



Certificate of Design Application

From Designer: Chappell Engineering Associates, LLC
 Date: August 19, 2015
 Job Name: WGME Tower, Portland, ME - T-Mobile Site Number 4PB1288
 Address of Construction: 81 Northport Drive, Portland, ME 04103

2009 International Building Code

Construction project was designed to the building code criteria listed below:

Building Code & Year IBC2009 Use Group Classification (s) Use Group B - Radio and Television Stations

Type of Construction Install Radio Cabinets at base of tower, Install Antennas on Existing Tower

Will the Structure have a Fire suppression system in Accordance with Section 903.3.1 of the 2009 IRC No

Is the Structure mixed use? No If yes, separated or non separated or non separated (section 302.3) _____

Supervisory alarm System? N/A Geotechnical/Soils report required? (See Section 1802.2) N/A

Structural Design Calculations

Yes Submitted for all structural members (106.1 - 106.11)

Design Loads on Construction Documents (1603)

Uniformly distributed floor live loads (7603.11, 1807)

Floor Area Use	Loads Shown

Wind loads (1603.1.4, 1609)

TIA/EIA Rev G Code Design option utilized (1609.1.1, 1609.6)
100 mph Basic wind speed (1809.3)
II Building category and wind importance factor, I_w , table 1604.5, 1609.5
B Wind exposure category (1609.4)
N/A Internal pressure coefficient (ASCE 7)
N/A Component and cladding pressures (1609.1.1, 1609.6.2.2)
N/A Main force wind pressures (7603.1.1, 1609.6.2.1)

Earth design data (1603.1.5, 1614-1623)

N/A Design option utilized (1614.1)
N/A Seismic use group ("Category")
N/A Spectral response coefficients, S_x & S_D (1615.1)
N/A Site class (1615.1.5)

Not Applicable Live load reduction
Wind = 100mph Roof live loads (1603.1.2, 1607.11)
Ice = 1in radial Roof snow loads (1603.7.3, 1608)
50 psf Ground snow load, P_g (1608.2)
N/A If $P_g > 10$ psf, flat-roof snow load P_f
N/A If $P_g > 10$ psf, snow exposure factor, C_e
N/A If $P_g > 10$ psf, snow load importance factor, I_s
N/A Roof thermal factor, C_r (1608.4)
N/A Sloped roof snowload, P_s (1608.4)
N/A Seismic design category (1616.3)
N/A Basic seismic force resisting system (1617.6.2)
N/A Response modification coefficient, R , and deflection amplification factor C_d (1617.6.2)
N/A Analysis procedure (1616.6, 1617.5)
N/A Design base shear (1617.4, 1617.5.1)

Flood loads (1803.1.6, 1612)

N/A Flood Hazard area (1612.3)
230ft AGL Elevation of structure

Other loads

N/A Concentrated loads (1607.4)
N/A Partition loads (1607.5)
N/A Misc. loads (Table 1607.8, 1607.6.1, 1607.7, 1607.12, 1607.13, 1610, 1611, 2404)