

* AFAA NE
Presentation



- * 1) The goal is to provide you with an understanding of the permitting process.
- * 2) How do we and you handle "Requests For Information" RFI's?
- * 3) What are the regulation and requirements for Bi-Directional Amplifiers BDA's ?

* Tonight's Agenda

- * Mary Ann McHugo: Office Manager, responsible for all IT issues with the on-line permitting system.
- * Paul Donga: Lead Engineer, Supervises all engineers.
- * Joe Brooks: Fire Alarm Office, Responsible for the Administration of the BDA program.
- * Jack Dempsey: Deputy Chief/Fire Marshal

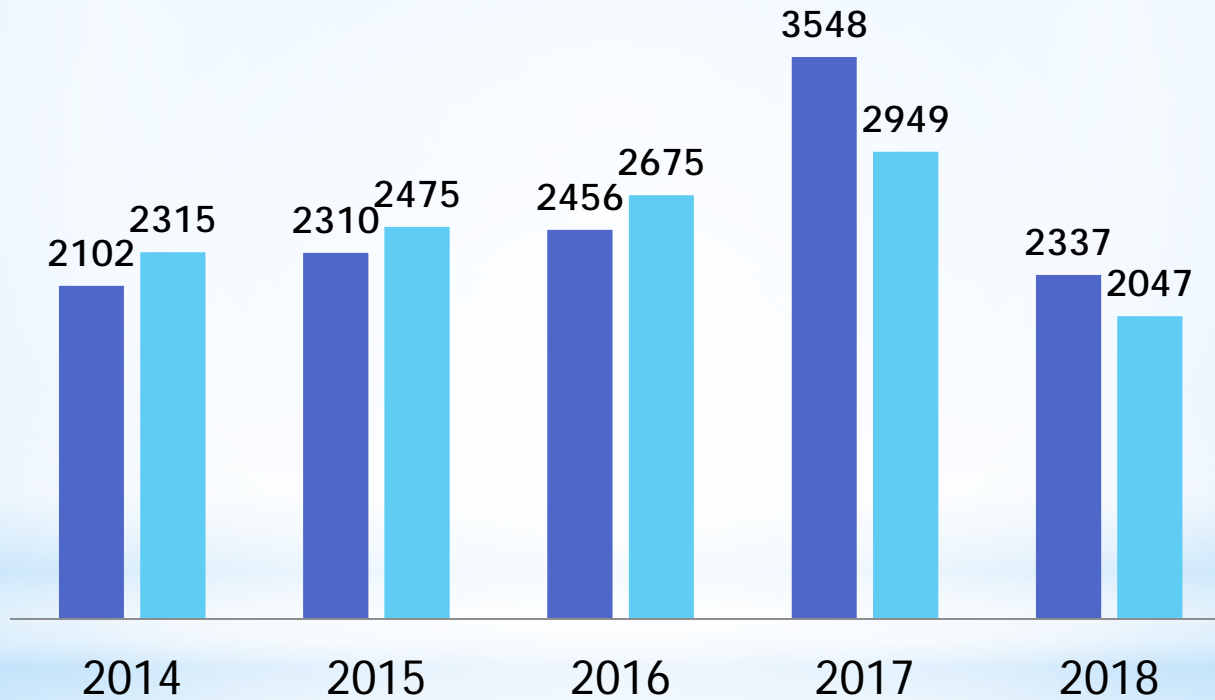
* Presenters

- * 1) Fire Alarm Systems are the 1st signal of an emergency.
- * 2) A properly installed and operating fire alarm saves lives!!!
- * 3) Improperly installed systems cause needless/nuisance alarms that program occupants to NOT respond to an alarm.

* Fire Alarm Systems

* PLAN REVIEWS

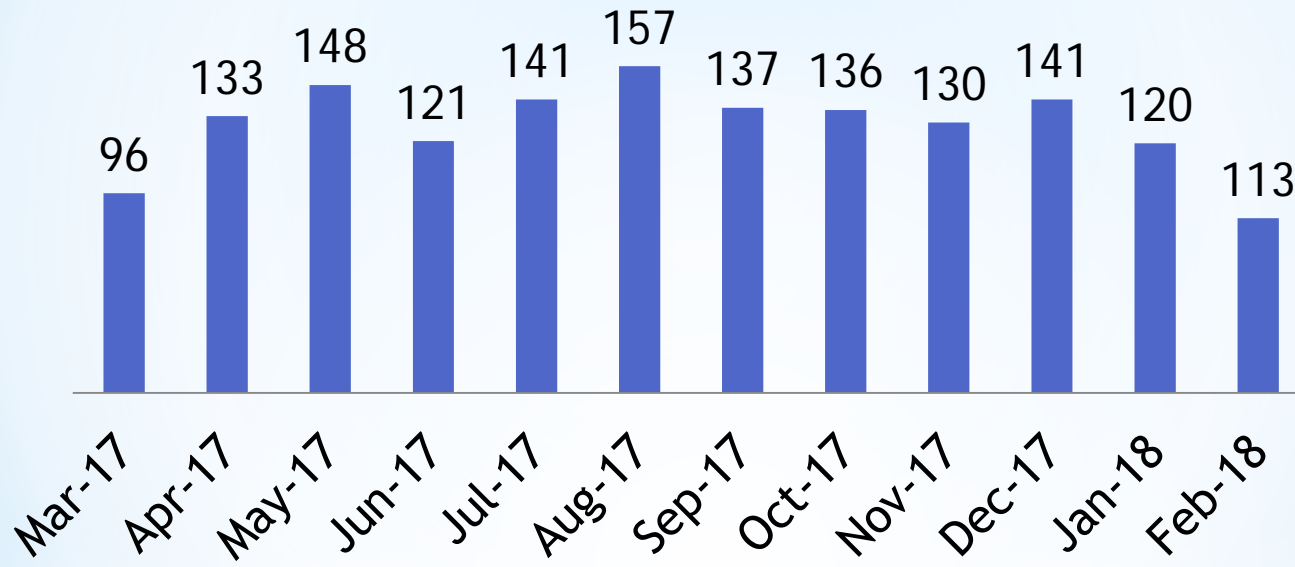
■ FIRE ALARMS ■ SPRINKLERS



BFD Review Categories	Average Business Days for review	% done in 15 Days
10 or less devices	7.9	85%
11 or more devices	9.2	80%
New	9.3	77%
Panels	12.9	61%
Radio	10.7	72%

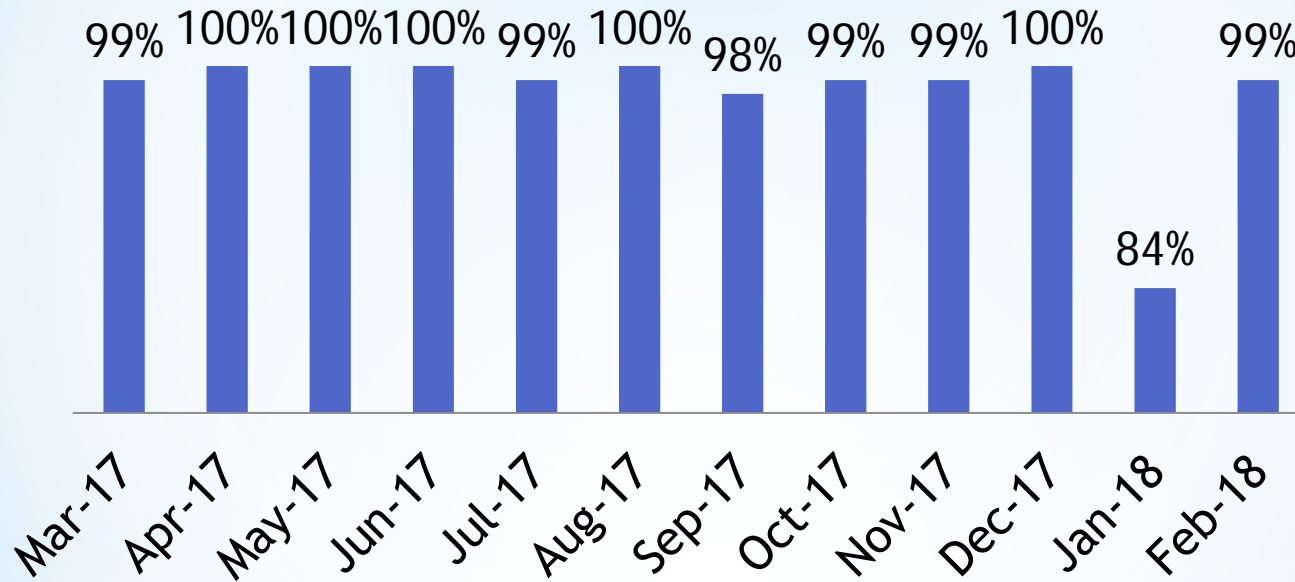
*** FIRE ALARMS REVIEWS**
By BFD Engineers

Fire Alarm Tests



* Fire Alarm Tests
Last 12 Months

FA Applications Review



* **FIRE ALARM Applications**
Reviewed within 2 business
days

- * 1) EFA Permit from Building Dept. Remember to apply for BFD FA Permit once that is received.
- * 2) BFD Review prior to your installation is required and can save you time and money.
- * 3) Respond to RFIs as soon as possible. The process can come to a stop when information is requested.
- * 4) Communication is critical!!!!

*** On-Line Application**

* The Old Portal went into play on December 12, 2014.

1) Fire Alarms

2) Sprinklers

3) Construction Site Safety

4) Temporary Places of Assembly

5) Places of Assembly

6) Tents

7) Self-serve Gas Stations

* Customers could attach documents but could not submit plans electronically.

* **The City Portal**

* The New Portal went live on June 27, 2016

1) Fire Alarm

2) Sprinklers

* Permit Applications available through the Portal as of September 22, 2016:

1) Hot Work

2) Temp Dumpsters

3) Bagging Smoke Detectors

4) Asbestos Removal

* **The City Portal**

Tips for Applying on Boston Permits and Licenses

<https://permits.boston.gov/>



Google

Google

Use

Google

Google

Google

Chrome

Google

Google

Google

Google

Setting Up/Editing a Portal Account

- **Setting up an account**
 - Fill out every field accurately and completely
- **Changing the account information**
 - Account Settings are found by clicking on the blue **person** on the top right hand corner between the **house** and the **question mark**
 - Demo of my account in Portal

Problems

- **If you have a portal problem please call 617-343-3628**
 - If they cannot solve it they will transfer you to me
 - If I cannot solve it I will send all the information directly to City Hall to get fixed
- **If you have concerns about a permit please call 617-343-2043**
 - Have permit number ready
 - Explain situation to staff member
 - Your concerns/issues will be forwarded to our engineering department

Invite Others to Your Project

You Have a Super Important Rush Permit Job and

- **Going on vacation for two weeks, the boss cannot wait until you come back for that permit or the request for “more information” has to be answered immediately?**
 - No way you’re giving anyone your password...
- **Somebody who usually processes applications is going on medical leave, having a baby, quit, or got fired.....**
 - Your company should be setting business policies for on-line application submittal including who is invited to each application
 - Your company should have 2 or more people on each application
- **The BOSS constantly asks what is going on with that permit application**
 - Invite him and then they can see it all
- **Your engineer or architect constantly complains that they never see BFD’s comments on the request for “more information”**

Remember the actual permit applicant needs to be from the company performing the work

Demo of an application inviting others to the project

Address

- **You cannot find the address your company is going to work at:**
 - **Use the address that the General Contract is using on the Alteration or Erect Permit from ISD**
 - Make sure that is the address on the plans that your architect or fire protection engineer signed off on
 - **Do not apply from your cell phone**
 - When searching for the address the responses do not always appear with what you requested as the first choice
 - the “See More” button is not visible to you but really is there
 - appears on tablets, laptops and desktops
 - Demo of 800 Boylston Street

Uploading Documents

- **Must be Adobe**
- **Upload only the requested document into each slot**
 - This was built to help to expedite the review process
 - our engineers can find the information they require easily and not waste time searching through hundreds of pages in one document for different categories of information

You Did Not Get an Email Notification

- Please call your IT staff to review your email account settings
- You can log in and check your status at any point in time and do not need an email

You Cannot Pay for or Print the Permit

- **Your status is “Pay Fees” or “Print Permit” and it will not let you**
 - Please call your IT staff something is blocking you from performing those tasks
 - on your computer
 - in your browser
 - or in your network
 - we cannot help you with your IT issues

Housekeeping Issues

- Delete unapplied for applications yourself by using the trash can
- Deleting applied for and issued permits is not an option
 - but call 617-343-2043 and the status can be changed
- Too many records in your account –
 - use the archiving feature
 - Demo on Portal of retrieval and archiving

5 Categories of Submittals

- New Systems
- Alteration of an Existing System ≤ 10 Devices
- Alteration of an Existing System > 10 Devices
- Replacement of an Existing FACP
- Replacement of an Existing Phone Communicator

Plan Submittal Requirements

- Plans are required for all submittal categories except phone communicator replacement
- Drawings are Tier II (Shop Drawings)
- Fire alarm devices only - shown and located – all rooms identified and labeled
- Indicate all walls and openings
- Provide info regarding ceiling heights and ceiling construction details

Plan Submittal Requirements

- Scaled floor plans (1/8" or 1/4") – 24" X 36"
- Candela ratings are required to be indicated if different ratings are used
- A riser diagram is required
- A legend is required
- On the far right side of the drawings the following is required (3" X 24" Title Block)
 - The property address
 - Engineering calculations

Plan Submittal Requirements

- Engineer's review stamp
- Contractor's license number, name, and license expiration date
- Adjacent to the Title Block provide another 3" X 24" area, leave empty, for BFD use
- When permit has been approved and payment has been made – floor plans are required to be printed and made available for review at job site

ePlan Requirements

- Portable Document Format – compatible with Adobe Acrobat Pro DC (.pdf's created in Acrobat 7 or higher should work fine)
- Single bookmarked document with a cover sheet – only the submitted sheets should be in the index
- Sheets shall be named in a way that reviewer can move in a logical manner from sheet to sheet

ePlan Requirements

- Orient submittal so that the top of the sheet is at the top of the computer monitor
- 40 MB file size maximum
- Do not submit scanned plans - .dwg → .pdf direct conversion is required – BFD will reject blurry or unreadable plans – there are YouTube videos that can help you perform AutoCAD conversions

ePlan Requirements

- Prior to submission please make sure that your drawings are accurate and legible
- If a design professional prefers to use a digital certificate to sign the floor plans, the document must not be locked
- Plan review corrections are to be resubmitted in the same fashion and format as the original submission

Other Document Requirements

- Contractor's license and photo ID
- Manufacturer's cut sheets – please highlight correct model
- Battery calculations and voltage drop calculations
- Narrative – describe the entire scope of work, building occupancy, building code edition and exceptions, fire-rated separations as part of design, height and type of construction, and non-required systems

Other Document Requirements

- Sequence of operation of fire alarm system and interfaced equipment (smoke control, elevator recall, etc.). How initiating devices report a fire, type and description of notification signals, disposition of all signals from panel (alarm, trouble, and supervisory – input/output matrix
- The additional documents must be uploaded as individual files

Category Specific Information

- Please categorize your submittal appropriately, if refused for being submitted in a category inappropriate to its scope, you will lose time as your application will be pushed back in line of the new category
- Installation of a new fire alarm system – all information previously covered is required
- Alterations to an existing system (10 or fewer devices) – all information previously covered is required - purpose is to not put into categories requiring a more lengthy review – be accurate as to which devices are involved

Category Specific Information

- Alterations to an existing system (11 or more devices)
 - all documentation previously described is required
- FACP replacement - all documentation previously described is required
 - a riser diagram is required
 - floor plan to indicate location of FACP
 - compatibility of smoke detectors, notification appliances, etc. must be confirmed
 - complete battery calculations required

Category Specific Information

- complete sequence of operation required
- code of record for existing system
- adequacy of power supplies
- Procedure of maintaining existing system while activating the new system, when will work take place and how long until completion

Category Specific Information

- If required, a graphic firefighter smoke control panel (may not be required if an existing, dedicated smoke control panel is present) – this will require discussion with ISD and BFD
- Replacement of an existing phone communicator
 - Manufacturer's specification/data sheets
 - Standby battery requirements
 - Building's fire alarm sequence of operation

Category Specific Information

- Narrative describing location of installed equipment, describe how all alarm, trouble, and supervisory signals are disposed including special supervisory signals such as local smoke detectors and carbon monoxide detectors
- Please describe in narrative how compliance with the communication methods of NFPA 72 will be achieved

Meeting the EMERGENCY RESPONDER RADIO COVERAGE Requirement of 780CMR915.0





BOSTON FIRE COMMUNICATIONS

Please note that there was a major revision to 780 CMR 915.0 on April 11, 2014 and it could apply to your new construction project. The Massachusetts State Building Code requires designers to provide Emergency Responder Radio Coverage, otherwise know as Bi-Directional Amplification in all new buildings. Please note that one and two family dwellings are exempt. For more information see our website <http://www.bfdradio.net/bda/bda.html>. Also note that Bi-Directional Amplification must be tested prior to scheduling your fire alarm test with Fire Prevention.

**Thank you,
The Boston Fire Department**





The Massachusetts State Building Code
requires building owners to provide
Emergency Responder Radio Coverage
in all new buildings.

There was a major revision to
780CMR915.0 on April 11, 2014.





The ERRC requirement protects the performance of emergency responders' portable radios inside buildings.

Building construction, size, design, and other elements can absorb or block radio communications.





Not all buildings will require a signal booster (BDA) to meet the ERRC requirement

Exceptions:

One and 2 family dwellings

Buildings that have sufficient levels of radio coverage





1. Determine if the building has sufficient radio coverage

An RF Survey must be performed by an approved vendor





Requirements

BFDRADIO.NET

Emergency Responder Radio Coverage in Buildings



Requirements for the Installation of a Fire Fighter Communication System

The Boston Fire Department has developed these requirements in conjunction with the requirements of the Massachusetts Building Code as amended on April 11, 2014.

The installation and operation of radio based fire fighter communication systems must comply with this document.

The voluntary installation of a radio based fire fighter communication system must comply with all of the requirements of this document.

The in-building radio system is an integral component of the life safety equipment of a building or structure. The primary function is to provide reliable firefighter communications at the required signal strength within the specified areas

Joseph F. Brooks
Radio Supervisor
Boston Fire Department

Revision: 17.1
Effective Date: December 5, 2017





2. Radio provider submits permit

Installs require system drawings

Waivers require RF Survey





BOSTON FIRE COMMUNICATIONS

Permit

For Waivers and Installations



CITY OF BOSTON FIRE DEPARTMENT Permit to Install and Maintain a Signal Booster



Installation Address: _____ Zip: _____		<input type="checkbox"/> New Fire radio Installation
Name of Bldg (if applicable): _____		<input type="checkbox"/> New Fire and Police radio Installation
		<input type="checkbox"/> Modification of existing system
		<input type="checkbox"/> 5-Year Waiver (survey required with permit application)
Property Owner	Name: _____	Floors
	Address: _____	Above Grade _____ <input type="checkbox"/> Distributed Antenna System
		Below Grade _____ <input type="checkbox"/> Shared (IM study required with permit)
		<input type="checkbox"/> Not Shared
Property Manager	Name: _____ Phone: _____	
	Signature: _____ Email: _____	
<small>Note: Not to be signed by contractors</small>		
Description of Work:		
NOTE:	Applicants must submit a copy of this Permit Application to the Boston Police Communications Division at Radio@pd.boston.gov . If a signal booster is also required for Boston Police frequencies, this permit must be resubmitted with the IM Study.	
Radio System Installer	Name: _____ Electrician's License # _____	
	Address: _____	
	Email: _____ Phone: _____ Fax: _____	
<p>I certify that the property owner understands and has agreed to comply with the current Boston Fire Department Signal Booster Specification. If a conflict should result with any of these specifications it will be my responsibility to resolve it.</p> <p>The property owner has also acknowledged that upon final system acceptance, permission will be granted to operate a signal booster on frequencies licensed to the Boston Fire Department, by the Federal Communications Commission (FCC) and that failure to maintain compliance with the Boston Fire Department Signal Booster specifications will result in the withdrawal of this permission.</p>		
Radio Service Provider	Address _____	
Name _____	FCC License # _____	
Signature _____	Phone _____	
Email: _____	Fax _____	Date: _____

For office use only

BFD Permit Number : _____ FCC Signal Booster Registration # SB _____

Issued by: _____ Signal Booster Specification Version: _____

12/5/2017





Waiver of Radio Coverage System

Buildings that have sufficient levels of radio coverage may request a waiver.

Submit a Permit Application indicating a waiver is being requested along with an RF survey showing sufficient levels of radio coverage.

Coverage will be verified by Boston Fire.





Waiver of Radio Coverage System

Waivers are valid for 5 years. Owners must submit a new RF survey every 5 years.

At any time it is determined by the Boston Fire Department, that radio coverage is not adequate, the property owner is then required to provide radio coverage.





Approved Shops

This list is provided only to assist you finding a service provider. We do not endorse any particular provider and the only requirements we have for a vendor are described in the BFD In-Building specification.

Applied Communications
Capone Communications
Comtronics
Cyber Communications
Industrial
Northeast 2-way Radio
Radio Solutions
Sideband Systems





Your Radio Service Provider Will:

- Perform an RF Survey (for Waivers)
- Assist with system design
- Submit required documentation and permit application
- Perform start up testing to verify coverage
- Request an inspection when system is completed



THANK YOU



WWW.BFDRADIO.NET/BDA

* Q1 Are separate fire alarm installation permits required in new buildings under the 9th Edition of the Building Code, or only a building permit?

* Questions

* Q2 Will smoke detectors be required throughout the means of egress in Boston apartment buildings (Group R-2 not dormitories) even though this requirement has been removed from the State Building Code?

* Questions

* Q3 Are all high-rise requirements applicable for buildings at the 70 foot height? For example, is a stair connecting less than 75 feet above the lowest level of fire department access required to be provided with a smoke proof enclosure if it is part of a high-rise building?

* Questions

*Q4 I just learned that besides the requirements to have a BDA System That Boston Police are calling for Donor Antennas? How and if this interfaces to the BDA or Fire Alarm? Also, who's responsible for it? When did this go into effect and where is it in the code, or not?

*Questions

* Q5 What is needed for a Panel Head End Replacement only due to a malfunctioning or faulty Panel. All existing devices and A/V are not affected?

* Questions