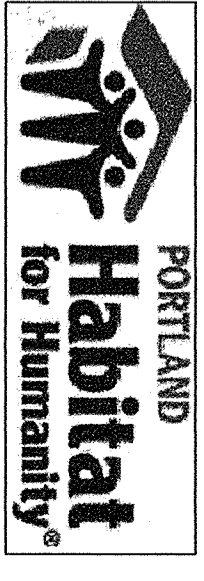


SINGLE FAMILY RESIDENCE
LOT 240

NEW COLUMBIA DEVELOPMENT
PORTLAND, OR

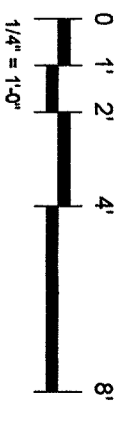


1478 NE KILLINGSWORTH ST.
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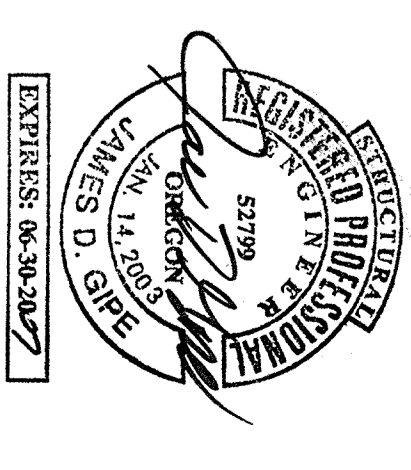


Structural - Civil Engineers
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Portland, Oregon 97221
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PERMIT SET
05.09.07



JAMES GRE, P.E.



DATE	DESCRIPTION

06-04-17-01
P.M.
DRAWN:

STRUCTURAL
NOTES

S1.1

01.0 GENERAL NOTES

1. THESE NOTES SET MINIMUM STANDARDS FOR CONSTRUCTION. THE DRAWINGS GOVERN OVER THE STRUCTURAL NOTES TO THE EXTENT SHOWN.
2. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS ON DRAWINGS AND IN FIELD. NOTIFY OWNERS IMMEDIATELY IN WRITING OF ANY DISCREPANCIES AND NECESSARY TEMPORARY SUPPORT PRIOR TO COMPLETION OF CONSTRUCTION. THE DESIGN METHOD AND ALL NECESSARY TEMPORARY SUPPORTS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
3. CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE INTERNATIONAL RESIDENTIAL CODE (IRC) AS AMENDED BY ALL OTHER STATE AND LOCAL CODES, PERMITS, AND BUILDING DEPARTMENT REQUIREMENTS THAT APPLY.
4. COMPLYING WITH ALL SAFETY AND OSHA REQUIREMENTS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
5. ALL WORK SHALL BE IN COMPLIANCE WITH THE INTERNATIONAL RESIDENTIAL CODE (IRC) AS AMENDED BY ALL OTHER STATE AND LOCAL CODES, PERMITS, AND BUILDING DEPARTMENT REQUIREMENTS THAT APPLY.
6. DESIGN CONTRACT.

ROOFS	DEAD LOAD	18 PSF
	LIVE LOAD	28 PSF SNOW
	GROUND SNOW LOAD, P220	PSF
	FLOOR DEAD LOAD	RESIDENTIAL
	FLOOR LIVE LOAD	40 PSF
	WIND	BASIC WIND SPEED
		100 MPH, 3-SEC GUST
		DESIGN METHOD
		RESISTIVE PER IRC
		DESIGN METHOD
		PERMISSIVE PER IRC

02.0 FOUNDATIONS

1. ALL FOOTINGS SHALL BEAR ON FIRM UNDISTURBED SOIL OR APPROVED COMPACTED FILL. FOOTINGS SHALL BEAR AT A MINIMUM OF 18 INCHES BELOW FINISH GRADE. REMOVE ALL ORGANIC MATERIAL OR SOFT AREAS IN FOOTING EXCAVATIONS. PROVIDE AND INSTALL STRUCTURAL FILL AS NECESSARY. NOTIFY OWNERS REPRESENTATIVE BEFORE PROCEEDING IF ANY UNUSUAL CONDITIONS ARE ENCOUNTERED IN THE FOOTING EXCAVATIONS.
2. ALL FOOTINGS SHALL BE CONCRETE. ALL EXPOSED SURFACES SHALL BE FINISHED WITH A MOISTURE CURING AGENT.
3. USE SLOTTED BRASS BOLTS TO SECURE FOOTINGS TO EXCAVATION FOOTING TRENCHES, AND CLEAN ALL FOOTING EXCAVATIONS OF LOOSE MATERIAL BY HAND.

03.0 CONCRETE

1. STRENGTH: AVERAGE CONCRETE STRENGTH SHALL BE A MINIMUM OF 2800 PSI AT 28 DAYS.

04.0 WOOD FRAMING

1. ALL LUMBER SPECIES AND GRADE TO BE AS FOLLOWS:
JOISTS, BEAMS AND STRINGERS: DF #2-4 PERCENT M.C.
BLOCKS, BLOCKING, BRIDGING AND MSG: DF #0 OR BETTER
STRUCTURAL 2X STUDS: DF #2-4 PERCENT M.C.
PLATES, SILL S AND HEADERS FOR WALL FRAMING: DF #2-4 - 15 PERCENT M.C.
POSTS AND ENGINES, PLATES, ETC EMBEDDED IN OR IN CONTACT WITH CONCRETE: PRESSURE TREATED HEAT TREATED AMPA U03
POSTS, ETC EMBEDDED IN OR IN CONTACT WITH GROUND: PRESSURE TREATED HEAT TREATED AMPA U04

2. SHEATHING SHALL BE CDX GRADE WITH EXTERIOR GLUE. THICKNESS AND INDEX NUMBER AS NOTED BELOW. EACH SHEET SHALL BEAR AN APA STAMP. INSTALL ROOF AND FLOOR SHEATHING WITH FACE GRAIN PERPENDICULAR TO SUPPORTS AND STAGGER END JOINTS. INSTALL WALL SHEATHING EITHER HORIZONTAL OR VERTICAL, AND BLOCK ALL EDGES OF SHEATHING WITH 2X4 OR THICKER BLOCKING. GLUE FLOOR SHEATHING TO ALL SUPPORTS. PROTECT ALL SHEATHING FROM WEATHER DAMAGE AND MOISTURE. REPLACE ALL BUCKLED OR SOFT SHEETS. DO NOT SPUR SHEATHING WITH PERMANENT ROOFING OR FRAMING UNTIL SHEATHING HAS A MOISTURE CONTENT OF LESS THAN 19%.

LOCATION	THICKNESS	INDEX NO.
WALLS	7/16 INCH	3216
FLOORS	23/32 INCH T&G	4824
ROOFS (SUPPORTS 3\"/>		

3. FRAMING ANCHORS, JOIST HANGERS, POST CAPS, ETC., SHALL BE BY SIMPSON STRONG-TIE. INSTALL PER MANUFACTURER'S RECOMMENDATIONS FOR TABULATED MAXIMUM CAPACITIES. ALL MANUFACTURED FRAMING ANCHORS ATTACHING TO PRESSURE TREATED LUMBER SHALL BE NOTched GALVANIZED AND ATTACHED WITH 4. ALL BOLT HEADS AND NUTS BEARING ON WOOD TO BE PROVIDED WITH A WASHER. USE HOT DIPPED GALVANIZED WASHERS IN CONTACT WITH PRESSURE TREATED LUMBER.
5. ALL BOLT HOLES IN WOOD TO BE 1/4 INCH LARGER THAN BOLT. DO NOT REAM OR OVERSIZE BOLT HOLES.
6. ALL WALL HOLES SHALL BE PER TABLE 602.3 OF THE IRC. WALLS CALLED FOR ON THE DRAWINGS SHALL BE COMMON OR LIGHT DUTY NAILING FOR FRAMING, AND NOT PERMANENTLY FASTENED BY MANUFACTURER FOR COMMON OR LIGHT DUTY NAILING AND CONNECTIONS. NAIL HEADS SHALL NOT PENETRATE THE FACE MEMBR OF FRAMING PANELS.
7. WALLS, BOLTS OR LAGS IN PRESSURE TREATED LUMBER SHALL BE HOT DIPPED GALVANIZED OR STAINLESS STEEL.
8. CUTTING AND NOTCHING OF JOISTS NOT ALLOWED. A ONE-INCH (1") DIAMETER HOLE MAY BE DRILLED IN THE CENTER 1/3 OF WIDTH OF MEMBER DEPTH. ALL OTHER HOLES SHALL BE APPROVED.
9. STUDS SHALL BE DRILLED THROUGH THE STUDS TO ALLOW FOR THE INSTALLATION OF DRAINING PIPES, BUT NO PART OF THE NOTCH IS TO BE DEEPER THAN 25 PERCENT OF WIDTH OF STUD. HOLES OF DIAMETERS UP TO 1/8 OF WIDTH OF STUD MAY BE DRILLED IN STUD BUT NOT IN CENTER 1/3 OF HEIGHT. THE EDGES OF DRILLED HOLES ARE TO BE AT LEAST 20-INCH FROM THE FACE OF THE STUD.

04.13 PLATE-CONNECTED WOOD TRUSSES

1. ALL TRUSSES SHALL BE MANUFACTURED AND DESIGNED BY A PROOF APPROVED TRUSS MANUFACTURER TO THE FOLLOWING LOAD REQUIREMENTS:
a. ALLOWABLE INCREASE IN WOOD MEMBER STRESSES DUE TO DURATION OF LOADING 15 PERCENT
b. MAXIMUM PERM STRESS 24 PERCENT FOR NON-SNOW ROOF-LIVE LOADS, AND 33 PERCENT FOR RESIDENTIAL WIND.
c. NET FLOOR AND OVERHANGS
d. COMPRESSION MEMBER UNBRACED LENGTH SHALL BE LIMITED TO LESS THAN 90 FOR LENGTH DIVIDED BY LEAST WIDTH.
2. LOCATION AND NUMBER OF TRUSSES SHOWN ARE DIAGNOSTIC ONLY. ADDITIONAL TRUSSES OR MULTIPLE TRUSSES MAY BE REQUIRED TO SUPPORT THE LOADS SHOWN.
3. MANUFACTURER SHALL DESIGN AND PROVIDE ALL TRUSSES TO TRUSS CONNECTORS AND HARDWARE INCLUDING LOAD TRANSFER CONNECTIONS BETWEEN WALL TRUSSES.
4. LUMBER USED TO MANUFACTURE TRUSSES SHALL BE AS DETERMINED BY DESIGN. #2 GRADE MINIMUM, AND SHALL HAVE A MAXIMUM MOISTURE CONTENT OF 16 PERCENT AT TIME OF FABRICATION OR DESIGN ADJUSTED AS REQUIRED BY THE IRC.
5. FOR REVIEW:
a. A SHOP DRAWING SHOWING A PLAN OF TRUSS LAYOUTS, INDIVIDUAL TRUSS ELEVATIONS, BEARING DETAILS WITH CONNECTIONS TO SUPPORTS, COMPRESSION MEMBER BRACING AND CONNECTIONS, ASSUMED TRUSS DESIGN LOADS AND PARAMETERS, AND TRUSS MEMBER PROFILES.
b. MANUFACTURER SHALL SUBMIT SHOP DRAWINGS TO BE REGISTERED IN THE STATE OF OREGON. TRUSS LAYOUT DRAWING MAY BE EITHER STAMPED BY ENGINEER OR A LETTER MAY BE SUBMITTED FROM THE ENGINEER THAT STATES TRUSSES ARE DESIGNED BASED ON AND CONFORMING TO LAYOUT SUBMITTED.
c. JOB SITE HANDLING AND STORAGE REQUIREMENTS. TRUSSES SHOULD BE COVERED DURING STORAGE AND KEPT DRY UNTIL THE STRUCTURE IS WEATHER TIGHT.
d. DESIGN OF TEMPORARY LOADS AND BRACING TO BE USED TO SUPPORT TRUSSES DURING CONSTRUCTION OF THE TRUSS PERMANENT STRUCTURE TO SUPPORT TEMPORARY LOADS.
e. TRUSS ERECTOR SHALL VERIFY AND BRACE TRUSSES PER THE REQUIREMENTS OF THE TRUSS MANUFACTURER CONTRACTOR'S BRACING DESIGN, AND ALL APPLICABLE CODES AND GOVERNMENT AGENCIES.