CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
See Inspection Notes
Approved with Conditions
Date: 10/18/16

OTES:

IRAL DRAWINGS SHALL BE USED IN CONJUNCTION WITH
ICATIONS AND ARCHITECTURAL, MECHANICAL,
, PLUMBING, AND SITE DRAWINGS. CONSULT THESE
FOR LOCATIONS AND DIMENSIONS OF OPENINGS,
SERTS, REGLETS, SLEEVES, DEPRESSIONS, AND
AILS NOT SHOWN ON THE STRUCTURAL DRAWINGS.

2. ALL DIMENSIONS AND CONDITIONS MUST BE VERIFIED IN THE FIELD. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER BEFORE PROCEEDING WITH THE AFFECTED PART OF THE WORK.

3. THE STRUCTURE IS DESIGNED TO BE SELF SUPPORTING AND STABLE AFTER THE BUILDING IS COMPLETE. IT IS THE CONTRACTOR'S SOLE RESPONSIBILITY TO DETERMINE ERECTION PROCEDURES AND SEQUENCE TO ENSURE SAFETY OF THE STRUCTURE AND PERSONNEL DURING ERECTION. THIS INCLUDES THE ADDITION OF THE NECESSARY SHORING, SHEETING, TEMPORARY BRACING, GUYS OR TIEDOWNS. SUCH MATERIAL SHALL REMAIN THE PROPERTY OF THE CONTRACTOR AFTER COMPLETION OF THE PROJECT.

4. ALL APPLICABLE FEDERAL, STATE, AND MUNICIPAL REGULATIONS SHALL BE FOLLOWED, INCLUDING THE FEDERAL DEPARTMENT OF LABOR OCCUPATIONAL SAFETY AND HEALTH ACT.

5. IT IS THE OWNER'S SOLE RESPONSIBILITY TO EMPLOY ONE OR MORE SPECIAL INSPECTORS (IF REQUIRED) TO PROVIDE INSPECTIONS IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF IBC 2006.

DESIGN NOTES:

1. THIS BUILDING IS DESIGNED TO COMPLY WITH THE 2009 EDITION OF THE INTERNATIONAL BUILDING CODE.

2. SNOW LOAD
   a. GROUND SNOW LOAD = 60 PSF
   b. FLAT ROOF SNOW LOAD = 46 PSF
   c. SNOW LOAD IMPORTANCE FACTOR I = 1.0
   d. SNOW EXPOSURE FACTOR Ce = 1.0
   e. SNOW THERMAL FACTOR Ct= 1.0
   f. BALANCE AND UNBALANCED SNOW LOADS IN ACCORDANCE WITH ASCE 7/05

3. WIND LOADS:
   a. BASIC WIND SPEED V = 100 MPH
   b. WIND LOAD IMPORTANCE FACTOR I = 1.0
   c. WIND INTERNAL PRESSURE COEFFICIENT GCPi = ±.18
   d. Wind Exposure = B

4. ROOF DEAD LOAD
   a. TOP CHORD = 10.0 PSF
   b. BOTTOM CHORD = 15.0 PSF
   c. HVAC UNIT(S) = TO BE DETERMINED

5. ROOF LIVE LOAD
   a. TOP CHORD = 20.0 PSF
   b. BOTTOM CHORD – ATTIC LOAD Per Code.

6. EARTHQUAKE LOAD:
   a. DESIGN OF EARTHQUAKE LOAD IN ACCORDANCE WITH ASCE 7/05
   b. SEISMIC IMPORTANCE FACTOR I = 1.0
   c. 0.2s MAPPED SPECTRAL RESPONSE ACCELERATION Ss = per code
   d. 1.0s MAPPED SPECTRAL RESPONSE ACCELERATION S1 = per code
   e. SITE CLASS = CLASS D.
   f. SPECTRAL RESPONSE COEFFICIENT SDS = per code
   g. SPECTRAL RESPONSE COEFFICIENT SD1 = per code
   h. SEISMIC DESIGN CATEGORY = CATEGORY B
   i. BASIC SEISMIC FORCE RESISTING SYSTEM: BEARING WALL SYSTEM = LIGHT FRAMED WALL SYSTEMS SHEATHED WITH WOOD STRUCTURAL PANELS RATED FOR SHEAR RESISTANCE
   j. RESPONSE MODIFICATION FACTOR R = 6
   k. DEFLECTION AMPLIFICATION FACTOR CD = 4
   l. ANALYSIS PROCEDURE = EQUIVALENT LATERAL FORCE PROCEDURE

7. DEFLECTION CRITERIA
   a. ROOF (LIVE) = L/360
   b. ROOF (TOTAL) = L/240

FOUNDATION NOTES:

1. FOUNDATION DESIGNED BASED ON AN ASSUMED MAXIMUM ALLOWABLE BEARING PRESSURE OF 2500 PSF. IT IS THE RESPONSIBILITY OF THE OWNER/CONTRACTOR TO VERIFY THE SOIL BEARING CAPACITY. NOTIFY THE ENGINEER AND STOP WORK IF CLAY, WET SOILS, FILL, OR OTHER DELETERIOUS MATERIALS ARE ENCOUNTERED.

2. DESIGN OF EXTERIOR FOUNDATIONS IS BASED ON A FROST DEPTH OF 4'–6" BELOW FINISHED GRADE.

3. NO HORIZONTAL JOINT WILL BE PERMITTED IN THE WALLS UNLESS NOTED OTHERWISE.

4. PROVIDE CONTROL JOINTS IN SLABS AT 12 FT O.C. MAX.

5. EXCAVATING AND BACK FILLING AT NEW FOUNDATION WALLS SHALL BE DONE SUCH THAT SYMMETRICAL LOADING SHALL BE MAINTAINED ON BOTH SIDES. WHERE DESIGN CONDITIONS REQUIRE DIFFERENT BACK FILL HEIGHTS, WALLS SHALL BE FIRMLY SHORED IN POSITION, AND SHORES SHALL REMAIN UNTIL FLOORS ARE PLACED AND PROPERLY SET, TO PROVIDE FULL SUPPORT.

6. CONTRACTOR SHALL BE RESPONSIBLE FOR DESIGN, INSTALLATION, AND FINAL CLEARANCE OF ANY NEEDLING, SHORING, OR BRACING OF EXISTING STRUCTURES.

7. VAPOR BARRIER BENEATH SLAB SHALL BE 10 Mil "STEGO WRAP" OR APPROVED EQUAL.
POLYETHYLENE IS NOT AN ALTERNATE PRODUCT.

CONCRETE NOTES:

1. ALL CONCRETE WORK SHALL CONFORM TO ACI–318.

2. ALL CONCRETE EXCEPT INTERIOR AND EXTERIOR SLABS ON GROUND SHALL BE 3000 PSI AT 28 DAYS AND A MAXIMUM SLUMP OF 4". ALL INTERIOR AND EXTERIOR SLABS ON GROUND SHALL BE 4000 PSI AT 28 DAYS AND A MAXIMUM SLUMP OF 4". MAXIMUM SIZE AGGREGATE SHALL BE 3/4" (WALL/FOOTINGS) AND 0" (SLABS ON GROUND).

3. CONCRETE TO REMAIN EXPOSED TO WEATHER SHALL BE AIR ENTRAINED. NO AIR ENTRAINMENT IN INTERIOR CONCRETE SLABS.

4. CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.

5. REINFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60. DEFORMED BARS SHALL BE DETAILED AND FABRICATED IN ACCORDANCE TO ACI–315 LATEST EDITION, AND PLACED IN ACCORDANCE WITH ACI–318.

6. SPLICES OF REINFORCING BARS SHALL BE IN ACCORDANCE WITH ACI–318.

7. ANCHOR RODS SHALL CONFORM TO ASTM F1554–36.

8. HOOKS NOT DIMENSIONED SHALL BE ACI STANDARD HOOKS.

9. CONCRETE COVER OVER REINFORCEMENT SHALL BE AS FOLLOWS:
   CONCRETE CAST AGAINST EARTH = 3"
   CONCRETE EXPOSED TO EARTH OR WEATHER = 1–1/2"
   CONCRETE NOT EXPOSED TO EARTH OR WEATHER = 3/4"

10. PROVIDE CONTROL JOINTS IN STRUCTURAL SLAB AT 12–0" ON CENTER MAX.

11. PROPORTION DESIGN MIXES TO PROVIDE CONCRETE FOR INTERIOR AND EXTERIOR SLABS–ON–GRADE WITH THE FOLLOWING PROPERTIES:
   a. STRENGTH; 4000psi @ 28 DAYS, 3/4" AGGREGATE
   b. W/C RATIO: 0.46
   c. ENTRAINED AIR: 6% ±1%
   d. SLUMP: 3"± 1"

STRUCTURAL STEEL NOTES – GENERAL:

1. STRUCTURAL STEEL FABRICATION, ERECTION, AND CONNECTION DESIGN SHALL CONFORM TO AISC "SPECIFICATION FOR THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL" 9th EDITION.

2. ALL STEEL SHAPES AND PLATES TO BE ASTM A36 UNLESS NOTED OTHERWISE. WF BEAMS SHALL BE A992 (50KSI).

3. STEEL PIPES SHALL BE A53, GRADE B

4. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1 – LATEST EDITION. ALL WELDS SHALL BE MADE WITH E70XX ELECTRODES.

5. STEEL BEAMS AND COLUMNS SHALL BE CUT FROM FULL LENGTH STOCK. UNAUTHORIZED SPLICES WILL BE CAUSE FOR REJECTION.

6. STRUCTURAL STEEL SHALL BE PAINTED WITH A SHOP APPLIED COAT OF THE FABRICATOR'S RUST INHIBITIVE PRIMER.

WOOD FRAMING NOTES:

1. STRUCTURAL LUMBER:
   SPRUCE PINE FIR NO1/NO2 OR BETTER
   Fb = 875 PSI Fv = 125 PSI
   Fc = 1150 PSI E = 1400000 PSI

   MANUFACTURED LUMBER:
   BOISE CASCADE VERSA–LAM 2.0 3100
   Fb = 3100 PSI Fv = 285 PSI
   Fc = 3000 PSI E = 2000000 PSI

2. DESIGN CODE:
   IBC 2009 / NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION BY THE NATIONAL FOREST PRODUCTS ASSOCIATION.

3. NAILING REQUIREMENTS FOR PLYWOOD SHEATHING:
   SEE DETAILS FOR NAILING AND SPACING REQUIREMENTS.

4. SPIKE TOGETHER ALL FRAMING MEMBERS WHICH ARE BUILT–UP USING MULTIPLE 2x LUMBER.

5. PROVIDE GALVANIZED METAL TIES EQUAL TO SIMPSON H2.5 HURRICANE TIES BETWEEN ROOF RAFTERS OR TRUSSES AND SUPPORTING WALL MEMBERS, UNLESS SHOWN OTHERWISE. PROVIDE GALVANIZED METAL CONNECTORS EQUAL TO SIMPSON TC26 TRUSS CONNECTOR BETWEEN ALL ROOF SCISSOR TRUSSES AND SUPPORTING WALL MEMBERS, UNLESS SHOWN OTHERWISE.

6. PROVIDE PRESSURE TREATED LUMBER FOR ALL LUMBER IN CONTACT WITH MASONRY OR CONCRETE.

7. ROOF SHEATHING: 5/8" APA RATED SHEATHING, EXTERIOR OR STRUCTURAL I OR II RATED SHEATHING, SPAN RATING 32/16 (TRUSSES), 24/12 (JOISTS). INSTALL SHEETS WITH FACE GRAIN DIRECTION PERPENDICULAR TO SUPPORTING MEMBERS.

8. PROVIDE 1/2"Ø THRU BOLTS STAGGERED @ 24" O.C. FOR ATTACHEMENT OF 2x NAILER AT TOP OR BOTTOM OF WF BEAM (COORDINATE w/ PLANS)

9. WALL CONSTRUCTION – FIRST FLOOR
   FRAMING AS SHOWN ON PLANS
   P.T. 2x6 SILL PLATE
   7/16" APA SHEATHING

10. ROOF CONSTRUCTION
   FRAMING AS SHOWN ON PLANS
   5/8" APA RATED PLYWOOD SHEATHING (REFER TO NOTE #7)
   PROVIDE 8d NAILS @ 12"o.c. ALONG FRAMING MEMBERS.

11. ALL NAILS, SPIKES, BOLTS ETC. FASTENING MEMBERS TO PRESSURE TREATED LUMBER SHALL BE EITHER STAINLESS STEEL OR HEAVY GALVANIZED.

ENERGY CODE STANDARDS: (REFER TO TABLE 402.1.1)

1. FENESTRATIONS,
   1.1 DOORS U=0.15
   1.2 WINDOWS U=0.35 SHGC=NR

2. CEILING/ ROOF
   2.1 R–49 FOR STANDARD TRUSSES/ RAFTERS

3. EXTERIOR WOOD FRAMED WALL = R–21

4. FLOOR R–VALUE = R–30

5. BASEMENT WALL R–VALUE = R–15/19

STATE OF MAINE
BRUCE W. MACLEOD
No. 5422
LICENSED
PROFESSIONAL ENGINEER

DATE ISSUED 8/25/16

OWNER:
GIRARD
277 CLIFTON STREET, PORTLAND, MAINE

BUILDER:
ALBAIR CONSTRUCTION
10 ALEXANDER DRIVE, CAPE ELIZABETH, MAINE 04107

DESIGNER:
JASON LANDRY CONSULTING, LLC
17 NASON ROAD GORHAM, MAINE 04038 207–632–3111

TITLE:
NOTES

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|---|---|---|
| DATE: 7/28/16 | DRAWN BY: JJL | DRAWING NUMBER: |
| SCALE: as noted | PROJ NO: 2016–025.1 | S-3 |