GUIDANCE NOTE 02

Outdoor Training Facilities
INTRODUCTION

Whether it be a midweek training session, pre-match warm up, lunchtime hit with school friends or an opportunity to test the new bat out with family or friends at the local cricket ground, outdoor training nets are a core facility component across all levels of cricket.

More often than not, cricket nets provide the setting for a young cricketer’s first experience with the game and provide an integral platform for player skill and technique development.

Outdoor training nets comprise of both synthetic and turf cricket pitch surfaces and have historically been designed using a variety of materials and layouts. This Guidance Note outlines Cricket Australia’s recommended levels of provision and design elements of outdoor training nets and should be used to help guide future cricket net development and/or redevelopment.

Australian Standards

No Australian Standard specific to cricket net design in Australia currently exists. The following standards relating to cricket net materials are available and should be adhered to when developing new or refurbishing existing cricket net facilities.

AS1725.4 – 2010: Chain link fabric fencing – Cricket net fencing enclosures

Purpose of training nets

The primary function of cricket nets is to enable both batsmen and bowler skill and technique development, and if designed accordingly can accommodate fielding and wicket keeping training drills and activities. Cricket nets serve to stop the ball travelling long distances once hit by a batsman and provide opportunities for multiple batsmen and bowlers to train simultaneously. With the ability to be constructed in confined spaces, cricket nets save time through eliminating the need for fielders and also allow greater intensity of training, particularly when multiple pitches are used. If designed correctly they also provide a safe training environment for players and coaches alike and are ideal for junior training sessions and school playgrounds.

Training net planning principles

As depicted by the following diagram, the following planning principles should be considered when determining the most suitable location for cricket net development.

- Training nets and run-ups should be positioned off the field of play.
- Nets should not be positioned in a location likely to interfere with the match (e.g. behind the bowler’s arm causing potential distractions to the batsman).
- Nets should be orientated in a north-south direction.
- Nets should be positioned in a location where there is minimal chance of injury to passers by or damage to property and/or vehicles. This planning consideration is not applicable if training nets are enclosed.
- Nets should be positioned as close to the pavilion as possible to minimise distance to transport equipment.

Training net orientation

Cricket training nets should have a north-south orientation, or a maximum of 30 degrees east or west of north (for practice pitches only). The latter requirement is particularly important for the safety of players as training is usually conducted in the later afternoon or evening when the sun is setting.

Training net location

Dependent on cricket training net design and surrounding infrastructure and open space, the most suitable location for training nets will differ. Enclosed training net facilities (discussed in more detail in the following pages) allow greater flexibility in terms of location as training activities are confined to a specific area. Non-enclosed training facilities where the ball can be hit beyond the net structure require more careful placement to minimise the risk of injury to a person or damage to property.
Information provided in this Guidance Note should not be used as a substitute for specialist design advice and where necessary, specialist engineering advice should be sought.
The cricket facility hierarchy provided in Section 1 and the venue provision summary in Section 3 identifies a range of practice pitch options for different levels of play.

The number of nets required per venue is dependent on a number of factors including:
- level of competition played
- type of competition – turf or synthetic
- number of playing fields the training nets service (i.e. are there multiple grounds onsite)
- ground hierarchy classification
- size of tenant club/s and number of teams
- training schedules and weather impacts
- cost of provision and maintenance.

There is no ‘one size fits all’ approach to training net provision. The below and adjacent tables provide a guide as to a desired level of provision (number of pitches and surface types) for differing levels of competition and club size.

### NUMBER OF PITCHES

<table>
<thead>
<tr>
<th>HIERARCHY LEVEL</th>
<th>SYNTHETIC</th>
<th>TURF</th>
</tr>
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<tbody>
<tr>
<td>PREMIER/REGIONAL (TURF)</td>
<td>2-4</td>
<td>8-12</td>
</tr>
<tr>
<td>CLUB HOME (TURF)</td>
<td>3-4</td>
<td>4-6</td>
</tr>
<tr>
<td>CLUB HOME (SYNTHETIC)</td>
<td>3-6</td>
<td>0</td>
</tr>
<tr>
<td>CLUB SATELLITE</td>
<td>2*</td>
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</tbody>
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*Desirable

These minimums should be designed and developed with the potential to expand net structures and pitches as needs grow.

- **PREMIER/REGIONAL**
  - A combination of turf (8-12 pitches) and synthetic (2-4 pitches) training nets are appropriate for venues that host premier or regional level cricket competition and serve a regional or municipal catchment area. An enclosed synthetic training facility (5 pitches) with two publicly accessible bays is recommended for a large club or regional level facility that hosts synthetic pitch cricket competition.

- **CLUB (HOME)**
  - For a community club level facility (home ground) with a club competing in synthetic or turf competitions a minimum of 3 synthetic training nets is recommended and 4 turf nets (if playing on turf). A combination of both turf and synthetic is also recommended for a club playing turf competition as it provides an alternate training arrangement in the event of inclement weather or underprepared turf training nets. All synthetic nets should be publicly accessible.

- **CLUB (SATELLITE)**
  - For club satellite grounds (secondary or overflow grounds) or local school facilities, it is desirable to provide two publicly accessible training nets. Two pitch training nets support pre-match warm up and provide a hit up space for school activities.

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TRAINING NET DESIGN

The following pages provide several recommended design options, standards and tips when developing new or refurbishing existing cricket nets.

The below recommendations should be read in conjunction with cricket net design options and used to guide future cricket net facility development. Training net designs should be treated on a site-by-site and needs basis, with consideration given to the level of use, intended function (e.g. multi-purpose enclosure or cricket specific), available open space and relationships with surrounding infrastructure. Four key guiding design principles to consider when planning cricket nets include:

**Safety** – ensure the nets and surrounds are safe for users, passers by and surrounding property.

**Compliance** – ensure practice net design or net materials meet recommended standards.

**Accessibility** – ensure that cricket nets are accessible for all users.

**Game development** – ensure cricket net design promotes player skill and overall game development.

For occupational health and safety measures, it is a requirement that the dividing (centre) net within all multi bay constructions be of minimum length of 21m for the protection of bowlers in adjacent nets. Peripheral nets require a minimum side fencing length of 11m. However it is recommended that all nets have a minimum 21m dividing fence and a desirable length of 27m to allow for extended bowler run-ups and bowler protection.

Cricket training net development may require a building or planning permit. Consult with your Local Council first to understand if there are any specific permit requirements or local planning conditions in place.

AS1725.4 – 2010: Chain link fabric fencing – Cricket net fencing enclosures provides the Australian Standard for fencing of cricket net enclosures, including use of materials, design footings and installation requirements.
The adjacent image provides an example of the Australian Standard 9m netting roof length. It also demonstrates a design option for minimising the impacts of errant balls travelling over the roof of the net and damaging neighbouring property and/or passers by.

The adjacent image provides an example of a fully enclosed and roofed training net facility with ball control measures in place to prevent balls exiting the practice area into neighbouring parkland.

DN40 Hip rails for 6m roof plan.
Roof rails maximum 1,500 spacing either direction.

Typical two pitch cricket net fencing enclosure Type B with pitched roof design.
CRICKET ONLY SYNTHETIC PRACTICE PITCHES (NOT ENCLOSED)

The diagram below outlines the area requirements and recommended design to develop a new non-enclosed cricket net training facility. The design also includes extended synthetic bowler run-ups and a lockable gate.

Although public access is promoted, Councils/Clubs may wish to lock one or multiple nets which will require a lockable gate at the bowler’s end. The gate would cover the width of the bay when locked or secured. When in use the gate can be drawn back and secured, which in turn will act as the extension for the dividing net as displayed in the above diagram. It is recommended gates have a long lockdown bolt for padlocking.

- Compacted granitic sand or concrete base (subject to soil testing) covered with minimum 25mm pile height synthetic grass and infilled with rubber granules
- Concrete slab (cricket pitch) covered with 9-11mm pile height synthetic grass

PADLOCK

Minimum
Recommended
CRICKET ONLY SYNTHETIC PRACTICE PITCHES (ENCLOSED)

A 2m area behind the wicket box enables wicket keeping training activities.

Minimum Recommended Compacted granitic sand or concrete base (subject to soil testing) covered with minimum 25mm pile height synthetic grass and infilled with rubber granules.

Concrete slab (cricket pitch) covered with 9-11m pile height synthetic grass.

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REDEVELOPING SYNTHETIC CRICKET PRACTICE PITCHES

This design option provides a recommended approach to redeveloping ‘disconnected’ (gap between batting and bowling concrete pads) synthetic pitch training nets to improve player safety, general playability and suitability. It also includes extended synthetic bowler run up provision.

Infill previous safety and maintenance hazard area with compacted granitic sand and 25mm pile synthetic grass.

Join existing batting and bowling concrete pads through installation of additional concrete and relay new 9-11mm pile synthetic surface over entire pitch area (20.12m).

Space permitting (without encroaching on playing field), extend bowler run up areas to allow for an additional 12m from bowling crease.
TURF TRAINING NETS

Turf training nets are an integral element to simulating centre pitch conditions and playability and important to clubs and teams participating in turf pitch competitions.

Each turf training net should be separated by adjustable soft netting. Unlike synthetic training nets, turf nets can be located on the ground at the extremities of the oval or off the ground with the run-ups being on the ground.

Fabric netting is more appropriate for turf training nets to allow for flexibility and ease of maintenance. Netting should extend beyond the bowler’s point of delivery in each net to minimise risk of injury.

For any new developments it is recommended turf training nets be located totally off the ground with mesh wire fencing on the end and sides but open at the bowlers end. A nearby storage facility for equipment and bowling machine is also recommended.

Turf training nets should have a north-south orientation with an ideal rotation of 15 degrees east of north and maximum rotation of 30 degrees east or west of north.

The recommended length for turf training pitches is 22m. This distance includes the pitch length from stump to stump (20.12m), the bowling crease (1.22m - one end only) and some space at the rear of the stumps at the batsman’s end. This length can be extended to allow for greater room at the rear of the stumps at both the batsman and bowler’s ends if required.

Adding 2-4 synthetic cricket pitches adjacent the turf training areas is advantageous as it enables clubs to use the synthetic pitches as an alternate training facility if the turf pitches are underprepared or have been impacted by wet weather.

4-6 turf training nets are preferred for local club turf cricket competition. 8-12 pitches are recommended for premier or regional level cricket.

Combined turf and synthetic training nets enable greater training flexibility.
TURF TRAINING NET DESIGN

The diagram below outlines the area requirements and recommended design to develop a turf training net facility.

While full length turf training pitches are recommended, a minimum length of 15m (approximately three quarters of a full length pitch) could be considered to assist clubs in managing the cost of turf pitch development, preparation and ongoing maintenance.

Soft training net storage units provide a lockable and secure location for netting when not in use. They also enable quick and easy set up and pack down of training nets.

Using alternate pitches at any one time enables turf recovery and preparation whilst pitches are not in use.
Divided bowling and batting concrete pads create an unsafe environment for bowlers completing their follow through and limit the ability for delivery of a ‘short ball’.

Grass surrounds create a maintenance issue and detract from user experience. Overgrown grass also impacts pitch area and can deteriorate synthetic surfaces prematurely.

Tree debris falling on the pitch can also create risk management issues as well as damaging pitch condition through build up of mould and algae if not maintained correctly.

Flat roof designs can suffer from net sag as a result of people climbing on top of nets to retrieve balls.

Evidence of leaf litter and tree debris falling on practice pitch area
Image courtesy of insideEDGE Sport and Leisure Planning

Example of damage to a flat roof net design
Image courtesy of insideEDGE Sport and Leisure Planning

Overhanging trees can create shadows over the pitch and interfere with the batsman’s vision.

Example of inappropriately positioned vegetation
Image courtesy of insideEDGE Sport and Leisure Planning
Multi-use training facilities incorporating cricket practice nets are growing in popularity due to their flexible nature and capacity to accommodate a range of activities and uses.

They also ensure investment into community facilities provide benefits outside of summer cricket training.

Significant interest has been identified for multi-use training facilities with many design related projects underway across the country.

A typical range of multi-use training facilities developed to date include configurations that accommodate training for cricket-netball, cricket-baseball, cricket-soccer, cricket-lacrosse, cricket-hockey and cricket combined with general training and pre-game warm-up for other codes including rugby and Australian Rules Football.

The principles of cricket net design can be integrated within multi-use facilities including safety, compliance, accessibility and game development. Where multi-use facilities can demonstrate adherence to these principles and still provide fit-for-purpose cricket training nets that are flexible for other activities, then Cricket Australia will support these innovations.

In all multi-use training facility projects, it is difficult to pre-empt all community activity that could be considered compatible with cricket. Final use and design of facilities is often a result of club, community and Council consultation and it is recommended that this process, along with the proposed staged planning process identified in Section 1 be utilised to ensure maximum benefit can be achieved for all.

A number of Case Studies are provided in Section 3 that highlight a range of multi-use training facilities.
ADDITIONAL AMENITIES TO SUPPORT PRACTICE PITCHES

Power supply

A nearby power supply to outdoor training nets enables the operation of an electronic bowling machine. Bowling machines typically operate on 240 volt power requirements but always check machine requirements with the manufacturer before installing power. Be mindful that electric cords do not become trip hazards and ensure they avoid contact with water.

Training net storage

Internal turf training net storage units provide a lockable and secure location for netting when not in use. They also enable quick and easy set up and pack down of training nets.

Rubber net edging

Rubber net edging minimises the damage to cricket balls as a result of impact with the fence and also increase the longevity of fencing through absorption of ball impact. Ensure fence posts have the capacity to support rubber matting.

Storage facility

A storage facility in close proximity to playing field and training facilities enables easier set up and pack down of equipment as well as a secure storage location for training and match day equipment. It can also act as a functional and elevated base for a match day scoreboard.

Access to water

Access to a nearby water supply is recommended for turf practice pitches to assist with pitch development and ongoing maintenance.