

City of Enderby

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED): BEST PRACTICES GUIDE



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What is Crime Prevention through Environmental Design?

Crime Prevention through Environmental Design (CPTED, pronounced “sep-ted”) is a concept that is now widely accepted throughout North America as an effective way to improve safety in neighbourhoods and communities. (CPTED) is an important component of a comprehensive approach to crime prevention and entails understanding the relationship between physical design and levels of criminal activity and then manipulating design to reduce the incidence of crime. CPTED plays a critical role in helping to:

- Reduce the fear and perception of crime;
- Reduce the actual number of crimes;
- Improve community safety and strengthen social fabric; and
- Improve quality of life throughout a community.

How to Use This Guide

This Best Practices Guide outlines proven and effective methods and strategies for improving safety and reducing the perception of crime through planning and design which can be applied in both residential and commercial settings.

This Guide is only intended to provide suggestions and examples for how to plan and design for improved safety; the concepts outlined in this Guide will not be imposed in a regulatory manner and are instead provided purely for information.

Opportunities for implementing CPTED strategies include:

- New construction;
- Revitalization, particularly within commercial cores or existing residential neighbourhoods;
- Building renovations; and
- Building repairs.

CPTED Principles

CPTED is built around four design principles which include:

1. **Natural Surveillance:** A design concept intended to discourage criminal activity by ensuring that public spaces are easily observable and people are able to easily observe their surroundings; this is based on the concept that people's overall sense of safety improves when they are able to easily see others and be seen themselves.

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2. **Territorial Reinforcement:** A design concept intended to allow users to develop a sense of territorial control which in turn may discourage potential offenders as they perceive this control; the main strategy in promoting territorial control is defining property lines and distinguishing between public and private spaces.
3. **Natural Access Control:** A design concept intended to reduce the opportunities for crime by reducing access to crime targets while simultaneously creating a perception of risk for potential offenders. This concept, which is strongly linked to the territorial reinforcement concept, utilizes design and planning to clearly delineate public areas while utilizing structural elements to discourage access to private areas.
4. **Target Hardening:** A design concept intended to increase physical security by prohibiting entry or access; this method is most effective when utilized in conjunction with the other design concepts identified above.

Residential CPTED Strategies

The following are CPTED strategies which can be applied in residential settings:

Natural Surveillance

- Front doors should be clearly visible from the street and driveway;
- Doorways which open to the outside should be well-lit;
- Sidewalks, pathways, and all areas of the yard should be well-lit;
- Windows should be installed on all sides the house to provide full visibility of the property;
- Driveways should be visible from either the front or back door and at least one window;
- Landscaping should be maintained to ensure visibility to and from the house;
- Transparent screening materials (i.e. chain link fences, etc.) should be utilized and yard clutter avoided in order to prevent 'blind-spots' or hiding areas;
- Motion lighting in lanes can improve safety for pedestrians and vehicles;
- Neighbourhood green space, open space, and recreational areas should be located centrally to ensure that they are visible from nearby homes and streets;
- Pedestrian scale street lighting should be provided in high-pedestrian-traffic areas to enable people to recognize and detect potential threats at night;
- For multi-family developments:
 - Ground-oriented units should be utilized as surveillance of outdoor activity areas and the street;
 - Building entrances and exterior doors should be clearly visible from the street or by neighbours;
 - Doors that open to the outside should be well-lit;

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- All four facades of a building should have windows;
- The lower branches of trees should be kept at least 10 feet (3 m) off the ground; and
- Parking areas and walkways should be well-lit and visible from windows and doors.

Territorial Reinforcement

- Plantings, pavement treatments, or fences should be used to define property lines and private areas;
- Lighting should be used to create boundaries between private and public spaces;
- Front porches and stoops help to create a transitional space between the street and the home;
- In order to deter unauthorized access and aid emergency services in responding, residences should be clearly identified by street address numbers which are a minimum of 3-5 inches (7.6 - 12.7 cm) high, reflective, and well-lit;
- Litter and trash should be picked up and the yard should be kept neat and free of items which may attract theft;
- The house, garage, and storage buildings should be kept in good repair;
- Lots, streets, and homes should be designed to promote interaction between neighbours;
- For multi-family developments:
 - Building entrances should be well-defined and accentuated using walkways, lighting, architecture, landscaping, or signage;
 - Where possible, individually locking mailboxes should be located next to the appropriate units; and
 - All common areas shall be maintained to very high standards.

Natural Access Control

- Walkways and landscaping should direct visitors towards to the proper entrance and away from private areas;
- Walkways should be installed in safe, un-obscured locations;
- Balcony railings should not be an opaque material;
- Traffic calming measures should be integrated into street design to discourage cut-through or high-speed traffic behaviours;
- For multi-family developments:
 - Entrances to the site and parking areas should be well-defined;
 - Building entrances, stairways, and elevators should be in a central location so that many users may observe them; and
 - Access to buildings should be limited to only one or two points.

Target Hardening

- Interior doors which connect a garage to a residence should have a single-cylinder dead bolt lock installed;

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- Door locks should be located a minimum of 40 inches (1 meter) from adjacent windows;
- Exterior doors should be hinged on the inside and should have a single cylinder dead bolt lock with a minimum 1 inch (2.54 cm) throw;
- All windows should have locking capabilities;
- Windows in older homes should be renovated such that they can be effectively locked;
- Sliding glass doors should have one permanent door on the outside and the inside moving door should have a locking device and a pin;
- Enclosures to balconies should be designed to exclude handholds and to eliminate the opportunity for climbing up or down, or in the case of multi-family developments, across or between balconies;
- For multi-family developments:
 - Cylinder dead bolt locks should be installed on all exterior doors;
 - Building entrances should be equipped with automatically locking doors; and
 - Door hinges should be located on the interior side of doors.

Commercial CPTED Strategies

The following are CPTED strategies which can be applied in commercial settings:

Natural Surveillance:

- Rear facing windows should be installed to provide for increased visibility to parking areas;
- Windows and exterior doors should be designed and placed such that they are visible from the street or by neighbouring buildings;
- When possible, windows should be installed on all facades;
- Window signs should cover no more than 15% of the window;
- Interior shelving displays should be no higher than 5 feet (1.5 m), and even less when in front of windows;
- Exterior of the building and property should be well-lit at night;
- Loading areas should be designed to eliminate any potential 'blind-spots' or hiding areas;
- Visibility from the store to the street, sidewalk, parking areas and passing vehicles should be provided and maintained;
- All entrances should be placed under visual surveillance, and monitored electronically if necessary;
- Dumpsters should be located such that they do not create 'blind-spots' or hiding areas;
- Recessed doorways, alcoves or other dark niches should be not be created, or should be removed if existing, to eliminate hiding places for potential assailants, vandals or other criminal activity;
- Lower branches of existing trees should be kept at least 10 feet (3 m) off the ground;
- Shrubbery should be kept to 3 feet (1 m) in height and under;

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- Pathways should be located in areas with good surveillance and should not be blocked in by blank walls and/or dense landscaping;
- Outdoor ATMs should be located to face the street;
- Outdoor ATMs and any associated queuing lanes should be well-lit; and
- Where appropriate, a mix of land uses should be encouraged to increase natural surveillance at different times of the day (i.e. residential above commercial provides for 'eyes on the street' at night time).

Territorial Reinforcement

- Public events such as festivals, markets, and outdoor concerts help to increase activity in a commercial area while fostering community ownership;
- Where possible, property boundaries should be marked using hedges, low fences, or gates which maintain visibility from the street and do not create visual barriers;
- Private and semi-private areas should be made distinguishable from public areas;
- Signs should clearly identify all businesses within a building;
- Shops should be identified with wall signs for those parking in the rear;
- Awnings above windows and doorways provide for territorial reinforcement;
- In order to discourage graffiti, blank walls should be avoided, but can be improved by the installation of windows, vertical landscaping (e.g. ivy), non-paint-able surfaces, or the use of mural art;
- Attractive displays should be installed in the windows of vacant stores to avoid creating a perception of abandonment;
- Benches should be provided in public spaces and along sidewalks and paths which will allow for broad observation and give users a greater sense of control;
- Buildings and walkways should be kept clean and repaired;
- Parking areas should be maintained to a high standard;
- Faded posters, broken signs, and worn displays should be removed;
- Plantings should be kept in good condition; and
- All public and semi-private areas should be well-maintained in order to convey a sense of pride and ownership which in turn will discourage vandalism.

Natural Access Control

- Cash registers and check-out counters should be located near the front of the store, near the main entrance, and should be visible from the outside;
- Reception areas should be located near the main entrance;
- Private areas should be difficult for non-employees to access;
- Public entrances should be clearly marked using walkways, lighting, landscaping, architecture, and/or signs;

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- Entrances to residences within a commercial building should be separate from the commercial entrance to enable distinction between the two uses;
- Patrons should be directed to parking and entrances through signage;
- Sidewalks and public areas should be designated using special paving or landscaping;
- Public paths should be clearly marked;
- Ground access to the roof or fire escape should be prevented; and
- If rear public parking is provided, rear public access should also be provided;

Target Hardening

- Secure doors and frames should be used in conjunction with an appropriate locking system;
- When windows are located within 3 feet (1 m) of a door lock, shatter resistant windows should be installed or a shatter resistant coating applied;
- Un-monitored exits should have automatically locking doors installed; and
- Measures should be taken to avoid unmonitored exits from being propped open.

Management Considerations

- Operating hours should be set to coincide with those of neighbouring businesses;
- After business hours, the cash register should be emptied and left open;
- Employees should be provided with safety training;
- Interior spaces should be fully illuminated;
- Parking in close proximity to the business entrance should be provided for night-time employees; and
- Shifts and situations where only one employee is present should be avoided.