From: Tang Lok San Sent: Thursday, September 5, 2024 4:15 PM
<b>Subject:</b> D.D. 109 Lot 594 RP and 595 RP (A/YL-KTN/1046)
Ms Yan,
Thank you for the phone call. Please see the attachment for the updated documents and Drainage Plan, Fire Services Installation Plan. If you have any question regarding to the application, please do not hesitate to contact Mr. Tang on phone or email to
Your sincerely, Mr. Tang

tpbpd/PLAND

收件者:

## 申請理由

根據城市規劃條例第 16 條作出規劃許可申請 擬在新界元朗錦田北丈量約份第 109 約地段 594 號餘段及 595 號餘段作為期五年的 臨時商店及服務行業及公眾停車場(貨櫃車除外)連附屬設施之用途

- ▶ 申請地點的面積約為 2,560 平方米,全部坐落在私人地段,根據錦田北分區計劃大綱核准圖編號 S/YL-KTN/11,申請地點現時被規劃作「鄉村式發展」地帶。
- 本擬議發展為臨時性質,因此不會影響申請地點長遠待規劃意向。商店及服務行業及公眾停車場(貨櫃車除外)於「鄉村式發展」地帶均是須先向城市規劃委員會申請,可能在有附帶條件或無附帶條件下獲准的用途。
- 此申請能夠分擔水頭村及水尾村的泊車情況,尤其在停車場北面的村民,該地點未有車路進入。商店及服務行業亦能為村民及錦田鄉的居民提供優質的服務。
- 商店及服務行業的營業時間為星期一至星期日包括公眾假期上午八時至下午十時。公眾停車場 (貨櫃車除外)的營業時間為二十四小時,星期一至星期日包括公眾假期。
- ▶ 現場不會安裝任何擴音器及揚聲器。
- ▶ 申請地點內的汽車陳列室上蓋只會用作汽車陳列室的辦公室,不會將車輛放進上蓋,而當陳列車輛有空間,將放置交通錐,以免其他車輛佔用該空間。
- 申請用途、形式及佈局與周遭環境並沒有不協調,亦會顧及自然特色。
- 當場地發展後,附帶條件的美化環境建議能加強申請地點及周圍的綠化效果,使整體視野變得 美觀更令人舒服。
- 渠務建議計劃及舒緩環境措施,也能令附近地區受惠,有效地加強該地區及附近範圍的環境保護,並能減少水浸可能。
- 現場已完成渠道建設,本人希望透過新規劃申請繼續向地政總署進行相關申請。
- 根據以上各點,誠意懇求城市規劃委員會寬大批准新界元朗錦田北丈量約份第109約地段594號餘段及595號餘段作為期五年的臨時商店及服務行業及公眾停車場(貨櫃車除外)連附屬設施的用途。

渠務署及城市規劃委員會:

# A/YL-KTN/1046 的渠務報告詳細

申請地點範圍有約 2,560 平方米,位於錦田北的鄉郊範圍。目前為露天空間及建有臨時建築物。

申請地點附近有臨時建築物及草地。現有水平為約+5.6 mPD (此水平已完成填土及平整)。

有一條渠道位於申請地點的南面,並計劃將場內水流引導到該溪流。

申請範圍的東北面水平比申請地點高,有機會會有水流從這面流入。申 請範圍北外改有約 450mm 的渠道,因此沒有流水從其他方向流入申請地點。

申請地點的擬議佈局平面圖請參考 Appendix 2。

申請地點範圍有約 2,560 平方米,全部將以混凝土作表面,在申請地點外有約 32 平方米,全部為瀝青。

擬議發展	
申請地點範圍 (約 m²),全部已以混	2,560
凝土平整	
申請地點外集水區	
申請地點外北面集水區 (約 m²),大	3 2
多為草地、道路及建築物,本報告將	
以約100%混凝土及瀝青作評估	

根據 STORMWATER DRAINAGE MANUAL (SDM) - Table 10 - Recommended Design Return Periods based on Flood Levels

Intensively Used Agricultural Land	2-5 years
Village Drainage including Internal Drainage	10 years
System under a Polder Scheme	
Main Rural Catchment Drainage Channels	50 years
Urban Drainage Trunk Systems	200 years
Urban Drainage Branch Systems	50 years

本報告將使用 Main Rural Catchment Drainage Channels, 1 in 50 years return period 作評估。

 Intensity-Duration-Frequency Relationship - The Recommended Intensity-Duration-Frequency relationship is used to estimate the intensity of rainfall. It can be expressed by the following algebraic equation.

$$i = \frac{a}{(t_d + b)^c}$$

The site is located within the HKO Headquarters Rainfall Zone. Therefore, for 50 years return period, the following values are adopted.

$$a = 451.3$$

$$b = 2.46$$

$$c = 0.337$$

2. The peak runoff is calculated by the Rational Method.

$$Q_p = 0.278 \ C \ i \ A$$

where 
$$V = peak runoff in m^3/s$$

C = runoff coefficient (dimensionless)

i = rainfall intensity in mm/hr

A = catchment area in km<sup>2</sup>

3. According to Section 7.5.2(b) of the Stormwater Drainage Manual (SDM), Fifth Edition January 2018

Surface Characteristics	Runoff coefficient, C
Asphalt	0.70-0.95
Concrete	0.80-0.95
Brick	0.70-0.85
Grassland (heavy soil)	
Flat	0.13-0.25
Steep	0.25-0.35
Grassland (sandy soil)	
Flat	0.05-0.15
Steep	0.15-0.20

The run-off coefficient (C) of surface runoff area taken as follows:

- Concrete Area C = 0.95

- Asphalt C = 0.95

4. Manning's Equation is used for calculation of velocity of flow inside the channels. It can be expressed by the following algebraic equation.

$$V = \frac{R^{1/6}}{n} \sqrt{RS_f}$$

where V = Velocity of the pipe flow (m/s)

S<sub>f</sub> = Hydraulic gradient

n = manning's coefficient

R = Hydraulic radius (m)

5. Colebrook-White Equation is used for calculation of velocity of flow inside the pipes. It can be expressed by the following algebraic equation.

$$\bar{V} = -\sqrt{32gRS} \log \log \left( \frac{k_s}{14.8R} + \frac{1.255v}{R\sqrt{32gRS_f}} \right)$$

where V = Velocity of the pipe flow (m/s)

S<sub>f</sub> = Hydraulic gradient

k<sub>f</sub> = roughness value (m)

v = kinematics viscosity of fluid

D = pipe diameter (m)

R = Hydraulic radius (m)

申請範圍主要平坦,並緩緩斜向西面,渠道設計請參考 Appendix 5。

渠道容量計算請參考 Appendix - Calculation。

根據本報告,本臨時發展不會對附近的渠道有重大影響。

## Appendix – Calculation

Capacity Flows Estimation for Propose Catchments and Drainage System with 50 Year Return Period

A1. Calculation of On-Site Runoff (After Development)

Surface Type	Catchment Area (A), m <sup>2</sup>	Catchment Area (A), km²	Average slope (H), m/100m	Flow path length (L), m	Time of Concentration (t <sub>c</sub> ), min		b (50 year return period)	c (50 year return period)	Runoff intensity (i) mm/hr	Runoff coefficient (C)	CxA	Peak runoff (Q <sub>p</sub> ), m <sup>3</sup> /s
100% Concrete and Asphalt	2,954	0.002954	0.5	42	3.14	451.3	2.46	0.337	253	0.95	0.0028063	0.197

Total 0.197

A2. Calculation of the Capacity of Existing Drainage (After Development)

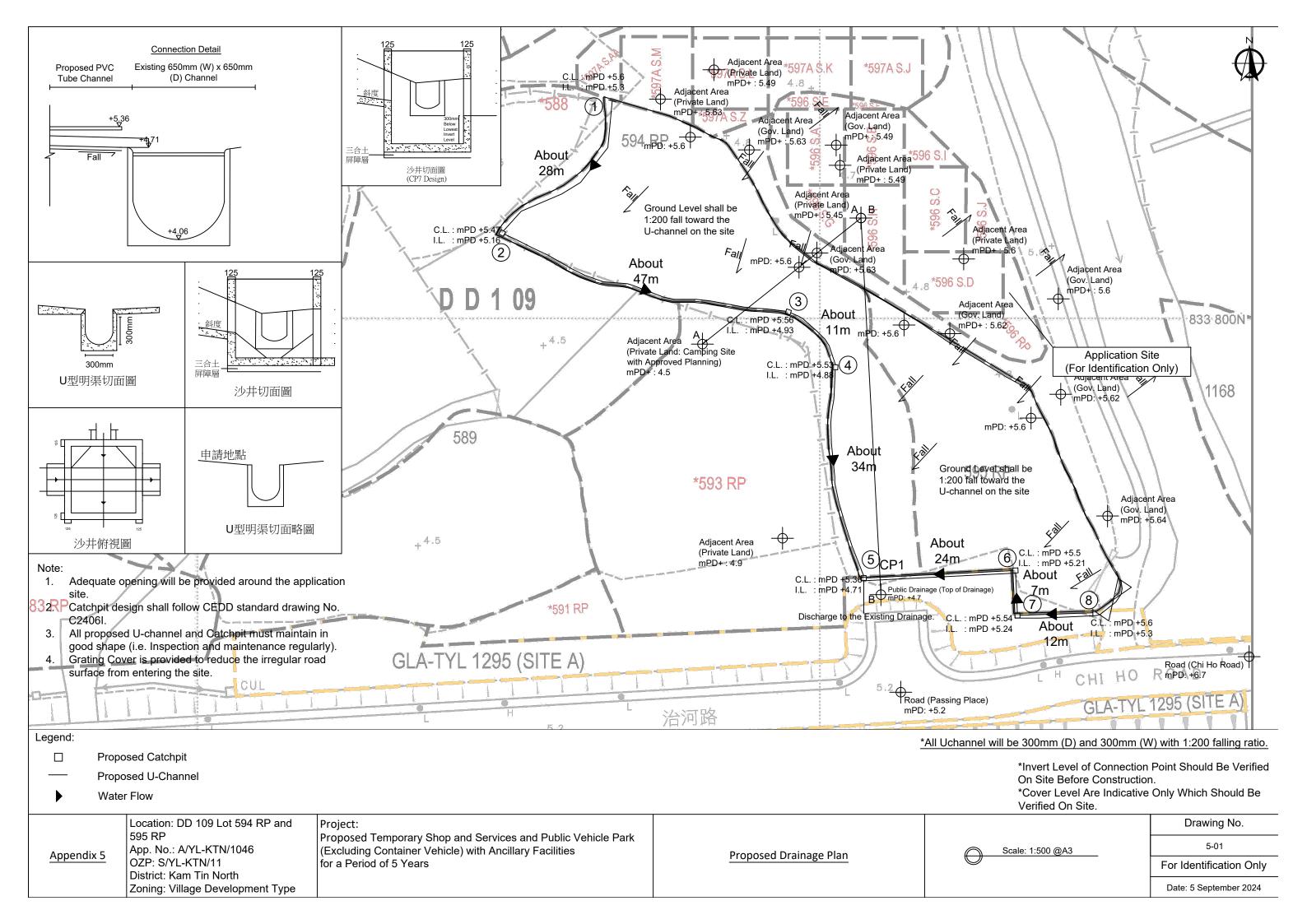
Channel Type	Width, m	Depth, m	Slope	Longth m	Manning's Roughness	Cross Section	Wetted	Hydraulic	Mean	Capacity	Catchment	Runoff, m3/s	% of capacity	Sufficient
Chainlei Type	width, iii Depth, iii	ii Siope Leiigii	Length, m	Coefficient	Area, m2	Perimeter, m	radius, m	Velocity, m/s	flow, m3/s	Served, km²	Kulloli, Ili3/3	flow	Capacity (Y/N)	
Concrete U-Channel	0.3	0.3	0.005	163	0.015	0.16	0.771	0.208	1.65	0.264	0.002954	0.197	75%	Y

<sup>\*</sup>Allowed 10% for siltation

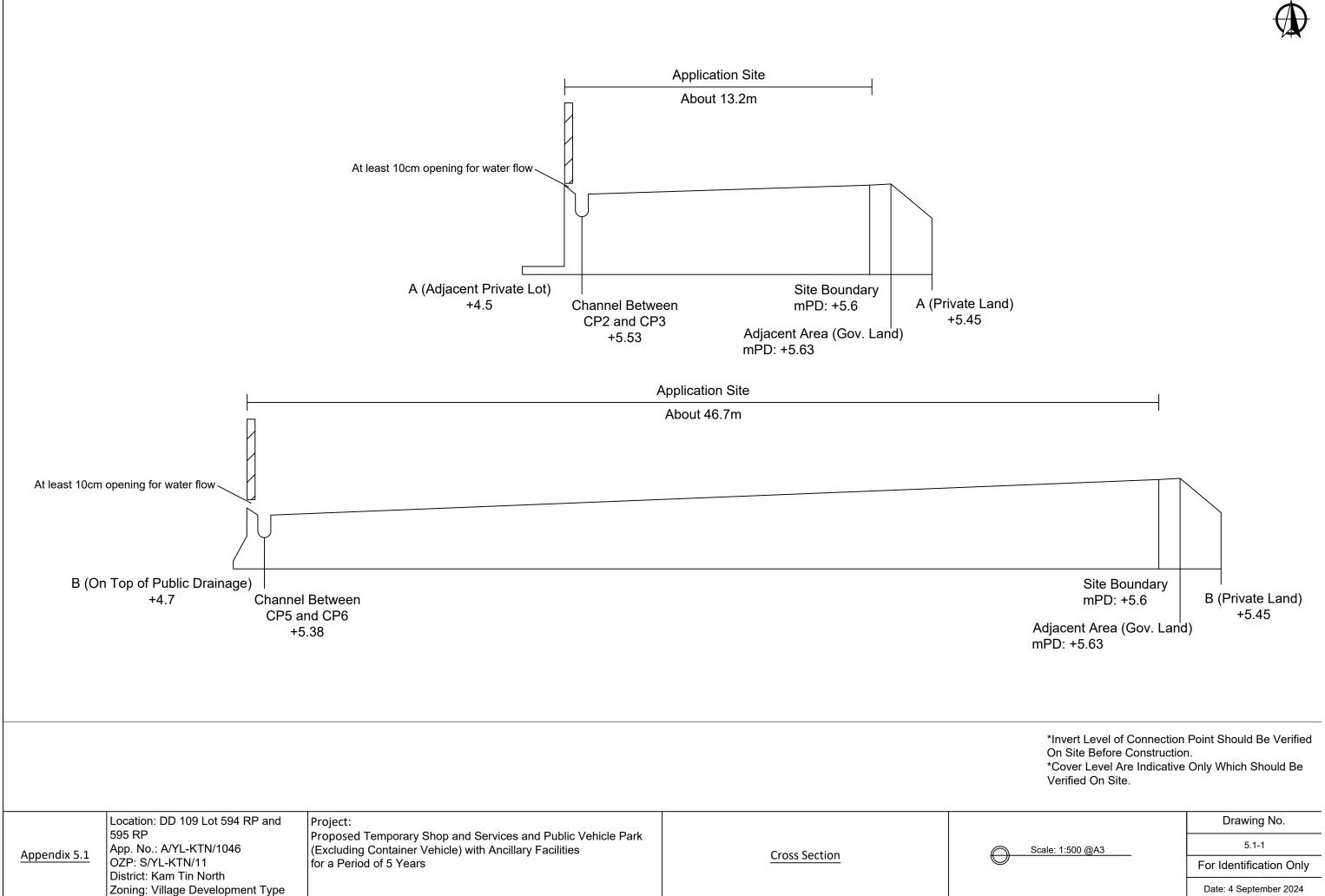
Note

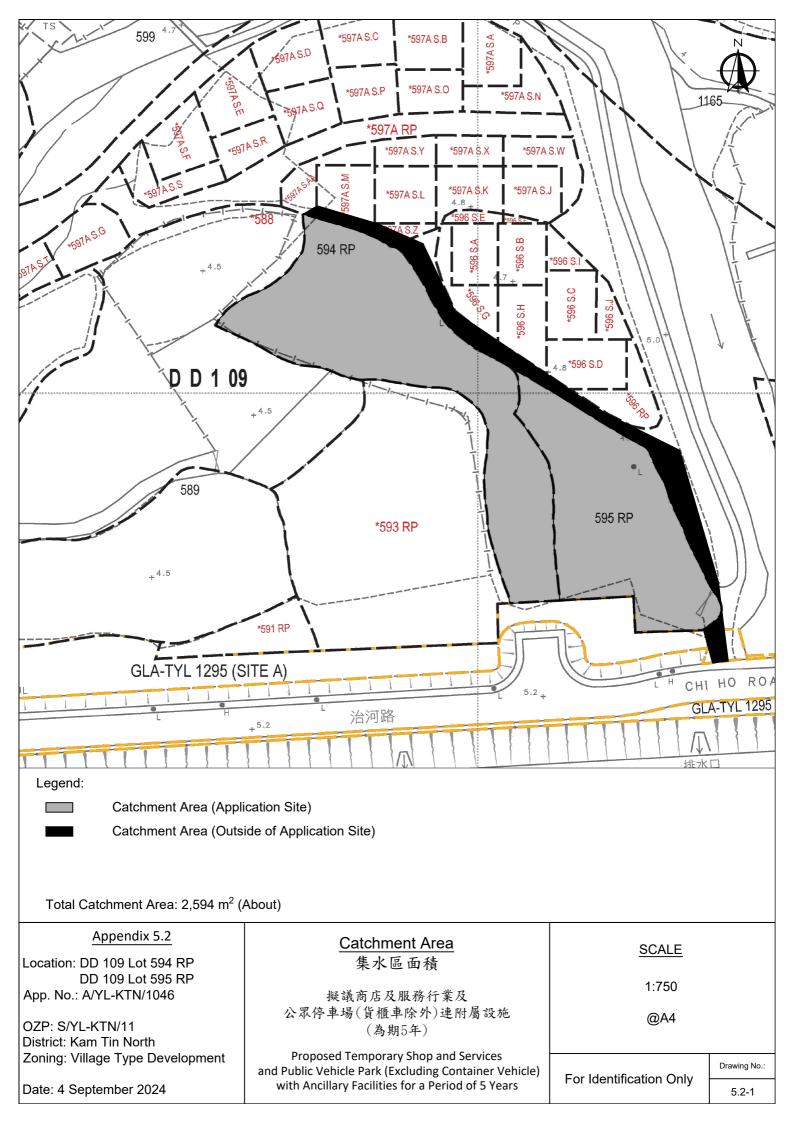
Runoff is calculated in accordance with DSD's "Stormwater Drainage Manual – Planning, Design and Management" (SDM), fifth edition, January 2018.

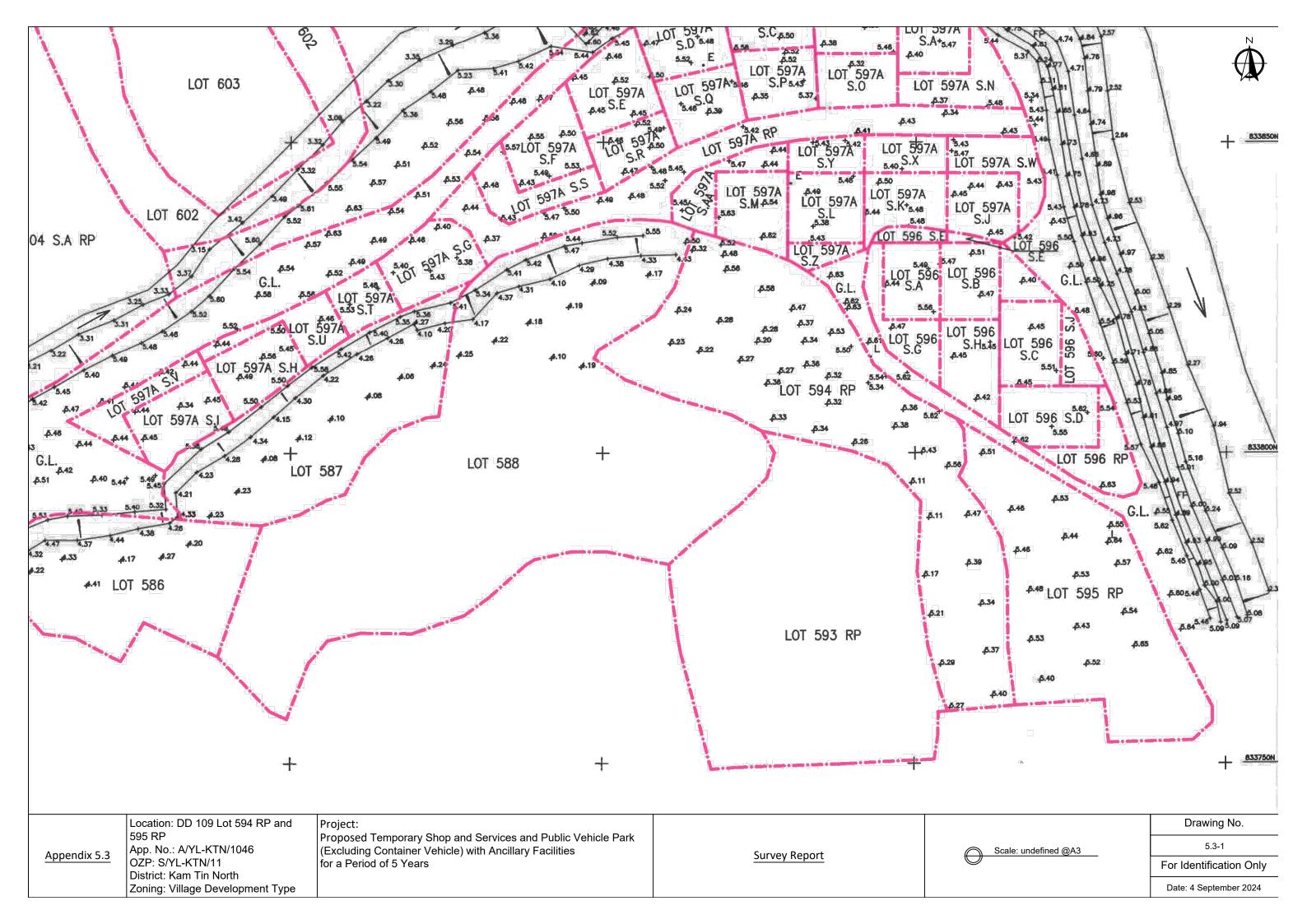
Equation used:  $t_0 = \frac{0.14465L}{H^{0.2}A^{0.1}}$   $t_c = t_0 + t_f$   $i = \frac{a}{(t_d + b)^c}$   $Q_p = 0.278 \ C \ i \ A$   $V = \frac{R^{1/6}}{n} \sqrt{RS_f}$ 

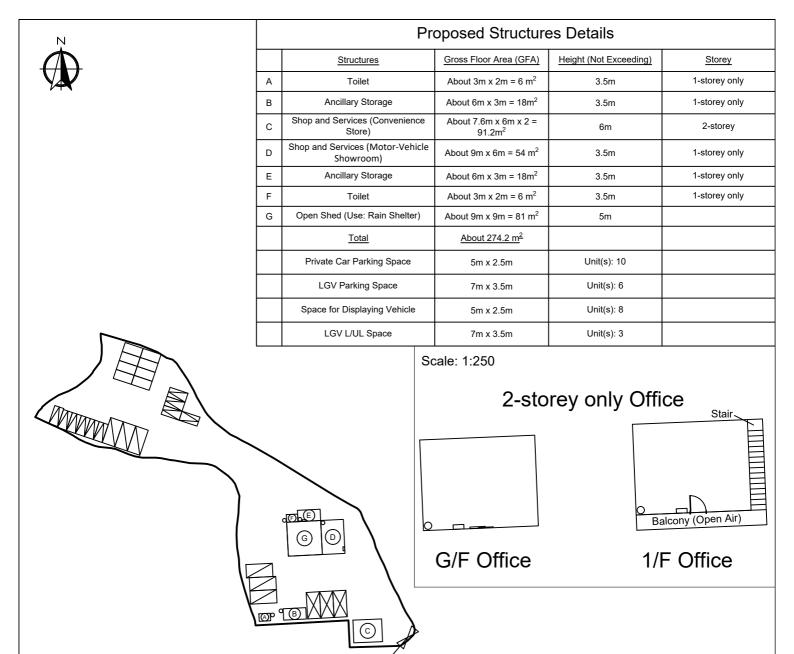












<sup>\*</sup>All FSI (includes installation/maintenance/modification/repair work) will be completed by RFSIC. For Emergency Vehicular Access, Please see Appendix 6.1

#### Legend:

- 5 kg Portable Carbon Dioxide Gas Type Fire Extinguisher (7 in Total)
- Emergency Lighting (BS 5266-1:2016 and BS EN 1838:2013 and FSD Circular Letter 4/2021) (4 in Total)
- □ Private Car Parking Space □ Space for Displaying Vehicle

#### Appendix 6

Location: DD 109 Lot 594 RP DD 109 Lot 595 RP

App. No.: A/YL-KTN/1046

OZP: S/YL-KTN/11 District: Kam Tin North

Zoning: Village Type Development

Date: 2 September 2024

# Proposed Fire Service Installation Plan

擬議消防設備安裝計劃圖

擬議商店及服務行業及 公眾停車場(貨櫃車除外)連附屬設施 (為期5年)

Proposed Temporary Shop and Services and Public Vehicle Park (Excluding Container Vehicle) with Ancillary Facilities for a Period of 5 Years

## <u>SCALE</u>

1:1000

@A4

For Identification Only

Drawing No.:

<sup>\*</sup>All the enclosed structures are provided with access for emergency vehicles to reach within 30m travel distance from the structures.

