



> Caravan Park Fire Safety Guideline

Contents



Foreword	2
Introduction	3
Definitions	4
Background	5
Key Stakeholder Responsibilities	6
Guideline Structure	7
Application of the Guideline	8
Objectives	10
Performance Measures	11
Prescriptive Provisions	13
Guideline Matrix	22
References	23

Foreword

Caravan Parks are an iconic part of the Australian social landscape. They provide recreation, affordable accommodation, lifestyle choice and often evoke a strong sense of community. Being a largely volunteer based organisation, CFA has a unique connection to the community. CFA also has a charter to reduce the risk of fire to the community.

This guideline aims to reduce the likelihood and consequence of fire within caravan parks to create safer caravan parks. The success of the guideline, however, is dependent on the support and cooperation of CFA, caravan park owners and local councils.

CFA recognises that there are a wide range of caravan parks within the state and that fire safety risks and resources vary considerably. Accordingly, this guideline responds to a need within the caravan park community, including associated stakeholders, to access a flexible and reasonable reference document in relation to fire safety.

The performance-style structure of the guideline provides the user with the flexibility required to make site-specific fire safety improvements. Fire safety requirements can be identified based on risk using a consistent framework. This approach allows the guideline to be adapted to both new and existing caravan parks.

I invite key stakeholders to consider the alternatives offered by this guideline and work together to improve, or maintain, a satisfactory level of fire safety within caravan parks.



Neil G Bibby AFSM
Chief Executive Officer

Introduction

This guideline can be applied to both existing and proposed caravan parks and has been developed by CFA as a reference tool in relation to fire safety for:

- Caravan park owners;
- Caravan park occupants;
- Local government;
- Designers; and
- CFA staff.

To ensure a consistent approach is applied state wide, regardless of the site, the guideline requires the following six objectives to be met (refer to page 10 for full extent):



O1 Provision & Maintenance of Access



O2 Prevention of Fire Spread



O3 Provision & Maintenance of Firefighting Equipment



O4 Identification & Management of Fire Hazards



O5 Development & Implementation of Emergency Management Plans



O6 Compliance with Legislative Requirements

The user may demonstrate that they have satisfied these objectives by meeting the performance measures (page 11), prescriptive provisions (page 13) or a combination of both. This approach gives the guideline a degree of flexibility that was not previously available, and enables the objectives to be met regardless of the situation, be it in relation to an existing or proposed caravan park.

Whilst the performance measures allow for development of site-specific fire safety provisions, their application relies upon the user demonstrating a considered approach based on the risk management principles established by the Australian and New Zealand Standard for risk management (AS/NZS 4360).

Appropriate application of this guideline requires consultation with CFA. This, combined with a suitable awareness of fire safety matters, will facilitate compliance with existing legislative responsibilities and CFA requirements in relation to caravan park fire safety.

Definitions

Appropriate

Will perform as required, relevant to the specific issue, to achieve the desired outcome.

Caravan Park - As defined by the Residential Tenancies Act 1997.

"An area of land on which movable dwellings are situated for occupation on payment of consideration, whether or not immovable dwellings are also situated there."

This Guideline applies to Caravan Parks only. Residential villages, Retirement villages or the like are referred to CFA separately in accordance with sections 52 or 55 of the Planning and Environment Act 1987 and accordingly different fire safety requirements apply.

Caravan / Movable Dwelling / Tent - As defined by the Residential Tenancies Act 1997.

"A movable dwelling; or an immovable dwelling situated in a caravan park."

CFA

The Country Fire Authority. The relevant fire authority for the purposes of the Residential Tenancies (Caravan Parks and Movable Dwellings Registration and Standards) Regulations 1999 within the country area of Victoria. The country area of Victoria is defined by the Country Fire Authority Act 1958 as "means that part of Victoria which lies outside the metropolitan fire district, but does not include any forest, national park or protected public land."

CFA Fire Safety Staff

A CFA employee representing CFA on fire safety matters.

Degree Necessary

To the extent that is required to fulfil the function.

Site

Any place within the perimeter of the caravan park including those occupied by structures.

Structure(s)

Includes a caravan, movable dwelling, unmovable dwelling, tent or an ancillary/service building.

Note: For firefighter access and fire separation purposes, tents need only be separated by rented site rather than individually within a single rented site.

Suitably Trafficable

Paved, sealed or hardened surface that is relatively even and continuous for pedestrian access.

This may include concrete, bitumen, grass or gravel etc. but excludes garden beds or other inappropriate surfaces for people to walk on.

The Act

Residential Tenancies Act 1997.

The Regulations

Residential Tenancies (Caravan Parks and Movable Dwellings Registration and Standards) Regulations 1999.

Note: Any reference to a regulation number in this guideline is a reference to a regulation made under these regulations.

Unobstructed

Clear and without any object that reduces a required width including, but not limited to; hot water service, building fittings and fixtures, fences, garden beds, pot plants, sheds, storage of materials or equipment.

Quantitative Argument

An argument based on numerical analysis ie: design computations or data.

Qualitative

An argument based on comparative reasoning ie: expert judgement or opinion.

Background

Within the state of Victoria the construction, site layout and facilities within caravan parks are regulated by the Residential Tenancies (Caravan Parks and Movable Dwellings Registration and Standards) Regulations 1999 ("The Regulations").

These regulations are made by the Residential Tenancies Act 1997 ("The Act").

Fire safety is addressed by the regulations as detailed in Table 1.

Regulation Number	Focus
• Regulations 25 and 26	Requirements to install smoke alarms
• Regulation 27	Maintenance of facilities in good working order
• Regulation 35	Fire Prevention and safety
• Regulation 36	Emergency Management Plans
• Regulations 40, 42 and 43	Maintenance of movable dwellings, existing buildings and prefabs

Table 1 – Regulatory Requirements

Regulations 35 and 36 require councils to consult CFA on the matters of firefighter access, firefighting facilities and emergency management plans before making a determination on these matters. The regulations do not prescribe exactly what is required. Without suitable guidance this process can lead to inconsistencies.

An emerging trend towards developing caravan parks almost exclusively for long term residential use and a desire to improve fire safety within existing caravan parks has contributed to the need for a guideline that can be applied with confidence.

Furthermore, CFA has an obligation to take all necessary steps for the prevention and suppression of fires and for the protection of life and property in case of fire. The prevention of fires clearly has a wider community benefit.

This guideline has been developed to attend to these issues within caravan parks with respect to current regulatory requirements. The guideline is considered to be an appropriate method of establishing the minimum fire safety requirements for caravan parks and CFA considers that all caravan parks should strive to comply with these guidelines.

CFA has recognised the need for a flexible and workable approach to achieving compliance. Therefore this guideline sets realistic objectives that are achievable through the use of a range of alternative designs.

Whilst this document includes elements that relate specifically to the legislative requirements highlighted in Table 1 above, the document is a guideline only. The guideline establishes a framework for stakeholders to consider in relation to caravan park fire safety.

Key Stakeholder Responsibilities

Fire safety within caravan parks is the joint responsibility of several stakeholders. Each of the following stakeholders has a key role in caravan park fire safety.

Caravan Park Owners

It is the responsibility of caravan park owners to ensure that the legislative requirements are met and the caravan park is operated in accordance with the registration issued by the local council. Regulation 5 of the regulations, states that a person must not operate a caravan park unless the caravan park is registered by the local council.

It is recommended that caravan parks are reviewed against this guideline annually in conjunction with CFA ideally at the time of application for renewal of registration of an existing caravan park.

The owner is also considered to be responsible for notifying the local council of any proposed alterations to the caravan park. Any alterations must meet the statutory requirements of the regulations, the Planning and Environment Act 1987 and the Building Act 1993 (where applicable).

Local Council

The local council is responsible for registering caravan parks within its municipality in accordance with regulation 8 of the regulations.

Regulations 35 and 36 require the council to request comments from CFA in relation to firefighter access, provision of firefighting facilities and preparation of emergency management plans. The council must consider these comments prior to making a decision on the application for registration of a new caravan park.

It is preferable that the local council contacts CFA for comments in relation to any planning or building permit application relating to a caravan park.

Local council officers that may deal with caravan park issues generally include Environmental Health Officers, Planners and Building Surveyors.

CFA

The regulations state that the council must consult with the relevant fire authority before determining any matter under regulations 35 and 36 which relate to firefighter access, provision of firefighter facilities and emergency management plans. CFA is therefore required to comment accordingly.

Section 20 of the Country Fire Authority Act 1958, states in part that CFA is responsible for taking all necessary steps for the prevention and suppression of fires and for the protection of life and property in case of fire within the country area of Victoria.

To enable CFA to meet this legislative responsibility, caravan parks must be designed and maintained appropriately in accordance with this guideline.

Guideline Structure



The guideline is headed by the objectives. These objectives may be met by demonstrating compliance with the performance measures, prescriptive provisions or a combination of both. Figure 1 below depicts this structure.

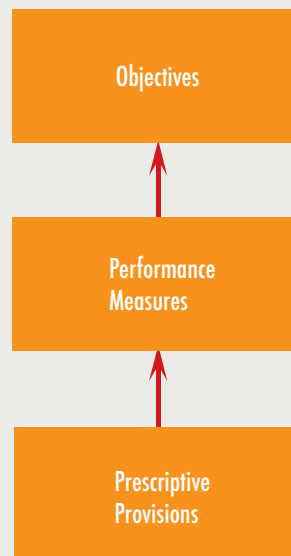


Figure 1- Guideline Structure

Objectives (O)

Each objective represents an element of fire safety that needs to be addressed in a caravan park. All caravan parks should meet the objectives.

Performance Measures (PM)

The performance measures expand on the intent of the objectives and state the level of performance that must be demonstrated by alternative design proposals if the prescriptive provisions cannot be met or are not chosen to be met. Demonstrating compliance with the performance measures will meet the objectives.

Prescriptive Provisions (PP)

Compliance with the prescriptive provisions will automatically achieve compliance with the performance measures and avoid the need to prepare additional design information. The prescriptive provisions represent a benchmark for meeting the objectives.

Whilst this structure allows for the development of site-specific fire safety provisions, its application relies upon the user demonstrating a considered approach based on risk management principles established by AS/NZS 4360. Refer to the Guideline Matrix on page 22 to determine which performance measures or prescriptive provisions are linked to which objectives.

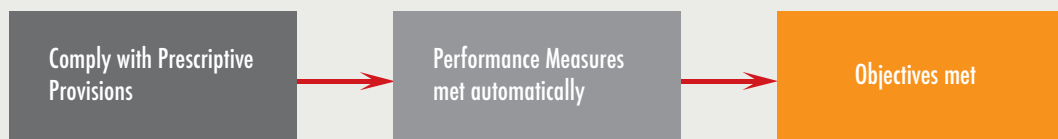
Application of the Guideline

Using the Guideline Structure

It is expected that all caravan parks are initially reviewed against the prescriptive provisions. Where the prescriptive provisions cannot be met, alternative design proposals can be developed to meet the requirements of the performance measures.

There are 3 options available to determine compliance with the objectives. Figure 2 below represents the options available for achieving compliance.

Option 1 Comply with the Prescriptive Provisions



Option 2 Demonstrate compliance with the Performance Measures



Option 3 Comply with some aspects of the Prescriptive Provisions and demonstrate compliance with some aspects of the Performance Measures

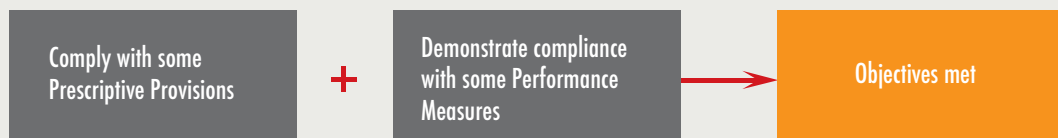


Figure 2 – Compliance options

Design proposals and layouts supplied to CFA for comment, should clearly identify the compliance option used for each fire safety element.

Complying with Prescriptive Provisions

The prescriptive provisions of the guideline offer established solutions for meeting the guideline objectives. Compliance with the prescriptive provisions does not require the preparation of alternative design proposals.

In order to comply with a prescriptive provision every aspect of the provision must be met. Discretion as to whether or not a prescriptive provision has been met will ultimately lie with CFA. Meetings or inspections with *CFA Fire Safety Staff* are encouraged to ensure that design proposals meet the prescriptive provisions.

Demonstrating compliance with Performance Measures

Where the performance measures are used to meet the objectives, alternative design proposals must be prepared to demonstrate compliance. Both *quantitative* and *qualitative* arguments may be utilised. Alternative design proposals must include supportive arguments that may be based on:

- Comparison with the prescriptive provisions and/or objectives; or
- Documentary evidence (e.g. test certificates indicating a materials fire hazard properties); or
- Expert judgement in the form of a Fire Engineering Analysis prepared by a suitably qualified Fire Engineer.

Discretion as to whether or not a performance measure has been met will ultimately lie with CFA. Meetings or inspections with *CFA Fire Safety Staff* are encouraged to ensure that design proposals using the performance measures are mutually acceptable.

Applying the guideline to proposed caravan parks

CFA considers that this guideline should be implemented as follows. In relation to proposed caravan parks;

- Guideline requirements are to be incorporated within the design during the planning stage and submitted to CFA for comment prior to any relevant Planning Permit being issued.
- Local council considers CFA comments in relation to proposed designs prior to making a decision on the registration of a new caravan park.
- New caravan parks should not be provided with registration by the local council unless they have demonstrated compliance with this guideline.

Applying the guideline to existing caravan parks

One of the main reasons for developing the performance based aspects of this guideline is so that it can be applied to existing caravan parks.

It is intended that caravan park owners should demonstrate a desire to incorporate the guideline requirements within their caravan park. However, whilst this may be achieved by using any of the options discussed on page 8, it is acknowledged that complying completely with the prescriptive provisions will be difficult in most circumstances due to existing infrastructure and financial viability issues.

Accordingly application of the guidelines to existing caravan parks should be sympathetic to these issues whilst still treating the identified fire safety risks appropriately. Where the prescriptive provisions cannot be met, assessing proposals against the performance measures is the appropriate way of doing this. In some instances application of the guideline may mean that significant works require the establishment of an agreed implementation plan between stakeholders based on risk management principles in accordance with AS/NZS 4360. The implementation plan should allow required works to be undertaken over a reasonable time frame that is determined by risk and cost and is mutually acceptable.

Stakeholders are invited to work with CFA to ensure that application of the guideline to existing parks is reasonable, attends to the identified fire safety risks and that any proposal is consistent with the objectives of this guideline.

Any final application of the guideline should be done in consultation with CFA to ensure that the proposed design and maintenance is consistent with the objectives.

Objectives

If these six objectives are adequately addressed the fire safety of the caravan park will meet CFA's requirements. Compliance with these objectives must be demonstrated by meeting either the performance measures or prescriptive requirements or a combination of both.



O1 Provision & Maintenance of Access

Adequate access must be provided and maintained within caravan parks to the *degree necessary* for:

- (a) Firefighters; between and around any *structure*; and
- (b) Fire vehicles; including pumpers and tankers.



O2 Prevention of Fire Spread

Adequate separation distance must be provided and maintained between and around any *structure* to prevent fire spread so that:

- (a) Occupants can safely evacuate; and
- (b) The potential for fire spread to multiple structures is reduced.



O3 Provision & Maintenance of Firefighting Equipment

Appropriate firefighting equipment must be provided and maintained to enable:

- (a) Occupants to undertake an initial fire attack; and
- (b) CFA to fight the fire as necessary.



O4 Identification & Management of Fire Hazards

Potential fire hazards must be identified, minimised and maintained safely.



O5 Development & Implementation of Emergency Management Plans

Site-specific emergency management plans must be developed and maintained to reflect the assessed risk.



O6 Compliance with Legislative Requirements

The relevant legislative requirements, as amended from time to time must be met.

NOTE: Compliance with legislative requirements must be achieved regardless of whether performance measures or prescriptive provisions are used.

Performance Measures

Demonstrating compliance with the following performance measures will ensure that the guideline objectives are met.

PM1 Firefighter Access



Access for firefighters must be provided and maintained to ensure that they are able to:

- (a) Travel externally and directly in pairs to the front and rear of a *structure* in full structural personal protective clothing (PPC) including breathing apparatus; and
- (b) Travel *unobstructed* on a *suitably trafficable* surface; and
- (c) Undertake firefighting activities as required.

PM2 Fire Vehicle Access



Access for fire vehicles must be provided and maintained to enable:

- (a) Access for firefighting vehicles as required; and
- (b) Firefighting operations to be conducted within any part of the caravan park from the fire appliance as necessary.

PM3 Fire Separation



All *structures* must be sited and clearances maintained to ensure that the likelihood of fire spread between *structures* is reduced *appropriate* to:

- (a) Potential Fire Intensity; and
- (b) Potential Flame contact; and
- (c) Potential Radiation; and
- (d) The distance between *structures*; and
- (e) CFA Intervention; and

All *structures* must be sited to ensure that;

- (f) Occupants can safely evacuate to a designated assembly area in an emergency.

PM4 Fire Equipment



Fire Equipment must be provided and maintained *appropriate* to:

- (a) The identified risks; and

Fire Equipment must be provided and maintained;

- (b) In locations accessible to all caravan park occupants; and
- (c) With appropriate signage.



PM5 Fire Authority Equipment



A water supply must be provided and maintained for use by CFA *appropriate* to:

- (a) The likely CFA response; and
- (b) The identified risks and hazards.

Fire Hydrants must be provided and maintained where reticulated water supply is available:

- (a) With water quantities appropriate to the identified risks and hazards; and
- (b) With fittings appropriate to CFA; and
- (c) At operable locations acceptable to CFA; and
- (d) With appropriate signage or markers; and

If reticulated water supply is unavailable, static water supply for CFA use must be provided and maintained:

- (e) With water quantities appropriate to the identified risks and hazards; and
- (f) With fittings appropriate to CFA; and
- (g) In operable locations acceptable to CFA; and
- (h) With appropriate signage and markers.

PM6 LP Gas



LP Gas storage within caravan parks must be monitored and maintained *appropriate* to:

- (a) Storage size; and
- (b) Storage location; and
- (c) Storage type; and
- (d) Use.

PM7 Electrical Safety



Electrical Safety must be implemented and maintained within all caravan parks and each *structure* within a caravan park.

PM8 Flammable Liquids



Flammable liquids within caravan parks must be monitored and maintained *appropriate* to:

- (a) Storage size; and
- (b) Storage location; and
- (c) Storage type; and
- (d) Use.

PM9 Emergency Management Plan



An emergency management plan must be developed *appropriate* to:

- (a) Caravan park size and characteristics; and
- (b) Number of staff and occupants; and
- (c) Available emergency services; and
- (d) Identified fire risks and hazards (including bushfire); and
- (e) Available egress from the site.

The location of the emergency management plan must be *appropriate* for CFA access.

Prescriptive Provisions

Compliance with the following prescriptive provisions will ensure that the performance measures are met automatically and the guideline objectives are met.

PP1 Firefighter Access and Fire Separation



The minimum required width for firefighter access and fire separation must be provided between and around each *structure* in the caravan park in accordance with the following requirements and Figure 3 below:



Figure 3 – Firefighter Access and Fire Separation

Firefighter access (in accordance with regulation 35) must be:

- (a) 1200mm in width and *unobstructed* at all times. (It is preferred that the firefighter access width is centrally located however this is not essential); and
- (b) Provided with a surface that is *suitably trafficable*.

Fire separation must be:

- (a) 2000mm in width measured between the external walls of associated *structures*.

A minimum height of 2100 mm must be maintained throughout the required firefighter access width.

Vegetation and storage between and around *structures* that may contribute to fire spread should be reduced and maintained appropriately.

Figures 4 to 10, provide examples of acceptable firefighter access and fire separation provisions.

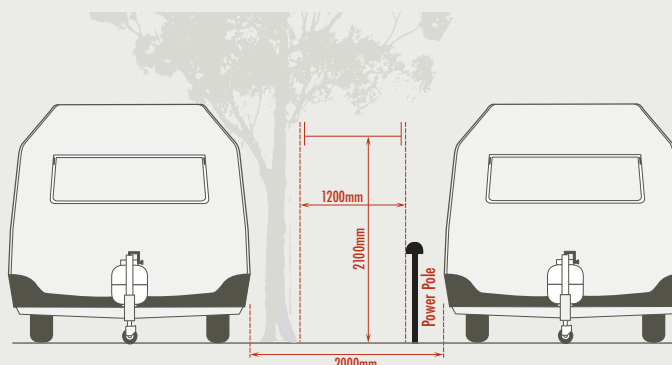


Figure 4 – Caravan to Caravan

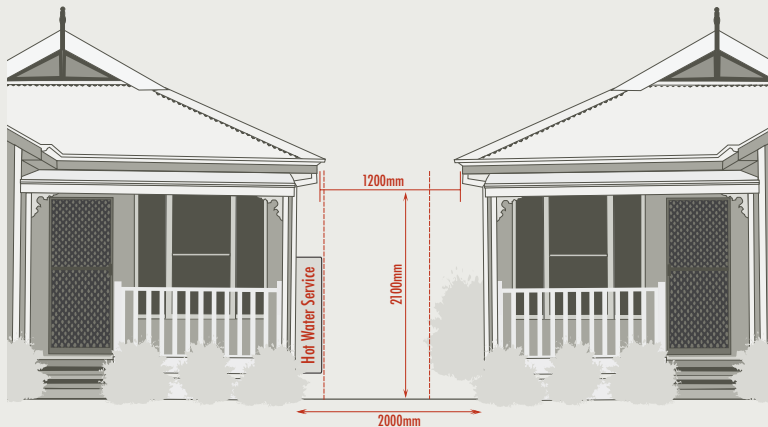


Figure 5 – Movable Dwelling to Movable Dwelling

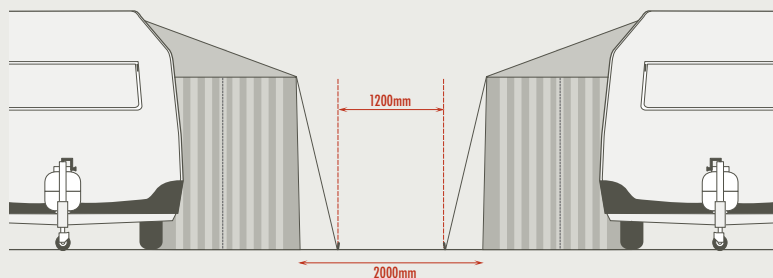


Figure 6 – Caravan Annexe to Caravan Annexe

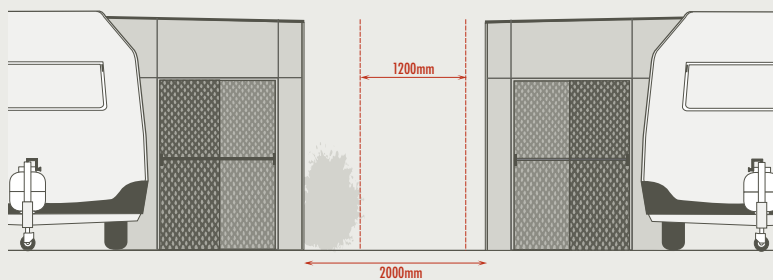


Figure 7 – Caravan Annexe - Solid Fly to Solid Fly

Note: This configuration is only considered to meet the prescriptive provisions if the carport has 3 sides open and is not fitted with a roller door or any partitions. Otherwise the carport must be a minimum of 2000mm from the external wall of the adjoining structure.

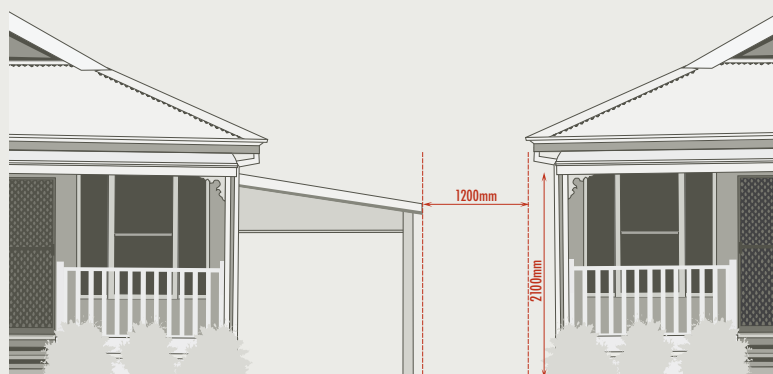


Figure 8 – Movable Dwelling to Carport/Movable Dwelling

Note: These access and separation distances are required between tent sites, not necessarily individual tents, in order to meet the prescriptive provisions.

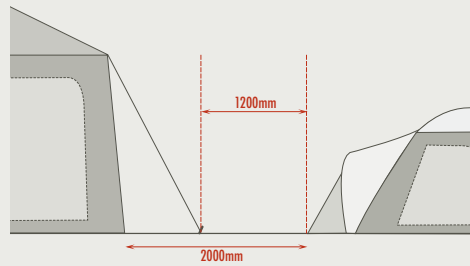
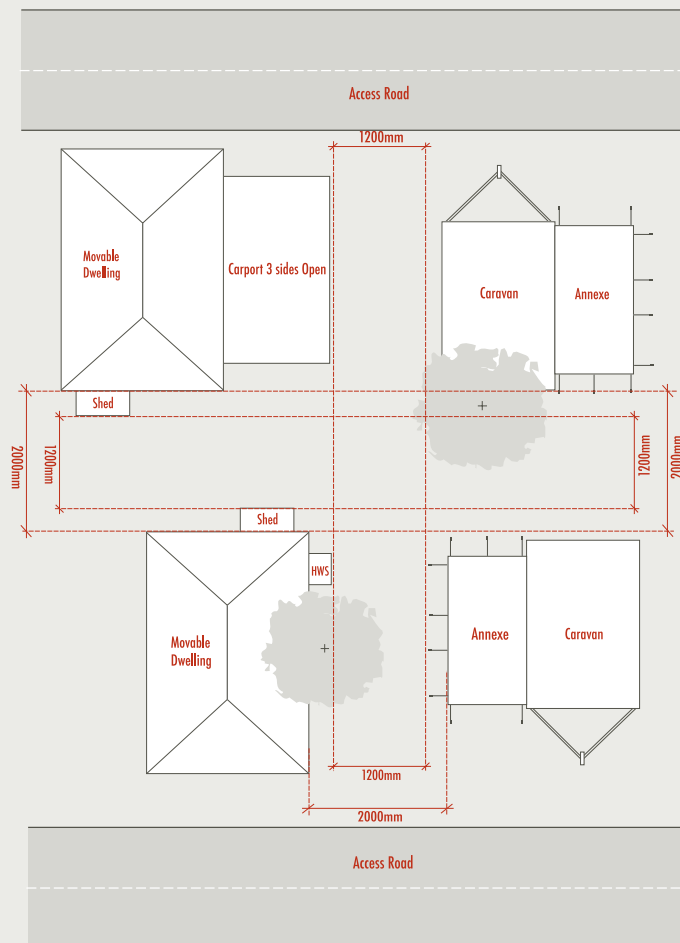


Figure 9 – Tent to Tent



Note: Height clearance of 2100mm must be maintained throughout firefighter access paths.

Figure 10 - Plan view of required firefighter access and fire separation distances

Rationale

Firefighter access is required to be provided by the regulations, additionally CFA considers that fire separation is also required to achieve an appropriate level of fire safety.

CFA research shows that a space 1200mm wide is required for firefighters to operate effectively. This width assumes the worst-case scenario in terms of firefighter manoeuvrability and tasks (including patient rescue, the use of ladders and fully charged hoses). The required fire separation width is consistent with the requirements of the Building Code of Australia for class 1a residential dwellings and allows for the combustibility of typical structures found in caravan parks.

PP2 Fire Vehicle Access



Fire vehicle access (in accordance with regulation 35) must be provided within a caravan park as follows:

- (a) Curves in a driveway must have a minimum inner radius of 10 metres (refer Figure 11 below); and

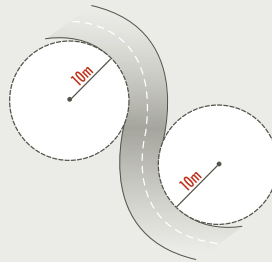


Figure 11 - Driveway radius

- (b) The average grade must be no more than 1 in 7 (14.4%) (8.1 degrees) with a maximum of no more than 1 in 5 (20%) (11.3 degrees) for no more than 50 metres (refer Figure 12 below) and;

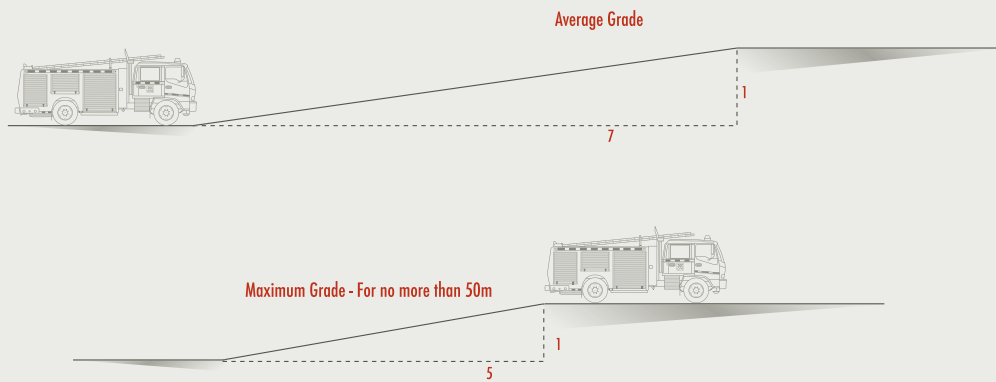


Figure 12 - Gradient

- (c) Dips must have an entry and exit angle of no more than 1 in 8 (2.5%) (7.1 degrees) (refer Figure 13 below); and

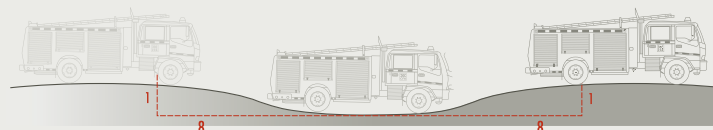


Figure 13 - Dips

The access road must:

- (d) Be designed, constructed and maintained for a load limit of at least 15 tonnes, be of all weather construction; and
 - (i) Provide a minimum trafficable width of 4 metres and be clear of encroachments 4 metres vertically (refer Figure 14); and
 - (ii) If the access road is longer than 100 metres from the nearest intersection a turning circle with a minimum radius of 10 metres or:
A “T” or “Y” head with a minimum formed surface of each leg being 8 metres in length measured from the centre point of the head and four metres trafficable width (refer Figure 15) and;
 - (iii) If the length of the access road is greater than 200 metres passing bays must be provided. Passing bays must be 20 metres long and be provided every 200 metres with a trafficable width of 6 metres (refer Figure 16).

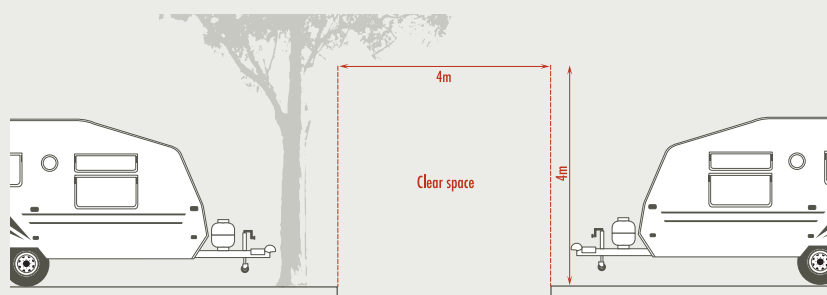


Figure 14 - Trafficable width and height

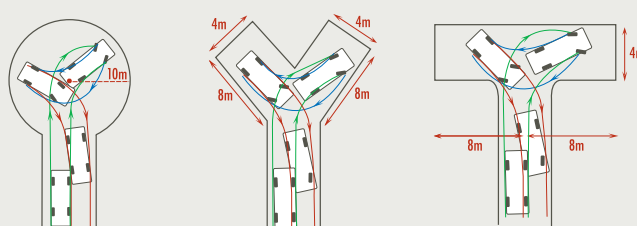


Figure 15 - Access/Turning Circle

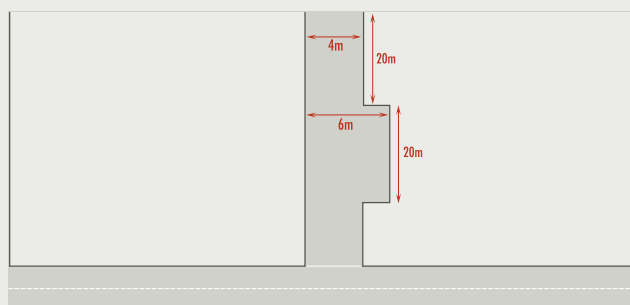


Figure 16 - Access Road Length/Passing Bays

Rationale

Steep slopes and severe short dips affect the free movement of fire trucks and limit operational capabilities. Roads must be trafficable in all weather conditions. Most fire trucks weigh less than 13 tonnes however future trucks and some current vehicles may weigh more than this.

It is dangerous for emergency vehicles to back along roads for excessive distances especially in an emergency situation. Access roads must incorporate the ability for fire trucks to execute a 3 point turn safely and permit other emergency services vehicles to pass.

PP3 Occupant Fire Equipment



Each residential *structure* (excluding tents) within the caravan park must be provided with:

- (a) Portable Fire Extinguishers selected and installed in accordance with AS 2444 (including signage) maintained to the appropriate standard and be fit for purpose (in accordance with regulation 35); and
- (b) Fire Blankets selected and installed in accordance with AS 2444 (including signage) maintained to the appropriate standard and be fit for purpose (in accordance with regulation 35); and
- (c) Smoke alarms in accordance with AS 3786 (these may be battery operated or hardwired) maintained to the appropriate standard and be fit for purpose (in accordance with regulations 25 and 26).

Note: All commercial accommodation should comply with these provisions however, it is acknowledged that caravan park owners are unable to demonstrate compliance with prescriptive provision PP3 (a) (b) (c) in relation to privately owned caravans. However, private caravan owners should be encouraged to comply with these provisions.

In accordance with regulation 35 each *site* must be provided with:

- (a) Full coverage from 36m long fire hose reels when fully extended and laid to avoid any physical barriers. Fire hose reels are to be installed in accordance with AS 2441 as if they were being installed to a building and be maintained to the appropriate standard and be fit for purpose (refer Figure 17 below). All fire hose reels must be provided with protection from the weather.

In areas where reticulated water supply is not available static water supply may be considered to serve fire hose reel systems. Connection may be made to the static water supply provided for the CFA.

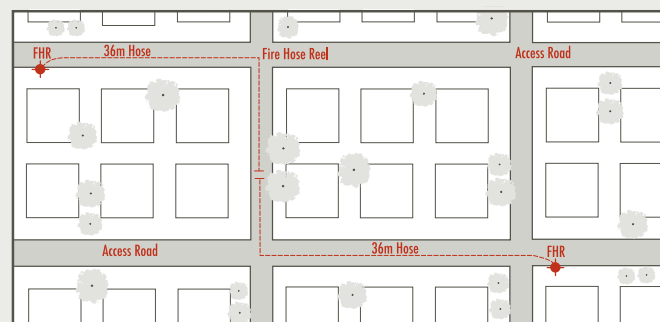


Figure 17 - Fire Hose Reel (FHR) Coverage

Rationale

Occupants must be notified of a fire as soon as possible and provided with the opportunity to extinguish it or reduce fire spread prior to CFA arrival. Occupant Fire Equipment must be reliable and effective. CFA response times in regional areas are increased as a function of distance and resources, therefore occupant intervention may be critical in reducing the size of an incident.

PP4 Fire Authority Equipment



In accordance with regulation 35 a reticulated fire hydrant system is to be provided within the caravan park:

- So that 120m of hose, laid to avoid all permanent obstructions and anticipated vehicular obstructions will provide coverage to every *site* and *structure* (refer Figure 18); and
- To meet the water performance, pipe size and fitting requirements of AS 2419.1 as if they were being installed to protect a building, to the satisfaction of CFA; and
- With external hydrants pursuant to section 3.2.2.2 of AS 2419.1 (refer Figure 19).

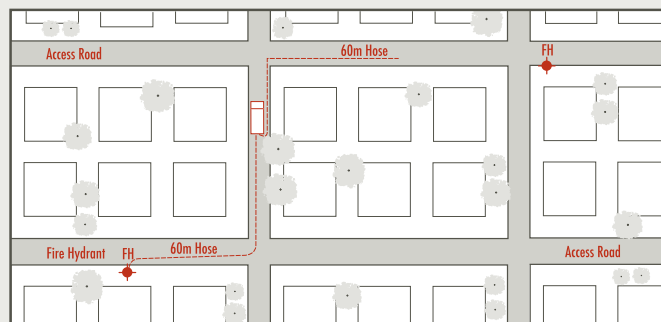


Figure 18 - Reticulated Fire Hydrant (FH) Coverage

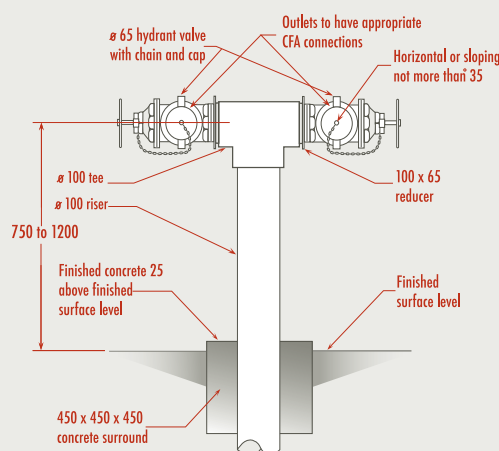


Figure 19 - External Fire Hydrant pursuant to AS2419.1 (all dimensions measured in mm)

OR;

Static water supply must be provided to the caravan park:

- With a maintained minimum water supply of 45000 litres exclusively for fire fighting use; and
- To meet the water performance, pipe size, tank construction and fitting requirements of AS 2419.1 as if it was being installed to protect a building, to the satisfaction of CFA; and
- Located so that every *site* and *structure* is within reach of 60m of hose laid from the tank or 120m of hose laid from a hydrant on a reticulated system connected to the tank, to avoid all permanent obstructions and anticipated vehicular obstructions; and
- With tanks located within 4m of hardstand to allow fire vehicles to connect to the static water supply to the satisfaction of CFA.

(Note: For larger caravan parks this requirement may determine that multiple static water supply tanks are required for coverage to be achieved (refer Figures 20 and 21))

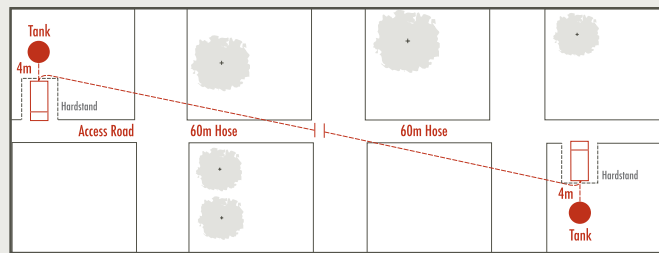


Figure 20 - Static Water Storage Coverage, no reticulation

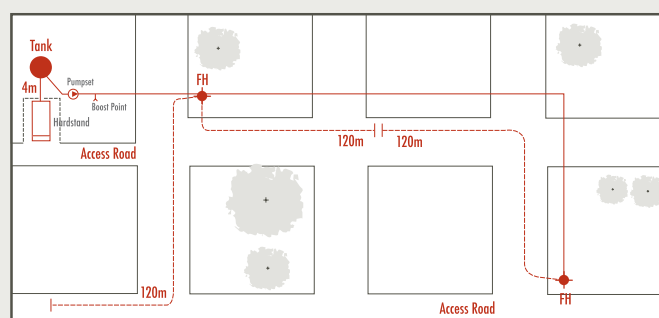


Figure 21 - Static Water Storage Coverage, with reticulation

Rationale

Fire Hydrants are the most effective means of supplying the high volumes of water required by fire brigades. Although responding brigades may include tankers, the amount of water on such appliances may be insufficient to control or extinguish a fire.

Where reticulated water supply is not available, fire brigades may use on-site stored water. The prescriptive provision assumes that 45000 litres is sufficient to contain a maximum of 4 caravans / movable dwellings. It also assumes that there will only be one incident at a time.

The hose lengths are determined by operational capacity. Longer lengths create difficulties with set up time, manoeuvrability and reduce hydraulic performance.

PP5 LP Gas



LP Gas storage and use within caravan parks must be in accordance with AS/NZS 1596 and the Dangerous Goods (Storage and Handling) Regulations 2000. Information in this regard may be sought from Worksafe.

Caravan parks that store and handle quantities of dangerous goods that exceed those listed under "Manifest Quantity" or "Fire Protection Quantity" in Schedule 2 of the Dangerous Goods (Storage and Handling) Regulations 2000, are required to seek the specific advice of CFA. This advice may require the implementation of measures exceeding those referenced by this guideline in relation to fire safety equipment. This requirement generally applies to the storage of LP Gas in excess of 5000 litres.

Rationale

LP Gas is a highly flammable liquid and must be stored and used appropriately. LP Gas is commonly used in caravan parks and may be stored remotely in large quantities (tank) or smaller cylinders immediately adjacent to accommodation structures. Type, location and orientation of use must therefore be determined to reduce the risk of associated fires.

PP6 Electrical Safety



Electrical safety should be promoted in accordance with AS/NZS 3000 and AS/NZS 3001. The following guidelines should be followed:

- (a) Power lines must be kept clear of vegetation and other obstructions; and
- (b) External power supply between the source and *structures* within the caravan park must be insulated and not contain any connections exposed to the weather; and
- (c) Each site should have its own individual power source; and
- (d) The use of multiple power boards and double adaptors should be discouraged; and
- (e) Extension leads for connection between the external power source and the *structure* should be tested and tagged in accordance with AS/NZS 3760.

Rationale

Electricity is a major cause of fires worldwide. Fires can start by power lines touching each other as a result of falling trees or branches. Insulation of power supplies is critical to prevent shorting and electrocution. Overloading of power sources can easily cause ignition and contribute to fire starts.

PP7 Flammable Liquids



Storage and use of flammable liquids within caravan parks must be in accordance with the Dangerous (Goods Storage and Handling) Regulations 2000 and AS 1940. Guidance should be sought from Worksafe.

Caravan parks that store and handle quantities of dangerous goods that exceed those listed under “Manifest Quantity” or “Fire Protection Quantity” in Schedule 2 of the Dangerous Goods (Storage and Handling) Regulations 2000, are required to seek the specific advice of CFA. This advice may require the implementation of measures exceeding those referenced by this guideline in relation to fire safety equipment. This requirement generally applies to the storage of flammable liquids in excess of 2500 litres.

Rationale

Flammable liquids are highly volatile and must be stored/used appropriately.

PP8 Emergency Management Plan



In accordance with regulation 36 of the Regulations, emergency management plans must be developed for each caravan park. Emergency management plans should be developed in accordance with AS 3745 and AS/NZS 4360.

AS1596 and AS1940 also have a requirement for the provision of emergency management plans as do the Dangerous Goods (Storage and Handling) Regulations 2000 where the storage thresholds are met. These standards and regulations impose greater information and consideration than that required by AS3745. Therefore each caravan park should investigate whether or not any additional obligations exist under AS1596, AS1940 or the Dangerous Goods (Storage and Handling) Regulations 2000.

The emergency management plan must be located in a position that is acceptable to CFA.







CFA can provide assistance in the development of appropriate emergency management plans.

Rationale

An emergency management plan is an essential part of fire safety in any facility containing multiple, unrelated occupants. Emergency situations are always time critical and efficient actions provide positive results. However, emergency management plans must be site specific.

Bushfire risks in caravan parks are obviously increased in regional areas and emergency management plans must take account of this. The extent of bushfire risk is subject to a number of variables. These include surrounding vegetation, topography, location in relation to manageable land and site boundaries, site access and brigade resources. Sound emergency management plans must assess all risks associated with the caravan park. Risks associated with the storage and handling of Dangerous Goods should also be accounted for appropriately by emergency management plans.

Guideline Matrix

Objective	Relevant Performance Measure	Relevant Prescriptive Provision
 01 Provision & Maintenance of Access	PM1 Firefighter Access	PP1 Firefighter Access & Fire Separation
 02 Prevention of Fire Spread	PM2 Fire Vehicle Access	PP2 Fire Vehicle Access
	PM3 Fire Separation	PP1 Firefighter Access & Fire Separation
 03 Provision & Maintenance of Firefighting Equipment	PM4 Fire Equipment	PP3 Occupant Fire Equipment
	PM5 Fire Authority Equipment	PP4 Fire Authority Equipment
 04 Identification & Management of Fire Hazards	PM6 LPG	PP5 LPG
	PM7 Electrical Safety	PP6 Electrical Safety
 05 Development & Implementation of Emergency Management Plans	PM8 Flammable Liquids	PP7 Flammable Liquids
	PM9 Emergency Management Plan	PP8 Emergency Management Plan
 06 Compliance with Legislative Requirements		

References

Australian Standard AS1851- Maintenance of fire protection systems and equipment

Australian Standard AS 1940 - The storage and handling of flammable and combustible liquids

Australian Standard AS 2419.1- Fire hydrant installations – system design, installation and commissioning

Australian Standard AS 2441- Installation of fire hose reels

Australian Standard AS 2444 - Portable fire extinguishers and fire blankets – selection and location

Australian Standard AS 3745 - Emergency control organisation and procedures for buildings, structures and workplaces

Australian Standard AS 3786 - Smoke alarms

Australian and New Zealand Standard AS/NZS 1596 - The storage and handling of LP Gas

Australian and New Zealand Standard AS/NZS 3000 – Electrical installations (known as Australian / New Zealand Wiring Rules)

Australian and New Zealand Standard AS/NZS 3001 – Electrical installations – relocatable premises (including caravans and tents) and their site installations

Australian and New Zealand Standard AS/NZS 3760 – In-service safety inspection and testing of electrical equipment

Australian and New Zealand Standard AS/NZS 4360 – Risk Management

Building Code of Australia

Country Fire Authority Act 1958

Dangerous Goods (Storage and Handling) Regulations 2000

Planning and Environment Act 1987

Residential Tenancies Act 1997

Residential Tenancies (Caravan Parks and Movable Dwellings Registration and Standards) Regulations 1999

NOTE: Only current versions of the above reference documents as amended from time to time should be used in conjunction with this guideline.





CFA Headquarters

P.O. Box 701
Mt Waverley, VIC 3149
Telephone (03) 9262 8444
Facsimile (03) 9264 6200

Authorised by

The Victorian Government
8 Lakeside Drive
Burwood East, VIC 3151

Published July 2006