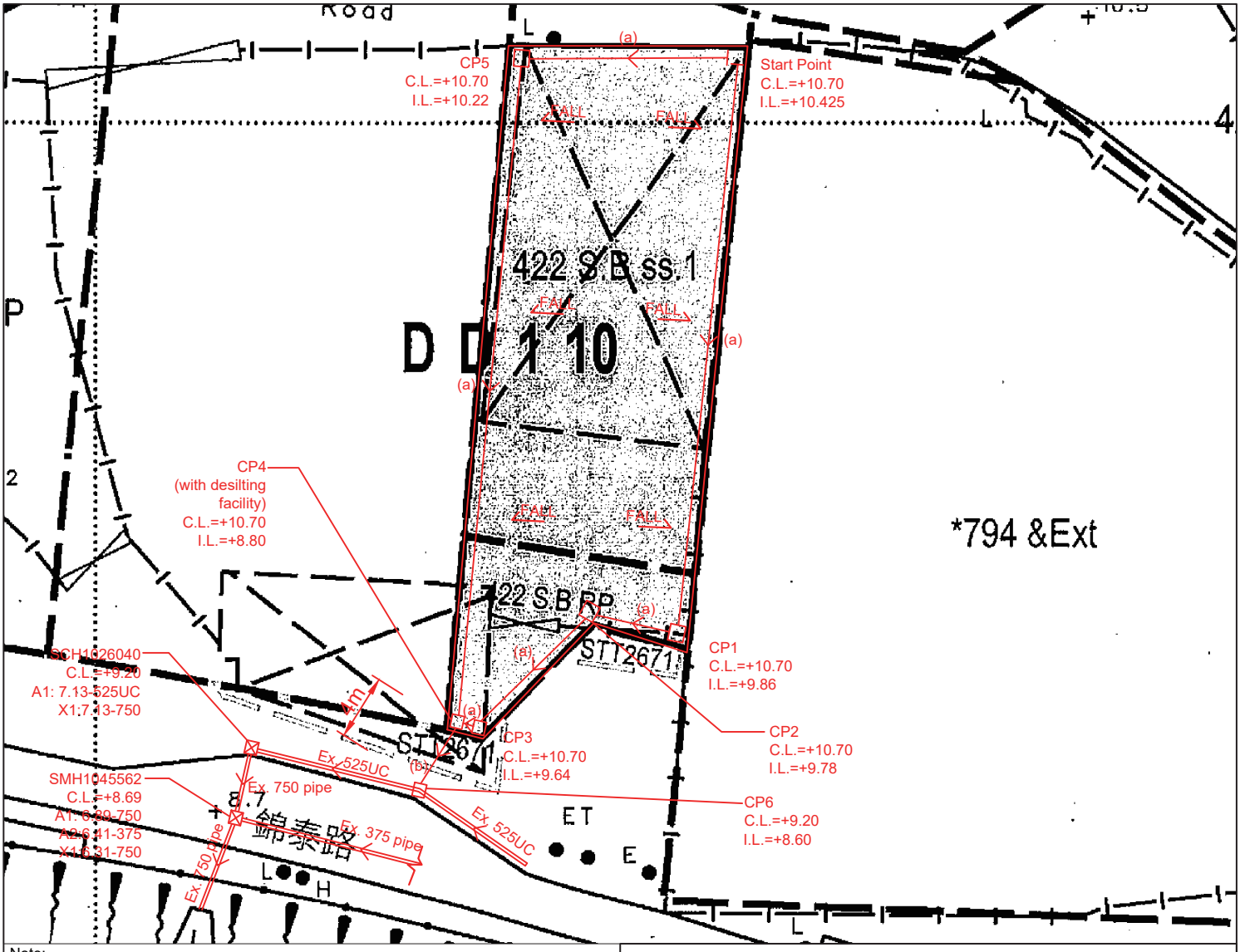


Note:

1. Catchpits (CP4) with desilting facility shall follow CEDD standard drawing No. C2406I.

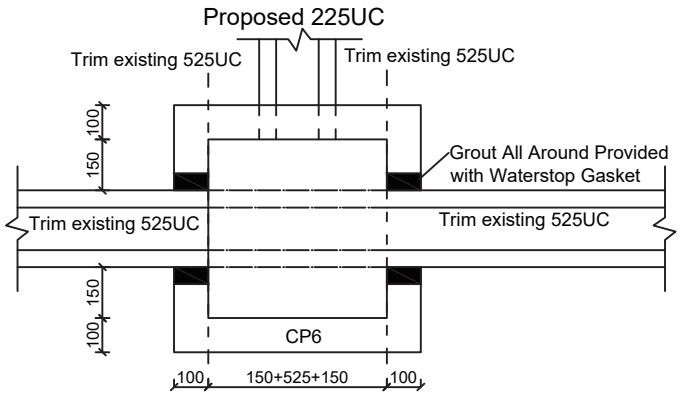
2. Catchpit and UC follows Typical Details of Geotechnical Manual for Slope Fig.8.10 and Fig.8.11 respectively.

3. Adjacent area which is developed or occupied, which has their stormwater collection syste.

4. Minor filling works to be carried out. Exisiting Formation Level is +10.50mPD. Proposed Formation Level is +10.70mPD. The cover level of proposed UC shall be flush with adjoining ground.

LEGEND

CP	Proposed CatchPit
(a)	Proposed 225UC (1:70) with Cast Iron Cover
(b)	Proposed 225UC (1:20) with Cast Iron Cover
Ex. CP	Existing CatchPit
(size)	Existing Drains

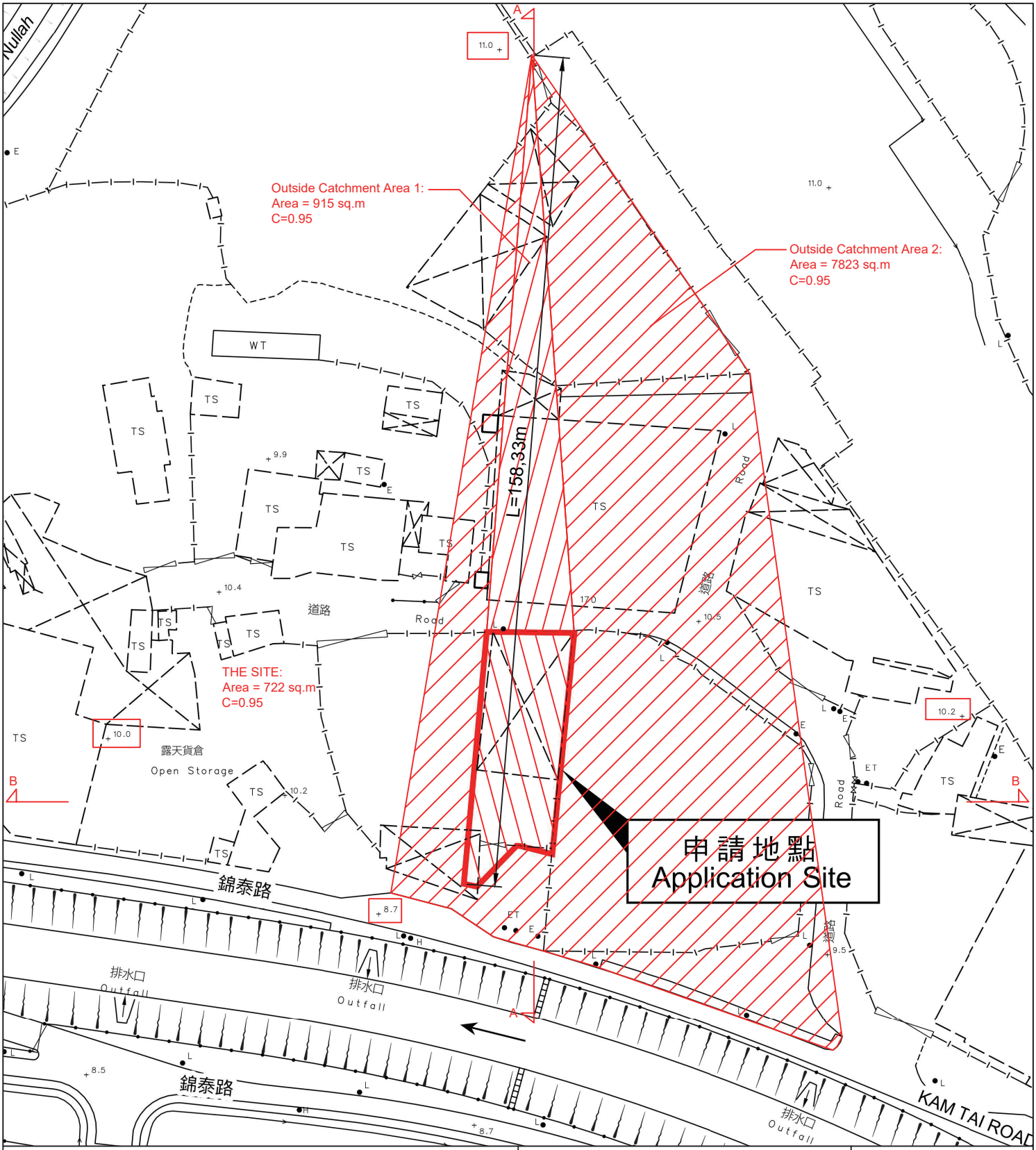


CONNECTION DETAILS

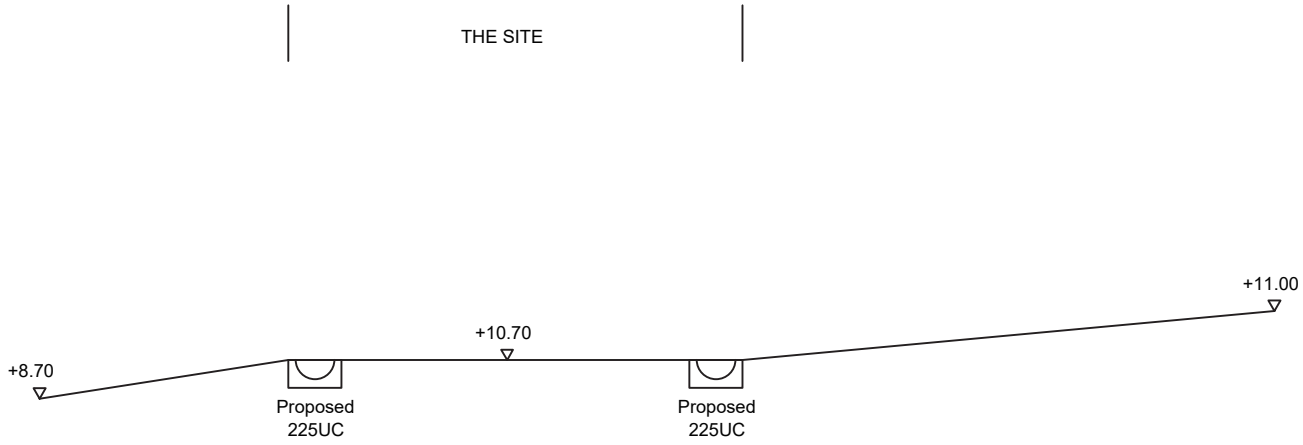
正宏工程顧問公司

CHING WAN ENGINEERING CONSULTANTS CO.

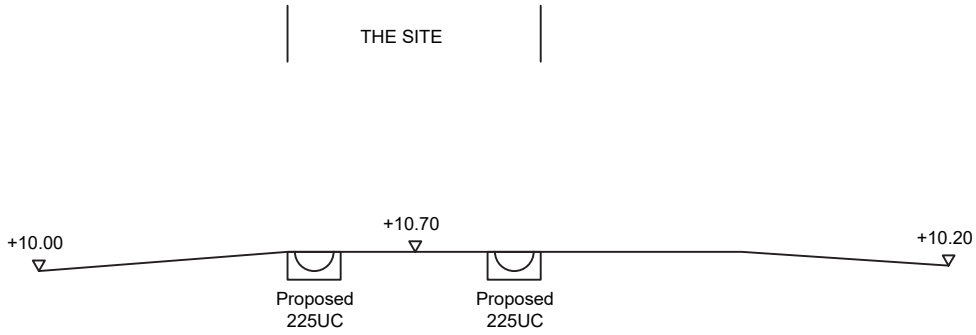
Title: Drainage Proposal - LAYOUT	D01
Drawn by: DM	Date:
Check by: DM	Scale: ----



正宏工程顧問公司 CHING WAN ENGINEERING CONSULTANTS CO.	Title: Catchment Plan	D02
	Drawn by: DM	Date:
	Check by: DM	Scale: ----



SECTION A-A



SECTION B-B

正宏工程顧問公司 CHING WAN ENGINEERING CONSULTANTS CO.	Title: SECTIONS	D03
	Drawn by: DM	Date:
	Check by: DM	Scale: －－－－

Design Drain inside The Site

$Q = 0.278\ C\ i\ A$

Consider The Site + Outside Catchment Area 1:

$C = 0.95$ (P.42 of Stormwater Drainage Manual)

$A = 722+915 \text{ m}^2$
$= 1637$
$= 0.001637 \text{ km}^2$

$t = 0.14465\ L/\ H^{0.2}A^{0.1}$
$= 0.14465*158.33/1^{0.2}*1637^{0.1}$
$= 10.926$ min

$i = 1.111*a/(t+b)^{c}$ (10 yrs return period, Table 3d, Corrigendum 2024, SDM) and (11.1% increase due to climate change)
$= 1.111*454.9/(0.766+3.44)^{0.412}$
$= 168.6$ mm/hr

Therefore, $Q = 0.278*0.95*168.6*0.001637$
$= 0.0728819 \text{ m}^3/\text{sec}$
$= 4373$ lit/min

Provide 225UC (1:70) is OK

Check Existing 525UC

$Q = 0.278\ C\ i\ A$

Consider The Site + Outside Catchment Area 1 + Outside Catchment Area 2:

$C = 0.95$ (P.42 of Stormwater Drainage Manual)

$A = 722+915+7823 \text{ m}^2$
$= 9460$
$= 0.00946 \text{ km}^2$

$i = 168.6$ mm/hr

Therefore, $Q = 0.278*0.95*168.6*0.00946$
$= 0.4211747 \text{ m}^3/\text{sec}$
$= 25270$ lit/min

Existing 525UC (1:100) is OK

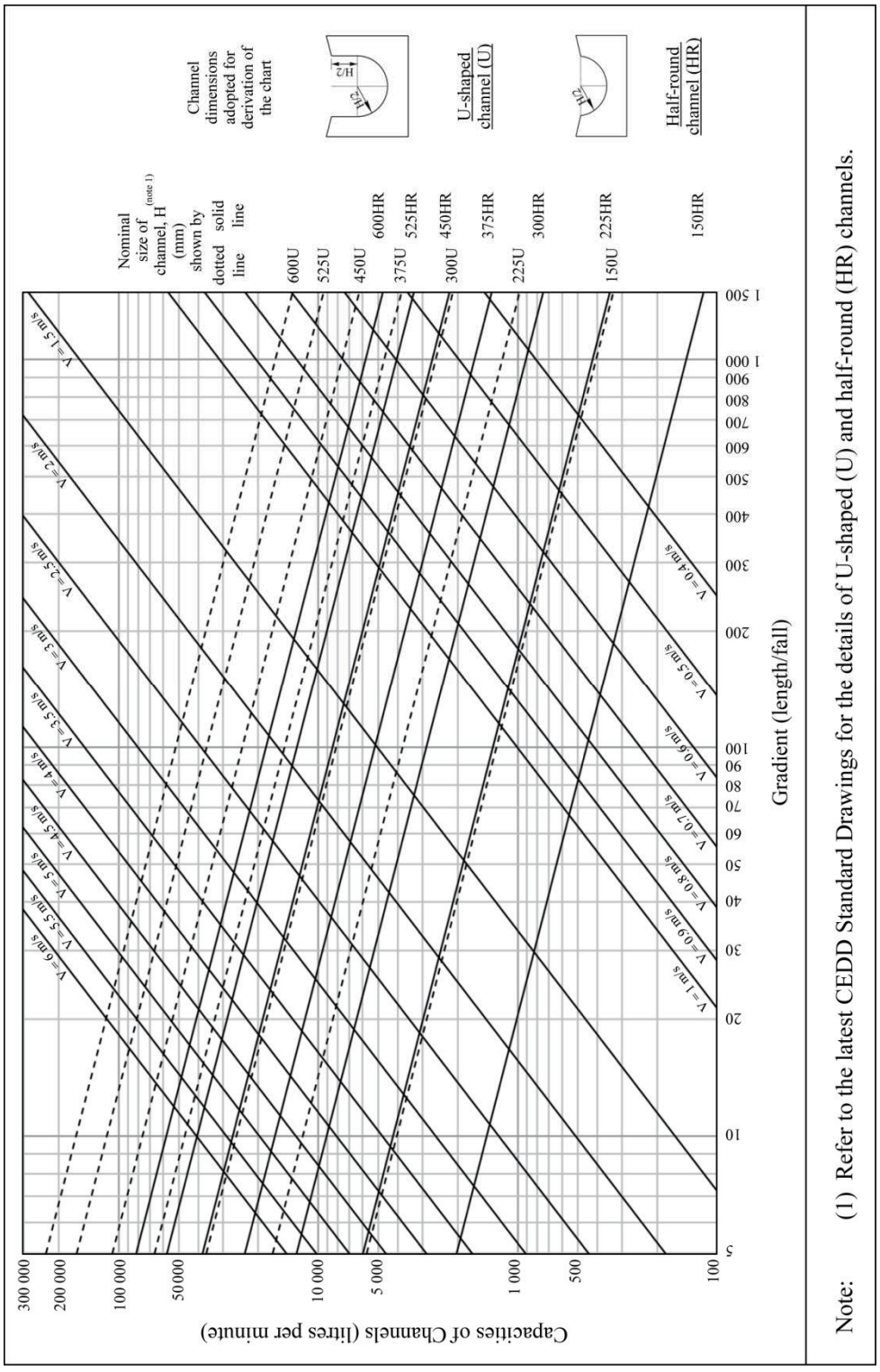
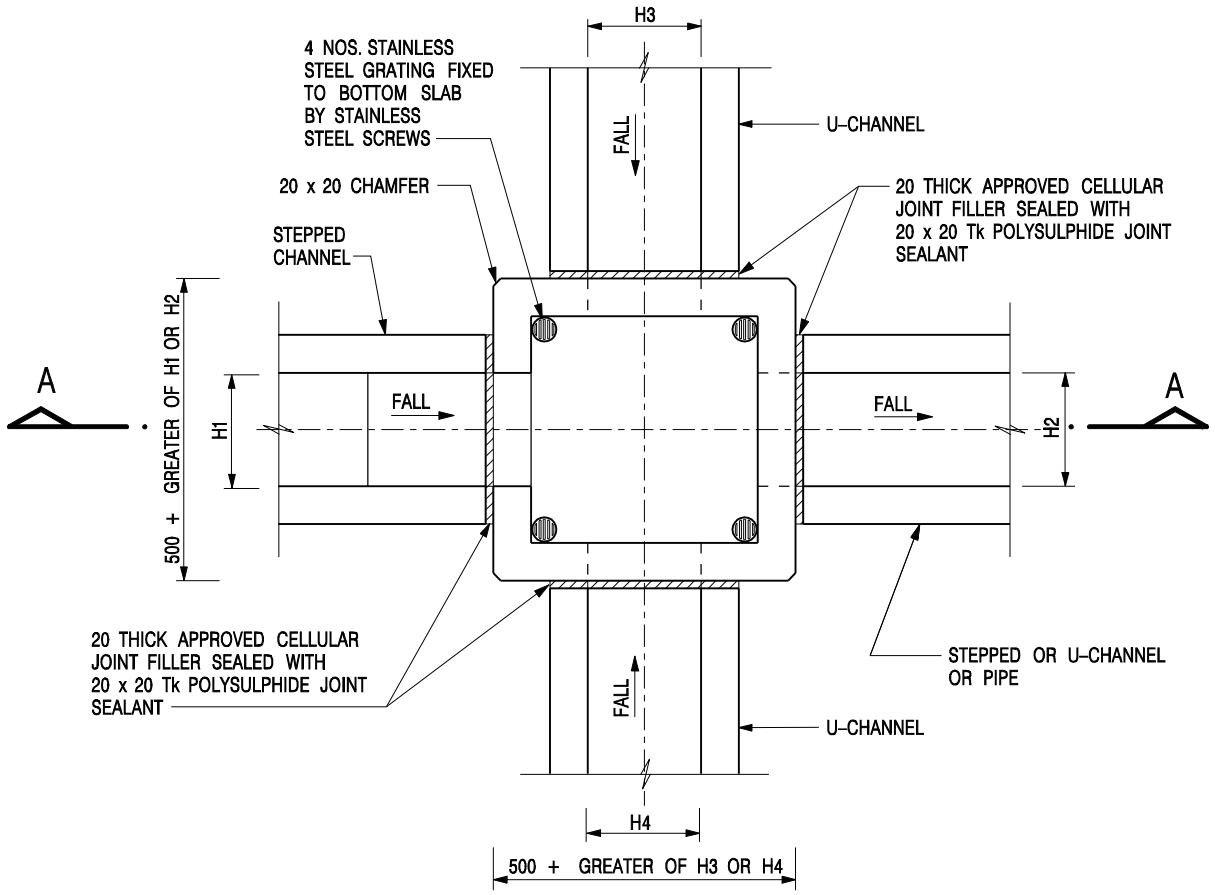


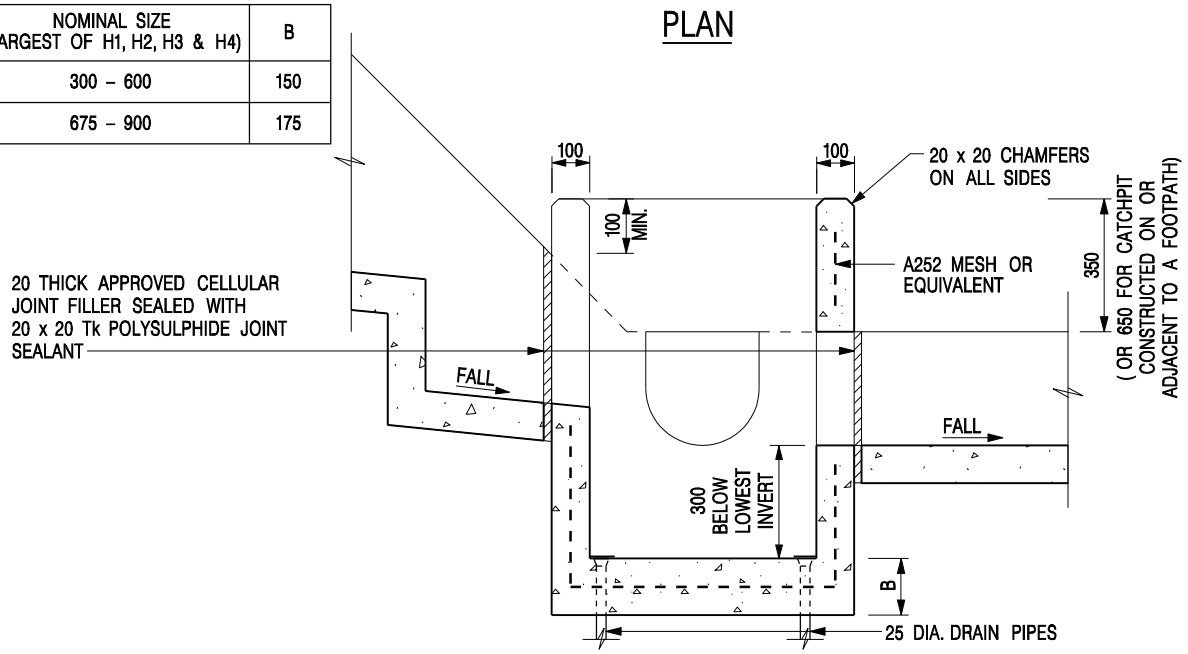
Figure 1 - Chart for the rapid design of U-shaped and half-round channels up to 600 mm

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



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)

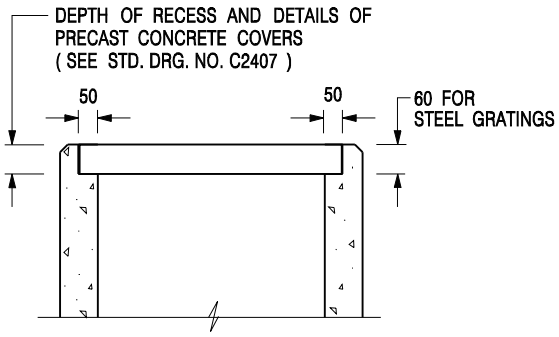
CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO. C2406 /1

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



ALTERNATIVE TOP SECTION
FOR PRECAST CONCRETE COVERS / GRATINGS

NOTES:

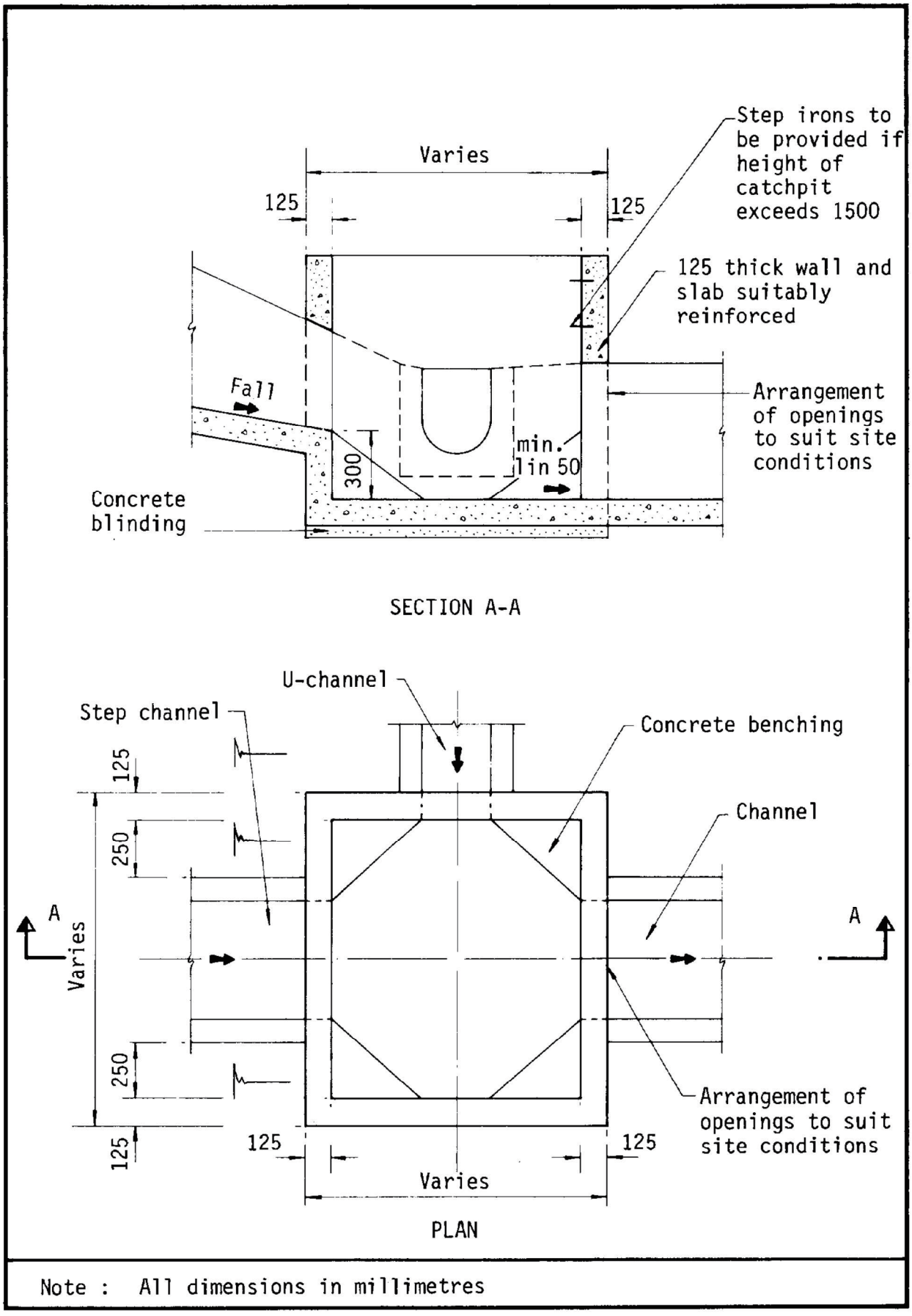
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE SHALL BE GRADE 20 /20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2 OR F2 AS APPROPRIATE.
4. FOR DETAILS OF JOINT, REFER TO STD. DRG. NO. C2413.
5. CONCRETE TO BE COLOURED AS SPECIFIED.
6. UNLESS REQUESTED BY THE MAINTENANCE PARTY AND AS DIRECTED 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) 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 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 'F' ON STD. DRG. NO. C2405.
12. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

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

CATCHPIT WITH TRAP
(SHEET 2 OF 2)

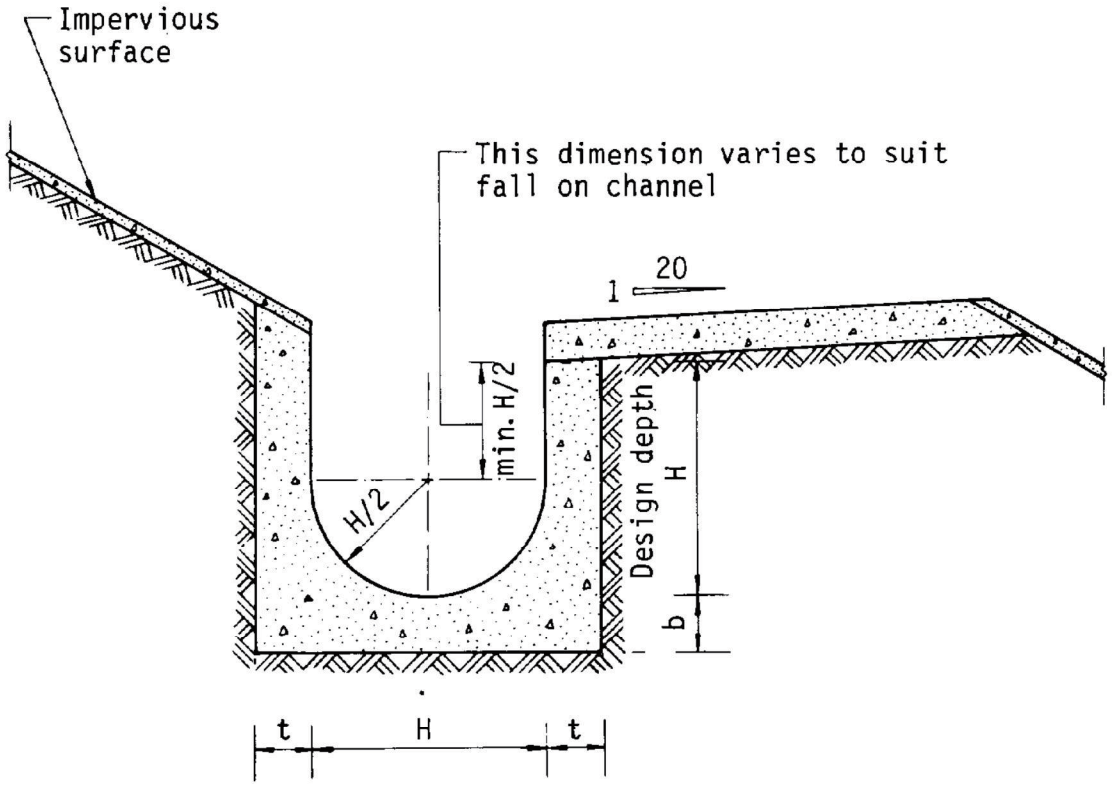
CEDD CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20	DRAWING NO. C2406 /2
DATE JAN 1991	



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