



R-RICHES
PLANNING LIMITED

盈卓
規劃
有限公司

Our Ref.: DD112 Lot 297 S.A & VL
Your Ref.: A/YL-SK/475

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

By E-mail

30 September 2026

Dear Sir,

Supplementary Information

**Proposed Temporary Warehouse (excluding Dangerous Goods Godown)
with Ancillary Facilities and Associated Filling of Land for a Period of 3 Years in "Agriculture" Zone,
Various Lots in D.D. 112 and Adjoining Government Land, Shek Kong Yuen Long, New Territories**

(S.16 Planning Application No. A/YL-SK/475)

We write to submit supplementary information with a drainage proposal (***enclosed***) in support of the captioned application:

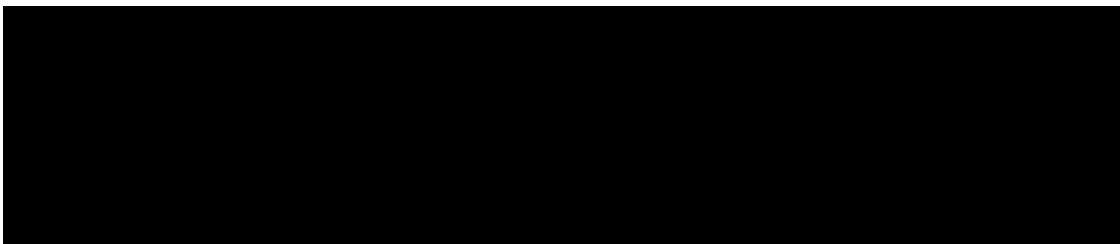
Should you require more information, please contact the undersigned at [REDACTED].
Thank you for your kind attention.

Yours faithfully,

For and on behalf of
R-riches Planning Limited

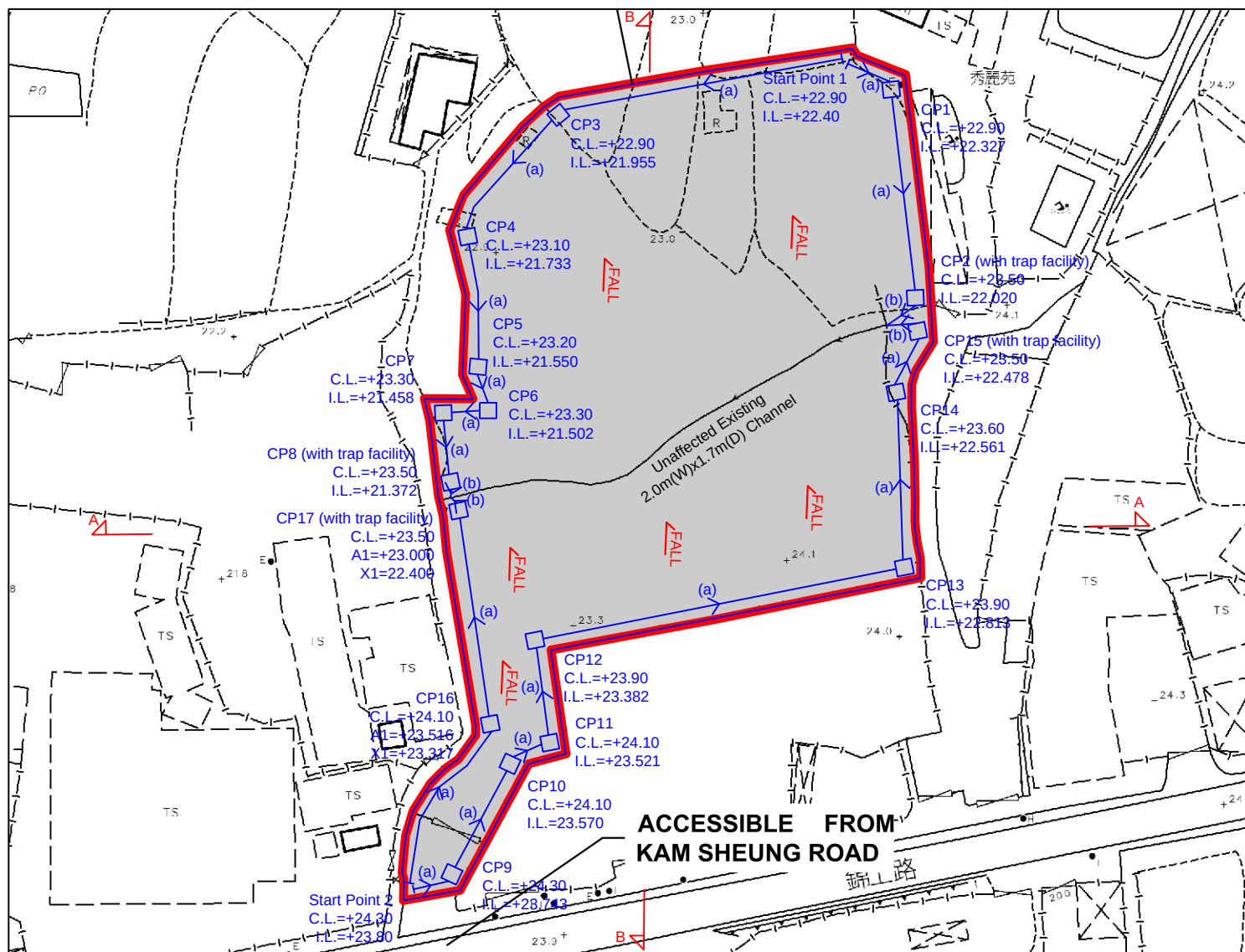


Christian CHIM
Town Planner

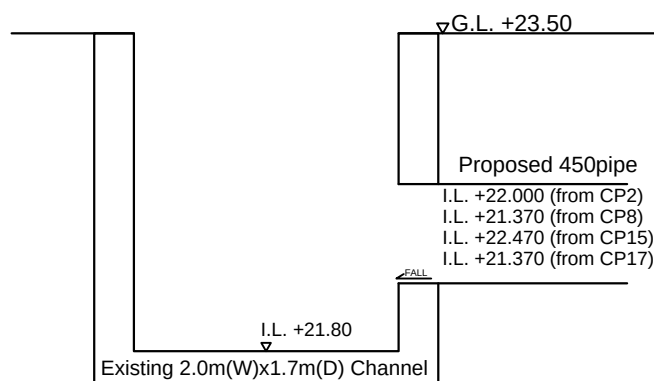


Annex 1

Drainage proposal



**ACCESSIBLE FROM
KAM SHEUNG ROAD**



正宏工程顧問公司

CHING WAN ENGINEERING CONSULTANT COMPANY

Project:
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS at VARIOUS LOTS IN D.D. 112 AND ADJOINING GOVERNMENT LAND, SHEK KONG, YUEN LONG, NEW TERRITORIES

Title:

Drainage Proposal - LAYOUT

D01

Drawn by:

DM

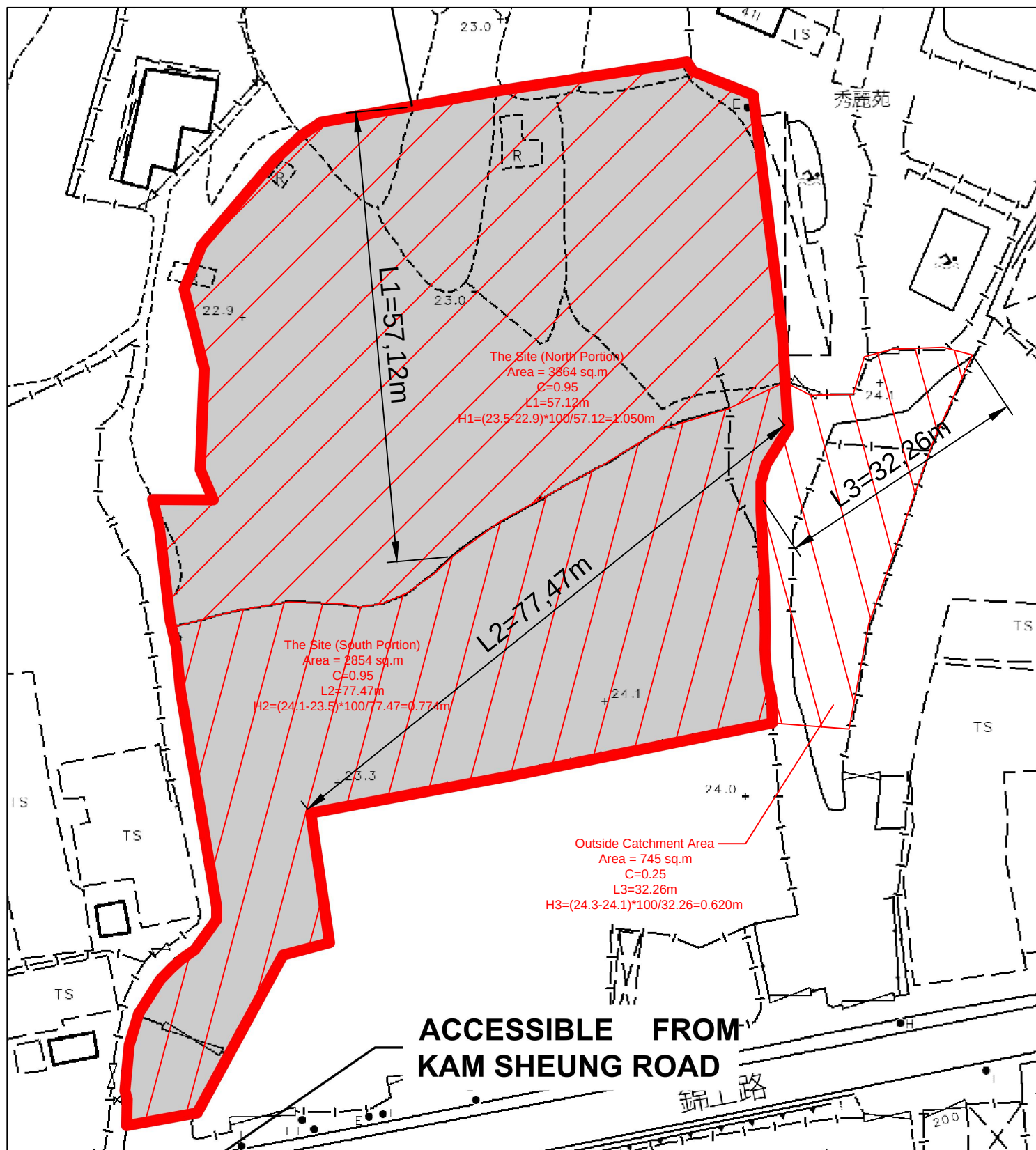
Date:

29-9-2026

Check by:

DM

Scale:



正宏工程顧問公司

CHING WAN ENGINEERING CONSULTANT COMPANY

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Title:

Drainage Proposal -
CATCHMENT AREA PLAN

D02

Drawn by:

DM

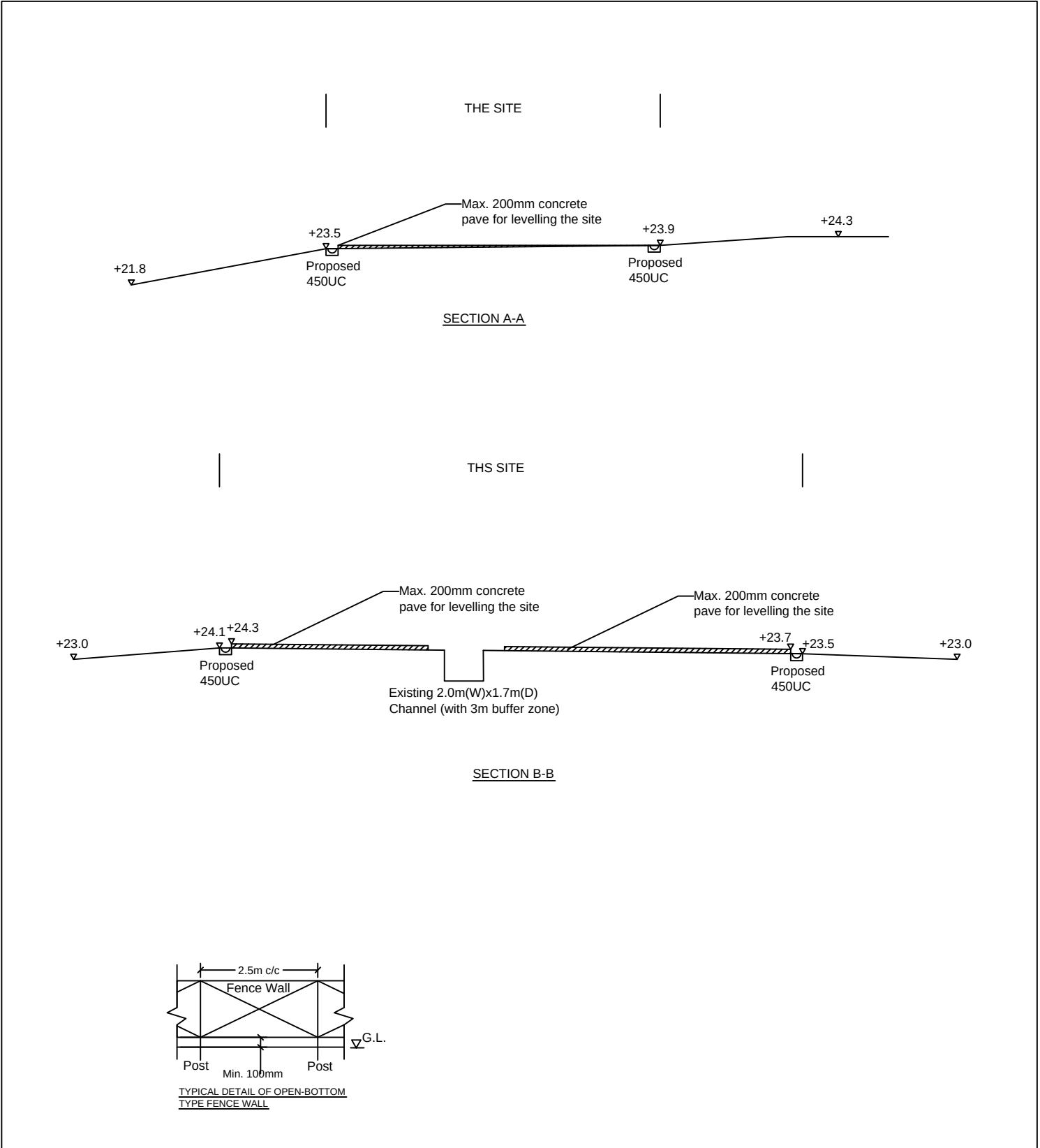
Date:

29-9-2026

Check by:

DM

Scale:



正宏工程顧問公司 CHING WAN ENGINEERING CONSULTANT COMPANY Project: PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES AND ASSOCIATED FILLING OF LAND FOR A PERIOD OF 3 YEARS at VARIOUS LOTS IN D.D. 112 AND ADJOINING GOVERNMENT LAND, SHEK KONG, YUEN LONG, NEW TERRITORIES	Title: Drainage Proposal - SECTIONS		D03
	Drawn by: DM	Date: 29-9-2026	
	Check by: DM	Scale: ----	

For the design of drains inside the site

	Catchment ID	Area (A) km2	Average Slope (H), m/100	Flow Path (L), m	Inlet time (to), min	Storm constants			Runoff intensity (i), mm/hr	Runoff Coefficient (C)	Q=1.111*0.278C _i A, (m3/s), extra 11%
						a	b	c			
Q1	The Site (North Portion)	0.003864	1.050	57.12	4.510	505.5	3.29	0.355	243.802	0.95	0.276
Q2	The Site (South Portion)	0.002854	0.774	77.47	6.700	505.5	3.29	0.355	223.290	0.95	0.187
Q3	Outside Catchment Area	0.000745	0.620	32.26	3.337	505.5	3.29	0.355	258.324	0.25	0.015

Design drain at North Portion, consider Q1

$Q = 0.276 \text{ m}^3/\text{s}$

Manning Equation

$$V = R^{2/3} S_f^{1/2} / n$$

where

$$R = \left(\frac{\pi r^2 (2 + 2r^2)}{\pi (1 + 2r)} \right)^{1/3}$$

$r = 0.225 \text{ m}$
 $A = 0.1808 \text{ m}^2$

$n = 0.016 \text{ s/m}^{1/3}$ (Talbe 13 of Stormwater Drainage Manual)

$S_f = 0.01$ (1: 100)

Therefore,

$$V = 0.1563^{2/3} * 0.01^{1/2} / 0.016 = 1.813 \text{ m/sec}$$

Maximum Capacity (Q_{max})

$$= V * A = 0.328 \text{ m}^3/\text{sec}$$

$> 0.276 \text{ m}^3/\text{sec}$

% Utilization = **84%** <90%, OK

Provide 450UC (1:100) is OK

Colebrook-White Equation

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

where :

$V = 1.813 \text{ m/s}$ mean velocity (m/s)
 $g = 9.81 \text{ m/s}^2$ gravitational acceleration (m/s²)
 $D = 0.45 \text{ m}$ internal pipe diameter (m)
 $ks = 0.00006 \text{ m}$ hydraulic pipeline roughness (m)
 $v = 1.14E-06 \text{ m}^2/\text{s}$ kinematic viscosity of fluid (m²/s)
 $s = 0.010$ hydraulic gradient (1: 100)

(Table14, from DSD SDM 2018, concrete pipe)

Therefore, design V of pipe capacity

$$= 2.520 \text{ m/s}$$

$Q = VA = 0.401 \text{ m}^3/\text{s}$ (0.8 factor for sedimentation)
 $> 0.276 \text{ m}^3/\text{s}$ Ok
% of capacity utilization = **69%** <90%, OK

Provide 450mm dia. concrete pipe (1:100) is OK

Design drain at South Portion, consider Q2+Q3

$Q = 0.202 \text{ m}^3/\text{s}$

Manning Equation

$$V = R^{2/3} S_f^{1/2} / n$$

where

$$R = \left(\frac{\pi r^2 (2 + 2r^2)}{\pi (1 + 2r)} \right)^{1/3}$$

$r = 0.225 \text{ m}$
 $A = 0.1808 \text{ m}^2$

$n = 0.016 \text{ s/m}^{1/3}$ (Talbe 13 of Stormwater Drainage Manual)

$S_f = 0.01$ (1: 100)

Therefore,

$$V = 0.1563^{2/3} * 0.01^{1/2} / 0.016 = 1.813 \text{ m/sec}$$

Maximum Capacity (Q_{max})

$$= V * A = 0.328 \text{ m}^3/\text{sec}$$

$> 0.202 \text{ m}^3/\text{sec}$

% Utilization = **62%** <90%, OK

Provide 450UC (1:100) is OK

Colebrook-White Equation

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

where :

$V = 1.813 \text{ m/s}$ mean velocity (m/s)
 $g = 9.81 \text{ m/s}^2$ gravitational acceleration (m/s²)
 $D = 0.45 \text{ m}$ internal pipe diameter (m)
 $ks = 0.00006 \text{ m}$ hydraulic pipeline roughness (m)
 $v = 1.14E-06 \text{ m}^2/\text{s}$ kinematic viscosity of fluid (m²/s)
 $s = 0.010$ hydraulic gradient (1: 100)

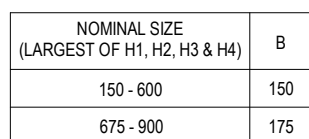
(Table14, from DSD SDM 2018, concrete pipe)

Therefore, design V of pipe capacity

$$= 2.520 \text{ m/s}$$

$Q = VA = 0.401 \text{ m}^3/\text{s}$ (0.8 factor for sedimentation)
 $> 0.202 \text{ m}^3/\text{s}$ Ok
% of capacity utilization = **50%** <90%, OK

Provide 450mm dia. concrete pipe (1:100) is OK

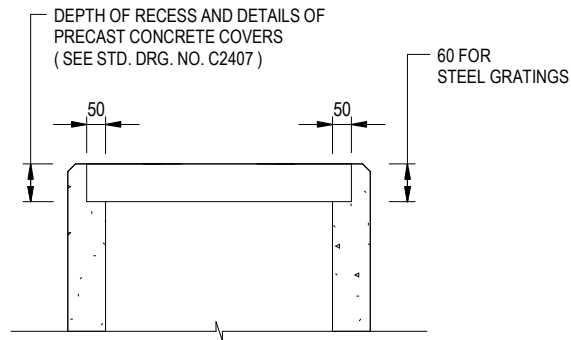


- SECTION A - A

A	BIM OBJECT REVISION.	Original Signed	12.2025
—	FORMER DRG. NO. C2406J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE

CATCHPIT WITH TRAP (SHEET 1 OF 2)

 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT	
SCALE 1 : 20	DRAWING NO. C2406 /1A
DATE JAN 1991	



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.
6. 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.
8. FOR CATCHPITS CONSTRUCTED ON OR ADJACENT TO A FOOTPATH, STEEL GRATINGS (SEE DETAIL 'A' ON STD. DRG. NO. C2405 /2) 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 'J' ON STD. DRG. NO. C2405 /5; 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 1000 mm MIN. MEASURED FROM THE ADJACENT GROUND LEVEL.
10. MINIMUM INTERNAL CATCHPIT WIDTH SHALL BE 1000 mm FOR CATCHPITS WITH A HEIGHT EXCEEDING 1000 mm MEASURED FROM THE INVERT LEVEL TO THE ADJACENT GROUND LEVEL. AND, STEP IRONS (SEE DSD STD. DRG. NO. DS1043) AT 300 c/c 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 'G' ON STD. DRG. NO. C2405 /4.
12. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

B	BIM OBJECT REVISION.	Original Signed	12.2025
A	MINOR AMENDMENT.	Original Signed	04.2016
—	FORMER DRG. NO. C2406J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE

**CATCHPIT WITH TRAP
(SHEET 2 OF 2)**



**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE 1 : 20

DATE JAN 1991

DRAWING NO.

C2406 /2B

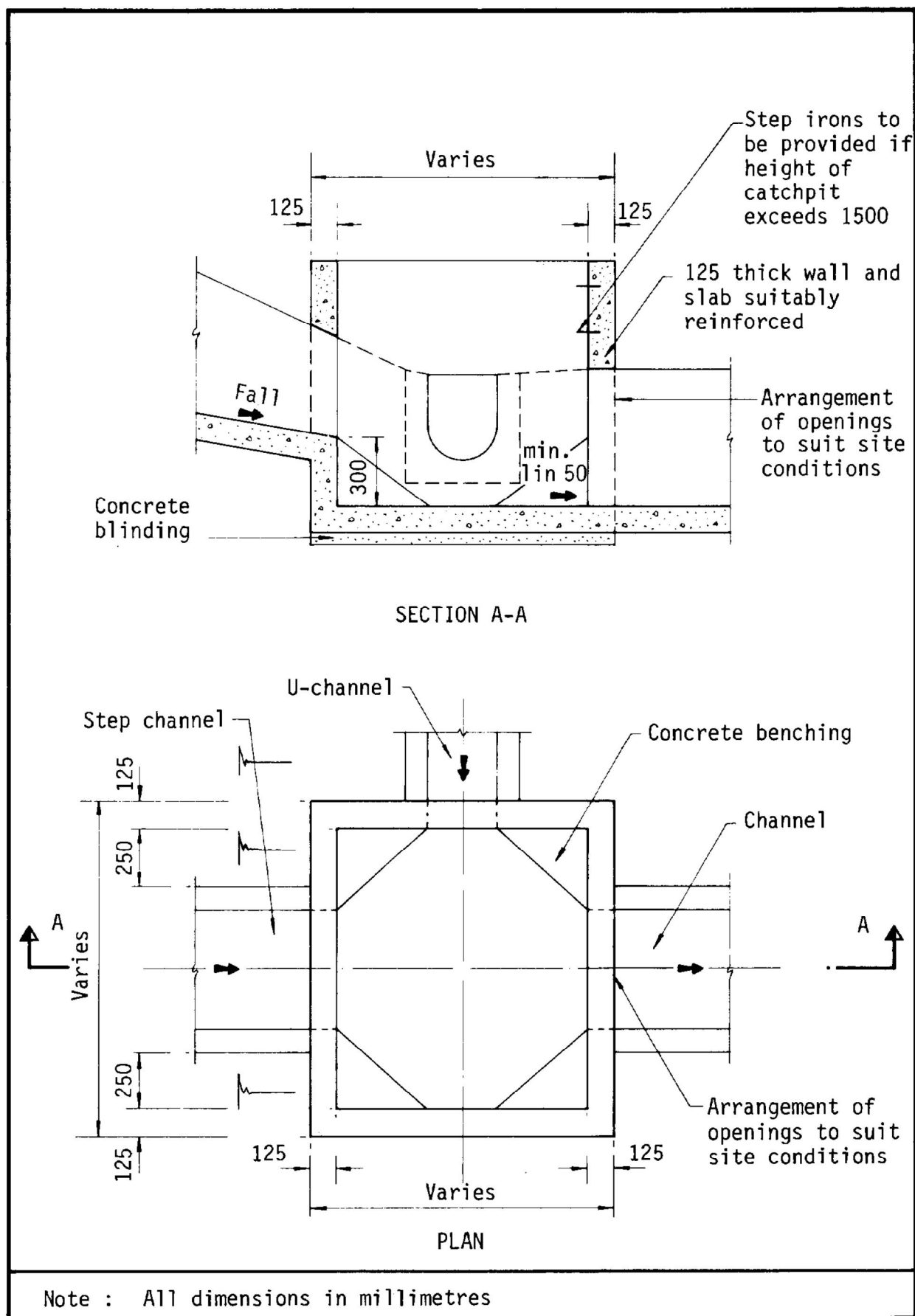
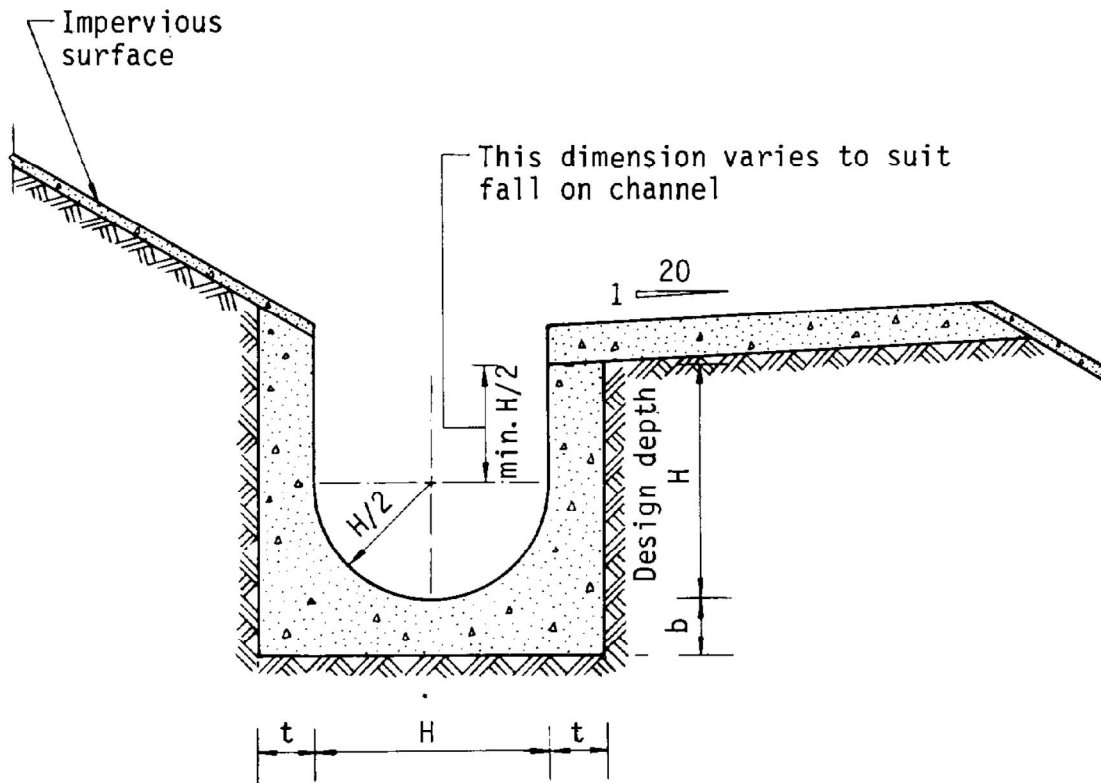


Figure 8.10 - Typical Details of Catchpits



Dimensions of U - channel

Nominal size of channel H (mm)	Thickness t (mm)	Thickness b (mm)
225 to 600	150	150
675 to 1200	175	225

Figure 8.11 - Typical U-channel Details