

THIS SPACE IS LEFT BLANK FOR DBP CONTROL

HYDRAULIC ENGINEERING PLAN

PROJECT: PROPOSED NEW DWELLING
 ADDRESS: 34 TATIARA CRESCENT, NORTH NARRABEEN
 LGA: NORTHERN BEACHES COUNCIL

1. IF ANY DISCREPANCIES OR DOUBTS, CONTACT THE ENGINEER
 2. BOOKING FOR INSPECTIONS, IF REQUIRED, SHALL BE MADE VIA OUR WEBSITE AT www.nitma.com.au/bookings.

LIST OF DRAWING	
SHEET NO	DRAWING NAME
GN0	COVER PAGE
0E0	EROSION AND SEDIMENT CONTROL PLAN
0L1	STREET LEVEL FLOOR PLAN
0L2	STORAGE FLOOR PLAN
0L3	GROUND FLOOR PLAN
FL1	DRAINAGE PLAN - FIRST FLOOR PLAN
RL1	ROOF PLAN
SD1	STANDARD DETAILS
SD2	OSD PLAN AND DETAILS

GENERAL NOTES

1. THE PLUMBER/ DRAINER SHALL INSPECT THE SITE AND CONFIRM THE EXISTING SITE STRUCTURES, SERVICES AND CONDITIONS PRIOR TO PROCEEDING. IF ANY DISCREPANCIES FOUND, CONTACT THE ENGINEER FOR DISCUSSION.
2. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS, BUILDING CODE OF AUSTRALIA AND LOCAL GOVERNMENT'S REQUIREMENTS. IT IS THE RESPONSIBILITY OF THE PLUMBER/ DRAINER TO OBTAIN ANY APPROVALS/ PERMITS/ LICENSES ISSUED BY THE AUTHORITIES PRIOR TO PROCEEDING WITH STORMWATER WORKS PROCEEDING WITH STORMWATER WORKS.
3. UNLESS NOTED AS OTHERWISE, ALL DOWNPIPES TO BE Ø100 ROUND (OR 100x75 RECTANGULAR) AND FULLY SEALED. ALL EAVE GUTTERS TO BE 115 QUAD HI-FRONT OR EQUIVALENT, ALL BOX GUTTERS TO BE 200Wx150H. ALL STORMWATER PIPES TO BE Ø100 SEWER GRADE AND LAID AT 1% MIN. FALL. ALL MATERIALS USED IN THE WORK SHALL BE NEW AND CONFORM WITH RELEVANT AUSTRALIAN STANDARDS AND BEAR THE REQUIRED STANDARDS MARK.
4. LOCATION OF STORMWATER SYSTEMS, INCLUDING DOWNPIPES, PIPES, PITS AND RAINWATER TANK ARE INDICATIVE ONLY. EXACT LOCATION SHALL BE DETERMINED ON SITE TO SUIT SITE CONDITIONS.
5. SUB-SOIL DRAINS FOR RETAINING WALL SHALL BE INSTALLED BY THE BUILDER AND CONNECTED TO STORMWATER LINES. ALL AGG. LINES SHALL BE 100mm DIA., UNLESS NOTED OTHERWISE.
6. NATURAL GROUND LEVELS ALONG ALL BOUNDARIES MUST BE MAINTAINED UNALTERED. ALL RETAINING WALLS TO BE SETBACK FROM BOUNDARIES TO AVOID CONCENTRATION OF STORMWATER FLOWS.
7. LEVELS ARE APPROXIMATE ONLY. THE PLUMBER/ DRAINER SHALL CONFIRM THE LEVELS PRIOR TO PROCEEDING. IF ANY DISCREPANCIES FOUND, CONTACT THE ENGINEER FOR DISCUSSION.
8. INSPECTION AND CERTIFICATION, IF REQUIRED, SHALL BE DONE PRIOR TO BACKFILLING. ALLOW 24 HOUR NOTICE FOR THE ENGINEER TO CARRY OUT INSPECTION.
9. ANY DAMAGE TO SERVICES DURING CONSTRUCTION SHALL BE REPAIRED IMMEDIATELY AT THE PLUMBER/ DRAINER'S OWN EXPENSE.
10. RWT TO BE WATERPROOFED TO AS 3500.1:2018, AS 3735:2001 AND AS 4766:2006 AS APPLICABLE.



PROPOSED SITE PLAN (AREA)
 SCALE: 1 : 500

PROPOSED IMPERVIOUS AREA	
Name	Area
IMPERVIOUS AREA	301 m ²
PERVIOUS AREA	271 m ²
TOTAL SITE AREA:	573 m ²

ON-SITE DETENTION CALCULATION SHEET (NORTHERN BEACHES)	
Development Type:	
Address:	
Site area:	573 m ²
Total Proposed Impervious Area (roof, driveways, hardstands etc):	280 m ²
% of site impervious:	49 %
Impervious area draining to the storage facility:	280 m ²
Pervious area draining to the storage facility:	0 m ²
Total area draining to the storage facility (Impervious + pervious):	280 m ²
Pervious area bypassing the storage facility:	0 m ²
Impervious area bypassing the storage facility:	15 m ²
Bypass ratio	1.03
Single residential developments or not	<input checked="" type="checkbox"/>
Is bypass area <=30m2	TRUE
Is Site Area <= 1200m2	TRUE
Computational method	STREAMLINED METHOD
Does OSD discharges to Kerb Outlet	<input checked="" type="checkbox"/>
Permitted Site Discharge	
Permitted Site Discharge Q5	22.92 l/s
Permitted Site Discharge Q100	22.92 l/s
Site Storage Requirement	11.46 m ³
Is OSD provided in a landscaped surface basin?	<input type="checkbox"/>
If yes, then Site Storage Requirement (increased by 20%)	11.46 m³
RWT offset (BASIX RWT requirement)	L
OSD volume after offset	11.46 m³
Outlet Control (sharp edged orifice plate)	
Height difference between top water level and centre of orifice	0.9 m
Orifice diameter (mm)	108 mm
Min outlet pipe	Uses the table on Additional info

RWT REQUIREMENTS

THIS DEVELOPMENT HAS NO COMMITMENT ON RAINWATER REUSE UNDER BASIX CERTIFICATE

SITE CALCULATIONS


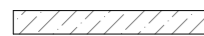
- SITE AREA: 573 m²
- PROP. IMPERVIOUS AREA: 301 m² (52%)
- THEREFORE, OSD IS REQUIRED.

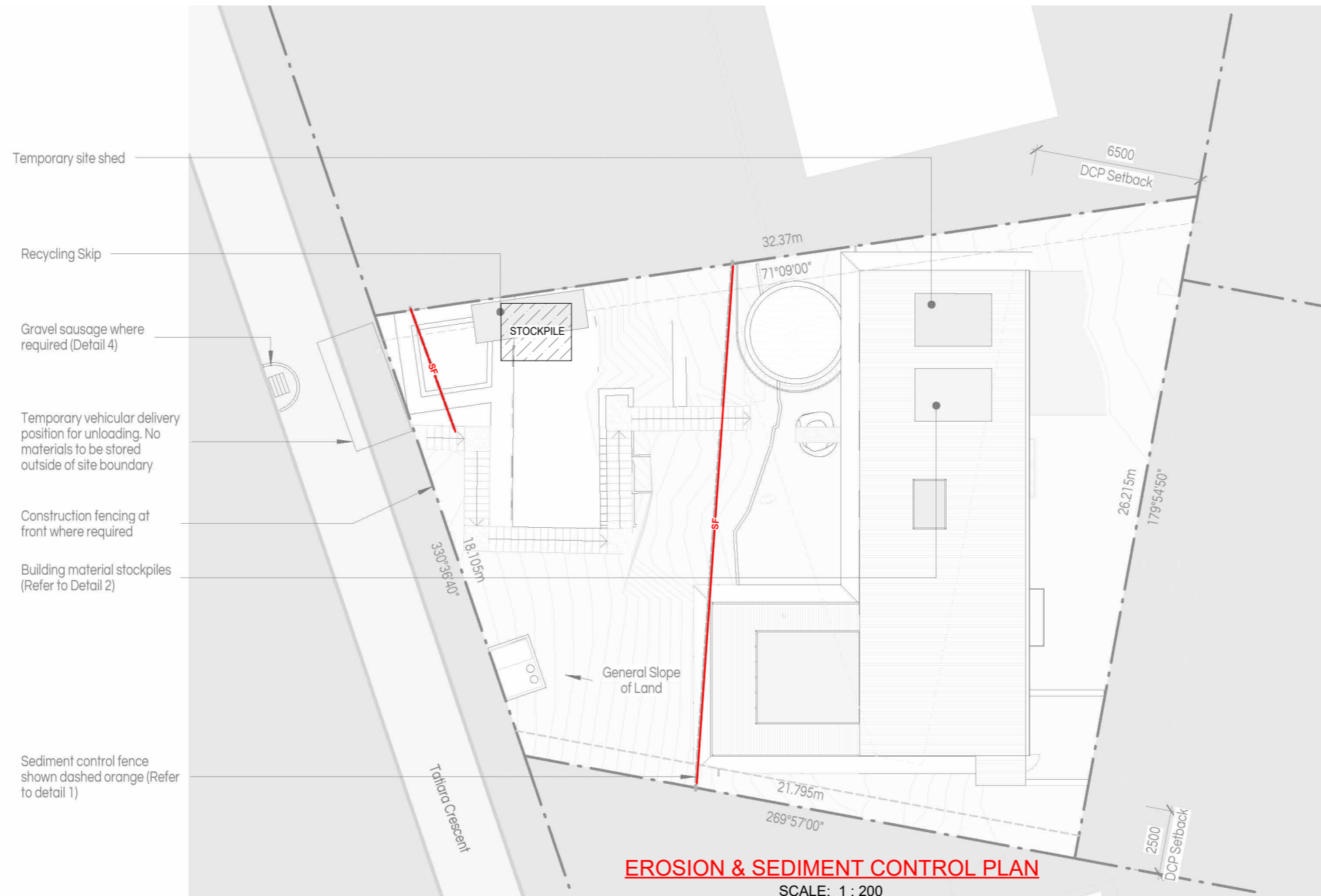
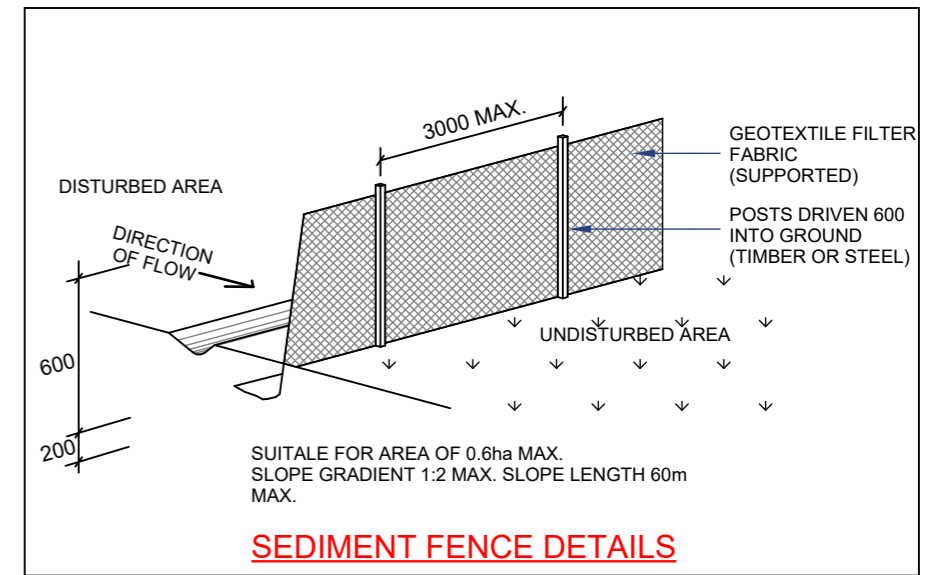
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NOTES:

1. ALL EROSION AND SEDIMENT CONTROL MEASURES TO BE INSPECTED AND MAINTAINED DAILY BY SITE MANAGER
2. MINIMISE DISTURBED AREA
3. ALL STOCKPILES TO BE CLEAR FROM DRAINS, GUTTERS AND FOOTPATH
4. DRAINAGE IS TO BE CONNECTED TO STORMWATER SYSTEM AS SOON AS POSSIBLE
5. ROADS AND FOOTPATH TO BE SWEEPED DAILY
6. KERB SIDE INLET TO BE PROTECTED WITH FABRIC FILLED WITH GRAVEL
7. NON-COMPLIANCE MAY INCUR PENALTY

KEY:

-  SILT FENCE
-  STOCKPILE



Paper size: **A3**

All dimensions are in millimetres. Do not scale the drawing. Use written dimensions. Dimensions must be confirmed prior to commencement. Location of services are approximate only. Dial 1100 before any excavation or demolition.

Revisions	
ORIGINAL ISSUE	
Designed: NL	Checked: HN

Approved:

Quoc Huy Nguyen
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EROSION AND SEDIMENT CONTROL PLAN

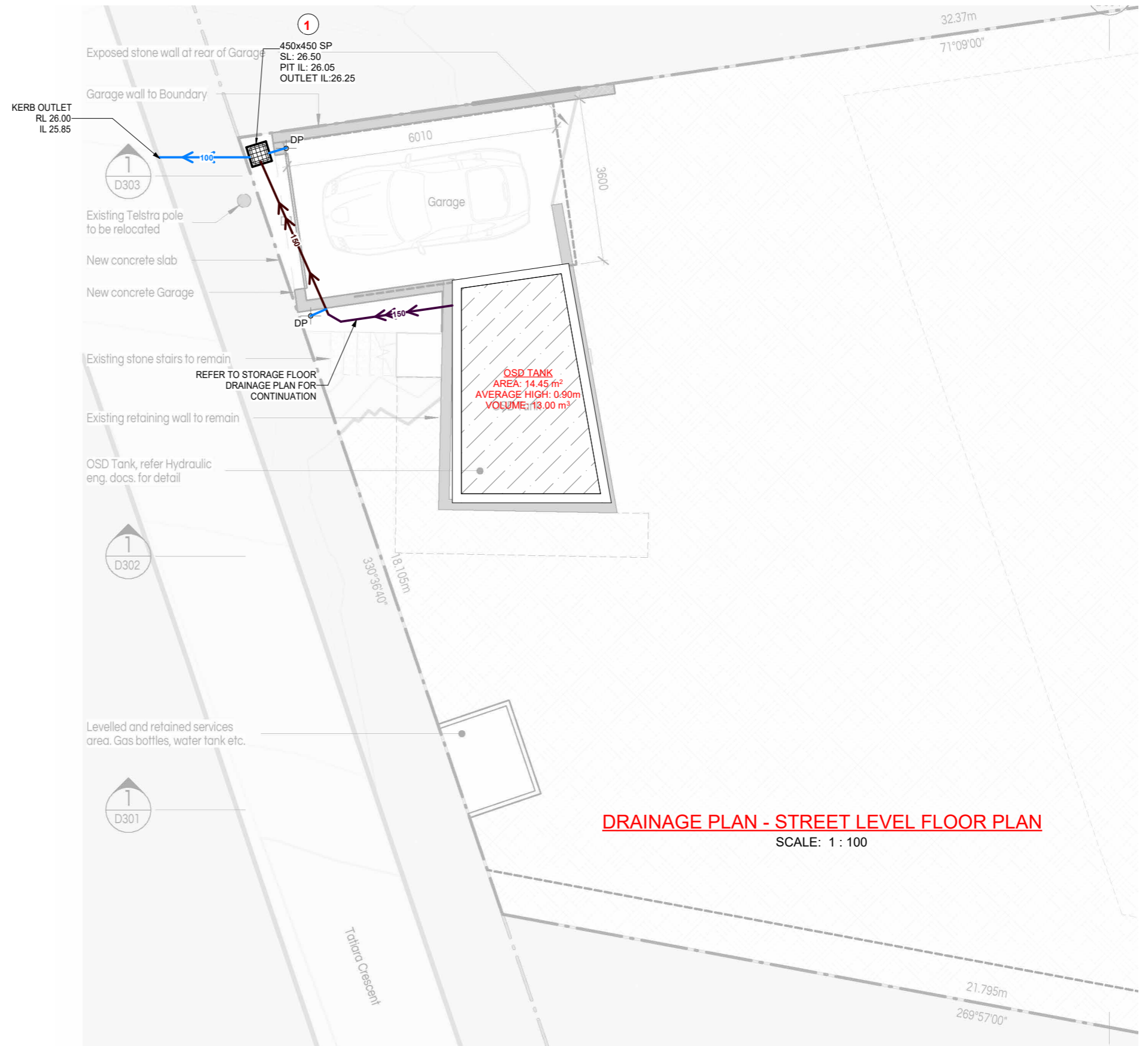
Project No: 7187H Issue: A Date: 25.07.2025 Drawing No: 0E0

Total no. of sheets **9**

THIS SPACE IS LEFT BLANK FOR DBP CONTROL

KEY:

- DP DOWN PIPE
-  Ø100 SEWER GRADE UPVC TO TOP OF RWT (CHARGED LINE). ALL DOWNPIPES TO BE FULLY SEALED
-  Ø100 SEWER GRADE UPVC @1% MIN. FALL
-  Ø150 SEWER GRADE UPVC @1% MIN. FALL
-  AG PIPE LINE



DRAINAGE PLAN - STREET LEVEL FLOOR PLAN
SCALE: 1 : 100



Paper size: **A3**

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STREET LEVEL FLOOR PLAN
Project No: 7187H Issue: A Date: 25.07.2025 Drawing No: 0L1

Total no. of sheets **9**

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Ø100 SEWER GRADE UPVC TO TOP OF RWT (CHARGED LINE). ALL DOWNPIPES TO BE FULLY SEALED



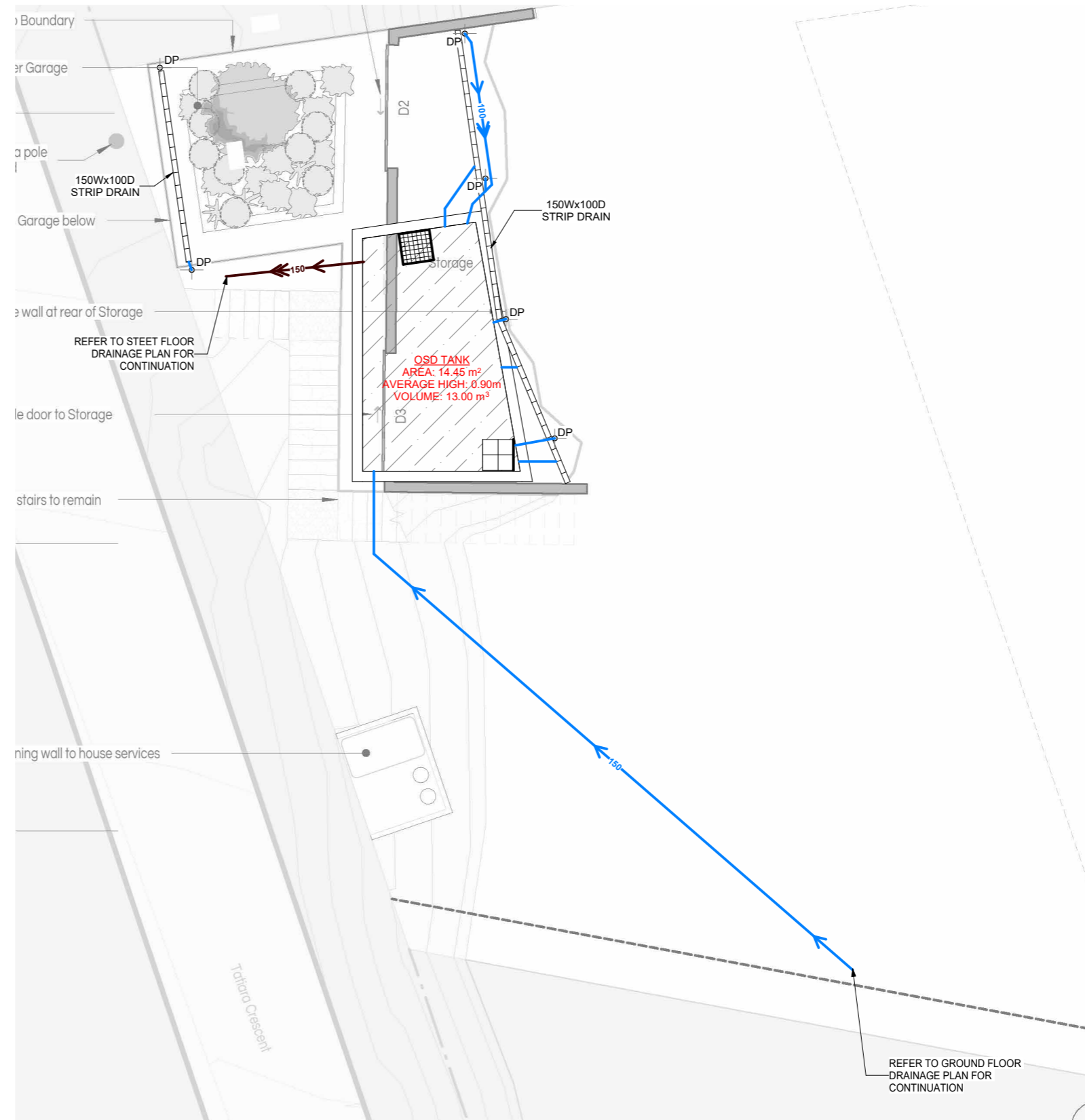
Ø100 SEWER GRADE UPVC @1% MIN. FALL



Ø150 SEWER GRADE UPVC @1% MIN. FALL



AG PIPE LINE



DRAINAGE PLAN - STORAGE FLOOR PLAN

SCALE: 1 : 100

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STORAGE FLOOR PLAN

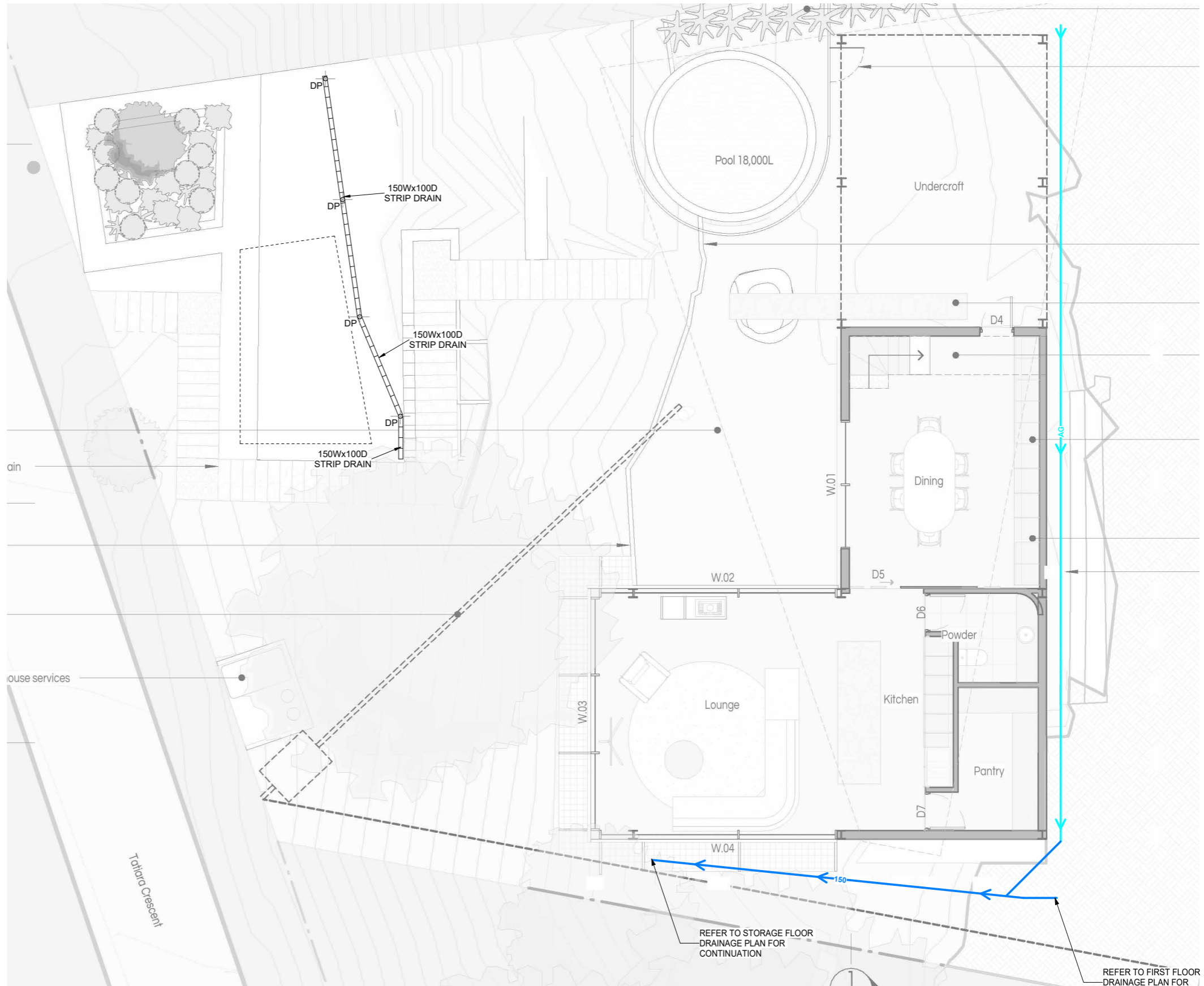
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Total no. of sheets: **9**

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-  Ø150 SEWER GRADE UPVC @1% MIN. FALL
-  AG PIPE LINE



DRAINAGE PLAN - GROUND FLOOR PLAN

SCALE: 1 : 100

Paper size: **A3**
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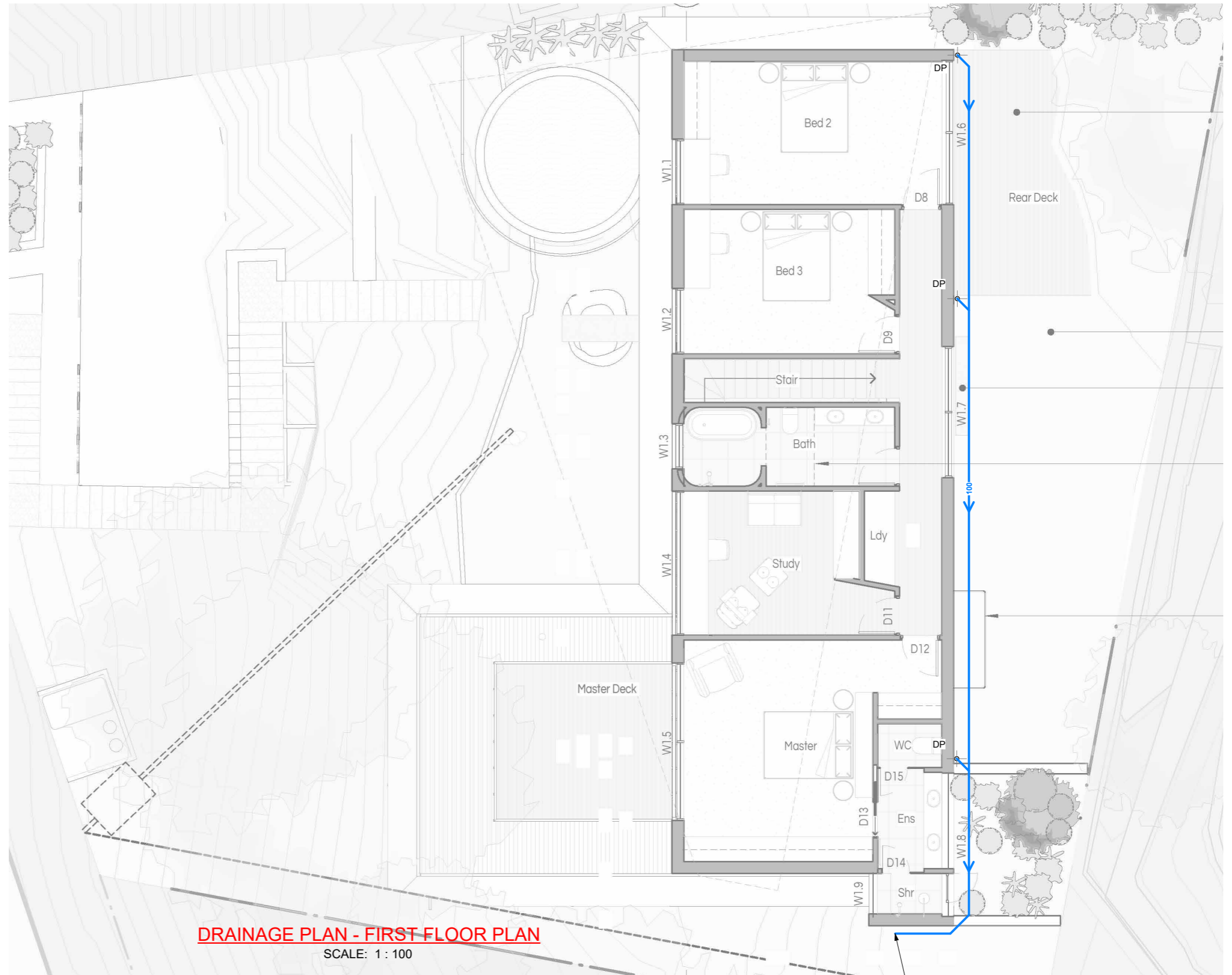


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GROUND FLOOR PLAN
 Project No: 7187H Issue: A Date: 25.07.2025 Drawing No: 0L3

Total no. of sheets **9**

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-  Ø100 SEWER GRADE UPVC @1% MIN. FALL
-  Ø150 SEWER GRADE UPVC @1% MIN. FALL
-  AG PIPE LINE

DRAINAGE PLAN - FIRST FLOOR PLAN

SCALE: 1 : 100

REFER TO GROUND FLOOR DRAINAGE PLAN FOR CONTINUATION

A3
Paper size:
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DRAINAGE PLAN - FIRST FLOOR PLAN
Project No: 7187H Issue: A Date: 25.07.2025 Drawing No: FL1

Total no. of sheets **9**

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KEY:

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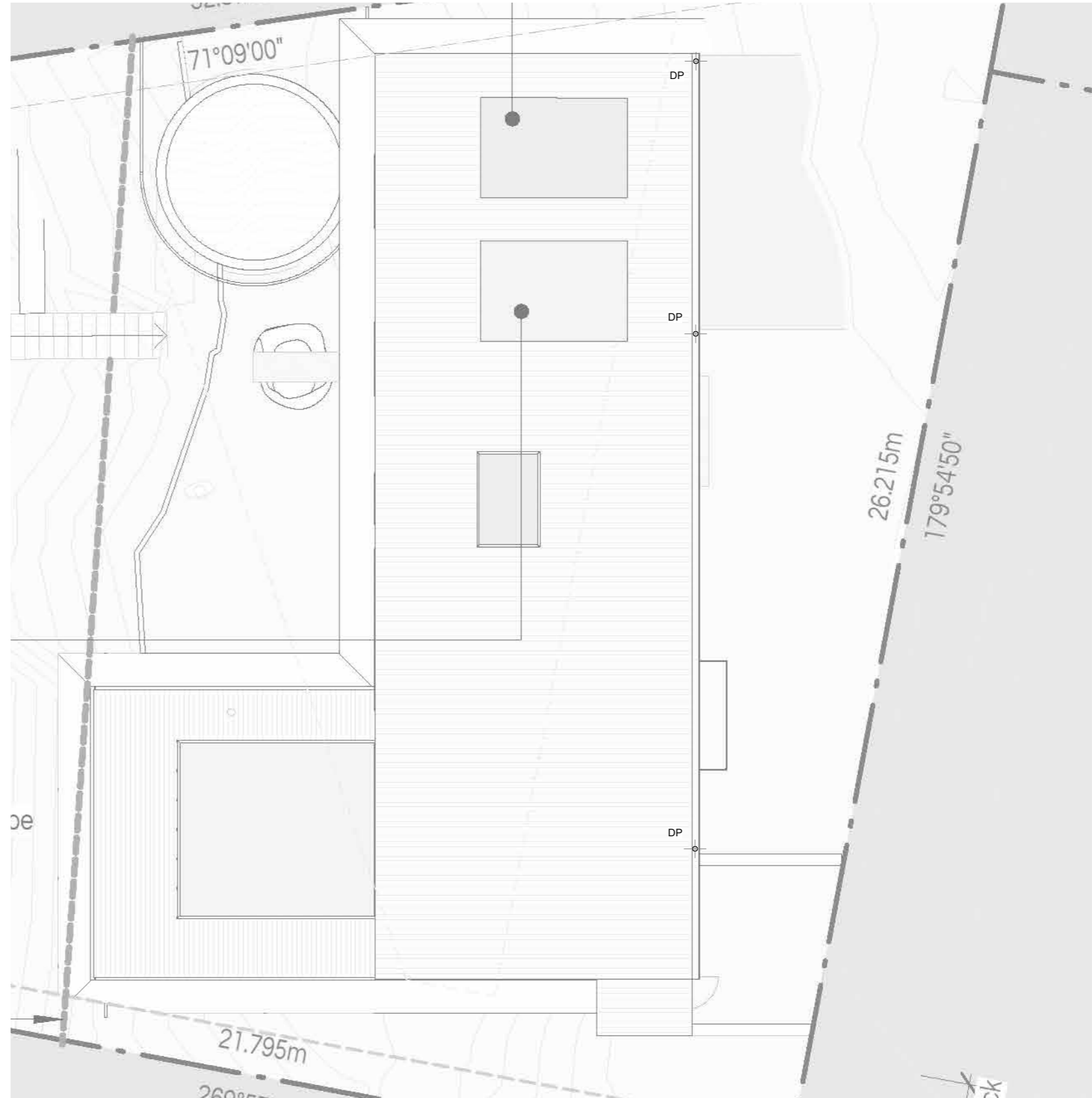
Ø100 SEWER GRADE UPVC @1% MIN. FALL



Ø150 SEWER GRADE UPVC @1% MIN. FALL



AG PIPE LINE



ROOF FLOOR PLAN

SCALE: 1 : 100

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ROOF PLAN

Project No: 7187H Issue: A Date: 25.07.2025 Drawing No: RL1

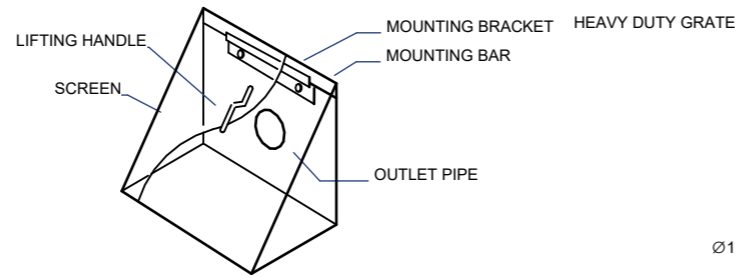
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Notes: Some details may not be applicable to current project

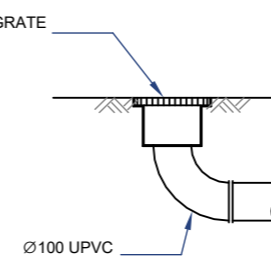
SILT ARRESTOR PIT NOTES:

- MESH SCREEN IS TO BE GALVANISED LYSAGHT RH3030 MAXI MESH COVERED WITH GEOTEXTILE IN GALVANISED STEEL FRAME WITH LIFTING HANDLES ACROSS BASE.
- GEOTEXTILE IS TO BE BIDIM A14, PROPEX 4550 OR SIMILAR WITH COEFFICIENT OF PERMEABILITY GREATER THAN 50E-4m/s.



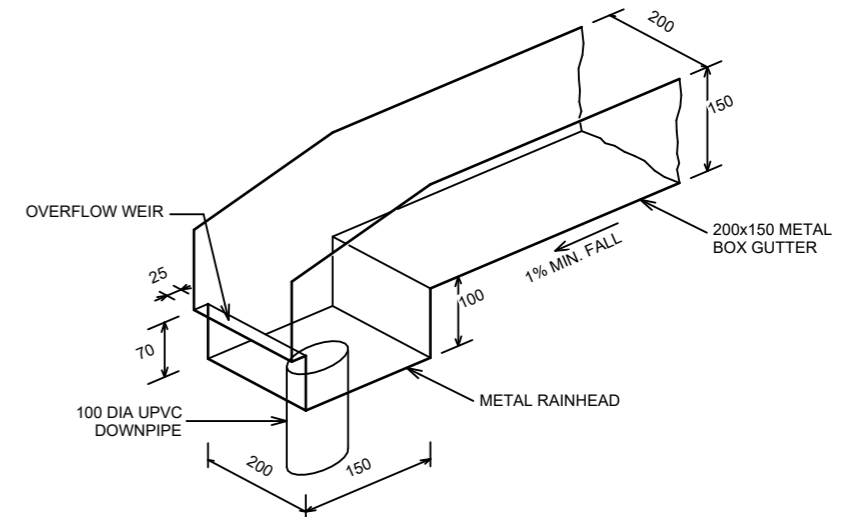
DEBRIS SCREEN DETAILS

NOT TO SCALE



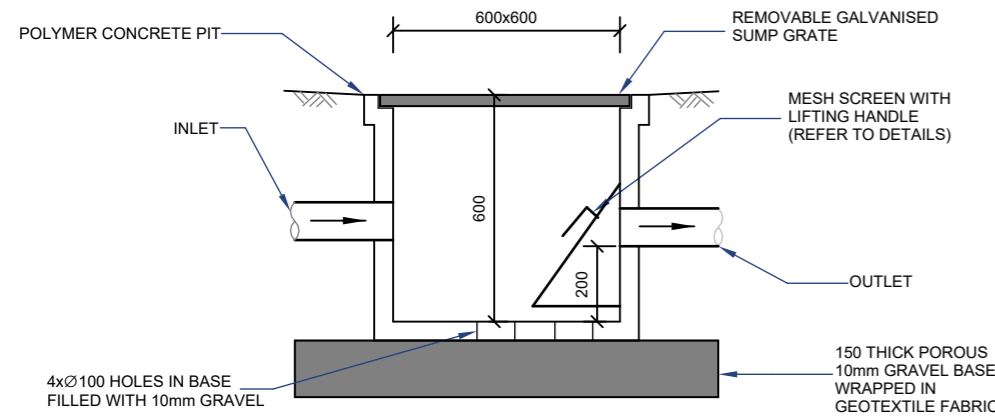
GRADED BOX DRAIN DETAILS

SCALE 1:20



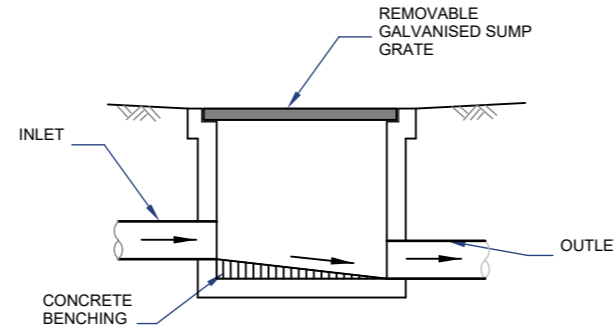
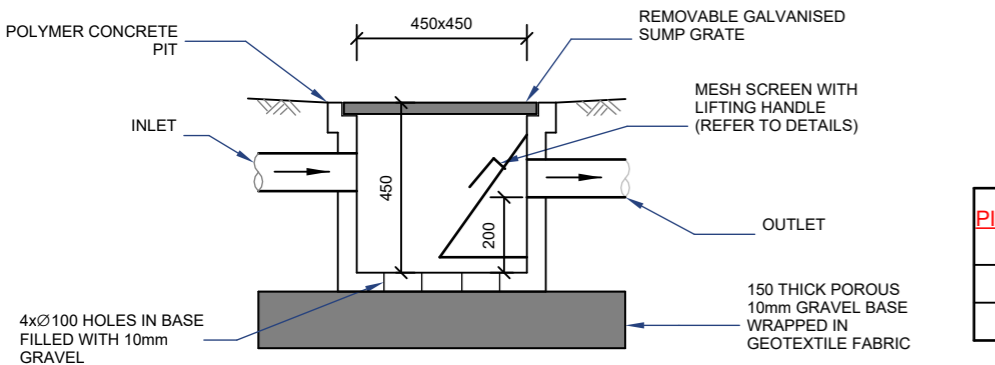
BOX GUTTER & RAINHEAD DETAILS

NTS



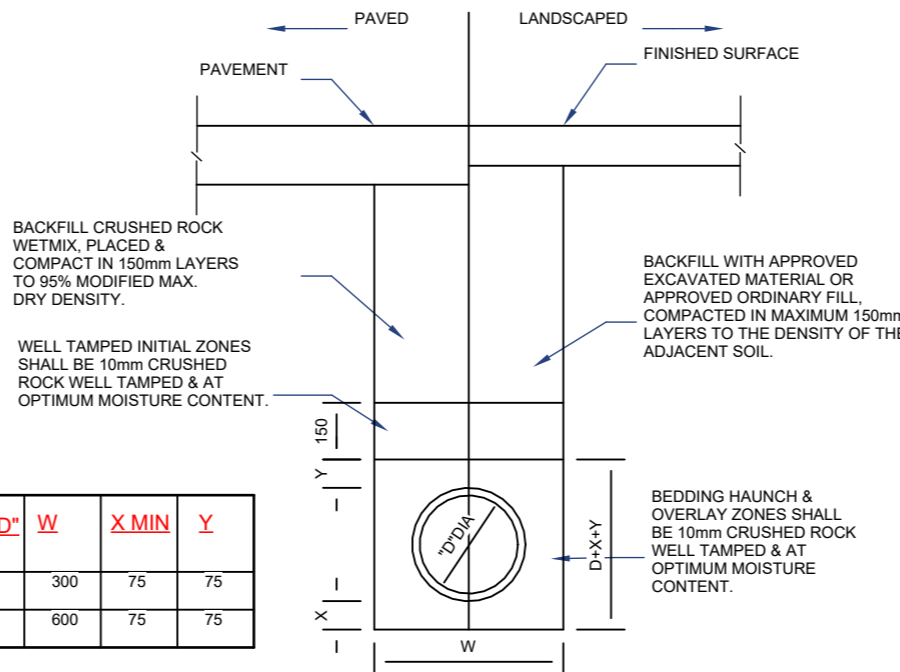
SILT ARRESTOR PIT DETAILS

SCALE 1:20



TYP. GRADED PIT DETAILS

SCALE 1:20



UPVC PIPE TRENCH BACKFILL TYP. DETAILS

SCALE 1:20

PIPE DIA "D"	W	X MIN	Y
100-150	300	75	75
225-300	600	75	75

MINIMUM PIPE COVER (FROM FINISHED SURFACE TO TOP OF PIPE)		
LOCATION	MINIMUM COVER (mm)	
	CAST/DUCTILE IRON GAL STEEL	OTHER AUTHORISED PRODUCTS (-)
1. NOT SUBJECT TO VEHICULAR LOADING:		
A. WITHOUT PAVEMENT		
i. FOR SINGLE DWELLING	0	100
ii. OTHER THAN SINGLE DWELLING	0	300
B. WITH PAVEMENT OF BRICK/UNREINFORCED CONCRETE	0(~~)	50(~~)
2. SUBJECT TO VEHICULAR LOADING:		
A. OTHER THAN ROAD:		
i. WITHOUT PAVEMENT	300	450
ii. WITH PAVEMENT OF:	0(~~#)	100(~~#)
- REINFORCED CONC. FOR HEAVY	0(~~#)	75(~~#)
VEHICLE		
- BRICK/UNREINF. CONC. LIGHT	300	500(#)
VEHICLE	300	500(#)
B. ROAD		
i. SEALED	300	500(#)
ii. UNSEALED		
3. SUBJECT TO CONSTRUCTION VEHICLE OR IN ENBANKMENT CONDITION		
(~~) INCLUDES OVERLAY ABOVE THE TOP OF THE PIPE OF NOT LESS THAN 50mm THICK (~~) BELOW THE UNDERSIDE OF THE PAVEMENT (#) SUBJECT TO COMPLIANCE WITH AS1762, AS2033, AS/NZS2566.1, AS3725 OR AS4060		

Paper size: **A3**

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Revisions	
ORIGINAL ISSUE	
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Approved:

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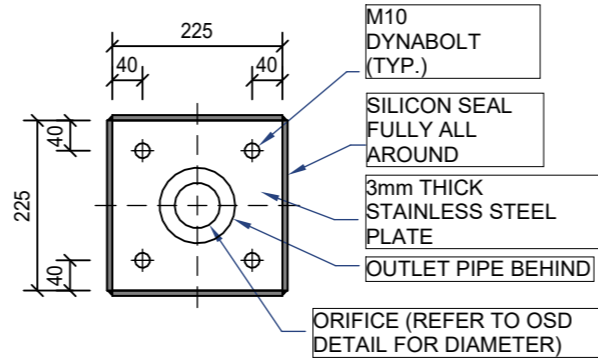
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STANDARD DETAILS

Project No: 7187H Issue: A Date: 25.07.2025 Drawing No: SD1

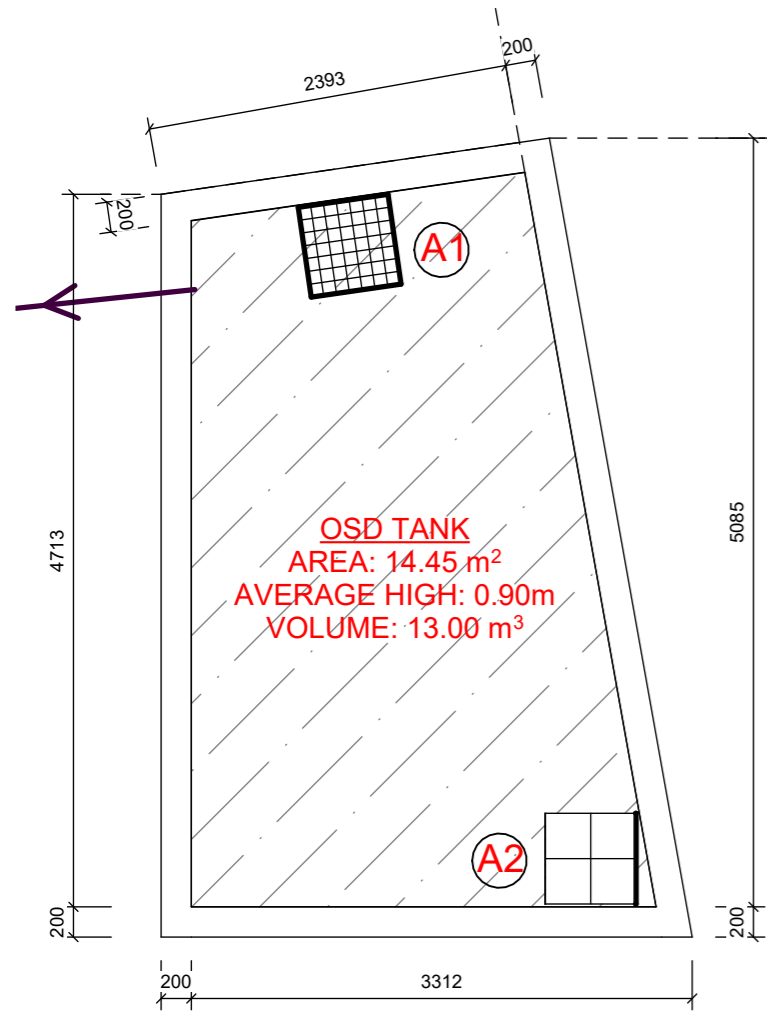
Total no. of sheets: **9**

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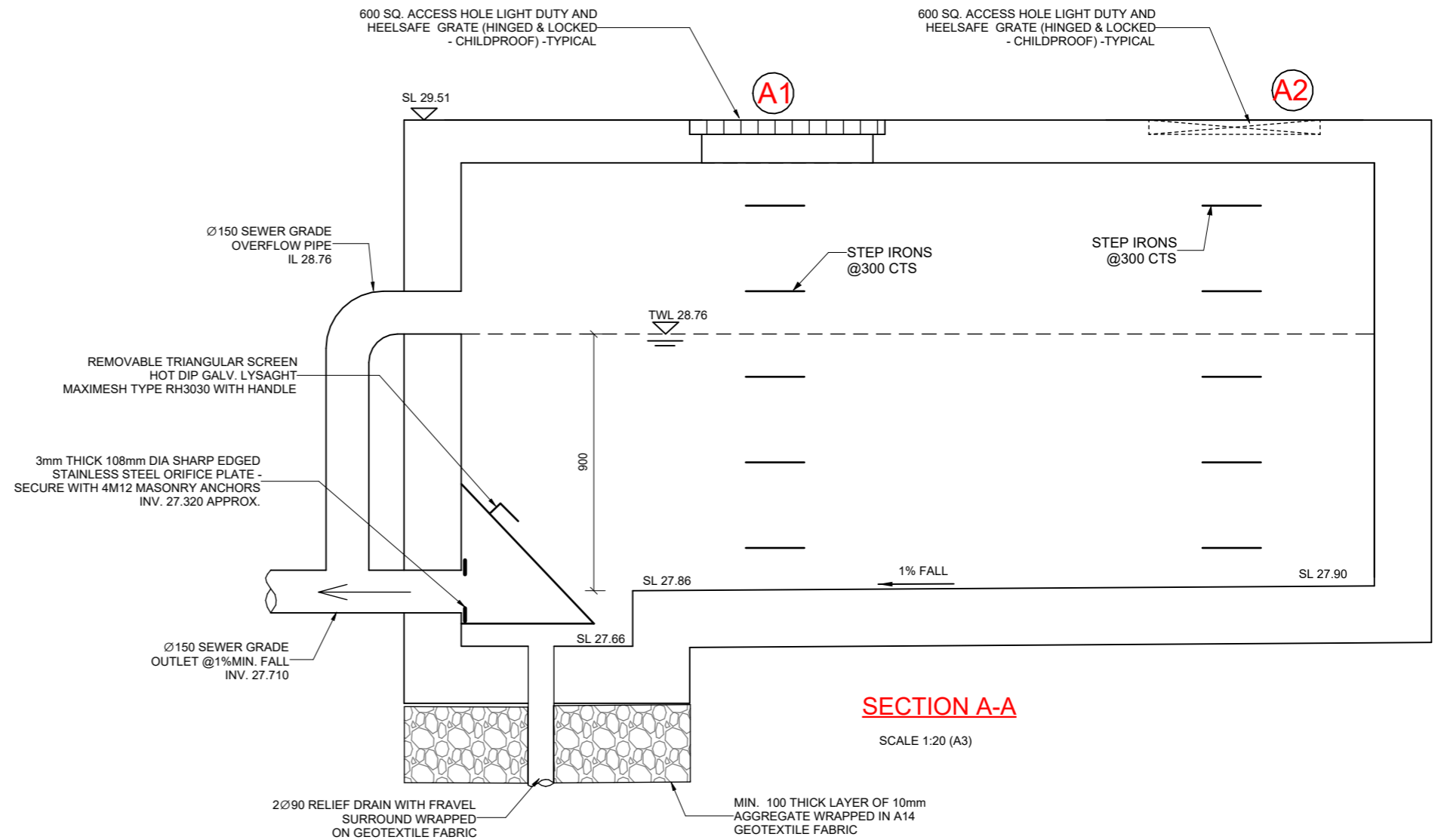
ORIFICE PLATE DETAILS

SCALE 1:10



DRAINAGE PLAN - OSD PLAN

SCALE: 1 : 50



SECTION A-A

SCALE 1:20 (A3)

Paper size: **A3**

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OSD PLAN AND DETAILS

Project No: 7187H Issue: A Date: 25.07.2025 Drawing No: SD2

Total no. of sheets: **9**