AGENDA APPENDIX

Council Meeting

Wednesday 28 May 2014

AGENDA ITEM FOR SEPARATE DISTRIBUTION TO COUNCILLORS AND EXECUTIVE LEADERSHIP TEAM DUE TO DOCUMENT SIZE.

THE ITEM IS ACCESSIBLE VIA THE COUNCIL WEBSITE OR BY CONTACTING COUNCIL ON 03 5662 9200.

E.8 PLANNING SCHEME AMENDMENT C93 (KORUMBURRA TOWN CENTRE FRAMEWORK PLAN) - ADOPTION

Appendix 1 – Safer Design Guidelines for Victoria (June 2005)

Department of Sustainability and Environment




SAFER DESIGN GUIDELINES FOR VICTORIA

CRIME PREVENTION VICTORIA
CPV

Victoria
The Place To Be

SAFER DESIGN GUIDELINES FOR VICTORIA

Department of Sustainability and Environment
Crime Prevention Victoria

FOREWORD

FOREWORD

On behalf of all Victorians, the Bracks Government is committed to improving safety and confidence in the places where Victorians live and work. Improving the built environment will provide the greatest potential for long term success in reducing crime.

As a demonstration of this commitment, *Safer Design Guidelines for Victoria* have been prepared to facilitate the planning of safer urban environments for all Victorian communities. The design of the built environment should promote personal safety and help reduce people's fear of crime.

These guidelines set out principles, objectives and suggestions for designing safer urban environments. They can be applied at various scales, from the design and development of towns and neighbourhoods to the regeneration of existing areas and the layout of individual buildings.

These principles are essential for improving the design of the built and natural environment to minimise the opportunity for crime and promote safe, accessible and liveable places that encourage community participation. Proper investment in the design and layout of developments will bring numerous social and economic benefits to the community.

We commend the *Safer Design Guidelines for Victoria* and look forward to a safer state for all Victorians.

ROB HULLS, MP
Minister for Planning

TIM HOLDING, MP
Minister for Police and Emergency Services

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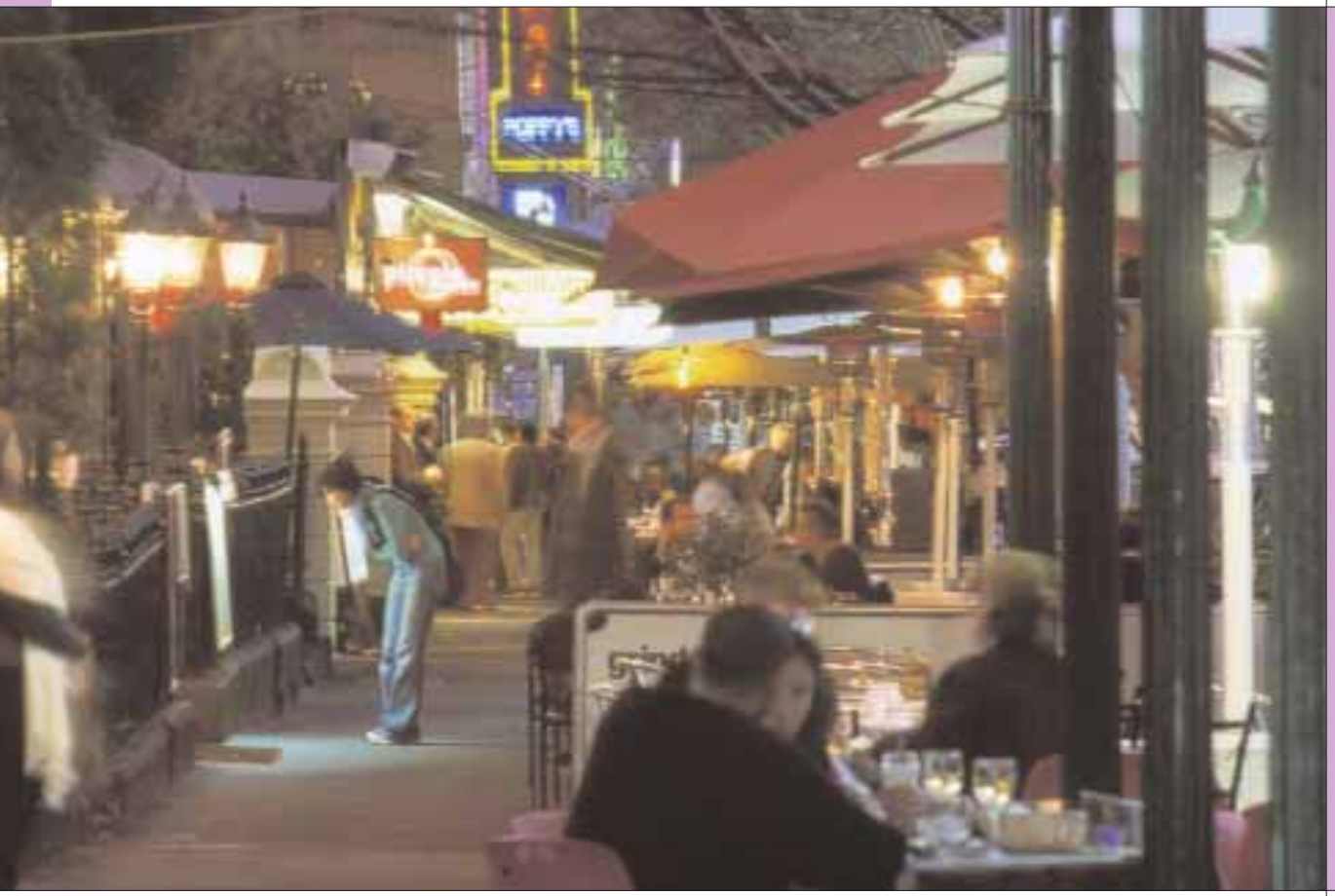
INTRODUCTION



Community safety and attractive urban environments are the result of well-designed places, good management and community involvement. Our challenge is to provide a safer state for all Victorians and visitors - we can achieve this through minimising the opportunity for crime and creating safer, accessible and liveable places that encourage community participation.

INTRODUCTION

Safer Design Guidelines for Victoria has been developed to facilitate the planning of safer urban environments for all Victorian communities. All Victorian planning schemes have been amended to require consideration of safety in the design of new proposals.

This initiative is a response to two key Victorian Government strategies:

- *Melbourne 2030*, a plan for managing the growth of Melbourne over the next 30 years, and
- *Safer Streets and Homes - A Crime and Violence Prevention Strategy for Victoria 2002-2005*

These strategies identify policies to improve community safety and well-being across all Victorian neighbourhoods.

Key policies of *Melbourne 2030* are to:

- Promote good design to make the environment more liveable and attractive
- Improve community safety and encourage neighbourhood design that makes people feel safe
- Promote excellent neighbourhood design to create attractive, walkable and diverse communities.

Safer Streets and Homes identifies several themes for strengthening communities including:

- Improving safety in streets and neighbourhoods.

This theme focuses on improving safety in places where people go about their daily lives and on building cohesive communities that reduce inequalities.

Effective design can be used to reduce crime opportunities, reduce vulnerability to crime and fear of crime and improve the built environment so that:

- Potential offenders think they might be detected, challenged or possibly caught
- The time and energy required to commit crime increases
- Crime opportunities are minimised, concealed or removed.

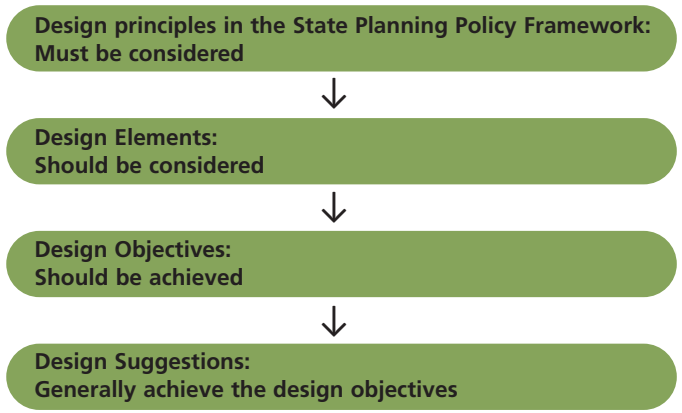
Over the past decade both international studies and local community consultations have shown that the built and natural environment can influence the safety and wellbeing of our community.

The *Safer Design Guidelines for Victoria* will:

- Increase community usage of public places, in the daytime and evening
- Achieve connection and integration of streets and public places
- Reduce opportunities for crime and anti-social behaviour
- Improve the quality of life for the community by improving perceptions of public places
- Create more liveable and sustainable environments.

Good design is not only essential to improve safety in houses, streets, neighbourhoods, towns and cities; it can also reduce many of the safety related costs currently borne by the community.

The diagram below shows the relationship between design objectives and suggestions.



PURPOSE OF THE GUIDELINES

The *Safer Design Guidelines for Victoria* provides practical design suggestions for achieving development that is safer and feels safer for the community using it. The guidelines have been prepared to provide government authorities, public and private developers, designers and property owners with assistance to help reduce the opportunity for crime and improve perceptions of safety in our streets and public spaces.

The challenge for those involved in creating the places where we live, work and play in the 21st century is to design spaces that ensure we are safe and feel safe without feeling locked in. To do this, designers need to achieve:

- Physically well-connected neighbourhoods
- Well defined public and private spaces
- Improved surveillance of public spaces.

ROLE OF THE GUIDELINES IN PLANNING SCHEMES

Clause 19.03 of the State Planning Policy Framework sets out State planning policy objectives and design principles for the design and built form of development. The *Safer Design Guidelines for Victoria* provides guidance on how to achieve these objectives and principles and provide for safer urban spaces and buildings.

The *Safer Design Guidelines for Victoria* have been developed to assist planners and designers apply design principles that will improve the safety of the built environment, minimise the opportunity for crime, and promote safe, accessible and liveable places.

The guidelines should be considered in:

- preparation and assessment of planning permit applications
- Municipal Strategic Statements
- developing planning scheme policies and controls
- the development of structure plans and local policies for activity centres under the auspices of *Melbourne 2030*
- public space planning and design
- urban and neighbourhood renewal projects
- the design and assessment of new buildings.

The guidelines are set out under 10 design elements that should be considered when designing towns, neighbourhoods, streets, public places and buildings:

- Urban Structure
- Activity Centres
- Building Design
- Parks and Open Spaces
- Walking and Cycling Paths
- Public Transport
- Car Park Areas
- Public Facilities
- Lighting
- Signage

Under each element are a series of general design objectives. Each objective has a set of related design suggestions that will generally achieve a positive safer design outcome.

WHAT MAKES FOR SAFER DESIGN?

Well designed and maintained urban environments are essential for improved safety in the community. The key to safer places is to improve the quality of the environment, minimise the opportunity for crime and promote accessible and liveable places that encourage a feeling of safety and community participation.

PRINCIPLES FOR SAFER DESIGN
The *Safer Design Guidelines for Victoria* is based on the following set of principles:

SURVEILLANCE
1. Maximise visibility and surveillance of the public environment
When there are 'eyes on the street' or 'natural surveillance' from passers-by, and if public places are overlooked from adjoining buildings, people feel safer and potential offenders feel exposed. Natural surveillance is one of the primary aids for crime prevention.

ACCESS, MOVEMENT AND SIGHTLINES
2. Provide safe movement, good connections and access
People feel more comfortable using public places that provide well defined routes and clear sightlines (day and night) so they can see and be seen. Entrances to buildings should be safe and accessible without compromising security.

ACTIVITY
3. Maximise activity in public places
Balancing the needs of all users of streets and public places is vital so that people feel comfortable and safe. Encouraging walking increases activity, social interaction and surveillance in public places and reduces the risk of crime.

OWNERSHIP
4. Clearly define private and public space responsibilities
Clarifying 'ownership' of private and public space is important for improving public safety. Where the 'ownership' of an area is ambiguous, it is often 'unclaimed' and can become the focus of anti-social and criminal behaviour. It is important to encourage residents to take responsibility and pride in places they use and inhabit.

MANAGEMENT AND MAINTENANCE
5. Manage public space to ensure that it is attractive and well used
Well maintained public places improve people's perception of how safe a place is and supports their desire to occupy and use those places. Management programs to clean, repair and maintain public spaces and private buildings are vital for community safety and wellbeing.

RELATED GUIDELINES

The Department of Sustainability and Environment has released a number of guidelines that are relevant to designing safer environments. These should be used in conjunction with the *Safer Design Guidelines for Victoria*, where appropriate.

Environmentally Sustainable Design and Construction: Principles and Guidelines for Capital Works Projects, 2003
The achievement of sustainable design outcomes needs to be considered. The Department of Sustainability and Environment (DSE) has published Environmentally Sustainable Design and Construction: Principles and Guidelines for Capital Works Projects (July 2003). This document encourages government departments and building professionals to address the following principles for reducing the ecological impact of capital works:

- Energy conservation
- Water conservation
- Minimisation of fossil fuel usage associated with transport
- Preservation of natural features of sites
- Building materials conservation
- Waste minimisation
- Enhancement of indoor environmental quality
- Appropriate landscaping
- Enhancement of community life
- Maintenance

These guidelines focus on achieving sustainable outcomes by comparing construction costs derived from triple bottom line objectives with conventionally designed buildings.

Guidelines for Higher Density Residential Development, 2004
These guidelines have been developed to assist designers and planners apply these design principles to proposals for higher density residential development. The guidelines provide 'better practice' design advice for higher density residential development that promotes high quality public and private amenity and good design.

The guidelines will assist:
- Developers and designers when developing proposals and preparing applications
- Councils when assessing applications.

The guidelines are structured around six elements of design consideration:

- Urban context
- Building envelope
- Street pattern and street-edge quality
- Circulation and services
- Building layout and design
- Open space and landscape design

Activity Centres Design Guidelines, 2005
Activity Centres provide a focus for retail services, employment and social interaction in cities and towns. Design guidelines have been developed for Activity Centres that set out objectives and suggestions for buildings and public places based on the following principles.

- Develop a good-quality public domain
- Promote street based patterns of connection
- Improve community safety
- Encourage a mix of uses
- Improve pedestrian and cycling amenity
- Promote a public transport focus
- Increase accessibility and integration
- Encourage environmental sustainability

ELEMENT 1 URBAN STRUCTURE

WHAT IS URBAN STRUCTURE AND WHY IS IT IMPORTANT?

Urban structure refers to the layout of an area including where streets are located, how street blocks are arranged and how building lots and open spaces are set out on these blocks. Urban structure contributes to both the feel and the functionality of an area. It can help define a neighbourhood and provide a sense of place.

A well designed urban structure can achieve more 'eyes on the street' and maximise activity to deliver greater real safety and stronger perceptions of safety. A well functioning urban structure has well connected and integrated neighbourhoods where activity centres are within a convenient walking distance. These activity centres should provide services and facilities that meet residents' day to day needs, including public transport access.

NEIGHBOURHOOD DESIGN

OBJECTIVE 1.1 CONNECTION

To ensure a well integrated urban structure that increases activity by maximising connections between neighbourhoods.

DESIGN SUGGESTION: 1.1.1 – Cluster walkable neighbourhoods to support activity centres. Ensure direct street links between neighbourhoods and to activity centres. (See Neighbourhood Design 1.2)

DESIGN SUGGESTION: 1.1.2 – Design street patterns and block layouts that integrate and connect areas using a network of direct, straight and numerous streets.

DESIGN SUGGESTION: 1.1.3 – Physically connect and integrate new development to existing neighbourhoods.

OBJECTIVE 1.2 ACTIVITY

To develop urban areas with 'walkable neighbourhoods' and active neighbourhood centres.

DESIGN SUGGESTION 1.2.1 – Ensure all parts of a neighbourhood are within a five minute walk (400 metres) of the neighbourhood centre.

DESIGN SUGGESTION 1.2.2 – Make neighbourhood centres the focus for public transport stops, local shopping facilities, and cultural or community facilities.

DESIGN SUGGESTION 1.2.3 – Ensure large public facilities such as regional parks, hospitals and secondary schools are located on public transport routes at the edge of neighbourhood centres. The size of these facilities often reduces pedestrian access and walkability within neighbourhoods.

OBJECTIVE 1.3 LEGIBILITY

To design an easily navigable and legible network of streets, providing convenient access for all users across neighbourhoods and to activity centres.

DESIGN SUGGESTION 1.3.1 – Avoid the use of hierarchical street systems where neighbourhoods are not directly linked to each other. Interconnected networks and grids of streets should be designed to disperse traffic and increase motorist and pedestrian safety.

DESIGN SUGGESTION 1.3.2 – Make sure at least one or two streets in a neighbourhood are linked from 'centre to edge' to allow easy access within the neighbourhood and adjoining areas.

SUSTAINABLE NEIGHBOURHOOD STRUCTURE - WALKABLE DISTANCE BETWEEN HOUSING AND CENTRE

SUSTAINABLE URBAN STRUCTURE - MOST AREAS ARE WITHIN WALKING DISTANCE OF A CENTRE - CLUSTER NEIGHBOURHOODS TO SUPPORT LARGER CENTRES.

DESIGN FOR LEGIBLE NETWORK OF STREETS TO INCREASE MOTORIST AND PEDESTRIAN SAFETY.

INCREASE RESIDENTIAL DENSITY AND MIX NEAR ACTIVITY CENTRES WITH ACCESS TO PUBLIC TRANSPORT TO INCREASE THE POTENTIAL USE OF THESE AREAS MOST HOURS OF THE DAY AND EVENING.

ENCOURAGE HOME-BASED BUSINESS ACTIVITY WITHIN NEIGHBOURHOODS TO PROVIDE GREATER SURVEILLANCE OF PUBLIC SPACE.

OBJECTIVE 1.4 DIVERSITY
To encourage active neighbourhoods where people are present during most hours of the day.

DESIGN SUGGESTION 1.4.1 – Increase residential density and mix near activity centres and parks to increase the presence of people on the street.

DESIGN SUGGESTION 1.4.2 – Provide a variety of parks and public places for passive and active recreation, within easy walking distance from houses. Link open spaces and parks to form connected recreational and walking networks.

DESIGN SUGGESTION 1.4.3 – Provide for a diversity of dwelling sizes and types.

A neighbourhood with a range of households (incomes, ages and lifestyles) has greater potential for maintaining a presence of people within the neighbourhood during all hours of the day and evening.

OBJECTIVE 1.5 SURVEILLANCE
To design neighbourhoods that maximise visibility and surveillance of public space to enhance real and perceived safety.

DESIGN SUGGESTION 1.5.1 – Allocate and mix land uses in line with expected street traffic and pedestrian movement. Allow retail and commercial uses on busier streets and residential uses on quieter streets.

DESIGN SUGGESTION 1.5.2 – Encourage active uses along main roads to ensure these streets promote a sense of safety for people during most hours of the day and night.

DESIGN SUGGESTION 1.5.3 – Encourage home-based business activity within neighbourhoods to provide for greater surveillance for longer periods of time.

DESIGN SUGGESTION 1.5.4 – Provide generous and attractive walking and cycling paths on streets to encourage greater use and people presence. (See Subdivision Design)

SUBDIVISION DESIGN

Subdivision design should maximise opportunities for natural surveillance of the public environment. In particular, the implications of lot layout on personal safety should be considered at the time of subdivision design. Planners, surveyors and subdividers should focus on the construction of buildings that maximise surveillance, especially at corner lots.

In addition, the trend towards designing residential lots that 'back onto' arterial roads and include high fencing should be avoided as this reduces safety in both the private lots and the public environment because natural surveillance is all but eliminated.

NEW RESIDENTIAL SUBDIVISIONS SHOULD PHYSICALLY CONNECT TO EXISTING STREETS AND NEIGHBOURING AREAS.

ABOVE AND LEFT: POOR SUBDIVISION DESIGN WITH A HIGH NUMBER OF LONG CULS-DE-SAC AND PUBLIC ACCESS WAYS PROVIDE NO STREETS THAT LINK THE ACTIVITY CENTRE TO THE EDGE. COMPLICATED AND DISCONTINUOUS STREETS INCREASE WALKING DISTANCES, REDUCE ACCESSIBILITY AND LEAD TO ISOLATION AND POOR PEDESTRIAN SAFETY.

WELL DESIGNED WALKABLE NEIGHBOURHOODS ACHIEVE SAFER MOVEMENT, GOOD CONNECTIONS AND INTEGRATION OF STREETS AND PUBLIC SPACES.

RIGHT AND ABOVE:
WELL DESIGNED WALKABLE NEIGHBOURHOODS AND CENTRES ENCOURAGE ACTIVITY, SOCIAL INTEGRATION AND MAKE PLACES FEEL SAFE AND COMFORTABLE TO BE IN.

OBJECTIVE 1.6
To connect new residential subdivisions to adjacent subdivisions through a physically integrated and direct movement/street network.

DESIGN SUGGESTION 1.6.1 – Connect new streets to existing streets and neighbouring areas wherever possible, that is, no area should be developed as a separate enclave.

DESIGN SUGGESTION 1.6.2 – Avoid the use of designs that isolate areas and houses. Limit or avoid a high density of culs-de-sac in any subdivision layout.

Curved culs-de-sac should be avoided. Subdivisions with a high number of long, curved culs-de-sac and public access ways lead to isolation, poor safety and a reduction of streets that link neighbourhoods from 'centre to edge'. Streets do not have to be absolutely straight but the direct line of sight down a street should not be obscured.

DESIGN SUGGESTION 1.6.3 – Use major streets in new and existing development to make direct links within and between neighbourhoods. This integrates areas, increasing activity, surveillance and easier orientation.

DESIGN SUGGESTION 1.6.4 – Avoid isolated residential developments or 'gated communities' that physically segregate individual neighbourhoods from the wider community.

In recent times there has been an increase in the popularity of 'gated communities' where whole areas are cut off from their surroundings. Residents are intentionally isolated from the wider community and segregated by closing streets or walling suburbs in order to improve safety. This approach has been highly criticised by researchers, designers and the police as it creates a false sense of absolute security, reduces accessibility and in the long term impacts on people's perception of safety. Recent statistics show that isolated areas are at higher risk of property crime.

STREET DESIGN

Streets are the primary means of accessing urban facilities and centres of activity. For this reason it is vital for streetscapes to be designed for the safety of all users, including those too young or elderly to use private transport.

Streets should be designed as networks so that alternative routes to destinations are available, wherever possible. These networks should be connected to ensure continuous paths for walking, cycling, public transport and motorist use.

OBJECTIVE 1.7
To provide the highest level of natural surveillance and 'eyes on the street' by encouraging walking and cycling.

DESIGN SUGGESTION 1.7.1 – Convenient, direct pedestrian, cycle and vehicle routes should be co-located along streets to maximise opportunities for surveillance.

DESIGN SUGGESTION 1.7.2 – Provide pedestrians and cyclists with a choice of routes within their neighbourhood.

DESIGN SUGGESTION 1.7.3 – Where popular pedestrian paths exist through a vacant site, new subdivisions should incorporate frontage to those paths, reinforcing the established walking network.

DESIGN SUGGESTION 1.7.4 – Where walking and cycling paths are separate from the street network, such as foreshore areas, ensure clear sight lines and limit spots where people can hide or be entrapped.

DESIGN SUGGESTION 1.7.5 – Limit the use of pedestrian underpasses as they are perceived as major safety risks that reduce opportunities for natural surveillance.

Where underpasses are unavoidable, ensure they are wide with clear lines of sight through the underpass and good access to daylight and good lighting at night. (See Element 5 – Walking and Cycling Paths)

DESIGN SUGGESTION 1.7.6 – Limit the number of culs-de-sac in any development or neighbourhood, particularly those linked by pedestrian only access ways as these low use areas are more vulnerable to crime.

DESIGN SUGGESTION 1.7.7 – Culs-de-sac should be no longer than 75 metres from entry to end. They should also be straight to maximise visibility from adjoining streets.

DESIGN SUGGESTION 1.7.8 – Major linking streets should have long sightlines to enable easy navigation and monitoring of danger spots.

Curvilinear layouts decrease pedestrian convenience and are disorienting for all users. Streets do not need to be absolutely straight but their direct line of sight should not be broken up.

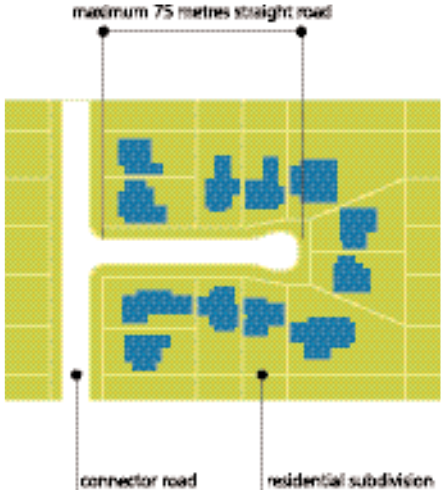
DESIGN SUGGESTION 1.7.9 – Street networks should be designed to limit the ability of vehicles to speed. Speeding traffic deters pedestrians and cyclists.

DESIGN SUGGESTION 1.7.10 – Keep kerb radii at intersections to a minimum to encourage vehicle traffic to slow, and provide pedestrians and other road users with the shortest possible crossing distance.

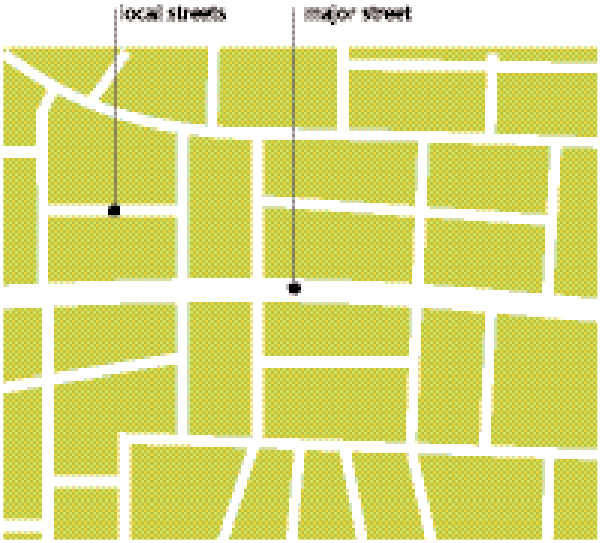
DESIGN SUGGESTION 1.7.11 – Provide on-street parking wherever possible at neighbourhood centres to slow traffic and provide a buffer between pedestrians and moving traffic. (See Element 7 – Car Park Areas)

Vehicular traffic on a street provides a feeling of safety for pedestrians, as long as vehicle speeds are controlled.

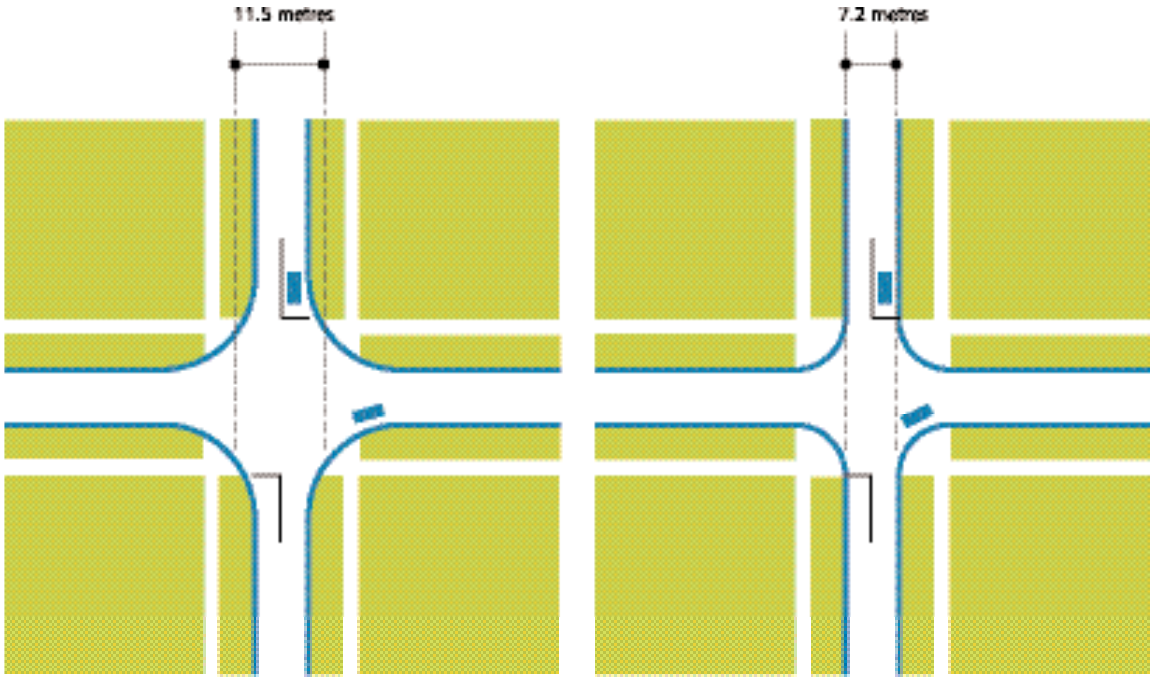
PROVIDE CONVENIENT ACCESS FOR ALL USERS ACROSS NEIGHBOURHOODS AND TO ACTIVITY CENTRES TO ENSURE THE HIGHEST LEVEL OF 'EYES ON THE STREET'.



DESIRABLE CUL-DE-SAC DESIGN, ALLOWING VISIBILITY FROM ADJOINING STREET TO THE END OF THE CUL-DE-SAC.



MAJOR LINKING STREETS WITH LONG SIGHTLINES ENSURE AREAS ARE EASILY READ AND UNDERSTOOD.



AS THE RADIUS OF THE KERB IS INCREASED, CARS ARE ABLE TO TRAVEL FASTER AND THE DISTANCE PEDESTRIANS HAVE TO CROSS INCREASES MAKING WALKING MORE HAZARDOUS. KEEP KERB RADII TO A MINIMUM AT INTERSECTIONS TO SLOW TRAFFIC AND PROVIDE THE SHORTEST POSSIBLE CROSSING DISTANCE FOR PEDESTRIANS AND OTHER USERS. ENSURE CROSSING POINTS ARE EASILY IDENTIFIED FOR ALL USERS.

OBJECTIVE 1.8
To design street layouts which minimise direct access to secluded private open space.

DESIGN SUGGESTION 1.8.1 – Design lanes that provide car access to lots and secure property fences. Use lanes only in locations where residential or commercial activity fronting lanes can be supported.

Inactive lanes provide opportunities for potential offenders to gain access to rear gardens/dwellings.

RESIDENTIAL LOT DESIGN

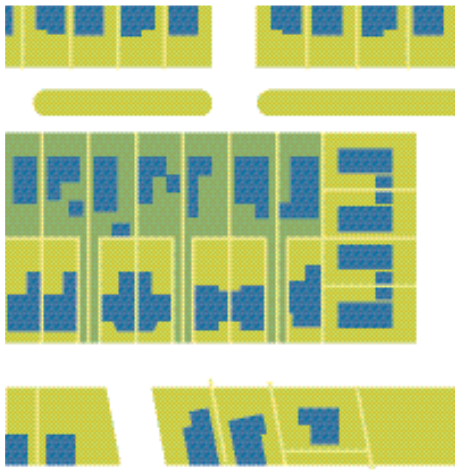
OBJECTIVE 1.9
To provide for natural surveillance of streets by ensuring future buildings have windows facing streets and public spaces.

DESIGN SUGGESTION 1.9.1 – Dwellings should have frontage to all collector streets, arterial roads, parks and public open space. Where vehicle access is not possible, use battle-axe lots, reciprocal rights of way, access lanes or car courts to service lots fronting these public spaces.

DESIGN SUGGESTION 1.9.2 – Avoid designing layouts where lots back onto arterial roads.

DESIGN SUGGESTION 1.9.3 – Make sure the end lots on the short side of blocks face the street. This 'end grain' will increase natural surveillance and avoid high fencing and walls facing the side street.

DESIGN SUGGESTION 1.9.4 – Design housing on corner lots to offer surveillance of both streets. Wherever possible, avoid blank walls facing streets and public spaces. (See Element 3.0 – Building Design)

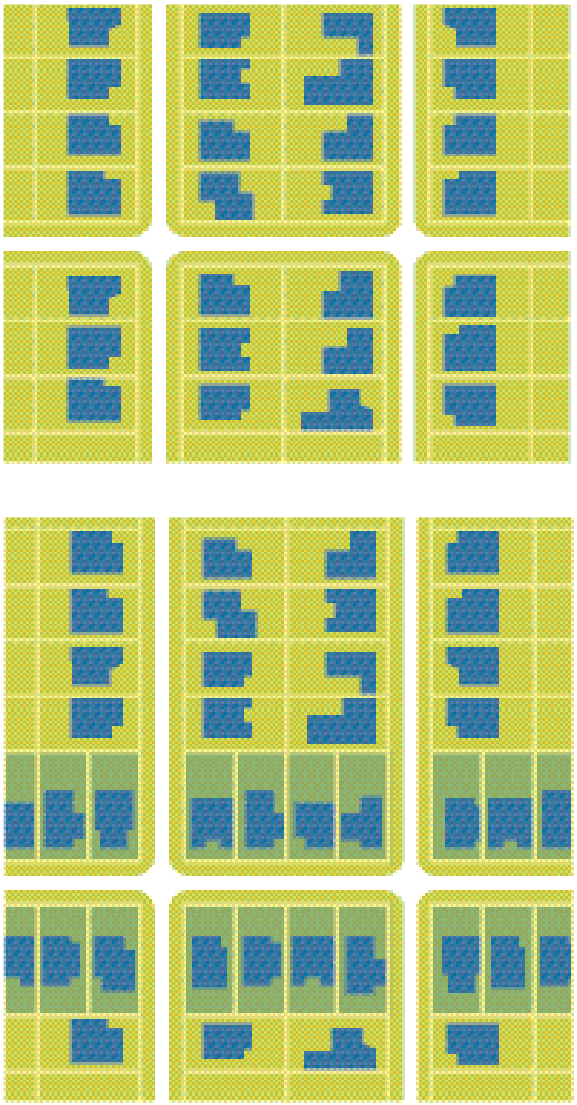


ACHIEVING FRONTAGE AND VEHICLE ACCESS USING BATTLE AXE LOTS ENTERING FROM A BACK STREET.

INACTIVE LANES PROVIDE OPPORTUNITIES FOR POTENTIAL OFFENDERS TO GAIN ACCESS TO REAR GARDENS AND DWELLINGS.

USE LANES ONLY IN LOCATIONS WHERE RESIDENTIAL OR COMMERCIAL ACTIVITY FRONTING LANES CAN BE SUPPORTED.

ENSURE HOUSING ON CORNER LOTS PROVIDES SURVEILLANCE OF BOTH STREETS.



RE-ORIENT THE END LOTS ON THE SHORT SIDE OF BLOCKS TO FACE THE STREET. THIS 'END GRAIN' AVOIDS HIGH FENCING AND WALLS FACING THE SIDE STREET AND INCREASES NATURAL SURVEILLANCE OF STREETS.

OBJECTIVE 1.10
To maintain natural surveillance of streets and public open space while clearly defining private and public property.

DESIGN SUGGESTION 1.10.1 – Locate private open space (backyards) to rear of lots facing public space. This minimises the need for high fencing and walls along streets and public spaces.

DESIGN SUGGESTION 1.10.2 – A transition from public space to private outdoor space should be achieved for residential lots by locating semi-private front yards towards the street or public space and private backyards to the rear of residential lots.

Residential lots should always be designed with backyards 'back-to-back' to maximise their security and minimise the need for high fences facing public space. (See Element 3.0 – Building Design)

DESIGN SUGGESTION 1.10.3 – Deeper lots on major streets and larger building setbacks reduce the need for high walls and heavy planting to reduce traffic noise.

ELEMENT 2 ACTIVITY CENTRES

WHY IS THIS IMPORTANT?

A strong sense of place and community is formed when activity centres are well designed, integrated and conveniently sited. Successful activity centres offer a wide range of local services including commercial, retail, residential, public transport, educational, health, spiritual and civic facilities. The public environment is enriched and activated by private development that fronts streets, parks and squares. This also aids public safety.

Some activity centres focus on particular services such as tertiary education or medical research. These environments often have specific safety issues as a result of extended periods of inactivity or periodic lack of occupancy.

Maintaining a high level of activity by encouraging a more intense mix of uses along streets, including local resident populations, reduces opportunities for crime and improves safety in the community. Traditional, street-based activity centres are increasingly active over an extended period, resulting in more ‘eyes on the street’ – providing a greater sense of safety for all users.

OBJECTIVE 2.1
To maximise surveillance of streets by increasing the level of activity within buildings and on the street.

DESIGN SUGGESTION 2.1.1 – Provide a mix and level of activity that attracts people, stimulates interaction and provides a lively community focus.

DESIGN SUGGESTION 2.1.2 – Ensure that the level of natural surveillance between streets and public spaces is considered when designing public or private development.

DESIGN SUGGESTION 2.1.3 – Ensure pedestrians can see along pathways for a reasonable distance (at least 15 metres) to improve their perception of safety.

DESIGN SUGGESTION 2.1.4 – Co-locate pedestrian, cycle and vehicle movement systems to encourage maximum surveillance of public areas.

DESIGN SUGGESTION 2.1.5 – Ensure public spaces can be seen from surrounding buildings and land uses.

DESIGN SUGGESTION 2.1.6 – Ensure the windows of more active rooms, such as kitchens and living rooms, overlook pedestrian areas. (See Element 3 – Building Design)

DESIGN SUGGESTION 2.1.7 – Design and maintain plantings to provide unimpeded views of public paths.

DESIGN SUGGESTION 2.1.8 – Avoid long blank walls to street frontages when designing large single use buildings.

DESIGN SUGGESTION 2.1.9 – Avoid large, unsupervised car parking areas. They degrade the pedestrian environment and provide poor surveillance to surrounding uses.

DESIGN SUGGESTION 2.1.10 – Incorporate smaller retail and community activities along perimeter walls of large stores and malls, and provide active frontages to surrounding streets and public places.

Large supermarkets and retail outlets must address adjoining streets and public spaces to encourage regular pedestrian use and provide natural surveillance for the centre over extended periods of time.

OBJECTIVE 2.2
To provide a compatible mix of uses and activities to maximise natural surveillance and support 24 hour public presence in activity centres.

DESIGN SUGGESTION 2.2.1 – Appropriate night-time uses should be located in accessible locations throughout the centre. A variety of night-time uses with a range of closing times, such as cinemas, bars and restaurants, compliment each other when located in the same precinct, providing more 'eyes on the street'.

DESIGN SUGGESTION 2.2.2 – Wherever possible, locate retail and office uses at street level and residences on upper floors to provide activity beyond business hours.

ENSURE PEDESTRIANS CAN CLEARLY SEE ALONG PATHWAYS TO IMPROVE THEIR PERCEPTION OF SAFETY.

AVOID LONG BLANK WALLS WITH NO ENTRANCES, WINDOWS OR ACTIVITY TO STREET FRONTAGES.

A COMPATIBLE MIX OF NIGHT–TIME USES AND ACTIVITIES, WITH A RANGE OF CLOSING TIMES, PROMOTES VITALITY AND MAXIMISES NATURAL SURVEILLANCE THROUGHOUT THE NIGHT.

ACTIVITY CENTRES PROVIDE LIVELY AND COMPATIBLE VERTICAL AND HORIZONTAL MIX OF USES – APARTMENTS ABOVE SHOPS AND OFFICES ENSURE AN ADDED LEVEL OF NATURAL SURVEILLANCE TO ENHANCE PUBLIC SAFETY DAY AND EVENING.

ENSURE ACTIVITY CENTRES ARE WELL DESIGNED FOR EASY CONNECTION TO ADJOINING RESIDENTIAL NEIGHBOURHOODS.

PROVIDE SAFE AND ACCESSIBLE PUBLIC TRANSPORT IN ACTIVITY CENTRES.

OBJECTIVE 2.3
To support night-time uses by providing easily accessible public transport and parking facilities.

DESIGN SUGGESTION 2.3.1 – Provide recreational and leisure facilities close to public transport and safe pedestrian routes.

DESIGN SUGGESTION 2.3.2 – Locate public transport stations, stops and taxi ranks in, or near, activity centres, rather than on the edge of car parks to ensure natural surveillance of waiting areas. (See Element 6 – Public Transport)

DESIGN SUGGESTION 2.3.3 – Locate bus and tram stops near cafes or shop entrances to ensure activity and natural surveillance.

OBJECTIVE 2.4
To develop activity centres that are well connected and provide direct pedestrian links to surrounding residential neighbourhoods to maximise use and natural surveillance.

DESIGN SUGGESTION 2.4.1 – Provide a clear, easy connection to neighbourhoods from activity centres.

DESIGN SUGGESTION 2.4.2 – Pay particular attention to boundary conditions between land uses. Locating open areas and car parks adjacent to residential uses can provide opportunities for illegal access. (See Element 7 – Car Park Areas)

OBJECTIVE 2.5
To ensure streets and public spaces are attractive and well used to signal care and attention and support people's feeling of safety.

DESIGN SUGGESTION 2.5.1 – Ensure streets, plazas and parks are well maintained and kept clean.

Damaged public furniture should be quickly removed and replaced to reinforce care and ownership, and maximise the perception of security of passers-by.

DESIGN SUGGESTION 2.5.2 – Develop practices to support the perceived safety of places such as graffiti removal, street cleaning and prompt occupancy of vacant shops.

DESIGN SUGGESTION 2.5.3 – Consider using vacant shops for temporary activities such as art displays, local council information or to promote local events.

Shops or offices that are vacant for long periods show signs of neglect and attract acts of vandalism such as broken windows or graffiti. This gives the impression that an area is not being cared for or that crime and disorder are tolerated. As a consequence, these areas tend to attract a variety of antisocial behaviour.

ELEMENT 3 BUILDING DESIGN

WHY IS THIS IMPORTANT?

The design of individual buildings should contribute to the overall safety and vitality of the adjacent public spaces by fostering natural surveillance and reducing opportunities for crime.

The aspects of a building that face or connect to public spaces, such as doors, walls, windows, fences and car entries should be given particular attention to ensure the building provides a positive contribution to the safety of the place. Whereas walls and fences provide clearly defined ownership, windows and doors provide access and visual connection.

BUILDING FRONTAGE

OBJECTIVE 3.1
To design buildings that contribute to the natural surveillance of adjacent streets and public space.

DESIGN SUGGESTION 3.1.1 – Locate buildings to minimise setback from the street and generally maintain the street alignment of adjacent buildings.

DESIGN SUGGESTION 3.1.2 – Recesses in ground floor walls should be less than 0.3 metres deep to ensure they cannot be used as places to hide or entrap.

DESIGN SUGGESTION 3.1.3 – For buildings that front open space, maximise opportunities for informal surveillance from upper levels.

DESIGN SUGGESTION 3.1.4 – Avoid blank walls, fences, service areas, car parks and garage doors fronting streets.

Long blank walls at street level are undesirable as they contribute no interest or activity at street level and people tend to avoid them. People prefer to walk along streets where there is activity, visual interest and they feel safe. Where it is genuinely difficult to achieve an active street edge, entrance ways, windows and walls should be built from good quality materials and designed with sufficient detail and visual interest.

DESIGN SUGGESTION 3.1.5 – Provide weather protection to key footpath routes and public transport stops to encourage pedestrian use in all weather conditions.

OBJECTIVE 3.2
To encourage active uses along streets to increase the 'eyes on the street'.

DESIGN SUGGESTION 3.2.1 – Ensure the ground floors of large or mixed use buildings are 'active' by providing a visual connection to the street and opening directly on to the street. (See Glossary of Terms for 'Active' frontage)

DESIGN SUGGESTION 3.2.2 – Provide retail, entertainment and other after-hours uses in public buildings that front onto public spaces, particularly where pedestrian activity outside office hours is reduced.

DESIGN BUILDINGS TO CONTRIBUTE TO THE NATURAL SURVEILLANCE OF STREETS AND PUBLIC SPACE.

DESIGN OUT BLANK WALLS AT THE REAR OF BUILDINGS TO INCREASE ACTIVITY AND NATURAL SURVEILLANCE OF PUBLIC SPACE.

CAR PARK ENTRANCES CAREFULLY DESIGNED TO AVOID UGLY GAPS IN STREET FRONTAGE.

DESIGN FOR SEPARATE ENTRANCES TO RESIDENCES IN MIXED USE DEVELOPMENT ENSURING CLEAR SIGHTLINES AND DIRECT ACCESS FROM THE STREET.

CLEAR SIGHTLINES FROM THE BUILDING FOYER ALLOW PEOPLE TO SEE OUT BEFORE LEAVING THE BUILDING.

BUILDING ENTRIES

OBJECTIVE 3.3
To design entrances which provide easy access to all users, afford visibility to and from the street, and minimise the potential for hiding spots.

DESIGN SUGGESTION 3.3.1 – Entrances of all dwellings should face the street. The priority is for clear sightlines and direct access from the street to the front door to maximise surveillance of the public environment.

DESIGN SUGGESTION 3.3.2 – Locate ramps and lift entrances in areas that are visible and connected to street activity to emphasise their presence and ensure safety for users.

DESIGN SUGGESTION 3.3.3 – Design a separate entrance for residential components within mixed use developments rather than a combined entry.

DESIGN SUGGESTION 3.3.4 – Ensure entrances and exits are well-defined, secure, well lit and can be seen from the street, public spaces or adjacent buildings.

DESIGN SUGGESTION 3.3.5 – Provide clear sightlines from building foyers and lobbies so that people can see out when leaving the building. Similarly, ensure foyers are visible from outside buildings.

DESIGN SUGGESTION 3.3.6 – Remove shrubs and low-branching trees near gates or entrances to avoid potential hiding places.

FENCES AND WALLS

The character of street frontages in residential developments is often significantly affected by front fences. The height, materials and transparency of fences determine the level of visibility, informal surveillance, privacy, security and activity between a street and its neighbouring private property.

High fences should generally be limited to providing barriers between private spaces. The demarcation between private and public land should be via low walls and/or fences, which allow a high degree of visibility from both private and public space. Safe streets have a high degree of visibility and 'eyes on the street' from adjoining properties.

OBJECTIVE 3.4
To maintain visibility and natural surveillance of the public environment and private entrances.

DESIGN SUGGESTION 3.4.1 – To ensure good street visibility, front boundaries such as walls, fences, hedges or railings should be less than one metre high (to allow views over and through).

DESIGN SUGGESTION 3.4.2 – Avoid designing potential entrapment spots or hiding places along the edges of buildings where intruders can loiter.

DESIGN SUGGESTION 3.4.3 – Where timber fences are more than one metre in height above ground level, timber railings or pickets should be spaced to ensure more than 50% visibility.

DESIGN SUGGESTION 3.4.4 – Front gates should be on, or close to, the front boundary or the front of the house to reduce areas for hiding. They should also be visible from front windows.

DESIGN SUGGESTION 3.4.5 – If security to a front boundary is required, avoid walls and fencing which reduce visibility.

AVOID LONG BLANK WALLS.

LEFT AND BELOW:
ENSURE FRONT FENCES MAINTAIN GOOD VISIBILITY OF THE PUBLIC ENVIRONMENT AND PRIVATE ENTRANCES.

RIGHT AND ABOVE:
FENCES AND WALLS CLEARLY DEMARCATING PRIVATE AND PUBLIC SPACE.

GATES REDUCE HIDING PLACES.

OBJECTIVE 3.5
To minimise the occurrence of graffiti on walls and fences to signal care and attention and support people's feeling of safety.

DESIGN SUGGESTION 3.5.1 – Where fence graffiti is a potential problem, railings or palisade fences are recommended to deter graffiti and create an impression of openness and permeability.

DESIGN SUGGESTION 3.5.2 – Avoid blank walls where graffiti may occur.

DESIGN SUGGESTION 3.5.3 – Where an existing wall is prone to graffiti or is a potential security hazard, consider planting thorny creepers to cover the wall, discourage climbing and improve the attractiveness of the area. But care should be taken to prune plants to prevent injury to passers-by.

There are a number of methods that can be used to reduce the risk of graffiti on walls including sensor lighting; textured or rough surfaces; high density, low absorbency materials such as hard burnt bricks; anti graffiti coatings in high risk areas to ensure easy removal; and surface breaks to segregate large areas of wall and minimise flow and continuity for graffitists.

OBJECTIVE 3.6
To minimise the potential for walls and fences to be used to gain access to private space.

DESIGN SUGGESTION 3.6.1 – Structures such as bin storage areas should be designed and placed to avoid being used to climb walls and fences.

DESIGN SUGGESTION 3.6.2 – Where blank walls exist, consider thorny plants to discourage climbing. (See Design Suggestion 3.5.3)

ELEMENT 4 PARKS AND OPEN SPACE

WHY IS THIS IMPORTANT?

People use parks and open spaces if they feel safe and comfortable there. Parks and open space become safer as more people use them, which also increases perceptions of safety. Provision for both active and passive recreation within parks encourages a range of age groups.

OBJECTIVE 4.1
To maximise natural surveillance of parks and open spaces to encourage use and support people's perceptions of safety.

DESIGN SUGGESTION 4.1.1 – Ensure that parks, public open spaces or play areas are visible from neighbouring streets, houses, schools and other buildings.

DESIGN SUGGESTION 4.1.2 – Buildings with active frontages should be located and designed to overlook public open spaces and parks.

DESIGN SUGGESTION 4.1.3 – Public open spaces, parks and playgrounds should have active frontages on at least three sides to provide natural surveillance.

Parks and other public open spaces should be bounded on at least three sides, and preferably four sides, by streets with active building frontages that provide good surveillance and sightlines deep into the park.

DESIGN SUGGESTION 4.1.4 – New subdivision layouts should avoid rear fences backing onto public open space and parks.

DESIGN SUGGESTION 4.1.5 – Avoid cut-off dead spaces or isolated pockets of land within a park that cannot be overlooked. Instead, convert these areas into new residential lots that can overlook the park.

DESIGN SUGGESTION 4.1.6 – Locate children's play areas where they are clearly visible from surrounding properties and streets. Install see-through fencing to control access and prevent children from roaming while still providing visibility from the street and surrounding areas.

OBJECTIVE 4.2
To encourage the use of parks and open space by a range of users at all times of the day to improve the quality of life for the community and improve perceptions of safety in public places.

DESIGN SUGGESTION 4.2.1 – Provide comfortable places with well-placed seating, good shade and interesting views. These areas are important for encouraging people, particularly the elderly, to use and enjoy public spaces.

DESIGN SUGGESTION 4.2.2 – Design and position elements such as public furniture, lighting, drinking fountains, public information, public toilets, and play equipment to encourage the informal use of parks.

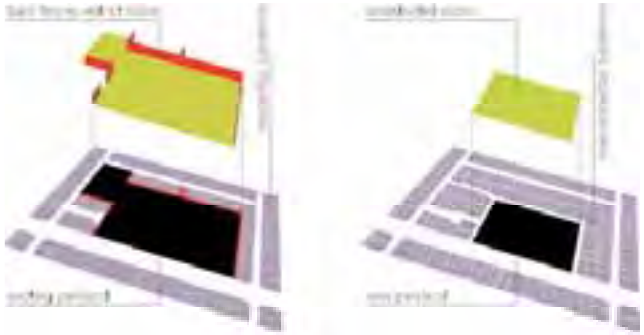
DESIGN SUGGESTION 4.2.3 – Provide generous seating opportunities throughout all public open space that is carefully positioned to attract and support its use.

LIGHTING

OBJECTIVE 4.3
To ensure lighting is carefully integrated to further enhance visibility and natural surveillance of parks and open spaces.

(See Element 9 – Lighting)

DESIGN PARKS/PLAY AREAS TO BE CLEARLY VISIBLE FROM SURROUNDING STREETS AND PROPERTIES THAT PROVIDE GOOD SURVEILLANCE DEEP INTO THE PARK.



PARK REDESIGNED TO ACHIEVE FRONTAGE AND NATURAL SURVEILLANCE. HOUSES BACKING ONTO THE PARK, WITH HIGH FENCES FACING THE PARK, PROVIDE POOR LEVELS OF SAFETY WITHIN THE PARK. THE REDESIGN INCREASES SURVEILLANCE FOR BOTH THE HOUSES AND USERS OF THE NEW PARK. THE PARK IS BETTER CONNECTED WITH THE SURROUNDING NEIGHBOURHOOD.

CAREFULLY INTEGRATE APPROPRIATE LIGHTING TO ENHANCE VISIBILITY IN PARKS.

DESIGN PARKS/SQUARES TO BE CLEARLY VISIBLE FROM THE STREET – WITH ACTIVE FRONTAGES OVERLOOKING THE AREA.

AVOID BACK FENCES FACING PARKS.

LANDSCAPING

OBJECTIVE 4.4
To ensure landscaping maintains sightlines of paths in parks and open spaces and allows for natural surveillance.

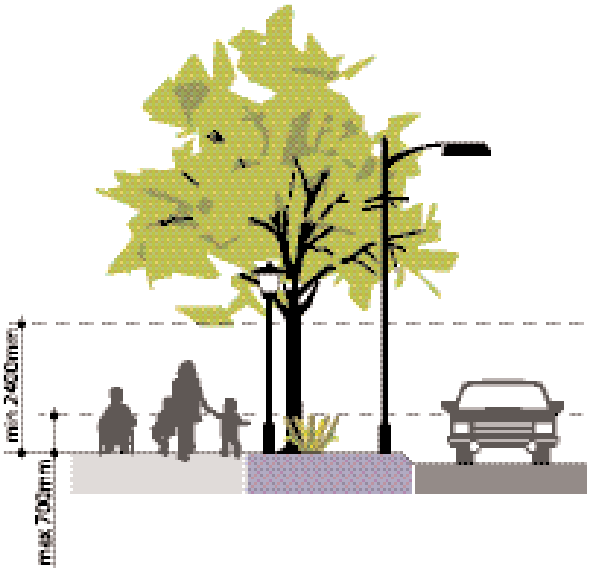
DESIGN SUGGESTION 4.4.1 – Where possible, park planting and topography should not block views of paths and open spaces from surrounding streets and houses.

DESIGN SUGGESTION 4.4.2 – Where landscaping is provided in public open spaces, or in adjacent streets or parks, ensure trees or vegetation do not block the field of vision between 0.7 metres and 2.4 metres above ground level.

DESIGN SUGGESTION 4.4.3 – There should be at least one safe through-route in all parks, with frequent 'escape routes' linking the through-route to surrounding streets and car parks.

DESIGN SUGGESTION 4.4.4 – Tall shrubs can provide hiding places and should not be planted close to paths or fences.

DESIGN SUGGESTION 4.4.5 – Ensure vegetation does not obscure lighting, either during its growth phase or at maturity.



NO TREES OR VEGETATION SHOULD BE PLANTED TO BLOCK THE FIELD OF VISION BETWEEN 0.7 METRE AND 2.4 METRES ABOVE GROUND LEVEL.

ELEMENT 5 WALKING AND CYCLING PATHS

WHY IS THIS IMPORTANT?

As popular types of physical activity, walking and cycling are more inviting when paths and pedestrian routes are highly visible and offer shade and seating for rest stops. This is particularly important for older people, parents with prams and young children, and for people with motor impairment.

Pedestrian routes and bike paths should be designed and located to support a high level of use and natural surveillance. Under utilised routes and paths will be perceived as unsafe and deter public use.

OBJECTIVE 5.1
To co-locate pedestrian, cycle and vehicle movement routes, where practical, to maximise activity and natural surveillance opportunities.

DESIGN SUGGESTION 5.1.1 – When designing new areas or undertaking a safety audit of existing areas, co-locate movement routes to increase natural surveillance.

OBJECTIVE 5.2
To provide convenient paths with generous proportions to encourage walking and cycling and promote natural surveillance.

DESIGN SUGGESTION 5.2.1 – Provide pedestrian/cycle crossing points of busy roads along direct, desirable routes to schools, parks, shopping centres and public transport stops. Avoid inconvenient locations for these street crossings.

Evidence suggests that people often seek a direct route to their destination even where this involves informal crossings of busy roads. The simple provision of a marked street crossing positioned at a direct desire line for vehicular traffic movement is no guarantee of its use. Crossings should be positioned, where possible, to meet pedestrian and cycle desire lines of movement.

DESIGN SUGGESTION 5.2.2 – Ensure pedestrian circulation routes are not compromised or interrupted by traffic calming devices.

Roundabouts present specific problems for ease of pedestrian movement. Designed to ease vehicle traffic flow, they can feed a flow of gap-free traffic 'downwind' of the roundabout, which reduces the ability for safe, informal street crossings by pedestrians. Providing a median in the centre of the road provides pedestrians with the opportunity to cross more safely.

DESIGN SUGGESTION 5.2.3 – Ensure that paths are a minimum of 1.2 metres wide to allow pedestrians to walk two abreast.

DESIGN SUGGESTION 5.2.4 – Ensure that continuous accessible paths of travel requirements are met (Australian Standard 1428).

PROMOTE CONVENIENT PATHS AND CROSSING POINTS TO ENCOURAGE WALKING AND CYCLING – MAXIMISE ACTIVITY AND INCREASE NATURAL SURVEILLANCE.

AVOID BACK FENCES FACING PEDESTRIAN AND CYCLE PATHS.

AVOID MOVEMENT PREDICTORS AND UNDERPASSES THAT TERMINATE IN ENTRAPMENT SPOTS.

ABOVE AND BELOW: CLEAR SIGHTLINES ASSIST NAVIGATION. PEDESTRIANS/WHEELCHAIR USERS AND CYCLISTS NEED TO BE CLEAR ABOUT WHERE THEY CAN WALK/RIDE SAFELY WITHOUT CONFLICT.

OBJECTIVE 5.3
To maintain long sightlines along paths and into adjacent spaces to maximise visibility.

DESIGN SUGGESTION 5.3.1 – Provide clear sightlines along pedestrian/cycle routes to assist navigation and provide visibility of potential hazards such as people or cars entering or crossing the path. Pedestrians and cyclists need to be clear about where they can move to and from.

DESIGN SUGGESTION 5.3.2 – Locate paths to permit views of activity, as well as for safety and security.

DESIGN SUGGESTION 5.3.3 – Avoid dense shrubbery around pedestrian routes and set plants well back from paths.

DESIGN SUGGESTION 5.3.4 – Eliminate all potential entrapment spots within a reasonable distance (30 metres) of commonly-used pedestrian paths.

DESIGN SUGGESTION 5.3.5 – Use lighting to ensure visibility is extended into the evening (See Element 9 – Lighting)

DESIGN SUGGESTION 5.3.6 – Physically integrate pedestrian/cycle paths and crossings into surrounding areas to avoid predictability of movement, fixed paths or routes that offer no choice to pedestrians.

A potential offender will be able to predict where a person is going to end up. This can turn path users into potential crime targets. For example, pedestrian tunnels, narrow passageways, pedestrian bridges, moving escalators and staircases all serve as effective predictors of a user's route. Such 'movement predictors' are of particular concern when they are isolated or terminate in entrapment spots.

DESIGN SUGGESTION 5.3.7 – Identify the safety implications of places where movement options are limited such as pedestrian bridges, enclosed pathways and stairways. Develop solutions to reduce vulnerability, such as increasing visibility, lighting and adjacent activity at these places.

A safety audit carried out by groups of local users, facilitated by an experienced safety expert, is one of the most effective means of identifying these patterns of heightened physical risk.

ELEMENT 6 PUBLIC TRANSPORT

WHY IS THIS IMPORTANT?

Crime and fear of crime is known to reduce public transport use. Safety at transport interchanges and stops is essential. These places are used by a range of age groups at different times.

Transit stops should be well-maintained, well lit at night and provide good shelter and seating. They should also be clearly visible from the street, have a high proportion of glazed walls, offer legible passenger information, provide public telephones, rubbish bins and toilets within close proximity to the public transport stop.

PUBLIC TRANSPORT STOPS, INTERCHANGES AND STATIONS

OBJECTIVE 6.1
To provide access routes to public transport stops and stations which are direct and maximise natural surveillance and visibility.

DESIGN SUGGESTION 6.1.1 – Provide clear, continuous and direct routes to transit stops and between modes of transport. Ensure high visibility, activity and surveillance along these routes.

DESIGN SUGGESTION 6.1.2 – Design active frontages along pedestrian paths to public transport stops. Provide safe, direct links on popular desire-lines, such as routes between schools and bus stops.

DESIGN SUGGESTION 6.1.3 – Avoid the use of underpasses or overpasses where alternative means of access are practical.

DESIGN SUGGESTION 6.1.4 – Where underpasses or overpasses are unavoidable, design them with as much width as possible, ensure access to daylight and lighting, and provide clear sightlines from either end to promote safety.

OBJECTIVE 6.2
To ensure maximum natural surveillance of public transport stops and increase their visibility for users safety.

DESIGN SUGGESTION 6.2.1 – Locate transit stops and interchanges at neighbourhood and other centres where activity is concentrated.

DESIGN SUGGESTION 6.2.2 – Encourage use of railway station buildings for retail or commercial uses such as cafes, newspaper kiosks and community facilities.

DESIGN SUGGESTION 6.2.3 – Public transport waiting areas should be clearly visible from the street and adjacent buildings and provide clear views of train, tram or bus arrivals and departures.

DESIGN SUGGESTION 6.2.4 – Where possible, locate waiting areas near active places such as cafes, newsagents and other facilities with extended opening hours. Conversely, encourage active uses around existing public transport stops and stations.

DESIGN SUGGESTION 6.2.5 – Provide adequate lighting so that people can see around them at night. (See Element 9 – Lighting)

ENCOURAGE LEASING OF RAILWAY STATION BUILDINGS FOR RETAIL OR COMMERCIAL USES, INCREASING ACTIVITY AND VISIBILITY FOR USERS SAFETY.

PROVIDE WAITING AREAS THAT ARE CLEARLY VISIBLE FROM THE STREET AND ADJACENT BUILDINGS.

LIGHT RAIL INTERCHANGE INTEGRATED WITH MIXED USE DEVELOPMENT AND SURROUNDING STREETS PROVIDES A HIGH LEVEL OF VISIBILITY, ACTIVITY AND SURVEILLANCE FOR PEDESTRIANS DURING BOTH DAY AND NIGHT.

PROVIDE CLEAR, CONTINUOUS AND DIRECT ROUTES TO TRANSIT STOPS.

OBJECTIVE 6.3
To provide signage to assist in way finding.

(See Element 10 – Signage)

OBJECTIVE 6.4
To ensure all facilities are well maintained and graffiti is promptly removed to promote a perception of safety and encourage use.

(See Design Suggestion 3.5.3)

ELEMENT 7 CAR PARK AREAS

WHY IS THIS IMPORTANT?

The location and design of car parks can have a significant impact on the safety and quality of public space and private development. All car park layouts and locations require careful and considered design, taking into account principles of natural surveillance and sightlines, lighting requirements and direct access by pedestrians to specific destinations.

OBJECTIVE 7.1
To ensure that pedestrian amenity and safety in the street is not degraded by car park siting and design.

DESIGN SUGGESTION 7.1.1 – Encourage on-street parking as it supports retail and commercial businesses, helps to calm traffic speeds and provides a buffer between pedestrians and busy roads. This also minimises the number of off-street car parks required in an area.

DESIGN SUGGESTION 7.1.2 – Where possible, locate larger carparks below ground and under buildings to enable other active uses, such as shops or residential units at street level. These uses should be used to animate the front of buildings and provide for direct surveillance of streets.

DESIGN SUGGESTION 7.1.3 – Parking areas should generally be provided at the rear of single-storey residential and commercial properties.

GROUND LEVEL OFF-STREET CAR PARK AREAS

OBJECTIVE 7.2
To design all car parking areas to maximise natural surveillance and pedestrian visibility.

DESIGN SUGGESTION 7.2.1 – Maximise sightlines within and into car parks by avoiding mid-level dense vegetation, solid fences, signage or unnecessary structures that block views.

DESIGN SUGGESTION 7.2.2 – Arrange parking spaces to provide effective sightlines from moving cars, and between parked cars, so that pedestrian safety is enhanced.

DESIGN SUGGESTION 7.2.3 – Design stairwells on car park perimeters to be open or see-through to assist informal surveillance from external public areas.

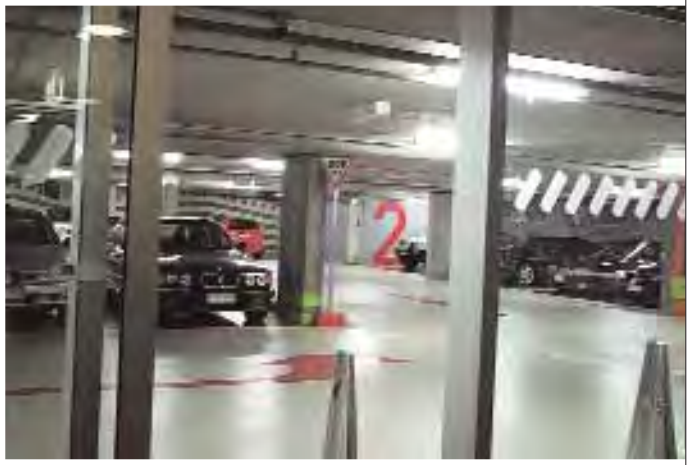
DESIGN SUGGESTION 7.2.4 – Ensure car parks are located in areas where active edges provide natural surveillance and enhance the perception of safety for pedestrians.

DESIGN SUGGESTION 7.2.5 – Ensure lighting is adequate to allow pedestrians to see into the interior of cars and that shadows between cars are eliminated. (See Element 9 – Lighting)

STREET LEVEL CAR PARKS SHOULD PROVIDE ACTIVE EDGES. CAR PARKS LOCATED TO THE REAR OF STRIP SHOPPING CENTRES CAN ALSO PROVIDE SHOPS TO FRONT THE CAR PARK. OR ALTERNATIVELY, THE REAR OF SHOPS CAN BE OPENED UP PROVIDING DOUBLE FRONTAGES. THIS ENHANCES NATURAL SURVEILLANCE, AND INCREASES THE PERCEPTION OF SAFETY FOR PEDESTRIANS USING THE CAR PARK.

PROVIDE DEDICATED PEDESTRIAN PATHS IN CAR PARKS.

INTEGRATE CAR PARKING INTO MIXED USE DEVELOPMENT. DISGUISE THE FIRST LEVEL OF DEVELOPMENT AS CAR PARKING, RETAIL AND COMMERCIAL USES AT STREET LEVEL TO MAXIMISE SURVEILLANCE.



PROVIDE CLEAR, SAFE PEDESTRIAN PATHS IN CAR PARKING AREAS. USE LIGHT COLOURED PAINT AND CEILING LIGHTS TO MAXIMISE LIGHT DISTRIBUTION.

OBJECTIVE 7.3
To ensure pedestrian access to car park areas from the street is convenient and assists way-finding by maximising visibility.

DESIGN SUGGESTION 7.3.1 – Ensure paths to and from car parks provide appropriate lighting, signage, landscaping and clear sightlines. (See Element 9 – Lighting and Element 10 – Signage)

DESIGN SUGGESTION 7.3.2 – Provide dedicated pedestrian paths at street level in high activity car parking areas.

DESIGN SUGGESTION 7.3.3 – Locate car park pedestrian entry and exit points at ground level rather than above ground (bridges or overpasses) or underground (underpasses). These access points should be located and designed to maximise opportunities for natural surveillance from active uses at ground level, such as shops, cafes or attended car park operator/cashier stations.

DESIGN SUGGESTION 7.3.4 – Provide for broad canopy tree planting along access paths to clearly define safe accessible routes and provide amenity for shoppers. (See Design Suggestion 4.4.2).

MULTI-LEVEL CAR PARKS

OBJECTIVE 7.4
To design multi-level car parking to maximise natural surveillance inside, and to and from, the parking structure to ensure user safety.

DESIGN SUGGESTION 7.4.1 – Multi-level car parks should incorporate active uses between car parking areas and surrounding streets to animate the fronts of buildings and provide surveillance of streets.

DESIGN SUGGESTION 7.4.2 – Minimise the number of entry and exit points to multi-level car parks and ensure attendant's booths are clearly marked.

DESIGN SUGGESTION 7.4.3 – Demarcate safe routes for pedestrians in car parking areas, using floor markings, ceiling lights and dedicated pedestrian paths.

DESIGN SUGGESTION 7.4.4 – Avoid hidden recesses along or off pedestrian access routes within car parks.

DESIGN SUGGESTION 7.4.5 – Locate disabled parking in highly visible areas that are convenient to shops, public transport and other facilities.

DESIGN SUGGESTION 7.4.6 – In enclosed car park structures, use light coloured paint on vertical surfaces and ceilings to maximise light distribution.

ELEMENT 8 PUBLIC FACILITIES

WHY IS THIS IMPORTANT?

The use of public facilities such as public toilets, telephones, automated teller machines (ATMs) and cycle parking can increase people's vulnerability or sense of vulnerability in public spaces, especially at night. The design, location and management of these facilities must be taken into account when assessing preferred locations in places where other uses and activities occur.

AUTOMATIC TELLER MACHINES

OBJECTIVE 8.1
To provide automatic teller machines in highly visible and accessible locations to promote their use and enhance user's safety.

DESIGN SUGGESTION 8.1.1 – Locate ATMs on commercial streets, at street level and within direct view of pedestrian routes and surrounding activities to allow for informal surveillance.

DESIGN SUGGESTION 8.1.2 – Avoid positioning ATMs in recesses, alcoves or in buildings adjacent to laneways.

DESIGN SUGGESTION 8.1.3 – Avoid locating ATMs adjacent to bus or tram stops to discourage loitering by potential offenders.

PUBLIC TOILETS

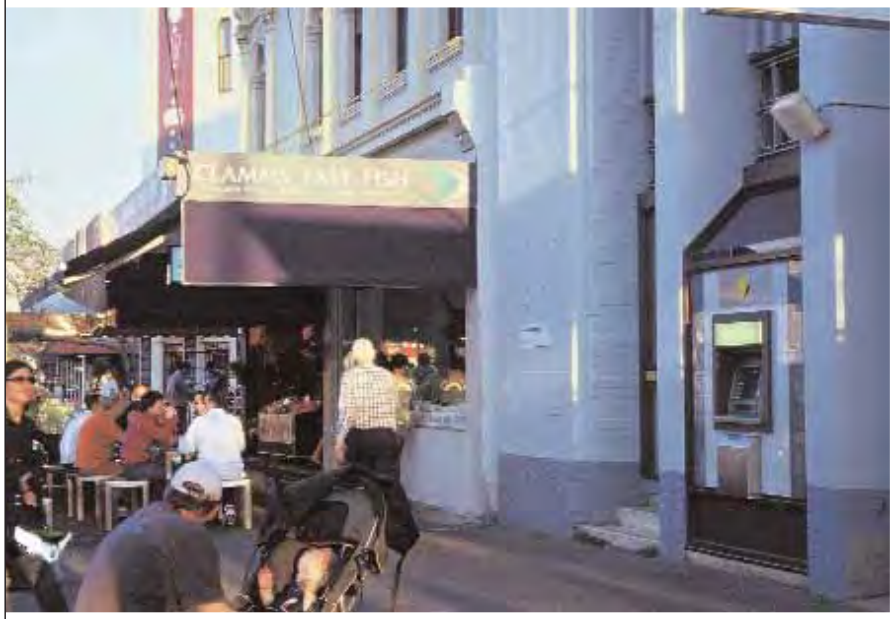
OBJECTIVE 8.2
To provide public toilets in highly visible and accessible locations to promote their use and enhance people's perception of safety.

DESIGN SUGGESTION 8.2.1 – Locate public toilets adjacent to high traffic areas rather than in isolated areas and ensure that entrances are clearly visible.

DESIGN SUGGESTION 8.2.2 – Do not position seats and public telephones next to toilets as this legitimises loitering.

DESIGN SUGGESTION 8.2.3 – Design approaches and entrances to public toilets to be highly visible so that people cannot loiter or enter unseen.

DESIGN SUGGESTION 8.2.4 – Ensure facilities are well maintained and graffiti promptly removed to promote a perception of safety. Consider robust materials to deter vandalism and surfaces to ensure graffiti can be promptly removed. (See Design Suggestion 3.5.3)



LOCATE ATMS ON COMMERCIAL STREETS AND AT STREET LEVEL ALLOWING FOR A HIGH LEVEL OF NATURAL SURVEILLANCE. PROVIDE GOOD LIGHTING FOR NIGHT USE.

LOCATE PUBLIC TOILETS IN HIGHLY VISIBLE LOCATIONS.

STRATEGICALLY LOCATE PUBLIC TOILETS ON COMMERCIAL STREETS AND NEAR TRANSIT STOPS.

RIGHT AND ABOVE:
LOCATE PUBLIC TELEPHONES IN HIGH TRAFFIC AREAS WITH GOOD SURVEILLANCE FROM THE STREET AND NEARBY ACTIVITIES DAY AND NIGHT.

PARKS SHOULD PROVIDE PUBLIC TOILETS IN HIGHLY ACCESSIBLE AND VISIBLE LOCATIONS.

PUBLIC TELEPHONES

OBJECTIVE 8.3
To provide public telephones in highly visible and accessible locations to enhance user safety.

DESIGN SUGGESTION 8.3.1 – Locate public telephones in high traffic areas, particularly near restaurants or shops that have late opening hours for added informal surveillance. Ensure they are well lit at night.

DESIGN SUGGESTION 8.3.2 – Ensure public telephones are located and clearly visible at train stations and bus/tram stops.

CYCLE PARKING

OBJECTIVE 8.4
To provide cycle parking in highly visible and accessible locations to enhance user safety.

DESIGN SUGGESTION 8.4.1 – Locate cycle parking in high traffic areas, particularly near cinemas, restaurants or shops that have late opening hours for added informal surveillance. Ensure they are well lit at night.

DESIGN SUGGESTION 8.4.2 – Ensure cycle parking is located and clearly visible at train stations, bus/tram stops and other destination points.

ELEMENT 9 LIGHTING

WHY IS THIS IMPORTANT?

Good lighting makes public places and paths visible and inviting at night. It also encourages their use and assists in natural surveillance. The more people who use public spaces at night, the safer and less threatening they become.

OBJECTIVE 9.1
To position lighting appropriately to improve visibility for pedestrians and cyclists and enhance natural surveillance opportunities.

DESIGN SUGGESTION 9.1.1 – Lighting should be positioned along streets and paths, and at public transport stops and public facilities that are likely to be used at night. This will assist in providing safe routes for pedestrians, cyclists and vehicles.

DESIGN SUGGESTION 9.1.2 – Illuminate urban public space used at night, including building entrances, exits and other main pedestrian routes of travel.

DESIGN SUGGESTION 9.1.3 – Avoid placing bollards with integrated lighting close to pathways as it is difficult for pedestrians to see beyond them into the distance due to the blinding effect of low level lights.

DESIGN SUGGESTION 9.1.4 – Areas not intended for night-time use should not be lit and/or closed off.

DESIGN SUGGESTION 9.1.5 – Lighting should be well integrated with signage, landscaping and other public space elements in order to maximise safety.

OBJECTIVE 9.2
To ensure lighting intensity and direction is appropriate and improves visibility and surveillance of the public environment at night.

DESIGN SUGGESTION 9.2.1 – Path and street lighting should, as a minimum, meet Australian Standard 1158.1.

DESIGN SUGGESTION 9.2.2 – All lighting should be directed downwards to illuminate the immediate surrounds. Lights should not be placed at eye level because they prevent pedestrians and cyclists from seeing beyond the light source.

DESIGN SUGGESTION 9.2.3 – Areas intended for night-time use should provide adequate lighting levels so that people are able to recognise an approaching person's face 10 to 15 metres away.

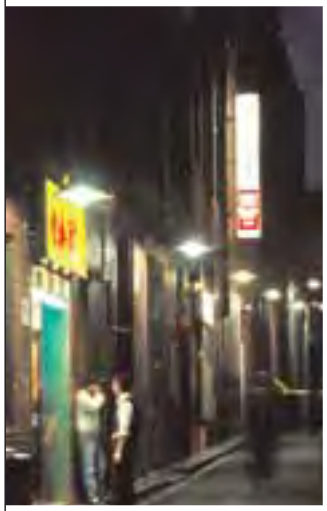
DESIGN SUGGESTION 9.2.4 – Bulb strengths of no greater than 120 watts are recommended as stronger light sources produce deep shadows and can reduce local visibility and surveillance.

DESIGN SUGGESTION 9.2.5 – Avoid extreme contrasts between light and dark surfaces as the resulting glare reduces visibility.

DESIGN SUGGESTION 9.2.6 – Avoid over-lighting of an area as this creates the impression that adjacent places are under-lit. In isolated areas of high illumination, background surfaces appear darker which can reduce surveillance.

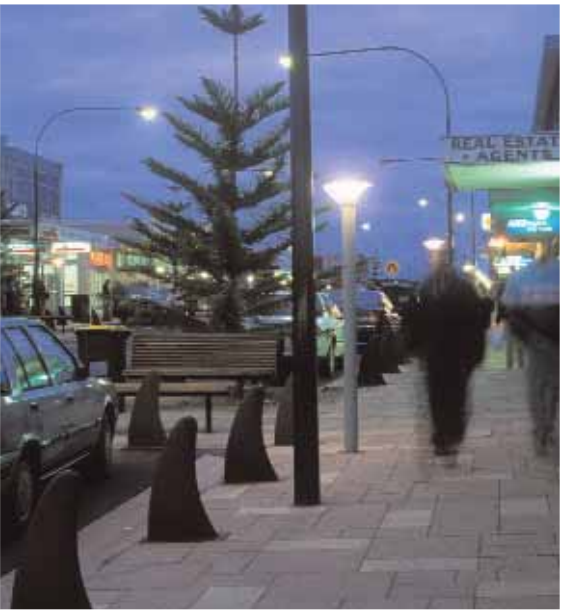
Interior lighting of public transport shelters should not be so bright as to reduce the ability to see into darker surrounding spaces.

AVOID PLACING BOLLARDS WITH INTEGRATED LIGHTING CLOSE TO PATHWAYS AS IT CAN CAUSE A BLINDING EFFECT FOR PEDESTRIANS AND CYCLISTS.



ILLUMINATE BULDING ENTRANCES TO IMPROVE VISIBILITY FOR PEDESTRIANS.

PROVIDE ADEQUATE LIGHTING FOR PEDESTRIAN COMFORT AND SAFETY - AVOID EXTREME CONTRASTS.



INSTALL LIGHTING THAT SUPPORTS VISIBILITY FOR PEDESTRIANS USING PUBLIC PLACES AS WELL AS ROADS.

ILLUMINATE URBAN PUBLIC SPACE USED AT NIGHT, AND ENSURE THAT ALL LIGHTING IS DIRECTED DOWNWARDS TO ILLUMINATE THE IMMEDIATE SURROUNDS.

DESIGN SUGGESTION 9.2.7 – In retail and commercial areas, lighting levels should be higher than surrounding areas. Consider the use of surveillance equipment in vulnerable areas where 'informal surveillance' is unlikely or not possible, such as service areas and loading bays.

DESIGN SUGGESTION 9.2.8 – Ensure paths and areas intended for night use are lit to the same level as surrounding streets, to indicate they are safe routes.

DESIGN SUGGESTION 9.2.9 – Parks and gardens attract less use after dark, which means that lower performing light sources are justified. Yellow lamps and old 'mercury vapour' lights should be replaced with new blue-white lamps that offer good rendition of greens and browns.

OBJECTIVE 9.3
To ensure the quality of light enhances people's visibility to see at night and enhances public safety.

DESIGN SUGGESTION 9.3.1 – Use white light in areas with the greatest pedestrian activity. White light eliminates a distortion of the relative size of objects against their background which occurs when 'yellow' or sodium generated light is used. White light also gives good colour rendition at night by allowing the eye to register the true colour of an object. Both these qualities assist people's natural ability to see at night, assess their safety and act accordingly.

OBJECTIVE 9.4
To ensure lighting is easily maintained and minimises potential for wilful damage.

DESIGN SUGGESTION 9.4.1 – Lighting should be at a height that prevents vandalism. Where lighting is used at a lower level, vandal-proof fittings should be used.

ELEMENT 10 SIGNAGE

WHY IS THIS IMPORTANT?

Knowing where you are and which direction to take assists purposeful behaviour and provides a sense of security and confidence.

A clear urban structure and an easily understandable layout of streets and buildings should give most way-finding clues to users of an area. Where this structure is poor, a consistent and coordinated signage system can assist people's orientation and navigation abilities.

Public signage can be inadequate, misleading or visually cluttered. Consistent, coordinated and clearly understandable signage used over a wide area can alleviate these problems.

OBJECTIVE 10.1
To locate signage where it will assist in way-finding to ensure people feel confident and safe in a public place.

DESIGN SUGGESTION 10.1.1 – Locate signs at entrances and near centres of activity. Emergency exits should be clear with signs well placed, easy to read and illuminated at night.

DESIGN SUGGESTION 10.1.2 – Clearly sign entrances and exits of train stations and public transport interchanges.

DESIGN SUGGESTION 10.1.3 – Provide clear and regular signposting to main pedestrian routes. Safer access for wheelchairs should be signed if such routes are not immediately apparent.

DESIGN SUGGESTION 10.1.4 – When positioning signs, ensure they are unlikely to be obscured by growing vegetation.

OBJECTIVE 10.2
To ensure signage contains current and relevant information to encourage use, particularly the use of public facilities after dark.

DESIGN SUGGESTION 10.2.1 – Provide signage that indicates where to go for assistance, the location of public phones, taxis, tram and bus stops, and other public facilities.

DESIGN SUGGESTION 10.2.2 – Clearly indicate closing hours at entrances to areas of public use.

DESIGN SUGGESTION 10.2.3 – Provide directional signage to locate transit stops, station exits and platforms to minimise confusion. Accurately locate related public facilities including toilets, telephones and taxis ranks.

DESIGN SUGGESTION 10.2.4 – Maps and/or signs should include estimated walking times or distances between the reference location and major public destinations and facilities.

DESIGN SUGGESTION 10.2.5 – Provide current passenger information about routes and timetables at public transport facilities.

DESIGN SUGGESTION 10.2.6 – Clearly name streets, courtyards and other identifiable areas of common use.

DESIGN SUGGESTION 10.2.7 – Clearly name and number buildings, (minimum 0.2 metres high) so they can be read from vehicles in the street at night.

DESIGN SUGGESTION 10.2.8 – As part of signage, include information about how to report maintenance problems or vandalism/graffiti on signs.

DESIGN SIGNAGE THAT IS EASY TO SEE, READ AND UNDERSTAND. THIS WILL ASSIST PEOPLE TO INTERPRET THEIR SURROUNDINGS AND FEEL CONFIDENT IN A PUBLIC PLACE .

AT PUBLIC TRANSPORT STOPS AND STATIONS, ENSURE PASSENGER INFORMATION IS CURRENT AND LEGIBLE, AND EASILY UNDERSTOOD.

WELL DESIGNED, LEGIBLE SIGNAGE ASSISTS PEOPLE INTERPRET THEIR SURROUNDINGS AND WAY-FINDING.

ENSURE MAPS IN LARGE PUBLIC OPEN SPACES/PARKS CLEARLY SHOW CONNECTIONS, DESTINATIONS AND URBAN COMFORTS.

OBJECTIVE 10.3
To provide maps to assist in directing pedestrians so they feel safe and confident using public places that are unfamiliar.

DESIGN SUGGESTION 10.3.1 – Provide maps in large public open spaces such as parks and squares showing connections and destinations, entry and exit points and the location of public facilities including seating, shade, playgrounds, drinking fountains and toilets.

DESIGN SUGGESTION 10.3.2 – Place the viewing position of maps so that they are consistent with the viewer's orientation.

OBJECTIVE 10.4
To design signage that is easy to see, read and understand. This will assist people to interpret their surroundings and help their way-finding.

DESIGN SUGGESTION 10.4.1 – Consistently use strong colours, clear contrasts, non-reflective surfaces, simple graphics and standard international symbols on maps. These symbols are particularly useful to people who use English as a second language or cannot read.

DESIGN SUGGESTION 10.4.2 – Illuminate signs that are essential for night use.

DESIGN SUGGESTION 10.4.3 – Provide vandal-proof signage that is easy to maintain and keep free of graffiti.

GLOSSARY OF TERMS

GLOSSARY OF TERMS

Access lanes
Narrow lanes providing vehicle access to properties that would otherwise be inaccessible – intended to reduce the domination of garages in streetscapes.

Active frontages
An active visual engagement between those in the street and those on the ground floors of buildings. This feature is assisted where the main entrances of buildings face the street and their ground floor uses face, and open onto, the street.

Activity centres
The traditional focus for services, employment and social interaction in cities and towns. People shop, work, meet, relax and live in activity centres. Usually well served by public transport, they range in size and intensity from local neighbourhood strip shopping centres to traditional town centres and major regional malls.

Activity generators
Land uses that encourage and intensify use of the public domain – may include outdoor cafes and restaurants, shops and outdoor sporting areas located in open space.

Arterial Roads
The principal routes for the movement of goods and people within an area's road network. Arterial Roads have traditionally been further divided into primary and secondary arterials.

(Ref: VicRoads Traffic Engineering Manual, Vol 1)

Collector street (road)
Local roads that distribute traffic between arterial roads and the local road system and provide access to abutting properties.

(Ref: VicRoads Traffic Engineering Manual, Vol 1; also refer Legislative Framework).

Community safety
The actual and perceived safety existing in any community. 'Actual' safety is measurable and usually expressed as 'a rate of crime'. This may differ from 'perceived' community safety – derived from interviews and attitude surveys.

Connectivity
The number of public places or routes that intersect with any particular place. A highly connected place will have many public spaces or routes linked to it.

Continuous Accessible Paths of Travel (CAPT)
An uninterrupted path of travel to, or within, a building, providing access to all required facilities. This accessible path does not incorporate any step, stairway, turnstile, revolving door, escalator or other impediment which would prevent it from being safely negotiated by people with disabilities.

Crime Prevention Through Environmental Design (CPTED)
An analytical tool used to redesign and modify the built environment to reduce opportunities for crime. CPTED focuses on the effective design and use of the built environment to reduce the incidence and fear of crime and improve quality of life.

Curvilinear
Street and subdivision patterns using overly rounded or curved patterns. The effect of these patterns is to shorten visual axes and lower people's natural orientation and ability to find their way.

Designated routes
Selected pedestrian and/or bicycle routes specifically designed to incorporate safety measures. These routes may incorporate specific surface treatments, signage, lighting and the like.

'End grain'
'End grain' is achieved at the end of blocks, when lots are oriented to the short street at the end of the block.

Entrapment spots/hiding places
Small confined areas, shielded on three sides by some sort of barrier that may be used by criminal offenders to trap potential victims or conceal themselves.

Escape route
An alternative and safe means of exit.

'Eyes on the Street'
Surveillance derived naturally from the number of people using a street or public place. (A phrase coined by Jane Jacobs in her book *The Death and Life of Great American Cities*, 1961).

Frontage development
Development that incorporates an 'active frontage'. (See above).

Gated Community
Residential development that is entered via a code operated security gate only. Gated communities are segregated by closing streets or walling off suburbs in order to improve perceived safety inside a development.

Half basement car park
Car parking areas where the ground floor of the building is elevated approximately 1.5 metres above ground level – usually to provide ventilation to the car park or reduce excavation costs.

Hierarchical street patterns
A pattern where local roads only connect to major neighbourhood roads, that in turn only connect to arterial roads. This results in a concentration rather than a dispersal of traffic and a lack of alternative routes.

'Integration'
The spatial and functional linking of areas of development and their inhabitants. Integrated areas form a coherent physical whole.

'Isolation'
The physical and functional separation of individuals, households or areas to the extent they have few relationships with each other.

'Legibility'
The ease with which visitors are able to see, understand and use an area or development. A 'legible' layout is one that visitors and residents find easy to move through and to use.

Melbourne 2030
The Victorian Government's vision for the future planning of the Melbourne metropolitan area.
Refer *Melbourne 2030 Planning for Sustainable Growth*, October 2002.

Mixed use development
The fine-grained mixing of compatible land uses to achieve a balance. No single use should dominate other uses, and residential land use should generally not exceed 60% of the land use.

Movement predictors
Routes that do not provide for escape routes, such as long pedestrian bridges.

Permeable layout
Layout that allows for visible and frequent access routes through an area.

Public spaces
Spaces that are publicly owned and intended for use by the public and spaces that are privately owned but encourage public use free of any rules or constraints of normal public behaviour.

Segregation
Where areas of urban development are set apart from each other by design and therefore have poor connections.

Sightlines
Lines of clear physically uninterrupted sight.

Street wall buildings
Buildings with no side setbacks so that development forms a continual wall along a street – typical of terrace housing and retail development.

Surveillance – Formal
Surveillance undertaken by police, caretakers, and security guards.

Surveillance – Natural
'Eyes on the street' provided by local people as they go about their daily activities – this can deter antisocial behaviour and make places 'feel' safer.

Traffic calming
The use of structures or devices to slow traffic down.

Vehicular culs-de-sac
Streets discontinuous for vehicles.

Walkable neighbourhoods
Neighbourhoods where footpath-based travel is made as easy as possible for all members of the community including children, people with prams/shopping carts and those using mobility aids.

White light
Illumination produced from lamps (colours appear as in normal daylight) with a Correlated Colour Temperature of at least 3700K in major streets and public places, or 3000K on minor streets or spaces.

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