Original Message:
Sent: 02 Apr, 2020 10:06
From: Matthew Dimmick
Subject: Social Distancing Through Environmental Design (SDTED)

The practice of Crime Prevention Through Environmental Design (CPTED) is employed to impact offender decisions that precede the commission of a crime and to build a sense of community to gain control of their environments and reduce the opportunities for and fear of crime.

It is my opinion, as a CPTED Practitioner, that the foundational principles of CPTED; natural surveillance, natural access control, territorial reinforcement, maintenance, and target hardening can be readily adapted to support the implementation of social distancing practices. This supportive strategy may potentially help flatten the curve, get people back to work, and reduce the impacts of the potential resurgence of the virus as isolations and quarantines are lifted. Below, I will provide a summary of the classical definition of each of these principles and then provide examples of how they may be modified into SDTED Principles to help fight the coronavirus.

The principle of **natural surveillance** is intended to increase the threat of apprehension by taking steps to increase the perception that someone's activities will be observed. In SDTED this will manifest in a few ways. First, I would draw your attention to coronavirus social distancing hotlines like the one implemented by Governor Beshear in the State of Kentucky. While it may seem strange to ask people to call in and report neighbors they see violating social distancing practices, is this any different than implementing a neighborhood watch to keep an eye out for potential criminals? I would say that this threat is just as concerning as the violent crime neighborhood watches are intended to reduce making this a valid and potentially effective strategy. Second, natural surveillance has been effective in pressuring citizens in societies where wearing a mask or cloth face covering is encouraged or obligatory to comply with this precaution. It may be hard to argue at the end of this pandemic that wearing a mask or cloth face covering when you go out in public for essentials proved to be beneficial.

Natural access control is intended to physically guide people through a site. In CPTED, this is accomplished through the strategic design of streets, sidewalks, building entrances, and landscaping. For SDTED, in addition to looking outside, we should turn our focus inside to provide users with spatial insight for users of spaces. This can be the most impactful of the principles on social distancing and the trajectory of the coronavirus. I will use your local supermarket as an example since most people can visualize the aisles and checkout lanes. The standard grocery aisle is about 60 inches (5 feet) wide, not enough to meet social distancing guidelines. Add to this that consumers stand back from the shelves to view their contents potentially putting people in closer contact. What if we used blue painter's tape or some other innocuous, easy to roll over, boundary to break the aisles (which average about 200 feet in length) down into 25 sections that are each 8 feet long? The extra two feet should allow people some freedom of movement to look for the items in their section while also allowing shoppers to keep a reasonable distance from each other. The spatial awareness this would give could be very beneficial. Another example may be floor signs that say "Wait Here – Stay at Least One Dot Apart" or footprints placed at least six feet apart to control distances between people in lines (think security queuing, too). I watched a news brief where patients were lining up at a New York City hospital for testing or treatment. The reporting indicated concern amongst the medical professionals that people in the lines were not following social distancing practices. The result is the mixing of infected and uninfected persons resulting in the potential spread of the virus. It could be very cost-effective to spray paint footprints every 6-8 feet on the approaching sidewalks to reinforce social distancing.

The SDTED strategy would modify **territorial reinforcement** which under CPTED provides the perception that property is owned and controlled. From the social distancing standpoint, placing signage and other reminders of social distancing requirements, handwashing, coughing and sneezing etiquette, and other mitigation strategies at site transition points (entering the parking lots, shopping cart stalls, site entry doors, etc.). Individuals that are traversing the interior of a facility should be regularly reminded through signage that social distancing is important. While interior doors serve as a great reminder that personnel are transiting between areas of a facility and can be used to support security programs the balance between security and reducing contact points (door handles, fingerprint readers, hand geometry scanners, etc.) throughout facilities must be carefully weighed by security leaders. Although it is contrary to territorial reinforcement, propping doors that are not critical to security programs may one step that can be taken to reduce touchpoints.

Maintenance under CPTED is intended to allow the site or facility to continue to be used for its intended purpose. Cleaning and disinfecting of workspaces, store shelves, and other surfaces is an important part of addressing the **maintenance** portion of this philosophy. I have heard stories of critical functions being alternated between primary and backup locations to allow cleaning and disinfection of surfaces and splitting personnel between facilities to increase distancing and allow cleaning crews to more easily navigate areas in between shifts. For public places like essential stores, evening hours for restocking, cleaning, and disinfecting can be supplemented with the closing of aisles for cleaning. To facilitate use and reduce impacts on consumers aisles can be reopened 8 feet at a time as cleaning is completed. For guidance on cleaning and disinfecting for coronavirus, you should refer to the guidance available from the CDC (www.cdc.gov/coronavirus/2019-ncov/community/...).

The last principle of CPTED is **target hardening** which is applied in higher risk areas where the threat of terrorism and / or violent criminal activity is expected. For these threats, target hardening is the use of physical barriers to entry (bollards, vehicle barriers, boulders, fountains, etc.) and enhanced technological security to mitigate risks. Rather than writing guidance for target hardening against the coronavirus, it is best to refer you to OSHA's Guidance on Preparing Workplaces for COVID-19 (www.osha.gov/Publications/OSHA3990.pdf). This guidance covers steps employers can take to protect their employees. Among other things, the document covers setting up an infection control plan, developing workplace flexibility and communications plans, applying engineering controls (sneeze-guards, drive-through customer service windows, etc.), worker training, personal protective equipment (PPE), and job risk levels.

The modification of CPTED principles, with social distancing in mind, is a way to reframe this important mitigation strategy, potentially support compliance, and enhance spatial awareness amongst the population. The goal of this article is to spark others to add their insights and out of the box thinking to this problem. There are so many people with incredible and adaptable skillsets out there. If we all direct energy at the problem that light at the end of the tunnel will shine brighter and get closer every day! Be safe! Stay Healthy!

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