

TREATMENT PLANT APPROVAL 11/2023
Plumbing and Drainage Regulation 2019, part 4.



Approval

1. The **Arris ABSORBS Unlined Sand Filter** (“the system”) described in the Specifications and Drawings in the attached Schedule and manufactured by **Arris Pty Ltd** (ACN 092 739 574) (“the manufacturer”) has been assessed in accordance with the Queensland Plumbing and Wastewater Code (QPW Code).
2. Approval is granted for the system as an advanced secondary quality wastewater treatment system, subject to compliance by the manufacturer with the requirements of the *Plumbing and Drainage Regulation 2019*, part 4 and the conditions of approval detailed below.
3. This approval, the conditions of approval and the Schedule comprise the entire Chief Executive Approval document.
4. Any modification by the manufacturer to the design, drawings or specifications scheduled to this approval must be approved by the Chief Executive.

Conditions of approval

5. The manufacture, installation, operation, service and maintenance of the systems must be in conformity with the conditions of this Treatment Plant Approval.
6. A permanent inspection/sampling point must be installed in the sand filter bed, positioned immediately adjacent to a spray hole and be no less than 1000mm from the pipe termination or inlet.
7. The system when tested by a certification accreditation body in accordance with AS1546.3:2017 was found to comply with the advanced secondary 8EP/1200L level and must continue to meet the following requirements:

TABLE 2.1 (AS1546.3:2017)

TABLE 2.1
EFFLUENT COMPLIANCE CRITERIA FOR AN STS WITH NO NUTRIENT REDUCTION FACILITIES

Parameter	Secondary effluent		Advanced secondary effluent	
	90% of samples	Maximum	90% of samples	Maximum
BOD ₅	≤ 20 mg/L	30 mg/L	≤ 10 mg/L	20 mg/L
TSS	≤ 30 mg/L	45 mg/L	≤ 10 mg/L	20 mg/L
<i>E. coli</i> *	≤ 10 cfu/100 mL	30 cfu/100 mL	≤ 10 cfu/100 mL	30 cfu/100 mL
FAC †	Minimum 0.5 mg/L ‡	N/A	Minimum 0.5 mg/L ‡	N/A
Turbidity §	N/A	N/A	N/A	10 NTU

* Where disinfection is required.

† Where chlorine disinfection is used.

‡ Minimum level, not 90% of samples.

§ Where UV light is used for disinfection (see Paragraph B3.1).

Treatment Plant Approval

Approved by: Lindsay Walker
 Delegated Authority
 Department of Energy & Public Works

8. Each system must be serviced in accordance with the accreditation certificate issued by SAI Global on 23 November 2021, and details supplied in the owner’s operation and maintenance manual.
9. Each system must be supplied with —

- (a) a copy of this Treatment Plant Approval document;
 - (b) details of the system;
 - (c) instructions for authorised persons for its installation;
 - (d) a copy of the owner's manual to be given to the owner at the time of installation;
- and
- (e) detailed instructions for authorised service personal for its operation and maintenance.
10. At each anniversary of the Treatment Plant Approval date, the supplier must submit to the Chief Executive a list of all systems installed in Queensland during the previous 12 months. Where the Chief Executive is notified of any system failures the Chief Executive may randomly select a number of installed systems for audit. The Chief Executive will notify the supplier's nominated NATA accredited laboratory which systems are to be audited for BOD⁵ and TSS. The sampling and testing of the selected systems, if required, is to be done at the supplier's expense. The following results must be reported to the Chief Executive;
- (a) Address of premises;
 - (b) Date inspected and sampled;
 - (c) Sample identification number;
 - (d) BOD⁵ for influent and effluent; and
 - (e) TSS for influent and effluent.
11. The Chief Executive may, by written notice, cancel this approval if the manufacturer/supplier fails —
- (a) to comply with one or more of the conditions of approval; or
 - (b) within 30 days, to remedy a breach, for which a written notice been given by the Chief Executive.
12. This approval may only be assigned with the prior written consent of the Chief Executive.
13. This approval expires on 24 March 2028 unless cancelled earlier in accordance with paragraph 10 above.

Lindsay Walker



Director
Plumbing, Drainage and Special Projects
Date approved:

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63 George Street Brisbane
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Website www.hpw.qld.gov.au

ABN 61 331 950 314

TREATMENT PLANT APPROVAL No. 11/2023
Plumbing and Drainage Regulation 2019, part 4



SCHEDULE

Attachment 1

Specifications & Drawings for the

Arris ABSORBS Unlined Sand Filter

Treatment Plant Approval

Approved by: Lindsay Walker
Delegated Authority
Department of Energy & Public Works





STANDARDSMARK LICENCE

SAI Global hereby grants:

Hydroscape

ABN 15 150 605 282

37 Charles Sturt Avenue, Grange, SA 5022, Australia

StandardsMark Licence

Manufactured to:

AS 1546.3:2017 - On-site domestic wastewater treatment units - Secondary treatment systems

"the StandardsMark Licensee" the right to use the STANDARDSMARK as shown below only in respect of the goods described and detailed in the Schedule which are produced by the Licensee or on behalf of the Licensee* and which comply with the appropriate Standard referred to above as from time to time amended. The Licence is granted subject to the rules governing the use of the STANDARDSMARK and the Terms and Conditions for certification and licence. The Licensee covenants to comply with all the Rules and Terms and Conditions.

Licence No: SMK41128

Issued : 23 November 2021

Expires : 28 October 2026

Originally Certified : 29 October 2021

Current Certification : 23 November 2021

Frank Camasta
Global Head of Technical Services
SAI Global Assurance



Australian
Standard



* For details of manufacture, refer to the licensee

The STANDARDSMARK is a registered certification trademark of SAI Global Pty Limited (A.C.N. 050 644 642) and is issued under licence by SAI Global Certification Services Pty Limited (ACN 108 716 669) ("SAI Global") 680 George Street, Sydney NSW 2000, GPO Box 5420 Sydney NSW 2001. This certificate remains the property of SAI Global and must be returned to SAI Global upon its request. Refer to www.saiglobal.com, for the list of product models.

 **SAI GLOBAL**
INFORM. INSPIRE. IMPROVE.

SCHEDULE TO STANDARDSMARK LICENCE

SAI Global hereby grants:

Hydroscape

37 Charles Sturt Avenue, Grange, SA 5022, Australia

StandardsMark Licence

Manufactured to:

AS 1546.3:2017 - On-site domestic wastewater treatment units - Secondary treatment systems

Model identification of the goods on which the STANDARDSMARK may be used:

Brand Name & Model ID	Treatment Capacity (Litre / Day)	Treatment Type	Compliance Type	Disinfection Method	Tank Types and Capacities	Service Interval	Date Endorsed
Absorbs	1200 L/day	Sand Filter (note: tested with liner but not required for normal use)	Advanced Secondary	None	Certified septic tank with baffle and outlet filter (Test tank 3100L with additional 900L pump chamber.	6 months or as required by inspection. (septic desludge every 4 years)	23 Nov 2021

End of Record

Licence No: SMK41128

Issued Date: 23 November 2021

This schedule supersedes all previously issued schedules

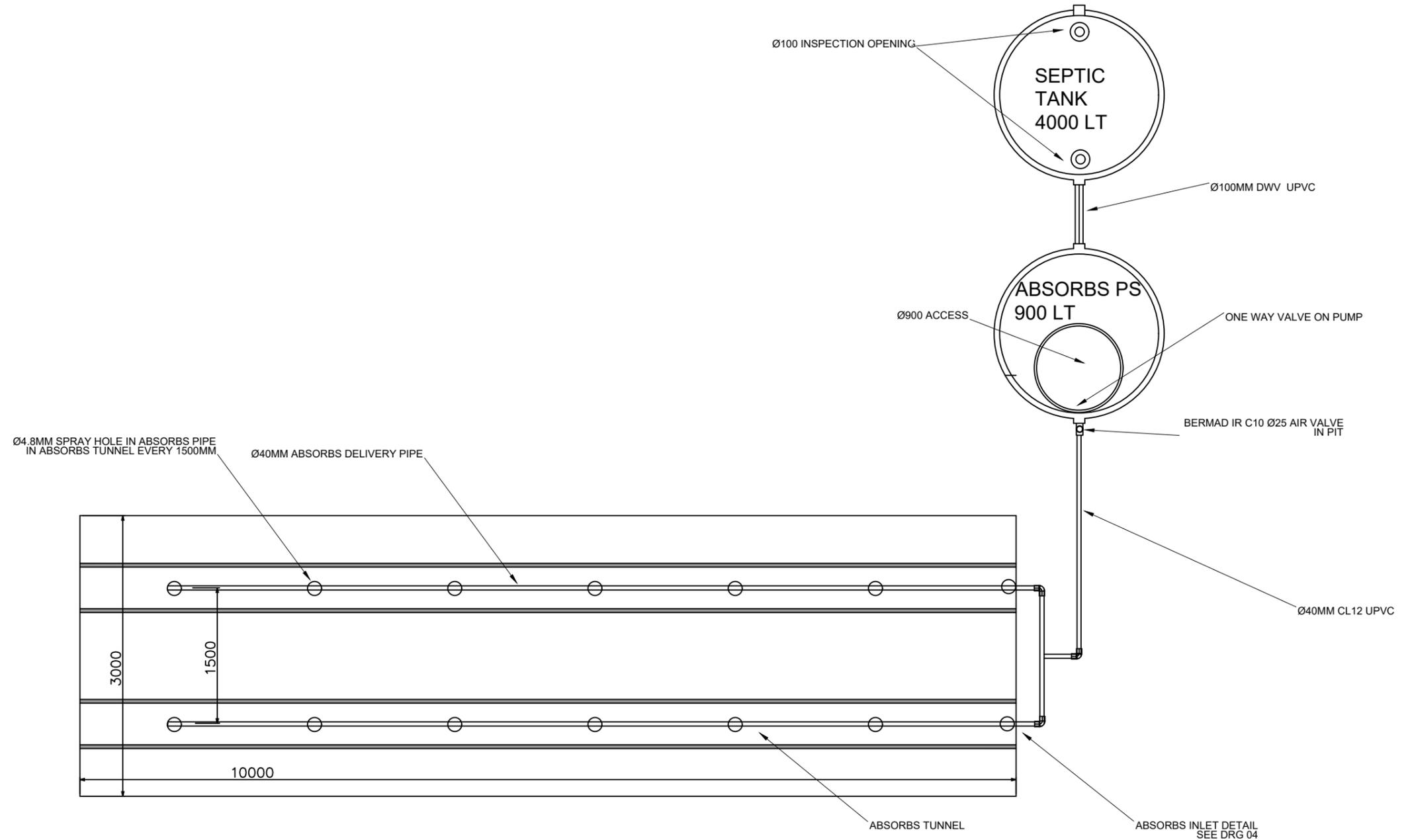


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NOTES

1. ABSORBS PUMP TO BE A PEDROLLO DM30N 1.1KW 1 PHASE OR APPROVED EQUIVALENT.
2. ALL PIPEWORK TO BE SCJ LILAC UPVC.



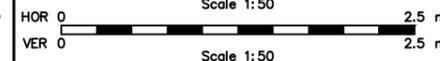
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3	18/5/22	CF	MS	ADD OFFSET NOTE	DESIGN CHECK	C FARRELL	14/2/2022
2	20/4/22	CF	MS	DIMENSION	FINAL APPROVAL		
1	9/3/2022	CF	MS	VALVES SHOWN			

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152 CECIL ST.
SOUTH MELBOURNE VIC 3205
PHONE 03 9645 0025

Head Office – Queensland
44 Wentworth Terrace
Rockhampton QLD 4700
Australia



DRAWING TITLE
LAYOUT
ABSORBS
SEWAGE TREATMENT

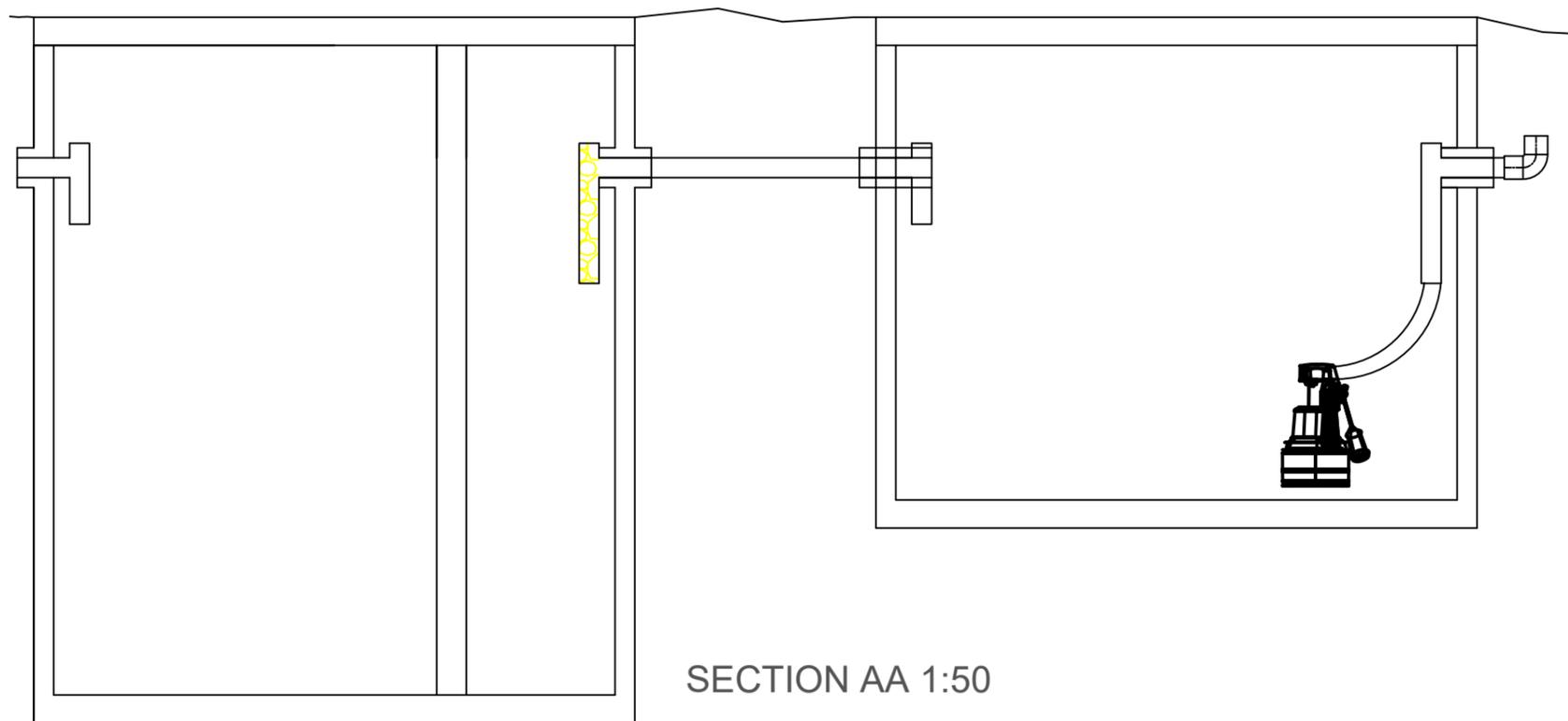
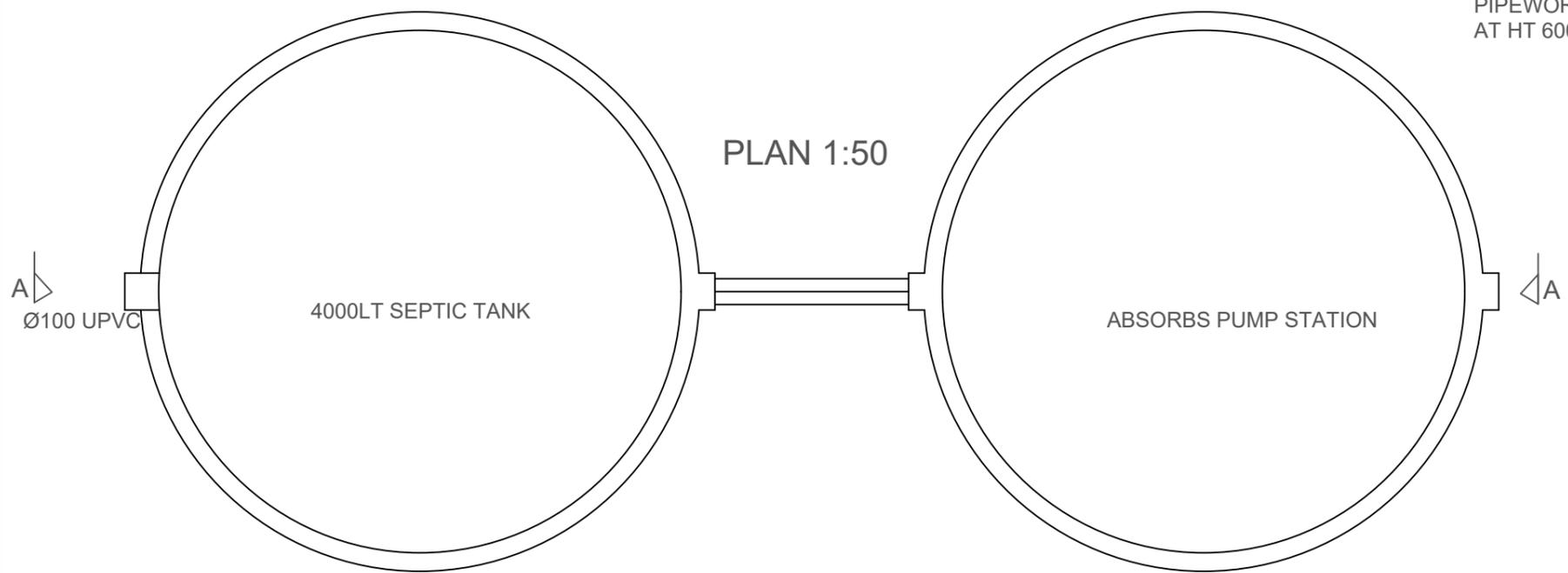
Drawing Status : FOR APPROVAL

Project No.
15022
Drawing No.
01

A3

REV
4

- NOTES 1. ALL SEPTIC AND PUMP TANKS TO BE AS1546.1 2008 COMPLIANT
 2. ABSORB PUMP TO BE A PEDROLLO DM30N 1.1KW 1 PHASE OR APPROVED EQUIVALENT. PUMP PIPEWORK TO BE 50MM UPVC. PUMP LINE TO HAVE A SS ONE WAY VALVE. PUMP CUTIN AT HT 600MM. CUTOUT AT 400MM.



					DESIGN BY	T SHORT	14/02/2022
					DRAWN BY	C FARRELL	15/02/2022
					DRAFTING CHECK		
					DESIGN CHECK		
					FINAL APPROVAL		
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REV	DATE	BY	APP.	AMENDMENT DETAILS			

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allis
water treatment & technology

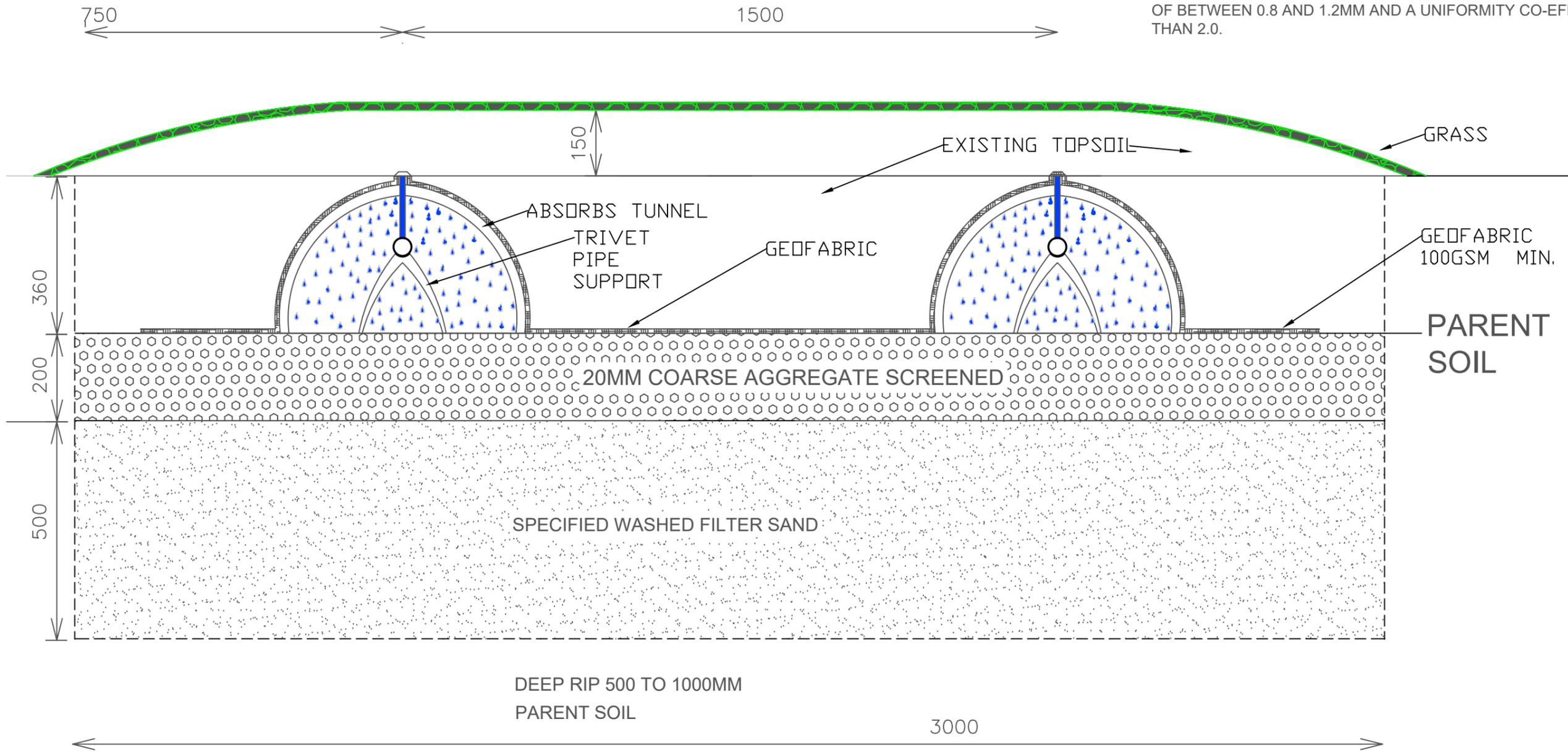
Head Office – Queensland
44 Wentworth Terrace
Rockhampton QLD 4700
Australia

HOR 0 25 m
VER 0 25 m
Scale 1:50

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SEPTIC TANK & PUMP STATIONS		Drawing No.
SEWAGE TREATMENT		02
Drawing Status : FOR APPROVAL		REV
		1

A3

- NOTES 1. TRENCH TO BE LEVELED WITHIN 10MM OVER LENGTH BEFORE SAND PLACED.
 2. ABSORBS SPRAY TO BE TESTED TO 1.2M HEIGHT BEFORE BACKFILL.
 3. SPRAY DELIVERY PIPE TO BE Ø40 LILAC CLASS 12 UPVC DRILLED WITH A 4.8MM HOLE EVERY 1500MM TOP.
 4. LATERAL SPACING BETWEEN ABSORBS TUNNEL CENTERS MAY VARY BETWEEN 1000 AND 1500MM WITH AUTHORIZATION OF DESIGN ENGINEER.
 5. SPECIFIED WASHED SAND MUST HAVE AN EFFECTIVE PARTICLE SIZE (D10) OF BETWEEN 0.8 AND 1.2MM AND A UNIFORMITY CO-EFFICIENT (UC) OF LESS THAN 2.0.



REV	DATE	BY	APP.	AMENDMENT DETAILS
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2	20/4/22	CF	MS	LINER CHANGE
1	9/3/2022	CF	MS	GEOFABRIC DEF.

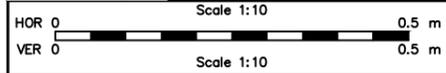
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DRAWN BY	C FARRELL	15/2/2022
DRAFTING CHECK	MS	15/2/22
DESIGN CHECK	CF	15/2/2022
FINAL APPROVAL		

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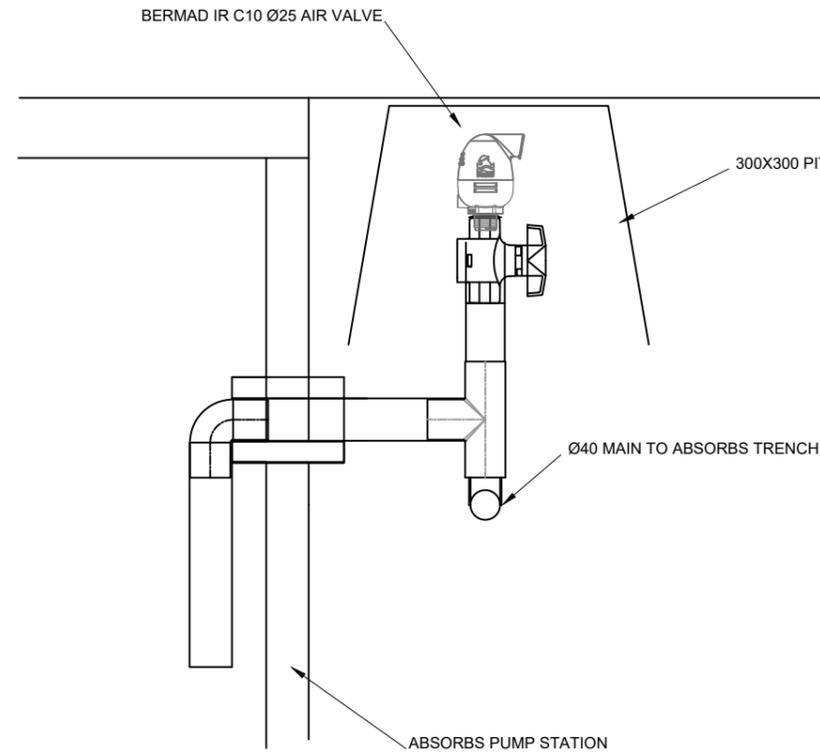
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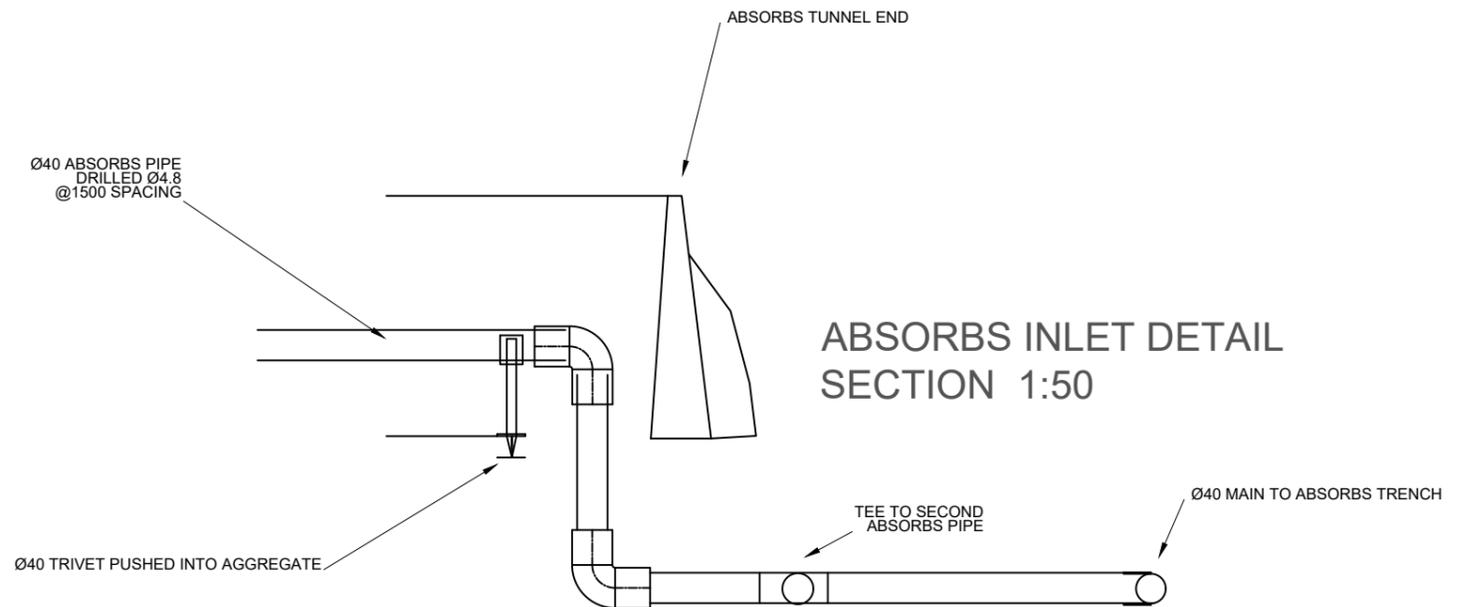
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ABSORBS		Drawing No.
SEWAGE TREATMENT		03
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A3

- NOTES 1. TRENCH TO BE LEVELED WITHIN 10MM OVER LENGTH BEFORE SAND PLACED.
 2. TRENCH SPRAY TO BE TESTED TO 1.2M HEIGHT BEFORE BACKFILL
 3. SPRAY DELIVERY PIPE TO BE Ø40 LILAC CLASS 12 UPVC DRILLED WITH 4.8MM HOLE EVERY 1500MM TOP.



AIR VALVE PIT
SECTION 1:50



ABSORBS INLET DETAIL
SECTION 1:50

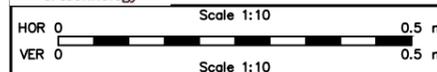
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REV	DATE	BY	APP.	AMENDMENT DETAILS			

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DRAWING TITLE		Project No.
CONNECTION DETAIL ABSORBS SEWAGE TREATMENT		15022
Drawing Status : FOR APPROVAL		Drawing No. 04
		REV 2

A3