

Total: 12 pages

Date: 13 June 2024

TPB Ref.: A/YL-TT/651

By Email

Tuen Mun and Yuen Long West District Planning Office
14/F, Sha Tin Government Offices
1, Sheung Wo Che Road
Sha Tin
NT
(Attn: Ms. Eva TAM)

Dear Sir,

Proposed Temporary Warehouse for Storage of Construction Materials for a Period of 3 Years & Filling of Land at Lot 2230 RP (Part) in D.D. 118 & Adjoining Government Land, Yuen Long, New Territories

Our response to the comments of the CE/MN, DSD is found below:

- (i) Noted. The ground to the south of the application site is generally higher so that an external catchment is included in the updated calculation below.
- (ii) The type, size and gradient of the proposed drain connecting from the last catchpit to the existing drain is shown on the updated drainage plan. The connection details to the existing open drain is shown in attached Figure 17.
- (iii) The existing drainage facilities, to which the applicant proposed to discharge the stormwater from the Site is not under DSD's purview. The applicant would resolve any conflict/disagreement arisen for discharging the runoff from the application site(s) to the proposed discharge point. The applicant confirmed that this drainage system and the existing downstream drains/channels/streams have adequate capacity to convey the additional runoff from the application site(s). Regular maintenance would be carried out by the applicant(S) to avoid blockage of the system.
- (iv) Photo record is shown in the following. The photo viewpoint is shown on the updated drainage plan.
- (v) The cover level and invert level of the proposed U-channel, catchpit and sand trap are shown on the updated drainage plan.

- (vi) Cross section showing the existing and proposed ground levels of the captioned site with respect to the adjacent areas is shown on the updated drainage plan.
- (vii) Standard details of the sectional details of the proposed U-channel, catchpit and sand trap are given.
- (viii) 100mm opening would be given at the toe of the site hoarding.
- (ix) \The development would neither obstruct overland flow nor adversely affect existing natural streams, village drains, ditches and adjacent areas, etc.

Should you have any enquiries, please feel free to contact our Mr. Patrick Tsui at [REDACTED] [REDACTED] at your convenience.

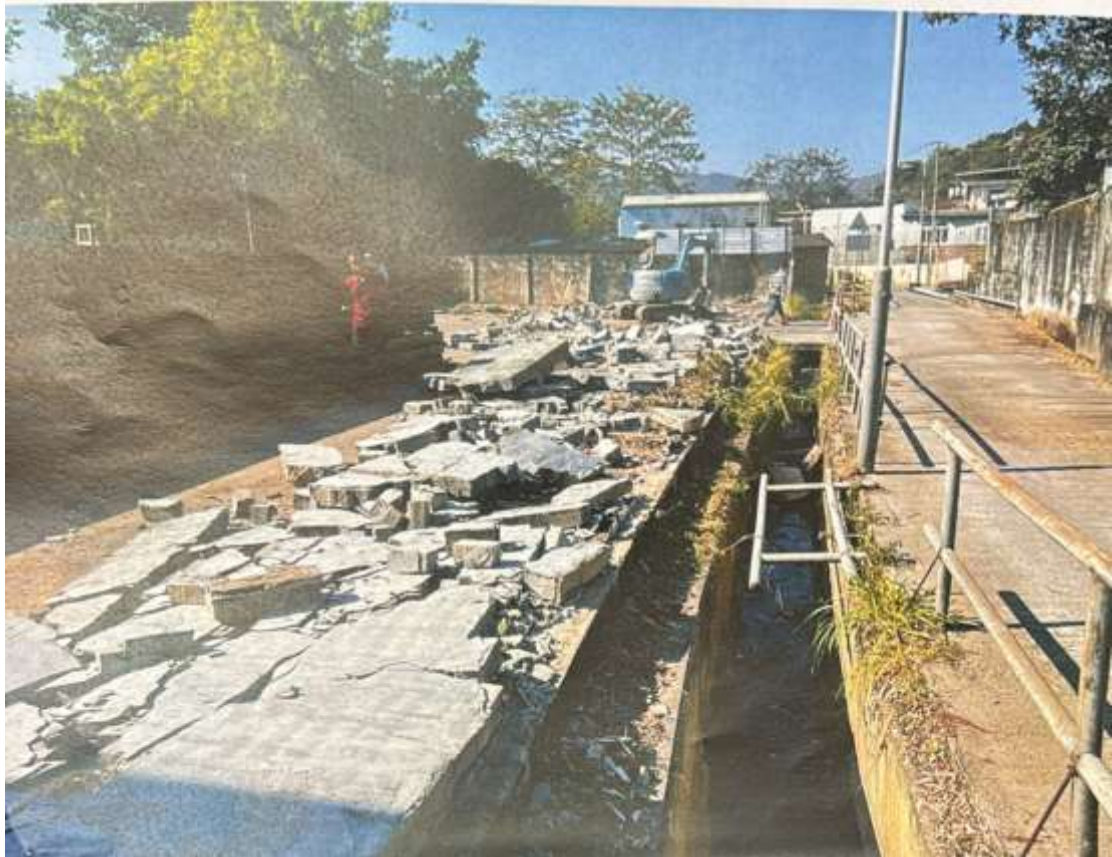
Yours faithfully,



Patrick Tsui

Photo showing the existing discharge path

Photo 1



Annex 1 Drainage Proposal

1.1 Existing Situation

A. Site particulars

1.1.1 The application site occupies an area of about 1,450m².

1.1.2 The site is serviced by a vehicular access leading from Tai Shu Ha Road East. The area adjacent to the proposed development is mainly rural in nature.

B. Level and gradient of the subject site & proposed surface channel

1.1.3 It has a gradient sloping from east to west from about +23.9mPD to +21.0mPD. **(Figure 4)**

C. Catchment area of the proposed drainage provision at the subject site

1.1.4 The land to the north and west is found lower in level than the application site. There is an open drain to the west of the application site. The land to the south is higher than the application site. As such, an external catchment has been identified in **Figure 4**.

D. Particulars of the existing drainage facilities to accept the surface runoff collected at the application site

1.1.5 As shown in **Figure 4**, an open drain is found to the immediate west of the application site. The stormwater intercepted by the proposed surface channel at the application site will be dissipated to the said open drain.

1.2 Runoff Estimation

1.2.1 Rational method is adopted for estimating the designed run-off

$$Q = k \times i \times A / 3,600$$

Assuming that:

- i. The area of the catchment including the external catchment is approximately 7,050m²; (**Figure 13**)
- ii. It is assumed that the value of run-off co-efficient (k) is taken as 1 for conservative reason.

$$\text{Difference in Land Datum} = 83\text{m} - 21.0\text{m} = 62\text{m}$$

$$L = 298\text{m}$$

$$\therefore \text{Average fall} = 62\text{m in } 298\text{m} \text{ or } 1\text{m in } 4.81\text{m}$$

According to the Brandsby-Williams Equation adopted from the “Stormwater Drainage Manual – Planning, Design and Management” published by the Drainage Services Department (DSD),

$$\text{Time of Concentration (t}_c\text{)} = 0.14465 [L / (H^{0.2} \times A^{0.1})]$$

$$t_c = 0.14465 [298 / 20.81^{0.2} \times 7,050^{0.1}]$$

$$t_c = 9.68 \text{ minutes}$$

With reference to the Intensity-Duration-Frequency Curves provided in the abovementioned manual, the mean rainfall intensity (i) for 1 in 50 recurrent flooding period is found to be 225 mm/hr

By Rational Method,

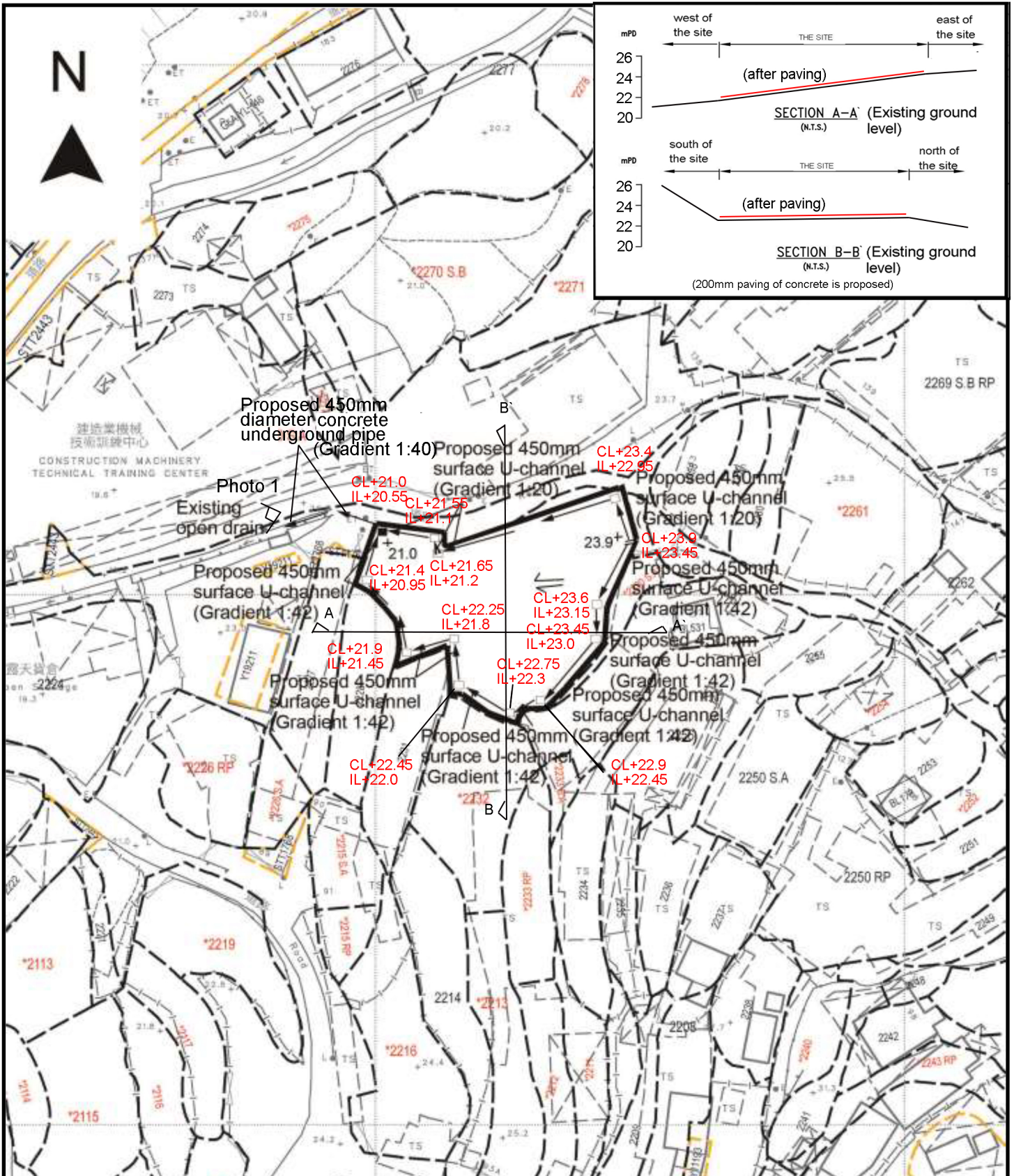
$$Q_1 = 1 \times 225 \times 7,050 / 3,600$$

$$\therefore Q_1 = 440.625 \text{ l/s} = 26,437.5 \text{ l/min}$$

In accordance with the Chart or the Rapid Design of Channels in “Geotechnical Manual for Slopes”, for an approximate gradient of about 1:20 & 1:42 in order to follow the gradient of the application site, 450mm surface U-channel along the site periphery is considered adequate to dissipate all the stormwater accrued by the application site and adjacent land.

1.3 Proposed Drainage Facilities

- 1.3.1 Subject to the calculations in 1.2 above, it is determined that proposed 450mm concrete surface U-channel along the site periphery is adequate to intercept storm water passing through and generated at the application site (**Figure 4**).
- 1.3.2 The collected stormwater will then be discharged directly to the open drain to the immediate west of the application site as shown in **Figure 4**.
- 1.3.3 All the proposed drainage facilities will be provided and maintained at the applicant's own expense. Also, sand trap and surface U-channel will be cleaned at regular interval to avoid the accumulation of rubbish/debris which would affect the dissipation of storm water.
- 1.3.4 The provision of the proposed surface channel will follow the gradient of the application site. All the proposed drainage facilities will be constructed and maintained at the expense of the applicant.
- 1.3.5 Prior to the commencement of the drainage works, the applicant will seek consent from District Lands Office/North and relevant land owners for the provision of drainage facilities outside the application site.
- 1.3.6 The proposed development would not affect the existing ditches, drains and obstruct the flow of the flow of surface runoff.
- 1.3.7 100mm gap will be provided at the toe of site hoarding to allow unobstructed flow of surface runoff.



Project 項目名稱:

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Drawing Title 圖目:

Proposed Drainage Plan

Drawing No. 圖號:

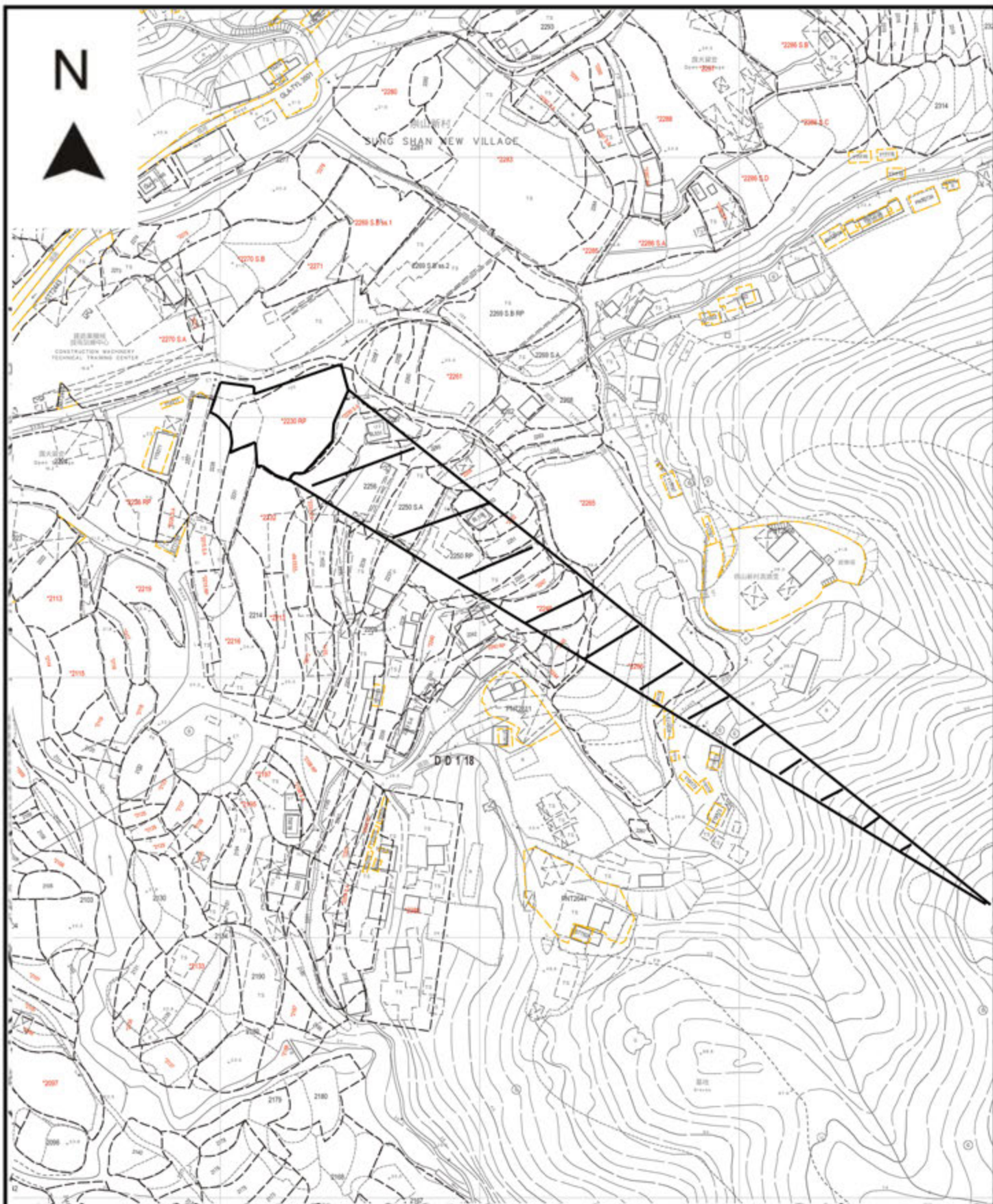
Figure 4

Remarks 備註:

- Proposed catchpit
- Proposed catchpit with Sand trap
- \leftarrow Flow of surface runoff
- + 21.0 Level (in mPD)

Scale 比例:

1:1000



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

Drawing Title 圖名:

Catchment Plan

Drawing No. 圖號:

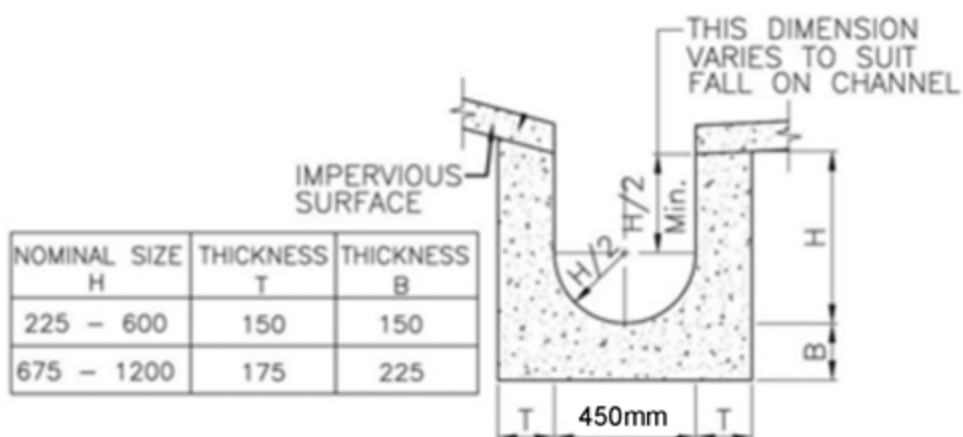
Figure 13

Remarks 備註:

-  Application site
-  External catchment

Scale 比例:

1:1000



NOMINAL SIZE H	THICKNESS T	THICKNESS B
225 - 600	150	150
675 - 1200	175	225

DETAILS OF U-CHANNEL
 (REFERENCE : FIG. 8.11 OF
 GEOTECHNICAL MANUAL FOR SLOPES)
 (N.T.S.)

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Drawing Title 圖目:

Details of Proposed Surface U-channel

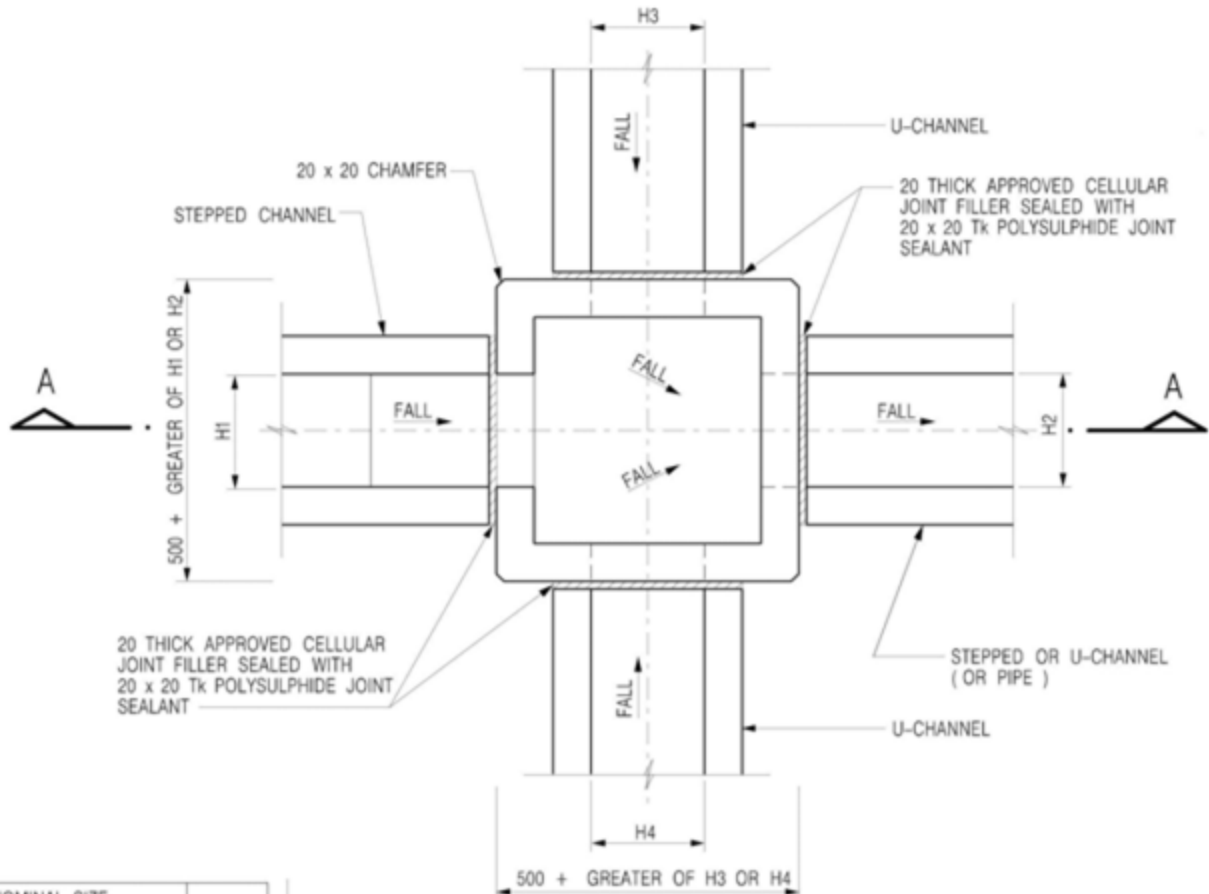
Remarks 備註:

Drawing No. 圖號:

Figure 14

Scale 比例:

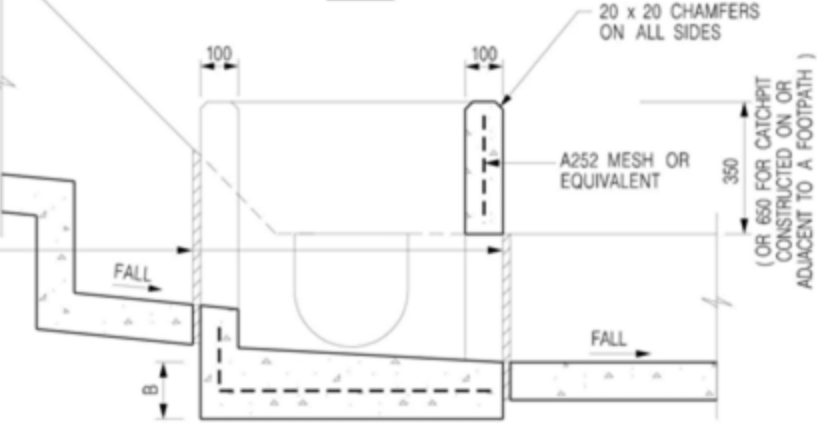
Not to scale



PLAN

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

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

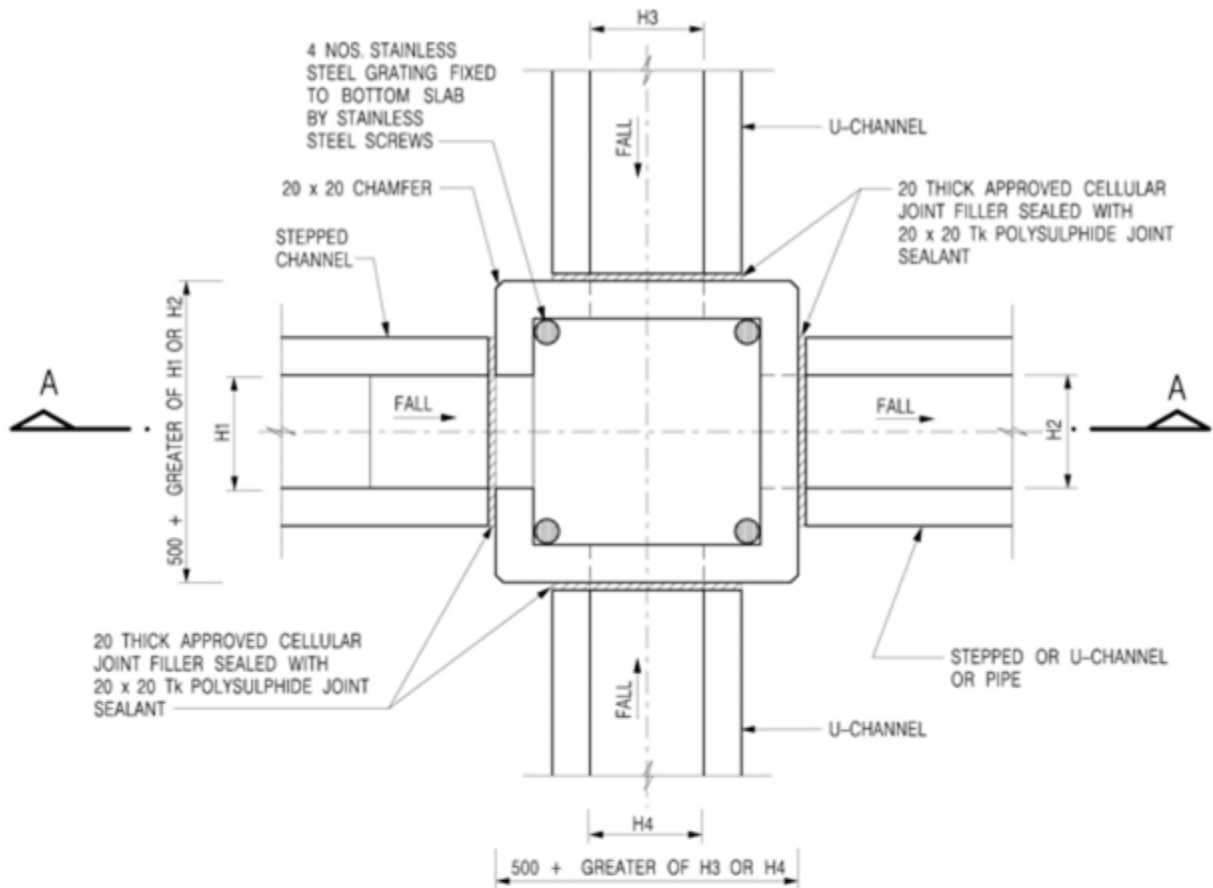


SECTION A - A

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. REFER TO SHEET 5 FOR OTHER NOTES.

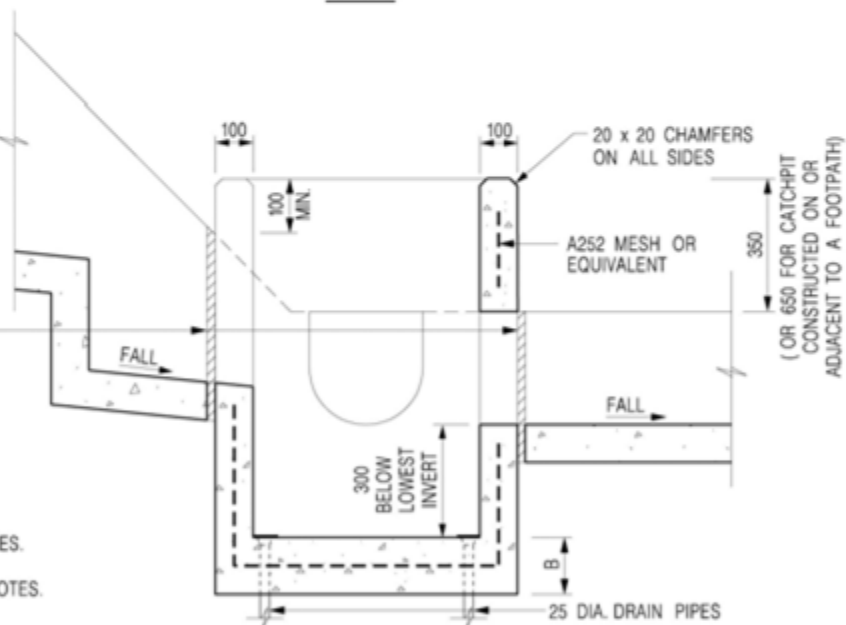
Project 項目名稱: Proposed Temporary Warehouse for Storage of Construction Materials for a Period of 3 Years & Filling of Land at Lot 2230 RP (Part) in D.D. 118 & Adjoining Government Land, Yuen Long, New Territories	Drawing Title 圖目: The Details of the Proposed Catchpit	Remarks 備註:
	Drawing No. 圖號: Figure 15	Scale 比例: Not to scale



PLAN

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

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



SECTION A - A

NOTES:

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

Project 項目名稱:

Proposed Temporary Warehouse for Storage of Construction Materials for a Period of 3 Years & Filling of Land at Lot 2230 RP (Part) in D.D. 118 & Adjoining Government Land, Yuen Long, New Territories

Drawing Title 圖名:

The Details of Catchpit with Desilting Function

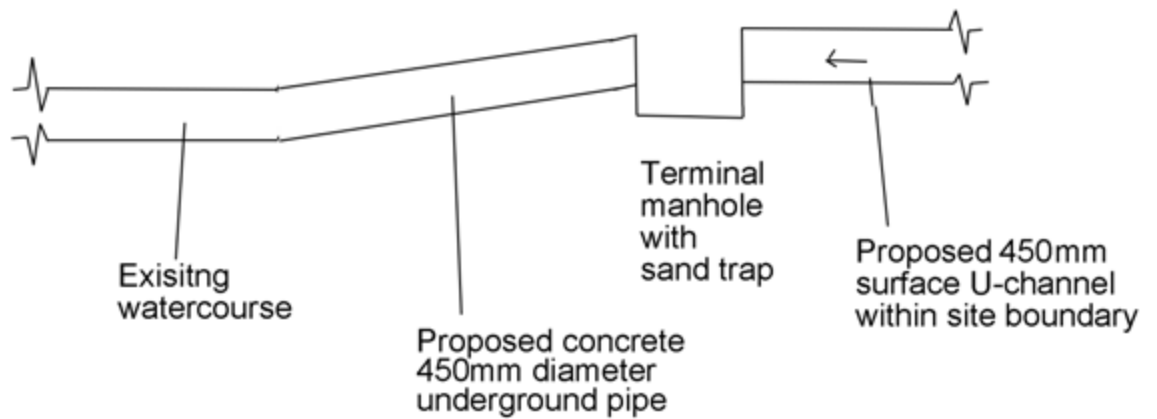
Remarks 備註:

Drawing No. 圖號:

Figure 16

Scale 比例:

Not to scale



Project 項目名稱:

Proposed Temporary Warehouse for Storage of Construction Materials for a Period of 3 Years & Filling of Land at Lot 2230 RP (Part) in D.D. 118 & Adjoining Government Land, Yuen Long, New Territories

Drawing Title 圖目:

Connection Details

Remarks 備註:

Drawing No. 圖號:

Figure 17

Scale 比例:

Not to scale