BASIS OF DESIGN

BUILDING CODE · · · · · · · · · · · · · 2009 INTERNATIONAL BUILDING CODE
2009 INTERNATIONAL RESIDENTIAL CODE

DESIGN LOADS:

ROOF DEAD LOAD · · · · · · · · · · · · 15 PSF
ROOF LIVE LOAD · · · · · · · · · · · · SNOW LOAD GOVERNS

FLOOR LIVE LOAD · · · · · · · · · · · 40 PSF

ROOF SNOW LOAD

GROUND SNOW LOAD, Pg · · · · · · · 50 PSF
SNOW EXPOSURE FACTOR, Ce · · · · · 1.0
SNOW LOAD IMPORTANCE FACTOR, I · · 1.0
SNOW LOAD THERMAL FACTOR, Ct · · 1.1
· · 1.2 AT EXTERIOR DECKS

WIND LOAD:

WIND SPEED · · · · · · · · · · · · · · 100 MPH
EXPOSURE · · · · · · · · · · · · · · · C

MISCELLANEOUS

ALLOWABLE SOIL BEARING CAPACTIY · · 2500 PSF (TO BE VERIFIED IN FIELD)

GENERAL NOTES

1. DETAILS SHOWN ON THESE DRAWINGS ARE TYPICAL; SIMILAR DETAILS APPLY TO SIMILAR CONDITIONS UNLESS NOTED OTHERWISE.
2. BRACE BUILDING UNTIL STRUCTURAL ELEMENTS NECESSARY FOR STABILITY HAVE BEEN INSTALLED. THESE ELEMENTS INCLUDE: ROOF DECK, FLOOR DECK, BRACING MEMBERS, MOMENT CONNECTIONS, SHEAR WALLS, ETC. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCING TO ENSURE THE SAFETY OF THE BUILDING AND IT'S COMPONENTS DURING ERECTION.
3. CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY PROPOSED CHANGES, DEVIATIONS OR SUBSTITUTIONS FROM DIMENSIONS, MATERIALS OR EQUIPMENT SHOWN ON THESE DRAWINGS AND MAKE ONLY THOSE CHANGES ACCEPTED BY THE ENGINEER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION BETWEEN THE STRUCTURAL DRAWINGS AND THE DRAWINGS OF OTHER DISCIPLINES TO INCLUDE THE LOCATIONS AND DIMENSIONS OF OPENINGS, CHASES, INSERTS, SLEEVES, DEPRESSIONS AND OTHER DETAILS NOT SHOWN ON THE STRUCTURAL DRAWINGS.
5. THESE DRAWINGS DO NOT INCLUDE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR CONSTRUCTION SAFETY.

WOOD FRAMING AND SHEATHING

GENERAL:

1. PROTECT LUMBER AND OTHER PRODUCTS FROM DAMPNESS BOTH DURING AND AFTER DELIVERY AT THE SITE. PILE PLYWOOD AND LUMBER IN STACKS IN SUCH A MANNER AS TO PROVIDE ADEQUATE AIR CIRCULATION AND TO PREVENT WARPING. LOCATE STACKS IN WELL DRAINED AREAS, SUPPORTED AT LEAST 6 INCHES ABOVE GRADE AND COVER WITH WELL VENTILATED SHEDS HAVING FIRMLY CONSTRUCTED OVERHANGING ROOF AS WELL AS SUFFICIENT END WALL TO PROTECT LUMBER FROM DRIVING RAIN.
2. STORE SEASONED MATERIALS IN DRY PORTIONS OF THE BUILDING.
3. PROTECT SHEET MATERIALS FROM CORNERS BREAKING AND DAMAGING SURFACES WHILE UNLOADING.

LUMBER MATERIALS:

1. NOMINAL SIZES ARE INDICATED EXCEPT AS INDICATED BY DETAILED DIMENSIONS. PROVIDE ACTUAL SIZES AS REQUIRED BY PRODUCT STANDARD 20, DEPARTMENT OF COMMERCE.
2. PROVIDE DRESSED LUMBER UNLESS NOTED OTHERWISE.
3. LUMBER GRADES:
   A. 2X4 AND 2X6 BEARING WALLS, INTERIOR AND EXTERIOR LOCATIONS:
      i. SPECIES AND GRADE: SPRUCE–PINE–FIR (SOUTH) NO. 2 OR BETTER AS GRADED BY NELMA; MEETING THE FOLLOWING MINIMUM ALLOWABLE STRESS CRITERIA:
         F_b = 775 PSI
         F_v = 135 PSI
         $F_{c\parallel}$ = 1000 PSI
         $F_{c\perp}$ = 335 PSI
         E = 1,100,000 PSI
      ii. MAXIMUM MOISTURE CONTENT SHALL NOT EXCEED 19%
   B. STRUCTURAL FLOOR AND ROOF FRAMING
      i. SPECIES AND GRADE: SPRUCE–PINE–FIR NO. 1/NO. 2 AS GRADED BY NLGA MEETING THE FOLLOWING MINIMUM ALLOWABLE STRESS CRITERIA:
         F_b = 875 PSI
         F_v = 135 PSI
         $F_{c\parallel}$ = 1150 PSI
         $F_{c\perp}$ = 425 PSI
         E = 1,400,000 PSI
      ii. MAXIMUM MOISTURE CONTENT SHALL NOT EXCEED 19%

   C. PRESSURE TREATED LUMBER
      i. SPECIES AND GRADE: SOUTHERN PINE NO. 2 AS GRADED BY SPIB

SHEATHING MATERIALS:

1. ROOF SHEATHING: 5/8" APA RATED SHEATHING , 40/20 SPAN RATING; EXPOSURE DURABILITY 1
2. WALL SHEATHING: 1/2" APA RATED SHEATHING , 32/16 SPAN RATING; EXPOSURE DURABILITY 1
3. PLYWOOD FLOOR SHEATHING: APA RATED SHEATHING, 24" oc SPAN, THICKNESS AS INDICATED; EXPOSURE DURABILITY 1
4. UNDERLAYMENT: APA RATED SHEATHING, TONGUE AND GROOVE, SPAN RATING SUITABLE FOR USE, THICKNESS AS INDICATED; EXPOSURE DURABILITY; SANDED.

WOOD FRAMING AND SHEATHING (CONTINUED)

ACCESSORIES:

1. FASTENERS: GALVANIZED STEEL FOR EXTERIOR, HIGH HUMIDITY, AND TREATED WOOD LOCATIONS, PLAIN FINISH ELSEWHERE. FURNISH ITEMS OF ROUGH HARDWARE, METAL CONNECTORS, BOLTS, ETC., REQUIRED TO COMPLETE THE WORK. BOLTS, NUTS AND WASHERS SHALL BE HOT DIPPED GALVANIZED STEEL.
2. STRUCTURAL FRAMING CONNECTORS: JOIST HANGERS: GALVANIZED STEEL, SIZED TO SUIT FRAMING CONDITIONS. MANUFACTURED BY SIMPSON STRONG TIE OR APPROVED EQUIVALENT.

WOOD TREATMENT:

1. WOOD PRESERVATIVE (PRESSURE TREATMENT): AWPA U1
   A. USE CATEGORY UC2 FOR INTERIOR CONSTRUCTION NOT IN CONTACT WITH THE GROUND.
   B. USE CATEGORY UC3b FOR EXTERIOR CONSTRUCTION NOT IN CONTACT WITH THE GROUND.
   C. USE CATEGORY UC4a FOR ITEMS IN CONTACT WITH THE GROUND.
2. ALL WOOD TO BE USED IN PERMANENT CONSTRUCTION THAT IS IN CONTACT WITH CONCRETE, MASONRY, WATER, GROUND, LEFT EXPOSED TO THE WEATHER, AND AS INDICATED ON THE DRAWINGS SHALL BE PRESSURE TREATED AGAINST DECAY. PRESERVATIVES SHALL BE COMPATIBLE WITH MATERIALS WITH WHICH THEY WILL BE USED.

EXECUTION:

1. ALL FASTENING SHALL COMPLY WITH THE NATIONAL FOREST AND PAPER ASSOCIATION NATIONAL DESIGN SPECIFICATION OR THE "RECOMMENDED FASTENING SCHEDULE" IN THE 2009 INTERNATIONAL BUILDING CODE UNLESS NOTED OTHERWISE ON THE CONTRACT DRAWINGS.
2. PLACE MEMBERS LEVEL AND PLUMB, IN THE CORRECT POSITION. PLACE HORIZONTAL MEMBERS CROWN SIDE UP.
3. CONSTRUCT FRAMING MEMBERS FULL LENGTH, WITHOUT SPLICES.
4. FRAME DOUBLE JOIST HEADERS AT CEILING OPENINGS FRAME RIGIDLY INTO JOISTS.
5. DOUBLE MEMBERS OVER OPENINGS OVER 24 INCHES WIDE. SPACE SHORT STUDS ABOVE AND BELOW OPENING MATCHING STUD SPACING.
6. POST AND COLUMNS FROM HEADERS AND BEAMS SHALL BEAR CONTINUOUSLY TO THE CONCRETE FOUNDATIONS, INCLUDING BLOCKING IN INTERSTITIAL FLOOR AND ROOF SPACES. BLOCKING SHALL BE OF THE SIZE AND SHAPE TO CARRY THE REQUIRED LOADING.
7. ALL BEARING WALLS SHALL BE BLOCKED AT 4'–0" ON CENTER VERTICALLY.
8. INSTALL ROOF SHEATHING WITH LONGER EDGE PERPENDICULAR TO FLOOR FRAMING WITH END JOINTS STAGGERED. SECURE SHEET EDGES OVER FIRM BEARING.
9. INSTALL SHEATHING IN COMBINATION SIMPLE SPAN AND TWO SPAN CONTINUOUS.
10. SECURE WALL SHEATHING PERPENDICULAR TO WALL STUDS, WITH ENDS STAGGERED, OVER FIRM BEARING.
11. USE SHEATHING CLIPS BETWEEN SHEETS BETWEEN ROOF FRAMING MEMBERS. INSTALL SOLID EDGE BLOCKING BETWEEN SHEETS AS INDICATED ON PLANS.
15. PROVIDE BLOCKING AND FRAMING AS REQUIRED TO SUPPORT FACING MATERIALS, FIXTURES, SPECIALTY ITEMS AND TRIM.
16. ALL WOOD IN CONTACT WITH CONCRETE SHALL BE PRESSURE TREATED, U.N.O.

TOLERANCES:

1. FRAMING MEMBERS: 1/4" INCH FROM TRUE POSITION MAXIMUM.

ISSUED FOR PERMIT
APRIL 8, 2015

CITY OF PORTLAND, MAINE · RESURGAM
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
Date: 04/28/15

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GENERAL NOTES
Scale: As Noted
Drawn by: MJM
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Revisions:

S0.1