# S C H O O L S E C U R I T Y I N F R A S T R U C T U R E I M P R O V E M E N T S



SILVER/PETRUCELLI+ASSOCIATES
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Following so many school tragedies, and with the assistance of state funding programs, many school districts are looking for ways to incorporate more effective security measures as they build, renovate or expand their educational facilities.

To design schools that are both safe and appealing, we apply the Crime Prevention Through Environmental Design (CPTED) standards to deter criminal behavior through building design. CPTED Standards have many benefits - they improve school operations and control over the school environment, enhance law enforcement's efforts towards monitoring the facility, create a positive learning environment for students, and provide simple, cost effective solutions through an integrated design process

The CPTED recommendations are

supported by the State of CT School Safety Infrastructure Council (SSIC) guidelines which dictate school safety infrastructure standards. Design considerations include:



## **Safer Buildings**

- Locking barriers between classrooms & facilities such as the gym.
- Skylights, clerestories, and other windows that can't be easily reached.
- Use of window glazing/films.
- Clearing corridors of obstructions & hidden alcoves.
- Creating large, wide hallways & common areas.
- Installing student lockers in classrooms instead of hallways.
- Single-stall bathrooms and/or maze entrances in toilet rooms.
- Limiting roof, hatch & ladder access.

# **Safer Doorways**

- Fewer entrances & more mantraps.
- Locating offices at the front of the school.
- Separate, controlled entrances for staff.



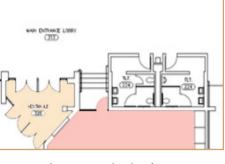




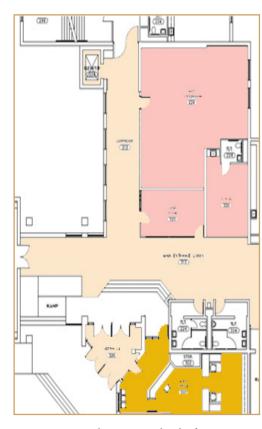


Designs for Berlin High School, West Shore Middle School in Milford and Long Hill School in Shelton featured vestibule systems, door fortification, ballistic glass and integrated electronic security features and systems.





Melissa Jones School Before

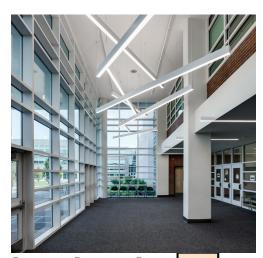


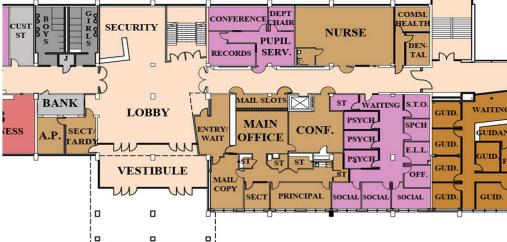
Melissa Jones School After

In an effort to makes their schools safer, the Town of Guilford made security improvements to four of its schools. The goal of the project was to make the main entrances more openly accessible, to enhance the line of sight from the main office and to force a redirection of visitor traffic. Our Before and After solutions for Melissa Jones School, above, included swapping spaces to reorient the line of sight and included automatic door locking mechanisms to increase safety.



Enfield High School's main entrance design includes a mantrap vestibule that is visible by security personnel and redirects visitors into a separate area before entering the school.









Our designs for the main entrance at Joseph Foran High School in Milford featured a mantrap main entrance and bullet proof glass to protect security and office staff.





Renovations and additions to Stratfield School in Fairfield included intercoms/cameras and remote door releases as part of their security features.

Steel doors that lock from the inside.

# Safer Driveways and Parking Lots

- Drop-off/pickup lanes for buses only.
- Minimizing the number of driveways or parking lots that students need to cross.
- Closing the main student parking lot during the school day.

## **Safer Campuses**

- Enclosing the school inside a fence or wall.
- Blocking views from the outside community.
- Setting buildings and playgrounds back from public streets, driveways, and parking areas by at least 50 feet.
- Avoiding secluded hiding places inside and outside the building.
- ▶ Ample exterior lighting.
- ▶ Well-maintained trees/landscaping.

### **Emergency Alert Systems**

- ► Two-way radio & cell phone access.
- Security alarm system throughout all hallways, administrative offices, and rooms containing computers, shop equipment, and other high-value property.
- Law enforcement personnel on site daily.

## **Technologies for a Safer School**

- ▶ Video surveillance
- Metal detection
- Mechanical entry-control devices on doors and gates
- Alarm systems

**Multi-disicplined staff.** Our in-house staff includes architects, engineers, interior designers, code consultants, spec writers and construction administrators.

Experienced. We have completed dozens of school security projects including hardened entrances & main office security upgrades, window safety improvements, mantrap vestibule designs, door upgrades including locks and latches as well as concrete security planters and force-resistant bollards at the entry.



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## **Professional Registrations**

- ► Architect: CT
- ▶ Interior Designer: CT

#### **Education**

- ▶ B.S. Architectural Engineering Technology, NY Institute of Technology
- ► A.S. Architectural Engineering, Norwalk State > Summer Program, Rhode Technical College

# **Professional Registrations**

- ► Architect: CT, VT, NY
- ▶ Interior Designer: CT

#### Education

- ▶ B. Arch., Pratt Institute
- ► A.S. Architectural Engineering, Norwalk State Technical College
- Island School of Design
- ▶ Design Certificate, University of Copenhagen

# **Professional Registrations**

► Engineer: CT, MA

#### **Education**

- ▶ B.S. Electrical Engineering, University of Connecticut
- ► A.S. Nuclear Technology, Thames Valley Technical College

## **Professional Registrations**

- ► Architect: CT, NY, RI, MA, MD, NH, NJ, ME, PA
- ► Interior Designer: CT
- ▶ Historical Architect: CT State Historic Commission

#### Education

- ► M. Arch., Rensselaer Polytechnic Institute
- ► Certificate, Architectural Association, London, England
- ▶ B. Environmental Design, Miami University (Ohio)

# **Professional Registrations**

► Engineer: CT, NY, MA, RI, NJ, PA, DE, MD, VA, OH, FL, ME, NH, VT

#### Education

- ▶ B.S. Mechanical Engineering, University of Connecticut (Pi Tau Sigma Honor Fraternity)
- ► The Hartford Graduate Center, Courses in Engineering
- ► Professional seminars offered by ASHRAE, NFPA and ASPE



Architects | Draftsmen | Mechanical Engineers | Electrical Engineers | Electrical Designers | Plumbing/Fire Protection Engineers Interior Designers | Construction Administrators | Specifications Writer | Administrative Staff | 47 Total Staff