



## **Fire Marshal Checklist**

### STANDARD SUBMISSION REQUIREMENTS FOR LDP

A complete, annotated checklist **MUST** be provided with plans prior to any review.

**Annotation = Provide sheet number and/or note number reference next to each item below.**

### **Fire Access Plan**

- 1) \_\_\_\_\_ A Fire Access Plan (FAP) is provided. An FAP is a simple site plan identifying emergency access requirements and fire protection measures for site development. A Fire Access Plan shall be submitted with all Development Permit applications.

### **Access & Roads**

- 1) \_\_\_\_\_ An address to include an approved numerical and street name designation shall be provided. Provide designations for each building on the submitted plans. International Fire Code, Chapter 5, Section 505.1, 2018 Edition.
- 2) \_\_\_\_\_ Fire Department Access Roads are a minimum unobstructed 20 ft. in width and 13 ft. 6 in. clear height, International Fire Code 503.2.1. Check with local or state requirements that may have street planning regulations that supersede the IFC requirements.
- 3) \_\_\_\_\_ Aerial fire apparatus access roads shall have a minimum unobstructed width of 26 ft., exclusive of shoulders, in the immediate vicinity of the building or portion thereof.
- 4) \_\_\_\_\_ Approved Fire Apparatus Access Roads shall be provided for every facility, building or portion of a building. The fire apparatus access road shall extend to within 150 feet of all portions of the facility or any portion of the exterior wall of the first story of the building as measured by an approved route around the exterior of the building or facility. International Fire Code, Chapter 5, Section 503.1.1, 2018 Edition.
- 5) \_\_\_\_\_ Every Dead-End Access Road more than 150 feet in length shall be provided with an approved area for turning around fire apparatus. International Fire Code, Chapter 5, Section 503.2.5, 2018 Edition.
- 6) \_\_\_\_\_ Roadways constructed of an all-weather surface capable of supporting 75,000 pounds gross weight shall be provided and noted on the plans. International Fire Code, Chapter 5, Section 503.2.3, 2018 Edition.

## Access & Roads (continued)

- 7) \_\_\_\_\_ Grades shall be no more than 10%. International Fire Code, 2018 Edition, Appendix D103.2.
- 8) \_\_\_\_\_ Fire Lanes shall be installed in streets or roads adjacent to buildings, on at least one side which presents major point(s) of access into the building. International Fire Code, 2018 Edition Appendix D.
- 9) \_\_\_\_\_ Fire Lane markings or signage shall be provided per the requirements of the International Fire Code, Chapter 5, Section 503.3, 2018 Edition.
- 10) \_\_\_\_\_ Swept Path Analysis is on Fire Access Plan for complex movements.

## Hydrants

- 1) \_\_\_\_\_ Water Main location and sizes are to be shown on plan. International Fire Code 508.1.
- 2) \_\_\_\_\_ Hydrant locations are to be shown on plans.
- 3) \_\_\_\_\_ Placement of Fire Hydrants shall be a minimum of 3 ft. and a maximum of 15 ft. from the Back of the curb or road edge with the large fire department connection facing the nearest fire department access point and set a minimum of 18" and a maximum of 36" above finished grade to the center of the large fire department connection.
- 4) \_\_\_\_\_ Fire Hydrants in Single Family Residential shall be spaced no more than 600 ft. apart.
- 5) \_\_\_\_\_ Fire Hydrants in Multi-Family residential subdivisions shall be located such that all portions of the building can be reached by fire hose lays not to exceed 400 ft.
- 6) \_\_\_\_\_ Fire Hydrant Spacing in Industrial & Commercial developments, additional hydrants may be required to permit all portions, of all buildings, to be reached by hose lays not to exceed 400 ft. by road travel.
- 7) \_\_\_\_\_ Fire Hydrants and Water Mains are to be installed, flushed and under pressure before any combustible construction is started. IFC 1412.1
- 8) \_\_\_\_\_ A fire flow test and report is provided to verify that the fire flow requirement is available.

## Fire Department Connections

- 1) \_\_\_\_\_ Fire Department Sprinkler Connection locations shall be shown on the site plan for all construction requiring a fire sprinkler system.
- 2) \_\_\_\_\_ Fire Department Sprinkler Connection is to be a maximum of 100 ft. from a fire hydrant unless otherwise approved by the Authority Having Jurisdiction. The connection shall be between 18 inches and 48 inches above ground level. NFPA 14 Chapter 6
- 3) \_\_\_\_\_ Fire Department connections shall be on the street side of buildings and so located and arranged that hose lines can be readily and conveniently attached to the inlets without any interference. They shall also be free standing at approved location by the Fire Department. NFPA 24.
- 4) \_\_\_\_\_ Fire Department Connections installed underground shall have a listed check valve, an auto-drip valve, a sign on a plate or fitting reading, "Auto-Sprinkler or Auto Sprinkler/Standpipes", and hose connections shall have standard threads as specified in NFPA 1963.
- 5) \_\_\_\_\_ Fire Sprinkler Systems required for Multi-Family (Apartments, Townhomes & Condo's) shall comply with City of Alpharetta Sprinkler Ordinance #220. A minimum 2" water lines must be shown on plans.
- 6) \_\_\_\_\_ (Installation or Repair) of Underground Fire Sprinkler water supplies shall be performed by a utility or fire sprinkler contractor or plumbing contractor licensed under 2010 Georgia Code Title 25, Chapter 11, Section 25-11-7.
- 7) \_\_\_\_\_ Post Indicator Valves (PIV) in the underground piping shall be omitted unless specifically permitted by the Alpharetta Fire Marshal's Office.

## Miscellaneous

- 1) \_\_\_\_\_ Emergency Responder Radio Coverage shall be compliant with 2018 International Fire Code Section 510 for all new buildings.  
**\*See complete requirements and exceptions attached\***
- 1) \_\_\_\_\_ Emergency Responder Radio Coverage IFC 510 Compliance Acknowledgement form shall be completed and submitted to the Alpharetta Fire Marshal's Office.
- 2) \_\_\_\_\_ ADA Parking number and size must comply with Chapter 2 Section 208 of the 2010 American with Disabilities Act Standards.

## Miscellaneous (continued)

- 3) \_\_\_\_\_ Handicap ramp landings shall have level landings at the top and bottom of each ramp and each ramp run. They shall have the following features:
  - a) \_\_\_\_\_ The landing shall be at least as wide as the ramp run leading to it,
  - b) \_\_\_\_\_ The landing length shall be a minimum of 60 inches clear,
  - c) \_\_\_\_\_ If the ramp changes direction at landings, the minimum landing size shall be 60 inches by 60 inches.
- 4) \_\_\_\_\_ Transformer pad locations shall be a minimum of 10'-0" from any walkway, balcony, building overhang, canopies, exterior walls, and exterior stairs.
- 5) \_\_\_\_\_ Transformer pad locations shall be no less than 3'-0" from any solid wall of non-combustible construction with no overhang. GA Safety Fire Commissioner, 120-3-3, NFPA 70
- 6) \_\_\_\_\_ Include notes marked "FIRE MARSHAL'S OFFICE REQUIREMENTS" on the plans.

**John Robison** *Chief of Public Safety*

**Phillip Seabolt** *Fire Marshal*

2 Park Plaza  
Alpharetta, Ga. 30009  
[www.alpharetta.ga.us](http://www.alpharetta.ga.us)



**Alpharetta Fire & Emergency Services**

**Ethan Talbot** *Deputy Fire Marshal*

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Phone: (678) 297- 6272

**DATE: Ongoing, initially effective June 1, 2017**

**TO: All Fire Marshal's Office Personnel and Contractors**

**FROM: Philip Seabolt - Fire Marshal**

**SUBJECT: International Fire Code (IFC) Section 510 Requirements for New Construction**

The Fire Marshal's Office (FMO) will not allow the issuance of temporary or permanent Certificates of Occupancy for any building permitted after June 1, 2017, due to the requirements of IFC 510, Emergency Responder Radio Coverage (ERRC), not being met. Any emergency responder radio coverage required by IFC 510 must be installed, tested, and operational prior to the issuance of a Fire Safety Codes release or Certificate of Occupancy. Building owners and designers must take the necessary steps for the testing, design, and installation of any required emergency responder radio system prior to the issuance of a temporary or permanent Certificate of Occupancy.

The City of Alpharetta participates in an area wide radio system. The North Fulton Regional Radio System Authority (NFRRSA) maintains and operates the system and will provide a local contact as needed.

**Application:** All new (proposed) construction and any substantial renovation(s) to existing buildings as defined in OCGA 25-2-14 (O) (d) approved after January 30, 2014. Existing buildings as required by IFC 1103.2 when ordered by the Fire Marshal.

Exceptions may be found in by IFC 510.1. Additionally, the following structures are not required to comply with the requirements of IFC Section 510.

1. Buildings with no more than two occupiable stories, no more than 12,000 total square feet, and no floors below grade.
2. Temporary buildings including tents when permitted by the fire marshal.

For additions to buildings, unless the exceptions above are met for the area of the addition, the entire building being expanded must meet IFC 510 requirements.

#### **Testing—Needs Assessment**

- 1) Effective June 1, 2017, initial signal strength testing must be completed prior to the approval of site plans for new buildings and building additions.
- 2) Field testing for signal strength certification will not be conducted prior to the building envelope being complete and all doors, windows and exterior openings closed. In buildings with significant internal signal impairments like rack storage of metal parts, interior room enclosures that contain wire mesh security screens, or other interior or exterior features, etc.; all internal construction must be complete prior to final testing for signal strength.
- 3) Testing will be performed in accordance with IFC 510 using the 20 test cell (per floor) criteria for initial testing. For floors 32,000 sq. ft. or more, each floor of the building shall be divided into grids of approximately 40 ft. by 40 ft.
- 4) All critical areas as defined in NFPA 72 chapter 24.5.2.2.1 shall be tested individually and shall not be counted towards the 20 test cell count.
- 5) Testing results will be certificate by the testing contractor and forwarded to the FMO. A copy shall be left on site with the approved plans.

- 6) Authorization to operate on frequencies licensed to NFRRSA must be obtained from the Radio System Manager or local contact. NOTE: FCC Part 90.219 (b)(1)(i)—Non-licensees seeking to operate signal boosters must obtain the express consent of the licensee(s) of the frequencies for which the device or system is intended to amplify. The consent must be maintained in a recordable format that can be presented to an FCC representative or other relevant licensee investigating interference. Consent may be withdrawn by NFRRSA for any reason with notice to the property owner.

**\*See last page for a list of authorized contractors to perform the testing.**

**Design Considerations**—All proposed ERRC system shall be designed in accordance with IFC section 510, good engineering practices and applicable regulations of the Federal Communications Commission.

Plans must be reviewed and approved by the FMO prior to installation or modification of an ERRC system. Plans shall be electronically submitted for review through [www.eplansolution.com](http://www.eplansolution.com). After plan approval by the FMO, the appropriate permit will be issued by the FMO.

Permits will be issued based on a review of engineering plans. A design professional seal is not required.

Plans shall detail the following:

- 1) Site map showing location of target building and closest donor site antenna
- 2) Statement of work and scope of work describing the system design
- 3) Location(s) of all head end equipment and radio transmitters (BDA's)
- 4) Locations of all "critical areas" as defined in NFPA 72, 24.5.2.2.1 with anticipated signal levels (-95dBm required)
- 5) Single line schematic drawing of antenna lines and data lines
- 6) Type and location of NEMA 4 enclosures
- 7) Battery calculations to show 24 hours capacity at 100% transmit duty cycle
- 8) Floor plan showing distributed antenna system (DAS) antennas and the anticipated signal level in each test grid square, see number 4 above also
- 9) System component specification documents including coax cable(s) and data or fiber optic components, all transmitters shall be FCC Type Accepted, provide documentation
- 10) System monitoring shall include:
  - a. Monitoring equipment and identification of monitoring station
  - b. Malfunction of the BDA Loss of primary power or related electronic systems
  - c. Antennas and passive filters are exempt from monitoring
  - d. Fire alarm installing contractor if system is to be monitored by FACP
- 11) Detailed acceptance procedures including all provisions of IFC 510.5.3—talk in and talk out signal levels must be included for each zone and critical area.
- 12) Location of document box—shall be co-located with head end equipment
  - a. Documents to be included in the document box include;
    - i. System design diagrams
    - ii. Acceptance testing documents
    - iii. Identity of persons/company installing the system
    - iv. Identification of the system monitoring company with phone contact numbers
    - v. Test results for the preceding three years of annual test and inspection, refer to 510.6.1
    - vi. FCC 90.219—FCC Letter of consent from NFRRSA
- 13) Dual use antenna systems (Permitted on a case by case review basis)
  - a. Show the schematic layout of the head end equipment and the interconnect filtering that will prevent co-system interference.
  - b. Filters must be enclosed in a locked NEMA 4 cabinet
  - c. Cellular system components that cannot create interference with the public safety radio system do not need to be enclosed in NEMA rated cabinets.

**Technical Information**—All technical information for the NFRRSA Communications system is available on the FCC website and the attached document (pg.4). Additional technical information may be obtained by contacting the local NFRRSA contact at: Alpharetta Department of Public Safety, Technical Services, 678-297-6275

**Acceptance Testing and Commissioning**—Systems must be inspected by personnel from the FMO or approved third party inspection services. Acceptance criteria shall be specified in the plan submittal documents and shall clearly demonstrate the ability of the system to perform in the event of an emergency. The testing shall be conducted both on primary and secondary power sources. A certificate of commissioning shall be completed by an approved contractor and signed by the building owner’s representative. An operations and maintenance manual shall be provided to the building owner as part of the commissioning. Refer to IFC 510.5.3 for additional details.

**Maintenance**—All system and components shall be tested annually in accordance with IFC 510.6. A system test and inspection report shall be maintained on site for inspection by the fire marshal’s office. A tag shall be placed on the head end cabinet indicating the date of the last test and the results of the test. All test reports shall be submitted to the FMO in an expeditious manner. Any system that fails annual testing should be reported to the FMO within 48 hours of testing. Should a system fail to provide adequate signal, cause interference, or fail to perform as originally installed, the Fire Marshal is authorized to order the testing of the system and repair to original installation standards or the current adopted edition of the standard. The Fire Marshal is authorized to order that cellular signal boosting systems that interfere with the public safety radio system be tested or disconnected pending testing in order to eliminate interference.

*NOTE: Requirements listed above are not necessarily all inclusive, but are intended as a guide.*

**\*Authorized Contractors-** Due to security concerns within the NFRRSA Communication system, the following contractors are authorized to perform the testing.



Diversified Electronics Incorporated  
1290 Field Pkwy  
Marietta, GA 30066  
770-427-8181  
Glenn.Petersen@deirr.com



Bearcom  
1510 Huber Street  
Atlanta, GA 30318  
678-641-7450  
770-442-6600  
michael.farley@bearcom.com

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Federal Communications Commission
Public Safety and Homeland Security Bureau

RADIO STATION AUTHORIZATION

LICENSEE: NORTH FULTON REGIONAL RADIO SYSTEM AUTHORITY

ATTN: ED SWEENEY
NORTH FULTON REGIONAL RADIO SYSTEM AUTHORITY
5840 ROSWELL ROAD, BUILDING 500
SANDY SPRINGS, GA 30350

Table with 2 columns: Call Sign (WOVD462), File Number (0007364934), Radio Service (SY - Trunked Public Safety 700 MHz), Regulatory Status (PMRS), Frequency Coordination Number.

FCC Registration Number (FRN): 0023526452

Table with 4 columns: Grant Date (01-08-2015), Effective Date (08-04-2016), Expiration Date (01-08-2025), Print Date (08-04-2016).

STATION TECHNICAL SPECIFICATIONS

Fixed Location Address or Mobile Area of Operation

- Loe. 1 Address: FIRE STATION 21, City: ATLANTA, County: FULTON, State: GA, Lat (NAD83): 33-50-33.4 N Long (NAD83): 084-22-41.7 W ASR No.: 1226222 Ground Elev: 300.8
Loe. 2 Address: 450 Morgan Falls Rd, City: Sandy Springs, County: FULTON, State: GA, Lat (NAD83): 33-57-53.8 N Long (NAD83): 084-22-07.4 W ASR No.: 1249137 Ground Elev: 309.3
Loe. 3 Address: 1810 HEMBREE ROAD, City: ALPHARETTA, County: FULTON, State: GA, Lat (NAD83): 34-03-46.3 N Long (NAD83): 084-18-17.0 W ASR No.: 1292664 Ground Elev: 328.3
Loe. 4 Address: ALPHARETTA, GA, City: ALPHARETTA, County: FULTON, State: GA, Lat (NAD83): 34-02-29.0 N Long (NAD83): 084-13-36.5 W ASR No.: 1240775 Ground Elev: 348.0
Loe. 5 Address: 3350 RIVERWOOD PARKWAY, City: ATLANTA, County: COBB, State: GA, Lat (NAD83): 33-52-42.3 N Long (NAD83): 084-27-29.7 W ASR No.: N/A Ground Elev: 301.8
Loe. 6 Address: 920 LACKEY ROAD, City: ROSWELL, County: FULTON, State: GA, Lat (NAD83): 34-06-17.5 N Long (NAD83): 084-23-26.2 W ASR No.: 1292666 Ground Elev: 318.6
Loe. 7 Area of operation: Land Mobile Control Station meeting the 6.1 Meter Rule: FULTON county, GA

Conditions:

Pursuant to §309(h) of the Communications Act of 1934, as amended, 47 U.S.C. §309(h), this license is subject to the following conditions: This license shall not vest in the licensee any right to operate the station nor any right in the use of the frequencies designated in the license beyond the term thereof nor in any other manner than authorized herein. Neither the license nor the right granted thereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934, as amended. See 47 U.S.C. § 310(d). This license is subject in terms to the right of use or control conferred by §706 of the Communications Act of 1934, as amended. See 47 U.S.C. §606.



*John Robison Chief of Public Safety*

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**Alpharetta Fire & Emergency Services**

*Ethan Talbot Deputy Fire Marshal*

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## **IFC 510 Compliance Acknowledgment**

Before a Fire Safety Codes Release (Certificate of Occupancy) is issued, compliance with International Fire Code Section 510 is required by means of an Emergency Responder Radio Coverage System (ERRCS) installed, tested, and accepted **OR** through field testing by a FCC licensed radio contractor to verify that an ERRCS is not warranted. A critical element to compliance with this standard is preliminary testing once the building is dried-in.

By signing below, I acknowledge that I have read the above statement on IFC 510:

Signature:
Print Name:
Association with Project:
Date:
Project Name:
Project Address: