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Code Study

Applicable Building Codes:

The Pennsylvania Uniform Construction Code and in compliance with the 2009 International

The Allegheny County Health Departments Rules and Regulations for Plumbing and Building Article XV. These are to replace or include the regulations in the 2009 International Plumbing Code, Americans with Disabilities Act (ADA), ICC/ANSI A117.1 2009 and the following additions:
2015 International Building Code
Limited to Chapter 11 and Appendix E
2015 International Existing Building Code

Limited to Accessibility provisions, identified by L&I as Sections 107.2, 410, 605, 705, 801.1, 806, 901.2, 906, 1006, 1012.1.4, 1012.8, 1101.2, 1105, 1204.1, 1205.15, 1401.2.5, 1508 and Appendix B.

Effective January 1, 2016

2015 International Building Code

Limited to Sections 304.1, 306.2, 902.1 ("Automatic Water Mist System" definition), 904.2, 904.2.1, 904.11, 904.11.1, 904.11.1.1, 904.11.1.2, 904.11.1.3, 904.11.1.4, 904.11.2, 904.11.2.1, 904.11.2.2, 904.11.2.3, 904.11.3, 907.2.11.3, 907.2.11.4 and 2902.3 (exceptions).

2015 International Energy Conservation Code

Limited to Sections R202 (definition of "insulated siding"), R402.2.4, R402.2.8, Table R402.4.1.1 (row for "floors") and 402.1.3 (relating to r-value computation).

2015 International Existing Building Code

Limited to Section 406.3

2015 International Fire Code

Limited to Sections 202 (definitions for "Business Group B" and "Automatic Water Mist System"), 902.1 (definition of "Automatic Water Mist System"), 904.2, 904.2.1, 904.11, 904.11.1, 904.11.1.1, 904.11.1.2, 904.11.1.3, 904.11.1.4, 904.11.2, 904.11.2.1, 904.11.2.2, 904.11.2.3, 904.11.3, 907.2.11.3 and 907.2.11.4.

2015 International Mechanical Code

Limited to Section 507.2.

Effective December 31, 2012

2012 International Building Code

Accessibility provisions, Chapter 11, Section 3411 and Appendix E.

2009 Accessible and Usable Buildings and Facilities – ICC-A117.1

Effective December 31, 2009

2009 International Building Code

Including Appendices H.

2009 International Existing Building Code

Including All Appendices adopted.

2009 International Energy Conservation Code

2009 International Mechanical Code

2009 International Fuel Gas Code

2008 National Electrical Code - NFPA 70

2009 International Plumbing Code

Regulated by the Allegheny County Health Department.

2009 International Fire Code

Description:

The existing building has a partial second floor.

Building Information:

Existing Building

Existing occupancy B

Construction Type VB

Combination of masonry and wood framed walls, concrete floor and wood truss and rafters and steel framing.

Sprinklered

No

Square foot: Gross

	Gross
First floor	4,416
Partial Second Floor	1,194
Attic unoccupied	1,362
Total	6,972

New project Description:

?????

2009 IBC

IBC 304 New Occupancy B

No change in occupancy.

IEBC 405 Alteration 3

IBC 602.5 Construction Type VB

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Occupancy per IBC 2009

	Square foot	Floor space per occupant	Number of occupants
First Floor			
First floor	4,416	100/ Gross	44
			44
Second Floor			
Second Floor	1,194	100/ Gross	12
			12
Total Occupants			56

Table 601:

IBC 2009

Fire Resistance Rating Requirements for Building Elements, Type VB

Exterior bearing walls	0
Interior bearing walls	0
Exterior non-bearing walls	0
Interior non-bearing walls	0
Structural frame	0
Floors/ceilings	0
Roofs/ceilings	0

Existing Building Code

IEBC 2009

classification of work

Alteration 3

Chapter 8 IEBC

IEBC 803.1 Existing shafts and vertical openings

Existing stairways that are part of means of egress shall be enclosed per 703.2.1

IEBC 703.2.1 All existing vertical shafts shall be rated as follows.

Exception 1:

Where not required per IBC

Exception 5:

In group B a minimum of 30 -minute enclosure required.

IBC 1016 Exit Access Travel Distance

Exception 3:

Exit access travel to a max. of 50% of the exits can use unenclosed stairs, not connecting more than two stories and the two connect stories have two means of egress

IEBC 803 .1

Interior Finishes

See 703.4

IEBC 804.1 Sprinklers

IEBC 704.2

Group B occupancy can be required to be sprinklered since its exits serve more than 30 occupants if all the following occur

1. required by IBC - it is not required.

2. Work area exceeds 50% - it does

3. Building has sufficient water supply- it does

The building is not required to be sprinklered because the IBC does not require it.

IEBC 804.2 Fire alarm and Detection systems

per IEBC 704.4.1 not required

IEBC 806 IEBC 806 Accessibility

See section 605 and 706

IEBC808.1 Energy Conservation

Level 3 alterations to existing buildings or structures are permitted without requiring the entire building or structure to comply with the energy requirements of the International Energy Conservation Code. The alterations shall conform to the energy requirements of the International Energy Conservation Code as they relate to new construction only.

Section 705 Accessibility

A building element that is altered shall comply with 705.1.1 through 705.1.14 and chapter 11 of the IBC unless technically infeasible

Exception 2.

Accessible means of egress are not required in existing buildings

2015 IEBC

IEBC 410.8 Stairways

new stairs added where there was not one and requires structural modifications would require an accessible route to the floor served by the stair. See IBC 1104.4

IBC 1104.4 Multistory buildings

At least one accessible route shall be to each story.

Exception 1

This does not apply to stories that are under 3,000 square foot, and located above an accessible level.

IEBC 705.1.12 Thresholds: Maximum height 3/4" with beveled edges

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IEBC 705.2 Alterations affecting Primary function

for alterations that affect primary function the route to primary function shall be accessible. this path shall have toilet facilities or drinking fountains

Exception 1.

The costs of providing the accessible route are not required to exceed 20 % of the costs of the alteration affecting the primary area of function.

IEBC 2009 Chapter 7 IEBC

IEBC 703.4 Interior finishes

Per IBC

IBC Table 803.9

non- Sprinklered		
Exits Enclosures	Corridors	Rooms and enclosed spaces
A	B	C

704.1 Corridor ratings

>30 occupnts using corridor non sprinklered= 1 hour

IEBC 705 IEBC 705 Means of egress

705.3 Number of exits

2 required

705.6

Dead end corridors

shall not exceed 35'-0"

IBC 2009 TABLE 1016.1 section 1018

Exit Access travel distance B without sprinklers = 200'-0"

Corridors occupancy B without sprinkler = 1 hour.

Allegheny County Plumbing Code

IPC Chapter 4 Table 403.1

See International Plumbing Code Chapter 4

Business Occupant load= 56 = 28 men and 28 women

Fixtures	Male	Female
Water closets		
Code	2 per 16-35	2 per 16-35
required	2	2
Provided	2wc / 2 urinal	2 wc
Lavatories		
per code	2 per 16-35	2 per 16-35
required	2	2
Provided	2	2
Drinking fountains		
Code	1 per 1000	
required	1	
Provided	2	
Service Sink		
per code	1	
required	1	
Provided	1	