



**Prevention by Design in Ottawa:
Toward a Strategic Approach to Crime
Prevention Through Environmental Design**

FINAL REPORT

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Prepared for:

Crime Prevention Ottawa

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EXECUTIVE SUMMARY

Introduction

Crime Prevention Through Environmental Design (CPTED) is an important component of a comprehensive approach to crime prevention. CPTED entails understanding the relationship between physical design and levels of criminal activity and then manipulating design to reduce the incidence of crime.

In this report, we review the evidence on the ability of CPTED strategies to reduce crime and fear of crime, and review best practices concerning CPTED. We use key actor interviews to examine the need for strategic, coordinated CPTED in Ottawa and to assess the use of and support for CPTED programs. We recommend a planning and implementation strategy for increasing the effectiveness of CPTED in Ottawa.

Methodology

The study involved a literature review of CPTED research and in-person and telephone interviews with 24 key actors who were knowledgeable about CPTED use. The majority of those interviewed were from Ottawa.

Findings

There is a growing body of evidence that CPTED can reduce crime and fear of crime:

- ▶ Evaluations of Britain's Secured by Design program has shown dramatically lower rates of some types of crime in housing estates that had adopted the program compared with comparison estates.
- ▶ Graffiti clean up programs such as the New York Transit Authority's Clean Car Program have been highly successful in reducing new graffiti.
- ▶ Street closure programs have been successful in reducing crime, particularly when combined with other neighbourhood development initiatives.
- ▶ Closed circuit television (CCTV) has shown modest results in reducing crime, but has been successful in reducing automobile crime in parking lots and parking garages.
- ▶ When properly planned, improved street lighting has led to significant crime reductions compared with control areas.
- ▶ Regulations governing the design and staffing of convenience stores have reduced robberies of these stores.
- ▶ Several target hardening measures such as upgraded locks, windows, and doors have successfully reduced crime.

CPTED has been successfully used in Ottawa but its impact has been limited because the use of CPTED is not coordinated, is not adequately funded, is not mandated by legislation or regulation, and is not linked to a broader crime prevention strategy.

There was enthusiasm among those we interviewed in Ottawa about the potential of CPTED and a recognition that it can help to reduce crime. However, CPTED practitioners told us that there are no formal policies or procedures governing the use of CPTED, CPTED efforts are not coordinated, and there are few mechanisms for ensuring that CPTED-based recommendations are implemented. CPTED will not have a significant impact on crime in Ottawa until it is integrated into the municipal planning process for new development and systematically applied at the earliest stages of the design and development process. Safety audits are frequently conducted on existing spaces but these audits are done on an ad hoc basis. A mechanism is needed to set priorities for audits, to link the audits with resources, to establish an accountability mechanism to follow up on audits, and to coordinate the audits with city departments and other agencies that have responsibility for acting on the recommendations.

Recommendations

Our recommendations are based on the views of the key actors we interviewed and the lessons learned from the best practices review. Both of these sources gave very consistent direction about the best way to proceed. Ottawa can take a global leadership role by incorporating CPTED as a core part of a broad and comprehensive crime prevention strategy. To accomplish this, we recommend the following:

1. Crime Prevention Ottawa should begin the process of integrating CPTED into municipal planning by organizing a planning meeting for those with an interest in community safety and CPTED (a list of suggested participants and a statement of their roles is included as Appendix C). The goals of the meeting might include:
 - ▶ Familiarizing people with CPTED. Participants will have different levels of knowledge about CPTED and all should know the strengths and weaknesses of CPTED and understand its role as part of a comprehensive crime prevention strategy.
 - ▶ Developing an inventory of the CPTED-related activities now taking place in Ottawa.
 - ▶ Establishing a network of people who should be involved in increasing the use of CPTED in Ottawa.
 - ▶ Establishing the structure for a CPTED Working Group to move ahead with the next steps in the process.
2. Crime Prevention Ottawa should convene and support the CPTED Working Group that will coordinate CPTED activities. This CPTED Working Group should have the responsibility of developing Terms of Reference, setting priorities, assigning tasks, monitoring activities and outcomes, and making recommendations concerning the resources required to implement CPTED recommendations. The Working Group should report back to the City Manager's office.
3. A municipal official should be given the task of facilitating the use of CPTED in Ottawa. This person would be responsible for moving the initiative through the political and administrative systems. The person could be a senior planner or other senior administrator who could champion the process and deal with barriers to change. This person would also be

a key member of the CPTED Working Group and would likely work on CPTED along with his/her regular duties rather than as a full-time job.

4. Crime Prevention Ottawa should coordinate CPTED training for people involved in the planning process who have not yet received it. A less-intensive familiarization should be given to key decision-makers including politicians and senior city managers.
5. A public education campaign should be developed to familiarize the public with the benefits of CPTED. The Working Group should consider following several other jurisdictions that use terms such as Design Out Crime which may have more public appeal than the term CPTED.
6. A process must be developed that will give the public input into the use of CPTED. Members of groups such as neighbourhood associations and women's organizations should have access to CPTED training and have the opportunity to participate in community crime audits and to review development plans. Alignment of some aspects of CPTED planning with the Neighbourhood Planning Initiative would help to ensure public input.
7. The City of Ottawa and Crime Prevention Ottawa should work with other municipalities to encourage the provincial and federal governments to play a greater role in developing and supporting CPTED as part of a broad crime prevention strategy.

Recommendations Concerning New Development

8. CPTED should be integrated into existing planning and development programs. CPTED standards should be written into regulations and be part of the design process from the beginning. This would represent a significant change in the process and so could be implemented incrementally over time as guided by the CPTED Working Group. It is far more difficult to incorporate CPTED planning at a later stage of the design process when many key decisions have already been made. Planning programs such as Community Design Plans, the Downtown Ottawa Urban Design Strategy, and the Neighbourhood Planning Initiative should include CPTED design principles.

Recommendations Concerning Problems with Existing Facilities

9. The CPTED Working Group should develop a process to set priorities for safety audits of existing facilities, parks, or neighbourhoods and ensure that these audits are coordinated.
10. The CPTED Working Group should also establish a mechanism that will ensure follow-up on audits to encourage the responsible parties to act on the recommendations. Requiring private owners to make changes to existing facilities can be difficult, so we recommend that a combination of regulations and incentives such as certification (which is used in Crime Free Multi-Housing) be used to deal with CPTED problems in existing construction.

1.0 Introduction

Crime Prevention Through Environmental Design (CPTED) is an important component of a comprehensive approach to crime prevention.¹ CPTED entails understanding the relationship between physical design and levels of criminal activity and then manipulating design to reduce the incidence of crime.

1.1 Methodology

The first phase of the study involved a review of CPTED research. The review covered the history of CPTED, an assessment of the evaluation research on the effectiveness of CPTED, and descriptions of the way CPTED has been promoted and implemented in several countries including the United Kingdom, the United States, the Netherlands, Australia, and Canada. Our findings from this phase are summarized in this report and reported in full in Appendix D.

In the second phase of the study, we interviewed 24 people from inside and outside Ottawa who have knowledge or expertise in CPTED. Respondents included members of the police service; an Ottawa city councillor; city planners; Ottawa Corporate Security; an architect; security personnel from Ottawa Community Housing and from one of Ottawa's largest apartment owners; representatives of Women's Initiatives for Safer Environments (WISE) — a group that does community CPTED audits; security specialists from Public Works and Government Services Canada and the RCMP; a member of a neighbourhood association; urban planners from Regina, Saskatoon, and the United States; and a leading U.S. academic expert on CPTED. Interviews were done in person and by phone.

1.2 Structure of the report

The remainder of this report is structured as follows: the next section briefly defines CPTED and defensible space and notes its effectiveness (more detail on these topics is included in Appendix D). Section 3 gives an overview of existing CPTED use in Ottawa. Best practices and lessons learned from other jurisdictions are summarized in Section 4. Our recommendations for increasing the use of CPTED in Ottawa are presented in Section 5. Brief concluding comments are included in Section 6.

¹ Other types of strategies include social development, police-based strategies, community programs, and legislative/administrative actions. CPTED is part of the broader category of situational crime prevention.

2.0 CPTED and defensible space

Fences, locks, and surveillance have long been used to protect people and property. Researchers and practitioners have built upon these practices by trying to understand the relationship between physical design and levels of criminal activity, and then by manipulating design to reduce the incidence of crime. This type of crime prevention is called **crime prevention through environmental design (CPTED)**, and it focuses on the design of buildings and other infrastructure and on their geographical placement. CPTED is based on the view that the built environment affects crime. Crime is not randomly distributed but is concentrated in some locations. There are many reasons why some places have higher crime rates than other places; one reason is the built environment.

Crime prevention through environmental design (CPTED) involves understanding the relationship between physical design and levels of criminal activity, and then manipulating design to reduce the incidence of crime. There is a growing body of evidence which suggests that CPTED can reduce crime and fear of crime.

CPTED is based on rational choice theory, which claims that crime is the result of deliberate choices made by offenders based on their calculation of the risks and rewards involved with these choices. Rational choice theory does not focus on the individual's background, but rather on the situational factors involved in deciding whether or not to commit a crime. The essence of CPTED and other types of situational crime prevention is the idea that criminals will be deterred if the environment can be changed to increase the perceived risk, increase the effort, or reduce the rewards of committing an offense.

There is a growing body of evidence which suggests that CPTED can reduce crime and fear of crime. Appendix D describes evaluation research that has been done on several CPTED programs (Secured by Design and Graffiti Clean Up Programs) and tactics (street closures, public housing renewal, closed circuit television, street lighting, convenience store ordinances, and target hardening).

3.0 Overview of CPTED in Ottawa

The Ottawa Police Service has conducted a study which shows that properly implemented CPTED strategies have helped to reduce crime in Ottawa (VanRyswyk and Shimuzu, 2007). This study randomly selected 10 locations that were audited during the planning process and 10 existing locations where audits were requested by the owners/occupiers. The researchers found that where recommendations made at the planning stage were implemented, subsequent criminal activity was very low. They also found that the crime problems predicted by the CPTED analyst have occurred in locations where recommendations were not implemented. Similarly, they found that where the owners of existing locations followed the recommendations of the analyst, crime decreased. If recommendations were not implemented, crime subsequently remained the same or increased.

An Ottawa Police Service study showed that where CPTED recommendations made at the planning stage were implemented, subsequent criminal activity was very low. It also found that the crime problems predicted by the CPTED analyst have occurred in locations where recommendations were not implemented. While this demonstrates that CPTED initiatives have been successful in reducing crime in Ottawa, the study also shows that many property owners did not take the advice given to them.

While this demonstrates that CPTED initiatives have been successful in reducing crime in Ottawa, the study also shows that many property owners did not take the advice given to them. In the 10 cases where the audit was conducted during project planning, 26 of the analysts' recommendations were followed and 13 were not followed. Three projects accounted for 18 of the implemented recommendations. These were all municipal facilities including a police station, a transit station, and a pedestrian overpass. The projects where recommendations were implemented had very low rates of crime following construction. On the other hand, three of the four projects in which most or all of the recommendations were not implemented had substantial police calls for service in the year following construction. In the 10 cases involving audits of existing facilities, 44 recommendations were implemented, 10 were partly implemented, and 52 were not implemented. Again, there was a relationship between following CPTED recommendations and reduction in police calls for service. Given these findings, it is not surprising that the first recommendation of the study was: "Initiating discussions with the City to establish how CPTED recommendations, made by a qualified CPTED practitioner, are considered mandatory and binding" (VanRyswyk and Shimuzu, 2007, p.85).

This view is supported by our interviews which indicated that while CPTED is used in Ottawa and has been successful in preventing crime, its impact has been limited because the use of CPTED is not coordinated, is not adequately funded, is not mandated by legislation or regulation, and is not linked to any broader crime prevention strategy. CPTED practitioners also told us that there are no formal policies or procedures governing the use of CPTED and that there are few mechanisms for ensuring that CPTED-based recommendations are implemented. This situation is not unique to Ottawa. Two leading experts on CPTED concluded that:

We are dealing with a relationship (between place-based crime prevention and the planning system) that is still in a relatively early phase of development, and that

has a long way to go before it is an accepted and understood part of everyday planning practice...In many instances...it is clear that very little if anything is being done to use the planning system to help with the process of crime prevention, and in these instances we would suggest that there is a need to think carefully about how this situation might be changed (Schneider & Kitchen, 2007, p. 86).

However, there was enthusiasm among those we interviewed in Ottawa about the potential of CPTED and a recognition that it can help to reduce crime. This can only be achieved by introducing structures and processes that would make CPTED an integral component of crime prevention in Ottawa.

3.1 CPTED at the design phase

Municipal government

While CPTED is sometimes used in reviewing new projects in Ottawa, there are no formal policies or procedures mandating the use of CPTED in the planning process.² Despite the lack of policy, many people involved in the planning process are knowledgeable about CPTED and use it in their work. Most individuals we interviewed feel that CPTED will help to reduce crime. One noted that “it is valuable input that helps to avoid problems down the road — everyone seems to accept it.” There is a broad statement in Ottawa’s official plan mandating safe communities, and there are design guidelines that refer to CPTED. Some planners have had CPTED training, but there are no formal training standards.

While CPTED is sometimes used in reviewing new projects in Ottawa, there are no formal policies or procedures mandating the use of CPTED in the planning process. Despite the lack of policy, many people involved in the planning process are knowledgeable about CPTED and use it in their work. However, CPTED will not have a significant impact on crime in Ottawa until it is fully integrated into the municipal planning process and systematically applied at the earliest stages of the design and development process.

Development plans are submitted to the police who review many of them. However, police approval is not formally required and the police do not follow up to see what actions have been taken on their recommendations. The process is essentially ad hoc, and there are no formal channels of communication among the different agencies that have interest and expertise in CPTED. Many of our respondents were concerned that no authority required changes to be made to problems identified in CPTED audits. One person we interviewed who was familiar with city council’s planning committee said that he did not recall any reference to CPTED in any planning material presented to council.³

² It is interesting to compare this situation with the rigorous enforcement of fire code regulations. Although many fire regulations are very costly to implement, there appears to be little resistance to compliance.

³ Despite this, CPTED principles have been used in many recent and current projects in Ottawa including the new airport terminal, the new projects being designed for Rideau Street (including the new Congress Centre, Rideau Centre Parking reconstruction, and Rideau Street bush shelters), the Ottawa courthouse, and Riverside South expansion.

Some municipal organizations use CPTED in their planning. One example is that transit does CPTED reviews of all new infrastructure. Transit security works with the police and with the City of Ottawa property management and corporate security departments on CPTED issues, and has also used Women's Initiatives for Safer Environments (WISE) to do safety audits. Follow-up actions and a commitment to safety have ensured that many of the recommendations from CPTED audits and reviews have been implemented in the transit system.

Parks and Recreation are involved in the planning and design of all new communities. They are responsible for parks and all other recreational facilities. They also oversee redesign and redevelopment of existing facilities. Thus they have responsibility for over 1,200 public spaces in Ottawa and have formal links with the Ottawa Police Service and Corporate Security. They also work closely with Surface Operations and by-law enforcement officials. Parks and Recreation conduct audits based on referrals from a variety of sources including police, community associations, and city councillors.

In the community of Hintonburg, a major road reconstruction project was designed in a collaborative fashion using CPTED principles as part of the Neighbourhood Planning Initiative. In an attempt to alleviate some of the community's problems, many agencies were asked to get involved including police, paramedics, fire, and all branches of the City government including urban planners and road engineers. Although this effort had a positive outcome and the community had input into the design, the use of CPTED was not mandated and was brought to the table at a relatively late stage in the planning process.

In sum, there is a great deal of interest in CPTED at the municipal level in Ottawa and a willingness of people to work together. However, CPTED will not have a significant impact on crime in Ottawa until it is fully integrated into the municipal planning process and systematically applied at the earliest stages of the design and development process.

Federal government

Because the federal presence is so large in Ottawa, federal government policies are important in a discussion of CPTED. Treasury Board has had a formal security policy for many years, but the policy was enhanced after 9/11. There is one policy across the federal government, but each department has the responsibility for implementation. Departments can get advice and assistance from Public Works and Government Services and the RCMP or they can do the work on their own. Every new building or retrofit requires a threat and risk assessment⁴ which goes into a briefing document that is reviewed by Public Works. CPTED standards are applied as part of the overall site selection and physical overview. Because security is a high priority, plans and buildings are inspected to ensure that standards are met. The federal government policies require that CPTED principles be applied if they are deemed necessary for security purposes; however, their definition of security relates exclusively to their own assets and does not include the security of the surrounding community.

⁴ This is a broader term that encompasses CPTED. Because it is more extensive it is probably preferable to CPTED because builders should be concerned about broader security issues as well as crime.

Private developers

There has been some progress in getting private developers in Ottawa to consider CPTED, but movement has been slow. The head architect for one of the major developers in Ottawa has had CPTED training and that company also participates in Crime Free Multi-Housing which applies CPTED standards to both new and existing buildings. Although knowledge of CPTED appears to be limited among architects, the pilot Downtown Ottawa Urban Design Strategy does have some elements related to safety including lighting and trying to keep spaces active so there are eyes on the street. However, safety is not a major part of this review process.

Neighbourhood associations have also become involved in CPTED. The city has suggested that developers do ‘pre-consultation’ with affected communities before submitting development plans. There is no requirement that they do this, but some developers do it in order to avoid community opposition later in the process. One neighbourhood association member reported that while she would like communities to be even more involved in the planning approval process, her group has been able to convince developers to make security-related changes.

3.2 CPTED for existing spaces

Community safety audits

The use of CPTED in existing spaces is even more ad hoc than for new designs, as demonstrated in the use of safety audits. These audits can be a valuable tool and have been helpful to some groups such as OC Transpo. However, at the municipal level there is no central coordination of audits, which can be requested by many different sources and can be done by several groups (including the police, WISE, and Ottawa corporate security). Because of their expertise, the Ottawa Police Service has been a focal point for CPTED in existing private spaces. However, their capacity to conduct audits is limited as there is currently only one police officer working full-time on CPTED, although his work can be supplemented by other officers who have had the necessary training. The Ottawa Police Service has over 80 members who have either Level 1 or Level 2 CPTED training and who use this training in their roles as School Resource Officers, Neighbourhood Officers, and Community Police Centre staff. On average, the OPS has conducted 120 CPTED audits and site plans per year over the past five years, and in 2007 conducted 55 property audits and reviewed 110 site plans⁵.

At the municipal level there is no central coordination of safety audits, which can be requested by many different sources and can be done by several groups.

⁵ The Ottawa Police Service conducts training for their own members and also for other city staff. About 15 to 20 people are trained each year in these courses.

Audits can be initiated by requests from the community, Councillors, police, or property owners. One neighbourhood association member described this process in her community:

In addition to the formal CPTED audits, our Community Police Officer is very proactive, so he'll often contact landlords himself and encourage them to make changes. Also, he has organized audits of two back alleys; we did up a report. This came out of concerns from neighbours about fires being set. One of the neighbours had taken the audit and distributed it; it gives an overview of global issues. This was a more informal process, as opposed to the more formal process.

The police also work with their crime analysts and may receive requests for audits from the analysts or from officers in the field who have identified a problem area. The police may initiate audits in response to particular incidents or for enforcement purposes. Their policy is not to conduct audits on private facilities unless asked by the owner, because they feel that unless the audit is requested, the necessary work recommended by the audit will not likely be done. Audits may also be done because of community or political pressure.

The ad hoc nature of the safety audit process has led to problems. First, there is no mechanism for setting priorities for audits, so they may not be done where they are needed the most. Second, the audits are not linked to resources, so it is difficult to get any action on the recommendations of the audits. Community expectations may be raised through their participation in the audit process, but community members are disappointed when the city does not act on the recommendations. Third, the audits are not coordinated with other city departments such as Parks and Recreation, Surface Operations, and By-Law and Regulatory Services. This also makes it difficult to ensure that the audits result in positive changes in the community because many of these changes are the responsibility of these departments. Ottawa has no process that will ensure that safety audits are coordinated and integrated with other crime prevention initiatives.

The situation is somewhat different for public spaces. For City-owned spaces, the Corporate Security Division performs Threat and Risk Analysis for buildings and the Parks Planning Division undertakes CPTED audits for park spaces. The federal government conducts security audits on its properties.

Ottawa Community Housing

Several of our respondents noted that Ottawa Community Housing has some areas with design-related problems. Many of their developments are older and not built in accordance with principles of CPTED. Some members of their staff have had CPTED training, so they are aware of the issues. One of their technical services staff has Level 2 CPTED training, and their security staff is hired from law enforcement foundations programs where CPTED is taught. The patrollers make daily reports on security issues, and audits have been done on some of the properties by WISE, the police, and Algonquin College. Although some problems such as broken windows and doors are dealt with immediately and a few other projects have been completed, funding for major renovations is limited, so many of the CPTED recommendations are not acted upon. An extensive building condition assessment is currently underway which has a security audit component, so action may be taken in the future.

Crime-free Multi-Housing

One area where CPTED has been successfully applied to existing buildings is the Crime Free Multi-Housing program run by the Ottawa Police Service. The program is aimed at reducing crime in rental housing. One component of the program is a CPTED inspection, and owners must meet a minimum standard in order to receive certification. Many of Ottawa's largest housing companies participate in the program, so it has been an effective way of encouraging the use of CPTED.

Community involvement

One issue that was mentioned by several respondents is the need to involve the community in CPTED audits and find ways of getting the results back to the community. There have been efforts to do this. WISE has built community consultation into their process and they try to use their audits to build community capacity. The police have also worked closely with community groups on several projects. However, as with other processes involving CPTED, this would be more effective if there were policies that would encourage and facilitate this consultation where appropriate.

3.3 Barriers to effective CPTED use in Ottawa

Lack of coordination

Some progress has been made in applying CPTED to municipal planning in Ottawa — people throughout the planning process recognize the need for CPTED planning; police and planners have been trained, and some have high levels of CPTED skills. However, this work needs to be planned and coordinated or it will not have any impact on public safety. There is a need to pull the pieces together and to integrate CPTED more systematically into the planning process and to ensure that this is done as early in the process as possible. Several respondents reported a lack of communication among people working with CPTED. Several different groups review development plans and conduct audits of existing spaces, but there is no central coordination of the process. One respondent observed that because the city is a multi-departmental organization, it is sometimes hard to work across departments on priorities and timelines. Departments have different levels of staffing and priorities. Another respondent observed that there are too many levels of decision-makers involved for the process to work efficiently. Also, some audits go to municipal departments and others to agencies such as Ottawa Community Housing. Another respondent commented on the need to streamline the process in order to provide more accountability. The respondent felt that the municipal process is so diffuse that nobody has the final authority to decide what should be done.

Lack of mechanisms to ensure changes are made

Several respondents pointed out that once audits are done or CPTED problems are identified in design plans, there is no mechanism for ensuring that the recommended changes are made. Changing this situation will require new municipal policies. This could include policies that give planners the authority to modify or reject applications that do not conform to CPTED standards and incentives to builders or owners who use CPTED principles to reduce the risk of crime. This

problem is particularly acute when dealing with existing properties, particularly when this involves private properties because owners cannot be forced to make changes to buildings that are unsafe from a CPTED perspective. Two options in these cases are establishing a voluntary certification system such as that used in Crime Free Multi-Housing or requiring security updates when there are extensive renovations.

Lack of resources

The lack of resources is another barrier to the effective use of CPTED. This was mentioned by many respondents, several of whom said it was a particular problem for Ottawa Community Housing. Funding has been very tight for this agency, and it has been difficult for them to do necessary repairs to infrastructure in aging buildings. This means that major CPTED changes often have a low priority. One respondent said that school boards may re-use plans several times and will not have the plans revised when problems are identified because of the cost of these revisions. One community respondent reported that she was unable to get the city to carry out most of the changes recommended by a series of safety audits; the report ‘fell on deaf ears’ despite the concerns of the community. These problems are to be expected when there is no funding program to deal with the results of audits.

Design considerations

Design considerations can also be a barrier to the use of CPTED in new construction. Designers of buildings and parks have many other factors to consider besides crime prevention. Many people value the aesthetics of a building, and this may sometimes conflict with security considerations. Some features that make parks more enjoyable may increase the vulnerability to crime — a ‘moonscape’ without trees or other barriers may increase security but will not be a place that people will want to use. One respondent gave the example of a park with a heritage feature that community members wanted to retain even though it might have provided an opportunity for crime. These considerations are important, and there will always be a need to reach a balance.

4.0 Best practices and lessons learned from other jurisdictions

Several countries have implemented CPTED strategies that provide lessons for Canada. The **United Kingdom** has perhaps the broadest crime prevention legislation of any Western country. In 1994, the national government provided CPTED guidance to local planning authorities. While this guidance was only advisory, the importance of CPTED was reinforced in the *Crime and Disorder Act* of 1998 which required local governments and the police to establish Crime and Disorder Reduction Partnerships. These partnerships were required to conduct audits identifying local crime problems and to develop and implement community safety plans to address these problems. The British government also helped develop and promote the Secured by Design program that encouraged the use of CPTED in design and construction.

CPTED also plays a significant role in crime prevention in **Australia**. The national governments of Australia and New Zealand have developed a CPTED policy framework, and all state governments have CPTED codes or guidelines (Cozens, 2004). The level of involvement varies among the states but several have made a strong commitment to CPTED. For example, Western Australia has an Office of Crime Prevention within the Department of the Premier and Cabinet which includes a Designing Out Crime unit that focuses on CPTED. As part of this strategy, the government of Western Australia plans to incorporate CPTED planning at the state and local levels, has developed a set of planning guidelines (Western Australia Planning Commission, 2006), and is providing training and consultations for local governments. Significant funding is also available for local Designing Out Crime projects.

Several countries have implemented CPTED strategies that provide lessons for Canada. The United Kingdom has perhaps the broadest crime prevention legislation of any Western country. The national governments of Australia and New Zealand have developed a CPTED policy framework, and all state governments have CPTED codes or guidelines (Cozens, 2004). The level of involvement varies among the states but several have made a strong commitment to CPTED.

Government involvement in CPTED and other crime prevention initiatives in the **United States** is very limited. According to Schneider and Kitchen (2002), very few U.S. jurisdictions have included CPTED considerations as part of their design and planning approval processes, and where they do exist, CPTED checklists tend to be ‘cookie-cutter’ approaches that may actually be counterproductive. One of the few communities that does have a mandatory environmental design code is Tempe, Arizona. The CPTED code provisions apply to crime-prone land uses (e.g., bars, convenience stores) and also to all new construction and some renovations. Single and two-family dwelling units are excluded from the regulations. The legislation is enforced by a team of police officers and planning personnel who review development plans. The police officers work within the planning office, so there is a very high level of cooperation. The initiative began as separate legislation, but CPTED principles are now integrated into the municipal zoning code. Schneider and Kitchen (2007) believe that Tempe is the only U.S. jurisdiction in which CPTED personnel can stop non-conforming projects — a power that is normally only held by fire and building inspectors.

This and other material is discussed in detail in Appendix D.

4.1 Canada

Very few Canadian municipalities are effectively utilizing the potential of CPTED. However, we did find a few cities (Peel Region, Regina, and Saskatoon) that are providing some leadership in this area. Each of these communities has made use of CPTED in their planning process.

Peel Region

Peel Region consists of the municipalities of Brampton, Caledon, and Mississauga, and there are CPTED policies at both the regional and municipal levels.

Regional Council policy states that the Council:

- ▶ Requires all proponents of development to consult the Region of Peel Crime Prevention Through Environmental Design principles, and provide physical design features that promote proper design and effective use of the built environment as determined to be appropriate by the area municipalities.
- ▶ Encourage the area municipalities, where appropriate, to implement the Region of Peel Crime Prevention Through Environmental Design principles.

The Regional Council also has Urban Design Guidelines which state that “All development within the Secondary Plan Area shall be based on due consideration of the Crime Prevention Through Environmental Design principles and incorporate physical design features that promote proper design and the effective use of the built environment, as considered appropriate by the City.”

At the municipal level, the Mississauga City Planning Guidelines include the Peel Region Committee’s CPTED manual as an appendix in order to guide planners and developers.

In practice, the Peel Regional Police CPTED expert will usually receive draft plans for subdivisions and the site plans, but this can be a bit late in the process if major changes are needed. In some cases, particularly with government projects, the CPTED process begins early in the design stage.

In Mississauga, all public facilities must be given CPTED review by the CPTED Advisory Committee.⁶ Also, one requirement of architects for these facilities is that they must demonstrate knowledge of CPTED when bidding on projects. However, the committee has no real ability to enforce any changes it might feel are required. Thus, they are not always successful in achieving changes. The biggest impediment to change is that they are often consulted too late in the game — one respondent commented that “it’s too late if the concrete is already poured.” There are no mechanisms to ensure that recommendations from audits of existing properties are

⁶ The Committee includes representatives from the Peel Regional Police, Mississauga Crime Prevention Association, and several City of Mississauga Departments including Planning and Building, Transportation and Works, Corporate Services Enforcement Division, and Community Services including the Planning and Development Section, the Recreation and Parks Division, the Security and Operations Section, and the Facilities Design and Engineering Section.

implemented. Also, Peel Region has not institutionalized a means of involving the community in the audit process.

Regina

In Regina the planning department circulates development plans to a number of departments including Community Social Development and the Regina Police Service. The review process is formalized, but there is no specific CPTED mandate. However, CPTED is one of the issues that can be raised as part of the review.

In addition to reviewing new projects, the police and the department of Community Social Development have used the CPTED process to increase community engagement with neighbourhood improvement and crime prevention. The Regina Police Service works with the community associations and trains their members in CPTED. This has been done in projects in two high-crime neighbourhoods. They have tried to implement Second Generation CPTED (see Appendix D) by involving the community in crime reduction programs (Abramovic and van Dursen, 2004). Once community members have been trained, they are put into teams with people with CPTED expertise and given the task of doing audits in their communities. The teams conduct block by block audits in both private and public spaces, and now have thousands of CPTED audit sheets. This has been a good way of getting community members involved with the process. They get involved through training, and the audits make them more aware of what is going on in their community.

CPTED can also facilitate the engagement of residents with each other. For example a youth employment group was formed and then hired to do some of the work recommended by the audits. One other benefit of introducing CPTED issues in high-crime communities is that it is a non-threatening process. These neighbourhoods have many different types of problems. Focusing on CPTED initially means they can point to things in the environment, rather than pointing to other community members as a source of their community's problems. Also, the city can quickly take some initial steps such as improving lighting by cutting away tree branches, so the community quickly sees tangible signs of improvement.

This community process is still evolving. A report on one of the communities (North Central) has been written, and an implementation plan has been developed and is being monitored. Many different departments are involved in the implementation, and these departments are all involved on the project steering committee.

Saskatoon

Few Canadian cities have integrated CPTED into their planning policies and processes as much as Saskatoon. This process began about a decade ago as an initiative within City Planning. Managers built a critical mass of people in the planning department and then promoted CPTED within other departments and branches by talking to middle managers and by taking other employees with them on safety audits so they could understand the need for safe design. In 2001, they set up a training course involving people from many different agencies to ensure a multidisciplinary view. Saskatoon has established a CPTED Working Group that meets regularly to review new projects and existing structures. Several departments now have a strong cadre of

people with CPTED training (for example, the parks department has six) who will be involved with all new planning from the beginning.

Few Canadian cities have integrated CPTED into their planning policies and processes as much as Saskatoon. Saskatoon has established a CPTED Working Group that meets regularly to review new projects and existing structures. Several departments now have a strong cadre of people with CPTED training who will be involved with all new planning from the beginning.

The city has established a Local Area Planning Program which is administered by the Neighbourhood Planning Section under the City Planning Branch. Local Area Plans (LAPs) are comprehensive neighbourhood plans that are developed in consultation with residents. Neighbourhood security is one of the themes of the Local Area Plans, and extensive safety audits are part of the planning process. Two planners work full-time on the implementation of new Local Area Plans and two on the implementation of the completed and approved LAPs. In addition to these neighbourhood reviews, parks and other civic facilities have received CPTED reviews.

In addition to using CPTED to improve older communities, Saskatoon has taken steps to ensure that CPTED is used in the design of new developments and buildings. In October 2007, City Council directed the administration to formalize CPTED within the City of Saskatoon's Development Plan. While this amendment has not yet received final Council approval, a diagram of how the process works for Neighbourhood Concept and Sector plans is attached as Appendix B. The proposed CPTED review amendment will cover all civic projects, public facilities, and structures but not private buildings at this time. However, private developers and builders will be encouraged to use CPTED, and the City will prepare guidelines for them. As part of the sustainability guidelines, city planners have established new neighbourhood design guidelines. They have prepared a workbook that will be given to prospective applicants that will pose questions that applicants must address. One section of this workbook is about CPTED. For all city projects, project managers with CPTED training or the CPTED Coordinator will be involved. If they contract out this function, knowledge of CPTED will be a requirement for bidders. These new policies will bring more accountability and a higher profile to CPTED in the planning process. A new Mayor's Committee on Neighbourhood Safety will likely also promote the use of CPTED in the city.

5.0 Discussion and recommendations

The Ottawa 20/20 plan calls for a new approach to city-building. The plan states that:

Preventative thinking is the foundation of the City's approach to managing growth and providing services. At the macro-scale, the [Official Plan] will help prevent some of the fiscal, environmental and social problems that have arisen due to past development trends. At the level of specific services, preventative measures will help reduce the need for intervention and reduce the suffering experienced by citizens... Prevention is much more cost-effective than remediation or intervention and can contribute to maintaining the high quality of services in the current climate of budget restraint" (City of Ottawa, 2003, p.17).

Preventing crime and improving public safety is so important that CPTED should be a core component of Ottawa's future planning. Decisions made today about the design of new neighbourhoods, buildings, parks, and other facilities will have an impact on the safety of the citizens of Ottawa for many decades to come. CPTED is a proven method of crime prevention that should be a key building block in Ottawa's crime reduction and community safety strategy.

Ottawa can take a global leadership role by incorporating CPTED as a core part of a broad and comprehensive crime prevention strategy.

Preventing crime and improving public safety is so important that CPTED should be a core component of Ottawa's future planning. Decisions made today about the design of new neighbourhoods, buildings, parks, and other facilities will have an impact on the safety of citizens of Ottawa for many decades to come. CPTED is a proven method of crime prevention that should be a key building block in Ottawa's crime reduction and community safety strategy.

5.1 Recommendations

Our recommendations are based on the views of the key actors we interviewed and the lessons learned from the best practices review. Both of these sources gave very consistent direction about the best way to proceed. Ottawa can build a safer city by embedding CPTED in the City's planning process. To accomplish this, we recommend the following.

Recommendations concerning process

1. Crime Prevention Ottawa should begin the process of integrating CPTED into municipal planning by organizing a planning meeting for those with an interest in community safety and CPTED (a list of suggested participants and a statement of their roles is included as Appendix C). The goals of the meeting might include:
 - ▶ Familiarizing people with CPTED. Participants will have different levels of knowledge about CPTED and all should know the strengths and weaknesses of CPTED and understand its role as part of a comprehensive crime prevention strategy.

- ▶ Developing an inventory of the CPTED-related activities now taking place in Ottawa.
 - ▶ Establishing a network of people who should be involved in increasing the use of CPTED in Ottawa.
 - ▶ Establishing the structure for a CPTED Working Group to move ahead with the next steps in the process.
2. Crime Prevention Ottawa should convene and support the CPTED Working Group that will coordinate CPTED activities. This CPTED Working Group should have the responsibility of developing Terms of Reference, setting priorities, assigning tasks, monitoring activities and outcomes, and making recommendations concerning resources required to implement CPTED recommendations. The Working Group should report back to the City Manager's office.
 3. A municipal official should be given the task of facilitating the use of CPTED in Ottawa. This person would be responsible for moving the initiative through the political and administrative systems. The person could be a senior planner or other senior administrator who could champion the process and deal with barriers to change. This person would also be a key member of the CPTED Working Group and would likely work on CPTED along with his/her regular duties rather than as a full-time job.
 4. Crime Prevention Ottawa should coordinate CPTED training for people involved in the planning process who have not yet received it. A less-intensive familiarization should be given to key decision-makers including politicians and senior city managers.
 5. A public education campaign should be developed to familiarize the public with the benefits of CPTED. The Working Group should consider following several other jurisdictions that use terms such as Design Out Crime which may have more public appeal than the term CPTED.
 6. A process must be developed that will give the public input into the use of CPTED. Members of groups such as neighbourhood associations and women's organizations should have access to CPTED training and have the opportunity to participate in community crime audits and to review development plans. Alignment of some aspects of CPTED planning with the Neighbourhood Planning Initiative would help to ensure public input.
 7. The City of Ottawa and Crime Prevention Ottawa should work with other municipalities to encourage the provincial and federal governments to play a greater role in developing and supporting CPTED as part of a broad crime prevention strategy.

Recommendations Concerning New Development

8. CPTED should be integrated into existing planning and development programs. CPTED standards and requirements should be written into regulations and should be part of the design process from the beginning. This would represent a significant change in the process

and so could be implemented incrementally over time as guided by the CPTED working Group.⁷

It is far more difficult to incorporate CPTED planning at a later stage of the design process when many key decisions have already been made. Planning programs such as Community Design Plans, the Downtown Ottawa Urban Design Strategy, and the Neighbourhood Planning Initiative should include CPTED design principles.

Recommendations Concerning Problems with Existing Facilities

9. The CPTED Working Group should develop a process to set priorities for safety audits of existing facilities, parks, or neighbourhoods and to ensure that these audits are coordinated.
10. The CPTED Working Group should also establish a mechanism that will ensure follow-up on audits to encourage the responsible parties to act on the recommendations. Requiring private owners to make changes to existing facilities can be difficult, so we recommend that a combination of regulations and incentives such as certification (such as that used in Crime Free Multi-Housing) be used to deal with CPTED problems in existing construction.

⁷ While people are not used to thinking of CPTED standards, we now take for granted the requirement for new construction to meet fire codes and other safety-related regulations. Also, the federal government has very rigorous standards for many of its facilities and these design features are accepted by government and by members of the public.

6.0 Conclusion

CPTED is being used in Ottawa. It is used in planning new neighbourhoods, in the design of parks and other green space, in new and renovated federal buildings, and in public housing. It has also been used as a catalyst in neighbourhood renewal projects. Many people involved in planning and building have received training on CPTED and use it in their daily activities. There is a great deal of enthusiasm about the potential of CPTED and a recognition that it can help to reduce crime. However, CPTED is not living up to its potential because the use of CPTED is not coordinated and is not linked to any broader crime prevention strategy.

Crime Prevention Through Environmental Design is an important component of a comprehensive approach to crime prevention. The basis of CPTED is using physical and environmental design to help control crime. We have shown that CPTED strategies can reduce crime and fear of crime, particularly when they are combined with other crime prevention strategies. CPTED strategies have been adopted by governments in many countries including Canada, the United States, the United Kingdom, the Netherlands, and Australia.

CPTED is being used in Ottawa. It is used in planning new neighbourhoods, in the design of parks and other green space, in new and renovated federal buildings, and in public housing. It has also been used as a catalyst in neighbourhood renewal projects. Many people involved in planning and building have received training on CPTED and use it in their daily activities. There is a great deal of enthusiasm about the potential of CPTED and a recognition that it can help to reduce crime. However, CPTED is not living up to its potential because the use of CPTED is not coordinated and is not linked to any broader crime prevention strategy.

Following the recommendations of this report and incorporating CPTED as a core part of a broad and comprehensive crime prevention strategy will help to ensure that Ottawa will be a safer city in the future.

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Appendix A

Instruments

Study and Recommendations for Crime Prevention Through Environmental Design (CPTED) in Ottawa

Interview Guide for Stakeholders

Crime Prevention Ottawa (CPO) has engaged an independent consulting firm, PRA Inc., to conduct a study on Crime Prevention Through Environmental Design (CPTED) in Ottawa. The focus of the study will be upon developing a strategy that will facilitate collaboration among various stakeholders in advancing CPTED in the City. The interviews are intended to identify the current state of CPTED in Ottawa and also to gain insight into what practices and strategies are likely to be effective in advancing CPTED in Ottawa.

This interview is confidential and you will not be personally identified in any reporting. With your permission, we would like to tape-record the interview to ensure the accuracy of our notes. The audiotape will be stored securely and destroyed upon project completion. Please note that some questions may not be relevant to all interviewees.

Introduction

1. Please briefly describe your position and your roles and responsibilities, particularly in relation to CPTED.

CPTED in Ottawa

2. Do you know of any ways in which CPTED is currently being used to address community safety issues in new spaces in Ottawa? *(If yes, go to #3. If no, go to #4.)*
3. Please describe the nature and scope of CPTED activity, particularly CPTED audits, in Ottawa during the design phase (for new spaces). More specifically, please indicate:
 - ▶ who initiates/requests audits and who undertakes them
 - ▶ the process for requesting audits
 - ▶ how audits are prioritized
 - ▶ barriers that impede audits from being undertaken
 - ▶ whether and how recommendations from audits are implemented, including barriers to implementation
 - ▶ your assessment of how the process is working and any suggested changes.
4. Do you know of any ways in which CPTED is currently being used to address community safety issues in existing spaces in Ottawa? *(If yes, go to #5. If no, go to #6.)*

5. Please describe the nature and scope of CPTED activity, particularly audits, in Ottawa for existing spaces. More specifically, please indicate:
- ▶ who initiates/requests audits and who undertakes them
 - ▶ the process for requesting audits
 - ▶ how audits are prioritized
 - ▶ barriers that impede audits from being undertaken
 - ▶ whether and how recommendations from audits are implemented, including barriers to implementation
 - ▶ your assessment of how the process is working and any suggested changes.

Best practices and the future of CPTED

6. What key stakeholders do you think should be involved in formulating a CPTED strategy for Ottawa that would encompass both new and existing spaces?
7. What processes and activities should the City of Ottawa undertake in order to formulate a CPTED strategy and/or raise awareness of CPTED?
8. What do you think are the barriers to advancing CPTED in Ottawa and how might these be overcome?
9. Are you aware of any studies that offer insights into best practices in developing a CPTED strategy, particularly at the municipal level?
10. Are you aware of any other municipal jurisdictions that are at the forefront of CPTED that you think the City of Ottawa could learn from? If so, which municipalities, and what makes these municipalities exemplary?
11. Do you have any additional comments or suggestions regarding how to advance CPTED in Ottawa?

Thank you. Your participation is greatly appreciated.

Study and Recommendations for Crime Prevention Through Environmental Design (CPTED)

Interview Guide (outside Ottawa)

Crime Prevention Ottawa (CPO) has engaged an independent consulting firm, PRA Inc., to conduct a study on Crime Prevention Through Environmental Design (CPTED). The focus of the study will be developing a strategy that will facilitate collaboration among various stakeholders in advancing CPTED. The interviews are also intended to gain insight into what practices and strategies are likely to be effective in advancing CPTED in Ottawa.

This interview is confidential and you will not be personally identified in any reporting. With your permission, we would like to tape-record the interview to ensure the accuracy of our notes. The audiotape will be stored securely and destroyed upon project completion. Please note that some questions may not be relevant to all interviewees.

Introduction

1. Please briefly describe your background in relation to CPTED.

CPTED in your jurisdiction/jurisdictions you are knowledgeable about

2. Please describe the nature and scope of CPTED activity in your jurisdiction/the jurisdictions you are knowledgeable about, during the design phase (for new spaces). Please describe any policy statements or procedures in place.
3. Please describe the nature and scope of CPTED activity in your jurisdiction/the jurisdictions you are knowledgeable about, for existing spaces. Please describe any policy statements or procedures in place.

Best practices

4. What processes and activities did your jurisdiction/the jurisdictions you are knowledgeable about undertake in order to formulate a CPTED strategy/policy and/or raise awareness of CPTED? What key stakeholders were involved and what partnerships were formed?
5. What are the barriers to advancing CPTED at the municipal level and how have/could these be overcome?
6. Are you aware of any studies that offer insights into best practices in developing a CPTED strategy, particularly at the municipal level? Are you aware of any other municipal jurisdictions that are at the forefront of CPTED? If so, which, and what makes them exemplary?
7. Do you have any additional comments or suggestions?

Thank you. Your participation is greatly appreciated.

Appendix B

Saskatoon Planning Process Diagram

How CPTED fits into the NEIGHBOURHOOD CONCEPT PLAN Approval Process

Planning Process

Land Branch or Private Developer Submits Draft Neighbourhood Concept Plan to Development Services Branch

Draft Neighbourhood Concept Plan Circulated to Civic Departments, Utility Agencies & Stakeholders

Draft Neighbourhood Concept Plan Revised

Draft Neighbourhood Concept Plan Re-Circulated

Neighbourhood Concept Plan Revised

Public Consultation (as appropriate)

Circulated to Technical Planning Commission, Planning & Operations Committee, & Municipal Planning Commission

Public Information Meeting

Public Hearing & Council Decision

CPTED Review Process

CPTED principles applied during initial design by Developer. They are identified in the new Neighbourhood Design Workbook.

Concept Plan reviewed by CPTED Review Committee/City Planning as part of the initial review. CPTED Review Report compiled and sent to Developer.

Developer addresses concerns and recommendations identified in CPTED Review and reports back to Committee.

The CPTED Review report and response from Developer are to be included in final reports to Council, Committee, or Commission.



March 2008

CPTED Process Flowchart

Appendix C

Proposed Participants in CPTED Planning

Municipal	
Groups	Role
Crime Prevention Ottawa	Coordinate the planning process; ensure that all parties work together on CPTED
Ottawa Police Service	Review development plans; training; identify crime and disorder problem areas; conduct safety audits
Community and Protective Services Committee	Support the process at the political level; oversight of the use of CPTED in Ottawa
Planning Branch	Modify building codes to ensure that CPTED is included in project planning from the beginning; ensure staff are trained; promote the use of CPTED within municipal government and private sector design and building companies
Parks and Recreation	Providing advice about CPTED requirements for new and existing space used for parks and recreation; ensure staff are trained in CPTED; conducting audits and responding to CPTED-related concerns without conducting a full audit; working with other municipal departments such as Surface Operations.
Surface Operations (Roads, Parks and Trees)	Ensure CPTED is incorporated in new design and construction; provide technical advice to those conducting safety audits; make changes recommended by safety audits
By-Law and Regulatory Services	Ensure that CPTED regulations and recommendations of safety audits are in accord with by-laws and regulations
Ottawa Corporate Security	Provide physical security for all city owned, leased, and operated facilities at the design stage and for existing facilities; providing advice to Working Group
Transit Services Branch	Physical security of persons and assets while in service as part of the transit system.
Ottawa Community Housing	Ensure that CPTED principles are applied to existing and new public housing facilities
Senior Level of Government	
Groups	Role
Federal Government (including the RCMP, Public Works and Government Services Canada, and the National Capital Commission)	Liaison; providing expertise; collaboration

Community Groups	
Groups	Role
WISE	Conduct safety audits as requested by the city and other agencies; facilitate community involvement in CPTED and other crime prevention activities; public education
Private developers and architects	Consultation about implementation of CPTED regulations; provision of advice and expertise
Community groups including women's groups which have an interest in public safety issues	Expertise about community problems; ensuring that structures and processes are acceptable to the community
Academics such as the Institute for the Prevention of Crime (U. of Ottawa) and Algonquin College.	Expertise on new CPTED techniques and on the integration of CPTED into a comprehensive crime prevention initiative
School Boards	Are major property owners who need to be involved in CPTED activities

Appendix D

Literature and Best Practices Review
(Separate document)