MCFMO

Milam County Fire Marshal

Emergency Responder Communication Enhancement Systems (ERCES) System Submittal Checklist

NOTE: This checklist is for Emergency Responder Communication Enhancement Systems (ERCES) that typically include a BDA or DAS amplifier and associated equipment to be installed in new or existing buildings. Referenced codes or standards: 2024 IFC (and local amendments), 2023 NFPA 70, 2025 NFPA 72, and 2022 NFPA 1225

Project Name	
Project Street Address	
Installation Contractor	
Primary Contact Person	
Email Address	
Phone Number	
Date	

ITEMS REQUIRED FOR ALL ERCES SUBMITTALS

Check **Y** (Yes) item is complete, or **N/A** if the item does Not Apply to the project.

1) COMPLETED PERMIT SUBMITAL VIA PORTAL ☐ Y
www.milamcountypermits.com

2) PROVIDE COPY OF CERTIFICATION ☐ Y
Provide certification of in-building system training issued by a nationally recognized organization, school or a certificate issued by the manufacturer of the equipment being installed. (IFC 510.5.3)

3) PROVIDE COPY OF FCC GENERAL RADIO OPERATOR LICENSE (IFC 510.5.3) ☐ Y

DATA SHEETS

4) Product data sheets or other manufacturers supporting documentation is provided for all system parts and components. All DAS/BDA equipment shall have FCC certification (IFC 510.5.5) prior to installation. ERCES headend equipment shall be listed in accordance with UL 2524 (IFC 510.4) ☐ Y

5) Riser (backbone) cables shall have a fire-resistance rating that matches the fire-resistance rating of the building or be in a protected enclosure that matches the fire resistance rating of the building. (NFPA 1225 18.12.3.4)

EQUIPMENT LIST/BILL OF MATERIALS

5) A complete equipment list/bill of materials for all equipment associated with the project including quantities, manufacturer, part numbers and a brief description of the part in included in the submittal. ☐ Y

6) Deleted

PLANS

7) Correct project address is shown on the submittal cover sheet, and project plans. *Note: Incorrect project address shall result in non-approval.* ☐ Y

8) An electronic set of the following items, DATA SHEETS, PLANS in a vector-based PDF format that are unlocked and unrestricted so they can be marked up by reviewer, and plans shall be at a standard scale. An electronic copy of the reviewed plans shall be returned to the customer when the review is completed. ☐ Y

9) If the installing company is not the same as the designing company, or vice versa, then both companies shall provide contact information on the plans. ☐ Y ☐ N/A

10) Plans include a symbols legend with the following information for each symbol: part number, brief description of what it is, any item in the legend that is provided by other is noted as “provided by others”. ☐ Y

11) Plans include a cable legend with the following information for each type of wire used in the project: Wire Gauge, Wire type – solid or stranded, wire rating and a line type or letter designation (or both if necessary) that differentiates it from other wire/circuits shown on the plans. ☐ Y

12) Clearly indicate on cover sheet applicable code editions used in the system design, 2025 NFPA 72, 2024 IFC with local amendments, etc., for the project and any other applicable code or installation standard required. ☐ Y

13) Plans must list the frequencies required by City of Austin/GATRRS for Public Safety radio coverage. ☐ Y

14) Indicate on plans where fire alarm system will interface with ERCES, for required supervisory points listed in 2022 NFPA 1225. (IFC 510.4.2.5 & 2022 NFPA 1225, 18.14.1.2) ☐ Y

15) Indicate where dedicated ERCES monitoring panel will be installed. For all high-rise buildings and Groups F-1 and S-1 (greater than 500,000 SQFT), this will be in the Fire Command Center. 2022 NFPA 1225, 18.14.2.1 ☐ Y

16) Indicate on plans the location of the system annunciator. The annunciator shall be installed in the same location as the Fire Alarm Control Panel.

17) Indicate on plans all locations where all lightning protection and 120VAC Surge Protection Devices will be installed. 2022 NFPA 1225, 18.4 ☐ Y

18) If the submitted signal booster equipment is part of a system that serves both Emergency Responders Radio and commercial cellular, provide the following note on the plans "This system design complies with Non-Interference and Non-Public Safety System Degradation section of 2022 NFPA 1225, 18.6." ☐ Y ☐ N/A

19) Floor plans clearly show room names/description of all rooms, and locations of all ERCES equipment and cabling. Include all required rated pathways (type & fire rating), and location of electrical conduit raceways used for ERCES cabling. ☐ Y

20) Include riser diagram showing all equipment and cable. Diagram should match floor plan and include any grounding cables, surge protection, and dedicated electrical circuits. The riser should be simplistic in nature but convey the layout of system with enough detail to understand the intended scope of work. ☐ Y

21) On the rooftop-all cables on the rooftop associated with the system such as grounding cables required for a sled mounted donor antenna, any coaxial cables, etc. running on the rooftop that are less than 7ft above finished floor are required to be protected from physical damage (2023 National Electrical Code 70). Show on plans how this requirement shall be met. Also, signage meeting the requirements of IFC, 510.5.1 will be required. Isolation shall be maintained between the donor antennas to a minimum of 20 db above system gain (2022 NPFA 1225 18.3.3.2). ☐ Y ☐ N/A

22) Provide a plan showing predicted signal output/signal strength (propagation) map of the building (wave or heat map type, like iBwave), in color, with a matching legend. ☐ Y

23) Provide a typical room elevation detail for how equipment and cables are to be mounted, including height and junction boxes, dedicated power junctions, surge protection and battery backup. Call out all NEMA 4, 4X and 3R enclosures. TR (telecommunication room) mounting backboards must be indicated as fire-retardant/ fire rated. If a typical room where no electronic equipment is required, only riser and junctions, for example, show on a separate elevation detail. ☐ Y

24) Dedicated 120 VAC power to ERCES equipment must be tied in directly, no electrical plugs and receptacles are allowed. Show as a note on the elevation detail (Item #22, above). 2025 NFPA 1225, 18.13.1 ☐ Y

25) Include a wall mounted document cabinet for record documents (like Space Age Electronics SRD), which is provided for the owner to use for future annual tests of ERCES. 2025 NFPA 1225, 18.15.6 ☐ Y

26) Provide a section on the plans that indicates how all ERCES equipment will meet the required 12-hour stand-by battery power requirements of IFC 510.4.2.3. ☐ Y

RE-SUBMITTALS FOR REJECTED PLANS

In addition to all the above items, include the following additional items for Re-submittals:

***NOTE**: Provide a **new set of plans** that show any required revisions that were required to address the rejection comments and include the other information indicated below. DO NOT revise the previously stamped plans that have been stamped "Rejected" and turn those back in as the "new" plans, the submittal package shall be rejected – the purpose of this is to avoid confusion at time of test and inspection.*

A) Completed Fire System Plan Review Fee Form (See item #1) ☐ Y

B) A copy of the MCFMO "Rejected" stamped PDF plans and review comments ☐ Y

C) A comment response letter on the company letter head signed by the designer. The letter shall briefly explain how each review comment was addressed and use the same comment number. For example, when responding to comment F1, the response should start with F1, the response to comment F2, should start with F2, etc. ☐ Y

D) For all re-submittal plans, all revisions/changes shall be clearly marked with clouding and a triangular note corresponding to the re-submittal/revision number (R1, R2, etc.). ☐ Y
***Note**: Re-submittal/Revision numbers are NOT the comment number. They represent the resubmittal/revision cycle the review is current under. All clouded changes shall include all responses to MCFMO reviewer comments, new changes per the contractor, architect/owner, etc.*

PLAN REVISIONS TO ALREADY APPROVED PLANS

In addition to all the above items, include the following additional items for plan revision submittals:

A) Completed Fire System Plan Review Fee Form (See item #1) ☐ Y

B) A copy of the previously Austin Fire stamped approved plans ☐ Y

C) A letter on the company letter head signed by the designer. The letter shall briefly explain the changes to the approved plans. ☐ Y

D) For all revision plans, all revisions/changes shall be clearly marked with clouding and a triangular note corresponding to the re-submittal/revision number (R1, R2, etc.). ☐ Y
***Note**: Re-submittal/Revision numbers are NOT the comment number. They represent the resubmittal/revision cycle the review is current under. All clouded changes shall include all responses to MCFMO reviewer comments, new changes per the contractor, architect/owner, etc.*