



**Miami-Dade Fire Rescue**  
**Two-Way Radio Communications Enhancement Systems**  
**BDA Installation and Testing**

Based on NFPA 1221 2019 Ed, Florida Fire Prevention Code – Eighth Edition

**NFPA 1221: 9.6.2 Approval and Permit.** Where a Two-Way Radio Communications Enhancement System is used, the design of the system shall be approved by the authority having jurisdiction (AHJ) and the frequency license holder. At the conclusion of successful acceptance testing, a renewable permit shall be issued for the "Public Safety Radio Enhancement System" where required by the AHJ.

***FYI: If work is being completed without submitting plans and without a permit, fees may be doubled.***

**Radio Signal Strength Tests will test MDRF 450MHz and MDPD 800MHz**

**Scheduling Radio Signal Strength Pre-Acceptance Test:**

The following phases of construction must be completed prior to testing:

- Flooring, ceilings, walls, windows, and doors (including door hardware and door windows)
- Elevators (fully operational)
- Construction debris/items removed or minimized

After the building is dried in, email – [MDFRBDAS@miamidade.gov](mailto:MDFRBDAS@miamidade.gov) and [itdMDCITDRadioEngineering@miamidadecounty.onmicrosoft.com](mailto:itdMDCITDRadioEngineering@miamidadecounty.onmicrosoft.com) to schedule a "Radio Signal Strength Pre-Acceptance Test."

- MDRF will confirm a date and time.
- Requests for radio signal strength tests submitted before the building is "dried in" will not be granted, and fees may be assessed.
- This test will not hold up a TCO; a successful "signal strength test" will clear you for a CO/Final Fire.
- MDRF will contact/invite Miami-Dade Police Dept. to test the 800Mhz
- Please email [MDFRBDAS@miamidade.gov](mailto:MDFRBDAS@miamidade.gov) and [itdMDCITDRadioEngineering@miamidadecounty.onmicrosoft.com](mailto:itdMDCITDRadioEngineering@miamidadecounty.onmicrosoft.com) a PDF of the plans (a general layout of the building).

You must provide a Miami-Dade County Master Permit Number to schedule a Pre-Acceptance Radio Signal Strength Test.

Miami-Dade County Permit Numbers start with the year the permit was applied for, followed by six (6) numbers (e.g., 2024-123456).

**Information Needed to Schedule Pre-Acceptance Test:**

When requesting a radio signal strength Pre-Acceptance Test, please include this information:

Miami-Dade County Master Permit No. \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Address: \_\_\_\_\_

(On-Site) Contact Information: \_\_\_\_\_

How many? (as applicable; please specify "N/A" when NOT applicable):

- Floors: \_\_\_\_\_
- Stairwells: \_\_\_\_\_
- Elevators: \_\_\_\_\_
- Garage (Number of Floors): \_\_\_\_\_
- Roof Access: \_\_\_\_\_
- Emergency Command Center: \_\_\_\_\_
- Pump Room: \_\_\_\_\_
- Sprinkler Sect. Valve Location: \_\_\_\_\_
- Standpipe Cabinets: \_\_\_\_\_

**NOTE: "BDA Signal Strength Testing" inspections are charged a "Special Request Inspection" (SRI) fee based on the size of the project. MDFR will schedule this inspection for you. The SRI fee will be applied to your master permit after the Pre-Acceptance Test. Please provide the permit number as soon as possible to avoid any cancellations.**

**MDFR will need on-site personnel with access to all areas/doors/elevators. These individuals must be familiar with the building's interior floor plan. Please supply site personnel with the appropriate and necessary "Key Access/Card(s)."**

## If a BDA System is Needed:

- If the project is located within a municipality, the plans must be submitted and approved by the municipal electrical department PRIOR to being submitted to Miami-Dade County for the FIRE review.
- Submit plans to MDR for the FIRE review. For information on how to submit, call 786-315-2771 or 786-315-2000. The Miami-Dade County building department is located at 11805 Coral Way, Miami, 33175. Follow the "mdfr-bda-plans-processing-guide-sheet", (to help ensure the plans have all necessary information needed, to be approved).
- You may request a pre-submittal meeting prior to submitting the plans. For information, call 786-315-2771.
- Once plans are approved, make payment online to obtain your 0040 permit.

## Scheduling Radio Signal Strength Acceptance Test:

Please include the following information – PLEASE NOTE IF THE PROJECT HAS MORE THAN ONE BUILDING, PROVIDE THE BELOW INFORMATION FOR EACH BUILDING:

- Project Name
- Project Address
- Approximate Total Square Footage
- Miami-Dade County 0040 permit number
- Onsite contact person's name, email, and phone number
- BDA/ERCES installation contractor's name, email, and phone number
- General contractor's name, email, and phone number (new construction only)
- Building owner/property manager name, email, and phone number (existing construction only)
- How many stories/floors in total
- How many stairwells in total
- How many elevator shafts in total
- Parking garage – how many stories/floors (if applicable)
- Are there underground levels? If so, how many?

Additionally, the following documents must be submitted in ONE EMAIL for review as applicable for 450mhz and 800mhz systems:

- Grid test/heat map study using a signal generator of downlink only signal strength levels throughout the building. UPLINK MUST REMAIN DISCONNECTED AT ALL TIMES\*\*
- Proof of the Part 90 800mhz Class B Signal Booster registration form
- Screenshots of the system programming as it pertains to the commissioning documents
- Re-transmission agreement for the 800mhz system
- Commissioning documents for both 450mhz and 800mhz
- Maintenance Agreement \*\*
- Monitoring Agreement \*\*
- Runner Service Agreement \*\*
- 450mhz radio information table

Upon approval, MDR will advise of the next available time/date for the inspection.

**NOTE: "BDA Signal Strength Testing" inspections are charged a "Special Request Inspection" (SRI) fee based on the size of the project. MDR will schedule this inspection for you. The SRI fee will be applied to your BDA (04) permit after the Acceptance Test. Please provide the permit number as soon as possible to avoid any cancellations.**

**MDR will need on-site personnel with access to all areas/doors/elevators. These individuals must be familiar with the building's interior floor plan. Please supply site personnel with the appropriate and necessary "Key Access/Card(s)."**

## The Day of Acceptance Test:

- The installation contractor/company must be on site with plans and permits.
- BDA System is off.
- Upon request of the testing team, the system is turned on, and testing begins.
- If there are any problems/questions/concerns, we will address them at that time with the BDA Contractor.
- After the Acceptance Test is complete and approved, you must schedule a final fire inspection for your category 0040 (BDA) per NFPA 1 [1:11.10], NFPA 72 [72:24.9] and NFPA 1221 [1221:9.6] requirements.
- Have approved plans and permit on site.
- Have BDA Installation Company and Fire Alarm Company present.
- Final fire approved, the permit is signed; you are eligible for your CO.

## Relevant Links:

MDC Permit Application:

<http://www.miamidade.gov/permits/library/building-permit.pdf>

Building Permit Selection Menu:

<http://egvsys.miamidade.gov:1608/WWWSERV/ggvt/bnzaw960.dia>

MDFR Schedule Fire Final Inspection:

<http://www8.miamidade.gov/apps/rer/BNZ2/BNZM7015.aspx>