



# PLAY SPACE STRATEGY

## 2009-2014

*Play Space Design Guidelines*

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## A1: Design Guidelines

A series of design guidelines has been developed as part of this play strategy to assist City of Greater Bendigo to ensure best practice open space quality and play value within play spaces.

These design guidelines aim at providing best practices design principles for the layout of **new local** play spaces, as generally local play spaces will not be individually planned by a designated experienced open space planner. They may also serve as a benchmark for the upgrading of the future 113<sup>1</sup> local play spaces, but it is acknowledged that due to budgetary and staffing constraints it may not be possible to achieve upgrading of all local play spaces to the best practice standards.

It is anticipated that for the district and regional play space a more detailed planning process will be initiated, which will address best practice design principles.

As for all open public spaces DDA (Disability Discrimination Act) requirements in form of AS 1428 (Design for access and mobility) and the “Safer Design Guidelines”<sup>2</sup> need to be met.

For ease of reading an abridged form of the play space matrix has been repeated in this chapter. Please refer to Chapter 7.0 for a more detailed discussion on play space matrix. The play space matrix gives an overview of play space principles, minimum infrastructure requirements and play opportunities.

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<sup>1</sup> Recommended number of future local play spaces.

<sup>2</sup> Department of Sustainability and Environment, Victorian Government (DSE). (June 2005).

**Safer Design Guidelines for Victoria.** East Melbourne, Victoria, Australia

	Local	District	Regional
<b>PLAY SPACE PRINCIPLES</b>			
Inclusive and accessible	✓	✓	✓
Provision of a safe environment	✓	✓	✓
Inviting, welcoming and stimulating	✓	✓	✓
Whole of park approach to planning	✓	✓	✓
Diversity and Choice, e.g. variety of play experiences - cognitive, social, and physical / active play)	As part of the local precinct	✓	✓
Interaction with the natural environment	✓	✓	✓
Appreciation of heritage and culture	Where present	Where present	Where present
Connectedness - to homes, walking / cycling tracks, public transport and roadways	✓	✓	✓
Sustainability – environmentally friendly practices and materials that can be sourced locally; easy to maintain	✓	✓	✓
Community strengthening and connectedness	✓	✓	✓

	Local	District	Regional
<b>MINIMUM INFRASTRUCTURE</b>			
Linked to walking / cycling paths	✓	✓	✓
Access to play space	✓	✓	✓
Compacted path within play space	✓	✓	✓
Natural shade	✓	✓	✓
Shade sails			Only where good passive surveillance is given
Shaded seating	✓	✓	✓
Picnic tables		✓	✓
Fence	only as a barrier near an immediate source of potential danger	only as a near an immediate source of potential danger	✓

	Local	District	Regional
BBQ		some	✓
Shelter			✓
Bike racks			✓
Drinking fountain			✓
Landscaped areas	✓	✓	✓
Irrigated lawn			✓
Art work	Some	Some	✓
Toilets – including family change and disabled			✓
Designated car parking (incl. disabled car parking)			Dependant on specific site layout
Drainage (where required)	✓	✓	✓

	Local	District	Regional
<b>MINIMUM PLAY OPPORTUNITIES</b>			
Swinging elements	As part of the local precinct	✓	✓
Sliding elements	As part of the local precinct	✓	✓
Spinning elements	As part of the local precinct	✓	✓
Balancing elements	As part of the local precinct	✓	✓
Climbing elements	As part of the local precinct	✓	✓
Creative play elements, e.g. cubby house	As part of the local precinct	✓	✓
Loose play material (sand, rocks, bricks, branches, pebbles, etc)	As part of the local precinct	✓	✓
Natural play elements (rocks, trees, logs, water, etc)	As part of the local precinct	✓	✓
Sound / tactile / sensory elements	As part of the local precinct	some	✓
Ball games area	As part of the local precinct	✓	✓
Sand pit		some	✓
Basketball or netball ring	As part of the local precinct	some	

As per recommendations there will be 113 local play spaces within the municipality. In order to balance open space quality and play value with a sustainable level of maintenance effort and replacement costs, the local play space elements have been placed into three groups: **Minimum standard elements, case-by-case elements and excluded elements.**

### **Minimum standard elements (A1 – A6)**

Include:

- a link to a walking and cycling path network
- a compacted path access connecting the path network and the play space
- a compacted path access to seating within a play space
- natural shade – trees (a minimum of 5) close to seating and play
- seating (minimum of 1 seat/maximum of 2 seats)
- landscaped areas

### **Case-by-case elements**

- barrier fence
- litter bin
- natural play material (logs + rocks)
- loose play material
- basketball/netball half court
- art work

### **Excluded elements**

The following elements are strongly discouraged in local play spaces, unless an exceptional demonstrated need warrants their inclusion. These features have been excluded on the basis of an unsustainable cost-benefit ratio, as they require very high maintenance on an ongoing basis and/or are prone to vandalism. Nevertheless, they may be used in district or regional play spaces (refer to play space matrix).

- closed, gated fences forming an enclosure
- shelters + shade sails
- picnic tables
- BBQ's
- bike racks
- drinking fountains
- irrigated lawn
- sand pit

The following discusses each of the local play space elements in order to provide background information and design considerations. The minimum infrastructure requirements have been derived from the application of the play space principles. To highlight this connection, each paragraph also lists the relevant play space principle which is being addressed by the specific element. An example lay-out of a local play space has been attached as Appendix A1.16.

## ***A1.1 Link to a Walking/Cycling Path Network***

Play space principle:

- Connectedness

### **Rationale**

New play spaces should be linked to a walking and cycling path network. This will enable some children within the suitable age range to travel independently to the play space and thus lead a more active lifestyle.

### **Design Considerations/Technical requirements**

- New play spaces should be located next to or within a public park, creek reserve and near a cycle way.
- Locations in cul-de-sacs, isolated corner blocks or on the edge of a subdivision should be avoided, unless they branch off a well connected open space network.
- The location for a new play space should be determined early in the land development process to avoid “left-over land” solutions.

## **A1.2 Access to play space/compacted or sealed paths within a play space**

### Play space principles:

- Inclusive + accessible
- Community connectedness

### Rationale

A 1.5 m wide access path should be provided into all play spaces in order to create convenient access to the sites. Those paths should then be continued to a seating area. These paths are important for parents pushing a pram, children wanting to bring their bicycle into the space, persons with walking difficulties who need an even surface, wheel chair users and elderly people using mobility scooters. The path layout needs to include sufficient turning space as per AS 1428.1 for easy turning of any mobility aid (wheel chair, prams, scooters).



### Design Considerations/Technical requirements

- Material: Granitic sand, concrete or asphalt with an edge restraint
- From one entry point on each road frontage to seats, but not necessarily to the play area.
- Minimum width of 1.5 m.
- Turning radii/landings + gradients as per DDA requirements (AS 1428.1-2001)

### Exemptions:

Where DDA requirements cannot be achieved at a reasonable cost, a path that does not meet the standard may be approved.





### **A1.3 Natural shade – Trees**

#### **Play space principles:**

- Inviting, welcoming and stimulating
- Whole of park approach to planning
- Interaction with the natural environment
- Sustainability

#### **Rationale**

Trees are a very efficient and economical way of providing shade. Installation costs are low in comparison to constructed shade structures like pergolas or shade sails. They also provide the extra benefit of adding to a pleasant, inviting and sheltered feel. They provide play material in the form of branches, flowers and leaves and may attract birds. The texture and colour of the bark can add to the sensory quality of the space and may offer some discoveries like little insects.

A disadvantage is the long-term nature of their development. Substantial shading will only be achieved after 3 – 5 years. Depending on the usage and public surveillance, trees may be difficult to establish as they are sometimes unintentionally damaged by children playing or intentionally vandalised.



#### **Design Considerations/Technical requirements**

- Where possible and appropriate, play equipment and seating should be located within the area shaded by existing mature trees.
- Seating and play equipment should be placed underneath existing trees, where compliance with safety regulations can be achieved. Trees need to be assessed by a qualified arborist for structural safety.
- Positioning of seating and equipment should aim to utilise afternoon shade, i.e. in a south-easterly direction from the trunk.
- New trees should be of a native/indigenous species, unless special circumstances (replacement of tree in historic neighbourhood, part of an overriding planting scheme in a reserve or similar) warrant the use of exotic species.
- New trees should be planted close to seating and play equipment (but outside fall zones/ barrier free safety zones)
- Tree planting can be utilised to define various play spaces
- Trees can be planted within softfall area if hazard free safety distance rules are applied.
- Trees should be planted in groups to create a large shaded area and a sheltered feel.

## **A1.4 Seating**

### Play space principles:

- Inclusive and accessible
- Inviting, welcoming and stimulating
- Whole of park approach to planning

### Rationale

Seating should be provided for parents or accompanying adults at an inviting, comfortable location within the play space. Children may use it for resting, social play or to store items like toys, clothing or drink bottles. Seating invites supervising adults into the play space and thus influences the length of their stay and their children's stay.

### Design Considerations/Technical requirements

- One park seat per local play space is to be provided, but not more than two for a local play space. More seats may be required in district and regional play spaces.
- To be positioned near or underneath trees, ideally in a south-easterly position from the canopy to utilise afternoon shade.
- Park seats to feature vandal resistant slats (e.g. aluminium slats for increased graffiti resistance). The style of the park seat should be sympathetic to existing park furniture in the vicinity of the play space.
- Park seats need to have arm rests (for elderly people)
- To be installed on a concrete pad or within the softfall area, but not isolated in grassed areas
- Ideally to be incorporated into perimeter paths to minimise edge length of concrete areas (for ease of maintenance)
- The extent of a concrete pad should allow for a parking space for a pram or wheel chair next to the seat.
- Additional seating, especially for play spaces catering for younger age groups that require close contact to the supervising adult can be provided in form of logs, edges to perch on or similar allowing supervising adults or playgroups to congregate.



## **A1.5 Fences**

Play space principle:

- Provision of a safe environment

### **Rationale**

Generally fences should only be included into designs for local play spaces where there is a specific source of danger near the active area. Fences should not be designed as an enclosure to the play area, but as a barrier on a likely path of movement where children could forget to pay attention to the source of danger whilst being deeply absorbed in play.

Closed perimeter fences are costly to install and may create a false sense of safety for supervising adults, thus diverting their attention away from their duty of care. Fences may be considered as a means to keep cars out of the site, especially where there are two road frontages bordering the site. Please also refer Chapter 9.8 for a more detailed discussion of the topic.

Currently no local government policy or other legislation exists that requires fencing of playgrounds.

### **Design Considerations/Technical requirements**

Examples of risk where fences could be installed are:

- a road edge close to the active play area
- a source of attraction on the other side of the road that could potentially prompt children to suddenly cross the road (school, general store or similar)
- steep drop in levels (e.g. rock faces, retaining walls or similar)
- a steep embankment towards a creek, water channel or any other open water body.

A fence may also be installed as a means to prevent motorised vehicles entering the site.

### **Maintenance implications**

If a fence creates a complete enclosure, gates need to be self-closing and latching. This generally requires daily inspection to ensure functionality.



## **A1.6 Landscaped Areas**

Play space principles:

- Inviting, welcoming and stimulating
- Whole of park approach to planning
- Interaction with the natural environment

### **Rationale**

Landscaping in the form of planted areas can set the “tone” for a play space. Plantings can divide the space into a series of “play rooms”, can screen hard edges and fences and can add flowers, colour and texture to a space. Larger shrubs may provide props for play or serve as “cubbies”. They can provide play material in form of “treasures” or “play money”. Access to the natural environment is important for any child in order to develop a relationship with plants and animals. Plantings can also be used to visually connect to a natural reserve or backdrop of existing vegetation and thus create an impression of connectedness to the neighbouring sites rather than being isolated.

### **Design Considerations/Technical requirements**

- Plant choice should be limited to generally native or indigenous, drought tolerant, low maintenance species.
- Plantings should not obscure viewlines or create dense masses of foliage, which may give rise to a feeling of an unsafe place.
- Plantings should be constructed in reasonably sized clumps and not as individual plants or small groups of plants.
- Plantings need to be installed to best practice standards in order to minimise losses and replacement costs.
- The extent of plantings needs to be kept to a reasonable size in order to avoid unsustainable maintenance efforts.
- Adequate planting densities are to be installed





## Additional Play Space Elements for District and Regional Play Spaces

The following chapter discusses additional elements in play spaces in order to inform the design for district and regional play spaces. It is anticipated that play spaces for both categories will be individually designed.

### A1. 7 Picnic Settings + Bins

#### Play space principles:

- Inclusive and accessible
- Inviting, welcoming and stimulating
- Whole of park approach to planning

#### Rationale

Picnic tables provide opportunity for a convenient experience of the space. This is the case, where the district or regional play space aims at an extended duration of the visit. In addition to its intended use as a table for meals or snacks it can serve as a storage bench for toys and clothing or cater for quiet board games or crafting activities. Bins should be installed on sites with BBQs, where the space is near a take-away food outlet or where large amount of litter indicate a need for it.

#### Design Considerations/Technical requirements

- Table top preferably from a graffiti resistant material (aluminium or stainless steel)
- In spaces with existing park furniture the table should match the style of the existing seats or tables
- To be wheelchair accessible (with recessed table legs to allow for parking a wheelchair at the short ends of the table)
- To be incorporated into the path network where possible for convenient, all abilities access
- To be positioned in natural afternoon shade
- If in conjunction with a BBQ facility it should be positioned in a reasonable distance to the BBQ
- Bins to be installed on the perimeter where it can easily be accessed by light truck for emptying
- Any colours to be from a standard colour range



**Please note: Table above shows an attractive, easy to maintain top surface, but does not allow for inclusion of wheelchairs due to the size of the concrete pad and the location of table legs.**

## **A1.8 Shelters + Shade Sails**

### Play space principles:

- Inclusive and accessible
- Provision of a safe environment
- Inviting, welcoming and stimulating
- Whole of park approach to planning

### Rationale

Roofed structures can provide shelter from the natural elements, especially against rain and sun. They also function as a focal point to meet, to engage in social activities or role play or may work as a destination point. The high maintenance costs associated with their upkeep, especially when wilfully damaged, restrict their provision to regional play spaces.



### Design Considerations/Technical requirements

- Sturdy, vandal resistant design and construction
- Only in areas with good passive surveillance
- Roof heights and attachment to posts in a way that prevents climbing onto the roof
- Shade sails are only to be used in areas with excellent passive surveillance, as they are highly prone to being vandalised.

## **A1.9 Bike Racks**

### Play space principles:

- Inclusive and accessible
- Provision of a safe environment
- Inviting, welcoming and stimulating
- Connectedness

### Rationale

Bike racks should be provided in regional play spaces in order to promote use of bicycles as a means of transport to the space. Regional play spaces will attract a significant number of visitors, including families on bikes and should provide a designated area for bike parking. Some of the regional play spaces may focus on older children (8 – 12 years) and young people (12 – 18 years) and may generate significant numbers of bicycles in the precinct. For safety reasons, a designated parking area should be constructed in order to keep the bikes away from highly active areas, where they could be a source of injury.

For local and district play spaces the provision of bike racks has been restricted in order to lessen maintenance efforts. Bike racks are not required as a lower number of children will be visiting the play spaces and there is generally sufficient space to park bicycles away from the main play area.

### Design Considerations/Technical requirements

- Bike parking facilities as per current standard 2890.03 “Bicycle parking facilities”
- In an area that will provide the best possible passive surveillance

## ***A1.10 Drinking Fountains***

### Play space principles:

- Inclusive and accessible
- Provision of a safe environment
- Whole of park approach to planning
- Sustainable

### Rationale

Drinking fountains can provide refreshment on hot summer days and may prevent cases of dehydration among physically active playing children. Some environmental groups also promote drinking fountains as a means to reduce the use of one-way plastic drink bottles and associated waste.

A disadvantage is the high maintenance costs. It is assumed that drinking fountains will only be installed in regional play spaces, which will also feature toilet amenities and thus a connection to potable water supply.



## **A1.11 Irrigated Lawn**

### Play space principles:

- Provision of a safe environment
- Inviting, welcoming and stimulating
- Whole of park approach to planning
- Diversity and choice
- Interaction with the natural environment
- Sustainable

### Rationale

Irrigated lawns used on the edges of active play areas are highly attractive to visitors of all ages. They create a cool feel on warm summer days, have a soft feel under foot, invite people to play and rest on the ground and reduce dust emission. Irrigated lawns will be dependent on a connection to recycled, rural or potable water, if appropriate permits (e.g. from Coliban Water), can be acquired.

### Design Considerations/Technical requirements

- Not to be installed in intensive play areas, high traffic areas or through routes where it cannot withstand high wear

## **A1.12 Artwork**

### Play space principles:

- Inviting, welcoming and stimulating
- Whole of park approach to planning
- Diversity and choice
- Community strengthening opportunity

### Rationale

Artwork is an effective means to create a unique local space with a sense of place. The process of incorporating the artwork – from conceptual design to manufacturing of the art itself and final installation on site – can be a unifying, unique experience for the local community and thus create a high level of ownership. Anecdotal evidence suggests that involvement of the community reduces the occurrence of vandalism. Community involvement requires a certain level of facilitation which will require additional resources.

### Design Considerations/Technical requirements

- Materials used need to be tamper resistant
- Overall designs need to be robust and repairable



## **A1.13 Sand pits**

### **Play space principles:**

- Inviting, welcoming and stimulating
- Diversity and choice

### **Rationale**

Toddlers and young children are strongly attracted to play opportunities involving manipulative materials like sand. Sand pits are highly popular for these two age groups, but require intensive maintenance. Problems may include animal faeces, sharp objects and compaction of the sand. There is some discussion as to whether the play value justifies the maintenance expenses. The Play Space Strategy recommends some sand pits be incorporated in selected places.



## **A1.14 Other Loose Play Materials**

Play space principles:

- Inviting, welcoming and stimulating
- Diversity and choice
- Interaction with the natural environment

### **Rationale**

As with sand, loose play material is stimulating for young children and important for early childhood development. Play activities include creating collections of similar items, arranging them in patterns, trade sticks and stones or use smaller items as “play money”. On the other hand, smaller items, especially small rocks, can turn into hazardous projectiles during mowing or slashing of areas and damage machines.

Whilst it may be problematic to introduce loose play material into spaces, it should be recognised that some “untidiness” of spaces may contribute to the play value. Therefore it is recommended that the removal of fallen branches, or introduced materials brought to the space by the children themselves (like old tyres, rocks, bricks and wooden planks) be assessed on a case by case basis. Any dangerous items (wire pieces, timber planks with nails etc.) need to be removed.



## **A1.15 Natural Elements**

### **Play space principles:**

- Inviting, welcoming and stimulating
- Diversity and choice
- Interaction with the natural environment

### **Rationale**

Natural elements like logs or rocks can add a range of functionalities to a play space. Aesthetically they can contribute to a natural feel and can define spaces. As a play opportunity they can be used for physical play activities like balancing and jumping; they provide a sensory quality and they can be used as props for imaginative play.

### **Design Considerations/Technical requirements**

- Need to be heavy enough not to be able to be lifted or moved
- Need to be under 500 mm in height to avoid triggering soft fall zone standards
- Require a 1500 mm clear zone all around
- Should be installed in a granitic sand area to minimise the need for slashing efforts around edges





## **A1.16 Basketball/Netball Rings**

### Play space principles:

- Inviting, welcoming and stimulating
- Diversity and choice
- Community strengthening opportunity

### Rationale

With looming lifestyle related health issues, one of the few opportunities to promote highly active play is the provision of basketball or netball half-courts. They cater for young people who may be reluctant to use other play equipment as it is no longer challenging enough or they may perceive it as “uncool” to play on playground equipment. Basketball half courts should only be considered in areas where there is a lack of opportunities for these two ball games on school grounds or in sports reserves, as the sound of a bouncing ball for extended time may be perceived as a nuisance.

### Design Considerations/Technical requirements

- Carefully located on chosen sites in order to avoid disturbances to neighbouring properties.



# A1.17 Typical Local Play Space Lay-Out Drawing



- DESIGN GUIDELINE A14:  
NATURAL ELEMENTS:  
LOGS + ROCKS**
- near active areas
  - as additional seating
  - to be incorporated into soft fall, mulched or granitic sand areas

**DESIGN GUIDELINE A1:  
LINK TO WALKING AND CYCLING PATH**

**DESIGN GUIDELINE A2:  
ACCESS TO PLAY SPACE /COMPACTED  
OR SEALED PATH WITHIN A PLAY SPACE**

Offsetting path to one side in restricted spaces allows for larger play areas.

**DESIGN GUIDELINE A3:  
NATURAL SHADE - TREES**

- Trees ideally positioned to the north-west of seating and play
- Trees to be planted as close as possible to seating and play to maximize shade cast on active areas
- Existing and new trees should be incorporated in soft fall where possible
- Trees to be incorporated into planted areas or granitic sand surfaces where possible to minimise maintenance efforts.
- Trees in grassed areas to be planted at minimum distance of 1.8 m from any edge for ease of maintenance.

**DESIGN GUIDELINE A4:  
SEATING**

- Minimum of 1 seat per play space, incl. armrests
- Installation on a concrete pad
- Concrete pad to be extended to allow for wheel chair or pram parking.
- Additional seating in form of logs or rocks near play area.

**DESIGN GUIDELINE A6:  
LANDSCAPING**

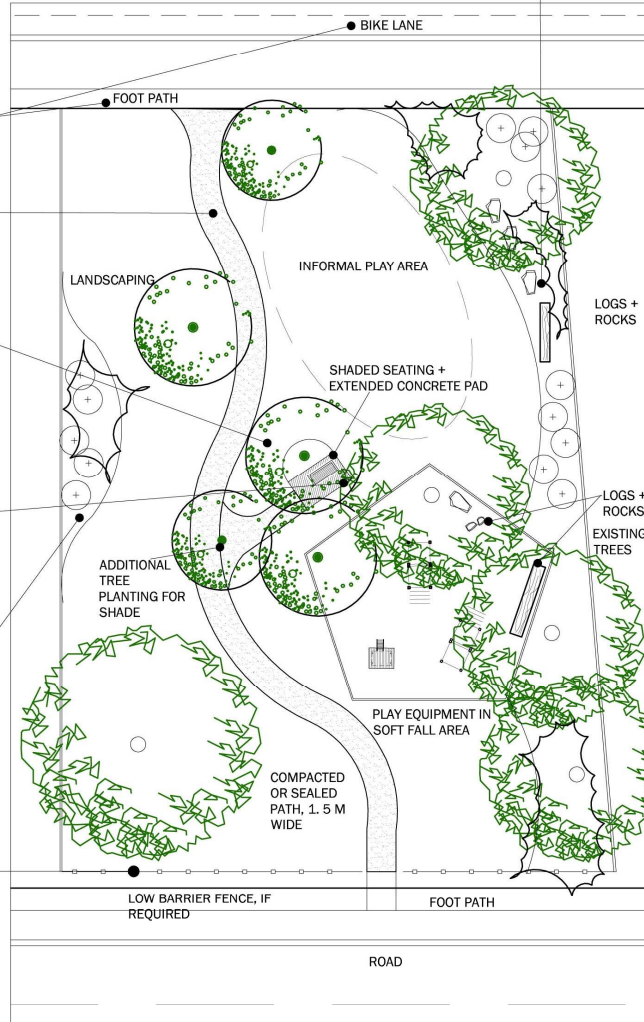
- To edges in order to keep viewlines open
- Along boundaries to screen stark, uninviting appearances of fences
- With drought tolerant species, preferable indigenous or native.

**DESIGN GUIDELINE A5:  
FENCES**

- Only as a barrier to an imminent source of danger

ALL PLAY EQUIPMENT TO BE INSTALLED IN COMPLIANCE WITH AS 4422, 4486, 4685

ALL PATHS LAYOUTS TO BE INSTALLED IN COMPLIANCE WITH AS 1428



## CITY OF GREATER BENDIGO PLAY SPACE STRATEGY - TYPICAL LOCAL PLAY SPACE LAYOUT

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