Welcome!

How Building Design Can Enhance Safety and Security
This webinar has been approved for 1.0 LU/HSW AIA CEUs

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Continuing Education

Provider Name:
Ohio Facilities Construction Commission

Provider Number:
G442

Course Title:
How Building Design Can Enhance Safety and Security

Course Number:
Web31

Speakers:
Chris Gibbs, Matt Helgerson, Shamus O'Meara, Melanie Drerup

Date:
October 30, 2019

Continuing Education

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Course Description

This webinar will explore design concepts that promote safe and secure environments as well as the importance of a community-driven design process. Presenters will provide practical solutions around these concepts for both new and renovated building projects and will encourage participants to engage by asking questions and sharing ideas throughout.

Learning Objectives

1. Examine educational spaces and how safety and security measures can impact the environment where students learn.

2. Describe how concern for student safety and security is driving the need to redefine and reconfigure educational facilities.

3. Apply practical solutions, techniques, and strategies to plan and design safe and secure learning environments.

4. Define and explain what is required to make new and renovated educational facilities safe and secure while also embracing changes to educational delivery models and taking into consideration quality of spaces for occupants.

Safe and Secure Schools, How Do We Get There?


Chris Gibbs

Matt Helgerson
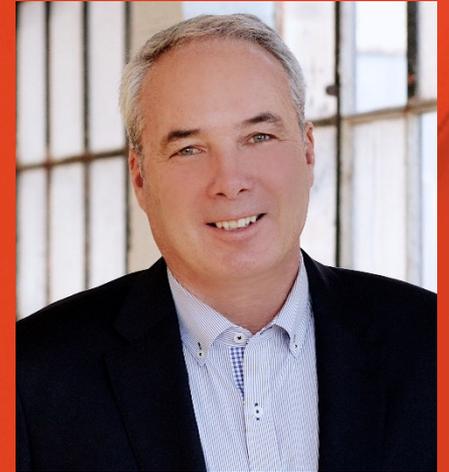

Shamus O'Meara

Agenda

- The Tension
- A Framework
- Alignment
- Result
- Stories and Examples
- Discussion

The Tension
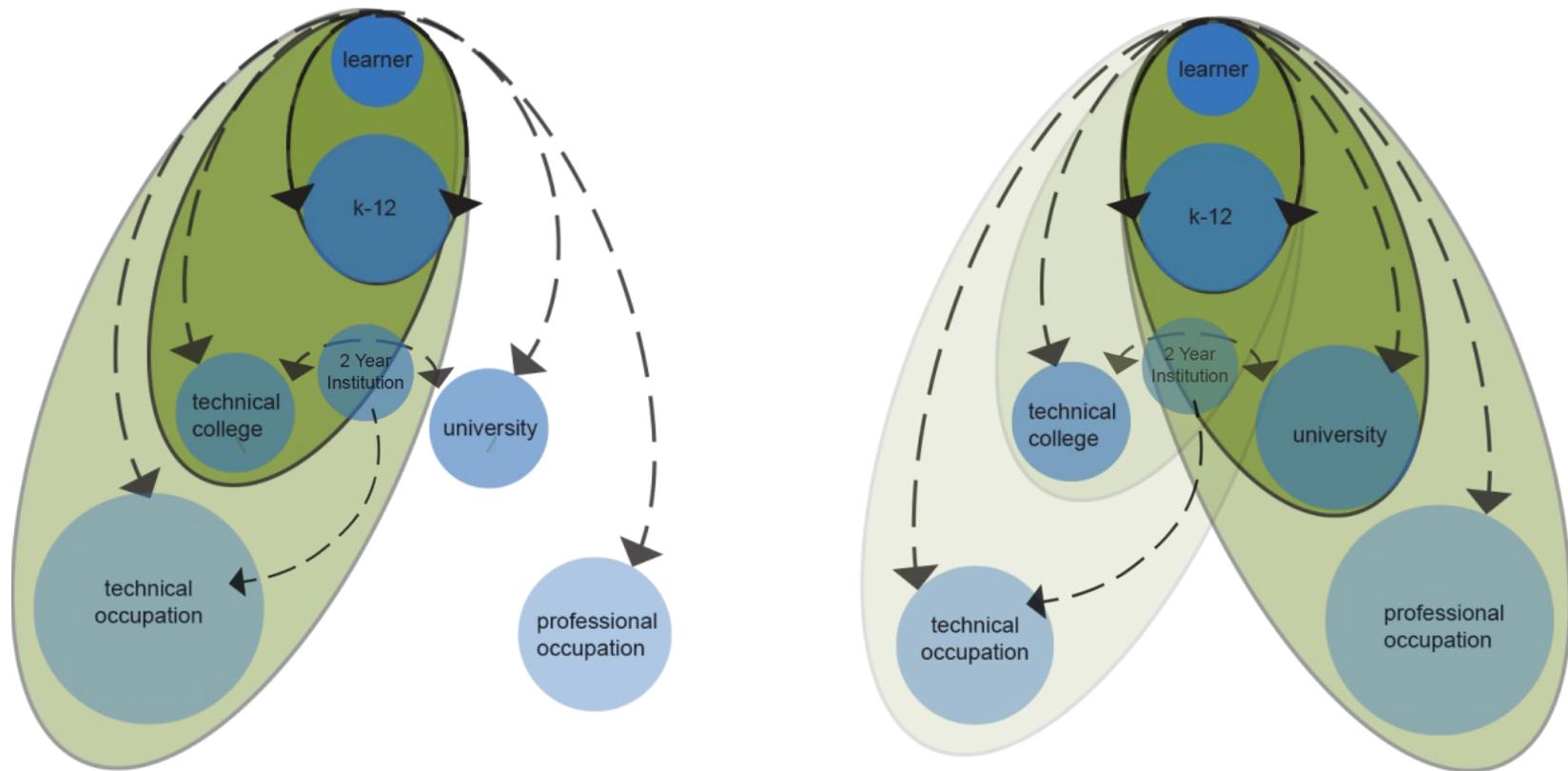
TRADITIONAL PATHWAYS
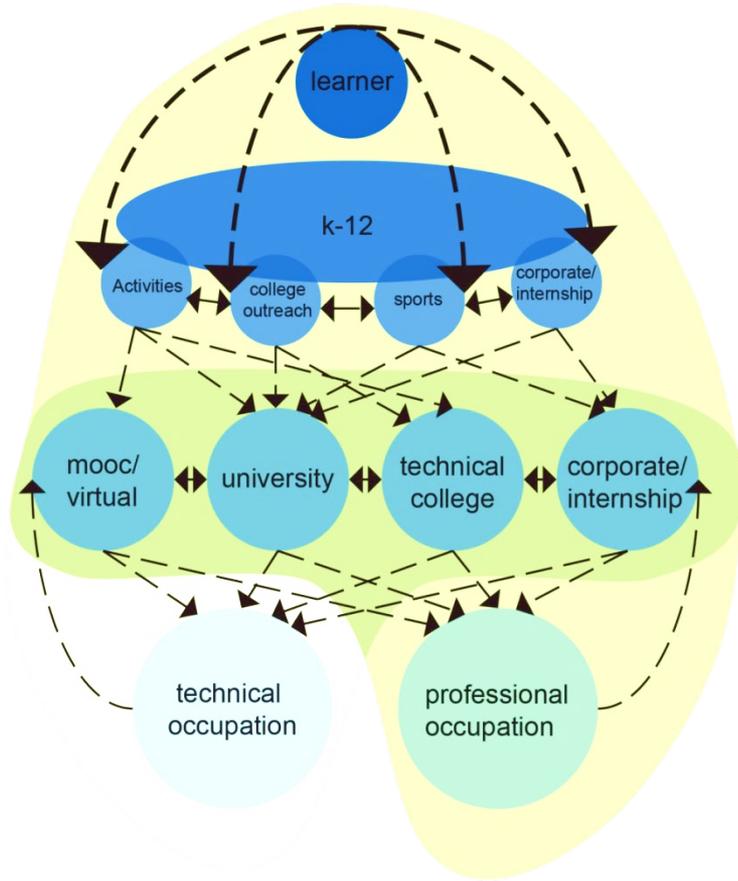
MULTIDIRECTIONAL

when?

how?

how often?

SCHEDULE

where?

DIFFERENTLY

ALPHA GENERATION:

2010 - Present:

They break free of any boundaries
They don't care about privacy
They don't play by the rules

The Framework

Human Connection
Environment
Technology

Person

Classroom

Cohort

Building

Site

Neighborhood

The Framework

Human Connection

HUMAN CONNECTION

Relationships
Cultural Responsiveness
Health + Well-being
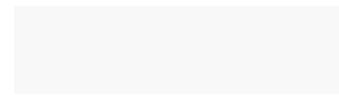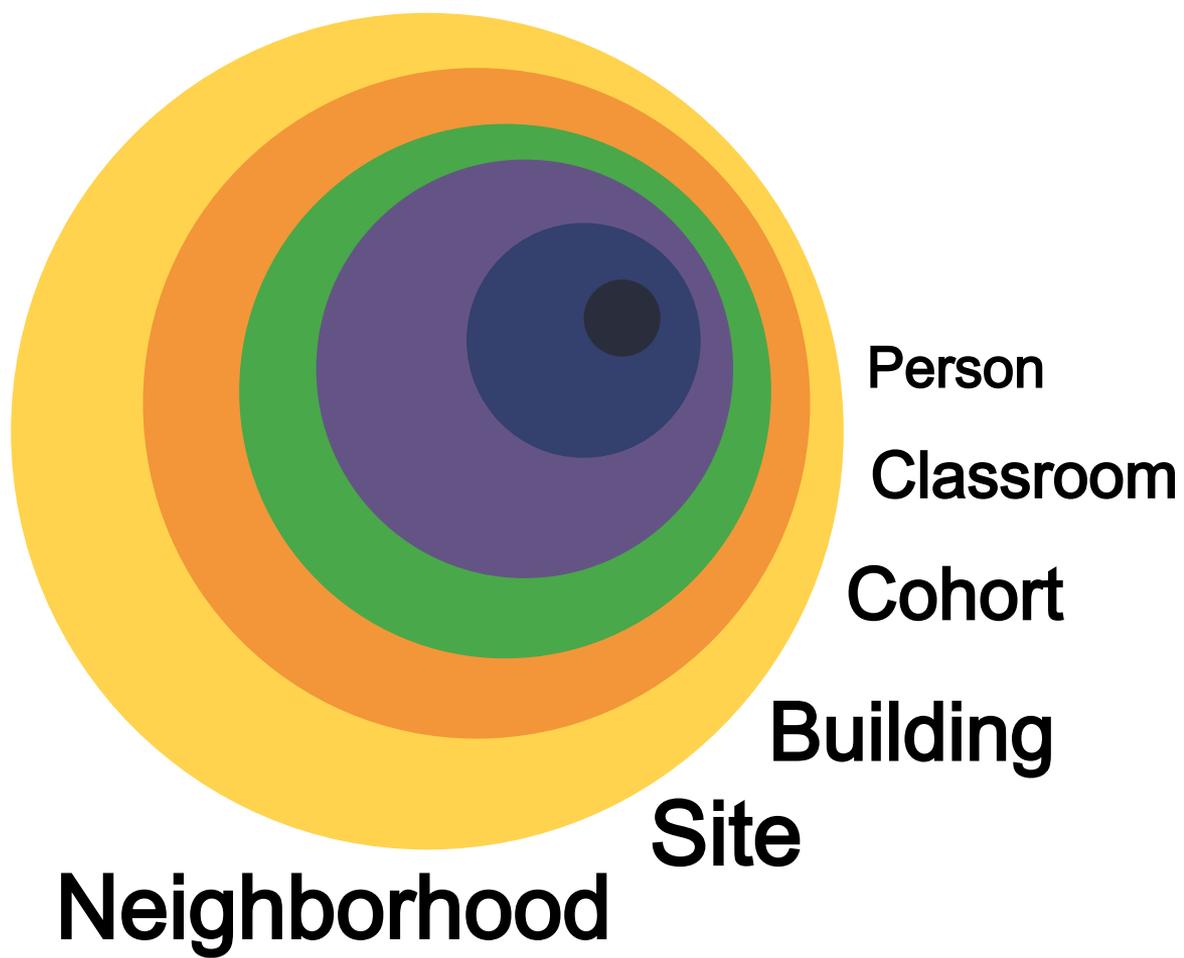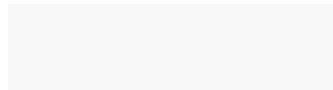
Students + Teachers Connecting

Positive student-student and student-teacher relationships help learners develop connectedness and a sense of belonging.

- Inquiry-based learning
- Critical thinking
- Community involvement
- Flexibility
- Personalization
- Technology-rich
- Collaborative

Cultural Responsiveness & Mutual Respect

risk-free
environment

appreciation

empathy

Cultural Competence

Personal Relevance

Personalized Learning

Health and Well-being

The Framework

Environment

ENVIRONMENT

Academic
Physical
Community
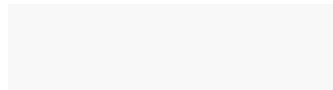
Zones of Security

APPROACH
+ EGRESS

COMMUNITY

PERIMETER

BUILDING ACCESS

INTERIOR SECURE AREAS

Fencing

Parking Gates

Traffic Flow

Access Points

Cameras

Electronic Access

Lighting

Parking Lots

Signage

Security Guards

Traffic Flow

Vegetation

Access Points

Cameras

Electronic Access

Loading Docks

Manual Access Controls

Security Guards

Traffic Flow

Assets

Control Room

Administration

Refuge

Scale of Agility for Personalized Learning

level 1
low flexibility

level 5
variety of space types
and student commons

level 10
student advisory model
and studio environment

Biophilic Design

- Lower blood pressure and stress hormones

- Improved physical health, including sleep patterns, heart rate, and even dental decay

- Improved teacher mental restoration leading to increased retention

Crime Prevention Through Environmental Design

CPTED

Design principles that deter crime by influencing offender decisions preceding bad behavior or criminal acts.

Areas of Focus:
1. Surveillance
2. Territorial Reinforcement
3. Access Control
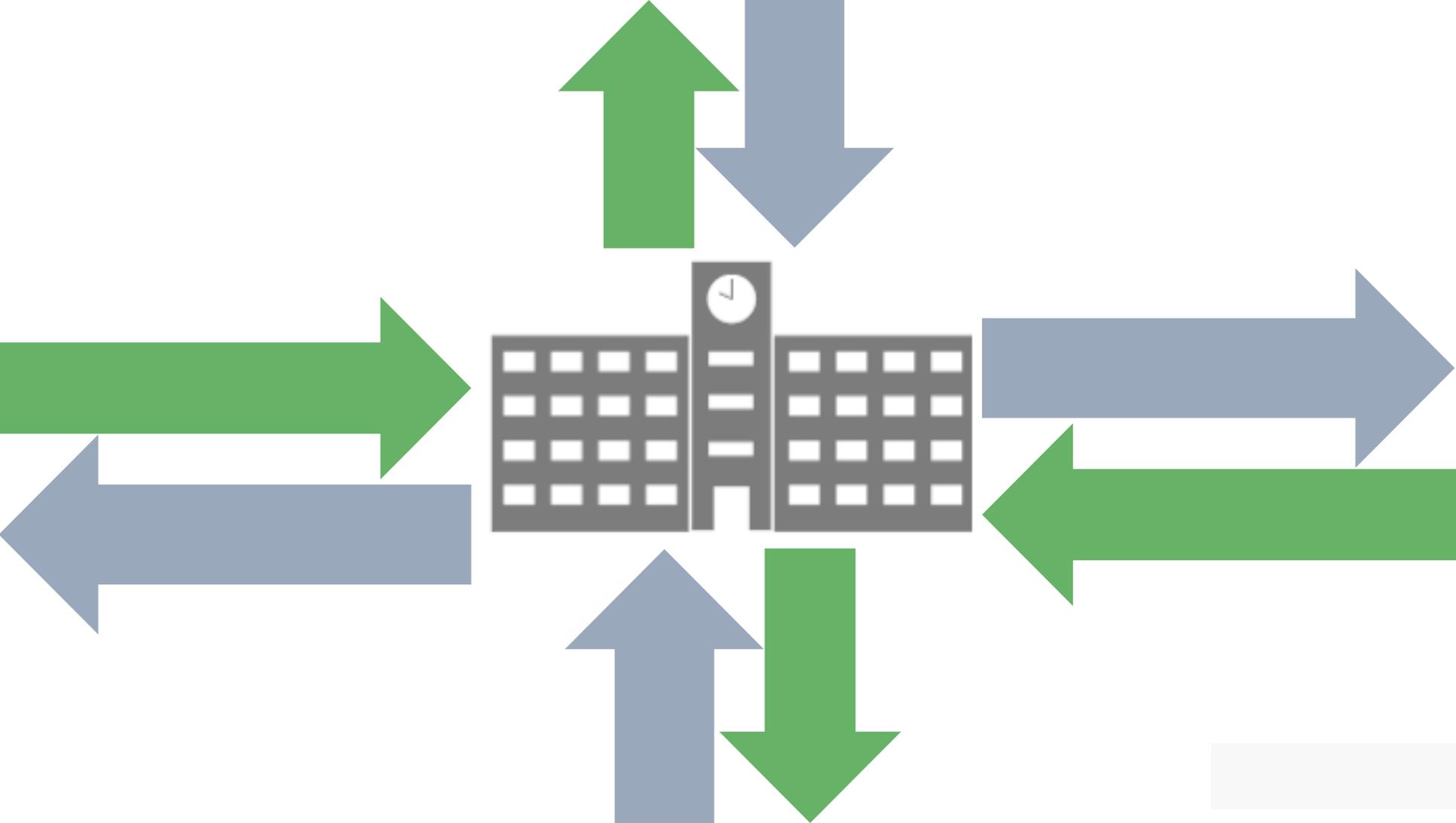
The Framework

Technology

TECHNOLOGY

Persona
Building/Equipment
Systems
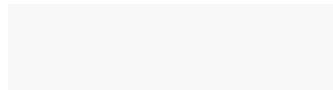
Digital dossier

Social media

Bullying

Superficial relationships

Technology's Influence Human Interaction

Environment + Technology

Tried and true design elements for safety: toolkit to prevent daily threats and crime.

Visitor Management

- Reception door release and intercom

- Visitor check-in and badging – positive identification linked to police database for known offenders

- Classroom lockdown system for sheltering in place

- Duress alarms (panic buttons) – sometimes also in classrooms

Technology Considerations
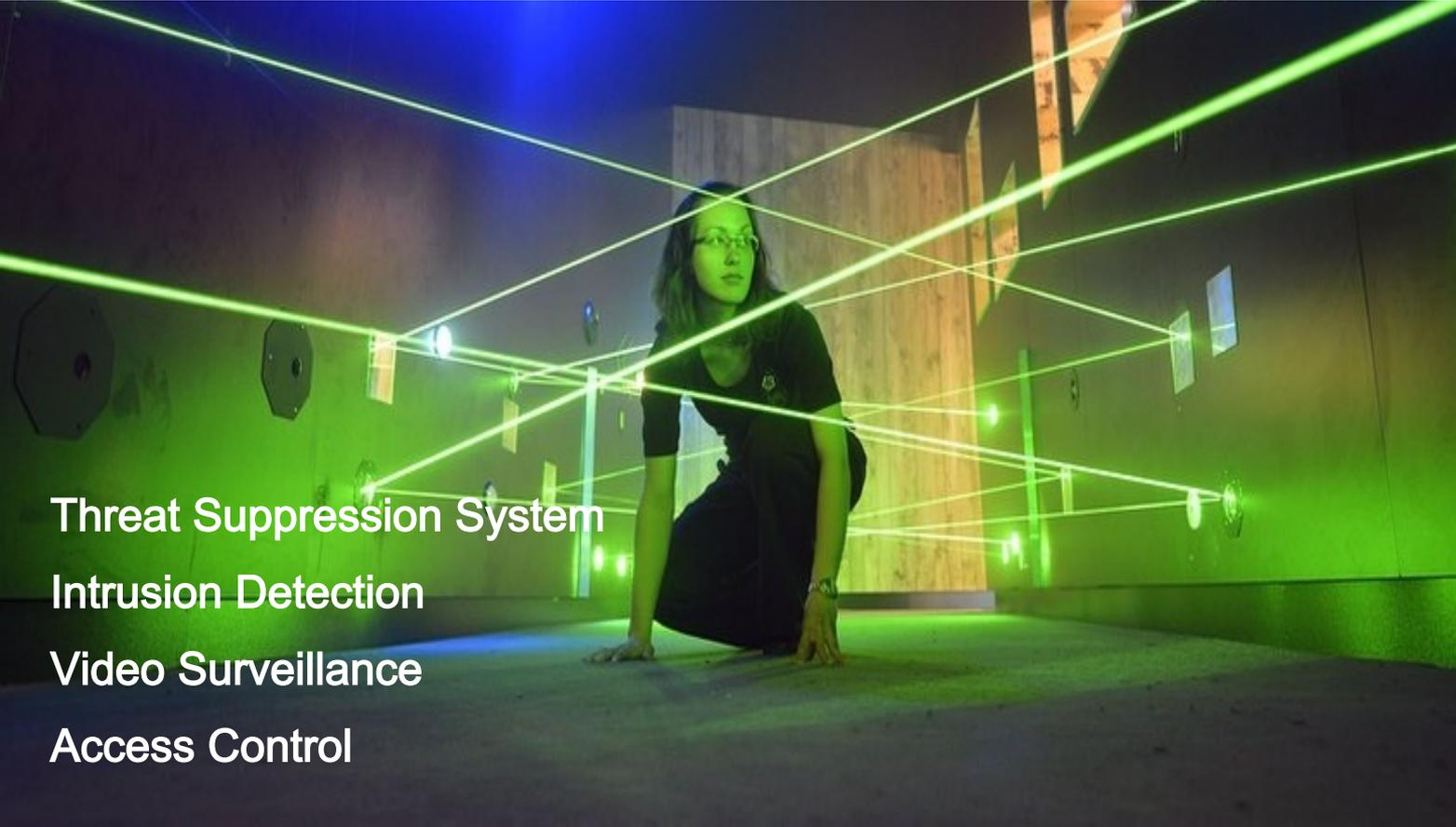
Threat Suppression System

Intrusion Detection

Video Surveillance

Access Control

Notifications + Alerts

- Campus notifications

- Links to police and first responders

- School emergency and crisis management software

- Text alerts and calls to students, staff, parents

- Updates on scenario directions

- Anonymous alert and tip system

- Phones in classrooms

- Shelter in place protocol

Relationships
Cultural Responsiveness
Health + Well-being

HUMAN CONNECTION

ENVIRONMENT

Academic
Physical
Community

TECHNOLOGY

Persona
Building/Equipment
Systems

TECHNOLOGY

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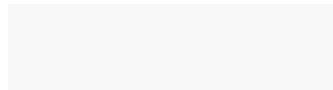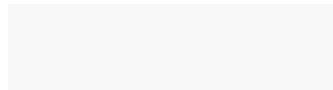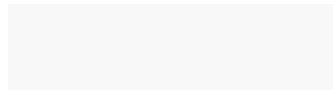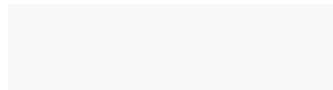
Alignment

Process
Policies

How to Begin
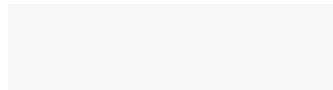
Planning Process

To improve safety and security in your school campus

What is a Trauma-Informed School?

- ✓ It REALIZES the prevalence and impact of trauma

- ✓ It RECOGNIZES signs of trauma and the need for learning support

- ✓ It RESPONDS to trauma with developmentally-appropriate support to enhance student success

- ✓ It INTEGRATES principles of trauma-informed care into classroom practices, and responds to student and staff needs

The New Way Active Planning with Key Partners

Best Practices and Standards:
The Four Phases of Emergency Management

- "All Hazards" approach
- Developed collaboratively with community partners
- Based upon sound data and information
- Practiced on a regular basis
- Continually reviewed and updated
- Living documents
- Command structure (NIMS)
- Tailored to conditions of individual buildings
- Address all four phases of emergency management
- Include a threat assessment process

Planning Starts Early

- Professional assessments of property and procedures – review deficiencies in current plan and equipment

- Anti-bullying and counseling, "see something – say something" – controlling the active shooter scenario before it starts!

- Check offender database

- Proper school communication backbone

- Document protocols for action and events

- Design to accommodate technology within aesthetics

SECURITY ASSESSMENT

Prevention and Mitigation

Taking steps now to prevent or reduce incidents and exposure to damage

- Safety audit to identify critical issues and improve safety

- Safety team meeting to assess current status of planning

- Review and revise established Emergency Management Plan

- Use Safety First concepts

  – CPTED– Crime Prevention Through Environmental Design; discussion with District's architect (ingress/egress, lighting, card key access, etc.)

Policies + Procedures Benefit ALL

ALICE

ALERT

LOCKDOWN

INFORM

COUNTER

EVACUATE

1. Assess district's risk and needs

2. Audit existing security infrastructure and performance

3. Understand applicable guidelines, requirements, and legislation

4. Develop an Emergency Crisis Management Plan (including policies, procedures, and communication plan)

5. Train, train, train: first responders, students, teachers, staff, parents, and community

Comprehensive School Safety Guide

- Homeland Security and Emergency Management, *Keeping Minnesota Ready*

  https://dps.mn.gov/divisions/hsem/mn-school-safety-center/Documents/Comprehensive%20School%20Safety%20Guide.pdf

- Intended for district teams and partners developing or revising emergency management plans

- "General guidelines based on local, state and national best practices"

- Procedures should be customized to fit specific building sites and local emergency response protocol

Self-Assessment Checklist

| CRITERION	YES	NO	NOT ✔	N/A	FURTHER STUDY	COMMENTS
THE EMERGENCY PLAN						
1. Multi-hazard in nature within the emergency management model of *Prevention, Preparedness, Response and Recovery.*						
2. District articulates a strategic vision, mission and methodology for response agencies.						
3. District's plan is then developed in collaboration with community stakeholders and response agencies.						
4. Plan identifies designees (ideally three) who will direct emergency response in the absence of the administrator.						
5. Plan is reviewed and updated on a regular basis.						
6. Plan includes specific procedures and accommodations for students with special needs and/or English Language Learners (ELLs).						
7. Plan uses common vocabulary for all school stakeholders and emergency responders.						
8. Plan includes after-school activities.						
9. Plan includes an Incident Command System (ICS) and describes school emergency response teams.						
10. Plan includes a threat assessment process.						
11. Plan includes the following *required* universal procedures:						
a. lockdown						
b. evacuation						
c. severe weather shelter						
12. Plan includes the following *suggested* universal procedures:						
a. shelter-in-place						
b. reunification						
13. Plan includes emergency procedures specific to a variety of potential incidents, e.g. bomb threats, fights, intruders, hazardous materials.						

Key Elements of Emergency Management Plans

- "All Hazards" approach
- Developed collaboratively with community partners
- Based upon sound data and information
- Practiced on a regular basis
- Continually reviewed and updated
- Living documents
- Command structure (NIMS)
- Tailored to conditions of individual buildings
- Address all four phases of emergency management
- Include a threat assessment process
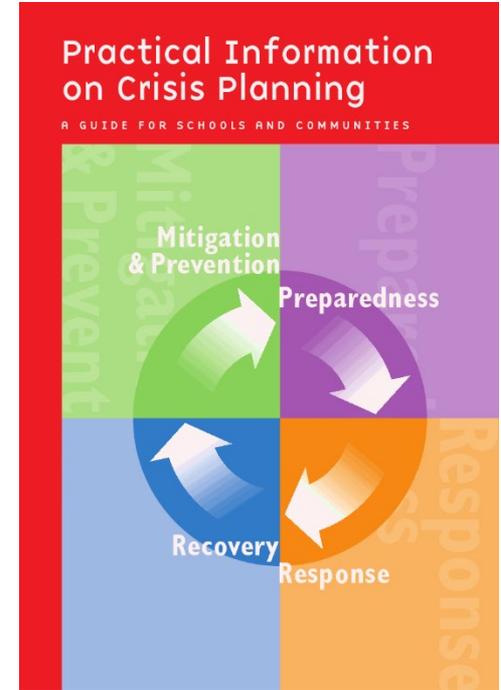
Preparedness: National Incident Management System (NIMS)

- Comprehensive, national approach to incident management; applicable at all jurisdictional levels and across all disciplines

- <u>Local education agencies receiving federal grant funding must support NIMS</u>

- Includes an Incident Command System ("ICS"):   Standardized, on-scene, all-hazard incident management concept using Best Practices to facilitate an integrated, organizational structure to match the complexities and demands of single or multiple incidents without being hindered by jurisdictional boundaries. ICS helps ensure the safety of responders and others, achievement of tactical objectives and the efficient use of resources

NATIONAL INCIDENT MANAGEMENT SYSTEM

March 1, 2004

Homeland Security

1. *Command and Management*
2. *Preparedness*
3. *Resource Management*
4. *Communications and Information Management*
5. *Supporting Technologies*
6. *Ongoing Management and Maintenance*

Sample of a School-Based Incident Command System

```
                    ┌─────────────────────────────────────────────┐
                    │ Incident Commander and Incident Command Team │
                    └─────────────────────────────────────────────┘

┌──────────────────────────┐          ┌──────────────────────┐
│ Public Information Officer│          │   Liaison Officer    │
└──────────────────────────┘          └──────────────────────┘

                                      ┌──────────────────────┐
                                      │    Safety Officer    │
                                      └──────────────────────┘
```

| Operations	Planning	Logistics	Finance & Administration
Health Services/First Aid	Documentation/Recorder	Transportation	Insurance Claims
Search and Rescue	Facility and Materials	Food Services	Personnel
Student Supervision			
Student/Parent Reunification			

Event Response

Key Messages of NFPA 3000:

- Practice lockdown procedures

- Design for an accessible "cool zone" on campus for emergency responders and triage

- Doors within path of egress are required to meet NFPA 101 for operational ease

- Classrooms should lock from inside, or controlled electronically from a central location

Key Take-Aways

Collaborate with key stakeholders:
first responders, students, teachers, staff, parents and community
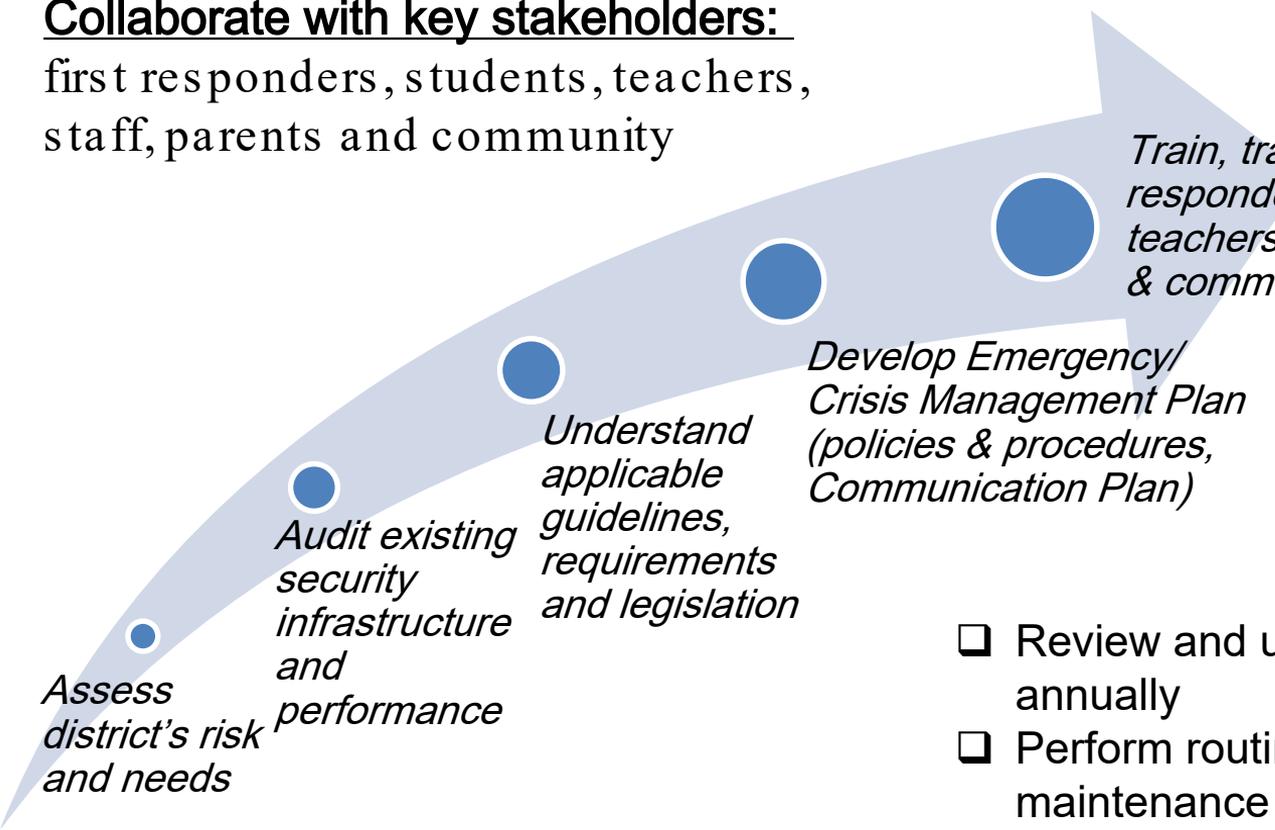
Train, train, train: first responders, students, teachers, staff, parents & community

Develop Emergency/ Crisis Management Plan (policies & procedures, Communication Plan)

Understand applicable guidelines, requirements and legislation

Audit existing security infrastructure and performance

Assess district's risk and needs

❑ Review and update plan annually
❑ Perform routine annual maintenance & testing of security infrastructure

The Result

Relational Safety Framework

Relational Safety

- **TECHNOLOGY**
  - Digital Dossier
  - System Security
  - Security Technology

- **ENVIRONMENT**
  - Academic
  - Physical
  - Community

- **HUMAN CONNECTION**
  - Relationships
  - Cultural Responsiveness
  - Health + Well-being

- **RELATIONAL SAFETY**

Stories and Examples

Infrastructure
Educational Space Design
Communication

Building Lockdown
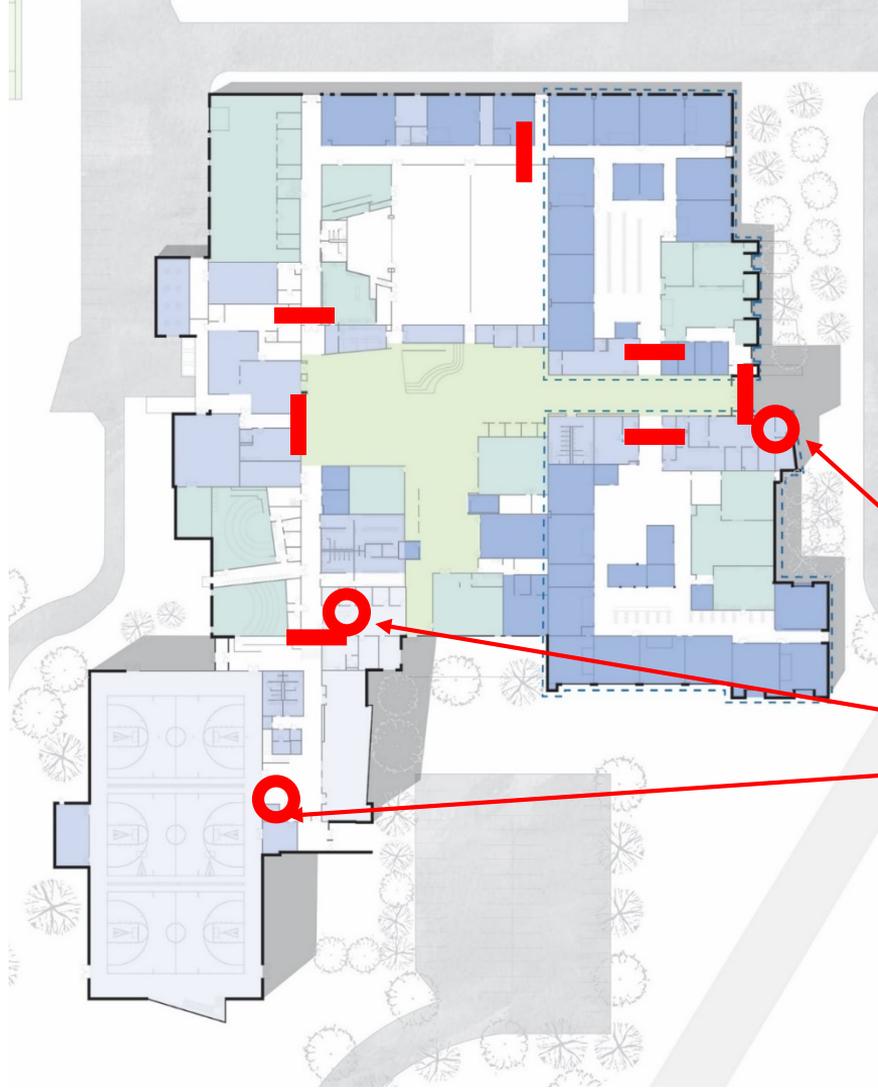
Switch at reception releases magnetic door holder
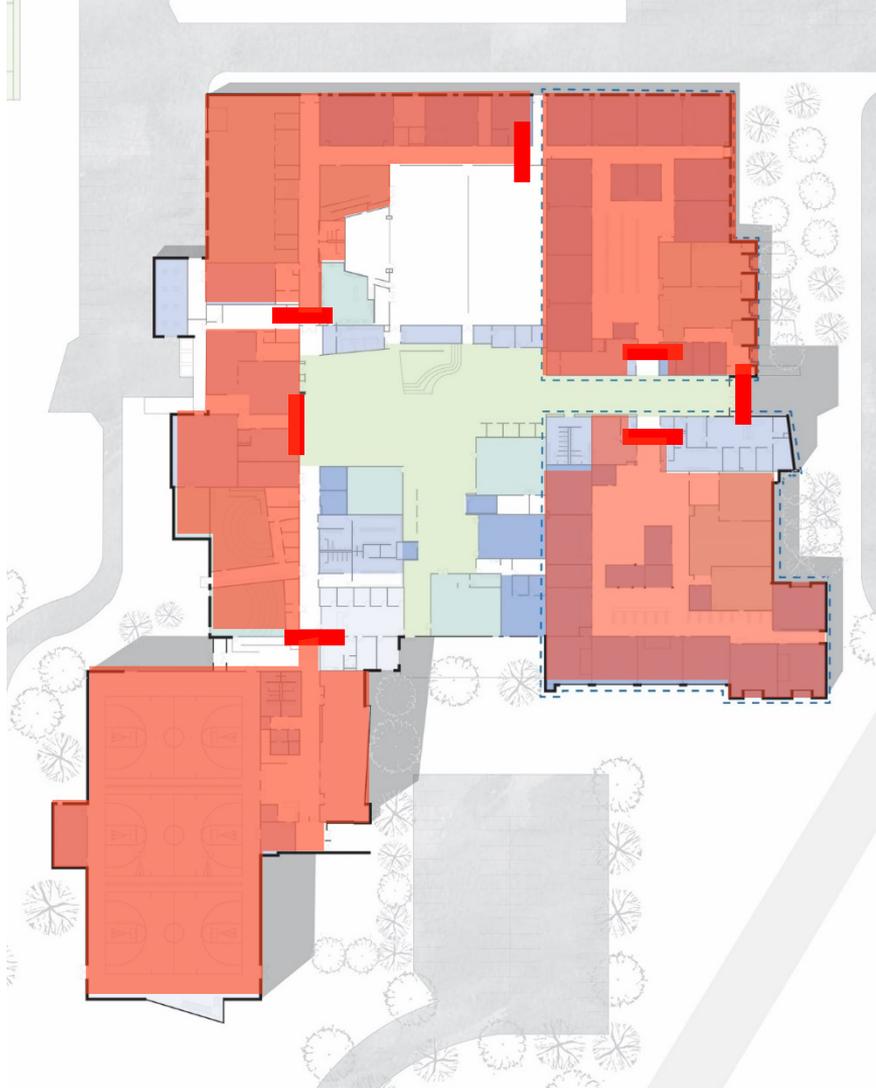
Building Zoning

Interior Sight Lines

Spaces for School Community

Spaces for School Community

Spaces for School Community

Supergraphics for Wayfinding +Responders

Parent University

Designing for Parent Involvement

- Welcoming climate

- Connect community resources to support student learning and well-being

- Child development support

- Support and extend children's learning in home and community

- Meaningful participation opportunities

- Establish school-to-home and home-to-school communication

Communication Strategies

- Story telling…..early and often

- Admit your mistakes

- Multi-layered
  - From School Board
  - From Administration
  - From teachers
  - Through students
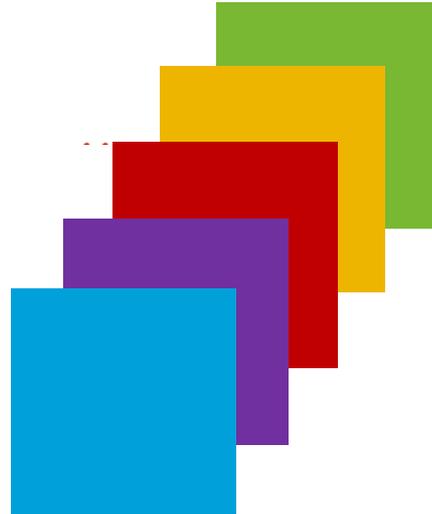
It Takes a Village

it takes a VILLAGE

Resources

School Safety and Security Resources

❑ Ohio Attorney General – School Safety Task Force
https://www.ohioattorneygeneral.gov/State -and-Local-Government/Schools/School -Safety-Task-Force

❑ Ohio Department of Public Safety – Ohio School Safety Center
https://publicsafety.ohio.gov/wps/portal/gov/odps/what-we-do/our-programs-new/safer_schools_ohio

❑ Ohio Facilities Construction Commission – School Security Resources
https://ofcc.ohio.gov/Services-Programs/K-12-Schools/School-Security-Resources

❑ U.S. Department of Homeland Security www.ready.gov/business/index.html

❑ U.S. Department of Education Office of Safe and Healthy Students
http://www2.ed.gov/about/offices/list/oese/oshs/index.html

❑ FEMA www.fema.gov/areyouready/basic_preparedness.shtm

School Safety and Security Resources

- U.S. Department of Education Emergency Planning Web site
  www.ed.gov/emergencyplan

- Emergency Response and Crisis Management Technical Assistance (TA) Center www.ercm.org

- Practical Information on Crisis Planning
  www.ed.gov/admins/lead/safety/emergencyplan/crisisplanning.pdf

- U.S. Department of Education. "Emergency Exercises: An Effective Way to Validate School Safety Plans," ERCM Express Newsletter, Vol.2, Issue 3, (2006)
  http://rems.ed.gov/views/documents/Emergency_NewsletterV213.pdf

- U.S. Department of Education. A Guide to Vulnerability Assessments: Key Principles for Safe Schools. (2008) http://www.ed.gov/emergencyplan

- U.S. Department of Education Action Guide for Institutions of Higher Learning
  http://rems.ed.gov/docs/REMS_ActionGuide.pdf

School Safe Design Resources

- International CPTED Association
  http://www.cpted.net/

- CPTED Training
  http://www.cptedtraining.net/
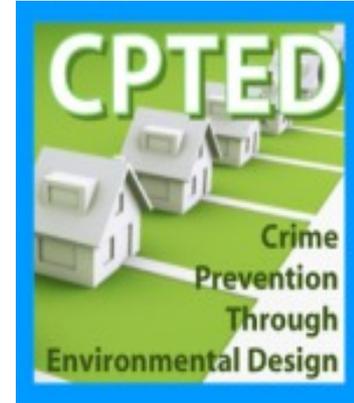
- Dept. of Homeland Security – School Safety
  http://www.dhs.gov/school -safety

- Dept. of Homeland Security – Run! Hide! Fight! Video
  http://www.youtube.com/watch?v=p4IJA5Zpzz4

Grant Funding

- Ohio Attorney General
  https://www.ohioattorneygeneral.gov/Files/Government-Entities/Schools/School-Safety-Training-Grant.aspx

- School security grants: www.grants.gov

- FEMA's Homeland Security Grant Program (HSGP) can be used
  for planning, purchasing equipment, training, and other efforts
  to support school security.
  http://www.fema.gov/fy-2013-homeland-security-grant-program-hsgp-0

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Questions?

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- AIA CEU credit – don't forget to include your AIA #

- Certificate of participation for self-reporting to your professional organization or employer

- Remember, we are unable to offer individual credit when watching in a group environment

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