Appendix 8

WATER SUPPLY STUDY

WATER SUPPLY STUDY

FOR

Proposed Place of Recreation, Sports or Culture (Public Riding School) with Ancillary Facilities at Government Land in D.D. 233, The Restored Landfill Site (TKOL II/III) in TKO Area 105, Tseung Kwan O (GLA TSK-500 (Part))

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Date : January 2026

7041/KPY/SCW/AC/DW

CONTENT

Appendix

1.0 INTRODUCTION

This water supply study is prepared in support of the Section 16 ("**S16**") Planning Application to allow for the development of a Public Riding School with ancillary facilities (e.g. utility trench) (collectively as the "**PRS**") at Government Land in D.D. 233, The Restored Landfill Site (TKOL II/III) in TKO Area 105, New Territories ("**TKOL II/III**") for the HKJC Public Riding Schools Limited (the "**Applicant**"). The Application Site comprises of three (3) existing platforms and land required for the provision of ancillary utility trench connecting to the three (3) platforms (collectively as the "**Application Site**") within TKOL II/III. The PRS aligns with the Government's policy objectives in fostering more public participation in the community through wider visibility and popularity of horse riding, supporting equestrian as an elite sport, and maintaining Hong Kong as a centre for major international sports events.

The Application Site is predominately zoned "Open Space" ("**O**") on the Approved Tseung Kwan O Outline Zoning Plan No. S/TKO/32 ("**Approved OZP**"), whilst a strip of area at the north is zoned "Green Belt" ("**GB**") and a minor portion abutting Chun Sing Street is zoned "Other Specified Uses" annotated "Industrial Estate" ("**OU(Industrial Estate)**") on the Approved OZP. The PRS with ancillary facilities ('Horse Riding School' subsumed under 'Place of Recreation, Sports or Culture' use) is a Column 2 use under the "O", "GB" and "OU(Industrial Estate)" zones that may be permitted with or without conditions on Application under S16 of the Town Planning Ordinance ("**TPO**"). There are no plot ratio ("**PR**"), building height ("**BH**"), and site coverage ("**SC**") restrictions imposed on the "O", "GB" and "OU(Industrial Estate)" zones of the Approved OZP. While a portion of TKOL II/III falls within the Clear Water Bay Country Park ("**CWBCP**"), the Application Site does not involve any areas falling within the Country Park Boundary.

The PRS is located on three (3) platforms, namely the Lower Platform (i.e. Reception and Hospitality Lounges) (approx.+6.0mPD), Middle Platform (i.e. Pony Paddock & Pavilion I)(approx. +40.0mPD) and Upper Platform (i.e. Horse Paddock & Pavilion II) (approx.140.0mPD), with a proposed total GFA of approx. 9,000m^2 and a proposed building height of 4.84m to 7.7m. An ancillary utility trench connecting to the three (3) platforms is also proposed to accommodate various essential utilities services in support of the PRS operations.

1.1 Key information for the Proposed PRS at the Proposed Site is summarized in Table T1 below.

Table T1 - Key Information of the proposed site in Restored Landfill Site (TKO II/III) in Tseung Kwan O

Proposed Site Area (m^2)	Approx. 46,500 m^2
Proposed Non-Domestic GFA (m^2)	≤ 9,000m^2
Proposed Domestic GFA (m^2)	≤ 200 m^2
Proposed Plot Ratio (Non-Domestic)	N/A
Overall Site Coverage	Approx. 20.9%
No. of Building Blocks	≤ 17

1.2 This report presents the findings of studies on the following study to support the Planning Application :

- Water Supply Study

2.0 WATER SUPPLY STUDY

2.1 Purpose and Methodology

2.1.1 The purpose of this study is to assess the feasibility of the Proposed Development in terms of fresh and flushing water supply.

The study presents the existing and proposed water supply system to cater for the water demand required to serve the proposed development.

2.1.2 The methodology adopted in the study is as follows :

- To estimate the size of the water supply pipe to the development.

2.2 Existing Water Supply System

For Fresh Water, a connection will be given from the proposed 200mm diameter water main at CHUN SING STREET as shown on the attached plan.

For Flushing Water, a connection will be given from the proposed 150mm diameter water main at CHUN SING STREET as shown on the attached plan.

A record of the existing fresh and salt water supply services in the vicinity of the proposed development is enclosed in Appendix 2.

2.3 Water Demands

2.3.1 The fresh and flushing water demands generated from the Proposed Development is listed below.

According to EPD guideline, the daily water consumption of potable water for Community, Social & Personal Services Group is 0.2m^3/person/day.

Daily Water Consumption of Potable Water

Assume : 0.2m^3/person/day* (A1)
0.055m^3/horse/day (A2)

*(70% of human daily water consumption is for potable purpose)

Platform	Nos. of People	Nos. of Horse Stall
Lower Platform	-	0
Middle Platform	-	24
Upper Platform	-	51
Total Nos. of People	163	75

Daily water consumption
= 163 x (A1) x 0.7+ 75 x (A2)
= 163 x 0.2 x 0.7+ 75 x 0.055
= 26.945 m^3/day (A3)

Daily Water Consumption of Cleansing Water

Assumptions:

	Flow Rate(L/s)	Daily Operation Duration (min)	Quantity
Rain gun	4.54	30	24
Tap	0.15	30	20

Daily water consumption
= 4.54 x 60 x 30 x 24 + 0.15 x 60 x 30 x 20
= 201500 L/day
= 201.5 m^3/ day (A4)

2.3 Water Demands (Cont'd)

2.3.1 (Cont'd)

Daily Water Consumption of Irrigation Water

Total 6 nos. of tap
Assume 30 mins./tap/day operation
Total daily water consumption
= 0.15 x 60 x 30 x 6
= 1620 L/day
= 1.6 m^3/ day (A5)

Total Daily Water Consumption of Fresh Water

Daily water consumption of potable water + daily water consumption of cleansing water + daily water consumption of irrigation water
= (A3)+(A4)+(A5)
= 26.945 + 201.5 + 1.6
= 230 m^3/day

Daily Water Consumption of Flushing Water

Assume : 0.2m^3/person/day (A6)
(30% of daily water consumption is for flushing purpose)

Daily water consumption
= 163 x (A6) x 0.3
= 163 x 0.2 x 0.3
= 7.2 m^3/day

Table 2: Water Demand

	Fresh Water Demand (m^3/day)	Flushing Water Demand (m^3/day)
Potable water	26.945	-
Cleansing water	201.5	-
Irrigation water	1.6	-
Flushing water	-	9.78
Total	230	9.78
Flow rate (L/s) (Assume 10 hours operation time)	6.4	0.27

2.4 Proposed Waterworks

2.4.1 The proposed connections of water supply to the Proposed Development is attached in Appendix 2.

2.4.2 A proposed new 80mm diameter fresh water and 50mm diameter salt water are tee-off from the distribution mains.

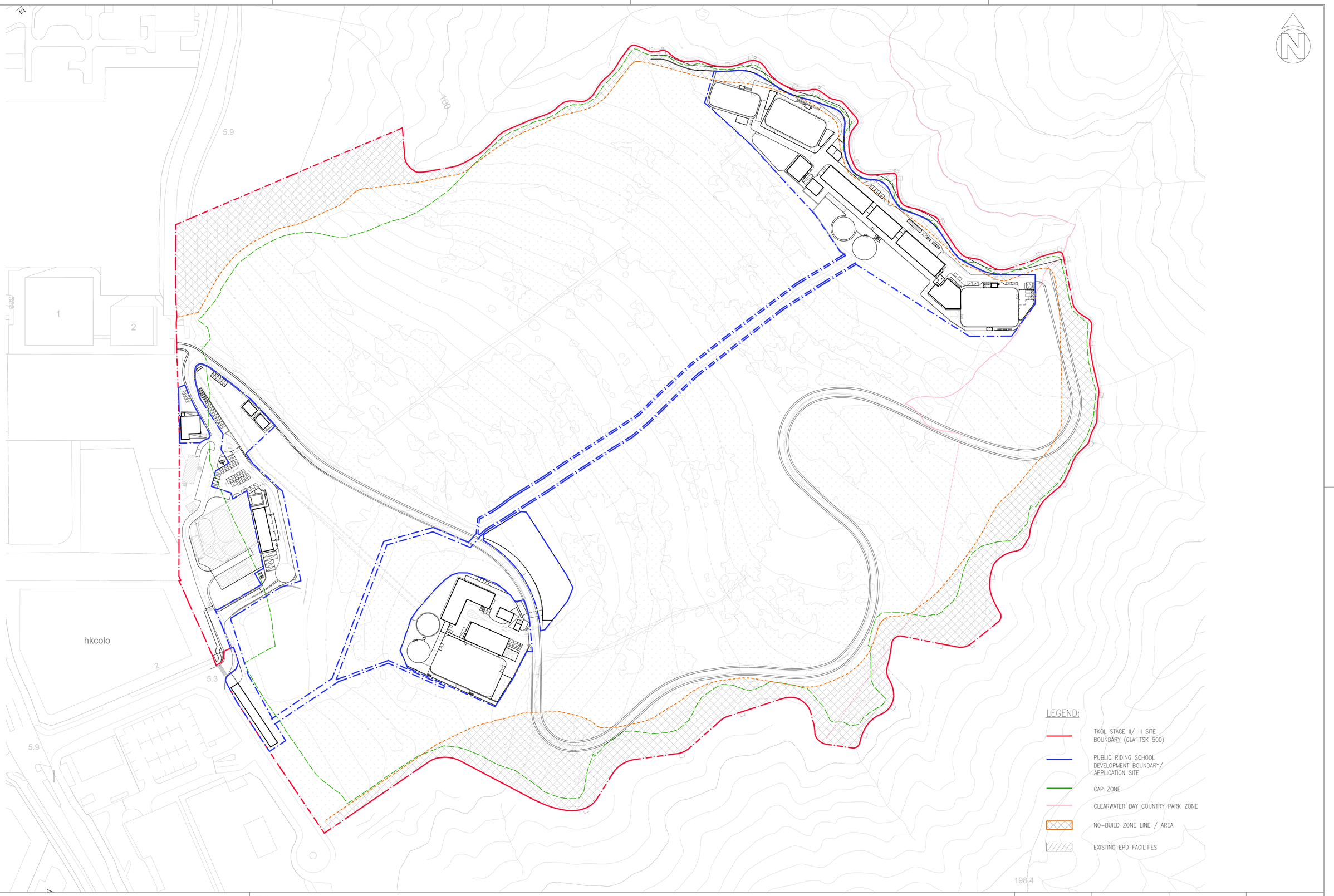
Pipe sizing methodology for potable and flushing pipe is attached in Appendix 3.

2.5 Conclusion

Based on Fresh and Flushing Water Demand Table T2 above, the proposed new 80mm diameter fresh water and 50mm diameter salt water are adequate to meet water supplies required for the Application Site.

Appendix 1

Location Plan



WONG TUNG 王董

Title

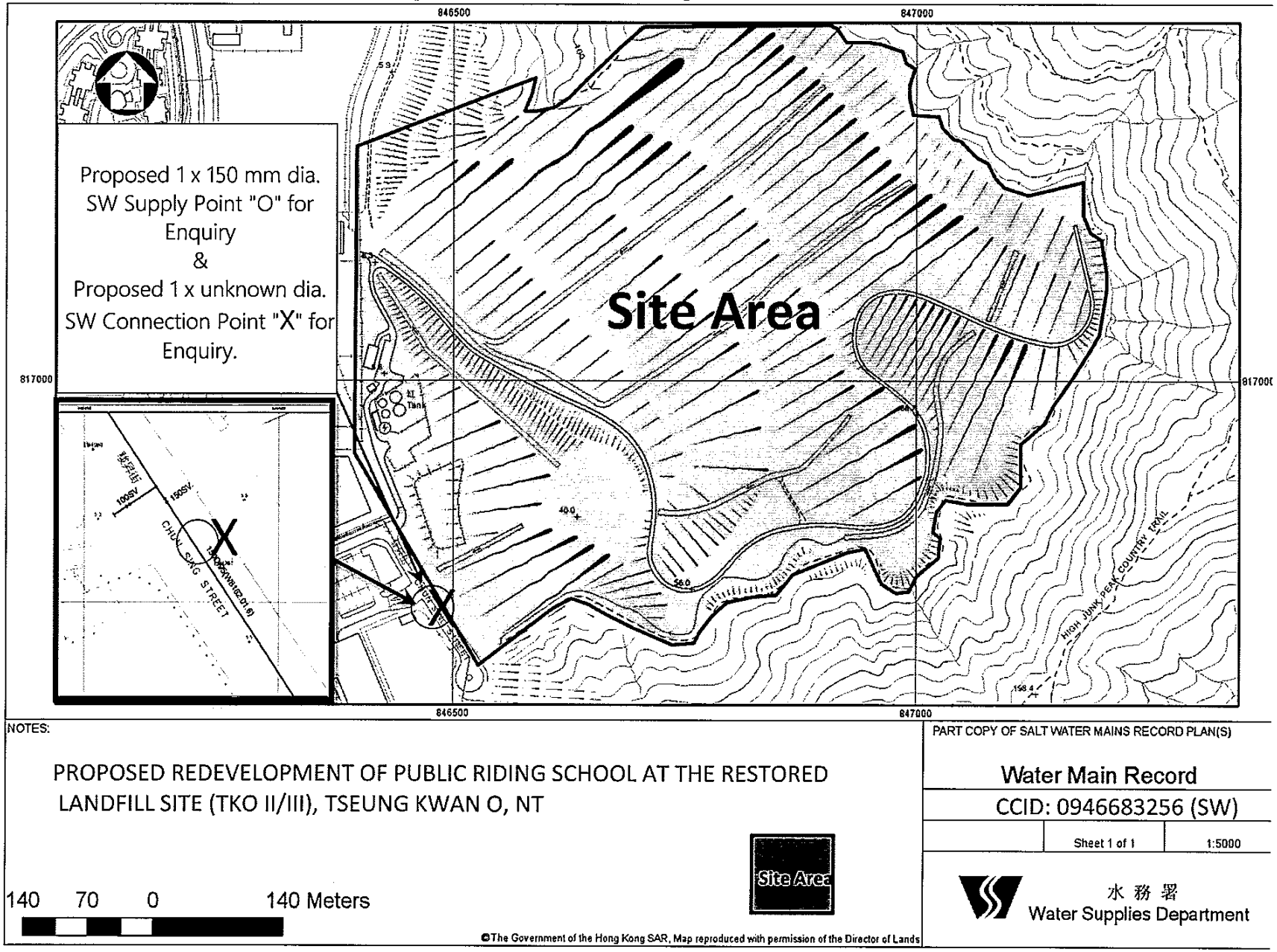
Indicative Master Layout Plan

Checked	SKW	Drawn	RYT
Rev	0	Date	JAN 2026
Scale 1 : 3000		Figure 1.1	

Appendix 2

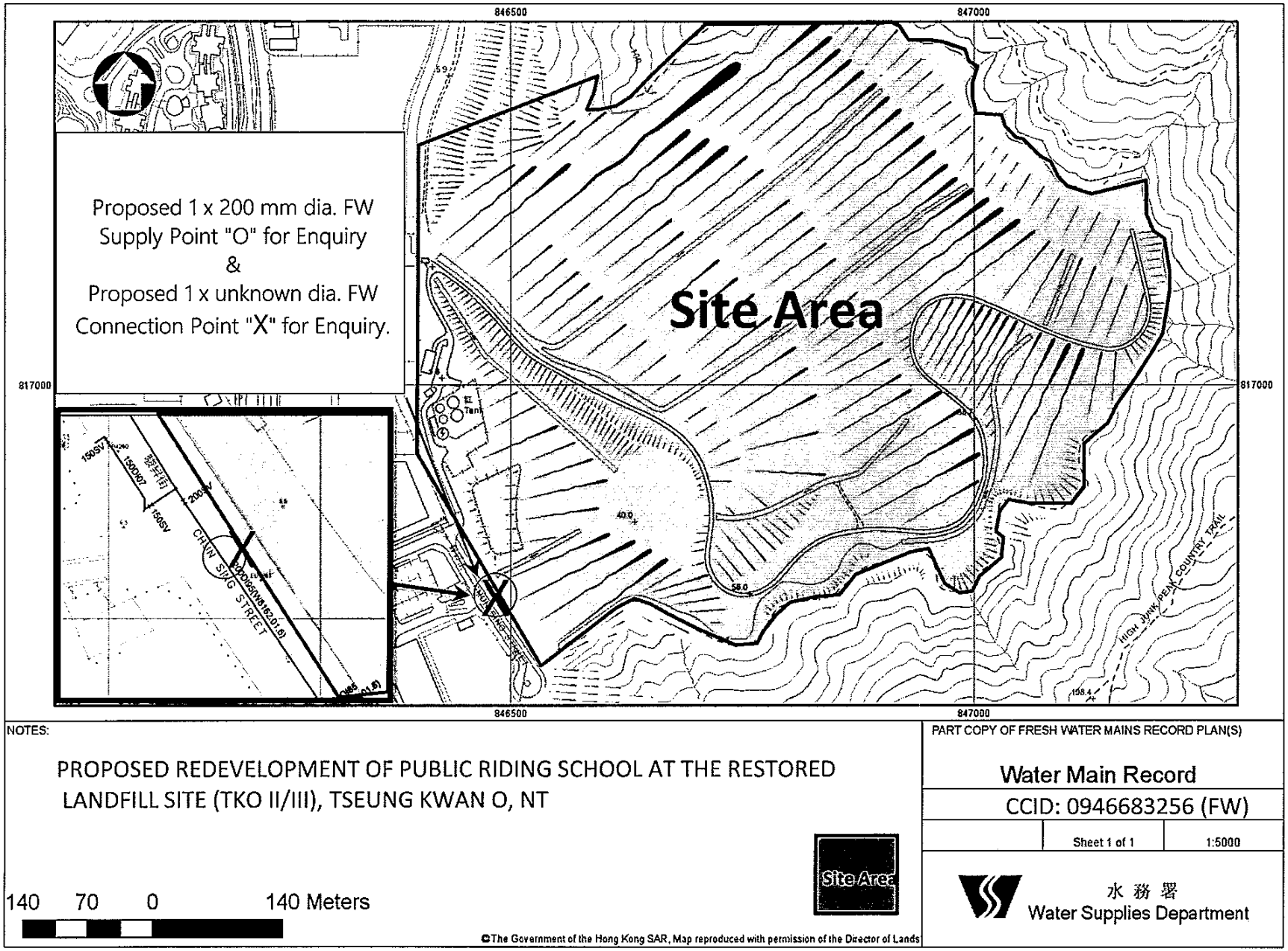
Layout of Existing Water Supply System

[20241209000489-002/003-1/1]



[Salt Water Government Main]

[20241209000489-003/003-1/1]

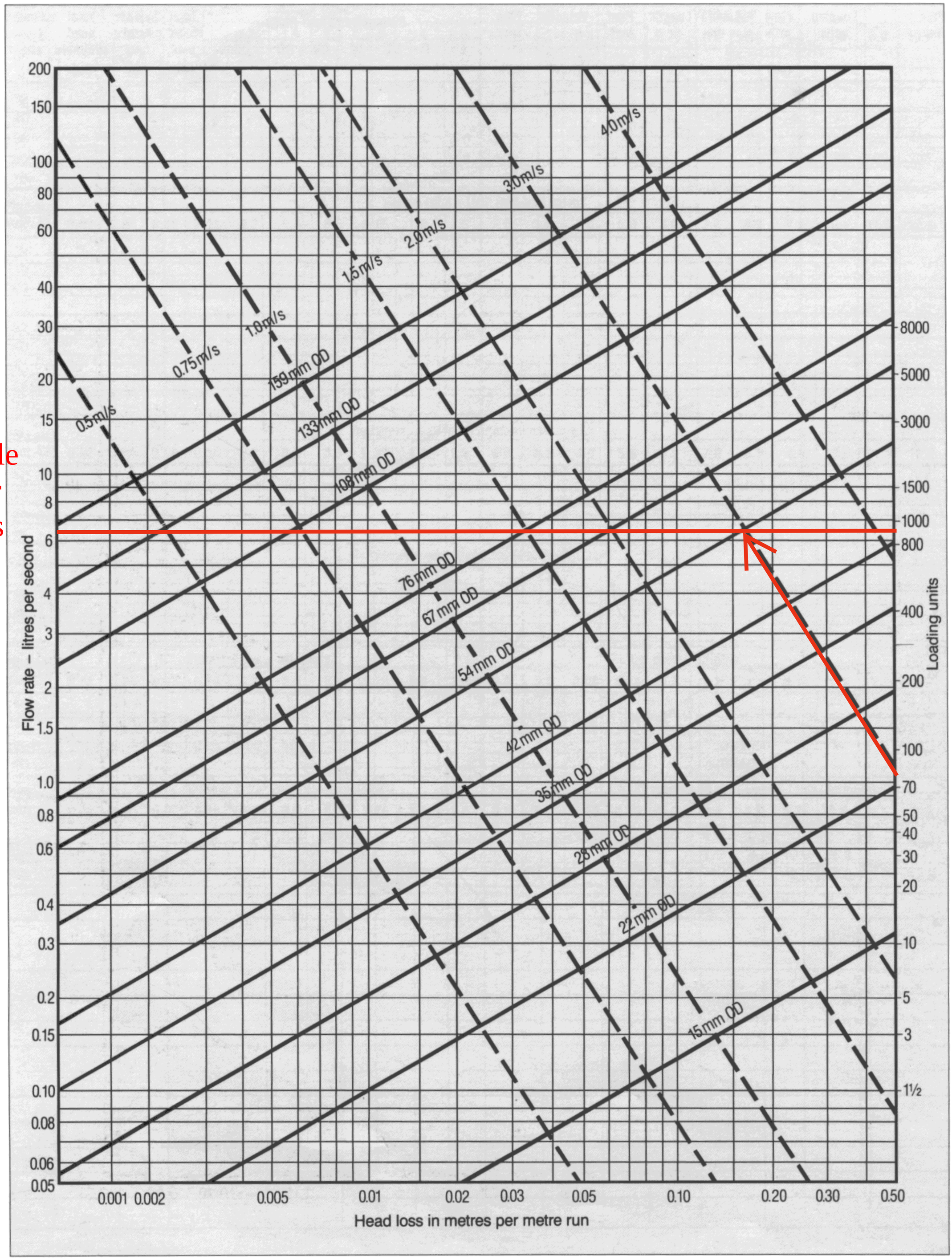


[Fresh Water Government Main]

Appendix 3

Pipe Sizing Chart for Potable and Flushing Water Pipe

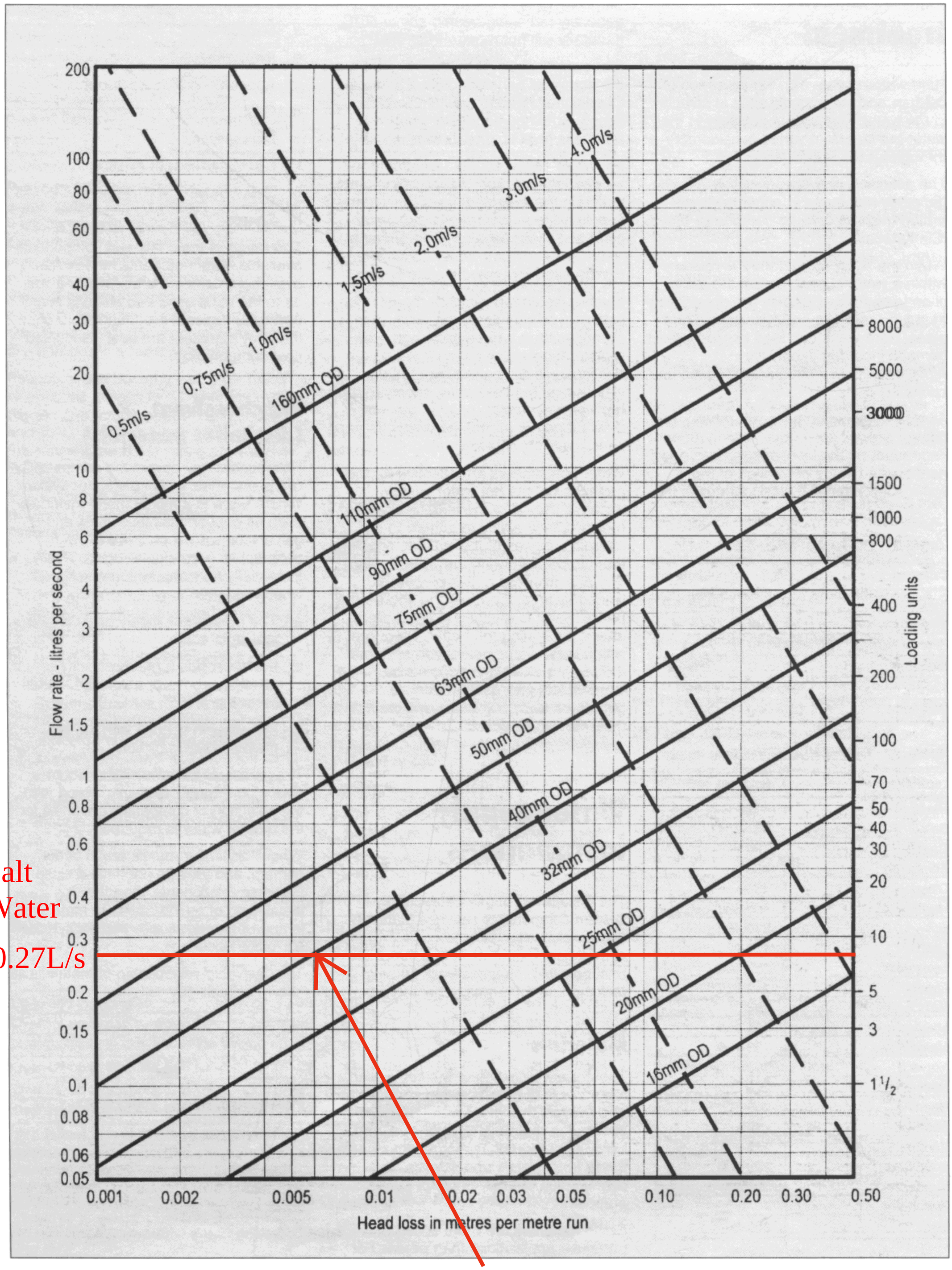
Graph 3 *Pipe sizing chart – copper and stainless steel.*



Potable Water 6.4L/s

DN 54 pipe is used, which is suitable

Graph 4 *Pipe sizing chart – plastic*



DN 40 pipe is used, which is suitable

UPVC pipe for Flushing Water