

**Supporting Works for Section 16
Application for operating a
Temporary Open Storage and
Maintenance Workshop in Lots
401(Part), 404(Part), 405 RP(Part),
406 RP, 408 RP (Part), 409 and
410(Part) in D.D. 106, Pat Heung,
Yuen Long, New Territories**

Drainage Proposal

Issue 1

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Hong Kong

September 2023

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1. INTRODUCTION

1.1 A temporary open storage and maintenance workshop in Lots 401(Part), 404(Part), 405 RP(Part), 406 RP, 408 RP (Part), 409 and 410(Part) in D.D. 106 at Yuen Long Pat Heung is under application and comments from different parties have been received. Relative documents refer to Appendix A

1.2 This report presents the planning and calculation for the proposed drainage system for the property at the private lot.

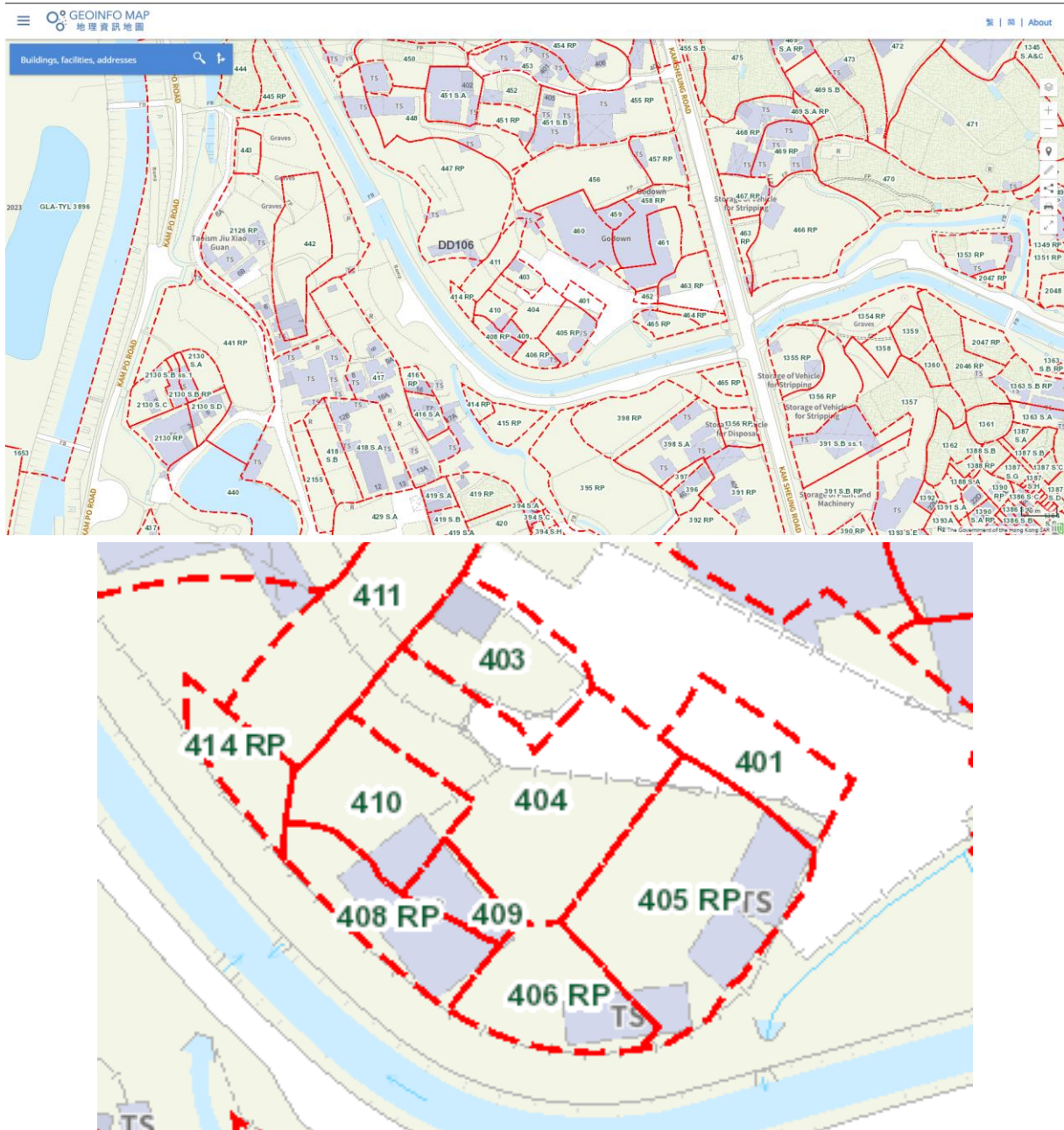
2. SITE DESCRIPTION

2.1 The site is located at Yuen Long Pat Heung.



Figure 1: Aerial Photo of the subject site location

Supporting Works for Section 16 Application for operating a Temporary Open Storage and Maintenance Workshop in Lots 401(Part), 404(Part), 405 RP(Part), 406 RP, 408 RP (Part), 409 and 410(Part) in D.D. 106, Pat Heung, Yuen Long, New Territories Drainage Proposal



Figures 2 & 3: Lot information of the subject site location

- 2.2 The combined parts of lot covers an area of about 1590m². It is currently enclosed by chain link fence and gates.

3. DRAINAGE SYSTEM OF THE SITE FOR STORWATER DISCHARGE

- 3.1 Referring to the information and the existing ground level, the anticipated catchment areas of runoff which are not affecting the subject site have been indicated.



Figure 4: Drainage System and Catchment Area (Details in Appendix)

- 3.2 Three catchment areas have been identified for collecting stormwater for the area respectively. A drainage system has been proposed to discharge stormwater with sufficient size of U-Channel and Catchpits according to the design manual.
- 3.3 The collected stormwater will be diverted to an existing culvert by a drainpipe.

4. CONCLUSIONS

- 4.1 The development will not cause drainage impact to the area in vicinity of the site.
- 4.2 No existing drainage system in this lot area.
- 4.3 The proposed drainage system is sufficient for the expected stormwater runoff from the lot area.
- 4.4 Regular maintenance such as routine desilting will be carried out by the development owner for the drainage system (i.e. surface u-channel, catchpits and the drainpipe) surrounding the site to avoid blockage and deterioration.

END OF TEXT

APPENDIX A

Application Document

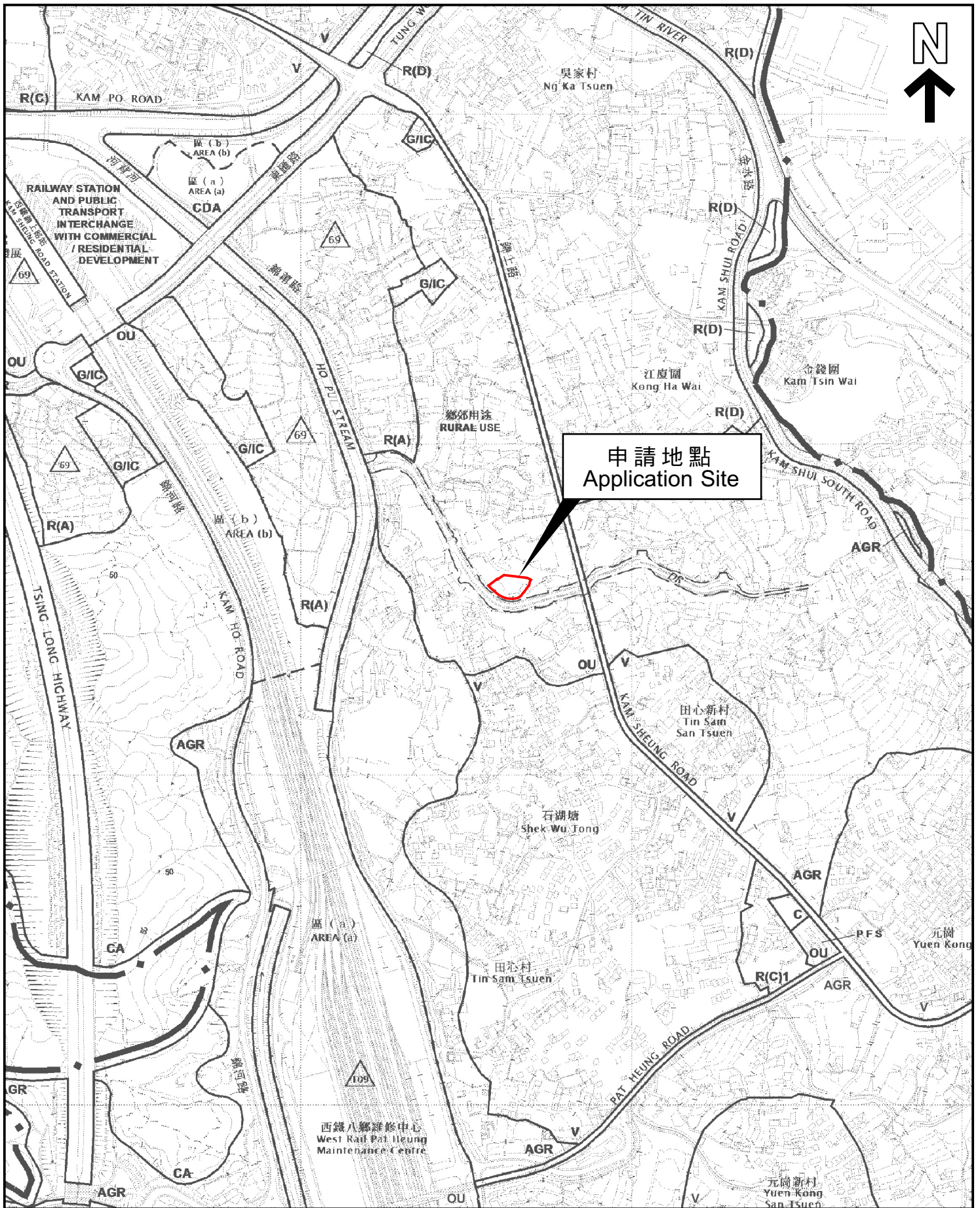
**Broad Development Parameters of the Applied Use/Development
in respect of Application No. A/YL-KTS/957**
關乎申請編號 A/YL-KTS/957 的擬議用途/發展的概括發展規範

| | | | |
|---|---|-----------------------|--------------------|
| Application No. 申請編號 | A/YL-KTS/957 | | |
| Location/address 位置/地址 | Lots 401 (Part), 404 (Part), 405 RP (Part), 406 RP, 408 RP (Part), 409 and 410 (Part) in D.D. 106, Pat Heung, Yuen Long, New Territories 新界元朗八鄉丈量約份第 106 約地段第 401 號 (部分)、第 404 號 (部分)、第 405 號餘段 (部分)、第 406 號餘段、第 408 號餘段 (部分)、第 409 號及第 410 號 (部分) 餘段 | | |
| Site area 地盤面積 | About 1,486 sq. m 平方米 | | |
| Plan 圖則 | Approved Kam Tin South Outline Zoning Plan No. S/YL-KTS/15 錦田南分區計劃大綱核准圖編號 S/YL-KTS/15 | | |
| Zoning 地帶 | “Other Specified Uses” annotated “Rural Use” 「其他指定用途」註明「鄉郊用途」 | | |
| Type of Application 申請類別 | Temporary Use/Development in Rural Areas for a Period of 3 Years 位於鄉郊地區的臨時用途/發展為期 3 年 | | |
| Applied use/ development 申請用途/發展 | Temporary Open Storage of Freezer Vehicles, Air-conditioned Compartments and Spare Parts of Cooling Machinery Components for Vehicles for Sale, and Installation and Maintenance Workshop for Freezer Vehicles for a Period of 3 Years 臨時露天存放待售冷藏車、保溫車廂、汽車製冷機組及冷藏車安裝和維修工場 (為期三年) | | |
| Gross floor area and/or plot ratio 總樓面面積及/ 或地積比率 | | sq. m 平方米 | Plot ratio 地積比率 |
| | Domestic 住用 | - | - |
| | Non-domestic 非住用 | About 約 599 | About 約 0.4 |
| No. of block 幢數 | Domestic 住用 | - | |
| | Non-domestic 非住用 | 6 | |
| Building height/ No. of storeys 建築物高度/層數 | Domestic 住用 | - | m 米 |
| | | - | mPD 米(主水平基準上) |
| | | - | Storey(s) 層 |
| | Non-domestic 非住用 | Not more than 不多於 7.5 | m 米 |
| | | - | mPD 米(主水平基準上) |
| | | Not more than 不多於 2 | Storey(s) 層 |
| Site coverage 上蓋面積 | About 約 36.7 % | | |

| | | |
|--|--------------------------------------|---|
| No. of parking spaces and loading / unloading spaces 停車位及上落客貨車位數目 | Total no. of vehicle spaces 停車位總數 | 3 |
| | Private Car Parking Space 私家車車位 | 1 |
| | Freezer Vehicle Parking Spaces 冷藏車車位 | 2 |

* 有關資料是為方便市民大眾參考而提供。對於所載資料在使用上的問題及文義上的歧異，城市規劃委員會概不負責。若有任何疑問，應查閱申請人提交的文件。

The information is provided for easy reference of the general public. Under no circumstances will the Town Planning Board accept any liabilities for the use of the information nor any inaccuracies or discrepancies of the information provided. In case of doubt, reference should always be made to the submission of the applicant.



申請地點
Application Site

位置圖 LOCATION PLAN

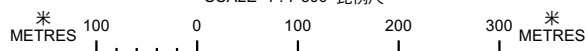
本摘要圖於2023年3月10日擬備，
所根據的資料為於2018年12月11日
核准的分區計劃大綱圖編號 S/YL-KTS/15
EXTRACT PLAN PREPARED ON 10.3.2023
BASED ON OUTLINE ZONING PLAN No.
S/YL-KTS/15 APPROVED ON 11.12.2018

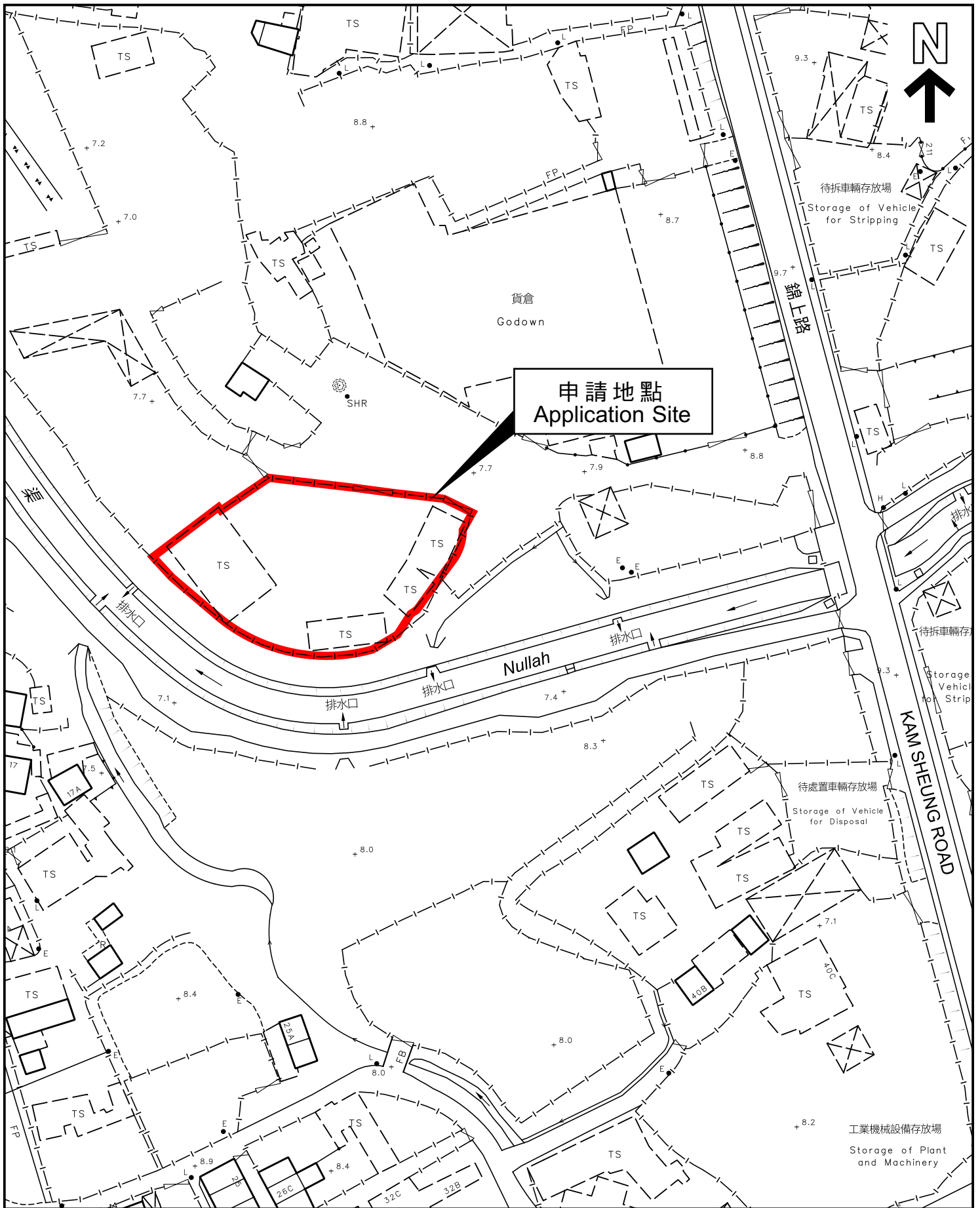
申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.

A/YL-KTS/957

SCALE 1 : 7 500 比例尺





申請地點
Application Site

平面圖 SITE PLAN

本摘要圖於2023年3月10日擬備，
所根據的資料為測量圖編號
6-NE-17B
EXTRACT PLAN PREPARED ON 10.3.2023
BASED ON SURVEY SHEET No.
6-NE-17B

申請地點界線只作識別用
APPLICATION SITE BOUNDARY
FOR IDENTIFICATION PURPOSE ONLY

參考編號
REFERENCE No.

A/YL-KTS/957

APPENDIX B

Drainage Design Calculation

Project : Supporting Works for Section 16 Application for operating a Temporary Open Storage and Maintenance Workshop in Lots 401(Part), 404(Part), 405 RP(Part), 406 RP, 408 RP (Part), 409 and 410(Part) in D.D. 106, Pat Heung, Yuen Long, New Territories

Catchment Area : 1 (Development)

Determination of Time of Concentration and Designed Mean Rainfall Intensity

$$\begin{aligned} A &= \text{area of catchment (m}^2\text{)} &= 9500.0 \text{ m}^2 \\ H &= \text{average fall (per 100m) from the summit of catchment} \\ &\quad \text{to the point of design} &= 1.0 \text{ m} \\ L &= \text{length which water takes the longest time to reach the} \\ &\quad \text{design section} &= 142.2 \text{ m} \\ \text{Time of concentration, } t &= 0.14456 \times (L / (H^{0.2} \times A^{0.1})) &= 8.23 \text{ min} &\text{ say } 8.23 \text{ min} \end{aligned}$$

From Figure 8.2 of GMS, assuming storm return period is 1 in 50 years,

$$i = \text{designed mean intensity of rainfall (mm/hr)} = 238.4 \text{ mm/hr}$$

Determination of Run-off

$$\begin{aligned} i &= \text{designed mean intensity of rainfall (mm/hr), from Figure 8.2 of GMS} &= 238.4 \text{ mm/hr} \\ A &= \text{area of catchment (m}^2\text{)} &= 9500.0 \text{ m}^2 \\ K_2 &= \text{run-off coefficient (Concrete)} &= 1.00 \\ \text{Run-off, } Q &= K \times i \times A / 60 &= 37749 \text{ litres / min} &\text{ say } 37,749 \text{ litres / min} \end{aligned}$$

Project : Supporting Works for Section 16 Application for operating a Temporary Open Storage and Maintenance Workshop in Lots 401(Part), 404(Part), 405 RP(Part), 406 RP, 408 RP (Part), 409 and 410(Part) in D.D. 106, Pat Heung, Yuen Long, New Territories

Catchment Area : 2 (Development)

Determination of Time of Concentration and Designed Mean Rainfall Intensity

$$\begin{aligned} A &= \text{area of catchment (m}^2\text{)} &= 1070.0 \text{ m}^2 \\ H &= \text{average fall (per 100m) from the summit of catchment} \\ &\quad \text{to the point of design} &= 1.0 \text{ m} \\ L &= \text{length which water takes the longest time to reach the} \\ &\quad \text{design section} &= 69.8 \text{ m} \\ \text{Time of concentration, } t &= 0.14456 \times (L / (H^{0.2} \times A^{0.1})) &= 5.02 \text{ min} &\text{ say } 5.02 \text{ min} \end{aligned}$$

From Figure 8.2 of GMS, assuming storm return period is 1 in 50 years,

$$i = \text{designed mean intensity of rainfall (mm/hr)} = 270.2 \text{ mm/hr}$$

Determination of Run-off

$$\begin{aligned} i &= \text{designed mean intensity of rainfall (mm/hr), from Figure 8.2 of GMS} &= 270.2 \text{ mm/hr} \\ A &= \text{area of catchment (m}^2\text{)} &= 1070.0 \text{ m}^2 \\ K_2 &= \text{run-off coefficient (Concrete)} &= 1.00 \\ \text{Run-off, } Q &= K \times i \times A / 60 &= 4819 \text{ litres / min} &\text{ say } 4,819 \text{ litres / min} \end{aligned}$$

Project : Supporting Works for Section 16 Application for operating a Temporary Open Storage and Maintenance Workshop in Lots 401(Part), 404(Part), 405 RP(Part), 406 RP, 408 RP (Part), 409 and 410(Part) in D.D. 106, Pat Heung, Yuen Long, New Territories

Catchment Area : 3 (Development)

Determination of Time of Concentration and Designed Mean Rainfall Intensity

$$\begin{aligned} A &= \text{area of catchment (m}^2\text{)} &= 1685.0 \text{ m}^2 \\ H &= \text{average fall (per 100m) from the summit of catchment} \\ &\quad \text{to the point of design} &= 1.0 \text{ m} \\ L &= \text{length which water takes the longest time to reach the} \\ &\quad \text{design section} &= 80.2 \text{ m} \\ \text{Time of concentration, } t &= 0.14456 \times (L / (H^{0.2} \times A^{0.1})) &= 5.52 \text{ min} &\text{ say } 5.52 \text{ min} \end{aligned}$$

From Figure 8.2 of GMS, assuming storm return period is 1 in 50 years,

$$i = \text{designed mean intensity of rainfall (mm/hr)} = 264.4 \text{ mm/hr}$$

Determination of Run-off

$$\begin{aligned} i &= \text{designed mean intensity of rainfall (mm/hr), from Figure 8.2 of GMS} &= 264.4 \text{ mm/hr} \\ A &= \text{area of catchment (m}^2\text{)} &= 1685.0 \text{ m}^2 \\ K_2 &= \text{run-off coefficient (Concrete)} &= 1.00 \\ \text{Run-off, } Q &= K \times i \times A / 60 &= 7425 \text{ litres / min} &\text{ say } 7,425 \text{ litres / min} \end{aligned}$$

Design Calculation of U-Channel and Underground Pipe

2023/9/12

Our Ref: P23230
Project Title : Supporting Works for Section 16 Application for operating a Temporary Open Storage and Maintenance Workshop in Lots 401(Part), 404(Part), 405 RP(Part), 406 RP, 408 RP (Part), 409 and 410(Part) in D.D. 106, Pat Heung, Yuen Long, New Territories

Assumption: Rainfall Intensity = 300mm/hr
 Runoff Coefficient for concrete 1.0

| | | | |
|----------------|-------------------------------|--------------------|---|
| USCP | Upstream Catchpit | RAINFALL INTENSITY | Rainfall Intensity, mm/hr |
| DSCP | Downstream Catchpit | RUNOFF COEF. | Runoff Coefficient |
| USGL | Upstream Ground Level, mPD | CATCHMENT | Catchment Area, m ² |
| USIL | Upstream Invert Level, mPD | EFF. AREA | Effective Area, m ² |
| DSIL | Downstream Invert Level, mPD | CUM. AREA | Cumulative Effective Area, m ² |
| INVERT DIFF. | INVERT DIFFERENCE, m | DESIGN FLOW | Design Flow m ³ /s |
| LENGTH | Channel Length, m | SIZE | Channel Size, mm |
| SLOPE | Channel Gradient, 1 in | UC TYPE | Channel Type |
| t _c | Time of Concentration, minute | VEL. | Velocity of Channel by Manning's Equation where n = 0.013 |
| | | FLOW CAP. | Fullbore Capacity m ³ /s |
| | | SPARE CAP. | Spare Capacity m ³ /s |

| Catchment | USCP | DSCP | USGL | DSGL | USIL | DSIL | AVG. DEPTH | INVERT DIFF. | LENGTH | GRADIENT | RAINFALL INTENSITY | RUNOFF COEF. | CATCHMENT | EFF. AREA | DESIGN FLOW | CUM. DESIGN FLOW | SIZE | UC TYPE | VEL | FLOW CAP. | SPARE CAP. | | | |
|-------------|-------|-------|------|------|-------|-------|------------|--------------|--------|----------|--------------------|----------------------------|----------------|----------------|-------------------|-------------------|------|---------|-----|-------------------|-------------------|--|--|--|
| | | | mPD | mPD | mPD | mPD | m | m | m | 1 in | mm/hr | | m ² | m ² | m ³ /s | m ³ /s | mm | | m/s | m ³ /s | m ³ /s | | | |
| Catchment 1 | Pt. A | Pt. B | 7.9 | 7.9 | 7.50 | 7.17 | 0.57 | 0.33 | 44 | 134 | 238 | 1 | 9500 | 9500 | 0.63 | 0.63 | 600 | UC | 2.3 | 0.691 | 0.061 | | | |
| Catchment 2 | Pt. C | Pt. D | 7.9 | 7.9 | 7.07 | 6.87 | 0.93 | 0.20 | 18 | 91 | 300 | 1 | 1070 | 1070 | 0.09 | 0.72 | 600 | UC | 3.1 | 1.595 | 0.876 | | | |
| Catchment 3 | Pt. E | Pt. F | 7.9 | 7.9 | 7.50 | 6.87 | 0.72 | 0.63 | 41 | 65 | 300 | 1 | 1685 | 1685 | 0.14 | 0.14 | 300 | UC | 2.4 | 0.498 | 0.357 | | | |
| | Pt. G | Pt. H | 7.9 | 7.9 | 6.870 | 6.720 | - | 0.15 | 11 | 77 | 300 | 1 | 0 | 0 | 0.00 | 0.86 | 600 | PIPE | 3.2 | 0.910 | 0.051 | | | |
| | | | | | | | | | | | | Total Catchment for Site = | | 12255 | | | | | | | | | | |

1 9500 142 238.4

APPENDIX C

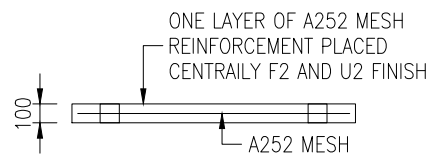
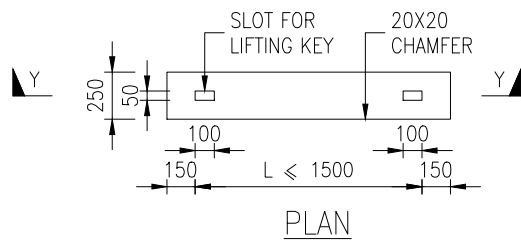
Construction Drawing

GENERAL NOTES:

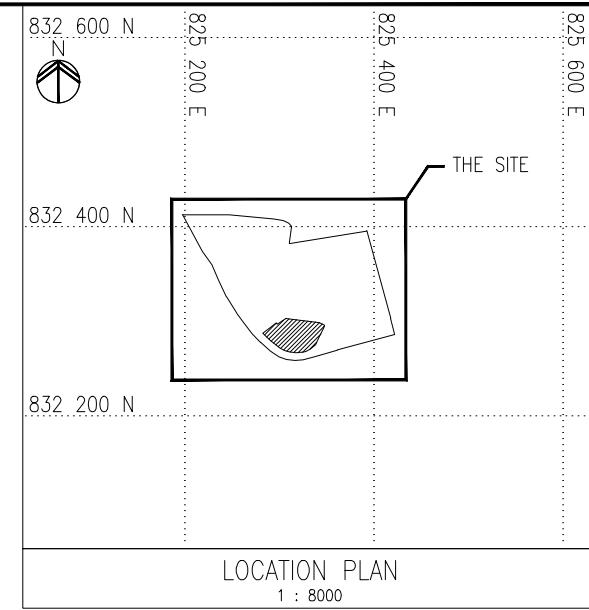
- GRADE 40D CONCRETE SHALL BE USED UNLESS OTHERWISE STATED.
- THE PROPOSED DRAINAGE WORKS, WHETHER WITHIN OR OUTSIDE THE LOT BOUNDARY, SHALL BE CONSTRUCTED AND MAINTAINED BY THE OWNER AT HIS OWN EXPENSE. FOR WORKS TO BE UNDERTAKEN OUTSIDE THE LOT BOUNDARY, PRIOR CONSENT FROM DLO AND/OR RELEVANT PRIVATE LOT OWNERS SHALL BE SOUGHT.

SCHEDULE OF CATCHPIT

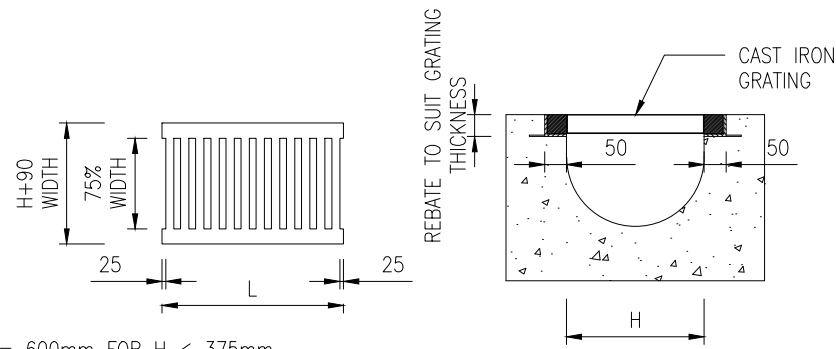
| CATCHPIT NO. | TYPE | COVER LEVEL (mPD) | BTM. LEVEL (mPD) | INLET LEVEL (mPD) | OUTLET LEVEL (mPD) |
|--------------|------|-------------------|------------------|-------------------|--------------------|
| CP1 | 1 | +7.90 | +7.07 | +7.17 | +7.07 |
| CP2 | 2 | +7.90 | +6.57 | +6.87 | +6.87 |



SECTION Y-Y
PRECAST CONCRETE COVERS FOR SAND TRAP AND CATCHPIT
 (REFERENCE : CEDD DWG. NO. C2407B)
 N.T.S.

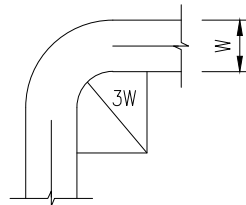


LOCATION PLAN
 1 : 8000

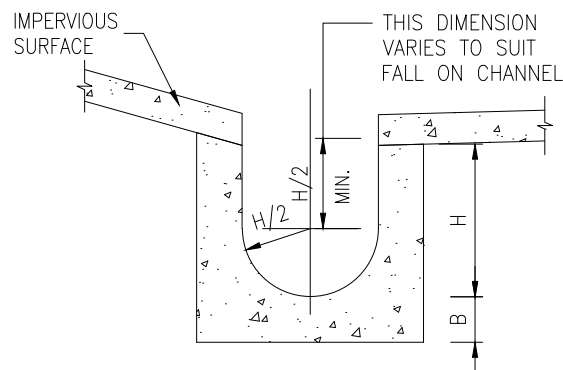


L = 600mm FOR H < 375mm
 L = 400mm FOR H > 375mm

CAST IRON GRATING TYPICAL SECTION
CAST IRON GRATING FOR U-CHANNELS
 (REFERENCE : CEDD DWG. NO. C2412D)
 N.T.S.

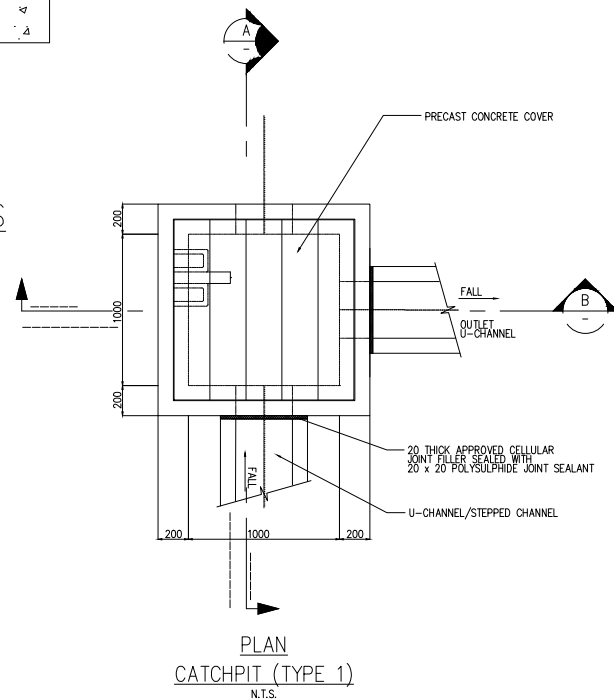


CHANNEL CHANGING DIRECTION THROUGH BENDS
 (REFERENCE : PAGE 100 GEOTECHNICAL MANUAL FOR SLOPES)
 N.T.S.

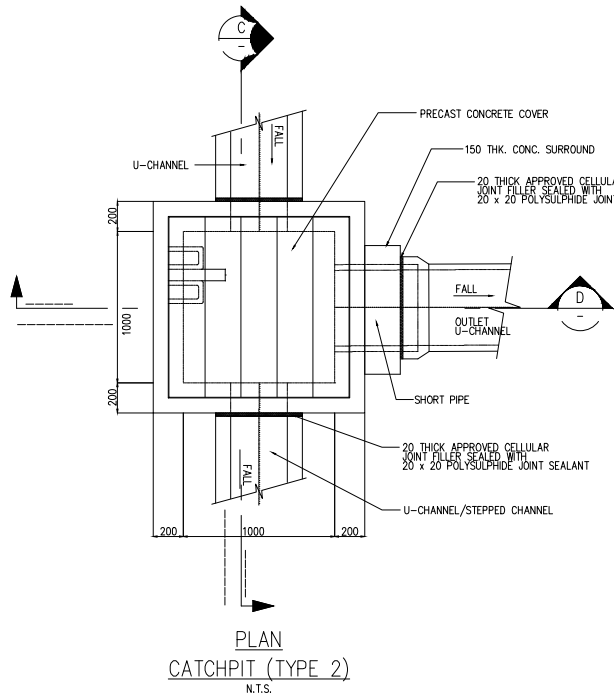


| NOMINAL SIZE H | THICKNESS T | THICKNESS B |
|----------------|-------------|-------------|
| 150 | 100 | 100 |
| 225-600 | 175 | 225 |
| 675-1200 | 175 | 225 |

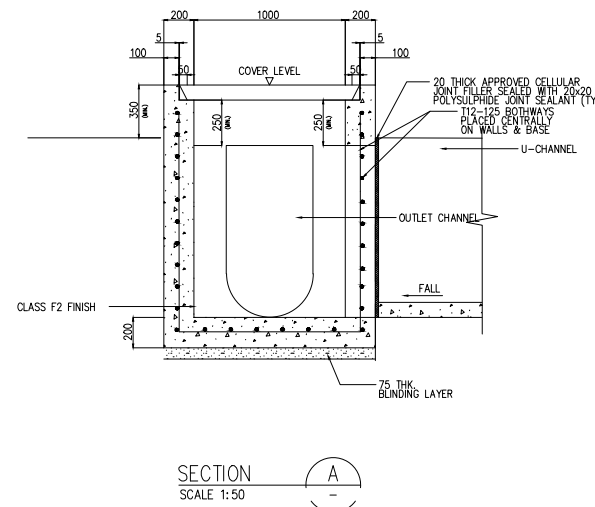
DETAILS OF U-CHANNEL
 (REFERENCE : FIG. 8.11 OF GEOTECHNICAL MANUAL FOR SLOPES)
 N.T.S.



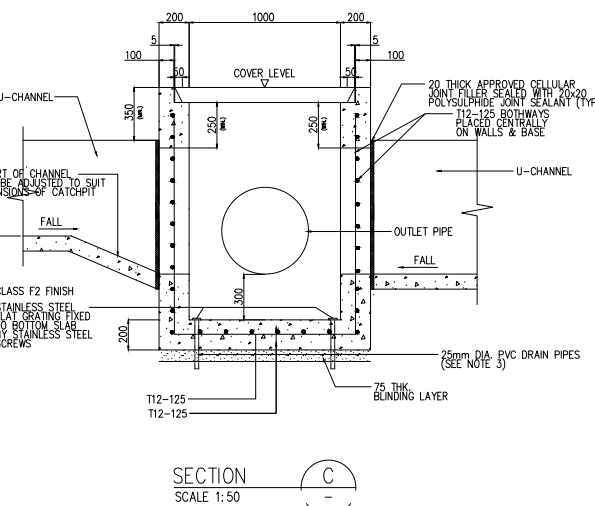
PLAN CATCHPIT (TYPE 1)
 N.T.S.



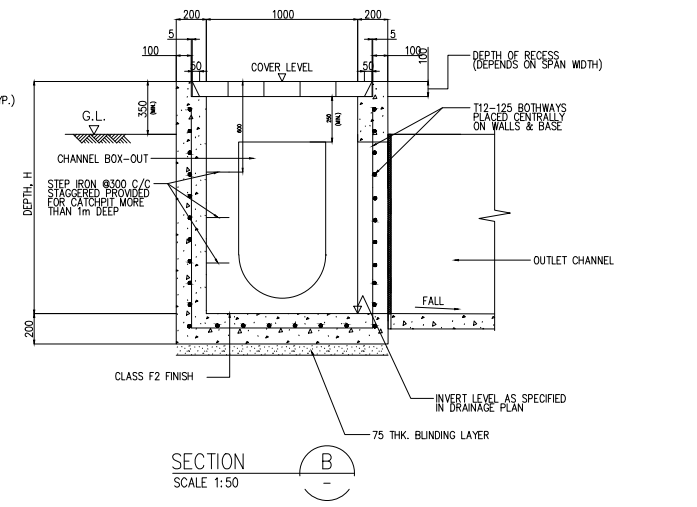
PLAN CATCHPIT (TYPE 2)
 N.T.S.



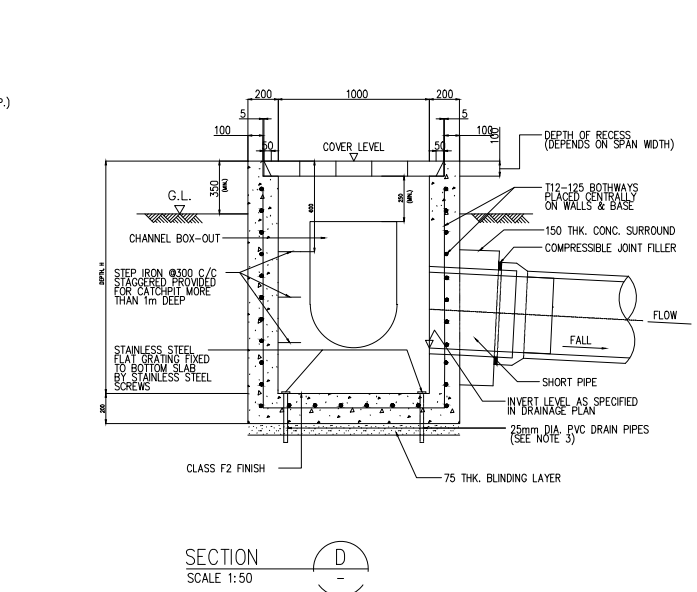
SECTION A-A
 SCALE 1:50



SECTION B-B
 SCALE 1:50

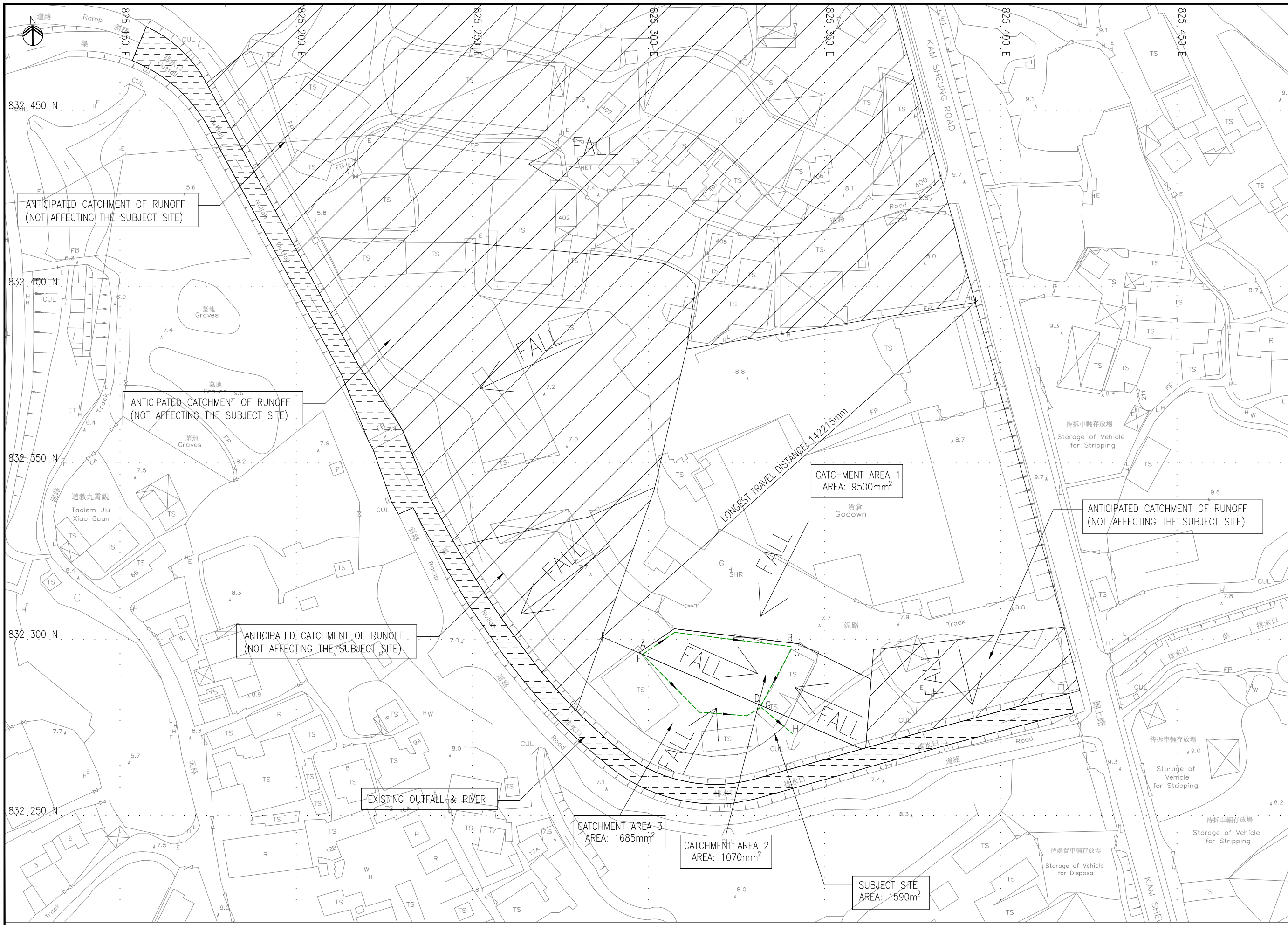


SECTION C-C
 SCALE 1:50



SECTION D-D
 SCALE 1:50

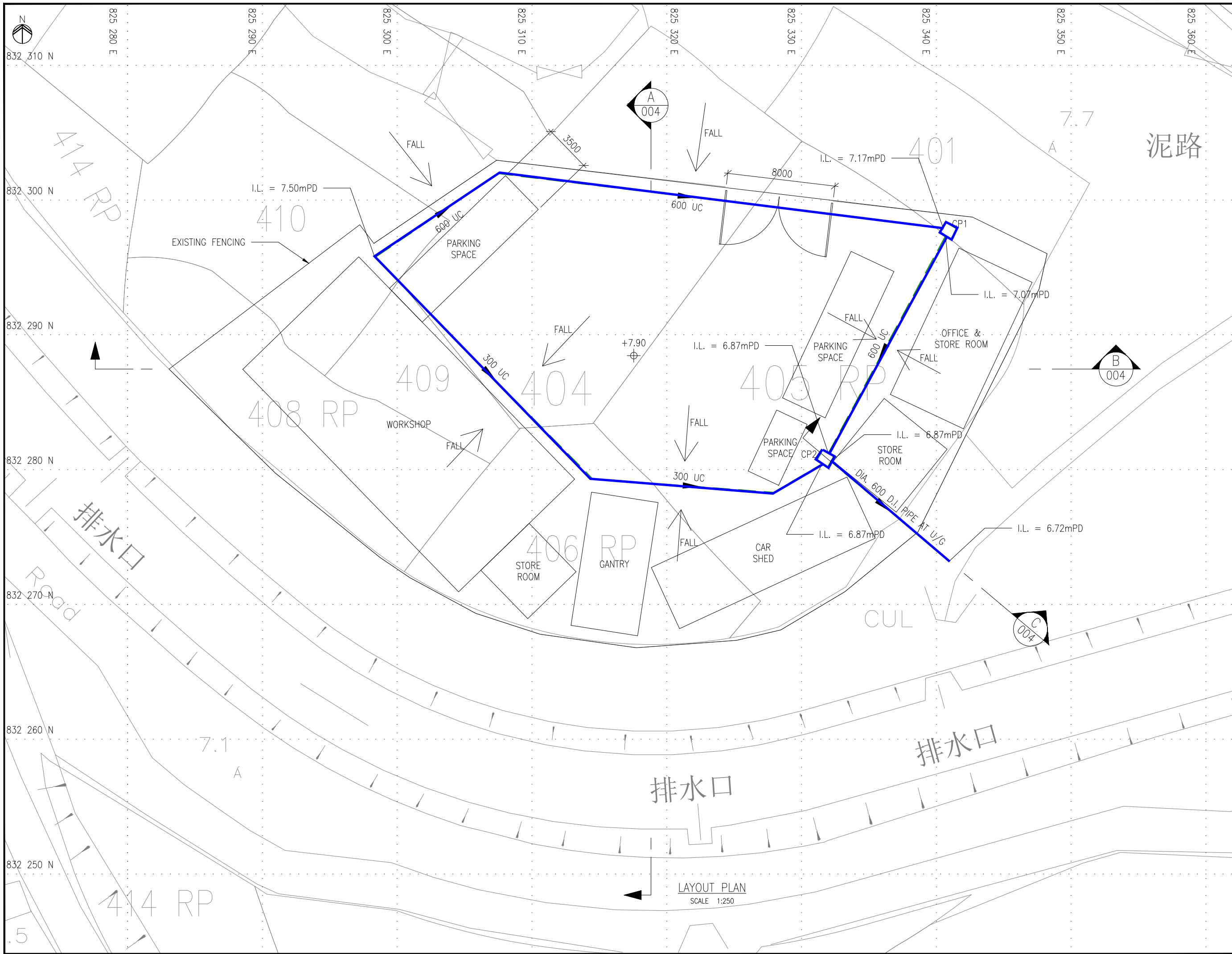
| | |
|---|----------------------------|
| B.D. REF. | |
| F.S.D. REF. | |
| <p>REV. DATE DESCRIPTION DRAWN CHECKED APPROVED</p> <p>ALL MEASUREMENTS MUST BE CHECKED AT THE SITE - DO NOT SCALE DRAWING - ALL DRAWING SPECIFICATIONS AND THEIR COPY RIGHT ARE THE PROPERTY OF ENGINEERS, ARCHITECTS, DESIGNERS AND SHALL BE RETURNED AT THE COMPLETION OF THE WORK - THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS EXPRESSLY CERTIFIED.</p> | |
| SIGNATURE FOR SUBMISSION/ CONSTRUCTION | |
| PROJECT NO: | 23230 |
| DRAWN BY: | DC 08/23 |
| DESIGNED BY: | HT 08/23 |
| CHECKED BY: | RM 08/23 |
| APPROVED BY: | VT 08/23 |
| SCALE: | AS SHOWN (A3) |
| CAD FILE: | WAC_23230_001_20230912_ray |
| PROJECT: DRAINAGE CONSULTANCY SERVICES FOR PLANNING APPLICATION NO. A_YL-KTS_957 | |
| DRAWING TITLE: DRAINAGE WORKS - GENERAL NOTES, DETAILS | |
| DRAWING NO: | WAC/23230/C/DRA/001 |
| REV: | - |
| <p>WINGS & ASSOCIATES CONSULTING ENGINEERS LTD.</p> | |



PLAN
SCALE 1:1000

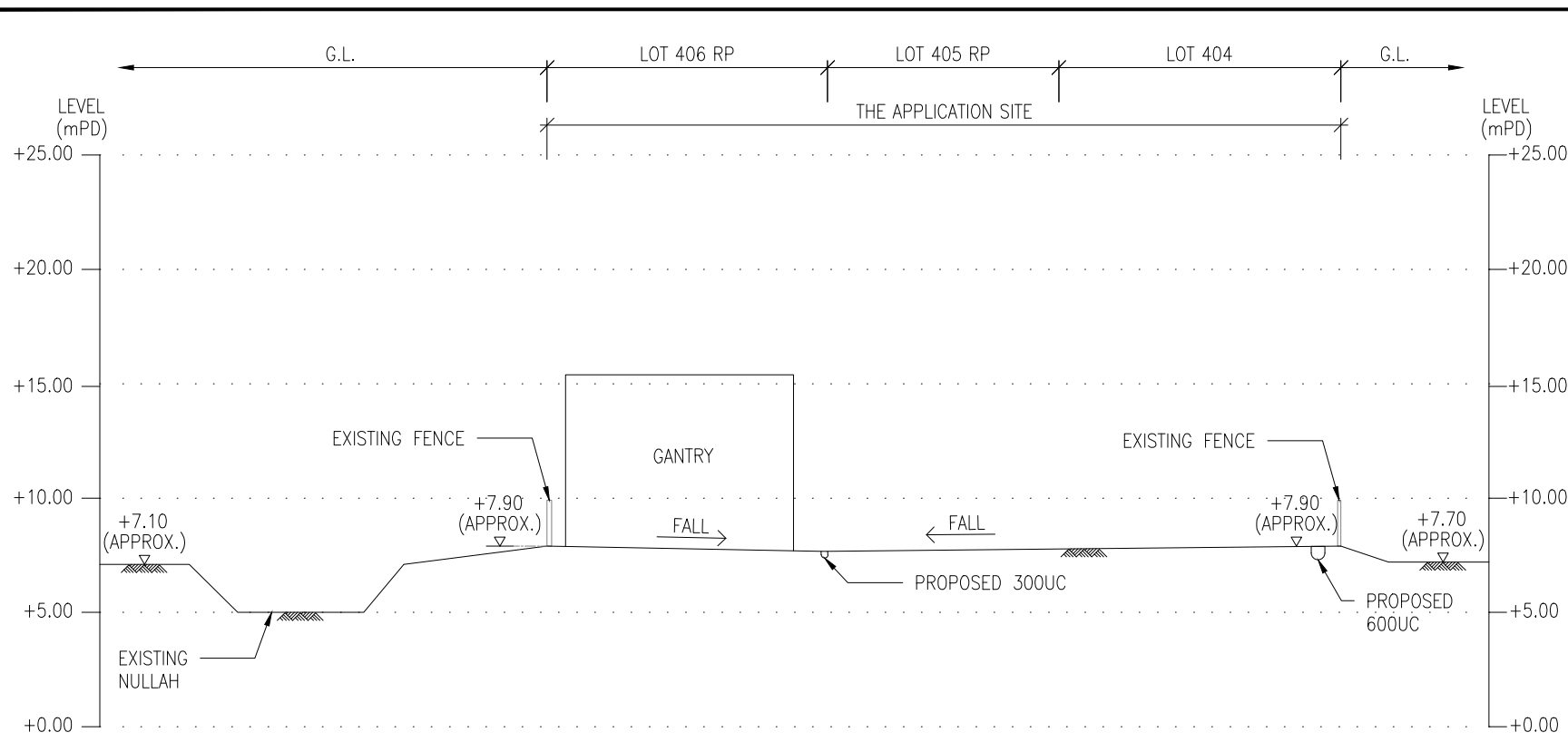
| | |
|--|----------------------------|
| B.D. REF. | |
| F.S.D. REF. | |
| <small>ALL MEASUREMENTS MUST BE CHECKED AT THE SITE - DO NOT SCALE DRAWING - ALL DRAWING SPECIFICATIONS AND THEIR COPYRIGHT ARE THE PROPERTY OF ENGINEERS, ARCHITECTS, DESIGNERS AND SHALL BE RETURNED AT THE COMPLETION OF THE WORK - THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS EXPRESSLY CERTIFIED.</small> | |
| SIGNATURE FOR SUBMISSION/ CONSTRUCTION | |
| PROJECT NO: | 23230 |
| DRAWN BY: | DC 08/23 |
| DESIGNED BY: | HT 08/23 |
| CHECKED BY: | RM 08/23 |
| APPROVED BY: | VT 08/23 |
| SCALE: | 1:1000 (A3) |
| CAD FILE: | WAC_23230_002_20230912_roy |
| PROJECT: DRAINAGE CONSULTANCY SERVICES FOR PLANNING APPLICATION NO. A_YL-KTS_957 | |
| DRAWING TITLE: PROPOSED CATCHMENT AREA | |
| DRAWING NO: | WAC/23230/C/DRA/002 |
| REV: | - |



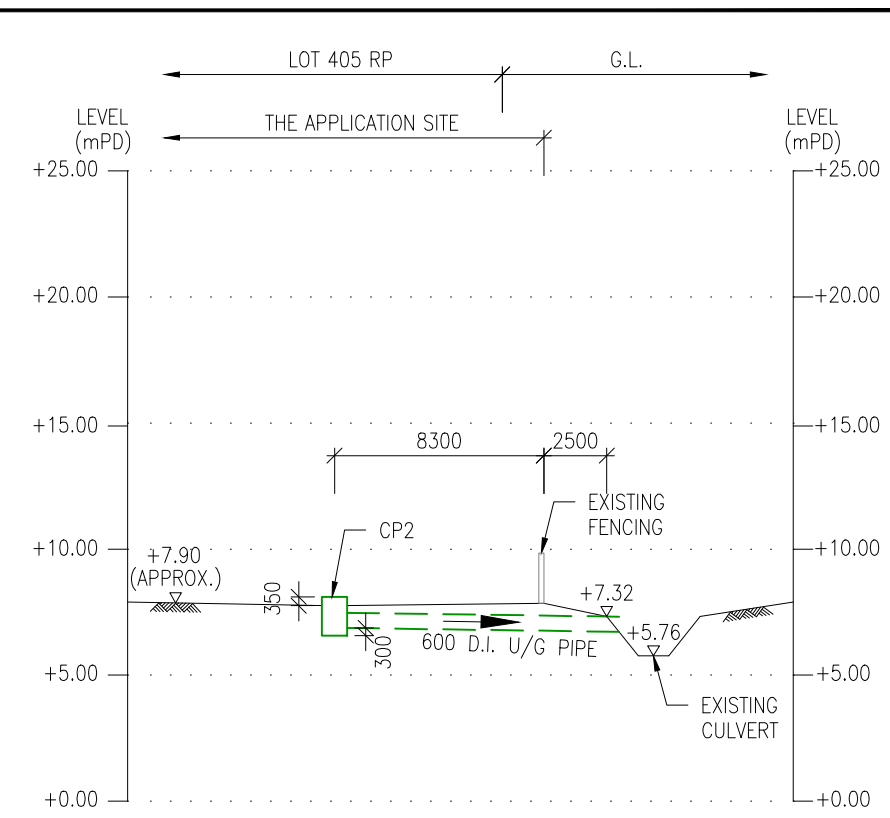


| | | |
|--|----------------------------|---------------------|
| B.D. REF. | | |
| F.S.D. REF. | | |
| LEGEND | | |
| | U-CHANNEL | (GRADIENT 1 IN 100) |
| | CATCHPIT | |
| <small>ALL MEASUREMENTS MUST BE CHECKED AT THE SITE - DO NOT SCALE DRAWING ALL DRAWING SPECIFICATIONS AND THEIR COPYRIGHT ARE THE PROPERTY OF ENGINEERS, ARCHITECTS, DESIGNERS AND SHALL BE RETURNED AT THE COMPLETION OF THE WORK - THIS DRAWING IS NOT VALID FOR CONSTRUCTION PURPOSES UNLESS EXPRESSLY CERTIFIED.</small> | | |
| SIGNATURE FOR SUBMISSION/ CONSTRUCTION | | |
| PROJECT NO: | 23230 | |
| DRAWN BY: | DC | 08/23 |
| DESIGNED BY: | HT | 08/23 |
| CHECKED BY: | RM | 08/23 |
| APPROVED BY: | VT | 08/23 |
| SCALE: | 1:250 (A3) | |
| CAD FILE: | WAC_23230_003_20230912.ray | |
| PROJECT: DRAINAGE CONSULTANCY SERVICES FOR PLANNING APPLICATION NO. A_YL-KTS_957 | | |
| DRAWING TITLE: LAYOUT PLAN COMBINED WITH DRAINAGE PLAN | | |
| DRAWING NO: | WAC/23230/C/DRA/003 | REV: - |
| | | |

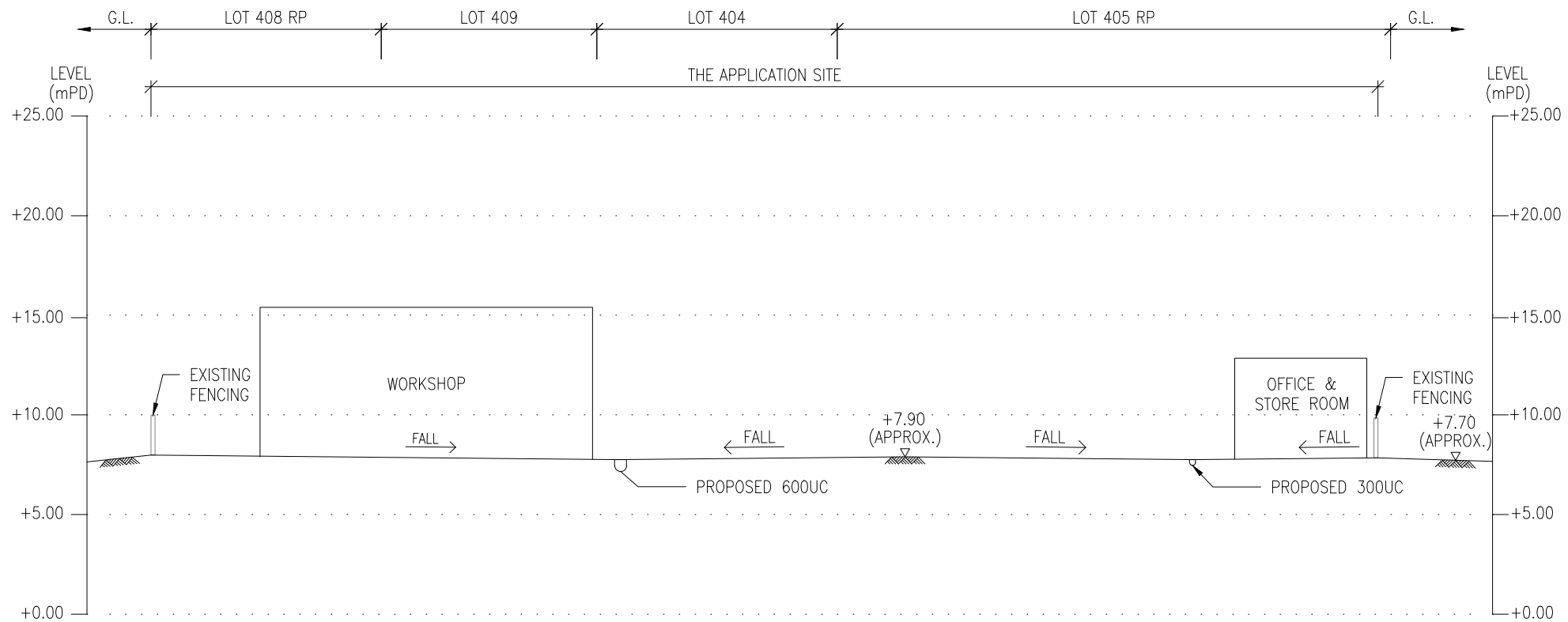
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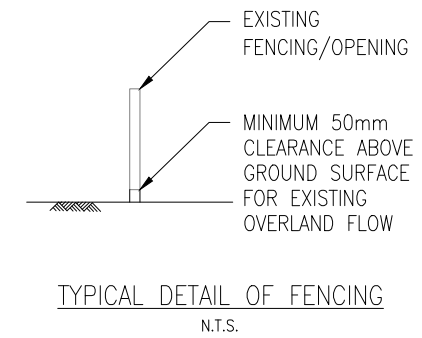
SECTION A-A
SCALE 1:300



SECTION C-C
SCALE 1:300



SECTION B-B
SCALE 1:300



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|-------------|------|-------------|-------|---------|----------|
| B.D. REF. | | | | | |
| F.S.D. REF. | | | | | |
| REV | DATE | DESCRIPTION | DRAWN | CHECKED | APPROVED |

ALL MEASUREMENTS MUST BE CHECKED AT THE SITE - DO NOT SCALE DRAWING
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 ENGINEERS, ARCHITECTS, DESIGNERS AND SHALL BE RETURNED AT THE
 COMPLETION OF THE WORK - THIS DRAWING IS NOT VALID FOR CONSTRUCTION
 PURPOSES UNLESS EXPRESSLY CERTIFIED.

SIGNATURE FOR SUBMISSION/ CONSTRUCTION

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| PROJECT NO: | 23230 | | |
| DRAWN BY: | DC | | 08/23 |
| DESIGNED BY: | HT | | 08/23 |
| CHECKED BY: | RM | | 08/23 |
| APPROVED BY: | VT | | 08/23 |
| SCALE: | 1:300 (A3) | | |
| CAD FILE: | WAC_23230_004 | | |

PROJECT:
 DRAINAGE CONSULTANCY SERVICES
 FOR PLANNING APPLICATION
 NO. A_YL-KTS_957

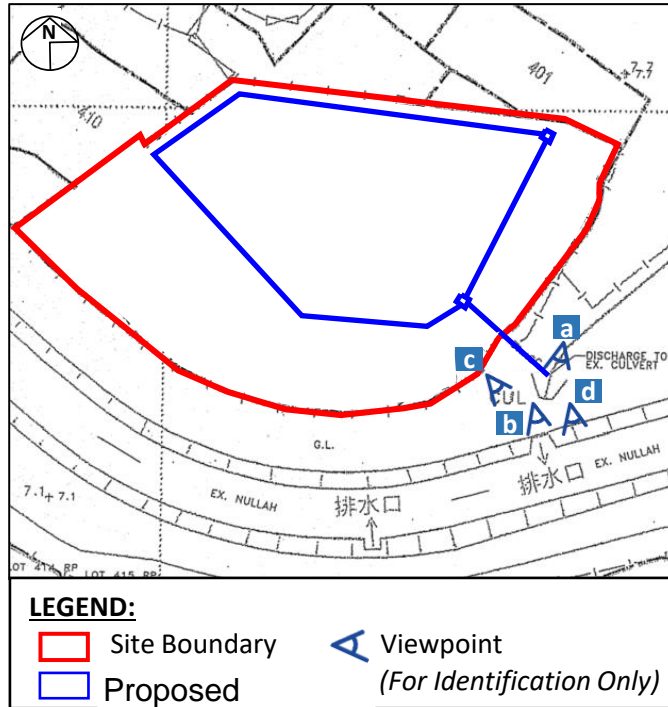
DRAWING TITLE:
 SECTIONS

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| DRAWING NO: | WAC/23230/C/DRA/004 | REV: | - |
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APPENDIX D

Site Photos



APPENDIX E

Reply to Comment

Application No. A/YL-KTS/957

Temporary Open Storage of Freezer Vehicles, Air-conditioned Compartments and Spare Parts of Cooling Machinery Components for Vehicles for Sale, and Installation and Maintenance Workshop for Freezer Vehicles for a Period of 3 Years

at

Lots 401 (Part), 404 (Part), 405 RP (Part), 406 RP, 408 RP (Part), 409 and 410 (Part) in D.D. 106, Pat Heung, Yuen Long, New Territories

R-to-C Table

Sep 2023

| | Comment from DSD | Responses |
|----|--|--|
| 1) | The ground to the east and north of the application site are generally higher. Since the overland flow from the adjacent lands shall be probably intercepted, external catchment shall be considered in the calculation. | - External catchment area has been considered in the runoff calculation and checking of drainage system. The calculation is attached in this submission. |
| 2) | Please advise the size and gradients of the peripheral surface channels and demonstrate with hydraulic calculation that the proposed drainage facilities are adequate to collect, convey and discharge the surface runoff accrued on the application site and the overland flow intercepted from the adjacent lands. | - The size and gradients of the peripheral surface channels and demonstrate with hydraulic calculation have been provided, please find attached calculation and drawings |
| 3) | Cross sections showing the existing and proposed ground levels of the captioned site with respect to the adjacent areas should be given. | - The cross sections have been provided to show the existing and proposed ground levels of the captioned site with respect to the adjacent areas |
| 4) | The gradients and the sizes of the proposed U-channels should be shown on the drainage plan. | - The gradients and the sizes of the proposed U-channels have been shown on the revised drainage plan. |

| | | |
|-----|---|--|
| 5) | Please clearly indicate the details of openings (e.g. size, arrangement, etc.) to be provided to intercept the existing overland flow passing through the site on the drainage plan/cross section drawings. | <ul style="list-style-type: none"> - Details have been provided on the revised drawings. - The fencing provided clearance (min. 50mm) above ground level to intercept the existing overland flow passing through the site |
| 6) | Please provide the connection details to the existing culvert for comments. Please note that the existing watercourse, to which the applicant proposed to discharge the stormwater from the subject site was not maintained by this office. The applicant should identify the owner of the existing drainage facilities and obtain consent from the owner prior to commencement of the proposed works. In the case that it is a local village drains, DO/YL should be consulted. | <ul style="list-style-type: none"> - Underground drain pipe is now proposed to be the discharge of stormwater drain from the subject site. - Noted, DO/YL will be consulted. |
| 7) | Further to (6) above, since there is no record of the said discharge path, please provide site photos to demonstrate its presence and existing condition. | <ul style="list-style-type: none"> - Site photos have been provided in Appendix of the drainage proposal. |
| 8) | Please note that catchpit/manhole should be provided at the location with sharp change of flow direction for maintenance. | <ul style="list-style-type: none"> - Catchpit and sand trap have been provided. |
| 9) | The applicant should check and ensure the hydraulic capacity of the existing drainage facilities would not be adversely affected by the captioned development. | <ul style="list-style-type: none"> - The hydraulic capacity of the existing drainage facilities provide service for the catchment area of the subjected site area and the external catchment area. - It would not be adversely affected by the captioned development |
| 10) | The development should neither obstruct overland flow nor adversely affect existing natural streams, village drains, ditches and the adjacent areas, etc. | <ul style="list-style-type: none"> - Noted. |
| 11) | The applicant should consult DLO/YL and seek consent from the relevant owners for any drainage works to be carried out outside his lot boundary before commencement of the drainage works. | <ul style="list-style-type: none"> - Noted. |