寄件日期: 2025年10月23日星期四 14:02
收件者: tpbpd/PLAND
副本: Ivan Sze Yuet FUNG/PLAND; Yen PY LEUNG/PLAND
主旨: Fw: S. 16 Planning Application No. A/YL-KTN/1142 - Departmental Comments
附件: A-YL-KTN-1142 Drainage Proposal 23-10-2025.pdf

From: Tang Lok San [redacted]
Subject: Re: S. 16 Planning Application No. A/YL-KTN/1142 - Departmental Comments

Andrea,

Thank you for the phone call. Please see the attachment for the updated drainage proposal. Please contact Mr. Tang via email [redacted] if you have any question regarding to the captioned application.

Yours sincerely,
Mr. Tang

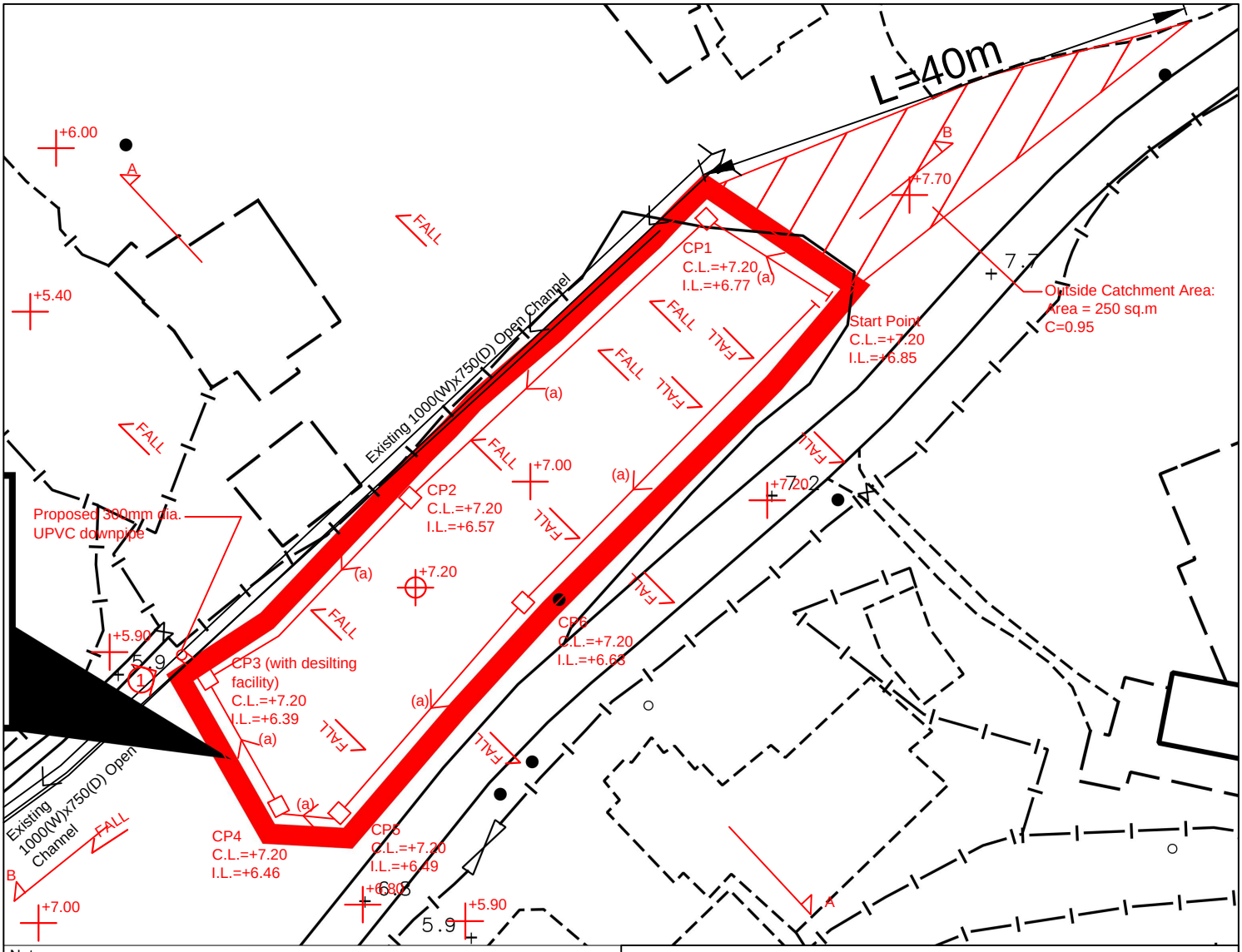
A/YL-KTN/1142 Drainage Proposal R-to-C for 1-9-2025

2(A)
(i) External catchment has been considered, the proposal is updated accordingly.
(ii) The discrepancies of the levels has been revised.
(iii) The proposed formation level shall be flushed with adjoining ground, no overland flow would be affected.

2(B)
(i) It is indicated.
(ii) Peripheral channel has been provided.
(iii) Hydraulic calculation of the proposed drainage facilities has been provided.
(iv) More photos are attached for reference.
(v) Hydraulic calculation of the existing drainage facilities to be discharged has been provided.
(vi) It is demonstrated.
(vii) Noted,
(viii) Noted.

2(C)
(i) Noted.
(ii) Noted.
(iii) Noted.

2(D)
(i) Updated C2406 is provided.



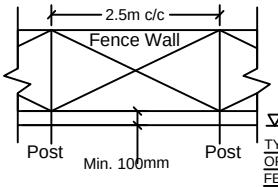
Note:

1. Catchpits (CP3) with desilting facility shall follow CEDD standard drawing No. C2406I.

2. Catchpit and UC follows Typical Details of Geotechnical Manual for Slope Fig.8.10 and Fig.8.11 respectively.

3. Fence Wall to be erected (if any) shall be Open-bottom type.

4. Minor filling works to be carried out to leveling the site. Exisiting Formation Level is +7.00mPD. Proposed Formation Level is +7.20mPD.



TYPICAL DETAIL OF OPEN-BOTTOM TYPE FENCE WALL

CP Proposed CatchPit

(a) Proposed 300UC (1:150) with Cast Iron Cover

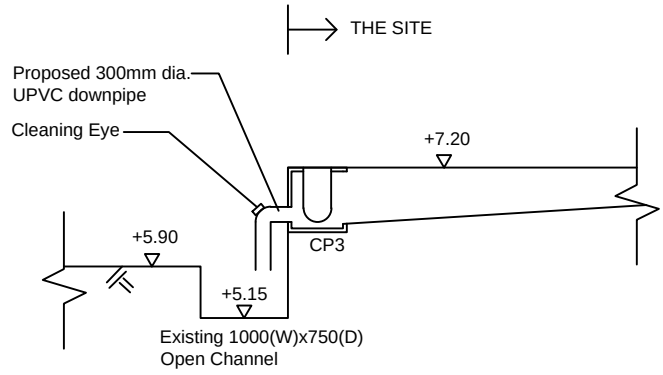
Existing 1000(W)x750(D) Open Channel

+7.00 Existing Level

+7.20 Proposed Formation Level

FALL Fall Direction

1 Photo Viewport



Connection Details

恆協工程有限公司

HANDSHIP ENGINEERING COMPANY LIMITED

Title: Drainage Proposal - LAYOUT

D01

Drawn by: DM

Date: 23-10-2025

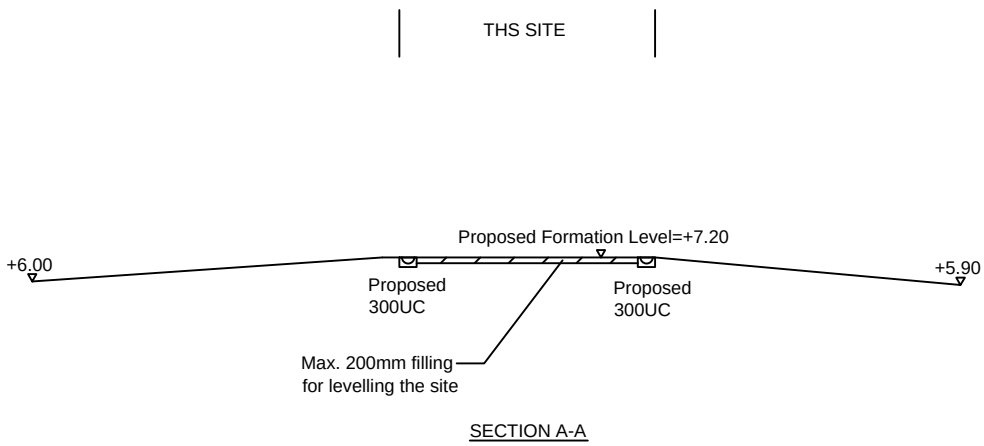
Check by: DM

Scale: ----

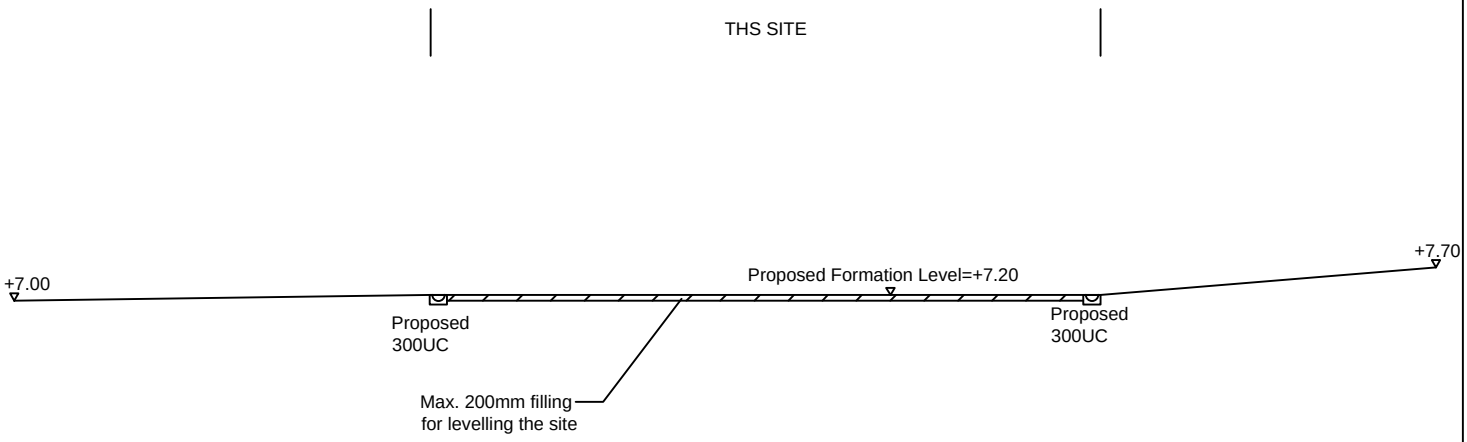
Project:

Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities and Associated Filling of Land for a Period of 3 years at Lot 1864 (Part) in D.D. 107 and Adjoining Government Land, Kam Tin, Yuen Long, New Territories

(Application No.:A/YL-KTN/1142)

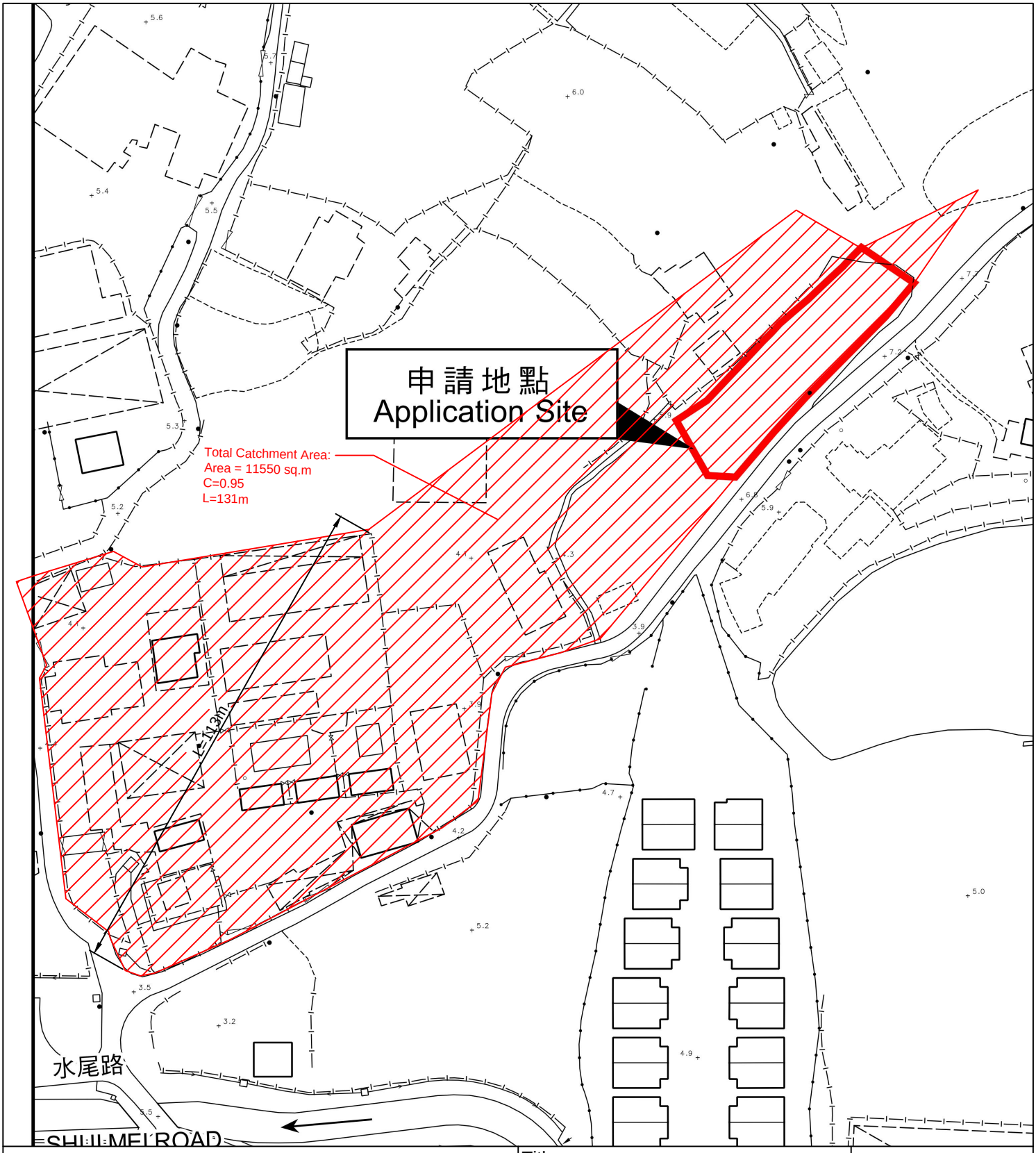


SECTION A-A



SECTION B-B

恆協工程有限公司 HANDSHIP ENGINEERING COMPANY LIMITED	Title: SECTIONS	D02
	Drawn by: DM	Date: 23–10–2025
Project: **Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities and Associated Filling of Land for a Period of 3 years at Lot 1864 (Part) in D.D. 107 and Adjoining Government Land, Kam Tin, Yuen Long, New Territories** **(Application No.:A/YL-KTN/1142)**	Check by: DM	Scale: ––––



正宏工程顧問公司

CHING WAN ENGINEERING CONSULTANTS CO.

Title:

Catchment Area Plan for Ex. 1000(W)x750(D) Open Channel

D03

Drawn by: DM

Date: 23–10–2025

Check by: DM

Scale: ----

Project:

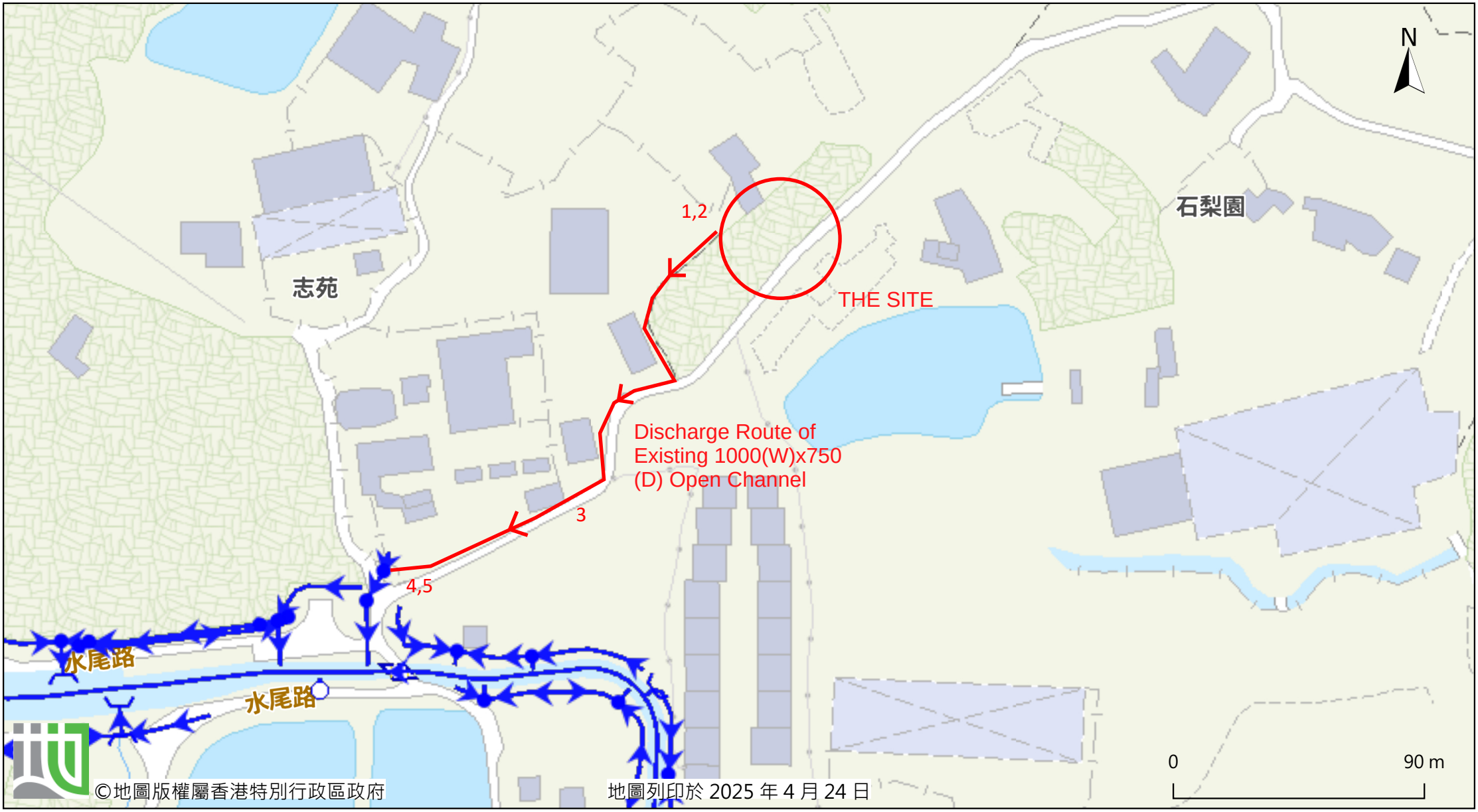
Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities and Associated Filling of Land for a Period of 3 years at Lot 1864 (Part) in D.D. 107 and Adjoining Government Land, Kam Tin, Yuen Long, New Territories

(Application No.:A/YL-KTN/1142)

GEOINFO MAP
地理資訊地圖

前往地圖: https://www.map.gov.hk/gm/geo:22.4501,114.0608?z=2257

Further downstream of proposed discharge point



由「地理資訊地圖」網站提供: https://www.map.gov.hk

Photo 1


Viewpoint 2


Viewpoint 3


Viewpoint 4


Viewpoint 5

THE SITE, Area		=	911.8	m^2	(C=	0.95	)
Outside Catchment Area	Area	=	250	m^2	(C=	0.95	)

Calculation of Design Runoff of the Proposed Development,

For the design of drains inside the site

$\Sigma Q = \Sigma 0.278\ C\ i\ A$

	A	= 911.8+250	m^2	
		= 1161.8	km^2	
		= 0.0011618	m^2	
	t	= $0.14465\ L/\ H^{0.2}A^{0.1}$		
		= $0.14465*40/1^{0.2}*1161.8^{0.1}$		
		= 2.857	min	
	i	= $1.16*a/(t+b)^{c}$		(50 yrs return period, Table 3a, Corrigendum 2024, SDM) and (16% increase due to climate change)
		= $1.16*505.5/(2.857+3.29)^{0.355}$		
		= 307.8	mm/hr	
Therefore,	Q	= 0.278*0.95*307.8*0.0011618		
		= 0.0944	m^3/sec	
		= 5666	lit/min	

Provide 300UC (1:150) is OK

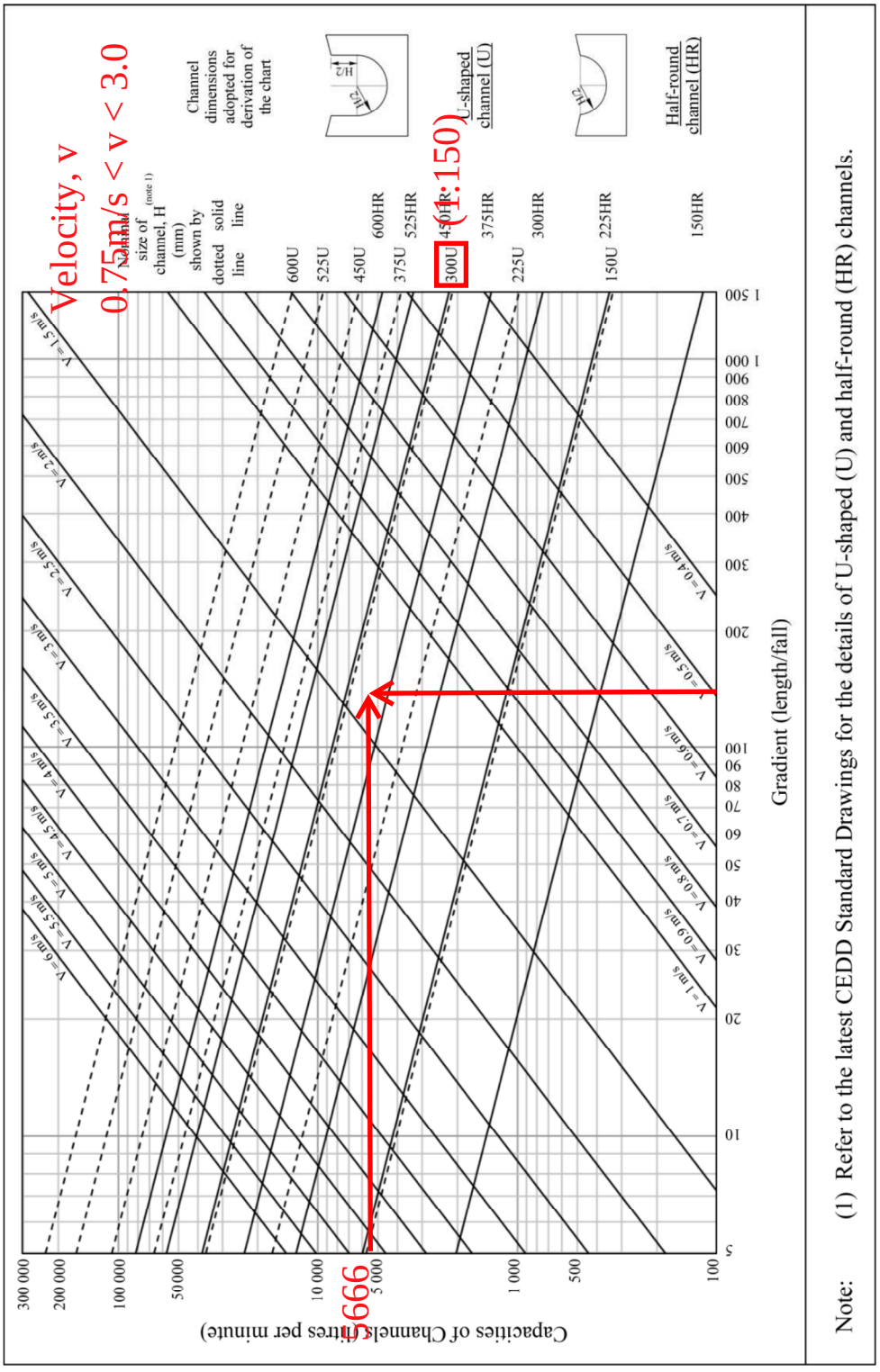


Figure 1 - Chart for the rapid design of U-shaped and half-round channels up to 600 mm

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

Total Catchment Area = 11550 m^2 (C= 0.95)

Calculation of Design Runoff

$\Sigma Q = \Sigma 0.278\ C\ i\ A$

A = 11550 m^2
= 11550 km^2
= 0.01155 m^2

t = $0.14465\ L/\ H^{0.2}A^{0.1}$
= $0.14465*113/1^{0.2}*36091^{0.1}$
= 6.414 min

i = $1.16*a/(t+b)^c$ (50 yrs return period, Table 3a, Corrigendum 2024, SDM) and (16% increase due to climate change)
= $1.16*505.5/(6.344+3.29)^{0.355}$
= 261.7 mm/hr

Therefore, Q = 0.278*0.95*262.4*0.011550
= 0.7983 m^3/sec
= 47897 lit/min

Calculation Maximum Capacity of Existing 1000mm(W)x750mm(D) Open Channel

Manning Equation V = $R^{2/3}*S_f^{0.5}/n$

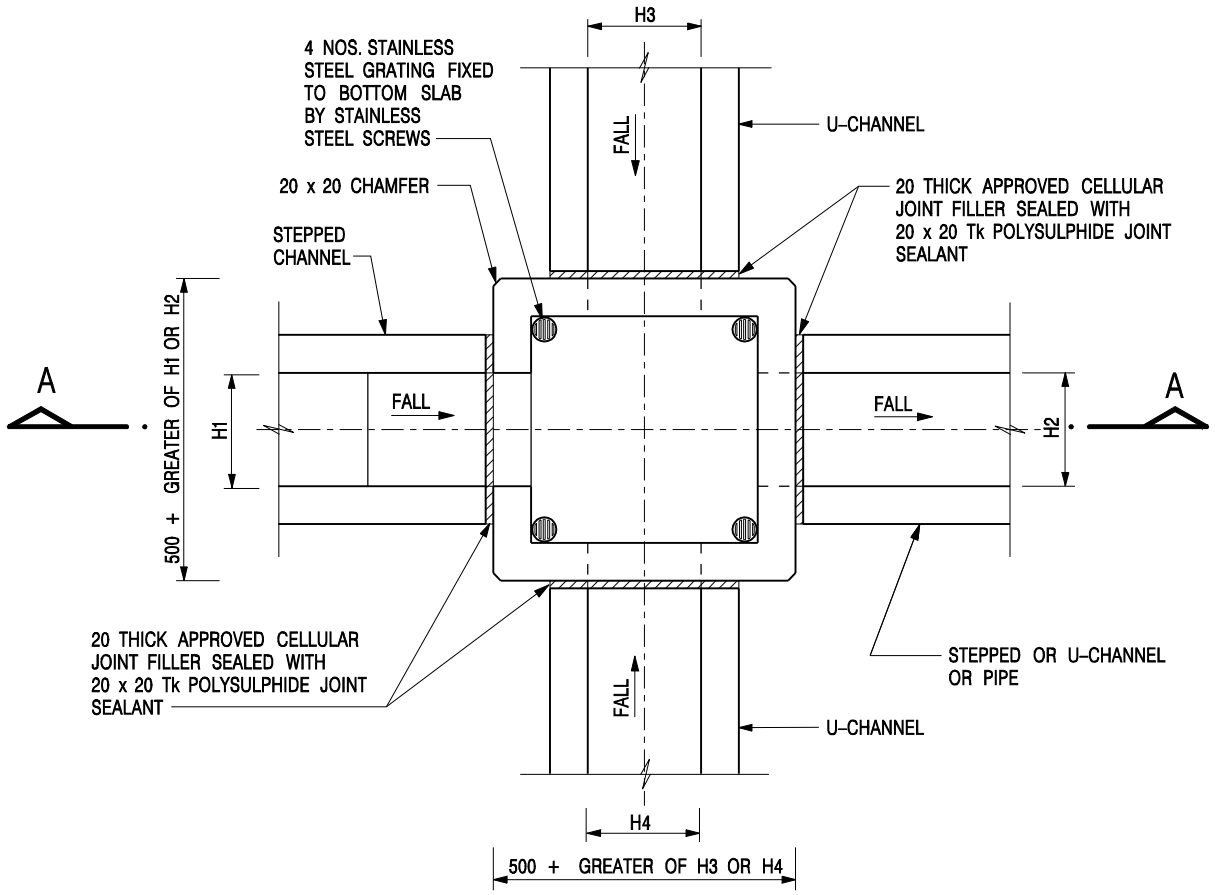
where R = A/(W+2D) W= 1 m
= 0.2619 m D= 0.55 m (200mm freeboard considered)
A= 0.55 m2

n = 0.035 $s/m^{1/3}$ (Talbe 13 of Stormwater Drainage Manual)

S_f = 0.02

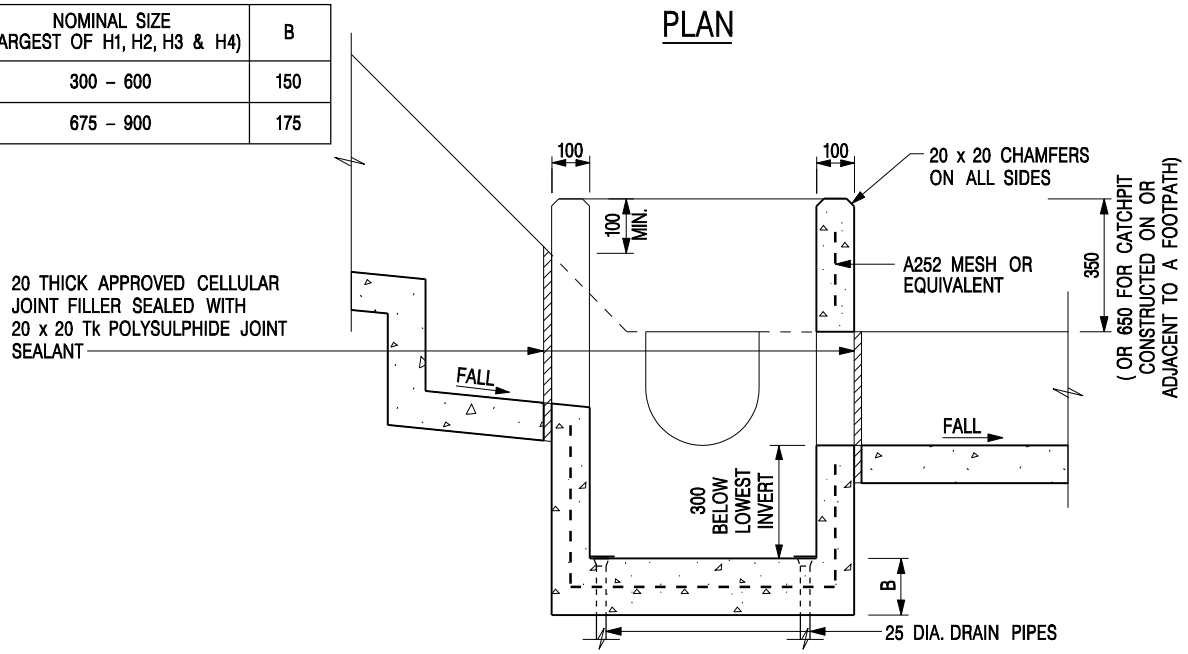
Therefore, V = $0.05625^{2/3}*0.01^{0.5}/0.012$
= 1.654 m/sec

Maximum Capacity (Q_{max}) = V*A
= 0.90971 m^3/sec
= 54583 lit/min
> 47897 lit/min



PLAN

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



SECTION A – A

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 2 FOR OTHER NOTES.

REF.	REVISION	SIGNATURE	DATE
–	FORMER DRG. NO. C2406J.	Original Signed	03.2015

CATCHPIT WITH TRAP

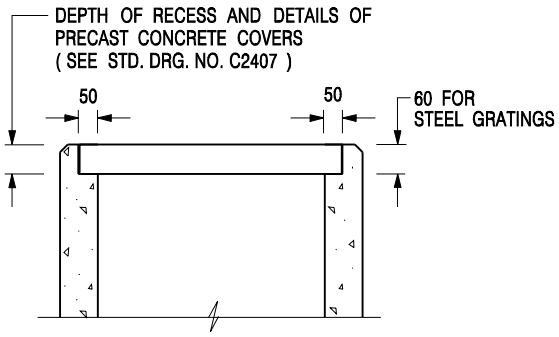
(SHEET 1 OF 2)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2406 /1



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 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 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.

REF.	REVISION	SIGNATURE	DATE
A	MINOR AMENDMENT.	Original Signed	04.2016
–	FORMER DRG. NO. C2406J.	Original Signed	03.2015

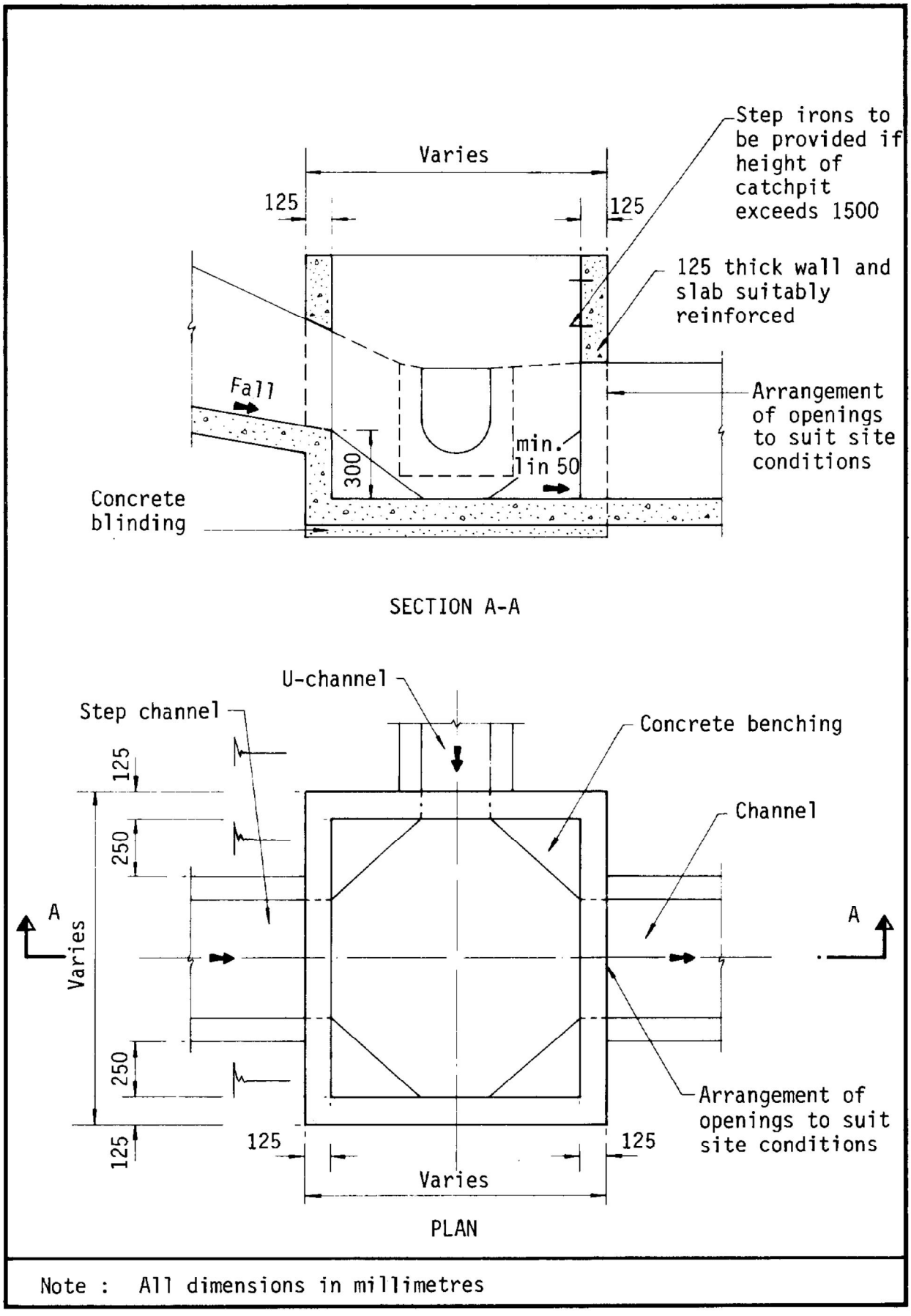
CATCHPIT WITH TRAP
(SHEET 2 OF 2)

CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

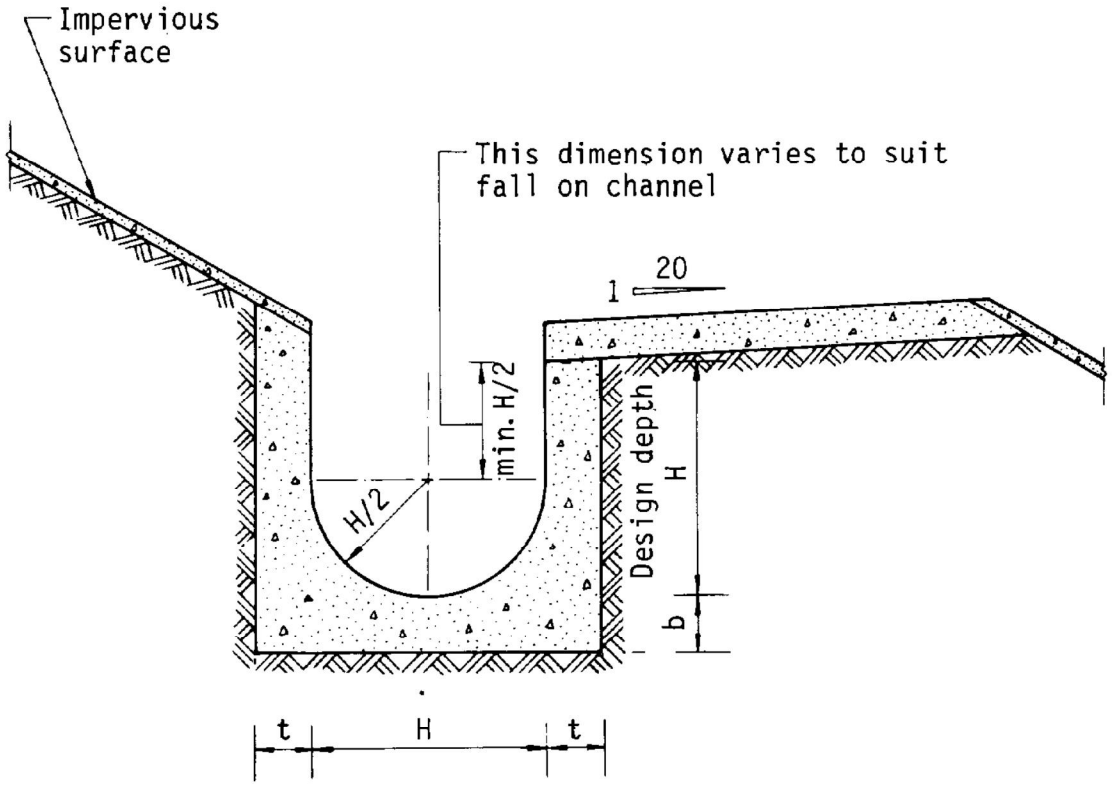
DATE JAN 1991

DRAWING NO. C2406 /2A



Note : All dimensions in millimetres

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