



RECREATION & SPORT FACILITY DESIGN GUIDE



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Contents

TABLE OF CONTENTS	PAGE
1. Purpose of this Guide	3
2. Background	3
3. Facility Design Principles	4
4. Design Stages.....	9
5. Establishing the Facility Design Team.....	9
a. Developing the Design Brief	9
b. Facility Design	10
6. References	11

DISCLAIMER

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1. PURPOSE OF THIS GUIDE

Designed to supplement the South Australian Regional Level Recreation and Sport Facilities Planning Guidelines this resource has been developed to assist local government officers and others responsible for the planning, development and operation of regional level recreation and sport facilities understand the general principles that need to be considered when designing recreation and sport facilities.

Regional Level Recreation and Sport Facilities - a facility (either single purpose or community sporting hub) of regional significance which because of its location and characteristics attracts users from a large council area and/or across multiple council areas and meets the standards required to host major Regional/State level competitions, events and/or training”.

2. BACKGROUND

Facility design is an important part of the facility planning and delivery process. A poorly designed facility can alienate users, create management challenges and increase operational costs. Moreover, trying to fix these problems post construction can be expensive and difficult to do. It is therefore important to spend the time and energy at the design stage to ensure you get it right.

“

Quality is not a ‘bolt-on’ option, and needs clear aims, a realistic budget and the right process to carry the project through

(Better Places for Sport, A client guide to achieving design quality, Sport England)

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3. FACILITY DESIGN PRINCIPLES

There are a number of principles that should be considered when designing a regional level recreations and sport facility, including:

DESIGN PRINCIPLE	CONSIDERATIONS
Practical and Affordable for the long-term	<p>Regional level recreations and sport facilities are long term assets that generally require large amounts of public money to develop, operate and maintain. It is critical that the design process should be considerate of this and aim to deliver the highest possible standard of facility balanced against funding realities including life-cycle costs.</p> <p>TIPS:</p> <ul style="list-style-type: none"> ➤ Although there may be a cost, consider having the facility design, cost estimates and project outcomes industry peer reviewed and/or benchmarked against other similar facilities. ➤ One way that costs can be offset is through providing space and generating income from an anchor community or commercial activity tenant(s) such as: <ul style="list-style-type: none"> ➤ Health Club (24/7 Gym) ➤ Child Care Centre ➤ Retail ➤ Office/administration ➤ Allied Health Service (e.g. Sports Physio) ➤ Neighbourhood House ➤ Youth/Other Community Services ➤ Monthly Community Markets.
Fit for purpose	<p>Facilities should be fit-for-purpose and meet the needs of users and the required recreation or sport standards for the intended levels of use, play or competition.</p> <p>TIPS:</p> <ul style="list-style-type: none"> ➤ It is important to engage with key stakeholders, especially state recreation and sporting organisations, facility managers and users at the earliest opportunity to ensure that the design of facilities (i.e. sporting grounds, run-off areas and related facilities such as change rooms) meet the standards required for the type and level of activities being provided.

3. FACILITY DESIGN PRINCIPLES *cont.*

DESIGN PRINCIPLE	CONSIDERATIONS
Multi and Shared Use	<p>The vast majority of regional level facilities are likely to be multi-use community sporting hubs with a single shared clubroom facility.</p> <p>Where shared use is to be accommodated, the compatibility and interrelationship of activities needs to be considered through the design process. This includes:</p> <ul style="list-style-type: none"> • Ensuring that facilities are designed to meet compliance requirements such as appropriate run-offs or field-of-play dimensions to cater for concurrent use by multiple sports. • Identify appropriate neutral locations for club memorabilia - Instead of club memorabilia being installed within multi-purpose rooms consider, in consultation with clubs, relocating memorabilia to the foyer or other neutral public spaces. • Providing adequate storage space for the different user groups so that their equipment can be stored and secured when not in use. <p>TIPS:</p> <ul style="list-style-type: none"> ➤ It is important to engage with facility user groups (clubs) and the local community at the earliest opportunity to determine management and operational requirements with the aim to ensure facilities are well-used, both day and night, throughout the week and weekend to maximise stakeholder return on investment.
Future-Proofed	<p>The best long-term outcomes are achieved by designing facilities in ways that enable them to be flexible, adaptable and able to be re-invented to cater for changing community needs (e.g. ageing population).</p> <p>Where possible the design should accommodate potential future expansion options (permanent for future needs and/or temporary for event purposes).</p>

3. FACILITY DESIGN PRINCIPLES *cont.*

DESIGN PRINCIPLE	CONSIDERATIONS
Flexible and Functional Space	<p>Facility design and layout should promote safe and optimal flexibility and functionality to accommodate concurrent use of the facility for different activities and events. This includes the design of secondary areas such as carpark, spectator viewing areas, reception/foyer areas, toilets, cafe, kitchen, crèche, operational plant and equipment/storage rooms.</p> <p>TIPS:</p> <ul style="list-style-type: none"> ➤ Many issues that affect the operation and management of a facility occur because of a lack of early engagement of operators. Facility managers are best placed to provide advice at the design phase on design and operational issues, as well as actual and potential user demands and needs.
Universal Design	<p>Facilities should be designed to accommodate everyone regardless of age, gender, ability and cultural background. This includes participants, officials, administrators, spectators and visitors.</p> <p>TIPS:</p> <ul style="list-style-type: none"> ➤ During the initial concept design phase run a workshop for actual and/or proposed users of the facility to identify areas or aspects of the facility that need specific attention (e.g. accommodate wheelchairs and pram access to all areas of the facility, baby change facilities included in unisex toilets etc.).
Health and safety	<p>Facilities and their surrounds should be designed, built and maintained in accordance with relevant codes and standards such as Occupational Health and Safety standards. It's also important to consider Child Safe, Female Friendly and Crime Prevention through Environmental Design (CPTED) principles in the design process.</p>

3. FACILITY DESIGN PRINCIPLES *cont.*

DESIGN PRINCIPLE	CONSIDERATIONS
Environmental sustainability	<p>The cost of utilities such as electricity and water is rising and this places increased pressure on the operating and maintenance life-cycles costs of facilities. As a consequence it is important to consider the use of energy/water efficient products and design elements to help to reduce energy and water consumption and save cost. Things to consider include:</p> <ul style="list-style-type: none"> • Use passive design principles to reduce reliance on energy (e.g. indirect natural lighting of spaces via highlight windows and ventilation via louvre windows). • Installation of grid connected photovoltaic (PV) cell system to inject electricity back into the grid network and reduce the building's energy consumption. • Installation of rain water tanks for toilet flushing and irrigation purposes and to supplement mains water as required. • Use water efficient fittings and fixtures in kitchens and wet areas. • Provide for the installation of a battery storage system or ensure the final design allows for future installation. • Provide for electric vehicle charging points or ensure the final design allows for future installation. • Using stormwater runoff to irrigate surrounding landscapes (WSUD) or utilising Local Council recycled water supplies for irrigation purposes. <p>TIPS:</p> <ul style="list-style-type: none"> ➤ Conduct an energy review and set sustainability objectives and energy use targets for the next 3-5 year period. Ensure you have mechanism in place to measure and report against the performance of the facility. ➤ Consider design features and finishes that will minimise graffiti and vandalism. Consider noise from user groups and traffic which may impact on neighbours.

3. FACILITY DESIGN PRINCIPLES *cont.*

DESIGN PRINCIPLE	CONSIDERATIONS
Location, access and the public realm	<p>Where possible facilities should be situated in locations that are site appropriate, with links to major road networks and connections to public transport, cycling and pedestrian routes, community facilities and services.</p> <p>Other things to consider:</p> <ul style="list-style-type: none">• Design social spaces such as cafés to interface with the public realm (e.g. outdoor play spaces).• Provide safe drop off/pick up areas and pedestrian access for centre users.• Have adequate parking, including parking for a buses and bicycles.• Provide opportunities for shade where outdoor spaces are intended for spectators, families etc.• Prioritise materials that are resistant to vandalism and are easy to maintain.



4. DESIGN STAGES

All building projects go through a similar design process irrespective of the building type.

Initial Concept (Schematic) Design –

During this phase the initial design concepts are developed based on outcomes of the community consultation process and a site analysis to test the feasibility of the project and/or the development potential of a site, and/or to select a particular conceptual approach to pursue.

- > ***ASSESS - broad consultation and review of design.***
- > ***DECISION POINT – more work or approve to proceed to the Developed Design phase.***

Developed Design – This phase involves the production of more detailed information based on the approved concept designs, including design drawings showing interrelationships between areas/elements of the project. The developed design phase is where technical experts prepare the necessary documentation so that cost estimates can be prepared on an elemental basis.

- > ***ASSESS - broad consultation and review of design.***
- > ***DECISION POINT – more work or approve to proceed to the Detailed Design phase.***

Detailed Design phase – During this phase detailed designs and specifications are developed to a level required to obtain tender quotes for the construction of works.

- > ***ASSESS - broad consultation and review of design.***
- > ***DECISION POINT – more work or approve to proceed to the Construction Documents phase.***

Construction Documents – During this phase the detailed design documentation is refined to reflect the outcomes from the tender and contract process and construction requirements such as site conditions to create drawings that can be directly built from. This stage is normally completed by the contractor and the specialist sub-trades/contractors.

- > ***ASSESS - broad consultation and review of design.***
- > ***DECISION POINT – more work or approve for Construction to commence.***

Key things to consider:

- > If the design is not going the way you want remember it's OK to STOP, REVIEW and if required START the process again
- > Look at design compromises carefully – will they still allow you to achieve the desired outcomes for the facility?

5. ESTABLISHING THE FACILITY DESIGN TEAM

a. Developing the Design Brief

A design brief will help you articulate what the user and community needs are into a set of design specifications that the design team can work with. The key elements of the design brief are:

- A description of the project and the project history.
- The purpose of the facility.
- How the facility is proposed to be managed.
- Site details and any clearing constraints (e.g. tree removals and/or demolition works).
- A schedule of specific requirements including the design principles that need to be considered in the design.
- Details of any environmental issues that need to be addressed.
- The standards of quality and finishes required.
- Accommodation schedule (number and type of users, groups, needs of the groups, hours of operation).
- Project budget and cost limit.
- Key dates for the commencement and conclusion of construction.

5. ESTABLISHING THE FACILITY DESIGN TEAM *cont.*

b. Facility Design Team

The design brief will help inform the type and level of expertise required for the design team. Although the make-up of the team will depend on the scope, size and scale of the project, generally for medium to large scale projects the following appointments are considered:

PROFESSION	ROLE
Project Manager	responsible for managing the activities of the design team through to the construction phase of the project.
Planner	provide planning, development approval and relevant codes and standards advice.
Architect	develop the architectural plans and design drawings.
Structural engineer	project engineering advice.
Civil engineers	inform in-ground services infrastructure and stormwater system or consent requirements.
Cost planner or quantity surveyor	project costing estimates.
Transport Engineer (if appropriate)	inform parking issues, road layouts, intersection designs.
Landscape architect (if appropriate)	landscape design.
Acoustics consultant (if appropriate)	acoustic design.

Key things to consider:

- Wherever possible to save money you should identify and co-opt in-house expertise to assist in the design phase.
- Membership of the project team should be merit based and reflect gender equity.
- It is important to consult widely and design workshops should be undertaken to ensure direct and potential users and stakeholders needs are considered and included in the design. Consult with experienced facility managers to ensure functional and operational considerations are embedded into the facility design.
- For a facility to be sustainable building and ongoing recurrent costs needs to be carefully managed.
- Consider setting the broad capital and recurrent budget early on and including this information in the design brief.

6. REFERENCES

South Australian Regional Level Recreation and Sport Facilities Planning Guidelines, Local Government Recreation and Sport Forum, Local Government Association SA, Office for Recreation and Sport, South Australia.

Design for Everyone Guide, <http://sport.vic.gov.au/publications-and-resources/design-everyone-guide> Sport and Recreation Victoria.

Environmental Sustainability Pack for Sport and Recreation Organisations in Western Australia, Department of Sport and Recreation, Western Australia

Community Sport and Recreation Facility Development Guide, Sport New Zealand.

Facility Planning Guide, Sport and Recreation Facilities, Department of Sport and Recreation, Western Australia. Better Places for Sport, A client guide to achieving design quality, Sport England.

Public Realm Urban Design Guidelines, Local Government Association of South Australia. Sport and Recreation Strategy 2017/2021, Adelaide Hills Council.



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