

20 September 2023

Enquiries: Jenny Elphinstone
Our Ref: MCUC 2023_5485/1 (Doc ID 1184268)
Your Ref: AU006055/PR152792

Douglas Shire Council
C/ RPS AAP Consulting Pty Ltd
PO Box 1949
CAIRNS QLD 4870

Email: Owen.caddick-king@rpsgroup.com.au

Attention Mr Owen Caddick-King

Dear Sir

Corrected Decision Notice
Development Application for Material Change of Use for a Utility Installation
(Water Supply Intake from Mossman River)
At Gorge and Manjal Dimbi Roads Mossman Gorge and Mossman,
On Land Described as Lot 6 on SP212661,
Lots 1 and 4 on RP716977 and Road

Please find attached the Corrected Decision Notice for the above-mentioned development application.

Please quote Council's application number: MCUC 2023_5485/1 in all subsequent correspondence relating to this development application.

Should you require any clarification regarding this, please contact Jenny Elphinstone on telephone 07 4099 9444.

Yours faithfully



For
Paul Hoyer
Manager Environment & Planning

cc. State Assessment and Referral Agency (SARA) E: CairnsSARA@dilgp.qld.gov.au
encl.

- Decision Notice
 - Approved Drawing(s) and/or Document(s)
 - Concurrence Agency Response
 - Reasons for Decision
- Advice For Making Representations and Appeals (Decision Notice)



Corrected Decision Notice

Approval (with conditions)

Given under s 63 of the Planning Act 2016

Applicant Details

Name: Douglas Shire Council

Postal Address: C/ RPS AAP Consulting Pty Ltd
Attention Owen Caddick-King
PO Box 1949
Cairns Qld 4870

Email: Owen.caddick-king@rpsgroup.com.au

Property Details

Street Address:

- a. Lot 6 Gorge Road, Mossman Gorge;
- b. 1 & 3 Manjal Dimbi Road Mossman;
- c. Road (Tenure Area 2 on GHD Drawing 42-21142-G003, Revision A, Dated 26 August 2020) being adjacent to Lot 6 Gorge Road, Mossman Gorge and 3 Manjal Dimbi Road, Mossman;
- d. Road (Tenure Area 3 on GHD Drawing 42-21142-G003, Revision A, Dated 26 August 2020) being adjacent to 1 and 3 Manjal Dimbi Road, Mossman; and
- e. Manjal Dimbi Road Mossman

Real Property Description:

- a. Lot 6 on SP212661;
- b. Lots 1 and 4 on RP716977;
- c. Road (Tenure Area 2 on GHD Drawing 42-21142-G003, Revision A, Dated 26 August 2020) being adjacent to Lot 6 Gorge Road, Mossman Gorge and 3 Manjal Dimbi Road, Mossman;
- d. Road (Tenure Area 3 on GHD Drawing 42-21142-G003, Revision A, Dated 26 August 2020) being adjacent to 1 and 3 Manjal Dimbi Road, Mossman; and
- e. Manjal Dimbi Road Mossman.

Local Government Area: Douglas Shire Council

Details of Proposed Development

Development Permit for Material Change of Use for a Utility installation for an additional water supply intake and associated intake infrastructure extracting water from a branch of the Mossman River.

Decision

Date of Decision: 20 September 2023 (This Corrected Decision Notice replaces the Decision Notice – Council document ID 1175010).
Decision Details: Approved (subject to conditions)

Approved Drawing(s) and/or Document(s)

Copies of the following plans, specifications and/or drawings are enclosed.

The term 'approved drawing(s) and/or document(s) or other similar expressions means:

Drawing or Document	Reference	Date
Drawing cover sheet and drawing list	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-G001, Revision C.	26 August 2020
Compilation plan and notes	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-G002, Revision B.	14 January 2020
Land tenure procurement	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-G003, Revision A.	26 August 2020
Process and instrumentation diagram	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-J001, Revision C.	26 August 2020
Mossman river intake site general arrangement	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W001, Revision B.	14 January 2020
Submerged gallery intake and low lift pump station - plan	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W002, Revision C.	26 August 2020
Submerged gallery intake sections and details	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W003, Revision C.	26 August 2020
Low lift pump station Plan and sections	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W004, Revision B.	26 August 2020
High lift pump station site general arrangement	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W010, Revision C.	26 August 2020
High lift pump station dimensional drawing	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W011, Revision C.	26 August 2020

Drawing or Document	Reference	Date
High lift pump station pipework schedule - sheet 1	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W012, Revision C.	26 August 2020
High lift pump station pipework schedule - sheet 2	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W013, Revision C.	26 August 2020
High lift pump station pipework sections and details	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W014, Revision B.	26 August 2020
High lift pump station tank details	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W015, Revision B.	26 August 2020
High lift pump station overflow and flow meter details	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W016, Revision B.	26 August 2020
Low lift raw water main plan and longitudinal section	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W020, Revision C.	26 August 2020
High lift raw water main plan and longitudinal section sheet 1	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W021, Revision C.	26 August 2020
High lift raw water main plan and longitudinal section sheet 2	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W022, Revision C.	26 August 2020
Raw water main details (rex interconnection, air, scour)	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-W023, Revision C.	26 August 2020
Structural notes sheet 1	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-S001, Revision B.	14 January 2020
Structural notes sheet 21	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-S002, Revision B.	14 January 2020
Typical structural details and pipe supports	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-S003, Revision A.	26 August 2020
Low lift pump station slab plans and details	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-S005, Revision B.	26 August 2020

Drawing or Document	Reference	Date
High lift pump station slab plans and details	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-S010, Revision A.	17 January 2020
High lift raw water main thrust restraint details	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-S020, Revision A.	17 January 2020
Access road typical sections and details	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-C001, Revision A.	14 January 2020
Access road control line setout	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-C002, Revision A.	14 January 2020
Access road plan & longitudinal section - sheet 1 of 2	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-C003, Revision A.	14 January 2020
Access road plan & longitudinal section - sheet 2 of 2	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-C004, Revision A.	14 January 2020
Access road drainage sections	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-C005, Revision B.	31 August 2020
Electrical services site layout, legend and notes.	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-E001, Revision C <u>A</u> .	14 January 2020
Electrical services schematics	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-E002, Revision B.	14 January 2020
Electrical services telemetry (scada) - sheet 1 of 2	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-E003, Revision C <u>B</u> .	14 January 2020
Electrical services telemetry (scada) - sheet 2 of 2	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-E004, Revision B.	14 January 2020
Electrical services details	GHD, Project Mossman Alternative Raw Water Intake, Drawing 42-21142-E005, Revision A.	14 January 2020
Mossman Proposed Water Intake Potential Disturbance Footprints	RPS Drawings PR152792-6b, 7b, 8b & 9b.	3 April 2023
Rehabilitation Plan, Mosman Water Intake	RPS report AU006055.003, Version 01	26 July 2023

Assessment Manager Conditions & Advices

Conditions

1. Carry out the approved development generally in accordance with the approved drawing(s) and/or document(s), and in accordance with:
 - a. The specifications, facts and circumstances as set out in the application submitted to Council; and
 - b. The following conditions of approval and the requirements of Council's Planning Scheme and the FNQROC Development Manual.

Except where modified by these conditions of approval.

Timing of Effect

2. The conditions of the Development Permit must be effected prior to Commencement of use, except where specified otherwise in these conditions of approval.

Lighting to Infrastructure

3. All lighting installed upon the premises, such as that available during the night for emergency and afterhours maintenance including car parking areas must be certified by Ergon Energy (or such other suitably qualified person). The vertical illumination at a distance of 1.5 metres outside the boundary of the fenced infrastructure facilities must not exceed eight (8) lux measured at any level upwards from ground level.

Noise attenuation

4. The aboveground pumps and associated machinery must be attenuated where determined necessary. A report prepared by a qualified Acoustical Consultant must be submitted prior to the commencement of work to the satisfaction of the Chief Executive Officer. The report must indicate design and construction features to be incorporated, if required, in the development to ensure that the development is acoustically insulated having regard to the provisions of the Environmental Protection Act 1994, Environmental Protection (Noise) Policy 2008. Regard must be given to existing uses and proposed future sensitive uses in the nearby area.

Finish of Above Ground Pipes.

5. The exterior finishes and colours of the above ground water supply pipework must be non-reflective and must blend with the natural colours of the surrounding environment.

Erosion and Sediment Control Strategy

6. All earthworks must be carried out in accordance with section CP1.13 and D5 of the FNQROC Development Manual and must comply with the following:
 - a. Measures nominated in the ESCP must be implemented prior to commencement of any earthworks.
 - b. The ESC Plan must address the Institution of Engineers' Australia Guidelines for Soil Erosion and Sediment Control and the Environment Protection (Water) Policy and Clauses CP1.06, CP1.13 and D5.10 of Council's FNQROC Development Manual.

Acid Sulfate Soil Treatment

7. The proposed development may result in disturbance of potential acid sulfate soils (PASS). Prior to excavation, in association with a geotechnical assessment, an acid sulfate soil investigation must be undertaken. The investigation must be performed in accordance with the latest '*Guidelines for Sampling and Analysis of Lowland Acid Sulfate Soils in Queensland*' produced by the Department of Natural Resources and Mines (previously DNRW), and State Planning Policy 2/02 – Planning and Managing Development Involving Acid Sulfate Soils. Where it is found that PASS exist, treatment of soil must be undertaken on-site to neutralise acid, prior to disposal as fill, in accordance with the DNRW '*Queensland Acid Sulfate Soil Technical Manual*'.

Earthworks

8. Earthwork is permitted between the hours of 6:30am and 6:30pm Monday to Saturday. Earthwork is not to occur on Sundays or Public Holidays.

Remediation

9. Within six months of the commencement of use of the Applicant must have completed the vegetation rehabilitation as per the Rehabilitation Plan, Mosman Water Intake, RPS report AU006055.003, Version 01 dated 26 July 2023 to the satisfaction of the Chief Executive Officer.

Lawful Point of Discharge

10. All stormwater from the property must be directed to a lawful point of discharge such that it does not adversely affect surrounding properties or properties downstream from the development, all to the requirements and satisfaction of the Chief Executive Officer.

Advices

1. All building site managers must take all action necessary to ensure building materials and / or machinery on construction sites are secured immediately following the first cyclone watch and that relevant emergency telephone contacts are provided to Council officers, prior to commencement of works.
2. This approval does not negate the requirement for compliance with all other relevant Council Local Laws and other statutory requirements.
3. The applicant is recommended to consider the following matters in respect to the proposed works in the road over and adjacent to the sugarcane railway crossover:
 - a. The construction of the upgraded access over the sugarcane railway crossing be designed to the standard of the DTMR Drawing 881 – Cane Railway Crossing (asphalt paved)
 - b. The construction of the new water supply under the sugarcane railway crossing be designed to consider future loads above (sugarcane train fully loaded) and any subsidence below to the extent the vertical and horizontal alignments of the railway are to the satisfaction of the railway operator and have RPEQ certification.
 - c. The timing of construction over and under the sugarcane railway is in consultation with the Mossman Mill to ensure the ongoing rural activity is not disrupted. The construction of this part of the work may need to be out of sequence to ensure minimal disruption to the ongoing use of the railway.
4. For information relating to the *Planning Act 2016* log on to <https://planning.dsdmip.qld.gov.au/>. To access the *FNQROC Regional Development Manual*, Local Laws, the Douglas Shire Planning Scheme and other applicable Policies log on to www.douglas.qld.gov.au.

Further Development Permits

Not applicable

Concurrence Agency Response

Concurrence Agency	Concurrence Agency Reference	Date	Doc ID
State Assessment Referral Agency	2308-36116 SRA	12 September 2023	1183727

Note – Concurrence Agency Response is attached. This Concurrence Agency Response maybe amended by agreement with the respective agency.

Currency Period for the Approval

This approval, granted under the provisions of the *Planning Act 2016*, shall lapse six (6) years from the day the approval takes effect in accordance with the provisions of Section 85 of the *Planning Act 2016*.

Rights to make Representations & Rights of Appeal

The rights of applicants to make representations and rights to appeal to a Tribunal or the Planning and Environment Court against decisions about a development application are set out in Chapter 6, Part 1 of the *Planning Act 2016*.

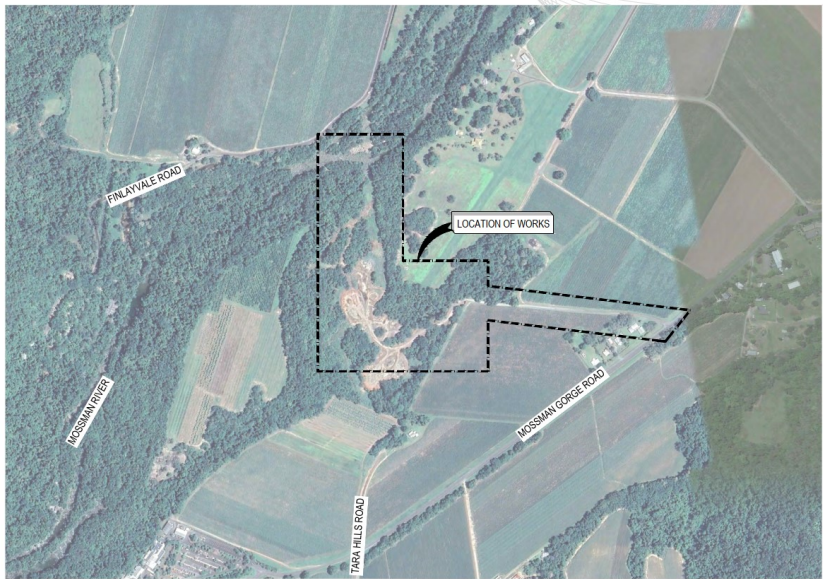
A copy of the relevant appeal provisions is attached.



DOUGLAS SHIRE COUNCIL

MOSSMAN ALTERNATIVE INTAKE

42-21142



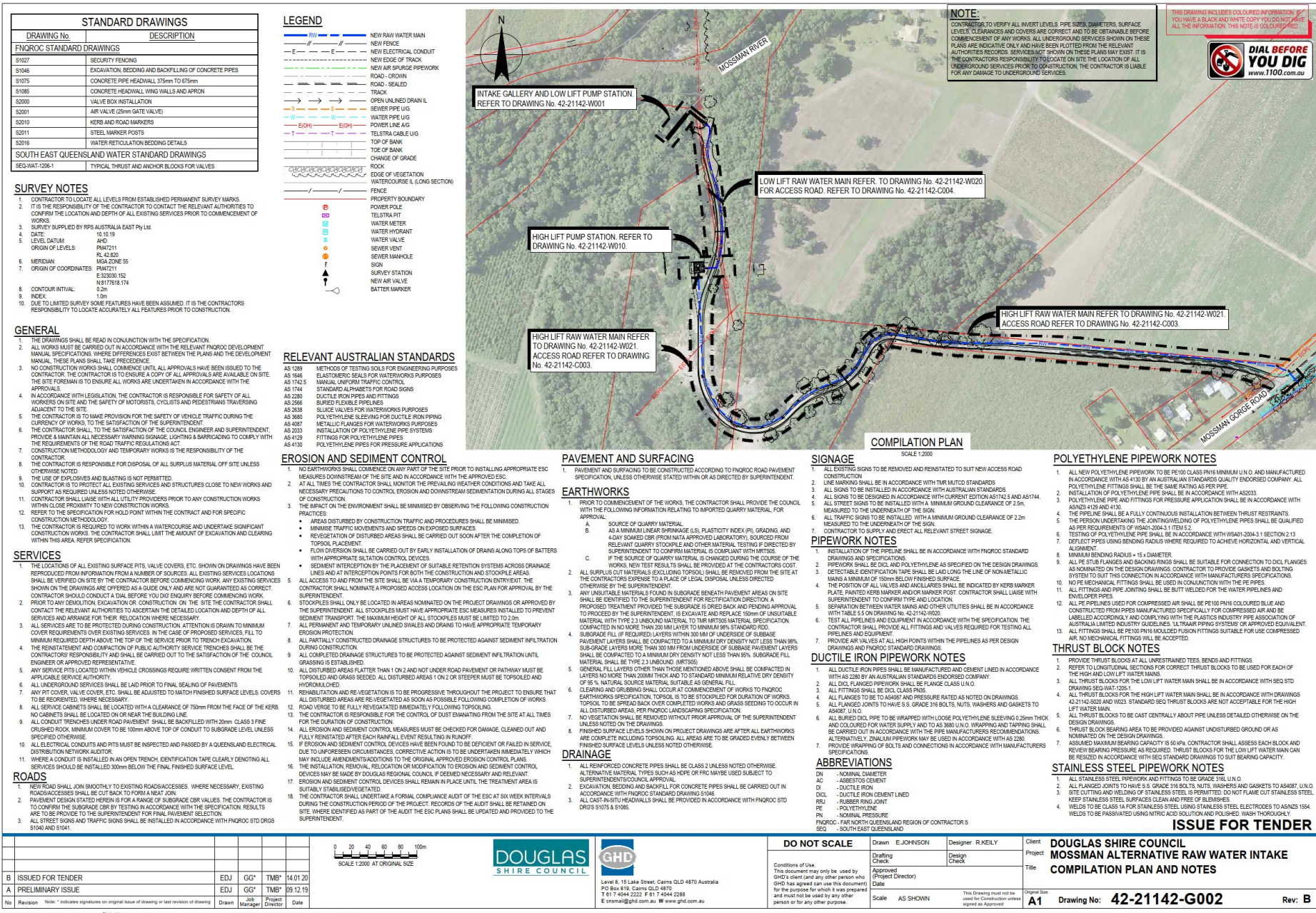
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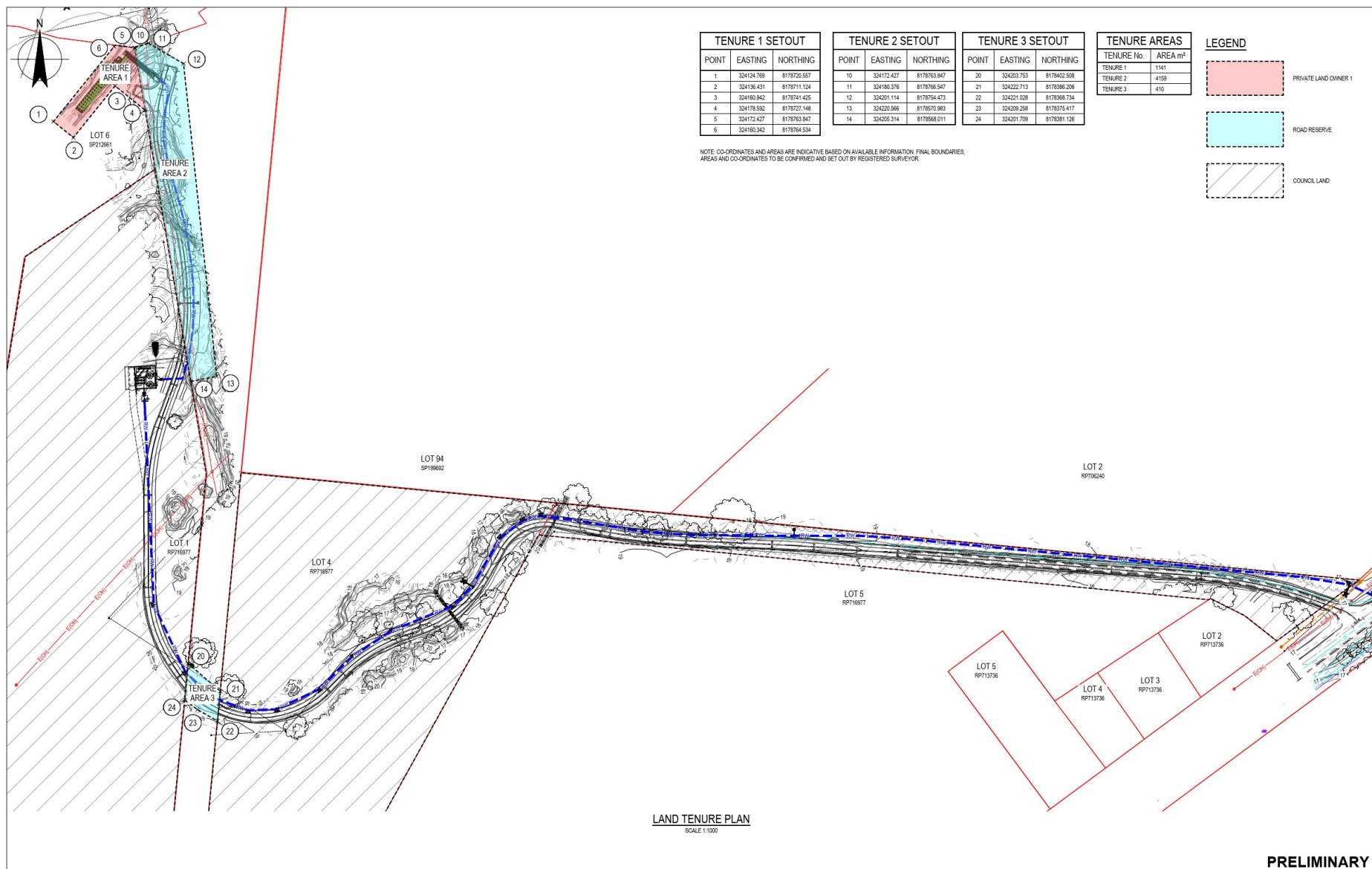
DRAWING LIST

DRAWING No.	DESCRIPTION
GENERAL	
42-21142-G001	DRAWING COVER SHEET AND DRAWING LIST
42-21142-G002	COMPLIATION PLAN AND NOTES
42-21142-G003	LAND TENURE PROCEDUREMENT
PROCESS AND INSTRUMENTATION DIAGRAM	
42-21142-0001	MOSSMAN RIVER INTAKE
42-21142-0002	SUBMERGED GALLERY INTAKE
42-21142-0003	SUBMERGED GALLERY INTAKE
42-21142-0004	LOW LIFT PUMP STATION
PIPEWORK	
42-21142-0010	HIGH LIFT PUMP STATION
42-21142-0011	HIGH LIFT PUMP STATION
42-21142-0012	HIGH LIFT PUMP STATION
42-21142-0013	HIGH LIFT PUMP STATION
42-21142-0014	HIGH LIFT PUMP STATION
42-21142-0015	HIGH LIFT PUMP STATION
42-21142-0016	HIGH LIFT PUMP STATION
RAW WATER MAIN	
42-21142-0020	LOW LIFT RAW WATER MAIN
42-21142-0021	HIGH LIFT RAW WATER MAIN
42-21142-0022	HIGH LIFT RAW WATER MAIN
42-21142-0023	RAW WATER MAIN
STRUCTURAL	
42-21142-0001	STRUCTURAL NOTES
42-21142-0002	STRUCTURAL NOTES
42-21142-0003	TYPICAL STRUCTURAL
42-21142-0005	LOW LIFT PUMP STATION
42-21142-0010	HIGH LIFT PUMP STATION
42-21142-0020	HIGH LIFT WATER MAIN
ACCESS ROAD	
42-21142-0001	ACCESS ROAD
42-21142-0002	ACCESS ROAD
42-21142-0003	ACCESS ROAD
42-21142-0004	ACCESS ROAD
42-21142-0005	ACCESS ROAD
ELECTRICAL SERVICES	
42-21142-E001	ELECTRICAL SERVICES
42-21142-E002	ELECTRICAL SERVICES
42-21142-E003	ELECTRICAL SERVICES
42-21142-E004	ELECTRICAL SERVICES
42-21142-E005	ELECTRICAL SERVICES

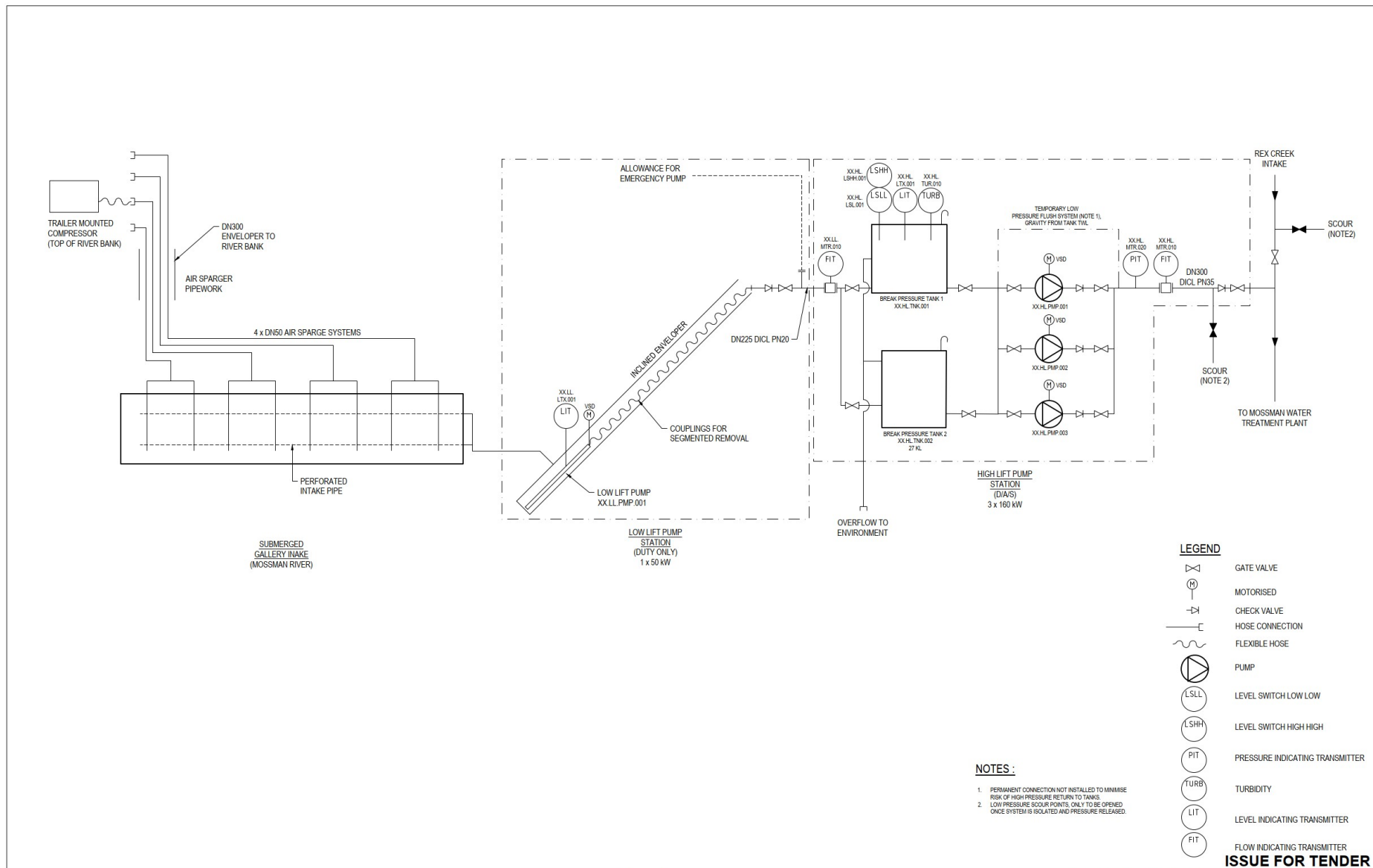
ISSUE FOR TENDER

						 SCALE 1:5000 AT ORIGINAL SIZE		 DOUGLAS SHIRE COUNCIL		 Level 8, 15 Lake Street, Cairns QLD 4870 Australia PO Box 818, Cairns QLD 4870 T 61 7 4044 2222 F 61 7 4044 2288 E csm@ghd.com.au W www.ghd.com.au		DO NOT SCALE		Drawn: E. JOHNSON Designer: R. KELLY		Client: DOUGLAS SHIRE COUNCIL		
C REVISED FOR CLIENT COMMENT						EDJ	GG*	TMB*	26.08.20		Drafting Check		Design Check		Project		MOSSMAN ALTERNATIVE RAW WATER INTAKE	
B ISSUED FOR TENDER						EDJ	GG*	TMB*	14.01.20		Approved (Project Director)		Date		Title		DRAWING COVER SHEET AND DRAWING LIST	
A PRELIMINARY ISSUE						EDJ	GG*	TMB*	29.12.19		Scale AS SHOWN		Original Size		Drawing No: 42-21142-G001		Rev: C	
No Revision Note * indicates signatures on original issue of drawing or last revision of drawing						Drawn	Job Manager	Project Director	Date		This Drawing must not be used for any other purpose without the written approval of GHD or the client.							





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<div>A PRELIMINARY ISSUE</div> <div>No Revision Note: * Indicates signatures on original issue of drawing or last revision of drawing</div> <div>EDJ GG* TMB* 26.08.20</div> <div>Drawn 308 Manager Project Director Date</div> <div>Plot Date: 26 August 2020 - 9:43 AM Plotted by: Ewan Johnson Cad File No: 014212142CADD00wingm042-21142-G003.dwg</div>																			



					DOUGLAS SHIRE COUNCIL		GHD		DOUGLAS SHIRE COUNCIL		
					Level 8, 15 Lake Street, Cairns QLD 4870 Australia		PO Box 816, Cairns QLD 4870		MOSSMAN ALTERNATIVE RAW WATER INTAKE		
					T 61 7 4044 2222 F 61 7 4044 2288		E cnsmail@ghd.com.au W www.ghd.com.au		PROCESS AND INSTRUMENTATION DIAGRAM		
					Conditions of Use:		This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.		DOUGLAS SHIRE COUNCIL		
					DO NOT SCALE		Drawn: E.JOHNSON		Client: DOUGLAS SHIRE COUNCIL		
							Designer: G.GADEMAN		Project: MOSSMAN ALTERNATIVE RAW WATER INTAKE		
							Drafting: [blank]		Title: [blank]		
							Approved: [blank]		Original Size: A1		
							Date: [blank]		Drawing No: 42-21142-J001		
							Scale: AS SHOWN		Rev: C		
							This Drawing must not be used for Construction unless signed as Approved				

Plot Date: 26 August 2020 - 8:40 AM Plotted by: Ewan Johnson

Call File No: G:\4231142\CA\DOUGLAS\42-21142-J001.dwg

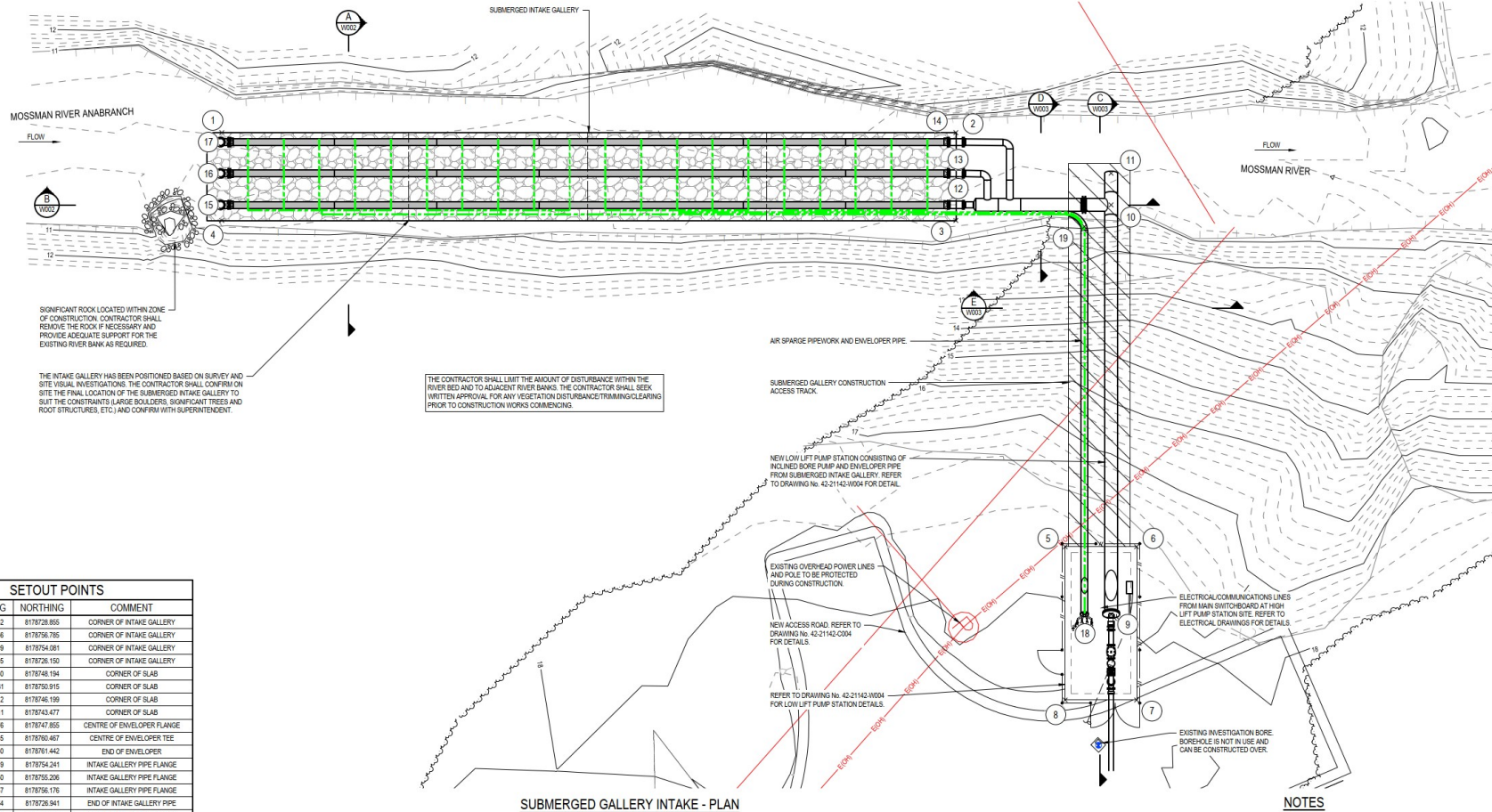


NO CONSTRUCTION TO COMMENCE UNTIL ALL APPROVALS HAVE BEEN ISSUED AND TO THE CONTRACTOR. THE CONTRACTOR SHALL DIVERT WATER FLOW FROM THE MOSSMAN RIVER ANABRANCH AND USE DEWATERING PUMP FOR THE DURATION OF CONSTRUCTION AS REQUIRED. THE CONTRACTOR SHALL SUBMIT METHODOLOGY OF CONSTRUCTION WORKS INCLUSIVE OF DEWATERING AND MILESTONE DATES WHERE THE MOSSMAN RIVER ANABRANCH WILL BE AFFECTED. REFER TO SPECIFICATION FOR HOLD POINTS AND FURTHER CONSTRUCTION METHODOLOGY NOTES.

NOTE:

CONTRACTOR TO VERIFY ALL INVERT LEVELS, PIPE SIZES, DIAMETERS, SURFACE LEVELS, CLEARANCES AND COVER ARE CORRECT AND TO BE OBTAINABLE BEFORE COMMENCEMENT OF ANY WORKS. ALL UNDERGROUND SERVICES SHOWN ON THESE PLANS ARE INDICATIVE ONLY AND HAVE BEEN PLOTTED FROM THE RELEVANT AUTHORITIES RECORDS. SERVICES NOT SHOWN ON THESE PLANS MAY EXIST. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ON SITE THE LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS LIABLE FOR ANY DAMAGE TO UNDERGROUND SERVICES.

THIS DRAWING INCLUDES COLOURED INFORMATION. IF YOU HAVE A BLACK AND WHITE COPY YOU DO NOT HAVE ALL THE INFORMATION. THIS NOTE IS COLOURED RED.



SIGNIFICANT ROCK LOCATED WITHIN ZONE OF CONSTRUCTION. CONTRACTOR SHALL REMOVE THE ROCK IF NECESSARY AND PROVIDE ADEQUATE SUPPORT FOR THE EXISTING RIVER BANK AS REQUIRED.

THE INTAKE GALLERY HAS BEEN POSITIONED BASED ON SURVEY AND SITE VISUAL INVESTIGATION. THE CONTRACTOR SHALL CONFIRM ON SITE THE FINAL LOCATION OF THE SUBMERGED INTAKE GALLERY TO SUIT THE CONSTRAINTS (LARGE BOULDERS, SIGNIFICANT TREES AND ROOT STRUCTURES, ETC.) AND CONFIRM WITH SUPERINTENDENT.

THE CONTRACTOR SHALL LIMIT THE AMOUNT OF DISTURBANCE WITHIN THE RIVER BED AND TO ADJACENT RIVER BANKS. THE CONTRACTOR SHALL SEEK WRITTEN APPROVAL FOR ANY VEGETATION DISTURBANCE TRAINING/CLEARING PRIOR TO CONSTRUCTION WORKS COMMENCING.

EXISTING OVERHEAD POWER LINES AND POLE TO BE PROTECTED DURING CONSTRUCTION.

NEW ACCESS ROAD. REFER TO DRAWING NO. 42-21142-0004 FOR DETAILS.

REFER TO DRAWING NO. 42-21142-0004 FOR LOW LIFT PUMP STATION DETAILS.

ELECTRICAL COMMUNICATIONS LINES FROM MAIN SWITCHBOARD AT HIGH LIFT PUMP STATION SITE. REFER TO ELECTRICAL DRAWINGS FOR DETAILS.

EXISTING INVESTIGATION SORE BOREHOLE IS NOT IN USE AND CAN BE CONSTRUCTED OVER.

NOTES

1. DRAWING TO BE READ IN CONJUNCTION WITH SPECIFICATION.
2. REFER TO DRAWING NO. 42-21142-0002 FOR NOTES AND LEGEND.
3. REFER TO DRAWING NO. 42-21142-0001 TO 0002 FOR STRUCTURAL NOTES.

ISSUE FOR TENDER

SETOUT POINTS			
POINT	EASTING	NORTHING	COMMENT
1	324138.362	8178728.858	CORNER OF INTAKE GALLERY
2	324160.956	8178756.785	CORNER OF INTAKE GALLERY
3	324164.299	8178754.081	CORNER OF INTAKE GALLERY
4	324141.705	8178726.150	CORNER OF INTAKE GALLERY
5	324180.080	8178748.194	CORNER OF SLAB
6	324182.281	8178750.915	CORNER OF SLAB
7	324188.112	8178746.199	CORNER OF SLAB
8	324185.911	8178743.477	CORNER OF SLAB
9	324184.076	8178747.855	CENTRE OF ENVELOPER FLANGE
10	324168.485	8178760.467	CENTRE OF ENVELOPER TEE
11	324167.280	8178761.442	END OF ENVELOPER
12	324163.449	8178754.241	INTAKE GALLERY PIPE FLANGE
13	324162.250	8178755.206	INTAKE GALLERY PIPE FLANGE
14	324161.057	8178756.176	INTAKE GALLERY PIPE FLANGE
15	324141.364	8178726.941	END OF INTAKE GALLERY PIPE
16	324140.168	8178727.908	END OF INTAKE GALLERY PIPE
17	324138.973	8178728.875	END OF INTAKE GALLERY PIPE
18	324183.259	8178746.945	CENTRE OF ENVELOPER FLANGE
19	324168.491	8178758.791	END OF ENVELOPER

SUBMERGED GALLERY INTAKE - PLAN

SCALE 1:100



Level 8, 15 Lake Street, Cairns QLD 4870 Australia
PO Box 816, Cairns QLD 4870
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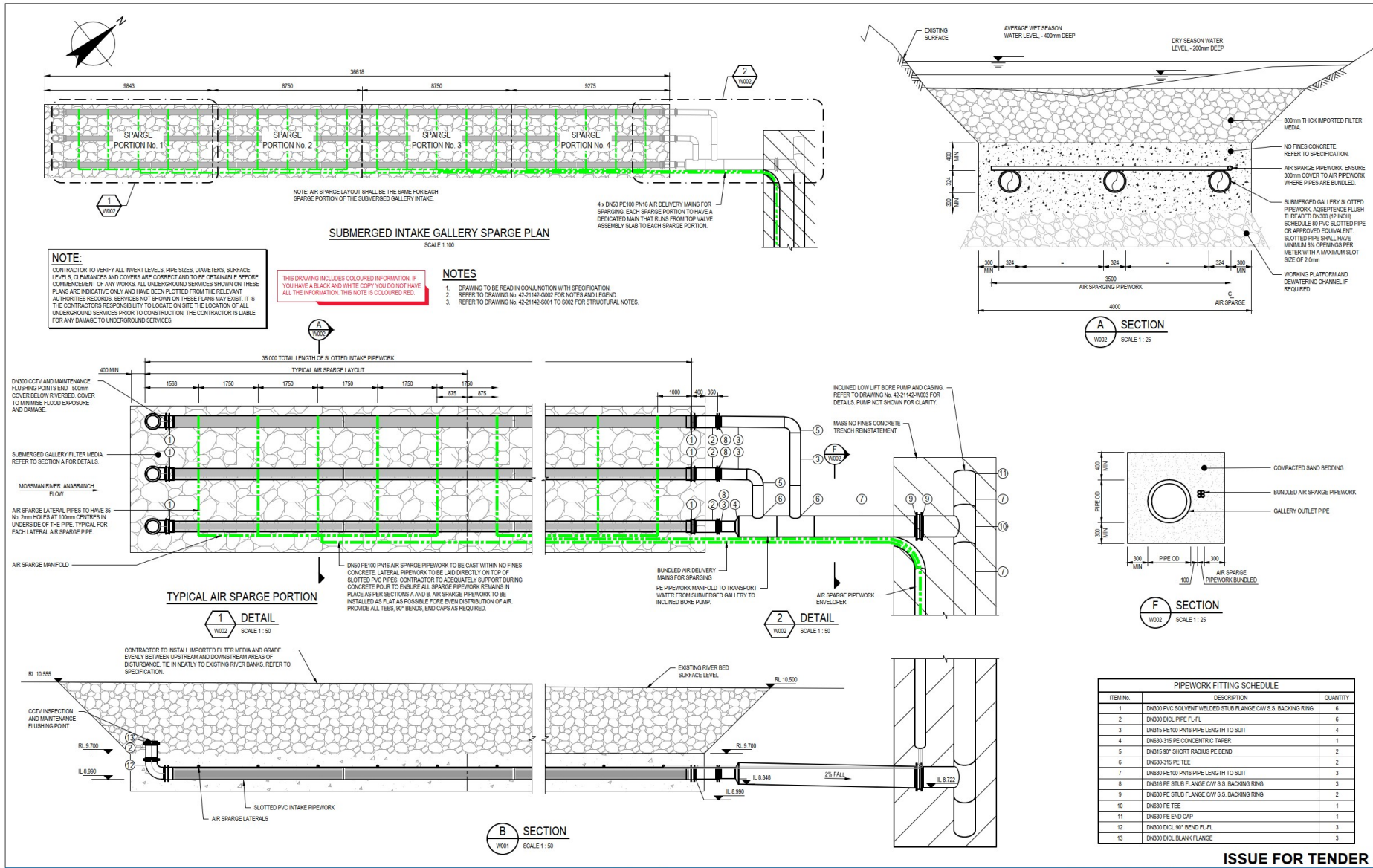
Drawn: R.KEELY
Drafting Check: Design Check
Approved (Project Director):
Date:
Scale: AS SHOWN

Designer: G.GADEMAN
Client: DOUGLAS SHIRE COUNCIL
Project: MOSSMAN ALTERNATIVE RAW WATER INTAKE
Title: MOSSMAN RIVER INTAKE SITE GENERAL ARRANGEMENT

Original Size: A1
Drawing No: 42-21142-W001

Rev: B

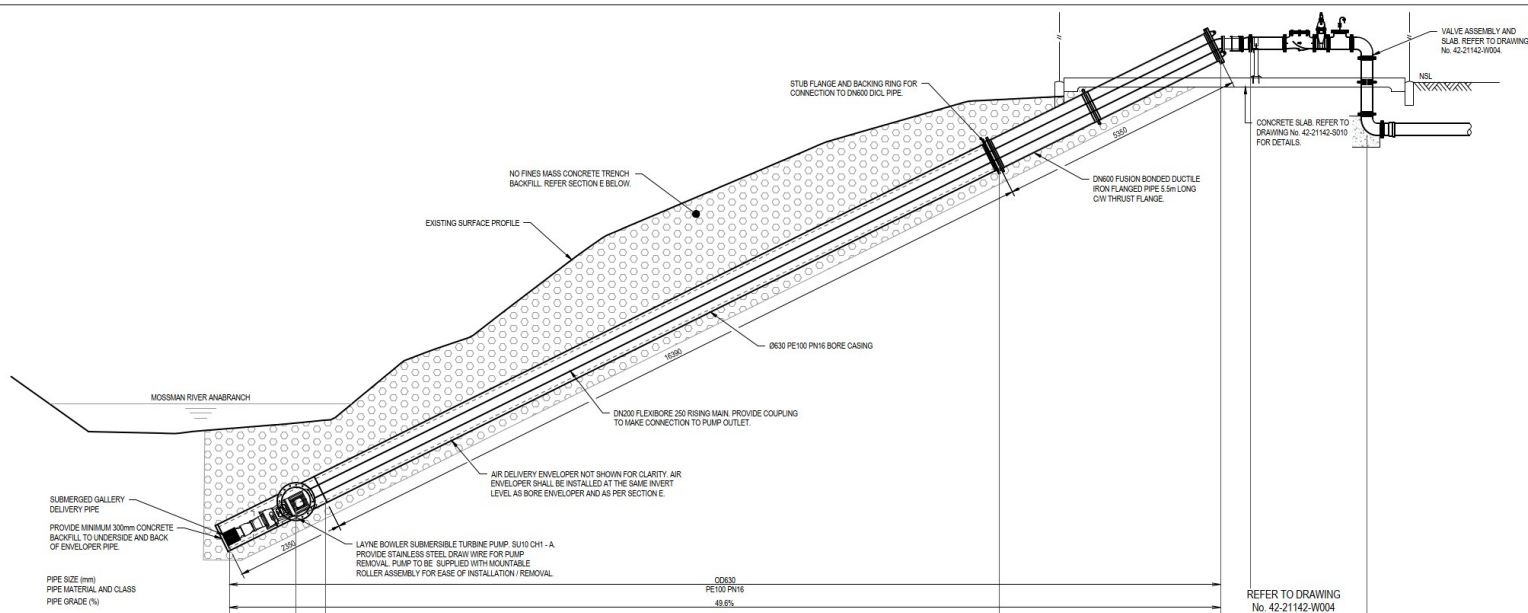
Plot Date: 26 August 2020 - 8:44 AM
Plotted by: Evan Johnson
Caid File No.: G:\4231142\CAID\Drawings\42-21142-W001.dwg



PIPEWORK FITTING SCHEDULE		
ITEM No.	DESCRIPTION	QUANTITY
1	DN300 PVC SOLVENT WELDED STUB FLANGE C/W S.S. BACKING RING	6
2	DN300 DCL PIPE FL-FL	6
3	DN315 PE100 PIPE LENGTH TO SUIT	4
4	DN630-315 PE CONCENTRIC TAPER	1
5	DN315 90° SHORT RADIUS PE BEND	2
6	DN630-315 PE TEE	2
7	DN630 PE100 PIPE LENGTH TO SUIT	3
8	DN315 PE STUB FLANGE C/W S.S. BACKING RING	3
9	DN630 PE STUB FLANGE C/W S.S. BACKING RING	2
10	DN630 PE TEE	1
11	DN630 PE END CAP	1
12	DN300 DCL 90° BEND FL-FL	3
13	DN300 DCL BLANK FLANGE	3

ISSUE FOR TENDER

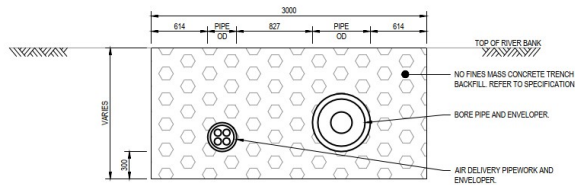
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B ISSUED FOR TENDER				EDJ	GG*	TM8*	14.01.20
A PRELIMINARY ISSUE				EDJ	GG*	TM8*	09.12.19
Revision				Drawn	208	Project Manager	Date
Note: * Indicates signatures on original issue of drawing or last revision of drawing							
Plot Date: 26 August 2020 - 8:45 AM				Plotted by: Ewan Johnson			
Cust File No: G:\4221142\CA\DWG\Drawing\42-21142-W002.dwg							
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				Drafting: [blank]			
				Design Check: [blank]			
				Approved (Project Director): [blank]			
				Date: [blank]			
				Scale: AS SHOWN			
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				Original Size: A1			
				Drawing No: 42-21142-W002			
				Rev: C			



	0+000	0+146.4	0+200	0+300	0+400	0+500	0+600	0+700	0+800
EXISTING SURFACE	6.972	6.962	6.930						
PIPE INVERT LEVEL	2.971	2.972	2.975						
DEPTH TO INVERT	4.001	3.990	3.955						
CHAINAGE	0.000	146.4	200						

LONGITUDINAL SECTION

C SECTION
W001 SCALE 1: 50



E SECTION
W001 SCALE 1: 25

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 - REFER TO DRAWING No. 42-21142-S001 TO S002 FOR STRUCTURAL NOTES.

ISSUE FOR TENDER

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C. REVISED FOR CLIENT COMMENT						EDJ GG* TMB*		26.08.20													
B. ISSUED FOR TENDER						EDJ GG* TMB*		14.01.20													
A. PRELIMINARY ISSUE						EDJ GG* TMB*		09.12.19													
No Revision Note: * indicates signatures on original issue of drawing to last revision of drawing						Drawn Job Manager		Project Director		Date											
												Plot B16, 19 Lake Street, Cairns QLD 4870 Australia PO Box 819, Cairns QLD 4870 T 61 7 4044 2222 F 61 7 4044 2288 E csm@ghd.com.au W www.ghd.com.au								Original Size: A1 Drawing No: 42-21142-W003 Rev: C	

Plot Date: 26 August 2020 - 8:45 AM
 Plotted by: Evan Johnson
 Cadd File No: G:\42\21142\CA\DO\Drawings\42-21142-W003.dwg

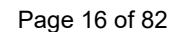


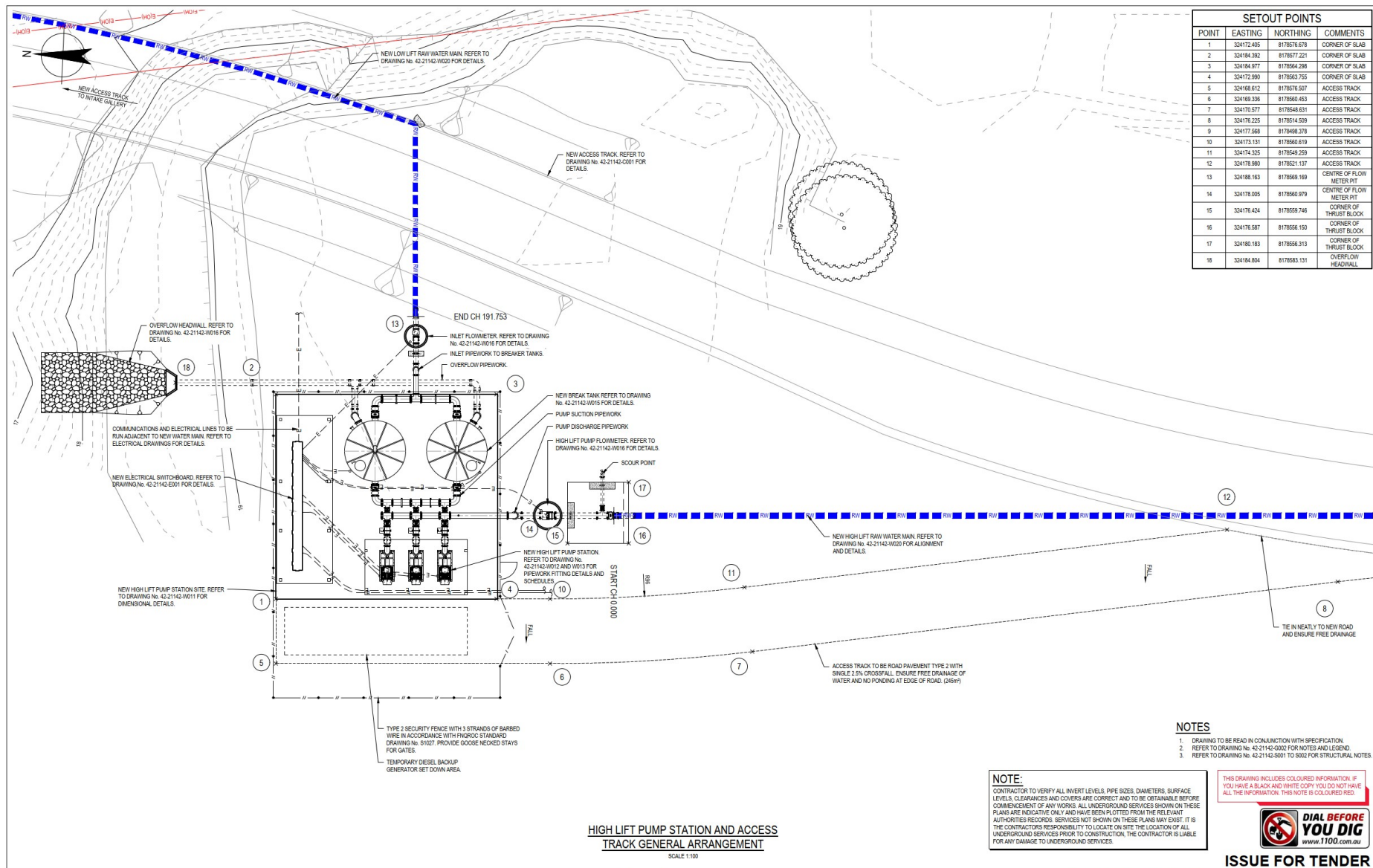
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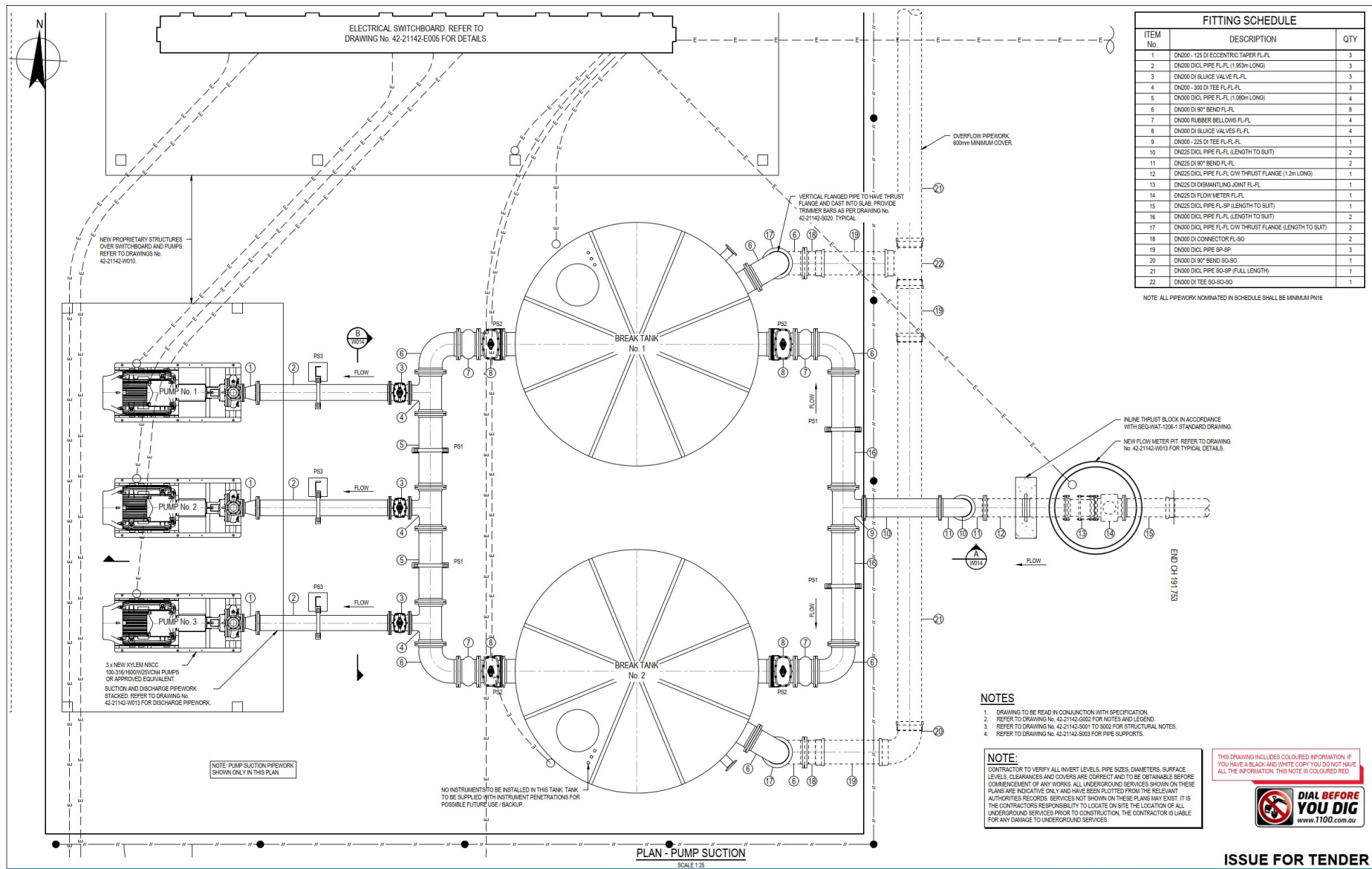
Drawn: R.KEELY
 Designer: G.GADEMAN
 Drafting Check: Design Check
 Approved (Project Director):
 Date:
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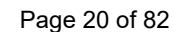


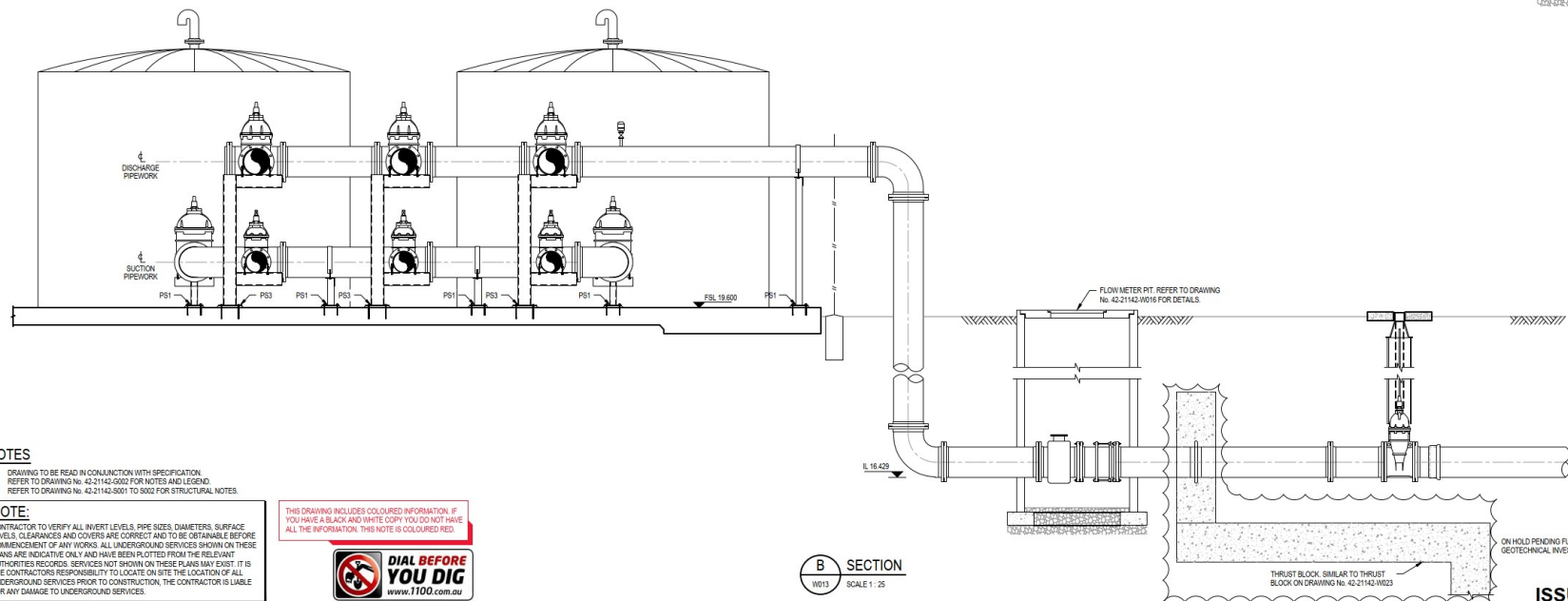
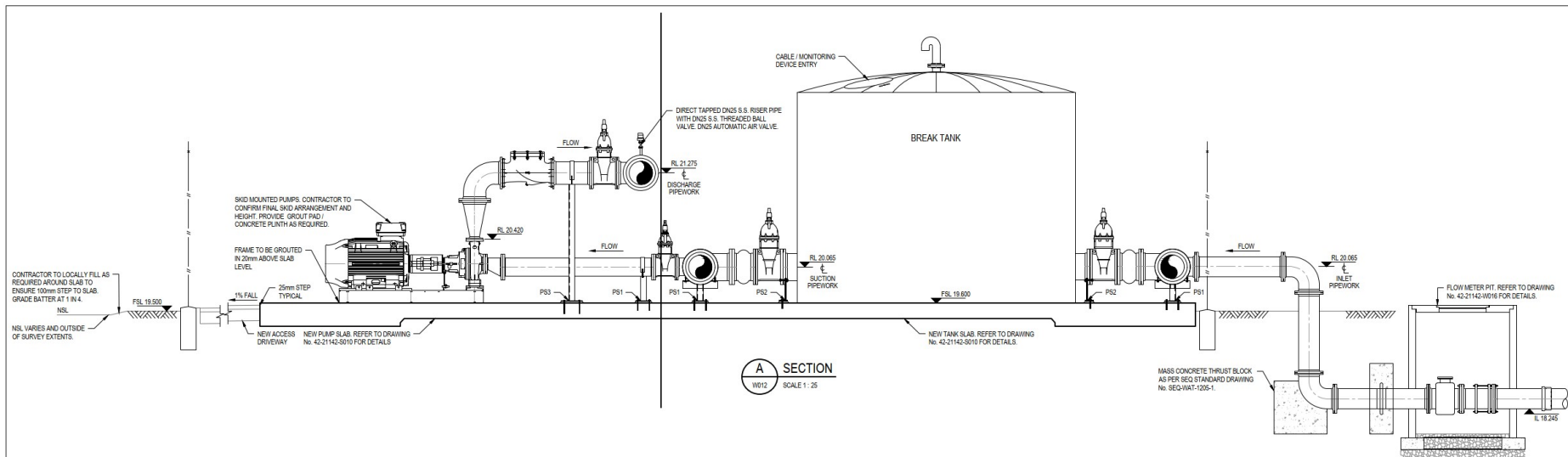
<div> <div>0 1 2 3 4 5m</div> <div>SCALE 1:100 AT ORIGINAL SIZE</div> </div>				<div> <div>DOUGLAS SHIRE COUNCIL</div> <div>GHD</div> </div>		<div> <div>DO NOT SCALE</div> <div>Conditions of Use: This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.</div> </div>	<div> <div>Drawn: R. KELLY</div> <div>Drafting: [blank]</div> <div>Check: [blank]</div> <div>Approved: [blank]</div> <div>Date: [blank]</div> </div>	<div> <div>Designer: G. GADEMAN</div> <div>Design: [blank]</div> <div>Project: [blank]</div> <div>Title: [blank]</div> </div>	<div> <div>Client: DOUGLAS SHIRE COUNCIL</div> <div>Project: MOSSMAN ALTERNATIVE RAW WATER INTAKE</div> <div>Title: HIGH LIFT PUMP STATION SITE GENERAL ARRANGEMENT</div> <div>Original Size: A1</div> <div>Drawing No: 42-21142-W010</div> <div>Rev: C</div> </div>
<div> <div>C</div> <div>REVISED FOR CLIENT COMMENT</div> <div>EDJ</div> <div>GG*</div> <div>TM8*</div> <div>26.08.20</div> </div>	<div> <div>B</div> <div>ISSUED FOR TENDER</div> <div>EDJ</div> <div>GG*</div> <div>TM8*</div> <div>14.01.20</div> </div>	<div> <div>A</div> <div>PRELIMINARY ISSUE</div> <div>EDJ</div> <div>GG*</div> <div>TM8*</div> <div>09.12.19</div> </div>	<div> <div>No</div> <div>Revision</div> <div>Note: * Indicates signatures on original issue of drawing or last revision of drawing</div> <div>Drawn: [blank]</div> <div>Project Manager: [blank]</div> <div>Date: [blank]</div> </div>	<div> <div>Level 8, 15 Lake Street, Cairns QLD 4870 Australia</div> <div>PO Box 816, Cairns QLD 4870</div> <div>T 61 7 4044 2222 F 61 7 4044 2288</div> <div>E csmail@ghd.com.au W www.ghd.com.au</div> </div>		<div> <div>Print Date: 26 August 2020 - 8:48 AM</div> <div>Plotted by: Evan Johnson</div> <div>Calc File No: G:\42\21142\CA00\Drawings\42-21142-W010.dwg</div> </div>			



<div> <div> <div>C</div> <div>REVISED FOR CLIENT COMMENT</div> <div>EDJ</div> <div>GG*</div> <div>TM8*</div> <div>26.08.20</div> </div> <div> <div>B</div> <div>ISSUED FOR TENDER</div> <div>EDJ</div> <div>GG*</div> <div>TM8*</div> <div>14.01.20</div> </div> <div> <div>A</div> <div>PRELIMINARY ISSUE</div> <div>EDJ</div> <div>GG*</div> <div>TM8*</div> <div>09.12.19</div> </div> </div> <div> <div>Revision</div> <div>Note *</div> <div>Indicates signatures on original issue of drawing or last revision of drawing</div> </div> <div> <div>Drawn</div> <div>208</div> <div>Project Manager</div> </div> <div> <div>Date</div> <div>208</div> <div>Project Director</div> </div>				<div> <div>0 0.25 0.5 0.75 1.0 1.25m</div> <div>SCALE 1:25 AT ORIGINAL SIZE</div> </div> <div> <div>DOUGLAS SHIRE COUNCIL</div> </div> <div> <div>GHD</div> <div>Level 8, 15 Lake Street, Cairns QLD 4870 Australia</div> <div>PO Box 816, Cairns QLD 4870</div> <div>T 61 7 4044 2222 F 61 7 4044 2288</div> <div>E cnsmail@ghd.com.au W www.ghd.com.au</div> </div>		<div> <div>DO NOT SCALE</div> <div>Conditions of Use:</div> <div>This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used for any other person or for any other purpose.</div> </div> <div> <div>Drawn</div> <div>E. JOHNSON</div> <div>Designer</div> <div>G. GADEMAN</div> <div>Drafting Check</div> <div>Design Check</div> <div>Approved (Project Director)</div> <div>Date</div> <div>Scale</div> <div>AS SHOWN</div> </div> <div> <div>This drawing must not be used for construction unless agreed as Approved</div> </div>		<div> <div>Client</div> <div>DOUGLAS SHIRE COUNCIL</div> <div>Project</div> <div>MOSSMAN ALTERNATIVE RAW WATER INTAKE</div> <div>Title</div> <div>HIGH LIFT PUMP STATION PIPEWORK SCHEDULE - SHEET 1</div> </div> <div> <div>Original Size</div> <div>A1</div> <div>Drawing No:</div> <div>42-21142-W012</div> <div>Rev:</div> <div>C</div> </div>	
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Plot Date: 26 August 2020 - 8:48 AM Plotted by: Eyan Johnson Caid File No: G14231142CADD00Drawing42-21142-W012.dwg





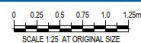
NOTES

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- REFER TO DRAWING No. 42-21142-W001 TO SEE FOR STRUCTURAL NOTES.

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Approved: [blank]
Project Director: [blank]
Date: [blank]
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Designer: G. GADEMAN
Design Check: [blank]

Client: [blank]
Project: [blank]

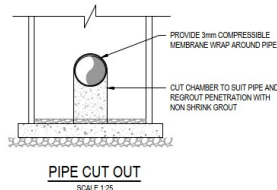
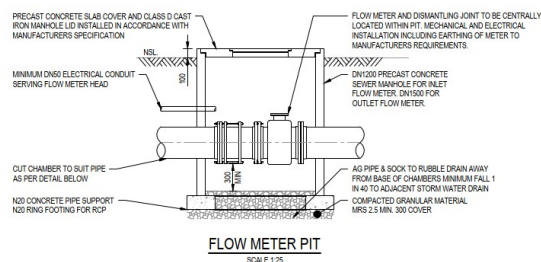
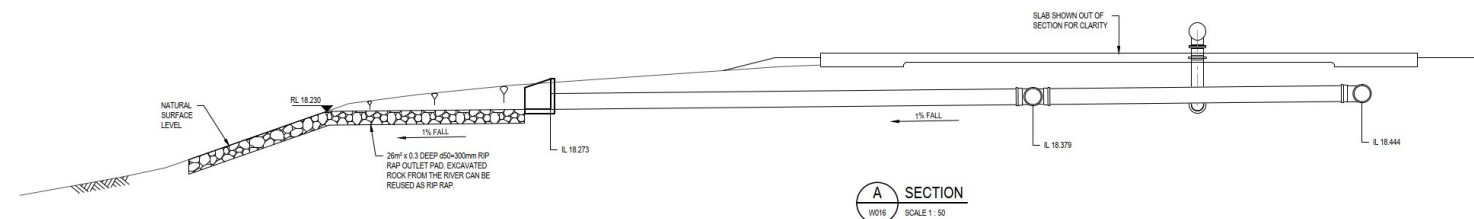
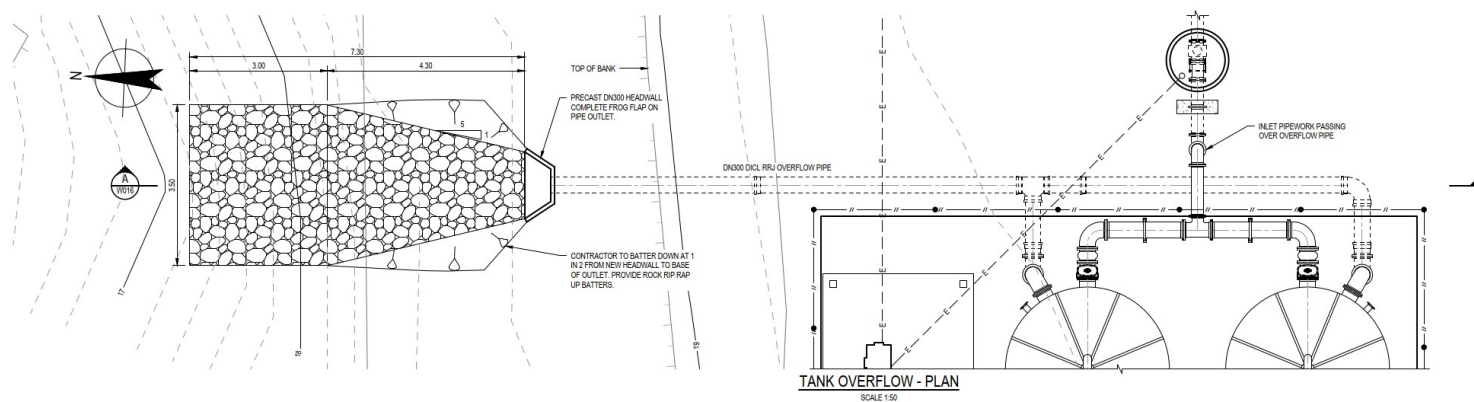
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DOUGLAS SHIRE COUNCIL
MOSSMAN ALTERNATIVE RAW WATER INTAKE
HIGH LIFT PUMP STATION
PIPEWORK SECTIONS AND DETAILS

Original Size: A1
Drawing No: 42-21142-W014

Rev: B

ISSUE FOR TENDER



NOTES

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NOTE:

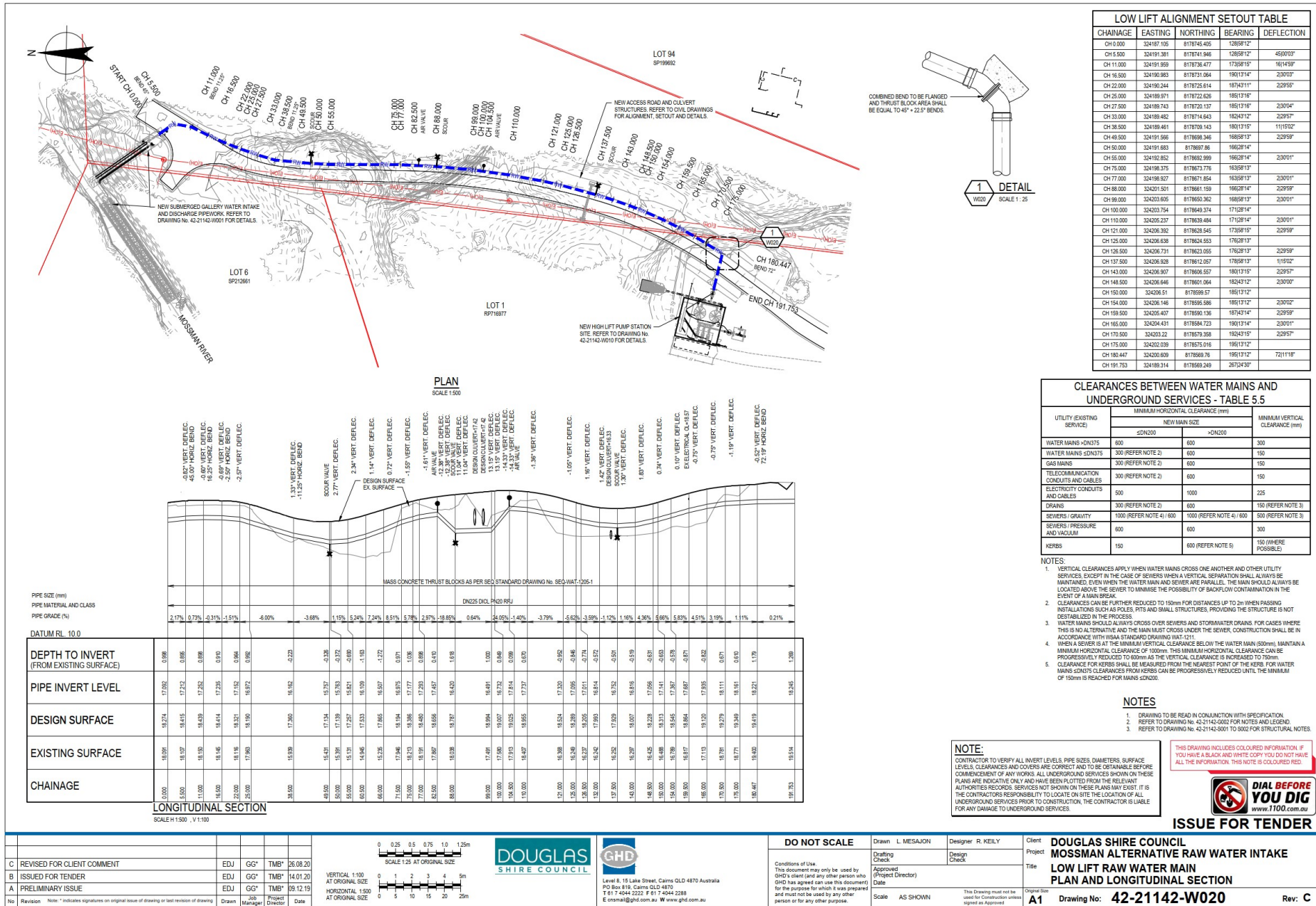
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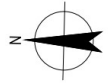
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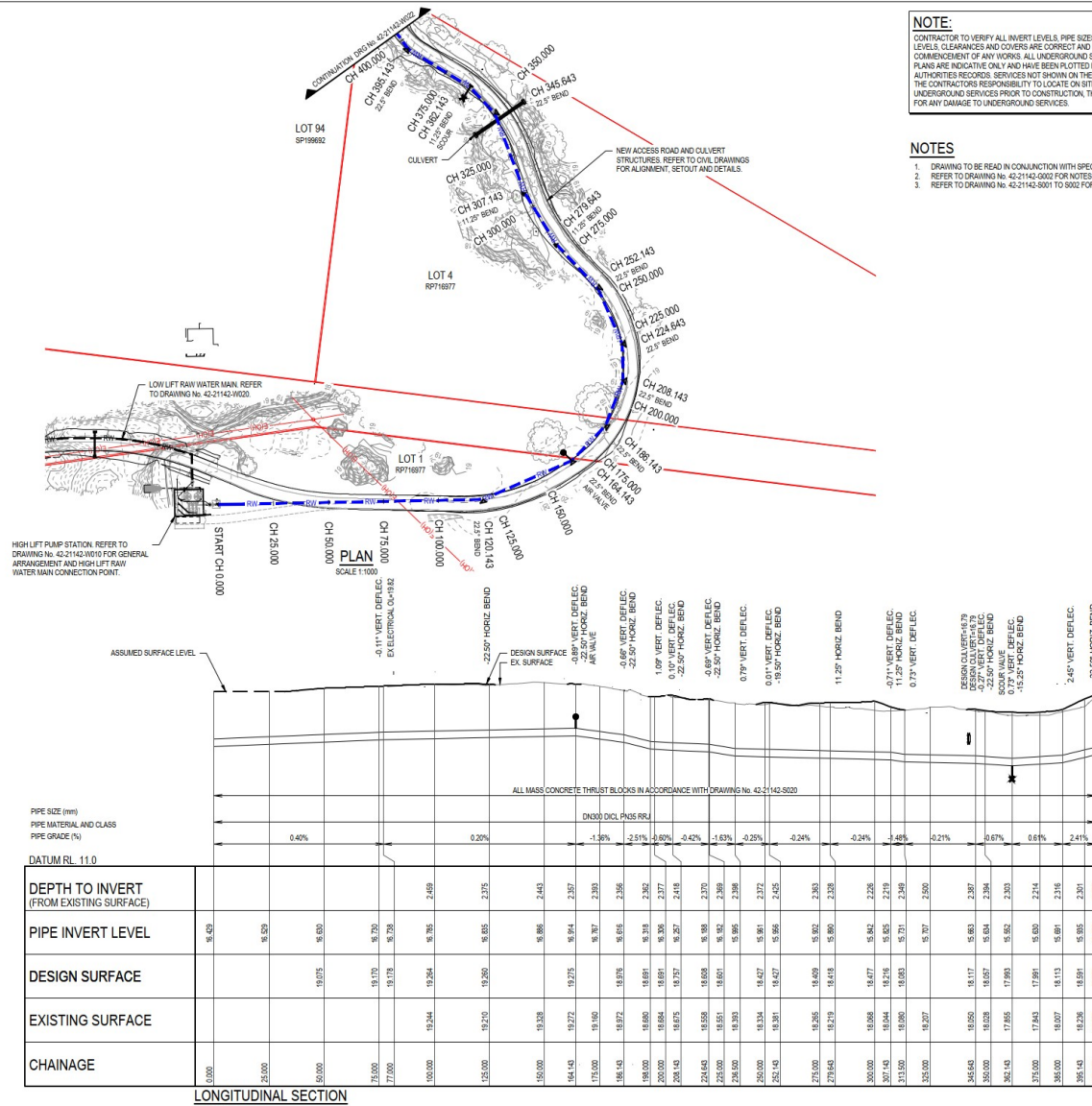
ISSUE FOR TENDER

<p>DOUGLAS SHIRE COUNCIL</p>	<p>MOSSMAN ALTERNATIVE RAW WATER INTAKE</p>	<p>HIGH LIFT PUMP STATION OVERFLOW AND FLOW METER DETAILS</p>	<p>Rev: B</p>
<p>Revised: Note * indicates signatures on original issue of drawing or last revision of drawing</p>	<p>Drawn: EDJ Checked: GG* Approved: TMB* Date: 26.08.20</p>	<p>Scale: AS SHOWN</p>	<p>Original Size: A1 Drawing No: 42-21142-W016</p>





HIGH LIFT ALIGNMENT SETOUT TABLE				
CHAINAGE	EASTING	NORTHING	BEARING	DEFLECTION
CH 0+000	324178.180	8178557.113	177°24'30"	
CH 25+000	324179.310	8178532.139	177°24'30"	
CH 50+000	324180.441	8178507.164	177°24'30"	
CH 75+000	324181.571	8178482.190	177°24'30"	
CH 100+000	324182.702	8178457.215	177°24'30"	
CH 125+000	324183.832	8178432.240	177°24'30"	22°30'01"
CH 150+000	324184.962	8178407.265	154°54'29"	
CH 175+000	324186.092	8178382.290	154°54'29"	22°30'00"
CH 200+000	324187.222	8178357.315	132°24'29"	
CH 225+000	324188.352	8178332.340	132°24'29"	22°29'59"
CH 250+000	324189.482	8178307.365	109°54'29"	
CH 275+000	324190.612	8178282.390	109°54'29"	22°29'58"
CH 300+000	324191.742	8178257.415	64°54'30"	
CH 325+000	324192.872	8178232.440	64°54'30"	22°30'00"
CH 350+000	324194.002	8178207.465	64°54'30"	
CH 375+000	324195.132	8178182.490	45°24'30"	
CH 400+000	324196.262	8178157.515	45°24'30"	11°14'50"
CH 425+000	324197.392	8178132.540	56°39'30"	
CH 450+000	324198.522	8178107.565	56°39'30"	11°15'00"
CH 475+000	324199.652	8178082.590	67°54'30"	
CH 500+000	324200.782	8178057.615	67°54'30"	22°30'00"
CH 525+000	324201.912	8178032.640	45°24'29"	
CH 550+000	324203.042	8178007.665	45°24'29"	15°14'50"
CH 575+000	324204.172	8178082.690	30°09'29"	
CH 600+000	324205.302	8178057.715	30°09'29"	22°29'59"
CH 625+000	324206.432	8178032.740	52°39'29"	
CH 650+000	324207.562	8178007.765	52°39'29"	22°30'00"
CH 675+000	324208.692	8177982.790	75°09'29"	
CH 700+000	324209.822	8177957.815	75°09'29"	22°30'00"
CH 725+000	324210.952	8177932.840	97°39'30"	
CH 750+000	324212.082	8177907.865	97°39'30"	15°59'59"
CH 775+000	324213.212	8177882.890	97°39'30"	
CH 800+000	324214.342	8177857.915	99°39'29"	
CH 825+000	324215.472	8177832.940	99°39'29"	15°59'59"
CH 850+000	324216.602	8177807.965	99°39'29"	
CH 875+000	324217.732	8177782.990	99°39'29"	22°30'00"
CH 900+000	324218.862	8177757.015	99°39'29"	
CH 925+000	324219.992	8177732.040	99°39'29"	22°30'00"
CH 950+000	324221.122	8177707.065	99°39'29"	
CH 975+000	324222.252	8177682.090	99°39'29"	22°30'00"
CH 1000+000	324223.382	8177657.115	99°39'29"	



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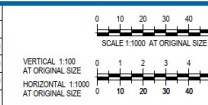
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ISSUE FOR TENDER

C	REVISED FOR CLIENT COMMENT	EDJ	GG*	TMB*	26.08.20
B	ISSUED FOR TENDER	EDJ	GG*	TMB*	14.01.20
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No	Revision	Note	* Indicates signatures on original issue of drawing or last revision of drawing	Drawn	308 Manager
				Project Director	Date



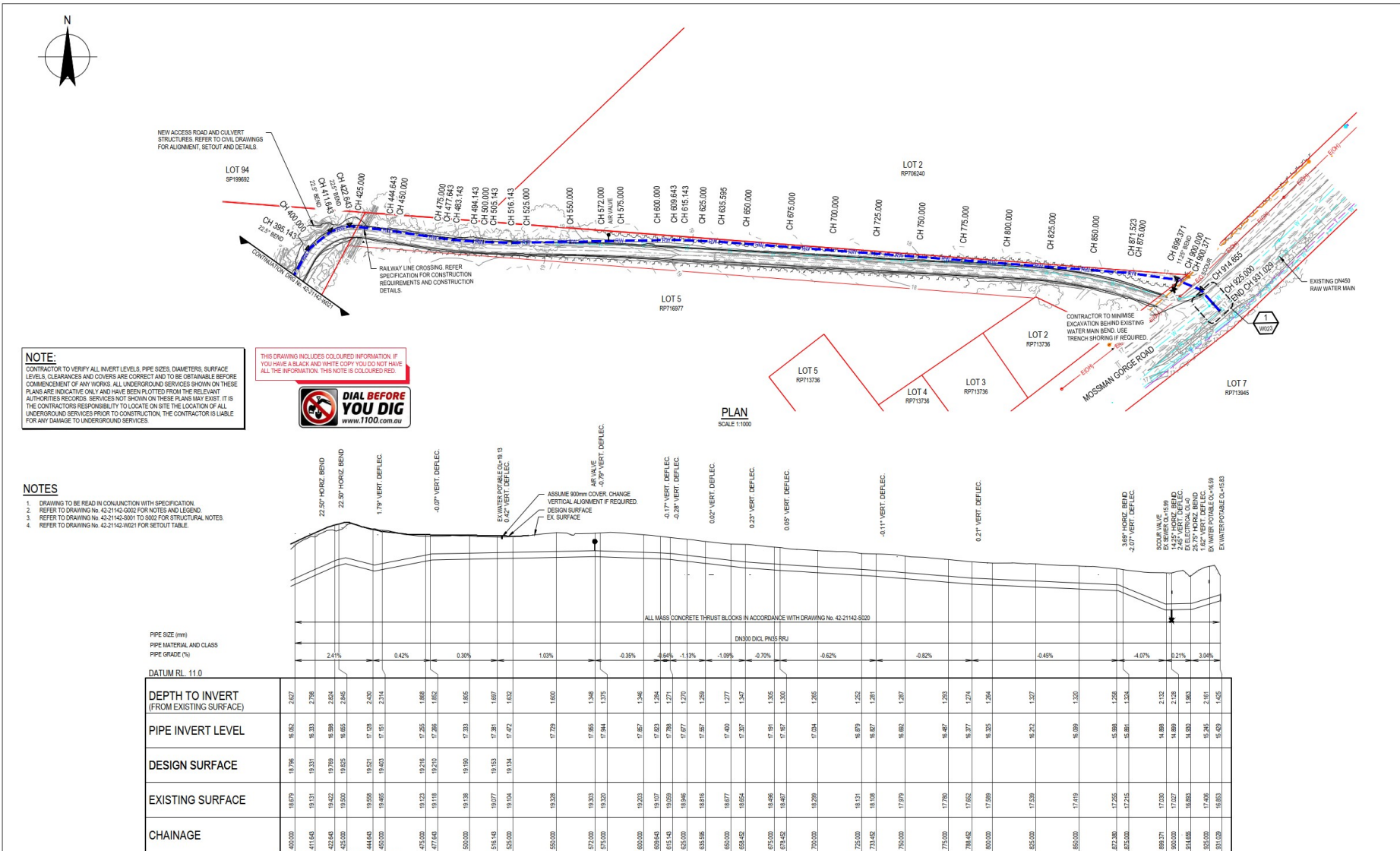
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Design Check: [Signature]
Approved: [Signature]
Project Director: [Signature]
Scale: AS SHOWN

Client: DOUGLAS SHIRE COUNCIL
Project: MOSSMAN ALTERNATIVE RAW WATER INTAKE
Title: HIGH LIFT RAW WATER MAIN
Drawing No: 42-21142-W021
Rev: C

Original Size: A1
Drawing No: 42-21142-W021
Rev: C



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Drafting Check

Approved (Project Director)

Date

Designer: R. KELLY

Design Check

Client: DOUGLAS SHIRE COUNCIL

Project: MOSSMAN ALTERNATIVE RAW WATER INTAKE

Title: HIGH LIFT RAW WATER MAIN

Drawing No: 42-21142-W022

Scale: AS SHOWN

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Original Size: A1

Rev: C

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0 10 20 30 40 50m

SCALE 1:1000 AT ORIGINAL SIZE

0 1 2 3 4 5m

SCALE 1:100 AT ORIGINAL SIZE

VERTICAL: 1:100 AT ORIGINAL SIZE
HORIZONTAL: 1:1000 AT ORIGINAL SIZE

- READ THESE NOTES IN CONJUNCTION WITH OTHER ENGINEERING DRAWINGS, PROJECT NOTES AND SPECIFICATIONS, AND WITH SUCH OTHER WRITTEN INSTRUCTIONS ISSUED IN CASE OF DISCREPANCY, PRECEDENCE IS GIVEN TO DRAWINGS THEN NOTES, THEN SPECIFICATION.
- WORK IN ACCORDANCE WITH THE STANDARDS AND REQUIREMENTS WITH APPLICABLE LEGISLATION, STATUTORY REGULATIONS, BY-LAWS OR RULES. CONTRACTOR IS RESPONSIBLE FOR OCCUPATIONAL HEALTH AND SAFETY OF SITE PERSONNEL, AND GENERAL PUBLIC IN ACCORDANCE WITH WORK HEALTH AND SAFETY ACT 2010, AND ALL OTHER REQUIREMENTS, INCLUDING REGULATIONS AND CODES OF PRACTICE, INDUSTRIAL AGREEMENTS AND ACCEPTED INDUSTRIAL PRACTICE.
- REFER DISCREPANCIES TO SUPERINTENDENT BEFORE PROCEEDING WITH WORK.
- SUBMIT DETAILS OF CHANGES TO SCOPE, WORK METHODS OR MATERIALS etc. FOR APPROVAL BEFORE PROCEEDING. APPROVAL MUST BE OBTAINED FROM THE SUPERINTENDENT.
- CHECK STRUCTURAL DRAWINGS AGAINST OTHER ENGINEERING DRAWINGS FOR REQUIREMENTS FOR PENETRATIONS, CONDUITS, DUCTS, PIPES, ETC.
- NOMINATION OF PROPRIETARY ITEMS DOES NOT INDICATE EXCLUSIVE PREFERENCE, BUT INDICATES REQUIREMENT OF ITEM. ALTERNATIVE ITEMS HAVING EQUIVALENT PROPERTIES MAY BE OFFERED FOR APPROVAL. APPROVAL DOES NOT AUTHORISE A VARIATION TO THE CONTRACT. INSTALL PROPRIETARY ITEMS IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.
- PROTECT EXISTING PERIMETER AND SURROUNDINGS OF WORK AREAS BEFORE COMMENCING WORK ON SITE. NOTIFY RELEVANT SERVICE AUTHORITIES BEFORE COMMENCING WORK ON SITE.
- WORK TWO WORKING DAYS (48 HOURS) NOTICE SO THAT INSPECTION MAY BE MADE OF CRITICAL STAGES OF WORK.
- INSPECTIONS UNDERTAKEN BY SUPERINTENDENT OR OTHERS DO NOT RELIEVE CONTRACTOR OF RESPONSIBILITY FOR COMPLIANCE WITH DRAWINGS AND SPECIFICATIONS.
- HAVE SURVEY AND SETTING OUT UNDERTAKEN BY A REGISTERED SURVEYOR.
- VERIFY ON SITE SETTING OUT DIMENSIONS AND EXISTING MEMBER SIZES SHOWN ON DRAWINGS BEFORE SHOP DRAWINGS, CONSTRUCTION AND ERECTION.
- USE STANDARD BOLT PATTERNS etc. THROUGHOUT THE WORKS TO AVOID CONFUSION OR AMBIGUITY.
- DISPOSE OF SURPLUS MATERIAL OFF SITE IN ACCORDANCE WITH LOCAL AUTHORITY WASTE REGULATIONS.
- IMPLEMENT SOIL AND WATER MANAGEMENT PROCEDURES TO AVOID EROSION, CONTAMINATION AND POLLUTION OF SURROUNDING AREAS.
- COMPLY WITH ALL RELEVANT STANDARDS AND REQUIREMENTS OF THE CONSTRUCTION INDUSTRY WORKSMANSHIP AND MATERIALS TO COMPLY WITH REQUIREMENTS OF AUSTRALIAN STANDARDS, BUILDING CODE OF AUSTRALIA (BCA) AND BY-LAWS AND ORDINANCES OF RELEVANT BUILDING AUTHORITIES. ALL ITEMS REFERRED TO ARE THOSE CURRENT AS AT THE DATE OF THE CONTRACT.
- STAFF REQUIREMENTS: PROVIDE SUFFICIENT STAFF TO COMPLETE WORK OR BE SUPERVISED ON WORK AND PROVIDE FOR REQUIRED FIXTURES. PROVIDE FOR TEMPORARY SUPPORT OF ADJOINING ELEMENTS DURING CONSTRUCTION. DRAWINGS DO NOT SHOW DETAILS OF ALL FIXTURES, INSERTS, SLICES, RECESSES OR OPENINGS etc. REQUIRED.
- MAKE GOOD ANY DAMAGE TO EXISTING ELEMENTS AT COMPLETION OF WORKS.
- WHERE NEW WORK ABUTS EXISTING, PROVIDE SMOOTH TRANSITION FREE OF ABUTT CHANGES.
- HAVE TESTING PERFORMED BY AN INDEPENDENT NATA (NATIONAL ASSOCIATION OF TESTING AUTHORITIES) ACCREDITED AUTHORITY.
- SUPPLY RELEVANT NOTES, DRAWINGS AND SPECIFICATIONS etc. TO SUB-CONTRACTORS.
- BUILD, FABRICATE AND PROCURE ONLY FROM DRAWINGS ISSUED FOR CONSTRUCTION.
- SEPARATE METALS FROM INCOMPATIBLE MATERIALS (e.g. GALVANISED AND UNGALVANISED STEEL, TREATED TIMBER AND STEEL etc.) BY CONCEALED LAYERS OF SUITABLE NEUTRAL MATERIALS OF SUITABLE THICKNESS. USE PLASTIC SLICES AND WASHERS FOR BOLTS, ETC.
- KEEP ON SITE A COMPLETE SET OF CONSTRUCTION DOCUMENTS (INCLUDING DRAWINGS AND SPECIFICATIONS) AND TEST INSTRUCTIONS.

024. THESE DRAWINGS DO NOT DETAIL TEMPORARY WORKS. CONSTRUCTION METHODS AND TEMPORARY WORKS ARE THE RESPONSIBILITY OF THE CONTRACTOR.
- DESIGN ASSUMPTIONS**
- G25. STRUCTURAL WORK HAS BEEN DESIGNED FOR FOLLOWING LOADS:
- BUILDING DESIGN WORKING LIFE 50 years
 - BUILDING IMPORTANCE LEVEL 2
 - WIND LOADS TO AS/NZS1170.2
- | REGION | C |
|--|-----------|
| - AVERAGE RESURFACING INTERVAL R | 500 years |
| - ALTIMETRIC REGIONAL WIND SPEED V_{10} (1 sec GUST) | 69 km/h |
| - SERVICEABILITY REGIONAL WIND SPEED V_{10} (3 sec) | 47 m/s |
| - DIRECTIONAL MULTIPLIER | 1.0 |
| - TERRAIN CATEGORY | 2 |
| - TERRAINHEIGHT MULTIPLIER (μ_{zt}) | 0.91 |
| - SHIELDING MULTIPLIER (μ_{sd}) | 0.8 |
| - TOPOGRAPHIC MULTIPLIER (μ_{te}) | 1.0 |
- THRUST LOADS
- | | |
|--------|-----------|
| 11°25' | = 36.7 kN |
| 22°5' | = 73 kN |
- PILELINE PRESSURES:
- | |
|----------------------------|
| TEST PRESSURE = 400 kPa |
| WORKING PRESSURE = 180 kPa |
| 1000 kPa |
- REFER TO GEOTECHNICAL INVESTIGATION REPORT NO. 77742.02.R.01 REF: DRUMSARA, PROPOSED BOREHOLE PATTERN BY DOUGLAS PARTNERS DATED NOVEMBER 2016 NOTIFY SUPERINTENDENT OF CONSTRUCTION OF ANY DEVIATION FROM THOSE DESCRIBED IN THE REPORT AND SEEK APPROVALS

- PREPARE WORKSHOP DRAWINGS, CALCULATIONS etc. FOR PREFABRICATED COMPONENTS, INCLUDING STRUCTURAL STEELWORK, LIGHT-WEIGHT STEELWORK, PRECAST CONCRETE, PRESTRESSING, FABRICATED STEELWORK, FABRICATED CONCRETE, FABRICATED STEEL CONCRETE COMPOSITE, FABRICATED STEEL FRAMING, SUPERINTENDENT'S REVIEW OF GENERAL COMPLIANCE WITH DESIGN CONCEPT. DO NOT COMMENCE FABRICATION UNTIL SHOP DRAWINGS AND CALCULATIONS HAVE BEEN REVIEWED. ALLOW 14 DAYS FOR SUPERINTENDENT'S REVIEW OF SHOP DRAWINGS AND CALCULATIONS. CONTRACTOR TO OBTAIN GENERAL CONFORMANCE WITH DESIGN CONCEPT AND GENERAL COMPLIANCE WITH CONTRACT DOCUMENTS ONLY. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING QUANTITIES AND DIMENSIONS. CONTRACTOR TO FABRICATE AND ERECT COMPONENTS USING APPROPRIATE TECHNOLOGY AND QUALITY MANAGER. CORRECTIONS OR COMMENTS MADE ON SHOP DRAWINGS AND CALCULATIONS DO NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY FOR COMPLIANCE WITH REQUIREMENTS OF CONTRACT DRAWINGS AND SPECIFICATIONS.

- | FOUNDATIONS | |
|-------------|--|
| F1. | SITE IS ASSUMED AS CLASS P TO A23270. CONFIRM ON SITE PRIOR TO CONSTRUCTION. |
| F2. | REMOVE TOP SOIL CONTAINING GRASS ROOTS AND/OR OTHER ORGANIC MATERIAL, RUBBLE AND / OR DEBRIS AND OTHER UNSUITABLE MATERIAL BELOW FOUNDATIONS. |
| F3. | F3.1 SAND FILL UP TO 450mm COMPACTED IN LAYERS < 300 mm THICK, OR NON-SAND FILL UP TO 300 mm DEEP COMPACTED IN LAYERS < 500 mm THICK (CLAY FILL TO BE MOIST DURING COMPACTION). |
| F4. | BACKFILL OVER EXCAVATION WITH GRADE 7 BUNDING CONCRETE. |
| F5. | KEEP EXCAVATIONS FREE OF WATER, PROVIDE ADEQUATE DRAINAGE TO ENSURE FORMATION IS NOT AFFECTED BY MOISTURE. PREVENT FLOODING DRAINING OUT DUE TO EROSION. PLACE BUNDING, FOOTING, PILES AND BACKFILL AS SOON AS PRACTICABLE AFTER EXCAVATION. |

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|---------------------------|---|
| F6 | ENSURE EXCAVATIONS ARE STABLE AND PROTECT SURROUNDING PROPERTY AND SERVICES FROM ADVERSE EFFECTS OF GROUND WORKS. PROVIDE TEMPORARY WORKS AS REQUIRED. PROVIDE SCHED CERTIFIED BY QUALIFIED STRUCTURAL ENGINEER TO ALL DEEP EXCAVATIONS WHERE REQUIRED. |
| F7 | DO NOT UNDERMINE EXISTING FOOTINGS. |
| F8 | FOR SITES CLASSIFIED M OR GREATER (CRITICAL) WHERE SERVICES PASS UNDER FOOTINGS BACKFILL TRENCHES AND EXISTING UNREINFORCED CLAY PILING CONTIGUOUS FOR 150' SHALL BE REINFORCED WITH 12" MIN CLEAN DR. UNIDIRECTIONAL FIBERGLASS REINFORCED BACKFILL TRENCHES WITH HAND COMPACTED JAIL TO 150' MIN OF BUILDING. PROVIDE FLEXIBLE JOINTS IN STORMWATER AND WASTEWATER SERVICES AT EXISTING BUILDING. |
| F9 | FOLLOWING CONSTRUCTION FOUNDATION MAINTENANCE TO BE IN ACCORDANCE WITH CIRRO BUILDING TECHNOLOGY FILE 18 'FOUNDATION MAINTENANCE AND FOOTING PERFORMANCE: A HOMEOWNER'S GUIDE'. |
| SLABS AND FOOTINGS | |
| F10 | FOOTINGS SHALL BE DESIGNED FOR A SAFE WORKING BEARING CAPACITY OF 100 kpa IN UNDISTURBED NATURAL GROUND. |
| F11 | CONSTRUCT FOOTINGS FOUNDING IN SPECIFIED MATERIALS (AS ABOVE, OR IN GEOTECHNICAL REPORTS) TO BE CONFIRMED OR LOOSE MATERIAL, AND MATERIAL THAT DOES NOT ACHIEVE THESE PRESSURES. ENSURE FORMATION IS CLEAN AND LEVEL. |
| F12 | LOCATE FOOTINGS CENTRALLY UNDER WALLS AND COLUMNS UNO. |
| F13 | PROVIDE 0.2mm HIGH MPACT RESISTANT VIRGIN POLYETHYLENE FILM DAP MEMBRANE TO ASBESTO TRENCHES AND BUILDING FOUNDATIONS TO PREVENT PUNCTURE AND SEAL DAP MEMBRANE REINFORCERS AT PENETRATIONS, etc. TO ENSURE A COMPLETE VAPOR BARRIER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND ASBESTO. PREVENT PUNCTURING OR DAMAGE BY PLACING A PLASTIC JAIL UNDER REINFORCING BARS. |
| F14 | TOP OF CONCRETE SLAB TO BE AT LEAST 100mm ABOVE ADJACENT GROUND LEVELS. GROUND SURROUNDING BUILDING TO BE SLOPED SO THAT WATER WILL DRAIN AWAY FROM BUILDING TO SUITABLE DISCHARGE POINTS. |

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| S1 | WORKSHIP MEMBERS AND MATERIALS TO COMPLY WITH A54100, A515/A2400, A515/A514 |
| S2 | <p>WEAR STEEL IN ACCORDANCE WITH:</p> <ul style="list-style-type: none"> A513 GRADE C550 FOR RECTANGULAR AND SQUARE HOLLOW SECTIONS A513 GRADE C550 OR C550B FOR CIRCULAR HOLLOW SECTIONS, AS NOTED ON DRAWINGS A513/3878 FOR PLATES AND FLOOR PLATE. A513/3879 PART 1 FOR 3/8" THICK WELDED BEAMS AND WELDED CONNECTIONS A513/3879 PART 2, GRADE 300 FOR WELDED BEAMS AND 300 PLUS FOR UNIVERSAL BEAMS, UNIVERSAL COLUMNS, PARALLEL FLANGE CHANNELS, ANGLES, PLATES, BARS AND RODS. A513/387 GRADE 60S FOR PURLINS AND GIRTS. OTHERWISE TO COMPLY WITH A513/3879 GRADE 250 UNO. |
| S3 | MARK STEEL, GRABES ON STRUCTURAL MEMBERS IN NON-CRITICAL AREAS. USE IDENTIFICATION MARKS COMPATIBLE WITH AND VISIBLE THROUGH PAINT SYSTEM. |
| S4 | PROVIDE 3mm CAP PLATES FOR ALL STEEL HOLLOW SECTIONS. |
| S5 | CARRY OUT ERECTION OF STEELWORK IN ACCORDANCE WITH A53326 GUIDELINES FOR THE ERECTION OF BUILDING STEELWORK. |
| S6 | <p>ALL SECTIONS JOINED BY COMPLETE PENETRATION FULL STRENGTH BUTT WELDS GRADUAL TO MAKE UP TO FULL STRENGTH. WELDS TO BE MADE IN ACCORDANCE WITH A53326 GUIDELINES FOR THE ERECTION OF BUILDING STEELWORK. WHEN REQUIRED, PROPOSED SHOW JOINTS ON SHOP DRAWINGS. ENSURE MEMBERS ARE CONCENTRIC AT CONNECTIONS (GRAVITY) OR GAUGE LINES TO INTERSECT UNO. ACQUIRE PRE-FORM DRAWINGS FOR ALL JOINTS.</p> |
| S7 | <p>DRILL HOLES FULL SIZE OR REAM TO FULL SIZE AFTER SUB-DRILLING OR SUB-PUNCHING. SUBS DRILLED OR SUB-PUNCHED HOLES TO BE AT LEAST 3mm UNDER SIZE. "OR" FLAME CUTTING OF HOLES IS NOTED ON DRAWINGS.</p> <ul style="list-style-type: none"> REINFORCING BOLT HOLE SIZE TO BE: BOLT DIAMETER PLUS 2mm FOR STEEL TO STEEL CONNECTIONS. BOLT DIAMETER PLUS 4mm FOR STEEL TO CONCRETE CONNECTIONS. BOLT DIAMETER PLUS 6mm FOR CONCRETE TO CONCRETE CONNECTIONS. |

- DEVELOP WELD PROCEDURES TO SUIT JOINT DETAILS AND SHOW ON SHOP DRAWINGS. USE PREQUALIFIED WELDERS AND WELDING PROCEDURE SPECIFICATIONS (WPS) THAT MEET THE REQUIREMENTS OF THE WELDING PROCEDURE AND CONSUMABLES TO TESTING TO AS/NZS1554.1 CLAUSE 4.2. LIST APPLICABLE PARAMETERS ON WELDING PROCEDURE QUALIFICATION RECORD AND MAKE RECORD AVAILABLE FOR INSPECTION.
- UNLESS OTHERWISE SPECIFIED, ALL WELDS SHALL BE WELDED BY A QUALIFIED WELDER UNDER SUPERVISION OF A QUALIFIED WELDING SUPERVISOR.
- WELDS TO BE CATEGORY 1 OR 2 SHALL HAVE ALL INTERFACES BETWEEN STEEL SECTIONS TO BE CONNECTED WITH 6 mm CONTINUOUS FILLET WELDS ALL AROUND BOTH SIDES UNID.
- WELDS TO BE SHOP WELDED.
- WELDS TO BE CATEGORY 1.
- BUTT WELDS TO BE FULL (COMPLETE) PENETRATION UNID.
- WELDS TO BE TO BE CATEGORY 2 OR 3 WITH TENSILE STRENGTH OF $f_{u \text{ min}}=450 \text{ N/mm}^2$ (B6).
- WELDS TO BE CATEGORY 2 OR 3 WITH TENSILE STRENGTH OF $f_{u \text{ min}}=450 \text{ N/mm}^2$ (B6).
- EXTENT OF WELD INSPECTION/TESTING TO BE:
- VISUAL EXAMINATION: 100% OF BUTT WELDS IN TENSION MEMBERS AND 50% OF OTHERS.
- WELDING PROCEDURE QUALIFICATION RECORDS TO BE AVAILABLE FOR INSPECTION.
- REPAIR FAULTY WELDS REVEALED BY WELD INSPECTION/TESTING AND REPEAT THE EXAMINATION.
- WELDS TO BE INSPECTED BY INDEPENDENT NATA ACCREDITED QUALIFIED WELDING INSPECTOR TO AS2214.
- PROVIDE WELDING INSPECTOR REPORT TO SUPERINTENDENT.
- WELDS ARE TO BE CATEGORY 2 OR 3 WITH TENSILE STRENGTH OF $f_{u \text{ min}}=450 \text{ N/mm}^2$ (B6).
- STRENGTH BUTT WELDING WHICH IS EQUIVALENT TO CPBW. "CPBW" INDICATES COMPLETE PENETRATION BUTT WELDING WHICH IS EQUIVALENT TO CPBW. "CPBW" INDICATES COMPLETE PENETRATION BUTT WELDING WHICH IS EQUIVALENT TO CPBW. "CPBW" INDICATES COMPLETE PENETRATION BUTT WELDING WHICH IS EQUIVALENT TO CPBW.

- S16 M16 AND LARGER BOLTS TO BE HIGH STRENGTH STRUCTURAL BOLTS, 8.8S PROCEDURE AND M12 SIZE BOLTS TO BE 8.8S PROCEDURE (UNDER R12, 4.8S PROCEDURE).
- S17 FOR BOLTS MANUFACTURED OUTSIDE AUSTRALIA, PROVIDE LOCAL IDENTIFICATION DATA-CERTIFIED LABORATORY COMPLIANCE CERTIFICATE BASED ON APPROPRIATE TESTING AND VERIFICATION.
- S18 BOLTS WITH THREADS IN COMPLIANCE WITH AS1575, BOLTS OF STRONGER GRADE 8.8 TO BE COMMERCIAL GRADE 8.8S. BOLTS WITH THREADS IN COMPLIANCE WITH AS1575, BOLTS OF STRONGER GRADE 8.8 TO BE HIGH STRENGTH STRUCTURAL BOLTS. NUTS AND WASHERS TO MATCHES 2. MECHANICAL PROPERTIES OF BOLTS, NUTS, SCREWS AND STUDS TO BE IN COMPLIANCE WITH AS1575.2. WASHERS TO COMPLY WITH AS1575.3. TIGHTENING PROCEDURES TO COMPLY WITH AS4540.10.
- S SNUG TIGHT
 - S BEARING-MODE JOINT, BOLTS FULLY TENSIONED
 - S FRICTION-MODE JOINT, BOLTS FULLY TENSIONED. (CONTACT SURFACES OF FRICTION CONNECTIONS TO BE UNCOATED AND FREE OF MILL SCALE)
- S19 BOLT TYPE AND TIGHTENING PROCEDURE ARE DESIGNATED: NUMBER, SIZE, STRENGTH GRADE/TIGHTENING PROCEDURE
- eg: M24 8.8S 7.8 A 4 OFF 24 DIAMETER METRIC HIGH STRENGTH STRUCTURAL BOLTS FULLY TENSIONED IN BEARING MODE
- S20 SLOTTED HOLES TO BE 2 x 5 x BOLT DIAMETER LONG. BOLTS TO BE SET CENTRAL IN SLOTTED WASHERS. Use 8 mm

- S21. PROVIDE RADIUS/SEE CORNERS ON EXPOSED CLEATS TO REDUCE RISK OF IMPALEMENT AND LACERATIONS.
- S22. CROP INTERNAL CORNERS OF CLEATS AND STIFFENERS, etc TO FACILITATE DRAINAGE. PROVIDE DRAINAGE HOLES TO PREVENT WATER PONDING ON STRUCTURAL ELEMENTS DURING CONSTRUCTION. SHOW PROPOSED HOLES ON SHOP DRAWINGS.

- [illegible]

- [illegible]

- S35 PROVIDE DOCUMENTARY EVIDENCE (INCLUDING TEST RESULTS) OF COMPLIANCE WITH RELEVANT AUSTRALIAN STANDARDS ISSUED BY MANUFACTURER FOR ALL STEELWORK AND EACH BATCH OF FASTENERS USED. EVIDENCE MUST PROVIDE CLEAR VERIFICATION THAT PRODUCT MEETS RELEVANT AUSTRALIAN STANDARDS AND BE WRITTEN IN ENGLISH A PHARMACING CHARACTERS; EVIDENCE TO INCLUDE: NAMES AND ADDRESS OF SUPPLIER; SUPPLIER'S TESTING AUTHORITY; TEST CERTIFICATE NUMBER AND DATE; WITH PAGE NUMBER ON EACH PAGE. PRODUCT TEST SPECIFICATION AND GRADE OF STEEL, PRODUCT DESIGNATION AND RELEVANT DIMENSIONS; PRODUCT STEEL MAKING PROCESS, LENGTH, BUNDLE PACK OR UNIQUE IDENTIFIER TO WHICH CERTIFICATE APPLIES; HEAT NUMBER (FROM CASTING); MECHANICAL PROPERTIES FROM TENSILE TEST (ALL VALUES CITED IN AS/NZS STANDARD); WHETHER EACH MEASURED PROPERTY IS PROPERTY OF THE PRODUCT OR OF THE PART; WHETHER EACH MEASURED PROPERTY ANALYSIS UNDERTAKEN; CUSTOMER PURCHASE ORDER TO MATCH BATCH NUMBER; ANY OTHER SYSTEM REFERENCE NUMBERS AND SIGNATURE OF AUTHENTICITY.

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| C1 | WORKSHOPS AND MATERIALS TO COMPLY WITH AS3600, AS2870, AS3130, AS1379, AS1478, AS1582, AND AS3937. FOR LIQUID RETAINING STRUCTURES ALSO COMPLY WITH AS5315. |
| C2 | WET CONCRETE TO BE UNIFORM, HOMOGENEOUS, COHESIVE AND ABLE TO WORK READY TO GO. CORNERS AROUND REINFORCEMENT AND JOINTS TO BE WORKED WITHOUT DEGRADATION, EXCESS FRESH WATER ON SURFACE, LOSS OF MATERIAL OR CONTAMINATION. |
| C3 | CONCRETE TO HAVE GOOD DIMENSIONAL STABILITY AND ABLE TO RESIST PLASTIC SETTING CRACKING, THERMAL CRACKING AND SHRINKAGE CRACKING. |
| C4 | EMBEDDED CONCRETE TO BE UNIFORM, DENSE, HOMOGENEOUS MASS COMPLETELY FILLING FORMWORK, EMBEDDING REINFORCEMENT AND TENDONS, AND FREE OF STONE POCKETS, OF UNIFORM COLOUR AND TEXTURE, WITH LOW PERMEABILITY AND ADEQUATE BUT NOT EXCESSIVE STRENGTH FOR GRADE. |
| C5 | REVIEW LOCATION OF EMBEDDED ITEMS TO MINIMIZE POSSIBLE ZONES OF POOR COMPACTION THAT MAY COMPROMISE STRUCTURAL INTEGRITY. |
| C6 | EXTERNALLY EXPOSED CONCRETE TO BE CLASSIFICATION B1 UNO. |

QUALITY OF CONCRETE ELEMENTS TO BE AS FOLLOWS:				
STRUCTURAL ELEMENT	BUILDING	SLAB ON GROUND	THRUST BLOCKS	
EXPOSURE CLASSIFICATION	B1	B1	B1	
STRENGTH GRADE (MPa)	N1	N30	N32	
MAX. AGGREGATE SIZE (mm)	20	20	20	
C7	SUPPLEMENTARY CEMENTitious MATERIALS INCLUDE SILICA FUME, FLY ASH, AND GROUND GRANULATED BLAST FURNACE SLAG (GGBS OR G-SS).			
C8	SLUMP TO BE AS REQUIRED FOR PLACEMENT (e.g. PUMPING, etc.) COMPACTED AND FINISHING USE SUPERPLASTICISERS AND HIGH RANGE WATER REDUCERS TO AS1474 TO ACHIEVE ADEQUATE WORKABILITY.			
C9	ADDMITTURES TO COMPLY WITH AS1474. ADDMITTURES MUST NOT REDUCE STRENGTH OF CONCRETE BELOW SPECIFIED VALUE. USE ADMIXTURES IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS. CONCRETE ADDITIVES SHALL NOT ENHANCE CORROSION OF REINFORCEMENT, NOR BE DETRIMENTAL TO CONCRETE OR SEAL DURING EXPECTED LIFE OF STRUCTURE. DO NOT USE CHEMICAL ADMIXTURES OR SUPPLEMENTARY CEMENTitious MATERIALS WITHOUT SUPPLIER'S WRITTEN APPROVAL.			
C10	DO NOT USE CALCIUM CHLORIDE. MAXIMUM AQUE SOLUBLE CHLORIDE ION CONTENT OF CONCRETE TO BE LESS THAN 0.15% BY MASS OF CEMENTitious MATERIAL. DO NOT USE STRONGLY IONIZED SALTS.			
C11	DO NOT ADD WATER TO CONCRETE. EXCESS BULK WATER SHALL BE BATTING PUMP.			
C12	MIX CONCRETE TO ENSURE UNIFORM DISTRIBUTION OF CONSTITUENTS.			

- C13. TEST SLUMP OF EACH BATCH OF CONCRETE DELIVERED BEFORE PLACING CONCRETE FROM THAT DELIVERY. SLUMP MEASURED TO BE NO GREATER THAN TARGET SLUMP WITHIN TOLERANCES GIVEN IN A51379 CLAUSE 5.2.3.
- C14. REGISTER PROJECT FOR DISSEMINATION OF CONCRETE PRODUCTION ASSESSMENT INFORMATION. MANUFACTURER TO CARRY OUT PRODUCTION ASSESSMENT OF CONCRETE FOR COMPLIANCE WITH REQUIREMENTS OF A51379.

- C15. RESPONSIBILITY FOR DESIGN, CERTIFICATION, CONSTRUCTION AND PERFORMANCE OF FORMWORK AND FALSEWORK LIES WITH CONTRACTOR.
- C16. DO NOT STRIP FORMWORK PRIOR TO 36 HOURS AFTER PLACEMENT.
- C17. DO NOT STRIP FORMWORK UNTIL CONCRETE IS HARDENED SUFFICIENTLY TO WITHSTAND MOVEMENT AND FORM REMOVAL WITHOUT DAMAGE.
- C18. STRIP FORMWORK TO AS3600 CLAUSE 10.6. REMOVE FORM TIE BOLTS WITHOUT DAMAGING CONCRETE. PARTS OF BOLT LEFT IN CONCRETE MUST NOT INTRUDE INTO COVER CONCRETE. FLUSH HOLE HOLES USING PUMP MIXED NON-SHRINK CEMENTITIOUS REPAIR MORTAR MATCHING CONCRETE SURFACE COLOUR, STRENGTH AND DURABILITY AND ADEQUATE BOND.

- C21. ELAPSED TIME BETWEEN WETTING OF MIX AND DISCHARGE OF CONCRETE AT SITE MUST BE AS SHORT AS POSSIBLE, AND COMPLY WITH THE FOLLOWING:

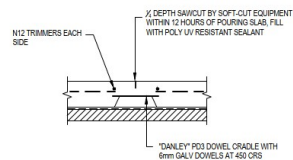
CONCRETE TEMPERATURE AT TIME OF DISCHARGE (°C)	MAXIMUM ELAPSED TIME (HOURS)
10 - 24	2.00
24 - 27	1.50
27 - 30	1.00
30 - 32	0.75

- C2.1 USE PLACEMENT METHODS THAT WILL MINIMIZE PLASTIC SETTLEMENT AND SHRINKAGE CRACKING. LIMIT VERTICAL FREE FALL BY USE OF CHUTES OR. KEEP CHUTES FULL AND IMMERSER IN CONCRETE. MINIMIZE PLASTIC SETTLEMENT BY VIBRATING CHUTES. VIBRATE CHUTES TO PREVENT AIR ENTRAINMENT IN A PLASTIC STATE. PROPERLY COMPACT CONCRETE USING MECHANICAL VIBRATORS (AND HAND METHODS IF REQUIRED) TO REMOVE AIR BUBBLES AND GIVE MAXIMUM COMPACT WITHOUT SEGREGATION OF MATERIALS. USE CARE TO NOT OVERVIBRATE. OVERVIBRATING CAN WEAKEN CONCRETE AND WEAR FORMWORK OR REINFORCEMENT. DO NOT USE VIBRATORS TO MOVE CONCRETE ALONG FORMS.
- C2.2 OBTAIN SUPERINTENDENT'S WRITTEN APPROVAL OF PLACEMENT METHODS FOR CONCRETE ELEMENTS.
- C2.3 IN COLD WEATHER MAINTAIN TEMPERATURE OF FRESHLY MIXED CONCRETE WITHIN LIMITS SHOWN BELOW. "OUTDOOR" AIR TEMPERATURE IS AIR TEMPERATURE AT TIME OF MIXING OR PREDICTED OR LIKELY AIR TEMPERATURE DURING PLACEMENT. "CONCRETE" TEMPERATURE IS TEMPERATURE OF CONCRETE, FORMWORK AND REINFORCEMENT AT 5°C. DO NOT USE CALCIUM CHLORIDE, SALTS, CHEMICALS OR OTHER MATERIALS IN MIX TO LOWER THE FREEZING POINT OF CONCRETE. DO NOT ALLOW FROZEN MATERIALS TO BE PLACED. DO NOT USE FROZEN WATER.

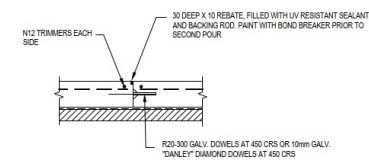
- C25. KEEP FORMS, MATERIALS, EQUIPMENT IN CONTACT WITH CONCRETE FREE OF FROST AND ICE. HEAT CONCRETE MATERIALS (OTHER THAN CEMENT) TO MINIMUM TEMPERATURE NECESSARY TO ENSURE TEMPERATURE OF PLACED CONCRETE IS WITHIN LIMITS SPECIFIED. MAXIMUM WATER TEMPERATURE: 60°C WHEN PLACED IN MIXER.

OUTDOOR AIR TEMPERATURE	TEMPERATURE OF CONCRETE	
	MINIMUM	MAXIMUM
> 5°C	10°C	32°C
< 5°C	18°C	32°C

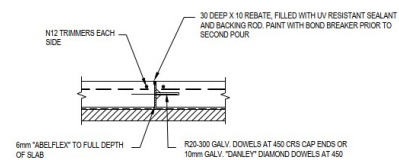
											DO NOT SCALE	Drawn: R. KELLY	Designer: G. GADEMAN	Client: DOUGLAS SHIRE COUNCIL
						Level 6, 15 Lake Street, Camo QLD 4870 Australia PO Box 616, Camo QLD 4870 T 617 4044 2222 F 617 4044 2288 E csmoan@ghd.com.au W www.ghd.com.au		Conditions of Use: This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.		Drafting Check	Design Check	Project: MOSSMAN ALTERNATIVE RAW WATER INTAKE		
B ISSUED FOR TENDER								EDJ	GG*	TMBP*	14.01.20	Approved (Project Director)	Title: STRUCTURAL NOTES	Original Size: A1
A PRELIMINARY ISSUE								EDJ	GG*	TMBP*	09.12.19	Date	Scale: AS SHOWN	This Drawing must not be used for any other purpose unless signed as Approved
No	Revision	Note: * indicates signatures on original issue of drawing or last revision of drawing	Drawn	Job Manager	Project Director	Date								Rev: B
Note: * indicates signatures on original issue of drawing or last revision of drawing														



SAWCUT JOINT (SC)
NOT TO SCALE



DOWEL JOINT (DJ)
NOT TO SCALE

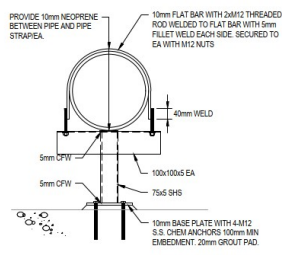


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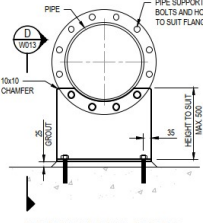
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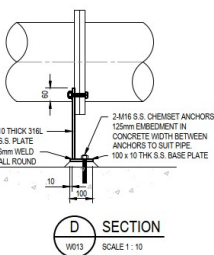
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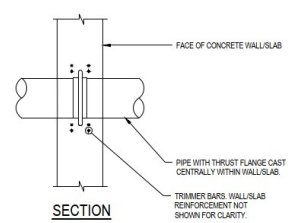
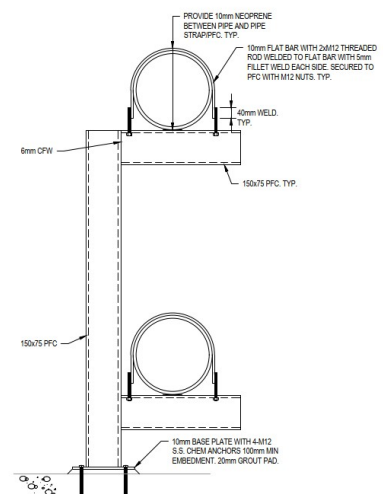
PIPE SUPPORT - TYPE 1
SCALE 1:10



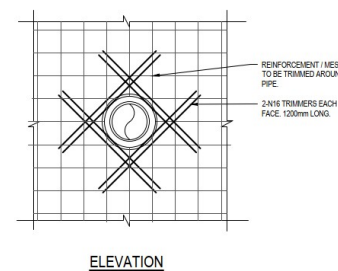
PIPE SUPPORT - TYPE 2
SCALE 1:10



PIPE SUPPORT - TYPE 3
SCALE 1:10



SECTION

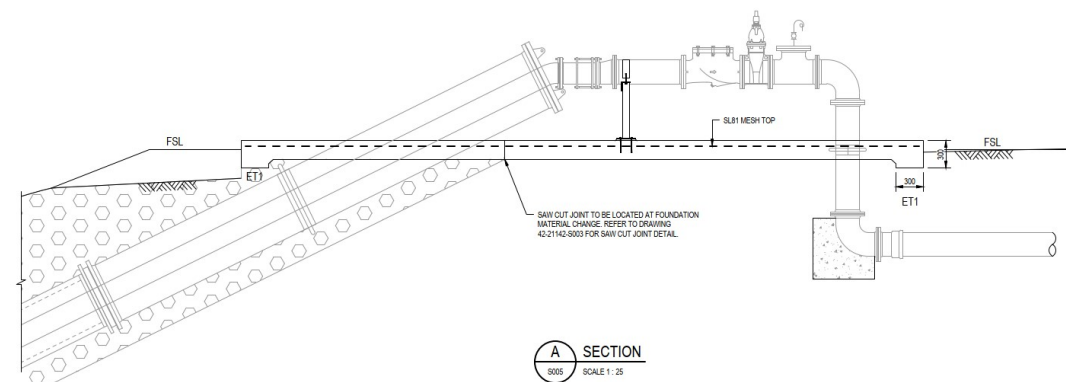
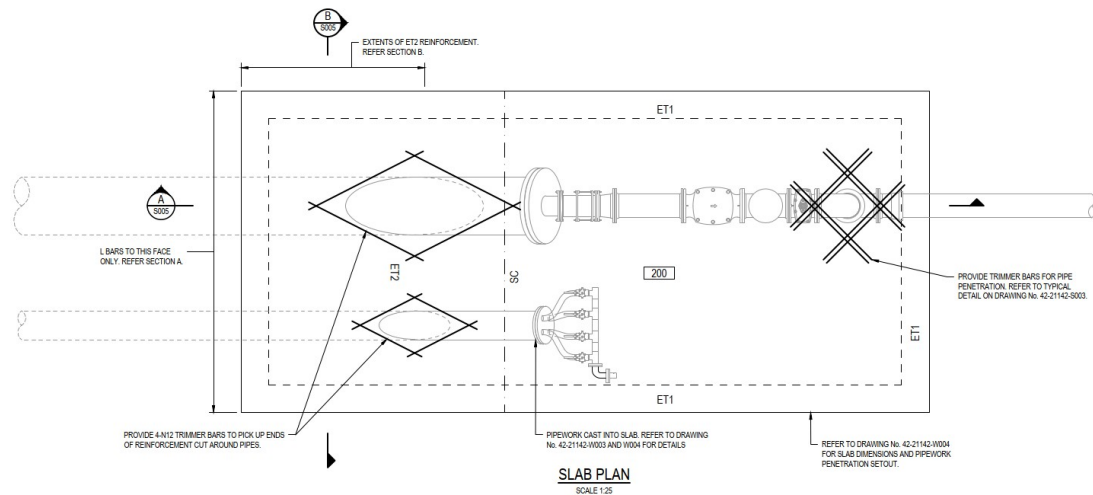


ELEVATION
SCALE 1:20

NOTES
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2. REFER TO DRAWING No. 42-21142-0002 FOR NOTES AND LEGEND.
3. REFER TO DRAWING No. 42-21142-0001 TO 0002 FOR STRUCTURAL NOTES.

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ISSUE FOR TENDER

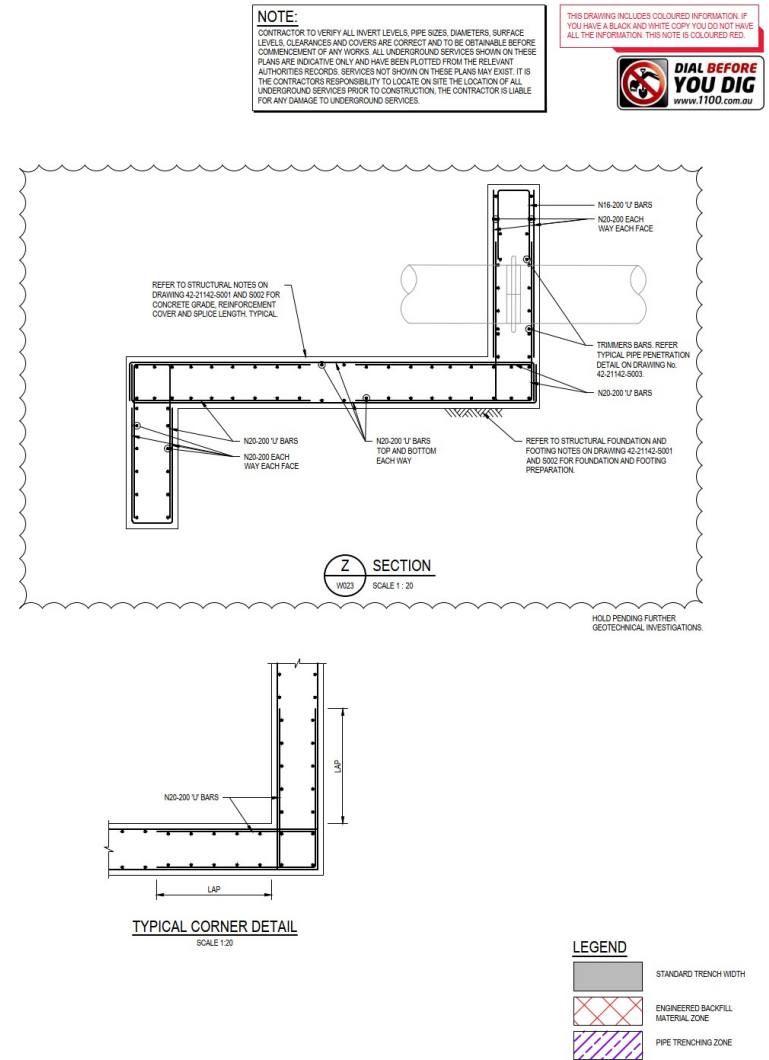
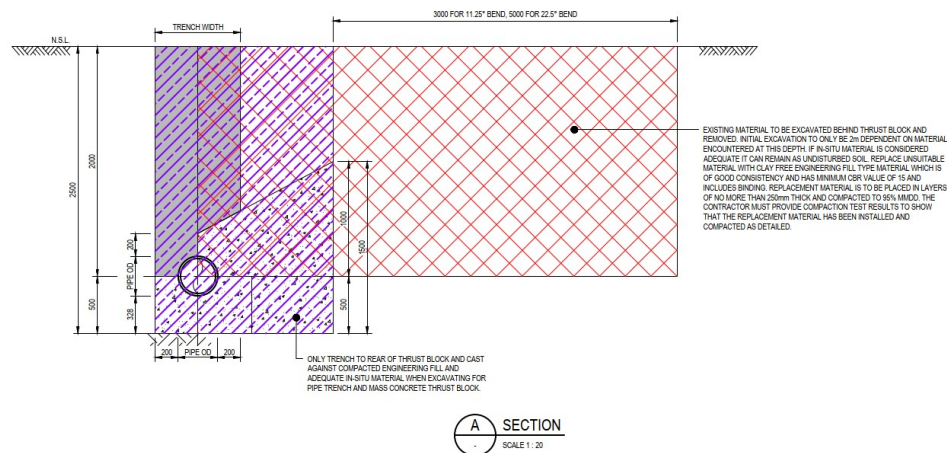
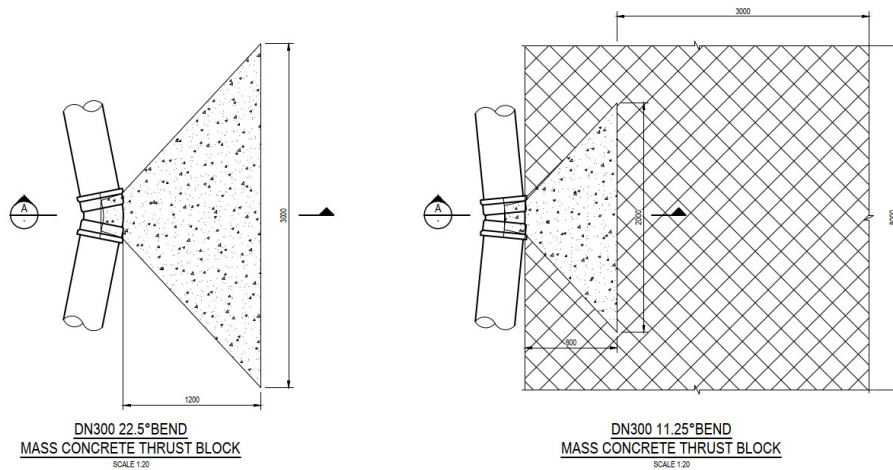
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<p>B REVISED FOR CLIENT COMMENT</p>	EDJ	GG*	TMB*	26.08.20					
<p>A ISSUED FOR TENDER</p>	EDJ	GG*	TMB*	17.01.20					
<p>No Revision Note * Indicates signatures on original issue of drawing or last revision of drawing</p>	Drawn	Job Manager	Project Director	Date					

Plot Date: 26 August 2020 - 8:43 AM
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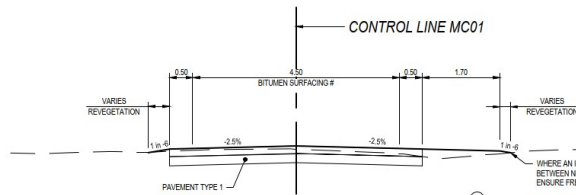
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ISSUE FOR TENDER

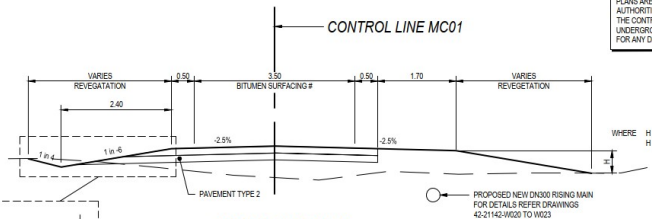
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<p>A ISSUED FOR TENDER</p>				<p>EDJ GG* TMB* 17.01.20</p>		<p>203 Project Manager</p>		<p>17.01.20 Date</p>		<p>Print Date: 26 August 2020 - 8:43 AM Plotted by: Evan Johnson Cadd File No: G:\42\21142\CA\DO\Drawings\42-21142-S020.dwg</p>		<p>Level 8, 15 Lake Street, Cairns QLD 4870 Australia PO Box 816, Cairns QLD 4870 T 61 7 4044 2222 F 61 7 4044 2288 E csmail@ghd.com.au W www.ghd.com.au</p>	

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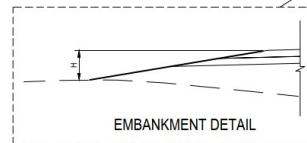
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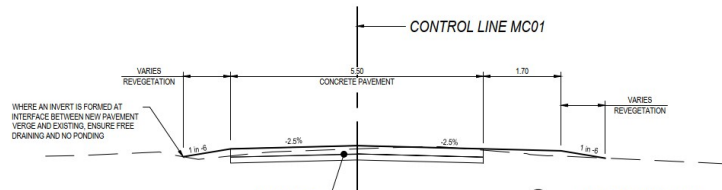
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CH 667 - 900



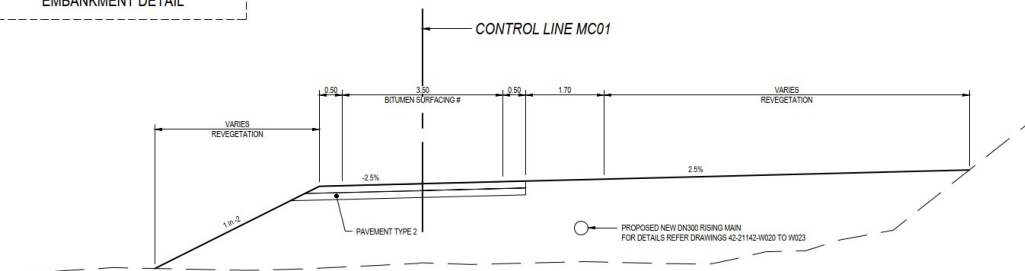
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CH 900 - 1035
CH 1083 - 1105.155



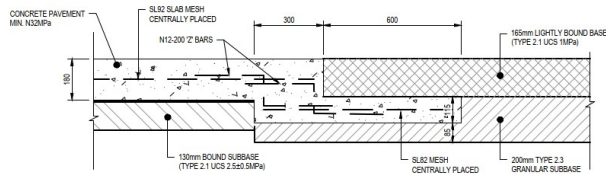
EMBANKMENT DETAIL



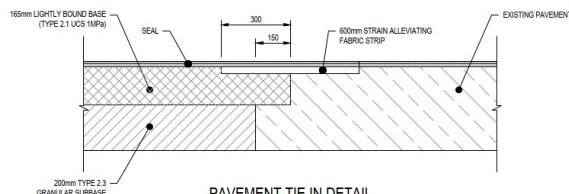
TYPICAL SECTION B
CH 573 - 667



TYPICAL SECTION D
CH 1035 - 1083

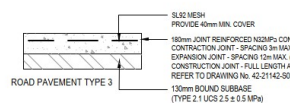
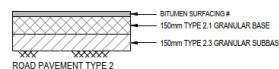
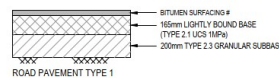


CONCRETE PAVEMENT TIE IN DETAIL
SCALE 1:10
DIMENSIONS IN MILLIMETRES



PAVEMENT TIE IN DETAIL
N15
DIMENSIONS IN MILLIMETRES

PAVEMENT LEGEND:



PAVEMENT DESIGN PARAMETERS

DESIGN = 1.8k/10³ ESAY
DESIGN SUBGRADE = CBR 5%
DESIGN LIFE: 20 YEARS

PAVEMENT DESIGN PARAMETERS

DESIGN = 1.8k/10³ ESAY
DESIGN SUBGRADE = CBR 5%
DESIGN LIFE: 20 YEARS

PAVEMENT DESIGN PARAMETERS

DESIGN = 3.0k/10³ ESAY
DESIGN SUBGRADE = CBR 5%
DESIGN LIFE: 40 YEARS

NOTES

- DRAWING TO BE READ IN CONJUNCTION WITH SPECIFICATION.
- REFER TO DRAWING No. 42-21142-0002 FOR NOTES AND LEGEND.
- THIS DESIGN IS BASED ON THE FOLLOWING CRITERIA AND ASSUMPTIONS:
 - EXISTING HORIZONTAL ROAD GEOMETRY HAS BEEN MAINTAINED AT DOUGLAS SHIRE COUNCIL'S REQUEST.
 - WHERE LOCALISED TABLE DRAINS ARE FORMED ADJACENT ROAD EDGE DUE TO RESURFACING, CONTRACTOR IS TO ENSURE FREE DRAINING INVERT TO NEAREST POINT OF DISCHARGE AWAY FROM ROAD.
 - DESIGN OF ROAD BETWEEN CH 900 AND CH 1105 ASSUMES INFREQUENT USE BY LIGHT UTILITY VEHICLES (EG. MAINTENANCE VEHICLES).
 - ROAD GEOMETRY AND SEAL WIDTH ASSUMES ONE-WAY ACCESS (OPPOSING VEHICLES REQUIRED TO GIVE WAY WHEN PASSING).
 - MAXIMUM OPERATING SPEED = 80KM/H.
 - LOCATION OF CONCRETE PAVEMENT HAS BEEN PROVIDED BASED ON SITE INVESTIGATION UNDERTAKEN BY OTHERS, AND HAS BEEN DESIGNED TO REDUCE THE RISK OF SCOURING DURING MINOR OVERLAND FLOW EVENTS.
 - SOME AREAS HAVE BEEN DESIGNED WITHOUT SURVEY. WHERE LIMITED SURVEY INFORMATION IS PROVIDED ALL DETAILS ARE REQUIRED TO BE CONFIRMED ON SITE PRIOR TO CONSTRUCTION. SHOULD ON-SITE CONDITIONS DIFFER FROM THOSE INDICATED ON THESE DRAWINGS, CONTRACTOR IS TO NOTIFY THE CONTRACT ADMINISTRATOR AND SEEK DIRECTION PRIOR TO CONSTRUCTION.
 - PROPOSED DRAINAGE CULVERTS HAVE BEEN PROVIDED FOLLOWING CLIENT DIRECTION. NO HYDRAULIC ANALYSIS OR FLOOD MODELLING HAS BEEN UNDERTAKEN AND LOCATIONS/SIZES ARE AS DIRECTED BY DOUGLAS SHIRE COUNCIL.

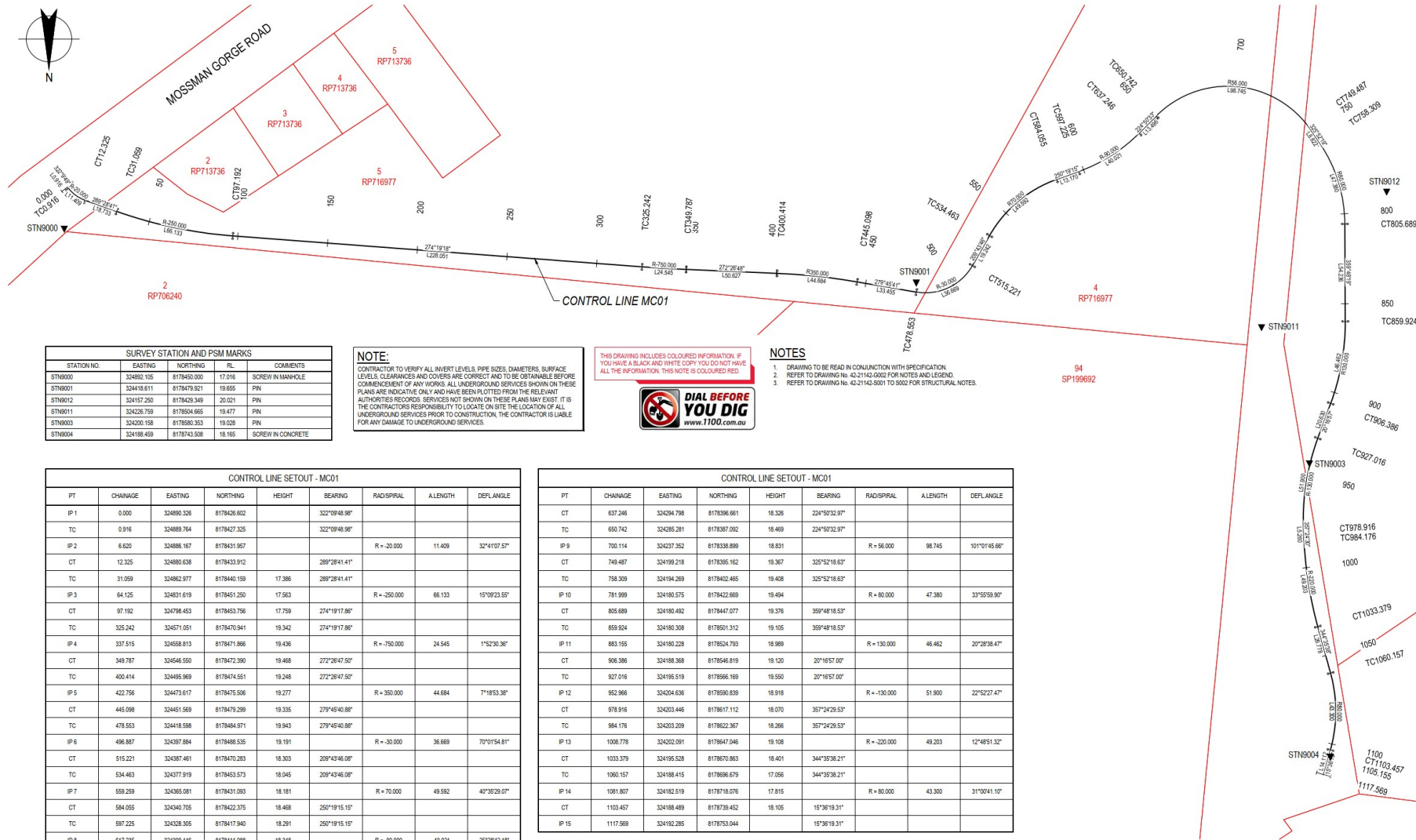
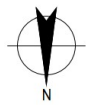
BITUMEN SURFACING

PRIME	AMC0 @ 1.1L/m ²
FIRST SEAL	PMB (S25E) @ 1.4 L/m ² 14mm AGGREGATE @ 120m ² /m ³
SECOND	PMB (S25E) @ 1.1 L/m ² 7mm AGGREGATE @ 225m ² /m ³

NOTE: FINAL SEAL RATES, CUTTER AND ADHESION AGENT CONTENT TO BE CONFIRMED BY THE CONTRACT ADMINISTRATOR. RATES SPECIFIED ARE FOR ESTIMATING PURPOSES ONLY.

ISSUE FOR TENDER

<div> <div>DOUGLAS SHIRE COUNCIL</div> <div>GHD</div> </div>				DO NOT SCALE Conditions of Use: This document may only be used by GHD's client (and any other person who GHD has signed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.		Drawn: JM Drafting Check: JM Approved (Project Director): JM Date:	Designer: JM Design Check: JM Date:	Client: DOUGLAS SHIRE COUNCIL Project: MOSSMAN ALTERNATIVE RAW WATER INTAKE Title: ACCESS ROAD Typical Sections and Details	Original Size: A1 Drawing No: 42-21142-C001 Rev: A
A ISSUED FOR TENDER No Revision Note: * Indicates signatures on original issue of drawing or last revision of drawing.	JM GG* TMB* Date: 14.01.20	Drawn: JM Drafted: JM Project Manager: JM Date: 14.01.20	Date: 14.01.20	Plot Date: 26 August 2020 - 8:35 AM Plotted by: Evan Johnson Cad File No: G:\4231142\CAD\Drawings\42-21142-C001.dwg					



SURVEY STATION AND PSM MARKS				
STATION NO.	EASTING	NORTHING	RL	COMMENTS
STN0000	324892.105	8178450.000	17.016	SCREW IN MANHOLE
STN0001	324118.611	8178479.921	19.655	PSM
STN0002	324157.250	8178429.349	20.021	PSM
STN0011	324226.759	8178504.665	19.477	PSM
STN0003	324200.158	8178500.353	19.028	PSM
STN0004	324188.459	8178743.508	18.165	SCREW IN CONCRETE

NOTE:
CONTRACTOR TO VERIFY ALL INVERT LEVELS, PIPE SIZES, DIAMETERS, SURFACE LEVELS, CLEARANCES AND COVERS ARE CORRECT AND TO BE OBTAINABLE BEFORE COMMENCEMENT OF ANY WORKS. ALL UNDERGROUND SERVICES SHOWN ON THESE PLANS ARE INDICATIVE ONLY AND HAVE BEEN PLOTTED FROM THE RELEVANT AUTHORITIES RECORDS. SERVICES NOT SHOWN ON THESE PLANS MAY EXIST. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ON SITE THE LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS LIABLE FOR ANY DAMAGE TO UNDERGROUND SERVICES.

THIS DRAWING INCLUDES COLOURED INFORMATION. IF YOU HAVE A BLACK AND WHITE COPY YOU DO NOT HAVE ALL THE INFORMATION. THIS NOTE IS COLOURED RED.



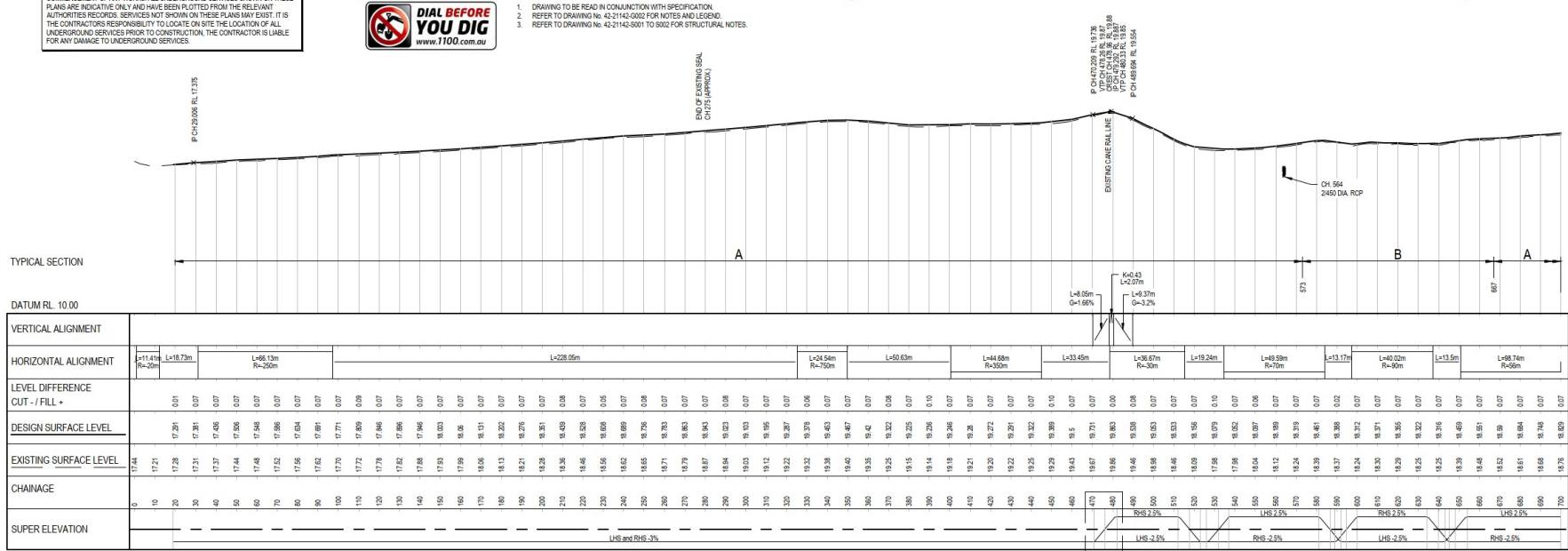
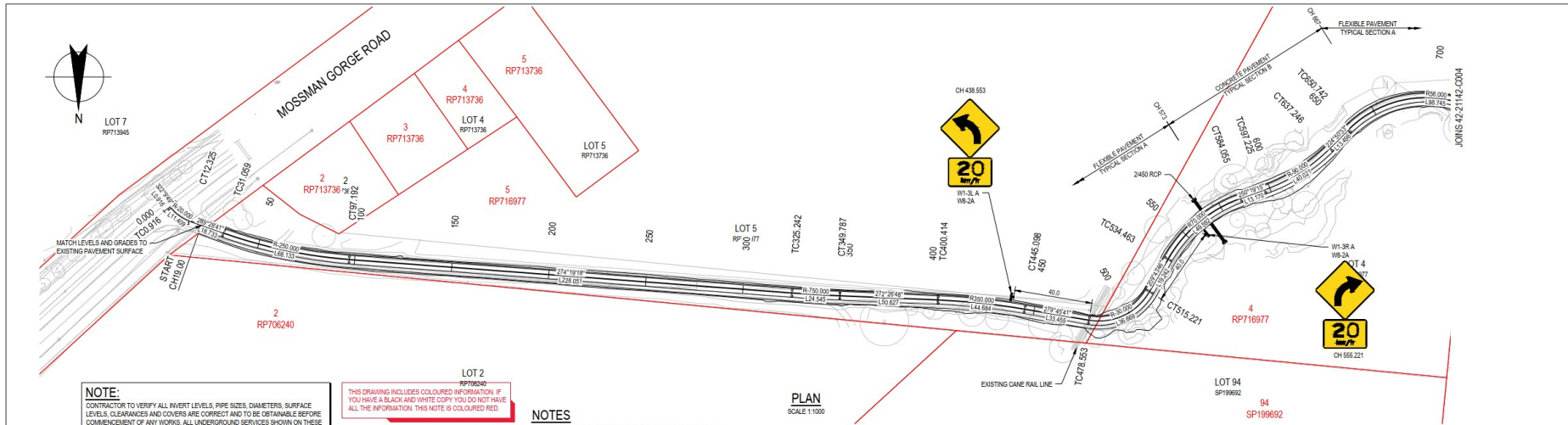
- NOTES**
- DRAWING TO BE READ IN CONJUNCTION WITH SPECIFICATION.
 - REFER TO DRAWING No. 42-21142-0002 FOR NOTES AND LEGEND.
 - REFER TO DRAWING No. 42-21142-0001 TO 0002 FOR STRUCTURAL NOTES.

CONTROL LINE SETOUT - MC01							
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	DEFL ANGLE
IP 1	0.000	324890.325	8178436.602		322°09'48.98"		
TC	0.916	324889.764	8178437.325		322°09'48.98"		
IP 2	6.620	324886.167	8178431.957			R = -20.000	11.409 32°41'07.57"
CT	12.325	324880.638	8178433.912		289°28'41.41"		
TC	31.059	324882.977	8178440.159	17.386	289°28'41.41"		
IP 3	64.125	324831.619	8178451.250	17.563		R = -250.000	66.133 15°09'23.55"
CT	97.192	324798.453	8178453.756	17.759	274°19'17.86"		
TC	325.242	324571.051	8178470.941	19.342	274°19'17.86"		
IP 4	337.515	324558.813	8178471.896	19.436		R = -750.000	24.545 1°52'30.36"
CT	349.787	324545.500	8178472.390	19.468	272°26'47.50"		
TC	490.414	324495.969	8178474.551	19.248	272°26'47.50"		
IP 5	422.756	324473.617	8178475.506	19.277		R = -350.000	44.684 7°18'53.38"
CT	445.098	324451.569	8178479.299	19.335	279°45'40.88"		
TC	478.553	324415.598	8178484.571	19.943	279°45'40.88"		
IP 6	496.887	324397.884	8178486.535	19.191		R = -30.000	36.669 70°01'54.81"
CT	515.221	324387.461	8178470.283	18.303	209°43'46.08"		
TC	534.463	324377.919	8178453.573	18.045	209°43'46.08"		
IP 7	559.259	324365.081	8178431.093	18.181		R = 70.000	49.592 40°35'29.07"
CT	584.055	324340.705	8178422.375	18.468	250°19'15.15"		
TC	597.225	324328.305	8178417.940	18.291	250°19'15.15"		
IP 8	617.235	324308.146	8178411.086	18.348		R = -90.000	40.021 25°28'42.18"

CONTROL LINE SETOUT - MC01							
PT	CHAINAGE	EASTING	NORTHING	HEIGHT	BEARING	RAD/SPIRAL	DEFL ANGLE
CT	637.246	324294.798	8178396.661	18.326	224°50'32.97"		
TC	650.742	324285.281	8178397.092	18.469	224°50'32.97"		
IP 9	700.114	324237.352	8178338.899	18.831		R = 56.000	98.745 101°01'45.60"
CT	749.487	324199.218	8178395.162	19.367	325°52'18.63"		
TC	758.309	324194.289	8178402.465	19.408	325°52'18.63"		
IP 10	781.999	324180.575	8178422.669	19.494		R = 80.000	47.380 33°59'59.90"
CT	805.689	324180.482	8178447.077	19.376	359°48'18.53"		
TC	859.924	324180.308	8178501.312	19.105	359°48'18.53"		
IP 11	883.155	324180.228	8178524.793	18.969		R = 130.000	46.462 20°28'38.41"
CT	906.386	324188.368	8178548.819	19.120	20°16'57.00"		
TC	927.016	324195.519	8178566.169	19.550	20°16'57.00"		
IP 12	952.966	324204.636	8178590.839	18.918		R = -130.000	51.900 22°52'27.41"
CT	978.916	324203.446	8178617.112	18.070	357°24'29.53"		
TC	984.178	324203.209	8178622.367	18.266	357°24'29.53"		
IP 13	1008.778	324202.091	8178647.046	19.108		R = -220.000	49.203 12°48'51.32"
CT	1033.379	324195.528	8178670.863	18.401	344°35'38.21"		
TC	1060.157	324188.415	8178696.679	17.056	344°35'38.21"		
IP 14	1081.807	324182.519	8178718.076	17.815		R = 80.000	43.300 31°00'41.10"
CT	1103.457	324188.489	8178739.452	18.105	15°36'19.31"		
IP 15	1117.589	324192.285	8178753.044		15°36'19.31"		

ISSUE FOR TENDER

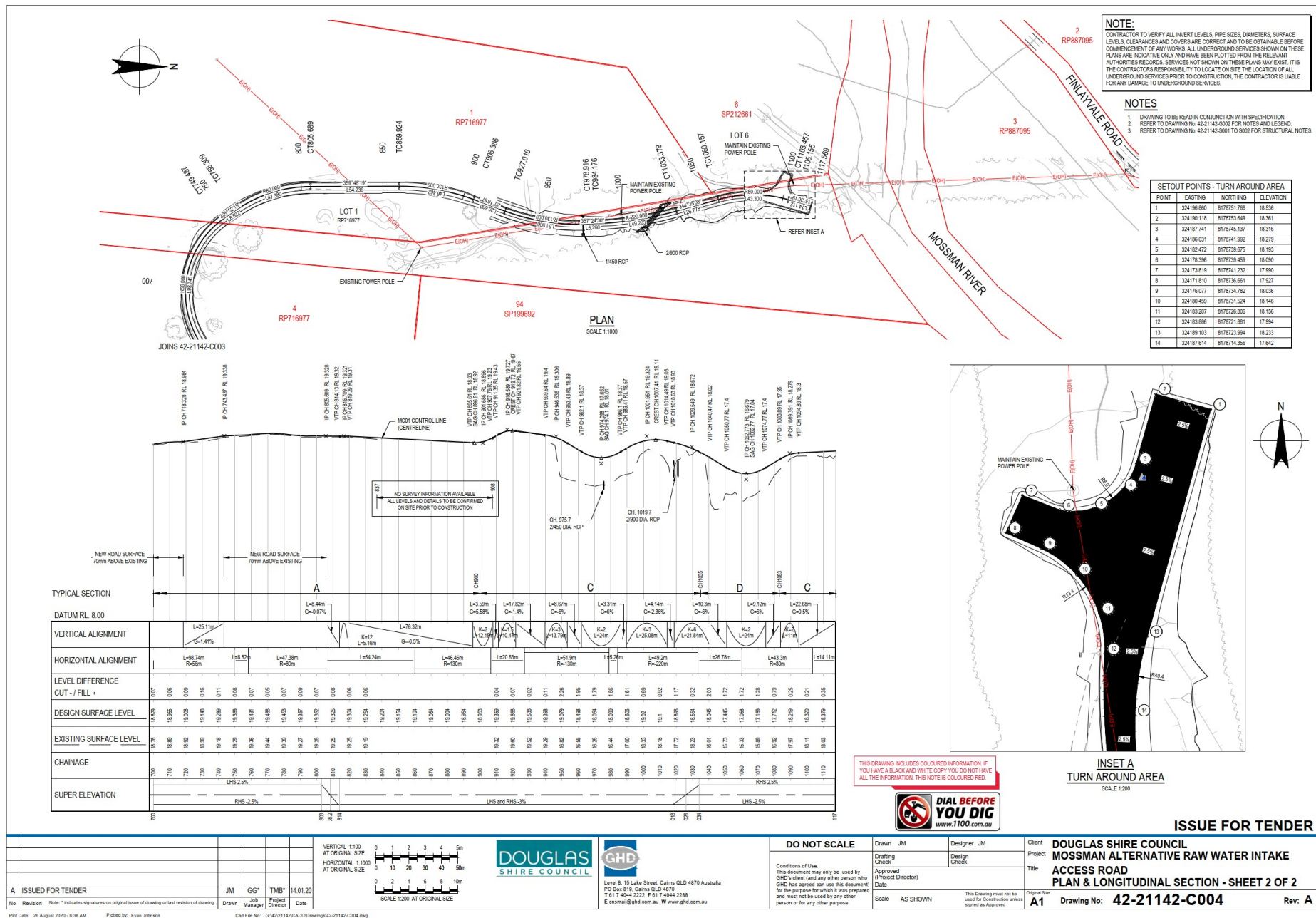
A ISSUED FOR TENDER		JM	GG	TMB	14.01.20
No Revision		Note: * Indicates signatures on original issue of drawing or last revision of drawing		Date	
Print Date: 26 August 2020 - 8:38 AM		Printed by: Evan Johnson		Civil File No: G14231142CADDrawing42-21142-C002.dwg	
DOUGLAS SHIRE COUNCIL		GHD		Level 8, 15 Lake Street, Cairns QLD 4870 Australia PO Box 816, Cairns QLD 4870 T 61 7 4244 2222 F 61 7 4244 2288 E csm@ghd.com.au W www.ghd.com.au	
DO NOT SCALE		Drawn: JM	Designer: JM	Client: DOUGLAS SHIRE COUNCIL	Project: MOSSMAN ALTERNATIVE RAW WATER INTAKE
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Scale: AS SHOWN		This Drawing must not be used for Construction unless signed as Approved		Original Size: A1	Drawing No: 42-21142-C002
				Rev: A	



LONGITUDINAL SECTION - MC01

HORIZ 1:100 VERT 1:100

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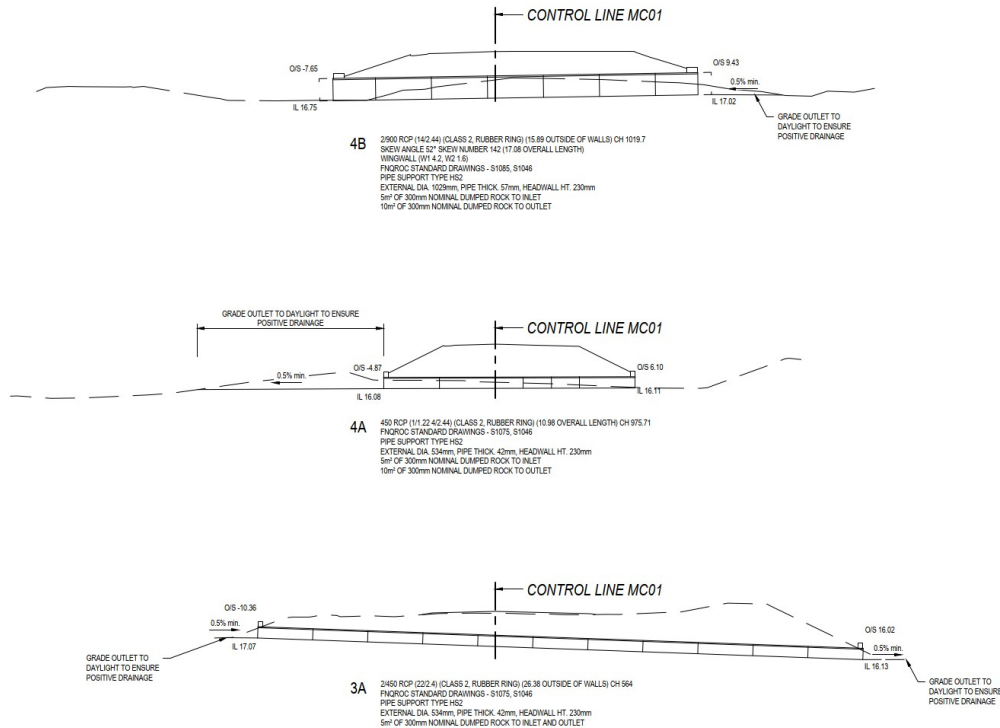
NOTE:

CONTRACTOR TO VERIFY ALL INVERT LEVELS, PIPE SIZES, DIAMETERS, SURFACE LEVELS, CLEARANCES AND COVERS ARE CORRECT AND TO BE OBTAINABLE BEFORE COMMENCEMENT OF ANY WORKS. ALL UNDERGROUND SERVICES SHOWN ON THESE PLANS ARE INDICATIVE ONLY AND HAVE BEEN PLOTTED FROM THE RELEVANT AUTHORITIES RECORDS. SERVICES NOT SHOWN ON THESE PLANS MAY EXIST. IT IS THE CONTRACTORS RESPONSIBILITY TO LOCATE ON SITE THE LOCATION OF ALL UNDERGROUND SERVICES PRIOR TO CONSTRUCTION. THE CONTRACTOR IS LIABLE FOR ANY DAMAGE TO UNDERGROUND SERVICES.

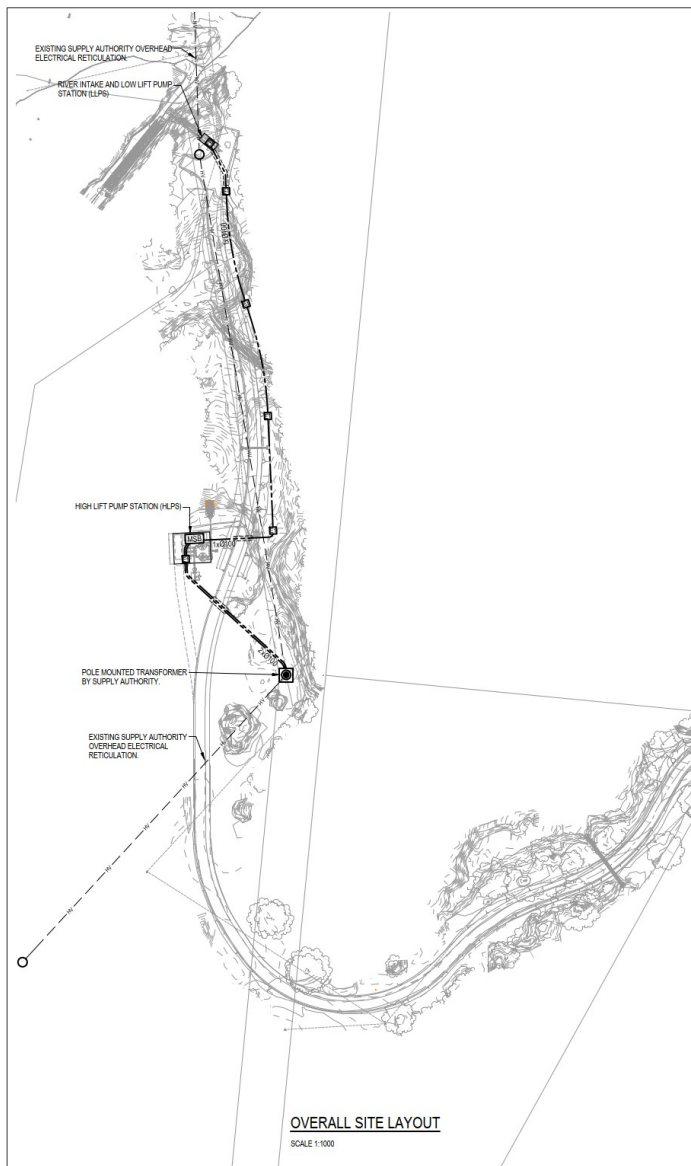
THIS DRAWING INCLUDES COLOURED INFORMATION. IF YOU HAVE A BLACK AND WHITE COPY YOU DO NOT HAVE ALL THE INFORMATION. THIS NOTE IS COLOURED RED.

**NOTES**

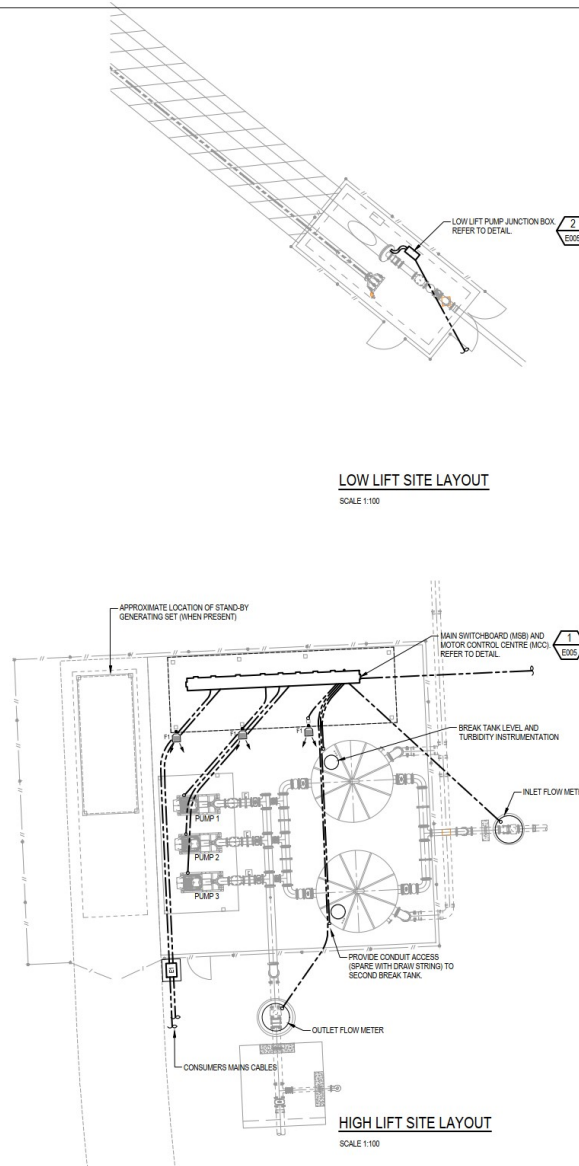
1. DRAWING TO BE READ IN CONJUNCTION WITH SPECIFICATION.
2. REFER TO DRAWING No. 42-21142-0002 FOR NOTES AND LEGEND.
3. REFER TO DRAWING No. 42-21142-0001 TO 0002 FOR STRUCTURAL NOTES.
4. INCLUDE APRONS AND CUT-OFF WALLS AT ALL INLETS AND OUTLETS.

**ISSUE FOR TENDER**

								DO NOT SCALE		Drawn: JM	Designer: JM	Client: DOUGLAS SHIRE COUNCIL
B ROCK PROTECTION ADDED				EDJ		GG*		TMB*		31.08.20		Project: MOSSMAN ALTERNATIVE RAW WATER INTAKE
A ISSUED FOR TENDER				JM		GG*		TMB*		14.01.20		Title: ACCESS ROAD DRAINAGE SECTIONS
No Revision				Note: * Indicates signatures on original issue of drawing or last revision of drawing		Drawn: JM		308 Manager		Project Director		Original Size: A1
Plot Date: 31 August 2020 - 10:35 AM				Printed by: Evan Johnson		Cadd File No: G:\42\21142\CAD\Drawings\42-21142-C005.dwg		Conditions of Use: This document may only be used by GHD's client (and any other person who GHD has agreed can use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.		Scale: AS SHOWN		This Drawing must not be used for Construction unless signed as Approved
										Drawing No: 42-21142-C005		Rev: B



OVERALL SITE LAYOUT
SCALE 1:1000



LOW LIFT SITE LAYOUT
SCALE 1:100

HIGH LIFT SITE LAYOUT
SCALE 1:100

NOTES

- DO NOT SCALE DRAWINGS. DIMENSIONS SHOWN ARE IN MILLIMETRES UNLESS NOTED OTHERWISE.
- ALL DRAWINGS SHALL BE READ IN CONJUNCTION WITH THE CONTRACT DOCUMENTATION.
- ALL WORKS SHALL BE CARRIED OUT IN ACCORDANCE WITH AS/NZS3000, LOCAL AUTHORITY AND SUPPLY AUTHORITY REQUIREMENTS.
- THE CONTRACTOR SHALL VERIFY, IN RELATION TO THE WORKS, THE LOCATIONS OF ALL UNDERGROUND AND ABOVE GROUND SERVICES ON SITE. IN THE EVENT OF UNFORESEEN CONFLICTS ON SITE, DESIGN ADVICE SHALL BE SOUGHT BEFORE ANY CHANGES TO THE DOCUMENTED ARRANGEMENTS ARE UNDERTAKEN.
- ALL EQUIPMENT SHOWN (IS) SHALL BE NEW UNLESS NOTED OTHERWISE.
- FAULT AND DISCRIMINATION LEVELS SHOWN ARE BASED ON TERA-SKI TERABREAK 2 AND ON-T-CIRCUIT BREAKERS. SUBMIT CALCULATIONS AND DETAILS OF ALTERNATE SELECTIONS FOR APPROVAL.
- CONDUIT & CABLE SIZES SHOWN ARE MINIMUM SIZES. FINAL SIZES SHALL BE DETERMINED TO SUIT WIRING METHODS AND DERATING FACTORS.
- FINAL LOCATION OF ELECTRICAL AND COMMUNICATIONS CABLE PITS AND DISTRIBUTION BOXES SHALL BE COORDINATED WITH LANDSCAPE, KERBS AND PAVEMENT LAYOUTS. PITS SHALL BE LOCATED ENTIRELY WITHIN PAVEMENT OR GARDEN AREAS AND SHALL NOT INTERRUPT PAVEMENT AND/OR KERBS.
- ALL SOLID STATE (LED) LAMPS SHALL BE OF MATCHING COLOUR APPEARANCE: 'COOL WHITE' COT 4000K, R_a > 80 UNLESS NOTED OTHERWISE. EFFICACY, AS-INSTALLED AND INCLUDING DRIVER LOSSES, SHALL BE NOT LESS THAN 80lm/W INITIAL, AS-INSTALLED MAINTAINED LAMP FLUX AT 5000 HOURS SHALL BE NOT LESS THAN 65% OF INITIAL (L85 = 5000).
- FOOTING DESIGNS SHOWN ARE INDICATIVE ONLY. THE CONTRACTOR SHALL VISIT THE SITE AND ENSURE THAT THE POLE AND FOOTING DESIGN AND INSTALLATION IS UNDERTAKEN TO SUIT THE SITE CONDITIONS AND TO ACHIEVE THE DESIGN REQUIREMENTS.
- ALL LUMINAIRES SHALL BE AIMED INITIALLY AS DOCUMENTED, ALLOW TO RE-AIM ALL LUMINAIRES TO THE SATISFACTION OF THE SUPERINTENDANT. RE-AIMING WORK SHALL BE UNDERTAKEN OUTSIDE NORMAL HOURS (i.e. AFTER DARK).

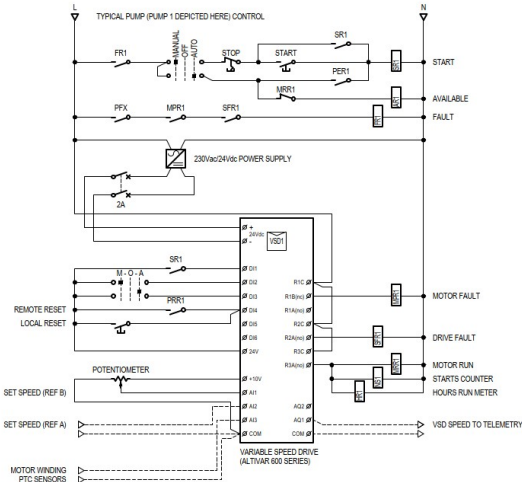
LEGEND OF SYMBOLS

- CIRCUIT BREAKER
- COMBINED CIRCUIT BREAKER/RCD (RCBO)
- LOAD BREAK ISOLATOR
- HRC FUSE
- TRANSIENT PROTECTION (SURGE DIVERTER)
- TRANSIENT PROTECTION (SURGE FILTER)
- PUSHBUTTON MAKE CONTACT
- PUSHBUTTON BREAK CONTACT
- FLOAT SWITCH MAKE CONTACT
- FLOAT SWITCH BREAK CONTACT
- LIMIT SWITCH MAKE CONTACT
- LIMIT SWITCH BREAK CONTACT
- THERMAL SWITCH (MICROTHERM)
- THERMAL SENSOR (THERMISTER)
- RELAY MAKE CONTACT
- RELAY BREAK CONTACT
- RELAY CHANGE OVER CONTACT
- RELAY DELAY TO MAKE CONTACT
- RELAY DELAY TO BREAK CONTACT
- RELAY DELAY TO RESBREAK CONTACT
- RELAY DELAY TO REMAKE CONTACT
- CONTRACTOR MAKE CONTACT
- RELAY/CONTRACTOR COOL
- DROPOUT DELAY RELAY COOL
- PICKUP DELAY RELAY COOL
- INDICATOR LAMP (COLOUR AS SHOWN)
- 81W (NOM. 8200lm) LED WEATHERPROOF (IP66) MEDIUM ASYMMETRIC BEAM FLOODLIGHT, GERARD ROAD 1887 OR APPROVED EQUAL, MOUNT AND AIM AS NOTED.
- ELECTRICAL CABLEING PIT WITH MEDIUM DUTY (CLASS C TO AS3996) STEEL COVER, MINIMUM INTERNAL DIMENSIONS AS FOLLOWS AND AS NOTED.
E1: 900x450/750 DEEP.
E2: 900x600/750 DEEP.
- ROUTE OF UNDERGROUND ELECTRICAL HDuPVC (ORANGE) CONDUITS, MINIMUM NUMBER AND SIZE AS SHOWN.

ISSUE FOR TENDER

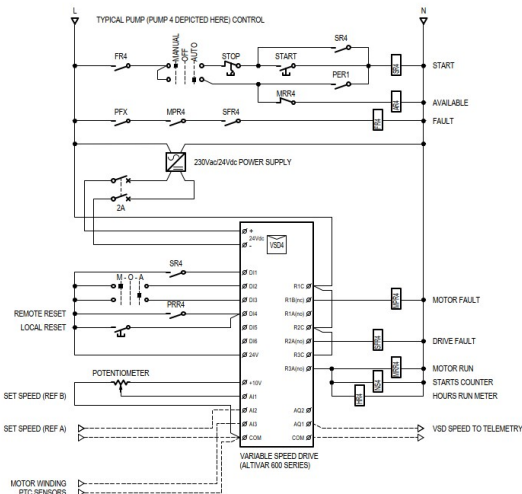
<div> <div>0 1 2 3 4 5m</div> <div>SCALE 1:100 AT ORIGINAL SIZE</div> </div> <div> <div>0 10 20 30 40 50m</div> <div>SCALE 1:1000 AT ORIGINAL SIZE</div> </div>								<p>Level 8, 15 Lake Street, Cairns QLD 4870 Australia PO Box 816, Cairns QLD 4870 T 61 7 4044 2222 F 61 7 4044 2288 E csmail@ghd.com.au W www.ghd.com.au</p>	<p>DO NOT SCALE</p> <p>Conditions of Use: This document may only be used by GHD's client (and any other person who GHD has signed and use this document) for the purpose for which it was prepared and must not be used by any other person or for any other purpose.</p>	<p>Drawn: JWR Drafting: JWR Check: JWR Approved: JWR Project Director: JWR Date: JWR</p>	<p>Designer: JWR Design: JWR Check: JWR</p>	<p>Client: DOUGLAS SHIRE COUNCIL Project: MOSSMAN ALTERNATIVE RAW WATER INTAKE Title: ELECTRICAL SERVICES SITE LAYOUT, LEGEND AND NOTES.</p>	<p>Original Size: A1 Drawing No: 42-21142-E001 Rev: A</p>
<p>A ISSUED FOR TENDER</p> <p>EDJ GG* TMB* 14.01.20</p> <p>Drawn: JWR Manager: JWR Project Director: JWR Date: 14.01.20</p>				<p>Plot Date: 28 August 2020 - 8:37 AM Plotted by: Ewan Johnson</p>		<p>Call File No: G:\42\21142\CAD\Drawings\42-21142-E001.dwg</p>			<p>This Drawing must not be used for Construction unless signed as Approved</p>				

MAIN SWITCHBOARD AND MOTOR CONTROL CENTRE



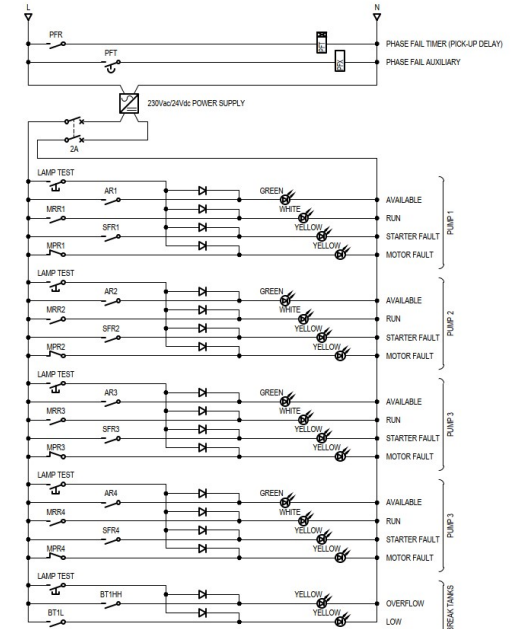
TYPICAL HIGH LIFT PUMP - CONTROL AND INDICATION

PUMP 1 DEPICTED HERE. PUMP 2 AND PUMP 3 SHALL BE SIMILAR



LOW LIFT PUMP - CONTROL AND INDICATION

PUMP 4 DEPICTED HERE.



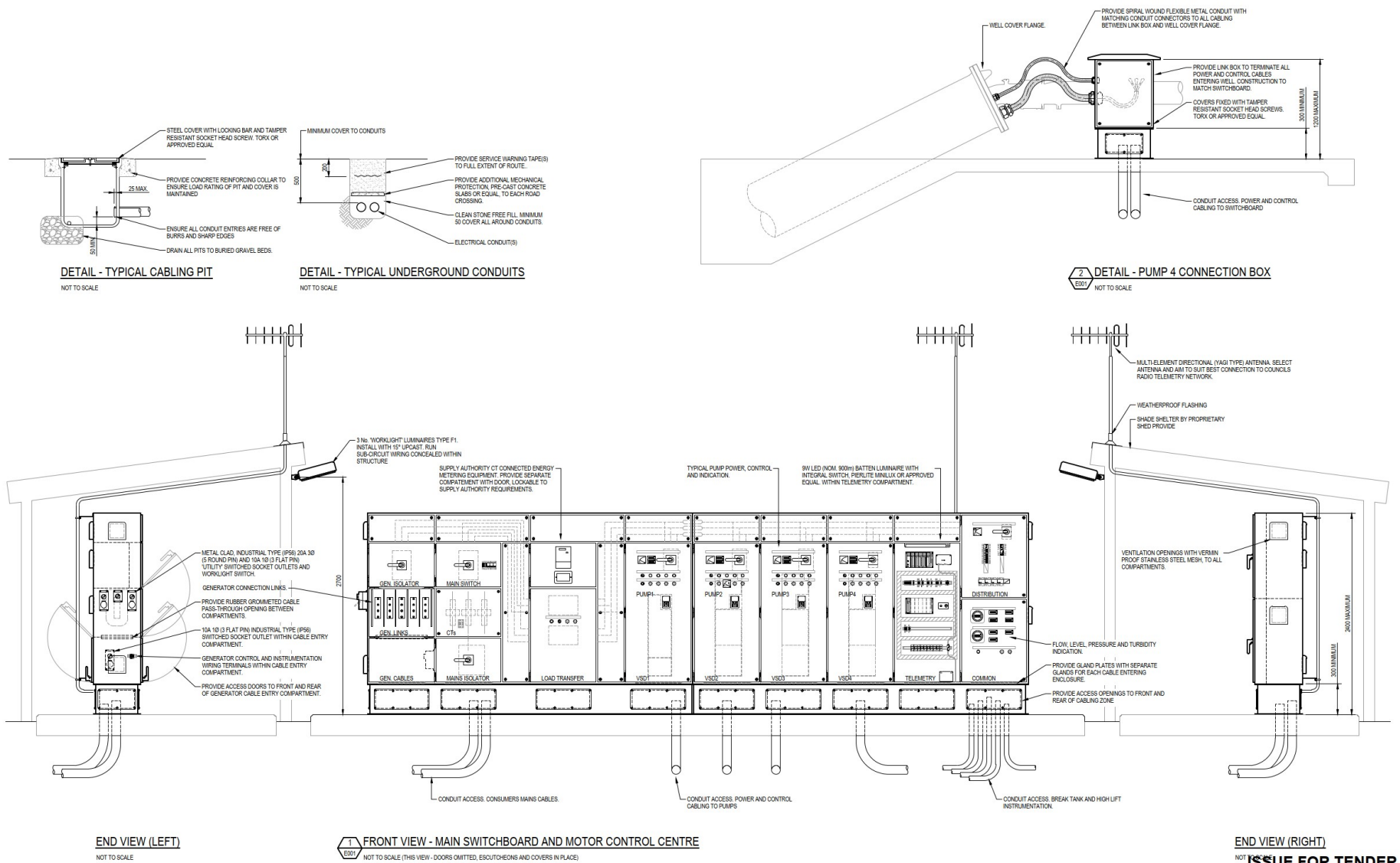
COMMON CONTROL AND INDICATION

NOTE:

FOR GENERAL NOTES AND LEGEND OF SYMBOLS, REFER TO DRAWING 42-21142-E001

ISSUE FOR TENDER

[illegible]



A		ISSUED FOR TENDER	EDJ	GG*	TMB*	14.01.20
No	Revision	Note	Drawn	308	Project Manager	Date

Plot Date: 26 August 2020 - 8:38 AM Plotted by: Evan Johnson C:\p\1142\1142CAD\Drawings\1142-21142-E005.dwg



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Drafting: JWR
Check: JWR
Approved: JWR
Date: JWR

Designer: JWR
Design: JWR
Check: JWR
Approved: JWR
Date: JWR

Scale: NOT TO SCALE

This Drawing must not be used for Construction unless signed as Approved

Client: DOUGLAS SHIRE COUNCIL

Project: MOSSMAN ALTERNATIVE RAW WATER INTAKE

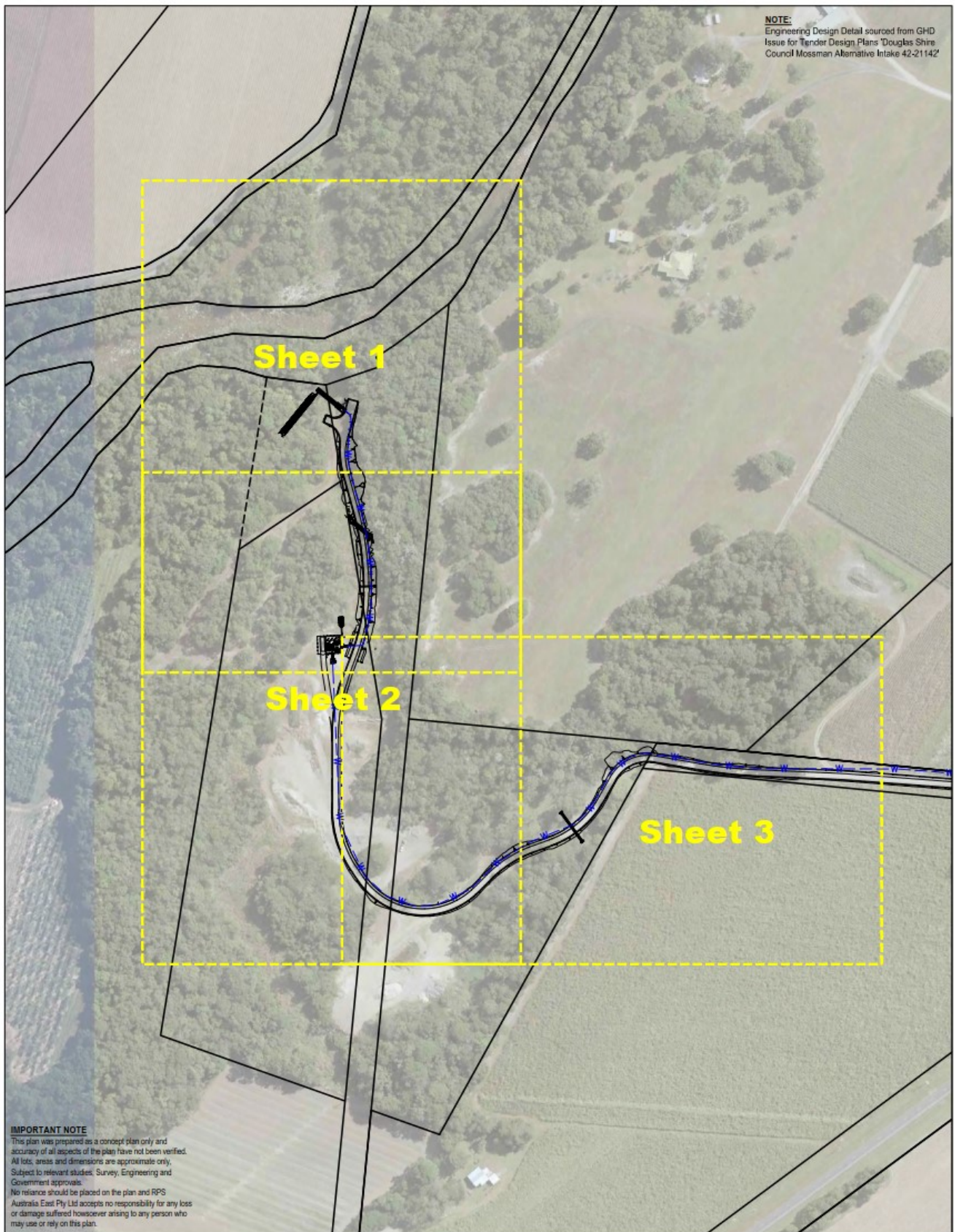
Title: ELECTRICAL SERVICES DETAILS

Original Size: A1

Drawing No: 42-21142-E005

Rev: A

NOTE:
Engineering Design Detail sourced from GHID
Issue for Tender Design Plans 'Douglas Shire
Council Mossman Alternative Intake 42-21142'



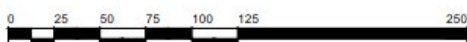
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Site Plan - Mossman Proposed Water Intake

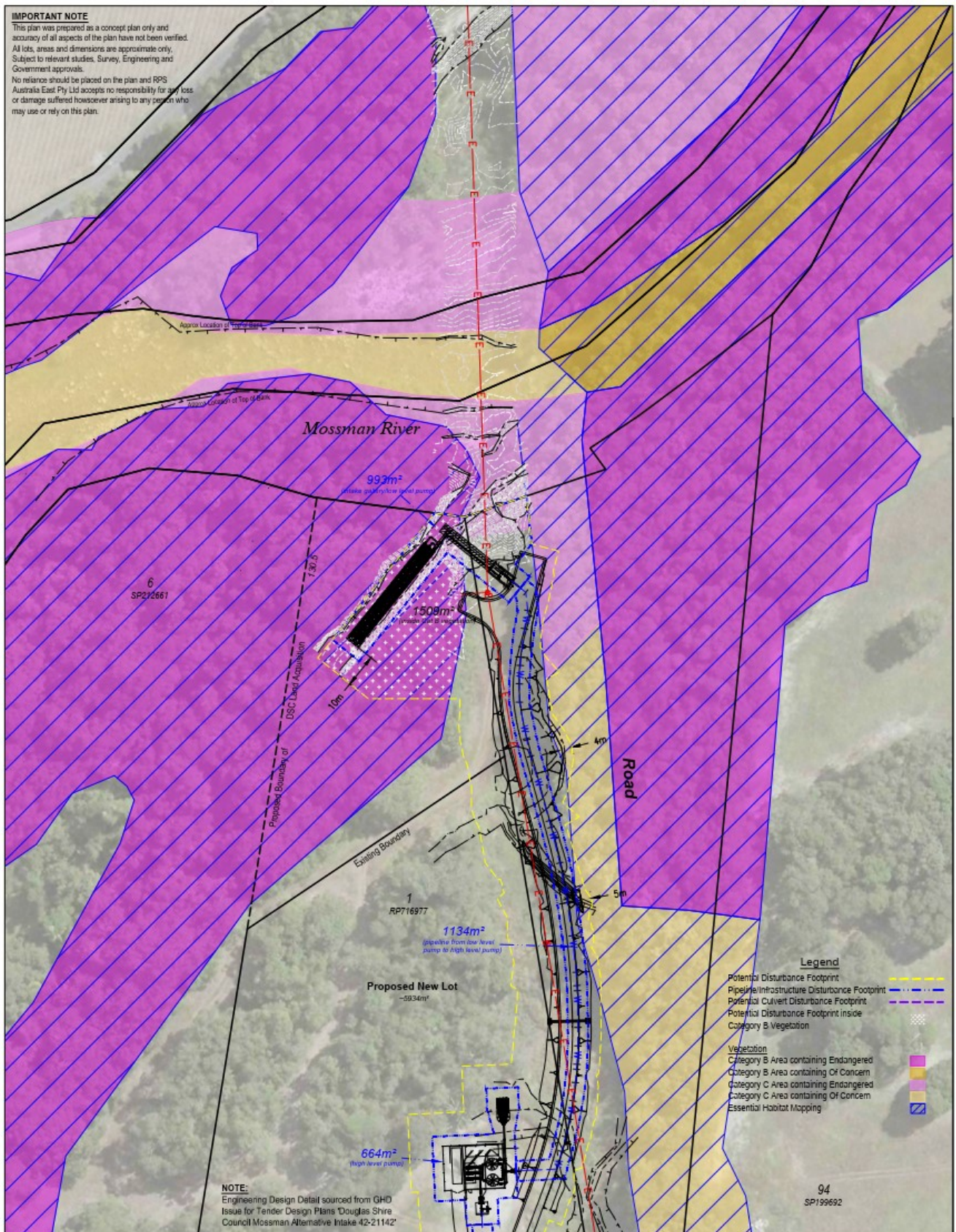
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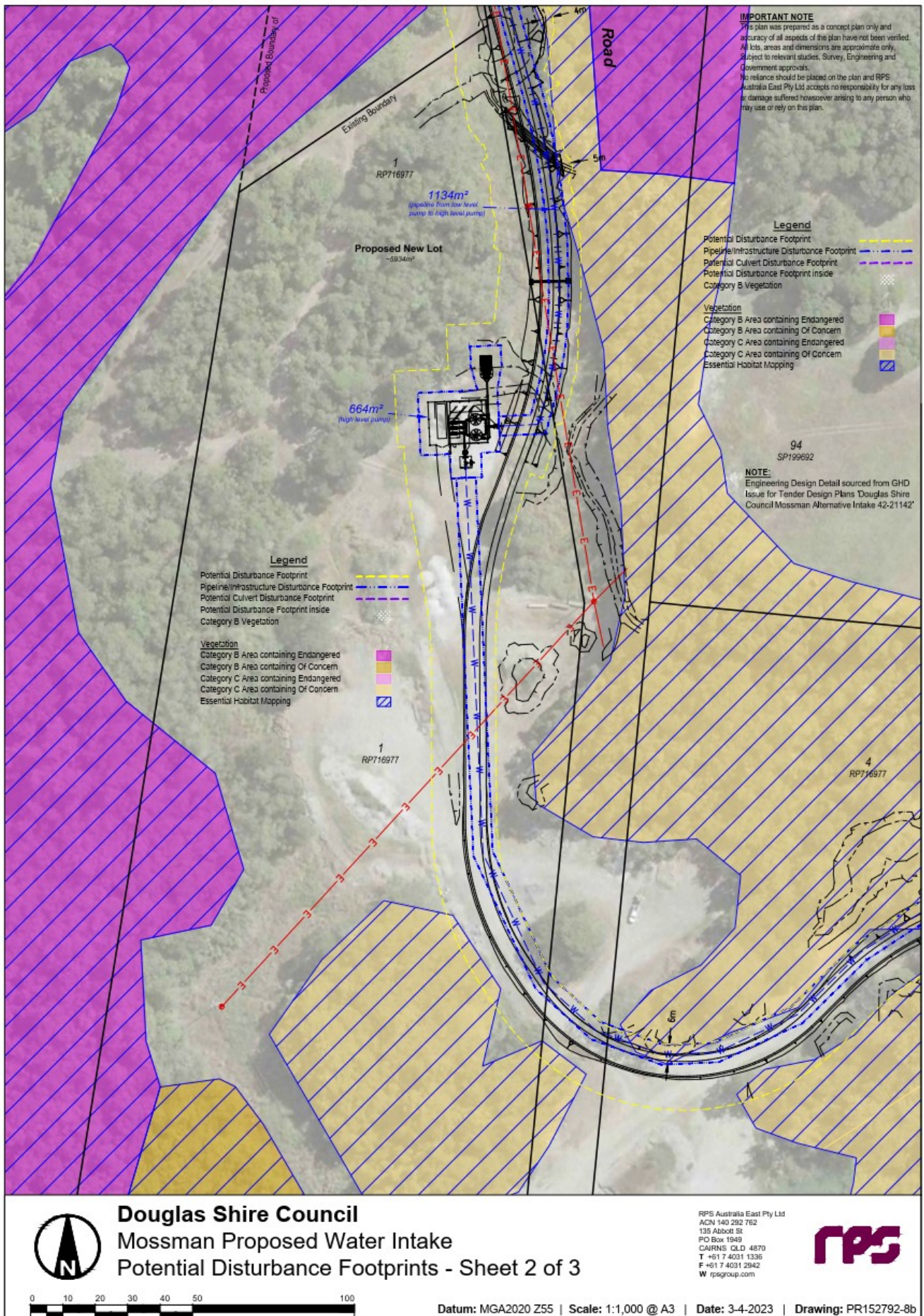
Douglas Shire Council
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Potential Disturbance Footprints - Sheet 1 of 3

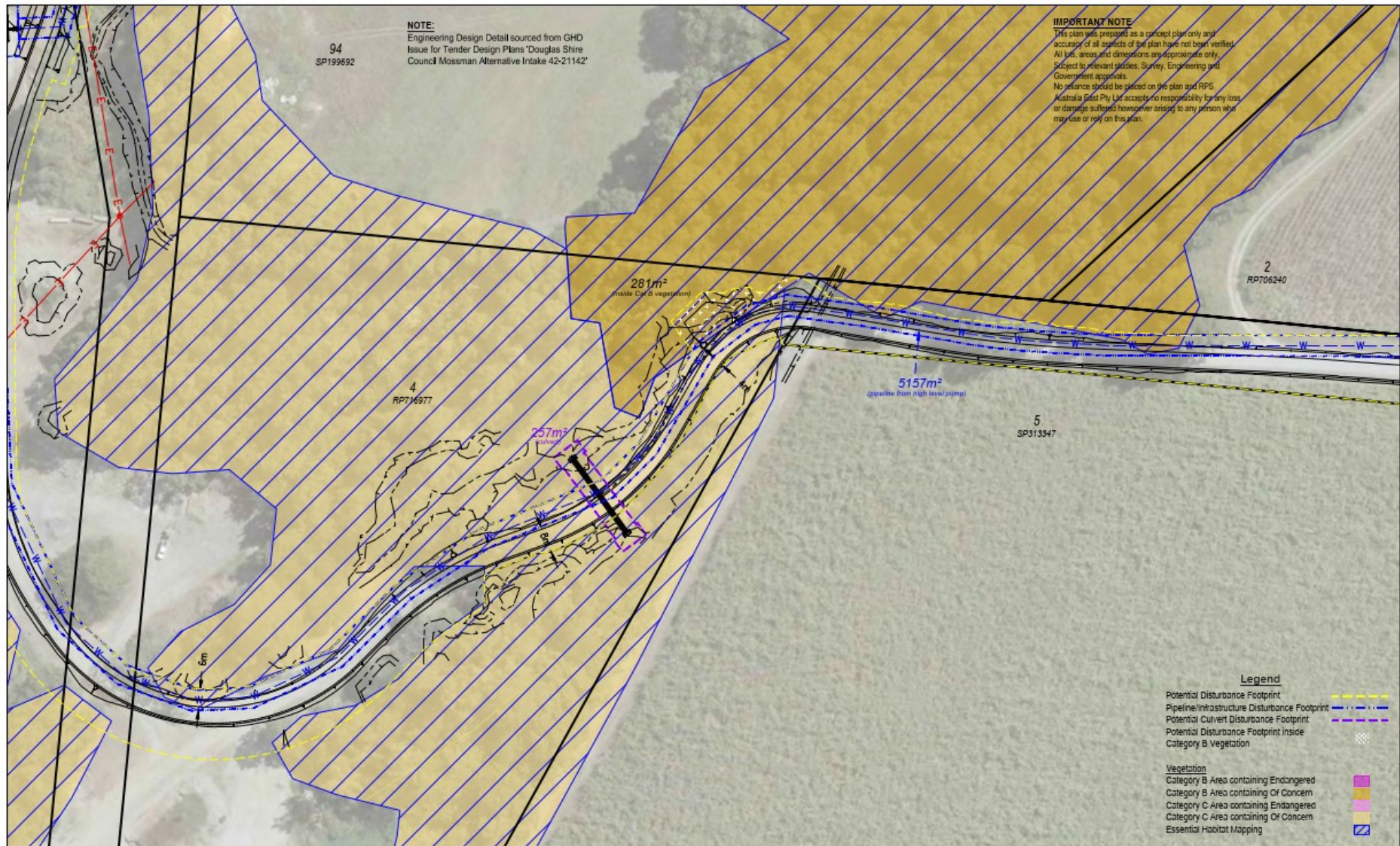


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REHABILITATION PLAN

Mossman Water Intake



AU006055.003
01
26 July 2023

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REPORT

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
0	Rehabilitation Plan	N. May	M Davis	N. May	18 May 2023
1	Minor edits	O. Caddick-King	M. Davis	M. Davis	26 July 2023

Approval for issue

Natalie May



26 July 2023

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1 INTRODUCTION

RPS AAP Consulting Pty Ltd (RPS) has been engaged by Douglas Shire Council (DSC) to prepare a Vegetation Rehabilitation Plan to enable vegetation of cleared areas required for the development of the proposed additional water supply intake, and linked intake infrastructure extracting water from the Mossman River. The water supply intake is located on part of Lot 6 on SP212661, the project will be management and developed by Council.

The related infrastructure, which includes a low-level pump, high-level pump, and linked pipeline are proposed to be placed on Lot 6 on SP212661, Lot 1 and 4 on RP716977 and Road Reserve with the proposed works extending from the anabranch of the Mossman River to Mossman Gorge Road via Drumsara Road, Mossman.

As part of this engagement, RPS were required to create a Rehabilitation Plan to address any potential vegetation/ land health impacts and provide recommendations to enable DSC to commence work and support their Development Approval conditions.

The following actions were taken in delivering the Rehabilitation Plan:

- Source and review existing desktop ecological information/mapping for the subject site, plus any local knowledge of the ecological values based on previous assessments undertaken in the vicinity of the project area.
- Prepare a Rehabilitation Report.
- Provide recommendations on land rehabilitation areas across the project area.

2 PROJECT AREA

The proposed works are shown in Appendix A for the water intake infrastructure.

The site includes regional ecosystem (RE) 7.3.17 which is listed as Endangered while RE 7.3.19 and 7.3.10 are listed as Of Concern under the *Vegetation Management Act*. Further east from the waterway, the RE changes to 7.3.19 and 7.3.10. These vegetation communities are key elements of healthy functional ecosystems. Figure 1 shows the project site location. Figure 2 shows the impact of RE 7.3.17.



Figure 1 Project Area and RE Mapping



Figure 2 Mapped RE 7.3.17, RE 7.3.19 and RE 7.3.10

Approximately 1509m² of RE 7.3.17 is required to be cleared as a result of the water intake infrastructure, refer to Figure 2 above and Appendix A. It is proposed that this area is naturally revegetated as much as feasible allowing for ongoing operations through the methodology detailed below.

2.1.1 Flora

2.1.1.1 Existing Plant Communities Present on Site

There are three (3) regional ecosystems present within the project area. One (1) RE 7.3.17 listed as Endangered and two (2) RE 7.3.19 and 7.3.10 listed as Of Concern under the Vegetation Management Act. Regional Ecosystem/plant community descriptions for all four are listed below:

2.1.1.1.1 Regional Ecosystem: 7.3.17

Vegetation Management Act: Endangered

Biodiversity Status: Endangered

Description: Complex mesophyll vine forest. Well-drained alluvium of high fertility. Not a Wetland.

2.1.1.1.2 Regional Ecosystem: 7.3.19

Vegetation Management Act: Of Concern

Biodiversity Status: Of Concern

Description: *Corymbia intermedia* (pink bloodwood) or *C. tessellaris* (Moreton Bay ash) +/- *Eucalyptus tereticornis* (forest red gum) open forest (or vine forest with these species as emergents). Well-drained alluvium. Not a Wetland.

Vegetation communities in this regional ecosystem include:

7.3.19a: *Corymbia intermedia*, *Eucalyptus tereticornis*, *E. drepanophylla*, *Allocasuarina torulosa*, *A. littoralis*, *Lophostemon suaveolens*, woodland with *Acacia circinnata*, *A. flavescens*, *Banksia aquilonia* and *Xanthorrhoea johnsonii*. Well-drained alluvium. Not a Wetland.

- 7.3.19b: *Corymbia tessellaris* and *C. intermedia* woodland and open forest. Well-drained alluvium. Not a Wetland.
- 7.3.19c: *Corymbia tessellaris* and *C. intermedia* woodland and open forest with a very well-developed vine forest understorey. Well-drained alluvium. Not a Wetland.
- 7.3.19d: *Corymbia intermedia* open forest. Well-drained alluvium. Not a Wetland.
- 7.3.19e: *Corymbia intermedia* open forest with a very well-developed vine forest understorey. Well-drained alluvium. Not a Wetland.
- 7.3.19f: *Eucalyptus moluccana* woodland and open forest. Alluvium. Not a Wetland.
- 7.3.19g: *Eucalyptus tereticornis*, *E. drepanophylla*, *E. portuensis*, *Corymbia intermedia*, *C. tessellaris*, woodland and open forest with *Allocasuarina torulosa* and *Angophora floribunda*. Uplands and highlands on alluvium, of the dry rainfall zone. Not a Wetland.
- 7.3.19h: *Corymbia tessellaris* +/- *Eucalyptus tereticornis*, *C. intermedia*, *E. drepanophylla*, *E. platyphylla* and *Lophostemon suaveolens* layered grassy woodland with *Acacia celsa* and *Cycas media*. Lowlands on alluvium, of the wet and moist rainfall zones. Not a Wetland.
- 7.3.19i: *Corymbia intermedia*, *Allocasuarina torulosa* and *Lophostemon suaveolens* woodland and open forest. Uplands on alluvium, of the moist rainfall zone. Not a Wetland.
- 7.3.19j: *Themeda triandra* and *Imperata cylindrica* grassland. Alluvium, Palm Islands. Not a Wetland.

2.1.1.1.3 Regional Ecosystem 7.3.10

Vegetation Management Act: Of Concern

Biodiversity Status: Endangered

Simple-complex mesophyll to notophyll vine forest. Moderately to poorly-drained alluvial plains of moderate fertility. Contains Palustrine.

Vegetation communities in this regional ecosystem include:

- 7.3.10a: Mesophyll vine forest. Moderately to poorly-drained alluvial plains, of moderate fertility. Lowlands of the very wet and wet zone. Not a Wetland.
- 7.3.10b: Mesophyll vine forest recovering from disturbance, with *Acacia spp.* canopy or emergents. Moderately to poorly-drained alluvial plains, of moderate fertility. Lowlands of the very wet and wet zone. Not a Wetland.
- 7.3.10c: Mesophyll vine forest with scattered *Archontophoenix alexandrae* (feather palm) in the sub-canopy. Seasonally inundated lowland alluvial plains. Palustrine.
- 7.3.10d: Open areas in vine forests dominated by sprawling vines, with emergent vine-draped trees or clumps of trees. Vines commonly include *Decalobanthus peltatus*. Alluvial plains. Not a Wetland.
- 7.3.10e: Simple notophyll vine forest with *Blepharocarya involucrigeria*, *Acacia celsa*, *Flindersia bourjotiana*, *Syzygium angophoroides*, *Dillenia alata*, *Grevillea baileyana*, *Syzygium kuranda*, *Calophyllum sil*, *Backhousia hughesii* and *Acronychia acronychioides*. Swampy alluvial plains. Palustrine.
- 7.3.10f: Simple Notophyll vine forest with *Syzygium angophoroides*. Swampy alluvial plains. Palustrine.
- 7.3.10g: Simple notophyll vine forest dominated by *Blepharocarya involucrigeria*. Alluvial plains. Not a Wetland.

3 REVEGETATION METHODOLOGY

3.1 Weed Control

Weeds pose a serious threat to the project area. Weeds can harm native plants and animals, natural landscape and water catchment within the project area.

Environmental weeds threaten the biodiversity of the project area by:

- reducing the diversity and abundance of native species
- upsetting the balance of natural ecosystems.

Weeds compete with native plant species for nutrients, water, sunlight and space. Weeds can form dense areas of vegetation that shade and smother native species and may alter key environmental events. This can threaten both native plants and the animals that rely on them for food and shelter.

Weed control will involve herbicide treatments to reduce the amount of weeds present. This will reduce the competition for available water and nutrients with the native seedlings, leading to a more successful revegetation outcome. Weed control will be carried out once the annuals emerge.

Areas to be revegetated will ideally be sprayed before planting with a residual herbicide (e.g. Simazine) and knockdown (e.g. Glyphosate) mix, although it is noted that this area is within close proximity to the Mossman River and no herbicide should be allowed to runoff into the waterway.

A follow up spray in spring with Fusilade or Verdict may be required to control narrow leaf grasses. If narrow leaf grasses are prevalent on the site it would be anticipated this herbicide treatment would be required.

3.2 Topsoil Management

During construction, it is recommended that topsoil is stripped and stockpiled for reuse for revegetation. Topsoil should be stockpiled in small stockpiles to ensure the viability of the native seedstock.

3.3 Fauna Management

It is recognised that fauna along waterways can provide valuable corridor for movement of native wildlife. During clearing, it is recommended that a spotter catcher is engaged to prevent impacts to native wildlife and any cleared vegetation is mulched for reuse during revegetation or large logs/trees are retained and placed throughout the revegetation area to enable use for wildlife by providing habitat.

3.4 Timing

It is recommended that for improved success rates of native rehabilitation, the area is prepared prior to the wet season to allow for natural seed dispersal and establishment during the rains.

3.5 Site Preparation

Prior to planting/seeding any available site topsoil and mulched vegetation will be spread across the revegetation site to a minimum depth of 50 mm and not more than 100 mm thick. The topsoil and mulch will be blended at a 5:1 ratio before spreading and applied in one application.

3.6 Ongoing Maintenance and Monitoring

Monitoring should occur regularly at the site, preferably monthly for the first 6 months then reducing thereafter.

Ongoing monitoring will ensure the successful establishment of the revegetated rehabilitated areas.

Criteria for success: Follow-up herbicide treatment will take place when the weed cover (non-indigenous species) exceeds 30% and these weed species are assessed by the Council or contractor during the

ongoing monitoring are deemed to be having a detrimental impact on the survival of the revegetation that will result in the quantity and species diversity dropping below the set completion criteria.

Target composition: 9-10 indigenous species present consistent with mapped vegetation 5 years after establishment. 10% Upper Story and 70% Mid Story and 20% Low Story. If the species density or diversity has dropped significantly below these amounts infill planting will be required.

Follow up weed control is likely to be vital to the success of native vegetation re-establishment.

3.7 Signage

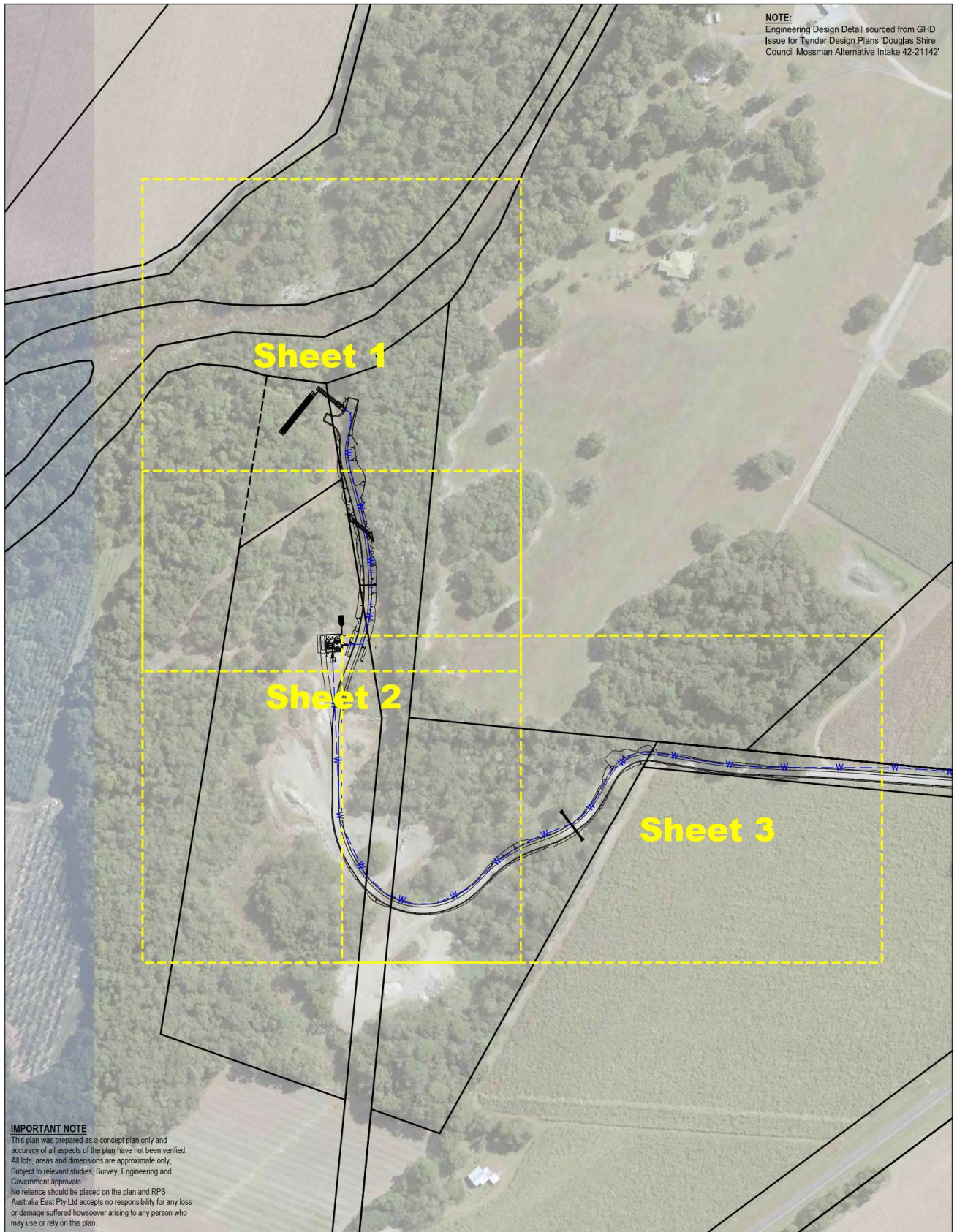
Revegetated areas will be signed and preferably taped off to prevent access from staff where possible.

4 RECOMMENDATIONS AND CONCLUSION

As detailed above, it is proposed that the area to be cleared for the Mossman Water Intake project will be naturally revegetated with active site preparation, monitoring and weeding for at least the first year or until the success criteria is met.

Appendix A Site Plan

NOTE:
Engineering Design Detail sourced from GHD
Issue for Tender Design Plans 'Douglas Shire
Council Mossman Alternative Intake 42-21142'



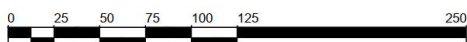
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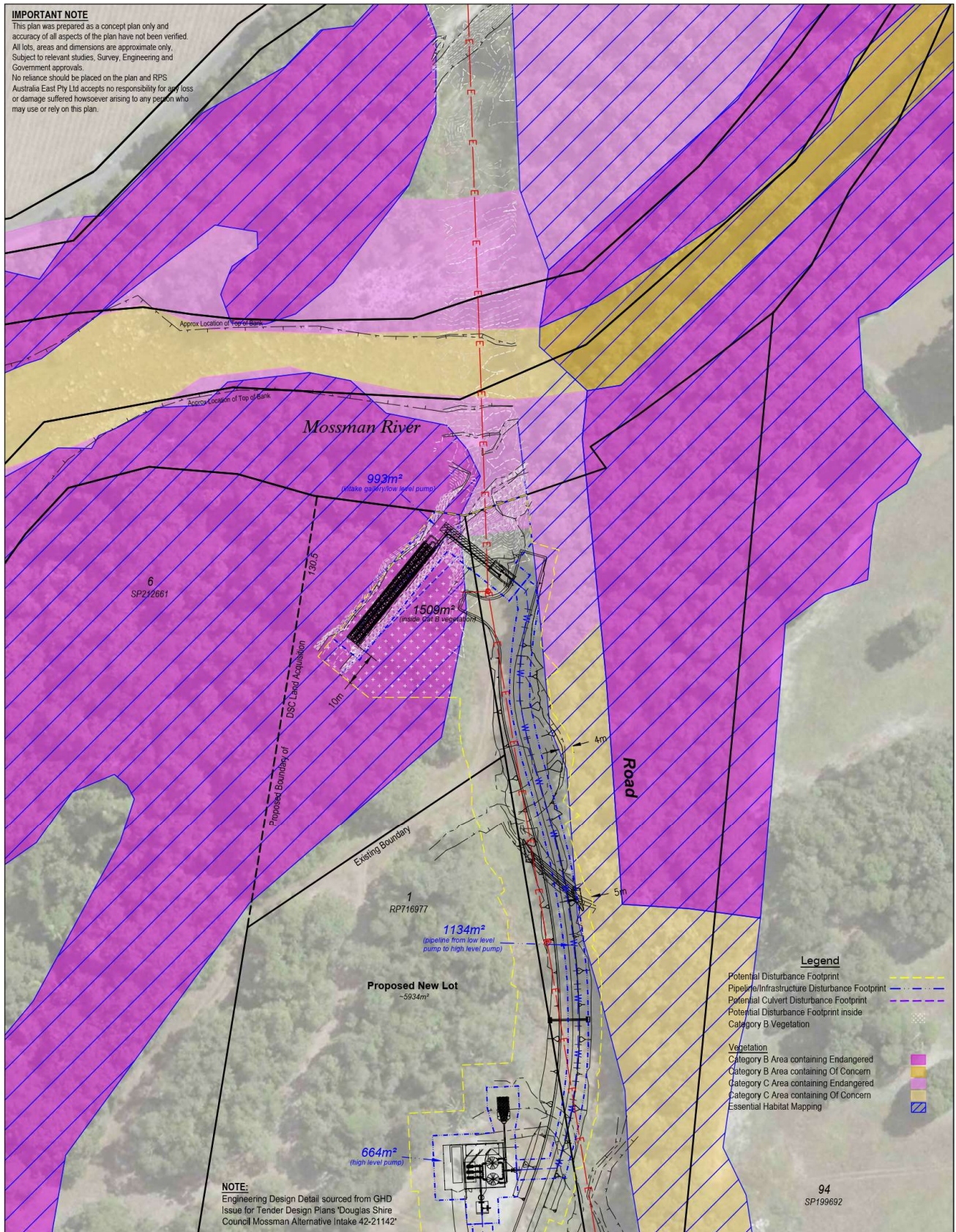
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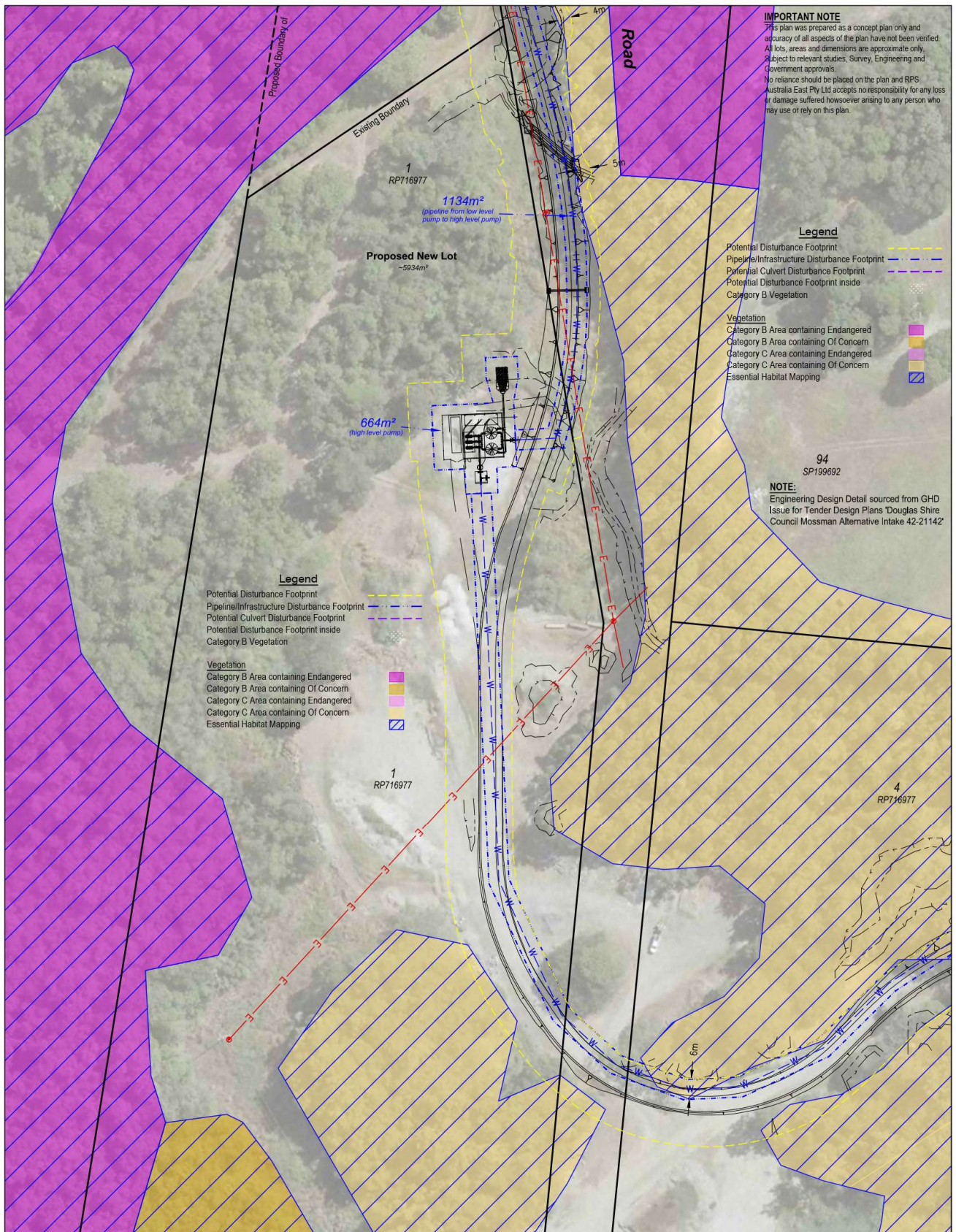
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Potential Disturbance Footprints - Sheet 1 of 3



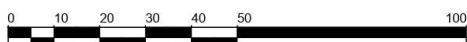
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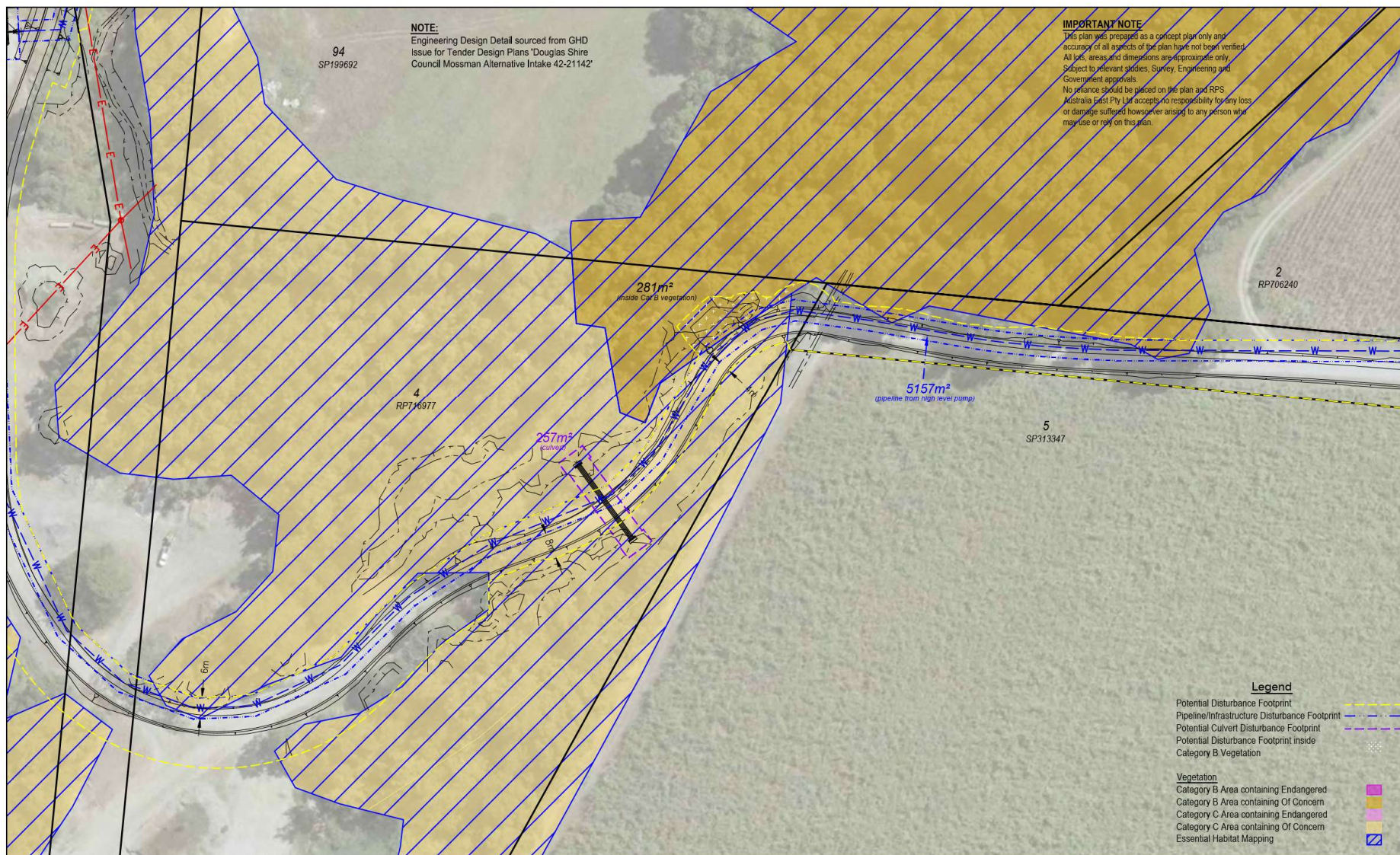
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Potential Disturbance Footprints - Sheet 2 of 3



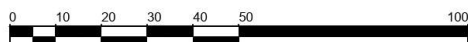
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RA6-N



SARA reference: 2308-36116 SRA
Council reference: MCUC2023_5485/1
Applicant reference: AU006055 / R82095

12 September 2023

Chief Executive Officer
Douglas Shire Council
PO Box 723
MOSSMAN QLD 4873
enquiries@douglas.qld.gov.au

Attention: Jenny Elphinstone

Dear Sir/Madam

SARA referral agency response—Utility Installation - Additional Water Supply from Mossman River, Mossman Gorge

(Referral agency response given under section 56 of the *Planning Act 2016*)

The development application described below was confirmed as properly referred by the State Assessment and Referral Agency (SARA) on 11 August 2023.

Response

Outcome:	Referral agency response – with conditions	
Date of response:	12 September 2023	
Conditions:	The conditions in Attachment 1 must be attached to any development approval	
Advice:	Advice to the applicant is in Attachment 2	
Reasons:	The reasons for the referral agency response are in Attachment 3	

Development details

Description:	Development permit	Material change of use for Utility Installation (an additional water supply intake and associated intake infrastructure extracting water from an anabranch of the Mossman River)
SARA role:	Referral agency	

Page 1 of 7

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PO Box 2358, Cairns QLD 4870

SARA trigger: **Schedule 10, Part 3, Division 4, Table 3** (Planning Regulation 2017)
– Material change of use involving vegetation clearing

SARA reference: 2308-36116 SRA

Assessment manager: Douglas Shire Council

Street address: 1 & 3 Manjal Dimbi Road (and adjacent road reserve) and Lot 6 Gorge Road (and adjacent road reserve), Mossman Gorge

Real property description: Lot 4 on RP716977, Lot 1 on RP716977, and Lot 6 on SP212661

Applicant name: Douglas Shire Council

Applicant contact details: C/- RPS AAP Consulting Pty Ltd
135 Abbott Street
Cairns QLD 4870
owen.caddick-king@rpsgroup.com.au

Human Rights Act 2019 considerations: Section 58 of the *Human Rights Act 2019* specifies required conduct for public entities when acting or making a decision. Sections 15 – 37 of the *Human Rights Act 2019* identifies the human rights a public entity must consider in making a decision.
This decision does not limit the above identified human rights.

Representations

An applicant may make representations to a concurrence agency, at any time before the application is decided, about changing a matter in the referral agency response (s.30 Development Assessment Rules). Copies of the relevant provisions are in **Attachment 4**.

A copy of this response has been sent to the applicant for their information.

For further information please contact Anthony Westbury, Planning Officer, on 40373214 or via email CairnsSARA@dasilgq.qld.gov.au who will be pleased to assist.

Yours sincerely



Brett Nancarrow
Manager (Planning)

cc Douglas Shire Council, owen.caddick-king@rpsgroup.com.au

enc Attachment 1 - Referral agency conditions
Attachment 2 - Advice to the applicant
Attachment 3 - Reasons for referral agency response
Attachment 4 - Representations about a referral agency response
Attachment 5 - Documents referenced in conditions

Attachment 1—Referral agency conditions

(Under section 56(1)(b)(i) of the *Planning Act 2016* the following conditions must be attached to any development approval relating to this application) (Copies of the plans and specifications referenced below are found at **Attachment 5**)

No.	Conditions	Condition timing
Reconfiguring a lot		
Schedule 10, Part 3, Division 4, Table 3 – Material change of use involving native vegetation clearing—The chief executive administering the <i>Planning Act 2016</i> nominates the Director-General of the Department of Resources to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
1.	<p>Clearing of vegetation must:</p> <p>(a) Only occur within Area A (Part A1-A4) as shown on the attached:</p> <p>(i) Vegetation Management Plan, prepared by Queensland Government, reference VMP 2308-36116 SRA, Sheet 1 of 1, version 2, dated 12 September 2023; and</p> <p>(ii) Attachment to Vegetation Management Plan VMP 2308-36116 SRA, Derived Reference Points for GPS.</p> <p>(b) Not exceed 0.197 hectares.</p>	At all times.
2.	Any person(s) engaged or employed to carry out the clearing of vegetation under this development approval must be provided with a full copy of this development approval and must be made aware of the full extent of areas where the clearing of vegetation must not occur.	Prior to clearing.

Attachment 2—Advice to the applicant

General advice	
1.	Terms and phrases used in this document are defined in the <i>Planning Act 2016</i> its regulation or the State Development Assessment Provisions (SDAP) v3.0. If a word remains undefined it has its ordinary meaning.
2.	<p>Operational works for waterway barrier works</p> <p>Aspects of the proposed access road may constitute waterway barrier works, as it appears the proposed works may be in areas that would meet the definition of a waterway as defined under the <i>Fisheries Act 1994</i>.</p> <p>Please review the Department of Agriculture and Fisheries' What is waterway? factsheet to determine whether the areas between CH950 to CH1000; CH1010 to CH1030; and CH1040 to CH1090 of the Access Road Plan (drawing no. 42-21142-C004), may meet the definition of a waterway under the <i>Fisheries Act 1994</i>.</p> <p>If these areas are waterways, the proposed culverts/filling of these areas will constitute waterway barrier works and you are advised to seek further pre-lodgement advice from SARA to determine waterway barrier works requirements.</p>

Attachment 3—Reasons for referral agency response

(Given under section 56(7) of the *Planning Act 2016*)

The reasons for the SARA decision are:

The proposed development, with conditions, complies with the relevant provisions of State code 16:

Native vegetation clearing, as follows:

- The proposed development has reasonably avoided, and minimised, the impacts to native vegetation and essential habitat.
- The development footprint has been located within non-remnant vegetation and the existing access track, wherever possible.
- Clearing of endangered regional ecosystems, of concern regional ecosystems, and essential habitat, is within acceptable limits.
- Clearing will retain sufficient vegetation in the subject lots and adjacent landscape to maintain ecological connectivity.

Material used in the assessment of the application:

- the development application material and submitted plans
- *Planning Act 2016*
- Planning Regulation 2017
- the State Development Assessment Provisions (version 3.0)
- the Development Assessment Rules
- SARA DA Mapping system
- State Planning Policy mapping system
- *Human Rights Act 2019*

Attachment 4—Representations about a referral agency response

(page left intentionally blank – attached separately)

Development Assessment Rules—Representations about a referral agency response

The following provisions are those set out in sections 28 and 30 of the Development Assessment Rules¹ regarding **representations about a referral agency response**

Part 6: Changes to the application and referral agency responses

28 Concurrence agency changes its response or gives a late response

- 28.1. Despite part 2, a concurrence agency may, after its referral agency assessment period and any further period agreed ends, change its referral agency response or give a late referral agency response before the application is decided, subject to section 28.2 and 28.3.
- 28.2. A concurrence agency may change its referral agency response at any time before the application is decided if—
- (a) the change is in response to a change which the assessment manager is satisfied is a change under section 26.1; or
 - (b) the Minister has given the concurrence agency a direction under section 99 of the Act; or
 - (c) the applicant has given written agreement to the change to the referral agency response.²
- 28.3. A concurrence agency may give a late referral agency response before the application is decided, if the applicant has given written agreement to the late referral agency response.
- 28.4. If a concurrence agency proposes to change its referral agency response under section 28.2(a), the concurrence agency must—
- (a) give notice of its intention to change its referral agency response to the assessment manager and a copy to the applicant within 5 days of receiving notice of the change under section 25.1; and
 - (b) the concurrence agency has 10 days from the day of giving notice under paragraph (a), or a further period agreed between the applicant and the concurrence agency, to give an amended referral agency response to the assessment manager and a copy to the applicant.

¹ Pursuant to Section 68 of the *Planning Act 2016*

² In the instance an applicant has made representations to the concurrence agency under section 30, and the concurrence agency agrees to make the change included in the representations, section 28.2(c) is taken to have been satisfied.

Part 7: Miscellaneous

30 Representations about a referral agency response

30.1. An applicant may make representations to a concurrence agency at any time before the application is decided, about changing a matter in the referral agency response.³

³ An applicant may elect, under section 32, to stop the assessment manager's decision period in which to take this action. If a concurrence agency wishes to amend their response in relation to representations made under this section, they must do so in accordance with section 28.

Attachment 5—Documents referenced in conditions

(page left intentionally blank – attached separately)

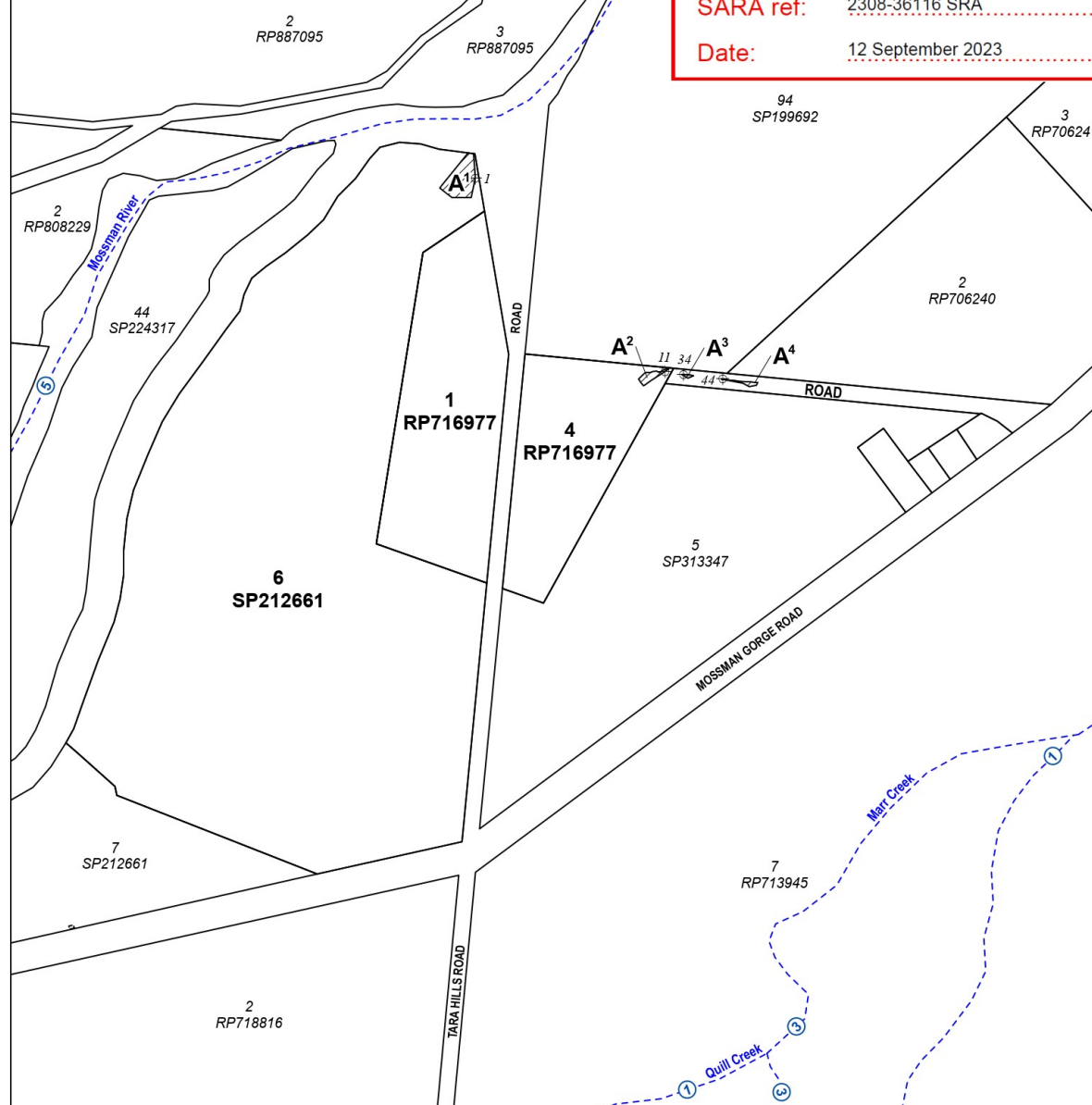
Derived Reference Points
Projection: GDA2020 MGA Zone 55
Datum: GDA2020
All reference points continue sequentially
when labels are not shown

**PLANS AND DOCUMENTS
referred to in the REFERRAL
AGENCY RESPONSE**



SARA ref: 2308-36116 SRA

Date: 12 September 2023



1:5 000 @ A3 size
0 125 250 375 500 m
Projection: UTM (MGA Zone 55) Datum: GDA2020

Notes: Derived Reference Points are provided to assist in the location of area boundaries. Responsibility for locating these boundaries lies solely with the landholder.
Watercourse and drainage feature locations shown on the Vegetation Management Plan are derived from the certified Vegetation Management Watercourse and Drainage Feature Map. These alignments are approximate only and require ground truthing to identify the exact location of the watercourse or drainage feature.
The property boundaries shown on this plan are APPROXIMATE ONLY. They are NOT an accurate representation of the legal boundaries.

This plan must be read in conjunction with conditions attached to 2308-36116 SRA

LEGEND

- Derived Reference Start Points (see attachment)
- Subject Lot(s)
- Area A - Clearing Permitted
- Watercourse and/or drainage feature (Stream order label)



Note: This is a colour plan and should only be reproduced in colour

Vegetation Management Plan

Plan of Area A (Parts A¹ - A⁴) in Lot 4 on
Plan RP716977, Lot 6 on Plan SP212661,
Lot 1 on Plan RP716977 and Road

Version: 2

eLVAS Case ID: 2023/002734



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VMP
2308-36116 SRA
Sheet 1 of 1

Prepared by: SAK (VMGIS-NR-2014)

Reasons for Decision

1. The reasons for this decision are:
 - a. Sections 60, 62 and 63 of the *Planning Act 2016*;
 - b. to ensure the development satisfies the benchmarks of the 2018 Douglas Shire Planning Scheme Version 1.0; and
 - c. to ensure compliance with the *Planning Act 2016*.
2. Findings on material questions of fact:
 - a. the development application was properly lodged to the Douglas Shire Council 8 August 2023 under section 51 of the *Planning Act 2016* and Part 1 of the *Development Assessment Rules*;
 - b. the development application contained information from the applicant which Council reviewed together with Council's own assessment against the 2017 State Planning Policy and the 2018 Douglas Shire Planning Scheme Version 1.0 in making its assessment manager decision.
3. Evidence or other material on which findings were based:
 - a. the development triggered assessable development under the Assessment Table associated with the Rural Zone Code;
 - b. Council undertook an assessment in accordance with the provisions of sections 60, 62 and 63 of the *Planning Act 2016*; and
 - c. the applicant's reasons have been considered and the following findings are made:
 - i. Subject to conditions, the development satisfactorily meets the Planning Scheme benchmarks.

Non-Compliance with Assessment Benchmarks

Through the conditions of the approval the development complies with the majority of the relevant codes and the planning scheme and no concerns are raised.

The code where conflict occurs, and where the development is supported despite the conflict, is discussed below.

Benchmark Reference	Alternative Measure/Comment
Natural Areas overlay	<p>AO 1.1 Development avoids significant impact on the relevant environmental values.</p> <p>PO1 Development protects matters of environmental significance.</p> <p>Comment – the extent of vegetation impacted has been designed to be as minimal as possible. Nevertheless, part of the natural area will be permanently removed.</p> <p>The approval is supported despite the conflict as the water intake infrastructure is essential to allow Council to provide an uninterrupted water supply to the community and the proposed works will be undertaken in a manner that minimises the disturbance of MSES – Regulated Vegetation. The application includes a vegetation remediation plan and a condition of the approval requires that this be achieved.</p>

Planning Act 2016
Chapter 3 Development assessment

[s 74]

Division 2 Changing development approvals

Subdivision 1 Changes during appeal period

74 What this subdivision is about

- (1) This subdivision is about changing a development approval before the applicant's appeal period for the approval ends.
- (2) This subdivision also applies to an approval of a change application, other than a change application for a minor change to a development approval.
- (3) For subsection (2), sections 75 and 76 apply—
 - (a) as if a reference in section 75 to a development approval were a reference to an approval of a change application; and
 - (b) as if a reference in the sections to the assessment manager were a reference to the responsible entity; and
 - (c) as if a reference in section 76 to a development application were a reference to a change application; and
 - (d) as if the reference in section 76(3)(b) to section 63(2) and (3) were a reference to section 83(4); and
 - (e) with any other necessary changes.

75 Making change representations

- (1) The applicant may make representations (*change representations*) to the assessment manager, during the applicant's appeal period for the development approval, about changing—
 - (a) a matter in the development approval, other than—
 - (i) a matter stated because of a referral agency's response; or

-
- (ii) a development condition imposed under a direction made by the Minister under chapter 3, part 6, division 2; or
 - (b) if the development approval is a deemed approval—the standard conditions taken to be included in the deemed approval under section 64(8)(c).
- (2) If the applicant needs more time to make the change representations, the applicant may, during the applicant's appeal period for the approval, suspend the appeal period by a notice given to the assessment manager.
- (3) Only 1 notice may be given.
- (4) If a notice is given, the appeal period is suspended—
- (a) if the change representations are not made within a period of 20 business days after the notice is given to the assessment manager—until the end of that period; or
 - (b) if the change representations are made within 20 business days after the notice is given to the assessment manager, until—
 - (i) the applicant withdraws the notice, by giving another notice to the assessment manager; or
 - (ii) the applicant receives notice that the assessment manager does not agree with the change representations; or
 - (iii) the end of 20 business days after the change representations are made, or a longer period agreed in writing between the applicant and the assessment manager.
- (5) However, if the assessment manager gives the applicant a negotiated decision notice, the appeal period starts again on the day after the negotiated decision notice is given.

76 Deciding change representations

- (1) The assessment manager must assess the change representations against and having regard to the matters that

- must be considered when assessing a development application, to the extent those matters are relevant.
- (2) The assessment manager must, within 5 business days after deciding the change representations, give a decision notice to—
- (a) the applicant; and
 - (b) if the assessment manager agrees with any of the change representations—
 - (i) each principal submitter; and
 - (ii) each referral agency; and
 - (iii) if the assessment manager is not a local government and the development is in a local government area—the relevant local government; and
 - (iv) if the assessment manager is a chosen assessment manager—the prescribed assessment manager; and
 - (v) another person prescribed by regulation.
- (3) A decision notice (a *negotiated decision notice*) that states the assessment manager agrees with a change representation must—
- (a) state the nature of the change agreed to; and
 - (b) comply with section 63(2) and (3).
- (4) A negotiated decision notice replaces the decision notice for the development application.
- (5) Only 1 negotiated decision notice may be given.
- (6) If a negotiated decision notice is given to an applicant, a local government may give a replacement infrastructure charges notice to the applicant.

Chapter 6 Dispute resolution

Part 1 Appeal rights

229 Appeals to tribunal or P&E Court

- (1) Schedule 1 states—
 - (a) matters that may be appealed to—
 - (i) either a tribunal or the P&E Court; or
 - (ii) only a tribunal; or
 - (iii) only the P&E Court; and
 - (b) the person—
 - (i) who may appeal a matter (the *appellant*); and
 - (ii) who is a respondent in an appeal of the matter; and
 - (iii) who is a co-respondent in an appeal of the matter; and
 - (iv) who may elect to be a co-respondent in an appeal of the matter.
- (2) An appellant may start an appeal within the appeal period.
- (3) The *appeal period* is—
 - (a) for an appeal by a building advisory agency—10 business days after a decision notice for the decision is given to the agency; or
 - (b) for an appeal against a deemed refusal—at any time after the deemed refusal happens; or
 - (c) for an appeal against a decision of the Minister, under chapter 7, part 4, to register premises or to renew the registration of premises—20 business days after a notice is published under section 269(3)(a) or (4); or

- (d) for an appeal against an infrastructure charges notice—20 business days after the infrastructure charges notice is given to the person; or
- (e) for an appeal about a deemed approval of a development application for which a decision notice has not been given—30 business days after the applicant gives the deemed approval notice to the assessment manager; or
- (f) for an appeal relating to the *Plumbing and Drainage Act 2018*—
 - (i) for an appeal against an enforcement notice given because of a belief mentioned in the *Plumbing and Drainage Act 2018*, section 143(2)(a)(i), (b) or (c)—5 business days after the day the notice is given; or
 - (ii) for an appeal against a decision of a local government or an inspector to give an action notice under the *Plumbing and Drainage Act 2018*—5 business days after the notice is given; or
 - (iii) for an appeal against a failure to make a decision about an application or other matter under the *Plumbing and Drainage Act 2018*—at anytime after the period within which the application or matter was required to be decided ends; or
 - (iv) otherwise—20 business days after the day the notice is given; or
- (g) for any other appeal—20 business days after a notice of the decision for the matter, including an enforcement notice, is given to the person.

Note—

See the P&E Court Act for the court's power to extend the appeal period.

- (4) Each respondent and co-respondent for an appeal may be heard in the appeal.

- (5) If an appeal is only about a referral agency's response, the assessment manager may apply to the tribunal or P&E Court to withdraw from the appeal.
- (6) To remove any doubt, it is declared that an appeal against an infrastructure charges notice must not be about—
 - (a) the adopted charge itself; or
 - (b) for a decision about an offset or refund—
 - (i) the establishment cost of trunk infrastructure identified in a LGIP; or
 - (ii) the cost of infrastructure decided using the method included in the local government's charges resolution.

230 Notice of appeal

- (1) An appellant starts an appeal by lodging, with the registrar of the tribunal or P&E Court, a notice of appeal that—
 - (a) is in the approved form; and
 - (b) succinctly states the grounds of the appeal.
- (2) The notice of appeal must be accompanied by the required fee.
- (3) The appellant or, for an appeal to a tribunal, the registrar, must, within the service period, give a copy of the notice of appeal to—
 - (a) the respondent for the appeal; and
 - (b) each co-respondent for the appeal; and
 - (c) for an appeal about a development application under schedule 1, section 1, table 1, item 1—each principal submitter for the application whose submission has not been withdrawn; and
 - (d) for an appeal about a change application under schedule 1, section 1, table 1, item 2—each principal submitter for the application whose submission has not been withdrawn; and

- (e) each person who may elect to be a co-respondent for the appeal other than an eligible submitter for a development application or change application the subject of the appeal; and
 - (f) for an appeal to the P&E Court—the chief executive; and
 - (g) for an appeal to a tribunal under another Act—any other person who the registrar considers appropriate.
- (4) The *service period* is—
 - (a) if a submitter or advice agency started the appeal in the P&E Court—2 business days after the appeal is started; or
 - (b) otherwise—10 business days after the appeal is started.
- (5) A notice of appeal given to a person who may elect to be a co-respondent must state the effect of subsection (6).
- (6) A person elects to be a co-respondent to an appeal by filing a notice of election in the approved form—
 - (a) if a copy of the notice of appeal is given to the person—within 10 business days after the copy is given to the person; or
 - (b) otherwise—within 15 business days after the notice of appeal is lodged with the registrar of the tribunal or the P&E Court.
- (7) Despite any other Act or rules of court to the contrary, a copy of a notice of appeal may be given to the chief executive by emailing the copy to the chief executive at the email address stated on the department's website for this purpose.

231 Non-appealable decisions and matters

- (1) Subject to this chapter, section 316(2), schedule 1 and the P&E Court Act, unless the Supreme Court decides a decision or other matter under this Act is affected by jurisdictional error, the decision or matter is non-appealable.

- (2) The *Judicial Review Act 1991*, part 5 applies to the decision or matter to the extent it is affected by jurisdictional error.
- (3) A person who, but for subsection (1) could have made an application under the *Judicial Review Act 1991* in relation to the decision or matter, may apply under part 4 of that Act for a statement of reasons in relation to the decision or matter.
- (4) In this section—
decision includes—
 - (a) conduct engaged in for the purpose of making a decision; and
 - (b) other conduct that relates to the making of a decision; and
 - (c) the making of a decision or the failure to make a decision; and
 - (d) a purported decision; and
 - (e) a deemed refusal.**non-appealable**, for a decision or matter, means the decision or matter—
 - (a) is final and conclusive; and
 - (b) may not be challenged, appealed against, reviewed, quashed, set aside or called into question in any other way under the *Judicial Review Act 1991* or otherwise, whether by the Supreme Court, another court, any tribunal or another entity; and
 - (c) is not subject to any declaratory, injunctive or other order of the Supreme Court, another court, any tribunal or another entity on any ground.

232 Rules of the P&E Court

- (1) A person who is appealing to the P&E Court must comply with the rules of the court that apply to the appeal.
- (2) However, the P&E Court may hear and decide an appeal even if the person has not complied with rules of the P&E Court.