



Image courtesy of Northern Territory Cricket

GUIDANCE NOTE 01

PLAYING FIELD



CRICKET
AUSTRALIA

GUIDANCE NOTE 01

PLAYING FIELD

Introduction

Cricket playing fields are fundamental to participating in the game of cricket. It is critical that playing fields are provided to the best quality and standard in order to maximise their use, enjoyment and experience for all users.

The game of cricket is evolving at all levels and changes in the way cricket is played has increased the demand for greater flexibility in and from the field of play. The introduction of junior modified formats and T20 cricket in particular, have driven differing match day needs and considerations at all levels of community cricket. These changes, albeit positive for the growth of the sport, have also influenced the complexity of playing field planning and development.

This Guidance Note provides information and recommendations regarding the following aspects related to cricket playing fields:

- Geometry and dimensions
- Surface types
- Drainage
- Irrigation
- Fencing
- Storage
- Sight screens
- Scoreboards
- Shade amenities

Throughout this Guidance Note, design and planning tips and references to Environmentally Sustainable Design (ESD) considerations and maintenance recommendations are also provided.

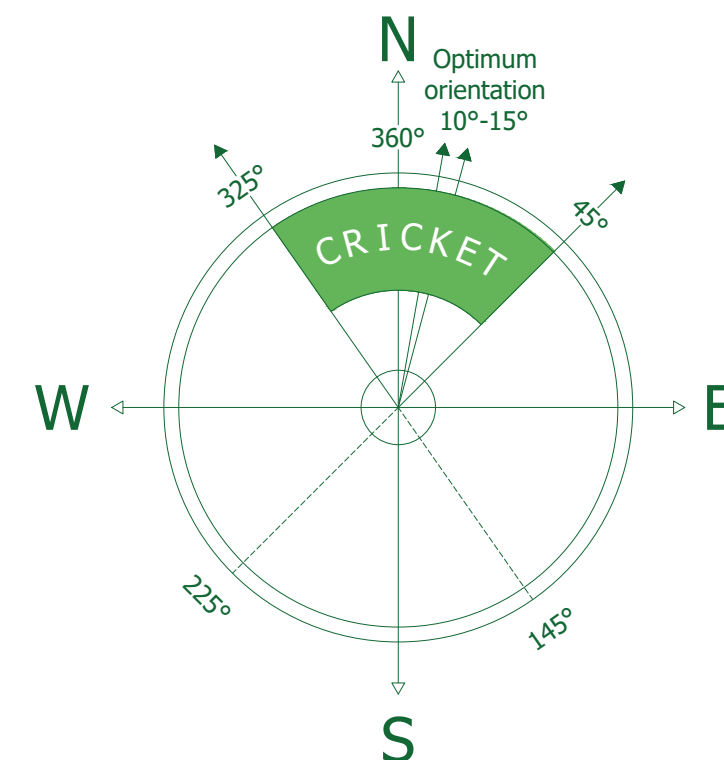
Geometry

Configuration

The orientation of cricket playing fields is an important planning consideration.

The time of day (early morning or late afternoon) and the time of year (winter or summer) has a bearing on optimum playing field orientation. The aim however is to share between opposing participants the advantages and/or disadvantages of the sun's direction and natural factors such as breezes.

It is recommended that cricket playing fields and pitches are orientated in a north-south direction to minimise the effect of a setting sun on players, with a range being between 45 degrees east of north and 35 degrees west of north and the suggested optimum orientation of 10-15 degrees east of north.



Playing pitch orientation can be independent to cricket playing field orientation. For example, an oval sized for AFL could be orientated outside the cricket field limits (i.e. east-west) with the cricket pitch still orientated in accordance with guidance as above (i.e. north-south orientation).



It is important to recognise that local conditions may override these recommendations and each site and associated conditions should be treated individually.

Playing field dimensions

Cricket playing field dimensions can vary dependent upon:

- Location (i.e. due to site constraints)
- Level of competition
- Primary use

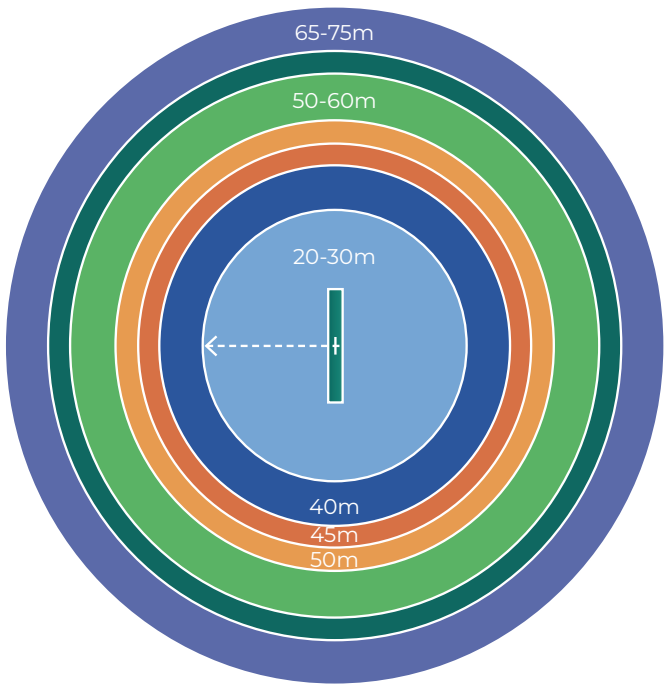
It is recommended that all new or redeveloped playing fields be developed to accommodate the maximum recommended sizes for senior play, creating opportunities to reduce boundaries (via rope or line marking) for all relevant forms and formats of play.

The following diagram and supporting table outlines recommended playing field dimensions for varying levels of community cricket competition and associated age groups.

LEVEL/TYPE OF COMPETITION	PREFERRED PLAYING FIELD DIMENSION
Cricket Blast Game	20m to 30m
Junior Format Stage 1	40m
Junior Format Stage 2	45m
Junior Format Stage 3	50m
Open Age - Community Club	50m to 60m
Open Age - Premier*	65m to 75m

* **Note:** Consultation with relevant State or Territory Premier Cricket governing body is recommended to confirm individual rules and regulations.

AGE RANGE (INDICATIVE ONLY)		
Junior Format	Boys/Mixed Competition	All Girls Competition
Stage 1	U/11	U/13
Stage 2	U/13	U/15
Stage 3	U/18	U/18



Existing playing fields currently being used for cricket are not all expected to meet these recommended dimensions. However, all new fields being planned, realigned, developed or upgraded should use the documented dimensions as a way to guide the desired levels of play for each playing field.

If existing playing fields do not meet minimum preferred playing field dimensions, it is advised that relevant Clubs, Associations, Councils and landowners work together to seek a solution to ensure that play can be facilitated while maintaining the safety of players, spectators and other site users. Protection of property including residences and vehicles should also be a consideration in decision making.



BOUNDARY SIZES AND RUN-OFFS

Plan for the maximum boundary size and rope off or line mark boundaries within the playing area to achieve the greatest range of cricket participation options.

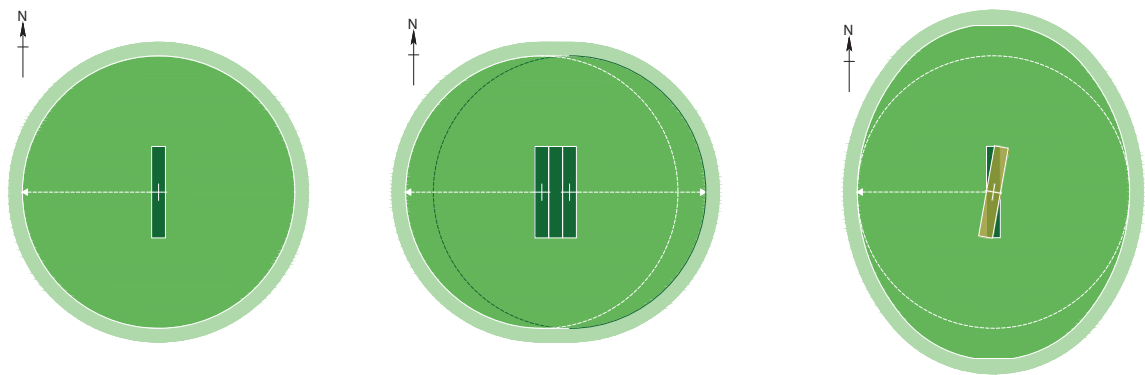
Playing field planning should also factor in run-off areas from boundary markers to the nearest fixed obstruction or neighbouring playing field. This run-off area should be considered in addition to the identified field of play dimensions in the table and diagram on the previous page.

The following diagrams represent how to measure playing field dimensions for both single pitches and turf pitches/tables. When planning and measuring playing field dimensions, distances should be taken from **the middle point of the centre pitch*** (for single pitch grounds) or from **the centre of both the east and west pitches** where a turf table or multiple pitches are present.

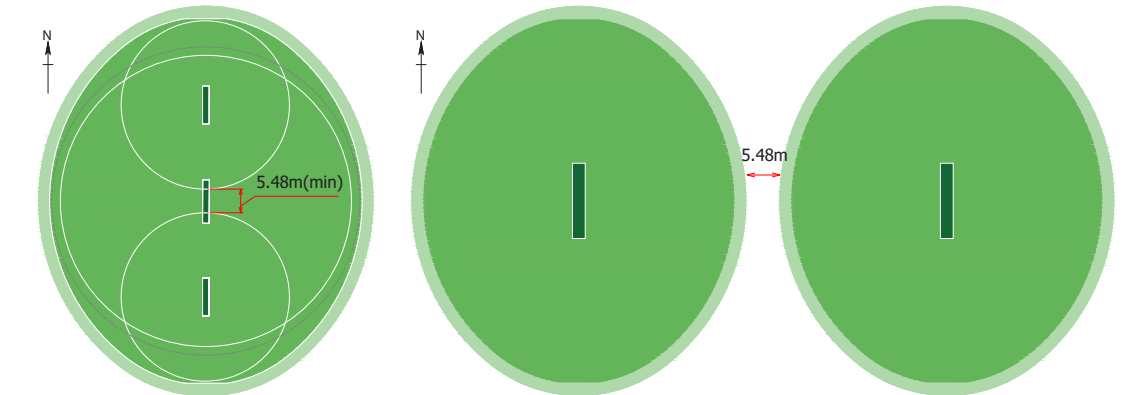


*JUNIOR FORMAT STAGE 1

Due to the fact the batter only bats from one end, the boundary distance (40m) should be measured from the batter's end stumps.



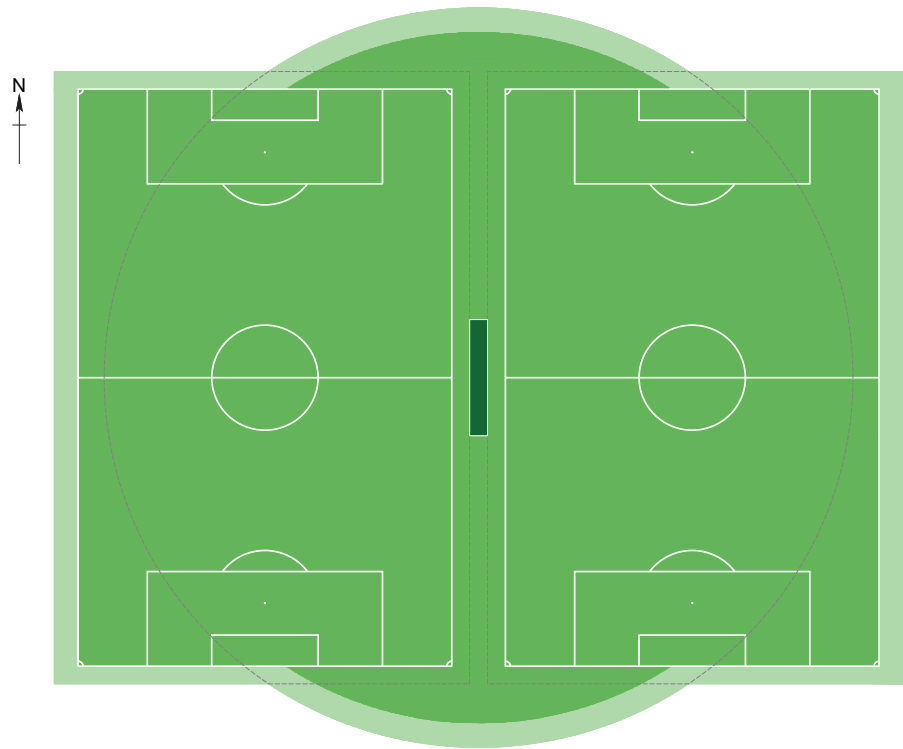
Where multiple playing fields are provided within the one playing area (particularly when configured for junior formats), a minimum 5.48m run-off distance (2 x 2.74m) between each playing field's boundary line/markers is recommended to reduce potential conflicts between grounds and games being conducted concurrently. Participants should remain vigilant for potential conflicts between matches (e.g. balls entering neighbouring field of play).



Winged playing areas allow for the configuration of multiple fields of play for a range of sports including:

- Cricket
- Australian Rules Football
- Rugby League
- Rugby Union
- Soccer

Below is an example of a winged playing field environment which efficiently combines a cricket playing field with two rectangular pitches.



MULTIPLE FIELDS OF PLAY

When designing multiple fields of play for a range of sports that are to be overlaid on the same playing area, consider the level of lighting required for each sport and the location of floodlighting poles. Poles should be positioned outside the field of play and designated run-off areas for all proposed sports and uses. For further information on lighting, refer to Guidance Note 06.

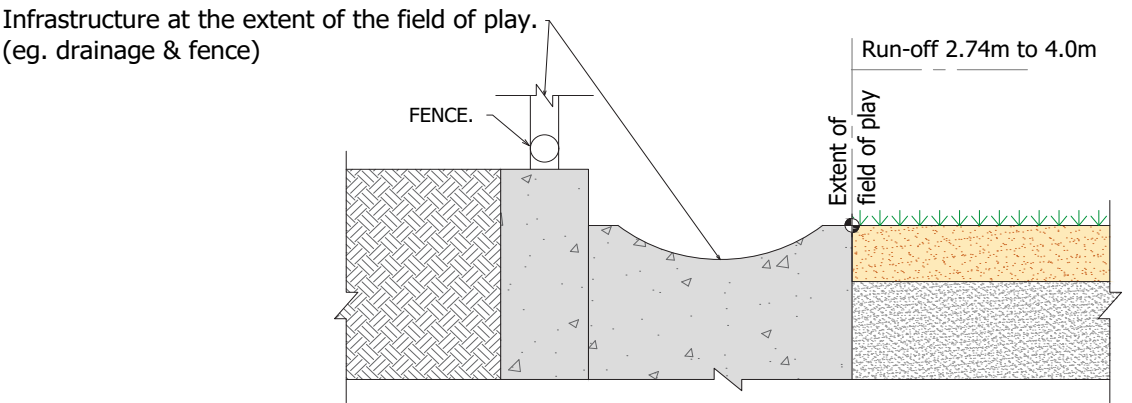
Run-off area

It is recommended the run-off area (beyond the boundary line/rope) should be:

- Obstacle free (including perimeter drainage infrastructure, fencing, lighting poles, sight screens, football goal posts and cricket practice facilities/nets).
- Same gradient as the outfield.
- Same surface as the outfield or an approved equivalent (i.e. synthetic grass). If a Cricket Australia-Australian Football League compliant synthetic grass is used, it is recommended there be a minimum of 1m natural turf between the boundary line and the start of the synthetic grass.

Run-offs take precedence over playing field dimensions and all playing fields shall adhere to the minimum requirements as tabled below.

LEVEL OF COMPETITION	RUN-OFF DIMENSIONS	
	Minimum	Desirable
All age groups and levels of community cricket	2.74m	4m



Playing field surface shape and gradients

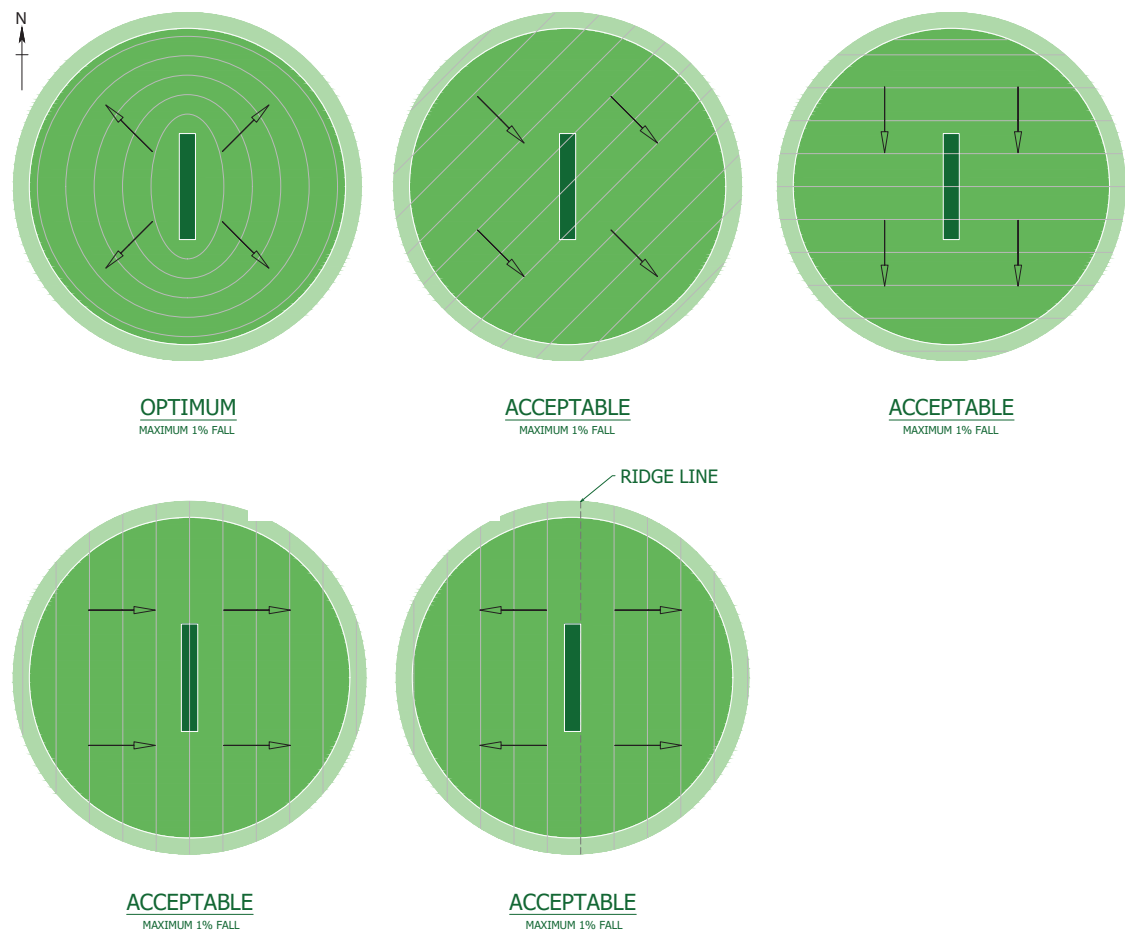
Cricket playing fields should include an appropriate surface fall, which aids with effective drainage but does not negatively impact on its playability.

Like the playing field dimensions, the shape and gradient of the playing area may be dictated by site constraints (i.e. existing terrain, buildings locations) and the level of competition. Additionally, the type of playing surface profile and supporting drainage infrastructure will also impact on the surface shape and gradient.

The recommended maximum gradient for an oval is 1% fall in any convenient direction.

Any steeper gradient than 1% will impact the performance of ball roll. Flatter surface grades are more likely to impact on the performance of playing field drainage (i.e. be very/too reliant on the profile and subsurface drainage infrastructure to effectively remove surface water), which may also ultimately impact on performance and playability.

The preferred fall direction of a playing field is a dome shape fall from the centre wicket pitch area. The dome shape provides protection to the pitch area from stormwater run-off in large rain events and should be a strong consideration at all new or reconstructed playing fields. When a dome surface cannot be accommodated and a turf pitch is required, the designer should try to ensure surface water run-off is directed away from the turf pitch. As alternatives, cross-fall and diagonal falls (identified in the following images) are also acceptable design methods.



Always seek professional advice when planning a new playing field development or undertaking a surface upgrade/reconstruction project.

Buffer zones

Cricket is a 360-degree sport with the hitting zone for batters heavily dependent on the level and format of competition.

When designing and developing playing fields and park precincts, buffer distances between cricket boundaries should be considered in relation to other park infrastructure including car parks, roadways, neighbouring properties, trails and playgrounds.

Appropriate buffer distances from boundaries are to be determined as part of a venue safety assessment to reduce risk and increase park user and property safety. Additional design elements including mounding, vegetation planting and fencing and their appropriateness to local conditions, settings and aesthetics should all be considered during venue design stages to assist in reducing and alleviating potential risk.



Due to the 360-degree nature of cricket and a rise in shorter formats (e.g. T20 cricket where there is likely to be a greater frequency of power hitting), buffer zones are recommended right around the playing field perimeter.



The Marsh/Cricket Australia Matchday Checklist is available for Apple and Android devices and should be completed by clubs prior to every match to ensure reasonably foreseeable hazards have been identified and mitigated before the start of play. Completion of the checklist will assist clubs in discharging their duty to provide a safe environment for players, spectators and match officials.




Refer to Guidance Note 07: Pavilions and Change Facilities for additional considerations regarding site planning and the optimum location and layout of site infrastructure.

Natural turf playing fields

From a playability and water conservation perspective, the preferred turf cultivar for cricket playing fields in Australia are generally warm season grasses (e.g. couch grass, kikuyu). Determining the most appropriate turf species and playing surface profile for local conditions and climate should involve consultation with a turf agronomist and be considerate of:

- Playing surface profile (see following images)
- Availability and quality of water supply for irrigation
- Level of usage year-round
- Ground maintenance service provision levels




For areas prone to flood inundation, couch grass and kikuyu turf species are preferred as they show more resilience during prolonged flood inundation and have a faster recovery time.

Profile

The selection of the appropriate profile for playing fields should be undertaken by a qualified agronomist, and the following elements considered:

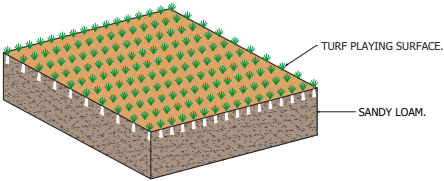
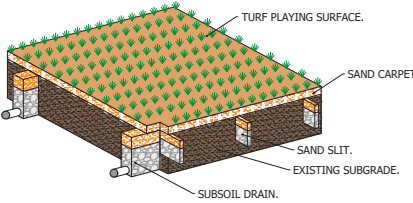
- Project budget for initial construction
- Budget for on-going maintenance
- Availability of materials and skill of local resources to undertake the maintenance of the playing field
- Climatic conditions
- Availability of supporting infrastructure (i.e. drainage and irrigation) to support turf growth
- Compatibility of profile with existing underlying subgrade material
- Year-round use and volume of usage of the playing field (including not cricket use)


The following tables summarise some of the options and key elements related to playing surface profile.



If situated in an area subject to drought, seek advice from a qualified agronomist regarding potential drought-tolerant grass species. Where possible, investigate the suitability and use of native grass species (pending site location and local conditions).

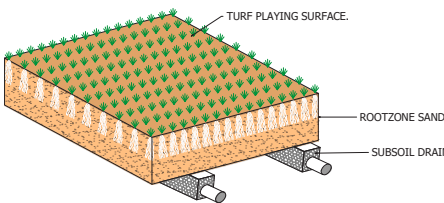
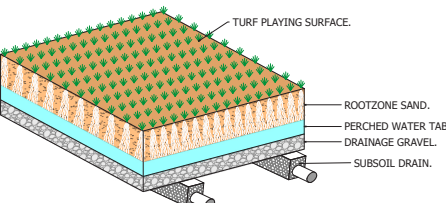
TABLE 1 – LOW COST PROFILE OPTIONS

CONSIDERATIONS	SANDY LOAM	SAND CARPET
PROFILE		
OVERVIEW	■ Blended mix of sand with silt/soil	■ Thin sand layer (less than 100mm)
+ ADVANTAGES	<ul style="list-style-type: none">■ High moisture retention■ Easy to establish turf initially	<ul style="list-style-type: none">■ Improved performance than sandy loam■ Similar performance as rootzone sand during warmer months
- DISADVANTAGES	<ul style="list-style-type: none">■ Poor drainage (low infiltration)■ Susceptible to compaction■ Subsoil drainage relatively ineffective unless sand slit drains used■ Reduced hours of use during wet seasons compared to the other options■ Likely increased level of maintenance required	<ul style="list-style-type: none">■ Reduced drainage capacity■ Specialist construction equipment required■ Not suitable in most problematic subgrades



It should be noted that a sandy loam profile requires an increased maintenance effort when compared to other profile types. This is due to the elevated amount of silt and clay within the profile. This profile type calls for additional aeration practices (e.g. verti-draining) to relieve profile compaction and increase soil aeration.

TABLE 2 – HIGHER COST PROFILE OPTIONS


CONSIDERATIONS	ROOTZONE SAND	PERCHED WATER TABLE
PROFILE		
OVERVIEW	<ul style="list-style-type: none">Constructed from natural sand deposits of processed sand – typical depth 250–300mm	<ul style="list-style-type: none">Rootzone sand overlying drainage gravel to create a perched water table at the interface of the sand and gravel – typical depth 350 – 400mm
+ ADVANTAGES	<ul style="list-style-type: none">High infiltration ratesNot susceptible to compactionIncreased performance during wet season compared with Sandy Loam profile	<ul style="list-style-type: none">High infiltration ratesNot susceptible to compactionPerched water table encourages deep root growthAbility to monitor and reduce irrigation usageIncreased performance during wet season compared with sandy loam profile
- DISADVANTAGES	<ul style="list-style-type: none">May require amendments to improve moisture retention.More difficult to maintain during periods of sustained extreme heat.Stability can be an issue with some natural sands.	<ul style="list-style-type: none">May require amendments to improve moisture retentionStability can be an issue with some natural sandsExpensive compared to other options.

Maintenance

All natural turf playing fields will require ongoing annual turf maintenance in order to maintain the quality and integrity of the surface across the entire year. Across all profile types, the basic maintenance requirements are the same and should include, but are not limited to the following:

- Regular mowing
- Vertical cutting
- Pest, weed, insect and disease control
- Soil aeration
- Irrigation
- Fertilising

The natural turf playing field should have an appropriate level of overall turf coverage and be cut to a short and even length with no bare patches. If dangerous holes and undulations exist, these should be addressed so that the playing surface is level. Care should be taken to ensure there are no excess grass clippings on the field of play.



If heavy vehicles require access to the playing field for maintenance purposes, consider wet weather and ground conditions to avoid rutting or damaging the playing field and/or surrounds.

Environmental Sustainable Design (ESD) considerations

ESD considerations when designing and maintaining a natural turf surface include:

- A natural turf surface can provide a high surface infiltration rate which can reduce surface water runoff during rainfall events. Water that enters through the turf surface and into the sand profile is naturally treated through natural filtration processes within the soil. This means that the water has a degree of filtration prior to discharging into the drainage network. Note: the water from the field still requires management to prevent chemical leaching from fertilisers and entering waterways.
- Large amounts of water are required for irrigating a natural turf surface to ensure healthy turf growth, particularly where natural rainfall is not sufficient. In these areas or instances, water quantities can be offset through:
 - ▶ Use of rainwater harvesting and reuse and/or use of recycled water
 - ▶ Turf species that require less annual water demands (e.g. warm season turf species, couch grasses)
 - ▶ Monitoring profile moisture levels
- Sourcing locally supplied turf and profile materials (i.e. growing medium) can reduce CO² emissions from transportation

Synthetic grass playing fields



Whilst natural turf remains the preferred playing field surface type for cricket (across all levels of play), Cricket Australia acknowledges the role full synthetic field surfaces can play in providing both increased and more flexible programming opportunities for cricket programs, training and competition.

Synthetic turf technology has evolved significantly over the past 10 years and is now commonly used by many major sports throughout the world. As a result of these developments, the AFL and Cricket Australia has developed a synthetic turf licencing program to enable the playing of community level Australian Football and Cricket on an approved synthetic product. **Note: This licencing program relates to the synthetic product used across the field of play/the outfield.** It does not include synthetic products used on centre synthetic cricket pitches.

The program is underpinned by a six-step testing process to ensure that products being manufactured meet specific performance and quality (i.e. longevity) criteria and that the products comply with safety and insurance requirements.

The AFL/Cricket Australia 'Approved Synthetic Turf Product' mark is awarded to those products that have been subject to a series of stringent laboratory tests. These tests currently include those for durability, joint strength, resistance to weathering, ball roll and bounce, hardness, critical fall height, traction and abrasion.

Every oval installed must meet a second stage of testing that occurs on site once the oval has been laid and filled to produce the playing surface and has been allowed to settle and be played on for a period of one month or 160 hours of play. Once an oval has met all the requirements of the field testing it will be issued with official certification that the oval complies with AFL/Cricket Australia Standards. Retesting is required every two years to ensure ongoing accreditation.

For further information on the licensing program please visit:



ESD considerations and impacts of synthetic playing fields

A number of environmental factors should be considered when investigating installation of a full synthetic grass surface playing field. Local site conditions and surrounds should also be factored into decision making.

Potential environmental risks:

- Synthetic grass systems, with rubber performance infill, absorb and radiate heat thereby heating the surrounding environment (Note: Use of organic infill may assist with reducing heat).
- Microplastic displacement from the intentionally added rubber performance can contaminate the adjacent environment. (Note: Use of organic infill and non-infill products will help minimise this issue).
- During periods of rainfall, black crumb used for the base of synthetic fields and microplastics from the astroturf may make its way as run-off into stormwater drains. (Note: an artificial turf filter may help minimise microplastic pollution).
- Conversion from a natural surface to a synthetic surface will increase surface run-off to downstream drainage infrastructure. (Note: Use of a free draining gravel base may help to alleviate this issue through detention in the profile itself).
- Increased CO² omissions during the production, transportation and end of life disposal phases.
- Synthetic grass does not decompose, meaning unless it is repurposed, it will end up in landfill (Note: Research continues into future synthetic grass recycling opportunities, with planning underway for Australia's first purpose built synthetic grass recycling hub).

Environmental benefits:

- Reduced maintenance activities compared to natural turf, therefore reducing CO² emissions while operational.
- Stormwater retention beneath the synthetic grass profile is an option to capture and re-use stormwater run-off for irrigation of adjacent areas.
- Pending condition, synthetic grass may be repurposed, in-turn delaying disposal to landfill.



Cricket Australia strongly recommends that the above ESD and construction considerations be discussed with suppliers and/or installers prior to the installation of any new or upgraded synthetic playing fields.

Hybrid Turf

There are a variety of hybrid turf products currently available utilising a range of methods to combine natural turf grass with synthetic plastic fibres. The use of hybrid turf is becoming more common in both areas of high wear (e.g. bowler run ups and pitch surrounds) as well as an alternate cricket pitch surface type. The performance and suitability of hybrid turf products is heavily dependent on the geographic location, related clay type/profile and level of maintenance undertaken at each site.



If considering installation of hybrid turf, seek advice from product supplier/installer on:

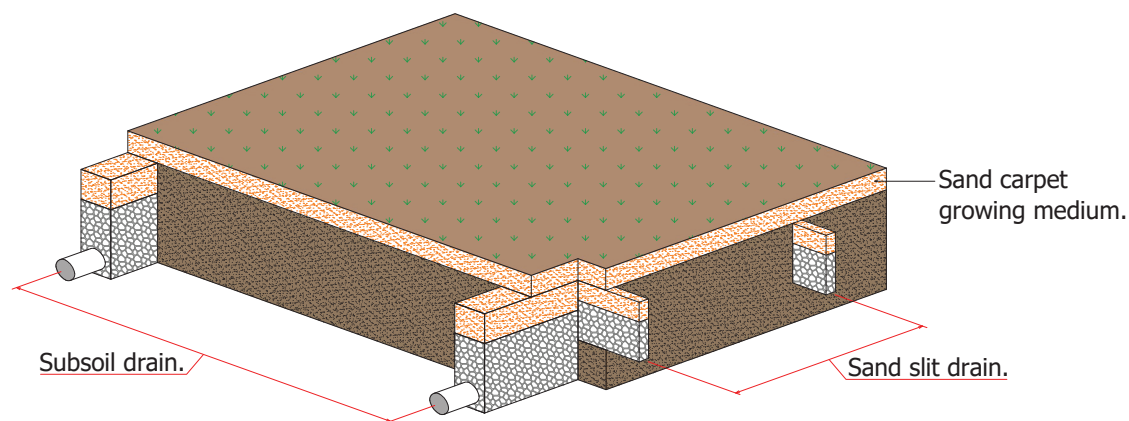
- the suitability of the product for local conditions and proposed use/ utilisation
- maintenance requirements to support optimal performance and longevity
- product warranty requirements

Cricket Australia is committed to further research and development into hybrid turf products and related installation methods to better understand this surface type's suitability and compatibility with Australian conditions.

Drainage infrastructure

The role of the drainage system for playing fields, regardless of whether it is natural turf or synthetic grass, is to effectively remove the water from the surface and discharge it into the nominated point of discharge. A drainage system might consist of the following elements:

- **Subsurface pipework:** Slotted drains to relieve moisture build-up in the profile and discharge into collector pipes.
- **Sand slits/grooves:** Closely spaced narrow trenches filled with free draining material (i.e. sand) to discharge into slotted subsurface pipework (see image below).



Sand carpet drainage system typical detail

- **Pits:** Grated drainage pits collect surface water when located in low points, spoon drains and discharge into collector pipes. Junction pits (i.e. solid lids) aid in the directional and level change of collector pipes and can combine multiple entry pipes to a single outfall pipe.
- **Collector pipes:** Solid pipes to convey the water collected by subsurface pipes and grated entry pits to nominated point of discharge.



Many playing fields won't have any formal drainage pipework and will solely be reliant on the grades of the oval to drain run-off to the perimeter.

For areas prone to flood inundation, the inclusion of adequately designed drainage infrastructure in combination with appropriate profile will enable a flood affected playing field to readily drain and enable required maintenance activities to be undertaken. This will allow the ground to be promptly returned back to suitable level of use.

Drainage performance requirements

The subsurface drainage system should be designed to cater for the infiltration rate of the turf profile.

Maintenance

Constant maintenance is required to ensure drainage systems continue to function. Inspection of drainage systems should be undertaken annually. Cracking might occur in pipes and pits, which will need repair to avoid water entering into subgrade level.

Turf maintenance practices also play a part in the effectiveness of drainage systems (e.g. activities including aeration, vertical cutting, reduction in thatch, top dressing materials).

ESD considerations

ESD considerations when designing and maintaining drainage infrastructure include:

- When considering the drainage network, be efficient and avoid redundant drainage infrastructure.
- Consider using drainage pipes made from recycled materials.
- Most plastic pipe systems are sustainable and environmentally friendly. Plastic pipes provide leak protection and resistance to corrosion. Due to its lightweight characteristics, a lower carbon footprint is produced during transportation.

Irrigation network

Irrigation systems should be designed to evenly and effectively apply water to a natural turf or hybrid turf field of play. Irrigation is typically not required for synthetic grass surfaces.

The irrigation system consists of a primary water source, supplying an underground mainline pipe network that is connected to electric solenoid valve assemblies. Lateral pipes connect sprinklers to the solenoid valves, and the entire system is automatically controlled via low-voltage wiring and a fit-for-purpose irrigation control unit.

Irrigation performance requirements


The irrigation system should be designed to meet the requirements of the field of play, taking into account the site water supply and the local climatic conditions.

Generally, the minimum requirements of an irrigation system should meet industry best practice guidelines, which have been summarised below:


- Sprinkler CU% (Coefficient of Uniformity) $\geq 90\%$
- Sprinkler DU% (Distribution Uniformity) $\geq 85\%$
- SC (5%) (Scheduling Co-efficient) ≤ 1.3



Image courtesy of SportEng



An important factor when designing an irrigation system is its ability to apply a reasonable amount of water in a reasonable amount of time. Generally, an irrigation system will be designed to meet 10mm application of water across the entire field of play over an eight hour period.



Consider the time of day when programming irrigation systems to ensure conducive climatic conditions, minimise excess water usage and to save on operating costs.

Maintenance

Seasonal maintenance is required to ensure the irrigation system operates as intended to provide an even and effective application of water to the field of play.

At the beginning and end of the irrigation season, each sprinkler line should be operated and inspected for any obvious faults (i.e. broken sprinklers, leaks, under performance, solenoid valve not operating). Any faults should be recorded and rectified and should form part of an annual maintenance program.

ESD considerations

An irrigation system, particularly for natural turf, requires a high amount of water to ensure healthy turf growth when natural rainfall is insufficient. Alternative sources of water other than drinkable potable water (i.e. recycled water, harvested rain and/or stormwater), should be considered to off-set the dependence on drinkable potable water.

Depending on geographic location, some turf species are more resilient and drought tolerant than others, resulting in reduced irrigation loads. Warm season turf species such as couch grasses are particularly drought tolerant.

Perimeter fencing

Ground fencing

Australian cricket recognises the importance of developing multi-use sporting facilities and the potential limitations perimeter fencing can have on the overall flexibility and use of open space. With this in mind, and where fencing does not impede on a site's overall usage, community access, flexibility and capacity to expand, it is cricket's preference that a fence be installed around the oval boundary to limit balls leaving the field of play.

The traditional 'white picket' fence is an aesthetically appealing sports ground fencing option that is more appropriate for a Premier level venue. Before opting for this style of fencing, consider other users of the playing field, maintenance requirements and potential safety and injury hazards. The traditional picket fence is now manufactured in a range of materials, including metal and durable plastics to prolong lifespan and reduce cost. For a Club (home) or Club (satellite) venue, a cyclone mesh wire fence at either 1050mm or 1200mm around the playing field is desirable.




It is important that perimeter fencing allows for an emergency vehicle entry/egress (typically double gate 4m wide opening) and enables curator machinery unimpeded access to the playing field. This access should be in close proximity to the curator's equipment and machinery storage facility or internal road network should machinery not be kept on site.

Safety fencing

Fencing that protects spectators and pedestrians or limits damage to neighbouring properties, infrastructure and vehicles is highly recommended, particularly in ‘hot spot’ areas prone to cricket balls being hit during play.

Cricket is a 360-degree sport with the hitting zone for batters heavily dependent on the level and format of competition. The diagram below highlights the main ‘hot spot areas’ for overhitting for both left and right handed batters. Safety fencing may be prioritised in these areas as one solution to assist in minimising the risk of injury or damage. **Safety fencing will not eliminate** potential injury or damage and each site should have its own safety audit completed by the facility owner.

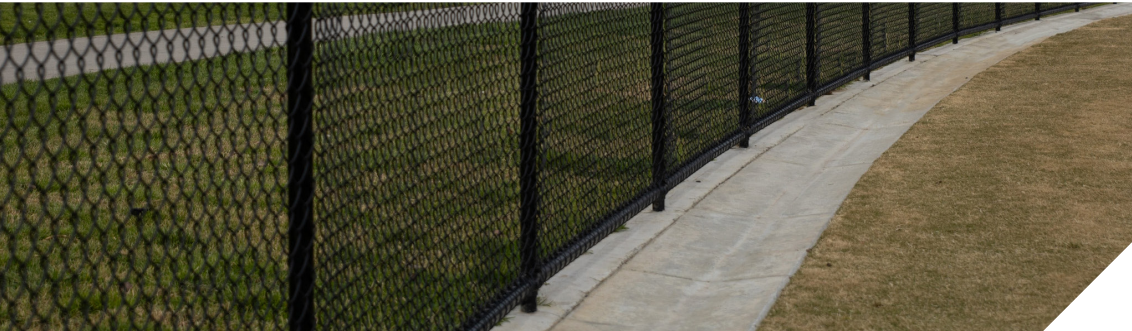


 If installation of safety fencing is not feasible, it is recommended from a risk management and liability perspective that warning signage be placed around the ground advising the public of the sporting activity taking place and to be aware when travelling past or parking their vehicle.

Fence options

There are a number of different options for the construction of a perimeter fence. Selection of the fence material will be dependent upon fence height, durability and aesthetics.

FENCE TYPE	PVC PICKET FENCE	CHAIN MESH FENCE	VINYL FENCE
Material	Aluminium with PVC coating	Aluminium with PVC coating	Timber
Colour	White	Black	White



Access and egress points

Where a fence is included around the perimeter of the playing field, single gates for pedestrians and double gates for easy maintenance and emergency vehicle access will be required.

Pedestrian gates should be appropriately located to enable efficient access to and from the playing field for both players and other users of the facility. Pedestrian gates should be a minimum 1.35m in width to allow for universal access.

Double gates for maintenance and emergency vehicles should be in accordance with relevant Australian Standard AS 1725.1–2010 Security fences and gates – General requirements and should be not less than 4m in width and should consist of double gates.



Double gate access to the playing field to enable emergency vehicle and/or curator machinery easy entry/egress.

Maintenance

To ensure perimeter fencing is fit-for-purpose and long lasting, ongoing maintenance works are required. Inspection along the fence line should be undertaken for signs of damage. Replacement or repairing of the fence should be considered when damage is identified. The following items should be considered during inspection:

- Wear and tear
- Broken links and holes
- Sagging or leaning fences
- Sinking or heaving fence post foundations

ESD considerations

ESD considerations when designing and maintaining fencing include:

- Recycling material of fencing and fencing coating can be considered.
- Material such as steel or vinyl requires low maintenance and provides a long service life.

Sight screens

Sight screens are large structures (generally on wheels or permanently fixed to rails / fencing) placed outside the boundary line/rope at both ends of a playing field behind the bowler's arm. Sight screens are used to assist a batter's vision of the ball leaving the bowler's hand as they provide a solid contrasting background.

Whilst not a requirement at all levels of community cricket*, sight screens are required for Premier level cricket venues and recommended for grounds that have distracting backdrops (e.g. passing traffic) or structures or vegetation that impact on batter visibility.

*Refer to local Cricket Associations for sight screen requirements.

Dimensions

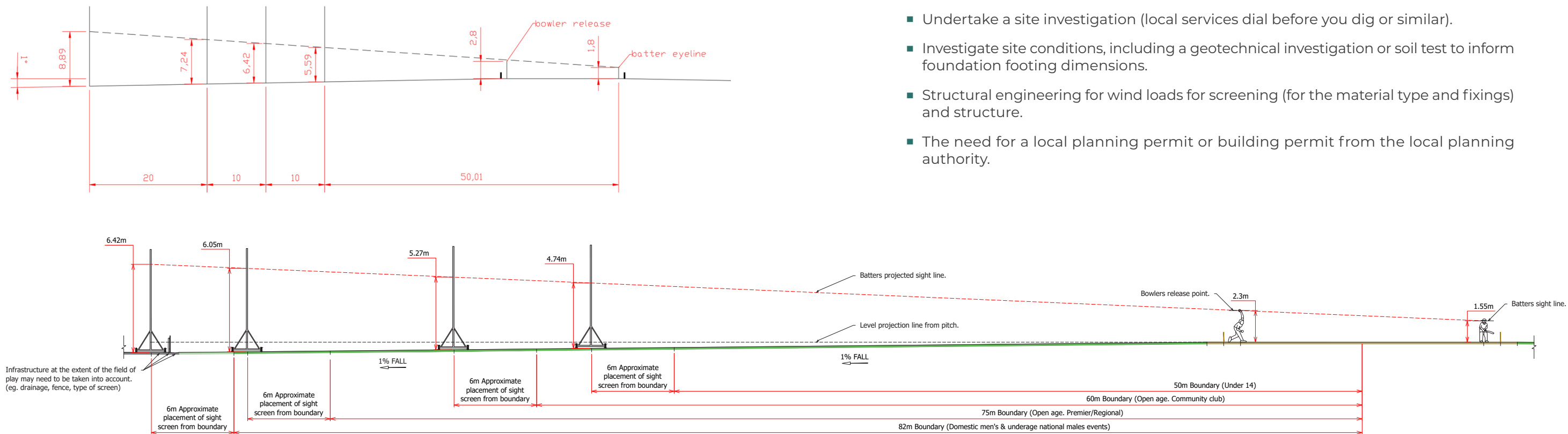
Dimensions for sight screens will vary depending on the following:

- Distance from the pitch
- Grade/fall in playing field surface level (from pitch to sight screen location)
- Playing field backdrop/surrounding infrastructure (e.g. vegetation, passing traffic)

As a minimum:


- A sight screen's height should extend to cover the release point of all bowlers
- A sight screen's width must provide sighting for a right-handed batter facing a left-arm bowler who is bowling around the wicket and a left-handed batter who is facing a right-handed bowler who is bowling around the wicket.

As a guide, a movable sight screen that measures 6m x 6m will generally accommodate most options.



Location

- The location of sight screens should consider the following:
- Sight screens should be located behind the bowler's arm and a minimum 2.74m / recommended 4m from the boundary line (**Refer to Site Planning diagram located in Guidance Note 07 for recommended sight screen location**).
- Sight screens can be fixed or movable.
- Movable sights screens should be easily movable from side-to-side so that width extremes can be covered. This movement should be able to be completed in under 30 seconds at any given time.
- Fixed sight screens must cover the extremes of bowler's delivery points.



All movable sight screen designs and/or installation methods should include a 'locking' feature or be engineered in a manner to withstand high winds.

Colour

Interchangeable or reversible white (for red ball) and black (for white ball) coloured sight screens are recommended to accommodate varying cricket formats and competitions.

Fixed sight screens

Fixed or non-movable sight screens should consider the following:

- Be designed by an appropriately qualified structural engineer and constructed by an appropriately qualified licenced contractor.
- Undertake a site investigation (local services dial before you dig or similar).
- Investigate site conditions, including a geotechnical investigation or soil test to inform foundation footing dimensions.
- Structural engineering for wind loads for screening (for the material type and fixings) and structure.
- The need for a local planning permit or building permit from the local planning authority.

Mobile sight screens

Movable sight screens should consider the following:

- Be designed by an appropriately qualified structural engineer and constructed by an appropriately qualified licenced contractor.
- Structural engineering for wind loads for screening (for the material type and fixings) and structure.
- Should have suitable outriggers or alternative design functions to prevent the screen from moving or falling over in wind.

Geometry

In community level cricket, the screens are often at ground level, but should be tall enough so that the bowler’s arm does not extend above them from the batter’s line of view.

Maintenance

Maintenance for sight screens should include (but not be limited to) the following:

- Visually inspect sight screens before and after each use to identify any obvious issues or damage.
- Regularly check bolted connections on the screens and track.
- Reapply paint coating in worn areas and over rust marks if necessary.
- Remove slats from screens to prevent wind damage in extreme weather.
- When not in use, seek to store/secure sight screens in a weather protected area to minimise wear and tear/deterioration.

ESD considerations

ESD considerations when designing and maintaining sight screens include:

- Consider choosing a sight screen material that’s rust or corrasion resistant.
- Perform ongoing maintenance for longevity.


Scoreboards

Electronic or manually managed scoreboards should be provided at all levels of community cricket. The model and detailed design of the scoreboard (electronic or manual, fixed, temporary or portable) will differ for each venue, and will depend on scoreboard requirements, features, site conditions and available budget.

Items to consider when planning the type and model of scoreboards include:

- Ensure the proposed location provides optimal visibility for spectators and players. If electronic, consider the impacts of afternoon sun glare on its readability.
- Once the preferred location has been confirmed, it’s recommended a soil test and an assessment of nearby tree roots be undertaken to determine site suitability.

- If opting for an electronic scoreboard, determine what functions it will need to perform. If sharing the scoreboard with a co-tenant, consider their requirements also.
- If opting for an electronic scoreboard, assess the location and appropriateness of the site’s power supply to accommodate and effectively operate the additional infrastructure (e.g. internet connection and data cable).
- The need for a local planning permit or building permit from the local planning authority for a permanent scoreboard structure.



Depending on the distance from players and spectator areas, it is important to ensure the scoreboard characters (e.g. numbers and letters) are of appropriate size. Consult with a qualified scoreboard manufacturer when deciding on character size requirements.



Consider the scoreboard’s location (protection) in the context of ‘hot spot’ hitting zone areas.

Recommended display functions required for scoreboards include:

FUNCTION	OPTION A (BASIC)	OPTION B (STANDARD)	OPTION C (ADVANCED)
WICKETS	■	■	■
RUNS (TOTAL)	■	■	■
OVERS BOWLED	■	■	■
OVERS REMAINING		■	■
TARGET		■	■
CLOCK		■	■
BOWLER NAME & STATISTICS		■	■
BATTER (X2) NAME & STATISTICS		■	■
BATTING LINE UP			■
LAST WICKET			■
FIRST & SECOND INNINGS SCORES			■
RUN RATE			■
REQUIRED RUN RATE			■
DUCKWORTH LEWIS PAR SCORE			■
FIELDING RESTRICTIONS OVER INDICATOR			■
SUPER OVER COMPATIBLE			■
SPONSOR ADVERTISING			■
VIDEO PLAY BACK			■

Scoreboard Options A and B are typically suited to Community Club Home and Satellite venues. Typically at community club level, batter and bowler names and statistics are not required. However, versions of electronic scoreboards provide this level of detail for community level venues. **Option C** is most suited towards Premier Cricket and higher levels of competition.



Existing electronic scoreboards may require an upgrade to enable PlayHQ eScoring. It is recommended the relevant scoreboard manufacturer be contacted to advise of any required enhancements and associated costs.

Benefits of electronic scoreboards

Electronic scoreboards are encouraged due to the ability to integrate with PlayHQ and facilitate live scoring opportunities. Electronic scoreboards can also enable the opportunity to promote sponsors, link to social media, display community messages and create an overall improved match day experience for players, umpires and spectators. More advanced scoreboards also have the capacity to play movies and video content and can be used for additional community events outside of cricket.

- Additional considerations for scoreboard selection include:
- Consultation with a scoreboard manufacturer to ensure compatibility between the product and the PlayHQ registration and competition management system.
- Once the electronic scoreboard's required functions have been finalised, confirm with an electrician or electrical engineer power supply requirements to determine whether existing supply is adequate (or if an upgrade will be required).
- Irrespective of whether the scoreboard is electronic or manual, ensure the design (framework and footings) is prepared by a suitably qualified engineer and installed by a qualified contractor. The footing design will be subject to the size and weight of the scoreboard.

Maintenance

Maintenance of scoreboards should include (but not limited to) the following:

- Undertake maintenance as specified by the manufacturer during the off-season (or between seasons if sharing with a winter tenant).
- Visually inspect scoreboard and framework to check for any physical damage or deterioration.
- Engage with an electrical technician to conduct testing on the performance of the system. If faulty, contact the scoreboard manufacturer directly who will advise of any repair or replacement process.
- Always perform a scoreboard test before the first game of the season to ensure the scoreboard is fully functional.

ESD considerations

ESD considerations when designing and maintaining scoreboards include:

- Unplug power during the off season to reduce usage (if not shared with another user).
- LED scoreboards require less energy and can maintain a long-lasting service life.
- Solar power scoreboards present an alternate option; however, the requirement of design is determined by location and the capability of capturing sunlight.

Storage

Maintenance equipment

A well-positioned and adequately sized maintenance and equipment storage area for turf pitch curator machinery and equipment is a key facility requirement for venues with turf pitches.

When deciding on the best location for a curator storage shed, ensure it is in close proximity to the playing field and that easy access to the playing field is available (e.g. double gates that enable vehicle access onto the ground). Curator storage sheds are recommended within close proximity to the playing field. Access between the storage facility and the playing field should be unimpeded by drainage infrastructure or other impediments to allow for rollers and maintenance vehicles to be used.

To minimise building footprints and use of public open space, consider using the shed as a base for a scoreboard (be mindful of impacts of sun glare on scoreboard).

A consolidated multiple roller door design with separate storage areas for individual pieces of curator machinery and equipment or club equipment is recommended for grounds servicing turf pitches. Ensure the roller door(s) are wide enough for machinery to easily enter and exit. When developing new sheds, consider the future equipment and machinery you may need and design access to cater for it.



The size of a maintenance shed is heavily dependent on the amount of storage required for playing field operational and maintenance equipment. When determining the appropriate size of your maintenance shed, consider listing out all equipment and machinery to be housed within it (e.g. ride on/hand rollers, pitch covers, tools, equipment, secured chemicals).



Safe Work Australia have developed a Model Code of Practice: Managing risks of hazardous chemicals in the workplace. This code of practice provides practical guidance on how to manage health and safety risks associated with hazardous chemicals for persons conducting a business or undertaking who use chemicals in their workplace




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Other equipment storage

Storage rooms should be designed with shelves to maximise storage room capacity. Provision of separate secure areas or cages for storing seasonal user equipment is ideal to ensure all users can secure equipment on site.

Other considerations in planning for equipment storage include:

- **Equipment storerooms** - should be accessed via an external vertical roller door or double swing door to allow for direct playing field access. The storeroom should ideally be rectangular or square in shape, to allow for maximum perimeter storage.
- **Provide perimeter storage shelving** - (fixed or adjustable) or open compartments for sports equipment or club goods. The height/vertical spacing of the shelves should be designed to accommodate the nature of the storage. Shelving should be constructed from robust materials and be provided with heavy duty supports, either to the wall or on a free-standing frame.
- **Where curator's sheds are provided** - ensure that access to the playing field is on grade or ramped to suit the site levels for the pitch roller and other maintenance vehicles.
- **Provide lockable gates** - (screen mesh or similar) or solid doors to storage shelving and cupboards to prevent theft and vandalism.



If located in a flood prone area it is recommended stock/contents be stored in an elevated location.

Maintenance

Maintenance of storage areas should include (but not be limited to) the following:

- Visual inspections of the exterior of storage area to identify wear and tear, rusting and cracks including roof, windows and doors.
- Check the interior of the storage area to identify moisture, water spots or other leaks.
- Check for pests to keep the storage shed safe from termites and dangerous pests.

ESD considerations

ESD considerations when designing and maintaining storage areas include:

- Location of the storage area should be considered to minimise the impact on native vegetation around the structure.
- Recycled material can be used to reduce carbon footprint (i.e. stainless steel, recycled timber).
- Adequate ventilation is important to ensure airflow in the shed or structure.
- Perform ongoing maintenance to deliver longevity of the structure.


Shade/Shelter

Shade provision

The provision of shelter for players and for spectator viewing areas at community cricket venues is a key design feature that is often overlooked when planning a new cricket facility.

Whether it be permanent shelters with seating, extending a pavilion roofline, shade sails, tree plantings (natural shade is preferred) or a designated area for a temporary shade structure, sheltered spectator areas provide a refuge from the sun during the hot summer months.

With a cricket match or a day's play taking anywhere up to eight hours to complete, shelter from the sun and/or wind will increase the likelihood of spectators staying to watch the match and assisting to protect them from climatic conditions. This not only builds the atmosphere of the match but provides a meeting place for families, friends and local residents, promoting social cohesion, community health and wellbeing and a strong sporting club culture.



Natural shade (tree planting) is highly recommended, as is the use of suitable native species.

Maintenance

Maintenance of shade structures should include (but not be limited to) the following:

- Visual inspection of the exterior of player shelter(s) to identify wear and tear, rusting.
- Inspect seating to ensure there is no damage that might cause safety issues.

ESD considerations

ESD considerations when designing and maintaining shade/shelters include:

- Plastic shelters can be recycled after the long-life cycle. Using recycled plastic can be one of the options to reduce environmental impact.
- Metal shelters that are made of galvanised steel with rust resistant paint can prevent the structure from corrosion and rusting and require lower levels of regular maintenance.
- Multi-use shelters can be considered to reduce the number of shelters required.