

STATE OF WISCONSIN
VILLAGE OF BAYSIDE
MILWAUKEE AND OZAUKEE COUNTIES
ORDINANCE NO. 2003- 515

An Ordinance to create Section 14-148 of the Municipal Code
Regarding Public Safety Radio Reception in Buildings and Structures.

The Village Board of the Village of Bayside , Milwaukee and Ozaukee Counties , Wisconsin do ordain as follows:

SECTION ONE: Section 14-148 Adequate Public Safety Radio Coverage in Buildings and Structures.

(a) GENERAL.

Except as otherwise provided, no person or organization shall maintain, own, erect or construct any building or structure which is used for commercial, multi-family, or institutional use or any part thereof or cause the same to be done which fails to support adequate radio coverage to public safety service workers, including but not limited to firefighters and police officers. For purposes of this section, adequate radio coverage shall include all of the following:

- 1) a minimum signal strength of -101 dBm available in 95% of the area of each floor of the building when transmitted from the Public Safety Radio Communications System; and
- 2) a minimum signal strength of -101 dBm received at the Public Safety Radio Communications System when transmitted from 95% of the area of each floor of the building, via portable radio with public safety microphone.

3) Channel Performance Criterion (CPC):

CPC is the minimum performance level in a faded channel, per TSB-88, clause 4.2. TSB-88 is a "Telecommunications Systems Bulletin" published by the TIA, Telecommunications Industry Association.

The performance level is rated using "Delivered Audio Quality". Industry standard DAQ definitions are shown in Table 1. DAQ level 3 is commonly specified as the minimum performance level for public safety systems.

Table 1 - Delivered Audio Quality Definitions

DAQ Delivered Audio Quality	Subjective Performance Description
1	Unusable, speech present but unreadable.
2	Understandable with considerable effort. Frequent repetition due to noise / distortion.
3	Speech understandable with slight effort. Occasional repetition required due to noise / distortion.
3.5	Speech understandable with repetition only rarely required. Some noise / distortion.
4	Speech easily understood. Occasional noise / distortion.
4.5	Speech easily understood. Infrequent noise / distortion.
5	Speech easily understood.

- 4) The frequency range which must be supported shall be 866.000 to 869.000 MHz from the Trunked System Communications base stations, and 821 to 824 MHz to the Public Safety Radio Communications base stations.

(b) **TESTING PROCEDURES.**

- (1) Initial Tests. Initial tests will be performed by public safety employees or their designees. A Certificate of Occupancy shall not be issued to any structure if the building fails to comply with this section.
- (2) Annual Tests. Annual tests will be conducted by the Fire or Police Department in conjunction with inspection procedures.

(c) **AMPLIFICATION SYSTEMS ALLOWED.**

Buildings and structures which cannot independently support the required level of radio coverage shall be equipped with any of the following in order to achieve the required adequate radio coverage: a radiating cable system or an internal multiple antenna system with or without FCC type-accepted signal booster amplifiers as needed. If any part of the installed system or systems contains an electrically powered component, the system shall be capable of operating on an independent battery and/or generator system for a period of at least twelve (12) hours without external power input. Any battery system employed shall automatically recharge in the presence of an external power input.

The installation of equipment as indicated above can not be detrimental to the operation of the Public Safety Radio System.

In the event that a signal booster is employed it shall be fully encased within a dust and water resistant case.

(d) FIELD TESTING.

Police and Fire Personnel, after providing reasonable notice to the owner or his representative, shall have the right to enter onto the property to conduct field testing to be certain the required level of radio coverage is present.

(e) EXEMPTIONS.

This sections shall not apply to single-family and two-family dwellings not put to commercial or institutional use. For purposes of this section, basements, parking structures and stairwells are included in the definition of "all parts of a building" but elevators may be excluded.

SECTION TWO: This ordinance shall take effect and be in force from and after its passage and publication.

PASSED AND ADOPTED by the Village Board of Trustees of the Village of Bayside this 3rd day of April 2003.