

## **IMPORTANT NOTES**

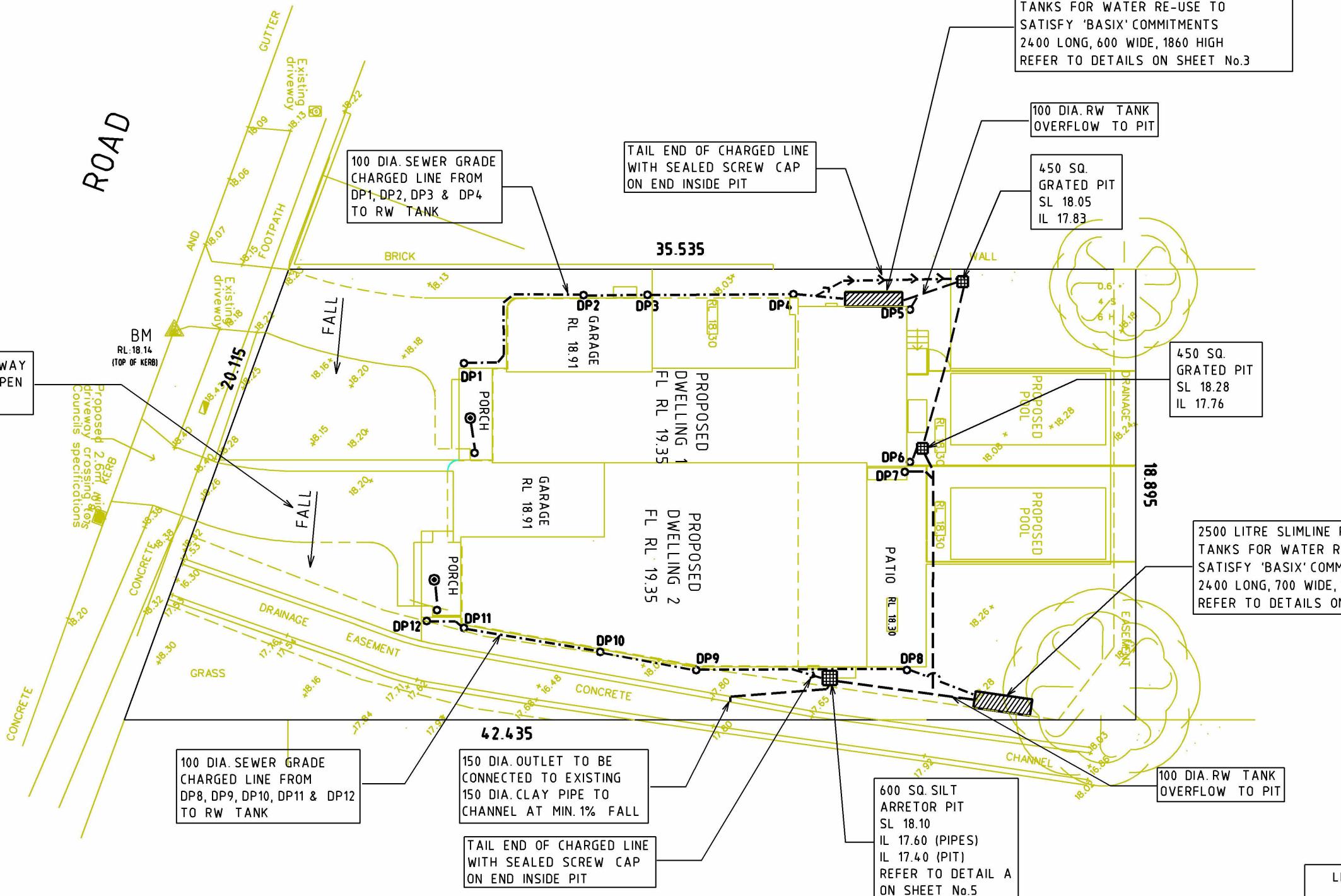
1. PLEASE REFER TO SERVICE APPLICATION REPORT BY V. NASRALLAH FOR EXACT LOCATION OF EXISTING 150 DIA. CLAY PIPE STUB IS LOCATED AT 17m TO BACK BOUNDARY. ENSURE CORRECT STUB THAT IS NOW DISUSED IS LOCATED AND USED FOR CONNECTION.
2. THESE PLANS ARE TO BE READ IN CONJUNCTION WITH FLOOD STUDY BY ANA CIVIL FOR THIS DEVELOPMENT.
3. BOUNDARY FENCES TO BE AS REQUIRED IN FLOOD STUDY REPORT.  
(REFER TO FIGURE 19 IN REPORT)

2500 LITRE SLIMLINE RAINWATER  
TANKS FOR WATER RE-USE TO  
SATISFY 'BASIX' COMMITMENTS  
2400 LONG, 600 WIDE, 1860 HIGH  
REFER TO DETAILS ON SHEET No.3

11

BONDS

FALL DRIVEWAY  
TOWARDS OPEN  
CHANNEL



## NOTES :

1. ALL DOWNPIPES THAT ARE CHARGED TO TANK(S) AND ARE TO BE 100 DIA. SEWER GRADE FOR FULL LENGTH, ALL PIPES INGROUND 100 DIA.
2. ALL CHARGED LINES TO BE 100 SEWER GRADE TO ENSURE INTEGRITY OF CHARGE AND SOLVENT WELDED UP TO GUTTER LEVEL.
3. GUTTER PROTECTION SYSTEM ARE RECOMMENDED TO BE INSTALLED TO MINIMISE LEAVES & DEBRIS ENTERING THE SYSTEM. (BY OWNER)

# DRAINAGE PLAN

SCALE 1:200

— — — — GRAVITY L

100 DIA. CHARGED LINE TO RW TANK  
PORCH FLOOR WASTE DOWNPipe TO BE  
CONNECTED BEHIND COLUMN AND TO BE  
DIRECTED TO LANDSCAPE AREA

## STORMWATER NOTES

1. CONTOUR PLAN SUPPLIED BY OTHERS
2. ALL STORMWATER PIPES ARE TO BE 100mm DIA.  
UPVC UNLESS NOTED OTHERWISE.
3. DEPTH & LOCATION OF SERVICES TO BE CONFIRMED  
BY BUILDER PRIOR TO COMMENCEMENT OF ANY  
DRAINAGE WORKS TO ENSURE NO CONFLICT ARISES.
4. THESE PLANS TO BE READ IN CONJUNCTION WITH  
ARCHITECTURAL PLANS.
5. FINAL DRAINAGE LINE OUTLET LEVEL & DATUM  
TO BE EXPOSED & CONFIRMED BY BUILDER PRIOR  
TO COMMENCEMENT OF WORKS. ENGINEER SHALL  
BE NOTIFIED OF ANY DISCREPANCIES.
6. SYDNEY WATER TO BE ADVISED & CONSULTED WITH  
ANY CONSTRUCTION OVER/NEAR SEWER MAIN LINES  
FOR APPROPRIATE DESIGN REQUIREMENTS.

DESIGNED & CHECKED

BY  
*Oliver Daher*  
OLIVER DAHER  
B.E. CIVIL  
M.I.E. AUST

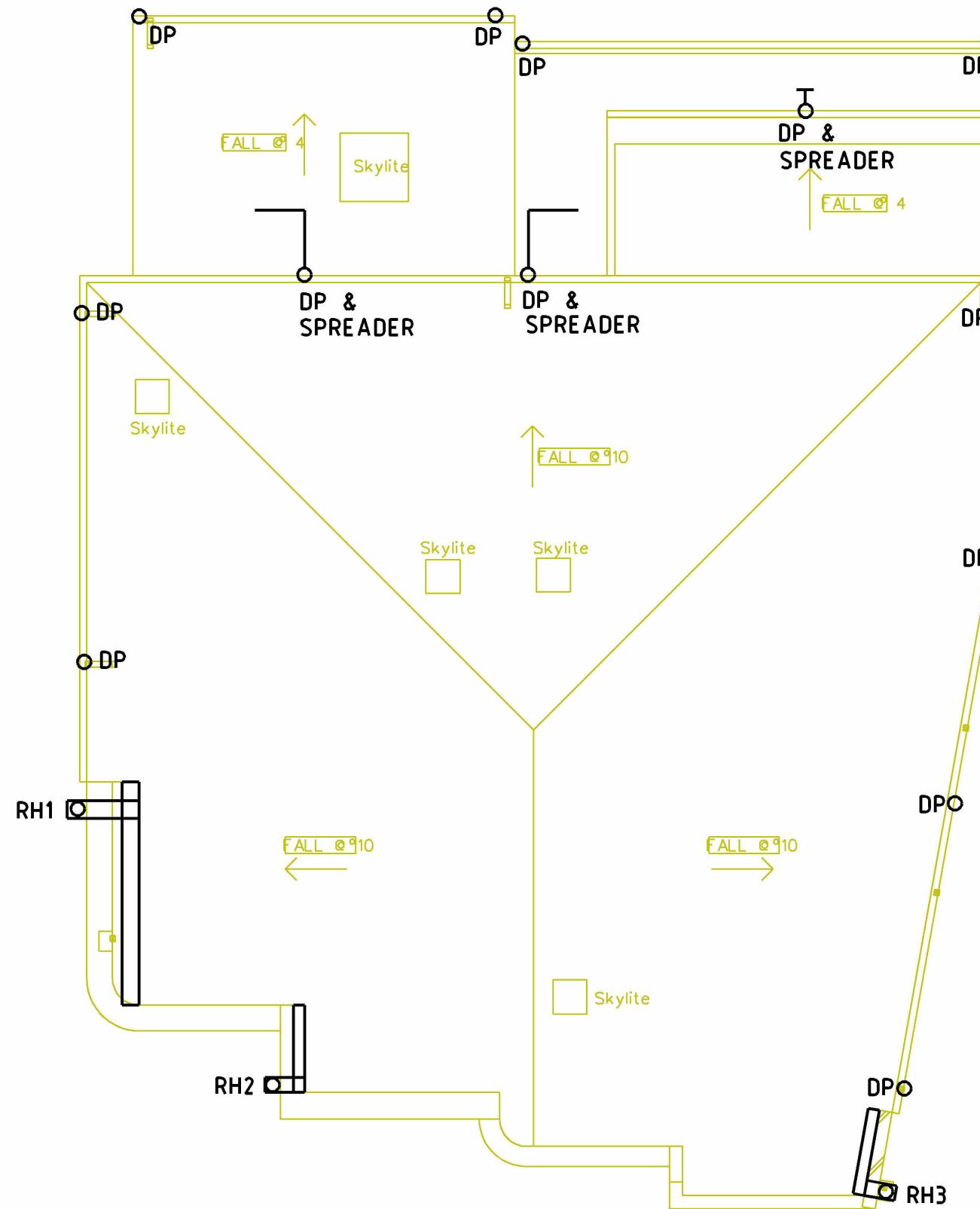
<b>B</b>	<b>RE-ISSUE</b>		
<b>A</b>	<b>ISSUED FOR DA</b>		
<b>C</b>	<b>DISPOSITION</b>	<b>DISP. DATE</b>	<b>DISP. TIME</b>

**J & F DESIGNS**  
CONSULTING HYDRAULIC, STRUCTURAL  
AND CIVIL ENGINEERS  
P.O. BOX 383, OATLANDS, NSW  
PHONE/FAX 9613 4441  
MOBILE 0414 882 388  
[enq@jandf.com.au](mailto:enq@jandf.com.au)

CLIENT  
DAHER PROJECT MANAGEMENT

TITLE  
LOT 1 (H/No.82) BONDS ROAD,  
ROSELANDS

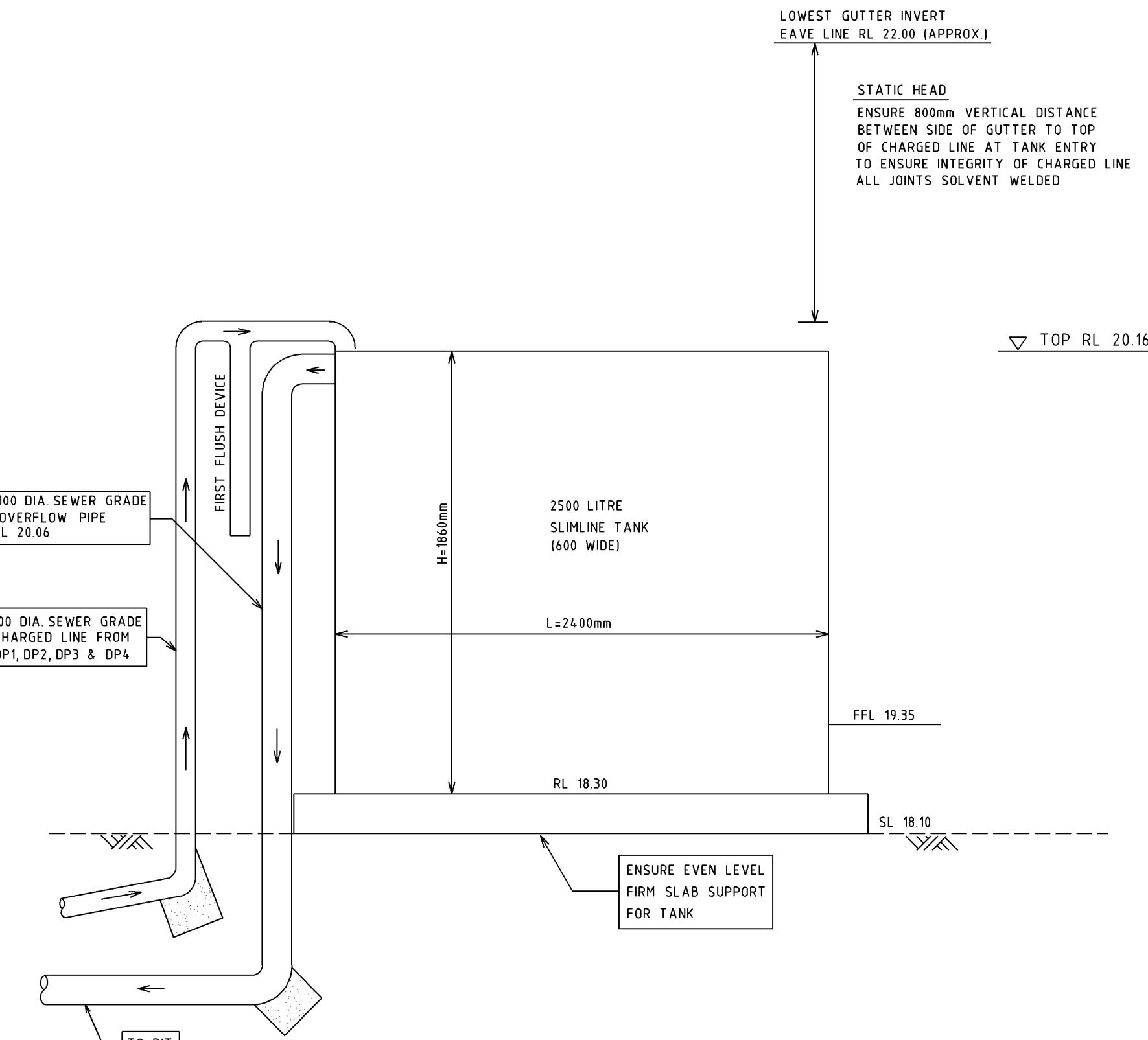
PROJECT <b>PROPOSED NEW DUPLEX</b>				
SCALE 1:200	ORIGINAL SIZE A1		DATE 18.12.25	
DRAWN BJC	DESIGNED 00	INIT	CHECKED 00	INNT
DRAWING NUMBER 5198-1 (1 of 6)				REVISION B



## ROOF DRAINAGE PLAN

SCALE 1:100

	DESIGNED & CHECKED BY  OLIVER DAHER B.E. CIVIL M.I.E. AUST.					J & F DESIGNS CONSULTING HYDRAULIC, STRUCTURAL AND CIVIL ENGINEERS P.O. BOX 383, OATLANDS, NSW PHONE/FAX 9613 4441 MOBILE 0414 882 388 engplan@optusnet.com.au	CLIENT DAHER PROJECT MANAGEMENT	PROJECT PROPOSED NEW DUPLEX			
		B	RE-ISSUE		18.12.25			SCALE 1:100	ORIGINAL SIZE A3	DATE 18.12.25	
	A	ISSUED FOR DA		26.07.18		DRAWN BJC	DESIGNED 00	INIT 00	CHECKED 00	INIT 00	
	REV	DESCRIPTION	DESN	CHKD	DATE						



## RAINWATER TANK TYPICAL DETAIL (DWELLING 1)

NOT TO SCALE

### RAINWATER RE-USE SYSTEM NOTES

1. RAINWATER SUPPLY PLUMBING TO BE CONNECTED TO COLD WATER WASHING MACHINE TAP(S). ALL TOILETS & ALL EXTERNAL TAPS.
2. TOWNWATER CONNECTION TO RAINWATER TANK TO BE TO THE SATISFACTION OF SYDNEY WATER, THIS MAY REQUIRE PROVISION OF:
  - A. PERMANENT AIR GAP
  - B. A BACKFLOW PREVENTION DEVICE
  - C. NO DIRECT CONNECTION BETWEEN TOWN WATER SUPPLY AND THE RAIN SUPPLY.
  - D. AN APPROVED STOP VALVE AND/OR PRESSURE LIMITING VALVE AT THE RAINWATER TANK
3. PROVIDE AT LEAST ONE (1) EXTERNAL HOSE COCK ON THE TOWN WATER FOR FIRE FIGHTING.
4. PROVIDE APPROPRIATE FLOAT VALVES AND/OR SOLENOID VALVES TO CONTROL TOWN WATER SUPPLY INLET TO TANK IN ORDER TO ACHIEVE THE TOP-UP ZONE INDICATED ON THE TYPICAL DETAIL.
5. ALL PLUMBING WORKS ARE TO BE CARRIED OUT BY LICENSED PLUMBERS IN ACCORDANCE WITH AS3500.1 NATIONAL PLUMBING AND DRAINAGE CODE.
6. PRESSURE PUMP ELECTRICAL CONNECTION TO BE OUT CARRIED BY LICENSED ELECTRICIAN.
7. ONLY ROOF RUN-OFF IS TO BE DIRECTED TO THE RAINWATER TANK. SURFACE WATER INLETS ARE NOT TO BE CONNECTED.
8. PIPE MATERIALS FOR RAINWATER SUPPLY PLUMBING ARE TO BE APPROVED MATERIALS TO AS3500 PART 1 SECTION 2 AND TO BE CLEARLY AND PERMANENTLY IDENTIFIED "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).
9. EVERY RAINWATER SUPPLY OUTLET POINT AND THE RAINWATER TANK ARE TO BE LABELLED "RAINWATER" ON A METALLIC SIGN IN ACCORDANCE WITH AS1319.
10. ALL INLETS & OUTLETS TO THE RAINWATER TANK TO HAVE SUITABLE MEASURES PROVIDED TO PREVENT MOSQUITO & VERMIN ENTRY.
11. PROVIDE ADDITIONAL WASHING MACHINE (COLD) WATER SUPPLY TAP FROM MAINS WATER FOR FUTURE OPTIONAL CHOICE BY RESIDENTS.
12. SYDNEY WATER'S APPROVAL IS REQUIRED FOR ANY TOP UP FROM DRINKING WATER SUPPLY, REGARDLESS OF TANK SIZE.
13. THE INLET FILLING RATE FROM DRINKING WATER SUPPLY IS TO BE RESTRICTED TO A MAXIMUM OF TWO(2) LITRES PER MINUTE FOR EACH HOUSE, TOWN HOUSE OR UNIT SUPPLIED FROM THE TANK.

### RAINWATER TANK NOTES

1. INSTALL LEAF STRAINERS, SCREENS, STOP VALVES, CHECK VALVE, PUMPS, FLOW RESTRICTOR TO AUSTRALIAN STANDARDS MANUFACTURERS DETAIL AND TO SYDNEY WATER REQUIREMENTS.
2. ALL PLUMBING & ELECTRICAL TO BE COMPLETED IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS.

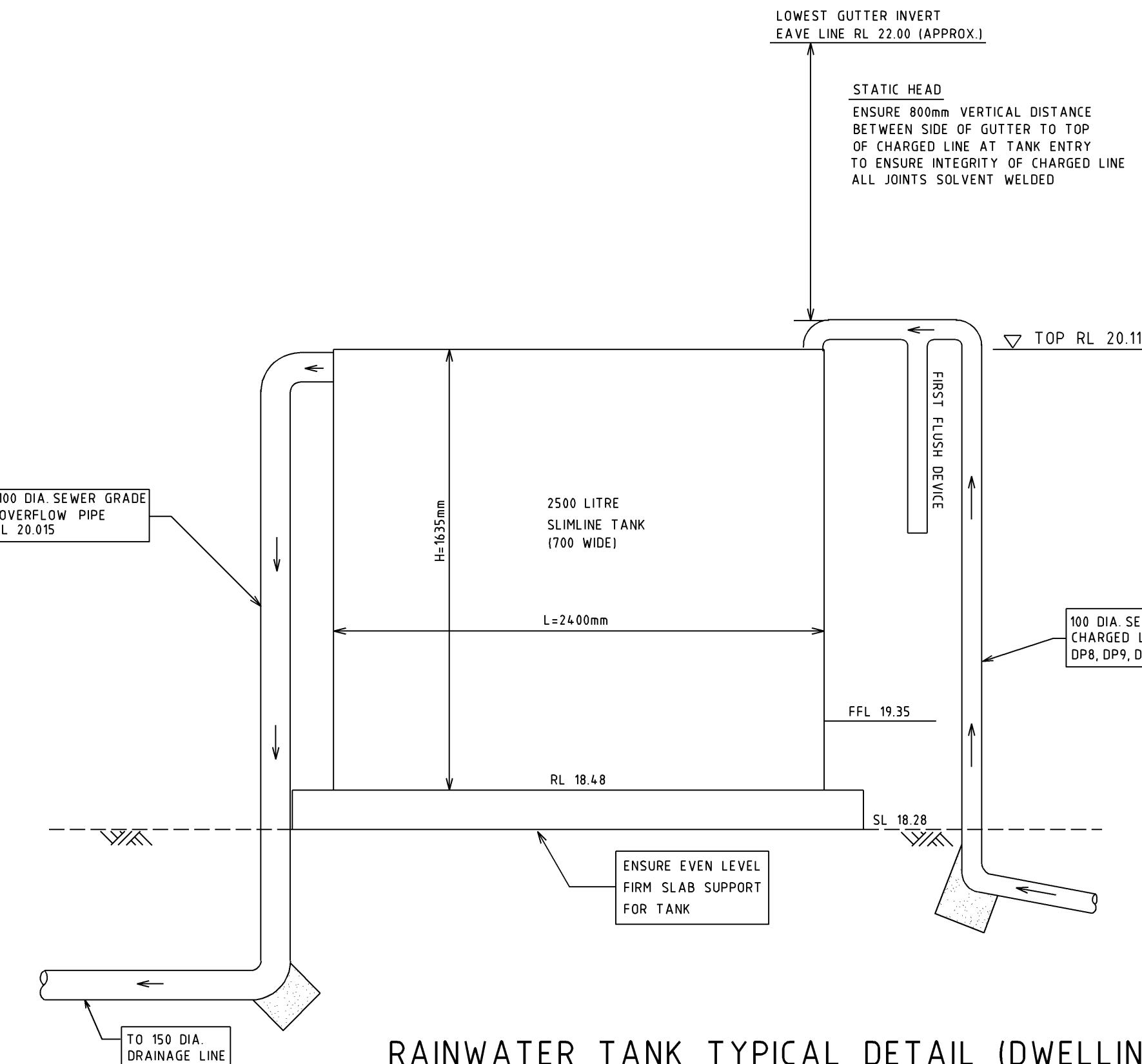
DESIGNED & CHECKED  
BY  
*Oliver Daher*  
OLIVER DAHER  
B.E. CIVIL  
M.I.E. AUST.

RE-ISSUE			
B			18.12.25
A	ISSUED FOR DA		26.07.18
REV	DESCRIPTION	DESN	CHKD

J & F DESIGNS  
CONSULTING HYDRAULIC, STRUCTURAL  
AND CIVIL ENGINEERS  
P.O. BOX 383, OATLANDS, NSW  
PHONE/FAX 9613 4441  
MOBILE 0414 882 388  
engplan@optusnet.com.au

CLIENT  
DAHER PROJECT MANAGEMENT  
TITLE  
LOT 1 (H/No.82) BONDS ROAD,  
ROSELANDS

PROJECT  
PROPOSED NEW DUPLEX  
SCALE 1:200  
DRAWN BY J.D.  
DRAWING NUMBER 5198-3  
ORIGINAL SIZE A3  
DESIGNED BY  
INITIALS  
CHECKED BY  
INITIALS  
DATE 18.12.25  
REVISION B



RAINWATER TANK TYPICAL DETAIL (DWELLING 2)

NOT TO SCALE

RAINWATER RE-USE SYSTEM NOTES

1. RAINWATER SUPPLY PLUMBING TO BE CONNECTED TO COLD WATER WASHING MACHINE TAP(S). ALL TOILETS & ALL EXTERNAL TAPS.
2. TOWNWATER CONNECTION TO RAINWATER TANK TO BE TO THE SATISFACTION OF SYDNEY WATER, THIS MAY REQUIRE PROVISION OF:
  - A. PERMANENT AIR GAP
  - B. A BACKFLOW PREVENTION DEVICE
  - C. NO DIRECT CONNECTION BETWEEN TOWN WATER SUPPLY AND THE RAIN SUPPLY.
  - D. AN APPROVED STOP VALVE AND/OR PRESSURE LIMITING VALVE AT THE RAINWATER TANK
3. PROVIDE AT LEAST ONE (1) EXTERNAL HOSE COCK ON THE TOWN WATER FOR FIRE FIGHTING.
4. PROVIDE APPROPRIATE FLOAT VALVES AND/OR SOLENOID VALVES TO CONTROL TOWN WATER SUPPLY INLET TO TANK IN ORDER TO ACHIEVE THE TOP-UP ZONE INDICATED ON THE TYPICAL DETAIL.
5. ALL PLUMBING WORKS ARE TO BE CARRIED OUT BY LICENSED PLUMBERS IN ACCORDANCE WITH AS3500.1 NATIONAL PLUMBING AND DRAINAGE CODE.
6. PRESSURE PUMP ELECTRICAL CONNECTION TO BE OUT CARRIED BY LICENSED ELECTRICIAN.
7. ONLY ROOF RUN-OFF IS TO BE DIRECTED TO THE RAINWATER TANK. SURFACE WATER INLETS ARE NOT TO BE CONNECTED.
8. PIPE MATERIALS FOR RAINWATER SUPPLY PLUMBING ARE TO BE APPROVED MATERIALS TO AS3500 PART 1 SECTION 2 AND TO BE CLEARLY AND PERMANENTLY IDENTIFIED "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).
9. EVERY RAINWATER SUPPLY OUTLET POINT AND THE RAINWATER TANK ARE TO BE LABELLED "RAINWATER" ON A METALLIC SIGN IN ACCORDANCE WITH AS1319.
10. ALL INLETS & OUTLETS TO THE RAINWATER TANK TO HAVE SUITABLE MEASURES PROVIDED TO PREVENT MOSQUITO & VERMIN ENTRY.
11. PROVIDE ADDITIONAL WASHING MACHINE (COLD) WATER SUPPLY TAP FROM MAINS WATER FOR FUTURE OPTIONAL CHOICE BY RESIDENTS.
12. SYDNEY WATER'S APPROVAL IS REQUIRED FOR ANY TOP UP FROM DRINKING WATER SUPPLY, REGARDLESS OF TANK SIZE.
13. THE INLET FILLING RATE FROM DRINKING WATER SUPPLY IS TO BE RESTRICTED TO A MAXIMUM OF TWO(2) LITRES PER MINUTE FOR EACH HOUSE, TOWN HOUSE OR UNIT SUPPLIED FROM THE TANK.

RAINWATER TANK NOTES

1. INSTALL LEAF STRAINERS, SCREENS, STOP VALVES, CHECK VALVE, PUMPS, FLOW RESTRICTOR TO AUSTRALIAN STANDARDS MANUFACTURERS DETAIL AND TO SYDNEY WATER REQUIREMENTS.
2. ALL PLUMBING & ELECTRICAL TO BE COMPLETED IN ACCORDANCE WITH THE RELEVANT AUSTRALIAN STANDARDS.

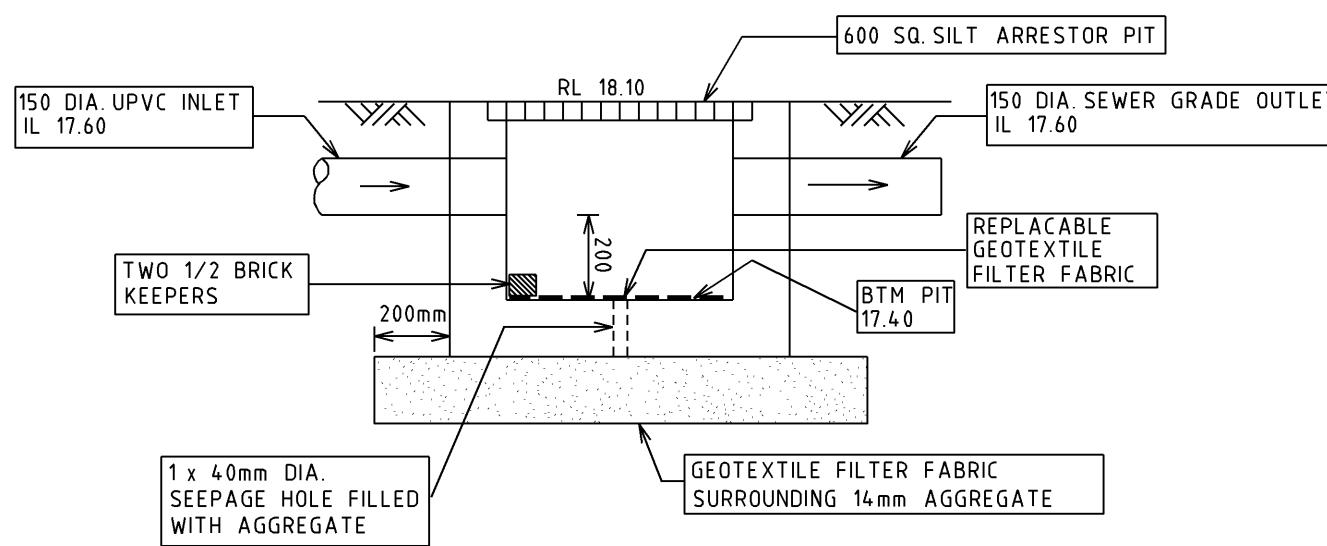
DESIGNED & CHECKED  
BY  
*Oliver Daher*  
OLIVER DAHER  
B.E. CIVIL  
M.I.E. AUST.

RE-ISSUE			
B	RE-ISSUE		18.12.25
A	ISSUED FOR DA		26.07.18
REV	DESCRIPTION	DESN	CHKD DATE

J & F DESIGNS  
CONSULTING HYDRAULIC, STRUCTURAL  
AND CIVIL ENGINEERS  
P.O. BOX 383, OATLANDS, NSW  
PHONE/FAX 9613 4441  
MOBILE 0414 882 388  
engplan@optusnet.com.au

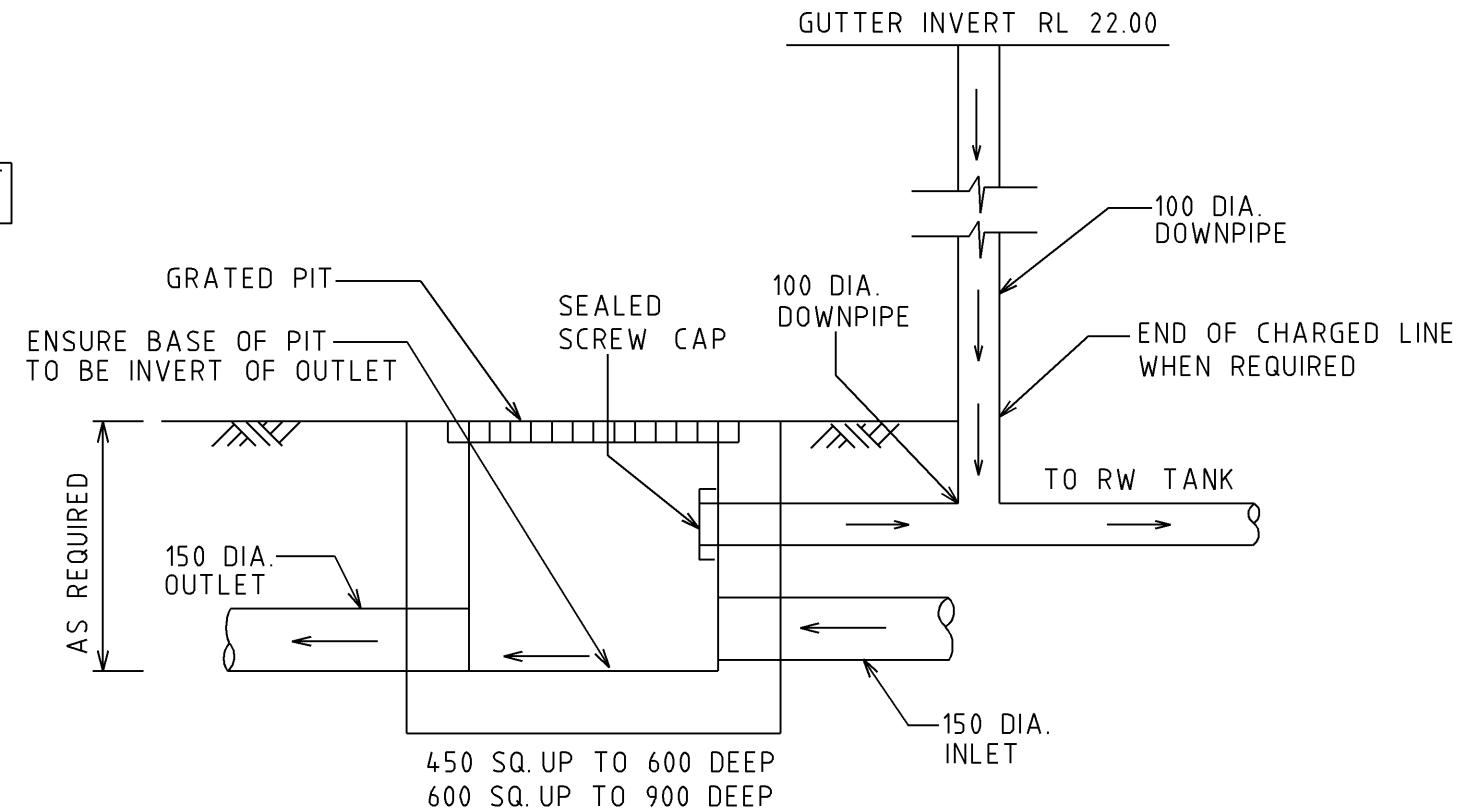
CLIENT  
DAHER PROJECT MANAGEMENT  
TITLE  
LOT 1 (H/No.82) BONDS ROAD,  
ROSELANDS

PROJECT  
PROPOSED NEW DUPLEX  
SCALE 1:200 ORIGINAL SIZE A3 DATE 18.12.25  
DRAWN BJC DESIGNED 00 INIT CHECKED 00 INIT  
DRAWING NUMBER 5198-4 REVISION B



**SILT ARRESTOR PIT DETAIL A**

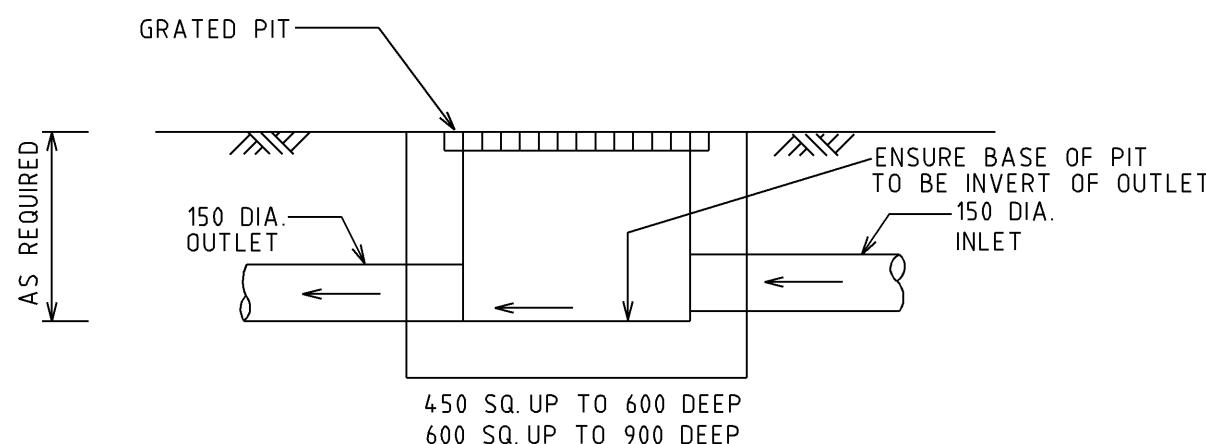
SCALE 1:20



**TYPICAL PIT DETAIL**

**(WITH TAIL END OF CHARGED LINE SHOWN)**

SCALE 1:20



**TYPICAL PIT DETAIL**

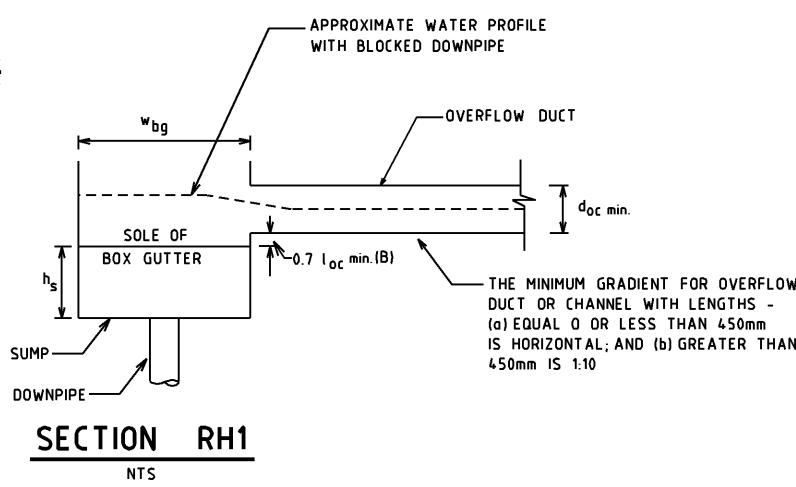
SCALE 1:20

						<b>J &amp; F DESIGNS</b> CONSULTING HYDRAULIC, STRUCTURAL AND CIVIL ENGINEERS P.O. BOX 383, OATLANDS, NSW PHONE/FAX 9613 4441 MOBILE 0414 882 388 engplan@optusnet.com.au	CLIENT DAHER PROJECT MANAGEMENT	PROJECT PROPOSED NEW DUPLEX		
		B	RE-ISSUE		18.12.25			SCALE	1:20	ORIGINAL SIZE
A	ISSUED FOR DA			26.07.18		DRAWN	BJC	DESIGNED	00	INIT
REV	DESCRIPTION	DESN	CHKD	DATE		DRAWING NUMBER	5198-5			REVISION B

DIMENSIONS (mm)	
Wbg	300
BOX GUTTER WIDTH	
Dbg	160
BOX GUTTER DEPTH	
SUMP WIDTH	300
SUMP DEPTH $h_s$	172mm
SUMP LENGTH	400mm (MINIMUM)
OVERALL CHANNEL WIDTH	300
OVERALL CHANNEL DEPTH $d_{oc}$	75
MIN. CLEARANCE $l_{oc}$	36
MIN. CLEARANCE B ( $0.7l_{oc}$ )	26
$h_t$	40
DOWNPipe	100

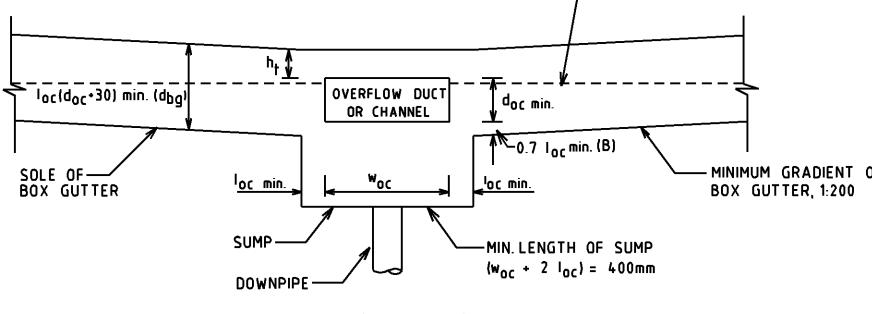
RH1

\*



**SECTION RH1**

APPROXIMATE WATER PROFILE WITH BLOCKED DOWNPipe



**SECTION RH1**

NTS

\*

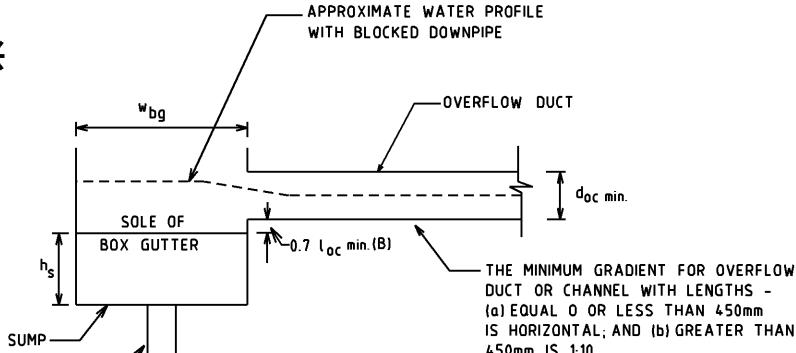
**IMPORTANT NOTE REGARDING INCREASE OF SUMP WIDTH FOR RH1 AND RH2**

RH1 AND RH2 TO BE WIDENED MORE THAN REQUIRED SUMP WIDTH SO THAT THE DOWNPipe CAN BE INSTALLED ON EXTERNAL WALL OF BUILDING

DIMENSIONS (mm)	
Wbg	200
BOX GUTTER WIDTH	
Dbg	143
BOX GUTTER DEPTH	
SUMP WIDTH	200
SUMP DEPTH $h_s$	50mm
SUMP LENGTH	400mm (MINIMUM)
OVERALL CHANNEL WIDTH	100
OVERALL CHANNEL DEPTH $d_{oc}$	86
MIN. CLEARANCE $l_{oc}$	27
MIN. CLEARANCE B ( $0.7l_{oc}$ )	19
$h_t$	38
DOWNPipe	100

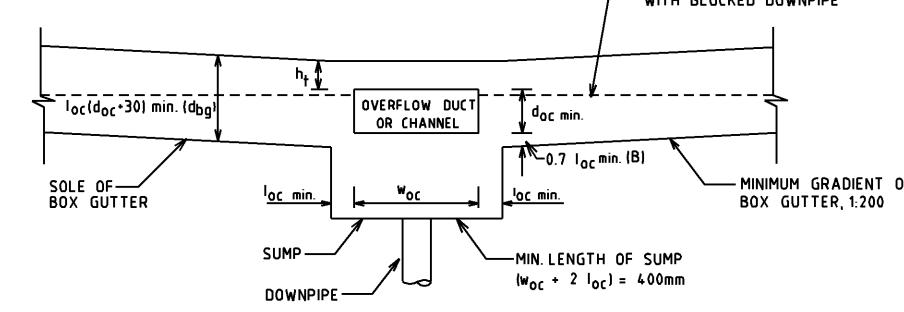
RH2

\*



**SECTION RH2**

APPROXIMATE WATER PROFILE WITH BLOCKED DOWNPipe



**SECTION RH2**

NTS

\*

DESIGNED & CHECKED BY

*Oliver Daher*  
OLIVER DAHER  
B.E. CIVIL  
M.I.E. AUST.

B	RE-ISSUE			18.12.25
A	ISSUED FOR DA			26.07.18
REV	DESCRIPTION	DESN	CHKD	DATE

**J & F DESIGNS**

CONSULTING HYDRAULIC, STRUCTURAL  
AND CIVIL ENGINEERS  
P.O. BOX 383, OATLANDS, NSW  
PHONE/FAX 9613 4441  
MOBILE 0414 882 388  
engplan@optusnet.com.au

CLIENT  
DAHER PROJECT MANAGEMENT

PROPOSED NEW DUPLEX  
TITLE  
LOT 1 (H/No.82) BONDS ROAD,  
ROSELANDS

PROJECT  
PROPOSED NEW DUPLEX

SCALE	1:200	ORIGINAL SIZE	A1	DATE	18.12.25
DRAWN	BJC	DESIGNED	DD	INIT	CHECKED DD
DRAWING NUMBER	5198-6	REVISION	B		