



**Northern Ireland
Fire & Rescue Service**

A FIRE SAFETY GUIDE FOR CARAVAN SITE OPERATORS

Information on Complying with Fire Safety Law in Northern Ireland

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VERSION CONTROL

This is a dynamic document which will be amended at any time to improve the content. The document is maintained by the Group Commander (Protection), Northern Ireland Fire & Rescue Service Headquarters.

Amendments are detailed as below:

No	Issued	Amendment	Prepared by
1	06/11/2018	New guidance.	GC Geoff Somerville

1 INTRODUCTION

1.1 Purpose

The purpose of this guide is to help the operators of caravan sites understand how to meet their legal obligations in respect of fire safety and provide general fire safety advice.

A section has been included to cover glamping pods, yurts or similar units which now feature in many sites for hire as sleeping accommodation.

There are likely to be alternative ways of demonstrating compliance with the relevant requirements other than by following a design provision given in this guide. There is therefore no obligation to adopt any particular provision, should you decide to comply in some other way. However, you will have to demonstrate that your alternative solution meets the relevant requirements by those other means.

1.2 Site Types

Six site types are described as follows:

Site Type	Description
Permanent Residential Caravan Sites	A site, or part of a site, providing permanent living accommodation in mobile homes or caravans.
Holiday Caravan Sites	A site, or part of a site, on which mobile homes or caravans are, for the most part, permanently placed for use for holidays.
Touring Caravan Sites	A site, or part of a site, for use by towed caravans, motorhomes or campervans.
Roma or Travellers' Sites	A site occupied by members of Roma, Gypsies, Travellers, Manouches, Ashkali, Sinti or Boyash Communities.
Workers' Sites	A site used to house workers, for example agricultural workers.
Temporary Touring Caravan Sites	A site established for a short term duration, for use by towed caravans, motorhomes or campervans.

The fire safety measures required differ depending on the site type.

1.3 Site Licence Requirements

A caravan site operator is required to hold a site licence and operate in accordance with:

- Caravans Act (Northern Ireland) 1963;
- Model Licence Conditions for Caravan Sites 1992 (Holiday Caravan Sites); and
- Model Licence Conditions for Residential Caravan Sites 1994.

An operator must have planning permission for the caravan site before applying for a licence.

An application for a site licence is made to the local council.

The local council may put conditions on the site licence which may include any advice provided in this guide.

Inspections may be carried out by the licensing council, Northern Ireland Fire & Rescue Service (NIFRS), or other enforcement authorities.

NIFRS may carry out a fire safety inspection at any time, though inspections will not generally be carried out on an annual, or periodic basis. In addition, local fire crews may visit sites for familiarisation and for pre-planning, which should not be confused with a formal fire safety inspection.

1.4 Fire Safety Legislation

The fire safety legislation which applies in Northern Ireland is:

- The Fire and Rescue Services (Northern Ireland) Order 2006; and
- The Fire Safety Regulations (Northern Ireland) 2010.

This applies to:

- all caravan sites with common or shared parts;
- individual caravans which are rented out as a holiday let;
- individual caravans which are used to house workers, for example for agricultural workers; and
- any building on any site type provided for common use.

The legislation requires the licence holder, and the site manager, to undertake duties to ensure persons (whether they are employees, residents, visitors or others) are safe from harm caused by fire.

The duties fall into seven general categories:

1. Carrying out a fire safety risk assessment of the site;
2. Identifying the fire safety measures necessary as a result of the fire safety risk assessment outcome;
3. Implementing these fire safety measures using risk reduction principles;

4. Putting in place fire safety arrangements for the ongoing control and review of the fire safety measures;
5. Complying additionally with the specific requirements of the fire safety regulations;
6. Keeping the fire safety risk assessment and outcome under review; and
7. Record keeping.

The sites which the fire safety legislation does not apply to include:

- single unit sites; and
- sites which are occupied by single family groups.

1.5 Fire Safety Risk Assessments

Where the legislation applies, and before a site is occupied, a full fire safety risk assessment should be completed in accordance with Article 25 and 26 of The Fire and Rescue Services (Northern Ireland) Order 2006. This should form the foundation of all fire safety measures and should be carried out by a competent person with sufficient technical knowledge.

All other relevant premises, such as buildings and permanent structures within the site, should be subject to an individual fire safety risk assessment. These premises may fall under different uses, for example, offices and shops, places of assembly, or premises providing sleeping accommodation.

The NIFRS website www.nifrs.org contains a range of helpful advice on fire safety and includes links to technical guides for each of the different types of premises.

1.6 Source of Guidance

The fire safety measures recommended in this guide are based on the following research paper:

Building Research Establishment Information Paper, Fire Spread Between Caravans, M P Shipp, IP 15/91, September 1991.

The recommendations of this research paper are mirrored by the model conditions.

2 ACCESS FOR FIRE APPLIANCES

2.1 Roads

Roads shall be designed to provide adequate access for emergency vehicles and must be kept clear of obstruction at all times.

Roads should not be less than 3.7 metres wide, or, if they form part of a clearly marked one way traffic system, not less than 3.0 metres wide.

Gateways should be a minimum of 3.1 metres wide and have a minimum height clearance of 3.7 metres.

Roads should be capable of supporting the weight of a 12.5 tonne fire appliance and be adequately maintained.

Vehicle hardstanding areas should not exceed a gradient of 1 in 12.

All roads shall have adequate surface water/storm drainage.

Roads should have no overhead cable less than 4.5 metres above the ground.

Caravan standings should be no more than 50 metres from a Fire Service access road.

2.2 Turning Circles for Fire Appliances

A turning facility should be provided in a dead end vehicle access route which is more than 20 metres in length.

This should be a hammerhead or turning circle located so that vehicles do not have to reverse more than 20m.

The minimum turning circle required between kerbs is 16.8 metres and between walls is 19.2 metres.

3 SPACE AND DENSITY BETWEEN CARAVANS

3.1 Criteria Specific to Site Type

Criteria	Permanent Residential Caravan Site*	Holiday Caravan Site	Touring Caravan Site
Minimum separation distance between caravans	6m	5m if aluminium or other material with similar fire performance 6m if plywood or similar, or mixture of permanent residential and holiday caravans	6m
Maximum distance from fire appliance access road	50m	50m	50m
Minimum clear space where there are ramps for the disabled, verandas or stairs	4.5m	3.5m 4.5m if mixture of permanent residential and holiday caravans	4.5m where applicable
Minimum clear space between caravans at corners	3.5m	3.5m	3.5m
Minimum clear space between occupancies from combustibles	3m	3m	3m
Density	50 caravans per hectare	60 caravans per hectare	75 touring caravans or motorhomes per hectare

*See Figure 1 - Spacing Example, Page 12.

3.2 Criteria Common to all Sites

1. The distance from any part of the caravan to any site road should be not less than 2m and not less than 3m from any site boundary. Clear space of 3m should be maintained between the site boundary and the caravan.
2. Where an escape window is provided from a caravan, the means of escape from the window should be maintained to be clear and free from obstruction.
3. The point of measurement for porches, awnings, etc, is the exterior cladding of the caravan, excluding the draw bar.
4. Porches may protrude 1m into the 6m (or 5m) space and should be of the open type, and be no more than 2m wide along the unit.
5. The distance between any part of an awning and an adjoining caravan should not be less than 3m.
6. An awning should not incorporate sleeping accommodation.
7. Awnings should not face each other or touch.
8. A non-combustible awning will deflect flames and must not be permitted. A combustible awning will burn through and allow heat to dissipate.
9. Eaves, drainpipes and bay windows may extend into the 6m (or 5m) space provided the total distance between the extremities of two adjacent units is not less than 5.25m in a 6m space (or 4.5m in a 5m space).
10. Where there are ramps for the disabled, verandas or stairs extending from the unit, there should be 4.5m (or 3.5m) clear space between them. Two such items should not face each other in any space. If they are enclosed, they may need to be considered as part of the unit and, as such, should not intrude into the 6m (or 5m) space.
11. Fences and hedges, where allowed and forming the boundary between caravans, are permitted provided they are no higher than 1m. The fence should be of a picket fence type. A higher fence is permitted if made from a non-combustible material.
12. A garage, shed or covered storage space should only be permitted within the separation distance if it is of non-combustible construction (including non-combustible roof) and sufficient space is maintained around each unit so as not to prejudice means of escape in case of fire. Windows in structures within the separation distance should not face towards the units on either side.
13. Carports or a covered walkway should in no circumstances be allowed within the 6m space.
14. Private cars, jet skis and motor boats may be parked within the separation distance provided that they do not obstruct entrances to caravans or access around them and they are a minimum of 3 metres

from an adjacent caravan. Where the 3m space separation cannot be achieved parking should not be permitted within the separation distance.

15. Suitably surfaced parking spaces should be provided where necessary to meet the additional requirements of the occupants and their visitors.
16. Density shall be calculated on the basis of useable area (ie, excluding lakes, roads, communal services and other area unsuitable for the siting of caravans) other than the total site area.
17. Where tents are permitted, 3m clear space should be maintained between the next occupancy.

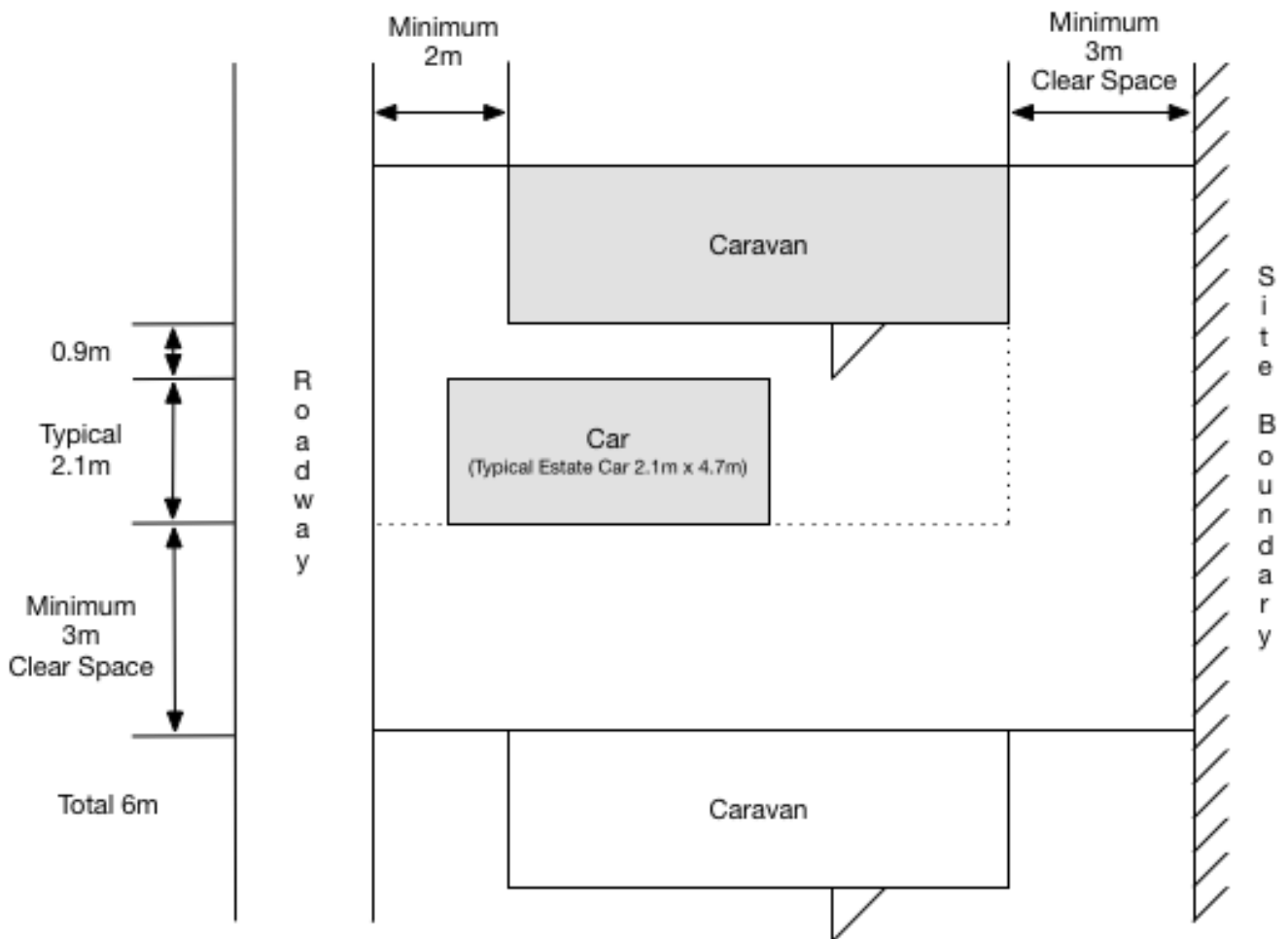


Figure 1 - Spacing Example

4 GENERAL REQUIREMENTS

4.1 Hard Standings

For permanent residential and holiday caravans, every caravan should stand on a hard standing of suitable material, such as concrete, which should extend over the whole area occupied by the caravan placed upon it, and should project a sufficient distance outwards from the entrance or entrances to enable occupants to enter and leave safely.

Hard standings may be dispensed with if the caravans are removed during the winter, or if they are situated on ground which is firm and safe in poor weather conditions.

4.2 Footpaths

Every caravan shall be connected to a road by a footpath with a hard surface which shall be maintained in good condition.

Where practicable, communal footpaths and pavements shall not be less than 0.9 metres wide.

4.3 Lighting

Roads, communal footpaths and pavements shall be adequately lit between dusk and dawn to allow the safe movement of pedestrians and vehicles around the site during the hours of darkness.

4.4 Smoke Alarm and Fire Extinguisher

Caravans or motor homes for hire, or for worker use, must be fitted with a 10-year battery operated or mains wired smoke alarm and a multi-purpose fire extinguisher containing at least 2kg of extinguishing medium.

Where a gas appliance is installed for heating or cooking, a carbon monoxide alarm should be fitted.

Where appropriate, a combined smoke and carbon monoxide alarm may be used.

Smoke alarms, carbon monoxide alarms and fire extinguishers must be maintained and be checked by a competent person on a regular basis.

4.5 Fire Points and Firefighting Equipment

A fire point should be established so that no caravan or site building is more than 30m from a fire point.

Each fire point should:

- be clearly visible;
- be easily accessible;
- consist of a weather-proof structure;
- contain two 9 litre water fire extinguishers;
- be clearly marked 'FIRE POINT';
- include a fire notice; and
- include a means of raising the alarm.

4.6 Water Supplies

A fire hydrant should be installed within 100m of any caravan standing and be capable of providing a flow rate of at least 1,500 litres per minute.

Fire hydrants should be clearly marked with a suitable 'H' in accordance with BS 3251 and conform to BS 750.

Where a fire hydrant is not provided, or where the flow rate is insufficient, an alternative water supply may be acceptable, such as lake, pond, river, canal or a holding tank, provided it is capable of providing at least 45,000 litres of water at all times of the year, and to which access, space and a hard standing is available for a fire appliance.

The site operator may decide, for additional protection, to install other measures such as water standpipes and hose reels at each fire point. Where these are provided, the water pressure and flow should be sufficient to project a jet of water approximately 5m. The hose reel should be a minimum length of 30m and conform to BS 5306.

Access to hydrants and other water supplies should not be obstructed or obscured.

4.7 Emergency Telephone

On permanent residential and holiday caravan sites, the site operator should assess if an emergency telephone for calling the emergency services is required. This would only be required if mobile phone reception is poor.

If required, the telephone should be immediately accessible and a notice by the telephone should include the name, address and postcode of the site.

On touring caravan sites, site owners are encouraged to provide details of the nearest available telephone for contacting the emergency services on the fire notice.

4.8 Fire Notices

A fire notice should be provided and maintained at each fire point to indicate the action to be taken in case of fire and if the mobile phone signal is poor the location of the nearest telephone.

Notices should comply with BS 5499-2 - Fire safety signs, notices and graphic symbols.

Suggested text as follows:

FIRE ACTION
On discovering a fire -
(a) Ensure the caravan or site building involved is evacuated.
(b) Raise the alarm.
(c) Call the Fire & Rescue Service on 999 providing:
Site Name: _____
Site Address: _____
Site Postcode: _____
(d) The nearest telephone is available at: _____
(e) If safe to do so, fight the fire using the equipment provided.
All occupiers of this site should be familiar with this notice.

4.9 Fire Warning

A means of raising the alarm in the event of a fire should be provided at each fire point. This could be a battery or mains powered alarm or a manually operated sounder, such as metal triangle with a striker, gong or siren.

4.10 Maintenance

Fire alarms and firefighting equipment should be installed, tested and maintained by a competent person on a regular basis.

All equipment susceptible to damage by frost should be suitably protected.

4.11 Log Book

A fire precautions log book must be maintained to hold the fire risk assessments for the site and record the testing and maintenance of:

- the automatic fire alarm;
- any provision for emergency lighting;
- any first aid firefighting equipment;
- any fire drills; and
- fixed electrical installations and portable appliances.

4.12 Liquefied Petroleum Gas (LPG)

LPG storage supplied from tanks or cylinders must comply and be maintained in accordance with industry standards.

A registered Gas Safe Engineer should be employed for any installation or maintenance.

Key principles include:

- Exposed gas bottles or cylinders should not be within the separation boundary of an adjoining unit.
- LPG cylinders should be located outside. Where this is impracticable, for example, where an internal housing is fitted, cylinders should be accessible from outside.
- Cylinders should be positioned on a level hard standing. To prevent toppling, cylinders should be chained to secure them in a stable position or alternatively stored in suitable housing.
- The housing must be fire resistant to at least 20 minutes and be on level hard standing.
- Ventilation of the housing at high and low level, directly to the outside, should be provided.
- A notice, or the symbol, for a gas container locker should be permanently fixed to the outside of the housing indicating the presence of gas cylinders.
- Pipe work should be in copper or steel tube with compatible fittings.
- Where flexible tubing is necessary, it should comply with the requirements of BS 3212 with integral threaded metallic ends and must be replaced every 5 years.
- In addition to the main control valve at the cylinder, every appliance and gas-burning fitting should be provided with a shut-off tap.
- Signage should be displayed beside the regulator to indicate how to turn off the gas supply at the cylinders in an emergency situation.

A portable self-contained LPG space-heating appliance may be permitted within a caravan providing:

- the appliance meets the requirements of BS 3879.
- the appliance is maintained in accordance with the manufacturer's instructions; and
- wherever practicable, gas cylinders are changed outside.

Guidance and relevant standards include:

- Gas Safety (Installation and Use) Regulations (Northern Ireland) 2004.
- UKLPG Code of Practice 1 - Bulk LPG Storage at Fixed Installations - Part 1: Design, Installation and Operation of Vessels Located above Ground (October 2017).
- UKLPG Code of Practice 7 - Storage of Full and Empty LPG Cylinders and Cartridges (February 2004).
- BS 5482 Part 2:1977 - Domestic butane and propane gas burning installations. Installations in caravans and non-permanent dwellings.
- BS EN 1949:2011+A1:2013 - Specification for the installation of LPG systems for habitation purposes in leisure accommodation vehicles and accommodation purposes in other vehicles.
- BS EN 521:2006 - Specifications for dedicated liquefied petroleum gas appliances. Portable vapour pressure liquefied petroleum gas appliances.

4.13 Electrical Installations

A competent registered electrician should be employed to carry out any electrical work, in accordance with BS 7671:2008 - Requirements for electrical installations. (The IEE Wiring Regulations 17th Edition).

An effective programme of planned preventative maintenance for all fixed electrical installations (and any portable appliances where appropriate) in accordance with wiring regulations, should be implemented for the site and the results recorded within the log book.

If there are overhead electric lines on the site, suitable warning notices should be displayed at the entrance to the site and on supports for the line. Where appropriate, particular attention should be drawn to the danger of masts of yachts or dinghies contacting the line.

4.14 Refuse Disposal

Every caravan should ensure any refuse bin is emptied regularly.

Ashes from a barbeque should be cold and soaked with water before placing in any bin.

Where communal bins are provided, these should be housed within a properly constructed bin store.

On touring caravan sites, adequate provision should be made for the storage, collection and disposal of refuse.

4.15 Guests with Disabilities

The needs of guests with disabilities must be considered and planned for.

A free guide is available to assist titled 'Fire Safety Law - The Evacuation of Disabled People from Buildings.' which is available through the NIFRS website www.nifrs.org.

4.16 General Fire Precautions

The following general fire precautions should be taken to reduce the risk of fire:

- Grass and other vegetation should be cut at frequent intervals to prevent it becoming a fire hazard. Cuttings should be removed and be disposed of safely.
- Spaces below caravans should be kept free from the accumulation of combustible materials.
- Paraffin appliances should be refuelled outside the caravan.
- Where flue pipes pass through the structure of a caravan, they should be adequately insulated.
- Where a caravan is retrospectively fitted with cladding, it is recommended this is Class 1 fire rated material to its facing walls.
- Barbecues should not be permitted below any awning, or close to any combustible surface. Ashes should be extinguished with water.
- Open fires, chiminea and fire pits should be prohibited on sites due the increased risk of burning embers being emitted.
- Fuel tanks for motor boats should be disconnected and be stored in a shaded area and not below a caravan.
- Jet skis or motor boats should be refuelled on the access road and not when parked beside a caravan.

5 GLAMPING PODS, YURTS OR SIMILAR UNITS

The following fire safety standards apply in relation to these units:

- The distance between any two glamping pods (or any other unit) should be not less than 6m.
- A 3m minimum clear space should be maintained between units from combustibles.
- The maximum distance a fire appliance access road should be no more than 50m.
- Glamping pods (or other hard structures) should be fitted with a 10-year battery operated, or mains wired, smoke alarm.
- Where a gas or wood burning appliance is installed for heating or cooking, a carbon monoxide alarm should be fitted which may be a combined smoke and carbon monoxide alarm.
- Smoke alarms or carbon monoxide alarms must be maintained and checked by a competent person on a regular basis.

6 ROMA OR TRAVELLERS' SITES

NIFRS recommends the following considerations be applied:

Consideration	Advice
Fire Risk Assessment	NIFRS advises that a written fire risk assessment is not required and a more appropriate approach would be to ensure that the site be designed and maintained in accordance with the considerations listed in this Table.
Inspections	Regular inspections should be carried out by the site operator with arrangements made to maintain provisions.
Access for Fire Appliances	As detailed in Section 2.
Space and Density between Caravans	As detailed in Section 3 for permanent residential sites.
Hard Standings	As detailed in Section 4.1.
Footpaths	As detailed in Section 4.2.
Lighting	As detailed in Section 4.3.
Smoke Alarm and Fire Extinguisher	As detailed in Section 4.4. Does not apply to privately owned caravans, recommendations are advice.
Fire Point and Fire Fighting Equipment	The provision of a fire point and firefighting equipment is not recommended, but instead the message 'Get Out, Get the Fire and Rescue Service Out, and Stay Out' should be emphasised during meetings and site visits.
Fire Notice	As detailed in Section 4.8, except that the suggested text at point (d) and (e) is not required.
Fire Warning, Log Book, Telephone, LPG	Not required.
Water Supplies	A fire hydrant should be provided within 100m of the site entrance, outside of the site perimeter on the access road.
Electrical Installations	As detailed in Section 4.13.
Refuse Disposal	As detailed in Section 4.14.
Guests with Disabilities	As detailed in Section 4.15.
General Fire Precautions	As detailed in Section 4.16.

Consideration	Advice
Facilities Pod	Where a facilities pod is provided for sanitary or cooking facilities, this should be made from non-combustible construction.
Dwellings	Where a dwelling is provided for sleeping accommodation, all aspects of building regulations apply.

7 WORKERS' SITES

Where caravans are provided to house workers, for example agricultural workers, for rent, or in lieu of pay, the site is a relevant premises as defined by The Fire and Rescue Services Order (Northern Ireland) 2006.

The guidance for permanent residential caravan sites applies.

8 TEMPORARY CARAVAN OR MOTORHOME SITES

Where a temporary site is established for a short term duration, for use by towed caravans, motorhomes or campervans, the following guidance should be followed to maintain safety for users.

Where the duration is for **no more than** 6 nights:

- A minimum of 6m separation space should be maintained between units.
- A minimum of 3m clear space from combustibles, including awnings or side tents or other items, should be maintained between units and from site boundaries.
- No caravan should be permitted to be more than 100m from a fire service access road of the specification described in Section 2.
- The general fire precautions as described in Section 4.16 should be followed.

Where the duration is for **more than** 6 nights:

- all of the provisions as for a touring caravan site should be adopted.

Examples of temporary sites include:

- a caravan club, or any other group, organising an event or a meet in agreement with the landowner using a field, sports pitch or other ground to position caravans, motorhomes or campervans for a short term duration.
- a festival or other event, where an area is provided for caravans, motorhomes or campervans for a short term duration.