

**GoldRich** PLANNERS & SURVEYORS LTD.

金潤規劃測量師行有限公司

Your Ref.: A/YL-KTS/1101

Our Ref.: P22068A/TL26078

3 March 2026

The Secretary  
Town Planning Board  
15/F., North Point Government Offices  
333 Java Road, North Point, Hong Kong

By E-mail  
tpbpd@pland.gov.hk

Dear Sir,

**Submission of Further Information (FI)**

**Temporary Shop and Services (Retail Shop for Hardware Groceries and Construction Materials) with Ancillary Facilities for a Period of 5 Years in “Residential (Group D)” Zone, Lots 670 (Part), 671 (Part), 673 (Part), 674, 675, 676, 677 (Part), 679 (Part) and 680(Part) in D.D. 106 and Adjoining Government Land, Yuen Long, New Territories (Application No. A/YL-KTS/1101)**

We write to submit FI in response to departmental comment(s) conveyed by the Planning Department for the captioned application.

Yours faithfully,  
For and on behalf of  
Goldrich Planners & Surveyors Ltd.



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Francis Lau

Encl.

c.c.

DPO/FS&YLE, PlanD [REDACTED]

**Further Information for Planning Application No. A/YL-KTS/1101****Response-to-Comments****Comments from Lands Department**

<b>I.</b>	<b>Comments</b>	<b>Responses</b>
1.	<p>The application site comprises Government land (GL) and Old Schedule Agricultural Lot Nos held under the Block Government Lease which contains the restriction that no structures are allowed to be erected without the prior approval of the Government.</p>	<p>The applicant will apply to the Lands Department for a Short Term Waiver to regularize the structures on the lots.</p>
2.	<p>I must point out that the following irregularities covered by the subject planning application have been detected by this office:</p> <p><u>Unlawful occupation of Government land adjoining the said private lots covered by the planning application</u></p> <p>The Government land within the application site (about 845 m<sup>2</sup> as mentioned in the application form) has been fenced off on or after 28.3.2017 without any permission. Any occupation of GL without Government's prior approval is an offence under Cap. 28. LandsD objects to the planning application since there is unlawful occupation of Government Land (GL) and regularization would not be considered according to the prevailing land policy. The lot owner(s) should immediately cease the unlawful occupation of GL as demanded by LandsD. This office reserves the rights to take necessary land control action against the unlawful occupation of Government land without further notice.</p> <p>The lot owner(s)/applicant shall cease the unlawful occupation of Government land and, subject to the approval of the Town Planning Board to the planning application which shall have reflected the rectification as aforesaid required, apply to this office for an STW and/or STT to permit the structure(s) erected and the occupation of the Government land. The application(s) for STW and/or STT will be considered by the Government in its capacity as a landlord and there is no guarantee that they will be approved. The STW and/or STT, if approved, will be subject to such terms and</p>	<p>The fencing within the Government land has been removed. Please refer to the Plan Showing Viewpoints of Site Photographs (<b>Plan 6</b>) and the site photos (<b>Viewpoints 1-4</b>) for details.</p>

<p>conditions including the payment of waiver fee/rent and administrative fee as considered appropriate to be imposed by LandsD. In addition, LandsD reserves the right to take enforcement action against the lot owner(s)/applicant for any breach of the lease conditions, including the breach(es) already in existence or to be detected at any point of time in future and land control action for any unlawful occupation of Government land.</p> <p>Unless and until the unlawful occupation of Government land are duly rectified by the lot owner(s)/applicant, please take it as this office's objection to the application which must be brought to the attention of the Town Planning Board when they consider the application.</p>	
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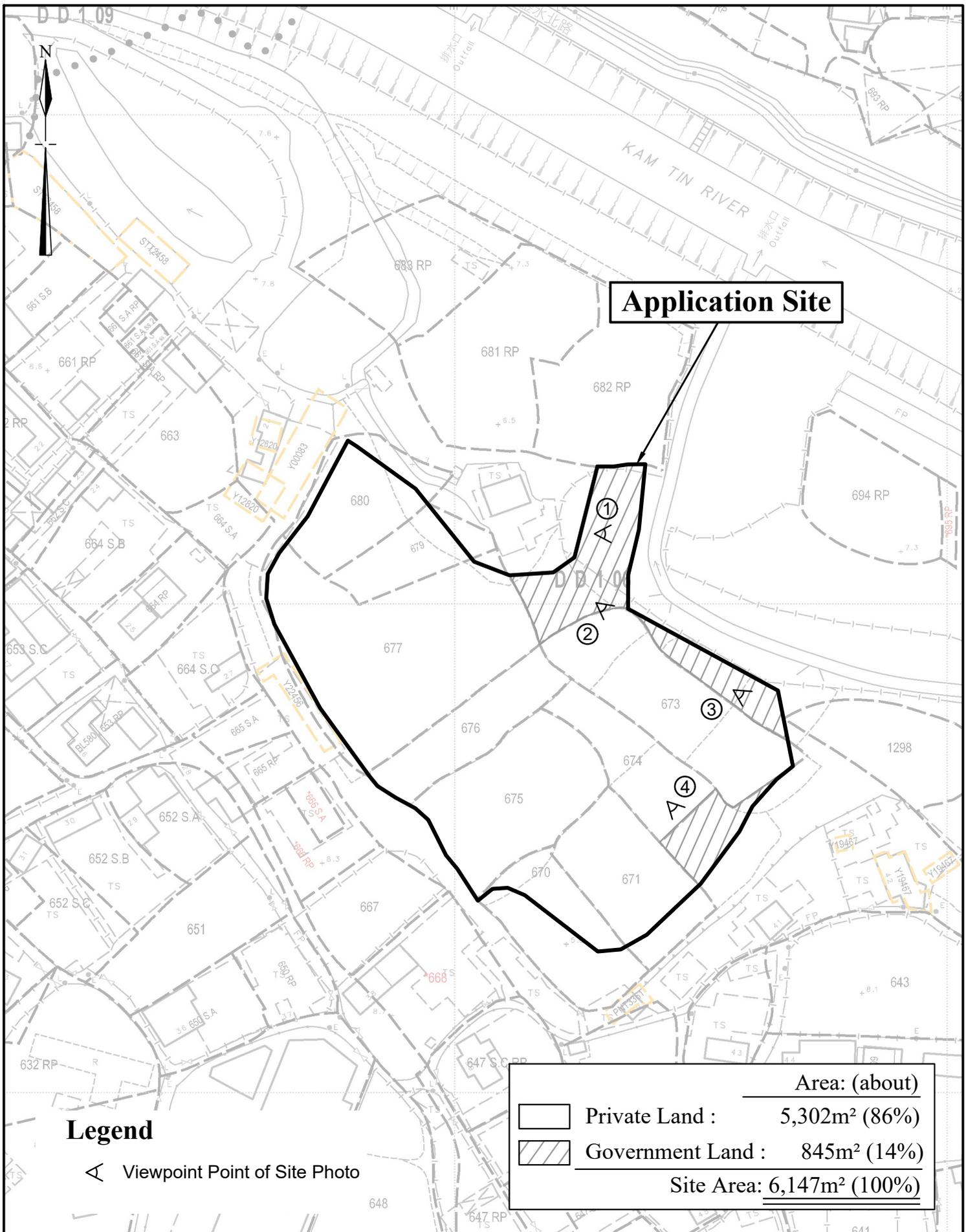
**Comments from Drainage Services Department**

Contact person: Mr. Jeff Tse (Tel.: 3965 8921)

II.	Comments	Responses
1.	The ground to the east, west and south of the application site is significantly higher. Since the overland flow from the adjacent lands shall be probably intercepted, external catchment shall be considered in the calculation. Please make reference to the latest Technical Note No. 1 issued by DSD for more details in preparing the drainage proposal. Please upgrade all proposed and existing drainage facilities size accordingly.	The catchment area is reviewed. Please refer to Plan 5.2a.
2.	It is noted that the proposed 400mm pipes connecting from a) CP3 to the existing public catchpit and b) CP7 to the existing public watercourse are quite steep with a gradient of 1:25 and 1:8 respectively. Please review the gradient of the proposed drainage system and check the velocity of the flow for these proposed drainage facilities for further comments. According to the connection details provided in Plan 5.1, it is noted that the invert level of the proposed 400mm pipe to the existing public watercourse will be +5.75mPD.	The gradient and the invert level of the drainage facilities are reviewed. Please refer to Plan 5.1a.

	In this regard, the top level of the above mentioned 400mm pipe will be higher than the existing river bank (> +6.1mPD), which is not desirable from public drainage point of view. Please review.	
3.	Please advise if any site formation/levelling works to be carried out under this application. Cross sections showing the existing and proposed ground levels of the captioned site with respect to the adjacent areas should be given.	No site formation/levelling works to be carried out under this application. Thus, the existing ground levels is equal to the proposed ground levels.
4.	The details of the opening (100mm opening) for the proposed hoarding should be indicated on the drainage plan (Plan 5.1) for clarity.	Noted. Please refer to Plan 5.1a.
5.	Catchpit should be provided at the turning point of the proposed u-channel.	Noted.
6.	The development should neither obstruct overland flow and nor adversely affect existing natural streams, village drains, ditches and the adjacent areas, etc.	Noted.
7.	The applicant should resolve any conflict/disagreement with relevant lot owner(s) and seek permission from DLO/YL for laying new drains/channels and/or modifying/upgrading existing ones in other private lots or on Government Land, where required, outside the application site(s).	Noted.
8.	The applicant should submit form HBP1 to this Division for application of technical audit for any proposed connection to DSD's drainage facilities.	Noted.

- END -



**1:1000 (A4)**

**February 2026**

**Plan Showing Viewpoints of Site Photographs**

Lots 670(part), 671(part), 673(part), 674, 675, 676, 677(part), 679(part) and 680(part) in DD.106 and adjoining Government Land

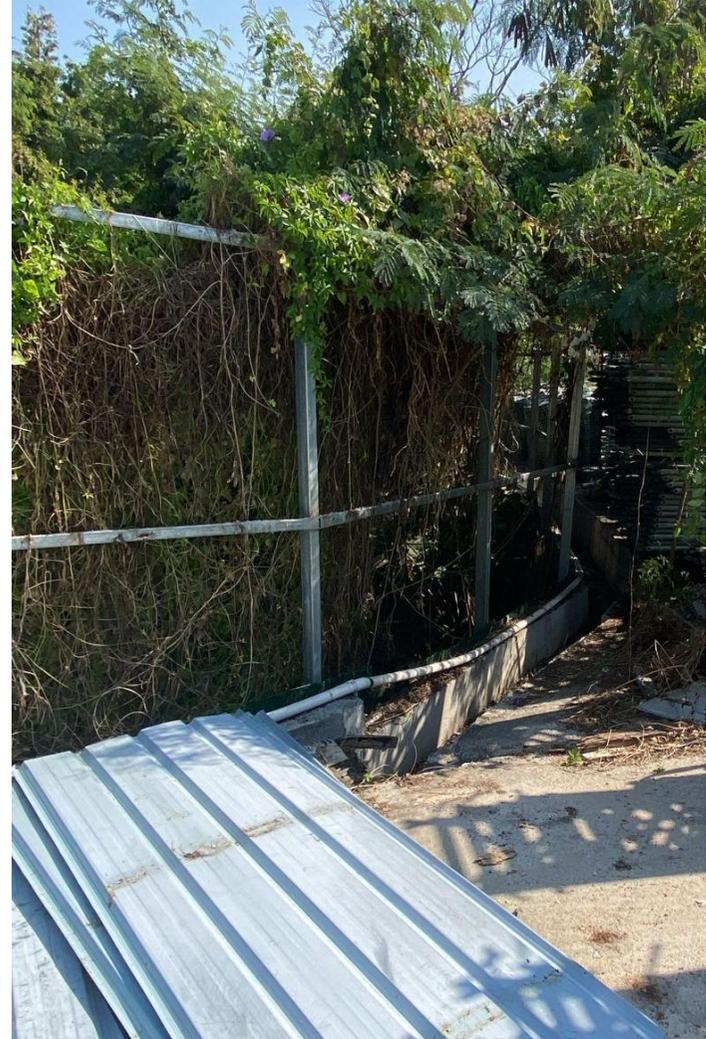
**Goldrich Planners & Surveyors Ltd.**

**Plan 6 (P 22068A)**

## Viewpoint 1



## Viewpoint 2



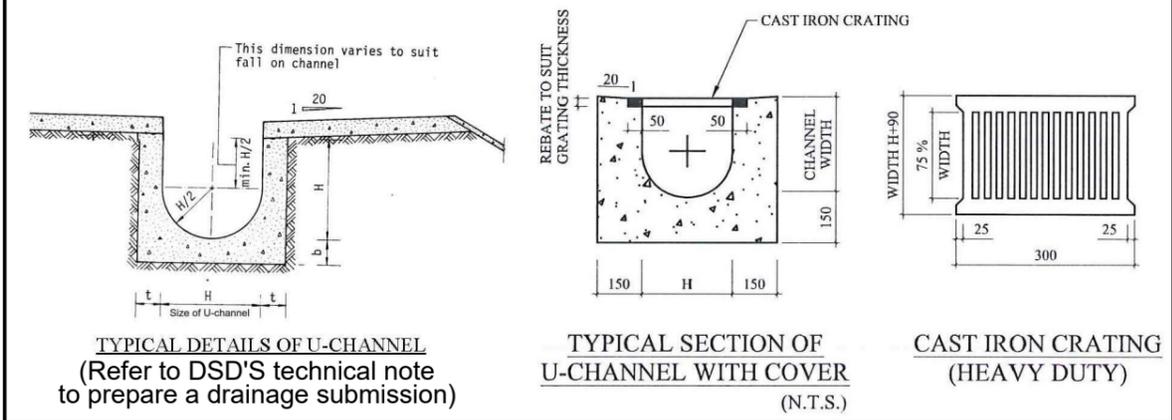
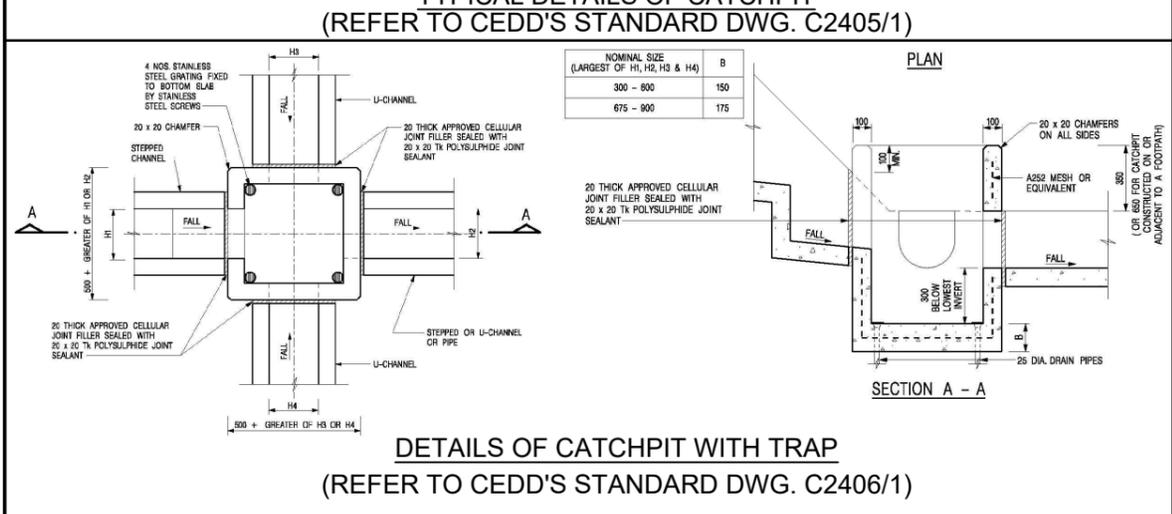
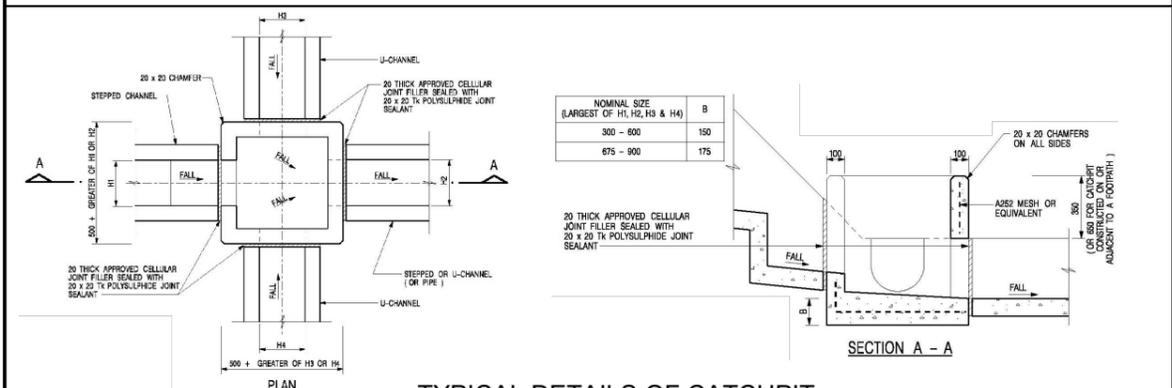
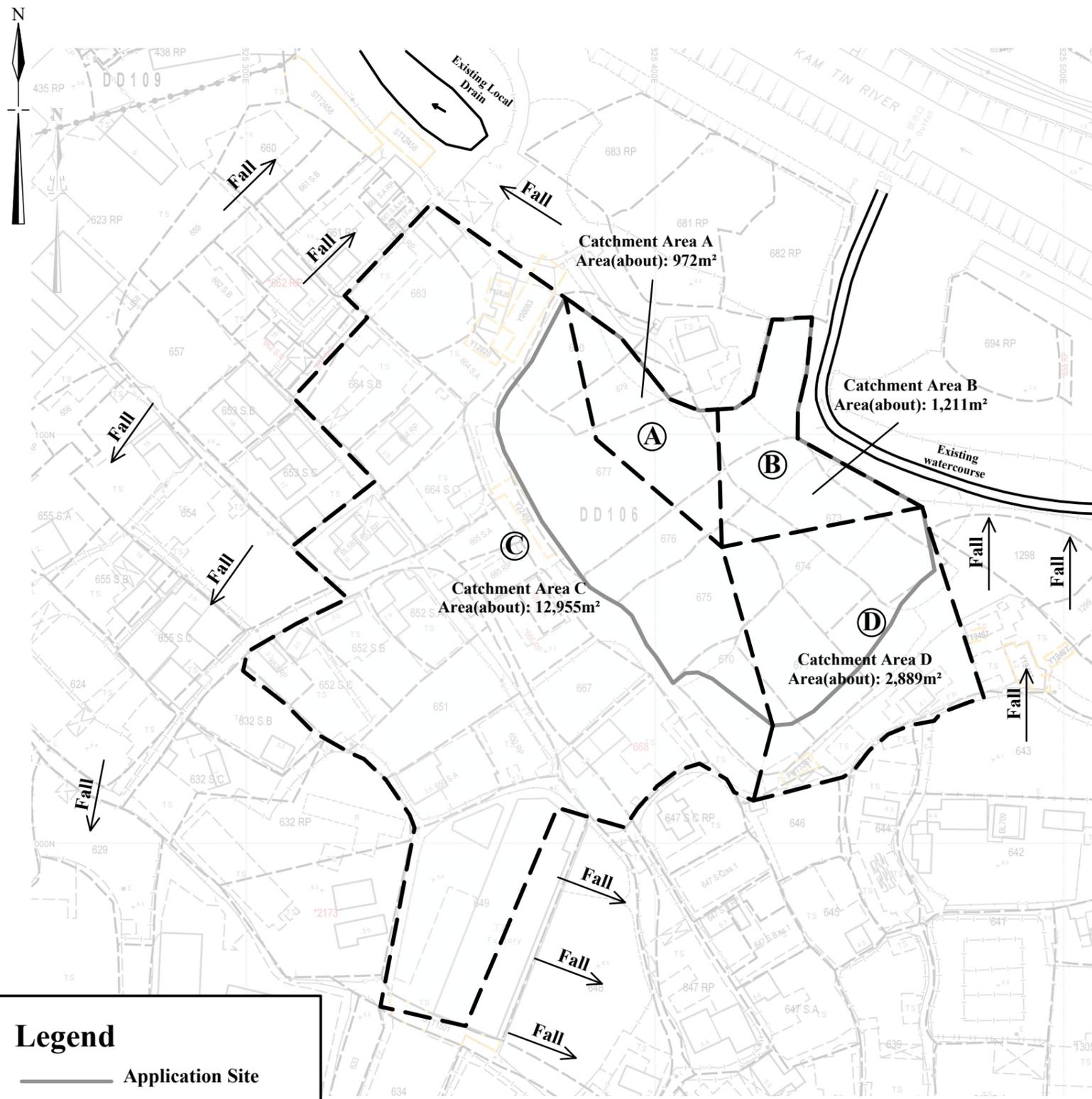
### Viewpoint 3



### Viewpoint 4







N.T.S

February 2026

# Drainage Proposal

Lots 670(part), 671(part), 673(part), 674, 675, 676, 677(part), 679(part) and 680(part) in DD.106 and adjoining Government Land

Goldrich Planners & Surveyors Ltd.

Plan 5.2a  
( P 22068A )

1 For Catchment Area A

Area, A = 972 m<sup>2</sup>  
 Average slope, H = 0.1 m per 100m  
 Distance on the line of natural flow, L = 21 m

Time of concentration,  $t_0 = 0.14465L / (H^{0.2}A^{0.1}) = 0.14465 (21) / (0.1^{0.2} \times 972^{0.1})$   
 = 2.4 min

Ref.

SDM 7.5.2 (d)

2 For Proposed UC in Catchment Area A

	From	To
Ground level (mPD)	7.60	7.60
Invert level (mPD)	6.64	6.41

Width of u-channel, w = 600 mm  
 Length of u-channel,  $L_c = 45.6$  m  
 Depth of vertical part of u-channel, d = 890 mm  
 Gradient of u-channel,  $S_f = (6.64-6.41)/45.6 = 0.005$

Cross-Section Area,  $a = 0.5 \pi r^2 + w d = 0.5 \times 3.14 \times 300^2 + 600 \times 890$   
 = 0.675 m<sup>2</sup>  
 Wetted Perimeter,  $p = \pi r + 2 d = 3.14 \times 300 + 2 \times 890$   
 = 2.722 m  
 Hydraulic radius,  $R = a / p = 0.248$  m

SDM 8.2.1

3 Use Manning Equation for estimating velocity of stormwater

Take n = 0.016 for concrete lined channels:-  
 Allowable velocity,  $v = R^{1/6} \times (RS_f)^{1/2} / n = (0.248)^{1/6} \times (0.248 \times 0.005)^{1/2} / 0.016$   
 = 1.75 m/s  
 Time of flow,  $t_f = 0.4$  min

SDM Table 13  
 SDM Table 12

4 Use "Rational Method" for calculation of design flow

Design intensity,  $i = a / (t_0 + t_f + b)^c$   
 =  $505.5 / (2.4 + 0.4 + 3.29)^{0.355}$  for return period T = 50 years  
 = 265

SDM 4.3.2  
 Corrigendum 1/2024  
 SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m <sup>2</sup> )	C x A
Flat Glassland (heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	972.0	923.4
SUM =			923.4

SDM 7.5.2 (b)

Upstream flow,  $Q_u = 0$  m<sup>3</sup>/s

Design flow,  $Q_d = 1.16 \times 0.278 i \sum C_f A_j + Q_u$  where  $A_j$  is in km<sup>2</sup>  
 =  $1.16 \times 0.278 \times 265 \times 923.4 / 1000000 + 0$   
 = 0.079 m<sup>3</sup>/s

SDM 7.5.2 (a)  
 Corrigendum 1/2022

Allowable flow,  $Q_a = a \times v = 0.675 \times 1.75 = 1.184$  m<sup>3</sup>/s

>  $Q_d$  (O.K.)

Reference was made to Stormwater Drainage Manual (SDM) by DSD

Scale: NA

**Hydraulic Calculation**

Goldrich Planners &  
 Surveyors Ltd.

March 2026

Lots 670 (Part), 671 (Part), 673 (Part), 674, 675, 676, 677 (Part), 679 (Part)  
 and 680 (Part) in D.D. 106 and Adjoining Government Land,  
 Yuen Long, New Territories

Page 1  
 (P22068A)

1 For Catchment Area B

Area, A = 1211 m<sup>2</sup>  
 Average slope, H = 0.1 m per 100m  
 Distance on the line of natural flow, L = 29 m

Time of concentration,  $t_c = 0.14465L / (H^{0.2}A^{0.1}) = 0.14465 (29) / (0.1^{0.2} \times 1211^{0.1})$   
 = 3.3 min

Ref.

SDM 7.5.2 (d)

2 For Proposed UC in Catchment Area B

	From	To
Ground level (mPD)	7.60	7.60
Invert level (mPD)	7.00	6.57

Width of u-channel, w = 600 mm  
 Length of u-channel,  $L_c = 86.3$  m  
 Depth of vertical part of u-channel, d = 730 mm  
 Gradient of u-channel,  $S_f = (7-6.57)/86.3 = 0.005$

Cross-Section Area,  $a = 0.5 \pi r^2 + w d = 0.5 \times 3.14 \times 300^2 + 600 \times 730$   
 = 0.579 m<sup>2</sup>  
 Wetted Perimeter,  $p = \pi r + 2 d = 3.14 \times 300 + 2 \times 730$   
 = 2.402 m  
 Hydraulic radius,  $R = a / p = 0.241$  m

SDM 8.2.1

3 Use Manning Equation for estimating velocity of stormwater

Take n = 0.016 for concrete lined channels:-  
 Allowable velocity,  $v = R^{1/6} \times (RS_f)^{1/2} / n = (0.241)^{1/6} \times (0.241 \times 0.005)^{1/2} / 0.016$   
 = 1.71 m/s  
 Time of flow,  $t_f = 0.8$  min

SDM Table 13  
 SDM Table 12

4 Use "Rational Method" for calculation of design flow

Design intensity,  $i = a / (t_c + t_f + b)^c$   
 =  $505.5 / (3.3 + 0.8 + 3.29)^{0.355}$  for return period T = 50 years  
 = 248

SDM 4.3.2  
 Corrigendum 1/2024  
 SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m <sup>2</sup> )	C x A
Flat Glassland (heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	1211.0	1150.5
SUM =			1150.5

SDM 7.5.2 (b)

Upstream flow,  $Q_u = 0$  m<sup>3</sup>/s

Design flow,  $Q_d = 1.16 \times 0.278i \sum C_i A_i + Q_u$  where  $A_i$  is in km<sup>2</sup>  
 =  $1.16 \times 0.278 \times 248 \times 1150.45 / 1000000 + 0$   
 = 0.092 m<sup>3</sup>/s

SDM 7.5.2 (a)  
 Corrigendum 1/2022

Allowable flow,  $Q_a = a \times v$   
 =  $0.579 \times 1.71$   
 = 0.990 m<sup>3</sup>/s

>  $Q_d$  (O.K.)

Reference was made to Stormwater Drainage Manual (SDM) by DSD

Scale: NA

**Hydraulic Calculation**

Goldrich Planners &  
 Surveyors Ltd.

March 2026

Lots 670 (Part), 671 (Part), 673 (Part), 674, 675, 676, 677 (Part), 679 (Part)  
 and 680 (Part) in D.D. 106 and Adjoining Government Land,  
 Yuen Long, New Territories

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1 For Catchment Area C

Area, A = 12955 m<sup>2</sup>  
 Average slope, H = 1 m per 100m  
 Distance on the line of natural flow, L = 103 m

Time of concentration, t<sub>c</sub> = 0.14465L / (H<sup>0.2</sup>A<sup>0.1</sup>) = 0.14465 (103) / (1<sup>0.2</sup> \* 12955<sup>0.1</sup>)  
 = 5.8 min

SDM 7.5.2 (d)

2 For Proposed UC in Catchment Area C

	From	To
Ground level (mPD)	7.60	7.60
Invert level (mPD)	7.00	6.41

Width of u-channel, w = 600 mm  
 Length of u-channel, L<sub>c</sub> = 118.2 m  
 Depth of vertical part of u-channel, d = 890 mm  
 Gradient of u-channel, S<sub>f</sub> = (7-6.41)/118.2 = 0.005

Cross-Section Area, a = 0.5 π r<sup>2</sup> + w d = 0.5 x 3.14 x 300<sup>2</sup> + 600 x 890  
 = 0.675 m<sup>2</sup>  
 Wetted Perimeter, p = π r + 2 d = 3.14 x 300 + 2 x 890  
 = 2.722 m  
 Hydraulic radius, R = a / p  
 = 0.248 m

SDM 8.2.1

3 Use Manning Equation for estimating velocity of stormwater

Take n = 0.016 for concrete lined channels:-  
 Allowable velocity, v = R<sup>1/6</sup> x (RS<sub>f</sub>)<sup>1/2</sup> / n = (0.248)<sup>1/6</sup> x (0.248 x 0.005)<sup>1/2</sup> / 0.016  
 = 1.74 m/s  
 Time of flow, t<sub>f</sub> = 1.1 min

SDM Table 13  
 SDM Table 12

4 Use "Rational Method" for calculation of design flow

Design intensity, i = a / (t<sub>c</sub> + t<sub>f</sub> + b)<sup>c</sup>  
 = 505.5 / (5.8 + 1.1 + 3.29)<sup>0.355</sup> for return period T = 50 years  
 = 222

SDM 4.3.2  
 Corrigendum 1/2024  
 SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m <sup>2</sup> )	C x A
Flat Glassland(heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	12955.0	12307.3
SUM =			12307.3

SDM 7.5.2 (b)

Upstream flow, Q<sub>u</sub> = 0 m<sup>3</sup>/s

Design flow, Q<sub>d</sub> = 1.16 x 0.278i Σ C<sub>f</sub>A<sub>f</sub> + Q<sub>u</sub> where A<sub>f</sub> is in km<sup>2</sup>  
 = 1.16 x 0.278 x 222 x 12307.25 / 1000000 + 0  
 = 0.880 m<sup>3</sup>/s

SDM 7.5.2 (a)  
 Corrigendum 1/2022

Allowable flow, Q<sub>a</sub> = a x v  
 = 0.675 x 1.74  
 = 1.177 m<sup>3</sup>/s

> Q<sub>d</sub> (O.K.)

Reference was made to Stormwater Drainage Manual (SDM) by DSD

Scale: NA	<b>Hydraulic Calculation</b> Lots 670 (Part), 671 (Part), 673 (Part), 674, 675, 676, 677 (Part), 679 (Part) and 680 (Part) in D.D. 106 and Adjoining Government Land, Yuen Long, New Territories	Goldrich Planners & Surveyors Ltd.
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1 For Catchment Area D

Area, A = 2889 m<sup>2</sup>  
 Average slope, H = 0.1 m per 100m  
 Distance on the line of natural flow, L = 40 m

Time of concentration, t<sub>0</sub> = 0.14465L / (H<sup>0.2</sup>A<sup>0.1</sup>) = 0.14465 (40) / (0.1<sup>0.2</sup> × 2889<sup>0.1</sup>)  
 = 4.1 min

SDM 7.5.2 (d)

2 For Proposed UC in Catchment Area D

	From	To
Ground level (mPD)	7.60	7.60
Invert level (mPD)	6.87	6.57

Width of u-channel, w = 600 mm  
 Length of u-channel, L<sub>c</sub> = 60 m  
 Depth of vertical part of u-channel, d = 730 mm  
 Gradient of u-channel, S<sub>f</sub> = (6.87-6.57)/60 = 0.005

Cross-Section Area, a = 0.5 π r<sup>2</sup> + w d = 0.5 × 3.14 × 300<sup>2</sup> + 600 × 730  
 = 0.579 m<sup>2</sup>  
 Wetted Perimeter, p = π r + 2 d = 3.14 × 300 + 2 × 730  
 = 2.402 m  
 Hydraulic radius, R = a / p  
 = 0.241 m

SDM 8.2.1

3 Use Manning Equation for estimating velocity of stormwater

Take n = 0.016 for concrete lined channels:-  
 Allowable velocity, v = R<sup>1/6</sup> × (RS<sub>f</sub>)<sup>1/2</sup> / n = (0.241)<sup>1/6</sup> × (0.241 × 0.005)<sup>1/2</sup> / 0.016  
 = 1.71 m/s  
 Time of flow, t<sub>f</sub> = 0.6 min

SDM Table 13  
 SDM Table 12

4 Use "Rational Method" for calculation of design flow

Design intensity, i = a / (t<sub>0</sub> + t<sub>f</sub> + b)<sup>c</sup>  
 = 505.5 / (4.1 + 0.6 + 3.29)<sup>0.355</sup> for return period T = 50 years  
 = 242

SDM 4.3.2  
 Corrigendum 1/2024  
 SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m <sup>2</sup> )	C × A
Flat Glassland (heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	2889.0	2744.6
SUM =			2744.6

SDM 7.5.2 (b)

Upstream flow, Q<sub>u</sub> = 0 m<sup>3</sup>/s

Design flow, Q<sub>d</sub> = 1.16 × 0.278i Σ C<sub>f</sub>A<sub>i</sub> + Q<sub>u</sub> where A<sub>i</sub> is in km<sup>2</sup>  
 = 1.16 × 0.278 × 242 × 2744.55 / 1000000 + 0  
 = 0.214 m<sup>3</sup>/s

SDM 7.5.2 (a)  
 Corrigendum 1/2022

Allowable flow, Q<sub>a</sub> = a × v  
 = 0.579 × 1.71  
 = 0.992 m<sup>3</sup>/s

> Q<sub>d</sub> (O.K.)

Reference was made to Stormwater Drainage Manual (SDM) by DSD

Scale: NA	<b>Hydraulic Calculation</b>	Goldrich Planners & Surveyors Ltd.
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Lots 670 (Part), 671 (Part), 673 (Part), 674, 675, 676, 677 (Part), 679 (Part)  
 and 680 (Part) in D.D. 106 and Adjoining Government Land,  
 Yuen Long, New Territories

**1 For Connection between CP7 to Existing Watercourse**

Area, A = 0 m<sup>2</sup>  
 Average slope, H = 0.1 m per 100m  
 Distance on the line of natural flow, L = 0 m

Time of concentration, t<sub>c</sub> = 0.14465L / (H<sup>0.2</sup>A<sup>0.1</sup>) = 0.14465 (0) / (0.1<sup>0.2</sup> × 0<sup>0.1</sup>)  
 = 0.0 min

Ref.  
  
  
  
SDM 7.5.2 (d)

**2 For Pipe after CP7**

Size(Diameter) w = 400 mm  
 Length of Pipe = 9 m  
 Design the pipe to 9/10 full bore capacity, then  
 Area of ventilated portion = 0.1 of pipe area  
 $\frac{1}{2} r^2 \theta - \frac{1}{2} r^2 \sin(\theta) = 0.1 \pi r^2$   
 $\theta - \sin(\theta) = 0.2 \pi$   
 $\theta = 1.63 \text{ rad} = 93.4^\circ$  (By trial and error)

Area A = 0.9 π r<sup>2</sup>  
 = 0.9 × 3.14 × 400<sup>2</sup>  
 = 0.452 m<sup>2</sup>

Wetted Perimeter P = 2 π r - r θ = 1861 mm  
 Hydraulic radius R = A/P = 242.9 mm

SDM 8.2.1

**3 Use Manning Equation for estimating velocity of stormwater**

Fall S = 1: 100  
 Take n = 0.016 for concrete lined channels:-  
 Allowable velocity, v = R<sup>1/6</sup> × (RS<sub>f</sub>)<sup>1/2</sup> / n = (242.9)<sup>1/6</sup> × (242.9/100)<sup>1/2</sup> / 0.016  
 = 2.33 m/s  
 Time of flow, t<sub>f</sub> = 0.06 min

SDM Table 13  
 SDM Table 12

**4 Use "Rational Method" for calculation of design flow**

Design intensity, i = a / (t<sub>c</sub> + t<sub>f</sub> + b)<sup>c</sup>  
 = 505.5 / (0.0 + 0.06 + 3.29)<sup>0.355</sup> for return period T = 50 years  
 = 329

SDM 4.3.2  
 Corrigendum 1/2024  
 SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m <sup>2</sup> )	C x A
Flat Grassland (heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	0.0	0.0
Macadam Roadways	0.425	0.0	0.0
Wooded Areas	0.105	0.0	0.0
SUM =			0.0

SDM 7.5.2 (b)

Upstream flow, Q<sub>u</sub> = 0.306 m<sup>3</sup>/s (from catchment area B and D)

Design flow, Q<sub>d</sub> = 0.278i Σ C<sub>f</sub>A<sub>f</sub> + Q<sub>u</sub> where A<sub>f</sub> is in km<sup>2</sup>  
 = 1.16 × 0.278 × 329 × 0 / 1000000 + 0.306  
 = 0.306 m<sup>3</sup>/s

SDM 7.5.2 (a)  
 Corrigendum 1/2022

Allowable flow, Q<sub>a</sub> = a × v  
 = 0.3974 × 1.35  
 = 1.055 m<sup>3</sup>/s  
 > Q<sub>d</sub> (O.K.)

Reference was made to Stormwater Drainage Manual (SDM) by DSD

**1 For Connection between CP3 to Existing Public Catchpit**

Area, A = 0 m<sup>2</sup>  
 Average slope, H = 0.1 m per 100m  
 Distance on the line of natural flow, L = 0 m

Time of concentration, t<sub>0</sub> = 0.14465L / (H<sup>0.2</sup>A<sup>0.1</sup>) = 0.14465 (0) / (0.1<sup>0.2</sup> × 0<sup>0.1</sup>)  
 = 0.0 min

Ref.

SDM 7.5.2 (d)

**2 For Pipe after CP3**

Size(Diameter) w = 400 mm  
 Length of Pipe = 30.4 m  
 Design the pipe to 9/10 full bore capacity, then  
 Area of ventilated portion = 0.1 of pipe area  
 $\frac{1}{2} r^2 \theta - \frac{1}{2} r^2 \sin(\theta) = 0.1 \pi r^2$   
 $\theta - \sin(\theta) = 0.2 \pi$   
 $\theta = 1.63 \text{ rad} = 93.4^\circ$  (By trial and error)

Area A = 0.9 π r<sup>2</sup>  
 = 0.9 × 3.14 × 400<sup>2</sup>  
 = 0.452 m<sup>2</sup>

SDM 8.2.1

Wetted Perimeter P = 2 π r - r θ = 1861 mm  
 Hydraulic radius R = A/P = 242.9 mm

**3 Use Manning Equation for estimating velocity of stormwater**

Fall S = 1: 70  
 Take n = 0.016 for concrete lined channels:-  
 Allowable velocity, v = R<sup>1/6</sup> × (RS)<sup>1/2</sup> / n = (242.9)<sup>1/6</sup> × (242.9/70)<sup>1/2</sup> / 0.016  
 = 2.79 m/s  
 Time of flow, t<sub>f</sub> = 0.18 min

SDM Table 13  
 SDM Table 12

**4 Use "Rational Method" for calculation of design flow**

Design intensity, i = a / (t<sub>0</sub> + t<sub>f</sub> + b)<sup>c</sup>  
 = 505.5 / (0.0 + 0.18 + 3.29)<sup>0.355</sup> for return period T = 50 years  
 = 325

SDM 4.3.2  
 Corrigendum 1/2024  
 SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m <sup>2</sup> )	C x A
Flat Grassland (heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	0.0	0.0
Macadam Roadways	0.425	0.0	0.0
Wooded Areas	0.105	0.0	0.0
SUM =			0.0

SDM 7.5.2 (b)

Upstream flow, Q<sub>u</sub> = 0.959 m<sup>3</sup>/s (from catchment area A and C)

Design flow, Q<sub>d</sub> = 0.278i Σ C<sub>i</sub>A<sub>i</sub> + Q<sub>u</sub> where A<sub>i</sub> is in km<sup>2</sup>  
 = 1.16 × 0.278 × 325 × 0 / 1000000 + 0.959  
 = 0.959 m<sup>3</sup>/s

SDM 7.5.2 (a)  
 Corrigendum 1/2022

Allowable flow, Q<sub>a</sub> = a × v  
 = 0.3974 × 1.35  
 = 1.261 m<sup>3</sup>/s

> Q<sub>d</sub> (O.K.)

Reference was made to Stormwater Drainage Manual (SDM) by DSD

Scale: NA

**Hydraulic Calculation**

Goldrich Planners &  
 Surveyors Ltd.

March 2026

Lots 670 (Part), 671 (Part), 673 (Part), 674, 675, 676, 677 (Part), 679 (Part) and 680 (Part) in D.D. 106 and Adjoining Government Land, Yuen Long, New Territories

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