

Emergency Tenant Paging system requirements

Standards

AMBIENT NOISE IN TENANT SPACES (60/60 Rule)

Ambient noise **SHALL NOT** exceed 60 decibels (Db) in tenant spaces, measured from the center of the space at a height of 60 inches. The ambient noise device (reference Background Audio Shunt) shall have the volume locked not to exceed the 60 Db ambient noise level. The 60Db level shall be considered a cumulative level of all noise producing devices.

The MAA Fire Marshal or designee will perform random ambient noise measurements, if the ambient noise levels exceed 60 Db the tenant will be required to immediately eliminate the source of the violation or use shunting to disable all sound producing devices in the event of an Emergency Page. The use of a shunt shall be at the sole discretion of the Fire Marshal.

NFPA 101 Life Safety Code

New Assembly Occupancies

Installation of conductors shall comply with any of the methods listed in NFPA 72 Chapters 6.9.10.4.1, 4.2 and 4.3 for survivability. Coordination with WPS is essential to insure conductor compatibility with system components.

12.3.4.3 Notification. The required fire alarm system shall activate an audible and visible alarm in a constantly attended receiving station within the building when occupied for purposes of initiating emergency action.

12.3.4.3.1 Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.

12.3.4.3.3 Occupant notification shall be by means of visible signals and voice announcements, live or prerecorded, initiated by the person in the constantly attended location.

12.3.4.3.4 The announcement shall be made via an approved voice communication or public address system, provided with an emergency power source, which is audible above the ambient noise level of the assembly occupancy.

Existing Assembly Occupancies

13.3.4.3 Notification. The required fire alarm system shall activate an audible alarm in a constantly attended receiving station within the building when occupied for purposes of initiating emergency action.

13.3.4.3.1 Positive alarm sequence in accordance with 9.6.3.4 shall be permitted.

13.3.4.3.2 A pre-signal system in accordance with 9.6.3.3 shall be permitted.

13.3.4.3.3 Occupant notification shall be by means of voice announcements, either live or prerecorded, initiated by the person in the constantly attended location.

13.3.4.3.4 The announcement shall be made via an approved voice communication or public address system that is audible above the ambient noise level of the assembly occupancy.

The terminal building is assembly occupancy. All public accessible areas need to be covered by the Emergency Paging system.

General Contractor Notes

Provide conduit one (1) inch minimum, bushed ends, to Paging Access Point (PAP) approved by the Office of Technology (OT) Engineer. A pull string must remain in conduit after installation. MAA does not provide speakers, conduit or wiring. Tenants are responsible for coordination with MAA and WPS.

NOTE: OT highly recommends that a 2 inch conduit, with interdict and pull string, be installed from tenant space to PAP to allow for future installation of cable TV and High Speed internet services, etc. With Approval of the OT Engineer the tenant may run telephone, data, speaker cables and CATV services in the same conduit

Contractor shall verify Emergency Tenant Paging capacity with Timothy Watson, Manager Telecommunications, Twatson@bwairport.com at these locations. If capacity is available the tenant's wiring responsibility ends at the PAP.

If capacity is not available the Tenant is to install additional wiring per OT Standards and Specifications using existing conduit and raceways from designated PAP to paging room if available space exists in conduits.

MAA/OT may have new installations installed directly into paging rooms to bypass PAP's that are at or near design capacity.

The paging speakers (either Emergency or Tenant Paging) are for the exclusive use of the MAA. No other input devices shall be connected to these speakers. Example tenant music.

Demolition

If there is existing Emergency Paging speakers or wiring installed and work will involve demolition, or moving the speakers. The contractor **MUST** contact the MAA Manager, Telecommunications at Twatson@bwairport.com ten (10) business days prior to commencing work. The contractor is NOT allowed to move or disable live paging equipment.

All existing spaces undergoing renovation shall comply with the Emergency Tenant Paging system requirements

WPS Responsibilities

WPS is to coordinate installation and testing with MAA Fire Prevention Office (410-859-7815 or 410-859-7511).

WPS is to contact MAA OT for assignment of Emergency paging zone.

WPS and the contractor is to coordinate with Kenneth Hendrickson MAA/OT, Khendrickson@bwairport.com or Steven Ricks MAA/OT, sricks@bwairport.com 72 hours prior to any work being performed for coordination of installation.

New or Renovated Spaces

All new or renovated spaces, or spaces and applications deemed by the Fire Marshal as having the requirement for Emergency Tenant Paging. The tenant will install the speakers and other equipment or conduits as defined in this document.

NOTE: Washington Professional Systems (WPS) must be used for all work. WPS is the service provider for MAA's paging system. Emergency Tenant Paging must be 100% compatible with existing system

1. **Speaker wiring requirement:** The wire needs to be 16 gauge Stranded Twisted Pair West Penn 25225B or functional equivalent approved by MAA Office of Technology, Manager of Telecommunications. This wire is to be installed in the conduit as noted on plans
2. **Ambient noise shunt requirement:** The wire needs to be 10 gauge Twisted Pair West Penn 25225B or functional equivalent approved by MAA Office of Technology, Manager of Telecommunications. This wire is to be installed in the conduit as noted on plans. Use of the E-Page conduit is permitted

3. **Shunting Specifications (sometimes referred to as Tripping or switching)**

The shunting electrical circuit breaker shall meet the manufacturer of the service panels' specifications. All sound producing devices shall be terminated in approved shunting circuit breaker

The shunting circuit breaker shall operate Normally Closed (NC), power shall be Normally Open (NO) no power. When 24VDC is restored the circuit breaker shall automatically restore to NC State. The tenant has the option of installing a manually restored shunting circuit breaker.

4. **Speaker Requirement:** The speakers must be either surface mounted or flush mounted. The MAA preference is flush mounted.
Minimum speaker requirement is one e-page speaker above a continually manned cash register or one speaker for every 64 square feet (speakers 8 foot on center). Final determination will be made by the Fire Marshal and the OT

Background Audio Shunt

(Required if ambient noise exceeds Ambient Noise Specifications)

If an independent tenant paging, background music system, TV or the presence of ambient noise, in excess of 60 Db is installed an audio shunt (shunt Circuit Breaker) capable of receiving an "open/Closed" 24 VDC, muting contact to the MAA Paging system must be provided. The shunt equipment and design must be signed and sealed by a licensed Electrical Engineer with a specialty in Life Safety Systems if shunting circuit breaker is not used.. Further the shunt circuit must be extended to the closest MAA approved communications room for connection to the MAA system by MAA.

MAA will provide all equipment necessary to make the shunt operational in the MAA wiring closet. The tenant is responsible for all wiring from the tenant space to the MAA wiring closet and the actual device(s) required to shunt their equipment.

Speaker Specifications all speakers must be tapped at 4 Watts

S1	Soundolier	1	FAP-62T (6 inch)	Ceiling Speaker System w/ transformer
	Soundolier	1	FAP-62TR	Speaker Suspension Kit
S2	Soundolier	1	FAP42T (4 inch)	Ceiling Speaker System w/ transformer
	Soundolier		SM52T-W	Surface Mount Speaker System
	WPS		Custom	Mounting Bracket

4. Tenant to provide WPS a copy of the ceiling plan. WPS will provide technical assistance with the proper placement of the speakers and associated wiring.

WPS Contact
Dave Leister
General Manager, Engineered Systems Group
Cell 301-370-4746

5. Tenant will provide associated electronic support devices to make the Emergency Tenant Paging System operational in their space.

NOTE: For example if the tenant Emergency system requires additional head end equipment, the tenant will furnish this equipment.

The MAA will provide all common equipment for the system. (PAP).

6. The tenant will provide (if required) an inventory/copy of invoice from WPS along with a list of required electronic support devices (item4) to

MAA/OAT
Timothy Watson
Manager, Telecommunications
Twatson@Bwiairport.com

7. Any equipment purchased for the head end (item 4) that is not installed must be turned into MAA, Telecommunications Manager for installation and programming by MAA. This statement assumes the backbone system is not installed or operational at the time of Permit.

Conduits for system must be marked in accordance with the **Office of Technology facilities Warning Label marking Standard**. These can be obtained by contacting MAA/OT