



Emergency Responder Radio Coverage System Submittal Requirements

Introduction

Thank you for your role in supporting development and life safety within the City of Bryan. The expertise, coordination, and technical judgment provided by Emergency Responder Radio Coverage System design professionals are essential to ensuring reliable in-building radio communications for first responders, supporting fire department operations, and maintaining compliance with adopted codes.

The purpose of this Emergency Responder Radio Coverage System Submittal Guide is to assist design professionals in navigating the City of Bryan's plan review and permitting process efficiently. This guide is intended to clearly communicate submittal expectations, coordination requirements, testing criteria, and documentation standards necessary for a complete and code-compliant radio coverage system design. Consistent and thorough submittals help reduce review cycles, minimize delays, and support successful installation, system acceptance testing, and final approval.

By following the guidance outlined in this document, along with applicable adopted codes, amendments, and the resources available through Development Services, design professionals can help facilitate a streamlined review process and a smoother progression through construction and Certificate of Occupancy approval.

We appreciate your professional contributions to projects within Bryan and look forward to working collaboratively throughout the design, review, installation, and testing phases to support reliable emergency communications and the long-term safety of each project. Sincerely,

Bryan Fire Marshal's Office

414 Lawrence St, Bryan Tx, 77801
979.209.5960 Ext. 1
Bryantx.gov/fire

Disclaimer:

Submittal guides are subject to revision and update as adopted codes, local amendments, and departmental procedures change. Applicants are responsible for ensuring they are using the most current version of each submittal guide at the time of application. Always download the latest version of this document or reference the online version associated with the project to verify current requirements.

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1 Code Adoption & Amendments

The 2021 edition of the International Fire Code, including appendix B, C, D, E, F, and G as published by the International Code Council, a copy of which is on file with the city secretary and the fire marshal, is adopted to the same extent as though such code were copied at length herein, subject however to the omissions, additions, supplements, and amendments contained in this article. [City of Bryan Municode](#)

NFPA ADOPTIONS

2021 IFC Chapter 80 should be consulted to find which NFPA edition is enforced in the City of Bryan.

2 Permit Fees

A construction permit is required for the installation of an Emergency Responder Radio Coverage System within the City of Bryan. At this time, however, there is no fee associated with this specific permit.

All required submittals, reviews, inspections, and acceptance testing procedures remain applicable and must be completed in accordance with adopted codes and established plan review processes. Applicants are encouraged to submit complete and accurate documentation to support efficient review and approval.

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The City reserves the authority to modify fee structures in the future in accordance with adopted ordinances and the adopted fee schedule.

3 Licensing Requirements

Contractors or technicians performing installation, testing, or maintenance of public safety radio communications equipment, including fire department radio systems, signal boosters, and emergency responder radio coverage systems (ERRCS), must hold a valid Federal Communications Commission (FCC) General Radio Operator License (GROL).

4 Required Documents

- Cover Letter / Narrative describing system purpose, coverage objectives, and compliance with IFC 510 and NFPA 1225
- Signal Survey Report showing existing and proposed signal strengths
- System Drawings – floor plans, riser diagram, equipment and antenna locations, cable routing, and coverage test grid
- Equipment Cut Sheets – all listed components (amplifiers, antennas, cabling, etc.)
- Monitoring and Alarm Interface Details
- FCC Retransmission Agreement – documentation of permission from radio system license holder
- Maintenance and Testing Plan – annual testing and recordkeeping procedure
- Manufacturer’s Commissioning Checklist (if available)

5 Drawings

Each ERRCS submittal must include **construction documents** showing system layout, components, and compliance with coverage and performance criteria.

5.1 General Information

- Project name, address, and permit number
- Designer and contractor contact information
- Applicable codes and standards (IFC 2021 §510, NFPA 1225)
- Description of system type (BDA, DAS, or hybrid) and frequency bands used
- Authority having jurisdiction and radio system agency

5.2 Floor Plans

- Building floor plans for all levels, showing:
 - Antenna locations (donor, service, and distribution antennas)
 - Cable pathways, conduit runs, and junctions
 - Equipment rooms, BDA/enclosure, and power supply locations
 - Fire-rated separations or protected shafts where applicable
- Indication of test grid layout used for coverage verification (20-signal test grid or as defined by NFPA 1225 §18.10)

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5.3 System Riser Diagram

- Complete one-line diagram showing signal path from donor antenna to distributed antennas
- Identification of all components (amplifiers, splitters, couplers, attenuators, filters, etc.)
- Cable types, connector types, and signal flow direction
- Fire alarm system interface and monitoring connection point

5.4 Equipment and Technical Details

- Manufacturer and model numbers of all listed equipment
- Power supply and backup battery capacity (minimum 24 hours)
- Environmental and mounting details for donor antenna and head-end equipment
- Surge protection and grounding/bonding details per NFPA 1225 §18.13

5.5 Calculations and Signal Data

- RF link budget (gain/loss calculations)
- Predicted signal strength and coverage maps
- Results of pre-installation site survey and post-installation acceptance test

5.6 Notes and References

- General installation notes referencing IFC §510 and NFPA 1225
- Identification of any required signage, labeling, or access requirements
- Maintenance and annual testing statement

If you have any questions, please call our office at 979.220.5960 Ext. 1

6 Acceptance Testing

All Emergency Responder Radio Coverage Systems shall undergo witnessed acceptance testing by the City of Bryan Fire Marshal's Office prior to final approval and issuance of a Certificate of Occupancy, where applicable.

Testing shall verify compliance with adopted codes, approved plans, and required in-building radio signal strength and coverage criteria using calibrated equipment and approved testing methodology.

The system must be fully installed, powered, operational, and contractor-verified prior to scheduling. All required documentation shall be uploaded to the Citizenserve portal before requesting the witnessed test.

Systems found incomplete or noncompliant at the time of inspection may result in test termination, rescheduling, and applicable reinspection fees.

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