Enhancing School Safety with Facilities Management

Without Building Prisons & Arming Staff

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Presenter Introduction

- Your Presenter:
  - Senior Architect, Team Labz, Office of the University Architect, Arizona State University
  - Faculty, Herberger Institute for Design and the Arts
  - Nationally Recognized Author of The Complete Facilities Manager

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- Credit(s) earned on completion of this course will be reported to American Institute of Architects (AIA) Continuing Education Session (CES) for AIA members.
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Course Description

- Between 2000 – 2021 , the US experienced 433 victims, including 183 dead in school shootings. After such incidents rhetoric focuses on fortifying schools / arming faculty, both carry exorbitant costs / risks for students on campuses. Turning a school into the Pentagon is not the answer. Research suggests there are effective safer options such as selected K-9s on campus, panic button apps, Counselor SROs, and more. This presentation explores some of those options.

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Learning Objectives

- Learning objectives
  - Arming teachers and staff is not the solution
  - Learning is not accomplished well in a prison like environment
  - Look to new ideas
    - Be creative

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Presentation Introduction

- What event(s) marked your life?
- On school campuses – Security is always First
  - Not just active shooter, however most think of 1st
  - Considerations for Security
    - Threat assessments for campuses
    - Activities profile of potential assailants
    - (Onion) Layered security system for campuses/buildings
    - 8'-0" perimeter security fencing about the same cost as 6'-0" W.I. fencing

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Presentation Introduction (cont.)

  - Considerations for Security (cont.)
    - Single point entry after school day start
      - Should be through administration area
        » Not self sign in, best to use collateral
    - Entry through a sally port
    - Panic button, call and / or active lock down
    - Break / bullet resistive glass next to all entry points
    - Arming Teachers / staff – NO!!!!!
    - Think learning environment – Not prison!!

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Realizations

- No one answer can solve all these potential situations
  - Many other components working in harmony are required
- For active shooter, a single event cannot provide the data needed, however we have others that can help
  - Sandy Hook, Columbine, Virginia Tech
- Types of shooters / shootings
- Tool #1 – Run, Hide, Fight (Houston, TX) on You Tube

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The Sandy Hook Tragedy, Recorded Events

- The entry, Shooter's Breach:

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The Sandy Hook Tragedy, Recorded Events

- The School, Typical Classroom Door:

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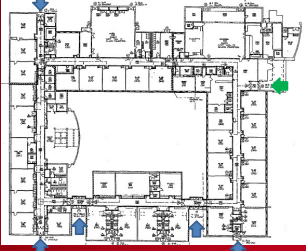
The Sandy Hook Tragedy, Recorded Events

- The School, Floor Plan:

This school is secured!!

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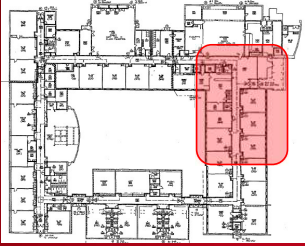
The Sandy Hook Tragedy, Recorded Events

- The School, Shooter's Movements:

This is the area the shooter was in after breaching the school.

This area will enlarged to the shooter's movements.

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The Sandy Hook Tragedy, Recorded Events

- The School, Shooter's Movements:

8 shots to enter
First two victims shot around here
Shooter enters office, sees no one & leaves
15 children, 2 adults killed in this room
5 children, 2 adults killed, 2 survive in restroom, 9 escaped
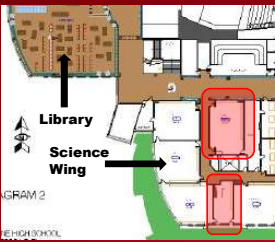Shooter's body
No shots fired in room

Total lost 28

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Columbine H.S., Recorded Events

- Columbine, Similarities:

Most events took place in the Library / Cafeteria

Shooters incursion into science wing 11:36 AM – 11:44 AM, 17 minutes after first shot
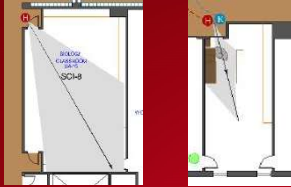
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Columbine H.S., Recorded Events

- Columbine, Similarities – Classroom Incursion:

Looked through some of the windows of classrooms' locked doors, even making eye contact with students, yet no attempt to enter

Behavior directionless

Shooting into empty rooms

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Virginia Tech, Recorded Events

- Virginia Tech, Similarities – Norris Hall:

Norris Hall was laid out as a double loaded corridor, classrooms on both sides of the main circulation path

This is a picture of the 2nd floor corridor of Norris Hall

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Virginia Tech, Recorded Events

- Virginia Tech, Similarities – Norris Hall:

Shooter's Movements:

Chained escape doors shut with bomb threat note
Note discovered police not called, violation of policy

Shooter noticed wondering hall, even peeking into classrooms
Noted as strange, but no calls to police

Starts shooting about 9:40 AM

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Virginia Tech, Recorded Events

- Virginia Tech, Similarities – Classroom Incursion:

Room 206	First stop 10 killed, 2 injured, 2 unharmed
Room 207	5 killed, 5 survive
Room 211	12 killed, 6 survive
Room 205	Blocked from entry
Room 207	Returned, blocked from re-entry
Room 204	Returned and re-enter
Room 211	2 killed, 6 injured, 8 escaped

Total lost 33

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Virginia Tech, Recorded Events

- Virginia Tech, Similarities – Norris Hall:

Shooter's Actions to be noted:

Shooter returned to rooms methodically shooting

Door were not lockable from inside the classroom

Total shooting time 10 – 12 minutes

Ended with shooter's suicide

Keys for those that survived
Barricade
Play dead

Responders to go to gunfire as quickly as possible

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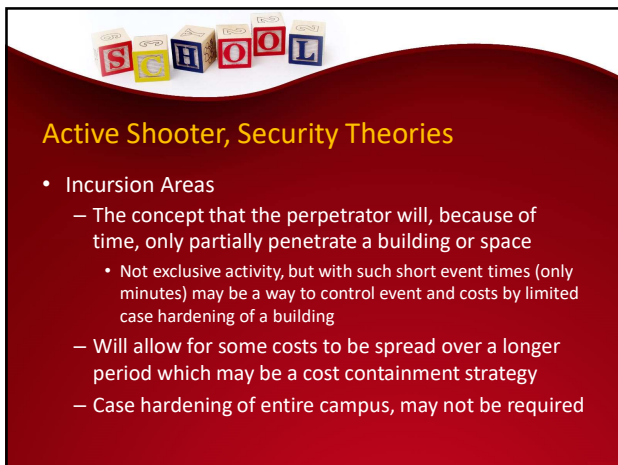## Active Shooter, Security Theories

- Incursion Areas
  - The concept that the perpetrator will, because of time, only partially penetrate a building or space
    - Not exclusive activity, but with such short event times (only minutes) may be a way to control event and costs by limited case hardening of a building
  - Will allow for some costs to be spread over a longer period which may be a cost containment strategy
  - Case hardening of entire campus, may not be required

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Active Shooter, Security Theories

- Data to Take Note of:
  - Response time is key, most active shooting events are over in minutes
  - Best protection is entrance prohibition, but most shooters are supposed to be on the campus
  - Operations have as much impact on results as facility design
  - Get user and community buy-in

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Active Shooter, Security Theories

- Data to Take Note of:
  - Vision limiting sally port will be better than a glass type vestibule
  - Panic button system may prove useful when tied into an active system
  - Limiting access in an event, such as a gate, may prove very effective
  - Cameras work best as a forensic tool, not a prevention device

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School Security, Other Types of Events

- Natural Disasters
- Manmade Disasters
- Hazardous Materials Spills
- Custodial Interference
- Bullying
- Loss of utilities

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School Security, Prevention Tools

- ERP
  - Plan it, train it, practice it
- Event management
  - Command, Media, Evacuation, Reunification, shelter in place, lockdown, etc.
- After event care and costs
- $1 prevention saves $4 is mitigation

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School Security, Out of the Box

- Roxbury, Massachusetts
- Dogs on Campus
- Panic button app for smart phones (GEOS)
- Florida School District using Counselors in place of Police
- Be creative
- For more info see 4-part article series

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Questions?   Comments?

- This concludes The American Institute of Architects Continuing Education Systems Course

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