





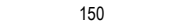








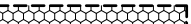







# PROPOSED DEVELOPMENT (No.17) JAMIESON PARADE, COLLAROY STORMWATER MANAGEMENT PLANS

LEGEND	
	DENOTES ON-SITE DETENTION TANK
	DENOTES ON-SITE RETENTION TANK
	DENOTES DWELLING FOOTPRINT
	DENOTES 100mm DIA. STORMWATER/SURFACE WATER SYSTEM PIPE AT 1% MIN. GRADE U.N.O.
	DENOTES 100mm DIA. FULLY SEALED RAINWATER SYSTEM PIPE U.N.O.
	DENOTES RAINWATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
	DENOTES STORMWATER/SURFACE WATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
	DENOTES RISING MAIN AND PIPE DIA. U.N.O.
	DENOTES SUBSOIL DRAINAGE LINE AND DIA. WRAPPED IN GEOFABRIC U.N.O.
	DENOTES DOWNPIPE
	DENOTES INSPECTION OPENING WITH SCREW DOWN LID AT FINISHED SURFACE LEVEL
	DENOTES INSPECTION OPENING WITH SCREW DOWN LID AT FINISHED SURFACE LEVEL FOR SYSTEM FLUSHING PURPOSES
	STORMWATER PIT - SOLID COVER
	STORMWATER PIT - GRATED INLET
	DENOTES GRATED DRAIN
	DENOTES ABSORPTION TRENCH
	NON RETURN VALVE
	PUMP
	STOP VALVE (ISOLATION VALVE)
	240v REQUIRED
	DENOTES LEVEL OF INLET /OUTLET OF STORMWATER PIPE. NOTE: UNLESS NOTED OTHERWISE, THE BASE OF THE PIT IS THE SAME AS THE PIPE INLET/OUTLET.

DIAL BEFORE YOU DIG



IMPORTANT: THE CONTRACTOR IS TO MAINTAIN A CURRENT SET OF "DIAL BEFORE YOU DIG" DRAWINGS ON SITE AT ALL TIMES.

GENERAL NOTES	
1.	THESE PLANS SHALL BE READ IN CONJUNCTION WITH OTHER RELEVANT CONSULTANTS' PLANS, SPECIFICATIONS, CONDITIONS OF DEVELOPMENT CONSENT AND CONSTRUCTION CERTIFICATE REQUIREMENTS. WHERE DISCREPANCIES ARE FOUND ACOR CONSULTANTS (CC) MUST BE CONTACTED IMMEDIATELY FOR VERIFICATION
2.	WHERE THESE PLANS ARE NOTED FOR DEVELOPMENT APPLICATION PURPOSES ONLY, THEY SHALL NOT BE USED FOR OBTAINING A CONSTRUCTION CERTIFICATE NOR USED FOR CONSTRUCTION PURPOSES
3.	SUBSOIL DRAINAGE SHALL BE DESIGNED AND DETAILED BY THE STRUCTURAL ENGINEER. SUBSOIL DRAINAGE SHALL NOT BE CONNECTED INTO THE STORMWATER SYSTEM IDENTIFIED ON THESE PLANS UNLESS APPROVED BY ACOR CONSULTANTS (CC)

STORMWATER CONSTRUCTION NOTES	
1.	ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH AS/NZS 3500 (CURRENT EDITION) AND THE REQUIREMENTS OF THE LOCAL COUNCIL'S POLICIES AND CODES
2.	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
3.	THE MINIMUM GRADIENT OF STORMWATER DRAINS SHALL BE 1%, UNLESS NOTED OTHERWISE
4.	COUNCIL'S TREE PRESERVATION ORDER IS TO BE STRICTLY ADHERED TO. NO TREES SHALL BE REMOVED UNTIL PERMIT IS OBTAINED
5.	PUBLIC UTILITY SERVICES ARE TO BE ADJUSTED AS NECESSARY AT THE CLIENT'S EXPENSE
6.	ALL PITS TO BE BENCHED AND STREAMLINED. PROVIDE STEP IRONS FOR ALL PITS OVER 1.2m DEEP
7.	MAKE SMOOTH JUNCTION WITH ALL EXISTING WORK
8.	VEHICULAR ACCESS AND ALL SERVICES TO BE MAINTAINED AT ALL TIMES TO ADJOINING PROPERTIES AFFECTED BY CONSTRUCTION
9.	SERVICES SHOWN ON THESE PLANS HAVE BEEN LOCATED FROM INFORMATION SUPPLIED BY THE RELEVANT AUTHORITIES AND FIELD INVESTIGATIONS AND ARE NOT GUARANTEED COMPLETE NOR CORRECT. IT IS THE CLIENT & CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL PRIOR TO CONSTRUCTION
10.	ANY VARIATION TO THE WORKS AS SHOWN ON THE APPROVED DRAWINGS ARE TO BE CONFIRMED BY ACOR CONSULTANTS (CC) PRIOR TO THEIR COMMENCEMENT

RAINWATER RE-USE SYSTEM NOTES	
1.	RAINWATER SUPPLY PLUMBING TO BE CONNECTED TO OUTLETS WHERE REQUIRED BY BASIX CERTIFICATE (BY OTHERS)
2.	TOWN WATER CONNECTION TO RAINWATER TANK TO BE TO THE SATISFACTION OF THE REGULATORY AUTHORITY. THIS MAY REQUIRE PROVISION OF: 2.1. PERMANENT AIR GAP 2.2. BACKFLOW PREVENTION DEVICE
3.	NO DIRECT CONNECTION BETWEEN TOWN WATER SUPPLY AND THE RAIN WATER SUPPLY
4.	AN APPROVED STOP VALVE AND/OR PRESSURE LIMITING VALVE AT THE RAINWATER TANK
5.	PROVIDE APPROPRIATE FLOAT VALVES AND/OR SOLENOID VALVES TO CONTROL TOWN WATER SUPPLY INLET TO TANK IN ORDER TO ACHIEVE THE TOP-UP INDICATED ON THE TYPICAL DETAIL
6.	ALL PLUMBING WORKS ARE TO BE CARRIED OUT BY LICENSED PLUMBERS IN ACCORDANCE WITH AS/NZS3500.1 NATIONAL PLUMBING AND DRAINAGE CODE
7.	PRESSURE PUMP ELECTRICAL CONNECTION TO BE CARRIED OUT BY A LICENSED ELECTRICIAN
8.	ONLY ROOF RUN-OFF IS TO BE DIRECTED TO THE RAINWATER TANK. SURFACE WATER INLETS ARE NOT TO BE CONNECTED
9.	PIPE MATERIALS FOR RAINWATER SUPPLY PLUMBING ARE TO BE APPROVED MATERIALS TO AS/NZS3500 PART 1 SECTION 2 AND TO BE CLEARLY AND PERMANENTLY IDENTIFIED AS 'RAINWATER'. THIS MAY BE ACHIEVED FOR BELOW GROUND PIPES USING IDENTIFICATION TAPE (MADE IN ACCORDANCE WITH AS2648) OR FOR ABOVE GROUND PIPES BY USING ADHESIVE PIPE MARKERS (MADE IN ACCORDANCE WITH AS1345)
10.	EVERY RAINWATER SUPPLY OUTLET POINT AND THE RAINWATER TANK ARE TO BE LABELED 'RAINWATER' ON A METALLIC SIGN IN ACCORDANCE WITH AS1319
11.	ALL INLETS AND OUTLETS TO THE RAINWATER TANK ARE TO HAVE SUITABLE MEASURES PROVIDED TO PREVENT MOSQUITO AND VERMIN ENTRY

SHEET INDEX	
COVER SHEET & NOTES	SHEET C1
STORMWATER MANAGEMENT PLAN - BASEMENT	SHEET C2
STORMWATER MANAGEMENT PLAN - GROUND FLR PART 1	SHEET C3
STORMWATER MANAGEMENT PLAN - GROUND FLR PART 2	SHEET C4
STORMWATER MANAGEMENT DETAILS SHEET (No.1)	SHEET C5
STORMWATER MANAGEMENT DETAILS SHEET (No.2)	SHEET C6
STORMWATER MANAGEMENT DETAILS SHEET (No.3)	SHEET C7
COUNCIL ON SITE DETENTION CHECKLIST	SHEET C8

NORTHERN BEACHES COUNCIL (WARRINGAH COUNCIL REQUIREMENTS)	
1.	REFER TO NORTHERN BEACHES COUNCIL CHECKLIST ON SHEET C8.
2.	FULL COMPUTATION METHOD ADOPTED USING DRAINS PROGRAM. REFER TO DRAINS MODEL CC210165.dm
3.	DRAINS SUMMARY
SITE AREA (m²).....696.7 % IMPERVIOUS PRE-DEVELOPED FOR CALCULATIONS.....0%	
PRE-DEVELOPED DISCHARGE FLOW RATES	
5 year ARI	100 year ARI
22 L/S	38 L/S
POST DEVELOPED SUMMARY	
ROOF AREA (m²).....	256
DRIVEWAY AREA (m²) .....	32
MISC. PAVING (m²).....	11
+ 15% ADDITIONAL (m²).....	104.5
TOTAL IMPERVIOUS AREA (m²).....	403.5
FOR CALCULATION	
OSD CATCHMENT = 256 + 32 +11 m² + 377= 676 (roof area + driveway + misc paving 100% impervious)	
OSD BYPASS = 20m² (landscape)	
STORAGE VOLUME REQUIRED = 15.6m³	
4.	BASIX REQUIREMENT FOR RAINWATER REUSE = 3,000 litres
5.	OSD PSD
5 year ARI	100 year ARI
NA	21 L/S
MAXIMUM HEADWATER DEPTH = 0.540m THEREFORE: ADOPT = 120mm ORIFICE	
DESIGN PREPARED IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL WATER MANAGEMENT FOR DEVELOPMENT POLICY, STORMWATER DRAINAGE FROM LOW LEVEL PROPERTIES TECHNICAL SPECIFICATION, AR&R & AS/NZS 3500.	

DEVELOPMENT APPLICATION ISSUE  
NOT FOR CONSTRUCTION

DRAWINGS MUST BE PRINTED IN COLOUR

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<table><tr><td>C</td><td>RE-ISSUED FOR DEVELOPMENT APPROVAL</td><td>21.09.21</td><td>RH</td><td>BK</td></tr><tr><td>B</td><td>ISSUED FOR DEVELOPMENT APPROVAL</td><td>20.07.21</td><td>RH</td><td>BK</td></tr><tr><td>A</td><td>ISSUED FOR CLIENT REVIEW</td><td>24.06.21</td><td>RH</td><td>BK</td></tr><tr><td>Issue</td><td>Description</td><td>Date</td><td>Drawn</td><td>Approved</td></tr></table>					C	RE-ISSUED FOR DEVELOPMENT APPROVAL	21.09.21	RH	BK	B	ISSUED FOR DEVELOPMENT APPROVAL	20.07.21	RH	BK	A	ISSUED FOR CLIENT REVIEW	24.06.21	RH	BK	Issue	Description	Date	Drawn	Approved	<div>North</div> 	Client		Architect		<div>ACOR CONSULTANTS (CC) Pty Ltd</div> <div>Platinum Building, Suite 2.01, 4 Ilya Avenue</div> <div>ERINA NSW 2250, Australia</div> <div>T +61 2 4324 3499</div> <div> ENGINEERS   MANAGERS   INFRASTRUCTURE PLANNERS   DEVELOPMENT CONSULTANTS</div>		Project		Drawing Title	
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					BRIANNA EMILY DESIGN		PROPOSED RESIDENTIAL DEVELOPMENT		COVER SHEET & NOTES																										
					MASCARENHAS		No. 17 JAMIESON PARADE COLLARROY																												
							<table><tr><td>Drawn</td><td>Date</td><td>Scale</td><td>A1</td><td>G.A. Check</td><td>Date</td></tr><tr><td>RH</td><td>JUN 21</td><td>AS NOTED</td><td></td><td>BAK</td><td>20.07.21</td></tr></table>		Drawn	Date	Scale	A1	G.A. Check	Date	RH	JUN 21	AS NOTED		BAK	20.07.21	<table><tr><td>Designed</td><td>Project No.</td><td>Dwg. No.</td><td>Issue</td></tr><tr><td>BK</td><td>CC210165</td><td>C1</td><td>C</td></tr></table>		Designed	Project No.	Dwg. No.	Issue	BK	CC210165	C1	C					
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- NOTES:
- TOP OF GRATE LEVELS HAVE BEEN DETERMINED FROM THE SURVEY DETAIL PROVIDED. FOLLOWING EARTHWORKS AND BENCHING, VALIDITY OF GRATE LEVELS SHOULD BE ASSESSED AND ADJUSTED AS REQUIRED TO MEET THE INTENT OF THE DESIGN. WHERE IN DOUBT CONTACT THE DESIGN ENGINEER.
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  - THE LOCATIONS OF DOWNPIPES SHOWN ON THIS DRAWING ARE INDICATIVE AND WILL NEED TO BE SITE VERIFIED BY THE BUILDER. ALL DOWNPIPES TO BE 90mm MIN. DIA. U.N.O. IF CHANGES ARE MADE TO THE NUMBER OR POSITION OF DOWNPIPES THE DESIGN ENGINEER SHALL BE CONTACTED FOR VERIFICATION.
  - FOR CHARGED/SEALED LINES PROVIDE APPROPRIATE CLEAN OUT FACILITY AT LOW POINTS OF SYSTEM, TYP.

BENCH MARK  
NAIL IN KERB  
RL 21.01 (AHD)

JAMIESON PARADE

(BITUMEN FORMATION)

STORMWATER LEGEND				
<span style="color: green;">— RW —</span>	DENOTES 100mm DIA. FULLY SEALED UNDERGROUND RAINWATER SYSTEM PIPE U.N.O.			
<span style="color: blue;">— SW —</span>	DENOTES 100mm DIA. UNDERGROUND STORMWATER / SURFACE WATER SYSTEM PIPE AT 1% MIN. GRADE U.N.O.			
<span style="color: green;">150</span> <span style="color: green;">— RW —</span>	DENOTES RAINWATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.			
<span style="color: blue;">150</span> <span style="color: blue;">— SW —</span>	DENOTES STORMWATER/SURFACE WATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.			

STORMWATER MANAGEMENT PLAN  
SCALE - 1:50/A1, 1:100/A3



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BRIANNA EMILY  
DESIGN  
MASCARENHAS

Architect



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T +61 2 4324 3499

Project



PROPOSED RESIDENTIAL  
DEVELOPMENT  
No. 17  
JAMIESON PARADE  
COLLARROY

Drawing Title




STORMWATER MANAGEMENT  
PLAN - BASEMENT

Drawn	Date	Scale	A1	Q.A. Check	Date
RH	JUN 21	AS NOTED	BAK		20.07.21
Designed	Project No.	Dwg. No.	Issue		
BK	CC210165	C2	C		

## NOTES:

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- THE LOCATIONS OF DOWNPIPES SHOWN ON THIS DRAWING ARE INDICATIVE AND WILL NEED TO BE SITE VERIFIED BY THE BUILDER. ALL DOWNPIPES TO BE 90mm MIN. DIA. U.N.O. IF CHANGES ARE MADE TO THE NUMBER OR POSITION OF DOWNPIPES THE DESIGN ENGINEER SHALL BE CONTACTED FOR VERIFICATION.
- FOR CHARGED/SEALED LINES PROVIDE APPROPRIATE CLEAN OUT FACILITY AT LOW POINTS OF SYSTEM, TYP.

## TREE LEGEND

-  DENOTES TREES TO BE REMOVED
-  DENOTES TREE PROTECTION ZONE ON EXISTING TREES TO REMAIN. NOTE: PROVIDE APPROPRIATE PROTECTION MEASURES DURING CONSTRUCTION IN ACCORDANCE WITH ARBORISTS REQUIREMENTS
-  DENOTES STRUCTURAL ROOT ZONES ON EXISTING TREES TO REMAIN

BENCH MARK  
NAIL IN KERB  
RL 21.01 (AHD)

CONSTRUCT 100 WIDE GRATED BOX DRAIN MIN 100 DEEP. GRADE FROM INVERT TO OUTLET AT A MINIMUM GRADE OF 2%.





TOP OF GRATE RL VARIES - RL 20.90 NOM.

GRATE LEVEL TO BE CONFIRMED FROM CROSS OVER LEVELS PROVIDED BY COUNCIL.

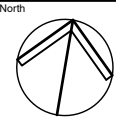
**NOTE: POSITION OF GRATE TO BE CONFIRMED BY ACOR CONSULTANTS (CC) PTY LTD PRIOR TO CONSTRUCTION TO VERIFY THE DESIGN INTENT**

CROSSOVER AND DRIVEWAY TO BE IN ACCORDANCE WITH COUNCIL REQUIREMENTS. THE LEVELS AND DESIGN OF THE CROSSOVER AND DRIVEWAY SHALL BE BY OTHERS.

## STORMWATER LEGEND

-  DENOTES 100mm DIA. FULLY SEALED UNDERGROUND RAINWATER SYSTEM PIPE U.N.O.
-  DENOTES 100mm DIA. UNDERGROUND STORMWATER / SURFACE WATER SYSTEM PIPE AT 1% MIN. GRADE U.N.O.
-  DENOTES RAINWATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
-  DENOTES STORMWATER/SURFACE WATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.

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Architect



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Project



PROPOSED RESIDENTIAL  
DEVELOPMENT  
No. 17  
JAMIESON PARADE  
COLLAROY

Drawing Title

STORMWATER MANAGEMENT  
PLAN - GROUND FLOOR PART 1

Drawn	Date	Scale	A1	C.A. Check	Date
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Designed	Project No.	Dwg. No.	Issue		
BK	CC210165	C3	C		

## FULLY SEALED ROOF DRAINAGE SYSTEM

SHOWN THUS:  

DRAINAGE SYSTEM TO BE FULLY SEALED FROM ROOF GUTTER LEVEL TO TOP OF RAINWATER TANK. SEAL ALL PIPEWORK FROM RE-USE TANK TO EAVE LINE USING SOLVENT WELDED JOINTS. RAINWATER SYSTEM SHALL COLLECT ROOF WATER ONLY. NO ADDITIONAL PITS FOR COLLECTION OF SURFACE WATER WILL BE PERMITTED TO CONNECT INTO THE ROOF WATER SYSTEM. PROVIDE FOLLOWING STANDARD FITTINGS TO CONNECTED DOWNPIPES: LEAF/MOSQUITO SCREEN HEADS AND FIRST FLUSH DIVERTER. REFER TO NOTE 3 FOR DOWNPIPES. PROVIDE IO AT LOW POINTS IN SYSTEM FOR CLEANOUT, IO'S TO BE CAPPED AT FINISHED SURFACE LEVEL WITH 100mm MIN. COVER IN NON-TRAFFICABLE LOCATIONS, TYP.

ALLOW TO PROVIDE 100mm WIDE x 100mm DEEP MIN. STAINLESS STEEL LINEAR GRATED DRAIN WITH HEELPROOF GRATE TO ARCHITECTS DETAILS

PIT P1 - 450 SQUARE PIT WITH LIGHT DUTY GRATED INLET  
TOP OF GRATE - 19.60 nom  
INVERT OF OUTLET - IL 19.35

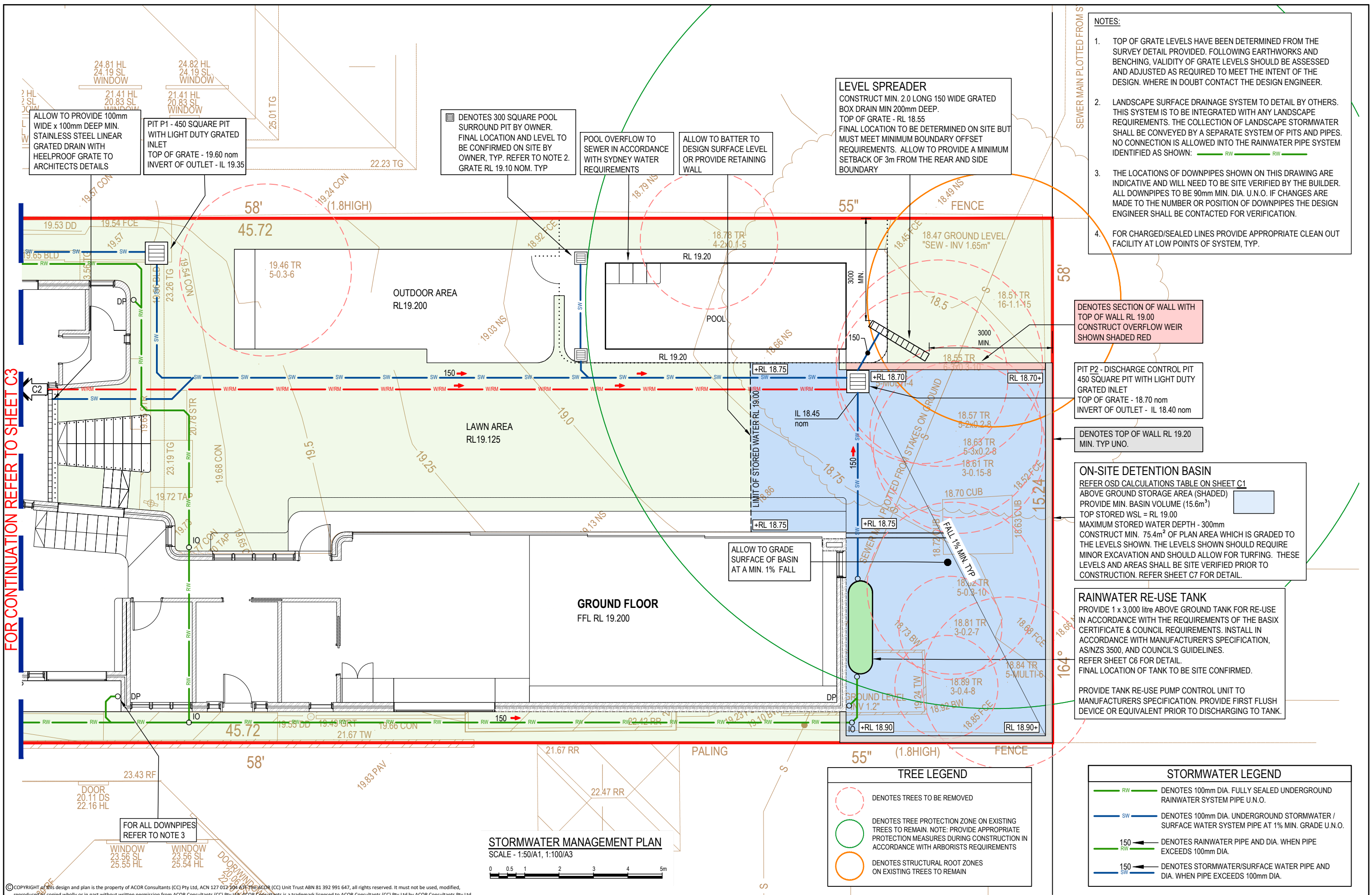
## STORMWATER MANAGEMENT PLAN

SCALE - 1:50/A1, 1:100/A3



FOR CONTINUATION REFER TO SHEET C4





- NOTES:**
1. TOP OF GRATE LEVELS HAVE BEEN DETERMINED FROM THE SURVEY DETAIL PROVIDED. FOLLOWING EARTHWORKS AND BENCHING, VALIDITY OF GRATE LEVELS SHOULD BE ASSESSED AND ADJUSTED AS REQUIRED TO MEET THE INTENT OF THE DESIGN. WHERE IN DOUBT CONTACT THE DESIGN ENGINEER.
  2. LANDSCAPE SURFACE DRAINAGE SYSTEM TO DETAIL BY OTHERS. THIS SYSTEM IS TO BE INTEGRATED WITH ANY LANDSCAPE REQUIREMENTS. THE COLLECTION OF LANDSCAPE STORMWATER SHALL BE CONVEYED BY A SEPARATE SYSTEM OF PITS AND PIPES. NO CONNECTION IS ALLOWED INTO THE RAINWATER PIPE SYSTEM IDENTIFIED AS SHOWN: — RW — — SW —
  3. THE LOCATIONS OF DOWNPIPES SHOWN ON THIS DRAWING ARE INDICATIVE AND WILL NEED TO BE SITE VERIFIED BY THE BUILDER. ALL DOWNPIPES TO BE 90mm MIN. DIA. U.N.O. IF CHANGES ARE MADE TO THE NUMBER OR POSITION OF DOWNPIPES THE DESIGN ENGINEER SHALL BE CONTACTED FOR VERIFICATION.
  4. FOR CHARGED/SEALED LINES PROVIDE APPROPRIATE CLEAN OUT FACILITY AT LOW POINTS OF SYSTEM, TYP.

DENOTES SECTION OF WALL WITH TOP OF WALL RL 19.00 CONSTRUCT OVERFLOW WEIR SHOWN SHADED RED

PIT P2 - DISCHARGE CONTROL PIT 450 SQUARE PIT WITH LIGHT DUTY GRATED INLET TOP OF GRATE - 18.70 nom INVERT OF OUTLET - IL 18.40 nom

DENOTES TOP OF WALL RL 19.20 MIN. TYP UNO.

**ON-SITE DETENTION BASIN**  
REFER OSD CALCULATIONS TABLE ON SHEET C1 ABOVE GROUND STORAGE AREA (SHADED) PROVIDE MIN. BASIN VOLUME (15.6m³) TOP STORED WSL = RL 19.00 MAXIMUM STORED WATER DEPTH - 300mm CONSTRUCT MIN. 75.4m² OF PLAN AREA WHICH IS GRADED TO THE LEVELS SHOWN. THE LEVELS SHOWN SHOULD REQUIRE MINOR EXCAVATION AND SHOULD ALLOW FOR TURFING. THESE LEVELS AND AREAS SHALL BE SITE VERIFIED PRIOR TO CONSTRUCTION. REFER SHEET C7 FOR DETAIL.

**RAINWATER RE-USE TANK**  
PROVIDE 1 x 3,000 litre ABOVE GROUND TANK FOR RE-USE IN ACCORDANCE WITH THE REQUIREMENTS OF THE BASIX CERTIFICATE & COUNCIL REQUIREMENTS. INSTALL IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATION, AS/NZS 3500, AND COUNCIL'S GUIDELINES. REFER SHEET C6 FOR DETAIL. FINAL LOCATION OF TANK TO BE SITE CONFIRMED.  
  
PROVIDE TANK RE-USE PUMP CONTROL UNIT TO MANUFACTURER'S SPECIFICATION. PROVIDE FIRST FLUSH DEVICE OR EQUIVALENT PRIOR TO DISCHARGING TO TANK.

**TREE LEGEND**

- DENOTES TREES TO BE REMOVED
- DENOTES TREE PROTECTION ZONE ON EXISTING TREES TO REMAIN. NOTE: PROVIDE APPROPRIATE PROTECTION MEASURES DURING CONSTRUCTION IN ACCORDANCE WITH ARBORISTS REQUIREMENTS
- DENOTES STRUCTURAL ROOT ZONES ON EXISTING TREES TO REMAIN

**STORMWATER LEGEND**

- RW — DENOTES 100mm DIA. FULLY SEALED UNDERGROUND RAINWATER SYSTEM PIPE U.N.O.
- SW — DENOTES 100mm DIA. UNDERGROUND STORMWATER / SURFACE WATER SYSTEM PIPE AT 1% MIN. GRADE U.N.O.
- 150 150 DENOTES RAINWATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.
- 150 150 DENOTES STORMWATER/SURFACE WATER PIPE AND DIA. WHEN PIPE EXCEEDS 100mm DIA.

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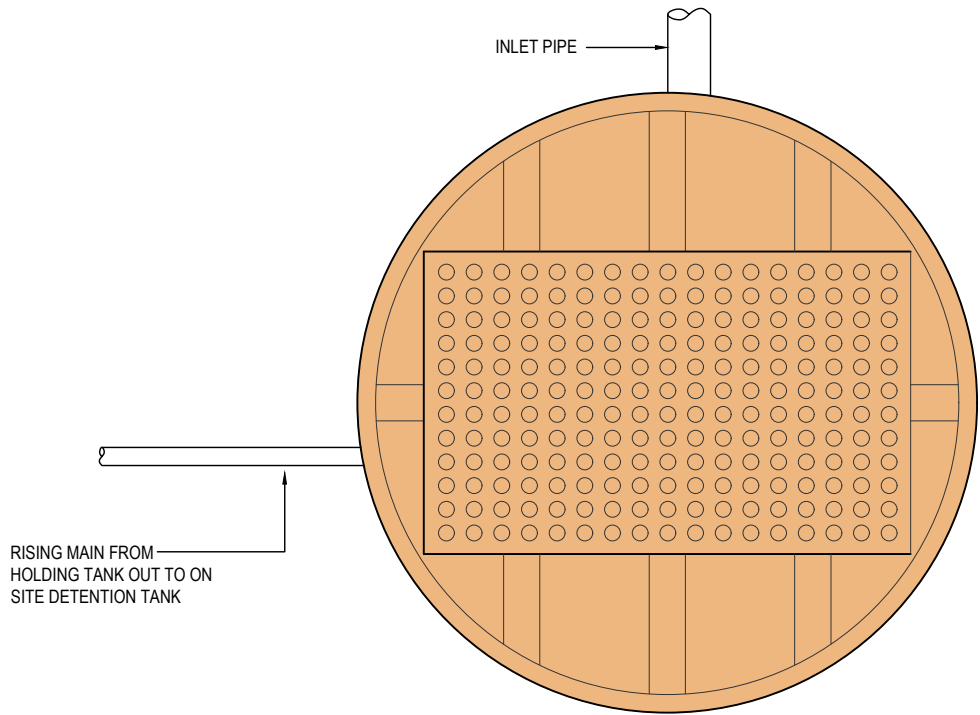
Client  
**BRIANNA EMILY DESIGN**  
MASCARENHAS

Architect  
**AcOR**  
CONSULTANTS

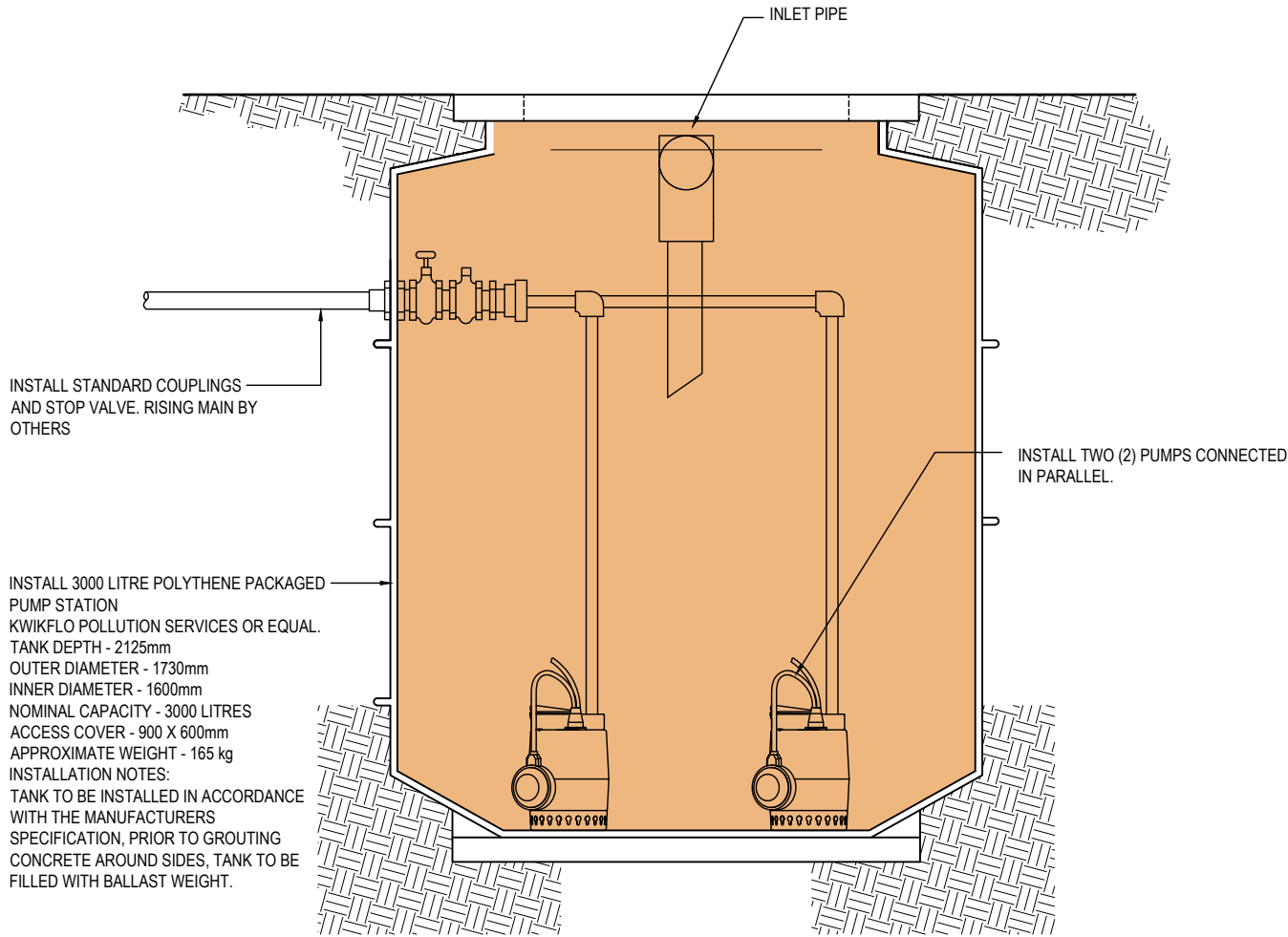
**ACOR Consultants (CC) Pty Ltd**  
Platinum Building, Suite 2.01, 4 Ilya Avenue  
ERINA NSW 2250, Australia  
T +61 2 4324 3499

Project  
**PROPOSED RESIDENTIAL DEVELOPMENT**  
No. 17  
JAMIESON PARADE  
COLLAROY

Drawing Title		<b>STORMWATER MANAGEMENT PLAN - GROUND FLOOR PART 2</b>			
Drawn	Date	Scale	A1	Q.A. Check	Date
RH	JUN 21	AS NOTED	BAK		20.07.21
Designed	Project No.	Dwg. No.		Issue	
BK	CC210165	C4		C	



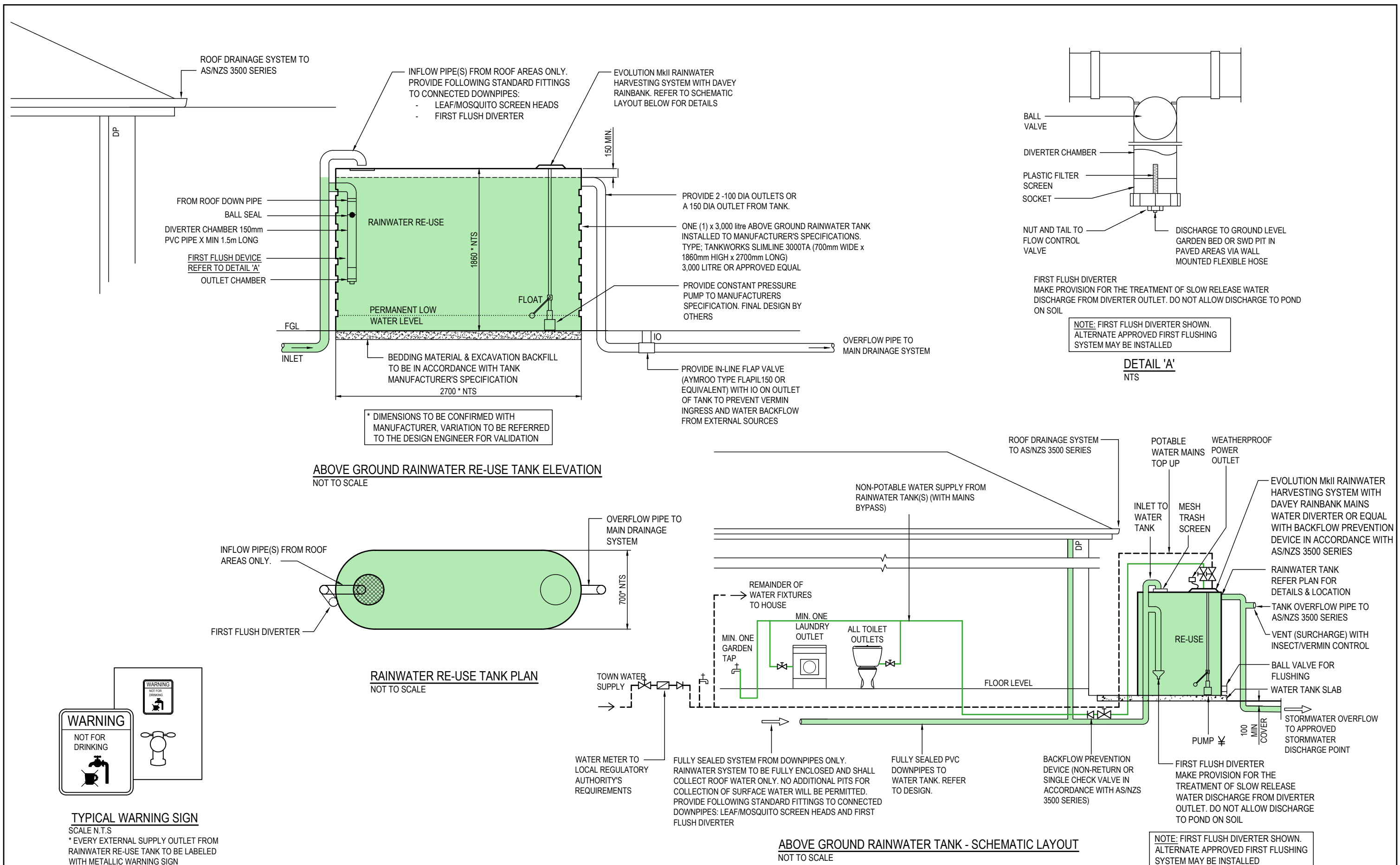
PUMP-OUT TANK SYSTEM - PLAN  
SCALE - 1:10/A1, 1:20/A3

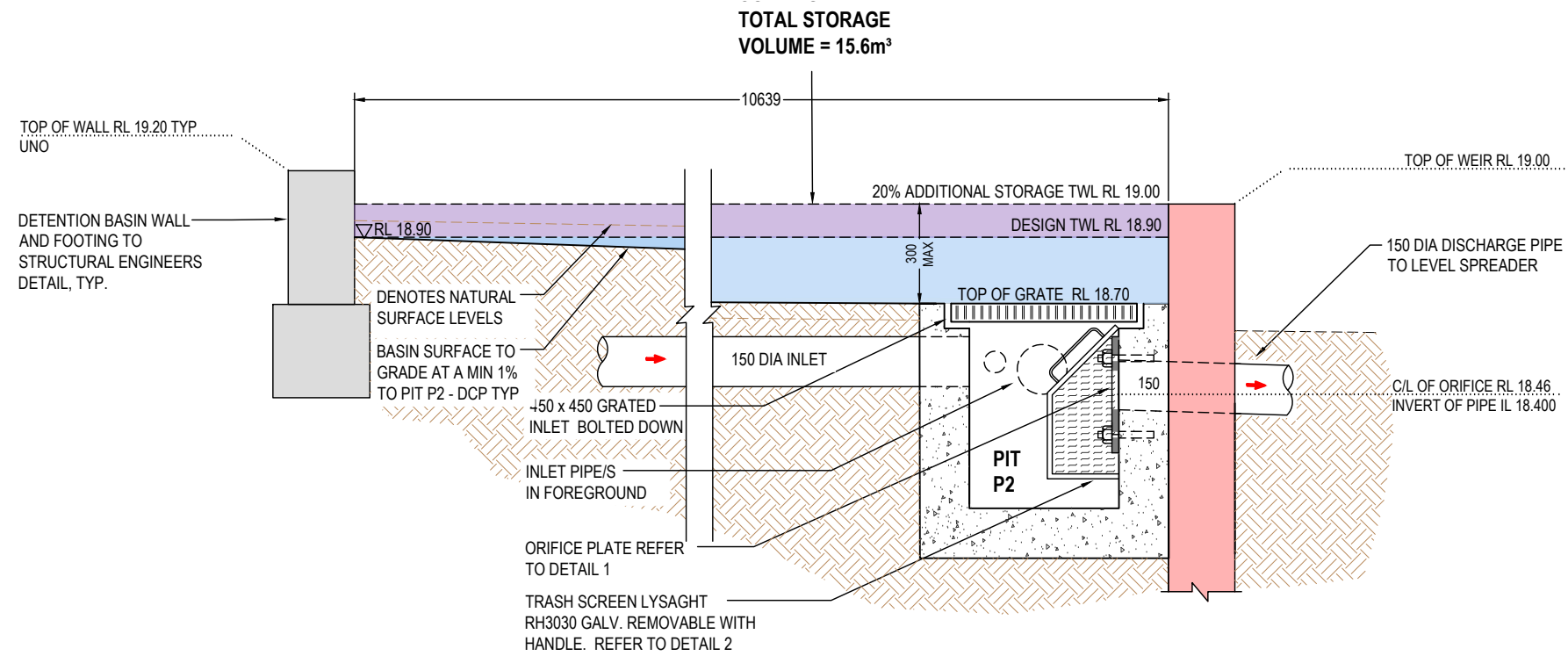


PUMP-OUT TANK SYSTEM - SECTION  
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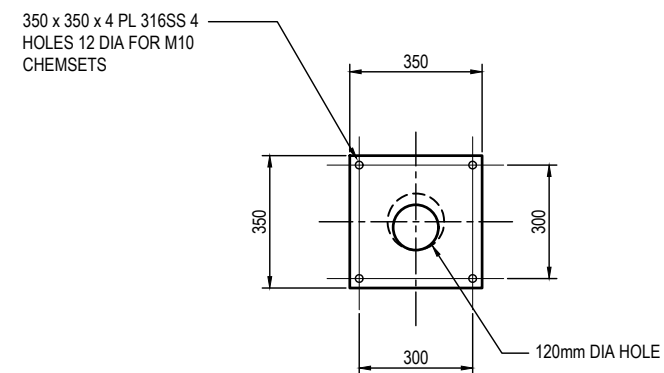
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					Client	Architect	<div>ACOR CONSULTANTS</div> <div>ENGINEERS   MANAGERS   INFRASTRUCTURE PLANNERS   DEVELOPMENT CONSULTANTS</div>	Project				Drawing Title								
					BRIANNA EMILY DESIGN MASCARENHAS			ACOR Consultants (CC) Pty Ltd Platinum Building, Suite 2.01, 4 Ilya Avenue ERINA NSW 2250, Australia T +61 2 4324 3499				STORMWATER MANAGEMENT DETAIL SHEET (No. 1)								
C	RE-ISSUED FOR DEVELOPMENT APPROVAL			21.09.21				RH	BK	PROPOSED RESIDENTIAL DEVELOPMENT				Drawn		Date	Scale	A1	Q.A. Check	Date
B	ISSUED FOR DEVELOPMENT APPROVAL			20.07.21				RH	BK					RH	JUN 21	AS NOTED	BAK	20.07.21		
A	ISSUED FOR CLIENT REVIEW			24.06.21				RH	BK					Designed	Project No.		Dwg. No.	Issue		
Issue		Description		Date	Drawn	Approved					BK	CC210165		C5	C					
<div>0 10m at full scale</div>																				

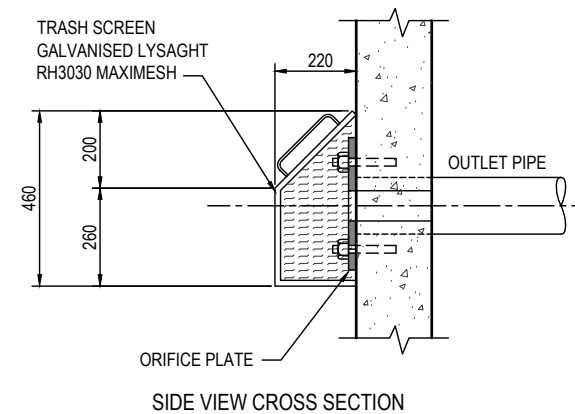




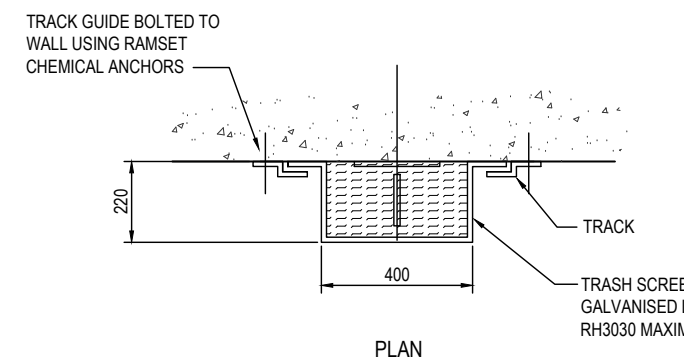
**TYPICAL SECTION THRU DISCHARGE CONTROL PIT P2**  
1:10 @ A1 ; 1:20 @ A3



**DETAIL 1 - ORIFICE PLATE**  
SCALE NTS



**DETAIL 2 - TRASH SCREEN**  
SCALE NTS



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C					RE-ISSUED FOR DEVELOPMENT APPROVAL		21.09.21	RH	BK	North	BRIANNA EMILY DESIGN MASCARENHAS	Client	Architect	 ACOR Consultants (CC) Pty Ltd Platinum Building, Suite 2.01, 4 Ilya Avenue ERINA NSW 2250, Australia T +61 2 4324 3499  ENGINEERS   MANAGERS   INFRASTRUCTURE PLANNERS   DEVELOPMENT CONSULTANTS	Project PROPOSED RESIDENTIAL DEVELOPMENT No. 17 JAMIESON PARADE COLLAROY	Drawing Title STORMWATER MANAGEMENT DETAIL SHEET (No. 3)					
B		NIL ISSUE		-	-	-	Q.A. Check BAK	Date 20.07.21													
A		NIL ISSUE		-	-	-															
Issue		Description		Date	Drawn	Approved															





## Appendix 16 – On-site Detention Checklist

This checklist is to be used to determine the on-site stormwater disposal requirement for developments and must be completed and included with the submission of any development application for these works. Please read this form carefully for its notes, guidelines, definition and relevant policies.

For assistance and support, please contact Council's Development Engineering and Certification team on 1300 434 434.

### Part 1 Location of the Property

House Humber	17	Legal Property Description	
Street	JAMIESON PARADE	Lot	21
Suburb	COLLARROY	Section	13
Postcode		DP	7392

### Part 2 Site Details

Northern Beaches Stormwater Regions (refer to Map 2 of Northern Beaches Council's Water Management for Development policy)		Total Site Area	<b>696.7</b>
Pre-Development Impervious Area	<b>327</b>	Post-Development Impervious Area	<b>299</b>
Is the site of the development located within an established Flood Prone Land as referred to Council's Local Environmental Plans?			Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
If yes, On-site stormwater Detention system (OSD) is not required and please proceed to part 5 of this checklist If no, please proceed to part 3 of this checklist.			

### Part 3: Northern Beaches Stormwater Regions

(refer to Map 2 of Northern Beaches Council's Water Management for Development policy)

If the site of the development located within Region 1, please proceed to the part 4.1 of this checklist

If the site of the development located within Region 2, please proceed to the part 4.2 of this checklist

If the site of the development located within Region 3, please proceed to the part 4.3 of this checklist

If the site of the development located within Region 4, please refer to Council's Warriewood Valley Water Management Specification.

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### Part 4.2 Northern Beaches Stormwater Region 2

#### Part 4.2.1 Description of Work

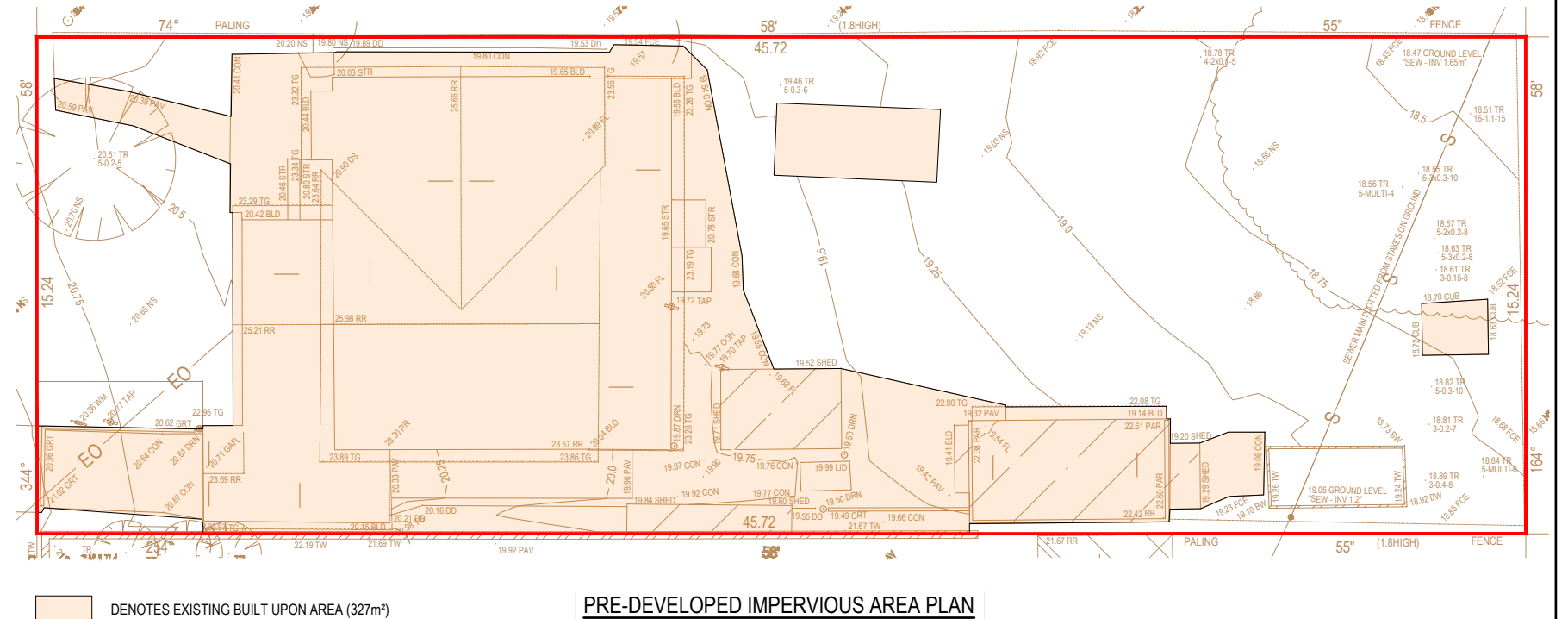
Residential flat building, commercial, industrial, multiple occupancy development and subdivisions resulting in the creation of three lots or more, will require OSD in all case. Please provide a design in accordance with the section 9.3.2 of Council's Water Management for Development Policy. Any single residential building development, please proceed to part 4.2.2 of this checklist.

#### Part 4.2.2 Exemption

Is the site area less than 450m <sup>2</sup> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Does the site of the development drain directly to the ocean without the need to pass through a drainage control structure such as pipe, bridge, culvert, kerb and gutter or natural drainage system?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Is it an alternation and addition development to the existing dwellings?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
If yes to any of the above questions, OSD is not required. If no to all the above questions, proceed to part 4.2.3	

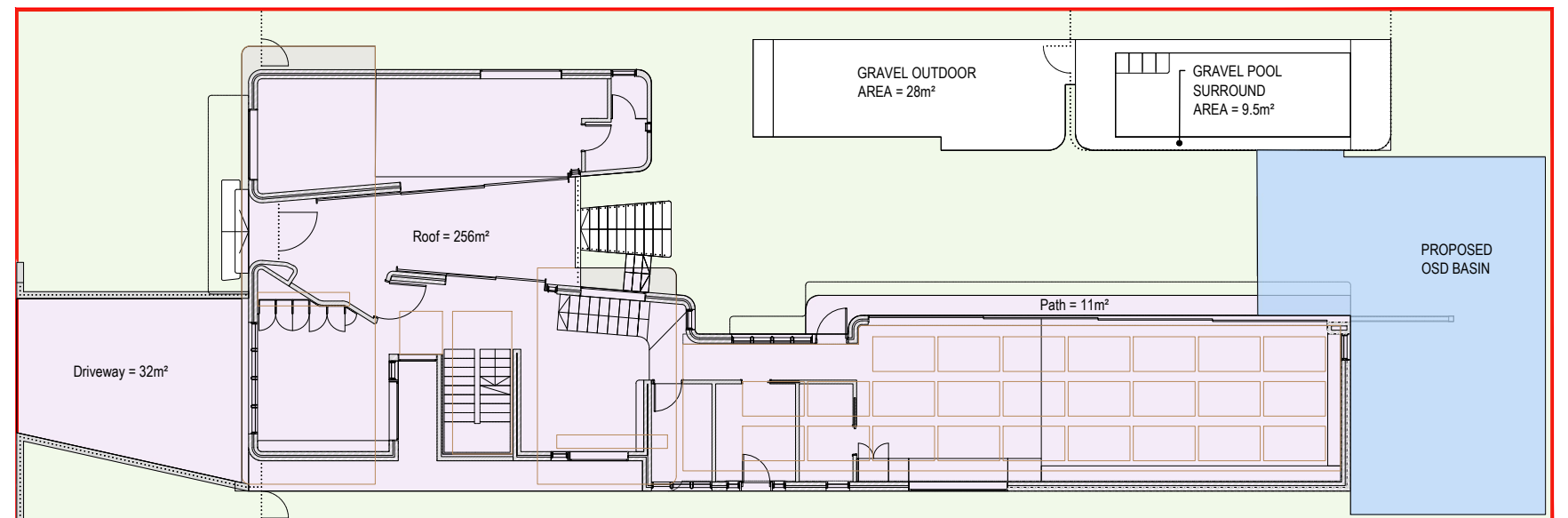
#### Part 4.2.3 Determination of OSD Requirements

Calculation	a) Site area m <sup>2</sup> x 0.40 (40%) = 278.68 m <sup>2</sup> b) Post- development impervious area = 299 m <sup>2</sup>
OSD will not be required when (a) is greater than (b) Is OSD required for this development (tick one only) Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
If yes, provide a design in accordance with the section 9.3.2 of Council's Water Management for Development Policy. If no, OSD is not required and please proceed to part 5 of this checklist.	



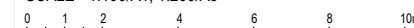
### PRE-DEVELOPED IMPERVIOUS AREA PLAN

SCALE - 1:100/A1, 1:200/A3



### POST-DEVELOPED IMPERVIOUS AREA PLAN

SCALE - 1:100/A1, 1:200/A3



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					Client	Architect	<div><div>AcOR</div><div>CONSULTANTS</div></div> <div>ENGINEERS   MANAGERS   INFRASTRUCTURE PLANNERS   DEVELOPMENT CONSULTANTS</div>	<div>ACOR Consultants (CC) Pty Ltd</div> <div>Platinum Building, Suite 2.01, 4 Ilya Avenue</div> <div>ERINA NSW 2250, Australia</div> <div>T +61 2 4324 3499</div>	<div>Project</div> <div>PROPOSED RESIDENTIAL DEVELOPMENT</div> <div>No. 17</div> <div>JAMIESON PARADE</div> <div>COLLARROY</div>	<div>Drawing Title</div> <div>COUNCIL ON SITE DETENTION CHECKLIST</div>			
				Drawn	Date	Scale				A1	Q.A. Check	Date	
C	RE-ISSUED FOR DEVELOPMENT APPROVAL	21.09.21	RH	BK	RH	JUN 21				AS NOTED	BAK	20.07.21	
B	ISSUED FOR DEVELOPMENT APPROVAL	20.07.21	RH	BK									
A	ISSUED FOR CLIENT REVIEW	24.06.21	RH	BK									
Issue	Description	Date	Drawn	Approved									
1	P	1	1	1	1	1	1	1	1	1			