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Kary Ka Wai HO/PLAND

寄件者: Martin Wu <[redacted]>
寄件日期: 2026年9月25日星期五 16:31
收件者: Jackin Ho Yeung YIP/PLAND; Kary Ka Wai HO/PLAND
主旨: RE: [EXTERNAL] Re: s.16 planning application No. A/SK-HC/378 - Departmental Comment
附件: P200R046-01-I1-Drainage.pdf

類別: Internet Email

Dear Jackin

Thank you for taking my return call on Monday and for discussing DSD's comments.

Regarding DSD's comments, we expressed our wish that any drainage proposals only be required after the approval of the application by TPB as approval conditions, so as to prevent abortive works. Given that such arrangement was possible in the previous application, we had hoped that the same could apply this time.

Notwithstanding the above, and in the interest of facilitating the processing of the case, we have reached an understanding with DSD and provide a drainage plan for their and TPB's consideration. Please see the attached and the following R-to-C for your kind consideration and further handling as necessary.

	Comment	Response
Comments from Drainage Services Department (Mr. Andy WONG, Tel: 3965 7320)		
1.	Supporting Planning Statement, Paragraph 8.5 – The description of the Application Site is apparently incorrect. In particular, please clarify and further elaborate (i) whether your proposed development would affect the watercourse or drainage path within and/or around of your site and whether (ii) there is a alternation of the ground level of the site.	As the finished ground levels of the proposed development will approximately match with the existing levels, there is no alternation of the ground level of the site. In addition, no solid boundary wall will be proposed. There is no change in the drainage flow path of the Site after the proposed development. Hence, the proposed development will not affect the watercourse or drainage flow path within and/or around of the site.
2.	The applicant shall ensure that his proposed drainage works will not cause any adverse drainage or environmental impact in the vicinity. The applicant shall also check and ensure that the proposed drainage works and the downstream drainage systems have adequate capacity and are good condition to accommodate all discharge water collected from the lot and all upstream catchments. The applicant shall provide a detailed drainage proposal for the captioned application for our further consideration.	A Drainage Plan has been prepared to assess the potential drainage impact that may be generated from the proposed development. Stormwater from the identified catchments will be collected by proposed concrete lined U-channels and discharged into the existing drainage system at the southern boundary of the Site. The assessment results have demonstrated that there is sufficient capacity for the proposed U-channels to receive surface runoff from the Site and relevant catchment areas as estimated. The project proponent(s) will be responsible for the design and construction of the proposed drainage works. A detailed Drainage Proposal will be prepared and submitted to DSD during the detailed design stage.

3.	There is a low lying area with a minimum spot level of +3.9 mPD adjoining the western-north boundary of the application site, which is susceptible to flooding during heavy rainstorms. The applicant shall be fully aware of the drainage condition of the concerned area and shall not carry out any work which may interfere with, damage, disturb or obstruct the existing drainage paths.	Noted. Given that there is no change in the drainage flow path of the Site and the U-channels are proposed at the site perimeter to collect the surface runoff from on-site and off-site catchment areas, the drainage condition of the concerned area should not be worsen by the proposed development.

Reason for Previous Lapse in Planning Approval and Current Situation

Further to the supporting planning statement previously submitted, we wish to provide further clarification on this matter.

In the submitted statement, we explained that the Applicants experienced commercial hardship and were unable to satisfy the approval conditions due to operational considerations. We would like to further advise the TPB that the Applicants had made genuine efforts to acquire the operational systems required for the approved public vehicle park and engaged consultants to address the fire and drainage approval conditions.

However, due to their inexperience, the Applicants were unable to identify consultants who could satisfactorily provide the reports and studies necessary to fulfil the approval conditions. In light of this experience, the Applicants have now engaged an experienced and reputable Hong Kong public vehicle park operator to assist with the preparation and operation of the public vehicle park, as well as compliance with the planning approval conditions. We ask the TPB to kindly consider the Applicants genuine effort to fully utilise idle land.

Should you have any questions on the above, you may reach out to us at any time.

Regards

Martin Wu 胡伯欣 MHKIS MRICS MRTPI RPS(GP)(PD) RICS Registered Valuer

Assistant Manager 助理經理

Planning & Land Advisory Services 城市規劃及土地發展諮詢部

[redacted]

[redacted]

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Save a tree - we only print emails we need to

Section 16 Planning Application for Proposed Temporary Public Vehicle Park (Excluding Container Vehicle) for a Period of 3 Years at Various Lots in D.D. 244, Ho Chung, Sai Kung, New Territories

Drainage Plan

Prepared by Skyline Consultants Ltd

Name: Willie Wong

Date: 25 September 2026

Report Ref.: P200R046-01 (Ver. 1)

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Annex B Drainage Analysis

1 Introduction

1.1.1.1 The Applicant intends to develop a temporary public vehicle park (excluding container vehicle) (hereafter as "the proposed development") for a period of 3 years at various lots in D.D. 244 (hereafter collectively called "the Site"), Ho Chung, Sai Kung, New Territories.

1.1.1.2 According to the Approved Ho Chung Outline Zoning Plan ("OZP") No. S/SK-HC/13, the Site currently falls within land-use zonings, namely "Comprehensive Development Area" ("CDA") and "Village Type Development" ("V"). A planning permission for the proposed public vehicle park (excluding container vehicle) is required on application to the Town Planning Board ("TPB") under Section 16 of the Town Planning Ordinance.

1.1.1.3 In order to assess possible drainage impact may be generated from the proposed development, Skyline Consultants Limited (Skyline) has been commissioned to prepare a Drainage Plan to support this Section 16 planning application.

1.1.1.4 The objectives of this Drainage Plan are to assess the potential drainage impact that may be generated from the proposed development and recommend the mitigation measures, if necessary, to alleviate the impacts.

2 Site Description

2.1 Site Location

2.1.1.1 The Site is located adjacent to Ho Chung New Village, Sai Kung and west of Hiram's Highway. To the west of the Site is the existing village houses. To the north is a low-density residential development under construction. The Site abuts and has direct access to Hiram's Highway via an existing ingress/egress.

2.1.1.2 Currently, the Site is vacant and the plantation clusters and weeds are found within the Site. The Site is a piece of flat land with a gentle site level difference ranged from approx. +3.8 mPD to +4.4 mPD. The Site area is about 4,411 m^2.

2.1.1.3 **Figure 2-1** shows the Site location and its surrounding areas.

2.2 Proposed Development Scheme

2.2.1.1 The Site is intended to develop temporary public vehicle park (excluding container vehicle) for a period of 3 years.

2.2.1.2 Currently, the Site is unpaved area while the finished ground levels of the proposed development will approximately match with the existing levels. Hence, no landfilling is anticipated for the proposed development.

2.2.1.3 A layout plan is shown in **Annex A**.

2.3 Existing Drainage Conditions

2.3.1.1 A site survey was conducted in September 2026 to collect the information of the drainage characteristics, catchments, topography and existing drainage facilities in the vicinity. The land-based survey was conducted with reference to the survey map to identify the existing drainage facilities, flow path and surface type within the Site and its surroundings.

2.3.1.2 Based on the site survey and the review of the Government drainage plans (plan no.: 11-NE-5A-1) obtained from the Drainage Services Department ("DSD"), the Site is not currently served by any of public drainage facility. An off-site existing culvert with two 1,500mm diameter stormwater pipe was identified at the southern boundary of the Site (refer to **Figure 2-2**), where the surface runoff from the Site could be collected and discharged into the existing culvert.

3 Drainage Analysis

3.1 Assessment Methodology

3.1.1.1 Surface runoff from the proposed development is proposed to be discharged to the existing culvert (as shown in **Figure 3-1**).

3.1.1.2 The peak runoff values of the proposed development was calculated based on the Rational Method, and the recommended physical parameters including runoff coefficients and storm constants for different return periods as described in DSD's "*Stormwater Drainage Manual – Planning, Design and Management*" (SDM) published by DSD in 2018.

3.1.1.3 The drainage analysis has adopted the Rational Method for surface runoff estimation:

$$Q_p = 0.278\ i \sum C_j A_j$$

where
Q_p *is peak runoff* (m^3/s);
i *is rainfall intensity (mm/hr);*
A_j *is the* j^{th} *catchment* (km^2);
C_j *is the runoff coefficient of the* j^{th} *catchment (dimensionless).*

3.1.1.4 Details of the Rational Method can be referred to SDM.

3.2 Assessment Assumptions

3.2.1.1 Based on a 1:10 year flood protection standard set out in the SDM and the estimated time of concentration, the appropriate rainfall intensities (i) were calculated based on linear interpolation of the intermediate table values.

3.2.1.2 The assumptions of this drainage analysis are summarised below:

- Rainstorm return period – 1 in 10 years (for temporary use)
- Runoff coefficient for developed (paved) area – 0.95
- Runoff coefficient for flatted grassland (heavysoil) – 0.25

3.3 Runoff Estimation

3.3.1.1 Given that there is no change in the drainage flow path of the Site in existing condition and after the proposed development, the catchment area contributed to the existing stormwater pipes shall remain unchanged. Meanwhile, modification would be made to the paving condition of the on-site area after the proposed development.

3.3.1.2 3 catchments (i.e., Catchments A to C) were identified based on the geographical characteristics of the Site and its nearby areas as shown in **Figure 3-1**.

3.3.1.3 Stormwater from the identified catchments will be collected by proposed concrete lined U-channels and discharged into the existing culvert at the southern boundary of the Site via underground circular pipe.

3.3.1.4 The runoff inside the U-channels will be discharged via terminal manhole (as shown in **Figure 3-2**) with sand trap located at the south-eastern side of the Site and then further convey to the existing culvert. Prior to convey the runoff to the existing culvert, proposed petrol interceptor should be passed through to collect the possible leakage petrol from the vehicle parking area.

3.3.1.5 The conceptual drainage layout is shown in **Figure 3-2**. Typical designs of U-channel, catchpit and sand trap are shown in **Figure 3-3** and **Figure 3-4**, respectively.

3.4 Assessment Results

3.4.1.1 A series of 450 mm diameter U-channels are proposed at the perimeter of the proposed development to collect the surface runoff of the Site and the off-site catchment areas. Estimated U-channels capacity and surface runoffs are detailed in **Annex B**.

3.4.1.2 The assessment results shown in **Annex B** have demonstrated that there is sufficient capacity for the proposed U-channels to receive surface runoff from the Site and relevant catchment areas as estimated.

3.4.1.3 With the provision of the proposed drainage system for eventual discharge into the existing culvert as shown in **Figure 3-2**, the proposed development would not cause adverse drainage impact on the local area, or increase in the flooding susceptibility of the adjacent areas.

3.4.1.4 Moreover, with reference to the Flooding Blackspots available in the DSD's website, the Site is not located within the flooding blackspots locations/ regions. Therefore, no unacceptable local drainage impact due to the proposed development is anticipated.

3.5 Recommendations

3.5.1.1 Surface runoff generated from the proposed development will be collected by a series of U-channels provided within the site for discharge into the existing culvert. The detailed arrangement of the local drainage system will be further designed at the detailed design stage.

3.5.1.2 The project proponent(s) will be responsible for the design and construction of the proposed drainage works. Engineer and contractor will be appointed to design the local and proposed drainage system during the detailed design stage. The detailed arrangement of the local drainage system and drainage connection will be further investigated. A detailed Drainage Proposal will be prepared and submitted to DSD during the detailed design stage.

3.5.1.3 To avoid any obstruction of the existing flow path, no solid boundary wall will be proposed.

3.5.1.4 The project proponent(s) will take up the maintenance responsibilities of any proposed drainage works to be constructed due to the proposed development.

4 Conclusion

4.1.1.1 A Drainage Plan has been prepared to evaluate the drainage impacts arising from the proposed development.

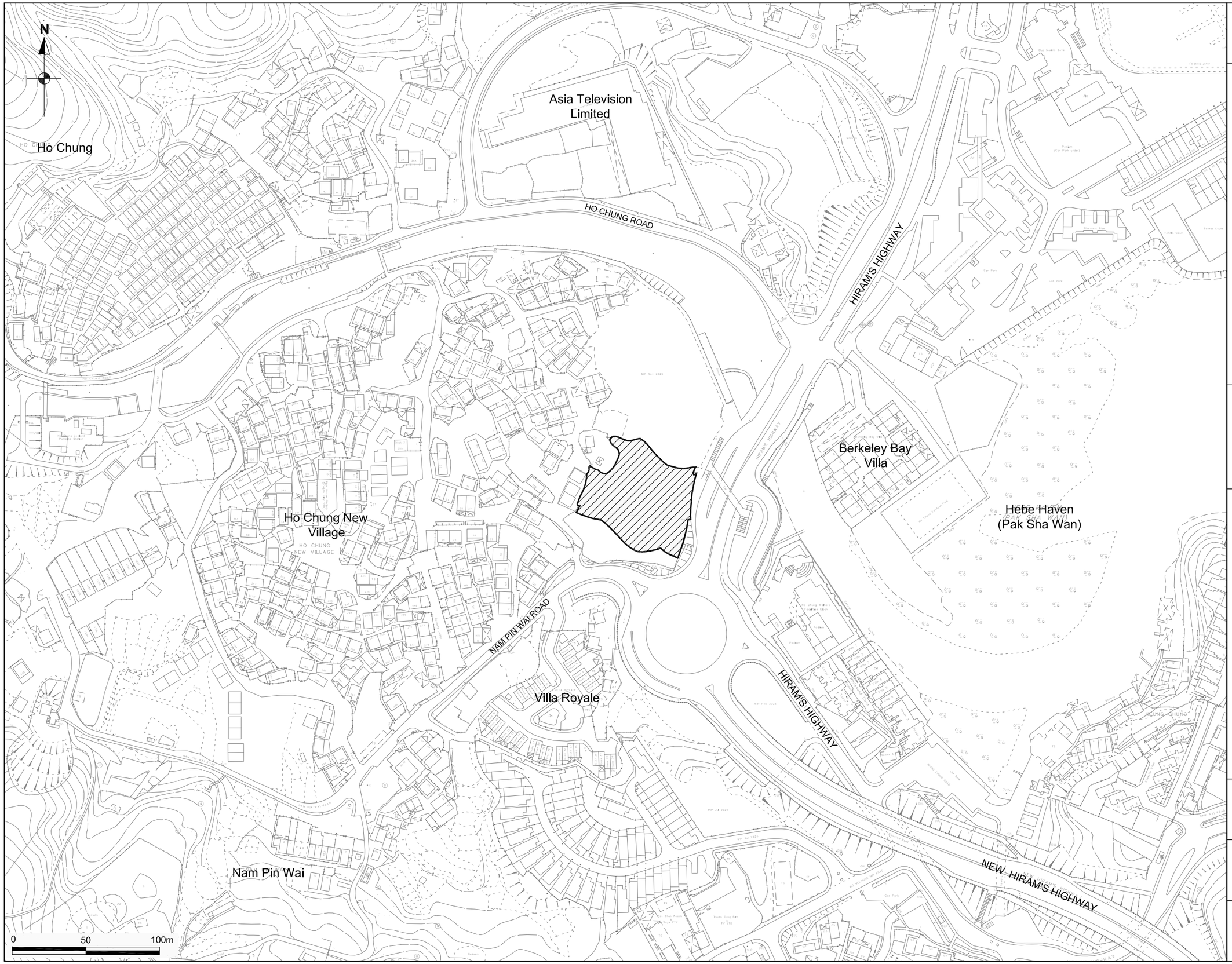
4.1.1.2 Given there is no material change in the drainage flow path of the Site in existing condition and after the proposed development, the catchment areas contributed to the existing drainage system shall remain unchanged.

4.1.1.3 For collecting surface runoff within the Site, an on-site drainage system will be provided. The detailed arrangements of these proposed drainage systems shall be further investigated during the detailed design stage.

4.1.1.4 In addition, with reference to the Flooding Blackspots available on the DSD's website, the Site is not located within the flooding blackspots locations/ regions. Therefore, no unacceptable local drainage impact due to the proposed development is anticipated.

4.1.1.5 In view of the above, it can be concluded that the proposed development will not result in any adverse local drainage impact.

Figures



PROJECT NO :

P200R_046

PROJECT TITLE :

Section 16 Planning Application for Proposed Temporary Public Vehicle Park (Excluding Container Vehicle) for a Period of 3 Years at Various Lots in D.D. 244, Ho Chung, Sai Kung, New Territories

Drainage Plan

FIGURE TITLE :

Site Location

LEGEND :

Subject Site

FIGURE NO :

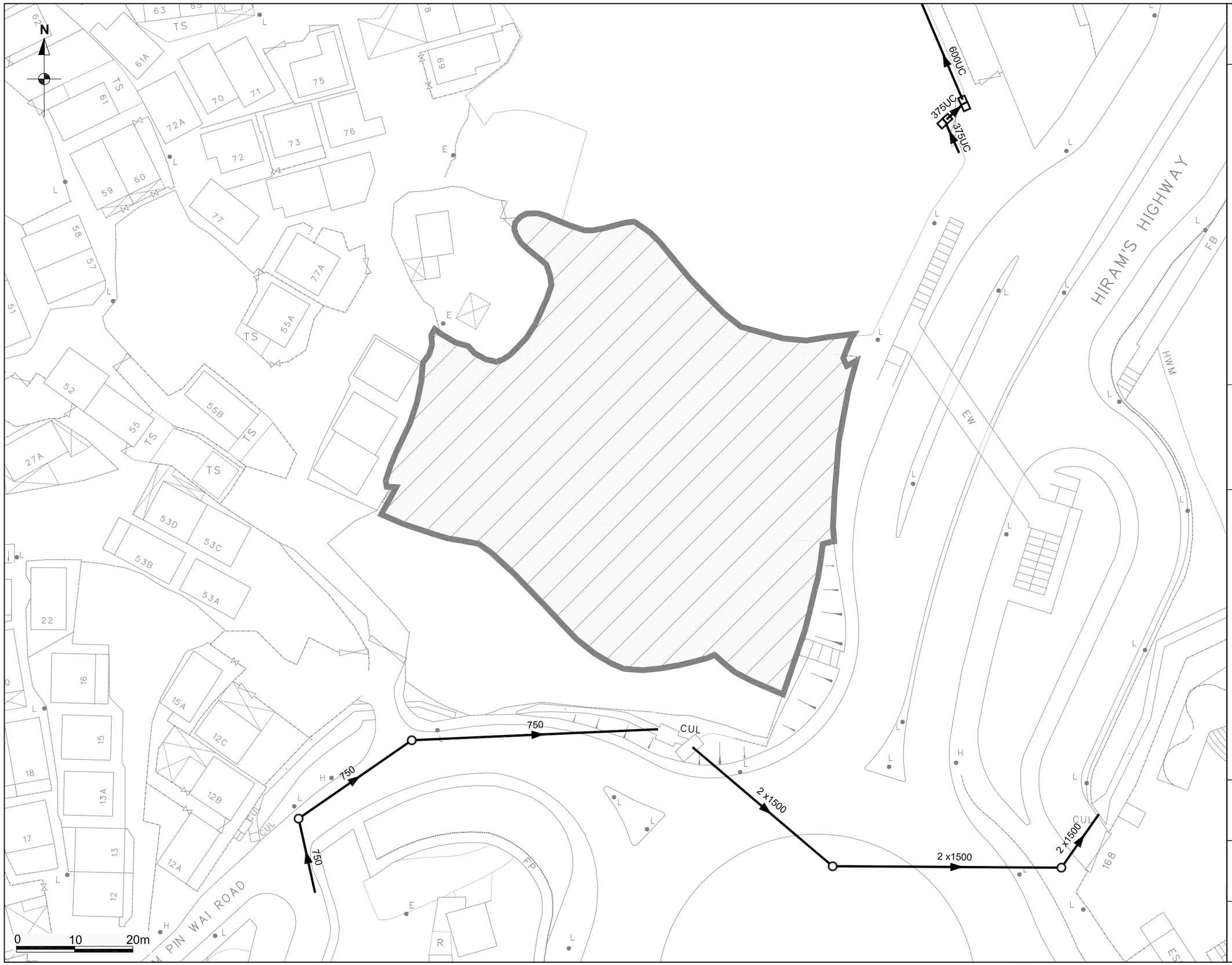
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DATE :

2026-09-24

CONSULTANT :

Skyline Consultants Ltd



PROJECT NO :

P200R_046

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Section 16 Planning Application for Proposed Temporary Public Vehicle Park (Excluding Container Vehicle) for a Period of 3 Years at Various Lots in D.D. 244, Ho Chung, Sai Kung, New Territories

Drainage Plan

FIGURE TITLE :

Existing Drainage System

LEGEND :

- Subject Site
- Existing Stormwater Drain

FIGURE NO :

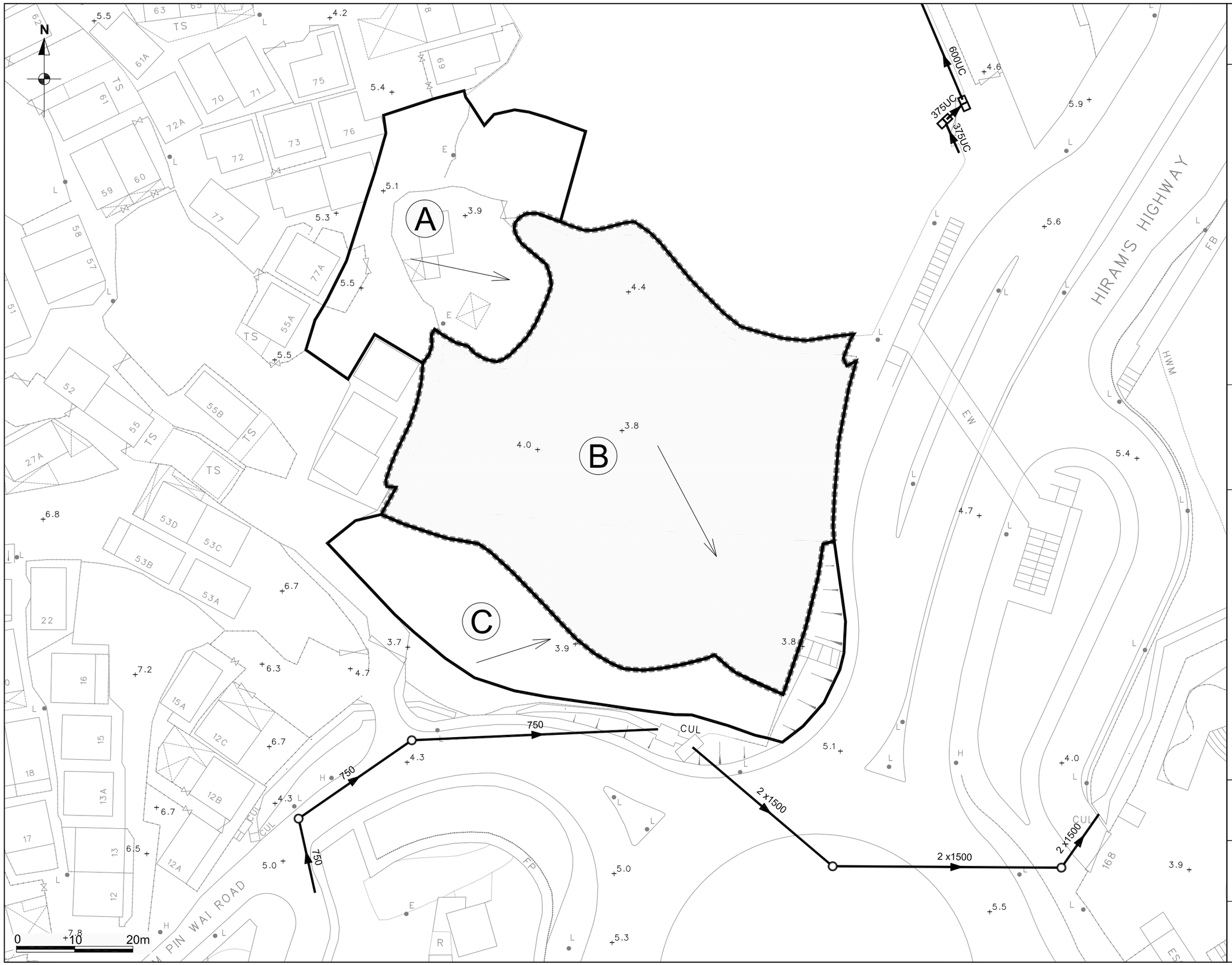
2 - 2

DATE :

2026-09-24

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Section 16 Planning Application for Proposed Temporary Public Vehicle Park (Excluding Container Vehicle) for a Period of 3 Years at Various Lots in D.D. 244, Ho Chung, Sai Kung, New Territories

Drainage Plan

FIGURE TITLE :

Identified Catchment Areas

LEGEND :

- Subject Site
- Catchment Boundary
- (A) Catchment ID
- Flow Path Direction
- Existing Stormwater Drain

FIGURE NO :

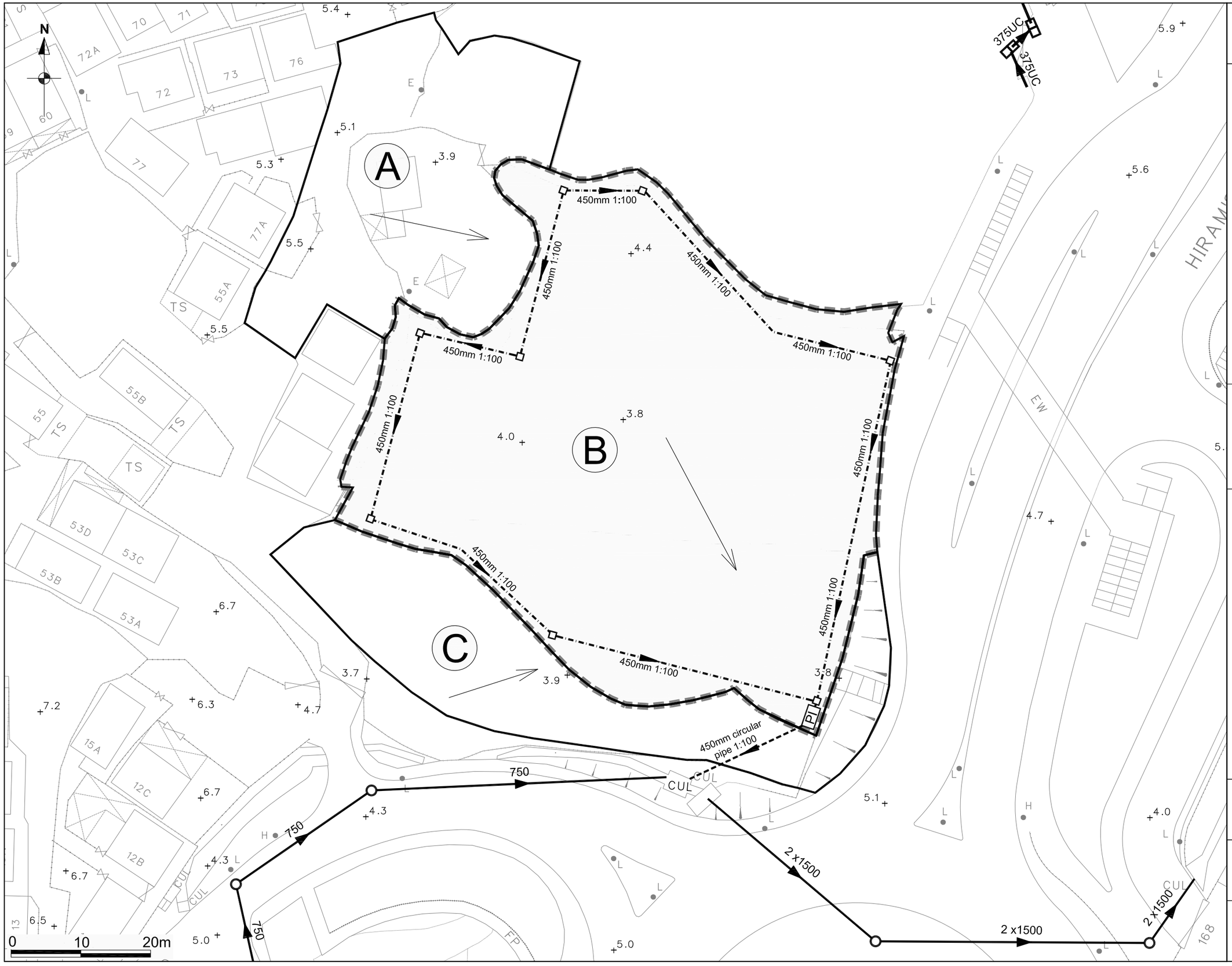
3 - 1

DATE :

2026-09-24

CONSULTANT :

Skyline Consultants Ltd



PROJECT NO :

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Section 16 Planning Application for Proposed Temporary Public Vehicle Park (Excluding Container Vehicle) for a Period of 3 Years at Various Lots in D.D. 244, Ho Chung, Sai Kung, New Territories

Drainage Plan

FIGURE TITLE :

Conceptual Drainage Layout Plan

LEGEND :

- Subject Site
- Catchment Boundary
- (A) Catchment ID
- Flow Path Direction
- Existing Stormwater Drain
- Proposed U-channel
- Proposed Catchpit/ Manhole
- PI Proposed Petrol Interceptor

FIGURE NO :

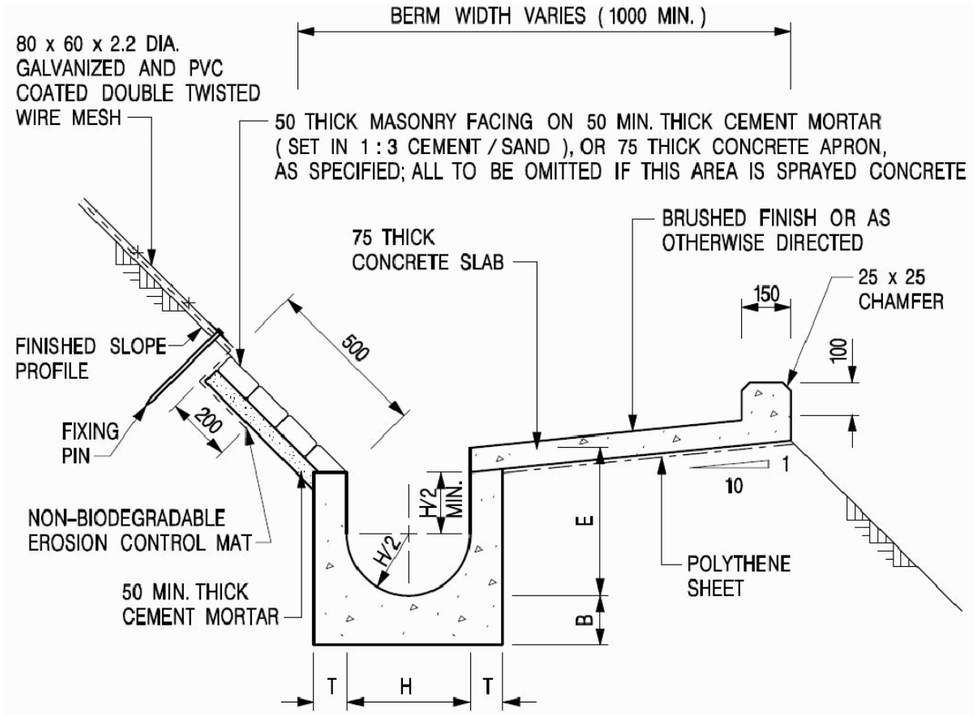
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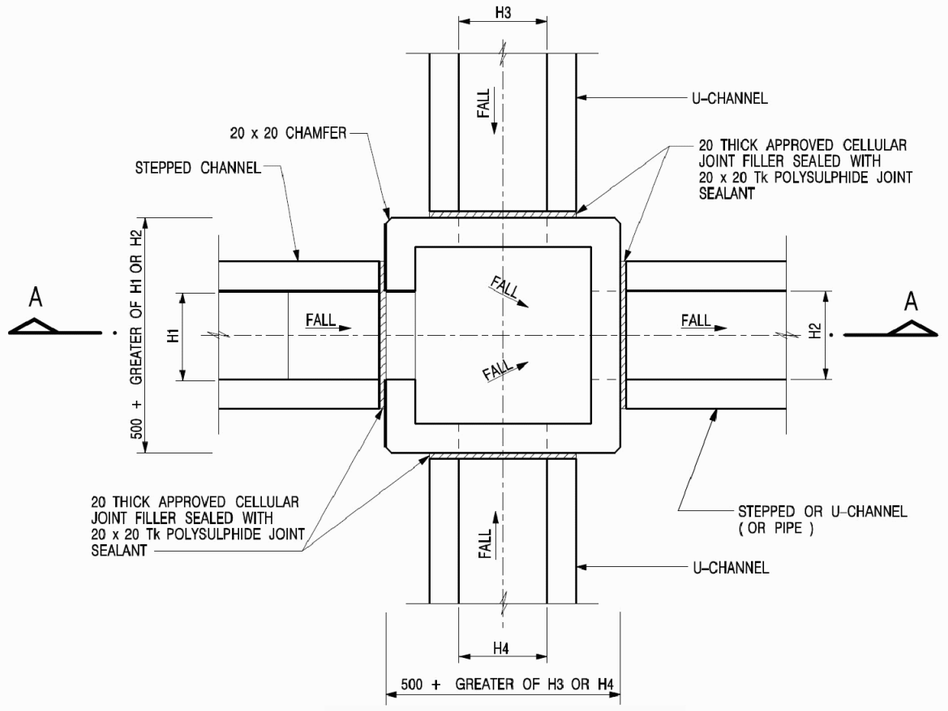
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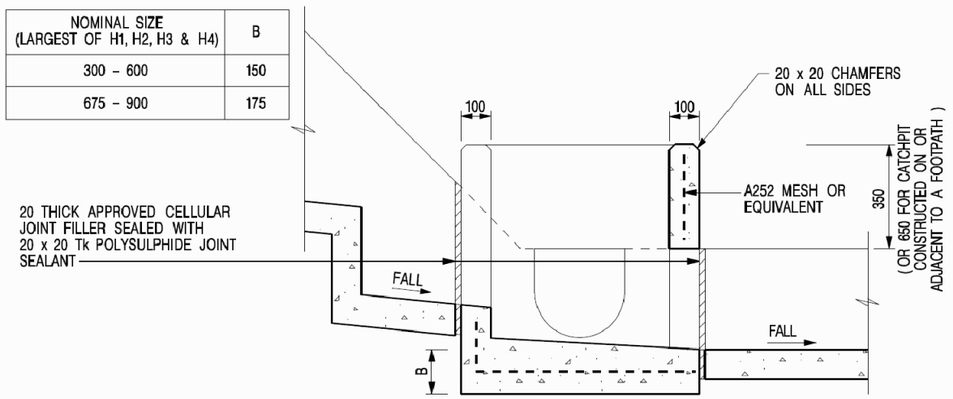


TYPICAL U-CHANNEL DETAILS



TYPICAL CATCHPIT DETAILS

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



SECTION A – A

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Section 16 Planning Application for Proposed Temporary Public Vehicle Park (Excluding Container Vehicle) for a Period of 3 Years at Various Lots in D.D. 244, Ho Chung, Sai Kung, New Territories

Drainage Plan

FIGURE TITLE :

Typical Design of U-Channel and Catchpit

LEGEND :

FIGURE NO :

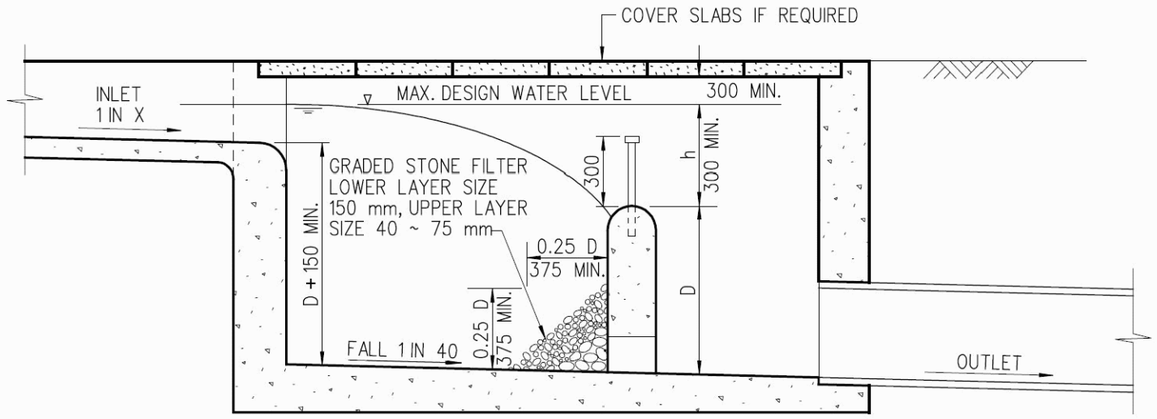
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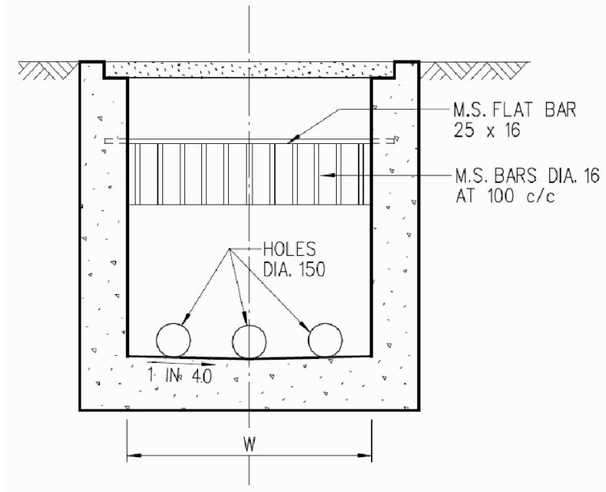
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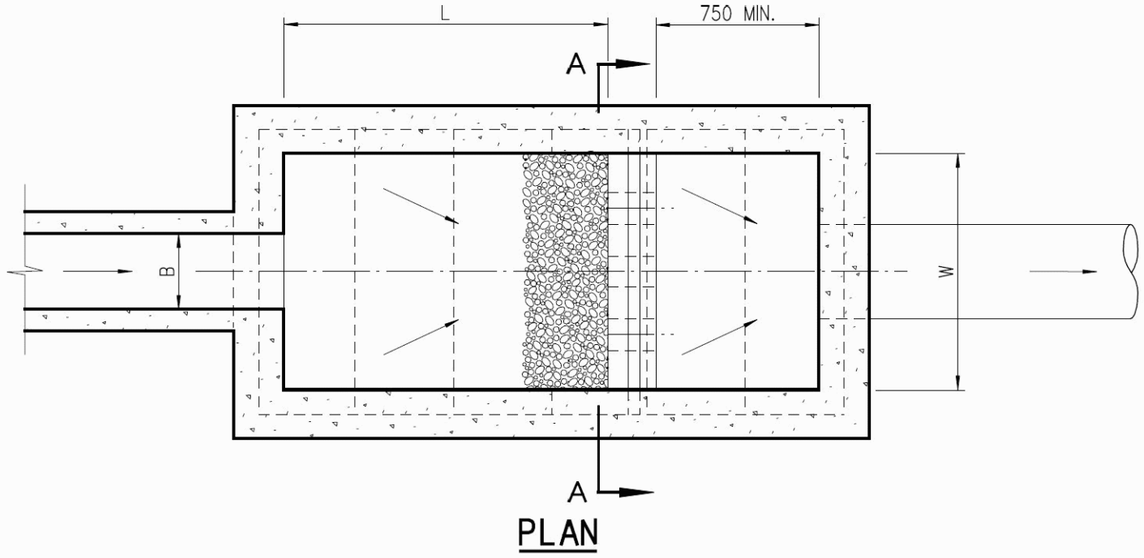
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LONGITUDINAL SECTION



SECTION A-A



PLAN

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. NORMALLY FOR DRAINS OF 900 mm DIA. AND BELOW. FOR BIGGER DRAINS AND STEEP TERRAIN, SAND TRAP SHOULD BE SPECIALLY DESIGNED.
3. SIZE
   DEPTH : $D \leqslant 750$
   WIDTH : $W \geqslant 3B$
   LENGTH : $4.8D^{0.67}\ h^{0.5}\ X^{-0.5} \geqslant 4B$
4. GRADED STONE FILTER SHALL BE CRUSHER RUN GRANITE AGGREGATE.
5. CAPACITY D W L TO BE ACCORDING TO SIZE AND NATURE OF CATCHMENT, PROVIDING DETENTION TIME NOT LESS THAN 5 MINUTES FOR MAX. DESIGN FLOW OF INLET.

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Drainage Plan

FIGURE TITLE :

Typical Design of Sand Trap

LEGEND :

FIGURE NO :

3 - 4

DATE :

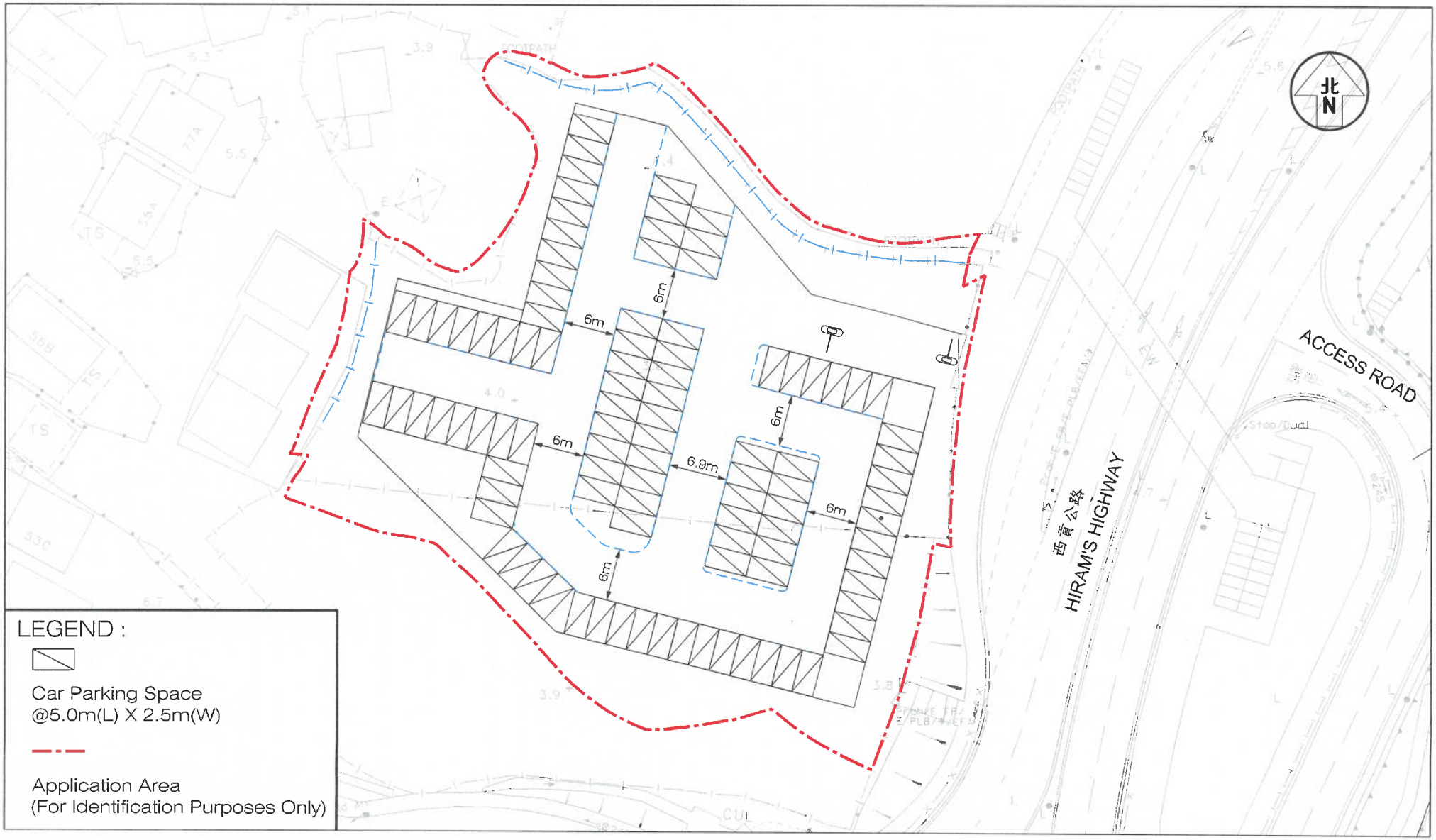
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CONSULTANT :

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Annex A

Development Plan


北
N
ACCESS ROAD
西貢公路
HIRAM'S HIGHWAY
6m
6m
6m
6m
6.9m
6m
6m
LEGEND :
Car Parking Space
@5.0m(L) X 2.5m(W)
Application Area
(For Identification Purposes Only)

Annex B

Drainage Analysis

A. Calculation of Surface Runoff

Catchment ID	Surface Type	Catchment Area (A), m^2	Catchment Area (A), km^2	Average Slope (H), m/100m	Flow Path Length (L), m	Inlet Time (t_0), min	Time of Concentration (t_c), min	Duration (t_d), min	a (10-yr return period)	b (10-yr return period)	c (10-yr return period)	Runoff Intensity (i) mm/hr	Runoff Coefficient (C)	C x A	Peak Runoff (Q_p), m^3/s	Peak Runoff (Q_p), L/min
After Development																
A	90% Concrete + 10% Grassland (heavysoil), flat	1,430	0.00143	6.3	31	1.50	1.50	1.50	471.9	3.02	0.397	259	0.88	0.001258	0.091	5442
B	100% Concrete	4,411	0.00441	0.9	79	5.09	5.09	5.09	471.9	3.02	0.397	206	0.95	0.004190	0.239	14368
C	10% Concrete + 90% Grassland (heavysoil), flat	1,189	0.00119	0.3	22	2.06	2.06	2.06	471.9	3.02	0.397	248	0.32	0.000380	0.026	1571
															Total	21,381

Applied Equations

$$t_0 = \frac{0.14465L}{H^{0.2}A^{0.1}} \qquad t_c = t_0 + t_f \qquad i = \frac{a}{(t_d + b)^c} \qquad Q_p = 0.278\,C\,i\,A$$

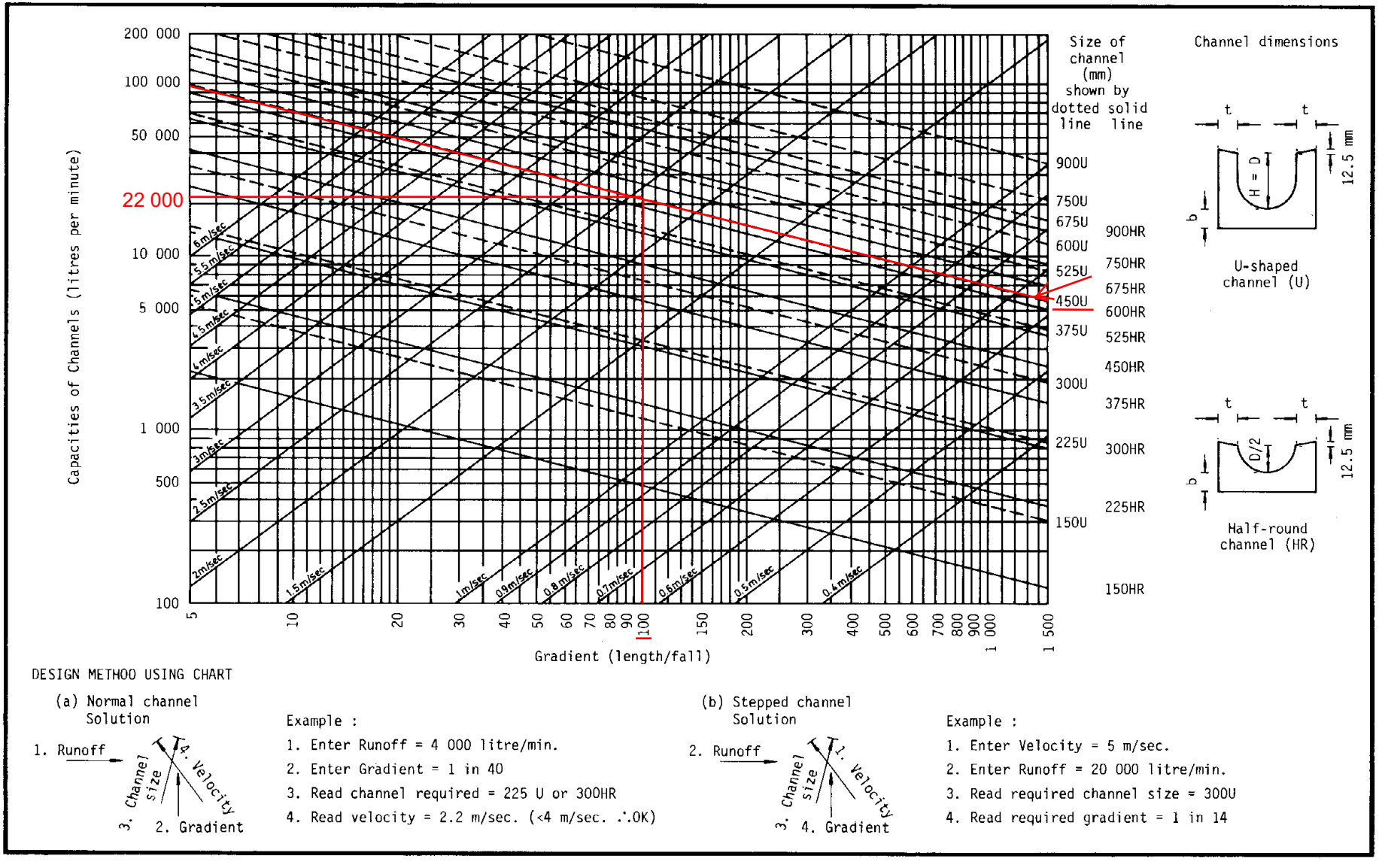
B. Proposed U-Channel Design

Gradient: 1/100

Proposed U-channel diameter: 450 mm

Maximum U-channel capacity: 22,000 L/min (Refer to the CEDD's "Geotechnical Manial for Slopes" - Figure 8.7 , fifth reprint, January 2011)

As U-channel capacity (22000 L/min) > max. runoff (21381 L/min), the proposed U-channel is sufficient for discharge.



DESIGN METHOD USING CHART

(a) Normal channel Solution

1. Runoff
2. Gradient
3. Channel size
4. Velocity

Example :

1. Enter Runoff = 4 000 litre/min.
2. Enter Gradient = 1 in 40
3. Read channel required = 225 U or 300HR
4. Read velocity = 2.2 m/sec. (<4 m/sec. ∴OK)

(b) Stepped channel Solution

2. Runoff
1. Velocity
3. Channel size
4. Gradient

Example :

1. Enter Velocity = 5 m/sec.
2. Enter Runoff = 20 000 litre/min.
3. Read required channel size = 300U
4. Read required gradient = 1 in 14

Figure 8.7 - Chart for the Rapid Design of Channels