Fact sheet: CPTED and access control to prevent stealing from motor vehicles

What does this strategy involve?

Crime prevention through environmental design (CPTED) involves the design and management of the built and landscaped environment to limit the opportunities for crime to occur. It can be used to reduce stealing from motor vehicles in and around open air car parks, larger residential car parks and multi-storey parking facilities that have been identified as having a high number of offences.

Specific measures can include:

- cutting back overgrown bushes and trees, and planting slow-growing shrubbery along the perimeter of parking facilities to improve visibility;
- directing car park users and pedestrian flow through specific entry or exit points and along specific routes;
- introducing features in and around car parks that can attract people to the area, such as picnic tables and cafes; and
- locating surrounding pathways, stairwells and (in parking facilities) elevators in locations that enable the people using them to see parked cars.

CPTED projects can also incorporate urban renewal measures, which focus on improving the general amenity of an area by keeping it clean, well maintained and attractive to potential users. This can help to encourage feelings of personal safety among users and increase pedestrian movement through the area.

CPTED appears to be most effective in car parks when implemented as part of a strategy that also involves some form of access control, such as installing or upgrading physical security (e.g. metal fencing and secure gates) and hiring parking attendants to guard the parking facility during high-risk periods. Both of these strategies make it more difficult for potential offenders to access vehicles in deserted parking areas. Parking attendants also help to increase natural surveillance opportunities.

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1 The development of these strategies has been informed by a combination of the best available evidence, a strong theoretical crime prevention framework and practitioner experience. There is strong evidence underpinning many of the strategies that are described in the fact sheets. However, in some of the fact sheets, the evidence in support of the strategies and the case studies used to illustrate them are not particularly recent, which reflects the lack of recent evaluation activity. The evidence in support of some of the strategies is also not as strong as for others and in these cases, the strategies draw more heavily from theory and practice. There is significant scope to improve the evidence base by increasing the amount of crime prevention activity that is rigorously evaluated.
CPTED and access control measures can also be delivered alongside other interventions including lighting improvements, CCTV, increased police or security patrols or an awareness campaign (e.g. signage) to alert car park users of the potential risks, as well as the measures they can take to reduce their risk of victimisation (i.e. locking the car and not leaving valuables in the car).

The most appropriate type of CPTED and access control measures for your area will depend upon what local information and CPTED audits identify as being the key factors that provide the opportunity for offenders.

**How does the strategy work?**

CPTED involves the design, variation and management of physical structures and landscaping to reduce the opportunities for crime, creating safer places that are less prone to being targeted by offenders and making people feel safer. One of the ways this strategy works is by improving natural surveillance opportunities through removing overgrown shrubbery that may be limiting visibility, encouraging pedestrian movement through deserted car parks by introducing a thoroughfare or attraction, or making use of passing bicycle or vehicular traffic. Areas that are open and allow users to see one another are less appealing to offenders as the likelihood that they will be observed, identified and apprehended is increased.

Urban renewal measures (e.g. cleaning, maintaining and beautifying landscaped areas) create environments that are more attractive and inviting to actual and potential users. This, in turn, encourages legitimate use of spaces and feelings of safety and residential pride. Encouraging legitimate use of spaces increases natural surveillance opportunities and deters potential offenders. Parking areas that are busy and well maintained are not appealing to potential offenders as there is a higher likelihood that their criminal behaviour will be detected.

Limiting or preventing access to car parks through the use of CPTED or access control measures like perimeter fencing, security doors and parking attendants can make car parking facilities more difficult to enter and unattended cars more difficult to access.

**What does the evidence say?**

A number of studies have shown that strategies involving CPTED and access control measures can be effective in reducing theft from motor vehicle offences. The evidence suggests that CPTED is most effective when implemented alongside some form of access control, or other interventions such as lighting, closed circuit television (CCTV), or an awareness campaign (e.g. signage) to educate users about reducing their risk of victimisation. While the majority of the reviewed projects were not subjected to a long-term evaluation, one multifaceted strategy that included CPTED and access control measures was evaluated over a two year period. The evaluation suggested that the initial decrease in offending rates was maintained in the long term.
Where does the strategy work best?

Research shows that CPTED and access control measures can be effective in open air car parks, residential housing estate car parks and multi-storey parking facilities identified as having a ‘stealing from motor vehicle’ crime problem. CPTED and access control are particularly suitable for implementation in these areas because:

- they are confined spaces with defined perimeters;
- they are typically flat, free of internal structures and easily surveyable by users; and
- there is guaranteed pedestrian movement and vehicular traffic as people drop off and return to their cars on a regular (and often predictable) basis.

There is limited research into their impact on offences that involve vehicles parked in the street. However, it may be possible to apply the principles that underpin this approach to other contexts, particularly areas where there is a high density of parked vehicles.

CPTED and access control measures are also best implemented:

- In parking areas where staff, local residents and car park users are enthusiastic about the changes, as they will be responsible for maintaining aspects of the strategy in the future – e.g. providing natural surveillance.
- Where there is a clear understanding of characteristics that contribute to the high rate of offending, such as security weaknesses, offender entry points and other features of the built or landscaped environment, as well as the characteristics of offenders. For example, evidence suggests that access control measures (e.g. perimeter fencing) that are designed to limit unauthorised access to a parking facility may be less effective where offenders are legitimate users of the facility. Similarly, encouraging pedestrian movement through open air car parks and the areas surrounding parking facilities appears to be an effective measure against stealing from motor vehicle offences, so long as these thoroughfares have adequate surveillance and do not attract or create opportunities for potential offenders.

What will you need to implement this strategy?

The accompanying handbook provides more detailed information on how to implement this strategy. Briefly:

A good understanding of the problem

Identifying problematic parking areas requires access to information to identify ‘stealing from motor vehicle’ hot spots, as well as information about the characteristics of these offences. Determining the risk factors for ‘stealing from motor vehicle’ offending in your local area can inform the design and implementation of an appropriate and effective prevention strategy. Previous experience has highlighted a number of risk factors for ‘stealing from motor vehicle’ offences, including long opening hours, being an open air car park (as opposed to an enclosed or multi-storey car park), larger facilities, commuter car parks (rather than short-term car parks), the presence pedestrian
thoroughfares in areas where natural surveillance opportunities are limited (e.g. in multi-
storey car parks) and poor perimeter security. Determining the risk factors for ‘stealing
from motor vehicle’ offending in your local area can inform the design and
implementation of an appropriate and effective prevention strategy.

Stakeholder involvement

Appropriate consultation mechanisms need to be established at the commencement of
the project to seek input from key stakeholders, including car parks owners/managers,
vehicle owners and the community more generally.

Availability of appropriate security technology and qualified personnel

It is important that access control measures make use of appropriate security
technology, are hardwearing and maintained over time. This hardware will need to be
sourced from an appropriate provider and installed by qualified personnel. CPTED and
security audits should also be undertaken by suitably qualified personnel, such as the
police and be targeted at facilities and car parks identified as being at risk of stealing
from motor vehicles.
CASE STUDY 1: Ohio State University parking garages

This strategy was implemented at Ohio State University in response to local police crime statistics that showed a large number of offences (including stealing from motor vehicles) as having been committed in the multi-storey parking garages located on the campus. It involved a number of interventions, including cutting back shrubbery planted along the perimeter of the garage to remove potential offender hiding spots and cutting down a number of large trees that offenders were using to gain access to the second floor of the garage. Further, chain mail was inserted in the lower level wall openings to restrict unauthorised access and the lighting in and around the parking garage was upgraded. An evaluation of the strategy found that there had been a 50 per cent reduction in the overall crime rate in the two years after the strategy had been introduced. By comparison, the crime rate in an adjacent parking garage that received no improvements had remained constant.

CASE STUDY 2: Urban renewal in the Golf Links Estate

This multi-faceted strategy was introduced in a public housing estate that was dirty, rundown and prone to vandalism. ‘Stealing from motor vehicle’ offending levels were high on the estate and the majority of offences were being committed in the open air residential car park. There were high rates of unemployment and mobility among local residents.

To improve the general amenity of the estate, the estate received a number of interior and exterior repairs. For instance, the internal heating systems were upgraded and broken/damaged windows were replaced. Other interventions included:

- clearing and landscaping the estate grounds;
- upgrades to the internal security system;
- increasing the frequency of police patrols of the estate; and
- establishing an after-school activities program for children living on the estate.

The evaluation concluded that the implementation of these strategies, in combination, resulted in a 48 per cent reduction in ‘stealing from motor vehicle’ offences on the estate between 1983 and 1990.

CASE STUDY 3: Access control in a commuter car park

This strategy was targeted at Vine Meadow car park, an open air commuter car park in Southern England, that was experiencing high rates of car-related crime. Prior to implementing the strategy, an in-depth analysis of the local crime problem was undertaken. Local police crime statistics were examined to identify key characteristics of the ‘stealing from motor vehicle’ offending problem, including offending hot spots and high-risk periods.

Second, the structural design and security measures used in the car park were compared with those used in a similar car park that had very low levels of car-related crime. This allowed those planning the strategy to identify design features and security measures that were potential risk or protective factors against stealing from motor vehicles.

The presence of parking attendants was identified as an important factor that reduced the risk of ‘stealing from motor vehicle’ offences. Two parking attendants were subsequently employed to monitor Vine Meadow car park during high-risk periods (weekdays between 6 am and 6 pm). This scheme appears to have been very effective, with overall levels of car-related crime decreasing by 66 per cent and only a small increase in offences in nearby car parks.
CASE STUDY 4: CPTED in beachside car parks

The Car Safe Project was implemented in response to the rising levels of car-related crime in parking facilities located around the west coast ranges and beaches of New Zealand. One beach car park was identified by local police as attracting high levels of car crime, particularly during holiday periods. Interventions included cutting back the shrubbery and vegetation growing around the car park and introducing a picnic table and mobile cafe to the car park to encourage frequent pedestrian movement through the area. Park ranger and police patrols of the area were also increased and signs were erected around the car park to advertise the strategy and encourage drivers to take steps to minimise their risk of victimisation.

During the early stages of project planning and implementation, strong consultation mechanisms were established with the wider community through a number of public meetings. Engaging the community at this early stage not only ensured their commitment to and awareness of the strategy, but also provided valuable information about the local crime problem that might otherwise not have been available. An evaluation of the scheme found that ‘stealing from motor vehicle’ offences decreased substantially. Local police recorded 25 incidents of vehicle crime during the pre-intervention period and only one during the post-intervention period.

Endnotes


Further reading
For further reading in this area, refer to the accompanying handbook and literature review.

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