



SUBMITTAL REQUIREMENTS: Emergency Responder Radio Coverage Systems

Codes and Standards Used in the Review Process:

- North Carolina Fire Code
- Applicable NFPA standards

Submitting Plans:

1. Visit <http://winston-salem.idtplans.com>. If you have never used the IDT system before, you will need to create an account by clicking the **Sign Up** button.
2. Sign in using your email address and the password you created.
3. Click on the **Submit a Project for Review** button.
4. Select the correct application type, then follow the steps to complete the online permit application, upload your files, pay your fees, and confirm your submission.

Submittal Requirements:

- Prior to compiling the required documents, the applicant is **highly encouraged** to review both the applicable sections of the North Carolina Fire Code and the technical design criteria for the local radio system (as found on the WSFD website).
- BUILDING PERMIT NUMBER – If the project is associated with a building permit number, that permit number must be provided in the online application.
- DOCUMENTATION OF LICENSING – Submitted plans shall include copies of documentation indicating the required qualifications of **both the system designer and the lead installer**. Acceptable documentation shall include **both** of the following documents:
 - o A valid FCC-issued general radio operator's license; and
 - o Certification of in-building system training issued by a nationally recognized organization, school, or certificate issued by the manufacturer(s) of the equipment being installed.

- SCOPE OF WORK – Provide a written description of the scope of work on the designer’s letterhead that includes the following:
 - Itemized listings of the existing radio coverage system equipment to remain, if applicable
 - Itemized listings of the radio coverage system equipment to be removed or replaced, if applicable
 - Itemized listings of the radio coverage system equipment to be installed.
- STATEMENT OF CERTIFICATION – Provide a written certification statement on the designer’s letterhead, signed by the system designer, indicating that the radio coverage system and its installation will comply with all applicable federal regulations including but not limited to FCC 47 CFR Part 90.219.
- SYSTEM COMPONENT INFORMATION – Provide manufacturer-supplied informational documents (“cut sheets”) for all system components being installed. These documents shall clearly indicate any required equipment certifications, listings, or design standards.
- SYSTEM PLANS – Provide draftsman-quality plans that include the following:
 - A clear and complete legend identifying all symbols and abbreviations in use
 - Name of the system designer (and FCC license number, if applicable)
 - Address of the location where the system is being installed
 - Name and address of the building owner/occupant responsible for the system's ongoing operation
 - Floor plans and other drawings indicating the layout of radio coverage system equipment (existing and new)
 - Locations and FCC classifications of signal boosters
 - Location of a single switch at or adjacent to the radio coverage system enclosure that enables the radio coverage system to be deactivated if needed
 - If the radio coverage system enclosure is not co-located with the fire alarm system panel, plans shall show the location of a remote Knox-keyed switch in the fire alarm panel room that can deactivate the radio coverage system
 - If the building is equipped with a fire command center, and if the radio coverage system enclosure is not located within the fire command center, plans shall show the location of a remote Knox-keyed switch in the fire command center that can deactivate the radio coverage system
 - Locations of standby power components and systems supporting the radio coverage system
 - Information regarding the specific configuration of amplification systems
 - Shop drawings that include detailed system design parameters from a computer-generated model that predicts RF propagation within the facility.

- STANDBY POWER REQUIREMENTS – Provide calculations and other specific information indicating how the radio coverage system is provided with standby power capabilities that fulfill the requirements of NCFC Section 604 and that provide the radio coverage system with not less than 24 hours of operational capability.
- GRID LAYOUTS FOR ACCEPTANCE TESTING – Provide a draftsman-quality floor plan that illustrates how the building will be divided into test areas for the purposes of acceptance testing. This shall be a **separate floor plan** from those provided to illustrate system configurations and equipment locations.
- This is not an all-inclusive list; additional information may be required prior to approval.

Once your radio coverage system project is approved...

- Follow all instructions provided in plan review comments at <http://winston-salem.idtplans.com>. This includes obtaining a Letter of Authorization to Retransmit as required by the FCC.
- Access the approved, stamped plans at <http://winston-salem.idtplans.com> and utilize only these plans for your project. If revisions are required, submit revisions for approval. A copy of approved, stamped plans shall be maintained on site.
- An installation acceptance test shall be conducted prior to placing the system in service. This acceptance testing shall be witnessed by fire code officials and must be scheduled in advance. Coordinate acceptance testing activities with fire alarm installers, building owners/occupants, and other stakeholders as well.
- If the project is associated with a building permit, coordinate with the general contractor regarding the scheduling of acceptance testing by fire code officials.
- If this project includes a Class B signal booster as defined by the FCC, the FCC Registration Number (FRN) and Booster ID shall be displayed in a prominent location on the radio coverage system enclosure. This information shall also be provided to the fire inspector at the time of acceptance testing.
- System enclosures and switches (including remote switches) shall be clearly marked with permanent signage indicating their purpose. This signage shall be installed prior to acceptance testing.