

18 August 2020

**Our Ref: 20-557**  
**MSC Ref: DA/16/0054**

**Chief Executive Officer**

Mareeba Shire Council  
PO Box 154  
MAREEBA QLD 4880

Attention: Mr Brian Millard – Senior Planner ([BrianM@msc.qld.gov.au](mailto:BrianM@msc.qld.gov.au))

Dear Brian,

**DEVELOPMENT APPLICATION SEEKING A DEVELOPMENT PERMIT FOR OPERATIONAL WORKS FOR THE INTERNAL & EXTERNAL CIVIL WORKS ASSOCIATED WITH A PROPOSED 'SHORT-TERM ACCOMMODATION' LAND USE OVER LAND LOCATED AT 189 FICHERA ROAD, MAREEBA.**

We refer to the above-described matter and confirm that Urban Sync Pty Ltd (Urban Sync) has been engaged by RA Function Services Pty Ltd (the Applicant) to submit the necessary documentation to Mareeba Shire Council (Council) seeking a Development Permit for Operational Works for the Internal & External civil works associated with a proposed Short-term Accommodation land use (DA/16/0054) over the above-mentioned land (and adjacent external areas). In support of the application, we attach the following documents to assist with Council's assessment:

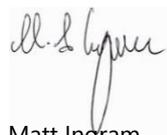
- DA Form 1 as **Attachment 1**;
- Site Searches as **Attachment 2**;
- Relevant Approval as **Attachment 3**;
- External Works Drawings prepared by ARUP as **Attachment 4**;
- Internal Works Drawings prepared by ARUP as **Attachment 5**;
- Landscape Plans prepared by LA3 Pty Ltd as **Attachment 6**;
- Stormwater Management Plan prepared by ARUP as **Attachment 7**; and
- Mareeba Shire Council Code Assessment as **Attachment 8**

In accordance with Council's Schedule of Fees for the 2020/21 Financial Year, Councils' application fee will be paid to facilitate lodgement of this application upon the receipt of an invoice for payment being issued by Mareeba Shire Council.

In accordance with s51(2) of the *Planning Act 2016*, landowners' is not required to be provided.

We trust this application can now be progressed for assessment. Should you require any further information or clarification on any matters regarding this application, please do not hesitate to contact me using the below details.

Yours faithfully,



Matt Ingram  
Senior Planner

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# TOWN PLANNING REPORT

DEVELOPMENT PERMIT FOR OPERATIONAL WORKS

189 FICHERA ROAD, MAREEBA

*18 August 2020*

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Limitation: This report has been prepared on behalf of Urban Sync Pty Ltd for our client, RA Function Services Pty Ltd and considers the instructions and requirements of RA Function Services Pty Ltd with regards to the development being proposed. This report should not be relied upon by any third party and Urban Sync Pty Ltd accepts no liability or responsibility for the reliance on this report, or data contained within the report, by any third party.

| Reference | Revision | Date       | Prepared by | Checked by | Authorised by |
|-----------|----------|------------|-------------|------------|---------------|
| 20-557    | 1.0      | 31/07/2020 | JJP         | -          | -             |
| 20-557    | 2.0      | 18/08/2020 | JJP         | MDI        | MDI           |

18/08/2020

Version 2.0

**Urban Sync Pty Ltd**

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admin@urbansync.com.



# I APPLICATION DETAILS

## I.1 APPLICATION SUMMARY

|   |   |
|---|---|
| <b>Approval Sought:</b>                       | <b>Development Permit for Operational Works (Internal &amp; External Civil Works)</b>   |
| <b>Applicant:</b>                             | RA Function Services Pty Ltd  |
| <b>Registered Landowner:</b>                  | RA Function Services Pty Ltd  |
| <b>Project Description Details:</b>           | Internal and External civil works associated with a proposed Short-term Accommodation land use.   |
| <b>ASSESSMENT DETAILS</b>                     |   |
| <b>Assessment Manager:</b>                    | Mareeba Shire Council   |
| <b>Development Category:</b>                  | Assessable Development  |
| <b>Assessment Category:</b>                   | Code Assessable   |
| <b>Public Notification:</b>                   | Nil   |
| <b>RELEVANT STATE PLANNING INSTRUMENTS</b>    |   |
| <b>Legislation:</b>                           | <i>Planning Act 2016 (Qld)</i>  |
| <b>Planning Policy:</b>                       | Queensland State Planning Policy (July 2017)  |
| <b>Planning Policy Assessment Benchmarks:</b> | <ul style="list-style-type: none"> <li>▪ Agriculture;</li> <li>▪ Biodiversity;</li> <li>▪ Natural Hazards Risk and Resilience; and</li> <li>▪ Strategic Airports and Aviation Facilities</li> </ul>   |
| <b>Regional Plan:</b>                         | Far North Queensland Regional Plan 2009-2031  |
| <b>Regional Plan Land Use:</b>                | Regional Landscape and Rural Production Area  |
| <b>Development Assessment Mapping:</b>        | <ul style="list-style-type: none"> <li>▪ Water Resources;</li> <li>▪ Native Vegetation Clearing</li> </ul>  |
| <b>Referrals:</b>                             | Nil   |
| <b>Other State Interests:</b>                 | Nil   |
| <b>RELEVANT LOCAL PLANNING INSTRUMENTS</b>    |   |
| <b>Planning Scheme:</b>                       | <i>Mareeba Shire Council Planning Scheme 2016</i>   |
| <b>Local Plan:</b>                            | N/A   |
| <b>Zone:</b>                                  | Rural   |
| <b>Zone Precinct:</b>                         | Nil   |
| <b>Overlays:</b>                              | <ul style="list-style-type: none"> <li>▪ Agricultural Land Overlay;</li> <li>▪ Airport Environs Overlay;</li> <li>▪ Bushfire Hazard Overlay;</li> <li>▪ Environmental Significance Overlay;</li> <li>▪ Flood Hazard Overlay; and</li> <li>▪ Hill &amp; Slope Overlay</li> </ul> |



## 2 SITE DETAILS

### 2.1 SITE DESCRIPTION

|                                    |                              |
|------------------------------------|------------------------------|
| <b>Registered Landowners:</b>      | RA Function Services Pty Ltd |
| <b>Site Location:</b>              | 189 Fichera Road, Mareeba    |
| <b>Lot and Description:</b>        | Lot 1 on RP745867            |
| <b>Site Area:</b>                  | 15.03ha                      |
| <b>Tenure:</b>                     | Freehold                     |
| <b>Easements/Encumbrances:</b>     | Nil                          |
| <b>Local Government Authority:</b> | Mareeba Shire Council        |



Figure 1: Site location – 189 Fichera Road, Mareeba (Source: Queensland Globe, State of Queensland, 2020).

### 2.2 SITE ANALYSIS

|                                      |  |
|--------------------------------------|--|
| <b>Existing Use and Improvements</b> | <p>The site currently accommodates 'de Brueys Boutique Winery' which produces wines from tropical fruits.</p> <p>The site is currently improved with:</p> <ul style="list-style-type: none"> <li>▪ A cellar door which is open from 10:00am to 5:00pm daily;</li> <li>▪ Wine production/storage areas, a machinery shed, caretakers residence, and greenhouse;</li> <li>▪ A function venue which includes a wedding chapel/gazebo; two (2) separate reception venues (100-120 indoor seats); a 120 seat open air deck; and catering facilities;</li> <li>▪ Sealed access road and car parking;</li> <li>▪ Fruit orchards;</li> <li>▪ Large dam and bore; as well as</li> </ul> |
|--------------------------------------|--|



|  |  |
|--|--|
|  | Fencing and other minor infrastructure typical of a site located in the rural area.                                |
| <b>Topography:</b>                                       | The site falls from the south-west to the north-east and is generally located between RL 430m AHD and RL 410m AHD. |
| <b>Waterways:</b>  | There are no waterways that traverse through the site, although Tinaroo Creek abuts the eastern boundary.          |
| <b>Vegetation:</b>                                       | Parts of the eastern portion of the site contain vegetation, some of which is mapped as remanent.                  |
| <b>Environmental Management &amp; Contaminated Land:</b> | The site is not listed on the Environmental Management or Contaminated Land Registers (see <b>Attachment 2</b> ).  |
| <b>Heritage Places:</b>                                  | The site is not an identified State or local 'Heritage Place', nor are any adjacent sites.                         |

## 2.3 INFRASTRUCTURE & SERVICES

|  |   |
|--|---|
| <b>Road Frontage:</b>                        | The site has an approximate 260 metre frontage to Fichera Road which, in the vicinity of the site, is an approximately 4m wide, two lane sealed road, with narrow gravel shoulders. |
| <b>Water Supply:</b>                         | The site is not serviced with a reticulated water supply with water being sourced via on-site methods (bore, dam, rainwater tanks and a 7ML Sunwater allocation).                   |
| <b>Sewerage:</b>                             | The site is not serviced with a reticulated sewerage supply with effluent currently being disposed of via on-site methods (septic tanks & absorption trenches).                     |
| <b>Stormwater:</b>                           | There is no stormwater infrastructure located adjacent to the site with stormwater appearing to flow north-east, via sheet flow towards Tinaroo Creek.                              |
| <b>Electricity &amp; Telecommunications:</b> | The site is connected to both electricity and telecommunications services (powerlines bisect the site).   |
| <b>Road Frontage:</b>                        | The site has an approximate 260 metre frontage to Fichera Road which, in the vicinity of the site, is an approximately 4m wide, two lane sealed road, with narrow gravel shoulders. |

## 3 DEVELOPMENT BACKGROUND

### 3.1 RELEVANT APPROVAL

In the initial phase of the development, approvals were sought and received for 'Short Term Accommodation' over the subject land. The considerations involved Impact Assessment due to the Rural nature of the site and was completed under the *Planning Act 2016* and *Mareeba Shire Council Planning Scheme 2016* with the recommendation and resolutions providing the approval on 26 December 2016. The relevant approval is outlined in **Table 1** below and provided in **Attachment 3** for Council's consideration:

*Table 1: Relevant Approval*

| Reference  | Approval Type      | Aspect                 | Description              | Date             |
|------------|--------------------|------------------------|--------------------------|------------------|
| DA/16/0054 | Development Permit | Material Change of Use | Short-term Accommodation | 21 December 2016 |

### 3.2 PRE-LODGE MENT MEETINGS

No Pre-lodgement meetings were undertaken for this application.



## 4 DEVELOPMENT PROPOSAL

### 4.1 GENERAL DESCRIPTION

This development application seeks the requisite statutory development approval from Council to support the internal and external civil works associated with a proposed Short-term Accommodation land use over land located at Lot 1 on RP745867 at 189 Fichera Road, Mareeba. Accordingly, this development application seeks the following approval:

- **Development Permit for Operational Works (Internal & External Civil Works).**

### 4.2 PROPOSAL DETAILS

Excluding lighting, this application includes all civil (internal and external) and other associated works required over the site (and adjacent external areas) to support the proposed development and as generally required by Condition 4 (Infrastructure Services & Standards) of the existing Material Change of Use for Short-term Accommodation (MSC Ref: DA/16/0054 – see **Attachment 3**) in effect over the site.

All works are identified and documented in the following reports, of which are found in the identified attachments:

- Roadworks (External Construction) – See the De Brueys Winery Upgrade External Civil Drawings prepared by Arup in **Attachment 4** (noting the upgrades to the Kennedy Highway will be assessed separately by the Department of Transport and Main Roads);
- Access Crossovers – See the De Brueys Winery Upgrade Internal Civil Drawings prepared by Arup in **Attachment 5**;
- Car Parking/Internal Driveways – See the De Brueys Winery Upgrade Internal Civil Drawings prepared by Arup in **Attachment 5**;
- Water and Sewerage Supply – See the De Brueys Winery Upgrade Internal Civil Drawings prepared by Arup in **Attachment 5**;
- Landscaping – See the Landscape Design De Brueys Winery Accommodation Drawings in **Attachment 6**; and
- Stormwater Drainage/Water Quality (Stormwater Management Plan) – See the De Brueys Winery Accommodation Stormwater Management Plan prepared by Arup in **Attachment 7**

It is noted the landscaping works do not trigger the need for an Operational Works Approval, although the landscaping plans have been included in this application for completeness.

In relation to the landscape plans, the design rationale was to retain the setting of an orchard for the cabins in the foreground, while the visual impact of the cabins to be softened by the native flowering shrubs and trees between the cabins along with continuing Grapefruit trees amongst the cabins.

The following commentary is provided in relation to the landscape plans (specific to each condition of approval):

- Condition 4.5(i): It is proposed to retain the existing Mango Trees along the northern portion of the sites Fichera Road frontage to meet the intent of this condition. Admittedly some of these Mango trees have recently been removed, although the idea is that the remaining Mango Trees would be interplanted with Grapefruit trees, which have a similar size and denseness of canopy to a pruned Mango Tree in an orchard. Additional '*Eucalyptus Platyphylla*' are also proposed within the road reserve to provide additional screening;
- Condition 4.5(ii): The required 2m wide landscape strip has not been shown for the full length of the site to the existing fruit trees at the southern end of the site as the '*Corymbia Ficifolia*' proposed along the internal roadway will provide screening of the development when viewed from the south-west. As a result, screening on the southern portion of the sites frontage, for the full frontage was not considered necessary. Additional



*Eucalyptus Platyphylla* are also proposed within the road reserve to provide additional screening. We welcome further discussion with Council on this matter;

- Condition 4.5(iii): This screening has been provided for a length of 60m;
- Condition 4.5(iv): This 2m wide buffer planting has not been provided as this portion of the site descends into a gully and hence, any landscaping would likely be a little ineffective. We welcome further discussion with Council on this matter; and
- Condition 4.5(v) and (vi): This landscaping has been provided.



## 5 LEGISLATIVE REQUIREMENTS

### 5.1 PLANNING ACT 2016

#### 5.1.1 Confirmation that the Development is not Prohibited

The works are not prohibited. This has been established by considering all the relevant State and local instruments which can provide prohibitions under the PA, including Schedule 10, Parts 2-5, Parts 10-11 and Parts 16 and 20, of the *Planning Regulation 2016* ('PR').

#### 5.1.2 Assessable Development

The works involves Operational Work in respect of the 'work, other than building work or plumbing or drainage work, in, on, over or under premises that materially affects premises or the use of premises'. Operational Works for Internal & External works in the Rural zone of the Planning Scheme is **Code Assessable** and is hence, deemed to be considered "Assessable Development" pursuant to Section 44 (3) of the PA, which states that "Assessable Development is development for which a development approval is required."

#### 5.1.3 Statutory Considerations for Assessable Development

When assessing the application, the relevant considerations of the Assessment Manager in making the decision are in accordance with Sections 59, 60(3), and 62 of the PA and Sections 29-31 of the PR. Specifically, section 60(2) of the PA states for a Code Assessable application, the Assessment Manager, after carrying out the assessment:

- a) *"must decide to approve the application to the extent the development complies with all of the assessment benchmarks for the development;*
- b) *May decide to approve the application even if the development does not comply with some of the assessment benchmarks;*
- c) *May impose development conditions on an approval; and*
- d) *May, to the extent the development does not comply with some or all the assessment benchmarks, decide to refuse the application only if compliance can not be achieved by imposing development conditions."*

#### 5.1.4 Assessment Manager

The Assessment Manager for this development application is Mareeba Shire Council, as determined by Schedule 8 of the PR.

### 5.2 FAR NORTH QUEENSLAND REGIONAL PLAN

The site is located within the 'Regional Landscape and Rural Production' Regional Land Use Category of the Far North Queensland 2009-2031 (see **Attachment 3**). The Minister has identified that the planning scheme, specifically the Strategic Framework, appropriately advances the FNQRP 2009-2031. Hence, compliance with the FNQRP is demonstrated through the compliance with the Planning Scheme (refer to this report and attachments for demonstration of this compliance).

### 5.3 STATE PLANNING POLICY

The State Planning Policy (SPP) came into effect on July 2017 under the PA. Part E of the SPP includes an array of State interests and associated assessment benchmarks which need to be considered during the development assessment process, where these State interests have not already been appropriately reflected within the relevant planning scheme. A review of the SPP mapping indicates that the proposed development/site is subject to several State interests, as outlined below (see also **Attachment 3**):

- Agriculture (Important Agricultural Areas and Agricultural Land Classification (Class A & B));
- Biodiversity (MSES – Regulated Vegetation (Category R and Intersecting a Watercourse));



- Natural Hazards Risk and Resilience (Flood Hazard Area – Level 1 – Queensland Floodplain Assessment Overlay and Bushfire Prone Area).
- Strategic Airports and Aviation Facilities (Wildlife Hazard Buffer Zone).

The Minister has identified that the Planning Scheme appropriately advances the SPP. Accordingly, all the applicable State interests have been appropriately reflected in the Planning Scheme and in turn, compliance with the SPP is demonstrated through the compliance with the Planning Scheme (refer to this report and attachments for demonstration of this compliance).

## 5.4 REFERRALS & STATE DEVELOPMENT ASSESSMENT PROVISIONS

A review of the DA mapping system indicates that the site is subject to the following matters of State interest (see **Attachment 3**):

- Water Resources (Water Resource Planning Area Boundaries);
- Native Vegetation Clearing (Regulated Vegetation Management Map - Category A and B Extract);

In consultation with the PR and the above identified matters of interest, the development does not trigger a referral to any State Departments for assessment and approval.

## 5.5 PLANNING SCHEME (MAREEBA SHIRE COUNCIL PLANNING SCHEME 2016)

### 5.5.1 Applicable Overlays

The site is affected by the following Planning Scheme overlays:

- Agricultural Land Overlay (Agricultural land Class A & B);
- Airport Environs Overlay (Bird & Bat Strike & Light Intensity (6-8km));
- Bushfire Hazard Overlay (Medium Intensity & 100m Impact Buffer);
- Environmental Significance – Waterways Overlay (Waterway & 100m Buffer)\*;
- Flood Hazard Overlay (Potential Flood Hazard Area)\*;
- Hill & Slope Overlay.

\*Note that in accordance with section 8.1(6) of the Planning Scheme, these overlays are not applicable to the assessment of this application as they are located outside of the development footprint.

### 5.5.2 Applicable Codes

The development is subject to assessment against the following relevant codes and provisions of the Planning Scheme:

**Table 1: Relevant Codes**

| Scheme Component       | Comment                |
|------------------------|------------------------|
| <b>Zone Code</b>       |                        |
| Rural Zone Code        | Refer to Section 5.6.2 |
| <b>Local Plan Code</b> |                        |
| N/A                    | N/A                    |
| <b>Overlay Codes</b>   |                        |
| Nil                    | N/A                    |

|  |  |
|--|--|
| Airport Environs Overlay Code;<br>Bushfire Hazard Overlay Code; and<br>Hill and Slope Area Overlay Code. |  |
| <b>Development Codes</b>   |  |
| Works, Services and Infrastructure Code.   | Refer to <b>Attachment 8</b> and Section 5.6.3 |

## 5.6 PLANNING SCHEME ASSESSMENT

Urban Sync undertook a full assessment of the development against the applicable codes of the Planning Scheme which is included below and in **Attachment 8**. We have ensured that where an element of the project does not strictly not comply with an Acceptable Outcome, a performance-based assessment has been undertaken with the support of technical reporting to demonstrate, that compliance with the corresponding Performance Outcome and in turn, the applicable code, can still be achieved. To put a performance-based assessment into context, it is important to note that a non-compliance with one or more Acceptable Outcomes does not, of itself, establish conflict with the Planning Scheme and we are confident that a complete performance based assessment by Council will consider the project in its context, and in doing so, accept the alternative solutions being proposed.

### 5.6.1 Strategic Framework

The proposed works are Code Assessable and hence, in accordance with s45(3) of the PA, no assessment against the Strategic Framework is required.

### 5.6.2 Rural Zone Code

The proposed works are required to facilitate an approved development and comply with and address Condition 4 of the existing Development Approval for a Material Change of Use for 'Short-term Accommodation'. Hence, the proposed works will not conflict with the purpose or overall outcomes of the Rural Zone Code. As a result, no assessment against this code is warranted in this instance and for this reason, has not been provided.

### 5.6.3 Development Codes

#### ***Works, Services and Infrastructure Code***

The development complies with, or can be conditioned to comply with, the Works, Services and Infrastructure Code.

## 6 CONCLUSION

This report supports a development application made by RA Function Services Pty Ltd seeking the requisite statutory development approval from Mareeba Shire Council to support the Internal & External civil works associated with a proposed Short-term Accommodation land use over Lot 1 on RP745867 (and adjacent external areas) at 189 Fichera Road, Mareeba. Accordingly, this application has sought the following development approval from Council:

- **Development Permit for Operational Works (Internal & External Civil Works).**

This report has described the works, identified the applicable statutory and legislative requirements of Mareeba Shire Council under their Planning Scheme, the *Mareeba Shire Council Planning Scheme 2016*, as well as those at the State level under the *Planning Act 2016*, *Planning Regulation 2017*, *State Planning Policy 2017* and other, relevant State legislation and requirements, and in doing so, demonstrated the suitability of the land to accommodate the development.

With the above in mind, we now submit this application to Council for assessment and trust that it suitably addresses all the statutory requirements under the Planning Scheme and State legislation to allow favourable consideration, subject to the imposition of reasonable and relevant conditions.





# DA Form 1 – Development application details

Approved form (version 1.2 effective 7 February 2020) made under section 282 of the Planning Act 2016.

This form **must** be used to make a development application **involving code assessment or impact assessment**, except when applying for development involving only building work.

For a development application involving **building work only**, use *DA Form 2 – Building work details*.

For a development application involving **building work associated with any other type of assessable development (i.e. material change of use, operational work or reconfiguring a lot)**, use this form (*DA Form 1*) and parts 4 to 6 of *DA Form 2 – Building work details*.

Unless stated otherwise, all parts of this form **must** be completed in full and all required supporting information **must** accompany the development application.

One or more additional pages may be attached as a schedule to this development application if there is insufficient space on the form to include all the necessary information.

This form and any other form relevant to the development application must be used to make a development application relating to strategic port land and Brisbane core port land under the *Transport Infrastructure Act 1994*, and airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*. For the purpose of assessing a development application relating to strategic port land and Brisbane core port land, any reference to a planning scheme is taken to mean a land use plan for the strategic port land, Brisbane port land use plan for Brisbane core port land, or a land use plan for airport land.

**Note:** All terms used in this form have the meaning given under the *Planning Act 2016*, the *Planning Regulation 2017*, or the *Development Assessment Rules (DA Rules)*.

## PART 1 – APPLICANT DETAILS

| 1) Applicant details                                       |  |
|--|--|
| Applicant name(s) <i>(individual or company full name)</i> | RA Function Services Pty Ltd                                     |
| Contact name <i>(only applicable for companies)</i>        | C/- Matt Ingram of Urban Sync Pty Ltd                            |
| Postal address <i>(P.O. Box or street address)</i>         | PO Box 2970  |
| Suburb   | Cairns   |
| State  | Queensland   |
| Postcode   | 4870   |
| Country  | Australia  |
| Contact number   | (07) 4051 6946.  |
| Email address <i>(non-mandatory)</i>                       | <a href="mailto:matt@urbansync.com.au">matt@urbansync.com.au</a> |
| Mobile number <i>(non-mandatory)</i>                       |  |
| Fax number <i>(non-mandatory)</i>                          |  |
| Applicant's reference number(s) <i>(if applicable)</i>     | 20-557   |

### 2) Owner's consent

2.1) Is written consent of the owner required for this development application?

- Yes – the written consent of the owner(s) is attached to this development application  
 No – proceed to 3)

## PART 2 – LOCATION DETAILS

### 3) Location of the premises (complete 3.1) or 3.2), and 3.3) as applicable)

**Note:** Provide details below and attach a site plan for any or all premises part of the development application. For further information, see DA Forms Guide: Relevant plans.

#### 3.1) Street address and lot on plan

- Street address **AND** lot on plan (all lots must be listed), **or**  
 Street address **AND** lot on plan for an adjoining or adjacent property of the premises (appropriate for development in water but adjoining or adjacent to land e.g. jetty, pontoon. All lots must be listed).

|    |          |            |                                    |                          |
|----|----------|------------|------------------------------------|--------------------------|
| a) | Unit No. | Street No. | Street Name and Type               | Suburb                   |
|    |          | 189        | Fichera Road                       | Mareeba                  |
|    | Postcode | Lot No.    | Plan Type and Number (e.g. RP, SP) | Local Government Area(s) |
|    | 4880     | 1          | RP745867                           | Mareeba Shire Council    |
| b) | Unit No. | Street No. | Street Name and Type               | Suburb                   |
|    |          |            |                                    |                          |
|    | Postcode | Lot No.    | Plan Type and Number (e.g. RP, SP) | Local Government Area(s) |
|    |          |            |                                    |                          |

#### 3.2) Coordinates of premises (appropriate for development in remote areas, over part of a lot or in water not adjoining or adjacent to land e.g. channel dredging in Moreton Bay)

**Note:** Place each set of coordinates in a separate row.

- Coordinates of premises by longitude and latitude

| Longitude(s) | Latitude(s) | Datum  | Local Government Area(s) (if applicable) |
|--------------|-------------|--|--|
|              |             | <input type="checkbox"/> WGS84<br><input type="checkbox"/> GDA94<br><input type="checkbox"/> Other: <input type="text"/> |  |

- Coordinates of premises by easting and northing

| Easting(s) | Northing(s) | Zone Ref.   | Datum  | Local Government Area(s) (if applicable) |
|------------|-------------|---|--|--|
|            |             | <input type="checkbox"/> 54<br><input type="checkbox"/> 55<br><input type="checkbox"/> 56 | <input type="checkbox"/> WGS84<br><input type="checkbox"/> GDA94<br><input type="checkbox"/> Other: <input type="text"/> |  |

#### 3.3) Additional premises

- Additional premises are relevant to this development application and the details of these premises have been attached in a schedule to this development application  
 Not required

#### 4) Identify any of the following that apply to the premises and provide any relevant details

In or adjacent to a water body or watercourse or in or above an aquifer  
 Name of water body, watercourse or aquifer:

On strategic port land under the *Transport Infrastructure Act 1994*  
 Lot on plan description of strategic port land:   
 Name of port authority for the lot:

In a tidal area  
 Name of local government for the tidal area (if applicable):   
 Name of port authority for tidal area (if applicable):

On airport land under the *Airport Assets (Restructuring and Disposal) Act 2008*  
 Name of airport:

|   |
|---|
| <input type="checkbox"/> Listed on the Environmental Management Register (EMR) under the <i>Environmental Protection Act 1994</i> |
| EMR site identification: <input type="text"/>   |
| <input type="checkbox"/> Listed on the Contaminated Land Register (CLR) under the <i>Environmental Protection Act 1994</i>        |
| CLR site identification: <input type="text"/>   |

**5) Are there any existing easements over the premises?**  
*Note: Easement uses vary throughout Queensland and are to be identified correctly and accurately. For further information on easements and how they may affect the proposed development, see [DA Forms Guide](#).*

Yes – All easement locations, types and dimensions are included in plans submitted with this development application

No

## PART 3 – DEVELOPMENT DETAILS

### Section 1 – Aspects of development

**6.1) Provide details about the first development aspect**

a) What is the type of development? *(tick only one box)*

Material change of use     Reconfiguring a lot     Operational work     Building work

b) What is the approval type? *(tick only one box)*

Development permit     Preliminary approval     Preliminary approval that includes a variation approval

c) What is the level of assessment?

Code assessment     Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):*

Operational Works for Internal and External Works

e) Relevant plans  
*Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms guide: Relevant plans](#).*

Relevant plans of the proposed development are attached to the development application

**6.2) Provide details about the second development aspect**

a) What is the type of development? *(tick only one box)*

Material change of use     Reconfiguring a lot     Operational work     Building work

b) What is the approval type? *(tick only one box)*

Development permit     Preliminary approval     Preliminary approval that includes a variation approval

c) What is the level of assessment?

Code assessment     Impact assessment *(requires public notification)*

d) Provide a brief description of the proposal *(e.g. 6 unit apartment building defined as multi-unit dwelling, reconfiguration of 1 lot into 3 lots):*

e) Relevant plans  
*Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see [DA Forms Guide: Relevant plans](#).*

Relevant plans of the proposed development are attached to the development application

**6.3) Additional aspects of development**

Additional aspects of development are relevant to this development application and the details for these aspects that would be required under Part 3 Section 1 of this form have been attached to this development application

Not required

## Section 2 – Further development details

| 7) Does the proposed development application involve any of the following? |  |
|--|--|
| Material change of use   | <input type="checkbox"/> Yes – complete division 1 if assessable against a local planning instrument |
| Reconfiguring a lot  | <input type="checkbox"/> Yes – complete division 2   |
| Operational work   | <input checked="" type="checkbox"/> Yes – complete division 3  |
| Building work  | <input type="checkbox"/> Yes – complete <i>DA Form 2 – Building work details</i>                     |

### Division 1 – Material change of use

**Note:** This division is only required to be completed if any part of the development application involves a material change of use assessable against a local planning instrument.

| 8.1) Describe the proposed material change of use |   |  |  |
|---|---|--|--|
| Provide a general description of the proposed use | Provide the planning scheme definition<br><i>(include each definition in a new row)</i> | Number of dwelling units<br><i>(if applicable)</i> | Gross floor area (m <sup>2</sup> )<br><i>(if applicable)</i> |
|   |   |  |  |
|   |   |  |  |
|   |   |  |  |

| 8.2) Does the proposed use involve the use of existing buildings on the premises? |  |
|---|--|
| <input type="checkbox"/> Yes  |  |
| <input type="checkbox"/> No   |  |

### Division 2 – Reconfiguring a lot

**Note:** This division is only required to be completed if any part of the development application involves reconfiguring a lot.

| 9.1) What is the total number of existing lots making up the premises? |  |
|--|--|
|  |  |

| 9.2) What is the nature of the lot reconfiguration? <i>(tick all applicable boxes)</i> |   |
|--|---|
| <input type="checkbox"/> Subdivision <i>(complete 10)</i>                              | <input type="checkbox"/> Dividing land into parts by agreement <i>(complete 11)</i>   |
| <input type="checkbox"/> Boundary realignment <i>(complete 12)</i>                     | <input type="checkbox"/> Creating or changing an easement giving access to a lot from a constructed road <i>(complete 13)</i> |

| 10) Subdivision   |             |            |            |                        |
|---|-------------|------------|------------|------------------------|
| 10.1) For this development, how many lots are being created and what is the intended use of those lots: |             |            |            |                        |
| Intended use of lots created  | Residential | Commercial | Industrial | Other, please specify: |
|   |             |            |            |                        |
| Number of lots created  |             |            |            |                        |

| 10.2) Will the subdivision be staged?                           |  |
|---|--|
| <input type="checkbox"/> Yes – provide additional details below |  |
| <input type="checkbox"/> No                                     |  |
| How many stages will the works include?                         |  |
| What stage(s) will this development application apply to?       |  |

| 11) Dividing land into parts by agreement – how many parts are being created and what is the intended use of the parts? |             |            |            |                        |
|---|-------------|------------|------------|------------------------|
| Intended use of parts created   | Residential | Commercial | Industrial | Other, please specify: |
| Number of parts created   |             |            |            |                        |

| 12) Boundary realignment  |                        |                         |                        |
|---|------------------------|-------------------------|------------------------|
| 12.1) What are the current and proposed areas for each lot comprising the premises? |                        |                         |                        |
| Current lot   |                        | Proposed lot            |                        |
| Lot on plan description   | Area (m <sup>2</sup> ) | Lot on plan description | Area (m <sup>2</sup> ) |
|   |                        |                         |                        |
|   |                        |                         |                        |
| 12.2) What is the reason for the boundary realignment?                              |                        |                         |                        |
|   |                        |                         |                        |

| 13) What are the dimensions and nature of any existing easements being changed and/or any proposed easement?<br>(attach schedule if there are more than two easements) |           |            |   |   |
|--|-----------|------------|---|---|
| Existing or proposed?  | Width (m) | Length (m) | Purpose of the easement? (e.g. pedestrian access) | Identify the land/lot(s) benefitted by the easement |
|  |           |            |   |   |
|  |           |            |   |   |

### Division 3 – Operational work

**Note:** This division is only required to be completed if any part of the development application involves operational work.

| 14.1) What is the nature of the operational work?   |  |
|---|--|
| <input checked="" type="checkbox"/> Road work<br><input checked="" type="checkbox"/> Drainage work<br><input checked="" type="checkbox"/> Landscaping<br><input type="checkbox"/> Other – please specify: | <input checked="" type="checkbox"/> Stormwater<br><input type="checkbox"/> Earthworks<br><input type="checkbox"/> Signage<br><input checked="" type="checkbox"/> Water infrastructure<br><input checked="" type="checkbox"/> Sewage infrastructure<br><input type="checkbox"/> Clearing vegetation |
| 14.2) Is the operational work necessary to facilitate the creation of new lots? (e.g. subdivision)  |  |
| <input type="checkbox"/> Yes – specify number of new lots:  |  |
| <input checked="" type="checkbox"/> No  |  |
| 14.3) What is the monetary value of the proposed operational work? (include GST, materials and labour)  |  |
| \$TBD   |  |

## PART 4 – ASSESSMENT MANAGER DETAILS

| 15) Identify the assessment manager(s) who will be assessing this development application   |
|---|
| Mareeba Shire Council   |
| 16) Has the local government agreed to apply a superseded planning scheme for this development application?   |
| <input type="checkbox"/> Yes – a copy of the decision notice is attached to this development application<br><input type="checkbox"/> The local government is taken to have agreed to the superseded planning scheme request – relevant documents attached<br><input checked="" type="checkbox"/> No |

## PART 5 – REFERRAL DETAILS

### 17) Does this development application include any aspects that have any referral requirements?

**Note:** A development application will require referral if prescribed by the Planning Regulation 2017.

No, there are no referral requirements relevant to any development aspects identified in this development application – proceed to Part 6

#### Matters requiring referral to the **Chief Executive of the Planning Act 2016:**

- Clearing native vegetation
- Contaminated land (*unexploded ordnance*)
- Environmentally relevant activities (ERA) (*only if the ERA has not been devolved to a local government*)
- Fisheries – aquaculture
- Fisheries – declared fish habitat area
- Fisheries – marine plants
- Fisheries – waterway barrier works
- Hazardous chemical facilities
- Heritage places – Queensland heritage place (*on or near a Queensland heritage place*)
- Infrastructure-related referrals – designated premises
- Infrastructure-related referrals – state transport infrastructure
- Infrastructure-related referrals – State transport corridor and future State transport corridor
- Infrastructure-related referrals – State-controlled transport tunnels and future state-controlled transport tunnels
- Infrastructure-related referrals – near a state-controlled road intersection
- Koala habitat in SEQ region – interfering with koala habitat in koala habitat areas outside koala priority areas
- Koala habitat in SEQ region – key resource areas
- Ports – Brisbane core port land – near a State transport corridor or future State transport corridor
- Ports – Brisbane core port land – environmentally relevant activity (ERA)
- Ports – Brisbane core port land – tidal works or work in a coastal management district
- Ports – Brisbane core port land – hazardous chemical facility
- Ports – Brisbane core port land – taking or interfering with water
- Ports – Brisbane core port land – referable dams
- Ports – Brisbane core port land – fisheries
- Ports – Land within Port of Brisbane’s port limits (*below high-water mark*)
- SEQ development area
- SEQ regional landscape and rural production area or SEQ rural living area – tourist activity or sport and recreation activity
- SEQ regional landscape and rural production area or SEQ rural living area – community activity
- SEQ regional landscape and rural production area or SEQ rural living area – indoor recreation
- SEQ regional landscape and rural production area or SEQ rural living area – urban activity
- SEQ regional landscape and rural production area or SEQ rural living area – combined use
- Tidal works or works in a coastal management district
- Reconfiguring a lot in a coastal management district or for a canal
- Erosion prone area in a coastal management district
- Urban design
- Water-related development – taking or interfering with water
- Water-related development – removing quarry material (*from a watercourse or lake*)
- Water-related development – referable dams
- Water-related development – levees (*category 3 levees only*)
- Wetland protection area

#### Matters requiring referral to the **local government:**

- Airport land
- Environmentally relevant activities (ERA) (*only if the ERA has been devolved to local government*)

|  |
|--|
| <input type="checkbox"/> Heritage places – Local heritage places   |
| Matters requiring referral to the <b>Chief Executive of the distribution entity or transmission entity:</b>  |
| <input type="checkbox"/> Infrastructure-related referrals – Electricity infrastructure   |
| Matters requiring referral to:   |
| <ul style="list-style-type: none"> <li>• The <b>Chief Executive of the holder of the licence</b>, if not an individual</li> <li>• The <b>holder of the licence</b>, if the holder of the licence is an individual</li> </ul> |
| <input type="checkbox"/> Infrastructure-related referrals – Oil and gas infrastructure   |
| Matters requiring referral to the <b>Brisbane City Council:</b>  |
| <input type="checkbox"/> Ports – Brisbane core port land   |
| Matters requiring referral to the <b>Minister responsible for administering the Transport Infrastructure Act 1994:</b>   |
| <input type="checkbox"/> Ports – Brisbane core port land <i>(where inconsistent with the Brisbane port LUP for transport reasons)</i>  |
| <input type="checkbox"/> Ports – Strategic port land   |
| Matters requiring referral to the <b>relevant port operator</b> , if applicant is not port operator:   |
| <input type="checkbox"/> Ports – Land within Port of Brisbane’s port limits <i>(below high-water mark)</i>   |
| Matters requiring referral to the <b>Chief Executive of the relevant port authority:</b>   |
| <input type="checkbox"/> Ports – Land within limits of another port <i>(below high-water mark)</i>   |
| Matters requiring referral to the <b>Gold Coast Waterways Authority:</b>   |
| <input type="checkbox"/> Tidal works or work in a coastal management district <i>(in Gold Coast waters)</i>  |
| Matters requiring referral to the <b>Queensland Fire and Emergency Service:</b>  |
| <input type="checkbox"/> Tidal works or work in a coastal management district <i>(involving a marina (more than six vessel berths))</i>  |

|   |                 |                           |
|---|-----------------|---------------------------|
| <b>18) Has any referral agency provided a referral response for this development application?</b>   |                 |                           |
| <input type="checkbox"/> Yes – referral response(s) received and listed below are attached to this development application  |                 |                           |
| <input type="checkbox"/> No   |                 |                           |
| Referral requirement  | Referral agency | Date of referral response |
|   |                 |                           |
|   |                 |                           |
| Identify and describe any changes made to the proposed development application that was the subject of the referral response and this development application , or include details in a schedule to this development application <i>(if applicable)</i> . |                 |                           |
|   |                 |                           |

## PART 6 – INFORMATION REQUEST

|  |
|--|
| <b>19) Information request under Part 3 of the DA Rules</b>  |
| <input checked="" type="checkbox"/> I agree to receive an information request if determined necessary for this development application   |
| <input type="checkbox"/> I do not agree to accept an information request for this development application  |
| <b>Note:</b> <i>By not agreeing to accept an information request I, the applicant, acknowledge:</i>  |
| <ul style="list-style-type: none"> <li>• <i>that this development application will be assessed and decided based on the information provided when making this development application and the assessment manager and any referral agencies relevant to the development application are not obligated under the DA Rules to accept any additional information provided by the applicant for the development application unless agreed to by the relevant parties</i></li> <li>• <i>Part 3 of the DA Rules will still apply if the application is an application listed under section 11.3 of the DA Rules.</i></li> </ul> |
| <i>Further advice about information requests is contained in the <a href="#">DA Forms Guide</a>.</i>   |

## PART 7 – FURTHER DETAILS

| 20) Are there any associated development applications or current approvals? (e.g. a preliminary approval)   |                  |                  |                       |
|---|------------------|------------------|-----------------------|
| <input checked="" type="checkbox"/> Yes – provide details below or include details in a schedule to this development application<br><input type="checkbox"/> No |                  |                  |                       |
| List of approval/development application references   | Reference number | Date             | Assessment manager    |
| <input checked="" type="checkbox"/> Approval<br><input type="checkbox"/> Development application  | DA/16/0054       | 21 December 2016 | Mareeba Shire Council |
| <input type="checkbox"/> Approval<br><input type="checkbox"/> Development application   |                  |                  |                       |

| 21) Has the portable long service leave levy been paid? (only applicable to development applications involving building work or operational work)   |                      |                                |
|---|----------------------|--------------------------------|
| <input type="checkbox"/> Yes – a copy of the receipted QLeave form is attached to this development application<br><input checked="" type="checkbox"/> No – I, the applicant will provide evidence that the portable long service leave levy has been paid before the assessment manager decides the development application. I acknowledge that the assessment manager may give a development approval only if I provide evidence that the portable long service leave levy has been paid<br><input type="checkbox"/> Not applicable (e.g. building and construction work is less than \$150,000 excluding GST) |                      |                                |
| Amount paid   | Date paid (dd/mm/yy) | QLeave levy number (A, B or E) |
| \$  |                      |                                |

| 22) Is this development application in response to a show cause notice or required as a result of an enforcement notice? |
|--|
| <input type="checkbox"/> Yes – show cause or enforcement notice is attached<br><input checked="" type="checkbox"/> No    |

| 23) Further legislative requirements  |  |                         |  |
|---|--|-------------------------|--|
| <b>Environmentally relevant activities</b>  |  |                         |  |
| 23.1) Is this development application also taken to be an application for an environmental authority for an <b>Environmentally Relevant Activity (ERA)</b> under section 115 of the <i>Environmental Protection Act 1994</i> ?  |  |                         |  |
| <input type="checkbox"/> Yes – the required attachment (form ESR/2015/1791) for an application for an environmental authority accompanies this development application, and details are provided in the table below<br><input checked="" type="checkbox"/> No<br><i>Note: Application for an environmental authority can be found by searching "ESR/2015/1791" as a search term at <a href="http://www.qld.gov.au">www.qld.gov.au</a>. An ERA requires an environmental authority to operate. See <a href="http://www.business.qld.gov.au">www.business.qld.gov.au</a> for further information.</i> |  |                         |  |
| Proposed ERA number:  |  | Proposed ERA threshold: |  |
| Proposed ERA name:  |  |                         |  |
| <input type="checkbox"/> Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.   |  |                         |  |
| <b>Hazardous chemical facilities</b>  |  |                         |  |
| 23.2) Is this development application for a <b>hazardous chemical facility</b> ?  |  |                         |  |
| <input type="checkbox"/> Yes – Form 69: Notification of a facility exceeding 10% of schedule 15 threshold is attached to this development application<br><input checked="" type="checkbox"/> No<br><i>Note: See <a href="http://www.business.qld.gov.au">www.business.qld.gov.au</a> for further information about hazardous chemical notifications.</i>  |  |                         |  |

### Clearing native vegetation

23.3) Does this development application involve **clearing native vegetation** that requires written confirmation that the chief executive of the *Vegetation Management Act 1999* is satisfied the clearing is for a relevant purpose under section 22A of the *Vegetation Management Act 1999*?

- Yes – this development application includes written confirmation from the chief executive of the *Vegetation Management Act 1999* (s22A determination)
- No

**Note:** 1. Where a development application for operational work or material change of use requires a s22A determination and this is not included, the development application is prohibited development.  
2. See <https://www.qld.gov.au/environment/land/vegetation/applying> for further information on how to obtain a s22A determination.

### Environmental offsets

23.4) Is this development application taken to be a prescribed activity that may have a significant residual impact on a **prescribed environmental matter** under the *Environmental Offsets Act 2014*?

- Yes – I acknowledge that an environmental offset must be provided for any prescribed activity assessed as having a significant residual impact on a prescribed environmental matter
- No

**Note:** The environmental offset section of the Queensland Government's website can be accessed at [www.qld.gov.au](http://www.qld.gov.au) for further information on environmental offsets.

### Koala habitat in SEQ Region

23.5) Does this development application involve a material change of use, reconfiguring a lot or operational work which is assessable development under Schedule 10, Part 10 of the Planning Regulation 2017?

- Yes – the development application involves premises in the koala habitat area in the koala priority area
- Yes – the development application involves premises in the koala habitat area outside the koala priority area
- No

**Note:** If a koala habitat area determination has been obtained for this premises and is current over the land, it should be provided as part of this development application. See koala habitat area guidance materials at [www.des.qld.gov.au](http://www.des.qld.gov.au) for further information.

### Water resources

23.6) Does this development application involve **taking or interfering with underground water through an artesian or subartesian bore, taking or interfering with water in a watercourse, lake or spring, or taking overland flow water under the Water Act 2000**?

- Yes – the relevant template is completed and attached to this development application and I acknowledge that a relevant authorisation or licence under the *Water Act 2000* may be required prior to commencing development
- No

**Note:** Contact the Department of Natural Resources, Mines and Energy at [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au) for further information.

DA templates are available from <https://planning.dsdmip.qld.gov.au/>. If the development application involves:

- Taking or interfering with underground water through an artesian or subartesian bore: complete DA Form 1 Template 1
- Taking or interfering with water in a watercourse, lake or spring: complete DA Form 1 Template 2
- Taking overland flow water: complete DA Form 1 Template 3.

### Waterway barrier works

23.7) Does this application involve **waterway barrier works**?

- Yes – the relevant template is completed and attached to this development application
- No

DA templates are available from <https://planning.dsdmip.qld.gov.au/>. For a development application involving waterway barrier works, complete DA Form 1 Template 4.

### Marine activities

23.8) Does this development application involve **aquaculture, works within a declared fish habitat area or removal, disturbance or destruction of marine plants**?

- Yes – an associated resource allocation authority is attached to this development application, if required under the *Fisheries Act 1994*
- No

**Note:** See guidance materials at [www.daf.qld.gov.au](http://www.daf.qld.gov.au) for further information.

### **Quarry materials from a watercourse or lake**

23.9) Does this development application involve the **removal of quarry materials from a watercourse or lake** under the *Water Act 2000*?

- Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development  
 No

**Note:** Contact the Department of Natural Resources, Mines and Energy at [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au) and [www.business.qld.gov.au](http://www.business.qld.gov.au) for further information.

### **Quarry materials from land under tidal waters**

23.10) Does this development application involve the **removal of quarry materials from land under tidal water** under the *Coastal Protection and Management Act 1995*?

- Yes – I acknowledge that a quarry material allocation notice must be obtained prior to commencing development  
 No

**Note:** Contact the Department of Environment and Science at [www.des.qld.gov.au](http://www.des.qld.gov.au) for further information.

### **Referable dams**

23.11) Does this development application involve a **referable dam** required to be failure impact assessed under section 343 of the *Water Supply (Safety and Reliability) Act 2008* (the *Water Supply Act*)?

- Yes – the 'Notice Accepting a Failure Impact Assessment' from the chief executive administering the *Water Supply Act* is attached to this development application  
 No

**Note:** See guidance materials at [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au) for further information.

### **Tidal work or development within a coastal management district**

23.12) Does this development application involve **tidal work or development in a coastal management district**?

- Yes – the following is included with this development application:
- Evidence the proposal meets the code for assessable development that is prescribed tidal work (*only required if application involves prescribed tidal work*)
  - A certificate of title
- No

**Note:** See guidance materials at [www.des.qld.gov.au](http://www.des.qld.gov.au) for further information.

### **Queensland and local heritage places**

23.13) Does this development application propose development on or adjoining a place entered in the **Queensland heritage register** or on a place entered in a local government's **Local Heritage Register**?

- Yes – details of the heritage place are provided in the table below  
 No

**Note:** See guidance materials at [www.des.qld.gov.au](http://www.des.qld.gov.au) for information requirements regarding development of Queensland heritage places.

|                             |  |           |  |
|-----------------------------|--|-----------|--|
| Name of the heritage place: |  | Place ID: |  |
|-----------------------------|--|-----------|--|

### **Brothels**

23.14) Does this development application involve a **material change of use for a brothel**?

- Yes – this development application demonstrates how the proposal meets the code for a development application for a brothel under Schedule 3 of the *Prostitution Regulation 2014*  
 No

### **Decision under section 62 of the Transport Infrastructure Act 1994**

23.15) Does this development application involve new or changed access to a state-controlled road?

- Yes - this application will be taken to be an application for a decision under section 62 of the *Transport Infrastructure Act 1994* (subject to the conditions in section 75 of the *Transport Infrastructure Act 1994* being satisfied)  
 No

## PART 8 – CHECKLIST AND APPLICANT DECLARATION

| 24) Development application checklist  |  |
|--|--|
| I have identified the assessment manager in question 15 and all relevant referral requirement(s) in question 17<br><i>Note: See the Planning Regulation 2017 for referral requirements</i>   | <input checked="" type="checkbox"/> Yes  |
| If building work is associated with the proposed development, Parts 4 to 6 of <a href="#">DA Form 2 – Building work details</a> have been completed and attached to this development application   | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> Not applicable |
| Supporting information addressing any applicable assessment benchmarks is with the development application<br><i>Note: This is a mandatory requirement and includes any relevant templates under question 23, a planning report and any technical reports required by the relevant categorising instruments (e.g. local government planning schemes, State Planning Policy, State Development Assessment Provisions). For further information, see <a href="#">DA Forms Guide: Planning Report Template</a>.</i> | <input checked="" type="checkbox"/> Yes  |
| Relevant plans of the development are attached to this development application<br><i>Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see <a href="#">DA Forms Guide: Relevant plans</a>.</i>   | <input checked="" type="checkbox"/> Yes  |
| The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (see 21)  | <input type="checkbox"/> Yes<br><input checked="" type="checkbox"/> Not applicable |

| 25) Applicant declaration   |  |
|---|--|
| <input checked="" type="checkbox"/> By making this development application, I declare that all information in this development application is true and correct  |  |
| <input checked="" type="checkbox"/> Where an email address is provided in Part 1 of this form, I consent to receive future electronic communications from the assessment manager and any referral agency for the development application where written information is required or permitted pursuant to sections 11 and 12 of the <i>Electronic Transactions Act 2001</i>   |  |
| <i>Note: It is unlawful to intentionally provide false or misleading information.</i>   |  |
| <p><b>Privacy</b> – Personal information collected in this form will be used by the assessment manager and/or chosen assessment manager, any relevant referral agency and/or building certifier (including any professional advisers which may be engaged by those entities) while processing, assessing and deciding the development application. All information relating to this development application may be available for inspection and purchase, and/or published on the assessment manager's and/or referral agency's website.</p> <p>Personal information will not be disclosed for a purpose unrelated to the <i>Planning Act 2016</i>, <i>Planning Regulation 2017</i> and the DA Rules except where:</p> <ul style="list-style-type: none"> <li>• such disclosure is in accordance with the provisions about public access to documents contained in the <i>Planning Act 2016</i> and the <i>Planning Regulation 2017</i>, and the access rules made under the <i>Planning Act 2016</i> and <i>Planning Regulation 2017</i>; or</li> <li>• required by other legislation (including the <i>Right to Information Act 2009</i>); or</li> <li>• otherwise required by law.</li> </ul> <p>This information may be stored in relevant databases. The information collected will be retained as required by the <i>Public Records Act 2002</i>.</p> |  |

**PART 9 – FOR COMPLETION OF THE ASSESSMENT MANAGER – FOR OFFICE USE ONLY**

---

Date received:  Reference number(s):

| Notification of engagement of alternative assessment manager |  |
|--|--|
| Prescribed assessment manager                                |  |
| Name of chosen assessment manager                            |  |
| Date chosen assessment manager engaged                       |  |
| Contact number of chosen assessment manager                  |  |
| Relevant licence number(s) of chosen assessment manager      |  |

| QLeave notification and payment                                 |  |                      |  |
|---|--|----------------------|--|
| <i>Note: For completion by assessment manager if applicable</i> |  |                      |  |
| Description of the work   |  |                      |  |
| QLeave project number   |  |                      |  |
| Amount paid (\$)  |  | Date paid (dd/mm/yy) |  |
| Date receipted form sighted by assessment manager               |  |                      |  |
| Name of officer who sighted the form                            |  |                      |  |



# State Assessment and Referral Agency

Date: 31/07/2020

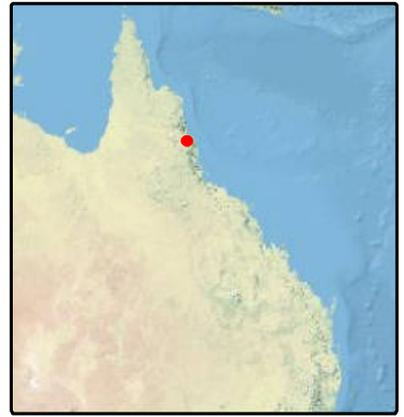


Department of State Development  
Manufacturing, Infrastructure  
and Planning

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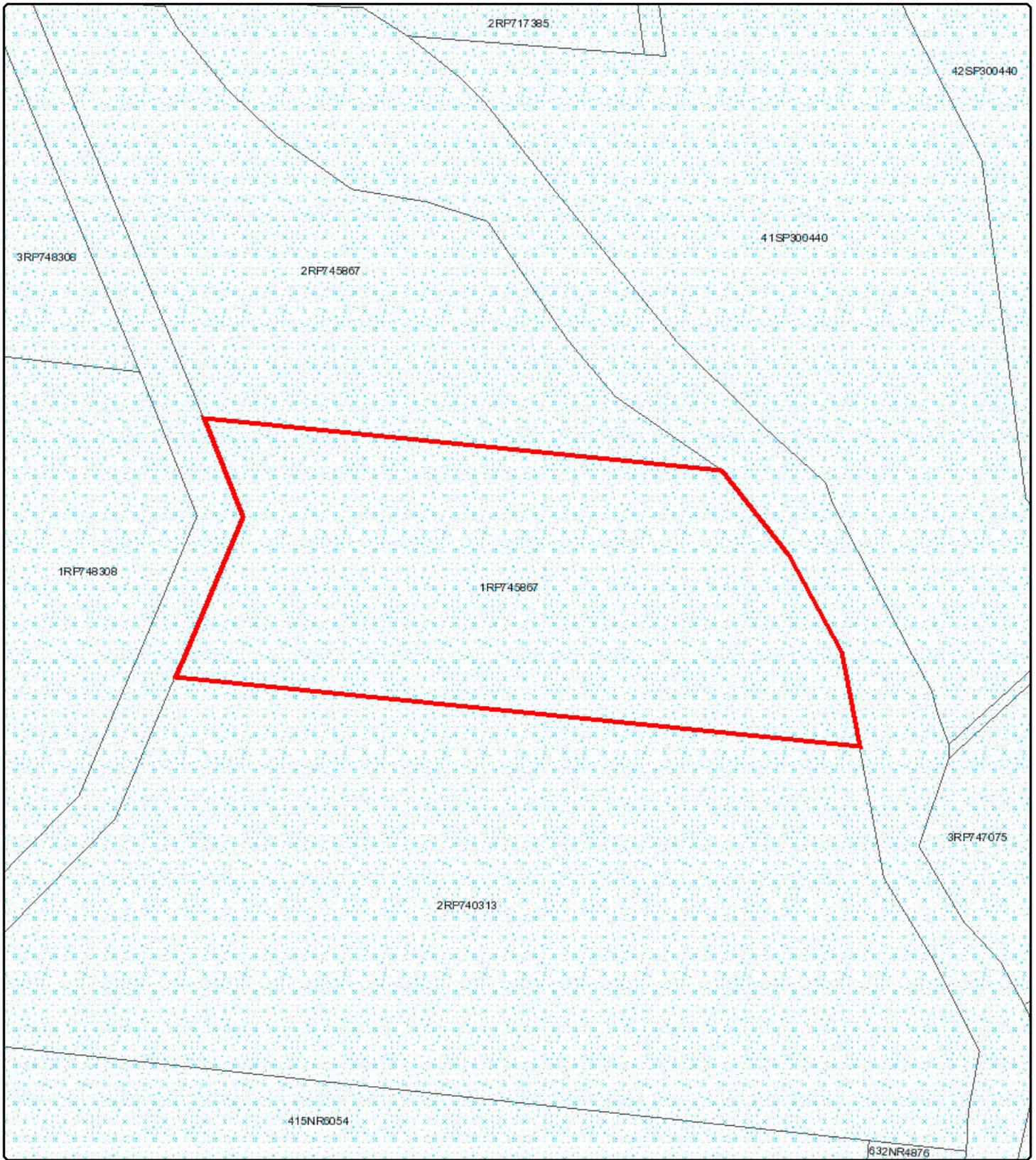


## Matters of Interest for all selected Lot Plans

*Water resource planning area boundaries*  
*Regulated vegetation management map (Category A and B extract)*

## Matters of Interest by Lot Plan

**Lot Plan: 1RP745867 (Area: 150300 m<sup>2</sup>)**  
*Water resource planning area boundaries*  
*Regulated vegetation management map (Category A and B extract)*



## State Assessment and Referral Agency

Date: 31/07/2020



Department of State Development  
Manufacturing, Infrastructure  
and Planning

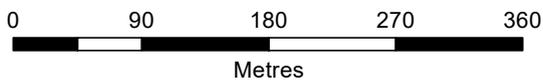
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### Legend

Water resource planning area boundaries

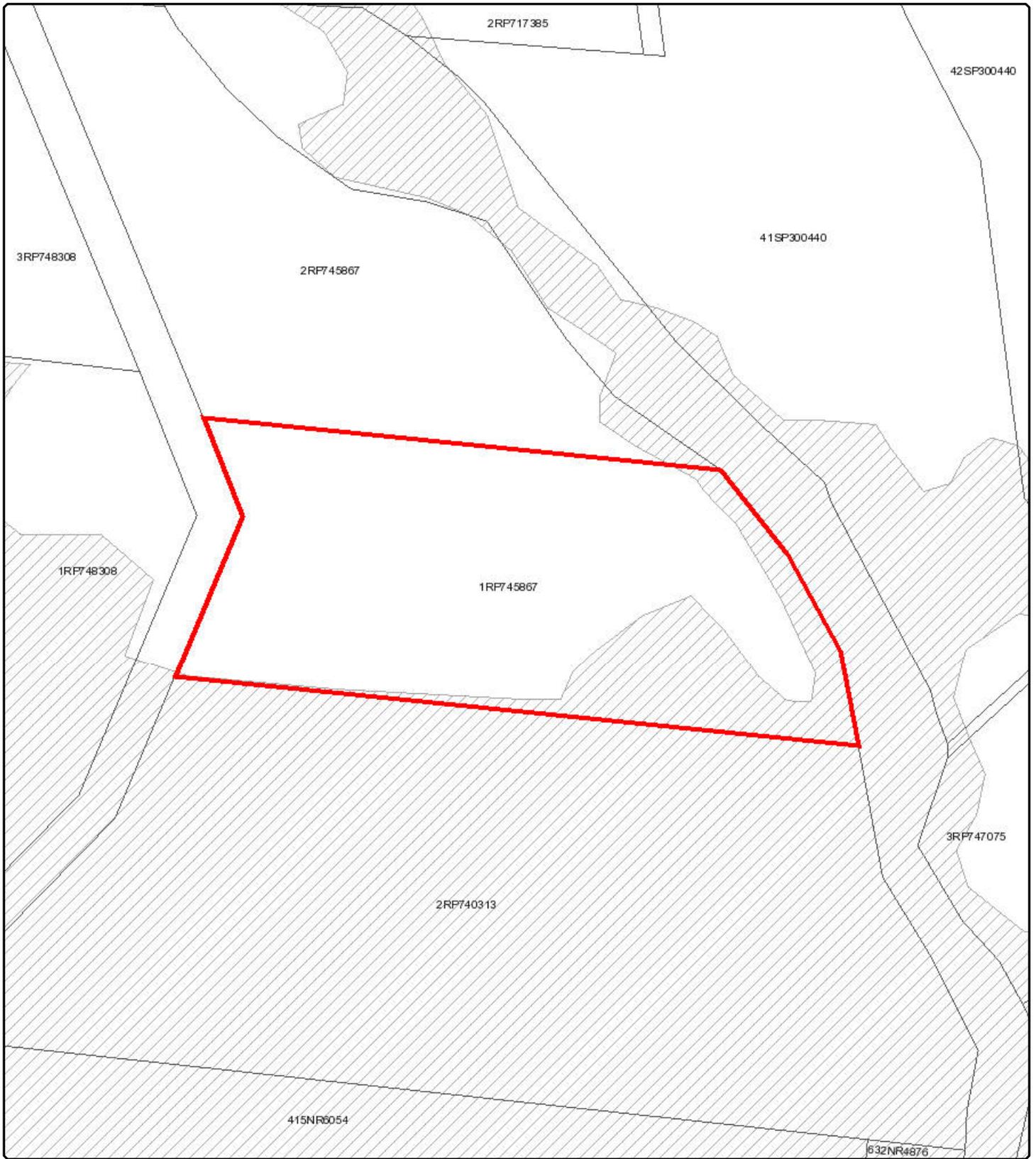


Water resource planning area boundaries



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## State Assessment and Referral Agency

Date: 31/07/2020



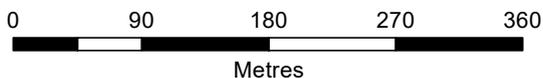
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### Legend

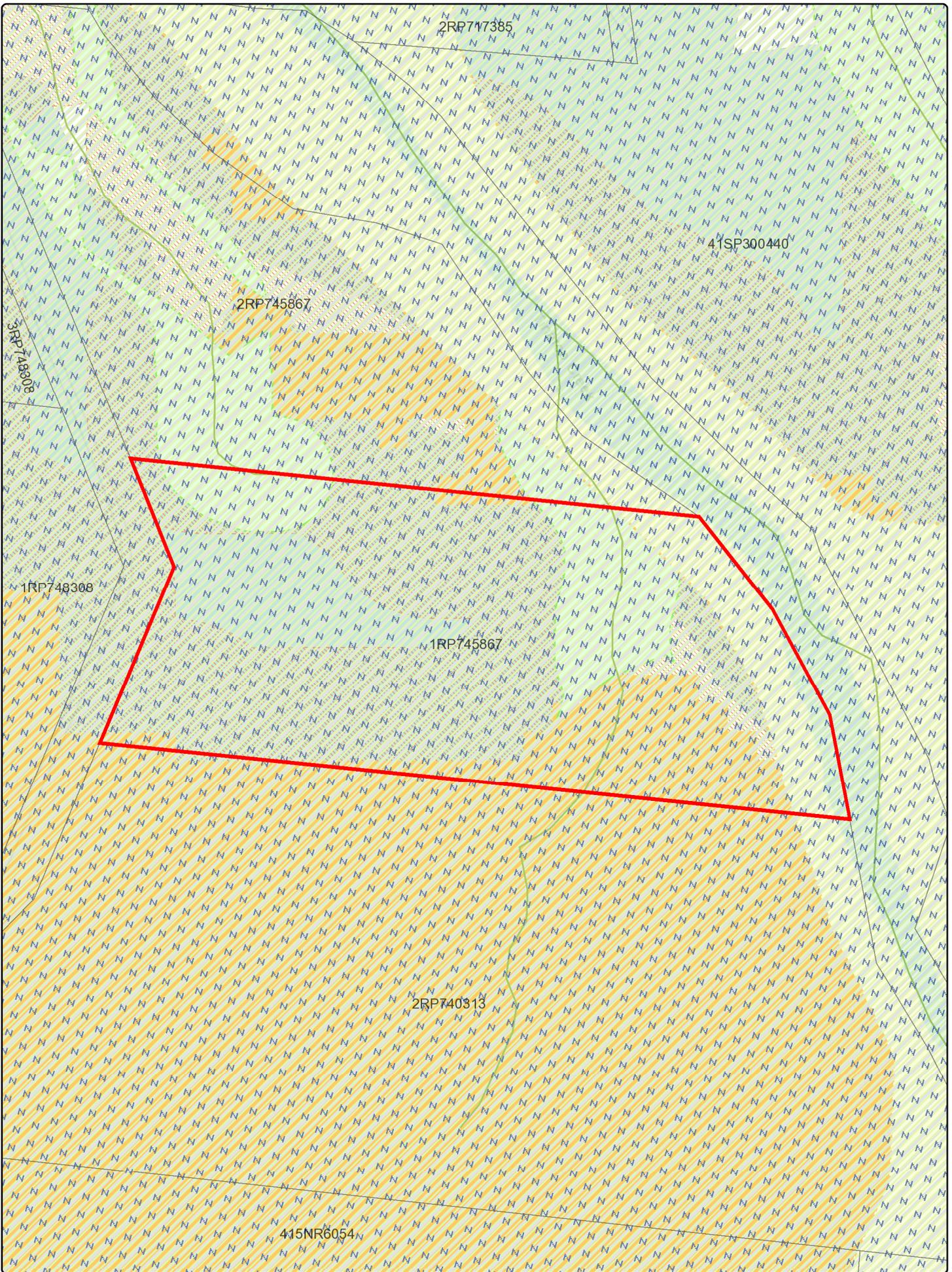
Regulated vegetation management map  
(Category A and B extract)

-  Category A on the regulated vegetation management map
-  Category B on the regulated vegetation management map



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Date: 31/07/2020

**State Planning Policy**  
 Making or amending a local planning instrument  
 and designating land for community infrastructure



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0 70 140 210 280



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# Legend

## Drawn Polygon Layer

Override 1

## Cadastre (5k)

 Cadastre (5k)

## Wildlife hazard buffer zone

 3km

 8km

 13km

## MSES - Regulated vegetation (intersecting a watercourse)

 MSES - Regulated vegetation (intersecting a watercourse)

## Important agricultural areas

 Important agricultural areas

## Flood hazard area - Level 1 - Queensland floodplain assessment overlay

 Flood hazard area - Level 1 - Queensland floodplain assessment overlay

## MSES - Regulated vegetation (category R)

 MSES - Regulated vegetation (category R)

## Bushfire prone area

 Very High Potential Bushfire Intensity

 High Potential Bushfire Intensity

 Medium Potential Bushfire Intensity

 Potential Impact Buffer

## Agricultural land classification - class A and B

 Agricultural land classification - class A and B



Date: 31/07/2020

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## State Planning Policy

Making or amending a local planning instrument  
and designating land for community infrastructure

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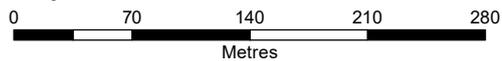
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**State Planning Policy**  
**Making or amending a local planning instrument**  
**and designating land for community infrastructure**



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# Legend

## Drawn Polygon Layer

Override 1

## Cadastre (5k)

 Cadastre (5k)

## Regional planning boundary

 Regional planning boundary

## Local government area

 Local government area

## Townsville Urban Area (NQ)

 Townsville Urban Area (NQ)

## Renewable Energy Investigation Area (Planning - NQ)

 Renewable Energy Investigation Area (Planning - NQ)

## Regional land use categories (SEQ, WBB, MIW, FNQ)

 Urban Footprint

 Rural Living Area

 Regional Landscape and Rural Production Area



Date: 31/07/2020

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Making or amending a local planning instrument  
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Department of Environment and Heritage Protection (EHP)  
ABN 46 640 294 485  
400 George St Brisbane, Queensland 4000  
GPO Box 2454 Brisbane QLD 4001 AUSTRALIA  
www.ehp.qld.gov.au

**SEARCH RESPONSE**  
**ENVIRONMENTAL MANAGEMENT REGISTER (EMR)**  
**CONTAMINATED LAND REGISTER (CLR)**

Transaction ID: 50300856                      EMR Site Id: 07 July 2016  
This response relates to a search request received for the site:  
Lot: 1                      Plan: RP745867

**EMR RESULT**

The above site is NOT included on the Environmental Management Register.

**CLR RESULT**

The above site is NOT included on the Contaminated Land Register.

**ADDITIONAL ADVICE**

All search responses include particulars of land listed in the EMR/CLR when the search was generated.  
The EMR/CLR does NOT include:-

1. land which is contaminated land (or a complete list of contamination) if EHP has not been notified
2. land on which a notifiable activity is being or has been undertaken (or a complete list of activities) if EHP has not been notified

If you have any queries in relation to this search please phone 13QGOV (13 74 68)

**Administering Authority**

**ATTACHMENT 3:  
RELEVANT APPROVAL**





21 December 2016

CA Architects  
C/- Urban Sync Pty Ltd  
PO Box 2970  
CAIRNS QLD 4870

## Decision Notice Approval

*Sustainable Planning Act 2009 s334 and s335*

Dear Applicant/s

**APPLICATION FOR MATERIAL CHANGE OF USE - SHORT-TERM ACCOMMODATION  
LOT 1 ON RP745867  
SITUATED AT 189 FICHERA ROAD, MAREEBA**

I wish to advise that, at Council's Ordinary Meeting held on *21 December 2016*, the above development application was -

- Approved in full with conditions.

The conditions relevant to this approval are detailed in **section 6** of this notice. These conditions are clearly identified to indicate whether the Assessment Manager or a Concurrence Agency imposed them.

### **Approval under Section 331**

This application **has not** been deemed to be approved under Section 331 of the Sustainable Planning Act 2009 (SPA).

#### **1. Details of the approval –**

Development Permit for Material Change of Use - Short-Term Accommodation

#### **2. Other necessary development permits and/or compliance permits–**

Listed below are other development permits and/or compliance permits that are necessary to allow the development to be carried out –

- Compliance Permit for Plumbing and Drainage Work

**3. Other approvals required from Council**

- Development Permit for Building Work
- Development Permit for Operational Works

**4. Submissions -**

There **were no** properly made submissions about the application.

**5. Conflict with a relevant instrument and reasons for the decision despite the conflict -**

The assessment manager does not consider that the assessment manager's decision conflicts with a relevant instrument.

**6. Conditions –****(A) ASSESSMENT MANAGER'S CONDITIONS (COUNCIL)****(a) Development assessable against the Planning Scheme**

1. Development must be carried out substantially in accordance with the approved plans and the facts and circumstances of the use as submitted with the application, subject to any alterations:
  - found necessary by Council's delegated officer at the time of examination of the engineering plans or during construction of the development because of particular engineering requirements; and
  - to ensure compliance with the following conditions of approval.
2. Timing of Effect
  - 2.1 The conditions of the development permit must be complied with to the satisfaction of Council's delegated officer prior to the commencement of the use except where specified otherwise in these conditions of approval.
  - 2.2 Prior to the commencement of use, the applicant must demonstrate to Council that all the conditions of the development permit have been complied with, except where specified otherwise in these conditions of approval.
3. General
  - 3.1 The development approval would not have been issued if not for the conditions requiring the construction of infrastructure or the additional payment condition/s within these conditions of approval.
  - 3.2 The applicant/developer is responsible for the cost of necessary alterations to existing public utility mains, services or installations required by works in relation to the proposed development or any works required by condition(s) of this approval.

3.3 All payments or bonds required to be made to the Council pursuant to any condition of this approval must be made prior to commencement of the use and at the rate applicable at the time of payment.

3.4 All works must be designed, constructed and carried out in accordance with FNQROC Development Manual requirements (as amended) and to the satisfaction of Council's delegated officer.

3.5 Noise Nuisance

3.5.1 The applicant/developer must ensure the approved short term accommodation use is operated and managed (including noise generated by guests) to not exceed a maximum noise level of 3dB(A) above background levels as measured from noise sensitive locations.

3.5.2 Refrigeration equipment, pumps, compressors and mechanical ventilation systems must be located, designed, installed and maintained to achieve a maximum noise level of 3dB(A) above background levels as measured from noise sensitive locations.

3.6 Waste Management

The applicant shall ensure there is no on site disposal of refuse associated with the approved use unless such refuse is disposed of in refuse bins provided in accordance with the following:

- (i) No refuse is to be stored on site outside the refuse bins at any time.
- (ii) On site refuse storage area for all refuse bins must be provided and be screened from view from adjoining properties and road reserve by a 1 metre wide landscaped screening buffer, 1.8m high solid fence or building.

3.7 Flood Immunity

All new habitable buildings must be located such that the freeboard of the floor levels of all habitable rooms are a minimum of 300mm above 100 ARI year level.

No filling or excavation is to occur below the Q100 flood hazard level.

3.8 Bushfire Management

A Bushfire Management Plan for the site, incorporating evacuation procedures for guests, must be prepared to the satisfaction of Council's delegated officer. The approved use must comply with the requirements of the Management Plan at all times.

### 3.8a Length of Stay

The maximum length of stay for guests must not typically exceed 3 consecutive months, unless otherwise approved by Council's delegated officer.

### 3.9 Signage

- 3.9.1 No more than 1 advertising sign for the approved development is permitted on the subject site.
- 3.9.2 The sign must not exceed a maximum sign face area of 6m<sup>2</sup> and must not move, revolve, strobe or flash.
- 3.9.3 The sign must be kept clean, in good order and safe repair for the life of the approval.
- 3.9.4 The sign must be removed when no longer required.
- 3.9.5 The erection and use of the advertisement must comply with the Building Act and all other relevant Acts, Regulations and these approval conditions.

### 3.10 Notification of Potential Rural Zone Impacts

The applicant is to erect a sign at or near the reception building advising guests that the subject land is zoned Rural under the Mareeba Shire Council Planning Scheme - July 2016 and is in a rural locality. The signage should generally state the following:

*"Guest should take note:*

- *The locality may be used for intensive rural uses;*
- *Guests may experience off site effects from rural activities, including noise, sprays and dust that may cause a loss of residential amenity. Existing and/or self-assessable agricultural and rural uses in the locality have a 'right to farm' or a right to legally continue the use."*

### 3.11 Slope Stability

For any building work proposed on a slope of 15% or greater, the applicant/developer must provide Council with a site specific geotechnical report prepared by a suitably qualified Registered Professional Engineer of Queensland (RPEQ) that certifies:

- the long term stability of the development site; and
- that the development site will not be adversely affected by land slide/slip activity originating on sloping land above the development site.

#### 4. Infrastructure Services and Standards

##### 4.1 Access

The site's existing access crossover must be upgraded/constructed (from the edge of Fichera Road to the property boundary) in accordance with FNQROC Development Manual standards, to the satisfaction of Council's delegated officer. The access must be widened to accommodate two directional traffic.

##### 4.2 Roadworks – External Construction

Prior to the commencement of the use, the following sections of Fichera Road must be widened to a 6.5 metre bitumen sealed width (1.25m either side) in accordance with D1.4 (Road Class 100 - 999) of the FNQROC Development Manual:

- from the Fichera/Tinaroo Creek Road intersection kerbing to the point in which the existing sealed width reaches 6.5 metres approaching the Tinaroo Creek Bridge (approximate distance of 250 metres); and
- from a point approximately 20 metres north of the site access (where the pavement width falls below 6.5 metres) to a point approximately 500 metres north along Fichera Road (where the pavement width widens to 6.5 metres).

A second bitumen coat must be applied to the entire pavement width for the full length of the abovementioned road sections to bind the widening works with the existing bitumen.

Prior to works commencing, plans for the works described above must be approved as part of a subsequent application for operational works.

##### 4.3 Stormwater Drainage/Water Quality

4.3.1 As part of any subsequent application for Operational Works, the applicant must submit a Stormwater Management Plan and Report prepared and certified by a suitably qualified design engineer (RPEQ) that meets or exceeds the standards of design and construction set out in the Queensland Urban Drainage Manual (QUDM) and the FNQROC Development Manual to the satisfaction of Council's delegated officer.

4.3.2 The Stormwater Management Plan must ensure a non-worsening effect on surrounding land as a consequence of the development, and must take all reasonable and practicable measures to ensure discharge occurs in compliance with the Queensland Urban Drainage Manual (QUDM) and the FNQROC Development Manual.

4.3.3 As part of any subsequent application for operational works the applicant must also provide a Stormwater Quality Management Plan and Report prepared and certified by a suitably qualified design engineer (RPEQ) that meets or exceeds the standards of design and construction set out in the Urban Stormwater Quality Planning

Guideline and the Queensland Water Quality Guideline to the satisfaction of Council's delegated officer.

- 4.3.4 The Stormwater Quality Management Plan must include an Erosion and Sediment Control Plan that meets or exceeds the Soil Erosion and Sedimentation Control Guidelines (Institute of Engineers Australia) to the satisfaction of Council's delegated officer.
- 4.3.5 The applicant/developer must construct the stormwater drainage infrastructure for the development in accordance with the approved Stormwater Management Plan and/or Stormwater Quality Management Plan and Report.
- 4.3.6 All stormwater drainage must be collected from site and discharged to an approved legal point of discharge.

#### 4.4 Car Parking/Internal Driveways

- 4.4.1 The applicant/developer must ensure the development is provided with at least 104 on-site car parking spaces which are available solely for the parking of vehicles associated with the use of the premises.
- 4.4.2 The internal driveway servicing the development must be widened to a width of at least 6 metres for its entire length and should include speed control devices to minimise dust nuisance.
- 4.4.3 All car parking spaces and internal roads must be surfaced to at least a compacted gravel standard, delineated, and appropriately drained prior to the commencement of the use, to the satisfaction of Council's delegated officer.
- 4.4.4 Prior to works commencing, the developer must submit engineering plans and specifications for the construction of proposed car parking facilities and internal driveways demonstrating:
- Compliance with Australian Standard AS2890:1 Off Street Parking – Car Parking Facilities;
  - Compliance with Australian Standard AS2890.3 Bicycle Parking Facilities (if required);
  - Compliance with Australian Standard AS1428:2001 – Design for Access and Mobility.

#### 4.5 Landscape and Fencing

Prior to the commencement of the use, the applicant / developer must prepare and submit a landscape plan in accordance with Planning Scheme Policy 6 for consideration and approval by Council's Delegated Officer. The landscape plan must include the following:

- (i) A minimum 3 metre wide landscape buffer along the Fichera Road frontage of the site, north of the site access to the north-west corner of the site.
- (ii) A minimum 2 metre wide landscape strip along the Fichera Road frontage of the site, south of the site access and up to the existing fruit trees at the southern end of the site.
- (iii) a minimum 3 metre wide landscape buffer along the northern boundary of the site for a length of 50m from the north-west corner of the site.
- (iv) a minimum 2 metre wide landscape buffer along the northern boundary of the site starting from the edge of the 3 metre buffer (as outlined above in (iii)) to a point adjacent the easternmost accommodation unit.
- (v) a minimum of 1 shade tree for every 6 parking spaces.
- (vi) any landscaping proposed amongst the 27 cabin blocks.

Landscaping associated with points (i), (ii), (iii) and (iv) should include ground cover, shrubs and trees that will grow to form an effective buffer of no less than six (6) metres in height. Existing mango trees are able to be used as part of the landscape buffers.

All landscaping works shall be undertaken prior to the commencement of the use and must be mulched, irrigated and maintained for the life of the development and to the satisfaction of Council's Delegated Officer.

#### 4.6 Lighting

Where outdoor lighting is required the developer shall locate, design and install lighting to operate from dusk to dawn within all areas where the public will be given access, which prevents the potential for light spillage to cause nuisance to neighbours and must be provided in accordance with Australian Standard 1158.1 – Lighting for Roads and Public Spaces.

Illumination resulting from direct, reflected or other incidental light emanating from the subject land does not exceed 8 lux when measured at any point 1.5m outside the property boundary of the subject site. The lighting fixtures installed on site must meet appropriate lux levels as documented within Australian Standard 4282 – Control of the Obtrusive Effects of Outdoor Lighting.

**Note:** The design is to integrate the principles of Crime Prevention through Environmental Design (CPTED) theory. Lighting design is to illuminate potential areas of concealment and is to project illumination so that a human face is easily discernible from 15 metres and there is to be sufficient night lighting, which renders people, colours, vegetation and objects correctly. i.e. 'white' light. Particular attention should be given to pathways, driveways and common external spaces.

#### 4.7 Water Supply

- (i) The development must be provided with a potable water supply that satisfies the standards for drinking water set by the Australian Drinking Water Guidelines 2004 (National Health and Medical Research Council and the National Resource Management Ministerial Council).
- (ii) All non-potable water supplied to the development must be clearly labelled at each tap - Non Potable Water - not safe for Human Consumption.

#### 4.8 On-Site Wastewater Management

All on site effluent disposal associated with the approved use must be in compliance with the latest version of On-Site Domestic Wastewater Management Standard (ASNZ1547) to the satisfaction of the Council's delegated officer.

**Note:** Any on-site wastewater treatment system with a total daily peak design capacity of at least 21 equivalent persons (EP) is an Environmentally Relevant Activity (ERA 63 - Sewerage Treatment) and an Environmental Authority is required.

#### 5. Additional Payment Condition (section 650 of the Sustainable Planning Act 2009)

- 5.1 The additional payment condition has been imposed as the development will create additional demand on trunk infrastructure which will create additional trunk infrastructure costs for council.
- 5.2 The applicant/developer must pay \$85,845.00 as a contribution toward trunk infrastructure with the amount of the contribution increased on 1 July each year in accordance with the increase for the PPI index for the period starting on the day the development approval takes effect, adjusted by reference to the 3-yearly PPI index average to the date of payment.
- 5.3 The trunk infrastructure for which the payment is required is:
  - The trunk transport network servicing the land (\$85,845.00)
- 5.4 The developer may elect to provide part of the trunk infrastructure instead of making the payment.
- 5.5 If the developer elects to provide part of the trunk infrastructure the developer must:
  - Discuss with Council's delegated officer the part of the works to be undertaken;
  - Obtain the necessary approvals for the part of the works;
  - Indemnify the Council in relation to any actions, suits or demands relating to or arising from the works;

- Take out joint insurance in the name of the Council and the developer in the sum of \$20,000,000 in relation to the undertaking of the works;
- Comply with the reasonable direction of Council officers in relation to the completion of the works;
- Complete the works to the standards required by the Council; and
- Complete the works prior to endorsement of the plan of subdivision.

5.6 The value, as agreed by Council's delegated officer, of the external works required under Condition 4.2 will be credited towards the additional payment required under Condition 5.2. Any credit will not exceed \$85,845.00.

(B) ASSESSMENT MANAGER'S ADVICE

(a) A number of other charges or payments may be payable as conditions of approval. The applicable fee is set out in Council's Fees & Charges Schedule for each respective financial year.

(b) Food Premises (restaurants/bed & breakfasts etc.)

Premises proposed for the storage and preparation, handling, packing or service of food must comply with the requirements of the Food Act 2006.

(c) Compliance with applicable codes/policies

The development must be carried out to ensure compliance with the provisions of Council's Local Laws, Planning Scheme Policies, Planning Scheme and Planning Scheme Codes to the extent they have not been varied by a condition of this approval.

(d) Compliance with Acts and Regulations

The erection and use of the building must comply with the Building Act and all other relevant Acts, Regulations and Laws, and these approval conditions.

(e) Environmental Protection and Biodiversity Conservation Act 1999

The applicant is advised that referral may be required under the *Environmental Protection and Biodiversity Conservation Act 1999* if the proposed activities are likely to have a significant impact on a matter of national environmental significance. Further information on these matters can be obtained from [www.environment.gov.au](http://www.environment.gov.au)

(f) Cultural Heritage

In carrying out the activity the applicant must take all reasonable and practicable measures to ensure that no harm is done to Aboriginal cultural heritage (the "cultural heritage duty of care"). The applicant will comply with the cultural heritage duty of care if the applicant acts in accordance with gazetted cultural heritage duty of care guidelines. An assessment of the proposed activity against the duty of care guidelines will determine whether or to what extent Aboriginal cultural heritage may be harmed by the activity. Further information on cultural heritage, together with a copy of the

duty of care guidelines and cultural heritage search forms, may be obtained from [www.datsip.qld.gov.au](http://www.datsip.qld.gov.au)

(C) CONCURRENCE AGENCY CONDITIONS

Department of Infrastructure, Local Government and Planning conditions dated 10 November 2016.

7. IDAS referral agencies –

The IDAS Referral Agencies applicable to this application are –

| MATERIAL CHANGE OF USE   |                        |                                      |             |   |
|--|------------------------|--------------------------------------|-------------|---|
| <p><b>All State Transport Infrastructure</b><br/>An aspect of development identified in schedule 9 that—</p> <p>(a) is for a purpose mentioned in schedule 9, column 1; and</p> <p>(b) meets or exceeds the threshold—</p> <p>(i) for development in LGA population 1— mentioned in schedule 9, column 2 for the purpose; or</p> <p>(ii) for development in LGA population 2— mentioned in schedule 9, column 3 for the purpose.</p> <p>However, if the development is for a combination of purposes mentioned in the same item of schedule 9, the threshold is for the combination of purposes and not for each purpose individually.</p> | Sch 7, Table 3, item 2 | Department of Transport & Main Roads | Concurrence | <p>State Assessment &amp; Referral Agency (SARA)<br/>Department of Infrastructure, Local Government &amp; Planning<br/>PO Box 2358<br/>Cairns Qld 4870</p> <p><a href="mailto:CairnsSARA@dilgp.qld.gov.au">CairnsSARA@dilgp.qld.gov.au</a></p> <p>SARA is supported by MyDAS— a new online system that allows an applicant to prepare and lodge or refer applications to DSDIP, as the single state assessment and referral agency.</p> <p>MyDAS can be accessed at <a href="http://www.dilgp.qld.gov.au/planning/development-assessment/state-assessment-and-referral-agency-applications.html">http://www.dilgp.qld.gov.au/planning/development-assessment/state-assessment-and-referral-agency-applications.html</a></p> |

8. Approved Plans

The approved plans and/or documents for this development approval are listed in the following table.

| Plan/Document Number | Plan/Document Title               | Prepared by   | Dated      |
|----------------------|-----------------------------------|---------------|------------|
| 0986_SK A005         | Location Plan                     | CA Architects | 11/08/2016 |
| 0986_SK A010         | Proposed Site Plan                | CA Architects | 11/08/2016 |
| 0986_SK A021         | Proposed Site Plan with Satellite | CA Architects | 11/08/2016 |
| 0986_SK A51          | Site - Typical Module             | CA Architects | 11/08/2016 |
| 0986_SK A081         | Streetscape                       | CA Architects | 11/08/2016 |

|              |                    |               |            |
|--------------|--------------------|---------------|------------|
| 0986_SK A901 | Typical Unit Image | CA Architects | 11/08/2016 |
| 0986_SK A401 | Elevations         | CA Architects | 11/08/2016 |
| 0986_SK A501 | Sections           | CA Architects | 11/08/2016 |
| 0986_SK A100 | Plan - Lower Level | CA Architects | 11/08/2016 |
| 0986_SK A101 | Plan - Upper Level | CA Architects | 11/08/2016 |

#### 9. When approval lapses if development not started (s341)

This development approval will lapse in accordance with Section 341 of the Sustainable Planning Act 2009 if development does not start within relevant period as stated below:

- Material Change of Use – four (4) years (starting the day the approval takes effect);

If there is one (1) or more subsequent related approvals for a development approval for a Material Change of Use or a reconfiguration, the relevant period for the approval will be taken to have started on the day the latest related approval takes effect.

#### 10. Appeal rights –

##### ***Applicant may make representations about decision***

The applicant may make written representations to the assessment manager about: -

- a matter stated in the decision notice, other than a refusal or a matter about which a concurrence agency told the assessment manager under section 287(1) or (5); or
- the standard conditions applying to a deemed approval.

However, the applicant can not make representations under subsection (1)(a) about a condition attached to an approval under the direction of the Minister.

**Attachment 3** is an extract from SPA which contains details regarding making representations about the decision.

##### ***Appeals by applicants***

An applicant for a development application may appeal to the Planning and Environment Court against the following:

- the refusal, or refusal in part of the development application
- any condition of a development approval, another matter stated in a development approval and the identification or inclusion of a code under section 242 of SPA
- the decision to give a preliminary approval when a development permit was applied for
- the length of a period mentioned in section 341
- a deemed refusal of the development application.

The timeframes for starting an appeal in the Planning and Environment Court are set out in section 461(2) of SPA.

Applicants may also have a right to appeal to the Building and Development Dispute Resolution Committee. For more details, see SPA, chapter 7, part 2.

#### **Appeals by submitters**

A submitter for a development application may appeal to the Planning and Environment Court against:

- the part of the approval relating to the assessment manager's decision about any part of the application requiring impact assessment
- the part of the approval relating to the assessment manager's decision under section 327.

Details about submitter appeal rights for the Planning and Environment Court are set out in sections 462, 463 and 464 of SPA.

Submitters may also have a right to appeal to the Building and Development Dispute Resolution Committee. For more details, see SPA, chapter 7, part 2.

**Attachment 4** is an extract from SPA which details the applicant's appeal rights and the appeal rights of any submitters regarding this decision.

#### **11. When the development approval takes effect –**

This development approval takes effect –

- from the time the decision notice is given, if there is no submitter and the applicant does not appeal the decision to the court

**OR**

- subject to the decision of the court, when the appeal is finally decided, if an appeal is made to the court.

Should you require any further information please contact Council's **Planning Officer, Carl Ewin** on the above telephone number.

Yours faithfully



**BRIAN MILLARD**  
**SENIOR PLANNER**

**Enclosures:** Attachment 1 - Approved Plans of Development  
Attachment 2 - Concurrence Agency Conditions  
Attachment 3 - SPA Extract - Making Representations about Decision  
Attachment 4 - SPA Extract on Appeal Rights

**Copy:** Department of Infrastructure, Local Government and Planning  
[CairnsSARA@dilgp.qld.gov.au](mailto:CairnsSARA@dilgp.qld.gov.au)

## ATTACHMENT 2 - CONCURRENCE AGENCY CONDITIONS



Department of Infrastructure,  
Local Government and Planning

SARA reference: SDA-1016-034130  
Council reference: DA/16/0054  
Applicant reference: 16-137

10 November 2016

Chief Executive Officer  
Mareeba Shire Council  
PO Box 154  
Mareeba QLD 4880

*Attn: Brian Millard*

Dear Sir / Madam

**Concurrence agency response—with conditions**

Application for a material change of use (short-term accommodation) on land situated at 189 Fichera Road, Mareeba and described as Lot 1 on RP745867  
(Given under section 285 of the *Sustainable Planning Act 2009*)

The referral agency material for the development application described below was received by the Department of Infrastructure, Local Government and Planning under section 272 of the *Sustainable Planning Act 2009* on 12 October 2016.

**Applicant details**

---

Applicant name: CA Architects  
Applicant contact details: C/- Urban Sync Pty Ltd  
PO Box 2970  
Caïms QLD 4870  
matt@urbansync.com.au

**Site details**

---

Street address: 189 Fichera Road, Mareeba  
Lot on plan: Lot 1 on RP745867  
Local government area: Mareeba Shire Council

Page 1

Far North Queensland Regional Office  
Ground Floor, Cairns Port Authority  
PO Box 2358  
Caïms QLD 4870

SDA-1016-034130

**Application details**

Proposed development: Development permit for a material change of use (short-term accommodation)

**Aspects of development and type of approval being sought**

| Nature of Development  | Approval Type      | Brief Proposal of Description  | Level of Assessment |
|------------------------|--------------------|--|---------------------|
| Material Change of Use | Development permit | Short term accommodation (proposed new modular accommodation facilities) | Impact Assessment   |

**Referral triggers**

The development application was referred to the department under the following provisions of the *Sustainable Planning Regulation 2009*:

Referral trigger: Schedule 7, Table 3, Item 2—Development impacting on State transport infrastructure

**Conditions**

Under section 287(1)(a) of the *Sustainable Planning Act 2009*, the conditions set out in **Attachment 1** must be attached to any development approval.

**Reasons for decision to impose conditions**

Under section 289(1) of the *Sustainable Planning Act 2009*, the department must set out the reasons for the decision to impose conditions. These reasons are set out in **Attachment 2**.

**Further advice**

Under section 287(6) of the *Sustainable Planning Act 2009*, the department offers advice about the application to the assessment manager—see **Attachment 3**.

**Approved plans and specifications**

The department requires that the following plans and specifications set out below and in **Attachment 4** must be attached to any development approval.

| Drawing/Report Title                                 | Prepared by   | Date | Reference no. | Version/Issue |
|--|---|------|---------------|---------------|
| <b>Aspect of development: material change of use</b> |   |      |               |               |
| Auxiliary left-turn treatment (AUL) on a rural road  | Austrroads: Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections | 2010 | Figure 8.4    | -             |

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

For further information, please contact Bec Turner, A/ Planning Officer, SARA Far North QLD on 4037 3208, or email [bec.turner@dilgp.qld.gov.au](mailto:bec.turner@dilgp.qld.gov.au) who will be pleased to assist.

SDA-1016-034130

Yours sincerely



Brett Nancarrow  
Manager (Planning)

cc: CA Architects, C/- Urban Sync Pty Ltd, Attn.: Matt Ingram - matt@urbansync.com.au  
enc: **Attachment 1**—Conditions to be imposed  
**Attachment 2**—Reasons for decision to impose conditions  
**Attachment 3**—Further advice  
**Attachment 4**—Approved Plans and Specifications

SDA-1016-034130

SARA reference: SDA-1016-034130  
 Council reference: DA/16/0054  
 Applicant reference: 16-137

**Attachment 1—Conditions to be imposed**

| No.  | Conditions   | Condition timing  |
|--|--|---|
| <b>Material change of use for short term accommodation</b>   |  |   |
| <p><b>Schedule 7, Table 3, item 2: Development impacting on State transport infrastructure—</b><br/>                     Pursuant to section 255D of the <i>Sustainable Planning Act 2009</i>, the chief executive administering the Act nominates the Director-General of the Department of Transport and Main Roads to be the assessing authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition:</p> |  |   |
| 1.   | <p>(a) Road works comprising of the upgrading of the Mareeba-bound Rural Auxiliary Left-turn - short (AUL(S)) to comply with an Rural Auxiliary Left-turn (AUL) standard, must be provided at the Kennedy Highway / Tinaroo Creek Road intersection.</p> <p>(b) The road works must be designed and constructed in accordance with Austroads: Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections, Figure 8.4 Auxiliary left-turn treatment (AUL) on a rural road, dated 2010.</p> | <p>(a) and (b):<br/>Prior to the commencement of use.</p> |

SDA-1016-034130

SARA reference: SDA-1016-034130  
Council reference: DA/16/0054  
Applicant reference: 16-137

**Attachment 2—Reasons for decision to impose conditions**

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The reasons for this decision are:

- to ensure the road works on, or associated with, the state-controlled road network are undertaken in accordance with applicable standards;
- to ensure the development achieves the applicable provisions and outcomes of Module 19 – State transport network functionality of the State Development Assessment Provisions (version 1.9).

SDA-1016-034130

SARA reference: SDA-1016-034130  
 Council reference: DA/16/0054  
 Applicant reference: 16-137

**Attachment 3—Further advice**

| General advice   |  |
|--|--|
| Ref.   | Advertising device   |
| 1.   | <p>A local government should obtain advice from the Department of Transport and Main Roads (DTMR) if it intends to approve the erection, alteration or operation of an advertising sign or another advertising device that would be visible from a state-controlled road, and beyond the boundaries of the state-controlled road, and reasonably likely to create a traffic hazard for the state-controlled road.</p> <p>Note: DTMR has powers under section 111 of the <i>Transport Operations (Roads Use Management – Accreditation and Other Provisions) Regulations 2005</i> to require removal or modification of an advertising sign and/or a device which is deemed that it creates a danger to traffic.</p>  |
| Further development permits, compliance permits or compliance certificates |  |
| Ref.   | Road access approval   |
| 2.   | <p>Under sections 62 and 33 of the <i>Transport Infrastructure Act 1994</i>, written approval is required from the Department of Transport and Main Roads to carry out road access works (including driveways) on a state-controlled road. Please contact the Department of Transport and Main Roads on 4045 7144 at the Cairns district office to make an application for road works approval. This approval must be obtained prior to commencing any works on the state-controlled road reserve. The approval process may require the approval of engineering designs of the proposed works, certified by a Registered Professional Engineer of Queensland (RPEQ).</p> <p><b>The road access approval process takes time – please contact Transport and Main Roads as soon as possible to ensure that gaining an access approval is not delayed.</b></p> |

SDA-1016-034130

SARA reference: SDA-1016-034130  
Council reference: DA/16/0054  
Applicant reference: 16-137

**Attachment 4—Approved plans and specifications**

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Guide to Road Design – Part 4A: Unsignalised and Signalised Intersections

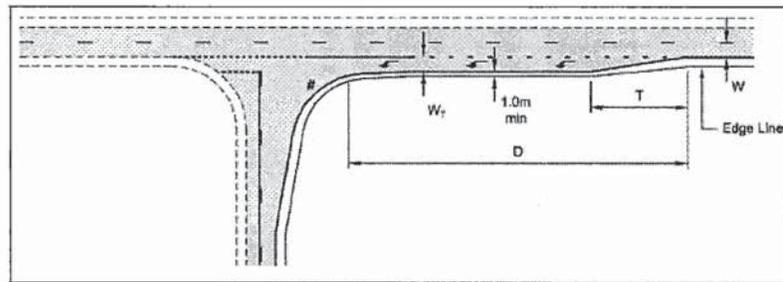
Table 8.2: Dimensions for AUL(S) treatment on major leg

| Design speed of major road approach (km/h) | Diverge/deceleration length D (m) <sup>1</sup> | Taper length T (m) <sup>2</sup> |
|--|--|---------------------------------|
| 50   | 15   | 15                              |
| 60   | 25   | 15                              |
| 70   | 35   | 20                              |
| 80   | 45   | 20                              |
| 90   | 55   | 25                              |
| 100  | 70   | 30                              |
| 110  | 85   | 30                              |
| 120  | 100  | 35                              |

1. Based on a 20% reduction in through road speed at the start of the taper and a value of deceleration of 3.5 m/s<sup>2</sup> (Table 5.2). Adjust for grade using the 'correction to grade', Table 5.3.
  2. Based on a turn lane width of 3.0 m.
- Source: QDMR (2008).

8.2.3 Rural Auxiliary Left-turn Lane Treatment (AUL)

A diagram of an AUL turn treatment on the major leg of a rural road is shown in Figure 8.4. The length of the auxiliary left-turn lane should not be restricted to the minimum if there is little difficulty in making it longer and the demand warrants the treatment (Section 4.8).



Notes:

1. # For setting out details of the left-turn geometry, use to vehicle turning path software or templates.
2. Approaches to left-turn slip lanes can create hazardous situations between cyclists and left-turning motor vehicles. Treatments to reduce the number of potential conflicts at left-turn slip lanes are given in this guide.
3. The dimensions of the treatment are defined thus:
  - W = Nominal through lane width (m) (incl. widening for curves). For a new intersection on an existing road, the width is to be in accordance with the current link strategy.
  - W<sub>T</sub> = Nominal width of turn lane (m) (incl. widening for curves based on the design turning vehicle) = 3.0 m minimum.
  - D = Diverge/deceleration length including taper – Table 5.2. (Adjust for grade using the 'correction to grade' in Table 5.3).
  - T = Physical taper length (m) given by:

$$T = \frac{0.33VW_T}{3.6}$$

- V = Design speed of major road approach (km/h).

Figure 8.4: Auxiliary left-turn treatment (AUL) on a rural road

Department of Transport and Main Roads note:  
Site specific requirements may not reflect this example in its entirety. Detailed drawings will be issued upon application for Road Works / Road Access Works.

**ATTACHMENT 3 - MAKING REPRESENTATIONS ABOUT DECISION****PART 8 - DEALING WITH DECISION NOTICES AND APPROVALS****DIVISION 1 CHANGING DECISION NOTICES AND APPROVALS DURING APPLICANT'S APPEAL PERIOD****360 APPLICATION OF DIV 1**

This division applies only during the applicant's appeal period.

**361 APPLICANT MAY MAKE REPRESENTATIONS ABOUT DECISION**

- (1) The applicant may make written representations to the assessment manager about—
  - (a) a matter stated in the decision notice, other than a refusal or a matter about which a concurrence agency told the assessment manager under section 287(1) or (5); or
  - (b) the standard conditions applying to a deemed approval.
- (2) However, the applicant can not make representations under subsection (1)(a) about a condition attached to an approval under the direction of the Minister.

**362 ASSESSMENT MANAGER TO CONSIDER REPRESENTATIONS**

The assessment manager must consider any representations made to the assessment manager under section 361.

**363 DECISION ABOUT REPRESENTATIONS**

- (1) If the assessment manager agrees with any of the representations about a decision notice or a deemed approval, the assessment manager must give a new decision notice (*the negotiated decision notice*) to—
  - (a) the applicant; and
  - (b) each principal submitter; and
  - (c) each referral agency; and
  - (d) if the assessment manager is not the local government and the development is in a local government area—the local government.
- (2) Before the assessment manager agrees to a change under this section, the assessment manager must consider the matters the assessment manager was required to consider in assessing the application, to the extent the matters are relevant.
- (3) Only 1 negotiated decision notice may be given.
- (4) The negotiated decision notice—
  - (a) must be given within 5 business days after the day the assessment manager agrees with the representations; and
  - (b) must comply with section 335; and
  - (c) must state the nature of the changes; and
  - (d) replaces—
    - (i) the decision notice previously given; or

- (ii) if a decision notice was not previously given and the negotiated decision notice relates to a deemed approval—the standard conditions applying to the deemed approval.
- (5) If the assessment manager does not agree with any of the representations, the assessment manager must, within 5 business days after the day the assessment manager decides not to agree with any of the representations, give written notice to the applicant stating the decision about the representations.

**364 GIVING NEW INFRASTRUCTURE CHARGES NOTICE OR REGULATED INFRASTRUCTURE CHARGES NOTICE**

- (1) This section applies if the development approved by the negotiated decision notice is different from the development approved in the decision notice or deemed approval in a way that affects the amount of an infrastructure charge or regulated infrastructure charge.
- (2) The local government may give the applicant a new infrastructure charges notice under section 633 or regulated infrastructure charges notice under section 643 to replace the original notice.

**365 GIVING NEW REGULATED STATE INFRASTRUCTURE CHARGES NOTICE**

- (1) This section applies if the development approved by the negotiated decision notice is different from the development approved in the decision notice or deemed approval in a way that affects the amount of a regulated State infrastructure charge.
- (2) The relevant State infrastructure provider may give the applicant a new regulated State infrastructure charges notice under section 669 to replace the original notice.

**366 APPLICANT MAY SUSPEND APPLICANT'S APPEAL PERIOD**

- (1) If the applicant needs more time to make the representations, the applicant may, by written notice given to the assessment manager, suspend the applicant's appeal period.
- (2) The applicant may act under subsection (1) only once.
- (3) If the representations are not made within 20 business days after the day written notice was given to the assessment manager, the balance of the applicant's appeal period restarts.
- (4) If the representations are made within 20 business days after the day written notice was given to the assessment manager—
- (a) if the applicant gives the assessment manager a notice withdrawing the notice under subsection (1)—the balance of the applicant's appeal period restarts the day after the assessment manager receives the notice of withdrawal; or
  - (b) if the assessment manager gives the applicant a notice under section 363(5)—the balance of the applicant's appeal period restarts the day after the applicant receives the notice; or
  - (c) if the assessment manager gives the applicant a negotiated decision notice—the applicant's appeal period starts again the day after the applicant receives the negotiated decision notice.

**ATTACHMENT 4 - APPEAL RIGHTS****DIVISION 8 APPEALS TO COURT RELATING TO DEVELOPMENT APPLICATIONS AND APPROVALS****461 APPEALS BY APPLICANTS**

- (1) An applicant for a development application may appeal to the court against any of the following—
  - (a) the refusal, or the refusal in part, of the development application;
  - (b) any condition of a development approval, another matter stated in a development approval and the identification or inclusion of a code under section 242;
  - (c) the decision to give a preliminary approval when a development permit was applied for;
  - (d) the length of a period mentioned in section 341;
  - (e) a deemed refusal of the development application.
- (2) An appeal under subsection (1)(a), (b), (c) or (d) must be started within 20 business days (the **applicant's appeal period**) after—
  - (a) if a decision notice or negotiated decision notice is given—the day the decision notice or negotiated decision notice is given to the applicant; or
  - (b) otherwise—the day a decision notice was required to be given to the applicant.
- (3) An appeal under subsection (1)(e) may be started at any time after the last day a decision on the matter should have been made.

**462 APPEALS BY SUBMITTERS—GENERAL**

- (1) A submitter for a development application may appeal to the court only against—
  - (a) the part of the approval relating to the assessment manager's decision about any part of the application requiring impact assessment under section 314; or
  - (b) the part of the approval relating to the assessment manager's decision under section 327.
- (2) To the extent an appeal may be made under subsection (1), the appeal may be against 1 or more of the following—
  - (a) the giving of a development approval;
  - (b) any provision of the approval including—
    - (i) a condition of, or lack of condition for, the approval; or
    - (ii) the length of a period mentioned in section 341 for the approval.
- (3) However, a submitter may not appeal if the submitter—
  - (a) withdraws the submission before the application is decided; or
  - (b) has given the assessment manager a notice under section 339(1)(b)(ii).
- (4) The appeal must be started within 20 business days (the **submitter's appeal period**) after the decision notice or negotiated decision notice is given to the submitter.

**463 ADDITIONAL AND EXTENDED APPEAL RIGHTS FOR SUBMITTERS FOR PARTICULAR DEVELOPMENT APPLICATIONS**

- (1) This section applies to a development application to which chapter 9, part 7 applies.
- (2) A submitter of a properly made submission for the application may appeal to the court about a referral agency's response made by a prescribed concurrence agency for the application.
- (3) However, the submitter may only appeal against a referral agency's response to the extent it relates to—
  - (a) if the prescribed concurrence agency is the chief executive (environment)—development for an aquacultural ERA; or
  - (b) if the prescribed concurrence agency is the chief executive (fisheries)—development that is—
    - (i) a material change of use of premises for aquaculture; or
    - (ii) operational work that is the removal, damage or destruction of a marine plant.
- (4) Despite section 462(1), the submitter may appeal against the following matters for the application even if the matters relate to code assessment—
  - (a) a decision about a matter mentioned in section 462(2) if it is a decision of the chief executive (fisheries);
  - (b) a referral agency's response mentioned in subsection (2).

**464 APPEALS BY ADVICE AGENCY SUBMITTERS**

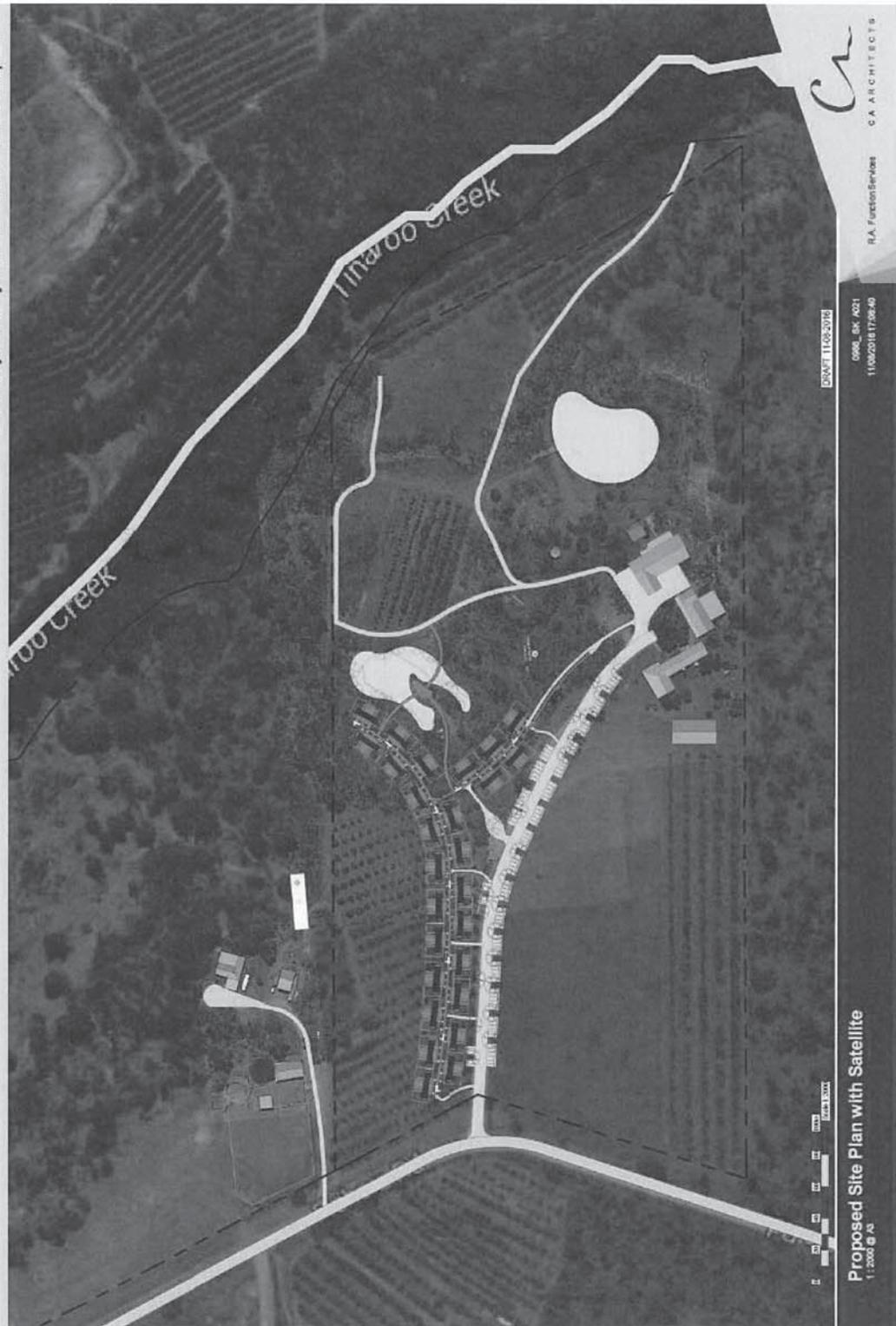
- (1) Subsection (2) applies if an advice agency, in its response for an application, told the assessment manager to treat the response as a properly made submission.
- (2) The advice agency may, within the limits of its jurisdiction, appeal to the court about—
  - (a) any part of the approval relating to the assessment manager's decision about any part of the application requiring impact assessment under section 314; or
  - (b) any part of the approval relating to the assessment manager's decision under section 327.
- (3) The appeal must be started within 20 business days after the day the decision notice or negotiated decision notice is given to the advice agency as a submitter.
- (4) However, if the advice agency has given the assessment manager a notice under section 339(1)(b)(ii), the advice agency may not appeal the decision.





21/12/2016  
 B. Hill

De Bruyys Winery Accommodation - Masterplan

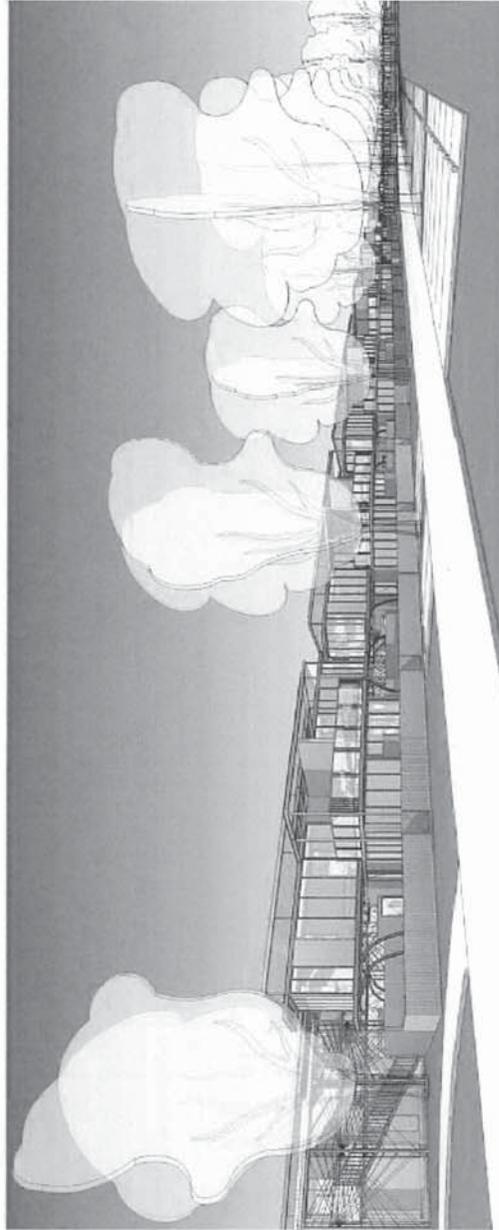


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21/12/2016  
B. [Signature]

De Brueys Winery Accommodation - Masterplan



1 Perspective - Streetscape



2 Site Cross Section  
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Streetscape  
1:1000 @ A3

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G.A. ARCHITECTS

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De Brueys Winery Accommodation - Masterplan



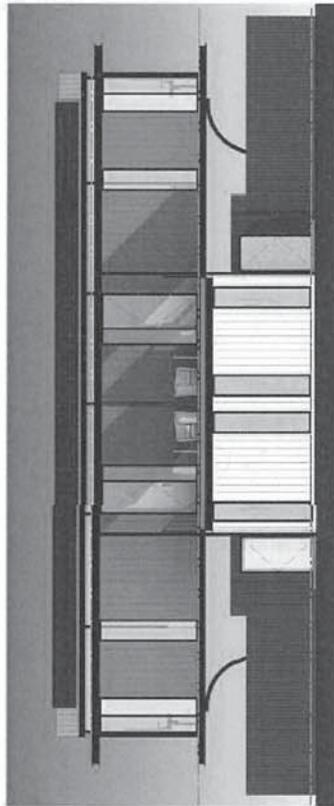
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C.A. ARCHITECTS

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Typical Unit Image  
© J.A.

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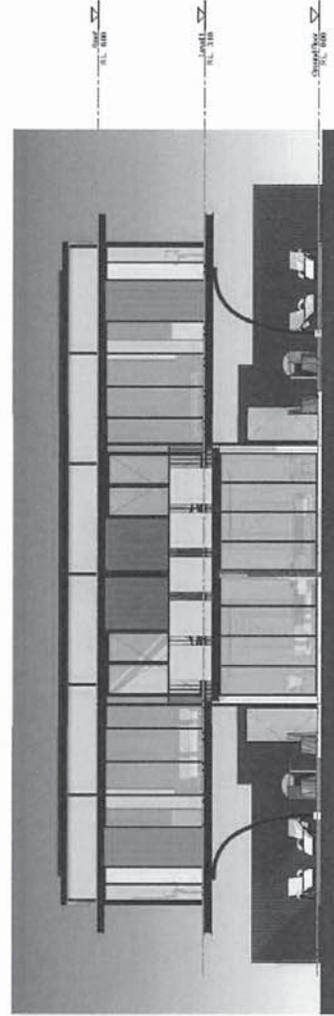
De Brueys Winery Accommodation - Typical Module



3 Elevation - Entry  
1:100



2 Elevation - Side  
1:100



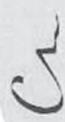
1 Elevation - Main  
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Elevations  
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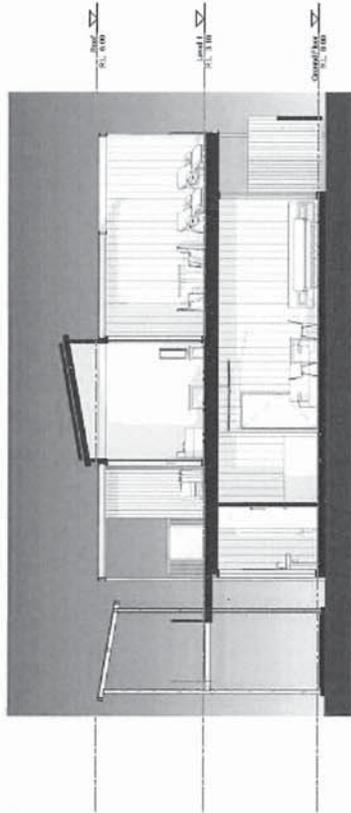
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C.A. ARCHITECTS



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De Brueys Winery Accommodation - Typical Module



1 Cross Section  
1:100



2 Long Section  
1:100



Sections  
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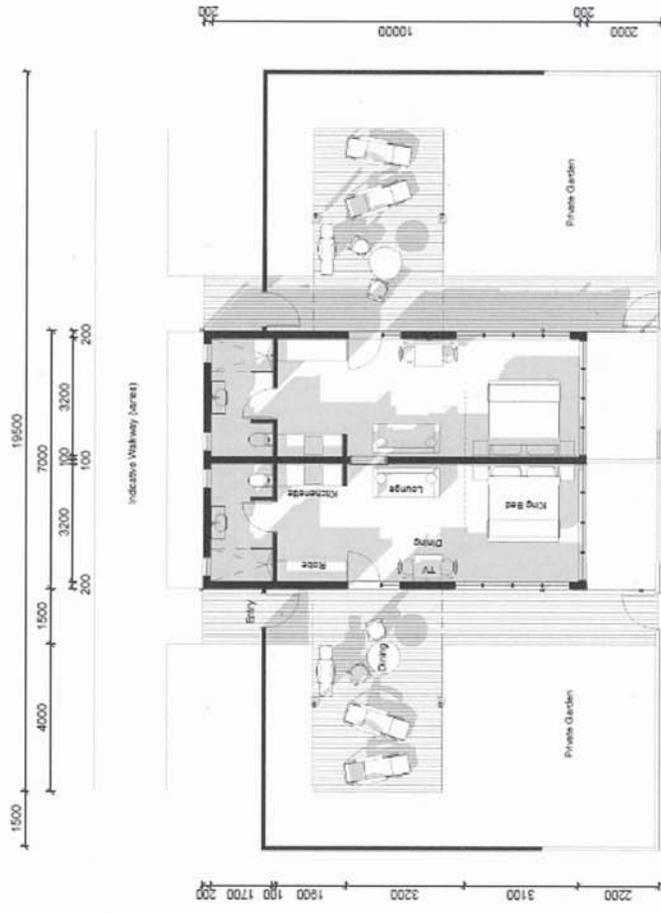
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De Brueys Winery Accommodation - Typical Module



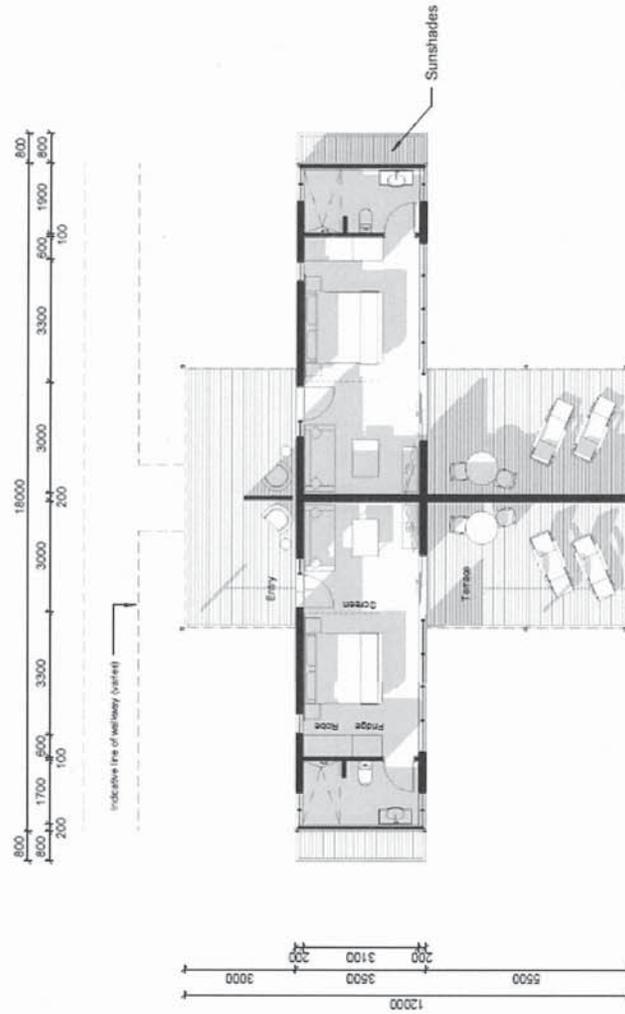
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Scale 1:100  
Plan - Lower Level  
1:100 @ A1

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De Brueys Winery Accommodation - Typical Module



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Scale 1:100

Plan - Upper Level  
1:100 @ A3



R.A. Ferguson  
GA ARCHITECTS

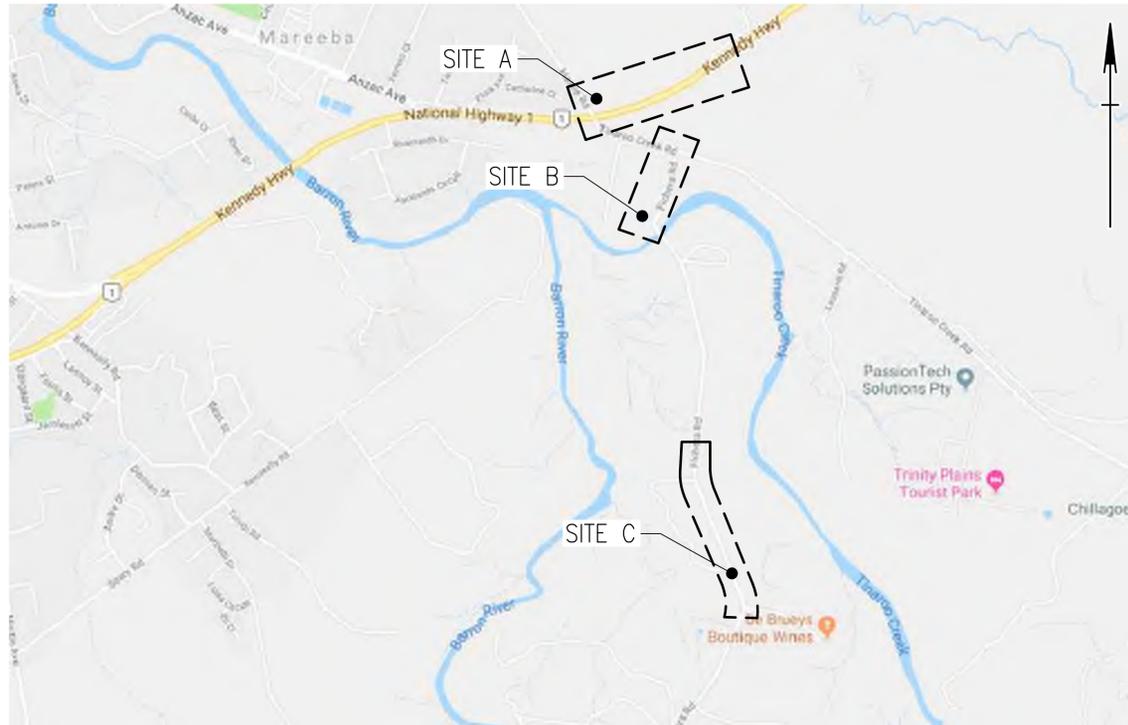
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# DE BRUEYS WINERY UPGRADE

## EXTERNAL

## CIVIL DRAWINGS



LOCALITY PLAN

| DRAWING INDEX       |      |  |
|---------------------|------|--|
| DRAWING NUMBER      | SITE | DRAWING NAME   |
| 260361-CIAL-DRG-201 | ALL  | DRAWING INDEX AND LOCALITY PLAN                          |
| 260361-CIAL-DRG-202 | ALL  | GENERAL NOTES AND PAVEMENT TABLES                        |
| 260361-CIAL-DRG-211 | A    | SITE A TYPICAL SECTIONS AND DETAILS                      |
| 260361-CIAL-DRG-221 | A    | SITE A GENERAL ARRANGEMENT                               |
| 260361-CIAL-DRG-222 | B/C  | SITE B GENERAL ARRANGEMENT AND SITE B/C TYPICAL SECTIONS |
| 260361-CIAL-DRG-223 | C    | SITE C GENERAL ARRANGEMENT                               |
| 260361-CIAL-DRG-224 | B/C  | SITE B&C ALIGNMENT TABLES                                |
| 260361-CIAL-DRG-231 | A    | SITE A PAVEMENT MARKINGS                                 |
| 260361-CIAL-DRG-301 | A    | SITE A CROSS SECTIONS SHEET 1 OF 2                       |
| 260361-CIAL-DRG-302 | A    | SITE A CROSS SECTIONS SHEET 2 OF 2                       |
| 260361-CIAL-DRG-303 | B    | SITE B CROSS SECTIONS SHEET 1 OF 3                       |
| 260361-CIAL-DRG-304 | B    | SITE B CROSS SECTIONS SHEET 2 OF 3                       |
| 260361-CIAL-DRG-305 | B    | SITE B CROSS SECTIONS SHEET 3 OF 3                       |
| 260361-CIAL-DRG-306 | C    | SITE C CROSS SECTIONS SHEET 1 OF 4                       |
| 260361-CIAL-DRG-307 | C    | SITE C CROSS SECTIONS SHEET 2 OF 4                       |
| 260361-CIAL-DRG-308 | C    | SITE C CROSS SECTIONS SHEET 3 OF 4                       |
| 260361-CIAL-DRG-309 | C    | SITE C CROSS SECTIONS SHEET 4 OF 4                       |

**ORIGIN OF SURVEY**

LEVELS DATUM : AHD DER  
 ORIGIN OF LEVELS : OPSPM 94627  
 RL 425.910  
 MERIDIAN : MGA Zone 55  
 ORIGIN OF CO-ORDINATES : E332393.097  
 N8117804.320

**NOT FOR CONSTRUCTION**

|  |   |  |  |  |   |   |
|--|---|--|--|--|---|---|
| <p>Approved by:<br/>Name</p> <p>RPEQ No. #</p> | <p>Level 10, 15 Lake Street<br/>                 Cairns City, Qld, Australia<br/>                 Tel + 61(7) 4032 600 Fax +61(7) 4032 6001<br/>                 www.arup.com</p> | <p>Member Firm<br/>                 Arup Pty Ltd<br/>                 ABN 18 000 966 165</p> | <p>Client<br/> <b>R.A. FUNCTION SERVICES PTY LTD</b></p> <p>Job Title<br/> <b>DE BRUEYS WINERY UPGRADE</b></p> | <p><b>DE BRUEYS BOUTIQUE WINES</b></p> | <p><b>DRAWING INDEX AND LOCALITY PLAN</b></p> | <p>Scale at A1 NOT TO SCALE</p> <p>Discipline CIVIL</p> <p>Job No <b>260361-00</b> Drawing Status <b>ISSUE FOR APPROVAL</b></p> <p>Drawing No <b>260361-CIAL-DRG-201</b> Issue <b>A</b></p> |
|--|---|--|--|--|---|---|

**GENERAL NOTES**

- All dimensions in metres unless noted otherwise.
- All levels in AHD.
- All works are to be carried out in accordance with the Golder's Geotechnical Report (1791863-001-R-Rev0-De BrueysLIV).
- A Road Safety Audit (RSA) is recommend to be performed on the road as no design improvements have been included as a part of this works.

**EXISTING SERVICES**

- The location of utility services as shown on the General Arrangement have been determined from information supplied by survey and DBYD search. The services shown on these plans are provided for information only and no responsibility is taken for the accuracy or completeness of the information supplied. The contractor shall confirm the location, level and sufficient cover to all utility services on site prior to construction.
- The Contractor is to ensure all services remain operational at all times. No work is to be carried out over utility services or within 3.0m of services without prior notification to the superintendent and obtaining approval to proceed.
- Refer to the relevant Consultant's design drawings for information regarding relocations and/or adjustments of existing services. Refer to the relevant design drawings to consider proposed services before commencing earthworks.
- Existing valves, hydrants, pits, manholes and water services shall be modified to suit final surface heights and roadworks.

**DRAINAGE NOTES**

- These notes are to be read in conjunction with the General Arrangement Plans.
- All drainage works are to be generally carried out in compliance with FNQROC Specification S4 Stormwater Drainage unless specified otherwise.
- New works shall not be connected to existing downstream stormwater infrastructure until all stormwater infrastructure and the surrounding catchment is stabilised. This is to prevent sediment entering the stormwater system.
- All field inlets/grated manholes and access lids/covers are to be wheelchair and bicycle safe in accordance with AS3996 and designed to load class D (210kN).
- Installation, bedding and backfilling to pipes shall be in accordance with FNQROC Standard Drawing S2016 for uPVCpipe, steel RHS pipes and S1046 for reinforced concrete pipes.
- The pipe class does not allow for construction loadings. The Contractor shall certify that minimum cover for construction loads is accommodated.
- The location and level of all services crossing proposed drainage lines must be confirmed prior to construction. Drainage line levels must be checked for conflict with services and advice sought from the Engineer/Designer if unsure.
- Existing stormwater drainage pipes, gullies and manholes within the limits of construction shall be retained unless noted otherwise on the drawings.

- Existing pipes shown to be abandoned are to be removed or capped and grouted with fully flowable concrete. Existing drainage structures shown to be abandoned are to be demolished, debris removed and backfilled in accordance with the project specification.
- Where a connection is to be made to an existing drainage pipe or drainage structure the level of that pipe or structure must be confirmed prior to the construction of the new drainage line.
- Refer TMR STD. DWG. 1033 for kerb and invert notes and details.
- Drainage outlet rock protection to be in accordance with DTMR MRTS03. Non-woven geotextile of Strength Class E and Filtration Class V to DTMR MRTS27 to be placed under and bedside all rock protection.
- Culverts to match existing, new culverts are to be installed as per the drawings with upstream invert level (USIL) and downstream invert level (DSIL) on the drawings are indicative and are to be confirmed on site.

**EARTHWORKS NOTES**

- All earthworks are to be in compliance with FNQROC specification S1 and AS3798, unless noted otherwise.
- Earthworks shall not encroach beyond defined property boundaries and limit of works (whichever is more stringent) unless approved by the Superintendent.
- Where proposed works join existing works or ground, the Contractor shall verify tie-in levels prior to commencement of construction.
- All subgrade material shall be removed, replaced and recompacted to 97% standard compaction in accordance with FNQROC Specification S1.
- Where the use of general fill is required a Class A material with a Min Soaked CBR of 10% (MRTS04) OR Subtype 2.3 material is to be utilised.
- Where existing ground surfaces are not required to be varied as part of the works, the Contractor shall restore them to the condition existing at the commencement of the work under the contract unless noted otherwise.
- The Contractor is to submit an Environmental Management Plan, Erosion and Sediment Control Plan and Waste Management Plan to the Superintendent for approval.
- The Contractor shall ensure that the works are carried out in accordance with all submitted plans during construction.
- The Contractor shall maintain adequate temporary drainage measures to ensure works are free draining.

**EROSION AND SEDIMENT CONTROL**

- The Contractor shall develop a detailed Erosion Sediment Control Plan (ESCP) for construction. The detailed ESCP shall be in accordance with the requirements below (based on the Queensland State Planning Policy, July 2017), and with all local planning requirements.
- The Contractor shall design temporary drainage works for the following design storms:
  - Disturbed area open for <12 months--1 in 2-year ARI event;

- Disturbed area open for 12-24 months--1 in 5-year ARI event;
  - Disturbed area open for > 24 months--1 in 10-year ARI event;
  - Note that the design capacity excludes minimum 150mm freeboard;
  - Temporary culvert crossing--minimum 1 in 1-year ARI hydraulic capacity.
- The ESCP shall meet the following erosion control objectives:
    - Minimise exposure of disturbed soils at any time e.g. soil stockpiles and unfinished earthworks to be suitably stabilised if disturbance is expected to be suspended for a period exceeding 5 days.
    - Divert water run-off from undisturbed areas around disturbed areas;
    - Determine the erosion risk rating using local rainfall erosivity, rainfall depth, soil-loss rate or other acceptable methods;
    - Implement erosion control methods corresponding to identified erosion risk rating.
  - The ESCP shall meet the following sediment control objectives:
    - Determine appropriate sediment control measures using either the potential soil loss rate, monthly erosivity, or average monthly rainfall;
    - Collect and drain stormwater from disturbed soils to sediment basin for design storm event: the design storm for sediment basin sizing is 80th% five-day event or similar;
    - Site discharge during sediment basin dewatering shall give TSS < 50 mg/l TSS, turbidity not >10% receiving waters turbidity, and ph 6.5-8.5.
  - The ESCP shall meet the following additional water quality objectives:
    - Avoid wind-blown litter; remove gross pollutants;
    - Ensure there is no visible oil or grease sheen on released waters;
    - Dispose of waste containing contaminants at authorised facilities.
  - The ESCP shall meet the following discharge rates into the receiving stormwater network or waterway:
    - For peak flow for the 1-year and 100-year ARI event, use constructed sediment basins to attenuate the discharge rate of stormwater from the site.
  - The Contractor shall ensure that erosion and sediment controls are maintained and in good working order at all times. The Contractor shall visually inspect ESC controls on a daily basis, and maintain records of these checks.

**PAVEMENT NOTES**

- All pavement works are to be in compliance with FNQROC Specification S2 and S7 unless noted otherwise.
- Prior to construction any soft or wet subgrade soils are to be identified and replaced with select material in accordance with FNQROC Specification S2.
  - The process to identify the soft or wet subgrade locations shall include an initial proof roll of the exposed subgrade (lower side of design subbase level). The proof roll shall be completed in accordance with MRTS04. Any area of subgrade displaying visual deflection under load, throughout the duration of the proof roll shall be marked for Dynamic Cone Penetrometer (DCP) testing.
  - DCP testing shall be undertaken to a minimum depth of 1.0 m below subgrade level in the areas of soft subgrade identified during proof roll. Where the DCP test indicates an inferred subgrade CBR strength less than CBR 3%, a minimum 250 mm of the subgrade shall be replaced with MRTS05 Subtype 2.3 material,

- unless otherwise stated in the pavement design profiles.
- Where existing pavement is to be widened, the Contractor is to confirm the existing profile and depths of layers at interface. Where the existing pavement is thicker than the proposed design, the subgrade of the proposed pavement profile is to be increased to match the existing.
  - Where new works join existing works, the Contractor shall confirm that existing works conform in line and level with that shown on the drawings before commencing work.
  - Refer proposed pavement design tables for assumed CBR. These are based on recommendations of Golder's Geotechnical Report which assumes site is to be prepared in accordance with section 9.1.1 of the report. CBR is to be confirmed on site by the Contractor, refer FNQROC S2 Specification (Road Pavements) for details.

**PROPOSED PAVEMENT DESIGN**

| Proposed Pavement Design Site A  |  |
|--|--|
| Based on Design CBR = 10%, DTL = 1.0E+5 DESAs  |  |
| Designed in Accordance with Austroads Figure 8.4 - Design Chart for Lightly Trafficked Granular Pavements with Thin Bituminous Surfacing |  |
| -  | 10mm Aggregate C320 Bitumen Seal (Second Coat) - Aggregate Application Rate 150 m <sup>2</sup> /m <sup>3</sup> Binder Application Rate 1.2L/m <sup>2</sup> |
| -  | 16mm Aggregate C320 Bitumen Seal (First Coat) - Aggregate Application Rate 95 m <sup>2</sup> /m <sup>3</sup> ; Binder Application Rate 1.6L/m <sup>2</sup> |
| -  | Prime AMCO   |
| 150mm  | Type 2.1 Base Course (Includes 20mm construction tolerance.)   |
| 150mm  | Type 2.3 Subbase   |
| 250mm  | Provisional (if ordered) geogrid wrapped Type 2.3 material with B or C grading envelope, subgrade treatment see pavement note 2.                           |
| Varies   | General Fill (where required) Class A MRTS04 Min Soaked CBR 10% or Subtype 2.3 material  |
| 300mm  | TOTAL DEPTH (including 20mm construction tolerance. Excluding improved subgrade treatment)   |
| -  | Design Subgrade CBR = 10%  |

| Proposed Pavement Design Site B  |  |
|--|--|
| Based on Design CBR = 10%, DTL = 1.0E+5 DESAs  |  |
| Designed in Accordance with Austroads Figure 8.4 - Design Chart for Lightly Trafficked Granular Pavements with Thin Bituminous Surfacing |  |
| -  | 10mm Aggregate C320 Bitumen Seal (Second Coat) - Aggregate Application Rate 150 m <sup>2</sup> /m <sup>3</sup> ; Binder Application Rate 1.2L/m <sup>2</sup> |
| -  | 16mm Aggregate C320 Bitumen Seal (First Coat) - Aggregate Application Rate 95 m <sup>2</sup> /m <sup>3</sup> ; Binder Application Rate 1.6L/m <sup>2</sup>   |
| -  | Prime AMCO   |
| 150mm  | Type 2.1 Base Course (Includes 20mm construction tolerance.)   |
| 150mm  | Type 2.3 Subbase   |
| 250mm  | Provisional (if ordered) geogrid wrapped Type 2.3 material with B or C grading envelope, subgrade treatment see pavement note 2.                             |
| 300mm  | TOTAL DEPTH (including 20mm construction tolerance. Excluding improved subgrade treatment)   |
| -  | Design Subgrade CBR = 10%  |

| Proposed Pavement Design Site C  |  |
|--|--|
| Based on Design CBR = 2%, DTL = 1.0E+5 DESAs   |  |
| Designed in Accordance with Austroads Figure 8.4 - Design Chart for Lightly Trafficked Granular Pavements with Thin Bituminous Surfacing |  |
| -  | 10mm Aggregate C320 Bitumen Seal (Second Coat) - Aggregate Application Rate 150 m <sup>2</sup> /m <sup>3</sup> ; Binder Application Rate 1.2L/m <sup>2</sup> |
| -  | 16mm Aggregate C320 Bitumen Seal (First Coat) - Aggregate Application Rate 95 m <sup>2</sup> /m <sup>3</sup> ; Binder Application Rate 1.6L/m <sup>2</sup>   |
| -  | PRIME AMCO Spray Rate 1.0L/m <sup>2</sup>  |
| 150mm  | Type 2.1 Base Course (Includes 20mm construction tolerance.)   |
| 330mm  | Type 2.3 Subbase (Placed in Two Layers)  |
| 150mm  | Provisional (If Ordered) Geotextile wrapped Type 2.3 material with B or C grading envelope   |
| 480mm  | TOTAL DEPTH (including 20mm construction tolerance, excluding Improved Subgrade)   |
| -  | Design Subgrade CBR = 2%   |

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RPEQ No. #

| Issue | Description                    | Date     | By  | Chkd | Appd |
|-------|--------------------------------|----------|-----|------|------|
| A     | ISSUED FOR APPROVAL            | 19/07/12 | GOD | JH   | AWS  |
| T1    | ISSUED FOR TENDER AND APPROVAL | 19/11/18 | GOD | JH   |      |

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Client  
**R.A. FUNCTION SERVICES PTY LTD**

Job Title  
**DE BRUEYS WINERY UPGRADE**

Discipline  
**CIVIL**

Job No  
**260361-00**

Drawing Status  
**ISSUE FOR APPROVAL**

Drawing No  
**260361-CIAL-DRG-202**

Issue  
**A**

Scale at A1 NOT TO SCALE

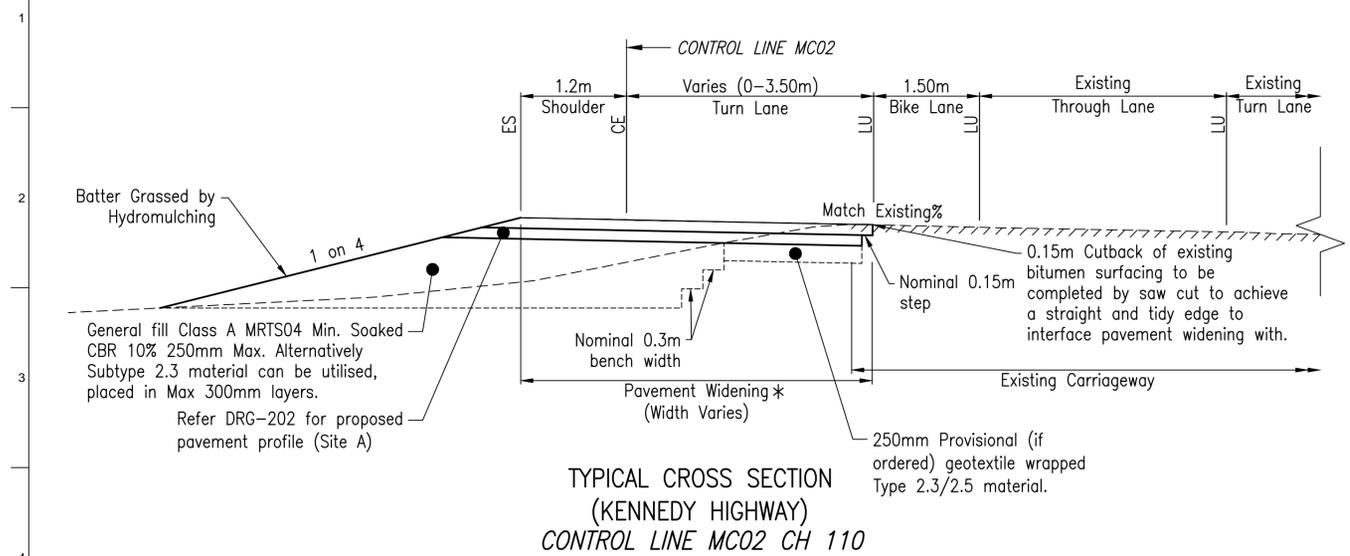
Discipline CIVIL

Job No 260361-00

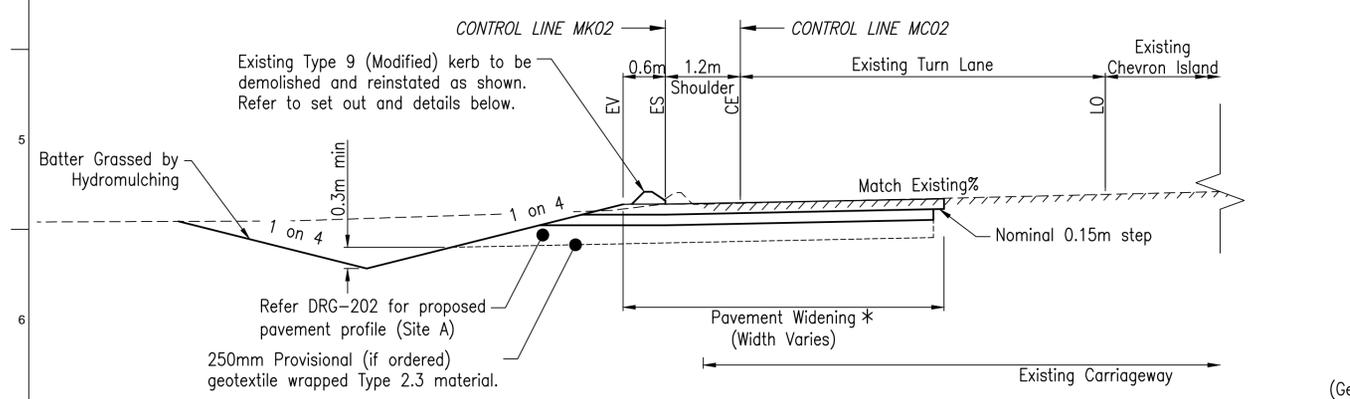
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Drawing No 260361-CIAL-DRG-202

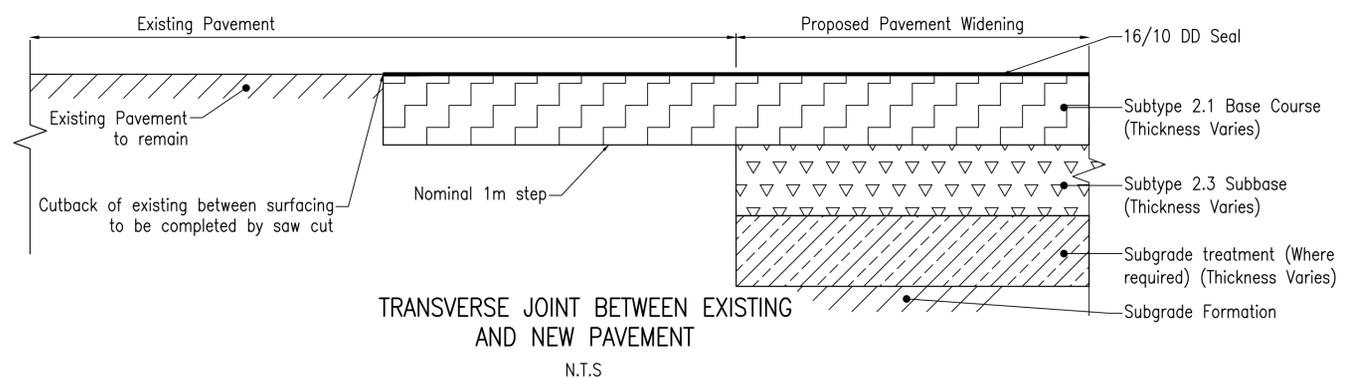
Issue A



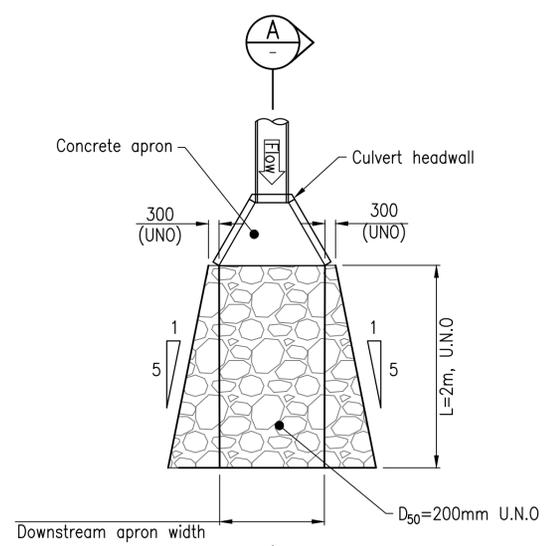
TYPICAL CROSS SECTION  
(KENNEDY HIGHWAY)  
CONTROL LINE MC02 CH 110



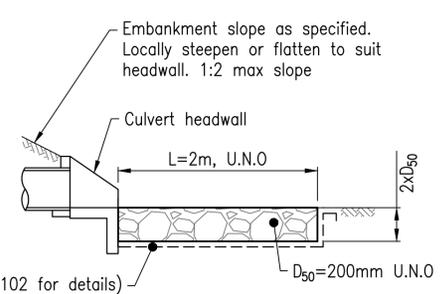
TYPICAL CROSS SECTION  
(KENNEDY HIGHWAY)  
CONTROL LINE MC02 CH 200



TRANSVERSE JOINT BETWEEN EXISTING  
AND NEW PAVEMENT  
N.T.S.



ROCK PROTECTION - TYPE A  
PLAN  
N.T.S.



SECTION A  
N.T.S.  
Detail for headwall outlet directly  
into basin to be similar

- NOTES**
- Refer DWG. 260361-CIAL-DRG-202 for General Notes.
  - Refer DWG. 260361-CIAL-DRG-221 for Crossfall Details.

- LEGEND**
- CE = Carriageway Edge
  - ES = Edge of Shoulder
  - EV = Edge of Verge
  - LU = Lane Line Unbroken
  - LO = Outline Marking

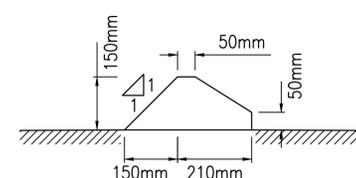
**SURFACING TREATMENTS BITUMEN SEALING**  
(Double/Double)

Second seal (C320), spray rate 1.2L/m<sup>2</sup>, 10mm precoated aggregate, spread rate 150m<sup>2</sup>/m<sup>3</sup>

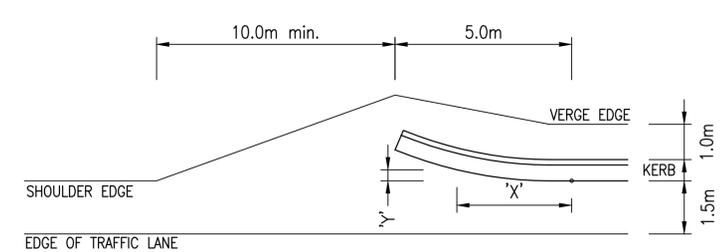
Seal (C320), spray rate 1.6L/m<sup>2</sup>, First seal, 16mm precoated aggregate, spread rate 95m<sup>2</sup>/m<sup>3</sup>

Prime (AMC0), spray rate 1.0L/m<sup>2</sup>

Note: All bitumen surfacing spray and spread rates are nominal and supplied for estimating purpose only. Actual rates are to be designed and approved prior to sprayed seal works commencing.



KERB TYPE 9 (MODIFIED)  
N.T.S.



KERB FLARE DETAIL  
N.T.S.

**FLARE OFFSETS**

| LENGTH OF FLARE 5.0m |           |
|----------------------|-----------|
| DIST. 'X'            | DIST. 'Y' |
| 1.0                  | 0.04      |
| 2.0                  | 0.16      |
| 3.0                  | 0.36      |
| 4.0                  | 0.64      |
| 5.0                  | 1.00      |

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RPEQ No. #

| Issue | Description                    | Date     | By  | Chkd | Appd |
|-------|--------------------------------|----------|-----|------|------|
| A     | ISSUED FOR APPROVAL            | 19/07/12 | GOD | JH   | AWS  |
| T1    | ISSUED FOR TENDER AND APPROVAL | 19/11/18 | GOD | JH   |      |

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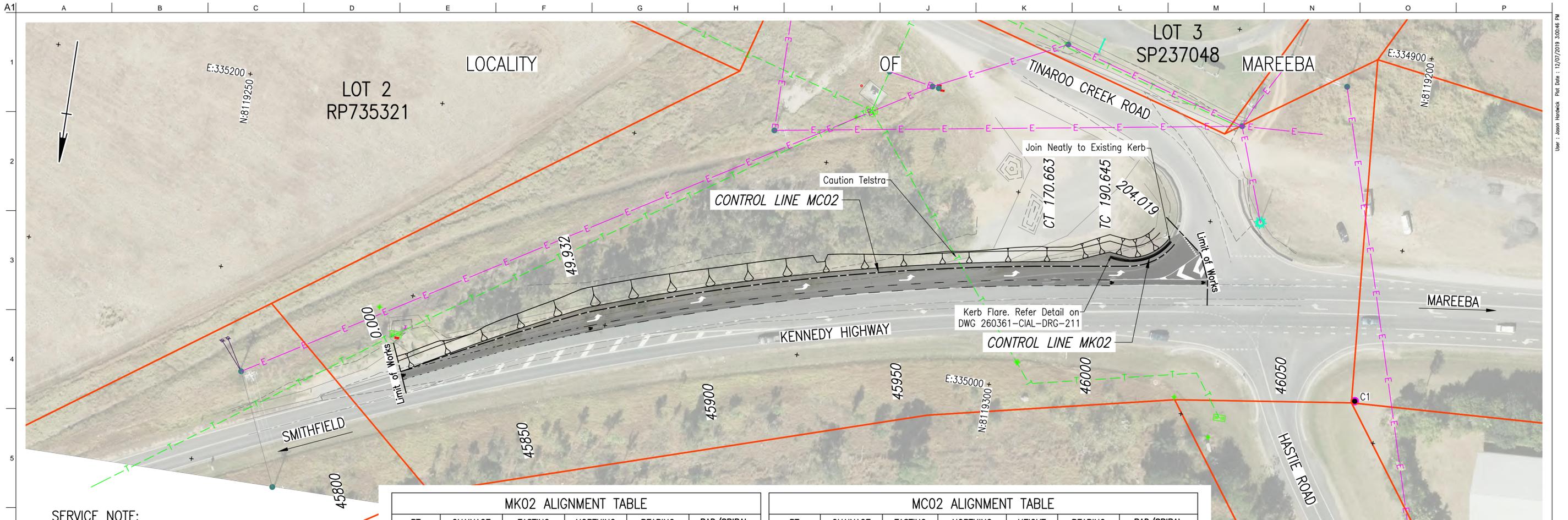
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ABN 19 000 966 165

Client  
**R.A. FUNCTION SERVICES PTY LTD**  
Job Title  
**DE BRUEYS WINERY UPGRADE**

**DE BRUEYS BOUTIQUE WINES**

**SITE A  
TYPICAL SECTIONS  
AND DETAILS**

Scale at A1 1:20  
Discipline CIVIL  
Job No 260361-00 Drawing Status **ISSUE FOR APPROVAL**  
Drawing No 260361-CIAL-DRG-211 Issue **A**



**SERVICE NOTE:**  
Caution Telstra. Exact Location to be Determined on Site.

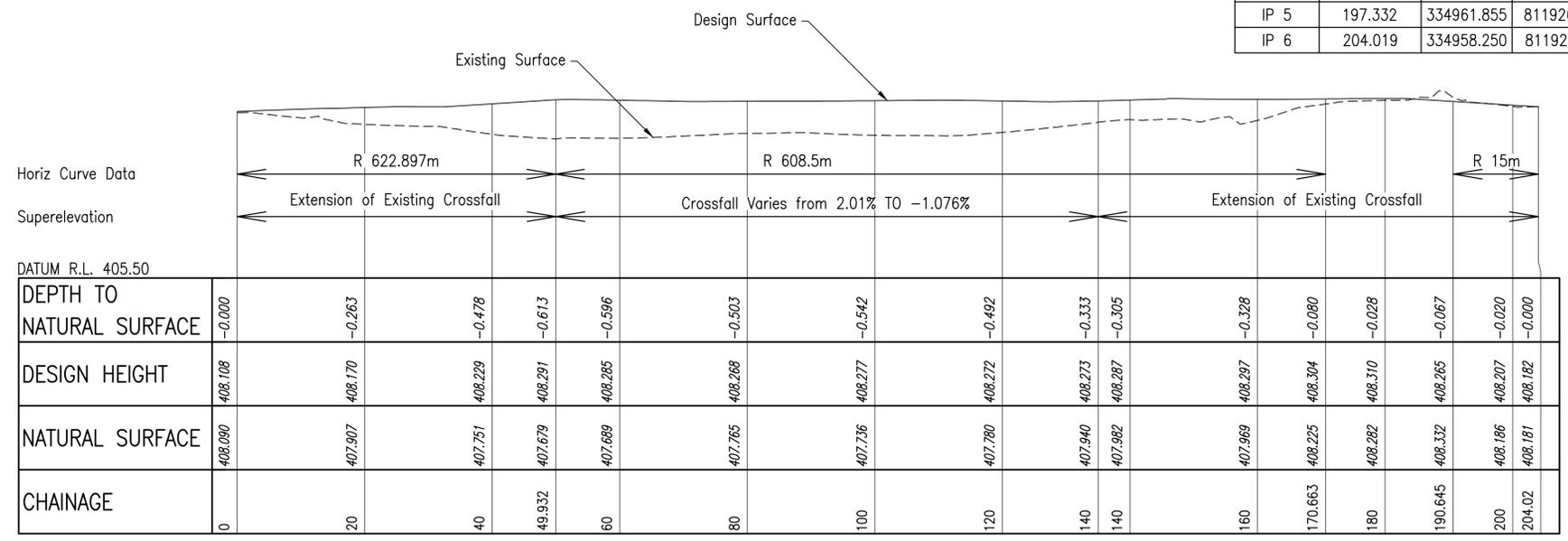
| MK02 ALIGNMENT TABLE |          |            |             |               |             |
|----------------------|----------|------------|-------------|---------------|-------------|
| PT                   | CHAINAGE | EASTING    | NORTHING    | BEARING       | RAD/SPIRAL  |
| IP 1                 | 0.000    | 334974.156 | 8119263.099 | 281°56'06.75" |             |
| CT                   | 5.069    | 334969.122 | 8119263.338 |               |             |
| IP 3                 | 11.297   | 334962.411 | 8119262.628 |               | R = -13.042 |
| IP 4                 | 17.526   | 334959.114 | 8119256.739 | 209°14'11.74" |             |

| MC02 ALIGNMENT TABLE |          |            |             |         |               |             |
|----------------------|----------|------------|-------------|---------|---------------|-------------|
| PT                   | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING       | RAD/SPIRAL  |
| IP 1                 | 0.000    | 335150.134 | 8119319.764 |         | 241°16'09.15" |             |
| IP 2                 | 24.966   | 335128.230 | 8119307.757 | 408.182 |               | R = 622.897 |
| IP 3                 | 49.932   | 335105.435 | 8119297.542 | 408.291 |               |             |
| IP 4                 | 110.297  | 335048.556 | 8119276.739 | 408.285 |               | R = 608.500 |
| CT                   | 170.663  | 334988.692 | 8119267.555 | 408.304 | 261°16'40.94" |             |
| TC                   | 190.645  | 334968.940 | 8119264.524 | 408.265 | 261°16'40.94" |             |
| IP 5                 | 197.332  | 334961.855 | 8119263.437 | 408.223 |               | R = -15.000 |
| IP 6                 | 204.019  | 334958.250 | 8119257.241 |         | 210°11'31.24" |             |

| Survey Control |            |             |           |             |
|----------------|------------|-------------|-----------|-------------|
| Point          | Easting    | Northing    | Elevation | Description |
| C1             | 334906.267 | 8119290.006 | 408.356   | OPSM 54838  |

- NOTES**
- Refer DWG. 260361-CIAL-DRG-202 for General Notes.
  - Refer DWG. 260361-CIAL-DRG-211 & 212 for Typical Sections & Details.

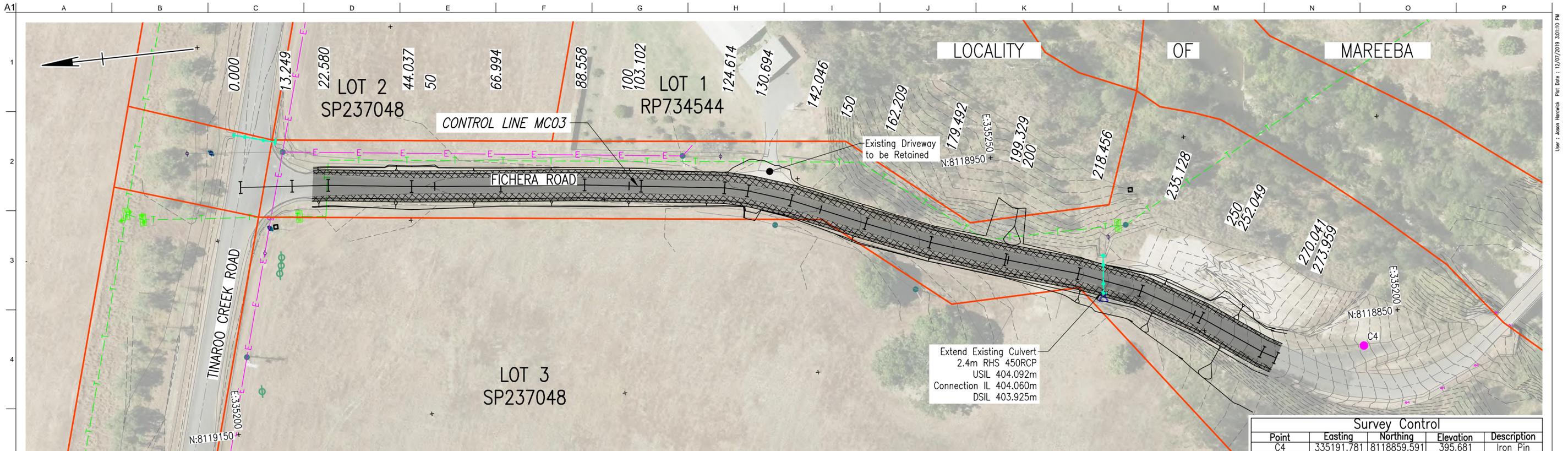
- LEGEND**
- Existing Minor Contours
  - 418 Existing Major Contours
  - Permanent Survey Mark (OPSM)
  - Property Boundary (DCDB)
  - Existing Electrical Line (Above Ground)
  - Existing Transformer
  - Existing Stay Wires
  - Existing Stay Wire Ground Connection
  - Existing Power Pole
  - Existing Light Pole
  - Existing Electrical Manhole
  - Existing Electrical Marker
  - Existing Electrical Box
  - Existing Telephone Pit
  - Existing Telecom Line
  - Existing Telecom Misc
  - Existing Telecom Pillar
  - C1 Survey Control Point



LONGITUDINAL SECTION MC02

**NOT FOR CONSTRUCTION**

| <p>Approved by:<br/>Name</p> <p>RPEQ No. #</p> | <table border="1"> <tr> <th>Issue</th> <th>Description</th> <th>Date</th> <th>By</th> <th>Chkd</th> <th>Appd</th> </tr> <tr> <td>A</td> <td>ISSUED FOR APPROVAL</td> <td>19/07/12</td> <td>GOD</td> <td>JH</td> <td>AWS</td> </tr> <tr> <td>T1</td> <td>ISSUED FOR TENDER AND APPROVAL</td> <td>19/11/18</td> <td>GOD</td> <td>JH</td> <td></td> </tr> </table> | Issue    | Description | Date | By   | Chkd | Appd | A | ISSUED FOR APPROVAL | 19/07/12 | GOD | JH | AWS | T1 | ISSUED FOR TENDER AND APPROVAL | 19/11/18 | GOD | JH |  | <p><b>ARUP</b></p> <p>Level 10, 15 Lake Street<br/>Cairns City, Qld, Australia<br/>Tel + 61(7) 4032 600 Fax +61(7) 4032 6001<br/>www.arup.com</p> | <p>Client<br/><b>R.A. FUNCTION SERVICES PTY LTD</b></p> <p>Job Title<br/><b>DE BRUEYS WINERY UPGRADE</b></p> | <p><b>DE BRUEYS BOUTIQUE WINES</b></p> | <p><b>SITE A GENERAL ARRANGEMENT</b></p> | <p>Scale at A1 H1:500 V1:50</p> <p>Discipline CIVIL</p> <p>Job No <b>260361-00</b> Drawing Status <b>ISSUE FOR APPROVAL</b></p> <p>Drawing No <b>260361-CIAL-DRG-221</b> Issue <b>A</b></p> |
|--|---|----------|-------------|------|------|------|------|---|---------------------|----------|-----|----|-----|----|--------------------------------|----------|-----|----|--|---|--|--|--|---|
| Issue  | Description   | Date     | By          | Chkd | Appd |      |      |   |                     |          |     |    |     |    |                                |          |     |    |  |   |  |  |  |   |
| A  | ISSUED FOR APPROVAL   | 19/07/12 | GOD         | JH   | AWS  |      |      |   |                     |          |     |    |     |    |                                |          |     |    |  |   |  |  |  |   |
| T1   | ISSUED FOR TENDER AND APPROVAL  | 19/11/18 | GOD         | JH   |      |      |      |   |                     |          |     |    |     |    |                                |          |     |    |  |   |  |  |  |   |



**SERVICE NOTE:**

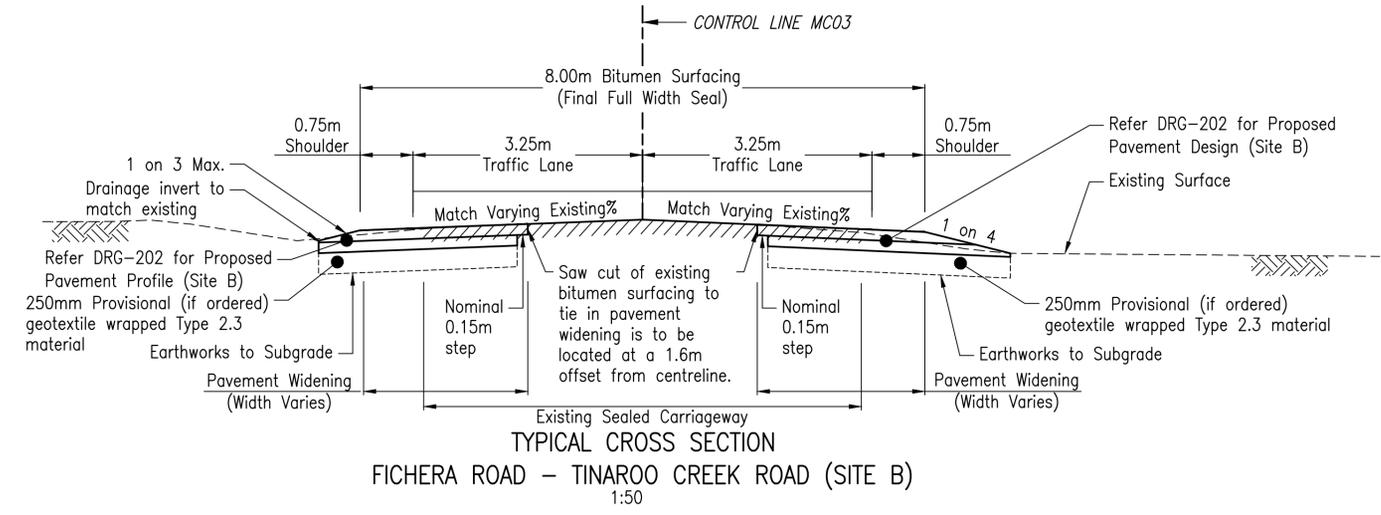
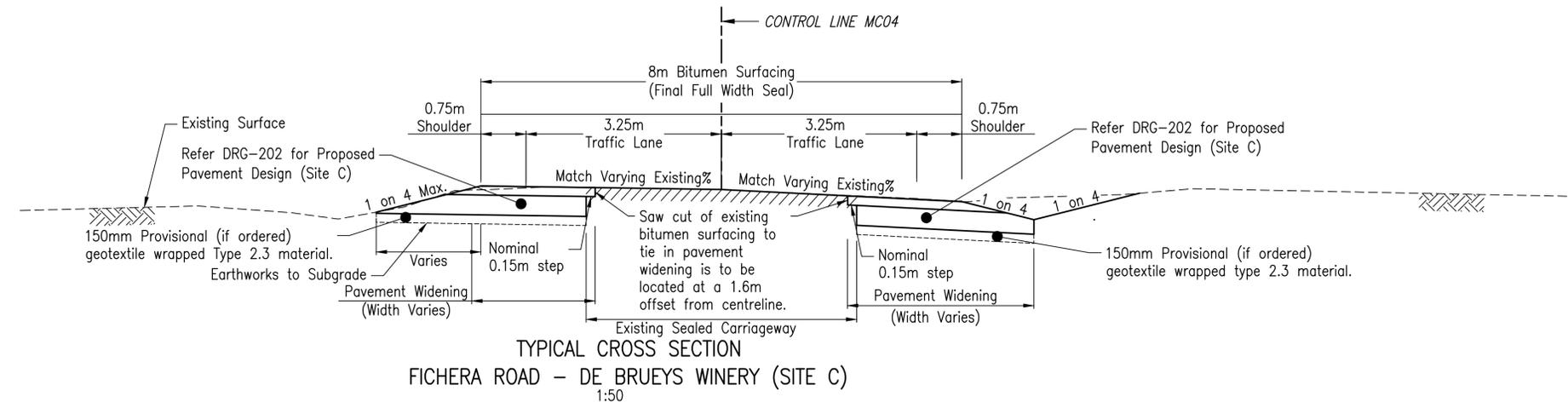
Caution Telstra. Exact Location to be Determined on Site.

**NOTES**

1. Refer DWG. 260361-CIAL-DRG-202 for General Notes.
2. Existing Seal to be Confirmed During Construction.
3. Refer DWG. 224 for alignment table.

**LEGEND**

- Final Sealed Width
- Pavement Widening
- Batter Tick
- Existing Minor Contours
- Existing Major Contours
- Permanent Survey Mark (OPSM)
- Property Boundary (DCDB)
- Existing Electrical Line (Above Ground)
- Existing Transformer
- Existing Stay Wires
- Existing Stay Wire Ground Connection
- Existing Power Pole
- Existing Light Pole
- Existing Electrical Manhole
- Existing Electrical Marker
- Existing Electrical Box
- Existing Telephone Pit
- Existing Telecom Line
- Existing Telecom Misc
- Existing Telecom Pillar
- Survey Control Point



**SURFACING TREATMENTS BITUMEN SEALING**

- (Double/Double)
  - Second seal (C320), spray rate 1.2L/m<sup>2</sup>, 10mm precoated aggregate, spread rate 150m<sup>2</sup>/m<sup>3</sup>
  - Seal (C320), spray rate 1.6L/m<sup>2</sup>, First seal, 16mm precoated aggregate, spread rate 95m<sup>2</sup>/m<sup>3</sup>
  - Prime (AMC0), spray rate 1.0L/m<sup>2</sup>
- Note: All bitumen surfacing spray and spread rates are nominal and supplied for estimating purpose only. Actual rates are to be designed and approved prior to sprayed seal works commencing.

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Name  
  
RPEQ No. #

| Issue | Description                    | Date     | By  | Chkd | Appd |
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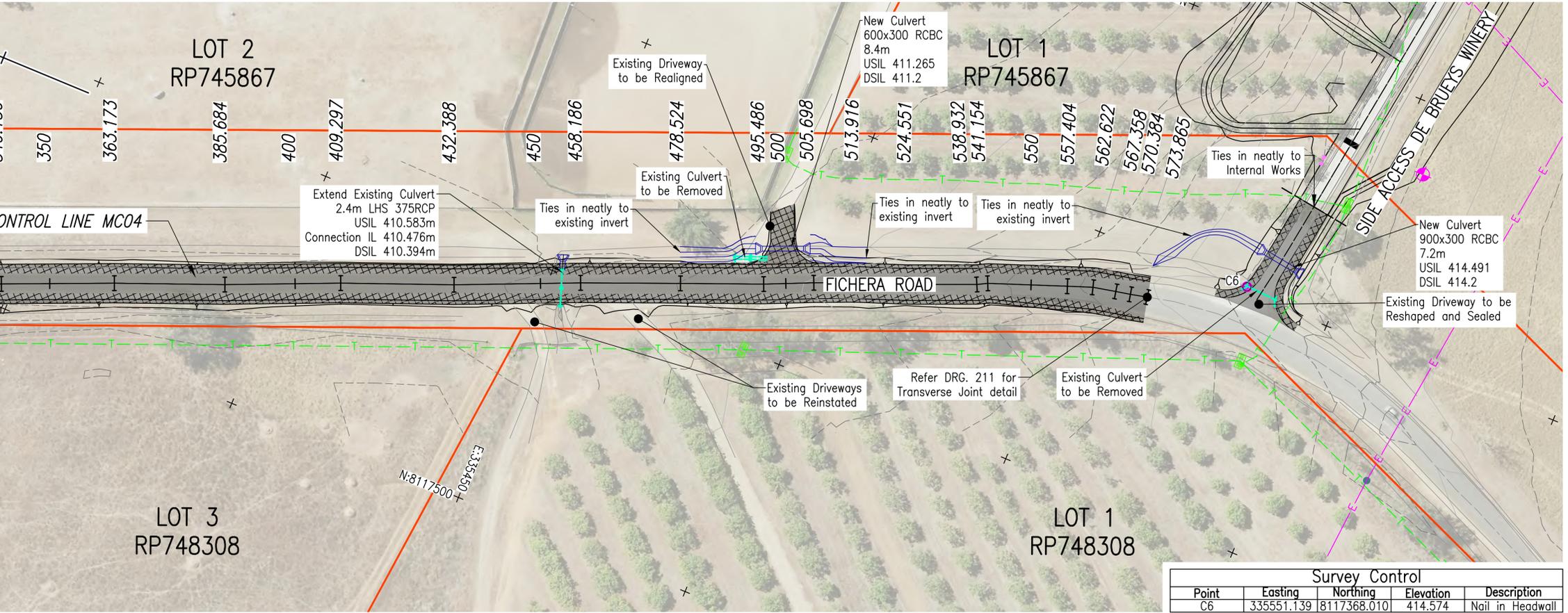
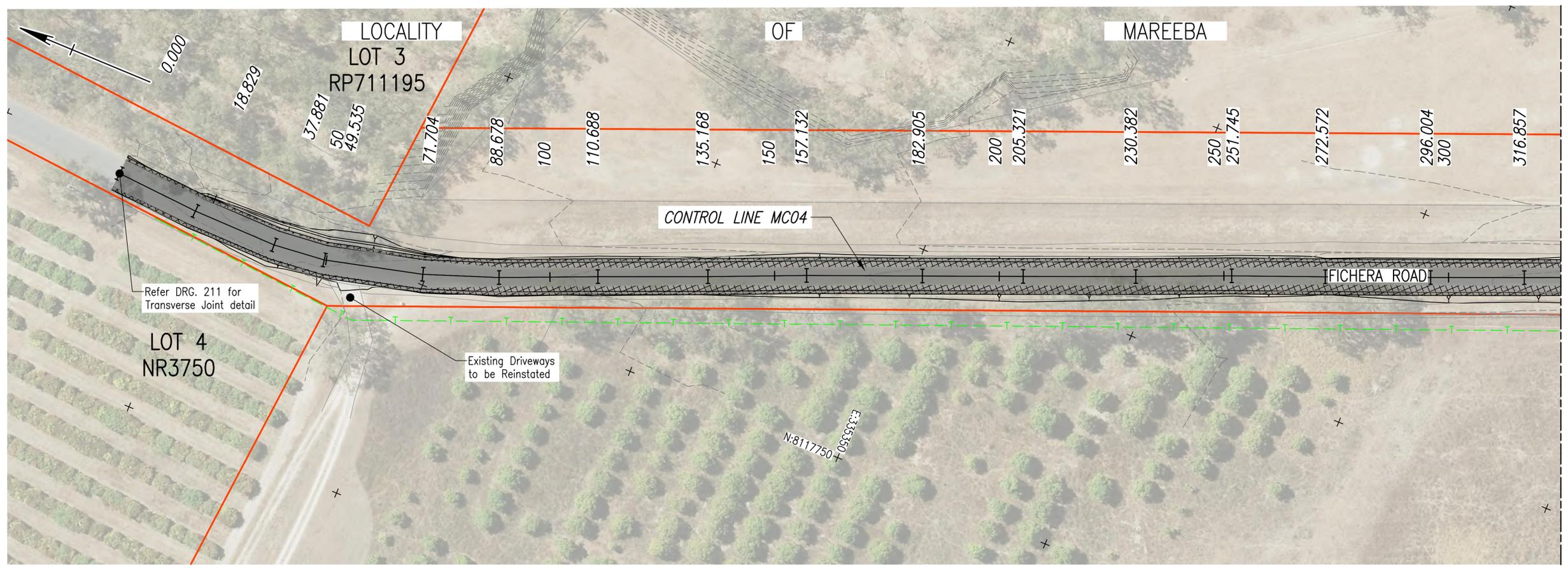


DE BRUEYS BOUTIQUE WINES

Client: R.A. FUNCTION SERVICES PTY LTD  
Job Title: DE BRUEYS WINERY UPGRADE

**SITE B GENERAL ARRANGEMENT AND TYPICAL SECTIONS**

|                                 |                                    |
|---------------------------------|------------------------------------|
| Scale at A1: 1:500              | Discipline: CIVIL                  |
| Job No: 260361-00               | Drawing Status: ISSUE FOR APPROVAL |
| Drawing No: 260361-CIAL-DRG-222 | Issue: A                           |



- NOTES**
1. For Typical Section, Refer Dwg. 222
  2. Refer DWG. 224 for alignment table.

- LEGEND**
- Final Sealed Width
  - Pavement Widening
  - Survey Control Point

| Survey Control |            |             |           |                  |
|----------------|------------|-------------|-----------|------------------|
| Point          | Easting    | Northing    | Elevation | Description      |
| C6             | 335551.139 | 8117368.010 | 414.574   | Nail in Headwall |

**NOT FOR CONSTRUCTION**

Approved by:  
Name

RPEQ No. #

| Issue | Description                    | Date     | By  | Chkd | Appd |
|-------|--------------------------------|----------|-----|------|------|
| A     | ISSUED FOR APPROVAL            | 19/07/12 | GOD | JH   | AWS  |
| T1    | ISSUED FOR TENDER AND APPROVAL | 19/11/18 | GOD | JH   |      |

**ARUP**

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Client  
**R.A. FUNCTION SERVICES PTY LTD**

Job Title  
**DE BRUEYS WINERY UPGRADE**

**DE BRUEYS BOUTIQUE WINES**

**SITE C  
GENERAL ARRANGEMENT**

Scale at A1 1:500

Discipline CIVIL

Job No **260361-00** Drawing Status **ISSUE FOR APPROVAL**

Drawing No **260361-CIAL-DRG-223** Issue **A**

**MC03 CONTROL LINE SETOUT**

| PT    | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING       |
|-------|----------|------------|-------------|---------|---------------|
| IP 1  | 0.000    | 335263.055 | 8119142.730 | 408.488 | 184°42'35.80" |
| IP 2  | 13.249   | 335261.967 | 8119129.526 | 408.404 |               |
| IP 3  | 22.580   | 335261.201 | 8119120.227 | 408.423 |               |
| IP 4  | 44.037   | 335258.602 | 8119098.928 | 408.470 |               |
| IP 5  | 66.994   | 335256.253 | 8119076.091 | 408.674 |               |
| IP 6  | 88.558   | 335254.236 | 8119054.621 | 408.765 |               |
| IP 7  | 103.102  | 335252.357 | 8119040.199 | 408.861 |               |
| IP 8  | 124.614  | 335249.639 | 8119018.860 | 408.960 |               |
| IP 9  | 130.694  | 335248.220 | 8119012.948 | 409.001 |               |
| IP 10 | 142.046  | 335244.608 | 8119002.186 | 408.797 |               |
| IP 11 | 162.209  | 335236.632 | 8118983.668 | 407.940 |               |
| IP 12 | 179.492  | 335230.059 | 8118967.684 | 406.813 |               |
| IP 13 | 199.329  | 335223.576 | 8118948.936 | 405.866 |               |
| IP 14 | 218.456  | 335217.999 | 8118930.640 | 405.106 |               |
| IP 15 | 235.128  | 335211.869 | 8118915.136 | 403.862 |               |
| IP 16 | 252.049  | 335203.367 | 8118900.506 | 402.238 |               |
| IP 17 | 270.041  | 335192.973 | 8118885.820 | 399.983 |               |
| IP 18 | 287.185  | 335184.527 | 8118870.900 | 397.844 |               |
| IP 19 | 293.615  | 335182.129 | 8118864.934 | 397.001 |               |
| IP 20 | 305.788  | 335179.775 | 8118852.991 | 395.241 |               |
| IP 21 | 312.931  | 335180.804 | 8118845.922 | 393.939 |               |
| IP 22 | 321.973  | 335184.260 | 8118837.566 | 392.583 |               |
| IP 23 | 328.350  | 335187.245 | 8118831.932 | 391.708 |               |
| IP 24 | 333.739  | 335190.598 | 8118827.713 | 390.945 |               |
| IP 25 | 339.935  | 335194.409 | 8118822.827 | 390.580 |               |
| IP 26 | 349.003  | 335200.323 | 8118815.954 | 390.578 |               |
| IP 27 | 366.930  | 335212.068 | 8118802.410 | 390.603 |               |
| IP 28 | 380.155  | 335220.411 | 8118792.148 | 391.940 |               |
| IP 29 | 390.840  | 335227.408 | 8118784.073 | 393.257 |               |
| IP 30 | 408.931  | 335239.227 | 8118770.377 | 395.896 |               |
| IP 31 | 425.088  | 335249.556 | 8118757.951 | 397.945 |               |
| IP 32 | 431.229  | 335253.475 | 8118753.224 | 398.652 | 140°20'03.92" |

**MC04 CONTROL LINE SETOUT**

| PT    | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING       |
|-------|----------|------------|-------------|---------|---------------|
| IP 1  | 0.000    | 335347.086 | 8117921.769 | 408.764 | 183°47'34.15" |
| IP 2  | 18.829   | 335345.840 | 8117902.981 | 409.196 |               |
| IP 3  | 37.881   | 335345.599 | 8117883.931 | 408.957 |               |
| IP 4  | 49.535   | 335346.794 | 8117872.338 | 408.960 |               |
| IP 5  | 71.704   | 335352.249 | 8117850.851 | 409.202 |               |
| IP 6  | 88.678   | 335358.088 | 8117834.913 | 409.405 |               |
| IP 7  | 110.688  | 335366.703 | 8117814.659 | 409.555 |               |
| IP 8  | 135.168  | 335376.072 | 8117792.043 | 409.828 |               |
| IP 9  | 157.132  | 335384.741 | 8117771.862 | 409.934 |               |
| IP 10 | 182.905  | 335394.496 | 8117748.006 | 410.069 |               |
| IP 11 | 205.321  | 335402.997 | 8117727.265 | 410.159 |               |
| IP 12 | 230.382  | 335412.574 | 8117704.106 | 410.218 |               |
| IP 13 | 251.745  | 335420.899 | 8117684.432 | 410.243 |               |
| IP 14 | 272.572  | 335428.685 | 8117665.115 | 410.341 |               |
| IP 15 | 296.004  | 335437.514 | 8117643.410 | 410.408 |               |
| IP 16 | 316.857  | 335445.484 | 8117624.140 | 410.543 |               |
| IP 17 | 340.150  | 335454.466 | 8117602.648 | 410.641 |               |
| IP 18 | 363.173  | 335463.429 | 8117581.441 | 410.691 |               |
| IP 19 | 385.684  | 335471.783 | 8117560.538 | 410.677 |               |
| IP 20 | 409.297  | 335481.108 | 8117538.844 | 410.765 |               |
| IP 21 | 432.388  | 335489.637 | 8117517.387 | 410.906 |               |
| IP 22 | 458.186  | 335499.879 | 8117493.709 | 411.142 |               |
| IP 23 | 478.524  | 335507.574 | 8117474.883 | 411.514 |               |
| IP 24 | 495.486  | 335513.938 | 8117459.160 | 411.852 |               |
| IP 25 | 505.698  | 335518.097 | 8117449.833 | 412.036 |               |
| IP 26 | 513.916  | 335521.300 | 8117442.265 | 412.221 |               |
| IP 27 | 524.551  | 335524.996 | 8117432.293 | 412.479 |               |
| IP 28 | 538.932  | 335530.505 | 8117419.009 | 412.830 |               |
| IP 29 | 541.154  | 335531.567 | 8117417.057 | 412.875 |               |
| IP 30 | 557.404  | 335537.240 | 8117401.829 | 413.420 |               |
| IP 31 | 562.622  | 335539.043 | 8117396.933 | 413.587 |               |
| IP 32 | 567.358  | 335540.038 | 8117392.303 | 413.746 |               |

**MC04 CONTROL LINE SETOUT**

| PT    | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING       |
|-------|----------|------------|-------------|---------|---------------|
| IP 33 | 570.384  | 335540.638 | 8117389.337 | 413.812 |               |
| IP 34 | 579.388  | 335542.689 | 8117380.569 | 414.110 |               |
| IP 35 | 588.556  | 335543.785 | 8117371.467 | 414.373 |               |
| IP 36 | 596.366  | 335543.783 | 8117363.657 | 414.557 |               |
| IP 37 | 600.636  | 335543.396 | 8117359.405 | 414.689 |               |
| IP 38 | 611.077  | 335542.728 | 8117348.985 | 415.099 |               |
| IP 39 | 620.089  | 335540.963 | 8117340.147 | 415.430 |               |
| IP 40 | 625.518  | 335538.867 | 8117335.140 | 415.630 |               |
| IP 41 | 630.356  | 335537.423 | 8117330.522 | 416.194 |               |
| IP 42 | 639.606  | 335533.885 | 8117321.975 | 415.950 |               |
| IP 43 | 649.846  | 335529.326 | 8117312.806 | 416.071 |               |
| IP 44 | 655.785  | 335527.113 | 8117307.295 | 416.147 |               |
| IP 45 | 673.804  | 335519.553 | 8117290.939 | 416.337 |               |
| IP 46 | 676.273  | 335518.660 | 8117288.637 | 416.355 |               |
| IP 47 | 693.689  | 335511.346 | 8117272.831 | 416.451 |               |
| IP 48 | 696.054  | 335510.494 | 8117270.625 | 416.499 |               |
| IP 49 | 710.292  | 335504.762 | 8117257.591 | 416.829 |               |
| IP 50 | 715.147  | 335502.705 | 8117253.194 | 416.870 |               |
| IP 51 | 727.158  | 335497.893 | 8117242.189 | 417.171 |               |
| IP 52 | 727.703  | 335497.747 | 8117241.664 | 417.264 |               |
| IP 53 | 745.609  | 335490.607 | 8117225.243 | 417.573 |               |
| IP 54 | 746.794  | 335490.005 | 8117224.222 | 417.582 |               |
| IP 55 | 763.698  | 335483.116 | 8117208.786 | 418.024 |               |
| IP 56 | 775.201  | 335478.588 | 8117198.211 | 418.220 |               |
| IP 57 | 781.562  | 335475.932 | 8117192.431 | 418.430 |               |
| IP 58 | 794.992  | 335470.537 | 8117180.133 | 418.776 |               |
| IP 59 | 817.010  | 335461.981 | 8117159.845 | 419.211 |               |
| IP 60 | 839.262  | 335452.487 | 8117139.721 | 420.035 |               |
| IP 61 | 857.802  | 335445.341 | 8117122.613 | 420.904 |               |
| IP 62 | 880.499  | 335436.006 | 8117101.924 | 421.967 |               |
| IP 63 | 899.749  | 335428.061 | 8117084.390 | 422.210 | 204°22'33.97" |

**NOT FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date     | By  | Chkd | Appd |
|-------|--------------------------------|----------|-----|------|------|
| A     | ISSUED FOR APPROVAL            | 19/07/12 | GOD | JH   | AWS  |
| T1    | ISSUED FOR TENDER AND APPROVAL | 19/11/18 | GOD | JH   |      |



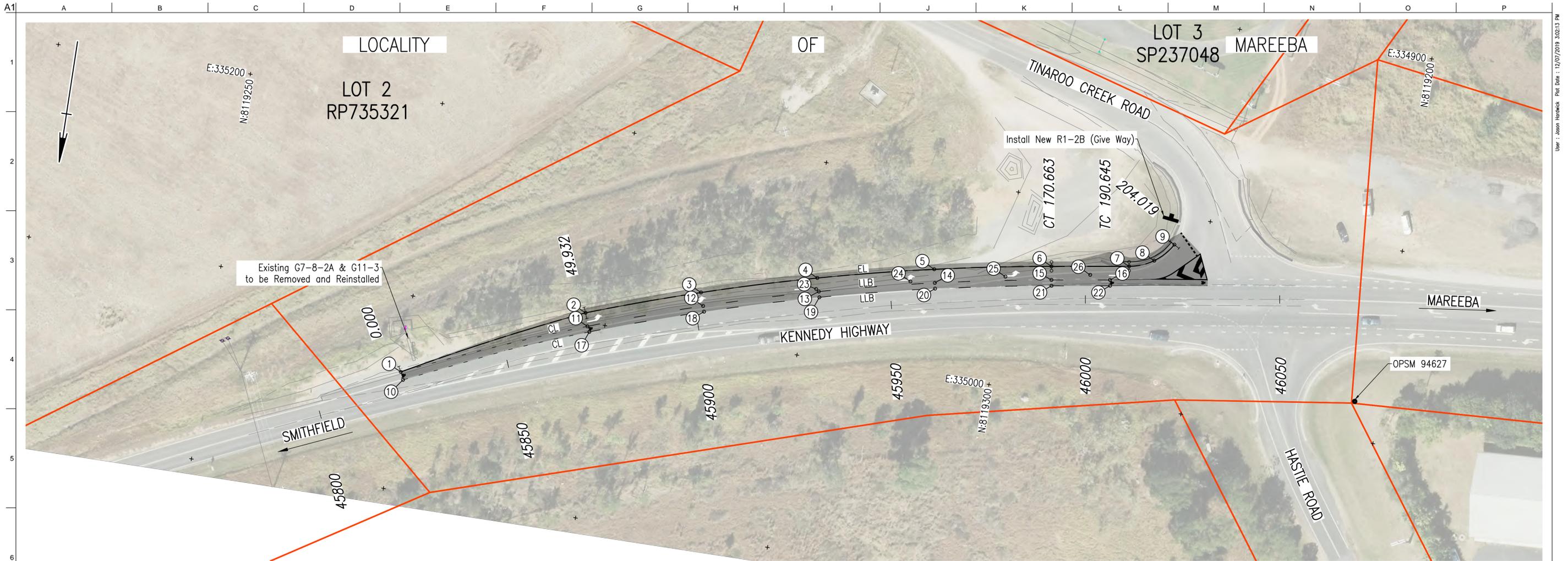
DE BRUEYS BOUTIQUE WINES

Client  
**R.A. FUNCTION SERVICES PTY LTD**

Job Title  
**DE BRUEYS WINERY UPGRADE**

**SITE B&C ALIGNMENT TABLES**

Scale at A1 NOT TO SCALE  
Discipline CIVIL  
Job No **260361-00** Drawing Status **ISSUE FOR APPROVAL**  
Drawing No **260361-CIAL-DRG-224** Issue **A**



**PAVEMENT MARKING SETOUT**

| POINT No. | EASTING    | NORTHING    |
|-----------|------------|-------------|
| 1         | 335150.134 | 8119319.764 |
| 2         | 335105.434 | 8119297.547 |
| 3         | 335076.843 | 8119287.881 |
| 4         | 335047.808 | 8119279.651 |
| 5         | 335018.400 | 8119272.869 |
| 6         | 334988.692 | 8119267.555 |
| 7         | 334968.940 | 8119264.524 |
| 8         | 334962.770 | 8119262.095 |
| 9         | 334958.250 | 8119257.241 |
| 10        | 335149.264 | 8119321.694 |
| 11        | 335104.418 | 8119300.902 |
| 12        | 335075.779 | 8119291.221 |
| 13        | 335046.912 | 8119283.039 |
| 14        | 335017.732 | 8119276.310 |
| 15        | 334988.166 | 8119271.015 |
| 16        | 334973.292 | 8119268.733 |
| 17        | 335103.719 | 8119302.244 |
| 18        | 335075.329 | 8119292.634 |
| 19        | 335046.528 | 8119284.489 |
| 20        | 335017.451 | 8119277.753 |
| 21        | 334987.937 | 8119272.497 |
| 22        | 334973.040 | 8119270.212 |
| 23        | 335047.684 | 8119282.488 |
| 24        | 335024.000 | 8119276.889 |
| 25        | 335000.008 | 8119271.975 |
| 26        | 334978.506 | 8119268.209 |

**NOTE**

1. All Pavement Marking and Signage to be in Accordance with (MUTCD) Manual of Uniform Traffic Control Devices, Unless Specified Otherwise.
2. Retroreflective Raised Pavement Markers (RRPM's) are to be Installed in Accordance with (MUTCD) Manual of Uniform Traffic Control Devices, Unless Specified Otherwise.
3. All Dimensions to be Confirmed on Site Prior to Linemarking.
4. No RRPM's in Diagonal Marking, for High Angle Left Turn Markings.
5. All REGP's are to be Removed and Reinstalled.

**GENERAL LEGEND**

- - - CL - - - Continuity Line, 150mm Wide Dashed, White (WB), Yellow Uni-Directional RRPMs @ 24m crs
- - - LLB - - - Lane Line Broken, 150mm Wide Dashed, White (WB), Yellow Uni-Directional RRPMs @ 24m crs
- EL ——— Edge Line, 150mm Wide White (WB), Red Uni-Directional RRPMs @ 24m crs
- +— New Sign and Support – Single Post
- +— Existing Sign and Support – Double Post
- ① Setout Point
- ↩ Left Turn Arrow

**NOT FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date     | By  | Chkd | Appd |
|-------|--------------------------------|----------|-----|------|------|
| A     | ISSUED FOR APPROVAL            | 19/07/12 | GOD | JH   | AWS  |
| T1    | ISSUED FOR TENDER AND APPROVAL | 19/11/18 | GOD | JH   |      |

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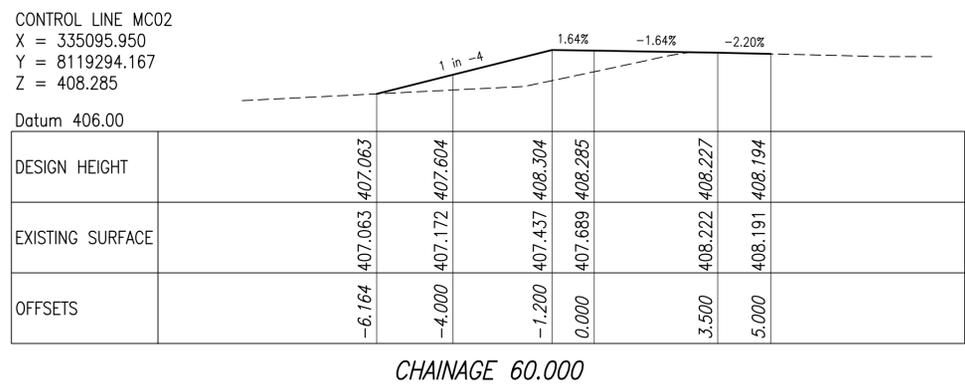
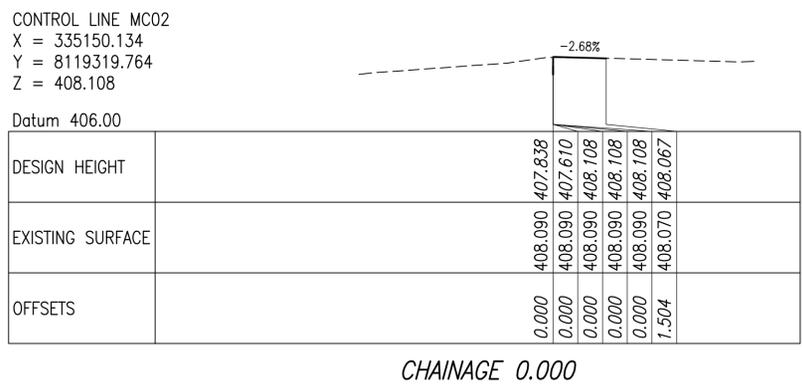
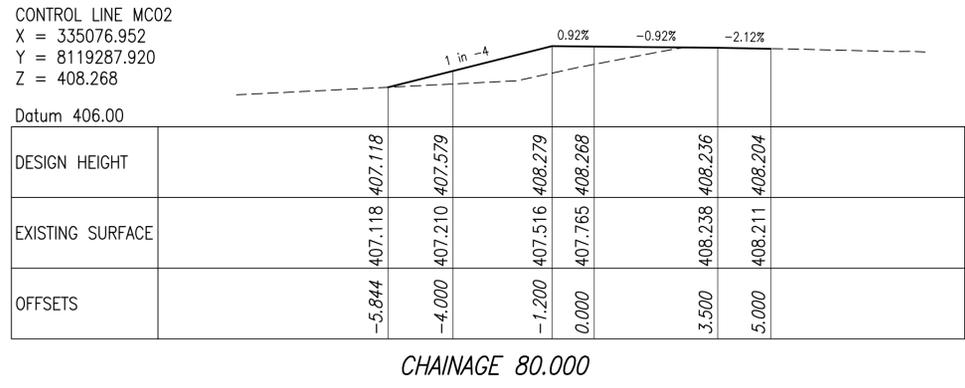
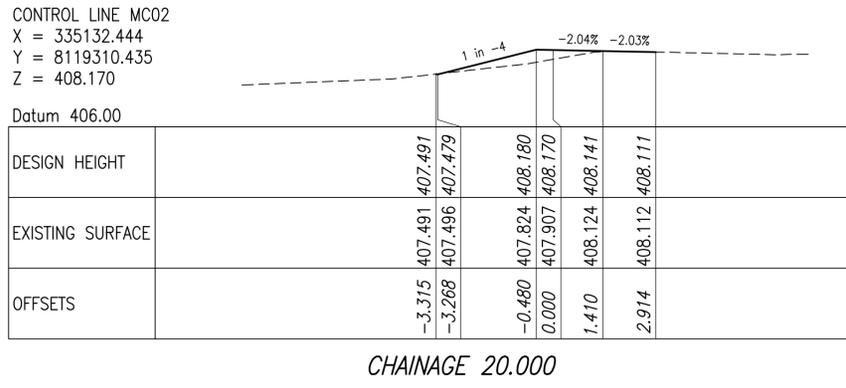
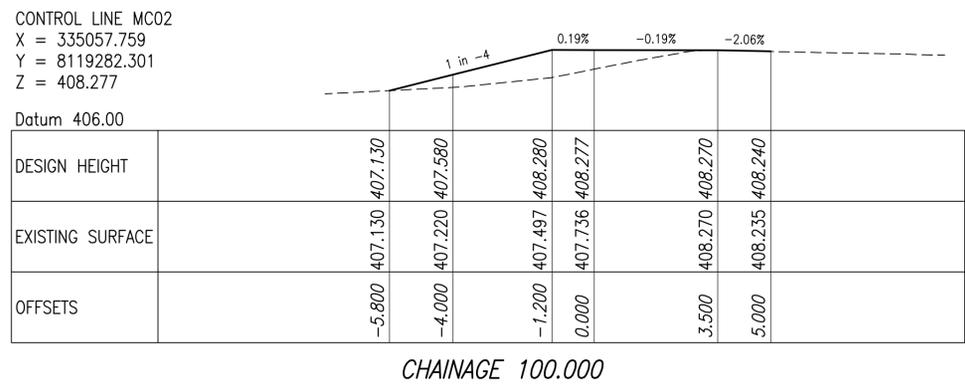
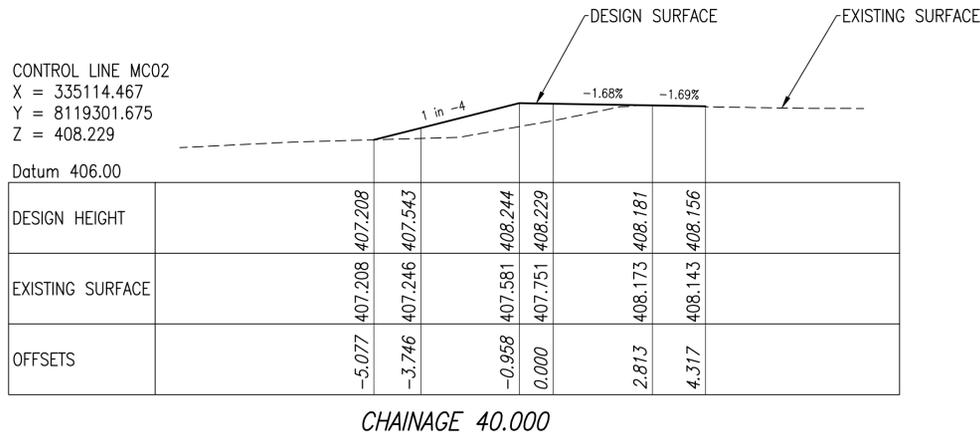
DE BRUEYS  
BOUTIQUE WINES

Client  
**R.A. FUNCTION SERVICES PTY LTD**

Job Title  
**DE BRUEYS WINERY UPGRADE**

**SITE A  
PAVEMENT MARKINGS**

Scale at A1 NOT TO SCALE  
Discipline CIVIL  
Job No **260361-00** Drawing Status **ISSUE FOR APPROVAL**  
Drawing No **260361-CIAL-DRG-231** Issue **A**



**NOT FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

|       |                                |          |     |      |      |
|-------|--------------------------------|----------|-----|------|------|
| A     | ISSUED FOR APPROVAL            | 19/07/12 | GOD | JH   | AWS  |
| T1    | ISSUED FOR TENDER AND APPROVAL | 19/11/18 | GOD | JH   |      |
| Issue | Description                    | Date     | By  | Chkd | Appd |



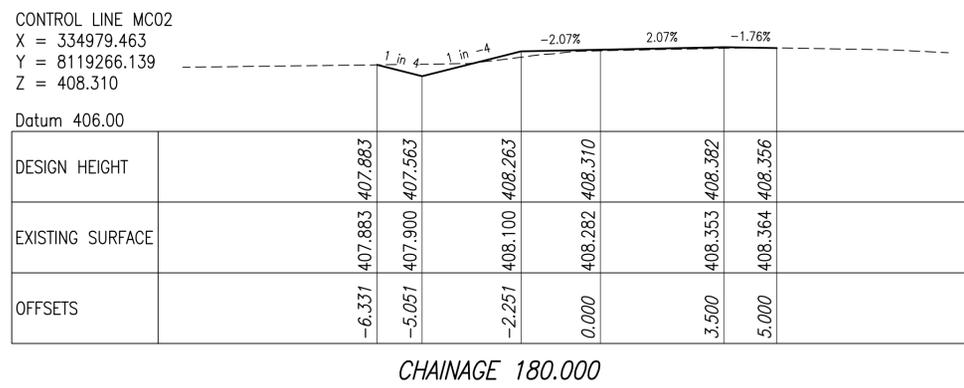
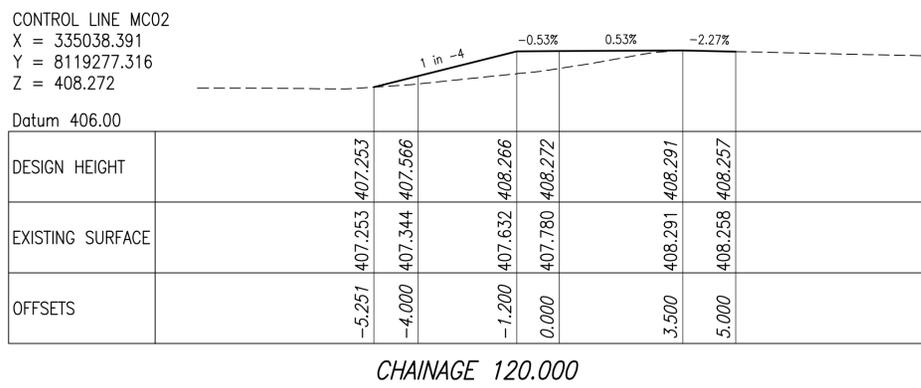
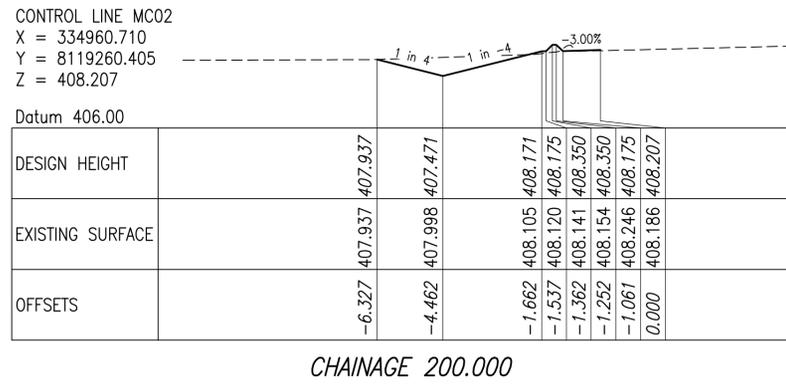
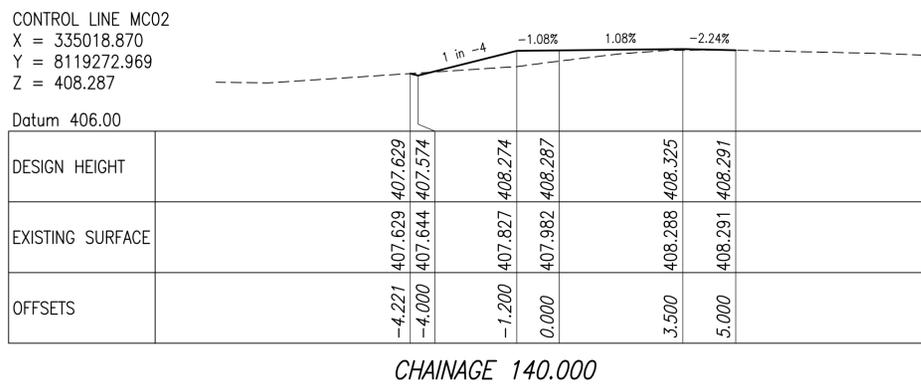
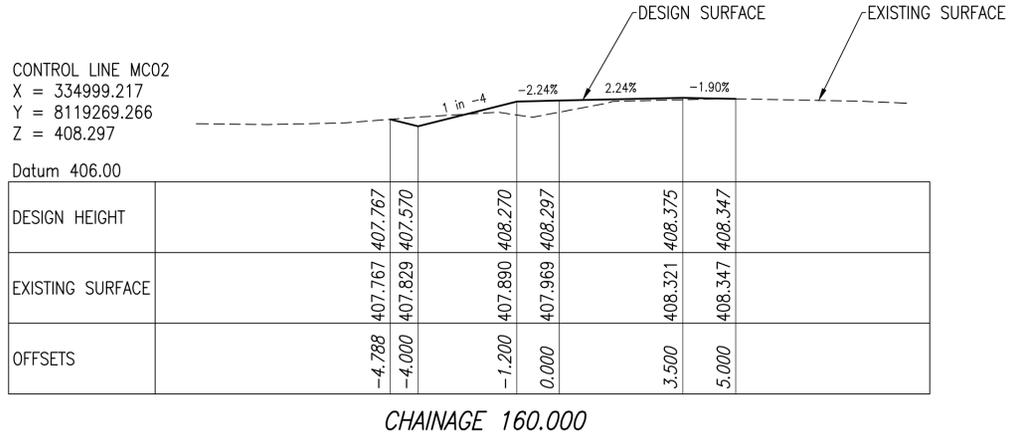
DE BRUEYS BOUTIQUE WINES

Client  
R.A. FUNCTION SERVICES PTY LTD

Job Title  
DE BRUEYS WINERY UPGRADE

SITE A  
CROSS SECTIONS  
SHEET 1 OF 2

|                |                     |
|----------------|---------------------|
| Scale at A1    | NOT TO SCALE        |
| Discipline     | CIVIL               |
| Job No         | 260361-00           |
| Drawing Status | ISSUE FOR APPROVAL  |
| Drawing No     | 260361-CIAL-DRG-301 |
| Issue          | A                   |



**NOT FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

|       |                                |          |     |      |      |
|-------|--------------------------------|----------|-----|------|------|
| A     | ISSUED FOR APPROVAL            | 19/07/12 | GOD | JH   | AWS  |
| T1    | ISSUED FOR TENDER AND APPROVAL | 19/11/18 | GOD | JH   |      |
| Issue | Description                    | Date     | By  | Chkd | Appd |



Client  
**R.A. FUNCTION SERVICES PTY LTD**  
Job Title  
**DE BRUEYS WINERY UPGRADE**

**SITE A  
CROSS SECTIONS  
SHEET 2 OF 2**

Scale at A1 NOT TO SCALE  
Discipline CIVIL  
Job No **260361-00** Drawing Status **ISSUE FOR APPROVAL**  
Drawing No **260361-CIAL-DRG-302** Issue **A**

CONTROL LINE MC03  
 X = 335255.037  
 Y = 8119063.142  
 Z = 408.729

Datum 408.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 408.479       | 408.479          | -4.580  |
| 408.466       | 408.483          | -4.542  |
| 408.602       | 408.534          | -4.000  |
| 408.626       | 408.598          | -3.250  |
| 408.729       | 408.729          | 0.000   |
| 408.605       | 408.534          | 3.250   |
| 408.577       | 408.422          | 4.000   |
| 408.253       | 408.286          | 5.296   |
| 408.278       | 408.278          | 5.372   |

CHAINAGE 80.000

CONTROL LINE MC03  
 X = 335256.969  
 Y = 8119083.048  
 Z = 408.612

Datum 408.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 408.333       | 408.333          | -4.743  |
| 408.306       | 408.339          | -4.661  |
| 408.472       | 408.399          | -4.000  |
| 408.498       | 408.469          | -3.250  |
| 408.612       | 408.612          | 0.000   |
| 408.489       | 408.396          | 3.250   |
| 408.461       | 408.278          | 4.000   |
| 408.114       | 408.121          | 5.388   |
| 408.121       | 408.121          | 5.410   |

CHAINAGE 60.000

CONTROL LINE MC03  
 X = 335259.091  
 Y = 8119102.935  
 Z = 408.461

Datum 406.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 408.195       | 408.195          | -5.381  |
| 408.109       | 408.217          | -5.122  |
| 408.389       | 408.308          | -4.000  |
| 408.403       | 408.365          | -3.250  |
| 408.461       | 408.461          | 0.000   |
| 408.406       | 408.267          | 3.250   |
| 408.393       | 408.119          | 4.000   |
| 407.946       | 407.940          | 5.788   |
| 407.940       | 407.940          | 5.806   |

CHAINAGE 40.000

CONTROL LINE MC03  
 X = 335261.413  
 Y = 8119122.798  
 Z = 408.418

Datum 406.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 408.325       | 408.325          | -4.753  |
| 408.236       | 408.348          | -4.485  |
| 408.358       | 408.402          | -4.000  |
| 408.369       | 408.363          | -3.250  |
| 408.418       | 408.418          | 0.000   |
| 408.353       | 408.332          | 3.250   |
| 408.338       | 408.268          | 4.000   |
| 408.007       | 408.098          | 5.326   |
| 408.072       | 408.072          | 5.524   |

CHAINAGE 20.000

CONTROL LINE MC03  
 X = 335237.506  
 Y = 8118985.696  
 Z = 408.034

Datum 406.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 407.818       | 407.818          | -4.476  |
| 407.977       | 407.855          | -4.000  |
| 407.987       | 407.913          | -3.250  |
| 408.034       | 408.034          | 0.000   |
| 408.019       | 407.787          | 3.250   |
| 408.015       | 407.764          | 4.000   |
| 407.740       | 407.803          | 5.103   |
| 407.861       | 407.861          | 5.467   |

CHAINAGE 160.000

CONTROL LINE MC03  
 X = 335245.259  
 Y = 8119004.125  
 Z = 408.834

Datum 408.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 408.846       | 408.846          | -7.636  |
| 408.992       | 408.878          | -4.000  |
| 408.962       | 408.889          | -3.250  |
| 408.834       | 408.834          | 0.000   |
| 408.542       | 408.536          | 3.250   |
| 408.474       | 408.478          | 4.000   |
| 408.433       | 408.470          | 4.165   |
| 408.465       | 408.465          | 4.262   |

CHAINAGE 140.000

CONTROL LINE MC03  
 X = 335250.222  
 Y = 8119023.437  
 Z = 408.939

Datum 408.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 409.003       | 409.003          | -4.029  |
| 408.993       | 409.002          | -4.000  |
| 408.983       | 408.990          | -3.250  |
| 408.939       | 408.939          | 0.000   |
| 408.743       | 408.682          | 3.250   |
| 408.697       | 408.631          | 4.000   |
| 408.523       | 408.583          | 4.696   |
| 408.566       | 408.566          | 4.823   |

CHAINAGE 120.000

CONTROL LINE MC03  
 X = 335252.758  
 Y = 8119043.275  
 Z = 408.840

Datum 408.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 408.698       | 408.698          | -4.587  |
| 408.681       | 408.702          | -4.536  |
| 408.815       | 408.743          | -4.000  |
| 408.820       | 408.802          | -3.250  |
| 408.840       | 408.840          | 0.000   |
| 408.702       | 408.633          | 3.250   |
| 408.670       | 408.548          | 4.000   |
| 408.356       | 408.366          | 5.254   |
| 408.363       | 408.363          | 5.274   |

CHAINAGE 100.000

NOT FOR  
CONSTRUCTION

Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date     | By  | Chkd | Appd |
|-------|--------------------------------|----------|-----|------|------|
| A     | ISSUED FOR APPROVAL            | 19/07/12 | GOD | JH   | AWS  |
| T1    | ISSUED FOR TENDER AND APPROVAL | 19/11/18 | GOD | JH   |      |

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DE BRUEYS  
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Client  
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Job Title  
DE BRUEYS WINERY UPGRADE

SITE B  
CROSS SECTIONS  
SHEET 1 OF 3

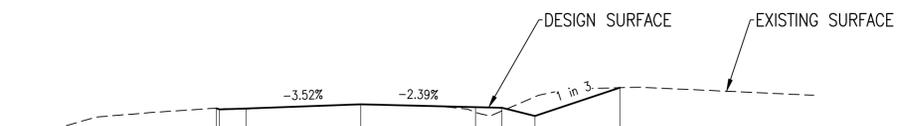
Scale at A1 NOT TO SCALE  
 Discipline CIVIL  
 Job No 260361-00 Drawing Status  
**ISSUE FOR APPROVAL**  
 Drawing No 260361-CIAL-DRG-303 Issue  
**A**

CONTROL LINE MC03  
X = 335217.431  
Y = 8118929.204  
Z = 404.991

Datum 402.00

|                  |  |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |  |  |  |

CHAINAGE 220.000



CONTROL LINE MC03  
X = 335223.380  
Y = 8118948.294  
Z = 405.840

Datum 400.00

|                  |  |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |  |  |  |

CHAINAGE 200.000

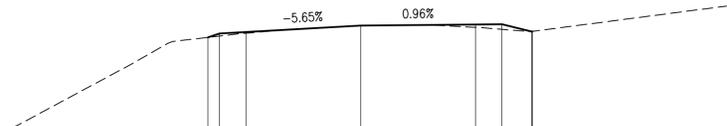


CONTROL LINE MC03  
X = 335229.893  
Y = 8118967.203  
Z = 406.789

Datum 402.00

|                  |  |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |  |  |  |

CHAINAGE 180.000

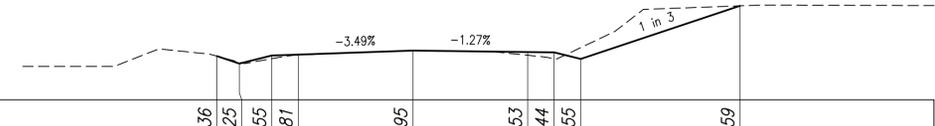


CONTROL LINE MC03  
X = 335209.421  
Y = 8118910.923  
Z = 403.395

Datum 402.00

|                  |  |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |  |  |  |

CHAINAGE 240.000



**NOT FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

|       |                                |          |     |      |      |
|-------|--------------------------------|----------|-----|------|------|
| A     | ISSUED FOR APPROVAL            | 19/07/12 | GOD | JH   | AWS  |
| T1    | ISSUED FOR TENDER AND APPROVAL | 19/11/18 | GOD | JH   |      |
| Issue | Description                    | Date     | By  | Chkd | Appd |

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Job Title  
**DE BRUEYS WINERY UPGRADE**

**SITE B  
CROSS SECTIONS  
SHEET 2 OF 3**

Scale at A1 NOT TO SCALE  
Discipline CIVIL  
Job No 260361-00 Drawing Status  
**ISSUE FOR APPROVAL**  
Drawing No 260361-CIAL-DRG-304 Issue  
**A**







CONTROL LINE MC04  
 X = 335454.408  
 Y = 8117602.787  
 Z = 410.641

Datum 410.00

| DESIGN HEIGHT    | 410.232 | 410.473 | 410.505 | 410.553 | 410.641 | 410.632 | 410.626 | 410.623 | 410.306 |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| EXISTING SURFACE | 410.232 | 410.364 | 410.489 | 410.553 | 410.641 | 410.632 | 410.576 | 410.512 | 410.306 |
| OFFSETS          | -4.966  | -4.000  | -3.250  | -2.107  | 0.000   | 1.837   | 3.250   | 4.000   | 5.902   |

CHAINAGE 340.000

CONTROL LINE MC04  
 X = 335446.696  
 Y = 8117621.240  
 Z = 410.556

Datum 410.00

| DESIGN HEIGHT    | 410.265 | 410.332 | 410.374 | 410.437 | 410.556 | 410.555 | 410.555 | 410.554 | 410.309 |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| EXISTING SURFACE | 410.265 | 410.295 | 410.381 | 410.437 | 410.556 | 410.555 | 410.502 | 410.409 | 410.309 |
| OFFSETS          | -4.269  | -4.000  | -3.250  | -2.121  | 0.000   | 1.758   | 3.250   | 4.000   | 5.472   |

CHAINAGE 320.000

CONTROL LINE MC04  
 X = 335439.041  
 Y = 8117639.717  
 Z = 410.434

Datum 410.00

| DESIGN HEIGHT    | 410.188 | 410.244 | 410.280 | 410.330 | 410.434 | 410.441 | 410.446 | 410.449 | 410.177 |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| EXISTING SURFACE | 410.188 | 410.216 | 410.277 | 410.330 | 410.434 | 410.441 | 410.365 | 410.293 | 410.177 |
| OFFSETS          | -4.222  | -4.000  | -3.250  | -2.196  | 0.000   | 1.712   | 3.250   | 4.000   | 5.631   |

CHAINAGE 300.000

CONTROL LINE MC04  
 X = 335431.484  
 Y = 8117658.234  
 Z = 410.363

Datum 408.00

| DESIGN HEIGHT    | 410.101 | 410.161 | 410.199 | 410.252 | 410.363 | 410.323 | 410.287 | 410.270 | 410.205 |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| EXISTING SURFACE | 410.101 | 410.128 | 410.195 | 410.252 | 410.363 | 410.323 | 410.291 | 410.238 | 410.205 |
| OFFSETS          | -4.242  | -4.000  | -3.250  | -2.194  | 0.000   | 1.687   | 3.250   | 4.000   | 4.387   |

CHAINAGE 280.000

CONTROL LINE MC04  
 X = 335485.061  
 Y = 8117528.899  
 Z = 410.831

Datum 410.00

| DESIGN HEIGHT    | 410.605 | 410.660 | 410.692 | 410.744 | 410.831 | 410.820 | 410.812 | 410.808 | 410.746 |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| EXISTING SURFACE | 410.605 | 410.620 | 410.668 | 410.744 | 410.831 | 410.820 | 410.793 | 410.766 | 410.746 |
| OFFSETS          | -4.220  | -4.000  | -3.250  | -2.034  | 0.000   | 1.803   | 3.250   | 4.000   | 4.371   |

CHAINAGE 420.000

CONTROL LINE MC04  
 X = 335477.436  
 Y = 8117547.386  
 Z = 410.731

Datum 410.00

| DESIGN HEIGHT    | 410.506 | 410.598 | 410.623 | 410.664 | 410.731 | 410.731 | 410.731 | 410.731 | 410.645 |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| EXISTING SURFACE | 410.506 | 410.530 | 410.598 | 410.664 | 410.731 | 410.731 | 410.705 | 410.673 | 410.645 |
| OFFSETS          | -4.370  | -4.000  | -3.250  | -2.012  | 0.000   | 1.888   | 3.250   | 4.000   | 4.518   |

CHAINAGE 400.000

CONTROL LINE MC04  
 X = 335469.673  
 Y = 8117565.816  
 Z = 410.681

Datum 410.00

| DESIGN HEIGHT    | 410.435 | 410.559 | 410.582 | 410.616 | 410.681 | 410.689 | 410.695 | 410.699 | 410.516 |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| EXISTING SURFACE | 410.435 | 410.456 | 410.505 | 410.616 | 410.681 | 410.689 | 410.636 | 410.600 | 410.516 |
| OFFSETS          | -4.496  | -4.000  | -3.250  | -2.123  | 0.000   | 1.785   | 3.250   | 4.000   | 5.097   |

CHAINAGE 380.000

CONTROL LINE MC04  
 X = 335462.193  
 Y = 8117584.364  
 Z = 410.684

Datum 410.00

| DESIGN HEIGHT    | 410.304 | 410.484 | 410.521 | 410.587 | 410.684 | 410.666 | 410.654 | 410.647 | 410.487 |
|------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| EXISTING SURFACE | 410.304 | 410.412 | 410.529 | 410.587 | 410.684 | 410.666 | 410.632 | 410.580 | 410.487 |
| OFFSETS          | -4.720  | -4.000  | -3.250  | -1.946  | 0.000   | 1.977   | 3.250   | 4.000   | 4.961   |

CHAINAGE 360.000

**NOT FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date     | By  | Chkd | Appd |
|-------|--------------------------------|----------|-----|------|------|
| A     | ISSUED FOR APPROVAL            | 19/07/12 | GOD | JH   | AWS  |
| T1    | ISSUED FOR TENDER AND APPROVAL | 19/11/18 | GOD | JH   |      |

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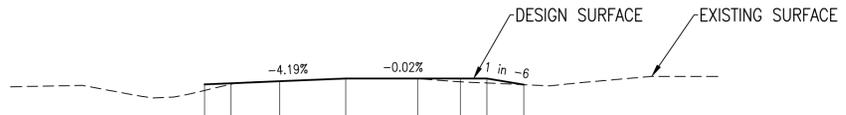
Client  
R.A. FUNCTION SERVICES PTY LTD

Job Title  
DE BRUEYS WINERY UPGRADE

SITE C  
CROSS SECTIONS  
SHEET 3 OF 4

Scale at A1 NOT TO SCALE  
 Discipline CIVIL  
 Job No 260361-00 Drawing Status ISSUE FOR APPROVAL  
 Drawing No 260361-CIAL-DRG-308 Issue A

CONTROL LINE MC04  
 X = 335515.776  
 Y = 8117455.037  
 Z = 411.934

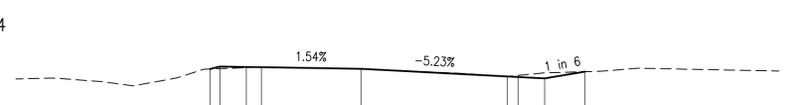


Datum 410.00

|                  |  |  |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |  |  |  |  |

CHAINAGE 500.000

CONTROL LINE MC04  
 X = 335541.425  
 Y = 8117385.972  
 Z = 413.926

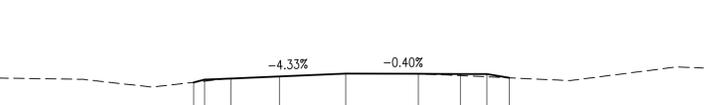


Datum 412.00

|                  |  |  |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |  |  |  |  |

CHAINAGE 573.839

CONTROL LINE MC04  
 X = 335508.128  
 Y = 8117473.515  
 Z = 411.544

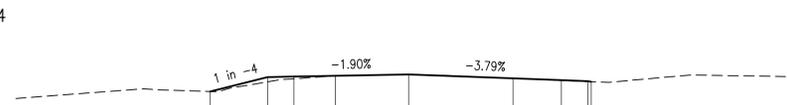


Datum 410.00

|                  |  |  |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |  |  |  |  |

CHAINAGE 480.000

CONTROL LINE MC04  
 X = 335538.137  
 Y = 8117399.393  
 Z = 413.503

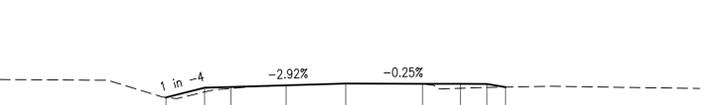


Datum 412.00

|                  |  |  |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |  |  |  |  |

CHAINAGE 560.000

CONTROL LINE MC04  
 X = 335500.565  
 Y = 8117492.030  
 Z = 411.176



Datum 410.00

|                  |  |  |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |  |  |  |  |

CHAINAGE 460.000

CONTROL LINE MC04  
 X = 335531.016  
 Y = 8117418.071  
 Z = 412.852

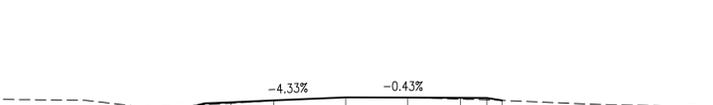


Datum 412.00

|                  |  |  |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |  |  |  |  |

CHAINAGE 540.000

CONTROL LINE MC04  
 X = 335492.659  
 Y = 8117510.400  
 Z = 410.976

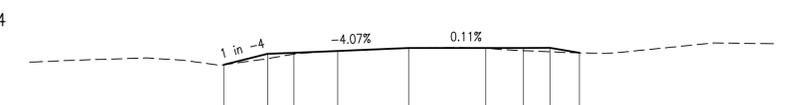


Datum 410.00

|                  |  |  |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |  |  |  |  |

CHAINAGE 440.000

CONTROL LINE MC04  
 X = 335523.414  
 Y = 8117436.560  
 Z = 412.369



Datum 410.00

|                  |  |  |  |  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |  |  |  |  |

CHAINAGE 520.000

**NOT FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

|       |                                |          |     |      |      |
|-------|--------------------------------|----------|-----|------|------|
| A     | ISSUED FOR APPROVAL            | 19/07/12 | GOD | JH   | AWS  |
| T1    | ISSUED FOR TENDER AND APPROVAL | 19/11/18 | GOD | JH   |      |
| Issue | Description                    | Date     | By  | Chkd | Appd |



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DE BRUEYS BOUTIQUE WINES

Job Title  
DE BRUEYS WINERY UPGRADE

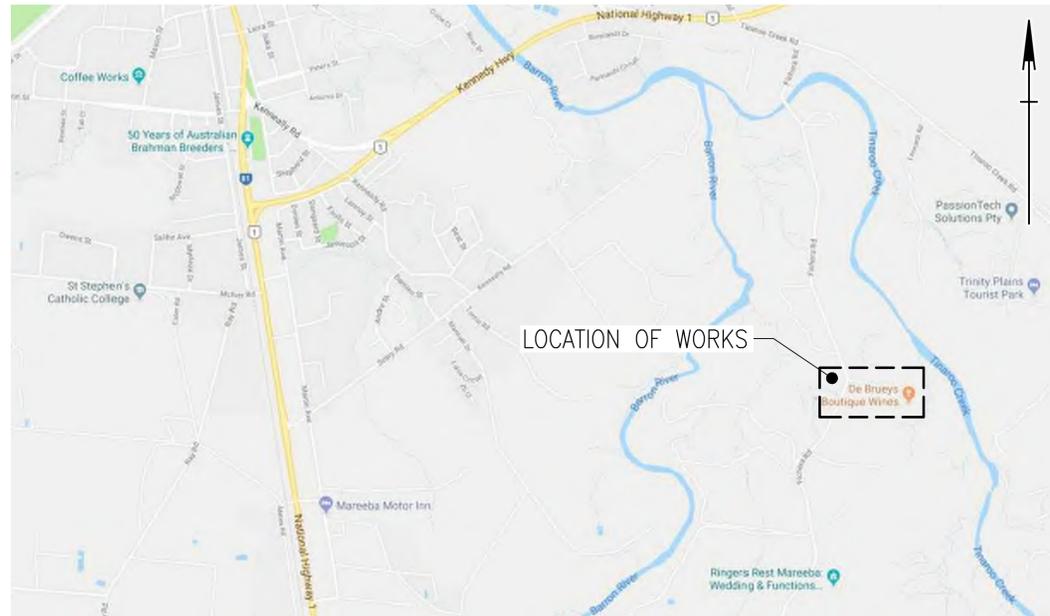
SITE C  
CROSS SECTIONS  
SHEET 4 OF 4

Scale at A1 NOT TO SCALE  
 Discipline CIVIL  
 Job No 260361-00 Drawing Status  
**ISSUE FOR APPROVAL**  
 Drawing No 260361-CIAL-DRG-309 Issue  
**A**



# DE BRUEYS WINERY UPGRADE

## INTERNAL CIVIL DRAWINGS



LOCALITY PLAN

| DRAWING INDEX       |  |
|---------------------|--|
| DRAWING NUMBER      | DRAWING NAME   |
| 260361-CIAL-DRG-101 | DRAWING INDEX AND LOCALITY PLAN                      |
| 260361-CIAL-DRG-102 | GENERAL NOTES  |
| 260361-CIAL-DRG-103 | ROADS AND PATHS TYPICAL SECTIONS AND DETAILS         |
| 260361-CIAL-DRG-104 | EXISTING FEATURES/PUP AND OVERALL SITE LAYOUT        |
| 260361-CIAL-DRG-105 | ROADS AND PATHS GENERAL ARRANGEMENT SHEET 1 OF 2     |
| 260361-CIAL-DRG-106 | ROADS AND PATHS GENERAL ARRANGEMENT SHEET 2 OF 2     |
| 260361-CIAL-DRG-107 | MC01 LONGITUDINAL SECTION                            |
| 260361-CIAL-DRG-108 | ANNOTATED CROSS SECTION SHEET 1 OF 3                 |
| 260361-CIAL-DRG-109 | ANNOTATED CROSS SECTION SHEET 2 OF 3                 |
| 260361-CIAL-DRG-110 | ANNOTATED CROSS SECTION SHEET 3 OF 3                 |
| 260361-CIAL-DRG-111 | INTERNAL PATHWAYS LONGITUDINAL SECTIONS SHEET 1 OF 2 |
| 260361-CIAL-DRG-112 | INTERNAL PATHWAYS LONGITUDINAL SECTIONS SHEET 2 OF 2 |
| 260361-CIAL-DRG-113 | INTERNAL PATHWAYS CROSS SECTIONS SHEET 1 OF 6        |
| 260361-CIAL-DRG-114 | INTERNAL PATHWAYS CROSS SECTIONS SHEET 2 OF 6        |
| 260361-CIAL-DRG-115 | INTERNAL PATHWAYS CROSS SECTIONS SHEET 3 OF 6        |
| 260361-CIAL-DRG-116 | INTERNAL PATHWAYS CROSS SECTIONS SHEET 4 OF 6        |
| 260361-CIAL-DRG-117 | INTERNAL PATHWAYS CROSS SECTIONS SHEET 5 OF 6        |
| 260361-CIAL-DRG-118 | INTERNAL PATHWAYS CROSS SECTIONS SHEET 6 OF 6        |
| 260361-CIAL-DRG-119 | STORMWATER DRAINAGE GENERAL ARRANGEMENT SHEET 1 OF 2 |
| 260361-CIAL-DRG-120 | STORMWATER DRAINAGE GENERAL ARRANGEMENT SHEET 2 OF 2 |
| 260361-CIAL-DRG-121 | STORMWATER DRAINAGE LONGITUDINAL SECTIONS            |
| 260361-CIAL-DRG-122 | STORMWATER CATCHMENT PLAN                            |
| 260361-CIAL-DRG-123 | STORMWATER CALCULATIONS TABLE                        |
| 260361-CIAL-DRG-124 | WATER AND SEWER RETICULATION PLAN 1 OF 4             |
| 260361-CIAL-DRG-125 | WATER AND SEWER RETICULATION PLAN 2 OF 4             |
| 260361-CIAL-DRG-126 | WATER AND SEWER RETICULATION PLAN 3 OF 4             |
| 260361-CIAL-DRG-127 | WATER AND SEWER RETICULATION PLAN 4 OF 4             |
| 260361-CIAL-DRG-128 | WATER AND SEWER RETICULATION DETAILS                 |
| 260361-CIAL-DRG-129 | SEWER LONGITUDINAL SECTIONS SHEET 1 OF 3             |
| 260361-CIAL-DRG-130 | SEWER LONGITUDINAL SECTIONS SHEET 2 OF 3             |
| 260361-CIAL-DRG-131 | SEWER LONGITUDINAL SECTIONS SHEET 3 OF 3             |
| 260361-CIAL-DRG-132 | EROSION AND SEDIMENT CONTROL STRATEGY                |

ORIGIN OF SURVEY

LEVELS DATUM : AHD DER  
 ORIGIN OF LEVELS : OPSM 94627  
 RL 425.910  
 MERIDIAN : MGA Zone 55  
 ORIGIN OF CO-ORDINATES : E332393.097  
 N8117804.320

**ISSUE FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |



Client  
**R.A. FUNCTION SERVICES PTY LTD**

Job Title  
**DE BRUEYS WINERY UPGRADE**

**DE BRUEYS BOUTIQUE WINES**

**DRAWING INDEX AND LOCALITY PLAN**

Scale at A1 NOT TO SCALE  
 Discipline CIVIL  
 Job No **260361-00** Drawing Status **FOR CONSTRUCTION**  
 Drawing No **260361-CIAL-DRG-101** Issue **B**

**GENERAL NOTES**

- All dimensions in metres unless noted otherwise.
- All levels in AHD.
- All works are to be carried out in accordance with the Golder's Geotechnical Report (1791863-001-R-Rev0-De BrueysLV).

**EXISTING SERVICES**

- The location of utility services as shown on the services plans have been determined from information supplied by survey and DBYD search. The services shown on these plans are provided for information only and no responsibility is taken for the accuracy or completeness of the information supplied. The contractor shall confirm the location, level and sufficient cover to all utility services on site prior to construction.
- The Contractor is to ensure all services remain operational at all times. No work is to be carried out over utility services or within 3.0m of services without prior notification to the superintendent and obtaining approval to proceed.
- Refer to the relevant Consultant's design drawings for information regarding relocations and/or adjustments of existing services. Refer to the relevant design drawings to consider proposed services before commencing earthworks.
- Existing valves, hydrants, pits, manholes and water services shall be modified to suit final surface heights and roadworks.

**DRAINAGE NOTES**

- These notes are to be read in conjunction with the Stormwater Plans (Refer DRG-119-122).
- All drainage works are to be generally carried out in compliance with FNQROC Specification S4 Stormwater Drainage unless specified otherwise.
- New works shall not be connected to existing downstream stormwater infrastructure until all stormwater infrastructure and the surrounding catchment is stabilised. This is to prevent sediment entering the stormwater system.
- All field inlets/grated manholes and access lids/covers are to be wheelchair and bicycle safe in accordance with AS3996 and designed to load class D (210kN).
- Installation, bedding and backfilling to pipes shall be in accordance with FNQROC Standard Drawing S2016 for uPVCpipe, steel RHS pipes and S1046 for reinforced concrete pipes.
- The pipe class does not allow for construction loadings. The Contractor shall certify that minimum cover for construction loads is accommodated.
- The location and level of all services crossing proposed drainage lines must be confirmed prior to construction. Drainage line levels must be checked for conflict with services and advice sought from the Engineer/Designer if unsure.
- Existing stormwater drainage pipes, gullies and manholes within the limits of construction shall be retained unless noted otherwise on the drawings.
- Existing pipes shown to be abandoned are to be removed or capped and grouted with fully flowable concrete. Existing drainage structures shown to be abandoned are to be demolished, debris removed and backfilled in accordance with the project specification.
- Where a connection is to be made to an existing drainage pipe or drainage structure the level of that pipe or structure must be confirmed prior to the construction of the new drainage line.
- Drainage outlet rock protection to be in accordance with DTMR MRTS03. Non-woven geotextile of Strength Class E and Filtration Class V to DTMR MRTS27 to be placed under and bedside all rock protection.

**EARTHWORKS NOTES**

- All earthworks are to be in compliance with FNQROC Specification S1 and AS3798, unless noted otherwise.
- All exposed areas and new works shall be grassed by hydromulching on completion in accordance with FNQROC specification S8, unless other treatment noted.
- Earthworks shall not encroach beyond defined property boundaries and limit of works (whichever is more stringent) unless approved by the Superintendent.
- Where proposed works join existing works or ground, the Contractor shall verify tie-in levels prior to commencement of construction.
- All subgrade material shall be removed, replaced and

- recompacted to 100% standard compaction in accordance with FNQROC Specification S1.
- Where existing ground surfaces are not required to be varied as part of the works, the Contractor shall restore them to the condition existing at the commencement of the work under the contract unless noted otherwise.
- The Contractor is to submit an Environmental Management Plan, Erosion and Sediment Control Plan and Waste Management Plan to the Superintendent for approval.
- The Contractor shall ensure that the works are carried out in accordance with all submitted plans during construction.
- The Contractor shall maintain adequate temporary drainage measures to ensure works are free draining.

**EROSION AND SEDIMENT CONTROL STRATEGY**

- The Contractor shall develop a detailed Erosion Sediment Control Plan (ESCP) for construction. The detailed ESCP shall be in accordance with the requirements below (based on the Queensland State Planning Policy, July 2017), and with all local planning requirements.
- The Contractor shall design temporary drainage works for the following design storms:
  - Disturbed area open for <12 months--1 in 2-year ARI event;
  - Disturbed area open for 12-24 months--1 in 5-year ARI event;
  - Disturbed area open for > 24 months--1 in 10-year ARI event;
  - Note that the design capacity excludes minimum 150mm freeboard;
  - Temporary culvert crossing--minimum 1 in 1-year ARI hydraulic capacity.
- The ESCP shall meet the following erosion control objectives:
  - Minimise exposure of disturbed soils at any time e.g. soil stockpiles and unfinished earthworks to be suitably stabilised if disturbance is expected to be suspended for a period exceeding 5 days.
  - Divert water run-off from undisturbed areas around disturbed areas;
  - Determine the erosion risk rating using local rainfall erosivity, rainfall depth, soil-loss rate or other acceptable methods;
  - Implement erosion control methods corresponding to identified erosion risk rating.
- The ESCP shall meet the following sediment control objectives:
  - Determine appropriate sediment control measures using either the potential soil loss rate, monthly erosivity, or average monthly rainfall;
  - Collect and drain stormwater from disturbed soils to sediment basin for design storm event: the design storm for sediment basin sizing is 80th% five-day event or similar;
  - Site discharge during sediment basin dewatering shall give TSS < 50 mg/l TSS, turbidity not >10% receiving waters turbidity, and pH 6.5-8.5.
- The ESCP shall meet the following additional water quality objectives:
  - Avoid wind-blown litter; remove gross pollutants;
  - Ensure there is no visible oil or grease sheen on released waters;
  - Dispose of waste containing contaminants at authorised facilities.
- The ESCP shall meet the following discharge rates into the receiving stormwater network or waterway:
  - For peak flow for the 1-year and 100-year ARI event, use constructed sediment basins to attenuate the discharge rate of stormwater from the site.
- The Contractor shall ensure that erosion and sediment controls are maintained and in good working order at all times. The Contractor shall visually inspect ESC controls on a daily basis, and maintain records of these checks.

**PAVEMENT NOTES**

- All pavement works are to be in compliance with FNQROC Specification S2 and S7 unless noted otherwise.

- Prior to construction any soft or wet subgrade soils are to be identified and replaced with select material in accordance with FNQROC Specification S2.
  - The process to identify the soft or wet subgrade locations shall include an initial proof roll of the exposed subgrade (lower side of design subbase level). The proof roll shall be completed in accordance with MRTS04. Any area of subgrade displaying visual deflection under load, throughout the duration of the proof roll shall be marked for Dynamic Cone Penetrometer (DCP) testing.
  - DCP testing shall be undertaken to a minimum depth of 1.0m below subgrade level in the areas of soft subgrade identified during proof roll. Where the DCP test indicates an inferred subgrade CBR strength less than CBR 3%, a minimum 150mm of the subgrade shall be replaced with MRTS05 Subtype 2.3 material.
- Where the use of general fill is required a Class A material with a Min Soaked CBR of 10% (MRTS04) OR Subtype 2.3 material is to be utilised.
- Where new works join existing works, the contractor shall confirm that existing works conform in line and level with that shown on the drawings before commencing work.
- Subgrade CBR Assumed to be 2.5% based on recommendations of Golder's Geotechnical Report which assumes site is to be prepared in accordance with section 9.1.1 of the Report. CBR is to be confirmed on site by the Contractor, refer FNQROC S2 Specification (Road Pavements) for details.
- All pavement markings are to be applied in accordance with DTMR document: Manual of Uniform Traffic Control Devices (MUTCD).
- Pavement markings to use paint type 3 as specified in DTMR document: MUTCD.

**CONCRETE NOTES**

- All concrete works are to be in compliance with FNQROC specification S7.

**PIPELINE NOTES**

- Supply and construction of water mains, sewer mains and associated appurtenances shall be in accordance with the FNQROC Development Manual U.N.O.
- The Contractor shall provide all pipes, fittings, thrust blocks etc. required to construct the pipelines and pipeline appurtenances U.N.O.
- Water and sewer pipeline centreline or project set-out line location is either set-out from property boundaries, by coordinates of centreline intersection points, or by offset to existing or new features. Refer to the project drawings.
- Alignment to be pegged and confirmed prior to construction commencing. The horizontal alignment of the water main may be deviated from the tabulated layout to avoid unforeseen minor obstacles, with Superintendent approval.
- Horizontal and vertical deflections may be achieved using standard pipe fittings or pipe joint deflections. Maximum pipe deflection to be in accordance with the manufacturer's recommendations.
- Minimum horizontal and vertical clearances from existing services to be in accordance with Table 4.2 of WSAA Sewerage Code.
- Backfill maximum dry density and density index / filled density testing to be in accordance with AS1289.

**WATER NOTES**

- Comply with FNQROC specification S5 and STD. DWGS. S2000 to S2020
- All water mains shall be PE100 class PN16 jointed in accordance with manufacturer's specifications.
- Water mains crossing roads shall be PN35 DICL for the full road crossing width, finishing 100mm beyond the edge of the unsealed shoulder at a minimum and as shown on the drawings.
- Water mains shall have 600mm minimum cover in non-trafficable areas and 900mm in trafficable areas.
- Potable (drinking) water mains and appurtenances shall be colour coded blue.
- Bedding and surround to pipes and fittings shall be in accordance with FNQROC standard drawing S2016.

- Anchorage/thrust block locations not shown on the drawings and shall be designed by the contractor in accordance with FNQROC standard drawing S2015-CRC to the written approval of the superintendent (allowable bearing pressure of soil to be confirmed on site).
- Hydrants and valves are to be nylon powder coated or equivalent and hydrants are to be of the maxi-flow type.
- Markers to be installed at all sluice valves, changes of directions and at intervals not greater than 100m along pipe alignment. Refer FNQROC Std. Drgs. S2010 and S2011 for pipeline marker details.
- Hydrants to be identified by kerb maker plate and blue retro-reflective marker in accordance with FNQROC standard drawing S2010.
- Valves to be identified by kerb marker plate and yellow retro-reflective marker in accordance with FNQROC standard drawing S2010.
- Minimum test pressure of water mains shall be 1200kpa. in accordance with FNQROC specification S5.29.
- Flushing, disinfection and testing of all mains shall be carried out in accordance with FNQROC Specification S5.30. Pre-chlorinated pipes and fittings must be used at all cut-in locations, where adequate disinfection cannot be achieved.
- If slope of water reticulation exceeds 1:6, than anchor blocks are to be provided in accordance with FNQROC standard drawing S2016. Location of anchor blocks is to be noted on as-constructed drawings.

**PE WELDING NOTES**

- PE Welding must only be carried out by certified persons.
- Butt-welded joints shall be made in accordance with the project specifications, WSA 01-2004, AS2033, AS2566.2 and the PE pipe manufacturer's requirements and recommendations.
- Joints shall only be made between pipe materials of the same grade as defined in AS4130. Pilot welds shall be made and tested for any proposed joints between pipes from different manufacturer's.
- Butt-welded joints shall achieve at least 90% of the tensile strength of the parent pipe. Internal weld beads shall not be removed.
- All welding shall be performed under controlled environmental conditions. Field welding shall be carried out in shelter to prevent dust and water contamination. Shelters shall be blocked off to prevent wind chill and dirt contamination.
- Welding machines using hand wound carriages without pressure gauges shall not be used. At all times that welding is in progress, the welder shall have available a hand-held temperature sensing device capable of checking the temperature of the heater plate at the circumference of the weld.
- Pilot welding trails shall be completed and approved by the superintendent before field welding commences.
- The pilot weld shall be subject to tensile strength testing, tensile fracture testing and flexural beam testing by a third party testing organisation approved by the superintendent.
- Acceptance criteria for the pilot weld shall include:
  - Tensile strength being at least 90% of the strength of the parent pipe section.
  - Fracture being in a ductile manner with no evidence of contamination of dislocations on the weld fracture surface.
  - No fracture of the weld in flexural beam testing.

**SEWER NOTES**

- Comply with FNQROC specification S6 and STD. DWGS. S3000, S3005, & S3015.
- All sewer main shall be PVC-U jointed in accordance with manufacturers specifications.
- Sewer mains shall have 600mm minimum cover in non-trafficable areas and 900mm in trafficable areas.

- Tops of manholes to finish 50mm above finished surface level. surface level shown is for tendering purposes only.
- All sewer house connections (HCB) less than 2.5m deep as per FNQROC standards. Vinidex deep sewer junctions to be adopted for depths greater than 2.5m.
- All house connections (HCB) are to be finished below the final surface level as detailed on FNQROC standard drawing S3005.
- If slope of sewerage reticulation exceeds 1:6, then anchor blocks are to be provided in accordance with FNQROC standard drawing S3015. Location of anchor blocks is to be noted on as-constructed drawings.
- Cleaning of sewers, testing of manholes, testing of manholes/sewer lines/pressure mains, and CCTV inspection of sewers shall be carried out in accordance with FNQROC S6.25 to S6.29.

**WTP & WWTP NOTES:**

- The location of the proposed Water Treatment Plant (WTP) and Wastewater Treatment Plant (WWTP) is indicated on the drawings.
- The design and construction of the WTP and WWTP is excluded from the civil works package and will be completed by others.
- The civil works shown on the drawings, including bulk earthworks, drainage, compacted gravel hardstand, raw water pipelines, potable water pipelines, sewerage pipelines and treated water effluent pipelines are included in the civil works package, however these shall not be constructed until directed by the Superintendent, following:
  - Completion of the detailed design of the WTP and WWTP by the WTP and WWTP Contractor; and
  - Any modifications to the civil works design resulting from the above have been completed.
- Refer to the WTP and WWTP Performance Specification for further details on the proposed works.

**RETAINING WALL NOTES**

- Retaining wall shall be designed and constructed by contractor.

**ISSUE FOR CONSTRUCTION**

Approved by: \_\_\_\_\_  
Name

RPEQ No. # \_\_\_\_\_

| Issue | Description                   | Date       | By  | Chkd | Appd |
|-------|-------------------------------|------------|-----|------|------|
| C     | ISSUED FOR CONSTRUCTION       | 9/03/2020  | JH  | DW   | DW   |
| B     | AMENDED AS CLOUED             | 11/07/2019 | GOD | JH   | AWIS |
| A     | ISSUD FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWIS |

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**CONSULT AUSTRALIA**

Member Firm  
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 ABN 18 000 966 165

Client  
**R.A. FUNCTION SERVICES PTY LTD**

Job Title  
**DE BRUEYS WINERY UPGRADE**

**DE BRUEYS BOUTIQUE WINES**

Scale at A1 NOT TO SCALE

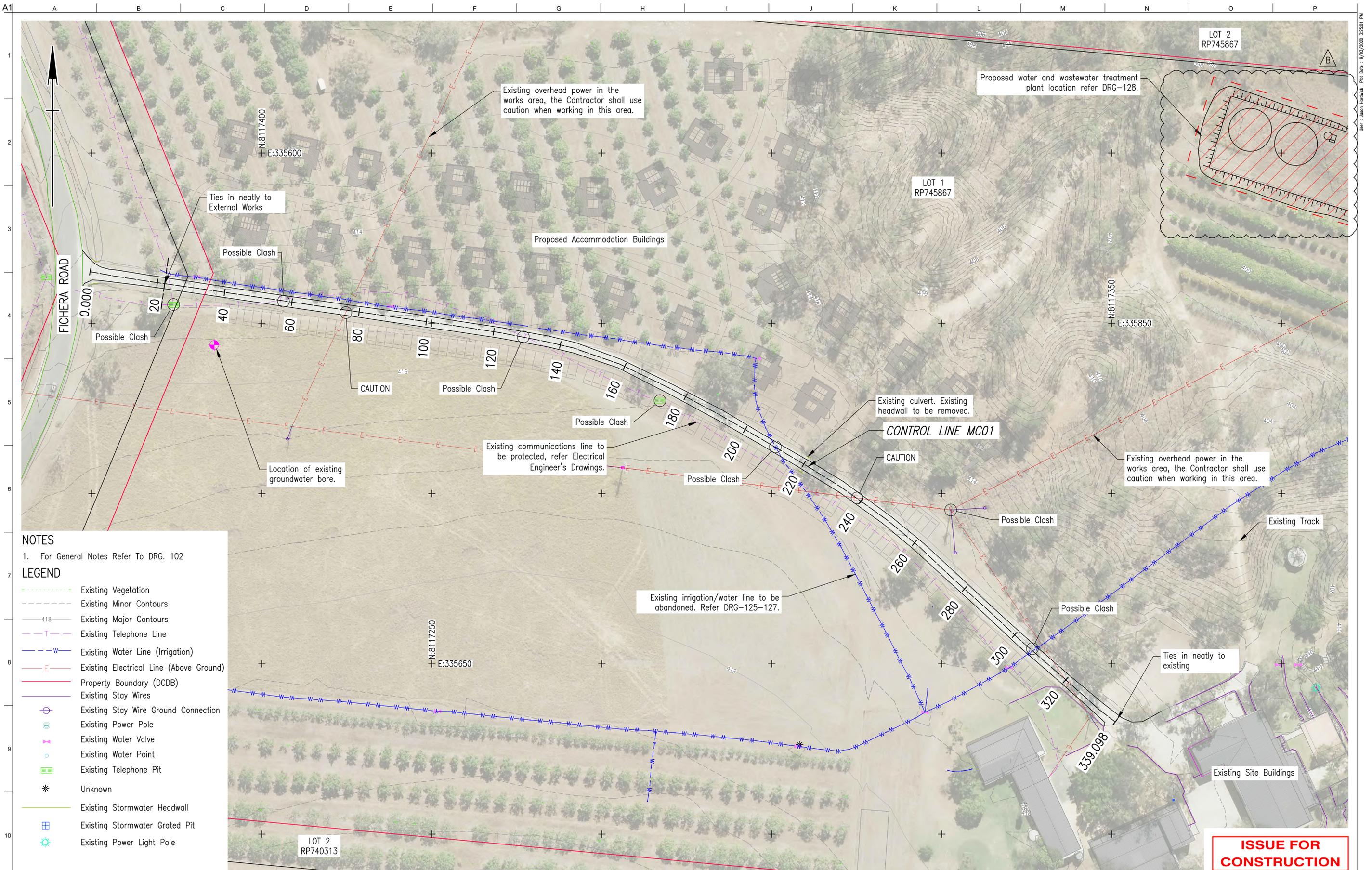
Discipline **CIVIL**

Job No **260361-00** Drawing Status **FOR CONSTRUCTION**

Drawing No **260361-CIAL-DRG-102** Issue **C**

**GENERAL NOTES**





- NOTES**
- For General Notes Refer To DRG. 102
- LEGEND**
- Existing Vegetation
  - Existing Minor Contours
  - Existing Major Contours
  - Existing Telephone Line
  - Existing Water Line (Irrigation)
  - Existing Electrical Line (Above Ground)
  - Property Boundary (DCDB)
  - Existing Stay Wires
  - Existing Stay Wire Ground Connection
  - ⊕ Existing Power Pole
  - ⊕ Existing Water Valve
  - Existing Water Point
  - ⊕ Existing Telephone Pit
  - \* Unknown
  - Existing Stormwater Headwall
  - ⊕ Existing Stormwater Grated Pit
  - ⊕ Existing Power Light Pole

LOT 2  
RP740313

**ISSUE FOR CONSTRUCTION**

|                      |                                |            |     |      |      |
|----------------------|--------------------------------|------------|-----|------|------|
| Approved by:<br>Name |                                |            |     |      |      |
| RPEQ No. #           |                                |            |     |      |      |
| B                    | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A                    | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |
| Issue                | Description                    | Date       | By  | Chkd | Appd |



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**R.A. FUNCTION SERVICES PTY LTD**

**DE BRUEYS BOUTIQUE WINES**

Job Title  
**DE BRUEYS WINERY UPGRADE**

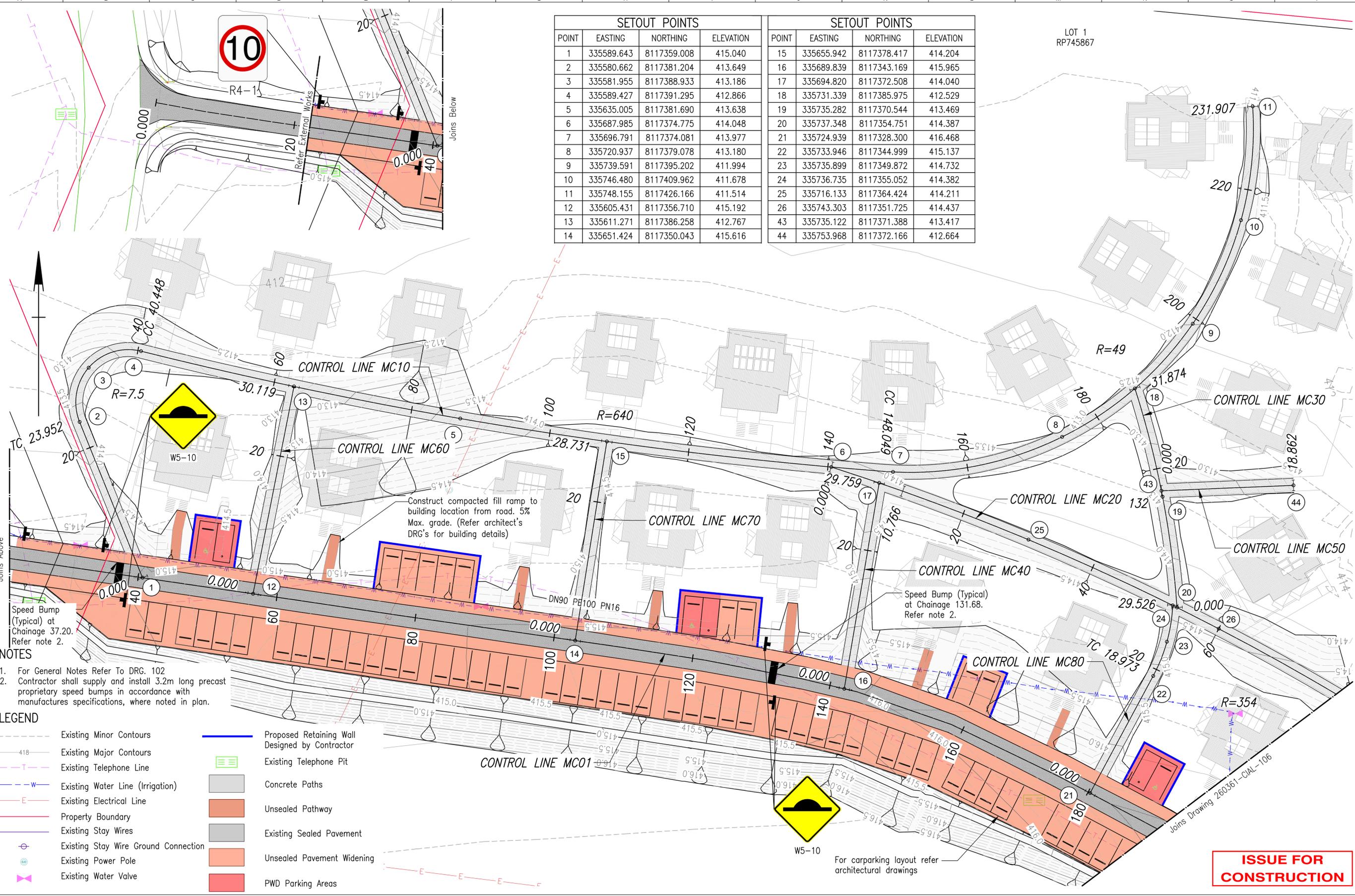
**EXISTING FEATURES/PUP AND OVERALL SITE LAYOUT**

Scale at A1 1:500

|                |                         |
|----------------|-------------------------|
| Discipline     | CIVIL                   |
| Job No         | 260361-00               |
| Drawing Status | <b>FOR CONSTRUCTION</b> |
| Drawing No     | 260361-CIAL-DRG-104     |
| Issue          | <b>B</b>                |

| SETOUT POINTS |            |             |           | SETOUT POINTS |            |             |           |
|---------------|------------|-------------|-----------|---------------|------------|-------------|-----------|
| POINT         | EASTING    | NORTHING    | ELEVATION | POINT         | EASTING    | NORTHING    | ELEVATION |
| 1             | 335589.643 | 8117359.008 | 415.040   | 15            | 335655.942 | 8117378.417 | 414.204   |
| 2             | 335580.662 | 8117381.204 | 413.649   | 16            | 335689.839 | 8117343.169 | 415.965   |
| 3             | 335581.955 | 8117388.933 | 413.186   | 17            | 335694.820 | 8117372.508 | 414.040   |
| 4             | 335589.427 | 8117391.295 | 412.866   | 18            | 335731.339 | 8117385.975 | 412.529   |
| 5             | 335635.005 | 8117381.690 | 413.638   | 19            | 335735.282 | 8117370.544 | 413.469   |
| 6             | 335687.985 | 8117374.775 | 414.048   | 20            | 335737.348 | 8117354.751 | 414.387   |
| 7             | 335696.791 | 8117374.081 | 413.977   | 21            | 335724.939 | 8117328.300 | 416.468   |
| 8             | 335720.937 | 8117379.078 | 413.180   | 22            | 335733.946 | 8117344.999 | 415.137   |
| 9             | 335739.591 | 8117395.202 | 411.994   | 23            | 335735.899 | 8117349.872 | 414.732   |
| 10            | 335746.480 | 8117409.962 | 411.678   | 24            | 335736.735 | 8117355.052 | 414.382   |
| 11            | 335748.155 | 8117426.166 | 411.514   | 25            | 335716.133 | 8117364.424 | 414.211   |
| 12            | 335605.431 | 8117356.710 | 415.192   | 26            | 335743.303 | 8117351.725 | 414.437   |
| 13            | 335611.271 | 8117386.258 | 412.767   | 43            | 335735.122 | 8117371.388 | 413.417   |
| 14            | 335651.424 | 8117350.043 | 415.616   | 44            | 335753.968 | 8117372.166 | 412.664   |

LOT 1  
RP745867



- NOTES**
- For General Notes Refer To DRG. 102
  - Contractor shall supply and install 3.2m long precast proprietary speed bumps in accordance with manufacturers specifications, where noted in plan.

- LEGEND**
- Existing Minor Contours
  - Existing Major Contours
  - Existing Telephone Line
  - Existing Water Line (Irrigation)
  - Existing Electrical Line
  - Property Boundary
  - Existing Stay Wires
  - Existing Stay Wire Ground Connection
  - Existing Power Pole
  - Existing Water Valve
  - Proposed Retaining Wall Designed by Contractor
  - Existing Telephone Pit
  - Concrete Paths
  - Unsealed Pathway
  - Existing Sealed Pavement
  - Unsealed Pavement Widening
  - PWD Parking Areas

**ISSUE FOR CONSTRUCTION**

Approved by: \_\_\_\_\_  
Name: \_\_\_\_\_  
RPEQ No. # \_\_\_\_\_

A1 / A3  
1:250 / 1:500

0 2 4 6 8 10m

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| C     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| B     | AMENDED AS CLOUDED             | 11/07/2019 | GOD | JH   | AWS  |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |

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**R.A. FUNCTION SERVICES PTY LTD**

Job Title  
**DE BRUEYS WINERY UPGRADE**

**DE BRUEYS BOUTIQUE WINES**

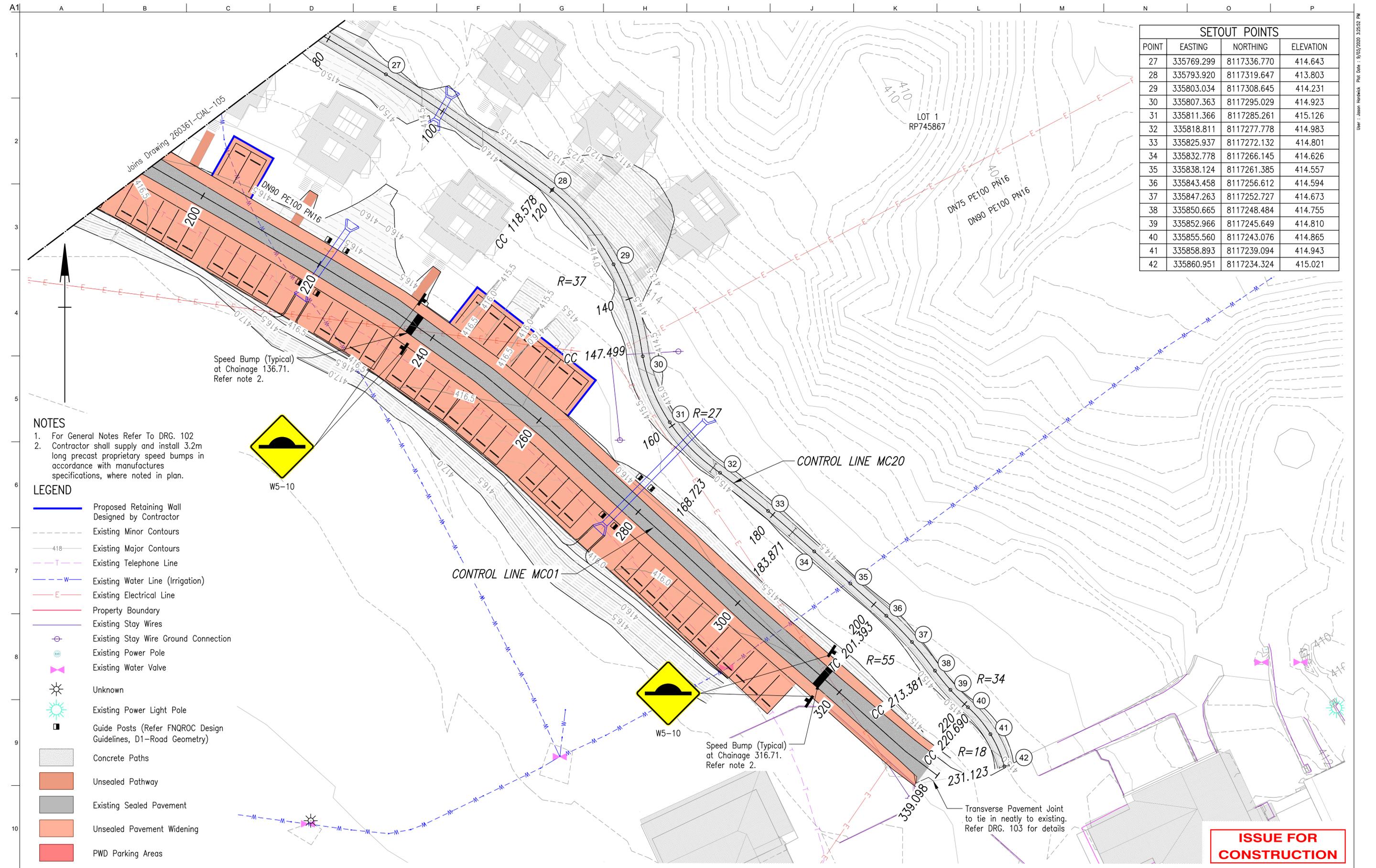
Scale at A1 1:250

Discipline CIVIL

Job No **260361-00** Drawing Status **FOR CONSTRUCTION**

Drawing No **260361-CIAL-DRG-105** Issue **C**

**ROADS AND PATHS GENERAL ARRANGEMENT SHEET 1 OF 2**



| SETOUT POINTS |            |             |           |
|---------------|------------|-------------|-----------|
| POINT         | EASTING    | NORTHING    | ELEVATION |
| 27            | 335769.299 | 8117336.770 | 414.643   |
| 28            | 335793.920 | 8117319.647 | 413.803   |
| 29            | 335803.034 | 8117308.645 | 414.231   |
| 30            | 335807.363 | 8117295.029 | 414.923   |
| 31            | 335811.366 | 8117285.261 | 415.126   |
| 32            | 335818.811 | 8117277.778 | 414.983   |
| 33            | 335825.937 | 8117272.132 | 414.801   |
| 34            | 335832.778 | 8117266.145 | 414.626   |
| 35            | 335838.124 | 8117261.385 | 414.557   |
| 36            | 335843.458 | 8117256.612 | 414.594   |
| 37            | 335847.263 | 8117252.727 | 414.673   |
| 38            | 335850.665 | 8117248.484 | 414.755   |
| 39            | 335852.966 | 8117245.649 | 414.810   |
| 40            | 335855.560 | 8117243.076 | 414.865   |
| 41            | 335858.893 | 8117239.094 | 414.943   |
| 42            | 335860.951 | 8117234.324 | 415.021   |

- NOTES**
- For General Notes Refer To DRG. 102
  - Contractor shall supply and install 3.2m long precast proprietary speed bumps in accordance with manufactures specifications, where noted in plan.

- LEGEND**
- Proposed Retaining Wall Designed by Contractor
  - Existing Minor Contours
  - 418 Existing Major Contours
  - Existing Telephone Line
  - Existing Water Line (Irrigation)
  - Existing Electrical Line
  - Property Boundary
  - Existing Stay Wires
  - Existing Stay Wire Ground Connection
  - Existing Power Pole
  - Existing Water Valve
  - Unknown
  - Existing Power Light Pole
  - Guide Posts (Refer FNQROC Design Guidelines, D1-Road Geometry)
  - Concrete Paths
  - Unsealed Pathway
  - Existing Sealed Pavement
  - Unsealed Pavement Widening
  - PWD Parking Areas

**ISSUE FOR CONSTRUCTION**

A1 / A3  
1:250 / 1:500

Approved by:  
Name  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |

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**DE BRUEYS BOUTIQUE WINES**

Job Title  
**DE BRUEYS WINERY UPGRADE**

**ROADS AND PATHS  
GENERAL ARRANGEMENT  
SHEET 2 OF 2**

Scale at A1 1:250  
Discipline CIVIL  
Job No 260361-00 Drawing Status **FOR CONSTRUCTION**  
Drawing No 260361-CIAL-DRG-106 Issue **B**

**MC01 ALIGNMENT SETOUT**

| PT   | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING       |
|------|----------|------------|-------------|---------|---------------|
| IP 1 | 0.000    | 335543.783 | 8117366.184 |         | 100°19'39.41" |
| IP 2 | 12.997   | 335556.570 | 8117363.854 | 414.789 |               |
| IP 3 | 22.929   | 335566.388 | 8117362.354 | 414.818 |               |
| IP 4 | 36.889   | 335580.208 | 8117360.380 | 414.945 |               |
| IP 5 | 53.439   | 335596.584 | 8117357.987 | 415.111 |               |
| IP 6 | 69.070   | 335612.054 | 8117355.753 | 415.253 |               |
| IP 7 | 83.827   | 335626.651 | 8117353.580 | 415.410 |               |

**MC01 ALIGNMENT SETOUT**

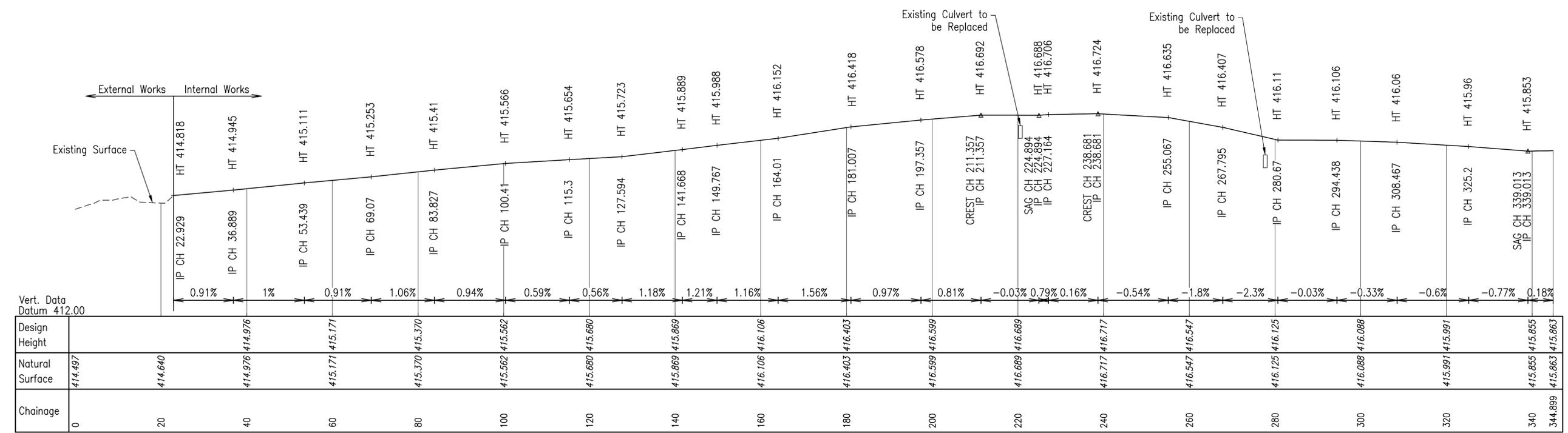
| PT    | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING |
|-------|----------|------------|-------------|---------|---------|
| IP 8  | 100.410  | 335643.069 | 8117351.247 | 415.566 |         |
| IP 9  | 115.300  | 335657.807 | 8117349.123 | 415.654 |         |
| IP 10 | 127.594  | 335669.957 | 8117347.253 | 415.723 |         |
| IP 11 | 141.668  | 335683.777 | 8117344.592 | 415.889 |         |
| IP 12 | 149.767  | 335691.662 | 8117342.741 | 415.988 |         |
| IP 13 | 164.010  | 335705.122 | 8117338.084 | 416.152 |         |
| IP 14 | 181.007  | 335720.432 | 8117330.700 | 416.418 |         |

**MC01 ALIGNMENT SETOUT**

| PT    | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING |
|-------|----------|------------|-------------|---------|---------|
| IP 15 | 197.357  | 335734.863 | 8117323.014 | 416.578 |         |
| IP 16 | 211.357  | 335746.970 | 8117315.985 | 416.692 |         |
| IP 17 | 224.894  | 335758.639 | 8117309.123 | 416.688 |         |
| IP 18 | 227.164  | 335760.583 | 8117307.951 | 416.706 |         |
| IP 19 | 238.681  | 335770.386 | 8117301.907 | 416.724 |         |
| IP 20 | 255.067  | 335783.729 | 8117292.395 | 416.635 |         |
| IP 21 | 267.795  | 335793.515 | 8117284.256 | 416.407 |         |

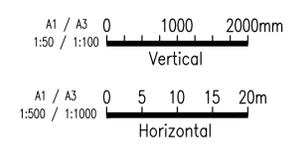
**MC01 ALIGNMENT SETOUT**

| PT    | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING       |
|-------|----------|------------|-------------|---------|---------------|
| IP 22 | 280.670  | 335802.876 | 8117275.416 | 416.110 |               |
| IP 23 | 294.438  | 335813.133 | 8117266.233 | 416.106 |               |
| IP 24 | 308.467  | 335823.408 | 8117256.681 | 416.060 |               |
| IP 25 | 325.200  | 335836.046 | 8117245.714 | 415.960 |               |
| IP 26 | 339.013  | 335846.355 | 8117236.520 | 415.853 |               |
| IP 27 | 344.899  | 335851.046 | 8117232.965 | 415.863 | 127°09'30.51" |



LONGITUDINAL SECTION MC01 - EXISTING ROAD CROWN

**ISSUE FOR CONSTRUCTION**



Approved by: \_\_\_\_\_  
Name: \_\_\_\_\_  
RPEQ No. # \_\_\_\_\_

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   |      |



Client  
**R.A. FUNCTION SERVICES PTY LTD**



**DE BRUEYS BOUTIQUE WINES**

Job Title  
**DE BRUEYS WINERY UPGRADE**

**MC01 LONGITUDINAL SECTION**

|                |                         |
|----------------|-------------------------|
| Scale at A1    | AS SHOWN                |
| Discipline     | CIVIL                   |
| Job No         | 260361-00               |
| Drawing Status | <b>FOR CONSTRUCTION</b> |
| Drawing No     | 260361-CIAL-DRG-107     |
| Issue          | <b>B</b>                |



CONTROL LINE MC01  
 X = 335719.525  
 Y = 8117331.138  
 Z = 416.403

Datum 414.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 415.556       | 415.556          | -10.803 |
| 416.311       | 416.207          | -3.250  |
| 416.364       | 416.364          | -1.367  |
| 416.403       | 416.403          | 0.000   |
| 416.324       | 416.324          | 1.568   |
| 416.240       | 416.261          | 3.250   |
| 415.939       | 416.590          | 9.250   |
| 415.830       | 416.603          | 9.688   |
| 415.825       | 416.634          | 10.688  |
| 416.741       | 416.741          | 14.351  |

CHAINAGE 180.000

CONTROL LINE MC01  
 X = 335771.460  
 Y = 8117301.141  
 Z = 416.717

Datum 416.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 416.542       | 416.542          | -4.339  |
| 416.651       | 416.608          | -3.250  |
| 416.683       | 416.683          | -1.696  |
| 416.717       | 416.717          | 0.000   |
| 416.696       | 416.696          | 1.543   |
| 416.672       | 416.702          | 3.250   |
| 416.588       | 416.930          | 9.250   |
| 416.507       | 416.939          | 9.574   |
| 416.502       | 416.967          | 10.574  |
| 417.024       | 417.024          | 12.664  |

CHAINAGE 240.000

CONTROL LINE MC01  
 X = 335701.332  
 Y = 8117339.395  
 Z = 416.106

Datum 414.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 415.566       | 415.566          | -6.675  |
| 416.137       | 415.919          | -3.250  |
| 416.120       | 416.120          | -1.511  |
| 416.106       | 416.106          | 0.000   |
| 416.029       | 416.029          | 1.251   |
| 415.905       | 415.944          | 3.250   |
| 415.533       | 416.297          | 9.250   |
| 415.238       | 416.337          | 10.433  |
| 415.233       | 416.370          | 11.433  |
| 416.546       | 416.546          | 16.687  |

CHAINAGE 160.000

CONTROL LINE MC01  
 X = 335754.420  
 Y = 8117311.604  
 Z = 416.689

Datum 416.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 416.452       | 416.452          | -5.225  |
| 416.649       | 416.575          | -3.250  |
| 416.671       | 416.671          | -1.499  |
| 416.689       | 416.689          | 0.000   |
| 416.695       | 416.695          | 1.543   |
| 416.701       | 416.539          | 3.250   |
| 416.723       | 416.912          | 9.250   |
| 416.562       | 416.929          | 9.893   |
| 416.557       | 416.954          | 10.893  |
| 416.998       | 416.998          | 12.657  |

CHAINAGE 220.000

CONTROL LINE MC01  
 X = 335682.139  
 Y = 8117344.907  
 Z = 415.869

Datum 414.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 415.440       | 415.440          | -6.494  |
| 415.764       | 415.578          | -3.250  |
| 415.814       | 415.814          | -1.716  |
| 415.869       | 415.869          | 0.000   |
| 415.827       | 415.827          | 1.457   |
| 415.775       | 415.651          | 3.250   |
| 415.602       | 416.088          | 9.250   |
| 415.130       | 416.158          | 11.135  |
| 415.125       | 416.192          | 12.135  |
| 416.349       | 416.349          | 17.029  |

CHAINAGE 140.000

CONTROL LINE MC01  
 X = 335737.148  
 Y = 8117321.687  
 Z = 416.599

Datum 416.00

| DESIGN HEIGHT | EXISTING SURFACE | OFFSETS |
|---------------|------------------|---------|
| 416.459       | 416.459          | -3.264  |
| 416.457       | 416.457          | -3.250  |
| 416.531       | 416.531          | -1.560  |
| 416.599       | 416.599          | 0.000   |
| 416.574       | 416.574          | 1.641   |
| 416.549       | 416.458          | 3.250   |
| 416.457       | 416.821          | 9.250   |
| 416.453       | 416.822          | 9.266   |
| 416.448       | 416.869          | 10.266  |
| 416.959       | 416.959          | 12.311  |

CHAINAGE 200.000

**ISSUE FOR CONSTRUCTION**

A1 / A3  
 1:100 / 1:200

Approved by:  
 Name  
 RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |

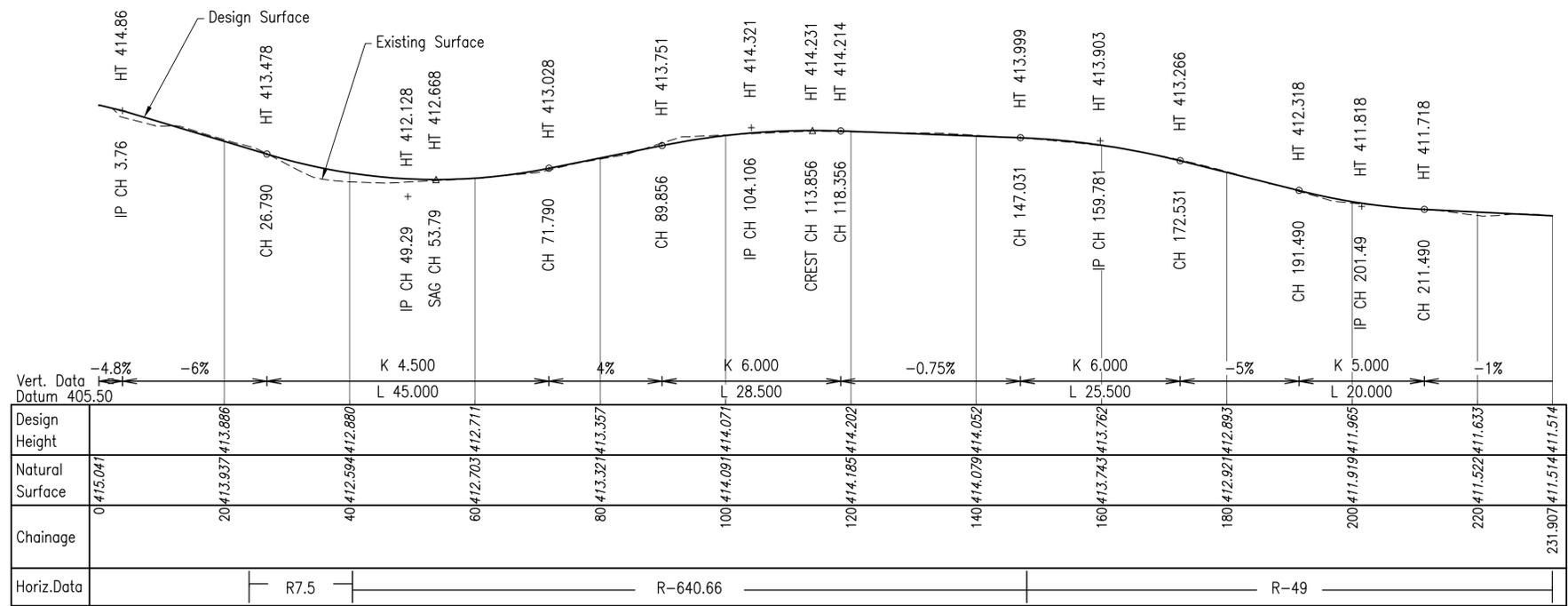
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 www.arup.com

**CONSULT AUSTRALIA**  
 Member Firm  
 Arup Pty Ltd  
 ABN 18 000 966 165

Client  
**R.A. FUNCTION SERVICES PTY LTD**  
 Job Title  
**DE BRUEYS WINERY UPGRADE**  
 DE BRUEYS  
 BOUTIQUE WINES

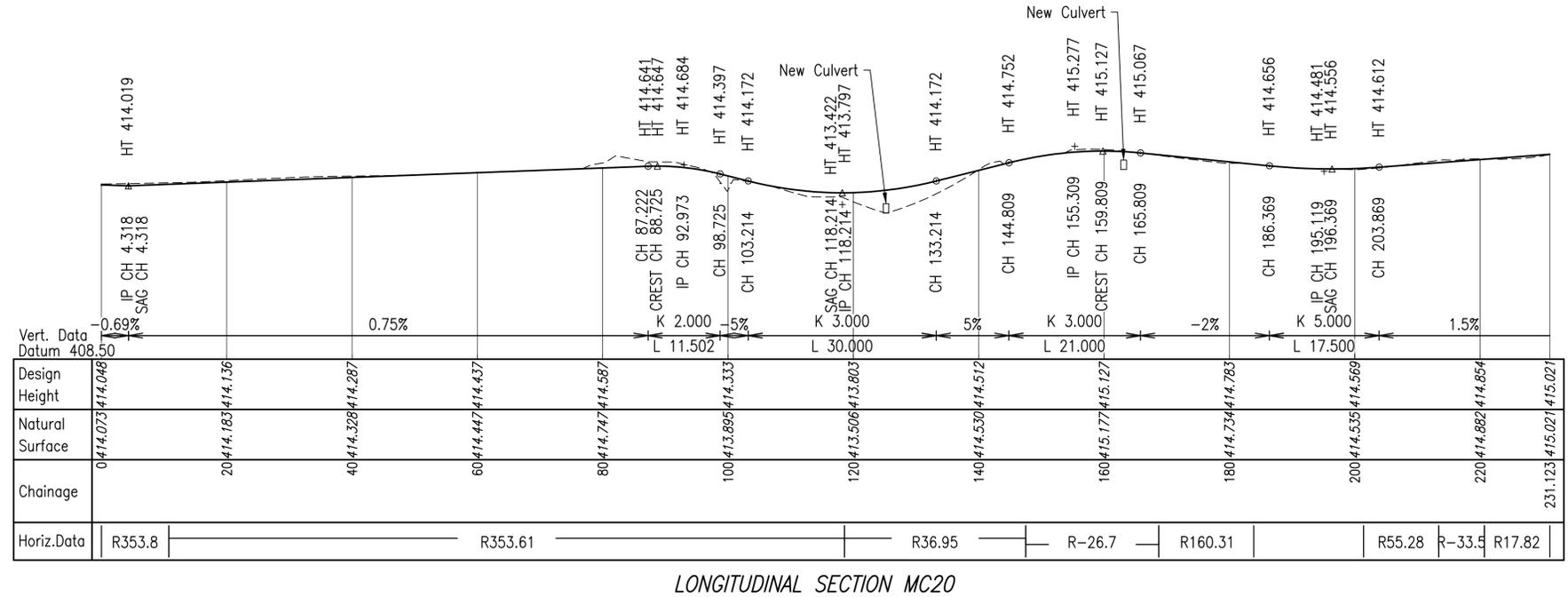
Scale at A1 AS SHOWN  
 Discipline CIVIL  
 Job No **260361-00** Drawing Status **FOR CONSTRUCTION**  
 Drawing No **260361-CIAL-DRG-109** Issue **B**





**MC10 ALIGNMENT SEOUT**

| PT   | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING       | RAD/SPIRAL   |
|------|----------|------------|-------------|---------|---------------|--------------|
| IP 1 | 0.000    | 335589.645 | 8117359.001 |         | 337°58'14.49" |              |
| TC   | 23.952   | 335580.661 | 8117381.204 | 413.649 | 337°58'14.49" |              |
| IP 2 | 28.076   | 335578.937 | 8117385.466 | 413.403 |               | R = 7.500    |
| CC   | 32.200   | 335581.952 | 8117388.936 | 413.186 | 40°58'46.74"  |              |
| IP 3 | 36.324   | 335584.966 | 8117392.406 | 413.007 |               | R = 7.500    |
| CC   | 40.448   | 335589.427 | 8117391.295 | 412.866 | 103°59'18.99" |              |
| IP 4 | 94.249   | 335641.755 | 8117378.259 | 413.911 |               | R = -640.660 |
| CC   | 148.049  | 335695.526 | 8117374.154 | 413.991 | 94°21'55.97"  |              |
| IP 5 | 189.978  | 335751.786 | 8117369.859 | 412.394 |               | R = -49.000  |
| IP 6 | 231.907  | 335748.155 | 8117426.166 | 411.514 | 356°18'36.09" |              |



**MC20 ALIGNMENT SETOUT**

| PT    | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING       | RAD/SPIRAL  |
|-------|----------|------------|-------------|---------|---------------|-------------|
| IP 1  | 0.000    | 335687.985 | 8117374.775 | 414.048 | 107°45'43.10" |             |
| IP 2  | 5.383    | 335693.111 | 8117373.133 | 414.026 |               | R = 353.800 |
| IP 3  | 10.766   | 335698.186 | 8117371.335 | 414.067 |               | R = 353.613 |
| CC    | 118.578  | 335792.800 | 8117320.524 | 413.798 | 126°58'18.65" |             |
| IP 5  | 133.039  | 335804.981 | 8117311.354 | 414.164 |               | R = 36.951  |
| CC    | 147.499  | 335807.152 | 8117296.262 | 414.875 | 171°48'59.23" |             |
| IP 6  | 158.111  | 335808.747 | 8117285.168 | 415.122 |               | R = -26.697 |
| IP 7  | 168.723  | 335817.784 | 8117278.538 | 415.009 |               | R = 160.306 |
| IP 8  | 176.297  | 335823.896 | 8117274.054 | 414.857 |               | R = 160.306 |
| IP 9  | 183.871  | 335829.557 | 8117269.013 | 414.706 |               | R = 160.306 |
| TC    | 201.393  | 335842.643 | 8117257.361 | 414.581 | 131°40'55.12" |             |
| IP 10 | 207.387  | 335847.137 | 8117253.359 | 414.665 |               | R = 55.283  |
| CC    | 213.381  | 335850.665 | 8117248.484 | 414.755 | 144°06'23.51" |             |
| IP 11 | 217.036  | 335852.816 | 8117245.512 | 414.810 |               | R = -33.500 |
| CC    | 220.690  | 335855.560 | 8117243.076 | 414.865 | 131°36'20.63" |             |
| IP 12 | 225.907  | 335859.576 | 8117239.510 | 414.943 |               | R = 17.822  |
| IP 13 | 231.123  | 335860.952 | 8117234.318 | 415.021 | 165°08'45.76" |             |

ISSUE FOR CONSTRUCTION



Approved by:  
Name:  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |



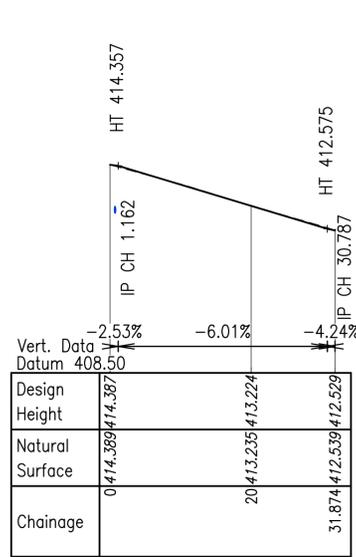
Client  
**R.A. FUNCTION SERVICES PTY LTD**



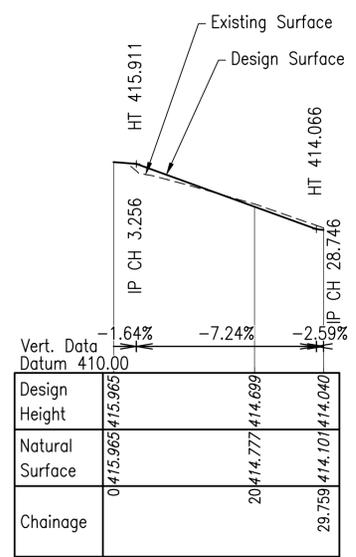
Job Title  
**DE BRUEYS WINERY UPGRADE**

**INTERNAL PATHWAYS  
LONGITUDINAL SECTIONS  
SHEET 1 OF 2**

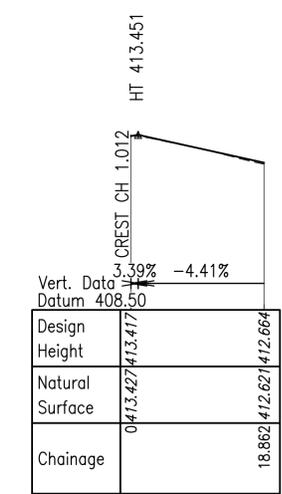
Scale at A1 1:1000  
Discipline CIVIL  
Job No 260361-00 Drawing Status **FOR CONSTRUCTION**  
Drawing No 260361-CIAL-DRG-111 Issue **B**



LONGITUDINAL SECTION MC30



LONGITUDINAL SECTION MC40



LONGITUDINAL SECTION MC50

MC30 ALIGNMENT SETOUT

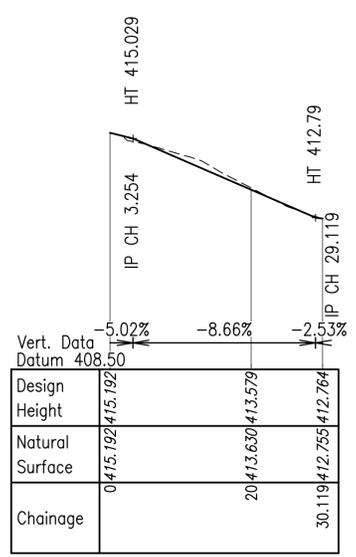
| PT   | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING       | RAD/SPIRAL   |
|------|----------|------------|-------------|---------|---------------|--------------|
| IP 1 | 0.000    | 335737.348 | 8117354.751 | 414.387 | 356°01'25.33" |              |
| IP 2 | 15.937   | 335736.238 | 8117370.728 | 413.469 |               | R = -131.993 |
| IP 3 | 31.874   | 335731.339 | 8117385.975 | 412.529 | 342°11'15.37" |              |

MC40 ALIGNMENT SETOUT

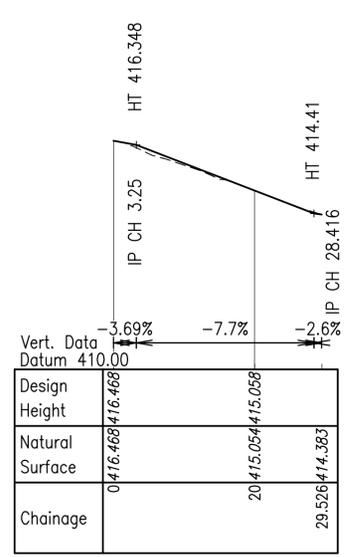
| PT   | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING     |
|------|----------|------------|-------------|---------|-------------|
| IP 1 | 0.000    | 335689.839 | 8117343.169 | 415.965 | 9°38'09.36" |
| IP 2 | 29.759   | 335694.820 | 8117372.508 |         | 9°38'09.36" |

MC50 ALIGNMENT SETOUT

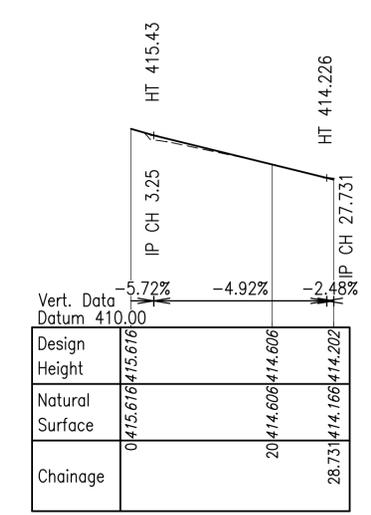
| PT   | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING      |
|------|----------|------------|-------------|---------|--------------|
| IP 1 | 0.000    | 335735.122 | 8117371.388 |         | 87°38'08.72" |
| IP 2 | 18.862   | 335753.968 | 8117372.166 | 412.664 | 87°38'08.72" |



LONGITUDINAL SECTION MC60



LONGITUDINAL SECTION MC80



LONGITUDINAL SECTION MC70

MC60 ALIGNMENT SETOUT

| PT   | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING      |
|------|----------|------------|-------------|---------|--------------|
| IP 1 | 0.000    | 335605.431 | 8117356.710 | 415.192 | 11°10'50.66" |
| IP 2 | 30.119   | 335611.271 | 8117386.258 | 412.764 | 11°10'50.66" |

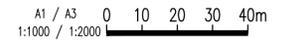
MC70 ALIGNMENT SETOUT

| PT   | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING     |
|------|----------|------------|-------------|---------|-------------|
| IP 1 | 0.000    | 335651.424 | 8117350.043 | 415.616 | 9°02'50.40" |
| IP 2 | 28.731   | 335655.942 | 8117378.417 |         | 9°02'50.40" |

MC80 ALIGNMENT SETOUT

| PT   | CHAINAGE | EASTING    | NORTHING    | HEIGHT  | BEARING      | RAD/SPIRAL  |
|------|----------|------------|-------------|---------|--------------|-------------|
| IP 1 | 0.000    | 335724.939 | 8117328.300 | 416.468 | 28°20'30.57" |             |
| TC   | 18.973   | 335733.946 | 8117344.999 | 415.137 | 28°20'30.57" |             |
| IP 2 | 24.249   | 335736.494 | 8117349.722 | 414.730 |              | R = -23.480 |
| IP 3 | 29.526   | 335736.736 | 8117355.084 |         | 2°35'26.55"  |             |

**ISSUE FOR CONSTRUCTION**



Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |



Client: R.A. FUNCTION SERVICES PTY LTD  
Job Title: DE BRUEYS WINERY UPGRADE



INTERNAL PATHWAYS  
LONGITUDINAL SECTIONS  
SHEET 2 OF 2

Scale at A1 1:1000

|                |                     |
|----------------|---------------------|
| Discipline     | CIVIL               |
| Job No         | 260361-00           |
| Drawing Status | FOR CONSTRUCTION    |
| Drawing No     | 260361-CIAL-DRG-112 |
| Issue          | B                   |

CONTROL LINE MC10  
 X = 335608.468  
 Y = 8117386.859  
 Z = 412.711

Datum 412.00

|                  |  |  |  |  |  |  |
|------------------|--|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |  |

CHAINAGE 60.000

CONTROL LINE MC10  
 X = 335588.989  
 Y = 8117391.390  
 Z = 412.880

Datum 412.00

|                  |  |  |  |  |  |
|------------------|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |

CHAINAGE 40.000

CONTROL LINE MC10  
 X = 335582.144  
 Y = 8117377.541  
 Z = 413.886

Datum 412.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 20.000

CONTROL LINE MC10  
 X = 335589.643  
 Y = 8117359.006  
 Z = 415.041

Datum 414.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 0.006

CONTROL LINE MC10

CONTROL LINE MC10  
 X = 335667.614  
 Y = 8117376.901  
 Z = 414.202

Datum 412.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 120.000

CONTROL LINE MC10  
 X = 335647.798  
 Y = 8117379.604  
 Z = 414.071

Datum 412.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 100.000

CONTROL LINE MC10  
 X = 335628.077  
 Y = 8117382.925  
 Z = 413.357

Datum 412.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 80.000

CONTROL LINE MC10

**ISSUE FOR CONSTRUCTION**



Approved by:  
 Name  
 RPEQ No. #

|       |                                |            |     |      |      |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |
| Issue | Description                    | Date       | By  | Chkd | Appd |

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DE BRUEYS  
 BOUTIQUE WINES

Client R.A. FUNCTION SERVICES PTY LTD  
 Job Title DE BRUEYS WINERY UPGRADE

INTERNAL PATHWAYS  
 CROSS SECTIONS  
 SHEET 1 OF 6

Scale at A1 1:1000

Discipline CIVIL

Job No 260361-00 Drawing Status FOR CONSTRUCTION

Drawing No 260361-CIAL-DRG-113 Issue B

CONTROL LINE MC10  
X = 335725.940  
Y = 8117381.915  
Z = 412.893

Datum 412.00

|                  |  |  |  |  |  |
|------------------|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |

CHAINAGE 180.000

CONTROL LINE MC10  
X = 335748.155  
Y = 8117426.166  
Z = 411.514

Datum 410.00

|                  |  |  |  |  |  |
|------------------|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |

CHAINAGE 231.907

CONTROL LINE MC10  
X = 335707.435  
Y = 8117374.700  
Z = 413.762

Datum 412.00

|                  |  |  |  |  |  |
|------------------|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |

CHAINAGE 160.000

CONTROL LINE MC10  
X = 335747.477  
Y = 8117414.307  
Z = 411.633

Datum 410.00

|                  |  |  |  |  |  |
|------------------|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |

CHAINAGE 220.000

CONTROL LINE MC10  
X = 335687.504  
Y = 8117374.817  
Z = 414.052

Datum 412.00

|                  |  |  |  |  |  |
|------------------|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |

CHAINAGE 140.000  
CONTROL LINE MC30

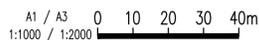
CONTROL LINE MC10  
X = 335740.060  
Y = 8117395.882  
Z = 411.965

Datum 410.00

|                  |  |  |  |  |  |
|------------------|--|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |  |
| OFFSETS          |  |  |  |  |  |

CHAINAGE 200.000  
CONTROL LINE MC30

**ISSUE FOR CONSTRUCTION**



Approved by:  
Name  
  
RPEQ No. #

|       |                                |            |     |      |      |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |
| Issue | Description                    | Date       | By  | Chkd | Appd |



Client  
**R.A. FUNCTION SERVICES PTY LTD**

Job Title  
**DE BRUEYS WINERY UPGRADE**

INTERNAL PATHWAYS  
CROSS SECTIONS  
SHEET 2 OF 6

Scale at A1 1:1000

|                |                     |
|----------------|---------------------|
| Discipline     | CIVIL               |
| Job No         | 260361-00           |
| Drawing Status | FOR CONSTRUCTION    |
| Drawing No     | 260361-CIAL-DRG-114 |
| Issue          | B                   |

CONTROL LINE MC20  
 X = 335725.308  
 Y = 8117360.448  
 Z = 414.287

Datum 414.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 40.000

CONTROL LINE MC20  
 X = 335777.671  
 Y = 8117331.302  
 Z = 414.333

Datum 412.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 100.000

X = 335811.711  
 Y = 8117284.745  
 Z = 415.127

Datum 414.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 160.000

CONTROL LINE MC20  
 X = 335706.849  
 Y = 8117368.139  
 Z = 414.136

Datum 412.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 20.000

CONTROL LINE MC20  
 X = 335760.776  
 Y = 8117342.000  
 Z = 414.587

Datum 414.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 80.000

CONTROL LINE MC20  
 X = 335805.341  
 Y = 8117303.526  
 Z = 414.512

Datum 412.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 140.000

CONTROL LINE MC20  
 X = 335688.198  
 Y = 8117374.707  
 Z = 414.047

Datum 412.00

|                  |  |  |  |
|------------------|--|--|--|
| DESIGN HEIGHT    |  |  |  |
| EXISTING SURFACE |  |  |  |
| OFFSETS          |  |  |  |

CHAINAGE 0.224  
 CONTROL LINE MC20

CONTROL LINE MC20  
 X = 335743.303  
 Y = 8117351.725  
 Z = 414.437

Datum 412.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 60.000  
 CONTROL LINE MC20

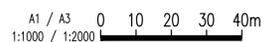
CONTROL LINE MC20  
 X = 335793.920  
 Y = 8117319.647  
 Z = 413.803

Datum 412.00

|                  |  |  |  |  |
|------------------|--|--|--|--|
| DESIGN HEIGHT    |  |  |  |  |
| EXISTING SURFACE |  |  |  |  |
| OFFSETS          |  |  |  |  |

CHAINAGE 120.000  
 CONTROL LINE MC20

**ISSUE FOR CONSTRUCTION**



Approved by:  
 Name  
 RPEQ No. #

|       |                                |            |     |      |      |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |
| Issue | Description                    | Date       | By  | Chkd | Appd |

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DE BRUEYS  
 BOUTIQUE WINES

Client  
 R.A. FUNCTION SERVICES PTY LTD

Job Title  
 DE BRUEYS WINERY UPGRADE

INTERNAL PATHWAYS  
 CROSS SECTIONS  
 SHEET 3 OF 6

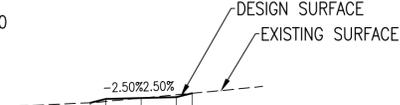
Scale at A1 1:1000

Discipline CIVIL

Job No 260361-00 Drawing Status FOR CONSTRUCTION

Drawing No 260361-CIAL-DRG-115 Issue B

CONTROL LINE MC20  
 X = 335860.952  
 Y = 8117234.318  
 Z = 415.021

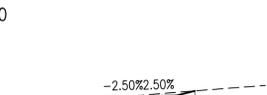


Datum 414.00

|                  |  |         |         |         |         |         |         |
|------------------|--|---------|---------|---------|---------|---------|---------|
| DESIGN HEIGHT    |  | 414.887 | 414.887 | 414.996 | 415.021 | 415.046 | 415.157 |
| EXISTING SURFACE |  | 414.887 | 414.927 | 414.996 | 415.021 | 415.115 | 415.157 |
| OFFSETS          |  | -1.437  | -1.000  | 0.000   | 1.000   | 1.000   | 1.442   |

CHAINAGE 231.123

CONTROL LINE MC20  
 X = 335855.048  
 Y = 8117243.539  
 Z = 414.854



Datum 414.00

|                  |  |         |         |         |         |         |         |
|------------------|--|---------|---------|---------|---------|---------|---------|
| DESIGN HEIGHT    |  | 414.776 | 414.776 | 414.829 | 414.854 | 414.879 | 415.009 |
| EXISTING SURFACE |  | 414.776 | 414.795 | 414.829 | 414.854 | 414.967 | 415.009 |
| OFFSETS          |  | -1.213  | -1.000  | 0.000   | 1.000   | 1.000   | 1.521   |

CHAINAGE 220.000

CONTROL LINE MC20  
 X = 335841.602  
 Y = 8117258.287  
 Z = 414.569



Datum 414.00

|                  |  |         |         |         |         |         |         |
|------------------|--|---------|---------|---------|---------|---------|---------|
| DESIGN HEIGHT    |  | 414.437 | 414.437 | 414.544 | 414.569 | 414.594 | 414.625 |
| EXISTING SURFACE |  | 414.437 | 414.466 | 414.544 | 414.569 | 414.614 | 414.625 |
| OFFSETS          |  | -1.427  | -1.000  | 0.000   | 1.000   | 1.000   | 1.122   |

CHAINAGE 200.000

CONTROL LINE MC20  
 X = 335826.635  
 Y = 8117271.552  
 Z = 414.783



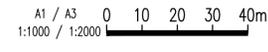
Datum 414.00

|                  |  |         |         |         |         |         |         |
|------------------|--|---------|---------|---------|---------|---------|---------|
| DESIGN HEIGHT    |  | 414.631 | 414.631 | 414.758 | 414.783 | 414.808 | 414.817 |
| EXISTING SURFACE |  | 414.631 | 414.661 | 414.734 | 414.783 | 414.814 | 414.817 |
| OFFSETS          |  | -1.510  | -1.000  | 0.000   | 1.000   | 1.000   | 1.035   |

CHAINAGE 180.000

CONTROL LINE MC20

**ISSUE FOR CONSTRUCTION**



Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |



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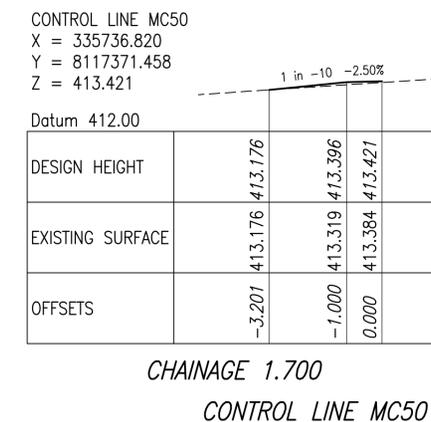
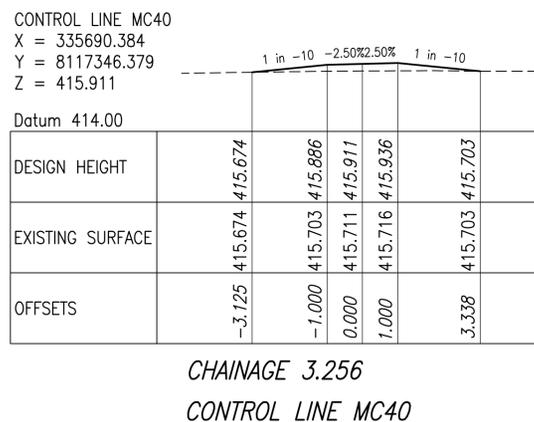
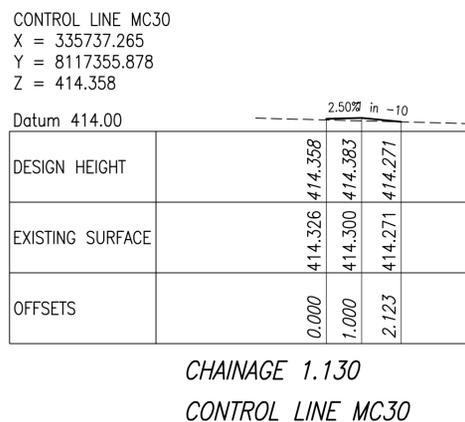
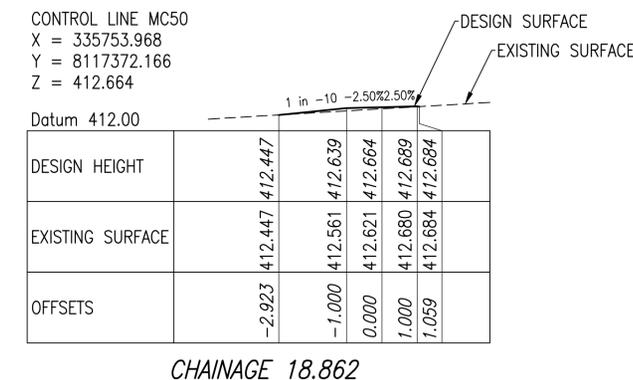
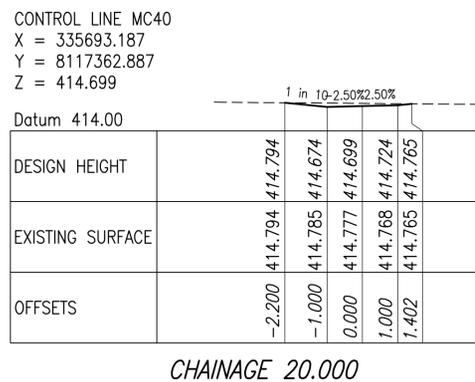
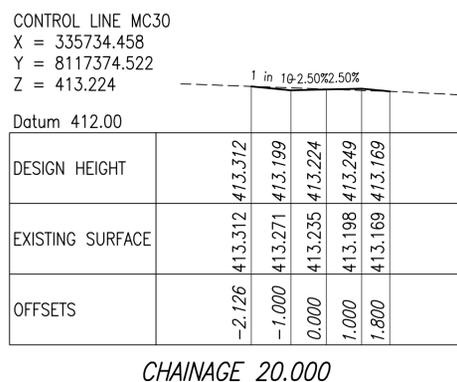
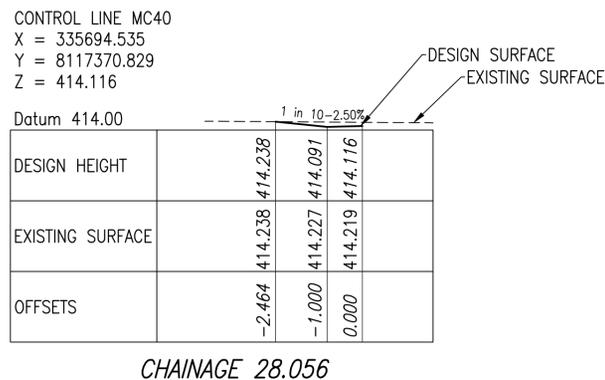
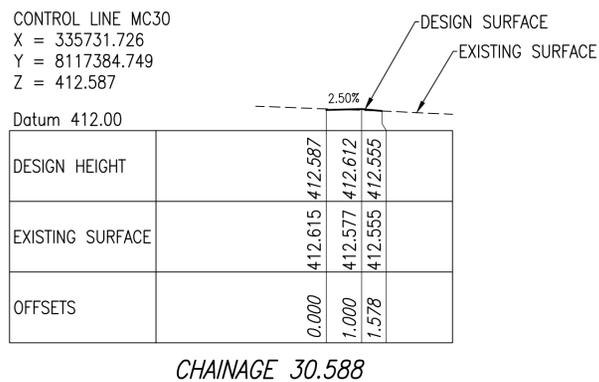


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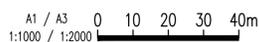
Job Title  
DE BRUEYS WINERY UPGRADE

INTERNAL PATHWAYS  
CROSS SECTIONS  
SHEET 4 OF 6

|                    |                     |
|--------------------|---------------------|
| Scale at A1 1:1000 |                     |
| Discipline         | CIVIL               |
| Job No             | 260361-00           |
| Drawing Status     | FOR CONSTRUCTION    |
| Drawing No         | 260361-CIAL-DRG-116 |
| Issue              | B                   |



ISSUE FOR CONSTRUCTION



Approved by:  
Name  
  
RPEQ No. #

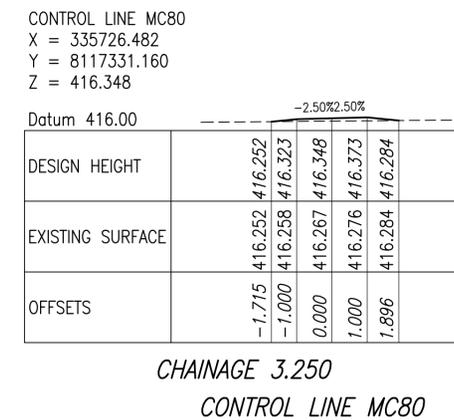
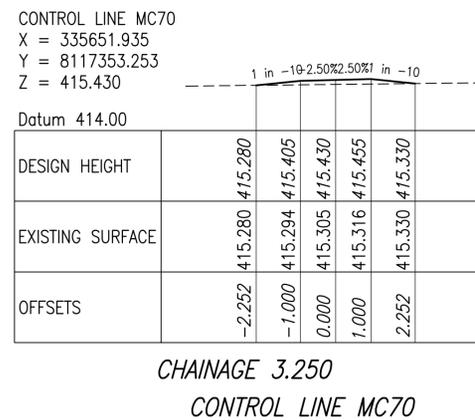
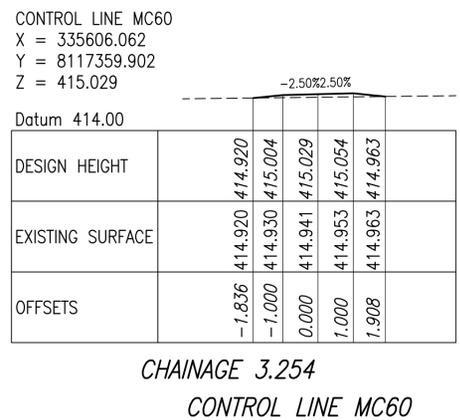
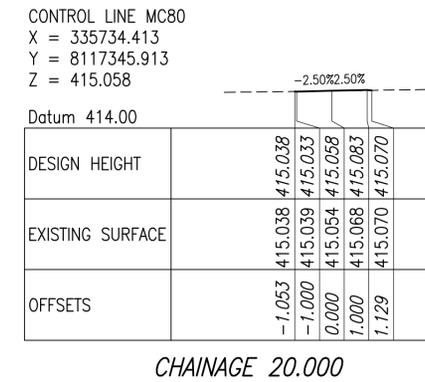
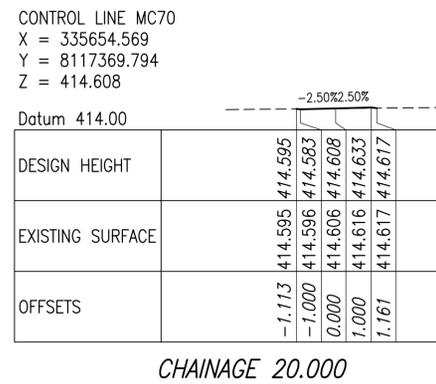
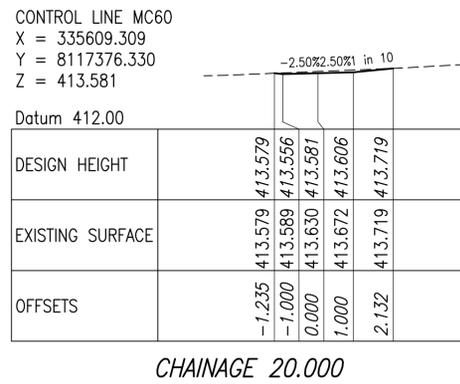
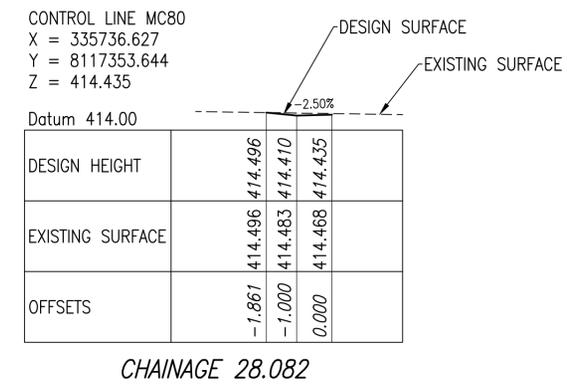
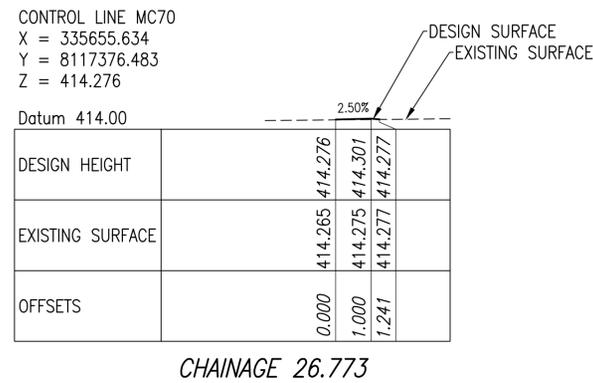
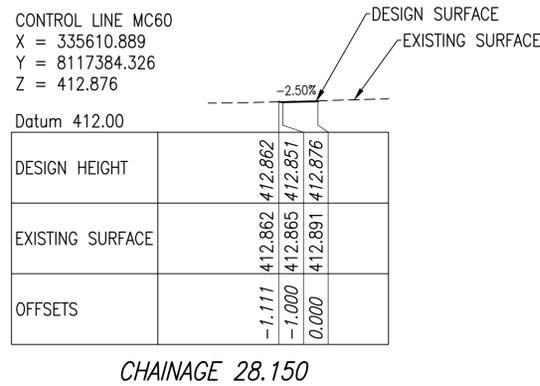
| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |



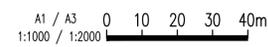
INTERNAL PATHWAYS  
CROSS SECTIONS  
SHEET 5 OF 6

Scale at A1 1:1000

|                |                     |
|----------------|---------------------|
| Discipline     | CIVIL               |
| Job No         | 260361-00           |
| Drawing Status | FOR CONSTRUCTION    |
| Drawing No     | 260361-CIAL-DRG-117 |
| Issue          | B                   |



ISSUE FOR CONSTRUCTION



Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/08/2019 | GOD | JH   | AWS  |



Client  
**R.A. FUNCTION SERVICES PTY LTD**

Job Title  
**DE BRUEYS WINERY UPGRADE**

**DE BRUEYS BOUTIQUE WINES**

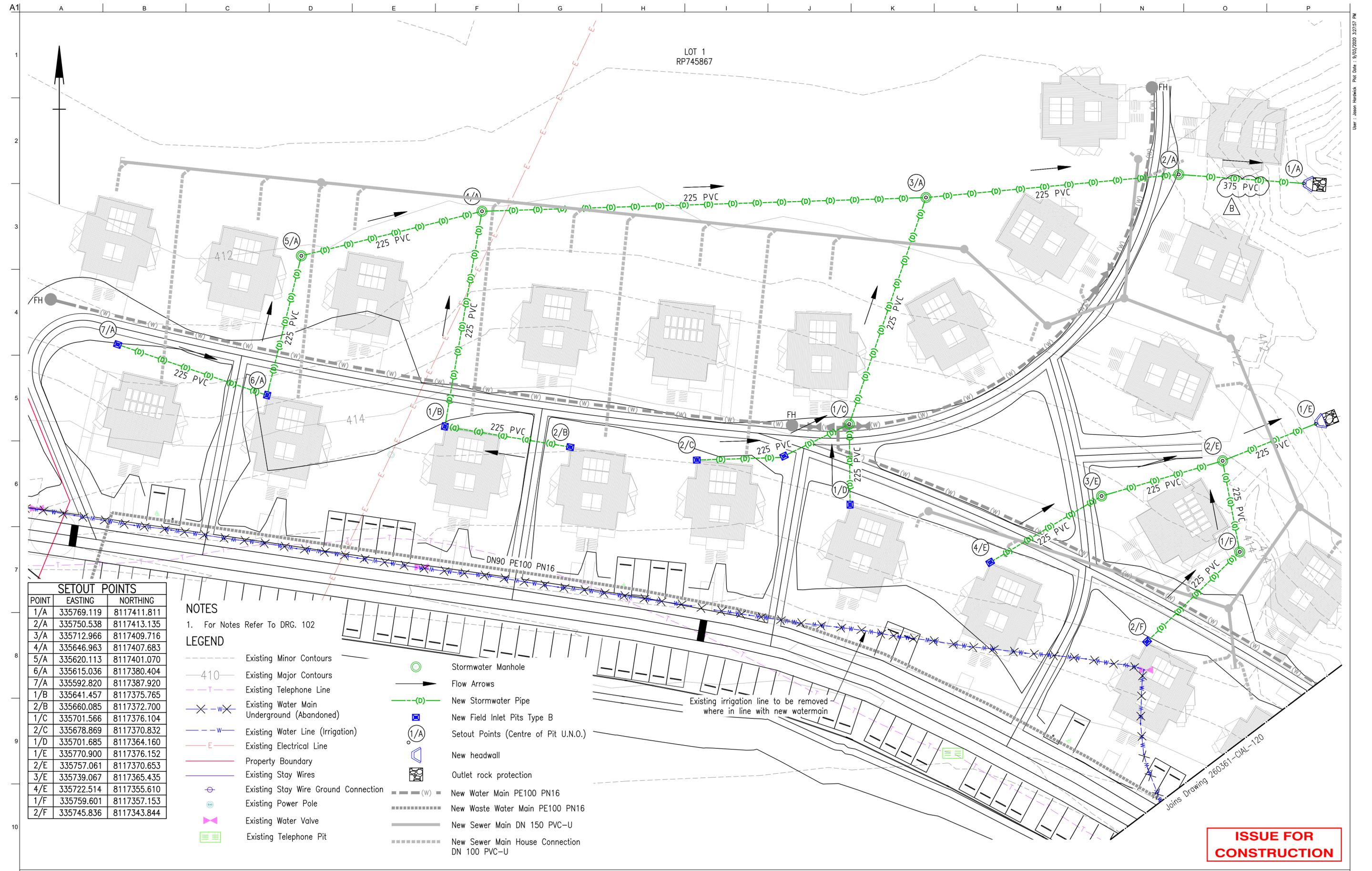
INTERNAL PATHWAYS  
CROSS SECTIONS  
SHEET 6 OF 6

Scale at A1 1:1000

Discipline CIVIL

Job No **260361-00** Drawing Status **FOR CONSTRUCTION**

Drawing No **260361-CIAL-DRG-118** Issue **B**



| SETOUT POINTS |            |             |
|---------------|------------|-------------|
| POINT         | EASTING    | NORTHING    |
| 1/A           | 335769.119 | 8117411.811 |
| 2/A           | 335750.538 | 8117413.135 |
| 3/A           | 335712.966 | 8117409.716 |
| 4/A           | 335646.963 | 8117407.683 |
| 5/A           | 335620.113 | 8117401.070 |
| 6/A           | 335615.036 | 8117380.404 |
| 7/A           | 335592.820 | 8117387.920 |
| 1/B           | 335641.457 | 8117375.765 |
| 2/B           | 335660.085 | 8117372.700 |
| 1/C           | 335701.566 | 8117376.104 |
| 2/C           | 335678.869 | 8117370.832 |
| 1/D           | 335701.685 | 8117364.160 |
| 1/E           | 335770.900 | 8117376.152 |
| 2/E           | 335757.061 | 8117370.653 |
| 3/E           | 335739.067 | 8117365.435 |
| 4/E           | 335722.514 | 8117355.610 |
| 1/F           | 335759.601 | 8117357.153 |
| 2/F           | 335745.836 | 8117343.844 |

**NOTES**

1. For Notes Refer To DRG. 102

**LEGEND**

- - - Existing Minor Contours
- - - 410 - Existing Major Contours
- - - Existing Telephone Line
- x - w - Existing Water Main Underground (Abandoned)
- - w - Existing Water Line (Irrigation)
- - E - Existing Electrical Line
- - - Existing Stay Wires
- ⊕ Existing Stay Wire Ground Connection
- ⊕ Existing Power Pole
- ⊕ Existing Water Valve
- ⊕ Existing Telephone Pit
- ⊙ Stormwater Manhole
- Flow Arrows
- (D)--- New Stormwater Pipe
- ⊕ New Field Inlet Pits Type B
- ⊕ 1/A Setout Points (Centre of Pit U.N.O.)
- ⊕ New headwall
- ⊕ Outlet rock protection
- - - (W) - New Water Main PE100 PN16
- - - - - New Waste Water Main PE100 PN16
- - - - - New Sewer Main DN 150 PVC-U
- - - - - New Sewer Main House Connection DN 100 PVC-U

ISSUE FOR CONSTRUCTION

Approved by:  
Name:  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | AL   | AL   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |

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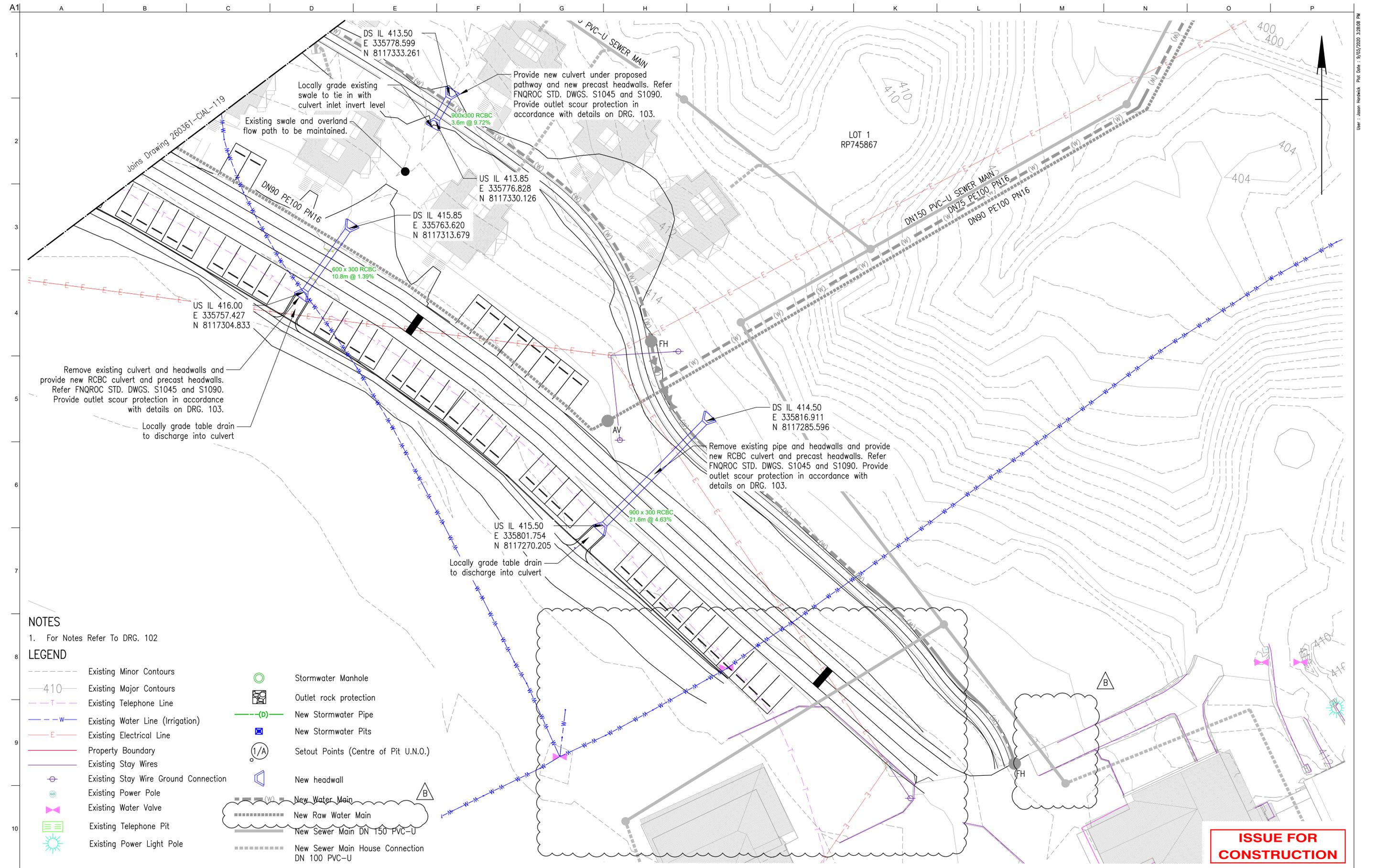


**DE BRUEYS BOUTIQUE WINES**

Client: **R.A. FUNCTION SERVICES PTY LTD**  
Job Title: **DE BRUEYS WINERY UPGRADE**

**STORMWATER DRAINAGE GENERAL ARRANGEMENT SHEET 1 OF 2**

|                |                         |
|----------------|-------------------------|
| Scale at A1    | 1:250                   |
| Discipline     | CIVIL                   |
| Job No         | 260361-00               |
| Drawing Status | <b>FOR CONSTRUCTION</b> |
| Drawing No     | 260361-CIAL-DRG-119     |
| Issue          | <b>B</b>                |



**NOTES**  
 1. For Notes Refer To DRG. 102

**LEGEND**

- - - Existing Minor Contours
- 410 Existing Major Contours
- - - Existing Telephone Line
- - - Existing Water Line (Irrigation)
- - - Existing Electrical Line
- Property Boundary
- - - Existing Stay Wires
- Existing Stay Wire Ground Connection
- Existing Power Pole
- Existing Water Valve
- Existing Telephone Pit
- Existing Power Light Pole
- Stormwater Manhole
- Outlet rock protection
- New Stormwater Pipe
- New Stormwater Pits
- Setout Points (Centre of Pit U.N.O.)
- New headwall
- New Water Main
- New Raw Water Main
- New Sewer Main DN 150 PVC-U
- New Sewer Main House Connection DN 100 PVC-U

ISSUE FOR CONSTRUCTION

Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | SK   | SK   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWIS |

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Client  
**R.A. FUNCTION SERVICES PTY LTD**  
 DE BRUEYS BOUTIQUE WINES

Job Title  
**DE BRUEYS WINERY UPGRADE**

**STORMWATER DRAINAGE  
 GENERAL ARRANGEMENT  
 SHEET 2 OF 2**

Scale at A1 1:25  
 Discipline CIVIL  
 Job No 260361-00 Drawing Status **FOR CONSTRUCTION**  
 Drawing No 260361-CIAL-DRG-120 Issue **B**

| STRUCTURE NAME                 | A-7   | A-6   | A-5   | A-4   | A-3   | A-2   | A-1                           |
|--------------------------------|---|---|---|---|---|---|-------------------------------|
| STRUCTURE DESCRIPTION          | SINGLE FIELD INLET TYPE 1<br>REFER TMR STD DRG 1309 | SINGLE FIELD INLET TYPE 1<br>REFER TMR STD DRG 1309 | ACCESS CHAMBER (1050 DIA)<br>REFER TMR STD DRG 1307 | ACCESS CHAMBER (1050 DIA)<br>REFER TMR STD DRG 1307 | ACCESS CHAMBER (1050 DIA)<br>REFER TMR STD DRG 1307 | ACCESS CHAMBER (1050 DIA)<br>REFER TMR STD DRG 1307 | HEADWALL                      |
| PIPE SIZE (mm)                 | 225   | 225   | 225   | 225   | 225   | 375   |                               |
| PIPE CLASS/EXPOSURE            | uPVC  | uPVC  | uPVC  | uPVC  | uPVC  | uPVC  |                               |
| PIPE GRADE (%)                 | 1.00%   | 2.17%   | 0.50%   | 0.50%   | 0.50%   | 3.16%   |                               |
| PIPE SLOPE (1 in X)            | 100.00  | 46.07   | 200.00  | 200.00  | 200.00  | 31.63   |                               |
| FULL PIPE VELOCITY (m/s)       | 0.34  | 0.40  | 0.40  | 0.52  | 0.66  | 0.23  |                               |
| PART FULL VELOCITY (m/s)       | 1.20  | 1.65  | 0.97  | 1.04  | 1.10  | 2.05  |                               |
| DATUM RL                       | 400.0   |   |   |   |   |   |                               |
| HGL IN PIPE                    | 411.931   | 411.675   | 411.621   | 411.121   | 410.959   | 410.814   | 410.637                       |
| PIPE FLOW (m3/s - 10% AEP UNO) | 0.014   | 0.016   | 0.016   |   | 0.021   | 0.026   | 0.026                         |
| PIPE CAPACITY AT GRADE (m3/s)  | 0.058   | 0.086   | 0.041   |   | 0.041   | 0.407   |                               |
| DEPTH TO INVERT                | 0.832   | 1.712   | 1.795   | 1.017   | 1.217   | 1.327   | 1.527                         |
| INVERT LEVEL                   | 411.835   | 411.601   | 411.517   | 411.056   | 410.856   | 410.717   | 410.517                       |
| DESIGN SURFACE LEVEL           | 412.667   | 413.313   | 411.601   | 412.073   | 410.856   | 412.044   | 408.738                       |
| SETOUT COORDINATES             | E 335592.820<br>N 8117387.920                       | E 335615.036<br>N 8117380.404                       | E 335620.113<br>N 8117401.070                       | E 335646.963<br>N 8117407.683                       | E 335712.966<br>N 8117409.716                       | E 335750.538<br>N 8117413.135                       | E 335769.119<br>N 8117411.811 |
| CHAINAGE                       | 0.000   | 23.45   | 21.28   | 44.734  | 27.65   | 66.03   | 138.420                       |

| STRUCTURE NAME                 | B-2   | B-1   | A-4   |
|--------------------------------|---|---|---|
| STRUCTURE DESCRIPTION          | SINGLE FIELD INLET TYPE 1<br>REFER TMR STD DRG 1309 | SINGLE FIELD INLET TYPE 1<br>REFER TMR STD DRG 1309 | ACCESS CHAMBER (1050 DIA)<br>REFER TMR STD DRG 1307 |
| PIPE SIZE (mm)                 | 225   | 225   |   |
| PIPE CLASS/EXPOSURE            | uPVC  | uPVC  |   |
| PIPE GRADE (%)                 | 0.97%   | 6.46%   |   |
| PIPE SLOPE (1 in X)            | 103.33  | 15.48   |   |
| FULL PIPE VELOCITY (m/s)       | 0.07  | 0.14  |   |
| PART FULL VELOCITY (m/s)       | 0.75  | 1.77  |   |
| DATUM RL                       | 401.0   |   |   |
| HGL IN PIPE                    | 413.673   | 413.482   | 411.185   |
| PIPE FLOW (m3/s - 10% AEP UNO) | 0.003   | 0.005   |   |
| PIPE CAPACITY AT GRADE (m3/s)  | 0.057   | 0.148   |   |
| DEPTH TO INVERT                | 0.837   | 0.828   | 0.889   |
| INVERT LEVEL                   | 413.630   | 413.448   | 411.155   |
| DESIGN SURFACE LEVEL           | 414.467   | 414.276   | 412.044   |
| SETOUT COORDINATES             | E 335660.085<br>N 8117372.700                       | E 335641.457<br>N 8117375.765                       | E 335646.963<br>N 8117407.683                       |
| CHAINAGE                       | 0.000   | 18.88   | 51.269  |

| STRUCTURE NAME                 | C-3   | C-2   | C-1   | A-3   |
|--------------------------------|---|---|---|---|
| STRUCTURE DESCRIPTION          | SINGLE FIELD INLET TYPE 1<br>REFER TMR STD DRG 1309 | SINGLE FIELD INLET TYPE 1<br>REFER TMR STD DRG 1309 | ACCESS CHAMBER (1050 DIA)<br>REFER TMR STD DRG 1307 | ACCESS CHAMBER (1050 DIA)<br>REFER TMR STD DRG 1307 |
| PIPE SIZE (mm)                 | 225   | 225   | 225   |   |
| PIPE CLASS/EXPOSURE            | uPVC  | uPVC  | uPVC  |   |
| PIPE GRADE (%)                 | 1.20%   | 4.36%   | 5.55%   |   |
| PIPE SLOPE (1 in X)            | 83.09   | 22.92   | 18.02   |   |
| FULL PIPE VELOCITY (m/s)       | 0.06  | 0.11  | 0.18  |   |
| PART FULL VELOCITY (m/s)       | 0.78  | 1.47  | 1.82  |   |
| DATUM RL                       | 401.0   |   |   |   |
| HGL IN PIPE                    | 413.742   | 413.576   | 412.904   | 410.723   |
| PIPE FLOW (m3/s - 10% AEP UNO) | 0.003   | 0.005   | 0.007   |   |
| PIPE CAPACITY AT GRADE (m3/s)  | 0.064   | 0.122   | 0.138   |   |
| DEPTH TO INVERT                | 0.765   | 0.604   | 0.899   | 1.059   |
| INVERT LEVEL                   | 413.702   | 413.545   | 412.875   | 410.688   |
| DESIGN SURFACE LEVEL           | 414.468   | 414.150   | 413.774   | 411.747   |
| SETOUT COORDINATES             | E 335678.906<br>N 8117370.782                       | E 335691.869<br>N 8117371.565                       | E 335701.566<br>N 8117376.104                       | E 335712.966<br>N 8117409.716                       |
| CHAINAGE                       | 0.000   | 13.01   | 10.79   | 59.300  |

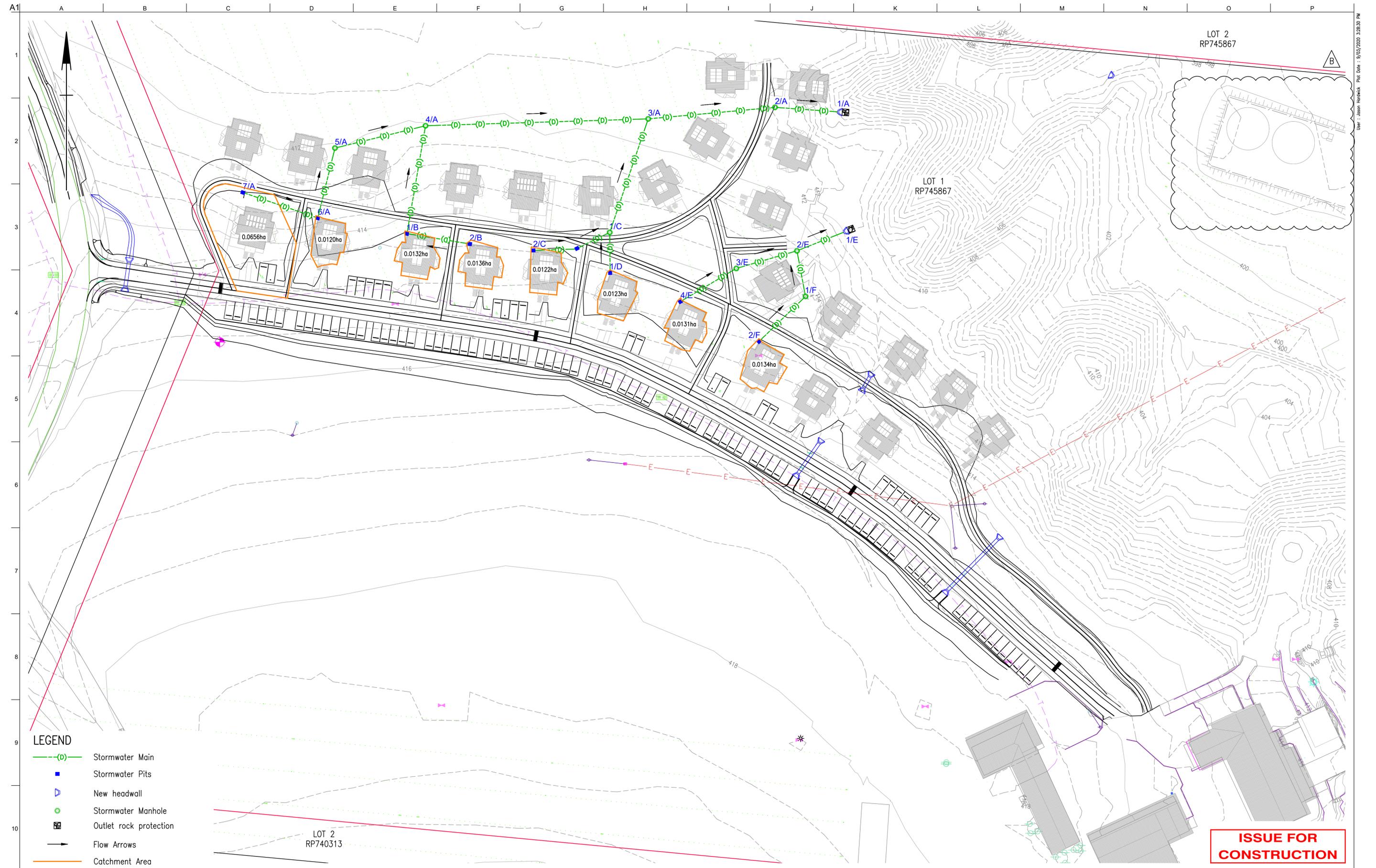
| STRUCTURE NAME                 | D-1   | C-1   |
|--------------------------------|---|---|
| STRUCTURE DESCRIPTION          | SINGLE FIELD INLET TYPE 1<br>REFER TMR STD DRG 1309 | ACCESS CHAMBER (1050 DIA)<br>REFER TMR STD DRG 1307 |
| PIPE SIZE (mm)                 | 225   |   |
| PIPE CLASS/EXPOSURE            | uPVC  |   |
| PIPE GRADE (%)                 | 5.63%   |   |
| PIPE SLOPE (1 in X)            | 17.75   |   |
| FULL PIPE VELOCITY (m/s)       | 0.06  |   |
| PART FULL VELOCITY (m/s)       | 1.35  |   |
| DATUM RL                       | 403.0   |   |
| HGL IN PIPE                    | 413.603   | 412.911   |
| PIPE FLOW (m3/s - 10% AEP UNO) | 0.003   |   |
| PIPE CAPACITY AT GRADE (m3/s)  | 0.139   |   |
| DEPTH TO INVERT                | 0.968   | 0.885   |
| INVERT LEVEL                   | 413.562   | 412.889   |
| DESIGN SURFACE LEVEL           | 414.530   | 413.774   |
| SETOUT COORDINATES             | E 335701.685<br>N 8117364.160                       | E 335701.566<br>N 8117376.104                       |
| CHAINAGE                       | 0.000   | 11.94   |

| STRUCTURE NAME                 | E-4   | E-3   | E-2   | E-1                           |
|--------------------------------|---|---|---|-------------------------------|
| STRUCTURE DESCRIPTION          | SINGLE FIELD INLET TYPE 1<br>REFER TMR STD DRG 1309 | ACCESS CHAMBER (1050 DIA)<br>REFER TMR STD DRG 1307 | ACCESS CHAMBER (1050 DIA)<br>REFER TMR STD DRG 1307 | HEADWALL                      |
| PIPE SIZE (mm)                 | 225   | 225   | 225   |                               |
| PIPE CLASS/EXPOSURE            | uPVC  | uPVC  | uPVC  |                               |
| PIPE GRADE (%)                 | 4.57%   | 4.84%   | 4.92%   |                               |
| PIPE SLOPE (1 in X)            | 21.90   | 20.65   | 20.33   |                               |
| FULL PIPE VELOCITY (m/s)       | 0.07  | 0.07  | 0.14  |                               |
| PART FULL VELOCITY (m/s)       | 1.28  | 1.30  | 1.61  |                               |
| DATUM RL                       | 402.0   |   |   |                               |
| HGL IN PIPE                    | 413.787   | 412.889   | 411.782   | 410.581                       |
| PIPE FLOW (m3/s - 10% AEP UNO) | 0.003   | 0.003   | 0.005   |                               |
| PIPE CAPACITY AT GRADE (m3/s)  | 0.125   | 0.129   | 0.130   |                               |
| DEPTH TO INVERT                | 0.912   | 0.866   | 1.066   | 0.225                         |
| INVERT LEVEL                   | 413.745   | 412.866   | 411.759   | 410.550                       |
| DESIGN SURFACE LEVEL           | 414.658   | 413.732   | 412.562   | 410.775                       |
| SETOUT COORDINATES             | E 335722.514<br>N 8117355.610                       | E 335739.067<br>N 8117365.435                       | E 335757.061<br>N 8117370.653                       | E 335770.900<br>N 8117376.152 |
| CHAINAGE                       | 0.000   | 19.25   | 18.74   | 52.877                        |

| STRUCTURE NAME                 | F-2   | F-1   | E-2   |
|--------------------------------|---|---|---|
| STRUCTURE DESCRIPTION          | SINGLE FIELD INLET TYPE 1<br>REFER TMR STD DRG 1309 | ACCESS CHAMBER (1050 DIA)<br>REFER TMR STD DRG 1307 | ACCESS CHAMBER (1050 DIA)<br>REFER TMR STD DRG 1307 |
| PIPE SIZE (mm)                 | 225   | 225   |   |
| PIPE CLASS/EXPOSURE            | uPVC  | uPVC  |   |
| PIPE GRADE (%)                 | 7.44%   | 6.44%   |   |
| PIPE SLOPE (1 in X)            | 13.44   | 15.53   |   |
| FULL PIPE VELOCITY (m/s)       | 0.07  | 0.07  |   |
| PART FULL VELOCITY (m/s)       | 1.52  | 1.44  |   |
| DATUM RL                       | 402.0   |   |   |
| HGL IN PIPE                    | 414.085   | 412.639   | 411.504   |
| PIPE FLOW (m3/s - 10% AEP UNO) | 0.003   | 0.003   |   |
| PIPE CAPACITY AT GRADE (m3/s)  | 0.159   | 0.148   |   |
| DEPTH TO INVERT                | 0.929   | 0.858   | 1.100   |
| INVERT LEVEL                   | 414.043   | 412.619   | 411.483   |
| DESIGN SURFACE LEVEL           | 414.972   | 413.476   | 412.582   |
| SETOUT COORDINATES             | E 335745.836<br>N 8117343.844                       | E 335759.601<br>N 8117357.153                       | E 335757.061<br>N 8117370.653                       |
| CHAINAGE                       | 0.000   | 19.15   | 32.883  |

**ISSUE FOR CONSTRUCTION**

| Approved by:<br>Name<br><br>RPEQ No. # | <table border="1"> <tr> <th>Issue</th> <th>Description</th> <th>Date</th> <th>By</th> <th>Chkd</th> <th>Appd</th> </tr> <tr> <td>B</td> <td>ISSUED FOR CONSTRUCTION</td> <td>9/03/2020</td> <td>JH</td> <td>AL</td> <td>AL</td> </tr> <tr> <td>A</td> <td>ISSUED FOR TENDER AND APPROVAL</td> <td>19/06/2019</td> <td>GOD</td> <td>JH</td> <td>AW5</td> </tr> </table> | Issue      | Description | Date | By   | Chkd | Appd | B | ISSUED FOR CONSTRUCTION | 9/03/2020 | JH | AL | AL | A | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH | AW5 | <p>Level 10, 15 Lake Street<br/>                 Cairns City, Qld, Australia<br/>                 Tel +61(7) 4032 6000 Fax +61(7) 4032 6001<br/>                 www.arup.com</p> | <p>Member Firm<br/>                 Arup Pty Ltd<br/>                 ABN 18 000 966 165</p> | Client<br><b>R.A. FUNCTION SERVICES PTY LTD</b> | Job Title<br><b>DE BRUEYS WINERY UPGRADE</b> | STORMWATER DRAINAGE<br>LONGITUDINAL SECTIONS | Scale at A1 1:1000<br>Discipline CIVIL<br>Job No 260361-00<br>Drawing No 260361-CIAL-DRG-121<br>Drawing Status <b>FOR CONSTRUCTION</b><br>Issue <b>B</b> |
|--|--|------------|-------------|------|------|------|------|---|-------------------------|-----------|----|----|----|---|--------------------------------|------------|-----|----|-----|---|--|---|--|--|--|
| Issue                                  | Description  | Date       | By          | Chkd | Appd |      |      |   |                         |           |    |    |    |   |                                |            |     |    |     |   |  |   |  |  |  |
| B                                      | ISSUED FOR CONSTRUCTION  | 9/03/2020  | JH          | AL   | AL   |      |      |   |                         |           |    |    |    |   |                                |            |     |    |     |   |  |   |  |  |  |
| A                                      | ISSUED FOR TENDER AND APPROVAL   | 19/06/2019 | GOD         | JH   | AW5  |      |      |   |                         |           |    |    |    |   |                                |            |     |    |     |   |  |   |  |  |  |



- LEGEND**
- (O)--- Stormwater Main
  - Stormwater Pits
  - ▲ New headwall
  - Stormwater Manhole
  - Outlet rock protection
  - Flow Arrows
  - Catchment Area

LOT 2  
RP740313

ISSUE FOR CONSTRUCTION

Approved by:  
Name

RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | SK   | SK   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |

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Client  
**R.A. FUNCTION SERVICES PTY LTD**

Job Title  
**DE BRUEYS WINERY UPGRADE**

**DE BRUEYS BOUTIQUE WINES**

**STORMWATER CATCHMENT PLAN**

Scale at A1 1:500

Discipline CIVIL

Job No 260361-00 Drawing Status **FOR CONSTRUCTION**

Drawing No 260361-CIAL-DRG-122 Issue **B**

| LOCATION  |            | SUB-CATCHMENT RUNOFF |           |               |            |               |               |           | INLET DESIGN |       |              |           |               |
|-----------|------------|----------------------|-----------|---------------|------------|---------------|---------------|-----------|--------------|-------|--------------|-----------|---------------|
| STRUCTURE | DRAIN      | SUB-CATCHMENT        | RAINFALL  | SUB-CATCHMENT | EQUIVALENT | SUB-CATCHMENT | FLOW IN K&C   | HALF ROAD | INLET        | INLET | Qg FLOW INTO | Qb BYPASS | BYPASS        |
| No.       | SECTION    | TIME OF CONC.        | INTENSITY | AREA          | AREA       | DISCHARGE     | (INC. BYPASS) | CAPACITY  | TYPE         | CURVE | INLET        | FLOW      | STRUCTURE No. |
|           |            | min                  | mm/h      | ha            | ha         | L/s           | L/s           | L/s       |              |       | L/s          | L/s       |               |
| A-7       | A-7 to A-6 | 5                    | 193.0     | 0.066         | 0.059      | 32.0          | 32.0          | 14.0      | TMR SF1      | SAG   | 14.0         | 18.0      |               |
| A-6       | A-6 to A-5 | 5                    | 193.0     | 0.012         | 0.011      | 6.0           | 6.0           | 51.0      | TMR SF1      | SAG   | 6.0          | 0.0       |               |
| A-5       | A-5 to A-4 |                      |           |               |            |               |               |           | TMR MH1050   |       |              |           |               |
| A-4       | A-4 to A-3 |                      |           |               |            |               |               |           | TMR MH1050   |       |              |           |               |
| A-3       | A-3 to A-2 |                      |           |               |            |               |               |           | TMR MH1050   |       |              |           |               |
| A-2       | A-2 to A-1 |                      |           |               |            |               |               |           | TMR MH1050   |       |              |           |               |
| A-1       |            |                      |           |               |            |               |               |           | HW           |       |              |           |               |
| B-2       | B-2 to B-1 | 5                    | 193.0     | 0.014         | 0.012      | 7.0           | 7.0           | 36.0      | TMR SF1      | SAG   | 7.0          | 0.0       |               |
| B-1       | B-1 to A-4 | 5                    | 193.0     | 0.013         | 0.012      | 6.0           | 6.0           | 31.0      | TMR SF1      | SAG   | 6.0          | 0.0       |               |
| C-3       | C-3 to C-2 | 5                    | 193.0     | 0.012         | 0.011      | 6.0           | 6.0           | 42.0      | TMR SF1      | SAG   | 6.0          | 0.0       |               |
| C-2       | C-2 to C-1 | 5                    | 193.0     | 0.010         | 0.009      | 5.0           | 5.0           | 80.0      | TMR SF1      | SAG   | 5.0          | 0.0       |               |
| C-1       | C-1 to A-3 |                      |           |               |            |               |               |           | TMR MH1050   |       |              |           |               |
| D-1       | D-1 to C-1 | 5                    | 193.0     | 0.012         | 0.011      | 6.0           | 6.0           | 34.0      | TMR SF1      | SAG   | 6.0          | 0.0       |               |
| E-4       | E-4 to E-3 | 5                    | 193.0     | 0.013         | 0.012      | 6.0           | 6.0           | 42.0      | TMR SF1      | SAG   | 6.0          | 0.0       |               |
| E-3       | E-3 to E-2 |                      |           |               |            |               |               |           | TMR MH1050   |       |              |           |               |
| E-2       | E-2 to E-1 |                      |           |               |            |               |               |           | TMR MH1050   |       |              |           |               |
| E-1       |            |                      |           |               |            |               |               |           | HW           |       |              |           |               |
| F-2       | F-2 to F-1 | 5                    | 193.0     | 0.013         | 0.012      | 6.0           | 6.0           | 34.0      | TMR SF1      | SAG   | 6.0          | 0.0       |               |
| F-1       | F-1 to E-2 |                      |           |               |            |               |               |           | TMR MH1050   |       |              |           |               |

| Q      | L      | S     |         |       | Vf=Q/A    | Qcap     | Vcap     | Vt       | HEAD LOSSES | Vf <sup>2</sup> /2g | Ku            | hu        | Kw          | hw       | Sf            | hf            | PART FULL dn | Vn         | DESIGN LEVELS |         |           |           |         |         |           |  |
|--------|--------|-------|---------|-------|-----------|----------|----------|----------|-------------|---------------------|---------------|-----------|-------------|----------|---------------|---------------|--------------|------------|---------------|---------|-----------|-----------|---------|---------|-----------|--|
| PIPE   | REACH  | PIPE  | PIPE    | PIPE  | FULL PIPE | CAPACITY | CAPACITY | TRAVEL   | CHART(S)    | VELOCITY            | U/S HEAD LOSS | U/S       | W.S.E       | CHANGE   | PIPE FRICTION | PIPE FRICTION | NORMAL       | NORMAL     | PIPE          | PIPE    | PIPE      | PIPE      | W.S.E   | GRATE   | STRUCTURE |  |
| FLOW   | LENGTH | GRADE | SIZE    | CLASS | VELOCITY  | FLOW     | VELOCITY | VELOCITY | USED        | HEAD                | COEFFICIENT   | HEAD LOSS | COEFFICIENT | IN W.S.E | SLOPE         | HEAD LOSS     | DEPTH        | DEPTH VEL. | U/S I.L       | D/S I.L | U/S H.G.L | D/S H.G.L |         | LEVEL   | No.       |  |
| L/s    | m      | %     | mm      |       | m/s       | L/s      | m/s      | m/s      |             | m                   |               | m         |             | m        | %             | m             | m            | m/s        | m             | m       | m         | m         | m       | m       |           |  |
| 14.000 | 23.453 | 1.000 | 225.000 | uPVC  | 0.350     | 58.000   | 1.470    | 1.200    | G1          | 0.006               | 7.000         | 0.044     |             | 0.044    | 1.090         | 0.219         | 0.075        | 1.200      | 411.835       | 411.601 | 411.932   | 411.676   | 411.976 | 412.667 | A-7       |  |
| 19.000 | 21.280 | 2.170 | 225.000 | uPVC  | 0.480     | 86.000   | 2.160    | 1.740    | T10         | 0.012               | 2.220         | 0.026     | 2.660       | 0.032    | 2.370         | 0.395         | 0.072        | 1.740      | 411.517       | 411.056 | 411.632   | 411.128   | 411.664 | 413.313 | A-6       |  |
| 19.000 | 27.653 | 0.500 | 225.000 | uPVC  | 0.470     | 41.000   | 1.040    | 1.010    | T9/T10      | 0.011               | 2.450         | 0.028     | 2.770       | 0.032    | 0.520         | 0.137         | 0.107        | 1.010      | 410.856       | 410.717 | 410.969   | 410.824   | 411.001 | 412.073 | A-5       |  |
| 30.000 | 66.034 | 0.500 | 225.000 | uPVC  | 0.770     | 41.000   | 1.040    | 1.140    | T6/T9       | 0.030               | 2.290         | 0.069     | 2.590       | 0.078    | 0.500         | 0.330         | 0.144        | 1.140      | 410.517       | 410.187 | 410.663   | 410.331   | 410.741 | 412.044 | A-4       |  |
| 44.000 | 37.727 | 0.500 | 225.000 | uPVC  | 1.090     | 41.000   | 1.040    | 1.170    | T7/T9       | 0.061               | 2.320         | 0.142     | 2.690       | 0.165    | 0.560         | 0.194         | 0.198        | 1.170      | 409.987       | 409.798 | 410.185   | 409.973   | 410.350 | 411.747 | A-3       |  |
| 42.000 | 18.628 | 3.16  | 375.000 | uPVC  | 0.380     | 407.000  | 3.690    | 2.370    | T10         | 0.007               | 2.090         | 0.015     | 3.240       | 0.024    | 3.520         | 0.424         | 0.081        | 2.37       | 408.951       | 408.363 | 409.099   | 408.444   | 409.123 | 411.451 | A-2       |  |
| 7.000  | 18.879 | 0.970 | 225.000 | uPVC  | 0.160     | 57.000   | 1.440    | 0.960    | G1          | 0.001               | 7.000         | 0.010     | 0.610       | 0.010    | 1.640         | 0.174         | 0.051        | 0.960      | 413.630       | 413.448 | 413.696   | 413.499   | 413.706 | 414.467 | B-2       |  |
| 13.000 | 32.390 | 6.460 | 225.000 | uPVC  | 0.320     | 148.000  | 3.730    | 2.280    | T10         | 0.005               | 2.290         | 0.012     | 2.660       | 0.014    | 6.610         | 1.910         | 0.045        | 2.280      | 413.248       | 411.155 | 413.340   | 411.200   | 413.354 | 414.276 | B-1       |  |
| 6.000  | 13.015 | 1.200 | 225.000 | uPVC  | 0.150     | 64.000   | 1.610    | 1.000    | G1          | 0.001               | 7.000         | 0.008     |             | 0.008    | 1.330         | 0.143         | 0.046        | 1.000      | 413.702       | 413.545 | 413.764   | 413.592   | 413.772 | 414.468 | C-3       |  |
| 11.000 | 10.793 | 4.360 | 225.000 | uPVC  | 0.270     | 122.000  | 3.070    | 1.880    | T2/T4       | 0.004               | 2.250         | 0.008     |             | 0.008    | 4.730         | 0.361         | 0.045        | 1.880      | 413.345       | 412.875 | 413.430   | 412.919   | 413.438 | 414.150 | C-2       |  |
| 16.000 | 35.492 | 5.550 | 225.000 | uPVC  | 0.410     | 138.000  | 3.460    | 2.330    | T6/T9       | 0.009               | 2.410         | 0.021     | 2.700       | 0.023    | 5.700         | 1.787         | 0.052        | 2.330      | 412.657       | 410.688 | 412.763   | 410.740   | 412.786 | 413.774 | C-1       |  |
| 6.000  | 11.945 | 5.630 | 225.000 | uPVC  | 0.150     | 139.000  | 3.490    | 1.730    | G1          | 0.001               | 7.000         | 0.008     |             | 0.008    | 5.890         | 0.572         | 0.032        | 1.730      | 413.562       | 412.889 | 413.625   | 412.921   | 413.633 | 414.530 | D-1       |  |
| 6.000  | 19.250 | 4.570 | 225.000 | uPVC  | 0.160     | 125.000  | 3.140    | 1.640    | G1          | 0.001               | 7.000         | 0.009     |             | 0.009    | 4.720         | 0.794         | 0.034        | 1.640      | 413.745       | 412.866 | 413.810   | 412.901   | 413.819 | 414.658 | E-4       |  |
| 6.000  | 18.735 | 4.840 | 225.000 | uPVC  | 0.160     | 129.000  | 3.230    | 1.670    | T2/T5       | 0.001               | 0.550         | 0.001     |             | 0.001    | 5.010         | 0.818         | 0.034        | 1.670      | 412.666       | 411.759 | 412.731   | 411.793   | 412.731 | 413.732 | E-3       |  |
| 13.000 | 14.892 | 4.920 | 225.000 | uPVC  | 0.320     | 130.000  | 3.270    | 2.060    | T9/T10      | 0.005               | 2.160         | 0.011     | 2.680       | 0.014    | 5.220         | 0.594         | 0.047        | 2.060      | 411.283       | 410.550 | 411.374   | 410.597   | 411.388 | 412.582 | E-2       |  |
| 6.000  | 19.147 | 7.440 | 225.000 | uPVC  | 0.160     | 159.000  | 4.010    | 1.960    | G1          | 0.001               | 7.000         | 0.009     |             | 0.009    | 7.620         | 1.286         | 0.031        | 1.960      | 414.043       | 412.619 | 414.108   | 412.650   | 414.118 | 414.972 | F-2       |  |
| 6.000  | 13.736 | 6.440 | 225.000 | uPVC  | 0.160     | 148.000  | 3.730    | 1.860    | T9/T10      | 0.001               | 2.250         | 0.003     | 2.710       | 0.004    | 6.680         | 0.764         | 0.032        | 1.860      | 412.367       | 411.483 | 412.432   | 411.514   | 412.435 | 413.476 | F-1       |  |

**ISSUE FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | AL   | AL   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWIS |

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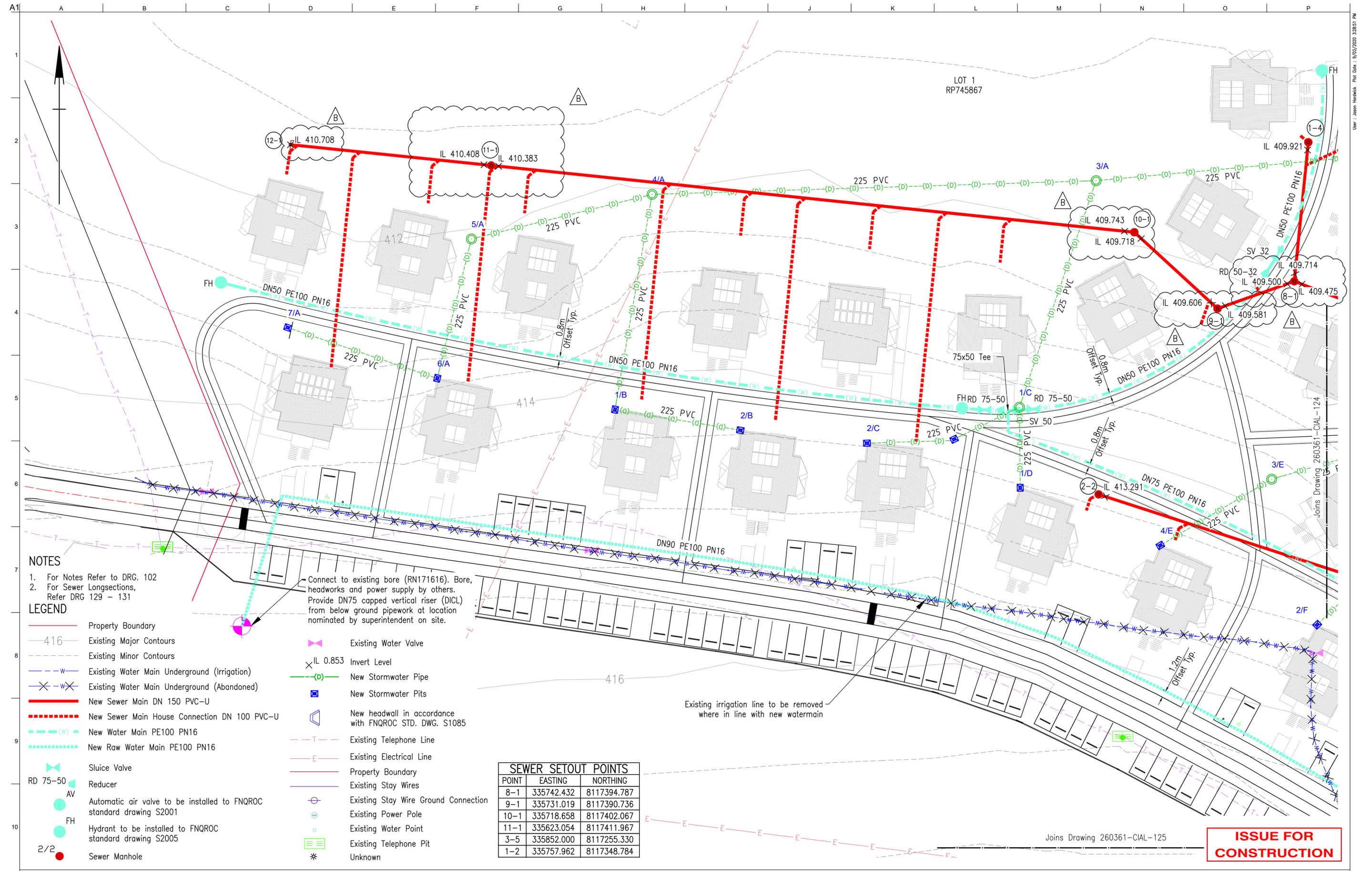


DE BRUEYS BOUTIQUE WINES

Client  
**R.A. FUNCTION SERVICES PTY LTD**  
Job Title  
**DE BRUEYS WINERY UPGRADE**

STORMWATER CALCULATIONS TABLE

Scale at A1 NOT TO SCALE  
Discipline CIVIL  
Job No **260361-00** Drawing Status **FOR CONSTRUCTION**  
Drawing No **260361-CIAL-DRG-123** Issue **B**



**NOTES**  
 1. For Notes Refer to DRG. 102  
 2. For Sewer Longsections, Refer DRG 129 - 131

- LEGEND**
- Property Boundary
  - - - 416 Existing Major Contours
  - - - Existing Minor Contours
  - - - w Existing Water Main Underground (Irrigation)
  - - - x-w Existing Water Main Underground (Abandoned)
  - New Sewer Main DN 150 PVC-U
  - - - New Sewer Main House Connection DN 100 PVC-U
  - - - (w) New Water Main PE100 PN16
  - - - New Raw Water Main PE100 PN16
  - < Sluice Valve
  - RD 75-50 Reducer
  - AV Automatic air valve to be installed to FNQROC standard drawing S2001
  - FH Hydrant to be installed to FNQROC standard drawing S2005
  - 2/2 Sewer Manhole
  - ✕ Existing Water Valve
  - x IL 0.853 Invert Level
  - New Stormwater Pits
  - New headwall in accordance with FNQROC STD. DWG. S1085
  - - - T Existing Telephone Line
  - - - E Existing Electrical Line
  - Property Boundary
  - Existing Stay Wires
  - Existing Stay Wire Ground Connection
  - Existing Power Pole
  - Existing Water Point
  - Existing Telephone Pit
  - \* Unknown

| SEWER SETOUT POINTS |            |             |
|---------------------|------------|-------------|
| POINT               | EASTING    | NORTHING    |
| 8-1                 | 335742.432 | 8117394.787 |
| 9-1                 | 335731.019 | 8117390.736 |
| 10-1                | 335718.658 | 8117402.067 |
| 11-1                | 335623.054 | 8117411.967 |
| 3-5                 | 335852.000 | 8117255.330 |
| 1-2                 | 335757.962 | 8117348.784 |

Existing irrigation line to be removed where in line with new watermain

ISSUE FOR CONSTRUCTION

Approved by:  
Name:  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | SK   | SK   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | SK   |

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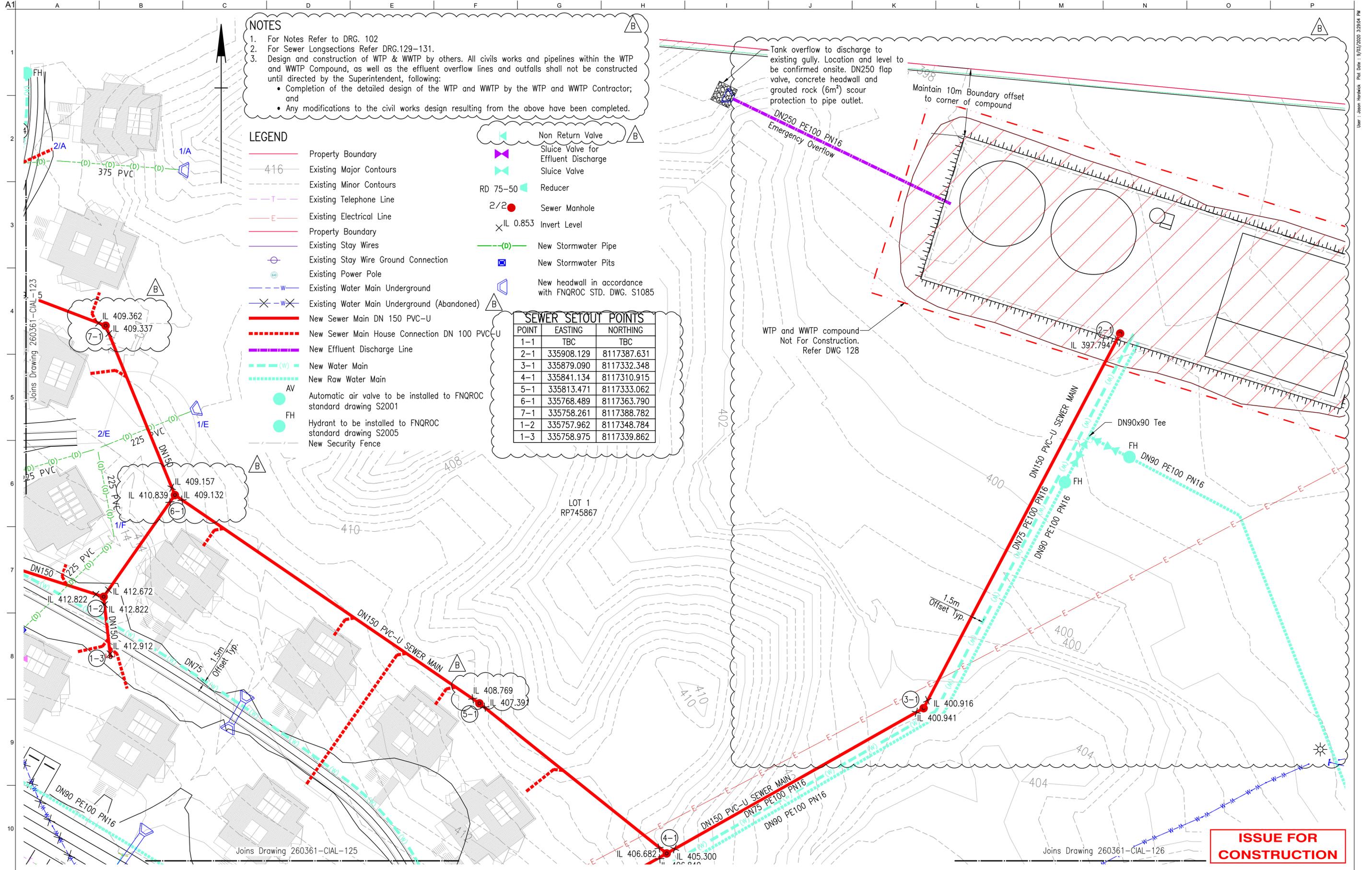


DE BRUEYS  
BOUTIQUE WINES

Client: R.A. FUNCTION SERVICES PTY LTD  
 Job Title: DE BRUEYS WINERY UPGRADE

ATER AND  
SEWER RETICULATION  
PLAN 1 OF 4

Scale at A1: 1:250  
 Discipline: CIVIL  
 Job No: 260361-00  
 Drawing No: 260361-CIAL-DRG-124  
 Drawing Status: FOR CONSTRUCTION  
 Issue: B



**NOTES**

- For Notes Refer to DRG. 102
- For Sewer Longsections Refer DRG.129-131.
- Design and construction of WTP & WWTP by others. All civils works and pipelines within the WTP and WWTP Compound, as well as the effluent overflow lines and outfalls shall not be constructed until directed by the Superintendent, following:
  - Completion of the detailed design of the WTP and WWTP by the WTP and WWTP Contractor; and
  - Any modifications to the civil works design resulting from the above have been completed.

- LEGEND**
- Property Boundary
  - 416 Existing Major Contours
  - Existing Minor Contours
  - Existing Telephone Line
  - Existing Electrical Line
  - Property Boundary
  - Existing Stay Wires
  - Existing Stay Wire Ground Connection
  - Existing Power Pole
  - Existing Water Main Underground
  - Existing Water Main Underground (Abandoned)
  - New Sewer Main DN 150 PVC-U
  - New Sewer Main House Connection DN 100 PVC-U
  - New Effluent Discharge Line
  - New Water Main
  - New Raw Water Main
  - AV Automatic air valve to be installed to FNQROC standard drawing S2001
  - FH Hydrant to be installed to FNQROC standard drawing S2005
  - New Security Fence
  - Non Return Valve
  - Sluice Valve for Effluent Discharge
  - Sluice Valve
  - RD 75-50 Reducer
  - 2/2 Sewer Manhole
  - IL 0.853 Invert Level
  - New Stormwater Pipe
  - New Stormwater Pits
  - New headwall in accordance with FNQROC STD. DWG. S1085

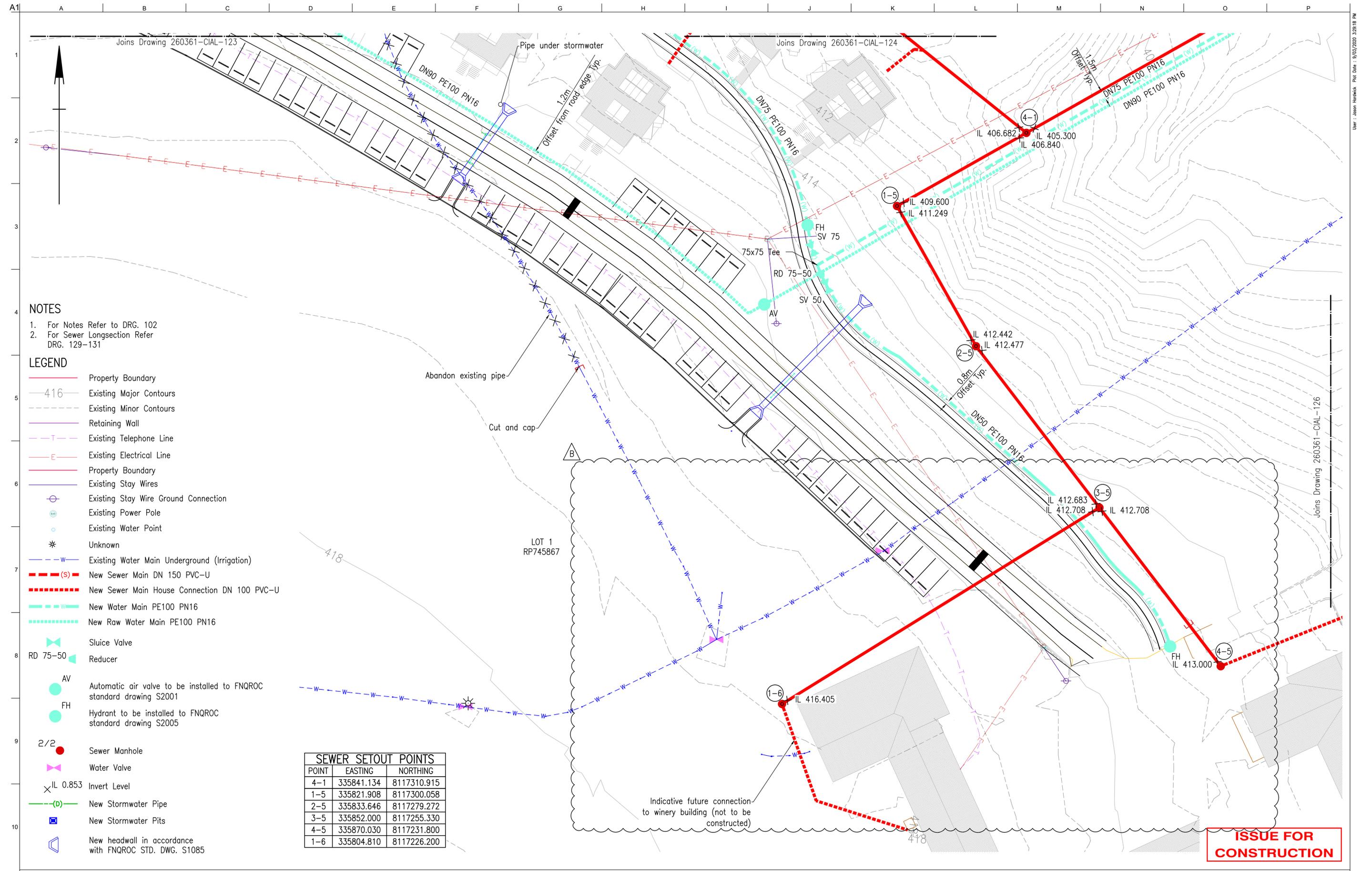
**SEWER SETOUT POINTS**

| POINT | EASTING    | NORTHING    |
|-------|------------|-------------|
| 1-1   | TBC        | TBC         |
| 2-1   | 335908.129 | 8117387.631 |
| 3-1   | 335879.090 | 8117332.348 |
| 4-1   | 335841.134 | 8117310.915 |
| 5-1   | 335813.471 | 8117333.062 |
| 6-1   | 335768.489 | 8117363.790 |
| 7-1   | 335758.261 | 8117388.782 |
| 1-2   | 335757.962 | 8117348.784 |
| 1-3   | 335758.975 | 8117339.862 |

**ISSUE FOR CONSTRUCTION**

| <p>Approved by: _____</p> <p>RPEQ No. # _____</p> | <table border="1"> <thead> <tr> <th>Issue</th> <th>Description</th> <th>Date</th> <th>By</th> <th>Chkd</th> <th>Appd</th> </tr> </thead> <tbody> <tr> <td>B</td> <td>ISSUED FOR CONSTRUCTION</td> <td>9/03/2020</td> <td>JH</td> <td>SK</td> <td>SK</td> </tr> <tr> <td>A</td> <td>ISSUED FOR TENDER AND APPROVAL</td> <td>19/06/2019</td> <td>GOD</td> <td>JH</td> <td>SK</td> </tr> </tbody> </table> | Issue      | Description | Date | By   | Chkd | Appd | B | ISSUED FOR CONSTRUCTION | 9/03/2020 | JH | SK | SK | A | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH | SK | <p><b>ARUP</b></p> <p>Level 10, 15 Lake Street<br/>       Cairns City, Qld, Australia<br/>       Tel +61(7) 4032 6000 Fax +61(7) 4032 6001<br/>       www.arup.com</p> | <p>Client<br/> <b>R.A. FUNCTION SERVICES PTY LTD</b></p> <p>Job Title<br/> <b>DE BRUEYS WINERY UPGRADE</b></p> | <p>DE BRUEYS<br/>       BOUTIQUE WINES</p> | <p>Scale at A1 1:250</p> <p>Discipline CIVIL</p> <p>Job No 260361-00 Drawing Status <b>FOR CONSTRUCTION</b></p> <p>Drawing No <b>260361-CIAL-DRG-125</b> Issue <b>B</b></p> |
|---|---|------------|-------------|------|------|------|------|---|-------------------------|-----------|----|----|----|---|--------------------------------|------------|-----|----|----|--|--|--|---|
| Issue   | Description   | Date       | By          | Chkd | Appd |      |      |   |                         |           |    |    |    |   |                                |            |     |    |    |  |  |  |   |
| B   | ISSUED FOR CONSTRUCTION   | 9/03/2020  | JH          | SK   | SK   |      |      |   |                         |           |    |    |    |   |                                |            |     |    |    |  |  |  |   |
| A   | ISSUED FOR TENDER AND APPROVAL  | 19/06/2019 | GOD         | JH   | SK   |      |      |   |                         |           |    |    |    |   |                                |            |     |    |    |  |  |  |   |

User: secon, Newnack, Plot Date: 9/03/2020, 3:28:04 PM



**ISSUE FOR CONSTRUCTION**

Approved by:  
Name:  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | SK   | SK   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | SK   |

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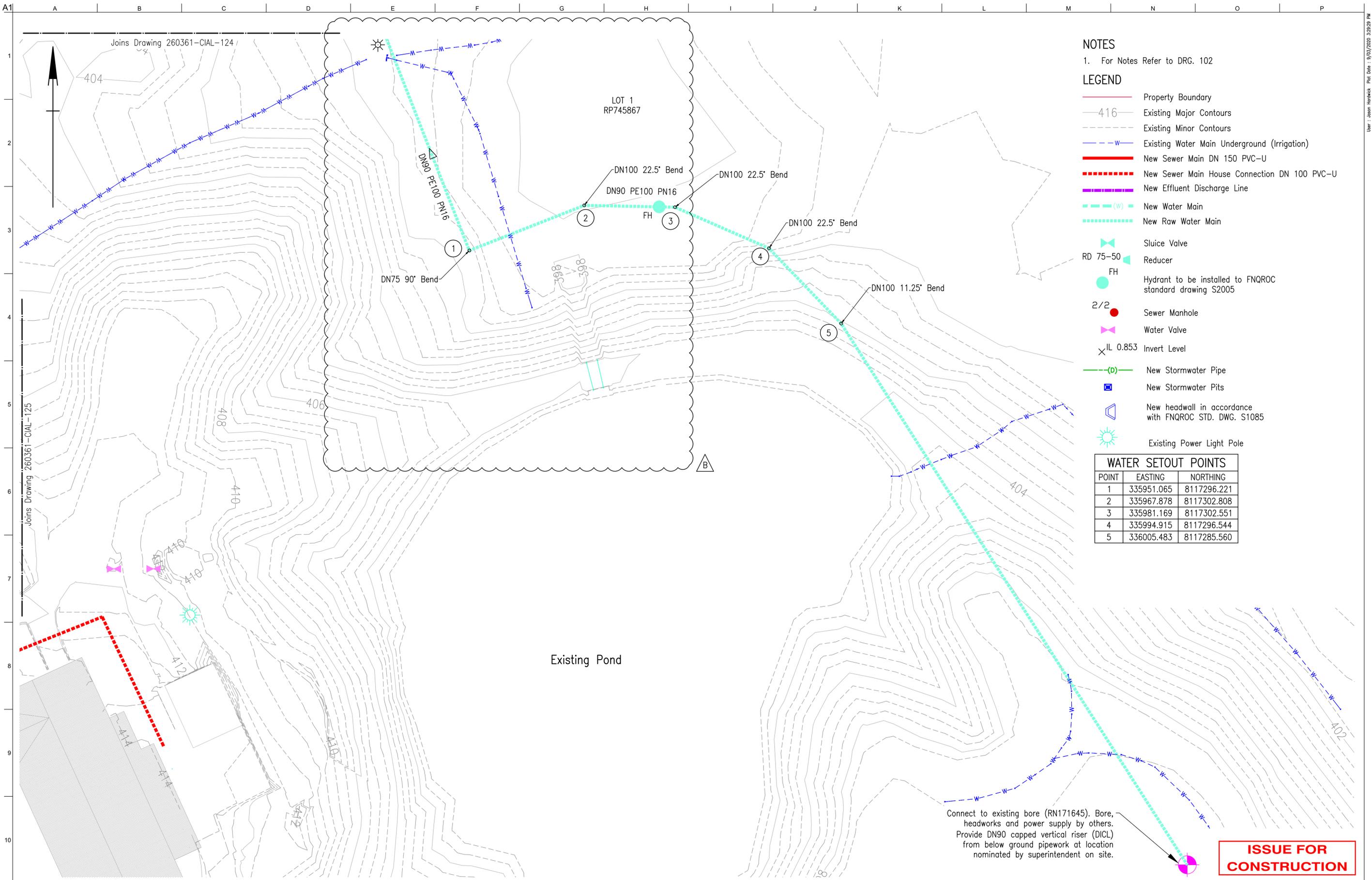


DE BRUEYS BOUTIQUE WINES

Client: R.A. FUNCTION SERVICES PTY LTD  
Job Title: DE BRUEYS WINERY UPGRADE

WATER AND SEWER RETICULATION  
PLAN 3 OF 4

Scale at A1: 1:250  
Discipline: CIVIL  
Job No: 260361-00  
Drawing No: 260361-CIAL-DRG-126  
Drawing Status: FOR CONSTRUCTION  
Issue: B



**NOTES**

1. For Notes Refer to DRG. 102

**LEGEND**

- Property Boundary
- 416 Existing Major Contours
- Existing Minor Contours
- Existing Water Main Underground (Irrigation)
- New Sewer Main DN 150 PVC-U
- New Sewer Main House Connection DN 100 PVC-U
- New Effluent Discharge Line
- New Water Main
- New Raw Water Main
- Sluice Valve
- RD 75-50 Reducer
- FH Hydrant to be installed to FNQROC standard drawing S2005
- 2/2 Sewer Manhole
- Water Valve
- IL 0.853 Invert Level
- New Stormwater Pipe
- New Stormwater Pits
- New headwall in accordance with FNQROC STD. DWG. S1085
- Existing Power Light Pole

| WATER SETOUT POINTS |            |             |
|---------------------|------------|-------------|
| POINT               | EASTING    | NORTHING    |
| 1                   | 335951.065 | 8117296.221 |
| 2                   | 335967.878 | 8117302.808 |
| 3                   | 335981.169 | 8117302.551 |
| 4                   | 335994.915 | 8117296.544 |
| 5                   | 336005.483 | 8117285.560 |

Connect to existing bore (RN171645). Bore, headworks and power supply by others. Provide DN90 capped vertical riser (DICL) from below ground pipework at location nominated by superintendent on site.

**ISSUE FOR CONSTRUCTION**

Approved by: \_\_\_\_\_  
Name: \_\_\_\_\_  
  
RPEQ No. # \_\_\_\_\_

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | SK   | SK   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | SK   |

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Client  
**R.A. FUNCTION SERVICES PTY LTD**  
  
Job Title  
**DE BRUEYS WINERY UPGRADE**

**DE BRUEYS BOUTIQUE WINES**

**WATER AND SEWER RETICULATION PLAN 4 OF 4**

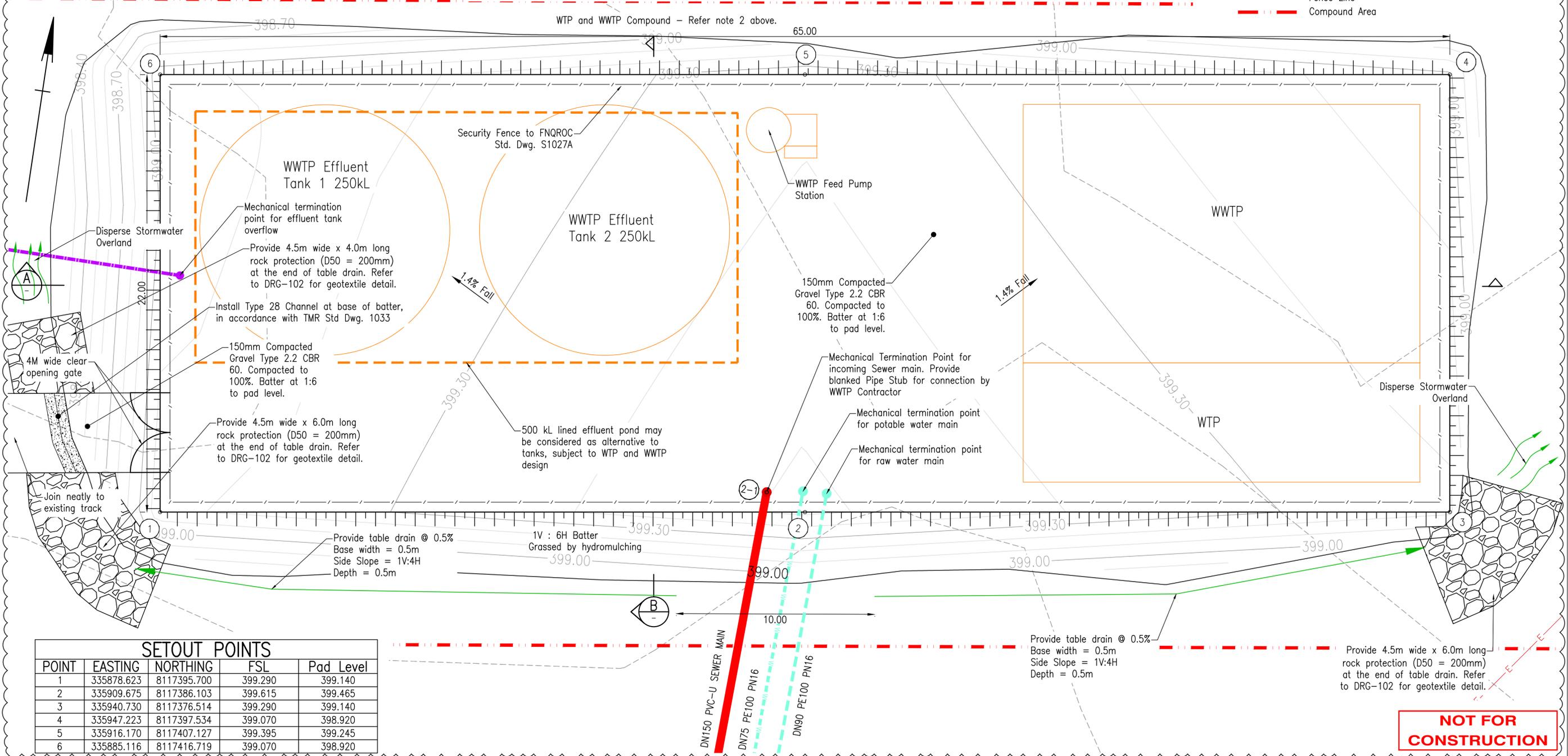
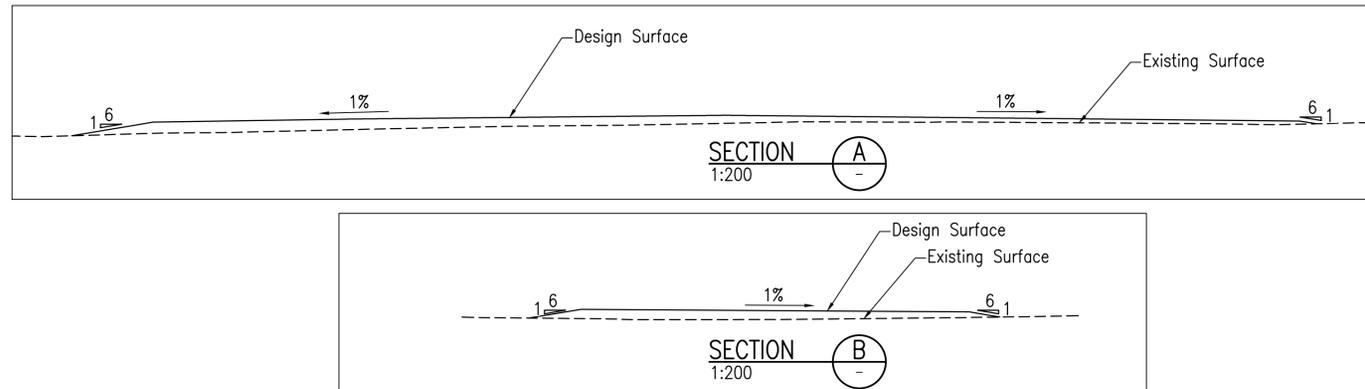
Scale at A1 1:250  
Discipline CIVIL  
Job No 260361-00 Drawing Status **FOR CONSTRUCTION**  
Drawing No 260361-CIAL-DRG-127 Issue **B**

**NOTES**

- For Notes Refer to DRG. 102
- WTP and WWTP layout is indicative. Design and construction of WTP & WWTP by others. All civils works and pipelines within the WTP and WWTP Compound, as well as the effluent discharge lines and outfalls shall not be constructed until directed by the Superintendent, following:
  - Completion of the detailed design of the WTP and WWTP by the WTP and WWTP Contractor; and
  - Any modifications to the civil works design resulting from the above have been completed.
- Refer performance specifications for detail on WWTP, WTP and pump station by others.
- Earthworks to be in accordance with FNQROC Specification S1 – Earthworks.
- Subgrade material shall be compacted to provide a relative compaction determined by AS1289 for a standard compactive effort as follows:
  - Minimum Dry Density Ratio (Cohesive soils): 97%
  - Minimum Dry Density Index (Cohesion less soils): 80%
- Pavement to be in accordance with FNQROC Specification S2 – Road Pavement
- Contractor is to confirm bearing capacity on site, and design and RPEQ certify foundations / footings for each structure prior to procuring the tanks and other assets

**LEGEND**

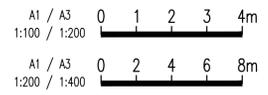
- New Sewer Main
- New Effluent Discharge Line
- New Water Main
- New Raw Water Main
- Sluice Valve for Effluent Discharge
- Sluice Valve
- Non Return Valve
- Reducer
- FH
- Hydrant to be installed to FNQROC standard drawing S2005
- Sewer Manhole
- Design Contours Major
- Design Contours Minor
- Existing Ground Surface Major Contours
- Existing Ground Surface Minor Contours
- Fence Line
- Compound Area



**SETOUT POINTS**

| POINT | EASTING    | NORTHING    | FSL     | Pad Level |
|-------|------------|-------------|---------|-----------|
| 1     | 335878.623 | 8117395.700 | 399.290 | 399.140   |
| 2     | 335909.675 | 8117386.103 | 399.615 | 399.465   |
| 3     | 335940.730 | 8117376.514 | 399.290 | 399.140   |
| 4     | 335947.223 | 8117397.534 | 399.070 | 398.920   |
| 5     | 335916.170 | 8117407.127 | 399.395 | 399.245   |
| 6     | 335885.116 | 8117416.719 | 399.070 | 398.920   |

**NOT FOR CONSTRUCTION**



Approved by:  
Name: \_\_\_\_\_  
RPEQ No. # \_\_\_\_\_

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | NOT FOR CONSTRUCTION           | 9/03/2020  | JH  | SK   | SK   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | SKie |

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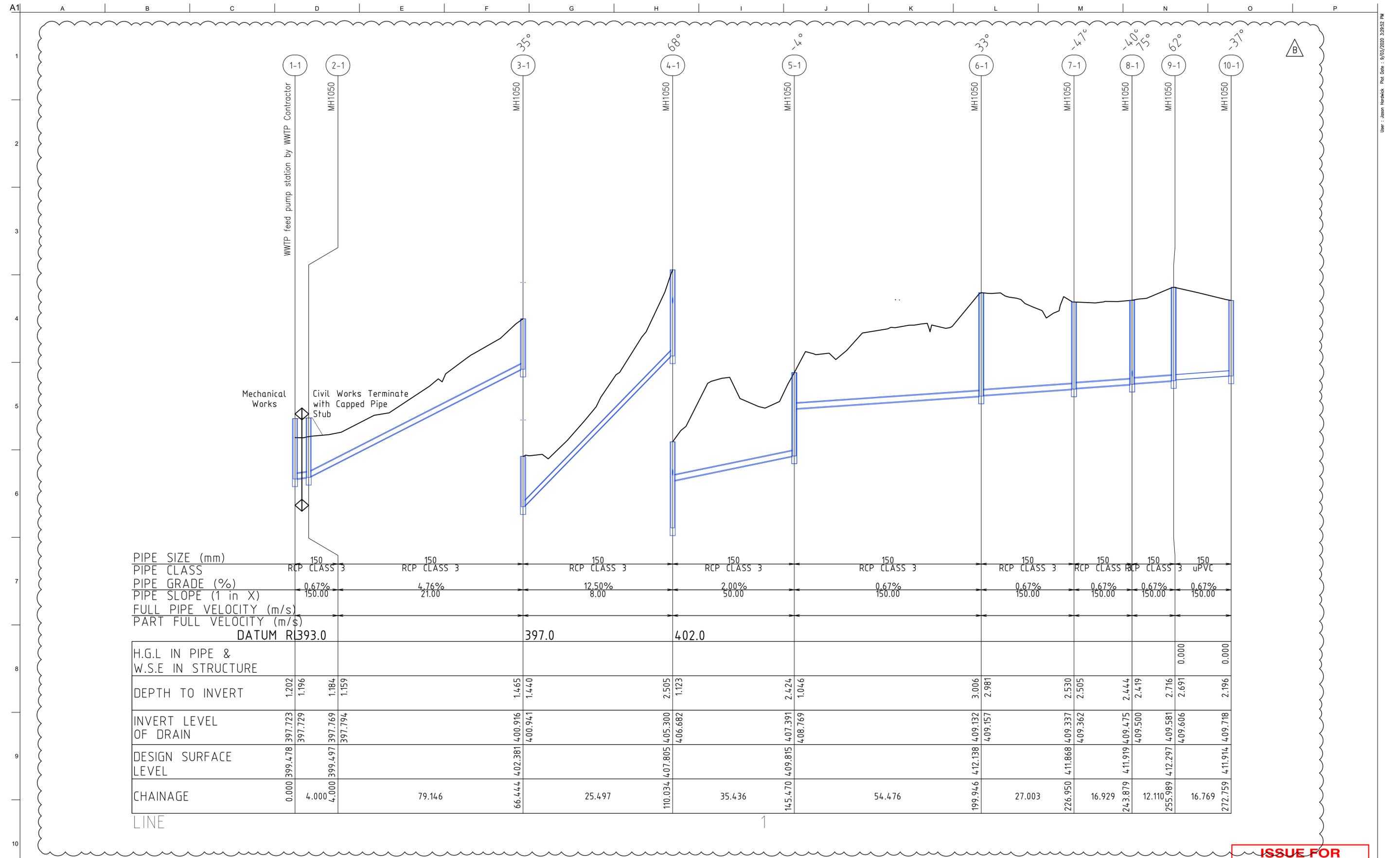
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Member Firm  
Arup Pty Ltd  
ABN 18 000 966 165

Client: R.A. FUNCTION SERVICES PTY LTD  
Job Title: DE BRUEYS WINERY UPGRADE

**DE BRUEYS BOUTIQUE WINES**

WATER AND SEWER  
RETICULATION DETAILS

Scale at A1: 1:100  
Discipline: CIVIL  
Job No: 260361-00  
Drawing No: 260361-CIAL-DRG-128  
Drawing Status: **FOR TENDER**  
Issue: **B**



**ISSUE FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | SK   | SK   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   |      |

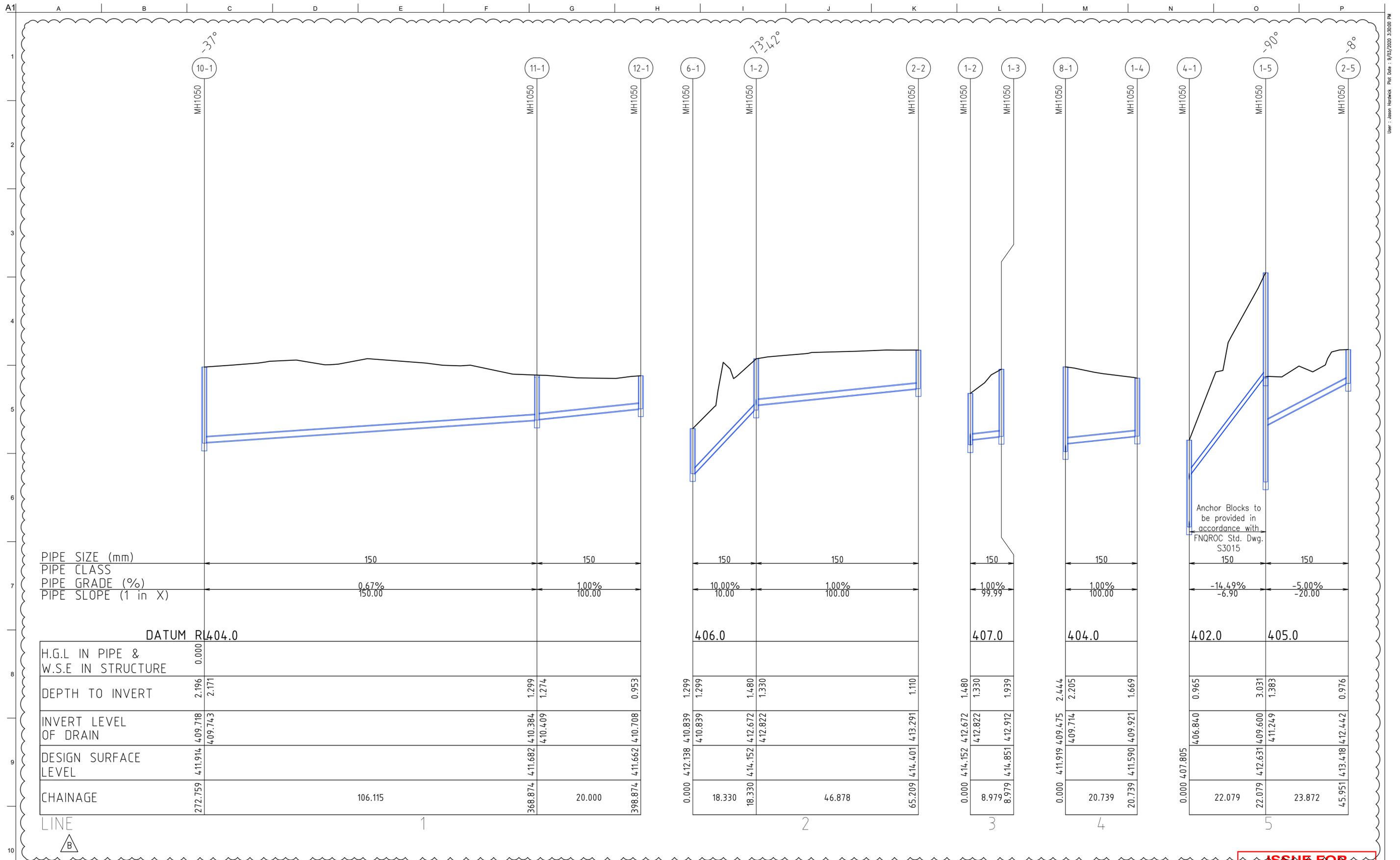


DE BRUEYS BOUTIQUE WINES

Client: R.A. FUNCTION SERVICES PTY LTD  
Job Title: DE BRUEYS WINERY UPGRADE

SEWER LONGITUDINAL SECTIONS SHEET 1 OF 3

Scale at A1 H1:500 V1:50  
Discipline: CIVIL  
Job No: 260361-00  
Drawing No: 260361-CIAL-DRG-129  
Drawing Status: FOR CONSTRUCTION  
Issue: B



Anchor Blocks to be provided in accordance with FNQROC Std. Dwg. S3015

**ISSUE FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | SK   | SK   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | SK   |

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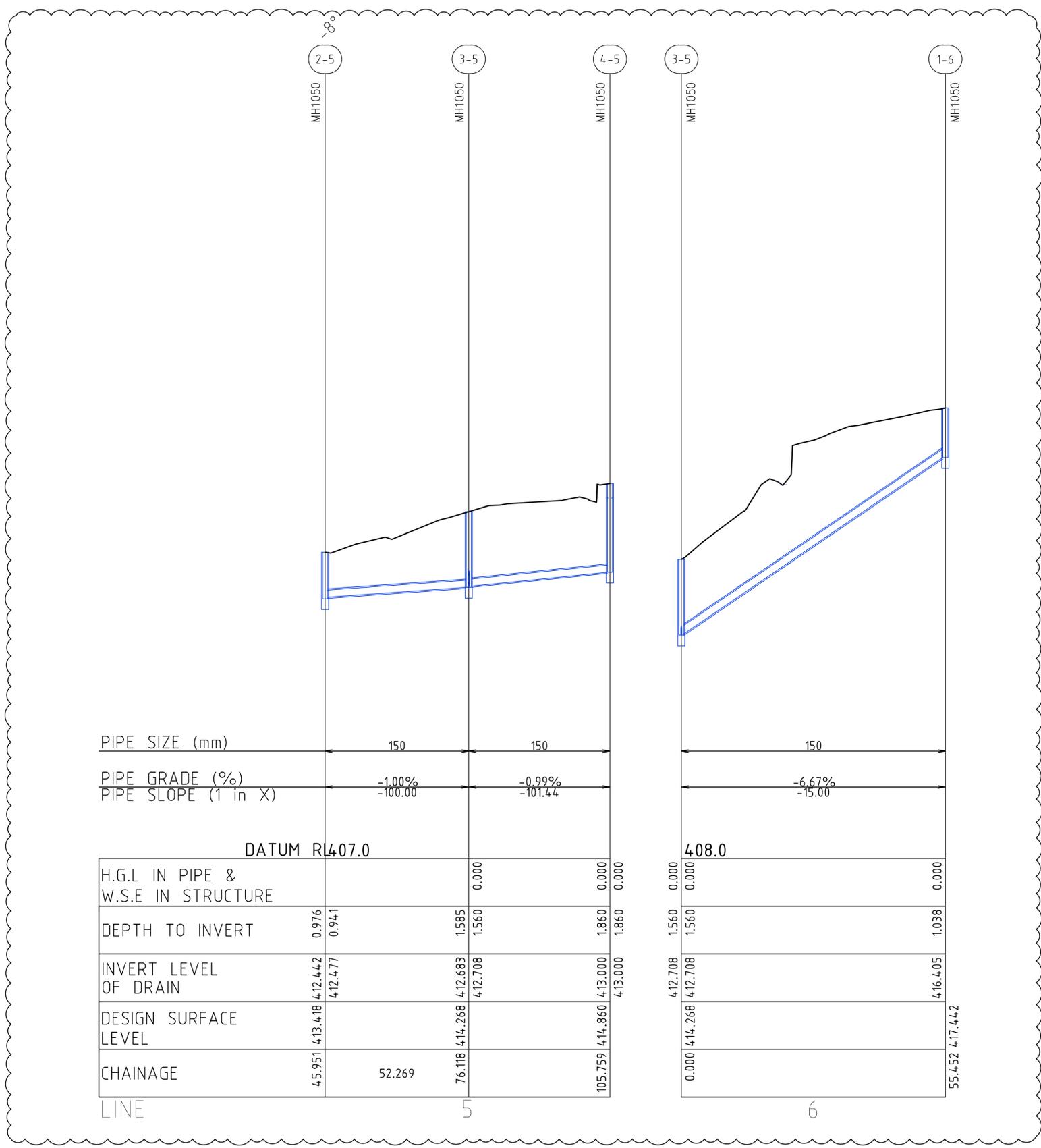


DE BRUEYS BOUTIQUE WINES

Client: R.A. FUNCTION SERVICES PTY LTD  
Job Title: DE BRUEYS WINERY UPGRADE

SEWER LONGITUDINAL SECTIONS SHEET 2 OF 3

Scale at A1: H1:500 V1:50  
Discipline: CIVIL  
Job No: 260361-00  
Drawing No: 260361-CIAL-DRG-130  
Drawing Status: FOR CONSTRUCTION  
Issue: B



|                     |         |         |        |
|---------------------|---------|---------|--------|
| PIPE SIZE (mm)      | 150     | 150     | 150    |
| PIPE GRADE (%)      | -1.00%  | -0.99%  | -6.67% |
| PIPE SLOPE (1 in X) | -100.00 | -101.44 | -15.00 |

|                                    |                    |                    |                    |       |       |
|------------------------------------|--------------------|--------------------|--------------------|-------|-------|
| DATUM RL 407.0                     |                    |                    |                    |       |       |
| H.G.L IN PIPE & W.S.E IN STRUCTURE |                    | 0.000              | 0.000              | 0.000 | 0.000 |
| DEPTH TO INVERT                    | 0.976<br>0.941     | 1.585<br>1.560     | 1.860<br>1.860     |       |       |
| INVERT LEVEL OF DRAIN              | 412.442<br>412.477 | 412.683<br>412.708 | 413.000<br>413.000 |       |       |
| DESIGN SURFACE LEVEL               | 413.418<br>414.268 | 414.268            | 414.860            |       |       |
| CHAINAGE                           | 45.951<br>52.269   | 76.118             | 105.759            |       |       |

**ISSUE FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | SK   | SK   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | SK   |



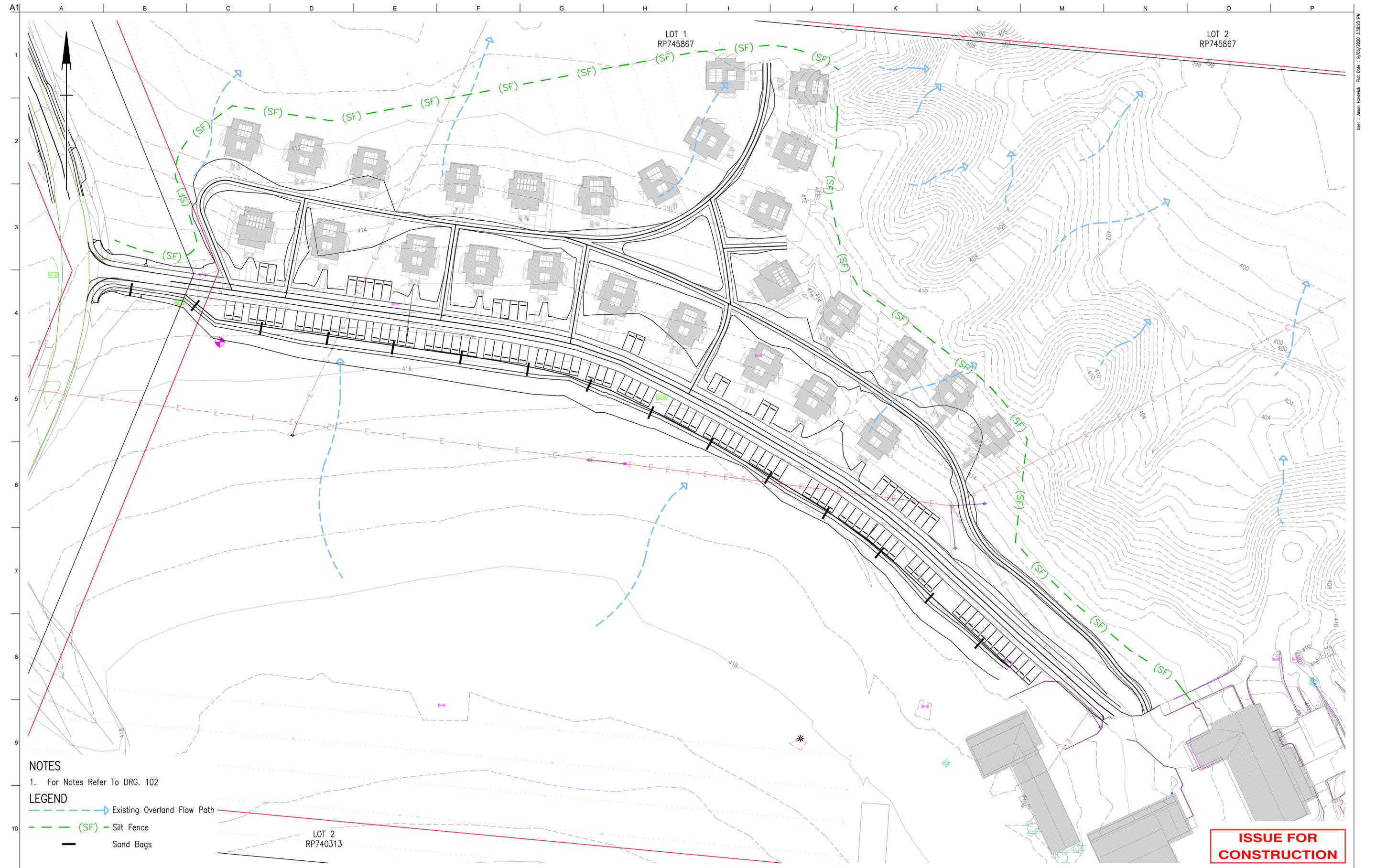
Client  
**R.A. FUNCTION SERVICES PTY LTD**

DE BRUEYS BOUTIQUE WINES

Job Title  
**DE BRUEYS WINERY UPGRADE**

SEWER LONGITUDINAL SECTIONS SHEET 3 OF 3

|                |                         |
|----------------|-------------------------|
| Scale at A1    | H1:500 V1:50            |
| Discipline     | CIVIL                   |
| Job No         | 260361-00               |
| Drawing Status | <b>FOR CONSTRUCTION</b> |
| Drawing No     | 260361-CIAL-DRG-131     |
| Issue          | <b>B</b>                |



**NOTES**  
 1. For Notes Refer To DRG. 102

**LEGEND**  
 - Existing Overland Flow Path  
 (SF) - Silt Fence  
 - Sand Bags

**ISSUE FOR CONSTRUCTION**

Approved by:  
Name  
  
RPEQ No. #

| Issue | Description                    | Date       | By  | Chkd | Appd |
|-------|--------------------------------|------------|-----|------|------|
| B     | ISSUED FOR CONSTRUCTION        | 9/03/2020  | JH  | DW   | DW   |
| A     | ISSUED FOR TENDER AND APPROVAL | 19/06/2019 | GOD | JH   | AWS  |

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DE BRUEYS  
 BOUTIQUE WINES

Client  
**R.A. FUNCTION SERVICES PTY LTD**

Job Title  
**DE BRUEYS WINERY UPGRADE**

**EROSION AND SEDIMENT CONTROL STRATEGY**

Scale at A1 1:500  
 Discipline CIVIL  
 Job No 260361-00 Drawing Status **FOR CONSTRUCTION**  
 Drawing No 260361-CIAL-DRG-132 Issue **B**

**ATTACHMENT 6:  
LANDSCAPE PLAN**



# LANDSCAPE DESIGN

## DE BRUEYS WINERY ACCOMMODATION

### 189 FICHERA ROAD, MAREEBA QLD

#### APRIL 2019

#### DRAWING LIST

| DWG NO. | REV | DRAWING NAME                        | SCALE (A3 SIZE) |
|---------|-----|-------------------------------------|-----------------|
| 133-L00 | C   | COVER PAGE & LOCALITY PLAN          | As Shown        |
| 133-L01 | C   | LANDSCAPE PLAN 01                   | 1:600           |
| 133-L02 | C   | LANDSCAPE PLAN 02 & DETAILS         | As Shown        |
| 133-L03 | C   | TYP. CABIN LANDSCAPE PLAN           | 1:200           |
| 133-L04 | C   | CENTRAL COURT WATER FEATURE CONCEPT | As Shown        |
| 133-L05 | C   | MASTER PLANTING SCHEDULE            | NTS             |



**A**  
L00 LOCALITY PLAN  
SCALE 1:750 @ A1  
1:1500 @ A3

#### STANDARD NOTES

##### 1. SETOUT AND DIMENSIONS

THE CONTRACTOR SHALL SET OUT ALL PATHS, WALLS, HARD SURFACES AND ELEMENTS EITHER ON OR OFF SITE PRIOR TO CONSTRUCTION AND SHALL OBTAIN THE SUPERINTENDENT'S SET OUT APPROVAL PRIOR TO WORKS COMMENCING. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALE, CHECK ALL DRAWINGS SCALES IN CONJUNCTION WITH DRAWINGS SIZE. COORDINATE ALL WORKS WITH OTHER TRADES AND HEAD CONTRACTOR.

##### 2. SERVICES AND SITE ASSETS

THE CONTRACTOR SHALL INVESTIGATE THE NATURE AND LOCATION OF ALL EXISTING SERVICES AND RETAINED SITE ASSETS AFFECTED BY THEIR WORKS. FAILURE TO TAKE DUE CARE SHALL NOT LIMIT THE CONTRACTOR'S LIABILITIES.

##### 3. REFERENCES

THE CONTRACTOR SHALL REFER TO ALL CONTRACT DOCUMENTS, THE SPECIFICATION AND DRAWINGS PRIOR TO AND DURING THE WORKS.

##### 4. DISCREPANCIES

NOTIFY SUPERINTENDENT OF ANY SUSPECTED OR KNOWN DISCREPANCIES OR ERRORS PRIOR TO THE ORDERING OF AFFECTED MATERIALS AND/OR CONSTRUCTION OF AFFECTED WORKS.

##### 5. RELEVANT STANDARDS

THE CONTRACTOR SHALL UNDERTAKE ALL PRICING AND WORKS IN ACCORDANCE WITH CURRENT INDUSTRY BEST PRACTICE AND ALL RELEVANT AUSTRALIAN STANDARDS, FNQROC, AND THE MAREEBA SHIRE COUNCIL STANDARDS.

##### 6. SERVICE LOCATOR

THE CONTRACTOR SHALL UNDERTAKE A DIAL BEFORE YOU DIG PROCESS PRIOR TO COMMENCING WORKS ON SITE. THE CONTRACTOR SHALL ENGAGE A SERVICE LOCATOR TO MAP THE SPECIFIC LOCATIONS AND DEPTH OF ALL SERVICES AND ADVISE ALL RELEVANT STAFF AND SUBCONTRACTORS IN WRITING PRIOR TO COMMENCING WORKS ON SITE.

##### 7. SOFT LANDSCAPE

1. ALL CONTAINER STOCK SHALL BE INSPECTED IN THE NURSERY PRIOR TO TRANSPORT TO SITE.
2. ALL CONTAINER STOCK PLANTING SHALL BE INSPECTED PRIOR TO PLANTING ON SITE. GIVE (5) WORKING DAYS NOTICE PRIOR TO SUCH ACTIVITY TO ALLOW LANDSCAPE ARCHITECT'S REPRESENTATIVE TO ATTEND.
3. ALL SOIL BLENDS APPROVED TO AUSTRALIAN STANDARDS / AS4419.
4. USE SITE STOCKED TOPSOIL AND AMEND WHERE POSSIBLE.
5. TURF SHALL CONSIST OF 25MM DEPTH OF DENSE, WELL ROOTED, VIGOROUS GRASS GROWTH WITH 25MM DEPTH OF TOPSOIL.
6. TURF TO BE USED SHOULD BE ROLLED B GRADE TURF MIX OF SPECIES 80% BUFFALO GRASS (AXONOPUS COMPRESSUS) & 20% COUCH GRASS VARIETIES

##### 8. WORK HEALTH & SAFETY (WHS)

THE CONTRACTOR SHALL FOLLOW THE APPROVED & CURRENT PROJECT WORK HEALTH & SAFETY MANUAL.

##### 9. HARD LANDSCAPE

SAMPLES: UNLESS OTHERWISE NOTED, ALL ITEMS MUST BE APPROVED PRIOR TO INSTALLATION AND MUST MEET CURRENT AUSTRALIAN STANDARDS AND BEST PRACTICE GUIDELINES. PROVIDE SAMPLES OF ALL SURFACE FINISHES AND MATERIALS TO BE PLACED IN THE CONSTRUCTED LANDSCAPE, ESPECIALLY ALTERNATIVES TO PROPRIETARY ITEMS SPECIFIED. GIVE FIVE (5) WORK DAYS NOTICE TO THE SUPERINTENDENT'S REPRESENTATIVE TO ATTEND OR REVIEW THE SAMPLE FOR COMMENT OR REJECTION. PROVIDE MANUFACTURER'S GUIDES AND REPLACEMENT WARRANTIES AND INSTALLATION SPECIFICATIONS WHERE APPLICABLE.

##### 10. PLANT ESTABLISHMENT & MAINTENANCE

AREAS OF PLANTING CAN ONLY BE GIVEN FINAL COMPLETION AFTER MINIMUM 13 WEEKS ESTABLISHMENT POST PRACTICAL COMPLETION. REPLACE ALL DEAD PLANT STOCK DURING THIS PERIOD AND NEW STOCK ESTABLISHED FOR MINIMUM 13 WEEKS. FINAL COMPLETION IS GIVEN AT 13 WEEKS POST PRACTICAL COMPLETION AND ONGOING MAINTENANCE BEGINS.

##### 11. IRRIGATION

DESIGN AND CONSTRUCT AUTOMATED IRRIGATION SYSTEM TO COUNCIL STANDARDS, CERTIFIED BY AN IAA CID (IRRIGATION AUSTRALIA ASSOCIATION CERTIFIED IRRIGATION DESIGNER) AND TO CLIENT'S APPROVAL.

#### Drawing Revisions

| Issue | Date       | Subject      | Authorised |
|-------|------------|--------------|------------|
| C     | 08.04.2019 | FOR APPROVAL | JMC        |
| B     | 28.03.2019 | FOR APPROVAL | JMC        |
| A     | 08.11.2018 | PRELIMINARY  | JMC        |

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**ANDREW PROWSE**  
LANDSCAPE ARCHITECT

Owner:

**DE BRUEYS WINERY**

PROJECT TITLE:

**DE BRUEYS WINERY  
ACCOMMODATION**  
R.A. FUNCTION SERVICES  
189 FICHERA ROAD, MAREEBA QLD

DRAWING TITLE:

**COVER PAGE AND  
LOCALITY PLAN**

|                 |                    |              |                 |
|-----------------|--------------------|--------------|-----------------|
| Scale: As Shown | Drawn: JMO         | Checked: JTB | Authorized: JMC |
| At: A3 SIZE     | Date: 8 April 2019 |              |                 |

|                                  |                   |                       |
|----------------------------------|-------------------|-----------------------|
| Drawing No:<br><b>133 - L 00</b> | Issue<br><b>C</b> | Sheet No.<br><b>1</b> |
|----------------------------------|-------------------|-----------------------|



**LEGEND**

-  CONCRETE FOOTPATH
-  GARDEN BED
-  HEDGE
-  TURF
-  EXISTING TREES
-  PROPOSED TREES
-  GRAPE FRUIT TREES
-  CAR PARK SHADE TREES
-  PAPAYA TREES
-  SPADE EDGING
-  PROPERTY BOUNDARY

| Drawing Revisions |            |                      |            |
|-------------------|------------|----------------------|------------|
| Issue             | Date       | Subject              | Authorised |
| C                 | 08.04.2019 | FOR APPROVAL         | JMC        |
| B                 | 28.03.2019 | FOR APPROVAL         | JMC        |
| A                 | 08.11.2018 | PRELIMINARY          | JMC        |
| Issue             | Date       | Revision Description | Initial    |

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**ANDREW PROWSE**  
 LANDSCAPE ARCHITECT

Owner:  
**DE BRUEYS WINERY**

PROJECT TITLE:  
**DE BRUEYS WINERY  
 ACCOMMODATION**  
 R.A. FUNCTION SERVICES  
 189 FICHERA ROAD, MAREEBA QLD

DRAWING TITLE:  
**LANDSCAPE PLAN 01**

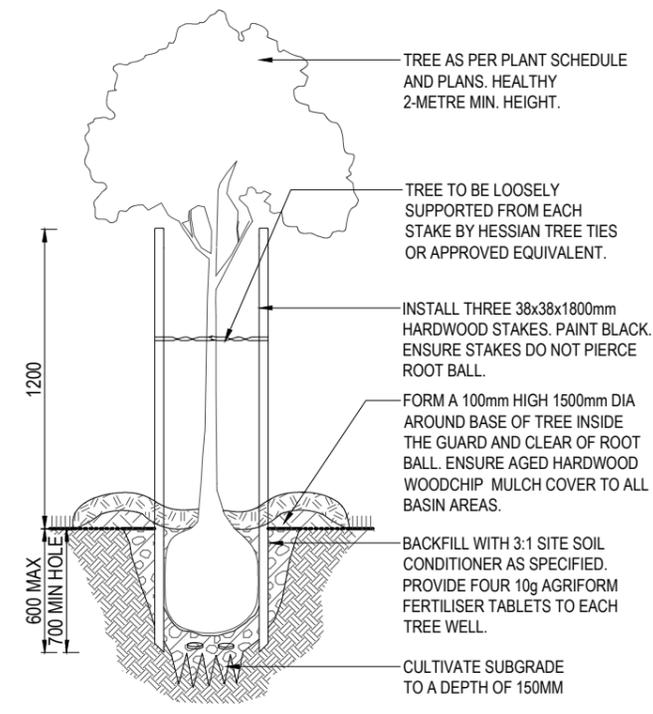
**A LANDSCAPE PLAN 01**  
 L01 SCALE 1:300 @ A1  
 1:600 @ A3



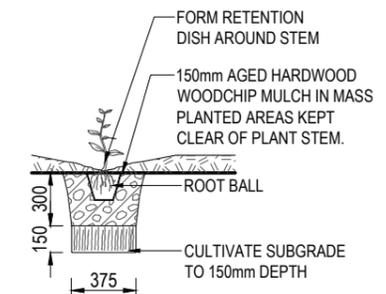
|                        |                    |              |                 |
|------------------------|--------------------|--------------|-----------------|
| Scale: 1:600           | Drawn: JMO         | Checked: JTB | Authorised: JMC |
| At: A3 SIZE            | Date: 8 April 2019 |              |                 |
| Drawing No: 133 - L 01 | Issue: C           | Sheet No: 2  |                 |



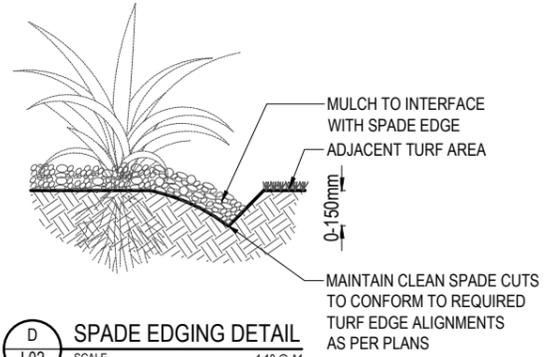
**A** LANDSCAPE PLAN 02  
 L02 SCALE 1:300 @ A1  
 1:600 @ A3



**B** TYPICAL 25-LITRE TREE PLANTING IN GARDEN BED  
 L02 SCALE 1:20 @ A1  
 1:40 @ A3



**C** TYPICAL POT PLANTING  
 L02 SCALE 1:20 @ A1  
 1:40 @ A3



**D** SPADE EDGING DETAIL  
 L02 SCALE 1:10 @ A1  
 1:20 @ A3

- LEGEND**
- CONCRETE FOOTPATH
  - GARDEN BED
  - HEDGE
  - TURF
  - EXISTING TREES
  - PROPOSED TREES
  - GRAPE FRUIT TREES
  - CAR PARK SHADE TREES
  - PAPAYA TREES
  - SPADE EDGING
  - PROPERTY BOUNDARY

Drawing Revisions

| Issue | Date       | Subject      | Authorised |
|-------|------------|--------------|------------|
| C     | 08.04.2019 | FOR APPROVAL | JMC        |
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**ANDREW PROWSE**  
 LANDSCAPE ARCHITECT

Owner:  
**DE BRUEYS WINERY**

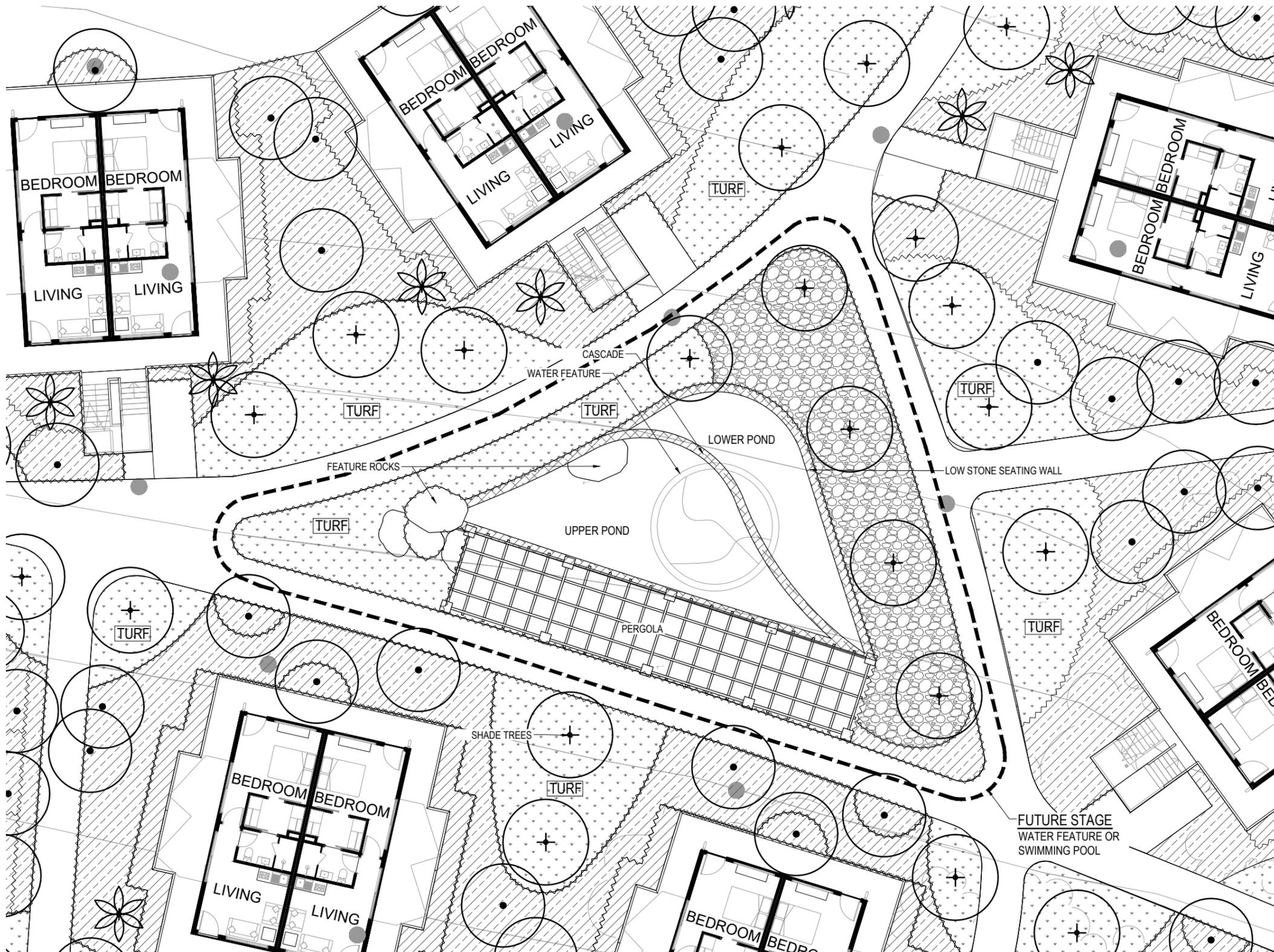
PROJECT TITLE:  
**DE BRUEYS WINERY  
 ACCOMMODATION**  
 R.A. FUNCTION SERVICES  
 189 FICHERA ROAD, MAREEBA QLD

DRAWING TITLE:  
**LANDSCAPE PLAN 02 & DETAILS**

|                 |                    |              |                 |
|-----------------|--------------------|--------------|-----------------|
| Scale: As Shown | Drawn: JMO         | Checked: JTB | Authorised: JMC |
| At: A3 SIZE     | Date: 8 April 2019 |              |                 |

Drawing No: **133 - L 02** Issue **C** Sheet No. **3**





- LEGEND**
- CONCRETE FOOTPATH
  - GARDEN BED
  - HEDGE
  - TURF
  - EXISTING TREES
  - PROPOSED TREES
  - GRAPE FRUIT TREES
  - CAR PARK SHADE TREES
  - PAPAYA TREES
  - SPADE EDGING
  - PROPERTY BOUNDARY

**Drawing Revisions**

| Issue | Date       | Subject      | Authorised |
|-------|------------|--------------|------------|
| C     | 08.04.2019 | FOR APPROVAL | JMC        |
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PROJECT TITLE:  
**DE BRUEYS WINERY  
 ACCOMMODATION**  
 R.A. FUNCTION SERVICES  
 189 FICHERA ROAD, MAREEBA QLD

DRAWING TITLE:  
**CENTRAL COURT WATER  
 FEATURE CONCEPT**

|                                  |                       |                       |                    |
|----------------------------------|-----------------------|-----------------------|--------------------|
| Scale:<br>As Shown               | Drawn:<br>JMO         | Checked:<br>JTB       | Authorised:<br>JMC |
| At:<br>A3 SIZE                   | Date:<br>8 April 2019 |                       |                    |
| Drawing No:<br><b>133 - L 04</b> | Issue<br><b>C</b>     | Sheet No.<br><b>5</b> |                    |

**A** CENTRAL COURT WATER FEATURE LANDSCAPE PLAN  
 L04 SCALE 1:100 @ A1  
 1:200 @ A3



| MASTER PLANTING SCHEDULE  |     |               |  |                         |             |                  |                 |
|---|-----|---------------|--|-------------------------|-------------|------------------|-----------------|
| QTY   |     | Code          | BOTANICAL NAME                             | COMMON NAME             | supply size | min. spacing     | Mature Size     |
| <b>STREETScape</b>  |     |               |  |                         |             |                  |                 |
| <b>Trees</b>  |     |               |  |                         |             |                  |                 |
| 50  |     | COR v SMO     | Corymbia ficifolia 'Smoldering Red'        | Smouldering Red Gum     | 25L         | As Shown         | 5m h x 4m w     |
| 25  |     | EUC pla       | Eucalyptus platyphylla                     | Poplar Gum              | 25L         | As Shown         | 10m h x 5m w    |
| <b>Buffer Hedge</b>   |     |               |  |                         |             |                  |                 |
| 75  |     | SYZ aqu       | Syzygium aqueum                            | Brush Cherry            | 200mm       | As Shown         | 5m h x 2m w     |
| <b>Shrubs and Ground Covers</b>   |     |               |  |                         |             |                  |                 |
| 150   |     | CAL v LIT     | Callistemon viminalis 'Little John'        | Little John Bottlebrush | 140mm       | 2/m <sup>2</sup> | 1m h x 1m w     |
| 150   |     | GAR v GLE     | Gardenia psidioides 'Glennie River'        | Gardenia Glennie River  | 140mm       | 3/m <sup>2</sup> | 0.4m h x 1m w   |
| 50  |     | CRI v MEN     | Crinum 'Menehune'                          | Purple Crinum           | 140mm       | 1/m <sup>2</sup> | 1.5m h x 1.5m w |
| <b>CABIN TYPICAL PLANTING</b>   |     |               |  |                         |             |                  |                 |
| <b>Type A</b>   |     | <b>Type B</b> |  |                         |             |                  |                 |
| <b>Trees</b>  |     |               |  |                         |             |                  |                 |
| 30  |     | BAN den       | Banksia dentata                            | Cape York Banksia       | 25L         | As Shown         | 5-8m h x 5m w   |
| 25  | 35  | CAR pap       | Carica papaya                              | Pawpaw Tree             | 25L         | As Shown         | 3-6m h x 2m w   |
| 25  | 50  | CIT par       | Citrus paradisi                            | Grapefruit Tree         | 25L         | As Shown         | 3-6m h x 2m w   |
| 5   | 20  | DIS sur       | Dissiliaria surculosa                      | Dissiliaria             | 200mm       | As Shown         | 3-6m h x 2m w   |
| 5   | 45  | GRE pte       | Grevillea pteridifolia                     | Fern Leaf Grevillea     | 300mm       | As Shown         | 3-6m h x 2m w   |
|   | 20  | LEP v CAR     | Leptospermum polygalifolium 'Cardwell'     | Cardwell Tea Tree       | 300mm       | As Shown         | 2m h x 2m w     |
|   | 20  | LEP mad       | Leptospermum madidum                       | Weeping Tea Tree        | 25L         | As Shown         | 5m h x 5m w     |
| 20  |     | XAN chr       | Xanthostemon chrysanthus                   | Golden Penda            | 400mm       | As Shown         | 5-8m h x 5m w   |
| 10  |     | XAN v TRA     | Xanthostemon chrysanthus 'Trailblazer'     | Trailblazer Penda       | 400mm       | As Shown         | 2-4m h x 2m w   |
| <b>Citrus Hedges</b>  |     |               |  |                         |             |                  |                 |
| 150   |     | CIT lat       | Citrus latifolia                           | Persian Lime            | 200mm       | 1/lin. m         |                 |
| 150   |     | CIT mic       | Citrofortunella microcarpa                 | Calamondin              | 200mm       | 1/lin. m         |                 |
|   | 255 | CIT jap       | Citrus japonica                            | Kumquat                 | 200mm       | 1/lin. m         |                 |
|   | 255 | CIT lim       | Citrus limon                               | Lemon                   | 200mm       | 1/lin. m         |                 |
| <b>Shrubs and Ground Covers</b>   |     |               |  |                         |             |                  |                 |
| 20  | 55  | CAL v EUR     | Callistemon viminalis 'Eureka'             | Eureka                  | 300mm       | As Shown         | 2-3m h x 2m w   |
| 250   | 180 | CAL v LIT     | Callistemon viminalis 'Little John'        | Little John Bottlebrush | 140mm       | 2/m <sup>2</sup> | 1m h x 1m w     |
| 275   | 280 | GAR v GLE     | Gardenia psidioides 'Glennie River'        | Gardenia Glennie River  | 140mm       | 3/m <sup>2</sup> | 0.4m h x 1m w   |
| 165   | 470 | GAR v OCE     | Gardenia jasminoides 'Ocean Pearl'         | Ocean Pearl Gardenia    | 140mm       | 2/m <sup>2</sup> | 1m h x 1m w     |
| 140   | 170 | MEL v CLA     | Melaleuca spp 'Claret tops'                | Melaleuca Claret Tops   | 140mm       | 1/m <sup>2</sup> | 1.5m h x 1.5m w |
| 80  | 130 | OCI bas       | Ocimum basilicum                           | Basil                   | 140mm       | 3/m <sup>2</sup> | 0.5m h x 0.5m w |
| 275   | 420 | PAN ama       | Pandanus amaryllifolius                    | Edible Pandan           | 140mm       | 3/m <sup>2</sup> | 0.5m h x 0.5m w |
| 165   | 260 | ROS off       | Rosmarinus officinalis                     | Rosemary                | 140mm       | 2/m <sup>2</sup> | 1m h x 1m w     |
| 275   |     | ORT v WHI     | Orthosiphon aristatus 'White'              | Cat's Whiskers (White)  | 140mm       | 2/m <sup>2</sup> | 1m h x 1m w     |
| 305   |     | BAB toz       | Babingtonia tozerensis                     | Mt. Tozer Myrtle        | 140mm       | 1/m <sup>2</sup> | 1.5m h x 1.5m w |
| 15  |     | CAL v PIN     | Callistemon viminalis 'Pink Champagne'     | Pink Champagne          | 300mm       | As Shown         | 2-3m h x 2m w   |
| 165   |     | CAL v WHI     | Callistemon viminalis 'White Anzac'        | White Anzac             | 140mm       | As Shown         | 2-3m h x 2m w   |
| 40  |     | CAL v MAU     | Callistemon viminalis 'Mauve Mist'         | Mauve Mist Bottlebrush  | 300mm       | As Shown         | 2-3m h x 2m w   |
| 80  |     | COR v AUS     | Cordyline 'Aussie Flag'                    | Aussie Flag Cordyline   | 200mm       | 2/m <sup>2</sup> | 1.5m h x 1m w   |
| 30  |     | COR can       | Cordyline canniifolia                      | Native Cordyline        | 200mm       | 1/m <sup>2</sup> | 1.5m h x 1m w   |
| 135   |     | CRI v MEN     | Crinum 'Menehune'                          | Purple Crinum           | 140mm       | 1/m <sup>2</sup> | 1.5m h x 1.5m w |
| 220   |     | LOM hys       | Lomandra hystrix                           | Green Mat-rush          | 140mm       | 3/m <sup>2</sup> | 1m h x .5m w    |
|   | 130 | COR v KIW     | Cordyline 'Kiwi Pride'                     | Kiwi Pride Cordyline    | 200mm       | 2/m <sup>2</sup> | 1.5m h x 1m w   |
|   | 220 | GAR sca       | Gardenia scabrella                         | Star Flower             | 140mm       | 2/m <sup>2</sup> | 1.5m h x 1m w   |
|   | 600 | LEP v PIN     | Leptospermum polygalifolium 'Pink Cascade' | Pink Cascade Tea Tree   | 140mm       | 2/m <sup>2</sup> | 0.8m h x 1.5m w |
|   | 560 | ORT v MAU     | Orthosiphon aristatus 'Mauve'              | Cat's Whiskers (Mauve)  | 140mm       | 2/m <sup>2</sup> | 1m h x 1m w     |
| <b>NOTE: Quantity includes 10% contingency on Shrubs and Groundcovers</b> |     |               |  |                         |             |                  |                 |

| Drawing Revisions |            |              |            |
|-------------------|------------|--------------|------------|
| Issue             | Date       | Subject      | Authorised |
| C                 | 08.04.2019 | FOR APPROVAL | JMC        |
| B                 | 28.03.2019 | FOR APPROVAL | JMC        |
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**ANDREW PROWSE**  
 LANDSCAPE ARCHITECT

Owner:  
**DE BRUEYS WINERY**

PROJECT TITLE:  
**DE BRUEYS WINERY  
 ACCOMMODATION**  
 R.A. FUNCTION SERVICES  
 189 FICHERA ROAD, MAREEBA QLD

DRAWING TITLE:  
**MASTER PLANTING SCHEDULE**

|                                  |                    |                       |                 |
|----------------------------------|--------------------|-----------------------|-----------------|
| Scale: As Shown                  | Drawn: JMO         | Checked: JTB          | Authorized: JMC |
| At: A3 SIZE                      | Date: 8 April 2019 |                       |                 |
| Drawing No:<br><b>133 - L 05</b> | Issue<br><b>C</b>  | Sheet No.<br><b>6</b> |                 |

# De Bruyeys Winery

## SHADE TREES



*Banksia dentata*  
(Cape York Banksia)



*Corymbia ptychocarpa x ficifolia*  
(Smouldering Red Gum)



*Dissiliaria surculosa*  
(Dissiliaria)



*Grevillea pteridifolia*  
(Fern Leaf Grevillea)



*Leptospermum madidum*  
(Weeping Tea Tree)



*Xanthostemon chrysanthus*  
(Golden Penda)

## SMALL ACCENT TREES



*Callistemon v. 'Eureka'*  
(Eureka)



*Callistemon v. 'Pink Champagne'*  
(Pink Champagne)



*Callistemon v. 'Mauve Mist'*  
(Mauve Mist Bottlebrush)



*Callistemon v. 'White Anzac'*  
(White Anzac)



*Leptospermum polygalifolium*  
'Cardwell' (Cardwell Tea Tree)



*Xanthostemon 'Trailblazer'*  
(Trailblazer Penda)

## FRUIT TREES



*Carica papaya*  
(Pawpaw Tree)



*Citrus paradisi*  
(Grapefruit Tree)



*Syzygium aqueum*  
(Brush Cherry)

# De Brueys & Winery

## SHRUBS & GROUNDCOVERS



Babingtonia tozerensis  
(Mt Tozer Myrtle)



Callistemon v. 'Little John'  
(Little John Bottlebrush)



Cordyline 'Aussie Flag'  
(Aussie Flag)



Cordyline cannifolia  
(Native Cordyline)



Cordyline 'Kiwi Pride'  
(Kiwi Pride)



Crinum 'Menehune'  
(Purple Crinum)



Gardenia psi. 'Glennie River'  
(Gardenia Glennie River)



Gardenia jasminoides 'Ocean Pearl'  
(Ocean Pearl)



Gardenia scabrella  
(Star Flower)



Leptospermum pol. 'Pink Cascade'  
(Pink Cascade)



Lomandra hystrix  
(Green Mat-rush)



Melaleuca spp 'Claret tops'  
(Melaleuca Claret Tops)



Orthosiphon aristatus 'Mauve'  
(Cats Whiskers Mauve)



Orthosiphon aristatus 'White'  
(Cat's Whiskers White)

## HERBS & CITRUS



Citrus japonica (Kumquat)



Citrus latifolia (Lime)



Citrus limon (Lemon)



Citrofortunella microcarpa  
(Calamondin)



Ocimum basilicum  
(Common Basil)



Pandanus amaryllifolius  
(Edible Pandan)



Rosmarinus officinalis  
(Rosemary)



R.A. Function Services

**De Brueys Winery  
Accommodation**

**Stormwater Management Plan**

For Council Approval | 16 July 2020

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 260361-00

Arup  
Arup Pty Ltd ABN 18 000 966 165



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**ARUP**

# Document Verification

|                       |                     |                                |   |  |   |
|-----------------------|---------------------|--------------------------------|---|--|---|
| <b>Job title</b>      |                     | De Brueys Winery Accommodation |   | <b>Job number</b>  |   |
|                       |                     |                                |   | 260361-00  |   |
| <b>Document title</b> |                     | Stormwater Management Plan     |   | <b>File reference</b>  |   |
|                       |                     |                                |   |  |   |
| <b>Document ref</b>   |                     |                                |   |  |   |
| <b>Revision</b>       | <b>Date</b>         | <b>Filename</b>                | 460361-CIDR-RPT-0300  |  |   |
| Draft 1               | 28<br>March<br>2018 | <b>Description</b>             | First draft   |  |   |
|                       |                     |                                | Prepared by   | Checked by   | Approved by   |
|                       |                     | Name                           | Nicholas Quinn  | Nathan Lee Long  |   |
|                       |                     | Signature                      |   |  |   |
| For Council Approval  | 16 July 2020        | <b>Filename</b>                | 460361-CIDR-RPT-0300  |  |   |
|                       |                     | <b>Description</b>             | First draft   |  |   |
|                       |                     |                                | Prepared by   | Checked by   | Approved by   |
|                       |                     | Name                           | Nicholas Quinn/Adrian Low   | Doug Walton  | Adrian Low (RPEQ No 16065)  |
|                       |                     | Signature                      |  |  |  |
|                       |                     | <b>Filename</b>                |   |  |   |
|                       |                     | <b>Description</b>             |   |  |   |
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Issue Document Verification with Document



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# 1 Introduction

## 1.1 Background

Arup have been commissioned by R.A. Function Services to prepare a Stormwater Management Plan (SMP) for the proposed De Brueys Winery Accommodation. The objective of this study is to assess the site's existing stormwater regime, the impacts of the proposed development in terms of stormwater quality and quantity and outline required mitigation measures to comply with key design criteria.

## 2 Design Criteria

To manage stormwater quantity and quality, the proposed development should meet the key design criteria outlined in **Table 1**.

**Table 1: Design Criteria Summary**

| Design Guideline/Authority                        | Key Design Criteria   |
|---|---|
| Mareeba Shire Council (MSC) Planning Scheme, 2016 | <p>Quantity: Collect and convey the design storm event in natural and engineered channels, a piped drainage network and system of overland flow paths to a lawful point of discharge in a safe manner that minimises the inundation of habitable rooms and protects life.</p> <p>Quality: The water quality of urban catchments and waterways are managed to protect and enhance environmental values and pose no health risk to the community, and water quality of urban catchments and waterways consider provision of sufficient space in waterway corridors to accommodate wetlands and stormwater quality improvement devices.</p>  |
| Queensland Urban Drainage Manual (QUDM), 2016     | <p>The primary aim of an urban stormwater management system is to ensure stormwater generated from development catchments causes minimal nuisance, danger and damage to people, property and the environment</p> <p>Protect and/or enhance downstream environments by appropriately managing the quality and quantity of stormwater run-off</p> <p>The development provides measures to control stormwater discharged from the developed site to avoid worsening of existing flooding conditions on buildings, adjacent land and surrounding environment for all ARI storm events up to and including the 100 year ARI event</p> <p>The stormwater accumulated on site is carried to a point at which it may be lawfully discharged</p> |

| <b>Design Guideline/Authority</b>                | <b>Key Design Criteria</b>  |
|--|---|
| State Planning Policy (SPP), July 2017           | The planning, design, construction and operation of development should be undertaken in a manner that protects environmental values and maintains or enhances water quality |
| Environmental Protection (Water) Policy, 2009    | Specific local Environmental Values (EVs) and/or Water Quality Objectives (WQOs) for the Barron River Basin Catchment   |
| Queensland Water Quality Guidelines (QWQG), 2009 | Maximum concentration based water quality objectives and minimum reduction targets in mean annual pollutant loads.  |
| Urban Stormwater Planning Guidelines (USPG),     | Manage urban stormwater quantity and quality to protect the environmental values of waterways under the Environmental Protection (Water) Policy, 2009                       |

## 3 Existing Site

---

### 3.1 Site Locality and Features

The proposed De Brueys Winery Accommodation is to be developed on the parcel of land described as Lot 1 on RP745867, located at 189 Fichera Road, Mareeba. The site has an area of 150,300 m<sup>2</sup> and is bound by Fichera Road to the west, Tinaroo Creek to the east and neighbouring rural properties to the north and south. The site is the current location of De Brueys Boutique Winery and also contains four mango tree plantations, a dam, a domestic residence and two sheds. A survey of the site has been undertaken by Brazier Motti and is attached in **Appendix A**.

**Figure 1** displays an aerial image of the site and labels prominent features.



Figure 1: Aerial Image of Site (Queensland Globe, 2017)

### 3.2 Existing Drainage Regime

Stormwater is conveyed throughout the site via culverts, table drains and shaped swales. Photographs of the site’s drainage regime are attached in **Appendix B** and the location of each photograph is referenced in **Figure B1** (within **Appendix B**) which also displays catchment extents and existing flow paths throughout the site.

Details of each catchment including area, description and flow direction are outlined in **Table 2**. The existing legal point of discharges for the site are Tinaroo Creek and the table drain in the Fichera Road reserve.

**Table 2 – Catchment Details**

| Catchment | Area (m <sup>2</sup> )           | Description                                   | Flow Discharge Direction            |
|-----------|----------------------------------|---|-------------------------------------|
| A         | 5917 (Area within site boundary) | Grassed surface at an approximate grade of 2% | Table drain in Fichera Road reserve |

| Catchment | Area (m <sup>2</sup> )            | Description  | Flow Discharge Direction  |
|-----------|-----------------------------------|--|---|
| B         | 23554 (Area within site boundary) | Grassed surface at an approximate grade of 3%  | Table drain on southern side of sealed access road. Table drain subsequently conveys flow to the existing DN300 RCP culvert in the Fichera Road reserve   |
| C         | 7714 (Area within site boundary)  | Grassed surface at an approximate grade of 2%  | Flow is conveyed via a swale and table drain to the 200 x 600 RCBC underlying the sealed access road which discharges into a grassed swale in Catchment G |
| D         | 20983 (Area within site boundary) | Predominantly steep catchment containing winery, domestic residence and sheds that falls at grades ranging from 6%-50% towards dam | Discharges into dam. Spillway is located on northern side of dam and discharges to Catchment H  |
| E         | 28362 (Area within site boundary) | Relatively steep catchment consisting of light bushland and grassland  | Tinaroo Creek   |
| F         | 16980 (Area within site boundary) | Grassland at an approximate grade of 5%  | To the neighbouring property to the north and flow subsequently discharges to Tinaroo Creek via gullies   |

| Catchment | Area (m <sup>2</sup> )            | Description  | Flow Discharge Direction  |
|-----------|-----------------------------------|--|---|
| G         | 10594 (Area within site boundary) | Grassland in southern section of catchment at an approximate grade of 8% and northern section consists of light bushland with steep gullies and ridges | To the neighbouring property to the north and flow subsequently discharges via a gully to Tinaroo Creek |
| H         | 33796 (Area within site boundary) | Light bushland and grassland consisting of steep gullies and ridges. Contains the drainage path from the dam spillway                                  | To the neighbouring property to the north and flow subsequently discharges via a gully to Tinaroo Creek |
| I         | 746                               | Grassland at an approximate grade of 5%  | Discharges to a DN200 RCP culvert that underlies the sealed access road which discharges to Catchment H |

### 3.3 Existing Flood Impact

Arup reviewed the Mareeba Shire Council Flood Hazard Overlay Map and it was determined that only a small portion of the site adjacent to Tinaroo Creek was categorised as a Potential Flood Hazard Area. This highlighted area did not encroach onto the area of proposed development.

No flood studies have been undertaken in the site area to determine the 1% AEP flood level. However, given that there is a significant difference in elevation (greater than 15 metres) between the banks of Tinaroo Creek and the proposed development area it is highly unlikely that the site would be subject to Q<sub>100</sub> flooding from the waterway.

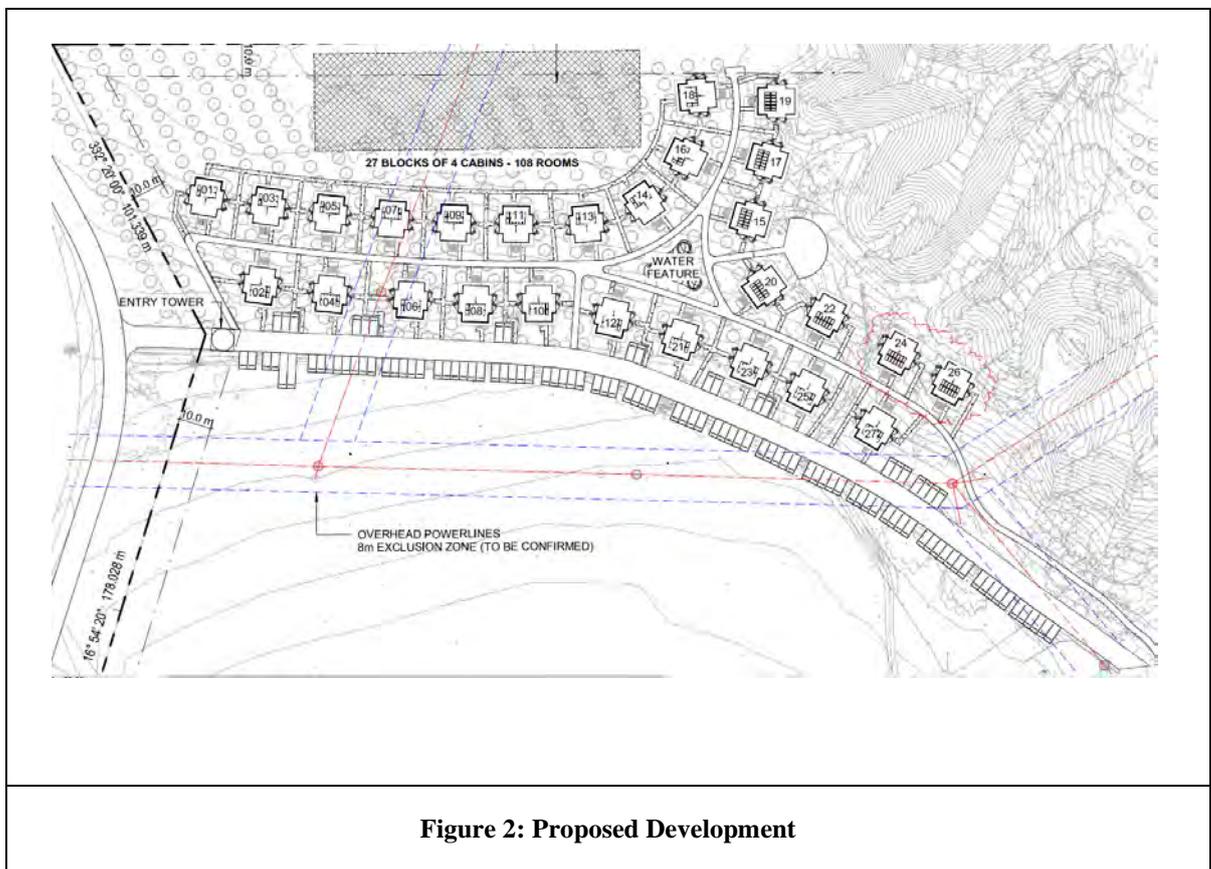
The Mareeba Shire Council Flood Hazard Map encompassing the site area is attached in **Appendix C**.

## 4 Proposed Development

The proposed development will provide accommodation for visitors of the De Brueys Winery and consists of the following:

- Twenty-Seven (27) blocks of four (4) cabins (108 cabins in total);
- Two (2) metre wide access pathway to provide access for a vehicle similar to a golf buggy;
- One hundred and six (106) regular car parking spaces;
- Two (2) recreational vehicle car parking spaces; and
- Associate utility services and water and waste water infrastructure.

**Figure 2** displays the proposed layout of the development. Architectural drawings of the development been prepared by CA Architects and are attached in **Appendix D**.



**Figure 2: Proposed Development**

## 5 Stormwater Quantity

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### 5.1 Stormwater Quantity Objectives

The Mareeba Shire Council Planning Scheme (2016) stipulates that the development must collect and convey the design storm event to a legal point of discharge in a safe manner that minimises the inundation of habitable rooms and protects life.

Overall, the design must account for an increase in runoff due to an increase in impervious surfaces that are associated with the development.

### 5.2 Stormwater Quantity Strategy

The stormwater management strategy for the development is to maintain the existing stormwater regime of the site. The access road and footpaths of the development will match the existing surface level of the site where practical. As shown in the architectural drawings, the accommodation cabins will be raised a minimum of 600mm above the existing surface level and will not obstruct surface flows. These factors will allow catchment run-off to sheet flow through the development site to the north to subsequently discharge to Tinaroo Creek.

### 5.3 Pre and Post Development Flow Assessment

#### 5.3.1 Rational Method Analysis

It can be observed in **Figure B1** that the proposed development is located within catchments F, G and H. In accordance with QUDM, the Rational Method will be utilised to determine the peak flow rates corresponding to the 100, 50, 20, 5, 2, and 1 year ARI events for the pre and post development scenarios. An IFD chart for Mareeba was sourced from Section D4 Stormwater Drainage of the FNQROC Development Manual and is attached in **Appendix E**. Variables that were required to calculate the peak flow rates during the pre and post development scenarios are displayed in **Table 3**.

It can also be observed from **Figure B1** that the gravel road widening and car parking spaces associated with the development are located within Catchments B, C, H and I. The increase in fraction impervious to these catchments is considered negligible and therefore the peak flow rates for these catchments for the pre and post development scenarios will not be determined.

**Table 3: Variables for Calculation of Peak Flow Rates**

| Variable  | Catchment | Pre Development Scenario Value | Post Development Scenario Value | Reference   |
|---|-----------|--------------------------------|---------------------------------|---|
| Catchment Area (m <sup>2</sup> )                  | F         | 16980                          | 16980                           | Refer Table 1   |
|   | G         | 10594                          | 10594                           | Refer Table 1   |
|   | H         | 33796                          | 33796                           | Refer Table 1   |
| Fraction Impervious (fi)                          | F         | 0.00                           | 0.20                            | Impervious Area = 3131<br>Fraction Impervious (Impervious Area/Total Catchment Area) = 0.2  |
|   | G         | 0.00                           | 0.20                            | Impervious Area = 1771<br>Fraction Impervious (Impervious Area/Total Catchment Area) = 0.20   |
|   | H         | 0.00                           | 0.00                            | Impervious Area = 1054<br>Fraction Impervious (Impervious Area/Total Catchment Area) = 0.03 (0.00 approx.)  |
| Ten year discharge coefficient (C <sub>10</sub> ) | F         | 0.70                           | 0.71                            | <sup>1</sup> I <sub>10</sub> = 64.83 mm/hr<br><b>Pre-Development</b><br>QUDM Table 4.5.4<br>Light cover bushland/poor grass cover<br>Medium Soil Permeability<br><b>Post-Development</b><br>QUDM Table 4.5.3<br>Fraction Impervious = 0.2 |
|   | G         | 0.70                           | 0.71                            | <sup>1</sup> I <sub>10</sub> = 64.83 mm/hr<br><b>Pre-Development</b><br>QUDM Table 4.5.4<br>Light cover bushland/poor grass cover<br>Medium Soil Permeability<br><b>Post-Development</b><br>QUDM Table 4.5.3<br>Fraction Impervious = 0.2 |
|   |           | 0.70                           | 0.70                            | <sup>1</sup> I <sub>10</sub> = 64.83 mm/hr  |

| Variable                   | Catchment | Pre Development Scenario Value | Post Development Scenario Value | Reference   |
|----------------------------|-----------|--------------------------------|---------------------------------|---|
|                            | H         |                                |                                 | <b><u>Pre-Development and Post Development</u></b><br>QUDM Table 4.5.4<br>Light cover bushland/poor grass cover<br>Medium Soil Permeability |
| Time of Concentration (tc) | F         | 25                             | 25                              | Estimated from QUDM   |
|                            | G         | 25                             | 25                              | Estimated from QUDM   |
|                            | H         | 35                             | 35                              | Estimated from QUDM   |

## 5.3.2 Results

Tables 4 and 5 summarise the peak flow rates for the pre and post development scenarios respectively.

**Table 4: Pre Development Peak Flow Rates**

| Time of Concentration (min) | Area (ha) | ARI Years | Frequency Factor (Fy) | 10 Year Discharge Coefficient (C10) | Run-off Coefficient (Cy) | Rainfall Intensity (mm/hr) | Q (m <sup>3</sup> /s) |
|-----------------------------|-----------|-----------|-----------------------|-------------------------------------|--------------------------|----------------------------|-----------------------|
| <b>Catchment F</b>          |           |           |                       |                                     |                          |                            |                       |
| 25                          | 1.7       | 100       | 1.2                   | 0.7                                 | 0.84                     | 147.41                     | 0.58                  |
|                             |           | 50        | 1.15                  | 0.7                                 | 0.81                     | 133.42                     | 0.51                  |
|                             |           | 20        | 1.05                  | 0.7                                 | 0.74                     | 115.06                     | 0.40                  |
|                             |           | 10        | 1                     | 0.7                                 | 0.70                     | 101.04                     | 0.33                  |
|                             |           | 5         | 0.95                  | 0.7                                 | 0.67                     | 90.83                      | 0.29                  |
|                             |           | 2         | 0.85                  | 0.7                                 | 0.60                     | 73.06                      | 0.21                  |
|                             |           | 1         | 0.8                   | 0.7                                 | 0.56                     | 57.36                      | 0.15                  |
| <b>Catchment G</b>          |           |           |                       |                                     |                          |                            |                       |
| 25                          | 1.06      | 100       | 1.2                   | 0.7                                 | 0.84                     | 147.41                     | 0.36                  |
|                             |           | 50        | 1.15                  | 0.7                                 | 0.81                     | 133.42                     | 0.32                  |
|                             |           | 20        | 1.05                  | 0.7                                 | 0.74                     | 115.06                     | 0.25                  |
|                             |           | 10        | 1                     | 0.7                                 | 0.70                     | 101.04                     | 0.21                  |
|                             |           | 5         | 0.95                  | 0.7                                 | 0.67                     | 90.83                      | 0.18                  |
|                             |           | 2         | 0.85                  | 0.7                                 | 0.60                     | 73.06                      | 0.13                  |
|                             |           | 1         | 0.8                   | 0.7                                 | 0.56                     | 57.36                      | 0.09                  |
| <b>Catchment H</b>          |           |           |                       |                                     |                          |                            |                       |
| 35                          | 3.38      | 100       | 1.2                   | 0.7                                 | 0.84                     | 123.93                     | 0.98                  |
|                             |           | 50        | 1.15                  | 0.7                                 | 0.81                     | 112.43                     | 0.85                  |
|                             |           | 20        | 1.05                  | 0.7                                 | 0.74                     | 97.31                      | 0.67                  |
|                             |           | 10        | 1                     | 0.7                                 | 0.70                     | 85.73                      | 0.56                  |
|                             |           | 5         | 0.95                  | 0.7                                 | 0.67                     | 77.35                      | 0.48                  |
|                             |           | 2         | 0.85                  | 0.7                                 | 0.60                     | 62.66                      | 0.35                  |
|                             |           | 1         | 0.8                   | 0.7                                 | 0.56                     | 49.33                      | 0.26                  |

**Table 5: Post Development Peak Flow Rates**

| Time of Concentration (min) | Area (ha) | ARI Years | Frequency Factor (Fy) | 10 Year Discharge Coefficient (C10) | Run-off Coefficient (Cy) | Rainfall Intensity (mm/hr) | Q (m <sup>3</sup> /s) |
|-----------------------------|-----------|-----------|-----------------------|-------------------------------------|--------------------------|----------------------------|-----------------------|
| <b>Catchment F</b>          |           |           |                       |                                     |                          |                            |                       |
| 25                          | 1.7       | 100       | 1.2                   | 0.71                                | 0.85                     | 147.41                     | 0.59                  |
|                             |           | 50        | 1.15                  | 0.71                                | 0.82                     | 133.42                     | 0.51                  |
|                             |           | 20        | 1.05                  | 0.71                                | 0.75                     | 115.06                     | 0.41                  |
|                             |           | 10        | 1                     | 0.71                                | 0.71                     | 101.04                     | 0.34                  |
|                             |           | 5         | 0.95                  | 0.71                                | 0.67                     | 90.83                      | 0.29                  |
|                             |           | 2         | 0.85                  | 0.71                                | 0.60                     | 73.06                      | 0.21                  |
|                             |           | 1         | 0.8                   | 0.71                                | 0.57                     | 57.36                      | 0.15                  |
| <b>Catchment G</b>          |           |           |                       |                                     |                          |                            |                       |
| 25                          | 1.06      | 100       | 1.2                   | 0.71                                | 0.85                     | 147.41                     | 0.37                  |
|                             |           | 50        | 1.15                  | 0.71                                | 0.82                     | 133.42                     | 0.32                  |
|                             |           | 20        | 1.05                  | 0.71                                | 0.75                     | 115.06                     | 0.25                  |
|                             |           | 10        | 1                     | 0.71                                | 0.71                     | 101.04                     | 0.21                  |
|                             |           | 5         | 0.95                  | 0.71                                | 0.67                     | 90.83                      | 0.18                  |
|                             |           | 2         | 0.85                  | 0.71                                | 0.60                     | 73.06                      | 0.13                  |
|                             |           | 1         | 0.8                   | 0.71                                | 0.57                     | 57.36                      | 0.10                  |
| <b>Catchment H</b>          |           |           |                       |                                     |                          |                            |                       |
| 35                          | 3.38      | 100       | 1.2                   | 0.7                                 | 0.84                     | 123.93                     | 0.98                  |
|                             |           | 50        | 1.15                  | 0.7                                 | 0.81                     | 112.43                     | 0.85                  |
|                             |           | 20        | 1.05                  | 0.7                                 | 0.74                     | 97.31                      | 0.67                  |
|                             |           | 10        | 1                     | 0.7                                 | 0.70                     | 85.73                      | 0.56                  |
|                             |           | 5         | 0.95                  | 0.7                                 | 0.67                     | 77.35                      | 0.48                  |
|                             |           | 2         | 0.85                  | 0.7                                 | 0.60                     | 62.66                      | 0.35                  |
|                             |           | 1         | 0.8                   | 0.7                                 | 0.56                     | 49.33                      | 0.26                  |

As shown in **Table 6**, the development results in a 1% increase in peak flow rates for catchments F and G and has a negligible increase in peak flow rates for **Catchment H**.

**Table 6: Comparison of Peak Flow Rates**

| Scenarios                            | Q100  | Q50   | Q20    | Q10    | Q5     | Q2     | Q1     |
|--------------------------------------|-------|-------|--------|--------|--------|--------|--------|
| <b>Catchment F</b>                   |       |       |        |        |        |        |        |
| Pre Development (m <sup>3</sup> /s)  | 0.58  | 0.51  | 0.40   | 0.33   | 0.29   | 0.21   | 0.15   |
| Post Development (m <sup>3</sup> /s) | 0.59  | 0.51  | 0.41   | 0.34   | 0.29   | 0.21   | 0.15   |
| Increase (m <sup>3</sup> /s)         | 0.01  | 0.01  | 0.0057 | 0.0048 | 0.0041 | 0.0029 | 0.0022 |
| Increase (%)                         | 1%    | 1%    | 1%     | 1%     | 1%     | 1%     | 1%     |
| <b>Catchment G</b>                   |       |       |        |        |        |        |        |
| Pre Development (m <sup>3</sup> /s)  | 0.36  | 0.32  | 0.25   | 0.21   | 0.18   | 0.13   | 0.09   |
| Post Development (m <sup>3</sup> /s) | 0.37  | 0.32  | 0.25   | 0.21   | 0.18   | 0.13   | 0.10   |
| Increase (m <sup>3</sup> /s)         | 0.005 | 0.005 | 0.004  | 0.003  | 0.003  | 0.002  | 0.001  |
| Increase (%)                         | 1%    | 1%    | 1%     | 1%     | 1%     | 1%     | 1%     |
| <b>Catchment H</b>                   |       |       |        |        |        |        |        |
| Pre Development (m <sup>3</sup> /s)  | 0.98  | 0.85  | 0.67   | 0.56   | 0.48   | 0.35   | 0.26   |
| Post Development (m <sup>3</sup> /s) | 0.98  | 0.85  | 0.67   | 0.56   | 0.48   | 0.35   | 0.26   |
| Increase (m <sup>3</sup> /s)         | 0.00  | 0.00  | 0.00   | 0.00   | 0.00   | 0.00   | 0.00   |
| Increase (%)                         | 0%    | 0%    | 0%     | 0%     | 0%     | 0%     | 0%     |

It is therefore evident that the development has a negligible impact on pre-development peak flow rates and stormwater attenuation is not required as part of the development.

## 5.4 Water and Wastewater Treatment Plant Drainage

A Water and Wastewater Treatment Plant (WWTP) is located at the North-eastern corner of the site. Refer to 260361-CIAL-DRG-104 for locality plan.

Based on the existing contours, there is a ridgeline running towards the WWTP pad. It is proposed to provide two channels (grading away from the ridgeline) to divert runoff away from the pad, with rock protection to spread the flow at the downstream end of each channel. Refer to 260361-CIAL-DRG-128 for channel and rock protection details.

Channel sizing calculations are included in **Appendix G**.

## 6 Stormwater Quality

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### 6.1 Operational Stormwater Quality Objectives

The State Planning Policy (SPP) 2017 defines a set of Water Quality Objectives (WQOs) that must be achieved by a material change of use for an *urban purpose*.

However, the proposed development is in a rural environment, which does not generate significant pollutants as compared to an urban environment (which has significantly higher traffic volume and public exposure). Therefore, it does not trigger the WQOs.

#### 6.1.1 Operational Stormwater Quality Strategy and Treatment

As discussed in Section 5.1, the development will maintain the existing drainage regime of the site. The downstream overland flow paths from the development are grassed and vegetated which provide a passive primary water quality treatment measure by removing gross pollutants, coarse sediments and some nutrients (via the physical filtration of water through the vegetation and grass cover) before the runoff enters Tinaroo Creek.

First flush systems will be fitted to the rainwater tanks of each accommodation block to capture gross pollutants from roof runoff before they enter the tanks.

The amount of gross pollutants generated from the development is anticipated to be negligible given that the accommodation cabins and surrounding grounds will be regularly cleaned and maintained by staff of the winery.

### 6.2 Construction Phase Water Quality Management

#### 6.2.1 Erosion and Sediment Control Plan

Arup has prepared a proposed construction phase Erosion and Sediment Control strategy in accordance with the Institution of Engineers Australia Soil and Erosion Sediment Control Engineering Guidelines for Queensland Construction Sites which is attached in **Appendix F**.

It is the responsibility of the Contractors to develop a detailed Erosion and Sediment Control Plan (ESCP) once operational works for the development has been granted and will be in accordance with the requirements of the FNQROC Development Manual – Construction Procedures.

## 7 Conclusions and Recommendations

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### Stormwater Quantity

Stormwater flows from Catchments F, G and H for the pre and post development scenarios have been assessed for the 1, 2, 5, 10, 20, 50 and 100 year ARI storm events. The proposed development will result in an increase of approximately 1% of the peak flow rates for the aforementioned ARI events for Catchments F and G and 0% (negligible) for Catchment H. Subsequently, there will be a negligible increase to the flows entering the neighbouring property to the north and Tinaroo Creek. Therefore, it is proposed that no stormwater attenuation be implemented as part of the development.

### Stormwater Quality (Operational Phase)

The State Planning Policy (SPP) 2017 defines a set of Water Quality Objectives (WQOs) that must be achieved by a material change of use for an *urban purpose*.

However, the proposed development is in a rural environment, which does not generate significant pollutants as compared to an urban environment (which has significantly higher traffic volume and public exposure). Therefore, it does not trigger the WQOs.

As the downstream overland flow paths from the development are grassed and vegetated, it can provide a passive primary water quality treatment measure by removing gross pollutants, coarse sediments and some nutrients (via the physical filtration of water through the vegetation and grass cover) before the runoff enters Tinaroo Creek.

First flush systems will be fitted to the rainwater tanks of each accommodation block to capture gross pollutants from roof runoff before they enter the tanks.

The amount of gross pollutants generated from the development is anticipated to be negligible given that the accommodation cabins and surrounding grounds will be regularly cleaned and maintained by staff of the winery.

### Stormwater Quality (Construction Phase)

Arup has prepared a proposed Erosion and Sediment Control strategy (included in **Appendix F**). It is the responsibility of the Contractor to develop a detailed Erosion and Sediment Control Plan once the operational works approval is granted.

## Appendix A

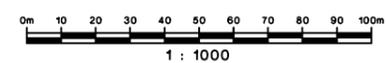
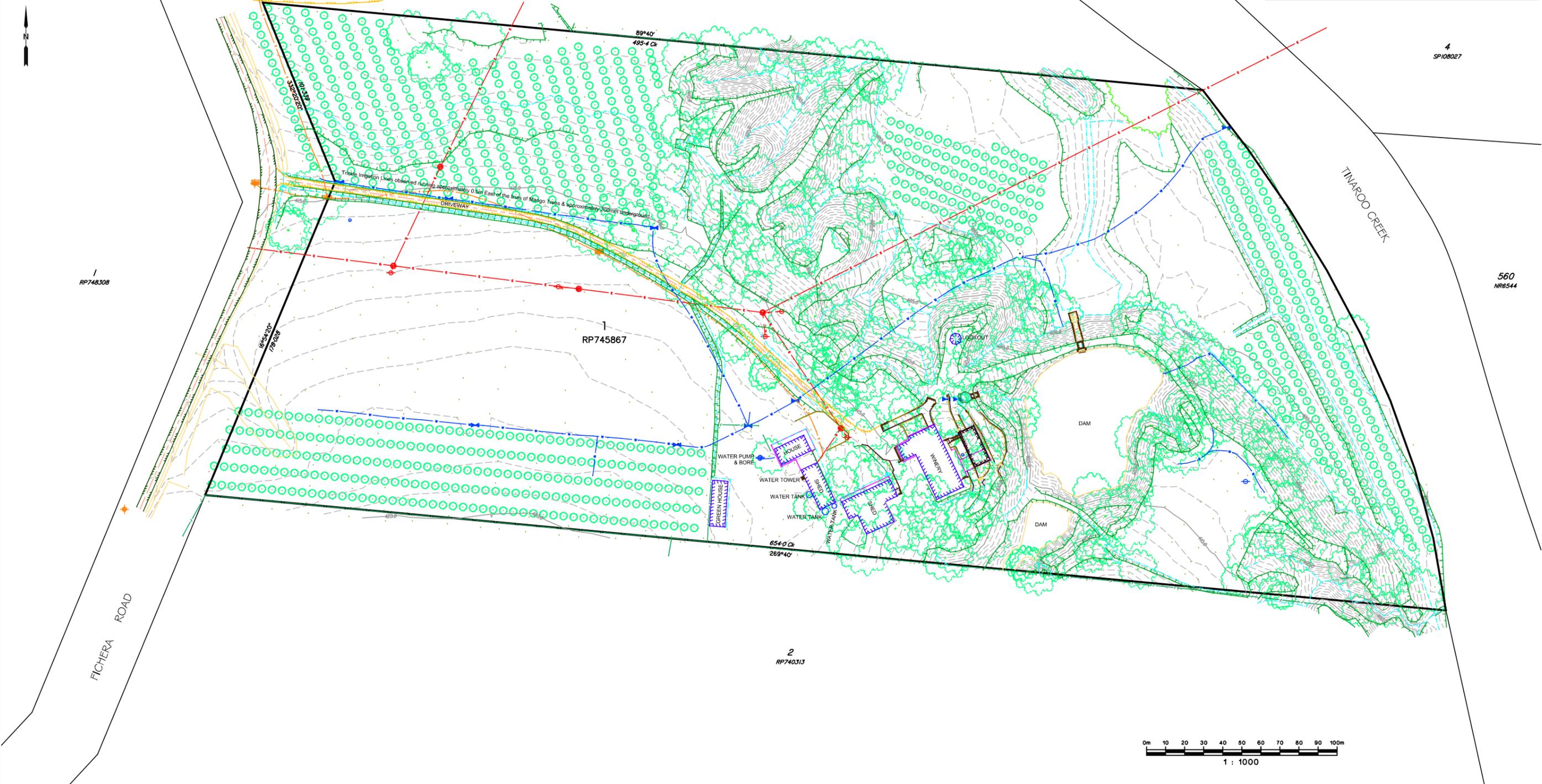
### Topographical Survey





**LEGEND:**

|       |                         |   |                               |
|-------|-------------------------|---|-------------------------------|
| —     | Subject Boundary        | ○ | Bore                          |
| - - - | Adjoining Boundary      | ● | Water Point                   |
| —     | Minor Contour           | ⊕ | Stop Valve                    |
| —     | Major Contour           | ⊖ | Grated Pit                    |
| —     | Fence Line              | ⊙ | Stay Wire Pole                |
| —     | Power Line              | ⊗ | Power Pole                    |
| —     | Stay Wire               | ⊘ | Headwall                      |
| —     | Road Centreline         | ⊙ | Telecommunication Pit         |
| —     | Edge of Bitumen         | ⊙ | Telecommunication Marker Post |
| —     | Edge of Track           |   |                               |
| —     | Edge of Concrete        |   |                               |
| —     | Footway                 |   |                               |
| —     | Building                |   |                               |
| —     | Awning                  |   |                               |
| —     | Top of Wall             |   |                               |
| —     | Bottom of Wall          |   |                               |
| —     | Change of Grade         |   |                               |
| —     | Top of Bank             |   |                               |
| —     | Bottom of Bank          |   |                               |
| —     | Telecommunications Line |   |                               |
| —     | Water Line              |   |                               |
| —     | Vegetation line         |   |                               |



The title boundaries as shown hereon were not marked at the time of survey and have been determined by plan dimensions only and not by field survey. Services shown hereon have been located where possible by field survey. If not able to be located, services have been plotted from relevant authority records and have been noted accordingly on this plan. Prior to any demolition, excavation or construction on the site, the relevant authority should be contacted for possible location of further underground services and detailed locations of all services.

**SURVEY CONTROL**

| POINT | EASTING    | NORTHING    | ELEVATION | DESCRIPTION      |
|-------|------------|-------------|-----------|------------------|
| Z6    | 335551.139 | 8117368.010 | 414.574   | NAIL IN HEADWALL |
| ..... | .....      | .....       | .....     | .....            |
| ..... | .....      | .....       | .....     | .....            |

| Revisions |            |                |       |
|-----------|------------|----------------|-------|
| No.       | Date       | Details        | Check |
| A         | 16.03.2017 | Original issue | DWK   |

Level Datum: PSM 94627  
 B.M. Used: PSM 94627 RL=425.910  
 Coordinate Projection: MGA94 Zone 55  
 Coordinate Datum:  
 Origin of Coordinates: MGA94 Zone 55  
 Meridian: MGA94 Zone 55  
 Map Reference: 7963-1142  
 Contour Interval: 0.5m  
 Job No: 34239/1-1  
 File No: 34239-1-1.dwg  
 Surveyed by: JDT 14.03.2017

Drawn: MLC  
 Approved:

CLIENT: **BEST BEACH RESORT PTY LTD**  
 Project: **CONTOUR & DETAIL SURVEY LOT 1 ON RP745867 189 FICHERA ROAD, MAREEBA**  
 Parish of: TINAROO County of: NARES  
 Local Authority: MAREEBA SHIRE COUNCIL Locality: MAREEBA

**brozier mott**

1300 267 878  
 www.broziermott.com.au

Date: 16 MARCH 2017  
 Sheet 1 of 1 Sheets  
 Scale: 1:1000 @ A1  
 Plan No: 34239/001 A

townsville | ayr | cairns | Mackay

surveying | town planning | project management | mapping and GIS

## **Appendix B**

### **Photographs of Local Drainage Network**





**Photo One: DN300 RCP Culvert at Property Access view north**



**Photo Two: Table Drain in Fichera Road view south**



**Photo Three: Table Drain on southern side of sealed access road view east**



**Photo Four: Inlet of 200 x 600 RCBC culvert view north**



**Photo Five: Swale at the outlet of the 200 x 600 RCBC culvert view north**



**Photo Six: Table drain on southern side of sealed access road view west**



**Photo Seven: swale in south of site view north**



**Photo Eight: Inlet of DN200 RCP culvert view north**



**Photo Nine: Dam in south of site view east**



**Photo Ten: Discharge gully from dam spillway view north**



**Photo Eleven: Spillway of Dam view south**



**Photo Twelve: Sealed Access Road view north**



**Photo Thirteen: Small gully in south-west corner**



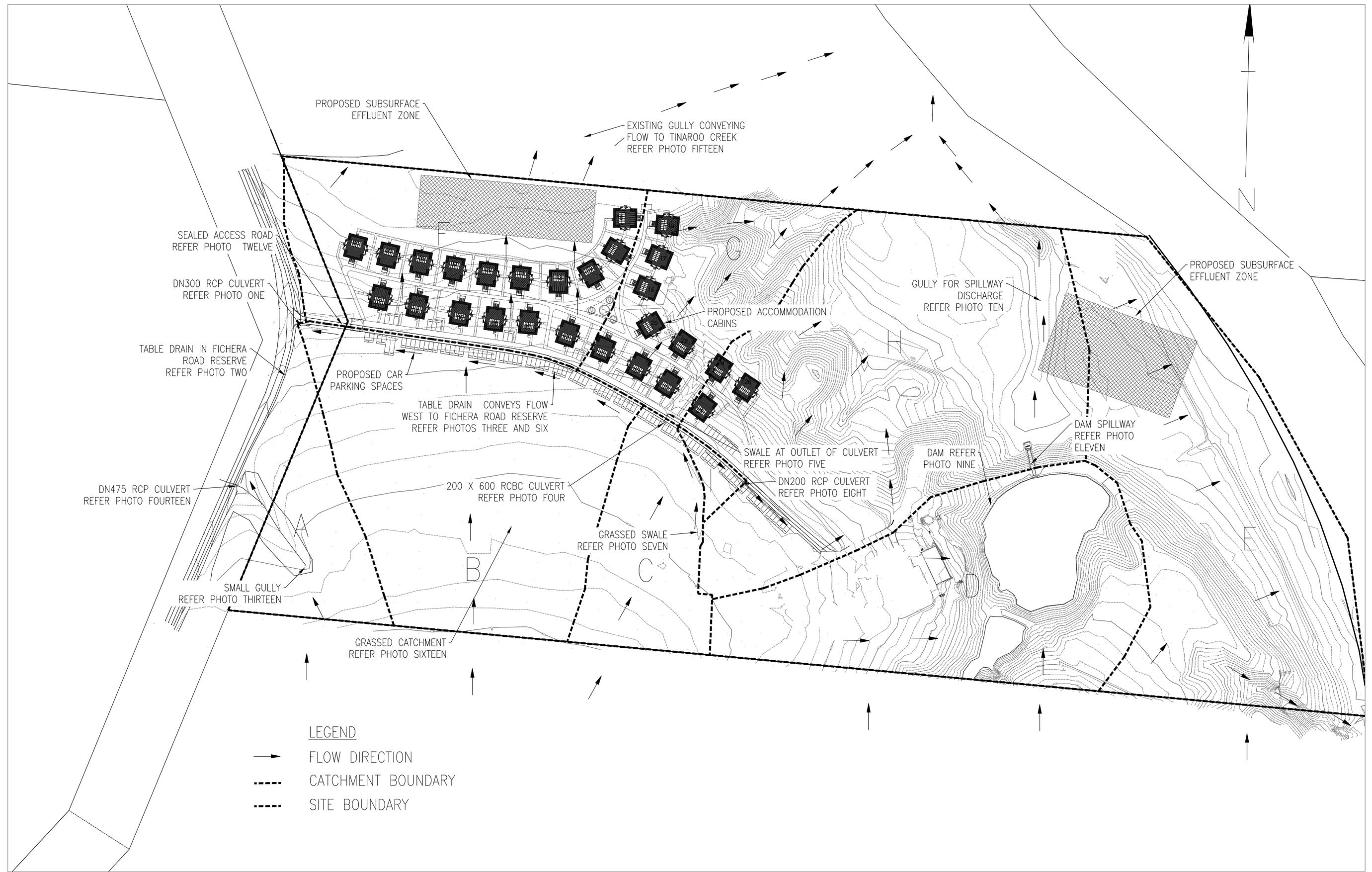
**Photo Fourteen: DN475 Culvert under Fichera Road view west**



**Photo Fifteen: Gully in neighbouring property view east**



**Photo Sixteen: Grassed catchment in the south of site view north**



**LEGEND**

- FLOW DIRECTION
- CATCHMENT BOUNDARY
- SITE BOUNDARY

| Issue | Date | By | Chkd | Appd |
|-------|------|----|------|------|
|       |      |    |      |      |



Client \_\_\_\_\_  
 Job Title \_\_\_\_\_

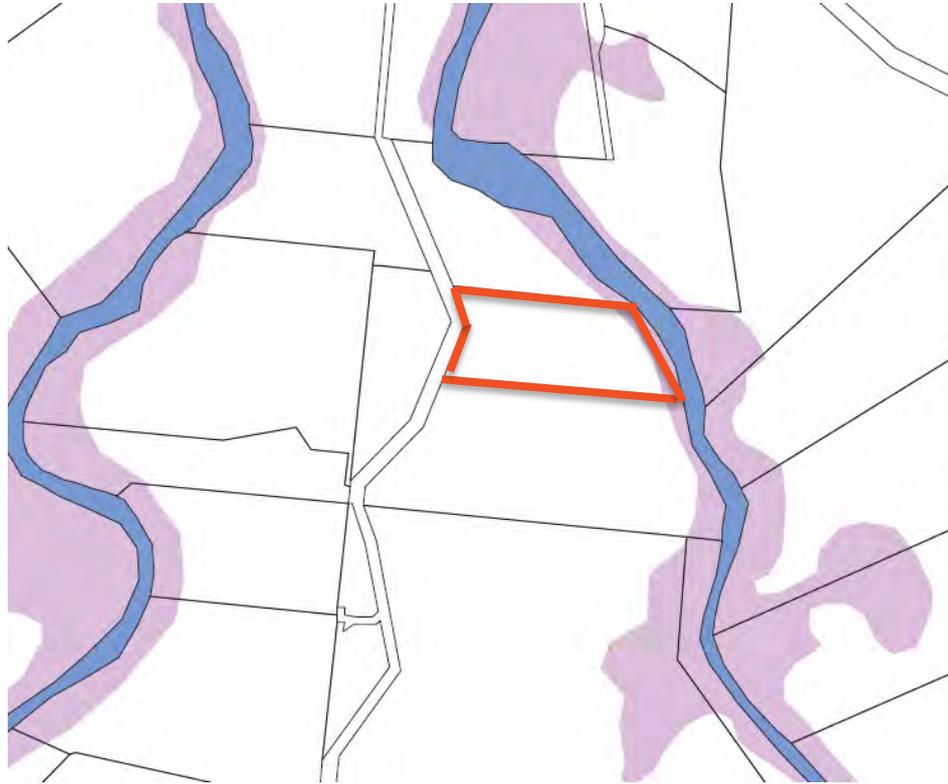
FIGURE B1

|                  |                      |
|------------------|----------------------|
| Scale at A1      |                      |
| Discipline _____ |                      |
| Job No _____     | Drawing Status _____ |
| Drawing No _____ | Issue _____          |

## Appendix C

### Mareeba Shire Council Flood Hazard Overlap Map





**LEGEND**

**Modelled Flood Hazard Levels<sup>(1)</sup>**

1% AEP Defined Flood Event (DFE):

-  Extreme Flood Hazard
-  High Flood Hazard
-  Significant Flood Hazard
-  Low Flood Hazard
-  General Extent of Modelled Flood Hazard Levels

**Queensland Floodplain Assessment Overlay Mapping<sup>(2)</sup>**

-  Potential Flood Hazard Area

**Other**

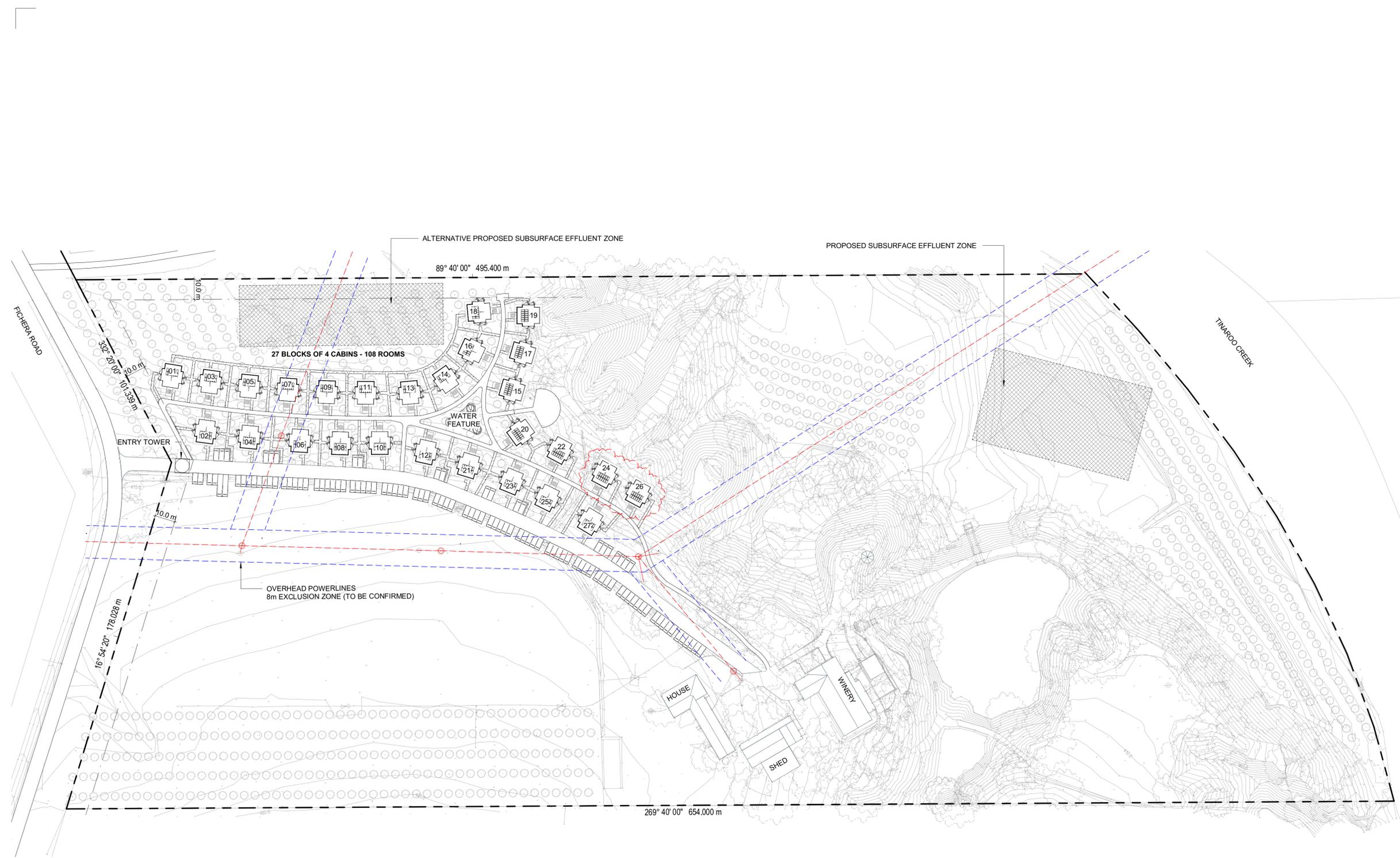
-  Cadastre
-  Watercourse

**Mareeba Flood Hazard Overlay Map**

# Appendix D

## Architectural Drawings





1 SITE PLAN  
1 : 1000

- NOTE:**
1. Do not scale from drawings.
  2. All dimensions to be checked on site and confirmed prior to commencement of works.
  3. Architect to be advised of conflicts as soon as possible.
  4. Doors to have 130mm ribs unless noted/dimensioned otherwise or unless drawn with no rib.
  5. Wet areas to fall to wastes & Setdowns to be 50mm. Refer structural docs.
  6. Footings shown on Architectural Drawings are indicative only. Refer structural docs.
  7. Levels shown on Site Plans are indicative only.

| Issue | Revision Description | Initial | Date       |
|-------|----------------------|---------|------------|
| 4     | CONSULTANT ISSUE     | TH      | 12/03/2018 |
| 3     | FOR REVIEW           | TH      | 07/02/2018 |
| 2     | FOR REVIEW           | TH      | 05/02/2018 |
| 1     | FOR REVIEW           | TH      | 24/01/2018 |

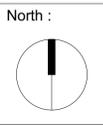
Structural Consultant: \_\_\_\_\_ Civil Consultant: \_\_\_\_\_  
 Electrical Consultant: \_\_\_\_\_ Mechanical Consultant: \_\_\_\_\_  
 Hydraulic Consultant: \_\_\_\_\_ Landscape Consultant: \_\_\_\_\_



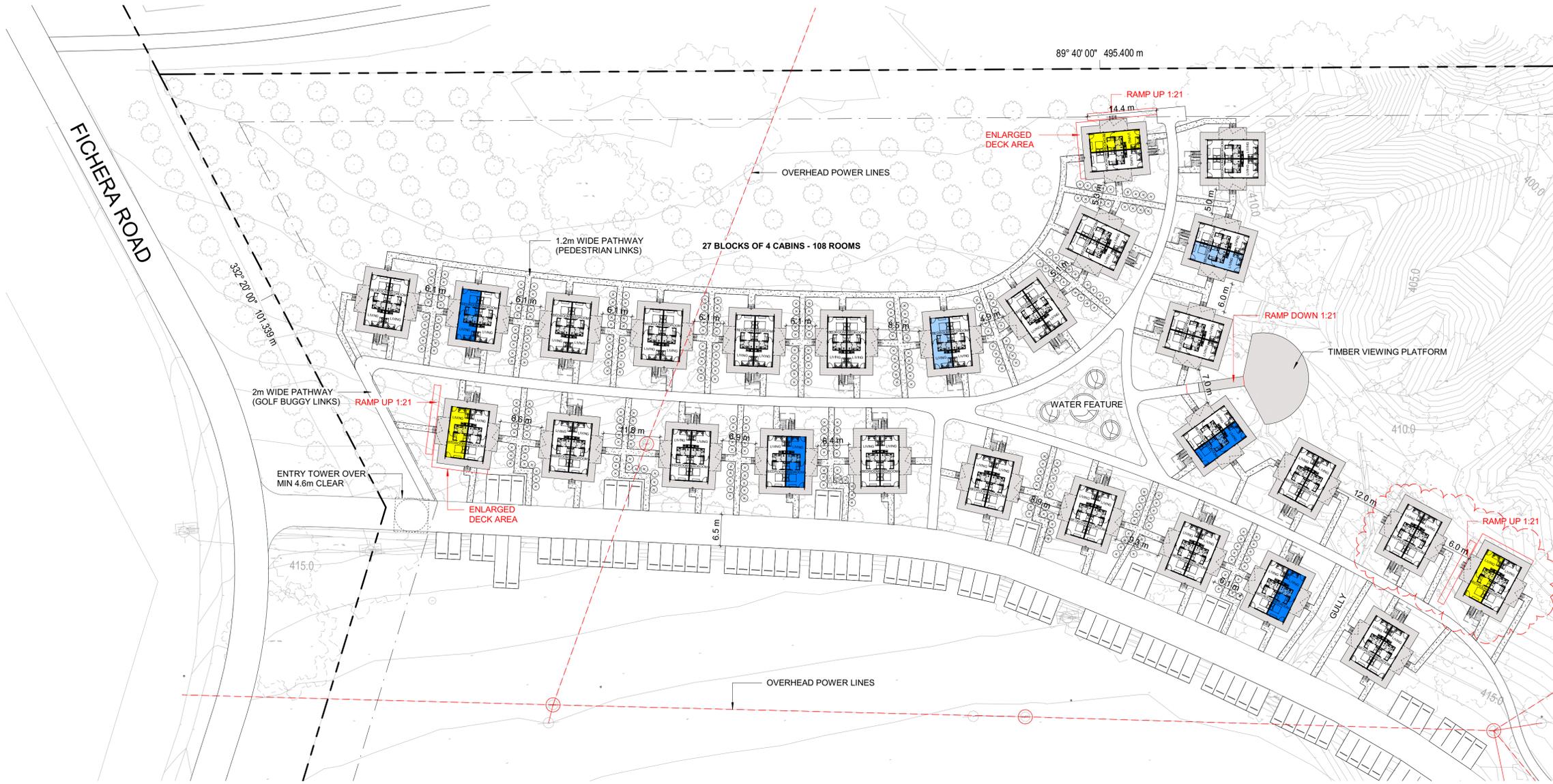
Project Name...  
**De Brueys Winery Accommodation**  
 R.A. Function Services  
 189 FICHERA ROAD, MAREEBA QLD

Drawing Title...  
**SITE PLAN**

Drawn : TH  
 Checked : MD  
 Scale @ A1 : 1 : 1000



Drawing No :  
 Project Stage Discipline / Drawing No.  
**0986 / DD / A / A020**  
 Issue : **4**



1 FLOOR PLAN - GROUND LEVEL  
1 : 500

**LEGEND:**

- TYPE A - ACCESSIBLE UNIT (3 REQUIRED)
- TYPE B - SPEECH/ HEARING IMPAIRMENT UNIT (4 REQUIRED)
- TYPE C - VISION IMPAIRMENT (2 REQUIRED)

- NOTE:**
1. Do not scale from drawings.
  2. All dimensions to be checked on site and confirmed prior to commencement of works.
  3. Architect to be advised of conflicts as soon as possible.
  4. Doors to have 130mm ribs unless noted/dimensioned otherwise or unless drawn with no rib.
  5. Wet areas to fall to wastes & Setdowns to be 50mm. Refer structural docs.
  6. Footings shown on Architectural Drawings are indicative only. Refer structural docs.
  7. Levels shown on Site Plans are indicative only.

| Issue | Revision Description | Initial | Date       |
|-------|----------------------|---------|------------|
| 6     | CONSULTANT ISSUE     | TH      | 12/03/2018 |
| 5     | ACCESSIBLE LOCATIONS | TH      | 05/03/2018 |
| 4     | ACCESSIBLE LOCATIONS | TH      | 01/03/2018 |
| 3     | FOR REVIEW           | TH      | 07/02/2018 |
| 2     | FOR REVIEW           | TH      | 05/02/2018 |
| 1     | FOR REVIEW           | TH      | 24/01/2018 |

Structural Consultant: \_\_\_\_\_ Civil Consultant: \_\_\_\_\_  
 Electrical Consultant: \_\_\_\_\_ Mechanical Consultant: \_\_\_\_\_  
 Hydraulic Consultant: \_\_\_\_\_ Landscape Consultant: \_\_\_\_\_

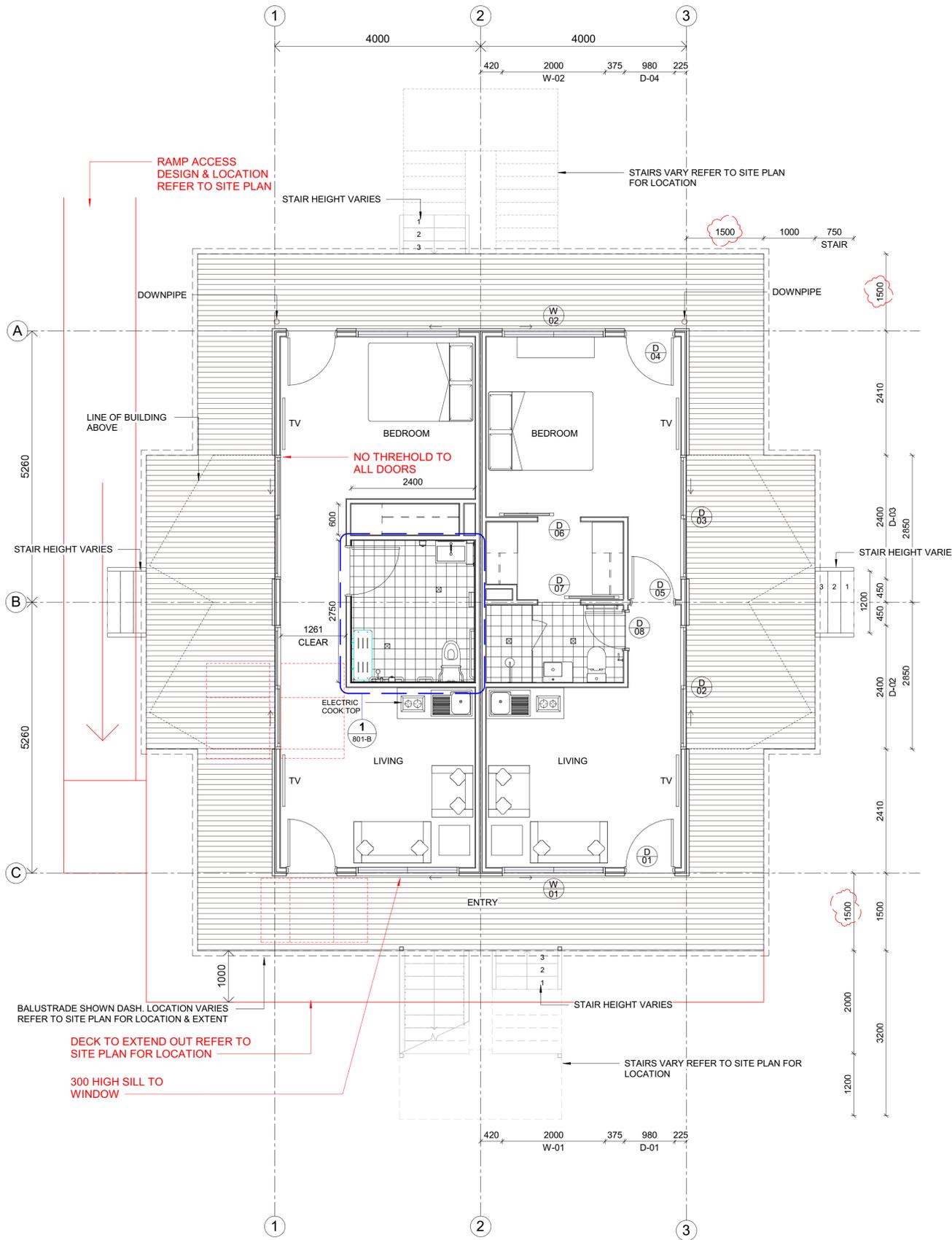


Project Name...  
**De Brueys Winery Accommodation**  
 R.A. Function Services  
 189 FICHERA ROAD, MAREEBA QLD

Drawing Title...  
**FLOOR PLAN - GROUND LEVEL**

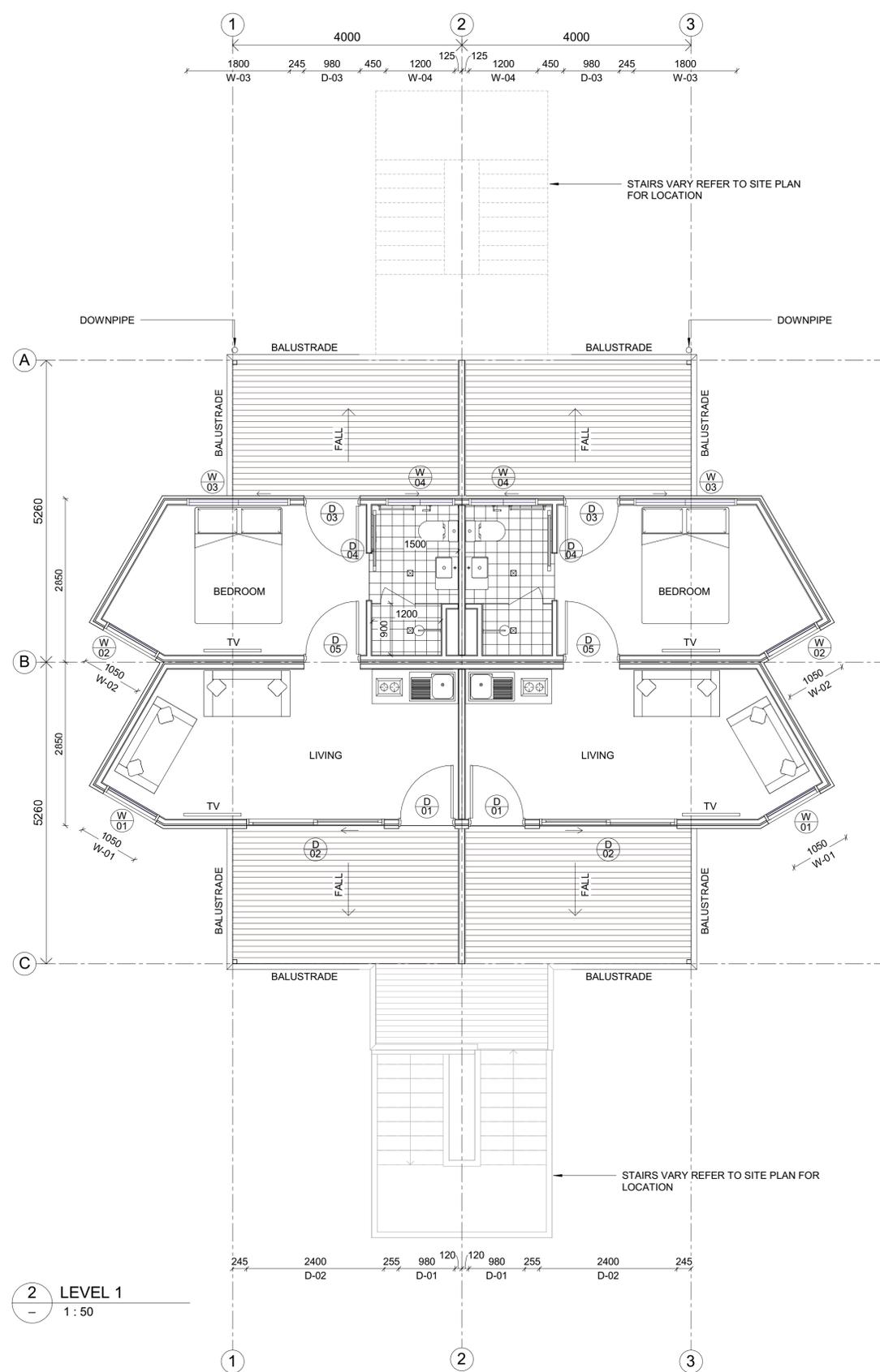
Drawn : TH North :   
 Checked : MD  
 Scale @ A1 : 1 : 500

Drawing No :  
 Project Stage Discipline / Drawing No.  
**0986 / DD / A / A021**  
 Issue : **6**



1 GROUND LEVEL  
1:50

2 LEVEL 1  
1:50



- NOTE:**
- Do not scale from drawings.
  - All dimensions to be checked on site and confirmed prior to commencement of works.
  - Architect to be advised of conflicts as soon as possible.
  - Doors to have 130mm ribs unless noted/dimensioned otherwise or unless drawn with no rib.
  - Wet areas to fall to wastes & Setdowns to be 50mm. Refer structural docs.
  - Footings shown on Architectural Drawings are indicative only. Refer structural docs.
  - Levels shown on Site Plans are indicative only.

| Issue | Revision Description | Initial | Date       |
|-------|----------------------|---------|------------|
| 2     | CONSULTANT ISSUE     | TH      | 12/03/2018 |
| 1     | PRELIMINARY          | TH      | 22/02/2018 |

Structural Consultant: Civil Consultant:  
 Electrical Consultant: Mechanical Consultant:  
 Hydraulic Consultant: Landscape Consultant:

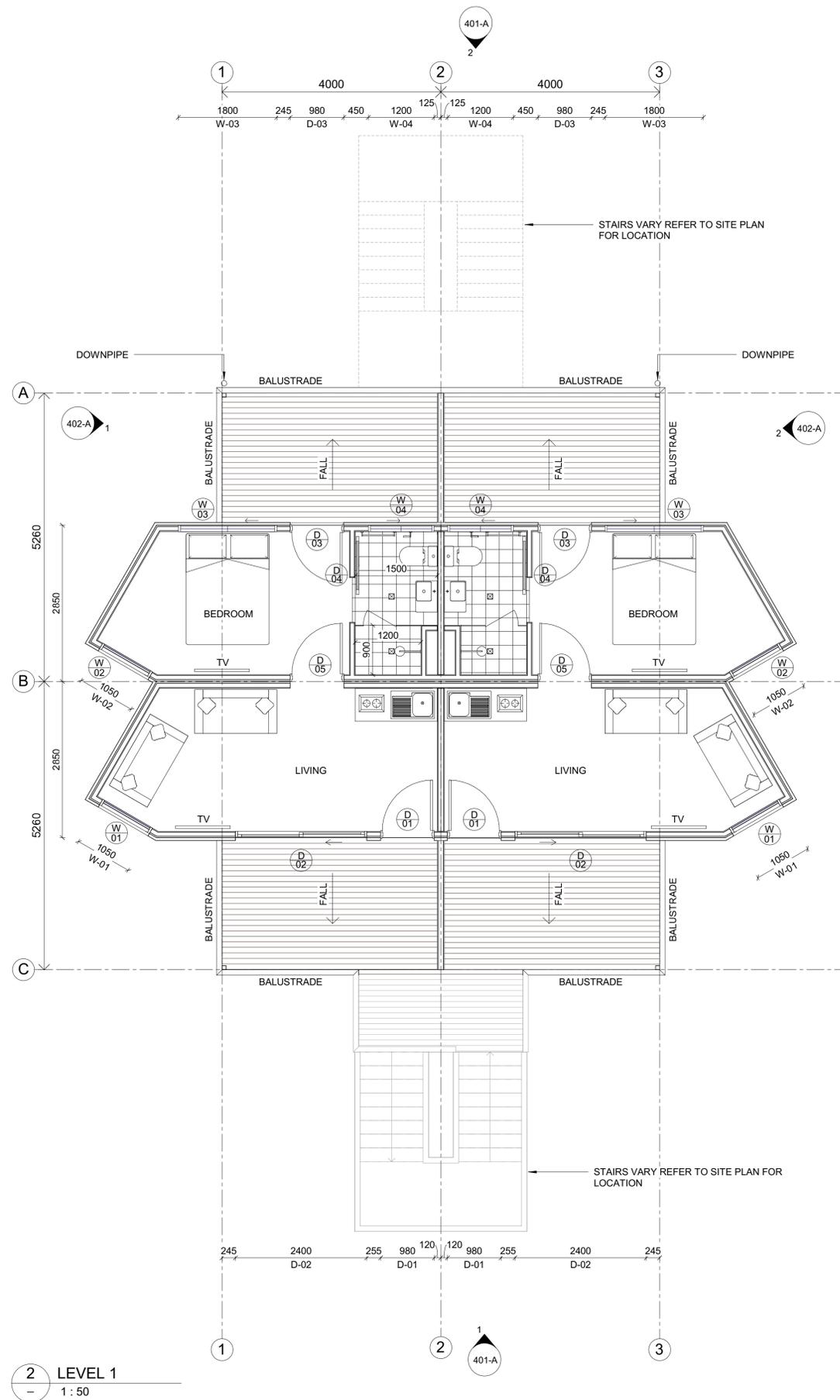
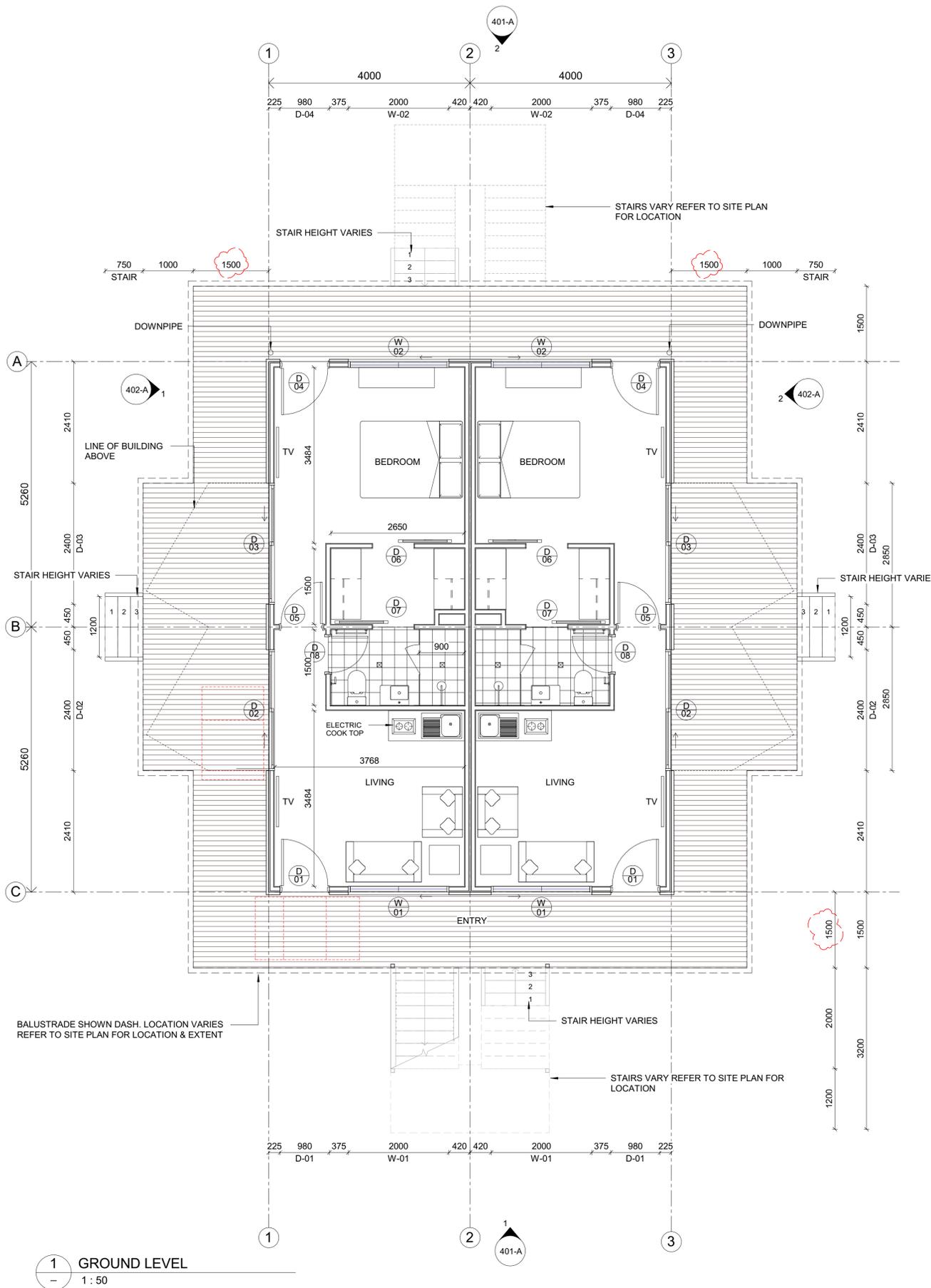


Project Name...  
**De Brueys Winery Accommodation - Accessible Module**  
 R.A. Function Services  
 189 FICHERA ROAD, MAREEBA QLD

Drawing Title...  
**FLOOR PLANS**

Drawn : TH North :  
 Checked : MD  
 Scale @ A1 : 1 : 50

Drawing No :  
 Project Stage Discipline / Drawing No.  
**0986 / DD / A / 101-B**  
 Issue : 2



1 GROUND LEVEL  
1:50

2 LEVEL 1  
1:50

- NOTE:**
- Do not scale from drawings.
  - All dimensions to be checked on site and confirmed prior to commencement of works.
  - Architect to be advised of conflicts as soon as possible
  - Doors to have 130mm ribs unless noted/dimensioned otherwise or unless drawn with no rib.
  - Wet areas to fall to wastes & Setdowns to be 50mm
  - Footings shown on Architectural Drawings are indicative only. Refer structural docs.
  - Levels shown on Site Plans are indicative only

| Issue | Revision Description    | Initial | Date       |
|-------|-------------------------|---------|------------|
| 7     | CONSULTANT ISSUE        | TH      | 12/03/2018 |
| 6     | INTERIOR UPDATE         | TH      | 05/03/2018 |
| 5     | UPDATED CURRENT ISSUE   | TH      | 23/02/2018 |
| 4     | OPTION 1                | TH      | 31/01/2018 |
| 3     | INTERIOR LAYOUT OPTIONS | TH      | 29/01/2018 |
| 2     | PRELIMINARY ISSUE       | TH      | 23/01/2018 |
| 1     | FOR REVIEW              | TH      | 19/01/2018 |

|                        |                        |
|------------------------|------------------------|
| Structural Consultant: | Civil Consultant:      |
| Electrical Consultant: | Mechanical Consultant: |
| Hydraulic Consultant:  | Landscape Consultant:  |

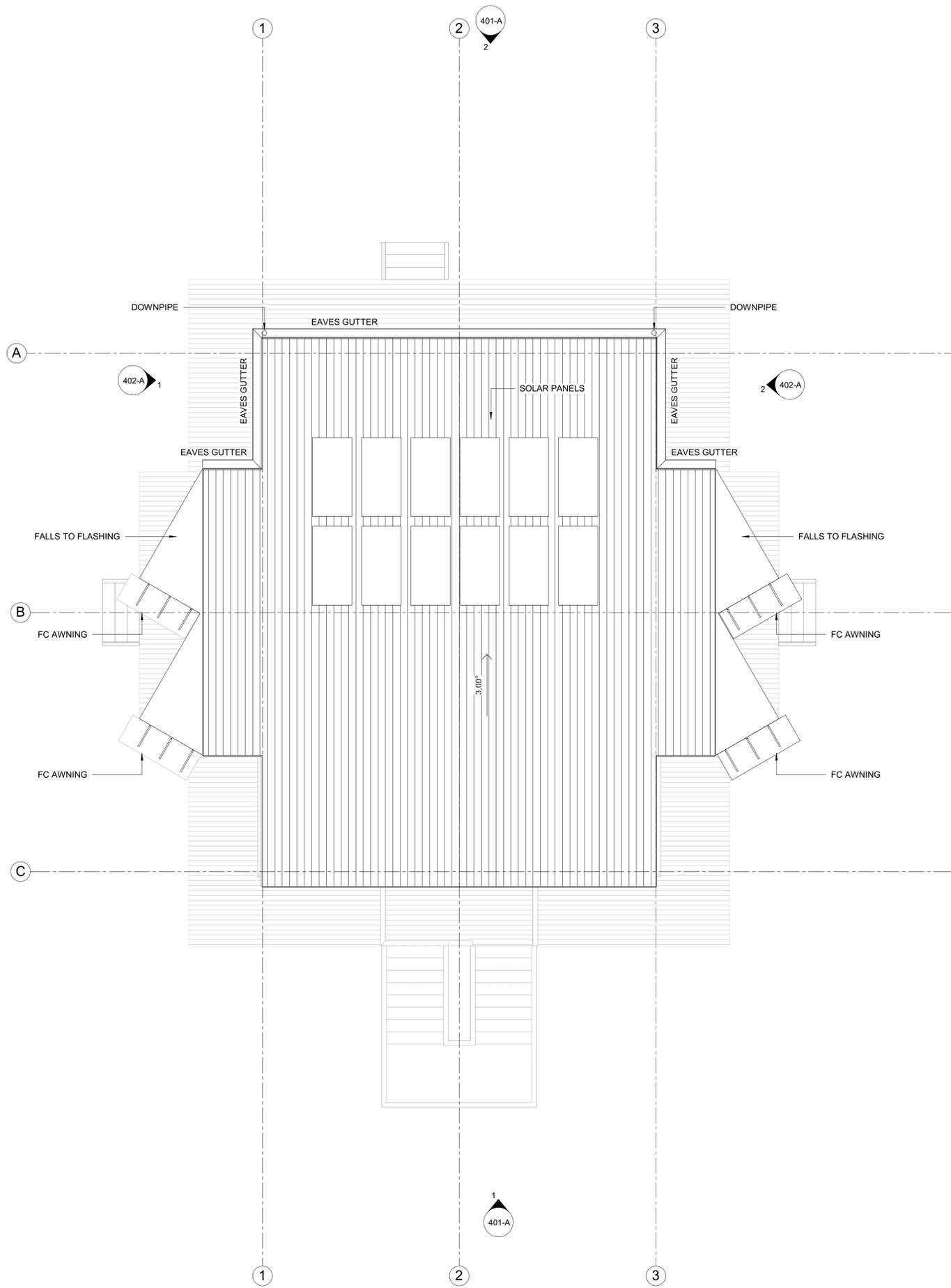


Project Name...  
**De Brueys Winery Accommodation - Module**  
 R.A. Function Services  
 189 FICHERA ROAD, MAREEBA QLD

Drawing Title...  
**FLOOR PLANS**

|              |        |         |
|--------------|--------|---------|
| Drawn :      | TH     | North : |
| Checked :    | MD     |         |
| Scale @ A1 : | 1 : 50 |         |

Drawing No :  
 Project Stage Discipline / Drawing No.  
**0986 / DD / A / 101-A**  
 Issue : **7**



1 ROOF LEVEL  
401-A 1 : 50

- NOTE:**
1. Do not scale from drawings.
  2. All dimensions to be checked on site and confirmed prior to commencement of works.
  3. Architect to be advised of conflicts as soon as possible.
  4. Doors to have 100mm ribs unless noted/dimensioned otherwise or unless drawn with no rib.
  5. Wet areas to fall to wastes & Setdowns to be 50mm.
  6. Footings shown on Architectural Drawings are indicative only. Refer structural docs.
  7. Levels shown on Site Plans are indicative only.

| Issue | Revision Description  | Initial | Date       |
|-------|-----------------------|---------|------------|
| 3     | CONSULTANT ISSUE      | TH      | 12/03/2018 |
| 2     | UPDATED CURRENT ISSUE | TH      | 23/02/2018 |
| 1     | OPTION 1              | TH      | 31/01/2018 |

Structural Consultant: \_\_\_\_\_ Civil Consultant: \_\_\_\_\_  
 Electrical Consultant: \_\_\_\_\_ Mechanical Consultant: \_\_\_\_\_  
 Hydraulic Consultant: \_\_\_\_\_ Landscape Consultant: \_\_\_\_\_



Project Name...  
**De Brueys Winery Accommodation - Module**  
 R.A. Function Services  
 189 FICHERA ROAD, MAREEBA QLD

Drawing Title...  
**ROOF PLAN**

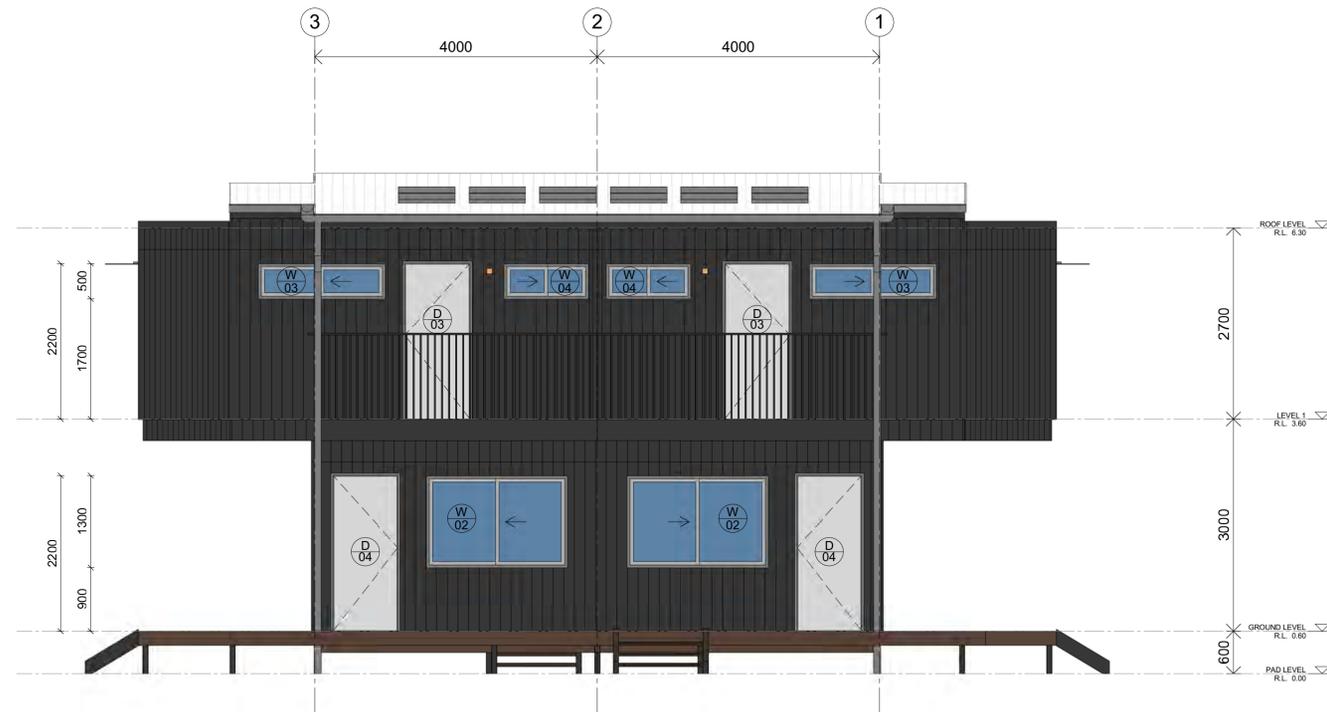
Drawn : TH North :  
 Checked : MD  
 Scale @ A1 : 1 : 50

Drawing No :  
 Project Stage Discipline / Drawing No.  
**0986 / DD / A / 102-A**

Issue : **3**



1 FRONT ELEVATION  
1: 50



2 REAR ELEVATION  
1: 50

**NOTE:**

1. Do not scale from drawings.
2. All dimensions to be checked on site and confirmed prior to commencement of works.
3. Architect to be advised of conflicts as soon as possible
4. Doors to have 100mm ribs unless noted/dimensioned otherwise or unless drawn with no rib.
5. Wet areas to fall to wastes & Setdowns to be 50mm
6. Footings shown on Architectural Drawings are indicative only. Refer structural docs.
7. Levels shown on Site Plans are indicative only

| Issue | Revision Description    | Initial | Date       |
|-------|-------------------------|---------|------------|
| 6     | CONSULTANT ISSUE        | TH      | 12/03/2018 |
| 5     | UPDATED CURRENT ISSUE   | TH      | 23/02/2018 |
| 4     | OPTION 1                | TH      | 31/01/2018 |
| 3     | INTERIOR LAYOUT OPTIONS | TH      | 29/01/2018 |
| 2     | PRELIMINARY ISSUE       | TH      | 23/01/2018 |
| 1     | FOR REVIEW              |         | 19/01/2018 |

| Issue | Revision Description | Initial | Date |
|-------|----------------------|---------|------|
|-------|----------------------|---------|------|

|                        |                        |
|------------------------|------------------------|
| Structural Consultant: | Civil Consultant:      |
| Electrical Consultant: | Mechanical Consultant: |
| Hydraulic Consultant:  | Landscape Consultant:  |



CA ARCHITECTS

Project Name...  
**De Brueys Winery Accommodation - Module**  
 R.A. Function Services  
 189 FICHERA ROAD, MAREEBA QLD

Drawing Title...  
**ELEVATIONS**

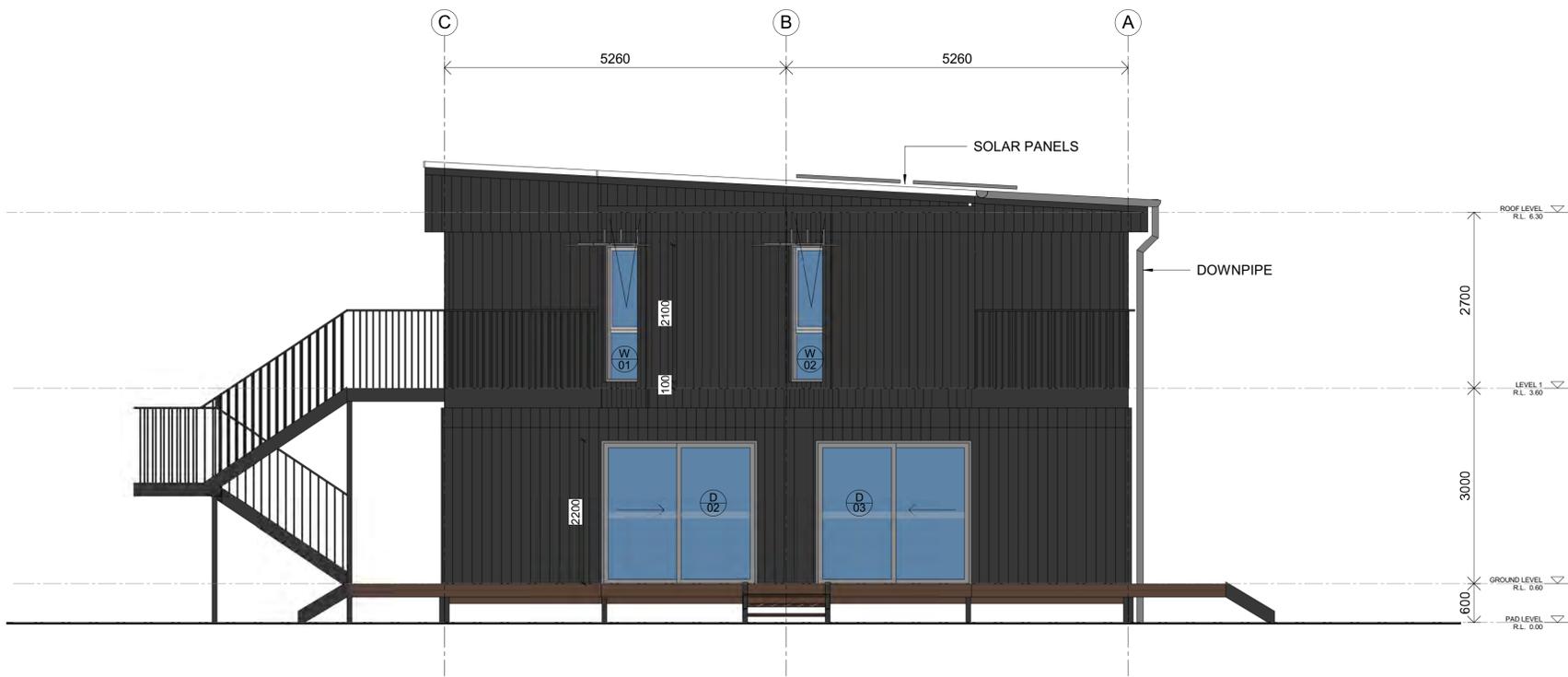
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| Checked :    | MD     |         |
| Scale @ A1 : | 1 : 50 |         |

Drawing No :  
 Project Stage Discipline / Drawing No.  
**0986 / DD / A / 401-A**

Issue : **6**



1 SIDE ELEVATION 1  
1: 50



2 SIDE ELEVATION 2  
1: 50

NOTE:

1. Do not scale from drawings.
2. All dimensions to be checked on site and confirmed prior to commencement of works.
3. Architect to be advised of conflicts as soon as possible.
4. Doors to have 100mm nibs unless noted/dimensioned otherwise or unless drawn with no nib.
5. Wet areas to fall to wastes & Setdowns to be 50mm.
6. Footings shown on Architectural Drawings are indicative only. Refer structural docs.
7. Levels shown on Site Plans are indicative only.

| Issue | Revision Description         | Initial | Date       |
|-------|------------------------------|---------|------------|
| 6     | CONSULTANT ISSUE             | TH      | 12/03/2018 |
| 5     | UPDATED CURRENT ISSUE        | TH      | 23/02/2018 |
| 4     | OPTION 1                     | TH      | 31/01/2018 |
| 3     | INTERIOR LAYOUT OPTIONS      | TH      | 29/01/2018 |
| 2     | PRELIMINARY ISSUE FOR REVIEW | TH      | 23/01/2018 |
| 1     | FOR REVIEW                   |         | 19/01/2018 |

| Issue | Revision Description | Initial | Date |
|-------|----------------------|---------|------|
|-------|----------------------|---------|------|

|                        |                        |
|------------------------|------------------------|
| Structural Consultant: | Civil Consultant:      |
| Electrical Consultant: | Mechanical Consultant: |
| Hydraulic Consultant:  | Landscape Consultant:  |



CA ARCHITECTS

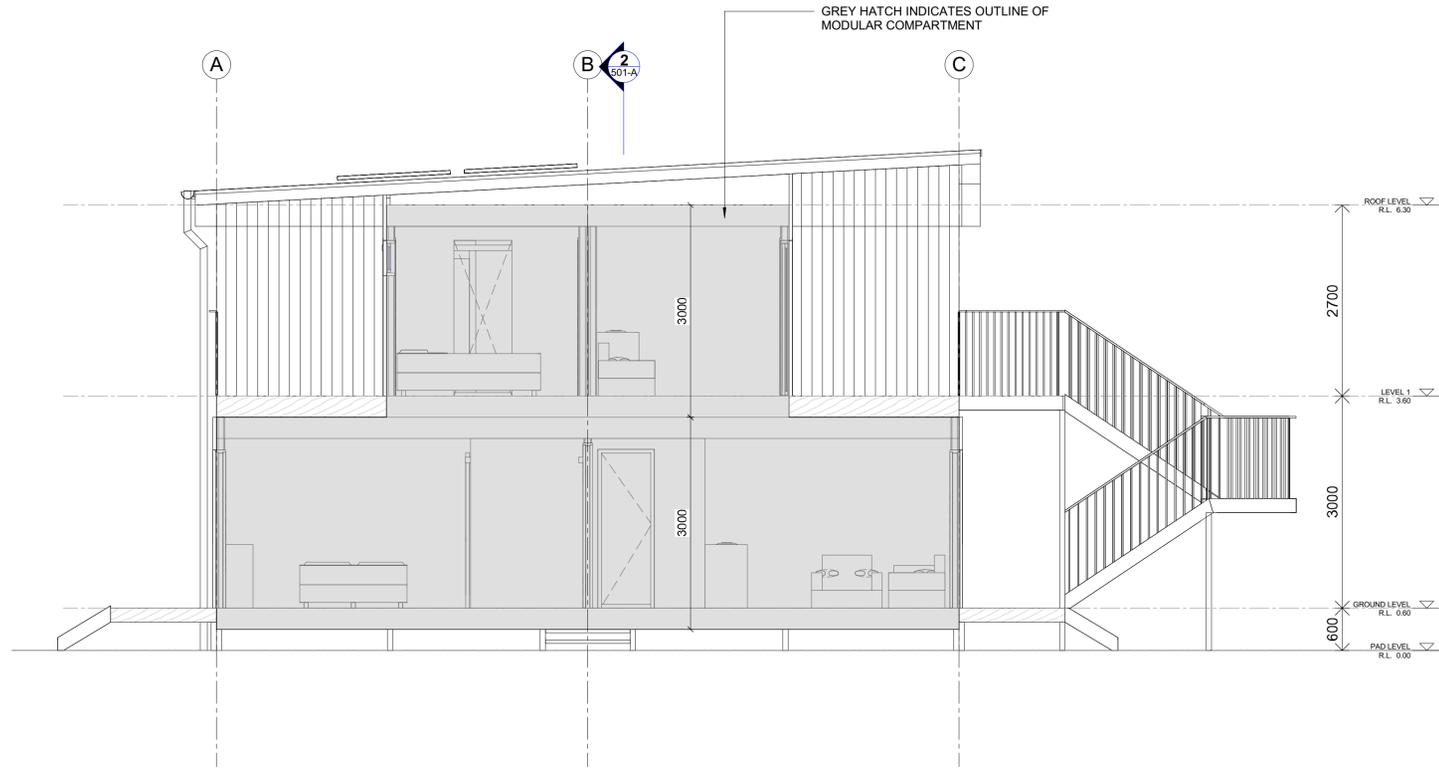
Project Name...  
**De Brueys Winery Accommodation - Module**  
 R.A. Function Services  
 189 FICHERA ROAD, MAREEBA QLD

Drawing Title...  
**ELEVATIONS**

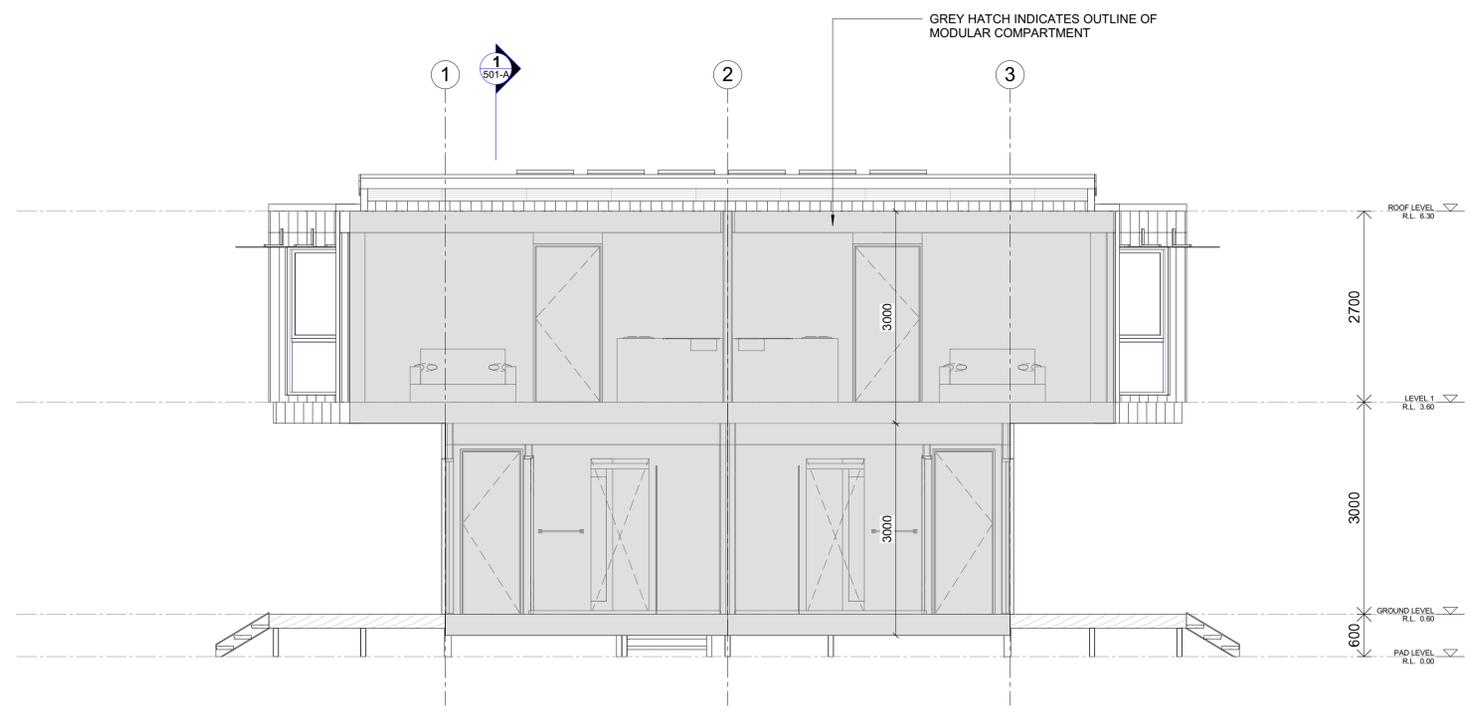
|              |        |         |
|--------------|--------|---------|
| Drawn :      | TH     | North : |
| Checked :    | MD     |         |
| Scale @ A1 : | 1 : 50 |         |

Drawing No :  
 Project Stage Discipline / Drawing No.  
**0986 / DD / A / 402-A**

Issue : **6**



1 Cross Section 1  
1 : 50



2 Cross Section 2  
101-A 1 : 50

**NOTE:**

1. Do not scale from drawings.
2. All dimensions to be checked on site and confirmed prior to commencement of works.
3. Architect to be advised of conflicts as soon as possible.
4. Doors to have 100mm ribs unless noted/dimensioned otherwise or unless drawn with no rib.
5. Wet areas to fall to wastes & Setdowns to be 50mm. Refer structural docs.
6. Footings shown on Architectural Drawings are indicative only. Refer structural docs.
7. Levels shown on Site Plans are indicative only.

| Issue | CONSULTANT ISSUE     | TH      | 12/03/2018 |
|-------|----------------------|---------|------------|
| Issue | Revision Description | Initial | Date       |
|       |                      |         |            |

|                        |                        |
|------------------------|------------------------|
| Structural Consultant: | Civil Consultant:      |
| Electrical Consultant: | Mechanical Consultant: |
| Hydraulic Consultant:  | Landscape Consultant:  |



Project Name...  
**De Brueys Winery Accommodation - Module**  
 R.A. Function Services  
 189 FICHERA ROAD, MAREEBA QLD

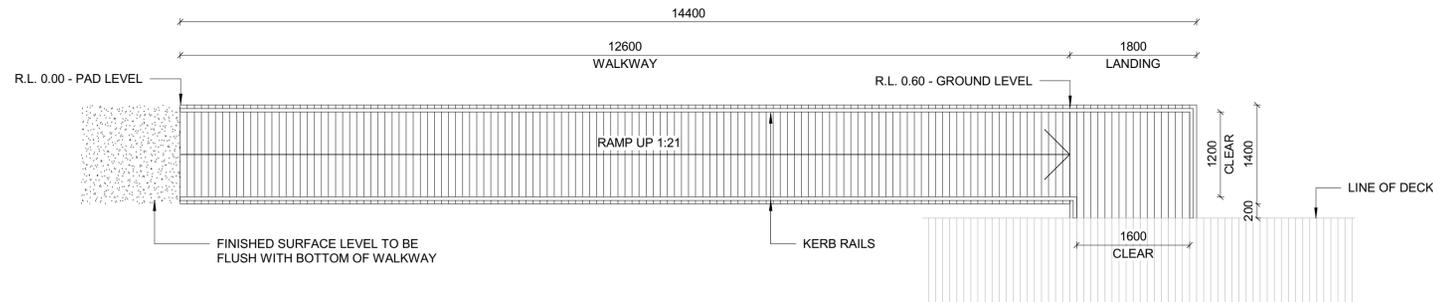
Drawing Title...  
**SECTIONS**

|              |        |         |
|--------------|--------|---------|
| Drawn :      | TH     | North : |
| Checked :    | MD     |         |
| Scale @ A1 : | 1 : 50 |         |

Drawing No :  
 Project Stage Discipline / Drawing No.  
**0986 / DD / A / 501-A**

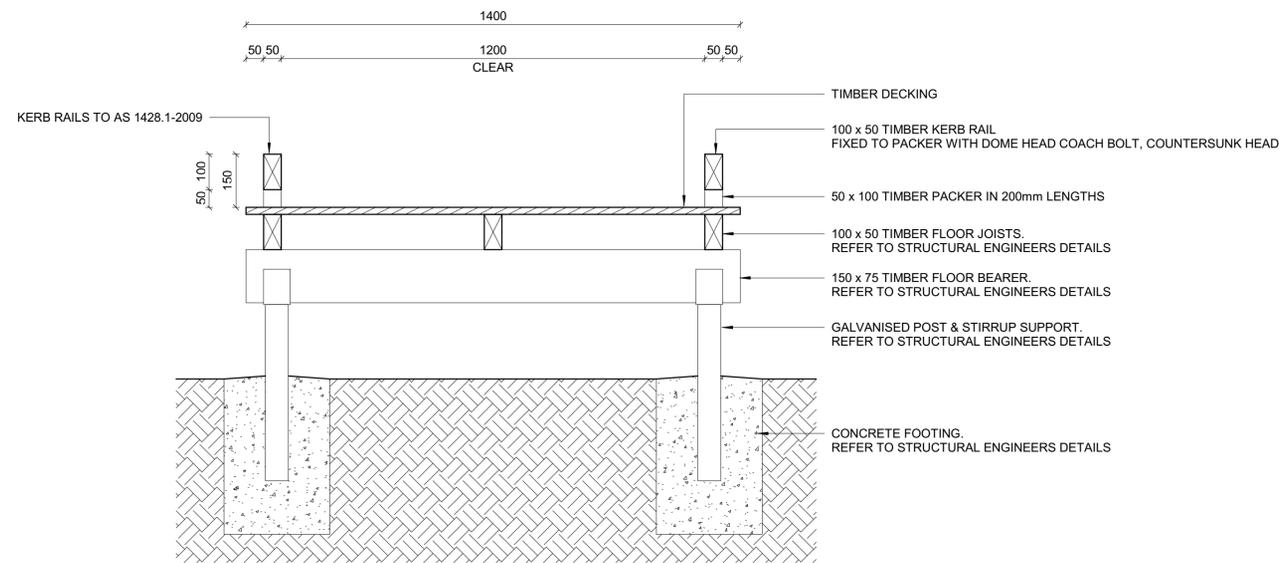
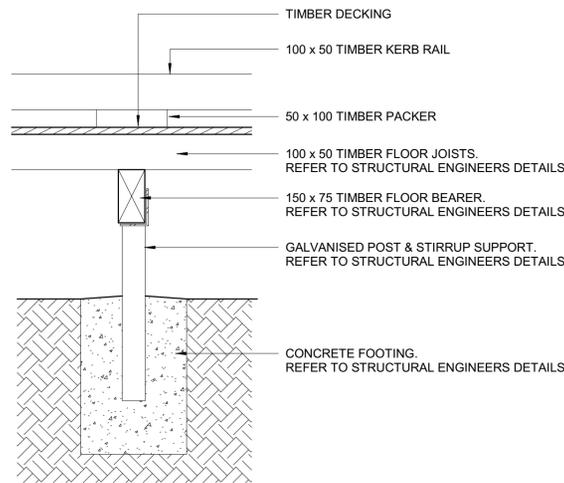
Issue : **1**

**NOTES**  
 TIMBER TO BE CLASS 1, SUITABLE FOR IN GROUND USE



1 TYPICAL ACCESSIBLE WALKWAY PLAN  
 1 : 50

**ALL STRUCTURE TO BE STEEL  
 DECKING - COMPOSITE TO BE SUPPLIED BY CLIENT**



2 TYPICAL ACCESSIBLE WALKWAY DETAIL  
 1 : 10

**NOTE:**

1. Do not scale from drawings.
2. All dimensions to be checked on site and confirmed prior to commencement of works.
3. Architect to be advised of conflicts as soon as possible.
4. Doors to have 130mm ribs unless noted/dimensioned otherwise or unless drawn with no rib.
5. Wet areas to fall to wastes & Setdowns to be 50mm. Refer structural docs.
6. Footings shown on Architectural Drawings are indicative only. Refer structural docs.
7. Levels shown on Site Plans are indicative only.

| Issue | Revision Description | Initial | Date       |
|-------|----------------------|---------|------------|
| 1     | CONSULTANT ISSUE     | TH      | 12/03/2018 |

|                        |                        |
|------------------------|------------------------|
| Structural Consultant: | Civil Consultant:      |
| Electrical Consultant: | Mechanical Consultant: |
| Hydraulic Consultant:  | Landscape Consultant:  |



Project Name...  
**De Brueys Winery Accommodation - Module**  
 R.A. Function Services  
 189 FICHERA ROAD, MAREEBA QLD

Drawing Title...  
**TYPICAL CONSTRUCTION DETAILS**

|            |              |         |
|------------|--------------|---------|
| Drawn :    | TH           | North : |
| Checked :  | MD           |         |
| Scale @ A1 | As indicated |         |

Drawing No :  
 Project Stage Discipline / Drawing No.  
**0986 / DD / A / 550-A**

Issue : **1**

# Appendix E

## Mareeba IFD Chart



## IFD Chart 15 - Mareeba

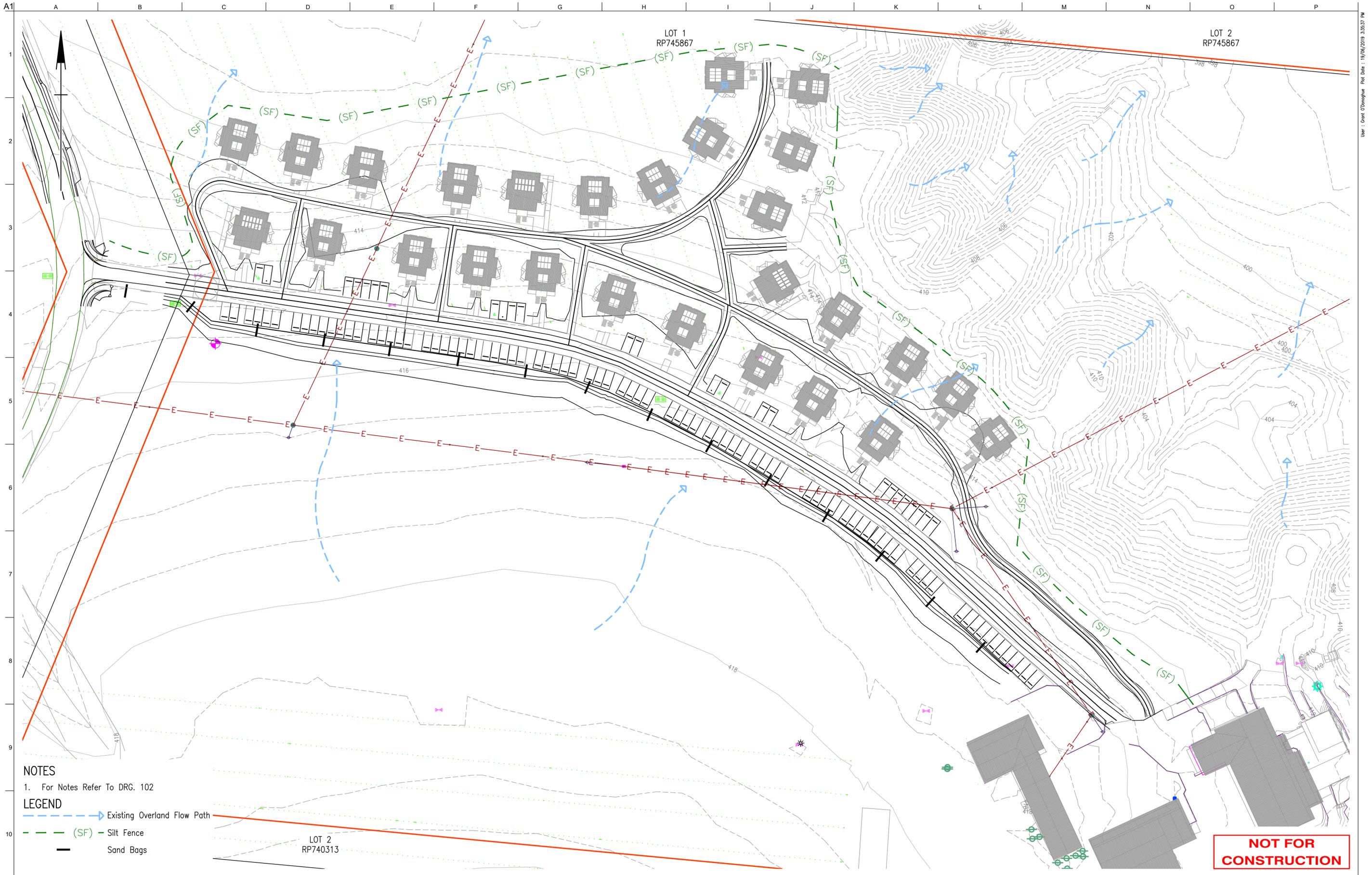
| Duration (mins) | 1 Year | 2 Year | 5 Year | 10 Year | 20 Year | 50 Year | 100 Year |
|-----------------|--------|--------|--------|---------|---------|---------|----------|
| 5               | 103.89 | 133.72 | 170.79 | 192.76  | 222.16  | 261.16  | 291.22   |
| 6               | 98.10  | 126.16 | 160.78 | 181.25  | 208.69  | 245.05  | 273.05   |
| 7               | 93.36  | 119.97 | 152.56 | 171.77  | 197.59  | 231.75  | 258.04   |
| 8               | 89.33  | 114.69 | 145.55 | 163.70  | 188.13  | 220.43  | 245.26   |
| 9               | 85.81  | 110.09 | 139.44 | 156.68  | 179.91  | 210.59  | 234.16   |
| 10              | 82.69  | 106.02 | 134.05 | 150.47  | 172.65  | 201.91  | 224.38   |
| 11              | 79.89  | 102.36 | 129.22 | 144.93  | 166.17  | 194.17  | 215.66   |
| 12              | 77.36  | 99.06  | 124.86 | 139.93  | 160.33  | 187.20  | 207.81   |
| 13              | 75.05  | 96.05  | 120.90 | 135.39  | 155.03  | 180.89  | 200.70   |
| 14              | 72.94  | 93.30  | 117.28 | 131.24  | 150.19  | 175.12  | 194.22   |
| 15              | 70.99  | 90.76  | 113.95 | 127.43  | 145.75  | 169.84  | 188.28   |
| 16              | 69.19  | 88.42  | 110.88 | 123.91  | 141.65  | 164.96  | 182.80   |
| 17              | 67.51  | 86.24  | 108.02 | 120.65  | 137.85  | 160.45  | 177.73   |
| 18              | 65.95  | 84.21  | 105.37 | 117.62  | 134.32  | 156.26  | 173.02   |
| 19              | 64.49  | 82.31  | 102.89 | 114.79  | 131.03  | 152.35  | 168.64   |
| 20              | 63.12  | 80.54  | 100.57 | 112.14  | 127.95  | 148.69  | 164.53   |
| 25              | 57.36  | 73.06  | 90.83  | 101.04  | 115.06  | 133.42  | 147.41   |
| 30              | 52.90  | 67.29  | 83.34  | 92.53   | 105.19  | 121.73  | 134.33   |
| 35              | 49.33  | 62.66  | 77.35  | 85.73   | 97.31   | 112.43  | 123.93   |
| 40              | 46.37  | 58.83  | 72.42  | 80.14   | 90.85   | 104.81  | 115.41   |
| 45              | 43.86  | 55.60  | 68.26  | 75.43   | 85.42   | 98.42   | 108.27   |
| 50              | 41.71  | 52.82  | 64.70  | 71.41   | 80.78   | 92.96   | 102.19   |
| 55              | 39.83  | 50.39  | 61.60  | 67.91   | 76.75   | 88.23   | 96.91    |
| 60              | 38.16  | 48.25  | 58.87  | 64.83   | 73.21   | 84.07   | 92.29    |
| 65              | 36.67  | 46.34  | 56.43  | 62.09   | 70.06   | 80.39   | 88.20    |
| 70              | 35.33  | 44.61  | 54.25  | 59.64   | 67.25   | 77.10   | 84.54    |
| 75              | 34.10  | 43.04  | 52.27  | 57.42   | 64.70   | 74.13   | 81.25    |
| 80              | 32.99  | 41.61  | 50.47  | 55.40   | 62.39   | 71.44   | 78.26    |
| 85              | 31.96  | 40.30  | 48.81  | 53.56   | 60.28   | 68.98   | 75.54    |
| 90              | 31.01  | 39.08  | 47.29  | 51.86   | 58.34   | 66.72   | 73.04    |

| Duration (hrs) | 1 Year | 2 Year | 5 Year | 10 Year | 20 Year | 50 Year | 100 Year |
|----------------|--------|--------|--------|---------|---------|---------|----------|
| 2h             | 26.48  | 33.32  | 40.13  | 43.90   | 49.29   | 56.24   | 61.46    |
| 3h             | 20.75  | 26.08  | 31.32  | 34.20   | 38.35   | 43.69   | 47.70    |
| 4h             | 17.12  | 21.53  | 25.89  | 28.29   | 31.74   | 36.18   | 39.52    |
| 5h             | 14.56  | 18.33  | 22.12  | 24.21   | 27.21   | 31.07   | 33.98    |
| 6h             | 12.63  | 15.94  | 19.32  | 21.20   | 23.87   | 27.33   | 29.93    |
| 7h             | 11.13  | 14.07  | 17.15  | 18.87   | 21.30   | 24.45   | 26.83    |
| 8h             | 9.93   | 12.58  | 15.41  | 17.01   | 19.25   | 22.16   | 24.36    |
| 9h             | 8.95   | 11.36  | 13.99  | 15.50   | 17.58   | 20.29   | 22.35    |
| 10h            | 8.13   | 10.34  | 12.81  | 14.23   | 16.18   | 18.73   | 20.67    |
| 12h            | 6.85   | 8.75   | 10.96  | 12.25   | 13.99   | 16.29   | 18.05    |
| 14h            | 5.90   | 7.57   | 9.59   | 10.77   | 12.36   | 14.46   | 16.08    |
| 16h            | 5.18   | 6.67   | 8.53   | 9.63    | 11.10   | 13.05   | 14.55    |
| 18h            | 4.62   | 5.97   | 7.69   | 8.72    | 10.10   | 11.92   | 13.34    |
| 20h            | 4.17   | 5.41   | 7.02   | 8.00    | 9.29    | 11.01   | 12.35    |
| 22h            | 3.81   | 4.95   | 6.48   | 7.40    | 8.62    | 10.26   | 11.53    |
| 24h            | 3.52   | 4.58   | 6.02   | 6.91    | 8.07    | 9.63    | 10.85    |
| 26h            | 3.27   | 4.27   | 5.65   | 6.49    | 7.60    | 9.10    | 10.27    |
| 28h            | 3.07   | 4.01   | 5.33   | 6.14    | 7.21    | 8.64    | 9.77     |
| 30h            | 2.90   | 3.79   | 5.06   | 5.84    | 6.87    | 8.26    | 9.34     |
| 32h            | 2.75   | 3.61   | 4.83   | 5.59    | 6.58    | 7.92    | 8.98     |
| 34h            | 2.63   | 3.45   | 4.63   | 5.37    | 6.33    | 7.63    | 8.66     |
| 36h            | 2.53   | 3.32   | 4.47   | 5.18    | 6.11    | 7.38    | 8.38     |
| 38h            | 2.44   | 3.20   | 4.32   | 5.02    | 5.93    | 7.16    | 8.13     |
| 40h            | 2.36   | 3.11   | 4.20   | 4.88    | 5.76    | 6.97    | 7.92     |
| 42h            | 2.30   | 3.03   | 4.09   | 4.76    | 5.62    | 6.80    | 7.73     |
| 44h            | 2.25   | 2.96   | 4.00   | 4.65    | 5.50    | 6.65    | 7.56     |
| 46h            | 2.21   | 2.90   | 3.92   | 4.56    | 5.39    | 6.52    | 7.42     |
| 48h            | 2.17   | 2.86   | 3.86   | 4.49    | 5.30    | 6.41    | 7.29     |
| 50h            | 2.14   | 2.82   | 3.80   | 4.42    | 5.22    | 6.32    | 7.18     |
| 52h            | 2.12   | 2.79   | 3.76   | 4.37    | 5.16    | 6.23    | 7.08     |
| 54h            | 2.11   | 2.77   | 3.73   | 4.32    | 5.10    | 6.16    | 6.99     |
| 56h            | 2.10   | 2.75   | 3.70   | 4.29    | 5.06    | 6.10    | 6.92     |
| 58h            | 2.09   | 2.74   | 3.68   | 4.26    | 5.02    | 6.05    | 6.86     |
| 60h            | 2.09   | 2.74   | 3.67   | 4.24    | 4.99    | 6.01    | 6.81     |
| 62h            | 2.09   | 2.74   | 3.66   | 4.23    | 4.97    | 5.98    | 6.77     |
| 64h            | 2.10   | 2.75   | 3.66   | 4.22    | 4.96    | 5.96    | 6.73     |
| 66h            | 2.12   | 2.76   | 3.67   | 4.23    | 4.95    | 5.94    | 6.71     |
| 68h            | 2.13   | 2.78   | 3.68   | 4.23    | 4.95    | 5.93    | 6.69     |
| 70h            | 2.15   | 2.81   | 3.70   | 4.24    | 4.96    | 5.93    | 6.68     |
| 72h            | 2.18   | 2.83   | 3.72   | 4.26    | 4.97    | 5.93    | 6.67     |

## **Appendix F**

### **Erosion and Sediment Control Plan**





**NOTES**  
 1. For Notes Refer To DRG. 102

**LEGEND**  
 - - - - - Existing Overland Flow Path  
 - - - - - (SF) Silt Fence  
 - - - - - Sand Bags

LOT 2  
 RP740313

**NOT FOR  
 CONSTRUCTION**

Approved by:  
 Name  
 RPEQ No. #

| Issue | Description                   | Date     | By  | Chkd | Appd |
|-------|-------------------------------|----------|-----|------|------|
| A     | ISSUD FOR TENDER AND APPROVAL | 19/06/19 | GQD | JH   | AWS  |

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Scale at A1 1:500  
 Discipline CIVIL  
 Job No 260361-00 Drawing Status  
 Drawing No 260361-CIAL-DRG-132 Issue  
**ISSUE FOR APPROVAL**  
**A**

## **Appendix G**

### **Channel Calculations for Water and Wastewater Treatment Plant**

$C = 0.7$   
 $A = 0.56\text{ha}$   
 $I_{100} = 291.22\text{mm/hr}$   
 $Q = (0.7 \times 0.56 \times 291.22)/360 = 0.32\text{m}^3/\text{s}$

$C = 0.7$   
 $A = 0.72\text{ha}$   
 $I_{100} = 291.22\text{mm/hr}$   
 $Q = (0.7 \times 0.72 \times 291.22)/360 = 0.41\text{m}^3/\text{s}$

Channel Analysis

Type: Trapezoidal Define...

Side Slope 1 (Z1): 4.0 H : 1V

Side Slope 2 (Z2): 4.0 H : 1V

Channel Width (B): 0.5 (m)

Pipe Diameter (D): 0.0 (m)

Longitudinal Slope: 0.005 (m/m)

Override Default

Manning's Roughness: 0.0350

Use Lining

Lining Type: Woven Paper Net

Enter Flow: 0.410 (cms)

Enter Depth: 0.335 (m)

Calculate

Plot... Compute Curves... OK Cancel

| Parameter                   | Value   | Unit             |
|-----------------------------|---------|------------------|
| Flow                        | 0.410   | cms              |
| Depth                       | 0.335   | m                |
| Area of Flow                | 0.616   | m <sup>2</sup>   |
| Wetted Perimeter            | 3.262   | m                |
| Hydraulic Radius            | 0.189   | m                |
| Average Velocity            | 0.665   | m/s              |
| Top Width (T)               | 3.180   | m                |
| Froude Number               | 0.482   |                  |
| Critical Depth              | 0.238   | m                |
| Critical Velocity           | 1.188   | m/s              |
| Critical Slope              | 0.02373 | m/m              |
| Critical Top Width          | 2.403   | m                |
| Calculated Max Shear Stress | 16.418  | N/m <sup>2</sup> |
| Calculated Avg Shear Stress | 9.260   | N/m <sup>2</sup> |



Application

This code applies to assessing development where it is identified in the assessment benchmarks for assessable development and requirements for accepted development column of an assessment table in Part 5 of the Planning Scheme.

Criteria for assessment

**Table 9.4.5.3 – Works, services and infrastructure code – For accepted development subject to requirements and assessable development**

| PERFORMANCE OUTCOMES   | ACCEPTABLE MEASURES   | COMPLIES   | COMMENT   |
|--|---|------------|---|
| <b>FOR ACCEPTED DEVELOPMENT SUBJECT TO REQUIREMENTS AND ASSESSABLE DEVELOPMENT</b>   |   |            |   |
| <b>WATER SUPPLY</b>  |   |            |   |
| <p><b>PO1</b></p> <p>Each lot has an adequate volume and supply of water that:</p> <ul style="list-style-type: none"> <li>(a) meets the needs of users;</li> <li>(b) is adequate for fire-fighting purposes;</li> <li>(c) ensures the health, safety and convenience of the community; and</li> <li>(d) minimises adverse impacts on the receiving environment.</li> </ul> | <p><b>AO1.1</b></p> <p>Development is connected to a reticulated water supply system in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual other than where located:</p> <ul style="list-style-type: none"> <li>(a) in the Conservation zone, Rural zone or Rural residential zone; and</li> <li>(b) outside a reticulated water supply service area.</li> </ul> | <b>N/A</b> | The site is located within the Rural zone. See AO1.2 below. |

| PERFORMANCE OUTCOMES  | ACCEPTABLE MEASURES   | COMPLIES   | COMMENT  |
|---|---|------------|--|
|   | <p><b>AO1.2</b></p> <p>Development, where located outside a reticulated water supply service area and in the Conservation zone, Rural zone or Rural residential zone is provided with:</p> <ul style="list-style-type: none"> <li>(a) a bore or bores are provided in accordance with the Design Guidelines set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual; or</li> <li>(b) on-site water storage tank/s:               <ul style="list-style-type: none"> <li>(i) with a minimum capacity of 90,000L;</li> <li>(ii) fitted with a 50mm ball valve with a camlock fitting; and</li> <li>(iii) which are installed and connected prior to the occupation or use of the development.</li> </ul> </li> </ul> | <b>YES</b> | <p>The proposed works will involve a new water main to service the proposed development, generally as shown in the Internal Works Plans provided in <b>Attachment 5</b> and sourced from the existing water sources. All works will be constructed and installed in accordance with the FQNROC requirements.</p> |
| <b>WASTEWATER DISPOSAL</b>  |   |            |  |
| <p><b>PO2</b></p> <p>Each lot provides for the treatment and disposal of effluent and other waste water that:</p> <ul style="list-style-type: none"> <li>(a) meets the needs of users;</li> <li>(b) is adequate for fire-fighting purposes;</li> <li>(c) ensures the health, safety and convenience of the community; and</li> <li>(d) minimises adverse impacts on the receiving environment.</li> </ul> | <p><b>AO2.1</b></p> <p>Development is connected to a reticulated sewerage system in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual other than where located:</p> <ul style="list-style-type: none"> <li>(a) in the Conservation zone, Rural zone or Rural residential zone; and</li> <li>(b) outside a reticulated sewerage service area.</li> </ul>   | <b>N/A</b> | <p>See AO2.2 below.</p>  |
|   | <p><b>AO2.2</b></p> <p>An effluent disposal system is provided in accordance with ASNZ 1547 On-Site Domestic Wastewater</p>   | <b>YES</b> | <p>An on-site wastewater treatment plant is proposed to be established towards the north-eastern area of the site and built in accordance with the applicable</p>  |

| PERFORMANCE OUTCOMES  | ACCEPTABLE MEASURES  | COMPLIES   | COMMENT   |
|---|--|------------|---|
|   | <p>Management (as amended) where development is located:</p> <ul style="list-style-type: none"> <li>(a) in the Conservation zone, Rural zone or Rural residential zone; and</li> <li>(b) outside a reticulated sewerage service area.</li> </ul>   |            | Australian Standards as shown in the Internal Design Plans provided in <b>Attachment 5</b> .  |
| <b>STORMWATER INFRASTRUCTURE</b>  |  |            |   |
| <p><b>PO3</b></p> <p>Stormwater infrastructure is designed and constructed to collect and convey the design storm event to a lawful point of discharge in a manner that mitigates impacts on life and property.</p> | <p><b>AO3.1</b></p> <p>Where located within a Priority infrastructure area or where stormwater infrastructure is available, development is connected to Council's stormwater network in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.</p>                           | <b>N/A</b> | See AO3.2 below.  |
|   | <p><b>AO3.2</b></p> <p>On-site drainage systems are constructed:</p> <ul style="list-style-type: none"> <li>(a) to convey stormwater from the premises to a lawful point of discharge; and</li> <li>(b) in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.</li> </ul> | <b>YES</b> | An on-site drainage system is proposed to collect all stormwater discharged from the development into new stormwater mains and then discharged to the north-eastern of the site where it will continue to be discharged via sheet flow to the waterway that runs adjacent to the rear property boundary. Please refer to the Stormwater Management Plan provided in <b>Attachment 7</b> for additional information. |
| <b>ELECTRICITY SUPPLY</b>   |  |            |   |
| <p><b>PO4</b></p> <p>Each lot is provided with an adequate supply of electricity</p>  | <p><b>AO4</b></p> <p>The premises:</p> <ul style="list-style-type: none"> <li>(a) is connected to the electricity supply network; or</li> </ul>  | <b>YES</b> | The site is already connected to existing electrical infrastructure and any alterations, additions or repairs required will be done so in accordance with Ergon's requirements.   |

| PERFORMANCE OUTCOMES   | ACCEPTABLE MEASURES   | COMPLIES   | COMMENT  |
|--|---|------------|--|
|  | (b) has arranged a connection to the transmission grid; or<br>(c) where not connected to the network, an independent energy system with sufficient capacity to service the development (at near average energy demands associated with the use) may be provided as an alternative to reticulated electricity where:<br>(i) it is approved by the relevant regulatory authority; and<br>(ii) it can be demonstrated that no air or noise emissions; and<br>(iii) it can be demonstrated that no adverse impact on visual amenity will occur. |            |  |
| <b>TELECOMMUNICATIONS INFRASTRUCTURE</b>   |   |            |  |
| <b>PO5</b><br>Each lot is provided with an adequate supply of telecommunication infrastructure   | <b>AO5</b><br>Development is provided with a connection to the national broadband network or telecommunication services.  | <b>YES</b> | The site is already connected to telecommunications infrastructure and any alterations, additions or repairs will be done so in accordance with the applicable providers requirements. |
| <b>EXISTING PUBLIC UTILITY SERVICES</b>  |   |            |  |
| <b>PO6</b><br>Development and associated works do not affect the efficient functioning of public utility mains, services or installations. | <b>AO6</b><br>Public utility mains, services are relocated, altered or repaired in association with the works so that they continue to function and satisfy the relevant Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.   | <b>YES</b> | Compliance can be conditioned.   |

| PERFORMANCE OUTCOMES   | ACCEPTABLE MEASURES   | COMPLIES   | COMMENT  |
|--|---|------------|--|
| <b>EXCAVATION OR FILLING</b>   |   |            |  |
| <p><b>PO7</b></p> <p>Excavation or filling must not have an adverse impact on the:</p> <ul style="list-style-type: none"> <li>(a) streetscape;</li> <li>(b) scenic amenity;</li> <li>(c) environmental values;</li> <li>(d) slope stability;</li> <li>(e) accessibility; or</li> <li>(f) privacy of adjoining premises.</li> </ul> | <p><b>AO7.1</b></p> <p>Excavation or filling does not occur within 1.5 metres of any site boundary.</p>   | <b>N/A</b> | The proposed works will not involve excavation or filling. |
|  | <p><b>AO7.2</b></p> <p>Excavation or filling at any point on a lot is to be no greater than 1.5 metres above or below natural ground level.</p>   | <b>N/A</b> | See AO7.1 above.   |
|  | <p><b>AO7.3</b></p> <p>Earthworks batters:</p> <ul style="list-style-type: none"> <li>(a) are no greater than 1.5 metres in height;</li> <li>(b) are stepped with a minimum width 2 metre berm;</li> <li>(c) do not exceed a maximum of two batters and two berms (not greater than 3.6 metres in total height) on any one lot;</li> <li>(d) have a slope no greater than 1 in 4; and</li> <li>(e) are retained.</li> </ul> | <b>N/A</b> | See AO7.1 above.   |
|  | <p><b>AO7.4</b></p> <p>Soil used for filling or spoil from excavation is not stockpiled in locations that can be viewed from:</p> <ul style="list-style-type: none"> <li>(a) adjoining premises; or</li> <li>(b) a road frontage, for a period exceeding 1 month from the commencement of the filling or excavation.</li> </ul>   | <b>N/A</b> | See AO7.1 above.   |

| PERFORMANCE OUTCOMES  | ACCEPTABLE MEASURES   | COMPLIES | COMMENT  |
|---|---|----------|--|
|   | <p><b>AO7.5</b></p> <p>All batters and berms to be constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.</p>  | N/A      | See AO7.1 above.   |
|   | <p><b>AO7.6</b></p> <p>Retaining walls have a maximum height of 1.5 metres and are designed and constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development manual.</p>   | N/A      | The proposed works will not involve Retaining Walls.   |
|   | <p><b>AO7.7</b></p> <p>Excavation or filling at any point on a lot is to include measures that protect trees at the foot or top of cut or fill batters by the use of appropriate retaining methods and sensitive earth removal or placement and in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development manual.</p> | N/A      | See AO7.1 above.   |
| <b>FOR ASSESSABLE DEVELOPMENT</b>   |   |          |  |
| <b>TRANSPORT NETWORK</b>  |   |          |  |
| <p><b>PO8</b></p> <p>The development has access to a transport network of adequate standard to provide for the safe and efficient movement of vehicles, pedestrians and cyclists.</p> | <p><b>AO8.1</b></p> <p>Vehicle access, crossovers, road geometry, pavement, utilities and landscaping to the frontage/s of the site are designed and constructed in accordance with the Design Guidelines and Specifications set out in the Planning</p>  | YES      | <p>The Access Crossover and internal road is proposed to be upgraded in accordance with the Internal Works Plans provided in <b>Attachment 5</b> and Fichera Road is also proposed to be upgraded in accordance with the External Works Plans provided in <b>Attachment 4</b>. All works will be undertaken in</p> |

| PERFORMANCE OUTCOMES   | ACCEPTABLE MEASURES   | COMPLIES   | COMMENT   |
|--|---|------------|---|
|  | Scheme Policy 4 – FNQROC Regional Development manual.   |            | accordance with the requirements of the FNQROC Regional Development Manual. As a result, we are of the view that the proposed works can achieve compliance with the corresponding Acceptable Outcome. |
|  | <b>AO8.2</b><br>Development provides footpath pavement treatments in accordance with Planning Scheme Policy 9 – Footpath Paving.  | <b>YES</b> | Council can condition compliance.   |
| <b>PUBLIC INFRASTRUCTURE</b>   |   |            |   |
| <b>PO9</b><br>The design, construction and provision of any infrastructure that is to be dedicated to Council is cost effective over its life cycle and incorporates provisions to minimise adverse impacts.   | <b>AO9</b><br>Development is in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual.  | <b>N/A</b> | The works will not involve public infrastructure.   |
| <b>STORMWATER QUALITY</b>  |   |            |   |
| <b>PO10</b><br>Development has a non-worsening effect on the site and surrounding land and is designed to:<br><br>(a) optimise the interception, retention and removal of waterborne pollutants, prior to the discharge to receiving waters;<br><br>(b) protect the environmental values of waterbodies affected by the development, including upstream, on-site and downstream waterbodies; | <b>AO10.1</b><br>The following reporting is prepared for all Material change of use or Reconfiguring a lot proposals:<br><br>(a) a Stormwater Management Plan and Report that meets or exceeds the standards of design and construction set out in the Queensland Urban Drainage Manual (QUDM) and the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development Manual; and | <b>N/A</b> | See AO10.2 below.   |

| PERFORMANCE OUTCOMES  | ACCEPTABLE MEASURES   | COMPLIES          | COMMENT  |
|---|---|-------------------|--|
| <ul style="list-style-type: none"> <li>(c) achieve specified water quality objectives;</li> <li>(d) minimise flooding;</li> <li>(e) maximise the use of natural channel design principles;</li> <li>(f) maximise community benefit; and</li> <li>(g) minimise risk to public safety.</li> </ul> | <ul style="list-style-type: none"> <li>(b) an Erosion and Sediment Control Plan that meets or exceeds the Soil Erosion and Sedimentation Control Guidelines (Institute of Engineers Australia), including:               <ul style="list-style-type: none"> <li>(i) drainage control;</li> <li>(ii) erosion control;</li> <li>(iii) sediment control; and</li> <li>(iv) water quality outcomes.</li> </ul> </li> </ul>  |                   |  |
|   | <p><b>AO10.2</b></p> <p>For development on land greater than 2,500m<sup>2</sup> or that result in more than 5 lots or more than 5 dwellings or accommodation units, a Stormwater Quality Management Plan and Report prepared and certified by a suitably qualified design engineer (RPEQ) is prepared that demonstrates that the development:</p> <ul style="list-style-type: none"> <li>(a) meets or exceeds the standards of design and construction set out in the Urban Stormwater Quality Planning Guideline and the Queensland Water Quality Guideline;</li> <li>(b) is consistent with any local area stormwater water management planning;</li> <li>(c) accounts for development type, construction phase, local climatic conditions and design objectives; and</li> <li>(d) provides for stormwater quality treatment measures reflecting land use constraints, such as soil type, landscape features (including landform), nutrient hazardous areas, acid sulfate soil and rainfall erosivity.</li> </ul> | <p><b>YES</b></p> | <p>Please refer to the Stormwater Management Plan provided in <b>Attachment 7</b> and to the Internal Works drawings provided in <b>Attachment 5</b> which shows the Erosion and Sediment Control strategy proposed.</p> |

| PERFORMANCE OUTCOMES   | ACCEPTABLE MEASURES  | COMPLIES          | COMMENT   |
|--|--|-------------------|---|
| <p><b>PO11</b></p> <p>Storage areas for stormwater detention and retention:</p> <ul style="list-style-type: none"> <li>(a) protect or enhance the environmental values of receiving waters;</li> <li>(b) achieve specified water quality objectives;</li> <li>(c) where possible, provide for recreational use;</li> <li>(d) maximise community benefit; and</li> <li>(e) minimise risk to public safety.</li> </ul> | <p><b>AO11</b></p> <p>No acceptable outcome is provided.</p>   | <p><b>YES</b></p> | <p>Stormwater will continue to be stored in the on-site dam; OR discharged via sheet flow to Tinaroo Creek at the rear of the site in accordance with the Stormwater Management Plan provided in <b>Attachment 7</b>.</p> |
| <b>EXCAVATION OR FILLING</b>   |  |                   |   |
| <p><b>PO12</b></p> <p>Traffic generated by filling or excavation does not impact on the amenity of the surrounding area.</p>   | <p><b>AO12.1</b></p> <p>Haul routes used for transportation of fill to or from the site only use major roads and avoid residential areas.</p>  | <p><b>N/A</b></p> | <p>The proposed works will not involve any excavation or filling.</p>   |
|  | <p><b>AO12.2</b></p> <p>Transportation of fill to or from the site does not occur:</p> <ul style="list-style-type: none"> <li>(a) within peak traffic times; and</li> <li>(b) before 7am or after 6pm Monday to Friday;</li> <li>(c) before 7am or after 1pm Saturdays; and</li> <li>(d) on Sundays or Public Holidays.</li> </ul> | <p><b>N/A</b></p> | <p>See AO12.1 above.</p>  |
| <p><b>PO13</b></p>   | <p><b>AO13.1</b></p> <p>Dust emissions do not extend beyond the boundary of the site.</p>  | <p><b>N/A</b></p> | <p>See AO12.1 above.</p>  |

| PERFORMANCE OUTCOMES  | ACCEPTABLE MEASURES  | COMPLIES          | COMMENT  |
|---|--|-------------------|--|
| <p>Air pollutants, dust and sediment particles from excavation or filling, do not cause significant environmental harm or nuisance impacts.</p>   | <p><b>AO13.2</b><br/>No other air pollutants, including odours, are detectable at the boundary of the site.</p>  | <p><b>N/A</b></p> | <p>See AO12.1 above.</p>   |
|   | <p><b>AO13.3</b><br/>A management plan for control of dust and air pollutants is prepared and implemented.</p>   | <p><b>N/A</b></p> | <p>See AO12.1 above.</p>   |
| <p><b>PO14</b><br/>Access to the premises (including driveways and paths) does not have an adverse impact on:</p> <ul style="list-style-type: none"> <li>(a) safety;</li> <li>(b) drainage;</li> <li>(c) visual amenity; and</li> <li>(d) privacy of adjoining premises.</li> </ul> | <p><b>AO14</b><br/>Access to the premises (including all works associated with the access):</p> <ul style="list-style-type: none"> <li>(a) must follow as close as possible to the existing contours;</li> <li>(b) be contained within the premises and not the road reserve, and</li> <li>(c) are designed and constructed in accordance with the Design Guidelines and Specifications set out in the Planning Scheme Policy 4 – FNQROC Regional Development manual.</li> </ul> | <p><b>YES</b></p> | <p>The proposed works to the internal road are detailed in the Internal Works Plans provided in <b>Attachment 5</b>.</p> |
| <p><b>WEED AND PEST MANAGEMENT</b></p>  |  |                   |  |
| <p><b>PO15</b><br/>Development prevents the spread of weeds, seeds or other pests into clean areas or away from infested areas.</p>   | <p><b>AO15</b><br/>No acceptable outcome is provided.</p>  | <p><b>YES</b></p> | <p>Compliance can be conditioned.</p>  |
| <p><b>CONTAMINATED LAND</b></p>   |  |                   |  |

| PERFORMANCE OUTCOMES   | ACCEPTABLE MEASURES  | COMPLIES          | COMMENT   |
|--|--|-------------------|---|
| <p><b>PO16</b></p> <p>Development is located and designed to ensure that users and nearby sensitive land uses are not exposed to unacceptable levels of contaminants</p> | <p><b>AO16</b></p> <p>Development is located where:</p> <ul style="list-style-type: none"> <li>(a) soils are not contaminated by pollutants which represent a health or safety risk to users; or</li> <li>(b) contaminated soils are remediated prior to plan sealing, operational works permit, or issuing of building works permit.</li> </ul> | <p><b>YES</b></p> | <p>The site is not located on the Contaminated Land or Environmental Management Registers as identified in <b>Attachment 2</b>.</p> |
| <p><b>FIRE SERVICES IN DEVELOPMENTS ACCESSED BY COMMON PRIVATE TITLE</b></p>   |  |                   |   |
| <p><b>PO17</b></p> <p>Fire hydrants are located in positions that will enable fire services to access water safely, effectively and efficiently.</p>                     | <p><b>AO17.1</b></p> <p>Fire hydrants are located in accessways or private roads held in common private title at a maximum spacing of:</p> <ul style="list-style-type: none"> <li>(a) 120 metres for residential development; and</li> <li>(b) 90 metres for any other development.</li> </ul>   | <p><b>N/A</b></p> | <p>The proposed works do not involve common private title.</p>  |
|  | <p><b>AO17.2</b></p> <p>Fire hydrants are located at all intersections of accessways or private roads held in common private title.</p>  | <p><b>N/A</b></p> | <p>See AO17.1 above.</p>  |