These guidelines shall be adhered to when a business, facility or organization proposes to install or modify a fire alarm system, within the City of Port Aransas. All fire alarm systems for the purposes of this guideline and any other guidelines or requirements of the Fire Department shall conform to the 2015 International Fire Code, as adopted and amended by City of Port Aransas and NFPA 72, the most current Edition. This guide does not replace, nor supersede any adopted codes and/or ordinances adopted by the City of Port Aransas, or determinations and positions of the Fire Chief or Fire Marshal.

Performance and Installation Requirements
1. Fire alarm systems, new or replacement shall be addressable. (2015 IFC 907.1.4)
2. All alarm systems, new or replacement shall transmit alarm, supervisory and trouble signals descriptively to the approved central station, remote supervisory station or proprietary supervising station as defined in NFPA 72, with the correct device designation and location of addressable device identification. Alarms shall not be permitted to be transmitted as a General Alarm or Zone condition. (2015 IFC 907.6.7 as amended and adopted)
3. A manual fire alarm system shall be installed in Group A occupancies having an occupant load of 300 or more persons. Portions of Group E occupancies occupied for assembly purposes shall be provided with a fire alarm system as required for the Group E occupancy. (2015 IFC 907.2.3 as amended and adopted).
4. A manual fire alarm system shall be installed in Group E educational occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. An approved smoke detection system shall be installed in Group E day care occupancies. Unless separated by a minimum of one hundred feet (100') open space, all buildings whether portable buildings or the main building, will be considered one building for alarm occupant load consideration and interconnection of alarm systems. (2015 IFC 907.2.3)
5. Manual alarm actuating devices (pull stations) shall be an approved double action type.
6. All alarms shall be transmitted to the U.L. Listed Central Station monitoring company with the device(s) designation and location, or addressable device identification. This is commonly referred to as POINT ID. (See Fire Alarm Operational Guidelines).

7. An exterior audible and visible notification device shall be provided on the exterior of the building and shall be located above or nearest to the Fire Department Connection. This notification device shall operate on a water flow alarm only, shall be non-silenceable. The notification device shall be wired from the fire alarm control panel as a dedicated latching circuit and be supervised.

8. Addressable or analog systems shall show address numbers on the plans and provide a detail list of address verbiage for approval.

9. Primary power shall be from a dedicated circuit which is listed on the approved building electrical plans.

10. Approved supervised indicating control valves shall be provided at the point of connection to the riser on each floor in high-rise buildings.

11. A UL Listed surge suppressor shall be provided for each FACP or Power Supply and shall be located a minimum of a 6 ft. wire run length from each protected device. It is recommended the surge suppressor is located as close as practical to the dedicated AC service breaker.

12. All devices, circuits, and auxiliary systems shall be supervised.

13. When the fire alarm control panel is not located at the main entrance, a remote annunciator shall be located at the entrance. Regardless of the location, the ability to control the fire alarm shall be provided at the location of the automatic sprinkler system and main entrance.

14. Systems shall be operable and resettable without any special knowledge or the use of an access code or key.

15. Addressable/analog intelligent systems shall contain a history file of the past 100 events.

16. Duct detectors shall alarm supervisory only.

17. An adequate number of fire alarm notification devices shall be provided such that a minimum sound level 15 dB above average ambient will be achieved.

18. All fire alarm equipment shall be listed for its intended purpose.
19. The fire alarm control panel shall be listed and compatible with all devices and capable of delivering all required signals.

20. Fire alarm systems shall be installed only by companies and individuals licensed by the State of Texas State Fire Marshal’s Office, or as otherwise provided for in state statues.

21. Based upon the specific use and construction of the building, additional and/or specialized fire alarm equipment may be required.

**Submittal Requirements**

- A “Wet” APS signature and stamp, is required on all plan drawings and calculations.
- The plans shall be designed and will be reviewed based on the requirements in the International Fire Code, 2015 Edition and NFPA 72, most current edition.
- Plans shall be clear and legible and all sheets shall be in a common and appropriate scale.
- Plans shall include interior walls and rooms. Ceiling tiles shall not be shown on the drawings.
- A minimum of three (3) sets of hard copy plans and one (1) digital copy shall be submitted. Plans shall contain sufficient detail to enable the plan reviewer to accomplish a complete review.

**The following information shall be provided on the plans;**

- North arrow.
- Floor plan.
- Project name.
- Project address.
- Device location.
- Site map inset.
- Type of device.
- Provide a “point-to-point” wiring configuration.
- Fire alarm control panel.
- Annunciators.
- Square footage.
- Location of doors.
- Intended use of each room.
- Location of all air handling units.
- Show location of all fire sprinkler risers, flow switches, tamper switches.
- Notification devices shall indicate candela rating.
- Heat detectors shall indicate temperature rating.
- Indicate the length of wiring between devices.
- The notification device wiring shall be shown different that the initiating device wiring. When necessary, they shall be provided on different plan drawings.

**Scope of Work.**

- Sequence of Operations in matrix format.
- Equipment List, Point ID/Addressable device list. Shall indicate how the devices will report to the CSM. Specification booklet shall contain the following;
  - A minimum of one (1) set of data specifications sheets for all devices and equipment shall be provided.
  - Listing of the system design, operation and rest functions.
  - Specific materials in the specification booklet are to be identified by an arrow or highlighter.
  - Battery discharge curves.
  - Wire specifications.
  - Type of primary power and secondary power (i.e. size and number of batteries to be provided).
  - Device mounting height diagrams.
  - Voltage drop calculations provided. Shall clearly indicate each notification device and wire length.
  - Battery calculations to include Standby and Alarm.
  - The notes shall clearly indicate that the initiating circuit wiring shall be Class A.
    - Identification of the type of conduit used, if any.
    - Identification on the gauge and type of wire used.
Notes shall identify the following:

- Authority Having Jurisdiction.
- The use of each room is identified on the plans.
- The title block shall contain the following:
  - Location of the installation.
  - Name and complete address of the business.
  - Name and complete address of the installing company.
  - Licensing information.
  - “Wet” signature of the APS.
  - Date.
  - Drawn by.
  - Authority Having Jurisdiction.

- The riser diagram shall include all devices as they are shown on the plans, or wired.

- A legend shall be provided to include:
  - All devices shown on plans.
  - Total number of devices of each type.
  - Symbol, device description, manufacturer, model number, and quantity for each device.
  - Device address numbers provided for addressable/analog intelligent systems.

General Requirements

Installation, including panel replacement, fabrication or otherwise construction of the system is prohibited without approved plans and permit. Each submittal shall have a completed City of Port Aransas Plan Review/Permit Application. Plans approved by the Fire Marshal’s Office give authorization for construction. Final approvals are subject to field verification. Any approval issued by the Fire Marshal’s Office does not release the contractor or property owner from the responsibility of full compliance with all applicable codes and ordinances relating to the construction project. All installations must concur with the approved plans. Any deviation from the approved plans requires a re-submittal to the Fire Marshal’s Office. All fire department inspection forms and permits shall be kept in a permit packet on the job site until final inspection passes.