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# HYDRAULIC ENGINEERING PLAN

PROJECT: PROPOSED ALTERATIONS & ADDITIONS

ADDRESS: 57 EMMA STREET, MONA VALE

LGA: NORTHERN BEACHES COUNCIL

## LIST OF DRAWING

SHEET NO	DRAWING NAME
GN0	COVER PAGE
0E0	EROSION AND SEDIMENT CONTROL PLAN
0L2	GROUND FLOOR PLAN
1L1	FIRST FLOOR PLAN
RL1	ROOF PLAN
SD1	STANDARD DETAILS

### GENERAL NOTES

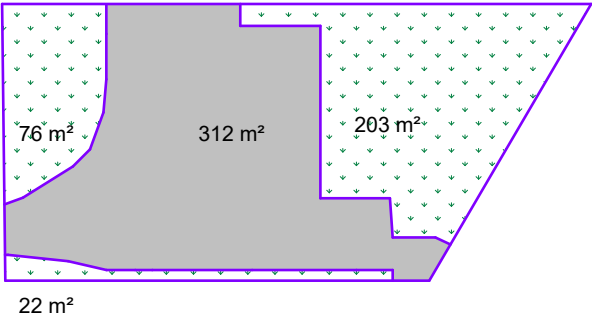
1. THE PLUMBER/ DRAINER SHALL INSPECT THE SITE AND CONFIRM THE EXISTING SITE STRUCTURES, SERVICES AND CONDITIONS PRIOR TO PROCEEDING. IF ANY DISCREPANCIES FOUND, CONTACT THE ENGINEER FOR DISCUSSION.
2. ALL WORKS TO BE CARRIED OUT IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS, BUILDING CODE OF AUSTRALIA 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.

### RWT REQUIREMENTS

THIS DEVELOPMENT HAS NO COMMITMENT ON RAINWATER  
REUSE UNDER BASIX CERTIFICATE

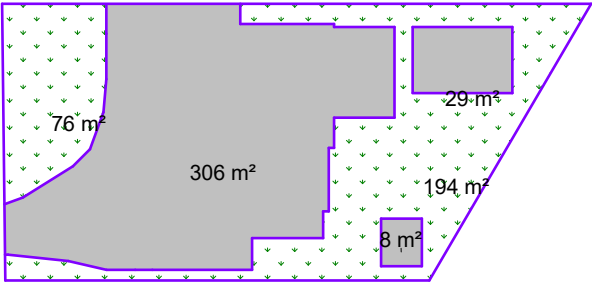
### SITE CALCULATIONS

- SITE AREA: 613.3 m<sup>2</sup>
- EX. IMPERVIOUS AREA: 312 m<sup>2</sup>
- PROP. IMPERVIOUS AREA: 343 m<sup>2</sup> (56%)
- CHANGE IN IMPERVIOUS AREA: 31 m<sup>2</sup> < 50 m<sup>2</sup>
- THEREFORE, OSD IS NOT REQUIRED.



### EXISTING IMPERVIOUS AREA

Name	Area
IMPERVIOUS AREA	312 m <sup>2</sup>
PERVIOUS AREA	301 m <sup>2</sup>
TOTAL SITE AREA	613 m <sup>2</sup>



### PROPOSED IMPERVIOUS AREA

Name	Area
IMPERVIOUS AREA	343 m <sup>2</sup>
PERVIOUS AREA	270 m <sup>2</sup>
TOTAL SITE AREA:	613 m <sup>2</sup>

1. IF ANY DISCREPANCIES OR DOUBTS, CONTACT THE ENGINEER.
2. BOOKINGS FOR INSPECTION, IF REQUIRED, SHALL BE MADE VIA OUR WEBSITE AT [www.nitma.com.au/bookings](http://www.nitma.com.au/bookings). CONDITIONS APPLY.

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  
PhD (Eng). MIEAust, CPEng,  
NER Reg. No. 208 2513

**NiTmA**  
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PROJECT : PROPOSED ALTERATIONS & ADDITIONS  
ADDRESS: 57 EMMA STREET, MONA VALE  
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## COVER PAGE

Project No: 7141H Issue: A Date: 28.05.2025 Drawing No: GN0

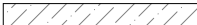
Total no. of sheets **6**

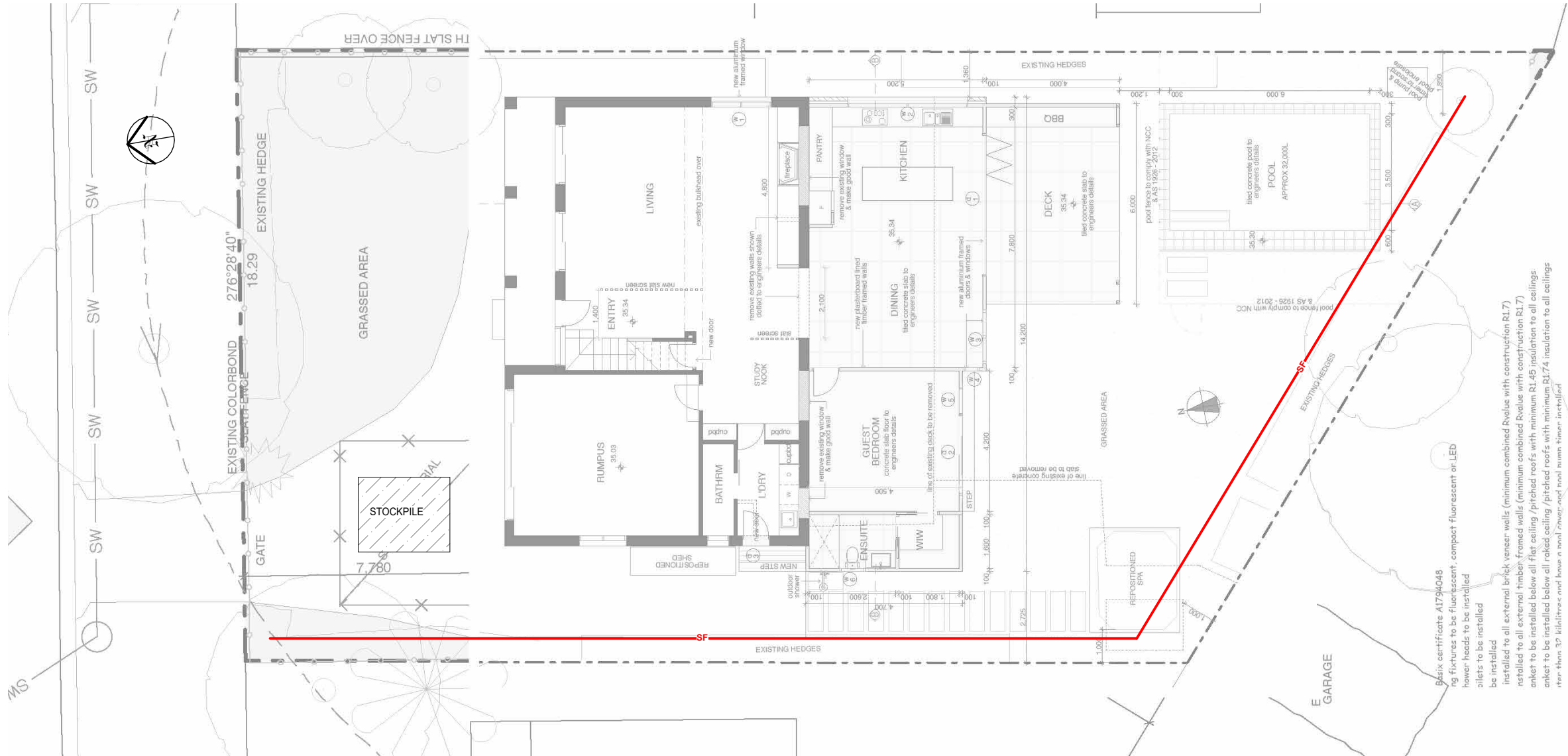
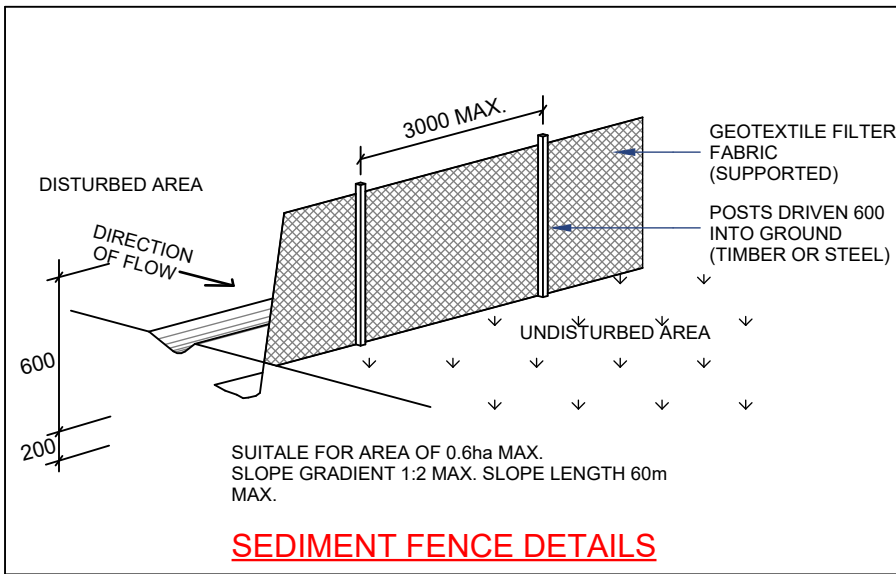
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**NOTES:**

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:**

- SF— SILT FENCE
-  STOCKPILE



**EROSION & SEDIMENT CONTROL PLAN**

SCALE: 1 : 150

Paper size: **A3**

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**EROSION AND SEDIMENT CONTROL PLAN**

Project No: 7141H Issue: A Date: 28.05.2025 Drawing No: 0EO

Total no. of sheets: **6**

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KEY:

DP

DOWN PIPE

100

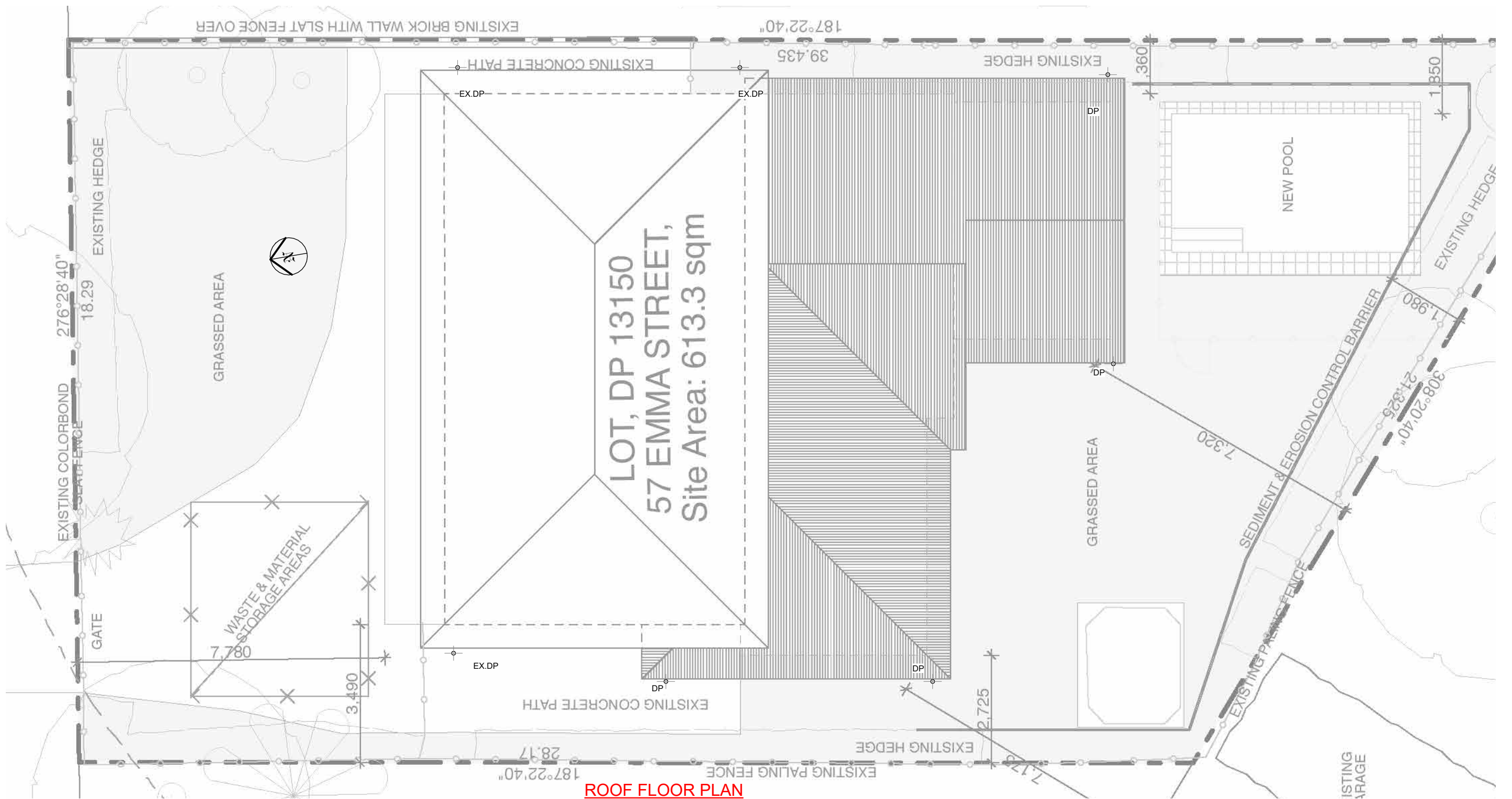
Ø100 SEWER GRADE UPVC TO EX. TORMWATER SYSTEM. ALL DOWNPIPES TO BE FULLY SEALED

100

Ø100 SEWER GRADE UPVC @1% MIN. FALL

EX

EXISTING LINE



ROOF FLOOR PLAN

SCALE: 1 : 100

Paper size: A3

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ROOF PLAN

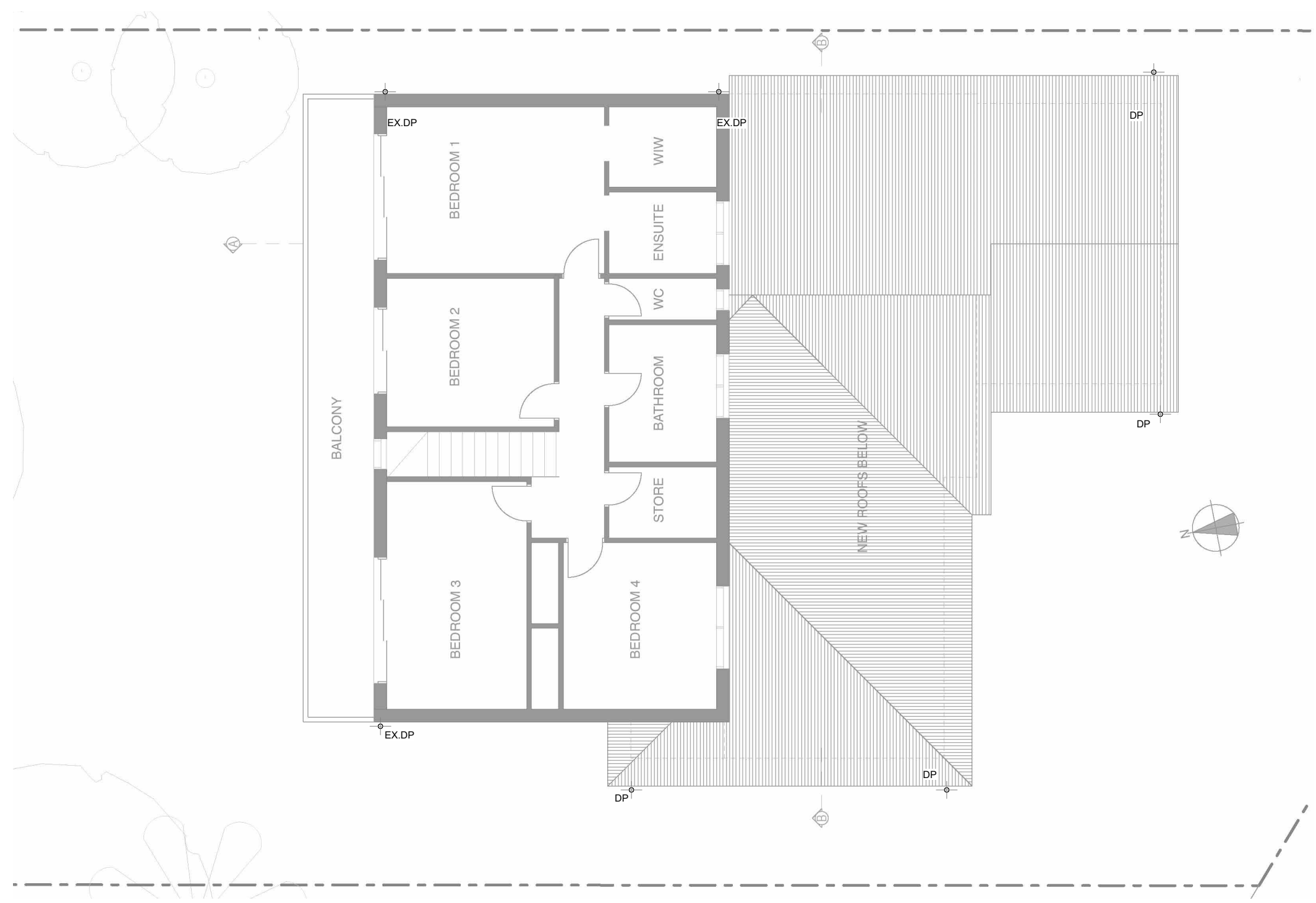
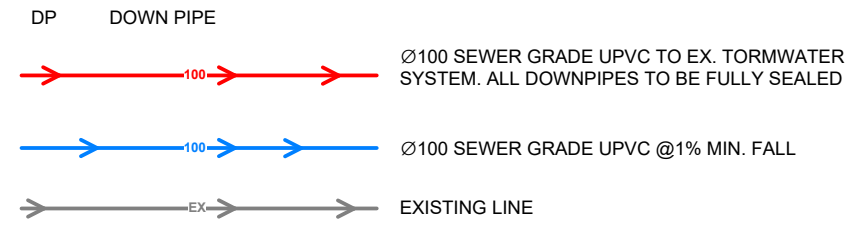
Project No: 7141H Issue: A Date: 28.05.2025 Drawing No: RL1

Total no. of sheets 6



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**KEY:**



**DRAINAGE PLAN - FIRST FLOOR PLAN**

SCALE: 1 : 100

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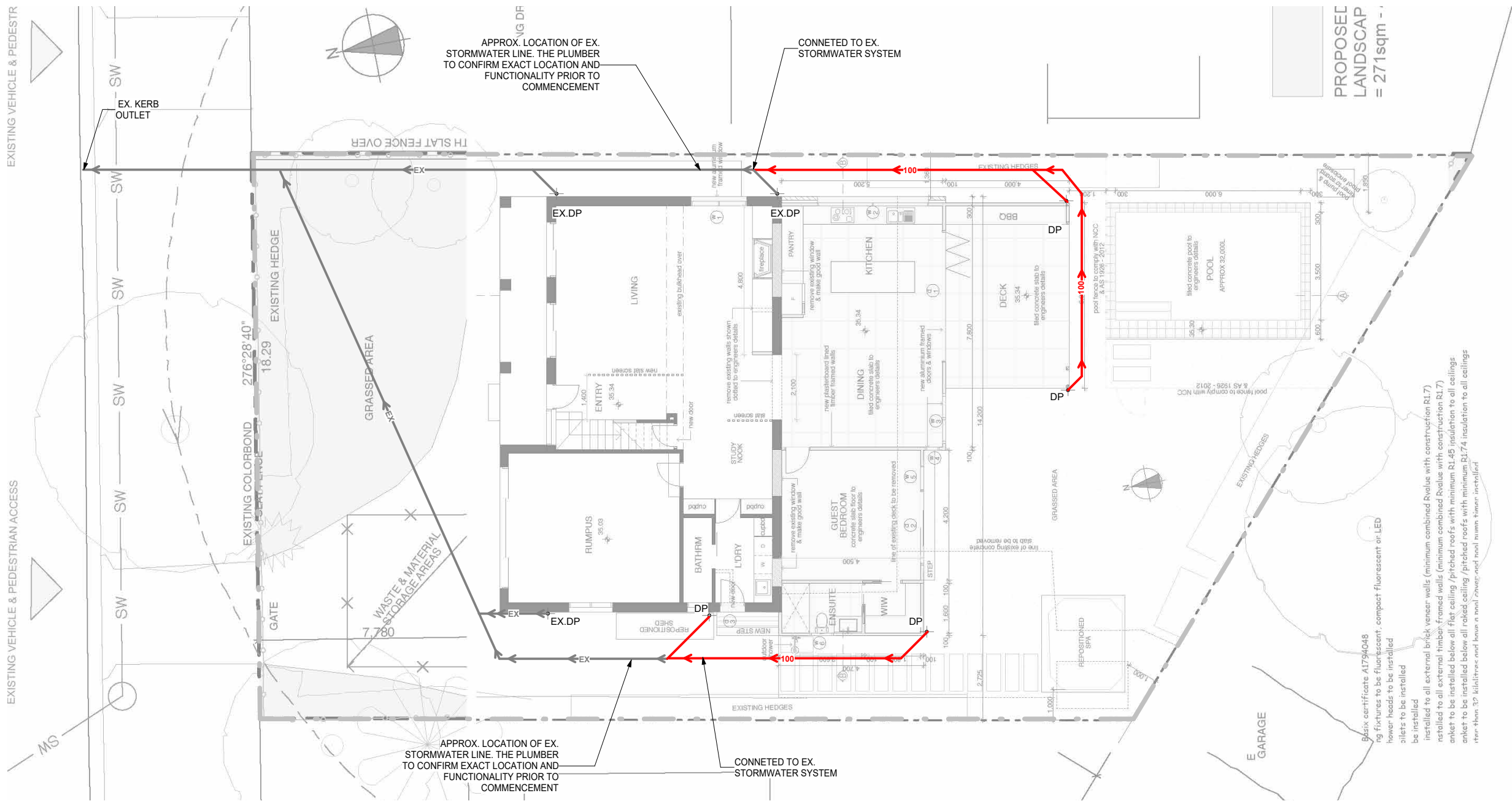
KEY:

DP DOWN PIPE

Ø100 SEWER GRADE UPVC TO EX. TORMWATER  
SYSTEM. ALL DOWNPIPES TO BE FULLY SEALED

Ø100 SEWER GRADE UPVC @1% MIN. FALL

EXISTING LINE



DRAINAGE PLAN - GROUND FLOOR PLAN

SCALE: 1 : 150

Paper size: A3

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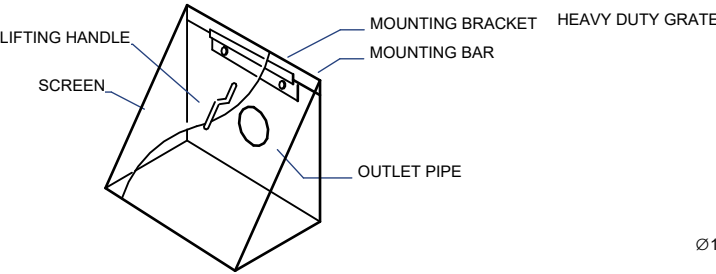
GROUND FLOOR PLAN

Project No: 7141H Issue: A Date: 28.05.2025 Drawing No: 0L2

Total no. 6  
of sheets

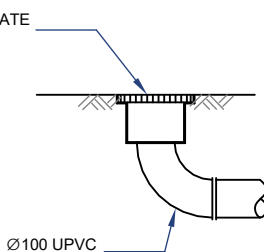
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Notes: Some details may not be applicable to current project



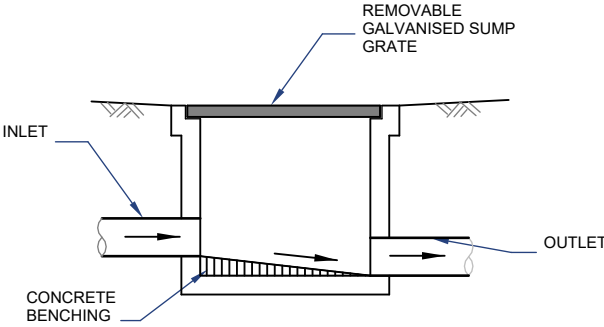
DEBRIS SCREEN DETAILS

NOT TO SCALE



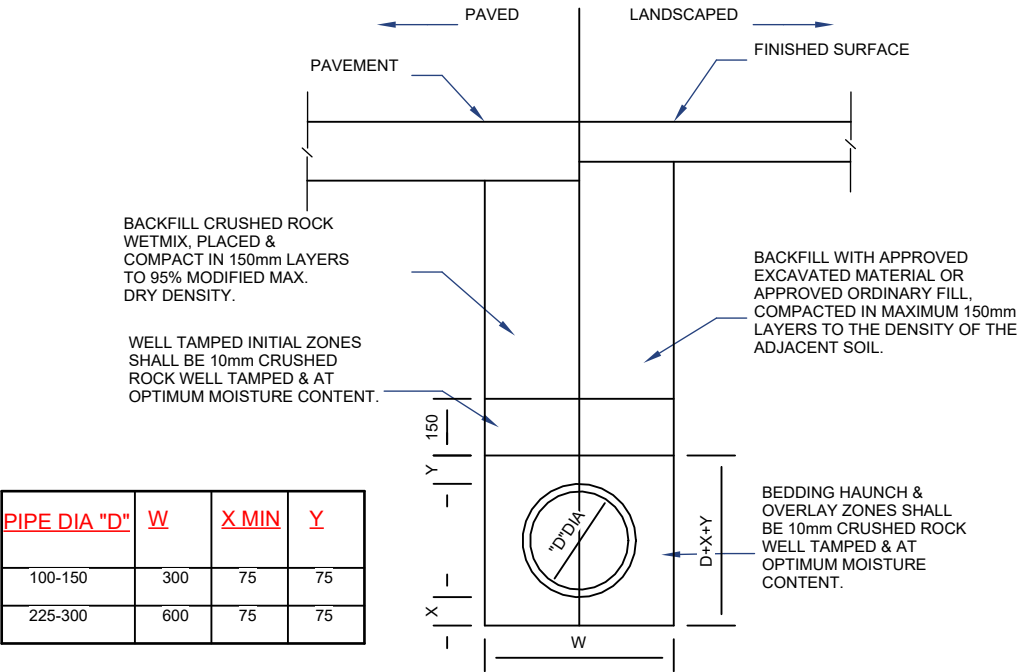
GRADED BOX DRAIN DETAILS

SCALE 1:20



TYP. GRADED PIT DETAILS

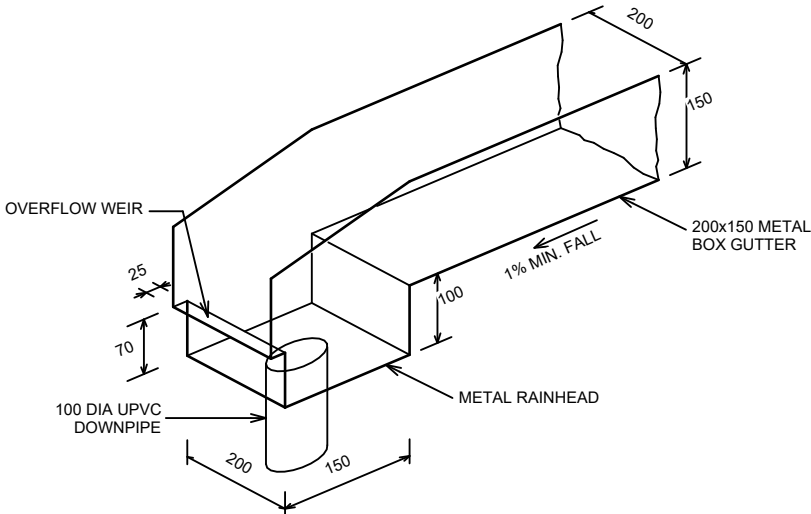
SCALE 1:20



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



BOX GUTTER & RAINHEAD DETAILS

NTS

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:		
- REINFORCED CONC. FOR HEAVY	0(~~#)	100(~~#)
VEHICLE	0(~~#)	75(~~#)
- 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		