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# Barricade Device? *Think Twice!*

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**There is a question currently under** debate in several jurisdictions across the country: *Should barricade devices be used to secure classroom doors during an active shooter incident?* These devices have emerged in the last few years in response to fears that inadequate security may leave classrooms vulnerable. The devices are typically designed to be installed on classroom doors during a lockdown, in addition to the existing hardware. While barricading the door with a device of this type may seem to address the immediate need for security, one should consider the safety concerns associated with this practice.

Conventional locksets meet the code requirements for free egress, allowing occupants to exit without obstruction; fire protection, compartmentalizing the building to deter the spread of smoke and flames; and accessibility, ensuring access for all, including people with disabilities. These locksets will effectively secure classrooms against active shooters. In fact, testimony presented to the Sandy Hook Advisory Commission indicated that an active shooter has never breached a locked classroom door by defeating the lock.

By definition, the word *barricade* means “to block (something) so that people or things cannot enter or leave”



## Door Security & Safety Foundation Releases Public Position on Classroom Security

The mission of the Door Security & Safety Foundation (DSSF) is to promote safe and secure openings that enhance life safety. DSSF is dedicated to serving the public by advocating for safe openings through awareness, education, and research. In alignment with this mission, DSSF has released a statement on the use of barricade devices in classrooms that may threaten public safety.

For more information on the Foundation's position, see the InTouch column on page. 4. To read the full statement, go to [www.doorsecuritysafety.org](http://www.doorsecuritysafety.org).



**Exit doors in a school, chained to provide security. This locking method does not meet IBC, IFC, or NFPA 101 requirements for egress.**

Photo: Wayne Ficklin, Architect

([Merriam-Webster.com](http://Merriam-Webster.com)). Most codes require doors in a means of egress to provide free egress at all times, which allows building occupants to evacuate quickly if necessary. Some proponents of barricade devices suggest that because the device is intended for use only when an active shooter is in the building, securing the door takes priority over allowing safe evacuation.

Those on the other side of the debate believe that because there is no guarantee that the device will only be installed under these limited circumstances, the devices could be misused, preventing authorized access by staff and emergency responders, as well as delaying or preventing egress. Some advocates of these locking methods have stated that if the product is not permanently attached to the door, it is not under the jurisdiction of the code official and is not subject to the same requirements that door locks and security hardware must comply with.

Following this premise, panic hardware secured with padlocks and chains would not be under the code officials' jurisdiction either. In reality, code officials address these unsafe temporary locking methods frequently, as most codes do not differentiate between a device used temporarily and one that is permanently installed. Fire doors blocked open with wood wedges or other creative (but temporary) hold-open devices create an obvious fire protection problem, and again, the code official is responsible for enforcing the code requirements even though the offending devices are not permanently attached.

Comparisons have been drawn between the use of furniture as a barricade and the installation of a barricade device. Barricading a location with furniture and other environmental items is a secondary response for incidents of an active shooter or terrorism and is recommended if evacuation as a primary response is not possible. Such barricading is recommended by many organizations, including the [ALICE Training Institute](#), the U.S. Department of Homeland Security, the

Department of Education, the Federal Emergency Management Agency (FEMA), the Department of Justice, and the Federal Bureau of Investigation (FBI). However, none of these recommendations involve the installation of secondary door locking devices. Barricading uses gross motor skills, is applicable in any location, and does not require a door or special door locking device.

ALICE [recently published a document](#) that includes some guidance with regard to a barricade versus a door locking device. Item 1 on that list reads (in part): "Door Locking Devices are subject to Approval. According to the fire code, 'Security devices affecting means of egress shall be subject to approval of the fire code official.' Ensure that any application of a door locking device is not in violation of the fire code. A door locking device accepted by one fire marshal may be rejected by another jurisdiction."

### Code Considerations

Given the increased focus on school security, the discussion about using a barricade device or alternative method to secure a classroom door has likely taken place with code officials in every state.

[A set of guidelines](#) published by the [National Association of State Fire Marshals \(NASFM\)](#) includes a Suggested Classroom Door Checklist, which identifies many parameters that should be satisfied when selecting and installing hardware intended to increase classroom security:

- ▶ The door should be lockable from inside the classroom without requiring the door to be opened.
- ▶ Egress from the classroom through the classroom door should be without the use of a key, a tool, special knowledge, or effort.
- ▶ For egress, unlatching the classroom door from inside the classroom should be accomplished with one operation.
- ▶ The classroom door should be lockable and unlockable from outside the classroom.

- ▶ Door operating hardware shall be operable without tight grasping, tight pinching, or twisting of the wrist.
- ▶ Door hardware operable parts should be located between 34 and 48 inches above the floor.
- ▶ The bottom 10 inches of the “push” side of the door surface should be smooth.
- ▶ If the school building does not have an automatic fire sprinkler system, the classroom door and door hardware may be required to be fire-rated, and the door should be self-closing and self-latching.
- ▶ If the door is required to be fire-rated, the door should not be modified in a way that invalidates the required fire rating of the door and/or door hardware.

The NASFM guidelines also note that although the word *should* is used in the checklist, these requirements may be mandatory depending on

applicable codes, laws and regulations. The *International Building Code* (IBC), *International Fire Code* (IFC), and NFPA 101, *Life Safety Code*, have been adopted in most states, and these three publications include the egress, fire and accessibility requirements in NASFM’s checklist. These model codes are revised on a three-year cycle to take into account changing environments and new technologies, using a consensus process with careful consideration by technical committees and ample time for public comment.

States and local jurisdictions may modify these codes, so it’s important to be aware of the local code requirements, including the jurisdiction’s position on barricade devices. The NASFM checklist parameters for (1) classroom doors to be lockable from inside the classroom without opening the door and (2) classroom doors to be lockable and unlockable from outside the classroom are not currently included in the three model

codes previously referenced, but **code change proposals** have been submitted by the **Builders Hardware Manufacturer’s Association (BHMA)** that will add these requirements if the proposals are approved. The prescriptive requirements included in the model codes ensure that requirements for free egress, fire protection and accessibility are met, in addition to providing adequate security.

### Local Jurisdictions

Many code officials have responded to questions about school security by reiterating that egress doors (including classroom doors) must meet the requirements of the adopted codes. The model codes may be modified locally, which could make the local requirements less stringent (for example, allowing one additional operation to unlatch the door) or more stringent.

Some states, such as **Florida** and **California**, have already adopted requirements or guidelines for classroom



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It is important to look at the frequency of lockdowns in schools across the country. If a lockdown plan includes the use of barricade devices on the classroom doors, the devices could be installed for extended periods of time, whether the danger is inside the building or somewhere in the vicinity. A search of the national news found the following lockdown incidents reported for one day—March 19, 2015—each involving one or more schools:

- ▶ **BALTIMORE, MARYLAND**  
loaded gun in school
- ▶ **CHARLOTTE, NORTH CAROLINA**  
search for robbery suspects
- ▶ **NORWICH, CONNECTICUT**  
false report of gun in school
- ▶ **DOWAGIAC, INDIANA**  
bank robbery in the area
- ▶ **NEW STANTON, PENNSYLVANIA**  
man shot at home
- ▶ **ELKHART, INDIANA**  
report of gunshots nearby
- ▶ **CUMMING, GEORGIA**  
teen trespassing on campus
- ▶ **ATLANTIC CITY, NEW JERSEY**  
fight inside of school
- ▶ **GREENVILLE, NORTH CAROLINA**  
man with gun reported by children
- ▶ **ST. PAUL, MINNESOTA**  
police activity in the area
- ▶ **CAMERON PARK, CALIFORNIA**  
mountain lion sighted
- ▶ **UNION SPRINGS, ALABAMA**  
child taken from bus by relatives
- ▶ **KIMBALL, MINNESOTA**  
armed person possibly in area
- ▶ **PORT ANGELES, WASHINGTON**  
search for escaped prisoner
- ▶ **CORAOPOLIS, PENNSYLVANIA**  
domestic dispute-related threat
- ▶ **BOWIE, TEXAS**  
stolen car chase and foot chase

doors to be lockable from the inside, with classroom security locks being the preferred lock function. For these states, the local guidelines are more stringent than the current model codes.

In some jurisdictions, there is **political pressure** to relax the code requirements in favor of approving the use of barricade devices, even when code officials oppose the change.

Lawmakers in **Ohio** have filed bills "To amend section 3737.84 and to enact section 3781.106 of the Revised Code to require the Board of Building Standards to adopt rules for the use of a barricade device on a school door in an emergency situation and to prohibit the State Fire Code from prohibiting the use of the device in such a situation." In **Arkansas**, the state fire marshal voiced strong objections to a Senate bill that would amend the fire code requirements and allow the use of barricade devices in schools, noting potential issues with emergency egress and removal of the device. The Arkansas Senate voted unanimously to approve the fire code change, despite the fire marshal's objections.

Other states have independently issued directives or adopted code changes that vary from state to state. For example, **Colorado** has adopted a code change that allows temporary security measures only until Jan. 1, 2018. The State Fire Marshal in **Kansas** issued a memo allowing temporary security devices to be used, **Louisiana** allows a deadbolt that requires one additional operation to unlatch the door, and **New Jersey** permits some types of devices but not others. These policies lack consistency from one state to the next. A more efficient and effective approach would be to incorporate school security requirements into the model codes used across the country, using the expertise and experience of code officials and others who are knowledgeable about all aspects of the issue.

### Other Potential Consequences

In addition to the code considerations, another concern is that barricade devices can be used by anyone who has access to them, including someone



With a classroom security lockset, a staff member with a key can lock the outside lever without opening the classroom door. The inside lever always allows free egress. An indicator on the lock gives a visual indication of the door status.

Photo: Schlage

who wants to barricade him- or herself and others in a room to commit harm or take hostages. Addressing this possibility by storing the device in a locked drawer or in a location known only to the teacher could result in a delay in installing the device at a critical time, and a substitute teacher may not have the means or knowledge to secure the door.

Although every school shooting is tragic and we must do all we can to prevent them, these events are rare; nonfatal victimizations at school are thousands of times more likely to occur, and unauthorized lockdown of a classroom could help to create a haven for someone attempting to commit a crime. According to the **National Center for Education Statistics (NCES)**:

- ▶ "In 2012, students ages 12–18 were victims of about 1,364,900 nonfatal victimizations at school, including 615,600 thefts and 749,200 violent victimizations, 89,000 of which were serious violent victimizations."
- ▶ "During the 2009–10 school year, 85 percent of public schools recorded that one or more of these incidents of violence, theft, or other crimes had taken place, amounting to an estimated 1.9 million crimes."
- ▶ "During the 2011–12 school year, 9 percent of school teachers reported being threatened with injury by a

student from their school. The percentage of teachers reporting that they had been physically attacked by a student from their school in 2011–12 (5 percent) was higher than in any previous survey year (ranging from 3 to 4 percent)."

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In addition to the negative impact on egress, most barricade devices prevent access from the outside, so even a staff member or emergency responder with a key would not be able to enter. While there is debate on whether or not barricade devices should be allowed for use, schools should also consider their liability in using such devices. What if a barricade device was used by an unauthorized person to secure a classroom and commit an assault or other crime, leaving staff and/or law enforcement unable to access the room because of the device?

### **Don't Take My Word For It**

There are many publications that address recommended locking methods for classroom doors, the need for code compliance, and support for incorporating school security requirements into the model codes. None of the following include recommendations for installing secondary locking devices:

- ▶ The final report of the [Sandy Hook Advisory Commission](#) includes

many recommendations for school safety, including Recommendation #1, that classroom doors should be lockable from inside the classroom. The report states: "The testimony and other evidence presented to the Commission reveals that there has never been an event in which an active shooter breached a locked classroom door." There are other factors to consider, such as impact-resistance of glass adjacent to door hardware, distribution of keys to all staff including substitute teachers, methods of securing exterior doors, protocols for visitors, as well as procedures, communication, training and drills. Barricading of doors is not mentioned in the Commission's report.

- ▶ [FEMA-428, Buildings and Infrastructure Protection Series Primer to Design Safe School Projects in Case of Terrorist Attacks and School Shootings](#) (2012), states that all locks on egress doors in schools must comply with the requirements

of NFPA 101, *Life Safety Code*. The FEMA publication also discusses the importance of lockable classroom doors: "While the interior locks on classroom doors saved many lives at Columbine High School, they were not available in classrooms in Norris Hall at the Virginia Tech campus. Although attempts were made to barricade the doors with furniture or live bodies, they were not successful, and the death toll was much greater."

- ▶ The [International Fire Code Commentary](#) is a companion publication to the IFC and includes a section addressing lockdown requirements. The 2012 IFC *Commentary* for Section 404.3.3, Lockdown Plans, reads (in part): "Note that the code does not require a lockdown plan; however, if a lockdown plan is developed, it must be strictly supervised in order to maintain occupant safety at an acceptable level. Many facilities are adopting procedures that can significantly affect fire and

life safety, such as using the fire alarm system to signal a security emergency, locking doors with devices that prevent egress in violation of the provisions of Chapter 10 of the code, and chaining exit discharge doors from the inside to prevent occupants from leaving the building. It is important that plans for security threats do not include procedures that result in violations of life safety and actually increase the hazard to the occupants.”

- ▶ The Occupational Safety and Health Administration (OSHA) [regulation 1926.34](#) prohibits devices that impede egress: “No lock or fastening to prevent free escape from the inside of any building shall be installed except in mental, penal, or corrective institutions where supervisory personnel is continually on duty and effective provisions are made to remove occupants in case of fire or other emergency.” In some states, OSHA regulations do not cover state and local government employees (including school staff), but many states adopt the OSHA regulations as part of their workplace safety requirements. In those states, the OSHA requirements for free egress may apply to schools.
- ▶ Some proponents of barricade devices have suggested that it is safe to relax the code requirements addressing fire protection because fatal school fires are no longer common. The National Fire Protection Association (NFPA) reports that, “U.S. fire departments responded to an estimated average of 5,690 structure fires in educational properties in 2007-2011, annually. These fires caused annual averages of 85 civilian fire injuries and \$92 million in direct property damage. An average of one death occurred in day-care properties” ([NFPA Structure Fires in Educational Properties Fact Sheet](#)). Any one of these fires could have been tragic, as fatalities in school fires were **not uncommon** before the codes were put in place and enforced. Although it has been

more than 55 years since 95 lives were lost in the fire at [Our Lady of the Angels School in Chicago](#), it seems likely that the strength of current codes and enforcement have played a role in the improved safety of our schools.

- ▶ In the [March/April 2015 issue](#) of *NFPA Journal*, Ron Coté notes that

guidelines do not exist currently that would “allow a classroom door to be locked against opening from the corridor side while still ensuring the door can be opened by any classroom occupant, or that emergency responders can access the classroom in time to prevent an occupant from causing harm to those within the room.” In December of 2014, NFPA

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**One option for classroom doors is an electrified lock that can be locked by pushing a button on a fob worn by the teacher.**

Photo: Schlage

held a two-day school security workshop, which was attended by more than 60 stakeholders. The purpose of the workshop was to look at issues affecting schools as they balance security with fire and life safety and to propose solutions to those problems. Upcoming meetings of several NFPA technical committees are expected to include discussion of provisions for blending school security with fire safety, which could lead to changes in the 2018 edition of NFPA 101.

### Conclusion

The instinctive reaction to the fear surrounding school shootings is to do everything possible to protect students and teachers from being in the line of fire. The desire to react quickly and within budgetary restrictions sometimes leads to choices that may solve one problem but inadvertently create others. The requirements for free egress, fire protection and accessibility must be considered in conjunction with the need for security. Unauthorized lockdown and emergency responder access are important considerations,

although they are not currently addressed by the model codes.

Changes made to codes or laws at a national level would establish more consistent requirements than addressing this issue individually. When a jurisdiction chooses to modify the model codes, requirements should be prescriptive, and an all-hazards approach should be taken, considering not just active shooters and terrorism but also fire, severe weather, natural disasters and other types of emergencies.

The reasoning behind proposed changes is often based on the misconception that barricading the door is the only way to protect students and teachers in the classroom. There are code-compliant locks readily available from many lock manufacturers that provide the needed security without compromising safety in favor of lower cost. While locks address one aspect of classroom security requirements, there are other factors to consider, such as the door, frame, glass, key distribution, communication and lockdown procedures.

Many school security experts **recommend classroom security locks**, which can be locked from within the classroom using a key (mechanical locks) or electronic fob (electrified locks). Other lock functions can also be used, depending on existing conditions, the needs of the facility and the budget. All lock functions that typically would be installed on a classroom door allow free egress as well as authorized access by staff and emergency responders, and they will provide the necessary balance between the security of teachers and students within the classroom and safety for a range of hazards that may occur.



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