# PROPOSED CHILDCARE AT 7 BLACKBUTTS ROAD, FRENCHS FOREST NSW 2086

NERAL NOTES ALL WORKS SHALL BE IN ACCORDANCE WITH B.C.A AND AS3500.3.	LEC	GEND
ALL EXISTING LEVELS TO BE CONFIRMED BY BUILDER PRIOR TO CONSTRUCTION.	PRE	SSURE
THE BUILDER SHALL ENSURE THAT THE STORMWATER ENGINEERS DRAWINGS CORRESPOND TO THE ARCHITECTURAL, STRUCTURAL, AND LANDSCAPING DRAWINGS. IF THERE EXISTS ANY DISCREPANCIES BETWEEN THE DRAWINGS, THE BUILDER SHALL REPORT THE DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORKS.		VITY PIF
PRIOR TO COMMENCING ANY WORKS, THE BUILDER SHALL ENSURE THAT THE INVERT LEVELS OF WHERE THE SITE STORMWATER SYSTEM CONNECTS INTO THE COUNCILS KERB/DRAINAGE SYSTEM MATCHED THE DESIGN LEVELS. ANY DISCREPANCIES SHALL BE REPORTED TO THE DESIGN ENGINEER.	DOW	/NPIPE I
THE DRAINAGE CONTRACTOR IS TO LOCATE AND RELOCATE AS NECESSARY ALL SERVICES ON SITE.	GRA	TED PIT
ALL LEVELS SHALL RELATE TO THE ESTABLISHED BENCH MARK. THIS IS TYPICALLY METRES TO AUSTRALIAN HEIGHT DATUM (AHD).	SL: S	SURFAC
ALL DOWNPIPES TO BE 100MM DIAMETER UNLESS NOTED OTHERWISE.		ANING E
ALL DOWN PIPES TO HAVE LEAF GUARDS.	OLL/	
ALL LINES ARE TO BE 100MM DIAMETER uPVC AT A MINIMUM 1.0% SLOPE UNLESS NOTED OTHERWISE. LINES ARE TO BE SEWER-GRADE AND SEALED.	OVE	RLAND
ALL PIPES TO HAVE MINIMUM 150MM COVER IF LOCATED WITHIN PROPERTY.	GRA	TED TR
ALL THE CLEANING EYES (OR INSPECTION EYES) FOR THE UNDERGROUND PIPES HAVE TO BE TAKEN UP TO THE FINISHED GROUND LEVEL FOR EASY IDENTIFICATION AND MAINTENANCE PURPOSES.	EXIS	TING RI
ALL SUB-SOIL DRAINAGE SHALL BE OF A MINIMUM 100MM DIAMETER AND SHALL BE PROVIDED WITH A FILTER SOCK. THE SUBSOIL DRAINAGE SHALL BE INSTALLED IN ACCORDANCE WITH DETAILS TO BE PROVIDED BY THE LANDSCAPE ARCHITECT OR STORMWATER ENGINEER.	DES	IGN RL
ALL RETAINING WALLS SHALL BE CONSTRUCTED COMPLETELY WITHIN THE PROPERTY BOUNDARY LIMITS TO DETAILS PREPARED BY THE STRUCTURAL ENGINEER. WALLS FORMING THE ON-SITE DETENTION SYSTEM SHALL BE OF MASONARY/BRICK/CONCRETE CONSTRUCTION AND WATER TIGHT.		DIMEN PLANS
ALL MULCHING TO BE USED WITHIN THE AREA DESIGNATED AS ON-SITE DETENTION STORAGE SHALL BE OF A NON-FLOTABLE MATERIAL SUCH AS DECORATIVE RIVER GRAVEL. PINE PARK MULCHING SHALL NOT BE USED WITHIN THE DETENTION STORAGE AREA.	S2	IMMED OR EAL
ALL DRAINAGE WORKS ARE TO AVOID TREE ROOTS. ROOT BARRIER TO BE INSTALLED ADJACENT TO TREE ZONES WHERE DRAINAGE MAY BE AT RISK.		LOCAT MEASU THE W
ALL WORK WITHIN COUNCIL RESERVE TO BE INSPECTED BY COUNCIL PRIOR TO CONSTRUCTION.	53	APPRO
COUNCIL'S ISSUED FOOTWAY DESIGN LEVELS TO BE INCORPORATED INTO THE FINISHED LEVELS ONCE ISSUED BY COUNCIL.	00	OR EAI TREES REASC OUTSII RECTIF
INWATER TANKS	S4	PROVII
RAINWATER TANK, DRAINED ROOF AREAS AND REUSE PLUMBING TO COMPLY WITH BASIX REQUIREMENTS AND CERTIFICATE.	S5	PROVII
	S6	ADDITI
ADEQUATE SCREENING TO PREVENT MOSQUITO BREEDING AND ENTRY OF ANIMAL OR FLOATING MATTER.	S7	ALTER
A 'FIRST FLUSH' DIVERSION TO REMOVE ROOF CONTAMINANTS MUST BE PROVIDED.	_	WASH TRAFF
TANKS TO BE PUMPED TO TOP-UP FROM THE POTABLE WATER SUPPLY DURING DRY PERIOD WHEN THE		
TANK IS 80% EMPTY.	-	APPRC THROU
PUMP TO BE SUITABLY SOUNDPROOFED.	311	TO BE
A SIGN IS TO BE INSTALLED NEAR THE RAINWATER TANK HIGHLIGHTING "NOT FOR HUMAN CONSUMPTION".	S12	TO AVO THE SU
	ALL WORKS SHALL BE IN ACCORDANCE WITH B.C.A AND AS3600.3. ALL EXISTING LEVELS TO BE CONFIRMED BY BULDER PRIOR TO CONSTRUCTION. THE BULDER SHALL ENSURE THAT THE STORMWATER ENGINEERS DRAWINGS CORRESPOND TO THE ARCHITECTURAL, STRUCTURAL, AND LANGSCAMP OR DAWINGS, IT THERE DESIRS AND DISORDERSE BETWEEN THE DRAWINGS, THE BULDER SHALL REPORT THE DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORKS. THE BULDER SHALL REPORT THE DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCEMENT OF ANY WORKS. THE BULDER SHALL REPORTED TO THE DESIGN ENGINEER. THE DRAWINGS, THE JULDER SHALL BE PROPRIED TO THE DESIGN ENGINEER. THE DRAWINGS, THE JULDER THAT THE STARLISHED BENCH MARK THIS IS TYPICALLY METRES TO AUSTRALIAN HEIGHT DATUM (AHD). ALL LEVES SHALL RELATE TO THE ESTABLISHED BENCH MARK THIS IS TYPICALLY METRES TO AUSTRALIAN HEIGHT DATUM (AHD). ALL DOWNPIPES TO BE 100MM DIAMETER UNLESS NOTED OTHERWISE. ALL DOWNPIPES TO HAVE LEAF GUARDS. ALL DOWN PIPES TO HAVE LEAF GUARDS. ALL DEVESTOR TO HAVE LEAF GUARDS. ALL DEVESTOR AND SEALED. ALL DEVESTOR HAVE DESIGN ON COVER IF LOCATED WITHIN PROPERTY. ALL DEVESTOR HAVE BEING ON INMETER UNDERSTONOLOD PIPES HAVE TO BE TAKEN UP TO THE FINISHED GROUND LEVEL FOR EASY DENTIFICATION AND MAINTENANCE PURPOSES. ALL SUB-SOIL DRAINAGE SHALL BE OF A MINIMUM 100M DEATER AND SHALL BE PROVIDED WITH A FILTER STORE. ALL DEVENSIOL DRAINAGE SHALL BE OF A MINIMUM 100M DIAMETER AND SHALL BE PROVIDED WITH A FILTER STORE. ALL DEVENSIOL DRAINAGE SHALL BE OF A MINIMUM 100M DIAMETER AND SHALL BE PROVIDED WITH A FILTER STORE. ALL DRAIN ON BULDS SHALL BE OF A MINIMUM 100M DIAMETER AND SHALL BE PROVIDED WITH A FILTER STORE. ALL DRAIN DRAINED SHALL BE OF A MINIMUM 100M DIAMETER AND SHALL BE PROVIDED WITH A FILTER STORE. ALL DRAIN DRAINED SHALL BE OF A MINIMUM 100M DIAMETER AND SHALL BE PROVIDED WITH A FILTER STORE. ALL DRAIN DRAINED SHALL BE OF A MINIMUM 100M DIAMETER AND SHALL BE PROVIDED WITH A FILTE STORE. ALL DRAINES SHALL BE CONTRUCTURE AND REUSE RUMANES MINISTIC DRAINES SHA	ALL WORKS SHALL BE IN ACCORDANCE WITH B.CA AND ASSS03. PRE   ALL EXISTING LEVELS TO BE CONFIRMED BY DUILDER PRIOR TO CONSTRUCTION. GRA   THE BUILDER SHALL ENSURE THAT THE STORMWATER ENGINEERS DRAWINGS CORRESPOND TO THE CARANDAL STRUCTURAL AND LANDSCAPANED DRAWINGS. GRA   ACCIMIENCIANS, STRUCTURAL AND LANDSCAPANED DRAWINGS. GRA   ACCIMIENCIANS, STRUCTURAL AND LANDSCAPANED DRAWINGS. GRA   PRIOR TO COMMENCIANS ANY WORKS, THE BUILDER SHALL ENGURE THAT THE INVERT LEVELS OF WHERE DOW   DESIGN LEVELS, ANY DESCREPANCIES SHALL BER PROPIED TO THE COSION ENGINER. GRA   ALL LEVELS SHALL RELATE TO THE ESTABLISHED BENCH MARK. THIS IS TYPICALLY METRES TO AUSTRALIAN SI: SI   ALL LEVELS SHALL RELATE TO THE ESTABLISHED BENCH MARK. THIS IS TYPICALLY METRES TO AUSTRALIAN GRA   ALL LEVELS SHALL RELATE TO THE ESTABLISHED BENCH MARK. THIS IS TYPICALLY METRES TO AUSTRALIAN GRA   ALL LEVELS SHALL RELATE OT THE ESTABLISHED BENCH MARK. THIS IS TYPICALLY METRES TO AUSTRALIAN GRA   ALL LEVELS SHALL RELATE TO THE ESTABLISHED BENCH MARK. THIS IS TYPICALLY METRES TO AUSTRALIANS GRA   ALL LEVELS OF HAVE LEAF GUARDS. GLE GLE   ALL LEVELS OF HAVE LEAF GUARDS. GLE GRA   ALL LEAG ANN SEVENCE TO A MINIMUM 1.0% SLOPE UNLESS NOTED OTHERWISE. LINES GLE   ALL LEAF AND SEVENCE TO REVECT A MINIMUM 1.0%

NOTE
DO NOT OC

DO NOT SCALE OFF DRAWINGS. REFER TO ARCHITECTURAL PLANS FOR LEVELS, STEPS, DIMENSIONS AND SETOUT. VERIFY DIMENSIONS ON SITE. THE ENGINEER SHALL BE NOTIFIED OF ANY VARIATIONS TO THAT SHOWN ON STRUCTURAL PLANS BEFORE COMMENCEMENT OF WORKS

REV

)		
PIPE (CHARGED LINE)		
IPE AT MIN. 1% SLOPE U.N.O.		
T MIN. 1% SLOPE		SEDIMENT FENCE/
MIN. Ø100 U.N.O.		Ø
T CE LEVEL LEVEL		PRECAST LINTEL
EYE (INSPECTION EYE)		
FLOW PATH		ROLL OF NETTING FILLED WITH 50mm TO 75mm GRAVEL
RENCH		C KERB INLET PROTECT DETAIL
RL	+RL 00.000	
	+ <u>RL 00.000</u>	

## ENT & EROSION CONTROL

NS ARE MINIMUM REQUIREMENTS AND ARE TO BE USED AS A GUIDE ONLY. EXACT MEASURES USED LL BE DETERMINED ON SITE IN CONJUNCTION WITH PROGRAM OF CONTRACTORS WORKS.

EDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO NOMINATE THE ATIONS AND TYPES OF SEDIMENT AND EROSION CONTROL MEASURE TO BE ADOPTED. THESE SURES SHALL BE IMPLEMENTED PRIOR TO ANY CLEARING OR EARTHWORKS AND MAINTAINED UNTIL WORKS ARE COMPLETED AND NO LONGER POSE AN EROSION HAZARD, UNLESS OTHERWISE ROVED BY THE SUPERINTENDENT.

EDIATELY FOLLOWING SETTING OUT OF THE WORKS, BUT PRIOR TO COMMENCEMENT OF ANY CLEARING EARTHWORKS, THE CONTRACTOR AND SUPERINTENDENT SHALL WALK THE SITE TO IDENTIFY AND MARK ES WHICH ARE TO BE PRESERVED. NOTWITHSTANDING THE ABOVE, THE CONTRACTOR SHALL TAKE ALL SONABLE PRECAUTIONS TO MINIMISE DISTURBANCE TO EXISTING VEGETATION AND GROUND COVER SIDE THE MINIMUM AREAS REQUIRED TO COMPLETE THE WORKS AND SHALL BE RESPONSIBLE FOR TIFICATION, AT ITS OWN COST, OF ANY DISTURBANCE BEYOND THOSE AREAS.

VIDE GULLY GRATE INLET SEDIMENT TRAPS AT ALL GULLY PITS.

VIDE SILT FENCING ALONG PROPERTY LINE AS DIRECTED BY SUPERINTENDENT.

DITIONAL CONTROL DEVICES TO BE PLACED WHERE DIRECTED BY THE PRINCIPLE.

ERNATIVE DESIGNS TO BE APPROVED BY SUPERINTENDENT PRIOR TO CONSTRUCTION.

TH DOWN/RUMBLE AREA TO BE CONSTRUCTED WITH PROVISIONS RESTRICTING ALL SILT AND FFICKED DEBRIS FROM ENTERING THE STORMWATER SYSTEM.

WORK OR STOCKPILING OF MATERIALS TO BE PLACED OUTSIDE OF SITE WORK BOUNDARY.

ROPRIATE EROSION AND SEDIMENT CONTROLS TO BE USED TO PROTECT STOCKPILES AND MAINTAINED OUGHOUT CONSTRUCTION.

THE CONTRACTORS RESPONSIBILITY TO TAKE DUE CARE OF NATURAL VEGETATION. NO CLEARING IS BE UNDERTAKEN WITHOUT PRIOR APPROVAL FROM THE SUPERINTENDENT.

AVOID DISTURBANCE TO EXISTING TREES, EARTHWORKS WILL BE MODIFIED AS DIRECTED ON SITE BY SUPERINTENDENT.

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02.04.2024	PRELIMINARY ISSUE	B.P	
DATE	DESCRIPTION	BY	
			_

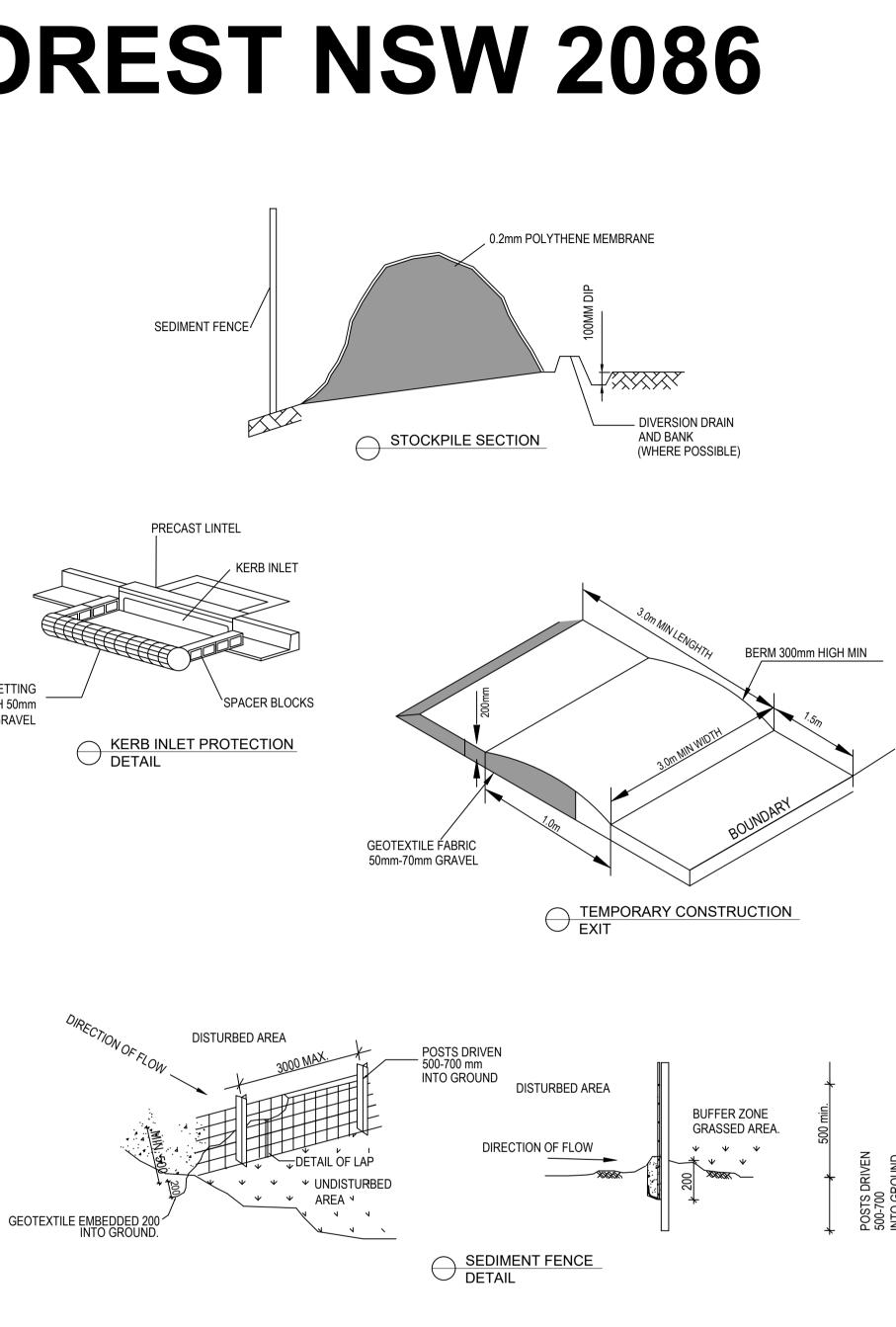
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## **SEDIMENT FENCE** F1 FILTER CLOTH TO BE FAS

- ATTACHMENT BELTS.
- F2 WHEN TWO SECTIONS OF F FOLDED.
- F3 POSTS SHALL NOT BE SPACED MORE THAN 3.0 METRES APART.
- F4 FOR EXTRA STRENGTH TO SILT FENCE, WOVEN WIRE (14MM GAUGE, 150MM MESH SPACING) TO BE FASTENED SECURELY BETWEEN FILTER CLOTH AND POSTS BY WIRE TIES OR STAPLES
- F5 INSPECTIONS SHALL BE PROVIDED ON A REGULAR BASIS, SPECIALLY AFTER RAINFALL AND EXCESSIVE SILT DEPOSITS REMOVED WHEN "BULGES" DEVELOP IN SILT FENCE SEDIMENT FENCES SHALL BE CONSTRUCTED WITH SEDIMENT TRAPS AND EMERGENCY SPILLWAYS AT SPACINGS NO GREATER THAN 40M ON FLAT TERRAIN DECREASING TO 20M SPACINGS ON STEEP TERRAIN
- F1 FILTER CLOTH TO BE FASTENED SECURELY TO POSTS WITH GALVANISED WIRE TIES, STAPLES OR
  - WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY 150MM AND

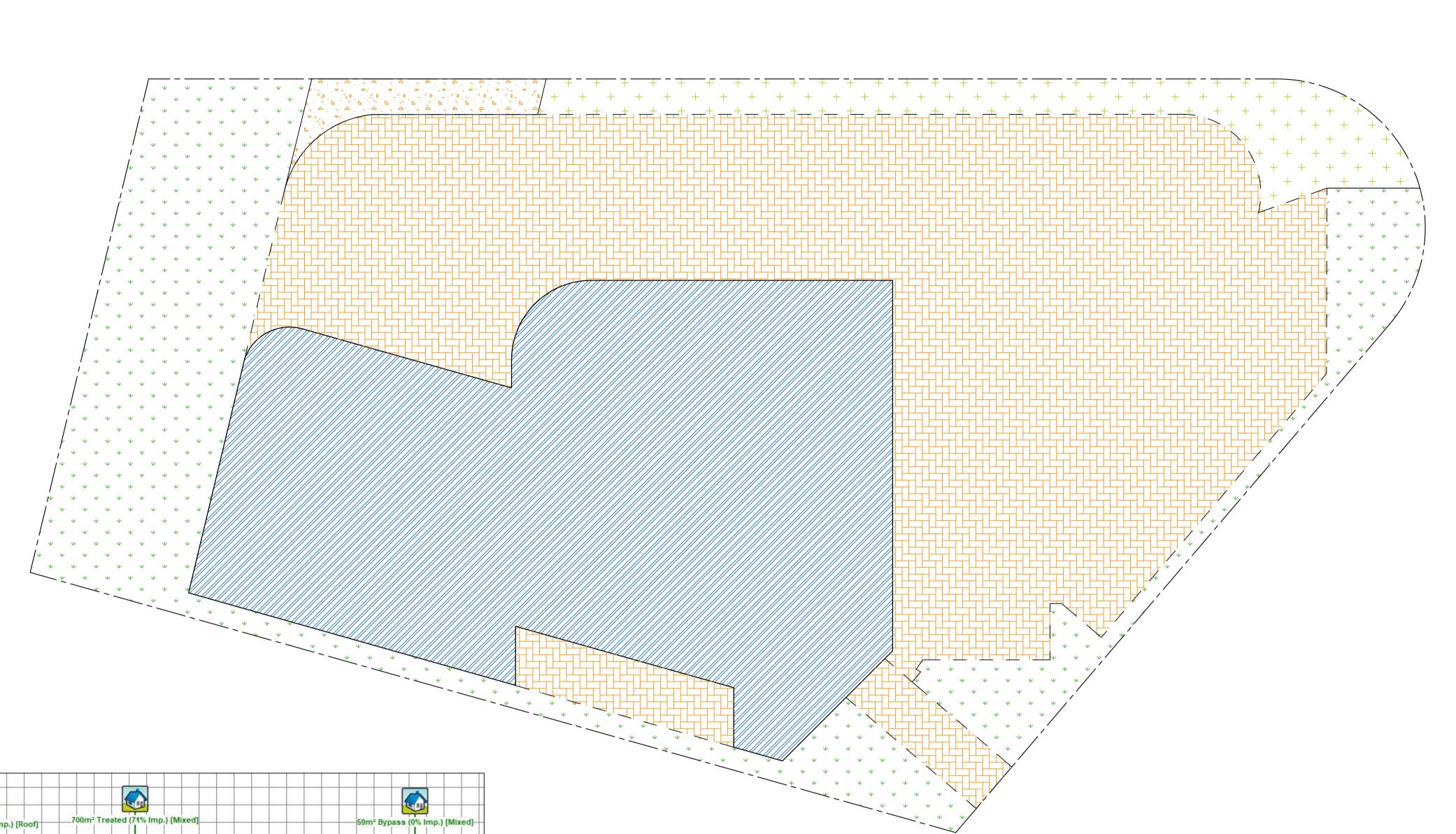
PROPOSED CHILDCARE	JOB NUMBER: 240146	DWG NUMBER:	ORIGINAL SIZE: A1
AT: 7 BLACKBUTTS ROAD, FRENCHS FOREST NSW 2086	DESIGNED BY: B.P	DATE: 02/04/2024	
COVER SHEET	DRAWN BY: B.P	SCALE: AS SHOWN	

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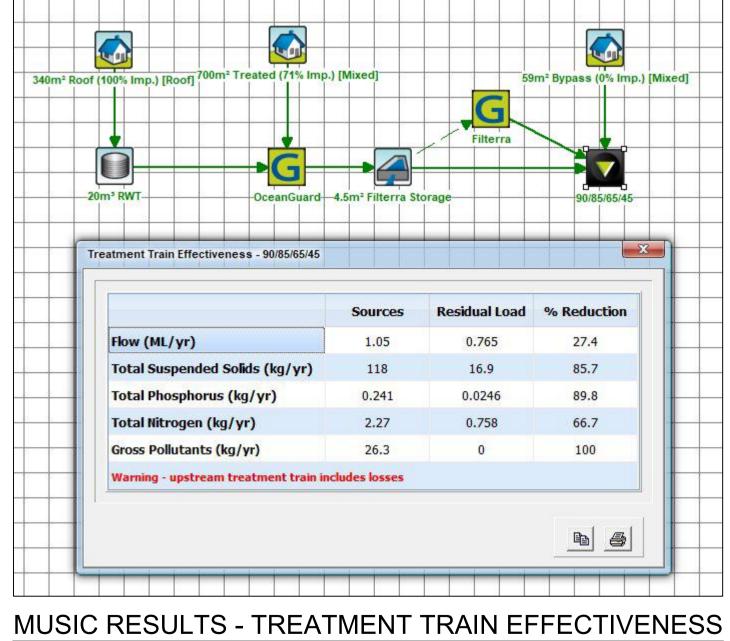
MUSIC RESULTS - NODE WATER BALANCE

-20m <sup>3</sup> RWT-	OceanGuard	4.5m <sup>2</sup> Filter	Tra Storage	Filterra	90/85/65/45
Node Water Balance - 20m <sup>3</sup> RWT					
	Flow (ML/yr)	TSS (kg/yr)	TP (kg/yr)	TN (kg/yr)	GP (kg/yr)
Flow In	0.41	10.45	0.06	0.90	10.58
ET Loss	0.00	0.00	0.00	0.00	0.00
Infiltration Loss	0.00	0.00	0.00	0.00	0.00
Low Flow Bypass Out	0.00	0.00	0.00	0.00	0.00
High Flow Bypass Out	0.00	0.00	0.00	0.00	0.00
Pipe Out	0.12	2.32	0.02	0.25	0.00
Weir Out	0.00	0.00	0.00	0.00	0.00
Transfer Function Out	0.00	0.00	0.00	0.00	0.00
Reuse Supplied	0.29	3.87	0.04	0.54	0.00
Reuse Requested	0.48	0.00	0.00	0.00	0.00
% Reuse Demand Met	60.99	0.00	0.00	0.00	0.00
% Load Reduction	70.76	77.83	72.62	71.88	100.00



## STORMWATER CATCHMENT PLAN

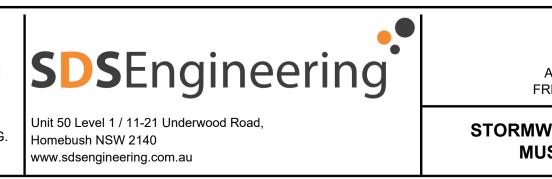
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DATE	DESCRIPTION	E

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## SITE AREA: 1099m<sup>2</sup>



ROOF TO RAINWATER TANK: 340m<sup>2</sup>

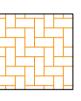




DRIVEWAY TO TREATMENT: 14m<sup>2</sup>

LANDSCAPE TO TREATMENT: 206m<sup>2</sup>





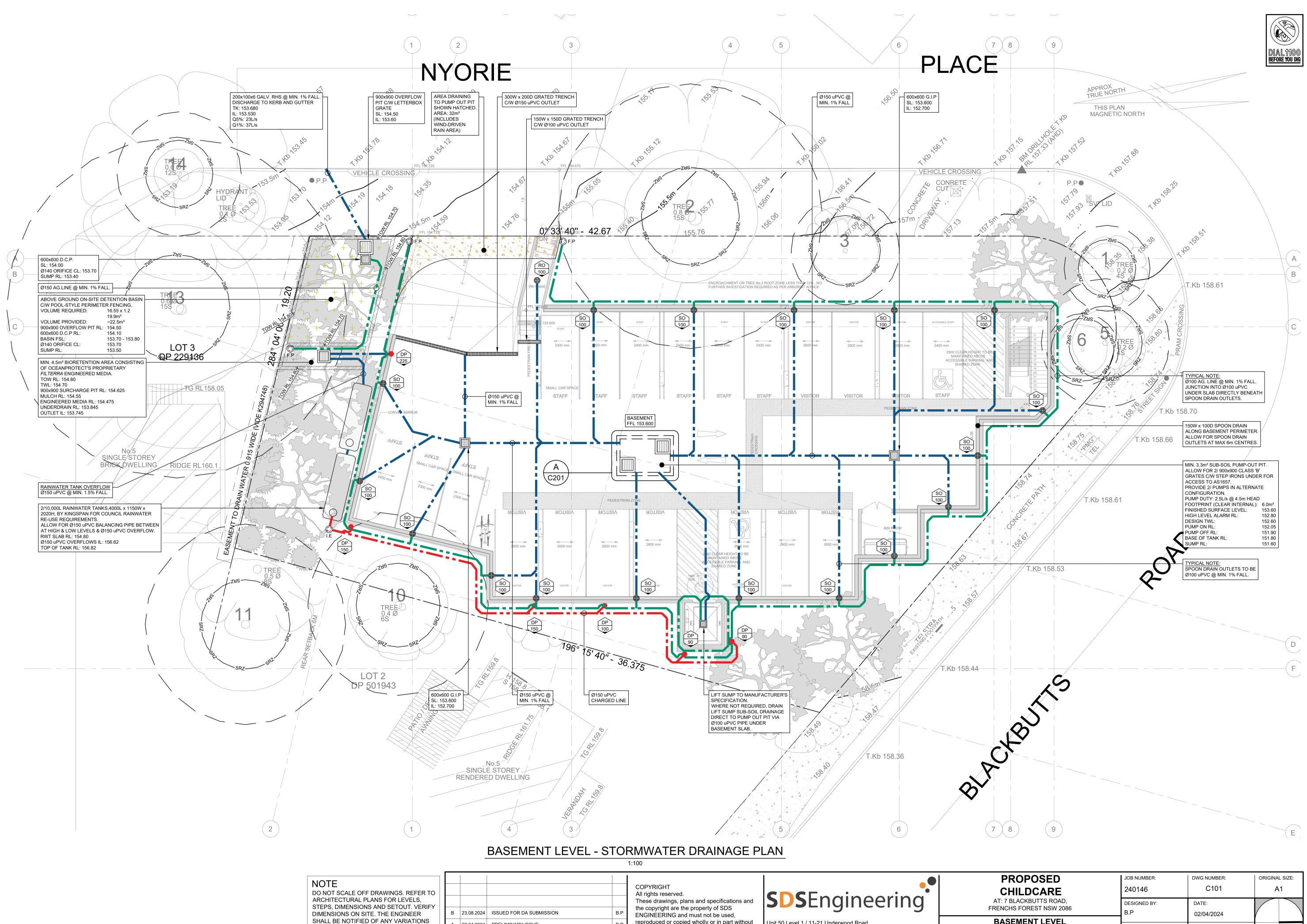
IMPERVIOUS TO TREATMENT: 480m<sup>2</sup>

+ -



LANDSCAPE BYPASS: 59m<sup>2</sup>

PROPOSED	JOB NUMBER:	DWG NUMBER:	ORIGINAL SIZE:
CHILDCARE	240146	C001	
AT: 7 BLACKBUTTS ROAD,	DESIGNED BY:	DATE:	
FRENCHS FOREST NSW 2086	B.P	02/04/2024	
RMWATER CATCHMENT PLAN /	DRAWN BY:	SCALE:	
MUSIC MODEL RESULTS	B.P	AS SHOWN	



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TO THAT SHOWN ON STRUCTURAL PLANS

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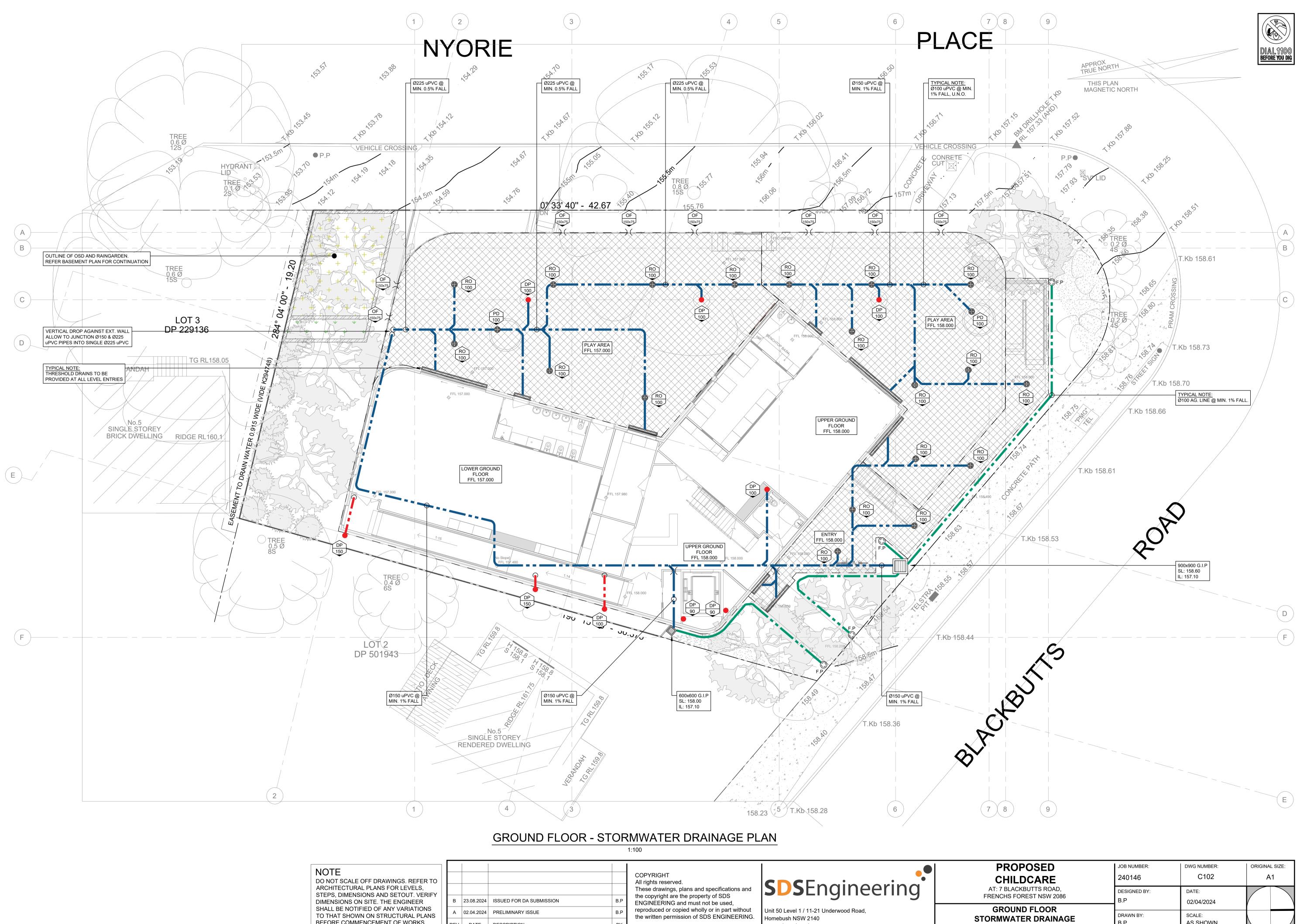
BEFORE COMMENCEMENT OF WORKS

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STOF

PROPOSED	JOB NUMBER:	DWG NUMBER:	ORIGINAL SIZE:
CHILDCARE	240146	C101	
AT: 7 BLACKBUTTS ROAD,	DESIGNED BY:	DATE:	
RENCHS FOREST NSW 2086	B.P	02/04/2024	
BASEMENT LEVEL ORMWATER DRAINAGE PLAN / DETAILS	DRAWN BY: B.P	SCALE: AS SHOWN	

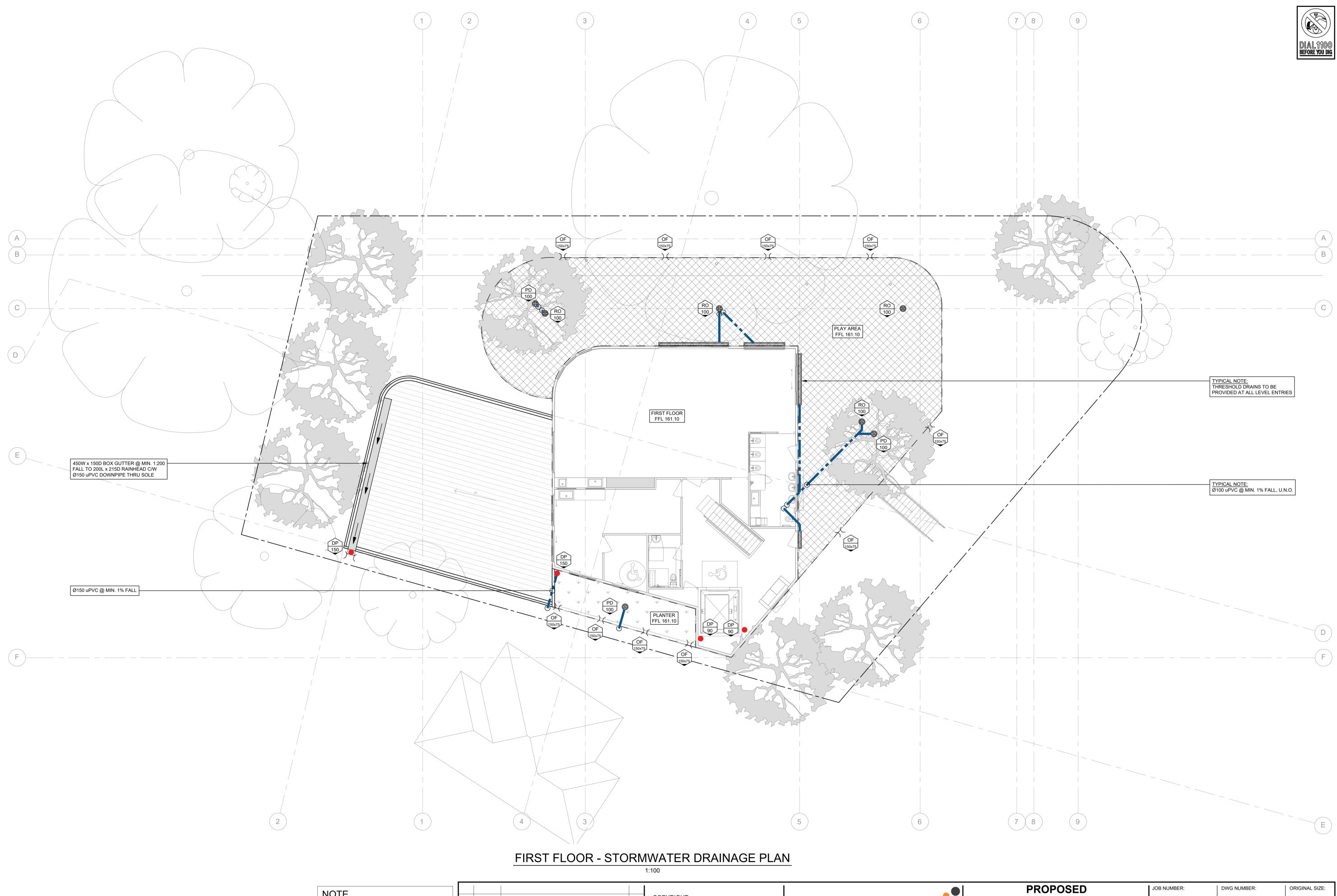


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TO THAT SHOWN ON STRUCTURAL PLANS BEFORE COMMENCEMENT OF WORKS

REV DATE DESCRIPTION

PROPOSED	JOB NUMBER:	DWG NUMBER:	ORIGINAL SIZE:
CHILDCARE	240146	C102	
AT: 7 BLACKBUTTS ROAD,	DESIGNED BY:	DATE:	
RENCHS FOREST NSW 2086	B.P	02/04/2024	
GROUND FLOOR ORMWATER DRAINAGE PLAN / DETAILS	DRAWN BY: B.P	SCALE: AS SHOWN	



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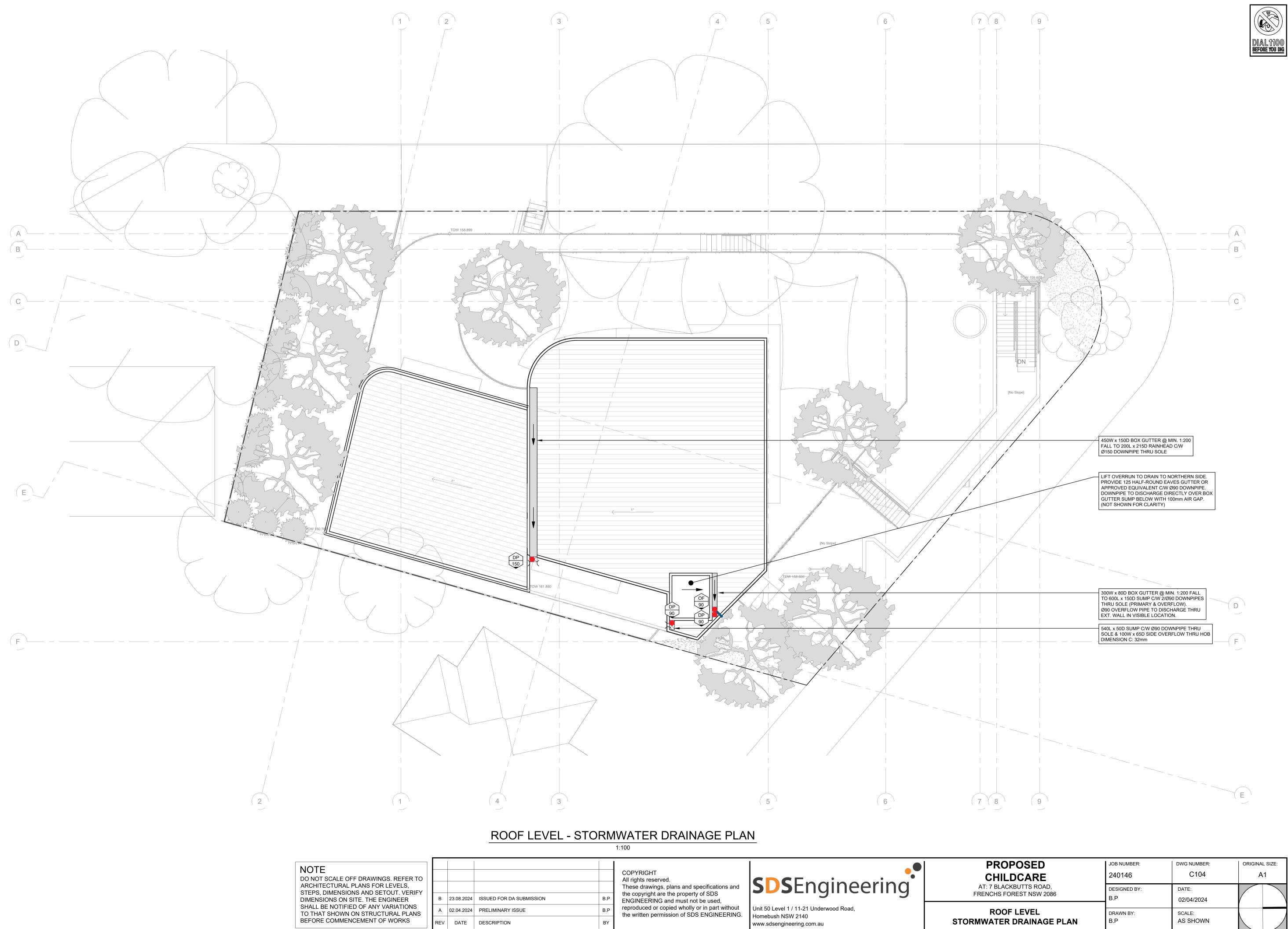
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STOP

PROPOSED	JOB NUMBER:	DWG NUMBER:	ORIGINAL SIZE:
CHILDCARE	240146	C103	
AT: 7 BLACKBUTTS ROAD,	DESIGNED BY:	DATE:	
FRENCHS FOREST NSW 2086	B.P	02/04/2024	
FIRST FLOOR STORMWATER DRAINAGE PLAN / DETAILS	DRAWN BY: B.P	SCALE: AS SHOWN	



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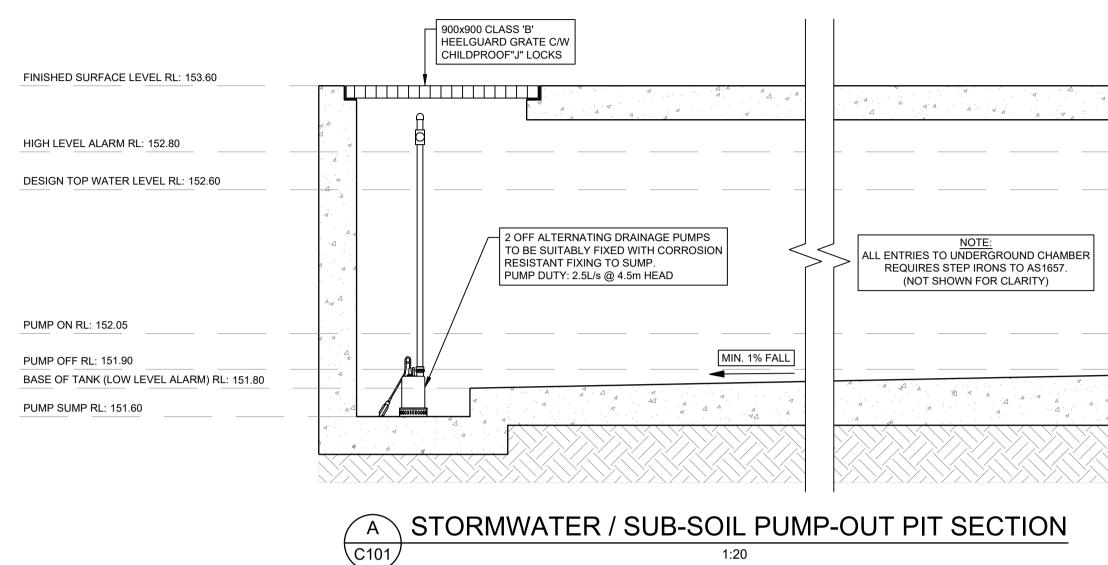
# Homebush NSW 2140 www.sdsengineering.com.au

STORM

PROPOSED	JOB NUMBER:	DWG NUMBER:	ORIGINAL SIZE:
CHILDCARE	240146	C104	A1
AT: 7 BLACKBUTTS ROAD, RENCHS FOREST NSW 2086	DESIGNED BY: B.P	DATE: 02/04/2024	
ROOF LEVEL MWATER DRAINAGE PLAN	DRAWN BY: B.P	SCALE: AS SHOWN	

### PUMP-OUT NOTES:

- THE PUMP-OUT SYSTEM SHALL BE DESIGNED TO BE OPERATED AS FOLLOWS: A MINIMUM OF TWO PUMPS ARE TO BE PROVIDED - ONE DUTY PUMP AND ONE STAND-BY PUMP
- THE PUMPS SHALL BE PROGRAMMED TO OPERATE ALTERNATIVELY SO AS TO ALLOW BOTH PUMPS TO HAVE AN OPERATIONAL LOAD AND PUMP LIFE A LOW-LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE UNDERGROUND TANK. THE FLOAT SHALL FUNCTION AS AN 'OFF' SWITCH FOR THE PUMP.
- A SECOND FLOAT SHALL BE PROVIDED AT A HIGHER LEVEL, EQUAL TO THE PUMP DUTY WHEN OPERATING FOR 5-MINUTES ABOVE THE MINIMUM WATER LEVEL. AT THIS LEVEL ONE OF THE PUMPS WILL OPERATE AND DRAIN THE UNDERGROUND TANK TO THE LEVEL OF THE LOW-LEVEL FLOAT A THIRD FLOAT SHALL BE PROVIDED AT HIGH LEVEL, ABOVE THE DESIGN TOP WATER LEVEL. THIS FLOAT SHALL BE DESIGNED TO START THE STAND-BY PUMP THAT IS NOT OPERATING AND ACTIVATE THE ALARM.
- AN ALARM WARNING SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT, SIREN AND PUMP FAILURE WARNING SIGN WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT. THE ALARM WARNING SYSTEM SHALL BE PROVIDED WITH A BATTERY BACK-UP IN CASE OF POWER FAILURE.



# **ON-SITE DETENTION CALCULATION:**

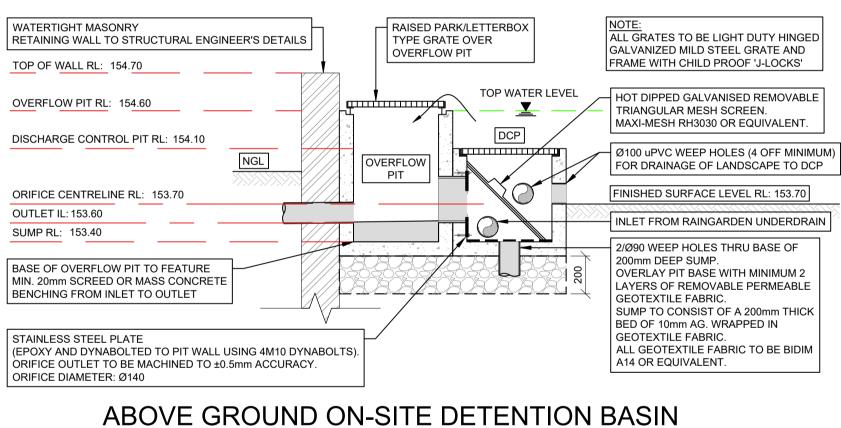
### PROPOSED CHILDCARE

**PRE-DEVELOPMENT CONDITIONS:** GREENFIELD (PERVIOUS AREA = 100%)

**POST-DEVELOPMENT CONDITIONS:** REFER CATCHMENT PLAN (C001)

**VOLUME CALCULATED USING DRAINS SOFTWARE:** LIMIT POST-DEVELOPMENT DISCHARGE RATE TO UNDEVELOPED CONDITIONS.

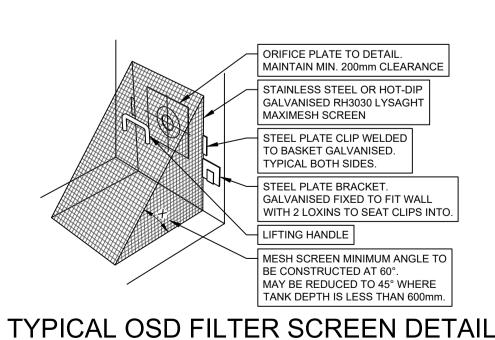
OUTPUTS	
ORIFICE DIAMETER:	140mm
OSD VOLUME REQUIRED:	16.55m <sup>3</sup> + 20% (LANDSCAPING)
	=19.9m <sup>3</sup>
OSD VOLUME PROVIDED:	~22.5m <sup>3</sup>



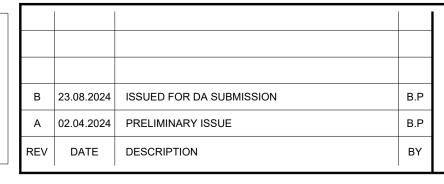
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ABOVE	GROL	JND	ON
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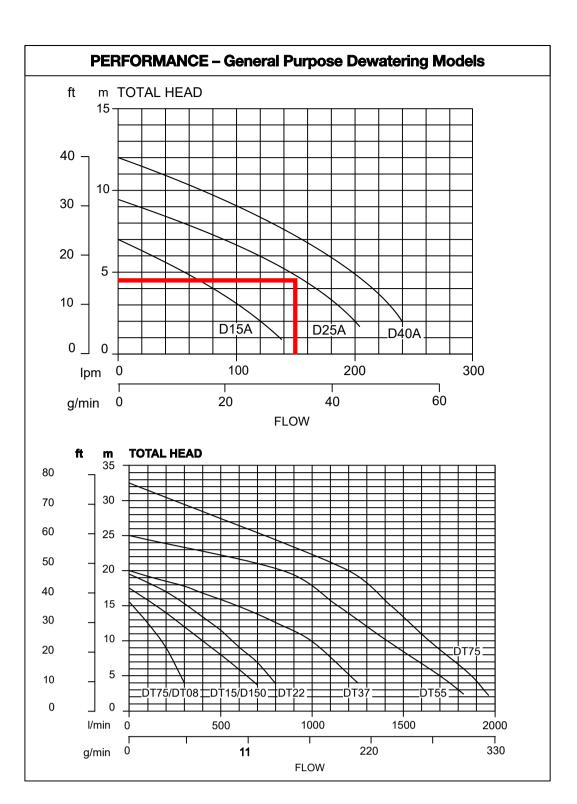
PEAK SITE DISCHARGE					
STORM DDC		POST-DEVELOPMENT			
EVENT	PRE-	ORIFICE	OVERFLOW	BYPASS	PEAK
20% AEP	23	22	0	1	23
5% AEP	34	28	0	2	30
1% AEP	51	34	0	3	37

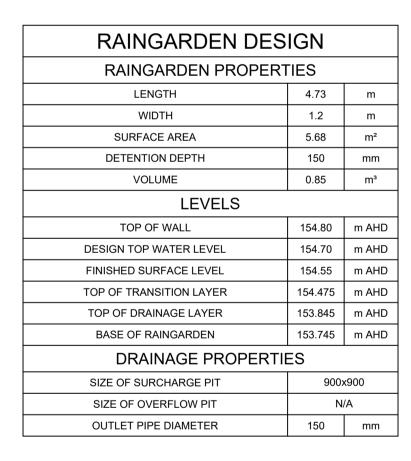


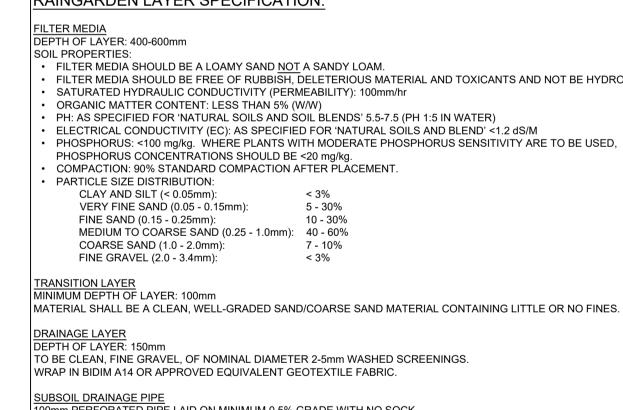
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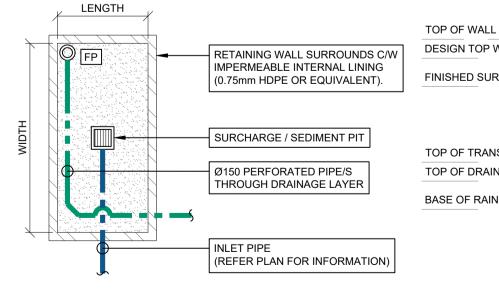
STORMWATER / SUB	STORMWATER / SUB-SOIL			
PUMP-OUT PIT DES	SIGN			
CATCHMENT PROPERT	IES			
EXPOSED AREA [A]	32	m²		
FIVE-MINUTE RAINFALL INTENSITY [10015]	276.0	mm/hr		
TWO-HOUR RAINFALL INTENSITY [ <sup>100</sup> I <sub>120</sub> ]	51.0	mm/hr		
RUNOFF COEFFICIENT [C]	1.	0		
PUMP HEAD CALCULATI	ONS			
PUMP ELEVATION	151.60	m AHD		
DISCHARGE ELEVATION	154.80	m AHD		
ELEVATION HEAD	3.2	m		
OUTLET PIPE DIAMETER	65	mm		
OUTLET PIPE AREA	0.03318	m²		
NUMBER OF PUMPS	2			
PEAK PIPE VELOCITY	1.48 m/s			
PUMP HEAD LOSS	1.23	m		
PUMP-PIT DESIGN PARAMETERS				
REQUIRED STORAGE VOLUME	3.3	m³		
REQUIRED PUMP RATE	2.5	L/s		
REQUIRED PUMP HEAD	4.43	m		





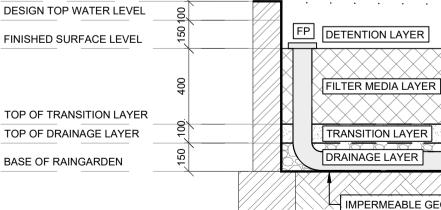












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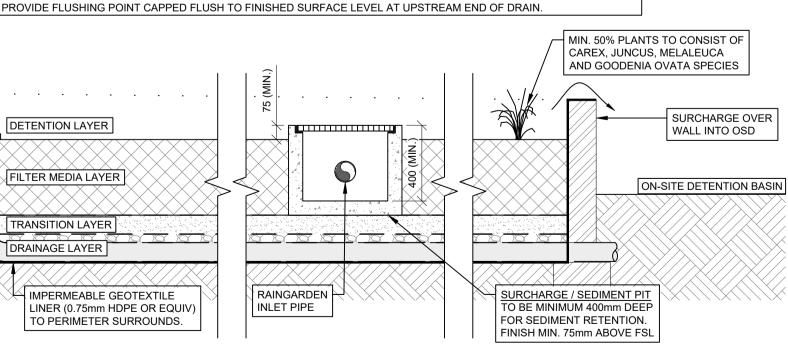
## **SDS**Engineering Unit 50 Level 1 / 11-21 Underwood Road, Homebush NSW 2140 www.sdsengineering.com.au

**ON-SITE** 

FP DETENTION LAYER

PROPOSED	JOB NUMBER:	DWG NUMBER:	ORIGINAL SIZE:
CHILDCARE	240146	C201	
AT: 7 BLACKBUTTS ROAD,	DESIGNED BY:	DATE:	
RENCHS FOREST NSW 2086	B.P	02/04/2024	
DETAIL SHEET 1 DETENTION / RAINGARDEN / BASEMENT PUMP PIT	DRAWN BY: B.P	SCALE: AS SHOWN	

## RAINGARDEN WITH IMPERMEABLE LINING SECTION NTS



### SUBSOIL DRAINAGE PIPE 100mm PERFORATED PIPE LAID ON MINIMUM 0.5% GRADE WITH NO SOCK. PIPE TO BE LAID AT THE BOTTOM OF THE DRAINAGE LAYER SO THAT IT HAS MIN. 50mm COVER.

TO BE CLEAN, FINE GRAVEL, OF NOMINAL DIAMETER 2-5mm WASHED SCREENINGS. WRAP IN BIDIM A14 OR APPROVED EQUIVALENT GEOTEXTILE FABRIC.

DISTRIBUTION:	
SILT (< 0.05mm):	< 3%
SAND (0.05 - 0.15mm):	5 - 30%
(0.15 - 0.25mm):	10 - 30%
COARSE SAND (0.25 - 1.0mm):	40 - 60%
AND (1.0 - 2.0mm):	7 - 10%
EL (2.0 - 3.4mm):	< 3%

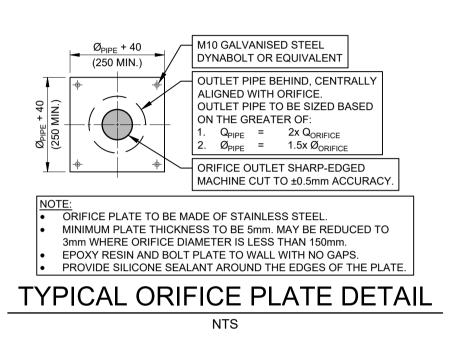
PHOSPHORUS CONCENTRATIONS SHOULD BE <20 mg/kg. COMPACTION: 90% STANDARD COMPACTION AFTER PLACEMENT.

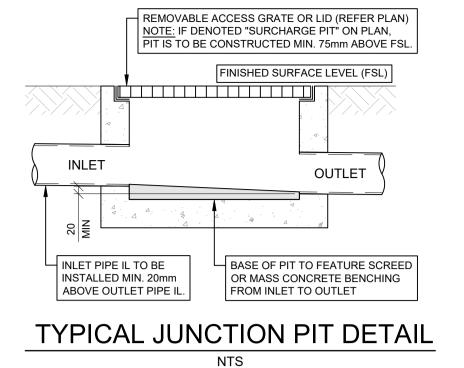
ELECTRICAL CONDUCTIVITY (EC): AS SPECIFIED FOR 'NATURAL SOILS AND BLEND' <1.2 dS/M PHOSPHORUS: <100 mg/kg. WHERE PLANTS WITH MODERATE PHOSPHORUS SENSITIVITY ARE TO BE USED,

ORGANIC MATTER CONTENT: LESS THAN 5% (W/W) PH: AS SPECIFIED FOR 'NATURAL SOILS AND SOIL BLENDS' 5.5-7.5 (PH 1:5 IN WATER)

• FILTER MEDIA SHOULD BE A LOAMY SAND NOT A SANDY LOAM. FILTER MEDIA SHOULD BE FREE OF RUBBISH, DELETERIOUS MATERIAL AND TOXICANTS AND NOT BE HYDROPHOBIC. SATURATED HYDRAULIC CONDUCTIVITY (PERMEABILITY): 100mm/hr

RAINGARDEN LAYER SPECIFICATION:





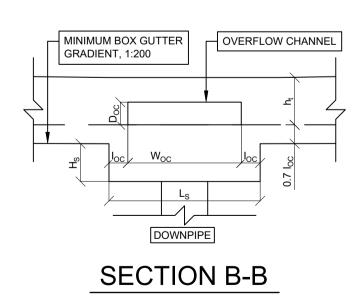


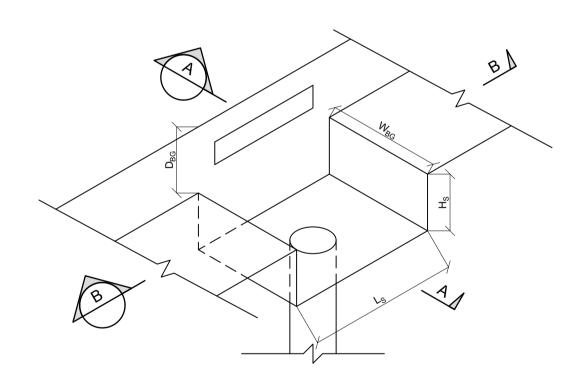
NOTE
DO NOT SCALE OFF DRAWINGS. REFER TO
ARCHITECTURAL PLANS FOR LEVELS,
STEPS, DIMENSIONS AND SETOUT. VERIFY
DIMENSIONS ON SITE. THE ENGINEER
SHALL BE NOTIFIED OF ANY VARIATIONS
TO THAT SHOWN ON STRUCTURAL PLANS
BEFORE COMMENCEMENT OF WORKS

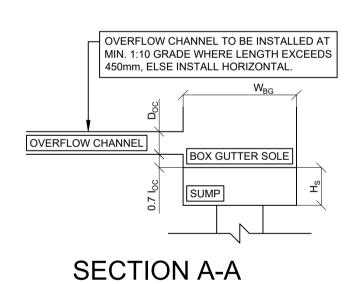
REV

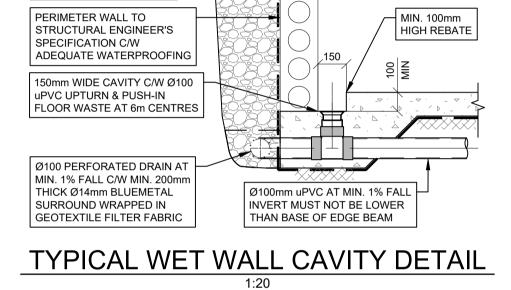
## BOX GUTTER WITH SIDE OVERFLOW DEVICE DETAIL NTS

BOX GUTTER DIMENSIONS			
WIDTH (W <sub>BG</sub> )	N/A		
DEPTH (D <sub>BG</sub> )	N/A		
SUMP LENGTH (L <sub>S</sub> )	540		
SUMP DEPTH (H <sub>S</sub> )	50		
OVERFLOW WIDTH (W <sub>OC</sub> )	100		
OVERFLOW DEPTH (D <sub>OC</sub> )	65		
OVERFLOW CREST (I <sub>OC</sub> )	N/A		
HEIGHT OVER CREST (h <sub>t</sub> )	80		
DOWNPIPE DIAMETER	90		



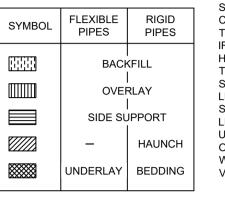






NTS

COMPACTED FREE DRAINING GRANULAR FILL

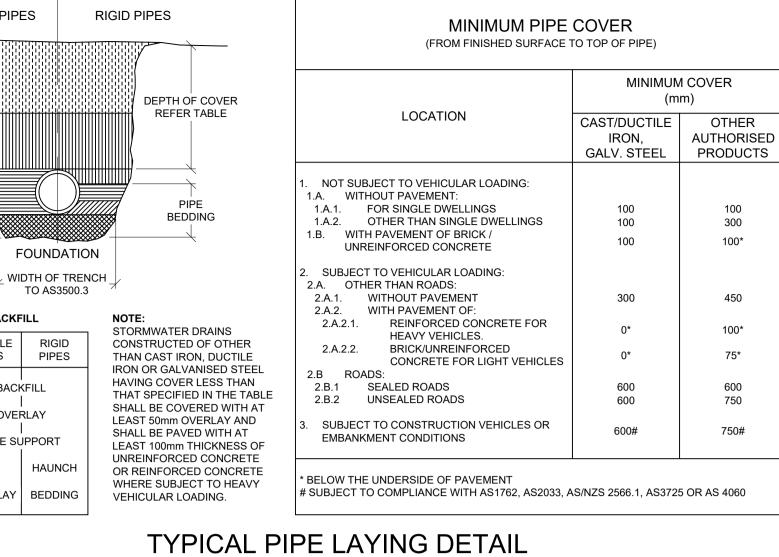


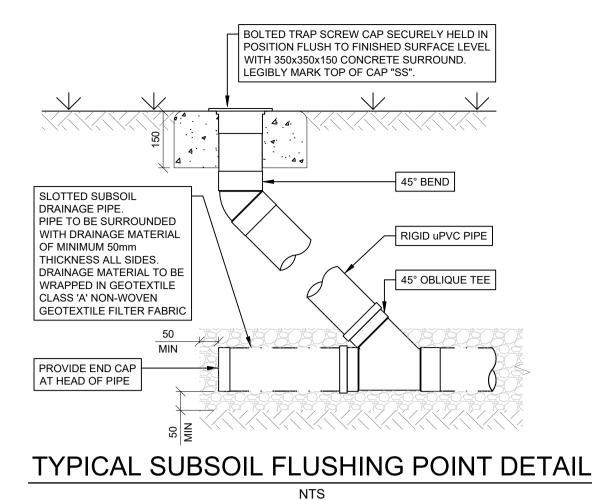
FLEXIBLE PIPES

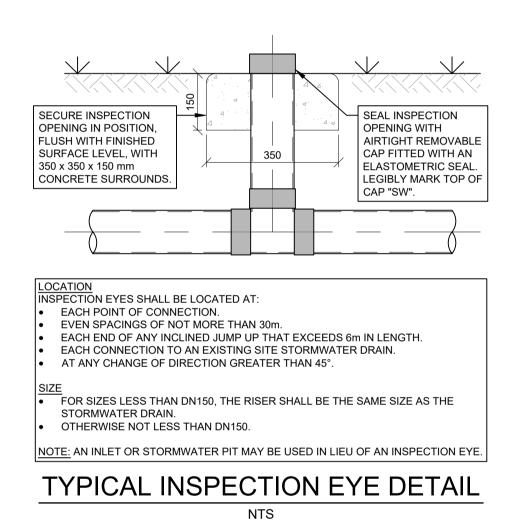
EMBEDMENT

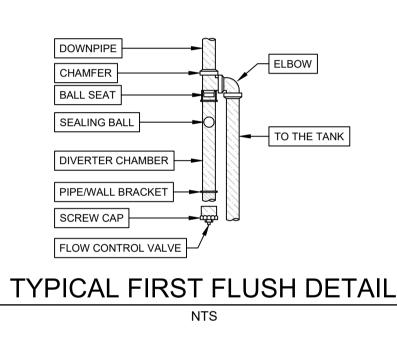
ZONE

LEGEND: TRENCH BACKFILL









CHARGED DOWNPIPES TO

BE SOLVENT WELD SEALED

PROVIDE SYDNEY WATER

EXAMPLES: RAINMASTER

RAINWATER RE-USE

AS SPECIFIED BY

BASIX CERTIFICATE

(BY OTHERS) TO

OUTDOOR TAPS

AND/OR TOILETS

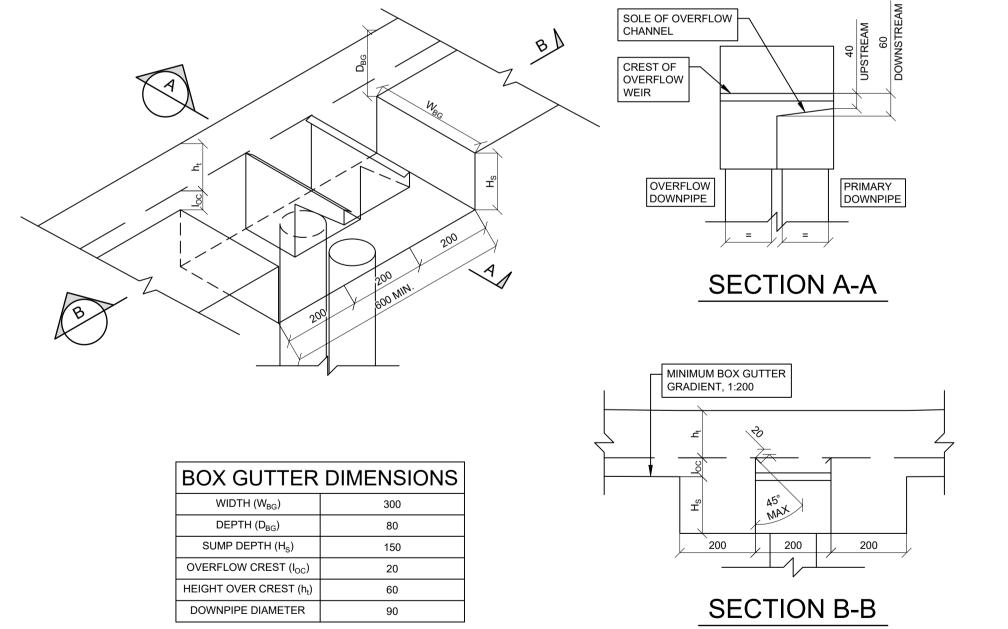
MACHINE

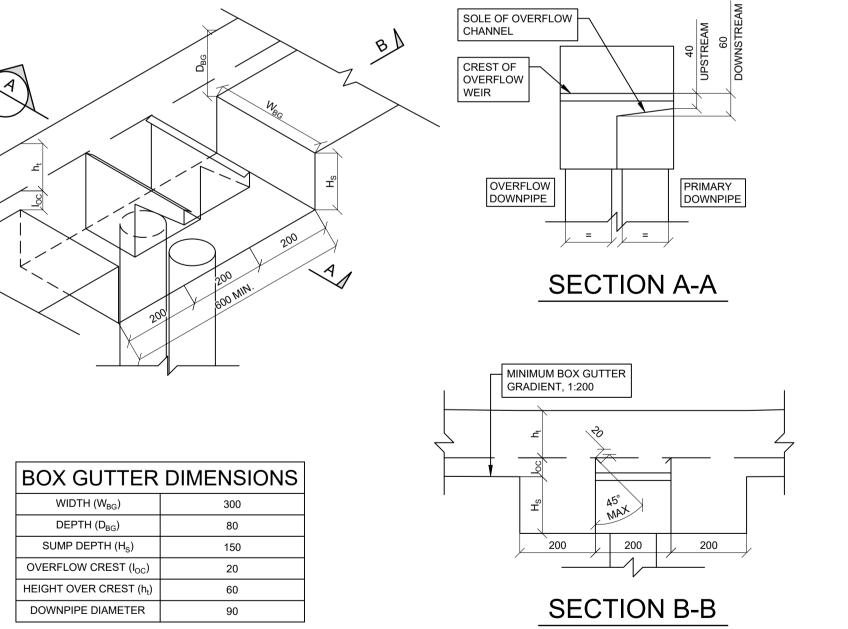
AND/OR WASHING

RE-USE SYSTEM CONTROL BOX

MOUNTED TO DWELLING WALL.

(WWW.RAINMASTER.COM.AU)





# BOX GUTTER WITH HIGH-CAPACITY OVERFLOW DEVICE DETAIL NTS

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02.04.2024	PRELIMINARY ISSUE	B.P		Unit 50 Level 1 / 11-21 Underwood Road, Homebush NSW 2140 www.sdsengineering.com.au	
DATE	DESCRIPTION	BY			

RAINHEAD DIMENSIONS WIDTH (W<sub>BG</sub>) 450 BOX GUTTER DEPTH (ha) 150 RAINHEAD DEPTH (hr) 215 LENGTH (I<sub>r</sub>) 200 DOWNPIPE DIAMETER 150

TYPICAL RAINHEAD DETAIL NTS

MINIMUM BOX GUTTER GRADIENT, 1:200

PROPOSED CHILDCARE	JOB NUMBER: 240146	DWG NUMBER:	ORIGINAL SIZE:	
AT: 7 BLACKBUTTS ROAD,	DESIGNED BY:	DATE:		
FRENCHS FOREST NSW 2086	B.P	02/04/2024		
DETAIL SHEET 2	DRAWN BY:	SCALE:		
TYPICAL DETAILS	B.P	AS SHOWN		

# WITH METALLIC WARNING SIGN NON-POTABLE WARNING SIGN

TO THE TANK

ELBOW



