





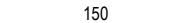
















PROPOSED DEVELOPMENT

No.'s 41 & 43 OWEN AVENUE, WYONG

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

- 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
- 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
- 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

- 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
- 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
- THE MINIMUM GRADIENT OF STORMWATER DRAINS SHALL BE 1%, UNLESS NOTED OTHERWISE
- COUNCIL'S TREE PRESERVATION ORDER IS TO BE STRICTLY ADHERED TO. NO TREES SHALL BE REMOVED UNTIL PERMIT IS OBTAINED
- PUBLIC UTILITY SERVICES ARE TO BE ADJUSTED AS NECESSARY AT THE CLIENT'S EXPENSE
- ALL PITS TO BE BENCHED AND STREAMLINED. PROVIDE STEP IRONS FOR ALL PITS OVER 1.2m DEEP
- MAKE SMOOTH JUNCTION WITH ALL EXISTING WORK
- VEHICULAR ACCESS AND ALL SERVICES TO BE MAINTAINED AT ALL TIMES TO ADJOINING PROPERTIES AFFECTED BY CONSTRUCTION
- 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
- 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

- RAINWATER SUPPLY PLUMBING TO BE CONNECTED TO OUTLETS WHERE REQUIRED BY BASIX CERTIFICATE (BY OTHERS)
- TOWN WATER CONNECTION TO RAINWATER TANK TO BE TO THE SATISFACTION OF THE REGULATORY AUTHORITY. THIS MAY REQUIRE PROVISION OF:
 - PERMANENT AIR GAP
 - BACKFLOW PREVENTION DEVICE
- NO DIRECT CONNECTION BETWEEN TOWN WATER SUPPLY AND THE RAIN WATER SUPPLY
- AN APPROVED STOP VALVE AND/OR PRESSURE LIMITING VALVE AT THE RAINWATER TANK
- 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
- ALL PLUMBING WORKS ARE TO BE CARRIED OUT BY LICENSED PLUMBERS IN ACCORDANCE WITH AS/NZS3500.1 NATIONAL PLUMBING AND DRAINAGE CODE
- PRESSURE PUMP ELECTRICAL CONNECTION TO BE CARRIED OUT BY A LICENSED ELECTRICIAN
- ONLY ROOF RUN-OFF IS TO BE DIRECTED TO THE RAINWATER TANK. SURFACE WATER INLETS ARE NOT TO BE CONNECTED
- 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)
- EVERY RAINWATER SUPPLY OUTLET POINT AND THE RAINWATER TANK ARE TO BE LABELED 'RAINWATER' ON A METALLIC SIGN IN ACCORDANCE WITH AS1319
- 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	SHEET C2
STORMWATER MANAGEMENT DETAILS SHEET No.1	SHEET C3
STORMWATER MANAGEMENT DETAILS SHEET No. 2	SHEET C4
ON SITE DETENTION REPORT	SHEET C5
EROSION & SEDIMENT CONTROL PLAN	SHEET C6
EROSION & SEDIMENT CONTROL NOTES & DETAILS	SHEET C7

CENTRAL COAST COUNCIL REQUIREMENTS

SITE AREA (m²) 1161.5
POST DEVELOPED IMPERVIOUS AREA (m²) 757.2 (65.2%)

ON SITE DETENTION

DRAINS SOFTWARE ADOPTED FOR MODELLING, REFER TO DRAINS FILE CC210464.drn. REFER TO SHEET C5 FOR ON SITE DETENTION REPORT.

VOLUME PROVIDED = 10m³
ORIFICE DIAMETER = 200mm

ON SITE RETENTION

RAINWATER REUSE TANK PROVIDED IN ACCORDANCE WITH THE BASIX. REFER TO SHEET C2 FOR LOCATION AND SHEET C4 FOR DETAIL.

DESIGN PREPARED IN ACCORDANCE WITH COUNCIL'S "CENTRAL COAST DEVELOPMENT CONTROL PLAN 2022", CIVIL WORKS DESIGN GUIDELINE, AR&R AND AS/NZS 3500.


LOCALITY PLAN NOT TO SCALE



DEVELOPMENT APPLICATION ISSUE
NOT FOR CONSTRUCTION

DRAWINGS MUST BE PRINTED IN COLOUR

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Project

PROPOSED RESIDENTIAL DEVELOPMENT
No.'s 41 & 43
OWEN AVENUE
WYONG


Drawing Title
COVER SHEET & NOTES

Drawn	Date	Scale	A1	Q.A. Check	Date
CL	SEPT 2022	AS NOTED	-	-	-
Designed	Project No.	Dwg. No.			
BK	CC210464	C1			D

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.
- FOR CHARGED/SEALED LINES PROVIDE APPROPRIATE CLEAN OUT FACILITY AT LOW POINTS OF SYSTEM, TYP.

FULLY SEALED ROOF DRAINAGE SYSTEM

SHOWN THUS:  RW
DRAINAGE SYSTEM TO BE FULLY SEALED FROM ROOF GUTTER LEVEL TO TANK. SEAL ALL PIPEWORK FROM 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, TYP.

PROVIDE IO FOR CLEANOUT AT LOW POINT IN SYSTEM. TYP.

LOT 62
DP 234632

PIT P1
600 SQUARE PIT WITH
MEDIUM DUTY GRATED INLET
TOP OF GRATE - 8.60 nom

WARNING
LOCATION AND DEPTH OF ALL
UNDERGROUND SERVICES TO BE
INVESTIGATED WITH THE
RELEVANT AUTHORITIES PRIOR
TO COMMENCING WORK

PIPES SHOWN FOR CLARITY PURPOSES.
LOCATE STORMWATER PIPES AS CLOSE
AS PRACTICABLE TO BUILDING TO
MINIMISE ROOT DISTURBANCE OF
EXISTING TREES. TYPICAL

100mm WIDE x 100mm DEEP LINEAR
GRADED DRAIN WITH HEELPROOF
GRATE TO ARCHITECTS
SPECIFICATION. EXACT LOCATION TO
BE COORDINATED AT CC STAGE TYP
UNO

RAINWATER RE-USE TANK

PROVIDE 1 x 12,000 litre BELOW 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. FINAL LOCATION OF TANK TO BE SITE CONFIRMED.

RE-USE STORAGE = 12m³ (WE NOTE 11.5m³ LITRE TANK PROVIDES 12m³ OF STORAGE AT FULL PIPE AND TANK CAPACITY WITH HIGH LEVEL OUTLET. REFER TO SHEET C4 FOR DETAIL.

PROVIDE TANK RE-USE PUMP CONTROL UNIT TO MANUFACTURERS SPECIFICATION. PROVIDE FIRST FLUSH DEVICE OR EQUIVALENT PRIOR TO DISCHARGING TO TANK.

OWEN
AVENUE

INSET

SCALE 1:100 @ A1; 1:200 @ A2

150 OUTLET WITH uPVC KERB
ADAPTOR TO 200 x 100 RHS (GALV)
KERB OUTLET TO COUNCIL
REQUIREMENTS. EXACT LOCATION OF
ADAPTOR TO BE SITE VERIFIED.
EXTEND PIPE APPROX 9m ALONG
STREET FRONTAGE TO PROPOSED
OUTLET

DISCHARGE STORMWATER TO K & G
TO THE SATISFACTION OF COUNCIL.
MAKE GOOD EXISTING CONSTRUCTION.
INVERT LEVEL OF OUTLET SHALL BE
SITE CONFIRMED PRIOR TO
COMMENCEMENT OF WORKS
DESIGN INVERT: IL 7.75

LOCATE STORMWATER PIPES AS
CLOSE AS PRACTICABLE TO
BUILDING TO MINIMISE ROOT
DISTURBANCE OF EXISTING
TREES. TYPICAL. PIPES SHOWN
FOR CLARITY PURPOSES

NOTE: ALL DOWNPIPE
LOCATIONS TO BE
DOCUMENTED AND
CONFIRMED AT CC STAGE

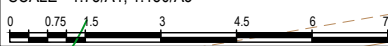
CROSSOVER AND DRIVEWAY TO
BE IN ACCORDANCE WITH
COUNCIL REQUIREMENTS. THE
LEVELS AND DESIGN OF THE
CROSSOVER AND DRIVEWAY
SHALL BE BY OTHERS.

HATCHING DENOTES NEW KERB
AND GUTTER TO REPLACE
EXISTING LAYBACK TO COUNCIL
REQUIREMENTS. ALLOW TO TIE IN
WITH EXISTING AND MAKE GOOD
ALL WORK

REFER TO
INSET

STORMWATER MANAGEMENT PLAN

SCALE - 1:75/A1, 1:150/A3



PIT P2
600 SQUARE PIT WITH
MEDIUM DUTY GRATED INLET
TOP OF GRATE - 8.85 nom

ON SITE DETENTION TANK

AUSDRAIN "ENVIROMODULE" TANK MODULES OR
APPROVED EQUAL WRAPPED IN AN IMPERMEABLE LINER
AND INSTALLED TO MANUFACTURER'S SPECIFICATION.

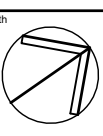
- TOP WATER LEVEL RL 8.36
- FOOTPRINT 23 m²
- 600 LONG X 400 WIDE X 450 DEEP (96 MODULES)
- STORAGE VOLUME = 10 m³

REFER TO DETAILS ON SHEETS C3

PIT P3 - DISCHARGE CONTROL
PIT - 900 SQUARE PIT WITH
MEDIUM DUTY GRATED INLET
TOP OF GRATE - 8.90 nom
NOTE: PROVIDE FLAP VALVE
OVER INLET PIPE FROM
RAINWATER TANK

PIT P4
600 SQUARE PIT WITH
MEDIUM DUTY GRATED INLET
TOP OF GRATE - 8.80 nom

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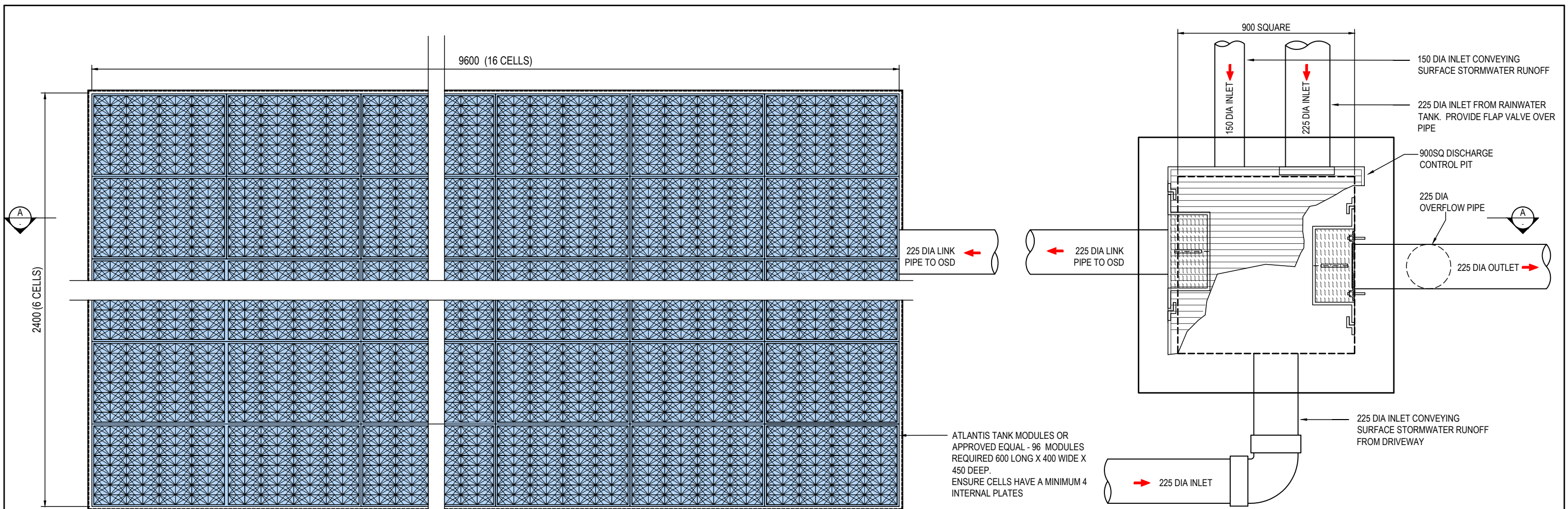
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Project

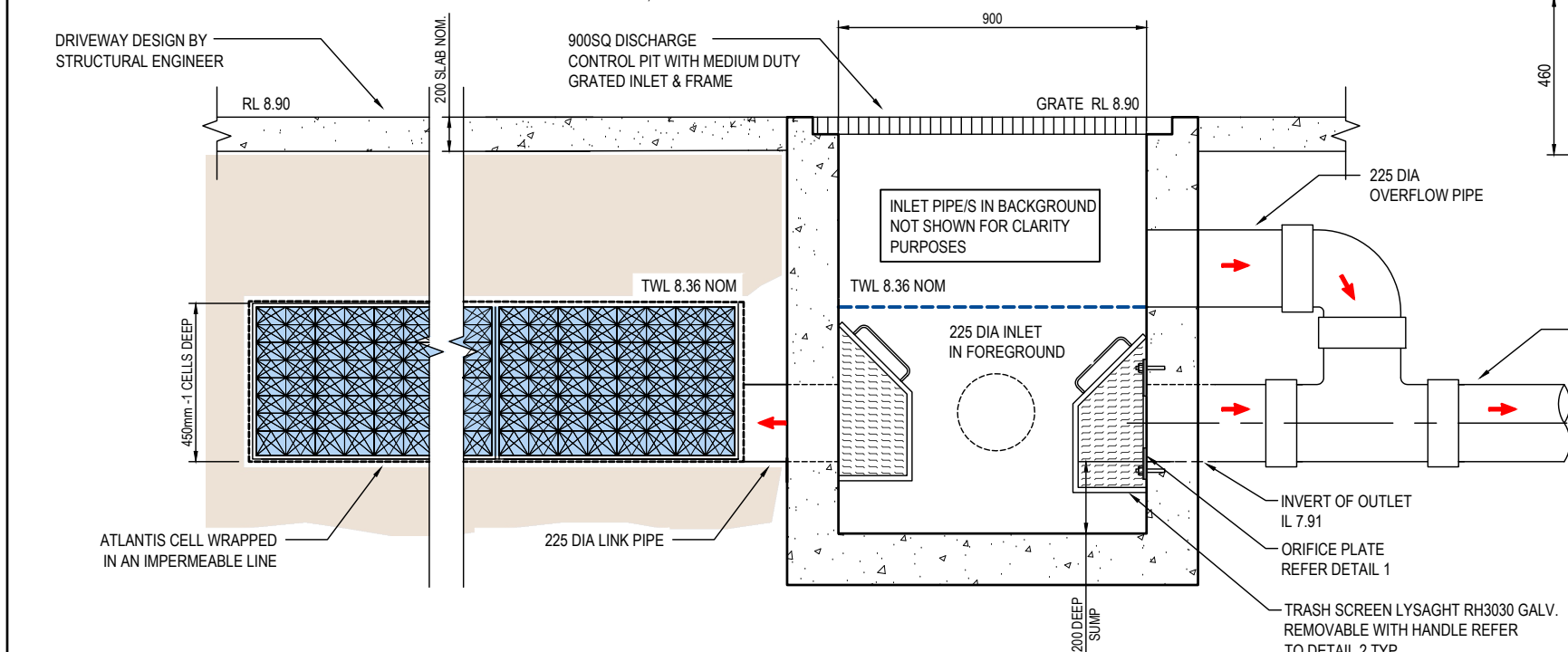
PROPOSED RESIDENTIAL
DEVELOPMENT
No. 41 & 43
OWEN AVENUE
WYONG

STORMWATER MANAGEMENT
PLAN

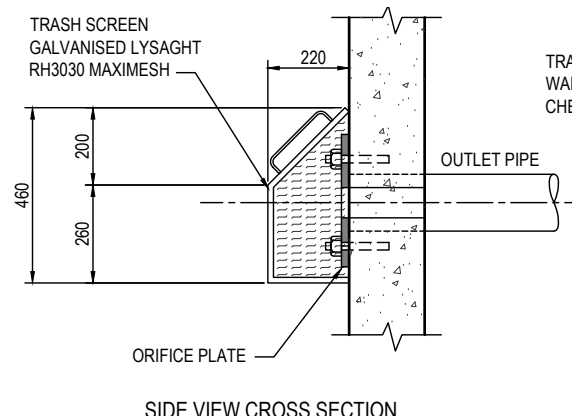
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RH	SEPT 2022	AS NOTED	-	-	-
Designed	Project No.	Dwg. No.			
BK	CC210464	C2			D



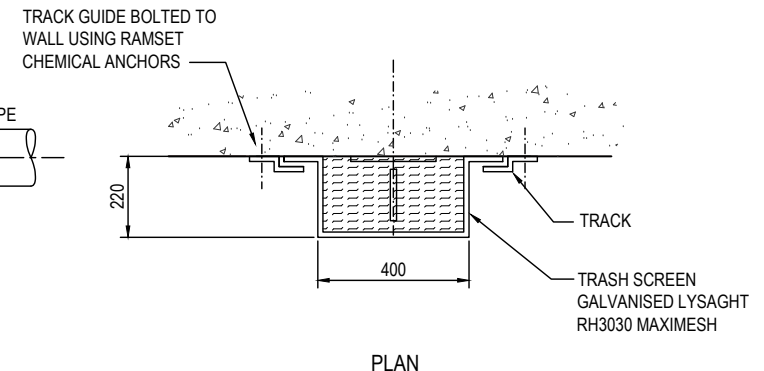
DISCHARGE CONTROL PIT & ATLANTIS CELL DETAIL
SCALE - 1:10/A1, 1:20/A3



SECTION A - THROUGH CONTROL PIT P3 & ATLANTIS CELLS
SCALE - 1:10/A1, 1:20/A3

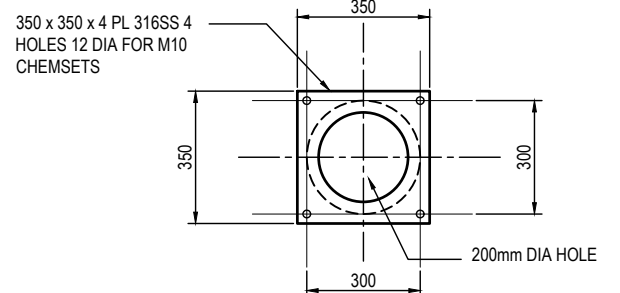


SIDE VIEW CROSS SECTION



PLAN

DETAIL 2 - TRASH SCREEN
SCALE NTS



DETAIL 1 - ORIFICE PLATE
SCALE NTS

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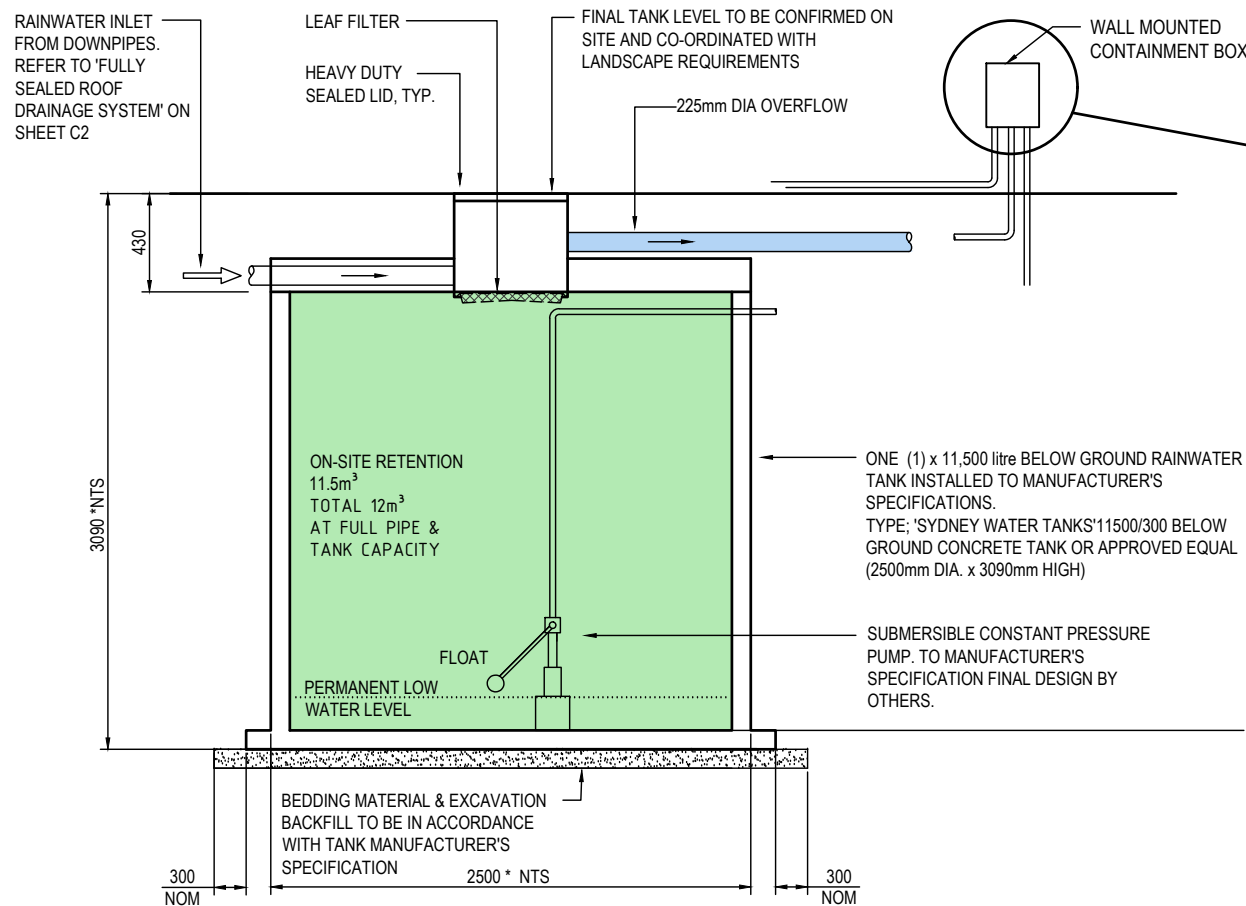
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Project
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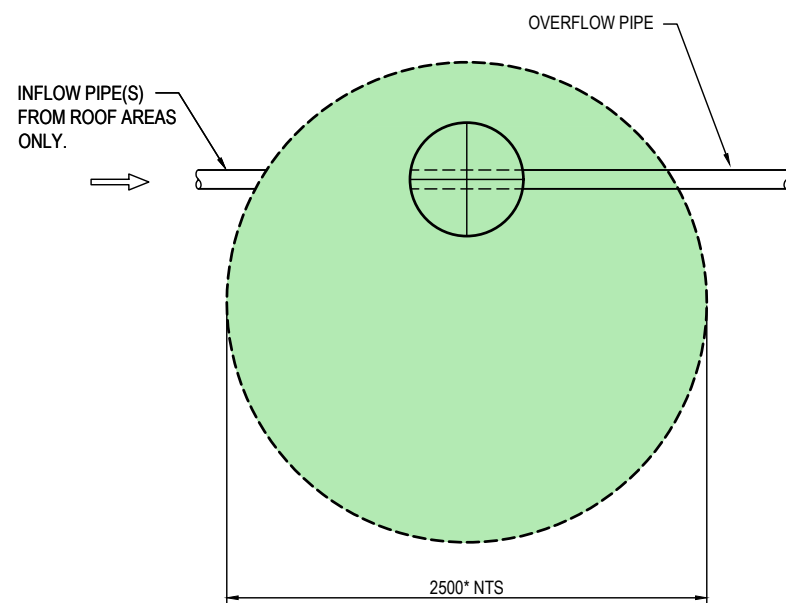
Drawing Title STORMWATER MANAGEMENT DETAILS SHEET No.1					
Drawn RH	Date SEPT 2022	Scale AS NOTED	A1	Q.A. Check -	Date -
Designed BK	Project No. CC210464		Dwg. No. C3	Issue D	



DETAIL 1 - BELOW GROUND RAINWATER RE-USE TANK ELEVATION

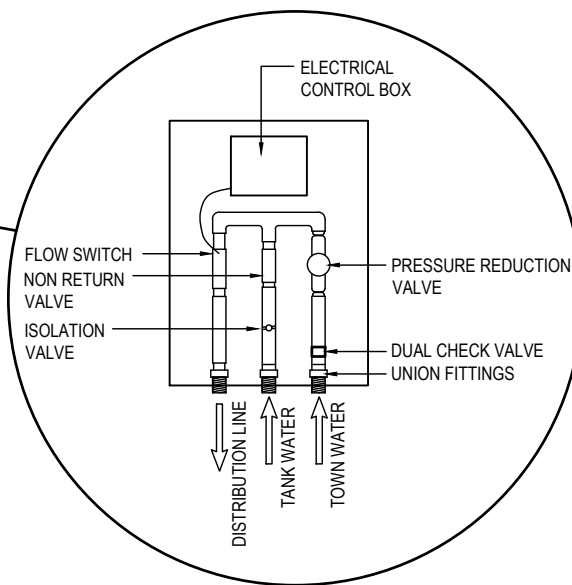
NOT TO SCALE

* DIMENSIONS TO BE CONFIRMED WITH MANUFACTURER, VARIATION TO BE REFERRED TO THE DESIGN ENGINEER FOR VALIDATION



RAINWATER RE-USE TANK PLAN

NOT TO SCALE



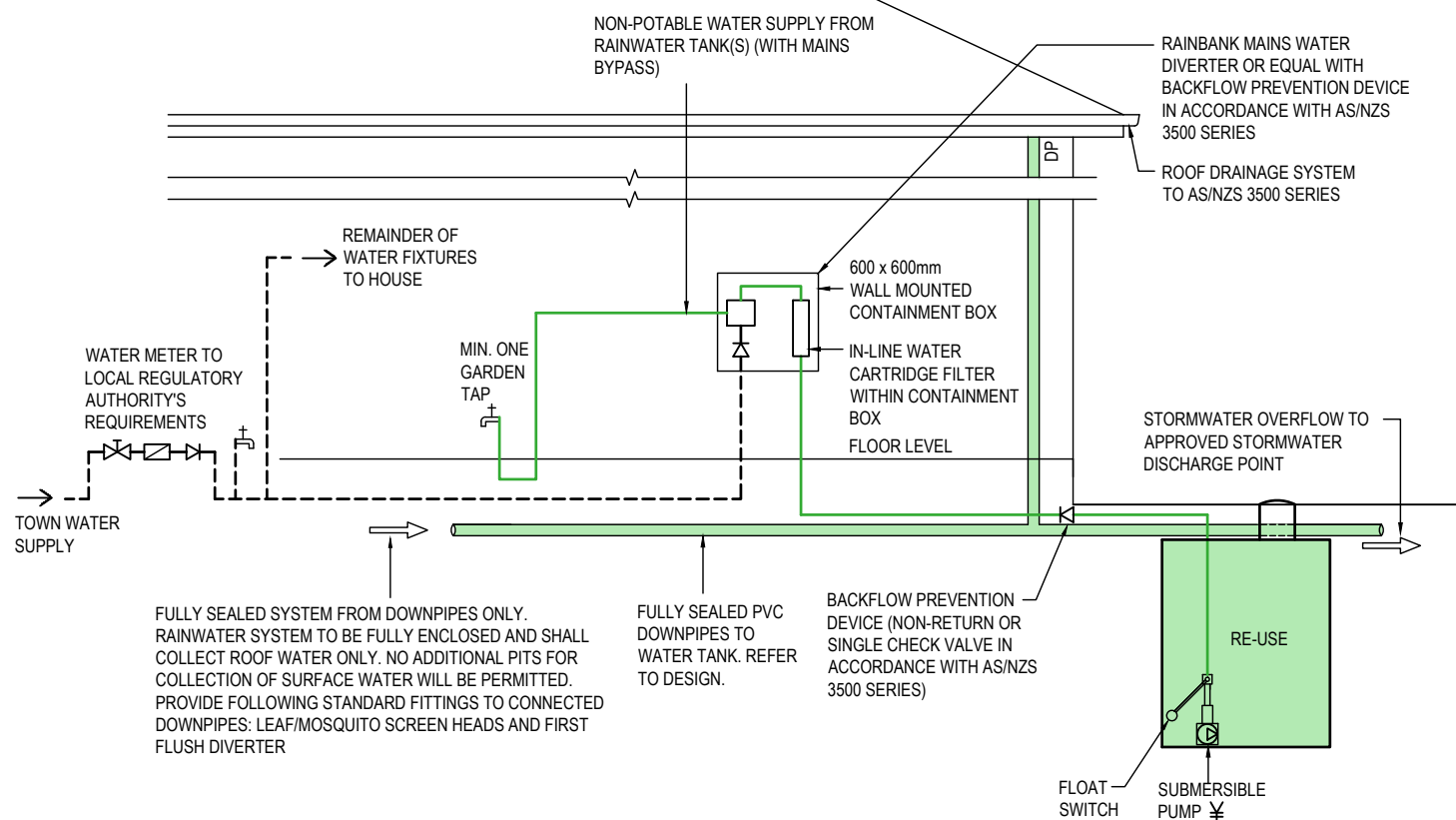
NON POTABLE WATER TO BE REUSED FOR LANDSCAPE IRRIGATION



TYPICAL WARNING SIGN

SCALE N.T.S

* EVERY EXTERNAL SUPPLY OUTLET FROM RAINWATER RE-USE TANK TO BE LABELED WITH METALLIC WARNING SIGN



BELOW GROUND RAINWATER TANK - SCHEMATIC LAYOUT

NOT TO SCALE

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A	NIL ISSUE	-	-	-

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Designed	Project No.	Dwg. No.	Issue		
BK	CC210464	C4	D		

ON-SITE STORMWATER DETENTION REPORT

1.1. METHODOLOGY

1.1.1. THE DRAINS PROGRAM WAS ADOPTED AS AN APPROPRIATE MODEL FOR THIS PROJECT. PRE-DEVELOPED AND POST-DEVELOPED HYDROLOGICAL AND HYDRAULIC MODELS WERE DEVELOPED FOR THE 1, 2, 5, 10, 20, 50 AND 100 YEAR ARI DESIGN STORM EVENTS, ASSESSING STACKED RAINFALL PATTERNS RANGING FROM 5 MINUTES TO 2 HOURS. THE ADOPTED PRE & POST DEVELOPED FLOWS ARE THOSE ASSIGNED TO THEIR RESPECTIVE PEAKS.

1.2. PRE-DEVELOPED DRAINS MODEL

1.2.1. THE PRE-DEVELOPED DRAINS MODEL COMPRISED A SINGLE SUB-CATCHMENT DISCHARGING TO A DUMMY NODE. THE PARAMETERS INPUT TO THE DRAINS MODEL FOR THE SUB-CATCHMENT ARE IDENTIFIED IN THE DRAINS SUB-CATCHMENT DATA INPUT FILE. REFER TO DRAINS FILE "GOSFORD CC210464.drn" THE CATCHMENT AREA ADOPTED IS 0.1161ha. THE PRE & POST DEVELOPED IMPERVIOUS AREAS ADOPTED IN THE MODEL ARE 0% AND 65% RESPECTIVELY.

1.2.2. THE PRE-DEVELOPED PEAK FLOWRATES CALCULATED BY THE DRAINS PROGRAM ARE SUMMARISED BELOW:

SITE AREA (m ²)	1161 (34% PERVIOUS)
ARI (YEARS)	PEAK FLOWRATE (PRE-DEVELOPED) (L/s)
5	33
20	45
100	57

1.3. POST-DEVELOPED MODEL

1.3.1. THE POST DEVELOPED DRAINS MODEL COMPRISES OF TWO SUB CATCHMENTS FORMED BY THE POST DEVELOPED ROOF AREA WHICH DRAINS TO RAINWATER TANKS WITH OVERFLOWS TO DETENTION TANK, AND RESIDUAL SURFACE AREAS THAT DRAIN DIRECTLY TO DETENTION TANK. REFER TO DRAINS MODEL "CC210464.drn" FOR DETAIL.

1.3.2. THE PARAMETERS INPUT INTO THE DRAINS MODEL FOR THE POST-DEVELOPED DETENTION TANK IS IDENTIFIED IN THE DRAINS SUB-CATCHMENT DATA. REFER TO DRAINS MODEL "CC210464.drn" FOR DETAILS.

1.3.3 THE OSD STORAGE/OUTFLOW PARAMETERS ADOPTED IN THE DRAINS MODEL ARE IDENTIFIED IN DRAINS MODEL "CC210464.drn"

1.3.4 THE PEAK STORAGE VOLUME CALCULATED BY THE DRAINS MODEL OCCURS DURING THE 100 YEAR ARI 25 MINUTE DESIGN STORM EVENT. THE VOLUMETRIC GRAPH FOR THIS STORM EVENT IS IDENTIFIED IN DRAINS MODEL "CC210464.drn".

1.3. POST-DEVELOPED MODEL (CONTINUED)

1.3.5. THE INFLOW AND OUTFLOW HYDROGRAPH FOR THIS STORM EVENT IS IDENTIFIED IN DRAINS MODEL "CC210464.drn"

1.3.6. THE PEAK FLOWRATES AND WATER SURFACE LEVELS DEVELOPED BY THE DRAINS MODEL FOR THE 100 YEAR ARI DESIGN STORM EVENT. REFER TO DRAINS MODEL "CC210464.drn" FOR DETAIL.

1.3.7 THE POST-DEVELOPED PEAK FLOWRATES ARE TABLED BELOW:

ARI (YEARS)	PEAK FLOWRATE (POST-DEVELOPED) (L/s)
5	32
20	42
100	50

1.4. CONCLUSION

1.4.6. BASED ON THE FOREGOING THE PROPOSED OSD TANK WILL ATTENUATE POST-DEVELOPED PEAK FLOWRATES TO EQUIVALENT FLOWRATES OR LESS THAN THE COMPARABLE PRE-DEVELOPED FLOWRATES. THE PEAK FLOWRATES FOR THE PRE & POST-DEVELOPED STORM EVENTS FOR THE ENTIRE CATCHMENT DISCHARGE TO THE EXISTING STORMWATER SYSTEM ARE TABLED BELOW:

ARI (YEARS)	PEAK FLOWRATE (L/s)		
	OVERALL SITE		
	PRE	POST	REMARKS
5	33	32	REDUCTION
20	45	42	REDUCTION
100	57	50	REDUCTION

EROSION & SEDIMENT LEGEND

1

INSTALL SEDIMENT FENCING REFER DETAIL SD 6-8, SHEET C7. WHERE UNDER CANOPY AREAS OF TREES TO BE RETAINED, FENCING NOT TO BE DUG INTO THE GROUND BUT INSTEAD ATTACHED TO GROUND BY TIGHTLY PACKED SANDBAGS.

2

THE EXISTING CROSSOVER & LAYBACK ARE TO BE RETAINED FOR SITE ACCESS UNTIL REASONABLE COMPLETION OF CONSTRUCTION WORKS

3

STOCKPILE IN ACCORDANCE WITH DETAIL SD 4-1, REFER TO SHEET C7. LOCATION MAY BE ALTERED PENDING CONSTRUCTION STAGING

4

WASTE STORAGE AREA PROVIDE SOLID AND LIQUID WASTE RECEPTACLE BINS

5

BARRIER FENCING OR UTILISE EXISTING BOUNDARY FENCE

6

PROPOSED DISTURBED AREA

7

SITE ACCESS PROVIDE LARGE COARSE DIA AGGREGATE OR RECYCLED CONCRETE. IN ACCORDANCE WITH DETAIL SD 6-14, SHEET C7

NOTE 1: PROVIDE PROTECTION TO DRAINAGE PITS FOLLOWING PIT INSTALLATION. REFER DETAIL SD6-12 ON SHEET C7

NOTE 2 : TREE BARRIERS REQUIRED IN ACCORDANCE WITH THE ARBORIST'S REPORT

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D	UPDATED TO SUIT LATEST ARCHITECTURAL PLANS	02.03.23	ED	BK	<div>North</div>
C	PIT P1 AMENDED	30.11.22	ED	BK	
B	UPDATED TO SUIT NEW ARCHITECTURAL PLANS	30.11.22	RH	BK	
A	ISSUED FOR DEVELOPMENT APPROVAL	11.10.22	RH	BK	
Issue	Description	Date	Drawn	Approved	

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Project

PROPOSED RESIDENTIAL DEVELOPMENT

No.'s 41 & 43
OWEN AVENUE
WYONG

Drawing Title EROSION & SEDIMENT CONTROL PLAN					
Drawn RH	Date SEPT 2022	Scale AS NOTED	A1	Q.A. Check -	Date -
Designed BK	Project No. CC210464	Dwg. No. C6	Issue D		

EROSION AND SEDIMENT CONTROL NOTES

GENERAL INSTRUCTIONS

- THIS SOIL AND WATER MANAGEMENT PLAN IS TO BE READ IN CONJUNCTION WITH OTHER ENGINEERING PLANS RELATING TO THIS DEVELOPMENT.
- CONTRACTORS WILL ENSURE THAT ALL SOIL AND WATER MANAGEMENT WORKS ARE UNDERTAKEN AS INSTRUCTED IN THIS SPECIFICATION AND CONSTRUCTED FOLLOWING THE GUIDELINES OF "MANAGING URBAN STORMWATER SOILS AND CONSTRUCTION", DEPT OF HOUSING, 1998 (BLUE BOOK).
- ALL SUBCONTRACTORS WILL BE INFORMED OF THEIR RESPONSIBILITIES IN REDUCING THE POTENTIAL FOR SOIL EROSION AND POLLUTION TO DOWNSLOPE AREAS.

LAND DISTURBANCE INSTRUCTIONS

- DISTURBANCE TO BE NO FURTHER THAN 5 (PREFERABLY 2) METRES FROM THE EDGE OF ANY ESSENTIAL ENGINEERING ACTIVITY AS SHOWN ON APPROVED PLANS. ALL SITE WORKERS WILL CLEARLY RECOGNISE THESE ZONES THAT, WHERE APPROPRIATE, ARE IDENTIFIED WITH BARRIER FENCING (UPSLOPE) AND SEDIMENT FENCING (DOWNSLOPE) OR SIMILAR MATERIALS.
- ACCESS AREAS ARE TO BE LIMITED TO A MAXIMUM WIDTH OF 10 METRES THE SITE MANAGER WILL DETERMINE AND MARK THE LOCATION OF THESE ZONES ON-SITE. ALL SITE WORKERS WILL CLEARLY RECOGNISE THESE BOUNDARIES THAT, WHERE APPROPRIATE, ARE IDENTIFIED WITH BARRIER FENCING (UPSLOPE) AND SEDIMENT FENCING (DOWNSLOPE) OR SIMILAR MATERIALS.
- ENTRY TO LANDS NOT REQUIRED FOR CONSTRUCTION OR ACCESS IS PROHIBITED EXCEPT FOR ESSENTIAL THINNING OF PLANT GROWTH.
- WORKS ARE TO PROCEED IN THE FOLLOWING SEQUENCE:
 - INSTALL ALL BARRIER AND SEDIMENT FENCING WHERE SHOWN ON THE PLAN.
 - CONSTRUCT THE STABILISED SITE ACCESS.
 - CONSTRUCT DIVERSION DRAINS AS REQUIRED.
 - INSTALL MESH AND GRAVEL INLETS FOR ANY ADJACENT KERB INLETS.
 - INSTALL GEOTEXTILE INLET FILTERS AROUND ANY ON-SITE DROP INLET PITS.
 - CLEAR SITE AND STRIP AND STOCKPILE TOPSOIL IN LOCATIONS SHOWN ON THE PLAN.
 - UNDERTAKE ALL ESSENTIAL CONSTRUCTION WORKS ENSURING THAT ROOF AND/OR PAVED AREA STORMWATER SYSTEMS ARE CONNECTED TO PERMANENT DRAINAGE AS SOON AS PRACTICABLE.
 - GRADE LOT AREAS TO FINAL GRADES AND APPLY PERMANENT STABILISATION (LANDSCAPING) WITHIN 20 DAYS OF COMPLETION OF CONSTRUCTION WORKS.
 - REMOVE TEMPORARY EROSION CONTROL MEASURES AFTER THE PERMANENT LANDSCAPING HAS BEEN COMPLETED.
- ENSURE THAT SLOPE LENGTHS DO NOT EXCEED 80 METRES WHERE PRACTICABLE. SLOPE LENGTHS ARE DETERMINED BY SILTATION FENCING AND CATCH DRAIN SPACING.
- ON COMPLETION OF MAJOR WORKS LEAVE DISTURBED LANDS WITH A SCARIFIED SURFACE TO ENCOURAGE WATER INFILTRATION AND ASSIST WITH KEYING TOPSOIL LATER.

SITE MAINTENANCE INSTRUCTIONS

- THE SITE SUPERINTENDENT WILL INSPECT THE SITE AT LEAST WEEKLY AND AT THE CONCLUSION OF EVERY STORM EVENT TO:
 - ENSURE THAT DRAINS OPERATE PROPERLY AND TO EFFECT ANY NECESSARY REPAIRS.
 - REMOVE SPILLED SAND OR OTHER MATERIALS FROM HAZARD AREAS, INCLUDING LANDS CLOSER THAN 5 METRES FROM AREAS OF LIKELY CONCENTRATED OR HIGH VELOCITY FLOWS ESPECIALLY WATERWAYS AND PAVED AREAS.
 - REMOVE TRAPPED SEDIMENT WHENEVER THE DESIGN CAPACITY OF THAT STRUCTURE HAS BEEN EXCEEDED.
 - ENSURE REHABILITATED LANDS HAVE EFFECTIVELY REDUCED THE EROSION HAZARD AND TO INITIATE UPGRADING OR REPAIR AS NECESSARY.
 - CONSTRUCT ADDITIONAL EROSION AND/OR SEDIMENT CONTROL WORKS AS MIGHT BECOME NECESSARY TO ENSURE THE DESIRED PROTECTION IS GIVEN TO DOWNSLOPE LANDS AND WATERWAYS. MAKE ONGOING CHANGES TO THE PLAN WHERE IT PROVES INADEQUATE IN PRACTICE OR IS SUBJECTED TO CHANGES IN CONDITIONS ON THE WORK-SITE OR ELSEWHERE IN THE CATCHMENT.
 - MAINTAIN EROSION AND SEDIMENT CONTROL STRUCTURES IN A FULLY FUNCTIONING CONDITION UNTIL ALL EARTHWORK ACTIVITIES ARE COMPLETED AND THE SITE IS REHABILITATED.
- THE SITE SUPERINTENDENT WILL KEEP A LOGBOOK MAKING ENTRIES AT LEAST WEEKLY, IMMEDIATELY BEFORE FORECAST RAIN AND AFTER RAINFALL. ENTRIES WILL INCLUDE:
 - THE VOLUME AND INTENSITY OF ANY RAINFALL EVENTS.
 - THE CONDITION OF ANY SOIL AND WATER MANAGEMENT WORKS.
 - THE CONDITION OF VEGETATION AND ANY NEED TO IRRIGATE.
 - THE NEED FOR DUST PREVENTION STRATEGIES.
 - ANY REMEDIAL WORKS TO BE UNDERTAKEN.THE LOGBOOK WILL BE KEPT ON-SITE AND MADE AVAILABLE TO ANY AUTHORISED PERSON UPON REQUEST. IT WILL BE GIVEN TO THE PROJECT MANAGER AT THE CONCLUSION OF THE WORKS.

SEDIMENT CONTROL INSTRUCTIONS

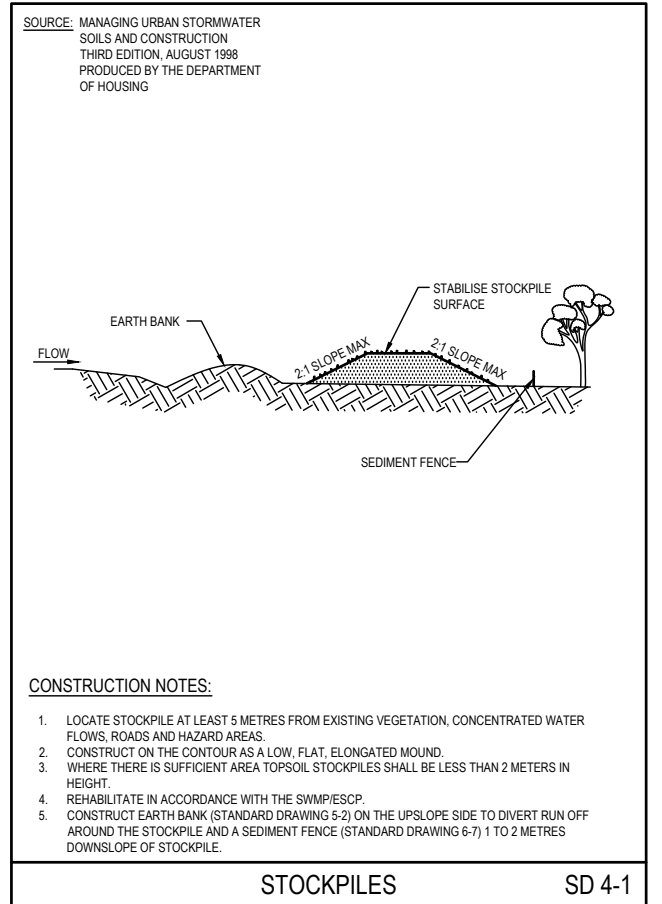
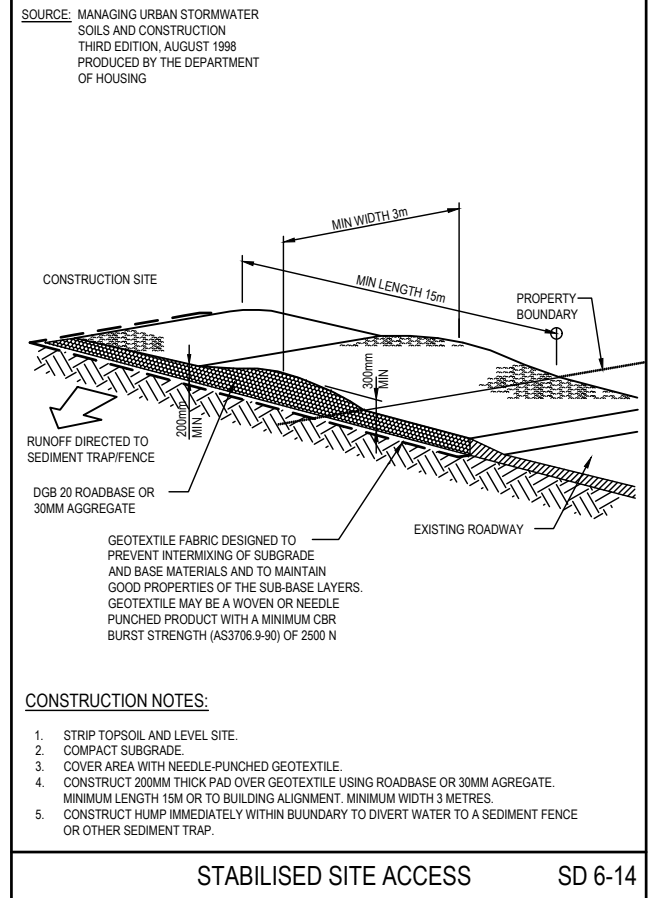
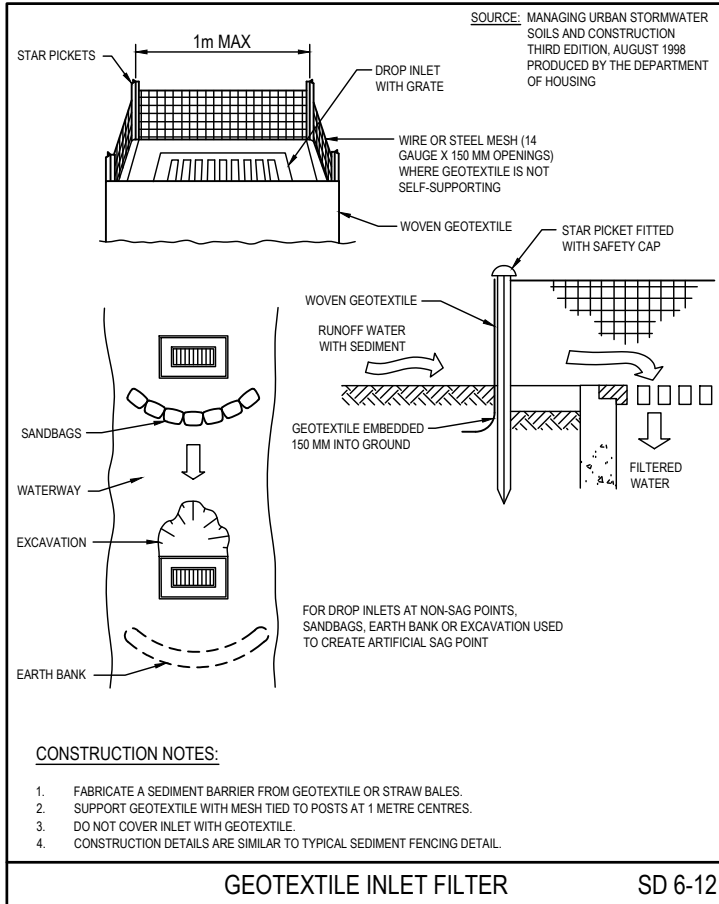
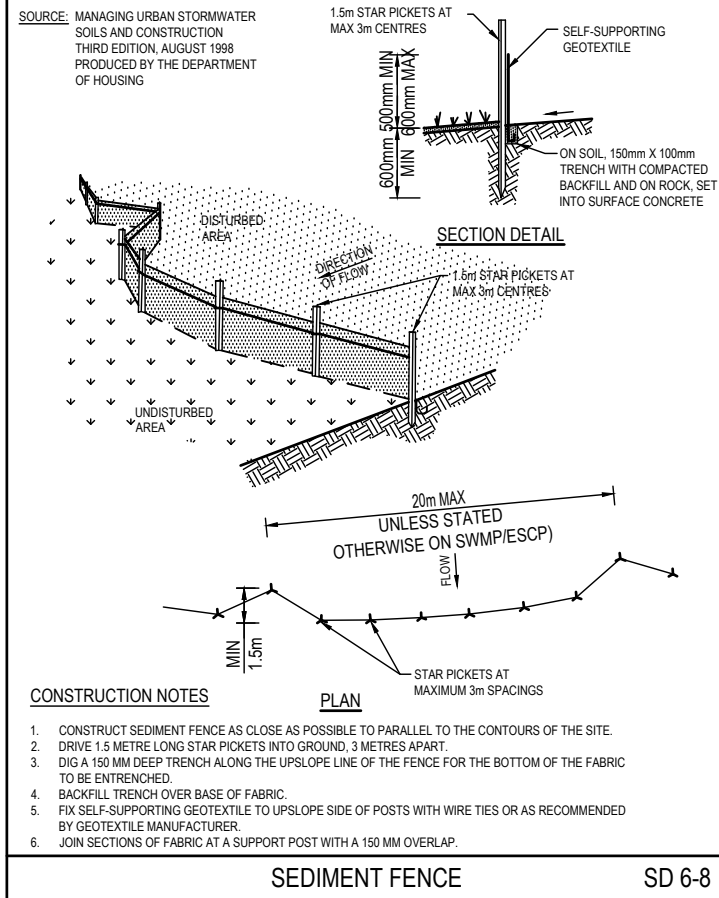
- SEDIMENT FENCES WILL BE INSTALLED AS SHOWN ON THE PLAN AND ELSEWHERE AT THE DISCRETION OF THE SITE SUPERINTENDENT TO CONTAIN SOIL AS NEAR AS POSSIBLE TO THEIR SOURCE.
- SEDIMENT FENCES WILL NOT HAVE CATCHMENT AREAS EXCEEDING 900 SQUARE METRES AND HAVE A STORAGE DEPTH OF AT LEAST 0.6 METRES.
- SEDIMENT REMOVED FROM ANY TRAPPING DEVICES WILL BE RELOCATED WHERE FURTHER POLLUTION TO DOWNSLOPE LANDS AND WATERWAYS CANNOT OCCUR.
- STOCKPILES ARE NOT TO BE LOCATED WITHIN 5 METRES OF HAZARD AREAS INCLUDING AREAS OF HIGH VELOCITY FLOWS SUCH AS WATERWAYS, PAVED AREAS AND DRIVEWAYS.
- WATER WILL BE PREVENTED FROM DIRECTLY ENTERING THE PERMANENT DRAINAGE SYSTEM UNLESS THE CATCHMENT AREA HAS BEEN PERMANENTLY LANDSCAPED AND/OR WATER HAS BEEN TREATED BY AN APPROVED DEVICE.
- TEMPORARY SEDIMENT TRAPS WILL REMAIN IN PLACE UNTIL AFTER THE LANDS THEY ARE PROTECTING ARE COMPLETELY REHABILITATED.
- ACCESS TO SITES SHOULD BE STABILISED TO REDUCE THE LIKELIHOOD OF VEHICLES TRACKING SOIL MATERIALS ONTO PUBLIC ROADS AND ENSURE ALL-WEATHER ENTRY/EXIT.

SOIL EROSION CONTROL INSTRUCTIONS

- EARTH BATTERS WILL BE CONSTRUCTED WITH AS LOW A GRADIENT AS PRACTICABLE BUT NO STEEPER, UNLESS OTHERWISE NOTED, THAN:
 - 2(H):1(V) WHERE SLOPE LENGTH LESS THAN 12 METRES
 - 2.5(H):1(V) WHERE SLOPE LENGTH BETWEEN 12 AND 16 METRES.
 - 3(H):1(V) WHERE SLOPE LENGTH BETWEEN 16 AND 20 METRES.
 - 4(H):1(V) WHERE SLOPE LENGTH GREATER THAN 20 METRES.
- ALL WATERWAYS, DRAINS, SPILLWAYS AND THEIR OUTLETS WILL BE CONSTRUCTED TO BE STABLE IN AT LEAST THE 1:20 YEAR ARI, TIME OF CONCENTRATION STORM EVENT.
- WATERWAYS AND OTHER AREAS SUBJECT TO CONCENTRATED FLOWS AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND COVER C-FACTOR OF 0.05 (70% GROUND COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION. FLOW VELOCITIES ARE TO BE LIMITED TO THOSE SHOWN IN TABLE 5-1 OF "MANAGING URBAN STORMWATER - SOILS AND CONSTRUCTION", DEPT OF HOUSING 1998 (BLUE BOOK). FOOT AND VEHICULAR TRAFFIC WILL BE PROHIBITED IN THESE AREAS.
- STOCKPILES AFTER CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND-COVER C-FACTOR OF 0.1 (60% GROUND-COVER) WITHIN 10 WORKING DAYS FROM COMPLETION OF FORMATION.
- ALL LANDS, INCLUDING WATERWAYS AND STOCKPILES, DURING CONSTRUCTION ARE TO HAVE A MAXIMUM GROUND-COVER C-FACTOR OF 0.15 (50% GROUND COVER) WITHIN 20 WORKING DAYS FROM INACTIVITY EVEN THOUGH WORKS MAY CONTINUE LATER.
- FOR AREAS OF SHEET FLOW USE THE FOLLOWING GROUND COVER PLANT SPECIES FOR TEMPORARY COVER: JAPANESE MILLET 20 KG/HA AND OATS 20 KG/HA.
- PERMANENT REHABILITATION OF LANDS AFTER CONSTRUCTION WILL ACHIEVE A GROUND-COVER C-FACTOR OF LESS THAN 0.1 AND LESS THAN 0.05 WITHIN 60 DAYS. NEWLY PLANTED LANDS WILL BE WATERED REGULARLY UNTIL AN EFFECTIVE COVER IS ESTABLISHED AND PLANTS ARE GROWING VIGOROUSLY. FOLLOW-UP SEED AND FERTILISER WILL BE APPLIED AS NECESSARY.
- REVEGETATION SHOULD BE AIMED AT RE-ESTABLISHING NATURAL SPECIES. NATURAL SURFACE SOILS SHOULD BE REPLACED AND NON-PERSISTANT ANNUAL COVER CROPS SHOULD BE USED.

WASTE CONTROL INSTRUCTIONS

- ACCEPTABLE BINS WILL BE PROVIDED FOR ANY CONCRETE AND MORTAR SLURRIES, PAINTS, ACID WASHING, LIGHTWEIGHT WASTE MATERIALS AND LITTER. CLEARANCE SERVICES WILL BE PROVIDED AT LEAST WEEKLY. DISPOSAL OF WASTE WILL BE IN A MANNER APPROVED BY THE SITE SUPERINTENDENT.
- ALL POSSIBLE POLLUTANT MATERIALS ARE TO BE STORED WELL CLEAR OF ANY POORLY DRAINED AREAS, FLOOD PRONE AREAS, STREAMBANKS, CHANNELS AND STORMWATER DRAINAGE AREAS. STORE SUCH MATERIALS IN A DESIGNATED AREA UNDER COVER WHERE POSSIBLE AND WITHIN CONTAINMENT BUNDS.
- ALL SITE STAFF AND SUB-CONTACTORS ARE TO BE INFORMED OF THEIR OBLIGATION TO USE WASTE CONTROL FACILITIES PROVIDED.
- ANY DE-WATERING ACTIVITIES ARE TO BE CLOSELY MONITORED TO ENSURE THAT WATER IS NOT POLLUTED BY SEDIMENT, TOXIC MATERIALS OR PETROLEUM PRODUCTS.
- PROVIDE DESIGNATED VEHICULAR WASHDOWN AND MAINTENANCE AREAS WHICH ARE TO HAVE CONTAINMENT BUNDS.



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Issue					Description		Date		Drawn		Approved	
1					Updated to suit latest architectural plans		02.03.23		ED		BK	
2					PIT P1 AMENDED		30.11.22		ED		BK	
3					Updated to suit new architectural plans		30.11.22		RH		BK	
4					Issued for development approval		11.10.22		RH		BK	
5					Issue		Date		Drawn		Approved	

North		Client		Architect	
BARRY RUSH & ASSOCIATES		Client		Architect	
PTY LTD		Client		Architect	

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		WYONG	

Drawing Title		Scale		A1		Q.A. Check		Date	
EROSION & SEDIMENT CONTROL NOTES & DETAILS		AS NOTED		-		-		-	
Drawn		Date		Project No.		Dwg. No.		Issue	
RH		SEPT 2022		CC210464		C7		D	
Designed		Project No.		Dwg. No.		Issue			
BK		CC210464		C7		D			