School Security Design: Planning to Mitigate Risk and Avoid Liability

By Shamus P. O'Meara



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The security of school buildings has become a predominant safety topic in school communities following the school shooting tragedy at Sandy Hook Elementary School in Newtown, Connecticut. School and university leaders across the country are seeking the guidance of legal counsel, architects, engineers, and security professionals to

assess the security of school and campus buildings and recommend design changes for the protection of students, staff, and visitors from armed intruders and incidents of violence. Once the subject of nerdy seminars among security vendors, incorporating crime prevention principles in the design of school buildings is fast becoming an integral part of safe school planning. Bulletproof glass, relocation of offices, sight lines, integrated cameras and lighting, and reconfigured traffic patterns are now the subject of discussion among school design teams.1 In response to the Sandy Hook tragedy, the Connecticut legislature passed laws to develop safety standards for school building projects including model plans available to schools.² Across the country, legal counsel for schools and higher education institutions, along with their school design and construction partners, face difficult liability and risk management decisions involving security in public buildings. This article highlights federal and state guidance and the legal risks involved with school and campus security design.³

Federal Guidance for School Safety

Approximately 20 percent of our nation's population is in a school each day. There are more than 96,000 public schools in the United States responsible for educating 48 million students annually.⁴ Several million students attend private schools and colleges, and there are tens of thousands of employees and visitors in schools and on campuses each school day. Over recent years, school shootings and incidents of school violence have led states to pass laws and regulations requiring that schools have crisis plans with mandated lockdown and fire drills, antibullying measures, school safety teams, and other

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measures to address behavior and potentially violent situations.⁵ Many state education departments now issue model crisis management policies to assist school districts in the development of policies and procedures involving safety and security.⁶ The importance of these issues was highlighted by a 2002 joint report published by the US Department of Education and US Secret Service, the Safe School Initiative,⁷ a comprehensive study examining the thinking, planning, and other behaviors of students who carried out school shootings. The Safe School Initiative concluded that there is no accurate or useful profile to determine which students may pose a threat and, therefore, school administrators should focus on whether a student engages in behaviors that suggest possible violence so that intervention may be possible. The study also emphasized that school officials should develop preventative measures to any emergency planning already in place to include "protocols and procedures for responding and managing threats."8

In several states, schools must develop their emergency management plans in collaboration with community partners such as law enforcement, fire, medical, mental health, and other community assets. State laws also reflect the national guidance for effective emergency management utilizing an "all hazards" approach to prepare schools for a wide array of emergencies, from natural disasters and weather events to health crises, environmental concerns, and incidents of bullying and violence. These national guidelines also emphasize crisis planning using the Four Phases of Emergency Management: Mitigation/Prevention, Preparedness, Response, and Recovery.9 Emergency concepts used for many years by fire and police agencies, such as the National Incident Management System (NIMS) and the Incident Command Structure, have become part of the fabric of emergency planning for schools and higher education institutions. Local education agencies (e.g., schools) that receive certain federal grants must also comply with NIMS and other federal guidance involving crisis prevention.¹⁰ In addition, guidance issued by the National Fire Protection Association, OSHA, and FEMA, among other agencies, greatly impacts how schools now approach emergency situations.¹¹

In many circumstances, these federal school safety guidelines have become standards and practical requirements in school design and construction, incorporated into state statutes and best practices for school building design.¹² For example, the May 24, 2013, *Request for Qualifications for Architectural and Engineering Services* to rebuild Sandy Hook Elementary School provides:





- The new school will be developed around the FEMA All Hazards Approach, incorporating the most current design and construction elements for tornados, hurricanes, earthquakes, fire, intruders, site dangers, etc. Coordination and cooperation with representatives of FEMA are an integral part of the project development process.
- The school will also be designed according to the U.S. Department of Homeland Security Buildings and Infrastructure Protection Series to Design Safe School Projects, January 2012. The Homeland Security, Science and Technology Directorate, Infrastructure Protection and Disaster Management Division will provide assistance and guidance as the project is developed. Coordination and cooperation with representatives of DHS are an integral part of the project development process. The project team may be required to participate in DHS conferences and seminars related to the design of the project. Out-of state travel should be anticipated.¹³

Crime Prevention Through Environmental Design

When evaluating the safety and security of a school building, design professionals are now being asked to utilize a federally recommended design process to mitigate risk: Crime Prevention Through Environmental Design (CPTED). Rather than concentrating on single-source security measures, such as purchasing numerous cameras, CPTED focuses on changes to the physical and social environment that will reinforce positive behavior through proper design and effective use of the built environment, reducing fear and crime while improving the quality of life.¹⁴ Federal agencies responsible for safety, such as the Department of Homeland Security, strive "to provide the design community and school administrators with the basic principles and techniques to make a school safe from terrorist attacks and school shootings and at the same time ensure it is functional and aesthetically pleasing."¹⁵ They address particular risks schools face and architectural and engineering design considerations for CPTED and review past shooting incidents to highlight structural vulnerabilities that contributed to these tragedies.¹⁶

The Department of Homeland Security Primer suggests the following methods for school building designers to identify and quantify existing or potential security risks to which a school may be exposed:

- Conduct a FEMA 452 risk assessment to help identify the most cost beneficial (in terms of effectiveness) protective measures for a school building's safety needs. The analysis procedure may be summarized as:
- Please see Figure 1 on this page.

Consider building design issues when engaged in crisis planning using the U.S. Department of Education's *Practical Information on Crisis Planning: A Guide for Schools and Communities* to stimulate considerations of how building design and CPTED principles may be used to minimize losses in the event of an attack.

- Incorporate "layers of defense" to improve safety. Each building has three layers: (1) the outer perimeter, (2) the area between the outer perimeter and the building, and (3) the building itself. The Primer provides numerous ways to incorporate CPTED measures in each layer.
- Institute strict procedures to utilize CPTED designs.¹⁷

The Primer also provides a case study of recent school shootings to determine CPTED standards that could have prevented or limited the effects of school shooting tragedies. A targeted shooting incident typically evolves so



Figure 2

Considerations for the Design of a New Security System. Source: National Institute of Justice Research Report, NCI178265. The Appropriate and Effective Use of Security Technologies in U.S. Schools, September 1999.

rapidly that by the time emergency responders arrive, it is either too late or too dangerous to intervene. Vulnerabilities are typically the characteristics of educational facilities inherent to their function, operation, or physical design of the building. Figure 2 on this page provides guidance on the step-by-step approach to preventing and limiting school shootings:

The deterrence-detection-delay-response-consequences analysis is customary among CPTED designers and agencies.¹⁸

In addition to federal resources, various states have addressed and incorporated CPTED concepts into school building and campus design. However, no state has yet to adopt mandatory codes or requirements involving CPTED.¹⁹ Some states require that architects and contractors consider safety issues and CPTED principles when designing and constructing a school building.²⁰ These efforts have promoted the adoption of design safety and CPTED principles where feasible and practicable. Other states use CPTED principles as best practices or recommendations. With recent school tragedies and a continued emphasis on safety, these guidelines and best practices have become important considerations to prevent and mitigate risk and injury and discharge legal responsibilities of public institutions.

Legal Exposure for School Security

School tragedies committed by third parties often involve many legal concepts, including duty, foreseeability, immunity, special relationship obligations, supervision, students with disabilities, building design and condition, actual or constructive knowledge, contributory fault, and contractual indemnification, among others. The failure to follow federal emergency management guidance has been cited in support of legal claims involving security design in schools.²¹ With the high profile of school shootings and significant incidents of violence committed in schools and on campuses, it is reasonable to expect that similar claims will continue to be alleged.²² In turn, design professionals, specialty designers, construction managers, owner representatives, and contractors may find themselves embroiled in lengthy emotional litigation stemming from a school shooting or significant incident of violence at school. The potential reactions from courts and juries who may be asked to address such emotional liability issues can be unpredictable.²³

Courts in major metropolitan areas have ordered renovation and remodeling of school buildings to protect occupants.²⁴ In many jurisdictions, moreover, longstanding principles of premises liability can create legal exposure for school owners and designers for foreseeable events relating to building design and security features.²⁵ In a California school case,²⁶ the family of a 14-year-old student with a disability sued the school district for negligent supervision and maintaining a dangerous condition on public property after the student was sexually assaulted by another student in an alcove under a secluded concrete stairway.²⁷ The claims against the school district alleged negligent supervision and that the alcove constituted a dangerous condition on property. The trial court granted summary in favor of the school district. The California appellate court reversed, finding that it was foreseeable that maintenance of a hiding place could result in victimization of a child with a disability. The court cited plaintiff's expert's affidavit stating the alcove was a dangerous condition and could have been easily blocked off with a grate to find a triable issue under California's immunity statute. The court reasoned that although this exact situation may not have been envisioned, the record showed the school district was aware that students would hide in the alcove and that it was foreseeable that an assault could take place in this secluded area, and that students with disabilities are uniquely vulnerable so as to impose a duty to protect.

In another California case,²⁸ a student attacked on a stairway by an assailant hiding in foliage was not barred by immunity from suing the college. The plaintiff sustained injuries after she escaped an attempted daytime rape in the parking garage of the campus. The assailant jumped out from thick foliage using the same tactic in previous attacks on the same stairway. The college had knowledge of these other assaults. The district court granted summary judgment for the plaintiff, holding that colleges have a duty to protect students from reasonably foreseeable assaults and to warn its students of known dangers posed by criminals on the campus. The court reasoned the college knew of the risk of attack at the parking garage and of the thick foliage near the stairway.²⁹

In a Nebraska case,³⁰ a mother sued on behalf of her elementary-aged daughter after she was sexually assaulted by a trespasser. The assailant entered through the school's unlocked front door, passing the administrative offices without being stopped and ignoring signs in the school stating that visitors must sign in.³¹ The plaintiff alleged the school was negligent in failing to have effective security, allowing a stranger to enter without being stopped, and failing to protect the child after the assailant was stopped. The trial court granted summary judgment for the school district, finding that the assault was not foreseeable and that police reports showing crime in the school's area were insufficient to establish foreseeability. On appeal, the Nebraska Supreme Court reversed. The court rejected the plaintiff's argument that nearby criminal conduct put the school on notice of the risk. Rather, the school's duty arose once the assailant entered the school and the school failed to prevent the assault.32

In some jurisdictions, courts have applied a "public building exception" to preclude schools and public entities from applying immunity defenses to avoid liability for claims. In a Michigan case,³³ a patient voluntarily committed to a state mental health institution for suicidal tendencies committed suicide in the hospital bathroom. The patient's estate sued alleging the bathroom was defectively designed in failing to allow for staff observation, which would have prevented the patient's suicide. The Michigan Supreme Court agreed, finding that the plaintiff's defective construction allegations coupled with negligent supervision claims both fall under the public building exception.³⁴

Claims against school districts for property conditions abound. In *Joyce v. Simi Valley Unified School District*,³⁵ the appellate court affirmed a \$2.8 million judgment against a school district for head injuries to a middle school student struck by a speeding driver in a marked crosswalk in an intersection adjacent to the school. The crosswalk did not have signals and intersected a busy fourlane street into an open schoolyard gate. At trial, evidence was presented that the school, school district, and parents knew the intersection was dangerous. Parents and district employees had complained about the intersection's danger on several occasions prior to the accident. The plaintiff alleged the school had knowledge of the near misses at the intersection and that the open gate encouraged students to use the dangerous crosswalk, which constituted a dangerous condition in the property.³⁶

In *Constantinescu v. Conejo Valley Unified School District*,³⁷ the court affirmed a judgment finding the school district liable for student injuries sustained when a car driven by a parent picking up her children jumped the curb in the loading area and struck the students. The small loading area where the students were waiting was held to be a "dangerous condition." The district helped create this dangerous condition when it converted a small lot into an area for parents to pick up students. The court held that it was reasonably foreseeable that the students would be struck by an automobile because several vehicles entered the area at the same time and the cars were angled toward the curb and pointed in the general direction of the students with engines running.³⁸

In addition to traditional design claims, legal concepts involving "shared design" may also have application to the design and integration of security and safety features in school buildings. One commentator has suggested: "Even if the specific claim that arises relates solely to the security system, the security consultant and its surety may be able to develop a defense based on the acts and omissions of the prime contractor, one or more subcontractors, or the lead architect, all of whom are in some way involved in reviewing, coordinating, integrating, or carrying out aspects of the security system design."³⁹

Conclusion

The high profile of school shootings and incidents of violence involving our nation's schools has brought about comprehensive federal and state emergency management and security guidelines, standards, and best practices. School districts and higher educational institutions, and their design and construction partners, should jointly consult these important resources when addressing school and campus security design. With appropriate focus and collaboration, school security design can help mitigate and prevent risk and avoid legal exposure in the event of a crisis.

Endnotes

1. See P. Caron, Six Months After Sandy Hook Shootings, Schools Seek Secure Designs, CNN (June 10, 2013), http://schoolsofthought.blogs.cnn.com/2013/06/10/ six-months-after-sandy-hook-shootings-schools-seek-secureredesigns/; Associated Press, *Sandy Hook Panel Hears from Security Experts*, WABC NEWS–NEW YORK, NY (Feb. 16, 2013), §§ http://abclocal.go.com/wabc/story?section=news/local/ northern_suburbs&id=8995530.

2. Conn. Public Act No. 13-3, An Act Concerning Gun Violence Prevention and Children's Safety, §§ 80-83 (2013) (creating school infrastructure council and mandating conformance to school building safety infrastructure standards including considerations for reinforcement of entryways to school buildings and classrooms, ballistic glass, solid-core doors, double-door access, computer-controlled electronic locks, remote locks on all entrances and exits, and buzzer systems; use of cameras throughout the school building and at all entrances and exits, including the use of closed-circuit television monitoring; penetration-resistant vestibules; other security infrastructure improvements and devices as they become industry standards); Conn. Bipartisan Task Force on Gun Violence Prevention & Children's Safety, Summary of School Security Provisions, CONN. GEN. ASSEMBLY (2013), http://www.cga.ct.gov/ASaferConnecticut/docs/SSP. pdf. The standards developed must include an "all-hazards" approach through collaboration with community partners, a command center organizational structure, security and safety committees at each school, and security and vulnerability assessments every two years, among other requirements.

3. Historically designed to foster learning, many existing public schools have secluded niches and study areas with multiple entrances and exits. See NAT'L INST. OF JUSTICE, THE APPRO-PRIATE AND EFFECTIVE USE OF SECURITY TECHNOLOGIES IN U.S. SCHOOLS: A GUIDE FOR SCHOOL AND LAW ENFORCEMENT AGEN-CIES 100 (1999). Security technologies, rarely needed or used in schools in the past apart from fire systems, have become an integral component of safe school design. If used appropriately, they can prevent and mitigate crime and risk; provide information not otherwise available; and save labor, time, and financial resources. Id. at 1. Today's approach to school security seeks to minimize vulnerability and risk by having security staff involved in the design process rather than hiring a security vendor to handle all issues. Importance is placed on controlling building access to students, employees, and visitors by limiting entry points and building layout. Modern design principles recognize that schools should be built to protect against natural hazards and ensure occupant security using performance-based concepts that augment traditional, prescriptive approaches where building codes set quantitative, fixed values for dimensions, load tolerances, and fire resistance for minimum public health and safety standards. See Fed. Emergency MGMT. AGENCY, U.S. DEP'T OF HOMELAND SEC., FEMA P-424, DESIGN GUIDE FOR IMPROVING SCHOOL SAFETY IN EARTHOUAKES. FLOODS, AND HIGH WINDS 3-10 (Dec. 2010). See also Fed. Emergency MGMT. AGENCY, U.S. DEP'T OF HOMELAND SEC., FEMA-428/BIPS-07, PRIMER TO DESIGN SAFE SCHOOL PROJECTS IN CASE OF TERROR-IST ATTACKS AND SCHOOL SHOOTINGS iii (Bldg. & Infrastructure Prot. Series, Edition 2, Jan. 2012), http://www.ct.gov/demhs/lib/ demhs/bips07_428_schools.pdf [hereinafter PRIMER] ("Many Americans feel that schools should be the safest place our children can be, perhaps at times even safer than the homes in which they live. Security is not a standalone capability; it is a critical design consideration that should be continually reviewed and scrutinized from the design phase through construction or rehabilitation and into building use."). The need to address school building security has been present for many years. A 1999 education survey found that three-fourths of public schools required repair, renovation, or modernization of buildings at an estimated cost of \$127 billion. LAURIE LEWIS ET AL., NAT'L CTR. FOR EDUC. STATISTICS, U.S. DEP'T OF EDUC., NCES 2000-032. CONDITION OF AMERICA'S PUBLIC SCHOOL FACILITIES: 1999 (2000). Forty-three percent reported unsatisfactory conditions for lighting, heating, ventilation, indoor air quality, acoustics/ noise control, and physical security of buildings. Id.

4. INST. OF EDUC. SCIS., NAT'L CTR. FOR EDUC., U.S. DEP'T OF EDUC., NCES 2006-005, DIGEST OF EDUCATION STATISTICS: 2004, ch. 2 (Oct. 2005), http://nces.ed.gov/programs/digest/d04/ch_2. asp#3 ("Elementary and Secondary Education").

5. See, e.g., State School Health Policy Database: Crisis Management/Emergency Response, NAT'L Ass'N OF STATE BDS. OF EDUC. (2013), http://www.nasbe.org/healthy_schools/hs/ bytopics.php?topicid=3140 (state surveys); GA. CODE ANN. § 20-2-1185; VA. CODE ANN. § 22.1-279.8 (2003).

6. *Id.*; see also MINN. STAT. § 121A.035.

7. BRYAN VOSSEKUIL, ROBERT A. FEIN, MARISA REDDY & RANDY BORUM, U.S. SECRET SERV. & U.S. DEP'T OF EDUC., THE FINAL REPORT AND FINDINGS OF THE SAFE SCHOOL INITIATIVE: IMPLICATIONS FOR THE PREVENTION OF SCHOOL ATTACKS IN THE UNITED STATES (May 2002), http://www.secretservice.gov/ntac/ssi_final_report.pdf.

8. Among its 10 points for creating a safe school climate, the Safe School Initiative concluded that schools should be aware of physical environments and their effects on creating comfort zones. In large schools, school administrators should consider changes in the school's physical characteristics that would permit the assignment of teachers and students to smaller, mutually intersecting and supportive groupings within the building, and emphasize an integrated systems model to include students, teachers, administrators, school board members, parents, law enforcement personnel, and after-school and community-based groups when developing a safe school environment. Following the Safe School Initiative, the U.S. Department of Education and the Secret Service issued Threat Assessment in Schools: A Guide to Managing Threatening Situations and to Creating Safe School Climates, designed to help identify threats and address potential situations of violence within schools. Robert A. Fein et al., U.S. Dep't of Educ. & Secret Serv., Threat Assessment in Schools: A Guide to Managing Threatening Situations and to Creating Safe School Climates (May 2002), http://www.secretservice.gov/ntac/ssi_guide.pdf. After the Virginia Tech shootings in 2007, the U.S. Department of Education issued an important guidance emphasizing how schools may share information about threatening situations with law enforcement, mental health agencies, and others. Balancing Student Privacy and Safety: A Guide to the Family Educational Rights and Privacy Act for Elementary and Secondary Schools, U.S. DEP'T OF EDUC. (Oct. 2007), http://www2.ed.gov/policy/gen/guid/fpco/brochures/elsec.pdf.

9. See Office of Safe & Drug-Free Schs., U.S. Dep't of EDUC., PRACTICAL INFORMATION ON CRISIS PLANNING: A GUIDE FOR SCHOOLS AND COMMUNITIES (Jan. 2007), http://www2. ed.gov/admins/lead/safety/emergencyplan/crisisplanning.pdf. In response to domestic disasters such as Hurricane Katrina, and the South Asian tsunami, the American Institute of Architects also has become active in recent years developing emergency assistance resources to prepare for and respond to crises. See AM. INST. OF ARCHITECTS, HANDBOOK FOR DISASTER ASSIS-TANCE PROGRAMS 2 (2007) (Disaster Assistance Comprehensive Response System (CRS) implemented to ensure preparedness and positioning to respond to disasters along with federal, state, and local authorities). Safe schools efforts have been supported by several federal agencies, including the Department of Education, Department of Homeland Security, Centers for Disease Control, Environmental Protection Agency, Department of Agriculture, and Department of Justice, among others. The presence of school resource officers (police) in schools has been promoted and funded through the COPS program. See COPS in Schools (CIS), CMTY. ORIENTED POLICING SERVS., U.S. DEP'T OF JUSTICE, http://www.cops.usdoj.gov/default.asp?Item=54. The physical environment of a school is vitally important to the health of students and staff within it. Safe school models promote integrating the physical and aesthetic surroundings and the psychosocial climate and culture of the school. Factors

that influence the physical school environment, such as temperature, noise, lighting, security, and safety programs, can affect the physical, emotional, and social conditions within the school. In turn, incorporating a positive school environment promotes academic achievement and morale, reducing disciplinary referrals and suspensions, and promoting safety. *See A CDC Review of School Laws and Policies Concerning Child and Adolescent Health*, 78 J. SCH. HEALTH 2, 2008, at 69, 101.

10. "Local educational agency" refers to "a public board of education or other public authority legally constituted within a State for either administrative control or direction of, or to perform a service function for, public elementary schools or secondary schools in a city, county, township, school district, or other political subdivision of a State, or of or for a combination of school districts or counties that is recognized in a State as an administrative agency for its public elementary schools or secondary schools." 20 U.S.C. § 7801(26)(A). See also No Child Left Behind Act (NCLB) § 4114(d)(7)(D) (2001) (requiring schools that receive Title IV funds to have a "crisis management plan for responding to violent or traumatic incidents on school grounds").

11. See Dep't of Homeland Sec., Homeland Security Presidential Directive 5, Management of Domestic Incidents (Feb. 28, 2003) ("The objective of the United States Government is to ensure that all levels of government across the Nation have the capability to work efficiently and effectively together, using a national approach to domestic incident management."). The OSHA Act of 1970 requires each employer to have site-specific employee emergency plans. See Occupational Safety and Health Act of 1970 (OSHA Act), 29 U.S.C. § 651 et seq.; Emergency Action Plans, 29 C.F.R. § 1910.38 (2013). In addition to compliance with hazard-specific standards, employers have a general duty to provide their employees with a workplace free from recognized hazards likely to cause death or serious physical harm. See 29 U.S.C. § 658; OSHA Act of 1970, sec. 5(A)1 (General Duty Clause). In several states, these federal requirements have application for school settings, including the prevention and control of workplace violence, requiring a clear evacuation plan and other systems and trainings to ensure workplace safety and adequate emergency response plans. See, e.g., Michigan Occupational Safety and Health Act, MICH. COMP. LAWS § 408.1006 (2012) (school districts required to ensure a place of employment free from recognized hazards that are causing, or are likely to cause, death or serious physical harm to the employee through a variety of means outlined in administrative regulations); MINN. STAT. § 182.651 (2006). The National Fire Protection Agency (NFPA) Standard 1600 (2013) sets forth standards for prevention, mitigation, preparation, response, and recovery from emergencies for public, nonprofit, and private entities. In 2007, Congress adopted the 9/11 Commission's recognition of the importance of the federal emergency management standard under NFPA 1600 as recommended by ANSI:

We endorse the American National Standards Institute's recommended standard for private preparedness. . . . We also encourage the insurance and credit-rating industries to look closely at a company's compliance with the ANSI standard in assessing its insurability and creditworthiness. We believe that compliance with the standard should define the standard of care owed by a company to its employees and the public for legal purposes. Private-sector preparedness is not a luxury; it is a cost of doing business in the post-9/11 world. It is ignored at a tremendous potential cost in lives, money, and national security.

The NCLB, moreover, requires schools that receive Title IV funds to have a crisis management plan for responding to violent or traumatic incidents on school grounds, and provide for a designation of "persistently dangerous" schools and allow students to transfer to "safe" schools. The Safe and Drug-Free Schools and Communities Act (SDFSCA) provides federal funding to support school violence prevention programs based on a needs assessment of violence factors in schools. The Gun-Free School Zones Act of 1996 makes it a crime to possess a firearm, or knowingly or recklessly discharge a firearm in a school zone, and requires that states receiving certain federal educational funding must codify a "zero tolerance policy" with disciplinary consequences for possession of a firearm on campus.

12. See Council of Educ. Facilities Planners Int'l, Safe Schools: A Best Practices Guide 2 (Spring 2013):

Emergency preparedness and response must be woven into every aspect of the built learning space. The goal, simply stated, is to reduce risk and address a plethora of threats by creating concentric circles of protection:

- This safe environment begins with the ability to lock students behind doors, protecting them from aggression, as well as the ability to shield students away from large windows and to safeguard them when they meet en masse for assemblies and meals.
- It includes such measures as secured ingress (via secured vestibules) and remote access to select exterior and interior doors (through keyless entry), as well as security cameras, both interior and exterior.
- It involves a high security keying system with control measures in place relative to master keys, and seeks to have all students under one roof.
- Line-of-sight issues should be mitigated through design; gaining access through a remote point by unauthorized personnel is eliminated by doing so. The use of cameras aids in this matter as well.
- Exterior entrances are protected via bollards; ample interior and exterior lighting is in place; and, the perimeter of the school, to include parking lots, playgrounds and athletic fields, is fenced and monitored via security cameras.

13. Diversified Project Mgmt., *Request for Qualifications for Architectural and Engineering Services*, NEWTOWN-CT.GOV (May 2013), http://www.newtown-ct.gov/public_documents/NewtownCT_Purchasing/RFQ-SHS-Architectural.pdf.

14. CPTED for Schools: Crime Prevention Through Environmental Design, NAT'L CLEARINGHOUSE FOR EDUC. FACIL-ITIES (2012), http://www.ncef.org/rl/cpted.cfm; Tod Schneider, CPTED 101: Crime Prevention Through Environmental Design— The Fundamentals for Schools, NAT'L CLEARINGHOUSE FOR EDUC. FACILITIES (2010), http://files.eric.ed.gov/fulltext/ED511746.pdf. The National Institute of Crime Prevention provides CPTED training and works with architects, city officials, and educators to design and use the environment to decrease the opportunity for criminal behavior. See Crime Prevention Through Environmental Design Training, NAT'L INST. OF CRIME PREVENTION, http://www.cptedtraining.net/.

15. See PRIMER, supra note 3, at 2–19. CPTED "asks questions about territoriality, natural surveillance, and access control that seeks to increase effort to commit crime; increase risk associated with crime; reduce rewards of crime; and remove excuses as to why people do not comply with rules or behave inappropriately." *Id.*

16. *Id*.

18. *Id*.

19. Connecticut's new gun violence law mandates the

^{17.} *Id*.

development of safety standards for school building projects by January 2014. See Conn. Public Act No. 13-3, An Act Concerning Gun Violence Prevention and Children's Safety, §§. 80–83 (2013).

20. See Texas: 19 Tex. Admin. Code § 61.CC (2012) (providing specific regulations for the construction of schools pursuant to Tex. EDUC. CODE ANN. § 28.002 (West 2013)). The Texas state education commissioner also provides a comprehensive nonbinding manual to ensure CPTED incorporation into new school construction. See Tex. STATE UNIV., SECURITY DESIGN CRITERIA MANUAL FOR SCHOOLS (1st ed. Oct. 2006); 19 TEX. ADMIN. CODE § 61.CC. North Carolina: N.C. GEN. STAT. § 115C-521 (2006) (extensive safety considerations for school design, requiring architects to consider the North Carolina Public Schools Facilities Guidelines during school design, which incorporate safety and CPTED principles, including access control of students and nonstudents by use of three "layers of defense"; building design to promote natural surveillance and supervision; formal surveillance of high-risk areas, including entrances, campus perimeter, restrooms, and other areas not openly visible by natural surveillance; territoriality and delineation of space to encourage control; access points to create defensible spaces to reduce contact with intruders; target hardening to slow an intruder's progress and make the school an unattractive target to intruders; program interaction, including enhanced building design through training and cooperation between school personnel, law enforcement, and students; and consideration of enhanced natural surveillance, conflict resolution, communication, redesign/modifications, clear borders, and interior arrangement. The guidelines further incorporate the Board of Education's Safe School Facilities Planner containing thorough explanations of safety/CPTED considerations for school designers. Arizona: See Arizona Safe Schools: Recommendations of the Arizona School Facilities Board, ARIZ. SCH. FACILITIES BD., http://www.azsfb.gov/sfb/21st%20Century%20 Schools/School%20Safety%20Recommendations.pdf (recommending best practice security measures in school construction including CPTED principles). The Board's recommendations consider specific ways to improve safety, including exterior security lighting, administrative office locations, classroom door hardware, student interior restroom configuration, vestibule entry, sidelights, perimeter fencing, security alarms, security cameras, and in-classroom telephones. Virginia mandates that each local school board require its schools to conduct a school safety audit each year in collaboration with school divisions and the Virginia School Safety Audit Protocol, which includes CPTED concepts. See also CAL. EDUC. CODE § 17251 (West 2000) (California Department of Education charged with developing standards to ensure that school facilities are "educationally appropriate and promote school safety"); DELISA C. CLARK, KIM S. Aydlette & Mick Zais, 2012 South Carolina School Facil-ITIES PLANNING AND CONSTRUCTION GUIDE (2012), http://ed.sc. gov/agency/os/School-Facilities/documents/2012Guidebook.pdf; Florida Safe Schools Design Guidelines, FLA. DEP'T OF EDUC. (2003), http://www.fldoe.org/edfacil/pdf/fl_ssg_sec1.pdf; MINN. DEP'T OF EDUC., GUIDE FOR PLANNING SCHOOL CONSTRUCTION PROJECTS IN MINNESOTA (2003); School Safety: Lessons Learned, U.S. ATTORNEY'S OFFICE FOR THE DIST. OF MINN. (2006), http:// www.justice.gov/usao/mn/downloads/schoolbrochure.pdf (recommending independent school safety assessment using CPTED principles); Public School Standards and Guidelines for New School Construction and Major Renovation Projects, ME. DEP'T OF EDUC. (2005), http://www.maine.gov/education/const/mcip/ Workbook/pw029.pdf.

21. For instance, families of students and staff killed and injured in a 2005 Minnesota school shooting sued a consulting engineer that provided emergency management planning for the school district. The claims against the engineer included failure to implement a crisis management policy using the Four Phases of Emergency Management model from the U.S. Department of Education and failure to recommend shatterproof glass, locked doors, and loudspeakers. *See* Elizabeth Dunbar, *Red Lake Survivors Sue Security Company*, MPRNEWS (Feb. 26, 2008), http://minnesota.publicradio.org/display/web/2008/02/26/redlakelaw-suit. The lawsuit ultimately settled for \$1.5 million.

22. See Bridget Murphy, Newtown Lawsuit: Lawyer for School Shooting Survivor Says \$100 Million Claim Is About Security, HUFFINGTON POST (Dec. 29, 2012), http://www. huffingtonpost.com/2012/12/29/newtown-lawsuit-100-million-irving-insky_n_2381733.html (referencing \$100 million claim for lack of safe school design in Sandy Hook Elementary School shootings); See Laura Warren, Former Paine College Student Files Lawsuit Against School After Rape, WRDW-TV NEWS (July 22, 2013), http://www.wrdw.com/home/headlines/ Former-Paine-College-student-files-law-suit-against-school-fornegligence-216498081.html?device=tablet. School districts can face potential liability for violent acts of students where they fail to provide appropriate supervision of students on campus or at school-sponsored functions, especially where prior instances of violence may have occurred; where they fail to warn faculty, potential targets, or school personnel about a preexisting danger, including the known violent propensities of a student, with enough thoroughness and specificity; or where they fail to establish or adhere to appropriate school safety policies and plans. See THOMAS HUTTON & KIRK BAILEY, HAMILTON FISH INST. ON SCH. & CMTY. VIOLENCE & NW. REG'L EDUC. LAB., SCHOOL POLICIES AND LEGAL ISSUES SUPPORTING SAFE SCHOOLS (Sept. 2007), http://gwired.gwu.edu/hamfish/merlin-cgi/p/ downloadFile/d/20708/n/.

23. School Shooting Raises Safety Questions, THEINDYCHAN-NEL (Sept. 22, 2011), http://www.theindychannel.com/news/ school-shooting-lawsuit-raises-safety-questions; Julian Routh, Campus Shooting Lawsuit Dismissed, DUQUESNE STUDENT MEDIA (Apr. 4, 2013), http://www.duqsm.com/campus-shooting-lawsuit-dismissed-2/; Associated Press, Jury Finds Virginia Tech Negligent for Delaying Warnings in 2007 Shooting, FoxNews (Mar. 14, 2012), http://www.foxnews.com/us/2012/03/14/ jury-finds-virginia-tech-negligent-for-delaying-warnings-in-2007-shooting/#ixzz2cQ40wEIG; Richard K. De Atley, \$55 Million Civil Jury Award in Shooting Case, PRESS-ENTER. (June 14, 2013), http://www.pe.com/local-news/san-bernardino-county/ san-bernardino-county-headlines-index/20130614-san-bernardino-county-55-million-civil-jury-award-in-shooting-case.ece; Erickson v. Curtis Inv. Co., 447 N.W.2d 165, 169–70 (Minn. 1989) (parking ramp operator owed a duty to use reasonable care to deter criminal activity); Doe v. Grosvenor Prop. (Haw.) Ltd., 829 P.2d 512, 518 (Haw. 1992) (landlord that had no notice of security problems owed no duty to protect invitee); Lopez v. McDonald's Corp., 193 Cal. App. 3d 495, 509-10, 238 Cal. Rptr. 436, 445 (1987) ("[T]he likelihood of this unprecedented murderous assault was so remote and unexpected that, as a matter of law, the general character of McDonald's nonfeasance did not facilitate its happening."). A recent federal court ruling involving a Colorado mass shooting at a theater highlights important potential notice issues to the theater owner precluding a summary dismissal of the plaintiffs' claims:

In *Lopez*, a decision issued in 1987, the Court noted that nine motiveless mass shootings had occurred in the United States in the span of 38 years. . . . Recently, ABC News reported a total of 14 mass shootings in the United States between 2009 and 2012—four in 2009, one in 2010, three in 2011 and six in 2012. It may well be that events such as these remain so random, unpredictable and uncommon that no liability can be imposed upon the theater, but that decision shall await another day. For the time being, the Court believes discovery is necessary to address foreseeability.

Plaintiffs allege that, prior to the mass shooting at issue here, Defendant had information of previous criminal activity, including assaults, robberies and a gang shooting, that occurred at or near the theater and, based upon such information, hired off-duty law enforcement officers from the City of Aurora Police Department to be present on Friday and Saturday nights when the theater typically was crowded. Plaintiffs further allege that the exterior theater doors lacked alarms, monitoring and interlocking security systems, and that no security personnel were on duty during the incident in question. These allegations alone plausibly support a claim that Defendant knew or should have known that a crime may occur due to dangers at or near the premises during crowded periods. However, the extent of Defendant's knowledge in this case has yet to be explored. Discovery may reveal that other more serious crimes had occurred at or near the theater and that Defendant had knowledge of such crimes. Further, as the Court noted at the hearing, discovery might show that Defendant had knowledge of and/or concern for the numerous mass shootings that had taken place in the United States in recent times.

Nowlan v. Cinemark, No. 1:12-cv-02517, at *27-28 & n.6 (D. Col. Jan. 24, 2013) (Recomm. of Hon. Michael Hegarty); Nowlan v. Cinemark, No. 1:12-cv-02517 (D. Col. Apr. 17, 2013) (Order of Hon. R. Brooke Jackson) ("[T]he danger inherent in the construction and operation of this theater was that it allowed someone inside the theater surreptitiously to prop the door leading directly from the theater to the outside open and thereby to permit himself or others to enter the theater undetected and to commit a violent act against one or more patrons inside. The questions then become, (1) did Cinemark know or should it have known that this danger existed, and, if so, (2) did it exercise reasonable care to protect patrons against this danger."); see Thom McGee, Aurora Theater Shooting Lawsuit Clears Major Legal Hurdle, DENVER POST (Apr. 18, 2013), http://www.ukiahdailyjournal.com/news/ci_23053029/ aurora-theater-shooting-lawsuit-clears-major-legal-hurdle.

24. See BRUCE BOMIER, ENVTL. RES. COUNCIL, RENAISSANCE OF THE AMERICAN SCHOOL BUILDING 38 (2002), http://www. envrc.org/content/renaissance-amer-school-bldg.pdf (referencing court-ordered remodeling of 1,000 school buildings in New York City; \$2.4 billion of court-ordered remodeling for 28 New Jersey school districts; District of Columbia pledge of \$240 million in response to lawsuit involving life safety issues in schools); Mike Kennedy, School Construction: Fixing Facilities, AM. SCH. & UNIV. (Oct. 1, 2012), http://asumag.com/ construction/school-construction-fixing-facilities?page=1.

25. See, e.g., Stanton v. Univ. of Me., 773 A.2d 1045, 1050 (Me. 2001) ("That a sexual assault could occur in a dormitory room on a college campus is foreseeable and that fact is evidenced in part by the security measures that the University had implemented."); Mullins v. Pine Manor Coll., 389 Mass. 47, 51, 449 N.E.2d 331, 335 (1983) (the concentration of young people on campus is a self-evident threat for criminal behavior and precautions to protect students against criminal activities would make little sense unless criminal activities were foreseeable); Columbia Univ. v. Gwathmey Siegel & Assocs. Architects, 601 N.Y.S.2d 116, 118 (App. Div. 1993) (design-build contractor owed a duty of care to the owner and the public for safe design and construction of a college dormitory because a project of that nature "is so affected with the public interest that the failure to perform competently can have catastrophic consequences"); Laukkanen v. Jewel Tea Co., 78 Ill. App. 2d 153, 222 N.E.2d 584 (1966) (engineer "owed a duty . . . to those members of the general public who can be reasonably anticipated to be present in the structure they designed when negligence in design is a causal factor in injuries sustained through collapse of the building"); Maxwell v. Sch. Dist. of City of Phil., 53 F. Supp.

2d 787 (E.D. Pa. 1999) (allowing section 1983 civil rights claim against school for locking door to classroom, blocking only means of escape from sexual assault); see also Kurtis A. Kemper, JD, Cause of Action Against Governmental Entity for Injury Caused by Condition of Public Building, 1 Causes of Action 2d 603 (July 2013) (original 1993) (Section II(A)). (Prima Facie *Case*: a duty owed by the defendant to the plaintiff to exercise reasonable care to provide a safe building; the dangerous or defective condition of the building; the defendant's actual or constructive notice of the building's condition; the defendant's failure to exercise reasonable care in constructing, operating, or maintaining the building; and a proximate causal connection between the defendant's failure to exercise reasonable care and the plaintiff's injury); 5 PHILIP L. BRUNER & PATRICK J. O'CONNOR, BRUNER & O'CONNOR ON CONSTRUCTION LAW § 17:39 (2002) ("Architects and engineers must render whatever services they agree to perform in a competent manner conforming to the applicable standard of care."). In terms of terrorism, the attacks of September 11, 2001, and our nation's reflection on them have reverberated in courtrooms and within the construction industry. See generally Steve M. Pharr & Kenneth E. Menzel, Thinking About the Unthinkable: Landowner and Design Professional Liability for September 11-Style Attacks, 26 CONSTR. Law., Spring 2006, at 10; In re Sept. 11 Litig., 280 F. Supp. 2d 279, 298-301 (S.D.N.Y. 2003) (owners and operators of the World Trade Center "owed a duty to the occupants to create and implement adequate fire safety measures, even in the case of a fire caused by criminals such as those who hijacked flights 11 and 75 on September 11, 2001").

26. Jennifer C. v. L.A. Unified Sch. Dist., 168 Cal. App. 4th 1320, 86 Cal. Rptr. 3d 274 (2008).

27. During lunch, the plaintiff was guided by the assailant to the secluded stairway. No school employee or volunteer parent noticed her being led out of the lunchroom to the stairway. The school had 19 parents volunteer to supervise the students during lunch, with three parents assigned to the alcove. In the course of the sexual assault, a parent heard noise coming from the alcove, where the assault was then discovered. *Id.*

28. Peterson v. San Francisco Cmty. Coll. Dist., 36 Cal. 3d 799, 685 P.2d 1193 (1984).

29. Id. See also M.W. v. Panama Buena Vista Union Sch. Dist., 110 Cal. App. 4th 508, 1 Cal. Rptr. 3d 673 (2003) (affirming a \$2,397,260 judgment against a school district for injuries sustained by a junior high school student sexually assaulted by another student in an unlocked classroom and restroom; the school negligently failed to supervise the students and carelessly failed to guard, maintain, inspect, and manage the school premises). But see Lawson v. City of Chicago, 278 Ill. App. 3d 628, 662 N.E.2d 1377, 1381 (1996) (city immune from claims that random use of a metal detector was a defective and unreasonably safe condition that led to a fatal student shooting, concluding random use of metal detectors deters crime and is not per se unreasonable); Johnson v. Dallas Indep. Sch. Dist., 38 F.3d 198 (5th Cir. 1994). In Johnson, a student was fatally shot by a nonstudent in the school hallway. The assailant was not wearing a school ID badge, and his handgun was not discovered because the school's metal detectors were not in use. The Fifth Circuit affirmed the district court's dismissal of the claim under the state-created danger theory. Although the school's security measures were not in use, the school district's actions did not rise to a level of deliberate indifference. The court stated the school district may have been negligent, but it was not deliberately indifferent so as to give rise to a section 1983 claim under a state-created danger theory. The assailant's act was a random criminal act, and the school did not deliberately place the student in a criminally dangerous environment.

30. A.W. v. Lancaster Cnty. Sch. Dist. 0001, 280 Neb. 205, 784 N.W.2d 907 (2010).

31. *Id.* The perpetrator was confronted by one teacher, whom he ignored and continued to walk past, and then by another

whom he told he needed to use the restroom. After he entered the restroom, a teacher notified administration, who issued a "code red" for an intruder in the building. No school personnel watched the bathroom. The perpetrator left and entered another bathroom, where he molested the plaintiff's child.

32. The court also rejected the plaintiff's claim that the school's failure to comply with Nebraska Department of Education safety standards constituted negligence per se, reasoning that safety standards are for accreditation and do not give rise to a tort duty beyond reasonable care. However, the court stated the regulations could serve as a standard of reasonable care at trial if admissible. Id., 784 N.W.2d at 920 ("[T]he regulations at issue are promulgated as accreditation standards, not standards for tort liability, and contain no explicit qualitative requirements. They plainly do not give rise to a tort duty beyond the duty of reasonable care that was discussed above. They could, however, serve as relevant evidence of the standard of care and whether the standard of care was breached. But at this juncture, it is neither necessary nor proper to determine in this appeal whether these statutes and regulations would be admissible evidence at trial. The admissibility will be determined by the context in which such evidence is offered (if offered) at trial."). Id. at 921. See also Doe v. Omaha Pub. Sch. Dist., 273 Neb. 79, 727 N.W.2d 447 (2007) (sexual assault by a fellow high school student raised a fact question where the complaint alleged the school district had knowledge that the assailant student had a history of sexual misconduct towards other students and did nothing, giving rise to a foreseeable risk of harm).

33. de Sanchez v. Mich. Dep't of Mental Health, 455 Mich. 83, 565 N.W.2d 358 (1997).

34. The public building exception can preclude the application of governmental immunity where the physical condition of a given room is dangerous or defective in light of the specific uses of the room. The room where the suicide occurred was in the suicide wing of the hospital. The court held that a design that does not permit supervision in the suicide wing is sufficient to preclude immunity. Id.; see also Bush v. Oscoda Area Sch., 405 Mich. 716, 275 N.W.2d 268 (1979) (the plaintiff stated a claim under the public building exception despite the fact that allegations of negligent supervision also were made); contra Reardon v. Dep't of Mental Health, 430 Mich. 398, 424 N.W.2d 248 (1988) (finding public building exception does not apply absent evidence of defect in the building itself). In S.J. v. Perspective Charter School, 685 F. Supp. 2d 847 (N.D. Ill. 2010), a student alleged section 1983 civil rights violations after being strip searched at school. The claims included a premises liability claim for the school's failure to maintain the property in a reasonably safe condition because the individual defendants were allowed access to private rooms where the strip search was conducted. The court dismissed the plaintiff's premises liability claim, reasoning the injury must be a direct result of the condition of the premises and must have a causal connection to the property itself. The court noted that private rooms on school premises likely exist at almost every school, and that plaintiff did not show the school created or facilitated the injury. In Williams v. Central Consolidated School District, 124 N.M. 488, 952 P.2d 978 (1998), a student sustained serious injuries after being pushed by another student into a non-tempered glass door. The New Mexico Tort Claim Act waives immunity for injury caused by a public employee's negligent maintenance or operation of any building. However, the court held the school district could be liable for the negligence of its employees in failing to address the design defect-the nontempered glass. See also Dunn v. Unified Sch. Dist. No. 367, 30 Kan. App. 2d 215, 217, 40 P.3d 315, 318 (2002) (affirming \$280,000 in total verdicts for students injured when an automatic door made of non-tempered glass shattered, causing serious injuries; Tort Claims Act exception applied because negligence was independent of design). However, in Bradlev v. Smithtown Central School District, 265 A.D.2d 283, 696 N.Y.S.2d 65 (1999), the plaintiff and another student were playing in the school cafeteria when the plaintiff held the other student up to a glass window, which shattered, injuring the plaintiff's hand. The court affirmed the dismissal of the case stating there was no evidence that the window violated regulations in effect when the school was built or that school authorities were required to replace any noncomplying glass, or that the glass was unsafe in the absence of any prior or similar accidents.

35. 100 Cal. App. 4th, 1 Cal. Rptr. 3d 712 (2003).

36. The jury found the district 10 percent at fault and the driver 90 percent at fault. The district was held liable for the award because the driver was unable to satisfy the judgment. The court stated that "[i]t is not only structural defects that can create a dangerous condition; it may consist of a condition of property, the use of which in a manner reasonably foreseeable creates a danger of injury." *Id.* Hence, the adjacent risk and the school district's knowledge of that risk made the fence gate a dangerous condition similar to an attractive nuisance. *Contra* Cotter by Cotter v. Sch. Dist. of Phila., 128 Pa. Commw. 159, 562 A.2d 1029 (1989) (stating that "the real estate exception can be applied only to those cases where it is alleged that the artificial condition or defect of land itself causes the injury, not merely when it facilitates the injury by the acts of others, whose acts are outside the statute's scope of liability").

37. 16 Cal. App. 4th 1466, 20 Cal. Rptr. 2d 734 (1993).

38. Id. Public entities can be held liable for failure to correct dangerous conditions on their property. In California, liability attaches where the dangerous condition existed at the time of the injury, the injury was proximately caused by the dangerous condition, the dangerous condition created a reasonably foreseeable risk of injury, and "[t]he public entity had actual or constructive notice of the dangerous condition . . . [and] a sufficient time prior to the injury to have taken measures to protect against the dangerous condition." CAL. GOV'T CODE § 835. In Ziegler v. Santa Cruz High School District, 168 Cal. App. 2d 277, 335 P.2d 709 (1959), the plaintiff's deceased son was sitting on a stair railing when another student raised his arms as if to push the plaintiff's son. Plaintiff's son was fatally injured when he fell over the railing and into the stairwell. The court found there was nothing dangerous or defective about the railing, landing, or steps if they were used for the purposes for which they were intended. The plaintiff argued the school's knowledge of students' occasional use of the railing as a place to sit constituted a dangerous condition. Although actual use of property may create a dangerous or defective condition, even where designed properly, the property must be considered in its ordinary and customary use. Whether property constitutes a dangerous or defective condition is dependent on the facts of each case. The court found that the use of the railing would not have been dangerous were it not for the attempted pushing by a fellow student. The court determined the plaintiff's claim could proceed based on a theory of negligent supervision only.

39. Carl J. Circo, Contract Theory and Contract Practice: Allocating Design Responsibility in the Construction Industry, 58 FLA. L. REV. 561 (2006). Design professionals in several jurisdictions may also face the risk of liability under a negligent misrepresentation theory in a variety of circumstances. Id. (citing Aliberti, LaRochelle & Hodson Eng'g Corp. v. F.D.I.C., 844 F. Supp. 832, 844, 845-46 (D. Me. 1994); Ossining Union Free Sch. Dist. v. Anderson LaRocca Anderson, 73 N.Y.2d 417, 539 N.E.2d 91, 91-92, 95 (1989)). To avoid possible liability exposure, design professionals may want to consider advising school clients of the foreseeable security risks associated with the school facilities and campus. Such dialog is also part of the prevention phase of emergency management to assess and mitigate risks. From an equitable standpoint, design professionals may also face "implied indemnification" claims, in which an architect/engineer may be held liable by a general contractor, owner, or other party under equitable principles of fairness. See Harvest Capital v. W. Va. Dep't of Energy, 211 W. Va. 34, 560 S.E.2d 509, 513 (2002); Niagara Frontier Transp. Auth. v. City of Buffalo Sewer Auth., 1 A.D.3d 893, 769 N.Y.S.2d 667 (2003).