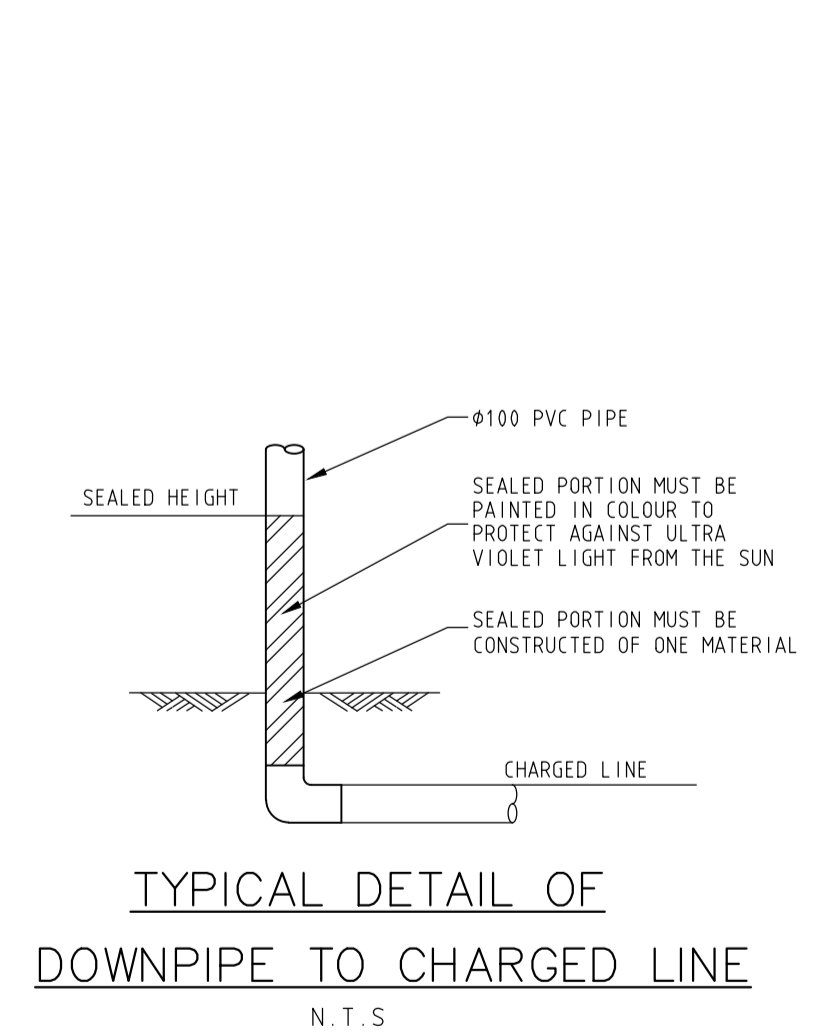
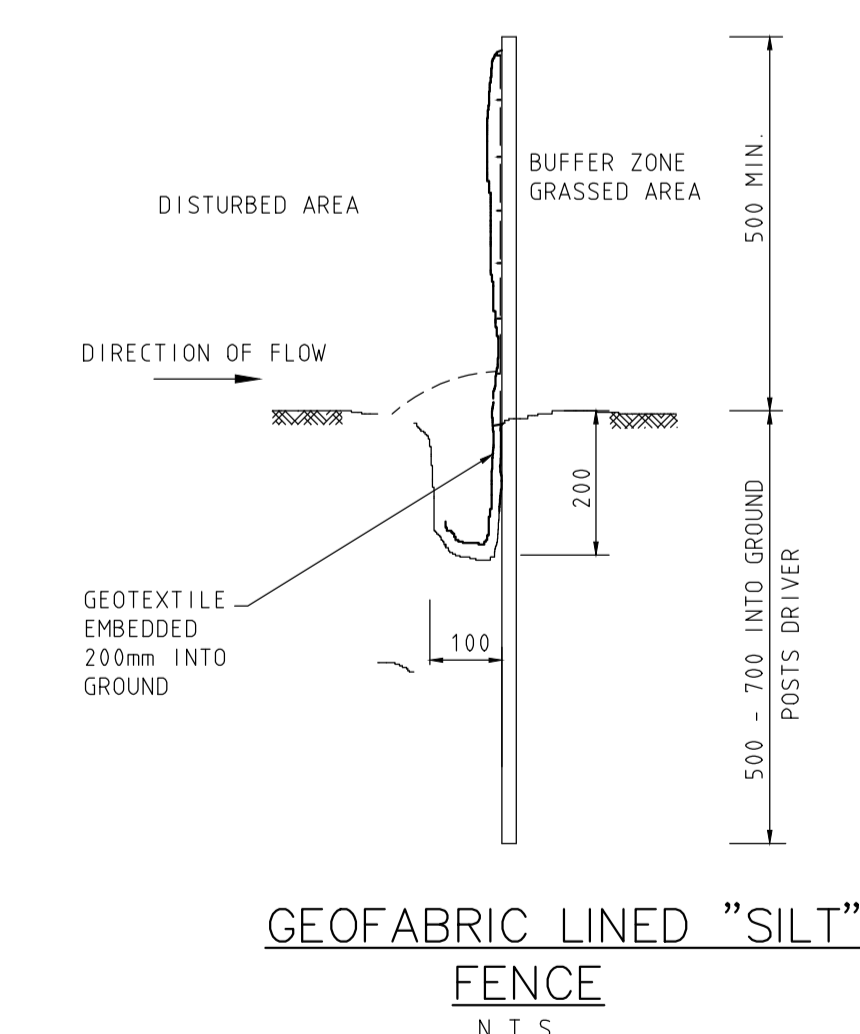
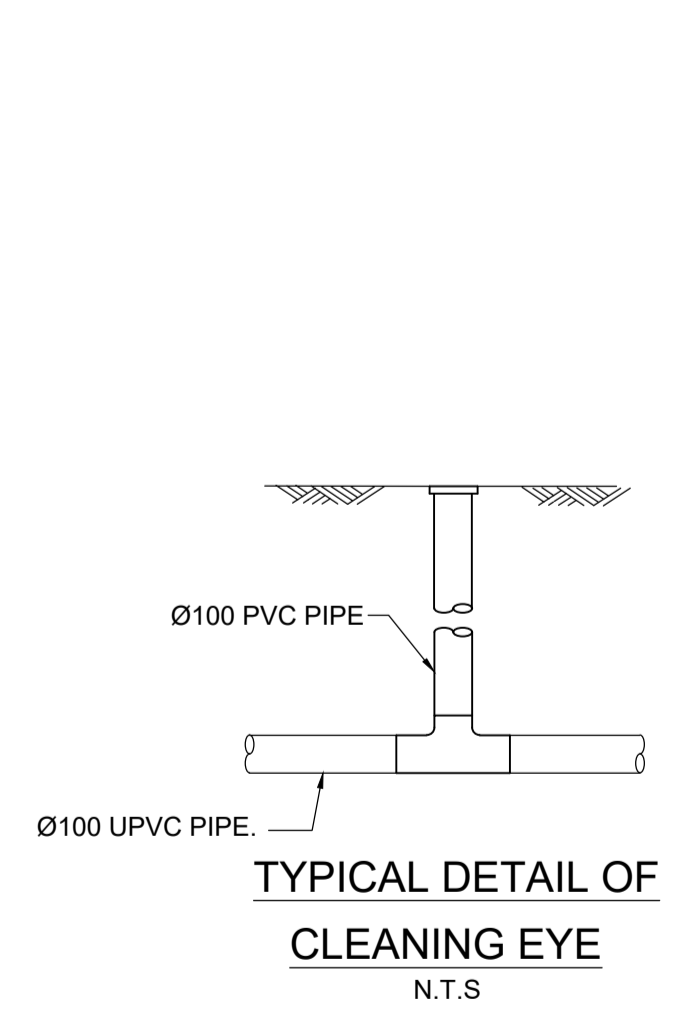
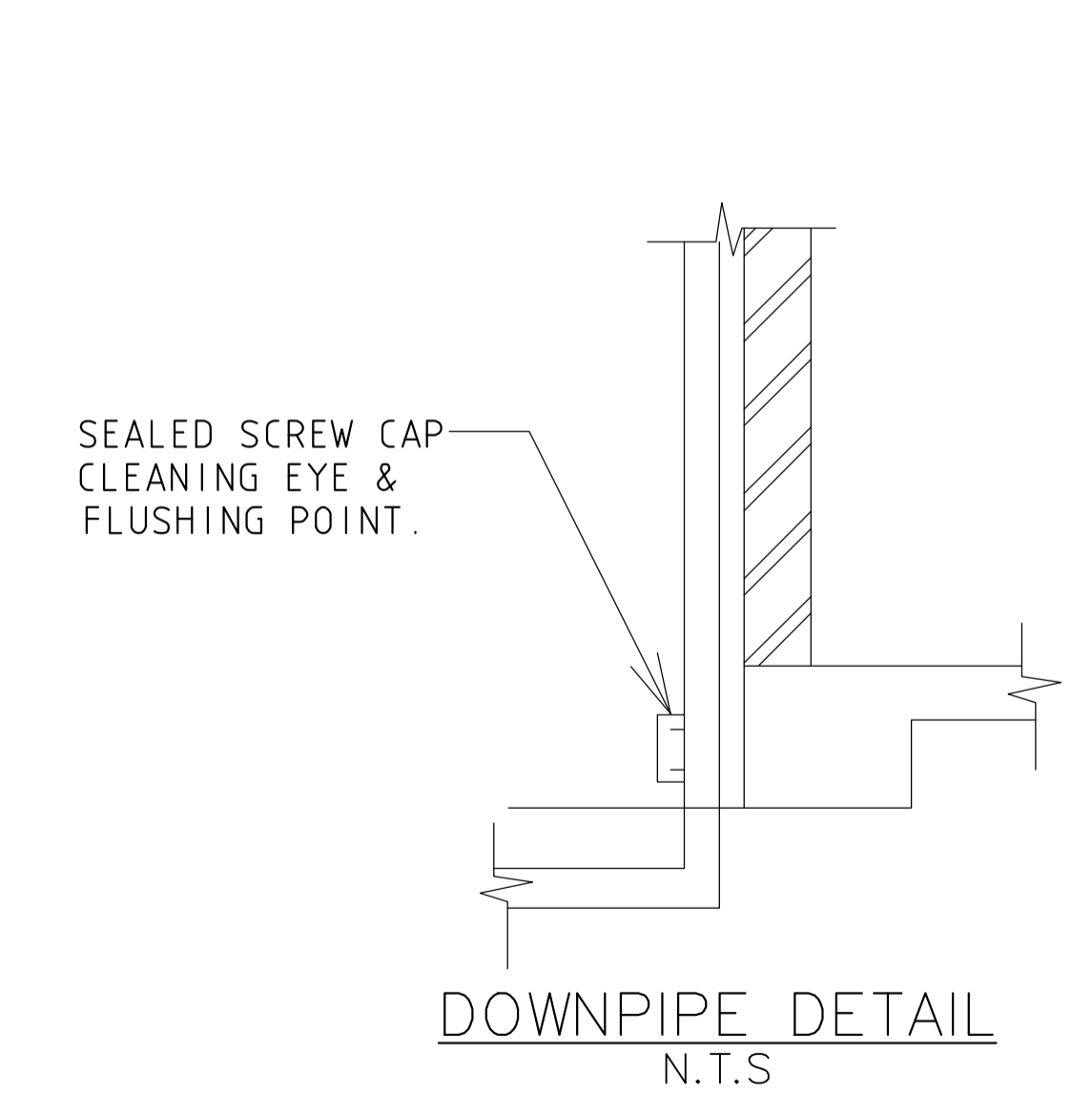
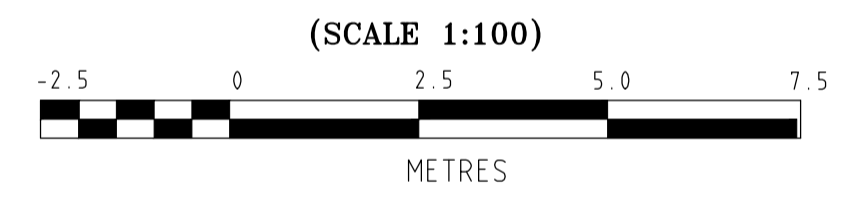


PLAN- GENERAL DRAINAGE & DRIVEWAY LAYOUT



STORMWATER DRAINAGE NOTES:

THE STORMWATER DRAINAGE DESIGN HAS BEEN CARRIED OUT IN ACCORDANCE WITH AS/NZS 3500.3:2018 'STORMWATER DRAINAGE' & AS/NZS 3500.3.2:1998 'STORMWATER DRAINAGE-ACCEPTABLE SOLUTIONS'.

ANY VARIATIONS TO THE NOMINATED LEVELS SHALL BE REFERRED TO ENGINEER IMMEDIATELY.

ANY VARIATIONS TO SPECIFIED PRODUCTS OR DETAILS SHALL BE REFERRED TO THE ENGINEER FOR APPROVAL.

BOX COLORBOND OR ZINCALUME STEEL GUTTERS SHALL BE A MINIMUM OF 450 WIDE X 150 DEEP UNO.

EAVES GUTTERS SHALL BE A MINIMUM OF 125 WIDE X 100 DEEP (OR OF EQUIVALENT AREA) COLORBOND OR ZINCALUME STEEL UNO.

MINIMUM EFFECTIVE EAVES GUTTER SLOPE = 1:500.

ALL DRAINAGE LINES SHALL BE UPVC (CLASS SH).

ALL DRAINAGE LINES SHALL BE LAID @ 1% FALL MIN. UNO.

FIRST FLUSH RAINWATER DEVICES TO BE FITTED TO DRAINAGE LINES TO BUILDER'S DETAIL.

SUBSOIL DRAINAGE SHALL BE PROVIDED TO ALL RETAINING WALLS & EMBANKMENTS, WITH LINES FEEDING INTO THE STORMWATER DRAINAGE SYSTEM.

THE FOLLOWING SYMBOLS & ABBREVIATIONS HAVE BEEN USED:

DP = Ø100 OR 100 x 75 RECTANGULAR DOWN PIPE, UNO.
 FO = Ø150 FLOOR OUTLET
 GSP = SURFACE INLET PIT (NO LINTEL)
 100 (c) = Ø100 CHARGED LINE
 IP = Ø100 INSPECTION POINT
 SP & DP = RAINWATER SPREADER & DOWNPIPE

XXXX = PROPOSED FINISHED SURFACE LEVEL

EXTREME CARE SHALL BE TAKEN WHEN DOING WORK NEAR EXISTING PIT/STRUCTURES AND UNDERGROUND CABLES.

LOCATION & DEPTH OF ALL UNDERGROUND CABLES & SERVICES TO BE CONFIRMED PRIOR TO CONSTRUCTION. CONTACT 'DIAL BEFORE YOU DIG' ON 1100

GENERAL NOTES:

- ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH NORTHERN BEACHES COUNCIL'S STORMWATER, DETENTION & SEDIMENT CODE.
- THE CONTRACTOR SHALL LOCATE AND LEVEL ALL EXISTING SERVICES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND MAKE ARRANGEMENTS WITH THE RELEVANT AUTHORITY TO RELOCATE OR ADJUST IF NECESSARY.
- THE CONTRACTOR SHALL NOT ENTER UPON NOR DO ANY WORK WITHIN ADJOINING LANDS WITHOUT THE PERMISSION OF THE SUPERINTENDENT.
- ALL NEW WORKS SHALL MAKE SMOOTH CONNECTION TO EXISTING CONDITIONS.
- ALL IMPORTED FILL SHALL BE APPROVED BY THE COUNCIL. THE FILL SHALL BE PLACED IN NOT MORE THAN 300mm LAYERS AND SHALL BE COMPACTED TO AT LEAST 98% STANDARD COMPACTION TO COUNCIL'S SPECIFICATION.
- PROVIDE VEHICULAR CROSSING TO COUNCIL'S SPECIFICATION IN KERB WHERE SHOWN (IF APPLICABLE).
- THE CONTRACTOR SHALL MAINTAIN SERVICES AND ALL WEATHER ACCESS AT ALL TIMES TO ADJOINING PROPERTIES.
- ALL IMPORTED FILL TO BE USED TO SUPPORT GROUND SLABS SHALL BE COMPACTED TO A MINIMUM LEVEL OF COMPACTION OF 98% OF MAXIMUM DRY DENSITY AT A MOISTURE CONTENT WITHIN +/- 2% OF OPTIMUM (AS1289.5.1.1).
- STEP IRONS AT 300mm CENTRES & TO COUNCIL'S SPECIFICATIONS SHALL BE PROVIDED WHERE PITS ARE DEEPER THAN 1000mm.
- ALL DOWNPIPES ARE SHOWN DIAGRAMATICALLY. POSITION OF DOWNPIPES SHALL BE CONFIRMED ON SITE.
- EXISTING LEVELS AND SERVICE DEPTH AND LOCATION TO BE CHECKED PRIOR TO CONSTRUCTION.

SEDIMENT & EROSION CONTROL

- THE CONTRACTOR SHALL IMPLEMENT EROSION AND SEDIMENT CONTROL MEASURES TO THE COUNCIL'S SPECIFICATION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND DURING CONSTRUCTION.
- ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE MAINTAINED IN A SATISFACTORY WORKING ORDER DURING THE CONSTRUCTION PERIOD. INSPECTIONS OF THESE DEVICES SHALL BE CARRIED OUT AFTER EACH STORM. REPAIRS AND/OR DE-CLOGGING SHALL BE CARRIED OUT TO ENSURE PROPER OPERATION OF THE DEVICE.
- PROVIDE TEMPORARY CONSTRUCTION EXIT TO SHAKE OFF SITE MATERIALS FROM EXITING VEHICLES AND SHALL CONSIST OF A PAD OF COURSE CRUSHED ROCK, (75mm TO 150mm RANGE) HAVING A MINIMUM DEPTH OF 200mm, A MINIMUM LENGTH OF 25m AND 3.5m WIDE OR "CATTLE GRID" SYSTEM.
- THE GULLY PITS SHALL BE PROTECTED IN ACCORDANCE WITH COUNCIL'S REQUIREMENTS.
- THE GRATED SURFACE PITS SHALL BE PROTECTED IN ACCORDANCE TO COUNCIL'S REQUIREMENTS.



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CLIENT: GEOFF DAVIES
PROJECT: PROPOSED NEW RESIDENCE AT 106A WAKEHURST PARKWAY, ELANORA HEIGHTS

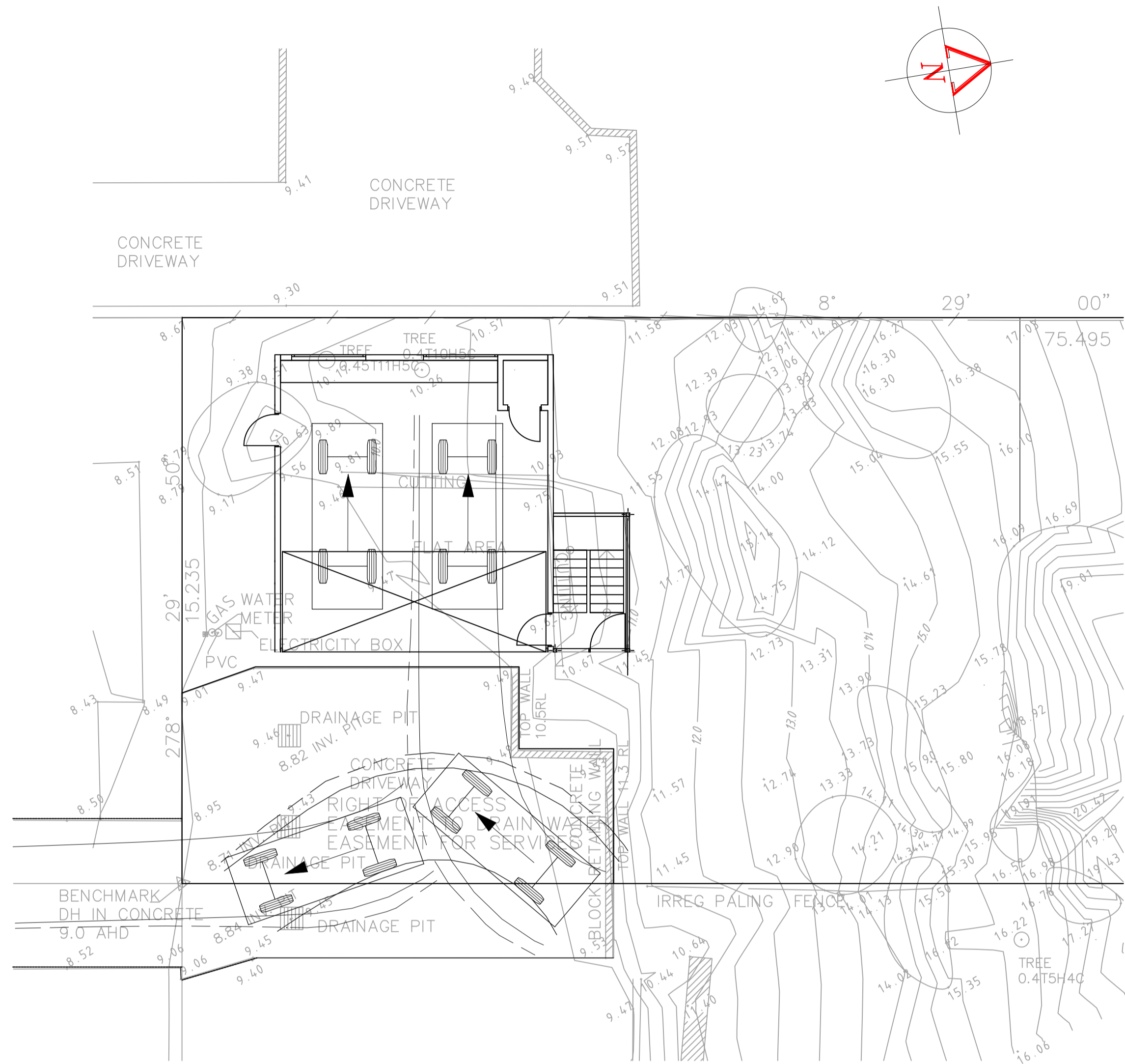
APPROVED:

ADAM GILLETT
 B.ENG (Hons), M.I.E. AUST.

DRAWING TITLE: DRAINAGE & DRIVEWAY LAYOUT PLAN & DETAILS

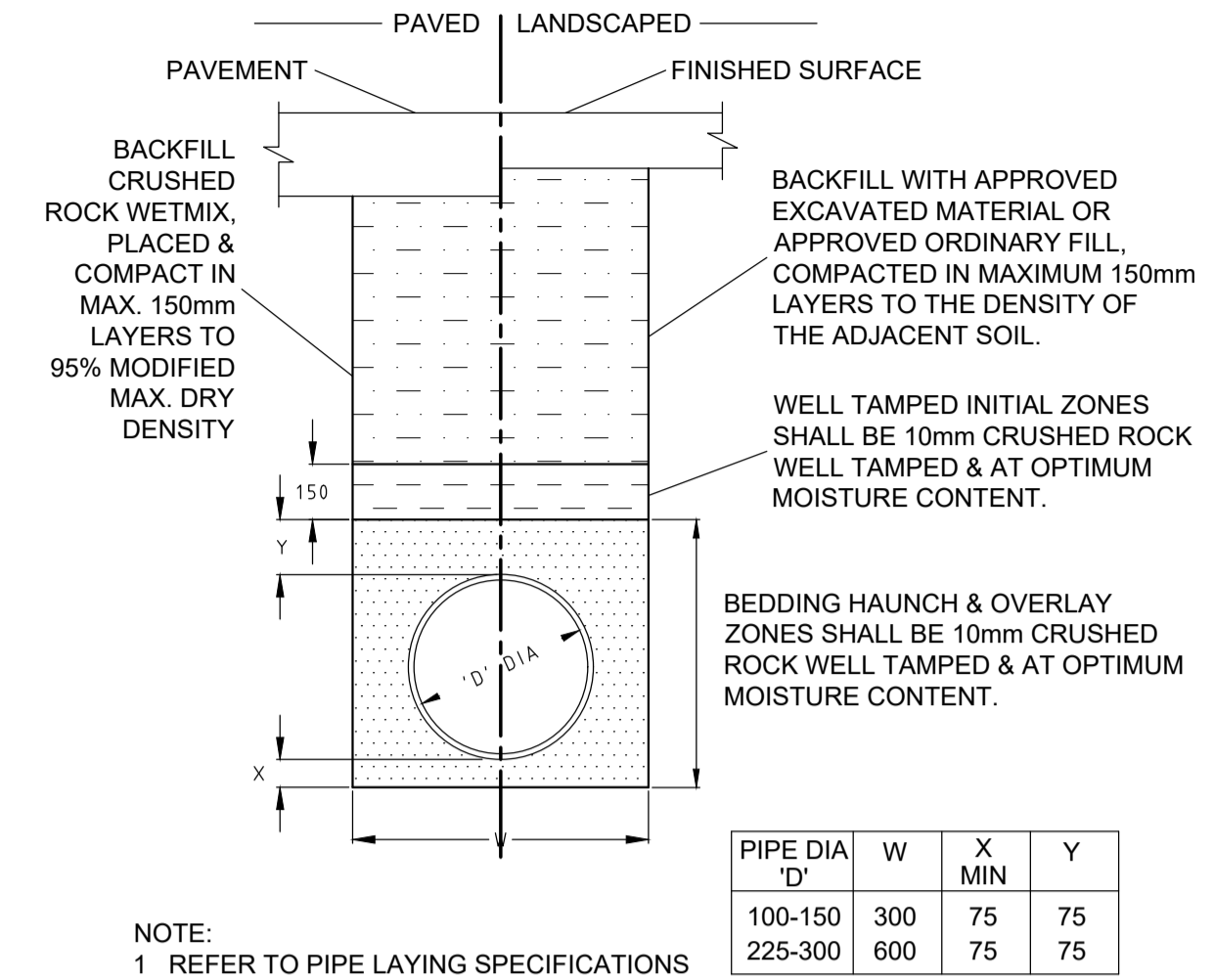
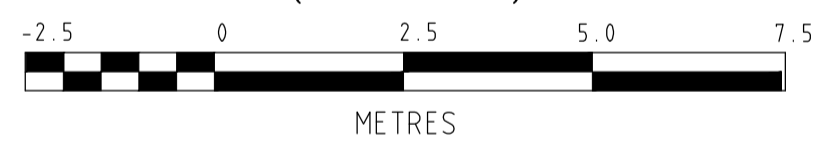
A	29/11/2019	FOR CONSTRUCTION		
ISSUE	DATE	REVISIONS:		

DRAWN BY: EK **ENGINEER:** EK
DATE: 29/11/2019
SCALE: AS SHOWN ON A1 **SHEET No:** C01
JOB NO: 19754



PLAN- DRIVEWAY TURNING CIRCLES

(SCALE 1:100)

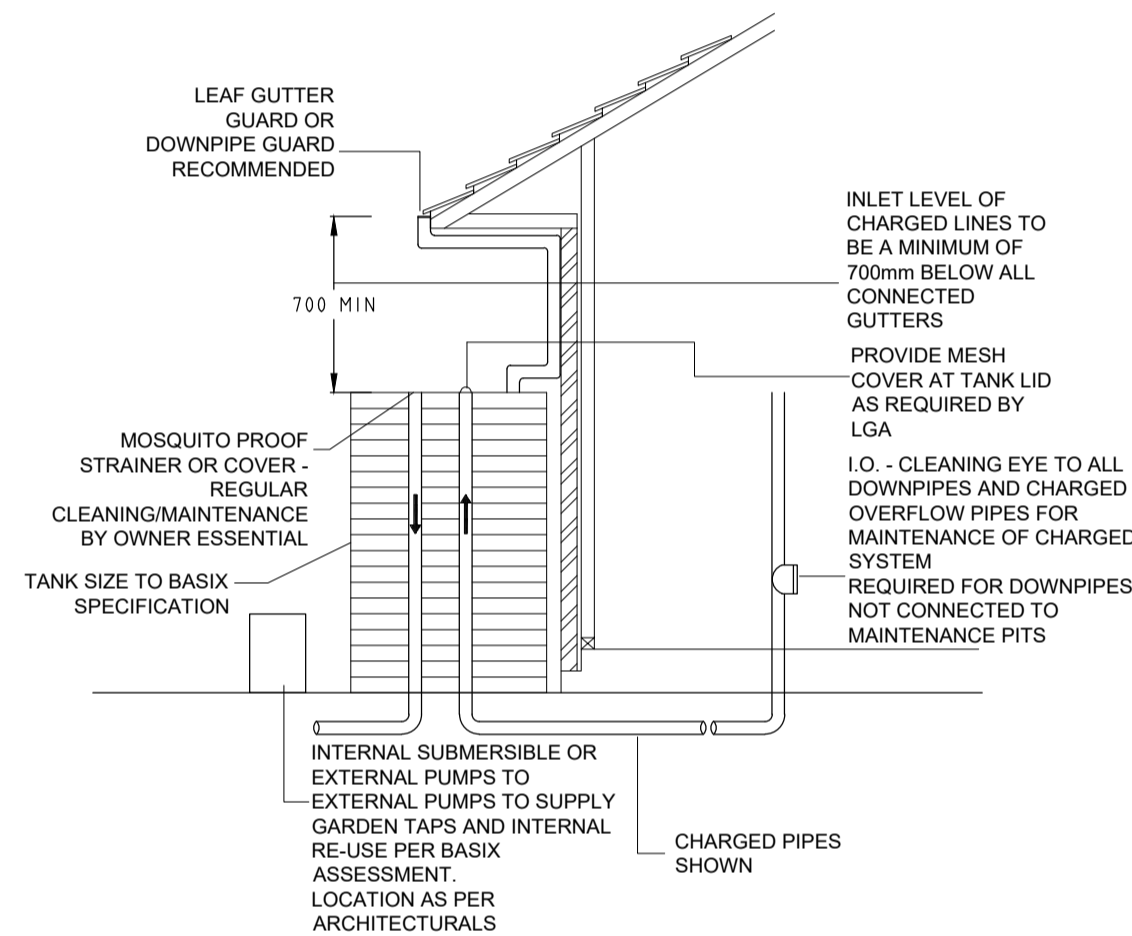


NOTE:
1 REFER TO PIPE LAYING SPECIFICATIONS FOR DETAILS.

UPVC PIPE

TYPICAL PIPE LAYING DETAIL

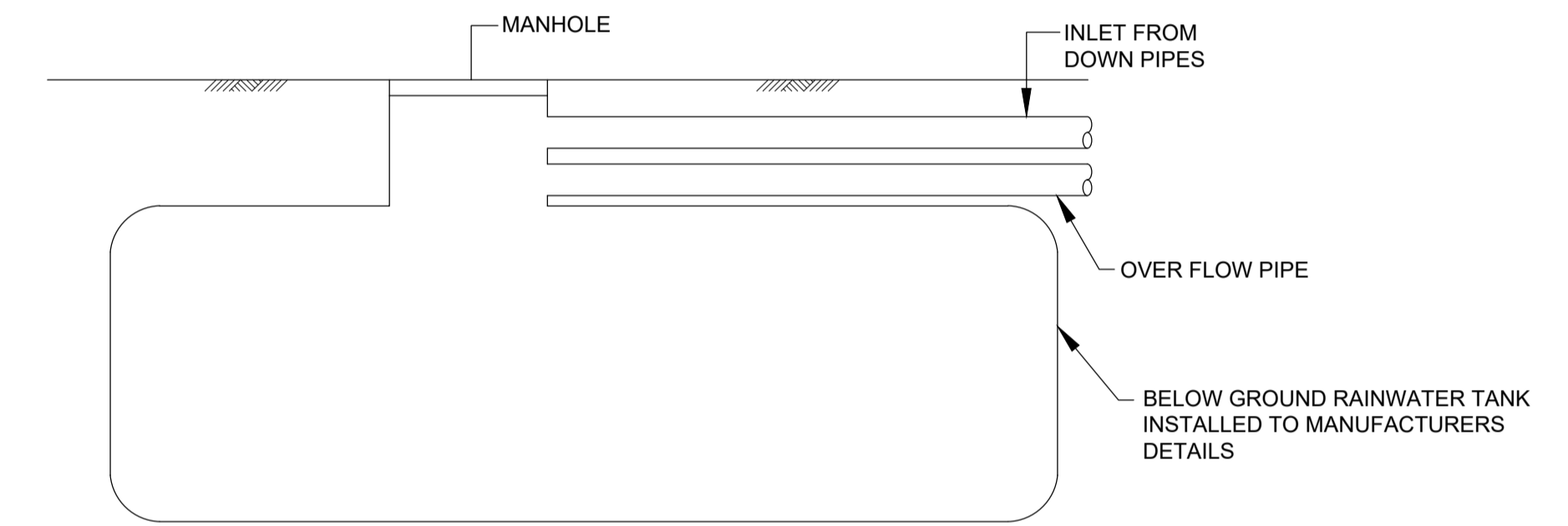
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TYPICAL ABOVE GROUND RAINWATER TANK

NTS

TO BE USED FOR IRRIGATION PURPOSES AND MUST BE CONNECTED TO ALL TOILETS, IN ACCORDANCE WITH BASIX REQUIREMENTS & COUNCIL GUIDELINES



TYPICAL BELOW GROUND RAINWATER TANK

NTS

TO BE USED FOR IRRIGATION PURPOSES AND MUST BE CONNECTED TO ALL TOILETS, IN ACCORDANCE WITH BASIX REQUIREMENTS & COUNCIL GUIDELINES

JOB ADDRESS : PROPOSED HOUSE AT 106A PARKWAY, ELANORA HEIGHTS.

A.R.I. IN YEARS : 20 TIME OF CONC. : 5min

RAINFALL INTENSITY : 202 mm/hr (OBTAINED FROM B.O.M. ON 28/11/19)

MANNINGS ROUGHNESS : 0.01 "n" UPVC

DRAINAGE CALCULATIONS														
L	IN	LET	AREA	RUNOFF	INLET	DISC	SIDE	LINE	TOT.	DESIGN	DIA	PIPE	NOM.	REMARKS
I	No.	Type	m ²	COEFF. "C"	IMP AREA	"C"	Lin	Area	IMP. AREA	"C"	mm	GRADE %	CAP. l/s	
1	1	DP	56.1	0.95	53.3	3.1			53.3	3.1	100.0			ROOF AREA ROOF AREA ROOF AREA INTO RWTT
	2	DP	56.1	0.95	53.3	3.1			106.6	6.2	100.0			
	3	DP	56.1	0.95	53.3	3.1			159.9	9.3	100.0			
2	1	DP	40.4	0.95	38.4	2.2			38.4	2.2	100.0			ROOF AREA ROOF AREA INTO RWTT
	2	DP	4.0	0.95	3.8	0.2			42.2	2.4	100.0			
3	RWTT	O.F.	202.1	1.00	202.1	11.7			202.1	11.7	150.0	1.0	19.8	RWTT OVERFLOW CONNECT TO PIT