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Section 16 Planning Application

Proposed Temporary Warehouse for Storage of Construction Materials (Timber and Metal) and Associated Filling of Land for a Period of 3 Years at Lots 123 RP, 124 (Part), 125 (Part), 126 (Part) and 127 (Part) in D.D. 113 and Adjoining Government Land, Ma On Kong, Kam Tin South, Yuen Long, N.T.

Planning Statement

Applicants

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Executive Summary

This planning statement is submitted to the Town Planning Board (the “Board”) in support of a planning application for proposed temporary warehouse for storage of construction materials (timber and metal) and associated filling of land for a period of 3 years (the “proposed development”) at Lots 123 RP, 124(Part), 125(Part), 126(Part) and 127(Part) in D.D. 113 and Adjoining Government Land, Ma On Kong, Kam Tin South, Yuen Long, N.T. (“the Application Site”).

The Application Site, covering an area of about 6,133 sq.m. (including Government Land of about 920 sq.m.), falls within an area zoned “Agriculture” (“AGR”) on the Approved Kam Tin South Outline Zoning Plan (OZP) No. S/YL-KTS/15 gazetted on 21.12.2018. According to the Notes of the OZP, ‘Warehouse’ is neither a Column 1 nor Column 2 use of the “AGR” zone, temporary use or development of any land or building not exceeding a period of three years requires planning permission from the Board.

The Application Site, or part of it, is the subject of 5 previous applications. The last application (No. A/YL-KTS/1032) was approved for a temporary warehouse for storage of construction materials (timber and metal) and associated filling of land on 22.11.2024 for a period of 3 years. The Application is to facilitate the relocation of the Applicants’ former warehouses on various lots in D.D. 96, Kwu Tung North, N.T., which was affected by the land resumption for First Phase Development of Kwu Tung North New Development Area.

The Applicants had complied with approval condition (d) of the previous application by submitting the Fire Service Installations (FSIs) proposal, which was approved on 24.6.2025. Although the FSI proposal has been implemented and an application for a water supply has been submitted to the Water Supplies Department (WSD), the water supply for the FSIs has not yet been made available, thereby approval condition (e) of the last application has not been met. This application will explain the reasons of non-compliance with the approval conditions and the efforts made by the Applicants. As the total compliance period of 18 months has already exceeded half of the duration of the temporary approval (three years), the Board will not grant any further extension. Accordingly, a fresh planning application is hereby submitted for the proposed development.

The Application Site is currently occupied by the proposed development, which has largely the same parameters and layout as the previously approved application. The development will comprise two warehouses for storage of timber and metal, with floor areas of about 2,234 sq.m. and 1,625 sq.m respectively and a building height of not more than 12m. Ancillary facilities, including site offices, storage containers, a meter room and a rain shelter, will also be provided.

All loading/unloading activities and vehicle manoeuvring are conducted in the southern part of the site. The ingress/egress point is located at the southern boundary, where it connects to the local track from Kam Ho Road. There will be 3 loading/unloading spaces (3.5m x 16m) for container vehicles, 2 loading/unloading spaces (3.5m x 7m) for light goods vehicles and 4 private car parking spaces for staff/visitors (2.5m x 5m). The Application Site has been fenced off with corrugated metal sheets of about 2.5m high. The operation hours of the Application Site are between 9am to 6pm from Mondays to Saturdays. There will be no operation on Sundays and public holidays.

The justifications for this application are as follows:

1. The proposed development will support the construction industry in Hong Kong;
2. The proposed development will not hinder the development of future public housing;
3. The Application Site is unsuitable for agricultural rehabilitation;
4. The Application Site is subject to prior planning approval granted for the same use;
5. The previous application was revoked due to an unexpected delay in complying with the approval conditions;
6. Similar approvals for warehouse use have been granted in the “AGR” zone;
7. The proposed development will encourage the optimization of valuable land resources;
8. The proposed development is considered not incompatible with surrounding land uses; and
9. The proposed development will not have an adverse impact on traffic, environment, drainage and landscape in the surrounding areas.

In view of the justifications as presented in this planning statement, it is hoped that members of the Board and relevant Government departments will approve this application for a period of 3 years.

行政摘要

此規劃報告書向城市規劃委員會(“城規會”)呈交，旨在支持在新界元朗錦田南馬鞍崗丈量約份第 113 約地段第 123 號餘段、第 124 號(部分)、第 125 號(部分)、第 126 號(部分)、第 127 號(部分)及毗連政府土地(“申請地點”)，作為期三年的臨時貨倉存放建築材料(木材及五金)及相關的填土工程(“擬議發展”)的規劃申請。

申請地點的面積約 6,133 平方米(包括政府土地約 920 平方米)，座落於在 2018 年 12 月 21 日刊憲的錦田南分區計劃大綱核准圖(圖則編號：S/YL-KTS/15)上的「農業」地帶。根據該大綱圖的註釋，「貨倉」不屬「農業」地帶內的第一欄或第二欄用途，然而不超過三年土地或建築物的臨時用途或發展，須先向城規會提出申請。

申請地點或其部分涉及五宗規劃申請，最後一次申請(申請編號：A/YL-KTS/1032)於 2024 年 11 月 22 日獲批准作臨時貨倉存放建築材料(木材及五金)及相關的填土工程(為期三年)。此申請是為協助同一申請人重置早前受古洞北新發展區第一期發展計劃收地影響，位於古洞北丈量約份第 96 約多個地段的貨倉。

申請人已履行該規劃許可附帶條件(d)項提交了消防裝置建議書，並已於 2025 年 6 月 24 日獲批。雖然消防設施建議書已落實，並已向水務署提交了供水申請，但消防設施的供水尚未到位，因此未符合上次申請的批准條件(e)。本申請將說明未能履行規劃許可附帶條件的原因，以及申請人所作出的努力。鑑於履行條件的期限(18 個月)已超過上次規劃許可有效期(3 年)的一半，城規會不予批准任何進一步的延期。因此，申請人就擬議發展提供一份新的規劃申請。

申請地點現正由擬議發展項目佔用，這次申請的發展參數及布局大致與上次獲批申請大致相同。擬議發展包含兩座用作貯存木材及金屬的貨倉，樓面面積分別約為 2,234 平方米及 1,625 平方米，建築物高度不超過 12 米。此外，亦將設置配套設施，包括地盤辦公室、儲物貨櫃、電錶房及避雨棚。

所有上落貨及車輛調度均於申請地點的南面進行。申請地點的出入口(約 8 米闊)設於場地南面，由一條道路連接錦河路。申請地點亦設有 3 個貨櫃車上落貨位(3.5 米 x 16 米)、2 個輕型貨車上落貨位(3.5 米 x 7 米)和 4 個職員/訪客使用的私家車停車位(2.5 米 x 5 米)。擬議發展的營運時間為星期一至星期六上午 9 時正至下午 6 時正，星期日及公眾假期不會運作。

本規劃申請的理據為：

1. 擬議發展有助支持本港的建築業；
2. 擬議發展不會妨礙未來的公共房屋的發展；
3. 申請地點不適合進行農業復耕；
4. 申請地點之前已獲批予相同用途的規劃許可；
5. 上次申請在履行規劃許可附帶條件時遇到未能預計的延誤；
6. 在「農業」地帶有類似的貨倉用途申請獲得規劃許可；
7. 擬議發展可優化寶貴的土地資源；
8. 擬議發展與周邊土地用途兼容；及
9. 擬議發展不會對周邊地區構成不良的交通、環境、排水及景觀影響。

基於本規劃報告書所述的理據，敬希 各城規會委員及有關政府部門能批准此項申請，作為期三年的臨時用途。

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1. Introduction

1.1 Purpose

Pursuant to Section 16 of the Town Planning Ordinance, this Planning Statement Report is submitted to the Town Planning Board (“the Board”) in support of a planning application for Proposed Temporary Warehouse for Storage of Construction Materials (Timber and Metal) for a period of 3 years and Associated Filling of Land (the “proposed development”) at Lots 123 RP, 124(Part), 125(Part), 126(Part) and 127(Part) in D.D. 113 and Adjoining Government Land, Ma On Kong, Kam Tin South, Yuen Long, N.T. (hereafter referred to as “the Application Site”). **Figure 1** shows the location of the Application Site and the Lot Index Plan indicating the concerned lots is shown per **Figure 2**.

The Application Site, covering an area of about 6,133 sq.m. (including Government land of about 920 sq.m.), falls within an area zoned “Agriculture” (“AGR”) on the Approved Kam Tin South Outline Zoning Plan (OZP) No. S/YL-KTS/15 gazetted on 21.12.2018. According to the Notes of the OZP, ‘Warehouse’ is neither a Column 1 nor Column 2 use of the “AGR” zone, and temporary use or development of any land or building not exceeding a period of three years requires planning permission from the Board.

1.2 Background of the Application

The Application Site involved 2 previously approved planning applications. Application Nos. A/YL-KTS/946 and 1032 were submitted by the current Applicants for the same use covering the same site with similar layout and development parameters, which were approved by the Board on 19.5.2023 and 22.11.2024, respectively. The Application is to facilitate the relocation of the Applicants’ former warehouses on various lots in D.D. 96, Kwu Tung North, N.T., which were affected by the land resumption for First Phase Development of Kwu Tung North Development Area.

The Applicants had complied with approval condition (d) of the previous application (Application No. A/YL-KTS/1032), which required the submission of a fire service installations (FSIs) proposal. This FSIs proposal has been implemented, including a pump room, a fire alarm system, emergency lighting, exit signs, a fire hose reel system and an automatic sprinkler system. Since September 2025, the Applicants have been applying to the Water Supplies Department (WSD) for a water supply for the FSIs. The WSD has approved the proposed water mains connection, and the Applicants have paid the required fees. However, the Applicants have carried out the water connection works and there are currently some defects that need to be addressed. Approval of Form WWO 46 (Application for Constructing, Installing, Altering or Removing an Inside Service or Fire Service) is pending. The WSD has advised that this process may take at least one or two years (see **Appendix 1**).

For approval conditions (a) and (b), relating to the submission and implementation of the drainage proposal, the Applicants’ previous consultant has made five submissions. However, the Drainage Services Department (DSD) still has comments on the drainage proposal. As the total compliance period of 18 months for the approval conditions of the previous application has already exceeded half of the duration of the temporary approval (three years), the Board will not grant any further extensions. There is also insufficient time for the consultant to respond. The Applicants have now appointed a new engineering consultant to conduct further studies and refine the drainage proposal. Accordingly, a fresh planning application is hereby submitted for the proposed development.

1.3 Organization of the Planning Statement

This planning statement is divided into 6 chapters. Chapter 1 is an introduction outlining the above background of the planning application. Chapter 2 will then illustrate the site context and land status followed by Chapter 3 which describes the planning context in details. Chapter 4 gives the particulars of the proposed development. Detailed accounts of planning justifications of the proposed development are presented in Chapter 5. The planning statement finally concludes with a summary in Chapter 6.

2. Site Context

2.1 The Application Site and Its Existing Condition

The Application Site, with an area of about 6,133 sq.m. (including Government land of about 920 sq.m.), is located at a local track leading to Kam Ho Road in Ma On Kong, Kam Tin South, Yuen Long, N.T. The Application Site is generally flat and hard paved. It is currently occupied for the applied use and fenced off with 2.5m-high corrugated metal sheets (see **Site Photos A**).

2.2 Surrounding Land Uses

The surrounding area of the Application Site comprises predominantly warehouses, storage yards and residential structures which of them are temporary structures, as well as graves and burial urns. To the east of the Application Site are open storage/storage yards with a series of temporary structures. To the west of the Application Site are a series of open storage yards, warehouses and vacant land. To its immediate north is a parcel of vacant land zoned "Green Belt". The village settlements of Ma On Kong are situated further to the south, while the Pat Heung Depot is located to the east, across the watercourse.

2.3 Accessibility

The Application Site is accessible to Kam Ho Road via a local track. The entrance to the Application Site is about 8m wide which located to the southwest and has been hard paved. A plan showing the vehicular access to the Application Site is provided at **Figure 3**.

2.4 Land Status

According to the records of Land Registry, the Subject Lots are held under Block Government Lease and demised for agricultural use with a lease term for 75 years, commenced from 1.7.1898, and are renewable for a further term of 24 years.

Applications for a Short Term Waiver (STW) for the proposed warehouses and for a Short Term Tenancy (STT) for the use of government land have been approved by the Lands Department (LandsD). With reference to the latest Lot Index Plan, the boundary of Lot 123 in DD113 has undergone minor adjustments, resulting in a reduction in the government land area from 1,043 sq.m. to 920 sq.m.

3. Planning Context

3.1 Outline Zoning Plan

The Application Site falls within an area zoned “Agriculture” (“AGR”) on the Approved Kam Tin South Outline Zoning Plan (OZP) No. S/YL-KTS/15 gazetted on 21.12.2018 (see **Figure 1**). The planning intention of “AGR” zone is “primarily to retain and safeguard good quality agricultural land/farm/fish ponds for agricultural purposes. It is also intended to retain fallow arable land with good potential for rehabilitation for cultivation and other agricultural purposes”.

Despite the fact that the proposed development (‘warehouse’) is neither one of the Column 1 or Column 2 uses under the Schedule of Uses for the subject “AGR” zone, the Board may grant planning permission (with or without conditions) for a maximum period of three years under section 16 of the Town Planning Ordinance.

3.2 Previous Applications

The Application Site, or part of it, is involved in 5 previous planning applications as follows:

Application No.	Applied Use	Location	TPB's Decision (Date)
A/YL-KTS/783	Temporary Warehouse for Storage of Drainage Pipes with Ancillary Site Office for a Period of 3 Years	Lots 123(Part), 124(Part), 125(Part), 126(Part) and 127(Part) in D.D.113 and adjoining Government land	Rejected (07.09.2018)
A/YL-KTS/885	Temporary Animal Boarding Establishment (Dog Kennel) for a Period of 3 Years	Lots 123(Part) and 124(Part) in D.D. 113	Rejected (28.05.2021)
A/YL-KTS/891	Temporary Animal Boarding Establishment (Dog Kennel) for a Period of 3 Years	Lots 125 and 126 in D.D.113	Approved with condition(s) on a temporary basis (25.06.2021)
A/YL-KTS/946*	Proposed Temporary Warehouse for Storage of Construction Materials (Timber and Metal) for a Period of 3 Years	Lots 123(Part), 124(Part), 125(Part), 126(Part) and 127(Part) in D.D.113 and adjoining Government land	Approved with condition(s) on a temporary basis (19.5.2023)
A/YL-KTS/1032*	Proposed Temporary Warehouse for Storage of Construction Materials (Timber and Metal) for a Period of 3 Years and Associated Filling of Land	Lots 123 RP, 124(Part), 125(Part), 126(Part), 127(Part) in D.D. 113 and adjoining Government land	Approved with condition(s) on a temporary basis (22.11.2024)

*Applied by the Applicants

The Applicants have complied with the approval condition (d) of the last application (No. A/YL-KTS/1032), which required the submission of a FSIs proposal, on 24.6.2025. The Applicants have already carried out the implementation of the FSIs proposal (see **Site Photos B**), while the water supply connection for the FSIs is still being processed by the WSD (see **Appendix 1**). Consequently, approval condition (e) could not be completed by the prescribed deadline.

Regarding conditions (a) and (b), which relate to the submission and implementation of the drainage proposal, the Applicants' previous consultant has made five submissions. However, the Drainage Services Department (DSD) still has comments on the drainage proposal. The Applicants have engaged a new engineering consultant to draw up a new proposal for the current application

to meet the DSD's requirements.

3.3 Similar Applications

There are 4 applications for similar warehouse use were approved by the Board in the recent years within other "AGR" zone in the vicinity. These approved applications are summarized as below:

Application No.	Applied Use	Gross Floor Area (m ²)	Decision	Date of Approval
A/YL-KTS/959	Proposed Temporary Warehouse for Storage of Construction Materials for a Period of 3 Years and Filling of Land	1,306	Approved with Conditions	9.6.2023
A/YL-KTS/997	Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years and Associated Filling of Land	378	Approved with Conditions	10.5.2024
A/YL-KTS/1045	Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Facilities for a Period of 3 Years and Associated Filling of Land	2,124	Approved with Conditions	14.3.2025
A/YL-KTS/1051	Proposed Temporary Warehouse (Excluding Dangerous Goods Godown) with Ancillary Office for a Period of 3 Years and Associated Filling of Land	3,242	Approved with Conditions	11.4.2025

4. Development Proposal

4.1 Site Configuration and Layout

The Applicants seek planning permission to use the Application Site as temporary warehouse for storage of construction materials (timber and metal) and associated filling of land for a period of 3 years. The proposed development is to facilitate the relocation and continuation of the Applicants' business affected by First Phase of the Kwu Tung North New Development Area.

The layout and development parameters are largely the same as those of the previous application (No. A/YL-KTS/1032), except for an increase in the number of structures to meet operational needs. These include a 2-storey container for storage (GFA: 30 sq.m., BH: 6m), a 2-storey site office (GFA: 60 sq.m., BH: 6m), and a rain shelter (GFA: 3 sq.m., BH: 2.5m). The maximum building height remains unchanged at 12m. Consequently, the current proposal is not materially different from the previously approved application and is not expected to have any adverse impact.

Two single-storey warehouses for the storage of timber and metal, with floor areas of about 2,234 sq.m. and 1,625 sq.m. and BH not exceeding 12m, have been erected at the northeastern and northwestern portions of the Application Site. A 2-storey site office (about 30 sq.m.; BH: 6m) is located at the centre of the Application Site, while another 2-storey site office (GFA: 60 sq.m., BH: 6m) is located at the southern end. A one-storey meter room (about 5 sq.m.; BH: 3m) is proposed in the western part of the site. In addition, two-storey containers (floor area about 30 sq.m.; BH: 6m) have been placed in the western part for storage purposes (see Layout Plan at **Figure 4**). The Applicants will retain the existing access point at the southern boundary, which connects to the local track from Kam Ho Road, which is 8m wide. The Application Site is enclosed with existing corrugated metal sheets, approximately 2.5m high, on all sides.

The proposed development involves filling about 6,099 sq.m. of land to a depth of no more than 0.2m with concrete for site formation, vehicle circulation and parking purposes. An additional 34 sq.m. will be filled with soil to a depth of no more than 0.2 m for tree planting and landscaping. **Figure 6** shows a plan of the proposed land filling area of the Application Site.

The major differences between the current application and the previous applications, along with the reasons for non-compliance with the approval conditions are shown below:-

Major Development Parameters	Previous Application (No. A/YL-KTS/946) (a)	Previous Application (No. A/YL-KTS/1032) (b)	Current Application (c)	Difference (c) - (b)
Applied Use	Proposed Temporary Warehouse for Storage of Construction Materials (Timber and Metal) for a Period of 3 Years and Associated Filling of Land	Proposed Temporary Warehouse for Storage of Construction Materials (Timber and Metal) for a Period of 3 Years and Associated Filling of Land	Proposed Temporary Warehouse for Storage of Construction Materials (Timber and Metal) for a Period of 3 Years and Associated Filling of Land	No difference
Site Area	About 6,133 sq.m. (GL: 1,043 sq.m.)	About 6,133 sq.m. (GL: 1,043 sq.m.)	About 6,133 sq.m. (GL: 920 sq.m.)	Reduction in GL (-123 sq.m.)
Total Floor Area (Non-domestic)	3,908 sq.m.	3,909 sq.m.	3,987 sq.m.	+78 sq.m. (+2%)
No. of Structures	5 - 2 proposed warehouses for storage of timber/metal - 1 proposed site office - 1 proposed guard house - 1 proposed washroom	5 - 2 proposed warehouses for storage of timber/metal - 1 proposed site office - 1 proposed meter room - 1 proposed washroom	7 - 2 proposed warehouses for storage of timber/metal - 2 proposed site office - 1 2-storey container for storage - 1 proposed meter room - 1 rain shelter	+2 The no. of structures increased to meet operational needs
Height of Structures	3m - 12m (1-storey)	3m - 12m (1-storey)	2.5m – 12m (1-2 storey)	Max. BH unchanged
No. of Parking Spaces	4 nos. (private cars for staff/visitors use)	4 nos. (private cars for staff/visitors use)	4 nos. (private cars for staff/visitors use)	No Difference
Loading/unloading Spaces	5 nos. - 3 for container vehicles - 2 for light goods vehicles	5 nos. - 3 for container vehicles - 2 for light goods vehicles	5 nos. - 3 for container vehicles - 2 for light goods vehicles	No Difference
Operation Hours	9:00am to 6:00 pm Mondays to Saturdays (excluding Sundays and public holidays)	9:00am to 6:00 pm Mondays to Saturdays (excluding Sundays and public holidays)	9:00am to 6:00 pm Mondays to Saturdays (excluding Sundays and public holidays)	No Difference
Reasons for Non-compliance with Approval Conditions	- The site is still vacant and development has not yet commenced, as approval from the	- The STW application was subsequently approved by the Lands Department.	<u>The current proposal in relation to the technical submissions is as follows:</u>	

	relevant authority under the Lands Regime is required. - Applying for the subdivision of Lot 123 in DD113 to facilitate the application for a Short-Term Waiver (STW). - Unexpected delay to construction works due to the Lands Department processing the STW. - FSIs proposal (Condition (g)) has been approved by the FSD, but it is not possible to implement the proposal as the warehouse cannot be erected without STW approval. - Two submissions have been made in an attempt to comply with approval condition (a) (i.e. submission of a drainage proposal to the satisfaction of DSD). - Efforts have been made by the Applicant to comply with approval conditions.	Construction of the warehouse was completed six months after planning approval was obtained. - FSIs have been completed (see Site Photos B) and the FS 251 certificates for some of the FSIs have been issued. - However, approval from the Water Supplies Department (WSD) is needed for the water supply connection, which may take 1-2 years. The Applicants are seeking WSD's approval of Form WWO 46 (Application for Constructing, Installing, Altering or Removing an Inside Service or Fire Service). - Five submissions have been made in an attempt to comply with approval condition (a) (i.e. submission of drainage proposal to the satisfaction of DSD). Drainage facilities have been provided on site (see Site Photos C), and there has been no flooding in the past 3 years. - Efforts have been made by the Applicant to comply with approval conditions.	- A revised FSIs proposal have been submitted due to a minor change in the layout and an increase in temporary structures - A new drainage proposal has been submitted in response to previous comments from the DSD.	
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4.2 Vehicular Access and Parking Arrangement

The proposed development will continue using the existing ingress/egress point at the southern boundary of the Application Site, which is about 8m wide and connects to the local track leading to Kam Ho Road. The parking and loading/unloading arrangements remain the same as the previous applications (No. A/YL-KTS/946 and 1032), comprising 3 loading/unloading spaces (3.5m x 16m) for container vehicles, 2 loading/unloading spaces (3.5m x 7m) for light goods vehicle and 4 private car parking spaces (2.5m x 5m) for staff/visitors.

The submitted swept path analysis (see **Figure 7**) would be able to demonstrate that satisfactory manoeuvring of vehicles entering to and exiting from the Application Site and manoeuvring within the Application Site. There will be no difficulties in internal traffic circulation sense as sufficient space for manoeuvring of vehicles is reserved at the southern portion such that no waiting or queuing of goods vehicles along Kam Ho Road will arise under any circumstances.

In addition, according to the Applicants, trips for transporting the storage materials to/from the Application Site made by the goods vehicles will not be more than 3 round trips daily at non-peak hours (between 10am – 4pm) with the materials stored within the Application Site remaining stagnant all the time. There will be no more than 5 working staff on-site. Considering the business nature and operational needs, only 2 daily round trips for private vehicles to the Application Site is expected.

The estimated traffic arising from the proposed development is as follows:

Time	No. of Trips (Container/ Goods Vehicles)		No. of Trips (Private Cars)	
	In	Out	In	Out
08:00-09:00 (peak hour)	0	0	2	0
09:00-10:00 (peak hour)	0	0	0	0
10:00-11:00	1	0	0	0
11:00-12:00	1	1	0	0
12:00-13:00	0	1	0	0
13:00-14:00	1	0	0	0
15:00-16:00	0	1	0	0
16:00-17:00	0	0	0	0
17:00-18:00 (peak hour)	0	0	0	2

4.3 Site Operations

The operation hours of the Application Site are between 9am to 6pm from Mondays to Saturdays. There will be no operation on Sundays and public holidays. The main use of the Application Site will be storage purpose of construction materials (timber and metal). To minimize any potential noise and environmental impacts to the surrounding area, no workshop and open storage activities will be conducted within the Application Site.

4.4 Drainage Proposal

The Applicants submitted a revised drainage proposal on 17.4.2026 to the Planning Department in compliance with approval condition (a) of the previous application (No. A/YL-KTS/1032). The latest comments from the Drainage Services Department (DSD) were received on 15.5.2026. The

Applicants have now appointed a new engineering consultant to further study and refine the drainage proposal in order to meet DSD's requirements. Drainage facilities, including 300mm peripheral U-channels with catchpits, would be constructed to collect surface runoff flowing across the site boundary. The peripheral channels will convey the flow to a terminal catchpit with trap for discharging into an existing watercourse outside the eastern boundary of the Application Site. The revised drainage proposal is attached in **Appendix 2**.

4.5 Fire Service Installations (FSIs) Proposal

The approval condition (d) of submission of FSIs proposal of the last application (No. A/YL-KTS/1032) has been approved by the FSD on 24.6.2025. With minor adjustment of the layout, the Applicants have updated the FSIs proposal (see **Appendix 3**) for approval by the FSD.

4.6 Landscape and Tree Preservation

As in the previous application (No. A/YL-KTS/1032), the Applicants proposed to plant six new trees along the eastern boundary of the Application Site to compensate for the two trees felled under application No. A/YL-KTS/946 (see **Figure 5**). The planted species, *Bauhinia Blakeana*, will grow to a mature height of about 2.75m to 3.75m with a canopy spread of approximately 3m. Meanwhile, the Application Site is bounded by mature trees of various species along its northern and eastern edges. The Applicants will preserve the existing trees outside the Site, which serve as natural hedges defining the development boundary and softening the building footprint. Consequently, the proposed development integrates well into the surrounding setting without causing any significant visual impact.

4.7 Environmental Consideration

The nature of the proposed use will merely involve the storage of construction materials (timber and metal). To minimize the possible environmental nuisance, the Applicants will follow the 'Code of Practice on Handling the Environmental Aspects of Temporary Uses and Open Storage Sites' and undertake to provide the following mitigation measures:

- (a) No workshop activities will be conducted at the Application Site;
- (b) All stocks will be stored within the enclosed warehouses;
- (c) The existing 2.5m high corrugated metal fencing will be maintained along the site boundary;
- (d) The operating hours will be restricted from 9 am to 6 pm on Mondays to Saturdays and there will be no operation on Sundays and public holidays; and
- (e) No more than 3 round trips by container vehicles daily to minimize the traffic and noise impact.

5. Planning Justifications

5.1 Support the Construction Industry in Hong Kong

With the ongoing resumption projects in the Northern Metropolis area, a significant number of warehouse sites in Northern New Territories and North West New Territories have been / will be resumed by the Government for development of NDAs/public works in the near future. A significant number of local timber suppliers have therefore terminated their businesses due to the tremendous difficulty in searching for a suitable site to relocate and the Applicants are one of the few remaining timber suppliers in operation. Therefore, they play a significant role in the construction industry in Hong Kong in supplying timber/metal to many hardware stores and construction companies in the market, and thus in turn influence the progress of construction

projects in the city of both public and private sectors.

In view of the much more stringent control on land usage coupled with shrinking supply of land for warehouse use and increasing difficulty in acquiring planning permission, the demand for warehouse sites has already become a key economic and logistics issue concerning the whole Territory. Granting approval to this application can maintain the supply of land for such use and provide a temporary solution to meet the pressing market demand of warehouse facilities in the Northern New Territories. It will also allow the Applicants to continue their business and maintain the timber/metal supply in the market to support the construction industry in Hong Kong.

5.2 Will Not Hinder Future Public Housing Development

It is noted that the Application Site has been identified by the Government as one of the four brownfield clusters shortlisted for public housing development under the second-phase review of brownfield sites. The Applicants acknowledge that the proposed development is temporary in nature and undertake to vacate the Site upon its resumption by the Government for public housing development in the future. Given its temporary character, the proposed development will not hinder or prejudice the long-term public housing development intention for the Site.

5.3 The Application Site is Unsuitable for Agricultural Rehabilitation

Notwithstanding the Application Site falls within an area zoned “AGR”, the Application Site is unsuitable for agricultural rehabilitation. Majority of the land in the Application Site is already paved and formed. Having considered the fact that some open storage/storage yard uses are situated in vicinity of the Application Site, the planning intention of “AGR” zone is hardly materialized at the current capacity until the surrounding characteristics are entirely required to be reverted back to agricultural uses. The utilization of the not fully developed agricultural land would allow more efficient use of scarce land resource in Hong Kong and continuation of the Applicants’ timber business. In contrast, the proposed development in the interim at the Application Site is deemed not incompatible and is able to flexibly meet the demand and operational needs of the Applicants.

5.4 Prior Planning Approval Granted for the Same Use at the Application Site

The applied use and development parameters of the current application are largely the same as the last application (No. A/YL-KTS/1032). The last application for proposed warehouse was approved by the Board for a period of 3 years on 22.11.2024. Since the nature of use, development parameters and planning circumstances largely remain unchanged, this application is considered acceptable within the subject “AGR” zone.

5.5 Unexpected Delay in Compliance with Approval Conditions

The Applicants have complied with approval condition (d) of the previous application. However, compliance with approval condition (e) was hindered due to unexpected delays in the processing of the water supply connections by the WSD. Additionally, the Applicants have appointed a new consultant to review the DSD’s comments and submit a new drainage proposal that meets DSD’s requirements for the current application. Given the Applicants’ genuine efforts to fulfil the approval conditions mentioned in this planning statement, the Applicants seek sympathetic consideration from the Board in approving this application.

5.6 Similar Approvals for Warehouse Use in the “AGR” Zone

As highlighted in Para 3.3., the Board has previously approved 4 applications (Nos. A/YL-KTS/959, 997, 1045 and 1051) for similar warehouse uses within the “AGR” zone in the vicinity in recent years. In view of these comparable approvals in the vicinity, the current application for warehouse use is considered acceptable within the “AGR” zone and consistent with the Board’s previous decisions.

5.7 Optimization of Valuable Land Resources

The Application Site is currently occupied for the warehouse use. The proposed development provides an interim solution to optimize land utilization rather than leaving the Site idle and deteriorating. It takes full advantage of the location and the exceptional physical state of the Application Site i.e. close to Kam Ho Road for transportation of construction materials with flat and hard-paved land. The proposed development also makes a significant contribution to the construction industry in Hong Kong by supplying timber and metal for various projects. With the increasing number of construction projects in the coming years, the Applicants, as one of the remaining timber suppliers in Hong Kong, will help meet the growing demand. The proposed development is considered fully commensurate with its local geographical setting and represents an ideal means of maximizing land use without causing undesirable environmental impacts.

5.8 Not Incompatible with Surrounding Land Uses

The proposed development is considered not incompatible with the surrounding land uses. The surrounding of the Application Site mainly consists of scattered fallow agricultural land, warehouse, graves, unused land / structures and storage yards. Taking into consideration that the Applicants have proposed proper mitigation measures, including operation within the enclosed structures and restriction of operation hours, the proposed development could co-exist well with all of these surrounding land uses without posing any adverse environmental impacts. As the proposed development is considered not incompatible with other developments/facilities in the adjacent areas in terms of nature and scale of use, approval of the application would therefore not result in any interface problems with the surrounding areas.

It is noted that Ma On Kong, a village settlement, is located to the further south of the Application Site along Kam Ho Road. The vehicles entering into the Application Site are accessible from the north and thus will not pass this village. Taken into account the Application Site is separated by a series of open storage, temporary structures and wild vegetation, the visual impact is considered minimal.

5.9 No Adverse Impacts on the Surrounding Areas

Owing to the nature of the proposed development, no adverse impacts are anticipated on the surrounding areas, as discussed below:

Traffic

Similar to the last application (Application No. A/YL-KTS/1032), no more than 3 round trips daily will be made by goods vehicles to/from the Application Site. Most of the vehicles will enter to/get out of the Application Site at non-peak hours (between 10am – 4pm). As such, it is anticipated that traffic generated by the proposed development to Kam Ho Road will be very minimal and not

be overloaded should the application be approved. In addition, sufficient spaces will be reserved at the southern portion of the Application Site for loading/unloading and vehicle manoeuvring. It is further envisaged and unlikely that the foregoing minimal volume of traffic generated from the proposed development would adversely affect the existing and/or planned road networks. There will also be no need for goods vehicles queuing up outside the Application Site under any circumstances. As such, no adverse traffic impact is anticipated.

Environment

As mentioned in Section 4.7, the proposed warehouses will only be used as storage of timber and metal. No workshop activities will be undergone within the Application Site and relevant mitigation measures will be conducted to minimize all the potential environmental impacts on the surrounding areas. In addition, the operating hours will be restricted from 9am to 6pm, the proposed development will unlikely create significant adverse environmental impact to the surrounding areas.

Since the surrounding environments are characterized by various rural and storage uses, the nearest village settlement is located about 300m to the south, with buffer areas of existing temporary structures and storage yards at the immediate south of the Application Site. The storage use will also be confined within the enclosed structure. Therefore, no adverse environmental impact on the surrounding area is expected.

Drainage

As mentioned in paragraph 4.4, in order to speed up the submission and implementation of the drainage proposal, the Applicants have appointed a new engineering consultant to conduct further studies and refine the proposal. A new drainage proposal has been submitted alongside this application for approval by the DSD. Taking into consideration the drainage record of the past 3 years, no flooding has occurred and no adverse impact on drainage is anticipated.

Landscape

As in the previous application (No. A/YL-KTS/1032), six new trees will be planted along the eastern boundary of the Application Site to compensate for the two trees felled under application No. A/YL-KTS/946. Together with the existing mature trees surrounding the Site to the north and east, these plantings will act as natural hedges defining the edge of the development and providing a buffer to the surrounding areas. It should also be noted that the Application Site will only be used on a temporary basis and is earmarked for future public housing development, during which the landscape character of the area is expected to gradually change. As such, no adverse landscape impact is anticipated.

6. Conclusion

The Application Site falls within “AGR” zone on the approved Kam Tin South OZP. In view of the site location, surrounding land uses and the nature of the proposed development, the Application Site is considered suitable for proposed temporary warehouse for storage of timber and metal. The proposed development will meet the market demand for warehouse use and provide significant amount of construction materials for construction projects in the public and private sector; hence it is vital for the construction industry as it helps maintaining the supply of timber and metal for the future developments.

The Application Site has been granted for planning approval for the same use with similar approvals for proposed warehouse use also given in the vicinity. No adverse impacts on the surrounding are anticipated and the technical concerns of relevant Government departments could be addressed through the implementation of approval conditions.

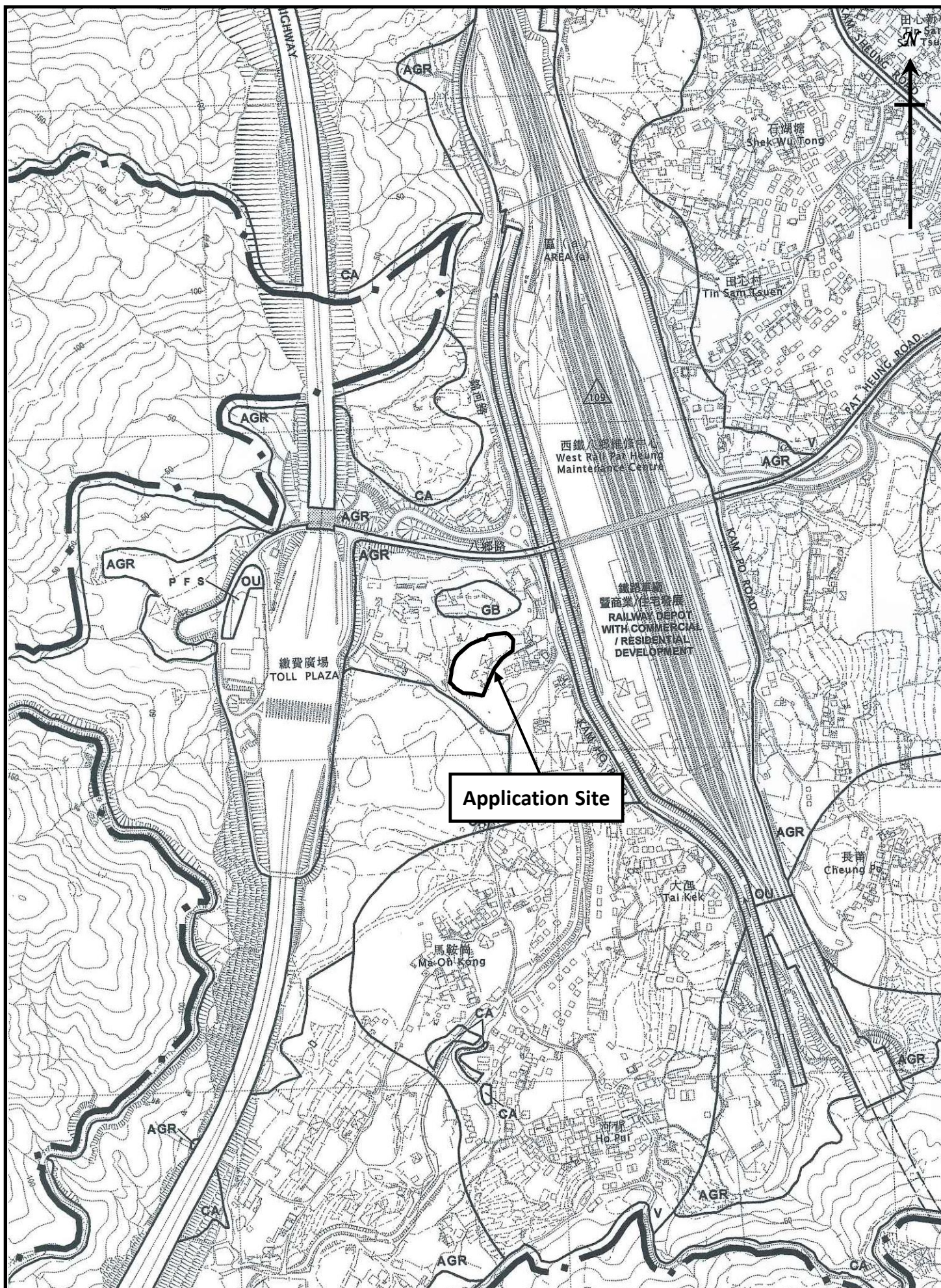
Despite the fact that the Application Site fall within the “AGR” zone, the planning intention of “AGR” zone is hardly to be materialized in short term until the surrounding characteristics are entirely and compulsorily required to be reverted to agricultural activities. In contrast, the proposed development in the interim at the Application Site is deemed not unsuitable for temporary uses as the surrounding areas are currently characterized by a variety of rural storage uses. Also, instead of the Application Site being not fully utilized, the proposed development encourages the optimization and revitalization of the land use of the Application Site whilst contributing to the construction industry in Hong Kong. The temporary nature of the proposed development will not hinder future public housing development as well.

In view of the justifications as presented in this planning statement, it is hoped that members of the Board and relevant Government departments will approve this application for a period of 3 years.

LAWSON DAVID & SUNG SURVEYORS LIMITED
July 2026

Figures

- Figure 1 Location Plan
- Figure 2 Lot Index Plan
- Figure 3 Vehicular Access to the Site
- Figure 4 Indicative Layout Plan
- Figure 5 Landscape Plan
- Figure 6 Land Filling Plan
- Figures 7 - 8 Swept Path Analysis



Location Plan

(Extract from Approved Kam Tin South Outline Zoning Plan No. S/YL-KTS/15)

Figure 1

1 : 7500

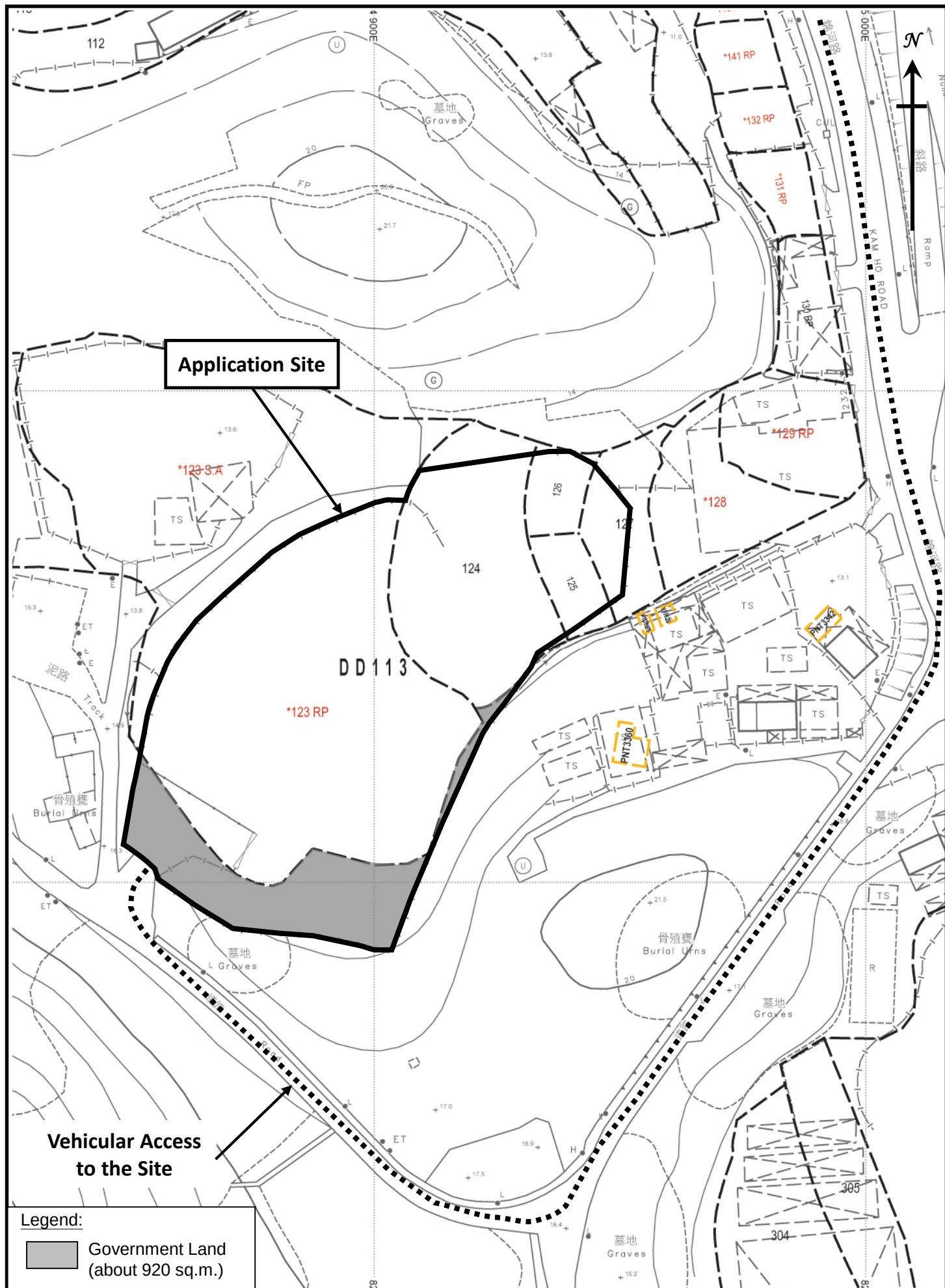


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Legend:

 Government Land
(about 920 sq.m.)

Lot Index Plan

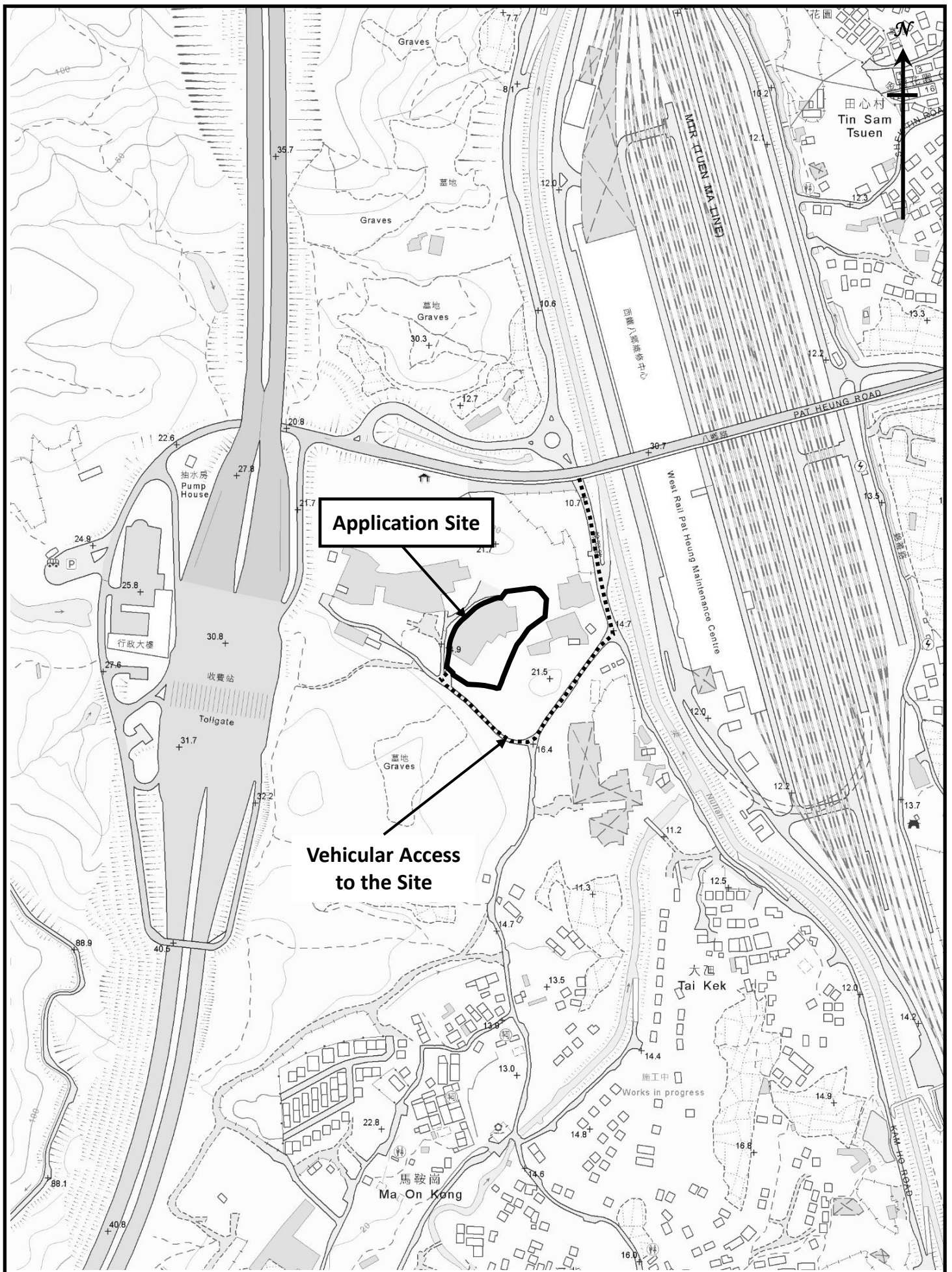
Figure 2

1 : 1000

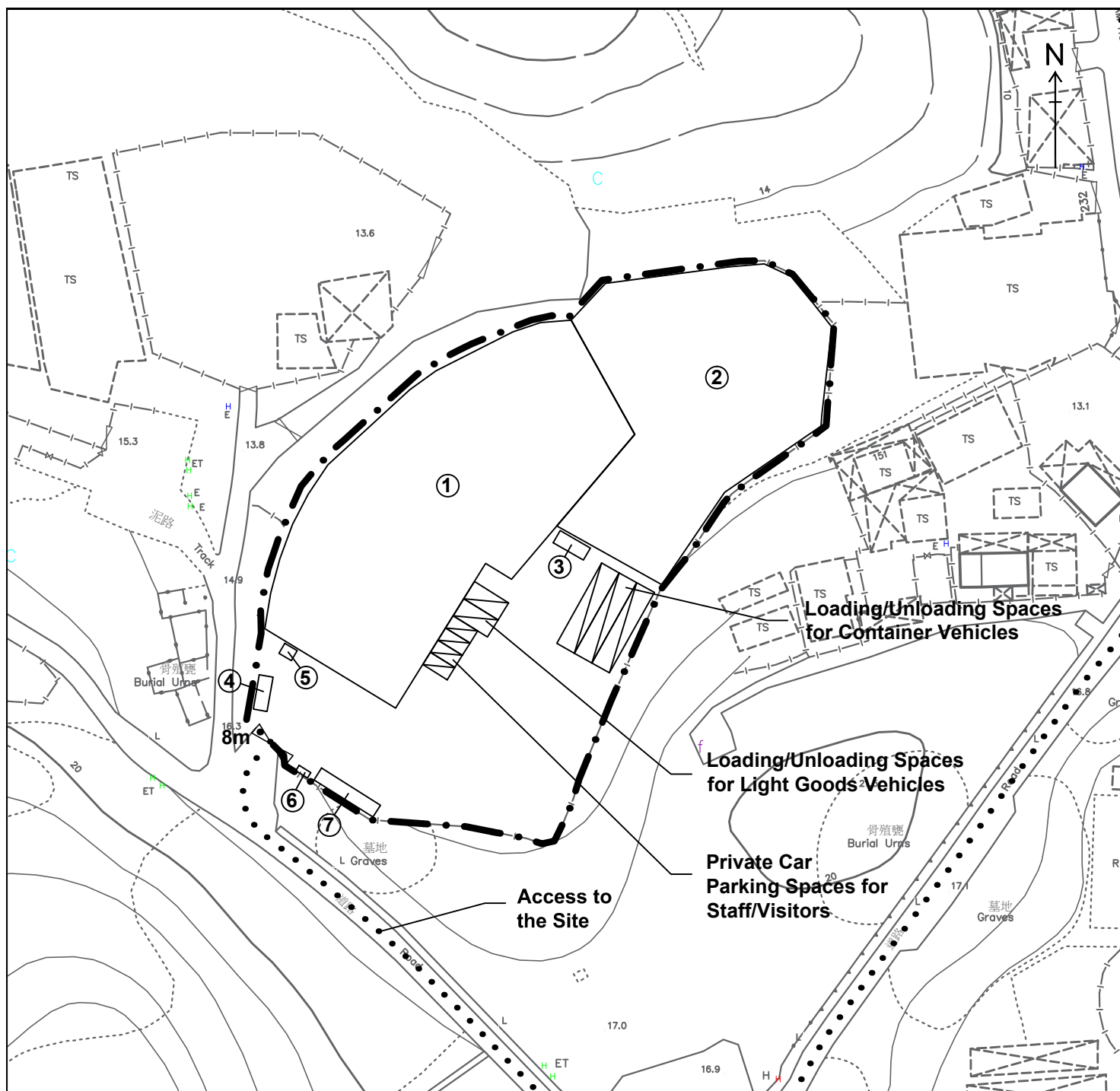


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Vehicular Access to the Application Site	Figure 3	 羅迅測計師行 Lawson David & Sung SURVEYORS LIMITED Property Consultants • Planning • Valuers • Auctioneers Estate Agency Licence No. C-006328
	1 : 5000	



Structure No.	Uses	No. of Storeys	Floor Area (m ²)	Height (m)
1	Warehouse for Storage of Timber/Metal	1	2,234	12
2	Warehouse for Storage of Timber/Metal	1	1,625	12
3	Site Office	2	30	6
4	Containers for Storage	2	30	6
5	Meter Room	1	5	3
6	Rain Shelter	1	3	2.5
7	Site Office	2	60	6

Legend:

- Application Site (Area: about 6,133 sq.m.)
- Loading/Unloading Spaces for Container Vehicles (3.5m x 16m) (3 nos.)
- Loading/Unloading Spaces for Light Goods Vehicles (3.5m x 7m) (2 nos.)
- Private Car Parking Spaces for Staff/Visitors (2.5m x 5m) (4 nos.)

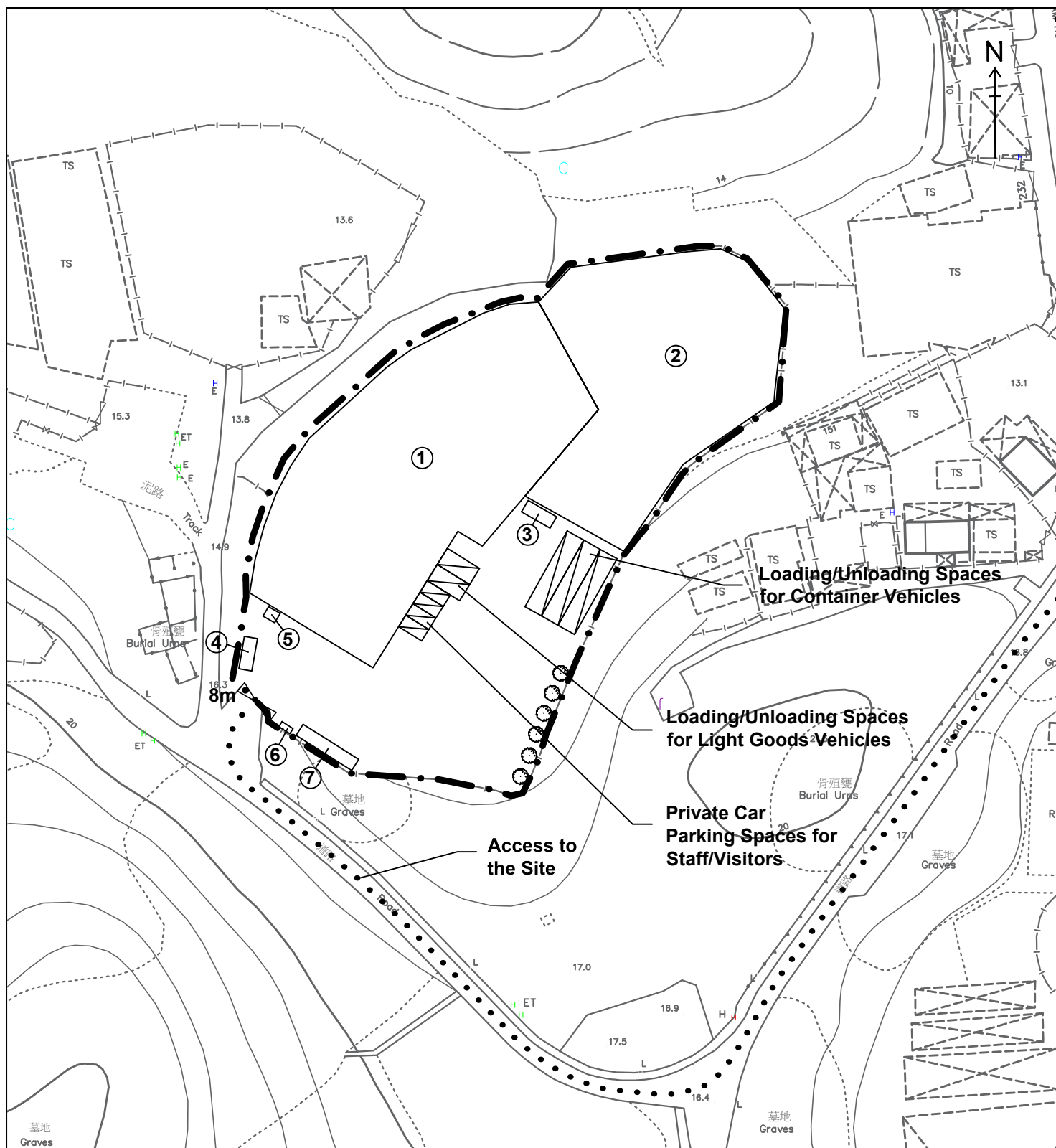
Indicative Layout Plan

Figure 4

Scale 1:1000



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Plant Schedule:		Spacing (centre to centre)	Size (height / span)	Quantity
Bauhinia blakeana (洋紫荊)		3000-4000mm	2750-3750mm	6

Legend:

- Application Site (Area: about 6,133 sq.m.)
- Loading/Unloading Spaces for Container Vehicles (3.5m x 16m) (3 nos.)
- Loading/Unloading Spaces for Light Goods Vehicles (3.5m x 7m) (2 nos.)
- Private Car Parking Spaces for Staff/Visitors (2.5m x 5m) (4 nos.)

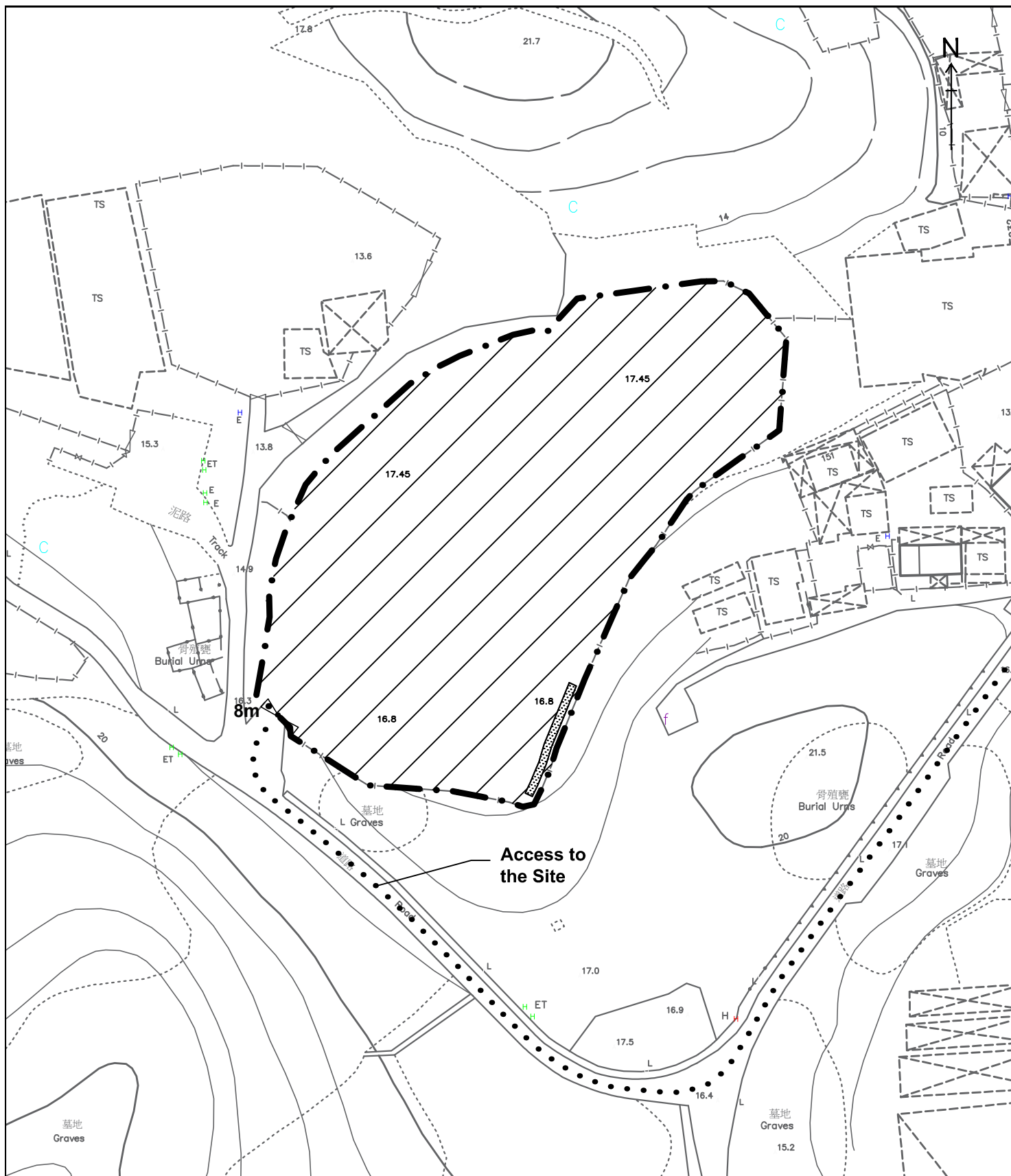
Landscape Proposal

Figure 5

Scale 1:1000



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Legend:

- Application Site (Area: about 6,133 sq.m.)
- Land Filling Area for Site Formation of Structures, Vehicle Circulation, Parking and Loading/Unloading (Area: about 6,099 sq.m., Depth: not more than 0.2m (16.8 - 17.45mPD), Material: Concrete)
- Land Filling Area for Tree Planting or Landscape Area (Area: about 34 sq.m., Depth: not more than 0.2m (16.8mPD), Material: Soil)

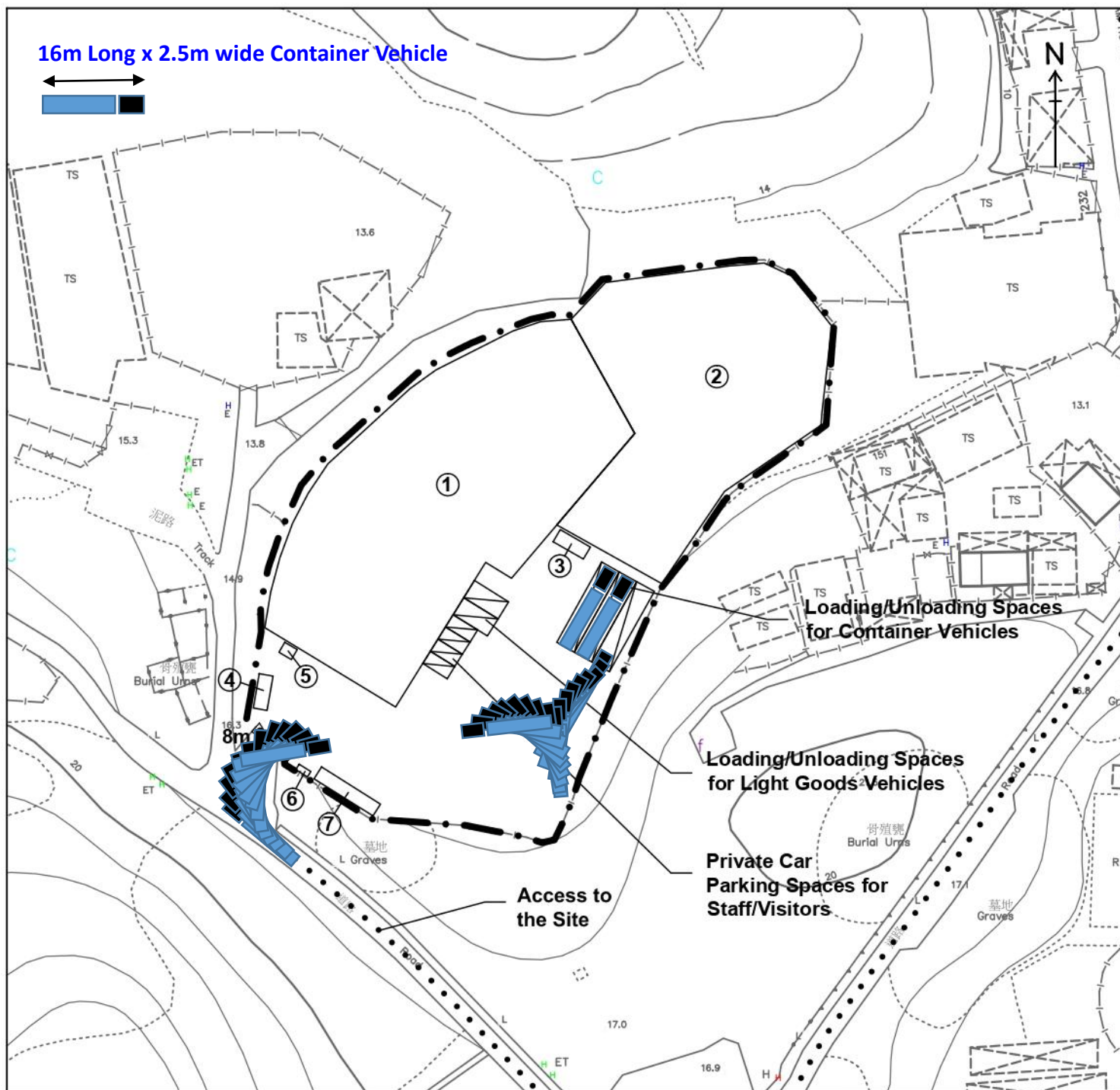
Land Filling Plan

Figure 6

Scale 1:1000



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Structure No.	Uses	No. of Storeys	Floor Area (m ²)	Height (m)
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2	Warehouse for Storage of Timber/Metal	1	1,625	12
3	Site Office	2	30	6
4	Containers for Storage	2	30	6
5	Meter Room	1	5	3
6	Rain Shelter	1	3	2.5
7	Site Office	2	60	6

Legend:

- • — Application Site (Area: about 6,133 sq.m.)
- Loading/Unloading Spaces for Container Vehicles (3.5m x 16m) (3 nos.)
- Loading/Unloading Spaces for Light Goods Vehicles (3.5m x 7m) (2 nos.)
- Private Car Parking Spaces for Staff/Visitors (2.5m x 5m) (4 nos.)

Swept Path Analysis

Figure 7

Scale 1:1000

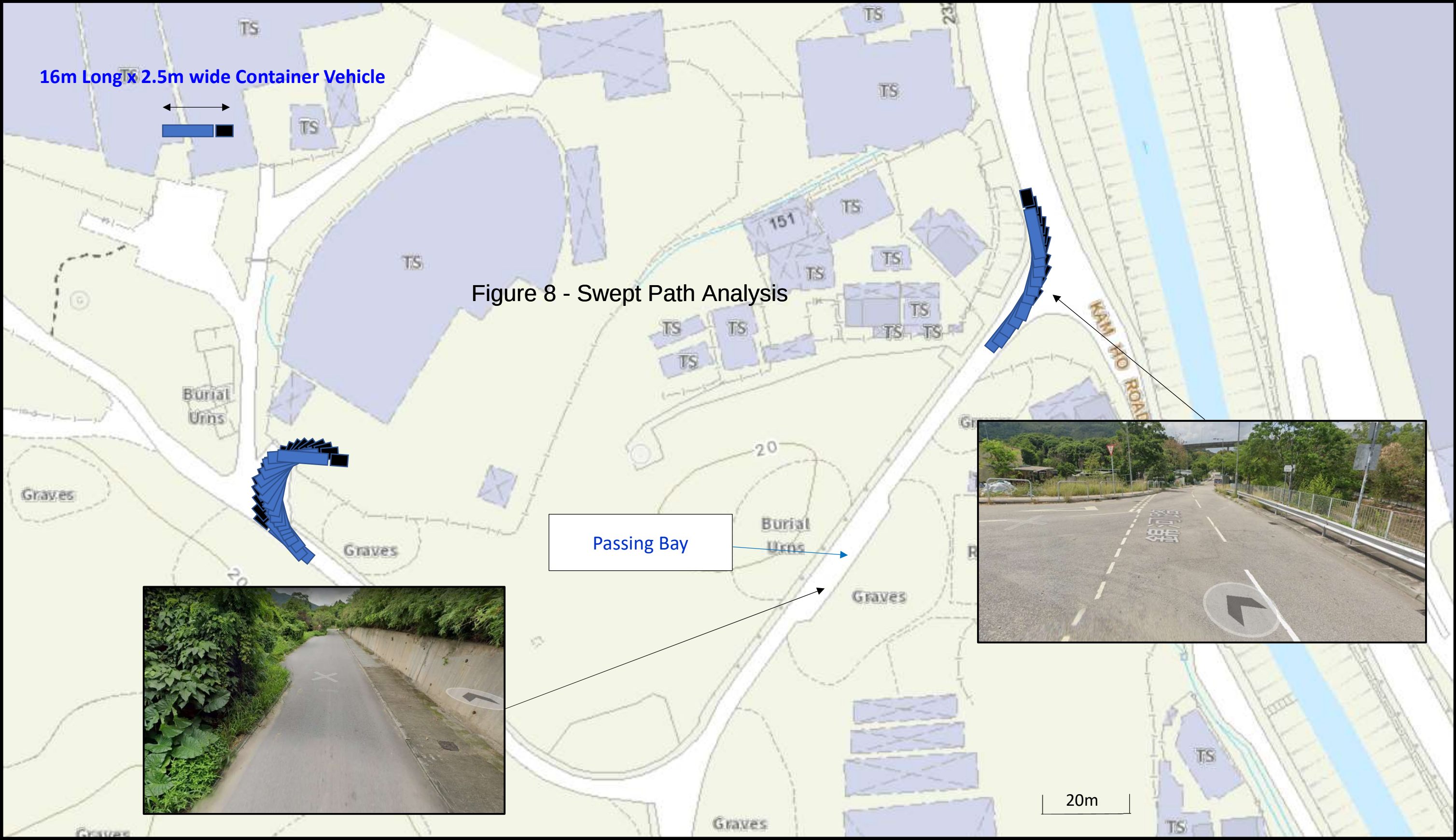
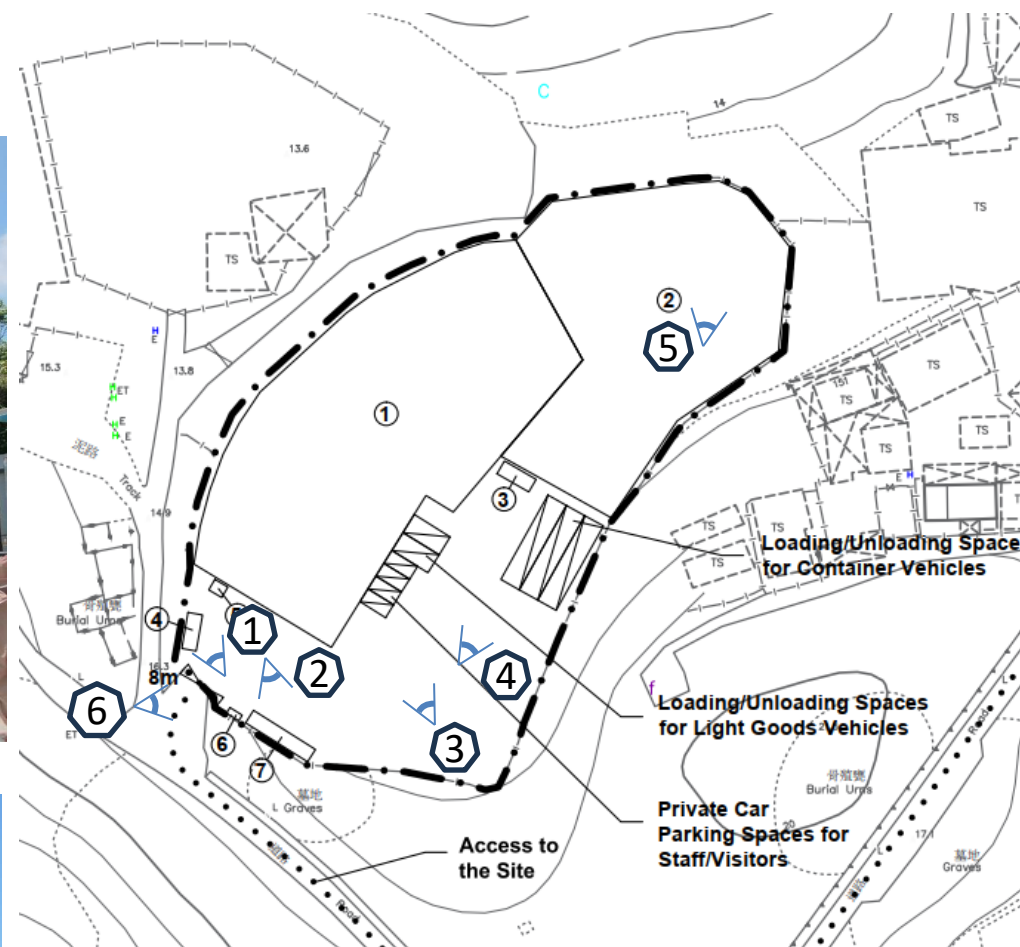


Figure 8 - Swept Path Analysis

Site Photos

- Site Photos A Existing Condition of the Application Site
- Site Photos B Fire Services Installations within the Application Site
- Site Photos C Drainage Facilities within the Application Site



Legend:

-  Viewpoint of the Photo
-  Photo No.



Existing Condition of the Application Site

Site Photos A

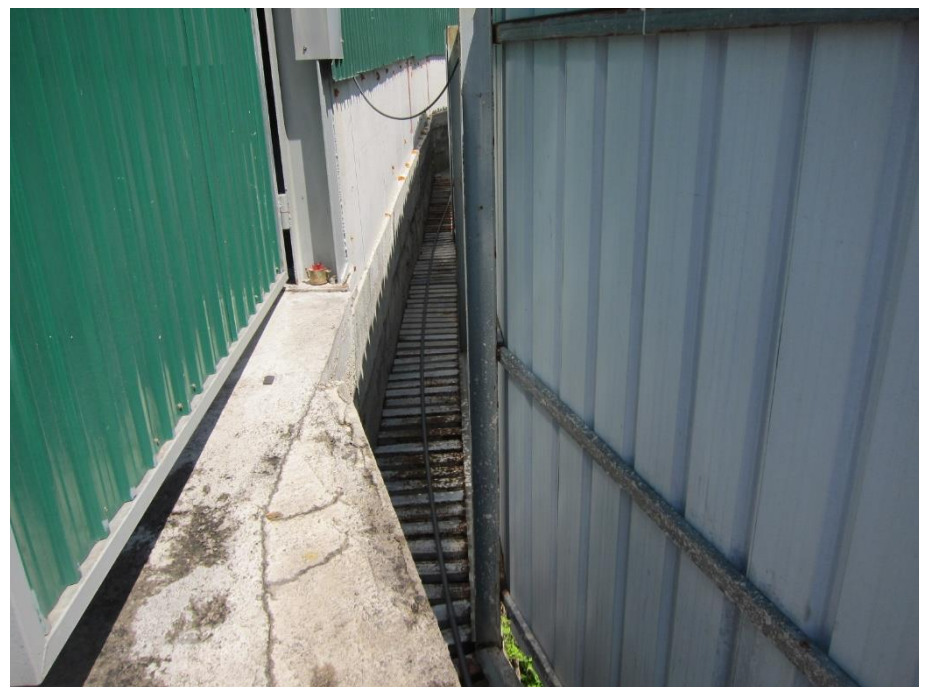
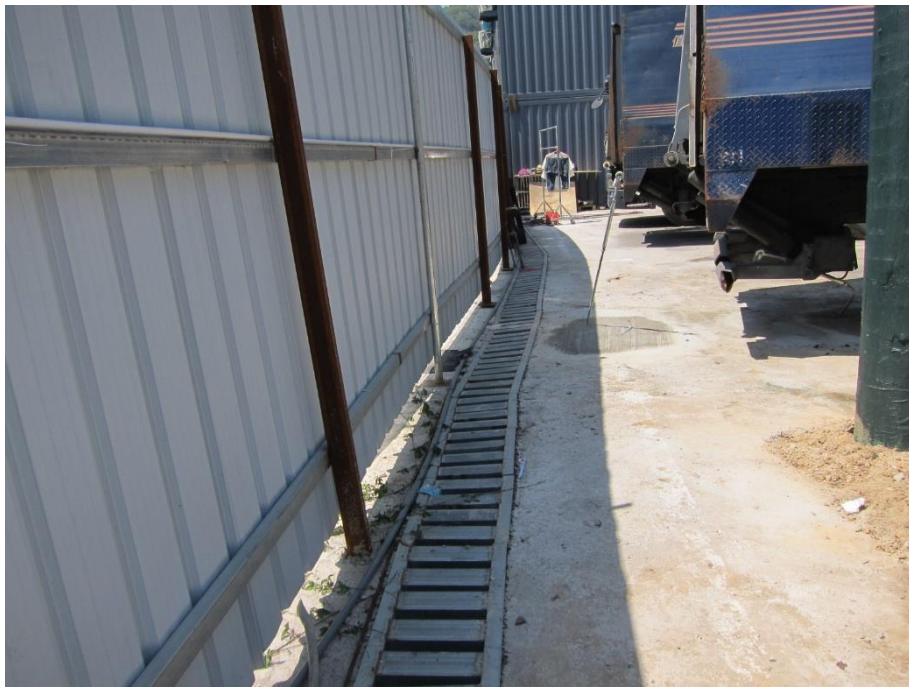


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Fire Service Installations within the Application Site

Site Photos B



Drainage Facilities Provided within the Application Site

Site Photos C



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Appendix 1

Application for Water Supply (Document from WSD)



申請建造、安裝、更改或拆除
內部供水系統或消防供水系統

根據《水務設施條例》(第 102 章) 第 14 條及《水務設施規例》(第 102A 章) 第 3/5 條

第一部分 (由持牌水喉匠填寫，並須由新建樓宇工程計劃的認可人士簽署) (見附註1)

致：水務監督

有關下列地址的處所的內部供水系統或消防供水系統
DD113 LOT123RP 124(PART) 125(PART) 126(PART) 127(PART)
AND ADJOINING GOVERNMENT LAND MA ON KONG KAM TIN
SOUTH YUEN LONG N.T.

*我/我們受填寫下文第二部分的*用戶#/代理人#/初次申請~~供水~~人士所聘用，負責*建造/安裝/~~更改/~~
拆除上址的*內部~~供水~~系統/消防供水系統。有關內部~~供水~~系統/消防供水系統的核准水管工程計劃(「核
准水管計劃」)詳情如下：

水務署批函檔號： 5422644906 日期： 1 Sep 2025 申請書編號： 7013374054

核准圖則的編號(如無需圖則，請簡述水管工程)： 總喉 50mm

本表格所涵蓋的工程：*全部工程/部分~~工程~~(如本申請只涉及部分核准水管計劃下的工程，請註
明該相關部分的工程：

涉及/所需水錶的尺寸和數目： 消防供水 (Sprinkler & H.R)

預計需要供水的日期： ASAP (見附註4)

備註：

詳述本表格所涵蓋在核准水管計劃下的工程擬在上址安裝/使用的喉管及裝置的表格WWO 1149
已 * 隨本表格附上 / 於 X (年/月/日) 提交並於 X (年/月/日) 核准。

2. 遞交表格的目的(見附註2)

*我/我們現向水務監督申請許可於 2026 年 3 月 30 日展開本表格所涵蓋在核准水管計
劃下的工程的建造、安裝、更改或拆除工作。*我/我們證明擬安裝/用於建造、安裝、更改或拆除本表
格所涵蓋的工程的喉管及裝置(包括*隨本表格附上/已核准的表格WWO 1149所載列及未有載列者)，
均符合《水務設施規例》的規定。

* 請刪去不適用者

#「用戶」及「代理人」的定義請參照《水務設施條例》第2條。



水務監督
香港灣仔告士打道7號入境事務大樓43樓
電話：2824 5000 傳真：2802 7333
電郵：wsdinfo@wsd.gov.hk

表格編號
(本署專用)

3. *我/我們完全明白並同意水務監督可把從*我/我們收集所得與本申請有關的資料，用於處理本申請和本申請中任何與內部供水系統或消防供水系統的核准建造、安裝、更改或拆除工作有關的跟進行動，或用於與這些方面有直接關連的事宜。如*我/我們沒有提供足夠資料，水務監督可能無法處理 *我/我們的申請。*我/我們同意收集的資料可轉交其他政府決策局及部門[和任何其他相關人士]作上述用途。*我/我們亦同意該等資料(包括持牌水喉匠及認可人士的姓名和有關處所的詳情)可能會向公眾公開(例如於互聯網發布相同資料)。*我/我們明白可向水務署部門秘書(地址：香港告士打道7號入境事務大樓48樓)要求查閱及更正個人資料。

持牌水喉匠

認可人士

(只適用於新建樓宇工程計劃)

水喉匠牌照號碼： 03874 註冊編號： _____

姓名： SUNG MAN HO 姓名： _____

簽署： _____ 簽署： _____

日期： 15 Mar 2026 日期： _____

電話號碼： _____ 電話號碼： _____

傳真號碼： _____ 傳真號碼： _____

電郵： _____ 電郵： _____

僱主公司名稱*： YICK CHEONG WATER ELECTRICAL WORK LTD *香港身份證/護照/商業登記號碼： _____

僱主商業登記號碼*： _____ 地址： _____

僱主地址： _____

擬選擇的聯絡方式：*郵遞/電郵/~~傳真~~

擬選擇的聯絡方式：*郵遞/電郵/傳真

*持牌水喉匠須提供聘用他/她的公司/承建商名稱、商業登記號碼和地址。

* 請刪去不適用者

#「用戶」及「代理人」的定義請參照《水務設施條例》第2條。



水務監督
香港灣仔告士打道7號入境事務大樓43樓
電話：2824 5000 傳真：2802 7333
電郵：wsdinfo@wsd.gov.hk

表格編號
(本署專用)

第二部分 (由用戶#/代理人#/初次申請供水人士填寫) (見附註1)

致：水務監督

本人現簽認所聘用持牌水喉匠*和認可人士在第一部分遞交的資料。

本人完全明白並同意水務監督可把從本人收集所得與本申請有關的資料，用於處理本人聘用持牌水喉匠的申請和本申請中任何與內部供水系統或消防供水系統的核准建造、安裝、更改或拆除工作有關的跟進行動，或用於與這些方面有直接關連的事宜。如本人沒有提供足夠資料，水務監督可能無法處理本人聘用持牌水喉匠的申請。本人同意收集的資料可轉交其他政府決策局及部門和任何其他相關人士作上述用途。本人亦同意有關處所的名稱可能會向公眾公開(例如於互聯網發布相同資料)作上述用途。本人明白可向水務署部門秘書(地址：香港告士打道7號入境事務大樓48樓)要求查閱及更正本人的個人資料。

簽署：  姓名： 森林發展建設有限公司
(*用戶#/代理人#/初次申請供水人士)

電話號碼： _____

傳真號碼： _____

公司蓋章：
(如適用) _____



地址： _____

日期： _____

* 請刪去不適用者
「用戶」及「代理人」的定義請參照《水務設施條例》第2條。



水務監督
香港灣仔告士打道7號入境事務大樓43樓
電話: 2824 5000 傳真: 2802 7333
電郵: wsdinfo@wsd.gov.hk

表格編號
(本署專用)

第四部分 (由持牌水喉匠填寫) (見附註6)

(如屬新建樓宇工程計劃, 亦須由申請人和認可人士簽署)

致: 水務監督

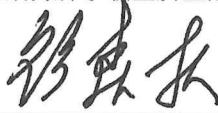
申請書編號: 7013374054

本表格所涵蓋在核准水管計劃下的 *全部 / 部分工程(請註明及遞交有關圖則: _____)
_____) 已於 _____ 年 _____ 月 _____ 日竣工。

本人現向你申請視察及批准上述工程。*本人亦保證上述工程的各水錶位正確無誤。本人證明已安裝/用於建造、安裝、更改或拆除上述工程的喉管及裝置, 均符合《水務設施規例》的規定。

水喉匠的姓名: SUNG MAN HO
(填寫第一部分的持牌水喉匠簽署) 牌照號碼: _____
日期: _____

* 本人信納持牌水喉匠於上述所示的各個水錶位正確無誤。

× 
(填寫第二部分的申請人簽署) 姓名: 森林發展建設有限公司



公司蓋章(如適用) 日期: _____

* 本人信納持牌水喉匠於上述所示的各個水錶位正確無誤。

(填寫第一部分的認可人士簽署) 姓名: _____
註冊編號: _____
日期: _____

* 請刪去不適用者

「用戶」及「代理人」的定義請參照《水務設施條例》第2條。



第五部分(甲部) (由水務監督填寫)

致：持牌水喉匠
持牌水喉匠的郵寄地址

致：認可人士 (如有)
認可人士的郵寄地址

致：申請人
申請人的郵寄地址

我們已於_____年_____月_____日視察本表格所涵蓋在核准水管計劃下的 *全部 / 部分 工程，當中包括但不限於抽查處所的水管及裝置。我們在上述視察過程中沒有發現明顯不合規格之處。

如在供水系統*及接駁位置完成隨機抽樣及水樣本檢驗結果符合水務監督的要求後，*以及《水務設施規例》附表1第1部訂明的收費已獲清付，我們會發出表格WVO 46第五部份(乙部)，*並其後安設總水管接駁裝配，*以及在政府持有的土地上安裝部分消防供水系統或內部供水系統。

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_____	姓名：	_____
(代水務監督簽署)	職位：	_____
	電話號碼：	_____
日期：_____	傳真號碼：	_____

* 請刪去不適用者
「用戶」及「代理人」的定義請參照《水務設施條例》第2條。



第五部分(乙部) (由水務監督填寫)

致：持牌水喉匠
持牌水喉匠的郵寄地址

致：認可人士 (如有)
認可人士的郵寄地址

致：申請人
申請人的郵寄地址

在供水系統*及接駁位置的隨機抽樣已完成，符合水務監督要求的水樣本檢驗結果亦已於____年____月____日收到，我們沒有發現明顯不合規格之處。*如《水務設施規例》附表 1 第 1 部訂明的收費已獲清付，*我們會於其後安設總水管接駁裝配，*以及在政府持有的土地上安裝部分消防供水系統或內部供水系統。

持牌水喉匠須注意在建造、安裝、更改或拆除本表格所涵蓋的工程時，有責任遵循核准水管計劃、《水務設施條例》和《水務設施規例》。即使獲發此表格或獲批准進行水管工程計劃或獲批予總水管接駁裝配，*以及在政府持有的土地上已安裝部分消防供水系統或內部供水系統，都不應視為獲批准違反任何《水務設施條例》或《水務設施規例》的規定。

4 2023

_____ (代水務監督簽署)	姓名：_____
	職位：_____
	電話號碼：_____
日期：_____	傳真號碼：_____

* 請刪去不適用者
「用戶」及「代理人」的定義請參照《水務設施條例》第 2 條。

附註：

1. 本表格適用於由水務設施供水或擬由水務設施供水的處所。表格的第一部分須由持牌水喉匠填寫，用以向水務監督申請展開本表格所涵蓋在核准水管計劃下的工程。如屬新建樓宇工程計劃，《建築物條例》（第123章）所規定的認可人士亦須於第一部分簽署。第二部分須由用戶[#]/代理人[#]/初次申請供水人士填寫。表格的資料如有任何遺漏，均可導致申請延誤。
2. 本表格的第一及第二部分須遞交水務監督，以供批核本表格所涵蓋在核准水管計劃下的工程的建造、安裝、更改或拆除工作。如本表格所涵蓋在核准水管計劃下的工程未有已核准的表格WVO 1149，在遞交本表格的第一及第二部分時須同時遞交表格WVO 1149，詳列所有擬安裝/使用於建造、安裝、更改或拆除本表格所涵蓋在核准水管計劃下工程的水管及裝置。
3. 本表格必須以郵遞/傳真方式送交水務監督。
4. 不同階段的水管工程如須於不同日期獲得供水，便須各遞交一套表格。如表格第一部分的「預計需要供水的日期」有任何更改，填寫第二部分的用戶[#]/代理人[#]/初次申請供水人士及/或填寫第一部分的持牌水喉匠/認可人士須以書面通知水務監督。
5. 申請的處理程序完成後，持牌水喉匠、認可人士和用戶[#]/代理人[#]/申請人會收到已印上表格編號的表格第三部分，以及表格第一及第二部分的副本。
6. 如要申報已完成本表格所涵蓋的工程（包括須隱藏的水管），便須填寫本表格第四部分。如要申報已完成本表格所涵蓋的工程，持牌水喉匠、認可人士和用戶[#]/代理人[#]/申請人（如適用）應填寫表格第四部分，並連同表格第一、第二及第三部分的副本一併遞交，請在第四部分註明表格編號和申請書編號。
7. 持牌水喉匠和認可人士在進行工程時，應時刻注意及避免觸犯反貪法例。詳情請瀏覽廉政公署網頁<http://www.icac.org.hk/>。

[#]「用戶」及「代理人」的定義請參照《水務設施條例》第2條。



水務署
Water Supplies Department

總部 Headquarters

香港灣仔告士打道七號入境事務大樓 43 樓

43/F, Immigration Tower, 7 Gloucester Road, Wan Chai, Hong Kong

本署檔號 : 5181720111 of 5422644906
Our ref.
來函檔號 :
Your ref.

電話 : 2824 5000
Tel.
傳真 : 2802 7333
Fax.

宋文浩

申請書編號 : 7013374054

先生/女士 :

**用水樓宇: DD 113 LOT 123RP 124(PART) 125(PART)
126(PART) 127(PART) AND ADJOINING
GOVERNMENT LAND, MA ON KONG
KAM TIN SOUTH, YUEN LONG, NEW TERRITORIES
(供水作消防用途)**

本署收到閣下為上址申請供應淡水作為消防系統所提交的圖則，本署對於擬為上址進行的水管工程並無異議，有關的資料現臚列如下：

消防用水供應

本署不反對為上述樓宇敷設一條直徑50毫米的淡水駁喉，作為消防喉轆系統及消防花灑系統的供水用途。用水將由上址南面一條直徑80毫米的淡水供水水管供應，並按現行的特定收費率收費。該水管由一端入水，在制水期間會受供水限制。現隨函夾附有關的大喉圖則以供參考。

本署不反對加裝以下的儲水缸以供消防用途：

- (一) 1個位於地下的135,000公升鋼筋混凝土儲水缸作為消防花灑系統的儲水缸。
- (二) 3個位於地下的500公升玻璃纖維儲水缸作為消防花灑系統的儲水缸。
- (三) 1個位於地下的2,000公升玻璃纖維儲水缸作為消防喉轆系統的儲水缸。

水務監督是基於以下圖則核准上述的消防水供應系統：

1. FS-01
2. FS-02

水管圖則經本署審批後，認為大致可以接受。唯所有水管裝置必須符合消防處的規定。你需要自行聯絡消防處，就有關是次供水申請之消防裝置徵求消防處的建議/批准。本署不能保證供水系統的壓力和流量不會受到干擾而改變。消防工程顧問公司 / 系統工程師有責任自行考慮系統設計以滿足消防處對流量及壓力的有關法定要求。

本署為上述用水樓宇提供的一條直徑50毫米喉管，預計工程費用約需港幣60,000元正，上述提及的費用是根據現有水管圖則，但未經地盤勘測証實所提議的駁喉位置附近的地底情況下計算。駁喉的工程和實際成本會因應實際地盤情況而有所變更。

本署在收受你交付的預計工程費用後，便會按程序開展工程。當實際地盤情況顯示所需工程費用有可能超越以上提及的預計工程費用的百份之五十或以上，本署便會另函通知。當你收到工程費用更改的通知，請你於本署發信日期的兩星期內通知本署你的決定：

(甲) 你不接受提及的費用更改及希望本署立即停工；或

(乙) 你接受提及的費用更改及願意交付工程最終的實際開支。

在情況(甲)下，你只需負責已進行的工程和恢復地盤原狀所需的實際開支。(往後重新申請駁喉會視為一宗新申請)。

在情況(乙)下或者本署未能在發出費用更改通知的兩星期內接獲你的通知，本署會繼續進行已開展的工程直至竣工。而所需的工程費用會向你收取。

----- 本署在收到駁喉工程費用後，才能開展水管接駁工程。現夾附提供駁喉費的付款通知書。請儘早繳費。

根據2003年《土地(雜項)條文修訂條例》的規定，凡於二零零四年四月一日或之後申請掘路許可證，均須繳費。另外亦請留意，向路政署/地政署申領掘路許可證於行人路及車路施工，一般需時約六至九個月。本署在收到駁喉工程及申請掘路許可證費用後，才能開始掘路許可證申請工作。如申請掘路准許證遇到困難而令到有關駁喉工程延遲，本署會通知你有關事宜。

同時亦請留意，倘若供水申請後來遭取消/撤銷，本署已進行或完成的接駁喉工程所引致的任何開支及成本，將不獲退還。

你必須委聘持牌水喉匠進行屋內供水設備的安裝及更改工程。待本監督批准擬安裝的全部喉管和配件後，該持牌水喉匠須以WWO 46號水務表格的

第一及第二部分(亦須由你簽署)向本署提供水管工程計劃的細節，作為動工的通知。倘若擬使用未獲本監督批核的喉管及配件，則須先取得本監督的批准，方可展開水管工程。請於遞交WWO46水務表格第一及第二部分時，同時以另一獨立信函經人手或郵遞方式致水務監督[經：水務署文件管理中心(灣仔告士打道七號入境事務大樓43樓)]遞交有關用水器具的商品說明書及手冊指引/測試報告等供水務監督參考。

在完成屋內供水設備的安裝及更改工程後，該持牌水喉匠須以WWO 46號水務表格的第四部分，向本署申報工程完成。

謹此提醒有關工程須符合以下的規定：

- ☒ 所有地下喉管或隱藏喉管必須在完成後報告水務署以便水務署代表檢查，然後才可把喉坑回填或遮蓋；
- ☒ 所敷設的水管必須可抵受1.5倍最高靜壓頭(水壓)，並須進行測試，以證實可承受這個水壓。有關的水壓測試記錄須送交本署存照；以及
- ☒ 根據水務設施規例第7條，用戶或代理人須負責保持內部供水系統清潔。因此，新設施在獲得供水前，請參考現行的水務署通函，《樓宇水管工程技術要求》及《申請供水指引》，先行清潔及消毒新敷設的內部食水供水系統/消防供水系統，並將沖洗及消毒記錄送交本署存照，再與認可化驗室作出安排收集水樣本進行細菌及化學分析，然後將合格的化驗結果呈交水務監督。

若根據水務署《申請供水指引》中4.4.1段、4.4.2段、附錄19及25所載指引採用氯以外的其它消毒劑消毒內部供水系統(不包括新敷設的地下食水管)，請你於進行消毒工作的一個月前，向水務監督提交有關該非氯消毒劑的類別及詳細資料。在收到有關資料的兩個星期內，水務監督會就有關的附加測試參數及其接受標準作另行通知。

你須確保此供水申請所有安裝的水管裝置，均符合《水務設施條例》、《水務設施規例》、《樓宇水管工程技術要求》、《申請供水指引》、《水務署通函》及其他相關要求內所載的所有規定。詳情請參考本署網址：
<https://www.wsd.gov.hk/tc/home/index.html>

你有責任確保水管工程計劃在所有方面皆符合「樓宇水管工程技術要求」(技術要求)的規定。本署就你的水管工程計劃所給予的批准，不應視為獲批准違反任何技術要求的規定。你和你的持牌水喉匠亦不能獲免除需要依據技術要求的規定建造消防供水系統或內部供水系統和就日後視察時所發現的違規事項進行所需修正工作的任何責任。你不能以獲批准的水管工程計劃中的違規事項，作為拒絕承擔任何你和你的持牌水喉匠應負的責任。你應特別留意《水務設施條例》第14(3)條列明消防供水系統或內部供水系統的建造、安裝或更改，須按訂明的方式進行，而用於該項建造、安裝或更改的喉管及裝置，其性質、大小及品質均須屬訂明者。請留意《水務設施規例》第6(4)條列明消

防供水系統或內部供水系統或其更改工程可不獲批准，直至水務監督的規定已獲遵從為止。

是項批准不會影響有關樓宇的法律地位，而提供供水也不會對該處所的結構地位授予任何合法性或產生任何效力以阻止其他管理當局就該構築物採取行動。你有責任處理因上述供水申請而引起的所有問題，包括但不限於與業權相關的問題。你亦有責任就上述供水申請向相關的管理當局申請所需(如有)的法定批准。

是項批准不會免除你或你所委聘的持牌水喉匠在進行上述水管工程時需嚴格按照其他條例和規例(例如土地，安全和環境法例)的責任和義務，並需避免對公眾造成任何帶來的不便／干擾。你亦有責任確保在進行上述水管工程時遵守所有法律要求(包括但不限於工地安全相關的問題)，並避免對受影響的第三者造成任何不便／干擾。您也必須自行通知受影響的第三者，並解決因上述有關水管工程而可能引起的任何糾紛。

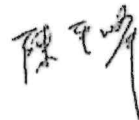
如果水管穿越他人擁有的土地／物業、政府土地或影響第三者，你必須自行與有關業權人、政府部門或受影響人士作出安排，並取得他們同意。假如相關人士或政府部門要求更改水管路線，你亦須為此負全責。如你因未能取得相關人士或政府部門同意而須更改相關的水管工程，你亦須為此負全責，本署對此並無責任。是項批准及提供供水不會對未獲有關政府部門批准而敷設於政府土地上的喉管及其配件授予任何合法性或產生任何效力以阻止其他政府部門就該喉管及其配件採取行動。無論如何，你依然有責任為水錶位至接駁位的內部供水系統部份進行有關維修保養及更改事宜。

用水樓宇的名稱日後如有更改，即使在獲得供水之後才更改，你亦須通知本署。

請注意：如因提供的樓宇的供水申請資料有誤或擬議接駁水管路線遭到反對，引致供水延誤或受阻，本署概不負責。

如有查詢，請致電3701 5217與本署新界西區申請供水組公共聯絡經理曾愷茵女士或3701 5221與本署水務督察吳國樑先生聯絡。來函請註明本署檔案編號。

水務監督



(陳平峰 代行)

寄: 森林發展建設有限公司
副本送: 宋文浩

2025年9月1日

Appendix 2

Drainage Proposal

Drainage Submission in support of

S16 Planning Application

for Proposed Temporary Warehouse for Storage of Construction Materials
(Timber and Metal) for a Period of 3 Years and Associated Filling of Land
at Lots 123 RP, 124 (Part), 125 (Part), 126 (Part) and 127 (Part) in D.D.
113 and Adjoining Government Land, Ma On Kong, Kam Tin South,
Yuen Long, New Territories

(HT26090)

June 2026

Drainage Consultant:

何田顧問工程師有限公司
HO TIN & ASSOCIATES
CONSULTING ENGINEERS LIMITED



Prepared & Approved by:	LEE Kwok Cheung <i>MICE, MHKIE(Civil), RPE(CVL, ENV, GEL)</i> (Registration No. RP0159301) Signature: 
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CONTENT

1. Background
2. Approach to Prepare This Submission
3. The Application Site and Proposed Development
4. Existing Drainage Conditions of the Application Site
5. Proposed Drainage Works
6. Drainage Assessment
7. Conclusion and Recommendations

FIGURE (Referenced from the same figures enclosed in the Planning Statement of this Application)

- | | |
|-----------------|---|
| Figure 1 | Location Plan |
| Figure 2 | Lot Index Plan |
| Figure 3 | Vehicular Access to the Application Site |
| Figure 4 | Indicative Layout Plan |

PLAN

- | | |
|----------------|--|
| Plan D1 | Approximate Locations of Photos Taken |
| Plan D2 | Proposed Drainage Management Plan |

- | | |
|-----------------|---|
| APPENDIX | Assessment of Hydraulic Capacities of the Proposed Drainage System |
|-----------------|---|

1. Background

- 1.1 With respect to a S16 Planning Application for Proposed Temporary Warehouse for Storage of Construction Materials (Timber and Metal) for a Period of 3 Years and Associated Filling of Land at Lots 123 RP, 124 (Part), 125 (Part), 126 (Part) and 127 (Part) in D.D. 113 and Adjoining Government Land, Ma On Kong, Kam Tin South, Yuen Long, New Territories (the Application Site), Messrs. Ho Tin & Associates Consulting Engineers Limited was appointed to prepare a drainage submission.

2. Approach to Prepare this Submission

- 2.1 Rain water may cause flooding if it is not properly collected, conveyed and discharged. This Drainage Submission is to demonstrate how the rain water falling onto or flowing towards the Application Site will be collected, conveyed and discharged without causing any adverse drainage impacts on the Application Site and its surroundings.

3. The Application Site and Proposed Development

- 3.1 The Application Site is located among a cluster of temporary structures which are situated at the eastern downhill area of the toll plaza of Tsing Long Highway abutting on Kam Ho Road and is at about 55m to the west of Kam Ho Road on the opposite side of the MTRC's Pat Heung Depot. A Site Location Plan is shown in **Figure 1**.
- 3.2 The Application Site area is about 6,133m² consisting of Lots 123 RP, 124 (Part), 125 (Part), 126 (Part) and 127 (Part) in D.D. 113 and adjoining Government Land, Ma On Kong, Kam Tin South, Yuen Long, New Territories. A Lot Index Plan is shown as **Figure 2**. The concerned area is vehicular accessible via a local road branching off from Kam Ho Road. A Vehicular Access to the Application Site Plan is shown in **Figure 3**.
- 3.3 The Proposed Development consists of two warehouses, four site offices, two containers for storage, one meter room, one rain shelter, loading/unloading spaces for light goods vehicles and container vehicles, and parking spaces for private cars. An Indicative Layout Plan is shown in **Figure 4**.

4. Existing Drainage Conditions of the Application Site

- 4.1 The Application Site is readily hard paved with concrete (refer to the below **Photo Nos. 1 and 2**). Its existing ground levels are relatively higher than those of the surroundings (refer to the below **Photo Nos. 3 to 6**). Hence, in practical, no surface runoff would flow from the surroundings onto the Application Site. Peripheral channels within the Application Site are required to avoid any surface runoff flowing outside onto the surrounding areas.
- 4.2 There is an existing 22m wide trapezoidal channel beside Kam Ho Road at about 70m to the east of the Application Site. Besides, there are existing channels with catchpits running in front of Kam Ho Road to receive watercourses and overland flows from the concerned area between Tsing Long Highway and Kam Ho Road (refer to the below **Photo Nos. 17 to 20**) and discharging into the existing 22m wide trapezoidal channel via an existing outfall (refer to the below **Photo No. 21**). At present, surface runoff from the concerned area will flow towards Kam Ho Road in the form of several existing watercourses.
- 4.3 Current conditions of the Application Site and its surrounding areas are shown in the following photos (by conventional and aerial) (the approximate locations of the photos taken are shown on **Plan D1**):



Photo No. 1 – Hard paved within the Application Site (1 of 2)



Photo No. 2 – Hard paved within the Application Site (2 of 2)



Photo No. 3 – View along the western boundary of the Application Site

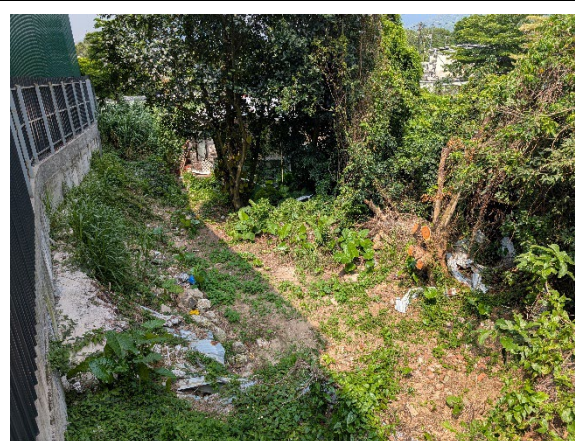


Photo No. 4 – View along the southeastern boundary of the Application Site



Photo No. 5 – View along the eastern boundary of the Application Site



Photo No. 6 – View at the existing watercourse outside the northeastern corner of the Application Site



Photo No. 7 – Close up view at the existing watercourse outside the northeastern corner of the Application Site



Photo No. 8 – View at the existing watercourse at the downstream of the Application Site
(1 of 4)



Photo No. 9 – View at the existing watercourse at the downstream of the Application Site
(2 of 4)

[Remark:  a close up photo is shown in Photo No. 10]



Photo No. 10 – Close up view at the existing watercourse



Photo No. 11 –View at the existing watercourse at the downstream of the Application Site
(3 of 4)

[Remark:  a close up photo is shown in Photo No. 12]



Photo No. 12 – Close up view at an existing drain at the existing watercourse



Photo No. 13 – View at the existing watercourse at the downstream of the Application Site
(4 of 4)

[Remark:  a close up photo is shown in Photo No. 14 and 15]



Photo No. 14 – Close up view at the existing watercourse at the further downstream (1 of 2)



Photo No. 15 – Close up view at the existing watercourse at the further downstream (2 of 2)



Photo No. 16 – Close up view at the inlet at the downstream of the existing watercourse before entering into the existing channel in front of Kam Ho Road



Photo No. 17 – Route of the existing watercourse flowing into the existing channel in front of Kam Ho Road

[Remark:  a close up photo is shown in Photo No. 16]



Photo No. 18 – Existing 525 UC in front of Kam Ho Road receiving the flow from the existing watercourse



Photo No. 19 – Existing catchpit receiving flow from the existing 525 UC at Kam Ho Road



Photo No. 20 – Existing underground drainage discharging into the existing 22m wide trapezoidal channel beside Kam Ho Road



Photo No. 21 – The existing outfall at the existing 22m wide trapezoidal channel

5. Proposed Drainage Works

- 5.1 The existing ground levels of the Application Site will be maintained. Hence, no site formation nor ground levelling works would be conducted. The existing drainage pattern and directions would not be disturbed/altered.
- 5.2 Peripheral channels with catchpits would be constructed at the Application Site to collect surface runoff flowing across the site boundary. Where necessary, 100mm high gap will be allowed at the bottom of the boundary fence of the Application Site in order to allow potential cross-boundary flow of surface runoff from the adjacent areas. The peripheral channels will convey the flow to a terminal catchpit with trap for discharging into an existing watercourse outside the eastern boundary of the Application Site.
- 5.3 The existing watercourse will convey the flow into an existing 525U channel in front of Kam Ho Road, and the flow inside the existing 525U channel would be conveyed to an existing outfall for discharging into the existing 22m wide trapezoidal channel.
- 5.4 The subject Application is committed to obtain consents from owners of adjacent relevant land/lots prior to commencement of the proposed drainage works outside the Application Site and to maintain the completed drainage works to the satisfaction of relevant Government departments. Besides, the proposed development will clear the vegetation at the existing watercourse to which the surface runoff of the Application Site will be discharged into.
- 5.5 A Proposed Drainage Management Plan is shown in **Plan D2**. Details of proposed drainage provisions shall follow relevant details shown in Government departments' Standard Drawings as follows:

<i>Proposed Drainage Provisions</i>	<i>Standard Drawings</i>	<i>Drawing No. & Title</i>
Catchpit	CEDD Standard Drawings	C 2405/1 to /5 – Standard Catchpit Details
Catchpit with trap		C 2406/1 to /2A – Catchpit with Trap

<i>Proposed Drainage Provisions</i>	<i>Standard Drawings</i>	<i>Drawing No. & Title</i>
Catchpit precast concrete cover		C 2407B – Precast Concrete Covers for Catchpit and Sand Trap
U-channel		C 2409J – Details of Half-round and U-channels
Channel cover		C 2412E – Cover Slab and Cast Iron Grating for Channels

6. Drainage Assessment

- 6.1 Assessment criteria is based on the recommendation set out in the Stormwater Drainage Manual (Fifth edition, Jan 2018) (SDM) and its Corrigendum Nos. 1/2022, 1/2024 and 2/2024 issued by DSD. Design Return Period of 50 years (recommended for ‘Main Rural Catchment Drainage Channels’ in SDM) is being adopted.
- 6.2 The corresponding runoffs under rainfall intensity for various return period are worked out with reference to Rational Method. Brandy-Williams method is used in calculation of the time of concentration. A uniformly distributed rainfall with an intensity is determined by the Intensity-Duration-Frequency. With referenced to Table 3a - Storm Constants for different return periods of HKO Headquarters from SDM, the rainfall profiles are derived based on the following equation:

$$i = \frac{a}{(t_d + b)^c}$$

where i = extreme mean intensity in mm/hr,
 t_d = duration in minutes ($t_d \leq 240$), and
 a, b, c = storm constants given in the table below

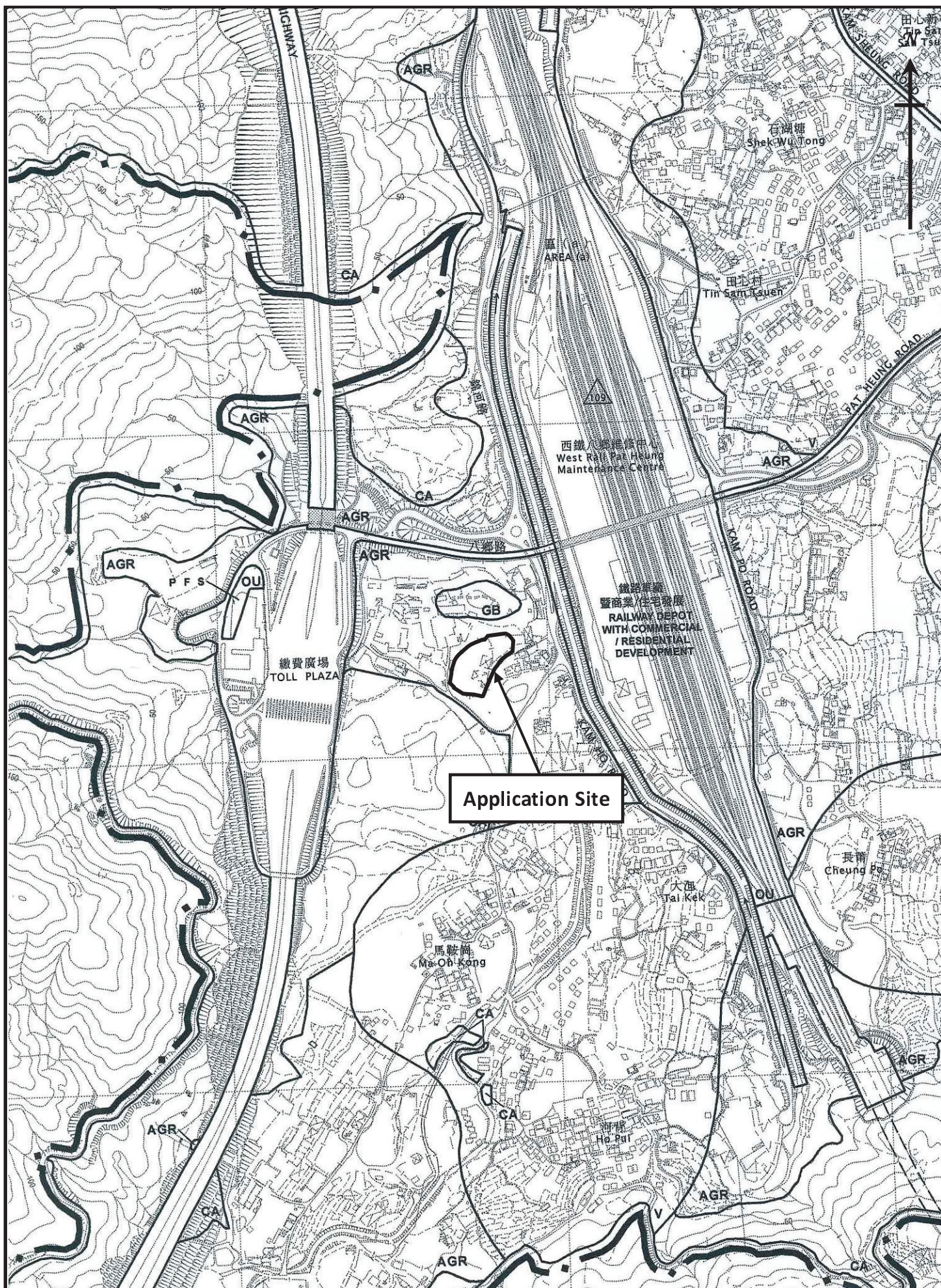
Return Period (years)	50
a	505.5
b	3.29
c	0.355

A 16.0% rainfall increase has been adopted in the hydraulic calculation to cater for effects due to climate change as suggested in the item (e) and (k) in the Stormwater Drainage Manual - Corrigendum No. 1/2022.

- 6.3 The catchment area boundary is shown in **Plan D2** and the hydraulic assessment is enclosed in the **Appendix**. The proposed drainage is designed to cater for the estimated runoff under the designed rainstorms. With respect to the hydraulic assessment, the proposed stormwater drainage system is capable to cater for the surface runoff without causing any adverse drainage impacts on the Application Site and its surroundings.

7. Conclusion and Recommendations

- 7.1 The Proposed Development will be for temporary warehouse for storage of construction materials (timber and metal) for a period of three years. No site formation nor major ground levelling works is required at the Application Site. There would be no significant changes in the drainage conditions of the area.
- 7.2 In order to achieve proper management of the stormwater discharge of the Application Site, there would be peripheral channels with catchpits within the Application Site to receive the surface runoff. The flow collected inside the peripheral channels will be discharged via a terminal catchpit with trap into the existing watercourse outside the northeastern corner of the Application Site and eventually into the existing 22m width trapezoidal channel on the opposite side of Kam Ho Road.
- 7.3 The subject Application is committed to obtain consents from owners of adjacent relevant land/lots prior to commencement of the proposed drainage works outside the Application Site and to maintain the completed drainage works to the satisfaction of relevant Government departments. Besides, the proposed development will clear the vegetation at the existing watercourse to which the surface runoff of the Application Site would be discharged into.
- 7.4 In conclusion, the Proposed Development would not alter the existing drainage conditions and pattern of the area and an appropriate drainage system would be constructed to collect the surface runoff of the concerned area, therefore, the Proposed Development would not cause any adverse drainage impact onto the area.



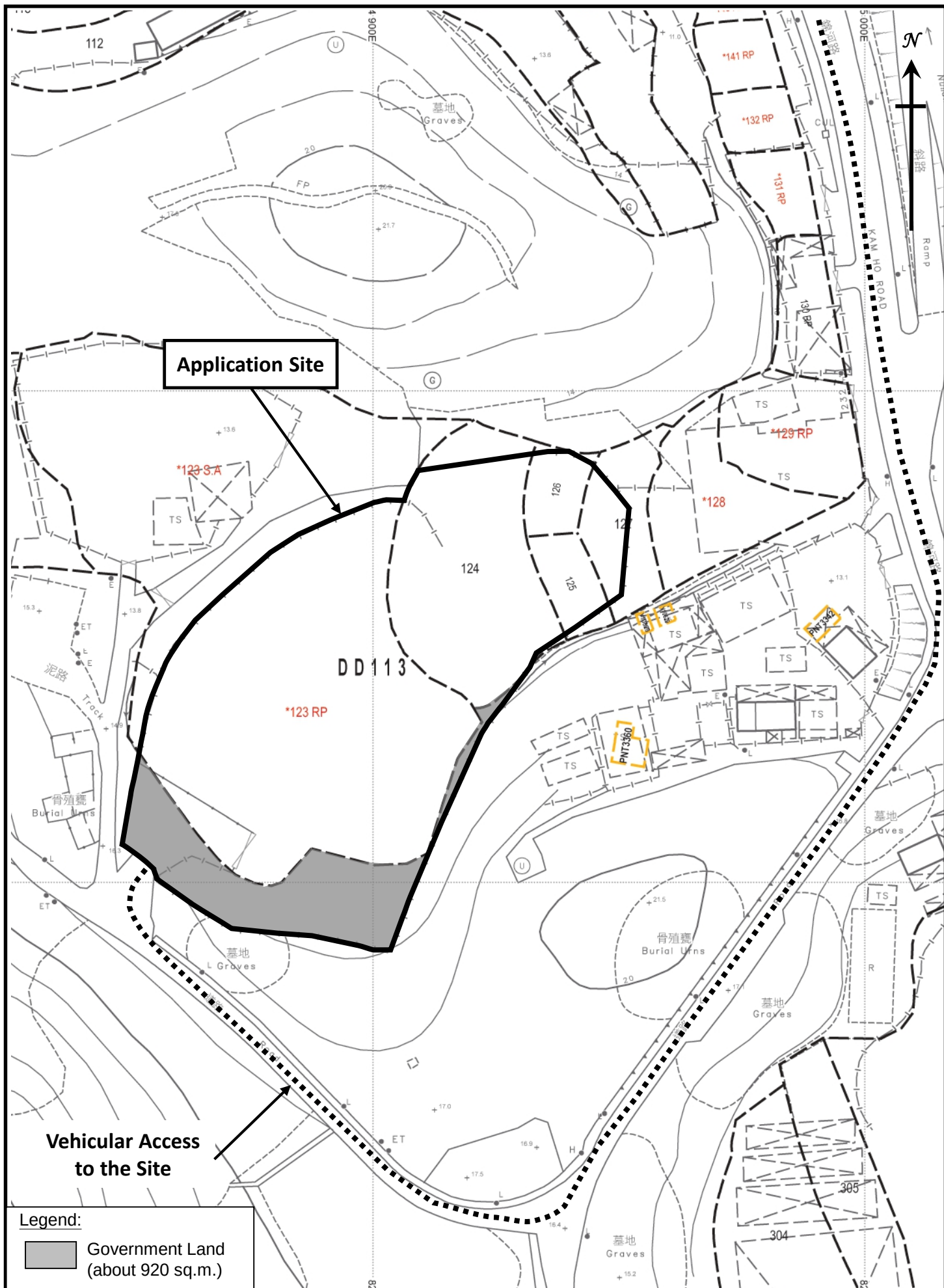
Location Plan
(Extract from Approved Kam Tin South Outline Zoning
Plan No. S/YL-KTS/15)

Figure 1

1 : 7500



羅迅測計師行
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Legend:



Government Land
(about 920 sq.m.)

Lot Index Plan

Figure 2

1 : 1000

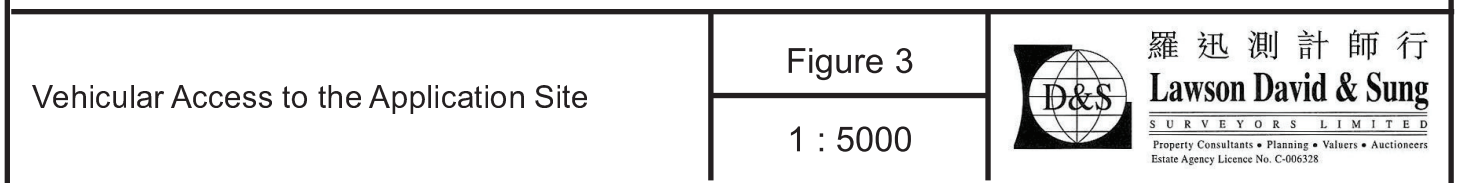


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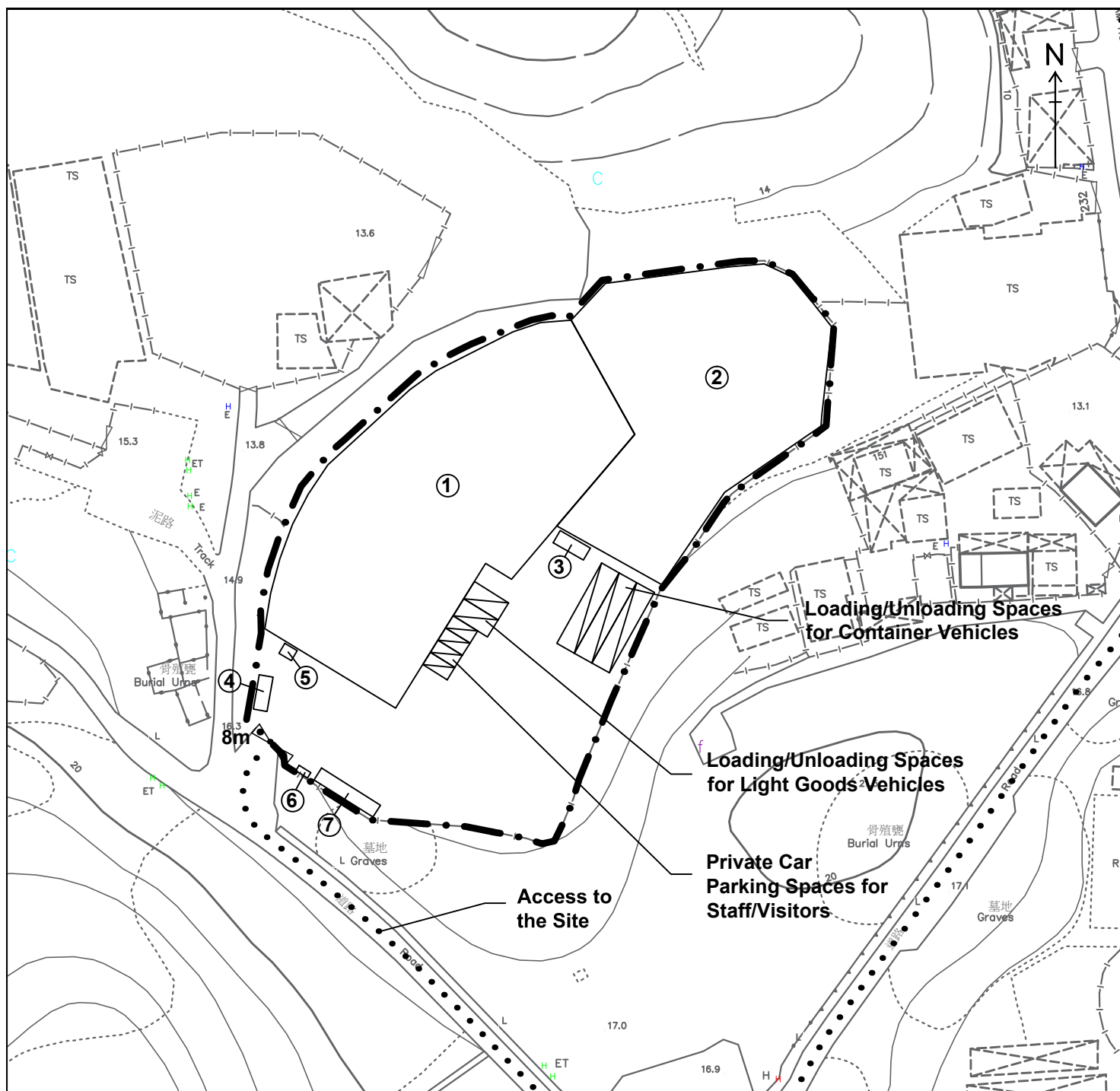
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1 : 5000



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Structure No.	Uses	No. of Storeys	Floor Area (m ²)	Height (m)
1	Warehouse for Storage of Timber/Metal	1	2,234	12
2	Warehouse for Storage of Timber/Metal	1	1,625	12
3	Site Office	2	30	6
4	Containers for Storage	2	30	6
5	Meter Room	1	5	3
6	Rain Shelter	1	3	2.5
7	Site Office	2	60	6

Legend:

- Application Site (Area: about 6,133 sq.m.)
- Loading/Unloading Spaces for Container Vehicles (3.5m x 16m) (3 nos.)
- Loading/Unloading Spaces for Light Goods Vehicles (3.5m x 7m) (2 nos.)
- Private Car Parking Spaces for Staff/Visitors (2.5m x 5m) (4 nos.)

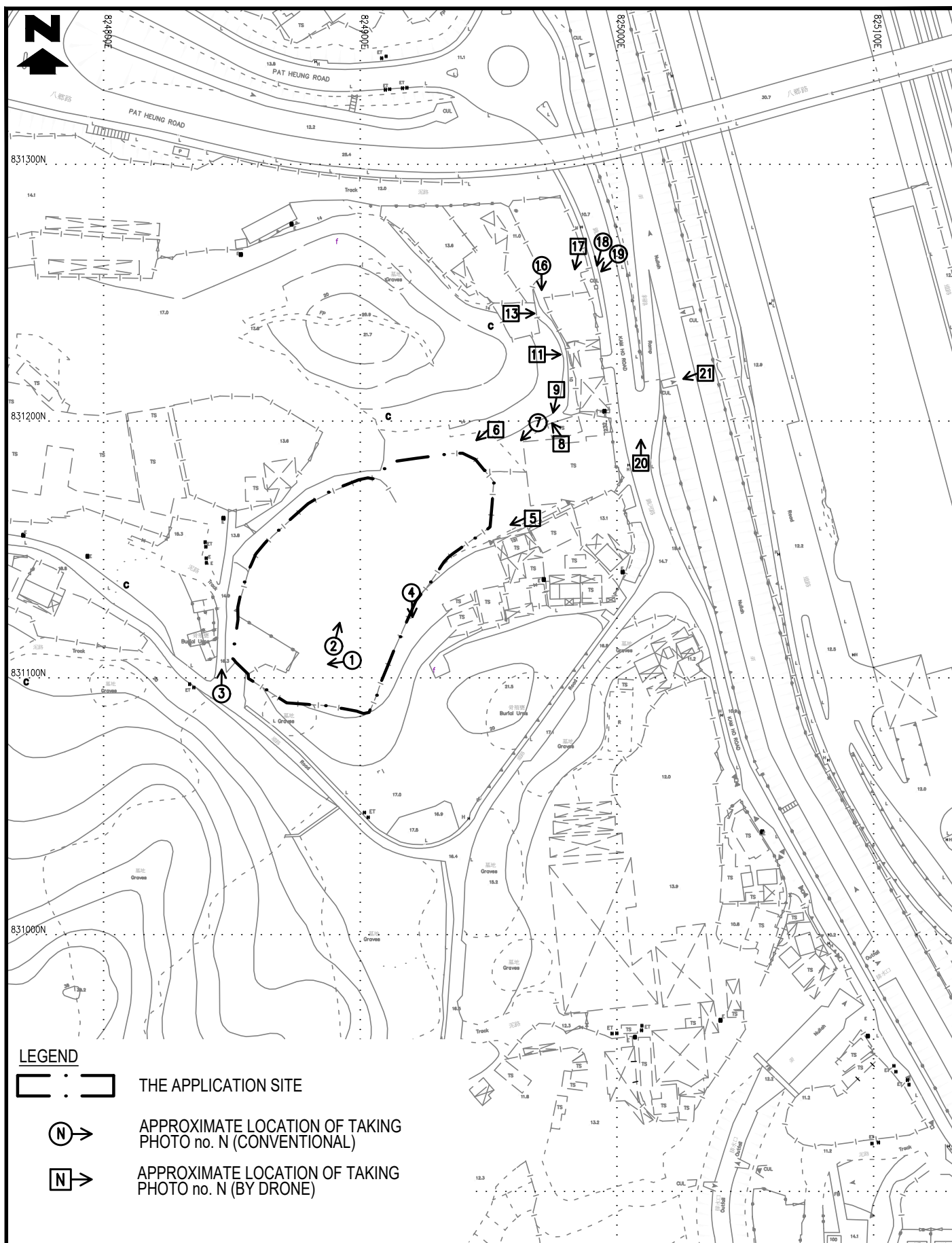
Indicative Layout Plan

Figure 4

Scale 1:1000



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TITLE

APPROXIMATE LOCATIONS OF PHOTOS TAKEN

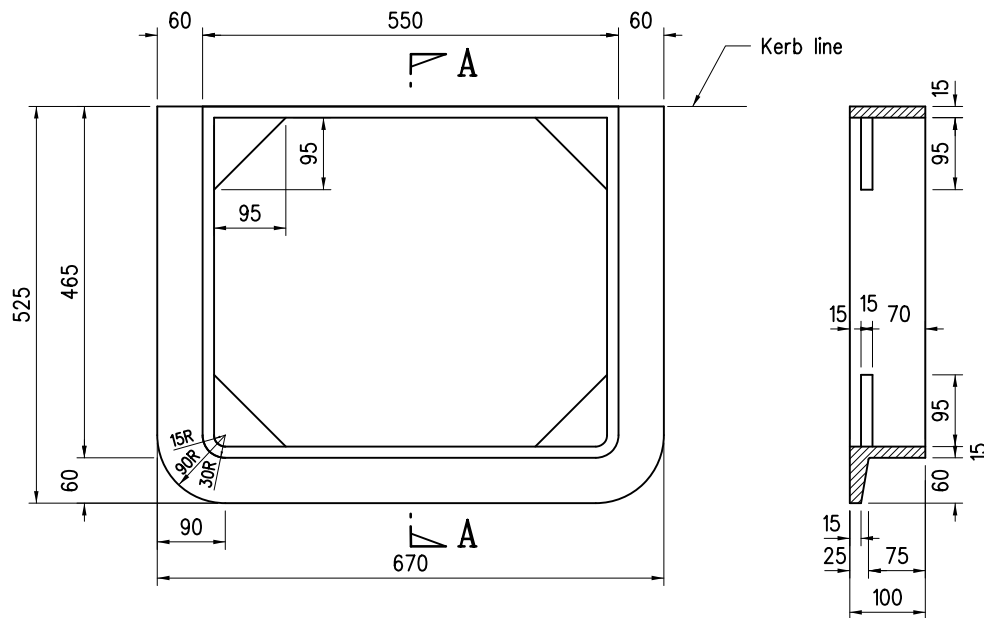
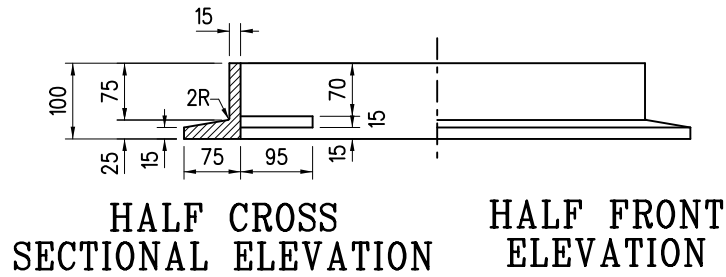
何田顧問工程師有限公司
HO TIN & ASSOCIATES
 CONSULTING ENGINEERS LIMITED

SCALE

1 : 2000 - A4

DRAWING No.

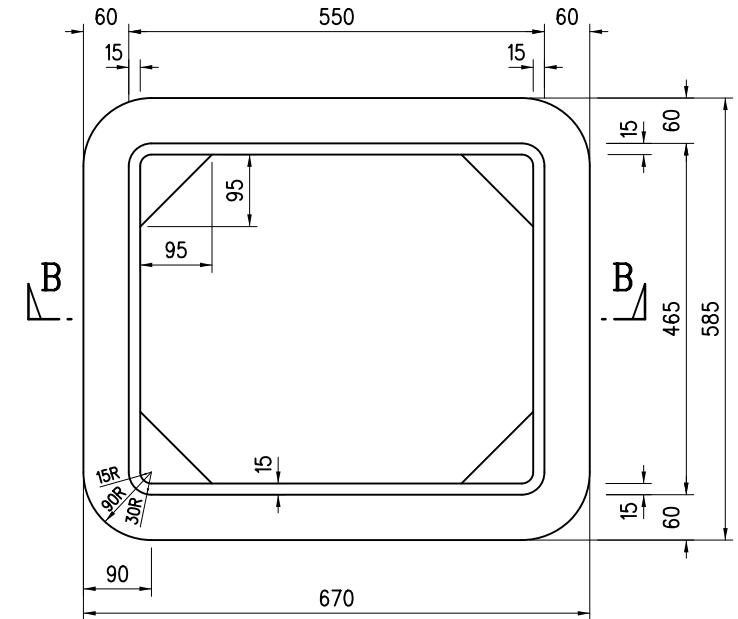
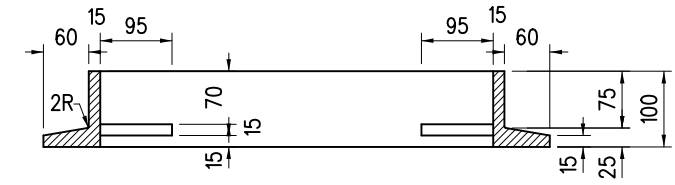
PLAN D1



FRAME
(For Gully Grating Adjacent to Kerb)

Notes :-

1. Dimensions are in millimetres.
2. All corners are to be rounded to approximately 2mm radius.
3. Cast Iron for frames and gratings is to conform with grade EN-GJL-150 of BS EN 1561.



FRAME
(For Gully Grating Away from Kerb)

A	Note 3 Revised	Original signed	Nov 21
	Former Drg. No.H3011/2 with general revision	-	Jun 94
REF.	REVISION	SIGNATURE	DATE

HIGHWAYS DEPARTMENT

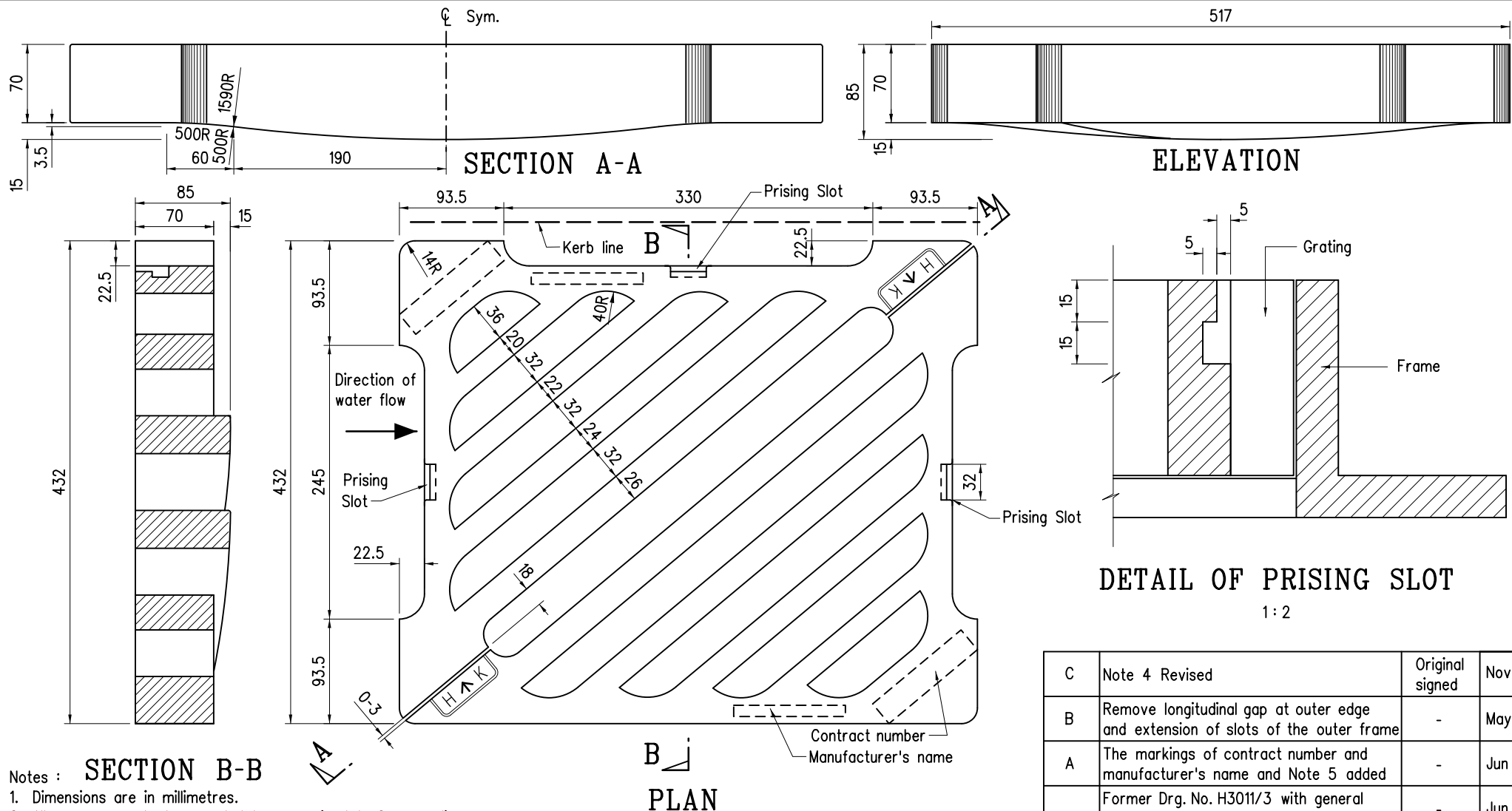
REFERENCE
H.O. 7/1/6

SCALE
1 : 10

DRAWING No. CAD

H 3117A

GULLY GRATING TYPE GA1-450 -
517x432 DOUBLE TRIANGULAR DEEP FRAME



Notes :

1. Dimensions are in millimetres.
2. All corners are to be rounded to approximately 2mm radius.
3. The smooth corner of the grating immediately adjacent to the kerb line is to be against the direction of the flow. Two separate sets of frame are needed to allow for the different direction of flow.
4. Cast Iron for frames and gratings is to conform with grade EN-GJL-150 of BS EN 1561.
5. The markings shall be raised 4mm above normal surface.

C	Note 4 Revised	Original signed	Nov 21
B	Remove longitudinal gap at outer edge and extension of slots of the outer frame	-	May 10
A	The markings of contract number and manufacturer's name and Note 5 added	-	Jun 04
	Former Drg. No. H3011/3 with general revision	-	Jun 94
REF.	REVISION	SIGNATURE	DATE

HIGHWAYS DEPARTMENT

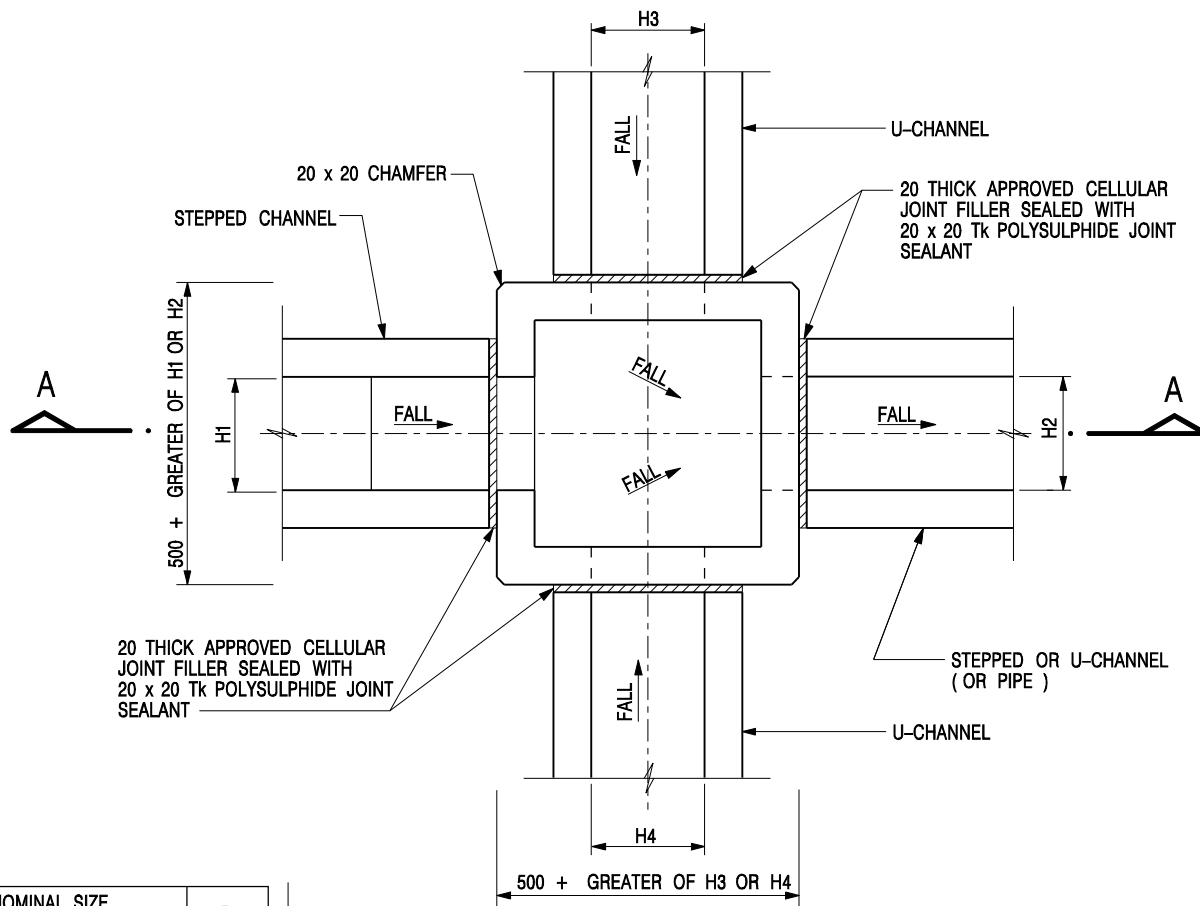
REFERENCE
H. O. 7/1/6

DRAWING No. CAD

SCALE
1:5 or
As Shown

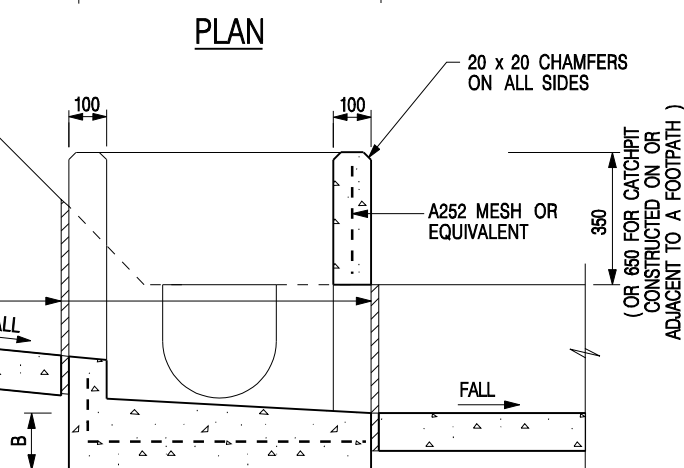
H 3118C

**GULLY GRATING TYPE GA1-450 -
517x432 DOUBLE TRIANGULAR ORIENTATION**



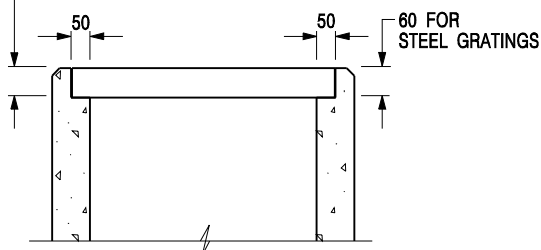
NOMINAL SIZE (LARGEST OF H1, H2, H3 & H4)	B
300 - 600	150
675 - 900	175

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



SECTION A - A

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



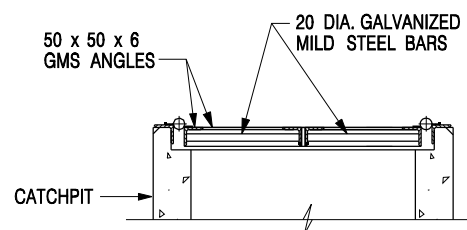
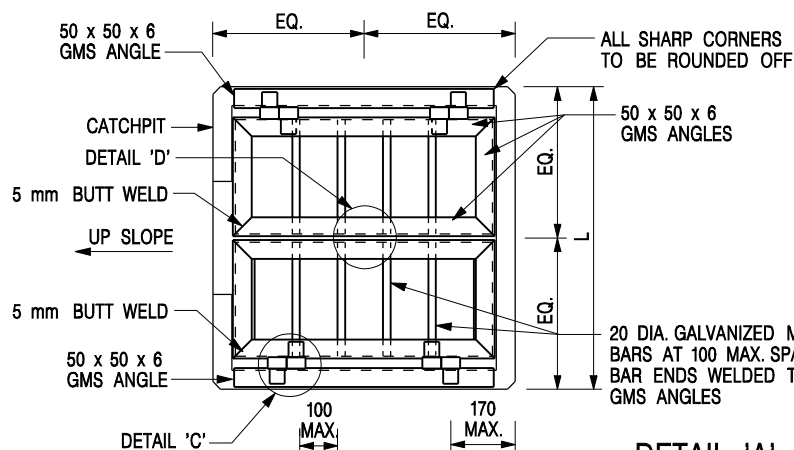
NOTES:

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

ALTERNATIVE TOP SECTION FOR PRECAST CONCRETE COVERS / GRATINGS

STANDARD CATCHPIT DETAILS (SHEET 1 OF 5)

-	FORMER DRG. NO. C2405J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT			
SCALE 1 : 20		DRAWING NO. C2405 /1	
DATE JAN 1991			

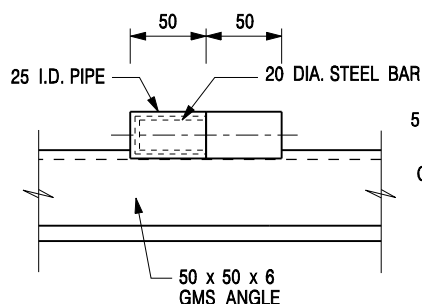


SECTIONAL ELEVATION

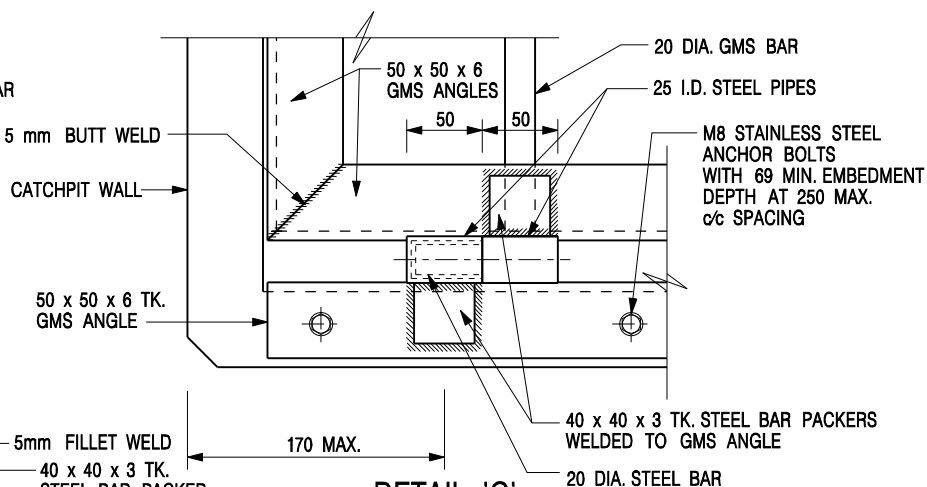
DETAIL 'A'

(DETAILS OF DOUBLE SIDE OPENING STEEL GRATING FOR $L > 900\text{mm}$)

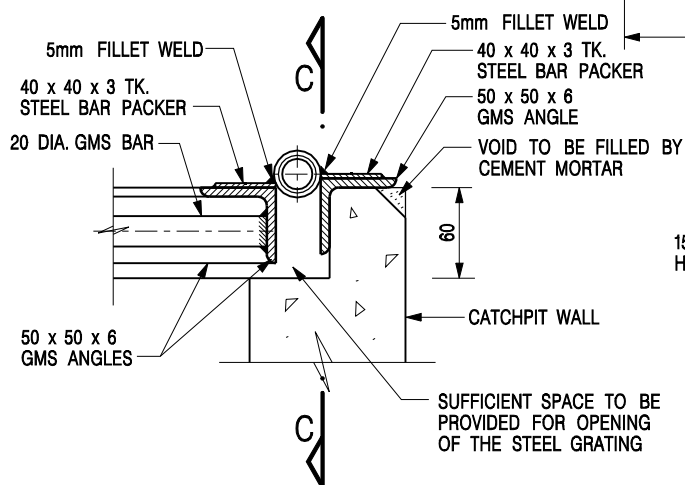
SCALE 1 : 20



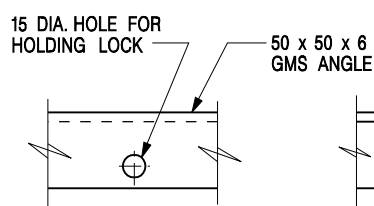
SECTION C - C



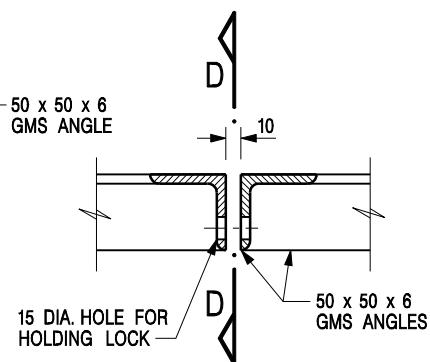
DETAIL 'C'
(DETAILS OF HINGE)
SCALE 1 : 5



SECTIONAL ELEVATION
(DETAIL 'C')



SECTION D - D



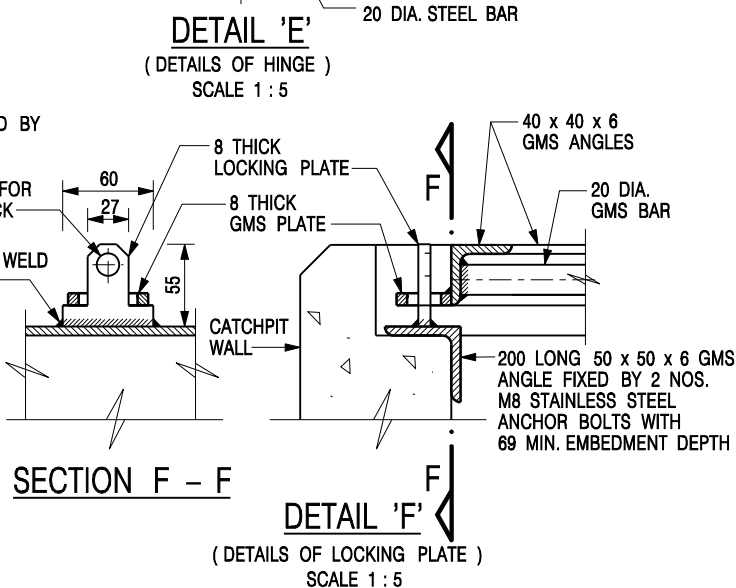
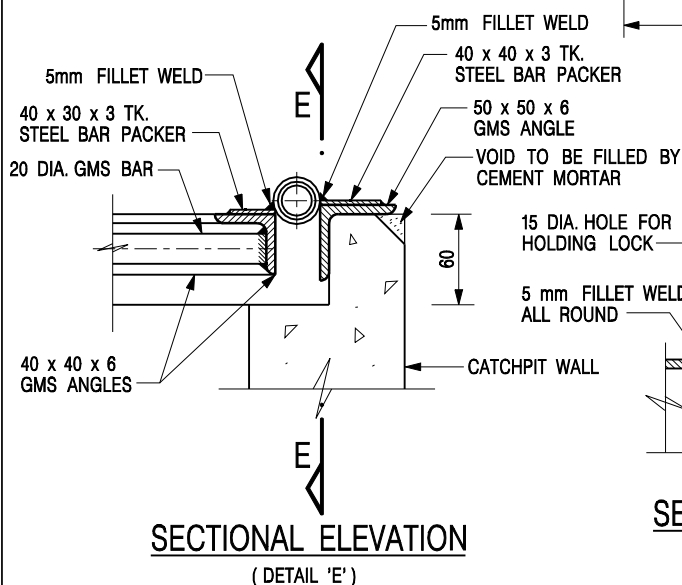
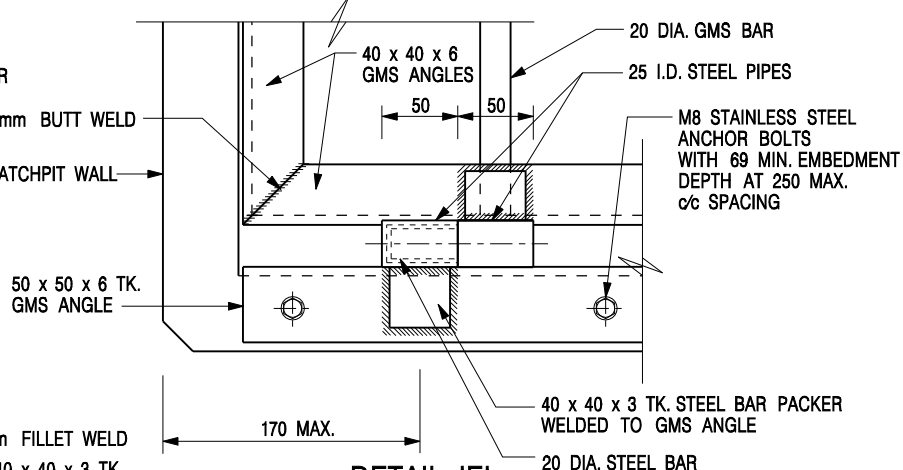
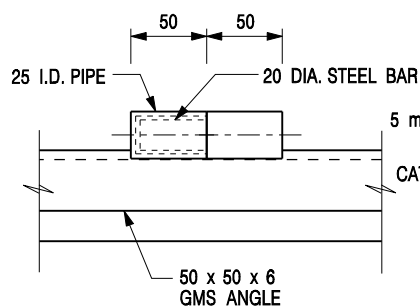
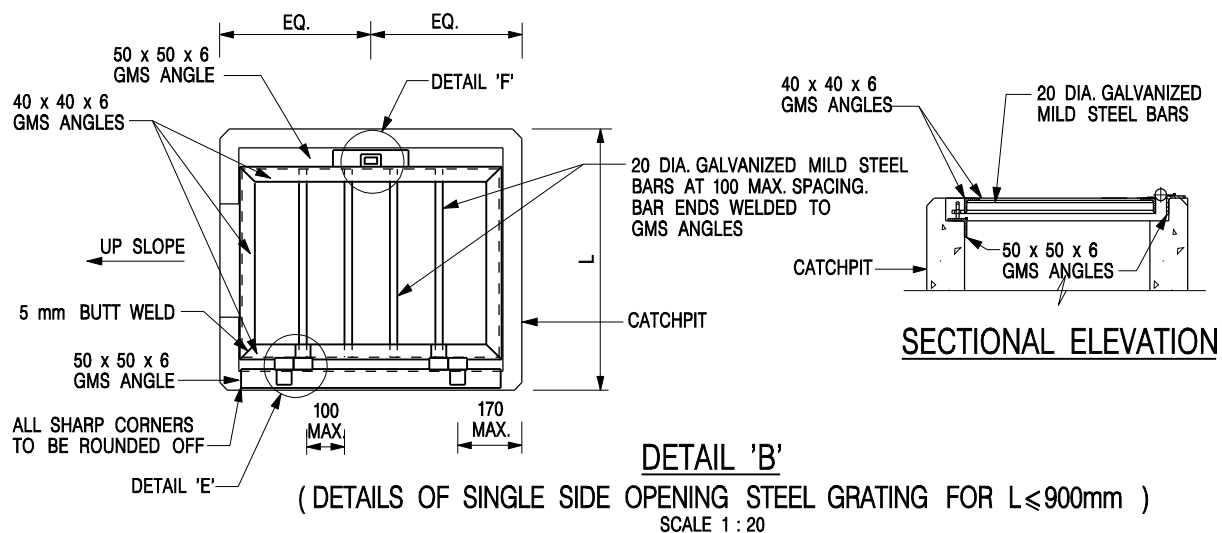
DETAIL 'D'
(DETAILS OF HOLE FOR LOCK)
SCALE 1 : 5

NOTES:

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

STANDARD CATCHPIT DETAILS
(SHEET 2 OF 5)

-	FORMER DRG. NO. C2405J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT		SCALE AS SHOWN DATE JAN 1991	
		DRAWING NO. C2405 /2	

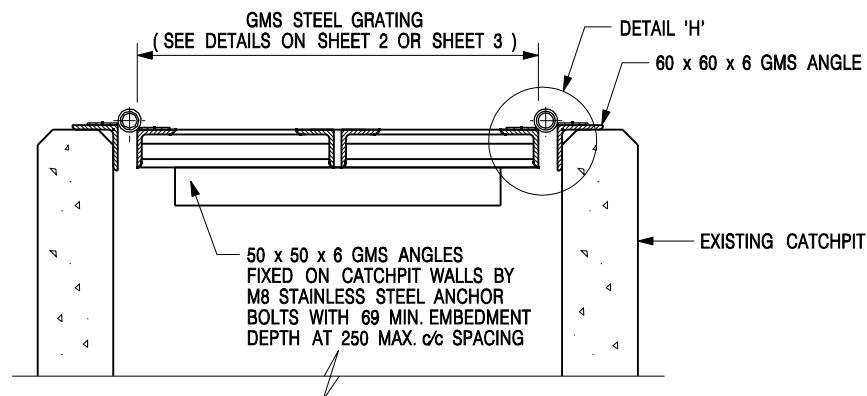


NOTES:

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

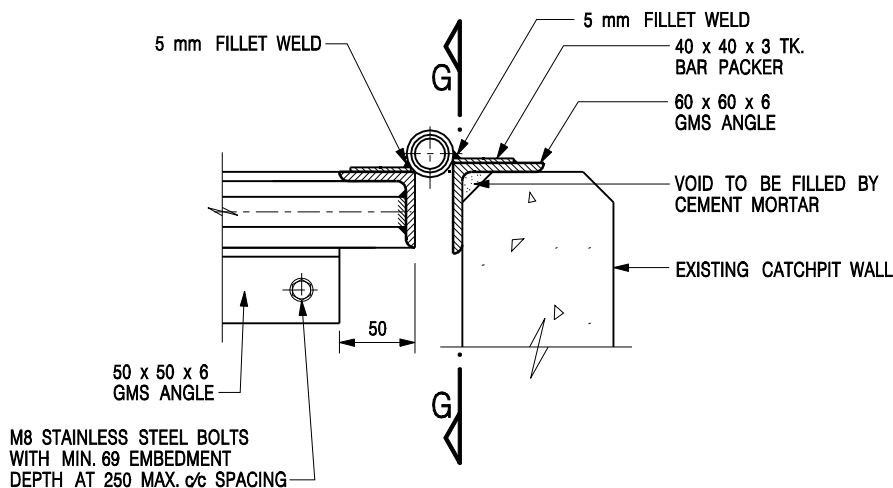
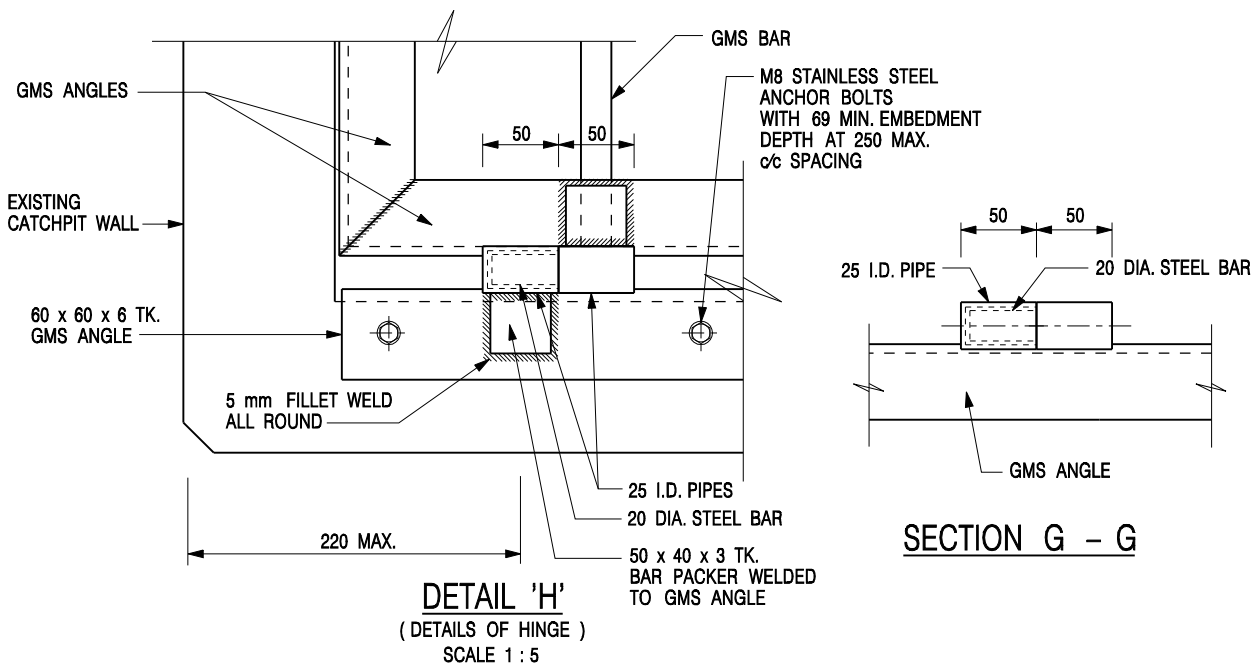
STANDARD CATCHPIT DETAILS
(SHEET 3 OF 5)

-	FORMER DRG. NO. C2405J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT		SCALE AS SHOWN DATE JAN 1991	
		DRAWING NO. C2405 /3	



DETAIL 'G' - DETAILS OF STEEL GRATING CONSTRUCTED ON EXISTING CATCHPIT

SCALE 1 : 10



SECTIONAL ELEVATION

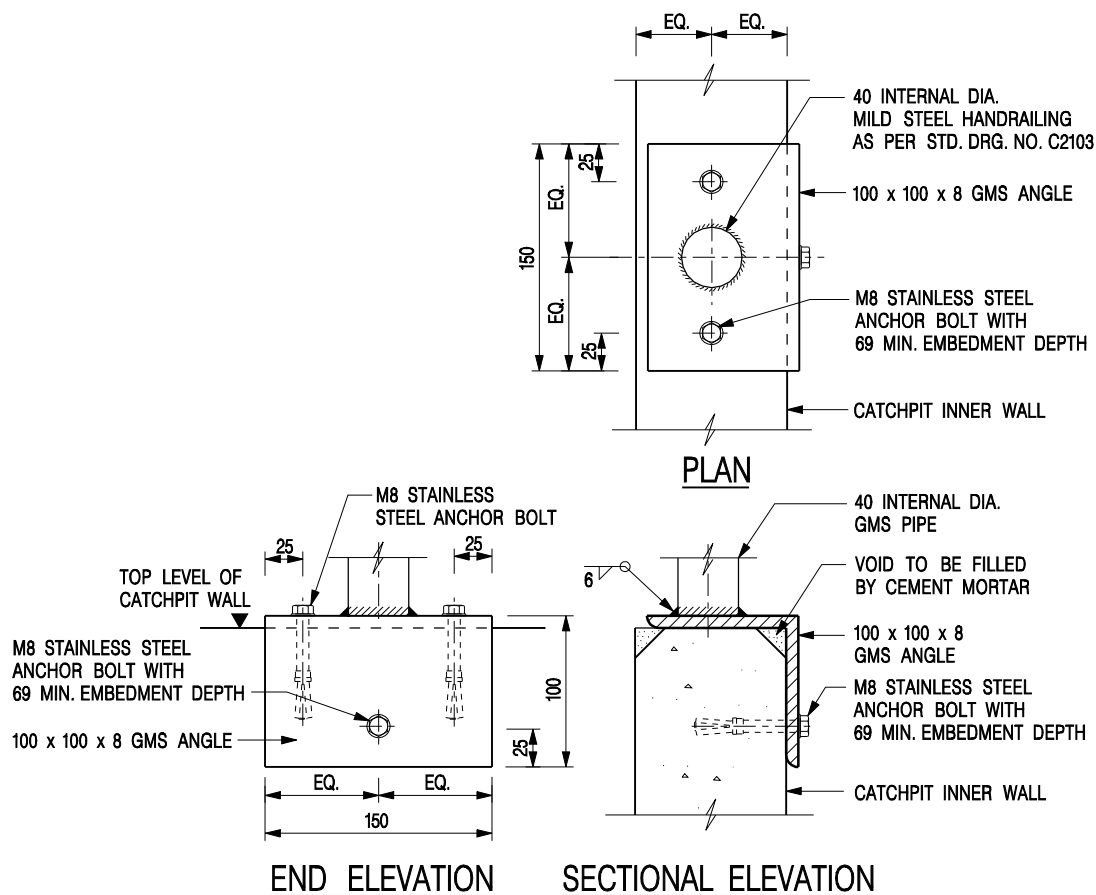
(DETAIL 'H')

NOTES:

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

STANDARD CATCHPIT DETAILS
(SHEET 4 OF 5)

-	FORMER DRG. NO. C2405J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT			
SCALE AS SHOWN		DRAWING NO. C2405 /4	
DATE JAN 1991			



DETAIL 'J' – FIXING DETAILS FOR HANDRAILING ON TOP OF CATCHPIT WALL

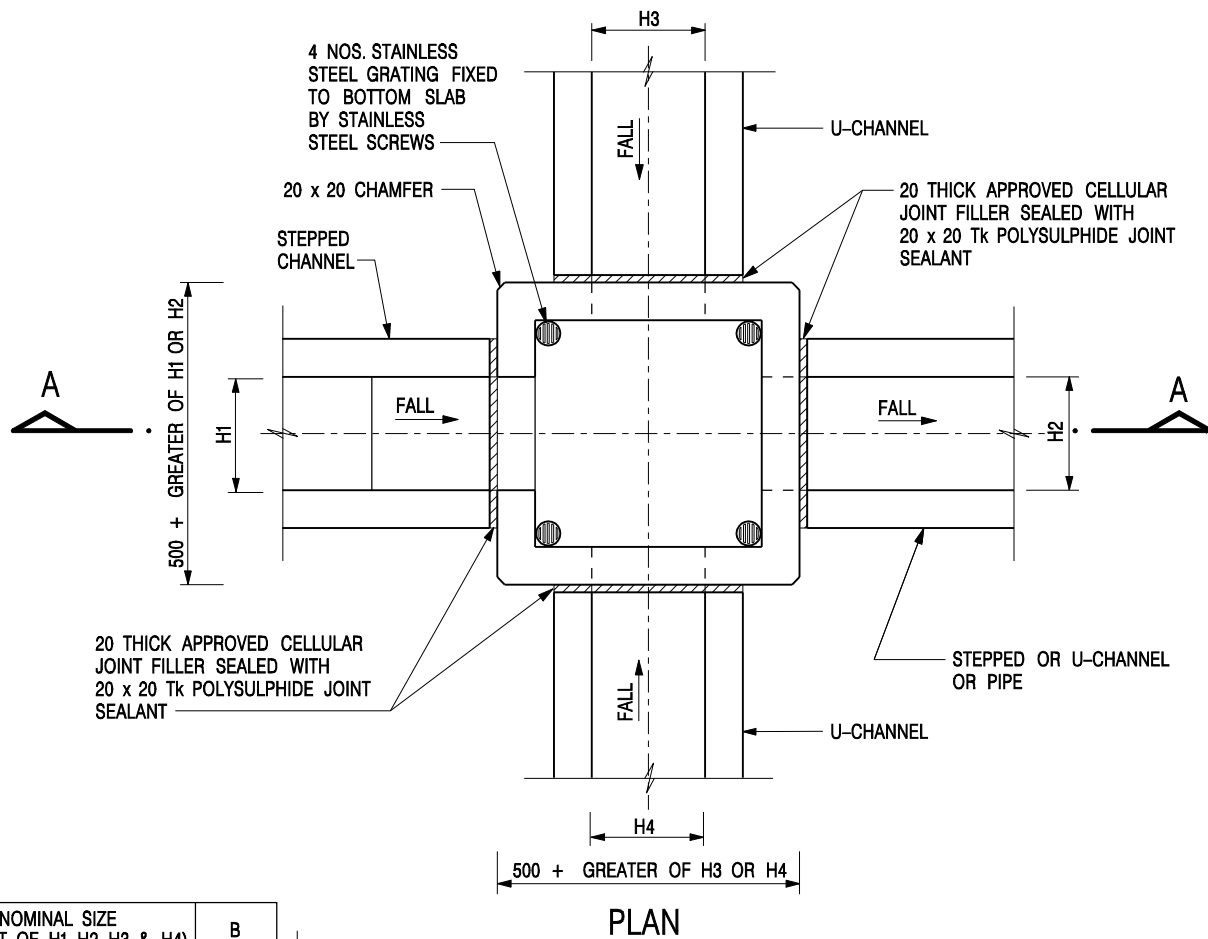
SCALE 1 : 5

NOTES:

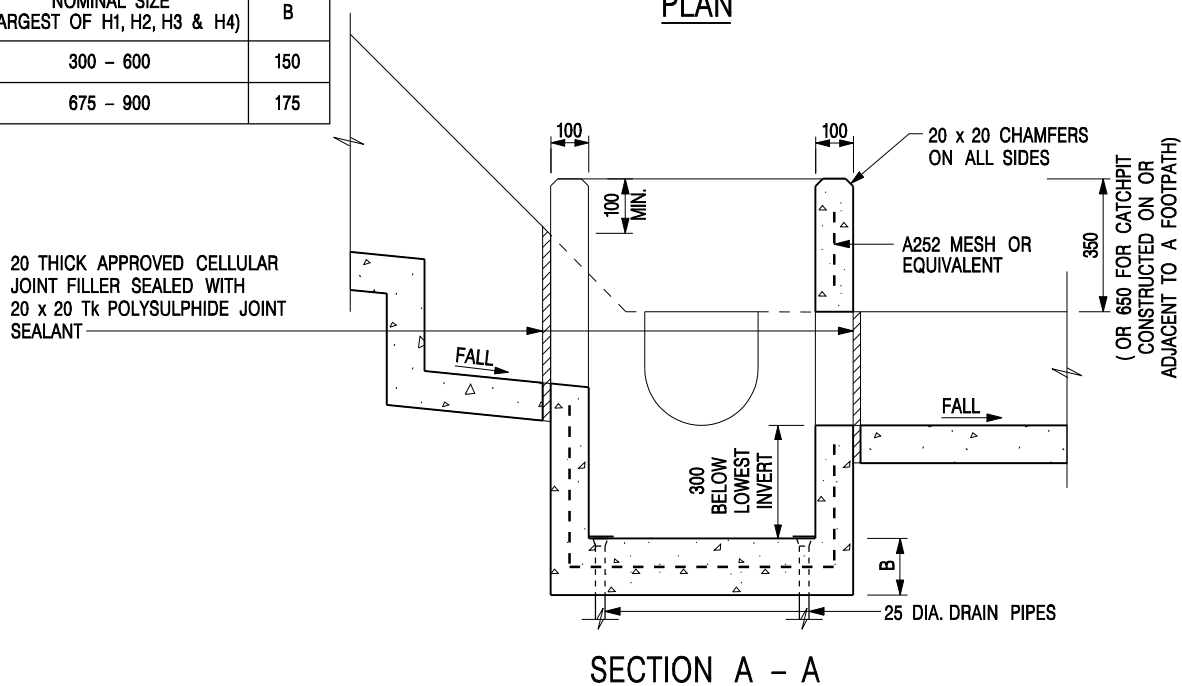
- ALL DIMENSIONS ARE IN MILLIMETRES.
- ALL CONCRETE SHALL BE GRADE 20 /20.
- CONCRETE SURFACE FINISH SHALL BE CLASS U2 OR F2 AS APPROPRIATE.
- FOR DETAILS OF JOINT, REFER TO STD. DRG. NO. C2413.
- CONCRETE TO BE COLOURED AS SPECIFIED.
- FOR CATCHPITS CONSTRUCTED ON OR ADJACENT TO A FOOTPATH, STEEL GRATINGS (SEE DETAILS ON SHEET 2 OR SHEET 3) OR CONCRETE COVERS (SEE STD. DRG. NO. C2407) SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER.
- IF INSTRUCTED BY THE ENGINEER, HANDRAILING (SEE DETAIL 'J' ON SHEET 5; 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.
- 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 mm c/c STAGGERED SHALL BE PROVIDED. THICKNESS OF CATCHPIT WALL FOR INSTALLATION OF STEP IRONS SHALL BE INCREASED TO 150 mm.
- FOR RETROFITTING AN EXISTING CATCHPIT WITH STEEL GRATING, SEE DETAIL 'G' ON SHEET 4.
- ALL STEEL ANGLES SHALL COMPLY WITH BS EN 10025 AND BS EN 10056.
- UNLESS OTHERWISE SPECIFIED, ALL WELDS SHALL BE 5 mm CONTINUOUS FILLET WELDS.
- ALL WELDS SHALL BE CHIPPED, GROUND SMOOTH, BRUSHED TO REMOVE SLAG PRIOR TO HOT-DIP GALVANIZATION.
- ALL STEELWORK SHALL BE HOT-DIP GALVANIZED TO BS EN ISO 1461. ALL EXPOSED STEELWORK SURFACES SHALL BE TREATED AND PAINTED IN ACCORDANCE WITH THE GENERAL SPECIFICATION.
- SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

STANDARD CATCHPIT DETAILS
(SHEET 5 OF 5)

-	FORMER DRG. NO. C2405J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT			
SCALE AS SHOWN		DRAWING NO. C2405 /5	
DATE JAN 1991			



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

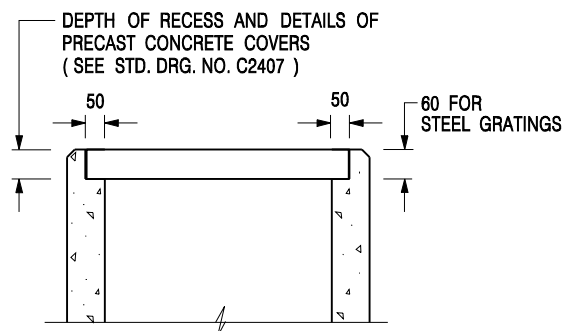


NOTES:

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
REF.	REVISION	SIGNATURE	DATE
 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT		SCALE 1 : 20 DATE JAN 1991	
		DRAWING NO. C2406 /1	



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 /2) 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 'J' ON STD. DRG. NO. C2405 /5; 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 'G' ON STD. DRG. NO. C2405 /4.
12. SUBJECT TO THE APPROVAL OF THE ENGINEER, OTHER MATERIALS CAN ALSO BE USED AS COVERS / GRATINGS.

A	MINOR AMENDMENT.	Original Signed	04.2016
-	FORMER DRG. NO. C2406J.	Original Signed	03.2015
REF.	REVISION	SIGNATURE	DATE

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



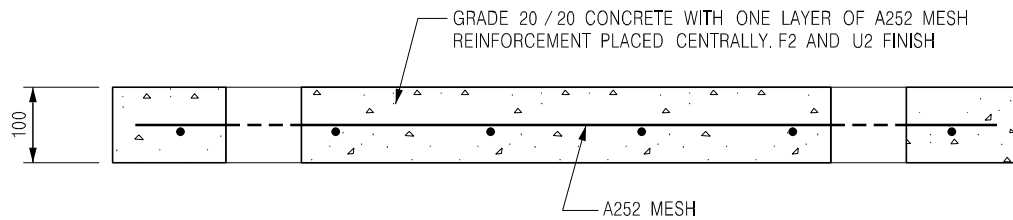
**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE 1 : 20

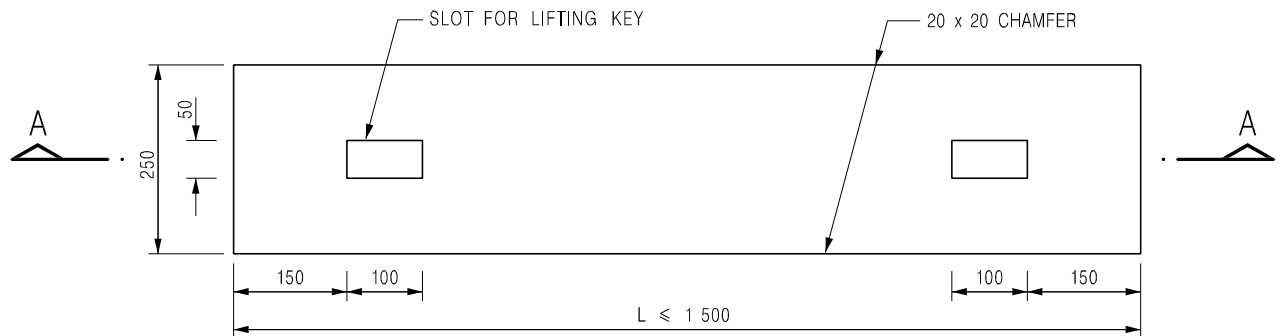
DATE JAN 1991

DRAWING NO.

C2406 /2A

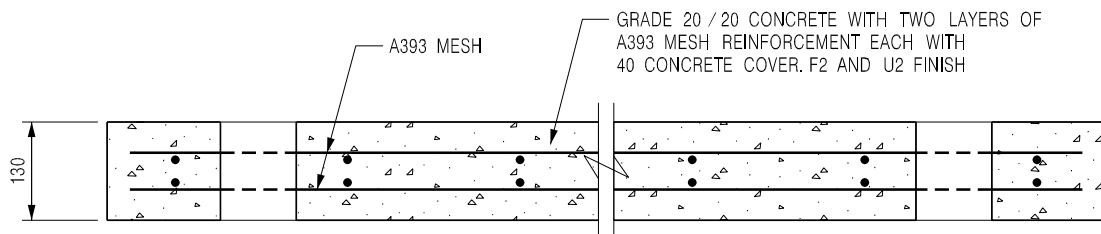


SECTION A - A

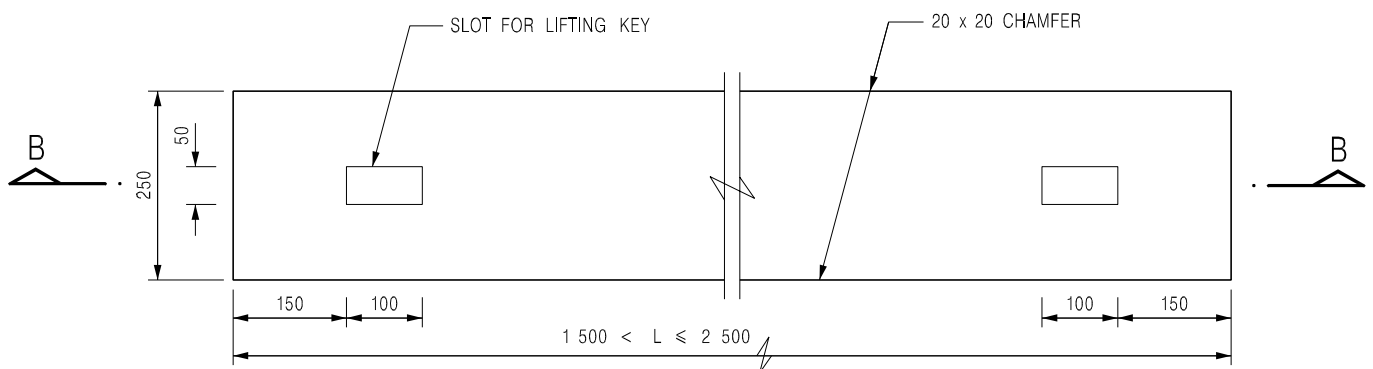


PLAN

TYPE 1 - FOR SPAN UP TO 1.5 m



SECTION B - B



PLAN

TYPE 2 - FOR SPANS 1.5 m TO 2.5 m

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL EXTERNAL EDGES OF THE COVERS SHALL BE 20mm CHAMFERED.

B	NAME OF DEPARTMENT AMENDED.	Original Signed	01.2005
A	GENERAL REVISION	Original Signed	12.2002
REF.	REVISION	SIGNATURE	DATE

**PRECAST CONCRETE COVERS
FOR CATCHPIT AND SAND TRAP**

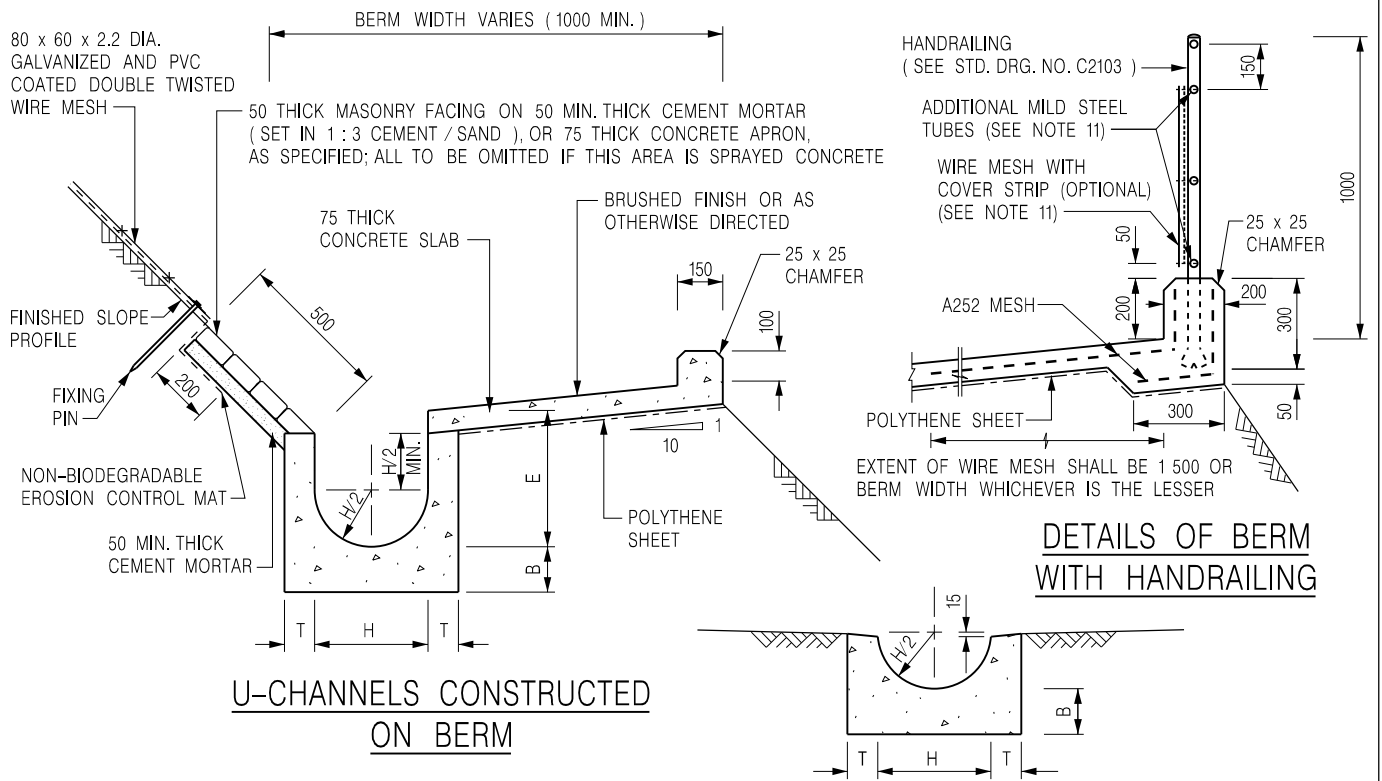


**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE 1 : 10

DATE JAN 1991

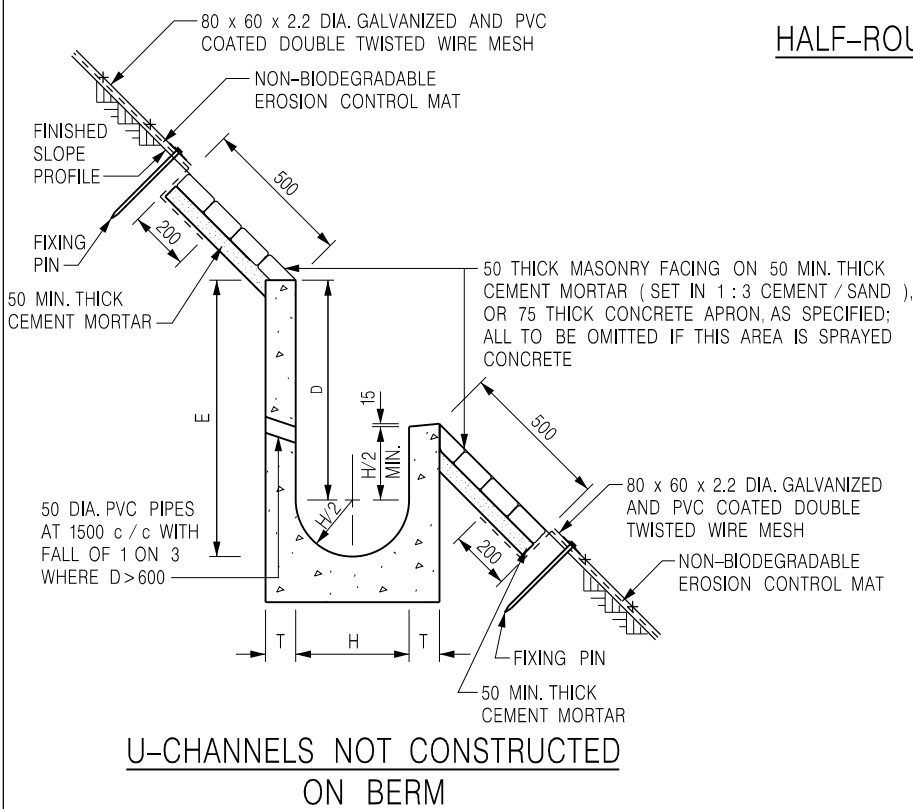
DRAWING NO.
C2407B



HALF-ROUND CHANNEL

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES.
2. ALL CONCRETE TO BE GRADE 20 / 20.
3. CONCRETE SURFACE FINISH SHALL BE CLASS U2, F2 OR BRUSHED FINISH AS DIRECTED.
4. SPACING OF EXPANSION JOINT IN CHANNELS, BERM SLABS AND APRONS TO BE 10 METRES MAXIMUM, SEE STD. DRG. NO. C2413 FOR DETAILS.
5. JOINTS FOR CHANNELS, BERM SLABS, APRONS AND WALLS, ETC. TO BE ON THE SAME ALIGNMENT.
6. FOR DIMENSIONS T, H, & B, SEE TABLE BELOW.
7. BIODEGRADABLE EROSION CONTROL MAT IF REQUIRED, SEE STD. DRG. NO. C2511/E.
8. CONCRETE TO BE COLOURED AS SPECIFIED.
9. CONCRETE U-CHANNEL CAN BE CAST IN-SITU OR PRECAST CONCRETE SUBJECT TO THE ENGINEER'S AGREEMENT ON THE DETAILS.
10. DETAILS OF EROSION CONTROL MAT AND WESH MESH ON BERM. (SEE STD. DRG. NO. C2511/E)
11. THE WIRE MESH ON HANDRAILING IS OPTIONAL. THE COVER STRIP AND ADDITIONAL MILD STEEL TUBES ARE NEEDED ONLY IF WIRE MESH IS PROVIDED. (SEE STD. DRG. NO. C2103)



NOMINAL SIZE H	T	B	REINFORCEMENT
300	80	100	A252 MESH PLACED CENTRALLY AND T=100 WHEN E>650
375 - 600	100	150	
675 - 900	125	175	A252 MESH PLACED CENTRALLY

DETAILS OF HALF-ROUND AND U-CHANNELS (TYPE A - WITH MASONRY APRON)

J	DETAILS OF HANDRAILING AMENDED.	Original Signed	08.2024
I	MINOR AMENDMENT.	Original Signed	07.2018
H	THICKNESS OF MASONRY FACING AMENDED.	Original Signed	01.2005
G	MINOR AMENDMENT.	Original Signed	01.2004
F	GENERAL REVISION.	Original Signed	12.2002
REF.	REVISION	SIGNATURE	DATE



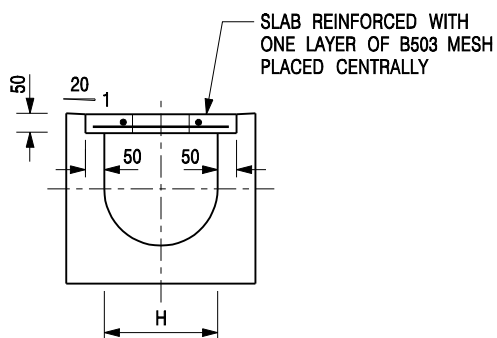
CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT

SCALE 1 : 25

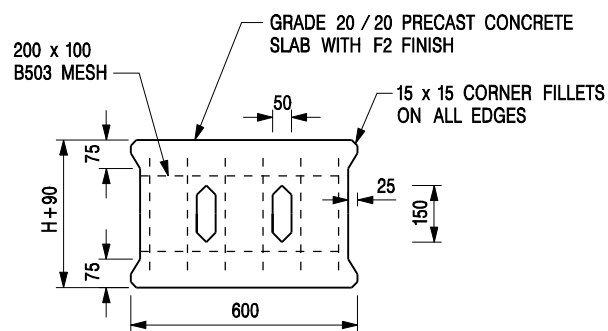
DATE JAN 1991

DRAWING NO.

C2409J



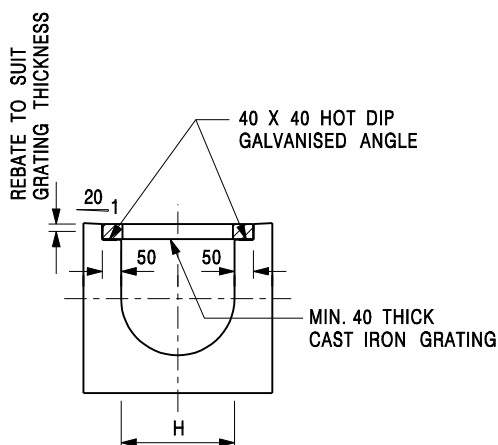
TYPICAL SECTION



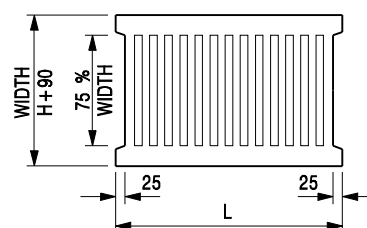
PLAN OF SLAB

U-CHANNELS WITH PRECAST CONCRETE SLABS

(UP TO H OF 525)



TYPICAL SECTION



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

CAST IRON GRATING

(DIMENSIONS ARE FOR GUIDANCE ONLY, CONTRACTOR MAY SUBMIT EQUIVALENT TYPE)

U-CHANNEL WITH CAST IRON GRATING

(UP TO H OF 525)

NOTES:

- ALL DIMENSIONS ARE IN MILLIMETRES.
- H=NOMINAL CHANNEL SIZE.
- ALL CAST IRON FOR GRATINGS SHALL BE GRADE EN-GJL-150 COMPLYING WITH BS EN 1561.
- FOR COVERED CHANNELS TO BE HANDED OVER TO HIGHWAYS DEPARTMENT FOR MAINTENANCE, THE GRATING DETAILS SHALL FOLLOW THOSE AS SHOWN ON HyD STD. DRG. NO. H3156.

E	NOTES 3 & 4 AMENDED.	Original Signed	12.2014
D	NOTE 4 ADDED.	Original Signed	06.2008
C	MINOR AMENDMENT. NOTE 3 ADDED.	Original Signed	12.2005
B	NAME OF DEPARTMENT AMENDED.	Original Signed	01.2005
A	CAST IRON GRATING AMENDED.	Original Signed	12.2002
REF.	REVISION	SIGNATURE	DATE

**COVER SLAB AND CAST IRON
GRATING FOR CHANNELS**



**CIVIL ENGINEERING AND
DEVELOPMENT DEPARTMENT**

SCALE 1 : 20

DATE JAN 1991

DRAWING NO.
C2412E

Assessment of Hydraulic Capacities of the Proposed Drainage System for 1 in 50 year design return period

Using Rational Method
Design Flow = 0.278CIA m³/s for grassland (heavy soil) - steep, C 0.35
for concrete surface, C = 0.95

Using Manning Equation (for channel flow)
Design Mean Velocity = $R^{1/6}/n(RS_d)^{1/2}$ where n = 0.016 for concrete-lined open channel with fair surface
(ref. 0.045 for natural stream channels, winding some pools and shoals with some weeds and stones with fair surface
Table13 in SDM)

Using GEV distribution model in frequency analysis
Rainfall intensity = $a / (t_r+b)^c$ where a = 505.5 , b= 3.29 and c= 0.355 in 50 year design return period
referenced from Table 3a in SDM Corrigendum No. 1/2022 - Storm Constants for Different Return Periods of HKO Headquarters

Using Bransby William's Equation
Inlet time t_0 = $0.14465L / (H^{0.2}A^{0.1})$ or 2 when the distance is too short

Using Colebrook's White Equation (for pipe flow)
 $V = - \text{Sqrt} (8gDs) \times \log [(k_s / (3.7D)) + (2.51v / (D \times \text{Sqrt} (2gDs)))]$
For precast concrete pipes with 'O' ring joints with normal condition,
 k_s (mm) = 0.15 k_s (m) = 0.00015
 v (m²/s) = 1.00E-06
 g (m²/s) = 9.81

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	
USCP/USMH	DSCP/DSMH	Collected Runoff from Catchment (refer to Plan D2)	USGL (mPD)	DSGL (mPD)	USIL (mPD)	DSIL (mPD)	INVERT DIFF. (m)	LENGTH OF CHANNEL / DRAIN l (m)	SLOPE s	SLOPE 1 IN	LENGTH FOR CALCULATION OF INLET TIME L (m)	AVERAGE SLOPE OF GROUND FOR CALCULATION OF INLET TIME H (m per 100m)	INLET TIME t_0 (min) = $0.14465 \times [L(H^{0.2} \times A^{0.1})]$	TIME OF FLOW INSIDE CHANNEL/ DRAIN t_f (min) = l/v (i.e. Column (9) + Column (26) + 60)	TIME OF CONCENTRATION t_c (min) = $t_0 + t_f$	RAINFALL INTENSITY I (mm/hr)	RAINFALL INTENSITY INCLUDING EFFECT OF CLIMATE CHANGE (+16.0%) (mm/hr) [refer to item (e) and (k) in SDM Corrigendum No. 1/2022]	ADOPTED RAINFALL INTENSITY INCLUDING EFFECT OF CLIMATE CHANGE (+16.0%) & DESIGN ALLOWANCE (12.1%) (mm/hr) [refer to item (e), (k) and (n) in SDM Corrigendum No. 1/2022]	RUNOFF COEF. C	SUB-CATCHMENT AREA A (m²)	EFFECTIVE CATCHMENT AREA (m²)	CUM. EFFECTIVE CATCHMENT AREA (m²)	DESIGN FLOW (m³/s)	SIZE (mm)	CHANNEL TYPE	VELOCITY (m/s)	FLOW CAPACITY (m³/s)	90% FLOW CAPACITY (m³/s) (to cater for potential deposition of sediment)	SPARE CAPACITY (m³/s)	Occupancy of the Proposed Pipe / Channel	
Starting Point A	CP1	A1	17.20	17.20	16.80	16.41	0.39	55.00	0.007	140	-	-	2.00	0.68	2.68	268.12	311.02	348.66	0.95	2,543	2,416	2,416	0.234	300	UC	1.35	0.31	0.28	0.044	84.2%	OK!
CP1	TCP	A1+A2	17.20	17.20	16.41	15.92	0.49	83.00	0.006	170	-	-	2.68	1.09	3.76	252.68	293.11	328.57	0.95	1,707	1,622	4,038	0.369	300	UC	1.27	0.48	0.43	0.061	85.8%	OK!
Starting Point B	CP2	A3+A5	17.20	17.20	16.80	16.34	0.46	92.00	0.005	200	-	-	2.00	1.34	3.34	258.23	299.55	335.80	0.95	1,345	1,278	1,278	0.119	300	UC	1.14	0.28	0.26	0.136	46.7%	OK!
CP2	CP3	A3+A4+A5	17.20	17.20	16.34	16.19	0.15	30.00	0.005	200	-	-	3.34	0.43	3.78	252.51	292.91	328.35	0.95	1,331	1,264	2,542	0.232	300	UC	1.16	0.34	0.31	0.073	76.0%	OK!
CP3	CP4	ditto	17.20	17.20	16.19	16.13	0.06	12.00	0.005	200	-	-	3.78	0.17	3.95	250.36	290.42	325.56	0.95	0	0	2,542	0.230	300	UC	1.16	0.36	0.33	0.095	70.7%	OK!
CP4	TCP	ditto	17.20	17.20	16.13	16.06	0.07	14.00	0.005	200	-	-	3.95	0.20	4.15	247.95	287.62	322.42	0.95	0	0	2,542	0.228	300	UC	1.17	0.39	0.35	0.121	65.3%	OK!
Discharge Point																															
TCP	Proposed outfall	A1+A2+A3+A4+A5	17.20	15.00	15.92	14.45	0.03	1.00	0.025	40	-	-	4.15	0.01	4.15	247.88	287.54	322.34	0.95	0	0	6,580	0.526	450	UC	2.99	0.67	0.61	0.081	86.6%	OK!
Existing Watercourse at Downstream of the Subject Site																															
Proposed outfall	Point X at the downstream of the Proposed outfall	A1+A2+A3+A4+A5+A6	14.00	12.00	13.20	11.20	0.65	65.00	0.010	100	180	3	7.75	1.03	8.78	208.82	242.23	271.54	0.38	10,804	4,068	10,647	0.717	800	Water depth x 1100mm wide rectangular earth channel	1.05	0.93	0.83	0.117	86.0%	OK!
Point X at the downstream of the Proposed outfall	Point Y at the downstream of the Proposed outfall	ditto	12.00	11.50	11.20	10.78	0.42	42.00	0.010	100	-	-	8.78	0.23	9.00	207.45	240.64	269.75	0.95	0	0	10,647	0.798	700	pipe	3.09	1.19	1.07	0.272	74.6%	OK!
Point Y at the downstream of the Proposed outfall	Existing 525UC	ditto	11.50	11.50	10.78	10.68	0.10	5.00	0.020	50	-	-	9.00	0.03	9.03	207.28	240.45	269.54	0.95	0	0	10,647	0.798	525	UC	3.09	1.24	1.11	0.317	71.6%	OK!
total =																					17,730										

subcatchment		2543 Application Site Area =		6,153	
A1					
A2					
A3					
A4					
A5					
A6	10,804	hard paved	477	grassland	10327 equivalent (0.38
total =		17,730			

Appendix 3

Updated Fire Services Installations Proposal

APPENDIX I

Proposed Temporary Warehouse for Storage of Construction Materials (Timber and Metal) for a Period of 3 Years at Lots 123 (Part), 124 (part), 125 (Part), 126 (Part), 127 (Part) in D.D.113 and Adjoining Government Land, Ma On Kong, Kam Tin South, Yuen Long, N.T.

F.S. NOTES:

1. GENERAL

- 1.1 FIRE SERVICE INSTALLATIONS SHALL BE PROVIDED IN ACCORDANCE WITH THE CODES OF PRACTICE FOR MINIMUM FIRE SERVICE INSTALLATIONS AND EQUIPMENT AND INSPECTION, TESTING AND MAINTENANCE OF INSTALLATIONS AND EQUIPMENT 2022 (COP 2022), FSD CIRCULAR LETTERS AND THE HONG KONG WATERWORKS STANDARD REQUIREMENTS.
- 1.2 ALL TUBES AND FITTINGS SHALL BE G.M.S. TO BS1387 MEDIUM GRADE WHERE PIPEWORK UP TO ø150mm.
- 1.3 ALL TUBES AND FITTINGS SHALL BE DUCTILE IRON TO BS EN545 K12 WHERE PIPEWORK ABOVE ø150mm.
- 1.4 ALL DRAIN PIPES SHALL BE DISCHARGED TO A CONSPICUOUS POSITION WITHOUT THE POSSIBILITY OF BEING SUBMERGED.
- 1.5 ALL PUDDLE FLANGES SHALL BE MADE OF DUCTILE IRON
- 1.6 THE AGGREGATE AREA OF OPENABLE WINDOWS NOT LESS THAN 6.25% OF THE FLOOR AREA OF THE STRUCTURE
- 1.7 SMOKE EXTRACTION SYSTEM NOT TO BE PROVIDED.

2. HOSE REEL SYSTEM

- 2.1 NEW FIRE HOSE REEL SHALL BE PROVIDED AS INDICATED ON PLAN TO ENSURE THAT EVERY PART OF THE BUILDING CAN BE REACHED BY A LENGTH OF NOT MORE THAN 30m HOSE REEL TUBING.
- 2.2 THE WATER SUPPLY FOR HOSE REEL SYSTEM WILL BE FED FROM A NEW 2m³ F.S. FIBREGLASS WATER TANK VIA TWO HOSE REEL PUMPS (DUTY/STANDBY) LOCATED INSIDE FS PUMP ROOM AT EXTERNAL AREA.
- 2.3 HOSE REEL PUMPS SHALL BE STARTED BY ACTUATION OF ANY BREAKGLASS UNIT FITTED ASIDE EACH HOSE REEL SETS
- 2.4 ALL FIRE HOSE REEL OUTLETS SHOULD BE HOUSED IN GLASS FRONTED CABINET SECURED UNDER LOCK & KEY.
- 2.5 ALL FIRE HOSE REEL SHOULD BE PROVIDED WITH FSD APPROVED TYPE INSTRUCTION PLATE & WSD WARNING PLATE
- 2.6 SECONDARY ELECTRICITY SUPPLY DIRECTLY TEE OFF BEFORE CLP'S INCOMING MAIN SWITCH SHALL BE PROVIDED FOR THE FH/HR PUMPS.

3. AUTOMATIC SPRINKLER SYSTEM

- 3.1 NEW AUTOMATIC SPRINKLER SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH LPC RULES FOR AUTOMATIC SPRINKLER INSTALLATIONS INCORPORATING BS EN 12845: 2015 (INCLUDING TECHNICAL BULLETINS, NOTES, COMMENTARY AND RECOMMENDATIONS) AND FSD CIRCULAR LETTER NO. 5/2020. THE CLASSIFICATION OF THE OCCUPANCIES WILL BE ORDINARY HAZARD GROUP III.
- 3.2 ONE NEW 135m³ SPRINKLER WATER TANK WILL BE PROVIDED AS INDICATED ON PLAN. THE TOWN MAIN WATER SUPPLY WILL BE FED FROM SINGLE END.
- 3.3 TWO NEW SPRINKLER PUMPS (DUTY/STANDBY) AND ONE JOCKEY PUMP SHALL BE PROVIDED IN FS PUMP ROOM LOCATED AT EXTERNAL AREA.
- 3.4 NEW SPRINKLER CONTROL VALVE SET AND SPRINKLER INLET SHALL BE PROVIDED AS INDICATED ON PLAN.
- 3.5 ALL SUBSIDIARY STOP VALVES TO BE ELECTRIC MONITORING TYPE.
- 3.6 SECONDARY ELECTRICITY SUPPLY DIRECTLY TEE OFF BEFORE CLP'S INCOMING MAIN SWITCH SHALL BE PROVIDED FOR THE SPRINKLER PUMPS.
- 3.7 THE SPRINKLER SYSTEM DESIGN IS BASED ON THE FOLLOWINGS:
HAZARD CLASS : ORDINARY HAZARD GROUP III
TYPE OF STORAGE : POST-PALLET (ST2)
STORAGE CATEGORY : CATEGORY II
MAXIMUM STORAGE HEIGHT : 3.5m
SPRINKLER PROTECTION : CEILING PROTECTION ONLY
MAXIMUM STORAGE AREA : 50M²
MINIMUM CLEARANCE AROUND EACH SINGLE BLOCK : 2.4M

4. FIRE ALARM SYSTEM

- 4.1 NEW FIRE ALARM SYSTEM SHALL BE PROVIDED IN ACCORDANCE WITH BS 5839-1:2017 AND FSD CIRCULAR LETTERS NO. 6/2021.
- 4.2 NEW BREAKGLASS UNITS AND FIRE ALARM BELLS SHALL BE PROVIDED AT ALL NEW FIRE HOSE REEL POINTS. THE FIRE ALARM INTALLATION WILL BE INTEGRATED WITH THE HOSE REEL SYSTEM.

5. EMERGENCY LIGHTING

- 5.1 EMERGENCY LIGHTING SHALL BE PROVIDED IN ACCORDANCE WITH 'BS 5266-1 :2016 AND BS EN 1838 :2013', AND FSD CIRCULAR LETTERS NO. 4/2021. COVERING ALL AREA. EMERGENCY LIGHTINGS SHALL BE BACKED UP BY BUILT-IN BATTERY AND CAPABLE OF MAINTAINING FUNCTION OF NOT LESS THAN 2 HOURS IN CASE OF POWER FAILURE

6. EXIT SIGN

- 6.1 ALL EXIT SIGNS/DIRECTIONAL EXIT SIGNS SHALL BE PROVIDED IN ACCORDANCE WITH 'BS 5266-1 :2016 AND FSD CIRCULAR LETTER NO. 5/2008, FOR THE BUILDING. EXIT SIGNS/DIRECTIONAL EXIT SIGNS SHALL BE BACKED UP BY BUILT-IN BATTERY AND CAPABLE OF MAINTAINING FUNCTION OF NOT LESS THAN 2 HOURS IN CASE OF POWER FAILURE.

7. PORTABLE APPLIANCES

- 7.1 PORTABLE HAND OPERATED APPLIANCES SHALL BE PROVIDED AS INDICATED ON PLAN.

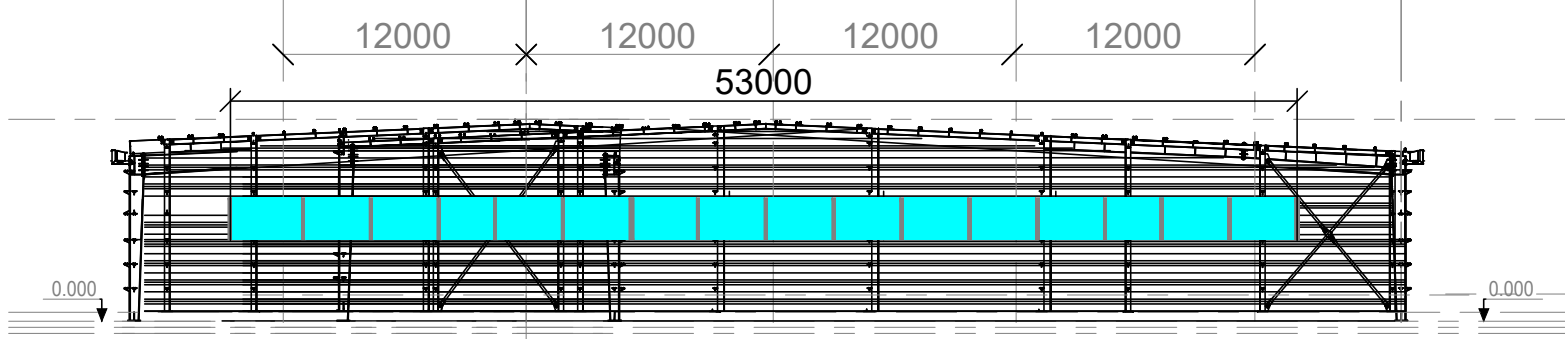
Structure 1 Openable Windows Calculation

Area of Structure 1 = 2234 sq.m.
Area of High Bay Window (H.B.W.) = 2.0m(H) x 70m = 140 sq.m.
Total openable window area = 140 sq.m.
= 6.26% of floor area

Structure 2 Openable Windows Calculation

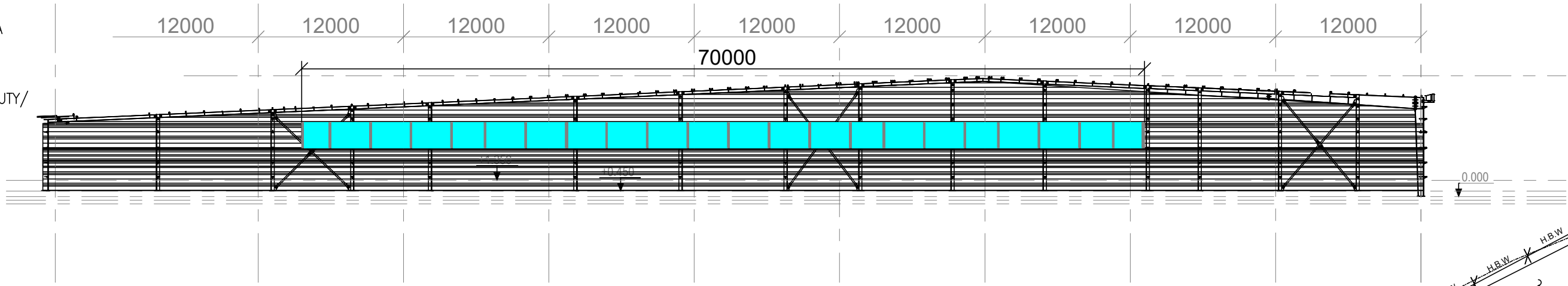
Area of Structure 2 = 1625 sq.m.
Area of High Bay Window (H.B.W.) = 2.0m(H) x 53m = 106 sq.m.
Total openable window area = 106 sq.m.
= 6.52% of floor area

SCALE : 1 :250 (A0)

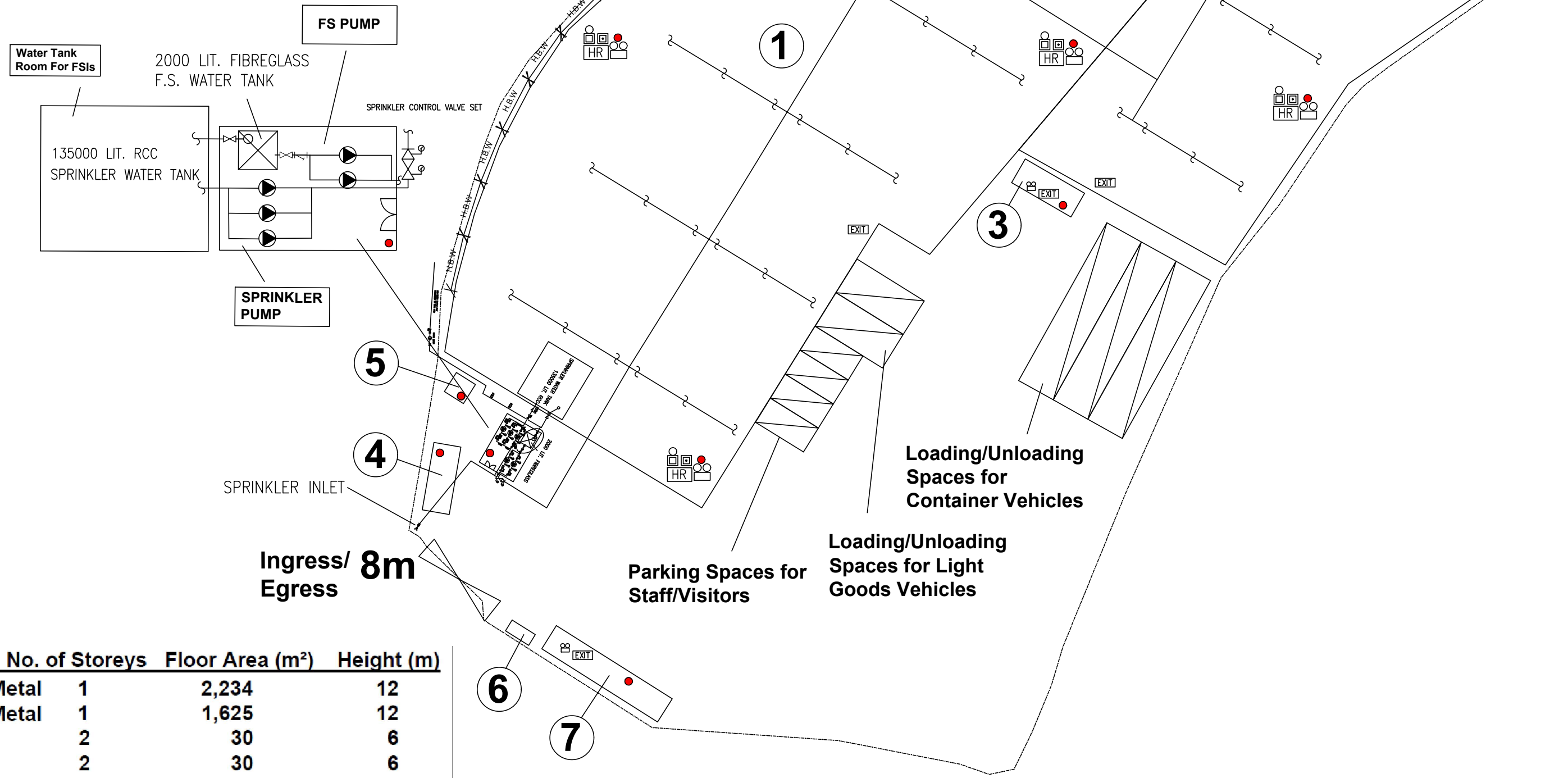


Section drawing of window opening for the structure (2)

SCALE : 1 :250 (A0)



Section drawing of window opening for the structure (1)



Structure No.	Uses	No. of Storeys	Floor Area (m²)	Height (m)
1	Warehouse for Storage of Timber/Metal	1	2,234	12
2	Warehouse for Storage of Timber/Metal	1	1,625	12
3	Site Office	2	30	6
4	Containers for Storage	2	30	6
5	Meter Room	1	5	3
6	Rain Shelter	1	3	2.5
7	Site Office	2	60	6

LEGEND

HR HOSE REEL

BG BREAK GLASS UNIT

FB FIRE ALARM BELL

EL EMERGENCY LIGHT

EXIT EXIT SIGN

NRV NON-RETURN VALVE

FE 5KG CO2 FIRE EXTINGUISHER

SB SAND BUCKET

SV SUBSIDIARY VALVE / FLOW SWITCH

SCVS SPRINKLER CONTROL VALVE SET

GV GATE VALVE

GT GATE TYPE (With MONITORING)

PS PUMP SET

YTS Y-TYPE STRAINER

SI SPRINKLER INLET

PG PRESSURE GAUGE

SH SPRINKLER HEAD (ON PLAN)

SDPE 5KG DRY POWDER FIRE EXTINGUISHER

PROJECT :
Proposed Temporary Warehouse for Storage of Construction Materials (Timber and Metal) for a Period of 3 Years at Lots 123 (Part), 124 (part), 125 (Part), 126 (Part), 127 (Part) in D.D.113 and Adjoining Government Land, Ma On Kong, Kam Tin South, Yuen Long, N.T.

DRAWING TITLE :
**F.S. Notes, Legend,
Fire Service Installation
Layout Plan**

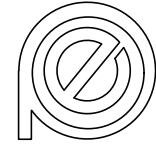
REV	DESCRIPTION	DATE

ARCHITECT :

CONSULTANT :

FIRE SERVICE CONTRACTOR :

East Power Engineering Limited



	NAME	DATE	DRAWING NO : FS-01	REV. 1
DRAWN BY	C.K. NG	23 APR 2023	SCALE : 1 :250 (A0)	
CHECKED BY			SOURCE : B.O.O. Ref. BD F.S.D. Ref. FP	
APPROVED BY				