

# 6.3.4 Crime Prevention Through Environmental Design (CPTED) Policy

Responsible GM:	Lili Rosic		
Author:	Livia Baranyay		

### **Recommendation(s)**

That Council endorses the CPTED Policy to be incorporated in Council's Community Safety Action Plan and notes that the CPTED Policy will be incorporated into any future Community Safety Policies.

### Attachments

- 1. CPTED Policy Scope [6.3.4.1 28 pages]
- 2. CPTED Policy [6.3.4.2 10 pages]

### **Executive Summary**

The Planning Strategy and Urban Design team are leading the development of a Crime Prevention through Environmental Design (CPTED) Policy; a project which recognises Cardinia Shire Council's long-standing commitment to community safety and crime prevention. As part of the ongoing work and direction set by the Cardinia Shire Council Plan 2021–25 (Council's Plan) and the Cardinia Shire Liveability Plan 2017–29, Council is seeking to reduce the risk of crime, and to increase the actual and perceived safety in Cardinia Shire. Two documents have been developed to enable this to occur and to assist in delivering safe inclusive spaces – a CPTED Policy Scope (the scope) and CPTED Policy (the policy).

The scope has been developed to identify methods to embed a CPTED approach and concludes with a series of recommendations, highlighting activities to investigate which increase actual and perceived safety, to reduce the cost and impact of crime.

The policy has been developed to sit alongside the scope as a tool to pick up and reference as needed. This policy outlines crime prevention principles, overarching objectives and design choices to enable staff to make considered decisions within their own roles and responsibilities. Both the CPTED Policy and CPTED Scope are internal facing documents setting the standard for Council delivered and managed spaces. Collectively these documents will provide a holistic and enduring approach that will embrace all existing and future development in Cardinia Shire and sets out to achieve the following:

- Establish a set of objectives and design choices to review design, use and management of existing and proposed public facilities from a community safety and crime prevention perspective.
- Recognise the need for ongoing research, consultation and professional development in the field of CPTED.
- The incorporation of CPTED into Council's planning and development considerations.
- The integration of an evidence-based and problem-solving approach to community safety and crime prevention as part of Council planning and development considerations.
- Recognise the importance of a robust evaluation process to ensure a culture of continuous improvement in design and planning decisions.
- Identify a process to audit Council specific sites based on crime data.



• Aims to increase the confidence and perception of safety experienced by the community and increase the use of facilities and public space.

### Background

The requirement of a CPTED Policy stems from a review undertaken by Council in 2019. Improving safety was identified as one of seven outcomes included in Council's Liveability Plan 2017-29 (2021 Review).

The Cardinia Shire Council Plan 2021-2' (Council's Plan), includes an initiative to 'review and update the 'Safer Communities Strategy' to incorporate Crime Prevention Through Environmental Design (CPTED)'.

### **Policy Implications**

Creating safe places is a clear objective in Council's Plan. This Policy along with its recommendations is just one step towards embedding design principles within the organisation. It is with this step that we aim to bring recognition to thoughtful design and emphasise the importance on decisions we make for a safer community.

The CPTED Policy will fall under the Community Safety Plan – Action Agenda and the Community Safety Policy Framework (which is subject to endorsement of the Council 22/23 budget).

### **Relevance to Council Plan**

### 1.1 We empower our communities to be healthy, connected and resilient

**1.1.3** Lead by example in creating an inclusive and welcoming community for all by facilitating community education, capacity building, connection and celebration of our diversity.

### 2.1 We support the creation of liveable spaces and places

2.1.2 Plan and maintain safe, inclusive and connected open spaces, places and active travel routes.

### 4.1 We support our productive land and employment land to grow local industries

4.1.5 Strengthen and promote our shire's unique identity and visitor attractions.

### 5.1 We practise responsible leadership

5.1.5 Champion the collective values of the community through the Councillors' governance of the shire.

### **Climate Emergency Consideration**

Nil.

### **Consultation/Communication**

A cross organisational internal working group was established to guide the development of the CPTED scope and set the policy's overarching objectives.

At this point in time both the CPTED Scope and Policy have been circulated across the organisation through the working group, SALTO's steering committee, and Councillor Bulletin. The Safer Communities Partnership was briefed on the contents of the policy and has been provided with a copy sought for approval at this meeting.



CPTED Training is scheduled for the 25<sup>th</sup> and 26<sup>th</sup> July 2022 for councillors and key decision makers within Council following the circulation of policy documentation.

### **Financial and Resource Implications**

The development of the CPTED Policy has required no additional resources with it prioritised within the workplan of the urban design team to deliver in a timely manner.

### Conclusion

This report presents the CPTED Policy and Policy Scope that will be presented to Council for endorsement. CPTED is included as an initiative listed within Cardinia's Council Plan 2021-25, as one priority for Council to establish 'strong communities. It will assist Council to facilitate safety through effective planning and design.

**Cardinia Shire Council** 



# Crime Prevention Through Environmental Design (CPTED)

Policy scope and background paper

### Contents

Executive Summary	
Introduction	
Community context	2
Crime profile	2
Perceptions of safety	3
Policy context	3
Crime Prevention Through Environmental Design approach	6
What is CPTED?	6
CPTED principles	6
Principle 1: Surveillance	7
Principle 2: Access control	7
Principle 3: Target Hardening	7
Principle 4: Territorial reinforcement	8
Principle 6: Management & Maintenance	8
Embedding the CPTED approach	8
Roles and responsibilities	9
CPTED methodology	10
Conclusion	14
Recommendations	16
Glossary	18
Appendix 1 CPTED referral table	19
Appendix 2 CPTED assessment report template	20
Appendix 4 PB Ronald Reserve: A CPTED case study	22
References	25

### **Executive Summary**

Cardinia is a community working together to build a safe place. This is recognised in *Cardinia Councils Liveability Plan 2017-2029*, Cardinia Safer Communities Strategy 2017- 2021 and *Cardinia's Planning Scheme.* This policy scope sets out the context, governance, financial considerations, and implementation methods for increasing community safety through embedding a Crime Prevention Through Environmental Design approach.

Crime Prevention Through Environmental Design, CPTED provides the process for analysing and assessing crime and security risks to guide development, urban design, site management and the use of the built environment in order to prevent and reduce crime and the fear of crime, and to promote and improve public health, quality of life and sustainability.<sup>1</sup> Approximately 29 per cent of crimes that occur in Cardinia Shire take place in a public space.<sup>1</sup> Designing the public domain to discourage criminal activity by ensuring there is more chance for offenders to be seen, challenged or caught can significantly contribute to positive social and economic outcomes.

The purpose of the development of a CPTED policy is to improve safety and reduce crime by applying CPTED principles to new developments, redevelopments, and the maintenance and management of public spaces and facilities within the Cardinia Shire Council area. CPTED principles include Surveillance, Access control, Target hardening, Territorial reinforcement, and Management & Maintenance. Appropriate strategies are determined in terms of risk, cost effectiveness and community benefit. This is achieved through analysis of evidence, safety audits and stakeholder input.

This policy scope sets out key recommendations to embed the CPTED approach including:

- 1. Develop a CPTED policy and implementation guidelines for Cardinia staff
- 2. Continue to improve community safety by evaluating CCTV and lighting and undertaking safety audits and site inspections
- 3. Maintain the positive look and feel of public spaces through ongoing cleansing, graffiti removal, amenity patrols, maintenance, and planned social programs and activations.
- 4. Use CPTED principles to support decision making and response.
- 5. Track crime trends and community perceptions of safety to identify priorities and emerging risks.
- Continue to maintain a high standard of amenity, ensure compliance with planning requirements and local laws, and support public health and safety through partnership and continuous service improvement.

Building a safe community is multifaceted and requires a coordinated, whole of Government approach in partnership with community and other stakeholders. The built environment should be designed to enhance positive lifestyles by meeting the physical, social and economic needs of the local community as well as providing a safe and secure place to live, work and play. This can be achieved by adopting the principles that underpin Crime Prevention Through Environmental Design.

### Introduction

Cardinia Shire Council has a long-standing commitment to community safety and crime prevention. The *Cardinia Safer Communities Strategy 2017* provides a framework for the implementation of solutions that aim to improve safety, and perceptions of safety within Cardinia Shire. As part of the ongoing work and direction set by the *Cardinia Shire Council Plan 2021–25* and *the Cardinia Shire Liveability Plan 2017–29*, Council is seeking to embed CPTED approaches to planning and responding to incidents and risk of crime to increase actual and perceived safety in Cardinia Shire.

Cardinia Shire Council

<sup>&</sup>lt;sup>1</sup> Of the 5,572 incidents recorded in the period 1 April 2020 - 30 March 2021 29 per cent (n=1,616 incidents) took place in a public space (public surrounds of residential property, street or footpath and open spaces).<sup>1</sup>

Crime prevention refers to the range of strategies implemented by individuals, communities, businesses, non-government organisations and all levels of government to target social and environmental factors that increase the risk of crime, disorder and victimisation.<sup>ii</sup> The social approach to crime prevention focuses on addressing the underlying social and economic causes of crime in the community, (such as a lack of social cohesion, and limited access to affordable and secure housing, employment, education and health services) and the motivations for people to commit offences.<sup>iii</sup> The environmental approach to crime prevention aims to modify the physical environment to reduce opportunities for crimes to occur. This includes situational crime prevention techniques and broader urban planning initiatives. This approach is referred to as Crime prevention Through Environmental Design (CPTED) or Safer by Design (SBD).

While CPTED is not mandated under current planning legislation the *Urban Design Guidelines for Victoria, 2017* set out the principles for designing safer public spaces and outline how consideration of safer design principles can improve the social, economic and environmental outcomes and promote positive use of public spaces.

### **Community context**

Cardinia Shire is in the southeast of Melbourne and is one of 10 'Interface Councils' which form the perimeter of metropolitan Melbourne, providing a transition between urban and rural areas. The municipality has an area of approximately 1,280 square kilometres, comprising a variety of landforms and landscapes. The current population of Cardinia Shire is 99,192 people and over the next 12 years is expected to increase by 60 per cent to a total of 158,661.

The majority of Cardinia Shire's population is located within the growth areas of Beaconsfield, Officer and Pakenham, which will also accommodate most of the future residential and commercial growth. Currently, half the population reside in Pakenham alone (48,464 people) this is expected to increase by 43 per cent to a total population of 69,316 by 2030. However, Officer will see the highest rate of growth with the population expected to increase from 10,414 in 2017 to 43,035 in 2030. The remainder of the population is located within Cardinia Shire's townships and rural residential areas.<sup>iv</sup>

### **Crime profile**

Victoria Police are responsible for responding to incidents of crime, and upholding law and order. Cardinia Shire Council works closely with Victoria Police and other agencies to create a safe community and contribute resources and deliver responses to crime where appropriate.

Data from the Victorian Crime Statistics Agency from 1 April 2020 - 30 March 2021 shows there were 5,572 reported incidents of crime in the Cardinia Shire local government area<sup>2</sup>. Of those recorded:

- 1,535 incidents of Family Violence *up* from 1,469 incidents in the previous year.
- 764 incidents of Public Health and Safety breech up from 0 incidents in the previous year.<sup>3</sup>
- 535 incidents of steal from motor vehicle *down* from 661 incidents in the previous year.
- 484 incidents of breech of family violence order *up* from 414 incidents in the previous year.
- 388 incidents of other theft *down* from 500 incidents in the previous year.
- 367 incidents of criminal damage accounting *down* from 534 incidents in the previous year.

Information provided by the Victorian Crime Statistic Agency shows of all incidents where a location was recorded:

<sup>&</sup>lt;sup>2</sup> A recorded criminal incident is a criminal event that may include multiple offences, alleged offenders and/or victims that is recorded by police on a single date and at one location.

<sup>&</sup>lt;sup>3</sup> This category of offence includes breech of public health orders. This figure relates to an increase in this type of incident during the enforced Covid-19 lockdowns in Victoria.

- 2,470 were committed in a residential location. This includes private and non-private dwellings and surrounding grounds.
- 1,947 were committed in a community location. This includes public places, religious or educational institutions and public transport.
- 979 were committed in other locations including retail, warehouses, workplaces and recreational facilities.
- Of the 5,572 incidents recorded in the period 29 per cent (n=1,616 incidents) took place in a
  public space (public surrounds of residential property, street or footpath and open spaces).<sup>v</sup>

The top five suburbs in Cardinia where the highest numbers of incidents were recorded include:

- 1. Pakenham 3,236 incidents down from 3,240 in the previous year.
- 2. Officer 687 incidents up from 627 in the previous year.
- 3. Beaconsfield 200 incidents down from 303 in the previous year
- 4. Lang Lang 191 incidents up from 99 in the previous year.
- 5. Nar Nar Goon 179 incidents up from 69 in the previous year.

### **Perceptions of safety**

How people perceive safety can influence behaviour and community wellbeing.<sup>vi</sup> The positive 'look and feel' of streets and spaces can contribute to reducing crime and increase feelings of safety. Perceptions of safety often come from how people feel about an area or place. How safe a person feels is often linked to fear of crime. Research shows fear of crime is often not equal to actual crime. These fears can impact people's quality of life, and the social and economic wellbeing of communities.<sup>vii</sup>

Community research undertaken as part of the development of the Cardinia Liveability plan 2017–29 shows on average:

- 18% of adults in rural areas and 20% of adults in growth areas identified that crime and safety issues impacted their households.
- 82% of adults in rural areas and 74% of adults in growth areas believe their area is a safe place to live at night.
- 88% of adults in rural areas and 80% of adults in growth areas believe their area is a safe place to live during the day.<sup>viii</sup>

How safe a person feels can be influenced by environmental and design factors such as poor lighting, lack of visibility, the presence of graffiti, damaged property or rubbish, or an absence of other people. It can also be influenced by social factors including the behaviour of other people – for example, alcohol or drug consumption in public places, dogs off-leash, or unsafe road and bike riding behaviour. An individual's experiences, particularly if they have been a victim of crime, had a traumatic life event or live with a mental health condition can also significantly impact their perceptions of safety. Individuals who perceive their neighbourhoods as safe are more likely to report increased social cohesion and decreased social isolation.<sup>ix</sup>

### **Policy context**

The *Local Government Act 2020* defines the purpose and responsibilities of local government in Victoria. The Act defines the role of Council "is to provide good governance in its municipal district for the benefit and wellbeing of the municipal community". The Act sets out overarching governance principles that include prioritising best outcomes for the community, engaging the community in strategic decision-making, and transparency in Council decision-making.

The *Cardinia Shire Safer Communities Strategy 2017* provides a framework for the implementation of solutions that aim to improve safety, and perceptions of safety in Cardinia Shire for the benefit and wellbeing of communities. The following strategies inform and support the work of the Cardinia Safer Communities Strategy and have relevance for the development and implementation of a CPTED Policy.

Cardinia Shire Council

Crime prevention through environmental design – Policy scope

### Cardinia Shire, Council Plan 2021-2025

The Council Plan 2021–25 sets out Cardinia Shire Council's strategic vision and outlines Council's commitment to the community, key priorities and anticipated challenges over a four-year period.

The Council Plan outlines five key strategic objectives. The following strategic priorities directly related to increasing community safety:

- 1. Strong communities: Facilitate a partnership approach to create safer communities.
- Liveable places: Advocate, plan for and deliver accessible community infrastructure and services that address community need, Plan and maintain safe, inclusive and connected open spaces, places and active travel routes and Upgrade Council's Road network to improve safety and connectivity.

Relevance to Council Plan 1.6 Our People – Increased awareness of safety

- 1.6.1 Work with the Police, Victorian Government and the community to improve safety in homes, businesses, public places and roads.
- 1.6.2 Improve awareness of township safety in local communities.

A key action of the Council plan planned for delivery in 2021–22 is to "review and update the Safer Communities Strategy to incorporate Crime Prevention Through Environmental Design (CPTED)".

### Cardinia Shire's Liveability Plan 2017-29

The Cardinia Shire Liveability Plan recognises Council's role in coordinating local public health planning, by bringing together a range of organisations and local groups to collectively protect, improve and promote the health and wellbeing of all Cardinia Shire residents. A commitment to improving safety with the inclusion of a CPTED approach aligns with the priority outcomes of:

- improved mental health and wellbeing
- improved social cohesion
- improved safety
- reduced family violence
- reduced harm from tobacco, alcohol, drugs, and gambling.<sup>x</sup>

### Federal Government

The Australian Government's *Protecting Crowded Places from Terrorism Strategy 2017*, outlines the role of local government in ensuring the safety and wellbeing of Australian communities, including helping to protect crowded places from terrorism.

Local governments are responsible for, among other things, managing civic spaces, public activities, celebrations, agricultural shows, and community days. This means they have the same role and responsibilities as other owners and operators of crowded places, including a duty of care to develop, implement, and regularly test protective security measures.

Local governments also play an important role in designing and approving public spaces — including a unique opportunity to consider and creatively apply protective security during the early stages of crowded place design. Doing so helps to minimise the disruptive effect of protective security on enjoyment of public spaces.<sup>xi</sup>

Protective security as it relates to the physical environment is informed by CPTED principles. Crowded places such as stadiums, shopping centres, pedestrian malls, and major events will continue to be attractive targets for terrorists. The current National Terrorism Threat Level in Australia is PROBABLE.<sup>4</sup> Owners and operators of crowded places have the primary responsibility for protecting their sites, including a duty of care to take steps to protect people that work, use, or visit

Cardinia Shire Council

<sup>&</sup>lt;sup>4</sup> Australia's current National Terrorism Threat Level is PROBABLE. The National Terrorism Threat Level is regularly reviewed in line with the security environment and intelligence. Accessed Online: https://www.nationalsecurity.gov.au/Securityandyourcommunity/Pages/National-Terrorism-Threat-Advisory-System.aspx

their site from a range of foreseeable threats, including terrorism. The Crowded Places Strategy sets out risk assessments and key actions for consideration to protect high risk sites and events.

### Victorian Government

Crime Prevention Through Environmental Design is an internationally recognised means of reducing both the incidence and the fear of crime through the design and effective use of the built environment. The Victorian Government through Crime Prevention Victoria within its Justice Department was an early proponent of CPTED and commissioned the first set of Safer Design Guidelines for local governments including piloting CPTED training in Victoria.

The Parliament of Victoria Drugs and Crime Prevention Committee commissioned an inquiry into Locally Based Approaches to Community Safety and Crime Prevention in 2012 to examine the extent to which CPTED principles are used in local governments and planning jurisdictions. This inquiry made several recommendations in the final report published in 2013, summarised below:

- 1. Crime prevention is more effective when part of a holistic approach to health, sustainability, community safety and 'liveability 'as well as justice measures.
- 2. Safer design principles need to be implemented in conjunction with other crime prevention approaches.
- 3. Community capacity building and social capital are essential and integral aspects of addressing community safety issues in contemporary society.
- 4. In addressing crime prevention and community safety including safer design principles, evidence-based strategies are essential.
- 5. A 'one size fits all' approach to applying safer design principles/CPTED does not address the specific issues, needs and requirements of individual local communities.
- 6. Effective crime prevention and community safety interventions require:
  - an understanding of the causes and factors leading to crime and antisocial behaviour,
  - a unified service delivery model rather than agencies and those in local government working in silos,
  - an applied commitment to evidence-based practice research, evaluation, and performance measurement supported by up-to-date data; and
  - the empowerment and participation of local communities in decision making, such as through safer design/CPTED audits.
- Effective use of safer design principles and CPTED requires police to take a proactive community focused approach with regards to designing out crime, utilising specialist knowledge and training in this area.
- Local government authorities are best placed to understand and reflect the needs and problems
  of their local community and to generate and deliver the most appropriate prevention
  interventions for their local communities.<sup>xii</sup>

### Planning considerations

The concept of CPTED has been influential in the development of the *Safer Design Guidelines for Victoria*, later superseded by the *Urban Design Guidelines for Victoria*. The *Urban Design Guidelines for Victoria* set out the principles for designing safer public spaces.

## The proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime, and an improvement in the quality of life.<sup>xiii</sup>

Under the *Planning and Environment Act 1987*, one of the matters which a local authority may consider before determining a planning application is 'any significant social and economic effects of the use or development for which the application is made'. While this is not mandated consideration of CPTED principles in the assessment of new proposals can improve the social, economic and environmental outcomes and promote positive use of public spaces. Social effects are not defined in *the Planning and Environment Act 1987* but typically include effects of a proposal on:

• the demand for or use of community facilities and services.

Cardinia Shire Council

- access to social and community facilities.
- choice in housing, shopping, recreational and leisure services.
- community safety and amenity.
- the needs of particular groups in the community, e.g. older people.xiv

The systematic and regular CPTED assessment of public places and new developments can lead to increased actual and perceived safety. It can also provide an evidenced based decision framework for planned expenditure and infrastructure such as CCTV and lighting to assist in managing community expectations.

## **Crime Prevention Through Environmental Design approach**

### What is CPTED?

CPTED is a multi-disciplinary approach of crime prevention that focuses on design, planning and the management of built and natural environments. CPTED strategies aim to reduce victimisation, deter offender decisions that lead to criminal acts, and build a sense of community to increase ownership over spaces to reduce crime, and minimise fear of crime.

Crime Prevention Through Environmental Design, (CPTED), provides the process for analysing and assessing crime and security risks to guide development, urban design, site management and the use of the built environment in order to prevent and reduce crime and the fear of crime, and to promote and improve public health, quality of life and sustainability.

International Standard for CPTED. January 2021

The public domain can be designed to discourage criminal activity by ensuring there is more chance for offenders to be seen, challenged or caught; reducing opportunities for criminal activity; and creating the impression that more effort is required to commit a crime, with limited rewards. Aspects such as poor lighting, amenity, visibility, and wayfinding, limited natural surveillance and patronage may present greater opportunities for crimes to occur. CPTED provides strategies for urban designers, planners, landowners and public space users to contribute to crime prevention and increase perceptions of safety. CPTED has a major influence on crime prevention policy and practice in Australia as in other parts of the world, and a number of state, territory and local governments now have specific planning policies that incorporate CPTED principles or guidelines.<sup>xv</sup>

### **CPTED** principles

Spaces that are inviting and appealing, have good lighting, clear vison, and a sense of ownership by the community can help people to feel safe, and prevent crime. All space, even well planned and well-designed areas need to be effectively used and maintained to maximise community safety. Places that are infrequently used are commonly abused.<sup>xvi</sup>

The principles of CPTED are designed to inform the approach to different built environments to reduce or remove the incidents of crime. They include:

- 1. Surveillance
- 2. Access control
- 3. Target hardening
- 4. Territorial reinforcement
- 5. Management & Maintenance

The CPTED principles outlined in this policy scope are not rules or universal solutions for every situation. Instead they focus attention on key issues for consideration in relation to the needs of

Cardinia Shire Council

each local setting. Interventions should be considered in terms of risk, cost effectiveness and community benefit.

### Principle 1: Surveillance

Natural and technical surveillance in shared areas reduces the opportunity for crime to occur. Effective surveillance allows clear sightlines between public and private areas and provides clear visibility and understanding of what people are doing within the space, deterring 'would-be offenders' from committing crime. Buildings adjoining a public space should maximise the potential for passive surveillance into that public space.

From a design perspective, effective surveillance is achieved by:

- positioning public services in high traffic areas
- providing clear sightlines between land use interfaces
- avoiding blind spots in communal areas
- providing opportunity for natural surveillance in communal and public areas
- designing fences be low in height or visually permeable
- installing lights in public places that consider the reflectivity of surrounding materials
- increasing opportunity for natural lighting into communal areas
- maintaining landscaped areas
- appropriate selection of plant species
- strategic placement of closed circuit television (CCTV) aligned with consideration to lighting and use of spaces.

### **Principle 2: Access control**

Access control limits the opportunity for crime by taking steps to clearly differentiate between public and private spaces. The location and materiality of exits, fencing, lighting and landscaping can attract, direct and restrict the movement of pedestrians reducing the opportunity for crime.

Effective access control is considered by:

- clearly defining location of building entries
- providing clear entry and exits points
- deliberate consideration to the lighting of pathways intended for use after daylight, indicating its intention for use
- effectively positioning vegetation to direct and deter unwanted access to specific areas
- physical barriers to prevent unauthorised entry
- thoughtful and deliberate design of public spaces that attract activity at specific times
- limiting access to loading or service areas
- selecting physical elements (doors, walls, windows etc.) to prevent unauthorised access to an area
- locating pedestrian pathways to direct movement to authorised spaces only
- positioning clear signage in parking areas to avoid unintentional or illegal use.

### **Principle 3: Target Hardening**

Target Hardening is a long-established crime prevention technique that includes the installation of physical security to increase the effort and risk of committing a crime at a location. It includes the installation of fences, gates, locks, security personal and can be considered in the broader review of access control.

Cardinia Shire Council

### **Principle 4: Territorial reinforcement**

A feeling of individual and community ownership of the public space and the associated built environment should be promoted to encourage a level of shared responsibility for its security Territorial reinforcement aims to instil a feeling of ownership between users and the spaces occupied to encourage a sense of responsibility for their surroundings to positively contribute to crime prevention. Uncertainty of ownership can reduce responsibility and increase the likelihood of crime and antisocial behaviour going unchallenged. Alternatively, when responsibility and ownership are high, there is a feeling that crime is more likely to be detected and responded to. Sense of ownership is closely linked to the overall quality and maintenance of a place. Territorial reinforcement promotes social control through increased definition of space and improved proprietary concern.

The design of a space can achieve territorial reinforcement by:

- · having clear and direct transitions between public and private areas
- creating distinct spaces which visually illustrate a sense of ownership and dissuade unauthorised access and use.

### **Principle 6: Management & Maintenance**

Public space and surrounding structures should be designed and managed to encourage people to be in the area. Public places that are managed, maintained, clean, and immediately repaired when needed encourage active legitimate use. This principle can often be described as an expression of ownership and therefore is intrinsically linked to territorial reinforcement.

Space management can be achieved by:

- Creating reliable and regular maintenance schedules and systems.
- Prompt removal of graffiti and vandalism.
- Replacing burned out lighting.
- Design places with attractive, user-friendly sturdy materials and fittings that are not removable.
- Employ regular rubbish removal and maintenance of lighting, signage, landscaping, equipment and other elements of the public space. 4
- Encourage and facilitate the rapid reporting of safety risks, anti-social behaviour, or damage in the space. For example, by having signage with up-to-date contact details.
- Implement a rapid response to cleaning, repair or replacement of infrastructure that is damaged.
- Considering a selection of materials that mitigate the opportunity for vandalism including the design of blank walls.
- Design and manage with activation in mind
- Activating spaces through programs and events
- Promoting pride and a sense of place.

## **Embedding the CPTED approach**

Safety is a fundamental human right and is essential to the wellbeing of community. It is also a key outcome of *Cardinia Councils Liveability Plan 2017-2029*. Safety is determined by a range of complex environmental, social and economic factors. No one organisation can solve complex safety issues in isolation. Community safety is the responsibility of federal, state and local governments, community service organisations, businesses, landowners, operators and community members. Building a safe community is multifaceted and requires a coordinated, whole of community approach to respond effectively to local and regional issues.

Cardinia Shire Council

### **Roles and responsibilities**

CPTED and wider crime prevention solutions are more effective if state and local government work in partnership with communities, businesses and service organisations. The nature and scale of partnerships to promote safety from crime will vary according to local circumstances. The key partners include the following agencies.

### Federal and state governments

Federal and state governments are responsible for law and order, public health, social housing, public transport and emergency management. Victoria Police set the priorities for crime prevention and community safety, and lead on responses to these issues in Cardinia Shire.

### Local government

Cardinia Shire Council is responsible for using regulatory functions to promote and maintain safety in the community. This includes:

- Directly managing, waste, graffiti removal, street lighting, footpaths, cycle lanes, parks, parking and community recreational spaces in public areas and community facilities.
- Using planning controls to ensure the safety of buildings and infrastructure, and regulate their use, for example, licenced venues.
- Managing public events and public art.
- Promoting responsible pet ownership.
- Establishing outdoor alcohol restrictions in partnership with Victoria Police who are responsible for enforcing alcohol bans.

As outlined in the Australian Government's *Protecting Crowded Places from Terrorism Strategy* 2017, owners and operators of crowded places have the primary responsibility for protecting their sites from terrorism and planned acts of harm.

In addition to regulatory responsibilities, Cardinia Shire Council develops policies, strategies and programs that strengthen the community to prevent crime, injury and ill-health, and foster positive social change.

### **Residents and community interest groups**

Maintaining a safe community is a shared responsibility. Residents, local traders and community service providers are experts in determining the best solutions for issues affecting the Cardinia Shire community. Individuals can directly improve safety by respecting the public space, disposing waste appropriately, managing pets responsibly, being courteous toward fellow community members and reporting crime and damaged public assets. They can also participate in community safety audits (see page 11) and provide feedback through community meetings and proactive reporting to Council.

### Landowners and operators

Owners and operators have the primary responsibility for protecting their sites, including a duty of care to take steps to protect people that work, use, or visit their site from a range of foreseeable threats. In the case of crowded places this includes risk of terrorism.

Owners and operators are required to undertake the Australian Government's *Crowded Places Self-Assessment*. This self-assessment tool helps owners and operators of crowded places to understand how attractive their location may be for a terrorist to attack. It then provides guidance on what steps to take next. The risk is determined based on:

- the location is symbolic historical, iconic, religious, cultural or political
- the location attracts a large number of people at any one time
- people gather at the location on a predictable basis
- the density of people at the location is high
- the location, event and/or likely attendees has significant social importance for the nation, state
  or territory. Noting a Christmas parade or a large event to support victims of a natural disaster
  are both considered examples of crowded places that have social importance.<sup>xvii</sup>

Cardinia Shire Council

Crime prevention through environmental design – Policy scope

#### **Private sector developers**

Urban designers, planners, architects and landscape architects can contribute specialist knowledge to help achieve CPTED, both in new developments and redevelopment projects.

### **CPTED** methodology

A successful CPTED approach is appropriate if it recognises the designated use of the space and defines the crime problem incidental to, and the solution compatible with, the designated use. It incorporates crime prevention strategies that enhance (or at least do not impair) the effective use of the space.<sup>xviii</sup> This requires consideration of; local crime statistics and police intelligence, consideration of socio-economic profile; and site-specific information collected through a desktop assessment, site inspection or community safety audit.

#### **Desktop assessment**

A desktop CPTED assessment is generally used for a low to medium risk development proposal using the available information through the development application, site maps and discussion with the applicant. The site is assessed using CPTED principles and a checklist of questions pertaining to improving safety of the development (see Appendix 2). Different developments will warrant further questions, e.g. Licensed premises will need to consider security personal, opening hours and proximity to other sale or consumption of liquor venues.

### **Site inspection**

A site inspection is the process by which professionals and specialists assess a site by applying CPTED principles, to determine the factors that are impacting on the actual and perceived safety of that site for potential users. It also involves the input and analysis of a broader range of data that should include an exploration of the wider social, economic, and environmental issues. Recommendations for improvements to the safety of the area are based on this assessment and CPTED principles. A site assessment may include several site visits to assess and investigate various design aspects of the area. It can also include a subjective process of assessment involving multiple community and professional stakeholders known as a safety audit.

### Safety audit

A safety audit is a practical way to assess the actual and perceived safety of an area. It involves representatives of various sectors of the community assessing a site to identify those factors that impact both negatively and positively on their feelings of safety. It typically involves a group of people walking around a defined area, with each participant writing their individual feelings and observations down for later analysis. A safety audit is generally conducted at differing times of the day and night using the same groups or individuals. Outcomes from a safety audit can include suggestions of practical solutions for issues that are recognised as having a negative impact on safety. Participants are requested to report/comment on actual safety risks (trip hazards, discarded waste, assets in disrepair etc) and perceptions of safety (the look and feel of a place). This information is then categorised into issues and actions using CPTED principles to inform actions for landowners, managers and space users.

A safety audit allows for the detailed subjective interpretation of the environment from the perspective of user groups (residents, women, LGBTIQ+, youth, people with disabilities), who may see an area differently from professionals. Safety audits are generally led by local governments in partnership with police, residents and local businesses.

Figure 1 provides an overview of decision making in determining the type of CPTED assessment required depending on the risk and impact of the site or proposal.

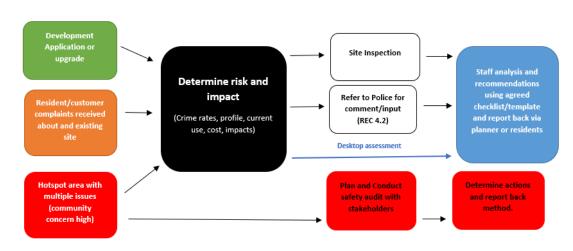


Figure 1. CPTED analysis diagram

Following an assessment of a site or proposal issues and actions are identified to determine interventions to increase the actual and perceived safety of the location. Examples of possible CPTED interventions by stage are outlined in the table below, noting this is not an exhaustive list.

Figure.	2
i igui ci	~

Stage	Strategies	Examples
Planning	Community assessment	Understand the socio-economic profile and crime trends of the area, regularly review the circumstances of crime to identify change, and the effectiveness of applied CPTED systems in operation and opportunities for improvements.
	Integrated and legible planning design	Design environments to make them easy to navigate. Take advantage of new or existing manufactured or natural features (e.g. rivers, hills, public squares, important civic buildings) both to create landmarks to aid legibility and to make environments of special quality and the focus of pride.
	Reduce vulnerability	Minimise/ avoid entrapment areas and blind spots. Issues in existing space may be addressed with alternative methods of observation for users (mirrors, lighting, maintenance). Design and management of places should provide a variety of routes to the destination and ways to avoid potential or actual problems.
	Urban greenery	Increase green spaces and public greenery. Well maintained greenery can increase activation and sense of safety.
	Lighting and CCTV	Strategic placement of CCTV and lighting
	Protecting crowded places	Mitigating risks of planned acts of harm at high risk locations through the design and implementation of security controls.
Design	Visibility	Buildings adjoining a public space should maximise the potential for passive surveillance into that public space. Consider, landscaping, building heights, lighting type, illumination of pathways and facilities, maximising natural surveillance, e.g. large glass windows
	Access Control & Target hardening	Entry barriers, walls, fences, gates, consideration of mailbox placement, vehicle access and mitigation, locks and use of security.
	Territoriality	Clearly distinguish access from public space into private space, Creatively use built and landscaping features like plants, changes of surface material and texture, changes of level, artwork, signage, low walls, seating and the like to define movement areas and delineate borders.
	Aesthetic Design	Public art, decorative lighting, and other elements to create a positive area image.

Cardinia Shire Council

	Inclusive design	Co designing spaces with women, people with disabilities, Aboriginal and Torres Strait Islander communities and other underrepresented groups to create welcoming and functional spaces.
	Effective Materials & Technology	Design places with attractive, user-friendly sturdy materials and fittings that are not removable. Integrate smart devices e.g. pedestrian counters, air quality monitors, public emergency systems, two way communication devices and smart lighting,
Management and	Upkeep and maintenance	Timely repairs, regular cleaning of streets & parks, greenery upkeep and rubbish & graffiti removal.
Maintenance	Public space management	Management of outdoor alcohol restrictions, timed access to facilities, CCTV monitoring, consistent public messaging and communications, and targeted ranger patrols.
	Social Programs	Support programs and links to services in place for vulnerable communities
	Space Activation & Ownership	Planned programs and events to increase use of public space and facilities. Promote a sense of pride in the community's public assets and encourage community participation and ownership over spaces where possible, e.g. community gardens.

*Refer to Section 7 – Toolkit – Objectives and Design Choices within CPTED Policy for further guidance.* 

### Financial implications

Crime prevention requires decisions regarding the use of inputs and how these inputs translate into the most effective and sustainable outcomes. The choice of intervention will be influenced by factors including, but not limited to, budget, the crime problem being addressed, the environment in which the crime is taking place, social and ethical considerations, and judgements about the relative effectiveness of alternative interventions.<sup>xix</sup> Many options within existing budgets can contribute to crime prevention efforts including asset maintenance, lighting, landscaping and cleansing. The following outlines options to assess the costs of a specific crime prevention intervention.

### **Cost-benefit analysis**

Cost-benefit analysis compares the benefits of an intervention to a stakeholder with the costs to that stakeholder to help determine the value of the intervention, i.e., is it a worthwhile activity? This approach places benefits and costs in comparable terms. Benefits that cannot be expressed as a monetary value cannot be compared and are omitted. Analysis is often undertaken from the perspective of the broader community. Costs and benefits analysis in crime prevention involves calculating the net present value of the costs of crime (consequences) versus the project costs (programme, intervention, measures taken against crime) in a well-defined period. The result (benefits) of crime prevention (monetary/economic effects) should be a drop in the costs of crime.<sup>xx</sup>

### **Cost analysis**

Total costs include 'direct costs' (including 'variable explicit costs,' such as staff and supplies and 'fixed explicit costs,' such as space and utilities); 'indirect costs' (such as overheads including administrative costs); and hard to-measure 'intangible costs,' (such as inconvenience or fear of crime). <sup>xxi</sup>

### Counting the costs of crime in Australia

In 2003 the Australian Institute of Criminology (AIC) published a paper on some of the major costs for a range of offences. In this paper the number of crimes is estimated by using a 'multiplier' (to correct for the difference between police figures and crime victim survey figures). The costs of crime are calculated by using several studies, for example on medical costs, lost output, intangible costs and the transfer of resources. For each type of crime, a total and the costs per individual case are calculated. Fraud was the costliest crime, followed by violent crime (homicide, assault and sexual assault) and burglary then drug abuse.<sup>xxii</sup>

Cardinia Shire Council

### Example cost-benefit analysis formula

Costs of crime (cC <sup>5</sup> ) before the crime prevention project <sup>6</sup>	cC1
Costs of Crime after the crime prevention project has run <sup>7</sup>	cC2
cC1 - cC2 = B (benefits of the crime prevention project)	

### The Manning cost-benefit tool

To help practitioners make more accurate cost benefit assessments of their interventions, a tool has been developed by the Commissioned Partnership Programme for the What Works Centre for Crime Reduction in the UK. The Manning Cost-Benefit Tool (MCBT) has been developed by Professor Manning, and Dr Gabriel Wong from the Australian National University with assistance from Professors Shane Johnson and Nick Tilley (UCL) co-funded by the UK College of Policing and the Economic and Social Research Council (ESRC). The MCBT allows for the calculation of cost-savings, cost-effectiveness, cost-feasibility and cost-benefit ratios as well as net returns on investment.<sup>xxiii</sup> The tool is available online: <a href="https://csrm.cass.anu.edu.au/research/projects/manning-cost-benefit-tool">https://csrm.cass.anu.edu.au/research/projects/manning-cost-benefit-tool</a>

### Steps in preparing a cost-benefit analysis

The following table adapted from the from the Australian Government Cost–Benefit Analysis Guide outlines the key steps in preparing a cost benefit analysis. xxiv

Step	Action
1	Specify the set of options
2	Decide whose costs and benefits count
3	Identify the impacts and select measurement indicators
4	Predict the impacts over the life of the proposed regulation
5	Monetise (attach dollar values to) impacts
6	Discount future costs and benefits to obtain present values
7	Compute the net present value of each option
8	Perform sensitivity analysis
9	Reach a conclusion

For a detailed breakdown of steps visit <u>https://www.pmc.gov.au/resource-centre/regulation/cost-benefit-analysis-guidance-note.</u>

### Limitations of cost-benefit analysis

Cost-benefit analysis for situational crime prevention is an emerging area for practitioners and has not been widely adopted among local governments or state government agencies in Australia. This is largely due to the complexity of measuring 'what didn't happen' as a result of an intervention. It is also because (CBA) requires a rigorous evaluation framework and this can be difficult to apply in the context of opportunistic environmental crime.

Further to this, not all costs and benefits are quantifiable. For example, a simple cost-benefit analysis of an anti-burglary intervention would measure the cost of the intervention (e.g. improved lighting, better locks, community campaign, etc.), and subtract this from the financial benefit of the

```
Cardinia Shire Council
```

<sup>&</sup>lt;sup>5</sup> The symbol cC stands for 'cost of Crime'. The symbol C (see formula) stands for the project cost.

<sup>&</sup>lt;sup>6</sup> Period of e.g. a year before the start of the project

<sup>&</sup>lt;sup>7</sup> Period of e.g. a year after the project.

improved burglary rate. It does not measure the cost of environmental damage (e.g. more power for lighting), or the benefit of increased feelings of safety due to the lower victimisation rate. It is difficult to determine the monetary costs to victims, community and society in terms of the impact of crime within the resources and practice of a local government operational context. In addition, the crime measure used to quantify the success of a program is often dependant on crimes reported to Police this can be significantly influenced by the nature of the crime, the location, the availability of a witness to the crime and willingness to report.

This report does not recommend the application of cost-benefit analysis in a CPTED consideration due to the complexity and cost involved in the assessment likely exceeding the effort and cost of the CPTED intervention. CPTED treatments need to be practical, balanced and financially realistic. It is highly probable that measures costing hundreds of thousands of dollars, or more would be unfeasible if crime risk at a site was low. When risk is high, and the cost of reduction measures is low, appropriate measures can be recommended/implemented. If risk however is low and reduction costs are high, then measures are likely to be financially unviable. Judgement is required between these two extremes. The assessment should consider what measures can be taken within existing budgets and what measures exceed budget and if the risks warrant the investment based on impact to community, costs of repair or management and community concern.

### Conclusion

CPTED provides strategies for urban designers, planners, landowners and public space users to contribute to crime prevention and increase feelings of safety. The application of CPTED can contribute to the prevention of crime and antisocial behaviour, increase use of public space, improve actual and perceived safety and contribute to wellbeing and economic outcomes for community and business. The benefits for the broader community while not easily quantifiable in financial terms have demonstratable value in contributing positively to the look and feel of Council owned and managed assets.

Under the *Planning and Environment Act 1987* local councils have a responsibility to design public spaces for the public benefit this includes consideration of the social and economic impact. While CPTED is not mandated under current planning legislation the *Urban Design Guidelines for Victoria, 2017* set out the principles for designing safer public spaces and outline how consideration of safer design principles can improve the social, economic and environmental outcomes and promote positive use of public spaces.

The implementation of CPTED requires a basic understanding of the concepts from operational and strategic teams responsible for the design and management of public spaces. Key teams will include planning, greening, asset managers, cleansing, community safety professionals and community development teams. A successful CPTED assessment requires consideration of; local crime statistics and police intelligence, consideration of socio-economic profile; and site-specific information collected through a desktop assessment, site inspection or community safety audit.

A summary of recommendations incorporating priorities identified through the internal CPTED working group outlines key actions and activities for implementing a CPTED approach including:

- 1. Development of a CPTED policy and implementation guidelines for Cardinia staff
- 2. Continue to improve community safety by evaluating CCTV and lighting and undertaking safety audits and site inspections
- 3. Maintain the positive look and feel of public spaces through ongoing cleansing, graffiti removal, amenity patrols, maintenance and planned activations.
- 4. Use CPTED principles to drive decision making and response.
- 5. Track crime trends and community perceptions of safety to identify priorities and emerging risks.
- Continue to maintain a high standard of amenity, ensure compliance with planning requirements and local laws, and support public health and safety through partnership and continuous service improvement.

Cardinia Shire Council

Crime prevention through environmental design – Policy scope

CPTED treatments including maintenance, public space activation, way finding and creating natural surveillance at design stage can largely be delivered within existing budgets if applied in a coordinated and strategic way. Embedding the CPTED approach into Council operations could enable the allocation of resources in existing budgets to strategically improve and address crime and safety risks across Cardinia Shire. By undertaking CPTED assessments regularly areas of high risk could be identified to inform prioritisation of infrastructure including CCTV, lighting, additional maintenance, landscaping, or programming that falls outside of existing budgets or planned expenditure.

## Recommendations

The following table sets out a series of recommended actions to embed and utilise CPTED at Cardinia Shire Council to increase actual and perceived safety and reduce associated costs of crime. These recommendations identify activities for Council to explore and investigate towards that aim. Timeframes are shown indicatively and would be considered in relation to responsibilities and future work plans.

Action	Activities	Timeframe
1. Develop a CPTED policy and implementation guidelines for Cardinia staff.	<ul> <li>1.1 A key action of the Council plan planned for delivery in 2021-2022 is to review and update the Safer Communities Strategy to incorporate Crime Prevention Through Environmental Design (CPTED). This would be updated to directly link and refer to the CPTED Policy and consider consistency and hierarchy between strategy and policy.</li> <li>1.2 Update CPTED Audit checklist/templates and procedures.</li> <li>1.3 Circulate CPTED Policy to relevant internals (co-ordinators/team leaders and Human Resources) to incorporate its considerations into</li> </ul>	Short Short Short-Medium
	personal development plans and job descriptions as applicable. 1.4 Provide CPTED training to relevant staff.	Short (in progress)
2. Continue to improve community safety by evaluating CCTV and lighting and	2.1 Regular audits of Council owned spaces with consideration to crime hotspots to facilitate an assigned budget to fund programming or capital works required to reduce risk of crime.	Medium-Long
undertaking safety audits and site inspections.	<ul><li>2.2 Develop a lighting policy.</li><li>2.3 Update the CCTV policy.</li></ul>	Medium Short-Medium
mopoetioner		
3. Maintain the positive look and feel of public spaces through ongoing cleansing, graffiti removal, amenity patrols, maintenance and planned activations.	<ul> <li>3.1 Systems of both regular and reactive maintenance and repair are implemented to maintain the quality of council assets and places.</li> <li>3.2 Conduct regular auditing of CPTED issues in the built environment in response to identified risk and incidents of crime.</li> <li>3.3 Project Management Framework updated to include CPTED principles as a key consideration.</li> </ul>	Medium Short (currently in process) Short (currently in process)
	3.4 Actively "place manage" to encourage or deliver legitimate activities and uses into the community's places.	Short (currently in process)
4.Crime Prevention Through Environmental	4.1 Utilise safer design principles in the design of public spaces.	Current and commitment is ongoing.

Cardinia Shire Council

Crime prevention through environmental design – Policy scope

Design principles drives decision making and response.	<ul><li>4.2 Referral of specific planning applications to VicPol for a CPTED assessment. See Appendix 1.</li><li>4.3 Explore opportunity to update Cardinia's Planning Scheme to incorporate CPTED Principles as a planning consideration.</li></ul>	Current and commitment is ongoing. Medium-Long
5.Track crime trends and community perceptions of safety to identify priorities and emerging risks.	<ul> <li>5.1 Procure by suburb crime stats quarterly for Cardinia Shire Local Government area and provide a summary of trends and issues to key operational and strategic staff and Councillors.</li> <li>5.2 Regular meetings with Police and other stakeholders to identify hotspot areas and emerging trends.</li> <li>5.3 Maintain a centralised vandalism record for annual analysis of locations, cost of repair and types of property damage.</li> </ul>	Short-Medium Current and commitment is ongoing Long
6. Continue to maintain a high standard of amenity, ensure compliance with planning requirements and local laws, and support public health and safety through partnership and continuous service improvement.	<ul> <li>6.1 Review the public drinking restrictions associated with streets and footpaths.</li> <li>6.2 Review liquor licences and planning permit applications relating to licenced premises referred from the Victorian Government.</li> <li>6.3 Create a positive social and physical environment around licenced premises and events to attract patrons and support people to feel and be safe.</li> <li>6.4 Track and monitor discarded syringes in the public domain and monitor the use of public needle disposal bins.</li> </ul>	Short-Medium Current and commitment is ongoing Current and commitment is ongoing Short-Medium

### Glossary

### Access control

Access control limits the opportunity for crime by taking steps to clearly differentiate between public and private spaces. The location and materiality of exits, fencing, lighting, and landscaping can attract, direct, and restrict the movement of pedestrians reducing the opportunity for crime.

### CCTV

Closed Circuit Television (CCTV) A surveillance system in which a number of cameras are connected through a closed circuit. The footage taken by the cameras is sent to a television monitor or recorder. CCTV systems consist of cameras, monitors, recorders, interconnecting hardware and support infrastructure.

#### **Criminal incident**

A criminal event that may include multiple offences, alleged offenders and/or victims that is recorded by police on a single date and at one location.

### **Crime prevention**

Crime prevention refers to the range of strategies that are implemented by individuals, communities, businesses, non-government organisations and all levels of government to target the various social and environmental factors that increase the risk of crime, disorder and victimisation. Situational crime prevention aims to change contextual factors to reduce opportunities for offenders to engage in criminal behaviour.<sup>xxv</sup>

### Crime Prevention Through Environmental Design (CPTED)

The process for analysing and assessing crime and security risks to guide development, urban design, site management and the use of the built environment in order to prevent and reduce crime and the fear of crime, and to promote and improve public health, quality of life and sustainability. This can also be referred to as 'safety by design' or 'designing out crime'.<sup>xxvi</sup>

#### **Community sharps**

Community sharps are needles, syringes and lancets that are used to administer medications and drugs outside a clinical setting.

### **Entrapment areas**

These are small physically confining spaces, shielded on three sides by barriers such as walls or landscaping, which offenders can use to physically or psychologically surround and entrap people. Entrapment spots include loading zones, leftover spaces between buildings, clearings within landscaping and recessed entrances. Entrapment areas are particularly dangerous when located close to well-travelled routes and movement predictors.<sup>xxvii</sup>

#### **Protective security**

The Protective Security Policy Framework (PSPF) helps Australian Government entities to protect their people, information and assets, both at home and overseas. It sets out government protective security policy and supports entities to effectively implement the policy across the following outcomes: security governance, information security, personnel security, physical security. Available online: <a href="https://www.protectivesecurity.gov.au/">https://www.protectivesecurity.gov.au/</a>

### Safer by design principles

See CPTED

## Appendix 1 CPTED referral table

The following tables outlines a list of developments that may need to be considered by specialists within and outside of Council, acknowledging that some of the developments would be managed at state level rather than council level and would simply be referred to Council for comment.

Type of development		Specialist to refer to:		
	Council Social Policy Planner	Council Safety Officer	Victoria Police	
Hospitals- mental health units		<b>~</b>	<	
New public toilets or upgrades		~		
New railway stations or stations with significant upgrades	~	~	~	
Recreation facilities	~	~	~	
Restricted Premises e.g. tattoo parlours		~	~	
Clubs/hotels/pubs/large bottle shops/ licensed premises (including extended hours, change of use, gaming rooms etc) & events that relate to a licensed premises or where alcohol is available for consumption.		~	~	
Petrol stations	~		~	
Brothels or sex service premises		~	~	
Major commercial precincts or retail premises	~		~	
New public housing estates or significant upgrades to existing estates	~	~	~	

## Appendix 2 CPTED assessment report template

### 1. Introduction

What is the proposed development? **OR** describe the existing site.

### 2. Site analysis

Describe the physical surrounds of the site (e.g. what is to the north – residential houses, industrial area etc – the east, west, south). Is it enclosed by bush, on the side of a steep embankment, open fields etc? Any notable factors in the topography of the site.

### 2.1 Crime opportunity

Is the proposed or existing development susceptible or impacted by certain crimes?

Is there existing evidence of crimes or anti-social behaviour (e.g. vandalism, graffiti, litter, discarded syringes or alcohol bottles) at the site, or in the immediate area around the site?

What (if any) community concern has been raised in relation to the site?

Refer to Victoria Crime Statistics Agency to provide a summary of notable crimes in the area: <u>https://www.crimestatistics.vic.gov.au/</u>

### 3. Crime Prevention Through Environmental Design (CPTED)

CPTED reduces crime opportunities by increasing the risk to offenders, increasing the effort required to commit crime, reducing opportunities for excuse making (e.g. spatial ambiguity is commonly used by burglars to justify trespassing), and reducing the likely rewards of criminal behaviour.

There are four broad principles of CPTED. The CPTED assessment needs to address each of these principles, providing information as to how the aspects of the design (e.g. Australian Standards, timeframes in days and hours) or proposed management practices will help to reduce the risk of crime.

The principles are as follows.

### 3.1 Surveillance

People feel safe in areas when they can see and interact with others. There are three types of surveillance.

- Natural surveillance focuses on the orientation of buildings and the strategic use of windows and entrances, street design, landscaping, building layout, optical permeable fencing and natural lighting.
- 2. Organised surveillance is often used to enhance the capability of on-site or nearby guardians (e.g. security guards).
- 3. Technical surveillance is achieved through mechanical/electrical measures such as CCTV, mirrored building panels and lighting.
- Are there natural surveillance opportunities (e.g. from houses across the street, from passing traffic etc)?
- What strategies have you employed to aid surveillance?
- What opportunities are there for surveillance into and around the centre?
- How does the landscaping aid or inhibit the surveillance? What strategies are in place to address this?
- Is there any organised surveillance planned?
- Are you using any technical surveillance strategies (e.g. automated / motion detection or timed lighting around the building, car park) will this enable surveillance from the street and surrounding areas?

### 3.2 Access control

Access control uses physical and symbolic barriers to restrict, encourage and channel pedestrian and vehicle movements. They minimise the opportunities for crime and increase the effort required to commit crime. By making it clear where people can and cannot go, it becomes difficult for criminals to reach potential victims and targets. Access control measures include garden strips, ground markings, fences, walls, boom-gates, and target hardening measures such as locks and alarms.

- What measures are in place to make it obvious as to what areas are "out-of-bounds"?
- Are the building entries obvious and clearly identifiable?
- Are the access routes to the entrances obvious (e.g. from the car park to the building)?
- What measures are in place to discourage access to the building after hours (locks, alarms, security patrols, window grills)?

### 3.3 Territorial reinforcement

Community ownership of public space sends positive signals to the community. Places that feel owned and cared for are likely to be used, enjoyed, and revisited. People are more likely to be protective of places with which they feel some connection or affinity.

Highlight what aspects of your development will increase territorial reinforcement of this site.

### 3.4 Space management

Space management is linked to the principle of territorial reinforcement. It ensures that space is well used and maintained, and involves the formal supervision, control and care of urban space. Strategies include activity coordination, site cleanliness, rapid repair of vandalism and graffiti, and the refurbishment of damaged physical elements.

- What management practices will be put into place to ensure that the site is maintained?
- How will vandalism and graffiti be addressed? Have mandatory timeframes been identified for removal of graffiti, repair / replacement of damaged external lighting?

### 3.5 Areas requiring additional consideration

Some areas of the proposed development may be particularly susceptible to crime e.g. entrances, car park, behind the building. In considering these areas, particular attention should be made to any crimes that the development may be particularly susceptible to.

- Are there any areas that will require special consideration (e.g. entry areas, car parks)?
- What design elements or management practices are to be employed to address crime concerns in these areas?
- How will the proposal address the particular crimes identified in Section 2.1 Crime Opportunity?

### 4. Recommendations

Once a CPTED analysis of the site and proposed development has been completed, recommendations that ensure the development is designed / contrasted to incorporate CPTED principles should be made.

- What specific design features have been identified to reduce likelihood of identified crime activity impacting on the development?
- How will the applicant ensure that CPTED strategies and initiatives are employed at the design and construction phases?

### 5. Conclusion

Briefly outline as to whether the proposed development will have an impact on crime (negative or positive) and reasons as to why.

### Appendix 4 PB Ronald Reserve: A CPTED case study

### 1. Introduction

PB Ronald Reserve is a major community facility within Cardinia Shire. The PB Ronald Reserve Master plan was last prepared in 2010. In September 2019, a new round of consultation was undertaken with the community to gain input into the redevelopment of the master plan in 2020.

An engagement plan was developed for the PB Ronald Reserve Draft Master Plan which took into consideration government restrictions for Covid-19. A comprehensive socially distanced community engagement was undertaken receiving over 228 points of data for Council's consideration. The draft master plan was prepared based on the feedback from 2019 and was presented for community consultation in June 2020. It is proposed that the PB Ronald Reserve Master Plan be implemented over a 10-year period from 2020 to 2030. An initial CPTED assessment to inform the master planning process was undertaken in November 2020. The following is a summarised case study outlining CPTED considerations and recommendations for the reserve as an example of how the approach can be applied.

### 2. Site analysis

The reserve is located in the heart of Pakenham covering an area of 74,819 square metres. It is surrounded by residential houses and is adjacent to a retail precinct in Pakenham. PB Ronald Reserve (Anderson Street, Pakenham) is located near Pakenham's business district. The reserve includes open space, tennis courts, swimming pool, lawn bowling greens, a regional playground, fitness stations, skate park, barbecues, CFA running track, RSL memorial wall and cricket nets.

It is also home to the Pakenham Library and Hall, U3A, Pakenham Living and Learning Centre, community garden, SCOPE disability service and the RSL memorial walk. Regular annual events that are delivered at the reserve include the Pakenham Show, Yakkerboo Festival, ANZAC day and Memorial Day services. These events combined attract thousands of people to the site each year.

### 2.1 Crime opportunity

Pakenham experiences the highest recorded incidents of Crime in Cardinia Shire LGA. For the year ending 2021 there were 3,236 incidents of reported crime in the area. Of those, the top five incident categories were:

- 1. Steal from Motor Vehicle 332 incidents *down* from 413 in 2020.
- 2. Breech of family violence order 287 incidents up from 249 in 2020
- 3. Criminal Damage 220 incidents *down* from 321 in 2020
- 4. Other theft 183 *down* from 216 in 2020
- 5. Steal from Retail 173 incidents *down* from 253 in 2020

There were 365 incidents of public health and safety incidents in the period *up* from 0 in the previous year. This is related to breeches of Covid- 19 lockdown restrictions.

PB Ronald Reserve experiences ongoing vandalism to the site, in the financial year ending June 2021 this cost Council approximately \$6,456. Vandalism included incidents of fire, graffiti and property damage.

Community have raised concerns relating to the site through formal and informal feedback channels including requests for increased lighting, CCTV and toilet facility upgrades and improvements to pathways to reduce trip hazards.<sup>8</sup>

### 3. Crime Prevention Through Environmental Design (CPTED)

CPTED reduces crime opportunities by increasing the risk to offenders, increasing the effort required to commit crime and reducing the likely rewards of criminal behaviour.

Crime prevention through environmental design – Policy scope

<sup>&</sup>lt;sup>8</sup> Summary from the PB Ronald Reserve Consultation Report 2020.

Cardinia Shire Council

There are four broad principles of CPTED. This CPTED Assessment addresses each of these principles, providing information as to how the aspects of the design or proposed management practices will help to reduce the risk of crime. The principles are:

### 3.1 Surveillance

People feel safe in areas when they can see and interact with others.

The reserve provides passive surveillance opportunities as a result of the high foot traffic through the park to access the multi-functional facilities and open spaces. The master plan has outlined a series of upgrades to lighting in the park to improve surveillance this includes strategic lighting improvements along pathways, near the car park and close to facilities. Investigation into increased CCTV has also been considered in the master plan at the following proposed locations; Bowling club rooms, swimming pool, library, toilet and the LLINC building and garden.

### 3.2 Access control

Access control uses physical and symbolic barriers to restrict, encourage and channel pedestrian and vehicle movements. They minimise the opportunities for crime and increase the effort required to commit crime. By making it clear where people can and cannot go, it becomes difficult for criminals to reach potential victims and targets. Access control measures include garden strips, ground markings, fences, walls, boom-gates, and target hardening measures such as locks and alarms.

Several landscaping measures to create natural boundaries have been applied in the reserve, these include:

- 1. Pakenham Creek/Overland flow planted along edges to discourage park user access.
- 2. Landscape buffer to create break between skatepark and central green
- 3. Investigation of planted barriers to allow removal of existing fence by minimise conflict between cars and other park users, in particular near playgrounds.

Strategic design of pathways is used to make building entries obvious and clearly identifiable. The access routes are clear and wayfinding signage will be utilised to direct park users.

Given the high-profile events at the site each year a Crowded Places Assessment (see page 9 and 10) will need to be undertaken for each event by the operator in conjunction with Council and Police.

#### 3.3 Territorial reinforcement

Community ownership of public space sends positive signals to the community. Places that feel owned and cared for are likely to be used, enjoyed, and revisited. People are more likely to be protective of places with which they feel some connection or affinity.

The aspects of the development that will increase territorial reinforcement of this site include, multi age playgrounds, community gardens, sporting facilities, the library and Men's Shed. Findings from the consultation showed significant community ownership over the tennis courts, swimming pool and RSL memorial. This interest and use of public facilities can be fostered into creating community responsibility and management of the reserve.

### 3.4 Space management

Space management is linked to the principle of territorial reinforcement. It ensures that space is well used and maintained, and involves the formal supervision, control and care of urban space. Strategies include activity coordination, site cleanliness, rapid repair of vandalism and graffiti, and the refurbishment of decayed physical elements.

### 4. **Recommendations**

The master plan incorporates a number of design features that reduce the likelihood of crime and anti-social behaviour impacting the reserve. This includes improved lighting, design for passive surveillance, wayfinding, clear access and pathways and consideration for CCTV. Engaging young

Cardinia Shire Council

Crime prevention through environmental design – Policy scope

people and community members in the design of the space also increases ownership and capable guardianship.

Further recommendations for the management of the space include:

- Apply a regular schedule of maintenance of the reserve and agree mandatory timeframes for repair of assets or lighting.
- Install vandal resistant lighting where applicable.
- Lighting should be consistent and even to maximise visibility
- Identify areas of vandalism and investigate procurement of vandal resistant materials
- The installation of clear bins at event sites
- All carpark and building entrances should be well defined and clearly sign posted
- Consider dimmable lighting on timers to control lighting throughout different times of the evening.
- Encourage the use of streets, where lighting and passive surveillance provide a safer alternative.
- Only use paths through parks as lit links if it provides the only viable method of transport between streets or is the only link to public transport nodes.
- The lighting in a car park must conform to Australian Lighting Standards (REF: 1158.1,
- 1680, 2890.1).
- Install CCTV in the carpark area and at entrances rear building entry within the carpark.
- Introduce a public address system to assist with security and management of emergencies at large events
- Ensure the site, perimeters and immediate surroundings are well maintained and kept
- clear of rubbish and graffiti to create a sense of place and safety for users.
- Toilets should be regularly maintained and kept clean at all times.
- New toilets should consider automatic self-contained non gender specific models with disability access and parent changing facilities.
- Sharps bins should be available in all public toilets and serviced regularly.
- Graffiti removal regimes should be implemented which ensure graffiti is promptly removed
- Create an emergency procedure manual for all council owned and operated assets. Ensure all staff are aware of procedure and emergency routes. Ensure any lease holders have similar plans in place.
- Where possible building openings should be designed to overlook public places to maximise casual surveillance.
- Considered timed lighting at the skate park in determination of what is appropriate. Most skate parks are lit until 9pm in winter and 10pm in summer. Ensure a bin is located near the skate park as people tend to stay there for several hours and a build-up of waste can occur.

### 5. Conclusion

The proposed development will have a positive impact on increasing actual and perceived safety in the area. This will be achieved through the upgrades to facilities, lighting and installation of renewed landscaping

From the formal consultation, 63% of people did not support the draft master plan. This includes a large majority of people specifically referring to the removal of the tennis court. Outside of this objection, in general, the feedback received was supportive of the draft master plan and the future upgrades. The skatepark, ninja warrior upgrades, multi-use court and the additional tree planting was well received by young people. The carpark upgrade, parkour, open space, additional barbecues, CCTV and security provision, seating, lighting, and toilets were also highly supported. The cost of implementing the master plan over 10 years is \$ \$5,232,060 excluding GST.

### References

<sup>i</sup> International Standards Organisation. 2021. Security and resilience – Protective security – Guidelines for crime prevention through environmental design, ISO 22341:2021. Standards Australia.

<sup>ii</sup> Morgan, A, Boxall, H, Lindeman, K and Anderson, J, 2012. Effective crime prevention interventions for implementation by local government, AIC Reports Research and Public Policy Series 120. Australian Institute of Criminology (AIC).

<sup>III</sup> Morgan, A, Boxall, H, Lindeman, K and Anderson, J, 2012. Effective crime prevention interventions for implementation by local government, AIC Reports Research and Public Policy Series 120. Australian Institute of Criminology (AIC).

<sup>iv</sup> Cardinia Shire Council. 2017. Cardinia Shire's Liveability Plan 2017–29. Available online: <u>https://www.cardinia.vic.gov.au/info/20031/liveability\_health\_and\_wellbeing/242/our\_approach\_t\_o\_liveability\_health\_and\_wellbeing#:~:text=Our%20public%20health%20and%20wellbeing,%2C%20 work%2C%20play%20and%20age.</u>

<sup>v</sup> Crime Statistics Agency. Cardinia Criminal Incidents 2020-2021. Available online: <u>https://www.crimestatistics.vic.gov.au/crime-statistics</u>

<sup>vi</sup> Stafford, M, Chandola, T & Marmot, M 2007, 'Association between fear of crime and mental health and physical functioning', American Journal of Public Health, vol. 97, no. 11, pp. 2076–81.

<sup>vii</sup> Morgan, A, Williams, E, Renshaw, L and Funk, J, 2014. Northern Territory Safe Streets Audit, Special Report no. 5. Canberra: Australian Institute of Criminology

viii Cardinia Shire Council. 2017. Cardinia Shire's Liveability Plan 2017–29. Available online: <u>https://www.cardinia.vic.gov.au/info/20031/liveability\_health\_and\_wellbeing/242/our\_approach\_t\_o\_liveability\_health\_and\_wellbeing#:~:text=Our%20public%20health%20and%20wellbeing.%2C%20 work%2C%20play%20and%20age.</u>

<sup>ix</sup> Australian Bureau of Statistics (ABS) 2010, Australian social trends: Who's afraid? Feelings of personal safety, ABS cat. no. 4102.0, ABS, Canberra.

\* Cardinia Shire Council. 2017. Cardinia Shire's Liveability Plan 2017–29. Available online: https://www.cardinia.vic.gov.au/info/20031/liveability\_health\_and\_wellbeing/242/our\_approach\_t\_o\_liveability\_health\_and\_wellbeing#:~:text=Our%20public%20health%20and%20wellbeing,%2C%20 work%2C%20play%20and%20age.

<sup>xi</sup> Australian Government, 2017. Australia's Strategy for Protecting Crowded Places from Terrorism. Available online: <u>https://www.nationalsecurity.gov.au/Securityandyourcommunity/Pages/australias-</u> <u>strategy-for-protecting-crowded-places-from-terrorism.aspx</u>

<sup>xii</sup> Parliament of Victoria Drugs and Crime Prevention Committee, 2013. Inquiry into the application of safer design principles and crime prevention through environmental design, Final Report. Available Online:

https://www.parliament.vic.gov.au/file\_uploads/Drugs\_and\_Crime\_Final\_Report\_5gMLfDXw.pdf

xiii Crowe, T.D. 2000. Crime Prevention through Environmental Design, 2nd Edition. Pg46

<sup>xiv</sup> Planning Victoria. 2015. Planning and Environment Amendment (Recognising Objectors) Act 2015. Available online

Cardinia Shire Council Crime prevention through environmental design – Policy scope

Ordinary Council Meeting 20 June 2022

https://www.planning.vic.gov.au/\_\_data/assets/pdf\_file/0032/97187/AN63-Planning-and-Environment-Amendment-Recognising-Objectors-Act-2015.pdf

<sup>xv</sup> Australian Institute of Criminology. 2012. National Crime Prevention Framework. Available online <u>https://www.aic.gov.au/sites/default/files/2020-05/national-crime-prevention-framework.pdf</u>. Australian Institute of Criminology (AIC).

<sup>xvi</sup> Department of Sustainability and Environment (VIC) 2005, Safer Design Guidelines for Victoria, Department of Sustainability and Environment, Melbourne.

<sup>xvii</sup> Australia Government. 2017. Crowded places security audit. Available online: <u>https://www.nationalsecurity.gov.au/Media-and-publications/Publications/Documents/crowded-places-self-assessment-tool.pdf</u>

<sup>xviii</sup> Government of South Australia. 2001. Crime Prevention Through Environmental Design. Available Online: <u>https://www.police.sa.gov.au/\_\_\_data/assets/pdf\_file/0010/890065/Crime-Prevention-Through-Environmental-Design-CPTED.pdf</u>

<sup>xix</sup> Towards a smart cost-benefit tool: Using machine learning to predict the costs of criminal justice policy interventions, Manning, M., Wong, G.T.W., Graham, T., Ranbaduge, T., Christen, P., Taylor, K., Wortley, R., Makkai, T. and Skorich, P., 2018. Crime science, 7(1), p.12.

<sup>xx</sup> Soomeren, Paul & Wever, Jack. (2005). Review of Costs and Benefits Analysis in Crime Prevention Report to the European Commission, Directorate-General for Justice, Freedom and Security (Contract JAI/B/1/2003/05a).

<sup>xxi</sup> Economic analysis and efficiency in policing, criminal justice and crime reduction: What works? Manning, M., Johnson, S.D., Tilley, N., Wong, G.T.W. and Vorsina, M., 2016. Palgrave Macmillan UK.

<sup>xxii</sup> Mayhew P 2003. Counting the costs of crime in Australia. *Trends & issues in crime and criminal justice* no. 247. Canberra: Australian Institute of Criminology. Available online: <u>https://www.aic.gov.au/publications/tandi/tandi247</u>

<sup>xxiii</sup> Manning, M., Wong, T. W. G., & Vorsina, M. (2016b). Manning Cost–Benefit Tool. Available online: <u>http://csrm.cass.anu.edu.au/research/projects/manning-cost-benefit-tool.</u>

<sup>xxiv</sup> Department of the Prime Minister and Cabinet. (2016). Cost–benefit analysis guidance note. Available from: <u>https://www.pmc.gov.au/resource-centre/regulation/cost-benefit-analysis-guidance-note.</u>

<sup>xxv</sup> Morgan, A, Boxall, H, Lindeman, K and Anderson, J, 2012. Effective crime prevention interventions for implementation by local government, AIC Reports Research and Public Policy Series 120. Australian Institute of Criminology (AIC).

<sup>xxvi</sup> Security and resilience — Protective security — Guidelines for crime prevention through environmental design, 2021. ISO 22341:2021.

xxvii Queensland Government.2007. Crime Prevention Through Environmental Design. Part A: Essential features of safer places. Available Online: <u>https://www.police.qld.gov.au/sites/default/files/2018-08/CPTEDPartA.pdf</u>

Cardinia Shire Council

Crime prevention through environmental design - Policy scope



Record ID	Enter record ID		
Policy owner	Planning Strategy and Urba	Planning Strategy and Urban Design	
Adopted by	Please select appropriate	Please select appropriate	
Adoption date	Select date	Scheduled review date:	31/07/2024
Publication	Internal only - RMC		
Revision/version number	Version 1.0		

## **1** Purpose – what does this policy apply to?

The purpose of this policy is to improve safety and reduce crime by applying the principles of Crime Prevention Through Environmental Design (CPTED), to new developments, redevelopments, and the maintenance and management of public spaces and facilities within Council ownership.

# 2 Policy statement – what does this policy recognise and set out to achieve?

Council recognises that both crime and fear of crime have a serious impact upon the quality of life of residents, employees, and visitors to the area. This policy is intended to ensure the design and management of spaces can improve safety and reduce crime by applying the principles of Crime Prevention Through Environmental Design. It isn't intended to be prescriptive or act as a checklist but instead highlight a set of objectives and design choices to enable staff to make a considered decision within the scope of their own roles and responsibilities.

Crime Prevention Through Environmental Design provides the process for analysing and assessing crime and security risks to guide development, urban design, site management and the use of the built environment in order to prevent and reduce crime and the fear of crime, and to promote and improve public health, quality of life and sustainability.

## 3 Scope

This policy applies to Cardinia shire employees and officials, and any other persons undertaking planning, design, capital works or maintenance on behalf of Council. This Policy can be read in conjunction with the Cardinia Shire CPTED Policy scope background paper.

For funding and delivery, CPTED Principles and safety improvements are subject to council's endorsed budget and work program and advocacy may be required for new initiatives.

## 4 Who is responsible for implementing this policy?

There are a range of tasks completed on behalf of council which actively contribute towards compliance with CPTED principles. Council's design, planning, management and use of public space and community facilities incorporate CPTED in service delivery and asset management programs. The responsibility of this policy sits across all departments within Council and can be applied to everyday activities for significant community benefit.

Cardinia Shire Council Crime Prevention Through Environmental Design (CPTED) Policy

Business unit	Responsibility
Liveable Communities	Responsible for implementing a standard for both public and private landowners with consideration to CPTED principles. Day to day tasks include (and are not limited to) the assessment of planning applications, consideration of key strategies, and facilitating CPTED assessments and audits.
Infrastructure & Environment	Responsible for ensuring Council's facilities are managed, developed, and maintained. Day to day tasks can include activities such as and are not limited to graffiti and waste removal, landscape and lighting management.
Governance Facilities & Economy	Responsible for designing, developing, and managing projects in a manner considerate of CPTED principles.
Customer, People and Performance	Responsible for ensuring the appropriate onboarding of staff and training is prompted with consideration to CPTED principles.
Contractors	Responsible for considering CPTED principles in the design, planning and maintenance of public assets.

### Figure 1. Table of Responsibilities

## 5 Background

Cardinia Shire Council works closely with Victoria Police and other agencies to create a safe community, contribute resources and deliver responses to crime where appropriate. How public spaces are designed have a serious impact on perceptions of safety as well as actual opportunities for crime. When spaces are designed with consideration to user safety, it can reduce the likelihood of crimes being committed and promote social inclusion.

*Cardinia's Council Plan 2021-25* recognises the role Council's public spaces have in enabling positive interactions and connections with community. This policy is aligned to the *Urban Design Guidelines for Victoria, 2017* and *Cardinia's Planning Scheme* referenced at Clause 15.01-1S. The Policy is also informed by the *Cardinia Safer Communities Strategy 2017* (as updated from time to time).

## 6 Principles

The principles of CPTED are designed to inform the approach to different built environments to reduce or remove the incidents of crime. Consideration should be applied on how best to design spaces to suit the function, needs and use of the community and apply CPTED principles to increase safety.

CPTED is based on the following principles:

- 1. Surveillance
- 2. Access control
- 3. Target hardening
- 4. Territorial reinforcement
- 5. Management & Maintenance

The *Urban Design Guidelines for Victoria* set out the principles for designing safer public spaces and highlights the need to balance safety interventions with the functionality and accessibility of community spaces. CPTED principles must be balanced against other design objectives. This policy

Cardinia Shire Council Crime Prevention Through Environmental Design (CPTED) Policy

focuses on principles that can be readily implemented as part of planning, design, management, and maintenance of assets in the council area. Interventions should be considered in terms of risk, cost effectiveness and community benefit.

## 7 Toolkit - Objectives and Design Choices

The following presents a series of objectives paired with example design choices to consider when creating, auditing, or assessing Council's urban environments.

Decision makers need to determine the relevance of the objective and corresponding design choices in context to public open space and facilities. However, there may be alternative design solutions other than the design choices listed to ensure a wholistic response in relation to the site's environment.

This summary is informed by the *Urban Design Guidelines for Victoria, 201*7 and is not intended to be an exhaustive list. It does not cover infrastructure and conservation reserves that primarily exist to cater for natural ecosystems, habitats and water management.

### Lighting

Lighting performs a pivotal role in how an urban environment functions and supports the complimentary programming of signage and wayfinding treatments, movement of users and the identity of buildings and landmarks. In performing all these functions lighting provides an urban environment which is safe and inviting.

<u>Objective</u>: To ensure lighting (its luminance, location and fitting) deter crime prevention and support social inclusion and connectivity.

### Design choices:

- 1. Areas intended for use after daylight should be lit to allow appropriate levels of visibility for users.
- 2. Refer to Australian Standard of AS1158 to guide minimum lighting standard for pathways, streets and laneways in outdoor public areas.
- 3. Seek compliance with AS4282 'Control of the obtrusive effects of outdoor lighting' for lighting design.
- 4. Distance between lighting should be consistent and provide a lit connection from one illuminated area to another to guide users through spaces.
- 5. Faces of users along pathways should be clearly illuminated from a distance of 10-15 metres.
- 6. Placement of streetlights should be positioned to illuminate pedestrian pathways, roads, and potential entrapment spaces.
- 7. Lighting should consider the placement, size, and spread of surrounding vegetation to ensure areas used by pedestrians aren't shadowed or create opportunity for entrapment.
- 8. The design of lighting should be vandal resistant and made difficult to break.
- 9. Proximity of surrounding element (walls, balconies, verandas etc) should be setback from streetlighting to deter climbing and potential vandalism.
- 10. Consider the use of motion sensors where appropriate to switch lighting on or off.
- 11. Avoid light spill onto adjacent residential properties. This can lead to annoyance and effect opportunity for natural surveillance with residents often seeking measures to block light out.

- 12. A program for maintenance and reporting of lighting fixtures should be implemented to ensure all lighting is maintained and well-kept with quick replacement of fixtures as required.
- 13. Use low energy consumption lights, fittings, and switches to lower reliance on maintenance procedures.
- 14. Allow appropriate distances between light poles and adjacent vegetation to provide unobstructed illumination of pathways.



### Barriers and fencing

A considered fence design will maximise natural surveillance between private and public realms to limit opportunities for intruders to hide whilst also providing visual and physical barriers between spaces and users.

<u>Objective</u>: To ensure barriers and fences deter crime prevention and support social inclusion and connectivity.

### Design choices:

- 1. Use highly visible and permeable boundary materials for consideration to both day and night activity as appropriate.
- 2. Position and space bollards to allow pedestrian movement and limit vehicle access.
- 3. Boundary fencing along a street frontage should be no higher than 1200mm and partially transparent.
- 4. If noise is a concern along a building's frontage, installing double-glazing is preferred rather than a solid fence.

#### Landscaping

<u>Objective</u>: To ensure trees and planting are well maintained and designed to encourage a feeling of safety and amenity of public space.

#### Design choices:

Cardinia Shire Council Crime Prevention Through Environmental Design (CPTED) Policy

- 1. Tree species selected with consideration to the height of branches and foliage. Trunks should be clear up to 2500mm in height from ground level.
- 2. Maintaining landscaped areas to ensure sightlines are provided between 600mm to 2500mm from ground level.
- 3. Position vegetation to direct sightlines and highlight desired lines of travel.
- 4. Consider the placement of vegetation in relation to light poles, CCTV and overhead wiring to avoid unnecessary shadowing.
- 5. Maintenance of existing trees with dense growth foliage between the heights of 600-2500mm should be crown raised to improve sightlines.
- 6. Consider the screening of blank walls with wall hugging vegetation (vertical gardens or green screens).
- 7. Specify vegetation that is proportionate to the size of the area and considers neighbouring land uses and ownership.
- 8. Avoid vegetation:
  - a. With top to bottom foliage. Shrubs, creepers and hedges should grow up to a maximum height of 600mm if located within a communal area or positioned along its boundary.
  - b. Which obscures building entrances.
  - c. That intrudes on the effectiveness of lighting.



#### Wayfinding

Signage and effective wayfinding measures can be facilitated through the use of materials, lighting, fixtures, colours and/or textural elements to guide users and signal transitions between ownership, allowing users to 'know' their surroundings and emphasise a feeling of safety.

<u>Objective</u>: To ensure wayfinding installations are well designed and positioned to encourage a feeling of safety.

#### Design choices:

1. Position signage away from vegetation and tree canopies.

Cardinia Shire Council Crime Prevention Through Environmental Design (CPTED) Policy

- 2. Size of signs should accommodate a variety of users with a clear and legible use of imagery and text, vibrant colours, universal symbols, and intuitive graphics. Actions for help and assistance should be prominent.
- 3. Consideration to the time-of-day signage would be relied on.
- 4. Position signs to be located at entrances and at node points along pedestrian routes such as at the intersections of paths.
- 5. Provide clear and consistent signage at regular intervals along pedestrian routes.
- 6. Signs should provide information on reporting maintenance problems and concerns.
- 7. Operational hours and exit routes should be clearly visible upon entry into a site for both pedestrians and vehicles as appropriate.

### Movement network

Movement networks - streets, roads, and paths - are the foundation of any urban structure and facilitate regular movement of people. The user's ability to feel safe in these environments pivots on the design and layout of these networks. By creating permeable street networks, people are encouraged to walk; consequentially activating these pedestrian spaces more often, however, these must also be attractive and well maintained to promote perceptions of safety. Movement networks acknowledge the importance of large-scale urban planning in ensuring our community feels safe and increases the opportunity to activate local pedestrian networks.

<u>Objective</u>: To ensure movement networks are strategically designed and maintained to encourage a feeling of safety to deter crime.

### Design choices:

- 1. Subdivision layouts should consider block and street patterns with direct, straight or near straight streets providing users with clear sightlines.
- 2. Create continuous and direct pedestrian and bike paths to connect to our wider travel networks (bus terminals, train stations and other transport interchanges).
- 3. Position lots intended for uses with extended operating hours along pedestrian priority streets.
- 4. Clearly mark and direct connections for pedestrians transitioning between modes of travel.
- 5. Place bicycle, pedestrian and vehicle paths side by side to increase opportunity for surveillance.
- 6. Position doors and windows to face and overlook pedestrian pathways.
- 7. Design streets, roads, and laneways in consideration to maintenance mechanisms.
- 8. Set a minimum width of 3 metres where a thoroughfare is bordered by fencing with a straight or near straight alignment and encourage informal surveillance from adjacent properties.
- 9. Remove graffiti and replace worn or damaged street furniture to reinforce a perception of safety.
- 10. Pedestrian underpasses should be avoided as much as practicable in new developments.
- 11. Pedestrians should have clear sightlines along movement networks to ensure clear sight of what is around them.
- 12. Positioning of emergency telecommunications and CCTV should be considered in the design and layout of movement networks.
- 13. Entrapment spots should be avoided in any movement network.
- 14. Strategically install mirrors to allow users to see around sharp or visually obstructed corners. The installation of reflective or transparent materials (such as glass or stainless steel) could also be considered to assist in this regard.

15. Pedestrian routes adjacent a storage, bin or loading area should be avoided. If unavoidable they should be appropriately fitted with visual and lighting fixtures (e.g. convex mirrors and light poles) and locked after operating hours.



## 8 Implementing CPTED

CPTED can be considered across three areas of intervention: planning, design and management/maintenance. Each stage requires the consideration of context for intervention, risk, stakeholder responsibility, set up and ongoing cost and effectiveness of chosen strategies. The following table sets out examples of strategies by stage.

Figure 2.	CPTED Strategies by stage
-----------	---------------------------

Stage	Strategies	Examples
Planning	Community assessment	Understand the socio-economic profile and crime trends of the area, regularly review the circumstances of crime to identify change, and the effectiveness of applied CPTED systems in operation and opportunities for improvements.
	Integrated and legible planning design	Design environments to make them easy to navigate. Take advantage of new or existing manufactured or natural features (e.g. rivers, hills, public squares, important civic buildings) both to create landmarks to aid legibility and to make environments of special quality and the focus of pride.
	Reduce vulnerability	Minimise/ avoid entrapment areas and blind spots. Issues in existing space may be addressed with alternative methods of observation for users (mirrors, lighting, maintenance). Design and management of places should provide a variety of routes to the destination and ways to avoid potential or actual problems.
	Urban greenery	Increase green spaces and public greenery. Well maintained greenery can increase activation and sense of safety.
	Lighting and CCTV	Strategic placement of CCTV and lighting
	Protecting crowded places	Mitigating risks of planned acts of harm at high risk locations through the design and implementation of security controls.
Design	Visibility	Buildings adjoining a public space should maximise the potential for passive surveillance into that public space. Consider, landscaping, building heights, lighting type, illumination of pathways and facilities, maximising natural surveillance, e.g. large glass windows

Cardinia Shire Council Crime Prevention Through Environmental Design (CPTED) Policy

	Access Control & Target hardening	Entry barriers, walls, fences, gates, consideration of mailbox placement, vehicle access and mitigation, locks and use of security.
	Territoriality	Clearly distinguish access from public space into private space, Creatively use built and landscaping features like plants, changes of surface material and texture, changes of level, artwork, signage, low walls, seating and the like to define movement areas and delineate borders.
	Aesthetic Design	Public art, decorative lighting, and other elements to create a positive area image.
	Inclusive design	Co designing spaces with women, people with disabilities, Aboriginal and Torres Strait Islander communities and other underrepresented groups to create welcoming and functional spaces.
	Effective Materials & Technology	Design places with attractive, user-friendly sturdy materials and fittings that are not removable. Integrate smart devices e.g. pedestrian counters, air quality monitors, public emergency systems, two way communication devices and smart lighting,
Management and	Upkeep and maintenance	Timely repairs, regular cleaning of streets & parks, greenery upkeep and rubbish & graffiti removal.
Maintenance	Public space management	Management of outdoor alcohol restrictions, timed access to facilities, CCTV monitoring, consistent public messaging and communications, and targeted ranger patrols.
	Social Programs	Support programs and links to services in place for vulnerable communities
	Space Activation & Ownership	Planned programs and events to increase use of public space and facilities. Promote a sense of pride in the community's public assets and encourage community participation and ownership over spaces where possible, e.g. community gardens.

## 9 Future planning

Following consultation with the CPTED working group made up of officers from across Council and analysis of Cardinia Shire perceptions of safety research and contemporary approaches to improving community safety the following are recommendations for future implementation:

- 1. Adoption of the CPTED policy and development of implementation guidelines for Cardinia staff including training for key staff in CPTED approaches.
- 2. Continue to improve community safety by evaluating CCTV and lighting and undertaking safety audits and site inspections and maintaining records of crime risks and incidents
- 3. Maintain the positive look and feel of public spaces through ongoing cleansing, graffiti removal, amenity patrols, maintenance and planned activations.
- 4. Use Crime prevention through environmental design principles to drive decision making and response.
- 5. Track crime trends and community perceptions of safety to identify priorities and emerging risks.
- Continue to maintain a high standard of amenity, ensure compliance with planning requirements and local laws, and support public health and safety through partnership and continuous service improvement.
- 7. Review this policy in line with updates to the *Urban Design Guidelines for Victoria, 201*7 or changes to relevant legislation.

## **10** Related documents

Type of document	Title and/or RMC link
International Standard	BS ISO 22341:2021 - Security and resilience. Protective security. Guidelines for crime prevention through environmental design.

Commonwealth/Victorian legislation	Planning and Environment Act 1987 Local Government Act 2020
Strategic directions paper	Under development
Policies	Cardinia Pedestrian Bicycle and Pedestrian Strategy 2017 Buildings and Facilities Maintenance Policy 2018 Sport Facilities Standards Policy
Strategies	Cardinia Shire, Council Plan 2021–2025 Cardinia Shire's Liveability Plan 2017–2029 Cardinia Safer Communities Strategy 2017 Australia's Strategy for Protecting Crowded Places from Terrorism 2017
Guidelines	Urban Design Guidelines for Victoria, 2017 https://www.planning.vic.gov.au/policy-and-strategy/urban-design/urban- design-guidelines
Procedures	CPTED Audits Project Management Framework

### **Glossary of terms**

### Access control

Access control limits the opportunity for crime by taking steps to clearly differentiate between public and private spaces. The location and materiality of exits, fencing, lighting, and landscaping can attract, direct, and restrict the movement of pedestrians reducing the opportunity for crime.

### Crime prevention

Crime prevention refers to the range of strategies that are implemented by individuals, communities, businesses, non-government organisations and all levels of government to target the various social and environmental factors that increase the risk of crime, disorder and victimisation. Situational crime prevention aims to change contextual factors to reduce opportunities for offenders to engage in criminal behaviour

### Crime Prevention Through Environmental Design, CPTED

The process for analysing and assessing crime and security risks to guide development, urban design, site management and the use of the built environment in order to prevent and reduce crime and the fear of crime, and to promote and improve public health, quality of life and sustainability.

### **Entrapment areas**

These are small physically confining spaces, shielded on three sides by barriers such as walls or landscaping, which offenders can use to physically or psychologically surround and entrap people. Entrapment spots include loading zones, leftover spaces between buildings, clearings within landscaping and recessed entrances. Entrapment areas are particularly dangerous when located close to well-travelled routes and movement predictors.

#### Surveillance

Surveillance in this context refers to creating opportunities for people in public spaces and adjoining buildings to see into the space and casually or actively observe activities. Observers are then able to respond to any unwanted or anti-social activities occurring.

### **Target hardening**

Target Hardening is a long-established crime prevention technique that includes the installation of physical security to increase the effort and risk of committing a crime at a location. It includes the installation of fences, gates, locks, security personal and can be considered in the broader review of access control.

### **Territorial reinforcement**

Territorial reinforcement aims to instil a feeling of ownership between users and the spaces occupied to encourage a sense of responsibility for their surroundings to positively contribute to crime prevention. Uncertainty of ownership can reduce responsibility and increase the likelihood of crime and antisocial behaviour going unchallenged.

### Territoriality

Territoriality emphasises strategies to delineate the transition from public to private space. This can include fencing, signage and other design elements.