



**BUSHFIRE MANAGEMENT REPORT
FM 2499
for
METRO FINNEGAN PTY LTD
at
43 FINNEGAN WAY
COOMERA**

**PREPARED BY
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DISCLAIMER

Experienced fire fighters with extensive knowledge of building have prepared this Report. Their practical knowledge of fire fighting has been backed up by academic study.

However, fire is an element of nature. Small natural occurrences can disastrously affect the outcome of the best planning. Human actions similarly can have disastrous results.

Whilst every care has been taken in the formulation of this management report, there can be no guarantee that even the strictest adherence to its recommendations can guarantee safety of life and property.

The authors of this report accept no responsibility for any damage to life or property caused by fire or any other cause to persons using land or structures, which could in any way be construed to be the subject of this report.

The report has been commissioned as the land falls within an area deemed a fire risk by the local authority.

As such, it must be recognized that structures upon this land and those using the structures could be deemed at risk.

Very Important Note:

The Australian Standard for Construction in Bush Fire Prone Areas has been reviewed and the new version, AS 3959-2009 came into force in Queensland on 1st October 2009, and there have been a number of subsequent amendments.

State Planning Policy SPP 01/03 has now lapsed and has been replaced by State Planning Policy 2013, portions of which are still in draft form at time of writing this report.

References made to these documents and measures required for compliance with these documents are correct to the best understanding of the author at the time of preparation of this report.

Delays in implementation of the works, which are the subject of this report, may mean that the revised Standard and Policy are in force and that the measures recommended in this report may no longer be current.

In that event, this report may have to be reprepared to maintain currency.

Note that there are references to both versions of the State Planning Policy. This is due to the State Planning Policy containing draft documentation, particularly in relation to mapping, and no new guidelines have been produced.

Current council mapping throughout the state has generally been produced under the methodologies of the SPP 01/03.

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WHICH IT WAS ORIGINALLY PREPARED.
ANY SUCH USE WILL BE PROSECUTED TO THE FULL EXTENT OF
THE LAW.**

INTRODUCTION

This Fire Management Report has been written for the benefit of future occupants of this proposed site and developed in accordance with the requirements of;

- o The Gold Coast City Council Town Plan,
- o SPP 2013.
- o Queensland Sustainable Planning Act
- o The National Construction Code and
- o Australian Standard AS3959,
- o International Fire Safety Engineering Guidelines

This report has been prepared to provide an alternative solution to the requirements of the Sustainable Planning Act. These documents refer to clearing of buffer areas between the buildings and vegetation of 1.5 times the vegetation height. This report reduces the buffer width by increasing the level of construction in accordance with the AS3959 and the National Construction Code and ensuring the ability of service intervention by the introduction of fire trails and defensible space, along with associated signage, access way protection, and water storage.

The report has been prepared as supporting documentation for a Material Change of Use (Building) /Reconfiguration of Lot Application.

- 1.1. **Address:**
43 Finnegan Way
Coomera
- 1.2. **Local Authority**
Gold Coast City Council
- 1.3. **R.P.D.**
Lot 1 on SP250201
- 1.4. **Site area**
2.978ha
- 1.5. **Responsible Fire Authority**
Rural Fire Service Queensland via the rural fire brigade for rural fires and QFES for Structural fires.
- 1.6. **Potential Bushfire Hazard Rating.**
The hazard rating maps prepared for the Council show the ratings on this property ranging from Low to Medium
The draft risk rating maps prepared for the State Government show the ratings on this property as Medium.
- 1.7. **Land tenure**
Freehold
- 1.8. **Adjoining owners are:**
Freehold
- 1.9. **Current Land Use:**
Vacant
- 1.10. **Fire danger Index**
FDI 40 (nominated by AS 3959-2009)
- 1.11. **Topography**
Undulating
- 1.12. **Predominant Wind Direction**
The predominate wind direction is from the South East. In times of severe fire weather the wind direction will be from the North West. The Topography will create microclimates, which will cause swirling, which will modify the apparent wind direction according to primary direction and velocity

- 1.13. Slope**
0-5° -- predominate vegetation.
- 1.14. Fuel Type**
Grassy Eucalypt
Paperbark Swamp
- 1.15. Fire History**
There is no evidence of a recent fire event
- 1.16. Location of Access Tracks**
The site is served by a sealed road system
- 1.17. Location of Fire Breaks**
There are no formal firebreaks. Developed sites to the North, West and South form effective fire breaks, with the bushfire Hazard being from the East only.
- 1.18. Location of existing fire fighting Infrastructure**
The site is served by reticulated water
- 1.19. Historical and Cultural Sites**
There is no evidence of Historical and Cultural sites on the property.

2. SITE AND HAZARD ASSESSMENT

2.1. Discussion with Responsible Fire Authority

The fire management report has not been discussed with the First Officer of the Rural Fire Brigade.

2.2. Vegetation Types

The vegetation type predominate to this site is as scheduled below. Note that under SPP 2013, differing vegetation types are used. This report does not refer to these but does take into account draft mapping prepared under different methodology and published by the State Government.

VEGETATION TYPE	STATE PLANNING POLICY 01/03 INDICE	AS 3959 CATEGORY	COMMENTS
Paperbark heath and swamps, eucalypt forest with dry shrub ladder fuels	8	B	
Grassy Eucalypt and acacia forest, exotic pine plantations, Cyprus pine forests, wallum heath	6	B	For the purposes of construction level assessment under AS 3959-2009, woodland is the appropriate vegetation type to use due to fuel load.

2.3. Potential Bushfire Hazard Rating.

Site inspection and assessment against the GCCC Planning Policy indicates a rating of Medium across the whole of the undeveloped site. After development, taking the 50m-safety buffer into account, the perimeter sections shown shaded on the plans will retain the Medium Hazard Rating and the core of the development will become Low.

2.4. Building Construction

All buildings situated within the area shaded on the plan accompanying this report are in a Designated Risk Area. There is a requirement that any Buildings within this area be constructed in accordance with the Australian Standard for Construction in Bushfire Prone Areas. The levels determined effect the types and usage of materials in relation to the type of Bushfire Attack, which may occur as assessed under the Standard. The Level of Bushfire Attack is assessed taking the vegetation types, slope, and distance from vegetation into account. The most common elements affected are Windows and flyscreening, with some restrictions on cladding and timber types. A comprehensive breakdown is available in either the National Construction Code or the Australian Standard for Construction in Bushfire Prone Areas. Extracts of these documents are not provided due to copyright reasons. Full details can be obtained from your building designer or certifier.

Where a plan used to show the construction levels that may apply to a house, the base construction level is taken as the highest level shown that the house is located in. The house cannot be graded in construction levels in accordance with distance from the vegetation

Building Class requirements AS 3959-2009

2.4.1.	FDI	40
2.4.2.	Vegetation Classification	B
2.4.3.	Land slope	Downslope >0 to 5 degree

Distance of site from Predominate vegetation class (Vegetation Management Zone)	Bushfire Attack Level
0-<8	BAL -FZ
8-<11	BAL-40
11-<16	BAL-29
16-<23	BAL-19
23-<50	BAL-12.5
50-	BAL-LOW

Note:

The levels shown above are based on Method 1 of the AS 3959-2009. It is possible that lower construction levels can be obtained by using Method 2 of AS 3959-2009, combined with site-specific fuel loads, and assessed on an individual building basis.

Note:

In the event that Gold Coast City Council adopts the new State Planning Policy Methodology in the new GCCC town plan, the 50m buffer referred to above and shown on the Construction Levels Plan, will become 100m

Construction levels for elevations of a building that are subject to shielding from the fire sources can be reduced in accordance with 3.5 of AS 3959-2009 by one level but not below BAL-12.5 All fire sources on adjoining sites and across roads must be considered when utilising this reduction.

2.5. Ecological Requirements

There are no specific ecological requirements in relation to bushfire management. This report provides an Alternative Solution to the clearing of buffer areas as set out in the State Planning Policy SPP01/03, and the Sustainable Planning Act.

Note;

The Category of Bushfire Attack referred to in the Australian Standard is different to the Hazard/Risk area referred to above.

Extensive modification of the existing vegetation types including that on adjoining sites could result in a change of Category of Bushfire Attack and therefore variation in the Level of construction required.

It is the responsibility of the owner of each individual site to ensure that plantings subsequent to their occupation of the site do not reduce the safety of their buildings in a manner, which could require a higher level of Construction than that originally utilised

3. RISK MANAGEMENT PLAN

3.1. Agencies / Persons Responsible

The responsible Fire Authority is the Rural Fire Service Queensland through the Rural Fire Brigade being responsible for Bush Fires and the Queensland Fire and Emergency Service being responsible for Structural Fires

It is the responsibility of the Owners of the properties to ensure that the relevant measures required by this Management Report are in place prior to inspection by the Council and the Building Certifier and to ensure that those measures are in place prior to the occupation of any buildings, which are the subject of this report. It is the responsibility of Council and Building Certifiers to ensure that relevant measures within their responsibility are in place prior to the issuance of any certification.

3.2. Bushfire Safety Objective

The objective of this report is to minimise potential risk to life and property by protecting the buildings from the effects of bushfire.

3.3. Aims

The aims to achieve this objective are to mitigate the effect of the bushfire attack mechanisms of: -

- 3.3.1. Radiant Heat
- 3.3.2. Direct Flame Contact
- 3.3.3. Wind
- 3.3.4. Ember Attack
- 3.3.5. Smoke

3.4. Functional Requirements

The functional requirements to achieve this objective are: -

- 3.4.1. The provision of safe conditions for fire fighters
- 3.4.2. The provision of safe conditions for residents
- 3.4.3. Ensure adequate and safe access to and from the property
- 3.4.4. Ensure adequate and safe water supply to the property and the establishment of fire fighting water reserves
- 3.4.5. Provide a system of fire breaks and trails to protect the building component
- 3.4.6. Remove vegetation that is considered dangerous and a hazard in Fire Conditions
- 3.4.7. To ascertain the required standard of construction of the buildings in accordance with the requirements of the National Construction Code and the Australian Standard for Construction in Bushfire Prone Areas or the provision of a satisfactory alternative solution
- 3.4.8. Facilitate the return to "normalcy"

3.5. Proposed Fire Fighting Infrastructure

- 3.5.1. The proposed buildings are to be served by a reliable reticulated water supply.

3.6. Circulation Road Layout

The site is situated in a Medium PBHR. The circulation road layout combined with the fire trails shown conforms to the general requirements for such a hazard rating.

3.7. Fencing

Fencing between houses should be of materials matching the requirements for external walls for the relevant level of construction of the subject house where within 6m of the houses.

3.8. Building Construction

All construction is to be in accordance with Australian Standard AS 3959 2009 Construction of Buildings in Bush Fire-Prone Areas and the Level of construction assessed under "Site and Hazard Assessment", and as shown on the Construction Levels Plan that forms part of this report.

Note:

In the event that Gold Coast City Council adopts the new State Planning Policy Methodology in the new GCCC town plan, the 50m buffer referred to in Section 2.4 and shown on the Construction Levels Plan, will become 100m

Note that it is our opinion that timber should not be used externally for BAL-29 plus construction even though under the Australian Standard situations could arise where it could be deemed acceptable.

The plans lodged for Building Certification are to be assessed on this basis by the Building Certifier.

A final stage completion certificate (Form 21) issued by the Building Certifier is to be received prior to occupation of the building.

Buildings are not to be occupied until certification is received

Buildings are to be maintained in a manner that protects the integrity of the construction and building elements as outlined in this report

3.9. Street Numbering

Numbering is to be installed in accordance with the current Street Numbering System at time of completion of building.

3.10. Less Flammable Landscaping

Any landscaping within the vegetation management zone is to be Less Flammable, in accordance with the list enclosed as an Appendix at the rear of this Report

3.11. Insurance

Failure to comply with this management report may have a detrimental effect upon the Insurance of the subject Buildings.

3.12. Emergency Response Procedures

3.12.1. In the event of Fire Emergency, assistance is to be obtained by dialling 000

3.12.2. The owner should read thoroughly the brochures contained and those recommended at the rear of this report. They contain valuable information that could assist in the saving of lives and property in a fire event!

3.13. Community Awareness Strategies

3.13.1. Each subsequent owner is to be provided with a copy of this Fire Management report with an alert placed on either Title or Council Rate searches that the Report is in existence and is to be made available to ensuing owners.

3.13.2. The hazard ratings are to be placed on Council Plans and Rate notices.

3.14. Administering Staff

It is the responsibility of the owners to ensure compliance with this Report and the Town Plan, and to ensure that each of the new owners is provided with a copy of this report.

It is the responsibility of the Council and the Building Certifier to ensure that the relevant measures required by this management report are in place prior to the final completion stage inspection of any buildings on any sites which are the subject of this report as noted in Clause 3.1 of this report.

It is the responsibility of the ensuing owners of the properties to maintain the properties in the conditions outlined in this report.

4. FIRE MANAGEMENT ACTION SUMMARY AND SCHEDULE

DEVELOPMENT REQUIREMENTS	BUILDING REQUIREMENTS	MAINTENANCE
<p>Provision of fire access trails</p> <p>All dead and damaged timber to be removed from the areas indicated to be mowed and removed from site</p>	<p>Buildings to comply with the Australian Standard for Construction with in Bush Fire Prone Areas.</p> <p>No occupation until compliance with Standard and Management Report</p>	<p>Regular mowing and maintenance of the vegetation areas as set out in this report.</p> <p>Drive and fire trail access to be kept clear and accessible to satisfaction of the Fire Brigade.</p> <p>Building materials are to be maintained in "as new " condition to preserve the integrity of the relevant materials.</p>

5. APPENDICES

- 5.1. Form 15
- 5.2. Site Plans
- 5.3. Supporting Information:

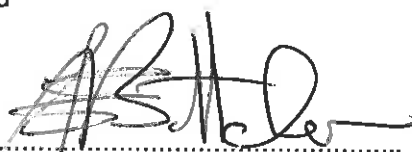
(Note. These items below are referenced for information purposes only and are not to be construed as being part of the management report)

- 5.3.1. Prepare Act Survive
- 5.3.2. Rural property Fire Management Guide 2010
- 5.3.3. Notes for Landholders
- 5.3.4. Bushfire Action Guide
- 5.3.5. Bushfire Safety in Urban Fringe Areas
- 5.3.6. Water + Power - Vital for Fire fighting
- 5.3.7. Less Flammable Vegetation
- 5.3.8. Tree selection for Fire-Prone Areas
- 5.3.9. First Draft (specifying timber in bush fire zones)
- 5.3.10. External water spray system
- 5.3.11. Fire Retardant Coating Solutions
- 5.3.12. Archicentre Bushfire Design Guide
- 5.3.13. Section 3.8 Sign Types - Fire Trail Signage of the GCCC Natural Areas Management Unit Guidelines (Page 16) Signage
- 5.3.14. Trail Number and Key Point signage
- 5.3.15. Bushfire Hydrant detail
- 5.3.16. Tank detail
- 5.3.17. Recycled Water for Firefighting
- 5.3.18. Sample Easement Document
- 5.3.19. Bushfire Windows and Shutters
- 5.3.20. A guide to retrofit your home for better protection from a bushfire.
- 5.3.21. FireFly BAL-FZ System
- 5.3.22. Extracts from Sustainable Planning Act relating to clearing.
- 5.3.23. Bushfire Planning and Design Certification Scheme Update
- 5.3.24. SAC Notification Form

We also recommend that the landholder obtains and reads the following;

- 5.3.25. Bushfire Hazard Planning in Queensland
- 5.3.26. Protecting your home against Bushfire
Both available from the Dept. of Local Government and Planning, and
- 5.3.27. Building in Bushfire Prone Areas
Available from Standards Australia
- 5.3.28. Fire in Bushland Conservation
Available from the National Heritage Trust

Signed



.....
Eldon Bottcher
Grad. Dip. DBPA (UWS) Dip. Arch. (QIT), Cert. R.F.M. (USQ), F.R.A.I.A., M.A.I.E.S. M.UDIA AIFireE
Architect
BPAD-L3 Practitioner



**APPENDIX 5.1
FORM 15**

Form 15—Compliance Certificate for building Design or Specification

NOTE	<p>This is to be used for the purposes of section 10 of the <i>Building Act 1975</i> and/or section 46 of the <i>Building Regulation 2006</i>.</p> <p>RESTRICTION: A building certifier (class B) can only give a compliance certificate about whether building work complies with the BCA or a provision of the QDC. A building certifier (Class B) cannot give a certificate regarding QDC boundary clearance and site cover provisions.</p>
<p>1. Property description This section need only be completed if details of street address and property description are applicable. EG. In the case of (standard/generic) pool design/shell manufacture and/or patio and carport systems this section may not be applicable.</p> <p>The description must identify all land the subject of the application.</p> <p>The lot & plan details (eg. SP / RP) are shown on title documents or a rates notice.</p> <p>If the plan is not registered by title, provide previous lot and plan details.</p>	<p>Street address (include no, street, suburb / locality & postcode)</p> <p>43 Finnegan Way Coomera</p> <p>Postcode</p> <p>Lot & plan details (attach list if necessary)</p> <p>Lot 1 on SP250201</p> <p>In which local government area is the land situated?</p> <p>Gold Coast City Council</p>
<p>2. Description of component/s certified Clearly describe the extent of work covered by this certificate, e.g. all structural aspects of the steel roof beams.</p>	<p>Preparation of Bushfire Management Report</p>
<p>3. Basis of certification Detail the basis for giving the certificate and the extent to which tests, specifications, rules, standards, codes of practice and other publications, were relied upon.</p>	<p>Compliance with</p> <p>The acceptance of Design and Construction Provisions of the National Construction Code.</p> <p>The Bushfire Provisions of the National Construction Code</p> <p>Australian Standard AS 3959.</p> <p>Sustainable Planning Act Queensland</p> <p>International Fire Engineering Guidelines</p> <p>State Planning Policy</p> <p>Gold Coast City Council town Planning Bushfire Management Code/Policy</p>
<p>4. Reference documentation Clearly identify any relevant documentation, e.g. numbered structural engineering plans.</p>	

LOCAL GOVERNMENT USE ONLY

Date received		Reference Number/s	
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5. Building certifier reference number

Building certifier reference number

6. Competent person details

A competent person for building work, means a person who is assessed by the building certifier for the work as competent to practise in an aspect of the building and specification design, of the building work because of the individual's skill, experience and qualifications in the aspect. The competent person must also be registered or licensed under a law applying in the State to practice the aspect.

If no relevant law requires the individual to be licensed or registered to be able to give the help, the certifier must assess the individual as having appropriate experience, qualifications or skills to be able to give the help.

If the chief executive issues any guidelines for assessing a competent person, the building certifier must use the guidelines when assessing the person.

Name (in full)

Eldon John Bottcher

Company name (if applicable)

Eldon Bottcher Architect Pty Ltd

Contact person

Eldon Bottcher

Phone no. business hours

0755920082

Mobile no.

0412434134

Fax no.

Email address

bushfires@eb-a.com.au

Postal address

P.O.Box 3606

Robina Town Centre

Postcode 4230

Licence or registration number (if applicable)

Reg Architect Qld 1325
FPA Australia BPAD –Level 3 Practitioner.
Associate Member of Institution of Fire Engineers

7. Signature of competent person

This certificate must be signed by the individual assessed by the building certifier as competent

Signature

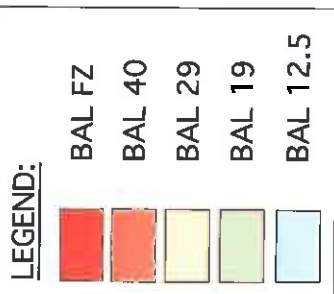


Date

26/11/2015

**APPENDIX 5.2
SITE PLANS**

THE NEW YORK PUBLIC LIBRARY

[illegible]

**APPENDIX 5.3
SUPPORTING INFORMATION**

6.PROFILES

ELDON BOTTCHE

EDUCATION AND QUALIFICATIONS

Graduate Diploma in Design in Bushfire Prone Areas
University of Western Sydney

Diploma in Architecture
Queensland Institute of Technology

Certificate of Rural Fire Management
University of Southern Queensland

Registered Architect
Queensland

A+ Architect
Australian Institute of Architects

FPA Australia Certified Practitioner (BPAD-Level 3-16935)
Bushfire Planning and Design (BPAD-LEVEL 3), Alternate Solutions & DTS

PROFESSIONAL MEMBERSHIPS

Fellow
Australian Institute of Architects

Member
Australian Institute of Emergency Services

Member
Australian Institute of Engineers Society of Fire Safety

Corporate Member
Fire Protection Association of Australia

Member
Urban Development Institute of Australia

Associate Member
Institution of Fire Engineers

Member Board of Experts
Bushfire Building Council of Australia

PROFESSIONAL EXPERIENCE

Director
Eldon Bottcher Architect Pty Ltd since 1978

Bushfire Assessment and Planning Consultant since 1998

Group Officer
Albert Rural Fire Brigades Group
Queensland Fire and Rescue Service

Group Officer
Gold Coast Rural Fire Brigades Group
Queensland Fire and Rescue Service

Group Officer
South East Regional Support Group
Queensland Fire and Rescue Service

Planning Officer
Gold Coast Rural Fire Brigades Group
Queensland Fire and Rescue Service

Member Practice Committee AIA Qld Chapter

OTHER BUSHFIRE RELATED COURSES AND TRAINING

I.C.S./AIIMS (40 hr. course) in Incident Command Systems

Certificate 4 (Workplace Training and Assessment)

RFSQ Level 1

RFSQ Level 2 (Officer)

RFSQ Fire Management 1

RFSQ Crew Leader

Certificate II in Public Safety (Firefighting Operations)

BUSHFIRE RELATED AWARDS

National Planning Award

State Planning Award

Planning Institute of Australia

Gold Coast Bushfire Management Strategy

(Co-Initiator and Member of Preparation Committee)

Australian Government

National Medal

Long and Distinguished Service to Fire fighting

Queensland Fire and Rescue Service

Diligent and Ethical Service Medal + Clasp

Service to Fire fighting

Queensland Government

Australia Day Medallion

Services to Rural Fire Fighting

Queensland Government

Year of the Volunteer Medallion

Services to Fire fighting

UDIA

Best Consultancy Team Award in 2007.

SERVICES OFFERED

Bushfire management Reports

Bushfire Safety Engineering

Bushfire Planning and Design

Bushfire Hazard Assessment

Alternative Solutions

Expert Witnessing

(See Planning and Environment Court of Queensland Determination
File No. BD 624 of 2005 sections 28 to 35)

Continuing Professional Development Lectures

Tertiary Education Lectures and Tutorials

Town Planning Bushfire Codes for Local Authorities

Bushfire Burn Planning

General consultancy relating to all aspects of Bushfire