

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



CITY OF PORTLAND

BUILDING PERMIT

This is to certify that 2301 CONGRESS STREET REALTY LLC - MPX

Located At 2301 CONGRESS ST

Job ID: 2012-06-4355-ALTR

CBL: 238A-A-004-001

has permission to Renovate the main level office tenant space of MPX.. add exterior canopies at entrances provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

Fire Prevention Officer


Code Enforcement Officer / Plan Reviewer

7/26/12

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY
PENALTY FOR REMOVING THIS CARD

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, FAX: (207) 8716

Job No: 2012-06-4355-ALTR	Date Applied: 6/28/2012	CBL: 238A- A-004-001	
Location of Construction: 2301 CONGRESS ST MPX	Owner Name: 2301 CONGRESS REALTY LLC	Owner Address: 2301 CONGRESS ST PORTLAND, ME 04102	Phone:
Business Name:	Contractor Name: GREAT FALLS CONSTRUCTION	Contractor Address: 20 MECHANIC ST GORHAM MAINE 04038	Phone: (207) 839-2744
Lessee/Buyer's Name: MPX	Phone:	Permit Type: BLDG - Building	Zone: I-M
Past Use: Office space	Proposed Use: Same: Office space – renovate space with new partitions, flooring, ceiling, plumbing & electrical	Cost of Work: \$40,000.00	CEO District:
		Fire Dept: 7/26/12 Signature: <i>Bjawa</i> (58)	Inspection: Use Group: B/S Type: ZB IBC 2009 Signature: <i>JMB</i> 7/23/12
Proposed Project Description: renovate space for office		Pedestrian Activities District (P.A.D.)	
Permit Taken By: Gayle		Zoning Approval	

<p>1. This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.</p> <p>2. Building Permits do not include plumbing, septic or electrical work.</p> <p>3. Building permits are void if work is not started within six (6) months of the date of issuance. False informatin may invalidate a building permit and stop all work.</p>	<p>Special Zone or Reviews</p> <p><input type="checkbox"/> Shoreland</p> <p><input type="checkbox"/> Wetlands</p> <p><input type="checkbox"/> Flood Zone</p> <p><input type="checkbox"/> Subdivision</p> <p><input type="checkbox"/> Site Plan</p> <p>— Maj — Min — MM</p> <p>Date: <i>ok with conditions</i> <i>8/16/29/12</i></p>	<p>Zoning Appeal</p> <p><input type="checkbox"/> Variance</p> <p><input type="checkbox"/> Miscellaneous</p> <p><input type="checkbox"/> Conditional Use</p> <p><input type="checkbox"/> Interpretation</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Denied</p> <p>Date:</p>	<p>Historic Preservation</p> <p><input checked="" type="checkbox"/> Not in Dist or Landmark</p> <p><input type="checkbox"/> Does not Require Review</p> <p><input type="checkbox"/> Requires Review</p> <p><input type="checkbox"/> Approved</p> <p><input type="checkbox"/> Approved w/Conditions</p> <p><input type="checkbox"/> Denied</p> <p>Date: <i>S</i></p>
	CERTIFICATION		

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the appication is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE

7-30-12 DWM Dave

underslab plumbing OK

8-21-12 DWM/BKL Aaron 615-9803 Close-in Provide listed doors
for data at rated walls, Plumb OK, Reutwood rated wall details

10-17-12 DWM/BKL Aaron Above ceiling OK.

10-24-12 DWM/BKL/Capt. Pirone Aaron Bldg Provide glazing detail
as per A.I. Elect OK, Fire OK

10-25-12 DWM Rec'd Structural Engineers design for
Glazing. Final OK

BUILDING PERMIT INSPECTION PROCEDURES

Please call 874-8703 or 874-8693 (ONLY)

or email: buildinginspections@portlandmaine.gov

With the issuance of this permit, the owner, builder or their designee is required to provide adequate notice to the city of Portland Inspections Services for the following inspections. Appointments must be requested 48 to 72 hours in advance of the required inspection. The inspection date will need to be confirmed by this office.

- **Please read the conditions of approval that is attached to this permit!! Contact this office if you have any questions.**
- **Permits expire in 6 months. If the project is not started or ceases for 6 months.**
- **If the inspection requirements are not followed as stated below additional fees may be incurred due to the issuance of a "Stop Work Order" and subsequent release to continue.**

Close In Elec/Plmb/Frame prior to insulate or gyp

Final Inspection

The project cannot move to the next phase prior to the required inspection and approval to continue, REGARDLESS OF THE NOTICE OF CIRCUMSTANCES.

IF THE PERMIT REQUIRES A CERTIFICATE OF OCCUPANCY, IT MUST BE PAID FOR AND ISSUED TO THE OWNER OR DESIGNEE BEFORE THE SPACE MAY BE OCCUPIED.



PORTLAND MAINE

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Director of Planning and Urban Development
Jeff Levine

Job ID: 2012-06-4355-ALTR

Located At: 2301 CONGRESS ST

CBL: 238A- A-004-001

Conditions of Approval:

Zoning

1. This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.
2. Separate permits shall be required for any new signage.

Building

1. Application approval based upon information provided by the applicant or design professional. Any deviation from approved plans requires separate review and approval prior to work.
2. All penetrations through rated assemblies must be protected by an approved firestop system installed in accordance with ASTM E 814 or UL 1479, per IBC 2009 Section 713.
3. Equipment shall be installed in compliance with the manufacturer's specifications and the UL listing.
4. The glazed wall panels shall meet the loading requirements of IBC Sec. 2403 and Chap. 16.
5. Separate permits are required for any electrical, plumbing, sprinkler, fire alarm, HVAC systems, heating appliances, including pellet/wood stoves, commercial hood exhaust systems and fuel tanks. Separate plans may need to be submitted for approval as a part of this process.

Fire

1. All construction shall comply with City Code Chapter 10.
2. See also permit 2012-06-4356-ALTCOMM.
3. The new door in the new 60-minute fire rated wall assembly enclosing the bottom of the existing stair shown on plan AA1.0 shall be a 60-minute fire rated assembly (101:8.3.4.2).
4. This permit is being approved on the basis of the plans submitted. Any deviation from the plans would require amendments and approval.
5. Application requires State Fire Marshal approval.
6. Street addresses shall be marked on the structure and shall be as approved by the City E-911 Addressing Officer. Contact Michelle Sweeney at 874-8682 for further information.
7. Any Fire alarm or Sprinkler systems shall be reviewed by a licensed contractor(s) for code compliance. Compliance letters are required.

8. A separate Fire Alarm Permit is required. This review does not include approval of fire alarm system design or installation.
9. Fire Alarm system shall be maintained. If system is to be off line over 4 hours a fire watch shall be in place. Dispatch notification required 874-8576.
10. The fire alarm system shall comply with the City of Portland Standard for Signaling Systems for the Protection of Life and Property. All fire alarm installation and servicing companies shall have a Certificate of Fitness from the Fire Department.
11. All fire alarm records required by NFPA 72 should be stored in an approved cabinet located at the FACP labeled "FIRE ALARM RECORDS".
12. Records cabinet, FACP, annunciator(s), and pull stations shall be keyed alike.
13. All smoke detectors and smoke alarms shall be photoelectric.
14. The sprinkler system shall be installed in accordance with NFPA 13.
15. A separate Suppression System Permit is required. This review does not include approval of sprinkler system design or installation.
16. Sprinkler supervision shall be provided in accordance with NFPA 101, *Life Safety Code*, and NFPA 72, *National Fire Alarm and Signaling Code*.
17. Sprinkler protection shall be maintained. Where the system is to be shut down for maintenance or repair, the system shall be checked at the end of each day to insure the system has been placed back in service.
18. The Fire Department will require Knox locking caps on all Fire Department Connections on the exterior of the building.
19. System acceptance and commissioning must be coordinated with alarm and suppression system contractors and the Fire Department. Call 874-8703 to schedule.
20. A Knox Box is required.
21. A firefighter Building Marking Sign is required.
22. Private fire mains and fire hydrants shall be maintained, tested and painted in accordance with Fire Department Regulations.
23. Fire extinguishers are required per NFPA 1.
24. Occupancies with an occupant load of 100 persons or more require panic hardware on all doors serving as a means of egress.
25. Emergency lights and exit signs are required. Emergency lights and exit signs are required to be labeled in relation to the panel and circuit and on the same circuit as the lighting for the area they serve.
26. Any cutting and welding done will require a Hot Work Permit from Fire Department.
27. Walls in structure are to be labeled according to fire resistance rating. IE; 1 hr. / 2 hr. / smoke proof.
28. A single source supplier should be used for all through penetrations.
29. Non-combustible construction of this structure requires all construction to be Non-combustible.

2012 06 4355 60



General Building Permit Application

IMP

If you or the property owner owes real estate or personal property taxes or user charges on any property within the City, payment arrangements must be made before permits of any kind are accepted.

Location/Address of Construction: <u>2301 Congress St / MPX</u>		
Total Square Footage of Proposed Structure/Area <u>13,570 SF</u>		Square Footage of Lot <u>Lot is existing</u>
Tax Assessor's Chart, Block & Lot Chart# Block# Lot# <u>238 A A004</u>	Applicant * <u>must be owner, Lessee or Buyer</u> * Name <u>Great Falls Construction</u> Address <u>20 Mechanic St</u> City, State & Zip <u>Gorham, ME 04038</u>	Telephone: <u>207-839-2744</u>
Lessee/DBA (If Applicable) <u>MPX</u>	Owner (if different from Applicant) Name <u>2301 Congress Realty LLC</u> Address City, State & Zip <u>04102</u> Dept. of Building Inspections City of Portland Maine	Cost Of Work: \$ <u>400,000</u> C of O Fee: \$ _____ Total Fee: \$ _____
Current legal use (i.e. single family) <u>OFFICE SPACE, WAREHOUSE</u> If vacant, what was the previous use? <u>OFFICE SPACE, WAREHOUSE</u> Proposed Specific use: <u>OFFICE SPACE, WAREHOUSE</u> Is property part of a subdivision? <u>NO</u> If yes, please name _____ Project description: <u>Renovate space for office space. Includes new wall partitions, Flooring, Paint, Ceiling, Plumbing, Electrical</u> <u>Office to Office</u>		
Contractor's name: <u>Great Falls Construction</u> Address: <u>20 Mechanic St</u> City, State & Zip <u>Gorham, ME 04038</u> Telephone: <u>207-839-2744</u> Who should we contact when the permit is ready: <u>Avon Bourassa</u> Telephone: <u>207-615-9803</u> Mailing address: <u>20 Mechanic Street, Gorham, ME 04038</u>		

Please submit all of the information outlined on the applicable Checklist. Failure to do so will result in the automatic denial of your permit.

In order to be sure the City fully understands the full scope of the project, the Planning and Development Department may request additional information prior to the issuance of a permit. For further information or to download copies of this form and other applications visit the Inspections Division on-line at www.portlandmaine.gov, or stop by the Inspections Division office, room 315 City Hall or call 874-8703.

I hereby certify that I am the Owner of record of the named property, or that the owner of record authorizes the proposed work and that I have been authorized by the owner to make this application as his/her authorized agent. I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in this application is issued, I certify that the Code Official's authorized representative shall have the authority to enter all areas covered by this permit at any reasonable hour to enforce the provisions of the codes applicable to this permit.

Signature: _____ Date: 6/27/12

This is not a permit; you may not commence ANY work until the permit is issue



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Receipts Details:

Tender Information: Check , BusinessName: Great Falls Construction, Check Number: 24362
Tender Amount: 4020.00

Receipt Header:

Cashier Id: gguertin
Receipt Date: 6/28/2012
Receipt Number: 45457

Receipt Details:

Referance ID:	7078	Fee Type:	BP-Constr
Receipt Number:	0	Payment Date:	
Transaction Amount:	4020.00	Charge Amount:	4020.00
Job ID: Job ID: 2012-06-4355-ALTR - renovate space for office			
Additional Comments: 2301 Congress, Great Falls Construction			

Thank You for your Payment!



STATE OF MAINE - DEPARTMENT OF PUBLIC SAFETY
 OFFICE OF STATE FIRE MARSHAL
 45 COMMERCE DR STE 1
 AUGUSTA, ME 04333-0001

RECEIVED

JUL 18 2012

Dept. of Building Inspections
 City of Portland Maine

Construction Permit

MPX

No.20817

In accordance with the provisions of M.R.S.A. Title 25, Chapter 317, Sec.317 and Title 5, Section 4594-F, permission is hereby granted to construct or alter the following referenced building according to the plans hitherto filed with the Commissioner and now approved. No departure from application form/plans shall be made without prior approval in writing. Nothing herein shall excuse the holder of this permit for failure to comply with local ordinances, zoning laws, or other pertinent legal restrictions.

Each permit issued shall be displayed at the site of construction.

Building: 2301 CONGRESS STREET
Location: 2301 CONGRESS ST, PORTLAND, ME 04102-1907
Owner: 2301 CONGRESS STREET
Owner Address: 2301 CONGRESS ST, PORTLAND, ME 04102-1907

Occupancy Type: Storage
 Secondary Use: Business
 Use Layout: Separated Use
 Supervised Sprinkler System
 Monitored Fire Alarm System
 Barrier Free
 Construction Mode: Renovation
 Unprotected Noncombustable: Type II (000)
 Final Number of Stories: 2

Permit Date: 06/28/2012

Expiration Date: 12/27/2012

COMMISSIONER OF PUBLIC SAFETY

Copy 2 - Architect



2301 Congress Street, Portland, ME Investigation and Evaluation report

Hans D. Strauch, LEED AP, AIA
Principal
HDS ARCHITECTURE, INC.
625 Mt. Auburn Street
Cambridge, MA 02138

Date: July 20, 2012

Prepared By: Doug Anderson

Project Scope

The proposed project is a reconstruction of the entire building, including preparation of the warehouse space and construction of the office spaces.

The following code summary is based on permit plans dated June 15, 2012.

Applicable Codes

Code Type	Applicable Code (Model Code Basis)
Life Safety Code	2009 NFPA 101, Life Safety Code, amended by State of Maine
Portland FD Rules and Regulations	City of Portland Ordinances

Building Overview

Existing Occupancy: Warehouse, Business

Proposed Occupancy: same with Assembly (conference room >50)

LSC

Only those provisions applicable to this project are addressed in this report.

Chapter 13, New Assembly Occupancies
Chapter 39, Existing Business Occupancies
Chapter 42, Existing Storage Occupancies
Chapter 43, Building Rehabilitation
Other chapters as referenced by the above

6.1.14.3 Mixed Occupancies.

6.1.14.3.1 Each portion of the building shall be classified as to its use in accordance with Section 6.1.

6.1.14.3.2 The means of egress facilities, type of construction, protection, and other safeguards in the building shall comply with the most restrictive fire and life safety requirements of the occupancies involved.



STATE OF MAINE - DEPARTMENT OF PUBLIC SAFETY
OFFICE OF STATE FIRE MARSHAL
45 COMMERCE DR STE 1
AUGUSTA, ME 04333-0001

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COMMISSIONER OF PUBLIC SAFETY

Copy 2 - Architect



Commercial
Construction
Consulting, Inc.

2301 Congress Street, Portland, ME Investigation and Evaluation report

Hans D. Strauch, LEED AP, AIA
Principal
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Chapter 43, Building Rehabilitation
Other chapters as referenced by the above

6.1.14.3 Mixed Occupancies.

6.1.14.3.1 Each portion of the building shall be classified as to its use in accordance with Section 6.1.

6.1.14.3.2 The means of egress facilities, type of construction, protection, and other safeguards in the building shall comply with the most restrictive fire and life safety requirements of the occupancies involved.



Analysis: As each parameter is reviewed, the more/most restrictive requirement applies.

43.1.2 Applicable Requirements.

43.1.2.1 Any building undergoing repair, renovation, modification, or shall comply with both of the following:

- (1) Requirements of the applicable existing occupancy chapters
- (2) Requirements of the applicable section of this chapter (see Sections 43.3, 43.4, 43.5, and 43.6)

Analysis: The proposed project must comply with the provisions applicable to each existing or new occupancy; and the provisions of Building Rehabilitation of Chapter 43.

43.2.2.1.4 Reconstruction. The reconfiguration of a space that affects an exit or a corridor shared by more than a single tenant; or the reconfiguration of a space such that the rehabilitation work area is not permitted to be occupied because existing means of egress and fire protection systems, or their equivalent, are not in place or continuously maintained.

Analysis: The proposed project is a Reconstruction. Provisions for Renovations and Modifications must also be met.

Construction Type

12.1.6 Minimum Construction Requirements. Assembly occupancies shall be limited to the construction types specified in Table 12.1.6, based on the number of stories in height as defined in Section 4.6.3, unless otherwise permitted by the following (see 8.2.1.):

Analysis: The building is a Type II (000) building with a sprinkler system.

In accordance with Table 12.1.6, the Assembly use is permitted provided the assembly spaces are limited to an occupant load of 300. One conference room will have 54 occupants; there are no other assembly-type spaces with more than 50 occupants.

There are no requirements for Business or Storage uses.

Conclusion: The building is compliant with these provisions.

Means of Egress

12.2.1 General. All means of egress shall be in accordance with Chapter 7 and this chapter.

43.6.2.2 Capacity of Means of Egress. The capacity of means of egress, determined in accordance with Section 7.3, shall be sufficient for the occupant load thereof, unless one of the following conditions exists:

- (1) The authority having jurisdiction shall be permitted to establish the occupant load as the number of persons for which existing means of egress is adequate, provided that measures are established to prevent occupancy by a greater number of persons.
- (2) The egress capacity shall have been previously approved as being adequate.

Analysis: The occupant loads and means of egress capacities will be determined via calculation.



Occupant Load: The occupant load for each floor was calculated in accordance with Section 7.3.1.2. The tables are as follows:

Occupant Load (RILSC Section 7.3.1.2)

Floor	Area	Floor Area (ft ²)	Floor Area Per Occupant (ft ² /occupant)	Occupant Load
1	Warehouse	19,129	500 gross	39
	Total for floor			39
2 O	Offices	12,250	100 gross	123
	Conference Rooms, etc.	1,320	15 net	88
	Auditorium	--	Fixed seats	54
	Total for floor			265
2 W	Warehouse	43,940	500 Gross	88
	Total for floor			88

The number of required exits is shown below.

Number of Exits (RILSC Section 7.4.1.2)

Floor	Occupant Load	Required Number of Exits	Number of Exits Provided
1	39	2	3
2 O	265	2	3
2 W	88	2	2

Analysis: Each story has an adequate number of exits.

Exit Capacity (RILSC Section 7.3.3.1)

Floor	Occupant Load	Exit Allowance (in/person)	Total Exit Capacity Provided (persons)		Status
1	39	0.30 (Stair) 0.20 (Door)	Left Door 34" door/0.2=170	Center Door 34" door/0.2=170	Compliant
			Right Door 34" door/0.2=170		
			Total = 510		
2 O	265	0.30 (Stair) 0.20 (Door)	Main Entrance 34" door/0.2=170	Side Door 34" door/0.2=170	Compliant
			Rear Door 34" door/0.2=170		
			Total = 510		
2 W	88	0.30 (Stair) 0.20 (Door)	Front Door 34" door/0.2=170	Rear Door 34" door/0.2=170	Compliant
			Total per Floor=340		

Analysis: The building has adequate egress capacity for the proposed occupant loads. Exit access travel distances are noted on the plans.



43.6.2.4 Illumination of Means of Egress.

43.6.2.4.1 Means of egress in rehabilitation work areas shall be provided with illumination in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy.

43.6.2.4.2 Where the reconstruction rehabilitation work area on any floor exceeds 50 percent of that floor area, means of egress throughout the floor shall be provided with illumination in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy, unless otherwise specified in 43.6.2.4.4.

43.6.2.4.3 In a building with rehabilitation work areas involving more than 50 percent of the aggregate floor area within the building, the means of egress within the rehabilitation work area and the means of egress, including the exit and exit discharge paths, serving the rehabilitation work area shall be provided with illumination in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy, unless otherwise specified in 43.6.2.4.4.

43.6.2.4.4 Means of egress within a tenant space that is entirely outside the rehabilitation work area shall be permitted to comply with the requirements for illumination applicable to the existing occupancy in lieu of the requirements for illumination applicable to new construction required by 43.6.2.4.2 and 43.6.2.4.3.

Analysis: The project will comply with these provisions.

43.6.2.5 Exit Signs.

43.6.2.5.1 Means of egress in rehabilitation work areas shall be provided with exit signs in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy.

43.6.2.5.2 Where the reconstruction rehabilitation work area on any floor exceeds 50 percent of that floor area, means of egress throughout the floor shall be provided with exit signs in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy, unless otherwise specified in 43.6.2.5.4.

43.6.2.5.3 In a building with rehabilitation work areas involving over 50 percent of the aggregate floor area within the building, means of egress from the floor of the highest rehabilitation work area to the floor of exit discharge shall be provided with exit signs in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy, unless otherwise specified in 43.6.2.5.4.

43.6.2.5.4 Means of egress within a tenant space that is entirely outside the rehabilitation work area shall be permitted to comply with the requirements for exit signs applicable to the existing occupancy in lieu of the requirements for exit signs applicable to new construction required by 43.6.2.5.2 and 43.6.2.5.3.

Analysis: The project will comply with these provisions.

43.6.2.6 Handrails.

43.6.2.6.1 The requirements of 43.6.2.6.2 through 43.6.2.6.3 shall apply from the highest rehabilitation work area floor to the level of exit discharge.

43.6.2.6.2 Every required stairway that is part of the means of egress for any rehabilitation work area that is not provided with at least one handrail, or in which the existing handrails are judged to be in danger of collapsing, shall be provided with handrails for the full length of the run of stairs on at least one side.

43.6.2.6.3 Where there are no handrails or where the existing handrails must be replaced in accordance with 43.6.2.6.2, the handrails shall be designed and installed in accordance with the requirements of this Code applicable to new construction for the occupancy.

Analysis: The project will comply with these provisions.

43.6.2.7 Guards.

43.6.2.7.1 The requirements of 43.6.2.7.2 and 43.6.2.7.3 shall apply from the highest rehabilitation work area floor to the level of exit discharge but shall be required to be applied only to the egress path of any rehabilitation work area.

43.6.2.7.2 Every open portion of a stair, landing, or balcony that is more than 30 in. (760 mm) above the floor or grade below and not provided with guards, or in which the existing guards are judged to be in danger of collapsing, shall be provided with guards.



43.6.2.7.3 Where no guards exist, or where existing guards must be replaced in accordance with 43.6.2.7.2, the guards shall be designed and installed in accordance with the requirements of this Code applicable to new construction for the occupancy.

Analysis: The project will comply with these provisions.

Interior Finishes

12.3.3.3 Assembly Areas. Interior wall and ceiling finish materials complying with Section 10.2 shall be Class A or Class B in general assembly areas having occupant loads of more than 300 and shall be Class A, Class B, or Class C in assembly areas having occupant loads of 300 or fewer.

43.4.2 Interior Finish Requirements. New interior finish materials shall meet the requirements for new construction.

Analysis: The interior finishes will comply with the above requirements.

Fire Protection Systems

43.6.4 Extinguishing Systems.

43.6.4.1 In a building with rehabilitation work areas involving over 50 percent of the aggregate building area, automatic sprinkler systems shall be provided on the highest floor containing a rehabilitation work area and on all floors below in accordance with requirements of other sections of this Code applicable to new construction for the occupancy.

43.6.4.2 On any story with rehabilitation work areas involving over 50 percent of the area of the story, a sprinkler system shall be provided throughout the story in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy.

43.6.4.3 Where sprinklers are installed in an elevator hoistway or elevator machine room as part of the rehabilitation work, the elevators shall comply with the fire fighters' emergency operations requirements of ASME A17.1, Safety Code for Elevators and Escalators.

Analysis: The building will be fully sprinklered as part of the project. Standpipes are not required.

Fire Alarm Systems

Analysis: A fire alarm system will be provided in accordance with the building code, as the Life Safety Code does not require one for these occupancies.



Occupant Load: The occupant load for each floor was calculated in accordance with Section 7.3.1.2. The tables are as follows:

Occupant Load (RILSC Section 7.3.1.2)

Floor	Area	Floor Area (ft ²)	Floor Area Per Occupant (ft ² /occupant)	Occupant Load
1	Warehouse	19,129	500 gross	39
	Total for floor			39
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The number of required exits is shown below.

Number of Exits (RILSC Section 7.4.1.2)

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1	39	2	3
2 O	265	2	3
2 W	88	2	2

Analysis: Each story has an adequate number of exits.

Exit Capacity (RILSC Section 7.3.3.1)

Floor	Occupant Load	Exit Allowance (in/person)	Total Exit Capacity Provided (persons)		Status
1	39	0.30 (Stair) 0.20 (Door)	Left Door 34" door/0.2=170	Center Door 34" door/0.2=170	Compliant
			Right Door 34" door/0.2=170		
			Total = 510		
2 O	265	0.30 (Stair) 0.20 (Door)	Main Entrance 34" door/0.2=170	Side Door 34" door/0.2=170	Compliant
			Rear Door 34" door/0.2=170		
			Total = 510		
2 W	88	0.30 (Stair) 0.20 (Door)	Front Door 34" door/0.2=170	Rear Door 34" door/0.2=170	Compliant
			Total per Floor=340		

Analysis: The building has adequate egress capacity for the proposed occupant loads. Exit access travel distances are noted on the plans.



43.6.2.4 Illumination of Means of Egress.

43.6.2.4.1 Means of egress in rehabilitation work areas shall be provided with illumination in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy.

43.6.2.4.2 Where the reconstruction rehabilitation work area on any floor exceeds 50 percent of that floor area, means of egress throughout the floor shall be provided with illumination in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy, unless otherwise specified in 43.6.2.4.4.

43.6.2.4.3 In a building with rehabilitation work areas involving more than 50 percent of the aggregate floor area within the building, the means of egress within the rehabilitation work area and the means of egress, including the exit and exit discharge paths, serving the rehabilitation work area shall be provided with illumination in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy, unless otherwise specified in 43.6.2.4.4.

43.6.2.4.4 Means of egress within a tenant space that is entirely outside the rehabilitation work area shall be permitted to comply with the requirements for illumination applicable to the existing occupancy in lieu of the requirements for illumination applicable to new construction required by 43.6.2.4.2 and 43.6.2.4.3.

Analysis: The project will comply with these provisions.

43.6.2.5 Exit Signs.

43.6.2.5.1 Means of egress in rehabilitation work areas shall be provided with exit signs in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy.

43.6.2.5.2 Where the reconstruction rehabilitation work area on any floor exceeds 50 percent of that floor area, means of egress throughout the floor shall be provided with exit signs in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy, unless otherwise specified in 43.6.2.5.4.

43.6.2.5.3 In a building with rehabilitation work areas involving over 50 percent of the aggregate floor area within the building, means of egress from the floor of the highest rehabilitation work area to the floor of exit discharge shall be provided with exit signs in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy, unless otherwise specified in 43.6.2.5.4.

43.6.2.5.4 Means of egress within a tenant space that is entirely outside the rehabilitation work area shall be permitted to comply with the requirements for exit signs applicable to the existing occupancy in lieu of the requirements for exit signs applicable to new construction required by 43.6.2.5.2 and 43.6.2.5.3.

Analysis: The project will comply with these provisions.

43.6.2.6 Handrails.

43.6.2.6.1 The requirements of 43.6.2.6.2 through 43.6.2.6.3 shall apply from the highest rehabilitation work area floor to the level of exit discharge.

43.6.2.6.2 Every required stairway that is part of the means of egress for any rehabilitation work area that is not provided with at least one handrail, or in which the existing handrails are judged to be in danger of collapsing, shall be provided with handrails for the full length of the run of stairs on at least one side.

43.6.2.6.3 Where there are no handrails or where the existing handrails must be replaced in accordance with 43.6.2.6.2, the handrails shall be designed and installed in accordance with the requirements of this Code applicable to new construction for the occupancy.

Analysis: The project will comply with these provisions.

43.6.2.7 Guards.

43.6.2.7.1 The requirements of 43.6.2.7.2 and 43.6.2.7.3 shall apply from the highest rehabilitation work area floor to the level of exit discharge but shall be required to be applied only to the egress path of any rehabilitation work area.

43.6.2.7.2 Every open portion of a stair, landing, or balcony that is more than 30 in. (760 mm) above the floor or grade below and not provided with guards, or in which the existing guards are judged to be in danger of collapsing, shall be provided with guards.



43.6.2.7.3 Where no guards exist, or where existing guards must be replaced in accordance with 43.6.2.7.2, the guards shall be designed and installed in accordance with the requirements of this Code applicable to new construction for the occupancy.

Analysis: The project will comply with these provisions.

Interior Finishes

12.3.3.3 Assembly Areas. Interior wall and ceiling finish materials complying with Section 10.2 shall be Class A or Class B in general assembly areas having occupant loads of more than 300 and shall be Class A, Class B, or Class C in assembly areas having occupant loads of 300 or fewer.

43.4.2 Interior Finish Requirements. New interior finish materials shall meet the requirements for new construction.

Analysis: The interior finishes will comply with the above requirements.

Fire Protection Systems

43.6.4 Extinguishing Systems.

43.6.4.1 In a building with rehabilitation work areas involving over 50 percent of the aggregate building area, automatic sprinkler systems shall be provided on the highest floor containing a rehabilitation work area and on all floors below in accordance with requirements of other sections of this Code applicable to new construction for the occupancy.

43.6.4.2 On any story with rehabilitation work areas involving over 50 percent of the area of the story, a sprinkler system shall be provided throughout the story in accordance with the requirements of other sections of this Code applicable to new construction for the occupancy.

43.6.4.3 Where sprinklers are installed in an elevator hoistway or elevator machine room as part of the rehabilitation work, the elevators shall comply with the fire fighters' emergency operations requirements of ASME A17.1, Safety Code for Elevators and Escalators.

Analysis: The building will be fully sprinklered as part of the project. Standpipes are not required.

Fire Alarm Systems

Analysis: A fire alarm system will be provided in accordance with the building code, as the Life Safety Code does not require one for these occupancies.

Protection Professionals

FIRE ALARM AND EMERGENCY COMMUNICATION SYSTEM

RECORD OF COMPLETION

1. PROPERTY INFORMATION

Name of property: MPX-SFX
Address: 2275 CONGRESS STREET PORTLAND MAINE
Description of property: WAREHOUSE / OFFICE
Occupancy type: STORAGE / BUSINESS
Name of property representative:
Address:
Phone: Fax: E-mail:
Authority having jurisdiction over this property: PORTLAND FIRE DEPARTMENT
Phone: 207-874-8576 Fax: E-mail:

2. INSTALLATION, SERVICE, AND TESTING CONTRACTOR INFORMATION

Installation contractor for this equipment: **Protection Professionals**
Address: 325 US Route One, Falmouth, ME 04105
License or certification number:
Phone: 207-775-5755 Fax: 207-781-2064 E-mail: mail@protectionprofessionals.net
Service organization for this equipment: **Protection Professionals**
Address: 325 US Route One, Falmouth, ME 04105
License or certification number:
Phone: 207-775-5755 Fax: 207-781-2064 E-mail: mail@protectionprofessionals.net
A contract for test and inspection in accordance with NFPA standards is in effect as of:
Contracted testing company: Protection Professionals
Address: 325 US Route One, Falmouth, ME 04105
Phone: 207-775-5755 Fax: 207-781-2064 E-mail: mail@protectionprofessionals.net
Contract expires: Contract number: Frequency of routine inspections: 1 / Year

3. DESCRIPTION OF SYSTEM OR SERVICE

- Fire alarm system (nonvoice)
 Fire alarm with in-building fire emergency voice alarm communication system (EVACS)
 Mass notification system (MNS)
 Combination system, with the following components:
 Fire alarm EVACS MNS Two-way, in-building, emergency communication system
 Other (specify):

NFPA 72, Fig. 10.10.2.1 (p. 1 of 12)

Protection Professionals

3. DESCRIPTION OF SYSTEM OR SERVICE (continued)

NFPA 72 edition: 2010

Additional description of system(s):

3.1 Control Unit

Manufacturer: SIEMENS CERBERUS-PRO

Model number: FC-901

3.2 Mass Notification System

This system does not incorporate an MNS

3.2.1 System Type:

In-building MNS—combination

In-building MNS—stand-alone

Wide-area MNS

Distributed recipient MNS

Other (specify):

3.2.2 System Features:

Combination fire alarm/MNS

MNS autonomous control unit

Wide-area MNS to regional national alerting interface

Local operating console (LOC)

Direct recipient MNS (DRMNS)

Wide-area MNS to DRMNS interface

Wide-area MNS to high-power speaker array (HPSA) interface

In-building MNS to wide-area MNS interface

Other (specify):

3.3 System Documentation

An owner's manual, a copy of the manufacturer's instructions, a written sequence of operation, and a copy of the numbered record drawings are stored on site. Location: fire alarm document cabinet

3.4 System Software

This system does not have alterable site-specific software.

Operating system (executive) software revision level:

Site-specific software revision date:

Revision completed by:

A copy of the site-specific software is stored on site. Location:

3.5 Off-Premises Signal Transmission

This system does not have off-premises transmission.

Name of organization receiving alarm signals with phone numbers:

Alarm:

Phone: 1-

Supervisory:

Phone: 1-

Trouble:

Phone: 1-

Entity to which alarms are retransmitted:

Phone:

Method of retransmission:

If Chapter 26, specify the means of transmission from the protected premises to the supervising station:

If Chapter 27, specify the type of auxiliary alarm system: Local energy Shunt Wired Wireless

Protection Professionals

4. CIRCUITS AND PATHWAYS

4.1 Signaling Line Pathways

4.1.1 Pathways Class Designations and Survivability

Pathways class: B Survivability level: 0 Quantity: 1
(See NFPA 72, Sections 12.3 and 12.4)

4.1.2 Pathways Utilizing Two or More Media

Quantity: N/A Description: N/A

4.1.3 Device Power Pathways

- No separate power pathways from the signaling line pathway
- Power pathways are separate but of the same pathway classification as the signaling line pathway
- Power pathways are separate and different classification from the signaling line pathway

4.1.4 Isolation Modules

Quantity: 1

4.2 Alarm Initiating Device Pathways

4.2.1 Pathways Class Designations and Survivability

Pathways class: N/A Survivability level: N/A Quantity: N/A
(See NFPA 72, Sections 12.3 and 12.4)

4.2.2 Pathways Utilizing Two or More Media

Quantity: N/A Description: N/A

4.2.3 Device Power Pathways

- No separate power pathways from the initiating device pathway
- Power pathways are separate but of the same pathway classification as the initiating device pathway
- Power pathways are separate and different classification from the initiating device pathway

4.3 Non-Voice Audible System Pathways

4.3.1 Pathways Class Designations and Survivability

Pathways class: B Survivability level: 0 Quantity: 6
(See NFPA 72, Sections 12.3 and 12.4)

4.3.2 Pathways Utilizing Two or More Media

Quantity: N/A Description: N/A

4.3.3 Device Power Pathways

- No separate power pathways from the notification appliance pathway
- Power pathways are separate but of the same pathway classification as the notification appliance pathway
- Power pathways are separate and different classification from the notification appliance pathway

Protection Professionals

5. ALARM INITIATING DEVICES

5.1 Manual Initiating Devices

5.1.1 Manual Fire Alarm Boxes

This system does not have manual fire alarm boxes.

Type and number of devices: Addressable: 4 Conventional: 0 Coded: N/A Transmitter: N/A
Other (specify): N/A

5.1.2 Other Alarm Boxes

This system does not have other alarm boxes.

Description: N/A
Type and number of devices: Addressable: N/A Conventional: N/A Coded: N/A Transmitter: N/A
Other (specify): N/A

5.2 Automatic Initiating Devices

5.2.1 Smoke Detectors

This system does not have smoke detectors.

Type and number of devices: Addressable: 1 Conventional: 0
Other (specify): N/A
Type of coverage: Complete area Partial area Nonrequired partial area
Other (specify): N/A
Type of smoke detector sensing technology: Ionization Photoelectric Multicriteria Aspirating Beam
Other (specify): N/A

5.2.2 Duct Smoke Detectors

This system does not have alarm-causing duct smoke detectors.

Type and number of devices: Addressable: N/A Conventional: N/A
Other (specify): N/A
Type of coverage: N/A
Type of smoke detector sensing technology: Ionization Photoelectric Aspirating Beam

5.2.3 Radiant Energy (Flame) Detectors

This system does not have radiant energy detectors.

Type and number of devices: Addressable: N/A Conventional: N/A
Other (specify): N/A
Type of coverage: N/A

5.2.4 Gas Detectors

This system does not have gas detectors.

Type of detector(s): N/A
Number of devices: Addressable: N/A Conventional: N/A
Type of coverage: N/A

5.2.5 Heat Detectors

This system does not have heat detectors.

Type and number of devices: Addressable: Conventional:
Type of coverage: Complete area Partial area Nonrequired partial area Linear Spot
Type of heat detector sensing technology: Fixed temperature Rate-of-rise Rate compensated

Protection Professionals

5. ALARM INITIATING DEVICES (continued)

5.2.6 Addressable Monitoring Modules

This system does not have monitoring modules.

Number of devices: 0

5.2.7 Waterflow Alarm Devices

This system does not have waterflow alarm devices.

Type and number of devices: Addressable: 1 Conventional: Coded: N/A Transmitter: N/A

5.2.8 Alarm Verification

This system does not incorporate alarm verification.

Number of devices subject to alarm verification: N/A Alarm verification set for: N/A seconds

5.2.9 Presignal

This system does not incorporate pre-signal.

Number of devices subject to presignal: N/A

Describe presignal functions: N/A

5.2.10 Positive Alarm Sequence (PAS)

This system does not incorporate PAS.

Describe PAS: N/A

5.2.11 Other Initiating Devices

This system does not have other initiating devices.

Describe: N/A

6. SUPERVISORY SIGNAL-INITIATING DEVICES

6.1 Sprinkler System Supervisory Devices

This system does not have sprinkler supervisory devices.

Type and number of devices: Addressable: 2 Conventional: 2 Coded: N/A Transmitter: N/A

Other (specify): N/A

6.2 Fire Pump Description and Supervisory Devices

This system does not have a fire pump.

Type fire pump: Electric pump Engine

Type and number of devices: Addressable: N/A Conventional: N/A Coded: N/A Transmitter: N/A

Other (specify): N/A

6.2.1 Fire Pump Functions Supervised

Power Running Phase reversal Selector switch not in auto Engine or control panel trouble Low fuel

Other (specify): N/A

6.3 Duct Smoke Detectors (DSDs)

This system does not have DSDs causing supervisory signals.

Type and number of devices: Addressable: 3 Conventional:

Other (specify): N/A

Type of coverage: N/A

Type of smoke detector sensing technology: Ionization Photoelectric Aspirating Beam

6.4 Other Supervisory Devices

This system does not have other supervisory devices.

Describe: N/A

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7. MONITORED SYSTEMS

7.1 Engine-Driven Generator

This system does not have a generator.

7.1.1 Generator Functions Supervised

Engine or control panel trouble Generator running Selector switch not in auto Low fuel

Other (specify): N/A

7.2 Special Hazard Suppression Systems

This system does not monitor special hazard systems.

Description of special hazard system(s): N/A

7.3 Other Monitoring Systems

This system does not monitor other systems.

Description of special hazard system(s): N/A

8. ANNUNCIATORS

This system does not have annunciators.

8.1 Location and Description of Annunciators

Location 1: _____

Location 2: _____

Location 3: _____

9. ALARM NOTIFICATION APPLIANCES

9.1 In-Building Fire Emergency Voice Alarm Communication System

This system does not have an EVACS.

Number of single voice alarm channels: N/A

Number of multiple voice alarm channels: N/A

Number of speakers: N/A

Number of speaker circuits: N/A

Location of amplification and sound-processing equipment: N/A

Location of paging microphone stations:

Location 1: N/A

Location 2: N/A

Location 3: N/A

9.2 Nonvoice Notification Appliances

This system does not have nonvoice notification appliances.

Horns: 15

With visible: 16

Bells: N/A

With visible: N/A

Chimes: N/A

With visible: N/A

Visible only: 2

Other (describe): N/A

9.3 Notification Appliance Power Extender Panels

This system does not have power extender panels.

Quantity: 1

Locations: FIRE ALARM CONTROL ROOM

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10. MASS NOTIFICATION CONTROLS, APPLIANCES, AND CIRCUITS This system does not have an MNS.

10.1 MNS Local Operating Consoles

Location 1: N/A

Location 2: N/A

Location 3: N/A

10.2 High-Power Speaker Arrays

Number of HPSA speaker initiation zones: N/A

Location 1: N/A

Location 2: N/A

Location 3: N/A

10.3 Mass Notification Devices

Combination fire alarm/MNS visible appliances: N/A

MNS-only visible appliances: N/A

Textual signs: N/A

Other (describe): N/A

Supervision class: N/A

10.3.1 Special Hazard Notification

This system does not have special suppression predischARGE notification.

MNS systems DO NOT override notification appliances required to provide special suppression predischARGE notification.

11. TWO-WAY EMERGENCY COMMUNICATION SYSTEMS

11.1 Telephone System

This system does not have a two-way telephone system.

Number of telephone jacks installed: N/A

Number of warden stations installed: N/A

Number of telephone handsets stored on site: N/A

Type of telephone system installed: Electrically powered Sound powered

11.2 Two-Way Radio Communications Enhancement System

This system does not have a two-way radio communications enhancement system.

Percentage of area covered by two-way radio service: Critical areas: N/A % General building areas: N/A %

Amplification component locations: N/A

Inbound signal strength: N/A

dBm

Outbound signal strength: N/A

dBm

Donor antenna isolation is: N/A

dB above the signal booster gain

Radio frequencies covered: N/A

Radio system monitor panel location: N/A

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11. TWO-WAY EMERGENCY COMMUNICATION SYSTEMS (continued)

11.3 Area of Refuge (Area of Rescue Assistance) Emergency Communications Systems

This system does not have an area of refuge (area of rescue assistance) emergency communications system.

Number of stations: N/A Location of central control point: N/A

Days and hours when central control point is attended: N/A

Location of alternate control point: N/A

Days and hours when alternate control point is attended: N/A

11.4 Elevator Emergency Communications Systems

This system does not have an elevator emergency communications system.

Number of elevators with stations: N/A Location of central control point: N/A

Days and hours when central control point is attended: N/A

Location of alternate control point: N/A

Days and hours when alternate control point is attended: N/A

11.5 Other Two-Way Communication Systems

Describe: N/A

12. CONTROL FUNCTIONS

This system activates the following control functions:

Hold-open door releasing devices Smoke management HVAC shutdown F/S dampers

Door unlocking Elevator recall Fuel source shutdown Extinguishing agent release

Elevator shunt trip Mass notification system override of fire alarm notification appliances

Other (specify): N/A

12.1 Addressable Control Modules

This system does not have control modules.

Number of devices:

Other (specify): N/A

13. SYSTEM POWER

13.1 Control Unit

13.1.1 Primary Power

Input voltage of control panel: 120VAC Control panel amps: 5

Overcurrent protection: Type: CRKT BREAKER Amps: 20

Location (of primary supply panel board): LP3 CKT 2 MAIN ELECTRICAL ROOM

Disconnecting means location: LP3 CKT 2

13.1.2 Engine-Driven Generator

This system does not have a generator.

Location of generator: N/A

Location of fuel storage: N/A Type of fuel: N/A

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13. SYSTEM POWER (continued)

13.1.3 Uninterruptible Power System

This system does not have a UPS.

Equipment powered by a UPS system: N/A

Location of UPS system: N/A

Calculated capacity of UPS batteries to drive the system components connected to it:

In standby mode (hours): N/A

In alarm mode (minutes): N/A

13.1.4 Batteries

Location: IN PANEL

Type: SLA

Nominal voltage: 24VDC

Amp/hour rating: 12AH

Calculated capacity of batteries to drive the system:

In standby mode (hours): 24 HOURS

In alarm mode (minutes): 5MIN

Batteries are marked with date of manufacture

Battery calculations are attached

13.2 In-Building Fire Emergency Voice Alarm Communication System or Mass Notification System

This system does not have an EVACS or MNS system.

13.2.1 Primary Power

Input voltage of EVACS or MNS panel: N/A

EVACS or MNS panel amps: N/A

Overcurrent protection: Type: N/A

Amps: N/A

Location (of primary supply panel board): N/A

Disconnecting means location: N/A

13.2.2 Engine-Driven Generator

This system does not have a generator.

Location of generator: N/A

Location of fuel storage: N/A

Type of fuel: N/A

13.2.3 Uninterruptible Power System

This system does not have a UPS.

Equipment powered by a UPS system: N/A

Location of UPS system: N/A

Calculated capacity of UPS batteries to drive the system components connected to it:

In standby mode (hours): N/A

In alarm mode (minutes): N/A

13.2.4 Batteries

Location: N/A

Type: N/A

Nominal voltage: N/A

Amp/hour rating: N/A

Calculated capacity of batteries to drive the system:

In standby mode (hours): N/A

In alarm mode (minutes): N/A

Batteries are marked with date of manufacture

Battery calculations are attached

Protection Professionals

13. SYSTEM POWER (continued)

13.3 Notification Appliance Power Extender Panels

This system does not have power extender panels.

13.3.1 Primary Power

Input voltage of power extender panel(s): 120VAC

Power extender panel amps: 5

Overcurrent protection: Type: CKT BREAKER

Amps: 20

Location (of primary supply panel board): LP3 CKT 2 MAIN ELECTRICAL ROOM

Disconnecting means location: LP3 CKT 2 MAIN ELECTRICAL ROOM

13.3.2 Engine-Driven Generator

This system does not have a generator.

Location of generator: N/A

Location of fuel storage: N/A

Type of fuel: N/A

13.3.3 Uninterruptible Power System

This system does not have a UPS.

Equipment powered by a UPS system: N/A

Location of UPS system: N/A

Calculated capacity of UPS batteries to drive the system components connected to it:

In standby mode (hours): N/A

In alarm mode (minutes): N/A

13.3.4 Batteries

Location: IN PANEL Type: SLA

Nominal voltage: 24VDC Amp/hour rating: 7AH

Calculated capacity of batteries to drive the system:

In standby mode (hours): 24 HOURS

In alarm mode (minutes): 5 MIN.

Batteries are marked with date of manufacture

Battery calculations are attached

14. RECORD OF SYSTEM INSTALLATION

Fill out after all installation is complete and wiring has been checked for opens, shorts, ground faults, and improper branching, but before confucting operational acceptance tests.

This is a: New system Modification to an existing system Permit number: _____

The system has been installed in accordance with the following requirements: (Note any or all that apply.)

NFPA 72, Edition: 2010

NFPA 70, National Electrical Code, Article 760, Edition: 2008

Manufacturer's published instructions

Other (specify): AHJ

System deviations from referenced NFPA standards: _____

Signed: _____

Printed name: _____

Date: _____

Organization: _____

Title: _____

Phone: _____

NFPA 72, Fig. 10.18.2.1.1 (p. 10 of 12)

Protection Professionals

15. RECORD OF SYSTEM OPERATIONAL ACCEPTANCE TEST

New system

All operational features and functions of this system were tested by, or in the presence of, the signer shown below, on the date shown below, and were found to be operating properly in accordance with the requirements for the following:

Modifications to an existing system

All newly modified operational features and functions of the system were tested by, or in the presence of, the signer shown below, on the date shown below, and were found to be operating properly in accordance with the requirements of the following:

NFPA 72, Edition: 2010

NFPA 70, National Electrical Code, Article 760, Edition: 2008

Manufacturer's published instructions

Other (specify): AHJ

Individual device testing documentation [Inspection and Testing Form (Figure 14.6.2.4) is attached]

Signed:



Printed name: JEREMY LAMBERT

Date: 10-23-12

Organization: Protection Professionals

Title: technician

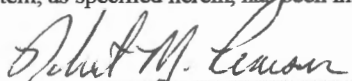
Phone: 207-775-5755

16. CERTIFICATIONS AND APPROVALS

16.1 System Installation Contractor:

This system, as specified herein, has been installed and tested according to all NFPA standards cited herein.

Signed:



Printed name: ROBERT M. PEARSON

Date: 10/23/12

Organization: R.M. PEARSON, INC.

Title: PRESIDENT

Phone: 207-324-8432

16.2 System Service Contractor:

The undersigned has a service contract for this system in effect as of the date shown below.

Signed:



Printed name:

Date: 10-23-12

Organization:

PROTECTION PROFESSIONALS

Title: PRESIDENT

Phone: 207-775-5755

16.3 Supervising Station:

This system, as specified herein, will be monitored according to all NFPA standards cited herein.

Signed:

Printed name:

Date:

Organization:

Title:

Phone:

Protection Professionals

16. CERTIFICATIONS AND APPROVALS *(continued)*

16.4 Property or Owner Representative:

This system, as specified herein, will be monitored according to all NFPA standards cited herein.

Signed: _____ Printed name: _____ Date: _____
Organization: _____ Title: _____ Phone: _____

16.5 Authority Having Jurisdiction:

I have witnessed a satisfactory acceptance test of this system and find it to be installed and operating properly in accordance with its approved plans and specifications, with its approved sequence of operations, and with all NFPA standards cited herein.

Signed: _____ Printed name: _____ Date: _____
Organization: _____ Title: _____ Phone: _____

NOTES:

Protection Professionals

FIRE ALARM AND EMERGENCY COMMUNICATION SYSTEM INSPECTION AND TESTING FORM

Date of this inspection or test: 10-23-2012

Time of inspection or test: 11:00

1. PROPERTY INFORMATION

Name of property: SFX

Address: 2275 CONGRESS STREET PORTLAND MAINE

Description of property: WAREHOUSE OFFICE

Occupancy type: (Circle) Assembly / Education / Daycare / Healthcare / Ambulatory Healthcare / Detention / Residential
1 & 2 Family / Lodging / Hotel / Dormitory / Apt / Res Board / Mercantile / Bus / Industrial / Storage

Name of property representative:

Address:

Phone:

Fax:

E-mail:

Authority having jurisdiction over this property:

Phone:

Fax:

E-mail:

2. INSTALLATION, SERVICE, AND TESTING CONTRACTOR INFORMATION

Service and/or testing organization for this equipment: Protection Professionals

Address: 325 US Route 1, Falmouth, ME 04105

Phone: 207-775-5755

Fax: 207-781-2064

E-mail: mail@protectionprofessionals.net

Service technician or tester: JEREMY LAMBERT

Qualifications of technician or tester: NICET Certified Technician

I.M.S.A

Licensed

A contract for test and inspection in accordance with NFPA standards is in effect as of:

The contract expires:

Contract number:

Frequency of tests and inspections: Annual

Monitoring organization for this equipment:

Entity to which alarms are retransmitted:

Phone:

3. TYPE OF SYSTEM OR SERVICE

Fire alarm system (nonvoice)

Fire alarm with in-building fire emergency voice alarm communication system (EVACS)

Mass notification system (MNS)

Combination system, with the following components:

Fire alarm

EVACS

MNS

Two-way, in-building, emergency communication system

NFPA 72, Fig. 14.6.2.4 (p. 16 of 12)

Protection Professionals

Other (specify): _____

3. TYPE OF SYSTEM OR SERVICE (continued)

NFPA 72 edition: TESTED TO 2010 Additional description of system(s): _____

3.1 Control Unit

Manufacturer: SIEMENS CERBERUS PRO

Model number: FC-901

3.2 Mass Notification System

This system does not incorporate an MNS

3.2.1 System Type:

In-building MNS—combination

In-building MNS—stand-alone Wide-area MNS Distributed recipient MNS

Other (specify): _____

3.2.2 System Features:

Combination fire alarm/MNS MNS ACU only Wide-area MNS to regional national alerting interface

Local operating console (LOC) Direct recipient MNS (DRMNS) Wide-area MNS to DRMNS interface

Wide-area MNS to high-power speaker array (HPSA) interface In-building MNS to wide-area MNS interface

Other (specify): _____

3.3 System Documentation

An owner's manual, a copy of the manufacturer's instructions, a written sequence of operation, and a copy of the record record drawings are stored on site. Location: DOCUMENT CABINET FACP ROOM

3.4 System Software

This system does not have alterable site-specific software.

Software revision number: _____

Software last updated on: _____

A copy of the site-specific software is stored on site. Location: _____

4. SYSTEM POWER

4.1 Control Unit

4.1.1 Primary Power

Input voltage of control panel: 120VAC

Control panel amps: 5AMPS

4.1.2 Engine-Driven Generator

This system does not have a generator.

Location of generator: N/A

Location of fuel storage: N/A

Type of fuel: N/A

4.1.3 Uninterruptible Power System

This system does not have UPS.

Equipment powered by a UPS system: N/A

Location of UPS system: N/A

Calculated capacity of UPS batteries to drive the system components connected to it:

In standby mode (hours): N/A

In alarm mode (minutes): N/A

NFPA 72, Fig. 14.6.2.4 (p. 2 of 12)

Protection Professionals

4. SYSTEM POWER (continued)

4.1.4 Batteries

Location: _____ Type: SLA Nominal voltage: 24VDC Amp/hour rating: 12AH

Calculated capacity of batteries to drive the system: _____

In standby mode (hours): 24HRS In alarm mode (minutes): 5MIN

Batteries are marked with date of manufacture.

4.2 In-Building Fire Emergency Voice Alarm Communication System or Mass Notification System

This system does not have an EVACS or MNS.

4.2.1 Primary Power

Input voltage of EVACS or MNS panel: _____ N/A EVACS or MNS panel amps: _____ N/A

4.2.2 Engine-Driven Generator

This system does not have a generator.

Location of generator: _____ N/A

Location of fuel storage: _____ N/A Type of fuel: _____ N/A

4.2.3 Uninterruptible Power System

This system does not have a UPS.

Equipment powered by a UPS system: _____ N/A

Location of UPS system: _____ N/A

Calculated capacity of UPS batteries to drive the system components connected to it: _____

In standby mode (hours): _____ N/A In alarm mode (minutes): _____ N/A

4.2.4 Batteries

Location: _____ N/A Type: _____ N/A Nominal voltage: _____ N/A Amp/hour rating: _____ N/A

Calculated capacity of batteries to drive the system: _____

In standby mode (hours): _____ N/A In alarm mode (minutes): _____ N/A

Batteries are marked with date of manufacture.

4.3 Notification Appliance Power Extender Panels

This system does not have power extender panels.

4.3.1 Primary Power

Input voltage of power extender panel(s): 120VAC Power extender panel amps: 5AMPS

4.3.2 Engine-Driven Generator

This system does not have a generator.

Location of generator: _____ N/A

Location of fuel storage: _____ N/A Type of fuel: _____ N/A

4.3.3 Uninterruptible Power System

This system does not have a UPS.

Equipment powered by a UPS system: _____ N/A

Location of UPS system: _____ N/A

Calculated capacity of UPS batteries to drive the system components connected to it: _____

In standby mode (hours): _____ N/A In alarm mode (minutes): _____ N/A

NFPA 72, Fig. 14.6.2.4 (p. 3 of 12)

Protection Professionals

4. SYSTEM POWER (continued)

4.3.4 Batteries

Location: IN PANEL Type: SLA Nominal voltage: 24VDC Amp/hour rating: 7AH

Calculated capacity of batteries to drive the system:

In standby mode (hours): 24HRS

In alarm mode (minutes): 5MIN

Batteries are marked with date of manufacture.

5. ANNUNCIATORS

This system does not have annunciators.

5.1 Location and Description of Annunciators

Annunciator 1: N/A

Annunciator 2: N/A

Annunciator 3: N/A

6. NOTIFICATIONS MADE PRIOR TO TESTING

Monitoring organization	Contact: RAPID RESPONSE	Time: 11:30
Building management	Contact:	Time:
Building occupants	Contact:	Time:
Authority having jurisdiction	Contact:	Time:
Other, if required	Contact:	Time:

7. TESTING RESULTS

7.1 Control Unit and Related Equipment

Description	Visual Inspection	Functional Test	Comments
Control unit	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Lamps/LEDs/LCDs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Fuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Trouble signals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Disconnect switches	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Ground-fault monitoring	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Supervision	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Local annunciator	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Remote annunciators	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Power extender panels	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Isolation modules	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	N/A

NFPA 72, Fig. 14.6.2.4 (p. 4 of 12)

Protection Professionals

7. TESTING RESULTS *(continued)*

7.2 Control Unit Power Supplies

Description	Visual Inspection	Functional Test	Comments
120-volt power	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Generator or UPS	<input type="checkbox"/>	<input type="checkbox"/>	
Battery condition	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Load voltage	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Discharge test	<input type="checkbox"/>	<input type="checkbox"/>	
Charger test	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	N/A

7.3 In-Building Fire Emergency Voice Alarm Communications Equipment

Description	Visual Inspection	Functional Test	Comments
Control unit	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Lamps/LEDs/LCDs	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Fuses	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Primary power supply	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Secondary power supply	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Trouble signals	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Disconnect switches	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Ground-fault monitoring	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Panel supervision	<input type="checkbox"/>	<input type="checkbox"/>	N/A
System performance	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Sound pressure levels Occupied <input type="checkbox"/> Yes <input type="checkbox"/> No Ambient dBA Alarm dBA (attach report with locations, values, and weather conditions)	<input type="checkbox"/>	<input type="checkbox"/>	N/A
System intelligibility <input type="checkbox"/> CSI <input type="checkbox"/> STI (attach report with locations, values, and weather conditions)	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	N/A

Protection Professionals

7. TESTING RESULTS (continued)

7.4 Notification Appliance Power Extender Panels

Description	Visual Inspection	Functional Test	Comments
Lamps/LEDs/LCDs	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Fuses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Primary power supply	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Secondary power supply	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Trouble signals	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Ground-fault monitoring	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Panel supervision	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	N/A
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	N/A

7.5 Mass Notification Equipment

Description	Visual Inspection	Functional Test	Comments
Functional test	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Reset/power down test	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Fuses	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Primary power supply	<input type="checkbox"/>	<input type="checkbox"/>	N/A
UPS power test	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Trouble signals	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Disconnect switches	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Ground-fault monitoring	<input type="checkbox"/>	<input type="checkbox"/>	N/A
CCU security mechanism	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Prerecorded message content	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Prerecorded message activation	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Software backup performed	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Test backup software	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Fire alarm to MNS interface	<input type="checkbox"/>	<input type="checkbox"/>	N/A
MNS to fire alarm interface	<input type="checkbox"/>	<input type="checkbox"/>	N/A
In-building MNS to wide-area MNS	<input type="checkbox"/>	<input type="checkbox"/>	N/A

Protection Professionals

7. TESTING RESULTS (continued)

7.5 Mass Notification Equipment (continued)

Description	Visual Inspection	Functional Test	Comments
MNS to direct recipient MNS	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Sound pressure levels Occupied <input type="checkbox"/> Yes <input type="checkbox"/> No Ambient dBA Alarm dBA (attach report with locations, values, and weather conditions)	<input type="checkbox"/>	<input type="checkbox"/>	N/A
System intelligibility <input type="checkbox"/> CSI <input type="checkbox"/> STI (attach report with locations, values, and weather conditions)	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	N/A

7.6 Two-Way Communications Equipment

Description	Visual Inspection	Functional Test	Comments
Phone handsets	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Phone jacks	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Off-hook indicator	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Call-in signal	<input type="checkbox"/>	<input type="checkbox"/>	N/A
System performance	<input type="checkbox"/>	<input type="checkbox"/>	N/A
System audibility	<input type="checkbox"/>	<input type="checkbox"/>	N/A
System intelligibility	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Radio communications enhancement system	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Area of refuge communication system	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Elevator emergency communications system	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Other (specify) _____	<input type="checkbox"/>	<input type="checkbox"/>	N/A

Protection Professionals

7. TESTING RESULTS (continued)

7.7 Combination Systems

Description	Visual Inspection	Functional Test	Comments
Fire extinguishing monitoring devices/system	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Carbon monoxide detector/system	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Combination fire/security system	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	N/A

7.8 Special Hazard Systems

Description (specify)	Visual Inspection	Functional Test	Comments
	<input type="checkbox"/>	<input type="checkbox"/>	N/A
	<input type="checkbox"/>	<input type="checkbox"/>	N/A
	<input type="checkbox"/>	<input type="checkbox"/>	N/A

7.9 Emergency Communications System

- Visual
- Functional
- Simulated operation
- Ensure predischage notification appliances of special hazard systems are not overridden by the MNS.
See *NFPA 72*, 24.4.1.7.1.

7.10 Monitored Systems

Description (specify)	Visual Inspection	Functional Test	Comments
Engine-driven generator	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Fire pump	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Special suppression systems	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	N/A

Protection Professionals

7. TESTING RESULTS *(continued)*

7.11 Auxiliary Functions

Description	Visual Inspection	Functional Test	Comments
Door-releasing devices	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Fan shutdown	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Smoke management/smoke control	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Smoke damper operation	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Smoke shutter release	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Door unlocking	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Elevator recall	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Elevator shunt trip	<input type="checkbox"/>	<input type="checkbox"/>	N/A
MNS override of FA signals	<input type="checkbox"/>	<input type="checkbox"/>	N/A
Other (specify)	<input type="checkbox"/>	<input type="checkbox"/>	N/A

7.12 Alarm Initiating Device

Device test results sheet attached listing all devices tested and the results of the testing

7.13 Supervisory Alarm Initiating Device

Device test results sheet attached listing all devices tested and the results of the testing

7.14 Alarm Notification Appliances

Appliance test results sheet attached listing all appliances tested and the results of the testing

7.15 Supervisory Station Monitoring

Description	Visual Inspection	Functional Test	Time	Comments
Alarm signal	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	11:30	
Alarm restoration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	11:30	
Trouble signal	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	11:30	
Trouble restoration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	11:30	
Supervisory signal	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	11:30	
Supervisory restoration	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	11:30	

Protection Professionals

8. NOTIFICATIONS THAT TESTING IS COMPLETE

Monitoring organization	Contact: RAPID RESPONSE	Time: 2:00
Building management	Contact: _____	Time: 2:00
Building occupants	Contact: _____	Time: 2:00
Authority having jurisdiction	Contact: _____	Time: 2:00
Other, if required	Contact: _____	Time: 2:00

9. SYSTEM RESTORED TO NORMAL OPERATION

Date: 10-23-2012 Time: 2:00

10. CERTIFICATION

10.1 Inspector Certification:

This system, as specified herein, has been inspected and tested according to all NFPA standards cited herein.

Signed: _____	Printed name: Jeremy Lambert	Date: _____
Organization: Protection Professionals	Title: Technician 207-775-5755	Phone: 775-5755

DEFICIENCIES FOUND:

RECOMMENDATIONS:

10.2 Acceptance by Owner or Owner's Representative:

The undersigned has a service contract for this system in effect as of the date shown below. Yes No Unknown

The undersigned acknowledges the Deficiencies Found and Recommendations, as stated above.

Signed: _____	Printed name: _____	Date: _____
Organization: _____	Title: _____	Phone: _____

RESIDENTIAL FIRE PROTECTION

October 24, 2012

Portland Fire Department
MPX 2301 Congress St.
Portland, Maine 04103

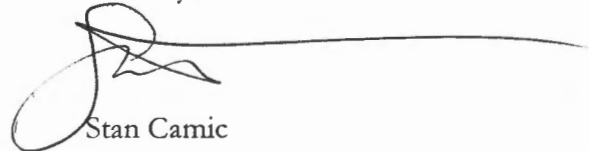
Attn: Ben Wallace

Re: MPX 2301 Congress St.
Fire Sprinkler System Renovation

Please be informed that the Wet Pipe Fire Sprinkler System renovation for the above project is designed, installed and tested based on the requirements of NFPA #13, State of Maine Fire Marshall's office and Portland Fire Department requirements.

If you have any questions or concerns please contact us at (207) 946-3473

Thank you

A handwritten signature in black ink, appearing to read 'Stan Camic', with a long horizontal flourish extending to the right.

Stan Camic

64 DAGGETT HILL RD. • GREENE, MAINE • 04236
PHONE: (207) 946-3473 • FAX: (207) 946-3474

238A A004

2012-06-4353

Donald McPherson - Re: NFPA 80

From: Aaron Bourassa <aaron@greatfallsinc.com>
To: Benjamin Wallace <wallaceb@portlandmaine.gov>
Date: 10/22/2012 4:59 PM
Subject: Re: NFPA 80
CC: Chris Pirone <CPP@portlandmaine.gov>, Jeanie Bourke <JMB@portlandmaine.g...>

Thank you Lt. Wallace. The louvers are labeled

Aaron Bourassa
Project manager
Great Falls Inc.
(207) 615-9803
Aaron@greatfallsinc.com

On Oct 22, 2012, at 4:51 PM, "Benjamin Wallace" <wallaceb@portlandmaine.gov> wrote:

Hi Aaron,
So long as the preparation (cut out) for installation of the louver was performed in accordance the manufacturer's inspection service procedure and under label service (basically at the factory); and so long as the louver is a labeled fire door louver; I would say that's fine. You're just going to need to document this.
Thanks,

Lt. Benjamin Wallace Jr.
Fire Prevention Officer
Portland Fire Department
380 Congress Street
Portland, Maine 04101
(207)874-8400
wallaceb@portlandmaine.gov

>>> Aaron Bourassa <aaron@greatfallsinc.com> 10/22/2012 9:32 AM >>>
Hello Capt. Pirone, Lt. Wallace and Jeanie,

I have attached NFPA information on the door louvers located on the two fire rated doors at 2301 Congress St that I received form the door supplier. Please let me know if this information helps. If the louvers still do not meet your approval please let me know and I will change out the doors before our final inspection Wednesday.

Thanks

Aaron Bourassa
Project manager
Great Falls Inc.
(207) 615-9803
Aaron@greatfallsinc.com

Begin forwarded message:

From: DBurns@kamcoboston.com
Date: October 22, 2012, 9:24:03 AM EDT
To: aaron@greatfallsinc.com
Subject: NFPA 80

(See attached file: nfpa80.pdf)

<Benjamin Wallace.vcf>

NFPA 80

Standard for Fire Doors and Other Opening Protectives

2007 Edition



NFPA, 1 Batterymarch Park, Quincy, MA 02169-7471
An International Codes and Standards Organization

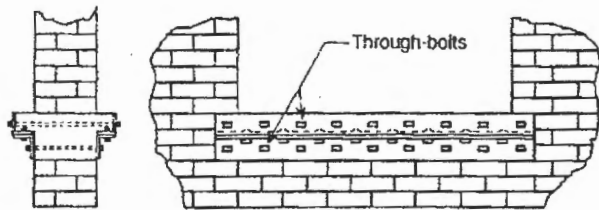


FIGURE A.4.8.2.8(c) Z-bar and Concrete Sill Used with Combustible Floors.

A.4.8.6 See Figure A.4.8.6(a) and Figure A.4.8.6(b).

A.4.9 Fire doors, shutters, or fire windows are of value only if properly installed so that they close at the time of fire. At the time of the initial installation, each releasing means that part of the releasing system should be tested to verify that the door will close regardless of which fusible link is operated. This includes items such as heat or smoke detectors that might not have been installed by the fire door installer.

A written record documenting the installation and operational test(s) should be maintained on site by the person(s) responsible for keeping maintenance records. Various organizations have developed and make available test and maintenance forms specifically for this purpose.

A.5.1 Walls with openings have less fire resistance than unpierced walls. Fire doors, shutters, and fire windows are designed to protect the opening under normal conditions of use, with clear spaces on both sides of the opening. Where the opening is not used and combustible material could be piled against or near the door, window, or shutter, the designed protection cannot be expected.

A.5.2 Fire doors, shutters, and windows are of no value unless they are properly maintained and closed or are able to close at the time of fire. A periodic inspection and maintenance program should be implemented and should be the responsibility of the property management.

A.5.2.1 Hinges, catches, closers, latches, and stay rollers are especially subject to wear.

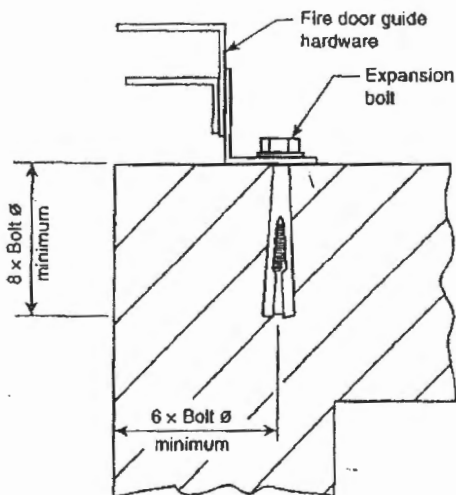


FIGURE A.4.8.6(a) Corner Walls.

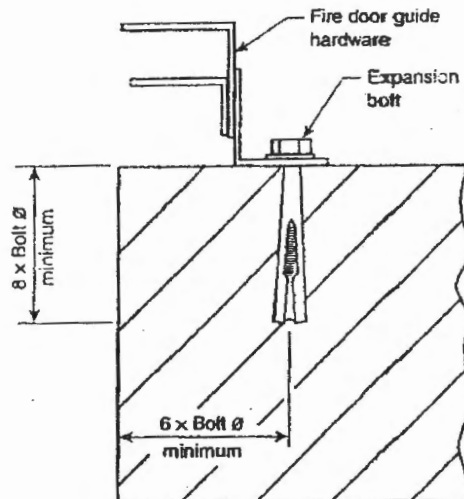


FIGURE A.4.8.6(b) Unusually Thick Walls.

A.5.2.2 See Annex J for information regarding performance-based inspection, testing, and maintenance options for fire door assemblies.

A.5.2.14.5 Movable parts of the door assembly can include but are not limited to stay rollers, gears, and closing mechanisms.

A.6.1.2 The normal components of a fire door assembly include a door, a door frame, hinges, a lock or latch, and a closing device. They also include, but are not limited to, an astragal, a split astragal, an automatic louver, a coordinator, flush or surface bolts, gasketing, a holder/release device, protection plates, and glazing materials.

A.6.3.1.1 Door frames might carry a label stating the hourly rating. The rating of the installed assembly should carry the rating of the door or the door frame, whichever is less.

A.6.3.1.2 Door frames should be installed following the general guidelines shown in Figure A.4.6.3.1(g). The door frame installations shown in Figure A.4.6.3.1(g) do not represent all types of installations but do illustrate some typical door frame installation techniques required for the proper installation of fire door frames.

A.6.3.1.3 See Figure A.6.3.1.3(a) and Figure A.6.3.1.3(b) for examples of how door frames can be secured in drywall applications:

A.6.3.1.4 Examples of proprietary-type slip-on door frames are those for use on prepared openings in drywall construction.

A.6.3.1.7 See Figure A.6.3.1.7 for more information regarding clearances and the pull face of the door.

A.6.4.1.1 It is the intent of the standard that most fire doors will have a closing device. However, in limited circumstances the closer might not be necessary because the door leaf is inactive and is normally in the closed position. Examples of such applications include pairs of doors to mechanical equipment rooms and certain industrial areas where an inactive leaf is provided and is infrequently used to permit large equipment to be moved through the door opening. In such instances, the AHJ should be reasonably assured that the inactive leaf normally will be closed and latched. Another example

6.4.4.8 Strike plates shall be secured to the frame with steel screws or other types of screws as indicated by the manufacturer's published listing or label service procedure.

6.4.4.9 Strike plates for doors swinging in pairs shall be secured to reinforcements in the inactive leaf with machine screws.

6.4.4.9.1 Pilot holes shall be drilled prior to strike plate installation, in accordance with manufacturer's installation instructions.

6.4.4.10* Open back strikes shall be permitted to be used in lieu of conventional strikes only where specifically provided for in the published listings.

6.4.4.11* Electric strikes shall be permitted to be used in lieu of conventional strikes in single swinging doors and pairs of doors where provided for in the published listings.

6.4.5 Protection Plates.

6.4.5.1 Factory-installed protection plates shall be installed in accordance with the listing of the door.

6.4.5.2 Field-installed protection plates shall be labeled and installed in accordance with their listing.

6.4.5.3 Labeling shall not be required where the top of the protection plate is not more than 16 in. (406 mm) above the bottom of the door.

6.4.6 Automatic Louvers. Only labeled fire door louvers shall be used in fire doors.

6.4.7* Astragals.

6.4.7.1 Doors swinging in pairs, where located within a means of egress, shall not be equipped with astragals that inhibit the free use of either leaf.

6.4.7.2* Pairs of doors that require astragals shall have at least one attached in place to project approximately $\frac{3}{4}$ in. (19 mm) or as otherwise indicated in the individual published listings.

6.4.8 Gasketing. Gasketing on fire doors or frames shall be furnished only in accordance with the published listings of the door, frame, or gasketing material manufacturer.

6.5 Application, Installation, and Adjustment.

6.5.1 General. The installation of all components of a fire door assembly shall be in accordance with the specific listing of each component.

6.5.2 Manufacturers' Instructions. All components shall be installed in accordance with the manufacturers' installation instructions and shall be adjusted to function as described in the listing.

6.5.3 Attachment. All components of a fire door assembly shall be attached firmly to walls, doors, and frames in a manner acceptable to the AHJ.

6.5.4 Mounting. All mounting screws, bolts, or shields shall be steel except where otherwise permitted by this standard.

6.5.5 Anchorage. Attachments to doors with composite cores shall provide firm anchorage for anticipated use.

Chapter 7 Swinging Doors with Fire Door Hardware

7.1 Doors.

7.1.1 General. This chapter shall cover the installation of swinging doors with fire door hardware.

7.1.2 Components. A fire door assembly shall consist of components that are separate products incorporated into the assembly.

7.1.3 Mounting of Doors.

7.1.3.1 Swinging tin-clad doors and flush- or corrugated-type sheet metal doors with fire door hardware shall be flush or lap mounted.

7.1.3.2 Flush-mounted doors shall be hung in steel channel frames securely anchored to the wall construction.

7.1.3.3 Lap-mounted doors shall be hung on the surface of the wall and shall lap the opening at least 4 in. (102 mm) at the top and on each side.

7.1.4 Operation of Doors.

7.1.4.1 The doors shall swing easily and freely on their hinges.

7.1.4.2 The latches shall operate freely.

7.2 Supporting Construction.

7.2.1 Walls.

7.2.1.1 Attachment of the door assembly to the wall shall be by means of through-wall bolts.

7.2.1.2 As an alternative, expansion anchors shall be permitted to be used as specified in 4.8.6.

7.2.2 Sills. Sills shall be installed in accordance with 4.8.2.

7.2.3 Reserved.

7.2.4 Vents.

7.2.4.1 Each tin-clad door formed of 14 in. x 20 in. (0.36 m x 0.51 m) sheets shall be provided with 3 in. (76.2 mm) diameter vent holes.

7.2.4.2 The vent holes shall be cut through the sheets on the face of the door to be provided with the fire door hardware, using care to avoid interference with the hardware or injury to the wood core when cutting the holes in the sheets.

7.2.4.3 The metal covering around the opening shall be secured with small nails spaced about 1 in. (25.4 mm) apart, and the exposed wood shall be painted thoroughly.

7.3 Openings.

7.3.1 Frames for Lap-Mounted Doors. Frames shall not be required for lap-mounted doors.

7.3.2* Frames for Flush-Mounted Doors.

7.3.2.1 Only labeled frames of the structural steel type shall be used for flush-mounted doors.

7.3.2.2 The frames shall be erected before the wall is built.

7.4 Assembly Components.

7.4.1* Closing Devices for Swinging Tin-Clad and Sheet Metal Fire Doors.

7.4.1.1 Swinging tin-clad and sheet metal fire doors shall be equipped with self-closing or automatic-closing devices to ensure that they are closed and latched at the time of fire.

7.4.1.2 Other arrangements acceptable to the AHJ shall be permitted.

6.3.4 Frames for Transom or Side Panels.

- 6.3.4.1 Side panels, transom panels, or both shall be fixed.
- 6.3.4.2 Removable transom panels shall be permitted to allow for movement of materials or equipment through the opening.
- 6.3.4.3 Frames with transom panels shall be permitted in situations where fire protection ratings up to and including 3 hours are required.
- 6.3.4.4 Louvers shall not be installed in either transom or side panels.

6.3.5 Multiple Opening Door Frames.

- 6.3.5.1 Individual frames shall be of a maximum size as defined in the manufacturer's published listing but are not to exceed 12 ft 8 in. (3.9 m) in overall width.
- 6.3.5.2 Where multiple opening frames are installed adjoining each other in a fire-resistive wall, a 16 in. (406 mm) minimum wall section shall be provided between the frames.
- 6.3.5.3 The maximum fire protection rating of the door assembly shall not exceed 1½ hours.

6.4 Assembly Components.

6.4.1 Closing Devices.

6.4.1.1* Unless otherwise permitted by the AHJ, a closing device shall be installed on every fire door.

6.4.1.2 Coordinating Device.

6.4.1.2.1 Where there is an astragal or projecting latch bolt that prevents the inactive door from closing and latching before the active door closes and latches, a coordinating device shall be used.

6.4.1.2.2 A coordinating device shall not be required where each door closes and latches independently of the other.

6.4.1.3 All components of closing devices used shall be attached securely to doors and frames by steel screws or through-bolts.

6.4.1.4* All closing mechanisms shall be adjusted to overcome the resistance of the latch mechanism so that positive latching is achieved on each door operation.

6.4.1.5 Where door holder/release devices are used, they shall be labeled.

6.4.2* Application of Door Holder/Release Devices. Door holder/release devices shall be installed in accordance with the manufacturer's instructions and only in conformance with the individual manufacturer's published listings.

6.4.3* Builders Hardware.

6.4.3.1 Hinges. Hinges shall be as specified in individual door manufacturer's published listings or Table 6.4.3.1.

6.4.3.1.1 Doors up to 60 in. (1.52 m) in height shall be provided with two hinges and an additional hinge for each additional 30 in. (0.76 m) of door height or fraction thereof.

6.4.3.1.1.1 The distance between hinges shall be permitted to exceed 30 in. (0.76 m).

6.4.3.1.1.2 Where spring hinges are used, at least two shall be provided.

6.4.3.1.2 All hinges or pivots, except spring hinges, shall be of the ball bearing type.

6.4.3.1.2.1 Hinges or pivots employing other antifriction bearing surfaces shall be permitted if they meet the requirements of ANSI/BHMAA156.1, *Standard for Butts and Hinges*.

6.4.3.1.2.2 Spring hinges shall be labeled and shall meet the requirements of ANSI/BHMAA156.17, *Standard for Self Closing Hinges & Pivots, Grade 1*.

Table 6.4.3.1 Builders Hardware Mortise, Surface, and Full-Length Hinges, Pivots, or Spring Hinges for Swinging Doors

Door Rating (hr)	Maximum Door Size				Minimum Hinge Size				Hinge Type
	Width		Height		Height		Thickness		
	ft	m	ft	m	in.	mm	in.	mm	
<i>For 1¼ in. (44.5 mm) or Thicker Doors</i>									
3, 1½, 1, ¾, ½, ¼	4	1.22	10	3.05	4½	114.3	0.180	4.57	Steel, mortise or surface
3, 1½, 1, ¾, ½, ¼	4	1.22	8	2.44	4½	114.3	0.134	3.40	Steel, mortise or surface
1½, ¾, ½, ¼	3½	0.96	8	2.44	6	152.4	0.225	5.72	Steel, olive knuckle or paumelle
3, 1½, ¾, ½, ¼	4	1.22	10	3.05	4	101.6	0.225	5.72	Steel pivots (including top, bottom, and intermediate)
1½, 1, ¾, ½, ¼	3	0.91	5	1.52	4	101.6	0.130	3.30	Steel, mortise or surface
1½, 1, ¾, ½, ¼	2	0.61	3	0.91	3	76.2	0.092	2.34	Steel, mortise or surface
3, 1½, 1, ¾, ½, ¼	3	0.91	7	2.13	4½	114.3	0.134	3.40	Steel, mortise or surface (labeled, self-closing, spring type)
3, 1½, 1, ¾, ½, ¼	3	0.91	7	2.13	4	101.6	0.105	2.67	Steel, mortise or surface (labeled, self-closing, spring type)
<i>For 1⅜ in. (34.93 mm) Doors</i>									
3, 1½, ¾, ½, ¼	3	0.91	7	2.13	3½	88.9	0.123	3.12	Steel, mortise or surface
3, 1½, 1, ¾, ½, ¼	2¾	0.81	7	2.13	3½	88.9	0.105	2.67	Steel, mortise or surface (labeled, self-closing, spring type)

4.1.2* Fusible Links.

4.1.2.1 The particular fusible link used shall depend on the temperature and load requirements of the application.

4.1.2.2 Multiple links shall be permitted to be used to meet the load rating requirements where the load rating of a single link is exceeded.

4.1.3 Appurtenances.

4.1.3.1 Preparation of fire door assemblies for locks, latches, hinges, remotely operated or remotely monitored hardware, concealed closers, glass lights, vision panels, louvers, astragals and split astragals, and the application of plant-ons and laminated overlays shall be performed in accordance with the manufacturer's inspection service procedure and under label service. (See Annex E and Annex F.)

4.1.3.2 For job site preparation of surface-applied hardware, function holes for mortise locks, and holes for labeled viewers, a maximum 3/4 in. (19 mm) wood and composite door undercutting, and protection plates (see 6.4.5) shall be permitted.

4.1.3.3 Surface-applied hardware shall be applied to the door or frame without removing material other than drilling round holes to accommodate cylinders, spindles, similar operational elements, and through-bolts in doors.

4.1.3.4 The holes described in 4.1.3.3 shall not be permitted to exceed a diameter of 1 in. (25.4 mm) with the exception of cylinders.

4.1.4 Signage. Informational signs shall be permitted to be installed on the surfaces of fire doors in accordance with 4.1.4.1 through 4.1.4.4 or in accordance with the manufacturer's published listing.

4.1.4.1 The total area of all attached signs shall not exceed 5 percent of the area of the face of the fire door to which they are attached.

4.1.4.2 Means of Attachment.

4.1.4.2.1 Signs shall be attached to fire doors by use of an adhesive.

4.1.4.2.2 Mechanical attachments such as screws or nails shall not be permitted.

4.1.4.3 Signs shall not be installed on glazing material in fire doors.

4.1.4.4 Signs shall not be installed on the surface of fire doors so as to impair or otherwise interfere with the proper operation of the fire door.

4.1.5 Sliding Doors.

4.1.5.1 Sliding doors shall be permitted to have integral swinging doors.

4.1.5.2 Where sliding doors include an integral swinging door, they shall be permitted to be used on exits to the exterior of the building.

4.2 Listed and Labeled Products. (See 3.2.3 and 3.2.4 for definitions.)

4.2.1* Listed items shall be identified by a label.

4.2.2 Labels shall be applied in locations that are readily visible and convenient for identification by the AHJ after installation of the assembly.

4.2.3 The label or the listing shall be considered evidence that samplings of such devices or materials have been evaluated by tests and that such devices or materials are produced under an in-plant, follow-up inspection program.

4.2.4 Specification of items of a generic nature, such as hinges, that are not labeled shall comply with the specifications contained in this standard.

4.3 Classifications and Types of Doors.

4.3.1* Only labeled fire doors shall be used.

4.3.2 Swinging fire doors shall be permitted to be furnished separately from labeled door frames and builders hardware if the complete fire door assembly including the door, frame, and builders hardware comprises a labeled fire door assembly.

4.3.3 Fire doors furnished with fire exit hardware shall bear a label reading "Fire door to be equipped with fire exit hardware."

4.3.4 The label described in 4.3.3 shall address the reinforcements necessary for the exit devices, and the complete fire door assembly shall have been tested for egress panic load requirements.

4.3.5 Rolling steel fire doors shall be labeled and shall be furnished as a complete assembly that includes curtain, bottom bar, barrel, guides, brackets, hood, automatic closing device, and any other components required by their listing for a complete assembly.

4.3.6 Elevator doors shall be in accordance with Section 14.2.

4.3.7 Access-type door assemblies shall consist of single swinging steel doors with frames, self-latching devices, and closing mechanisms.

4.3.8 Service counter doors shall be of the single- or two-speed counterbalanced types of flush design or the rolling steel type of formed steel and shall include wall guides, frame, sill, latching, and counterbalancing mechanism.

4.3.9* Authorities having jurisdiction shall be consulted for information on the size of oversize doors that shall be permitted in a given location.

4.4 Glazing Material in Fire Doors.

4.4.1* Only labeled fire resistance-rated or fire protection-rated glazing material shall be used in fire door assemblies when permitted by the door listing. (See A.3.3.71, *Glazing Material*.)

4.4.2 Where required, the glazing material shall also meet safety standards.

4.4.3* Glazing materials in vision panels shall be installed in labeled glass light kits or in accordance with the fire door listing and shall be installed in accordance with the manufacturer's installation instructions.

4.4.4* Glazing material not exceeding 100 in.² (0.065 m²) shall be permitted in fire doors having a 3-hour fire protection rating or in fire doors having a 1½-hour fire protection rating for use in severe exterior fire exposure locations where the glazing material has been tested for the desired rating period with no through-openings in accordance with NFPA 252, *Standard Methods of Fire Tests of Door Assemblies*.

3.3 General Definitions.

3.3.1 Access Door. A door assembly, for installation in fire resistance-rated walls or for installation in ceilings of fire resistance-rated floor-ceiling or roof-ceiling assemblies, that is used to provide access to shafts, chases, attics, spaces above ceilings, or other concealed spaces.

3.3.1.1 Horizontal Access Door. An access door installed in the horizontal plane used to protect openings in ceilings of fire resistance-rated floor-ceiling or roof-ceiling assemblies.

3.3.1.2 Vertical Access Door. An access door installed in the vertical plane used to protect openings in fire-rated walls.

3.3.2 Active Leaf. The first operating door of a pair, which is usually the door in which a lock is installed.

3.3.3 Ambient. For the purposes of this standard, the temperature of the room in which the test is being conducted.

3.3.4 Anchor. A device for attaching frames to the surrounding structure.

3.3.5* Astragal.

3.3.5.1 Overlapping Astragal. A horizontal or vertical molding attached to one leaf of a pair of doors.

3.3.5.2* Split Astragal. A horizontal or vertical molding attached to both leaves of a pair of doors.

3.3.6 Automatic-Closing Device. A device that causes the door or window to close when activated by a fusible link or detector.

3.3.7* Automatic-Closing Door. A door that normally is open but that closes when the automatic-closing device is activated.

3.3.8 Automatic Fire Detector. A device designed to detect the presence of a fire signature and to initiate action. For the purpose of this standard, automatic fire detectors are classified as follows: Automatic Fire Extinguishing or Suppression System Operation Detector, Fire-Gas Detector, Heat Detector, Other Fire Detectors, Radiant Energy-Sensing Fire Detector, Smoke Detector. [72, 2007]

3.3.9 Automatic Louver. An opening in a door with a series of slats or blades to allow passage of air and designed to close automatically in the event of fire.

3.3.10 Automatic Top and Bottom Bolts. See 3.3.68.1, Automatic Flush Bolts.

3.3.11 Barrel. A cylindrical horizontal member at the head of the opening that supports the door curtain of a rolling steel door and contains the counterbalance springs.

3.3.12 Batten. A horizontal pipe, tube, or other structural shape in a pocket of or attached to a fire safety curtain.

3.3.13 Binders. Pieces of hardware used to hold a sliding door to the wall, preventing lateral movement of the door from the wall.

3.3.14 Biparting. A vertically sliding door in which half of the door moves up and half of the door moves down in order to open, or a horizontal sliding door in which one door moves to the right and one moves to the left in order to open.

3.3.15 Bottom Bar (Rolling Steel Door). A reinforcing member at the lower edge of the door curtain assembly.

3.3.16 Breakaway Connection. A joint connecting a fire damper sleeve and attached ductwork that will allow col-

lapse of the ductwork during a fire without disturbing the integrity of the fire damper.

3.3.17 Bumper (Fire Safety Curtain). A filled fabric pocket below the bottom batten or frame member of a fire safety curtain; designed to press against the floor.

3.3.18 Burners. Stops to limit the closing or opening movement of a sliding door.

3.3.19 Ceiling Radiation Damper. A listed device installed in a ceiling membrane of a fire resistance-rated floor-ceiling or roof-ceiling assembly to automatically limit the radiative heat transfer through an air inlet/outlet opening. [5000, 2006]

3.3.20 Center Latch. A latch used to hold the two halves of a center-parting or biparting fire door together, which is usually two pieces surface-applied to doors and interlocked in the closed position.

3.3.21 Center Parting. See 3.3.14, Biparting.

3.3.22 Chafing Strip. A metal strip applied to the back surface of a sliding door to protect the door surface from damage from the wall.

3.3.23 Channel Frame. A frame that consists of head and jamb members of structural steel channels, either shop assembled or field assembled, to be used with masonry walls.

3.3.24* Classified. Products or materials of a specific group category that are constructed, inspected, tested, and subsequently reinspected in accordance with an established set of requirements.

3.3.25 Closed Position (Rolling Steel Fire Door). A position of the door curtain with the underside of the bottom bar, including a compressible seal or sensing edge, if provided, in contact with the sill along the entire width of the opening.

3.3.26 Closing Device. A means of closing a door from the partially or fully opened position.

3.3.27 Combination Fire/Smoke Damper. A device that meets both the fire damper and smoke damper requirements.

3.3.28 Concrete Lintel. A precast concrete horizontal member spanning and carrying the load above an opening.

3.3.29 Continuous Glazing Molding. A continuous molding used to hold glass or glazing in a window.

3.3.30 Coordinator. A device used on pairs of swinging doors that prevents the active leaf from closing before the inactive leaf closes.

3.3.31 Counterbalancing. A method by which the hanging weight of the door is balanced by helical torsion springs or weights.

3.3.32 Cover Plate. A plate to cover the joint between the sections of multiple panel doors, usually applied to the front and back of the vertical or horizontal slide door.

3.3.33 Crush Plates. Bearing plates provided where doors are mounted on concrete masonry wall units with hollow cells to accommodate through-wall bolts to prevent crushing of the hollow concrete masonry unit.

3.3.34 Curtain (Rolling Steel Fire Door). Interlocking curtain slats assembled together.

3.3.35 Curtain Slats. Formed sheet steel members that, when interlocked together, form the rolling steel door curtain.





LISTING REPORT - MACHINING

Issued: Apr 27 2011 10:39AM

Inspection Tests And Evaluation Of

Algoma 45 - 90 Min Mineral Core Fire Doors (24844)



RENDERED TO
Algoma Hardwoods, Inc.
1001 Perry Street
Algoma, WI 54201

GENERAL: This Report gives the results of the inspection, tests and evaluation of the above for compliance with applicable requirements of the following standards : NFPA 252 (1995) : ASTM E152-81a : UBC 7-2 (1997) : UBC 7-2 (1994) : UL 10(b) (1997) : CAN4 S104 (1985) : UL 10(c) (R2001) : NFPA 252 (2008) : UL 10(b) Revision 1 (2009) : CAN / ULC S104 (2010)

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PRODUCT DESCRIPTION

Product Covered:

Algoma 45 - 90 Min Mineral Core Fire Doors

Product Description:

PRODUCT DESCRIPTION

Mineral Core Type, Swinging Flush Design Fire Door for installation singly or in pairs, in 45 Minute locations.

LIMITATIONS

→ Preassembled, Mortise or Cylindrical Latches with up to a 5" backset/ Deadbolts / Mortise or Rim Type Fire Exit Hardware/ Surface Mounted or Concealed Vertical Rod Fire Exit Hardware / Flush Bolts - Automatic or Manual / Surface Mounted Protection Plates up to 48" high / Louvers - maximum 24" x 24" / Plant-Ons / Metal Edge Guards / Vision Panel - maximum 1,296 sq.in. / Viewers / Electric Raceway / Surface Mounted Closer / Astragal not required / Wood Veneer Light Frame to 1,080 sq. in.

MAXIMUM SIZE OF OPENINGS

Singles - 4'0" wide x 10'0" high

Pairs - 8'0" wide x 9'0" high (Wood Faced)

Pairs - 8'0" wide x 8'0" high (HPDL)

Pairs - 8'0" wide x 9'3" high (with Von Duprin devices)

Door/Transom Assembly Single Swing only - 4'0" wide x 11'0" high (Maximum 4'0" wide x 4'-1/2" high Transom Panel)

Double Egress - 8'0" wide x 8'0" high

PRODUCT DESCRIPTION

Mineral Core Type, Swinging Flush Design Fire Door for installation singly or in pairs in 60 Minute locations.

LIMITATIONS

LOUVERS

Fire rated Louvers only may be used.

Maximum size 24" by 24"

Minimum Distance from Bottom of Door 8"

 Minimum Distance from Edge of Door 6"

KICK PLATES

Surface mounted protective plates of brass, bronze, steel, aluminum, poly-carbonate or decorative laminate up to 48" high may be applied to both faces of the door. For doors with ratings 45 or 60 minutes the plates may be applied with an adhesive and/or wood screws spaced a minimum of 6" on center. For doors with a rating of 90 minutes the plates to be applied to the doors with an adhesive.

CLADDING

Institutional Products Corporation's "PVC" cladding and Acrovyn (with thickness up to 0.062 inches) up to the full size of fire rated doors (wood faced or HPDL faced) may be applied to one or both faces and/or stiles of the doors. When covering the narrow face less than full length, the cladding must be recessed at least 3/4 inch from the stile edges. The cladding may be applied with the peel and stick adhesive applied to the material as purchased or with adhesive as recommended by Institutional Products Corporation or with Swifts No.17383 contact cement (or 3M Fastbond 30-NF) and/or wood screws. Screws must fasten into stiles, rails, or heavy duty blocking in mineral core doors.

METAL EDGES

Inside dimension of metal edge must be same as door thickness. Metal Edges may be veneer wrapped.

CONCEALED VERTICAL RODS

Von Duprin's 9947-WDC-F, 5547-WDC-F, 3347-WDC-F, 9847-WDC-F (8'-0" by 9'-3"); Sargent'sWD 12-8600 (8'-0" by 8'-0"); Monarch's F-17-C, F-18-C, F-CV-C, F-XX-C (8'-0" by 8'-0"); Adam's Rite 3600 WD and American Device's F4100 and F6100 (8'-0" by 8'-0") are approved when used with the appropriate channel. Other listed devices may also be used as long as the cutout does not exceed those of the above devices and 5" metal channels are used.

PLANT - ONS (Applied Moldings)

Wood plant-on moldings may be applied to one or both sides of a door. The following requirements must be observed.

- Maximum width of molding – 3"
- Maximum thickness of molding – 1½"
- For 20, 45, and 60-minute doors, adhesive and or mechanical fasteners with a maximum penetration into the door 3/4 "

For 90-minute doors, adhesive only may be used – NO mechanical fasteners may be applied.

Contractor's Material and Test Certificate for

A. Procedure (Conforms to NFPA 13-1994)

Upon completion of work, inspection and tests shall be made by the contractor's representative and witnessed by an owner's representative. All defects shall be corrected and system left in service before contractor's personnel finally leave the job. A certificate shall be filled out and signed by both representatives. Copies shall be prepared for approving authorities, owners and contractor. It is understood the owner's representative's signature in no way prejudices any claim against contractor for faulty material, poor workmanship, or failure to comply with approving authority's requirements or local ordinances. All "No" answers shall be explained in the Comments portion of this form.

Property Name: MPX
 Property Address: 2301 Congress Parkway Date: 10-24-12

B. Plans

1. Accepted by Approving Authorities (Names): State
2. Address: Fire Marshalls Office Yes No
3. Installation conforms to accepted plans Yes No
4. Equipment used is approved Yes No

C. Instructions

1. Has person in charge of fire equipment been instructed as to location of control valves and care and maintenance of this new equipment Yes No
2. Have copies of the following been left on the premises:
 - a. System components instructions Yes No
 - b. Care and maintenance instructions Yes No
 - c. NFPA 25 Yes No

D. Location of system - Supplies building: MPX Level

E. Sprinklers

Make	Model	Year Made	Orifice	Quantity	Temperature
<u>Viking</u>	<u>300</u>	<u>2012</u>	<u>1/2</u>	<u>10</u>	<u>155°</u>
<u>Viking</u>	<u>462</u>	<u>2012</u>	<u>1/2</u>	<u>50</u>	<u>155</u>

F. Pipe and Fittings

1. Type of Pipe: SCH 40/40 BK
2. Type of Fittings: Drivable / grooved

G. Alarm Valve or Flow Indicator PLAIN

Type	Make	Model	Max. Time to Operate	Through Insp. Test
			<u>10 SEC</u>	

H. Dry-Pipe Valve

1. Make and Model: _____
2. Serial Number: _____

I. Quick Opening Device (Q.O.D.)

1. Make and Model: _____
2. Serial Number: _____

J. Dry-Pipe System Operating Test Without Q.O.D.

1. Time to trip through test connection*: _____
2. Water pressure _____ psi. Air pressure _____ psi.
3. Trip point air pressure _____ psi.
4. Time water reached test outlet*: _____ Yes No
5. Alarm operated properly Yes No

K. Dry-Pipe System Operating Test With Q.O.D.

1. Time to trip through test connection*: _____
2. Water pressure _____ psi. Air pressure _____ psi.
3. Trip point air pressure _____ psi.
4. Time water reached test outlet*: _____ Yes No
5. Alarm operated properly Yes No

L. Deluge and Preaction Valves

1. Make and Model: _____
2. Operation: Pneumatic Electric Hydraulic
3. Piping and detecting media supervised Yes No
4. Does valve operate from manual trip and/or remote control stations Yes No
5. Is there an accessible facility in each circuit for testing Yes No
6. Does each circuit operate supervision loss alarm Yes No
7. Does each circuit operate valve release Yes No
8. Maximum time to operate release: _____

M. Pressure Reducing Valve

1. Location and Floor: _____
2. Make and Model: _____
3. Setting: _____
4. Static Pressure: Inlet _____ psi, Outlet _____ psi
5. Residual Pressure (Flowing): Inlet _____ psi, Outlet _____ psi
6. Flow Rate: _____ gpm

*measured from time inspectors test connection is opened

Aboveground Piping

N. Test Description

Hydrostatic: Hydrostatic tests shall be made at not less than 200 psi (13.6 bars) for two hours or 50 psi (3.4 bars) above static pressure in excess of 150 psi (10.2 bars) for two hours. Differential dry-pipe valve clappers shall be left open during test to prevent damage. All aboveground piping leakage shall be stopped.

Pneumatic: Establish 40 psi (2.7 bars) air pressure and measure drop, which shall not exceed 1.5 psi (0.1 bars) in 24 hrs. Test pressure tanks at normal water level and air pressure and measure air pressure drop, which shall not exceed 1.5 psi (0.1 bars) in 24 hrs.

O. Tests

1. All piping hydrostatically tested at 200 psi for 2 hours Yes No
2. Dry piping pneumatically tested N/A Yes No
3. Equipment operates properly Yes No
4. Do you certify as the sprinkler contractor that additives and corrosive chemicals, sodium silicate or derivatives of sodium silicate, brine, or other corrosive chemicals were not used for testing systems or stopping leaks? Yes No
5. Drain Test:
 - a. Static pressure reading of gage located near water supply connection 85 psi.
 - b. Residual pressure with valve in test connection open wide 80 psi.

6. Underground mains and lead in connections to risers flushed before connection made to sprinkler N/A Yes No
7. Flushed by installer of underground piping Yes No
8. If powder driven fasteners are used in concrete, has representative sample testing been satisfactorily completed? Yes No

P. Blank Testing Gaskets

1. Number used: NONE
2. Locations: _____
3. Number removed: _____

Q. Welded Piping - If welded piping was used in the system, complete the following: N/A

1. Do you certify as the sprinkler contractor that welding procedures comply with the requirements of at least AWS D10.9, Level AR-3 Yes No
2. Do you certify that the welding was performed by welders qualified in compliance with the requirements of at least AWS D10.9, Level AR-3 Yes No
3. Do you certify that welding was carried out in compliance with a documented quality control procedure to insure that all discs are retrieved, openings in the pipe are smooth, slag and other welding residue are removed, and the internal diameters of piping are not penetrated Yes No

R. Cutouts (Disks)

- Do you certify that you have a control feature to ensure that all cutouts (disks) are retrieved? Yes No
- S. Hydraulic Data Nameplate Provided** N/A Yes No
- T. Date left in service (with all control valves open):** 10-24-12

U. Signatures

1. Name of sprinkler contractor: Residential Fire Prot.
2. Tests witnessed by: [Signature] Date: 10/24/12

For property owner (Signed): [Signature] Date: 10-24-12

Title: MSpedal For sprinkler contractor (Signed): _____ Date: _____

V. Comments (This section is for additional explanation and notes. All "No" answers must be explained here.)

Check here if comments continue on reverse side of this form



October 25, 2012

Code Enforcement Officer
City of Portland
389 Congress Street, Room 315
Portland, ME 04101

Reference:
Interior Glass Panels at MPX
2301 Congress Street Renovation
Maine Printing
Portland, ME

Structural Integrity Job: #12-0048

To whom it may concern,

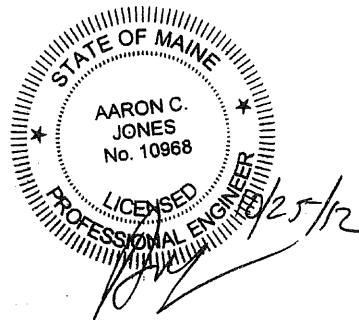
This letter is to confirm that we have reviewed the attached letter by Sigco, the glazing supplier for this tempered product and agree that based on the Glass Association of North America's guidelines, that installation of the panels with connections at top and bottom only are adequately installed to meet the requirement of the Building Code and should be accepted as such.

Please do not hesitate to call with any questions or if I can be of further assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "A. Jones", is written over a horizontal line.

Aaron C. Jones, P.E., SECB, LEED AP
President



SIGCO™

SIGCO, Inc.
48 Spiller Drive
Westbrook, ME 04092
T (207) 775-2676
F (207) 775-0291

October 24, 2012

Mr. Armand LaChance
Rich Exteriors
Post Office Box 8659
Portland, ME 04104-8659

Dear Sir:

Fixed panels of interior glass partitions mounted or restrained on only two sides (top and bottom) require special design considerations. Glass held on only two sides is much more flexible than glass supported on four sides. As the unsupported span or height of the glass panel increases, the glass thickness must also increase to maintain a reasonable stiffness.

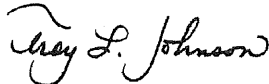
The Glass Association of North America Tempering Division recommends the following minimum thicknesses for fully tempered glass used in butt glazed fixed interior panels mounted at the top and bottom only:

<u>Unsupported span from top to bottom</u>	<u>Minimum recommended thickness</u>
Up to five feet	1/4" fully tempered glass
Over five feet, up to eight feet	3/8" fully tempered glass ✓ ← 3/8 ON SITE
Over eight feet, up to ten feet	1/2" fully tempered glass
Over ten feet, up to twelve feet	5/8" fully tempered glass
Over twelve feet, up to fourteen feet	3/4" fully tempered glass

Please note, silicone joints or permanently clipping adjacent panels does not add to the structural strength or rigidity of the assembly, and does not permit reduction of the thicknesses shown in the above table.

Please do not hesitate to contact me with any questions that you may have.

Sincerely,



Troy L. Johnson, CSI, CCPR
Vice President
SIGCO, Inc.