

# CPTED AUDIT – GREATER SUDBURY TRANSIT TERMINAL

9 ELM ST, SUDBURY, ON P3C 1S9

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Disclaimer: The following pages are enclosed to help better understand the security issues in the area. The recommendations are not intended to make the area crime-free. They will, however, reduce the probability of losses occurring if they are properly applied and maintained. Loss prevention and reduction of other crime, like all management responsibilities, will require constant upgrading and attention to further keep abreast of the changing operational need of security. Human error or complacency is also often responsible for the losses which sometimes occur. The suggestions outlined in this report should only be considered after consulting with building codes, fire codes and other relevant legislation.

### CPTED PRINCIPLES

CPTED is based on the belief that the proper design and effective use of the build environment can lead to a reduction in the fear and incidence of crime as well as an improvement in the quality of life.

### CPTED OBJECTIVES

CPTED has several objectives. These include:

- Match intended human functions with spaces that can support them;
- Ensure that the intended activity has the opportunity to function well and directly support the control of human behavior;
- CPTED encourages diverse and compact urban forms which help to establish informal surveillance to public spaces. An important aspect of ensuring a safer urban environment is to establish the sense of ownership in every place we design;
- Safe urban environments require the presence of people in public places. Casual encounters of individuals are an important factor for CPTED solutions in dealing with vandalism, assault, loitering, mugging, harassment and other negative activities. Any public place should be under surveillance by its residents in order to avoid isolated areas.

### DESIGN STRATEGIES

CPTED principles include the concept that the physical environment can be manipulated for the purpose of influencing certain desired human behavior. CPTED design strategies which can reduce the fear and incidence of crime and improve the quality of life include the following strategies:

<b>Natural Surveillance: : a design strategy directed at keeping intruders under observation by other users of the space or from surrounding areas</b>	
Visibility of Public Realm	<ul style="list-style-type: none"><li>• The layout of the site must be visually accessible</li><li>• The site must have sufficient lighting to support the intended uses of the space</li><li>• The casual surveillance and sightlines of people in the area must be maintained</li><li>• The visibility of the site from adjacent building and open spaces is optimized</li><li>• Landscape elements must provide sufficient sightlines</li><li>• The site has an active relationship with the adjacent neighbourhood and is not isolated from casual public encounters and activities</li></ul>
<b>Natural Access Control : a design strategy directed at decreasing crime opportunities by denying access to a crime target and creating a perception of risk for potential offenders</b>	
Safe and Convenient Movement & Connections	<ul style="list-style-type: none"><li>• The layout of the site must be designed for safe and accessible pedestrian movement</li><li>• The circulation routes must be defined with clear sightlines to all intended function</li></ul>
Access Control	<ul style="list-style-type: none"><li>• The site must have a limited number of entrance and exit routes which are clearly defined</li></ul>

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<b>Territorial Reinforcement : Territorial Reinforcement: a design strategy that realizes that physical design can create or extend a sphere of influence so that users of the property develop a sense of proprietorship over it</b>	
Sense of Belonging/Defensible Space	<ul style="list-style-type: none"> <li>• The layout of the site must be spatially defined in relation to adjacent buildings and activities to provide for a transition from public to semi-public spaces so as to provide a sense of change between spaces</li> <li>• The site must have clear orientation, direction and connection of movement for pedestrians to the adjacent structures and their uses.</li> <li>• Areas within the site must not be isolated from observation</li> </ul>
Connectivity	<ul style="list-style-type: none"> <li>• The site must have active relationship with the surrounding neighbourhood and not be isolated from casual public encounter or activity</li> <li>• The must be integrated into the neighbourhood system</li> </ul>

Mechanical forms of surveillance and access control such as locks, lighting, cameras etc. should support the intended function of the space and be designed to complement the natural design strategies of CPTED.

While CPTED principles support natural control systems as a core goal, mechanical devices may be necessary for the enhancement of safety and security control.

The following table compares natural and mechanical forms of access control, surveillance and territoriality.

<b>Natural Control</b>	<b>Mechanical Control</b>
Surveillance of activities under casual observation from windows, doors and amenity areas of adjacent buildings.	Surveillance is under camera observation and visually recorded.
To direct access so that potential intruders are observable and discernable by the human senses.	Access is provided through controlled access points such as a gate or door with locks. Only authorized persons or vehicles are allowed to enter the site, usually with a special pass, key or other device.
Territory is defined through the use of landscape treatments, paving patterns etc.	Territory is enclosed by structures such as fencing with gates, walls, etc.

## CPTED ASSESSMENT OF GREATER SUDBURY TRANSIT TERMINAL

<b>CPTED strategy</b>	<b>Observation of Greater Sudbury Transit Terminal</b>
<b>Interior of Building</b>	
Natural surveillance	Natural surveillance is present with a mixture of formal and informal observers which are present on site such as: Employees, Patrons, and Bystanders
Natural Surveillance	Plenty of windows on the building provides natural light, as well as visibility in and out of the building

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Natural Surveillance	The security booth may benefit from better visibility through the glass.
Natural Surveillance, Access Control and Mechanical Surveillance	The kiosk booth is located in a visible location. Several security measures have been implemented such as visibility, signage, security camera, and controlled access.
Mechanical Surveillance and Access Control	Organized surveillance is present in the form of security guard (1 present, does regular patrols). Additionally, support is provided by CGS Bylaw department and Greater Sudbury Police Services.
Mechanical Surveillance and Access Control	Mechanical surveillance promotes enhanced visibility and is provided by security cameras (11). After reviewing video surveillance it was noted that the addition of cameras or adjustment of cameras may benefit surveillance
Mechanical Surveillance and Access Control	Transit Terminal has implemented keypad locks reducing access to Restricted areas for staff
Natural Surveillance	Lighting in the interior of the building seems to be sufficient
Natural Access Control	Main entrance to the building provides a congregation area inside the building as people enter the building and stop, which causes some congestion, reducing visibility for surveillance from security guards.
Natural Surveillance, Access Control and Mechanical Surveillance	Washroom areas appear to be clearly defined, possibly additional signage may benefit the area. Washroom entrances are monitored by video surveillance. Possibility of redesign to improve visibility could reduce unwanted activity.
Natural Access Control and Territorial Reinforcement	Pay phone area should be examined to see if they are essentially needed or possibly reduced.
Territorial Reinforcement	Vending machines utilizing plenty of space as well as reducing site lines in and out of the building. Should examine if all five vending machines are required. The vending machines are placed in a good location. Visible from both the kiosk booth and security.
Territorial Reinforcement, Mechanical Surveillance	ATM and change machines are located in visible location. Visible from both the kiosk booth and security. Also under video surveillance.
Natural Surveillance	There may be some benefit to the removal of some architectural features in the interior of the building which would increase sightlines and provide a more open space.
<b>Exterior of building</b>	
Territorial Reinforcement	Overall the general appearance of the site is clean. Minimal graffiti noticed as well as plenty of garbage receptacles were in place which seemed to minimize the amount of litter on site. Some minor maintenance procedures to enhance the area such as a fresh coat of paint on light standards and metal doors would be beneficial.
Natural Surveillance, Natural Access, Territorial Reinforcement and Mechanical Surveillance	The garbage disposal area is of concern. The doors are open as, shopping carts and empty pallets are placed outside. The possibility of redesigning this area may be beneficial to provide a cleaner, more secure location, as we as regular removal of shopping cards and pallets is recommended.

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Natural Surveillance	Uniform lighting is recommended to provide equal lighting to all areas. Upon visual inspection of the site during night time hours, some concerns were noticed such as lights not working. An upgrade to the lighting system may be preferred to enhance the visibility, reduce light pollution, and provide energy savings. Additionally, the globe lighting can easily be vandalized to further reduce lighting.
Natural Surveillance	Majority of the shrubs and gardens on site provide good sightlines. However, one area in need of some maintenance is on the North West corner which would include some trimming of trees to provide better sightlines and reduce hiding areas.
Natural Surveillance, Natural Access Control, Territorial Reinforcement and Mechanical Surveillance	Upon observation there is an area on the North side of the site where plenty of people seem to congregate at one of the entrances to the Transit Terminal. To reduce the amount of people that congregate in this area, it may be beneficial to completely remove the shelter structure so pedestrians are encouraged to move to their destination instead of hanging out under this canopy. Additionally, increasing lighting in this area as well as the addition of video surveillance may deter unwanted activity in this area.
Natural Surveillance, Natural Access Control and Territorial Reinforcement	One area that may be enhanced would be the walkway from Cedar St. to Elm St. as it is a movement predictor. Uniform lighting is recommended to provide equal lighting to areas along the walkway. It was noticed that some sections of the retaining wall had anti-sit devices installed but it is recommended that additional anti-sit devices be installed throughout the walkway to discourage loitering.
<b>Surrounding Area</b>	
Territorial Reinforcement	Some challenges are posed with location such as the following: Located next to an LCBO may increase the opportunity for illegitimate use. Also located next to a Tim Horton's which may increase pedestrians not using the bus terminal for intended use.

## FINAL RECOMMENDATIONS

- Improved and additional lighting. Burnt out lights should be replaced quickly.
- Redesign of the garbage disposal area
- Additional anti-sit devices
- Adjustment and addition of security cameras
- Trim shrubs to provide better sightlines
- Remove structure/canopy entering Transit Terminal from Elm St.
- Remove pay phones
- Remove architectural features on the interior of the build to increase sightlines
- Fresh coats of paint on rusted metal