寄件者: Louis Tse

寄件日期: 2025年01月03日星期五 11:07

收件者: tpbpd/PLAND

副本: Andrea Wing Yin YAN/PLAND; Jet Sze Jet CHEUNG/PLAND; Bon

Tang; Matthew Ng; Christian Chim; Danny Ng; Grace Wong; Kevin

Lam

主旨: [FI] S.16 Application No. A/YL-KTN/1049 - FI to address

departmental comments

附件: FI3 for A_YL-KTN_1049 (20250103).pdf

類別: Internet Email

Dear Sir,

Attached herewith the further information to address departmental comments of the subject application.

Should you require more information, please do not hesitate to contact me. Thank you for your kind attention.

Kind Regards,

Louis TSE | Town Planner R-riches Group (HK) Limited

R-riches Property Consultants Limited | R-riches Planning Limited | R-riches Construction Limited



Our Ref. : DD107 Lot 1750A4 RP & VL Your Ref. : TPB/A/YL-KTN/1049 顧問有限公司 **盈卓物業**

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

By Email

3 January 2025

Dear Sir,

3rd Further Information

Temporary Place of Recreation, Sports or Culture (Hobby Farm, Fishing and Prawning Ground and Barbecue Site), Shop and Services and Holiday Camp with Ancillary Facilities for a Period of 3 Years and Associated Filling of Land in "Agriculture" Zone,

Various Lots in D.D. 107, Kam Tin, Yuen Long, New Territories

(S.16 Planning Application No. A/YL-KTN/1049)

We are writing to submit further information to address departmental comments on the subject application (**Appendix I**).

Should you require more information regarding the application, please contact our Mr. Danny NG at or the undersigned at your convenience. Thank you for your kind attention.

Yours faithfully,

For and on behalf of

R-riches Property Consultants Limited

Louis TSE

Town Planner

cc DPO/FSYLE, PlanD

(Attn.: Ms. Andrea YAN

email: awyyan@pland.gov.hk

(Attn.: Mr. Jet CHEUNG

email: jsjcheung@pland.gov.hk)

Responses-to-Comments

Temporary Place of Recreation, Sports or Culture (Hobby Farm, Fishing and Prawning Ground and Barbecue Site), Shop and Services and Holiday Camp with Ancillary Facilities for a Period of 3 Years and Associated Filling of Land in "Agriculture" Zone,

<u>Various Lots in D.D. 107, Kam Tin, Yuen Long, New Territories</u>

(Application No. A/YL-KTN/1049)

(i) A RtoC Table:

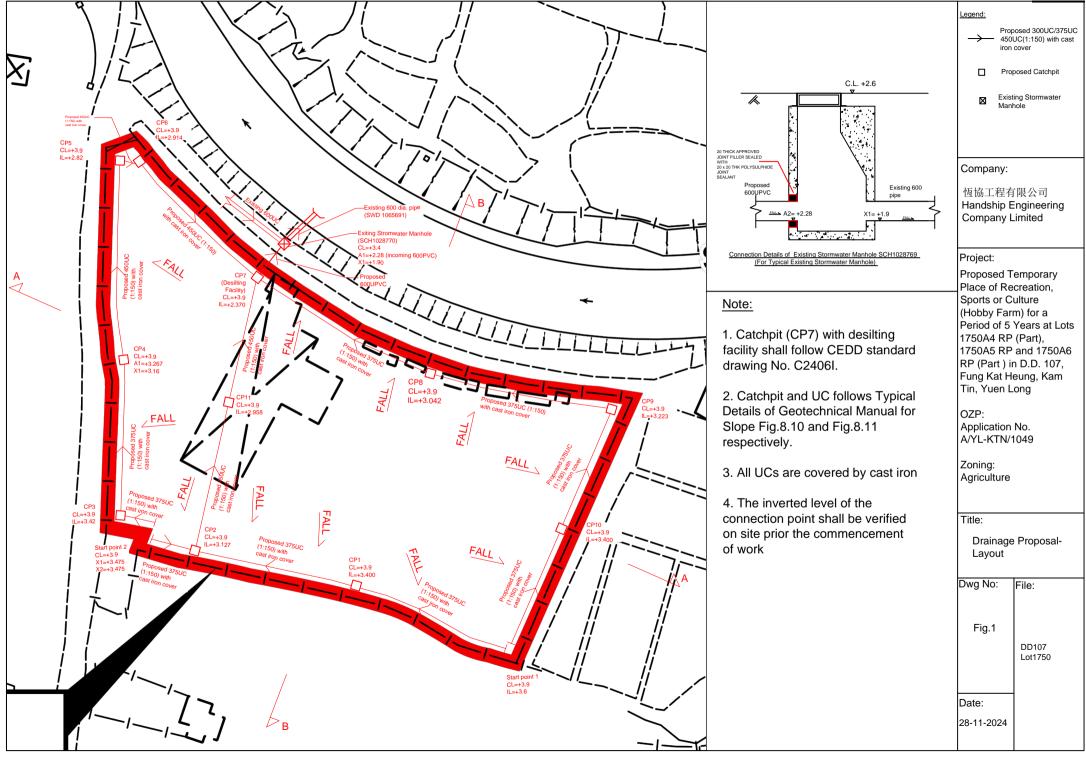
	Departmental Comments	Applicant's Responses				
1. C	omments of the Chief Engineer/Mainland North	n, Drainage Services Department (CE/MN,				
D	OSD)					
(6	Contact Person: Mr. Terence TANG; Tel.: 2300 12	57)				
(a)	According to SDM, return period for 10 years is	50 years return period is adopted. Please				
	not correct. Please revise whole calculations.	refer to the revised drainage proposal for				
		details (Annex I).				
(b)	Sedimentation reduction should be	0.8 factor is applied for sedimentation.				
	considered.					
(0)	Please clearly state where the SDM	They are adopted in the calculation of i				
(c)	Please clearly state where the SDM Corrigendum No. 1/2022 was applied in the	They are adopted in the calculation of i value.				
	calculations.	value.				
	Carculations.					
(d)	The ground levels do not tally with available	Level justification is presented in the				
	record. Please justify all ground levels	proposal.				
	indicated in cross sections.					
(e)	Please justify the proportion of hard paved and	The proportion of hard-paved and soil-				
	soil paved areas in the calculations, and clearly	paved are revised and presented in the				
	show the proportion in catchment area	proposal.				
	drawing.					
(f)	The opening for fence wall should be along the	Poviced accordingly				
(1)	fence wall bottom without horizontal	Revised accordingly.				
	separation.					
	Separation.					
(g)	Check existing 600mm dia. Pipe: SDM	SDM Corrigendum No. 1/2022 and 1/2024				
	Corrigendum No. 1/2022 and 1/2024 should be	have been considered.				
	considered in the proposed 600mm dia. Pipe					
	checking.					

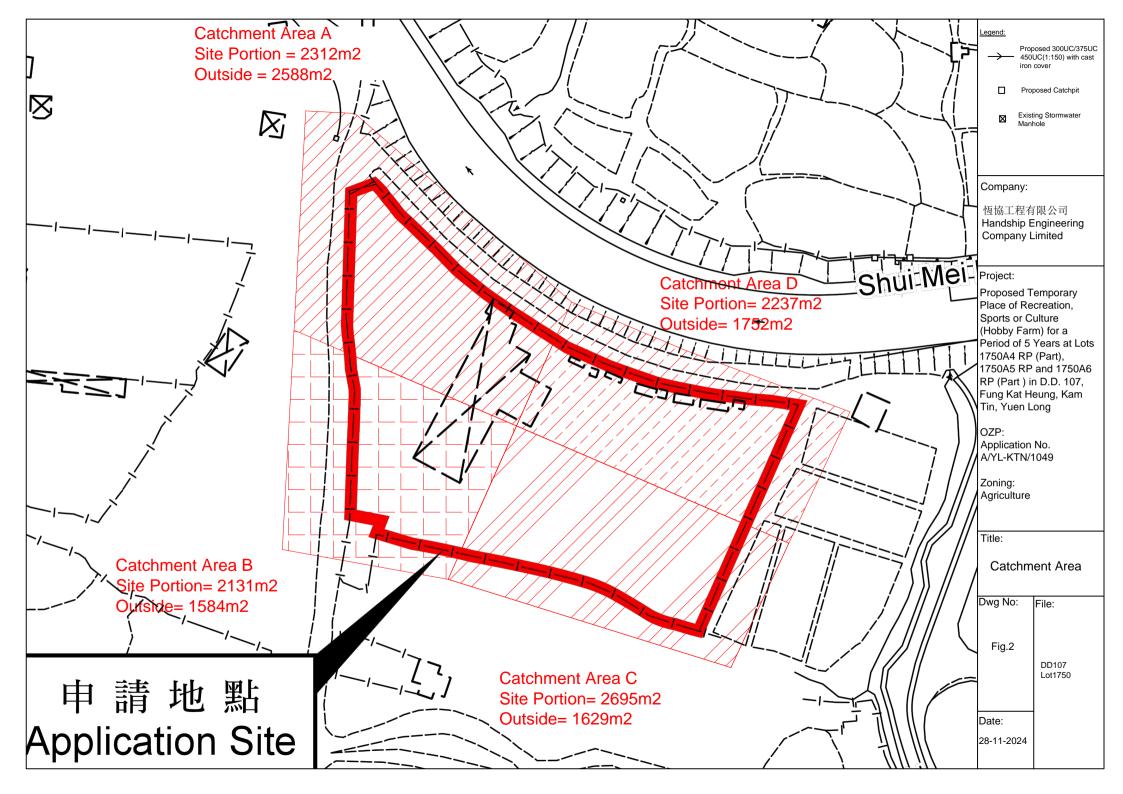


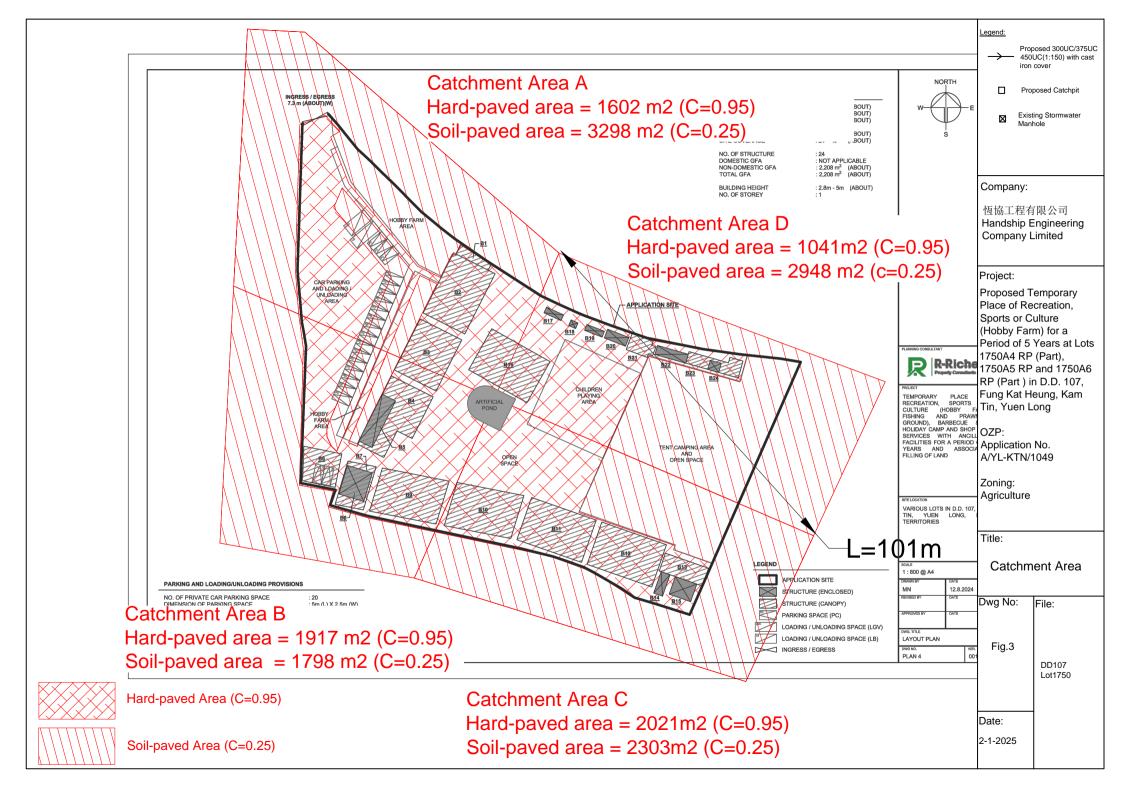
S.16 Planning Application No. A/YL-KTN/1049

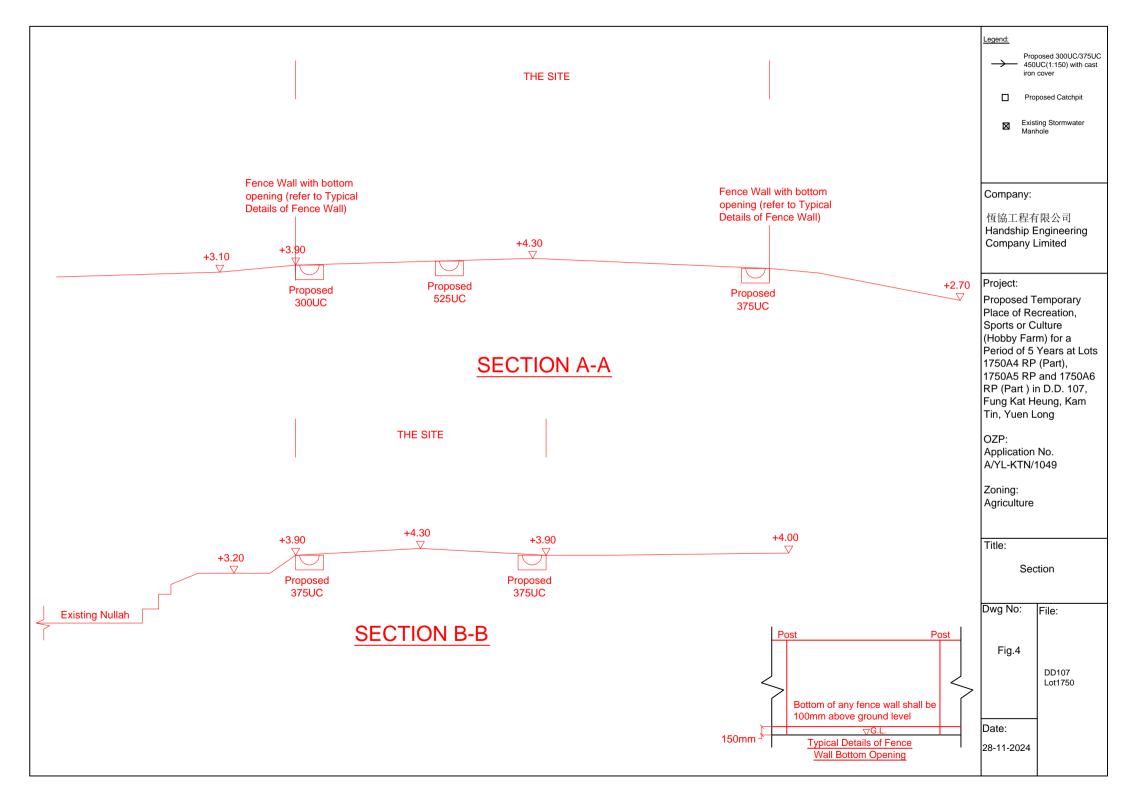
(h)	Check existing 600mm dia. Pipe: Runoff coefficient for hard paved area should not be 0.25 which is underestimated.	Revised accordingly.					
(i)	Check existing 600mm dia. Pipe: Please show details steps for total peak runoff conversion (i.e. from m³/s to liter/min) for reference.	, ,					
(j)	Check existing 600mm dia. Pipe: Please advise why total peak runoff to SWD1065691 is 0.6m ³ /s. All detailed steps and assumptions are required to be provided.	Q=0.8VA, it is presented in the calculation.					
(k)	Please provide velocity checking for the proposed 600mm dia. UPVC pipe. The velocity should be within 0.7m/s to 3m/s.	Velocity checking is presented in the calculation.					

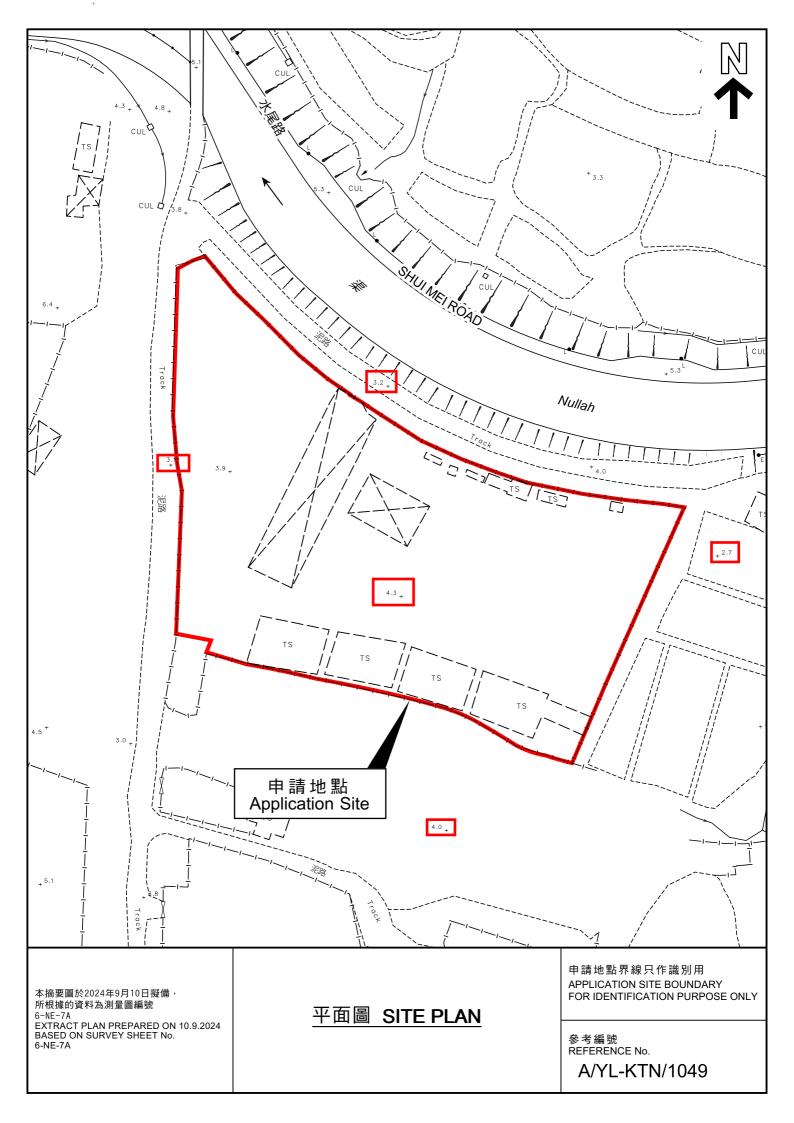
Annex I

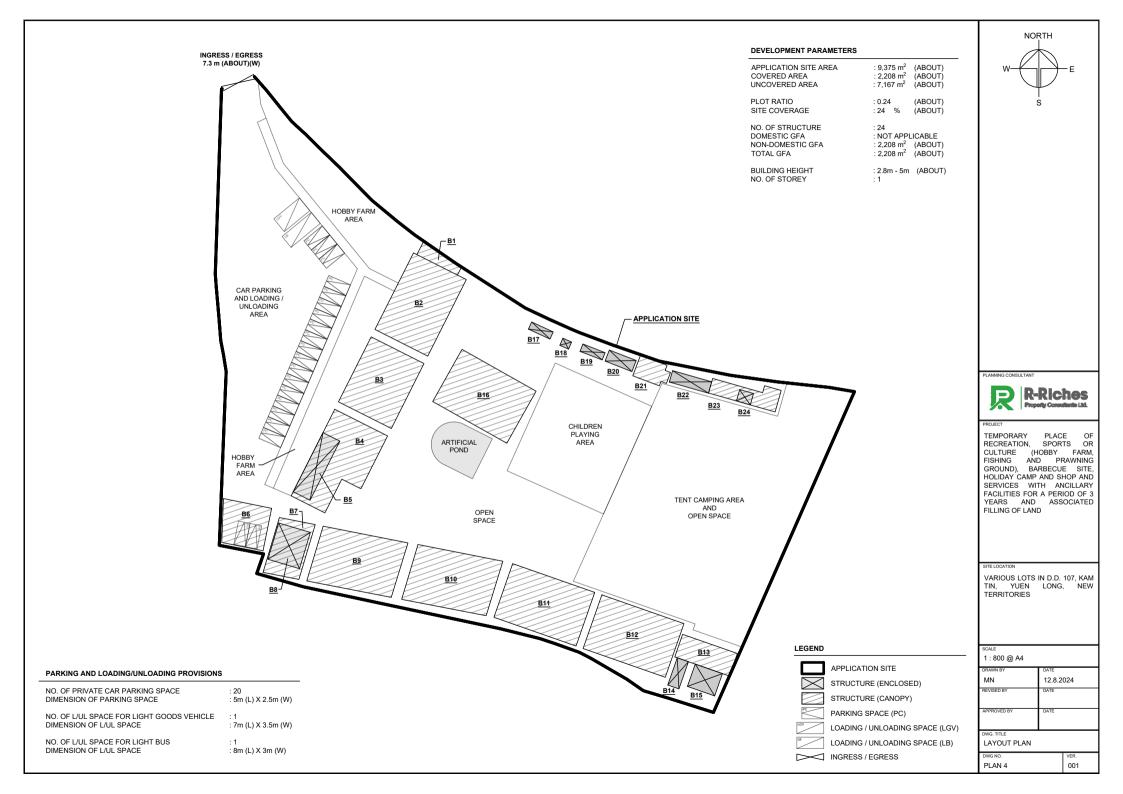












Handship Engineering Company Limited Proposed drainage at Lots 1750A4 RP (Part), 1750A5 RP and 1750A6 RP (Part) in D.D. 107, Fung Kat Heung, Kam Tin, Yuen Long 29/11/2024 Company: Project: Date:

16845 lit/min

Calculation for Design of Channels:

Catchment Area:						С		i		Peak runoff			
	m^2	km^2								liter/min	liter/min	m^3/s	
A(Hard-paved)	1602	0.001602				0.95		239.2		6073	9362	0.1012	
A(Soil-paved)	3298	0.003298	Х	0.278		0.25		239.2		3290	9302	0.0548	
B(Hard-paved)	1917	0.001917				0.95	v	239.2		7267	9060	0.1211	
B(Soil-paved)	1798	0.001798			v	0.25		239.2		1794		0.0299	
C(Hard-paved)	2021	0.002021			0.9	0.95	A	239.2	=	7661	9958	0.1277	
C(Soil-paved)	2303	0.002303				0.25		239.2	1	2297		0.0383	
D(Hard-paved)	1041	0.001041					0.95		239.2	i	3946	6887	0.0658
D(Soil-paved)	2948	0.002948				0.25		239.2		2941	0887	0.0490	
	Total= 16029								Total -	25267		U 2020	

Total= 16928

Peripheral Channel in Area A, Catchment Area A + B

18423 lit/min Provide 450UC (1:150)

Peripheral Channel in Area B, Catchment Area B
Total Peak runoff 9060 lit/min

Provide 375UC (1:150)

Peripheral Channel in Area C, Catchment Area C **9958**__lit/min

Total Peak runoff
Provide 375UC (1:150)

Peripheral Channel in Area D, Catchment Area C + D Total Peak runoff Provide 450UC (1:150)

U-Channel From CP2 to CP7, Catchment Area B + C 19018 lit/min Total Peak runoff
Provide 450UC (1:150)

Pipe From CP7 to SCH1028770, Catchment Area A+ B + C + D
Total Peak runoff

35267 lit/min

Colebrook-White Equation

$$V = -\sqrt{(8gDs)} \log(\frac{ks}{3.7D} + \frac{2.51v}{D\sqrt{(2gDs)}})$$

where : mean velocity (m/s) gravitational acceleration (m/s2) internal pipe diameter (m) hydraulic pipeline roughness (m) kinematic viscosity of fluid (m2/s) hydraulic gradient 9.81 m/s2 0.6 m 0.00015 m 1.14E-06 m2/s 0.01 0.283 m2 0.254 m2 2.806 m/s g D ks

Pipe area 10% reduction of flow area Therefore, design V of pipe capacity

(Between 0.7 m/s and 3 m/s, OK) 0.8*V*A 0.635 m3/s 38080.94 lit/min 35267 lit/min Capacity of Proposed 600 mm dia pipe (0.8 factor is adopted for sedimentation)

(1 m3 = 1000 lit and 1 min = 60s) OK

0.14465 L/ H^{0.2}A^{0.1} 0.14465*101/1^{0.2}*16928^{0.1} 5.518 min

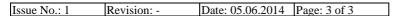
(50 yrs return period, Table 3d, Corrigendum = 1.111*a/(t+b)^c 2024, SDM) 474.6/(3.551+2.9)^{0.371}

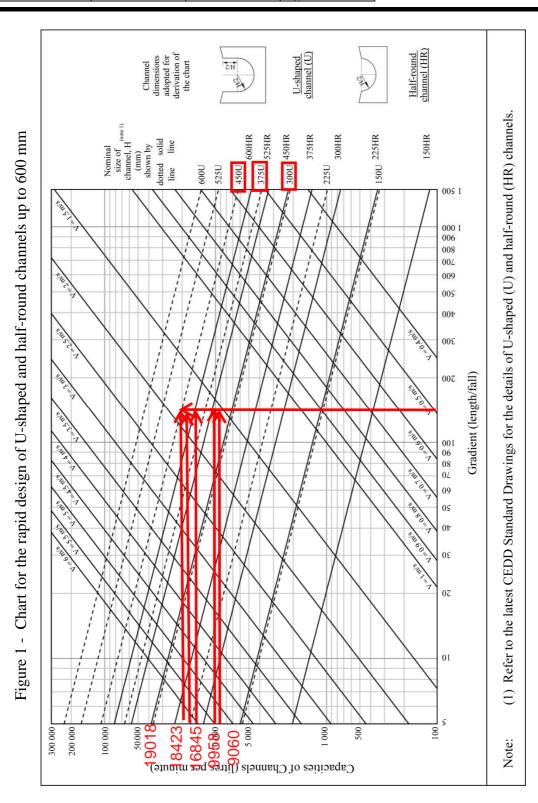
= 474.6/ = 239.2 mm/hr (11.1% increase due to climate change,
Corrigendum 2022, SDM)

(Table 5, from DSD Sewerage Manual, concrete pipe)

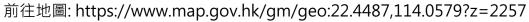
Geotechnical Engineering Office, Civil Engineering and Development Department The Government of the Hong Kong Special Administrative Region

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











Total Catchment Area for Existing 600mm dia pipe (SWD1065691)



由「地理資訊地圖」網站提供: https://www.map.gov.hk

注意: 使用此地圖受「地理資訊地圖」的使用條款及條件以及知識產權告示約束。

Company: Handship Engineering Company Limited

Project: Proposed drainage at Lots 1750A4 RP (Par t), 1750A5 RP and 1750A6 RP (Part) in D.D. 107, Fung Kat Heung, Kam Tin, Yuen Long

Date: 29/11/2024

Check Existing 600mm dia Pipe

Total Catchment Area	=	27262	m2					
Extra Catchment Area	=	27262	-	16928	=	10334	m2	
Extra Runoff	= = = =	0.278CiA 0.278 0.171808 10308.47	*	0.25	*	239.22	*	10334 /1000000
Total Q	=	10308 45575	+	35267				

For gradient 1:100, existing 375UC has adequate capacity for stormwater collection system

Total Peak runoff to SWD1065691 = #REF! m^3/s = #REF! liter/min

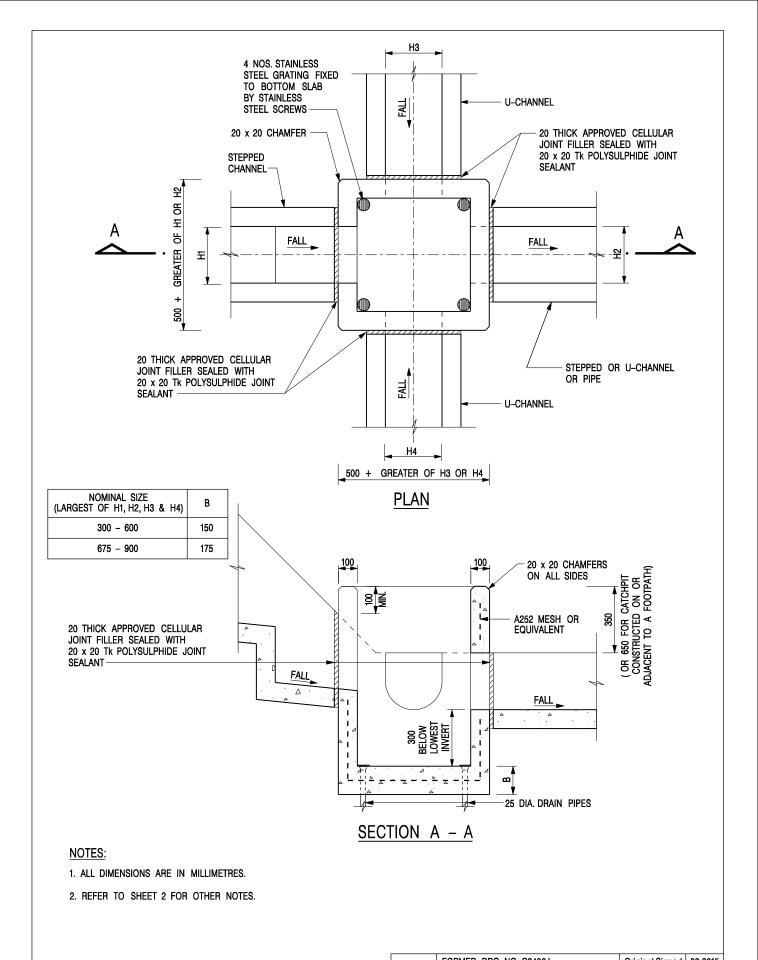
(Site catchment and upstream area)

Check existing 600mm dia. Pipes (SWD1065691) by Colebrook-White Equation

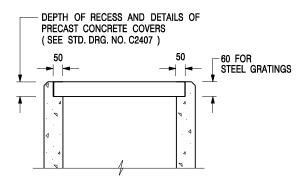
$$V = -\sqrt{(8gDs)} \log(\frac{ks}{3.7D} + \frac{2.51v}{D\sqrt{(2gDs)}})$$

where: V mean velocity (m/s) 9.81 gravitational acceleration (m/s2) m/s2 D 0.6 internal pipe diameter (m) m ks 0.00015 m hydraulic pipeline roughness (m) 1.14E-06 m2/s kinematic viscosity of fluid (m2/s) 0.08 hydraulic gradient Pipe area 0.283 m2 10% reduction of flow area 0.254 m2 Therefore, design V of pipe capacity 8.035 m/s 0.8*V*A (0.8 factor is adopted for sedimentation) Capacity of Existing 600mm dia pipe 1.82 m3/s 109046.1 lit/min (1 m3 = 1000 lit and 1 min = 60s)45575 lit/min OK

(Table 5, from DSD Sewerage Manual, concrete pipe)



	-	FORMER DRG. NO. C2406J.	Original Signed	03.2015		
	REF.	REVISION		SIGNATURE	DATE	
CATCHPIT WITH TRAP	CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT					
(CHEET 1 OF 0)	SCAL	. E 1 : 20	DRAWI			
(SHEET 1 OF 2)	DATE JAN 1991 C2406					
卓越工程 建設香港	V	Ve Engineer Hong I	Cong's De	velopment		



ALTERNATIVE TOP SECTION FOR PRECAST CONCRETE COVERS / GRATINGS

NOTES:

- 1. ALL DIMENSIONS ARE IN MILLIMETRES.
- 2. ALL CONCRETE SHALL BE GRADE 20 /20.
- 3. CONCRETE SURFACE FINISH SHALL BE CLASS U2 OR F2 AS APPROPRIATE.
- 4. FOR DETAILS OF JOINT, REFER TO STD. DRG. NO. C2413.
- 5. CONCRETE TO BE COLOURED AS SPECIFIED.
- UNLESS REQUESTED BY THE MAINTENANCE PARTY AND AS DIRECTED BY THE ENGINEER, CATCHPIT WITH TRAP IS NORMALLY NOT PREFERRED DUE TO PONDING PROBLEM.
- 7. UPON THE REQUEST FROM MAINTENANCE PARTY, DRAIN PIPES AT CATCHPIT BASE CAN BE USED BUT THIS IS FOR CATCHPITS LOCATED AT SLOPE TOE ONLY AND AS DIRECTED BY THE ENGINEER.
- FOR CATCHPITS CONSTRUCTED ON OR ADJACENT TO A FOOTPATH, STEEL GRATINGS (SEE DETAIL 'A' ON STD. DRG. NO. C2405) OR CONCRETE COVERS (SEE STD. DRG. NO. C2407) SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER.
- 9. IF INSTRUCTED BY THE ENGINEER, HANDRAILING (SEE DETAIL 'G' ON STD. DRG. NO. C2405; EXCEPT ON THE UPSLOPE SIDE) IN LIEU OF STEEL GRATINGS OR CONCRETE COVERS CAN BE ACCEPTED AS AN ALTERNATIVE SAFETY MEASURE FOR CATCHPITS NOT ON A FOOTPATH NOR ADJACENT TO IT. TOP OF THE HANDRAILING SHALL BE 1 000 mm MIN. MEASURED FROM THE ADJACENT GROUND LEVEL.
- 10. MINIMUM INTERNAL CATCHPIT WIDTH SHALL BE 1 000 mm FOR CATCHPITS WITH A HEIGHT EXCEEDING 1 000 mm MEASURED FROM THE INVERT LEVEL TO THE ADJACENT GROUND LEVEL. AND, STEP IRONS (SEE DSD STD. DRG. NO. DS1043) AT 300 ℃ STAGGERED SHALL BE PROVIDED. THICKNESS OF CATCHPIT WALL FOR INSTALLATION OF STEP IRONS SHALL BE INCREASED TO 150 mm.
- 11. FOR RETROFITTING AN EXISTING CATCHPIT WITH STEEL GRATING, SEE DETAIL 'F' ON STD. DRG. NO. C2405.
- SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

- FORMER DRG. NO. C2406J.						Original Signed 03.2				
REF.			SIGNA	TURE	DATE					
CE	DD		ENGINI Opment				ΙΤ			

CATCHPIT WITH TRAP (SHEET 2 OF 2)

 SCALE 1:20
 DRAWING NO.

 DATE JAN 1991
 C2406 /2

卓越工程 建設香港 We Engineer Hong Kong's Development

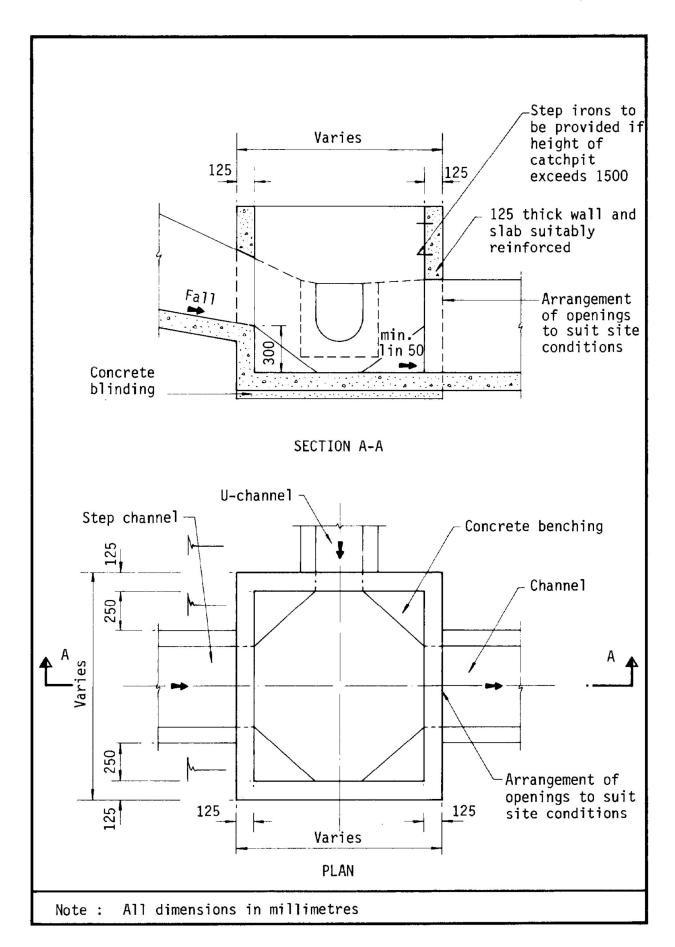


Figure 8.10 - Typical Details of Catchpits

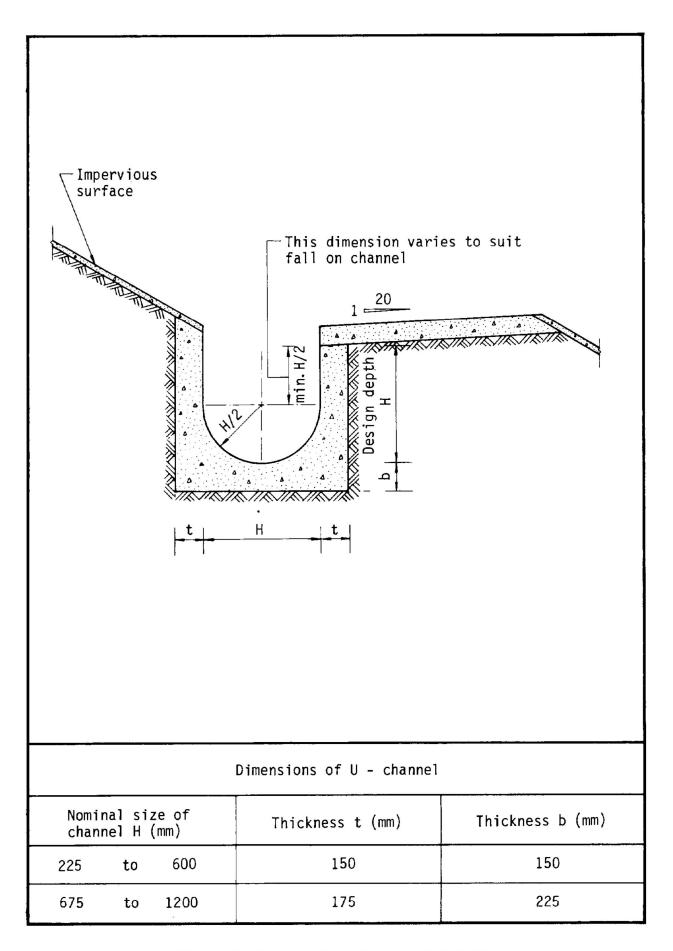


Figure 8.11 - Typical U-channel Details