



WSP Wood	3/ ₈ ~		Exterior sheathing per Table R602.3(3)	6" edges 12" field
structural panel (See Section R604)	18		Interior sheathing per Table R602.3(1) or R602.3(2)	Varies by fastener
GB Gypsum board	1/2"		Nails or screws per Table R602.3(1) for exterior locations	For all braced wall panel locations: 7"
			Nails or screws per Table R702.3.5 for interior locations	edges (including top and bottom plates) 7" field

TABLE R602.3(3) REQUIREMENTS FOR WOOD STRUCTURAL PANEL WALL SHEATHING USED TO RESIST WIND PRESSURES a, b, c

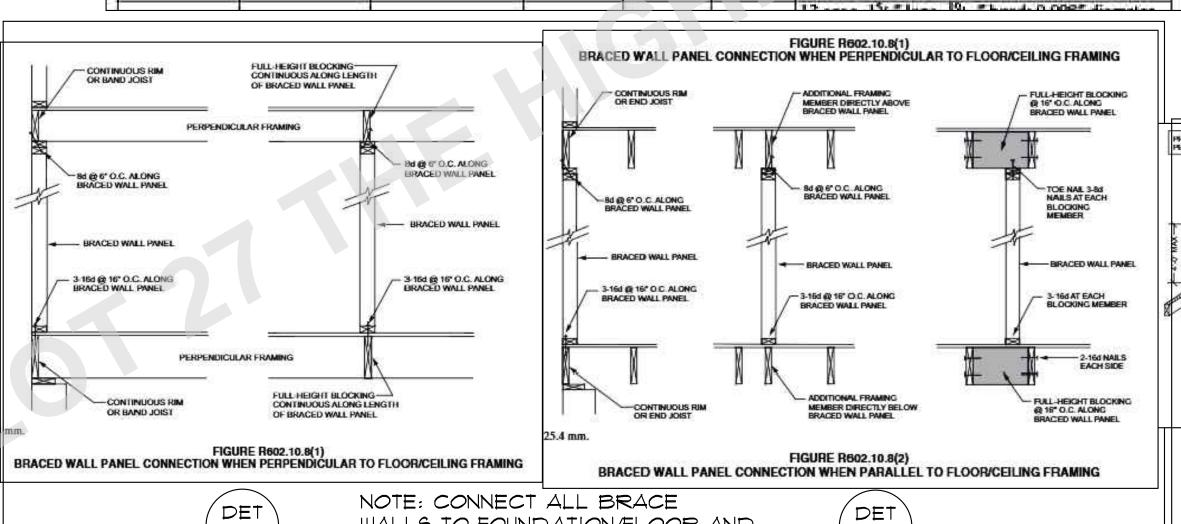
MINIMUM NAIL		MINIMUM NOMINAL DANE!	MAXIMUM WALL	PANEL NAIL SPACING		ULTIMATE DESIGN WIND SPEED V _{id} (mph)		
Penetration (Inches)	PANEL SPAN RATING	THICKNESS (inches)	(Inches)	Edges (Inches o.c.)	Field (Inches o.c.)	Wind exposure category B C D		
1.5	24/0	3/ _R	16	6	12	140	115	110
1.75	24/16	7/16	16	6	12	170	140	135
	Penetration (Inches)	Penetration (Inches) STRUCTURAL PANEL SPAN RATING 1.5 24/0	Penetration (Inches) Note	Penetration (Inches) Name	Penetration (Inches) Penetration (Inches) 1.5 24/16 MINIMUM WOOD STRUCTURAL PANEL STUD SPACING (Inches) MAXIMUM WALL STUD SPACING (Inches) Edges (Inches o.c.) 1.75 24/16 7/16 1.75	MINIMUM WOOD STRUCTURAL PANEL SPACING MINIMUM NOMINAL PANEL STUD SPACING (Inches) Edges (Inches o.c.) Field (Inches o.c.) I.5 24/16 7/16 16 6 12	Name	Name

For St: 1 inch = 25.4 mm, 1 mile per hour = 0.447 m/s.

- a. Panel strength axis parallel or perpendicular to supports. Three-ply plywood sheathing with study spaced more than 16 inches on center shall be applied with panel strength axis perpendicular to supports.
- h. Table is based on wind pressures acting toward and away from building surfaces in accordance with Section R301.2. Lateral bracing requirements shall be in accordance with Section R602.10.
- c. Wood structural panels with span ratings of Wall-16 or Wall-24 shall be permitted as an alternate to panels with a 24/0 span rating. Plywood siding rated 16 o.c. or 24 o.c. shall be permitted as an alternate to panels with a 24/16 span rating. Wall-16 and Plywood siding 16 o.c. shall be used with study spaced not more than 16 inches on center.

TABLE R702.3.5 MINIMUM THICKNESS AND APPLICATION OF GYPSUM BOARD AND GYPSUM PANEL PRODUCTS

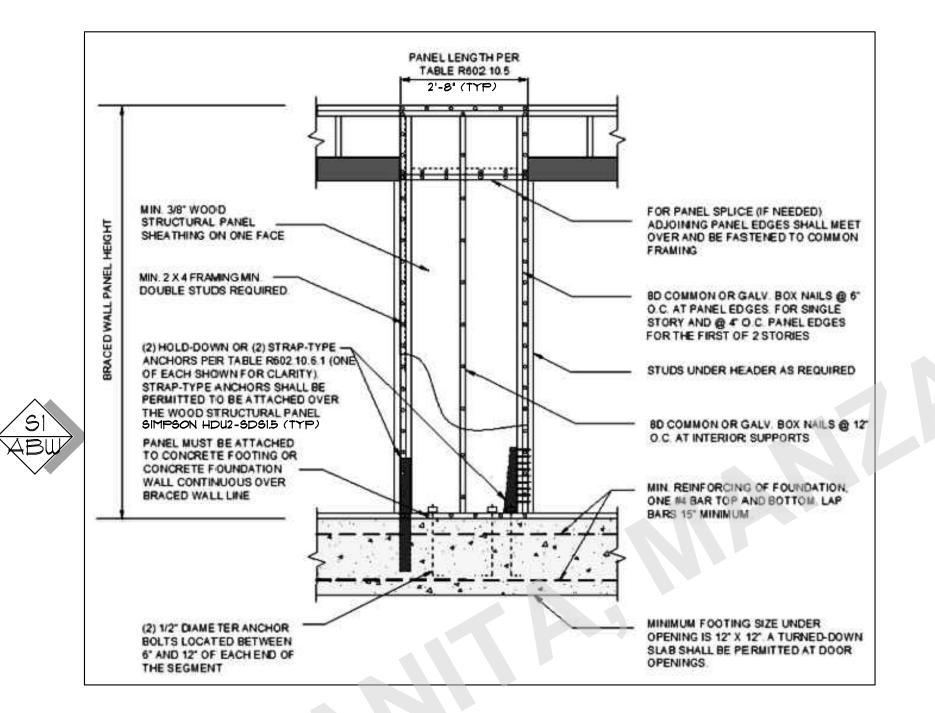
THICKNESS OF GYPSUM		ORIENTATION OF GYPSUM BOARD OR	MAXIMUM SPACING OF FRAMING MEMBERS (inches o.c.)	MAXIMUM SPACING OF FASTENERS (inches)				
BOARD OR GYPSUM PANEL PRODUCTS (inches)	APPLICATION	GYPSUM PANEL PRODUCTS TO FRAMING		Nails*	Scrows	SIZE OF NAILS FOR APPLICATION TO WOOD FRAMING*		
		***	Application	without adh	IODINO			
3/8	Ceiling ^d	Perpendicular	16	7	12	13 gage, 1 ¹ / ₄ " long, ¹⁹ / ₆₄ " head; 0.098" diamet 1 ¹ / ₄ " long, annular-ringed; or 4d cooler sail, 0.080" diameter, 1 ³ / ₈ " long, ⁷ / ₃₂ " head.		
	Wall	Either direction	16	8	16			
1/2	Ceiling	Either direction	16	7	12	13 gage, 13/4" long, 19/64" head; 0.098" diameter,		
	Ceiling ^d	Perpendicular	24	7	12	11/4" long, annular-ringed; 5d cooler nail, 0.086"		
	Wall	Either direction	24	8	12	diameter, 15/8" long, 15/64" head; or gypsum board nail, 0.086" diameter, 15/9" long,		
	Wall	Either direction	16	8	16	1/32" head.		
						an at all 10, at a none c		

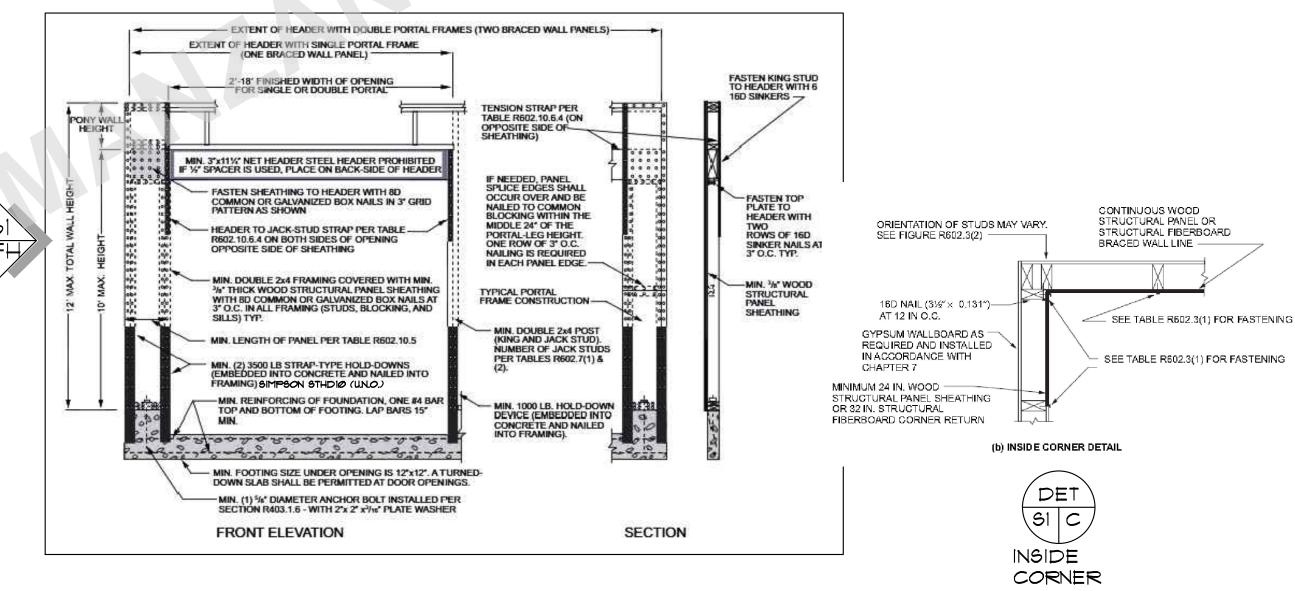


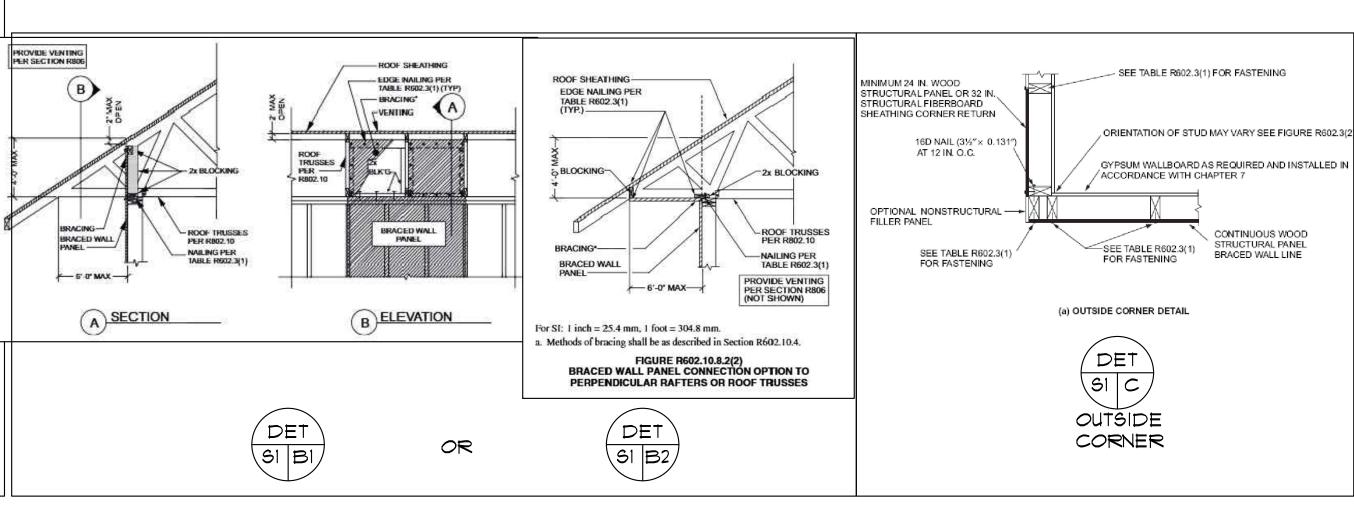
WALLS TO FOUNDATION/FLOOR AND

APPLICABLE TO THAT LOCATION

ROOF AS PER DET SI-A AS





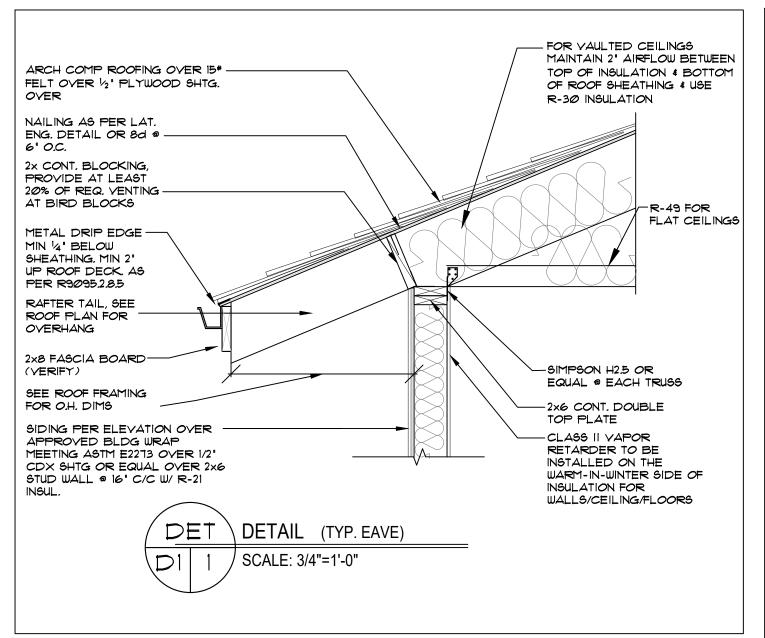


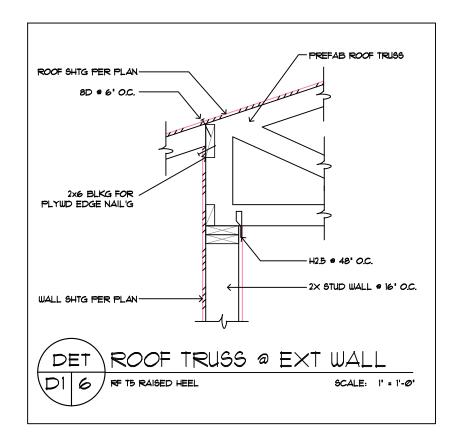
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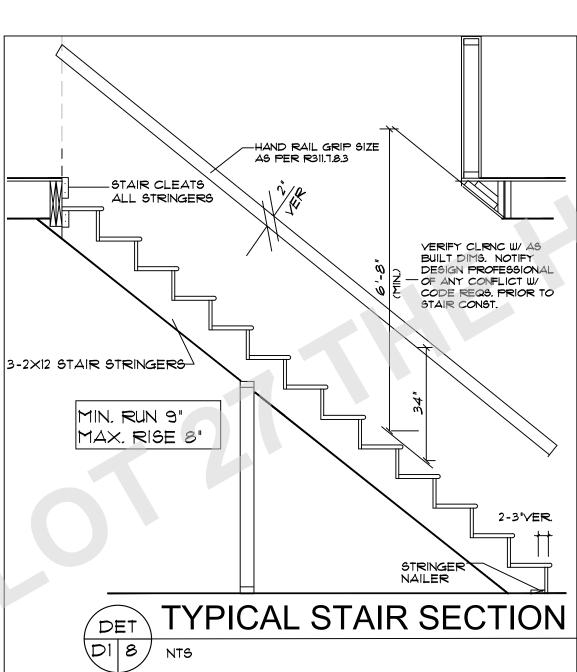
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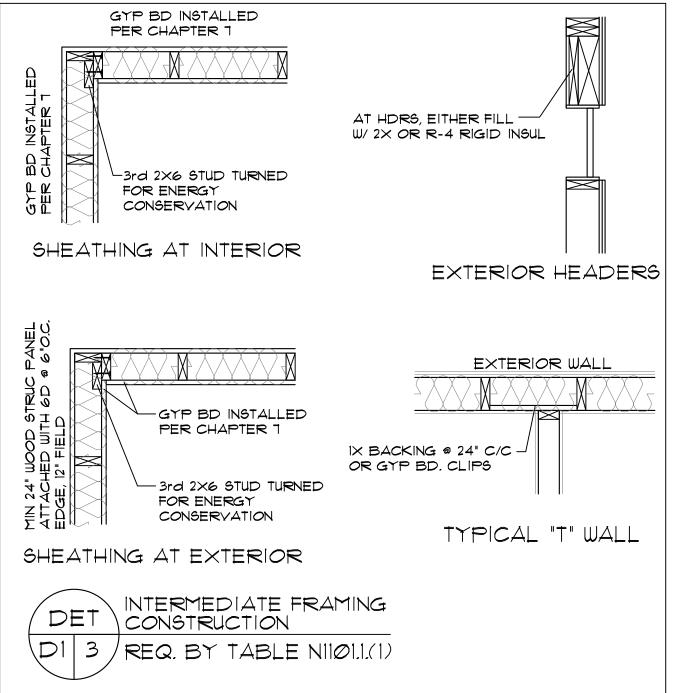
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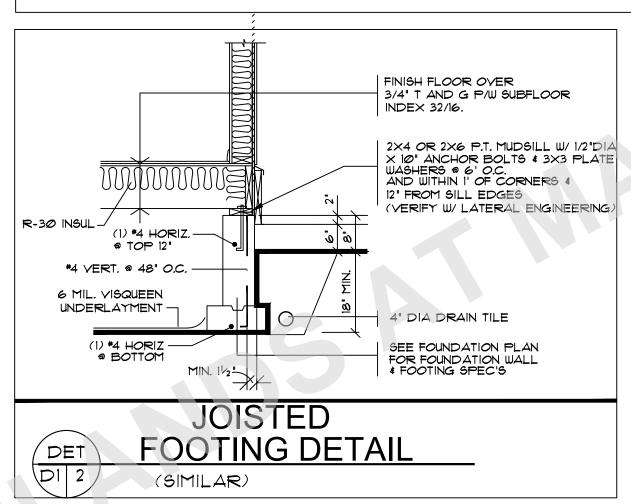
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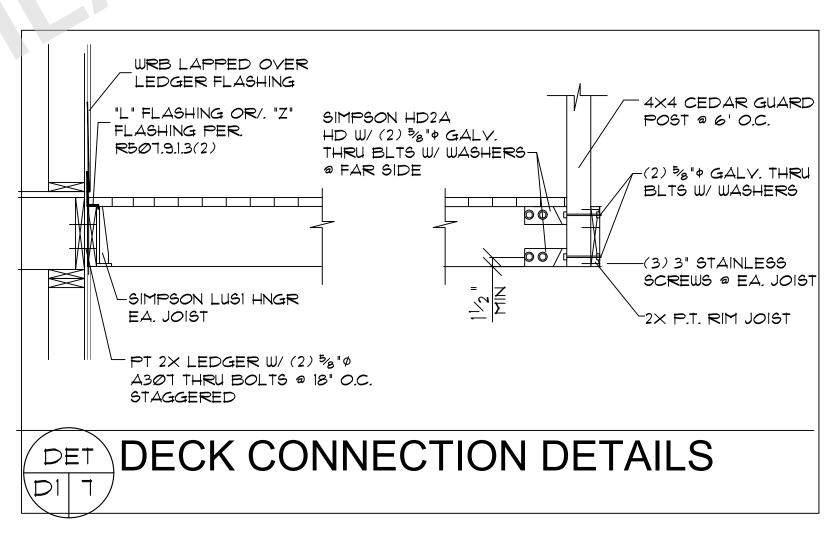


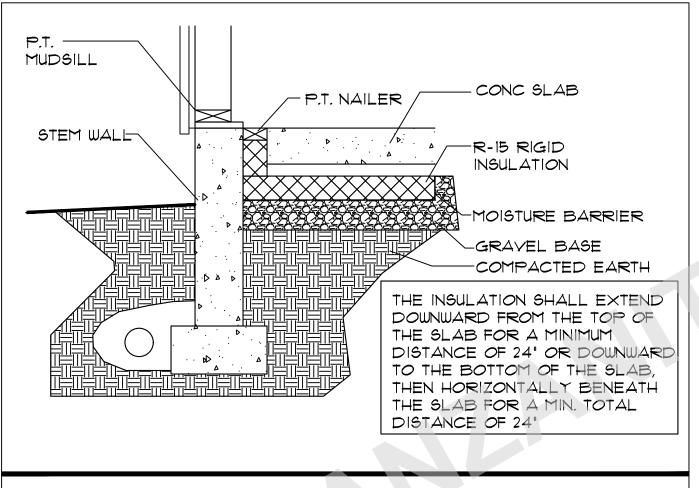


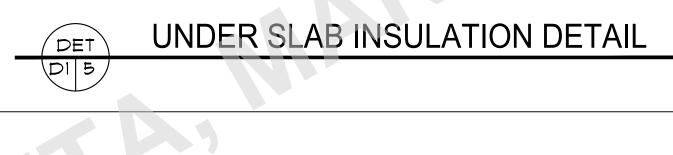


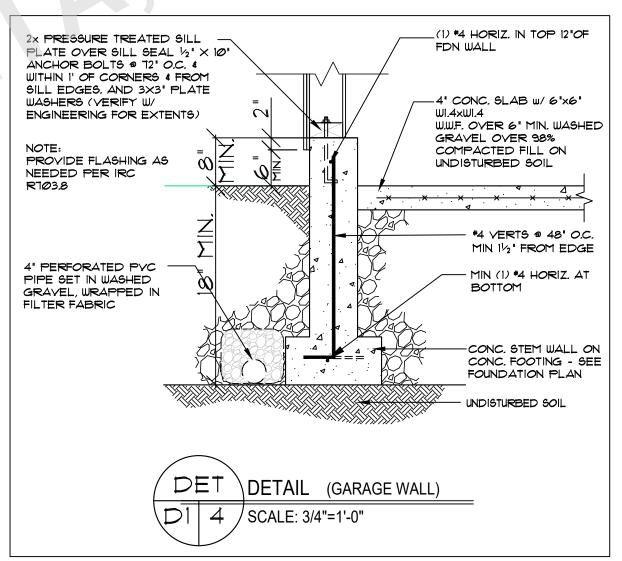


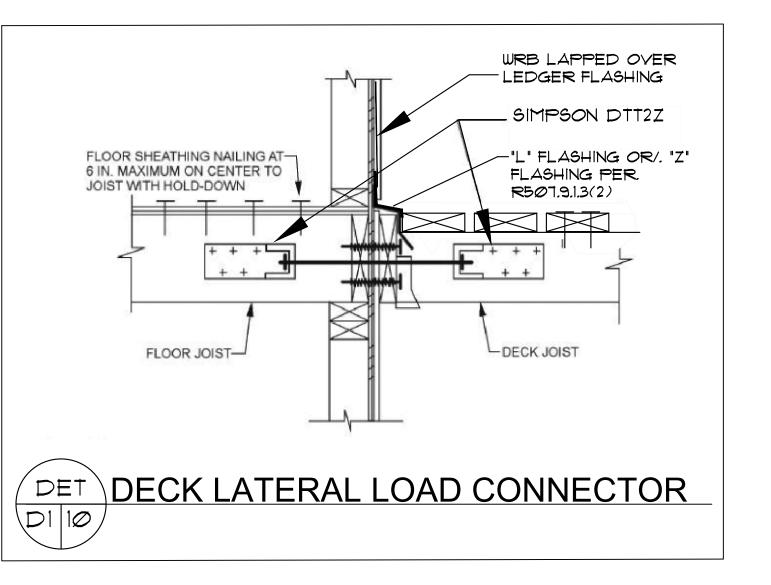


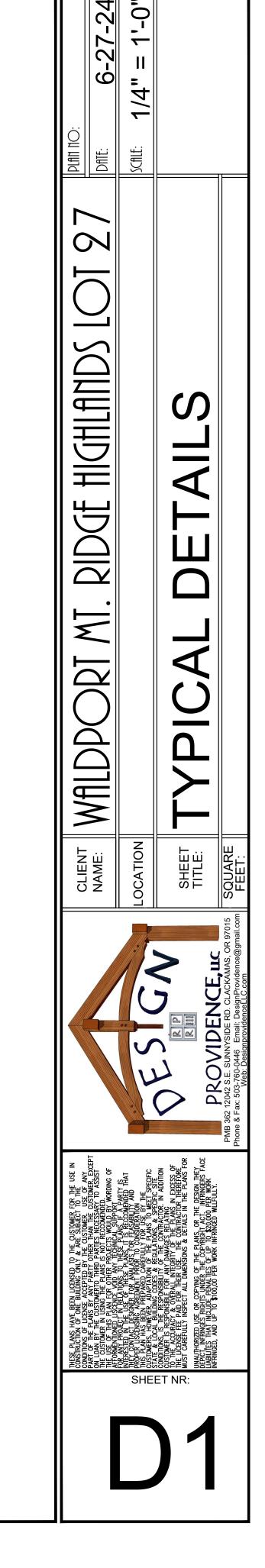












GENERAL NOTES

- ALL WORK IS TO COMPLY WITH THE LATEST ADOPTED VERSION OF THE ORSC CODE (2023) AND ANY APPLICABLE
- STATE, COUNTY OR LOCAL REGULATIONS. THE CONTRACTOR IS RESPONSIBLE TO CHECK THE PLANS AND IS TO NOTIFY THE DESIGNER OF ANY ERRORS OR OMISSIONS PRIOR TO THE START OF CONSTRUCTION.
- WRITTEN DIMENSIONS HAVE PRECEDENCE OVER SCALED
- DIMENSIONS. 25 PSF (LIVE LOAD) 4. DESIGN LOADS: ROOF FLOOR 40 PSF (LIVE LOAD) STAIRS 100 PSF GARAGE FLOOR 125 PSF (2000* PT)
- DECKS (IF YOUR LOCAL AREA REQUIRES DIFFERENT DESIGN LOADS, CONSULT WITH A LOCAL STRUCTURAL ENGINEER TO DETERMINE THE APPROPRIATE REVISIONS.) PROVIDE INSULATION BAFFLES AT EAVE VENTS
- BETWEEN RAFTERS. ALL SMOKE DETECTORS SHALL BE POWERED BY 110Y CURRENT, CONNECTED TO HOUSE ELECTRICAL SYSTEM. INTERCONNECT WITH EACH ONE SO THAT IF ANY ONE TRIPS THEY WILL ALL SOUND. THEY SHALL
- ALSO HAVE A BATTERY BACKUP AND BE LOCATED IN EACH BEDROOM AND ON EACH FLOOR LEVEL. GUARDRAILS SHALL HAVE INTERMEDIATE RAILS SPACED SUCH THAT A SPHERE 4" IN DIA, CANNOT PASS THROUGH PROVIDE GROUNDING ELECTRODE AT ELECTRICAL SERVICE CONSISTING OF A MINIMUM 20' LENGTH OF $last_2$ ' ϕ
- STEEL REINFORCEMENT OF FOOTINGS, ELECTRODE SHALL EXTEND 12" MIN. ABOVE THE PLATE LINE. THE MAXIMUM AMOUNT OF WATER USED BY NEW
- PLUMBING FIXTURES: 1.6 GALLONS/FLUSH TOILETS 2.5 GALLONS/MINUTE SHOWER HEADS INTERIOR FAUCETS 2.5 GALLONS/MINUTE O. IN THE EVENT OF CONFLICT BETWEEN PERTINENT CODES AND REGULATIONS AND REFERENCED STANDARDS OF
- THESE SPECIFICATIONS. THE MORE STRINGENT PROVISIONS SHALL GOVERN. STRUCTURAL SPECIFICATIONS AND DRAWINGS FOR THIS WORK HAVE BEEN PREPARED IN ACCORDANCE WITH
- GENERALLY ACCEPTED ENGINEERING PRACTICE TO MEET MINIMUM REQUIREMENTS OF THE LATEST EDITION OF THE 2. SPECIFICATIONS AND DRAWINGS INDICATE FINISHED STRUCTURE. BUILDER SHALL BE RESPONSIBLE FOR
- CONSTRUCTION METHODS, PROCEDURES, AND CONDITIONS (INCLUDING SAFETY), EXCEPT AS SPECIFICALLY INDICATED OTHERWISE IN THE CONTRACT DOCUMENTS . CONSTRUCTION LOADS SHALL NOT OVERLOAD STRUCTURE NOR SHALL THEY BE IN EXCESS OF DESIGN
- LOADINGS INDICATED ON DRAWINGS. 4. BUILDER SHALL VERIFY ALL MATERIALS, DIMENSIONS, AND CONDITIONS SHOWN ON STRUCTURAL DRAWINGS OR NOTED IN STRUCTURAL SPECIFICATIONS. ANY VARIANCES WITHIN STRUCTURAL DRAWINGS AND SPECIFICATIONS, OR WITHIN CONDITIONS ENCOUNTERED AT JOB SITE, SHALL BE REPORTED TO OWNER IN WRITING BEFORE
- COMMENCEMENT OF ANY WORK EFFECTED BY SUCH BUILDER SHALL RIGIDLY ADHERE TO ALL LAWS, CODES, AND ORDINANCES WHICH APPLY TO THIS WORK. HE SHALL NOTIFY AND RECEIVE CLARIFICATION FROM OWNER IN WRITING OF ANY VARIATIONS BETWEEN CONTRACT
- DOCUMENTS AND GOVERNING REGULATIONS. ALL MANUFACTURED MATERIALS, COMPONENTS, FASTENERS, ASSEMBLIES, ETC., SHALL BE HANDLED AND INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND PROVISIONS OF APPLICABLE ICBO RESEARCH RECOMMENDATIONS. WHERE SPECIFIC MANUFACTURED PRODUCTS ARE CALLED FOR GENERIC EQUALS WHICH MEET APPLICABLE STANDARDS AND
- NO VARIANCE BY A BUILDING OFFICIAL SHALL BE BINDING ON DESIGNERS.
- 3. BUILDER SHALL INVESTIGATE SITE DURING CLEARING AND EARTHWORK OPERATIONS FOR FILLED EXCAYATIONS OR BURIED STRUCTURES SUCH AS CESS POOLS, CISTERNS FOUNDATIONS, ETC. IF ANY SUCH ITEMS ARE FOUND. OWNER SHALL BE NOTIFIED IMMEDIATELY.

FLOOR PLAN NOTES

SPECIFICATIONS MAY BE USED.

- EACH BEDROOM TO HAVE A MINIMUM WINDOW OPENING OF 5.7 SQ FT WITH A MIN. WIDTH OF 20" AND A MIN. HEIGHT OF 22" AND A SILL LESS THAN 44" OFF THE FLOOR.
- . ALL WINDOWS WITHIN 18" OF THE FLOOR AND WITHIN 24" OF ANY DOOR ARE TO HAVE TEMPERED GLAZING. SEE SECTION R308.4 IN ORSC FOR ADDITIONAL INFO. SKYLITES ARE TO BE GLAZED WITH TEMPERED GLASS ON OUTSIDE AND LAMINATED GLASS ON INSIDE (UNLESS
- PLEXIGLAS). GLASS TO HAVE MAXIMUM CLEAR SPAN OF 25". SKYLITE FRAME IS TO BE ATTACHED TO A 2 X CURB WITH MINIMUM OF 4" ABOVE ROOF PLANE.
- . ALL TUB OR SHOWER ENCLOSURES ARE TO BE GLAZED WITH SAFETY GLAZING. . ALL EXTERIOR WINDOWS ARE TO BE DOUBLE GLAZED AND ALL EXTERIOR DOORS ARE TO BE SOLID CORE WITH
- WEATHERSTRIPPING, PROVIDE 1/2" DEADBOLT LOCKS ON ALL EXTERIOR DOORS AND LOCKING DEVICES ON ALL DOORS OR WINDOWS WITHIN 10' (VERTICAL) OF GRADE. PROVIDE PEEP-HOLE @ 54" - 66" ABOVE FLOOR ON EXTERIOR DOORS
- PROVIDE COMBUSTION AIR VENTS (W/ SCREEN AND BACK DAMPER) FOR FIREPLACES, WOOD STOVES AND ANY APPLIANCES WITH AN OPEN FLAME.
- BATHROOMS AND UTILITY ROOMS ARE TO BE VENTED . TO THE OUTSIDE WITH A MINIMUM OF A 90 CFM FAN. RANGE HOODS ARE ALSO TO BE VENTED TO OUTSIDE.

INSULATION SPECIFICATIONS

- ALL EXPOSED INSULATION IS TO HAVE A FLAME SPREAD RATING OF LESS THAN 25 & A SMOKE DENSITY RATING OF LESS THAN 450.
- PERIMETER CONC. WALLS TO BE PROTECTED W/ RIGID FIBERBOARD INSULATION FROM TOP OF CONC WALL TO NOT LESS THAN 24" BELOW GRADE.
- SLAB EDGE INSULATION IS TO BE R-15. 4. HEATING DUCTS TO BE INSULATED W/R-8
- 5. WINDOWS SHALL MEET REQUIRED U FACTORS FOR THE CONTRACTORS CHOSEN PATH OF COMPLIANCE SEE TABLE NIIØ4.I(1)
- . ONE EXTERIOR DOOR MAY BE INSULATED TO A U-FACTOR OF 020. ALL OTHER EXTERIOR DOORS MAY NOT EXCEED 0.54.

FRAMING NOTES

IOTE: SEE TABLE 602.3(1) IN ORSC FOR FASTENER SCHEDULE

- ttps://codes.iccsafe.org/content/ORRSC2021P1/chapter-6-wall-construction ALL EXTERIOR WALL AND BEARING WALL OPENINGS TO HAVE 4X12 DF HEADERS UNLESS OTHERWISE INDICATED
- JOISTS THAT ARE ATTACHED TO FLUSH BEAMS ARE TO BE HUNG WITH "SIMPSON" LU TYPE OR EQUIY. DOUBLE JOISTS THAT ARE ATTACHED TO FLUSH BMS ARE TO BE HUNG WITH 'SIMPSON' LUS TYPE OR EQUIV. PROVIDE DOUBLE JOISTS UNDER ALL PARALLEL
- PARTITIONS OVER. PROVIDE FIREBLOCKING, DRAFTSTOPS & FIRESTOPS AS PER THE ORSC SEC R602.8
- . LUMBER SPECIES: A. POSTS, BEAMS, HEADERS JOISTS AND RAFTERS B. SILLS, PLATES, BLOCKING

BRIDGING, ETC.

E. PLYWOOD SHEATHING

NO.3 DOUG FIR STUD GRADE D.F. D. POST AND BEAM DECKING UTILITY GRADE D.F. 1/2" CDX PLY, 32/16 fb-2400, DRY ADH.

NO.2 DOUG FIR

F. GLU-LAM BEAMS NAILING SCHEDULE SEE TABLE 602.3(1)

C. STUDS

- NOTCHES IN SOLID LUMBER JOISTS, RAFTERS, AND BEAMS SHALL NOT EXCEED ONE-SIXTH OF THE DEPTH OF THE MEMBER, SHALL NOT BE LONGER THAN ONE-THIRD OF THE DEPTH OF THE MEMBER AND SHALL NOT BE LOCATED IN THE MIDDLE ONE-THIRD OF THE SPAN. NOTCHES AT THE ENDS OF THE MEMBER SHALL NOT EXCEED
- ONE-FOURTH THE DEPTH OF THE MEMBER, THE TENSION SIDE OF MEMBERS 4" (102mm) OR GREATER IN NOMINAL THICKNESS SHALL NOT BE NOTCHED EXCEPT AT ENDS OF THE MEMBERS. THE DIAMETER OF HOLES BORED OR CUT INTO MEMBERS SHALL NOT EXCEED ONE-THIRD THE DEPTH OF THE MEMBER. HOLES SHALL NOT BE CLOSER THAN 2" TO THE TOP OR BOTTOM OF THE MEMBER, OR TO ANY OTHER HOLE LOCATED IN THE MEMBER. WHERE THE MEMBER IS ALSO NOTCHED, THE HOLE SHALL NOT BE
- CLOSER THAN 2" (51mm) TO THE NOTCH. STUDS IN AN EXTERIOR WALL OR LOAD-BEARING PAR-TITIONS SHALL BE PERMITTED TO BE CUT OR NOTCHED TO A DEPTH NOT EXCEEDING 25% OF ITS WIDTH. STUDS IN NON-LOAD-BEARING PARTITIONS SHALL BE PERMITTED TO BE NOTCHED TO A DEPTH NOT TO EXCEED
- 40% OF A SINGLE STUD WIDTH, STUDS SHALL BE PERMITTED TO BE BORED OR DRILLED, PROVIDED THAT THE DIAMETER OF THE RESULTING HOLE IS NO GREATER THAN 40% OF THE STUD WIDTH. THE EDGE OF THE HOLE IS NO CLOSER THAN 5/8" (15.9mm) TO THE EDGE OF THE STUD, AND THE HOLE IS NOT LOCATED IN THE SAME SECTION AS A CUT OR NOTCH.
- INSTALL ALL HORIZONTAL MEMBERS WITH CROWN UP. 2. ALL MEMBERS IN BEARING SHALL BE ACCURATELY CUT AND ALIGNED SO THAT FULL BEARING IS PROVIDED WITHOUT USE OF SHIMS. BEARING POSTS SHALL HAVE FULL BLOCKING OR SUPPORT UNDER
- ALL JOISTS SHALL HAVE A MINIMUM OF 2" BEARING AT SUPPORTS. LAPPING JOISTS SHALL HAVE 6' LAPS CENTERED OVER INTERIOR SUPPORTS.
- LEDGERS AND STUD WALL FOUNDATION SILL PLATES SHALL BE BOLTED TO CONCRETE W/ ANCHOR BOLTS OF SIZE AND MINIMUM SPACING AS SHOWN ON DRAWINGS. AT LEAST TWO BOLTS SHALL BE PROVIDED FOR EACH PIECE W/ ONE BOLT WITHIN 12" OF EACH END.
- ALL PLYWOOD WALL SHEATHING SHALL BE APPLIED AS FOLLOWS: CENTER YERTICAL JOINTS OVER STUDS AND CENTER HORIZONTAL JOINT OVER 2" BLOCKING OR PLATE. NAIL TOP OF PANELS TO DOUBLE TOP PLATE, AND NAIL BOTTOM OF PANELS TO ANCHORED SILL PLATE. APPLY GYPSUM BOARD SO THAT END JOINTS OF ADJACENT COURSE DO NOT OCCUR AT THE SAME STUD.

OOTINGS ARE TO BEAR ON UNDISTURBED LEVEL SOIL DEVOID OF ANY ORGANIC MATERIAL AND STEPPED AS

REQUIRED TO MAINTAIN THE REQUIRED DEPTH BELOW

SOIL BEARING PRESSURE ASSUMED TO BE 1500 PSF.

ANY FILL UNDER GRADE SUPPORTED SLABS TO BE A

WITH A MIN. OF 6 SACKS OF CEMENT PER YARD AND

CONCRETE SLABS TO HAVE CONTROL JOINTS AT 25'

CONCRETE SIDEWALKS TO HAVE 3/4" TOOLED JOINTS

EXCAVATE THE SITE TO PROVIDE A MINIMUM OF 18"

FOR EACH 150 SQ FT OF CRAWLSPACE AREA. VENTS

. PROVIDE CRAWLSPACE DRAIN AS PER SEC. R405.1 OF

BACKFILL SHALL NOT BE PLACED UNTIL WALL HAS

COVER ENTIRE CRAWLSPACE WITH 6 MIL BLACK

REINFORCING STEEL TO MEET MIN. ASTM A706 GRADE 60

MINIMUM OF 4' GRANULAR MATERIAL COMPACTED TO 959

CONCRETE TO DEVELOP A MIN. OF 3000 PSI AT 28 DAYS

FOUNDATION NOTES

THE FINAL GRADE.

AT 5' O.C. (MINIMUM)

A MAXIMUM SLUMP OF 4".

(MAXIMUM) INTERVALS EA. WAY.

WELDED WIRE MESH TO BE A-185.

CLEARANCE UNDER ALL GIRDERS

ELECTRICAL REQUIREMENTS

- AT LEAST ONE WALL SWITCH-CONTROLLED LIGHTING OUTLET SHALL BE INSTALLED IN EVERY HABITABLE ROOM AND IN BATHROOMS, HALLWAYS, ELECTRICAL POWER AND AT THE EXTERIOR SIDE OF EGRESS DOORS.
- MEANS OF ILLUMINATION TO THE STAIR, INCLUDING THE LANDINGS AND INTERIOR STAIRS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT TOP AND BOTTOM OF THE STAIR. EXTERIOR STAIRS SHALL BE PROVIDED WITH AN ARTIFICIAL LIGHT SOURCE LOCATED IN THE IMMEDIATE VICINITY OF THE TOP LANDING OF THE STAIR. EXCEPTION:
- FIXTURES IN CLOTHES CLOSETS:
- MINIMUM CLEARANCE OF 6" BETWEEN THE FIXTURE AND THE NEAREST POINT OF A STORAGE SPACE. WET OR DAMP LOCATIONS:

DAMP LOCATIONS!

ALL SWITCHES SHALL BE LOCATED TO ALLOW OPERATION FROM A READILY

RECEPTACLE OUTLET REQUIREMENTS:

- IN EVERY KITCHEN, FAMILY ROOM, DINING ROOM, LIVING ROOM, DEN, BEDROOM, OR SIMILAR ROOM OR AREA OF DWELLING UNITS, RECEPTACLE OUTLETS SHALL BE INSTALLED SO THAT NO POINT ALONG THE FLOOR LINE IN ANY WALL SPACE IS MORE THAN 6 FEET, MEASURED HORIZONTALLY FROM AN OUTLET IN THAT SPACE, INCLUDING ANY WALL SPACE THAT IS 2
- RECEPTACLE OUTLETS, WITH GFI PROTECTION, SHALL BE INSTALLED EVERY 24" ON ALL COUNTER SPACES THAT MEASURE 12" OR WIDER
- AT LEAST ONE WALL RECEPTACLE OUTLET, WITH GFI PROTECTION, SHALL BE INSTALLED IN BATHROOMS ADJACENT TO EACH BASIN LOCATION.
- AT LEAST ONE RECEPTACLE OUTLET, WITH GFI PROTECTION, SHALL BE INSTALLED OUTDOORS AT THE FRONT AND BACK OF EACH DWELLING UNIT
- <u>HALLWAYS:</u> RECEPTACLE OUTLET.
- A CONVENIENCE RECEPTACLE OUTLET SHALL BE INSTALLED FOR THE SERVICING OF HEATING, AIR-CONDITIONING AND REFRIGERATION
- A RECEPTACLE INSTALLED IN A WET LOCATION SHALL BE IN A WEATHER

*ADDITIONAL INFORMATION CAN BE FOUND IN THE OREGON

MEASURE

E37-410 LIGHTING OUTLETS

- WHERE THE DIFFERENCE BETWEEN FLOOR LEVELS REQUIRES LESS THAN 6 STAIR RISERS.
- SURFACE MOUNTED FLUORESCENT FIXTURES SHALL BE INSTALLED ON THE WALL ABOVE THE DOOR OR ON THE CEILING, PROVIDED THERE IS A
- FOR WET LOCATIONS". ALL FIXTURES INSTALLED IN DAMP LOCATIONS SHALL BE MARKED 'SUITABLE FOR WET LOCATIONS' OR 'SUITABLE FOR

- BATHROOMS:
- HAVING DIRECT ACCESS TO GRADE.
- HYAC OUTLET:
- EQUIPMENT LOCATED IN ATTICS AND CRAWL SPACES. WET LOCATIONS:
- PROOF ENCLOSURE, THE INTEGRITY OF WHICH IS NOT AFFECTED WHEN THE ATTACHMENT PLUG CAP IS INSERTED.
- RESIDENTIAL SPECIALTY CODE BOOK IN SECTIONS:

NIIO5.3 INSTALLATION OF DUCTS

ALL NEW DUCT SYSTEMS AND AIR HANDLING EQUIPMENT AND APPLIANCES SHALL BE LOCATED FULLY WITHIN THE BUILDING THERMAL ENVELOPE.

EXCEPTION: 1. VENTILATION INTAKE DUCTWORK AND EXHAUST DUCTWORK 2. UP TO 5 PERCENT OF THE LENGTH OF AN HVAC SYSTEM DUCTWORK SHALL BE PERMITTED TO BE LOCATED OUTSIDE OF

- THE THERMAL ENVELOPE. 3. DUCTS DEEPLY BURIED IN INSULATION IN ACCORDANCE ALL OF THE FOLLOWING: 3.1 INSULATION SHALL BE INSTALLED TO FILL GAPS AND YOLDS
- BETWEEN THE DUCT AND THE CEILING, AND A MINIMUM OF R-19 INSULATION SHALL BE INSTALLED ABOVE THE DUCT BETWEEN THE DUCT AND UNCONDITIONED ATTIC. 3.2 INSULATION DEPTH MARKER FLAGS SHALL BE INSTALLED ON THE DUCTS EVERY 10 FT OR AS APPROVED BY THE BUILDING
- NIIOG.I MECHANICAL SYSTEM PIPING INSULATION MECHANICAL SYSTEM PIPING CAPABLE OF CARRYING FLUIDS ABOVE 105°F OR BELOW 55°F SHALL BE
- NIIO6.2 DOMESTIC AND SERVICE HOT WATER SYSTEMS. DOMESTIC HOT WATER PIPING SHALL BE INSULATED TO A MINIMUM OF R-3 AT THE FOLLOWING LOCATIONS: 1. PIPE LOCATED OUTSIDE THE BUILDING THERMAL
- 2. THE FIRST 8 FEET OF PIPE INTO AND OUT OF A WATER HEATER. 3. RECIRCULATING WATER PIPING.

LIGHTING

SECTION N1107

REQUIRED TO HAVE HIGH EFFICIENCY LAMPS.

INSULATED TO A MINIMUM OF R-3.

ENVELOPE.

LL PERMANENTLY INSTALLED INTERIOR AND EXTERIOR LIGHTING FIXTURES SHALL BE COMPANCT FLUORESCENT LAMPS, T-8 OR SMALLER DIAMETER LINEAR FLUORESCENT LAMPS, LED LAMPS, FIXTURE-INTEGRATED ILLUMINATION DEVICES, OR LAMPS WITH AN EFFICACY NOT LESS THAN 65 LUMENS PER WATT FOR EACH LAMP OR LUMINAIRES WITH EFFICACY NOT LESS THAN 45 LUMENS PER WATT PER EACH LUMINAIRE. EXCEPT 2 INTERIOR AND 2 EXTERIOR PERMANENT FIXTURES ARE NOT

THE BUILDING OFFICIAL SHALL BE NOTIFIED IN WRITING AT THE FINAL INSPECTION THAT THE PERMANENTLY INSTALLED FIXTURES HAVE MET THIS REQUIREMENT.

NOTE: AS PER ORSC NIIOT.4 PROVIDE 4"X4" METAL JUNCTION BOX W/ COVER WITHIN 24" OF MAIN ELECTRICAL PANEL. PROVIDE A 34" RIGID METAL RACEWAY EXTENDING FROM JCT. BOX TO CAPPED ROOF TERMINATION W/ CLEARANCE MIN. 36"

SECTION M1505.4

A WHOLE HOUSE VENTILATION SYSTEM SHALL BE INSTALLED AND PROVIDE BALANCED VENTILATION AS PER SECTION MISOS.4. LOCAL EXHAUST OR SUPPLY FANS ARE PERMITTED TO SERVE AS PART OF SUCH SYSTEM. OUTDOOR AIR VENTILATION PROVIDED BY A SUPPLY FAN DUCTED TO RETURN SIDE OF AN AIR HANDLER SHALL BE CONSIDERED AS PROVIDING SUPPLY VENTILATION FOR THE BALANCED SYSTEM.

BUILDING COMPONENT	STANDARD	BASE CASE	LOG HOMES ONLY		
BUILDING COMPONENT	Required Performance	Equivalent Value ^b	Required Performance	Equivalent Value ^b	
Wall insulation—above grade	U-0.059c	R-21 Intermediate ^c	Note d	Note d	
Wall insulation—below grade ^e	C-0.063	R-15 c.i. / R-21	C-0.063	R-15/R-21	
Flat ceilings ^f	U-0.021	R-49	R-49 U-0.020		
Vaulted ceilings ⁹	U-0.033	R-30 Rafter or R-30A ^{g, h} Scissor Truss	U-0.027	R-38A ^h	
Underfloors	U-0.033	R-30	U-0.033	R-30	
Slab-edge perimeter ¹	F-0.520	R-15	F-0.520	R-15	
Heated slab interior	N/A	R-10	N/A	R-10	
Windows	U-0.27	U-0.27	U-0.27	U-0.27	
Skylights	U-0.50	U-0.50	U-0.50	U-0.50	
Exterior doorsk	U-0.20	U-0.20	U-0.54	U-0.54	

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m², 1 degree = 0.0175 rad.

d. The wall component shall be a minimum solid log or timber wall thickness of 3¹/₂ inches.

N/A = Not Applicable.

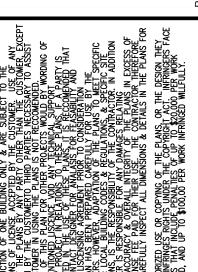
- a. As allowed in Section N1104.1, thermal performance of a component may be adjusted, provided that overall heat loss does not exceed the total resulting from conformance to the required U-factor standards. Calculations to document equivalent heat loss shall be performed using the procedure and approved U-factors contained in Table N1104.1(1).
- b. R-values used in this table are nominal for the insulation only in standard wood-framed construction and not for the entire assembly.
- c. Wall insulation requirements apply to all exterior wood-framed, concrete or masonry walls that are above grade. This includes cripple walls and rim joist areas. Nominal compliance with R-21 insulation and Intermediate Framing (Section N1104.5.2) with insulated headers.
- e. Below-grade wood, concrete or masonry walls include all walls that are below grade and do not include those portions of such wall that extend more than 24 inches above grade. R-21 for insulation in framed cavity; R-15 continuous insulation. f. Insulation levels for ceilings that have limited attic/rafter depth such as dormers, bay windows or similar architectural features totaling not more than 150 square feet in area

may be reduced to not less than R-21. Where reduced, the cavity shall be filled (except for required ventilation spaces). R-49 insulation installed to minimum 6-inch depth at top

- plate at exterior of structure to achieve U-factor. g. Vaulted ceiling surface area exceeding 50 percent of the total heated space floor area shall have a U-factor not greater than U-0.026 (equivalent to R-38 rafter or scissor truss with R-38 advanced framing).
- h. A = Advanced frame construction, See Section N1104.6.
- i. Heated slab interior applies to concrete slab floors (both on and below grade) that incorporate a radiant heating system within the slab. Insulation shall be installed underneath the entire slab in addition to perimeter insulation.
- j. Glass doors shall comply with window performance requirements. Windows exempt from testing in accordance with Section N1104.4 shall comply with window performance requirements if constructed with aluminum with thermal break, wood, vinyl, reinforced vinyl aluminum-clad wood, or insulated fiberglass frames, and double-pane glazing with low-emissivity coatings of 0.10 or less. Buildings designed to incorporate passive solar elements may include glazing with a U-factor greater than 0.35 by using Table
- N1104.1(1) to demonstrate equivalence to building envelope requirements. k. A maximum of 28 square feet of exterior door area per dwelling unit can have a U-factor of 0.54 or less.
- I. Minimum 24-inch horizontal or vertical below grade. The minimum total distance of 24 inches may be a combination of the horizontal and vertical planes. If a horizonal plane is used on the exterior of the slab, it must be a minimum of 12 inches below finished grade.

TABLE N1101.1(1) PRESCRIPTIVE ENVELOPE REQUIREMENTS^a

		BASE CASE	LOG HOMES ONLY		
BUILDING COMPONENT	Required Performance	Equivalent Value ^b	Required Performance	Equivalent Value ^b	
Wall insulation—above grade	U-0.059c	R-21 Intermediate ^c	Note d	Note d	
Wall insulation—below grade ^e	C-0.063	R-15 c.i. / R-21	C-0.063	R-15/R-21	
Flat ceilings ^f	U-0.021	R-49	U-0.020	R-49 A ^h	
Vaulted ceilings ⁹	U-0.033	R-30 Rafter or R-30A ^{g, h} Scissor Truss	U-0.027	R-38A ^h	
Underfloors	U-0.033	R-30	U-0.033	R-30	
Slab-edge perimeter ¹	F-0.520	R-15	F-0.520	R-15	
Heated slab interior	N/A	R-10	N/A	R-10	
Windows	U-0.27	U-0.27	U-0.27	U-0.27	
Skylights	U-0.50	U-0.50	U-0.50	U-0.50	
Exterior doorsk	U-0.20	U-0.20	U-0.54	U-0.54	



SHEET NR:

LIGHTING REQUIREMENTS:

STAIRWAYS, ATTACHED GARAGES, DETACHED GARAGES PROVIDED WITH STAIRWAY LIGHTING CONTROL: ALL INTERIOR AND EXTERIOR STAIRWAYS SHALL BE PROVIDED WITH A

TREADS TO BE CONTROLLED BY A WALL SWITCH AT EACH FLOOR LEVEL. SOURCE LOCATED IN THE IMMEDIATE VICINITY OF EACH LANDING AT THE

FIXTURES INSTALLED IN WET OR DAMP LOCATIONS SHALL BE INSTALLED SO THAT WATER CANNOT ENTER OR ACCUMULATE IN WIRING COMPARTMENTS, LAMPHOLDERS OR OTHER ELECTRICAL PARTS. ALL FIXTURES INSTALLED IN WET LOCATIONS SHALL BE MARKED "SUITABLE

LIGHT SWITCH ACCESS:

ACCESSIBLE LOCATION.

- FEET OR MORE IN WIDTH. KITCHENS:
- HALLWAYS OF 10 FEET OR MORE IN LENGTH SHALL HAVE AT LEAST ONE

- E37-404 SWITCHES E37-406 RECEPTACLE OUTLETS

TABLE N1101.1(2) ADDITIONAL MEASURES

MEASURE DESCRIPTION NUMBER HIGH-EFFICIENCY HVAC SYSTEM^a a. Gas-fired furnace or boiler AFUE 94 percent, or

Exterior walls—U-0.045/R-21 conventional framing with R-5.0 continuous insulation

Framed floors—U-0.026/R-38 or slab edge insulation to F-0.48 or less (R-10 for 48"; R-15 for 36" or R-5 fully insulated slab)

Achieve a maximum of 2.75 ACH50 whole-house air leakage when third-party tested and provide a whole-house ventilation

system, including heat recovery with a minimum sensible heat recovery efficiency of not less than 66 percent and total fan

b. The maximum vaulted ceiling surface area shall not be greater than 50 percent of the total heated space floor area unless vaulted area has a U-factor not greater than U-0.026.

c. In accordance with Table N1104.1(1), the Proposed UA total of the Proposed Alternative Design shall be a minimum 8 percent less than the Code UA total of the Standard Base

a. Appliances located within the building thermal envelope shall have sealed combustion air installed. Combustion air shall be ducted directly from the outdoors.

a. Provide ductless heat pump of minimum HSPF 10.0 or HSPF2 9.0 in primary zone replaces zonal electric heat sources, and

- b. Air source heat pump HSPF 10.0/14.0 SEER cooling or 8.5 HSPF2 / 15.0 SEER2, or c. Ground-source heat pump COP 3.5 or ENERGY STAR rated HIGH-EFFICIENCY WATER HEATING SYSTEM
- a. Natural gas/propane water heater with minimum 0.90 UEF, or b. Electric heat pump water heater with minimum 3.45 UEF, or

Windows—U-0.21 (Area-weighted average), and

HIGH-EFFICIENCY THERMAL ENVELOPE UAC

Proposed UA is 8 percent lower than the code UA

DUCTLESS HEAT PUMP (Dwelling units with all-electric heat)

2.75 ACH AIR LEAKAGE CONTROL AND EFFICIENT VENTILATION

efficacy of 1.6 CFM/Watt (combined input for supply and exhaust).

b. Provide programmable thermostat for all heaters in bedrooms

"VISQUEEN" AND EXTEND UP FDTN. WALLS TO P.T. MUDSILL . PROVIDE A MINIMUM OF 1 SQ FT OF VENTILATION AREA c. Natural gas/propane tankless/instantaneous heater with minimum 0.80 UEF and drain water heat recovery unit installed on a minimum ARE TO BE CLOSABLE WITH 1/4" OPENINGS IN CORROSIVE

WALL INSULATION UPGRADE

Flat ceilingb-U-0.017/R-60, and

For SI: 1 square foot = 0.093 m², 1 watt per square foot = 10.8 W/m².

- RESISTANT SCREEN. ALL WOOD IN CONTACT WITH CONCRETE TO BE PRESSURE TREATED OR PROTECTED WITH 30* ROLL ROOFING. BEAM POCKETS IN CONCRETE TO HAVE 1/2" AIRSPACE AT SIDES AND ENDS WITH A MINIMUM BEARING OF 3".
- . THE GRADE AWAY FROM FND WALLS SHALL FALL 6" MIN. WITHIN FIRST 10'. . SLOPE FOR PERMANENT FILLS AND CUT SLOPES SHALL NOT EXCEED 2 UNITS HORIZ, TO 1 UNIT YERT.
- SUFFICIENT STRENGTH AND HAS BEEN ANCHORED TO FLOOR ABOVE ON WALLS W/ MORE THAN 4' UNBALANCED BUILDER SHALL BE RESPONSIBLE FOR SUPPORT OF ALL TEMPORARY EMBANKMENTS AND EXCAVATIONS. FOOTINGS SHALL BE FOUNDED ON FIRM, UNDISTURBED, NATIVE, FREE DRAINING SOILS. CONDITIONS FOUND TO BE
- ALL GROUND OVER WHICH FOOTINGS AND SLABS-ON-GRADE ARE TO BE PLACED SHALL BE FREE OF EXPANSIVE OR COMPRESSIBLE DEBRIS AND ORGANIC MATERIAL 0. FOOTINGS AND SLABS-ON-GRADE CONCRETE SHALL NOT BE PLACED ON MUDDY OR FROZEN GROUND.

SUB-GRADE FOR SLABS-ON-GRADE WHERE VAPOR

BARRIER IS NOT REQUIRED SHALL BE DAMP AT TIME

OTHERWISE SHALL BE REPORTED TO OWNER.

OF CONCRETE PLACEMENT