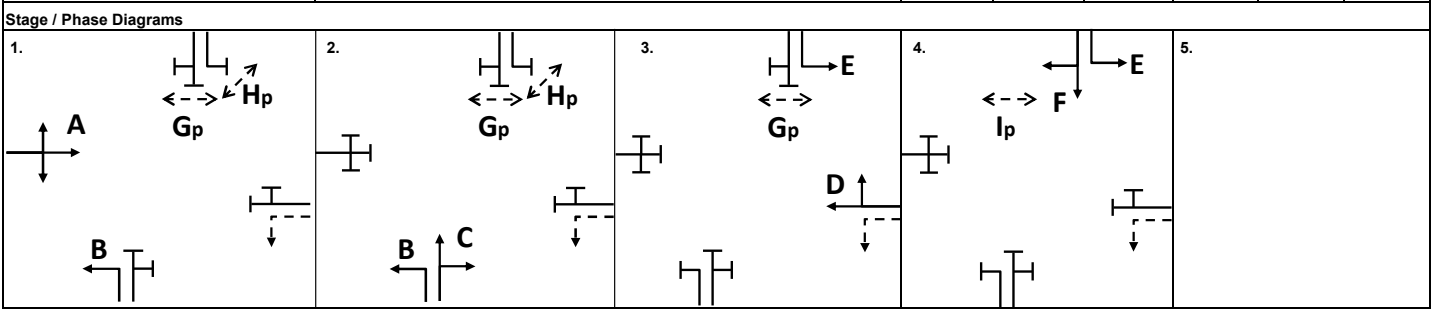
Description: 2036 - Reference (with planned layout)

Designed By: FSC

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|----------------------|-----------|-------|-------|----------------------|------------|-------|--------------|------------------|------|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Tin Wah Road (EB) | ↔ | A | 1 | 3.400 | 25 | | | 27% | 26% | 1925 | 1925 | 290 | 0.151 | | 257 | 0.134 | |
| Tin Wah Road (EB) | → | A | 1 | 3.400 | | | | | | 2095 | 2095 | 316 | 0.151 | | 280 | 0.134 | |
| Tin Wah Road (EB) | ↘ | A | 1 | 3.400 | 15 | | | | | 1905 | 1905 | 480 | 0.252 | 0.252 | 427 | 0.224 | |
| Tin Wah Road (EB) | ↙ | A | 1 | 3.400 | 15 | | | | | 1905 | 1905 | 479 | 0.251 | | 427 | 0.224 | |
| Tin Ying Road (NB) * | ↖ | B | 1,2 | 5.000 | 25 | | | | | 2025 | 2025 | 748 | 0.369 | | 819 | 0.404 | 0.404 |
| Tin Ying Road (NB) | ↑ | C | 2 | 3.350 | | | | | | 2090 | 2090 | 322 | 0.154 | | 343 | 0.164 | |
| Tin Ying Road (NB) | ↗ | C | 2 | 3.350 | 35 | | | 100% | 100% | 2005 | 2005 | 383 | 0.191 | | 400 | 0.199 | |
| Tin Ying Road (NB) | ↘ | C | 2 | 3.350 | 30 | | | | | 1990 | 1990 | 381 | 0.191 | 0.191 | 398 | 0.200 | |
| Tin Wah Road (WB) | ↑ | D | 3 | 3.300 | | | | | | 1945 | 1945 | 203 | 0.104 | 0.104 | 203 | 0.104 | |
| Tin Wah Road (WB) | ↑ | D | 3 | 3.300 | | | | | | 2085 | 2085 | 217 | 0.104 | | 218 | 0.105 | 0.105 |
| Tin Wah Road (WB) | ↗ | D | 3 | 3.300 | 20 | | | | | 1940 | 1940 | 44 | 0.023 | | 22 | 0.011 | |
| Tin Ying Road (SB) | ↖ | E | 3,4 | 3.300 | 25 | | | | | 1835 | 1835 | 66 | 0.036 | | 27 | 0.015 | |
| Tin Ying Road (SB) | ↑ | F | 4 | 3.300 | | | | | | 1945 | 1945 | 256 | 0.132 | | 137 | 0.070 | |
| Tin Ying Road (SB) | ↑ | F | 4 | 3.300 | | | | | | 2085 | 2085 | 275 | 0.132 | 0.132 | 148 | 0.071 | 0.071 |
| Tin Ying Road (SB) | ↗ | F | 4 | 3.300 | 45 | | | | | 2020 | 2020 | 137 | 0.068 | | 99 | 0.049 | |
| Pedestrian Crossing | | Gp | 1,2,3 | Min. Green + Flash = | | 5 | + | 9 | = | 14 | | | | | | | |
| | | Hp | 1,2 | Min. Green + Flash = | | 5 | + | 5 | = | 10 | | | | | | | |
| | | Ip | 4 | Min. Green + Flash = | | 5 | + | 7 | = | 12 | | | | | | | |

| | | | | | | | | | | | |
|--|---------------------------|-------|-------|-----------------|-------|--------------|-------|---------|--------------|----------|-------|
| Notes: * 30 pcu/hr has been added to the saturation flows due to flared approach | Flow: (pcu/hr) | | | | | Group | B,D,F | A,C,D,F | Group | A,C,D,Ip | B,D,F |
| | y | 0.606 | 0.680 | y | 0.529 | 0.580 | | | | | |
| | L (sec) | 23 | 16 | L (sec) | 31 | 23 | | | | | |
| | C (sec) | 120 | 120 | C (sec) | 120 | 120 | | | | | |
| | y pract. | 0.728 | 0.780 | y pract. | 0.668 | 0.728 | | | | | |
| | R.C. (%) | 20% | 15% | R.C. (%) | 26% | 25% | | | | | |

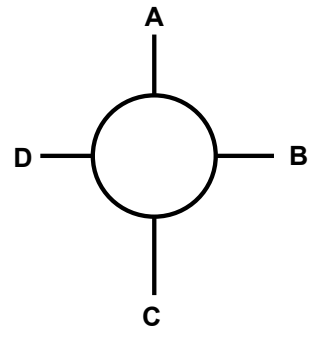


| | | | | | | |
|-----------------|--------|--------|--------|--------|--|------|
| I/G= 5 | I/G= 5 | I/G= 5 | I/G= 5 | I/G= 5 | I/G= 16 | I/G= |
| I/G= | I/G= 5 | I/G= 5 | I/G= 5 | I/G= 5 | I/G= | I/G= |
| Date: NOV, 2023 | | | | | Junction: J3 Tin Ying Road / Tin Wah Road | |

Roundabout Capacity Calculation

| | | | |
|---|----------------------|--------------|--|
| Job Title: Section 12A Application for Proposed Residential Development in DD128 and DD129 Lau Fau Shan | | | |
| Junction: J1 - Deep Bay Road / Lau Fau Shan Road | | Ref. No.: J1 | |
| Scheme: 2036 - Design | | Ref. No.: | |
| Year: 2036 | Job No.: CHK50605510 | Rev.: | |

AM PM Weekend
 ARM A: Deep Bay Road SB approach
 ARM B: Lau Fau Shan Road
 ARM C: Deep Bay Road NB approach
 ARM D: Access Road



GEOMETRY

| ARM | v | e | L | r | D | Phi | S |
|-----|------|------|-----|-----|----|------|------|
| A | 1.50 | 4.10 | 2.3 | 46 | 33 | 52 | 1.81 |
| B | 3.20 | 4.20 | 1.5 | 7.4 | 33 | 19.5 | 1.07 |
| C | 1.90 | 3.70 | 1.8 | 7.5 | 33 | 51 | 1.60 |
| D | 1.50 | 1.50 | 1 | 14 | 33 | 42 | 0.00 |

AM FLOWS

| from \ to | A | B | C | D | Circ | Entry |
|-----------|-----|-----|-----|----|------|-------|
| A | 5 | 165 | 27 | 5 | 319 | 203 |
| B | 104 | 55 | 145 | 22 | 60 | 327 |
| C | 11 | 236 | 5 | 5 | 192 | 258 |
| D | 5 | 5 | 16 | 0 | 418 | 27 |

PM FLOWS

| from \ to | A | B | C | D | Circ | Entry |
|-----------|----|-----|-----|----|------|-------|
| A | 0 | 154 | 11 | 5 | 276 | 170 |
| B | 71 | 33 | 231 | 27 | 27 | 363 |
| C | 33 | 210 | 0 | 5 | 143 | 249 |
| D | 11 | 22 | 5 | 5 | 348 | 44 |

CALCULATIONS

| ARM | K | X ₂ | M | F | t _D | f _c | Q _E | | RFC | |
|-----|------|----------------|------|------|----------------|----------------|----------------|------|------|------|
| | | | | | | | AM | PM | AM | PM |
| A | 0.95 | 2.06 | 0.07 | 625 | 1.47 | 0.44 | 463 | 480 | 0.44 | 0.35 |
| B | 0.95 | 3.52 | 0.07 | 1066 | 1.47 | 0.53 | 986 | 1003 | 0.33 | 0.36 |
| C | 0.85 | 2.33 | 0.07 | 706 | 1.47 | 0.45 | 523 | 542 | 0.49 | 0.46 |
| D | 0.94 | 1.50 | 0.07 | 455 | 1.47 | 0.40 | 269 | 295 | 0.10 | 0.15 |

Critical Arm: C C
RFC: 0.49 0.46
 AM PM

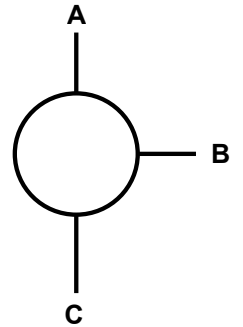
- In accordance with TPDM V2.4 & V2.Appendix 2

| | | |
|--------------------|----------------|-----------------|
| Calculated by: FSC | Date: Nov 2023 | Checked by: PTC |
|--------------------|----------------|-----------------|

Roundabout Capacity Calculation

| | | | |
|---|----------------------|--------------|--|
| Job Title: Section 12A Application for Proposed Residential Development in DD128 and DD129 Lau Fau Shan | | | |
| Junction: J2 - Deep Bay Road / Lau Fau Shan Road | | Ref. No.: J2 | |
| Scheme: 2036 - Design (with planned layout) | | Ref. No.: | |
| Year: 2036 | Job No.: CHK50605510 | Rev.: | |

AM PM Weekend
 ARM A: Lau Fau Shan Road SB approach
 ARM B: Tin Wah Road WB approach
 ARM C: Lau Fau Shan Road NB approach



GEOMETRY

| ARM | v | e | L | r | D | Phi | S |
|-----|------|------|------|----|----|-----|------|
| A | 5.50 | 7.50 | 15.6 | 11 | 36 | 65 | 0.21 |
| B | 7.30 | 7.30 | 1 | 15 | 36 | 30 | 0.00 |
| C | 5.20 | 6.50 | 2.1 | 15 | 36 | 66 | 0.99 |
| D | | | | | | | |

AM FLOWS

| from \ to | A | B | C | Circ | Entry |
|-----------|-----|-----|-----|------|-------|
| A | 0 | 677 | 153 | 869 | 830 |
| B | 519 | 267 | 522 | 153 | 1308 |
| C | 175 | 602 | 0 | 786 | 778 |
| | | | | 1564 | 0 |

PM FLOWS

| from \ to | A | B | C | Circ | Entry |
|-----------|-----|-----|-----|------|-------|
| A | 0 | 769 | 177 | 1017 | 947 |
| B | 494 | 308 | 368 | 177 | 1170 |
| C | 149 | 709 | 0 | 802 | 858 |
| | | | | 1660 | 0 |

CALCULATIONS

| ARM | K | X ₂ | M | F | t _D | f _c | Q _E | | RFC | |
|-----|------|----------------|------|------|----------------|----------------|----------------|------|------|------|
| | | | | | | | AM | PM | AM | PM |
| A | 0.84 | 6.92 | 0.09 | 2096 | 1.46 | 0.73 | 1226 | 1135 | 0.68 | 0.83 |
| B | 0.98 | 7.30 | 0.09 | 2212 | 1.46 | 0.75 | 2063 | 2044 | 0.63 | 0.57 |
| C | 0.86 | 5.64 | 0.09 | 1708 | 1.46 | 0.65 | 1027 | 1018 | 0.76 | 0.84 |

Critical Arm: C C
RFC: 0.76 0.84
AM PM

- In accordance with TPDM V2.4 & V2. Appendix 2

| | | |
|--------------------|----------------|-----------------|
| Calculated by: FSC | Date: Nov 2023 | Checked by: PTC |
|--------------------|----------------|-----------------|

TRAFFIC SIGNALS CALCULATION

Job No.: CHK50605510

MVA HONG KONG LIMITED

Junction: J3 - Tin Ying Road / Tin Wah Road

Design Year: 2036

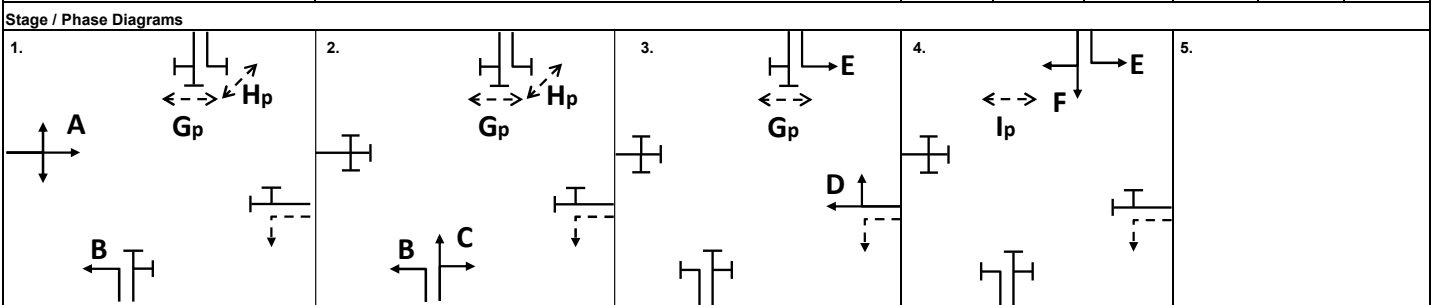
Description: 2036 - Design (with planned layout)

Designed By: FSC

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|----------------------|-----------|-------|-------|----------------------|------------|-------|--------------|------------------|------|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Tin Wah Road (EB) | ↔ | A | 1 | 3.400 | 25 | | | 24% | 24% | 1925 | 1925 | 315 | 0.164 | | 270 | 0.140 | |
| Tin Wah Road (EB) | → | A | 1 | 3.400 | | | | | | 2095 | 2095 | 342 | 0.163 | | 294 | 0.140 | |
| Tin Wah Road (EB) | ↘ | A | 1 | 3.400 | 15 | | | | | 1905 | 1905 | 507 | 0.266 | 0.266 | 441 | 0.231 | |
| Tin Wah Road (EB) | ↙ | A | 1 | 3.400 | 15 | | | | | 1905 | 1905 | 507 | 0.266 | | 441 | 0.232 | |
| Tin Ying Road (NB) * | ↖ | B | 1,2 | 5.000 | 25 | | | | | 2025 | 2025 | 796 | 0.393 | | 858 | 0.424 | 0.424 |
| Tin Ying Road (NB) | ↑ | C | 2 | 3.350 | | | | | | 2090 | 2090 | 322 | 0.154 | | 343 | 0.164 | |
| Tin Ying Road (NB) | ↗ | C | 2 | 3.350 | 35 | | | 100% | 100% | 2005 | 2005 | 383 | 0.191 | | 400 | 0.199 | |
| Tin Ying Road (NB) | ↘ | C | 2 | 3.350 | 30 | | | | | 1990 | 1990 | 381 | 0.191 | 0.191 | 398 | 0.200 | |
| Tin Wah Road (WB) | ↑ | D | 3 | 3.300 | | | | | | 1945 | 1945 | 218 | 0.112 | 0.112 | 206 | 0.106 | |
| Tin Wah Road (WB) | ↑ | D | 3 | 3.300 | | | | | | 2085 | 2085 | 234 | 0.112 | | 222 | 0.106 | 0.106 |
| Tin Wah Road (WB) | ↗ | D | 3 | 3.300 | 20 | | | | | 1940 | 1940 | 44 | 0.023 | | 22 | 0.011 | |
| Tin Ying Road (SB) | ↖ | E | 3,4 | 3.300 | 25 | | | | | 1835 | 1835 | 66 | 0.036 | | 27 | 0.015 | |
| Tin Ying Road (SB) | ↑ | F | 4 | 3.300 | | | | | | 1945 | 1945 | 256 | 0.132 | | 137 | 0.070 | |
| Tin Ying Road (SB) | ↑ | F | 4 | 3.300 | | | | | | 2085 | 2085 | 275 | 0.132 | 0.132 | 148 | 0.071 | 0.071 |
| Tin Ying Road (SB) | ↗ | F | 4 | 3.300 | 45 | | | | | 2020 | 2020 | 137 | 0.068 | | 99 | 0.049 | |
| Pedestrian Crossing | | Gp | 1,2,3 | Min. Green + Flash = | | 5 | + | 9 | = | 14 | | | | | | | |
| | | Hp | 1,2 | Min. Green + Flash = | | 5 | + | 5 | = | 10 | | | | | | | |
| | | Ip | 4 | Min. Green + Flash = | | 5 | + | 7 | = | 12 | | | | | | | |

| | | | | | | | | | | | |
|--|---------------------------|-------|-------|-----------------|-------|--------------|-------|---------|--------------|----------|-------|
| Notes: * 30 pcu/hr has been added to the saturation flows due to flared approach | Flow: (pcu/hr) | | | | | Group | B,D,F | A,C,D,F | Group | A,C,D,Ip | B,D,F |
| | y | 0.637 | 0.702 | y | 0.538 | 0.601 | | | | | |
| | L (sec) | 23 | 16 | L (sec) | 31 | 23 | | | | | |
| | C (sec) | 120 | 120 | C (sec) | 120 | 120 | | | | | |
| | y pract. | 0.728 | 0.780 | y pract. | 0.668 | 0.728 | | | | | |
| | R.C. (%) | 14% | 11% | R.C. (%) | 24% | 21% | | | | | |



| | | | | | | |
|-----------------|--------|--------|--------|--------|--|------|
| I/G= 5 | I/G= 5 | I/G= 5 | I/G= 5 | I/G= 5 | I/G= 16 | I/G= |
| I/G= | I/G= 5 | I/G= 5 | I/G= 5 | I/G= 5 | I/G= 16 | I/G= |
| Date: NOV, 2023 | | | | | Junction: J3 Tin Ying Road / Tin Wah Road | |

TRAFFIC SIGNALS CALCULATION

Job No.: **CHK50605510**

MVA HONG KONG LIMITED

Junction: J3 - Tin Ying Road / Tin Wah Road

Design Year: 2036

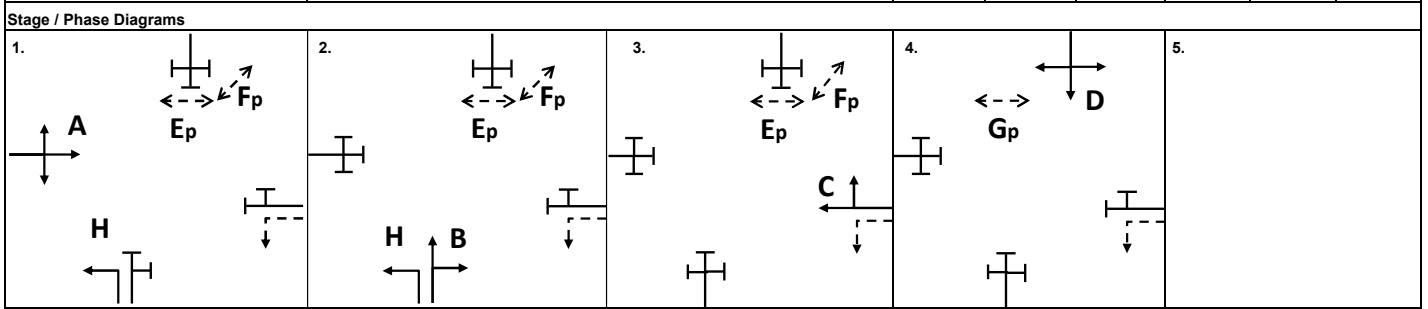
Description: 2036 - Design (with proposed improvement)

Designed By: FSC

Checked By: PTC

| Approach | Movements | Phase | Stage | Width (m) | Radius (m) | | Gradient (%) | Pro. Turning (%) | | Revised Saturation Flow (pcu/hr) | | AM Peak | | | PM Peak | | |
|---------------------|-----------|-------|-------|----------------------|------------|-------|--------------|------------------|-----|----------------------------------|------|---------------|---------|------------|---------------|---------|------------|
| | | | | | Left | Right | | AM | PM | AM | PM | Flow (pcu/hr) | y Value | Critical y | Flow (pcu/hr) | y Value | Critical y |
| Tin Wah Road (EB) | ↔ | A | 1 | 3.400 | 25 | | | 24% | 24% | 1925 | 1925 | 315 | 0.164 | | 270 | 0.140 | |
| Tin Wah Road (EB) | → | A | 1 | 3.400 | | | | | | 2095 | 2095 | 342 | 0.163 | | 294 | 0.140 | |
| Tin Wah Road (EB) | ↘ | A | 1 | 3.400 | 15 | | | | | 1905 | 1905 | 507 | 0.266 | 0.266 | 441 | 0.231 | |
| Tin Wah Road (EB) | ↙ | A | 1 | 3.400 | 15 | | | | | 1905 | 1905 | 507 | 0.266 | | 441 | 0.232 | 0.232 |
| Tin Ying Road (NB)* | ↑ | H | 1,2 | 5.000 | 25 | | | | | 2025 | 2025 | 796 | 0.393 | | 858 | 0.424 | |
| Tin Ying Road (NB) | ↑ | B | 2 | 3.350 | | | | | | 2090 | 2090 | 322 | 0.154 | | 343 | 0.164 | |
| Tin Ying Road (NB) | ↘ | B | 2 | 3.350 | 35 | | | | | 2005 | 2005 | 383 | 0.191 | | 401 | 0.200 | 0.200 |
| Tin Ying Road (NB) | ↙ | B | 2 | 3.350 | 30 | | | | | 1990 | 1990 | 381 | 0.191 | 0.191 | 397 | 0.200 | |
| Tin Wah Road (WB) | ← | C | 3 | 3.300 | | | | | | 2085 | 2085 | 226 | 0.108 | 0.108 | 214 | 0.103 | 0.103 |
| Tin Wah Road (WB) | ← | C | 3 | 3.300 | | | | | | 2085 | 2085 | 226 | 0.108 | | 214 | 0.102 | |
| Tin Wah Road (WB) | ↙ | C | 3 | 3.300 | 15 | | | | | 1895 | 1895 | 44 | 0.023 | | 22 | 0.012 | |
| Tin Ying Road (SB) | ↓ | D | 4 | 3.300 | 25 | | | 35% | 28% | 1905 | 1915 | 187 | 0.098 | | 98 | 0.051 | |
| Tin Ying Road (SB) | ↓ | D | 4 | 3.300 | | | | | | 2085 | 2085 | 205 | 0.098 | | 107 | 0.051 | |
| Tin Ying Road (SB) | ↙ | D | 4 | 3.300 | | | | | | 2085 | 2085 | 205 | 0.098 | 0.098 | 107 | 0.051 | |
| Tin Ying Road (SB) | ↘ | D | 4 | 3.300 | 45 | | | | | 2020 | 2020 | 137 | 0.068 | | 99 | 0.049 | |
| Pedestrian Crossing | | Ep | 1,2,3 | Min. Green + Flash = | | | 6 | + | 12 | = | 18 | | | | | | |
| | | Fp | 1,2,3 | Min. Green + Flash = | | | 5 | + | 5 | = | 10 | | | | | | |
| | | Gp | 4 | Min. Green + Flash = | | | 5 | + | 7 | = | 12 | | | | | | * |

| Notes: | Flow: (pcu/hr) | Group | A,B,C,Gp | A,B,C,D | Group | A,B,C,D | A,B,C,Gp |
|---|----------------|-----------------|----------|---------|-----------------|---------|----------|
| * 30 pcu/hr has been added to the saturation flows due to flared approach | | y | 0.566 | 0.664 | y | 0.586 | 0.534 |
| | | L (sec) | 31 | 16 | L (sec) | 16 | 31 |
| | | C (sec) | 120 | 120 | C (sec) | 120 | 120 |
| | | y pract. | 0.668 | 0.780 | y pract. | 0.780 | 0.668 |
| | | R.C. (%) | 18% | 17% | R.C. (%) | 33% | 25% |



| | | | | | | | |
|-----------------|--------|--------|--------|--------|---------|--|------|
| I/G= 5 | I/G= 5 | I/G= 5 | I/G= 5 | I/G= 5 | I/G= 10 | 12 | I/G= |
| I/G= 2 | I/G= 5 | I/G= 5 | I/G= 5 | I/G= 5 | | | |
| Date: NOV, 2023 | | | | | | Junction: Tin Ying Road / Tin Wah Road | |
| | | | | | | J3 | |