

**The Florida Senate**  
**BILL ANALYSIS AND FISCAL IMPACT STATEMENT**

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

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Prepared By: The Professional Staff of the Committee on Community Affairs

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BILL: SB 1190

INTRODUCER: Senator Boyd

SUBJECT: Two-way Radio Communication Enhancement Systems

DATE: January 14, 2022

REVISED: \_\_\_\_\_

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Hackett	Ryon	CA	<b>Favorable</b>
2.			BI	
3.			RC	

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**I. Summary:**

SB 1190 provides that two-way radio communication enhancement systems may be used to comply with a local authority's minimum radio signal strength requirements, but may not be required by local fire authorities in apartment buildings that are 75 feet or less in height.

Local fire authorities set minimum standards for radio signal strength throughout buildings within their jurisdictions in order to ensure consistent fire and rescue communication capabilities.

The bill takes effect July 1, 2022.

**II. Present Situation:**

**Florida Fire Prevention Code**

The State Fire Marshal, by rule, adopts the Florida Fire Prevention Code (Florida Fire Code), which contains all firesafety laws and rules that pertain to the design, construction, erection, alteration, modification, repair, and demolition of public and private buildings, structures, and facilities, and the enforcement of such firesafety laws and rules.<sup>1</sup> The State Fire Marshal adopts a new edition of the Florida Fire Code every three years.<sup>2</sup> The Florida Fire Code is largely based on the *National Fire Protection Association's (NFPA) Standard 1, Fire Prevention Code*, along with the current edition of the *Life Safety Code, NFPA 101*.<sup>3</sup> The 7th edition took effect on December 31, 2020.<sup>4</sup> State law requires all municipalities, counties, and special districts with firesafety responsibilities to enforce the Florida Fire Code as the minimum fire prevention code

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<sup>1</sup> Fla. Admin. Code R. 69A-60.002.

<sup>2</sup> Section 633.202(1), F.S.

<sup>3</sup> Section 633.202(2), F.S.

<sup>4</sup> Division of State Fire Marshal, *Florida Fire Prevention Code*, available at <https://www.myfloridacfo.com/division/sfm/bfp/floridafirepreventioncodepage.htm> (last visited Jan. 12, 2022).

to operate uniformly among local governments and in conjunction with the Florida Building Code.<sup>5</sup> The Florida Fire Code applies to every building and structure throughout the state with few exceptions.<sup>6</sup> Municipalities, counties, and special districts with firesafety responsibilities may supplement the Florida Fire Code with more stringent standards adopted in accordance with s. 633.208, F.S.<sup>7</sup>

### **Radio Signal Strength for Fire Department Communications**

The life safety of firefighters and citizens depends on reliable, functional communication tools that work in the harshest and most hostile of environments.<sup>8</sup> All firefighters, professional and volunteer, operate in extreme environments that are markedly different from those of any other radio users.<sup>9</sup> The radio is the lifeline that connects the firefighters to command and outside assistance when in the most desperate of situations.<sup>10</sup>

Modern focus on radio signal strength stems from difficulties experienced by firefighters attempting rescue operations on September 11, 2001, in the World Trade Towers, who found that in certain areas of the building their radio signal degraded, making live communication difficult or impossible.<sup>11</sup>

Two-way radio communication enhancement systems are devices installed after a building is constructed that accept and then amplify radio signals used by first responders. A radio frequency site survey may be conducted in a building to determine areas where radio signal strength drops due to materials used in construction, such as thick walls, metal construction, underground structures, and low-emissivity glass windows. The generally desired effect is that radio signal strength at ground level, where a fire rescue operation might be based, is equal to the radio signal strength in all locations throughout the building, to ensure consistent communication. Several devices are available to boost signal strength to meet required radio signal strength. These include bi-directional amplifiers and networks of indoor antennae, referred to collectively as a distributed antenna system.<sup>12</sup>

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<sup>5</sup> Sections 633.108 and 633.208, F.S.

<sup>6</sup> Section 633.208, F.S., and Fla. Admin. Code R. 69A-60.002(1).

<sup>7</sup> Section 633.208(3), F.S., and Fla. Admin. Code R 69A-60.002(2).

<sup>8</sup> Federal Emergency Management Agency, United States Fire Administration. Voice Radio Communications Guide for the Fire Service (June 2016), p. 1, *available at*

[https://www.usfa.fema.gov/downloads/pdf/publications/Voice\\_Radio\\_Communications\\_Guide\\_for\\_the\\_Fire\\_Service.pdf](https://www.usfa.fema.gov/downloads/pdf/publications/Voice_Radio_Communications_Guide_for_the_Fire_Service.pdf)

(last visited Jan. 12, 2022).

<sup>9</sup> *Id.*

<sup>10</sup> *Id.*

<sup>11</sup> See *Assessment of Total Evacuation Systems for Tall Buildings: Literature Review*, National Fire Protection Association's (NFPA), *available at* <https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Executive-summaries/evacsystemstallbuildingsliteraturereviewexecsum.ashx#:~:text=According%20to%20the%20definition%20of,floor%20of%20the%20highest%20occupiable> (last visited Jan. 12, 2022).

<sup>12</sup> See *High-Rise Public Safety System Integrators*, Treasure Island Fire Department, *available at*

[https://www.mytreasureisland.org/residents/departments/fire\\_dept/local\\_high-rise\\_public\\_safety\\_system\\_integrators.php](https://www.mytreasureisland.org/residents/departments/fire_dept/local_high-rise_public_safety_system_integrators.php)

(last visited Jan. 12, 2022); *Information Bulletin: Two-Way Radio Communication Enhancement System Requirements*, East Lake Tarpon Special Fire Control District, *available at*

<https://www.elfr.org/files/e2eae3cb2/Bulletin+East+Lake+Two+Way+Communications.pdf> (last visited Jan. 12, 2022).

## Florida Fire Code Minimum Radio Signal Strength

The Florida Fire Code provides that all new and existing buildings must maintain minimum radio signal strength at a level determined by the authority having jurisdiction (local fire authorities).<sup>13</sup> Where required by a local fire authority, two-way radio communication enhancement systems must comply with federal standards for installation and upkeep.<sup>14</sup> Additionally, if a two-way radio communication enhancement system would have a negative impact on the operations of a facility, the local fire authority may accept an automatically activated emergency responder radio coverage system in the alternative.<sup>15</sup>

## Minimum Radio Signal Strength for High-rise Buildings

Section 633.202(18), F.S., enacted in 2016,<sup>16</sup> provides that local fire authorities must determine minimum radio signal strength for fire department communications in all new and existing high-rise buildings. A high-rise building is defined in the Florida Fire Code as a building greater than 75 feet in height where the building height is measured from the lowest level of fire department vehicle access to the floor of the highest story that can be occupied.<sup>17</sup> Existing high-rise buildings are not required to comply with a local authority's minimum radio strength requirements until January 1, 2022. However, an existing high-rise building must have applied for the appropriate permit for installation of equipment meeting the local authority's standards by December 31, 2019. Existing high-rise apartment buildings are not required to comply until January 1, 2025, and must apply for permits to reach compliance by December 31, 2022.

A 2018 declaratory statement from the Department of Financial Services clarified that the compliance timeframes provided in s. 633.202(18), F.S., apply only to high-rise buildings and do not apply to buildings less than 75 feet in height.<sup>18</sup> Thus, compliance with minimum radio signal strength requirements for non-high-rise buildings is controlled by s. 11.10 of the Florida Fire Code, which provides no grace periods or acceptable timeframes for compliance.

### III. Effect of Proposed Changes:

**Section 1** amends s. 633.202(18), F.S., to provide that two-way radio communication enhancement systems may be used to comply with a local authority's minimum radio signal strength requirements, but may not be required by local fire authorities for apartment buildings that are 75 feet or less in height.

**Section 2** provides that the bill takes effect July 1, 2022.

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<sup>13</sup> Florida Fire Prevention Code (7th ed.) s. 11.10.1. The "authority having jurisdiction" is typically the designated head fire and rescue officer of the county, municipality, or special district with fire safety responsibilities over an area.

<sup>14</sup> Florida Fire Prevention Code (7th ed.) s. 11.10.2.

<sup>15</sup> Florida Fire Prevention Code (7th ed.) s. 11.10.3.

<sup>16</sup> Chapter 2016-129, s. 27, Laws of Fla. At the time of its enactment, the subsection was s. 633.202(17), F.S.

<sup>17</sup> NFPA 101, Life Safety Code, 2015 edition - Ch. 3.29.6.

<sup>18</sup> Department of Financial Services Declaratory Statement, *In the Matter of Charles B. Parks, Chief Florida Fire Code Official of Broward County*, (April 18, 2018), available at [https://www.doah.state.fl.us/FLAID/DFS/2018/DFS\\_217787-17-DS\\_12042019\\_013047.pdf](https://www.doah.state.fl.us/FLAID/DFS/2018/DFS_217787-17-DS_12042019_013047.pdf) (last visited Jan. 12, 2022).

**IV. Constitutional Issues:**

## A. Municipality/County Mandates Restrictions:

None.

## B. Public Records/Open Meetings Issues:

None.

## C. Trust Funds Restrictions:

None.

## D. State Tax or Fee Increases:

None.

## E. Other Constitutional Issues:

None identified.

**V. Fiscal Impact Statement:**

## A. Tax/Fee Issues:

None.

## B. Private Sector Impact:

Apartment building owners may see positive impact from being able to utilize less costly improvement options to meet radio strength standards in certain buildings.

## C. Government Sector Impact:

None.

**VI. Technical Deficiencies:**

None.

**VII. Related Issues:**

None.

**VIII. Statutes Affected:**

This bill substantially amends section 633.202 of the Florida Statutes.

**IX. Additional Information:**

- A. **Committee Substitute – Statement of Changes:**  
(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

- B. **Amendments:**

None.

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This Senate Bill Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.

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