

CITY OF PORTLAND, OREGON - BUREAU OF DEVELOPMENT SERVICES



1900 SW Fourth Avenue, Suite 5000 ◆ Portland, Oregon 97201 ◆ www.portlandonline.com/bds

Residential Fixtures Worksheet

Please list the mechanical, electrical and plumbing xtures you are planning to install for your new single family residential construction project.

Mechanical Fixture	Quantity
Heating and Cooling	
Air conditioner (site plan required)	
Furnace/burner including ductwork/vent/liner	1
Heat pump (site plan required)	1
Air handling unit	
Hydronic hot water system	
Residential boiler (radiator or hydronic)	1
Unit heaters (fuel type, not electric): in-wall, induct, suspended, etc.	
Vent for appliance other than furnace	
Gas replace	1
Flue vent for water heater or gas replace	1
Wood/pellet stove	
Chimney/liner/ ue/vent	
Range hood/other kitchen equipment	
Clothes dryer exhaust	
Single duct exhaust fans (bathrooms, toilet compartments, utility rooms)	5
Attic/crawl space fans	
Other:	
Gas Fuel Piping: indicate number of outlets	
Furnace	1
Wall/suspended/unit heater	
Water heater/boiler	1
Fireplace	- Chappin
Range	1
Barbecue	
Clothes dryer	
Other:	

Plumbing Fixture	Quantity
Bathrooms (full or partial)	3
Kitchens*	1 / 9
Laundry/utility sinks*	10
Bar sinks	
Water heaters/boilers*	1
Clothes washers*	1 day
Rain drain: # of feet around perimeter of house	2400
Sanitary sewer: # of feet from house to property line	201
Storm sewer: # of feet from house to property line or disposal system	20'
Water line: # of feet from house to property line	20'
Fire sprinklers: # of sq. ft. of house to be sprinklered (include basement, exclude garage)	
Other:	
* The first kitchen, water heater, clothes wash utility sink are included in the basic plumbing	
Electrical Fixture	Quantity
Area of house in sq. ft. to be wired (including basement and <u>attached garage</u>)	3,170
Additional circuits for detached garage	
Limited energy electrical wiring (check yes if you are installing any of the following: telephone, cable TV, security systems, doorbell, computer network cables, thermostat, vacuum system)	Æ yes □ no
	u yes There
Temporary electrical service	☐ no



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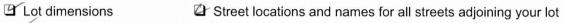
Application for New Single Family Residential Construction (One or Two Units)

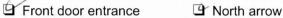
What type of home(s) are you building?
Single family residence ☐ Duplex ☐ 2-unit rowhouse ☐ 2-unit townhouse
☐ Floating home ☐ Manufactured home on its own lot
□ Detached accessory dwelling unit (ADU) □ Other:
If your project includes 3 or more structures built to the Oregon Residential Speciality Code or International Residential Code and are either located on a single tax lot or attached to eath other, you will apply through the Batch Submittal and Review Process. Please contact Permitting Services at 503-823-7357 for more information.
empany Name West Side Building & Remodeling LLC
Contact Person Vic Semchuk
Nailing Address 1919 SE 162 AVE
State OR Zip Code 97233
Of ce Phone Cell Phone <u>503-866-3939</u> FAX
mail Vicus Dhotmail com
ot Owner Name Chris Pham
Mailing Address 7107SE Carlton st
State OR Zip Code 97206
contractor Name Vic Semclink CCB# 187676
roject Information
R 623 551 If you do not know the tax account number, call Multnomah County at 503-988-3326
Cross streets: SE 79th & Powell blud Tax lot number:
Plat name/number Portition Plat Block/lot: 2008-122-Lot 1-2 Qtr section #:
Living area: 2496 sq.ft. Basement: sq.ft. Garage/carport: +-679 sq.ft
Is there a detached garage/carport or other accessory structure being built?
Is there an existing house on the lot that will be demolished?
Land Use Review case numbers:
Plan designer/architect name: Mascard Plan # 2270
Has BDS permitted this design previously? ☐ yes ☐ permit #
Do you plan on building the same house plan again? ☐ yes 💆 no ☐ not sure

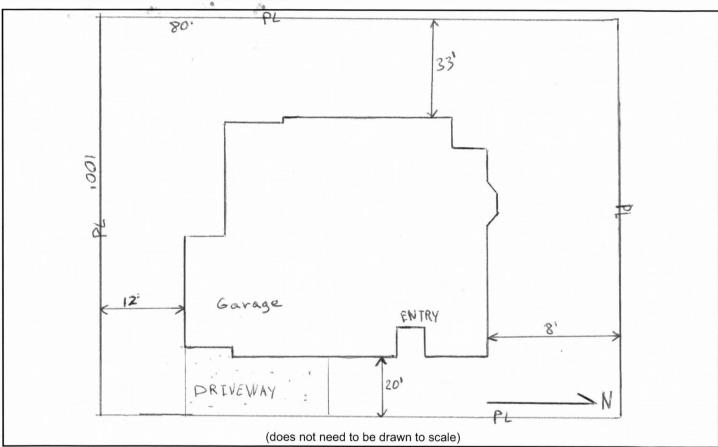
Application for New Single Family Residential Construction (One or Two Units)

In the box below, **draw a diagram of your lot and all exisiting and proposed structures** (including detached garages). This will be used to assign the street address for your project.

Indicate each of the following







Full legal description

If lot division is in progress, please provide the LUR or partition plat number and the parcel number



Residential Water Service Application

W-3

Phone 503-823-7368 • FAX 503-823-7743 • Email devrev@portlandoregon.gov

Page 1 of 2

Why complete this form? The Portland Water Bureau uses this form to determine size of meter and service branch, installation fees, and meter location. Complete details help expedite your request for water service permit and service installation. You must

Who should use this form? Applicants upgrading residential plumbing, or building an accessory

dwelling unit or new home.

complete pages 1 and 2.

What do I do with the completed form?

Mail it to: Portland Water Bureau Development Services 1120 SW 5th Ave, Rm 600 Portland, OR 97204

Bring it to our office: 1900 SW 4th Avenue 1st floor DSC Portland, OR 97201

Email it to: devrev@portlandoregon.gov

Fax it to: 503-823-7743

Questions?

Portland Water Bureau Development Services Phone 503-823-7368 FAX 503-823-7743

Sewer connection questions:

Bureau of Environmental Services Sewer Hotline Phone 503-823-7761

Today's date		Building Permit Numbe	r		
Apr - 25-12		Ag .	· 24		
Service Instal	lation Inform	ation			
Applicant Name			Daytime Teleph	none Num	ber
Vic	Semchin		503-860	5.34	39
Site Address, City,	State, ZIP Code				
Multnomah County R 62355		Legal description (lot & l	olock)		9
Dwelling type	☑ Single-family ☐ Duplex	□ Rowhouse □	Accessory Dw	elling Uni	t (ADU)
(check one)	If a duplex, individual m	townhouse, or ADU, oneters?	do you want	□Yes	□ No
Does the lot curr	ently have water	service?		Yes	□ No
Is the service to	be installed in a p	paved street?		☐ Yes	No No
Will the service branch cross a stormwater facility – either a landscaped swale or concrete planter? ☐ Yes ☑ No				☑ No	
Will you install a fire sprinkler system? ☐ Yes			☑ No		
If yes, what are the flow needs (gallons per minute - GPM)? GPM					
Will the meter be installed in the driveway area? ☐ Yes ☐ N (Avoid driveway if possible.)			□ No		
☐ Yes ☐					□ No
Is there a Public Works Improvement Project?				#	

Complete the Water Meter Sizing Worksheet (Residential) on page 2.

Scheduling and Installing Water Services

Call Portland Water Bureau Scheduling Services at 503-823-1526 when you are ready to install the service.

- Provide the address, building permit number or IVR number, and a PDOTapproved Street Improvement Plan number, if known.
- Indicate whether or not the supply line on private property will be metallic or plastic.
- Service will be installed within 15 working days from date of scheduling.

See "Water at Your Service" for information about new and upgraded services, how to complete this form, determine water service size, fees, scheduling and installing water services.

How do I know my water meter is the right size?

You'll want a water meter and service branch that adequately serves your household water needs. The Portland Water Bureau uses American Water Works Association and Uniform Plumbing Code guidelines to establish meter size.

How to compute values Column A describes fixture

Column A describes fixture types.

Column B

Enter the number of fixtures in single family dwelling or housing unit 1.

Column C

If a duplex or ADU, enter the number of fixtures in the second housing unit. ADU fixtures must be entered separately in this column.

Column D

Add columns B and C. Enter the sum in this column.

Column E

Contains the fixture value. This value is based on the volume capacity of typical plumbing fixtures.

Column F

Multiply Column D (sum) times the values in Column E (D x E).

Enter the results for each fixture in Column F.

Add numbers in Column F to determine Grand Total Fixture Value (GTF Value).

Refer to the chart for meter size and costs.

*If your structure requires a fire sprinkler system, it may trigger an additional review for proper meter size.

Water Meter Sizing Worksheet (Residential)

Include existing and planned plumbing fixtures

Α	В	С	D	Е	F	
Fixture Type	Unit 1 Fixtures	If a Duplex or ADU, Unit 2 Fixtures	Add B+C	Fixture Value	Total Fixture Value	For Office Use
	Enter Qty	Enter Qty	Sum		D (sum) x E	
Bathroom or Bar Sink	5			1.0	5	-
Bathtub or Tub/Shower	2			4.0	8	
Clothes Washer				4.0		
Dishwasher	openio.	le .		1.5	1.5	
Hose Bib, first	and the second			2.5	2.5	
Hose Bibs, each additional	1			1.0		
Kitchen Sink	1		6	1.5	1.5	
Laundry or Service Sink	1			1.5	1.5	
Shower, Standalone	1			2.0	2	
Toilet	3			2.5	7	
		Grand Total Fixture	Value (GTF Value)	30	N.
	•	Meter Size Require	d*		3/4"	

Applicant's Authorization

Name of Authorized Signer	Building Permit Number
CHRIS PHAM	
Signature	×
Christham	
Company Name	Date
	04/25/2012

GTF Value, Meter Sizes & Typical Water Service Permit Costs July 1, 2011 – June 30, 2012					
GTF Value	Meter Size	System Development Charge	Installation with Paving	Total	
0 - 22	5/8″	\$1,732		\$6,627	
22.5 - 37	3/4"	\$2,599	\$4,895	\$7,494	
37.5 - 89	1"	\$4,331		\$9,226	



Folder number:

City of Portland, Oregon - Bureau of Development Services



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Date:

New Single Family Residential Minimum Submittal Checklist and Sample Site Plan

Do	cuments required for all submittals		staf use
1	Application Form Including applicant contact information, lot owner, contractor, and property identication details (Tax ID Number, R Number, and Legal Description)	provided	
2	This Submittal Checklist Completed with all attachments as needed clearly indicated	provided	
3	Fixtures Worksheet Completed worksheet outlining all electrical, mechanical, and plumbing xtures	provided	
4	Residential Water Service Application Completed form detailing plumbing xtures to be installed and authorization to create Water Bureau account	7 4	
5	Erosion Control Plan (4 copies) Provide an erosion control plan or, if eligible, complete and sign the Simple Site Erosion Control Requirement form.	provided	
6	Energy Efficiency Additional Measures Form Check the box or boxes next to the measure you have selected. Note that the building plans must also indicate the additional measure you have chosen.	provided	
7	Stormwater Management Simplified Approach (SIM) Form Completed form with stormwater facility, discharge point, and in Itration tests indicated. Please refer to BES Stormwater Management Manual at www.portlandonline.com/bds/2008swmm.	provided	
	cuments that may be required for your submittal at in italics describe the circumstances for which these items are typically required)		
8	Fire Sprinklers (2 copies) <i>if the proposed structure is more than 3 stories OR if required as a condition of applicable Land Use Review.</i> Fire sprinklers must be reviewed by the BDS Plumbing Division. Fire sprinkler submittals must include hydraulic calculations, the manufacturer's cut sheets for the sprinkler heads, and a oor plan showing the location of all sprinkler equipment. Fire sprinklers may be may be submitted as a "deferred submittal" item for a \$100 charge. Please advise intake staff if you want to use this option.	n/a provided	
9	Building Maintenance Agreement for 2-unit rowhouse applications. Include a completed and signed but unrecorded Building Maintenance Agreement – a sample template can be found on the BDS website at http://www.portlandonline.com/bds/	n/a provided	
10	Geotechnical/soils report (2 copies) for sites with slopes in excess of 20%, within soils hazard areas, or where a special foundation system relying on lateral soil bearing is employed. Provide geotechnical or soils report from a geotechincal engineer licensed in Oregon.	n/a provided	
11	Manufactured roof truss design details (2 sets) for buildings using manufactured roof trusses. Provide roof truss drawings and layout stamped by an engineer licensed in Oregon. Roof trusses may be may be submitted as a deferred submittal item for a \$117. Please ad-	n/a provided	

vise intake staff if you want to use this option.

12	Manufactured floor truss design details (2 sets) for buildings using manufactured floor		
	trusses. Provide oor truss drawings and layout stamped by an engineer licensed in Ore-	n/a provided	
	gon. Manufactured oor system designs/calculations <u>must be provided at time of submittal</u> .		
13	Engineer's calculations (1 set) for buildings using engineered lateral systems. Engineer-		
	ing calculations shall be prepared and stamped by an architect or engineer licensed in Oregon as applicable to the project under review. Lateral design details and connections	n/a provided	
	must be incorporated into the plans or on a separate full size sheet attached to the plans		
	with cross-references between plan location and details.		
14	Beam calculations (1 set) for buildings with beams and/or multiple joists over ten feet in		
14	length and/or any beam/joist carrying a non-uniform load or for cantilever conditions. Cal-	n/a provided	
	culations stamped by an engineer are required for beams supporting loads from more than	ilia provided	
	one level or beams supporting overturning loads from discontinuous shear walls.		
15	Residential Structural Plan Review Exemption Form if this option is selected by the	4	
	owner and engineer. The exemption form must have original signatures from both the	n/a provided	
	owner and the engineer. Faxes and photocopies are not acceptable. If the structural	a p. 0	
	exemption form is signed, no formal structural review will be conducted on the submitted		
	plans and the building owner is responsible for any eld corrections that may be necessary		
	as a result of the inspection process; however, this does not exempt a project from other		
	required reviews (Life Safety, Planning, etc).		
	Plans required for all submittals		
16	Building Plans (4 copies) Plans must be legible, drawn to scale, and show conformance	4	
10	to the applicable local and state building codes. Each set should include the following:	provided	
40	Foundation Plan Show dimensions, anchor bolts, any hold-down types and locations, con-		
16a	nection details, vent size and location, location and size of crawl space access.	9	
	·	provided	
16b	Floor Plans Show all dimensions, room identication, window type and size, location of	4	
	smoke detectors, water heater, furnace, ventilation fans, plumbing xtures, balconies and	provided	
10	decks, location and construction details for stairs and handrails. Cross Sections and Details Show sizes and spacing for all framing members, such as	ΓΛ.	
160	oor beams, headers, joists, sub- oor, wall construction, roof construction. More than one		
	cross section may be required to clearly portray construction. Show details of all wall and	provided	
	roof sheathing, roo ng, roof slope, ceiling height, siding material, footings and foundation,		
	stairs, replace construction, thermal insulation.		
16d	Building Elevation Views Provide exterior elevations for all sides showing materials,	4	
	doors, windows, and both existing and proposed nished grades. Building elevations must	provided	
	match the nished grades shown on the site plan.	P	
16e	Energy Code Compliance Identify the prescriptive energy path or provide energy calcula-	4	
	tions.	provided	
16f	Bracing/Lateral Load System Details and locations of lateral load resisting elements	a	
	must be shown on the plans. The lateral system may be prescriptive per requirements of	provided	
	the Oregon Residential Specialty Code OR may be engineered to the requirements of the	•	
	Oregon Residential Specialty Code. If engineered, all building drawings and calculations		
	must be stamped by an engineer or architect licensed in Oregon. Drawings must be com-		
	plete with all required engineered details included on full-size sheets attached to every set		
10-	of plans. Floor/Roof Framing Plans Show member sizing, spacing, bearing locations. Show loca-		
16g	tion of attic ventilation, size and location of attic access.	المالية المالية	
10:		provided	
16h	Basement and Retaining Wall Cross-Sections and Details Show reinforcement sizes and locations, footing sizes, etc. Retaining walls greater than 4 ft or basement walls greater	4 4	
	than 10 ft in height must be engineered with calculations stamped by an engineer. Retain-	n/a provided	
	ing walls must be shown on the site plan.		
16i	Deck Plans Deck framing plans, guardrail details, and deck connection details must be	4	
	included in building plans.	n/a provided	
		•	

1"=	/Plot plans (4 copies) Site plans must be drawn to scale. Minimum scale requirement is 10'. Minimum paper size is 11"x17", with suf cient white space provided for reviewers' es and stamps.	provided
Your	site plan must include all of the following elements:	
17a	North arrow	
17b	Property and building corner elevations [see "J" on sample site plan]	<u>a</u>
17c	If there is more than a 4 foot elevation differential, the site plan must show existing and proposed elevation contours at 2' intervals [see "L" and "M" on sample site plan]	9
17d	Footprint of new & existing structures, including decks and retaining walls [see "K" on sample site plan]	4
17e	Lot & building dimensions	9
17f	Setbacks dimensions for the following - building(s) to property line, building to building, front door to property line, garage door to property line [see "H" and "I" on sample site plan]	4
17g	Lot area	4
17h	Building area (not including eaves)	
17i	Building coverage % (building area/lot area = % coverage)	4
17j	Impervious area (include structures, paving, and roof overhangs)	
17k	Stormwater facility - location, type, size, and setbacks from buildings and property lines [see "O" on sample site plan]	
171	Stormwater discharge point - location and type of discharge point (e.g. drywell, trench, storm or combo sewer, drainageway, ditch etc) - a separate discharge point is not needed if the primary stormwater facility is a drywell or soakage trench	9
17m	Utilities - location, size, and type of pipe for water, sewer, storm, and gas [see "G" on sample site plan]	
17n	Septic system and/or well locations, types, and sizes (if applicable)	N/Au
17o	Driveway location, size, and material	101
17p	Street & right-of-way con guration, including curb, planting strip, sidewalk, and buffer [see "F" on sample site plan]	
17q	Location and dimensions of all easements on property [see "N" on sample site plan]	4
17r	Landscaping - show the location, size, and species of proposed trees [see "C" on sample site plan] AND/OR root protection for existing trees to be preserved on lot [see "A" and "B" on sample site plan]	
17s	Street trees - show existing street trees to be removed or preserved [see "D" on sample site plan] AND/OR provide room for new street trees in public right-of-way [see "E" on sample site plan]	

Applicant name (print)	
A A	l,
Signature	Date Apr - 29-12

A Sample Site Plan

For Successful New Single Family Residential (NSFR) Project Submittals

Instructions: This sample site plan provides an example of how to prepare a site plan. Your submittal must include a site plan that includes all of the existing and proposed conditions included on this sample site plan

Your site plan must be drawn on 11"x17" or larger paper and drawn to a scale of 1" = 10'.

Please be aware that since every project is unique there may be some situations where you will be asked to provide additional information.

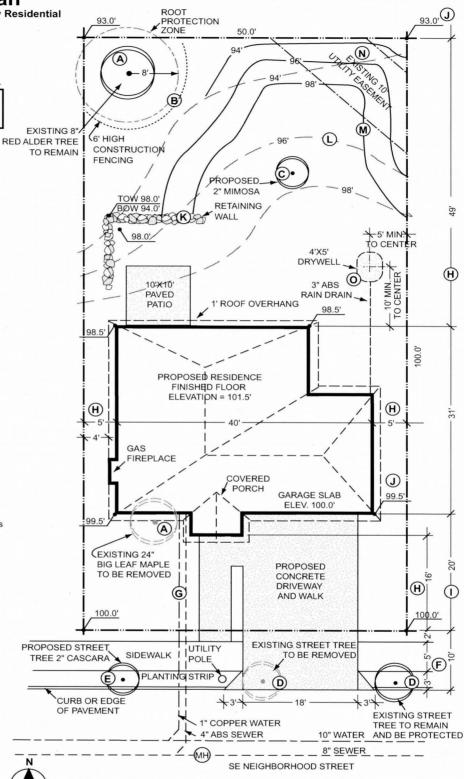
- A Existing on-site tree to be retained or removed
- (B) Root protection zone/fencing typically 1 foot radius per inch of tree diameter (measured 41/2 feet above the ground)
- Proposed on-site new tree with species and size
- Existing street tree to be retained or removed
- (E) Proposed street tree
- (F) Right-of-way configuration (sidewalk, planting strip, curb and street name)
- **G** Existing and proposed locations of underground utilities
- Distance from building to property lines
- Distance from garage entry to property line
- Finished grade elevations at property corners and building corners
- Retaining wall with top of wall (TOW) elevation and bottom of wall (BOW) elevations
- Two foot grade elevation contours, existing
- M Two foot grade elevation contours, proposed
- N Location and size of existing easements
- O Stormwater disposal type and size
- (P) White space for City stamps

LOT AREA	5,000 SQ FT
IMPERVIOUS AREA	
DRIVEWAY	360 SQ FT
PATIO	100 SQ FT
WALK	
ROOF AREA	
(INCL. OVERHANG)	1,334 SQ FT
TOTAL	1,884 SQ FT
BUILDING COVERAGE	E
FOOTPRINT	1,196 SQ FT

LEGAL DESCRIPTIONPARCEL 1,
PARTITION PLAT 1992-X,

PROJECT ADDRESS

3030 SE NEIGHBORHOOD STREET PORTLAND, OR 97207





SCALE 1" = 20' (YOU MUST USE A SCALE OF 1" = 10' FOR YOUR SUBMITTED PLANS)

(P)

R-12345X



City of Portland, Oregon - Bureau of Development Services



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Simple Site Erosion Control Requirements Form

Project or Permit Number _	12-13640	59 - RS
Project Address	SE 79th ST	t Portland OR
Name of Responsible Party	(print) Vic	Semeth.
Day Phone 503 866-3	39 FAX	email VICUS Q hotmail com

Erosion control inspections are required and it is your responsibility to request these inspections.

Erosion control measures are required on this site. Because of the size and slope, a drawn plan is not required. Erosion Control Measures and inspections are required prior to beginning foundation excavation. This form may only be used for simple sites:

- 1. Flat (less than 10% slope before development)
- 2. More than 50 feet from a wetland or waterbody
- 3. Outside an environmental or greenway zone
- 4. Less than 10,000 sq. ft. of ground disturbance
- 5. Not a land division of 10,000 sq. ft. or more

This is an agreement that the applicant and/or responsible parties will use erosion control during this project as required. The applicant and/or responsible party must sign this form to comply with Section 10.40.020 of the Code. Details for the measures outlined below are located in the City of Portland Erosion Control Manual, available at either the Development Services Center or on our Web site at www.portlandonline.com/bds

ediment from the site (Manual Sections inspection.These items must be proed vegetative buffers as allowed access, whenever possible, to one
pints. Provide street cleaning by sweep- ment that may have been tracked out. ble disposal area where it will not erode 2-2 and 4-1)
Sections 2-2 and 4-4)
uired erosion and sediment controls to nance of their intended function.
ent the introduction of pollutants in addinwater.
ore project completion, permanently sta- at have been disturbed during construc- 4)
inlet protection measures after nal site spection.
upon approval of the pre-construction ntained on-site until the nal inspection.

You must request a preconstruction erosion control inspection prior to construction. Call 503-823-7000 and request a #200 inspection using your IVR number.

I agree to meet each requirement and use appropriate erosion control measures as outlined above to prevent erosion and sedimentation from leaving the site of project/permit number referenced. I understand that all inspections are still required, and that failure to install or maintain adequate measures may result in a re-inspection fees or additional nes. A permanent erosion control inspection #210 will be required prior to a nal building inspection.

Signature of Responsible Party	
Property Owner or Owner's Agent	

Date 4-25-12



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2011 Energy Efficiency Additional Measures Requirements

New dwellings shall meet the envelope requirements of ORSC Table N1101.1(1) and a minimum of 50% of permanently installed lighting fixtures shall have high efficacy lamps. Additionally, new heated buildings and additions of more than 600 SF or more than 40% of the original heated floor area shall have at least two of the Additional Measures from ORSC Table N1101.1(2), one from Envelope Enhancement and one from Conservation (see below). All Energy Efficiency components must be reflected on the plans.

Envelope Enhancement Measure (Select One)

VØ.	1 High efficiency walls & windows:
1	Exterior walls – R-19+5 (insulation sheathing)/SIPS, and one of the following options:
	Windows – Max 15% of conditioned area, or
	Windows – U-0.30
	2 High efficiency envelope:
	Exterior walls – R-21 Intermediate framing, and
	☐ Vaulted ceilings – R-30 Advanced framing, and
	Flat ceilings – R-49, and
	Framed floors – R-38, and
	☐ Windows – U-0.30, and
	□ Doors – All doors U-0.20, or
	Additional 15% of permanently installed lighting fixtures as high-efficacy lamps or Conservation Measure D and E
	3 High efficiency ceiling, windows and duct sealing: (Cannot be used with Conservation Measure E)
	☐ Vaulted ceilings – R-30 Advanced framing (not more than 50% of the heated floor area), and
	Flat ceilings – R-49, and
	☐ Windows – U-0.30, and
	 Performance tested duct systems (ODOE documentation to be submitted to building inspector prior to final inspection)
	4 High efficiency thermal envelope UA:
	Proposed UA is 15% lower than the Code UA when calculated in Table N1104.1(1)
	5 Building tightness testing, ventilation and duct sealing:
	☐ Mechanical system providing whole-building ventilation per Table N1101.1(3), or ASHRAE 62.2, and
	Performance tested duct systems (ODOE documentation to be submitted to building inspector prior to final inspection), and
	Blower door test report submitted to building inspector prior to final inspection showing ≤ 6.0 air changes per hour, or ≤ 5.0 air changes per hour when used with Conservation Measure E
	6 Ducted HVAC systems within conditioned space: (Cannot be used with Conservation Measure B or C)
	☐ All ducts and air handler are contained within heated building envelope
	(Continued on back)

Conservation Measure (Select One)

7	A High efficiency HVAC system:
	Gas-fired furnace or boiler with 90% minimum AFUE (sealed combustion air ducted directly from outdoors if furnace or boiler is within conditioned space), or
	Air-source heat pump 8.5 minimum HSPF, or
	Closed-loop ground source heat pump with 3.0 minimum COP
	B Ducted HVAC systems within conditioned space:
	☐ All ducts and air handlers are within heated building envelope
	C Ductless heat pump:
	Replace electric resistance heating in at least the primary zone with at least on ductless mini-split heat pump with 8.5 minimum HSPF
\triangle	D High efficiency water heating and lighting:
	☑ Natural gas/propane, on-demand water heating with 0.80 minimum EF, and
	■ Minimum 75% of permanently installed lighting fixtures as CFL or linear fluorescent or minimum 40 lumens per watt
	E Energy management device & duct sealing:
	☐ Whole building energy management device capable of monitoring or controlling energy consumption, and
	☐ Performance tested duct systems (ODOE documentation to be submitted to building inspector prior to final inspection), and
	☐ 75% of permanently installed lighting fixtures as high-efficacy lamps
	F Solar voltaic:
	☐ Minimum 1 watt per square foot of conditioned floor space with Total Solar Resource Fraction ≤ 75%
	G Solar water heating:
	☐ 40 square feet minimum gross collector area with Total Solar Resource Fraction ≤ 75%



City of Portland, Oregon - Bureau of Development Services



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Radon Control Methods 2011 Oregon Residential Specialty Code, Appendix F

New habitable residential structures shall have radon gas mitigation. Indicate the method(s) of radon gas mitigation to be installed in the structure:

☑ Cra	wl space construction:
	☐ Mechanically ventilated (detailed on plans); or
	☐ Passive sub-membrane depressurization; or
	☐ Permanently open foundation ventilation per R408.1 and a blower-door building tightness test. Test results to be provided to the building inspector prior to final inspection approval.
☑ Sla	b-on-grade or basement construction:
	Passive depressurization system, with 4" thick layer of gas-permeable aggregate below slab.