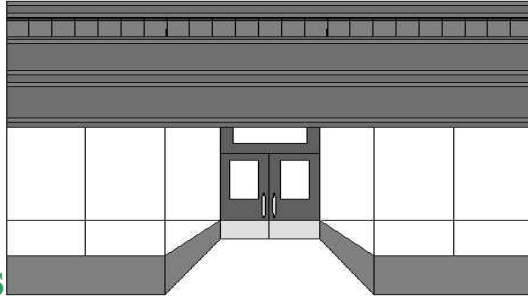


Crime Prevention Through Environmental Design

One of the innovations in community design is how to create regulations and requirements to require that commercial and residential places are designed to discourage crime. Below you can find some of the rules for such design requirements.

Commercial Properties

Storefronts



For a neighborhood to remain healthy, its local businesses must flourish; and for businesses to do well they must be safe places to frequent.

With the increase in separating commercial areas from residential ones, and the decline which often accompanies this separation, it is essential that CPTED guidelines be followed when building or remodeling commercial property. Simple design features, such as positioning cash registers near the main entrance and keeping pay phones visible, can accomplish much in the way of making customers feel safe and secure.

CPTED Guidelines

1. Natural Access Control

- cash register should be located in front of store near main entrance
- public paths should be clearly marked
- signs should direct patrons to parking and entrances
- there should be no easy access to the roof
- rear access to shops should be provided from rear parking lots

2. Natural Surveillance

- windows should face rear parking lots for increased visibility
- window signs should cover no more than 15% of windows
- interior shelving and displays should be no higher than five feet for increased visibility
- exterior of buildings should be well lit
- loading areas should not create hiding places
- clear visibility should be maintained from the store to the street, sidewalk, parking areas and passing vehicles
- retention area should be visible from the building or street --- it should be a visual amenity, not hedged or fenced off

Crime Prevention Through Environmental Design

- all entrances should be under visual surveillance or monitored electronically

3. Territorial Reinforcement

- property boundaries, where possible, should be marked with hedges, low fences or gates
- private areas should be easily distinguishable from public areas
- shops should be identified by wall signs for those parking in the rear
- awnings should be installed over rear doors and windows
- parking area should be, clearly visible from the building or street

4. Management

- operating hours should coincide with those of other neighboring businesses
- pay phones should be, call-out only and under surveillance at all times
- interior space should be well lit

Shopping Malls

Shopping malls often provide much of the public space in suburban communities and as such can be a mixed blessing. On the one, hand they perform the important function of town center, serving as a gathering place for the community. On the other, a mall can serve as an attraction for criminal activity.

While the shopping mall continually grows in size and popularity, it also becomes a haven for abnormal users and the site of a growing number of parking lot crimes. It is now more important than ever that designers and remodelers implement CPTED principles.

CPTED Guidelines

1. Natural Access Control

- signs should clearly mark public entrances
- sidewalks and public areas should be clearly marked by way of special paving and/or landscaping
- loading zones, with designated delivery hours, should be separate from public parking
- the parking garage should provide no exterior access to adjacent rooftops

2. Natural Surveillance

- restroom doors should be visible from main pedestrian areas and away from outside exits
- parking areas should be well lit
- loading areas should not create dead end alleys or blind spots
- all levels of the parking garage should be visible from the street or ground floor with high intensity lighting to minimize hiding places

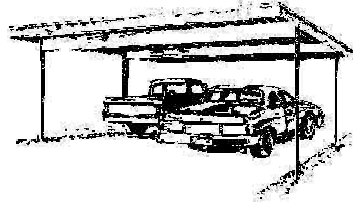
3. Territorial Reinforcements

- property perimeters defined by landscaping, post and pillar fencing or gates
- signs should clearly identify interior businesses

Crime Prevention Through Environmental Design

4. Management

- close-in parking should be available to nighttime employees
- business associations should work together to promote shopper and business safety



Drivethroughs

The drive through is potentially the perfect place for criminal activity. They are often used at odd hours, are hidden from view, and those using them will almost certainly be carrying cash.

The rule of thumb in the design of a drive through can be reduced to one word: visibility

CPTED Guidelines

1. Natural Surveillance

- locate ATM's in front of banks facing main roads or as a drivethrough in the drive-in teller lanes
- put ordering station for a restaurant within sight of interior



The 1993 bombing of Manhattan's World Trade Center sent a clear message to the planners and designers of office buildings; as structures grow in size and pedestrian and vehicle traffic increases, safety becomes an extremely important issue,

For Years the World Trade Center served as a model for safe and secure office building construction regardless of the size of the structure being built. All tenants were required to show photo identification upon entering. Metal grill's with letter sized slits covered mail slots. Garage and loading areas were secured by steel, anti-ram barricades. *No one could have foreseen the tragic events of September 11, 2001 nor could it have been prevented by traditional security measures.*

With these types of measures, there is a fine line between a safe office building and a fortress.

Crime Prevention Through Environmental Design

CPTED Guidelines

1. Natural Access Control

- Public entrances should be clearly defined by walkways and signage
- Building entrances should be accentuated through architectural elements, lighting, landscaping and/or paving stones

2. Natural Surveillance

- restrooms should be observable from nearby offices
- all exterior doors should be well lit
- hallways should be well lit
- dumpsters should not create blind spots or hiding areas
- windows and exterior doors should be visible from the street or by neighbors
- all four facades should have windows
- parking spaces should be assigned to each employee and visitor
- parking areas should be visible from windows, side parking areas should be visible from the street
- parking and entrances should be observable by as many people as possible
- parking area and walkways should be well lit
- dumpster should be clearly visible
- shrubbery should be kept under two feet in height for visibility
- the lower branches of existing trees should be kept at least ten feet off the ground
- windows should not be obstructed with signs
- windows and doors should have views into hallways

3. Territorial Reinforcement

- perimeters should be defined by landscaping or fencing
- fences should be designed to maintain visibility from street
- exterior private areas should be easily distinguishable from public areas
- security and/or reception area should be positioned to screen all entrances

4. Target Hardening

- exterior door knobs should be a minimum of 40 inches from adjacent windows
- case hardened dead bolt locks should be installed on all exterior doors with a minimum of one-inch throw
- door hinges should be installed on the interior side of the door or tamper proof hinges used

Crime Prevention Through Environmental Design

Dwellings



Single Family

Residential areas are the heart of a city. Our homes are the centers of our lives, where we should feel most safe. And, while we may have multiple choices when it comes to walking through a certain part of town or using public transportation, we have few choices when it comes to the streets where we live.

The guiding principle here is "know thy neighbor." Street and homes should be designed to encourage interaction between neighbors: good examples of these design elements are the front porch and property lines that are defined simply by low shrubbery instead of high fences.

CPTED Guidelines

1. Natural Access Control

- walkways and landscaping direct visitors to the proper entrance and away from private areas.

2. Natural Surveillance

- all doorways that open to the outside should be well lit.
- the front door should be at least partially visible from the street
- windows on all sides of the house provide full visibility of property
- sidewalks and all areas of the yard should be well lit
- the driveway should be visible from either the front or back door and at least one window
- the front door should be clearly visible from the driveway
- properly maintained landscaping provides maximum viewing to and, from the house

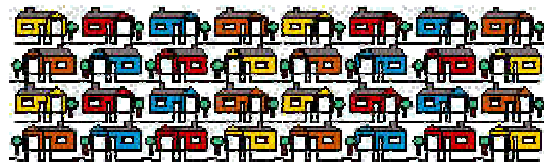
3. Territorial Reinforcement

- front porches or stoops create a transitional area between the street, and the home
- property lines and private areas should be defined with plantings, pavement treatments or fences
- the street address should be clearly visible from the street with numbers a minimum of five inches high that are made of non-reflective material

Crime Prevention Through Environmental Design

4. Target Hardening

- interior doors that connect a garage to a building should have a single cylinder dead bolt lock
- Door locks should be located a minimum of 40 inches from adjacent windows
- exterior doors should be hinged on the inside and should have a single cylinder dead bolt lock with a minimum one-inch throw
- new houses should not have jalousie, casement or awning style windows
- all windows should have locks
- sliding glass doors should have one permanent door on the outside; the inside moving door should have a looking device and a pin



Subdivisions

Often the safety measures taken in subdivision communities, such as high fences and video monitored gates, can have a negative instead of positive effect on residents. CPTED guidelines, when applied to subdivisions, can create a safe environment without the use of the more common, conspicuous methods.

For instance, streets designed with gateway treatments, roundabouts, speed tables and other "traffic calming" devices discourage speed and cut through traffic. And by keeping public areas observable, you are telling potential offenders, they'd better think twice before committing a crime.

These measures are simple, inexpensive to implement and will have a much more positive effect on residents than gates and bars.

CPTED Guidelines

1. Natural Access Control

- access should be limited (without completely disconnecting the subdivision from adjacent subdivisions)
- streets should be designed to discourage cut-through traffic
- paving treatments, plantings and architectural design features such as a columned gateway guide visitors away from private areas
- walkways should be located in such a way as to direct pedestrian traffic and should be kept unobscured

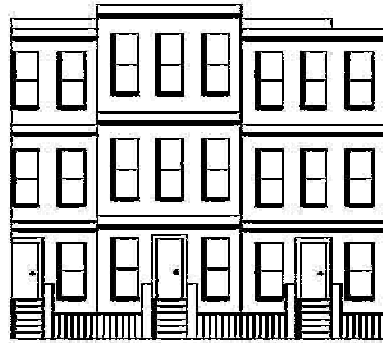
2. Natural Surveillance

- landscaping should not create blind spots or hiding spots
- open green spaces and recreational areas should be located so that they can be observed from nearby homes
- pedestrian scale street lighting should be used in high pedestrian traffic areas

Crime Prevention Through Environmental Design

3. Territorial Reinforcement

- lots, streets and houses should be designed to encourage interaction between neighbors
- entrances should be accentuated with different paving materials, changes in street elevation, architectural and landscape design
- residences should be clearly identified by street address numbers that are a minimum of five inches high and well lit at night
- property lines should be defined with post and pillar fencing, gates and plantings to direct pedestrian traffic
- all parking spaces should be assigned



Multifamily

Single and Multiple Building

Multiple buildings pose the same problems as single buildings, although these problems can easily be compounded by the number of dwellings and residents. Here we have a much greater number of public areas to consider: shared interior hallways, elevators, laundry rooms and parking areas.

But multiple dwelling buildings don't necessarily mean multiple problems. There's a certain amount of truth to the old saying; "There's safety in numbers" and with neighbors who take responsibility for each other there's no reason why a multiple dwelling building cannot be a safe place to live.

CPTED Guidelines

1. Natural Access Control

- balcony railings should never be a solid opaque material or more, than 42 inches high
- entrances into parking lots should be defined by landscaping, architectural design, or monitored by a guard
- dead end spaces should be blocked by a fence or gate
- common building entrances should have locks that automatically lock when the door closes
- hallways should be well lit
- no more than four apartments should share the same entrance
- elevators and stairwells should be centrally located
- access to the building should be limited to no more than two points

Crime Prevention Through Environmental Design

2. Natural Surveillance

- exterior doors should be visible from the street or by neighbors
- all doors that open to the outside should be well lit
- all four facade should have windows
- parking spaces should be assigned to each unit located adjacent to that unit, and not marked by unit numbers
- visitor parking should be designated
- parking areas should be visible from windows and doors
- parking areas and pedestrian walkways should be well lit
- recreation areas should be visible from a multitude of windows and doors
- dumpsters should not create blind spots or hiding areas
- elevators and stairwells should be clearly visible from windows and doors
- shrubbery should be no more than three feet high for clear visibility
- buildings should be sited so that the windows and doors of one unit are visible from another
- stairwells should be well lit and open to view; not behind solid walls

3. Territorial Reinforcement

- property lines should be defined by landscaping or post and pillar fencing
- low shrubbery and fencing should allow visibility from the street
- building entrances should be accentuated by architectural elements, lighting and /or landscaping
- door knobs should be 40 inches from window panes
- all buildings and residential units should be clearly identified by street address numbers that are a minimum of five inches high, and well lit at night
- common doorways should have windows and be key controlled by residents
- mailboxes should be located next to the appropriate residences

4. Target Hardening

- since cylinder dead bolt locks should be installed on all exterior doors
- door hinges should be located on the interior side of the door
- sliding glass doors should have one permanent door on the outside and on the inside moving door should have a lock device and a pin

*produced by
Dorinda R. Howe, FCPP, CPTED Specialist
Office: (407) 240-1283*