

**CODE ANALYSIS**

Bing's Wings at the Stadium  
BW Stadium, LLC  
77 Free Street  
Portland, ME

The building is within a B-3 and DEOZ district

This project has been designed to comply with the following codes:  
Portland Code of Ordinances  
International Building Code, 2003  
NFPA 101 Life and Safety Code, 2003  
Maine Internal Plumbing Code

**Portland Ordinances**

Zoning District  
B-3 Downtown Business Zone Permitted use  
PAD Overlay zone Permitted use  
Minimum lot size  
Minimum street frontage  
Street wall build-to line  
Minimum yard dimensions  
Minimum lot width  
Maximum length of Undifferentiated blank wall  
Maximum lot coverage  
Minimum building height  
Signs  
Historic resources  
Smoke

Indicates restaurant  
Indicates restaurant  
None  
Indicates 15'  
**Existing 235' - OK**  
Indicates 5'  
**Existing 0 - OK**  
None  
None  
PAD overlay indicates 15'  
**Existing 113' - Existing**  
Indicates 100%  
**Existing 100% - OK**  
Indicates 35'  
**Existing 21' - OK**  
Indicates consistent with Urban Design Guidelines  
Indicates subject to provisions of article IX  
Indicates smoke shall not be emitted in excess of 20% opacity level as classified in Method 9 (Visible Emissions) of the Opacity Evaluation System of the

US EPA  
**Proposed smoker = 5% - OK**

**IBC Code Review**

**Chapter 3 USE AND OCCUPANCY CLASSIFICATION**  
Use and Occupancy Classification Group  
Section 304 Assembly Group A-2

Table 302.1.1 Incidental Use Areas  
Storage rooms over 100 sf 1 hour or provide sprinkler system  
**Proposed - provide sprinkler system**

**Chapter 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY**  
Stages and Platforms  
Section 410.4 Platform construction  
Permitted to be constructed of fire-treated wood for Type II construction when less than 30" above floor, less than 1/3 of the floor area, and less than 3,000 sf.  
Where space beneath platform is used only for equipment, wiring, or plumbing, underside of platform need not be protected.

**Chapter 5 GENERAL BUILDING HEIGHTS AND AREAS**  
Construction Type  
Type IIB  
Height and Area Limitations  
Table 503 Height and Area Limitations of Buildings  
Group A-2 Assembly  
Area limitations Indicates 9,500 sf per floor  
**Existing 6,900 sf first floor - OK**  
**Existing 7,500 sf basement - OK**  
Height limitations Indicates 2 story  
**Existing 1 story - OK**  
Indicates 55 feet  
**Existing 21' - OK**

Section 504.2 Automatic sprinkler system  
When equipped with sprinkler system  
Height increase Indicates type IIB, increase not allowed

Section 506 Area Modifications  
Area shall be permitted to be increased due to frontage and automatic sprinkler system  
Aa = At + (Atf/100) + (Atls/100)  
Aa = 9,500 + (9,500x25/100) + (9,500x300/100)  
Aa = 9,500 + 2,375 + 28,500  
**Area Allowed = 40,375 / existing 6,900 sf - OK**

Section 506.2 Frontage Increase  
If = 100 (F/P-.25)W/30  
If = 100 (178/356-.25) 30/30  
If = 100 (.25) \* 1  
If = 25

Section 506.3 Automatic sprinkler system increase  
When fully sprinklered Is = 200 percent for multi-story buildings

**Chapter 6 TYPES OF CONSTRUCTION**  
Fire Resistance Ratings of Structure Elements  
Table 601 Fire Resistance Rating Requirements for Building Elements  
Structural frame Indicates 0 hour  
**Existing to remain - 0 hour**  
Bearing Walls (exterior/interior) Indicates 0 hour  
**Existing to remain - 0 hour**  
Nonbearing walls and partitions (interior) Indicates 0 hour  
**Proposed - 0 hour**  
Floor construction Indicates 0 hour  
**Existing to remain - 0 hour**  
Roof construction Indicates 0 hour  
**Existing to remain - 0 hour**  
Bearing Walls (exterior/interior) Indicates 0 hour  
**Existing to remain - 0 hour**

Table 602 Fire Resistance Rating Requirements for Exterior Walls  
Less than 30' Indicates 1 hour  
**Existing to remain - 1 hour**  
More than 30' Indicates 0 hour

**Chapter 7 FIRE RESISTANT MATERIALS AND CONSTRUCTION**  
Exterior Walls  
Section 704.8.1 First Story  
Unlimited unprotected openings are permitted in the first story of exterior walls facing a street which have a fire separation distance of greater than 15 feet.  
Section 704.9 Vertical separation of openings  
Shall not apply to building that are three stories or less in height.  
Section 704.11 Parapet  
Not required on exterior wall if wall is not required to be fire-resistance rated

Shaft Enclosures  
Section 707.2 Shaft Enclosures  
Shaft enclosure is not required when sprinklered and area of floor opening does not exceed twice the horizontal projected area of the stairway and the opening is

protected by a draft curtain and closely spaced sprinklers  
Floor area of existing stairway 150 sf  
Floor area of existing opening 100 sf  
Allowable floor area of opening Indicates 300 sf  
**Existing 100 sf - OK**

Draft curtain required **Proposed draft curtain - OK**  
Mezzanine Indicates shaft enclosure not necessary

Opening Protectives  
Table 715.3 - Fire door and fire shutter fire protection ratings  
Fire walls - 2 hour Indicates 1 1/2 hour rating  
**Proposed 1 1/2 hour rating - OK**  
Exit enclosures - 1 hour Indicates 1 hour rating  
**Proposed 1 hour rating - OK**  
Corridor walls - 1 hour Indicates 20 minute  
**Proposed 20 minute rating - OK**

Section 715.3.5 Labeled protective assemblies: Fire door assemblies shall be labeled by an approved agency. The labels shall comply with NFPA 80, and shall be permanently affixed to the door.  
Table 715.4.3 Limiting Size of Wired Glass Panels (also in Fire Doors)  
1 and 1 1/2 hours Indicates 100 sq. in., 33" max ht., 10" max width  
3/4 hour Indicates 1,296 sq in., 54" max ht., 54" max width  
20 minute Not limited

**Chapter 8 INTERIOR FINISHES**  
Interior Finish Requirements  
Section 803.1 Classification: ASTM E84 flame spread as follows:  
Class A Flame spread 0-25  
Class B Flame spread 26-75  
Class C Flame spread 76-200

Table 803.4 - Interior Finish Requirements  
Use Group A-2, sprinklered  
Vertical exits Indicates Class C if sprinklered  
**Proposed Class C - OK**

Exit access corridor Indicates Class B for A-2  
**Proposed none - OK**

Rooms or enclosed spaces Indicates Class C  
**Proposed Class C - OK**

**Chapter 9 FIRE PROTECTIVE SYSTEMS**  
Automatic Sprinkler Systems  
Section 903 - Automatic Sprinkler System  
Required for group A-2 occupancies over 5,000 sf, load of 300 or more, and when fire area is located on a floor other than the level of exit discharge  
**Automatic sprinkler system provided - OK**

Fire Alarm and Detection Systems  
Section 907.2.2 - Group A-2  
Manual fire alarm boxes are not required where the building is equipped with a sprinkler system

**Chapter 10 MEANS OF EGRESS**  
Occupant Load  
Table 1004.1.2 Maximum Floor Area Allowances per Occupant

**First Floor**  
Assembly, Unconcentrated Table and chairs Indicates 15 sf net  
**2,476 sf = 165 occupants**  
Fixed booth seating **68 occupants**  
Commercial Kitchen Indicates 200 sf gross  
**915 sf area = 5 occupants**

Take out Indicates 30 sf gross  
**195 sf area = 6 occupants**  
Mezzanine (DJ / Office) Indicates 100 sf gross  
**400 sf area = 4 occupants**

Total First Floor **248 Occupants**

**Basement**  
Assembly, Unconcentrated Table and chairs Indicates 7 sf net  
**1,900 sf area = 270 occupants**  
Game Room Number of occupants  
**49 occupants**  
Commercial Kitchen Indicates 200 sf gross  
**465 sf area = 3 occupants**

Total Basement **322 Occupants**

Section 1004.1.3 Number by combination  
Occupants from accessory spaces egress through primary area, occupant load for the primary space shall include the total occupant load of both spaces

Egress Width  
Table 1005 - Egress Width per Occupant (with sprinkler system)  
Stairways .20' per person  
Doors, ramps and corridors .15' per person

Section 1005.2 - Door encroachment  
Door opening into path of egress travel  
Shall not reduce width to less than 1/2 during course of swing and 7" when fully open

Means of Egress Illumination  
Section 1006.2 - Illumination level  
Means of egress illumination Indicates not less than 1 foot-candle /floor level

Section 1006.3 - Illumination emergency power  
Emergency power shall illuminate indicates exit access corridor, passageways, and aisles in rooms and spaces which require two means of egress

Door, Gates and Turnstiles  
Section 1008.1.1 Size of doors  
Minimum width Indicates 32"  
**Proposed 36" - OK**  
Indicates 80"  
**Proposed 6'-8" - OK**  
Minimum height

Stairways and Handrails  
Section 1009.1 - Stairway width  
Minimum width Indicates 44"  
**Proposed 44" - OK**  
Exception  
Serving occupant load of 50 or less Indicates 36"

Section 1009.2 - Headroom  
Minimum headroom Indicates 80"  
**Proposed 80" - OK**

Section 1009.3 - Stair treads and risers  
Stair riser height maximum Indicates 7"  
**Proposed 7" - OK**  
Stair riser minimum Indicates 4"  
Stair tread depth Indicates 11"  
**Proposed 11" - OK**

Section 1009.11.1 - Handrail height  
Handrail height Indicates between 34" and 38"  
**Proposed between 34" and 38" - OK**

Guards  
Section 1012.1 - Where required  
On open-sided walking surfaces Indicates more than 30" above floor or grade

Section 1012.2 - Height  
Protective barrier Indicates not less than 42"

Exit Access  
Section 1013.2 Egress through intervening spaces  
Egress from a room may not pass through kitchens, storage rooms, closets

Section 1013.3 - Common path of egress travel  
Occupancy A Indicates not more than 75' when sprinklered  
**Proposed 43' - OK**

Exit and Exist Access Doorways

Table 1014.1 - Spaces with one means of egress  
Occupancy A Indicates maximum occupant load of 50

Section 1014.1 - Two exits or exit access doorways  
When two are required Indicates not less than 1/3 the length of overall diagonal dimension when sprinklered  
Proposed 136' diagonal / 88' exit distance  
First floor **Proposed more than 1/3 the length - OK**  
Proposed 69' diagonal / 28' exit distance  
Basement **Proposed more than 1/3 the length - OK**

Exit Access Travel Distance  
Table 1015.1 Exit Access Travel Distance  
Exits from most remote point  
Occupancy A Indicates 250' with sprinkler system  
**First Floor, Proposed 127' - OK**  
**Basement, Proposed 190' - OK**

Corridors  
Table 1016.1  
Occupancy A  
Occ load greater than 30 Indicates 0 hour rated corridor when sprinklered  
Section 1016.2 - Corridor width  
Minimum corridor width Indicates 44"  
**Proposed 60" - OK**  
Indicates 36"  
Capacity of 50 or less

Section 1016.3 - Dead Ends  
Group A with sprinkler system Indicates 20'  
Not limited in length when corridor is less than 2.5 times the width

Number of Exits and Continuity  
Table 1018.2 - Buildings with one exit  
Occupancy A Indicates 1 story maximum  
50 occupants  
75 feet travel distance

**Chapter 11 ACCESSIBILITY**  
Accessible Entrances  
Section 1105.1 - Public Entrances  
Amount of accessible entrances Indicates at least 50%  
**Proposed 50% - OK**

**Chapter 12 INTERIOR ENVIRONMENT**  
Lighting  
Section 1205.2 - Natural Light  
Minimum net glazed area Indicates 8% of the floor area  
Section 1205.3 Artificial Light  
Avg illumination of room at 30" Indicates 10 foot-candles

**NFPA 101 Life Safety Code Review**

**Chapter 3 DEFINITIONS**  
Use and Occupancy Classification Group  
Assembly Occupancy Gathering of 50 or more persons for eating...  
Mercantile Occupancy Display and sale of merchandise - **No Change**

**Maine State Internal Plumbing Code**  
Table 4-1 - Minimum Plumbing Facilities  
Total occupant load 540 Occupants / 2 = 270 men / 270 women

Restaurants, Pubs, Lounges  
Male - 3 per 151 to 300 = 3 WC required  
Male - 2 per 300 = 2 urinals required  
For each urinal added in excess of required, one WC may be deducted  
Male:  
**2 Water Closets Proposed - OK**  
**5 Urinals Proposed - OK**  
Female - 4 per 151-300 = 4 WC required  
Female must have equal number of WC to WC and urinals for males  
Female = 5 water closets required  
Male:  
**6 water closets proposed - OK** because 6 male fixtures are required but 7 are provided  
Male - 3 per 201 to 400 = 3 lavatories reqd.  
**Proposed 4 - OK**  
Female - 3 per 201 to 400 = 3 lavatories reqd  
**Proposed 4 - OK**  
Drinking fountains not required

Section 413.3 Separate Facilities  
Separate facilities shall be provided for each sex  
**Separate facilities proposed - OK**

Section 413.6 Food Service Establishment  
Occupant load less than 100 Indicates customer and employee facilities may be combined  
**Occupant load over 100, Not combined - OK**