

MP ref: M2248  
QA: lp.ms.mc

28 June 2024  
Assessment Manager  
Burdekin Shire Council  
PO Box 974  
AYR QLD 4807  
Via:

planning@burdekin.qld.gov.au

Attention:

Planning and Development

Dear Sir/ Madam,  
Re:

Development Application seeking a Development Permit for Material Change of Use – Service Station and Tourist Park (Service Station Renewal and Tourist Park Expansion) on land described as Lot's 1, 2, 3, and 4 on I9191 and located at 1-7 Wallace Road, Inkerman

On behalf of the Applicant, Milford Planning hereby make the enclosed development application seeking the abovementioned development approval on the abovementioned land in accordance with Section 51 of the Planning Act 2016.

Assessment Fee

The relevant assessment fee for the proposed development has been calculated below in accordance with Burdekin Shire Council's (Council) Schedule of Fees and Charges 2023/24.

Component

Accommodation  
Use  
Business Type Use

Type

Calculation

Fee

\$2,631 where Impact Assessment

\$2,631.00

\$2,631 where Impact Assessment

\$2,631.00

TOTAL ASSESSMENT FEE:

\$5,262.00

We request that Council provide a payment option email to facilitate payment of the relevant assessment fee.

Proceeding

We look forward to working with Council to progress the proposed development, and request the opportunity to discuss any queries or further information that may be required prior to the issue of any formal correspondence.

In the instance that Council requires no further information, we look forward to receipt of Council's

Confirmation Notice to facilitate referral of the development application to the State.

If you have any questions regarding this correspondence, please contact the undersigned or

Matteo Sandona on TEL: (07) 4724 0095.

Yours sincerely,

MILFORD PLANNING

Lachlan Pether

TOWN PLANNER

Encl:

Development application package

MILFORD PLANNING

Applicant

SINGH HOMEZ PTY LTD

Reference

M2248

Date

June 2024

Development  
Application  
Proposed  
Development

Property  
Details

Material Change of Use -  
Service Station and  
Tourist Park (Service  
Station Renewal and  
Tourist Park Expansion)  
Lot's 1, 2, 3, and 4 on  
I9191  
1-7 Wallace Road,  
Inkerman

DOCUMENT CONTROL

Applicant  
Proposed  
Development  
Contact

SINGH HOMEZ PTY LTD

Material Change of Use – Service Station and Tourist Park (Service  
Station Renewal and Tourist Park Expansion)  
Lachlan Pether

Quality Assurance

Date 28.6.24  
Version 1  
Issue Final  
Template DA-STN-1

Lachlan Pether  
TOWN PLANNER

Matteo Sandona  
SENIOR TOWN PLANNER

Author

Reviewer

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## APPENDICES

### Appendix 1

DA Form 1; and land owner's consent

### Appendix 2

SmartMap; and site aerial plan of the subject site

### Appendix 3

State Assessment Referral Agency mapping

### Appendix 4

Proposed development plans prepared by Kalra Project Management

### Appendix 5

Local Law Permit AccAppr22/004

### Appendix 6

Traffic Impact Assessment prepared by Noble Consulting Engineers

### Appendix 7

Swept Path Plan analysis prepared by Noble Consulting Engineers

### Appendix 8

SARA Pre-lodgement Advice

### Appendix 9

Site Based Stormwater Management Plan prepared by STP Consultants

### Appendix 10

Bushfire Hazard Assessment and Management Plan prepared by Ecosystems Management; and Addendum Letter for Updated Fuel Storage Configuration

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## 1.0

### INTRODUCTION

#### 1.1

##### Purpose

The purpose of this development application is to seek approval for Material Change of Use – Service Station and Tourist Park (Service Station Renewal and Tourist Park Expansion) (the proposed development) under the provisions of the Planning Act 2016 (the Act). The purpose of this report is to provide information about the site on which the subject development is proposed, detail of the proposed development, and an assessment against the relevant assessment benchmarks. The assessment detailed in this report has been undertaken in accordance with the provisions and subordinate planning controls under the Act.

#### 1.2

##### Structure

This report provides the following information with respect to the assessment of the proposed development:

§

overview of the site and surrounding area;

§

description of the proposed development;

§

overview of the relevant assessment framework;

§

assessment of the proposed development against the relevant assessment benchmarks;

§

other relevant matters; and

§

conclusion and recommendation.

This development application is made in accordance with Section 51 of the Act and contains the mandatory supporting information specified in the applicable DA Form. Appendix 1 comprises DA Form 1 and the accompanying land owner's consent.

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## 2.0

### SUBJECT SITE

#### 2.1

##### Site Parameters

The following parameters are applicable to the site of the proposed development (the subject site).

##### Property Owner

SINGH HOMEZ PTY LTD (refer Appendix 1)

##### Street Address

1-7 Wallace Road, Inkerman

##### Formal Description

Lot's 1, 2, 3, and 4 on I9191

1I9191: 1,381 m<sup>2</sup>

2I9191: 1,903 m<sup>2</sup>

##### Site Area

3I9191: 2,023 m<sup>2</sup>

4I9191: 2,023 m<sup>2</sup>

(refer Appendix 2)

##### Easements

##### Street Frontage

The land is not burdened by any easements.  
Bruce Highway and Wallace Road

##### Topography

The site has generally even topography.

##### Existing Use

Service Station and Tourist Park (Inkerman Centrepont)

The site is serviced by the following infrastructure:

##### Existing Infrastructure

§

§

##### Local Heritage Register

The site is not listed on the Local Heritage Register.

##### Contaminated Land

##### Relevant State Interests

The land is not known to be included on the State Environmental Management Register or Contaminated Land Register.

The following State interests are relevant to the proposed development as detailed in the State Assessment Referral Agency

(SARA) mapping (refer Appendix 3):

§

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electricity (Ergon); and  
telecommunications (NBN).

State transport infrastructure – site located within 25 m of a  
State-controlled road.

6

## 2.2

### Surrounding Area

North

East

Mount Inkerman

Dwelling houses, Mount Inkerman, and rural uses

South

Bruce Highway, and rural uses

West

Mount Inkerman, Bruce Highway, and rural uses

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### 3.0

#### PROPOSED DEVELOPMENT

### 3.1

#### Description of Proposed Development

The proposed development involves a Material Change of Use – Service Station and Tourist Park (Service Station Renewal and Tourist Park Expansion).

Specific detail of the proposed

development is provided below.

#### Purpose of Development

The purpose of the proposed development is to undertake both renewal and expansion works to the existing Inkerman Service Station and Caravan Park. Both the Service Station and Caravan Park have been long established and have served local residents and travellers with affordable fuel, food and drink, and accommodation options. The 'Inkerman Centrepoin't' primarily services the tourism market, with the nature of the proposed development works reflecting an improved experience and accommodation availability for tourists and residents of Inkerman and surrounds, travelling through this area of North Queensland.

#### Design Overview

The proposal plans have been prepared by Kalra Project Management and are included in

Appendix 4. A summary of each component is provided below.

#### Service Station Renewal Works

The works involve the decommission and demolition of the existing fuel facilities (bowzers), currently fronting Wallace Road and contained on Lot 3 on I919, with new fuel bowzers to be established on part of Lots 2 and 3 on I9191. The new fuel bowzers will include a combination of 6 hose SK-700 Dispensers and a High Flow DSL & Adblue Combination. These bowzers will all be contained under a 5.5 m tall canopy. The site access, via Lots 2 and 3 on I9191, will be widened to accommodate for the new fuelling area. A 30 KL DSL self-bunded above ground tank will be located adjacent the new bowzers, alongside a 5 KL AdBlue tank, and another 55 KL above ground fuel tank. A new pylon sign is proposed adjacent to the above ground tanks.

#### Tourist Park Expansion

The current Inkerman Caravan Park has been approved for a total of 13 sites, as confirmed by Local Law Permit AccAppr22/004 (refer Appendix 5), with the approved site types being:

§

caravan Sites (with power) – 6; and

§

on site Accommodation (without ensuite) – 7.

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The proposal involves the establishment of four new cabins. These cabins will be 5.85 m x 6 m and will include four individual bedrooms, shared amenities (shower, toilet, laundry, and basic kitchen), and will include a shared veranda. The new cabins will be established on Lot 4 on I9191 and will be located within proximity to the existing cabins, and the shared toilets/ kitchen.

#### Operational Overview

The operational regimes for each use are not anticipated to change as a result of the proposed development. The Service Station will continue to operate Monday to Sunday, from 6:30 am to 7 pm. These hours are also applied to the administration component of the Tourist Park use.

#### Scale and Intensity

The proposed development will involve the development footprint extending into Lot 2 on I9191.

Currently, the existing site coverage for the current footprint is approximately 12 %. Post

development, site coverage will increase to approximately 25 %, which is not considered

inconsistent with the immediate localities scale and intensities and will not result in a site coverage

that will dominant the locality and/ or detract the existing amenity values of the Inkerman area.

#### Access and Parking

Access and egress to the site will be achieved via both Bruce Highway and Wallace Road. The

existing access regime to Wallace Road via Bruce Highway has a single one way entry point, and

a shared entry/ exit point, located further east along the Bruce Highway. As depicted in the Swept

Path Analysis Plans prepared by Noble Consulting Engineers (refer Appendix 7), vehicles will

access Wallace Road via the western most access regime (via Bruce Highway) and will exit the

site onto Wallace Road and travel east to the current Highway Access Road.

In addition to this, a full Traffic Impact Assessment report has been prepared by Noble Consulting

Engineers and is provided in Appendix 6. This assessment was undertaken in conjunction with

State Assessment and Referral Agency's (SARA) pre-lodgement advice (refer Appendix 8), and

relevant standards/ policies. The findings of this assessment determined:

§

the B-double swept path plans were prepared as a 'check vehicle' measure for sensitivity

purposes only, and it is noted that B-double's are not expected to utilise the site and

Wallace Road on a measurable basis;

§

the reconfiguration of the sites fuel bowsters will rectify queuing issues (if any) currently

via Wallace Road and/ or Bruce Highway, by placement of bowsters further into the relevant site (2I9191);

§

the proposed driveway crossover (Access Driveway 1) is recommended to be shifted east,

to maintain a 1 m clearance between the power pole and driveway edge;

§

traffic bollards/ chevron pavement marking can be incorporated at the power pole  
(2)  
location to improve visibility and guide traffic;

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9



§

the proposal is likely to maintain consistent traffic numbers in terms of predevelopment levels; and

§

the 19 m AV swept path analysis determined that such vehicles will exit Wallace Road via the existing intersection located further to the east of the subject site, and can do so safely.

As determined by the assessment, and in conjunction with the recommendations listed in the traffic impact assessment, the proposed works are not anticipated to cause any adverse impacts on the safety or operational efficiency of the surrounding road networks and is therefore supportive of the proposal.

Refer Appendix 5 for a full copy of the traffic impact assessment.

Water and Sewer

Given the location of the site, it is understood that the site is not capable of service via reticulated

water and sewer. The site currently utilises an on site water regime, and an on site waste water

system. Both systems shall continue to be utilised for the proposed development. It is noted

that the proposed accommodation units will occupy a portion of the site that is currently reserved

for caravan parking. Given the cabins will replace the caravan areas, it is considered that ample

capacity can be maintained to service the additional cabins.

Stormwater

STP Consultants have undertaken a Site Based Stormwater Management Plan (refer Appendix

9). This reporting has undertaken assessment of the proposed development with regard to

earthworks, stormwater management, and stormwater quality. A proposed stormwater layout is

included within. The findings of this report determined:

§

there is no requirement under Queensland Urban Drainage Manual (QUDM) to provide onsite stormwater detention;

§

finished surface levels are not impacted by the 1 % AEP flood; and

§

a stormwater quality management plan is not required given the Climatic Zone for which

the site is located in contains a population of less than 25,000 people (in accordance with

Footnote 14 of the State Planning Policy).

Electricity and Communications

The existing development is serviced by the relevant electricity and telecommunication

infrastructure. Any future connection works shall be arranged for at the appropriate time and by

the Applicant and/ or the Applicant's representatives.

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#### Landscaping

The proposed development is not anticipated to impact upon the existing established landscaping.

In particular, the existing landscaping within Lots 3 and 4 on I9191 will be retained post development.

Lot 2 on I9191 currently contains minimal vegetation (primarily ground cover weeds) and as such, there will be no existing landscaping impacted upon. No further landscaping works are proposed as part of this site.

#### Bushfire Management

A Bushfire Hazard Assessment and Management Plan has been prepared by Ecosystems Management to support the proposed development (refer Appendix 10). The findings of this

assessment determined the overall bushfire hazard associated with the site is low. As such, a

bushfire management plan is not considered necessary to support the proposed development.

Notwithstanding, water supply nominations and asset protection zone setbacks have been

determined through the risk assessment undertaken and upon compliance assessment against

the bushfire hazard overlay code.

Appropriate mitigation measures identified included:

§

maintenance of suitable setback areas from the proposed development;

§

short-term accommodation structures being designed in accordance with AS3959;

§

provision of firefighting water supplies (10,000 L minimum) and access;

§

ongoing site maintenance work to ensure low hazard remains; and

§

ongoing engagement/ liaison with the local rural fire brigade to ensure site preparedness/ familiarity.

A full copy of the Bushfire Hazard Assessment and Management Plan report is included in Appendix 10.

An additional 55 KL above ground fuel tank was added to proposal post completion of the Bushfire

Hazard Assessment and Management Plan. Ecosystems Management have prepared an addendum

to this reporting to assess the additional fuel tank against the site's bushfire hazard presence,

noting that this additional fuel tank will not alter the outcome of the Bushfire Hazard Assessment

(refer Appendix 10). No further revisions are considered necessary to the current Bushfire

Hazard Assessment and Management Plan to address this addition.



### 3.2

#### Development Plans

The proposed development is detailed in the plans provided at Appendix 4 and listed below. In addition, the proposed development is further detailed in the associated reports listed below and appended as referenced.

Title

Number

Issue

Date

#### PROPOSED SITE LAYOUT

INK24002 (2)

1

17.8.23

#### CALTEX CANOPY (EXTERNAL FINISHES)

INK24002 (4)

1

25.1.24

#### BP CANOPY (EXTERNAL FINISHES)

INK24002 (5)

1

25.1.24

#### CANOPY DETAILS

INK24002 (6)

1

17.8.23

#### CANOPY SECTION

INK24002 (7)

1

25.1.24

#### FOOTING DETAILS

INK24002 (8)

1

25.1.24

PYLON SIGN EXTERNAL FINISHES

INK24002 (9)

1

25.1.24

PYLON DETAILS

INK24002 (10)

1

25.1.24

Associated Reports

3.3

§

Traffic Impact Assessment prepared by Noble Consulting Engineers (refer Appendix 6);

§

Swept Path Plan analysis prepared by Noble Consulting Engineers (refer Appendix 7);

§

Site Based Stormwater Management Plan prepared by STP Consultants (refer Appendix 9); and

§

Bushfire Hazard Assessment and Management Plan prepared by Ecosystems Management (refer Appendix 10).

§

Bushfire Hazard Assessment and Management Plan Addendum prepared by Ecosystems Management (refer Appendix 10).

Prelodgement Meeting

The proposed development was the subject of a prelodgement meeting between Burdekin Shire Council (Council) and the Applicant's representatives on 22 November 2023. Council were noted as being generally supportive of the proposed development given the existing operation of the Inkerman Service Station and Caravan Park.

In particular, it was noted that the proposed

development would need to be accompanied by a Bushfire Hazard Assessment, stormwater reporting, and traffic reporting.

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Prelodgement advice was also obtained from SARA on 10 May 2024. SARA were noted as generally supportive of the proposal where stormwater management reporting and traffic reporting appropriately demonstrated suitability of the proposal in relation to the external road networks overall operation (refer Appendix 8).

#### 4.0

### ASSESSMENT FRAMEWORK

#### 4.1

##### Planning Act 2016

The Planning Act 2016 (the Act) provides the framework for Queensland's planning system and coordinates local, regional, and State planning.

The Act allows for the establishment and is

supported by subordinate planning legislation and instruments such as planning schemes.

The

provisions of the Act are therefore applicable to the proposed development.

#### 4.2

##### Planning Regulation 2017

The Planning Regulation 2017 (the Regulation) is established under the Act and provides support to the Act by detailing how it functions at a practical level.

The Regulation determines the

Assessment Manager and Referral Agencies relevant to assessable development, and relevant State interests through the State Planning Policy (SPP) and State Development Assessment Provisions (SDAP). The provisions of the Regulation are therefore applicable to the proposed development.

#### 4.3

##### Approval Sought

Approval Type  
Development Type

#### 4.4

Development Permit  
Material Change of Use

Definition or General  
Description

Service Station and Tourist Park

Specific Description



Service Station Renewal and Tourist Park Expansion

Assessment Manager Assessment Parameters

Assessment Manager

Burdekin Shire Council

Planning Instrument

Burdekin Shire Council Planning Scheme (the planning scheme)

Zone and Precinct

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Township Zone

13

Triggered Overlays  
Category of Assessment  
Table of Assessment  
Reference

Assessment Manager  
Assessment Benchmarks

#### 4.5

Bushfire Hazard Overlay – High potential bushfire intensity and  
potential impact buffer  
Impact  
Table 3.4.11 – Township Zone

§  
§  
§  
§

Strategic Framework  
Township Zone Code  
Development Works Code  
Bushfire Hazard Overlay Code

Referral Agency Assessment Parameters

Referral Agencies  
Planning Instrument

State Assessment Referral Agency  
Planning Regulation 2017 (the Regulation)  
The proposed development triggers the following referrals:

Referral Triggers

§

Schedule 10, Part 9, Division 4, Subdivision 2, Table 4 –  
Material Change of Use of premises near a State transport  
corridor or that is a future State transport corridor

Referral Agency  
Assessment Benchmarks

§

State code 1 – Development in a State-controlled road  
environment

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## 5.0

### ASSESSMENT MANAGER CONSIDERATIONS

#### 5.1

##### State Planning Policy

The State Planning Policy (the SPP) is a State planning instrument established under the Act and is designed to ensure the State's interests in planning are protected and delivered as part of local government planning across Queensland. amending its planning scheme.

Local government use the SPP when making or

Local government will also assess aspects of development

applications using the SPP if their local planning scheme has not integrated certain State interests.

In accordance with Section 2.1 – State Planning Policy (SPP) of the planning scheme, the Minister has identified that all relevant State interests as outlined in the SPP dated July 2017 have been integrated into the planning scheme.

For the purpose of the proposed development, we consider that assessment against the provisions of the SPP is not required, and all relevant matters will be dealt with under the provisions of the planning scheme.

#### 5.2

##### Regional Plan

Regional plans are State planning instruments established under the Act, and set the long term strategic direction for how regions grow and respond to change. Regional plans are designed to facilitate economic growth, development, liveable communities, and the protection of natural resources. Regional plans seek to balance the State interests identified by the SPP in the context of the particular region they apply to.

The North Queensland Regional Plan (the Regional Plan) applies to the local government areas of

Townsville City, Hinchinbrook Shire, Burdekin Shire, Charters Towers Regional, and Palm Island

Aboriginal Shire. The Regional Plan was implemented in March 2020, and seeks to capitalise on

the growth, prosperity, and diversity of the region by supporting a vibrant economy, generating jobs, improving business investment, protecting our natural environment, and encouraging

tourism and lifestyle opportunities over the next 25 years.

The proposed development is considered to align with the goals outlined in the Regional Plan. In

particular, the proposed development will further Goal 1 – A leading economy in Regional Australia

Goal 2 – A rich and healthy natural environment Goal 4 – A safe, connected and efficient North

Queensland

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### 5.3

#### Planning Scheme Strategic Framework

The planning scheme incorporates a strategic framework, which sets the policy direction and basis for ensuring appropriate development occurs within the planning scheme area. The strategic framework is represented by the following four themes:

§

liveable communities and infrastructure;

§

economic growth;

§

safe and resilient communities; and

§

natural resources, the environment and heritage.

The strategic framework provides strategic outcomes for each of the above four themes.

The proposed development furthers the outcomes sought by the above themes and the relevant outcomes, particularly when considering:

§

the proposed development will result in the improvement of an existing use that services both the direct and indirect communities within and travelling through the Burdekin Shire;

§

the proposed development will enhance economic growth through the provision of greater fuelling infrastructure, and improved accommodation availability; and

§

design parameters and technical specialist reporting undertaken have identified site specific risks and have demonstrated how the incorporation of relevant mitigation methods will ensure the safety of the site/ s for all users, and will not impact upon the environment in any capacity.

### 5.4

#### Planning Scheme Purpose and Overall Outcomes

The proposed development is considered to further the purpose and overall outcomes sought by the relevant planning scheme codes by demonstrating compliance with the relevant performance and accepted outcomes.



## 5.5

### Planning Scheme Assessment Matrix

The assessment matrix below summarises the outcome of an assessment of the proposed development against the relevant performance and accepted outcomes of the applicable Assessment Manager assessment benchmarks.

The assessment matrix identifies the level of compliance of the proposed development in accordance with the legend below.

Criteria is clearly met and no further assessment is required.  
Criteria is met and further explanation is provided for clarity.

#### Legend

Criteria is not met and further performance assessment is required.

P0

A0

P0

A0

Bushfire  
Hazard  
Overlay Code

Development  
Works Code

Township Zone  
Code

Outcome  
P0 or A0

Not applicable or no criteria prescribed.

P0

A0

1  
2  
3  
4  
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6  
7  
8  
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#### MILFORD PLANNING

17



A0

P0

A0

Bushfire  
Hazard  
Overlay Code

Development  
Works Code

Township Zone  
Code

Outcome  
P0 or A0

P0

P0

A0

20

21

22

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Criteria identified in the assessment matrix as requiring further explanation or further assessment is addressed in the following subsection.

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18

## 5.6

### Planning Scheme Detailed Assessment

#### Development Works Code

##### Complies with P013

It is understood that the site is not capable of service via reticulated water and sewer. The site currently utilises an on site water regime, and an on site wastewater system. Both systems shall continue to be utilised for the proposed development, for which both are anticipated to be capable of accommodating for the proposed development. It is noted that the proposed accommodation units will occupy a portion of the site that is currently reserved for caravan parking. Given the cabins will replace the caravan areas, it is considered that capacity for the site will be of a similar demand to predevelopment. P013 is therefore considered satisfied.

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## Bushfire Hazard Overlay Code

Complies with P04

In accordance with the Bushfire Hazard Assessment and Management Plan prepared by

Ecosystems Management, the subject site is identified as containing a low bushfire hazard risk,

whereby the storage of hazardous materials will achieve below a 10kW/m<sup>2</sup> radiant heat flux

exposure. A full overview of this technical report is provided in Appendix 9.

P04 is therefore

considered to be satisfied.

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Complies with P06/A06

In accordance with the Bushfire Hazard Assessment and Management Plan prepared by Ecosystems Management, the site:  
§

is less than 2.5 ha;

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§

is provided with appropriate access from Wallace Road at two distinct points;  
and

§

includes an internal trafficable route to all areas of the site.

In accordance with the above and the Bushfire Hazard Assessment and Management Plan provided in Appendix 9, compliance with P06/A06 is achieved.

Complies with P015/A015

The proposed development is located outside of Council's reticulated water supply area.

In

accordance with the Bushfire Hazard Assessment and Management Plan report prepared by Ecosystems Management, the proposal will need to include two 10,000 L water tanks to be dedicated to each accommodation unit pair - meeting relevant standards for fittings, signage and placement.

In accordance with the above and the Bushfire Hazard Assessment and Management Plan provided in Appendix 9, compliance with P015/A015 can be achieved.

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## 6.0

### REFERRAL AGENCY CONSIDERATIONS

## 6.1

### State Code Purpose and Overall Outcomes

The proposed development is considered to further the purpose and overall outcomes sought by the relevant State Codes by demonstrating compliance with the relevant performance and accepted outcomes.

## 6.2

### State Code Assessment Matrix

The assessment matrix below summarises the outcome of an assessment of the proposed development against the relevant performance and accepted outcomes of the applicable Referral Agency assessment benchmarks. The assessment matrix identifies the level of compliance of the proposed development in accordance with the legend below.

Criteria is clearly met and no further assessment is required.  
Criteria is met and further explanation is provided for clarity.

### Legend

Criteria is not met and further performance assessment is required.

P0

A0

A0

1

14

27

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State Code 1

State Code 1  
P0

Outcome  
P0 or A0

A0

State Code 1

State Code 1  
P0

Outcome  
P0 or A0

A0

Outcome  
P0 or A0

P0

Outcome  
P0 or A0

State Code 1

Outcome  
P0 or A0

Not applicable or no criteria prescribed.

P0

A0

23





Criteria identified in the assessment matrix as requiring further explanation or further assessment is addressed in the following subsection.  
6.3

#### State Code Detailed Assessment

##### State Code 1

###### Complies with P01

In accordance with the Traffic Impact Assessment prepared by Noble Consulting Engineers (refer Appendix 6), the proposal is considered to improve the current site access regime via the State-controlled road, given the fuel bowzers are being relocated to further within Lot 2 on I9191, and as such it is anticipated that current queuing impacts (if any) will be improved. The proposed driveway crossover (driveway 1) is proposed to shift slightly east to maintain a 1 m clearance between the existing power pole and the driveway edge, which will again improve the operational aspect of the site and will not create any safety hazards for users of the State-controlled road. Therefore P01 is considered satisfied.

###### Complies with P039

The proposed cabins are to be located on part of Lot 4 on I9191 (refer Appendix 4). With reference to the State-controlled road (Bruce Highway), the cabins are located at a sufficient  
MILFORD PLANNING

distance away from the highway whereby any noise intrusions are considered to be negligible.  
Further noise barriers/ earth mounds are therefore not considered necessary. The maximum free field acoustic levels in reference table 2 (item 2.2) will be achieved for this configuration. P039 is therefore satisfied.

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## 7.0

### OTHER RELEVANT MATTERS

#### 7.1

##### Other Relevant Matters

There are substantial other relevant matters to support the approval of the proposed development. In accordance with Section 45, Item 5 (b) of the Act, an impact assessment may be carried out against, or having regard to, any other relevant matter, other than a person's personal circumstances, financial, or otherwise.

Other relevant matters supporting the approval of the proposed development include (but are not limited to) the following:

§

the proposed development will provide for an improved experience for North Queensland Travellers through the provision of improved fuelling infrastructure and greater accommodation availability;

§

the proposed development involves the improvement of an established use that has served as a valuable asset for the Inkerman area and surrounds;

§

the proposed development will provide for greater economic benefit and investment into the Inkerman areal;

§

the proposed development will incorporate additional sites that have been under utilised;  
and

§

the revised layout ensures any current queuing situations (if any) are rectified, thus ensuring the interaction between Wallace Road and Bruce Highway becomes improved.

### MILFORD PLANNING

8.0

## CONCLUSION

8.1

### Assessment Summary

The assessment of the proposed development against the relevant assessment benchmarks detailed in this development application supports a recommendation for approval based on the following reasons:  
§

the proposed development complies with the relevant assessment benchmarks; and  
§

compliance with the relevant assessment benchmarks can be managed through reasonable and relevant conditions.

8.2

### Recommended Conditions of Approval

Given the above facts and circumstances presented in this development application, we recommend that Council approve the proposed development subject to the following reasonable and relevant conditions that are considered specifically relevant to the proposed development.

#### Condition 1 – Approved Plans and Supporting Documentation

(a)

The development must generally comply with the plan(s) and supporting documentation referenced in the table below and attached as stamped “Approved Subject to Conditions” which forms part of this approval, unless otherwise specified by any condition of this approval.  
Title

Number

Issue

Date

#### PROPOSED SITE LAYOUT

INK24002 (2)

1

17.8.23

CALTEX CANOPY (EXTERNAL FINISHES)

INK24002 (4)

1

25.1.24

BP CANOPY (EXTERNAL FINISHES)

INK24002 (5)

1

25.1.24

CANOPY DETAILS

INK24002 (6)

1

17.8.23

CANOPY SECTION

INK24002 (7)

1

25.1.24

FOOTING DETAILS

INK24002 (8)

1

25.1.24

PYLON SIGN EXTERNAL FINISHES

INK24002 (9)

1

25.1.24

PYLON DETAILS

INK24002 (10)

1

25.1.24

Associated Reports

Traffic Impact Assessment prepared by Noble Consulting Engineers  
Swept Path Plan analysis prepared by Noble Consulting Engineers  
Site Based Stormwater Management Plan prepared by STP Consultants

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Bushfire Hazard Assessment  
Management

and Management

Plan

prepared by Ecosystems

Bushfire Hazard Assessment and Management Plan Addendum prepared by Ecosystems  
Management

(b)

The recommendations outlined in the above reports/s must be implemented prior to the commencement of the use.

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## DA Form 1 – Development application details

Approved form (version 1.4 effective 15 December 2023) 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) (individual or company full name)

Singh Homez Pty Ltd c/- Milford Planning

Contact name (only applicable for companies)

Lachlan Pether

Postal address (P.O. Box or street address)

PO Box 5463

Suburb

Townsville City

State

Queensland

Postcode

4810

Country

Australia

Contact number

(07) 4724 0095

Email address (non-mandatory)

info@milfordplanning.com.au

Mobile number (non-mandatory)

Fax number (non-mandatory)

Applicant's reference number(s) (if applicable)

M2248

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).

Unit No.

a)

b)

Street No.

Street Name and Type

Suburb

1-7

Wallace Road

Inkerman

Postcode

Lot No.

Plan Type and Number (e.g. RP, SP)

Local Government Area(s)

4806

1,2,3,4

I9191

Burdekin Shire

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)

WGS84

GDA94

Other:

Coordinates of premises by easting and northing

Easting(s)

Northing(s)

Zone Ref.

Datum

54

55

56

Local Government Area(s) (if applicable)

WGS84

GDA94

Other:

### 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:

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Listed on the Environmental Management Register (EMR) under the Environmental Protection Act 1994

EMR site identification:

Listed on the Contaminated Land Register (CLR) under the Environmental Protection Act 1994

CLR site identification:

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):

Service Station and Tourist Park (Service Station Renewal and Tourist Park Expansion)

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

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Section 2 – Further development details

7) Does the proposed development application involve any of the following?  
Material change of use

Yes – complete division 1 if assessable against a local planning instrument

Reconfiguring a lot

Yes – complete division 2

Operational work

Yes – complete division 3

Building work

Yes – complete DA Form 2 – Building work details

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  
(include each definition in a new row)

Number of dwelling  
units (if applicable)

Gross floor  
area (m<sup>2</sup>)  
(if applicable)

Service Station

Service Station

n/a

n/a

Tourist Park

Tourist Park

n/a

141 m<sup>2</sup>

8.2) Does the proposed use involve the use of existing buildings on the premises?

Yes

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? (tick all applicable boxes)

Subdivision (complete 10))

Dividing land into parts by agreement (complete 11))

Boundary realignment (complete 12))

Creating or changing an easement giving access to a lot  
from a constructed road (complete 13))

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?

Yes - provide additional details below

No

How many stages will the works include?

What stage(s) will this development application  
apply to?

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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

Lot on plan description

Proposed lot

2

Area (m )

Lot on plan description

Area (m2)

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?

(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?

Road work

Drainage work

Landscaping

Stormwater

Earthworks

Signage

Water infrastructure

Sewage infrastructure

Clearing vegetation

Other – please specify:

14.2) Is the operational work necessary to facilitate the creation of new lots?  
(e.g. subdivision)

Yes – specify number of new lots:

No

14.3) What is the monetary value of the proposed operational work? (include GST, materials and labour)

\$

#### PART 4 – ASSESSMENT MANAGER DETAILS

15) Identify the assessment manager(s) who will be assessing this development application

Burdekin Shire Council

16) Has the local government agreed to apply a superseded planning scheme for this development application?

Yes – a copy of the decision notice is attached to this development application

The local government is taken to have agreed to the superseded planning scheme request – relevant documents

attached

No

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## 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

SEQ northern inter-urban break – tourist activity or sport and recreation activity

SEQ northern inter-urban break – community activity

SEQ northern inter-urban break – indoor recreation

SEQ northern inter-urban break – urban activity

SEQ northern inter-urban break – 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

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Matters requiring referral to the local government:

Airport land

Environmentally relevant activities (ERA) (only if the ERA has been devolved to local government)

Heritage places – Local heritage places

Matters requiring referral to the Chief Executive of the distribution entity or transmission entity:

Infrastructure-related referrals – Electricity infrastructure

Matters requiring referral to:

- The Chief Executive of the holder of the licence, if not an individual
- The holder of the licence, if the holder of the licence is an individual

Infrastructure-related referrals – Oil and gas infrastructure

Matters requiring referral to the Brisbane City Council:

Ports – Brisbane core port land

Matters requiring referral to the Minister responsible for administering the Transport Infrastructure Act 1994:

Ports – Brisbane core port land (where inconsistent with the Brisbane port LUP for transport reasons)

Ports – Strategic port land

Matters requiring referral to the relevant port operator, if applicant is not port operator:

Ports – Land within Port of Brisbane's port limits (below high-water mark)

Matters requiring referral to the Chief Executive of the relevant port authority:

Ports – Land within limits of another port (below high-water mark)

Matters requiring referral to the Gold Coast Waterways Authority:

Tidal works or work in a coastal management district (in Gold Coast waters)

Matters requiring referral to the Queensland Fire and Emergency Service:

Tidal works or work in a coastal management district (involving a marina (more than six vessel berths))

18) Has any referral agency provided a referral response for this development application?

Yes – referral response(s) received and listed below are attached to this development application

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 (if applicable).

#### PART 6 – INFORMATION REQUEST

19) Information request under Part 3 of the DA Rules

I agree to receive an information request if determined necessary for this development application

I do not agree to accept an information request for this development application

Note: By not agreeing to accept an information request I, the applicant, acknowledge:

- 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

Part 3 of the DA Rules will still apply if the application is an application

listed under section 11.3 of the DA Rules.  
Further advice about information requests is contained in the DA Forms Guide.

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PART 7 – FURTHER DETAILS

20) Are there any associated development applications or current approvals?  
(e.g. a preliminary approval)

Yes – provide details below or include details in a schedule to this development application

No

List of approval/development application references

Reference number

Assessment manager

Date

Approval

Development application

Approval

Development application

21) Has the portable long service leave levy been paid? (only applicable to development applications involving building work or operational work)

Yes – a copy of the receipted QLeave form is attached to this development application

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

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?

Yes – show cause or enforcement notice is attached

No

23) Further legislative requirements

Environmentally relevant activities

23.1) Is this development application also taken to be an application for an environmental authority for an

Environmentally Relevant Activity (ERA) under section 115 of the Environmental Protection Act 1994?

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

No

Note: Application for an environmental authority can be found by searching “ESR/2015/1791” as a search term at [www.qld.gov.au](http://www.qld.gov.au). An ERA requires an environmental authority to operate. See [www.business.qld.gov.au](http://www.business.qld.gov.au) for further information.

Proposed ERA number:

Proposed ERA threshold:

Proposed ERA name:

Multiple ERAs are applicable to this development application and the details have been attached in a schedule to this development application.

Hazardous chemical facilities

23.2) Is this development application for a hazardous chemical facility?

Yes – Form 69: Notification of a facility exceeding 10% of schedule 15 threshold is attached to this development application

No

Note: See [www.business.qld.gov.au](http://www.business.qld.gov.au) for further information about hazardous chemical notifications.

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#### 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 Form1 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.

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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

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DA Form 1 - Development application details

Version 1.4- 15 December 2023

Walkable neighbourhoods assessment benchmarks under Schedule 12A of the Planning Regulation

23.16) Does this development application involve reconfiguring a lot into 2 or more lots in certain residential zones (except rural residential zones), where at least one road is created or extended?

Yes – Schedule 12A is applicable to the development application and the assessment benchmarks contained in schedule 12A have been considered

No

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

#### 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

Yes

Note: See the Planning Regulation 2017 for referral requirements

If building work is associated with the proposed development, Parts 4 to 6 of DA Form 2 –

Building work details have been completed and attached to this development application

Yes

Not applicable

Supporting information addressing any applicable assessment benchmarks is with the development application

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 DA Forms Guide: Planning Report Template.

Relevant plans of the development are attached to this development application

Yes

Note: Relevant plans are required to be submitted for all aspects of this development application. For further information, see DA Forms Guide: Relevant plans.

Yes

The portable long service leave levy for QLeave has been paid, or will be paid before a development permit is issued (see 21)

Yes

Not applicable

##### 25) Applicant declaration

By making this development application, I declare that all information in this development application is true and correct

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 Electronic Transactions Act 2001

Note: It is unlawful to intentionally provide false or misleading information.

Privacy – 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.

Personal information will not be disclosed for a purpose unrelated to the Planning Act 2016, Planning

Regulation 2017 and the DA Rules except where:

- such disclosure is in accordance with the provisions about public access to documents contained in the Planning Act 2016 and the Planning Regulation 2017, and the access rules made under the Planning Act 2016 and

- Planning Regulation 2017; or

- required by other legislation (including the Right to Information Act 2009); or

- otherwise required by law.

This information may be stored in relevant databases. The information collected will be retained as required by the

Public Records Act 2002.

Page 11

DA Form 1 – Development application details

Version 1.4– 15 December 2023

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

Note: For completion by assessment manager if applicable

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

Page 12

DA Form 1 – Development application details

Version 1.4– 15 December 2023







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SUBJECT PARCEL DESCRIPTION  
Lot/Plan

3/I9191

Area/Volume

2023m<sup>2</sup>

19°45'01".481

Tenure

FREEHOLD

INKERMAN

Local Government

BURDEKIN SHIRE

Locality

INKERMAN

Segment/Parcel

42091/14

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CLIENT SERVICE STANDARDS  
PRINTED 03/10/2023

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MAP WINDOW POSITION &  
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147°29'27".810

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Based upon an extraction from the  
Digital Cadastral Data Base

02/10/2023

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For further information on SmartMap products visit

<https://www.qld.gov.au/housing/buying-owning-home/property-land-valuations/smartmaps>

(c) The State of Queensland,  
(Department of Resources) 2023.

Drawing  
Site Aerial

Property  
1-7 Wallace Road, Inkerman  
Lots 1, 2, 3 and 4 on I9191  
Drawing Number

Issue  
Sheet  
M2248-SK-01

A

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Date

Author

Reviewer

17.6.24

TG

LP

Legend  
Subject Site  
Cadastre  
Easements

Scale (A3 Original)

Sources  
Milford Planning GIS (2024)  
DCDB extract - State of Queensland (2024)  
Aerial imagery - Queensland Globe (2024)

Disclaimer  
Areas and dimensions are approximate only  
and are subject to site survey.



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Matters of Interest for all selected Lot Plans

State-controlled road  
Area within 25m of a State-controlled road

Matters of Interest by Lot Plan  
Lot Plan: 4I9191 (Area: 2023 m2)  
Area within 25m of a State-controlled road  
Lot Plan: 3I9191 (Area: 2023 m2)  
Area within 25m of a State-controlled road  
Lot Plan: 2I9191 (Area: 1903 m2)  
State-controlled road  
Area within 25m of a State-controlled road

State Assessment and Referral Agency  
Date: 03/10/2023

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EXISTING SIGN  
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COLLECTION PITS  
IN BUNDED AREA  
TO BE ROUTED TO  
CLASS 1 SEPERATOR

INKERMAN STORE

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1-7 WALLACE ROAD  
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PROPOSED SITE LAYOUT

DWG #  
INK24002

KALRA PROJECT  
#  
MANAGEMENT SHEET  
2 OF 10

DATE :

17/08/23 REVISION

SHEET SIZE :

A1

AUTHOR :

F.B.

SCALE:

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8.87

bitumen

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COMMENTS

DA ISSUE (NOT FOR CONSTRUCTION)

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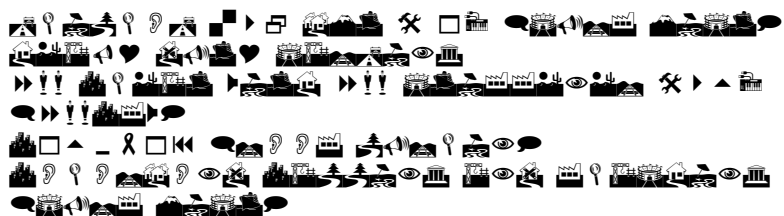




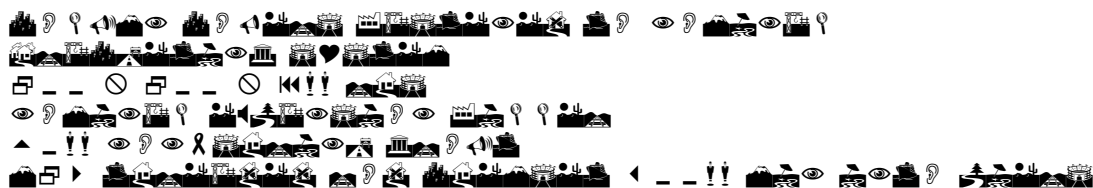


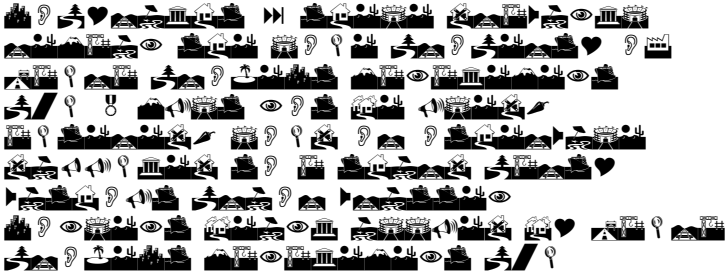




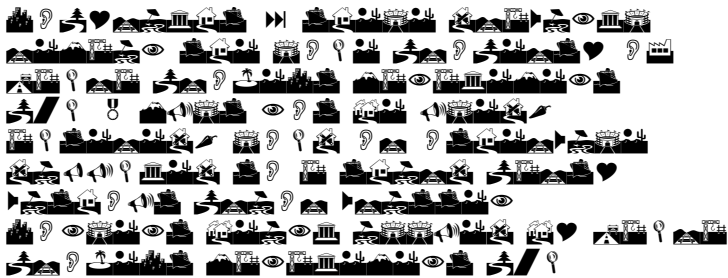
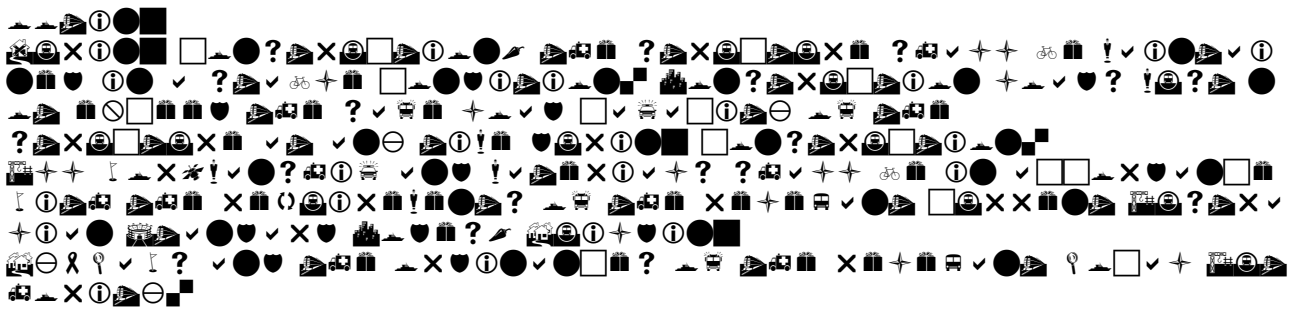


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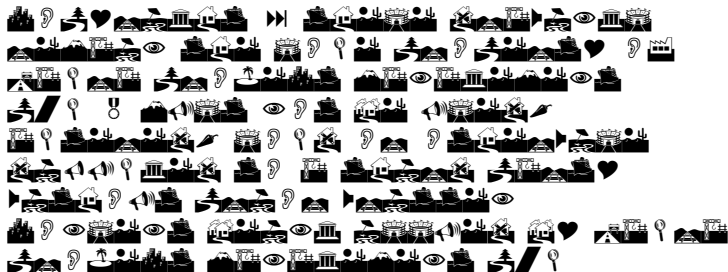






















Technical Memorandum  
To

Kalra Group (Attn: Fred Boyz)

Pages

57

CC  
Subject

1-7 Wallace Road, Inkerman – Existing Inkerman Tavern Development – Traffic  
Assessment

From

Noble Consulting Engineers

Project No/Ref No.

230110-01/TM-FN0163

1.0

Date

13/06/2024

#### INTRODUCTION

Noble Consulting Engineers has been commissioned by Kalra Group to undertake a traffic assessment associated with the proposed development of the existing Inkerman Tavern at

1-7 Wallace Road, Inkerman.

This traffic assessment is prepared in response to SARA Pre-lodgement Advice, to address

the traffic and safety concerns raised, which quoted below:

“(a) As per the Swept Path Analysis (sheet 2 of 3) prepared by Nobel Consulting Engineers, dated 8/02/24,

Drawing no: 230110-SK02 and Revision A, it is understood that the proposed development seeks to

accommodate B-Double vehicles with a maximum length of 26 metres. Wallace Road is not a heavy vehicle route

and is not intended to support heavy vehicles of this size. As such, Wallace Road may not be able to support

vehicles of this length, and the Wallace Road and Bruce Highway intersection may require further upgrades to

facilitate safe turn movements into the premises.

(b) Similar to the above, upon review of the heavy vehicle swept path plans (sheets 1 - 3), there appears to be

limited queuing and maneuvering space available for heavy vehicles on-site. This has the potential to result in

vehicles queuing in the state-controlled road intersection, which is not supported by SARA.

(c) The existing vehicular access is congested with utility poles, which is an obstacle to safe and efficient vehicular

access. This, in addition to the proposed access being located within 100 metres of the Bruce Highway and

Wallace Road intersection, may cause queuing into the Bruce Highway, which is not supported by SARA.

(d) The proposed development seeks to intensify the volume of vehicles (including heavy vehicles) utilising the

Bruce Highway and Wallace Road intersection. This has not been addressed in the

material provided to date,  
with the proposed increase in heavy vehicle movements at this intersection  
having the potential to adversely  
impact upon the safety of the state-controlled road network.

June 13, 2024



(e) Insufficient information has been provided regarding the exit point onto the Bruce Highway from the connection road between Wallace Road and the state-controlled road. The development cannot be supported if safe exit manoeuvres onto the Bruce Highway cannot be achieved by heavy vehicles at this intersection. As such, major road works may be required at (or near) this intersection to facilitate safe vehicular movements from the site."

A copy of the SARA Pre-Lodgement Advice is included in Attachment A.

June 13, 2024

## 2.0

### EXISTING CONDITIONS

#### 2.1

##### Subject Site

The subject sites are described as Lots 1 to 4 on I9191 and is located in Inkerman, within the Burdekin Shire Council (BSC) region. The subject site comprises a total area of approximately 7,330m<sup>2</sup>. The subject site is shown in Figure 2.1.

1/I9191  
(1,381m<sup>2</sup>)

##### Subject Sites

2/I9191  
(1,903m<sup>2</sup>)  
3/I9191  
(2,023m<sup>2</sup>)

4/I9191  
(2,023m<sup>2</sup>)

To Home Hill/Ayr

To Bowen

Figure 2.1: Subject Site (Source: QLD Globe)  
The subject sites are bounded as follows:

- 

to the north by Mount Inkerman;

- 

to the east and west by rural residentials; and

- 

to the south by Bruce Highway and Wallace Road.

June 13, 2024

According to the BSC Planning Scheme Zoning Map, the subject sites are zoned as "Township" as illustrated in Figure 2.2.

#### Subject Sites

Figure 2.2: Planning Scheme Zoning Map (Source: BSC)  
2.2

#### Existing use

The subject sites currently contain:

- 

Lot 1-2 on I9191 – vacant land; and

- 

Lot 3-4 on I9191 – service station including convenience store, accommodation facility, caravan park and restaurant.

The existing use of the site is illustrated in Figure 2.3.

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Figure 2.3: Existing Site Survey and Use (Source: Kalra Group)

Based on the information provided by Kalra Group, the existing approved use of the site generally included:

- 

Service station with three (3) fuel bowzers, i.e. 6 fueling points; (refer Figure 2.4)

- 

Convenience store ( $\approx 89\text{m}^2$  Gross Floor Area (GFA)); (refer Figure 2.4)

- 

Shop operator living ( $\approx 69\text{m}^2$  GFA); (refer Figure 2.4)

- 

Restaurant/Kitchen ( $\approx 105\text{m}^2$  GFA); (refer Figure 2.4)

- 

Caravan Park:

- > Six (6) caravan sites (without power); and

- > Seven (7) accommodation units (without ensuite).

A copy of the Certificate of Approval of the Caravan Park is included in Attachment B.

A copy of the existing site and survey plan is included in Attachment C.

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Shop Operator Living  
(≈69m<sup>2</sup> GFA)

Convenience Store  
(≈89m<sup>2</sup> GFA)

Kitchen  
(≈30m<sup>2</sup>GFA)

Existing Fuel Bowsers

Restaurant  
(≈75m<sup>2</sup>GFA)

Existing Fuel Bowser

Figure 2.4: Restaurant/Kitchen GFAs and Fuel Bowsers Location

It shall be noted that the existing service station/accommodation facility/caravan

park/restaurant at the subject sites is an approved development, and the service station has been operating since the year 2008.

2.3

Access

The access to the subject site is currently via two (2) existing driveways located at Wallace

Road as follow:

- 

Access Driveway 1 on Lot 3/I9191 – approximately 8.5m wide; and

- 

Access Driveway 2 on Lot 4/I9191 – approximately 5.0m wide.

Both access driveways are currently configured as all-movement access, i.e. ingress and egress.

The subject site current access driveways are shown in Figure 2.4.

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Driveway 1

Wallace Road

Driveway 2

Figure 2.4: Subject Site Access (Source: QLD Globe)

The existing access driveways are also illustrated in Figures 2.5 and 2.6.

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≈ 8.5m wide

Figure 2.5: Access Driveway 1 (Lot 3/I9191)

≈ 5.0m wide

Figure 2.6: Access Driveway 2 (Lot 4/I9191)

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## 2.4

### Key Roads

Key attributes of the surrounding road networks in the proximity of the subject sites are summarised in Table 2.1.

Table 2.1: Key Roads Attributes

#### Attribute

Bruce Highway

Wallace Road

Road Hierarchy

Highway

Local Road

Jurisdiction

DTMR

BSC

Posted Speed (km/h)

100km/h

60km/h

Predominant Land Use

State-Controlled Road

Rural Residential/Farming

Kerb and Channel

No

No

On-street Parking

No

Yes (fronting the subject site)

Concrete Footpath

No

No

Principal Cycle Network

No

No

Bicycle Lane



No

No

Public Bus Route

No

No

Traffic count data for the adjacent section of Bruce Highway fronting the subject site, was obtained from DTMR 2012-2022 Traffic Census Data. The TMR traffic count sites (Site 91439 and 160425) are located at the Bruce Highway, approximately 13km north and 6km south of the subject site, as illustrated in Figure 2.7.

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Traffic Count Site 91439  
Home Hill  
Township

Subject Site

Traffic Count Site 160425

Figure 2.7: DTMR Traffic Count Sites 91439 and 160425 (Source: QLD Government Open Portal Data)

The TMR 2022 traffic data is summarised below:

- 

TMR Count Site 91439

- > Annual Average Daily Traffic (AADT): 7,384 vehicle per day (vpd)
- > Heavy Vehicle % (HV%): 18.41%
- > Annual segment growth:

- 

Growth last year: 3.29%

- 

Growth last 5 years: 1.44%

- 

Growth last 10 years: 0.66%

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- 

TMR Count Site 160425

- > Annual Average Daily Traffic (AADT): 3,203 vehicle per day (vpd)

- > Heavy Vehicle % (HV%): 23.43%

- > Annual segment growth:

- 

Growth last year: N/A

- 

Growth last 5 years: N/A

- 

Growth last 10 years: N/A

Wallace Road traffic data was not available at the time of this traffic impact assessment.

2.5

Active and Public Transport

There are currently no pedestrian/cyclist and public transport facilities (i.e. bus stops and trains stations) in the vicinity of the subject site or key roads.

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### 3.0

#### PROPOSED DEVELOPMENT

### 3.1

#### Development Description

The proposed development involves:

- 

Relocation of existing three (3) fuel bowzers in vicinity of Driveway 1 to Lot 2/I9191;

- 

Construct a new canopy structure to the relocated three (3) fuel bowzers;

- 

Concrete hardstand for the new canopy structure;

- 

Install a new 68,000 litre above ground fuel tank;

- 

Widening the existing Driveway Crossover 1 and 2 to approximately 16m and 8m wide, respectively; and

- 

Widening of existing internal driveway (where required).

All the existing uses such as convenience store, accommodation facility, caravan park and

restaurants service will remain with no new uses introduced.

The layout of the proposed site works is illustrated in Figure 3.1 and included in Attachment

D.

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## Proposed Works Extent

Figure 3.1: Overall Development Layout (Source: Kalra Group)  
3.2

### Operation

It is assumed that the proposed works indicated in Section 3.1 will be completed in late 2024/early 2025, subject to development approval and the construction program being finalised.

### 3.3

#### Access Arrangement

It is proposed to retain the existing two (2) site access points at Wallace Road to service the site.

As indicated in Section 3.1, the existing Access Driveway 1 and 2 will be widened to 16m and 8m wide, respectively to provide safer maneuverability and accessibility of the site. Both

Access Driveway 1 and 2 will remain as all-movement access driveways, i.e. ingress and egress.

No new access location to the external road network is proposed.

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### 3.3.1

#### Access Driveway 1 (Ingress/egress)

The Access Driveway 1 at Wallace Road is located approximately 8m from the Bruce Highway auxiliary left turn lane (measured at tangent point) as shown in Figure 3.2.

#### Access Driveway 1

(Indicative widening extent)

Wallace Road

#### Figure 3.2: Access Driveway 1 Location

The Access Driveway 1 location comply with the Australian Standard AS2890.1:2004 Parking

Facilities – Part 1: Off-Street Car Parking - Access Driveway Location requirement, as shown in Figure 3.3.

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Figure 3.3: Prohibited Locations of Access Driveways (Source: AS2890.1:2004, Figure 3.1)

Currently there is a power pole located in vicinity of the Access Driveway 1. The proposed

driveway crossover edge clearance to the existing power pole is approximately 0.9m, as

shown in Figure 3.4. It is recommended that the proposed driveway crossover edge shift

further east, to maintain a minimum of 1m clearance to the existing power pole.

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Proposed New Driveway  
Crossover Edge

≈ 0.90m

Figure 3.4: Existing Power Pole in vicinity of Access Driveway 1  
3.3.2

Access Driveway 2 (Egress only)

The Access Driveway 2 at Wallace Road is located approximately 22m from the  
Bruce

Highway auxiliary left turn lane as shown in Figure 3.5.

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Access Driveway 2  
(Indicative widening extent)

≈ 55.0m

Wallace Road

Figure 3.5: Access Driveway 2 Location

The Access Driveway 2 location comply with the Australian Standard AS2890.1:2004  
Parking  
Facilities – Part 1: Off-Street Car Parking - Access Driveway Location  
requirement (refer  
Figure 3.3).  
3.4

Servicing

Upon discussion with Karla Group, the largest service vehicles assessing the  
site for bulk  
fueling will be a 19m long articulated vehicle (AV) which generated to/from  
Townsville. The  
19m AV will be accessing the new 68,000 litre above ground fuel tank, as shown  
in Figure  
3.6.

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Figure 3.6: 19m AV Swept Path (for Bulk Fueling)

All other heavy vehicles up to 19m AV may access the high flow fuel bowser on the eastern side for fuel filling. The 19m AV swept path accessing the high flow fuel bowser is shown in Figure 3.7.

Figure 3.7: 19m AV Swept Path (Accessing High Flow Fuel Bowser)

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The swept path of the 19m AV exiting the site via Access Driveway 2 is shown in Figure 3.8.

#### Proposed New Driveway Crossover Edge

##### Figure 3.8: 19m AV Swept Path (Exiting via Access Driveway 2)

Based on Figure 3.6, the 19m AV would require utilising most of the driveway width when

accessing the site for bulk fueling. However, re-fueling is expected to occur outside of peak

times and this arrangement is not expected to significantly affect operations and safety of

Access Driveway 1.

Based on Figure 3.7, the 19m AV can access the high flow fuel bowser on the eastern side

safely without restricting access of the other vehicles.

Based on Figure 3.8, the 19m AV exiting Driveway Access 2 may be impacted by the parked

vehicles at Wallace Road. It is recommended that "No Stopping" signs be installed at the

existing Access Driveway 2 (as shown in Figure 3.8) to prevent vehicles parked too close to

the driveway and subsequently impact the 19m AV exit manoeuvre.

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#### 4.0

#### QUEUE ANALYSIS (SERVICE STATION)

##### 4.1

##### Existing Site Traffic Generation (Service Station Only)

Traffic generation rates for the existing service station were sourced from the ITE Trip Generation Manual 10th Edition, using "Gasoline/Service Station with Convenience Store

(945)" land use as a reference.

The trip rates which were used to estimate the traffic generation for the existing service station are as follows:

- 

Weekday AM peak hour: 12.47 vehicle per hour (vph) per bowser

- 

Weekday PM peak hour: 13.99 vph per bowser

Using the average peak rate of 13.23 vph per bowser, the estimated traffic generation from the existing service station was 79 vph (i.e.  $13.23 \times 6$  fueling positions). Considering the existing service station is in a rural environment and adjacent large scale service stations such as United Petroleum and Liberty Oil (under construction) in Home Hill township, the existing service station traffic generation in fact would be lower compared to a standard and modern large-scaled service station. Therefore, a 25% reduction factor is applied to the peak hour traffic generation. The revised peak hour traffic generation from the existing service station was estimated to be 60 vph (i.e.  $79 \text{ vph} \times 75\%$ ).

##### 4.2

##### Stacking Capacity

As indicated earlier, the peak hour traffic generation from the existing service station was 60

vph (i.e. 30 inbound / 30 outbound).

The 30 inbound trips during the peak hour across 6 fuel-filling points result in six (6) cars

being serviced per fill point in one hour (i.e.  $30 \text{ veh} / 6 \text{ fill points} = 5 \text{ veh per fill point}$ ). This

results in an average of 10 minutes for each car at each fill point to be serviced (i.e.  $60 \text{ min} /$

$5 \text{ veh} = 12 \text{ min per veh}$ ). However, practical experience indicates that the typical rate of

service per fill point (time taken for a vehicle to arrive, park at a fill point, get fuel, pay for fuel

and leave the fill point and service station site) is usually around 3 minutes during peak times.

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If conservatively a 5 minutes service time is adopted, then up to twelve (12) cars can be serviced per fill point within one hour (i.e.  $60 \text{ min} / 5 \text{ min per veh per fill points} = 12 \text{ veh per hour per fill point}$ ) which in turn results in up to seventy two (72) cars in total serviced in one hour within the service station ( $12 \text{ veh per hour per fill point} \times 6 \text{ fill points} = 72 \text{ veh per hour}$ ). This analysis indicates that conservatively the service station can service forty-two (42) more vehicles than the highest peak hour trip rate. However, as evident from Figure 4.1, in addition to the six (6) vehicles parked at the bowzers, at least another ten (10) vehicles can comfortably be stacked behind the cars filling up at the bowzers without impacting the accessibility of Access Driveway 1.

Figure 4.1: Stacking Analysis

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## 5.0

### ROAD SAFETY ASSESSMENT

## 5.1

### Crash Data

Crash history data from QLD Globe indicates that there have been four (4) crashes reported in the vicinity of the subject site, at Wallace Road and Bruce Highway, as shown in Figure 5.1.

### Subject Sites Boundary

#### Wallace Road

#### Crash 3

#### Crash 1

#### Crash 2

#### Crash 4

Figure 5.1: QLD Globe Historical Crash (Source: QLD Globe)  
The crashes were reported in 2001 and 2004, approximately 20 - 23 years ago.  
Details of the crashes are summarised in Table 5.1.

Table 5.1: Historical Crash Details

Crash

No

Date

Time

DCA

Severity

Comment

1

Jul-2004

12pm

301

Property damage  
only

Veh'S Same Direction: Rear End

2

Sept-2001

2pm

201

Fatal

Veh'S Opposite Approach: Head  
On

3

Apr-2004

2pm

406

Minor Injury

4

Dec-2001

4pm

202

Property damage  
only

Veh'S Manoeuvring: Leaving  
Driveway

Veh'S Opposite Approach: ThruRight

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There has been no crash recorded at the Bruce Highway/Wallace Road intersection and in vicinity of the subject site access driveways in the past five (5) years. It is noted that recorded data does not include any "Property damage only" crashes since January 2021.

5.2

## Sight Distance Assessment

### 5.2.1

#### Subject Site Access Driveways

The Stopping Sight Distance (SSD) requirements for access driveway, in accordance with the Australian Standard AS2890.1:2004 Parking Facilities – Part 1: Off-Street Car Parking, is illustrated in Figure 5.2.

#### Figure 5.2: Sight Distance Requirements at Access Driveways

For a 60km/h speed environment, the minimum required sight distance for the Wallace Road through traffic is ranged from 65m to 83m.

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The minimum SSD at the subject site access driveways is illustrated in Figures 5.3 and 5.4.

Driver Sight Line

Wallace Road

SSD 83m  
(Desirable 5s gap)  
Conflict Point

Figure 5.3: Access Driveway 1 - SSD Assessment

Driver Sight Line

Wallace Road  
SSD 83m  
(Desirable 5s gap)

Conflict Point

Figure 5.4: Access Driveway 2 - SSD Assessment

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The Bruce Highway left turning traffic sight line to Access Driveway 1 and 2 also illustrated in Figures 5.5 and 5.6.

Access Driveway 1

Figure 5.5: Bruce Highway Left Turning Traffic Sight Line towards Access Driveway 1

(Source: Google Map Street View, November 2022)

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## Access Driveway 2

Figure 5.6: Bruce Highway Left Turning Traffic Sight Line towards Access Driveway 2

(Source: Google Map Street View, November 2022)

Based on Figures 5.3, 5.4, 5.5 and 5.6, the Bruce Highway left turn and Wallace Road

through traffic has sufficient sight line to observe a vehicle on Access Driveway 1 and 2, and to decelerate to a stop before reaching the collision point, if required.

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### 5.2.2

Bruce Highway/Side Road Intersection (Exit Point)

The Safe Intersection Sight distance (SISD) was assessed in accordance with AGRD Part

4A: Unsignalised and Signalised Intersections, Section 3.2.2.

For a 100km/h speed environment (i.e. 110km/h design speed), the desirable SISD is approximately 285m. The desirable SISD and sight line is illustrated in Figure 5.7.

Wallace Road

Driver Sight Line

SISD 285m

Conflict Point

Figure 5.7: Bruce Highway/Side Road Intersection (Exit Point) – SISD Assessment  
Based on Figure 5.7, the Bruce Highway through traffic has sufficient sight line to observe a vehicle on the side road or the conflict point, and to decelerate to a stop before reaching the collision point, if required.

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### 5.3

#### Risk Assessment (Access Driveways)

A road safety risk assessment has been undertaken in accordance with TMR's Guide to

Traffic Impact Assessment (GTIA) (2018). The GTIA outlines that:

"Safety is not readily quantifiable as efficiency and is scored based on expert opinion on the

changes to likelihood and/or consequence of a risk being realized.

The condition of road cannot be defined absolutely as being safe or unsafe.

Rather, road

safety is a relative measure benchmarked against an existing condition or an acceptable risk

threshold."

The traffic safety risks were identified and then scored using the risk scoring matrix outlined

in the GTIA, as shown in Figure 5.8. These identified risks relate to the traffic movements at

the existing access driveways of the subject sites.

#### Figure 5.8: Safety Risk Score Matrix (Source: TMR's GTIA)

The risk assessment has been conducted for the proposed development access driveways

which specifically address the:

- 

Item 1 - Left turns into the site (rear-end crash with left turn entry: DCA Code 302)

- 

Item 2 - Right turns into the site (side-swipe crash with right turn entry: DCA Code 202)

- 

Item 3 - Right turns into the site (rear-end crash with right turn entry: DCA Code 303)

- 

Item 4 - Left/Right turns out of the site (Side-swipe crashes with adjacent through movements: DCA Codes 102 and 103)

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The results of the risk assessment are summarised in Table 5.2.  
Table 5.2: Road Safety Risk Assessment

Risk Score

L

2

1

L

(rear-end crash)

Bruce Highway auxiliary left lane traffic and Wallace Road through traffic (eastbound) has sufficient sight line to development left turn traffic into access driveways due to relatively straight and flat road geometry along Bruce Highway auxiliary left turn lane and Wallace Road.

Risk Score

Consequence

1

Consequence

Likelihood

2

Mitigation Measures

Likelihood

Risk Score

Item 1 - Left turns  
into the site

Consequence

Risk Item

With  
development  
& Mitigation

With  
Development

Likelihood

Without  
Development

-

-

- 
- 
- 
- 
- 
- 
- 

In addition, the Bruce Highway auxiliary left lane traffic will enter Wallace Road at low speed, i.e. in the order of 30-40km/h, due to the existing road geometry (i.e. skewed TIntersection). Wallace Road is currently signed posted as 60km/h which is considered a low-speed environment.  
Refer also Figures 5.5 and 5.6.  
No action required.

Item 2 - Right turns  
into the site

- 2
- 2
- L
- 2
- 2
- L

(side-swipe crash)

Bruce Highway auxiliary left lane traffic (eastbound) has sufficient SSD to the development traffic turning into the driveways.  
Refer also Section 5.2.1 for SSD assessment.  
No action required.

Item 3 - Right turns  
into the site  
(rear-end crash)

- 2
- 1
- L
- 2
- 1
- L

Wallace Road through traffic (westbound) has sufficient sight line to development right turn traffic into access driveways due to relatively straight and flat road geometry along Wallace Road.

Wallace Road is currently signed posted as 60km/h which is considered a low-speed environment.

No action required.

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Item 4 - Left/Right  
turns out of the site  
(side-swipe crashes)

2

2

L

2

2

L

Bruce Highway auxiliary left lane traffic  
(eastbound) and Wallace Road through  
traffic has sufficient SSD to the development  
traffic exiting the driveways.

-

-

-

Refer also Section 5.2.1 for SSD  
assessment.  
No action required.

It shall be noted that the development site traffic is not expected to increase as the proposed works only involved relocation of the existing fuel bowzers with no new uses introduced. Subsequently, the proposed development traffic number will likely maintain at the predevelopment level. In addition, there has been no crash recorded at the Bruce Highway/Wallace Road intersection and in vicinity of the subject site access driveways in the past five (5) years which indicated that the road users are familiar with the road environment and traffic condition in the area. Considering the above and based on the risk assessment, it is anticipated that the proposed works at the existing subject sites is not expected to have safety impact on the traffic operation at Bruce Highway and Wallace Road. In fact, the proposed works may improve safety of the subject site driveways due to the fuel bowzers being relocated further into the site.

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## 6.0

### PRE-LODGEMENT ADVICE (SARA CONCERNS) DISCUSSION

#### 6.1

##### SARA Concern (Item 3(a))

"As per the Swept Path Analysis (sheet 2 of 3) prepared by Noble Consulting Engineers, dated 8/02/24, Drawing no: 230110-SK02 and Revision A, it is understood that the proposed development seeks to accommodate B-Double vehicles with a maximum length of 26 metres.

Wallace Road is not a heavy vehicle route and is not intended to support heavy vehicles of

this size. As such, Wallace Road may not be able to support vehicles of this length, and the

Wallace Road and Bruce Highway intersection may require further upgrades to facilitate safe

turn movements into the premises."

##### Response:

It is noted that Wallace Road is not a heavy vehicle route and all heavy vehicles greater than

19m AV will require a National Heavy Vehicle Regulator (NHVR) permit to access Wallace

Road.

The B-Double swept path analysis was conducted for sensitivity check purpose only, as a

"Check Vehicle". The existing service station is not intended or seeks to accommodate BDouble vehicles.

Considering that the Bruce Highway is a designated B-Double route, the swept path analysis

was to assess the impact, if a B-Double with NHVR permit were to access the service station.

It is not expected that B-Double will be visiting the service station on regular basis.

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## 6.2

### SARA Concern (Item 3(b))

"Similar to the above, upon review of the heavy vehicle swept path plans (sheets 1 - 3), there appears to be limited queuing and maneuvering space available for heavy vehicles on-site.

This has the potential to result in vehicles queuing in the state-controlled road intersection,

which is not supported by SARA."

### Response:

Refer to Section 3.4 for the 19m AV swept path analysis and findings.

Refer to Section 4.0 for queuing and stacking assessment of the service station.

It shall be noted that the existing service station/accommodation

facility/caravan

park/restaurant at the subject sites is an approved development, and the service station has

been operating since the year 2008. Any queuing issue should have been dealt with in the

previous development application between the developer and SARA/TMR.

The proposed development only seeks relocation of the existing three (3) fuel bowzers

adjacent to the Access Driveway 1 to further inside the site, i.e. Lot 2/I9191.

Subsequently,

this will improve any queuing issues (if any) at Wallace Road or Bruce Highway.

## 6.3

### SARA Concern (Item 3(c))

"The existing vehicular access is congested with utility poles, which is an obstacle to safe

and efficient vehicular access. This, in addition to the proposed access being located within

100 metres of the Bruce Highway and Wallace Road intersection, may cause queuing into

the Bruce Highway, which is not supported by SARA."

### Response:

As indicated in Section 3.3.1, it is recommended that the proposed driveway crossover (at

Access Driveway 1) to shift further east, to maintain a minimum of 1m clearance between the

existing power pole and driveway edge.

As shown in Figure 6.1, the 19m AV maintains a clearance of approximately 1.1m to 2.5m

to the existing power poles while accessing the new 68,000 litre above ground fuel tank and

the high flow fuel bowser on the eastern side.

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≈ 1.1m

Power Pole 2

Power Pole 1

Figure 6.1: 19m AV Swept Path Clearance to Existing Power Poles

If required, traffic bollards and chevron pavement marking can be provided at the Power Pole

2 location to improve the appearance of the power pole, guide the traffic traversing in the

area and prevent vehicle intrusion.

Refer to Section 4.0 for queuing and stacking assessment of the service station.

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#### 6.4

##### SARA Concern (Item 3(d))

"The proposed development seeks to intensify the volume of vehicles (including heavy vehicles) utilising the Bruce Highway and Wallace Road intersection. This has not been addressed in the material provided to date, with the proposed increase in heavy vehicle movements at this intersection having the potential to adversely impact upon the safety of the state-controlled road network."

##### Response:

The proposed development only seeks relocation of the existing three (3) fuel bowzers.

All the existing uses such as convenience store, accommodation facility, caravan park and restaurants service will remain with no new uses introduced.

Subsequently, the proposed development traffic number will likely maintain at the predevelopment level.

#### 6.5

##### SARA Concern (Item 3(e))

"Insufficient information has been provided regarding the exit point onto the Bruce Highway from the connection road between Wallace Road and the state-controlled road. The development cannot be supported if safe exit manoeuvres onto the Bruce Highway cannot be achieved by heavy vehicles at this intersection. As such, major road works may be required at (or near) this intersection to facilitate safe vehicular movements from the site."

##### Response:

It is anticipated that the 19m AV will be exiting Wallace Road onto Bruce Highway at the existing intersection located further east to the subject site as shown in Figure 6.2.

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Subject Sites Boundary

Wallace Road

Bruce Highway Exit Point

Figure 6.2: Bruce Highway Exit Point (Source: QLD Globe)

The 19m AV swept path analysis at the Bruce Highway exit point is illustrated in Figure 6.3.

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Wallace Road

Figure 6.3: 19m AV Swept Path at Bruce Highway Exit Point

As demonstrated in Figure 6.3, the 19m AV can safely manoeuvre out from the side road

onto Bruce Highway at the exit point.

Refer to Section 5.2.2 for SISD assessment.

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#### ASSESSMENT FINDINGS AND SUMMARY

The proposed works associated with the existing development has been evaluated in terms of its traffic and safety operation. The main points to note are:

- 

The proposed development comprises of:

- > Relocation of existing three (3) fuel bowers in vicinity of Driveway 1 to Lot 2/I9191;
- > Construct a new canopy structure to the relocated three (3) fuel bowers;
- > Concrete hardstand for the new canopy structure;
- > Install a new 68,000 litre above ground fuel tank;
- > Widening the existing Driveway Crossover 1 and 2 to approximately 16m and 8m wide, respectively; and
- > Widening of existing internal driveway (where required).

- 

All the existing uses such as convenience store, accommodation facility, caravan park and restaurants service will remain with no new uses introduced;

- 

It is anticipated the proposed works will be completed in late 2024/early 2025, subject to development approval and the construction program being finalised;

- 

Access to the development site is proposed via existing two (2) site access points at Wallace Road;

- 

The existing Access Driveway 1 and 2 will be widened to 16m and 8m wide, respectively to provide safer maneuverability and accessibility of the site;

- 

Both Access Driveway 1 and 2 will remain as all-movement access driveways, i.e. ingress and egress;

- 

Both Access Driveways 1 and 2 location complies with the Australian Standard AS2890.1:2004 Parking Facilities – Part 1: Off-Street Car Parking - Access Driveway Location requirement;

- 

The largest service vehicles accessing the site for bulk fueling will be a 19m long articulated vehicle (AV) which generated to/from Townsville;

- 

All other heavy vehicles up to 19m AV may access the high flow fuel bowser on the eastern side for fuel filling;

-



The 19m AV would require utilising most of the driveway width when accessing the site for bulk fueling. However, re-fueling is expected to occur outside of peak times and this arrangement is not expected to significantly affect operations and safety of Access Driveway 1;

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- 

The 19m AV can access the high flow fuel bowser on the eastern side safely without restricting access of the other vehicles;

- 

The 19m AV exiting Driveway Access 2 may be impacted by the parked vehicles at Wallace Road;

- 

The existing service station queue analysis indicated that under peak operating conditions, no stacking or queue backs onto Wallace Road and Bruce Highway are expected;

- 

There has been no crash recorded at the Bruce Highway/Wallace Road intersection and in vicinity of the subject site access driveways in the past five (5) years;

- 

The existing Access Driveway 1 and 2 SSD consistent with Australian Standard AS2890.1:2004 Parking Facilities – Part 1: Off-Street Car Parking requirements;

- 

The existing Bruce Highway/Side Road Intersection (Exit Point) SISD consistent with AGRD Part 4A: Unsignalised and Signalised Intersections requirements;

- 

Swept path analysis indicated that the 19m AV can safely manoeuvre out from the side road onto Bruce Highway (at the exit point);

- 

It shall be noted that the development site traffic is not expected to increase as the proposed works only involved relocation of the existing fuel bowzers with no new uses introduced;

- 

The proposed development traffic number will likely maintain at the predevelopment level;

- 

Based on the risk assessment, it is anticipated that the proposed works at the existing subject sites is not expected to have safety impact on the traffic operation at Bruce Highway and Wallace Road; and

- 

In fact, the proposed works may improve safety of the subject site driveways due to the fuel bowzers being relocated further into the site.

June 13, 2024



Recommendation:

- 

Shift the Access Driveway 1 proposed crossover edge shift further east, to maintain a minimum of 1m clearance to the existing power pole (refer Section 3.3.1);

- 

Install new "No Stopping" signs at the existing Access Driveway 2 (refer Figure 3.8);  
and

- 

Install traffic bollards and chevron pavement marking at the Power Pole 2 location (refer Section 6.3).

Based on the assessment (in conjunction with the recommendation), the proposed works are not expected to have any adverse impact on the safety or operational efficiency of the road networks.

In conclusion, the findings of this Traffic Study are supportive of the proposed development.

June 13, 2024

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CERTIFICATION STATEMENT AND AUTHORISATION

This technical memorandum has been prepared by Fei Ngoo (RPEQ No 23918), a Principal Civil/Traffic Engineer with 16+ years' experience in local government, urban and rural infrastructure, traffic engineering and road safety.

.....  
Fei Ngoo – Principal Civil/Traffic Engineer (RPEQ No 23918)

June 13, 2024

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Attachment A  
SARA Pre-Lodgement Advice

June 13, 2024

PA6-L

SARA reference:

2404-39870 SPL

10 May 2024  
Singh Homez Pty Ltd  
c/- Milford Planning  
PO Box 5463  
TOWNSVILLE CITY QLD 4810  
info@milfordplanning.com.au  
Attention:

Mr George Milford

Dear Mr Milford

SARA Pre-lodgement advice – 1-7 Wallace Road, Inkerman  
I refer to your pre-lodgement request received on 5 April 2024 in which you sought pre-lodgement advice from the State Assessment and Referral Agency (SARA) regarding the below proposed development at the above address. This notice provides advice on aspects of the proposal that are of relevance to SARA.

SARA's understanding of the project  
SARA understands the proposed development involves a Material change of use (MCU) to upgrade an existing service station located at 1-7 Wallace Road, Inkerman, formally described as Lots 1 to 4 on I9191 within the local government area of Burdekin Shire Council. The subject site encompasses an area of approximately 7,330 square metres and currently operates as a service station, a food and drink outlet, and an accommodation facility. Access to the proposed development will be provided via Wallace Road (a local road) which intersects with the Bruce Highway (a state-controlled road) within close proximity of the premises.  
SARA understands you are seeking advice regarding the proposal and the relevant state-controlled road interests, particularly in relation to the proposed earthworks, access strategy and stormwater management (quantity and quality).  
Supporting information  
The advice in this letter is based on the following documentation that was submitted with the prelodgement request.  
Drawing/report title

Prepared by

Date

Details & Contour Survey, Lots 1-4 on I9191

Hansen Surveys

July 2022

Kalra Project Management

17/8/2023 to 5/4/2024

1-7 Wallace Road, Inkerman  
Proposal plans

Page 1 of 6

North and North West regional office  
Level 4, 445 Flinders Street, Townsville  
PO Box 5666, Townsville QLD 4810



2404-39870 SPL

Site Based Stormwater Management Plan

STP Consultants

5/4/2024

Swept Path Analysis, 19.0m Semi-Trailer

Noble Consulting  
Engineers

8/2/2024

Swept Path Analysis, 26.0m B-Double

Noble Consulting  
Engineers

8/2/2024

Swept Path Analysis, 12.5m Single Unit  
Truck/Bus

Noble Consulting  
Engineers

8/2/2024

Pre-lodgement advice

The following advice outlines the aspects of the proposal that are of relevance to SARA.

SARA's jurisdiction and fees

1.

The application will require referral to SARA under the following provision of the Planning Regulation 2017 (Planning Regulation):



Schedule 10, Part 9, Division 4, Subdivision 2, Table 4, Item 1 - Material change of use of premises within 25m of a state transport corridor and within 100m of a state-controlled road intersection. This will require a fee of 1,714 fee units to be paid as detailed under Schedule 10, Part 9, Division 4, Subdivision 2, Table 4, Item 8 (b)(ii).

To assist with determining the correct fee for a development application, a schedule of fees converting the fee units to dollar values is available on the Queensland Government website available at:

[https://planning.statedevelopment.qld.gov.au/\\_\\_data/assets/pdf\\_file/0024/82275/planningregulation-2017-fee-schedule.pdf](https://planning.statedevelopment.qld.gov.au/__data/assets/pdf_file/0024/82275/planningregulation-2017-fee-schedule.pdf). In accordance with section 72A of the Planning Regulation, fee amounts are to be rounded to the nearest dollar figure.

Key matters and action items  
Stormwater Management

2.

A Site-Based Stormwater Management Plan (SBSMP) was provided as part of this pre-lodgment advice request. Whilst it is acknowledged the proposal seeks to further intensify the existing land

uses within the subject site, based on the SBSMP it appears that the expected increase in stormwater runoff will be minimal. As such, as long as the expected slight increase in stormwater runoff from the development is captured within the lawful point of discharge and does not create any adverse stormwater impacts to the state-controlled road network, the development will be able to comply with performance outcomes (PO) 8-P014 of State code 1: Development within a state-controlled road environment (State code 1) of the State Development Assessment provisions, version 3.10 (SDAP). Please note: the SBSMP must be updated to reflect any changes made to the proposal plans as necessary to address other concerns as detailed in the advice below, or any changes made during the design phase.

Traffic impact assessment and access

3.

A Traffic Impact Assessment (TIA) is required to be submitted as part of the application material to demonstrate that all vehicles associated with the proposed development can safely and efficiently access the subject site. The TIA is also required to confirm that the proposed development will not adversely impact upon the safety or operating performance of the broader state transport network.

State Assessment and Referral Agency

It is noted that limited information was provided with respect to the traffic generation, road access design, and safety impacts associated with the proposed development. As such, the extent of compliance with P016, P017, P019, P020, P025, and P026 of State code 1 is unable to be determined.

Notwithstanding, based on the material provided, the following concerns will need to be

addressed in a future application:

(a) As per the Swept Path Analysis (sheet 2 of 3) prepared by Nobel Consulting Engineers, dated 8/02/24, Drawing no: 230110-SK02 and Revision A, it is understood that the proposed development seeks to accommodate B-Double vehicles with a maximum length of 26 metres. Wallace Road is not a heavy vehicle route and is not intended to support heavy

vehicles of this size. As such, Wallace Road may not be able to support vehicles of this length, and the Wallace Road and Bruce Highway intersection may require further upgrades

to facilitate safe turn movements into the premises.

(b) Similar to the above, upon review of the heavy vehicle swept path plans (sheets 1 - 3), there appears to be limited queuing and manoeuvring space available for heavy vehicles on-site.

This has the potential to result in vehicles queuing in the state-controlled road intersection, which is not supported by SARA.

(c) The existing vehicular access is congested with utility poles, which is an obstacle to safe and efficient vehicular access. This, in addition to the proposed access being located within 100

metres of the Bruce Highway and Wallace Road intersection, may cause queuing into the

Bruce Highway, which is not supported by SARA.

(d) The proposed development seeks to intensify the volume of vehicles (including heavy

vehicles) utilising the Bruce Highway and Wallace Road intersection. This has not been

addressed in the material provided to date, with the proposed increase in heavy vehicle movements at this intersection having the potential to adversely impact upon the safety of

the state-controlled road network.

(e) Insufficient information has been provided regarding the exit point onto the Bruce Highway

from the connection road between Wallace Road and the state-controlled road. The development cannot be supported if safe exit manoeuvres onto the Bruce Highway cannot

be achieved by heavy vehicles at this intersection. As such, major road works may be

required at (or near) this intersection to facilitate safe vehicular movements from the site.

As evidenced above, insufficient detail has been provided to SARA to demonstrate that the

proposed development can operate without unacceptably impacting upon the safety and

operating performance of the state-controlled road network.

Proposal Plans

Noting the proposal plans which must be submitted with your application (listed in item 4 below), please ensure that any proposed buildings, structures, advertising devices, or landscaping does not block sight lines towards the state-controlled road or pedestrian networks to ensure the safety of all users of the state-controlled road network. Similarly, all aspects of the development must be capable of being maintained from within the subject site to ensure compliance with P01P07 of State code 1.

Lodgement material  
4.

It is recommended that the following information is submitted when referring the application to SARA:



A completed copy of DA form 1.

State Assessment and Referral Agency

Page 3 of 6



A full response to State code 1 of the current version of the SDAP. Refer to the SDAP

Guideline for State Code 1 for assistance in responding to the relevant POs for assessable development in a state-controlled road environment.



Landowner's consent (where required).



Relevant plans as per the DA Forms guide, including, at a minimum:

a)

A detailed site plan, showing:

(i)

vehicle access and exit locations and types (including dimensions)

(ii)

the location and layout of all built form and structures located within the subject site,  
including dimensioned setbacks from each property boundary

(iii)

all vehicle manoeuvring areas and driveways

(iv)

all car parking stalls – compliant with the relevant Australian Standards

(v)

any proposed external road works necessary to facilitate safe and efficient access  
to and from the subject site (informed by the TIA mentioned in item 3 and further  
below)

(vi)

the location of landscaped areas, including detail regarding type and size of planting species

(vii) the extent of any earthworks and associated retaining structures within the subject site

(viii) the location of existing and proposed utilities and infrastructure connections required to service the proposed development (i.e. stormwater drainage etc.).

b) Scaled elevation plans, and where necessary section plans, to clearly illustrate the proposed development's interface with the state-controlled road network.



A TIA, prepared in accordance with the Department of Transport and Main Roads' (DTMR)

Guide to Traffic Impact Assessment – December 2018 (GTIA) (available at <https://www.tmr.qld.gov.au/business-industry/Technicalstandards-publications/Guide-toTraffic-Impact-Assessment>). The TIA must be prepared and certified by a suitably qualified

registered professional engineer of Queensland and must include, but not be limited to, the following information:

(a) Identify the impact assessment area by impact type in accordance with section 6.4 of the GTIA.

(b) Identify the extent of impacts generated by development traffic per impact type and impact assessment area. For example, demonstrate the spatial extent where development traffic exceeds 5% of the base traffic.

(a) Identify the construction phase duration for the proposed development.

(b) Identify all vehicle types to be used by the development (including during construction).

(c) Identify the expected traffic that will be generated by the development. If development is

to be staged, provide a break down into each stage, including a breakdown of development traffic i.e., staff, deliveries and heavy vehicles.

(d) Identify the expected traffic distribution on the road network as a result of the

development, including destinations.

(e) Provide an analysis for the proposed staging of the development (if applicable).

(f) Identify the impact the development may have on the safety, efficiency and condition of

State Assessment and Referral Agency

the state-controlled road.

(g) Demonstrate the state-controlled road intersection(s) can safely accommodate the largest design vehicle without negatively impacting the safety and operation of the statecontrolled road.

(h) Provide a road safety assessment in accordance with section 9.3.3 of the GTIA and recommend mitigation measures where required to ensure no adverse impact on the safety and efficiency of the state-controlled road network. Demonstrate to a reasonable level of details that any mitigation measures can be implemented in accordance with

DTMR's Road Planning and Design Manual (2nd Edition).

(i) Demonstrate that the development will not impose traffic loadings on the state-controlled road network that could be accommodated on the local road network.

(j) Demonstrate that there will be no disruption to the state-controlled road network during construction of the development.

■

The SBSMP provided with this request, updated to reflect any changes made to the proposal plans as a result of the above advice or any other changes made during the detailed design phase. Further guidance material regarding stormwater and drainage is available within DTMR's SDAP Supporting information : Stormwater and drainage in a statecontrolled road environment.

Future Prelodgment advice  
5.

Should the applicant wish to obtain more detailed advice, SARA welcomes subsequent prelodgement discussions where additional information is available. To request further pre-lodgement advice, please use the 'Related Actions' and 'Request more pre-lodgement advice from SARA' tabs in MyDAS2 under application 2404-39870 SPL.

This advice outlines aspects of the proposed development that are relevant from the jurisdiction of SARA.

This advice is provided in good faith and is:

■ based on the material and information provided to SARA

■ current at the time of issue

■ not applicable if the proposal is changed from that which formed the basis of this advice.

This advice does not constitute an approval or an endorsement that SARA supports the development

proposal. Additional information may be required to allow SARA to properly assess the development

proposal when a formal application has been lodged.

If you require further information please contact Solomon Johnstone, Planning Officer, on (07) 3882 8491

or via email [NQSARA@dasilgp.qld.gov.au](mailto:NQSARA@dasilgp.qld.gov.au) who will be pleased to assist.

Yours sincerely

Susan Kidd  
Manager (Regional Assessment and Projects)

State Assessment and Referral Agency





2404-39870 SPL

Development details  
Proposal:

Development Permit for a Material change of use (MCU)

Street address:

1-7 Wallace Road

Real property description:

Lot 1 to 4 on I9191

SARA role:

Referral Agency

Assessment Manager:

Burdekin Shire Council

Assessment criteria:

SDAP: State code 1

Existing use:

Service station, food and drink outlet, and accommodation facility

State Assessment and Referral Agency

Page 6 of 6

Attachment B  
Certificate of Approval  
(Caravan Park)

June 13, 2024











Attachment C  
Existing Site and Survey Plan

June 13, 2024



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HANSEN SURVEYS

22 QUEEN STREET

NORTH WARD, Q4810

TEL: 07 4724 2114

DETAIL & CONTOUR SURVEY

LOTS 1-4 on I9191

1-7 WALLACE ROAD, INKERMANN

MOB: 04 2916 4683

EMAIL: [gehansen@iprimus.com.au](mailto:gehansen@iprimus.com.au)

LOCAL AUTHORITY:

BURDEKIN SHIRE COUNCIL

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POWER POLE

STORMWATER PIT

TELECOM PIT

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DATE: JULY 2022

MERIDIAN: MGA Zone 55

CONTOUR INTERVAL: 0.2m

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Attachment D  
Proposed Site Works Plan

June 13, 2024

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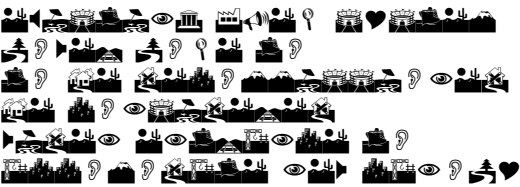
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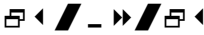


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fei@ncengineers.net.au

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230110-SK02



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PA6-L

SARA reference:

2404-39870 SPL

10 May 2024  
Singh Homez Pty Ltd  
c/- Milford Planning  
PO Box 5463  
TOWNSVILLE CITY QLD 4810  
info@milfordplanning.com.au  
Attention:

Mr George Milford

Dear Mr Milford

SARA Pre-lodgement advice – 1-7 Wallace Road, Inkerman  
I refer to your pre-lodgement request received on 5 April 2024 in which you sought pre-lodgement advice from the State Assessment and Referral Agency (SARA) regarding the below proposed development at the above address. This notice provides advice on aspects of the proposal that are of relevance to SARA.

SARA's understanding of the project  
SARA understands the proposed development involves a Material change of use (MCU) to upgrade an existing service station located at 1-7 Wallace Road, Inkerman, formally described as Lots 1 to 4 on I9191 within the local government area of Burdekin Shire Council. The subject site encompasses an area of approximately 7,330 square metres and currently operates as a service station, a food and drink outlet, and an accommodation facility. Access to the proposed development will be provided via Wallace Road (a local road) which intersects with the Bruce Highway (a state-controlled road) within close proximity of the premises.  
SARA understands you are seeking advice regarding the proposal and the relevant state-controlled road interests, particularly in relation to the proposed earthworks, access strategy and stormwater management (quantity and quality).  
Supporting information  
The advice in this letter is based on the following documentation that was submitted with the prelodgement request.  
Drawing/report title

Prepared by

Date

Details & Contour Survey, Lots 1-4 on I9191

Hansen Surveys

July 2022

Kalra Project Management

17/8/2023 to 5/4/2024

1-7 Wallace Road, Inkerman  
Proposal plans

Page 1 of 6

North and North West regional office  
Level 4, 445 Flinders Street, Townsville  
PO Box 5666, Townsville QLD 4810

2404-39870 SPL

Site Based Stormwater Management Plan

STP Consultants

5/4/2024

Swept Path Analysis, 19.0m Semi-Trailer

Noble Consulting  
Engineers

8/2/2024

Swept Path Analysis, 26.0m B-Double

Noble Consulting  
Engineers

8/2/2024

Swept Path Analysis, 12.5m Single Unit  
Truck/Bus

Noble Consulting  
Engineers

8/2/2024

Pre-lodgement advice

The following advice outlines the aspects of the proposal that are of relevance to SARA.

SARA's jurisdiction and fees

1.

The application will require referral to SARA under the following provision of the Planning Regulation 2017 (Planning Regulation):



Schedule 10, Part 9, Division 4, Subdivision 2, Table 4, Item 1 - Material change of use of premises within 25m of a state transport corridor and within 100m of a state-controlled road intersection. This will require a fee of 1,714 fee units to be paid as detailed under Schedule 10, Part 9, Division 4, Subdivision 2, Table 4, Item 8 (b)(ii).

To assist with determining the correct fee for a development application, a schedule of fees converting the fee units to dollar values is available on the Queensland Government website available at:

[https://planning.statedevelopment.qld.gov.au/\\_\\_data/assets/pdf\\_file/0024/82275/planningregulation-2017-fee-schedule.pdf](https://planning.statedevelopment.qld.gov.au/__data/assets/pdf_file/0024/82275/planningregulation-2017-fee-schedule.pdf). In accordance with section 72A of the Planning Regulation, fee amounts are to be rounded to the nearest dollar figure.

Key matters and action items  
Stormwater Management

2.

A Site-Based Stormwater Management Plan (SBSMP) was provided as part of this pre-lodgment advice request. Whilst it is acknowledged the proposal seeks to further intensify the existing land

uses within the subject site, based on the SBSMP it appears that the expected increase in stormwater runoff will be minimal. As such, as long as the expected slight increase in stormwater runoff from the development is captured within the lawful point of discharge and does not create any adverse stormwater impacts to the state-controlled road network, the development will be able to comply with performance outcomes (PO) 8-P014 of State code 1: Development within a state-controlled road environment (State code 1) of the State Development Assessment provisions, version 3.10 (SDAP). Please note: the SBSMP must be updated to reflect any changes made to the proposal plans as necessary to address other concerns as detailed in the advice below, or any changes made during the design phase.

Traffic impact assessment and access

3.

A Traffic Impact Assessment (TIA) is required to be submitted as part of the application material to demonstrate that all vehicles associated with the proposed development can safely and efficiently access the subject site. The TIA is also required to confirm that the proposed development will not adversely impact upon the safety or operating performance of the broader state transport network.

State Assessment and Referral Agency



It is noted that limited information was provided with respect to the traffic generation, road access design, and safety impacts associated with the proposed development. As such, the extent of compliance with P016, P017, P019, P020, P025, and P026 of State code 1 is unable to be determined.

Notwithstanding, based on the material provided, the following concerns will need to be

addressed in a future application:

(a) As per the Swept Path Analysis (sheet 2 of 3) prepared by Nobel Consulting Engineers, dated 8/02/24, Drawing no: 230110-SK02 and Revision A, it is understood that the proposed development seeks to accommodate B-Double vehicles with a maximum length of 26 metres. Wallace Road is not a heavy vehicle route and is not intended to support heavy

vehicles of this size. As such, Wallace Road may not be able to support vehicles of this length, and the Wallace Road and Bruce Highway intersection may require further upgrades

to facilitate safe turn movements into the premises.

(b) Similar to the above, upon review of the heavy vehicle swept path plans (sheets 1 - 3), there appears to be limited queuing and manoeuvring space available for heavy vehicles on-site.

This has the potential to result in vehicles queuing in the state-controlled road intersection, which is not supported by SARA.

(c) The existing vehicular access is congested with utility poles, which is an obstacle to safe and efficient vehicular access. This, in addition to the proposed access being located within 100

metres of the Bruce Highway and Wallace Road intersection, may cause queuing into the

Bruce Highway, which is not supported by SARA.

(d) The proposed development seeks to intensify the volume of vehicles (including heavy

vehicles) utilising the Bruce Highway and Wallace Road intersection. This has not been

addressed in the material provided to date, with the proposed increase in heavy vehicle movements at this intersection having the potential to adversely impact upon the safety of

the state-controlled road network.

(e) Insufficient information has been provided regarding the exit point onto the Bruce Highway

from the connection road between Wallace Road and the state-controlled road. The development cannot be supported if safe exit manoeuvres onto the Bruce Highway cannot

be achieved by heavy vehicles at this intersection. As such, major road works may be

required at (or near) this intersection to facilitate safe vehicular movements from the site.

As evidenced above, insufficient detail has been provided to SARA to demonstrate that the

proposed development can operate without unacceptably impacting upon the safety and

operating performance of the state-controlled road network.

Proposal Plans

Noting the proposal plans which must be submitted with your application (listed in item 4 below), please ensure that any proposed buildings, structures, advertising devices, or landscaping does not block sight lines towards the state-controlled road or pedestrian networks to ensure the safety of all users of the state-controlled road network. Similarly, all aspects of the development must be capable of being maintained from within the subject site to ensure compliance with P01P07 of State code 1.

Lodgement material  
4.

It is recommended that the following information is submitted when referring the application to SARA:



A completed copy of DA form 1.

State Assessment and Referral Agency

Page 3 of 6



A full response to State code 1 of the current version of the SDAP. Refer to the SDAP

Guideline for State Code 1 for assistance in responding to the relevant POs for assessable development in a state-controlled road environment.



Landowner's consent (where required).



Relevant plans as per the DA Forms guide, including, at a minimum:

a)

A detailed site plan, showing:

(i)

vehicle access and exit locations and types (including dimensions)

(ii)

the location and layout of all built form and structures located within the subject site,  
including dimensioned setbacks from each property boundary

(iii)

all vehicle manoeuvring areas and driveways

(iv)

all car parking stalls – compliant with the relevant Australian Standards

(v)

any proposed external road works necessary to facilitate safe and efficient access  
to and from the subject site (informed by the TIA mentioned in item 3 and  
further  
below)

(vi)

the location of landscaped areas, including detail regarding type and size of  
planting species

(vii) the extent of any earthworks and associated retaining structures within  
the subject  
site

(viii) the location of existing and proposed utilities and infrastructure  
connections

required to service the proposed development (i.e. stormwater drainage etc.).

b) Scaled elevation plans, and where necessary section plans, to clearly  
illustrate the

proposed development's interface with the state-controlled road network.



A TIA, prepared in accordance with the Department of Transport and Main Roads' (DTMR)

Guide to Traffic Impact Assessment – December 2018 (GTIA) (available at <https://www.tmr.qld.gov.au/business-industry/Technicalstandards-publications/Guide-toTraffic-Impact-Assessment>). The TIA must be prepared and certified by a suitably qualified

registered professional engineer of Queensland and must include, but not be limited to, the following information:

(a) Identify the impact assessment area by impact type in accordance with section 6.4 of the GTIA.

(b) Identify the extent of impacts generated by development traffic per impact type and impact assessment area. For example, demonstrate the spatial extent where development traffic exceeds 5% of the base traffic.

(a) Identify the construction phase duration for the proposed development.

(b) Identify all vehicle types to be used by the development (including during construction).

(c) Identify the expected traffic that will be generated by the development. If development is

to be staged, provide a break down into each stage, including a breakdown of development traffic i.e., staff, deliveries and heavy vehicles.

(d) Identify the expected traffic distribution on the road network as a result of the

development, including destinations.

(e) Provide an analysis for the proposed staging of the development (if applicable).

(f) Identify the impact the development may have on the safety, efficiency and condition of

State Assessment and Referral Agency

the state-controlled road.

(g) Demonstrate the state-controlled road intersection(s) can safely accommodate the largest design vehicle without negatively impacting the safety and operation of the statecontrolled road.

(h) Provide a road safety assessment in accordance with section 9.3.3 of the GTIA and recommend mitigation measures where required to ensure no adverse impact on the safety and efficiency of the state-controlled road network. Demonstrate to a reasonable level of details that any mitigation measures can be implemented in accordance with

DTMR's Road Planning and Design Manual (2nd Edition).

(i) Demonstrate that the development will not impose traffic loadings on the state-controlled road network that could be accommodated on the local road network.

(j) Demonstrate that there will be no disruption to the state-controlled road network during construction of the development.

■

The SBSMP provided with this request, updated to reflect any changes made to the proposal plans as a result of the above advice or any other changes made during the detailed design phase. Further guidance material regarding stormwater and drainage is available within DTMR's SDAP Supporting information : Stormwater and drainage in a statecontrolled road environment.

Future Prelodgment advice

5.

Should the applicant wish to obtain more detailed advice, SARA welcomes subsequent prelodgement discussions where additional information is available. To request further pre-lodgement advice, please use the 'Related Actions' and 'Request more pre-lodgement advice from SARA' tabs in MyDAS2 under application 2404-39870 SPL.

This advice outlines aspects of the proposed development that are relevant from the jurisdiction of SARA.

This advice is provided in good faith and is:

■ based on the material and information provided to SARA

■ current at the time of issue

■ not applicable if the proposal is changed from that which formed the basis of this advice.

This advice does not constitute an approval or an endorsement that SARA supports the development

proposal. Additional information may be required to allow SARA to properly assess the development

proposal when a formal application has been lodged.

If you require further information please contact Solomon Johnstone, Planning Officer, on (07) 3882 8491

or via email [NQSARA@dasilgp.qld.gov.au](mailto:NQSARA@dasilgp.qld.gov.au) who will be pleased to assist.

Yours sincerely

Susan Kidd

Manager (Regional Assessment and Projects)

State Assessment and Referral Agency



2404-39870 SPL

Development details  
Proposal:

Development Permit for a Material change of use (MCU)

Street address:

1-7 Wallace Road

Real property description:

Lot 1 to 4 on I9191

SARA role:

Referral Agency

Assessment Manager:

Burdekin Shire Council

Assessment criteria:

SDAP: State code 1

Existing use:

Service station, food and drink outlet, and accommodation facility

State Assessment and Referral Agency

Page 6 of 6





STRUCTURAL  
CIVIL  
ELECTRICAL  
MECHANICAL  
HYDRAULIC  
FIRE  
VERTICAL  
TRANSPORT  
SEISMIC

United Service Station  
1-7 WALLACE ROAD, INKERMANN  
SITE BASED STORMWATER MANAGEMENT PLAN

KALRA PROJECT MANAGEMENT

STP24-0325

STP CONSULTANTS

Document Status  
Approved for Issue

Rev.  
No.

1

Issue

Project Consultant  
Approved by

FINAL

Ken Miller

STP CONSULTANTS

ACN 668 668 086

Signature

Ken Miller  
RPEQ 09053

ABN 55 668 668 086

[www.stpconsultants.com.au](http://www.stpconsultants.com.au)

Date

05-04-2024

## STP CONSULTANTS

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Site Based Stormwater Management Plan | STP24-0325 Rev FINAL | 1

## STP CONSULTANTS

1.

### Introduction

Kalra Project Management, has engaged STP Consultants to produce a Site Based Stormwater Management Plan as supporting documentation for a Material Change of Use application. This report focuses on the impact of the development in the following areas.



Earthworks



Stormwater Management



Stormwater Quality

2.

### Site Description

The site is located at 1-7 Wallace Road, Inkerman and currently comprises four parcels of land described as Lots 1 to 4 on I9191 with a total land area of 7,330m<sup>2</sup>. The site is in the Township Zone within the Burdekin Shire Council local government area and is currently occupied by a service station and convenience store. The site has frontage to Bruce Highway, which is a State Controlled Road.

Figure 2.1 – Locality plan, cadastral boundaries and easements (Qld Globe)

2.1

### PROPOSED DEVELOPMENT

The proposed development consists of the demolition of the existing fuel facilities and the construction of new buildings, new fuel facilities, road accesses, landscaping and car parking as shown in Figure 2.2.

## STP CONSULTANTS

Figure 2.2 – Proposed Concept Plan (Kalra Project Management)

Figure 2.3 – Planning Zones (BSC Mapping)

Site Based Stormwater Management Plan | STP24-0325 Rev FINAL | 3

## STP CONSULTANTS

### 3.

#### Stormwater Management

##### 3.1

###### FLOOD STUDIES

According to the Burdekin Shire Council Flood Hazard Overlay, the site is not subject to inundation from flooding and storm tide inundation at the AEP 1% level. Flood Hazard Zones are depicted in Figure 3.1 below.

Figure 3.1 – Flood Hazard Zones (BSC Flood Hazard Overlay)

##### 3.2

###### EXISTING STORMWATER INFRASTRUCTURE

The Lawful Point of Discharge for this property has been determined to be the Wallace Road and Bruce Highway road reserves via overland flow. The only underground stormwater infrastructure in the local area are culvert crossings. All drainage is via overland flow and culvert. Current survey and existing infrastructure is illustrated in Figure 3.2 below.

## STP CONSULTANTS

Figure 3.2 – Local area survey and stormwater infrastructure (CRC Infrastructure Mapping)

### 3.3

#### STORMWATER RUNOFF AND DETENTION

The site is currently zoned as Township and is not allocated a default impervious fraction. The existing site layout has an overall impervious fraction of 0.35. The proposed layout has increased this value to 0.52. Pre- and postdevelopment runoff calculations are shown in Table 3.1 below. Times of concentration have been calculated for both scenarios in accordance with Figure 4.4 of QUDM.

Pre-development  $T_c = 14\text{min}$

Post-development  $T_c = 10\text{min} + 4\text{min} = 14\text{min}$



## STP CONSULTANTS

Table 3.1 – Pre- and post-development runoff calculations (QUDM)

The proposed development will generate only a 4.4% increase in runoff, due to the increased impervious area.

The preliminary detention storage check indicates that an on-site detention volume of less than 1m<sup>3</sup> would be required to mitigate the discharge to pre-development levels.

### 3.4

#### PROPOSED STORMWATER LAYOUT

A schematic stormwater layout for the development is illustrated in Figure 3.3 below (refer Appendix A).

Figure 3.3 –Preliminary civil works layout (refer Appendix A)

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### 3.5

#### STORMWATER QUALITY MANAGEMENT

In accordance with the requirements of State Planning Policy – July 2017, the development exceeds the criteria for requiring stormwater quality management. However, as the site is located in the Climatic Zone “Cape York, wet tropics, dry tropics” and is in a population centre of less than 25,000 people, a Stormwater Quality Management Plan will not be required in accordance with Footnote 14. The collection of accidental spills and hydrocarbon runoff will be accommodated by an FRP Full Retention Water Separator with a capacity of 20.8kL and a flow rate of 50L/s. Specifications for this tank are included in Figure 3.4 below.

## STP CONSULTANTS

Figure 3.4 –Proposed spill interceptor

4.

### Earthworks

4.1

#### SITE TOPOGRAPHY

As illustrated in the site survey in Figure 3.2, the site generally falls from RL12.00mAH at the rear boundary to RL8.75mAH at the road frontage at an average grade of 5%. The central area containing the bowzers and above ground tank should be graded at not more than 2% with a depressed area under the canopy. Preliminary levels are shown in Figure 4.1 below.

## STP CONSULTANTS

Figure 4.1 – Preliminary finished levels

5.

### Discussion / Conclusion

As confirmed in this report and the appendices, the development is/has:



No requirement under QUDM to provide on-site stormwater detention.



Finished surface levels are not inundated during an AEP 1% flood.



Stormwater quality requirements are in accordance with State Planning Policy.

STP CONSULTANTS

6.

Appendix A: Site Civil Works Layout

Site Based Stormwater Management Plan | STP24-0325 Rev FINAL | 10









## BRISBANE

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BUSHFIRE HAZARD  
ASSESSMENT AND  
MANAGEMENT PLAN  
1 - 7 WALLACE ROAD, INKERMANN  
(1I9191, 2I9191, 3I9191 AND 4I9191)

TECHNICAL REPORT 7-61-05

Technological Solutions for Sustainable  
Natural Resource Management

BUSHFIRE HAZARD ASSESSMENT and Management plan – 1-7 Wallace Road, Inkerman  
(1I9191, 2I9191, 3I9191 AND  
4I9191)

Ecosystems Management (Aust) Pty Ltd

ACN: 168 049 885

38 Darling Road

Jensen

QLD 4818

#### S TATEMENT OF QUALIFICATION

This Bushfire Management Plan has been prepared by Marcia Griebenow. I have 19 years' experience in bushfire management and environmental management, practicing in Victoria, New South Wales and Queensland. I have a

Bachelor of Environmental Science (Management) from Charles Sturt University, and the Postgraduate Diploma in

Bushfire Protection from the University of Western Sydney.

I am suitably qualified and experienced to undertake a Bushfire Hazard

Assessment and prepare recommendations for

bushfire management planning and construction requirements in bushfire prone areas.

Marcia Griebenow BEnvSc GradDip (Bushfire Protection) MEIANZ

#### L IMITATION AND D ISCLAIMER .

This report has been prepared by Ecosystems Management (Aust) Pty Ltd (EMA) with all reasonable skill, care and

diligence. This report is for the exclusive use of Kalra Group or their

nominated agent. It is the responsibility of the

client to implement this plan, and its associated recommendations. No warranties or guarantees are expressed or

should be inferred by any third parties. This report may not be relied upon by other parties without written consent

from EMA. EMA accepts no responsibility to any party in respect of any matters outside the agreed scope of the work,

and accepts no liability for implementation of recommended management actions using management plans prepared

by other parties.

#### D OCUMENT C ONTROL

Reference

Rev

7-61-05\_RP\_BHA\_1-7\_WallaceRd\_Inkerman\_v1.0

1.0

Date

Prepared

Authorised

31/05/24

Michael

Sears

Marcia

Griebenow

Approved

#### D ISTRIBUTION

Recipient

Fred Boyz  
Lachlan Pether

Organisation  
KALRA Group  
Milford Planning

Version  
1.0  
1.0

Format  
PDF  
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Date  
04/05/2024  
04/05/2024

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Bushfire Hazard Assessment and Bushfire Management Plan  
1 – 7 Wallace Road, Inkerman (1I9191, 2I9191, 3I9191 and 4I9191)  
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## 1. INTRODUCTION

Ecosystems Management (Aust) Pty Ltd (EMA) has been engaged to undertake a Bushfire Hazard Assessment for Lots 1, 2, 3 and 4 on Plan I9191, to support a Material Change of Use (MCU) application. According to the Burdekin Shire Council Bushfire Hazard Mapping, the subject lot is identified as being partially within a Medium bushfire hazard area. Under the Burdekin Shire Council planning scheme, land encumbered under the Bushfire Hazard Overlay must have a Bushfire Hazard Assessment conducted to ensure that the development does not increase the risk to life, property, community, and the environment in accordance with the purpose of the Bushfire Hazard Overlay Code. Where sufficient hazard is identified, a Bushfire Management Plan is required to manage the identified risk.

This bushfire hazard assessment is prepared with regard to:

- 
- 

5.2.1 – Bushfire Hazard Overlay Code of the Burdekin Shire Council Planning Scheme  
State Planning Policy guidance material

## 2. PROPOSED DEVELOPMENT

The proposal is for the development of a new fuel dispenser area with associated fuel storage and pylon sign, along with four new accommodation cabins arranged as paired units.

## 3. DEVELOPMENT APPROVAL AND CONDITIONS

Development approval is sought under state planning legislation. The relevant planning scheme under state planning legislation is the Burdekin Shire Council Planning Scheme (2022). This Bushfire Management Plan addresses the requirements 5.2.1 – Bushfire Hazard Overlay Code.

### 3.1. STATE PLANNING POLICY

The State Planning Policy (SPP) addresses development in relation to the risk from natural hazards, by establishing planning constraints based on a statewide risk assessment. Where local government planning schemes do not prepare a bushfire hazard overlay code specifically for their LGA, planning controls default to the statewide hazard mapping as the trigger for bushfire hazard assessment. The Queensland Government has produced a technical manual (Bushfire Resilient Communities (QFES, 2019)) to support the state planning policy, describing the methodology used for statewide hazard mapping and providing a guideline for preparing localized bushfire hazard area maps.

### 3.2. PLANNING SCHEME

The subject site is encumbered by the Bushfire Hazard Overlay (Overlay Map 03 – Bushfire Hazard) across its northern edge, with the balance of the site within the 100m Potential Impact Buffer, and therefore requires assessment against the Bushfire Hazard Overlay Code. Figure 1 shows the subject property with reference to the Bushfire Hazard Overlay.



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FIGURE 1 SUBJECT SITE WITH MEDIUM AND HIGH BUSHFIRE HAZARD (BSC, 2017)

### 3.3. AUSTRALIAN STANDARDS

The Planning Scheme identifies the methodology in AS3959 (Construction of buildings in bushfire prone areas) (SAA, 2011) for the calculation of radiant heat flux when establishing separation distances. State Planning policy guidance material (Bushfire Resilient Communities (QFES, 2019)) provides a similar method, specifically designed to address Queensland vegetation communities. AS3959 uses a broad vegetation classification system that does not accommodate northern Australian vegetation community fuel loads accurately, thus the method and tools within Bushfire Resilient Communities will be utilised for this assessment.

### 4. BUSHFIRE HAZARD ASSESSMENT

This section contains the information required to complete the Bushfire Hazard Assessment. Principal factors influencing fire behaviour are bushfire fuels, fire weather and topography (slope).

Fire will spread faster, with higher intensity, when travelling upslope. Conversely, rate of spread and potential intensity is lower when traveling downhill. High fuel loads (particularly fine fuels such as grass and small (< 6mm diameter) twigs and branches) will promote a faster rate of spread and higher intensity than a lower fuel volume; longer grass will promote higher intensity and rate of spread than shorter grasses.

#### 4.1. SITE DESCRIPTION

##### 4.1.1. Location

The subject site is comprised of four Lots, totalling 0.733ha, located 21.8km south south east of Ayr CBD. The subject site is accessed from Wallace Road, which connects immediately to the Bruce Highway (Route 1) as the main transport route for the region (see Site Location Map in Appendix A). The subject site is bordered by an unmanaged rural land parcel to the north, with steep slopes and rocky groundcover. To the east there are a number of residential land parcels, all of which are developed and feature managed vegetation only. To the south the subject site is bounded by the road reserve for Wallace Road, with the road reserve for the Bruce highway bordering the site to the west. The broader landscape is dominated by agricultural use, with the only significant area of natural vegetation being situated on the hill area to the north of the site.

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4.1.2. Site Layout

The site redevelopment involves the construction of a new fuel dispenser area with associated fuel storage and pylon sign, along with four new accommodation cabins arranged as paired units. The new fuel dispenser area is to the west of the existing fuel dispenser area associated with the Inkerman Store. This is shown in Figure 2. The new accommodation units are located to the north east of the existing Inkerman Store structure, adjacent to existing cabin accommodation at the site.

FIGURE 2 PROPOSED DESIGN FOR ADDITIONAL DEVELOPMENT ON THE SUBJECT SITE

4.2. TOPOGRAPHY AND HYDROLOGY

The subject site is located within the small residential area of Inkerman, an independent settlement within the Burdekin Shire area located 21.8km south south east of Ayr CBD. The Inkerman settlement is situated at the base of Mt Inkerman, immediately adjacent to the Bruce Highway, within the Townsville Plains subregion of the Brigalow Belt. In general the area is predominantly flat with slope limited to the banks of hydrological features. Mt Inkerman is a standalone topographical feature in the local flat landscape, rising to 219m from the surrounding near uniform landscape below 10m AHD. The proposed development is located on flat ground at the base of Mt Inkerman, with steep slopes beginning immediately to the north of the site. Being at the cusp of this transitional zone, the subject site transitions smoothly from 9.0m AHD at its southern boundary, to 12.5m AHD at its northern boundary. Immediately to the north elevation increases rapidly toward the peak of Mt Inkerman (see Topography and Hydrology Map in Appendix A). Slope is typically low across the majority of the site, with a slope angle ranging between 2.0 and 5.0 degrees. To the east, south and west slope remains low, typically between 1.0 and 3.0 degrees. Slope does, however, increase significantly to the north of the site, overall between 15.0 and 30.0 degrees.

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State-wide drainage mapping shows no watercourses either intersecting or adjacent to the subject site. The nearest drainage line is a fourth order watercourse located 340m to the south west. This drains to the south east as a subsidiary of Saltwater Creek, as a part of the wider Don drainage basin, ultimately draining into Upstart Bay.

### 4.3. FIRE WEATHER

Fire weather refers to the suite of conditions that contribute to the propagation of bushfire. This includes temperature, humidity, rainfall, days since rain and wind. The nearest comprehensive Bureau of Meteorology weather station is Ayr DPI Research Station (Station number 033002), operational since 1951 (BOM, 2024)).

The site is within the dry tropics region of northern Queensland, characterised by wet summers and dry winters. The wet season may commence as early as November, and officially ends in April. The fire season is usually recognised as the period from June, until the commencement of the wet season (which may be variable).

#### 4.3.1. Temperature

Mean maximum temperatures occur in December (32.1 oC), and mean minimum temperatures occur in July (11.9 oC) (Figure 3).

#### 4.3.2. Humidity and Rainfall

The climate can generally be classified as humid, with the minimum humidity occurring in July and August with a mean 3pm relative humidity of 47%. Mean 3pm humidity reaches a maximum in February at 68% (Figure 4).

Rainfall is lowest during July, August and September, with 75% of the annual rainfall occurring in December, January, February and March (Figure 4). Significant drying of grasses and increased leaf drop can be observed throughout September and October, as soil moisture declines. Evaporation (Figure 5) increases towards the end of the dry season as daily temperatures and solar exposure increase. Low humidity and increased drying from wind exacerbates grass and fine fuel curing through the dry season.

#### 4.3.3. Wind

The predominant winds throughout the year are from the north east and east (Figure 6). These winds are moist, rather than dry, and therefore have a lesser drying effect on fine fuels in the region. Occasionally dry winds come from the west and south west; however, these are less common and do not persist for more than a couple days at a time. Wind strength is highest towards the end of the dry season, increasing the rate at which fine fuels may dry (Figure 4). Wind direction and strength is also a consideration for fire suppression in terms of bushfire behaviour. A bushfire will travel quicker in strong winds, and potentially demonstrate higher intensity due to the increase in air availability to the seat of the fire. Higher strength winds through September to November can increase fire danger across the Burdekin region.



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FIGURE 3 MEAN MAX AND MEAN MIN TEMPERATURES FOR AYR DPI RESEARCH STATION  
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FIGURE 5 MEAN DAILY EVAPORATION (MM) AND MEAN MONTHLY RAINFALL (STATION 033002)  
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##### 4.3.4. Continental Effects of Seasonal Variation

While climate averages provide an overview of the weather characteristics contributing to identified fire seasons, and annual trends that influence the general expected severity of a given season, nationwide weather patterns effect the extreme fire weather conditions experienced from time to time in different parts of the country.

While the conditions generally experienced in the region can be broadly described as tropical, with hot wet summers and temperate winters, widespread national weather patterns such as prolonged drought or persistent rainfall deficits, particularly in the interior, can influence the weather in all regions, resulting in the occurrence of extreme conditions that can (and have) resulted in Severe and Extreme fire weather conditions (using the now superseded QFES fire danger rating system), such as those experienced in the summer of 2018 - 19 (Mills, 2019). Mills paper discusses current research into fire weather trends in south east and coastal Queensland, acknowledging a recent trend in increasing extreme conditions over the last 20 years. This intimates that bushfire management planning should be conservative to minimise underestimation of risk associated with development.

##### 4.3.5. Fire Danger Index

The Fire Danger Index (FDI) was developed to provide an indicator to fire managers of the probability of being able to contain and extinguish a fire once it started in a forest environment. FDI is calculated using inputs including recent rainfall, soil dryness, temperature, humidity and windspeed. The higher the FDI, the lower the probability of

containment or extinguishment within 24 hours of the fire starting. AS3959-2018 identifies an applicable FDI of 40 for Queensland, which falls into the classification of High fire danger under the new Australian Fire Danger Rating System (AFDRS), effective from September 2022. Fire hazard modelling in Queensland by CSIRO (Leonard et al, 2014) has mapped FDI across the state. FDI varies across the Burdekin local government area, from FDIs of 57 to 59, with an FDI of 58 applying to the subject site at Inkerman.

It is noted that tropical climates exhibit different fire behaviour and fire weather characteristics to southern parts of Australia, with less frequent occurrences of extreme fire weather conditions. Subsequently, a review of historical fire weather data (Lucas, 2009) for Townsville (closest available) shows that while High (FDI 24 < 49) and Extreme (FDI 50 < 99) fire weather does occur in the dry tropics coastal plain, these are infrequent and not prolonged occurrences (Graph 1 shows frequency distribution of FFDI over 43 years of records, according to the AFDRS). There are no records of fire weather reaching the classification of 'Catastrophic' or an FDI exceeding 100, which is experienced more frequently in southern parts of Australia and is correlated with the occurrence of significant bushfire events in the southern states. This observation is supported by research undertaken by Tropical Savannas CRC (2001), for various locations across northern Australia including Rockhampton (QLD) and Katherine (NT), which both have similar annual rainfall to Townsville.

FFDI Frequency Distribution as a percentage of total records

90.00

PROPORTION (%)

80.00

70.00

60.00

50.00

86.63

40.00

11.81

30.00

20.00

1.54

0.03

10.00

0.00

No Rating

Moderate

High

Extreme

FFDI RATING

GRAPH 1 FFDI FREQUENCY DISTRIBUTION

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#### 4.4. VEGETATION AND BUSHFIRE FUELS

Vegetation structure and arrangement are significant drivers of fire behaviour. Fuel hazard is described as the combined effect of fine surface fuels, elevated fuels and bark hazard in the ignition and propagation of fire. Traditional methods of fuel assessment require the individual assessment of all three fuel types to determine the Potential Fuel Load (PFL), described in tonnes per hectare (tph). This fuel weight can then be used to determine the potential fire intensity (PFI) in terms of kW/m.

The methodology endorsed by the Queensland Government is described in the technical reference guide Bushfire Resilient Communities (QFES, 2019). This methodology builds on the state wide bushfire hazard modelling method published by CSIRO in 2014 (Leonard et al. 2014). Leonard et al identified potential total bushfire fuel loads for Queensland Herbarium regional ecosystem vegetation classifications and aggregated these into Vegetation Hazard Classes (VHC) (which also includes the canopy fuel weight), and was subsequently refined with detailed vegetation bushfire fuel data in 2017 (Newnham et al. 2017).

Vegetation hazard class mapping considers horizontal connectivity of bushfire fuels; VHCs with a continuous fuel load generally supports continuous flame spread, whereas VHCs with discontinuous fuels may interrupt or retard the progress of a fire front. In terms of crown fire development, vegetation communities with little to no elevated fuels connecting surface fuels to bark and canopy fuels will limit the potential for crown fire development, whereas significant volumes of near surface fuels (grasses >1m high) and elevated fuels promote flame advancement into the canopy. Small patches of higher fuel load VHCs within a larger landscape of lower fuel load VHCs (up to 1ha), will locally increase fire intensity and rate of spread, however, will not significantly influence the overall bushfire hazard in the wider landscape.

Broad Vegetation Groups (BVG) and Vegetation Hazard Classes (VHC) within or adjacent to the subject site are listed in Table 1. The potential fireline intensity is calculated (using flat ground) to provide context to the influence of fuel load on potential intensity.

TABLE 1 BVG AND VHC ASSOCIATED WITH THE SUBJECT SITE

##### Class Description

Total  
PFL  
(tph)

Potential  
Fireline  
Intensity  
(kW/m)

13.2

Dry to moist eucalypt  
woodlands on

undulating  
metamorphics and  
granite

14.4

8131

-

40.4

Low grass or tree cover  
in rural areas

5.0

0

-

42.6

Low grass or tree cover  
in rural areas

2.0

0

Broad  
Vegetation  
Group

Vegetation  
Hazard  
Class

BVG Description

13c

Woodlands of *Eucalyptus crebra* (narrow-leaved red ironbark), *E. drepanophylla* (grey ironbark), *E. fibrosa* (dusky-leaved ironbark), *E. shirleyi* (Shirley's silverleaved ironbark) on granitic and metamorphic ranges.

-

-

Very high (potential intensity)  
High (potential intensity)  
3. Medium (potential intensity)  
4. Low Hazard  
40,000+kw/m  
20,000 – 40,000kw/m  
4,000 – 20,000kw/m  
< 4,000 kw/m

\*Potential Fireline Intensity is calculated using the methodology in Bushfire Resilient Communities (QFES, 2019)

4.4.1. Bushfire Fuel Hazard

An evaluation of bushfire fuel hazard was undertaken across the subject site. This was conducted to validate the vegetation mapping and modelled PFL across the site. The results of field assessment are summarised in Table 2. Vegetation hazard class mapping has been evaluated against aerial photography and considered in the context of the field assessment results. Field assessment was limited to the subject site and areas accessible from public roads. Private land access was not attempted for this project.

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VHC mapping has been edited to more accurately reflect vegetation structure and extent in the landscape surrounding the subject area. It is noted that the available aerial photography was captured in 2019, and following the inspection of the site and its surrounding area is regarded as accurately representing the current land use and condition of the area.

Vegetation hazard class mapping is shown in the Vegetation Hazard Class map in Appendix A, depicting the post development landscape, as clearing and maintenance of vegetation present will occur across the subject site to enable construction and ongoing use.

While there are small areas of nil to very low vegetation cover dispersed across the landscape, most are limited to 1 hectare in size, which does not materially influence the likely bushfire behaviour associated with the dominant vegetation type, and therefore these smaller areas have not been mapped individually in the vegetation hazard class mapping, but have been aggregated with the surrounding vegetation type.

TABLE 2 FUEL HAZARD ASSESSMENT SUMMARY  
Mapped VHC (PFL)

#### Observations / Discussion

This is the dominant remnant vegetation type present within the assessment area (see Plate 2).

This vegetation extends up to the site boundary precisely, but is not present on the subject site (see Plate 1).

13.2  
(14.4 tph)

Ground cover is exceptionally rocky, with little fuel build-up (see Plate 4), potentially reducing the hazard resulting from this vegetation hazard class somewhat.

PLATE 1. VIEW WEST OF WOODLAND VEGETATION BORDERING

PLATE 2. VIEW OF NORTH OF WOODLAND VEGETATION STRUCTURE

THE MAINTAINED AREAS OF SITE

PLATE 3. VIEW OF WEST OF STRUCTURE WITHIN WOODLAND  
VEGETATION

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PLATE 4. VIEW NORTH OF ROCKY GROUND COVER WITHIN  
WOODLAND

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Mapped VHC (PFL)

Observations / Discussion

40.4

All landcover within the subject site has been broadly categorised within this vegetation hazard class.

The site is a mosaic of developed areas with varying types of maintained vegetation, with the overall effect of having a likely lower fuel rating than typical (see Plate 6)

(5 tph)

PLATE 5 VIEW WEST OF LAND PARCEL ADJACENT TO THE SUBJECT

PLATE 6. VIEW SOUTH WITHIN THE SUBJECT SITE, WITH A MIX OF

SITE

LEVELS OF MAINTAINED GRASSLAND

42.6

(2.0 tph)

To the south and west the site is bounded by significant and well maintained road reserve areas, almost entire devoid of bushfire fuels (see plates 7 and 8).

PLATE 7 VIEW WEST ALONG THE BRUCE HIGHWAY ROAD RESERVE

PLATE 8 VIEW EAST ALONG THE WALLACE ROAD ROAD RESERVE

#### 4.5. FIRE HISTORY AND IGNITION SOURCES

QPWS fire history mapping is available through the Queensland Spatial Catalogue. This data includes records from 1937

in the wider local area, and from 1930 across Qld, and shows that the subject site has not been subject to an

uncontrolled fire or unplanned burn in this time. This dataset generally focuses on fires within the public land estate, or

fires that originate within the public land estate, and therefore does not provide a definitive fire history record for this

location, however fire events originating from national park estate areas to the east and north may be captured. The

dataset shows no burn events, planned or unplanned, during the record period.

The Northern Australian Fire Information service (NAFI) conducts satellite image analysis for fire scars, developing a 23year dataset showing fire history across

northern Australia. This data is mapped on a 250m grid, consistent with the resolution of the satellite imagery use. The NAFI data shows the site has not

been subject to burning within the 23-year

observation period. Additionally, no burns were recorded within the local landscape during the observation period.

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Bushfire in the area is typically associated with either natural ignitions during the dry season, or with fuel management burning activities. Other potential sources of ignition are likely to be associated with operational activities involving agricultural or earthworks machinery, construction activities (including hot work), vegetation management activities (slashing, etc.).  
No additional evidence of bushfire in relation to the subject site was identified.

#### 4.6. BUSHFIRE HAZARD

Bushfire prone land is defined as land that could support a significant bushfire, or be subject to significant bushfire attack (Leonard et.al. 2014). Bushfire attack manifests as ember attack, radiant heat impact and/or direct flame attack.  
The degree of severity of bushfire behaviour or bushfire attack is described in terms of Potential Fire-line Intensity.  
Potential Fire-line Intensity is calculated using inputs describing vegetation fuel loads (tonnes per hectare [tph]), slope (degrees) and FFDI as a descriptor of likely weather conditions thus:  
$$FI = 0.62 W^2 FFDI \exp(0.069\theta)$$

(Equation 1)

Where:

FI = Fireline Intensity (kW/m)

W = Potential Fuel Load (tph)

$\theta$  = Maximum Landscape Slope (degrees)

FFDI = Fire Weather Severity

The bushfire hazard class is derived by classifying the resultant Potential Fire Line Intensity output from the hazard modelling process (Table 3).

TABLE 3 BUSHFIRE HAZARD CLASSES CORRESPONDING TO POTENTIAL FIRE-LINE INTENSITY (FROM LEONARD ET.AL. 2014).

Potential Bushfire Intensity Class

Potential Fire-line Intensity

1. Very high (potential intensity)

40,000+kW/m

2. High (potential intensity)

20,000 – 40,000kW/m

3. Medium (potential intensity)

4,000 – 20,000kW/m

4. Low Hazard

< 4,000 kW/m

Bushfire hazard classification or threat level across the property and within the surrounding landscape (in terms of potential bushfire intensity) ranges from Low to High (see Modelled Bushfire Hazard map in Appendix A). The subject

site is considered to have a range of Low, Medium and High bushfire risk areas. The average potential fire line intensity associated with the mapped Medium Bushfire Hazard vegetation present on the site is 13,215kW/m, which is median within the range of values classified as Medium bushfire hazard (4000 to 20,000 kW/m).

The average potential fire line intensity associated with the mapped High Bushfire Hazard vegetation present on the site is 26,346kW/m, which is toward the lower end of the range of values identified as being High bushfire hazard (20,000 to 40,000 kW/m).

High potential bushfire intensity in the model is primarily due to the high slope adjacent to site, with medium bushfire areas limited to the transitional slope zone.

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4.6.1. Asset Protection Zone Calculation

The Burdekin Shire planning scheme and Bushfire Resilient Communities (QFES, 2019) identifies a minimum radiant heat flux level for new development of 29 kW/m<sup>2</sup> or less at the development footprint boundaries, where adjacent to medium, high or very high bushfire hazard.

A maximum radiant heat flux level for vulnerable uses of 10 kW/m<sup>2</sup> or less at all development footprint boundaries where adjacent to medium, high or very high bushfire hazard is also identified in the overlay code. This includes accommodation or congregation of vulnerable sectors of the community such as child care centres, community care centres, educational establishments, detention facilities, hospitals, rooming accommodation, retirement facilities or residential care facilities. and state planning policy. While not defined with a radiant heat flux exposure, planning scheme objectives also mitigate the bushfire risk associated with developments involving the storage or manufacture of hazardous materials

The Asset Protection Zone calculator has been used to establish the potential radiant heat flux impact on site infrastructure for high and medium bushfire hazard vegetation hazard classes. The maximum heat flux exposure (which defines the minimum asset protection zone distance) can be calculated using the SPP-Bushfire-APZ-WidthCalculator.xlsm produced by QFES. The QFES APZ calculator is issued with the following disclaimer by QFES:

DISCLAIMER: Fire-line intensity and radiant heat calculations where effective slope exceeds 20 degrees (downslope) or 15 degrees (upslope) may be unreliable. In these locations, specialist assessment is warranted.

These calculations identify the minimum acceptable asset protection zone, they do not stipulate the BAL construction requirements of AS3959. BAL Assessment according to AS3959 may be required for accommodation structures associated with this development, according to the requirements of the National Construction Code under the provisions of the Building Act 1975.

TABLE 4 ASSET PROTECTION ZONE CALCULATOR – VHC13.2 (ACCOMMODATION)  
SPP Bushfire Asset Protection Zone Width Calculator  
VARIABLE DESCRIPTION

VARIABLE

UNITS

VALUE

Input Values

FIRE WEATHER SEVERITY

FDI

58.00

VEGETATION HAZARD CLASS

VHC

-

13.2 Dry to moist eucalypt woodlands on undulating metamorphics and granite

REMNANT STATUS

-

-

Remnant

SLOPE TYPE (UPSLOPE OR DOWNSLOPE)

ST

-

Upslope

EFFECTIVE SLOPE UNDER THE HAZARDOUS VEGETATION

eSlope

degrees

15.00

SLOPE BETWEEN SITE AND HAZARDOUS VEGETATION

$\theta$

degrees

10.00

DISTANCE OF THE SITE FROM HAZARDOUS VEGETATION

d

m

12.10

Output Values

SURFACE FUEL LOAD

-

t/ha

9.40

NEAR SURFACE FUEL LOAD

-

t/ha

3.40

BARK FUEL LOAD

-

t/ha

0.60

ELEVATED FUEL LOAD

-

t/ha

1.00

TOTAL OVERALL FUEL LOAD

W

t/ha

14.40

TOTAL SURFACE FUEL LOAD

w

t/ha

12.80

POTENTIAL FIRE LINE INTENSITY

I

kW/m

6628

RADIANT HEAT FLUX

q

kW/m<sup>2</sup>

28.77

BUSHFIRE ATTACK LEVEL (AS 3959-2018)

BAL

-

BAL 29

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TABLE 5 ASSET PROTECTION ZONE CALCULATOR – VHC13.2 (FUEL STORAGE)  
SPP Bushfire Asset Protection Zone Width Calculator  
VARIABLE DESCRIPTION

VARIABLE

UNITS

VALUE

Input Values

FIRE WEATHER SEVERITY

FDI

58.00

VEGETATION HAZARD CLASS

VHC

-

13.2 Dry to moist eucalypt woodlands on  
undulating metamorphics and granite

REMNANT STATUS

-

-

Remnant

SLOPE TYPE (UPSLOPE OR DOWNSLOPE)

ST

-

Upslope

EFFECTIVE SLOPE UNDER THE HAZARDOUS VEGETATION

eSlope

degrees

15.00

SLOPE BETWEEN SITE AND HAZARDOUS VEGETATION

θ

degrees

10.00

DISTANCE OF THE SITE FROM HAZARDOUS VEGETATION

d

m

31.50

Output Values

SURFACE FUEL LOAD

-

t/ha

9.40

NEAR SURFACE FUEL LOAD

-

t/ha

3.40

BARK FUEL LOAD

-

t/ha

0.60

ELEVATED FUEL LOAD

-

t/ha

1.00

TOTAL OVERALL FUEL LOAD

W

t/ha

14.40

TOTAL SURFACE FUEL LOAD

w

t/ha

12.80

POTENTIAL FIRE LINE INTENSITY

I

kW/m

6628

RADIANT HEAT FLUX

q

kW/m<sup>2</sup>

9.97

BUSHFIRE ATTACK LEVEL (AS 3959-2018)

BAL

-

BAL 12.5

TABLE 6 ASSET PROTECTION ZONE CALCULATOR – VHC40.4  
SPP Bushfire Asset Protection Zone Width Calculator  
VARIABLE DESCRIPTION

VARIABLE

UNITS

VALUE

Input Values

FIRE WEATHER SEVERITY

FDI

58.00

VEGETATION HAZARD CLASS

VHC

-

40.4 Continuous low grass or tree cover

REMNANT STATUS

-

-

Remnant

SLOPE TYPE (UPSLOPE OR DOWNSLOPE)

ST

-

Upslope

EFFECTIVE SLOPE UNDER THE HAZARDOUS VEGETATION

eSlope

degrees



3.00

SLOPE BETWEEN SITE AND HAZARDOUS VEGETATION

$\theta$

degrees

3.00

DISTANCE OF THE SITE FROM HAZARDOUS VEGETATION

d

m

1.00

Output Values

SURFACE FUEL LOAD

-

t/ha

0.50

NEAR SURFACE FUEL LOAD

-

t/ha

4.00

BARK FUEL LOAD

-

t/ha

0.50

ELEVATED FUEL LOAD

-

t/ha

0.00

TOTAL OVERALL FUEL LOAD

W

t/ha

5.00

TOTAL SURFACE FUEL LOAD

w

t/ha

4.50

POTENTIAL FIRE LINE INTENSITY

I

kW/m

0

RADIANT HEAT FLUX

q

kW/m<sup>2</sup>

0.00

BUSHFIRE ATTACK LEVEL (AS 3959-2018)

BAL

-

BAL LOW

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TABLE 7 ASSET PROTECTION ZONE CALCULATOR – VHC9.2  
SPP Bushfire Asset Protection Zone Width Calculator  
VARIABLE DESCRIPTION

VARIABLE

UNITS

VALUE

Input Values

FIRE WEATHER SEVERITY

FDI

58.00

VEGETATION HAZARD CLASS

VHC

-

42.6 Nil to very low vegetation cover

REMNANT STATUS

-

-

Remnant

SLOPE TYPE (UPSLOPE OR DOWNSLOPE)

ST

-

Upslope

EFFECTIVE SLOPE UNDER THE HAZARDOUS VEGETATION

eSlope

degrees

3.00

SLOPE BETWEEN SITE AND HAZARDOUS VEGETATION

θ

degrees

3.00

DISTANCE OF THE SITE FROM HAZARDOUS VEGETATION

d

m

1.00

Output Values

SURFACE FUEL LOAD

-

t/ha

1.00

NEAR SURFACE FUEL LOAD

-

t/ha

1.00

BARK FUEL LOAD

-

t/ha

0.00

ELEVATED FUEL LOAD

-

t/ha

0.00

TOTAL OVERALL FUEL LOAD

W

t/ha

2.00

TOTAL SURFACE FUEL LOAD

w

t/ha

1.00

POTENTIAL FIRE LINE INTENSITY

I

kW/m

0

RADIANT HEAT FLUX

q

kW/m<sup>2</sup>

0.00

BUSHFIRE ATTACK LEVEL (AS 3959-2018)

BAL

-

BAL LOW

#### 4.6.2. Bushfire Scenario

The site is located within the Inkerman settlement, characterised by agricultural rural land uses. The site is located at the interface of this landscape and the localised natural landscape of Mt Inkerman. The historical record confirms that there has been no bushfire occurrence in the regional landscape. It is assumed that this is due to the high degree of control occurring in the surrounding agricultural landscape, with limited bushfire fuels to provide any continuity between limited areas of natural or naturalised vegetation in the event that ignition does occur. It is also considered that there is limited access to Mt Inkerman, and thus opportunities for ignition from human activities on the hillslopes are minimal.

The subject site is considered to be Low Risk, however, is adjacent to modelled Medium and High bushfire hazard areas.

These areas are associated with the natural vegetation located on the slopes of Mt Inkerman only.

The bushfire season is considered to peak in September and October, when mean daily evaporation increases and

mean 3pm humidity is at its lowest for the year. Wind direction during these months is dominant from the east and the north east, with a smaller proportion of strong winds from the south east. This gives a consistent likelihood of bushfire front development directed to the west. As the subject site is located to the western extent of the mapped bushfire

prone area covering Mt Inkerman, the site is in the situation of receiving impacts from a head fire travelling in that

direction. This situation also has the subject site at the base of the hillslope, so accounting for slope, potential fireline

intensity would be reduced from 18, 659 kW/m<sup>2</sup> to 6628 kW/m<sup>2</sup>, which is effectively from the top end of the moderate bushfire hazard range to just above the low bushfire hazard threshold.

A potential bushfire attack would be required to originate from the north or north east of the site from the remnant

vegetation present in line with the potential prevailing winds. As this vegetation area is isolated and limited, any fire

occurring would result in a localised fire event only, rather than a large scale driven bushfire front. Bushfire originating

in this manner would also approach the site cross-slope or via back-burning downslope. In conjunction with the rocky

groundcover with discontinuous bushfire fuels, this is likely to result in a slower approach of and reduction of intensity in any approaching fire front.

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Due to the extensive cropping and grazing activities in the surrounding landscape, an uncontrolled bushfire front approaching from other parts of the surrounding landscape are unlikely to pose a threat to the site.

In the context of likely ignition sources, accidental ignitions are most likely associated with roadways or rural activities within the surrounding landscape. With no bushfire actions recorded in the area and the intensity of control in land use, it is expected that any ignition would be quickly subject to a coordinated response from firefighting services and landowner/volunteer actions.

### 5. RISK ASSESSMENT

Risk Assessment requires identification of hazard, determination of likelihood, vulnerability and consequence. A matrix is used to derive risk, based on these factors. The process used in this risk assessment is documented in the Queensland Emergency Risk Management Framework (QERMF) Risk Assessment Process Handbook (QFES, 2018). The use of a risk matrix also facilitates the evaluation of management measures to demonstrate risk reduction.

The risk matrix implemented in the QERMF rates risk from Very Low (0) to Catastrophic (13). The risk assessment for proposed lots rate at 6 (Low), prior to implementation of bushfire management measures, and risk is reduced to 4

(Low) after implementation of bushfire management measures.

Table 8 addresses the risk posed by bushfire, firstly in the absence of any mitigation measures, and then demonstrates the risk reduction based on proposed measures, which are detailed on the Bushfire Management plan map.

#### HAZARD

Hazard is the identification of potential, regardless of any other factors. The preliminary hazard assessment undertaken as part of this Bushfire Hazard Study has identified Low Bushfire Hazard across the subject site, with additional Low, Medium, and High Bushfire Hazard within the 100m assessment area east and north of the proposed development, resulting in the subject site being within the 100m buffer for potential bushfire impacts. The significant contributing factors to this hazard are vegetation classification and slope.

#### LIKELIHOOD

Likelihood is a description of the probability of an event occurring. It is commonly presented in terms of Annual Exceedance Probability (AEP), based on the number of events that have occurred over a period of time. In order to establish likelihood for identified at risk assets, fire history information is necessary. Fire history indicates that no burn events occurred within the subject site during the 23 year record period. Due to the limited data range, this results in an average recurrence interval greater than 10 years, but due to the maximum 23 year range there cannot be determined to be a greater absence period than this. As such the ARI would be determined to be in the 10 < 100 year category, and have an AEP of 1% to 10% per year, resulting in the likelihood being Unlikely.

#### VULNERABILITY

Vulnerability is an assessment of the resilience of a community or asset to the identified hazard. It considers service

interruption and reconstruction capacity and cost, options for evacuation, topographical features as barriers to addressing the hazard, occupant capacity for preparedness and response, and emergency services capacity.

The proposed development does fulfil a community function in providing a refuelling point for vehicles, but does not represent essential infrastructure. As a refuelling point this facility is the most convenient in its local context, and provides additional value for long-haul traffic and working vehicles, however there are an additional two service stations within a 25km radius. This ensures that in the case of temporary closure due to emergency there will not be a critical service deprivation to the local community.

The area is in the immediate proximity of the Bruce Highway, providing a primary emergency egress to the north and south, with an additional egress to the east via Wallace road if required. The Bruce Highway is situated within a major road corridor of well managed vegetation with suitable significant setbacks. The proposed development includes the addition of four accommodation units within the subject site for the purposes of short term accommodation. While this will materially increase the potential number of residents likely to be present on the subject site, it is unlikely that this will increase the vulnerable population present. Due to the short term accommodation having a target market for those travelling long distances cross-country along the Bruce Highway, it is

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unlikely that medically dependant or dependant elderly persons or children under 5 will be present, and if present will be set up in a self-sufficient manner with suitable supports.

The proposed development is in addition to the existing development present on site, and does not encroach further toward bushfire prone vegetation, with the site itself being low hazard and non-conducive to bushfire encroachment. As such the proposed development does not increase the vulnerability of infrastructure onsite.

The Inkerman settlement is able to easily access health facilities and emergency services to the north at Ayr due to their proximity and direct access via the Bruce Highway.

In the absence of any measures, the property is considered to have Low Vulnerability to the impacts of bushfire.

### CONSEQUENCE

The consequence is a description and measure of the impact of a potential event on people, finance and economy, community, public administration, and the environment. The degree of interruption of daily routines, loss of life or property, cost of recovery and resources required for this, and continuation of services (such as electricity and waste management), and damage to environmental values is evaluated on a scale of severity. Mitigation measures should be aimed at reducing this consequence.

It is unlikely that any major injuries would occur as the result of a bushfire attack – minor injuries have the potential to occur for any evacuation procedure if the process is not orderly, but the risk of this is low. Additionally, smoke may result in respiratory irritation, however sheltering indoors is likely to be sufficient to minimise this distress.

Bushfire attack would result in disruption to the use of the site for the purpose of short term accommodation and it's temporary residents only. Bushfire attack would also result in the disruption of the use of the refuelling service provided by the development, but does not represent the disruption of an essential service. With the likely impacts identified, this disruption is likely to be short term only. As such the potential financial/economic impact is minor.

Due to the proposed development being short term accommodation, an evacuation does not represent any permanent dispersal of residents. There are no objects of community or cultural significance associated with subject site. However, any occurrence of bushfire may have emotional and psychological impacts for the residents and community. As such this will result in overall minor community and social effects.

Bushfire impacting the subject site will not impact government delivery of its functions, and is unlikely to be subject to critical coverage from the media or response from the public. The consequence to public administration in this case would be insignificant.

As the subject site is of an overall small size, and already in a developed state prior to the proposed additional development, there will be negligible ecological or environmental values present on the site. As such environment impacts would be inconsequential.

The Consequence of bushfire impact at the site (in the absence of any mitigation measures) is considered to be Minor, with temporary disruption to normal operations (disruption likely to be

significantly below the 12 months threshold), minor injuries anticipated as potentially occurring from a bushfire event impacting the site, requiring few financial inputs beyond the allocated budget to rectify asset damage, and no potential for damage to the onsite environment/ecology. Mitigation measures are discussed in the next section, and the risk assessment is summarised in Table 8.

#### 5.1. MITIGATION MEASURES

While the site is considered to be low risk, a contributing factor is the sites' current state of management. Mitigation measures are recommended to maintain current measures, and establish minimum asset protection zones to ensure the ongoing safety of the site.

##### 5.1.1.

#### Asset Protection Zone and Strategic Fuel Management

It is recommended that short term accommodation aspect of the development achieves a minimum 12.1m separation distance from the adjacent 13.2 woodland vegetation as per Table 4, and that the fuel storage and service aspects of the development achieve a minimum 31.5m separation from the adjacent 13.2 woodland vegetation as per Table 5.

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These distances are achieved in the current design for the proposed development, and should be adhered to in the event of any changes to placement and ongoing in the management of the site. It is also recommended that the site itself is maintained in a low hazard state across all areas, with the maintenance of grasses below 30cm, removal of fallen bushfire fuels, and planting onsite comprising appropriately low bushfire risk species.

#### 5.1.2.

#### BAL Building Requirements

Construction of any class 2 or 3 buildings will be subject to the AS3959 construction requirements. This will require all structures to be built to a suitable standard to allow for active sheltering in place to occur to the expected heat flux generated by a passing bushfire front. In the designs provided this will require the accommodation units specified to be AS3959 compliant.

#### 5.1.3.

#### Water Supply

The subject site is located outside of both the urban and rural water service areas for Burdekin Shire Council, and has an independent water supply. As such, a water access point with a minimum capacity of 10,000L and suitable for firefighting vehicles should be made available on the subject site at all times.

#### 5.1.4.

#### Incident Response and Cooperation with Rural Fire Brigades

The subject site falls within the Inkerman Rural Fire Brigade area, but is located adjacent to the boundary of the Fredericksfield Rural Fire Brigade area. As rural fire brigades these are not a permanently manned stations. It is recommended that the operators of the subject site establish their own independent incident response plan, and opportunities for training with the local brigade/s should be explored. Further discussion and cooperation with the QFES in this regard increases active bushfire mitigation measures and builds local relationships and local knowledge which may improve emergency response measures when necessary.

#### TABLE 8 RISK ASSESSMENT

#### Risk Assessment after Implementation of Measures

#### Consequence

Moderate

#### Vulnerability

#### Consequence

Vulnerability  
Moderate

Mitigation Measures

Likelihood

Unlikely

Risk

Hazard

Low

Likelihood

Hazard

Risk Assessment Prior to Controls

Residual  
Risk

Low  
(6)

Separation distances  
implemented to minimise  
radiant heat flux impacts,  
water supply for dedicated  
incident response, effective  
evacuation plan in place to  
minimise non-essential  
persons onsite, and bushfire  
fuel maintenance/reduction in  
vegetated areas onsite

Low

Unlikely

Low

Minor

Low  
(4)

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#### 6.BUSHFIRE HAZARD OVERLAY CODE

Burdekin Shire Planning Scheme Bushfire Hazard Overlay Code 5.2.1 defines the performance criteria for developments relating to bushfire hazard mitigation, and identifies

acceptable outcomes. These performance criteria and acceptable outcomes are described in Table 9. Management actions are described to achieve the performance criteria.

P08 through P013 apply to development involving reconfiguration of a lot (RAL), and as they do not apply to this application, have not been addressed in the response to the

bushfire hazard overlay code.

#### TABLE 9 BURDEKIN SHIRE PLANNING SCHEME 2022 BUSHFIRE HAZARD OVERLAY CODE 5.2.1 PERFORMANCE CRITERIA

Performance outcomes

P01

Development does not increase the number of lots within the medium, high or very high potential bushfire intensity areas.

P02

Development involving critical or vulnerable uses is not located on land subject to bushfire hazard, unless it involves a minor extension to or redevelopment of an existing use and does not substantially increase the number of people accommodated or requiring evacuation from the site.

P03

Critical uses are able to function effectively during and immediately after a bushfire hazard event.

P04

Development either:

- (a) does not involve the manufacture or storage of hazardous materials within a bushfire prone area; or
- (b) is designed to prevent the ignition of hazardous materials during a bushfire hazard event.

Acceptable outcomes

A01

No new lots are created.

A02

No acceptable outcome is nominated.

A03

No acceptable outcome is nominated.

A04

No acceptable outcome is nominated.

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Solution

The proposed development is not for the creation of any additional lots, and does not fall within a medium, high or very high bushfire area.

The proposed development does not constitute a critical

or vulnerable use under Burdekin Shire planning scheme definitions.

The site is the redevelopment/ expansion of an existing facility..

The proposed development does not constitute a critical use.

The subject site is defined as low hazard in its entirety, and storage of hazardous materials (fuel) is identified as achieving below a 10kW/m<sup>2</sup> radiant heat flux exposure with the identified placement.

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Performance outcomes

Acceptable outcomes

Solution

P05

Development is located and designed to ensure proposed buildings or building envelopes achieve the following radiant heat flux level at any point: (a) 10kW/m<sup>2</sup> where the use involves the accommodation or congregation of vulnerable sectors of the community such as child care centres, community care centres, educational establishments, detention facilities, hospitals, rooming accommodation, retirement facilities or residential care facilities; or (b) 29kW/m<sup>2</sup> otherwise.

A05

Buildings or building envelopes are separated from hazardous vegetation by a distance that achieves a radiant heat flux level at any point on the building or envelope respectively, of 10kW/m<sup>2</sup> for a use mentioned in the performance outcome, or 29kW/m<sup>2</sup> otherwise. Editor's note—Where a separation distance is proposed to be achieved by utilising existing cleared developed areas external to the site, certainty must be established (through tenure or other means) that the land will remain cleared of hazardous vegetation.

The proposed development does not feature vulnerable uses. However, the fuel storage and service areas of the proposed development are prudently sited to achieve lower than a 10kW/m<sup>2</sup> heat flux.

P06

A constructed perimeter road or a formed, all weather fire trail is provided between the hazardous vegetation and the site boundary or building envelope and is readily accessible at all times for the type of fire fighting vehicles servicing the area. However, a fire trail will not be required where it would not serve a practical fire management purpose.

Editor's note—Fire trails are unlikely to be required where a development site is less than 2.5ha.

A06

Development is separated from hazardous vegetation by a public road or fire trail which has:

- a) a reserve or easement width of at least 20m;
- b) a minimum trafficable (cleared and formed) width of 4m capable of accommodating a 15 tonne vehicle and which is at least 6m clear of vegetation;
- c) no cut or fill embankments or retaining walls adjacent to the 4m wide trafficable path;
- d) a minimum of 4.8m vertical clearance;
- e) turning areas for fire-fighting appliances in accordance with Qld Fire and Emergency Services' Fire Hydrant and Vehicle Access Guidelines for residential, commercial and industrial lots and Department of Transport and Main Roads'

Road Planning and Design Manual (2nd edition);

f) a maximum gradient of 12.5%; (g) a crossfall of no greater than 10 degrees;

g) drainage and erosion control devices in accordance with the standards in Planning scheme policy – SC5.2 – Development works;

h) vehicular access at each end which is connected to the public road network at intervals of no more than 200m;

i) designated fire trail signage;

j) if used, has gates locked with a system authorised by Qld Fire and Emergency Services; and

k) if a fire trail, has an access easement that is granted in favour of council and Qld

Fire and Emergency Services. .

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The accommodation aspects of the proposed development achieve below the 29kW/m<sup>2</sup> threshold in their planned placement.

The site does not require an additional fire trail, as it is significantly below 2.5ha, has good access from Wallace Road at two points (with additional road frontage for each of the four individual lots), and has an internal trafficable route to all areas of the site.



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Performance outcomes

P07

Effective safety and evacuation procedures and measures are established and maintained.

P014

All premises are provided with vehicular access the enables safe evacuation for occupants and easy access by firefighting appliances.

P015

Development outside reticulated water supply areas, includes a dedicated static supply available solely for firefighting purposes and can be accessed by firefighting appliances.

Acceptable outcomes

Solution

A07

No acceptable outcome is nominated. .

The subject site is identified as being Low Hazard in regard to its bushfire potential, with the proposed development additionally being identified as being Low Hazard in regard to overall risk. As such a bushfire management plan is not recommended as required for the proposed development.

A014

Private driveways:

- (a) do not exceed a length of 60m from the street to the building;
- (b) do not exceed a gradient of 12.5%;
- (c) have a minimum width of 3.5m;
- (d) have a minimum of 4.8m vertical clearance;
- (e) accommodate turning areas for firefighting appliances in accordance with Qld Fire and Emergency Services' Fire Hydrant and Vehicle Access Guidelines for residential, commercial and industrial lots and Department of Transport and Main Roads' Road Planning and Design Manual (2nd edition); and
- (f) serve no more than 3 dwellings or buildings.

Access to the proposed development is immediate from the road frontage (below 60m), is almost entirely flat (less than 12.5%), achieve 3.5m minimum width and 4.8m vertical clearance, and can facilitate turning. There are two access points onsite to facilitate access to all aspects of the proposed development.

A015

A water tank is provided within 10m of each building (other than a class 10 building)

which:

- (a) is either below ground level or is constructed or screened by non-combustible materials;

Editor's note–Non-combustible is defined in AS3959:2018 and means: "not deemed combustible as determined by AS 1530.1 or not deemed combustible in accordance

with the BCA."

(b) has a take-off connection at a level that allows the following dedicated, static

water supply to be left available for access by fire fighters:

(i)

10,000 litres for residential buildings;

(ii)

45,000 litres for industrial buildings; and

(iii)

20,000 litres for other buildings;

(c) includes a hardstand area allowing medium rigid vehicle (15 tonne fire appliance)

access within 6m of the tank;

(d) is provided with fire brigade tank fittings - 50mm ball valve and male camlock

coupling and, if underground, an access hole of 200mm (minimum) to accommodate suction lines; and

(e) is clearly identified by directional signage provided at the street frontage.

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The proposed development is outside of a reticulated water supply area.

The final construction will require two 10,000L water tanks to be incorporated, with one dedicated to each pair of accommodation units, and meeting the specifications for fire brigade fittings, signage and placement.

As the fuel storage and service aspect of the development does not feature any buildings, this does not impose a requirement for dedicated water storage. Due to the placement of water tanks in association with residential use and low bushfire risk, it is identified that these water tanks will be primarily utilised to combat any encroaching fire. The fuel dispensing facility will be required to meet current standards for emergency response associated with essential safety measures for the type of development, which will address the potential for bushfire ignition from an incident arising from operation of the dispensing facility.

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Performance outcomes

P016

Landscaping uses species that are no likely to exacerbate a bushfire event and does not increase fuel loads within separation areas.

P017

Bushfire risk mitigation treatments do not have a significant impact on the natural environment or landscape character of the locality.

Acceptable outcomes

Solution

The proposed development will not require additional landscaping.

No acceptable outcome is nominated.

No acceptable outcome is nominated.

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Small scale planning is advised to not incorporate plants that will increase the risk of or from bushfire. The subject site is already developed, and does not require additional mitigation treatments that will have a significant impact on the natural environment or landscape character.

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#### 7. BUSHFIRE MANAGEMENT PLAN

Bushfire hazard associated with this site is Low. The redevelopment of the site, and modernisation of fuel dispensing facilities is considered to decrease the bushfire hazard associated with the site further. The fire history around the Inkerman area indicates that the immediate landscape is also not particularly bushfire prone.

A bushfire management plan is not considered necessary to support the redevelopment of this site, although minimum requirements for water supplies and asset protection zone setbacks have been established through the risk assessment process, and compliance assessment against the bushfire hazard overlay code. It should be noted that the 10,000L water supply required for firefighting purposes is a dedicated supply, which must be maintained at no less than 10,000L at all times, and cannot be used as a domestic water supply. Domestic water supply may be contained in the same tank, however this implies a tank capacity greater than 10,000L, with the domestic supply point located above the 10,000L mark, and the fire fighting supply point located at the bottom of the tank.

#### 8. CONCLUSIONS & RECOMMENDATIONS

##### 8.1. BUSHFIRE HAZARD ASSESSMENT AND RISK ASSESSMENT

An assessment of the site and its surrounding environment has demonstrated a bushfire hazard across the subject site is Low. While areas of Medium and High bushfire hazard are adjacent to the subject site, risk assessment has determined that with mitigation incorporated into the design, primarily in the form of separation distance from natural vegetation, and mandatory water supplies, that the residual risk is Low. Appropriate mitigation measures recommended include the maintenance of suitable setback areas for the proposed development, ensuring all short-term accommodation structures are constructed according to the requirements of AS3959 (Construction in bushfire prone areas), provision of firefighting water supplies and access, ongoing maintenance of the subject site in a low hazard state, and engagement with the local rural fire brigade to ensure preparedness and site familiarity.

##### 8.2. BUSHFIRE HAZARD OVERLAY CODE

The proposal complies with the Burdekin Shire Council Bushfire Hazard Overlay Code (see Table 9).

##### 8.3. BUSHFIRE MANAGEMENT PLAN

A Bushfire Management Plan is not required for this site due to the Low risk associated with it in accordance with the implementation of recommendations made in Section 5.1.

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#### RESOURCES

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7-61-05\_RP\_BHA\_1-7\_WallaceRd\_Inkerman\_v1.0.docx

Kalra Group

Bushfire Hazard Assessment and Bushfire Management Plan  
1 – 7 Wallace Road, Inkerman (1I9191, 2I9191, 3I9191 and 4I9191)  
Ecosystems Management (Aust) Pty Ltd

APPENDIX A – MAPS

7-61-05\_RP\_BHA\_1-7\_WallaceRd\_Inkerman\_v1.0.docx

Page 27 of 28

BUSHFIRE HAZARD ASSESSMENT  
1 - 7 Wallace Road, Inkerman  
(1I9191, 2I9191, 3I9191 and 4I9191)  
SITE LOCATION  
Legend  
Property Boundaries

Subject Site  
(Comprising Lots 4I9191, 3I9191, 2I9191,  
1I9191)  
Proposed Development Infrastructure  
Locations  
Assessment Area  
Roads

Watercourses

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1I9191

2I9191

3I9191

20

Meters

40

60

Coordinate System: GDA 1994 MGA Zone 55

4I9191

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Limitation & Disclaimer:

Data presented is for information only, and is not to be used for navigation.

Map prepared to support technical report

7-64-05\_BHA\_1-7\_WallaceRd\_Inkerman\_v1.0.

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Wallace Road

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Notes:

Property Boundaries and Development Properties from

QLD\_CADASTRE\_DCDB@Queensland Government

Roads from IQ\_QLD\_ROAD\_BASELINES.shp@Queensland Government

Drainage from Vegetation\_management\_watercourse\_and\_  
drainage\_feature\_map\_100k)@Queensland Government  
Airphoto from TimeSeries\AerialOrtho\_AllUsers@Queensland Government

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64-5\_BHA\_Location.mxd

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Version: 2.0

Date Edited: 4/06/2024

Edited by: MG



## BUSHFIRE HAZARD ASSESSMENT

170  
160  
150  
140  
130  
100

90

110

1 - 7 Wallace Road, Inkerman  
(1I9191, 2I9191, 3I9191 and 4I9191)  
TOPOGRAPHY AND HYDROLOGY  
Legend

30

40

0-5

Subject Site  
(Comprising Lots  
4I9191, 3I9191,  
2I9191, 1I9191)

80  
60

Slope (Degrees)

Property Boundaries

120

5 - 10  
10 - 15

Roads

70

15 - 20

Watercourse

>20 degrees

Contours

Proposed  
Development

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Assessment Area

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Coordinate System: GDA 1994 MGA Zone 55

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Roads from IQ\_QLD\_ROAD\_BASELINES©Queensland Government

Contours from Elevation\_contours\_\_\_10\_metre\_interval

©Queensland Government

Vegetation\_management\_watercourse\_and\_

drainage\_feature\_map\_100k)©Queensland Government

Slope derived from 1s DEM from Queensland LiDAR Data  
©Queensland Government

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Edited by: MG

BUSHFIRE HAZARD ASSESSMENT  
1 - 7 Wallace Road, Inkerman  
(1I9191, 2I9191, 3I9191 and 4I9191)  
VEGETATION  
AND  
BUSHFIRE FUELS

Legend

Property Boundaries

Subject Site  
(Comprising Lots 4I9191, 3I9191, 2I9191,  
1I9191)  
Highway

Local Roads

Watercourse

Proposed Development  
Assessment Area

Vegetation Hazard Class  
(Potential Fuel Load (tonnes per hectare))  
42.6 Nil to very low vegetation cover  
(2 tph)

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64-5\_BHA\_Vegetation.mxd

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40.4 Low grass or tree cover in rural areas  
(5 tph)  
y

1I9191

2I9191 3I9191 4I9191

13.2 Dry to moist eucalypt woodlands on  
undulating metamorphics and granite  
(14.4 tph)

22.1 Melaleuca open forests on seasonally  
inundated lowland coastal swamps  
(28.4 tph)

0

50

Meters

100

Coordinate System: GDA 1994 MGA Zone 55

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Vegetation\_management\_watercourse\_and\_

drainage\_feature\_map\_100k©Queensland Government

Vegetation Hazard Class edited by Ecosystems Management (Aust) Pty Ltd,

using the methodology in Bushfire Resilient Communities

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Airphoto from TimeSeries\AerialOrtho\_AllUsers©Queensland Government

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Time Since Burnt (years)  
(2000 to 2023) (NAFI, 2024)

Fire Frequency (2000 to 2023)  
(NAFI, 2024)

0

24 or greater

BUSHFIRE HAZARD ASSESSMENT  
1 - 7 Wallace Road, Inkerman  
(1I9191, 2I9191, 3I9191 and 4I9191)  
FIRE HISTORY  
Legend

Assessment Area

Highway (Arterial Road)  
Local

Secondary (Sub Arterial)

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Fire History (QPWS 2024)

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Coordinate System: GDA 1994 MGA Zone 55

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Roads from IQ\_QLD\_ROAD\_BASELINES©Queensland Government

Vegetation\_management\_watercourse\_and\_

drainage\_feature\_map\_100k©Queensland Government

Fire Frequency and Time since last burn from NAFI (2023)

Fire History (QPWS) © State of Queensland

(Department of Environment and Science), 2023

Airphoto from TimeSeries\AerialOrtho\_AllUsers©Queensland Government

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BUSHFIRE HAZARD ASSESSMENT  
1 - 7 Wallace Road, Inkerman  
(1I9191, 2I9191, 3I9191 and 4I9191)  
BUSHFIRE HAZARD MODEL

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REF: LTR\_7-64-2\_1  
Fred Boyz  
Kalra Group  
56 Forge St  
Blacktown NSW 2148  
E: fred@kalragroup.com.au

28 June 2024

RE: Effect of updated Fuel Storage Configuration on Bushfire Hazard Assessment  
1-7 Wallace Road, Inkerman

Dear Fred,

With reference to the updated drawings provided to me yesterday (DWG# INK24002, 17/08/2023, Rev1, as attached), I confirm that this does not alter the outcome of the bushfire hazard assessment issued by Ecosystems Management (Aust) Pty Ltd on 31 May 2024 (Ref: 7-61-05\_RP\_BHA\_1-7\_WallaceRd\_Inkerman\_v1.0). The tanks proposed for the installation are conformant to UL2085 (bundled tanks), with a 4hr fire resistance rating achieved by a 150mm composite cement insulation between the inner and outer tank structures. The technical drawings indicate the tank is located towards the rear of the proposed facility, and is 32m from bushfire prone vegetation as mapped in our site-specific bushfire hazard assessment. Using the QFES Asset Protection Zone Calculator, this results in a radiant heat flux impact on the 55KL above ground fuel tank of 9.77kW/m2(see Attachment 2). This is below the 10kW/m2 threshold for vulnerable or community infrastructure established in the Queensland State Planning Policy and required to comply with the Burdekin Shire Planning Scheme bushfire hazard overlay code. This change does not materially alter bushfire hazard and risk scenarios associated with the site. There are no revisions to our bushfire hazard assessment required to address this change to the site configuration and design.  
Sincerely,

Marcia Griebenow BEnvSc, GradDip (Bushfire Protection), MEIANZ  
Director / Principal Consultant  
ECOSYSTEMS MANAGEMENT (AUST) PTY LTD  
E:marcia@ecosystemsmanagement.au  
M: 0402 213 265

Attachments:

1. Asset Protection Zone Calculation - QFES APZ Calculator
2. DWG# INK24002, 17/08/2023, Rev1

VICTORIA (Bairnsdale)  
PO Box 1288, Bairnsdale, 3875  
03 5153 1744

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ATTACHMENT 1.  
SPP Bushfire Asset Protection Zone Width Calculator  
VARIABLE DESCRIPTION

VARIABLE

UNITS

VALUE

Input Values  
FIRE WEATHER SEVERITY

FDI

VEGETATION HAZARD CLASS

VHC

-

-

-

58.00  
13.2 Dry to moist eucalypt  
woodlands on undulating  
metamorphics and granite  
Remnant

-

Upslope

degrees

15.00

degrees

10.00

m

32.0

REMNANT STATUS

SLOPE TYPE (UPSLOPE OR DOWNSLOPE)  
ST  
EFFECTIVE SLOPE UNDER THE HAZARDOUS  
eSlope  
VEGETATION  
SLOPE BETWEEN SITE AND HAZARDOUS VEGETATION  
 $\theta$   
DISTANCE OF THE SITE FROM HAZARDOUS  
d  
VEGETATION  
Output Values  
SURFACE FUEL LOAD

-

t/ha

9.40

NEAR SURFACE FUEL LOAD

-

t/ha

3.40

BARK FUEL LOAD

-

t/ha

0.60

ELEVATED FUEL LOAD

-

t/ha

1.00

TOTAL OVERALL FUEL LOAD

W

t/ha

14.40

TOTAL SURFACE FUEL LOAD

w

t/ha

12.80

POTENTIAL FIRE LINE INTENSITY

I

kW/m

6628

RADIANT HEAT FLUX

q

2

kW/m

9.77

BUSHFIRE ATTACK LEVEL (AS 3959-2018)

BAL

-

BAL 12.5

DISCLAIMER: Fire-line intensity and radiant heat calculations where effective slope exceeds 20 degrees (downslope) or 15 degrees (upslope) may be unreliable. In these locations, specialist assessment is warranted.

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ATTACHMENT 2.

Page 3 of 3



