# Threat Deterrence \ Site Planning

2022 Illinois Public Works Mutual Aid Network Conference

U OF INVESTIGATION

October 26, 2022

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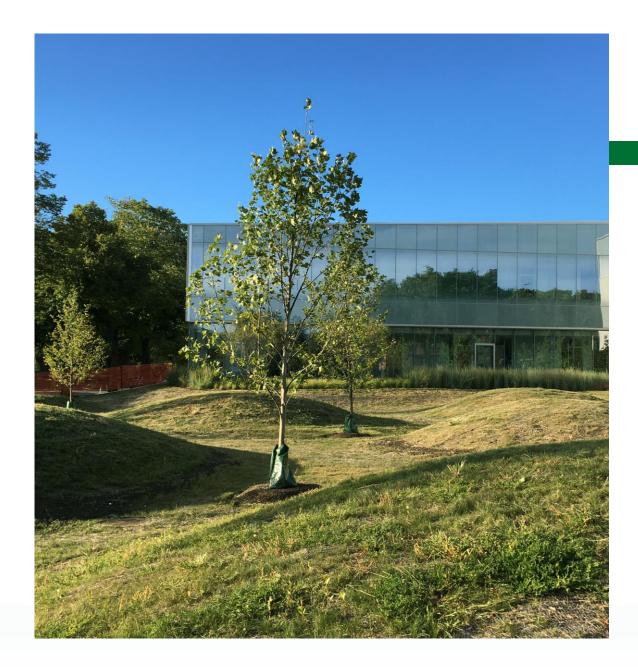
Chicago Division FBI Building Project in collaboration with TERRA Engineering.

Wintrust Arena Project in collaboration with TERRA Engineering Chicago, IL

TRUST

ARENA

# Site Design / Integration

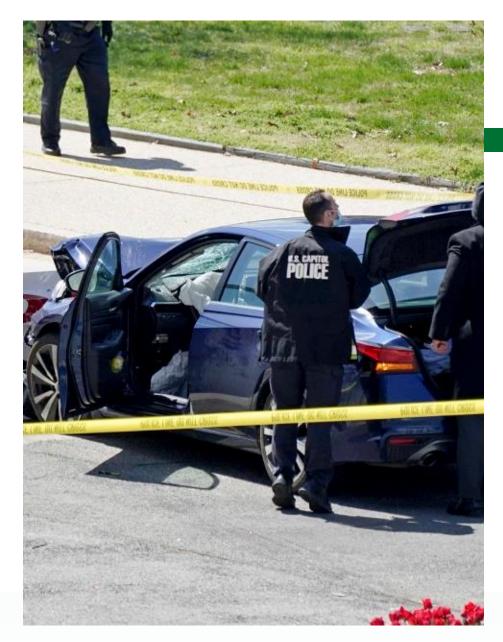


# AT A GLANCE

#### 1. SITE CONCERNS

- 2. SITE PLANNING PRINCIPLES
- 3. LAYERS OF DETERRENCE
- 4. SITE FEATURES / ELEMENTS FOR DETERRENCE
- 5. STANDARDS





## **SITE CONCERNS**

- Attacks will Happen, But what are Consequences?
- One officer killed and one injured
- Barrier protection prevented attacker from getting to the Capital

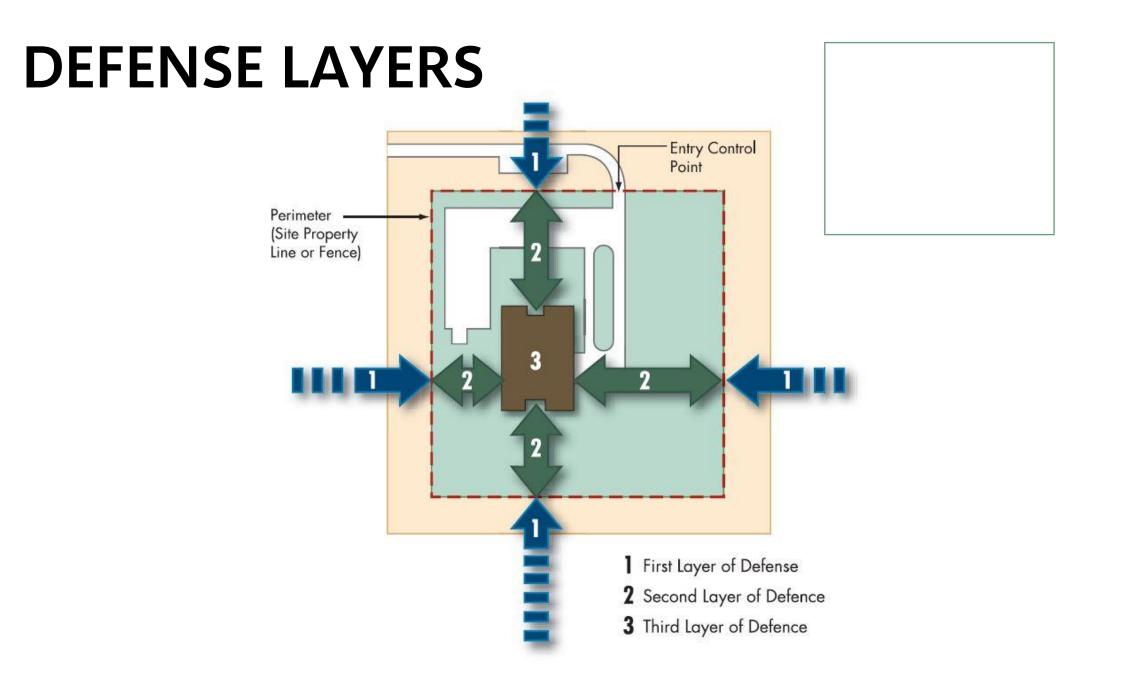


#### **SITE CONCERNS**





# SITE PLANNING



### **STAND OFF ZONE**

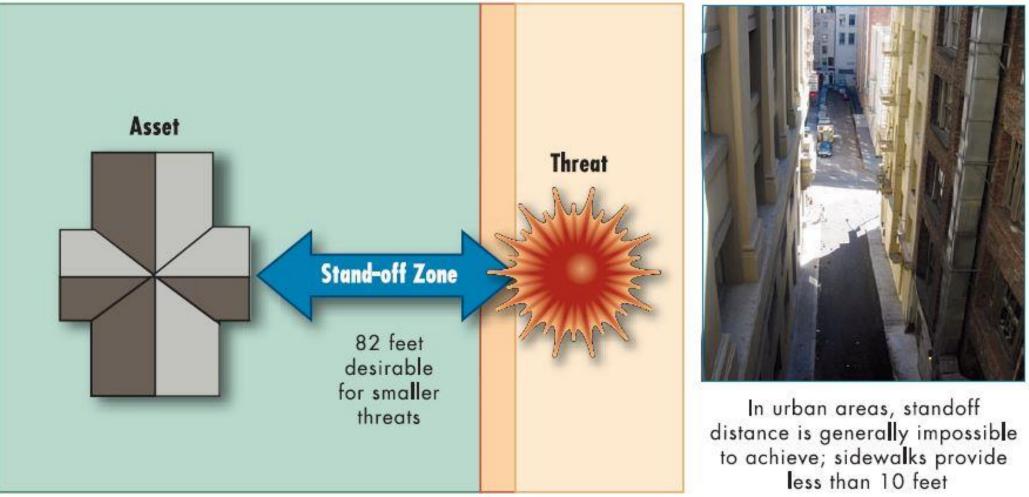


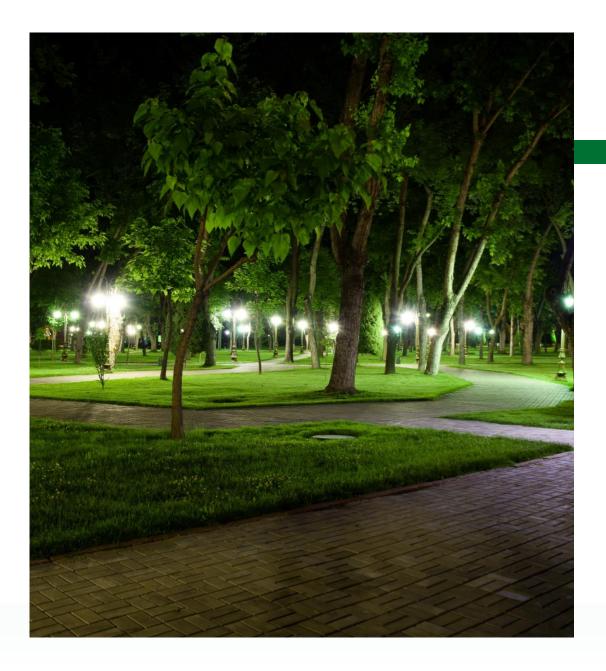
Figure 3-4: Recommended stand-off compared with sidewalks in urban areas. SOURCE: LEFT, FEMA 426









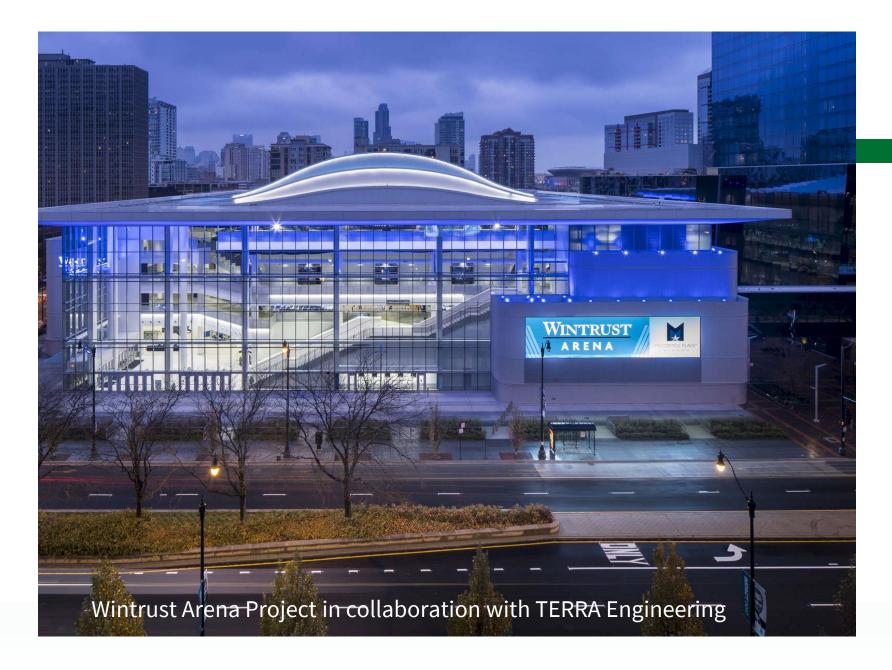


#### Site Planning Strategies CPTED SITE FEATURES

#### **1.Lighting**

- 2. Open Sightlines
- 3. Provide Natural Policing & Surveillance
- 4. Crime and Plant Selection
- 5. Vehicle and Pedestrian Circulation
- 6. Vandal Proof Materials
- 7. Restricted Access













#### **SITE FEATURES**

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# Site Planning Strategies

- 1. Lighting
- 2. Open Sightlines

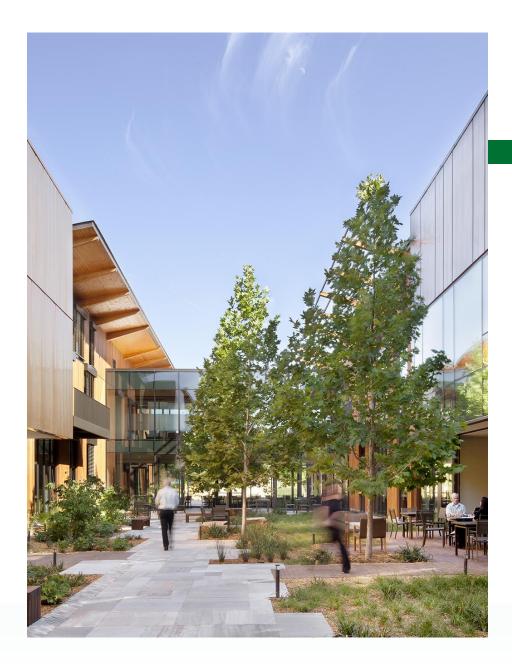
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# **SITE FEATURES**

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- 2. Open Sightlines
- 3. Provide Natural Policing & Surveillance

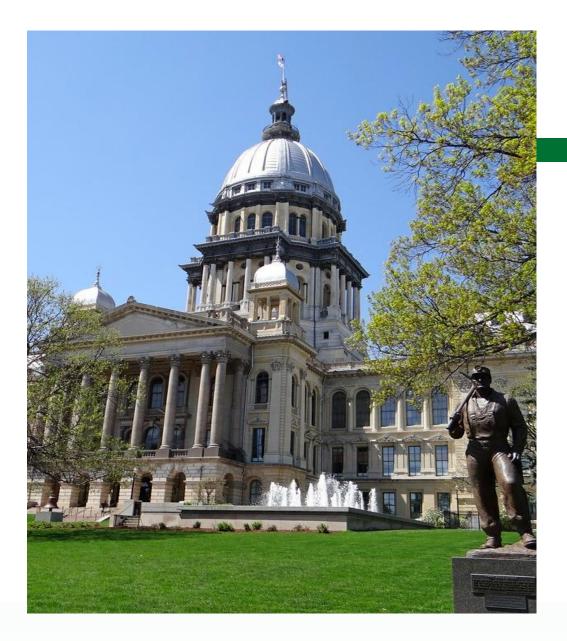
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#### 5. Vehicle and Pedestrian Circulation

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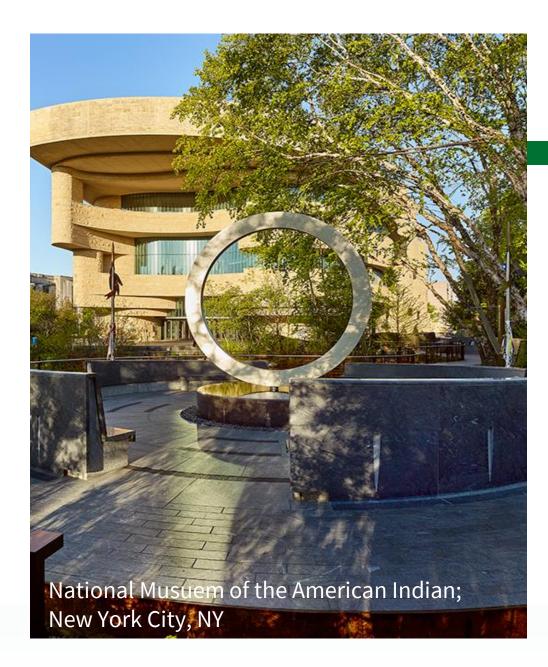












# **SITE FEATURES**

- 1. Lighting
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#### **6.Vandal Proof Materials**

7. Restricted Access





#### Figure 6-13:

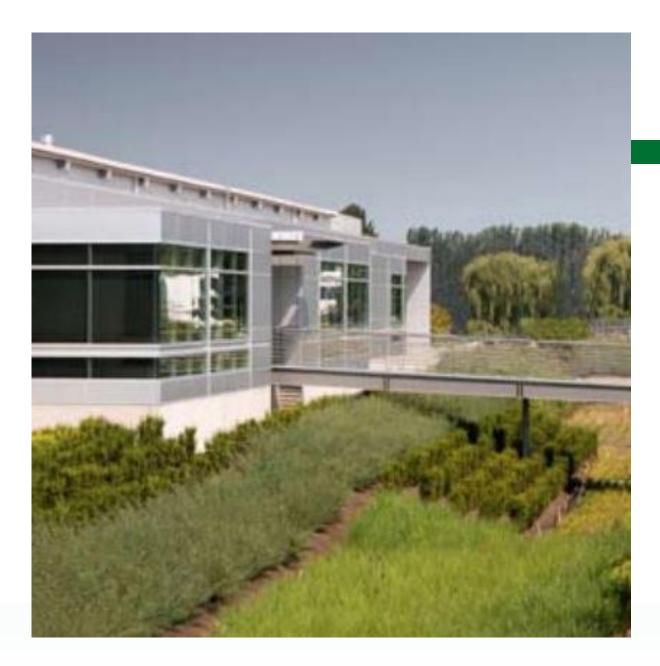
A typical raised low planter (left) may be too low to present a significant barrier to vehicles. The high stepped yard (right), which runs along the side of the building, is a significant barrier and could also act as a blast deflector from a curbside vehicle.





Figure 6-21: Minneapolis Courthouse plaza with planted berms, representing historic Minnesota "drumlins." They also act as barriers to a vehicular attack, as a second layer of defense, creating stand-off. SOURCE: COURTESY OF MARTHA SCHWARTZ, INC.





#### **SITE FEATURES**

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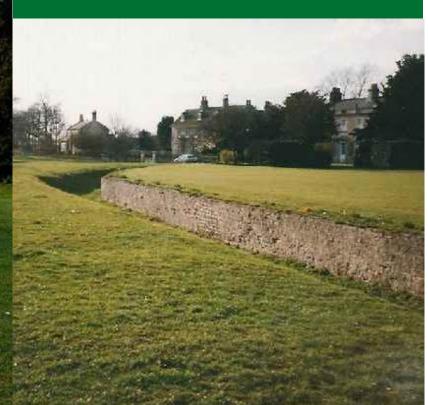
#### **7.Restricted Access**







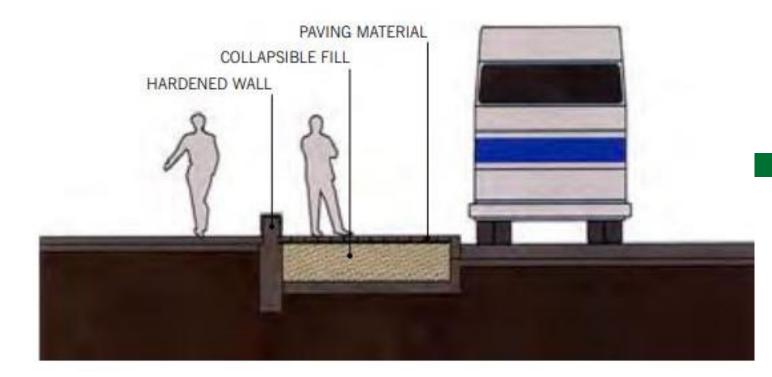




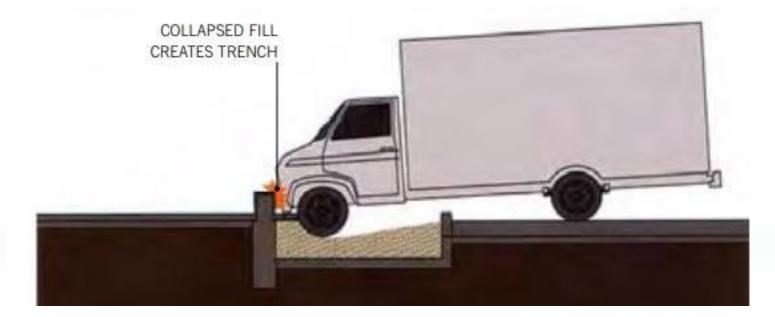






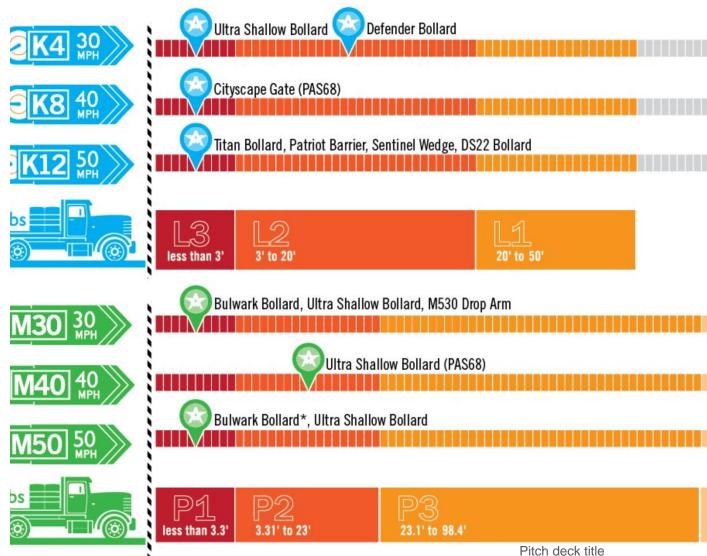








# **CRASH STANDARDS**







# **SUMMARY: SITE PLANNING STANDARDS**



- Set back from street to observe approaches,
- Elevation changes to deter vehicles,
- Walkways set away from the building,
- Non-obstructing plants to block views,
- Large planters double as blockades,
- Parking well away from building, and
- Lighting coordinated w/closed circuit surveillance.

Capitol Grounds Aerial View, D.C.

# SUMMARY: SITE PLANNING STANDARDS



- No long straight roads to pick up speed,
- Control entries and amount of access,
- No signs on critical asset buildings,
- No Parking in the Stand off Zone,
- Illuminate building exteriors,
- Waste receptacles away from buildings.

