Miami-Dade Fire Rescue
IN-BUILDING PUBLIC SAFETY
RADIO ENHANCEMENT SYSTEM

Based On NFPA 72 2010' Ed. & NFPA 1 and 101 2012' Ed.

	Building Dept. Process Number is (Begins with C or M): _____ Date:_____/_____/_____			
		YES	NO	N/A
1	Address in title block shall match address in "Building Dept. Computer System" and attached permit application. If address contains a specific building, floor, suite, or unit number or letter, it shall be provided in title block, to match Building Dept. Computer System.			
2	The total cost of the installation to the customer is $_____ and a copy of the contract or a notarized affidavit from the owner showing this amount is attached.			
3	Systems costing more than $5,000 are sealed or stamped by a Florida Registered Professional Engineer.			
4	The total number of DEVICES and COMPONENTS being installed is_____.			
5	The system qualifier's state license number is (EC EF EH EY) # _____ and a copy is attached to plans.			
6	The system qualifier's FCC license number is (EC EF EH EY) # _____ and a copy is attached to plans.			
7	Complete, current Manufacturer's Specification and Installation sheets are attached for all Control Units, Components, Appliances, Devices, Modules and Relays listed on Legend.			
8	Is this permit application for Radio Enhancement System work a result of a Notice Of Violation (NOV) issued by Miami-Dade Fire Rescue? If yes, a copy of the Notice of Violation is attached.			
9	This Radio Enhancement System: (___) is required under _____ (fill in the Occupancy Chapter & Section from NFPA 101) or, (___) is a life safety equivalency or, (___) is a non-required system or component.			
10	This is an "EXISTING System" and is stated as such on the plans. AHJ will require documentation of prior approval of system as a Radio Enhancement System in the form of the original Fire Dept. approved job copy set of Radio Enhancement System plans or, certified microfilm copy of same.			
11	There is an "EXISTING Central Station Fire Alarm System" and is stated as such on the Plans.			
12	A complete detailed statement of the "SCOPE OF WORK" is stated on the plan. Please note that the complete tenant space, in its entirety, will be inspected for compliance with NFPA 72 (2010) and NFPA 101 (2012), or prior editions of these codes if applicable. Also outline scope of work with bolded dashed lines on floor plan and riser for existing systems.			
13	Are all applicable Codes Referenced on Plans? A) FLORIDA FIRE PREVENTION CODE (FFPC) FIFTH EDITION B) FLORIDA BUILDING CODE (FBC) 2010' EDITION. C) NFPA 1, 2012 EDITION, "FIRE CODE" D) NFPA 101, 2012' EDITION, "LIFE SAFETY CODE" E) NFPA 72, 2010' EDITION, "NATIONAL FIRE ALARM CODE" F) NFPA 70, 2011, EDITION, "NATIONAL ELECTRICAL CODE"			
14	The building is "New" _____ or, "Existing"_____ and is indicated as such on the plans.			
15	A description of the building is provided, including fire sprinkler systems, fire suppression systems, number of stories, square footage per floor, and elevation of the last occupied floor if over 5 stories.			
16	A location Key is provided showing the area of proposed work within the building. Also provided is a site key for projects with multiple buildings showing locations of all buildings with addresses			
17	A specific "Sequence of Operation" including all alarm, supervisory, trouble and control functions are specified on the plan.			
18	Manufacturer, model number and unique symbol for each model number is provided for each device, module, relay, component, power supply and Radio Enhancement System control panel is specified in the symbol legend.			
19	Each device, module, appliance and component is identified with its own unique number and indicated on the floor plans and riser.			
20	All rooms & spaces are labeled indicating their use.			
21	All new, existing, replaced or relocated devices are indicated on the floor plans and a complete riser diagram showing all new and existing devices of the entire Radio Enhancement System is provided.			
22	All devices and components located in areas in which the voltage, temperature, and humidity variations exceed those conditions stated in NFPA 72, are listed for conditions and all such areas are identified.			
23	A note is provided on the plans stating "Room containing FACP, Booster Power Supply, Voice Evacuation and Amplifier panel(s), Dialer, or Radio is mechanically ventilated", Public Safety Radio System Equipment, as applicable.			
24	The FACP, Communicators, Amplifiers, NAC Panels, Amplifiers, Boosters and all sub-panels are protected with a smoke detector.			
25	Are all control panels must be connected to a dedicated circuit breaker marked "Radio Enhancement Control Circuit", as per NFPA 72: 10.5.5.2.1?			
26	Are record drawings provided showing the location of each device, each with its own unique number?			
27	Are all initiating devices located as shown on the approved drawings and of the same type and model number as shown on the plans?			
28	Is the Radio Enhancement system equipped with an FCC compliant Class "B" signal booster (bidirectional amplifier / distributed antenna system) or systems otherwise approved?			

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29	Are there parameters in place to provide survivability from attack by fire in accordance with NFPA 72: 24.3.6.8?			
30	Is the primary source supplied from a dedicated twenty (20) ampere branch circuit?			
31	Is the Radio Enhancement System and all active controls located in a place that meets all environmental controls with regards to heating, ventilation, cooling, and humidity requirements of the manufacturer specifications?			
32	Is the Radio Enhancement System and all active controls located in an area free from hazards?			
33	If a signal booster has been installed, is it FCC certificated and compatible with both analog and digital, as per NFPA 72: 24.5.2.5.4?			
34	Is the primary power source supplied from a dedicated branch circuit as per NFPA 72: 24.5.2.5.5.1?			
35	Is there at least two independent and reliable power supplies shall be provided for all repeater, transmitter, receiver, and signal booster components, one primary and one secondary as per NFPA 72: 5.2.5.5?			
36	Does the integrity of the circuit monitoring signal booster(s) and power supply(ies) comply with NFPA 72: 10.6.9 and Section 12.6?			
37	Does the public safety radio communications enhancement system include automatic supervisory and trouble signals for malfunctions of the signal booster(s) and power supply(ies)as per NFPA 72: 24.5.2.6.1?			
38	Is the system capable of upgrade, to allow for instances where the jurisdiction changes or adds system frequencies, in order to maintain radio system coverage as originally designed, in accordance with NFPA 72: 24.5.2.4.2?			
39	Does the Radio Enhancement system comply with both analog and digital communications simultaneously?			
40	Are all components properly enclosed; such as repeaters, transmitters, receivers, signal booster components, and battery system components contained in a NEMA 4- or 4X-type enclosure(s), as per NFPA 72: 24.5.2.5.2?			
41	Are the Radio Enhancement systems, signal boosters, and power supplies monitored by the Fire Alarm Panel as per NFPA 72: 5.2.6.1?			
42	If there is a Fire Command Room, is there a dedicated monitoring panel provided with in the fire command center to annunciate the status of all signal booster locations, as per NFPA 72: 24.5.2.6.2? The monitoring panel shall provide visual and labeled indication of the following for each signal booster: (1) Normal ac power (2) Signal booster trouble (3) Loss of normal ac power (4) Failure of battery charger (5) Low-battery capacity			
43	Does the System and signal booster supervisory signals shall include the following: (a) Antenna malfunction (b) Signal booster failure (c) Low-battery capacity indication when 70 percent of the 12-hour operating capacity has been depleted. (3) Power supply signals shall include the following for each signal booster: (a) Loss of normal ac power (b) Failure of battery charger			
44	Do the backup batteries have the same size as those required on the approved plan and marked with the date of installation, as per NFPA 72: 24.5.2.5.5.1? The secondary power source shall consist of one of the following: (1) A storage battery dedicated to the system with at least 12 hours of 100 percent system operation capacity and arranged in accordance with 10.6.10 . (2) An automatic-starting, engine-driven generator serving the dedicated branch circuit or the system with at least 12 hours of 100 percent system operation capacity and storage batteries dedicated to the system with at least 2 hours of 100 percent system operation capacity and arranged in accordance with 10.6.11.3			
45	Do all Critical Areas such as the fire command center(s), the fire pump room(s), exit stairs, exit passageways, elevator lobbies, standpipe cabinets, sprinkler sectional valve locations, and other areas deemed critical by the authority having jurisdiction, have a minimum of 99% floor area radio coverage in accordance with NFPA 72: 24.5.2.2.1?			
46	Do all General Areas of the building shall have a minimum of 99% floor area radio converge in accordance with NFPA 72: 24.5.2.2.2 stated on Plans?			
47	Is there a minimum inbound signal strength of –95 dBm, or other signal strength as required by the authority having jurisdiction, shall be provided throughout the coverage area in accordance with NFPA 72: 24.5.2.3.1 stated on Plans?			
48	Is there a minimum outbound signal strength of –95 dBm at the donor site, or other signal strength as required by the authority having jurisdiction, shall be provided from the coverage area in accordance with NFPA 72: 24.5.2.3.2 stated on Plans?			
49	If a donor antenna exists, is there isolation between the donor antenna and all inside antennas at a minimum of 15 dB above the signal booster gain under all operating conditions, as per NFPA 72: 24.5.2.3.3?			
50	Are there no permanent external filters and attachments, as per NFPA 72: 24.5.2.5.3?			
51	Are all exterior antennas directional, high gain, vertical polarized and specified for the operating frequencies? (Yagi or corner reflector-type antennas are recommended.)			
52	Are all antennas protected for lighting strikes in accordance with NFPA 72: 26.6.2.3.3?			
53	Is there a grid system overlaying all floors in order to identifying areas of deficiencies while testing?			