PROPOSED DEVELOPMENT
1-23 LENORE DRIVE, ERSKINE PARK, NSW, 2759
LOT 1/DP1071114, LOT55/DP1170183

DRAWINGS INDEX

LOCALITY PLAN
N.T.S.

GENERAL NOTES

GENERAL

CG1 THESE DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL ARCHITECTURAL AND OTHER CONSULTANTS' DRAWINGS AND SPECIFICATIONS AND WITH SUCH OTHER WRITTEN INSTRUCTIONS AS MAY BE ISSUED DURING THE COURSE OF THE CONTRACT. ANY DISCREPANCY SHALL BE REFERRED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

CG2 ALL MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE RELEVANT AND CURRENT STANDARDS AUSTRALIA CODES AND WITH THE BY-LAWS AND ORDINANCES OF THE RELEVANT BUILDING AUTHORITIES EXCEPT WHERE VARIED BY THE PROJECT SPECIFICATION.

CG3 ALL DIMENSIONS SHOWN SHALL BE VERIFIED BY THE BUILDER ON SITE. ENGINEER'S DRAWINGS SHALL NOT BE SCALED FOR DIMENSIONS.

CG4 UNLESS NOTED OTHERWISE ALL LEVELS ARE IN METRES AND ALL DIMENSIONS ARE IN MILLIMETERS.

CG5 ALL WORKS SHALL BE UNDERTAKEN IN ACCORDANCE WITH ACCEPTABLE SAFETY STANDARDS & APPROPRIATE SAFETY SIGNS SHALL BE INSTALLED AT ALL TIMES DURING THE PROGRESS OF THE JOB.

SURVEY

SU1 THE EXISTING SITE CONDITIONS SHOWN ON THE DRAWINGS HAVE BEEN INVESTIGATED BY OTHERS. THE INFORMATION IS SHOWN TO PROVIDE A BASIS FOR DESIGN.

SU2 THE FOLLOWING ENGINEERING SURVEY SHALL NOT BE TAKEN AS A CADASTRAL OR BOUNDARY IDENTIFICATION SURVEY. BOUNDARY DATA SHALL BE TAKEN AS A GUIDE ONLY UNLESS NOTED OTHERWISE.

SU3 SHOULD DISCREPANCIES BE FOUND BETWEEN THE SURVEY DATA AND ACTUAL FIELD DATA THE CONTRACTOR SHALL NOTIFY TRIAXIAL CONSULTING PRIOR TO COMMENCEMENT OF THE WORKS. THE CONTRACTOR SHALL ACCEPT ALL RESPONSIBILITY FOR ERRORS MADE DURING CONSTRUCTION WHERE SURVEY DISCREPANCIES WERE NOT RELAYED AND RESOLVED BY TRIAXIAL CONSULTING PRIOR TO COMMENCEMENT OF THE WORKS.

EXCAVATION

EX1 REFER TO REPORT ON GEOTECHNICAL STABILITY ASSESSMENT FOR INFORMATION PERTAINING TO EXISTING SITE STABILITY, EXCAVATION AND GEOTECHNICAL ISSUES.

EX2 ALL SITE EXCAVATION TO BE PERFORMED IN ACCORDANCE WITH ITEMS NOTED IN THE ABOVE LISTED REPORT.

EX3 THE EARTHWORKS CONTRACTOR IS TO CONTACT OR MEET WITH THE GEOTECHNICAL ENGINEER PRIOR TO COMMENCEMENT OF ANY EXCAVATION TO DETERMINE APPROPRIATE TECHNIQUES AND HOLD POINTS.

EX4 TEMPORARY BATTER CUT TO ROCK TO BE FORMED AT NO STEEPER THAN 1 V : 1 H. PERMANENT BATTER TO BE CONFIRMED ON SITE IN CONSULTATION WITH THE GEOTECHNICAL ENGINEER.

EXISTING UNDERGROUND SERVICES

EU1 THE EXISTING UNDERGROUND SERVICES INDICATED ON THESE DRAWINGS HAVE BEEN OBTAINED FROM SURVEY AND SERVICE AUTHORITY INFORMATION. THE SERVICES INFORMATION SHOWN ARE THOSE OF KNOWN SERVICES ONLY. THE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE ONLY AND MAY NOT BE 'AS CONSTRUCTED' OR ACCURATE. THE PRESENCE OR ABSENCE OF SERVICES SHALL BE CONFIRMED BY THE CONTRACTOR PRIOR TO COMMENCEMENT OF CONSTRUCTION.

EU2 THE CONTRACTOR SHALL TAKE ALL DUE CARE WHEN EXCAVATING ON SITE INCLUDING HAND EXCAVATION WHERE NECESSARY.

EU3 THE CONTRACTOR SHALL CONTACT ALL RELEVANT SERVICE AUTHORITIES PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION WORKS.

EU4 THE CONTRACTOR SHALL UNDERTAKE A THOROUGH SERVICES SEARCH PRIOR TO THE COMMENCEMENT OF ANY EXCAVATION WORKS. THE RESULTS OF SERVICES SEARCHES SHALL BE RECORDED AND KEPT ON SITE AT ALL TIMES.

SITE PREPARATION

SP1 REFER TO GEOTECHNICAL REPORT FOR EXISTING SOIL CONDITIONS.

SP2 ALL ORGANIC & DELETERIOUS MATERIAL TO BE COMPLETELY CLEARED FROM SITE WORKS AREA.

SP3 PRIOR TO THE COMMENCEMENT OF ANY CIVIL OR STRUCTURAL CONSTRUCTION THE ENTIRE SITE AREA IS TO BE COMPACTED AND TESTED IN ACCORDANCE WITH AS1289.5.1.1 OR .5.1.2 - 1993 TO PRODUCE THE FOLLOWING: -98.0% STANDARD COMPACTION AT THE SURFACE AND AT 200MM BELOW SURFACE LEVEL. FREQUENCY OF FIELD DENSITY TESTS SHALL BE CARRIED OUT IN ACCORDANCE WITH AS3798 - 2007 TABLE 8.1 TESTING SHALL BE EVENLY SPACED OVER THE ENTIRE SITE, AND AT RANDOM LOCATIONS. TEST RESULTS SHALL BE FORWARDED TO THE ENGINEER FOR APPROVAL PRIOR TO COMMENCEMENT OF WORKS.

SP4 PROOF ROLL EXPOSED SUBGRADE PRIOR TO COMMENCEMENT OF CIVIL AND STRUCTURAL CONSTRUCTION. CONDUCTED UNDER GEOTECHNICAL SUPERVISION.

SP5 BOX OUT ANY SOFT AREAS AND FILL AND COMPACT WITH IMPORTED FILL.

SP6 PLACE IMPORTED FILL IN MAXIMUM 200 LOOSE LAYERS & COMPACT TO 98%STD >1M BELOW B.E.L.) AND 100%STD (<1m BELOW B.E.L.) AND TO WITHIN +/-2% OF OMC.

SP7 IMPORTED FILL IS TO BE CRUSHED SANDSTONE OR RIPPED SHALE, WITH A MINIMUM CBR OF 30%, PI 8% AND A MAX PARTICLE SIZE OF 75mm.

SITEWORKS

SW1 THE CONTRACTOR SHALL VERIFY ALL LEVELS AND DIMENSIONS PRIOR TO COMMENCEMENT OF THE WORKS. ANY DISCREPANCIES SHALL BE REPORTED TO TRIAXIAL CONSULTING FOR FURTHER INSTRUCTION.

SW2 ALL CONNECTIONS WITH EXISTING WORKS SHALL BE MADE SMOOTH.

SW3 ALL TRENCH BACKFILL MATERIAL SHALL BE COMPACTED TO ACHIEVE A DENSITY EQUIVALENT TO THE ADJACENT MATERIAL.

SW4 ALL SERVICE TRENCHES SHALL BE BACKFILLED WITH SAND TO A LEVEL 300mm ABOVE THE PIPE. WHERE SERVICE TRENCHES ARE CONSTRUCTED UNDER VEHICULAR PAVEMENTS, BACKFILL THE REMAINDER OF THE TRENCH (TO UNDERSIDE OF PAVEMENT) WITH SAND OR APPROVED GRANULAR MATERIAL COMPACTED IN LAYERS NOT EXCEEDING 150mm DEPTH. BACKFILL MATERIAL SHALL BE COMPACTED TO A MINIMUM 98% MODIFIED MAXIMUM DRY DENSITY IN ACCORDANCE WITH AS 1289 5.2.1 (CURRENT EDITION) OR A DENSITY INDEX OF NOT LESS THAN 75.

SW5 PROVIDE A 10mm WIDE EXPANSION JOINT BETWEEN ALL BUILDINGS AND CONCRETE OR UNIT PAVEMENTS.

SW6 ALL BASE-COURSE MATERIAL SHALL BE MINIMUM 95% MODIFIED DRY DENSITY (UNO) IN ACCORDANCE WITH AS 1289 5.2.1 (CURRENT EDITION).

SEDIMENT AND EROSION CONTROL

SE1 CONTROLS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUAL "MANAGING URBAN STORMWATER, SOILS AND CONSTRUCTION" (2004) (THE BLUE BOOK).

SE2 DISTURBANCE SHALL BE KEPT TO A MINIMUM AND WITHIN THE LIMITS OF THE CONSTRUCTION SITE.

SE3 ADDITIONAL CONTROLS SHALL BE INSTALLED AS REQUIRED AND IN ACCORDANCE WITH "THE BLUE BOOK".

SE4 ALL INSTALLED CONTROLS SHALL BE INSPECTED AT LEAST WEEKLY AND IMMEDIATELY FOLLOWING A RAIN EVENT. MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED.

SE5 COMPLETED AREAS SHALL BE PROGRESSIVELY VEGETATED.

SE6 CONTROL DEVICES, AS DETAILED, SHALL BE INSTALLED TO STORMWATER PITS IMMEDIATELY FOLLOWING THEIR CONSTRUCTION.

STORMWATER DRAINAGE

SD1 PIPES UP TO 300mm DIAMETER SHALL BE SEWER GRADE UPVC WITH SOLVENT WELDED JOINTS.

SD2 ALL "INTERNAL WORKS" WITHIN PROPERTY BOUNDARIES SHALL COMPLY WITH THE REQUIREMENTS OF AS/NZS 3500.3 (CURRENT EDITION).

SD3 ALL STORMWATER PIPES SHALL BE PROVIDED WITH MINIMUM PIPE COVER TO COMPLY WITH THE REQUIREMENTS OF AS/NZS 3500.3 (CURRENT EDITION).

SD4 INSTALLATION OF ALL BURIED CONCRETE STORMWATER PIPES SHALL COMPLY WITH THE REQUIREMENTS OF AS/NZS 3725 (CURRENT EDITION) *DESIGN FOR INSTALLATION OF BURIED CONCRETE PIPES*.

SD5 ENLARGERS, CONNECTORS AND JUNCTIONS SHALL BE PREFABRICATED FITTINGS WHERE PIPES ARE LESS THAN 300mm DIAMETER.

SD6 ALL STORMWATER DRAINAGE LINES SHALL HAVE A MINIMUM FALL OF 1% UNLESS NOTED OTHERWISE ON THE DRAWINGS. CARE SHALL BE TAKEN WITH SETTING LEVELS OF STORMWATER DRAINAGE LINES. GRADES SHOWN ON THE DRAWINGS SHALL NOT BE REDUCED WITHOUT THE WRITTEN CONSENT OF TRIAXIAL CONSULTING.

SD7 GRATES AND COVERS SHALL COMPLY WITH THE REQUIREMENTS OF AS 3996 (CURRENT EDITION).

SD8 AT ALL TIMES DURING THE CONSTRUCTION OF STORMWATER PITS, ADEQUATE SAFETY PROCEDURES SHALL BE DOCUMENTED AND EXECUTED TO MITIGATE THE RISK OF PERSONAL INJURY AS A RESULT OF FALLS INTO PITS.

SD9 ALL EXISTING STORMWATER LOCATIONS, INCLUDING INVERTS, TO BE CONFIRMED BY THE BUILDER/CONTRACTOR PRIOR TO THE COMMENCEMENT OF CIVIL WORKS ON SITE.

SD10 ALL EXISTING STORMWATER DRAINAGE LINES AND PITS THAT ARE TO REMAIN SHALL BE INSPECTED AND CLEANED. DURING THIS PROCESS ANY PART OF THE STORMWATER DRAINAGE SYSTEM THAT WARRANTS REPAIR SHALL BE REPORTED TO THE SUPERINTENDANT/ENGINEER FOR FURTHER DIRECTIONS.

NOTE:
THIS IS A PLANNING DRAWING ONLY, FOR THE PURPOSE OF CONCEPTUAL DESIGN AND/OR PLANNING. FURTHER DETAILED ENGINEERING DESIGN INCLUDING SPECIFICATIONS, SIZING AND STORMWATER INVERTS TO BE PROVIDED PRIOR TO BUILDING RULES ASSESSMENT AND CONSTRUCTION.

AMENDMENTS	DATE	ISSUE	BY
ISSUED FOR APPROVAL	29.07.19	C	J.D.
ISSUED FOR APPROVAL	20.03.18	B	J.D.
ISSUED FOR APPROVAL	22.02.18	A	J.D.

STATUS
ISSUED FOR APPROVAL

TRIAXIAL CONSULTING
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1300 874 294 | TRIAXIAL.COM.AU
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PO BOX A203, SYDNEY SOUTH, NSW 1235
SYDNEY | ADELAIDE | BAROSSA | DARWIN | MUDGEE

ARCHITECT
HY CHENG
ARKEXPRESS DESIGN PTY LTD
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CANLEY VALE NSW 2166

CLIENT
FRANK NICHOLAS

PROJECT
PROPOSED DEVELOPMENT
1-23 LENORE DRIVE
ERSKINE PARK, NSW, 2759

DESIGNED	DRAWN	DATE	SIZE	CAD REF
J.D.	J.M.	19.02.18	A1	TX13092.00-C1.0

DRAWING TITLE
DRAWING INDEX & GENERAL NOTES

DRAWING No: TX13092.00 - C1.0
ISSUE: C

STORMWATER NOTES

TOTAL SITE AREA = 13351m²

ASSUMED PRE-DEVELOPMENT IMPERVIOUS AREA = 0m²

POST DEVELOPMENT IMPERVIOUS AREA = 10000m²

OSD VOLUME AS PER DRAINS MODEL = 180m³
(BASED ON WORST CASE STORM, COMBINED STORAGE VOL.)

OSD DESIGNED TO REDUCE FLOWS TO PRE-DEVELOPED RATE AS PER PENRITH COUNCIL GUIDELINES.

PRE-DEVELOPMENT FLOW LEAVING SITE = 0.303m³/s

POST-DEVELOPMENT FLOW LEAVING SITE = 0.238m³/s

ALL BUILDING DOWNPIPES ARE TO BE CONNECTED TO NEW STORMWATER DRAINAGE SYSTEM.

RAINWATER HARVESTING NOTES

AS PER PENRITH COUNCIL DEVELOPMENT CONTROL PLAN 2014 CHAPTER C3 - WATER MANAGEMENT, COMMERCIAL AND INDUSTRIAL, 80% OF NON POTABLE WATER SUPPLY TO BE SOURCED FROM NON-MAINS SUPPLY.

RAINWATER TANKS HAVE BEEN SIZED FOR EACH UNIT AND ARE A MINIMUM TANK SIZE TO SATISFY 80% OF NON POTABLE USE. NON-POTABLE USE INCLUDES WATER USED FOR GARDENS, LAUNDRY AND TOILET USE.

WATER USAGE RATES HAVE BEEN ADOPTED FROM SYDNEY WATER "AVERAGE DAILY WATER USE - BY PROPERTY TYPE", WHICH HAS BEEN COMPILED FROM WATER SUPPLY CODE OF AUSTRALIA, PB FLOW STUDY REPORT AND WATER USAGE SURVEYS. WATER USAGE RATES ADOPTED FOF THIS DEVELOPMENT WERE 2.48L/m² FLOOR AREA IN ACCORDANCE WITH A TYPICAL RETAIL UNIT. PERCENTAGE BREAKDOWN OF USAGE FOR NON POTABLE WATER IN ACCORDANCE WITH SYDNEY WATER USAGE RATES.

RAINFALL DATA WAS SOURCED FROM BUREAU OF METEOROLOGY FOR ERSKINE PARK AREA. RAINFALL DATA SAMPLED FROM THREE YEAR AVERAGE RAINFALL CONDITION. TANKS INITALLY EMPTY.

RAINWATER TANK SIZE

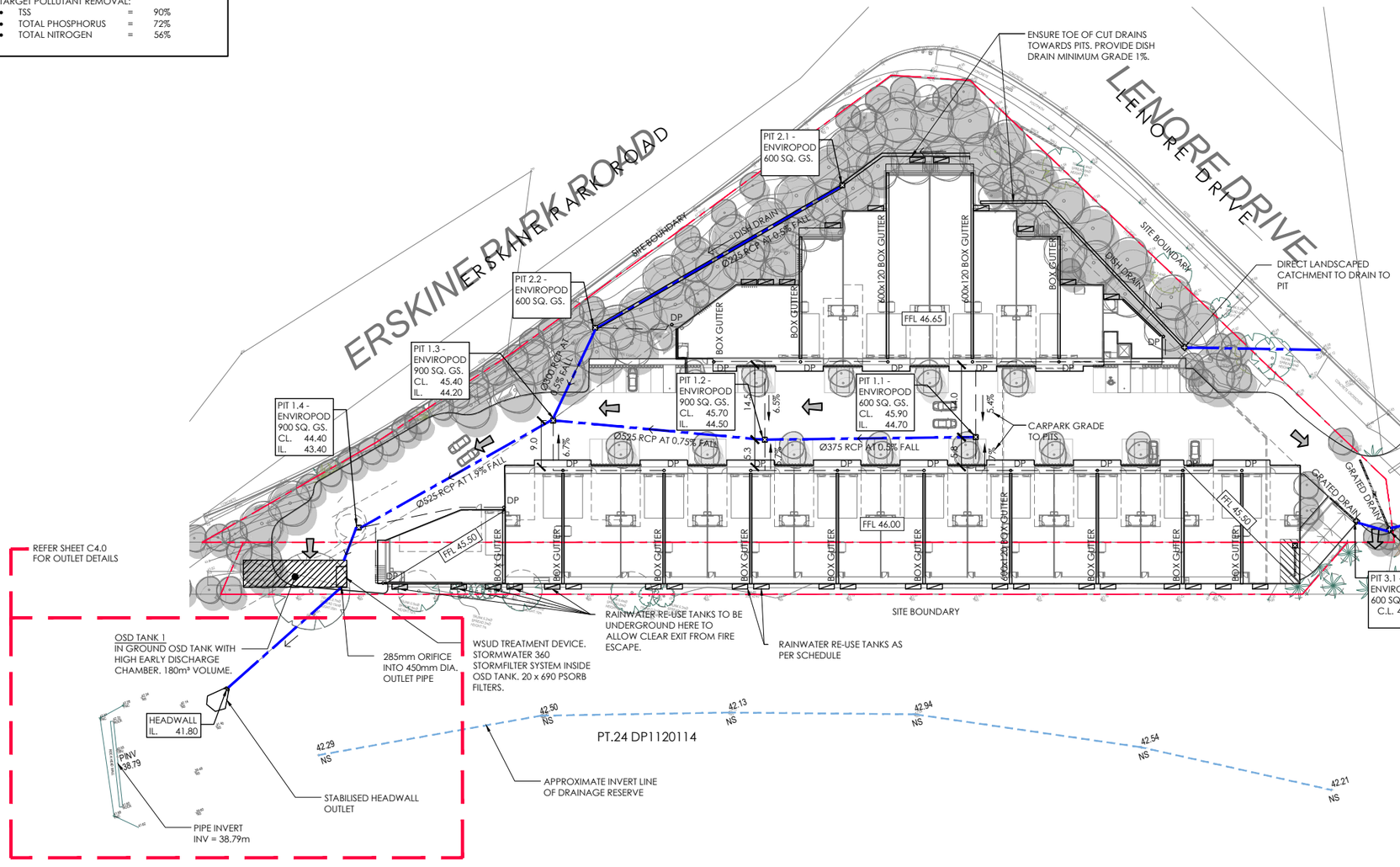
UNIT SIZE	USAGE	TANK WATER USAGE	MAINS WATER USAGE	MIN TANK SIZE REQUIRED
167m²	372	51700	9170	3000
225m²	558	82300	14000	5000
250m²	620	93400	14500	6000
300m²	744	111900	19400	7000
375m²	930	142000	24800	9000
80m² CAFE	199	30600	5100	2000

TANK WATER USAGE RATES SHOWN IN LITRES PER YEAR FOR NON POTABLE USE. MAINS WATER USED IN PERIODS OF DRY WEATHER WHEN TANK DOES NOT HAVE ENOUGH STORED WATER.

WUSD NOTES

WSUD DESIGN TO PENRITH COUNCIL GUIDELINES.

TARGET POLLUTANT REMOVAL:
- TSS = 90%
- TOTAL PHOSPHORUS = 72%
- TOTAL NITROGEN = 56%



LEGEND

SYMBOL	DESCRIPTION
	STORMWATER PIPE @ 1.0% MIN U.N.O.
DP	uPVC DOWNPIPE
IO	SURFACE INSPECTION OPENING
(GS)	GRATED SUMP (UNO)
(JB)	JUNCTION BOX (UNO)
	CONCRETE HEADWALL
.99.99	DESIGN LEVEL
TK.	TOP OF KERB
WT.	WATER TABLE
P.	PAVEMENT LEVEL
FL.	FINISHED LEVEL
CL.	COVER LEVEL
IL.	INVERT LEVEL
FFL.	FINISHED FLOOR LEVEL
BL.	BENCH LEVEL EXISTING
EL.	SURFACE LEVEL
TRW.	TOP OF RETAINING WALL
BRW.	BOTTOM OF RETAINING WALL
	OVERLAND FLOWPATH
	RAINWATER RE-USE TANK EACH UNIT REFER SCHEDULE

SERVICES NOTE:
1. EXISTING SERVICES SHOWN ARE BASED ON SURVEY DATA RECEIVED BY THIS OFFICE.
2. ALL EXISTING SERVICES ARE SHOWN DIAGRAMMATIC ONLY. ALL SERVICES ARE TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION.

WARNING:
BEWARE OF UNDERGROUND SERVICES. THE LOCATION OF SERVICES IF SHOWN, ARE INDICATIVE ONLY AND NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES HAVE BEEN DOCUMENTED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES WITHIN THE WORKS AFFECTED AREAS PRIOR TO ANY ON-SITE EXCAVATION.

NOTE:
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CONCEPT STORMWATER PLAN

SCALE 1:500 AT A1

5.0m 0.0 10.0 20.0 30.0 40.0 50.0m
SCALE 1:500 AT A1 SHEET | 1:1000 AT A3 SHEET

AMENDMENTS	DATE	ISSUE	BY
IFA - REVISED ARCH, SURVEY	12.03.19	E	J.D.
ISSUED FOR APPROVAL	04.02.19	D	J.D.
ISSUED FOR APPROVAL	31.01.20	H	J.D.
ISSUED FOR APPROVAL	11.12.19	G	J.D.
ISSUED FOR APPROVAL	30.07.19	F	J.D.

STATUS
ISSUED FOR APPROVAL

TRIAXIAL CONSULTING
COMPLEX PROBLEMS RESOLVED SIMPLY
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SYDNEY | ADELAIDE | BAROSSA | DARWIN | MUDGEE

ARCHITECT
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ARKEXPRESS DESIGN PTY LTD
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CANLEY VALE NSW 2166

CLIENT
FRANK NICHOLAS

PROJECT
PROPOSED DEVELOPMENT
1-23 LENORE DRIVE
ERSKINE PARK, NSW, 2759

DESIGNED	DRAWN	DATE	SIZE	CAD REF
J.D.	J.M.	19.02.18	A1	TX13092.00-C1.0

DRAWING TITLE
CONCEPT STORMWATER PLAN

DRAWING No ISSUE
TX13092.00 - C2.0 H

STORMWATER NOTES

TOTAL SITE AREA = 13351m²

ASSUMED PRE-DEVELOPMENT IMPERVIOUS AREA = 0m²

POST DEVELOPMENT IMPERVIOUS AREA = 10000m²

OSD VOLUME AS PER DRAINS MODEL = 180m³
(BASED ON WORST CASE STORM, COMBINED STORAGE VOL.)

OSD DESIGNED TO REDUCE FLOWS TO PRE-DEVELOPED RATE AS PER PENRITH COUNCIL GUIDELINES.

PRE-DEVELOPMENT FLOW LEAVING SITE = 0.303m³/s

POST-DEVELOPMENT FLOW LEAVING SITE = 0.238m³/s

ALL BUILDING DOWNPIPES ARE TO BE CONNECTED TO NEW STORMWATER DRAINAGE SYSTEM.

LEGEND

SYMBOL	DESCRIPTION
	SUB-CATCHMENT AREA
	ROOF CATCHMENT
	IMPERVIOUS CATCHMENT
	PERVIOUS CATCHMENT
	PERVIOUS CATCHMENT BYPASSING OSD
	IMPERVIOUS CATCHMENT BYPASSING OSD
	OVERLAND FLOWPATH
	RAINWATER RE-USE TANK EACH UNIT REFER SCHEDULE

SERVICES NOTE:
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DEVELOPED SITE CATCHMENT PLAN

SCALE 1:500 AT A1

5.0m 0.0 10.0 20.0 30.0 40.0 50.0m

SCALE 1:500 AT A1 SHEET | 1:1000 AT A3 SHEET

ISSUED FOR APPROVAL	31.01.20	D	J.D.
ISSUED FOR APPROVAL	30.08.19	C	J.D.
IFA - REVISED ARCH, SURVEY	12.03.19	B	J.D.
ISSUED FOR APPROVAL	13.11.18	A	J.D.
AMENDMENTS	DATE	ISSUE	BY

STATUS

ISSUED FOR APPROVAL

TRIAXIAL CONSULTING
COMPLEX PROBLEMS RESOLVED SIMPLY

1300 874 294 | TRIAXIAL.COM.AU
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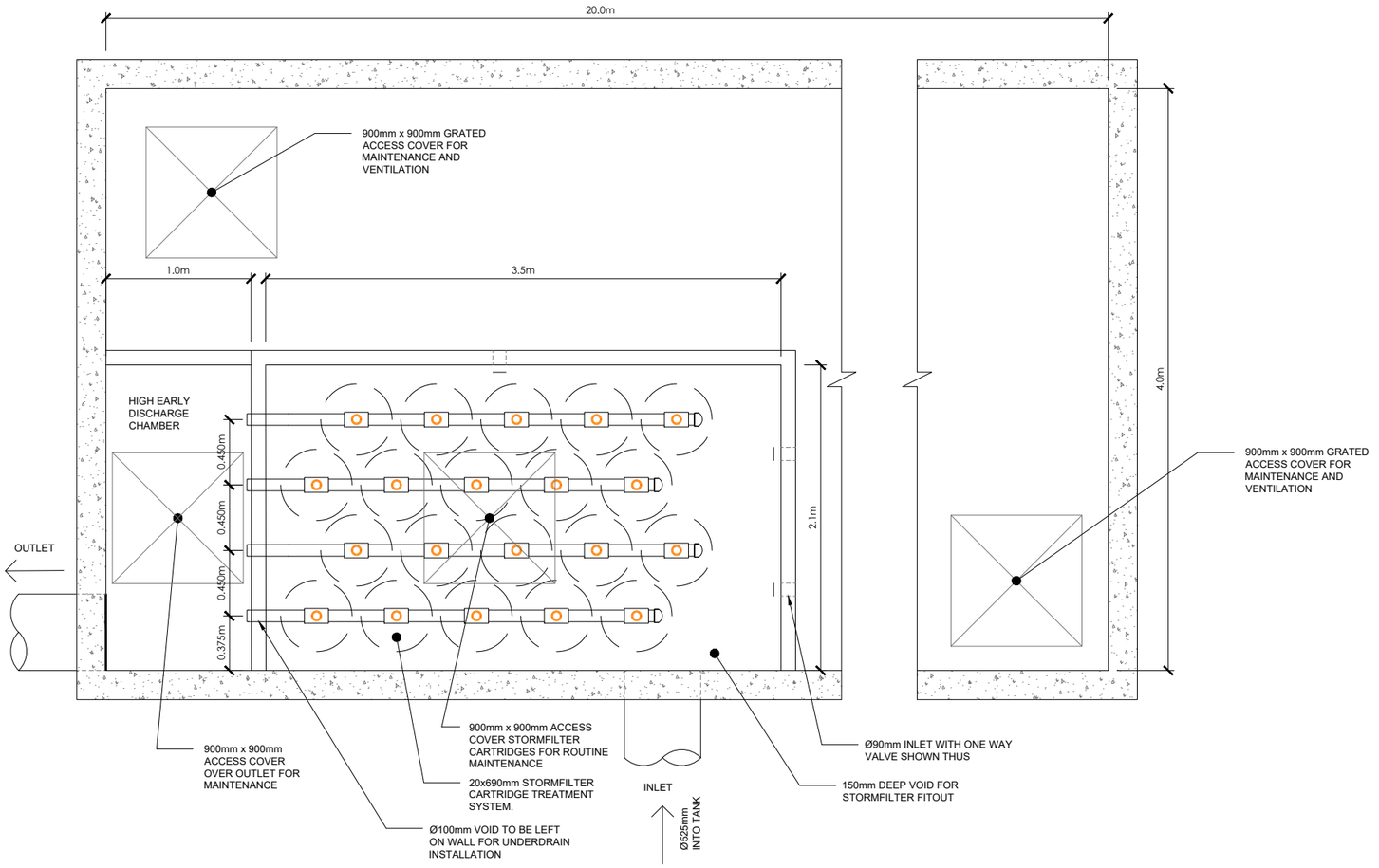
CLIENT
FRANK NICHOLAS

PROJECT
PROPOSED DEVELOPMENT
1-23 LENORE DRIVE
ERSKINE PARK, NSW, 2759

DESIGNED	DRAWN	DATE	SIZE	CAD REF
J.D.	J.M.	13.11.18	A1	TX13092.00-C1.0

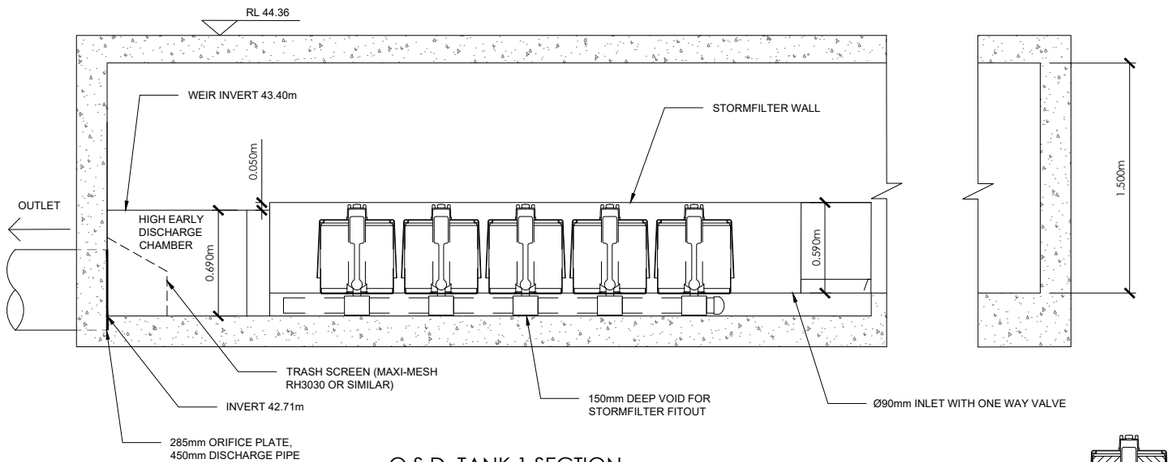
DRAWING TITLE
DEVELOPED SITE CATCHMENT PLAN

DRAWING No: TX13092.00 - C2.1
ISSUE: D



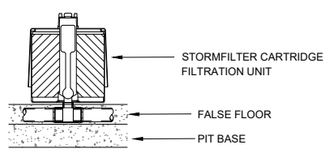
O.S.D. TANK 1 PLAN

N.T.S.

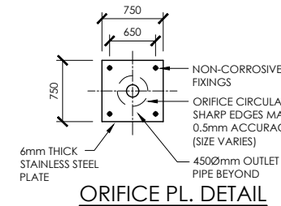


O.S.D. TANK 1 SECTION

N.T.S.

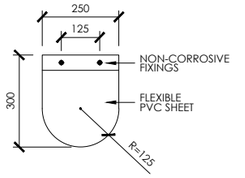


STORMFILTER CARTRIDGE DETAIL



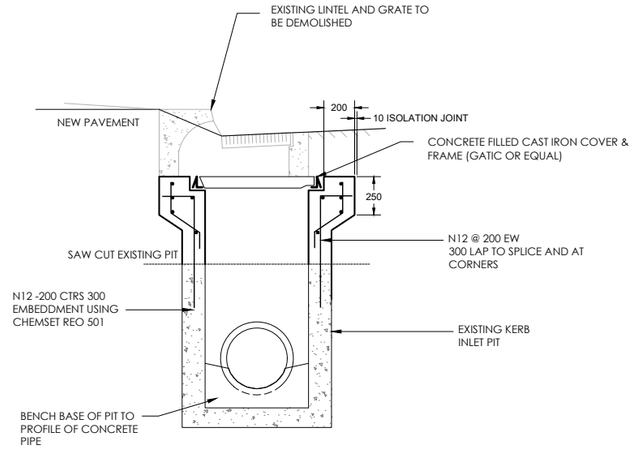
ORIFICE PL. DETAIL

N.T.S.



FLAP VALVE DETAIL

N.T.S.



DETAIL A - O.S.D. TANK 1 PLAN

N.T.S.

0.2m 0.0 0.4 0.8 1.2 1.6 2.0m

SCALE 1:20 AT A1 SHEET | 1:40 AT A3 SHEET

AMENDMENTS	DATE	ISSUE	BY
ISSUED FOR APPROVAL	31.01.20	E	J.D.
ISSUED FOR APPROVAL	05.12.19	D	J.D.
ISSUED FOR APPROVAL	30.08.19	C	J.D.
ISSUED FOR APPROVAL	04.02.19	B	J.D.
ISSUED FOR APPROVAL	13.11.18	A	J.D.

STATUS

ISSUED FOR APPROVAL

TRIAXIAL CONSULTING
COMPLEX PROBLEMS RESOLVED SIMPLY
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ARCHITECT
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CANLEY VALE NSW 2166

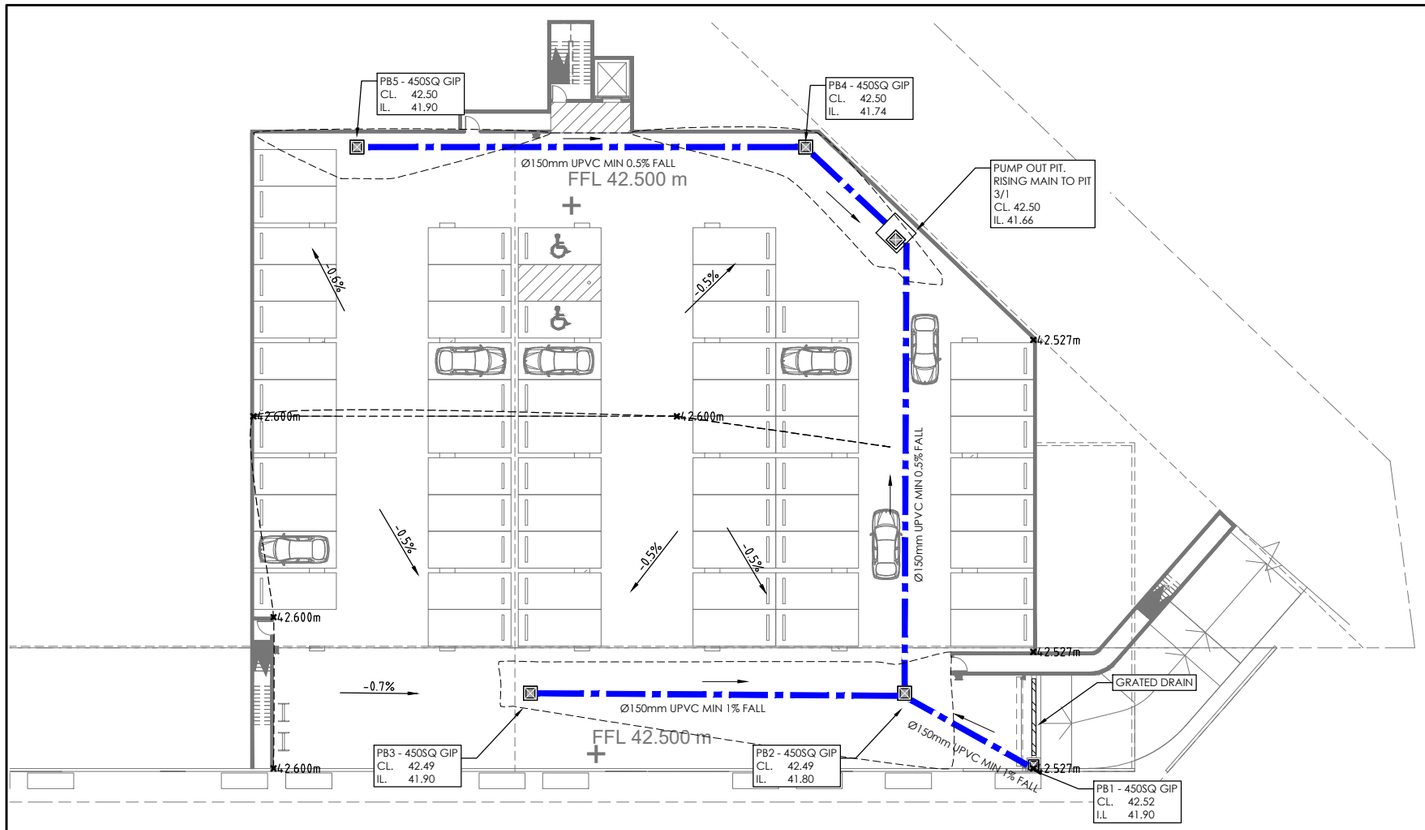
CLIENT
FRANK NICHOLAS

PROJECT
PROPOSED DEVELOPMENT
1-23 LENORE DRIVE
ERSKINE PARK, NSW, 2759

DESIGNED	DRAWN	DATE	SIZE	CAD REF
J.D.	J.M.	19.02.18	A1	TX13092.00-C1.0

DRAWING TITLE
STORMWATER DETAILS

DRAWING No: TX13092.00 - C2.2
ISSUE: E



BASEMENT STORMWATER PLAN

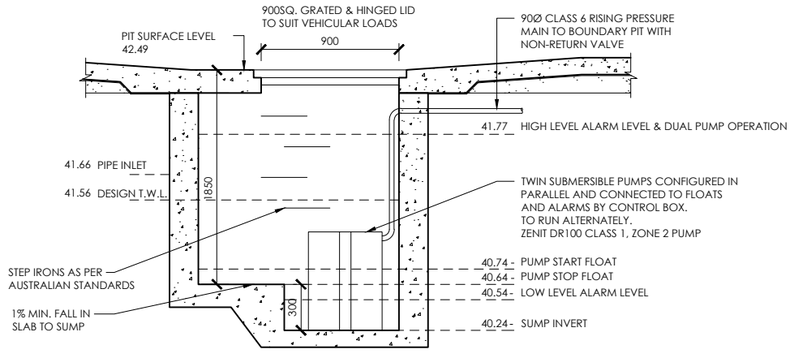
SCALE 1:200 AT A1
SCALE 1:400 AT A3

LEGEND

SYMBOL	DESCRIPTION
	STORMWATER PIPE @ 1.0% MIN U.N.O.
DP	uPVC DOWNPIPE
IO	SURFACE INSPECTION OPENING
(GS)	GRATED SUMP (UNO)
(JB)	JUNCTION BOX (UNO)
	CONCRETE HEADWALL
.99.99	DESIGN LEVEL
TK.	TOP OF KERB
WT.	WATER TABLE
P.	PAVEMENT LEVEL
FL.	FINISHED LEVEL
CL.	COVER LEVEL
IL.	INVERT LEVEL
FFL.	FINISHED FLOOR LEVEL
BL.	BENCH LEVEL EXISTING
EL.	SURFACE LEVEL
TRW.	TOP OF RETAINING WALL
BRW.	BOTTOM OF RETAINING WALL
	OVERLAND FLOWPATH
	RAINWATER RE-USE TANK EACH UNIT REFER SCHEDULE

PUMP SYSTEM NOTES:

- THE PUMPS SHALL BE PROGRAMMED TO WORK ALTERNATIVELY SO AS TO ALLOW BOTH PUMPS TO HAVE CONTINUOUS OPERATION.
- A LOW LEVEL FLOAT SHALL BE PROVIDED TO ENSURE THAT THE MINIMUM REQUIRED WATER LEVEL IS MAINTAINED WITHIN THE SUMP AREA OF THE BELOW GROUND TANK.IN THE REGARD THIS FLOAT WILL FUNCTION AS AN OFF SWITCH FOR THE PUMPS.
- A SECOND FLOAT SHOULD BE PROVIDED AT A HIGHER LEVEL, APPROX. 100mm ABOVE THE MINIMUM WATER LEVEL. ONE OF THE PUMPS WILL OPERATE & DRAIN THE TANK TO THE LOW-LEVEL FLOAT.
- A THIRD FLOAT SHOULD BE PROVIDED AT A HIGH LEVEL. THIS ALARM LEVEL, WHICH IS APPROX. ROOF LEVEL OF THE BELOW GROUND TANK, SHOULD START THE OTHER PUMP THAT IS NOT OPERATING & SET OFF THE ALARM.
- AN ALARM SYSTEM SHALL BE PROVIDED WITH A FLASHING STROBE LIGHT & A PUMP FAILURE WARNING SIGN WHICH ARE TO BE LOCATED AT THE DRIVEWAY ENTRANCE TO THE BASEMENT LEVEL. IN THIS REGARD THE ALARM SHALL BE PROVIDED WITH A BATTERY BACKUP IN CASE OF POWER FAILURE.
- THE PUMPS SHALL HAVE A FLOWRATE OF 5 L/SEC @ 5m HEAD.
- THE PUMPS SHALL HAVE A SUITABLE CLASSIFICATION FOR BASEMENT CAR PARKS.
- NO VARIATIONS TO THIS DESIGN UNLESS CHECKED BY THE ENGINEER PRIOR TO CONSTRUCTION.



PUMPOUT PIT SECTION

N.T.S.

1900mm LONG x 1900mm WIDE x 1850mm DEEP PUMP OUT PIT. MINIMUM STORAGE VOLUME = 6.7m³ (AS PER AS3500.3-2018)

ISSUED FOR APPROVAL	31.01.20	F	J.D.
ISSUED FOR APPROVAL	11.12.19	E	J.D.
ISSUED FOR APPROVAL	05.12.19	D	J.D.
ISSUED FOR APPROVAL	30.08.19	C	J.D.
IFA - REVISED ARCH	05.03.19	B	J.D.
ISSUED FOR APPROVAL	13.11.18	A	J.D.
AMENDMENTS	DATE	ISSUE	BY

STATUS

ISSUED FOR APPROVAL

TRIAXIAL CONSULTING
COMPLEX PROBLEMS RESOLVED SIMPLY
1300 874 294 | TRIAXIAL.COM.AU
SUITE 12, LEVEL 14, 327 PITT STREET, SYDNEY 2000
PO BOX A203, SYDNEY SOUTH, NSW 1235
SYDNEY | ADELAIDE | BAROSSA | DARWIN | MUDGEE

ARCHITECT
HY CHENG
ARKEXPRESS DESIGN PTY LTD
PO BOX 6213
CANLEY VALE NSW 2166

CLIENT
FRANK NICHOLAS

PROJECT
PROPOSED DEVELOPMENT
1-23 LENORE DRIVE
ERSKINE PARK, NSW, 2759

DESIGNED	DRAWN	DATE	SIZE	CAD REF
J.D.	J.M.	19.02.18	A1	TX13092.00-C1.0

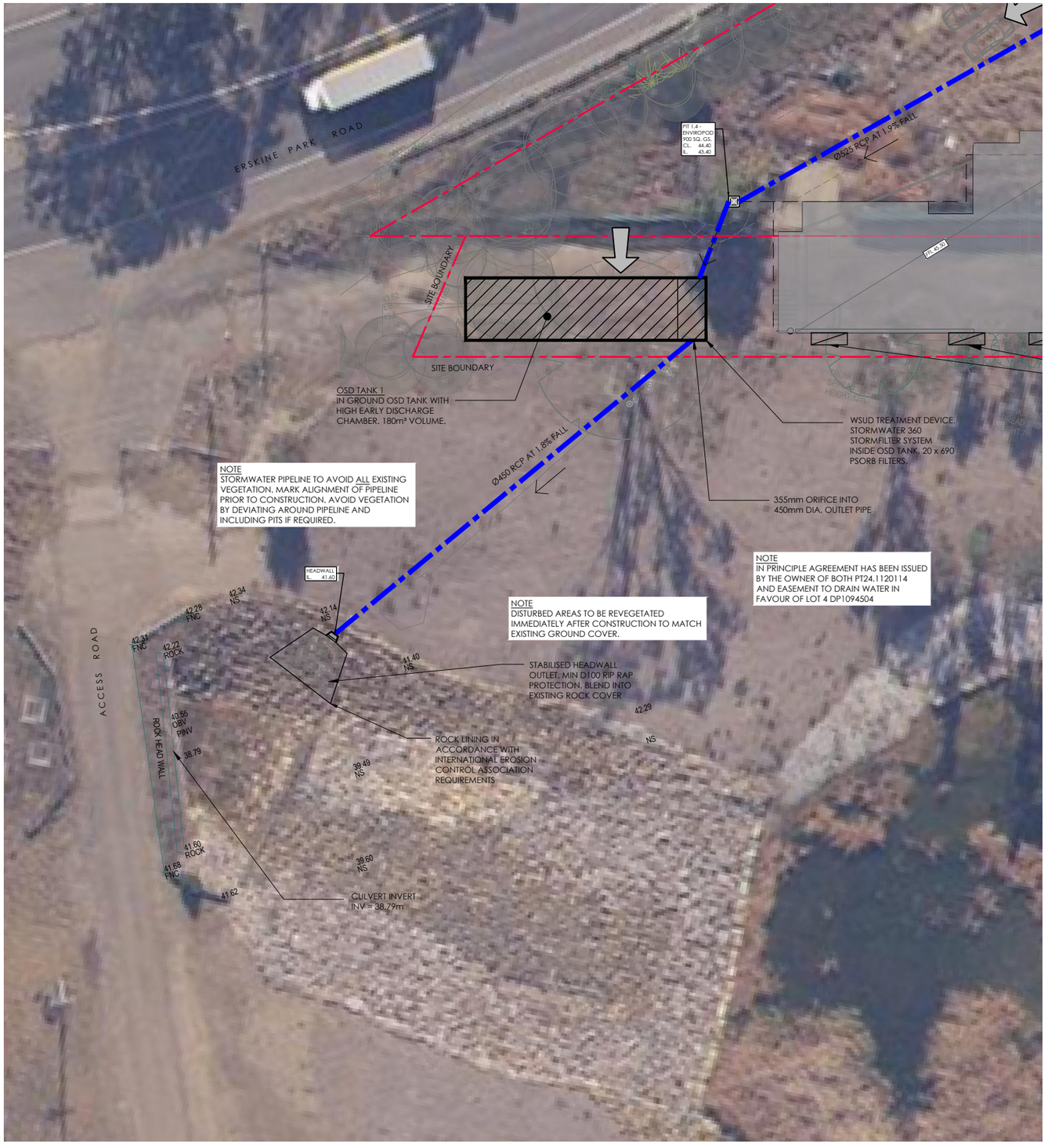
DRAWING TITLE
BASEMENT STORMWATER PLAN

2.0m 0.0 4.0 8.0 12.0 16.0 20.0m
SCALE 1:200 AT A1 SHEET | 1:400 AT A3 SHEET

DRAWING No ISSUE
TX13092.00 - C3.0 F

LEGEND

SYMBOL	DESCRIPTION
— · —	STORMWATER PIPE @ 1.0% MIN U.N.O.
DP	uPVC DOWNPIPE
IO	SURFACE INSPECTION OPENING
(GS)	GRATED SUMP (UNO)
(JB)	JUNCTION BOX (UNO)
	CONCRETE HEADWALL
99.99	DESIGN LEVEL
TK.	TOP OF KERB
WT.	WATER TABLE
P.	PAVEMENT LEVEL
FL.	FINISHED LEVEL
CL.	COVER LEVEL
IL.	INVERT LEVEL
FFL.	FINISHED FLOOR LEVEL
BL.	BENCH LEVEL EXISTING
EL.	SURFACE LEVEL
TRW.	TOP OF RETAINING WALL
BRW.	BOTTOM OF RETAINING WALL
	OVERLAND FLOWPATH
	RAINWATER RE-USE TANK EACH UNIT REFER SCHEDULE



NOTE:
THIS IS A PLANNING DRAWING ONLY, FOR THE PURPOSE OF CONCEPTUAL DESIGN AND/OR PLANNING. FURTHER DETAILED ENGINEERING DESIGN INCLUDING SPECIFICATIONS, SIZING AND STORMWATER INVERTS TO BE PROVIDED PRIOR TO BUILDING RULES ASSESSMENT AND CONSTRUCTION.

SERVICES NOTE:
1. EXISTING SERVICES SHOWN ARE BASED ON SURVEY DATA RECEIVED BY THIS OFFICE.
2. ALL EXISTING SERVICES ARE SHOWN DIAGRAMMATIC ONLY. ALL SERVICES ARE TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION.

WARNING:
BEWARE OF UNDERGROUND SERVICES. THE LOCATION OF SERVICES IF SHOWN, ARE INDICATIVE ONLY AND NO GUARANTEE IS GIVEN THAT ALL EXISTING SERVICES HAVE BEEN DOCUMENTED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES WITHIN THE WORKS AFFECTED AREAS PRIOR TO ANY ON-SITE EXCAVATION.

CONCEPT STORMWATER PLAN
SCALE 1:200 AT A1

2.0m 0.0 4.0 8.0 12.0 16.0 20.0m
SCALE 1:200 AT A1 SHEET | 1:400 AT A3 SHEET

AMENDMENTS	DATE	ISSUE	BY
ISSUED FOR APPROVAL	30.08.19	B	J.D.
ISSUED FOR APPROVAL	22.02.18	A	J.D.

STATUS
ISSUED FOR APPROVAL

TRIAXIAL CONSULTING
COMPLEX PROBLEMS RESOLVED SIMPLY
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CANLEY VALE NSW 2166

CLIENT
FRANK NICHOLAS

PROJECT
PROPOSED DEVELOPMENT
1-23 LENORE DRIVE
ERSKINE PARK, NSW, 2759

DESIGNED	DRAWN	DATE	SIZE	CAD REF
J.D.	J.M.	27.07.19	A1	TX13092.00-C1.0

DRAWING TITLE
STORMWATER PLAN - OUTLET TREATMENT

DRAWING No: TX13092.00 - C4.0
ISSUE: B