Appendix I

規 劃 署

粉嶺、上水及元朗東規劃處
新界荃灣青山公路 388 號
中染大廈 22 樓 2202 室

Planning Department

Fanling, Sheung Shui & Yuen Long East
District Planning Office
Unit 2202, 22/F, CDW Building,
388 Castle Peak Road, Tsuen Wan, N.T.

來函檔號   Your Reference : DD107 Lot 1225 S.C & VL

本署檔號   Our Reference : TPB/A/YL-KTN/769

電話號碼   Tel. No. :

傳真機號碼 Fax No. :

By Post & Fax

22 June 2022

Dear Sir/Madam,

**Submission for Compliance with Approval Condition (e)
– The Submission of a Drainage Proposal**

**Proposed Temporary Animal Boarding Establishment for a Period of 5 Years
and Filling of Land in "Agriculture" Zone, Lots 1225 S.C, 1226 S.E and 1230 S.B
in D.D. 107 Fung Kat Heung, Kam Tin, Yuen Long
(Application No. A/YL-KTN/769)**

I refer to your submission dated 18.3.2022 for compliance with the captioned approval condition. Relevant department has been consulted on your submission. Your submission is considered:

☑   Acceptable. The captioned condition **has been complied with**.

☐   Acceptable. Since the captioned condition requires both the submission and implementation of the proposal, it **has not been fully complied with**. Please proceed to implement the accepted proposal for full compliance with the approval condition.

☐   Not acceptable. The captioned condition **has not been complied with**. Please find detailed departmental comments.

Should you have any queries, please contact   (Tel:
) of the Drainage Services Department directly.

Yours faithfully,

(Anthony LUK)
District Planning Officer/
Fanling, Sheung Shui & Yuen Long East
Planning Department

我們的理想 - 「透過規劃工作,使香港成為世界知名的國際都市。」
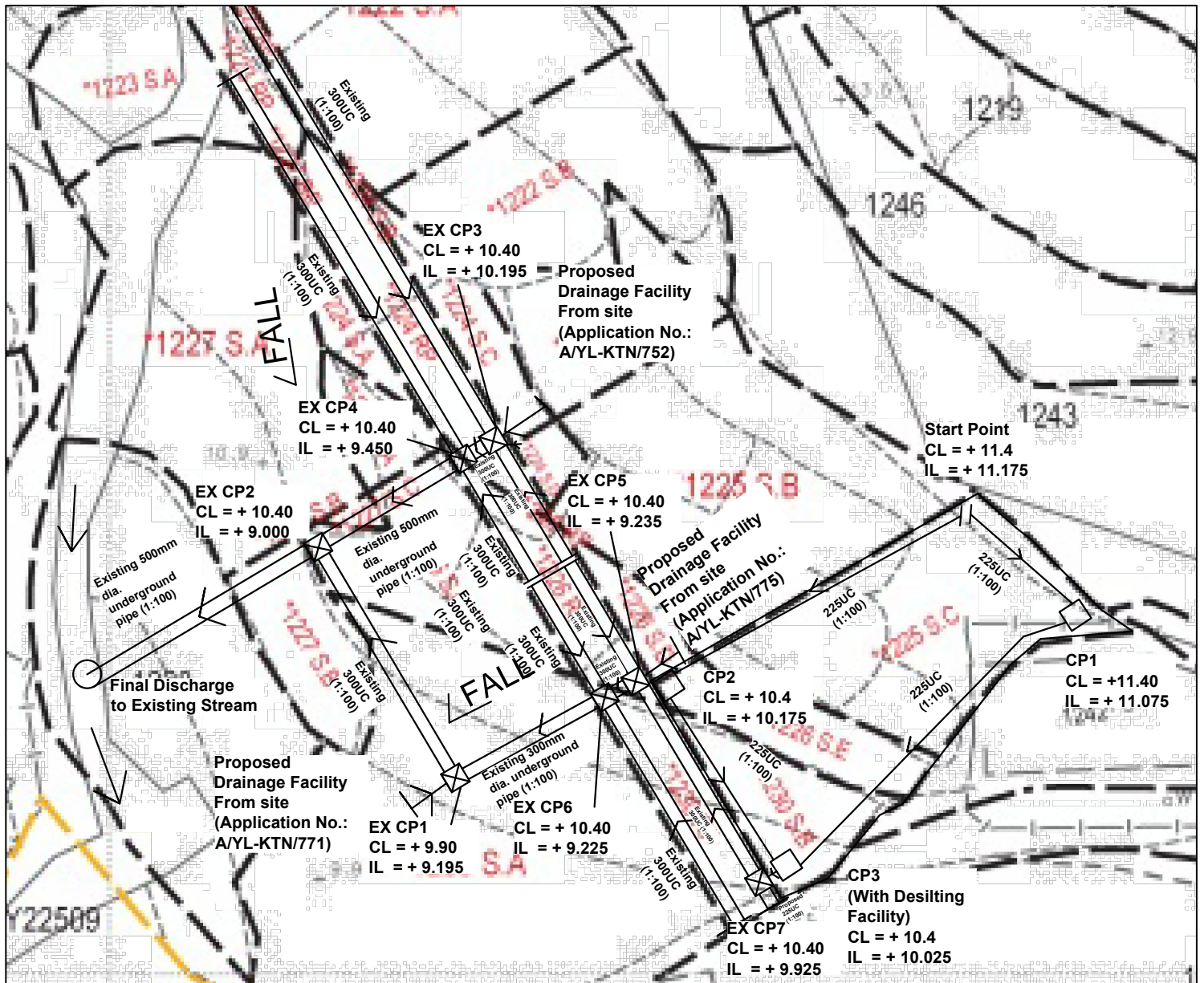Our Vision – "We plan to make Hong Kong an international city of world prominence."

Serving the Community

- 2 -

c.c.
CE/MN of DSD   (Attn.:   )   (Fax:)

Internal
CTP/TPB

AL/LD/lw

Existing 300UC (1:100)

*1723 S.A

*1722 S.A

*1227 S.A

1219

1246

1243

1225 S.B

1225 S.C

EX CP3
CL = + 10.40
IL = + 10.195

Proposed Drainage Facility From site (Application No.: A/YL-KTN/752)

EX CP4
CL = + 10.40
IL = + 9.450

EX CP2
CL = + 10.40
IL = + 9.000

EX CP5
CL = + 10.40
IL = + 9.235

Start Point
CL = + 11.4
IL = + 11.175

Proposed Drainage Facility From site (Application No.: A/YL-KTN/775)

Existing 500mm dia. underground pipe (1:100)

Existing 500mm dia. underground pipe (1:100)

CP2
CL = + 10.4
IL = + 10.175

CP1
CL = +11.40
IL = + 11.075

225UC (1:100)

225UC (1:100)

225UC (1:100)

225UC (1:100)

FALL

FALL

Final Discharge to Existing Stream

Proposed Drainage Facility From site (Application No.: A/YL-KTN/771)

Existing 300mm dia. underground pipe (1:100)

EX CP6
CL = + 10.40
IL = + 9.225

EX CP1
CL = + 9.90
IL = + 9.195

CP3
(With Desilting Facility)
CL = + 10.4
IL = + 10.025

EX CP7
CL = + 10.40
IL = + 9.925

*22509

S.A

LEGEND

☐ CP   Proposed CatchPit

Proposed UC (1:100) with Cast Iron Cover/underground pipe

⊠ CP   Existing CatchPit

Existing Drain

Note:
1. No solid fence wall to be erected.

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

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

4. All proposed u-channel is covered by cast iron

Proposed 225UC

Trim existing CP   Trim existing CP

Grout All Around Provided with Waterstop Gasket

Existing 300UC   Existing 300UC

EX CP7

150   100

100   150

100   150+225+150   100

CONNECTION DETAILS

正宏工程顧問公司

CHING WAN ENGINEERING CONSULTANT CO.

Project:
Proposed Temporary Animal Boarding Establishment for a period of 5 years and Filling of Land at Lots 1222 S.B, 1224 S.C, and 1225 S.A in D.D. 107, Fung Kat Heung, Kam Tin

(Application No.: A/YL-KTN/769)

Title:
Drainage Proposal

D01

Drawn by:
DM

Date:
19th Jan 2022

Check by:
DM

Scale:
— — — —

Company:
Project :   A/YL-KTN/771

Date: 12/1/2022

Calculation for channels:

Catchment Area of site (A/YL-KTN/771)

Grass-paved Area   =   548   m^2
                        =   0.000548   km^2

Peak runoff in m^3/s   =   0.278   x   0.25   x   250   mm/hr   x 0.000548 km^2
                        =   0.009522   m^3/s
                        =   571   liter/min

Hard-paved Area   =   722   m^2
                        =   0.000722   km^2

Peak runoff in m^3/s   =   0.278   x   0.95   x   250   mm/hr   x 0.000722 km^2
                        =   0.04767   m^3/s
                        =   2860   liter/min

Total Peak runoff in m^3/s   =   0.057192   m^3/s
                        =   3431   liter/min

According to (Figure 8.7 - Chart for the Rapid Design of Channels),
For gradient 1:100, existing 225UC will be suitable.

DEVELOPMENT PARAMETERS OF THE APPLICATION SITE

APPLICATION SITE AREA : 1,270m² (ABOUT)
COVERED AREA : 115m² (ABOUT)
UNCOVERED AREA : 1,155m² (ABOUT)

PLOT RATIO : 0.2 (ABOUT)
SITE COVERAGE : 9% (ABOUT)

NO. OF STRUCTURE : 2
DOMESTIC GFA : NOT APPLICABLE
NON-DOMESTIC GFA : 215m² (ABOUT)
BUILDING HEIGHT : 3m - 7m (ABOUT)
NO. OF STOREY : 1 - 2

STRUCTURE	USE	COVERED AREA	GFA	BUILDING HEIGHT
B1	ANIMAL BOARDING ESTABLISHMENT STORAGE OF PET GOODS	100m² (ABOUT)	200m² (ABOUT)	7m (ABOUT)(2-STOREY)
B2	FIRE SERVICE WATER TANK AND CONTROL PANEL	15m² (ABOUT)	15m² (ABOUT)	3m (ABOUT)(1-STOREY)
	TOTAL	115m² (ABOUT)	215m² (ABOUT)	

NORTH
W — E
S

LANDSCAPING AREA

APPLICATION SITE

INGRESS / EGRESS
6m (ABOUT)

B2

B1
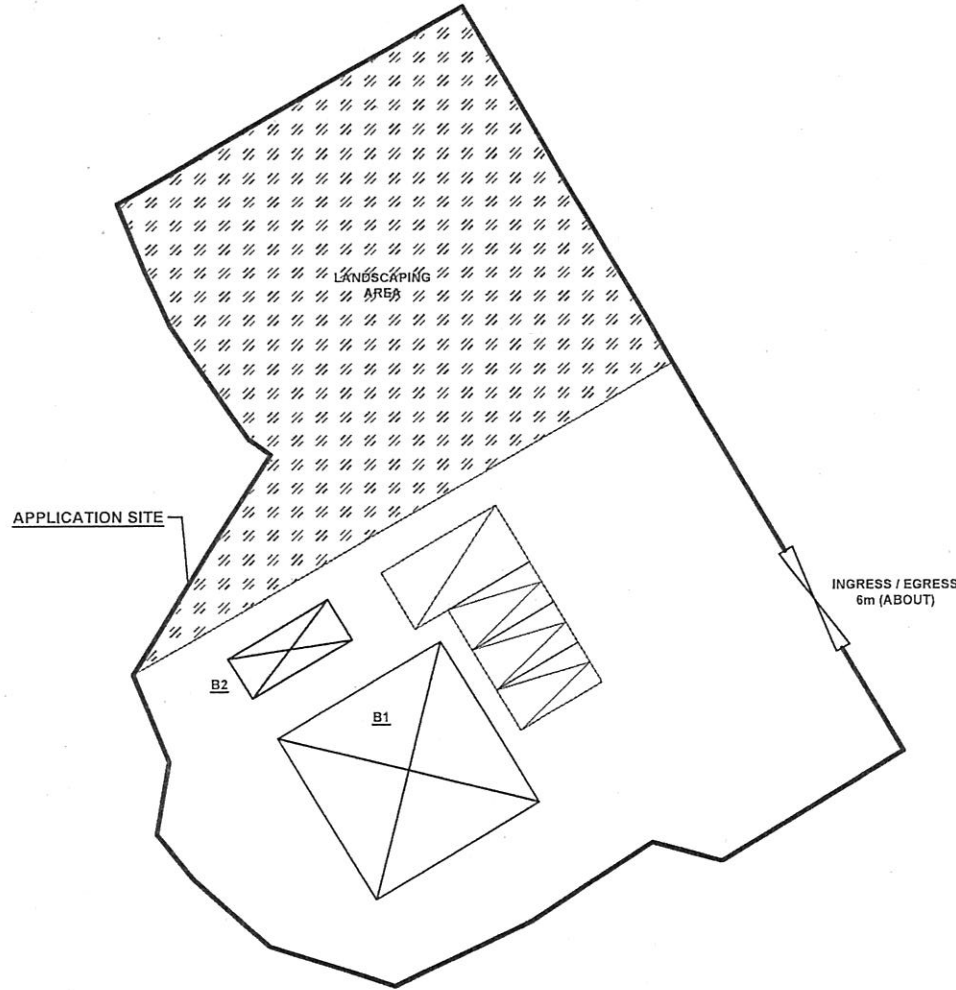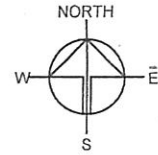
PARKING PROVISIONS

NO. OF PRIVATE CAR PARKING SPACE : 3
DIMENSION OF PARKING SPACE : 2.5m (W) X 5m (L)

NO. OF L/UL SPACE FOR LIGHT GOODS VEHICLE : 1
DIMENSION OF L/UL SPACE : 3.5m (W) X 7m (L)

LEGEND

APPLICATION SITE
STRUCTURE
PARKING SPACE
L/UL SPACE
INGRESS / EGRESS

Drawing No.	Ver.
P04	01

Project
PROPOSED TEMPORARY ANIMAL BOARDING ESTABLISHMENT FOR A PERIOD OF 5 YEARS AND LAND FILLING

VARIOUS LOTS IN D.D. 107, FUNG KAT HEUNG, KAM TIN

Drawing Title
LAYOUT PLAN

Scale of A4
1 : 400

Drawn | Date
| 1.4.2021

Revised | Date

Catchment Area of site (A/YL-KTN/769)

| Grass-paved Area | = | 344 | m^2 |
| | = | 0.000344 | km^2 |

Peak runoff in m^3/s	=	0.278	x	0.25	x	250	mm/hr	x	0.000344	km^2
	=	0.005977	m^3/s
	=	359	liter/min

| Hard-paved Area | = | 221 | m^2 |
| | = | 0.000221 | km^2 |

Peak runoff in m^3/s	=	0.278	x	0.95	x	250	mm/hr	x	0.000221	km^2
	=	0.014592	m^3/s
	=	875	liter/min

| Total Peak runoff in m^3/s | = | 0.020569 | m^3/s |
| | = | 1234 | liter/min |

According to (Figure 8.7 - Chart for the Rapid Design of Channels),
For gradient 1:100, existing 225UC will be suitable.

PAVED RATIO OF THE APPLICATION SITE

|	
APPLICATION SITE AREA	: 565m² (ABOUT)
COVERED BY STRUCTURE	: 60m² (11%)(ABOUT)
GRASS PAVER AREA	: 344m² (61%)(ABOUT)
LANDSCAPING AREA	: 161m² (28%)(ABOUT)
LAND FILLING AREA	: 60m² (11%)(ABOUT)
DEPTH OF LAND FILLING	: NOT MORE THAN 0.2m (ABOUT)
MATERIAL OF LAND FILLING	: CONCRETE
PURPOSE OF LAND FILLING	: SITE FORMATION OF STRUCTURES
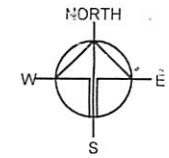
CIRCULATION AND PARKING / L/UL SPACE ☐

EXISTING SITE LEVEL : 10.2mPD(ABOUT)
SURFACE : GRASS PAVER

NO LAND FILLING AT THIS PORTION OF THE SITE

APPLICATION SITE

INGRESS / EGRESS
6m (ABOUT)
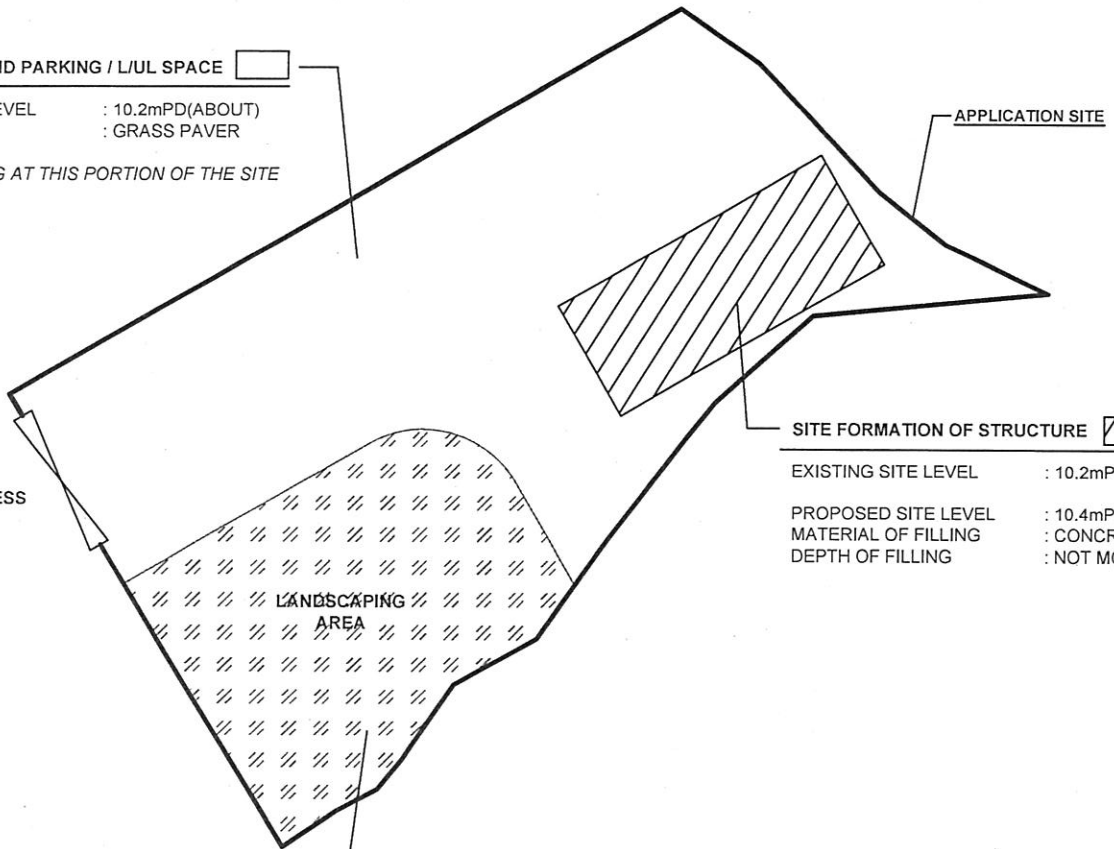
LANDSCAPING
AREA

SITE FORMATION OF STRUCTURE ▨

EXISTING SITE LEVEL : 10.2mPD (ABOUT)
PROPOSED SITE LEVEL : 10.4mPD (ABOUT)
MATERIAL OF FILLING : CONCRETE
DEPTH OF FILLING : NOT MORE THAN 0.2m

LANDSCAPING AREA ▨

EXISTING SITE LEVEL : 10.2mPD(ABOUT)

NO LAND FILLING AT THIS PORTION OF THE SITE

LEGEND

▨ LAND FILLING AREA
☐ GRASS PAVER
▨ LANDSCAPING AREA

Drawing No.		Ver.
P05		01
Project		
PROPOSED TEMPORARY ANIMAL BOARDING ESTABLISHMENT FOR A PERIOD OF 5 YEARS AND LAND FILLING		
LOT 1225 S.C & VL IN D.D. 107, FUNG KAT HEUNG, KAM TIN		
Drawing Title		
PAVED RATIO OF THE SITE		
Scale of A4		
1 : 300		
Drawn	Date	
	1.4.2021	
Revised	Date	

Catchment Area of site (A/YL-KTN/775)

Grass-paved Area	=	303	m^2					
	=	0.000303	km^2					

Peak runoff in m^3/s	=	0.278	x	0.25	x	250	mm/hr	x 0.000303 km^2
	=	0.005265	m^3/s					
	=	316	liter/min					

Hard-paved Area	=	264	m^2	
	=	0.000264	km^2	

Peak runoff in m^3/s	=	0.278	x	0.95	x	250	mm/hr	x 0.000264 km^2
	=	0.017431	m^3/s					
	=	1046	liter/min					

Total Peak runoff in m^3/s	=	0.022695	m^3/s
	=	1362	liter/min

According to (Figure 8.7 - Chart for the Rapid Design of Channels),
For gradient 1:100, existing 225UC will be suitable.

## DEVELOPMENT PARAMETERS OF THE APPLICATION SITE

APPLICATION SITE AREA : 567m² (ABOUT)
COVERED AREA : 108m² (ABOUT)
UNCOVERED AREA : 459m² (ABOUT)

PLOT RATIO : 0.2 (ABOUT)
SITE COVERAGE : 19% (ABOUT)

NO. OF STRUCTURE : 1
DOMESTIC GFA : NOT APPLICABLE
NON-DOMESTIC GFA : 108m² (ABOUT)
BUILDING HEIGHT : 3.5m (ABOUT)
NO. OF STOREY : 1

STRUCTURE	USE	COVERED AREA	GFA	BUILDING HEIGHT
B1	ANIMAL BOARDING ESTABLISHMENT STORAGE OF PET GOODS	108m² (ABOUT)	108m² (ABOUT)	3.5m (ABOUT)(1-STOREY)
	TOTAL	108m² (ABOUT)	108m² (ABOUT)	

NORTH

APPLICATION SITE

LANDSCAPING AREA

INGRESS / EGRESS
7m (ABOUT)

B1
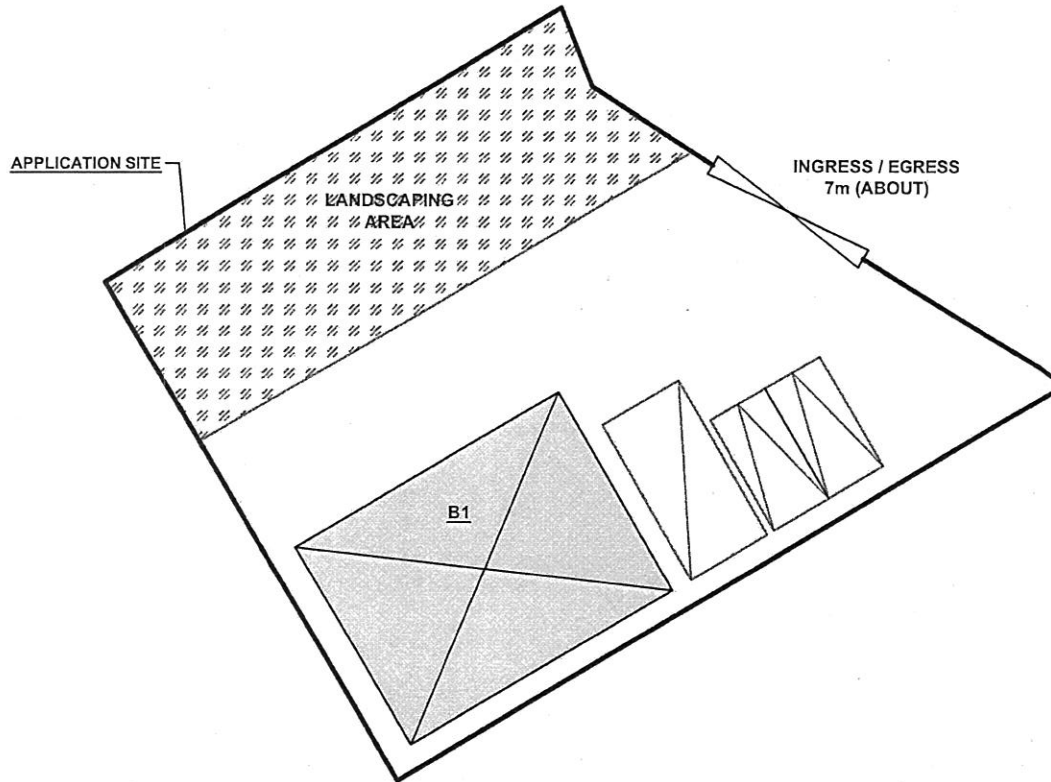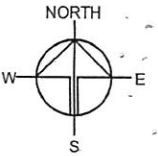
PARKING PROVISIONS

NO. OF PRIVATE CAR PARKING SPACE : 2
DIMENSION OF PARKING SPACE : 2.5m (W) X 5m (L)

NO. OF L/UL SPACE FOR LIGHT GOODS VEHICLE : 1
DIMENSION OF L/UL SPACE : 3.5m (W) X 7m (L)

LEGEND

APPLICATION SITE
STRUCTURE
PARKING SPACE
L/UL SPACE
INGRESS / EGRESS

Drawing No.	Ver.
P04	01

Project

PROPOSED TEMPORARY ANIMAL BOARDING ESTABLISHMENT FOR A PERIOD OF 5 YEARS AND LAND FILLING

LOT 1224 S.D & VL IN D.D. 107, FUNG KAT HEUNG, KAM TIN

Drawing Title
LAYOUT PLAN

Scale of A4
1 : 300

Drawn

Date
7.5.2021

Revised Date

Catchment Area of site (A/YL-KTN/752)

| Grass-paved Area | = | 350 | m^2 |
| | = | 0.00035 | km^2 |

Peak runoff in m^3/s	=	0.278	x	0.25	x	250	mm/hr	x 0.00035	km^2
	=	0.006081	m^3/s
	=	365	liter/min

| Hard-paved Area | = | 216 | m^2 |
| | = | 0.000216 | km^2 |

Peak runoff in m^3/s	=	0.278	x	0.95	x	250	mm/hr	x 0.000216	km^2
	=	0.014261	m^3/s
	=	856	liter/min

| Total Peak runoff in m^3/s | = | 0.020343 | m^3/s |
| | = | 1221 | liter/min |

According to (Figure 8.7 - Chart for the Rapid Design of Channels),
For gradient 1:100, existing 225UC will be suitable.

PAVED RATIO OF THE APPLICATION SITE

|	
APPLICATION SITE AREA	: 566m² (ABOUT)
COVERED BY STRUCTURE	: 216m² (38%)(ABOUT)
GRASS PAVER AREA	: 350m² (62%)(ABOUT)
LAND FILLING AREA	: 216m² (38%)(ABOUT)
DEPTH OF LAND FILLING	: NOT MORE THAN 0.2m (ABOUT)
MATERIAL OF LAND FILLING	: CONCRETE
PURPOSE OF LAND FILLING	: SITE FORMATION OF STRUCTURES
	CIRCULATION AND PARKING / L/UL SPACES

NORTH
W — E
S
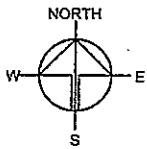
CIRCULATION AND PARKING / L/UL SPACE

EXISTING SITE LEVEL	: 11.1mPD(ABOUT)
SURFACE	: GRASS PAVER

NO LAND FILLING AT THIS PORTION OF THE SITE

INGRESS / EGRESS
6m (ABOUT)

APPLICATION SITE
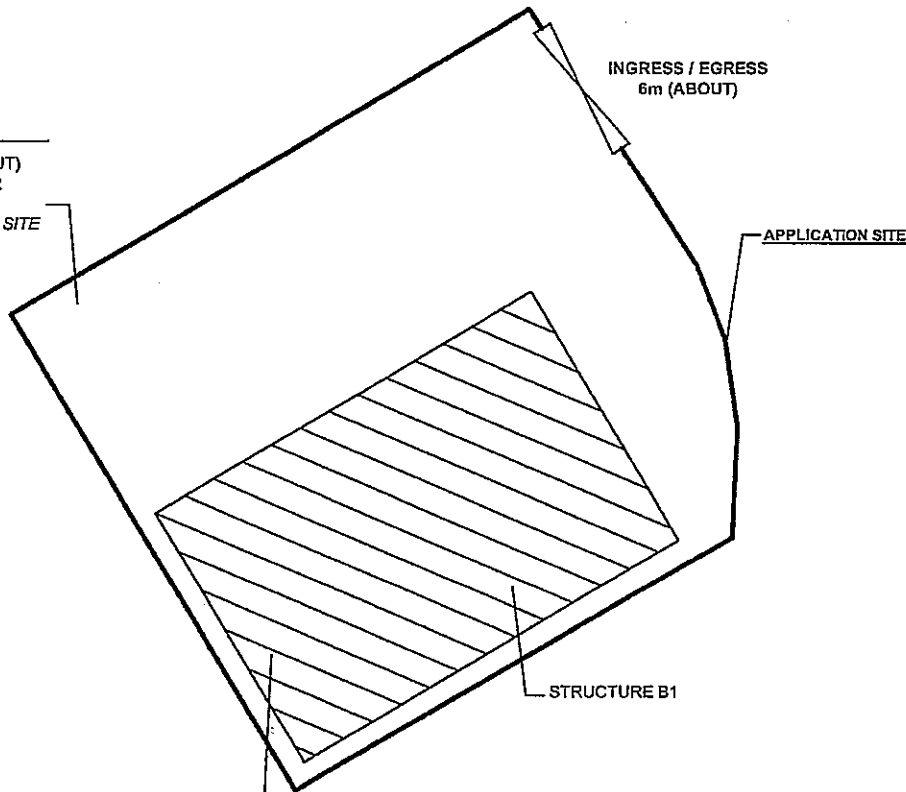
STRUCTURE B1

SITE FORMATION OF STRUCTURE

EXISTING SITE LEVEL	: 11.1mPD (ABOUT)
PROPOSED SITE LEVEL	: 11.3mPD (ABOUT)
MATERIAL OF FILLING	: CONCRETE
DEPTH OF FILLING	: NOT MORE THAN 0.2m

LEGEND

▨ LAND FILLING AREA
☐ GRASS PAVER

Drawing No.	Ver.
P05	01

Project
PROPOSED TEMPORARY ANIMAL BOARDING ESTABLISHMENT FOR A PERIOD OF 5 YEARS AND LAND FILLING

LOT 1222 S.B AND VARIOUS LOTS IN D.D. 107, FUNG KAT HEUNG, KAM TIN

Drawing Title
PAVED RATIO OF THE SITE

Scale of A4
1 : 300

Drawn

Date
5.1.2021

Revised

Date

Catchment Area of site (A/YL-KTN/814)

| Hard-paved Area | = | 516 | m^2 |
| | = | 0.000516 | km^2 |

Peak runoff in m^3/s	=	0.278	x	0.95	x	250	mm/hr	x 0.000516	km^2
	=	0.034069	m^3/s
	=	2044	liter/min

According to (Figure 8.7 - Chart for the Rapid Design of Channels),
For gradient 1:100, existing 225UC will be suitable.

Catchment Area of site (A/YL-KTN/815)

| Hard-paved Area | = | 584 | m^2 |
| | = | 0.000584 | km^2 |

Peak runoff in m^3/s	=	0.278	x	0.95	x	250	mm/hr	x 0.000584	km^2
	=	0.038559	m^3/s
	=	2314	liter/min

According to (Figure 8.7 - Chart for the Rapid Design of Channels),
For gradient 1:100, existing 225UC will be suitable.

Catchment Area of site (Lot 1223RP, 1224RP, 1226RP and 1230RP)

| Soil-paved Area | = | 722 | m^2 |
| | = | 0.000722 | km^2 |

Peak runoff in m^3/s	=	0.278	x	0.25	x	250	mm/hr	x 0.000722	km^2
	=	0.012545	m^3/s
	=	753	liter/min

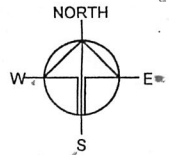Final Discharge through 300mm dia. Pipe =   0.2059702   m^3/s   =   12358.212   liter/min

PAVED RATIO OF THE APPLICATION SITE

APPLICATION SITE AREA : 516m² (ABOUT)
COVERED BY STRUCTURE : 108m² (18%)(ABOUT)

LAND FILLING AREA : 516m² (19%)(ABOUT)
DEPTH OF LAND FILLING : NOT MORE THAN 0.2m (ABOUT)
MATERIAL OF LAND FILLING : CONCRETE
PURPOSE OF LAND FILLING : SITE FORMATION OF STRUCTURES
AND CIRCULATION SPACE

NORTH

W — E
S

CIRCULATION AND PARKING / L/UL SPACE

EXISTING SITE LEVEL : 10.2mPD (ABOUT)

PROPOSED SITE LEVEL : 10.3mPD (ABOUT)
MATERIAL OF FILLING : CONCRETE
DEPTH OF FILLING : NOT MORE THAN 0.1m

APPLICATION SITE

SITE FORMATION OF STRUCTURE

EXISTING SITE LEVEL : 10.2mPD (ABOUT)

PROPOSED SITE LEVEL : 10.4mPD (ABOUT)
MATERIAL OF FILLING : CONCRETE
DEPTH OF FILLING : NOT MORE THAN 0.2m

LEGEND

APPLICATION SITE
LAND FILLING AREA (SITE FORMATION)
LAND FILLING (CIRCULATION SPACE)

Drawing No.	Ver.
P05	01

Project

PROPOSED TEMPORARY ANIMAL BOARDING ESTABLISHMENT FOR A PERIOD OF 5 YEARS AND LAND FILLING

LOT 1222 S.A (PART) AND 1224 S.B IN D.D. 107

Drawing Title
PAVED RATIO OF THE SITE

Scale of A4
1 : 300

Drawn	Date
	2.12.2021
Revised	Date

Check 500mm dia. Pipes (1:100) 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/s2	gravitational acceleration (m/s2)
D	=	0.5	m	internal pipe diameter (m)
ks	=	0.00015	m	hydraulic pipeline roughness (m) (Table 5, from DSD Sewerage Manual, concrete pipe)
v	=	1.14E-06	m2/s	kinematic viscosity of fluid (m2/s)
s	=	0.005		hydraulic gradient
Area A	=	0.19635	m2	

Therefore, design V of pipe = 1.7589 m/s   >   Design velocity from   = 0.2060 m3/s /   0.196349541

catchment area   = 1.048998 m/s   ===>O.K.

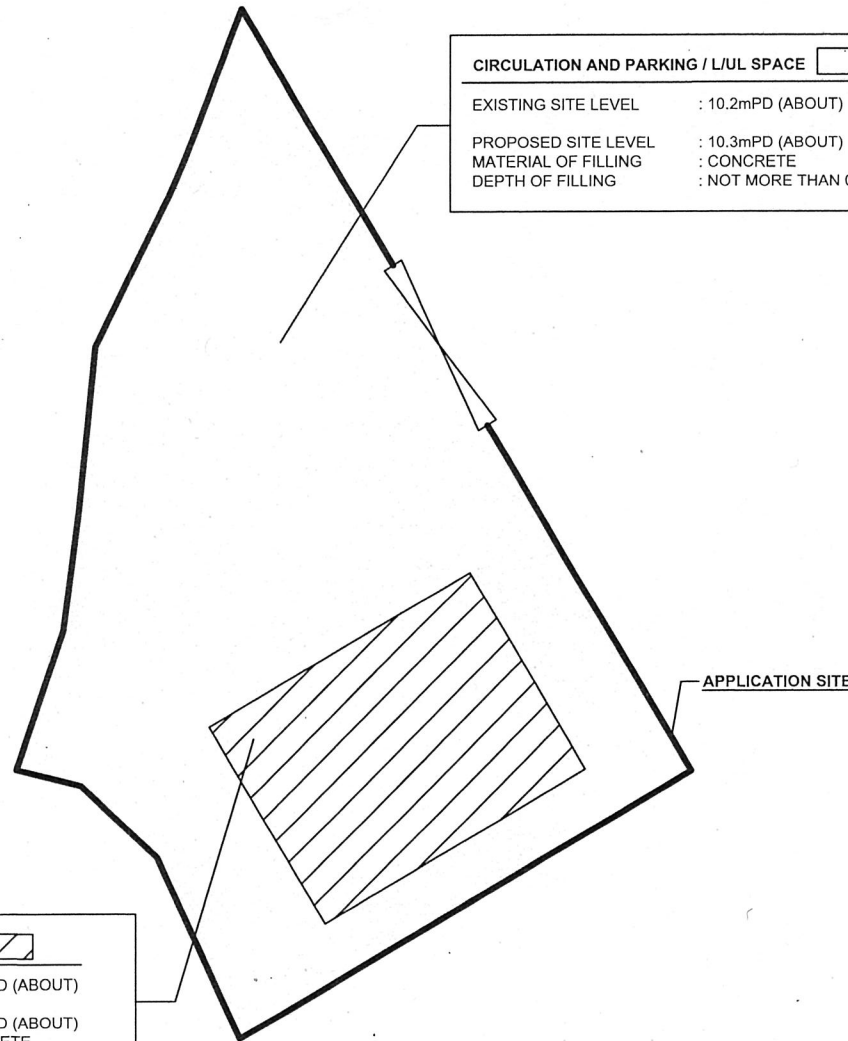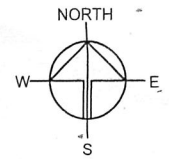Therefore, 500UPVC (1:100) will be adopted for connection bewteen site and final discharge

PAVED RATIO OF THE APPLICATION SITE

APPLICATION SITE AREA : 541 m² (ABOUT)
COVERED BY STRUCTURE : 108 m² (18%)(ABOUT)

LAND FILLING AREA : 541 m² (19%)(ABOUT)

DEPTH OF LAND FILLING : NOT MORE THAN 0.2m (ABOUT)
MATERIAL OF LAND FILLING : CONCRETE
PURPOSE OF LAND FILLING : SITE FORMATION OF STRUCTURES
AND CIRCULATION SPACE

NORTH
W — E
S

CIRCULATION AND PARKING / L/UL SPACE

EXISTING SITE LEVEL : 10.2mPD (ABOUT)

PROPOSED SITE LEVEL : 10.3mPD (ABOUT)
MATERIAL OF FILLING : CONCRETE
DEPTH OF FILLING : NOT MORE THAN 0.1m

— APPLICATION SITE

SITE FORMATION OF STRUCTURE

EXISTING SITE LEVEL : 10.2mPD (ABOUT)

PROPOSED SITE LEVEL : 10.4mPD (ABOUT)
MATERIAL OF FILLING : CONCRETE
DEPTH OF FILLING : NOT MORE THAN 0.2m

LEGEND

☐ APPLICATION SITE

▨ LAND FILLING AREA (SITE FORMATION)

☐ LAND FILLING (CIRCULATION SPACE)

PLANNING CONSULTANT
R-RICHES PROPERTY CONSULTANT LIMITED

PROJECT
PROPOSED TEMPORARY ANIMAL BOARDING ESTABLISHMENT FOR A PERIOD OF 5 YEARS AND LAND FILLING

SITE LOCATION
VARIOUS LOTS IN D.D. 107, FUNG KAT HEUNG, KAM, YUEN LONG, NEW TERRITORIES

SCALE
1 : 300 @ A4

DRAWN BY	DATE
MN	2.12.2021
CHECKED BY	DATE
OL	22.12.2021
APPROVED BY	DATE

DWG. TITLE
PAVED RATIO

DWG NO.	VER.
PLAN P05	001

EX CP3
CL = + 10.40
IL = + 10.195

Existing 300UC (1:100)

Proposed Drainage Facility From site (Application No.: A/YL-KTN/752)

EX CP4
CL = + 10.40
IL = + 9.450

EX CP2
CL = + 10.40
IL = + 9.000

EX CP5
CL = + 10.40
IL = + 9.235

Start Point
CL = + 11.4
IL = + 11.175

FALL

Existing 500mm dia. underground pipe (1:100)

Proposed Drainage Facility From site (Application No.: A/YL-KTN/775)

CP1
CL = +11.40
IL = + 11.075

225UC (1:100)

Final Discharge to Existing Stream

CP2
CL = + 10.4
IL = + 10.175

FALL

225UC (1:100)

Proposed Drainage Facility From site (Application No.: A/YL-KTN/771)

Existing 300mm dia. underground pipe (1:100)

EX CP6
CL = + 10.40
IL = + 9.225

CP3
(With Desilting Facility)
CL = + 10.4
IL = + 10.025

EX CP1
CL = + 9.90
IL = + 9.195

Catchment Area = 1114m2 for 300mm dia. pipe

EX CP7
CL = + 10.40
IL = + 9.925

LEGEND

☐ CP — Proposed CatchPit

→ Proposed UC (1:100) with Cast Iron Cover/underground pipe

⊠ CP — Existing CatchPit

→ Existing Drain

Note:
1. No solid fence wall to be erected.

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

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

4. All proposed u-channel is covered by cast iron

Proposed 225UC

Trim existing CP   Trim existing CP

Grout All Around Provided with Waterstop Gasket

Existing 300UC   Existing 300UC

EX CP7

100   150+225+150   100

CONNECTION DETAILS

正宏工程顧問公司

CHING WAN ENGINEERING CONSULTANT CO.

Project:
Proposed Temporary Animal Boarding Establishment for a period of 5 years and Filling of Land at Lots 1222 S.B, 1224 S.C, and 1225 S.A in D.D. 107, Fung Kat Heung, Kam Tin

(Application No.: A/YL-KTN/752)

Title:

Drainage Proposal

D01

Drawn by: DM

Date: 19th Jan 2022

Check by: DM

Scale: ————

Catchment Area of site for existing 300mm dia, pipe

Catchment Area   =   1114   m^2
                         =   0.001114   km^2

Peak runoff in m^3/s   =   0.278   x   0.95   x   250   mm/hr   x 0.001114 km^2
                         =   0.073552 m^3/s
                         =   4413   liter/min

Check 300mm dia. Pipes (1:100)   by Colebrook-White Equation

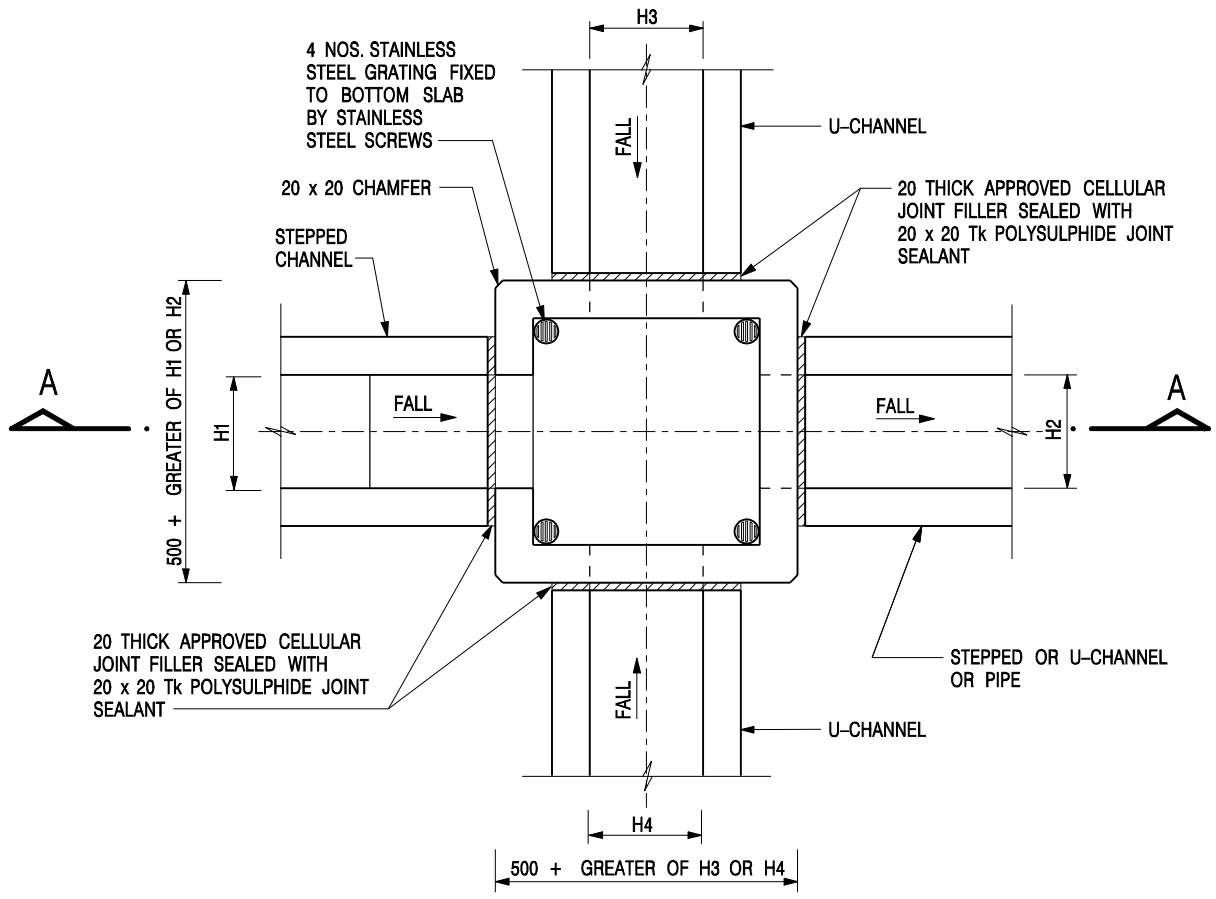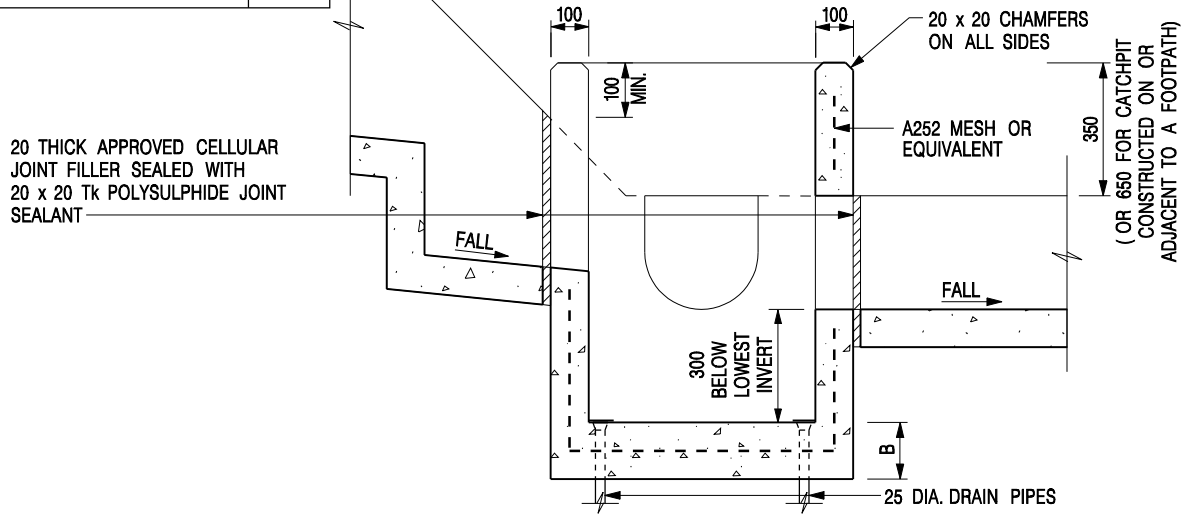$$V = -\sqrt{(8gDs)} \log\left(\frac{ks}{3.7D} + \frac{2.51v}{D\sqrt{(2gDs)}}\right)$$

where :
V   =   mean velocity (m/s)
g   =   9.81   m/s2   gravitational acceleration (m/s2)
D   =   0.3   m   internal pipe diameter (m)
ks   =   0.00015   m   hydraulic pipeline roughness (m)   (Table 5, from DSD Sewerage Manual, concrete pipe)
v   =   1.14E-06   m2/s   kinematic viscosity of fluid (m2/s)
s   =   0.005   hydraulic gradient
Area A   =   0.070686   m2
   Therefore, design V of pipe   =   1.2762   m/s   >   Design velocity from   = 0.0736   m3/s /   0.070685835
                                                                        catchment area   = 1.040546 m/s   ==>O.K.

Therefore, 500UPVC (1:100) will be adopted for connection bewteen site and final discharge

PLAN

4 NOS. STAINLESS STEEL GRATING FIXED TO BOTTOM SLAB BY STAINLESS STEEL SCREWS

20 x 20 CHAMFER

STEPPED CHANNEL

U–CHANNEL

20 THICK APPROVED CELLULAR JOINT FILLER SEALED WITH 20 x 20 Tk POLYSULPHIDE JOINT SEALANT

STEPPED OR U–CHANNEL OR PIPE

U–CHANNEL

500 + GREATER OF H1 OR H2

500 + GREATER OF H3 OR H4

20 THICK APPROVED CELLULAR JOINT FILLER SEALED WITH 20 x 20 Tk POLYSULPHIDE JOINT SEALANT

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

SECTION A – A

20 THICK APPROVED CELLULAR JOINT FILLER SEALED WITH 20 x 20 Tk POLYSULPHIDE JOINT SEALANT

20 x 20 CHAMFERS ON ALL SIDES

A252 MESH OR EQUIVALENT

350 (OR 650 FOR CATCHPIT CONSTRUCTED ON OR ADJACENT TO A FOOTPATH)
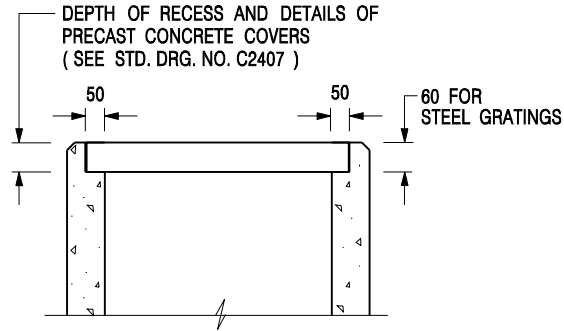
100 MIN.

300 BELOW LOWEST INVERT

25 DIA. DRAIN PIPES

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.

2. REFER TO SHEET 2 FOR OTHER NOTES.

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

CATCHPIT WITH TRAP

(SHEET 1 OF 2)

CEDD **CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT**

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

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

DEPTH OF RECESS AND DETAILS OF
PRECAST CONCRETE COVERS
(SEE STD. DRG. NO. C2407)

50   50   60 FOR
                   STEEL GRATINGS

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)

CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 20

DATE JAN 1991

DRAWING NO.
C2406 /2

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

Step irons to be provided if height of catchpit exceeds 1500

125 thick wall and slab suitably reinforced

Varies

125   125

Fall

Arrangement of openings to suit site conditions

min. 1 in 50

300

Concrete blinding

SECTION A-A

U-channel

Step channel

Concrete benching

Channel

125

250

A

Varies

250

125

125   125

Arrangement of openings to suit site conditions

Varies

PLAN

Note :   All dimensions in millimetres

Figure 8.10 - Typical Details of Catchpits

Figure 8.11 - Typical U-channel Details

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

DEVELOPMENT PARAMETERS

APPLICATION SITE AREA	: 565 m²	(ABOUT)
COVERED AREA	: 328 m²	(ABOUT)
UNCOVERED AREA	: 237 m²	(ABOUT)
PLOT RATIO	: 0.58	(ABOUT)
SITE COVERAGE	: 58 %	(ABOUT)
NO. OF STRUCTURE	: 2	
DOMESTIC GFA	: NOT APPLICABLE	
NON-DOMESTIC GFA	: 328 m²	(ABOUT)
TOTAL GFA	: 328 m²	(ABOUT)
BUILDING HEIGHT	: 7 m	(ABOUT)
NO. OF STOREY	: 1	

STRUCTURE	USE	COVERED AREA	GFA	BUILDING HEIGHT
B1	WAREHOUSE (EXCLUDING D.G.G.) SITE OFFICE AND WASHROOM	172 m² (ABOUT)	172 m² (ABOUT)	7 m (ABOUT)(1-STOREY)
B2	WAREHOUSE (EXCLUDING D.G.G.)	156 m² (ABOUT)	156 m² (ABOUT)	7 m (ABOUT)(1-STOREY)
TOTAL		**328 m² (ABOUT)**	**328 m² (ABOUT)**	

D.G.G. - DANGEROUS GOODS GODOWN

B2

2000

B1

PC

LGV

EXIT

EXIT

FE DP

FE DP
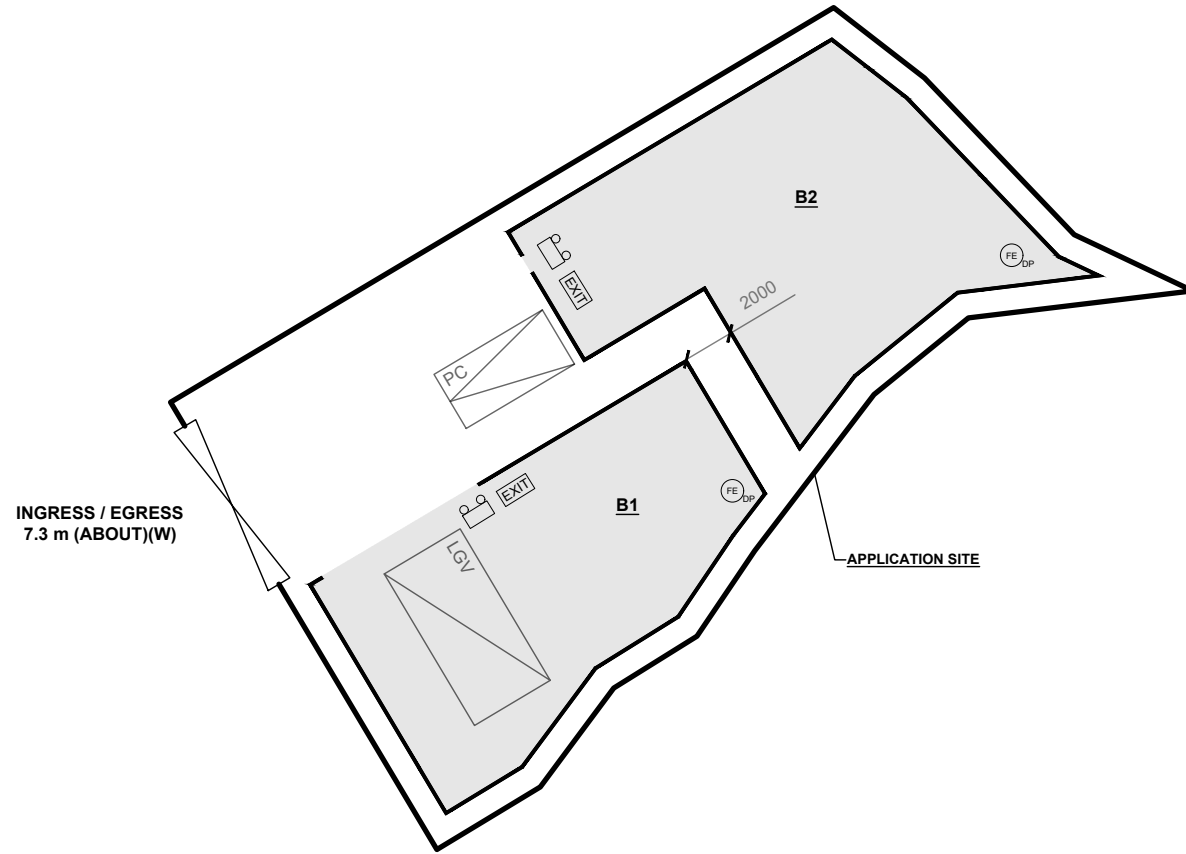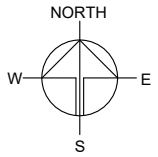
INGRESS / EGRESS 7.3 m (ABOUT)(W)

**APPLICATION SITE**

NORTH

W — E

S

FIRE SERVICE INSTALLATIONS

- 2 x EMERGENCY LIGHT
- EXIT 2 x EXIT SIGN
- FE DP 2 x 5 KG DRY POWER TYPE FIRE EXTINGUISHER

FS NOTES:

1. SUFFICIENT EMERGENCY LIGHTING SHALL BE PROVIDED THROUGHOUT THE ENTIRE BUILDING IN ACCORDANCE WITH BS5266-1:2016, BS EN1838:2013 AND FSD CIRCULAR LETTER 4/2021.

2. SUFFICIENT DIRECTIONAL AND EXIT SIGN SHALL BE PROVIDED IN ACCORDANCE WITH BS5266: PART 1 AND FSD CIRCULAR LETTER 5/2008.

3. PORTABLE HAND-OPERATED APPROVED APPLIANCE SHALL BE PROVIDED AS REQUIRED BY OCCUPANCY.

4. ACCESS IS PROVIDED FOR EMERGENCY VEHICLE TO REACH 30m OF ALL PART OF STRUCTURES.

LEGEND

- APPLICATION SITE
- STRUCTURE
- PARKING SPACE (PC)
- LOADING / UNLOADING SPACE (LGV)
- INGRESS / EGRESS

PLANNING CONSULTANT

R-Riches Property Consultants Ltd.

PROJECT
PROPOSED TEMPORARY WAREHOUSE (EXCLUDING DANGEROUS GOODS GODOWN) WITH ANCILLARY FACILITIES FOR A PERIOD OF 3 YEARS AND ASSOCIATED FILLING OF LAND

SITE LOCATION
VARIOUS LOTS IN D.D. 107, FUNG KAT HEUNG, YUEN LONG, NEW TERRITORIES

SCALE
1 : 300 @ A4

DRAWN BY	DATE
MN	16.1.2024
REVISED BY	DATE
APPROVED BY	DATE

DWG. TITLE
FSIs PROPOSAL

DWG NO.	VER.
APPENDIX II	001