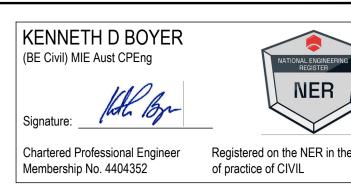
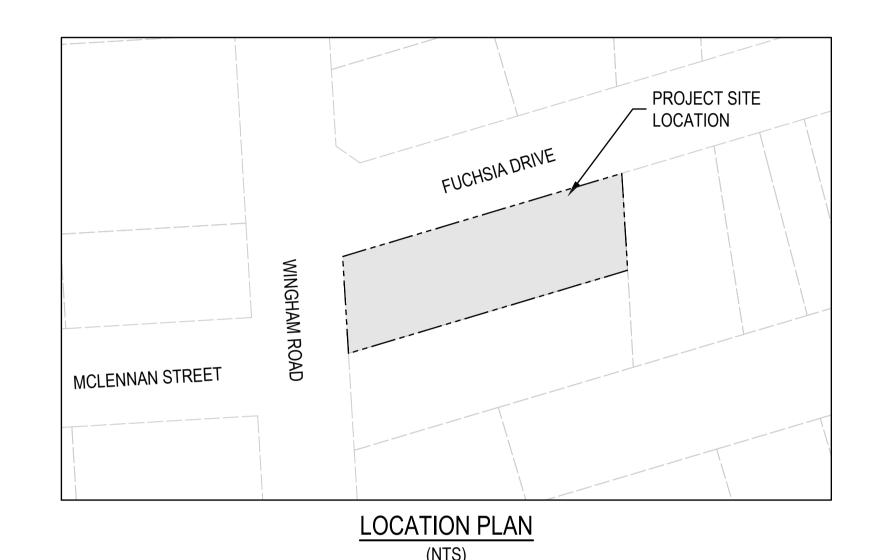


STORMWATER WORKS for 97 WINGHAM ROAD **TAREE NSW 2430**



Prepared by

WALLACE INFRASTRUCTURE DESIGN PTY LTD



DRAWING NUMBER	DRAWING DESCRIPTION
C01.01	LEGEND, DRAWING SCHEDULE AND LOCATION PLAN
C02.01	GENERAL NOTES
C05.01	STORMWATER MANAGEMENT PLAN
C05.02	MUSICX CATCHMENT PLAN AND RESULTS
C06.01	RAINGARDEN TYPICAL SECTION & DETAILS
C06.02	RAINWATER TANK DETAILS

ABBREVIATIONS

ABOVE GROUND

AGG	AGGREGATE	IFCR	ISSUED FOR CLIENT REVIEW
ARCH	ARCHITECT	IL	INVERT LEVEL
ASP	ASPHALT	Ю	INSPECTION OPENING
BM	BENCHMARK	KIP	KERB INLET PIT
CAD	COMPUTER AIDED DRAFTING	L	LENGTH
C-C	CENTRE TO CENTRE	LP	LAMP POST (SURVEY)
CH	CHAINAGE	MAX	MAXIMUM
CI	CAST IRON	MC	MASS CONCRETE
CJ	CONSTRUCTION JOINT	MH	MANHOLE
CL	COVER LEVEL or CENTRE LINE	MIN	MINIMUM
СО	CLEAN OUT (SUBSOIL)	MISC	MISCELLANEOUS
COG	CHANGE OF GRADE	N	NORTH
CONC	CONCRETE	NRV	NON RETURN VALVE
CTRL	CONTROL	NTS	NOT TO SCALE
CR	CROWN	OD	OUTER DIAMETER
CTS	CENTRES	OF	OVERFLOW
D	DEPTH	OH	OVERHEAD
DIA	DIAMETER	PP	POWER POLE
DP	DOWNPIPE	PPE	PERSONAL PROTECTIVE EQUIP.
DRG	DRAWING	PVC	POLYVINYLCHLORIDE
D/S	DOWN STREAM	PV	
DTM	DIGITAL TERRAIN MODEL	PVP	PRESSURE VENT PIPE
EB	EDGE BITUMIN	QA	QUALITY ANALYSIS
EX	EXISTING	QTY	QUANTITY
ESL	EXISTING SURFACE LEVEL	R	
FH	FIRE HYDRANT	RC	REINFORCED CONCRETE
FHR	FIRE HOSE REEL	REV	REVISION
FFL	FINISHED FLOOR LEVEL	RL	REDUCED LEVEL
FGL	FINISHED GROUND LEVEL	RW	RETAINING WALL
FSL	FINISHED SURFACE LEVEL	SFW	SEALED FLOOR WASTE
FW	FLOOR WASTE	SL	SURFACE LEVEL
GA	GENERAL ARRANGEMENT	SMH	SEWER MANHOLE
Gl	GALVANISED IRON	SMV	SEWER MAIN VENT
GFL	GARAGE FINISHED LEVEL	SOD	SIDE OUTLET DRAIN
IC	INSPECTION CHAMBER	S/S	STAINLESS STEEL
ID	INSIDE DIAMETER	STD	STANDARD
AutoCAD Civil 3D 2021			

PLOTTED BY:- ARYAN DATE:- 7 February 2025 11 5 AM FILENAME:- O:\PROJECTS\2024\24289 - 97 WINGHAM ROAD, TAREE\CAD\TITLE\24289_CIV_DA-[A]- 97 WINGHAM RD

STOP VALVE STORMWATER PIT THICKNESS TRAVERSE JOINT TOP OF WALL TRADE WASTE **TYPICAL** UNDERGROUND UNLESS NOTED OTHERWISE UPSTREAM VITRIFIED CLAY PIPE VENT PIPE VERTICAL RISER WATER CLOSET WATER LEVEL WATER METER WASTE STACK <u>UNITS</u> **MILLIMETRES** CENTIMETRES **METRES** SQUARE METRES **CUBIC METRES** LITRES PER SECOND **HECTARES**

THK

U/G

mm

GENERAL SITE BOUNDARY _____ CADASTRAL BOUNDARY EASEMENT BOUNDARY __ _ _ _ _ _ **EXISTING FEATURES** CONTOURS STORMWATER PIPE STORMWATER PIT ELECTRICAL CABLE - U/G ----E----E-ELECTRICAL CABLE - O/H EXISTING SEWER PIPE ----S----S-**EXISTING WATER** ---- W---- W-EXISTING WATER (HYDRANT) EXISTING WATER (STOP VALVE) EXISTING TELECOM **COMMUNICATIONS PIT EXISTING GAS EXISTING BUILDING** _____ TREES / SHRUBS PROPOSED - BUILDING (INDICATIVE ONLY) UNIT 01 DWELLING NUMBER

LINETYPES & SYMBOLS

PROPOSED - UTILITIES SEWER —— s ——— s ——— ____ w____ COMMUNICATIONS ____ T ____ T ____ COMMUNICATIONS - OPTIC FIBRE — OFC—— OFC— **COMMUNICATIONS PIT** GAS —— G ——— G ——— ELECTRICAL CABLE - U/G — E — E — ELECTRICAL CABLE - O/H ---- OHE-----REDUNDANT $\boldsymbol{x}_{1} \boldsymbol{x}_{2} \boldsymbol{x}_{3} \boldsymbol{x}_{4} \boldsymbol{x}_{4} \boldsymbol{x}_{5} \boldsymbol$ PROPOSED - EROSION AND SEDIMENT CONTROL SITE EXCLUSION FENCE -- [X] - [X] - [X] - --SEDIMENT FENCE ____ **DIVERSION DRAIN** STABLISED SITE ACCESS MATERIAL STOCKPILE SLOPE DIRECTION \longrightarrow GEOTEXTILE INLET FILTER MESH AND GRAVEL INLET FILTER SANDBAG / HAY BALES PROPOSED CONTOURS MAJOR CONTOUR INTERVAL

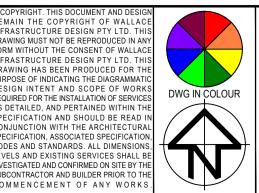
SW PIPE ØXXXmm uPVC X.X% GRADE, X.XXm (INCL. DIA/GRADE/LENGTH) SW PIPE - CHARGED ØXXXmm uPVC CHARGE X.X% GRADE, X.XXm (INCL. DIA/GRADE/LENGTH) SW PIT - GRATED / JUNCTION SW - KERB INLET PIT (INCLUDING LINTEL) RAINWATER/REUSE TANK OR (////// (⊠) GPT GROSS POLLUTANT TRAP **GRATED DRAIN** INFILTRATION TRENCH **HEADWALL** SUBSOIL --->--->--- SW SWALE PIPE RISER \circ XX PIPE DROPPER XX OVERLAND FLOW PATH SW PIT NUMBER XX SW CATCHMENT (X.XXX) (NUMBER / AREA IN ha)

PROPOSED - STORMWATER

PROPOSED - CIVIL CONCRETE ASPHALTIC CONCRETE SAND **EARTH** RIP RAP BUILDING / STRUCTURES TIMBER **BLOCK PAVERS RETAINING WALL** KERB RAMP VEHICULAR CROSSING **FENCE** BATTER BOLLARD - TYPE 1 (FIXED) B-T1 BOLLARD - TYPE 2 (REMOVABLE) B-T2 LINEMARKING - CHEVRON **EXPANSION JOINT** TRAVERSE JOINT ---- TJ ----**CONTROL JOINT** -----CJ-----FINISHED GRADE LEVELS 25.758 EXISTING GRADE LEVELS 25.710~

RAWING MUST NOT BE REPRODUCED IN AN' ORM WITHOUT THE CONSENT OF WALLACE AWING HAS BEEN PRODUCED FOR TI SIGN INTENT AND SCOPE OF WORKS QUIRED FOR THE INSTALLATION OF SERVICES DETAILED, AND PERTAINED WITHIN THE CIFICATION AND SHOULD BE READ IN

CIFICATION, ASSOCIATED SPECIFIC



HIS DRAWING IS NOT APPROVED FOR CONSTRUCTION UNLESS ENDORS 07.02.25 A DA ISSUE KB APPV'D ENDO'D DESCRIPTION DATE

ISSUED FOR CONSTRUCTION

LTIMLCROSS LLLL BUILDING DESIGN & DRAFTING SERVICES TIM CROSS 02 65536114 / 0429021748

BEFORE

www.byda.com.au

DARREN WAMSLEY P.O. BOX 755 TAREE NSW 2430 darren@mvpal.com.au

0488 723 355

FINISHED FLOOR LEVEL

BUILDING FOOTPRINT



FFL 5.00

WALLACE INFRASTRUCTURE **DESIGN PTY LTD** PART OF WALLACE DESIGN GROUP PTY LTD

MINOR CONTOUR INTERVAL

phone: (02) 49 294 109

CIVIL WORKS for LOT 2, DP 20629 97 WINGHAM ROAD TAREE NSW 2430

PROJECT:

DRAWING TITLE: CIVIL SERVICES LEGEND, DRAWING SCHEDULE AND LOCATION PLAN

DRAWING STATUS DA APPROVAL NOT TO BE USED FOR CONSTRUCTION					
SCALE: OR					
N.T.S.			A1		
DRAWN	DESIGNED	CHECKED	APPROVED	ENDORSED	DATE
AK	AK	KB	KB		07.02.25
PROJECT No.	No. DRAWING No.				REV
24289	C01.01				Α

GENERAL NOTES

- ALL CONSTRUCTION WORKS ARE TO BE CARRIED OUT IN ACCORDANCE WITH COUNCIL'S ENGINEERING REQUIREMENTS FOR DEVELOPMENTS.
- ALL DIMENSIONS, EASEMENTS AND LOTS SUBJECT TO REGISTRATION OF DEPOSITED PLAN.
 THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND
 CONSULTANT'S DRAWINGS AND SPECIFICATIONS, AND OTHER WRITTEN REPORTS (e.g
 GEOTECHNICAL, ARBORIST, ENVIRONMENTAL, ETC.). ANY DISCREPANCY SHALL BE REFERRED
- 4. ALL LEVELS SHALL BE OBTAINED FROM ESTABLISHED BENCH MARKS AS DIRECTED BY THE SUPERVISOR.

TO THE ENGINEER BEFORE PROCEEDING WITH ANY WORKS.

- 5. THE DEVELOPER, SHALL ENSURE ALL ASSOCIATED DOCUMENTATION (GEOTECHNICAL, LANDSCAPE, ARCHITECTURAL, ELECTRICAL, TELECOM, GAS ETC.) HAS BEEN APPROVED FOR CONSTRUCTION BEFORE COMMENCING ANY WORKS.
- 6. THE CONTRACTOR IS RESPONSIBLE FOR THE LOCATION, PROTECTION AND ADJUSTMENT TO ALL IN GROUND AND ABOVE GROUND SERVICES. SEE HUNTER WATER'S NOTICE OF REQUIREMENTS.
- 7. EROSION CONTROL MEASURES, DEVICES, SILT TRAPS. ETC. ARE TO BE INSTALLED BEFORE ANY SITE DISTURBANCE IN ACCORDANCE WITH COUNCIL INSPECTORS REQUIREMENTS AND SITE SEDIMENTATION AND EROSION CONTROL PLANS.
- 8. IT IS THE CONTRACTORS RESPONSIBILITY TO ENSURE THAT ALL WORKS ARE CARRIED OUT IN ACCORDANCE WITH THE WORK HEALTH SAFETY ACT.
- 9. VEHICULAR ACCESS AND ALL SERVICES ARE TO BE MAINTAINED AT ALL TIMES TO ADJOINING PROPERTIES AFFECTED BY CONSTRUCTION WORKS.
- 10. ALL WASTE OR DEMOLISHED MATERIALS SHALL BE DISPOSED OF OFF SITE TO A COUNCIL
- APPROVED SITE. ALL FEES AND CHARGES SHALL BE INCLUDED IN THE CONTRACT SUM.

 11. CONSTRUCTION VIBRATION TO COMPLY WITH AS2760.1-2004 AND/OR NSW DEPT OF
- ENVIRONMENT AND CONSERVATION NOISE REQUIREMENTS
- 12. EMISSIONS FROM SITE ARE NOT TO INTERFERE WITH THE AMENITY OF THE NEIGHBORHOOD.
 13. NOISE EMISSIONS ARE TO COMPLY WITH NSW EPA NOISE CONTROL MANUAL. TIME
- 13. NOISE EMISSIONS ARE TO COMPLY WITH NSW EPA NOISE CONTROL MANUAL. TIME
 RESTRICTIONS APPLY TO CONSTRUCTION WORKS AS FOLLOWS: 7AM TO 6PM MON-FRI; 8AM TO
 1PM SAT.
- 14. TREES & SHRUBS WHICH ARE FELLED SHALL BE SALVAGED FOR RE-USE, EITHER IN LOG FORM, OR AS A WOODCHIP MULCH FOR EROSION CONTROL AND/OR SITE REHABILITATION.

 NON-SALVAGEABLE MATERIAL SUCH AS ROOTS & STUMPS SHALL BE DISPOSED OF IN AN APPROVED MANNER.
- 15. 'ESCP' REFERS TO EROSION AND SEDIMENT CONTROL PLAN, 'SWMP' REFERS TO SOIL AND WATER MANAGEMENT PLAN, AND, 'ESC' REFERS TO EROSION AND SEDIMENT CONTROL.
- 16. SEDIMENT, INCLUDES, BUT IS NOT LIMITED TO, CLAY, SILT, SAND, GRAVEL, SOIL, MUD, CEMENT AND CERAMIC WASTE.
- 17. ANY REFERENCE TO THE BLUE BOOK REFERS TO "MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION", LANDCOM, 2004.
- 18. ANY REFERENCE TO THE IECA WHITE BOOKS (2008) REFERS TO IECA 2008, "BEST PRACTICE EROSION AND SEDIMENT CONTROL". BOOKS 1-6. INTERNATIONAL EROSION CONTROL ASSOCIATION (AUSTRALASIA), PICTON, NSW.
- 9. ANY MATERIAL DEPOSITED IN ANY CONSERVATION AREA FROM WORKS ASSOCIATED WITH THE DEVELOPMENT SHALL BE REMOVED IMMEDIATELY BY MEASURES INVOLVING MINIMAL GROUND AND/OR VEGETATION DISTURBANCES AND NO MACHINERY, OR FOLLOWING DIRECTIONS BY COUNCIL AND/OR WITHIN A TIMEFRAME ADVISED BY COUNCIL.

SURVEY NOTES

- 1. THE EXISTING SURVEY CONDITIONS SHOWN ON THESE DRAWINGS HAVE BEEN DERIVED FROM SURVEY INFORMATION SUPPLIED BY TIM CROSS BUILDING DESIGN AND DRAFTING SERVICES.
- 2. THE INFORMATION SHOWN IS PROVIDED AS A BASIS FOR THE DESIGN. WALLACE DESIGN GROUP DOES NOT GUARANTEE THE ACCURACY OR COMPLETENESS OF THE SURVEY BASE OR ITS SUITABILITY AS A BASIS FOR CONSTRUCTION DRAWINGS.
- 3. SHOULD DISCREPANCIES BE ENCOUNTERED DURING CONSTRUCTION BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA, CONTRACTOR SHALL CONTACT TIM CROSS BUILDING DESIGN
- AND DRAFTING SERVICES AND OR WALLACE DESIGN GROUP FOR CLARIFICATION.

 4. THE CONTRACTOR SHALL ARRANGE ALL SURVEY SETOUT TO BE CARRIED OUT BY A REGISTERED SURVEYOR.

STORMWATER NOTES

- THESE DRAWINGS ARE TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL
- ALL WORKS ARE TO BE IN ACCORDANCE WITH AS3500, COUNCIL'S DEVELOPMENT CONTROL PLAN AND PROPRIETARY MANUFACTURERS RECOMMENDATIONS.
- 3. UNLESS OTHERWISE STATED, ALL STORMWATER PIPES (INCLUDING DOWNPIPES AND RAINWATER TANK OVERFLOW PIPES) ARE TO BE uPVC SEWER GRADE, U.N.O JOINTED & INSTALLED TO MANUFACTURERS RECOMMENDATIONS.
- 4. ALL uPVC STORMWATER LINES TO HAVE ALL JOINTS, INC. DOWNPIPE CONNECTIONS, FULLY SOLVENT WELDED, INCLUDING ANY CHARGED LINES.
- 5. CONNECT DOWNPIPES AS REQUIRED TO NOMINATED HARVESTING TANK IN ACCORDANCE WITH APPROVED DEVELOPMENT PLANS AND HYDRAULIC ENGINEERS DESIGN.
- 6. ALL LEVELS ARE DATUM AHD.
- 7. ALL LEVELS ARE FINISHED PAVEMENT OR LAWN LEVELS.
- 8. CONTRACTOR TO ALLOW FOR ALL PIPE SUPPORT SYSTEM TO SOFFIT AS PER MANUFACTURERS SPECIFICATIONS.
- . ALL CONCRETE TO BE MANUFACTURED AND SUPPLIED IN ACCORDANCE WITH AS1379.
- 10. AT COUNCILS DISCRETION, ALL CONCRETE CAN BE SUBJECT TO PROJECT ASSESSMENT AND TESTING TO AS1379
- 11. MINIMUM PIPE COVERS TO BE IN ACCORDANCE WITH AS3500.
- 12. PITS TO BE FILLED ACCORDINGLY TO MEET INVERTS AS NEEDED.
- 13. CONTRACTOR TO CONFIRM ALL LEVELS PRIOR TO CONSTRUCTION. ANY DISCREPANCIES ARE TO BE IMMEDIATELY REPORTED TO WALLACE DESIGN GROUP.

SUBSOIL DRAINAGE NOTES

- I. CONSTRUCTION SHALL BE IN ACCORDANCE WITH COUNCIL'S CONSTRUCTION SPECIFICATIONS FOR SUBSURFACE DRAINAGE.
- 2. SUBSOIL PIPE TO BE Ø100 SLOTTED PVC OR CORRUGATED CIRCULAR PLASTIC PIPE AND ENCLOSED IN SEAMLESS FILTER FABRIC SOCK
- 3. SUBSOIL DRAINS SHALL CONSIST OF A 300 (MINIMUM) WIDE TRENCH, BACKFILLED WITH 7 OR 10mm AGGREGATE AND WRAPPED IN BIDIM A12 GEOTEXTILE FABRIC OR SIMILAR, LAPPED AT THE TOP. DEPTH OF TRENCH TO EXTEND 450 (MINIMUM) IN ROCK OR 600 (MINIMUM) IN EARTH BELOW FINISHED SUB-GRADE LEVEL. INVERT OF TRENCH SHOULD ALSO BE LOWER THAN THE INVERT OF ANY SERVICE CROSSINGS.



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OMMENCEMENT OF ANY WORKS

DWG IN COLOUR

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A DA ISSUE

DESCRIPTION

DATE

A PPV'D ENDO'D

BUILDING DESIGN & DRAFTING
SERVICES
TIM CROSS
02 65536114 / 0429021748
ttcross1@blgpond.com

CLIENT:

DARREN WAMSLEY

P.O. BOX 755

TAREE NSW 2430

darren@mvpal.com.au

0488 723 355



PROJECT:
CIVIL WORKS for
LOT 2, DP 20629
97 WINGHAM ROAD
TAREE NSW 2430

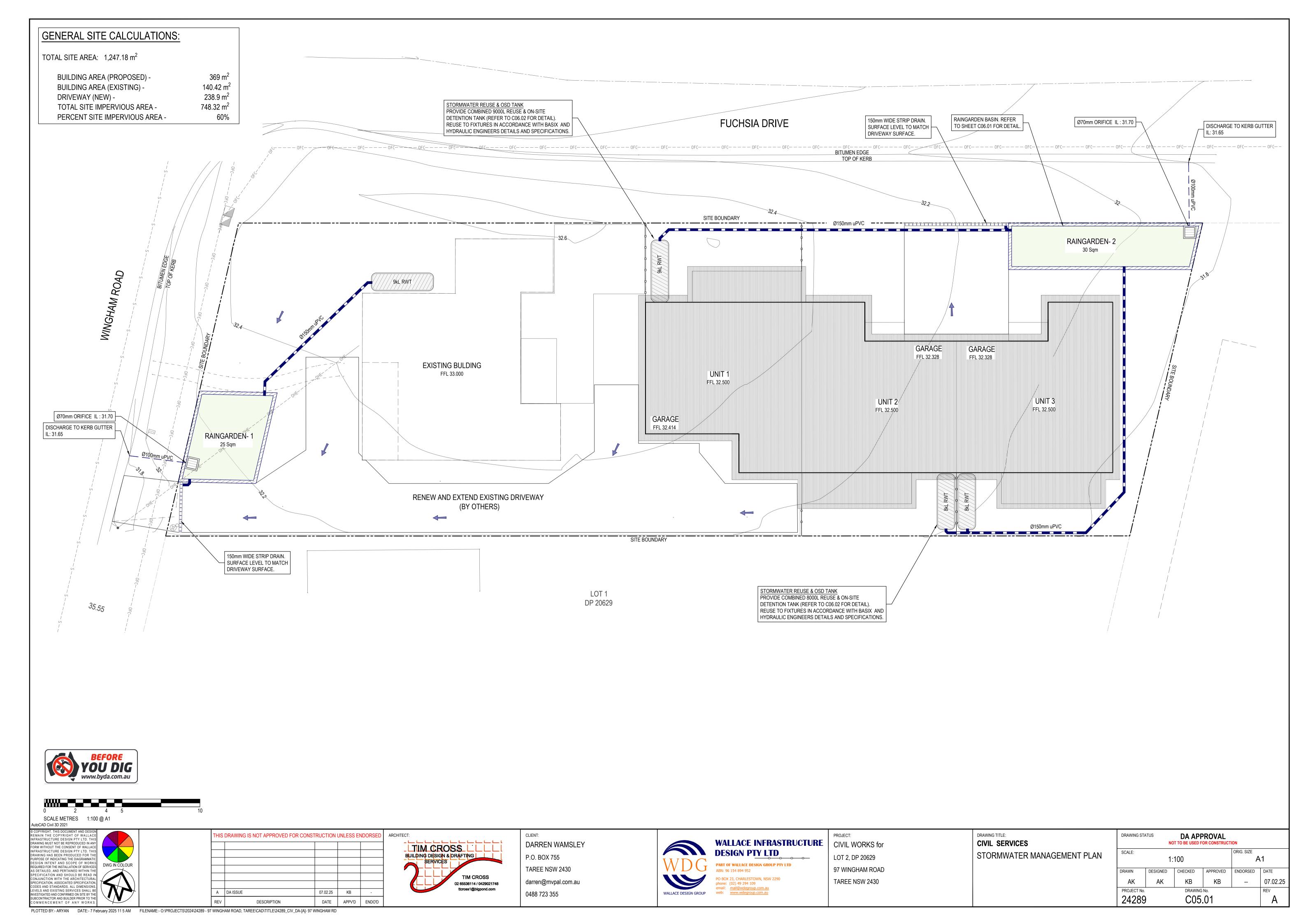
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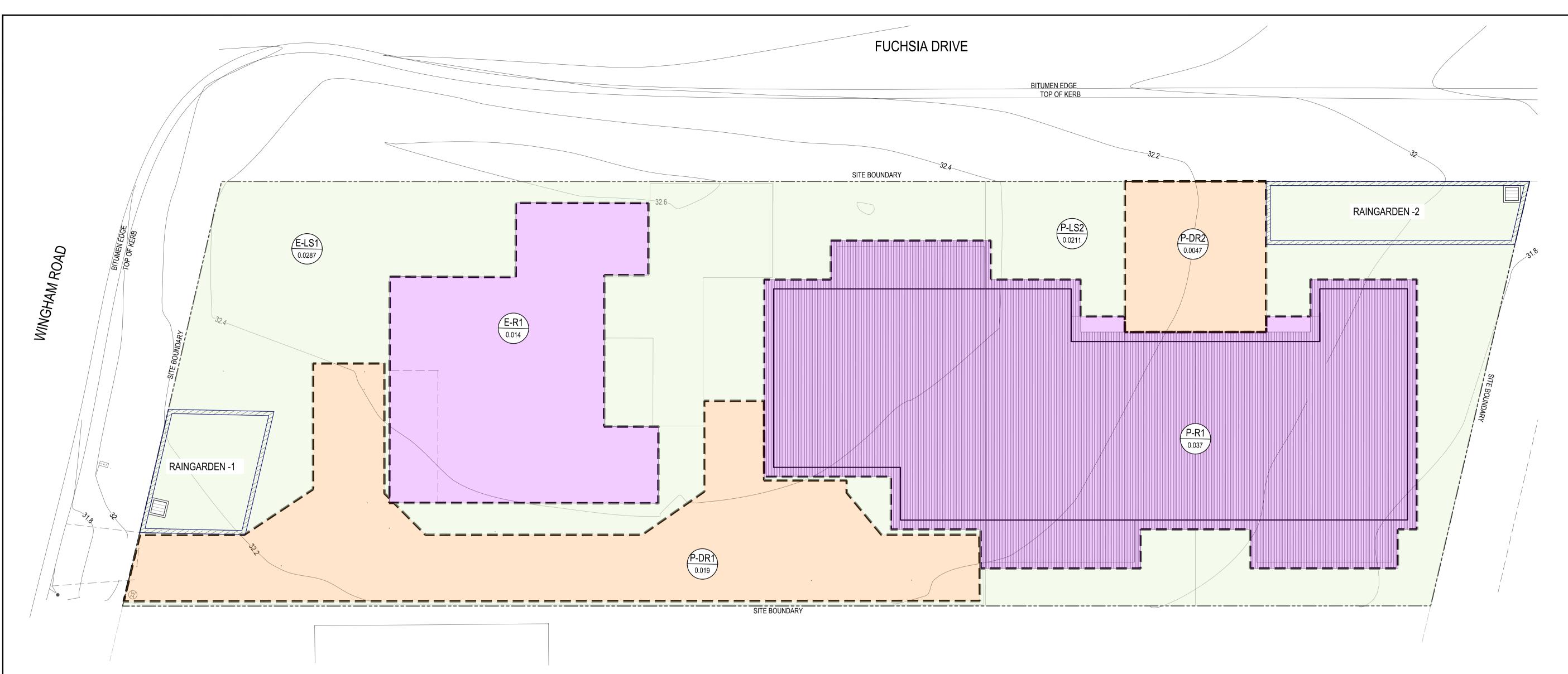
CIVIL SERVICES

GENERAL NOTES

DRAWING STATUS DA APPROVAL ORIG. SIZE SCALE: N.T.S. Α1 DESIGNED CHECKED APPROVED ENDORSED DATE DRAWN ΑK ΚB KΒ 07.02.25 PROJECT No. 24289 C02.01

PLOTTED BY:- ARYAN DATE:- 7 February 2025 11 5 AM FILENAME:- O:\PROJECTS\2024\24289 - 97 WINGHAM ROAD, TAREE\CAD\TITLE\24289_CIV_DA-[A]- 97 WINGHAM RD





ORIFICE DESIGN FOR PSD COMPLIANCE

0.1247 ha

45 m³

9.35 l/s

0.0

25.0

 $Q=C_d(1/4\pi D^2)\sqrt{2gh}$

h = head acting at centreline, m

Q = Flow Rate, m³/s

A = Area of Orifice, m^2

Site Storage Requirements

Permissible Site Discharge

OSD BASIN VOLUME

 $g = 9.81 \text{m/s}^2$

 $C_{d} = 0.6$

Site Area

Tank Size

2 x 8000

RAINGARDEN 1

Elev

31.7

31.9

RAINGARDEN 2

2 X 9000

Storage Volume

WATER QUALITY REQUIREMENTS: RAINGARDEN- 1 REQUIREMENTS: $25 \, \mathrm{m}^2$ TOTAL FILTER AREA REQUIRED - 25 m^2 TOTAL SURFACE AREA -OUTPUT RESULTS FOR TARGET ANALYSIS: **EXISTING PROPOSED** % REDUCTION TSS 3.3 kg/yr 89.63 kg/yr 96.32%

0.1772 kg/yr

1.12 kg/yr

TOTAL SU	30 m^2		
OUTPUT RESU			
	EXISTING	PROPOSED	% REDU
TSS	40.63 kg/yr	2.35 kg/yr	94.229
TP	0.1205 kg/yr	0.0442 kg/yr	63.289
TN	1.291 kg/yr	0.3558 kg/yr	72.449

WATER QUALITY REQUIREMENTS:

RAINGARDEN- 2 REQUIREMENTS:

TOTAL FILTER AREA REQUIRED -

NOTES:

MODELLING WAS UNDERTAKEN TO ASSESS STORMWATER QUALITY CONTROLS USING MUSICX DESIGN SOFTWARE IN ACCORDANCE WITH COUNCIL'S DESIGN GUIDELINES. BASED ON A LOT SIZE OF 0.1247 ha, THE WATER QUALITY TREATMENT REQUIREMENTS WERE ANALYSED USING TARGET ANALYSIS FOR PROPOSED DEVELOPMENTS.

0.0455 kg/yr

0.3286 kg/yr

74.30%

70.66%

ANALYSIS CONSIDERED SOIL GROUP "D", AS PER HYDRAULIC SOIL GROUP AS IDENTIFIED ON NSW SOIL AND LAND INFORMATION (eSPADE).

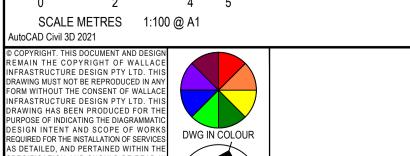


PECIFICATION AND SHOULD BE READ IN

SPECIFICATION, ASSOCIATED SPECIFICATION, CODES AND STANDARDS. ALL DIMENSIONS, EVELS AND EXISTING SERVICES SHALL BE

ESTIGATED AND CONFIRMED ON SITE BY THE

NJUNCTION WITH THE ARCHITECT



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 30 m^2

Avg Area EI₁-EI₂ Elev 31.7 0.0 31.9 30.0 Total Storage Volume

(363 m³/ha per Council Guidelines) (75 L/s/ha per Council Guidelines) 16.0 18.0 34.0 Avg Area El₁-El₂ Volume Cum. Vol. 5.0 5.0 Volume Cum. Vol. 6.0

45.00

RAINGARDEN 1- ORIFICE CALCULATION 70.0 mm Orifice Diameter (Required Design Diamter) Orifice Invert RL 31.700 m 31.900 m Design WSL Design head, h 0.200 m Top Water Level- Outlet Invert Level 4.6 l/s Provided Site Discharge Design Complies RAINGARDEN 2- ORIFICE CALCULATION Orifice Diameter 70.0 mm (Required Design Diamter) Orifice Invert RL 31.700 m 31.900 m Design WSL 0.200 m Design head, h Top Water Level- Outlet Invert Level Provided Site Discharge 4.6 l/s Design Complies TOTAL PSD 9.20 Design Complies

PROJECT: WALLACE INFRASTRUCTURE CIVIL WORKS for LOT 2, DP 20629 PART OF WALLACE DESIGN GROUP PTY LTD 97 WINGHAM ROAD TAREE NSW 2430

DRAWING TITLE: **CIVIL SERVICES** MUSICX CATCHMNET PLAN AND RESULTS

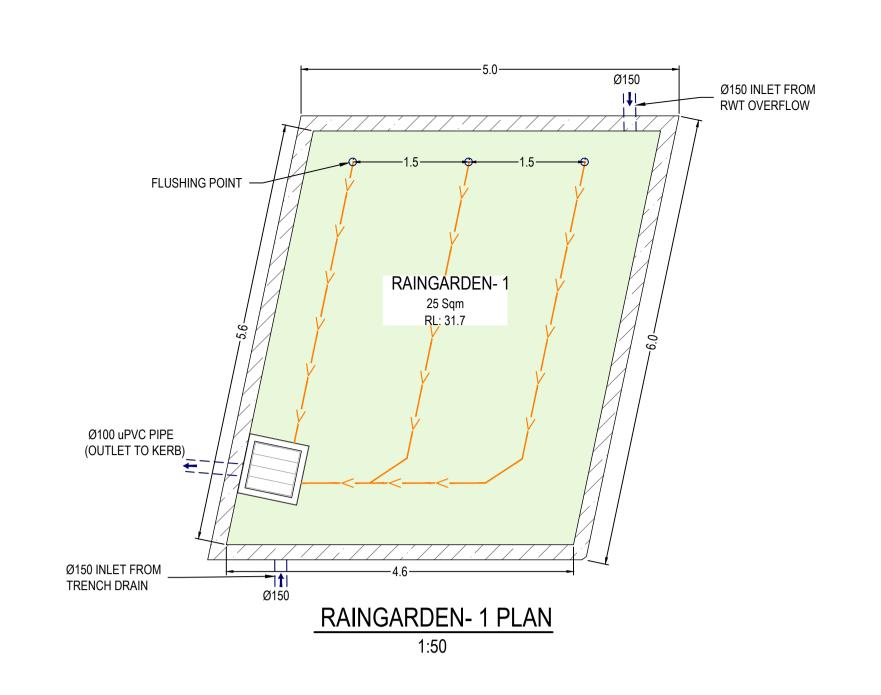
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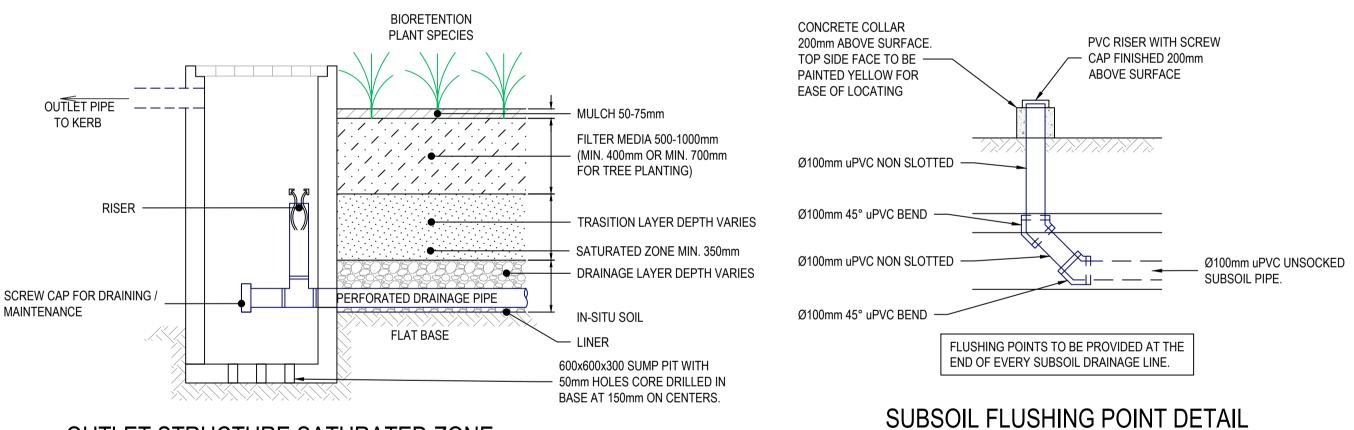
DARREN WAMSLEY **DESIGN PTY LTD** P.O. BOX 755

0.20

0.20

TAREE NSW 2430 ABN: 96 154 894 952 PO BOX 23, CHARLESTOWN, NSW 2290 darren@mvpal.com.au phone: (02) 49 294 109 WALLACE DESIGN GROUP 0488 723 355





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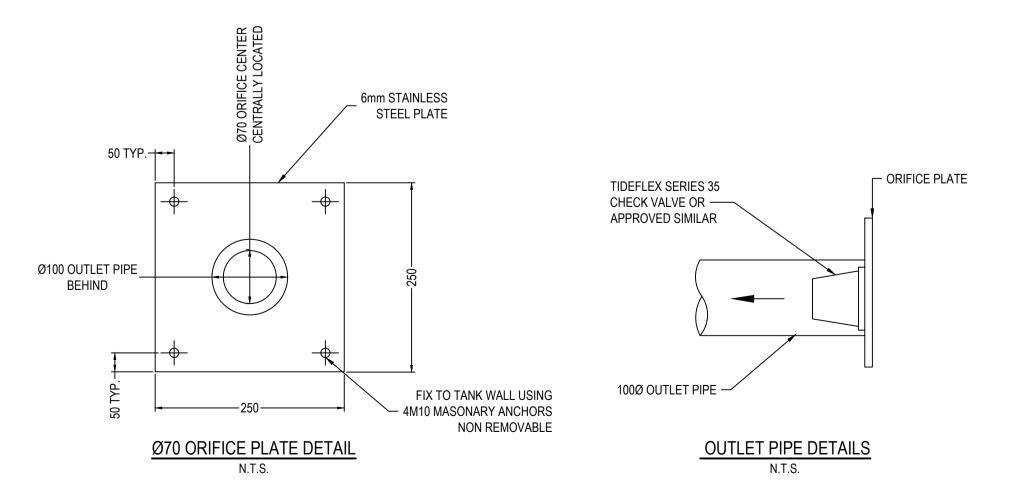
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DATE

KB

APPV'D ENDO'D

OUTLET STRUCTURE SATURATED ZONE
UNDERDRAIN AND RISER CONNECTION
1:20



LTIMLCROSS_LLLL

TIM CROSS

02 65536114 / 0429021748

BUILDING DESIGN & DRAFTING

SERVICES

1:20

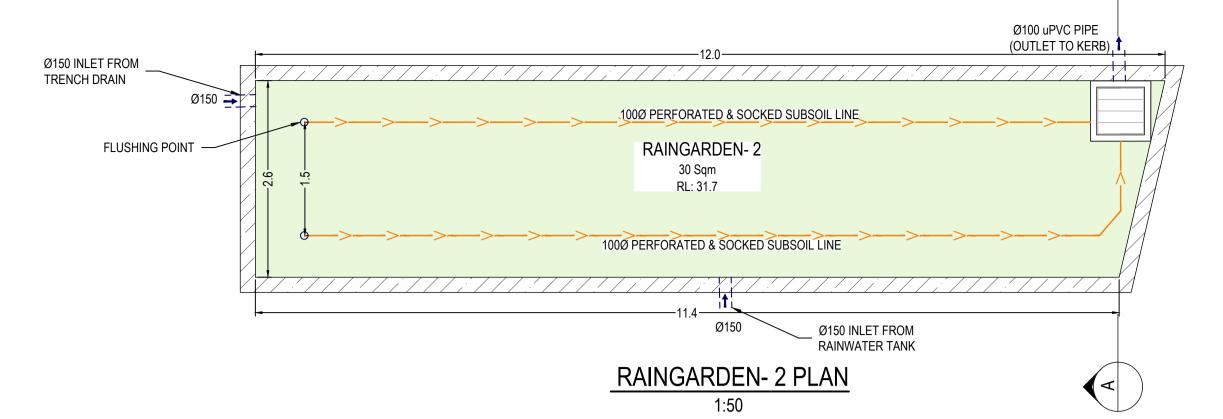
DARREN WAMSLEY

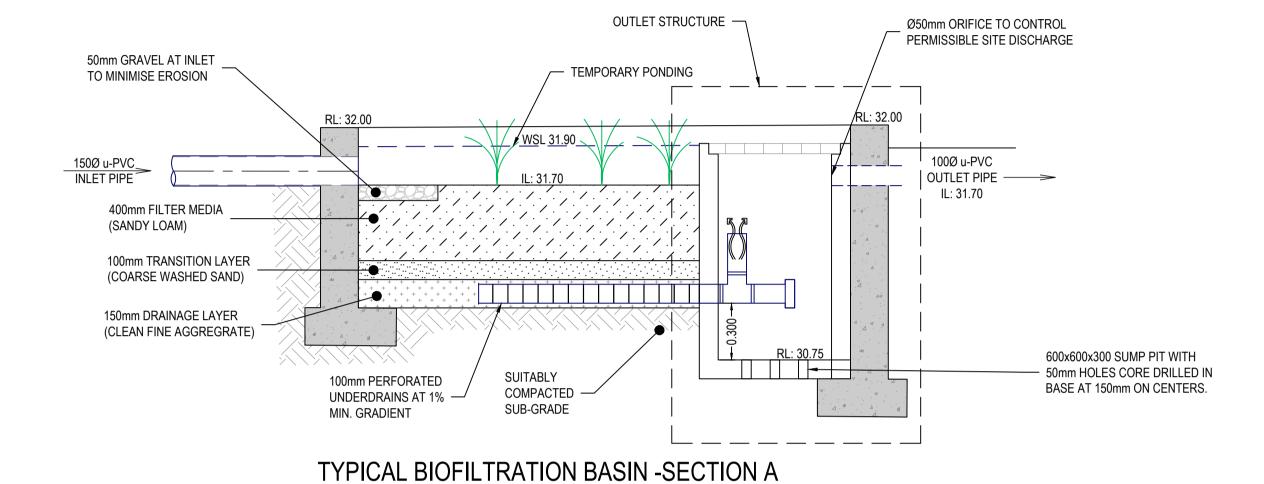
P.O. BOX 755

0488 723 355

TAREE NSW 2430

darren@mvpal.com.au





1:20

BIORETENTION CONSTRUCTION NOTES:

- 1. A 150mm TOPSOIL TEMPORARY SURFACE TREATMENT AND GEOTECTILE LAYER ARE TO BE INSTALLED WITHIN THE TOP 150mm OF THE FILTER MEDIA UNTIL SUCH TIME THAT THE UPSTREAM CATCHMENT DRAINING TO THE BASIN IS 80% DEVELOPED.
- 2. ONCE THE UPSTREAM CATCHMENT AREA DRAINING TO THE BASIN IS 80% DEVELOPED, THE TOP LAYER IS TO BE REMOVED BY PEELING BACK AND DISPOSING OF THE GEOTEXTILE LAYER, TOPSOIL AND TURF; AND REFILLING THE AREA WITH THE APPROPRIATE FILTER MEDIA, AND LANDSCAPING.
- 3. THE FILTER MEDIA SPECIFICATION AND GRADING ARE TO BE VERIFIED BY COUNCIL'S INSPECTOR PRIOR TO PLACEMENT. RELEVANT MATERIAL SPECIFICATION SHEETS ARE TO BE PROVIDED BY THE CONTRACTOR.
- THE SUBSOIL DRAINAGE PIPES WITHIN THE BIORETENTION SYSTEM ARE TO BE SLOTTED 100mm uPVC CONSISTENT WITH AS/NZS 1254. JOINTS ARE TO BE SOLVENT CEMENT GLUED AND BENDS ARE TO BE 45° TO MINIMIZE BLOCKAGE.
- FILTER MEDIA TO BE LIGHTLY COMPACTED USING A SINGLE PASS VIBRATING PLATE OR ROLLER (ETC. DRUM LAWN ROLLER). UNDER NO CIRCUMSTANCES SHOULD HEAVY COMPACTION OR MULTIPLE PASSES BE MADE.
- 6. FILTER MEDIA MUST BE INSTALLED IN TWO LIFTS UNLESS DEPTH OF MEDIA IS <500mm.
- 7. DURING CONSTRUCTION, THE TOP 100mm OF THE MEDIA IS TO BE AMELIORATED WITH APPROPRIATE ORGANIC MATTER, FERTILISER AND TRACE ELEMENTS TO AID PLANT ESTABLISHMENT AS PER THE TABLE BELOW:

CONSTITUENT AND QUANTITY (kg/100m² OF FILTER AREA)
GRANULATED POULTRY MANURE FINES 50
SUPERPHOSPHATE 2
MAGNESIUM SULPHATE 3
POTASSIUM SULPHATE 2
TRACE ELEMENT MIX 1
FERTILIZER NPK (16.4.14) 4
LIME 20

DESIGN PTY LTD

ABN: 96 154 894 952

phone: (02) 49 294 109

PART OF WALLACE DESIGN GROUP PTY LTD

THE MEDIA IS TO BE PLANTED IN ACCORDANCE WITH THE LANDSCAPE ARCHITECT REQUIREMENTS.

MULCH 50-75mm FILTER MEDIA 500-1000mm (MIN. 400mm OR MIN. 700mm FOR TREE PLANTING) TRASITION LAYER DEPTH VARIES UNDER DRAINAGE PIPE DRAINAGE LAYER DEPTH VARIES -REFER SECTION LINER

SATURATED ZONE FILTER MEDIA

BIORETENTION

NOTES:

- BIORETENTION FILTER MEDIA: SPECIFICATION AND HYDRAULIC CONDUCTIVITY SHALL BE IN ACCORDANCE WITH THE FACILITY FOR ADVANCING WATER BIOFILTRATION (FAWB, 2009) "ADOPTION GUIDELINES FOR STORMWATER BIOFILTRATION SYSTEM".
- THE FILTER MEDIA SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 - pH BETWEEN 5.5 AND 7.5
 - ORTHIPHOSPHATE CONTENT = 50mg/kg
 - ORGANIC MATTER CONTENT 3 TO 5% w/w
 - TOTAL NITROGEN CONTENT = 800mg/kg
- SATURATED HYDRAULIC CONDUCTIVITY = 180mm/hr
- 3. THE FILTER MEDIA SHALL BE WELL GRADED AND GENERALLY BE A LOAMY SAND AND BE FREE OF CONTAMINANTS SUCH AS RUBBISH, DELETERIOUS MATERIAL, TOXICANTS, DECLARED PLANTS AND WEEDS AND SHOULD NOT BE HYDROPHOBIC.
- THE COURSE SAND TRANSITION LAYER SHALL BE OF A CLEAN WELL GRADED SAND/COARSE SAND MATERIAL CONTAINING LITTLE OR NO FINES.
- THE DRAINAGE LAYER SHALL BE OF A CLEAN FINE GRAVEL CONSISTING OF 5 TO 7mm WASHED SCREENINGS.
- 6. REFER TO COUNCIL'S LANDSCAPE DESIGN GUIDELINES FOR TOPSOIL, MULCH AND PLANTING SPECIFICATIONS.

TYPICAL BIORETENTION FILTER MEDIA DETAIL

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WALLACE INFRASTRUCTURE

PROJECT:
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PROJECT:

CIVIL WORKS for

LOT 2, DP 20629

97 WINGHAM ROAD

TAREE NSW 2430

DRAWING TITLE:

CIVIL SERVICES

RAINGARDEN TYPICAL

SECTION & DETAILS

DRAWING STATUS DA APPROVAL ORIG. SIZE SCALE: 1:50 1:20 A1 DRAWN DESIGNED APPROVED ENDORSED DATE CHECKED KΒ KΒ 07.02.25 ΑK ΑK PROJECT No. 24289 C06.01

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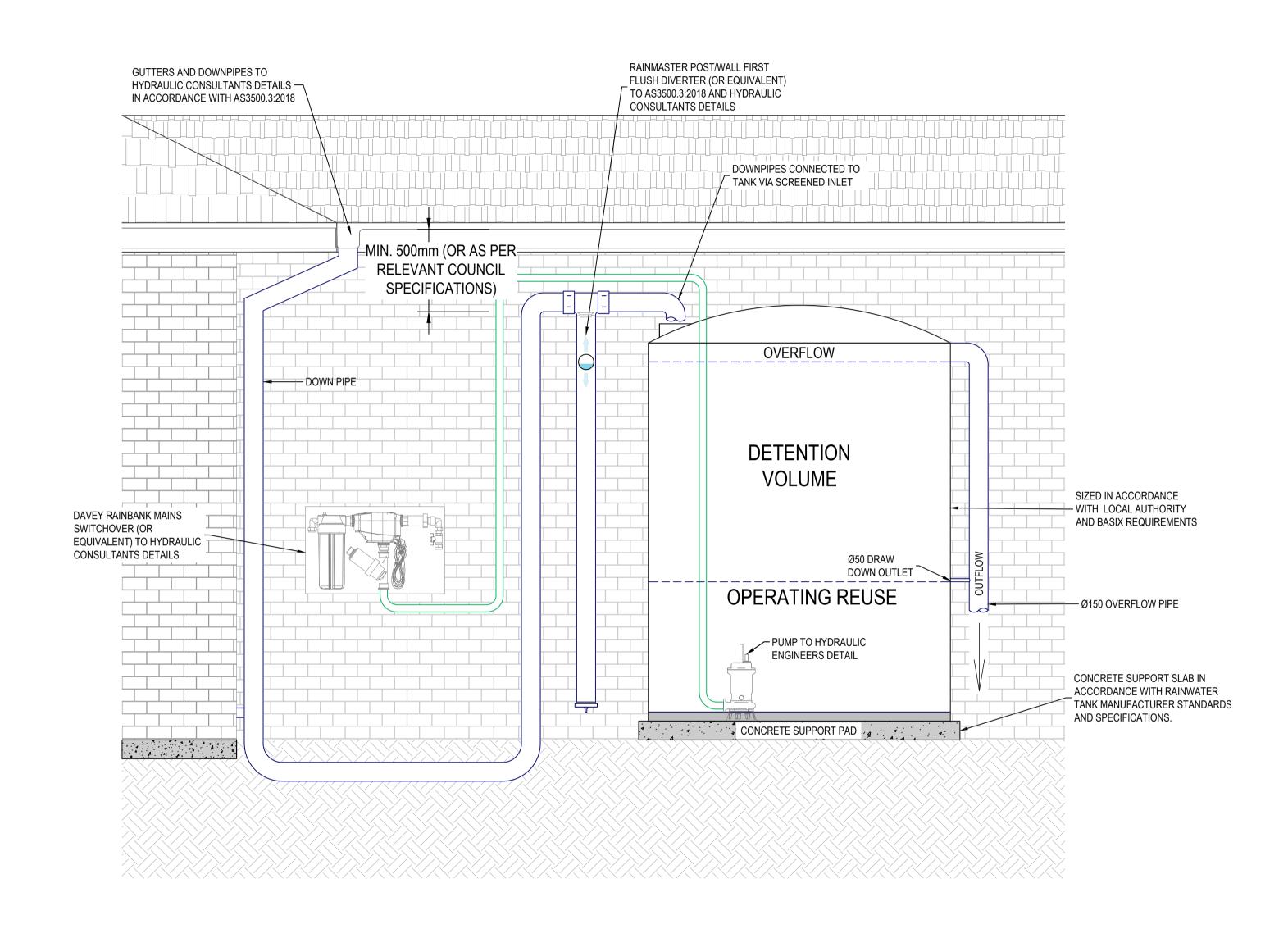
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GENERAL RAINWATER TANK NOTES:

- ALL UNITS ARE TO BE CONNECTED TO THE SPECIFIED RAINWATER REUSE/STORAGE TANK AS NOTED ON THE STORMWATER DRAINAGE PLAN SHEET.
- DAVEY RAINBANK MAINS SWITCHOVER (OR EQUIVALENT) AND RAINWATER TANK TO BE INSTALLED PER MANUFACTURERS SPECIFICATIONS.
- 3. VOLUMES SHOWN FOR REUSE AND DETENTION ARE PROVIDED TO COMPLY WITH BASIX AND/OR COUNCIL GUIDELINES AND DO NOT INCLUDE THE PERMANENT VOLUME REQUIRED FOR OPERATION OF THE PUMP.

RAINWATER TANK						
REUSE TANK	REUSE VOL (kL)	DRAW DOWN OUT, IL (m) OSD VOL (kL)		O/F IL (m)		
EXISTING HOUSE	2	0.435+ BASE RL	7	1.82+ BASE RL		
UNIT 1	2	0.435+ BASE RL	7	1.82+ BASE RL		
UNIT 2	2	0.484+ BASE RL	6	1.82+ BASE RL		
UNIT 3	2	0.484+ BASE RL	6	1.82+ BASE RL		



TYPICAL ABOVEGROUND RAINWATER REUSE TANK SECTION

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DARREN WAMSLEY P.O. BOX 755 TAREE NSW 2430 darren@mvpal.com.au 0488 723 355



LOT 2, DP 20629 97 WINGHAM ROAD TAREE NSW 2430

DRAWING TITLE: CIVIL SERVICES RAINWATER TANK DETAILS

DRAWING STATUS DA APPROVAL NOT TO BE USED FOR CONSTRUCTION					
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