

Reliability by Survivor



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REPLACEMENT		Clear	Low-E [†]	E-Argon [†]	Clear	Low-E [†]	E-Argon [†]	
Product Series	D-P Rating	Size Tested	Clear	Low-E [†]	E-Argon [†]	Clear	Low-E [†]	E-Argon [†]
5600DH	35	44x60	0.48	0.34	0.31	0.52	0.27	0.27
7100DH	35	48x72	0.49	0.35	0.32	0.54	0.28	0.27
7100PW	50	48x72	0.46	0.32	0.28	0.55	0.29	0.28
7100SL	25	72x48	0.47	0.35	0.31	0.50	0.26	0.26
7200 [™]	30	36x72	0.46	0.34	0.30	0.48	0.31	0.27
7200 [™]	30	64x72	0.46	0.34	0.30	0.48	0.31	0.27

†Padded Windows with optional Low-E & Low-E/Argon meet ENERGY STAR[®] guidelines in all areas of North America.

†Padded Windows with optional Low-E & Low-E/Argon meet ENERGY STAR[®] guidelines in all areas of North America.

NEW CONSTRUCTION		Clear	Low-E [†]	E-Argon [†]	Clear	Low-E [†]	E-Argon [†]	
Product Series	D-P Rating	Size Tested	Clear	Low-E [†]	E-Argon [†]	Clear	Low-E [†]	E-Argon [†]
2300SH	30	44x60	0.49	0.36	0.32	0.56	0.35	0.35
2300SH	50	44x60 ^(in head)	0.49	0.36	0.32	0.56	0.35	0.35
2300PW	50	84x60	0.47	0.33	0.29	0.59	0.37	0.37
2300SL	20	72x60	0.49	0.35	0.32	0.56	0.35	0.35
2200 [™] Century Awn	30	36x72	0.46	0.34	0.30	0.48	0.31	0.28
2200 CPW	30	36x72	0.46	0.34	0.30	0.48	0.31	0.28
2500DH	30	44x60	0.46	0.33	0.30	0.53	0.27	0.27
2500PW	55	48x72	0.47	0.33	0.30	0.54	0.27	0.27
2500SL	30	72x48	0.46	0.33	0.30	0.53	0.27	0.26

†Padded Windows with optional Low-E & Low-E/Argon meet ENERGY STAR[®] guidelines in all areas of North America.

†Padded Windows with optional Low-E & Low-E/Argon meet ENERGY STAR[®] guidelines in all areas of North America.

For more detailed information, please contact our Technical Service Department at (866) 592-8324.

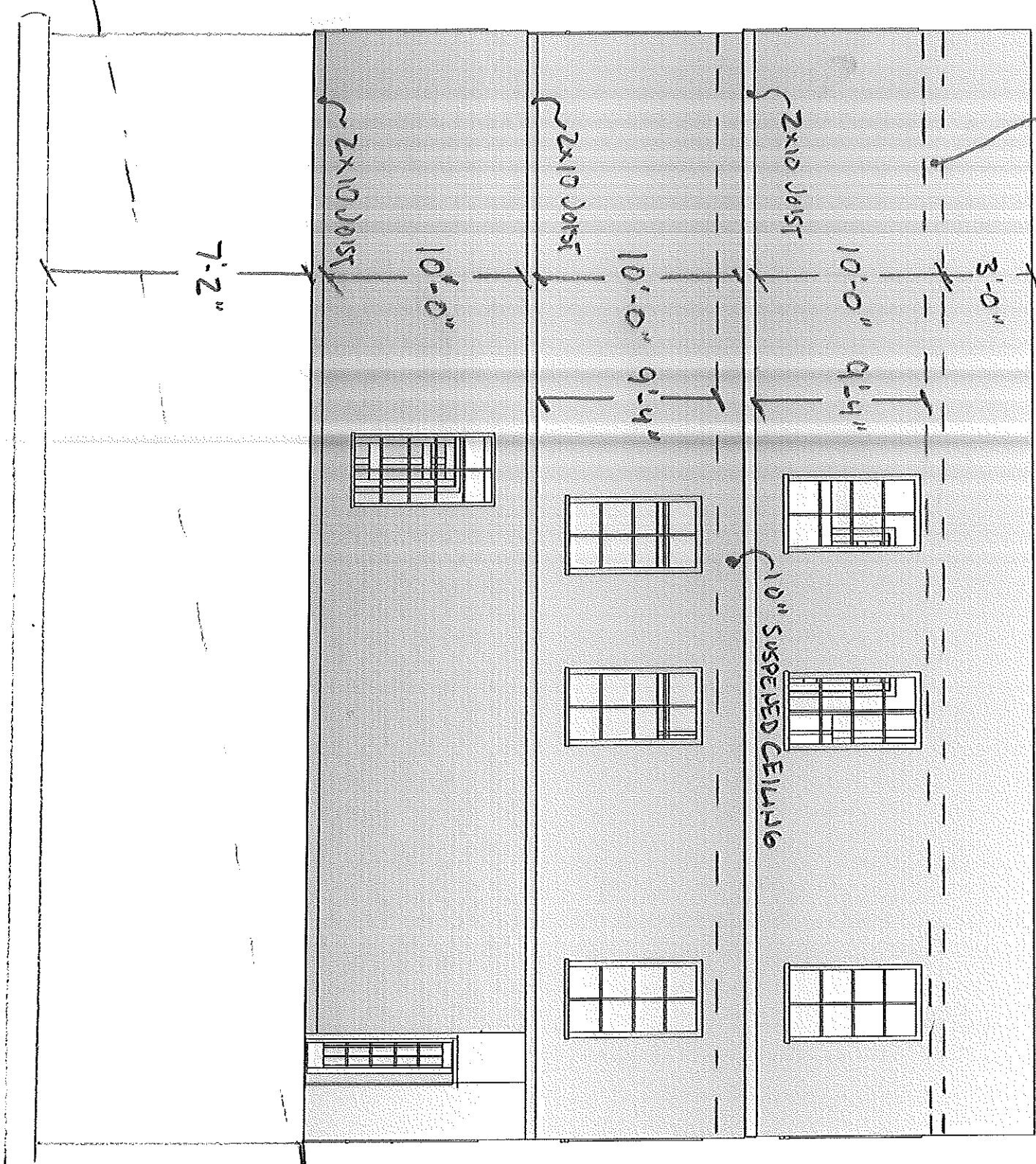
Vendor # 1317

A/05; Page 51 of 51

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Catalog ID CWP-MIL-1756

VALLEY ST. ELEVATION





10" SUSPENDED CEILING

10" SUSPENDED CEILING

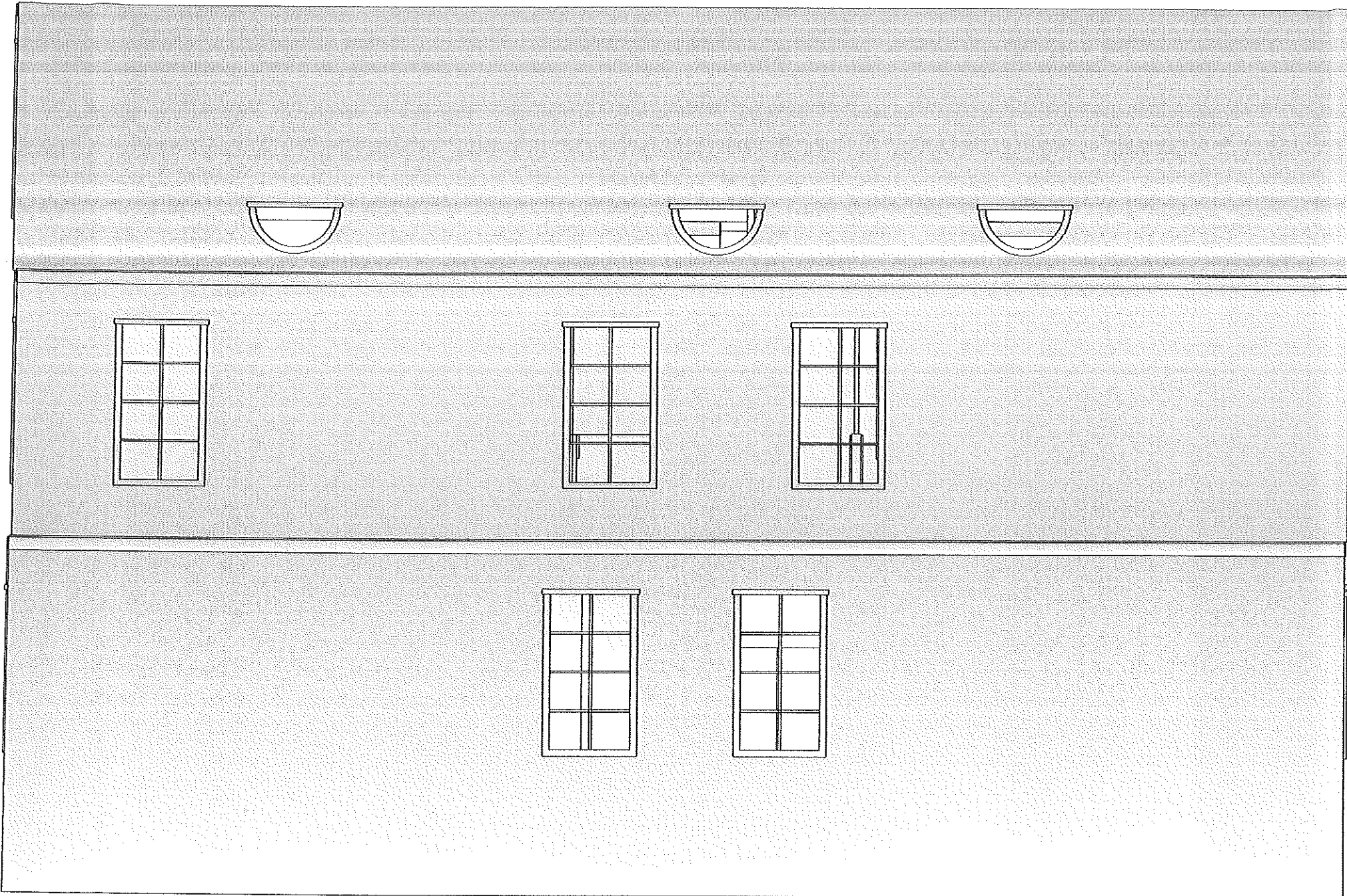
Valley St Elevation (WSH)

GILMAN ST. ELEVATION

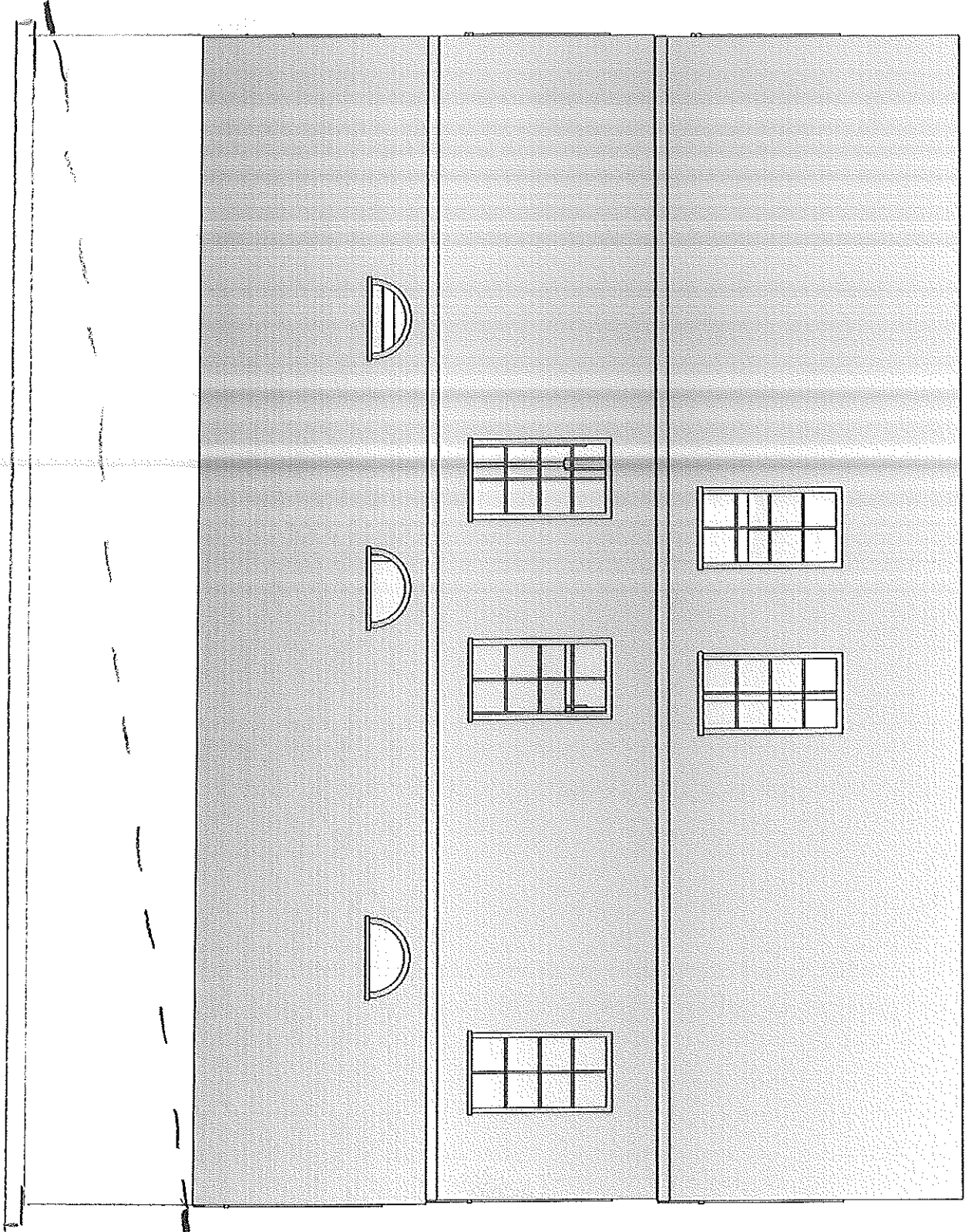
(East)

lot fronts on Valley; Congress only

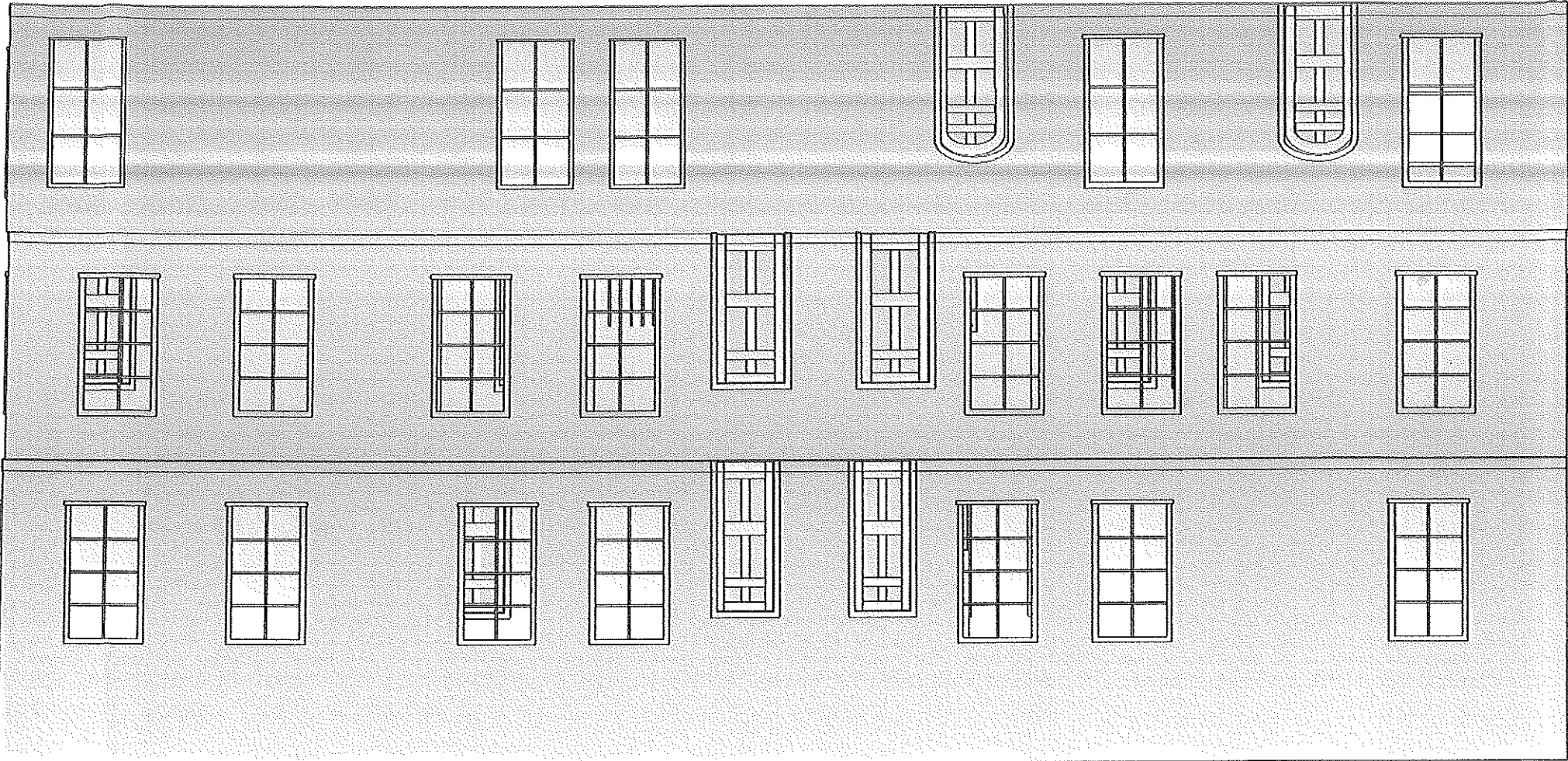
;

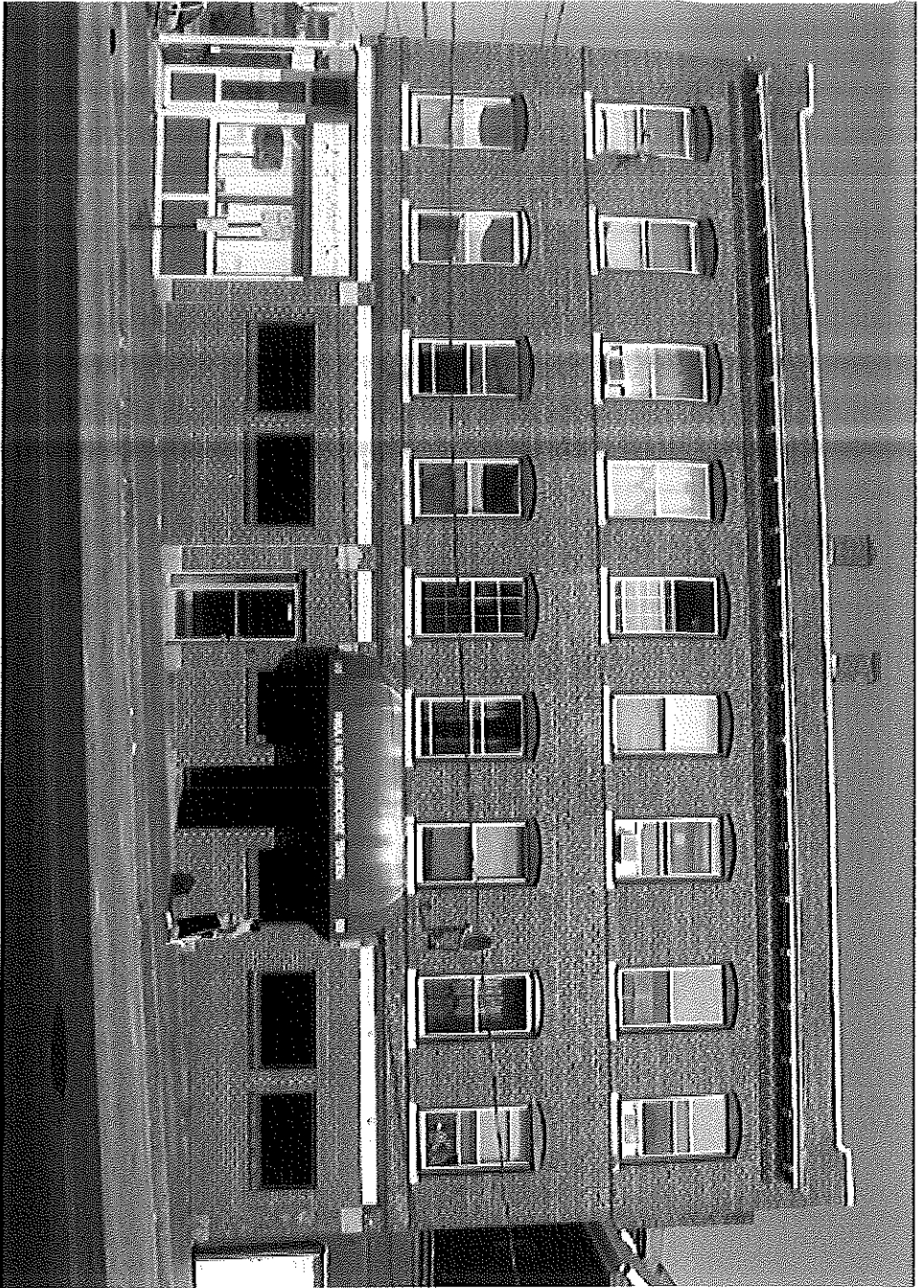


East Elevation



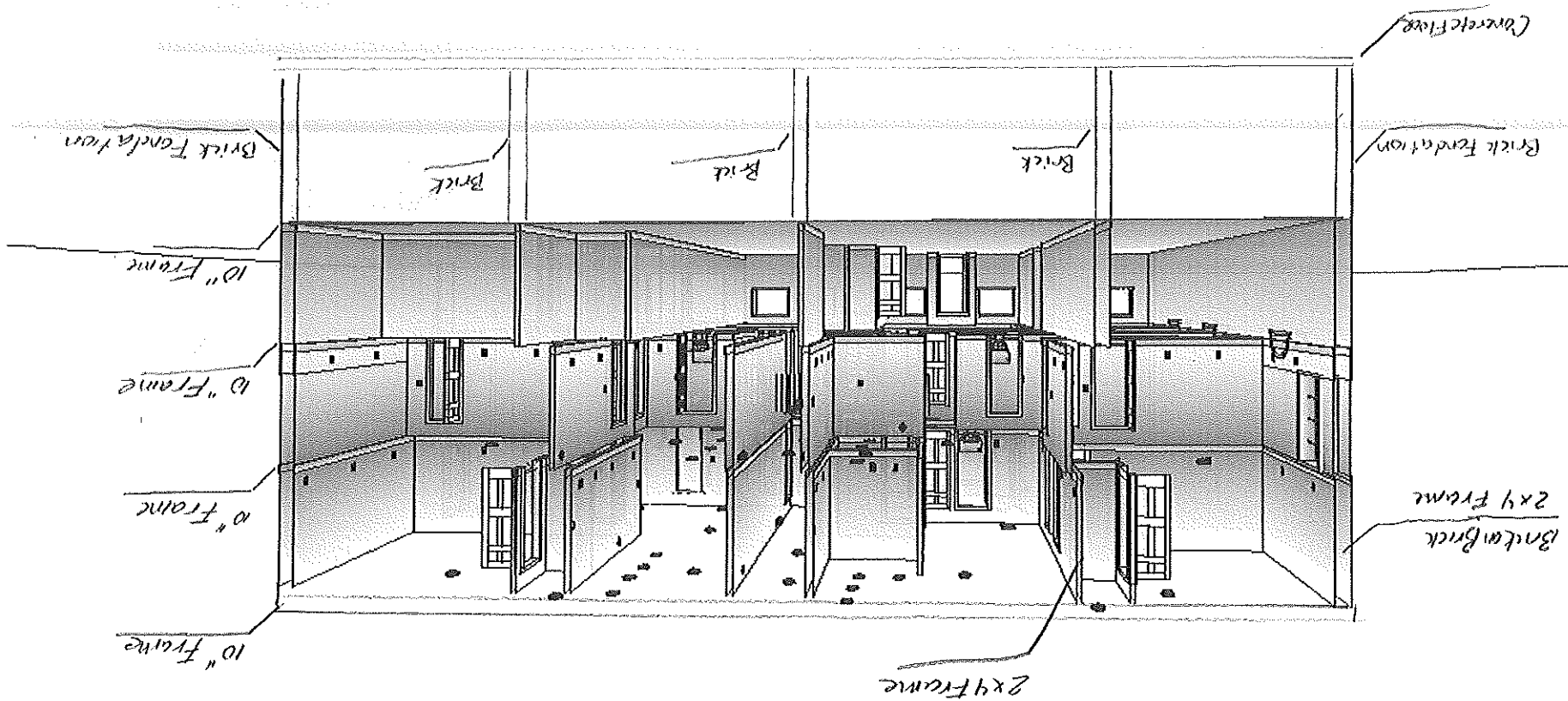
PARKING LOT ELEVATION





EXISTING

RECEIVED
 MAR - 8 2007
 DEPT. OF BUILDING INSPECTION
 CITY OF PORTLAND, ME



Note: All interior Framing 2x4" Rough cut Lumber.
 All Floor Systems 2x10" Rough Cut Lumber
 All Brick Foundations 8" and Brick Beams wall All 8"

229 Comp.
 - 603-356-5019
 - 207-632-4128

927-931 Congress Fred Plumbing

Ventilation - Both Fans Dampers
Framming - paint to pink
Plumbing - Cross Section
Cross-section of Fixture bldg.
- Site Plan -

11:00 A.M.

WED. 927 Congress

APR 1.

931 Congress

603-986-8092

Boel Silver

Michael E. Couture - Architect
760 Keearsarge Road . PO Box 2086
North Conway . New Hampshire 03860

03.15.07

MR FRED DAMBRIE
929 CONGRESS STREET
PORTLAND, MAINE

RE: LIFE SAFETY INSPECTION
929 CONGRESS STREET
PORTLAND, MAINE

DEAR FRED:

PLEASE FIND ATTACHED A COPY OF MY SUMMARY OUTLINE REVIEW OF THE 2006
NFPA 101 LIFE SAFETY CODE FOR EXISTING APARTMENT BUILDINGS.

I HAVE INSPECTED YOUR BUILDING AND OFFER THE FOLLOWING COMMENTS AND
CODE COMPLIANCE REQUIREMENTS:

THE BUILDING IS A WOOD FRAMED, BRICK VENEERED THREE STORY STRUCTURE
WITH A MERCANTILE OR BUSINESS OCCUPANCY ON THE FIRST FLOOR AND AN
APARTMENT OCCUPANCY ON THE SECOND AND THIRD FLOORS.

THE APARTMENT FLOORS CONSIST OF FOUR APARTMENTS ON THE SECOND FLOOR
AND FOUR ON THE THIRD FLOOR. THERE IS A PRIMARY STAIRCASE OPEN TO THE
SECOND AND THIRD FLOOR LEADING DIRECTLY OUTDOORS WITH NO
INTERCONNECTION WITH THE FIRST FLOOR MERCANTILE OCCUPANCY. THERE IS
ALSO A COVERED, WOOD FRAMED OPEN FIRE STAIRCASE TO THE REAR OF THE
BUILDING. *Details of Separation - See basement sp.*

THE CEILING OF THE FIRST FLOOR MERCANTILE OCCUPANCY, INCLUDING ALL
EXPOSED BEAMS, MUST BE PROTECTED WITH A TWO (2) HOUR FIRE RATED
ASSEMBLY AS PER THE DRAWING PRESENTED TO YOU EARLIER. THE STAIRWELL
MUST ALSO BE PROTECTED WITH A TWO HOUR ASSEMBLY FROM THE FIRST FLOOR
SUBFLOOR TO THE TOP OF THE SECOND FLOOR SUBFLOOR. I SUGGEST (1) LAYER OF
5/8" FIRE RATED GYPSUM BOARD BE ADDED TO THE EXISTING 5/8" GYPSUM BOARD
ON EACH FACE OF THE STAIRWELL WALLS TO THE TOP OF THE SECOND FLOOR
SUBFLOOR - *See drawing U/12 #*

ALL DOORS PENETRATING THE STAIRWELL/HALLWAY WALLS MUST HAVE A
MINIMUM 60 MINUTE RATING, THEY MUST ALSO HAVE DOOR CLOSERS OR SPRING
HINGES INSTALLED. I OBSERVED THAT THE NEW DOOR FRAMES HAVE A 90 MINUTE
RATING, BUT THAT THE DOOR LEAVES DID NOT HAVE A RATING IDENTIFICATION
PLATE. IT IS MY UNDERSTANDING, HAVING SPOKEN TO THE DOOR SUPPLIER, THAT
THEY ARE INTACT RATED DOOR LEAVES. THE IDENTIFYING PLATES MUST BE
APPLIED BY A CERTIFIED DOOR MANUFACTURER'S REPRESENTATIVE. I ALSO

UNDERSTAND THAT THE DOOR HINGES ARE SELF-CLOSING SPRING HINGES, BUT HAVE NOT YET BEEN ADJUSTED TO CLOSE.

NEW HANDRAILS SHOULD BE INSTALLED ON BOTH SIDES OF THE STAIRS, MOUNTED 34" ABOVE TREAD HEIGHT. THESE HANDRAILS SHOULD EXTEND 12" BEYOND THE TOP NOSING AND 23" BEYOND THE BOTTOM NOSING. I BELIEVE THIS WILL BE IMPOSSIBLE AT THE TOP OF THE FIRST FLOOR STAIRS, AS THIS WILL NOT ALLOW AMPLE ROOM TO ACCESS THE LEFT FRONT APARTMENT DOOR. THE HANDRAIL SHOULD AT THE VERY LEAST EXTEND TO THE LANDING NOSING AND RETURN TO THE WALL.

THE PRIMARY STAIRS MEET NFPA REQUIREMENTS FOR EXISTING APARTMENT BUILDINGS FOR WIDTH (36"), RISE AND RUN (9" TREADS MIN, 8" MAXIMUM RISE) WITH THE EXCEPTION OF THE FIRST RUN OF THE SECOND FLOOR STAIRS. I DO NOT KNOW THAT IT IS FEASIBLE TO FIX THE EXISTING RISE (APPROX 8 1/2").

THERE APPEARS TO HAVE BEEN A DOOR AT THE TOP OF THE STAIRS ON THE THIRD FLOOR. I WOULD SUGGEST THAT A DOOR NOT BE INSTALLED, AS I BELIEVE THIS CREATES A HAZZARD WITH A STAIR DIRECTLY BEYOND. THIS DOOR FRAME COULD BE REMOVED TO WIDEN THE OPENING. *Protection of vert. openings*

THE NEW BEDROOM WINDOWS EXCEED THE CODE REQUIREMENTS IN WIDTH, HEIGHT AND OPENING AREA AND HEIGHT FROM THE FLOOR:

28" CLEAR WIDTH VS. 20" CLEAR REQUIRED

30" CLEAR HEIGHT VS. 24" CLEAR REQUIRED

6.5 SF CLEAR OPENING VS. 5.7 SF CLEAR REQUIRED.

THEY ARE NOT, HOWEVER, ALL WITHIN 20' OF GRADE.

IT SHOULD BE NOTED THAT THE RIGHT REAR SECOND FLOOR UNIT'S BEDROOM WINDOW OPENS DIRECTLY ONTO THE NEIGHBORS FIRE ESCAPE WALL. AS EGRESS FROM THIS WINDOW IS NOT POSSIBLE, THIS ROOM SHOULD NOT BE USED AS A BEDROOM. THE RIGHT FRONT SECOND FLOOR UNIT'S BEDROOM WINDOW OPENS ONTO A ROOF APPROXIMATELY 5'. EGRESS FROM THIS WINDOW IS POSSIBLE. I WOULD SUGGEST FIRE SHUTTERS WITH A FUSIBLE LINKS AT BOTH OF THESE WINDOWS TO PROTECT YOUR TENNANTS FROM A POSSIBLE FIRE IN THE ADJACENT WOOD BUILDING. *protect windows w/ w 10' h/s min*

THE REAR WOOD FRAMED FIRE ESCAPE, WHILE NOT PARTICULARLY ATTRACTIVE, APPEARS TO BE STRUCTURALLY SOUND AND CERTAINLY ALLOW FOR ADDITIONAL EGRESS OPTIONS. *need engineered Analysis*

THE BOILER ROOM SHOULD BE ENCLOSED WITH A MINIMUM OF ONE HOUR WALLS, ONE HOUR CEILING AND A ONE HOUR RATED DOOR WITH CLOSER. *or sprinl + smoke*

A FIRE ALARM ANNUNCIATOR PANEL IS REQUIRED. *free!*

THE ONLY CRITERIA WHICH I BELIEVE WILL NOT BE MET ARE:

1. 8" MAX RISE IS EXCEEDED ON THE FIRST RUN OF THE SECOND FLOOR STAIRS.
2. REAR BEDROOM WINDOWS ARE GREATER THAN 20' FROM GRADE.

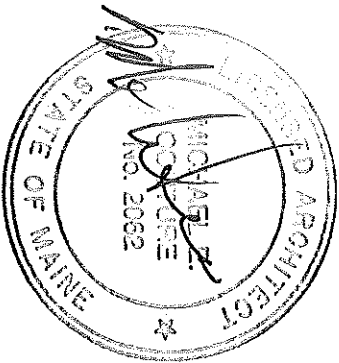
THE IMPROVEMENTS COMPLETED AND IN PROGRESS DO NOT EXCEED 50% OF THE VALUE OF THE PROPERTY, AND WITH THE EXCEPTION OF THE BEAMS ADDED TO THE SECOND FLOOR FRAMING (TO RECTIFY EXISTING STRUCTURAL DEFICIENCIES)

ARE NOT STRUCTURAL IN NATURE. THESE IMPROVEMENTS HAVE, HOWEVER, GREATLY INCREASED THE SAFETY OF ALL FUTURE TENANTS.

I WOULD BE HAPPY TO MEET WITH THE BUILDING INSPECTOR AND OR THE FIRE INSPECTOR TO REVIEW THE LIFE SAFETY CODE, MY PROPOSED REQUIREMENTS AND SUGGESTIONS AND THE BUILDING DEFICIENCIES.

SINCERELY,

MICHAEL E. COUTURE, ARCHITECT



Telephone (603) 356-9606 Fax (603) 356-0888

Michael E. Couture - Architect
760 Kearsarge Road . PO Box 2086
North Conway . New Hampshire 03860

RE: LIFE SAFETY REVIEW
929 CONGRESS STREET

REFERENCE: 2006 NFPA 101 LIFE SAFETY CODE

CHAPTER 30-31 NEW & EXISTING APARTMENT BUILDINGS

TABLE A.31.1 REQUIREMENTS FOR EXISTING APARTMENT BUILDINGS
OPTION #1 (SEE ATTACHED TABLE)

31.1.2.1 MULTIPLE OCCUPANCIES

31.1.2.1 MULTIPLE OCCUPANCIES SHALL BE IN ACCORDANCE WITH 6.1.14

6.1.14 SEPARATED OCCUPANCIES

TABLE 6.1.14.4.1 (B) 2 HOUR FIRE SEPARATION REQUIRED BETWEEN
BUSINESS OR MERCANTILE AND APARTMENTS

31.1.2.3.1.1 MULTIPLE DWELLING UNITS SHALL BE PERMITTED TO BE LOCATED
ABOVE A NONRESIDENTIAL OCCUPANCY ONLY WHERE ONE OF THE
FOLLOWING CONDITIONS EXIST:

#1: ONE (1) HOUR FIRE SEPARATION BETWEEN RESIDENTIAL UNITS
AND EXITS AND NONRESIDENTIAL OCCUPANCY.

24.2.2.1 NUMBER OF MEANS OF EGRESS

24.2.2.1.1 EVERY SLEEPING ROOM AND LIVING AREA SHALL HAVE NOT
LESS THAN ONE PRIMARY AND ONE SECONDARY MEANS OF
ESCAPE.

24.2.2.3.3

OUTSIDE WINDOWS SHALL HAVE A MINIMUM OF 5.7 SF OPENING,
20" WIDTH AND 24" HEIGHT, SHALL BE LESS THAN 44" FROM THE
FLOOR AND WITHIN 20' OF GRADE.

24.2.5.4 CLEAR WIDTH OF STAIRS AND LANDINGS NOT LESS THAN 36"W.

24.2.6 HALLWAY MINIMUM 36" WIDE.

7.2.2.2.1.1(B) EXISTING STAIRS

36" MINIMUM WIDTH
8" MAXIMUM RISE
9" MINIMUM TREAD DEPTH
6'-8" MINIMUM HEADROOM

7.2.2.4.2

HANDRAILS SHALL CONTINUE FOR FULL LENGTH OF STAIRS

7.2.2.4.4.2

EXISTING HANDRAILS SHALL BE BETWEEN 30" AND 38" ABOVE TREAD

31.2.2.9

FIRE ESCAPE STAIRS ARE PERMITTED IF COMPLYING WITH 7.2.8

7.2.8.1.2.1

FIRE ESCAPE STAIRS SHALL BE PERMITTED ON EXISTING BUILDINGS

Telephone (603) 356-9606 Fax (603) 356-0888

Section 30.1 General Requirements

Section 31.1* General Requirements

A.31.1 See Table A.31.1.

30.1.1 Application.

31.1.1 Application.

30.1.1.1 The requirements of this chapter shall apply to new buildings or portions thereof used as apartment occupancies (see 1.3.1).

31.1.1.1 The requirements of this chapter shall apply to existing buildings or portions thereof currently occupied as apartment occupancies. In addition, the building shall meet the requirements of one of the following options:

Table A.31.1 Alternate Requirements for Existing Apartment Buildings According to Protection Provided

Feature	No Suppression or Detection System Option 1		Complete Automatic Fire Detection Option 2		Automatic Sprinkler Protection in Selected Areas Option 3		Automatic System Protection Throughout NFPA 13, with exceptions Option 4	
Exit Access								
Travel distance from apartment door to exit	100 ft (30 m)	150 ft (45 m)	150 ft (45 m)	200 ft (61 m)				
Travel distance within apartment	75 ft (23 m)	125 ft (38 m)	75 ft (23 m)	125 ft (38 m)				
Smoke barrier required (See 31.3.7.)	R	R	R	NR				
Max. single path corridor distance	35 ft (10.7 m)	35 ft (10.7 m)	35 ft (10.7 m)	35 ft (10.7 m)				
Max. dead end	50 ft (15 m)	50 ft (15 m)	50 ft (15 m)	50 ft (15 m)				
Corridor fire resistance								
Walls	1/2 hr	1/2 hr	1/2 hr	1/2 hr				
Doors (fire protection rating)	20 min. or 1 1/2 in. (44 mm) thick	20 min. or 1 1/4 in. (44 mm) thick	Smoke resisting	Smoke resisting				
Interior Finish								
Lobbies and corridors	A or B	A or B	A or B	A, B, or C	A, B, or C	A, B, or C	A, B, or C	
Other spaces	A, B, or C	A, B, or C	A, B, or C	A, B, or C	A, B, or C	A, B, or C	A, B, or C	
Floors in corridors	I or II	I or II	I or II	I or II	NR	NR	NR	
Exits								
Wall fire resistance								
1-3 stories								
>3 stories	1 hr	1 hr	1 hr	1 hr				
Smokeproof enclosures	2 hr	2 hr	2 hr	2 hr				
Not high-rise	NR	NR	NR	NR				
High-rise	R	R	R	R				
Door fire resistance								
1-3 stories	1 hr	1 hr	1 hr	1 hr				
>3 stories	1 1/2 hr	1 1/2 hr	1 1/2 hr	1 1/2 hr				
Interior finish								
Walls and ceilings	A or B	A or B	A or B	A, B, or C	A, B, or C	A, B, or C	A, B, or C	
Floors	I or II	I or II	I or II	I or II	I or II	I or II	NR	
Within Living Unit (Apartment)								
Escape windows, per Section 24.2 (See 31.2.1.)	R	R	R	R	R	R	NR	
Alarm System								
>3 stories or >11 units	Manual initiation	Manual and auto initiation	Manual and auto initiation	Manual and auto initiation	Manual and auto initiation	Manual and auto initiation	Manual and auto initiation	
>2 stories or >50 units	Annunciator panel	Annunciator panel	Annunciator panel	Annunciator panel	Annunciator panel	Annunciator panel	Annunciator panel	

R: Required (see Code for details and exemptions). NR: No requirements.

CHAPTER 30 • New

occupancy in the same building, unless otherwise permitted by 30.1.2.2.1 or 30.1.2.2.2.

30.1.2.2.1 In buildings that are protected by an automatic sprinkler system in accordance with Section 9.7, dwelling units of an apartment building shall be permitted to have their sole means of egress pass through a nonresidential occupancy in the same building, provided that the following criteria are met:

- (1) The dwelling unit of the apartment building shall comply with Chapter 30.
- (2) The sole means of egress from the dwelling unit of the apartment building shall not pass through a high hazard contents area, as defined in 6.2.2.4.

30.1.2.2.2 In buildings that are not protected by an automatic sprinkler system in accordance with Section 9.7, dwelling units of an apartment building shall be permitted to have their sole means of egress pass through a nonresidential occupancy in the same building, provided that the following criteria are met:

- (1) The sole means of egress from the dwelling unit of the apartment building to the exterior shall be separated from the remainder of the building by fire barriers having a fire resistance rating of not less than 1 hour.
- (2) The dwelling unit of the apartment building shall comply with Chapter 30.
- (3) The sole means of egress from the dwelling unit of the apartment building shall not pass through a high hazard contents area, as defined in 6.2.2.4.

30.1.2.3 Multiple dwelling units shall be permitted to be located above a nonresidential occupancy only where one of the following conditions exists:

- (1) Where the dwelling units of the residential occupancy and exits therefrom are separated from the nonresidential occupancy by construction having a fire resistance rating of not less than 1 hour
- (2) Where the nonresidential occupancy is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7

Residential occupancies often exist in buildings that also house assembly, mercantile, or business occupancies. These nonresidential occupancies might

CHAPTER 31 • Existing

occupancy in the same building, unless otherwise permitted by 31.1.2.2.1 or 31.1.2.2.2.

31.1.2.2.1 In buildings that are protected by an automatic sprinkler system in accordance with Section 9.7, dwelling units of an apartment building shall be permitted to have their sole means of egress pass through a nonresidential occupancy in the same building, provided that the following criteria are met:

- (1) The dwelling unit of the apartment building shall comply with Chapter 31.
- (2) The sole means of egress from the dwelling unit of the apartment building shall not pass through a high hazard contents area, as defined in 6.2.2.4.

31.1.2.2.2 In buildings that are not protected by an automatic sprinkler system in accordance with Section 9.7, dwelling units of an apartment building shall be permitted to have their sole means of egress pass through a nonresidential occupancy in the same building, provided that the following criteria are met:

- (1) The sole means of egress from the dwelling unit of the apartment building to the exterior shall be separated from the remainder of the building by fire barriers having a fire resistance rating of not less than 1 hour.
- (2) The dwelling unit of the apartment building shall comply with Chapter 31.
- (3) The sole means of egress from the dwelling unit of the apartment building shall not pass through a high hazard contents area, as defined in 6.2.2.4.

31.1.2.3 Multiple dwelling units shall be permitted to be located above a nonresidential occupancy only where one of the following conditions exists:

- (1) Where the dwelling units of the residential occupancy and exits therefrom are separated from the nonresidential occupancy by construction having a fire resistance rating of not less than 1 hour
- (2) Where the nonresidential occupancy is protected throughout by an approved, supervised automatic sprinkler system in accordance with Section 9.7
- (3) Where not more than two dwelling units are located above a nonresidential occupancy that is protected by an automatic fire detection system in accordance with Section 9.6

pose an additional threat, because they are not typically occupied after regular business hours. An unoccupied fire in an unoccupied area has the potential

Table 7.2.2.2.1(6) Existing Stairs

Feature	Dimensional Criteria	
	ft/in.	mm
Minimum width clear of all obstructions, except projections not more than 4½ in. (114 mm) at or below handrail height on each side	36 in.	915
Maximum height of risers	8 in.	205
Minimum tread depth	9 in.	230
Minimum headroom	6 ft 8 in.	2030
Maximum height between landings	12 ft	3660
Landings	See 7.2.1.3 and 7.2.1.4.4.	

Replacement of step coverings, as described in A.7.2.2.3.5, particularly Figure A.7.2.2.3.5(e), and addition of functional handrails and guardrails in place of or in conjunction with other rails, as described in 7.2.2.4.

3) Approved existing stairs shall be permitted to be rebuilt in accordance with the following:

- (a) Dimensional criteria of Table 7.2.2.2.1(6)
- (b) Other stair requirements of 7.2.2

The requirements for new and existing stairs shall not apply to stairs located in industrial equipment access areas where otherwise provided in 4.0.2.5.2.

Editions of the *Code* prior to 1981 required that the height of every riser and the width of every tread be so proportioned that the sum of two risers and a tread, exclusive of the tread nosing or projection, was not less than 24 in. (610 mm) nor more than 25 in. (635 mm). This requirement was deleted because it was based on a 300-year-old French formula in which the inch was a slightly larger unit of measure than it is today. Moreover, people's feet and stride length — the basis for the formula — were somewhat smaller at that time. Also, the requirement was originally intended only for stairs of moderate steepness or pitch. These reasons, as well as information gathered by researchers on people movement, explain why the requirement was replaced by requirements that enforce good step geometry.

Because of the hardship and impracticality of rebuilding all existing stairs to the newer requirements, the *Code* permits existing stairs in existing buildings to comply with previous requirements. It also permits existing stairs to be rebuilt to the previous dimen-

Formal Interpretation
NFPA 1090® Life Safety Code
2006 edition

Reference Table 7.2.2.2.1(a)
FI No. 101-00-2

Background: Paragraph 7.2.2.3.6 on dimensional uniformity permits a 3/16-in. variation in the depth of adjacent treads and in the height of adjacent risers, and permits a 3/8-in. variation between the largest and smallest riser and between the largest and smallest tread in any flight.

Question: Is it the intent of Table 7.2.2.2.1(a) that the 7-in. riser height maximum is an absolute measurement, that is, there is no allowance for conventional industry construction tolerances?

Answer: No.

Issue Edition: 2000

Reference: Table 7.2.2.2.1(a)

Issue Date: June 3, 2002

Effective Date: June 23, 2002

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NATIONAL FIRE PROTECTION ASSOCIATION

sional criteria, because a new stair might not fit in an existing stair enclosure. However, the rebuilt stair utilizing the older geometry must meet all other requirements of 7.2.2, including those relating to handrails. The wording of A.7.2.2.2.1(2) provides guidance for judging the improvements that are reasonable.

The provisions applicable to the width of new stairs were changed for the 2006 edition of the *Code*. See the commentary that follows 7.2.2.2.1.2(F).

Prior to the 2006 edition of the *Code*, existing stairs were classified as either Class A or Class B, depending on their tread depth and riser height. The Class A stair was a safer stair than Class B because it was limited to a maximum riser height of 7 ½ in. (190 mm) instead of the 8 in. (205 mm) permitted for Class B stairs; and it was required to have a minimum tread depth of 10 in. (255 mm) instead of the 9 in. (230 mm) permitted for Class B stairs. The last two occupancies that required existing stairs to be Class A dropped the requirement — it had applied to existing stairs used for student access in educational occupan-

Table 6.114.41(b) Required Separation of Occupancies (hours)*, Part 2

Occupancy	Board Board & &										Storage, High & Storage, Low & Storage, High			
	Apartment Buildings	Care, Small	Care, Large	Mercantile	Mail	Mercantile, Bulk Retail	Mercantile, Business	Industrial, General Purpose	Industrial, Special Purpose	Industrial, High Hazard	Industrial, Low & Ordinary Hazard	Industrial, High Hazard	Industrial, High Hazard	
Assembly ≤ 300	2	2	2	2	2	3	1	2	2	3	2	3		
Assembly >300 to ≤1000	2	2	2	2	2	3	2	2	2	3	2	3		
Assembly >1000	2	2	2	2	2	3	2	3	2	3	3	3		
Educational	2	2	2	2	2	3	2	3	3	3	3	3		
Care-Care >12	2	2	2	2	2	3	2	3	3	3	3	3		
Clients														
Dry-Care Homes	2	2	2	2	2	3	2	3	3	3	2	3		
Health Care	2*	2*	2*	2*	2*	2*	2*	2*	2*	2*	2*	2*		
Laboratory	2	2	2	2	2	2*	1	2	2	2	2	2*		
Health Care														
Detention & Correctional	2*	2*	2*	2*	2*	2*	2*	2*	2*	NP	2*	NP		
One- & Two-Family Dwellings	1	1	2	2	2	3	2	2	2	3	3	3		
Lodging or Rooming Houses	1	2	2	2	2	3	2	2	2	3	2	3		
Hotels & Dormitories	1	2	2	2	2	3	2	2	2	3	2	3		
Apartment Buildings	2	2	2	2	2	3	2	2	2	3	2	3		
Board & Care, Small		1	2	2	2	3	2	3	3	3	3	3		
Board & Care, Large			2	2	2	3	2	3	3	3	3	3		
Mercantile					0	3	2	2	2	3	2	3		
Mercantile, Mail						3	2	3	3	3	2	3		
Mercantile, Bulk Retail						2	2	2	2	3	2	3		
Business							2	2	2	2	2	2		
Industrial, General Purpose								1	1	1	1	1		
Industrial, Special Purpose									1	1	1	1		
Industrial, High Hazard										1	1	1		
Storage, Low & Ordinary Hazard												1		
Storage, High Hazard														

* Not permitted.
 The fire resistance rating is permitted to be reduced by 1 hour, but in no case to less than 1 hour, where the building is protected throughout by an approved automatic sprinkler system in accordance with 9.7.1.1(1) and supervised in accordance with 9.7.2.
 The 1-hour reduction due to the presence of sprinklers in accordance with the asterisk footnote is not permitted.



BXUV.L511
Fire Resistance Ratings - ANSI/UL 263

Page Bottom

Fire Resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - ANSI/UL 263

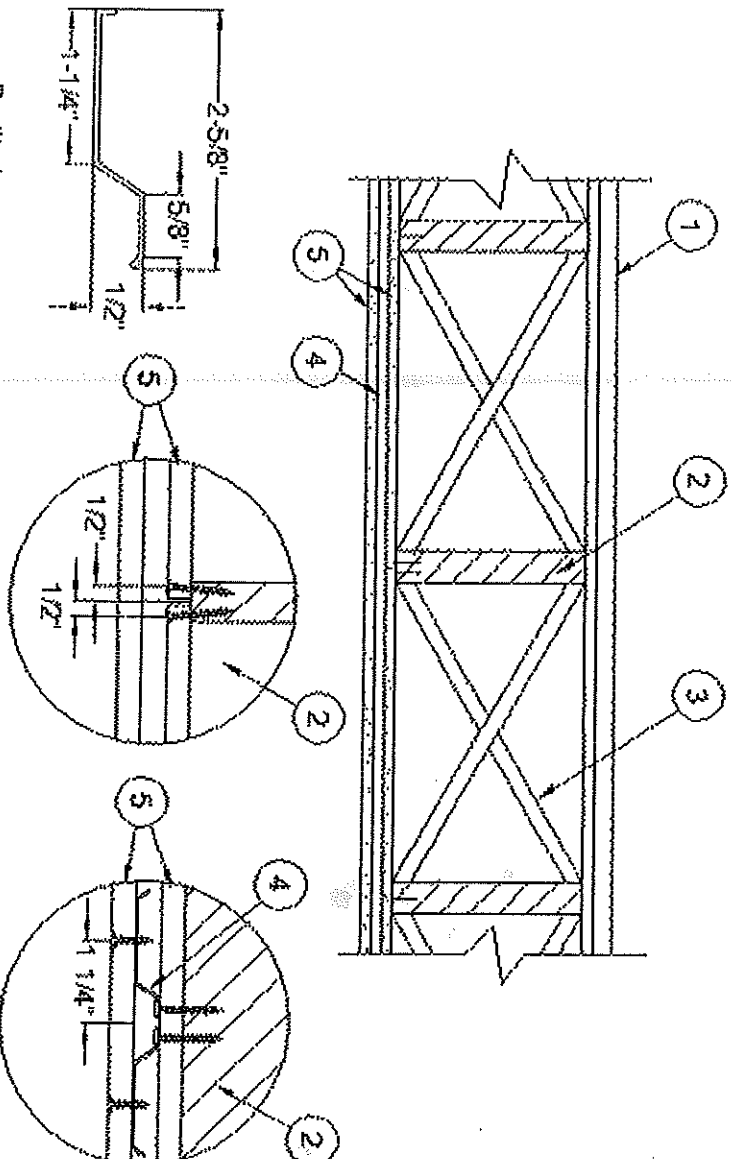
Design No. L511

November 14, 2006

Unrestrained Assembly Rating — 2 Hr.

Finish Rating — 71 Min.

Load Restricted for Canadian Applications — See Guide BXUVZ



Resilient
Channel Detail

First Layer
End Joint Detail

Second Layer
End Joint Detail

1. Flooring Systems — The flooring system shall consist of one of the following:

System No. 1

- Subflooring — Min 1 by 6 in. T & G lumber fastened diagonally to joists.
- Vapor Barrier — Nom 0.010 in. thick commercial rosh-sized building paper.
- Finish Flooring — Min 1 by 3 in. T & G and end matched, laid perpendicular to joists.

System No. 2

- Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.
- Vapor Barrier - (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.
- Floor Mat Materials* - (Optional) — Min 3/8 in. to max 3/4 in. thick floor mat material loose laid over the subfloor.

Floor topping thickness shall be as specified under **Floor Topping Mixture**.

UNITED STATES GYPSUM CO — Levelrock Brand Sound Reduction Board

Alternate Floor Mat Materials* - (Optional) — Floor mat material nom 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture**.

UNITED STATES GYPSUM CO — Levelrock Brand Floor Underlayment SRM-25

Alternate Floor Mat Materials* (Optional) — Nom 3/8 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture*.**

SOLUTIA INC — Type SCS50

Finish Flooring - Floor Topping Mixture* — Min 3/4 or 1 in. thickness of floor topping mixture for min 19/32 or min 15/32 in. thick wood structural panels respectively, having a min compressive strength of 1500 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO — Levelrock 2500, Levelrock RH

System No. 3

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier - (Optional) — Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring — Min 19/32 in. wood structural panels, min grade "Underlayment" or "Single Floor". Face grain of plywood or strength axis of panels to be perpendicular to joists with joints staggered.

System No. 4

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier - (Optional) — Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring — **Floor Topping Mixture*** — Min 1-1/2 in. thickness of floor topping mixture having a min compressive strength of 1000 psi and a cast density of 100 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle. Mixture shall consist of 1.4 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 300 lbs of sand with 5-1/2 gal of water.

ELASTIZELL CORP OF AMERICA — Type FF

System No. 5

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier - (Optional) — Nom 0.010 in. thick commercial rosin-sized building paper.

Floor Mat Materials* - (Optional) — Nom 6 mm thick floor mat material adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of floor-topping mixture. When floor mat material is used, min thickness of floor topping mixture is 1 in.

HACKER INDUSTRIES INC — Type Hacker Sound-Mat.

Alternate Floor Mat Materials* — (Optional) — Floor mat material nom 10 mm thick adhered to subfloor with Hacker Floor Primer. Primer to be applied to the surface of the mat prior to the placement of a min 1-1/2 in. of floor-topping mixture.

HACKER INDUSTRIES INC — Type Hacker Sound-Mat II.

Alternate Floor Mat Materials* — (Optional) — Floor mat material nom 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be a min of 1 in.

HACKER INDUSTRIES INC — Type Quiet Curt 55/025

Alternate Floor Mat Materials* — (Optional) — Floor mat material nom 3/8 in. thick loose laid over the subfloor. Floor topping thickness shall be a min of 1-1/2 in.

HACKER INDUSTRIES INC — Type Quiet Curt 60/040

Metal Lath (Optional) — For use with 3/8 in. or 10 mm floor mat materials, 3/8 in. expanded steel diamond mesh, 3.4 lbs/sq yd placed over the floor mat material. Hacker Floor Primer to be applied prior to the placement of the metal lath. When metal lath is used, floor topping thickness a nom 1-1/4 in. over the floor mat.

Finish Flooring — Floor Topping Mixture* — Min 3/4 or 1 in. thickness of floor topping mixture for min 19/32 or min 15/32 in. thick wood structural panels respectively, having a min compressive strength of 1100 psi. Mixture shall consist of 6.8 gal of water to 80 lbs of floor topping mixture to 1.9 cu ft of sand.

HACKER INDUSTRIES INC — Firm-Fill Gypsum Concrete, Firm-Fill 2010, Firm-Fill 4010, Firm-Fill High Strength, Gyp-Span Radiant, Firm-Fill 3310.

System No. 6

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier - (Optional) — Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring - Floor Topping Mixture* — Min 1in. thickness of floor topping mixture having a min compressive strength of 1000 psi and a cast density of 100 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle. Mixture shall consist of 1.4 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 62.5 lb of pea gravel, 312.5 lbs of sand with 5-1/2 gal of water.

LITE-CRETE INC — Type I

System No. 7

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Finish Flooring — Floor Topping Mixture* — Min 1 in. thickness of floor topping mixture having a min compressive strength of 1200 psi and a cast density of 105 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle. Mixture shall consist of 1.2 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, 300 lbs of sand, 5 oz Type N fiber, 4 oz Component Z with 5.4 gal of water.

ELASTIZELL CORP OF AMERICA — Type ZC

System No. 8

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Retarder — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring — Floor Topping Mixture* — Min 3/4 or 1 in. thickness of floor topping mixture for min 19/32 or min 15/32 in. thick wood structural panels respectively, having a min compressive strength of 1000 psi. Mixture shall consist of 5 to 8 gal of water to 80 lbs of floor topping mixture to 2.1 cu ft of sand.

ULTRA QUIET FLOORS — Types UQF-A, UQF-Super Blend, UQF-Plus 200

System No. 9

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier — (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Floor Mat Materials* - (Optional) — Nom 1/4 in. thick floor mat material loose laid over the subfloor. Maxxon Floor Primer to be applied to the surface of the mat prior to the floor topping placement. When floor mat material is used, min thickness of floor topping mixture is 1 in.

MAXXON CORP — Type Acoust-Mat II.

Alternate Floor Mat Materials* - (Optional) — Nom 0.8 in. thick floor mat material loose laid over the subfloor with Crack Suppression Mat (CSM) loose laid over the floor mat material. Floor topping mixture shall be min 1-1/2 in.

MAXXON CORP — Type Acoust-Mat 3, Crack Suppression Mat (CSM)

Metal Lath (Alternate to Crack Suppression Mat (CSM)) — 3/8 in. expanded galvanized steel diamond mesh, 3.4 lbs/sq yd loose laid over the floor mat material. Floor topping mixture shall be min 1-1/2 in.

Alternate Floor Mat Materials* - (Optional) — Nom 0.4 in. thick floor mat material loose laid over the subfloor.

Maxxon Floor Primer to be applied to the surface of the mat prior to the floor topping placement. Floor topping mixture shall be min 1-1/2 in.

MAXXON CORP — Type Enkasonic 9110

Metal Lath (Optional) — For use with floor mat materials, 3/8 in. expanded galvanized steel diamond mesh, 3.4 lbs/sq yd or Maxxon Corp. UL Classified Crack Suppression Mat (CSM) loose laid over the floor mat material. Floor topping mixture shall be min 1 in.

MAXXON CORP — Type Crack Suppression Mat (CSM)

Finish Flooring — Floor Topping Mixture* — Min 3/4 or 1 in. thickness of floor topping mixture for min 19/32 or min 15/32 in. thick wood structural panels respectively, having a min compressive strength of 1000 psi. Mixture shall consist of 3 to 7 gal of water mixed with 80 lbs of floor topping mixture and 1.0 to 2.1 cu ft of sand.

MAXXON CORP — Type D-C, GC, GC2000, L-R, T-F, CT

System No. 10

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier - (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Floor Mat Materials* - (Optional) — Nom 1/4 in. thick floor mat material loose laid over the subfloor. Maxxon Floor Primer to be applied to the surface of the mat prior to the floor topping placement. When floor mat material is used, min thickness of floor topping mixture is 1 in.

MAXXON CORP — Type Acoust-Mat II

Alternate Floor Mat Materials* - (Optional) — Nom 0.8 in. thick floor mat material loose laid over the subfloor with Crack Suppression Mat (CSM) loose laid over the floor mat material. Floor topping mixture shall be min 1-1/2 in.

MAXXON CORP — Type Acoust-Mat 3, Crack Suppression Mat (CSM)

Metal Lath (Alternate to Crack Suppression Mat (CSM)) — 3/8 in. expanded galvanized steel diamond mesh, 3.4 lbs/sq yd loose laid over the floor mat material. Floor topping mixture shall be min 1-1/2 in.

Alternate Floor Mat Materials* - (Optional) — Nom 0.4 in. thick floor mat material loose laid over the subfloor. Maxxon Floor Primer to be applied to the surface of the mat prior to the floor topping placement. Floor topping mixture shall be min 1-1/2 in.

MAXXON CORP — Type Enkasonic 9110

Metal Lath (Optional) — For use with floor mat materials, 3/8 in. expanded galvanized steel diamond mesh, 3.4 lbs/sq yd or Maxxon Corp. UL Classified Crack Suppression Mat (CSM) loose laid over the floor mat material. Floor topping mixture shall be min 1 in.

MAXXON CORP — Type Crack Suppression Mat (CSM)

Finish Flooring - Floor Topping Mixture* — Min 3/4 or 1 in. thickness of floor topping mixture for min 19/32 or min 15/32 in. thick wood structural panels respectively, having a min compressive strength of 1200 psi. Mixture shall consist of 4 to 7 gal of water mixed with 80 lbs of floor topping mixture and 1.4 to 1.9 cu ft of sand.

RAPID FLOOR SYSTEMS — Type RF, RFP, RFU, RFR, Orterrete

System No. 11

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Finish Floor - Mineral and Fiber Board* — Min 1/2 in. thick, supplied in sizes ranging from 3 ft by 4 ft to 8 ft by 12 ft. All joints to be staggered a min of 12 in. with adjacent sub-floor joints.

HOMASOTE CO — Type 440-32 Mineral and Fiber Board

System No. 12

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or

strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier - (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Floor Mat Materials* - (Optional) — Min 3/8 in. to max 3/4 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture**.

UNITED STATES GYPSUM CO — Levelrock 3500, Levelrock Commercial RH

Alternate Floor Mat Materials* - (Optional) — Floor mat material nom 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture**.

UNITED STATES GYPSUM CO — Levelrock Brand Floor Underlayment SRM-25

Alternate Floor Mat Materials* - (Optional) — Nom 3/8 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture**.

SOLUTIA INC — Type SCS0

Finish Flooring - Floor Topping Mixture* — Min 1/2 or 3/4 in. thickness of floor topping mixture for min 19/32 or min 15/32 in. thick wood structural panels respectively, having a min compressive strength of 2100 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO — Levelrock 3500, Levelrock Commercial RH

System No. 13

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier - (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Floor Mat Materials* - (Optional) — Min 3/8 in. to max 3/4 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture**.

UNITED STATES GYPSUM CO — Levelrock Brand Sound Reduction Board

Alternate Floor Mat Materials* - (Optional) — Floor mat material nom 1/4 in. thick loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture**.

UNITED STATES GYPSUM CO — Levelrock Brand Floor Underlayment SRM-25

Alternate Floor Mat Materials* - (Optional) — Nom 3/8 in. thick floor mat material loose laid over the subfloor. Floor topping thickness shall be as specified under **Floor Topping Mixture**.

SOLUTIA INC — Type SCS0

Finish Flooring - Floor Topping Mixture* — Min 1/2 or 3/4 in. thickness of floor topping mixture for min 19/32 or min 15/32 in. thick wood structural panels respectively, having a min compressive strength of 3000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

UNITED STATES GYPSUM CO — Levelrock 4500

System No. 14

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier - (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 1-1/2 in. thickness of floor topping mixture having a min compressive strength of 1000 psi and a cast density of 105 plus or minus 5 pcf. Foam concentrate mixed 40:1 by volume with water and expanded at 100 psi through nozzle. Mixture shall consist of 1.2 cu feet of preformed foam concentrate to 94 lbs Type I Portland cement, and 300 lbs of sand with 5.5 gal of water.

CELLULAR CONCRETE L L C — Floor Topping Mixture

System No. 15

Subflooring — Min 15/32 in. thick wood structural panels, min grade "C-D" or "Sheathing". Face grain of plywood or

Strength axis of panels to be perpendicular to the joists with joints staggered.

Vapor Barrier - (Optional) — Nom 0.010 in. thick commercial rosin-sized building paper.

Finish Flooring - Floor Topping Mixture* — Min 3/4 or 1 in. thickness of floor topping mixture for 19/32 or 15/32 in. thick wood structural panels respectively, having a min compressive strength of 1000 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

ALLIED CUSTOM GYPSUM PLASTERWORKS LLC — Accu-Crete

System No. 16

Subflooring — 15/32 or 19/32 in. thick wood structural panels, min. grade "C-D" or "Sheathing". Face grain of plywood or strength axis of panels to be perpendicular to joists with joints staggered.

Vapor Barrier - (Optional) — Nom 0.030 in. thick commercial asphalt saturated felt.

Finish Flooring - Floor Topping Mixture* — Min 3/4 or 1 in. thickness of floor topping mixture for 19/32 or 15/32 in. thick wood structural panels respectively, having a min compressive strength of 2100 psi. Refer to manufacturer's instructions accompanying the material for specific mix design.

MAXIT INC — Maxit 493

System No. 17

Subflooring — Min 3/4 in. thick wood structural panels, min grade "Underlayment" or "Single-Floor". Face grain of plywood or strength axis of panel to be perpendicular to joists with joints staggered. Long edges may be T & G or square.

Finish Flooring - Floor Topping Mixture* — Compressive strength to be 2500 psi min. Thickness to be 3/4 in. min. Refer to manufacturer's instructions accompanying the material for specific mix design.

ALPHA 7 GYPSUM LLC — Gyp-Cement Commercial Floor Topping

2. **Wood Joists** — Min 2 by 10, spaced 16 in. OC and effectively fireblocked in accordance with local codes.
3. **Cross Bridging** — Min 1 by 3 in. or min 2 by 10 solid blocking.

4. **Resilient Channels** — Formed of 25 MSG galv steel, spaced 24 in. OC perpendicular to joists and located 12 in. from each side edge of base layer gypsum board. Channels placed with 1/4 in. clearance at the ends and fastened to each joist with 1-7/8 in. long No. 7 Type S bugle head screws. Min end clearance of channels to walls: 3/8 in. Additional channels 60 in. long, placed adjacent to continuous channels at end joints of second layers of gypsum board (Item 5) and similarly secured. Channel ends to extend 6 in. beyond each side of joint.

4A. **Steel Framing Members (Not Shown)*** — As an alternate to Item 4, furring channels and Steel Framing Members as described below:

- a. **Furring Channels** — Formed of No. 25 MSG galv steel, 2-3/8 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to joists. Channels secured to joists as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap.
 - b. **Steel Framing Members*** — Used to attach furring channels (Item a) to joists. Clips spaced 48 in. OC, and secured to alternating joists with No. 8 x 2-1/2 in. coarse drywall screw through the center grommet. Furring channels are friction fitted into clips. Adjoining channels are overlapped as described in Item a. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. Additional clips required to hold furring channel that supports the gypsum board butt joints, as described in Item 5.

PAC INTERNATIONAL INC — Type RSIC-1

5. **Gypsum Board*** — Two layers of nom 5/8 in. thick, 4 ft wide gypsum board. When resilient channels (Item 4) are used, first layer installed perpendicular to joists with end joints located over bottom of joists. Gypsum board attached to joists with 6d cement coated cooler nails spaced 1 in., 6 in. and 21 in. from each side edge in the field of the board. Butt edges shall occur under joists, fastened with nails spaced 1 in., 6 in., 15 in. and 21 in. from side edges of board, and 1/2 in. back from butt edge. Second layer of gypsum board secured to resilient channels with 1 in. long No. 7 Type S bugle head screws spaced 12 in. OC with additional screws placed 3 in. from each side edge. End joints of second layer offset from end joints in first layer, and secured to both resilient channels as shown in end joint detail. Screws located 3/4 in. and 1-1/4 in. from side and end joints of boards. When **Steel Framing Members** (Item 4A) are used, sheets installed with long dimensions parallel with joists. Base layer attached to the furring channels using 1 in. long No. 7 Type S bugle head steel screws spaced 8 in. OC along butted end joints and 12 in. OC in the field of the board. Butted end joints shall be staggered min 2 ft. within the assembly, and occur midway between the continuous furring channels. Each end of each gypsum board shall be supported by a single length of furring channel equal to the width of the gypsum board plus 6 in. on each end. The two furring channels shall be spaced approximately 3-1/2 in. OC, and be attached to underside of the joist with one RSIC-1 clip at each end of the channel. Butted base layer end joints to be offset a min of 24 in. in adjacent courses. Outer layer attached to the furring channels using 1-5/8 in. long No. 7 Type S bugle head steel screws

spaced 8 in. OC at butted joints and 12 in. OC in the field. Butted end joints to be offset a min of 8 in. from base layer end joints. Butted side joints of outer layer to be offset min 18 in. from butted side joints of base layer.

AMERICAN GYPSUM CO — Type AG-C

BPB AMERICA INC — Type FRPC, ProRoc Type C

BPB CANADA INC — ProRoc Type C

CANADIAN GYPSUM COMPANY — Types C, Ip-X2, IPC-AR

G-P GYPSUM CORP, SUB OF

GEORGIA-PACIFIC CORP — Type S

LAFARGE NORTH AMERICA INC — Type LGFC-C, LGFC-C/A

NATIONAL GYPSUM CO — Types FSK-C, FSW-C, FSW-G

PABCO BUILDING PRODUCTS L L C, DBA

PABCO GYPSUM — Type C

TEMPLE-INLAND FOREST PRODUCTS CORP — Type TG-C

UNITED STATES GYPSUM CO — Types C, Ip-X2, IPC-AR

USG MEXICO S A DE C V — Types C, Ip-X2, IPC-AR

6. Finishing System - (Not Shown) — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw-heads. Nom 2 in. wide paper tape embedded in first layer of compound over all joints. As an alternate, nom. 3/32 in. thick veneer plaster may be applied to the entire surface of the gypsum board.

*Bearing the UL Classification Mark

Last Updated on 2006-11-14

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An independent organization working for a safer world with integrity, precision and knowledge.



SCOPE OF WORK

RESIDENTIAL

- Replace
- Windows
- Doors
- Carpeting for hardwood floors , travertine and marble
- Kitchen cabinets
- Bath vanities
- Kitchen sinks
- Bath sinks
- Garbage disposals
- Showers (3)
- Tubs (5)
- Trim
- Light fixtures
- Rewire units
- Heating base board

- New
- Dishwashers (8)

- Repair
- Stairs

COMMERCIAL

- Demo and repair
- Ceilings , walls and rotten flooring
- ceiling replace to fire code
- Shore existing framing

When a tenant has been located we will apply for a change of use and amendment to first floor building permit

There will be no new framing on the residential floors.

On the first floor the only framing that has been put in place was additional shoring of existing framing. This framing was designed by wood structures. The load spans and drawings for these repairs are included.

When we have a tenant for the first floor we have an architect design whatever floor plans are requested by the tenant we will bring a request for an amendment to the permit at that time

Plumbing layout has not changed ...