

**Mirvac Fini: Burswood Lakes
Planning and Design of Public Open Space in Burswood Lakes**



SARKISSIAN ASSOCIATES PLANNERS PTY LTD
ABN 91 093 334 028

Working Paper 7:

*Planning and Design of
Public Open Space in Burswood Lakes*

**Mirvac Fini
Burswood Lakes**

by Dr Wendy Sarkissian
with Beauford Stenberg

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Sarkissian Associates Planners Pty Ltd
207 Boundary Street West End Queensland 4101
Phone (07) 3844 9818 Fax (07) 3846 2719
Email: sarkissian@pacific.net.au

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1.0 Introduction

The guidelines in this *Working Paper* briefly summarise the key requirements for public open spaces in residential areas. They are designed to compliment the following *Working Papers*, which provide more detailed advice. For further details and illustrations, please consult more specific manuals of guidelines, including Cooper Marcus and Francis (1998), *People Places: Design Guidelines for Urban Open Space (2nd Ed.)*, which is the primary source for these guidelines.

2.0 Some general principles: public open spaces as 'people places'

So that the open spaces provided at Burswood Lakes are truly 'people places', ensure that they:

- ◆ are located where they are easily accessible to and can be seen by potential users;
- ◆ clearly convey the message that the place is available for use and is meant to be used;
- ◆ are beautiful and engaging both on the outside and the inside;
- ◆ are furnished to support the most likely and desirable activities, especially with comfortable seating;
- ◆ provide a feeling of security and safety to potential users;
- ◆ are designed for the user groups most likely to use the space;
- ◆ encourage use by different subgroups of the resident population, without any one group disrupting another's use and enjoyment;
- ◆ offer an environment which is physiologically comfortable at peak usage times;
- ◆ are accessible to children, older people and people with a disability;
- ◆ are consistent with and support the programs or activities intended to occur in the space;
- ◆ incorporate elements which the users can add to, change or personalise, as appropriate;
- ◆ allow for attachment to and maintenance of the space by users (especially residents), as appropriate;
- ◆ are able to be easily and economically maintained;
- ◆ incorporate principles of ecologically sustainable design (ESD) and minimise use of scarce or non-renewable resources;
- ◆ allow for the incorporation of public art and participation in public art;
- ◆ promote safety all groups of users at all times (adapted from Cooper Marcus and Francis, 1998: 9-10).

3.0 A note on programs and activities

A very important consideration in the design of public open space is the role of programs to enliven the space, especially after hours, on weekends and after dark, when legitimate activities can contribute greatly to the safety of spaces.¹ These issues have not been dealt with in any detail in these guidelines. However, once specific activities have been determined for spaces, the guidelines should be thoroughly reviewed and additional guidelines prepared as a part of the 'language' for designing a particular space. Suggestions are included in Cooper Marcus and Francis (1998), page 67.

It is expected that the Burswood Lakes Community Development Officer (CDO) will take initial responsibility for this work.

4.0 Key urban space settings in residential areas

4.1 *Plazas*

Plazas are public spaces, which draw people together for passive enjoyment. Typically, they have been paved areas, enclosed by high-density structures. And typically, those areas have been windy, barren wastelands, which do not contain the features that facilitate the sorts of activities intended. A working definition could be: "a mostly hard-surfaced outdoor public space from which cars are excluded." Its main function is as a place for strolling, sitting, eating and watching the world go by. Unlike a footpath, it is a place in its own right, rather than a place where people pass through (Cooper Marcus and Francis, 1998: (old edition p.10).

In Burswood Lakes, it is expected that many residents will work from home, as this is a developing trend that must be acknowledged in the design of housing, open space and community facilities. Therefore, the public spaces on the site will need to accommodate the needs of users who may otherwise feel isolated in their home offices or work places. (Guidelines for designing for homeworkers will be provided in a separate *Working Paper*.)

They must be accessible, safe, active, vital places for socialising.

Careful design of these spaces within the residential environment can ensure that they are lively, vibrant and safe. Critical to their success will be the clarity of their intended uses: no spaces should be provided unless their use or uses can be at least suggested.

¹ It is critical, of course, that programming of spaces does not intrude on the privacy or comfort of neighbouring residents.

The experience of new communities is generally that 'less is more', that smaller, compact and appropriately furnished open spaces will contribute much more to user satisfaction than large, unfurnished areas with ill-defined uses. Ecological considerations will also dictate that spaces be designed with care to reduce both water use and energy use. A careful balance must be struck between designing for safety and providing energy-intensive lighting, for example.

The guidelines outlined below can contribute to the design of appropriate plazas for Burswood Lakes. The most appropriate way to use them would be to develop a 'language' for each particular plaza, incorporating the appropriate guidelines from this list and adding ones which contribute to the particular character of the space or specific activities to be supported.

4.1.1 General considerations for plaza design

- ◆ determine precisely which functions the plaza is designed to support
- ◆ locate within easy walking distance of public transport systems (400 m level walk preferred)
- ◆ consider microclimate conditions to ensure optimal siting.

4.1.2 Plaza size

- ◆ ensure that the plaza is of comfortable dimensions: no wider than 100m, with minimum width between 25 and 70 metres

4.1.3 Visual complexity

- ◆ ensure that the design incorporates a wide variety of forms, colours, textures - fountains, sculptures, different places to sit, nooks and corners, plants and shrubs, and accessible changes in level

4.1.4 Uses and activities

- ◆ design to encourage use by passers-by and lingerers with distinct subareas to avoid conflict
- ◆ accommodate shortcuts through the plaza without violating the privacy of any units or private (or shared) open space
- ◆ encourage people to stop and linger with: dense landscaping, furnishing, attractive focal elements, defined edges²

² Care with landscaping design is necessary so that CPTED problems are not inadvertently introduced.

- ◆ accommodate concerts or other open-air events by providing unimpeded open areas for seating
- ◆ accommodate heavy use and minimise vandalism without 'hardening' the design

4.1.5 *Microclimate*

- ◆ design the plaza for year-round use
- ◆ locate the plaza to receive year-round sunshine
- ◆ provide summer shade by means of canopies, trellises and vegetation
- ◆ control building height and mass to ensure solar access
- ◆ calculate sun-shade patterns and provide protection for lunchtime users, especially in summer
- ◆ ensure that glare from adjacent buildings or structures does not detract from the plaza's amenity
- ◆ where appropriate, use reflected light from adjacent structures to brighten the plaza's shadowed areas
- ◆ pay particular attention to wind: ensure that the massing of buildings does not create windy areas which will not be used, especially in winter

4.1.6 *Boundaries*

- ◆ ensure that no boundaries render the plaza visually or functionally inaccessible to passersby
- ◆ use features to draw attention to the plaza and draw people into it
- ◆ limit grade changes to one metre
- ◆ consider visual and functional transitions between plaza and adjacent buildings
- ◆ encourage ground-level uses in buildings which can contribute to the enlivening of the plaza
- ◆ provide comfortable outdoor cafe seating (as appropriate)
- ◆ design plaza edges with nooks suitable for seating and viewing

4.1.7 *Subspaces*

- ◆ divide larger plazas into subspaces with a variety of uses
- ◆ use features such as planting, accessible level changes and seating arrangements to define subspaces
- ◆ ensure that subspaces are large enough so that users will not feel they are intruding into a space if someone is already using it
- ◆ design subspaces for that a person sitting there alone will not feel uncomfortable or unsafe

4.1.8 Circulation and paving

- ◆ design the plaza as part of the central area's pedestrian and cycle circulation systems, linked to safe pedestrian routes to encourage walking
- ◆ locate plaza along direct routes from building entries and ground-level uses
- ◆ ensure that the needs of encumbered and older people and people with a disability are fully accommodated: use AS1428 as amended; ensure that stairs run parallel to ramps wherever possible
- ◆ use cobblestones or large gravel to discourage walking in areas where it is inappropriate
- ◆ use changes in paving materials to signify transitions from footpaths to plazas without discouraging entry.

4.1.9 Seating

- ◆ ensure that the design acknowledges that sitting is the most important element in encouraging plaza use
- ◆ determine the amount of seating on the basis of one metre of seating for thirty square metres of plaza or one linear metre per each linear metre of plaza perimeter
- ◆ ensure that seating accommodates the needs of various types of users
- ◆ incorporate secondary seating (mounds, walls, steps with a view, etc.) into the design and provide as much primary seating as secondary seating in the plaza
- ◆ provide some large backless wooden benches (approx 1m by 2m)
- ◆ provide a generous number of seating arrangements for several people to sit without conflict
- ◆ accommodate both *sociofugal* arrangements (people looking outwards, being separate and not interacting) and *sociopetal* seating (for conversation and interaction): some benches paired at right angles, some groups to encourage conversation and some isolated benches
- ◆ locate seating to permit choices between sunny and shady locations
- ◆ provide a variety of seating orientations: water views, distant views of the City, watching the world go by, supervising children, watching entertainers, etc.
- ◆ provide some places for refuge, sitting alone
- ◆ provide some benches which are comfortable for older people and people with a disability: provide comfortable seating with full continuous back support and arms, in a variety of arrangements, at intervals of not more than 65 metres along the major path

- ◆ ensure that benches are not too low: 450mm minimum height preferred, with kickspace underneath
- ◆ for fixed seating, ensure that space is available for people in wheelchairs to join the grouping. An area of 1520mm by 2000mm allows for manoeuvring a wheelchair into place, although a wheelchair can fit in a space 700mm by 1100mm
- ◆ locate seating to avoid extremes of sun and wind; locate spaces to face away from prevailing winds, especially during cooler times of the year
- ◆ use landscaping as windbreaks
- ◆ avoid hard materials like concrete or materials which conduct heat
- ◆ provide some movable furniture (stable chairs with non-protruding legs will reduce the possibility of tripping)

4.1.10 Planting

- ◆ take CPTED considerations into account in the design of all landscaping and planting (see *Working Paper 8: Public Open Space and the Needs of Older People in the Residential Environment*)
- ◆ use a variety of planting to heighten perceptions of changes in colour, light, ground slope, smells, sounds and textures
- ◆ use see-through trees to promote natural surveillance and visibility of other subareas
- ◆ in windy places, plant open-canopied trees to reduce potential damage in high winds
- ◆ consider the eventual height and mass of mature plants with regard to shade, views and maintenance
- ◆ select species near building walls to provide both shade in summer and light to windows in winter, as well as screening buildings, as appropriate
- ◆ select and locate vegetation near sitting areas so that it will not be damaged by use; ensure that planter seats are wide enough to protect landscaping from damage
- ◆ consider the ecological impacts of lawns, as well as their value for sitting, sunbathing, picnicking and other casual activities; in general avoid large expanses of lawn

4.1.11 Level changes

- ◆ use level changes with care, ensuring that access for people with a disability, prams and pushers, etc., is not impeded
- ◆ use level changes to achieve: creation of subareas; separation of seating and circulation areas; features within subareas

4.1.12 Public art, sculpture and water features

- ◆ involve local artists in the design and production of public art³
- ◆ select public art for cultural relevance: to create sense of joy and delight and promote communication among viewers/participants
- ◆ encourage interactive and experiential art, fountains and sculptures that people can touch, climb on, or move through
- ◆ take account of prevailing wind patterns to ensure that the direction of blowing fountain spray does not intrude on sitting areas
- ◆ consider both the maintenance costs and ecological costs of fountain designs and operating systems
- ◆ ensure that all features are in scale with the plaza itself

4.1.13 Food and vendors

- ◆ if appropriate to the feel and location of the plaza, design to accommodate vendors in highly accessible and visible locations with appropriate amenities: water, electricity, draining, vehicle access, waste removal, signage (this maybe necessary only for special occasions)
- ◆ provide comfortable places to sit near food stalls
- ◆ locate drinking fountains, rubbish receptacles, toilets and telephones nearby

4.1.14 Management, maintenance and programs

- ◆ provide appropriate lockable, weather-proof storage for chairs and other equipment
- ◆ provide opportunities to post signs and hang banners announcing forthcoming events. Design these in consultation with the Community Development Officer (CDO)
- ◆ provide locations and appropriate facilities for temporary stalls to be set up on event days
- ◆ develop management policies which encourage special events such as festivals, temporary exhibits, concerts, theatrical events
- ◆ consider the opening of the plaza as and opportunity to launch an annual local festival for Burswood Lakes, where 'the Burswood Lakes story' begins to take shape
- ◆ ensure that there will be adequate staff to maintain the plaza and environs

³ This could be one of the functions of The Community Development Officer (CDO).

- ◆ consider the provision of rubbish bin's which require users to sort rubbish at the time of discarding: separate containers for glass, aluminium, plastic, paper, etc.
- ◆ develop watering regimes which conserve water and ensure that areas of heavy use are not being watered when they are most likely to be used (e.g, during lunchtime)

4.2 *Neighbourhood parks*

The key to good neighbourhood parks is variety. It is also essential that predictable activities be catered for and undesirable activities (such as crime, inappropriate behaviour and vandalism) minimised.

Parks need to accommodate: (1) a desire to be in a natural setting and (2) the need for human contact. A park can create a rich and varied environment that maximises the desired feeling of contact with nature. It can convey a 'natural' appearance through the use of water, selection of trees and shrubs that do not need extensive pruning, permitting certain areas to grow naturally and providing meandering paths through natural settings. Careful attention to detailed aspects of the microclimate can ensure that seating areas are most appropriately located for all users.

All parks should offer the opportunity for both overt socialising (or getting together) and covert socialising, or watching the world go by. Adequate provision for those who come to the park with others is essential: this can include provision of picnic tables, flexible furniture arrangements, a relatively open layout to permit scanning the park for a friend or group, a circulation system which leads people past potential social contact areas without forcing them to stop.

The *Design Review Checklist* in Cooper Marcus and Francis (1998: 144-148) emphasises user needs and predictable behaviour and activities. An appropriate way to use these guidelines would be to develop a 'language' for each neighbourhood or neighbourhood park.

4.3 *Mini-parks*

Within Burswood Lakes there will be opportunities for mini-parks, which are especially appreciated in higher density areas or by households with small children. A mini-park is most appropriate to the urbane character of Burswood Lakes. Mini-parks generally include the following:

- ◆ tree planting
- ◆ a place for adults to sit

- ◆ a place for children to play (while being supervised)⁴
- ◆ identifying features, a name, a mural, a logo
- ◆ a basketball net, and
- ◆ occasionally areas large enough to play group games

Ideally, mini-parks should be located so that residents can walk to them without crossing a major road. Location near other community facilities is a boon: its use will increase and it will be safer if it is located near areas of activity (even the small café intended for Burswood Lakes), where potential users pass by. It is important that mini-parks not be over-designed or furnished: if they work well they will grow out of the character of the neighbourhood and must be able to accommodate local users' modifications and develop a distinctive local character.

The Design Review Checklist for mini-parks in Cooper Marcus and Francis (1998: 173-174) summarises key site selection and design considerations for mini-parks. It could provide the basis for a design brief which could be developed further with the participation of local residents and overseen by the Community Development Officer (CDO).

5.0 References

Cooper Marcus, Clare and Carolyn Francis (2001). *People Places: Design Guidelines for Urban Open Space*. 2nd edition. New York: Van Nostrand Reinhold.

Cooper Marcus, Clare and Wendy Sarkissian (1986). *Housing as if People Mattered: Illustrated Site Design Guidelines for Medium-Density Family Housing*. Berkeley: University of California Press.

⁴ The design of open space in residential areas for children is addressed in detail in *Working Paper x*. As noted therein, it is expected that a significant proportion of residents will have regular responsibility for young children.