BAAKA CULTURAL CENTRE WILCANNIA STORMWATER MANAGEMENT PLAN

DRAWING INDEX

DR-000 LEGEND

DR-001 PIPE LAYOUT - GROUND FLOOR

DR-002 PIPE LAYOUT - BASEMENT

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DR-005 ABSORPTION TRENCH DETAILS

DR-100 EXISTING SHED - PIPE & ROOF LAYOUT

NOTES:

- ALL DIMENSIONS TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION.
- SITE LAYOUT BASED ON ARCHITECTURAL PLANS BY KAUNITZ YEUNG ARCHITECTURE (MAY 2023).
- LOCATION OF ALL SERVICES MUST BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
- 4. ALL STORMWATER DRAINAGE PIPES AND ASSOCIATED

 DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH THE

 RELEVANT STANDARDS, THE BUILDING CODE OF

 AUSTRALIA, MANUFACTURER'S RECOMMENDATIONS, SYDNEY

 CATCHMENT AUTHORITY RECOMMENDED PRACTICE, AND

 LOCAL COUNCIL, AS APPLICABLE.
- 5. ALL INVERT LEVELS PROVIDED ON THIS DRAWING ARE
 REDUCED TO AHD AND BASED ON INTERPOLATED SURFACE
 LEVELS AND SYSTEM REQUIREMENTS

- WHERE POSSIBLE, PIPEWORK SHALL BE LOCATED EXTERNAL TO THE BUILDING.
- 7. DOWNPIPES AND STORMWATER LINES TO BE SEALED DN100 uPVC UNSHAS OTHERWISE NOTED.
- 8. STORMWATER PIPES TO BE GRADED AT A MINIMUM 1% UNSHAS NOTED OTHERWISE.
- ALTERNATIVE GUTTER AND DOWNPIPE CONFIGURATION MAY
 BE INSTALLED PROVIDED IT COMPLIES WITH AS3500.
- 10. ALL PIPE AND CONDUITS TO BE MARKED IN ACCORDANCE WITH AS1345 1995.

NORTH

LEGEND:



DOWNPIPE



STORMWATER PIPE



RAINWATER PIPE



SUBSOIL PIPE



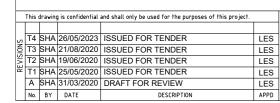
DRAINAGE PIT & SIZE (SQUARE)



DRAINAGE PIT & SIZE (CIRCULAR)



GRATED BOX DRAIN & SIZE (WIDTH)



NA

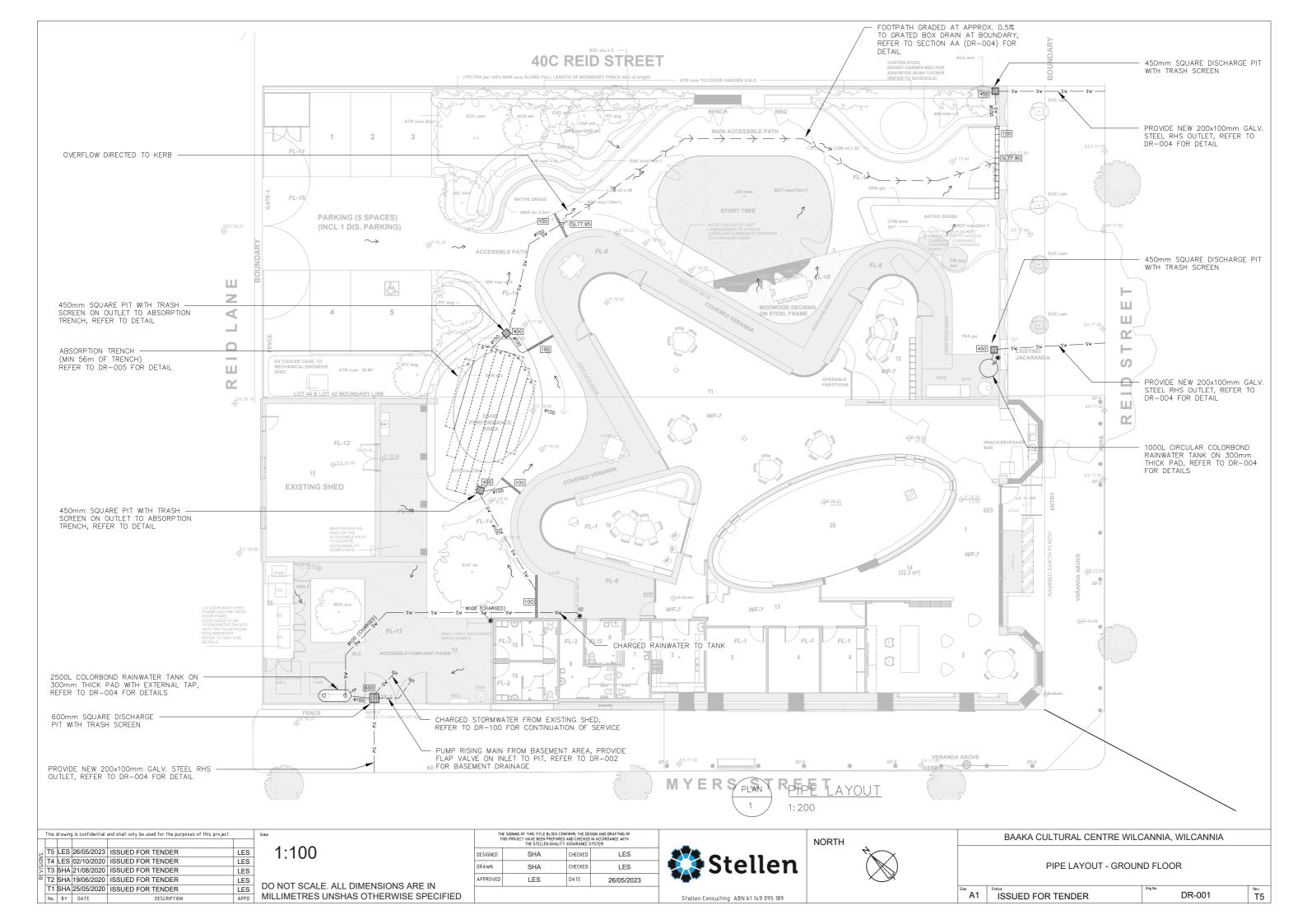
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LEGEND									
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	~	T2	SHA	19/06/2020	ISSUED FOR TENDER	LES					
		T1	SHA	25/05/2020	ISSUED FOR TENDER	LES					
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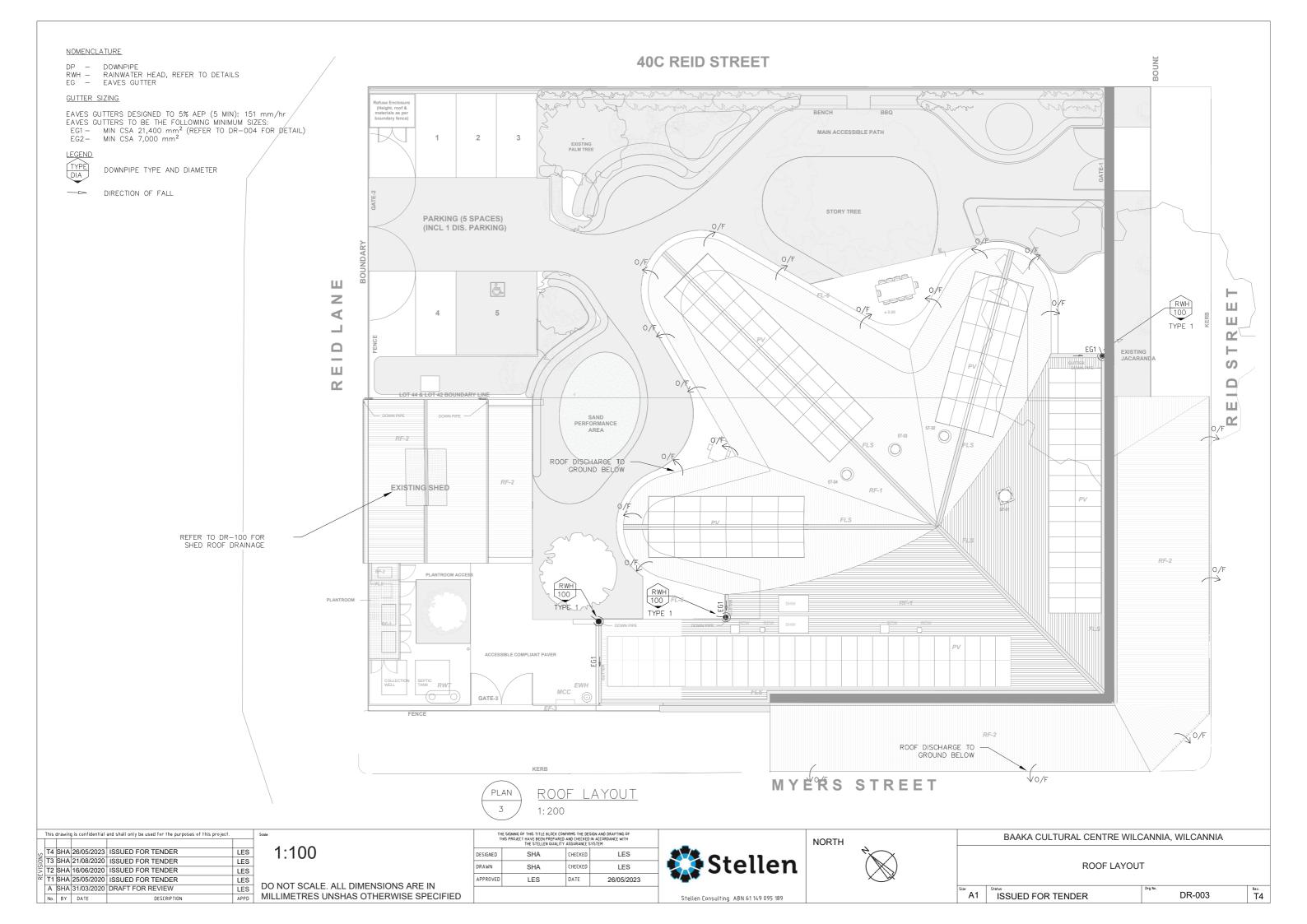
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	PIPE LAYOUT- BASEMENT								
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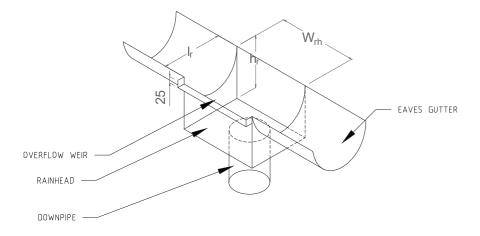
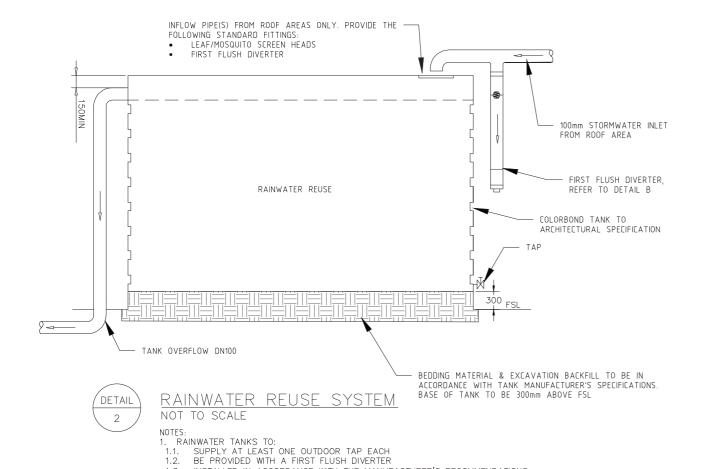


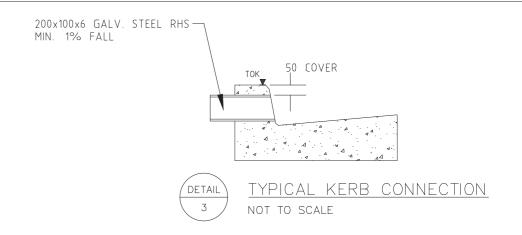
TABLE 1 — RAINWATER HEAD DESIGN (5% AEP, 1:200 FALL)								
DOWNPIPE SIZE	DP	100mm						
LENGTH OF RAINWATER HEAD	Lr	230mm						
RAINWATER HEAD DEPTH	hr	385mm						
RAINWATER HEAD WIDTH (MIN)	W _{rh}	250mm						

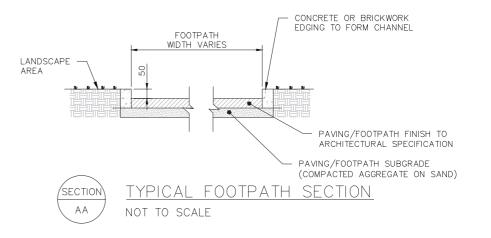
- 1. RAINWATER HEAD OVERFLOW WEIR TO BE SET 25mm BELOW
- 1. RAINWATER HEAD OVERFLOW WEIR TO BE SET ZOTHITI BELOW OBVERT OF GUTTER.
 2. GUTTERS TO HAVE MINIMUM 1:200 FALL
 3. GUTTER AND RAINHEAD TO BE DESIGNED TO ARCHITECTURAL SPECIFICATION PROVIDED IT COMPLIES WITH THE MINIMUM DIMENSIONS IN TABLE 2.

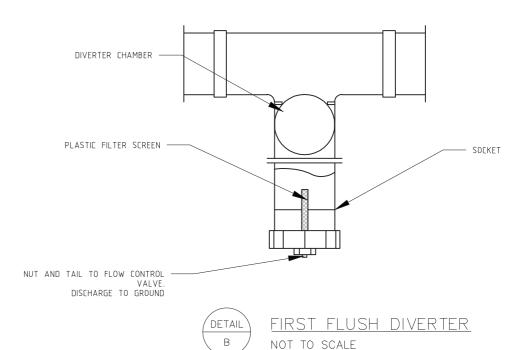


TYPE 1 - RAINWATER HEAD/EAVES GUTTER NOT TO SCALE









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RE	T1	SHA	25/05/2020	ISSUED FOR TENDER	LES
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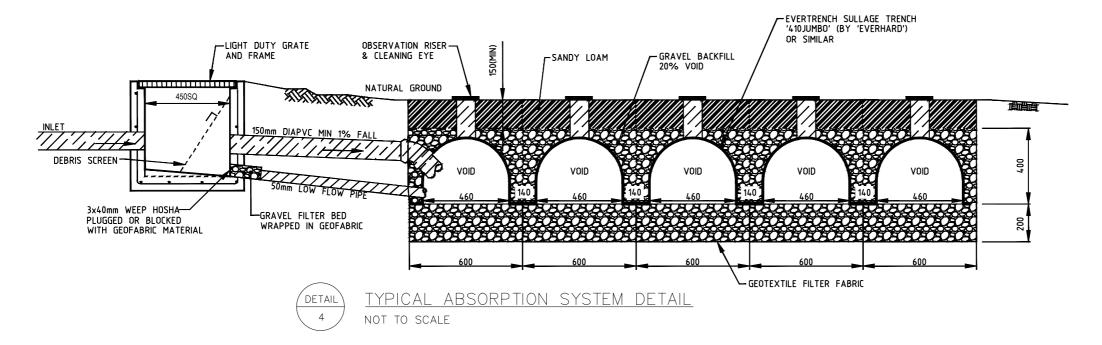
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1.3. INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS

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DETAILS								
A1 Status ISSUED FO	R TENDER	DR-004	T2					



NOTES:

- 1. TYPICAL ABSORPTION TRENCH ONLY, NUMBER OF TRENCHES AND TRENCH LENGTH MAY VARY. SEE SYSTEM CALCULATIONS FOR DETAIL. REFER TO SITE PLAN FOR SETOUT DETAILS.
- 2. ASSUMED NOMINAL ABSORPTION RATE (ARn) USED IN CALCULATION. ARn TO BE VERIFIED ON SITE BY BUILDER PRIOR TO INSTALLATION.
- 3. LOCATION OF ALL SERVICES MUST BE CONFIRMED ON SITE PRIOR TO COMMENCEMENT OF EXCAVATION WORKS.
- 4. ALL STORMWATER DRAINAGE PIPES AND ASSOCIATED DEVICES ARE TO BE INSTALLED IN ACCORDANCE WITH RELEVANT STANDARDS, THE BUILDING CODE OF AUSTRALIA, MANUFACTURER'S RECOMMENDATIONS, SYDNEY WATER AND LOCAL COUNCIL REQUIREMENTS, AS APPLICABLE.

		Abso	rption Sy	stem Cal	culations			
Site Details			Required Al	sorption Sys	tem Volume Calculatio	on for 5% AFP storm e	event (ROM)	
Site Area		- m2	Time	Rainfall	Runoff	Runoff Volume	Infiltration Volume	Required
Impervious Area to Absorption Pit (IA)		484 m2	(min)	Intensity	(l/s)	(m3)	(m3)	Absorption
Nominal Absorption Rate (ARn)		0.1 l/m2/sec	()	(mm/hr)				System
Reduction Factor (Fr)		0.5 -	t	I (5% AEP)	R = I x DA/3600 x 0.9	RV = R x t x 60/1000	IV = BA x ARd x t x 60/1000	Vreq = RV - IV
			5	151.0	18.27	5.48	0.9	60 4.98
			6	143.0	17.30	6.23	0.6	5.63
Trench Details				119.0	14.40	8.64	1.0	00 7.64
Trench Type	Evertrenc	n 410 'Jumbo'	20	83.3	10.08	12.10	2.0	10.09
Trench Cross-Sectional Area		0.175 m2	30	64.9	7.85	14.14	3.0	11.12
Number of Trenches		6 off	60	40.5	4.90	17.64	6.0	11.62
Trench Length		9.3 m	120	24.8	3.00	21.61	12.0	9.55
Total Trench Length		55.8 m	Maximum Required Absorption System Volume (MRASV) (m3)					
Design Details			Proposed A	bsorption Sys	stem Volume			
Design Impervious Area (DA)		484 m2			top of base level (m3)		(0.6 x 0.6 x 0.6m)	0.182
Design Absorption Rate (ARd)	ARd=ARn x Fr	0.05 l/m2/sec		•	ench 410 'Jumbo' (m3)		(0.175m2 x 9.3m x 6 off)	9.77
Base Area of Absorption Pit (BA)	A	33.48 (0.6m x 9.3m x 6 off)					(20% x ((0.6m x 0.6m -0.175m2) x 9.3m) x 6	
						Total Prop	osed Absorption System Volume (TPASV) (n	12.01

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<u>NOMENCLATURE</u>

DP - DOWNPIPE RWH - RAINWATER HEAD, REFER TO DETAILS

EG - EAVES GUTTER

GUTTER SIZING

EAVES GUTTERS DESIGNED TO 5% AEP (5 MIN): 151 mm/hr EAVES GUTTERS TO BE THE FOLLOWING MINIMUM SIZES:

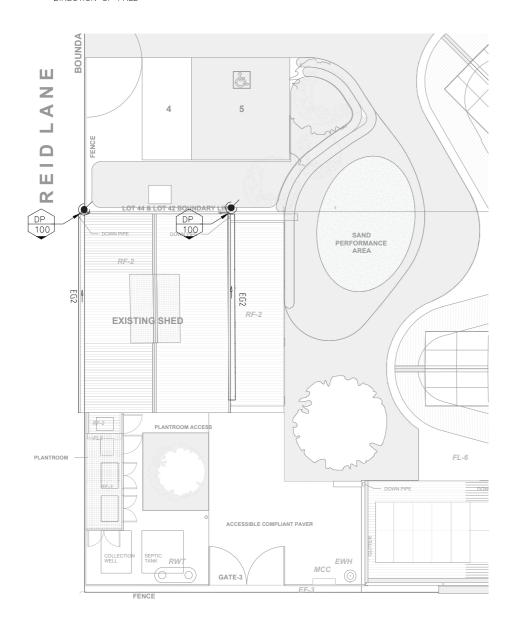
EG1 - MIN CSA 21,400 mm² (REFER TO DR-004 FOR DETAIL)

EG2 - MIN CSA 7,000 mm²

TYPE DIA

DOWNPIPE TYPE AND DIAMETER

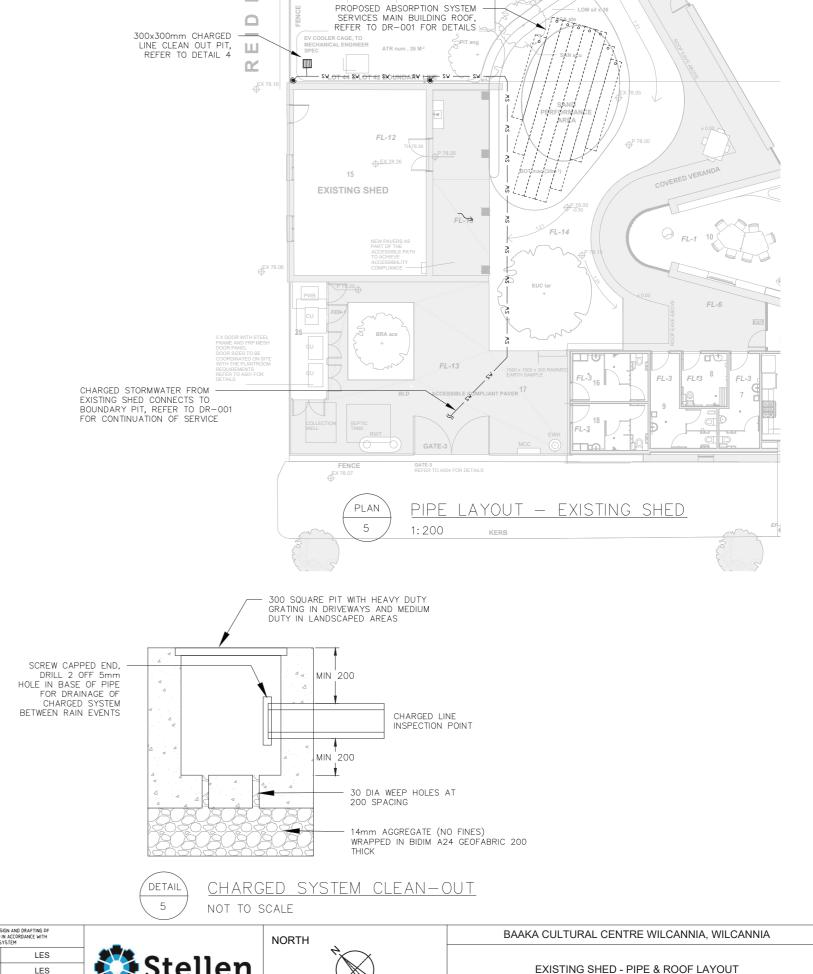
 \rightarrow DIRECTION OF FALL





LAYOUT - EXISTING SHED

1:200



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	EXISTING SHED - PIPE & ROOF LAYOUT									
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