

Crime Prevention Through Environmental Design Overview & Refresher

By

Randall I. Atlas Ph.D. , FAIA, CPP
Atlas Safety & Security Design Inc.

1

1

Disclaimer

- This presentation will cover topics that some members of the audience may find offensive, objectionable, controversial, or with which they disagree. Each person is entitled to their opinion, and so am I as the presenter. My opinions are developed from years of education, training, and experience in this field. I welcome counterpoints from the audience, if you are willing to share it in a civilized discussion, with proper respect to my opinions, as well as the opinions of those in the room.
- If you are easily offended or over sensitive, you are invited to leave the room or stop watching. Counterpoints are always welcome in the presentations; however, opposing views or objections by observers shall not be cause, nor reason for terminating this presentation, or modifying the agreed upon length of presentations.

2

2

Crime and fear threaten us all



- Crime/terror is the end of many peoples' universe

2

3

Do you perceive a risk to your safety?



4

4

Fear changes our behavior!

- Fear increases:
- At night, for females
- In isolated areas, with lack of view
- With hidden areas, poor lighting
- Noise is fear generator
- When paths cross with others
- When in unknown space
- With graffiti, vandalism, litter



5

5

Architectural created vulnerability



Source: LA Story

6

6

ATM's in China using CPTED – secured sallyport, good visibility



7



8



9



10

Influence criminal behavior by:

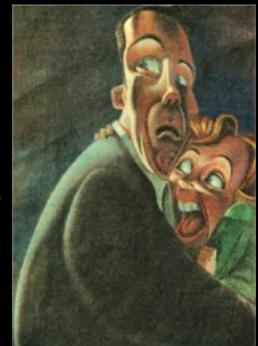
- Removing conditions that reinforce crime
- Reducing the opportunity for crime and incivilities
- Incorporate security features into the built and natural environments
- Create sense of safety for area users
- Reinforce legitimate uses, and users.

11

11

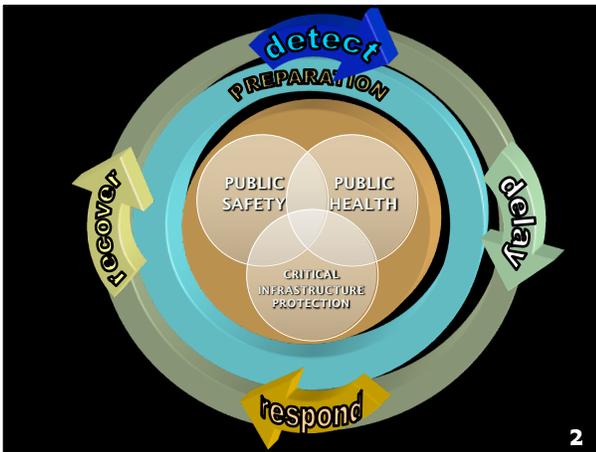
Determine Modes of Attack

- Is the threat from within?
- Or, is the threat from outside?
- How will the perpetrator gain access to the property?
- Is the attack likely?
- What tools or weapons will they use?



12

12



13

Risk, threats, vulnerability analysis

- Identify assets
- Determine criticality
- Determine threats
- Determine modes of attack
- Determine vulnerability
- Determine protection required
- Threat and vulnerability analysis will determine the weaknesses and potential for attacks
- The result is an integrated functional security design

14

Identify Assets: What is to be protected

- People
- Information
- Property

15

How critical is the asset to be protected?

- What is the mission statement of the facility?
- What and whom are the probable targets?
- How easy can the assets be replaced?

16

Definition of Threat: Workplace Violence

Factory worker kills 5, self in plant shooting

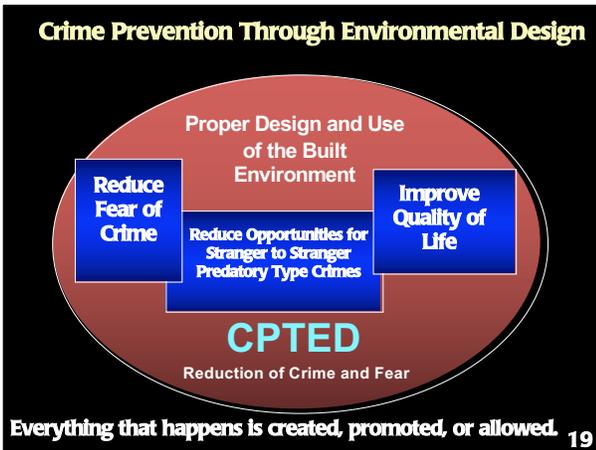
Fired worker kills 6 at Chicago job site

Engineer is found guilty of slaying seven coworkers

17

Food for thought...

18



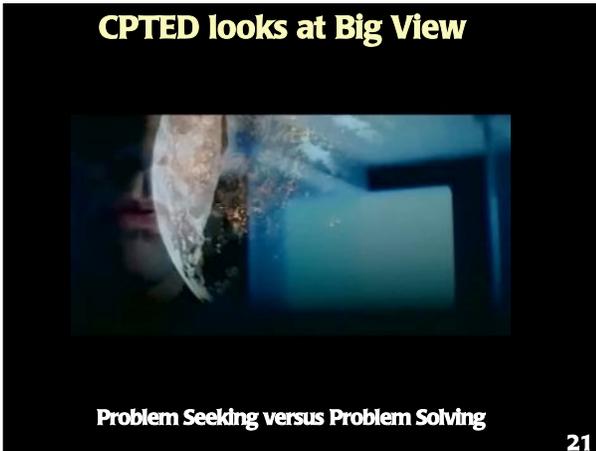
19

CPTED

- Through the proper use of design you can reduce the opportunity and fear of predatory type crime and as a result in the improvement in the quality of life (work, play, live, learn)
- CPTED is a course about consequences, common sense within the theatre of the absurd!

20

20



21



22

CPTED: Tiered Approach

- Different Perspectives:
- Classic CPTED
- CPTED matrix
- Safe Cities: Elements
- 2nd Generation CPTED

23

23

The Promise of CPTED: Deliverables

- Undesirable features can be avoided at the design stage
- Existing buildings can be modified to make them less crime – prone
- These improvements need not be expensive
- CPTED changes can be architecturally and aesthetically pleasing

24

24

CPTED Theory

- The arrangement and design of buildings and open spaces can encourage or discourage undesirable behavior and criminal activity.
- It is possible to reduce opportunities for crime and disorderly behavior by changing the physical environment.

25

25

Defensible Space: Who are the users?

- Cast of characters
- Normal users: legitimate
- Abnormal users: illegitimate
- Observers: capable guardians



26

26

Who are the illegitimate users?



Source: Blazing Saddles

27

27



28

28

Good Design & Proper Use

- Good design increases perceptions of safety and creates an environment for positive social interaction.

29

29

CPTED Process

- Multiple professional disciplines working together as a team
- Relies on partnerships, collaboration and cooperation
- Fosters a holistic approach
- CPTED is a course of "consequences"

30

30

CPTED Basic CPTED Classification



ORGANIZED
(people)

MECHANICAL
(technology)

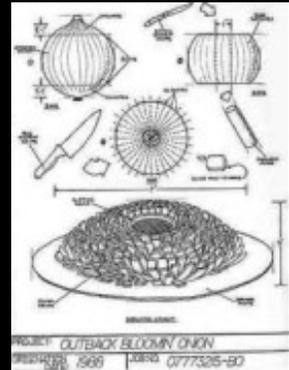
NATURAL
(design)

31

31

The Onion (layered) Approach

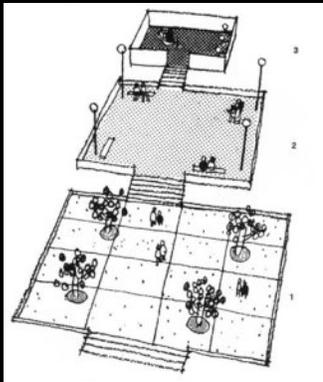
- 1st Level-Outer Perimeter
- 2nd Level-Building Exterior
- 3rd Level Interior Control, Point Security



32

32

Defensible Space: Public to Private



33

33

CPTED Strategies

- Natural Surveillance
- Natural Access Control
- Territoriality – boundary definition
- Management
- Maintenance
- Legitimate Activity Support

34

34

Using CPTED Strategies

- Natural surveillance - providing unobstructed lines of sight to enhance supervision of building users engaging in inappropriate behavior
- Natural access control - providing clearly defined points of entry where screening can be conducted
- Territoriality/Boundary definition - separating public from private spaces
- Image and milieu - Does our built environments reduce the risks, increase the effort and difficulty, and remove the excuses

35

35

Natural Surveillance

- The design and placement of physical features in such a way as to maximize visibility.
- A key statement which easily describes this principle is "see and be seen."

36

36



37



Figure 1: An example of effective sight lines and surveillance

38

38

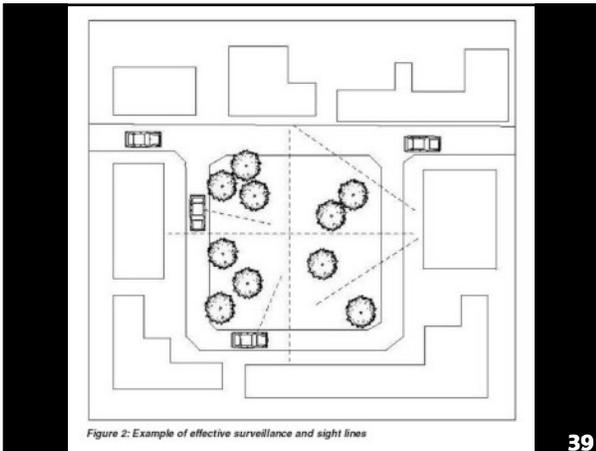
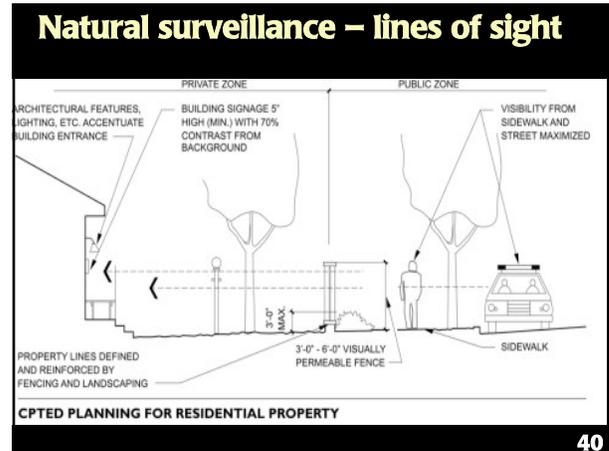


Figure 2: Example of effective surveillance and sight lines

39

39



Natural surveillance – lines of sight

40



Designing in hiding spots

41

41



What you see on the drawings

42

What you see six months later...



43

Are we asking for what we want?

- CPTED seeks to identify undesirable features that can be avoided at the design stage by using vulnerability and threat analysis to determine anticipated weaknesses and potential for attack!
- The owner must communicate the security needs in order to get a responsive design... but are we getting the information?

44

44

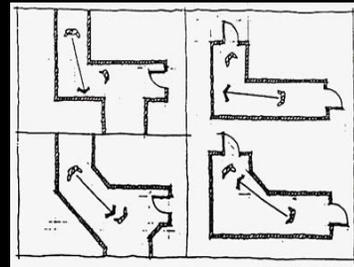
Are we sending mixed messages?



45

45

Beveling the corners



46

Beveled corners remove ambush spots



47

Access Control Strategies

- Providing clear and esthetically pleasing transitions between commercial and residential uses.
- Limiting the number of entrances and exits from buildings and parking lots.
- Access control addressing legitimate uses and users!

48

48



49

Movement predictors

- A predictable or changeable route or path that offers no choice to pedestrians.
- An assailant can predict where persons will end up once they are on a path and can lie and wait for them.
- Examples are pedestrian tunnels, moving sidewalks, staircases, bathrooms in malls.

50

50



51

Territorial Reinforcement

- The delineation of private, semi-private, and public space.
- The use of physical attributes that express ownership.
- The reduction of unassigned space which has no clearly defined purpose.
- Defining of public versus private boundaries

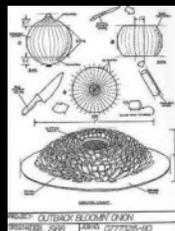
52

52

The Onion (layered) Approach

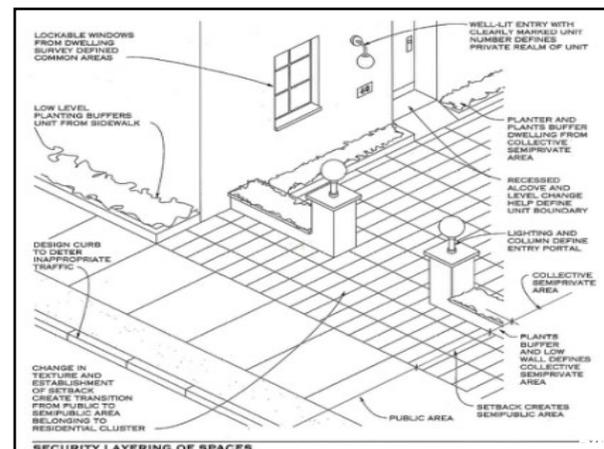
Once you have addressed the risks, threats, and vulnerabilities-analyze the choices available using organized, mechanical, and natural classifications for the various levels of defense.

- 1st Level-Outer Perimeter
- 2nd Level-Building Exterior
- 3rd Level Interior Control, Point Security

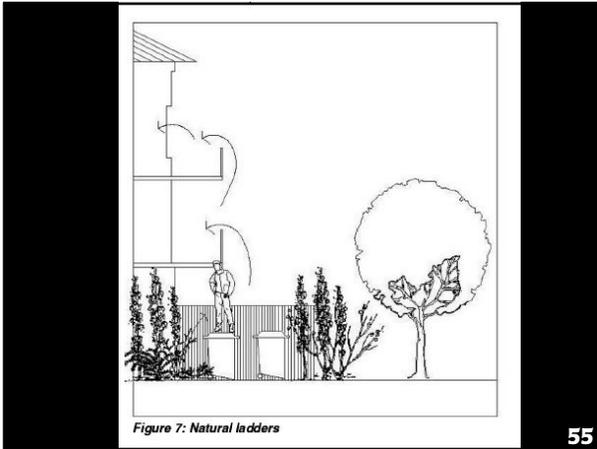


53

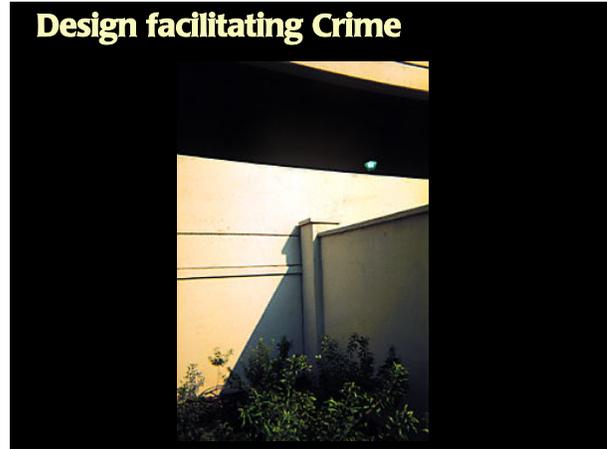
53



54



55



56



57



58



59



60

Territoriality



61

61



62

62

Warning Signage - Groundrules



63

63



64

64

WARNING

THIS FACILITY HAS NO REGULAR SECURITY SYSTEM. ITS OWNER IS NOT RESPONSIBLE FOR PERSONAL INJURY FROM CRIMINAL ACTIVITY, OR FOR THEFTS, VANDALISM, OR OTHER DAMAGE TO YOUR PROPERTY.

65

65

Signage removing excuses

PLEASE DO NOT LEAVE BELONGINGS UNATTENDED AT THE BASKETBALL COURTS OR OUTSIDE RACQUETBALL & SQUASH COURTS. THEY ARE AN EASY TARGET FOR THIEVES

25¢ COIN RETURN LOCKERS ARE AVAILABLE THROUGHOUT THE CCB. YOUR QUARTER IS RETURNED SO IT WON'T COST ANYTHING TO LOCK UP YOUR BELONGINGS WHILE IN THE CCB.

66

66

Removing confusion and excuses



67



68

Unmistakable Clarity



69

CPTED 3-D Space Concepts

- **Designation:** what is the intended use? What behavior will be allowed?
- **Definition:** what are the physical boundaries or limits? Is it clear what activities are allowed where?
- **Design:** does the physical environmental support the intended use?

70

70

Organized Solutions - Security Staffing



71

71

Capable Guardianship



72

72

Safe Cities: CPTED Elements

- Visibility-sightlines, lighting
- Ownership - territoriality
- Land-use
- Activity generators
- Readability
- Movement predictors
- Mobility paths
- Entrapment areas
- Maintenance
- Target hardening/ fortressing



73

73

Visibility – awareness of the place

- After dark, fears of personal violence and risks are heightened.
- Badly designed and poorly lit areas offer opportunities for crime to occur and give us a message that an area is uncared for.
- Improving lighting decreases fear of crime and levels of interpersonal crime, and encourages people to use public areas, and may increase natural surveillance.
- Observation by others can discourage criminal acts and help if we are being threatened. People feel safer when we see, and can be seen by other people.

74

74



75

75

CPTED Elements - Ownership

- Taking responsibility and caring for an urban environment helps make it safer.
- Ownership includes active, legal ownership of property as well as sense of connection we feel the places we use or belong to.
- When we extend our sense of ownership beyond our front yards, we are more likely to take care of and take responsibility for our streets, our blocks, our neighborhoods.
- Areas that are well cared for and looked after are less likely to become crime sites.
- Taking pride in ownership is a game changer

76

76

Ownership



77

77

Land-Use and Activity Generators

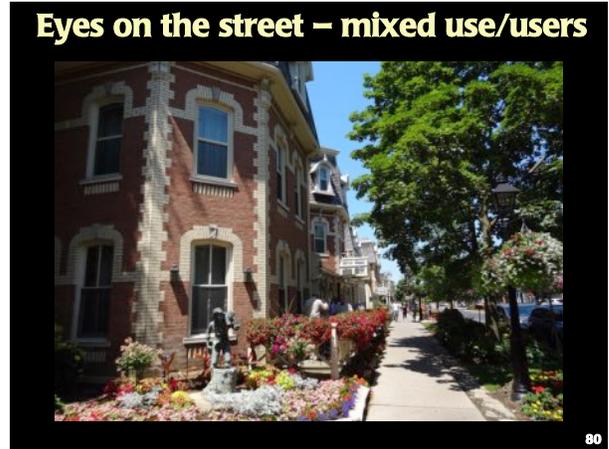
- Compatible variety of land use activities make an area safer. A variety of uses such as working, shopping, and playing in the same area involve more people at different time which increases the “eyes on the street”
- Avoid land use which conflicts between different user groups.
- Users need to be able to casually observe the public areas.
- The mix of uses provides activity during various times of the day.

78

78



79



80

Activity Generator

- Land use compatibility may sometimes require physical separation to preserve the character of the neighborhood.
- Sometimes only a fence or hedge is needed to create a sense of boundary between incompatible use.
- Examples: play areas for kids and teens

81



82



83



84



85



86

Readability

- Is it clear what kind of building it is? Where is the entrance?
- We feel safer when we know where we are going, and can follow a clear path to get there. If we are lost, disorientated, or confused, we are also more likely to appear vulnerable and thus become a target for crime.
- Readability is the way in which the physical environment gives us that sense of place and orientation.
- A readable environment provides us with the cues about who uses a space and what type of behavior to expect so that we can choose a safer route and avoid behavior we find undesirable or threatening.

87

Readability

88



89

Mobility Paths

- The hierarchy of streets designed as primary highways, secondary streets, and tertiary, traffic carriers can keep unnecessary car and pedestrian traffic out of neighborhoods and as a result, neighborhood crime is reduced.
- If redundant movement systems are remote from each other, they may feel and be less safe because one of the systems are under-used or even deserted
- Parallel paths or routes can make movement safer, i.e. bike paths

90

How long has this condition existed?



97

97

Lights broken and unrepaired



98

98



99

99

Fire code violations and security



100

100

After the fact modifications – ugly!



101

101

Your life may depend on it!



102

102



103



104



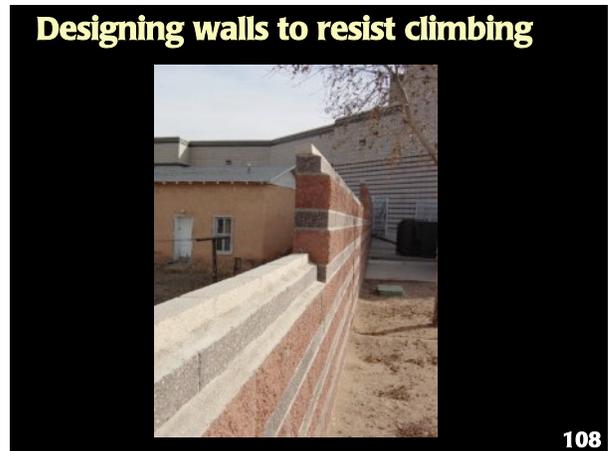
105



106



107



108



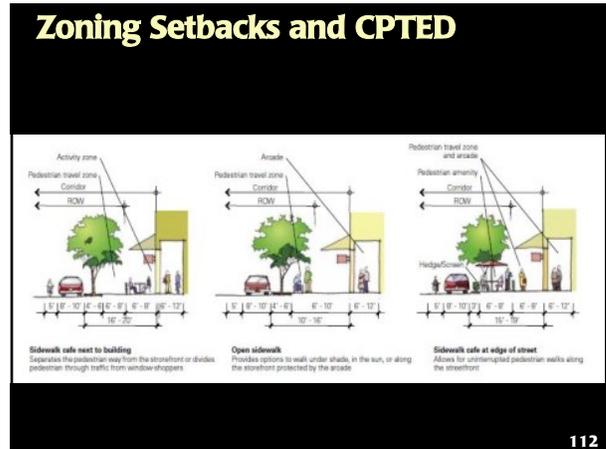
109



110



111



112



113

Cities tackle U.S. 1 crime

Hollywood, Dana Point move to clean up drugs, prostitutes

By KENNETH BRUNAK
Staff writer

CRIME
Continued from Page 14

"It seems to be the culture, whether or someone is looking for a prostitute, they go to Federal Highway," lamented Hernandez. "We also have problems with people looking to invest their money."

Some blame the movie channels along the route's 2.5-mile stretch of Federal Highway in Hollywood.

Hollywood Mayor Peter Hermans says there's another way: Give the movie operators a year to change their type of business — or leave the city.

"The movie district from the city of Hollywood," Robert said during a recent community meeting, where he pitched the idea of giving the movie district a 12-month moratorium deadline. "That's not the way we want it."

"We will allow public water to use movie districts, mostly responding to reports of prostitution, drugs and other disturbances. Absolutely needed, just checks every 10 days for services."

"We had reports of people selling drugs out of the windows," Hernandez said.

He hopes a new program that will have open spending the road on their side will help cut down on crime.

"The movie along Federal were not driven last space for prostitution and drugs. During these holidays, the 'mom and pop' motels were safe responses for every occasion. Things were changing in the 30's with the proliferation of major hotel chains along Interstate Highway.

In spite of business, many motels turned to a new clientele, sometimes meeting rooms by the hour.

In 1997, Hollywood Sgt. Jim Wash-

ford found vagrancy and prostitution as the biggest problems along Federal Highway.

Not much has changed in the past 10 years, said Sgt. Gene Cochran, a spokesman for the department.

"One of the things along Federal Highway are associated with the crime problem," Cochran said. "There are individuals who attracted a criminal clientele. We are working hard to address those issues."

Hollywood isn't the only city working to change the tawdry reputation of Federal Highway.

Neighboring Dana Point has made it a top priority.

Federal Highway is "our front door," says Mayor Walter Dale.

"The city has made great strides in cleaning up Federal Highway with 12 million in palm trees and shrubbery along the sidewalk and median.

"It takes a little bit of time to turn the ship around," Dale said. "Working in it with Hollywood. Our goals are aligned. And that's to clean up Federal."

"Some cities, however, have managed to avoid the sleazy, squalid syndrome that plagues Hollywood."

"We don't have any five-biten motels," said Jim Ruhl, mayor of Dana Point. "There were never any motels at all on Federal Highway. It was not conducive to that kind of development, I guess."

"The zoning, planning and zoning chief in Dana Point want to see who 'isn't out there' and 'isn't there,'" he said. "They just haven't come here."

Other cities, like Newport Beach, have used crime parking.

Crime along Federal Highway in Newport and Dana Point was less prostitution and more sex than five years ago, before the city shut down two strip clubs be-

cause of their activities, said Mayor Jerry Taylor.

At one point, Port Lauderdale had a problem with prostitution and vagrancy congregating along Federal Highway south of the Henry B. Kinney Tunnel, said Mayor Jack Felix.

Sidewalk cafes open, movie operators and the police department's not-so-secret weapon — an armored truck — consisted into a police vehicle arrival with surveillance cameras rolling 24-7.

"We did it our perimeter" Seller said. "It tells you that you are under 24-hour surveillance. We parked that thing outside the motels for three days straight. I tell you what, their business dropped off substantially."

In Hollywood, movie operators and enforcement and strong police presence on Federal Highway have helped curb drug use, said Mayor Joe Cooper said. The city also shuts down one problem after another, he said.

"We will have one or two motels the police will keep an eye on," he said.

Hollywood Commissioner Rick Blumenthal likes the idea of shutting down businesses that are disruptive to the neighborhood.

"I think we need to make them business or close them down," he said. "Maybe we can pass an ordinance saying you can't rent rooms by the hour. Maybe we can just have a police force in one of the motels."

"I think we need to make them business or close them down," he said. "Maybe we can pass an ordinance saying you can't rent rooms by the hour. Maybe we can just have a police force in one of the motels."

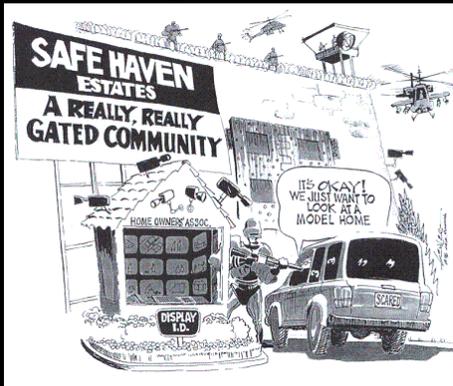
"Everybody recognizes nothing is being done here," he said. "We have to plan the next. And if we don't, nothing will change."

Staff writers Anthony Anthony and David Barlow contributed to this report.

albr@tdnews.com or 954-356-4556

114

What is the protection level really needed?



115

115

No more of this



116

116

More like this



117

117

No more of this:



118

118

The way we were:



119

119

No more of this

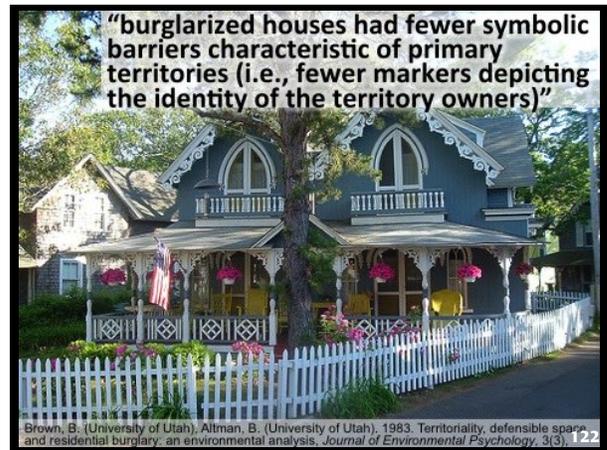


120

120



121



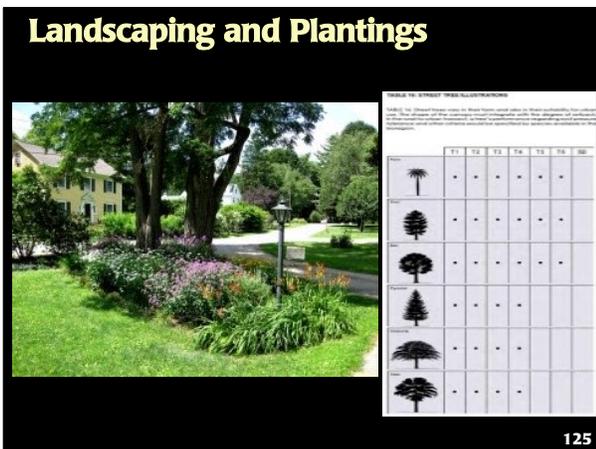
122



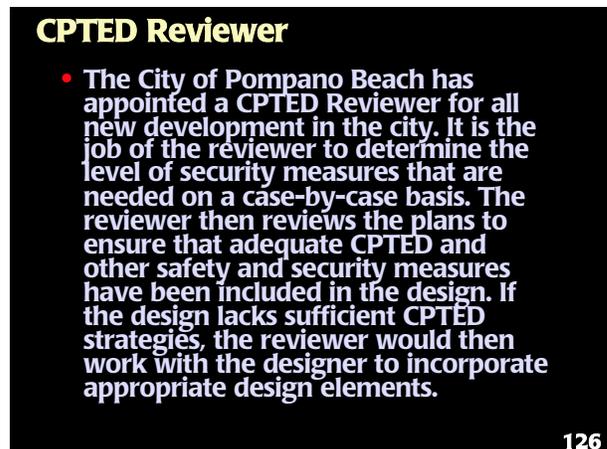
123



124



125



126

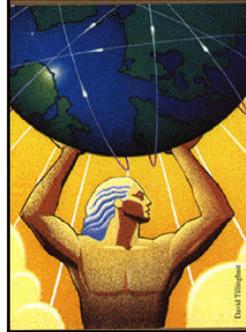
What is the highest good for CPTED?



133

133

Conclusions



Atlas Safety & Security Design Inc.

Action Steps:

- Conduct the CPTED risk threat assessment
- Change how people use the building
- Use technology last
- Use national standards as a starting point
- Just do it!

134

134