



Oregon

Theodore R. Kubongski, Governor

Department of Land Conservation and Development

635 Capitol Street, Suite 150

Salem, OR 97301-2540

(503) 373-0050

Fax (503) 378-5518

www.lcd.state.or.us



NOTICE OF ADOPTED AMENDMENT

1/13/2010

TO: Subscribers to Notice of Adopted Plan
or Land Use Regulation Amendments

FROM: Plan Amendment Program Specialist

SUBJECT: City of Bend Plan Amendment
DLCD File Number 004-09

The Department of Land Conservation and Development (DLCD) received the attached notice of adoption. A Copy of the adopted plan amendment is available for review at the DLCD office in Salem and the local government office.

Appeal Procedures*

DLCD ACKNOWLEDGMENT or DEADLINE TO APPEAL: Tuesday, January 26, 2010

This amendment was submitted to DLCD for review prior to adoption pursuant to ORS 197.830(2)(b) only persons who participated in the local government proceedings leading to adoption of the amendment are eligible to appeal this decision to the Land Use Board of Appeals (LUBA).

If you wish to appeal, you must file a notice of intent to appeal with the Land Use Board of Appeals (LUBA) no later than 21 days from the date the decision was mailed to you by the local government. If you have questions, check with the local government to determine the appeal deadline. Copies of the notice of intent to appeal must be served upon the local government and others who received written notice of the final decision from the local government. The notice of intent to appeal must be served and filed in the form and manner prescribed by LUBA, (OAR Chapter 661, Division 10). Please call LUBA at 503-373-1265, if you have questions about appeal procedures.

***NOTE:** THE APPEAL DEADLINE IS BASED UPON THE DATE THE DECISION WAS MAILED BY LOCAL GOVERNMENT. A DECISION MAY HAVE BEEN MAILED TO YOU ON A DIFFERENT DATE THAT IT WAS MAILED TO DLCD. AS A RESULT, YOUR APPEAL DEADLINE MAY BE EARLIER THAN THE ABOVE DATE SPECIFIED.

Cc: Aaron Henson, City of Bend
Gloria Gardiner, DLCD Urban Planning Specialist
Mark Radabaugh, DLCD Regional Representative

<paa> YA



FORM **2**

DLCD

Notice of Adoption

In person electronic mailed

DATE
STAMP

DEPT OF

JAN 06 2010

**LAND CONSERVATION
AND DEVELOPMENT**

This Form 2 must be mailed to DLCD within **5-Working Days after the Final Ordinance is signed** by the public Official Designated by the jurisdiction and all other requirements of ORS 197.615 and OAR 660-018-000

Jurisdiction: **City of Bend**

Local file number: **PZ 09-159**

Date of Adoption: **12/16/09**

Date Mailed: **1/5/10**

Was a Notice of Proposed Amendment (Form 1) mailed to DLCD? Yes No Date: **7/24/09**

Comprehensive Plan Text Amendment

Comprehensive Plan Map Amendment

Land Use Regulation Amendment

Zoning Map Amendment

New Land Use Regulation

Other:

Summarize the adopted amendment. Do not use technical terms. Do not write "See Attached".

The adopted changes to the Bend Development Code establish new solar lot standards that apply to the creation of lots within subdivisions in Residential Urban Standard Density (RS) and Residential Urban Medium Density (RM) zones. They also establish new solar setback requirements for structures on RS and RM zoned lots. Changes to the existing subsection on solar access permits are also included. The adopted are a continuation of work that began in 2003 leading up the adoption of the Bend Development Code in 2006, and they are in response to Item #6 in DLCD Remand Order No. 001718.

Does the Adoption differ from proposal? Yes.

As originally proposed, the solar setback requirements applied to RS and RM zoned lots, 6000 square feet or greater, with a minimum north-south dimension of 80 feet. As adopted, they apply to RS and RM zoned lots, 5000 square feet or greater, with a minimum north-south dimension of 80 feet. Definitions for various technical terms were added, and the proposed exceptions and exemptions to the solar lot standards and solar setback standards were revised.

Plan Map Changed from: **N/A**

to: **N/A**

Zone Map Changed from: **N/A**

to: **N/A**

Location: **RS & RM zones**

Acres Involved:

Specify Density: Previous: **N/A**

New: **N/A**

Applicable statewide planning goals:

1 **2** **3** **4** **5** **6** **7** **8** **9** **10** **11** **12** **13** **14** **15** **16** **17** **18** **19**

Was an Exception Adopted? YES NO

Did DLCD receive a Notice of Proposed Amendment...

45-days prior to first evidentiary hearing?

Yes No

If no, do the statewide planning goals apply?

Yes No

If no, did Emergency Circumstances require immediate adoption?

Yes No

DLCD file No. 004-09 (17721) [15936]

Please list all affected State or Federal Agencies, Local Governments or Special Districts:

Oregon Department of Energy

Local Contact: **Aaron Henson**

Phone: **(541) 383-4885** Extension:

Address: **710 NW Wall Street**

Fax Number: **541-388-5519**

City: **Bend**

Zip: **97701**

E-mail Address: **ahenson@ci.bend.or.us**

ADOPTION SUBMITTAL REQUIREMENTS

This Form 2 must be received by DLCD no later than 5 days after the ordinance has been signed by the public official designated by the jurisdiction to sign the approved ordinance(s) per ORS 197.615 and OAR Chapter 660, Division 18

1. This Form 2 must be submitted by local jurisdictions only (not by applicant).
2. When submitting, please print this Form 2 on light green paper if available.
3. Send this Form 2 and One (1) Complete Paper Copy and One (1) Electronic Digital CD (documents and maps) of the Adopted Amendment to the address in number 6:
4. **Electronic Submittals: Form 2 – Notice of Adoption will not be accepted via email or any electronic or digital format at this time.**
5. The Adopted Materials must include the final decision signed by the official designated by the jurisdiction. The Final Decision must include approved signed ordinance(s), finding(s), exhibit(s), and any map(s).
6. DLCD Notice of Adoption must be submitted in One (1) Complete Paper Copy and One (1) Electronic Digital CD via United States Postal Service, Common Carrier or Hand Carried to the DLCD Salem Office and stamped with the incoming date stamp. (for submittal instructions, also see # 5)] **MAIL the PAPER COPY and CD of the Adopted Amendment to:**

**ATTENTION: PLAN AMENDMENT SPECIALIST
DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT
635 CAPITOL STREET NE, SUITE 150
SALEM, OREGON 97301-2540**

7. Submittal of this Notice of Adoption must include the signed ordinance(s), finding(s), exhibit(s) and any other supplementary information (see ORS 197.615).
8. Deadline to appeals to LUBA is calculated **twenty-one (21) days** from the receipt (postmark date) of adoption (see ORS 197.830 to 197.845).
9. In addition to sending the Form 2 - Notice of Adoption to DLCD, please notify persons who participated in the local hearing and requested notice of the final decision at the same time the adoption packet is mailed to DLCD (see ORS 197.615).
10. **Need More Copies?** You can now access these forms online at <http://www.lcd.state.or.us/>. You may also call the DLCD Office at (503) 373-0050; or Fax your request to: (503) 378-5518.

ORDINANCE NO. NS-2137

AN ORDINANCE UPDATING THE CITY OF BEND'S SOLAR STANDARDS BY AMENDING CHAPTER 1.2, DEFINITIONS AND CHAPTER 3.5, OTHER DESIGN STANDARDS OF THE BEND DEVELOPMENT CODE, ORDINANCE NO. NS-2016.

Findings:

- A. The City of Bend adopted its Development Code, Ordinance No. NS-2016, on July 5, 2006. Central Oregon LandWatch objected to the removal of provisions protecting solar access by allowing certain exemptions to the code. Specifically, the Oregon Department of Land Conservation and Development (DLCD) concluded that the exemptions in Section 3.5.400(D)(3) conflicted with Goal 13 and ORS 227.190. On January 10, 2007, DLCD remanded this section of the code, directed the City to demonstrate compliance with Goal 13 and ORS 227.190, and urged the City to work with the Oregon Department of Energy on this subject.
- B. The Bend Planning Division sent a copy of the City's proposed amendments to its Solar Standards to the Oregon Department of Energy in June 2009, and received comments back in July 2009.
- C. The Bend Planning Commission held a duly noticed public hearing on the proposed amendments on September 14, 2009, and the public hearing was continued to October 26, 2009. Following the public hearings, the Planning Commission refined the proposed amendments to address comments from developers, property owners, the Oregon Department of Energy, and DLCD.
- D. The City Council held a duly noticed public hearing on December 2, 2009. Based on the entire record, including all testimony, evidence, and the recommendation of the Planning Commission, the Council concluded that the application meets all criteria for approval and should be granted.

Based on these findings,

THE CITY OF BEND ORDAINS AS FOLLOWS:

Section 1. The Bend City Council held a public hearing to consider the proposed text amendments and the Planning Commission's recommendation and found that the proposed amendments to the Development Code are consistent with the applicable criteria in Chapter 4.6 of the Development Code. In addition to the findings listed above, the Bend City Council adopts the findings in Exhibit B.

Section 2. Chapters 1.2 and 3.5 of the Bend Development Code are hereby amended as shown in Exhibit A.

Read for the first time the 2nd day of December, 2009.

Read for the second time the 16th day of December, 2009.

Placed upon its passage the 16th day of December, 2009.

YES: 5 NO: 1

Authenticated by the Mayor the 18th day of December, 2009.


Kathie Eckman, Mayor

ATTEST:

Patricia Stell, City of Bend Recorder

EXHIBIT A

**City of Bend
Development Code
Tune-Up Package #2A:
Solar Standards**

**City Council 2nd Reading
December 16, 2009**

Prepared by:
City of Bend Planning Division

Note:

Text in underlined typeface is proposed to be added.

Text in ~~strikethrough~~ typeface is proposed to be deleted.

*** Indicates where text from the existing code has been omitted
because it will remain unchanged.

Chapter 1.2 Definitions

Exempt Vegetation means a tree or other plant that is shown by the sun chart accompanying a solar access permit application to cast existing shade on a protected area.

Northern Property Line means the northerly edge of the lot or parcel on which an applicant's structure is located, unless directly north of the lot or parcel is an unbuildable area, in which case northern lot line means the northerly edge of the unbuildable area.

North-South Lot Dimension means the length of a line beginning at the midpoint of the northern property line and extending a southerly direction perpendicular to the northern property line until it reaches a property boundary.

Solar Access means protection from shade for a specific area during specific hours and dates, but not including protection from shade cast by exempt vegetation.

Solar Access Permit means the instrument issued by the City which limits the size of non-exempt vegetation on certain lots in the vicinity of a recorded solar collector.

Solar Heating Hours means the hours and dates during which solar access is provided.

Solar Height Restriction means the allowable height of buildings, structures, and non-exempt vegetation on a property burdened by the solar access of another property.

Sun Chart means a photograph or photographs, taken in accordance with the guidelines of the Community Development Director, which plots the position of the sun during each hour of the day and each month of the year relative to a protected area. The sun chart shall contain at a minimum:

- (a) Solar altitude in 10 degree increments;
- (b) Solar azimuth measured from true south in 15 degree increments;
- (c) If the solar collector is more than 20 feet wide, the southern skyline as seen from the two end points and from the center point of the lower edge of the protected area; or
- (d) A clear delineation of the existing objects which cast shadows on the protected area, including hills, structures, and deciduous and evergreen vegetation.

Chapter 3.5 Other Design Standards

Sections:

3.5.100	Density Transfers
3.5.200	Outdoor Lighting Standards
3.5.300	Special Setbacks
3.5.400	Solar Setback Standards
3.5.500	Solar Access Permits

3.5.400 Solar Setbacks Standards

- A. Purpose. Solar standards are utilized to create lot divisions, layouts and building configurations to help preserve access to sunlight to one and two family dwellings. The purpose of this section is to provide as much solar access as feasible during the winter solar heating hours to existing or potential buildings by requiring all new structures to be constructed as far south on their lots as is feasible and necessary. To achieve compliance, this section requires setbacks based on the shadow that will be produced by a structure on the Winter Solstice, the shortest day of the year when the sun is at its lowest angle. The solar heating hours are a four hour period centered around the solar zenith. Since the sun will be at its lowest angle at either end of the solar heating period, the shadows produced two hours before and two hours after the solar zenith represent the worst case scenario. At these two times on the Winter Solstice, the sun is only 17 degrees above the horizon. The shadow lengths at these two times of day can be calculated using the solar calculator found in Table 3.5.400 at the end of this Section.

- ~~1. The shadow cast by an object two hours before and after the solar zenith on December 21 will be 29 degrees west of true north in the morning and 29 degrees east of true north in the afternoon. When measuring solar setbacks, the shadow length will be measured from the highest shade producing point of a structure along the 29 degree angles rather than due north. When measuring the setback, the two setback distances shall be averaged if they are different due to slopes or an angled lot line. A template for measuring these setbacks is attached.~~
- ~~2. The solar setback does not attempt to keep the shadow of a building from crossing a property line. Instead, it attempts to limit the height of the shadow at the north property line of the lot on which a building is located. The "south roof" protection standard limits the height of the shadow to 14 feet at the property line.~~
- ~~3. Solar setbacks shall only be measured to a north lot line. North lot lines are those on the northern edge of a lot with an angle of more than 45 degrees east or west of true north. Depending upon its configuration, it is possible for a lot to have more than one north lot line, or none. When a north lot line abuts a street or common area, the setback will be measured to the next lot line across the street or common area.~~

B. Solar Lot Standards. ~~Unless otherwise exempted, every new structure or addition to an existing structure shall meet the following standards except as provided in Section C below:~~

- ~~1. Applicability. Solar lot standards apply to the creation of lots within subdivisions in RS and RM zones.~~
- ~~2. Solar Lot Requirements. In RS and RM zones, at least 70% percent of the lots in a subdivision shall have a minimum north-south lot dimension of 80 feet or more.~~
- ~~3. Exceptions to the Solar Lot Requirements. A proposed subdivision shall qualify for an exception to Section 3.5.400(B)(2) if one or more of the following development constraints are present:~~
 - ~~a. Compliance with applicable street standards or public street plans requires a street configuration that prevents the lot from being oriented for solar access.~~
 - ~~b. An existing public easement or right-of-way prevents the lot from being oriented for solar access.~~
 - ~~c. There is a significant natural feature on the site that will continue to exist after the site is developed, and that prevents the lot from being oriented for solar access.~~
- ~~4. Exemptions to the Solar Lot Requirements. A proposed lot shall not be identified as a "solar lot" but shall be counted as a lot that satisfies Section 3.5.400(B)(2) when the lot satisfies (a), (b), (c) or (d) of this subsection.~~
 - ~~a. Slopes. The lot has an average slope of 15 percent or more in a direction greater than 45 degrees east or west of true south.~~
 - ~~b. Existing Off-Site Shade. The lot is within the shadow pattern of off-site features, such as but not limited to buildings, topography, or coniferous trees or broadleaf evergreens, which will remain after development occurs on the site from which the shade is originating.~~
 - ~~i. Shade from existing or approved off-site buildings or structures and from topographic features is assumed to remain after development of the site.~~
 - ~~ii. Shade from vacant developable areas off-site is assumed to be the shadow pattern that would result from the largest building allowed at the closest setback allowed on adjoining land, whether or not that building now exists.~~
 - ~~iii. Shade from coniferous trees or broadleaf evergreens is assumed to remain after development of the site if that vegetation is situated in a required setback; or part of a developed area, public park, or legally reserved open space; or part of landscaping or other features required pursuant to this code.~~
 - ~~c. Existing On-Site Shade. The site, or portion of the site for which the exemption is sought, complies with at least one of the following:~~
 - ~~i. The site is within the shadow pattern of on-site features such as, but not limited to, buildings and topography which will remain after the development occurs.~~
 - ~~ii. The site contains coniferous trees or broadleaf evergreens at least 30 feet tall~~

and more than 8 inches in diameter measured four feet above the ground which have a crown cover over at least 80 percent of the site or relevant portion. The applicant can show such crown cover exists using a scaled survey or an aerial photograph. If granted, the exemption shall be approved subject to the condition that the applicant shall preserve at least 50 percent of the non-solar friendly vegetation that causes the shade that warrants the exemption. The applicant shall file a note on the plat or documents in the office of the county recorder binding the applicant to comply with this requirement.

d. Housing Mix. The lot is designated for a housing type other than single-family detached dwellings in a proposed subdivision that identifies at least 10% of the lots for a housing type other than single-family detached dwellings.

~~4. All new structures or additions to existing structures shall meet the standard for south roof protection set forth in Table 3.5.400.~~

~~C. Exemptions. The solar setback shall not apply if the applicant establishes:~~

~~1. That the structure cannot be located on the lot without violating the requirements contained in Table 3.5.400; and~~

~~2. That the structure is built with a highest shade producing point as far south as practicable; and~~

~~a. That the structure is a single-family residence with a highest shade producing point less than or equal to 20 feet high; or, if not a single-family residence;~~

~~b. That it is a permitted or conditional use for the lot with a highest shade producing point less than or equal to 20 feet high.~~

~~D. Exemptions. The governing body may exempt from the provisions of this section any area which it determines to be already substantially shaded due to heavy vegetation, steep north facing slopes, and any area or zone in which taller buildings are planned. As such, the following areas are hereby exempted from the standards of this section:~~

~~1. When there is already substantial shading due to existing vegetation. Substantial shading is defined in the code as a reduction of solar insolation of greater than 20%. There is no requirement that the existing vegetation has to be retained after development, only that it exists at the time of request for exemption. An applicant seeking an exemption under this provision shall provide a calculation and/or diagram illustrating that substantial shading as defined in the zoning code already occurs.~~

~~2. Steep north facing slopes are also grounds for an exemption. Slopes in any direction but south facing make solar setbacks nearly impossible to achieve. An exemption will be granted under this section for any slope in excess of 5% with an aspect that is up to 90 degrees east or west of true north.~~

~~3. It is likely that taller, multi-story buildings will be built on smaller single-family residential lots, in multi-family residential zones, and in zones which allow commercial, industrial, and similar uses as outright uses.~~

~~a. Except as noted herein, in the CN, CC, CL, CG, and CB commercial zones, the IP, IL, and IG industrial zones, MR, ME, PO and PF zones, all lots will be exempt from solar setbacks, except when their north lot line abuts single-family residential-zoned property (RS, RL, SR-2½, UAR-10), where the south roof setback will be applied (except as otherwise exempted).~~

~~b. In the RM, RM-10, and RH zones, all lots will be exempt except where the north lot line abuts an RS, RL, SR-2½, or UAR-10 zone.~~

~~a. In RS, RL, SR-2½, and UAR-10 zones, the City will exempt all lots less than 8,000 square feet in area, or 80 feet or less in average width on the north/south axis.~~

~~d. A structure shall be exempted from the provisions of this section if the structure will shade only a protected area in which solar uses are not feasible because the protected area is already substantially shaded at the time a request for exemption is made and approved.~~

C. Solar Setback Standards.

1. Applicability. These standards apply to all structures on RS and RM zoned lots, 5000 square feet or greater, with a minimum north-south lot dimension of 80 feet.

2. Solar Setback Requirements. Buildings shall be set back from the northern property line according to the standards in this section. When a northern property line abuts an alley, street, or common area, the setback will be measured to the next lot line across the

alley, street, or common area. An applicant for a development permit for a building subject to this section shall submit documentation that shows either the solar setback or how the structure qualifies for an exemption. If buildings on separate lots are attached or connected at a common lot line, the solar setback standards apply as if the buildings are a single building on a single lot composed of both lots.

- a. **Solar Setback for RS Zone.** The solar setback of the shade point shall be greater than or equal to the following formula:

$$SSB = (2.5 \times SPH) + (N \text{ divided by } 2) - 85$$

Where:

SSB = Solar setback (the shortest horizontal distance between the shade point and the plane of the northern lot line).

SPH = Shade point height (Reduce this dimension by 3 feet if the shade point is a ridgetline between 45 degrees east or west of true north.)

N = North-south lot dimension. Maximum allowable "N" for purposes of calculating the solar setback shall be 90 feet.

The following table, which accurately applies the formula, can be used to determine compliance with the solar setback standard.

Table 3.5.400(A)

Solar Setback from Northern Lot Line for RS Zone [SSB] (All figures are in feet.)*			
Shade Point Height* [SPH]	North-South Lot Dimension		
	90 feet [N]	85 feet [N]	80 feet [N]
18 feet	5	2.5	0
20 feet	10	7.5	5
22 feet	15	12.5	10
24 feet	20	17.5	15
26 feet	25	22.5	20
28 feet	30	27.5	25
30 feet	35	32.5	30

*Solar Setback and Shade Point Height are usually measured from an eave or from a ridge line of a roof. See Figure 3.5.400(A), Measuring Shade Point Height.

- b. **Solar Setback for RM Zone.** The solar setback of the shade point shall be greater than or equal to the following formula:

$$SSB = (2.5 \times SPH) + (N \text{ divided by } 2) - 100$$

Where:

SSB = Solar setback (the shortest horizontal distance between the shade point and the plane of the northern lot line).

SPH = Shade point height (Reduce this dimension by 3 feet if the shade point is a ridgetline between 45 degrees east or west of true north.)

N = North-south lot dimension. Maximum allowable "N" for purposes of calculating the solar setback shall be 90 feet.

The following table, which accurately applies the formula, can be used to determine compliance with the solar setback standard.

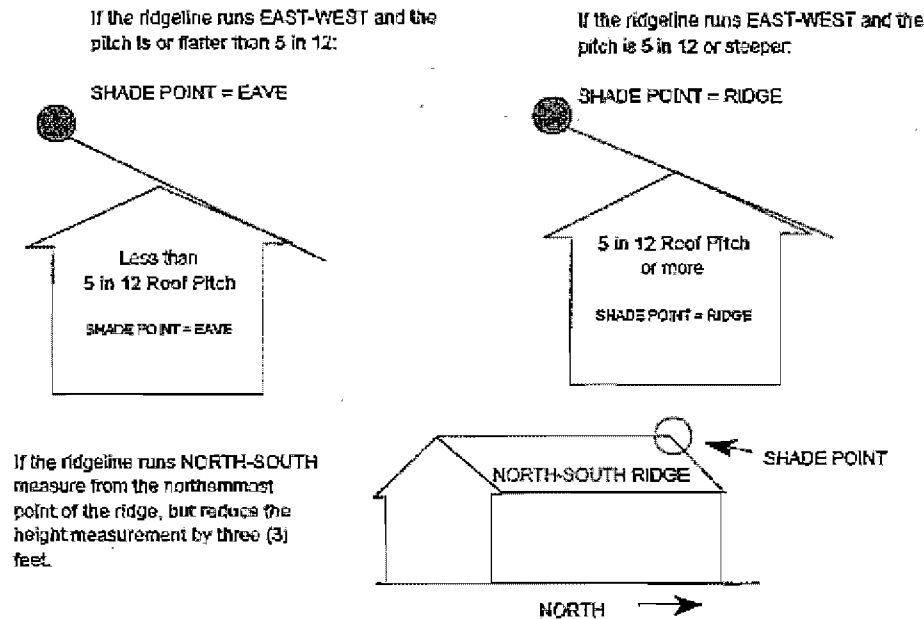
Table 3.5.400(B)

Solar Setback from Northern Lot Line for RM Zone [SSB] (All figures are in feet.)*			
Shade Point Height* [SPH]	North-South Lot Dimension		
	90 feet [N]	85 feet [N]	80 feet [N]
24 feet	5	2.5	0
26 feet	10	7.5	5
28 feet	15	12.5	10
30 feet	20	17.5	15
32 feet	25	22.5	20

Solar Setback from Northern Lot Line for RM Zone [SSB]			
(All figures are in feet.)*			
Shade Point Height* [SPH]	North-South Lot Dimension		
	90 feet [N]	85 feet [N]	80 feet [N]
34 feet	30	27.5	25
36 feet	35	32.5	30

*Solar Setback and Shade Point Height are usually measured from an eave or from a ridge line of a roof. See Figure 3.5.400(A), Measuring Shade Point Height.

Figure 3.5.400
Measuring Shade Point Height



3. Exemptions to Solar Setback Requirements. A building is exempt from the solar setback standards when any of the following conditions exist:

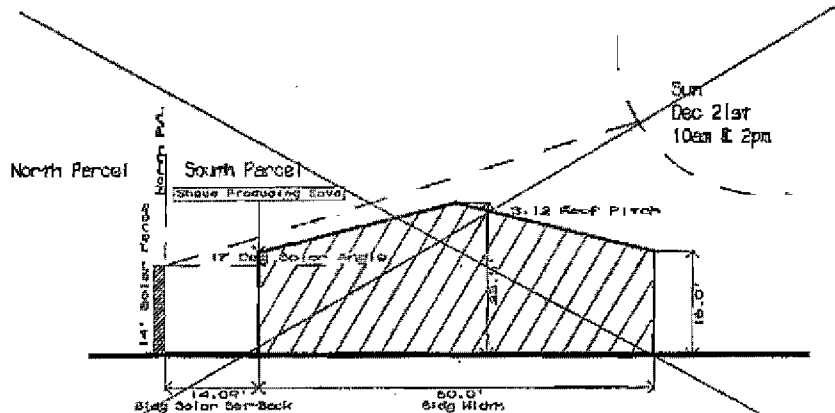
- a. Slopes. The lot on which the building is located has an average slope of 15 percent or more in a direction greater than 45 degrees east or west of true north.
- b. Existing Shade. The building will shade an area that is already completely shaded by one or more of the following:
 - i. An existing or approved building or structure.
 - ii. A topographic feature.
 - iii. Coniferous trees or broadleaf evergreens that will remain after development of the site.
- c. Insignificant Benefit. The building will shade one or more of the following:
 - i. A non-developable area, such as designated open space, a public utility easement, street or alley.
 - ii. The wall of an unheated space, such as a garage, excluding solar greenhouses and other similar solar structures.
 - iii. The wall of a non-residential structure.
 - iii. No more than 20% of a south wall of an existing habitable dwelling.
- d. Master Planned Development Exemption. The lot is identified as being exempt from solar setback provisions through an approved Master Planned Development application where one or more of the following exists:
 - i. The lot has been identified as being exempt from solar setback standards.
 - ii. The proposed building locations and heights were approved.

Table 3.5.400
Estimated Solar Setbacks
for South Roof Protection / 4-foot Fence (SR)

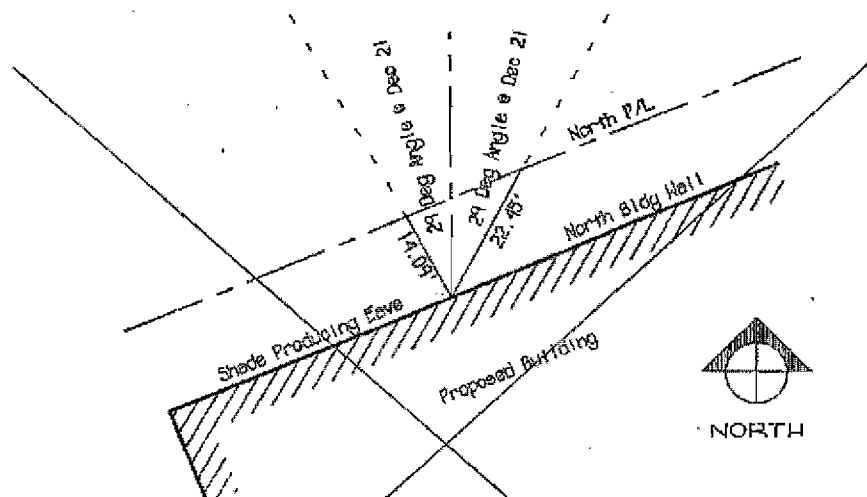
Roof Height	Highest Shade Producing Point													
	46'	48'	49'	49'	20'	21'	22'	23'	24'	26'	27'	29'	30'	
North Facing Slope	15%	10.8	24.4		31.7		42.2		52.8	63.4		73.9		84.5
Level	20%	8.7	17.3		26.0		34.6		43.3	51.9		60.6		69.3
South Facing Slope	5%	7.4	14.8		22.1		29.5		36.9	44.3		51.6		59.0
Level	20%	6.5	12.9	16.45	19.4	22.6	25.8	29.05	32.3	38.7	41.9	45.25	48.0	51.7
South Facing Slope	5%	5.3	11.5		17.3		23.1		28.8	34.6		40.4		46.1
Level	40%	6.2	10.4		15.7		20.9		26.1	31.3		36.6		41.8

Slope	15%	4.9	9.6	14.4	19.1	23.9	28.7	33.5	38.3
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These are solar setback lines calculated 29° east and west of north for a lot with no slope gradient or a slope gradient towards the north or south. Solar setbacks will vary if the property slopes in any direction. The building setback line, measured perpendicular from the north property line to the structure will normally be less than the solar setback distance indicated in the table above.



2-Solar Set-Back Section

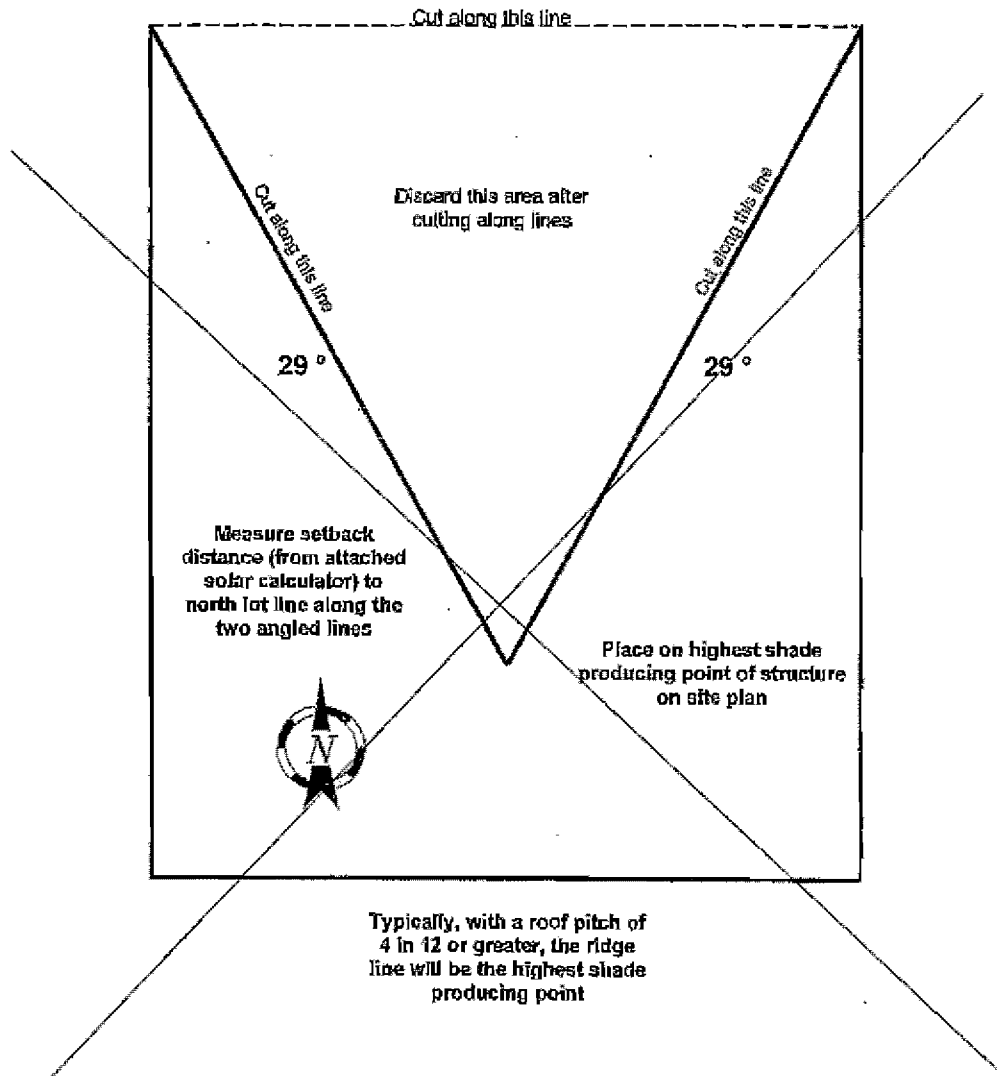


1-Solar Set-Back Plan

(A) Solar Set-Back Plan & Sect

Scale 1" = 20'-0"

~~SOLAR SETBACK TEMPLATE~~



3.5.500 Solar Access Permits

A. Purpose. The purpose of this section is to provide and preserve solar access to productive solar collectors by establishing limitations for growth of vegetation and building construction on certain lots in the vicinity of a productive solar collector.

B. Applicability. Any owner may submit an application for a solar access permit to provide solar access for a productive solar collector located on the owner's real property.

1. The application for a solar access permit shall be on forms prescribed by the City and shall contain at a minimum:
 - a. A legal description of the applicant's lot; including proof of ownership;
 - b. Documentation to show that the solar collector is or will be a productive solar collector within 6 months of the application date;
 - c. Descriptive drawings of the solar collector showing dimensions and location;
 - d. A sun chart and statement of the solar heating hours for which solar access is sought;
 - e. A statement that there is no reasonable alternative location for the solar collector that would result in a lesser burden on a neighboring lot;
 - f. A statement that trimming the vegetation on the applicant's lot will not permit an alternative location that would lessen the burden on a neighboring lot.
 - g. A list of all lots that are within 150 feet to the south, southeast, and southwest of the solar collector, including for each such lot the legal description; the owner of record and address; the exempt vegetation located on the lot; and any existing non-exempt vegetation likely to encroach on the protected area.
 - h. A statement that none of the lots impacted are located on a north facing slope with a grade that exceeds, on average 15%;
2. The applicant shall provide a plot-plan map drawn to scale showing the following information:
 - a. The location of and delineating all exempt and non-exempt vegetation as shown on the sun chart photograph as well as any non-exempt vegetation not shown on the sun chart which may encroach on the protected area in the future;
 - b. The exact site of the solar collector, it's height and orientation;
 - c. An indication of true north;
 - d. a survey of the lot
3. Approval criteria.
 - a. The solar collector is or will be a productive solar collector. For the purposes of this section, "productive solar collector" means a solar collector that provides no less than 10% of a building's total energy requirements or 50% of a building's annual water heating requirements.
 - b. The protected area to be created by the solar access permit is reasonably located.
 - c. The applicant requests solar heating hours no greater than two hours before and after the solar zenith from September 22 to March 21, and three hours before and after the solar zenith from March 22 to September 21.
 - d. The solar access provided by the permit would not burden any lot with a north facing slope with an average grade of 15% or greater or which is more than 150 feet from the solar collector.

An applicant shall be denied if the applicant could trim vegetation on the subject property to permit an alternate location that would be less burdensome upon a neighboring lot.

C. Solar Access Permit Issuance and Recordation.

1. The City shall issue and acknowledge a solar access permit creating the solar access requested in the application or as modified by the City upon approval.
2. The applicant shall record, with the Deschutes County Clerk, the solar access permit in the chain of title of the subject lot and each of the neighboring lots identified in the permit and provide proof of recordation.
3. The solar access permit shall be prescribed by the City and shall contain at a minimum:
 - a. A legal description of the applicant's lot and each neighboring lot to be burdened by the solar access created by the solar access permit;

- b. A complete description of the solar access restrictions applicable to each neighboring lot, including the solar heating hours during which solar access is provided, and a sun chart showing the platted skyline, including vegetation and structures and a scaled drawing showing the size and location of the protected area and its orientation with respect to true south;
- c. A reference to where the approved application may be obtained.

D. Obligation Created by Solar Access Permit. The owner of any lot burdened by a solar access permit shall trim any non-exempt ~~not-exempted~~ vegetation on a burdened lot that shades the protected area created by the solar access permit, provided that there is no vegetation on the lot benefited by the solar access permit that also shades the protected area. ~~The cost of such trimming shall be borne by the owner of the benefited lot if the vegetation existed at the time of permit application as shown on the plot plan, and for all other vegetation equally by the owner of the burdened lot and the owner of the benefited lot, unless such owners agree otherwise.~~ Before any trimming is required, the permit holder must certify that the solar collector is still productive.

E. Termination of Solar Access Permit.

1. The Community Development Director shall terminate the solar access permit with respect to all or part of the neighboring lots burdened by the solar access permit if a petition for termination is submitted by the permit holder or the successor of interest, or the solar collector is shown to be unproductive for a period of one year or more.
2. The permit holder shall record the termination of the solar access permit with the Deschutes County Clerk and provide proof of recordation to the City.

EXHIBIT B

CITY COUNCIL FINDINGS IN SUPPORT OF PZ 09-159

CONFORMANCE WITH CITY OF BEND DEVELOPMENT CODE

Chapter 4.6 Land Use District Map and Text Amendments

4.6.200 Legislative Amendments.

B. Criteria for Legislative Amendments. The applicant shall submit a written narrative which explains how the approval criteria will be met. A recommendation or a decision to approve or to deny an application for a Legislative Amendment shall be based on all of the following criteria:

1. The request is consistent with the applicable State land use law;

FINDING: The proposed amendments to Chapter 1.2, Definitions and Chapter 3.5, Other Design Standards of the Development Code are consistent with applicable State land use laws. In particular, the proposed amendments will satisfy Goal 13 (Energy Conservation) and ORS 227.190, as explained below.

Statewide Planning Goal 13 requires that land and uses developed on the land be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles. One of the Planning Guidelines for Goal 13 further states: *"Plans directed toward energy conservation within the planning area should consider as a major determinant the existing and potential capacity of the renewable energy sources to yield useful energy output. Renewable energy sources include water, sunshine, wind, geothermal heat and municipal, forest and farm waste. Whenever possible, land conservation and development actions provided for under such plans should utilize renewable energy sources."* Until now, the Bend Development Code did not include any solar lot standards for new subdivisions. The proposed text amendments will require at least 70% of all new lots in RS and RM zoned subdivisions to be "solar lots". This will help to ensure the supply of lots that are suitable for solar energy systems. The City Council also notes that originally, the proposed amendments included an exception to the City's solar lot requirements for subdivisions that provided at least 70% of the maximum allowed density. Based on comments from DLCD, this exception was deleted from the final version of the proposed amendments.

With regard to solar setbacks, the City Council notes that the remanded section of the Development Code exempted structures on all RM zoned lots except where the north lot line abuts a lot in a lower density residential zoning district, and it exempted structures on all RS zoned lots less than 8000 sq. ft. in area, or 80 feet or less in average width on the north-south axis. The City's new solar setbacks, which are easier to calculate than the old solar setbacks, will apply to all structures on RS and RM zoned lots, 5000 sq. ft. or larger, with a minimum north-south dimension of 80 feet. Therefore, uses developed in the RS and RM zones will be more closely managed and controlled to maximize the conservation of solar energy.

ORS 227.190(1) states as follows:

City councils may adopt and implement solar access ordinances. The ordinances shall provide and protect to the extent feasible solar access to the south face of buildings during solar heating hours, taking into account latitude, topography, microclimate, existing development, existing vegetation and planned uses and densities. The city council shall consider for inclusion in any solar access ordinance, but not be limited to, standards for:

- (a) The orientation of new streets, lots and parcels;
- (b) The placement, height, bulk and orientation of new buildings;
- (c) The type and placement of new trees on public street rights of way and other public property; and

- (d) Planned uses and densities to conserve energy, facilitate the use of solar energy, or both.

Based on the above statute, the City Council finds that cities are encouraged, but not required, to adopt solar access standards for new development. Bend's new solar standards will provide and protect to the extent feasible solar access to the south face of buildings during solar heating hours, taking into account the City's latitude, topography, microclimate, existing development, existing vegetation and planned uses and densities. The proposed text amendments include new standards for the layout of new streets, lots, and parcels. They also include solar setback requirements to regulate the placement, height, bulk, and orientation of new buildings in the RS and RM zones. The solar lot standards and solar setback requirements take into account the type and placement of new trees. The City Council finds that in commercial and industrial zones, and in higher density residential zones, solar setback requirements would work against the City's efforts to minimize the depletion of other non-renewable energy sources by maximizing density.

2. The request is consistent with the applicable Bend Area General Plan goals and policies;

FINDINGS: The "goals" established in the Bend Area General Plan express the desires of the residents of Bend as the City progresses into the future. The "goals" are generally carried out through "policies", which are statements of public policy.

Chapter 2 of the General Plan includes the following public policy:

13. The city and county shall continue to strongly support and promote the conservation of all forms of energy resources through cooperation with the Northwest Power Planning Council, Bonneville Power Administration programs, recycling, solar ordinances, energy-efficient building standards, and appropriate geothermal resources.

Chapter 10 of the General Plan states: *"Natural forces such as the quality of the air, the energy of the sun, and the power smoldering deep under the lava flows are characteristic of Central Oregon. The local governments and community residents must work together to ensure these natural forces are not diminished."* In support of this effort, Chapter 10 of the General Plan includes the following goal:

- to encourage energy conservation and the development of energy producing facilities that use renewable resources

Chapter 10 of the General Plan also states, *"The large number of sunny days makes this area particularly suitable for solar power, both passive and active systems. During the summer, 300-350 British Thermal Units (BTUs) of sunlight energy are delivered to each square foot of land in the area, but this level declines to 175-200 BTUs during the winter. Bend was one of the first cities in the state to adopt 'solar access' ordinances to provide good solar access during the winter solar heating hours so that homeowners can incorporate passive or active solar systems into their homes."*

The City Council finds that updating Bend's solar standards as recommended by the Planning Commission will help to preserve access to solar energy, consistent with the applicable goals and policies of the General Plan.

3. The applicant can demonstrate a public need or benefit for the proposed amendment.

FINDING: There is a public need and benefit for regulations that help to preserve access to solar energy and support the City's efforts to conserve all forms of energy.

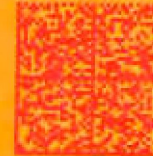
4.6.600 Transportation Planning Rule Compliance.

When a development application includes a proposed comprehensive plan amendment or land use district change, or both, the proposal shall be reviewed to determine whether it significantly affects a transportation facility, in accordance with Oregon Administrative Rule (OAR) 660-012-0060.

FINDING: The City Council is adopting a text amendment to the Bend Development Code, a functional component of the comprehensive plan. The Bend Planning Division has analyzed the proposed text amendments and has found that none of the changes would cause a "significant effect" under ORS 660-012-0060.

CONCLUSIONS:

Based on the above Findings of Fact and Conclusions of Law, the City Council finds that the proposed Development Code text amendments can meet, with maintenance of a record, all applicable criteria for adoption.



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710 NW WALL STREET
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