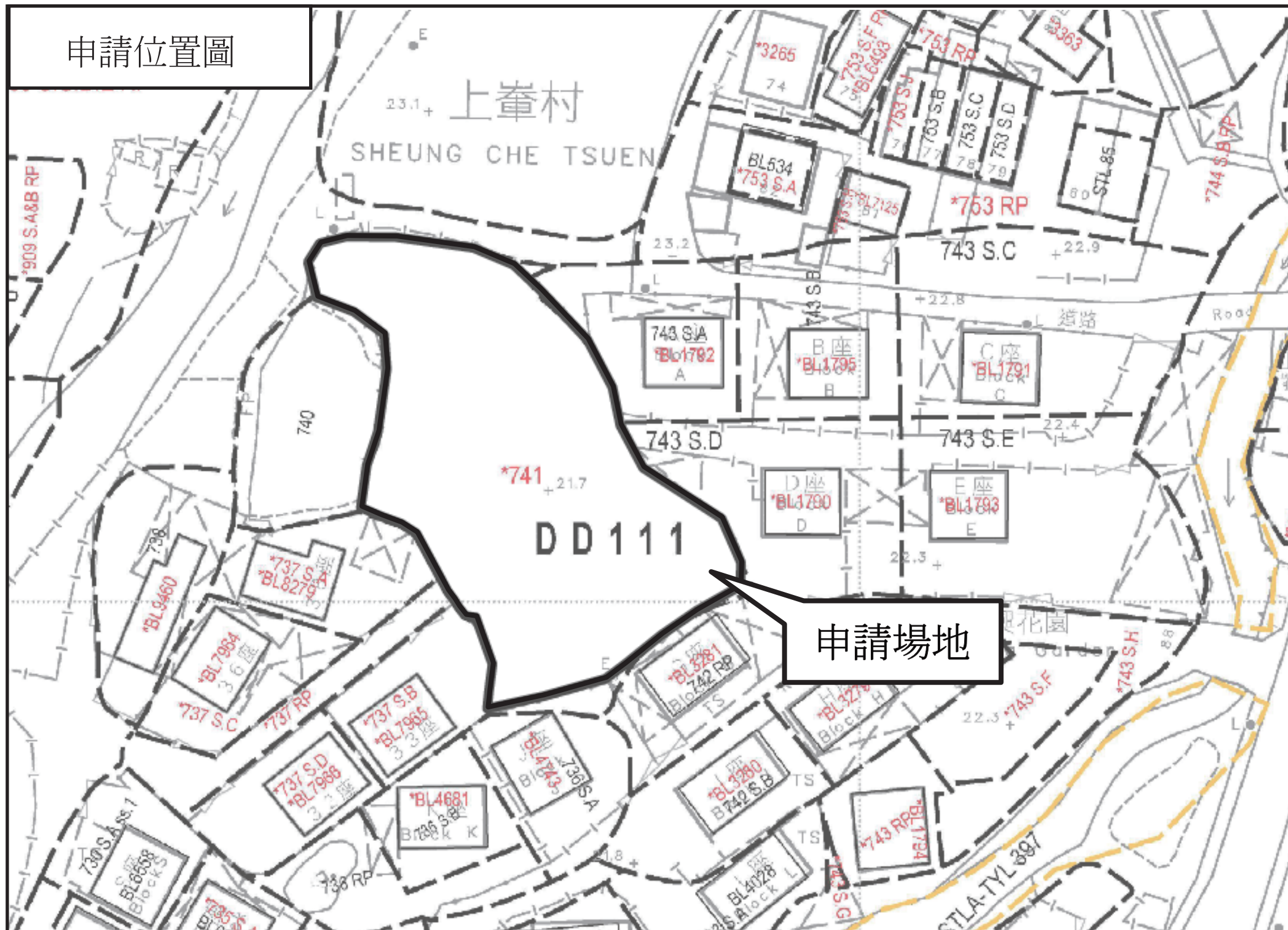
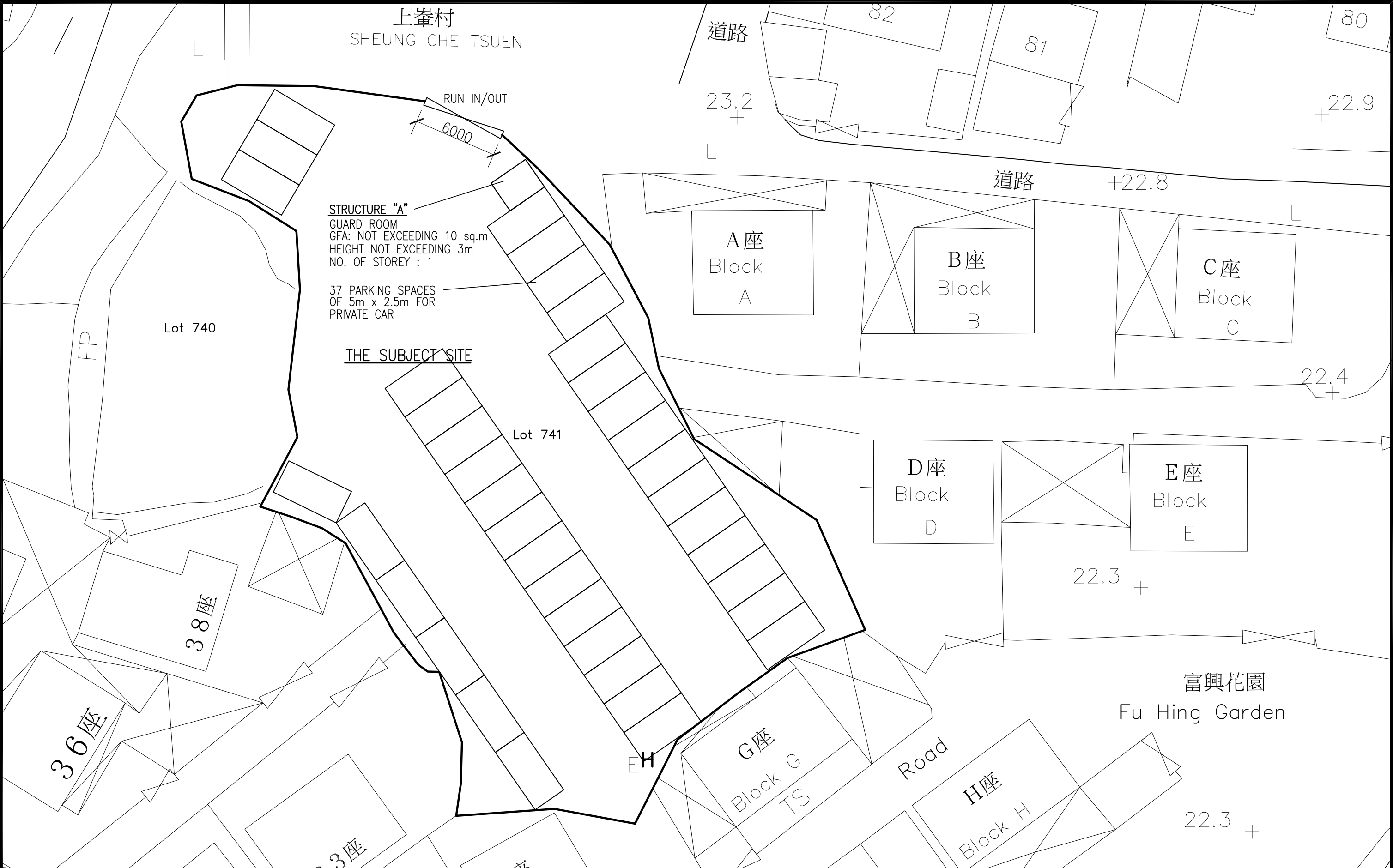



申請位置圖





 <div>利安設計工程有限公司 LEON Design Engineering Limited</div> <div><small>新界屯門藍地屯子圍205號 No. 205 Tuen Tsz Wai, Lam Tei, Tuen Mun, N.T. Tel: 2328 7060 Fax: 2328 7060 E-mail: leonlimited@gmail.com</small></div>	<div>This drawing and design are copyright of LEON DESIGN ENG. LTD. No portion may be reproduced without the company written permission. Used written dimensions. measurement to existing works to be verified on site. This drawing shall be read in conjunction with specification and condition of contract.</div>	<div>PROJECT</div> <div>LOT 741 IN D.D. 111, SHEUNG CHE TSUEN, NORTH, N.T.</div>	<div>TITLE</div> <div>PROPOSED CAR PARK PLAN</div>	<div>DRAWN BY</div> <div>PT</div>	<div>CHECKED BY</div> <div>PT</div>	<div>DATE</div> <div>April 2025</div>
				<div>SCALE</div> <div>1 : 250</div>	<div>JOB NO.</div> <div>LD/ -</div>	
				<div>CAD / FILE</div> <div>LD-L741-CP01(R2)</div>	<div>DWG NO.</div> <div>LD/L741/CP01B</div>	

Dear Sir/Madam,

Proposed Temporary Private Vehicle Park for a Period of 3 Years and Filling of Land in “Village Type Development” Zone, Lot 741 (Part) in D.D. 111, Pat Heung, Yuen Long, N.T.

Further to your letter dated 8th November 2024 and I regarding the drainage proposal submitted on 10th October 2024 for compliance with approval condition (c), and the site inspection conducted on 4th November 2024, it has been noted that the proposed site formation level of the application site has been raised to +23 mPD, which involves an increase in the depth of land filling. According to the approved scheme, the vehicle park and land filling were to be raised by 0.5m (from +21.7 mPD to +22.2 mPD).

Upon reviewing the existing site conditions, it is observed that the original survey plan for the application site shows the lowest point of the site marked on index plan. This level represents the lowest point within the site, and the rest of the site does not show any specific levels. Additionally, based on the existing site photo (Appendix – 1), it is clear that the ground level along the boundary wall differs from the lowest point, indicating a variation in the ground profile.

This discrepancy in the site formation level and the raised filling depth can be attributed to the irregular topography of the application site, where the existing level does not correspond to the actual elevation of the surrounding areas. Consequently, the site formation level has been adjusted to +23 mPD, which exceeds the approved filling depth of 0.5m (from +21.7 mPD to +22.2 mPD).

We acknowledge this difference and was submitted the revised actual site level of drainage proposal on 4th November 2024, including a detailed of site sport levels which was prepared by land surveyor for supporting, to address the raised site formation level and comply with the necessary approvals. We will ensure that all actions are in line with the requirements of the approval conditions and seek further clarification or approval as required.

This response clearly addresses the discrepancy in the site formation level, provides context based on the existing survey data, and outlines the steps to resolve the issue.

Appendix - 1



EXISTING GROUND PROFILE BEFORE SITE FORMATION

Stormwater Drainage Design

For

Proposed Temporary Private Vehicle Part Associated and Filling of Land
for a Period of 3 Years of Land Lot 741 (Part) in D.D. 111 in “Village
Type Development” Zone, Pat Heung, Yuen Long, N.T.

Report No.: **LD/L741/DS01**
Date: **10/10/2024**

1. Equations and Assumptions

1.1 Surface drainage design is in accordance with Geotechnical Manual for Slopes (2nd Edition, 1984).

1.2 Slope drainage is designed to a frequency of 1 in 200 rainfall return period.

1.3 Time of Concentration = time of entry + time of flow
i.e. $t_c = t_e + t_f$

1.4 Time of entry is calculated based on the modified form of Bransby-Williams Equation:

$$t_e = 0.14465 \times L / (H^{0.2} \times A^{0.1})$$

Eqn. 8.2
Geotechnical
Manual for Slopes

where t_e = time of entry (min) ,
 A = area of catchment (m^2) ,
 H = average fall (m per 100m) from the summit of catchment to the point of design,
 L = distance in metre measured on the line of natural flow between the design section and that point of catchment from which water would take the longest time to reach the design section (m)

1.5 Time of flow is calculated from the measured water flow length in channel divided by the assumed flow velocity.

i.e. $t_f = w / v$

where t_f = time of flow (min) ,

w = measured water flow length in channel (m) ,

v = assumed water flow velocity (m/s)

Geotechnical
Manual for
Slopes (p. 96)

1.6 Runoff coefficient for the slope is assumed to be 1.0 for [vegetated ground surface](#).

1.7 Peak stormwater is determined by the "Rational Method" using the following formula:

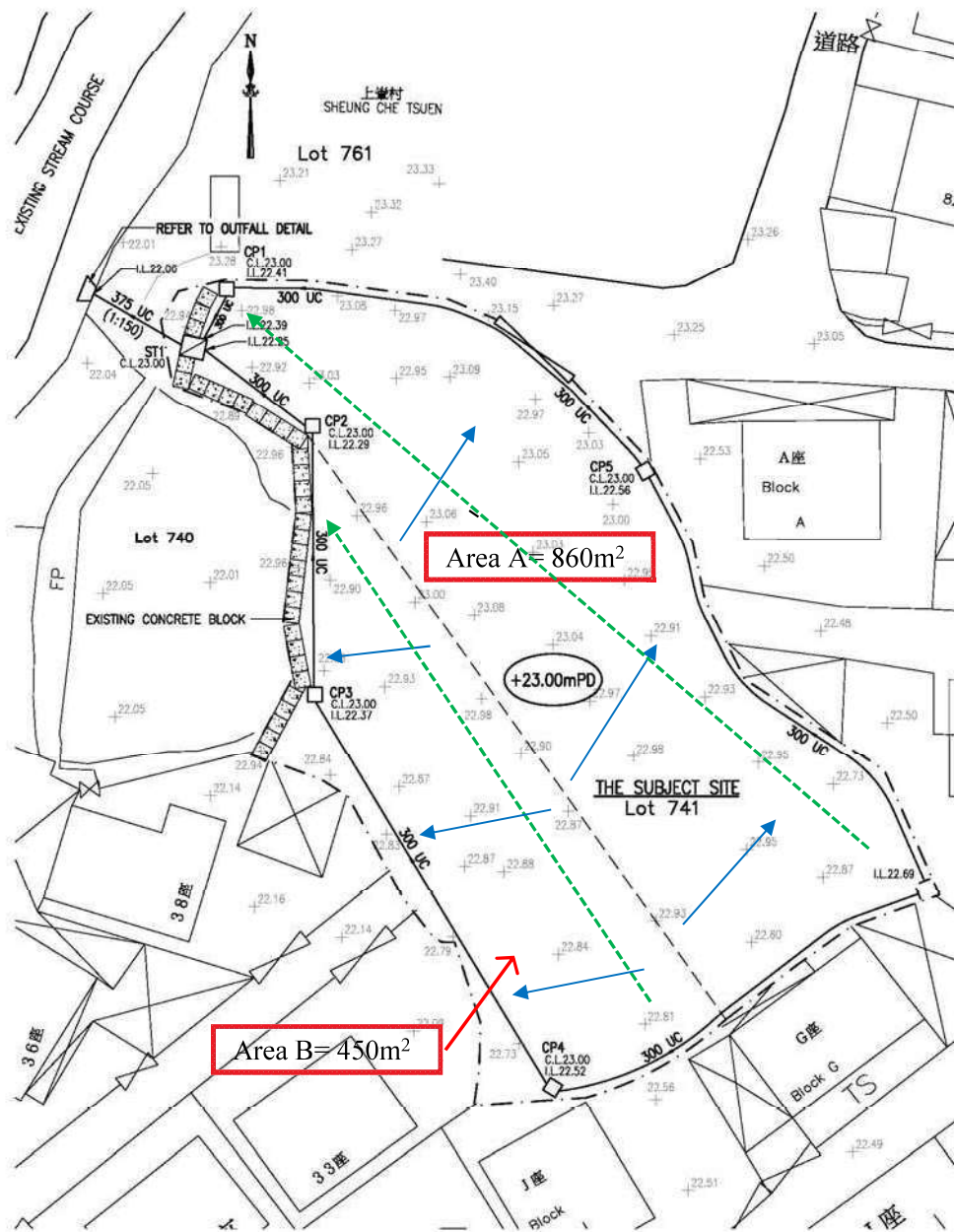
$$Q = KiA/60$$

Eqn. 8.7
Geotechnical
Manual for Slopes

where Q = maximum runoff (litres/min) ,
 K = runoff coefficient ($K = 1.0$) ,
 i = design mean intensity of rainfall (mm/hr) ,
 A = area of catchment (m^2) .

2. Catchment Area

The catchment area for the design of surface channels is shown below :



Plan of Catchment Areas

NTS

3. Checking requirement width by rainwater through between CP5 to ST1

a. Catchment Area A to Proposed Drainage (300 UC)

$$\begin{aligned} \text{Area } A &= 860 \text{ m}^2 \\ L &= 55 \text{ m} \end{aligned}$$

$$\delta h = 23.08 - 22.91 = 0.17 \text{ m}$$

$$H = 0.17 * 100 / 55 = 0.31 \text{ m} \quad (\text{average fall per 100m run})$$

$$t_c = 0.14465 \times 55 / (0.31^{0.2} \times 860^{0.1}) = 5.116 \text{ min}$$

$$\text{For } t_f, \quad w = 14 \text{ m}, \quad v = 3 \text{ m/s} \quad (\text{assumed})$$

$$t_{fl} = 14 / (3 \times 60) = 0.078 \text{ min}$$

$$t_l = 5.116 + 0.078 = 5.194 \text{ min}$$

$$\text{From rainfall curve, use } t = 5.2 \text{ min}$$

$$\begin{aligned} i_{200} &= 360 \text{ mm/hr} \\ K &= 1 \end{aligned}$$

Flow for 200 years return periods,

$$Q_{200} = 1 * 360 \times 860 / 60 = 5160 \text{ litres/min}$$

$$\text{Drop of channel} = 22.690 - 22.390 = 0.30 \text{ m}$$

$$\text{Gradient} = 0.3 / 14 = 1 \text{ in } 47$$

$$\text{Proposed channel size} = 225 \text{ UC}$$

$$\text{Capacity} = 10400 > Q_{200} \quad \text{OK}$$

$$\text{Read } v_{\max} = 2.5 \text{ m/s} < 4 \text{ m/s} \quad \text{OK}$$

Therefore, used 300mm UC is adequate for catchment area of A.

Fig. 1, TGN 30

Fig. 8.7
Geotechnical
Manual for Slopes

4. Checking requirement width by rainwater through between CP4 to ST1

b Catchment Area B to Proposed Drainage (300 UC)

$$\begin{aligned} \text{Total Area} &= 450 \text{ m}^2 \\ L &= 43 \text{ m} \end{aligned}$$

$$\delta h = 23 - 22.87 = 0.13 \text{ m}$$

$$H = 0.13 * 100 / 43 = 0.30 \text{ m} \quad (\text{average fall per 100m run})$$

$$t_c = 0.14465 \times 43 / (0.3^{0.2} \times 450^{0.1}) = 4.296 \text{ min}$$

$$\text{For } t_p \quad w = 12 \text{ m}, \quad v = 3 \text{ m/s} \quad (\text{assumed})$$

$$t_{fl} = 12 / (3 \times 60) = 0.067 \text{ min}$$

$$t_l = 4.296 + 0.067 = 4.363 \text{ min}$$

$$\text{From rainfall curve, use } t = 4.4 \text{ min}$$

$$\begin{aligned} i_{200} &= 370 \text{ mm/hr} \\ K &= 1 \end{aligned}$$

Flow for 200 years return periods,

$$Q_{200} = 1 * 370 \times 450 / 60 = 2775 \text{ litres/min}$$

$$\text{Drop of channel} = 22.520 - 22.290 = 0.23 \text{ m}$$

$$\text{Gradient} = 0.23 / 12 = 1 \text{ in } 53$$

$$\text{Proposed channel size} = 300 \text{ UC}$$

$$\text{Capacity} = 10300 > Q_{200} \quad \text{OK}$$

$$\text{Read } v_{\max} = 2.4 \text{ m/s} < 4 \text{ m/s} \quad \text{OK}$$

Therefore, used 300mm UC is adequate for catchment area of B.

Fig. 1, TGN 30

Fig. 8.7
Geotechnical
Manual for Slopes

5. Checking requirement width by rainwater through between ST1 to existing channel

c Catchment Area $A + B$ to Proposed Drainage (375 UC)

$$\text{Area A} = 860 \text{ m}^2$$

$$\text{Area B} = 450 \text{ m}^2$$

$$\text{Total Area} = 1310 \text{ m}^2$$

$$t_{\text{total}} = 4.400 \text{ min}$$

$$\text{For } t_f, w = 6.5 \text{ m, } v = 3 \text{ m/s (assumed)}$$

$$t_{f1} = 6.5 / (3 \times 60) = 0.036 \text{ min}$$

$$t_{\text{total}} = 4.4 + 0.036 = 4.436 \text{ min}$$

$$\text{From rainfall curve, use } t = 4.4 \text{ min}$$

$$i_{200} = 370 \text{ mm/hr}$$

$$K = 1$$

Flow for 200 years return periods,

$$Q_{200} = 1 \times 370 \times 1310 / 60 = 8078 \text{ litres/min}$$

$$\text{Drop of channel} = 22.250 - 22.060 = 0.19 \text{ m}$$

$$\text{Gradient} = 0.19 / 6.5 = 1 \text{ in } 35$$

$$\text{Proposed channel size} = 375 \text{ UC}$$

$$\text{Capacity} = 25000 > Q_{200} \quad \text{OK}$$

$$\text{Read } v_{\text{max}} = 3.4 \text{ m/s} < 4 \text{ m/s} \quad \text{OK}$$

Therefore, used 375mm UC is adequate for catchment area of the application site.

Fig. 1, TGN 30

Fig. 8.7
Geotechnical
Manual for Slopes

Geotechnical Engineering Office, Civil Engineering and Development Department
The Government of the Hong Kong Special Administrative Region

GEO Technical Guidance Note No. 30 (TGN 30)
New Intensity-Duration-Frequency Curves for Slope Drainage Design

Issue No.: 1 Revision: - Date: 21.3.2011 Page: 3 of 4

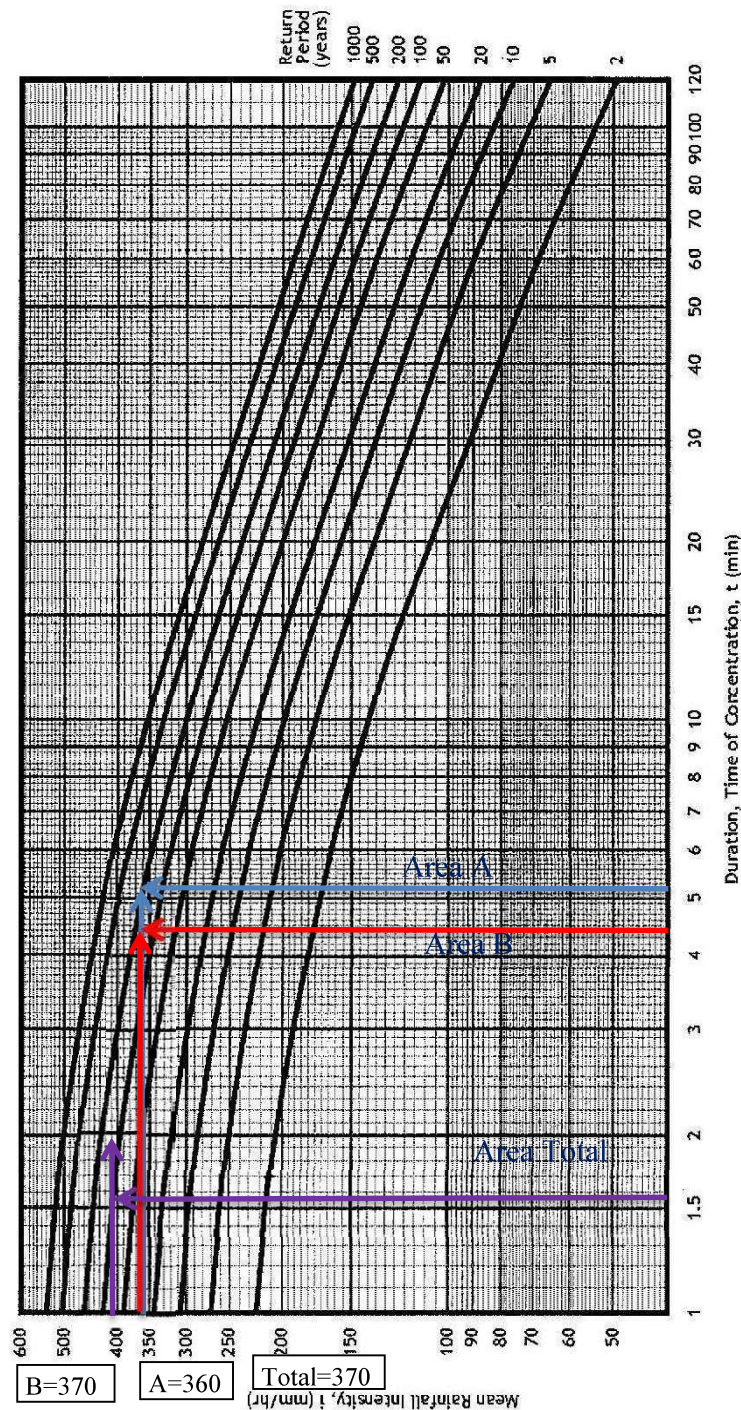


Figure 1 – New Intensity-Duration-Frequency (IDF) Curves (Tang & Cheung, 2011)

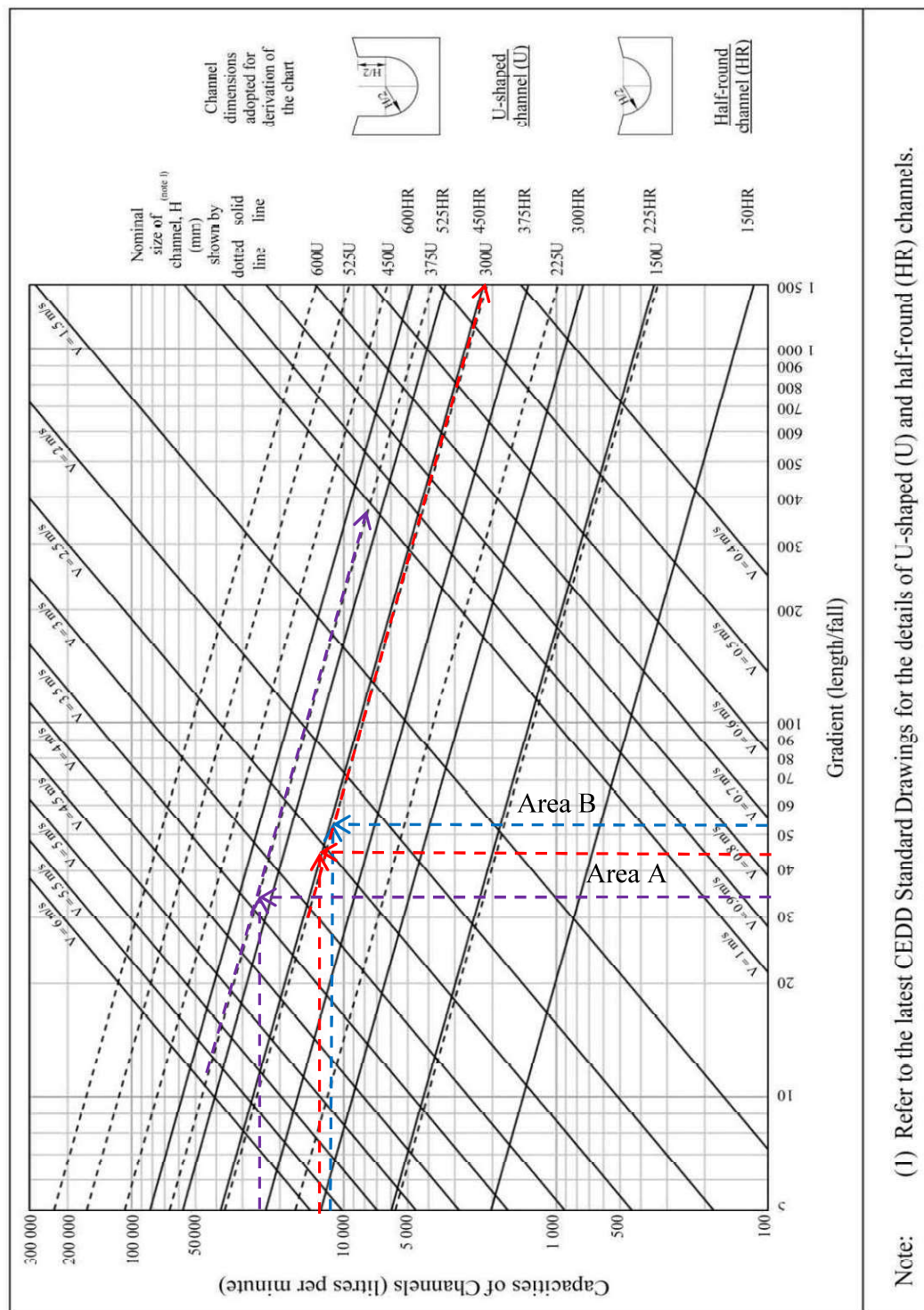
Note: These IDF curves are to supersede those given in Figure 8.2 of the Geotechnical Manual for Slopes (GCO, 1984).

**Geotechnical Engineering Office, Civil Engineering and Development Department
The Government of the Hong Kong Special Administrative Region**

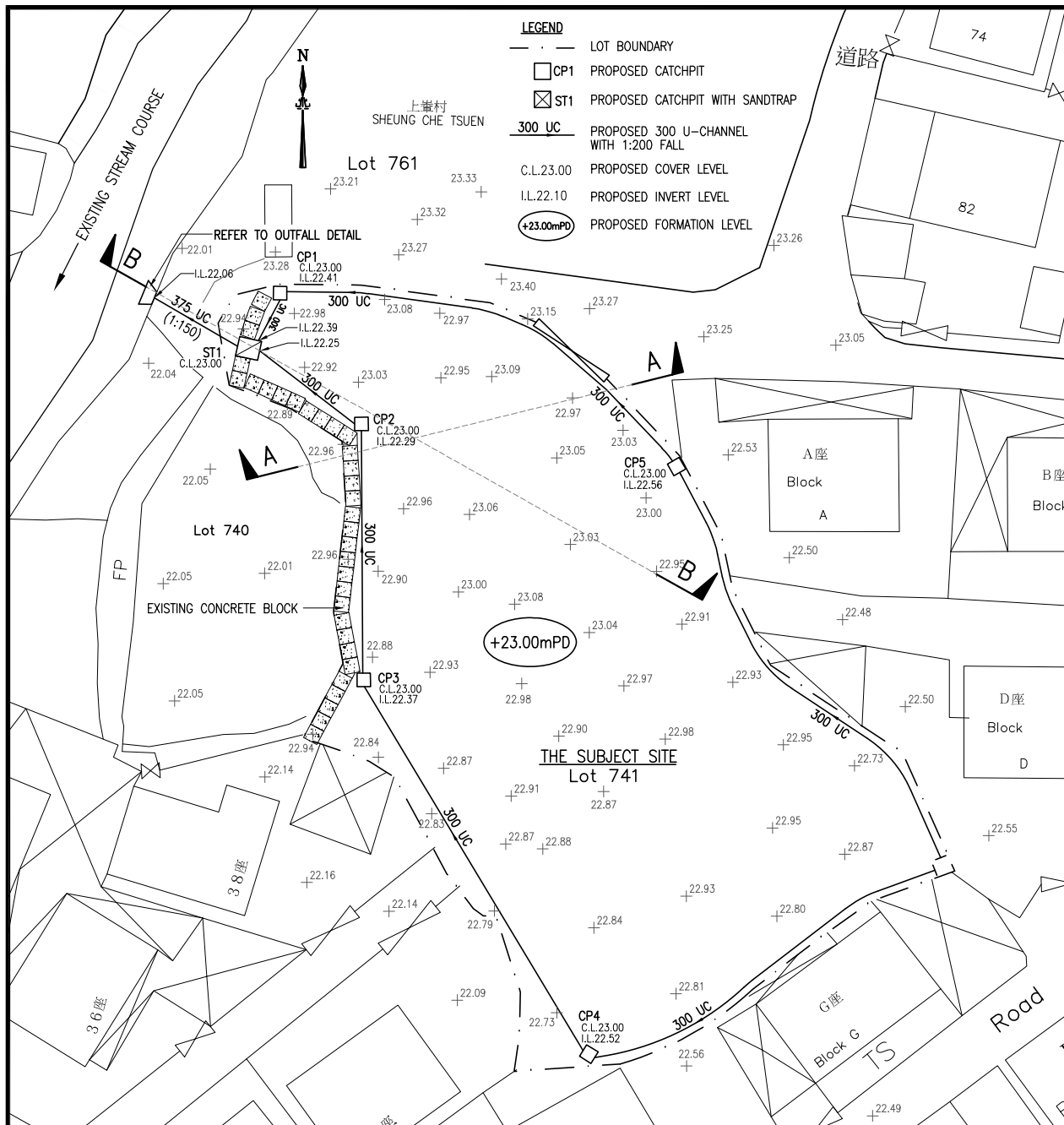
**GEO Technical Guidance Note No. 43 (TGN 43)
Guidelines on Hydraulic Design of U-shaped and Half-round Channels on Slopes**

Issue No.: 1 Revision: - Date: 05.06.2014 Page: 3 of 3

Figure 1 - Chart for the rapid design of U-shaped and half-round channels up to 600 mm



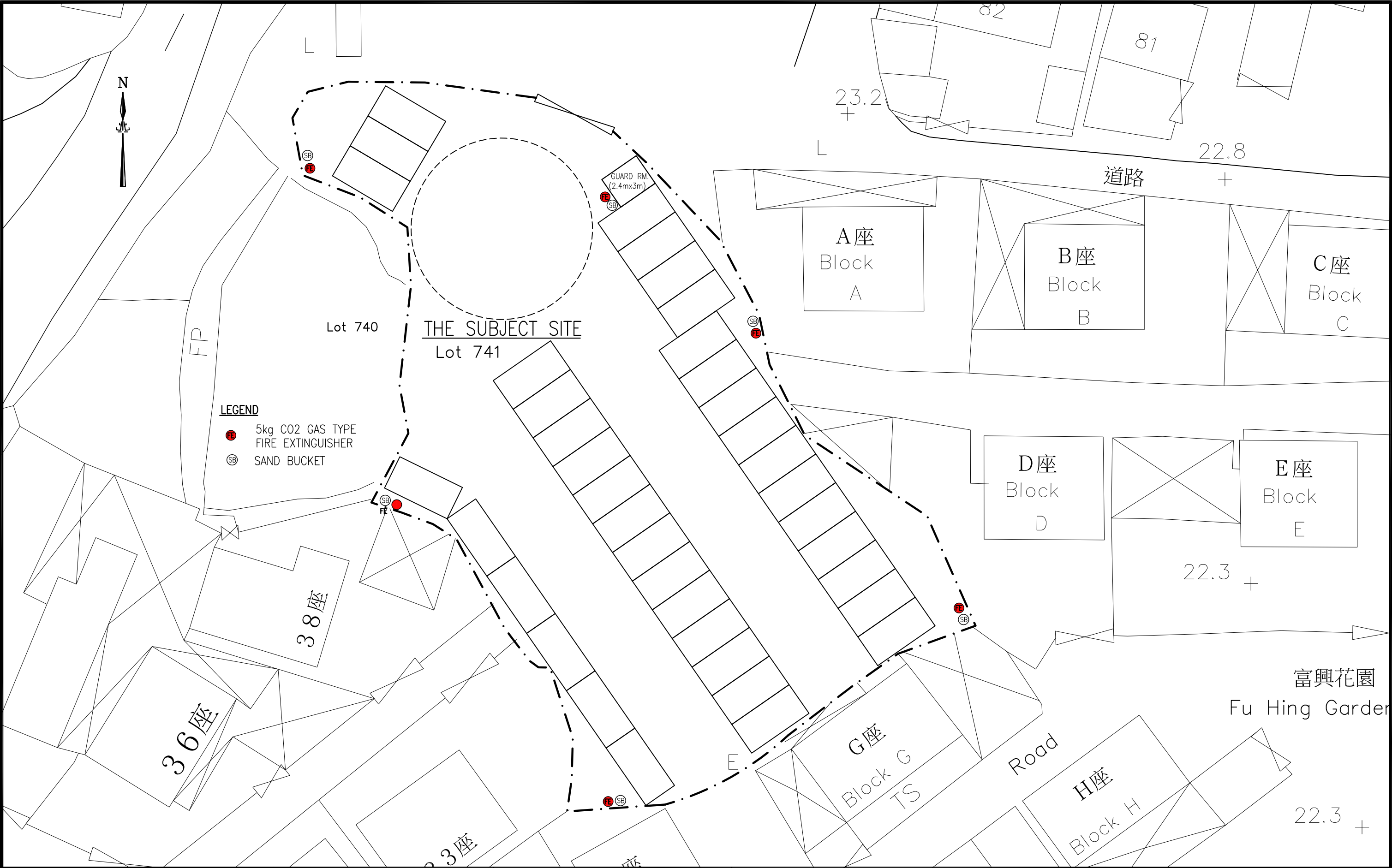
Note: (1) Refer to the latest CEDD Standard Drawings for the details of U-shaped (U) and half-round (HR) channels.



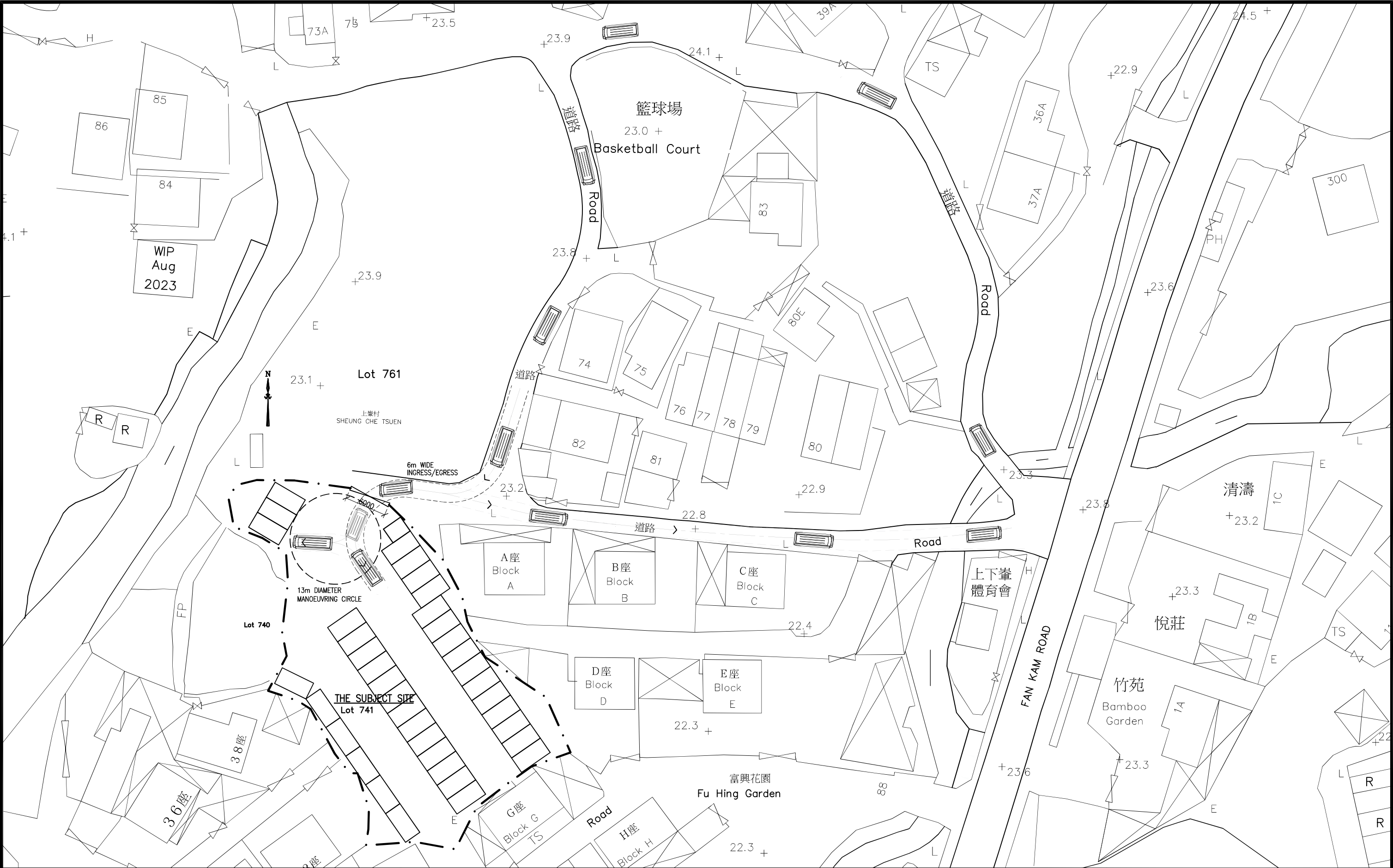
Responses to Comments for Drainage Services Department

Responses to Comments for Drainage Services Department

- | | |
|---|----------------|
| (a) Colour photos to indicate the current conditions of the existing drainage facilities should be included in the submission. The photo taken location and angle should be shown on the layout plan. | See attachment |
| (b) 300 UC with gradient of 1:200 are proposed by the applicant. Please demonstrate with hydraulic calculation that the proposed drainage facilities are adequate to collect, convey and discharge the surface runoff accrued on the application site and to the overland flow intercepted from the adjacent lands. Please also indicate the gradient of the proposed 375 UC and showing its C.L. and I.L. at outfall detail. | See attachment |
| (c) Cross sections showing the existing and proposed ground levels of the captioned site with respect to the adjacent areas should be given. | See attachment |
| (d) The proposed finished G.L. of the subject site is 22.3 which is about 0.6m higher than the existing G.L. of 21.7. Please demonstrate the proposed site formation works will not affect the overland flow from the adjacent lands. | See attachment |
| (e) The development should neither obstruct overland flow nor adversely affect existing natural streams, village drains, ditches and the adjacent areas, etc. | Noted |
| (f) Where walls or hoarding are erected or laid along the site boundary, adequate opening should be provided to intercept the existing overland flow passing through the site. | Noted |
| (g) The existing watercourse, to which the stormwater of the development from the subject site would discharge, are not maintained by this office. The applicant should identify the owner of the existing drainage facilities to which the proposed connection will be made. In the case that it is a local village drains, District Office / Yuen Long should be consulted. | Noted |
| (h) The applicant shall resolve any conflict / disagreement with relevant lot owner(s) and seek Lands Department's permission for laying new drains / channels and/or modifying / upgrading existing ones in other private lots or on Government land outside the application site. | Noted |



<div>利安設計工程有限公司 LEON Design Engineering Limited</div> <div>新界屯門藍地屯子圍205號 No. 205 Tuen Tsz Wai, Lam Tei, Tuen Mun, N.T. Tel: 2328 7060 Fax: 2328 7080 E-mail: leonlimited@gmail.com</div>	<p>This drawing and design are copyright of LEON DESIGN ENG. LTD. No portion may be reproduced without the company written permission. Used written dimensions. measurement to existing works to be verified on site. This drawing shall be read in conjunction with specification and condition of contract.</p>	<p>PROJECT</p> <p>LOT 741 IN D.D. 111, SHEUNG CHE TSUEN, NORTH, N.T.</p>	<p>TITLE</p> <p>FIRE SERVICE INSTALLATION LAYOUT PLAN</p>	DRAWN BY	CHECKED BY	DATE
				PT	PT	April 2025
				SCALE	JOB NO.	
				1 : 250	LD/ -	
				CAD / FILE	DWG NO.	
				LD-L741-FS01(R2)	LD/L741/FS01(B)	



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<div>SCALE</div> <div>1 : 300</div>		<div>JOB NO.</div> <div>LD/ -</div>		<div>CAD / FILE</div> <div>LD-L741-SP01(R2)</div>		<div>DWG NO.</div> <div>LD/L741/SP01(B)</div>		

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申請編號：A/TL-PH/1069

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現附上一張擬議行車路徑圖。申請這個停車場不會對入村的道路做成太大的影響，由粉錦公路轉入路經一條現有的車路可直達申請場地，場內有足夠空間給車輛轉彎掉頭，由場內右轉出來轉再左轉可以行另一條道路轉出粉錦公路，因為有兩條路可以進出，對現有的道路不會做成阻塞。由粉錦公路轉入申請場地是經過一條現有入村必經的私人道路，這條道路不是運輸署所管轄的路段。

(附加相片)

日期: 2025 年 5 月 13 日



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