

## CODES UPDATE

Construction Codes & Industrialized Buildings 60 Executive Park South, N.E. | Atlanta, GA 30329 404-679-3118 | www.dca.ga.gov Volume 23 | Summer 2019

#### DCA BOARD ADOPTS EIGHT NEW CODES EFFECTIVE JANUARY 1, 2020.

There will be 8 new Georgia codes that will be going into effect on January 1, 2020. These codes include the 2018 editions of the International Building Code (IBC) with Georgia Amendments, International Residential Code (IRC) with Georgia Amendments. International Plumbing Code (IPC) with Georgia Amendments, International Mechanical Code (IMC) with Georgia Amendments, International Fuel Gas Code (IFGC) with Georgia Amendments, International Fire Code (IFC) with no amendments. International Swimming Pool and Spa Code (ISPSC) with Georgia Amendments and the 2015 edition of the International Energy Conservation Code (IECC) with Georgia Amendments.



#### Mark Your Calendar!

- **OCT** International Code Council
- 20-30 Annual Conference and Code Hearings - Las Vegas, NV



#### ENERGY CODES WORKSHOPS COMING TO YOU!

The Georgia Department of Community Affairs (DCA) and Southface were awarded a grant through the Georgia Environmental Finance Authority (GEFA) to provide training on the updates and changes of the new 2015 International Energy Conservation Code and Amendments for the State of Georgia. The classes cover the changes in commercial and residential energy codes, best practices for implementation and compliance of new rules, as well as a Q&A session.

Full-day and half-day training options are being held around the State of Georgia and coming to your local area. The trainings started mid-March and will run through the end of September. Please go to the <u>Energy Codes Web</u> <u>Hub</u> on the DCA Building Codes site to register for classes, and be sure to watch for a class coming to your area.

NOV

20-22 GreenBuild Conference – Atlanta, GA

## **2020 National Electrical Code Task Force**

A new Task Force has been formed to review and update NFPA 70, the National Electrical Code, from the 2017 edition to the 2020 edition. The task force will hold its first meeting this fall and continue into the New Year. Starting this month, DCA will be soliciting state trade associations and interested parties for appointment recommendations for the task force. Please keep in contact with your local trade associations for updates.

If you have any questions, please contact: Brendan Sexton Brendan.Sexton@dca.ga.gov 404-679-1739

# 2020 Permissive Codes Task Force



A new Task Force has been formed to update both the International Property Maintenance Code as well as the International Existing Building Code from the 2012 editions to the 2018 editions. The Permissive Code Task Force will begin meeting this fall and continue into the New Year.

Starting this month, DCA will be soliciting state trade associations and interested parties for appointment recommendations for the task force, so please contact your local trade association for any updates and to stay involved.

As a reminder, permissive codes, while adopted by the DCA, DO NOT become mandatory until they are also adopted by the Local Jurisdiction. Please contact your local jurisdiction to find out if these permissive codes are mandatory in your area.

To be included on the interested parties list for this Task Force, or if you have any questions, contact: Jimmy Reynolds Jim.Reynolds@dca.ga.gov 404-679-3104

# Swimming Pool Workshops Coming Soon!



Starting this fall, the Georgia Department of Community Affairs (DCA), in partnership with the Pool and Hot Tub Alliance (PHTA) and the Georgia Department of Public Health (DPH), will provide trainings on the content of the 2018 International Swimming Pool and Spa Code and Amendments for the State of Georgia. The classes will cover key points of the codes, best practices and a Q&A session. The classes will run from 11:00 am to 1:00 pm and include lunch.

Registration for the trainings will be available <u>here</u>.

If you have any questions, please contact: Brendan Sexton Brendan.Sexton@dca.ga.gov 404-679-1739

# Codes Reference Guide SCAC Clarification:

Area	Primary	Supplement
	LSC	IBC
Building Construction Types including allowable height, allowable building areas, and the requirements for sprinkler protection related to minimum building construction types.	IBC	LSC
Means of Egress	LSC	NONE
Standpipes	IBC	IFC
Interior Finish	LSC	NONE
HVAC Systems	IMC	NONE
Vertical Openings	LSC	NONE
Sprinkler Systems minimum construction standard	LSC	NONE
Fire Alarm Systems	LSC	NONE
Smoke Alarms and Smoke Detection Systems	State Statute and LSC	NONE
Portable Fire Extinguishers	IFC	NONE
Cooking Equipment	LSC and NFPA 96	NONE
Fuel Fired Appliances	IFGC	NFPA 54
Liquid Petroleum Gas	NFPA 58	NFPA 54
Compressed Natural Gas	NFPA 52	NONE

**CODES REFERENCE GUIDE** 

\* Plumbing Provisions, including number of fixtures, shall be regulated by the IPC

#### Volumetric Modular Construction

# **IB** Angle



To be IB or not IB?

As the world's population grows, the development community is faced with the challenge of delivering more, high quality buildings to more people in a construction environment promulgated by higher costs of materials, labor and regulation. In the progression of off-site construction, 3D volumetric modular construction has evolved as a method of construction aimed at mitigating these challenges for medium-scale projects.

Volumetric modular construction involves large repetitive modules, manufactured offsite and shipped to the building site to be hoisted into place and connected to surrounding modules to create an interconnected structure. The methodology is gaining popularity in Europe and East Asia to address affordable housing shortages in constrained construction environments. These constraints include, but are not limited to schedule, cost, quality control and site disturbance.

With the advent of this new construction technology, newer and more adaptable project management methodologies have proven to be advantageous throughout the project lifecycle. The decision to utilize volumetric modular construction should be made at the outset of the project with a consensus among project stakeholders (owner, designer, general contractor, regulatory bodies, etc.). After the decision to develop a modular project has been made, a project management plan must be implemented that considers the various conditions and factors specific to modular construction. Successful application of modular construction involves a collaborative approach between the building owners, designers, manufacturers and contractors. Constant engagement of the project's stakeholders allows site work to be completed at the same time that modules are being manufactured as well as making the whole process more adaptable.

The advantages of volumetric modular construction are consistent with those of established modular construction, but the benefits of those advantages can increase dramatically with the larger scale projects possible with volumetric construction. A common advantage that drives many owners to pursue modular projects is schedule control. Site preparation and module construction can occur at the same time and once the modules arrive onsite, the amount of work required to connect the modules is limited and easy to coordinate. Beyond the scope of the owner, the shorter schedules and decreased disturbance to areas adjacent to the construction site provides additional benefit to the surrounding environment. In addition to shorter schedules, cost control is another benefit of volumetric modular construction. Because the majority of the construction is completed in a controlled environment, inputs like materials and labor are less variable allowing more accurate cost predictions. Tied in with schedule control, the consistent nature of volumetric modular construction also paints a more precise picture of when the project will become operational and begin generating revenue. Finally, volumetric modular construction presents the unique potential for a structure to be moved and reused if a better use is identified for the original site.

Despite the many advantages presented by volumetric modular construction, it presents certain disadvantages specific to the method. First, the design of 3D modules is limited by its inherent nature—modules have to be sized in such a way that they can be transported on the back of a truck and installed in large pieces. Additionally, once a project has begun, there is little opportunity for changes in design because deviations could greatly disrupt the existing progress of the project. Other challenges to volumetric modular construction are costs. The start-up costs for a manufacturing facility capable of producing projects of this scale can be immense and take years to fully develop and optimize. To make this method economically viable, demand for volumetric projects would need to increase to create an economy of scale justifying the high start-up costs. Finally, there is a subjective understanding among the public that modular construction is lower quality than traditional stickbuilt methods—often associating manufactured housing with modular construction despite their fundamental differences.

As the volumetric modular industry grows, so does the potential for using it to address the existing challenges facing the current and future construction industry. While volumetric modular construction presents certain barriers to widespread adoption, the benefits are worthy of consideration for delivering consistent and quality construction solutions to address the challenges of the modern urban landscape.



## NEW CONSTRUCTION CODES & INDUSTRIALIZED BUILDINGS EMPLOYEE



RC Connell

After a year away from DCA, RC Connell has rejoined the Office of Construction Codes and Industrialized Buildings as an IB consultant. RC originally worked for the Codes/IB program in the late 2000s and has represented the Commissioner on the Industrialized Buildings Advisory Committee (IBAC) for the last seven years.

Additionally, RC worked for DCA's Office of Housing and Finance Development where he spent seven years as a Construction Manager specializing in the multifamily Low Income Housing Tax Credit (LIHTC) and HOME Rental Housing Loan programs.

Early on in his career, RC relocated to Georgia to work for a commercial contractor as an estimator and project manager and has resided in Peachtree Corners ever since. His career has been focused on the construction and development industry which included stints as a business owner and employment in both the public and private sectors.

In his free time, RC enjoys mountain biking, car and house restoration, and providing Google tech support for boomers and seniors.

Susan Carpenter serves as the building official for the cities of Doraville and Avondale Estates through the AEC firm CPL. She got her start in the code enforcement industry as an inspector in Atlanta, advancing to be a plans examiner and then building official. The aspect Susan enjoys most about working in code enforcement is the team environment — working together to deliver a high level of knowledge and customer service aimed at ensuring safer buildings that contribute to healthier, more vibrant communities.

Susan contributes to several professional organizations related to code enforcement including serving on the Board of Directors for Region 8 of the International Code Council, the Building Officials Association of Georgia Board of Directors, President of the Metro Atlanta Inspectors Association and the International Energy Conservation Code exam development committee.

In her free time, Susan enjoys spending time with her family at their cabin in the North Georgia Mountains and playing tennis. We would also like to take this opportunity to congratulate Susan on being named Building Official of the year by BOAG.

### **Profile Corner**



Susan Carpenter codes update/volume 23 / 6

## WEBSITES OF INTEREST

International Association of Building Officials (IABO) International Codes Council (ICC) **ICC Region Chater** Building Officials Association of Georgia (BOAG) Governor's Office of Consumer Protection Georgia Plumbers Trade Association (GPTA) Georgia Association of Home Inspectors (GAHI) Fire Safety Commissioner (State Fire Marshal) Georgia Department of Community Affairs (DCA) Call before you DIG Georgia State Inspectors Association GA State Historic Buildings Preservation Office (DHR) GA State ADA Accessibility Office (GSFIC) GA Association of Floodplain Management AFM) National Floodplain Insurance Program (NFIP) Plumbing-Heating-Cooling Contractors Association of GA' Storm Shelters: Selecting Design Criteria (FEMA) Safe Rooms (FEMA) Carbon Monoxide Detectors

iaboinc.com iccsafe.org iccreg8.com boagcodes.org georgia.gov/agencies gpta.net gahi.com oci.ga.gov dca.ga.gov georgia811.com georgiastateinspectors.com georgiashpo.org ada.georgia.gov gafloods.org floodsmart.gov phccga.org fema.gov fema.gov/safe-roomresources aboutcarbonmonoxide.com

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