

HAMILTON POLICE SERVICE

CPTED PROPERTY AUDIT

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Statement of purpose:

Crime Prevention Through Environmental Design, or CPTED as it is more commonly known, is a proactive design technique that believes that the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime, **as well as an improvement in the quality of life.**

The CPTED recommendations prepared for your site are not intended to make your site “vandal-proof”, “assault-proof”, “bomb-proof” etc. They **are intended to improve the function of the space** while addressing a number of safety and security issues by providing ways to improve your property’s natural surveillance, natural access control and territoriality.

Implementation of the enclosed recommendations should not be fragmented. Many times the incorporation of one phase depends upon the implementation of other security recommendations and failure to utilize the systems approach can breach all elements of the system.

Overview of CPTED:

CPTED's underlying objective is to help various disciplines do a better job of achieving their primary objectives, with the added by-product of improved security and loss prevention. This objective is based upon the belief that crime and loss is a by-product of human functions that are not working.

How does CPTED differ from traditional crime fighting techniques?

CPTED's emphasis is based on design and use. In this way, it deviates from the traditional target hardening approach to crime prevention.

The target-hardening approach traditionally focused on denying access to a crime target through physical or artificial barriers (such as locks, alarms, fences and gates). This approach often overlooked the opportunities for natural access control and surveillance while placing a constraint on the use, access and enjoyment of the hardened environment.

CPTED emphasizes and exploits these lost opportunities through the development of three overlapping CPTED strategies. These strategies are:

- *Natural Surveillance
- *Natural Access Control
- *Territorial Reinforcement

Natural Surveillance is a design strategy that is directed primarily at keeping intruders under observation.

Natural Access Control is a design strategy that is directed at decreasing crime opportunity.

Territorial Reinforcement is a design strategy that realizes that physical design can create or extend a sphere of influence so that users develop a sense of proprietorship or territoriality.

**Wentworth Stairs
Hamilton Ontario**

Audit prepared by: Hamilton Police Service - Crime Prevention Branch

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This document has been created as a result of the Hamilton Police Service receiving a request for a CPTED Audit. CPTED is an acronym for Crime Prevention through Environmental Design and it is the philosophy of a multi-channelled approach to deterring criminal behaviour by utilizing the community (people), structural design and the natural environment. Essentially, CPTED is used promote the target hardening of any location by using its own environment in the process. Police were accompanied by Brian Hughes, Supervisor, Parks North Public Works Environmental Services, City of Hamilton.

There are 5 Escarpment stairs that connect the lower City to the upper City. The Wentworth Stairs are located between Wentworth St. S (at the corner of Charlton Ave. E.), transversing the Sherman Access and ending at the intersection of Mountain Park Ave and Upper Wentworth St.

The Wentworth Stairs were originally wooden stairs built in 1903. These burned down and were replaced by metal stairs in 1983. At the lower end, the stairs connect with the Escarpment Rail Trail. The Bruce Trail connects with the stairs on the lower half of the stairs, between Wentworth St. S. and the Sherman Access.

The stairs are mostly located in a forested area, allowing people to loiter and utilize the environment for illegal activities. There is a history of assaults on the stairs, both physical and sexual in nature. The stairs are used by commuters and exercise enthusiasts. The purpose of the audit is to find the best way to continue encouraging the positive use of the escarpment stairs in Hamilton and deter the illegal and criminal activities which occur on the stairs.

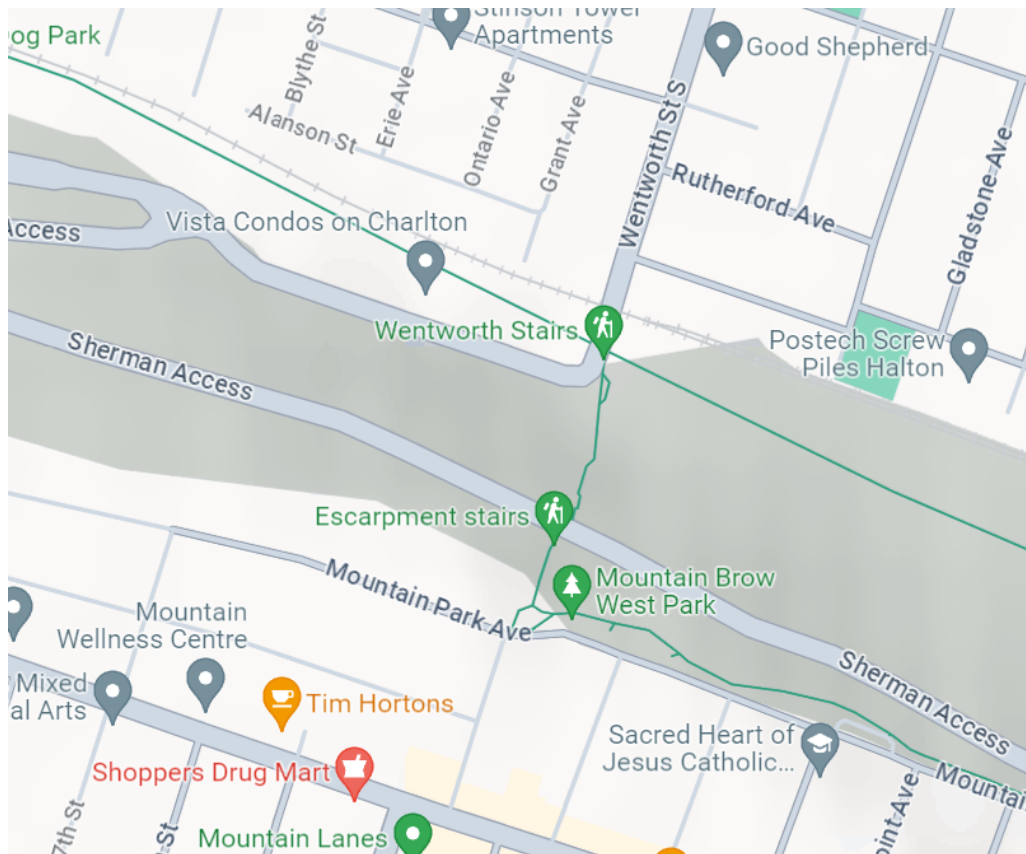


Image taken on June 6 at the bottom of the Wentworth Stairs.



During the audit the following observations were made:

Natural Surveillance:

All trees in the open space around the stairs should be trimmed up 7 feet from the ground to allow for clear sight lines. Any foliage overhanging the stairs and handrails should be pruned. Shrubbery adjacent to the stairs should be trimmed to a maximum of 3 feet high to prevent people from hiding behind them. When new trees and shrubs are added to increase the overall canopy across the City, plant material should be carefully selected as to not create more hidden hazards. Some examples of this include trees that grow tall and narrow with minimal low hanging branches and low growing shrubs that don't affect sight line issues.

Recommendation: the Manitoba Maple located at the base of the stairs is overhanging the approach area should be removed, such as seen in the image below. As it is right now, it prohibits Police or any witnesses from having clear sight lines into that area of the property. Thus, it is creating an environment conducive for criminal activities and trespassers.





Regular maintenance should be completed at this site. The base of the stairs present a shadowed area due to extreme tree cover (above). Thinning of the trees would allow natural light into the area. As seen below, the vegetation at the top of the stairs will need to be pruned to allow for a 180° visibility at the top of the stairs.



Image from Google Street view.



Alternate Access Points: About 3/4 of the way up the lower staircase is an access point for the Bruce Trail to connect with the Wentworth stairs. This access point is a concern as this can be a concealment area and it leads to a forest path.



Recommendation: Install additional lighting to allow for more illumination in hidden areas.



Signage: Signage can help establish territory and can clearly distinguish private from public property. With signs being properly displayed throughout the property, this helps to eliminate the “I did not know” excuse for trespassers and loiterers alike. The sign (above) was displaying incorrect information. As seen below, the stairs were open.

Recommendation: Post clear, concise messaging for those who are using the stairs. When repair work is completed, remove signage.



Graffiti – Graffiti is a common issue in many major cities. This is not only a cost to the city, it also takes away from the clean image which the City is attempting to portray in its parks. The light standards have become a target for graffiti. Regular maintenance and inspections should be completed to clean up graffiti.



Lighting: One of the most important components of CPTED is lighting. Effective lighting allows for natural surveillance by providing the ability for people to see. It can also generate witness potential by giving people a reason to look. There are many different types of lighting available and the goal is to select a light type that is appropriate for the area. The area should be well illuminated without creating a visual nuisance for onlookers. It should also be placed along the stairs so that all hidden areas are illuminated to reduce people hiding and to provide a secure environment for those climbing. The spacing of the lights should be that there are no blind spots or shaded areas along buildings and paths. To reduce cost motion activated lights can be installed in some areas that only come on when there is motion or people walking through the area. Maintenance is also a consideration with a good lighting plan to replace broken lights and burned out bulbs on a regular schedule. All lighting should be installed to light from the inside out and with protection to stop vandals and damage; deterring crime. When an area is well-lit, people who wish to engage in illegal activities will tend to move to darker more discrete areas. Studies have shown that graffiti and other activities happen more often in dark unlit areas.

Recommendation: Have an official lighting audit conducted for the Bruce Trail access to the stairs. Install LED lights to further illuminate the area if necessary and possibly put these lights on a sensor so they only operate while people are walking in the area to minimize the impact of lighting on the natural area. Ensure that foliage is pruned to allow for increased visibility (previous page).

Territoriality and the “Broken Window Theory”:

Factors affecting territoriality are what creates a defensible or ambiguous space. The Broken Window Theory can be easily related to the lack of territoriality at a given location where crime has occurred.

The “Broken Window Theory” states that when a property or building appears to have lack of pride, no ownership or has property in need of desperate repair, it becomes an easy target to thieves, loitering, and other criminal activities.

Recommendation: Keep up with the maintenance of all areas of the park. Remove dead trees or broken assets in an attempt to maintain the overall appearance of the park in an attempt to deter criminal activities.

Overall Recommendations:

- Regular maintenance including pruning of trees to restrict foliage over the stairs.
- Improve sight lines from the street including the removal of undesirable shrubs and overhanging trees in order to increase visibility.
- Removal of overhanging foliage over the stairs and along both handrails.
- Regular maintenance of stair lighting to ensure proper illumination and light distribution.
- Removal of graffiti on light standards.
- Ensure current signage.
- At the end of the stairs life cycle (Capital replacement), consideration should be made for widening the stairs to allow pedestrians to safely pass each other and add improvements such as a bike troughs and a railing to separate the two lanes.
- Install signage to identify the site location to ensure a rapid response by emergency services.

Some images are actual unaltered photographs of the location. Other images and maps are from public open-sourced websites.

Please note that there are no guarantees in preventing crime. This report is comprised of suggestions based on CPTED Principles that may lead to the reduction in the fear and incidence of crime and disorder, leading to an improvement in the overall quality of life of the property.

If there are any questions, please feel free to contact the writers.

Report Completed by: Cst. Ryan Clarke #317

DISCLAIMER

CPTED audits are designed to make recommendations to reduce the likelihood of criminal activity in and around a physical structure such as a building. Compliance with the recommendations does not guarantee protection from crime. The persons conducting CPTED audits are trained in crime prevention techniques, not in the enforcement of property standards, fire regulations, or other such regulations or by-laws. Accordingly, since these are only recommendations, the Hamilton Police Service, the Hamilton Police Service's Board and the City of Hamilton disclaims any responsibility for any claims or actions arising from the effectiveness, completeness or the implementation of some or all of the recommendations contained within this audit.