



Croquet Facility Guide

Second Edition
May 2019



Purpose of this document

This document has been prepared to provide information about croquet for planning authorities who are considering the inclusion of croquet facilities in the development of a comprehensive community sporting facility.

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- Members of the Croquet Victoria Marketing and Publicity sub-committee
- Individual members of Victorian croquet clubs and regional croquet associations
- Australian Croquet Association
- Croquet Australia
- Croquet New Zealand
- Croquet enthusiasts
- Staff of Sport and Recreation Victoria.

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Background: Croquet in Victoria

Croquet is understood to have been introduced to England from Ireland in the early 1850s and was probably played in Victoria shortly after as there is reference to a Croquet Club in Kyneton in 1866. Other early records are Charlton (re-formed in 1880), Lilydale (1894), Ballarat City (1902), and Bendigo, Bright, Ballarat Western and several Melbourne clubs in 1904.

In Australia, it was often the case that croquet clubs were built in conjunction with lawn bowls clubs – men played bowls, women played croquet.

In recent times men and women have played both sports. In croquet, men now tend to dominate among elite players, but the majority of players are still women. Croquet is in fact one of the few competitive sports where most players are women of retirement age.

The peak body coordinating croquet in Victoria and southern NSW is Croquet Victoria. This currently comprises some 90 clubs with a total of around 2800 members – 21 clubs in the Melbourne metropolitan area and 69 in country regions.

Croquet is played all year round, in hot, cold or wet weather. Tournament play is available most weekends and in most regions there are also two seasons of weekday pennant competitions per year.

Variants of mallet sports played under the aegis of the VCA include:

- Association Croquet (AC) – the traditional form of the game
- Ricochet – a recent development
- Golf Croquet (GC) – a very popular game which has taken off in the past twenty years. Shorter, more sociable and easier to learn than AC
- Gateball – a mallet sports game developed in Japan, based on US garden croquet and very popular in several Asian countries.

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The market: who plays croquet

Croquet is a challenging sport that is suitable for people of all ages. It is played for a variety of reasons, including exercise, mental stimulation, companionship, and competition.

Key characteristics of croquet:

- a unique sport that attracts both sporty and non-sporty people
- played throughout the year
- played by men and women as equals
- played by all ages from schoolchildren to individuals in their nineties
- played both socially and competitively
- low-cost to participants. Club dues are generally low and most equipment is provided by the club. Second hand mallets cost only a few dollars; a high end mallet costs less than \$600
- widely played in England, USA, Canada, South Africa, New Zealand, Egypt and Australia – it is a social passport for travellers.



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The role of croquet in community sport

Croquet makes a valuable contribution to a comprehensive sporting facility catering for the needs of the entire community. It supports and can assist in achieving local and state government objectives for public health and well-being.

Croquet is a whole of life sport playable from school age to end of life. It is a game of skill and mental agility.

- As a recreational pursuit, it provides gentle exercise at a leisurely pace
- As a competitive sport, it is played vigorously and requires physical skill and finesse.

Current Australian Physical Activity guidelines for all adults include at least two and a half hours of moderate exercise a week, spread over three to five sessions. Additionally, older adults are recommended to undertake balance and flexibility training on most days of the week.

- Research indicates that a majority of Australian adults don't take enough exercise.
- 13% of working age Australians have stopped playing a sport which they used to be active in, because their bodies can't manage it any more. Most of these people are likely to be able to play croquet.
- Many people stop playing sport when they have young families or other time-consuming responsibilities.

- Seniors, particularly older women, are the segment of the community who are least likely to participate in physical activity.

Providing access to croquet opens up an option for people who aren't catered for by sports such as tennis, cricket, football and soccer. It requires

- gentle bending of the hips and knees
- gentle shoulder motion
- light grip strength using both hands

It's a low impact activity, played in an upright position. There's no significant twisting of the body or spine – useful to people who are having trouble with golf or badminton. Physically, it's a viable game for almost everyone.

It provides mental stimulation: players have to

- learn the rules
- think strategically
- score hoops

and they get to feel the achievement of completing a game.

From a psychological point of view, participating in any sport or exercise makes the player feel good. Croquet offers the pleasures of improved self-esteem, goal attainment, the satisfaction of participating, and social interaction.

Croquet is an enjoyable and sociable way of being physically active.

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Planning a croquet facility

Demand assessment

Demand for croquet facilities may emerge in Melbourne growth areas and LGAs that do not currently have facilities or clubs. In the first instance opportunities to use existing clubs and facilities should be explored in order to cater for participation demand. However as a guide LGAs or responsible land managers should consider the following:

- A minimum of one court for every 25 members is considered an appropriate guide to support overall club sustainability and turf capacity. Depending on the game format played, one court can generally accommodate up to 8 players at any one time, therefore using the guide of one court for every 25 members assumes careful scheduling of games to maximise utilisation of each court.
- A minimum of two courts is preferred (ideally with space for possible future expansion if required) in order to provide scope for participation growth and long term club sustainability, particularly in urban population growth areas.
- Based on existing adult participation rates this equates to one 2-court venue per 33,000 people aged over 15 years.

Recruitment

If a new or redeveloped croquet facility is being planned, it is essential to recruit a small steering committee to advise and form the nucleus of the new club. Croquet Victoria and the local Regional Croquet Association can assist with this process. They can be contacted via Croquet Victoria, email administration@croquetvic.asn.au.

This steering committee will be critical in the development. It needs to include people with appropriate expertise, desirably including representatives of local government, so that it can act as a reference group and provide project liaison throughout the development as required.

Where there has been no facility in the past, it would be useful to arrange interim access to a small grassed area or an existing lawn such as a bowling green so that locals can try out the game. If there is an interim space where interested people can start to play regularly, it will be possible to gauge the level of interest and develop commitment in the local community. In many cases, clubs in neighbouring areas can provide support for the developing club.

New facility provision¹

A standard croquet lawn is about the size of two tennis courts and can accommodate the same number of players as two tennis courts: up to eight players at a time.

In terms of land area:

- 1 court requires approximately 1,066m² (i.e. 25.6m x 32m court, plus 4m buffer zone).
- 2 courts require approximately 2,132m² (i.e. 0.21 hectares).
- Plus allowance for ancillary facilities (e.g. pavilion, storage, car parking, as detailed in Section 7 below), therefore approximately 0.5-1 hectare per 2-court venue.

Most recently established croquet clubs share pavilion facilities with other sport or community facilities.

Clubs established at an existing facility find it useful to share a greenkeeper (eg at a golf course or a lawn tennis or lawn bowls club).

Arrangements for sharing turf surfaces vary with the sport. The grass height required for competitive croquet is approximately 3 mm, compared with 4 mm for lawn tennis and 1 mm for competitive bowls. Daily sharing with lawn tennis (if played on turf) can therefore be achieved fairly readily. Lawn bowls and croquet can use each other's lawns for specific occasions if the mower height is set appropriately for the sport which is to use the turf.

Croquet can be played on an oval or other recreational surface for one-off events such as come and try activities.

The sport is not currently played on synthetic surfaces.

¹ See Appendix 1 for information on the lawn layout and equipment required for croquet and gateball. Note that Imperial measurements are generally used in croquet, in line with the policy of the World Croquet Federation.



Facility hierarchy and standards

Croquet Victoria has adopted a hierarchy classification for facilities in order to guide appropriate facility provision standards. The facility hierarchy and recommended facility standards are outlined below.

Local

Local facilities are designed to cater for local level competition and social participation within an individual township or municipality and are usually the 'home' of a tenant club.

District

District facilities also cater for local level competition and use, however they may service larger geographic areas or larger clubs (based on membership size).

Regional

Regional standard venues will have the capacity to host large events or competitions and service geographic areas that may cross municipal borders and/or rural regions. All courts do not necessarily need to be permanent – the capacity to establish temporary courts to support periodic events may support classification as a regional facility.

In terms of hosting 'regional' scale events, more than one Local or District club may collaborate in order to facilitate larger scale events, without each individual facility needing to be developed to regional standard/size. Croquet Victoria recommend access to at least 6 courts for regional scale events, however this may vary depending on the number of participants at any given event.

State

There is only one State standard croquet facility in Victoria. The Victorian Croquet Centre was constructed in 2005/06 and is the headquarters for Croquet Victoria located in Cairnlea, in the western suburbs of Melbourne. This purpose-built facility features 12 full size courts and a state-of-the-art pavilion with function area (seats 200), licensed bar and a commercial kitchen. The venue caters for state, national and International events and competitions.



Recommended croquet facilities for each level of the hierarchy

The table on the next page outlines the required, desirable and optional areas for croquet facilities at each level of the hierarchy. The table should be seen as a guide only, with the key mandatory facility requirement for croquet being the World Croquet Standard playing field size being a grassed area 35 yards by 28 yards. A four yard buffer zone is preferred surrounding the court, therefore resulting in a total area of 39 yards by 32 yards (i.e. 32m x 25.6m).

The facility component sizes outlined below are provided as a guide based on comparable industry standards and

functionality requirements for existing facilities. Site specific planning will be required in order to ensure that facilities meet local needs and respond to specific site conditions and intended uses.

When developing new facilities appropriate consideration should be given to Universal Design and Access for All Abilities principles as well as Sport and Recreation Victoria's (SRV) Female Friendly Facilities Guide.

Issues to be considered include ramps for easy access, limiting steps and stairs, planning for shade, and providing seating. Particular attention needs to be given to accessibility for older adults.



Facility Component	State	Regional	District	Local
Number of courts	10-12	6+ ²	4-5	2-3 ³
Court surface	Grass surface with irrigation and drainage.	Grass surface with irrigation and drainage.	Grass surface with irrigation and drainage.	Grass surface with irrigation and drainage.
Grass height (Santa Ana Couch generally preferred)	3mm average (preferred height for competition play)	3-5mm average (3mm preferred height for competition play)	3-8mm average (3mm preferred height for competition play)	3-8mm average (3mm preferred height for competition play)
Player shelters	Combined seat/shelter for approx. 6 people each – 2 per court.	Combined seat/shelter for approx. 6 people each – 2 per court.	Combined seat/shelter for approx. 6 people each – 1 per court.	Combined seat/shelter for approx. 6 people each – 1 per court.
Spectator seating	Combination of permanent and temporary seating.	Combination of permanent and temporary seating.	Park / bench seating	Park / bench seating
Flood lighting	150 lux 2-4 courts	150 lux 1-2 courts	150 lux 1-2 courts	150 lux 1-2 courts
Scoreboard	Automated or Manual	Automated or Manual	Manual	Manual
Car parking (including disabled)	Off street and on-street. Min 50 spaces	Off street and on-street. Min 40 spaces	Off street and on-street. Min 30 spaces	Off street and on-street. Min 20 spaces
Change rooms (Two rooms: Male & Female)	Approx. 25-35m ² each.	Approx. 25-35m ² each.	Approx. 20-25m ² each.	Approx. 15m ² each.
Change amenities (showers & toilets)	Approx. 25m ² each	Approx. 20m ² each	Approx. 15m ² each	Approx. 15m ² each
Kiosk / Kitchen	Approx. 25m ² commercial standard	Approx. 20m ² commercial standard	Approx. 10-15m ² kiosk standard	Approx. 10-15m ² kiosk standard
Social area	150m ² +	Approx. 80-100m ²	Approx. 60-80m ²	Approx. 20-40m ²
Secure storage – internal	Approx. 10-15m ²	Approx. 10-15m ²	Approx. 5-10m ²	Approx. 5m ²
Secure storage – external⁴	Approx. 30-40m ²	Approx. 20-30m ²	Approx. 15-20m ²	Approx. 10-15m ²
Office / meeting	Approx. 15m ²	Approx. 15m ²	Approx. 15m ²	Approx. 15m ²
Utility / cleaner	Approx. 5m ²	Approx. 5m ²	Approx. 5m ²	Approx. 5m ²

LEGEND

Required	Facility element required to ensure play can occur at relevant hierarchy level.
Desirable	Play can occur, but may be compromised or user experience lessened without it.
Optional	Play can occur with little to no impact on user experience.

² Some courts may be temporary / established as required to host events (e.g. using lawn tennis courts).

³ Single court venues should only be considered in areas of limited or declining populations. All new venues should provide a minimum of 2 courts in order to allow capacity to cater for participation growth over time.

⁴ Additional external storage may be required, depending on turf maintenance responsibilities and subsequent equipment storage needs.

Support available

Croquet Victoria can provide additional support to LGAs and land managers in the planning and development of new croquet facilities, including court specifications, turf requirements and recommended ancillary facilities.

Croquet Victoria welcomes the opportunity

to work in partnership with land managers to plan for new facilities, establish new clubs and support the sustainability of existing clubs throughout Victoria.

Croquet Victoria has an “equipment library” that can be accessed by LGAs and potential new clubs or community groups to support pop-up and introductory sessions where required.





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Developing and maintaining a croquet lawn

Issues to be considered in designing and developing a croquet lawn are:

- Size: including grassed border areas, each court should measure 39 by 32 yards minimum
- Substructure: the surface must be flat and level, not subject to subsidence
- Drainage: play continues in wet weather and good drainage is essential
- Grass cover: needs to be a hard wearing, preferably drought tolerant grass such as Santa Ana couch (this requires an average of 3mm rainfall per week)
- Irrigation system: regular watering significantly improves grass cover
- Water capture and energy use, with the aim of maximising environmental sustainability
- Provision of a perimeter path outside the grassed area, ideally raised 100mm above the level of the lawn so that it can act as a barrier to the passage of balls.

Lawns require considerable attention to be maintained in good order. Croquet, like bowls, is played on the surface and requires green keeping support. The local Council is vital in this. A new club will not have the resources or expertise to maintain its own lawns.

Maintenance provision needs to include:

- Regular mowing with a cylinder mower: up to three times a week in the growing season, at a height of 3mm to 5mm
- Periodic scarification and aeration (at least once a year)
- Pest control: spraying for mites, beetles, worm control
- Top dressing to level and fertilise
- Weed control: eg spraying for broadleaf couch, summer grass.

Rolling may also be required.

Useful references:

- Oxfordcroquet.com – go to the section on lawn care, which includes general principles and detailed specifications for English conditions
- The New Zealand Croquet Association has commissioned a Lawn Book with detailed guidelines on lawn design and maintenance. Much good advice, though some of the points are specific to NZ conditions. This can be bought direct from Croquet New Zealand (admin@croquet.org.nz) or borrowed from Croquet Victoria (administration@croquetvic.asn.au).

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Lighting requirements

Ideally any new croquet facility should have LED lights installed with an even illumination of at least 150 lux (lumens/m²), with a variance of no more than 0.87 across the playing area. This will enable the new club to recruit working adults as members, and offer training and competitions in the evening.

There is no specific Australian Standard for lighting croquet courts. Experience has shown that 100 lux (the minimum requirement for bowls, as per AS 2560.2.8 1994) is insufficient for croquet: players and onlookers cannot readily discern the colour of the balls or scoring clips if they are any distance away.

The cost of installing new generation LED lights is dropping compared with the traditional halogen lights, and LED lights have much lower running costs and a much longer life. Halogen lights should be installed on 10m corner poles; LED lights can be installed on a shorter pole.

Relevant guidelines are provided in:

- AS2560.1 2002 The Australian Standard for the lighting of sporting facilities. This is the general standard, although there are other in the series which deal with specific sports, such as football (various codes) cycling, etc.
- AS4282 1997 The Australian Standard covering reflected light from such installations.
- *Community sporting facility lighting guide*, available from sport.vic.gov.au. This is a Victorian Government publication for Football/Soccer/Netball. Many of the design considerations would be equally applicable to the design of lighting for croquet courts.
- *Artificial Sports Lighting Design Guide* is available from the Sports England website www.sportengland.org.





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Clubhouse and parking

The clubhouse plays a vital role in developing the social side of the sport. It is often the visible face of the club and plays a major role in attracting and retaining members and participants. Clubs that have their own clubhouse thrive with the sense of ownership. Hiring to external groups is also easier to organise with a separate clubhouse.

However, shared clubhouse facilities are common in recently developed sporting centres. This can work well provided there are some areas which the croquet club can call its own.

The croquet club will require:

- Lockable changing area, with secure storage for clothing, personal possessions and mallets. Both female and male change facilities are desirable. A regional facility would require a larger changing area.
- Access to toilet facilities
- Access to office or administration area
- A meeting area for the club committee with storage for club documentation.
- Notice boards – ideally in a space private to the club

- Space for members to socialise (this could be shared with other groups), possibly combined with access to licensed bar facilities
- Access to a kitchen, with refrigerator and boiling water
- Separate, secure storage for croquet equipment, preferably convenient to the courts (eg hoops, balls, mallets, baulks, line marking paint, cylinder mower, line marker)
- Storage space for larger equipment items which are used occasionally, such as a BBQ or gazebo
- Access to parking commensurate with the number of members being planned for, and also allowing for visitors attending competitions and tournaments.
- Fencing for the courts, if practicable
- Club signboards visible to passers by

Dimensions of the spaces required are provided above in the Hierarchy table on page 8.

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Safety and risk – strategies to address risk and safety management at croquet facilities

Croquet is a non-contact sport and injuries on the croquet court are rare. Occasionally players may trip, hurt themselves with the mallet or be hit by a ball.

Provision should be made for ensuring the safety and happiness of juniors playing or in attendance. The demographics of croquet players also indicate a need to be alert to the risk of falls and heart attacks.

Risks associated with the specific croquet facility should be identified in developing the risk and mitigation policy for the sporting centre.

Standard provision should include:

- Briefing for committee members on incident and risk management
- A child safety policy in line with the Croquet Victoria policy
- Arrangements for members to have Working with Children Checks as relevant
- Training for club members in first aid and the use of a defibrillator
- A first aid kit
- An incident reporting book
- Ready access to a defibrillator.



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References and further information

Australia's physical activity and sedentary behaviour guidelines:

<https://www.health.gov.au/internet/main/publishing.nsf/Content/pasb>

Research on sport participation:

Australian Sports Commission (2013), *Market segmentation for sport participation*. Available online via https://www.clearinghouseforsport.gov.au/research/smi/market_seg/market_segmentation_-_adults.

Research into health aspects of sporting participation and government health guidelines for participation are summarised at: https://www.clearinghouseforsport.gov.au/knowledge_base/sport_participation/community_participation/mature-aged_sport_and_physical_activity.

Other sources of material in this guide:

- croquetvic.asn.au – the website of Croquet Victoria. The Resources section includes links and materials designed to help clubs develop.
- Oxfordcroquet.com – focuses on Association Croquet. Includes a wide range of useful resources.
- croquet.org.nz – the website of the NZ Croquet Association

Other croquet websites:

- <https://www.croquet.org.uk>
- <http://www.worldcroquet.org.uk>



Appendix

Croquet lawns and croquet equipment

The croquet lawn

Croquet is played on a court which measures 35 yards by 28 yards (a 5:4 ratio).

- Playing area: 35 x 28 yards minimum.
- Extended playing area with buffer zone: preferably 39 by 32 yards minimum.

It is desirable to have at least one yard of similar surface all round the playing area. This allows for free backswing of mallets, and makes possible the moving of the court one way or another periodically to permit the moving of the hoop positions. This is essential to avoid damage to the lawn at the hoops. Wear occurs between the uprights of the hoops due to constant passage of balls through them, particularly in wet weather.

The layout never varies. Six hoops are laid out on the court with a central peg. There are four corner hoops, each ideally 7 yards in from the two closest edges, and two central hoops, each 7 yards from the centre peg.

Court equipment

Each player uses a mallet to strike a ball with the aim of running each hoop in a specified order and direction. Each game is played with either two players (singles) or four players (doubles) and four coloured balls are in play at all times. Balls, four to a game, each weigh one pound and have a diameter which, in top-class competition, is only $\frac{1}{32}$ " less than the inside width of a hoop.

Typically courts are surrounded by movable barriers (eg wooden baulks or 4 inch irrigation tubing) which stop balls travelling far from the court and reduce the risk of injury to passers-by.

Players' equipment

Mallets typically weigh 2½ to 3 pounds. Modern materials improve their durability and balance, but designs that substantially change their playing characteristics are banned.

Gateball

Gateball can readily be played on a standard croquet lawn, using about half the court. It has its own hoops (three per court) and centre peg.

Gateball mallets and balls are smaller and lighter than croquet mallets and balls. A full game requires two teams of five with players taking it in turns to play. Ideally clubs playing gateball will have club sets of balls, mallets, and court equipment, including tape to mark out the court. These are available from supply companies in Japan.

Information about gateball is available via gateball.com.au.



Diagram 1
WCF Golf Croquet - The Standard Court



