GoldRich PLANNERS & SURVEYORS LTD.
金 潤 規 劃 測 量 師 行 有 限 公 司
[redacted]

Your Ref.: A/YL-KTS/1084 Our Ref.: P25012/TL25453 24 December 2025

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)

Proposed Temporary Warehouse (excluding Dangerous Goods Godown) With Ancillary Office and Associated Filling of Land for a Period of 3 Years in "Agriculture" Zone, Lots 1012 S.B, 1012 S.C, 1013, 1014 RP, 1015 S.A, 1015 S.B, 1015 RP, 1016 (Part), 1018, 1034 (Part) and 1035 in D.D.113, Kam Tin, Yuen Long, New Territories
(Application No. A/YL-KTS/1084)

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.

Francis Lau

Encl.

c.c.
DPO/FS&YLE, PlanD (Attn.: Mr. Thomas LAU)

Further Information for Planning Application No. A/YL-KTS/1084

Response-to-Comments

Comments from the Drainage Services Department

Contact person: Mr. Kenneth CHAN (Tel.: 2300 1257)

I.	Comments		Responses
1.	Please review the catchment area and include the catchment area in the south-western side of the application site for the design calculation.		We have reviewed the catchment area. Please refer to Plan 6.2a and hydraulic calculations.
2.	Please provide drainage channel near the entrance to avoid surface runoff discharge outside the side boundary. The G.L. of the roundabout outside the application site is +17.4mPD. However, the G.L. of the entrance shown in Plan 6.1 is about +19.2mPD. Please check and clarify.		We have revised the G.L. of the entrance shown in Plan 6.1 and provided drainage channel near the entrance. Please refer to Plan 6.1a.
3.	Land filling works will be carried out under this application. Please ensure that the overland flow from the adjacent lands should not be affected.		Noted.
4.	Colour photos to indicate the current conditions of the existing drainage facilities (in particular the existing 600mm pipe outlet) should be included in the submission. The photos taken locations and angles should be shown on the layout plan.		Please refer to Viewpoint Photo 1.
5.	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.		Hoardings with 100mm opening will be provided to intercept the existing overland flow passing through the site.
6.	The natural stream of the proposed discharge point is not maintained by this Department, consent from the concerned departments/maintenance parties/owners should be obtained for the proposed connections to their drainage systems.		Noted.
7.	The applicant shall resolve any conflict/disagreement with relevant lot owner(s) and seek LandsD'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.

Viewpoint Photo 1

N

A

G.L. 19.4
I.L. 19.0

G.L. 19.4
I.L. 18.62

CP1
G.L. 19.4
I.L. 18.48

CP2
G.L. 19.4
I.L. 18.41

Application Site

Proposed 400UC
1:200

Proposed 400UC
1:200

CP6
G.L. 19.4
I.L. 18.84

Proposed 400UC
1:200

CP7
G.L. 19.4
I.L. 18.69

CP8
G.L. 19.4
I.L. 18.64

Proposed 400UC
1:200

Proposed 400UC
1:200

G.L. 18.7
I.L. 18.23

G.L. 18.7
I.L. 18.12

Proposed 400UC
1:200

Proposed 400UC
1:200

CP5
G.L. 19.2
I.L. 18.09

Proposed 400UC
1:200

Existing underground 600 pipe

B

+19.5

B1
Pipe outlet

CP4
G.L. 19.2
I.L. 18.02

CP3
G.L. 19.3
I.L. 18.07

Proposed 400UC
1:200

CP11
G.L. 19.2
I.L. 17.99

①

Proposed 400 underground Pipe 1:200

Proposed 400UC
1:200

Proposed 400UC
1:200

CP9
G.L. 19.3
I.L. 18.36

Proposed 400UC
1:200

CP10
G.L. 19.3
I.L. 18.25

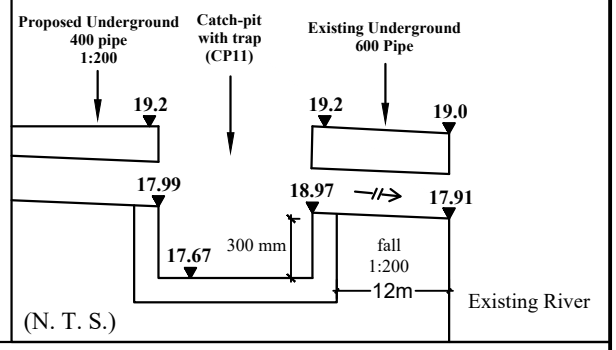
A1

Legend

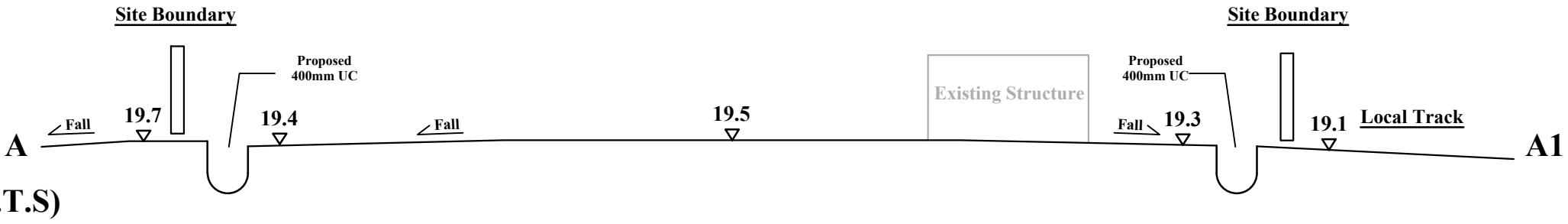
- Catch-pit
- Catch-pit with trap
- U-Channel
- U-Channel with C.I. cover
- Underground Pipe
- Vehicle Ingress / Egress
- Viewpoint of drainage Photograph

Site Area(about): 6,197m²

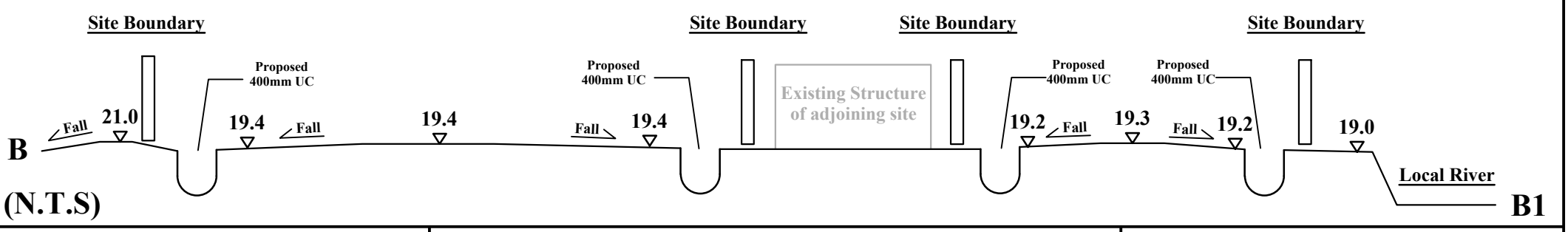
Connection details of proposed outfall between CP11 and existing river



(N. T. S.)

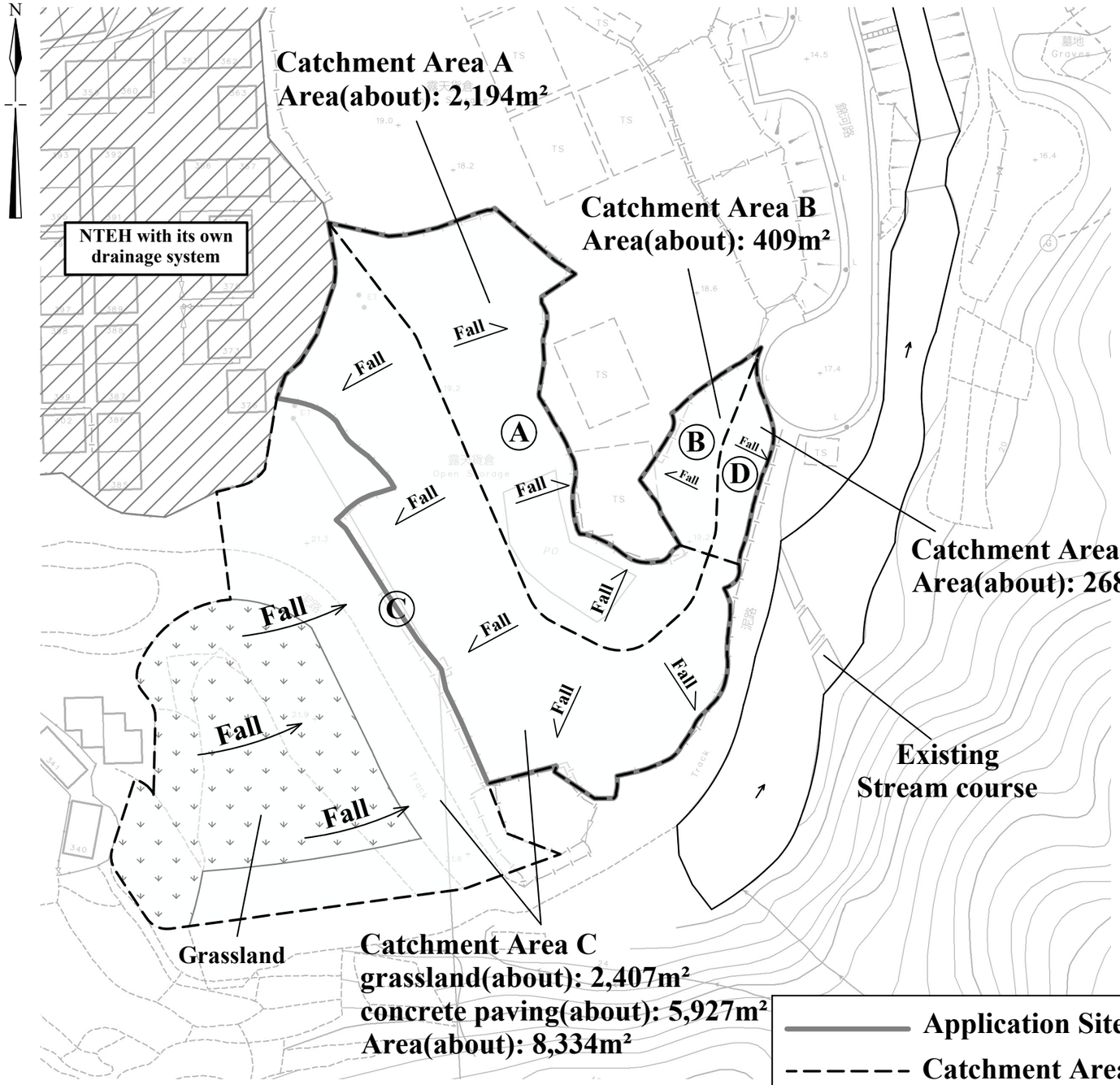


(N.T.S)

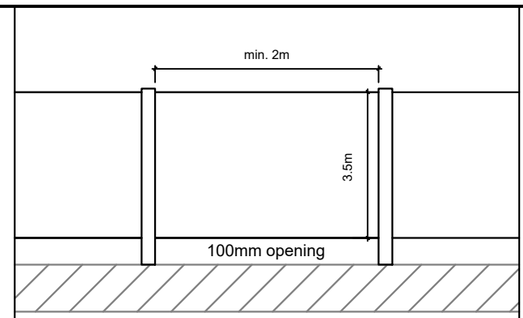


(N.T.S)

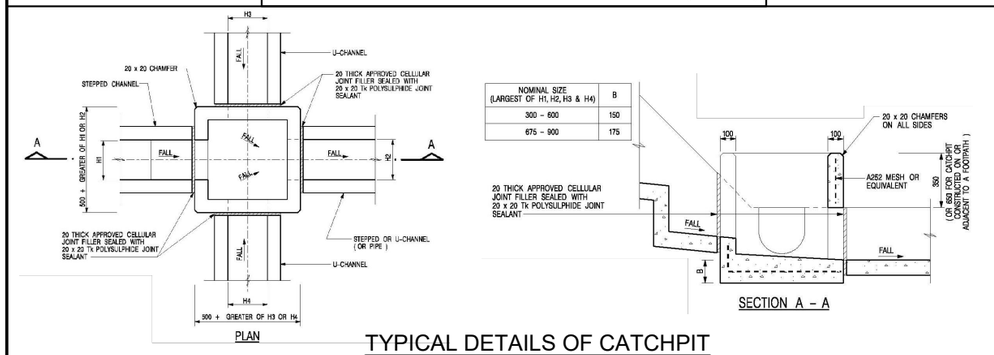
1:500 (A3)	**Drainage Proposal**	Goldrich Planners & Surveyors Ltd.
December 2025	Lots 1012 S.B, 1012 S.C, 1013, 1014RP, 1015 S.A, 1015 S.B, 1015 RP, 1016(part), 1018, 1034(part) and 1035 in D.D. 113 Yuen Long, N.T.	Plan 6.1a (P 25012)



AREA OF CATCHMENT
(N.T.S)

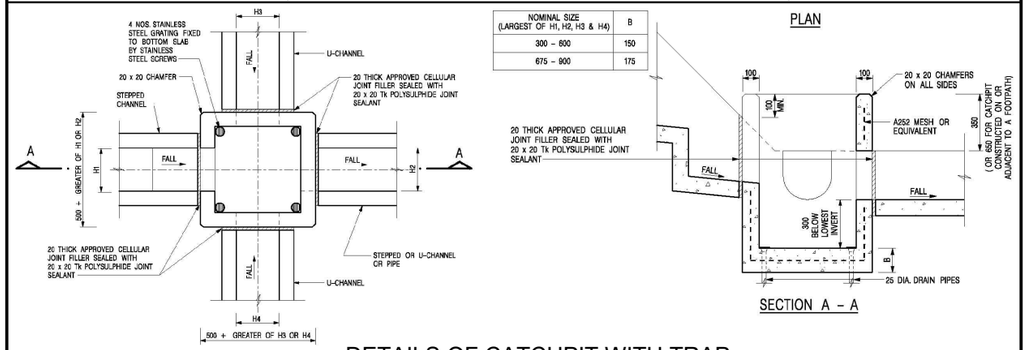


Details of hoarding with 100mm opening
(N. T. S.)



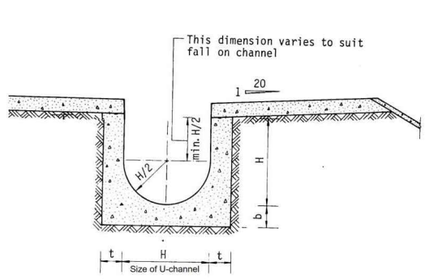
NOMINAL SIZE (LARGEST OF H1, H2, H3 & H4)	B
300 – 600	150
675 – 900	175

TYPICAL DETAILS OF CATCHPIT
(REFER TO CEDD'S STANDARD DWG. C2406/1)

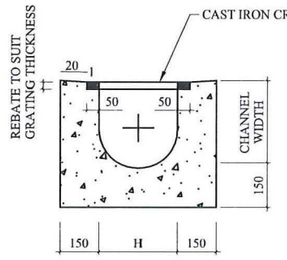


NOMINAL SIZE (LARGEST OF H1, H2, H3 & H4)	B
300 – 600	150
675 – 900	175

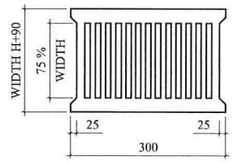
DETAILS OF CATCHPIT WITH TRAP
(REFER TO CEDD'S STANDARD DWG. C2406/1)



TYPICAL DETAILS OF U-CHANNEL
(Refer to DSD'S technical note to prepare a drainage submission)



TYPICAL SECTION OF U-CHANNEL WITH COVER
(N.T.S.)



CAST IRON CRATING
(HEAVY DUTY)

N.T.S	**Drainage Proposal** **Lots 1012 S.B, 1012 S.C, 1013, 1014RP, 1015 S.A, 1015 S.B, 1015 RP, 1016(part), 1018, 1034(part) and 1035 in D.D. 113 Yuen Long, N.T.**	**Goldrich Planners & Surveyors Ltd.**
December 2025		**Plan 6.2a (P 25012)**

1 For Catchment Area A

				Ref.
Area, A	=	2194	m^2	
Average slope, H	=	0.1	m per 100m	
Distance on the line of natural flow, L	=	22	m	
Time of concentraction, t_o	=	$0.14465L / (H^{0.2}A^{0.1})$ = 0.14465 (22) / (0.1^0.2*2194^0.1)		SDM 7.5.2 (d)
	=	2.3	min	

2 For Proposed UC in Catchment Area A

	From	To
Ground level (mPD)	19.40	19.20
Invert level (mPD)	18.62	18.02

Width of u-channel, w	=	400	mm
Length of u-channel, L_c	=	119.4	m
Depth of vertical part of u-channel, d	=	980	mm
Gradient of u-channel, S_f	=	(18.62-18.02)/119.4 = 0.005	
Cross-Section Area, a	=	$0.5\ \pi r^2 + w\ d$ = 0.5 x 3.14 x 200^2 + 400 x 980	
	=	0.455	m^2
Wetted Perimeter, p	=	π r + 2 d = 3.14 x 200 + 2 x 980	
	=	2.588	m
Hydralic radius, R	=	a / p	SDM 8.2.1
	=	0.176	m

3 Use Manning Equation for estimating velocity of stormwater

Take n	=	0.016	for concrete lined channels:-	SDM Table 13
Allowable velocity, v	=	$R^{1/6} x (RS_f)^{1/2}/n$ = (0.176)^1/6 x (0.176 x 0.005)^1/2 / 0.016		SDM Table 12
	=	1.39	m/s	
Time of flow, t_f	=	1.4	min	

4 Use "Rational Method" for calculation of design flow

Design intensity, i	=	$a / (t_o + t_f + b)^c$		SDM 4.3.2
	=	505.5 / (2.3+1.4+3.29)^0.355 for return period T = 50 years		Corrigendum 1/2024
	=	253		SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m^2)	C x A
Flat Glassland(heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	2194.0	2084.3
		SUM =	2084.3

SDM 7.5.2 (b)

Upstream flow, Q_u	=	0	m^3/s	
Design flow, Q_d	=	$1.16 \times 0.278i \Sigma C_iA_i + Q_u$ where A_i is in km^2		SDM 7.5.2 (a)
	=	1.16 x 0.278 x 253 x 2084.3 / 1000000 + 0		Corrigendum 1/2022
	=	0.170	m^3/s	
Allowable flow, Q_a	=	a x v		
	=	0.455 x 1.39		
	=	0.632	m^3/s	
	>	Q_d (O.K.)		

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

Scale: NA	**Hydraulic Calculation**	Goldrich Planners & Surveyors Ltd.
December 2025	Lots 1012 S.B, 1012 S.C, 1013, 1014 RP, 1015 S.A, 1015 S.B, 1015 RP, 1016 (Part), 1018, 1034 (Part) and 1035 in D.D.113, Kam Tin, Yuen Long, New Territories	Page 1 (P25012)

1 For Catchment Area B

Ref.

Area, A = 409 m^2
Average slope, H = 0.1 m per 100m
Distance on the line of natural flow, L = 12 m

Time of concentraction, t_o = $0.14465L / (H^{0.2}A^{0.1})$ = 0.14465 (12) / (0.1^0.2*409^0.1) — SDM 7.5.2 (d)
= 1.5 min

2 For Proposed UC in Catchment Area B

	From	To
Ground level (mPD)	18.70	19.20
Invert level (mPD)	18.23	18.02

Width of u-channel, w = 400 mm
Length of u-channel, L_c = 42.5 m
Depth of vertical part of u-channel, d = 980 mm
Gradient of u-channel, S_f = (18.23-18.02)/42.5 = 0.005

Cross-Section Area, a = $0.5 \pi r^2 + w d$ = 0.5 x 3.14 x 200^2 + 400 x 980
= 0.455 m^2
Wetted Perimeter, p = $\pi r + 2 d$ = 3.14 x 200 + 2 x 980
= 2.588 m
Hydralic radius, R = a / p — SDM 8.2.1
= 0.176 m

3 Use Manning Equation for estimating velocity of stormwater

Take n = 0.016 for concrete lined channels:- — SDM Table 13
Allowable velocity, v = $R^{1/6} x (RS_f)^{1/2}/n$ = (0.176)^1/6 x (0.176 x 0.005)^1/2 / 0.016 — SDM Table 12
= 1.38 m/s
Time of flow, t_f = 0.5 min

4 Use "Rational Method" for calculation of design flow

Design intensity, i = $a / (t_o + t_f + b)^c$ — SDM 4.3.2
= 505.5 / (1.5+0.5+3.29)^0.355 for return period T = 50 years — Corrigendum 1/2024
= 279 — SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m^2)	C x A
Flat Glassland(heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	409.0	388.6
		SUM =	388.6

SDM 7.5.2 (b)

Upstream flow, Q_u = 0 m^3/s

Design flow, Q_d = $0.278i \Sigma C_i A_i + Q_u$ where A_i is in km^2 — SDM 7.5.2 (a)
= 1.16 x 0.278 x 279 x 388.55 / 1000000 + 0 — Corrigendum 1/2022
= 0.035 m^3/s

Allowable flow, Q_a = a x v
= 0.455 x 1.38
= 0.627 m^3/s

> Q_d (O.K.)

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

1 For Connection between CP4 and CP11

Ref.

Area, A = **0** m^2
Average slope, H = **0.1** m per 100m
Distance on the line of natural flow, L = **0** m

Time of concentration, t_o = $0.14465L / (H^{0.2}A^{0.1})$ = 0.14465 (0) / (0.1^0.2*0^0.1) — SDM 7.5.2 (d)
= 0.0 min

2 For Proposed Pipe after CP4

Size(Diameter) w = **400** mm
Length of Pipe = **6** m
Design the pipe to 9/10 full bore capactity, then
Area of ventilated portion = 0.1 of pipe area
$½r^2\theta - ½r^2\sin(\theta) = 0.1\pi r^2$
$\theta - \sin(\theta) = 0.2\pi$
θ = 1.63 rad = 93.4^O (By trial and error)

Area A = $0.9\pi r^2$ — SDM 8.2.1
= 0.9 x 3.14 x 400^2
= 452160 mm^2
= 0.452 m^2

Wetted Perimeter P = $2\pi r - r\theta$ = 1861 mm
Hydralic radius R = A/P
242.9 mm

3 Use Manning Equation for estimating velocity of stormwater

Fall S = 1: **200**
Take n = 0.016 for concrete lined channels:- — SDM Table 13
Allowable velocity, v = $R^{1/6} x (RS_f)^{1/2}/n$ = (0.243)^1/6 * (0.243/200)^1/2 / 0.016 — SDM Table 12
= 1.72 m/s
Time of flow, t_f = 0.06 min

4 Use "Rational Method" for calculation of design flow

Design intensity, i = $a / (t_o + t_f + b)^c$ — SDM 4.3.2
= 505.5 / (0.0+0.06+3.29)^0.355 for return period T = 50 years — Corrigendum 1/2024
= 329 — SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m^2)	C x A
Flat Glassland(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_u = **0.205** m^3/s

Design flow, Q_d = $0.278i \Sigma C_f A_i + Q_u$ where A_i is in km^2 — SDM 7.5.2 (a)
= 1.16 x 0.278 x 329 x 0 / 1000000 + 0.205 — Corrigendum 1/2022
= 0.205 m^3/s

Allowable flow, Q_a = a x v
= 0.45 x 1.72
= 0.778 m^3/s

> Q_d (O.K.)

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

1 For Catchment Area C

				Ref.
Area, A	=	8334	m^2	
Average slope, H	=	0.1	m per 100m	
Distance on the line of natural flow, L	=	35	m	
Time of concentraction, t_o	=	0.14465L / ($H^{0.2}A^{0.1}$) = 0.14465 (35) / (0.1^0.2*8334^0.1)		SDM 7.5.2 (d)
	=	3.3	min	

2 For Proposed UC in Catchment Area C

	From	To
Ground level (mPD)	19.40	19.20
Invert level (mPD)	19.00	17.99

Width of u-channel, w	=	400	mm	
Length of u-channel, L_c	=	203	m	
Depth of vertical part of u-channel, d	=	1010	mm	
Gradient of u-channel, S_f	=	(19-17.99)/203 = 0.005		
Cross-Section Area, a	=	0.5 πr^2 + w d = 0.5 x 3.14 x 200^2 + 400 x 1010		
	=	0.467	m^2	
Wetted Perimeter, p	=	π r + 2 d = 3.14 x 200 + 2 x 1010		
	=	2.648	m	
Hydralic radius, R	=	a / p		SDM 8.2.1
	=	0.176	m	

3 Use Manning Equation for estimating velocity of stormwater

Take n	=	0.016	for concrete lined channels:-	SDM Table 13
Allowable velocity, v	=	$R^{1/6}$x $(RS_f)^{1/2}$/n = (0.176)^1/6 x (0.176 x 0.005)^1/2 / 0.016		SDM Table 12
	=	1.39	m/s	
Time of flow, t_f	=	2.4	min	

4 Use "Rational Method" for calculation of design flow

Design intensity, i	=	a / (t_o + t_f +b)^c		SDM 4.3.2
	=	505.5 / (3.3+2.4+3.29)^0.355 for return period T = 50 years		Corrigendum 1/2024
	=	232		SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m^2)	C x A	SDM 7.5.2 (b)
Flat Glassland(heavy soil)	0.25	2407.0	601.8	
Concrete Paving	0.95	5927.0	5630.7	
		SUM =	6232.4	

Upstream flow, Q_u	=	0	m^3/s	
Design flow, Q_d	=	0.278i Σ C_iA_i + Q_u where A_i is in km^2		SDM 7.5.2 (a)
	=	1.16 x 0.278 x 232 x 6232.4 / 1000000 + 0		Corrigendum 1/2022
	=	0.466	m^3/s	
Allowable flow, Q_a	=	a x v		
	=	0.467 x 1.39		
	=	0.647	m^3/s	
	>	Q_d (O.K.)		

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

	Ref.
1 For Catchment Area D	
Area, A = 268 m^2	
Average slope, H = 0.1 m per 100m	
Distance on the line of natural flow, L = 10 m	
Time of concentraction, t_o = $0.14465L / (H^{0.2}A^{0.1})$ = 0.14465 (10) / (0.1^0.2*268^0.1)	SDM 7.5.2 (d)
= 1.3 min	
2 For Proposed UC in Catchment Area D	

	From	To
Ground level (mPD)	18.70	19.20
Invert level (mPD)	18.12	17.99

Width of u-channel, w = 400 mm	
Length of u-channel, L_c = 25.2 m	
Depth of vertical part of u-channel, d = 1010 mm	
Gradient of u-channel, S_f = (18.12-17.99)/25.2 = 0.005	
Cross-Section Area, a = $0.5\ \pi r^2 + w\ d$ = 0.5 x 3.14 x 200^2 + 400 x 1010	
= 0.467 m^2	
Wetted Perimeter, p = $\pi\ r + 2\ d$ = 3.14 x 200 + 2 x 1010	
= 2.648 m	
Hydralic radius, R = a / p	SDM 8.2.1
= 0.176 m	
3 Use Manning Equation for estimating velocity of stormwater	
Take n = 0.016 for concrete lined channels:-	SDM Table 13
Allowable velocity, v = $R^{1/6} x (RS_f)^{1/2}/n$ = (0.176)^1/6 x (0.176 x 0.005)^1/2 / 0.016	SDM Table 12
= 1.41 m/s	
Time of flow, t_f = 0.3 min	
4 Use "Rational Method" for calculation of design flow	
Design intensity, i = $a / (t_o + t_f + b)^c$	SDM 4.3.2
= 505.5 / (1.3+0.3+3.29)^0.355 for return period T = 50 years	Corrigendum 1/2024
= 288	SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m^2)	C x A
Flat Glassland(heavy soil)	0.25	0.0	0.0
Concrete Paving	0.95	268.0	254.6
		SUM =	254.6

SDM 7.5.2 (b)

Upstream flow, Q_u = 0 m^3/s	
Design flow, Q_d = $0.278i\ \Sigma\ C_iA_i + Q_u$ where A_i is in km^2	SDM 7.5.2 (a)
= 1.16 x 0.278 x 288 x 254.6 / 1000000 + 0	Corrigendum 1/2022
= 0.024 m^3/s	
Allowable flow, Q_a = a x v	
= 0.467 x 1.41	
= 0.659 m^3/s	
> Q_d (O.K.)	

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

1 For Connection between CP11 to existing river

Ref.

Area, A = **0** m^2
Average slope, H = **0.1** m per 100m
Distance on the line of natural flow, L = **0** m

Time of concentration, t_o = 0.14465L / ($H^{0.2}A^{0.1}$) = 0.14465 (0) / (0.1^0.2*0^0.1) — SDM 7.5.2 (d)
= 0.0 min

2 For Pipe after Cp11

Size(Diameter) w = **600** mm
Length of Pipe = **12** m
Design the pipe to 9/10 full bore capactity, then
Area of ventilated portion = 0.1 of pipe area
$\frac{1}{2} r^2 \theta - \frac{1}{2} r^2 \sin(\theta) = 0.1 \pi r^2$
$\theta - \sin(\theta) = 0.2 \pi$
θ = 1.63 rad = 93.4° (By trial and error)

Area A = $0.9 \pi r^2$
= 0.9 x 3.14 x 600^2 — SDM 8.2.1
= 1017360 mm^2
= 1.017 m^2

Wetted Perimeter P = $2 \pi r - r \theta$ = 2792 mm
Hydralic radius R = A/P
364.4 mm

3 Use Manning Equation for estimating velocity of stormwater

Fall S = 1: **200**
Take n = 0.016 for concrete lined channels:- — SDM Table 13
Allowable velocity, v = $R^{1/6} x (RS_f)^{1/2}/n$ = (0.364)^1/6 * (0.364/200)^1/2 / 0.016 — SDM Table 12
= 2.25 m/s
Time of flow, t_f = 0.089 min

4 Use "Rational Method" for calculation of design flow

Design intensity, i = $a / (t_o + t_f + b)^c$ — SDM 4.3.2
= 505.5 / (0.0+0.09+3.29)^0.355 for return period T = 50 years — Corrigendum 1/2024
= 328 — SDM Table 3a

Type of surface	Runoff Coefficient C	Catchment Area A (m^2)	C x A
Flat Glassland(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_u = **0.695** m^3/s

Design flow, Q_d = $0.278i \Sigma C_f A_i + Q_u$ where A_i is in km^2 — SDM 7.5.2 (a)
= 1.16 x 0.278 x 328 x 0 / 1000000 + 0.695 — Corrigendum 1/2022
= 0.695 m^3/s

Allowable flow, Q_a = a x v
= 1.02 x 2.25
= 2.294 m^3/s

> Q_d (O.K.)

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