Masonry and Resiliency Panel Discussion

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AIA Provider: 50119857

Course Description

This session will provide a short primer on what resiliency means and how masonry is resilient. The session will introduce the Building Performance Committee and the overall mission and goals of the committee. A moderator and panel will pose targeted questions to facilitate discussion between the audience and panel members, seeking guidance on where value can be provided to the industry in terms of masonry and resiliency.

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Learning Objectives

- Understand the objectives of the TMS Building Performance Committee
- List the 4 elements of resilience
- Discuss how resiliency is different from sustainability
- Describe how masonry is resilient

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TMS Building Performance Committee

Mission: Address high-performance building design with masonry through **sustainability**, **resilience**, and **energy** performance

Goals:
- Educate designers and others on best practices for masonry
- Provide guidelines for building performance of masonry
- Disseminate relevant information to the masonry industry

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What is Resilience?

- "Resilience is the capacity of individuals, communities, businesses, institutions, and governments to **adapt** to changing conditions and **prepare** for, **withstand**, and rapidly **recover from disruptions** to everyday life, such as hazard events."

Source: FEMA Fact Sheet: *Planning For a Resilient Community*

Resilience - ASCE

Policy Statement 518, *Unified Definitions for Critical Infrastructure Resilience,*
Resilience refers to …
… the capability to mitigate against significant all-hazards risks and incidents and to expeditiously recover and reconstitute critical services with minimum damage to public safety and health, the economy, and national security.

Sustainability

- Focus often on Environment
- People, Profit, Planet
- Life cycle
- Durability is missing

Resilience

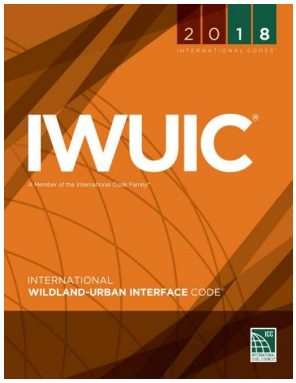
- Focus on hazards and mitigating them
- Longer view/future events
- Durability and avoiding damage are important
- Resistance to fire, impacts, tornados, etc. are important elements
- Masonry SHINES

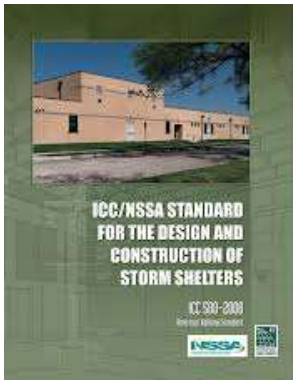
Resiliency = Above Code

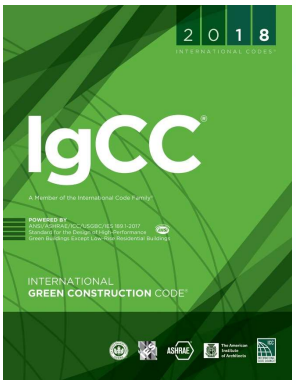
- The term **'above code'** is often used to describe resiliency programs and standards.

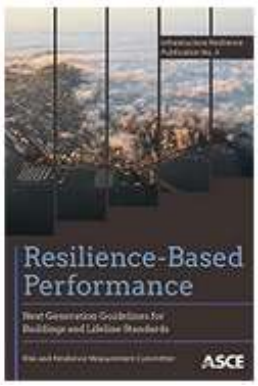
Resiliency Standards

'Above code' standards for construction:





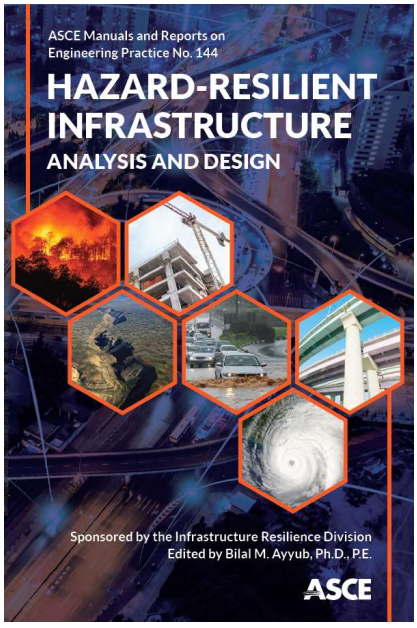




Resiliency Design ASCE Manual Of practice

The manual set goals and objectives, describes a methodological framework for achieving hazard resilient infrastructure.

- Describes available and mature methods for assessing the resilience of systems and facilities individually and collectively as systems
- Focuses on economics of resilience and risk management.
- Summarizes methods used by microeconomists for examining resilience enhancing alternatives.
- Provides an overall design approach of resilient-infrastructure systems – with examples and case studies.
- Covers community socioeconomics and offers guidance on ways to account for such
- Provides a review of emerging resilience-enabling technologies for new and existing infrastructure systems.



What's Masonry's Role?

- Strength, durability, non-combustibility, impact resistance, flood and mold resistance, and thermal performance…all inherent properties of masonry construction.
- While masonry doesn't define a resilient building or community, it is a key cornerstone to achieving these goals.

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What can designers do?

- Understand that building codes are minimum criteria, not 'resiliency' standards.
- Know what mitigation strategies your community has in place.
- Recommend cost-effective design strategies that provide resilience.
- Recognize masonry inherently provides many above code and resilient benefits and use these to fullest advantage.

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What's Your Role?

- Educate: Make sure your legislative bodies understand building codes are minimum criteria, not 'resiliency' standards.
- Engage: Know what mitigation strategies your community has in place.
- Encourage: Push your communities to partner with existing programs: icleiusa.org
- Inform: Masonry is inherently above code and resilient.

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Resources

- AIA - https://www.aia.org/topics/56-resilience
- FLASH - https://flash.org/
- FEMA - https://www.fema.gov/about/offices/resilience
- NIBS - https://www.nibs.org/page/mmc
- Resilient Design Institute – resilientdesign.org/
- RELi - http://c3livingdesign.org/?page_id=5110
- ASCE -https://sp360.asce.org/PersonifyEbusiness/Merchandise/Product-Details/productId/273766313
- Many cities and states have information on resilience

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Masonry Resources

- BIA - https://www.gobrick.com/
- IMI - https://www.imiweb.org/
- NCMA - http://cmd.ncma.org/functional-resilience/
- PCA - https://www.cement.org/cement-concrete-applications/resilient-construction
- TMS - https://masonrysociety.org/product/masonry-is-sustainable-brochure-2018/

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This concludes The American Institute of Architects Continuing Education Systems Course

THE MASONRY SOCIETY

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