

DELEGATED REPORT

TO: SENIOR PLANNER

FROM: Planning Officer

FILE: OPW/22/0006 (Stage 3)

DATE: 10 November 2022

APPLICATION DETAILS

APPLICATION		PREMISES	
FILE NO:	OPW/22/0006 (The Rise Stage 3)	ADDRESS:	Catherine Atherton Drive, Mareeba
APPLICANT:	The Rise Unit Trust	RPD:	Lot 100 on SP306259
LODGED BY:	Freshwater Planning Pty Ltd	AREA:	48.77 hectares
DATE LODGED:	7 September 2022	OWNER:	D Pollock
TYPE OF APPROVAL:	Development Permit		
PROPOSED DEVELOPMENT:	Operational Works (Road work, Stormwater, Water infrastructure, Drainage work and Earthworks for Stage 3 (5 Lots) of Development Permit REC/07/0074)		
PLANNING SCHEME:	Mareeba Shire Council Planning Scheme 2016		
ZONE:	Rural Residential zone		
LEVEL OF ASSESSMENT:	Code Assessment		

PREVIOUS APPLICATIONS & APPROVALS

REC/07/0074

DESCRIPTION OF PROPOSED DEVELOPMENT

The development application seeks a Development Permit for Operational Works (Road work, Stormwater, Water infrastructure, Drainage work and Earthworks for Stage 3 (5 Lots) of Development Permit REC/07/0074) - **The Rise Stage 3**

ASSESSMENT

State Planning Policy

Separate assessment against the State Planning Policy (SPP) is not required because the Mareeba Shire Council Planning Scheme appropriately integrates all relevant aspects of the SPP.

Relevant Development Codes

The following Development Codes are considered to be applicable to the assessment of the application:

- 6.2.10 Rural residential zone code
- 9.4.4 Reconfiguring a lot code
- 9.4.5 Works, services and infrastructure code

The application did not include a planning report and assessment against the planning scheme. An officer assessment has found that the application satisfies the relevant acceptable solutions (or probable solutions/performance criteria where no acceptable solution applies) of the relevant codes set out below.

Relevant Codes	Comments
Rural residential zone code	The application can be conditioned to comply with the relevant acceptable outcomes contained within the code.
Reconfiguring a lot code	The application can be conditioned to comply with the relevant acceptable outcomes contained within the code.
Works, services and infrastructure code	The application can be conditioned to comply with the relevant acceptable outcomes contained within the code.

Compliance with conditions of earlier related approval

REC/07/0074

- B. Issue a Development Permit for the application made by The Rise Unit Trust for the reconfiguration of land formerly described as Lot 3 on RP739487, Parish of Tinaroo, situated at 146 Emerald End Road, Mareeba into 54 Rural Residential lots generally as indicated on Drawing No. 7429 - LL1 Rev A, SP235319, SP250068, SP265015 and SP268686, subject to:

COUNCIL CONDITIONS

1. (i) For Lots 201 to 205 and 301 to 306 on SP235319, Lots 206 and 298 to 300 on SP250068, Lot 207 on SP265015, Lot 208 on SP268686 and Lot 209 only

To cover extra traffic movements created by this development, the applicant must contribute per additional allotment created to enable Council to upgrade roads adjacent and external to this proposed development (currently \$3,000 per additional allotment). This contribution is to be paid prior to the signing and sealing of the Plan of Survey.
- (ii) For all lots

At the same time as the contribution is paid, a copy of the Plan of Survey and the Form 6 that is lodged with the Department of Natural Resources and Mines for each permanent survey mark installed must also be lodged with Council prior to the signing and sealing of the Plan of Survey.
2. External Works – Emerald End Road
 - (i) The applicant is to construct kerb and channel on Emerald End Road for the full frontage of Lot 3 on RP739487.
 - (ii) The applicant is to widen the existing bitumen on Emerald End Road to the new kerb and channel as mentioned in (i) above. This bitumen widening is to be a minimum of 3m.

- (iii) The above operational works and all other operational works approved for this development must be undertaken as per the following requirements.

3. General

- (i) All operational works relating to this development will be as per the FNQROC Development Manual, including the following.
- (ii) Prior to the submission of any documentation, Council draws your attention to AP 1 Application Procedures with particular reference to:-

AP 1.02	Pre-Lodgement Discussion
AP 1.07	Supporting Information, in particular:- 9 (xi) Erosion and Sediment Control Strategy (ESCS) 9 (xvii) Landscaping Design Plan
AP 1.08-1.14	Plan Presentation
AP 1.15-1.31	Design Drawings (including asphalt intersection/ cul-de-sac details with bitumen road)

- (iii) Documentation including Engineering Drawings, as detailed in AP 1 should be submitted for approval at least one (1) month prior to the proposed starting date for construction. Construction work cannot commence until the Documentation and Engineering Drawings have been approved and a Prestart Meeting held.
- (iv) Refer also to associated Mareeba Shire Council Specific Requirements and Standard Drawings, including crossfall of 4% on all roads.
- (v) All aspects of construction works must be undertaken to the satisfaction of the Manager Civil Works.
- (vi) Council wishes to advise the applicant of the Aboriginal Cultural Heritage Act 2003 and the Environment Protection and Biodiversity Conservation Act 1999 which may impact on this development.
- (vii) No work may commence on site until Council has approved both the: -
- (a) Erosion and Sediment Control Strategy; and
(b) Principal Contractor's Sediment Control Plan.

4. Roadworks and Access

- 4.1 For Lots 201 to 205 and 301 to 306 on SP235319, Lots 206 and 298 to 300 on SP250068, Lot 207 on SP265015, Lot 208 on SP268686 and Lot 209 only

- (i) Roadworks are to be designed and constructed in accordance with FNQROC Development Manual with particular reference to the following sections:

DP 1	Development Principles
D1	Road Geometry
D2	Site Regrading
D3	Road Pavements (Design)
S1	Earthworks
S2	Road Pavements (Specification)
TableD1.1	Street and Road Hierarchy

- (ii) Refer also to associated Mareeba Shire Council Specific Requirements and Standard Drawings.

4.2 For all other allotments

- (i) Access

Access must be constructed to each allotment in accordance with the FNQROC Development Manual, to the satisfaction of Council's delegated officer.

A bitumen sealed driveway shall be provided within any battleaxe lot access handle. The driveway will:-

- have a minimum formation width of three (3) metres
- be constructed for the full length of the access handle
- be formed with one-way crossfall to cater for stormwater drainage such that any stormwater runoff is contained within the access strip
- Conduits within access strip - service and utility conduits are to be provided for the full length of the concrete or sealed driveway constructed within the access handle of the battle axe allotment(s).

- (ii) Roadworks – Internal

Internal roads must be constructed to Access Street standard in accordance with FNQROC Development Manual standards (as amended) for the applicable planning scheme area to the satisfaction of Council's delegated officer.

A temporary turnaround area, with gravel surface, must be provided at the end of the new road construction adjacent to the balance area of the overall subdivision to allow traffic manoeuvring.

- (iii) Access/Services/Drainage Easement - Lots 33 and 34

An easement must be established over the access handles of Lots 33 and 34 for the purposes of access, drainage, maintenance and servicing in favour of Lots 33 and 34.

The easement documents must be submitted to Council's delegated officer for approval at the same time the applicant/developer seeks endorsement of the plan of survey and must be lodged and registered in the Department of Natural Resources and Mines in conjunction with the plan of survey.

5. Stormwater Drainage

- (i) Stormwater drainage is to be designed and constructed in accordance with FNQROC Development Manual with particular reference to the following sections.

DP 1	Development Principles
D4	Stormwater Drainage (Design)
D5	Stormwater Quality Management

S4 Stormwater Drainage (Specification)

- (ii) The design be such so as to minimise concentrated stormwater drainage flows. Where such flows occur drains shall be lined and treated to minimise and capture silt and other contaminants prior to discharge.
- (iii) Refer also to Mareeba Shire Council specific requirements and site drawings.
- (iv) For each culvert to be installed, a detail plan and long section (upstream and downstream) of the waterway involved must be submitted as part of the "Detailed Engineering Drawings" to Council. This is to enable Council to ensure the culvert is in the correct location.

6. Water Supply

6.1 For Lots 201 to 205 and 301 to 306 on SP235319, Lots 206 and 298 to 300 on SP250068, Lot 207 on SP265015, Lot 208 on SP268686 and Lot 209 only

- (i) Water reticulation is to be designed and constructed in accordance with FNQROC Development Manual with particular reference to the following sections.

D5 Water Reticulation (Design)
S5 Water Reticulation (Specification)

- (ii) Refer also to Mareeba Shire Council specific requirements and standard drawings, as listed in the FNQROC Manual.
- (iii) All work mentioned above including laying and installation, is to be carried out to the specific requirements of Mareeba Shire Council and the satisfaction of Council's delegated officer.
- (iv) The applicant shall contribute to the cost of water headworks in accordance with the adopted policy of Council existing at the time of payment (currently \$3,000 per additional allotment). This payment to be made prior to the signing and sealing of the Plan of Survey.
- (v) The applicant is to undertake a water supply analysis to determine if the existing water supply has sufficient capacity to service this development. The results of the analysis are to be submitted to Council at the Operational Works stage.

6.2 For all other allotments

- (i) Water reticulation is to be designed and constructed in accordance with FNQROC Development Manual with particular reference to the following sections.

D5 Water Reticulation (Design)
S5 Water Reticulation (Specification)

- (ii) Refer also to Mareeba Shire Council specific requirements and standard drawings, as listed in the FNQROC Manual.

- (iii) All work mentioned above including laying and installation, is to be carried out to the specific requirements of Mareeba Shire Council and the satisfaction of Council's delegated officer.
- (iv) The applicant is to undertake a water supply analysis to determine if the existing water supply has sufficient capacity to service this development. The results of the analysis are to be submitted to Council at the Operational Works stage.

7. Wastewater Disposal

The developer shall provide a Site and Soil Evaluation Report prepared by a suitably qualified Registered Professional Engineer acceptable to Council, for the proposed development. The report shall be prepared in accordance with the requirements of AS1547.2000 and shall specifically address those issues pertaining to the planning, rezoning and subdivision of land. The developer shall warrant that each lot within the proposed subdivision is of sufficient size and soil classification to dispose of wastewater generated by any development consistent with the zoning of the land without impacting on any adjoining lands. The report will include a detailed investigation of problem lots within the development. AS1547.2000 provides direction on the preparation of such a report and guidance on the minimum level of testing required to produce such a report.

This evaluation must also investigate the depth to groundwater and permeability of the vadose zone to avoid contamination of the underlying aquifer.

8. Construction

- (i) As well as the requirements set out in the Design Guidelines and Specifications of the FNQROC Development Manual, Council draws your attention to CP 1 Construction Procedures which details minimum requirements acceptable to Council. Particular reference is made to the following sections.

CP 1.04	Inspection and Test Plan
CP 1.06	Contractors Erosion & Sediment Control Plan
CP 1.08	Notice to Commence Works
CP 1.09	Pre-Start Meeting

- (ii) Before any contractor can proceed on site, the applicant is to complete and submit for signing of approval to the Manager Civil Works, the "Notice of Appointment of Principal Contractor" form, stating who is to be the Principal Contractor for this development.
- (iii) All construction works are to be carried out to the requirements of the FNQROC Development Manual and the specific Mareeba Shire Council requirements.
- (iv) All aspects of construction works must be undertaken to the satisfaction of the Manager Civil Works.

9. For Lots 201 to 205 and 301 to 306 on SP235319, Lots 206 and 298 to 300 on SP250068, Lot 207 on SP265015, Lot 208 on SP268686 and Lot 209 only

The Applicant shall make a contribution per additional allotment towards public open space in accordance with the adopted policy of Council existing at the time of payment

(currently \$3,000 per additional allotment). This payment to be made prior to the signing and sealing of the Plan of Survey.

10. The applicant shall provide written advice from Ergon Energy that satisfactory arrangements have been made for an electricity supply to be provided to the proposed allotments.
11. The applicant shall provide written advice from Telstra that a telephone can be made available to the proposed allotments.
12. A stormwater management plan and a sediment and erosion control plan are developed prior to any operational works. The sediment erosion control plan should detail measures during and post construction to minimise erosion and runoff from this proposal.
13. All payments or bonds required to be made to the Council pursuant to any condition of this approval or the Adopted Infrastructure Charges Notice must be made prior to the endorsement of the plan of survey and at the rate applicable at the time of payment.

DEPARTMENT OF INFRASTRUCTURE, LOCAL GOVERNMENT AND PLANNING CONDITIONS

Department of State Development, Infrastructure and Planning conditions dated 14 July 2015.

FNQROC Regional Development Manual

Section	Assessment
DP1 - Development Principles	Complies
AP1 - Application Procedures	Complies
D1 - Road Geometry	Complies
D2 - Site Regrading	Complies
D3 - Road Pavements	Complies
D4 - Stormwater Drainage	Complies
D5 - Stormwater Quality Management	Complies
D6 - Water Reticulation	Complies
D7 - Sewerage System	Not applicable
D8 - Utilities	Not part of current application
D9 - Landscaping	Not applicable

REFERRALS

Nil

Internal Consultation

Technical Services

OFFICER'S RECOMMENDATION

1. That in relation to this operational works development application:

APPLICATION		PREMISES	
APPLICANT:	The Rise Unit Trust	ADDRESS:	Catherine Atherton Drive, Mareeba
DATE LODGED	7 September 2022	RPD:	Lot 100 on SP306259
TYPE OF APPROVAL	Development Permit		
PROPOSED DEVELOPMENT	Operational Works (Road work, Stormwater, Water infrastructure, Drainage work and Earthworks for Stage 3 (5 Lots) of Development Permit REC/07/0074)		

and in accordance with the Planning Act 2016, as amended, the applicant be notified that the application for operational works:

Approved subject to the following assessment manager conditions:

- (A) **APPROVED DEVELOPMENT:** Development Permit for Operational Works (Road work, Stormwater, Water infrastructure, Drainage work and Earthworks for Stage 3 (5 Lots) of Development Permit REC/07/0074)
- (B) **APPROVED PLANS:**

Plan/Document Number	Plan/Document Title	Prepared by	Dated
TR21-001-C01 B	Cover Sheet	Benchmark Survey & Design	24/05/22
TR21-001-C02 A	Conceptual Plan	Benchmark Survey & Design	24/06/21
TR21-001-C03 A	Site Plan - Stage 3	Benchmark Survey & Design	24/06/21
TR21-001-C04 B	Layout Plan - Stage 3	Benchmark Survey & Design	24/05/22
TR21-001-C05 A	Typical Cross Sections	Benchmark Survey & Design	24/06/21
TR21-001-C06 A	Catherine Atherton Drive - Longitudinal Section	Benchmark Survey & Design	24/06/21
TR21-001-C07 A	Catherine Atherton Drive - Cross Sections	Benchmark Survey & Design	24/06/21
TR21-001-C08 A	Catherine Atherton Drive - Cross Sections	Benchmark Survey & Design	24/06/21
TR21-001-C09 B	Stormwater Drainage Layout Plan - Stage 3	Benchmark Survey & Design	24/05/22
TR21-001-C10 A	Stormwater Drainage Longitudinal Sections - Stage 3	Benchmark Survey & Design	24/06/21
TR21-001-C11 B	Earthworks Layout Plan - Stage 3	Benchmark Survey & Design	24/05/22
TR21-001-C12 B	Erosion & Sediment Control Strategy Plan - Stage 3	Benchmark Survey & Design	24/05/22
TR21-001-C13 B	Water Reticulation Layout Plan - Stage 3	Benchmark Survey & Design	01/06/22

(C) ASSESSMENT MANAGER'S CONDITIONS (COUNCIL)

(b) General

- (i) This development permit applies to Stage 3 of The Rise Estate only, as depicted on Plan TR21-001-C01 Issue B (Cover Sheet) dated 24/05/22.
- (ii) All operational works must be designed and constructed in accordance with the procedures as set out in the FNQROC Development Manual.
- (iii) Development must be carried out substantially in accordance with the approved plans and the facts and circumstances of the use as submitted with the application, and subject to any alterations:
 - found necessary by the Council's Delegated Officer at the time of examination of the engineering plans or during construction of the development because of particular engineering requirements;
 - to ensure the works comply in all respects with the requirements and procedures of the FNQROC Development Manual, Queensland Urban Drainage Manual and good engineering practice; and
 - to ensure compliance with the following conditions of approval.
- (iv) Council's examination of the documents should not be taken to mean that the documents have been checked in detail and Council takes no responsibility for their accuracy. If during construction, inadequacies of the design are discovered, it is the responsibility of the Principal Consulting Engineer to resubmit amended plans to Council for approval and rectify works accordingly.
- (v) The drainage reserve shown on the submitted plans must remain as private freehold land covered by a drainage easement of the same dimensions. This drainage easement, as well as the drainage easement within Lot 3 must be in favour of Council and the Form 20 must exclude Council from having responsibility for the routine mowing and upkeep of the land within the easement area. The Form 20 must also ensure that any boundary fencing or gates that pass across the easement area must be designed to allow for the free and uninterrupted passage of water through the easement area.

Domestic uses established within each lot are able to discharge stormwater to the easement area as a lawful point of discharge, provided sufficient scour protection is implemented at the outlet.

(vi) Amended Drainage Plan/Works

Prior to the pre-start meeting occurring, amended stormwater drainage plans must be submitted to Council for review and endorsement by Council's delegated officer. The amended stormwater drainage plans must include the following details:

- (a) A 2 metre wide reinforced concrete invert drain, with a minimum thickness of 150mm must be installed for the full length of the large drain at the rear of Lots 1, 2 and 3 in order to protect the drain from future scour and ensure ease of maintenance for responsible landowners.

- (b) Water slowing devices (number, design and location to be approved by Council's delegated officer) must be included within the drain to ensure that water velocity is adequately reduced so as to not cause damage to any part of Lot 209 on SP306259.
- (c) Rock protection must be included on the outside edge drain batters at any bends in the drain to reduce the risk of scour.
- (d) A 1 metre wide concrete invert drain must be included along the full length of the smaller open drain running through Lot 3. Where this drain discharges into the larger drain a water slowing device must be installed to ensure that water velocity is adequately reduced before being discharged into the larger drain. Alternatively, the end of the Lot 3 drain can be redesigned, and concrete sealed so as to direct water into the larger drain in a downstream direction instead of perpendicularly. In either case, rock protection must be installed on both batters of the larger drain at this discharge location to protect against scour.

(vii) Catherine Atherton Drive Reserve Width

The Catherine Atherton Drive road reserve width must be increased to 20 metres for the full length of the works, with the road formation remaining centred within the reserve.

- (viii) The 'temporary loop main connection' shown on drawing C13 must be installed using ductile iron piping (DICI) and must be maintained as a permanent component of the water supply network.

(c) Pre-start Meeting

- (i) In addition to the requirements of Clause CP1.07 and CP1.08 of the FNQROC Development Manual; after documentation has been approved by Council, a pre-start meeting is to be held on site prior to the commencement of work. Part 1 of the **attached** pre-start meeting pro-forma is to be completed and returned prior to the meeting including clause 1.u 'Request for Meeting' together with the prescribed Construction Monitoring Fee as set out in Council's Schedule of Fees.

(d) Inspections

- (i) Inspections are to be carried out as detailed in the FNQROC Manual unless advised otherwise at the pre-start meeting.

(e) Construction Security Bond and Defects Liability Bond

- (i) In addition to Clauses CP1.06 and CP1.20 of the FNQROC Development Manual; the Construction Security Bond and Defects Liability Bond shall each be a minimum of \$1000 and Bank Guarantees shall have no termination date.
- (ii) During the Defects Liability period, it is the responsibility of the developer to rectify any works found to be defective due to design faults and or found to exhibit faults attributed to the performance of the construction activities in terms of quality and conformance with design and specifications. The bond will be returned on satisfactory correction of any defective work and after expiration of the maintenance period. Failure to comply with a Council issued instruction to

correct defective work may result in the call up of the bond to have the work completed.

(f) Hours of Work

- (i) Work involving the operation of construction plant and equipment of any description, shall only be carried out on site during the following times:
- 7.00am to 6.00pm, Monday to Friday;
 - 7.00am to 1.00pm Saturdays;
 - No work is permitted on Sundays or Public Holidays.
- (ii) No variation to the above working hours is allowed unless otherwise agreed in writing by Council.

(g) Transportation of Soil

- (i) All soil transported to or from the site must be covered to prevent dust or spillage during transport. If soil is tracked or spilt onto the road pavement from works on the subject land, it must be removed no later than at the end of each working day. Sediment must not enter Council's stormwater drainage network.

(D) RELEVANT PERIOD

When approval lapses if development not started (s.85)

- Two (2) years (starting the day the approval takes effect).

(E) OTHER NECESSARY DEVELOPMENT PERMITS AND/OR COMPLIANCE PERMITS

- Nil

DECISION BY DELEGATE

DECISION

Having considered the Planning Officer's report detailed above, I approve, as a delegate of Council, the application subject to the conditions listed in the report.

Dated the 10TH day of *NOVEMBER* 2022



BRIAN MILLARD
SENIOR PLANNER

MAREEBA SHIRE
AS A DELEGATE OF THE COUNCIL

THE RISE ESTATE RURAL RESIDENTIAL SUBDIVISION STAGE 3 OPERATIONAL WORKS DRAWINGS

DRAWING INDEX		
Drawing Number	Rev.	Date
TR21-001-C01	B	01/08/22
TR21-001-C02	A	24/06/21
TR21-001-C03	A	24/06/21
TR21-001-C04	B	24/06/22
TR21-001-C05	A	24/06/21
TR21-001-C06	A	24/06/21
TR21-001-C07	A	24/06/21
TR21-001-C08	B	24/06/22
TR21-001-C09	A	24/06/21
TR21-001-C10	A	24/06/22
TR21-001-C11	B	24/06/22
TR21-001-C12	B	24/06/22
TR21-001-C13	B	01/08/22

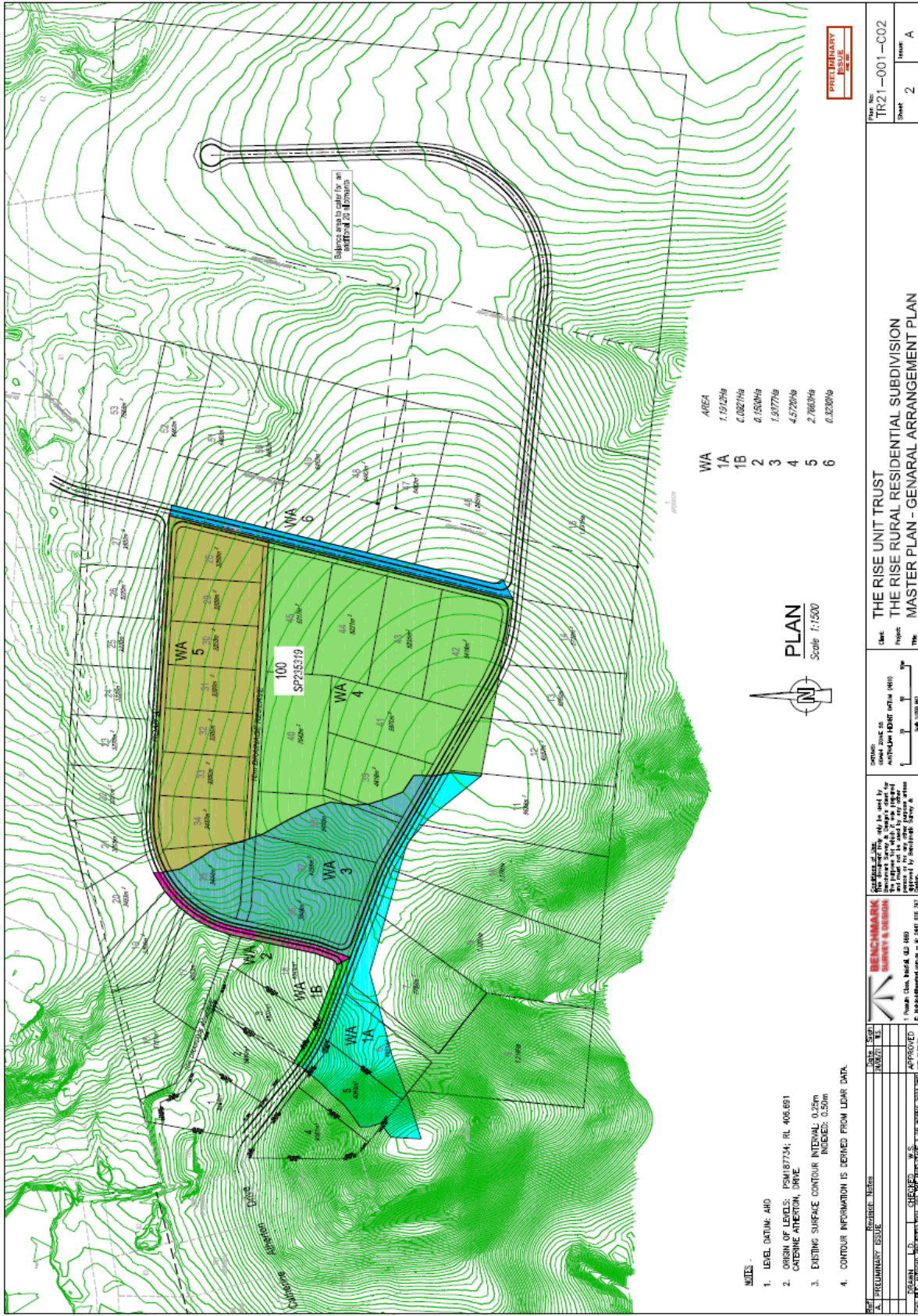
Drawing Description
COVER SHEET
CONCEPTUAL PLAN
SITE PLAN - STAGE 3
LAYOUT PLAN - STAGE 3
TYPICAL CROSS SECTIONS
CATHERINE ATHERTON DRIVE - LONGITUDINAL SECTION
CATHERINE ATHERTON DRIVE - CROSS SECTIONS
CATHERINE ATHERTON DRIVE - CROSS SECTIONS
STORMWATER DRAINAGE LAYOUT PLAN - STAGE 3
STORMWATER DRAINAGE LONGITUDINAL SECTIONS - STAGE 3
EARTHWORKS LAYOUT PLAN - STAGE 3
EROSION & SEDIMENT CONTROL STRATEGY PLAN - STAGE 3
WATER RETICULATION LAYOUT PLAN - STAGE 3

FNQROC STANDARD DRAWINGS	
Drawing Number	Rev.
S1005	E
S1006	E
S1007	B
S1008	B
S1009	C
S1010	C
S1011	B
S1012	B
S1013	A
S1014	A
S1015	E
S1016	B
S1017	B
S1018	D
S1019	A

Drawing Description
TYPICAL ROAD CROSS SECTION - TYPE 1, 2 & 3
TYPICAL ROAD CROSS SECTION - TYPE 4, 5 & 6
PUBLIC UTILITIES CROSS SECTION
EXCAVATION BEHIND AND BACKFILLING OF CONCRETE PIPES
GRADED KERB TIE IN PIT PIPE DIA. <600
KERB TIE IN FRAME
STORMWATER MANHOLES 1050 & 1500
MISC VALVE INSTALLATION
MISC HYDRANT BOX INSTALLATION
KERB ROAD MARKERS
MISC THRUST BLOCK DETAILS
WATER RETICULATION BEDDING DETAILS
MISC MAIN CONNECTION DETAILS
MISC DOMESTIC WATER SERVICE CONNECTION DETAILS



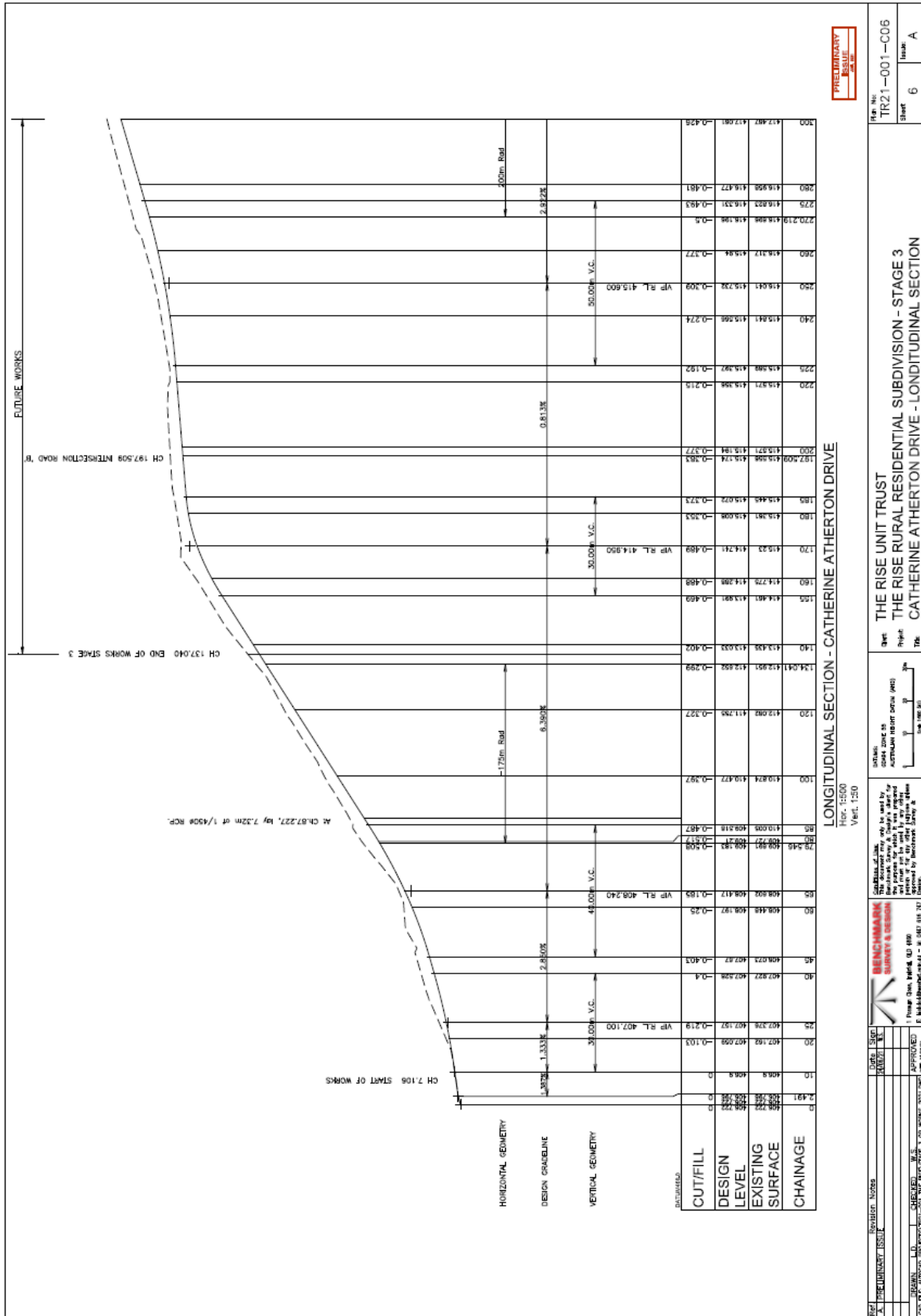
DATE 10/11/2022	SCALE AS SHOWN	PROJECT THE RISE ESTATE	CLIENT THE RISE UNIT TRUST	DATE 10/11/2022
DESIGNER BENJAMIN SURVEY & DESIGN	PROJECT NO. TR21-001-C01	PROJECT NAME THE RISE RURAL RESIDENTIAL SUBDIVISION - STAGE 3	PROJECT ADDRESS COVER SHEET	PROJECT SHEET 1
APPROVED [Signature]	CHECKED [Signature]	DATE 10/11/2022	PROJECT NO. TR21-001-C01	PROJECT SHEET 1
PRELIMINARY ISSUE				



- NOTES**
1. LEVEL DATUM: AHD
 2. ORIGIN OF LEVELS: PSM187734; RL 406.881
CATHERINE ANNESTON, DRIVE
 3. EXISTING SURFACE CONTOUR INTERVAL: 0.25m
INCREASING TO 0.50m
 4. CONTOUR INFORMATION IS DERIVED FROM LEAR DATA.

PRELIMINARY ISSUE

DATE: 10/11/2022	SCALE: 1:1500	PROJECT: THE RISE RURAL RESIDENTIAL SUBDIVISION	CLIENT: THE RISE UNIT TRUST	PROJECT NO: TR21-001-C02
DRAWN: [Name]	CHECKED: [Name]	APPROVED: [Name]	DATE: 10/11/2022	SHEET: 2
<p>RESEARCH SURVEY & DESIGN</p> <p>1 Year: 0181 442 880 2 Year: 0181 442 880</p>			<p>THE RISE UNIT TRUST THE RISE RURAL RESIDENTIAL SUBDIVISION MASTER PLAN - GENERAL ARRANGEMENT PLAN</p>	



PRELIMINARY
DESIGN

LONGITUDINAL SECTION - CATHERINE ATHERTON DRIVE
 HORIZ. 1:500
 VERT. 1:500

STATION	CH	DESIGN LEVEL	EXISTING SURFACE	CUT/FILL
7109	417.487	416.477	-0.481	0.425
720	416.958	416.331	-0.493	
725	416.823	416.331	-0.493	
727.219	416.898	416.396	-0.5	
730	416.317	415.84	-0.377	
740	416.041	415.232	-0.209	
745	415.841	415.066	-0.274	
725	415.988	415.997	-0.192	
720	415.971	415.956	-0.215	
700	415.971	415.94	-0.377	
697.829	415.958	415.74	-0.383	
685	415.445	415.072	-0.373	
680	415.361	415.008	-0.393	
670	415.33	414.741	-0.489	
660	414.726	414.286	-0.488	
655	414.461	413.997	-0.469	
640	413.433	413.033	-0.402	
634.041	412.951	412.858	-0.299	
620	412.082	411.236	-0.327	
610	410.824	410.477	-0.397	
605	410.009	409.218	-0.487	
600	409.282	408.24	-0.528	
605	408.445	408.17	-0.25	
600	408.073	407.87	-0.403	
600	407.927	407.898	-0.4	
595	407.308	407.157	-0.219	
590	407.162	407.058	-0.103	
585	406.9	406.8	0	
580	406.9	406.8	0	
575	406.9	406.8	0	
570	406.9	406.8	0	
565	406.9	406.8	0	
560	406.9	406.8	0	
555	406.9	406.8	0	
550	406.9	406.8	0	
545	406.9	406.8	0	
540	406.9	406.8	0	
535	406.9	406.8	0	
530	406.9	406.8	0	
525	406.9	406.8	0	
520	406.9	406.8	0	
515	406.9	406.8	0	
510	406.9	406.8	0	
505	406.9	406.8	0	
500	406.9	406.8	0	
495	406.9	406.8	0	
490	406.9	406.8	0	
485	406.9	406.8	0	
480	406.9	406.8	0	
475	406.9	406.8	0	
470	406.9	406.8	0	
465	406.9	406.8	0	
460	406.9	406.8	0	
455	406.9	406.8	0	
450	406.9	406.8	0	
445	406.9	406.8	0	
440	406.9	406.8	0	
435	406.9	406.8	0	
430	406.9	406.8	0	
425	406.9	406.8	0	
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Fig. No.
TR21-001-C06
Sheet 6
Task A

THE RISE UNIT TRUST
 THE RISE RURAL RESIDENTIAL SUBDIVISION - STAGE 3
 CATHERINE ATHERTON DRIVE - LONGITUDINAL SECTION

DATE: 11/11/2022
 DRAWN: M.D.
 CHECKED: W.S.
 APPROVED: M.P.
 DATE: 11/11/2022

DATE: 11/11/2022
 DRAWN: M.D.
 CHECKED: W.S.
 APPROVED: M.P.
 DATE: 11/11/2022

DATE: 11/11/2022
 DRAWN: M.D.
 CHECKED: W.S.
 APPROVED: M.P.
 DATE: 11/11/2022

DATE: 11/11/2022
 DRAWN: M.D.
 CHECKED: W.S.
 APPROVED: M.P.
 DATE: 11/11/2022

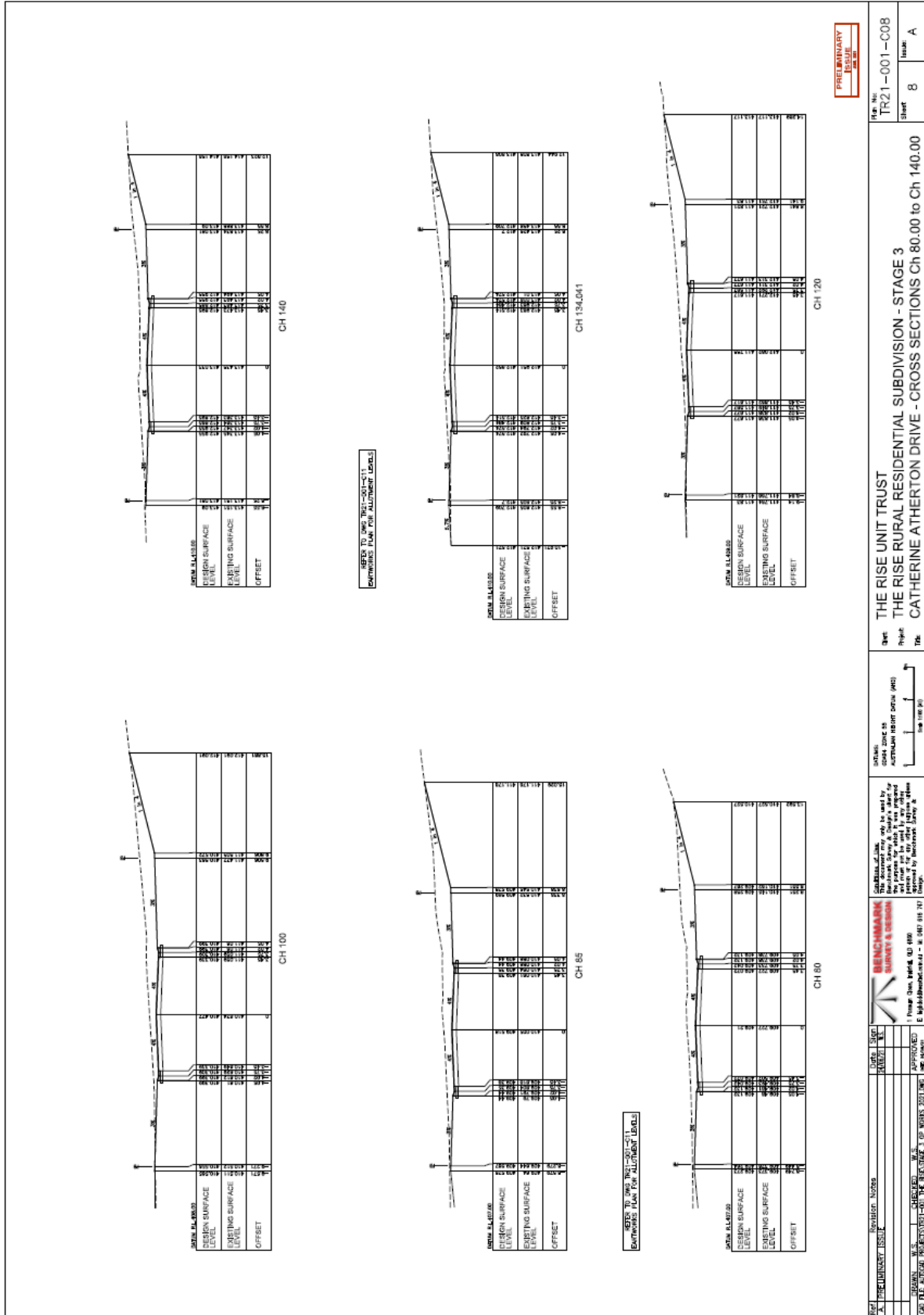
DATE: 11/11/2022
 DRAWN: M.D.
 CHECKED: W.S.
 APPROVED: M.P.
 DATE: 11/11/2022

DATE: 11/11/2022
 DRAWN: M.D.
 CHECKED: W.S.
 APPROVED: M.P.
 DATE: 11/11/2022

DATE: 11/11/2022
 DRAWN: M.D.
 CHECKED: W.S.
 APPROVED: M.P.
 DATE: 11/11/2022

DATE: 11/11/2022
 DRAWN: M.D.
 CHECKED: W.S.
 APPROVED: M.P.
 DATE: 11/11/2022

DATE: 11/11/2022
 DRAWN: M.D.
 CHECKED: W.S.
 APPROVED: M.P.
 DATE: 11/11/2022



PRELIMINARY
ISSUE
NO

Fig. No.	TR21-001-C08
Sheet	8
Issue	A

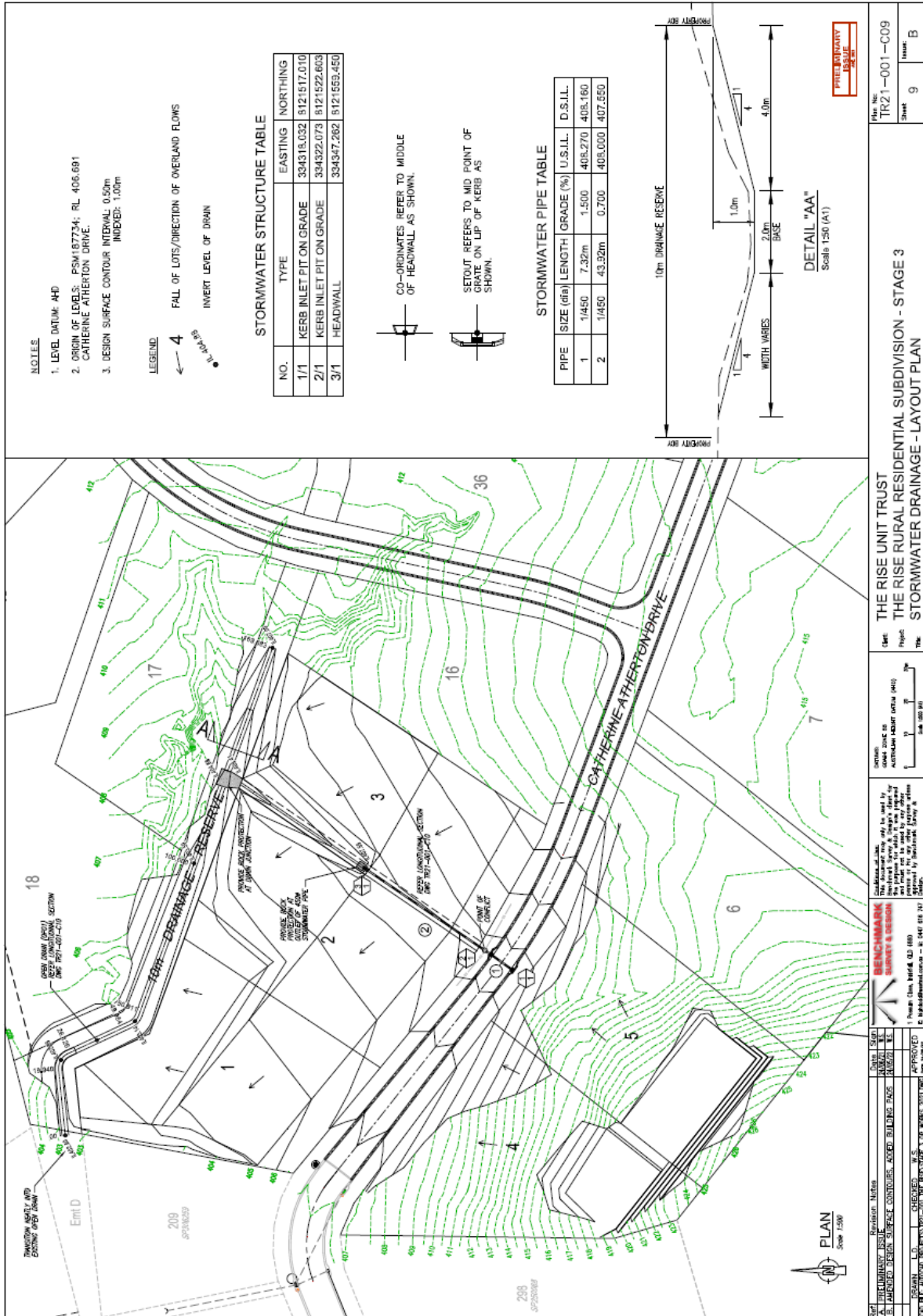
THE RISE UNIT TRUST
THE RISE RURAL RESIDENTIAL SUBDIVISION - STAGE 3
CATHERINE ATHONTON DRIVE - CROSS SECTIONS CH 80.00 TO CH 140.00

DATE: 11/08/2021
PROJECT: THE RISE RURAL RESIDENTIAL SUBDIVISION - STAGE 3
JOB: CATHERINE ATHONTON DRIVE - CROSS SECTIONS CH 80.00 TO CH 140.00

SCALE: 1" = 10'-0" (HORIZONTAL)
1" = 4'-0" (VERTICAL)

DESIGNED BY: [Name]
CHECKED BY: [Name]
APPROVED BY: [Name]

DATE: 11/08/2021
PROJECT: THE RISE RURAL RESIDENTIAL SUBDIVISION - STAGE 3
JOB: CATHERINE ATHONTON DRIVE - CROSS SECTIONS CH 80.00 TO CH 140.00



NOTES

1. LEVEL DATUM: AHD
2. ORIGIN OF LEVELS: PSM187734; RL 406.691
CATHERINE AHERTON DRIVE.
3. DESIGN SURFACE CONTOUR INTERVAL: 0.50m
INDEXED: 1.00m

LEGEND

- 4 FALL OF LOTS/DIRECTION OF OVERLAND FLOWS
- SETPIT
- INVERT LEVEL OF DRAIN

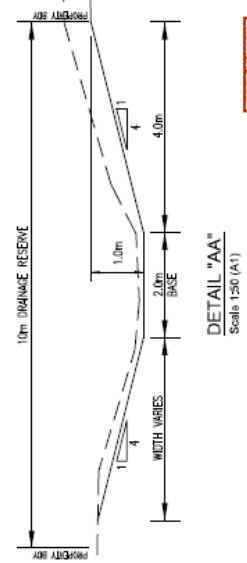
STORMWATER STRUCTURE TABLE

NO.	TYPE	EASTING	NORTHING
1/1	KERB INLET PIT ON GRADE	334315.032	8121517.010
2/1	KERB INLET PIT ON GRADE	334322.073	8121522.603
3/1	HEADWALL	334347.262	8121555.450



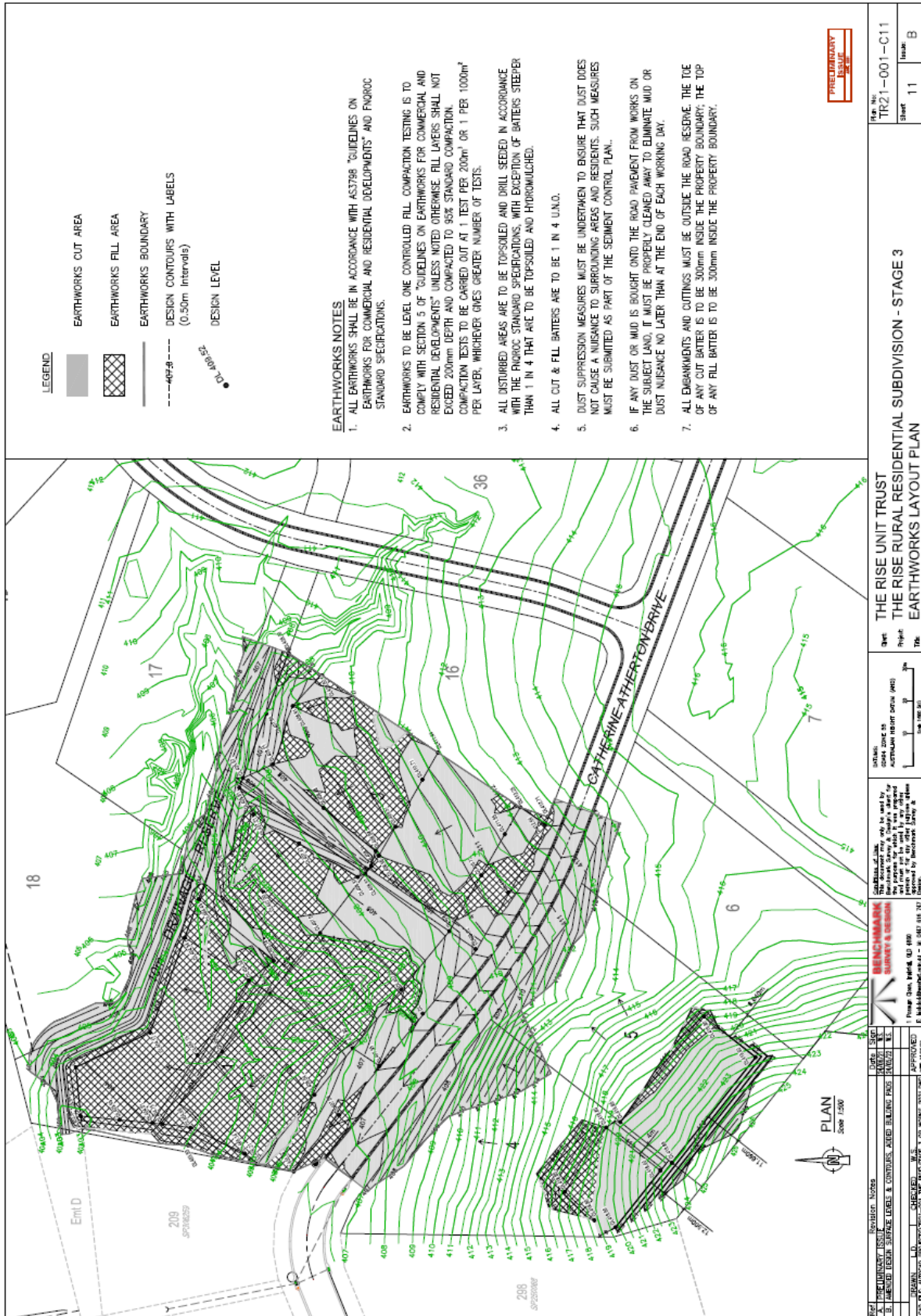
STORMWATER PIPE TABLE

PIPE SIZE (dia)	LENGTH	GRADE (%)	U.S.I.L.	D.S.I.L.
1	7.327m	1.500	408.270	408.160
2	43.920m	0.700	405.000	407.650



PRELIMINARY ISSUE

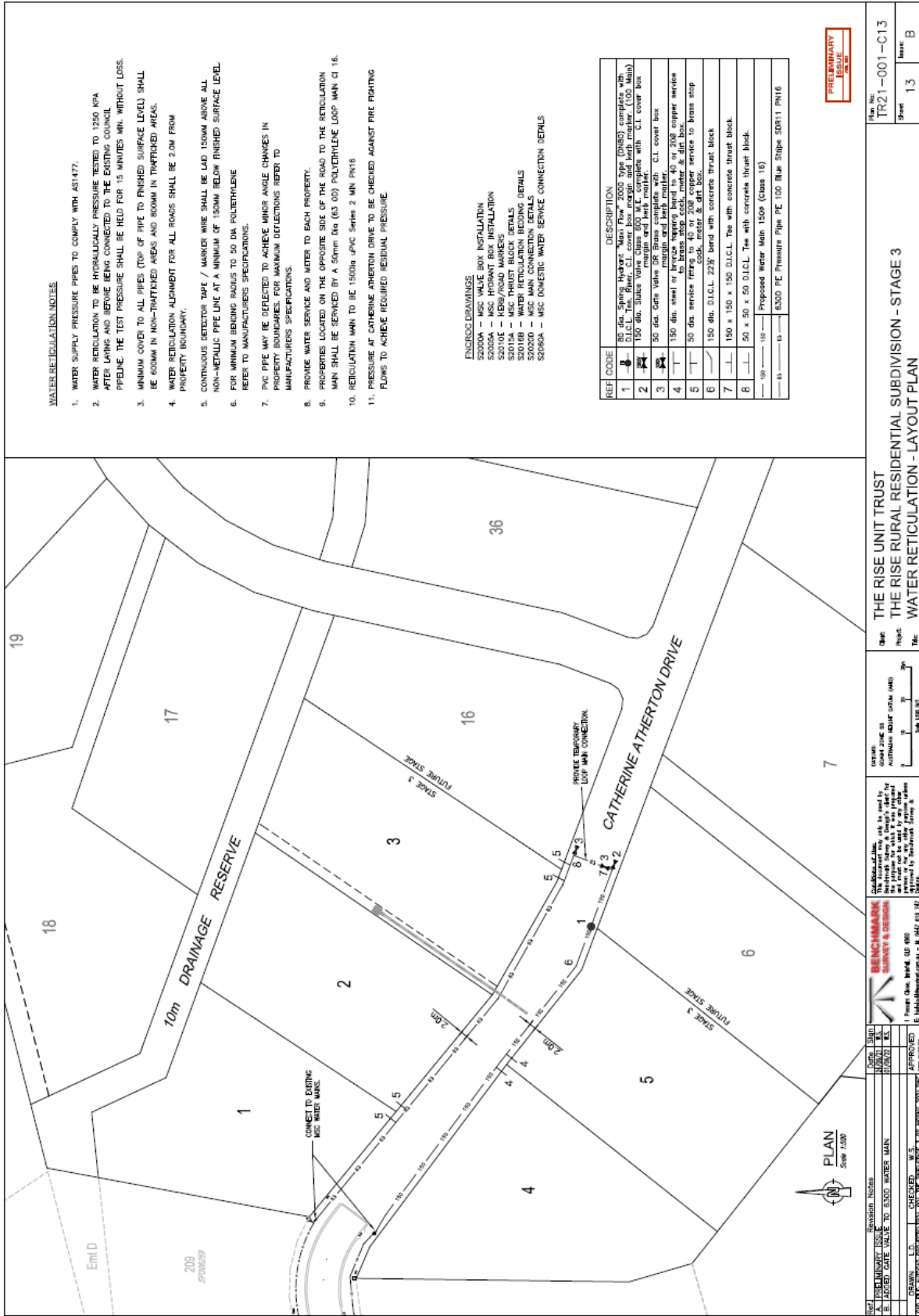
<p>BENCHMARK SURVEY & DESIGN</p> <p>1. Plans, Clm, Refs & S.D. 880 © 1998-2010 Benchmark Survey & Design</p>	<p>DATE: 10/11/2022</p> <p>SCALE: 1:500</p>
	<p>PROJECT: THE RISE RURAL RESIDENTIAL SUBDIVISION - STAGE 3</p> <p>CLIENT: THE RISE UNIT TRUST</p>
<p>DESIGNER: BENCHMARK SURVEY & DESIGN</p> <p>CHECKED: W.S.</p> <p>APPROVED: [Signature]</p>	<p>PROJECT NO: TR21-001-C09</p> <p>SHEET: 9</p> <p>TITLE: STORMWATER DRAINAGE - LAYOUT PLAN</p>



- EARTHWORKS NOTES**
1. ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH A53798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" AND ENR00C STANDARD SPECIFICATIONS.
 2. EARTHWORKS TO BE LEVEL ONE CONTROLLED FILL. COMPACTION TESTING IS TO COMPLY WITH SECTION 5 OF "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" UNLESS NOTED OTHERWISE. FILL LAYERS SHALL NOT EXCEED 200mm DEPTH AND COMPACTED TO 98% STANDARD COMPACTION. COMPACTION TESTS TO BE CARRIED OUT AT 1 TEST PER 200m² OR 1 PER 1000m³ PER LAYER, WHICHEVER GIVES GREATER NUMBER OF TESTS.
 3. ALL DISTURBED AREAS ARE TO BE TOPSOILED AND DRILL SEEDED IN ACCORDANCE WITH THE ENR00C STANDARD SPECIFICATIONS, WITH EXCEPTION OF BATTERS STEEPER THAN 1 IN 4 THAT ARE TO BE TOPSOILED AND HYDROMULCHED.
 4. ALL CUT & FILL BATTERS ARE TO BE 1 IN 4 UNO.
 5. DUST SUPPRESSION MEASURES MUST BE UNDERTAKEN TO ENSURE THAT DUST DOES NOT CAUSE A NUISANCE TO SURROUNDING AREAS AND RESIDENTS. SUCH MEASURES MUST BE SUBMITTED AS PART OF THE SEDIMENT CONTROL PLAN.
 6. IF ANY DUST OR MUD IS BOUGHT ONTO THE ROAD PAVEMENT FROM WORKS ON THE SUBJECT LAND, IT MUST BE PROPERLY CLEANED AWAY TO ELIMINATE MUD OR DUST NUISANCE NO LATER THAN AT THE END OF EACH WORKING DAY.
 7. ALL EMBANKMENTS AND CUTTINGS MUST BE OUTSIDE THE ROAD RESERVE. THE TOE OF ANY CUT BATTER IS TO BE 300mm INSIDE THE PROPERTY BOUNDARY; THE TOP OF ANY FILL BATTER IS TO BE 300mm INSIDE THE PROPERTY BOUNDARY.

PROPOSED PROPERTY BOUNDARY

DATE	14/02/23	SCALE	AS SHOWN	FIG. NO.	TR21-001-C11
DESIGNED BY	W. S. WILSON	CHECKED BY	W. S. WILSON	SHEET	11
APPROVED BY	W. S. WILSON	DATE	14/02/23	BOOK	B
THE RISE UNIT TRUST THE RISE RURAL RESIDENTIAL SUBDIVISION - STAGE 3 EARTHWORKS LAYOUT PLAN					
<p>LEGEND</p> <ul style="list-style-type: none"> EARTHWORKS CUT AREA EARTHWORKS FILL AREA EARTHWORKS BOUNDARY DESIGN CONTOURS WITH LABELS (0.50m Intervals) DESIGN LEVEL 					
<p>EARTHWORKS NOTES</p> <ol style="list-style-type: none"> 1. ALL EARTHWORKS SHALL BE IN ACCORDANCE WITH A53798 "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" AND ENR00C STANDARD SPECIFICATIONS. 2. EARTHWORKS TO BE LEVEL ONE CONTROLLED FILL. COMPACTION TESTING IS TO COMPLY WITH SECTION 5 OF "GUIDELINES ON EARTHWORKS FOR COMMERCIAL AND RESIDENTIAL DEVELOPMENTS" UNLESS NOTED OTHERWISE. FILL LAYERS SHALL NOT EXCEED 200mm DEPTH AND COMPACTED TO 98% STANDARD COMPACTION. COMPACTION TESTS TO BE CARRIED OUT AT 1 TEST PER 200m² OR 1 PER 1000m³ PER LAYER, WHICHEVER GIVES GREATER NUMBER OF TESTS. 3. ALL DISTURBED AREAS ARE TO BE TOPSOILED AND DRILL SEEDED IN ACCORDANCE WITH THE ENR00C STANDARD SPECIFICATIONS, WITH EXCEPTION OF BATTERS STEEPER THAN 1 IN 4 THAT ARE TO BE TOPSOILED AND HYDROMULCHED. 4. ALL CUT & FILL BATTERS ARE TO BE 1 IN 4 UNO. 5. DUST SUPPRESSION MEASURES MUST BE UNDERTAKEN TO ENSURE THAT DUST DOES NOT CAUSE A NUISANCE TO SURROUNDING AREAS AND RESIDENTS. SUCH MEASURES MUST BE SUBMITTED AS PART OF THE SEDIMENT CONTROL PLAN. 6. IF ANY DUST OR MUD IS BOUGHT ONTO THE ROAD PAVEMENT FROM WORKS ON THE SUBJECT LAND, IT MUST BE PROPERLY CLEANED AWAY TO ELIMINATE MUD OR DUST NUISANCE NO LATER THAN AT THE END OF EACH WORKING DAY. 7. ALL EMBANKMENTS AND CUTTINGS MUST BE OUTSIDE THE ROAD RESERVE. THE TOE OF ANY CUT BATTER IS TO BE 300mm INSIDE THE PROPERTY BOUNDARY; THE TOP OF ANY FILL BATTER IS TO BE 300mm INSIDE THE PROPERTY BOUNDARY. 					
<p>PLAN Scale 1:500</p>					
<p>CONTRACT INFORMATION</p> <p>1. Project Name: THE RISE RURAL RESIDENTIAL SUBDIVISION - STAGE 3</p> <p>2. Client: THE RISE UNIT TRUST</p> <p>3. Location: [Address]</p> <p>4. Date of Issue: 14/02/23</p> <p>5. Drawing No: TR21-001-C11</p> <p>6. Scale: AS SHOWN</p>					
<p>APPROVALS</p> <p>DESIGNED BY: W. S. WILSON</p> <p>CHECKED BY: W. S. WILSON</p> <p>APPROVED BY: W. S. WILSON</p>					
<p>NOTES</p> <p>1. THIS DRAWING IS TO BE USED IN CONJUNCTION WITH THE RELEVANT 3-DP WORKS SPECIFICATIONS.</p> <p>2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.</p> <p>3. ALL DISTURBED AREAS ARE TO BE TOPSOILED AND DRILL SEEDED IN ACCORDANCE WITH THE ENR00C STANDARD SPECIFICATIONS, WITH EXCEPTION OF BATTERS STEEPER THAN 1 IN 4 THAT ARE TO BE TOPSOILED AND HYDROMULCHED.</p> <p>4. ALL CUT & FILL BATTERS ARE TO BE 1 IN 4 UNO.</p> <p>5. DUST SUPPRESSION MEASURES MUST BE UNDERTAKEN TO ENSURE THAT DUST DOES NOT CAUSE A NUISANCE TO SURROUNDING AREAS AND RESIDENTS. SUCH MEASURES MUST BE SUBMITTED AS PART OF THE SEDIMENT CONTROL PLAN.</p> <p>6. IF ANY DUST OR MUD IS BOUGHT ONTO THE ROAD PAVEMENT FROM WORKS ON THE SUBJECT LAND, IT MUST BE PROPERLY CLEANED AWAY TO ELIMINATE MUD OR DUST NUISANCE NO LATER THAN AT THE END OF EACH WORKING DAY.</p> <p>7. ALL EMBANKMENTS AND CUTTINGS MUST BE OUTSIDE THE ROAD RESERVE. THE TOE OF ANY CUT BATTER IS TO BE 300mm INSIDE THE PROPERTY BOUNDARY; THE TOP OF ANY FILL BATTER IS TO BE 300mm INSIDE THE PROPERTY BOUNDARY.</p>					



WATER RETICULATION NOTES

1. WATER SUPPLY PRESSURE PIPES TO COMPLY WITH AS1477.
2. WATER RETICULATION TO BE HYDROSTATICALLY PRESSURE TESTED TO 1500 KPA AFTER LAYING AND BEFORE BEING CONNECTED TO THE EXISTING COUNCIL PIPELINE. THE TEST PRESSURE SHALL BE HELD FOR 15 MINUTES MIN. WITHOUT LOSS.
3. MINIMUM COVER TO ALL PIPES (TOP OF PIPE TO FINISHED SURFACE LEVEL) SHALL BE 600MM IN NON-TRAFFICED AREAS AND 800MM IN TRAFFICED AREAS.
4. WATER RETICULATION ALPHUMENT FOR ALL ROADS SHALL BE 2.0M FROM PROPERTY BOUNDARY.
5. CONTINUOUS BENTONITE TAPE / MARKER WIRE SHALL BE LAD 150MM ABOVE ALL NON-METALLIC PIPE LINE AT A MINIMUM OF 150MM BELOW FINISHED SURFACE LEVEL.
6. FOR MINIMUM BENDING RADIIUS TO 50 DIA POLYETHYLENE REFER TO MANUFACTURERS SPECIFICATIONS.
7. PVC PIPE MAY BE DEFLECTED TO ACHIEVE MINOR ANGLE CHANGES IN PROPERTY BOUNDARIES FOR MAXIMUM DEFLECTIONS REFER TO MANUFACTURERS SPECIFICATIONS.
8. PROVIDE WATER SERVICE AND METERS TO EACH PROPERTY.
9. PROPERTIES LOCATED ON THE OPPOSITE SIDE OF THE ROAD TO THE RETICULATION MAIN SHALL BE SERVICED BY A 50mm Dia (63 OD) POLYETHYLENE LOOP MAIN CI 16.
10. RETICULATION MAIN TO BE 150mm UPVC Series 2 MIN PN16
11. PRESSURE AT CATHERINE ATHERTON DRIVE TO BE CHECKED AGAINST FIRE RATING PLUMS TO ACHIEVE REQUIRED RESIDUAL PRESSURE.

ENERGY DRAWINGS

- S2000A - MSC VALVE BOX INSTALLATION
- S2000B - MSC VALVE BOX INSTALLATION
- S2010E - MISC VALVE BOX INSTALLATION
- S2015A - MISC THRUST BLOCK DETAILS
- S2016B - WATER RETICULATION BEDDING DETAILS
- S2002D - MISC MAIN CONNECTION DETAILS
- S2006A - MISC DOMESTIC WATER SERVICE CONNECTION DETAILS

REF CODE	DESCRIPTION
1	80 dia Spring Hydrant - Main Flow 2000 Tyler (DN80) complete with 150mm dia. valve, 150mm dia. cover and 150mm dia. riser pipe with C.I. cover box
2	150 dia. Ball Valve - 150mm dia. cover with C.I. cover box
3	50 dia. Gate Valve OR Brass complete with C.I. cover box
4	150 dia. seal or bronze tapping band to 40 or 200 copper service to brass stop cock, meter & air box.
5	30 dia. service ferrule, 150mm dia. cover & air box
6	150 dia. D.I.C.L. 22N; band with concrete thrust block
7	150 x 150 x 150 D.I.C.L. Tee with concrete thrust block.
8	50 x 50 x 50 D.I.C.L. Tee with concrete thrust block.
9	Proposed Water Main 150ps (Class 16)
10	150 PE Pressure Pipe PE 100 Blue Stipe SDR11 PN16

PRELIMINARY
DRAWING

<p>THE RISE UNIT TRUST THE RISE RURAL RESIDENTIAL SUBDIVISION - STAGE 3 WATER RETICULATION - LAYOUT PLAN</p>		<p>Plan No: TR21-001-C13</p>
<p>DATE: 2021-08-25</p>	<p>SCALE: AS SHOWN</p>	<p>SHEET: 13</p>
<p>PROJECT: WATER RETICULATION - LAYOUT PLAN</p>	<p>CLIENT: THE RISE UNIT TRUST</p>	<p>DATE: 2021-08-25</p>
<p>DESIGNED BY: BENJAMIN SURVEY & DESIGN</p>	<p>CHECKED BY: W.S.</p>	<p>DATE: 2021-08-25</p>
<p>APPROVED BY: BENJAMIN SURVEY & DESIGN</p>	<p>DATE: 2021-08-25</p>	<p>SCALE: AS SHOWN</p>