SPECWORK

CSI® LITTLE ROCK CHAPTER

Little Rock Chapter - Chartered November 1965 August 2022

Congratulations

Gary Bergeron, CSI, CCS

for being Advanced to Fellow this Year.

In This Issue

President's Thoughts

By Billy J. Mathis, FCSI, CDT

August is here and I don't think we are really ready for 2022 to be passing so quickly. I have come to the realization that as I get older, time seems to speed up and the year seems to pass so quickly that I can hardly keep up. I don't know if this is a good thing or bad. Only time will tell. At any rate, your Board has been busy and are ramping up to get the Little Rock Chapter back on track and assuming its place as one of the best Chapters to belong to in the Gulf States Region. To do this, we are going to need all of our members to step up and help us increase membership once again. We had a total gain of 7 members last Fiscal Year which is fantastic. We need this increase, but more than that we need active members, people willing to step into leadership roles and take this Chapter into the future. I can tell you that gone are the days of serving on Committees and taking several years to move into leadership roles. We need people to step in right now. There are plenty of Mentors available to stand by you and help keep the focus on the task, but new, younger, and motivated leaders are needed.

The Institute is putting on a National Conference again this year in Denver, Colorado. As it stands right now, we could have three Board Members attending with Melissa Aguiar heading up the contingent as the official representative of the Little Rock Chapter. Melissa will also be taking a crash course in leadership as she will be taking over for me next year as President of the Little Rock Chapter. I am hoping to leave he with a well-oiled machine to run the Chapter. That is where you will be coming in.

As far as what the Board is doing, well we have established a committee to determine the impact of the newly executed Affiliation Agreement we signed with the Institute on our current Chapter Bylaws. We also have begun looking at more, smaller membership recruitment events to be held throughout the year. Some things like Ax Throwing, Bowling, and even Skeet Shooting have been suggested to go along with the already well-established Golf Tournament. We will be looking at all of them and you will see what we determine. The Chapter is financially stable and capable of supporting the membership in whatever we undertake.

We have a really interesting Program schedule in conjunction with Hillyer Architectural Products on August 16th, and an equally interesting program in conjunction with Lunday and Associates and Georgia Pacific in September. Please look at the flyers in this newsletter and join us for both these interesting, CEU earning, learning experiences.

There are two ways of exerting one's strength: one is pushing down, the other is pulling up."

Booker T. Washington

Character cannot be developed in ease and quiet. Only through experience of trial and suffering can the soul be strengthened, ambition inspired, and success achieved.

Helen Keller

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What I Learned From CSI - Bidets and Bidet Toilet Seats (or how to clean your nether regions better)

By: Gary Bergeron, CSI, CCS, GSR Technical Chair

What was one item in short supply at your grocery store when the Covid 19 pandemic started? If you answered, “toilet paper”, please read further for ideas on limiting your consumption of this precious resource.

Bidets are a very common restroom item in the remainder of the world outside of the USA. Bidets are cleaner and more environmentally friendly than toilet paper. They are also more common in senior living buildings, especially in nursing homes and hospice facilities. Bidet fixtures first appeared in France in the 1700’s. A separate bidet fixture is similar to a low toilet bowl with different controls and is usually adjacent to the toilet. The bidet was first observed by many American soldiers during WWII in European brothels, so they became associated with sex work.

https://www.faucetdepot.com/resources/customizing-your-toilet.asp

Several other countries have made bidets more sophisticated. A toilet seat bidet is one of the “new” options available to US consumers. Toto is a manufacturer of bidet toilet seats in Japan which include electric options and can provide a night light, a toilet seat warmer, warm the water, and the air dryer. Using a bidet consumes about 1/8 of a gallon of water and toilet paper is not required. You can reduce your use of toiler paper by about 75%.

If you have been to plumbing accessory aisle in your local home improvement store, you might observe several toilet washing devices. There is a simple hand held cold water hose and nozzle arrangement that connects to the toilet water supply, but who wants to use cold water and then use toilet paper to dry off. There are many manufacturers who offer several different Bidet toilet seat options. If you have rotator cuff, wrist problems, or any other mobility issues, a bidet toilet seat can offer you some personal freedom. The night light option makes the toilet “glow in the dark”. A warm toilet seat is a welcome addition in the winter months. The electric water heater in most bidet toilet seats includes a temperature adjustment. The air dryer temperature is also adjustable. The water spray position has both anterior and posterior settings. The strength of the water spray is adjustable along with an oscillating movement which is available on some models. Some bidet toilet seats have a seat side mounted controller, but the controller is difficult to observe while using the fixture. Other models include a separate remote wall mounted controller that is much easier to use.

https://www.us.kohler.com/us/Kohler-Bidet-Seats/article/CNT130200001.htm

One issue with an electric bidet toilet seat is the availability of a 120-volt receptacle. Some users utilize an extension cord plugged into the lavatory receptacle and use coaxial cable staples to route the power in a neat manner to the 3’ long cord usually provided with the seat. Other homeowners back-feed the bidet receptacle through the shared wall cavity from an adjacent receptacle in the next room. Just make sure the receptacle is Ground Fault Circuit Interrupter (GFCI) rated.

On another note, washing with a bidet can help with cleanliness, which may lead to fewer instances of rashes, hemorrhoids, urinary tract infections, and other medical issues. And if you're worried about using toilet water to clean your rear end, you shouldn't be. The bidet uses normal tap water which is just like the water from your sink. You might give a bidet toilet seat a trial run. Because, in the end (no pun intended), it's just washing yourself without hopping into the shower!

If you want to learn more about the finer points of building construction documents, specifications, and construction observations, please come the next local CSI meeting to meet fellow construction industry members and broaden your knowledge.

https://www.amazon.com/SmartBidet-SB-1000-Electronic-Temperature-Controlled/dp/B0128T2HQK

Fix-It Friday: Pull-Up Bar

By: Lori Greene, I Dig Hardware Blog

Steven Wehofer of Allegion sent me today's Fixed-it Friday photo of a magnetic holder modification in a school, and the first thing I thought about was how many kids must be doing pull-ups on it every day. This is not a "fix" that I would recommend.

Join the Little Rock CSI Chapter and Hillyer Architectural Products for the Webinar Lunch Program

Sun Controls: A Sustainable Design Practice (1 AIA LU/HSW)

Presenter: Construction Specialties / Hillyer Architectural Products

Participants will learn:

- Solutions to manage daylight & reduce solar heat gain
- Sunlight geometry information
- Options for conforming to LEED®
- Economic, environmental & human performance benefits of effective sun control
- Unique sun controls applications & solutions through case histories
- System components & installation details
- How to select the right sun controls systems for your project
- Cradle to cradle Certified™ information

August 16, 2022 / 12:00 – 1:00 pm

To Register, please Cut & Paste the following Link :

https://us02web.zoom.us/meeting/register/tZcode-gqDMiHtyLE1hcnSzT1WhftIIvO9si

Presenter will provide each Attendee a $15 Gift Card in lieu of Lunch.

Upcoming Meeting—September

PARAPET DESIGN CONSIDERATIONS FOR LOW-SLOPE ROOFS - LITTLE ROCK, AR
EARN 2 AIA/HSW CREDIT

September 14th I 11:30am-1:30pm

CSI LITTLE ROCK CHAPTER | LA Lunday and Associates, Inc. | GP Georgia-Pacific

Parapets are unique as they interface with the roof and walls. Attendees will have the opportunity to learn about key design considerations when evaluating parapets including:

1) Fire-rating requirements
2) Flashing and weather barrier continuity
3) Material choices
4) Sequencing of material installation

The presentation will include a physical parapet display with material samples to discuss sequencing and interaction of components to meet requirements of the International Building Code.

Attendees will earn (2) AIA HSW credits during this interactive presentation with ample opportunities for Q&A. The presentation is a joint effort of Elevate formerly Firestone along with Georgia Pacific.

From novice to expert this is a great opportunity to better understand critical design considerations for parapets. There is no cost to attend and lunch is provided.

Click Here to Register

Agenda
Arrive: 11:00-11:30am
Presentation & Lunch 11:30am - 1:30pm

Location
Garver - 4701 Northshore Dr, North Little Rock, AR 72118

Presenting Companies

Georgia Pacific is perhaps most well known for DensGlass® Gold introduced in 1986. Designed as a substrate for exterior cladding, GP revolutionized the exterior wallboard category with the first product of its kind with fiberglass mat facings on each side of its water-resistant gypsum core. Georgia Pacific Gypsum is also a manufacturer of products such as Plytanium®, DensDeck®, and DensElement®.

Lunday and Associates, Inc. is a sales representative firm for building material manufacturers. We provide outside and inside sales, marketing, technical support, customer service, design assistance, and roof asset management.



FIX-IT FRIDAY: Coffee Shop Exit

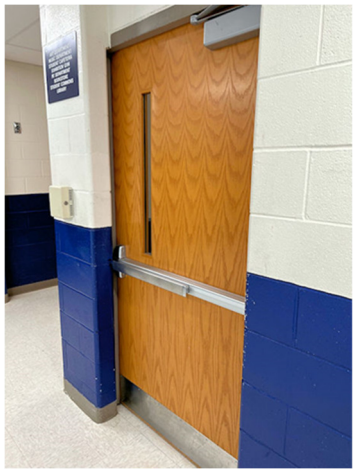
By: Lori Greene, I Dig Hardware Blog

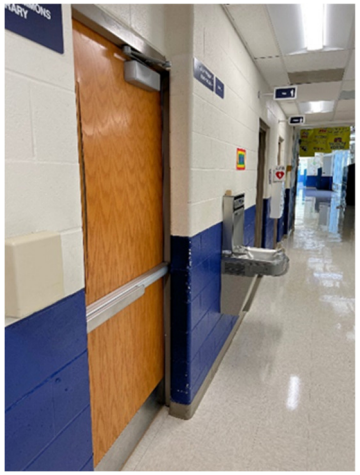
Does this coffee shop exit look weird to anyone else, or is it just me? Any theories about what happened here? Thank you to Charles Anderson for today's Fixed-it Friday photo!

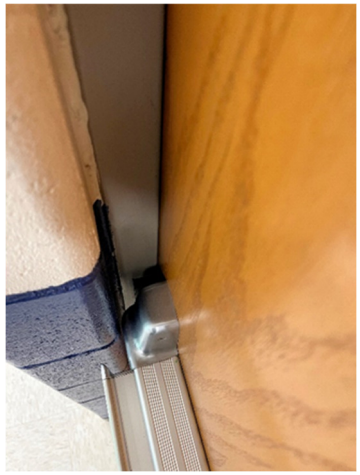
FIX-IT FRIDAY: Funky School Door

By: Lori Greene, I Dig Hardware Blog

John Lozano of Allegion sent me today's Fixed-it Friday photos, taken in a high school. There were several doors installed this way… you may have to look closely to see what's going on. Any theories?







Decoded: Allowable Clearances for Fire Door Assemblies

By: Lori Greene, I Dig Hardware Blog

My next Decoded article addresses a recent study on clearances for fire door assemblies – the results of the testing may surprise you. Please share any input or questions before the article goes to print!

Fire door assemblies, also known as opening protectives, are designed to protect openings in fire-resistance-rated walls to help compartmentalize a building and deter the spread of fire. These doors, frames, and hardware are required by current codes and referenced standards to be inspected after installation, after maintenance work, as well as annually. The inspection criteria for fire door assemblies can be found in Chapter 5 of NFPA 80 – Standard for Fire Doors and Other Opening Protectives.

Although the inspection requirements are not yet enforced in every jurisdiction across the U.S., health care facilities that receive funding from the Centers for Medicare and Medicaid Services (CMS) are required to conduct the annual inspections. Fire door assemblies in health care facilities play a critical role in the safety of patients and staff, giving them the option of sheltering in place during a fire rather than evacuating.

The Joint Commission and other accrediting organizations for health care facilities have been actively enforcing the inspection requirements in health care facilities with an initial deadline of January 1st, 2018. According to CMS rules, deficiencies found during the inspections must be resolved within 60 days or could put a facility's accreditation at risk.

Clearance Requirements

Non-compliant clearances around fire doors are among the most common deficiencies found during these inspections. The balance between the limitations on fire door clearance and the ability of the door to function during daily use has been a constant challenge. Facility managers in health care occupancies and other buildings where fire door inspections are being conducted regularly have struggled with the time and resources needed to try to keep doors opening, closing, and latching properly while staying within the clearance limits of NFPA 80.

The most recent edition of the NFPA 80 standard (2022) mandates the following clearance limitations for fire door assemblies (measured on the pull side of the door):

- Clearance at the head, jambs, and meeting stiles of pairs:
    - Hollow metal doors: 1⁄8 inch +/- 1⁄16 inch, maximum
    - High-pressure decorative laminate (HPDL)-faced doors, 1⁄3-hour-rated flush wood doors, and stile and rail wood doors installed in hollow metal door frames: 1⁄8 inch +/- 1⁄16 inch, maximum
    - HPDL-faced doors, flush wood doors, and stile and rail wood doors with fire ratings greater than 1⁄3 hour: 1⁄8 inch, maxi mum
    - Door leaves constructed of other materials: 1⁄8 inch, maximum, unless otherwise permitted in the door, frame, and latching hardware manufacturers' published listings

- Clearance at the bottom of the door:
    - 3/4 inch, maximum, measured from the bottom of the door to the top of the finished floor or threshold
    - 3/8 inch, maximum, or as specified by the manufacturer's label service procedure, if the bottom of the door is located more than 38 inches above the finished floor (ex. access door or counter shutter)
    - Where latches of the hardware project from the bottom of the door, clearance must be in accordance with the hardware manufacturer's installation instructions – not to exceed 3⁄4 inch.

Where a threshold is installed, clearance shall be in accordance with the hardware manufacturer's installation instructions and listings. Although it may be tempting to allow slightly larger clearances on fire door assemblies in the field, there is no way to know whether larger gaps could negatively affect the assembly's ability to slow the spread of smoke and flames during a fire. Without the protection offered by code-compliant fire door assemblies, lives could be at risk.

New Research

Several years ago, plans for a research project on fire doors began; the hope was that new testing would demonstrate that larger clearances would not reduce the effectiveness of the fire door assemblies during a fire test – or during an actual structure fire. Because of uneven floors, the normal settling and shifting of buildings over time, and the natural expansion and movement of the doors themselves, many of the stakeholders involved hoped that the bottom clearance could be expanded from 3/4 inch to 1 inch or even slightly larger.

In May of this year, the findings of the study were published by the Fire Protection Research Foundation (FPRF); Fire Door Experimental Testing to Study the Influence of Door Gaps Around Swinging Fire Doors. The report documents 13 fire tests that were conducted on various fire door assemblies in single and pair configurations. Some of the assemblies had the code-compliant 3/4 inch clearance at the bottom, and others had 1 inch of clearance.

Of the 13 tests conducted, the doors in 12 tests did not meet the acceptance criteria of NFPA 252 – Standard Methods of Fire Tests of Door Assemblies. The doors that did pass the fire test were a pair of hollow metal doors with 3/4 inch of clearance at the bottom. The other configurations – with either 3/4 inch or 1 inch of clearance – did not pass the test.

In addition, the increased airflow through the larger clearances impacted the ability to maintain the required temperature in the test furnace. Even under lab conditions, the tests did not prove that fire doors that were compliant with current NFPA 80 requirements would function as intended, and other factors that could affect the performance of existing fire door assemblies in the field were not tested. The tests that were intended to provide answers, resulted in even more questions. Will fire doors tested to the current standards provide the needed level of protection in an actual fire? Should the test standards be revised? How can the tight tolerances be maintained while still allowing the doors to function?

Conclusion

Fire door clearance problems can be very tough to resolve in the field. Shimming hinges with steel shims or replacing hinges may help. There are edge guards, continuous hinges, and other products that are listed for use on fire doors where the clearance at the vertical edges exceeds what is allowed by NFPA 80. With such narrow tolerances of 1/8 inch or 3/16 inch at the head, jambs, and meeting stiles, complying with the clearance requirements while still allowing the door to open, close, and latch properly can be a difficult balance.

At the bottom of the door, adding a threshold may help to reduce the gap, but care must be taken to comply with the accessibility standards where applicable. There are door shoes and sweeps that have been specifically tested and listed for use at the bottom of the door where the clearance is greater than 3/4 inch, but be sure to check the limitations on door material, rating, and gap size. Standard door shoes and sweeps do not solve the clearance problem; the products must be listed for use on doors with excess clearance. Recent editions of NFPA 80 address these products by stating: *"Products evaluated for fire doors with a bottom clearance in excess of 3⁄4 in. (19 mm) and listed for use at or under the bottom of the fire door shall be permitted where installed in accordance with their listings."*

One other way to avoid fire door issues is to help ensure that they are code-compliant from the beginning, by conducting the initial fire door inspection after installation as required by NFPA 80 (2013 edition and subsequent editions). This inspection should be included in the project specifications and will likely reduce future problems for the end user. Without the post-installation inspection, a facility manager may be faced with the responsibility for bring new assemblies into compliance with NFPA 80.

For detailed information on the FPRF research project, the complete report can be downloaded from NFPA.org.

FAQs About Electromagnetic Locks

By: Lori Greene, I Dig Hardware Blog

Electromagnetic locks are often used in access control systems because of the relative ease of installation in comparison to other types of electrified hardware – especially when compared with electromechanical locks. In part, this is because electromechanical locks and electrified trim for panic hardware typically require power transfers and often wire raceways through the door, while mag-locks only require power to the frame head. The electromagnet in a housing is attached to the frame, with a steel armature secured to the door. When the magnet is energized, it bonds to the armature and locks the door.

While the installation can be relatively simple, the code requirements that apply to mag-locks are somewhat complicated and can be confusing. These answers to frequently asked questions should help.

How are mag-locks released to allow egress?

There are two applications addressed in the model codes that are typically applied to electromagnetic locks. One is for electrified locks that are released by a sensor detecting a building occupant approaching the door. The other covers electrified locks released by a switch in the door-mounted hardware – like a panic device, lever handle, or sensor bar with a request-to-exit (RX) switch. These sections of the codes are not limited to electromagnetic locks, but mag-locks are the most common product used in these applications.

Are back-up release methods required in case the sensor or RX switch does not release the mag-lock?

Yes, both types of systems require alternative release methods. Sensor-release locks must also be unlocked for egress by an auxiliary switch mounted beside the door (consult the adopted code for more details), and by fire alarm/sprinkler activation and upon power failure. Electrified locks released by a switch in the door-mounted hardware are not required by the model codes to have the auxiliary push button or fire alarm/ sprinkler release, but they must allow free egress upon power failure. The model codes also require some components of these systems to be listed to UL 294 – Standard for Access Control System Units.

If electromagnetic locks must release upon loss of power, how is security maintained during a power failure? Is battery backup allowed?

Electromagnetic locks are fail safe – when power is cut, there is no magnetic bond, and the lock is unlocked. For example, if a mag-lock is installed on an exterior door with no other locking hardware, the building will not be secure during a power failure. And if the system is the type where the lock is released by a sensor detecting a building occupant approaching the door, the building will not be secure during a fire alarm or sprinkler activation.

One release method addressed in the model codes applies to electrified locks that are released by a switch in the door-mounted hardware.

When electrified locks are released for egress by a sensor above the door, the lock must also unlock via an auxiliary push button, fire alarm/ sprinkler activation, and upon loss of power.

If electromagnetic locks must release upon loss of power, how is security maintained during a power failure? Is battery backup allowed?

Electromagnetic locks are fail safe – when power is cut, there is no magnetic bond, and the lock is unlocked. For example, if a mag-lock is installed on an exterior door with no other locking hardware, the building will not be secure during a power failure. And if the system is the type where the lock is released by a sensor detecting a building occupant approaching the door, the building will not be secure during a fire alarm or sprinkler activation.

The model building codes and fire codes do not define exactly what "loss of power" means, nor do they specifically address whether battery back-up is acceptable. One interpretation is that stand-by power of a mag-lock is allowed if the fire alarm system is powered by the same back-up power source. This helps to ensure that if the fire alarm is activated, the door will unlock for egress. The fire alarm/sprinkler release is only required for sensor-release systems and not door-hardware-release systems, which may affect the AHJ's decision on battery back-up for these applications.

What about other types of access control systems that include mag-locks – locks that are not released by a sensor or by an RX switch?

The model codes do address other types of systems where mag-locks might be used, such as delayed egress locks, and the controlled egress locks allowed in health care facilities. There are separate code sections that include the requirements for these applications. Mag-locks are also used in interlocks (AKA control vestibules), but these are not currently addressed by the model codes. Because the codes do not include requirements for this type of system, each interlock/control vestibule must be submitted to the Authority Having Jurisdiction (AHJ) for approval.

As always, the adopted codes should be consulted for the detailed requirements that apply to electromagnetic locks. Some states and local jurisdictions have modified the model codes with regard to electrified hardware and access control, so local mandates may differ from the model code requirements. The AHJ is responsible for enforcing the adopted codes and has the final say.

More resources on mag-locks:

Code Requirements for Electromagnetic Locks (video) (https://idighardware.com/2018/02/code-requirements-for-electromagnetic-locks-video/)

Decoded: Code Requirements for Electromagnetic Locks (https://idighardware.com/2017/07/decoded-access-controlled-egress-doors-august-2017/)

Locksmith Ledger – Electromagnetic Locks: 7 Applications and the Codes that Apply (https://idighardware.com/2019/03/locksmith-ledger-electromagnetic-locks-7-applications-and-the-codes-that-apply)

Decoded: Special Locking Arrangements vs. Normal Locking Arrangements (https://idighardware.com/2021/08/decoded-special-locking-arrangements-vs-normal-locking-arrangements/)

FAQs About Smoke Barrier Doors in Health Care Facilities

By: Lori Greene, I Dig Hardware Blog

There has been a lot of confusion over the last decade or two, about the requirements for smoke barrier doors in hospitals, nursing homes, and other types of health care facilities. These openings are typically cross-corridor double-egress pairs of doors, and the confusion has been caused by changes that have occurred over several editions of the model codes. It was unclear whether these doors were required to be fire doors, whether they needed positive-latching hardware, and what other requirements related to fire door assemblies applied to these openings.

The model codes have now been clarified, and the answers to the frequently asked questions in this post are based on the current editions of the codes. If an Authority Having Jurisdiction (AHJ) in a particular location is enforcing an older version of the model codes, these updates may help to clarify the intent, but the AHJ will make the final determination.

A few FAQs about these smoke barrier doors:

Are smoke barrier doors in health care facilities required to be fire door assemblies?

The walls forming smoke barriers in health care facilities are commonly required to have a 1-hour fire-resistance rating. Normally, this would mean that the door openings would be 20-minute fire door assemblies. However, both the I-Codes (International Building Code and International Fire Code) and NFPA 101 – Life Safety Code include exceptions related to smoke barrier doors in certain types of health care facilities.

In the 2021 edition of the IBC, this application is addressed in Section 709.5, Exception 1. This exception covers smoke barrier doors in Group I-1 Condition 2, Group I-2, and ambulatory care facilities. In these locations, the doors are not required to be fire door assemblies, as the code specifically states that the doors are not required to be protected in accordance with Section 716. The exemption from the fire rating applies to pairs of *"opposite-swinging doors"* installed across a corridor – these are called double-egress pairs.

In the 2021 edition of NFPA 101, requirements for smoke barrier doors in health care facilities are included in Chapters 18 and 19 (New and Existing Health Care), Chapters 20 and 21 (New and Existing Ambulatory Health Care), and Chapters 32 and 33 (New and Existing Residential Board and Care). The requirements are very similar to those of the IBC, but as always, the adopted code should be referenced for specific information.

Do cross-corridor double-egress pairs in health care smoke barriers require positive-latching hardware?

In earlier editions of the IBC, when it was unclear whether these doors needed to be fire door assemblies, positive latching was a major source of inconsistent interpretations. Fire doors are required to have hardware with an active latchbolt, but there has been language

In the past, this was typically addressed in one of two ways: 1) The doors, frame, and hardware were supplied as a fire door assembly that met all of the requirements of NFPA 80 – Standard for Fire Doors and Other Opening Protectives, including positive-latching hardware. Or 2) The doors were provided with a "construction label" of sorts, which stated that the doors were constructed as fire doors but were not equipped with latching hardware.

Now that the IBC clearly states that the assemblies do not have to be listed opening protectives (fire door assemblies), there is no code, standard, or listing to mandate the positive-latching hardware. NFPA 101 specifically exempts these doors from the requirements for positive-latching hardware as well, stating in each of the health care chapters referenced above: *"Latching hardware shall not be required."*

Do the model codes include other specific criteria for these doors?

By adding requirements related to clearances, glazing, and automatic-closing devices, the codes have taken a door without a fire label and incorporated some of the requirements that would pertain to a 20-minute fire door. If the doors include hold-open devices, they are required to be automatic-closing, actuated by smoke detection. Doors must be *"close fitting within operational tolerances."* Louvers, grilles, and center mullions are prohibited, and undercuts are limited to 3/4-inch. The frame must have stops at the head and jambs, and the doors must have astragals at the meeting edges or rabbeted meeting stiles to help slow the spread of smoke. These doors are also required to have a vision panel with fire-protection-rated glazing in fire-protection-rated frames. In the 2018 edition of the IBC, a change was made that allows factory- or field-applied protection plates that are not required to be labeled.

Keep in mind that this article addresses double-egress cross-corridor doors in smoke barriers, in certain types of health care facilities. Door assemblies in other configurations will likely have different requirements. For example, a pair of doors serving a health care suite may look like cross-corridor doors, but they are typically subject to the requirements for corridor doors – which would include positive-latching hardware. When in doubt, consult the adopted code(s) or contact the AHJ for assistance.

For more information about cross-corridor double-egress pairs in health care smoke barriers, refer to this Decoded article, Decoded: Double-Egress Pairs in a Health Care Occupancy. (https://idighardware.com/2021/03/decoded-double-egress-pairs-in-a-health-care-occupancy/)

Guy Grace, Vice-Chair of the PASS Advisory Council

How to Navigate the Marked for School Security Systems

From the Partner Alliance for Safer Schools (PASS) Blog

Here's a number for you: $1.5 billion. That's how many dollars are invested in school security per year, according to a **report from IHS Markit** (https://www.securityindustry.org/report/education-market/). For the 2019–2020 school year, nearly $800 billion was spent on K-12 education in the U.S., making school security just 0.2%, or about one out of every $500 we spend on schools. With limited resources available, a big challenge for school administrators isn't necessarily finding the latest and greatest product on the market, but rather figuring out how to leverage available funding most effectively. Guy Grace, Vice-Chair of the PASS Advisory Council, shares how he works with schools to make sure they're getting the most out of their security investment.

Establishing a Baseline for School Safety and Security

Schools must be strategic in their approach to securing their campuses, and the shiniest new technology isn't always the best option. As the former security director of Littleton Public Schools, Grace now works with school districts across the country to ensure they have the most accurate and relevant information when it comes to school safety and security investments.

"There's little out there for K-12 to get a baseline for what they're buying," Grace said. "I do the research, work with the different vendors out there, talk to school districts, and then make recommendations from the best practices we can find."

Top 4 K-12 Commonest Safety and Security Pitfalls

Here are four of the most common mistakes Grace sees in his work with K-12 schools:

1. Neglecting the Groundwork

Grace often sees schools investing in the latest and greatest security technology without getting their most basic security needs met first. "Across the country right now, the two most sought-after security components are duress systems and vape sensors," Grace said. "But if you haven't addressed access control, duress systems and vape sensors aren't going to solve anything because you haven't resolved basic security issues."

The most effective safety and security measures (https://passk12.org/school-safety-and-security/how-to-set-up-a-school-safety-and-security-plan-in-four-steps/) can often be **the most affordable**. It's important to ensure your baseline security measures are in place before implementing higher-cost options.

The **PASS Guidelines** (https://passk12.org/school-safety-and-security/how-to-set-up-a-school-safety-and-security-plan-in-four-steps/) organize school safety and security measures into four tiers, with Tier 1 being the most basic measures and Tier 4 the most advanced.

2. Disparate Technological Systems

Whenever tragedy strikes, panic ensues. This can often result in short-sighted planning or products that respond only to the latest tragedy, as opposed to supporting a long-term, holistic approach. In a unified system, Grace said, visitor management software, video software, communications, and fire systems should all talk in a way that school administration can understand, use, and afford. Without a unified plan in place, reactive purchases can result in disparate technological systems that, when implemented, don't work well together.

3. Making Security Investment Decisions Without a Plan

Conversations around school safety and security in the U.S. tend to hyperfocus on active shooter scenarios. But any K-12 teacher will tell you they face very different threats and safety issues on a daily basis, whether it's cyberbullying, fighting, or vaping.

Schools have to know what their daily threats are in order to make the right investment decisions. This is why it's essential to start with a safety and security plan, Grace said. Safety and security plans don't have to be complicated or costly; in fact, you can get one set up in just four steps.

As a prerequisite to the security plan, schools must first complete a risk assessment, which will identify threats, vulnerabilities, and risks unique to your campus. The plan will then build around and be responsive to the results of that assessment.

Learn more about risk assessments and safety and security plans in our no-cost **PASS Guidelines**.

4. Ignorance of Current System

In his work with schools across the country, Grace said many schools don't realize the security features built into their existing platforms. "Almost all security systems have analytic capabilities, like counting how many people are in the building, heat mapping, and tracking where people gather," he said. Schools can use these existing systems for intrusion detection after hours, or if somebody approaches the building at odd hours during the day.

It's important that schools use their existing technology to its fullest extent before making further investments.

"Even vape sensors can be unified with your video management system," Grace said. "We need to educate our school safety professionals on how to get the most out of their existing equipment."

Little Changes, Not Big Technology

With all the shiny new technology out there—and very little data to work from—it's easy for schools to get sucked in. But when it comes to school shootings, it's often the little things that can have an impact on the larger threats. "As a school security director, one of the biggest things is empowering your staff and students with **training to respond to different threats** (https://passk12.org/lockdown-drills/why-lockdown-drills-are-so-important/ in a school," Grace said. "Simple things like good locks on your doors, and knowing when and how to shelter behind those locked doors, can save a life."

Above all, schools must adopt a holistic, "all-hazards" approach to school safety and security. When it comes to making those big investments, Grace said, schools should defer to their risk assessment first. "What did my risk assessment show me was most likely to happen? What am I trying to stop on any given day?"

PASS Has Your Back

Sometimes the most effective solutions have the smallest price tag. In today's climate, school officials should be wary of the aggressive marketing of any products that are unproven, inappropriate, or possibly illegal for school use.

The PASS Guidelines and Checklist serve as a no-cost resource to help schools strategize around their safety and security investments. Our four-tier system is designed so that schools of all sizes (and budgets) can meet minimum thresholds of safety and security for their schools.

"School safety is a profession now," Grace said. "We've moved from having hall monitors to full-time security directors in schools. We're giving tools to the people after us. We got your back."

Contributors: PASS thanks Guy Grace for the research and expertise used in this article.

HID Global is a high-tech software company that powers the trusted identities of the world's people, places, and things, allowing people to transact safely, work productively and travel freely.

The Partner Alliance for Safer Schools (PASS) *is a nonprofit 501(c)(3) bringing together expertise from the education, public safety, and industry communities to develop and support a coordinated approach to making effective and appropriate decisions with respect to safety and security investments. You can download the complete PASS Guidelines or check out our PASS Safety and Security Checklist for quick tips on how to get started. These resources—as well as whitepapers on various topics including barricade devices, lockdown drills, and more—are available at no cost.*

SPECIFICATIONS FOR CONSTRUCTION MANAGER AT RISK PROJECTS

By Kevin O'Beirne, PE, FCSI, CCS, CCCA, CDT

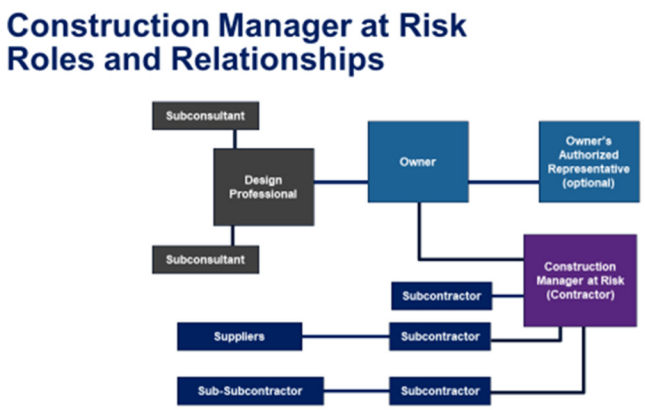
A popular, alternative project delivery method is construction manager at risk (CMAR), also known as “construction manager as constructor” (CMc) and “construction manager as general contractor” (CM/GC). CMAR project delivery is used for both private projects and, where enabled by statute, for public work.

This article presents a high-level overview of what owners and design professionals should know about construction documents for CMAR projects.

What is CMAR?

Typical participants in a CMAR project are shown below. In the figure, solid lines between boxes represent lines of contractual privity between participants. The principal participants’ roles are discussed below.

In a CMAR project, the roles and responsibilities of the owner and design professional are the same as in a design-bid-build (D-B-B) project. The design professional is responsible for the project’s design, represents the owner, and performs construction stage services similar to its responsibilities in D-B-B.



CMAR is a halfway house between traditional D-B-B and design-build (D-B) project delivery, because CMAR has elements of both D-B-B and D-B. In a CMAR project, the owner retains the design professional to design the project and prepare construction drawings and specifications, as in D-B-B. Also like D-B-B, under a separate prime contract, the owner retains the construction contractor (i.e., the construction manager at risk). During the project’s construction stage, the construction manager at risk will serve as the project’s general contractor; it may self-perform certain work and will, under appropriate subcontracts and purchase orders, retain trade subcontractors and suppliers.

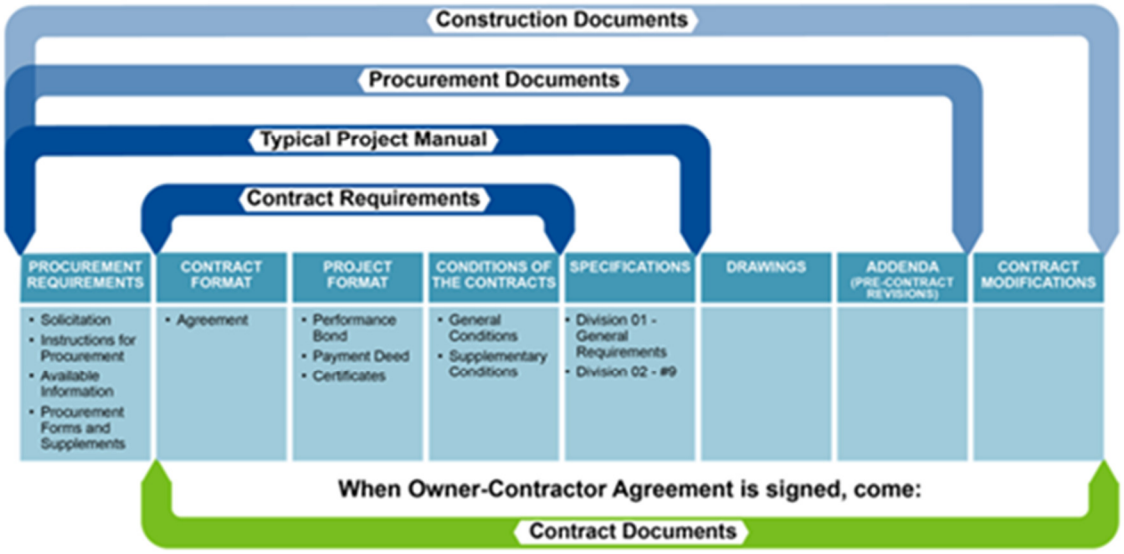
In contrast to D-B-B, on a CMAR project, the owner retains the contractor (i.e., the construction manager at risk) early in the design process, so the construction manager at risk can furnish design stage advice, consultation, and other services to the owner, including consultation with the owner-hired design professional. CMAR thus encourages preconstruction collaboration and cooperation somewhat similar to D-B. The construction manager at risk’s design stage services typically include furnishing advice on likely construction means and methods, as they will affect the design; constructability reviews; cost estimating; and scheduling. Like D-B, CMAR is intended to foster increased coordination between the contractor and design professional and thereby promote a project environment that is more-collaborative and harmonious than is often the case on D-B-B projects.

Although the construction manager at risk participates in the design process, in accordance with applicable US and Canadian laws and regulations governing licensure of the design professions, for CMAR projects, the design professional retains full responsibility for the design and the project’s technical (i.e., engineering, architecture, geology, and other design professions) matters, and possesses the professional liability for the completed project as a functioning whole.

As is typical for “progressive D-B” projects, construction managers at risk are often hired based either partly or entirely on their qualifications, experience, and approach, rather than based on the lowest-priced bid. Depending on the requirements of the owner’s request for proposals, the initial proposal submitted by a prospective construction manager at risk may include selected price-based information, such as the proposed compensation for the construction manager at risk’s design stage and procurement stage services, proposed markups for overhead and profit for construction, and perhaps pricing rates for “field overhead” costs, such as site mobilization, field offices, superintendence, site maintenance, and similar costs. Performance and payment bonds, when required, are typically furnished just prior to the start of construction, rather than with the initial proposal at the project’s outset.

When the design is sufficiently advanced, the construction manager at risk will prepare and submit to the owner its price proposal for completing the work, including construction. When the project is fast-tracked, as discussed further below, the construction manager at risk will typically submit a separate price proposal for each separate “work package”. The construction manager at risk’s price proposal is typically “open book” and thus subject to scrutiny by the owner, design professional, and other owner-hired consultants, if any. When the owner and construction manager at risk agree on the completion price, the construction manager at risk will be authorized to proceed with procurement of materials and equipment from suppliers, and subcontractor services, and to perform the construction. If the parties cannot agree on completion pricing, then the owner-construction manager at risk contract will allow the parties to terminate for convenience (often termed an “off-ramp”). When the owner takes the “off-ramp”, the CMAR contract will allow the owner to proceed with the construction as a D-B-B project, and the construction manager at risk will be paid for its services performed, in accordance with the contract, through the effective date of the termination for convenience.

A common feature of CMAR projects is “fast tracking”, in which the design professional prepares and issues the construction drawings and specifications in multiple “work packages”, to coordinate with the construction manager at risk’s construction progress schedule. Fast tracking often involves construction of certain, early-start activities at the site, such as site preparation, excavation, and foundation construction, while the design professional is still preparing the construction documents for other parts of the project.



CMAR projects may also include a separate, owner-hired construction manager as advisor, often termed an “owner’s representative” or “owner’s authorized representative” to reduce the potential to be confused with the construction manager at risk. An owner’s representative is often retained on larger, more-complex CMAR projects. Possibly as many as half of all CMAR projects include an owner’s representative.

At their core, construction documents for CMAR projects are essentially the same as those for D-B-B; these basic elements are illustrated .

However, there are several considerations of which owners and design professionals should be aware before budgeting and preparing construction contract documents for a CMAR project.

Division 00 Documents for CMAR Projects

The owner should select the project delivery method early, optimally in the project's conception stage, and advise the design professional whether the owner intends to retain the services of an owner's representative. The construction documents should ***not*** be prepared in ignorance of the project delivery method or whether an owner's representative will be involved. A change in these matters after the design professional has started to prepare the construction documents should typically include an associated amendment for the design professional, to account for the substantial additional time and effort required for a change in delivery method and the project's principal participants. For advice on drafting specifications for a project that involves an owner's representative, see "Specifications for Projects with a Construction Manager as Advisor", previously published on this blog.

Division 00—Procurement and Contracting Requirements, of the owner-construction manager at risk prime contract should be appropriate for CMAR project delivery and, when applicable, should address the owner's representative's involvement. Such documents will typically indicate the construction manager at risk's design stage and procurement stage responsibilities, and should expressly identify both the design professional and owner's representative and their respective, high-level responsibilities as they relate to the construction manager at risk.

Widely-used standard contract documents for CMAR projects include:

American Institute of Architects: AIA Construction Manager as Constructor (CMc) Family 2019.
Engineers Joint Contract Documents Committee: EJCDC Construction Manager at Risk (CMAR-Series) Documents 2022.
Associated General Contractors of America ConsensusDocs: ConsensusDocs 500-Series 2017.
Construction Management Association of America: CMAA Construction Manager at Risk Documents 2013.

Of the foregoing, CMAA's CMAR documents are not commonly used in projects but are an important resource for CMAA's popular professional certifications. EJCDC's CMAR-Series (to be published in the second half of 2022) is perhaps the most complete set of the alternative CMAR documents available but is also the newest. ConsensusDocs' 500-Series has been revised only once since its initial publication in 2007. AIA's CMc Family has been published for many years and is widely accepted for vertical construction; however, AIA's CMc Family lacks critical documents for the owner's procurement of the construction manager at risk's services.

Many project owners may not possess their own CMAR contracts and, in some cases, may rely on the construction manager at risk to propose an appropriate form of contract. The owner should always retain its own legal counsel, experienced with CMAR and construction contracts, to review and provide advice to the owner when the source contract will be furnished by others, such as the construction manager at risk. For such projects, the design professional and owner's representative should have the opportunity to review and comment on the owner-construction manager at risk prime contract before it is finalized and signed. Among other matters, the owner, design professional, and owner's representative should:

- be included in the contract's indemnification obligations.
- be additional insureds on the construction manager at risk's liability insurance (except for workers' compensation insurance and professional liability insurance, where additional insured status is not available); and
- be included in the contract's provision requiring the builder's risk insurance carrier to waive its subrogation rights.

The foregoing are very important, basic risk management protections. Applicability may vary by jurisdiction, depending on laws and regulations governing insurance.

Specifications for Fast-Track Projects

Fast-tracking is among the most important differences between CMAR specifications and specifications for design-bid-build (D-B-B) projects. Fast-tracking is relatively common on projects implemented using CMAR, design-build (D-B), and integrated project delivery (IPD).

When the project is fast-tracked, the design professional will typically need to prepare multiple “work packages”, rather than one issuance of a complete, comprehensive set of construction documents as is typical on D-B-B projects.

Drawings and specifications issued for each work package are part of the owner-construction manager at risk contract documents. Accordingly, the drawings and specifications for each work package need to be coordinated with each other and with those of prior work packages. It is inevitable that revisions to previously issued specifications and drawings will be necessary in later work packages. To the extent practicable, the design professional should endeavor to anticipate what will likely be required under subsequent work packages and develop the earlier work packages to reduce the potential for conflicting requirements.

Considering the likely needs of future work packages is not always easy in the rush to issue early-start work packages. However, a few extra minutes of consideration and effort in the early-start work packages’ development will likely save considerable time and effort during preparation of the later work package(s) and construction.

For example, the Division 01 specifications for early-start work packages should be as complete as possible, even for the later work packages. While the Division 01 specifications can be amended and supplemented for later work packages, as a practical matter, it is often challenging to revise administrative and procedural requirements, and requirements for temporary facilities, once construction at the site is already underway.

As another example, a common work result required in many work packages is concrete. Rather than issuing Division 03—Concrete, specifications unique to the early-start work package(s), the design professional should consider, while developing the Division 03 specifications for the early-start work package(s), requirements for concrete that will likely be necessary in later work packages. In addition to concrete, there are many other examples of specifications common among multiple work packages on the same project.

As a practical matter, when a specifications section issued in an early start work package is ***revised*** for a subsequent work package, the revisions must be expressly shown. For example, deletions should be indicated using strikeout text, and added text should be indicated using either underlined text or bold text. Because color blindness is common, avoid using colored text or highlighting to indicate changes. It may be appropriate to identify, via a right margin comment, the specific work package for which each revision was made.

Similar to how drawings typically include, in their title block, a table to indicate revisions to the drawing, it is appropriate to include in each specifications section a table indicating the document’s revision history, when the project will include multiple work packages. The section’s revision history table can be located either at the top of the section’s first page or at the end of each section. When section revision history tables are used, ***each*** section should include a revision history table, even when it is anticipated the section will be issued on only one work package. An example of such a revision history table is:

Revision History – Section 03 31 00

Work Package No.	Date	Design Prof. in Responsible Charge	Description of Revisions
1	4/05/2022	Angela Hayes, PE	Initial issuance for site preparation.
2	6/03/2022	Angela Hayes, PE	Added requirements for mass concrete concrete for foundations
3	10/01/2022	Angela Hayes, PE	Added fast-setting concrete for structure construction

Other Matters Relative to CMAR Specifications

In most other respects, construction specifications for CMAR projects are the same as specifications prepared for design-bid-build (D-B-B) projects. Indeed, the source documents for specifications for many CMAR projects are either the design professional's own D-B-B master specifications or commercial master guide specifications written for D-B-B.

Because CMAR is intended to foster design stage collaboration between the construction manager at risk and the design professional, in which the construction manager at risk provides advice on constructability, materials selection, construction cost, and construction time, potential may exist for blurring of lines of responsibility for certain aspects of the design. Design professionals should always bear in mind that the design professional possesses the architecture, engineering, or other design profession licensure and professional liability for the completed project. Thus, the design professional should resist being pressured by the owner or construction manager at risk into incorporating design elements, materials, or methods in which the design professional is not confident. Construction managers at risk should avoid presenting design-related advice that may have potential to transfer professional liability to the construction manager at risk.

As with any construction contract, the specifications and drawings must be closely coordinated with the Division 00 documents in the owner-construction manager at risk contract (see: "Specifying Practices Coordinated is the Fifth 'C'" - https://www.csiresources.org/blogs/kevin-obeirne-pe-fcsi-ccs-ccca-cdt1/2020/10/08/specifying-practices-coordinated-is-the-fifth-c.)

Where a CMAR project will include an owner's representative, considerations applicable to projects involving a construction manager as advisor (CMa) apply (see: "Specifications for Projects with a Construction Manager as Advisor" - https://www.csiresources.org/blogs/kevin-obeirne-pe-fcsi-ccs-ccca-cdt1/2022/03/22/specifications-for-projects-with-a-construction-ma?CommunityKey=80c3b4dd-0d3f-4d4e-90f2-3bc6e4135dc2).

Where either the construction manager at risk or the owner's representative will prepare some of all of the Division 01 specifications, the design professional must either have supervisory control over their preparation and final control over their content, or obtain from the owner a contractual waiver of any need to seal and sign such specifications, consistent with laws and regulations governing the subject design professions (see: "Sealing and Signing Divisions 00 and 01: Is it Architecture or Engineering?" - https://www.csiresources.org/blogs/kevin-obeirne-pe-fcsi-ccs-ccca-cdt1/2020/09/23/sealing-and-signing-divisions-00-and-01).

During the construction manager at risk's procurement of subcontractors and suppliers and the ensuing construction stage, the project's participants should avoid pressuring the design professional to revise the design to accomodate construction means and methods for the convenience of the construction manager at risk, unless the design professional is appropriately compensated by its client, the owner.

Conclusions

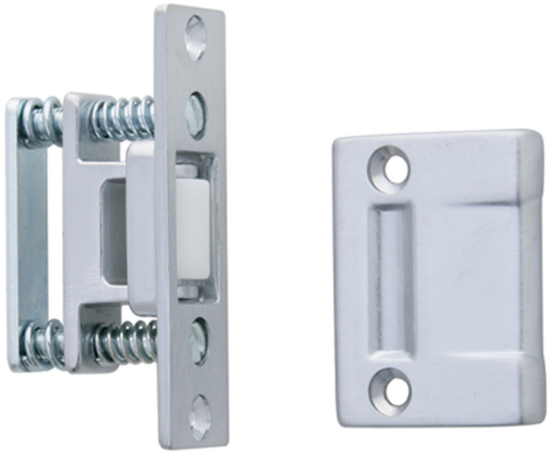
Division 00 of the owner-construction manager at risk contract should be appropriate for the project delivery method and properly address the roles, responsibilities, and risk management for the owner, design professional, and owner's representative (when involved). Specifications for CMAR projects are generally similar to those for design-bid-build projects, but often require special considerations regarding fast-tracking and issuance of drawings and specifications in multiple work packages. The specifications must be properly coordinated with the Division 00 documents used for the project, and other considerations may apply when either the construction manager at risk or an owner's representative will prepare all or part of Divisions 00 and 01.

Additional Resource: Readers may also be interested in this writer's article, "Specifications for Design-Build Projects", published in the March 2021 issue of *Construction Specifier* magazine.

Kevin O'Beirne, PE, FCSI, CCS, CCCA is a professional engineer licensed in NY and PA with over 30 years of experience designing and constructing water and wastewater infrastructure for public and private clients. He is the engineering specifications manager for a global engineering and architecture design firm. He is a member of various CSI national committees and is the certification chair of CSI's Buffalo-Western New York Chapter. He is an ACEC voting delegate in the Engineers Joint Contract Documents Committee (EJCDC) and lives and works in the Buffalo NY area. Kevin O'Beirne's LinkedIn page.

Quick Question - Roller Latch vs. Roller Strike

By: Lori Greene, I Dig Hardware Blog



The most common application for a roller latch is on a closet door where positive latching is not required.

I received a Quick Question last week that has come up before:

What is the difference between a roller latch and a roller strike? Are both prohibited on fire door assemblies?

The short answer: Roller latches and roller strikes are not the same type of hardware. While roller latches are prohibited on fire door assemblies, roller strikes are not.

In older health care facilities, it was once common to see roller latches installed on patient room doors.

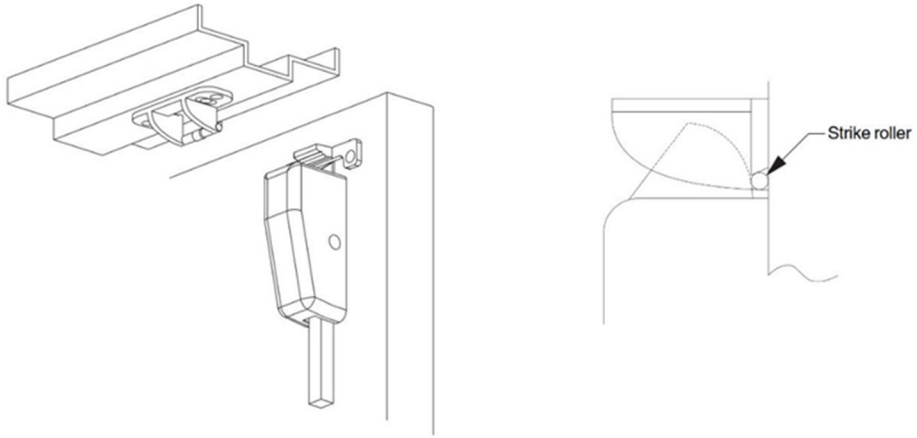
This is a roller latch. –>

A roller latch uses the friction of a roller to hold the door in the closed position, but it is not considered positive latching hardware, or an active latchbolt as required by NFPA 80 – Standard for Fire Doors and Other Opening Protectives.

Although NFPA 101 – Life Safety Code still allows roller latches to be used on corridor doors in existing health care facilities if certain criteria are met, roller latches are not allowed on corridor doors by the Centers for Medicare and Medicaid Services (CMS). Corridor doors in health care facilities are required to have positive latching hardware, and the CMS directives specifically prohibit roller latches on these doors. You can read more about the CMS directives here.

A roller strike is a different piece of hardware. Often used with panic hardware and fire exit hardware, roller strikes are mounted on the frame, and the panic hardware latches into the strike to secure the door in the closed position. Although these strikes include a component called a “roller”, which is designed to help ensure that the hardware latches reliably, it’s not the same as the roller latch that is prohibited by CMS.

Fire exit hardware is listed to NFPA 252 / UL 10C for use on a fire door assembly. When a specific strike – including a roller strike – is supplied as part of the listed fire exit hardware and shown in the installation instructions, it is acceptable for use on a fire door or on a non-rated door that is required to have positive-latching hardware.



Roller strikes are commonly used with panic hardware – including fire exit hardware.

Wordless Wednesday: Cool Exit

By: Lori Greene, I Dig Hardware Blog

Thomas Reinhardt sent me today's Wordless Wednesday photo of a door with an egress problem. I can appreciate that someone manufactured a rolling rack for the AC unit and it can be moved out of the way if the exit is needed, but…no.

CSI GULF STATES REGION

Special
Service Award

Presented to

Billy J. Mathis, FCSI, CDT

For your dependable and selfless service to the Little Rock Chapter "Chapter Rock" and your dedication to the ideals of CSI on both a Chapter and Regional level, you are presented this Service Award on June 24th, 2022.

Kent Kile, FCSI, CCPR
Region President

Belina Latiker, CSI, CDT
Awards Chairman

CSI GULF STATES REGION

Continuing Publication
Award

Presented to

Billy J. Mathis, FCSI, CDT

For your distinguished service as editor of **SPECWORK** and its service of providing relevant content to the Little Rock Chapter's members in timely articles and humorous graphics and quotes, you are presented this Continuing Publication Award on June 24th, 2022.

Kent Kile, FCSI, CCPR
Region President

Belina Latiker, CSI, CDT
Awards Chairman

Region Awards

The two Awards Shown below were presented at the most recent Gulf Stated Region Awards Banquet. As Editor I was humbled to receive the Continuing Publication Award for this Newsletter. Additionally I was awarded a Special Service Award for my meager contributions to the Little Rock Chapter.

Construction Trends, GDP & Risk

Originally Published in CSI - Connect

Presented By: Mr. Timothy Corbett, CSI, President, A/E SmartRisk

Construction generates over $360 billion in revenue and has a share of 9% in the total Gross Domestic Product (GDP) of the U.S. Only healthcare and retail outperform construction in these numbers.

Bureau of Economic Analysis (BEA) considers the following as indicators as economic conditions.

- Inflation rate - 9.1 highest in 40 years
- Unemployment rate - 3.6% equal to pre-COVID levels
- GDP growth rate – decreased for the last two quarters

Construction spending is a reliable indicator in formulating the U.S. GDP by Bureau of Economic Analysis (BEA).

When construction spending falls, GDP routinely falls with it. 2022 US Construction 4.3% of GDP

The U.S GDP dropped the first quarter of 2022 by 1.6%, then the second quarter in by 0.9%. Two consecutive quarters of economic contraction is commonly used as a definition of a recession. By that definition - we are in a recession. However, based on COVID-19 and $5 trillion dollars pumped in the economy by the government, we have an economic mixed bag and uncharted territory.

Construction Positive Data Points

Despite troubled inflation and reduced GDP growth, construction economist predict growth for the remaining of 2022 and first quarter of 2023. One data point is the Producer Price Index (PPI) that measures the change over time in the prices by domestic producers for products and services. Construction PPI usually drops during a recession – happened in 2000's, 2008, and COVID-19 recession periods. Construction PIP is up 19.2% for June 2022 according to the U.S. Bureau of Labor Statistics. Another important data point is project backlog. These numbers remain strong, according to AIA Architectural Billing Index (ABI) and Associated Builders and Contractors. Both organizations report about a nine (9) month project backlog that is near record highs.

Project Concerns

Percentage of backlog may be driven by projects taking longer to complete, owners pushing out schedules in the hope of lower construction material prices. Supply chain and the ability to obtain construction material in a timely manner has delayed projects has impacted along with staffing concerns - finding qualified people to fill key positions and skilled labor supporting project efforts. Labor shortages and increasing wage costs have been affecting the construction industry for a number of years and is unlikely to be resolved in the near future. Wages routinely account for over 50% of the overall construction costs. Labor pricing will influence the profitability of a project.

Interest Rates

The Federal Reserve trying to slow inflation at 9.1% is raising interest rates. Rising interest rates will have a negative impact on construction activity including hikes in construction material making projects more expensive. Suppliers may also be forced to raise prices because of the increased cost of financing. This reduces the profit and size of new construction projects leading to slowing economic growth. Higher interest rates reduce the profit as the construction companies may be forced to pay out of their pockets for interest rates on loans. The rise in interest rate will also reduce the demand for homes with mortgage rates increasing.

Cost Estimates

The ongoing concern on the construction material costs is complicating the cost and bidding process on projects. Fixed priced projects are extremely difficult and risky in this environment. Industry data has shown bid are expected to increase to 8.5% this year following a 6% increase in 2021. Rising fuel prices are putting pressure on project cost and budgets. It is significantly more expensive to have construction material delivered to the site, along with the delivery and operations of heavy equipment such as bulldozers, cranes, and backhoes that run on higher priced fuel.

Risk Management

- Due diligence of the project and budgets against current pricing for material and labor. Consider how inflation, and interest rates, could impact the final cost of a project. Be realistic about the increased costs and make the necessary adjustments in the contract agreement, and bidding process. Include contingencies into the contract agreement to address price uncertainties and increased costs.
- Have an upfront open discussion with project owners about potential challenges and consider risk allocation. Addressing in contract agreements construction material availability, delays and impact on the project schedule.
- Construction materials are more expensive, but also difficult to obtain. Alternatives for construction material and products should be discussed with owners as an option based on availability.
- Evaluate material procurement procedures within your organization. Ensure procedures addresses the challenge when faced with price increases and delays in obtaining material and products. Consider stockpiling essential materials and the cost benefit on projects compared to the additional costs of storage and security.
- Evaluate insurance policies, specific project policies. Higher prices for material and labor will increase the final cost of a project. Losses on projects will lead to more expensive repairs and rebuilds on projects with claims. Ensure you have the proper limits are not underinsured based on these challenging market conditions.

Summary

The last two years the construction industry has seen significant growth. Projections for the remaining of 2022 and early 2023 look good with strong backlogs and Construction PIP up 19.2% for June. However, with the Federal Reserve increasing interest rates to slow inflation, that is only going to increase the cost of everything including construction loans, home mortgages and construction material. It appears it is only a matter of time before that has a negative impact on projects moving forward. Under the current conditions and with an anticipation of a slowdown in about nine months, there are certain actions to assist project performance and help manage and mitigate risk.

If you are interested in following the Little Rock Chapter, our links are as follows (*for Facebook and LinkedIn look for the CSI Little Rock Chapter*):

Website: https://csilittlerock.org
Facebook: www.facebook.com
LinkedIn: www.linkedin.com

If you are interested in Joining CSI or if you are just interested in keeping up with the information provided by CSI, follow this link to the Institute Website Membership Pages:

For Membership Information:
https://www.csiresources.org/communities/membership/individual-membership

To Join CSI:
https://higherlogicdownload.s3.amazonaws.com/CSIRESOURCES/143a718d-6df6-484a-8a79-76d79635b741/UploadedImages/PDFs/CSI_MembershipFormFY18.pdf

To See what CSI is all about:
https://higherlogicdownload.s3.amazonaws.com/CSIRESOURCES/143a718d-6df6-484a-8a79-76d79635b741/UploadedImages/CSI_ResourcesCatalogFinalLowRes.pdf

LITTLE ROCK CHAPTER INFORMATION

Chapter Officers

President:	Billy J. Mathis, FCSI, CDT
President-Elect:	Melissa Aguiar, CSI, CCS, CDT, SCIP
Immediate Past President:	Open
Secretary:	Billy J. Mathis, FCSI, CDT
Treasurer:	Clark Wood, CSI
Directors	
Operations	Rachal Belanger, CSI
Honors	Melissa Aguiar, CSI, CCS, CDT, SCIP
Membership	Clark Wood, CSI
Education / Certification	Open

Chapter Info

Chapter Website:	**https://csilittlerock.org**
Chapter Newsletter:	**SpecWork**
Chapter Meeting Day and Time:	**2nd Wednesday of Each Month unless otherwise specified by the Chapter President**
Chapter Board Meeting Day and Time:	**1st Friday of each Month unless otherwise specified by Chapter President**

If you are interested in Joining CSI or if you are just interested in keeping up with the information provided by CSI, See the slides shown from the “Why CSI” presentation