

CONCEPT STORMWATER DRAWINGS FOR PROPOSED DUAL OCCUPANCY



SUIT 2.04, L2, BLDG 3,
35-41 WATERLOO RD., MACQUARIE PARK, NSW 2113
info@smartstruts.com.au | T: (02) 9052 6467

CLIENT

ARCHITECT

WALSH ARCHITECTS



AS 3500.3- TABLE 8.2
SIZE OF MINIMUM INTERNAL DIMENSIONS FOR
STORMWATER AND INLET PITS

DEPTH OF INVERT OF OUTLET	MINIMUM INTERNAL DIMENSIONS (mm)		
	RECTANGULAR WIDTH	LENGTH	CIRCULAR DIAMETER
≤450	350	350	
≤600	450	450	600
>600 ≤900	600	600	900
>900 ≤1200	600	900	1000
>1200	900	900	1000



IMPORTANT:
CONTRACTOR TO OBTAIN CURRENT SET OF
"DIAL BEFORE YOU DIG" PLANS ON SITE ALL
TIMES AND PRIOR TO CONSTRUCTION WORKS

SYMBOLS

RL	PIT SURFACE LEVEL	PG	PLANTER GRATE
IL	INVERT LEVEL	DP	DOWN PIPE
TK	TOP OF KERB	CO	CLEAN OUT
B.O.W	BOTTOM OF WALL	IO	INSPECTION OPENING
T.O.W	TOP OF WALL	VD	VERTICAL DROP
SV	STORMWATER DRAINAGE PIPE	VR	VERTICAL RISER
RVT	DOWNPIPE TO RAINWATER TANK	OF	OVERFLOW (DOME TYPE)
SV	OVERFLOW PIPE FROM RAINWATER TANK	CCJP	CONCRETE COVER JUNCTION PIT
Ø100	SUBSOIL PIPE	GIP	GRATED INLET PIT
Ø100	SUBSOIL PIPE	WGD	WIDE GRATED DRAIN
FW	FLOOR WASTE 150X150	OF	OVERLAND FLOW PATH
FW	FLOOR WASTE 1500	CSIP	CAST IN SLAB PIPE
RWO	RAINWATER OUTLET 3000		

DRAWING LIST	
DRAWING NUMBER	DRAWING NAME
D00	COVER SHEET, LEGEND & DRAWING SCHEDULE
D01	GROUND FLOOR STORMWATER DRAINAGE PLAN
D05	PRE & POST DEVELOPMENT CATCHMENT ANALYSIS
D10	STORMWATER DRAINAGE SECTIONS AND DETAILS SHEET 1
D11	STORMWATER DRAINAGE SECTIONS AND DETAILS SHEET 2
D12	STORMWATER DRAINAGE SECTIONS AND DETAILS SHEET 3
D15	EROSION AND SEDIMENT CONTROL PLAN AND DETAILS

NOTES

- ALL LINES ARE TO BE MIN. 1000 UPVC @ MIN 1.0% GRADE UNLESS NOTED OTHERWISE.
- IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE & LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF ANY EARTHWORKS. ALL DESIGN LEVELS SHOWN ON PLAN SHALL BE VERIFIED ON SITE PRIOR TO THE COMMENCEMENT OF ANY WORK.
- ALL PIPES TO HAVE MIN 200mm COVER IF LOCATED WITHIN PROPERTY.
- ALL PITS IN DRIVEWAYS BE HEAVY DUTY GRATES. DIRECT SURFACE FLOW TO ALL GRATED SURFACE INLET PITS.
- ALL WORK DO BE DONE IN ACCORDANCE WITH AS/NZ 3500.3 (CURRENT EDITION), COUNCIL SPECIFICATIONS, RELEVANT VOLUME OF NCC (NATIONAL CONSTRUCTION CODE)
- LOCATION OF DOWNPIPES & FLOOR WASTES ARE INDICATIVE ONLY. DOWNPIPE & FLOOR WASTE SIZE, LOCATION & QUANTITY TO BE DETERMINED BY BUILDER & IN ACCORDANCE WITH RELEVANT AUSTRALIAN STANDARDS.
- ALL STORMWATER LINES' JOINTS BE FULLY SEALED AND WATERTIGHT IN ACCORDANCE WITH AS3500.3.2021
- THIS PLAN IS TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL, LANDSCAPE AND STRUCTURAL AND ALL OTHER RELEVANT CONSULTANT'S PLANS.
- ALL RAINWATER TANKS TO BE FITTED WITH A FIRST FLUSH DEVICE TO PREVENT POTENTIAL CONTAMINANTS FROM ENTERING THE TANKS.
- ANY DISCREPANCIES OR OMISSIONS SHALL BE REFERRED TO THE DESIGN ENGINEER FOR RESOLUTION.
- ALL PITS OR GRATES IN TRAFFICABLE AREAS TO BE HEAVY DUTY.
- ALL LIFT PITS ARE TO BE FULLY TANKED UNLESS NOTED OTHERWISE.
- CHILD -PROOF LOCKING SYSTEM MUST BE EMPLOYED FOR ALL GRATES AND LIDS IN COMMON AREAS
- ALL GUTTERS WILL BE FITTED WITH LEAF GUARDS AND SHOULD BE INSPECTED AND CLEANED TO ENSURE LEAF LITTER CANNOT ENTER THE DOWNPIPES
- PROVIDE EMERGENCY OVERFLOW TO ALL PLANTER BOX AND BALCONIES.
- ALL PITS WITH DEPTH MORE THAN 900mm MUST HAVE IRON STEPS AND TO BE BENCHED AND STREAMLINED
- PROVIDE STORMWATER GRATE 200Wx200D AT THE BASE OF ALL MECHANICAL SHAFTS AND UNCOVERED STAIRS OR OPENINGS.
- PRESSURIZED PIPES / RISING MAINS FROM PUMP OUT TANK TO BE CONNECTED DIRECTLY AND INDEPENDENTLY TO EITHER OSD TANK OR BOUNDARY PIT AS PER DESIGN PLANS.
- ENSURE ALL DRAINAGE WORKS ARE AWAY FROM TREE ROOTS
- SERVICES SHOWN ON THESE PLANS HAVE BEEN LOCATED FROM INFORMATION SUPPLIED BY THE RELEVANT AUTHORITIES AND FIELD INVESTIGATION AND ARE NOT GUARANTEED COMPLETE NOR CORRECT. IT IS THE CLIENT AND CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL PRIOR TO CONSTRUCTION.
- ALL VARIATIONS TO THE WORKS AS SHOWN ON THE APPROVED DRAWINGS ARE TO BE CONFIRMED BY SMART STRUCTURES AUSTRALIA PRIOR TO COMMENCEMENT OF WORKS.
- THE MINIMUM SIZES OF THE STORMWATER DRAINS SHALL NOT BE LESS THAN DN90 FOR CLASS 1 BUILDINGS AND DN100 FOR OTHER CLASSES OF BUILDING OR AS REQUIRED BY THE REGULATORY AUTHORITY
- ALL STORMWATER DRAINAGE PITS IN GARDEN OR TURFED AREAS TO BE FITTED WITH PERFORATED GALVANISED STEEL MESH UNDER THE LIDS TO PREVENT DEBRIS ENTERING STORMWATER NETWORK.
- PIPE INSTALLATION TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF CURRENT AS3500.3 AND RELEVANT VOLUME OF NCC (NATIONAL CONSTRUCTION CODE). THIS IS CONTRACTOR'S RESPONSIBILITY TO CHECK IMPACT OF PIPE TRENCHING TO SURROUNDING STRUCTURAL AND NON STRUCTURAL ELEMENTS.

Project Number
250201

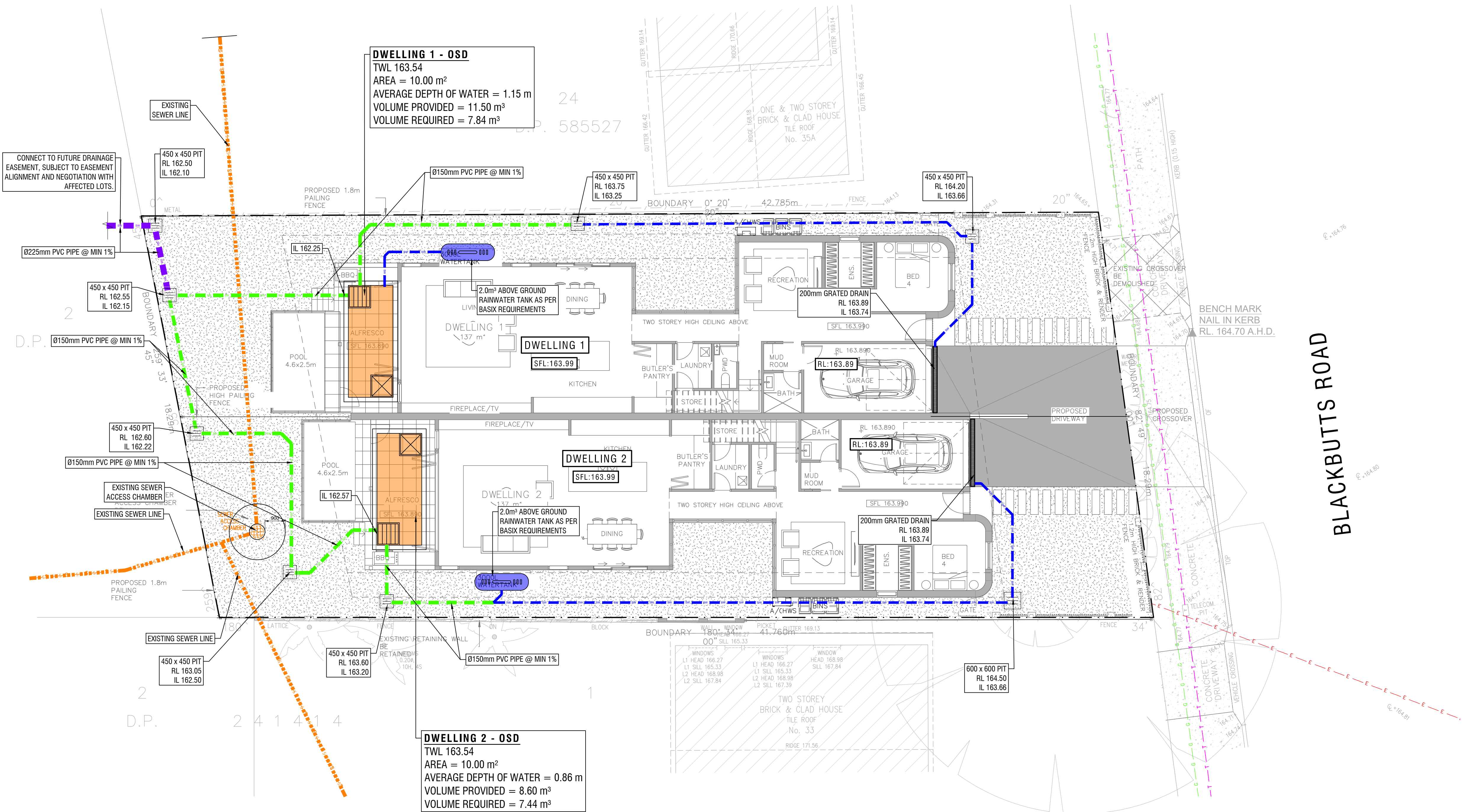
Address
**35 BLACKBUTTS ROAD,
FRENCHS FOREST NSW 2086**

Revision
B

Sheet Number
D00

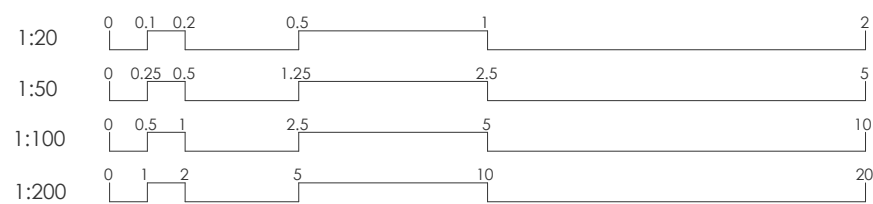
Rev. #	Drafter	Engineer	Date
A	N.E.	K.E.	22.05.25
B	N.E.	K.E.	10.06.25

1. Drawings to be read in conjunction with architectural drawings.
2. Refer to architectural drawings for all setout, levels.
3. Do not scale any dimensions
4. Drawings to be read & printed in colour.

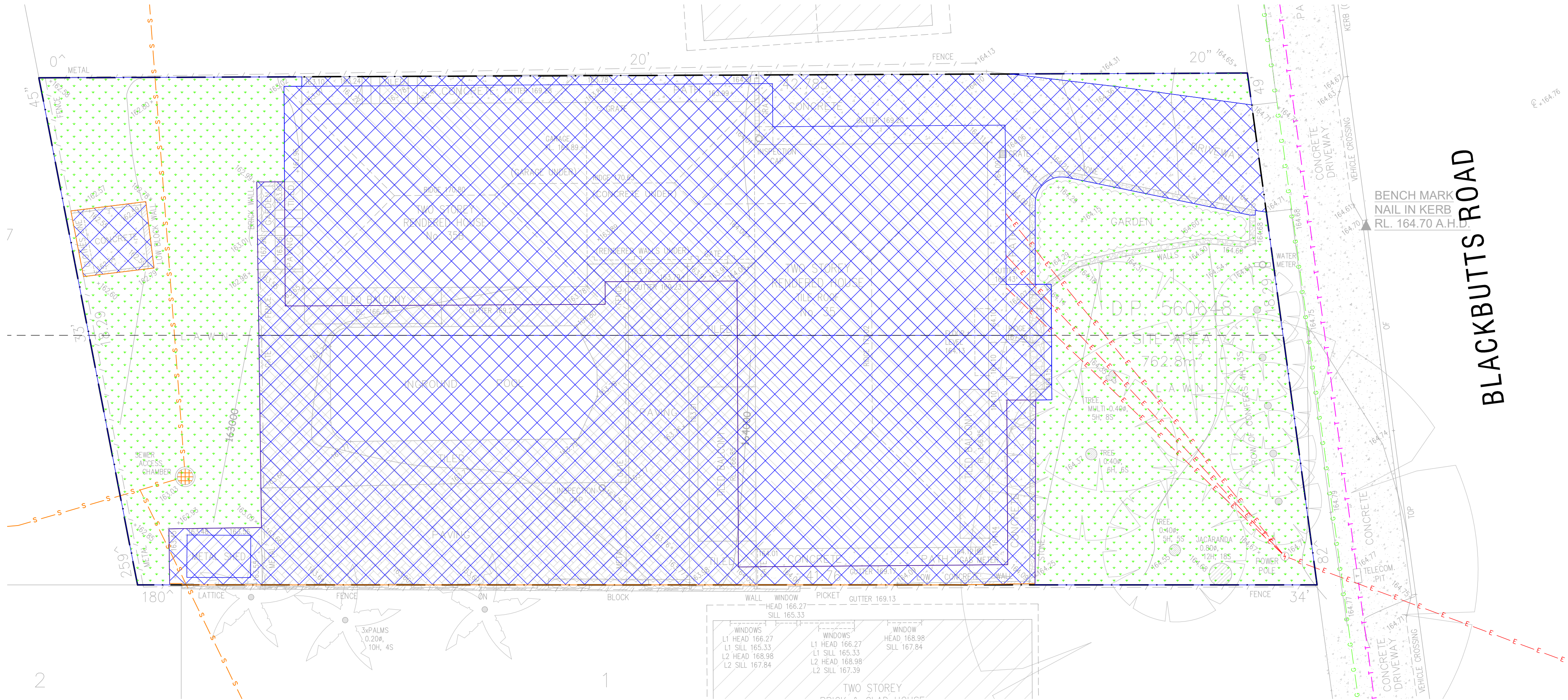


GROUND FLOOR STORMWATER DRAINAGE PLAN

SCALE 1: 100



PRE DEVELOPMENT CATCHMENT ANALYSIS:		
TOTAL SITE AREA:	762.70 m ²	
HARDSTAND	537.74 m ²	
LANDSCAPE	224.96 m ²	

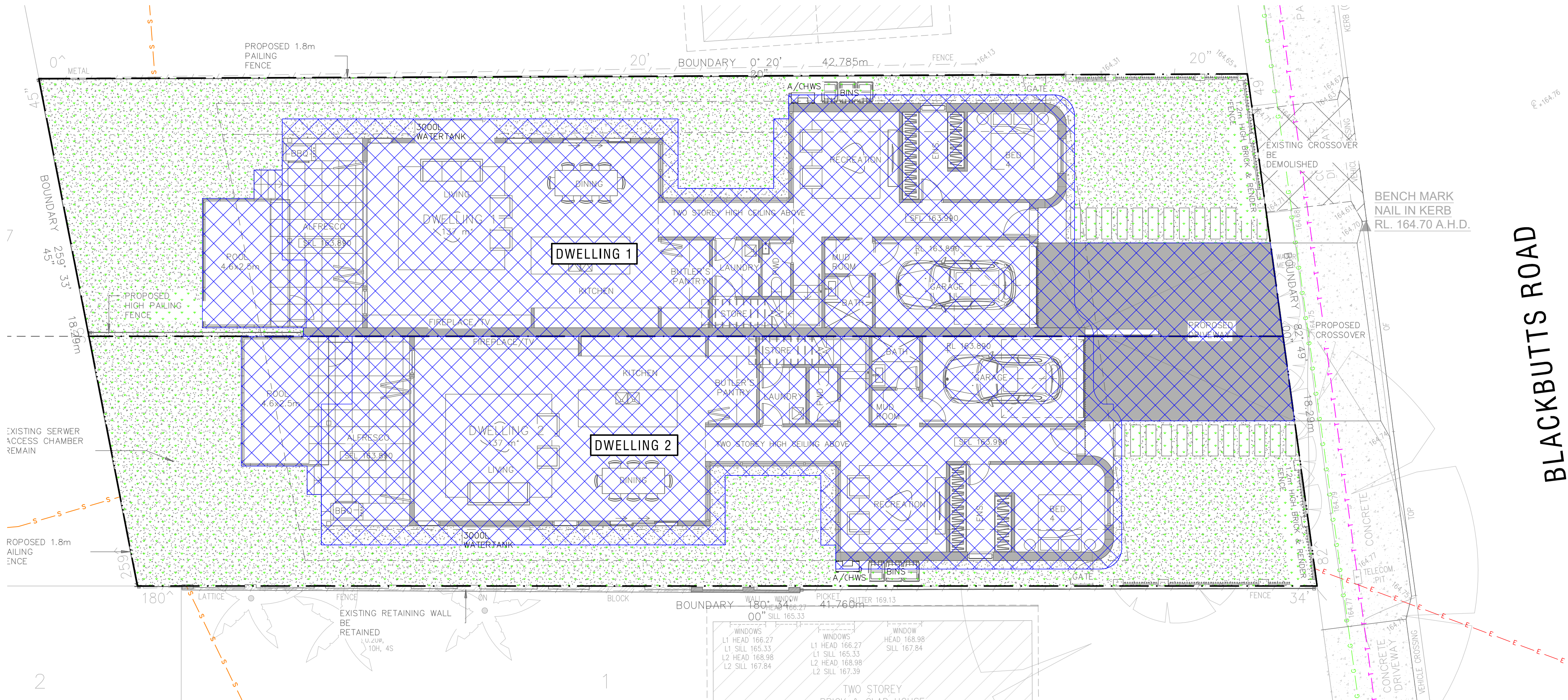


PRE-DEVELOPMENT CATCHMENT PLAN

SCALE 1: 100

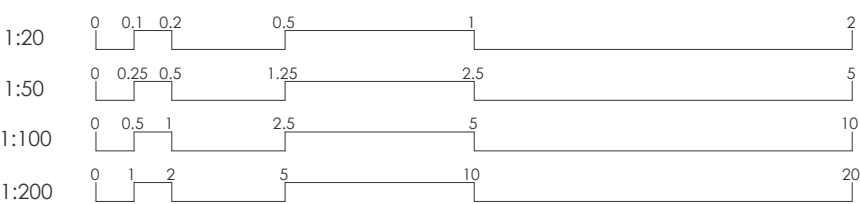
DWELLING 1:		
POST DEVELOPMENT CATCHMENT ANALYSIS:		
TOTAL SITE AREA:	391.36 m ²	
HARDSTAND	253.17 m ²	
LANDSCAPE	138.19 m ²	

DWELLING 2:		
POST DEVELOPMENT CATCHMENT ANALYSIS:		
TOTAL SITE AREA:	371.38 m ²	
HARDSTAND	240.81 m ²	
LANDSCAPE	130.57 m ²	



POST DEVELOPMENT CATCHMENT PLAN

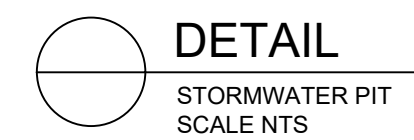
SCALE 1: 100



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ISSUE FOR D.A.			

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TYPICAL EAVES GUTTER DETAIL

SCALE NTS



TANK DETAILS SHOWN ARE A SUGGESTED CONFIGURATION ONLY. ANY MODIFICATION TO TANK VOLUME OR INLET AND OUTLET LEVELS MUST BE APPROVED BY ENGINEER PRIOR TO COMMENCEMENT OF CONSTRUCTION. TANK SHAPE, & DEVICES SHOWN ARE DIAGRAMMATIC ONLY. MINIMUM OF 450 CLEARANCE (UNLESS L.G.A. REQUIRES LARGER SETBACK) TO SIDE BOUNDARIES MUST BE MAINTAINED. CLIENT IS RESPONSIBLE TO ENSURE COMPLIANCE WITH THIS IN THE INSTALLED STATE. CHARGED STORM WATER LINES FROM ROOF AREAS ONLY TO RAINWATER TANK. ALL JOINTS TO BE SOLVENT WELDED. ALL EXPOSED PIPEWORK TO BE PAINTED TO WITHSTAND EXTERNAL ELEMENTS. FIRST FLUSH WATER DIVERTER AT TANK TO COMPLY WITH SYDNEY WATER AND COUNCIL DCP'S. AN APPROVED SWITCH SYSTEM SIMILAR TO 'RAINBANK' TO BE USED VIA MAINS. PUMPS TO MANUFP. SPECS. RAIN TANK TO BE INSTALLED AND MAINTAINED TO MANUFACTURER'S SPECIFICATIONS AND TO COMPLY WITH ALL SYDNEY WATER GUIDELINES. CLIENT TO BE RESPONSIBLE FOR MAINTENANCE SYSTEM OF CHARGED PIPELINES. DEBRIS ACCUMULATION SIGNIFICANTLY AFFECT SYSTEMS PERFORMANCE. MAINTENANCE PROGRAM ESSENTIAL. STRUCTURAL DETAILS FOR TANK BASE BY MANUFACTURERS OR OTHERS.



SCALE NTS



SCALE NTS



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FRENCHS FOREST NSW 2086

Start Date: MAY 2025

Project No. 250201

Client:

Architect:
WALSH ARCHITECTS

Approved by: K.E.

Internal Revisions

Rev. #	Drafter	Engineer	Date
A	N.E.	K.E.	22.05.25

ISSUE FOR P.A.

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**PRELIMINARY
NOT FOR CONSTRUCTION**

Project North

Scale @ A1: AS SHOWN

Sheet Name:

STORMWATER DRAINAGE SECTIONS AND DETAILS SHEET 1

Sheet Number:

Revision:

10

A

OSD DESIGN DETAILS

BASED ON NORTHERN BEACHES WATER MANAGEMENT FOR DEVELOPMENT POLICY SECTION 9.3.2 (REGION 2 CENTRAL CATCHMENT)

OSD IS REQUIRED WHERE SUBDIVISIONS RESULT IN THE CREATION OF TWO (2) OR MORE LOTS WHERE THA TOTAL POST DEVELOPEED IMPERVIOUS AREA OF THE NEW LOTS EXCEED 40% OF THE TOTAL SITE AREA.

POST DEVELOPMENT CATCHMENT CONDITIONS:

DWELLING 1:

SITE AREA:

391.36 m²

HARDSTAND

253.17 m²

LANDSCAPE

138.19 m²

DWELLING 2:

SITE AREA:

371.38 m²

HARDSTAND

240.81 m²

LANDSCAPE

130.57 m²

STREAMLINE METHOD IS USED TO SIZE THE OSD AS PER SECTION 9.3.3.2 DESIGN METHOD.

MIN SSR REQUIRED = 200m³ per Ha

MIN PSD REQUIRED = 400 L/s per Ha

MIN SSR REQUIRED = 200m³ per Ha

MIN PSD REQUIRED = 400 L/s per Ha

DWELLING 1:

SITE AREA:

391.36 m²

SSR REQUIRED: 391.36m² x 200m³ per Ha

(391.36 / 10000 x 200) = **7.83m³**

PSD REQUIRED: 391.36m² x 400 L/s per Ha

(391.36 / 10000 x 400) = **15.65L/s**

DWELLING 2:

SITE AREA:

371.38 m²

SSR REQUIRED: 371.38m² x 200m³ per Ha

(371.38 / 10000 x 200) = **7.43m³**

PSD REQUIRED: 371.38m² x 400 L/s per Ha

(371.38 / 10000 x 400) = **14.86L/s**

CALCULATING ORIFICE DIAMETER - DWELLING 1

g = acceleration from gravity (9.81 m/s/s)

h = head acting on the centreline (m)

Q (l/s)=

15.640

Q (m³/s)=

0.015640

C_d=

0.6

g=

9.81

TWL=

163.54

ORIFICE CL=

162.35

h=

1.19

A (m²)= 0.005394641

d (m)= 0.082877438

d (mm)=

82.9

CALCULATING ORIFICE DIAMETER - DWELLING 2

g = acceleration from gravity (9.81 m/s/s)

h = head acting on the centreline (m)

Q (l/s)=

14.880

Q (m³/s)=

0.014880

C_d=

0.6

g=

9.81

TWL=

163.54

ORIFICE CL=

162.65

h=

0.89

A (m²)= 0.005934815

d (m)= 0.086927792

d (mm)=

86.9

KPoly Water Tanks

- Available in a wide range of colours, comparable to Colorbond® colours.
- 1,000L to 10,000L in Slimline, Round, and Underdeck.
- Our tanks are manufactured using approved poly (polyethylene), that complies to standard AS/NZS4020. Our tank PE material meets the acceptable quality values for drinking water.
- 10 year Replacement Warranty.

Slimline Range

Model	Capacity (L)	Height (mm)	Length (mm)	Width (mm)
KPOLY1000	1000	1775	2000	400
KPOLY1500	1500	2040	1450	670
KPOLY2000	2000	1775	2480	620
KPOLY2000 TALL	2000	2170	2000	620
KPOLY2000 LOW	2000	1225	2900	760
KPOLY3000	3000	1960	2795	725
KPOLY3000 TALL	3000	2190	2400	750
KPOLY3000 SUPER SLIM	3000	1990	2940	640
KPOLY4000	4000	2105	2930	870
KPOLY5000	5000	2210	3185	955
KPOLY5000 LOW	5000	1990	3280	1040

The KPOLY2000 LOW design has 2 x 25mm brass outlets; all other Slimline designs have 3 x 25mm brass outlets for connections. Due to the manufacturing process all dimensions are nominal and may differ by up to +/- 3%.

KPOLY2000 TALL

KPOLY5000 LOW

SAMPLE OF RAINWATER TANK

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		Revision Description	
A	N.E.	K.E. ISSUE FOR D.A.	22.05.25

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Project North

Scale @ A1:

AS SHOWN

Sheet Name:

STORMWATER
DRAINAGE SECTIONS
AND DETAILS SHEET 2

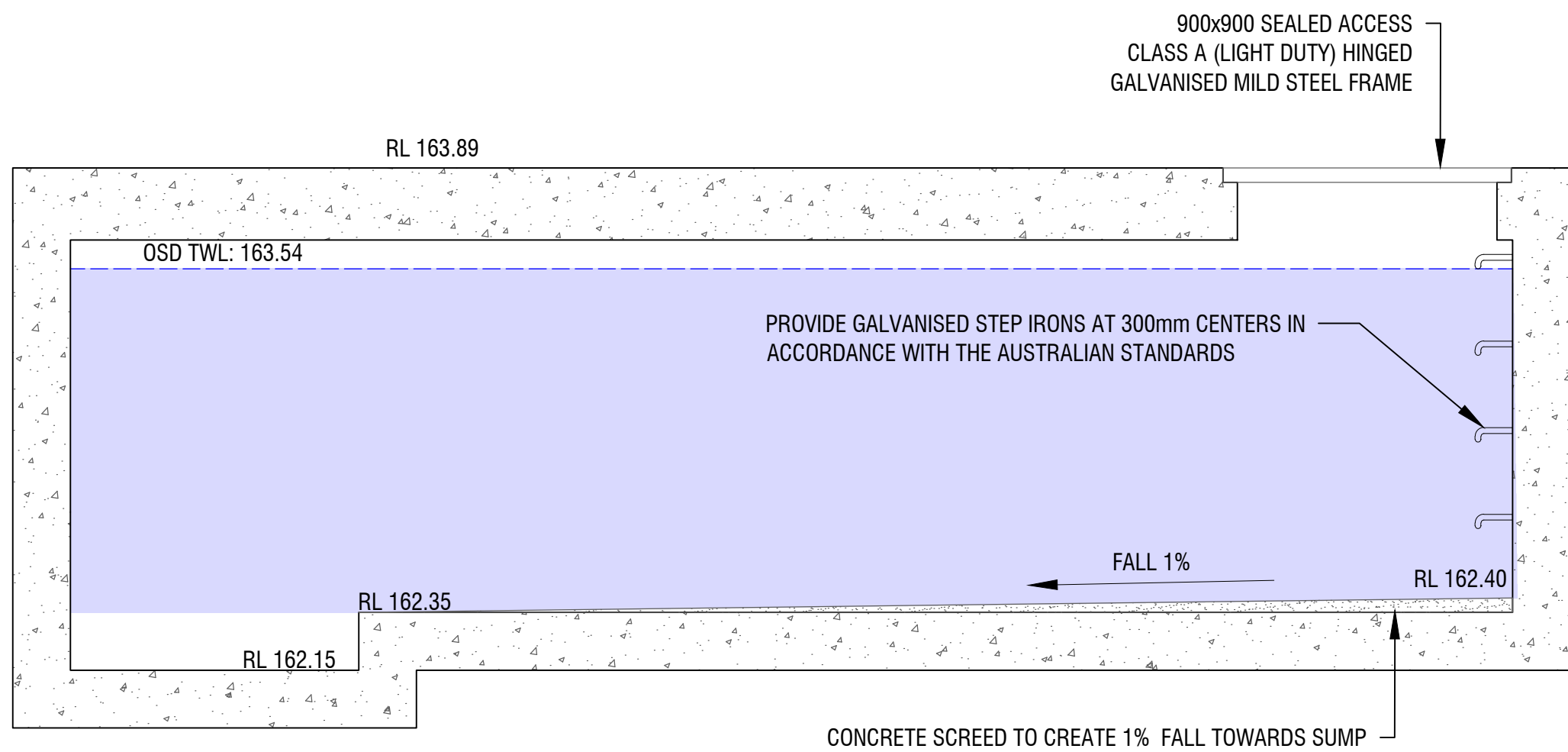
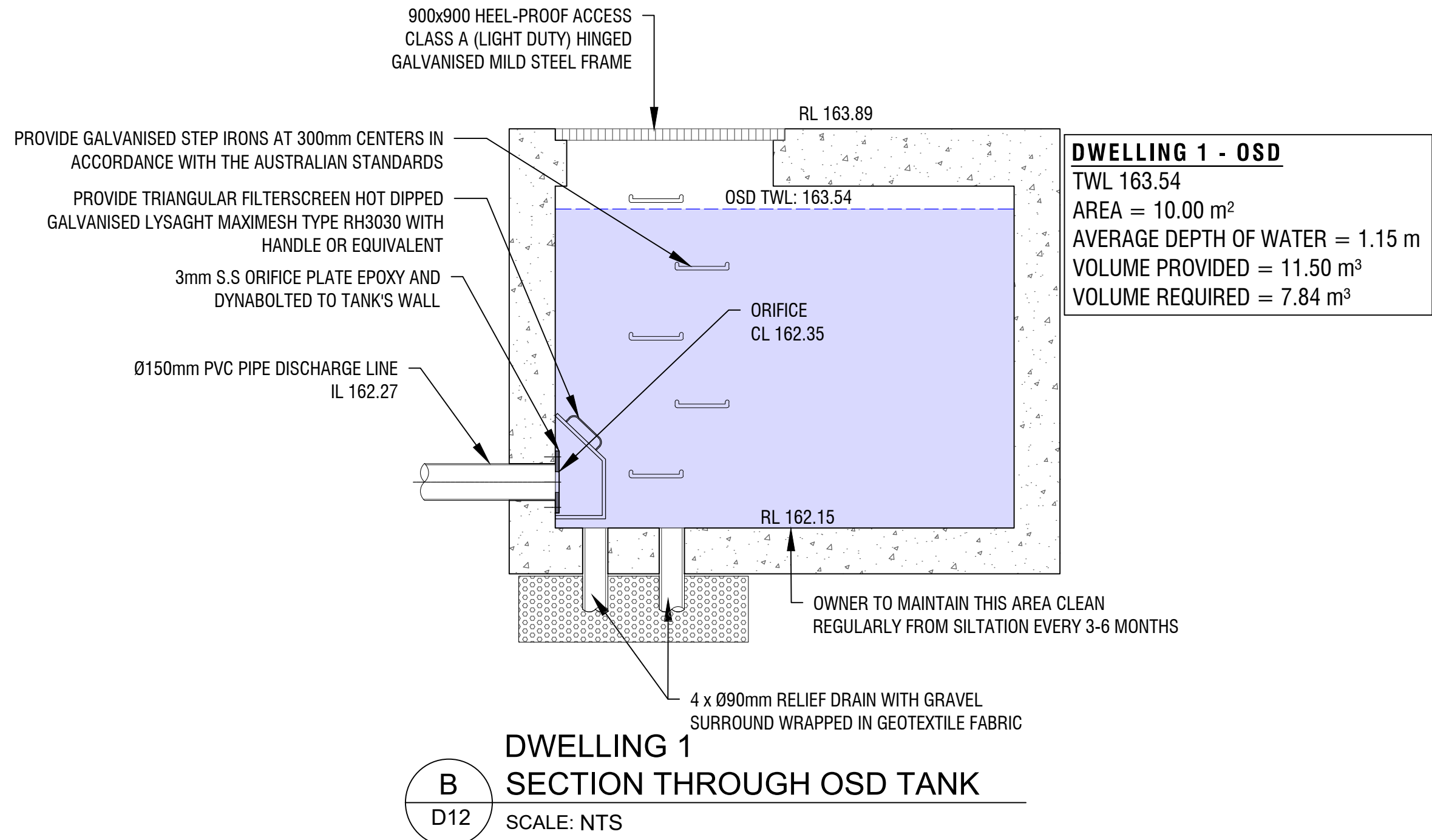
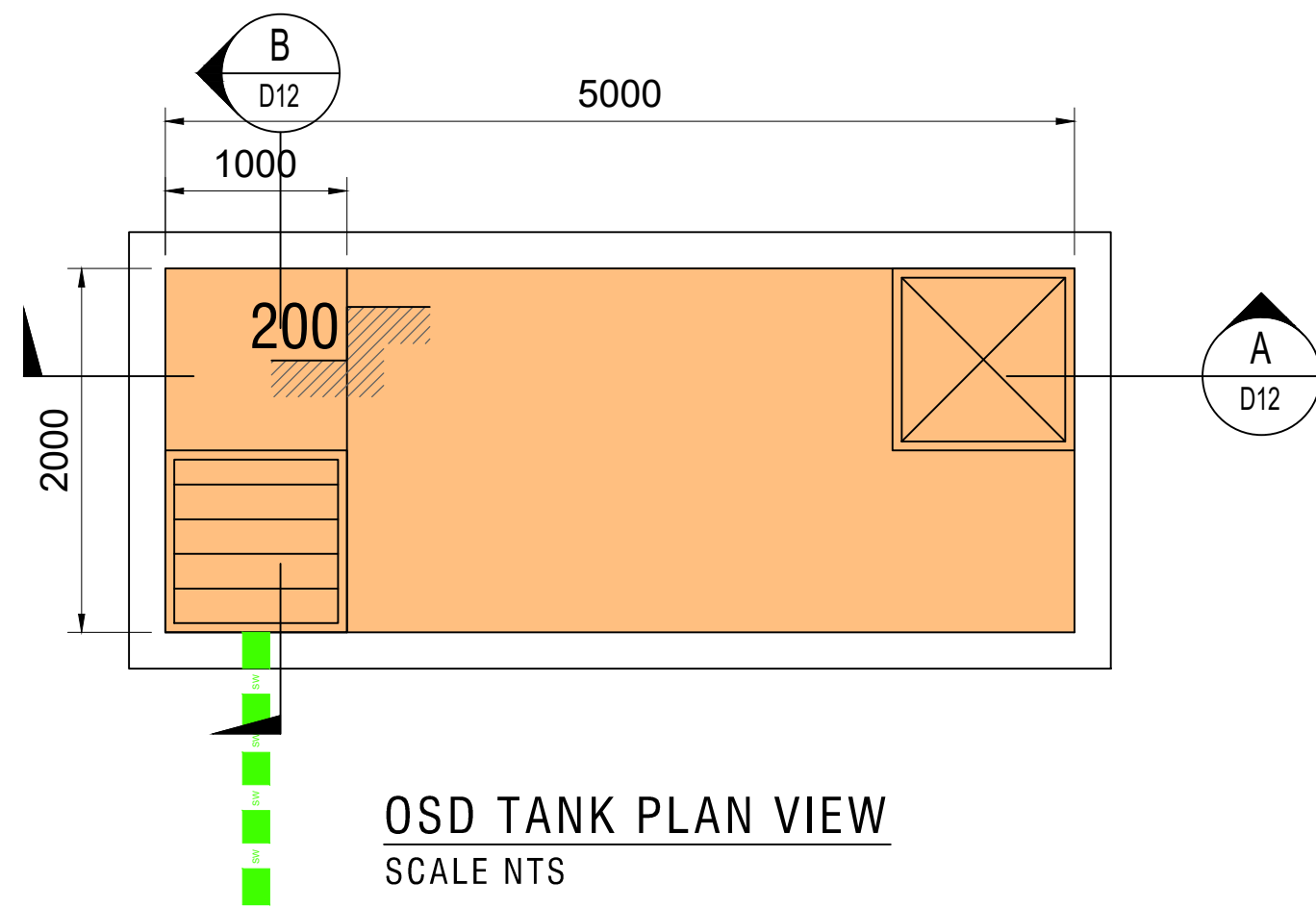
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Revision:

D11

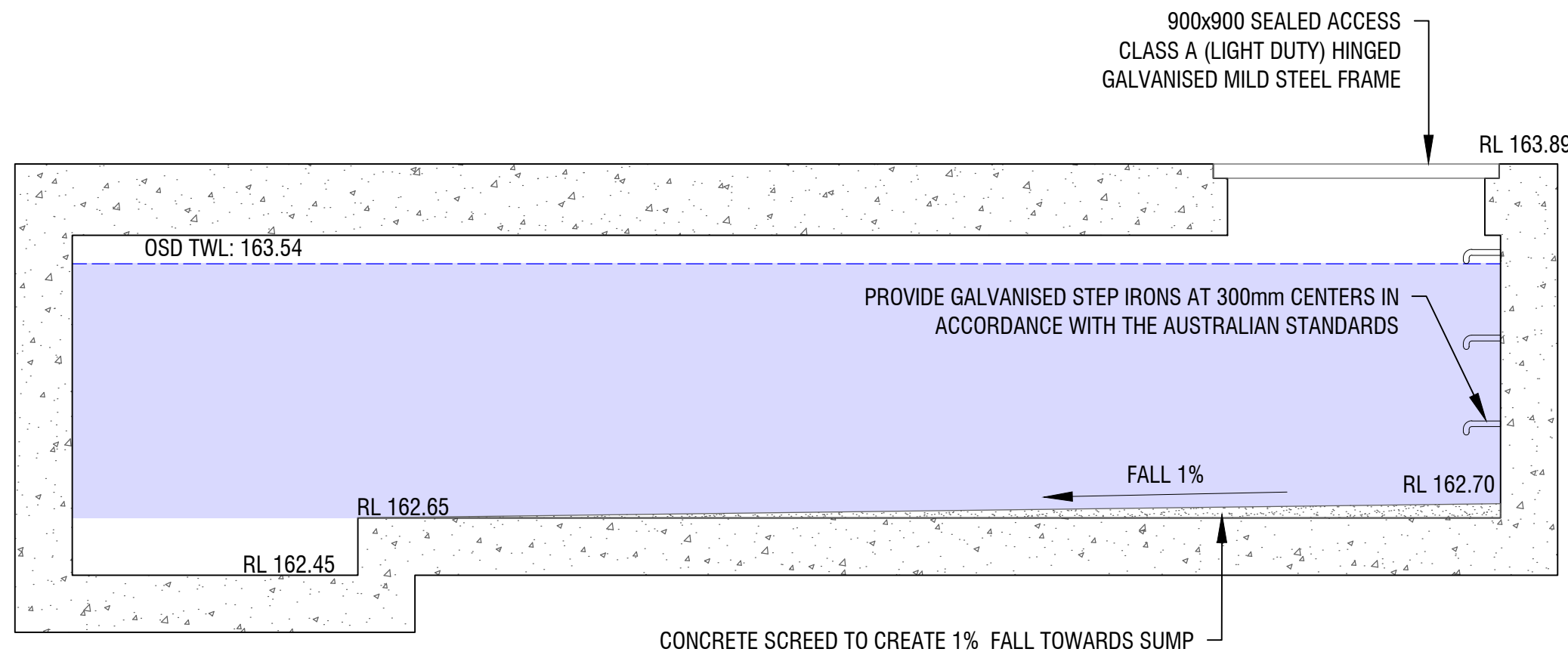
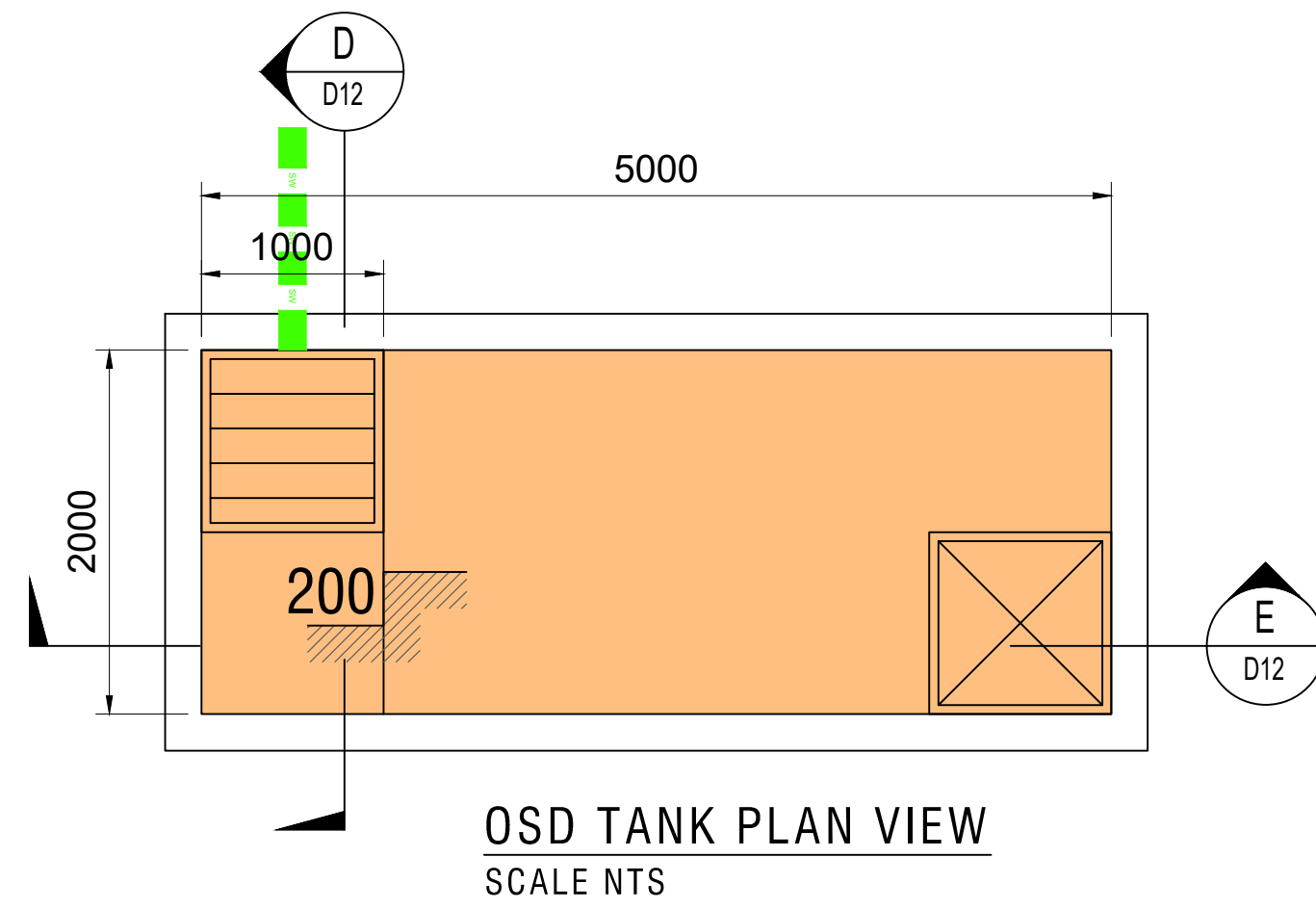
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DWELLING 1

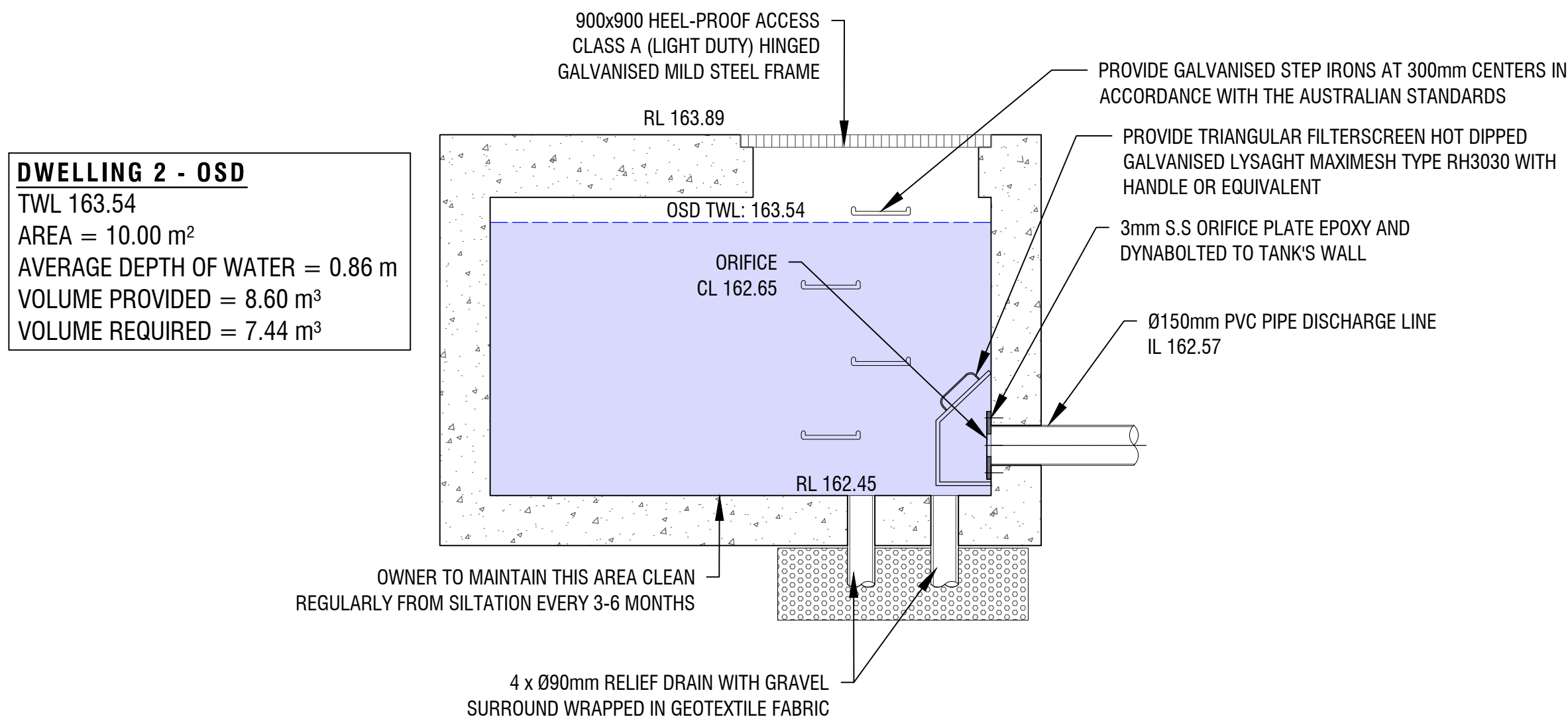


DWELLING 1
SECTION THROUGH OSD TANK
SCALE: NTS

DWELLING 2



DWELLING 2
SECTION THROUGH OSD TANK
SCALE: NTS



DWELLING 2
SECTION THROUGH OSD TANK
SCALE: NTS

