LEGEND

- GIP – CONCRETE DRAINAGE PIT
- DP – DOWNPIPE
- UPVC PIPE U.N.O
- DIRECTION OF SURFACE FALL
- OVERLAND FLOW PATH
- DESIGN SPOT LEVEL
- EXISTING CONTOUR
- NEW BUILDING
- TURF
- NEW CONCRETE AREA

maitland city council

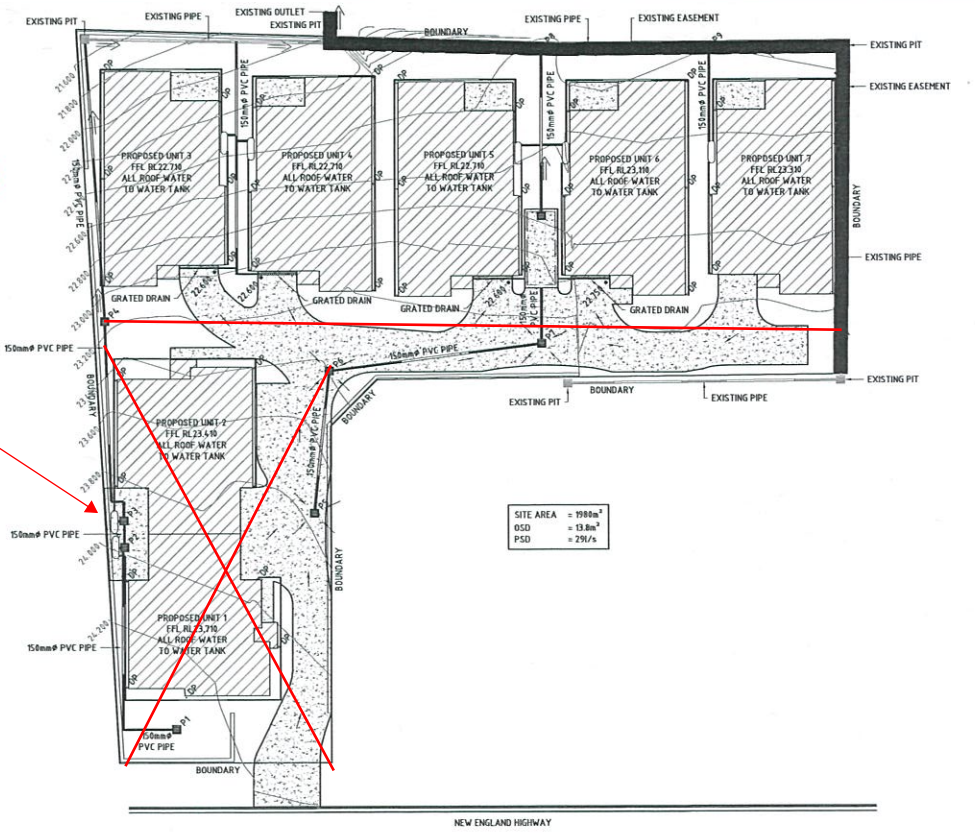
Approved Plans
NO. DA 17-631
DEVELOPMENT APPLICATION
8/02/2018

DRAINAGE NOTES

- ALL WORK IS TO BE DONE IN ACCORDANCE WITH AS 3500.3
- ALL EXISTING SERVICES ARE TO BE IDENTIFIED AND LOCATED BY CONTRACTOR PRIOR TO COMMENCING WORK.
- REFER TO ARCHITECTURAL PLANS FOR BUILDING AND DRIVEWAY SETOUT.
- ALL PIPES TO BE UPVC UNLESS NOTED OTHERWISE.
- UPVC PIPES TO BE SEWER GRADE SH TO AS 1260.
- MINIMUM PIPE FALLS: 1%.
- LEVELS SHALL BE ±10mm MAXIMUM UNLESS NOTED OTHERWISE, EXCEPT IN INSTANCES WHERE SUCH DEVIATION COULD HAVE ADVERSE EFFECTS, IN WHICH CASE, THE ENGINEER SHALL BE CONTACTED
- ALL DOWNPIPES TO CONNECT TO NEAREST UPVC PIPE.
- 500mm MIN. COVER TO ALL PIPES.
- PIPE LOCATIONS ARE DIAGRAMATIC. FINAL POSITIONS SHALL CONFORM WITH THE INTENT OF THIS DESIGN.
- THE CONTRACTOR SHALL ADEQUATELY SHIELD PIPES AGAINST CONSTRUCTION AND PERMANENT LOADS. WHERE ADEQUATE COVER CANNOT BE PROVIDED, PIPES SHALL BE ENCASED IN CONCRETE
- UNLESS NOTED OTHERWISE, WHERE A PIT INVERT IS BELOW THE INVERT OF THE LOWEST OUTLET PIPE, THE CONTRACTOR SHALL EITHER PROVIDE DRAINAGE HOLES IN THE BASE OF THE PIT OR ELSE FILL THE BASE OF THE PIT WITH MASS CONCRETE TO THE INVERT OF THE LOWEST OUTLET PIPE.
- WHERE REQUIRED BY REGULATIONS, STEP IRONS IN ACCORDANCE WITH AS1657 SHALL BE INSTALLED IN DEEP PITS/TANKS TO ALLOW ACCESS FOR MAINTENANCE. PIT COVERS OVER DEEP PITS SHALL BE "CHILD-PROOFED" BY BOLTING THEM DOWN, EXCEPT WHEN THE COVER WEIGHS MORE THAN 30Kg.
- ALL IMPERVIOUS SURFACES SHALL BE GRADED SUCH THAT THEY ARE FREE DRAINING. YARD PITS SHALL BE PROVIDED AS REQUIRED.
- WHERE REQUIRED BY THE PRINCIPAL CERTIFIER, WORK AS-EXECUTED DETAILS SHALL BE PREPARED BY A REGISTERED SURVEYOR/CHARTERED PROFESSIONAL ENGINEER VERIFYING THAT THE DRAINAGE SYSTEM HAS BEEN CONSTRUCTED IN ACCORDANCE WITH THE DRAWINGS. ANY DEVIATIONS FROM THE APPROVED PLANS SHALL BE NOTED AND BROUGHT TO THE ATTENTION OF THE ENGINEER. ADEQUATE INSPECTIONS SHOULD BE CARRIED OUT DURING THE COURSE OF CONSTRUCTION.
- ANY PROPOSED ALTERATIONS TO THE DETAILS SHOWN ON THE DRAWINGS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.
- LEAF SCREENS, SILT CONTROLS AND ANY OTHER POLLUTION CONTROL DEVICES SHALL BE REGULARLY SERVICED TO ENSURE THAT THE DRAINAGE SYSTEM REMAINS UNBLOCKED AND OPERATES AS ORIGINALLY INTENDED.
- OVERLAND FLOW PATHS SHALL BE REGULARLY MAINTAINED AND KEPT FREE OF OBSTRUCTIONS TO THE FLOW OF WATER.

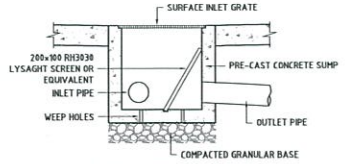
ALL LEVELS TO BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF WORK

EXCEPT AS MODIFIED BY STORMWATER CONCEPT (PLAN 5 OF 43 REDUCING THE UNIT DEVELOPMENT FROM 7 DWELLINGS UNITS TO 6 DWELLING UNITS (SEE THE SCHEDULE OF DOCUMENTS FOR DA 17-631

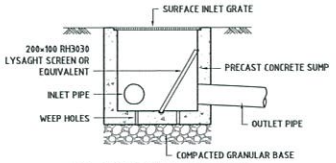


DRAINAGE LOCATION PLAN
SCALE 1:200

PIT SCHEDULE						
PIT	TOP RL (m)	INVERT RL (m)	DEPTH (mm)	SIZE (mm)	TYPE	OUTLET PIPE (mmø)
P1	23.500	23.050	450	600x600	GIP	150mm
P2	23.230	22.780	450	600x600	GIP	150mm
P3	23.200	22.750	450	600x600	GIP	150mm
P4	22.700	22.250	450	600x600	GIP	150mm
P5	23.300	22.500	800	600x600	GIP	150mm
P6	22.550	22.300	250	600x600	GIP	150mm
P7	22.510	22.100	410	600x600	GIP	150mm
P8	22.350	21.100	1250	600x600	GIP	EXISTING 150mm
P9	22.400	21.400	1000	600x600	GIP	EXISTING 150mm



GIP-GRATED INLET PIT
SCALE 1:20



GIP-GRATED INLET PIT
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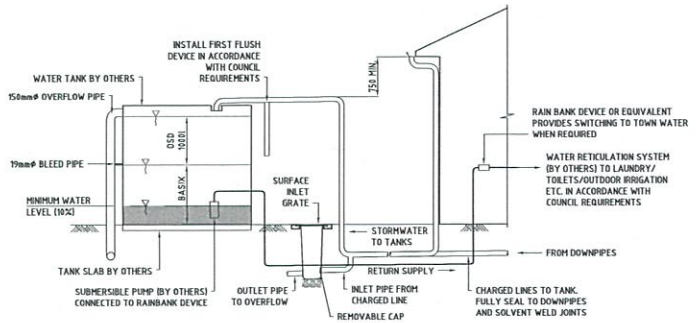

WATER RE-USE & ON-SITE DETENTION DETAIL
SCALE 1:50

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ISSUE	DESCRIPTION	DRAWN	CHECKED	DATE
A	ISSUED FOR CONSTRUCTION	TW	AD	16/05/2017

CLIENT:	ANAMBAH CONSTRUCTIONS Pty Ltd
ADDRESS:	LOT A & LOT 1, DP 362226 & DP 366910, NEW ENGLAND HWY, RUTHERFORD, NSW 2320
DESCRIPTION:	DRANAGE LOCATION PLAN, NOTES AND DETAILS
CHECKED BY:	ADAM DAVIES B.E., MIE Aust., CP Eng. NPER-3
SCALES:	1:200, 1:50, 1:20
SHEET SIZE:	A1
JOB NUMBER:	170154
SHEET NUMBER:	D01
DRAWN BY:	TIMOTHY WILLLIAMS

SLAB AND FOOTING NOTES

- REFER TO ARCHITECTURAL PLANS FOR SET OUT DIMENSIONS.
- SLAB TO BE LAID ON 200µm THICK WATERPROOF MEMBRANE ON 50mm THICK LEVELING LAYER OF SAND OVER NATURAL CUT GROUND OR COMPACTED FILL.
- REMOVE ALL VEGETATION FROM BENEATH THE SLAB.
- SUB-BASE AND ANY FILL ARE TO BE THOROUGHLY COMPACTED.
- WHERE ROCK IS ENCOUNTERED, CONTACT THOMAS & ASSOCIATES FOR FURTHER INSTRUCTION
- DIRECT ANY STORM WATER AWAY FROM DWELLING.
- ALL CONCRETE WORK IS TO BE IN ACCORDANCE WITH AS 3600.
- LAP ALL MESH 1 FULL MESH +25mm.
- LAP ALL BARS 600mm U.N.O.
- REINFORCEMENT IS REPRESENTED DIAGRAMMATICALLY AND NOT NECESSARILY SHOWN IN TRUE PROJECTION.
- ALL REINFORCEMENT SHALL BE SECURELY SUPPORTED IN ITS CORRECT POSITION DURING CONCRETING BY APPROVED BAR CHAIRS, SPACERS OR SUPPORT BARS.
- AT CONTROL JOINTS (C.J) CUT EVERY 2nd REO BAR & FORM DEEP GROOVE TOOLED JOINT OR SAW CUT WITHIN 24 HOURS.
- PROVIDE TERMITE PROTECTION IN ACCORDANCE WITH AS 3660.1.
- ENSURE ALL PAD FOOTINGS ARE MINIMUM 300mm IN NATURAL GROUND.
- SLAB & FOOTINGS HAVE BEEN DESIGNED IN ACCORDANCE WITH CLAUSES 1.1, 1.3, & 1.4 OF AS 2870.

DETAILS NOT SPECIFICALLY IN ACCORDANCE WITH AS 2870 HAVE BEEN DESIGNED IN ACCORDANCE WITH ENGINEERING PRINCIPLES.

TILED AREAS:

AS2870 MAKES THE FOLLOWING RECOMMENDATIONS FOR SLAB SHRINKAGE CONTROL IN TILED AREAS GREATER THAN 16m² WHERE BRITTLE FLOOR COVERINGS ARE TO BE USED. EXTRA MEASURES SHALL BE TAKEN TO CONTROL THE EFFECTS OF SHRINKAGE CRACKING. SUCH MEASURES INCLUDE ONE OR MORE OF THE FOLLOWING:

(i) THE AMOUNT OF SHRINKAGE REINFORCEMENT SHALL BE INCREASED TO SL92 OR EQUIVALENT THROUGHOUT THE AFFECTED SLAB PANEL.

(ii) THE BEDDING SYSTEM FOR BRITTLE COVERING SHALL BE SELECTED ON THE BASIS OF THE EXPECTED SLAB MOVEMENT AND THE CHARACTERISTICS OF THE FLOORING SYSTEM.

(iii) THE PLACEMENT OF FLOOR COVERINGS SHALL BE DELAYED.

NOTE: A MINIMUM PERIOD OF 3 MONTHS DRYING OF THE CONCRETE IS USUALLY REQUIRED BEFORE PLACEMENT OF THE BRITTLE FLOOR COVERINGS.

CONCRETE SPECIFICATIONS	
ELEMENT	STRENGTH (f'c)
STRIP FOOTINGS	20MPa
PAD FOOTINGS	20MPa
SLABS ON GROUND	20MPa
DRIVEWAYS/CARPARK	25MPa
SUSPENDED SLABS	32MPa
COLUMNS	32MPa
STAIRS	32MPa
WALLS	32MPa
CONFIRM ANY DISCREPANCIES WITH THOMAS AND ASSOCIATES CONSULTING PRIOR TO CONSTRUCTION	

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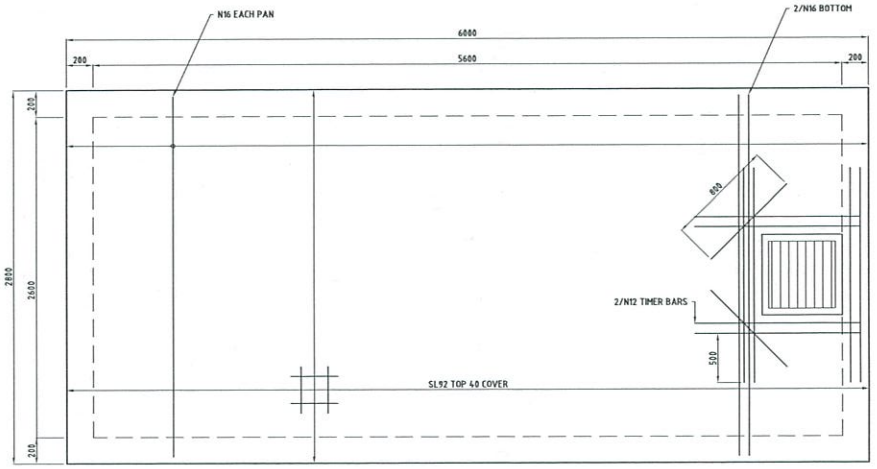
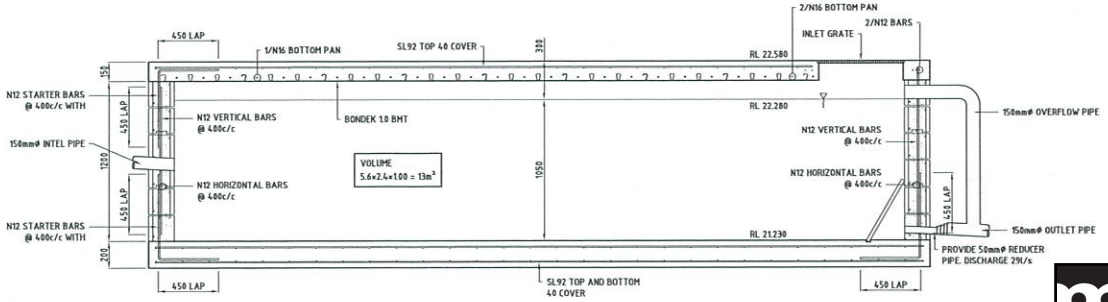
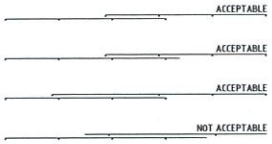


OSD TANK PLAN
SCALE 1:20



OSD TANK DETAIL
SCALE 1:20



METHOD OF LAPPING MESH

BLOCKWORK

- HORIZONTAL REINFORCEMENT IN WALLS TO BE SPLICED AT JOINS IN WALLS AND CORNERS.
- LAP ALL BARS 600mm U.N.O
- PROVIDE 'L' SHAPED CLEAN OUT BLOCK AT BASE OF WALL, OMIT HORIZONTAL BAR FROM TOP OF THIS BLOCK.
- PROVIDE VERTICAL CONTROL JOINTS @ 6m c/c MAX.
- CORE-FILL WITH 20MPa, 10mm AGGREGATE, GROUT.
- FILL ALL REQUIRED CORES & THOROUGHLY COMPACT GROUT, ENSURING NO VOIDS ARE LEFT.
- REMOVE ALL MORTAR FINS PROTRUDING INTO WALLS.
- ALL GROUTING TO BE IN ACCORDANCE WITH AS 3700.

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