

International Building Code vs. Florida Building Code:

*Which serves as the best base
document for amendment?*



Image 1 - ICC Logo [1]

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Florida Building Code is currently made up of a baseline building code called the IBC (International Building Code), which is updated every three years, and Florida specific amendments to ensure that the building code is comprehensive [1]. This essay will analyze the pros and cons of using this process, referred to herein as the current system, as opposed to keeping one edition of the Florida Building Code as the base document and updating it with amendments as needed, referred to herein as the alternative system. While the current system contains the pros of being updated triennially, with Florida specific interpretations amended annually, there are cons to this system. Namely, the fact that each time that the national model is updated, it must be amended and modified for Florida specific needs, since it contains regulations that may be incompatible with Florida [1], which takes time and effort by the Florida Building Commission [2].

One benefit of basing Florida Building Code off the national building code, is that every three years the building code must be updated. This was done as a solution to the many problems encountered by having the alternative system in place. During a 16-month study 1996, it was found that a “confusing patchwork system of codes and regulations” were being implemented and enforced by over 400 different local and state agencies in the state of Florida [3]. This study was conducted as a response to the devastating hurricane Andrew in 1992 which destroyed 63,000 homes [4].

Another benefit of the current system is that it is amended annually with Florida specific codes. This is helpful because it allows local and state officials to amend codes to account for storms, or environmental dangers that directly impact Florida. For example, current scientific studies are “linking climate change to a more dangerous hurricane season” [5] which in turn, means that Florida is likely to be hit the hardest, and more often. Requiring Florida specific amendments yearly, instead of as needed, allows for Building Officials to implement code to keep up with new technology available, before another devastating storm hits Florida. If the alternative system was used, this would result in more property damage and loss of life, as seen by storms that hit before the current system [3].

A disadvantage to the current system is that when based off a national code standard, a lot of modification must be done in order to make it specific for Florida standards. It is possible that a standard that is not appropriate for Florida, could be missed by the “27-member technical body responsible for development, maintenance, and interpretation of Florida Building Code” [3]. If anything is overlooked, the umbrella effect seen in *Figure 1* will cause this overlooked code to be in place as the Florida minimum code, and unless specific, more strict codes are in place by local agencies [3].

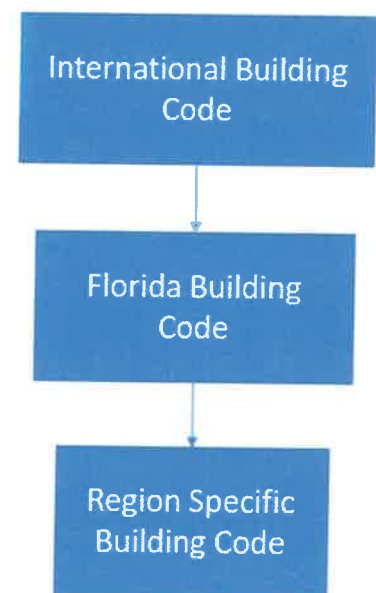


Figure 1 - Building Codes Umbrella

Another disadvantage to using the current system is that it takes time and hard work to revise, modify and implement amendments to the Florida Building Code. As seen by the Florida Building schedule, the proposal for modifications to the 6th Edition (2017) Florida Building Codes are still being made as late as December of 2018 [2]. This results in the 2017 code standards not being fully modified and updated until 09/19/2019, when the draft for the 7th

edition codes are being posted [2]. The 7th edition codes, then may not become effective until 12/31/2020 (the deadline) [2], meaning that the 2020 codes have the potential to not become active until nearly 2021. In summary, this means that the building codes for an edition, are not deemed fully complete until the next edition is almost in action. Additionally, each addition doesn't become effective until 6 months after it's publication [2] and ultimately means that each edition may not be active until almost a year after they are posted online. This is a lot of time and effort spent modifying code, that could be spent writing new specific amendments which could be implemented or used to modify current building code on a much more frequent basis.

Now, with all things considered, which system is objectively better? In order to determine which system will provide the most streamlined, up to date, and objectively better, safer Florida Building Code, a decision matrix was used, see *Table 1*. The way that this decision matrix was utilized, is by identifying 6 key objectives, and weighting them by an appropriate factor. Each system was then given a value of 10 if it fulfilled that objective best, and a zero if it did not. Essentially a true or false value was assigned for each system and the corresponding objective. This value was then multiplied by the weighting factor, to deliver a score. Next, the score column was added up, and the system with the largest total score is determined the objectively best system for Florida Building Code.

Pros and Cons of Florida Building Code		Current System		Alternative System	
Objective	Weighting Factor	Value	Score	Value	Score
Overhauled Frequently	0.11	10	1.1	0	0
Less Time Consuming	0.17	0	0	10	1.7
Consistently Florida Specific	0.23	0	0	10	2.3
Amended Frequently	0.21	10	2.1	0	0
Accounts for New Technology	0.13	10	1.3	0	0
Prevents Overcomplicated Patchwork	0.15	10	1.5	0	0
Overall Score			6		4

Table 1 - Decision Matrix

The explanation and weighting of the objectives are as follows:

#1 (Overhauled Frequently):

This objective is defined as the frequency that the entire code is redone. For the current system, this is every three years. For the alternative system, this would be never. Objective #1 was weighted at 11% importance because although it is somewhat important to get a fresh start, proper amendments could make up for the lack of total overhauling.

#2 (Less Time Consuming):

This objective is defined as the amount of time or effort it takes to implement on a regular basis. This was weighted at 17% importance because if you are wanting to implement new building codes, ideally you would prefer this happen as fast as possible in order to account for changes in technology or relevant amendments.

#3 (Consistently Florida Specific):

This objective is defined as the consistency of the building codes of a certain system being Florida specific. This was weighted at 23% because although having a blanket of codes is helpful, having codes that are always specific to the state is of relatively high importance. This ensures that the code always caters to who it is meant to protect.

#4 (Amended Frequently):

This objective is defined as the frequency at which new amendments would be added to the Florida Building code. This was weighted at 21% because as technology, science, and our environment changes, it's very important to be amending codes as frequently as possible to account for these changes.

#5 (Accounts for New Technology):

This objective is defined by how well each system would account for new technology being implemented in the world of building codes and safety. This was weighted at 13% because although it is very important, it is implied that there is overlap with the other objectives. For example, if you overhaul frequently, you are likely to account for new technology.

#6 (Prevents Overcomplicated Patchwork):

This objective is defined as how well each system prevents the unnecessary, overcomplicated patchwork that was seen in the 6-month long 1996 study [2]. This was weighted at 15% because this overcomplicated mess is what can lead to a cascade of other problems like enforcement and regulation of Florida Building Code.

With the objectives explained and weighted, let's explore why each system obtained the value and score for each objective. To start, the current system received a value of 10 on objective #1 because it is updated triennially, while the alternative system would only be updated with amendments which warrants it a value of 0 on that objective. The current system received a value of 0 on objective #2 and #3 because it takes time and effort to convert the national code into Florida specific code, and because it starts off as generalized code before it is fixed and amended. This means that the alternative system scored a value of 10 on these objectives, because it would be far less time consuming to maintain, and it would always be 100% made of building code specific to Florida.

Continuing with the value and scoring explanations, the value of 10 for objective #4 clearly goes to the current system because it is amended yearly, and without mandated yearly amendments, there's no telling how frequently the code would be amended. This, in turn, awards

a value of 0 to the alternative system for objective #4. Next, since the current system is updated and amended frequently, and “promotes innovation and new technology” [3], it receives a value of 10 for objective #5. In contrast, since the alternative system does not claim to do this, nor has it shown ability in the past to be capable of this, it receives a value of 0 for objective #5. Finally, the value of 10 for objective #6 would go to the current system, while the value of 0 would be assigned to the alternative system. This is because this complicated patchwork is one of the main reasons that the current system was put into place [3], and the alternate system would bring these problems back.

In conclusion, after an objective analysis of the pros and cons, a clear winner has been established. The current system is clearly superior to the alternative system. With an overall weighted score of 6, the current system beats the alternative system which achieved an overall weighted 4. Although there may be additional pros and cons that have been overlooked, it seems fair to say that keeping the International Building Code, which is updated every three years, as the base code with Florida-specific amendments is superior to keeping one edition of the Florida Building Code as the base document and updating it with amendments as needed.

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