

Legend:

	Proposed 300UC (1:150) with cast iron cover
	Existing Drain
	Proposed Catchpit
	Existing Level

Company:  
 正宏工程顧問公司  
 CHING WAN  
 ENGINEERING  
 CONSULTANTS  
 COMPANY

Project:  
 Proposed Temporary  
 Shop and Services  
 (Wooden Ware Retail  
 Shop) for a Period of 5  
 Years at Lots 2907 S.C  
 RP, 2908 RP (Part),  
 2910 (Part) and 2911  
 RP (Part) in D.D. 104  
 and adjoining  
 Government Land,  
 Castle Peak Road - Mai  
 Po, Mai Po, Yuen Long

OZP:  
 Application No.  
 A/YL-MP/302

Zoning:  
 Open Space

Title:  
 Drainage Proposal-  
 Application Boundary

Dwg No:	File:
Fig.1	Lots 2907 S.C RP, 2908 RP (Part), 2910 (Part) and 2911 RP (Part) in D.D. 104 and adjoining Government Land, Castle Peak Road - Mai Po, Mai Po, Yuen Long
Date:	
2-9-2024	

Application Site  
 Lots 2907 S.C RP, 2908 RP (Part),  
 2910 (Part) and 2911 RP (Part)  
 in D.D. 104 and  
 adjoining Government Land,  
 Castle Peak Road - Mai Po,  
 Mai Po, Yuen Long  
 (A/YL-MP/302)

A/YL-MP/376 having  
 its own stormwater  
 collection system

AM ROAD

K ROAD - MAI PO

DD 104

**Note:**

1. Catchpit (CP15) with desilting facility shall follow CEDD standard drawing No. C24061.

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

**Legend:**

- (a) Proposed 300UC (1:150) with cast iron cover
- Existing Drain
- Proposed Catchpit
- +4.0 Existing Level

**Company:**

正宏工程顧問公司  
CHING WAN  
ENGINEERING  
CONSULTANTS  
COMPANY

**Project:**

Proposed Temporary Shop and Services (Wooden Ware Retail Shop) for a Period of 5 Years at Lots 2907 S.C RP, 2908 RP (Part), 2910 (Part) and 2911 RP (Part) in D.D. 104 and adjoining Government Land, Castle Peak Road - Mai Po, Mai Po, Yuen Long

**OZP:**

Application No. A/YL-MP/302

**Zoning:**

Open Space

**Title:**

Drainage Proposal-Layout

**Dwg No:**

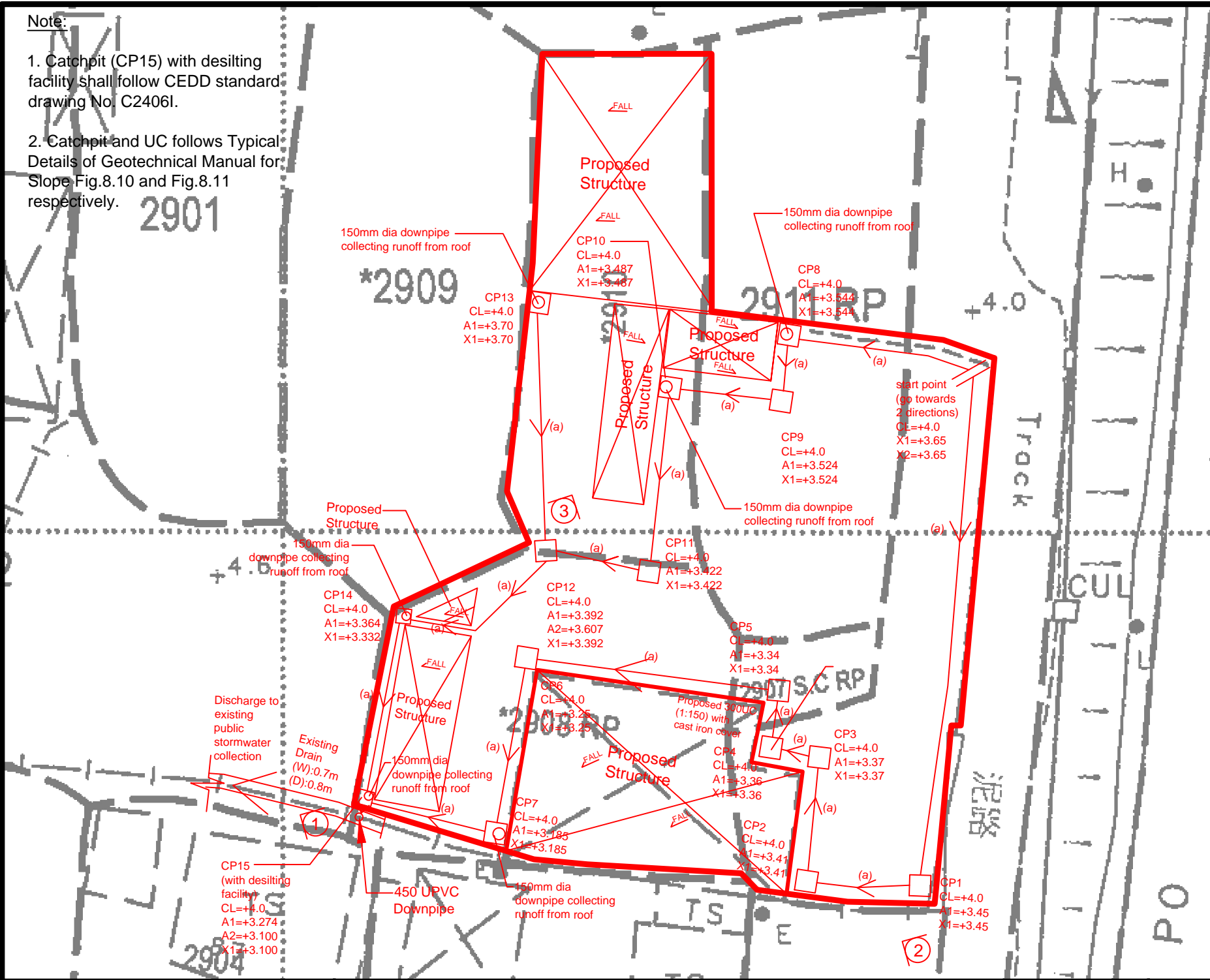
Fig.2

**File:**

Lots 2907 S.C RP, 2908 RP (Part), 2910 (Part) and 2911 RP (Part) in D.D. 104 and adjoining Government Land, Castle Peak Road - Mai Po, Mai Po, Yuen Long

**Date:**

2-9-2024



2901

\*2909

2911 RP

\*2908 RP

2907 S.C RP

2904

Track

CUL

泥路

PO

FALL

FALL

FALL

FALL

FALL

FALL

FALL

FALL

FALL

Proposed Structure

Proposed Structure

Proposed Structure

Proposed Structure

Proposed Structure

Proposed Structure

CP10  
CL=+4.0  
A1=+3.487  
X1=+3.487

CP13  
CL=+4.0  
A1=+3.70  
X1=+3.70

CP8  
CL=+4.0  
A1=+3.544  
X1=+3.544

CP9  
CL=+4.0  
A1=+3.524  
X1=+3.524

CP11  
CL=+4.0  
A1=+3.422  
X1=+3.422

CP12  
CL=+4.0  
A1=+3.392  
A2=+3.607  
X1=+3.392

CP5  
CL=+4.0  
A1=+3.34  
X1=+3.34

CP14  
CL=+4.0  
A1=+3.364  
X1=+3.332

CP6  
CL=+4.0  
A1=+3.25  
X1=+3.25

CP4  
CL=+4.0  
A1=+3.36  
X1=+3.36

CP3  
CL=+4.0  
A1=+3.37  
X1=+3.37

CP7  
CL=+4.0  
A1=+3.185  
X1=+3.185

CP2  
CL=+4.0  
A1=+3.41  
X1=+3.41

CP1  
CL=+4.0  
A1=+3.45  
X1=+3.45

CP15  
(with desilting facility)  
CL=+4.0  
A1=+3.274  
A2=+3.100  
X1=+3.100

450 UPVC Downpipe

150mm dia downpipe collecting runoff from roof

150mm dia downpipe collecting runoff from roof

150mm dia downpipe collecting runoff from roof

150mm dia downpipe collecting runoff from roof

150mm dia downpipe collecting runoff from roof

150mm dia downpipe collecting runoff from roof

start point (sp towards 2 directions)  
CL=+4.0  
X1=+3.65  
X2=+3.65

Discharge to existing public stormwater collection

Existing Drain (W):0.7m (D):0.8m

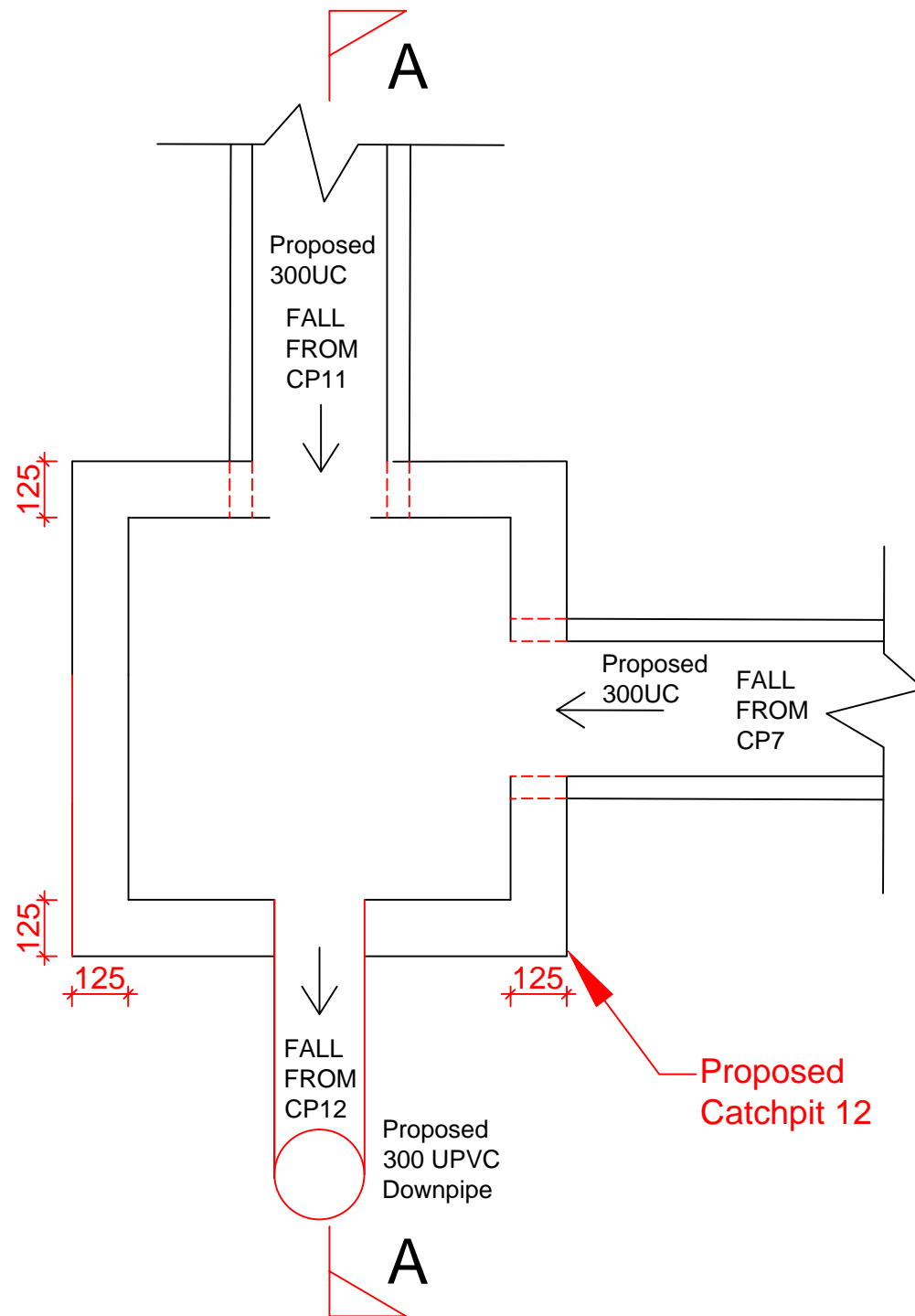
1

2

+4.0

+5.0

# Connection Details- CP12



Legend:

(a)	Proposed 300UC (1:150) with cast iron cover
	Existing Drain
	Proposed Catchpit
	Existing Level

Company:  
 正宏工程顧問公司  
 CHING WAN  
 ENGINEERING  
 CONSULTANTS  
 COMPANY

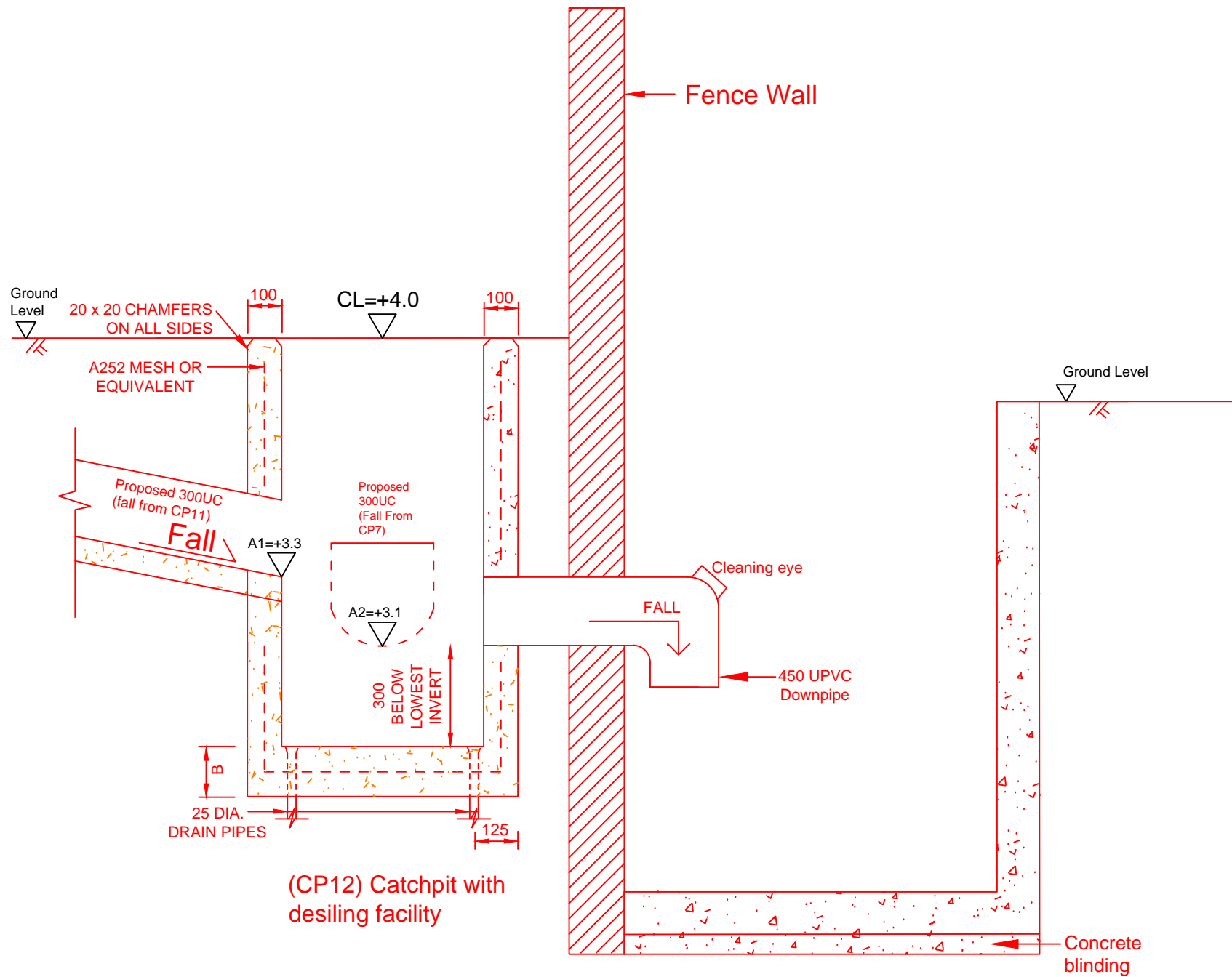
Project:  
 Proposed Temporary Shop and Services (Wooden Ware Retail Shop) for a Period of 5 Years at Lots 2907 S.C RP, 2908 RP (Part), 2910 (Part) and 2911 RP (Part) in D.D. 104 and adjoining Government Land, Castle Peak Road - Mai Po, Mai Po, Yuen Long

OZP:  
 Application No. A/YL-MP/302

Zoning:  
 Open Space

Title:  
 Connection Detail

Dwg No:	File:
Fig.3	Lots 2907 S.C RP, 2908 RP (Part), 2910 (Part) and 2911 RP (Part) in D.D. 104 and adjoining Government Land, Castle Peak Road - Mai Po, Mai Po, Yuen Long
Date:	
27-5-2024	



## Section A-A

Legend:	
(a)	Proposed 300UC (1:150) with cast iron cover
	Existing Drain
	Proposed Catchpit
	Existing Level

Company:  
 正宏工程顧問公司  
 CHING WAN  
 ENGINEERING  
 CONSULTANTS  
 COMPANY

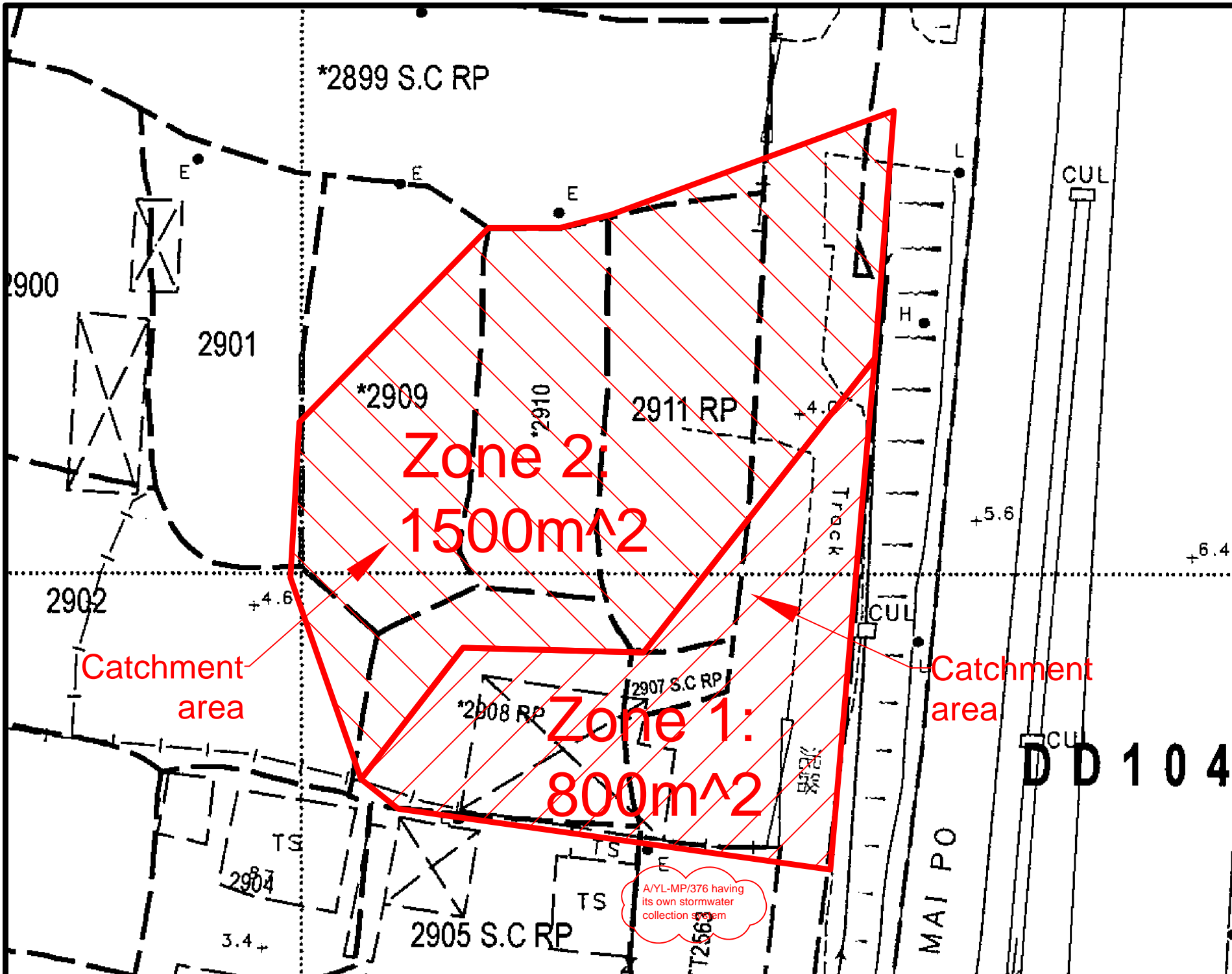
Project:  
 Proposed Temporary  
 Shop and Services  
 (Wooden Ware Retail  
 Shop) for a Period of 5  
 Years at Lots 2907 S.C  
 RP, 2908 RP (Part),  
 2910 (Part) and 2911  
 RP (Part) in D.D. 104  
 and adjoining  
 Government Land,  
 Castle Peak Road - Mai  
 Po, Mai Po, Yuen Long

OZP:  
 Application No.  
 A/YL-MP/302

Zoning:  
 Open Space

Title:  
 Connection Detail

Dwg No:	File:
Fig.4	Lots 2907 S.C RP, 2908 RP (Part), 2910 (Part) and 2911 RP (Part) in D.D. 104 and adjoining Government Land, Castle Peak Road - Mai Po, Mai Po, Yuen Long
Date:	
27-5-2024	



Legend:

	Proposed 300UC (1:150) with cast iron cover
	Existing Drain
	Proposed Catchpit
	Existing Level

Company:  
 正宏工程顧問公司  
 CHING WAN  
 ENGINEERING  
 CONSULTANTS  
 COMPANY

Project:  
 Proposed Temporary  
 Shop and Services  
 (Wooden Ware Retail  
 Shop) for a Period of 5  
 Years at Lots 2907 S.C  
 RP, 2908 RP (Part),  
 2910 (Part) and 2911  
 RP (Part) in D.D. 104  
 and adjoining  
 Government Land,  
 Castle Peak Road - Mai  
 Po, Mai Po, Yuen Long

OZP:  
 Application No.  
 AYL-MP/302

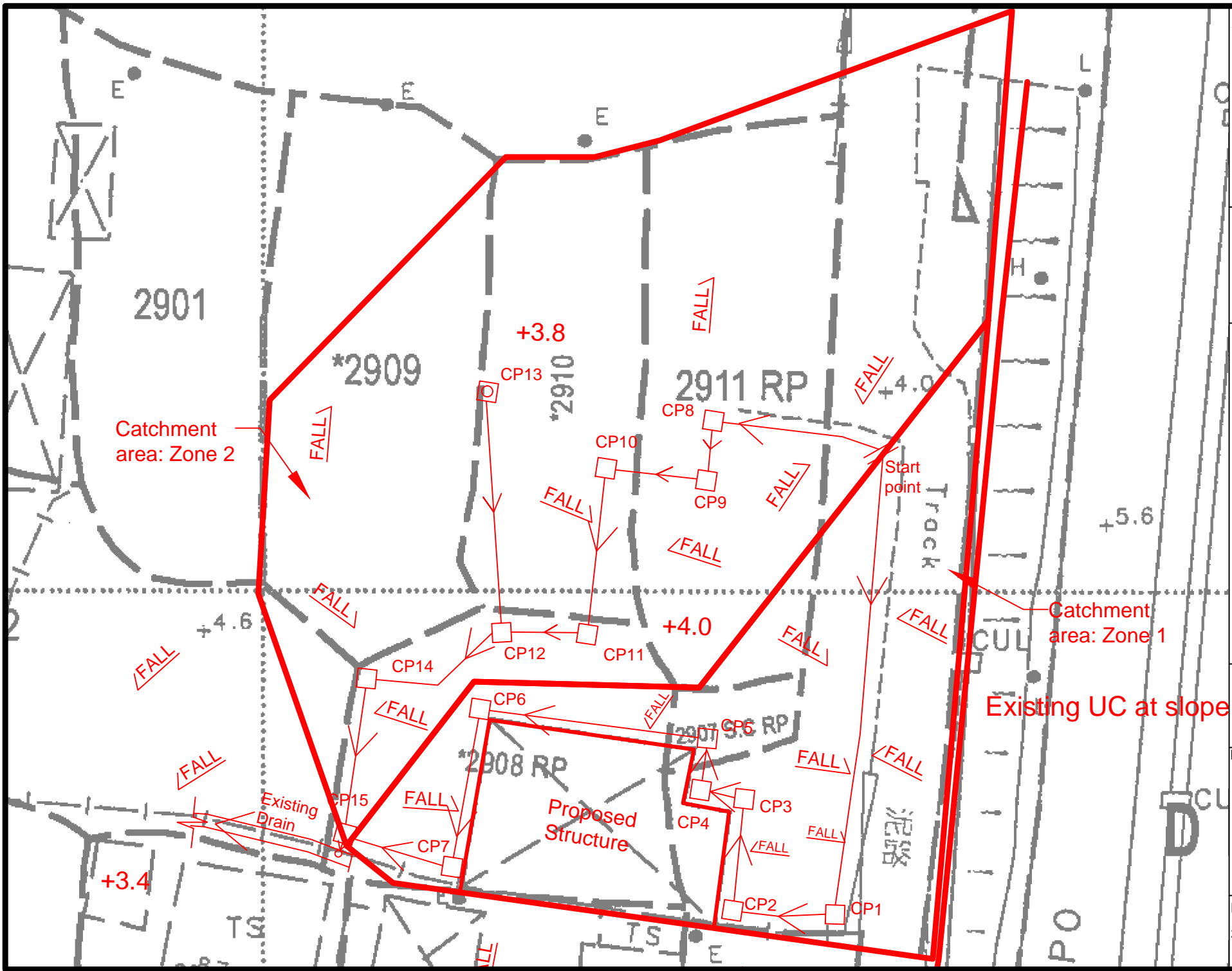
Zoning:  
 Open Space

Title:  
 Catchment Zone

Dwg No:	File:
Fig.5	Lots 2907 S.C RP, 2908 RP (Part), 2910 (Part) and 2911 RP (Part) in D.D. 104 and adjoining Government Land, Castle Peak Road - Mai Po, Mai Po, Yuen Long
Date:	
2-9-2024	

**D D 104**

AYL-MP/376 having its own stormwater collection system



**Legend:**

	Proposed 300UC (1:150) with cast iron cover
	Existing Drain
	Proposed Catchpit
	Existing Level

**Company:**  
 正宏工程顧問公司  
 CHING WAN  
 ENGINEERING  
 CONSULTANTS  
 COMPANY

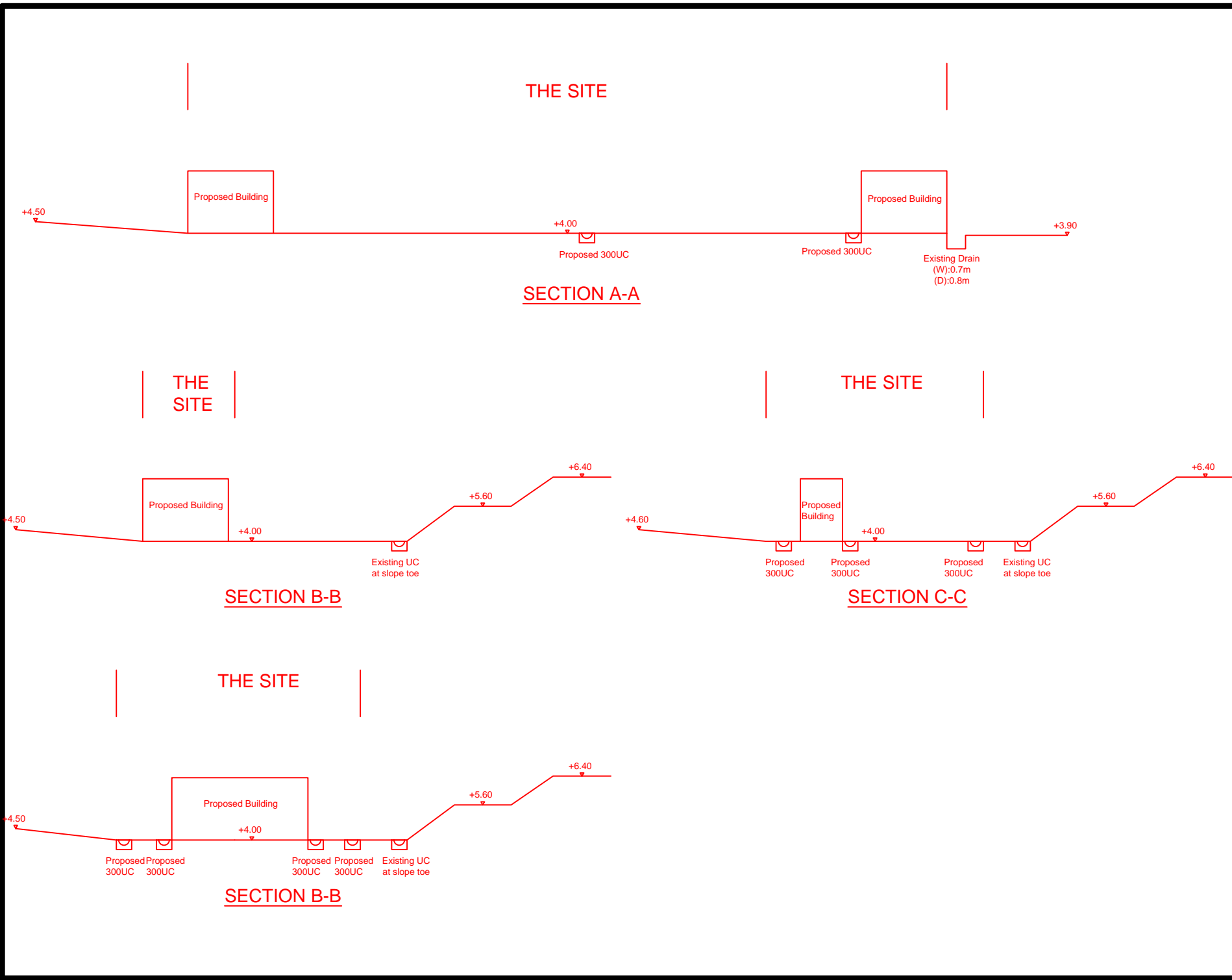
**Project:**  
 Proposed Temporary Shop and Services (Wooden Ware Retail Shop) for a Period of 5 Years at Lots 2907 S.C RP, 2908 RP (Part), 2910 (Part) and 2911 RP (Part) in D.D. 104 and adjoining Government Land, Castle Peak Road - Mai Po, Mai Po, Yuen Long

**OZP:**  
 Application No. A/YL-MP/302

**Zoning:**  
 Open Space

**Title:**  
 Catchment Zone

<b>Dwg No:</b>	<b>File:</b>
Fig.6	Lots 2907 S.C RP, 2908 RP (Part), 2910 (Part) and 2911 RP (Part) in D.D. 104 and adjoining Government Land, Castle Peak Road - Mai Po, Mai Po, Yuen Long
<b>Date:</b>	
27-5-2024	



**Legend:**

	Proposed 300UC (1:150) with cast iron cover
	Existing Drain
	Proposed Catchpit
	Existing Level

**Company:**  
 正宏工程顧問公司  
**CHING WAN ENGINEERING CONSULTANTS COMPANY**

**Project:**  
 Proposed Temporary Shop and Services (Wooden Ware Retail Shop) for a Period of 5 Years at Lots 2907 S.C RP, 2908 RP (Part), 2910 (Part) and 2911 RP (Part) in D.D. 104 and adjoining Government Land, Castle Peak Road - Mai Po, Mai Po, Yuen Long

**OZP:**  
 Application No. A/YL-MP/302

**Zoning:**  
 Open Space

**Title:**  
 Sections

<b>Dwg No:</b> Fig.7	<b>File:</b> Lots 2907 S.C RP, 2908 RP (Part), 2910 (Part) and 2911 RP (Part) in D.D. 104 and adjoining Government Land, Castle Peak Road - Mai Po, Mai Po, Yuen Long
<b>Date:</b> 2-9-2024	

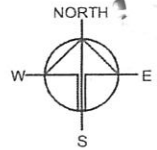
**DEVELOPMENT PARAMETERS OF THE APPLICATION SITE**

APPLICATION SITE AREA : 1,209m<sup>2</sup> (ABOUT)  
 COVERED AREA : 435.5m<sup>2</sup> (ABOUT)  
 UNCOVERED AREA : 773.5m<sup>2</sup> (ABOUT)

PLOT RATIO : 0.4 (ABOUT)  
 SITE COVERAGE : 36% (ABOUT)

NO. OF STRUCTURE : 6  
 DOMESTIC GFA : NOT APPLICABLE  
 NON-DOMESTIC GFA : 511.5m<sup>2</sup> (ABOUT)  
 BUILDING HEIGHT : 3m - 7.2m (ABOUT)  
 NO. OF STOREY : 1 - 2

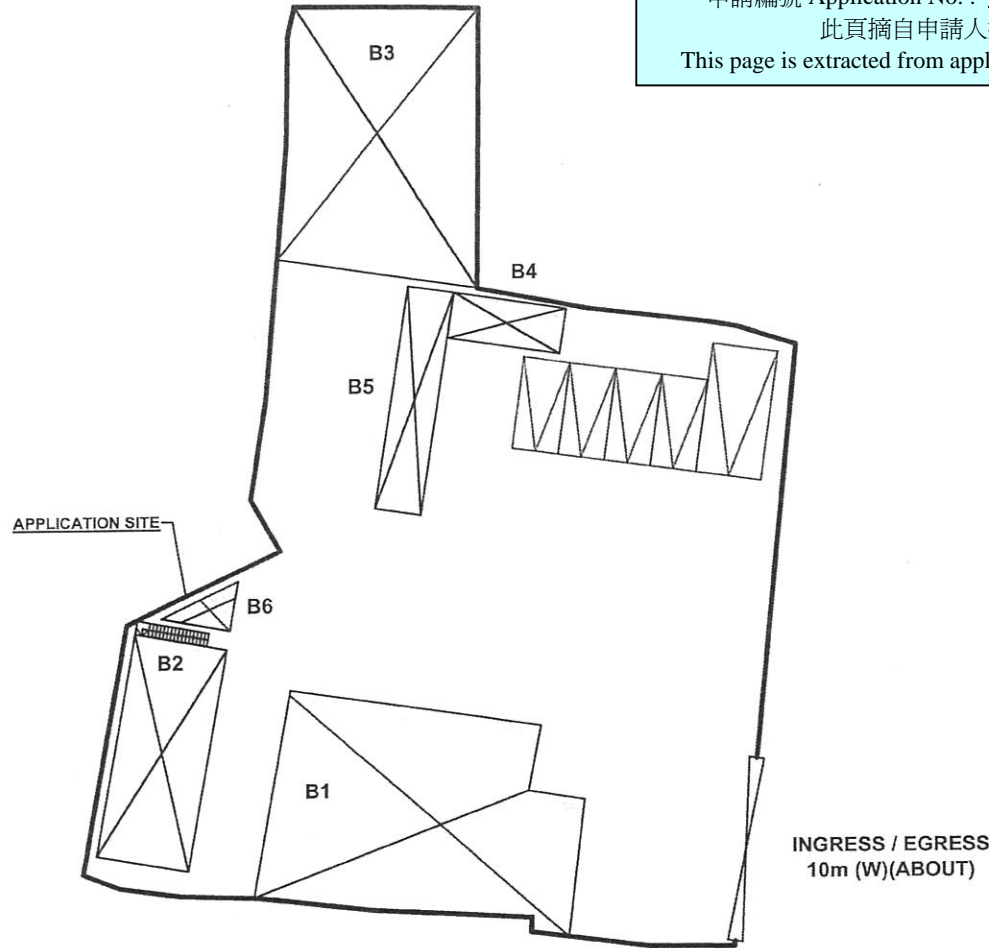
STRUCTURE	USE	COVERED AREA	GFA	BUILDING HEIGHT
B1	SHOP AND SERVICES	173.5m <sup>2</sup> (ABOUT)	173.5m <sup>2</sup> (ABOUT)	7.2m (ABOUT)(1-STOREY)
B2	SHOP AND SERVICES (G/F) & SITE OFFICE (1/F)	61m <sup>2</sup> (ABOUT)	122m <sup>2</sup> (ABOUT)	7.2m (ABOUT)(2-STOREY)
B3	SHOP AND SERVICES	151m <sup>2</sup> (ABOUT)	151m <sup>2</sup> (ABOUT)	5.5m (ABOUT)(1-STOREY)
B4	TOILET (G/F) & STORAGE OF GOODS (1/F)	15m <sup>2</sup> (ABOUT)	30m <sup>2</sup> (ABOUT)	6m (ABOUT)(2-STOREY)
B5	STORAGE OF GOODS	30m <sup>2</sup> (ABOUT)	30m <sup>2</sup> (ABOUT)	3m (ABOUT)(1-STOREY)
B6	FIRE SERVICE WATER TANK AND CONTROL PANEL	5m <sup>2</sup> (ABOUT)	5m <sup>2</sup> (ABOUT)	3m (ABOUT)(1-STOREY)
<b>TOTAL</b>		<b>435.5m<sup>2</sup> (ABOUT)</b>	<b>511.5m<sup>2</sup> (ABOUT)</b>	



申請編號 Application No. :     A / Y L - M P / 3 0 2    

此頁摘自申請人提交的文件。

This page is extracted from applicant's submitted documents.



**PARKING PROVISIONS**

NO. OF PRIVATE CAR PARKING SPACE : 4  
 DIMENSION OF PARKING SPACE : 2.5m (W) X 5m (L)

NO. OF LULG SPACE FOR LGV : 1  
 DIMENSION OF PARKING SPACE : 3.5m (W) X 7m (L)

**LEGEND**

- APPLICATION SITE
- ENCLOSED STRUCTURE
- CANOPY
- PARKING SPACE
- INGRESS / EGRESS

Drawing No.	Ver.
P04	01

Project  
 TEMPORARY SHOP AND SERVICES FOR A PERIOD OF 5 YEARS

VARIOUS LOTS IN D.D. 104 AND ADJOINING GOVERNMENT LAND, CASTLE PEAK ROAD - MAI PO, MAI PO, YUEN LONG, NEW TERRITORIES

Drawing Title
LAYOUT PLAN

Scale of A4
1 : 500

Drawn	Date
	23.11.2020

Revised	Date





**Company:** 正宏工程顧問公司 CHING WAN ENGINEERING CONSULTANTS COMPANY  
**Project:** Temporary Shop and Services (Metalware Retail Shop) for a Period of 3 Years  
at Lots 2907 S.C RP, 2908 RP (Part), 2910 (Part) and 2911 RP (Part) in D.D. 104 and  
adjoining Government Land, Castle Peak Road - Mai Po, Mai Po, Yuen Long  
**Date:** 27-May-24

**Calculation for Design of Channels:**

Catchment Zone 1

$$\begin{aligned} \text{Area} &= 800 \text{ m}^2 \\ &= 0.0008 \text{ km}^2 \end{aligned}$$

$$\begin{aligned} \text{Peak runoff in m}^3/\text{s} &= 0.278 \times 0.95 \times 250 \text{ mm/hr} \times 0.0008 \text{ km}^2 \\ &= 0.05282 \text{ m}^3/\text{s} \\ &= 3169 \text{ liter/min} \end{aligned}$$

According to (Figure 8.7 - Chart for the Rapid Design of Channels),  
For gradient 1:150, 300UC will be suitable.

Catchment Zone 2

$$\begin{aligned} \text{Area} &= 1500 \text{ m}^2 \\ &= 0.0015 \text{ km}^2 \end{aligned}$$

$$\begin{aligned} \text{Peak runoff in m}^3/\text{s} &= 0.278 \times 0.95 \times 250 \text{ mm/hr} \times 0.0015 \text{ km}^2 \\ &= 0.09904 \text{ m}^3/\text{s} \\ &= 5942 \text{ liter/min} \end{aligned}$$

According to (Figure 8.7 - Chart for the Rapid Design of Channels),  
For gradient 1:150, 300UC will be suitable.

Catchment Zone 1+2

Area = 2300 m<sup>2</sup>  
 = 0.0023 km<sup>2</sup>

Peak runoff in m<sup>3</sup>/s = 0.278 x 0.95 x 250 mm/hr x 0.0023 km<sup>2</sup>  
 = 0.15186 m<sup>3</sup>/s  
 = 9111 liter/min

Check 300 dia uPVC pipeline:

Peak runoff of catchment area :

9111 liter/min = 0.15186 m<sup>3</sup>/s

Check 300 dia. Pipe by Colebrook-White Equation

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

where :

V	=		mean velocity (m/s)	
g	=	9.81	m/s <sup>2</sup>	gravitational acceleration (m/s <sup>2</sup> )
D	=	0.45	m	internal pipe diameter (m)
ks	=	0.000003	m	hydraulic pipeline roughness (m) (Table 5, from DSD Sewerage Manual, uPVC)
v	=	1.14E-06	m <sup>2</sup> /s	kinematic viscosity of fluid (m <sup>2</sup> /s)
s	=	0.01		hydraulic gradient

Therefore, design V of pipe capacity = 2.7541 m/s > Design velocity from catchment area = 0.151858 m<sup>3</sup>/s / 0.95482 m/s / (0.45<sup>2</sup> \* pi/4) ==>O.K.

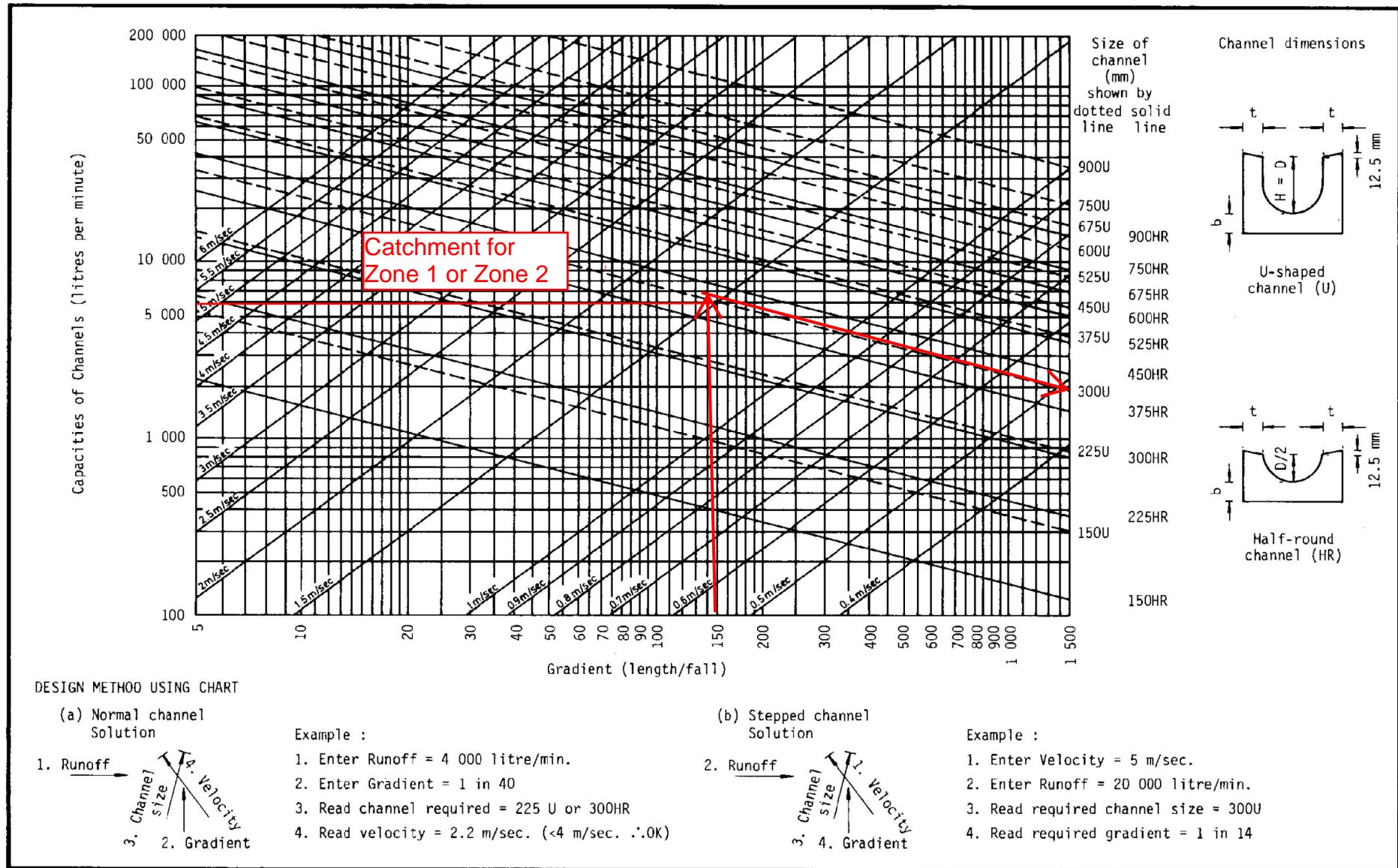
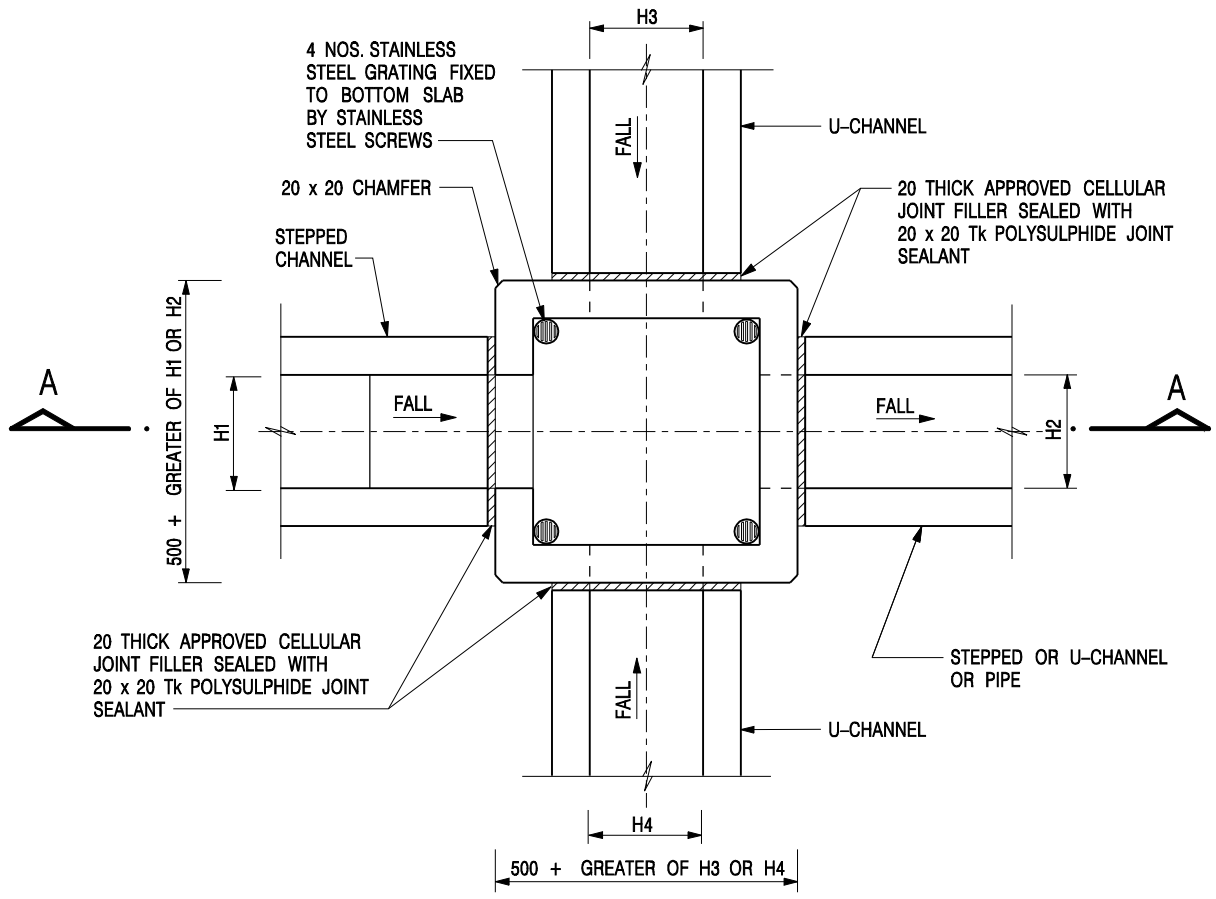
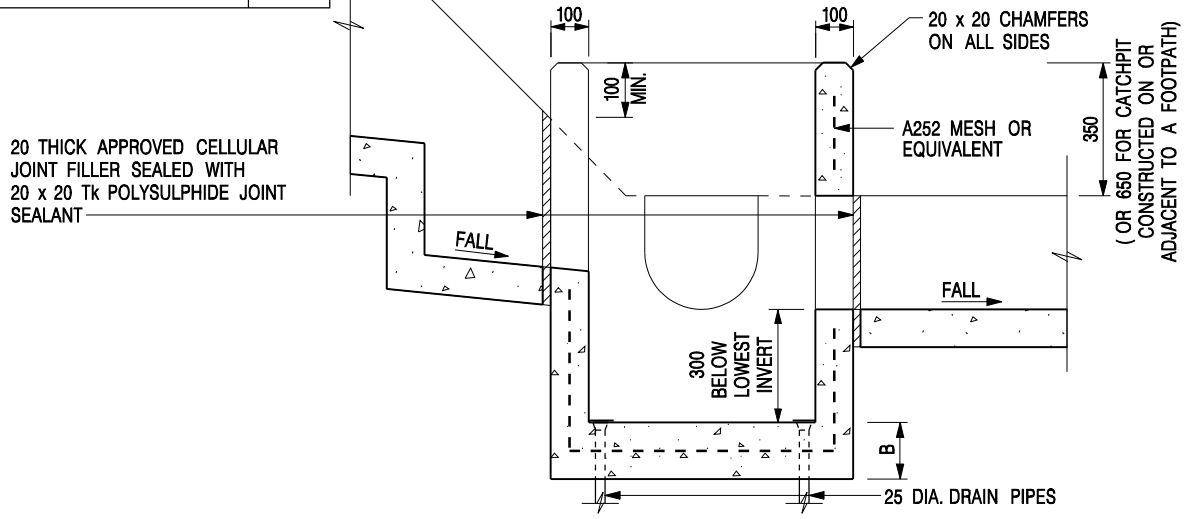


Figure 8.7 - Chart for the Rapid Design of Channels



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



**SECTION A - A**

**NOTES:**

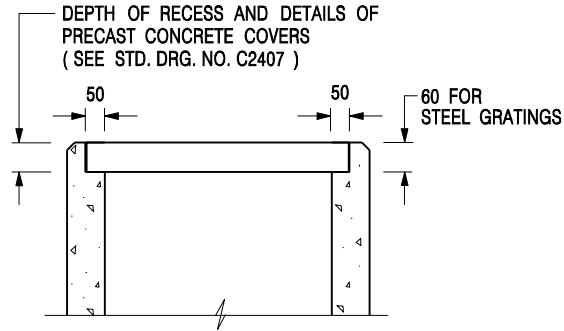
1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 2 FOR OTHER NOTES.

**CATCHPIT WITH TRAP  
(SHEET 1 OF 2)**

-	FORMER DRG. NO. C2406J.	Original Signed	03.2015
<b>REF.</b>	<b>REVISION</b>	<b>SIGNATURE</b>	<b>DATE</b>

**CEDD** **CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

<b>SCALE</b> 1 : 20	<b>DRAWING NO.</b>
<b>DATE</b> JAN 1991	<b>C2406 /1</b>




**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.

-	FORMER DRG. NO. C2406J.	Original Signed	03.2015
<b>REF.</b>	<b>REVISION</b>	<b>SIGNATURE</b>	<b>DATE</b>

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

 <b>CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT</b>	
<b>SCALE</b> 1 : 20	<b>DRAWING NO.</b>
<b>DATE</b> JAN 1991	<b>C2406 /2</b>

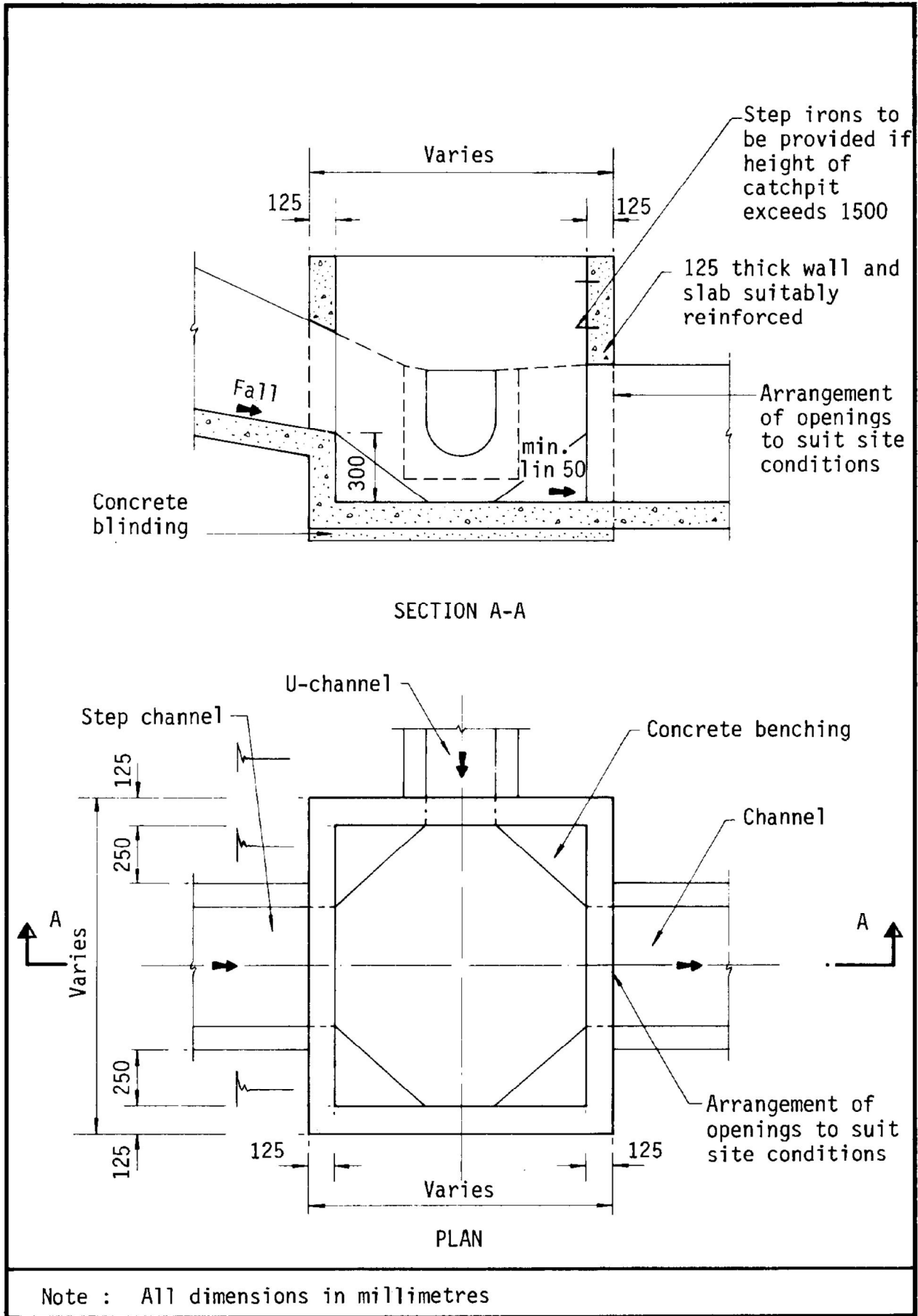
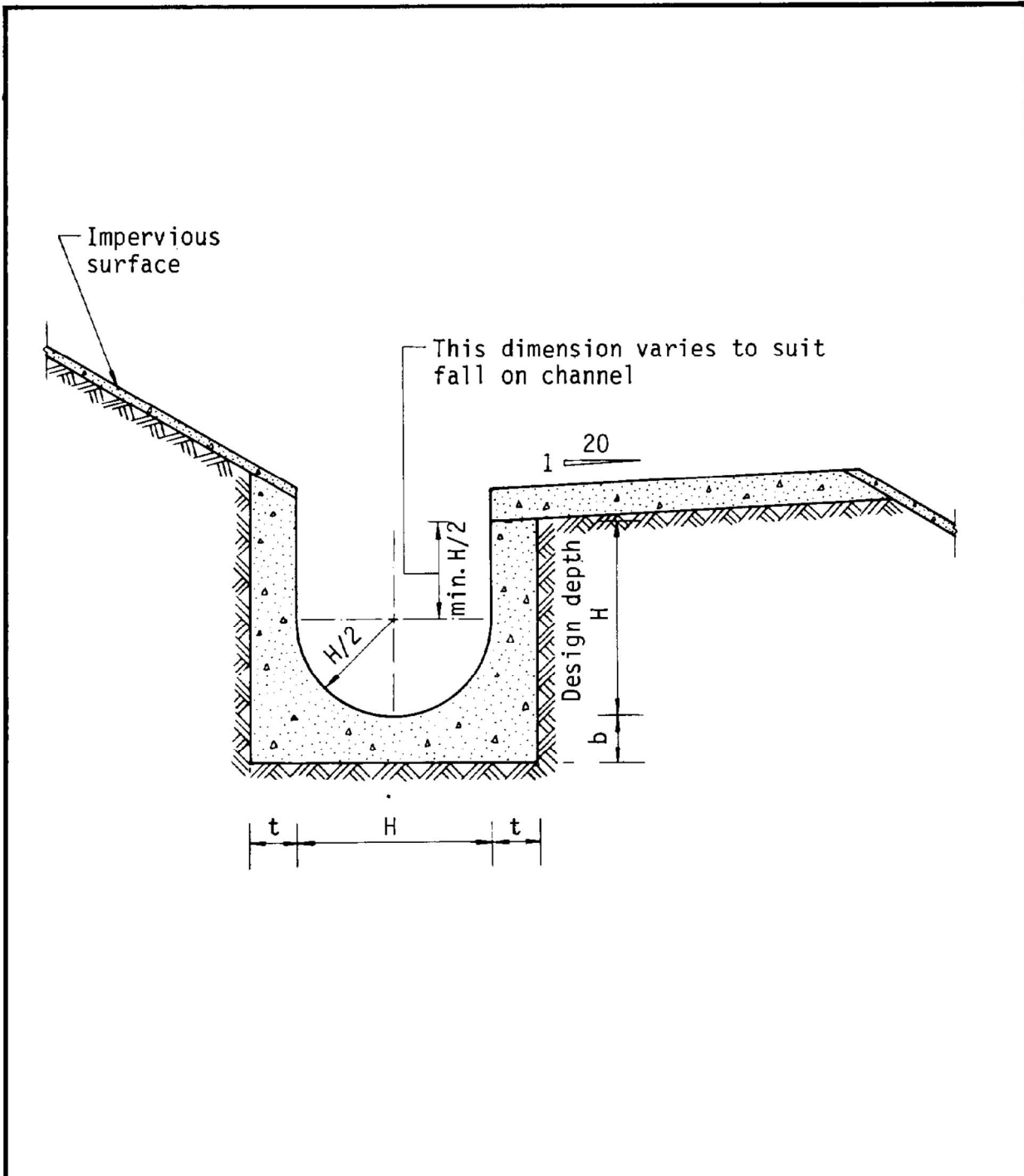


Figure 8.10 - Typical Details of Catchpits



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





PHOTO 1

Photo 2



Photo 3

