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LEGAL COUNSEL

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CODE REVIEW COMMITTEE

DESCHUTES COUNTY OFFICIAL RECORDS CJ 2006-1046
NANCY BLANKENSHIP, COUNTY CLERK
COMMISSIONERS' JOURNAL 12/07/2006 01:12:20 PM



2006-1046

BEFORE THE BOARD OF COUNTY COMMISSIONERS OF DESCHUTES COUNTY, OREGON

An Ordinance Amending Title 18, of the Deschutes
County Code and Declaring an Emergency.

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ORDINANCE NO. 2006-035

WHEREAS, Pahlisch Homes (Elkhorn LLC) proposed a Text Amendment to Title 18, the Deschutes County Zoning Ordinance, to make changes to the solar setback requirements in the Neighborhood Planning Area of the La Pine Urban Unincorporated Community; and

WHEREAS, the Deschutes County Planning Commission held a duly noticed public hearing on September 28, 2006, and recommended to the Board the proposed changes to Title 18 as described in Exhibits "A" through "B"; and

WHEREAS, the Board of County Commissioners held a duly noticed public hearing on November 20, 2006; now, therefore,

THE BOARD OF COUNTY COMMISSIONERS OF DESCHUTES COUNTY, OREGON, ORDAINS as follows:

Section 1. AMENDMENT. DCC 18.61.020, Urban Unincorporated Community Zone – La Pine, is amended to read as described in Exhibit "A," attached hereto and by this reference incorporated herein, with new language underlined and language to be deleted in ~~strikethrough~~.

Section 2. AMENDMENT. DCC 18.116.180, Supplementary Provisions, is amended to read as described in Exhibit "B," attached hereto and by this reference incorporated herein, with new language underlined and language to be deleted in ~~strikethrough~~.

Section 3. FINDINGS. The Board adopts the Staff Report, adopted as Exhibit "C" to Ordinance 2006-035 and incorporated herein by this reference, as its findings to support this Ordinance.

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Section 4. EMERGENCY. This Ordinance being necessary for the immediate preservation of the public peace, health and safety, an emergency is declared to exist, and this Ordinance is takes effect on its passage.

Dated this 4th of December 2006

BOARD OF COUNTY COMMISSIONERS
OF DESCHUTES COUNTY, OREGON

Dennis R. Luke
DENNIS R. LUKE, CHAIR

Bev Clarno
BEV CLARNO, VICE CHAIR

ATTEST:

Bonnie Baker
Recording Secretary

Michael M. Daly
MICHAEL M. DALY, COMMISSIONER

Date of 1st Reading: 20th day of November, 2006.

Date of 2nd Reading: 4th day of December, 2006.

Record of Adoption Vote

Commissioner	Yes	No	Abstained	Excused
Dennis R. Luke	<u>✓</u>	_____	_____	_____
Bev Clarno	<u>✓</u>	_____	_____	_____
Michael M. Daly	<u>✓</u>	_____	_____	_____

Effective date: 4th day of December 2006.

ATTEST:

Bonnie Baker
Recording Secretary

**Chapter 18.61. URBAN
UNINCORPORATED
COMMUNITY ZONE -
LA PINE**

18.61.010. Purpose.

18.61.020. Standards for all districts.

18.61.030. La Pine Planning Area.

18.61.040. Wickiup Junction Planning Area.

18.61.050. Neighborhood Planning Area.

18.61.010. Purpose.

The purpose of the Urban Unincorporated Community (UUC) Zone – La Pine is to provide standards and review procedures for the future development of the urban unincorporated community of La Pine. The La Pine UUC includes three separate planning areas, La Pine, Wickiup Junction and Neighborhood, each with its own zoning districts, with allowed uses and distinct regulations, as further set forth in DCC 18.61.

(Ord. 2000-015 § 2, 2000; Ord. 96-003 § 1, 1996)

18.61.020. Standards in all districts.

A. Solar Setback. The setback from the north lot line shall meet the solar setback requirements in DCC 18.116.180, excepting lots less than 10,000 square feet in size, or under 80-foot average width, as defined by DCC 17.08.030 “lot width,” and located in the Neighborhood Planning Area of the Urban Unincorporated Community – La Pine.

B. Stream Setback. To permit better light, air, vision, stream or pollution control, protect fish and wildlife areas and to preserve the natural scenic amenities and vistas along the streams and lakes the following setback shall apply:

1. All sewage disposal installations, such as septic tanks and septic drain fields, shall be set back from the ordinary high water mark along all streams or lakes a minimum of 100 feet, measured at right angles to the ordinary high water mark. In those cases where practical difficulties preclude the location of the facilities at a distance of 100 feet and the County Sanitarian finds that a closer location will

not endanger health, the Planning Director or Hearings Body may permit the location of these facilities closer to the stream or lake, but in no case closer than 25 feet.

2. All structures, buildings and similar permanent fixtures shall be set back from the ordinary high water mark along all streams or lakes a minimum of 100 feet measured at right angles to the ordinary high water mark.

C. Building Code Setbacks. In addition to the setbacks set forth herein, any greater setbacks required by applicable building or structural codes adopted by the State of Oregon and/or the County under DCC 15.04 shall be met.

D. Off-Street Parking and Loading. Off-street parking and loading shall be provided subject to the provisions of DCC 18.116, Supplementary Provisions.

E. Outdoor Lighting. All outdoor lighting shall be installed in conformance with DCC 15.10 providing outdoor lighting control.

(Ord. 2006-035 § 1, 2006; Ord. 2000-015 § 2, 2000; Ord. 96-003 § 1, 1996)

“Exhibit B”

18.116.180. Building setbacks for the protection of solar access.

A. Purpose. The purpose of DCC 18.116.180 is to provide as much solar access as practical during the winter solar heating hours to existing or potential buildings by requiring all new structures, excepting lots less than 10,000 square feet in size or under 80-foot average width, as defined by DCC 17.08.030 “lot width,” and located in the Neighborhood Planning Area of the Urban Unincorporated Community – La Pine, to be constructed as far south on their lots as is necessary and feasible.

B. Standards. Every new structure or addition to an existing structure, excepting lots less than 10,000 square feet in size or under 80-foot average width, as defined by DCC 17.08.030 “lot width,” and located in the Neighborhood Planning Area of the Urban Unincorporated Community – La Pine, shall meet the following standards for a solar setback from the north lot line, except as provided in DCC 18.116.180(B)(3):

1. South Wall Protection Standard. The south wall protection standard is based on an eight-foot solar fence on the subject property's north lot line which allows solar radiation on a neighboring building's south wall above two feet from the ground, assuming a 20-foot setback from the common property line to the neighboring building. Solar setbacks for the south wall protection standards can be calculated with the diagram in Appendix A-1 or estimated with the table in Appendix A-2. Final determination of solar setback distance is made by entering the following variables into the Deschutes County Shadow Length computer program:
 - a. Pole height;
 - b. The eight-foot fence height;
 - c. The scale of the plot plan submitted in feet per inch; and
 - d. Degrees of slope of the land from east to west and from north to south.

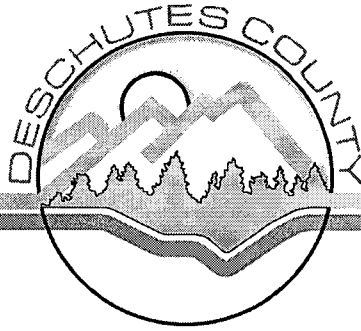
e. If a setback meeting this requirement is not feasible due to physical constraints of the lot, including, but not limited to, rock outcroppings, septic systems, existing legal restrictions or lot dimensions, as determined by the Planning Director or Hearings Body, then the structure or addition must be located as far to the south on the lot as feasible and must meet the standard set forth in DCC 18.116.180(B)(2).

2. South Roof Protection Standard. The south roof protection standard is based on a 14 foot solar fence on the subject property's north lot line which allows for solar radiation on a neighboring building above eight feet from ground level and assuming a 20 foot setback from the common boundary line to the neighboring building. Solar setbacks for this standard can be calculated using the diagram in Appendix B-1 or estimated using the table in Appendix B-2. Final determination of the setback will be made using the Shadow Length computer program by specifying a 14-foot solar fence and additional site specific information as listed in DCC 18.116.180(B)(1).
3. Exceptions. The south roof protection standard shall not apply only if the applicant establishes:
 - a. That the structure cannot be located on the lot without violating the requirements contained in Appendix B; and
 - b. That the structure is built with its highest point as far to the south as feasible; and
 - i. That the structure is a single family residence with a highest point less than or equal to 16 feet high; or, if not a single family residence;
 - ii. That it is a permitted or conditional use for the lot.
4. Exemptions.

“Exhibit B”

- a. The governing body may exempt from the provision of DCC 18.116.180 any area where it is determined that solar uses are not feasible because the area is already substantially shaded due to heavy vegetation, steep north facing slopes, and any area or zone in which taller buildings are planned.
- b. The Planning Director or Hearings Body shall exempt a structure from the provisions of DCC 18.116.180 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 by the Planning Director or Hearings Body.
- c. The Planning Director or Hearings Body shall exempt a structure from the provisions of DCC 18.116.180 if the structure is in conformance with a solar height restriction as provided in DCC Title 17, the Subdivision/Partition Ordinance, as amended.

(Ord. 2006-035 § 2, 2006; Ord. 2004-013 § 12, 2004; Ord. 91-038 § 1, 1991; Ord. 91-020 § 1, 1991; Ord. 83-037 § 3, 1983)



"Exhibit C"

Community Development Department

Planning Division Building Safety Division Environmental Health Division

117 NW Lafayette Avenue Bend Oregon 97701-1925
(541)388-6575 FAX (541)385-1764
<http://www.co.deschutes.or.us/cdd/>

STAFF REPORT

TO: Deschutes County Board of Commissioners
FROM: Peter Gutowsky, Senior Planner
DATE: November 6, 2006
SUBJECT: Pahlisch Homes Solar Setback Text Amendment / Public Hearing

The Deschutes County Board of County Commissioners will hold a public hearing on November 20, 2006 at the Deschutes Service Center, starting at 10:00 a.m. The Commission will specifically consider text amendments proposed by Pahlisch Homes (Pahlisch) that modify Deschutes County solar setback requirements for the Neighborhood Planning Area (NPA), in the La Pine Urban Unincorporated Community (UUC).

A. Background

The Oregon Land Conservation and Development Commission in 1974 adopted Statewide Goal 13: Energy Conservation (Attachment 1). Goal 13 lists planning and implementation guidelines that encourage local governments to integrate energy efficiency techniques during land use planning and development. Deschutes County adopted energy goals and policies into its Comprehensive Plan in 1979 that emphasize managing land uses to maximize all forms of energy conservation (Attachment 2).¹ The County's solar policies promote housing construction with a long axis in the east-west direction and having solar access three hours before and after solar noon.² In 1981, the Oregon Legislature adopted a law that gave counties the authority to adopt and implement solar access ordinances.³ In 1983, Deschutes County adopted a solar height ordinance (Attachment 3).⁴ The purposes of the ordinance are to 1) regulate building placement and height to insure access to solar energy; 2) promote and maximize energy conservation by preserving the option to utilize solar energy; and, 3) implement the Comprehensive Plan policies relating to solar energy.⁵

B. Pahlisch Text Amendment

Pahlisch submitted a text amendment to Deschutes County's solar setback requirements on June 30, 2006 (Attachment 4), requesting solar setback exemptions for lots in the NPA that are:

- less than 10,000 square feet; or
- under 80 feet in average lot width

¹ PL-20, 1979.

² *Ibid.* Policy 3c(1).

³ ORS 215.044. <http://www.leg.state.or.us/ors/215.html>

⁴ Ordinance No. 83-037.

⁵ *Ibid.* Page 1.

Based on Pahlisch's recent tentative subdivision plat for Quadrants 2A, 2B, and 2D (Tentative Plat 2006-969), the text amendment would exempt every lot from a solar setback in Neighborhood Two.⁶

C. Pahlisch Findings

Pahlisch revised its original burden of proof on August 28, after staff suggested they submit additional findings.⁷ At the public hearing, on September 28, Pahlisch supplemented its written findings by testifying on the following:

- The difficulties of meeting passive solar setbacks for smaller lots, given the urban density and lotting pattern of the NPA, which require a fourteen-foot solar fence;⁸
- Trees, preserved in the NPA, represent a distinct design element that impede passive solar since they are located in setback areas.
- The difficulties, incurred by the solar setbacks, of designing homes and street scenes that offer any kind of diversification and interest, with the effect that the setbacks restrain housing sizes, height, and styles;
- The energy and environmental benefits of Pahlisch's compact, multimodal, and transit-oriented development and its close proximity to La Pine High School, neighborhood parks and La Pine's commercial area;
- Pahlisch's housing construction materials, including insulation and appliances based on Earth Advantage principles that demonstrate a commitment to energy efficiency.
- The difficulties of meeting solar setbacks during the development of Quadrant 2c and the approaches that were taken to resolve solar access compliance issues, which included waiving setbacks for zero lot-line lots and adjusting numerous north lot lines below 45 degrees north;
- The difficulties of establishing a solar setback lot configuration when the rectangular grid pattern of Neighborhood 2 is constrained by Highway 97 and Huntington Road access points, designated alignments of collector and arterial streets within the NPA, and the County's own block length requirements for new subdivisions;
- La Pine's changing community characteristics, represented by demands on the current land supply, development patterns, urban lot sizes, and desires to facilitate La Pine incorporation by increasing the core area population; and
- The energy benefits of passive solar radiation are offset by current home construction and insulation materials.

⁶ *Findings and Decision: Tentative Plat 2006-969*. The plat proposes 289 lots.
<http://lava5.deschutes.org/research/index.cfm>

⁷ Pahlisch's supplemental findings are the last six pages of Attachment 4.

⁸ Solar Setback lines are measured from the highest shade producing point and vary in length according to building height and slope. Shadows from structures constructed on a lot are not allowed to project beyond a certain distance onto lots to the "north." The County's solar setbacks require a "14-foot solar fence" on the subject property's north lot line. This "fence" assumes a 20-foot setback from the common boundary line to the neighboring building, allowing for solar radiation on a neighboring building above 8-feet from ground level.

D. Planning Commission Deliberation and Findings

During deliberations, Planning Commissioners expressed a concern that Pahlisch's amendment could set a precedent for future residential developers in La Pine and other urban unincorporated communities to seek exemptions from the County's passive solar requirements. As energy policy evolves on a statewide and national level, the Planning Commission believes solar setbacks offer opportunities to incorporate solar energy into land use and development. Therefore, the Commission structured its recommendation to justify that the NPA possesses distinct physical characteristics that warrant a solar setback amendment. Specifically, they accepted Pahlisch's findings and found:

- Pahlisch's ownership of Neighborhood 2 and Vic Russell's ownership of Neighborhood 1, Quadrants, 1a, 1b, and 1d, warrant an exemption because of immediate development expectations. As mentioned above, Pahlisch received tentative plat approval for Quadrants 2a, 2b, and 2d. Vic Russell recently submitted a Quadrant Plan for Quadrants 1a, 1b, and 1d.⁹
- Solar setbacks should not be precluded from Neighborhoods 3 and 4 so future developers can design Quadrant Plans and subdivision plats to universally meet the County's solar setbacks.
- Lodgepole and ponderosa pines, preserved in the NPA, represent a distinct design element that impedes passive solar;
- The rectangular grid pattern of Neighborhood 2, constrained by Highway 97 and Huntington Road access points, limits the alignments of collector and arterial streets within the NPA and subsequently, a rectangular grid pattern. This feature then impedes passive solar by limiting the number of lots that can be configured within blocks running along an east-west orientation;
- Pahlisch's development in Neighborhood 2 integrates innovative energy efficiency techniques into land use by creating compact, multimodal, and transit-oriented development that easily accesses La Pine High School, neighborhood parks and La Pine's commercial area. This physical asset maximizes other forms of energy conservation, including gasoline consumption and vehicle trips;
- Through Regional Problem Solving, the County purchased a 518-acre parcel of Bureau of Land Management land to use as a tool to address potential ground water pollution. This 518-acre parcel and a 66-acre parcel, formerly owned by Baldwin-Herndon Trust, were included in the UUC and designated as the NPA. These lands were annexed into the La Pine Sewer and Water Districts so that they could be served by municipal sewer and water and developed as residential and community neighborhoods. This physical asset maximizes other forms of energy conservation by allowing development to utilize centralized water and sewer systems. Furthermore, funds derived from the NPA help retrofit existing septic systems to nitrogen-reducing systems in the unsewered areas of the La Pine sub-basin to help protect the region's groundwater quality.
- The proposed exception would still retain roof top solar access, thereby allowing homeowners to utilize active solar technology as public incentives and interest evolve over time.

⁹ Quadrant Plan (QP) 061. <http://lava5.deschutes.org/research/index.cfm>

E. Planning Commission Recommendation

On September 28, 2006, the Deschutes County Planning Commission recommended Pahlisch's solar setback amendment to the Board with one modification, underlined below (Attachment 5).

Exempting solar setbacks for lots in Neighborhoods 1 and 2 of the NPA that are:

- less than 10,000 square feet; or
- under 80 feet in average lot width

F. Review Criteria

Deschutes County lacks specific criteria in DCC Titles 18, 22, or 23 for reviewing a legislative zoning text amendment. Pahlisch bears the burden for justifying that the solar setback amendments are consistent with the Statewide Planning Goals and the County's Comprehensive Plan. The parameters for evaluating this specific text amendment will be based on whether Pahlisch provides adequate factual findings that demonstrate consistency with Statewide Goal 13: Energy Conservation, and the County's own energy goals and policies.

G. Board Public Hearing

In preparation of the Board's hearing, a public notice was published in the Bend *Bulletin* on November 5 and distributed to Vic Russell, the only member of the public who testified on September 28.

H. Case File

The case file, reflecting all the findings and public testimony submitted since September 28, 2006, will be entered into the record on November 20.

Attachments:

1. Statewide Goal 13: Energy Conservation
2. Deschutes County Code Title 23 (Comprehensive Plan), Chapter 23.76 (Energy)
3. Deschutes County Ordinance No. 83-097
4. Pahlisch Solar Text Amendment Burden of Proof

Oregon's Statewide Planning Goals & Guidelines

GOAL 13: ENERGY CONSERVATION

OAR 660-015-0000(13)

To conserve energy.

Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.

GUIDELINES

A. PLANNING

1. Priority consideration in land use planning should be given to methods of analysis and implementation measures that will assure achievement of maximum efficiency in energy utilization.

2. The allocation of land and uses permitted on the land should seek to minimize the depletion of non-renewable sources of energy.

3. Land use planning should, to the maximum extent possible, seek to recycle and re-use vacant land and those uses which are not energy efficient.

4. Land use planning should, to the maximum extent possible, combine increasing density gradients along high capacity transportation corridors to achieve greater energy efficiency.

5. 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.

B. IMPLEMENTATION

1. Land use plans should be based on utilization of the following techniques and implementation devices which can have a material impact on energy efficiency:

a. Lot size, dimension, and siting controls;

b. Building height, bulk and surface area;

c. Density of uses, particularly those which relate to housing densities;

d. Availability of light, wind and air;

e. Compatibility of and competition between competing land use activities; and

f. Systems and incentives for the collection, reuse and recycling of metallic and nonmetallic waste.

Chapter 23.76. ENERGY

23.76.010. Energy.

23.76.020. Goals.

23.76.030. Policies.

23.76.010. Energy.

Deschutes County is presently an importer of energy. After 1983 the Bonneville Power Administration will no longer assure 100 per cent distribution of electrical power. As with the rest of the nation, Deschutes County can anticipate increasingly expensive and possibly even shortages of gasoline. Therefore, it is likely that the County will face serious problems in the near future unless precautions are taken in time.

Hydropower generation in the County is limited to two sites, which are operating at capacity. There is another potential site at Wickiup Dam.

There is a possibility for fossil fuel development in the eastern portion of the County, but it is presently unfeasible. Local natural gas supplies could increase in the mid-1980's with the construction of a second natural gas pipeline through Central Oregon. There also exists a possibility for a third gas line in the future.

There is presently some geothermal investigation occurring in the County near Newberry Crater and also near the Three Sisters Mountains. Environmental impact statements to permit appropriate exploration in the Cascades have already been prepared. Problems with objectionable smells from released gases, possible groundwater contamination, earth subsidence or quakes are all hazards to be considered in geothermal energy use. Loss of recreational lands and esthetic qualities are also possibilities.

It appears Deschutes County would have few, if any, appropriate sites for coal or natural gas thermal generation plants, according to the State-wide Siting Task Force Report.

The County does have some possibility for other types of energy production. Wind generation may be feasible if it can be tied to the existing power grid. Waste wood burning is popular and feasible and one local manufacturer has constructed a 9000 KW facility, while another will save 6.9 million cubic feet of natural gas each year using waste wood. County Pollution Control Bonds can be used to finance conversion from fossil fuels to wood waste because it reduces a major solid waste problem, as well as reducing energy costs to local industries and the outflow of local money for imported energy.

Energy conservation is another important resource that can reduce pollution, free existing energy resources for other uses and reduce the outflow of money for energy. Education is possibly the most obvious way to promote conservation. Coordination through the Extension Service and by establishing a paid coordinator could do much to encourage conservation. Another way to obtain conservation is by regulation, such as by establishing higher building and subdivision standards. Sometimes education and regulation can be combined to require thermal ratings for new buildings so people can determine more efficient lay-outs, or by requiring the heat loss analyses performed by utility companies to be kept on file for public review.

Recycling is also an energy saver. For example, aluminum when reclaimed takes only four percent of the energy required to process raw ore, including handling and transportation costs. Recycled copper requires only 11 percent of the energy needed to obtain the metal from raw ores. Some recycling already exists locally but much more is possible.

Solar energy is a real possibility for Deschutes County. Proper siting of housing with a solar orientation can permit critical sunlight access. Passive solar methods, such as proper window placement and seasonal shading, can have significant impact.

Certainly one of the biggest energy issues to face Deschutes County is transportation. State-wide transportation consumes 36 percent of total State-wide energy use, and it constitutes 56 percent of an average household's energy use. As a rural area, Deschutes County is heavily dependent on automobiles and thereby consumes considerable gasoline. Efforts to reduce motorized vehicles would be difficult but the effect would be lower energy use, pollution levels and expenses. Just the reduction of road construction and maintenance (re-sealing, snowplowing, etc.) would save considerable energy.

In light of local conditions and trends the following goals were chosen.

(Ord. 2002-005 § 1, 2002; Ord. 2000-017 § 1, 2000; Ord. 93-003, 1993; Ord. 92-051, 1992; Ord. 85-001, 1985; PL-20, 1979)

23.76.020. Goals.

1. To protect local natural energy sources.
2. To manage land uses to maximize the conservation of all forms of energy.
3. To assist, as appropriate, in the provision for adequate local energy supplies.

(Ord. 2002-005 § 1, 2002; Ord. 2000-017 § 1, 2000; Ord. 93-003, 1993; Ord. 92-051, 1992; Ord. 85-001, 1985; PL-20, 1979)

23.76.030. Policies.

1. General.

- a. The County shall review and promote the development and use of local alternative energy sources in order to prepare for future shortages and to reduce the outflow of local dollars to buy energy.
- b. Coordinated planning between local energy providers, particularly electrical, and the County Planning Department shall be sought. This planning is to be directed at determining energy needs in all parts of the County and assisting in the provision of adequate supplies and capital facilities.
- c. Construction of large thermal or nuclear plants locally should be discouraged unless approved by a public vote.
- d. Energy Assessment. During major plan updates, or more often as necessary, the County shall assess its energy use and the potential for energy conservation. The County shall use information available from the state and federal governments and utility companies.

2. Alternative energy sources - Geothermal resources policies.

a. Public involvement.

1. The Planning Division shall ensure that citizens, land owners, and lease holders are given ample opportunity to be involved in all phases of geothermal planning and decision-making that occur under the County's jurisdiction. This involvement program shall provide for continuity of citizen participation, and for information that enables citizens to identify and comprehend geothermal issues.
2. Federal and state agencies exercising geothermal responsibilities in the County shall be expected and encouraged to make use of the County's existing citizen involvement program whenever appropriate.

b. Intergovernmental coordination

1. The County shall encourage the formulation of federal and state land and resource management policies which are consistent with the County's geothermal policies. In this regard the County shall endeavor to become a partner with the federal and state governments in determining the future of geothermal energy in the County.

2. In view of the multiplicity of governmental jurisdiction over geothermal resources, the County shall seek close coordination with all affected local, state, and federal agencies. In this regard the Planning Division shall maintain regular communications with federal and state agencies that are exercising geothermal responsibilities in the County, and shall keep local officials informed of federal and state actions accordingly.
- c. Resource assessment.
 1. In order to identify and protect the undefined values of its geothermal resources, the County shall support continued resource assessment activities by the public and private sectors. In this regard, the Planning Division shall monitor such activities and collect additional resource data wherever possible for inclusion in the Geothermal Element during updates or amendments.
 2. In recognition of the public benefit derived from greater resource knowledge, the County may undertake its own resource assessment activities where such work is expected to ultimately benefit the local economy. The results of County-sponsored resource assessment will be given the widest possible dissemination in order to facilitate further geothermal development consistent with County policies.
 - d. Resource Utilization.
 1. The County supports utilization of geothermal resources, either with heat pumps, direct applications, or for purposes of generating power. However, such support is conditioned on the determination that the proposed use can be developed in a timely, orderly, and environmentally-sound manner, and that adequate protection of the resource is provided so as to ensure its continued availability and productivity over time. Further, such support is limited to those resource areas where conflicting uses are not considered predominant, as identified in Policy 5(F).
 2. When County facilities are to be renovated or newly constructed, consideration shall be given to the use of geothermal resources in these facilities when such use is technically and economically advantageous. The County shall encourage other local entities to conduct similar geothermal evaluations during their facility planning processes.
 - e. Economic development.
 1. The County's support for geothermal development shall be closely coordinated with its economic development program. The County believes that its low and moderate-temperature resources may offer a significant comparative advantage to business and industry, and it shall support geothermal projects that serve to retain or create employment opportunities in the County.
 - f. Land-Use
 1. For purposes of compliance with Statewide Planning Goal 5, the County believes its geothermal resources and the conflicting uses identified in Section 4 of the Element should be balanced according to site-specific relative merits. Implementation measures shall provide protection for conflicting uses by conditionally allowing geothermal exploration and production, thereby balancing the benefits to the County from both geothermal resources and conflicting uses. This policy shall apply to all resource areas inventoried in Section 2 of the Element, except in those areas where the conflicting uses listed in Table 4.1 of the Element shall be fully protected as follows:
 - a. Exploration and Production Prohibited.
 - i. That portion of the Newberry Volcano resource area lying within the exclusion area boundary shown in Exhibit "B."
 - ii. Those areas presently defined by the Deschutes National Forest Land & Resource Management Plan, incorporated hereby reference, as ineligible for leasing, specifically: Wilderness, Research Natural Areas, Experimental Forest, Bend Municipal Watershed, Developed Recreation Areas, and Dispersed Recreation Unroaded Winter Areas.
 - b. Production Prohibited (Exploration Allowed).

- i. Those areas presently defined by the Deschutes National Forest Land & Resource Management Plan, incorporated hereby by reference, as being limited to no surface occupancy, specifically: Experimental Forest, Dispersed Recreation Unroaded Areas, Dispersed Roaded Areas, Developed Recreation Areas, Protection Management Areas, Special Management Areas, Potential Research Natural Areas, and Threatened and Endangered Species Areas.
 The County has determined that conflicting uses shall be fully protected in the foregoing areas because of the greater economic, social, and environmental benefits that accrue from the conflicting uses. In researching this determination, the County has relied upon the discussion of conflicting uses and their consequences contained in Sections 4 and 5 of the Geothermal Element; the Rural Development, Economy, and Recreation sections of the Growth Management Element of the Comprehensive Plan; the Forest Lands, Open Spaces, Fish & Wildlife, and Historic & Cultural sections of the Resource Management Element of the Comprehensive Plan; the Recreation, Fish & Wildlife, Special Uses, Visual Quality, Economy, Employment, and Forest Dependent Community Concept sections of the Deschutes National Forest Land & Resource Management Plan; and the Oregon Department of Economic Development 1983 Annual Economic Report for Deschutes County. It is the County's determination that the conflicting use information contained in these references constitutes sufficient evidence of the greater importance of the conflicting uses to the County, thereby warranting exclusion of geothermal exploration and/ or production in the areas cited above.
- ii. The County recognizes that if utilization of geothermal energy is to be optimized, the designation of land-uses for areas overlying geothermal resources must accommodate those uses to which the resources can be applied. In this regard, the County shall incorporate geothermal utilization as a determinant in land-use planning; and, where appropriate, shall review permitted uses that can utilize geothermal resources if and when suitable resources are confirmed in an area. However, geothermal end-uses shall be permitted only where their compatibility with surrounding land-uses can be demonstrated with certainty.
- g. Environmental protection.
 - 1. In all cases the County's support for geothermal development shall be conditioned upon satisfactory evidence that sufficient environmental safeguards are provided. Environmental concerns of the County shall include, but not be limited to: air quality, water quality, noise, subsidence, induced seismicity, water consumption, fish and wildlife, vegetation, historic and cultural resources, visual and scenic qualities, erosion and earth stability, waste disposal, and public safety and health.
- h. Public facilities and services.
 - 1. In addition to Policy G(1), in all cases the County's support for geothermal development shall depend on the extent of impacts to public facilities and services. In this regard, the County's concerns shall include, but not be limited to: roads, drainage, schools, law enforcement, fire protection, water supply, sewage disposal, solid waste disposal, and general administrative services.
 - 2. The Planning Division, in consultation with the Public Works Department, shall monitor geothermal activities in order to forecast impacts to public facilities and services; and shall prepare capital improvement or related plans accordingly so as to support geothermal development in a timely and orderly manner with a level of facilities and services appropriate to such development.
- i. Fiscal responsibilities.
 - 1. In recognition of specialized administrative demands that may be placed on the County by geothermal developers, the County shall require said developers to defray County expenses associated with processing a geothermal permit request, or conduction related studies or

monitoring programs, directly required by a geothermal project. This Policy shall also extend to any government agency engaged in geothermal development.

3. Alternative energy sources.
 - a. Wind. Because the wind is a non-polluting, renewable energy source, major wind devices and associated facilities shall be conditional uses in agricultural, forest and other rural zones. Also, small scale (less than 20 KW) private use of wind generators or pumps shall be encouraged.
 - b. Wood and slash wood. Given the availability and usefulness of waste and slash wood the County shall maintain a waste wood dump for processors where the material shall be made available to the public, and shall encourage U.S. Forest Service projects which make slash wood available.
 - c. Solar. Because it is renewable and in plentiful supply locally the County shall encourage the use of solar energy by:
 1. Promoting the construction of housing with its long axis in the east-west direction and having solar access three hours before and after solar noon (variances because of topography, rock outcroppings or alternative solar access means may be permitted);
 2. Providing avenues for establishing solar property rights (see ORS 215.110) by such methods as solar sky space protective covenants in new developments and creating standard methodology for adjacent properties to establish solar sky space easements; and,
 3. Allowing for future centralized solar generation of electricity in the large vacant areas in the eastern portions of the County (particularly on BLM lands).
 - d. Internal Operations. The County shall, when practicable, make energy efficiency and the use of renewable resources a regular practice in its design and operation of buildings, equipment and public facilities and services.
 - e. Recycling.
 1. Recycling is an effective method of energy conservation. The County has adopted a County-wide recycling program in compliance with Senate Bill 405. The primary responsibility for this program is through the County Solid Waste Division. The ongoing recycling program will provide for the following:
 - a. Identify projects and methods to achieve the specific goals; and
 - b. Require and annual review of program status.
 2. The County shall consider the designation of a County employee as Recycling Coordinator who is responsible for:
 - a. Encouraging recycling throughout the County;
 - b. Fostering communications about recycling among local governmental agencies, organizations and the public; and,
 - c. Providing assistance to the County Solid Waste Advisory Committee in considering and implementing ways to increase local recycling activities.
 3. The County shall also consider recycling when enacting ordinances, issuing contracts and franchises and when purchasing supplies.
 4. The County shall study the possibility of initiating pilot projects regarding source separation of recyclables and their collection in existing or new garbage franchises.
 5. The County shall seek funds to provide staff assistance and resources for developing recycling drop-off and storage centers in the Bend, Redmond, Sisters and La Pine areas.
 - f. Conservation.
 1. All homes constructed in Deschutes County shall meet State insulation standards. The County shall consider more stringent standards (both prescriptive and equivalent performance criteria) and encourage innovative building design which meets the intent of the prescriptive standards.
 2. To assist the public in understanding energy conservation in their homes the County will rate the "thermal effectiveness" of new or existing dwellings, if an owner requests, based on such factors as window placement, shading, insulation values and thermal mass, and other

factors similar to the City of Davis, California, Community Development Department Standards.

3. Because multi-family housing and other types of common wall construction is more energy efficient the County shall encourage such development in urban areas.
4. Since "leapfrog" and scattered development is wasteful of energy in the provision of services (school buses, fire protection, utilities and transportation) these patterns shall not be permitted (see Rural Development and Urbanization chapters), and future development should occur in higher densities along existing corridors in urban areas.
5. Public/Private Actions: The County shall encourage local residents and businesses to conserve energy, to use renewable resources and to recycle materials. The County shall coordinate its efforts with those of local organizations, special districts, utility companies and state and federal agencies.

At the time of subdivision review, the County shall see that: Covenants which prevent energy conservation, such as roofline requirements precluding solar panels, bans on clotheslines and prohibitions on street motorcycles, shall not be established in proposed developments.

6. The County shall account for its 1% bicycle funds from the State Highway Funds, and shall provide this accounting to the Bicycle Advisory Committee on an annual basis. The 1% funds shall be the minimum spent to provide bicycle and pedestrian facilities within the County. The County shall establish methods for funding pedestrian and bicycle facilities that are not within the public right-of-way and therefore are not eligible for the 1% funds. The County shall consider setting aside monies which might otherwise be used for expanding motorized traffic ways and apply them toward a non-motorized transportation system which accesses educational, recreation, employment and shopping areas as well as connects to new development.
7. Oregon imports 45% of its energy as fuel for motorized vehicles. Nonmotorized transportation is recognized as an important way to conserve energy. The County shall provide bicycle and pedestrian connections between schools, residential areas, parks and other recreation attractions, shopping centers, and other commercial and industrial centers. In addition, the County shall encourage nonmotorized modes through the use of techniques such as designating nonmotorized areas (pedestrian malls), installing traffic cells and traffic calming designs, allocating a greater share of street space to nonmotorized modes, restricting motor vehicle parking, and other pedestrian and bicycle-oriented land use patterns.
8. As much as possible non-motorized systems should be favored over motorized transportation systems.
9. New major consumers of energy, such as commerce and industry, shall be located whenever possible near established energy distribution centers.
10. The County should set an example by weatherizing its buildings and considering passive or active solar heat, perhaps with assistance from retrofit grants.
11. To promote public awareness of the reasons and need for energy conservation the County shall develop an educational program for use County-wide.

(Ord. 2002-005 § 1, 2002; Ord. 2000-017 § 1, 2000; Ord. 93-003, 1993; Ord. 92-051, 1992; Ord. 85-001, 1985; Ord. 80-203, 1979; PL-20, 1979)

BEFORE THE BOARD OF COUNTY COMMISSIONERS OF DESCHUTES COUNTY, OREGON

An Ordinance Amending Ordinance No. PL-15, Deschutes County Zoning Ordinance of 1979, Providing for Building Setbacks For the Protection of Solar Access and Solar Access Permits, Providing For Definitions and Procedures, and Providing For Permits. *

ORDINANCE NO. 83-037

THE BOARD OF COUNTY COMMISSIONERS OF DESCHUTES COUNTY, OREGON, ORDAINS as follows:

Section 1. Section 1.020, PURPOSE, of Ordinance PL-15, is amended by the addition of the following:

"To regulate the placement, height and bulk of buildings; and the placement and growth of vegetation within the County to insure access to solar energy by reasonably regulating interests in property within the County, as authorized under ORS 215.044 and ORS 105.880 through 105.890, to promote and maximize the conservation of energy by preserving the option to utilize solar energy and to implement the Comprehensive Plan policies relating to solar energy.

To encourage the design of new buildings, structures and developments which use solar energy and protect future options to use solar energy by protecting solar access."

Section 2. Section 1.030, DEFINITIONS, of Ordinance PL-15, is hereby amended to add the following new definitions:

"(34A) Exempt Vegetation. 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.

(34B) Existing. Existing at the time of application.

- (49A) Highest Shade Producing Point. The highest shade producing point of the structure two hours before and after the solar zenith on December 21.
- (77A) Northern Lot Line. For the purposes of Section 5.300, Building Setbacks for the Protection of Solar Access, the northern lot line shall be the northerly edge of the lot on which an applicant's structure is located, unless directly north of the lot is an unbuildable area, in which case northern lot line means the northerly edge of the buildable area.
- (91A) Potential Structure. For purpose of solar access protection on a potential structure is any structure or building that could be built as a permitted use in a particular location under existing development standards under the existing Deschutes County Comprehensive Plan.
- (93A) Productive Solar Collector. A solar collector that provides no less than (a) 10 per cent of a building's annual total energy requirements; or (b) 50 per cent of a building's annual water heating requirements.
- 794A) Protected Area. The specific area which is provided solar access for specific hours and dates under this Ordinance.
- (114A) Shade. A shadow, except a shadow caused by a narrow object, including but not limited to a utility pole, an antenna, a wire, or a flagpole.
- (116A) Solar Access. Protection from shade for a specific area during specific hours and dates, but not including protection from shade cast by exempt vegetation.
- (116B) Solar Access Permit. The instrument issued by the County which limits the size of non-exempt vegetation on certain lots in the vicinity of a recorded solar collector.
- (116C) Solar Collector. Any object that uses solar radiation for a useful purpose, including but not limited to windows, walls, roofs and collectors.

- (116D) Solar Heating Hours. The hours and dates during which solar access is provided.
- (116E) Solar Height Restriction. The allowable height of buildings, structures and non-exempt vegetation on a property burdened by the solar access of another property.
- (125A) Substantially Shaded. Less than 80 per cent of the available solar insolation is available during winter solar heating hours to either the south roof and/or wall of an existing or potential structure.
- (132A) Unbuildable Area. An area in which a structure could not be built as a permitted use under existing development standards for the area under the existing Deschutes County Comprehensive Plan.
- (125B) Sunchart. A photograph or photographs, taken in accordance with the guidelines of the Planning 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; and
 - (D) A clear delineation of the existing objects which cast shadows on the protected area, including hills, structures, and deciduous and evergreen vegetation.
- (136A) Winter Solar Heating Hours. The time period extending two hours before and after the solar zenith on December 21.

Section 3. The following Sections are added to Article 5, SUPPLEMENTARY PROVISIONS, of Ordinance PL-15:

"Section 5.300. Building Setbacks for the Protection of Solar Access.

(1) Purpose. The purpose of this Section is to provide as much solar access as practical 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 necessary and feasible.

(2) Standards. Every new structure or addition to an existing structure shall meet the following standards except as provided in (c) below:

(A) South Wall Protection Standard. The south wall protection standard is established in Appendix A, and all new structures or additions shall meet this standard if feasible. If it is not feasible due to physical constraints of the lot, including but not limited to rock outcroppings, septic systems, existing legal restrictions or lot dimensions, as determined by the Planning Director, then the structure or addition must be located as far to the south on the lot as feasible and must meet the standard set forth in (B) below.

(B) South Roof Protection Standard. All new structures or additions to existing structures shall meet the standard for south roof protection set forth in Appendix B.

(C) Exceptions. The south roof protection standard shall not apply only if the applicant establishes:

1. That the structure cannot be located on the lot without violating the requirements contained in Appendix B; and

2. That the structure is built with its highest point as far to the south as feasible; and

(i) that the structure is a single family residence with a highest point less than or equal to 16 feet high; or, if not a single family residence;

(ii) that it is a permitted or conditional use for the lot.

(3) Exemptions.

(A) The governing body may exempt from the provision of this Section any area which it determines that solar uses are not feasible because the area is already substantially shaded due to heavy vegetation, steep north facing slopes, and any area or zone in which taller buildings are planned.

(B) The Planning Director shall exempt a structure 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 by the Planning Director.

(C) The Planning Director shall exempt a structure from the provisions of Section 5.300 of this Ordinance if the structure is in conformance with a solar height restriction as provided in Sections 4.300 and 6.030 of Ordinance 81-043, Deschutes County Subdivision/Partition Ordinance, as amended.

Section 5.350. SOLAR ACCESS PERMIT.

(1) Purpose. The purpose of this Section is to provide solar access to productive solar collectors by establishing limitations, on a case by case basis, for the growth of vegetation on certain lots in the vicinity of a productive solar collector.

(2) Application for Solar Access Permit

(A) 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.

(B) The application for a solar access permit shall be on forms prescribed by the County and shall contain at a minimum:

1. A legal description of the applicant's lot, including a statement that the applicant is the owner of the lot, and a description of the nature of the applicant's interest in the lot;
2. Documentation to show that the solar collector is or will be a productive solar collector within one year of application;
3. Descriptive drawings of the solar collector showing its dimensions and precise location;
4. A sunchart and a statement of the solar heating hours for which solar access is sought;
5. A statement that there is no reasonable alternative location for the solar collector that would result in a lesser burden on a neighboring lot;
6. 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;
7. A list of the lots that are within 150 feet to the south, southeast, or southwest of the solar collector, including street, alleys and other unbuildable areas; a legal description for each such lot; the owner or record and his address; the exempt vegetation located on the lot; and any existing non-exempt vegetation likely to encroach on the protected area.
8. A statement that none of the lots impacted are located on a north facing slope with a grade that exceeds, on average, 15 per cent.
9. A plot plan showing the location of and delineating all exempt and non-exempt vegetation as shown on

the sunchart photograph as well as any non-exempt vegetation not shown on the sunchart which may encroach on the protected area in the future. The plot plan shall also include:

- (i) The exact site of the solar collector, its height and its orientation.
- (ii) Scale.
- (iii) An indication of true north.
- (iv) A survey of the lot.

(C) The solar access permit application shall be approved if:

1. The solar collector is or will be a productive solar collector;
2. The protected area to be created by the solar access permit is reasonably located. A solar access permit shall be denied under this paragraph if the applicant could trim his own vegetation to permit an alternative location that would be less burdensome upon a burdened neighboring lot. A solar access permit shall also be denied under this paragraph if there is an alternate location that would impose a lesser burden on a neighboring lot or lots.
3. 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;
4. The solar access provided by the permit does not burden any lot: with a north facing slope with a grade that exceeds, on average, 15

per cent; or which is more than
150 feet from the solar collector;
and

5. The application is accurate and complete.

(3) Solar Access Permit Issuance and Recordation.

(A) Upon the approval of an application, the County shall issue and acknowledge a solar access permit creating the solar access requested in the application.

(B) Upon receiving such a permit, the County Clerk shall:

1. Record the solar access permit in the chain of title of the applicant's lot and of each neighboring lot identified in the application; and
2. Keep a copy of the approved application on file in County Records.

(C) The form of the solar access permit shall be as prescribed by the County and shall contain at a minimum:

1. 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; and
2. 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 sunchart showing the plotted 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; and

3. A reference to where the approved application may be obtained.

(4) Obligation Created by Solar Access Permit.

The owner of any lot burdened by a solar access permit shall trim any vegetation not exempted on the 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, by the owner of the burdened lot. Before any trimming is required, the collector owner must certify that the collector is still productive.

(5) Termination of Solar Access Permit.

(A) The Planning 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 applicant or the applicant's successor in interest, or the collector is not productive for 12 consecutive months.

(B) The County Clerk Shall record the termination of the solar access permit in the chain of title of each lot affected by the termination.

Section 5. Subsection (6) of Section 4.010, of Ordinance PL-15, is amended by the addition of the following:

"(E) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 6. Subsection (5) of Section 4.020, of Ordinance PL-15, is amended by the addition of the following:

"(E) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 7. Subsection (6) of Section 4.030, of Ordinance PL-15, is amended by the addition of the following:

"(D) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 8. Subsection (7) of Section 4.040, of Ordinance PL-15, is amended by the addition of the following:

"(D) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 9. Subsection (5) of Section 4.060, of Ordinance PL-15, is amended by the addition of the following:

"(D) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 10. Subsection (5) of Section 4.070, of Ordinance PL-15, is amended by the addition of the following:

"(C) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 11. Subsection (7) of Section 4.080, of Ordinance PL-15, is amended by the addition of the following:

"(D) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 12. Subsection (7) of Section 4.085, of Ordinance PL-15, is amended by the addition of the following:

"(D) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 13. Subsection (5) of Section 4.090, of Ordinance PL-15, is amended by the addition of the following:

"(E) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 14. Subsection (5) of Section 4.100, of Ordinance PL-15, is amended by the addition of the following:

"(C) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 15. Subsection (5) of Section 4.110, of Ordinance PL-15, is amended by the addition of the following:

"(C) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 16. Subsection (4) of Section 4.120, of Ordinance PL-15, is amended by the addition of the following:

Handwritten note:
New code?

"(D) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 17. Subsection (8) of Section 4.130, of Ordinance PL-15, is amended by the addition of the following:

"(D) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 18. Subsection (8) of Section 4.140, of Ordinance PL-15, is amended by the addition of the following:

"(D) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 19. Subsection (5) of Section 4.150, of Ordinance PL-15, is amended by the addition of the following:

"(D) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 20. Subsection (10) of Section 4.220, of Ordinance PL-15, is amended by the addition of the following:

"(E) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 21. Subsection (5) of Section 4.230, of Ordinance PL-15, is amended by the addition of the following:

"(H) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 22. Subsection (2) of Section 4.240, of Ordinance PL-15, is amended by the addition of the following:

"(A) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 23. Subsection (2) of Section 4.240, of Ordinance PL-15, is amended by the addition of the following:

"(B) The setback from the northern lot line shall meet the solar setback requirements in Section 5.300."

Section 24. Section 8.30 of Ordinance PL-15 is amended by the addition of the following:

"(12) Planned Developments, Cluster Developments, Destination Resorts and Dude Ranches shall meet the solar access performance standard set forth

in the Deschutes County Subdivision Ordinance
No. 81-043, Section 6.030(5)."

Section 25. Ordinance PL-15 is amended by the addition of
Section 5.260, SOLAR HEIGHT RESTRICTIONS, which reads as follows:

"Section 5.260. SOLAR HEIGHT RESTRICTIONS. No build-
ing, structure or non-exempt vegetation may exceed the
solar height restriction established on a burdened
property by the solar access of a benefited property."

DATED this 1st day of June, 1983.

BOARD OF COUNTY COMMISSIONERS
OF DESCHUTES COUNTY, OREGON

ATTEST:

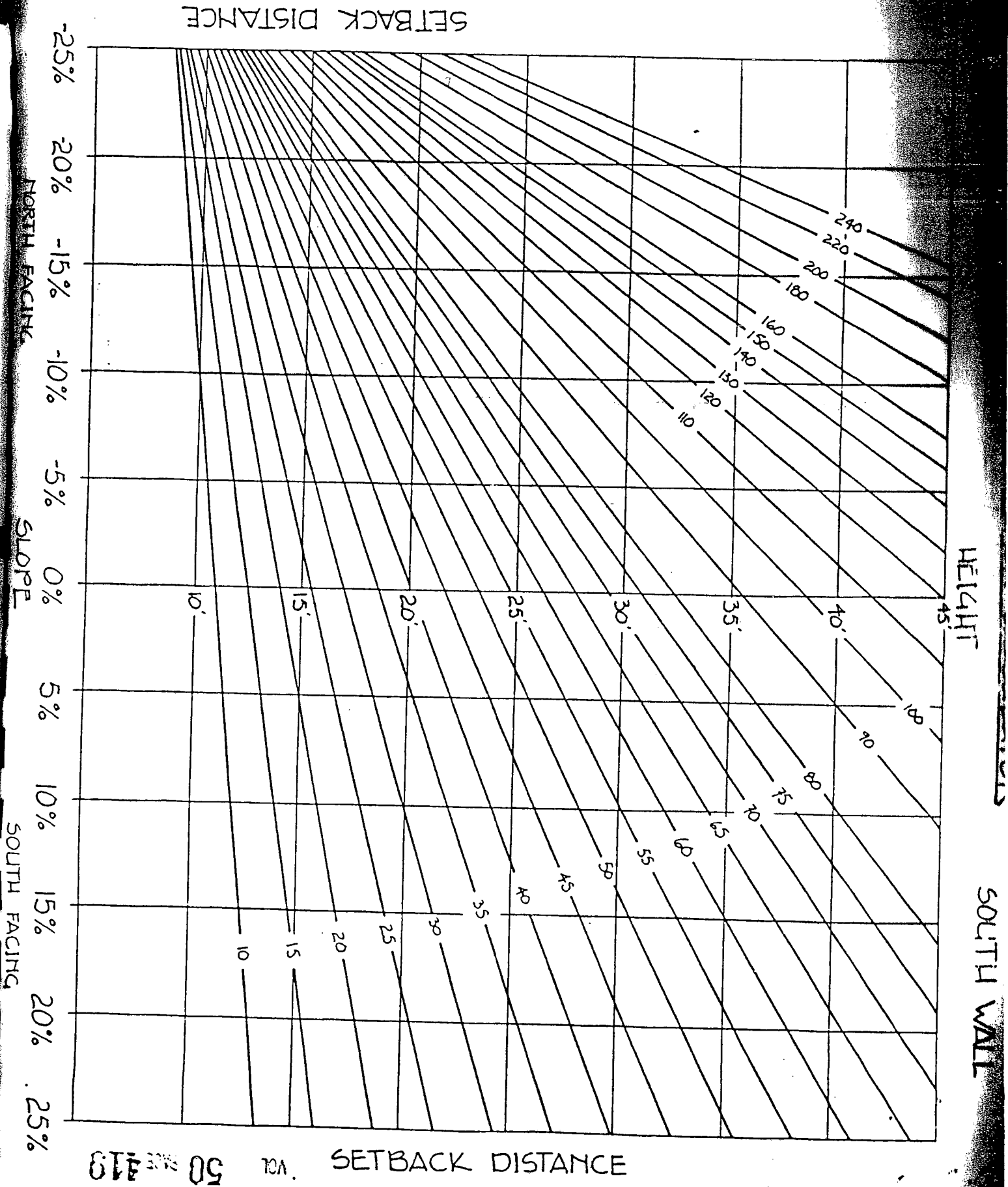
ALBERT A. YOUNG, Chairman

Lois Bristow Prante
LOIS BRISTOW PRANTE, Commissioner

Laurence A. Tuttle
LAURENCE A. TUTTLE, Commissioner

for Annette Pearson
SUSAN STONEMAN
Recording Secretary

Exhibit "A"



50 SETBACK DISTANCE

NORTH FACING

SLOPE

SOUTH FACING

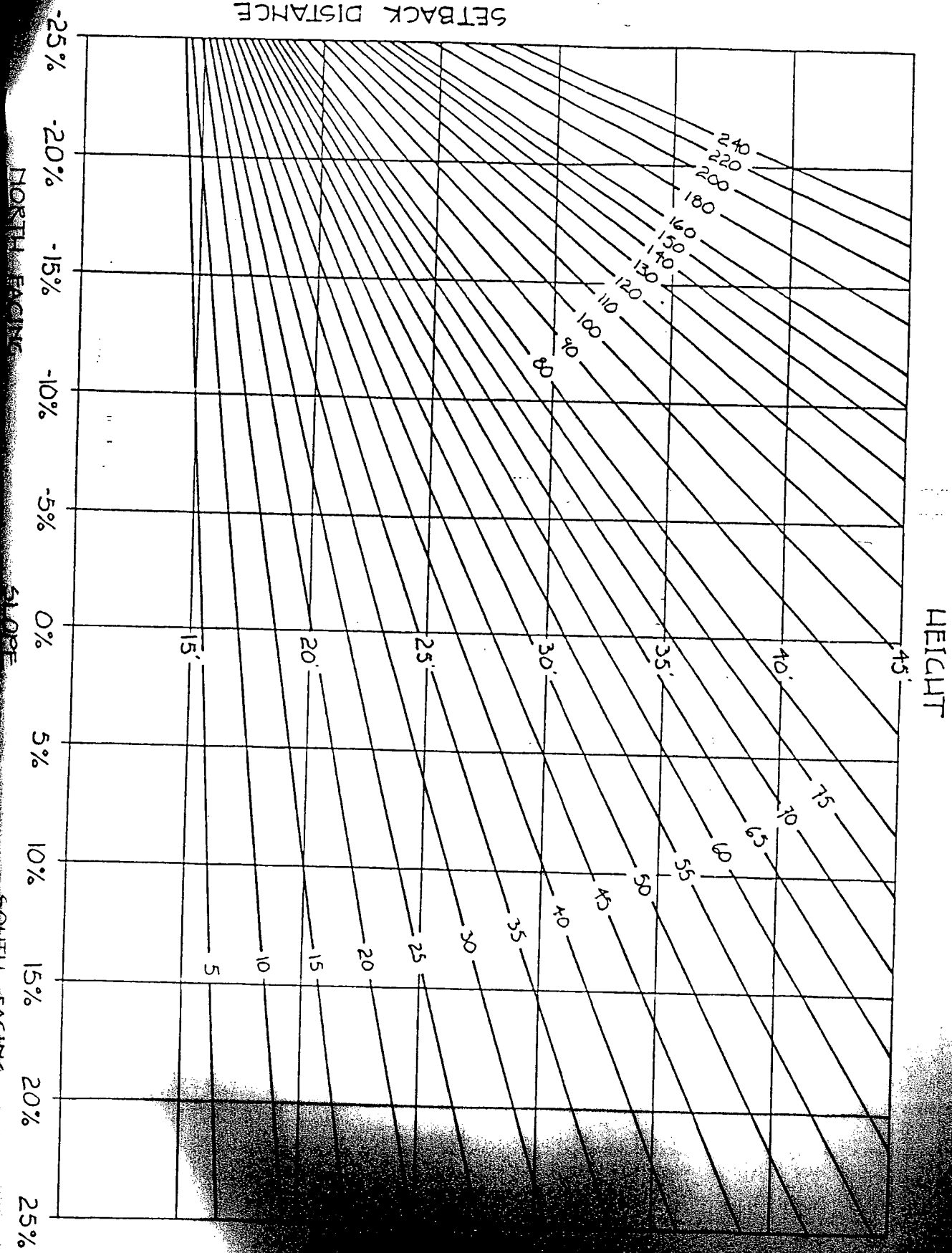
HEIGHT

SOUTH WALL

Exhibit "B"

SOLAR SETBACK CALCULATOR

SOUTH ROOF



BURDEN OF PROOF STATEMENT

PROPOSED TEXT AMENDMENTS

18.61.020(A) Standards in All Districts – Solar Setback 18.116.180(A) and (B) Building Setbacks for the Protection of Solar Access

APPLICANT: Pahlisch Homes
Attn: Steve Miller
63088 NE 18th Street, Ste 100
Bend, OR 97701

REQUEST: **Text Amendment to the Solar Setback provisions for the Urban Unincorporated Community – La Pine; Neighborhood Planning Area.** In order to achieve the goals and purpose of the Neighborhood Planning Area, we hereby request a Text Amendment to the text of Chapter 18.61.020(A) and Chapter 8.116.180(A) and (B).

I. APPLICABLE SECTIONS:

The following Sections of the Deschutes County Code (DCC) are affected by the proposed Text Amendment.

- A. Chapter 18.61, Urban Unincorporated Community Zone - La Pine
Subsection 18.61.020(A), Standards in All Districts.
- B. Chapter 18.116, Supplementary Provisions
Subsections 18.116.180(A) and (B), Building Setbacks for the Protection of Solar Access.

II. SITE FACTS:

- A. **LOCATION:** The area affected by the proposed text amendment includes only the Urban Unincorporated Community – La Pine; Neighborhood Planning Area.
- B. **ZONING:** Urban Unincorporated Community – La Pine; Neighborhood Planning Area.
- C. **SITE DESCRIPTION:** The La Pine UUC is located in South Deschutes County and is in close proximity to the Cascade Lakes and Mt. Bachelor. The La Pine UUC includes three (3) separate planning areas, La Pine, Wickiup Junction and Neighborhood, each with its own zoning districts. Development in the La Pine UUC area includes residential, commercial, and industrial type uses similar to any other small town. With the development of the La Pine sewer and La Pine water districts single-family residential parcels are now located throughout the La Pine UUC with lot sizes and development patterns resembling those found in an incorporated city.

Per the La Pine Neighborhood Forest Plan, the La Pine area is characterized as Classic Lodgepole Pine Forest primarily in the western and northeastern portion

of the UUC and Low-Dense Lodgepole Pine Forest in the southeastern portion of the UUC. The surrounding forest is generally healthy with limited evidence of insect and/or mistletoe intrusion, though some porcupine damage is common. Topography is relatively flat within and around the La Pine UUC boundary.

D. **EXHIBITS:**

1. Neighborhood Planning Area
2. Approved Quadrant 2C
3. Goal 13 – Energy
4. Newberry Neighborhood Planning Area Solar Setback Exhibit

Proposal: We hereby propose the following amendments (all proposed amendments are in **bold underline**) to the text of Chapter 18.61.020(A) and Chapter 8.116.180(A) and (B) to read as follows:

Section 18.61.020(A):

- A. Solar Setback. The setback from the north lot line shall meet the solar setback requirement in DCC 18.116.180; **excepting those on lots less than 10,000 square feet in size and under 80-feet in average width as defined by Section 17.08.030 of the DCC, and located in the Neighborhood Planning Area of the Urban Unincorporated Community – La Pine.**

Section 18.116.180(A) and (B):

- A. Purpose. The purpose of DCC 18.116.180 is to provide as much solar access as practical during the winter solar heating hours to existing or potential buildings by requiring all new structures, **excepting those on lots less than 10,000 square feet in size and under 80-feet in average width, as defined by Section 17.08.030 of the DCC, and located in the Neighborhood Planning Area of the Urban Unincorporated Community – La Pine,** to be constructed as far south on their lots as is necessary and feasible.
- B. Standards. Every new structure or addition to an existing structure, **excepting those on lots less than 10,000 square feet in size and under 80-feet in average width as defined by Section 17.08.030 of the DCC, and located in the Neighborhood Planning Area of the Urban Unincorporated Community – La Pine,** shall meet the following standards for a solar setback from the north lot line, except as provided in DCC 18.116.180(B)(3).

History and Background of the La Pine area: As outlined in Chapter 23.40.020 of the County's Comprehensive Plan, in the 1960-70s, over 12,000 lots were platted south of Sun River. The majority of these lots have on-site sewage disposal systems which led to groundwater pollution problems. While the ground water quality in the core La

Pine area was solved with the construction of a sewage treatment facility, the potential for widespread water pollution problems in the surrounding areas was recognized in the mid-1990s as the low density residential pattern had now spread over 50 square miles.

To address these growth challenges and public safety concerns, planning efforts were initiated which resulted in the creation of the La Pine Rural Service Center and the subsequent designation of the La Pine Urban Unincorporated Community (UUC). The purpose of the UUC was to create urban development standards and review procedures for new development that occurs in this area. In 2000, the La Pine UUC was expanded further to include the Neighborhood Planning Area. One of the primary reasons for designating the UUC boundary was to recognize the urban development pattern occurring between Wickiup Junction and the south County line. The establishment of the UUC boundary facilitated the development of the La Pine Sewer District and the La Pine Water District, which in turn encouraged urban development within the UUC boundary. The other benefit of the UUC boundary was the establishment of the Neighborhood Planning Area, which was created to accept new growth and higher densities that would have otherwise been directed to the existing rural subdivision lots in the County thereby increasing the contamination of the ground water in the area.

One of the standards applied to the new Neighborhood Planning Area were the existing solar standards of Chapter 18.116.180. These standards were initially adopted in 1983, long before the adoption of not only the Urban Unincorporated Community of La Pine, but also the creation of the Neighborhood Planning Area, and associated development standards. The solar standard was intended to be applied primarily to rural subdivision lots which tend to be significantly larger and wider in dimension than a more typical urban dimensioned lot, as found in the Neighborhood Planning area.

Subsequently, the County initiated an RFP process to select a developer/homebuilder to begin developing the Neighborhood Planning area and specific Quadrant Plans under the newly adopted ordinances for development in this area. Pahlisch Homes was selected as the developer and has completed Quadrant Plan approval for Neighborhood 2. Through specific and detailed site planning, a few inconsistencies or inadvertent errors have been identified within the past couple of years that have required some minor amendments to the text and standards for this area in order to achieve the larger goals for the Neighborhood Planning Area. Solar standards for smaller lots are one of the areas where difficulties arise in trying to achieve the density and lotting pattern envisioned for this area.

Issues of Discussion: Currently, Section 18.61.020(A) requires all lots in the La Pine UUC to meet the setback from the north line consistent with DCC 18.116.180 which reads as follows:

18.116.180. Building setbacks for the protection of solar access.

A. Purpose. *The purpose of DCC 18.116.180 is to provide as much solar access as practical 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 necessary and feasible.

B. Standards. *Every new structure or addition to an existing structure shall meet the following standards for a solar setback from the north lot line, except as provided in DCC 18.116.180(B)(3):*

1. South Wall Protection Standard. *The south wall protection standard is based on an eight-foot solar fence on the subject property's north lot line which allows solar radiation on a neighboring building's south wall above two feet from the ground, assuming a 20-foot setback from the common property line to the neighboring building. Solar setbacks for the south wall protection standards can be calculated with the diagram in Appendix A-1 or estimated with the table in Appendix A-2. Final determination of solar setback distance is made by entering the following variables into the Deschutes County Shadow Length computer program:*

- a. Pole height;*
- b. The eight-foot fence height;*
- c. The scale of the plot plan submitted in feet per inch; and*
- d. Degrees of slope of the land from east to west and from north to south.*

e. If a setback meeting this requirement is not feasible due to physical constraints of the lot, including, but not limited to, rock outcroppings, septic systems, existing legal restrictions or lot dimensions, as determined by the Planning Director or Hearings Body, then the structure or addition must be located as far to the south on the lot as feasible and must meet the standard set forth in DCC 18.116.180(B)(2).

2. South Roof Protection Standard. *The south roof protection standard is based on a 14 foot solar fence on the subject property's north lot line which allows for solar radiation on a neighboring building above eight feet from ground level and assuming a 20 foot setback from the common boundary line to the neighboring building. Solar setbacks for this standard can be calculated using the diagram in Appendix B-1 or estimated using the table in Appendix B-2. Final determination of the setback will be made using the Shadow Length computer program by specifying a 14-foot solar fence and additional site specific information as listed in DCC 18.116.180(B)(1).*

3. Exceptions. *The south roof protection standard shall not apply only if the applicant establishes:*

- a. That the structure cannot be located on the lot without violating the requirements contained in Appendix B; and*
- b. That the structure is built with its highest point as far to the south as feasible; and*

i. That the structure is a single family residence with a highest point less than or equal to 16 feet high; or, if not a single family residence;

ii. That it is a permitted or conditional use for the lot.

4. Exemptions.

a. The governing body may exempt from the provision of DCC 18.116.180 any area where it is determined that solar uses are not feasible because the area is already substantially shaded due to heavy vegetation, steep north facing slopes, and any area or zone in which taller buildings are planned.

b. The Planning Director or Hearings Body shall exempt a structure from the provisions of DCC 18.116.180 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 by the Planning Director or Hearings Body.

c. The Planning Director or Hearings Body shall exempt a structure from the provisions of DCC 18.116.180 if the structure is in conformance with a solar height restriction as provided in DCC Title 17, the Subdivision/Partition Ordinance, as amended.

RESPONSE: The goal of planning Urban Unincorporated Communities (UUC) is to simultaneously accommodate growth within the community while enhancing the economy, protecting the environment, and preserving or improving quality of life for citizens in an equitable manner. In short, the intent is to provide more choices to address present and future growth and development challenges. As outlined in the Comprehensive Plan Chapter 23.40.020, the Neighborhood Planning Area and associated development standards were established to provide a mix of housing types, affordable housing opportunities, efficient land use patterns that are geared toward multimodal systems and served by adequate infrastructure. These goals and objectives are also expressed in DCC Title 23; Comprehensive Plan, as follows.

By having a solar setback for the Neighborhood Planning Area that is commensurate with the range of lot sizes allowed in the various residential zoning districts, it provides the development community and the County with more flexibility in designing and approving the types of developments that will come forward in the future for the Neighborhood Planning Area.

As mentioned previously, the current solar setback requirements of the DCC work well and were intended for typical rural County lots that are larger in size and width so as to provide adequate room to position a home to meet the solar setback standard. However, when applying the solar setback standards to lots within the Neighborhood Planning area, which are between 4,000 square feet to 10,000 square feet in size, with an average width between 50 to 75+ feet, it is extremely difficult to design homes and street scenes that offer any kind of diversification and interest. As shown on the Solar Setback Exhibit, which shows a variety of home types, lot sizes, and ridge heights, only

the narrowest of homes with the lowest ridge heights can even come close to meeting the 14-foot solar fence setback, and this assumes the best case scenario with the homes being placed as far south on the lot as possible.

The table below provides the current minimum lots sizes and lot widths for the two (2) residential zoning districts within the Neighborhood Planning Area.

Urban Unincorporated Community – La Pine; Development Standards for Residential Development.

Neighborhood Planning Area Residential General District Standards:	
Standards Neighborhood 1	Requirements
Lot Size:	Minimum: 4,000 square feet Maximum: 7,000 square feet
Lot Width:	50-feet for detached dwellings. 24-feet for attached townhome.
Standards Neighborhood 2	Requirements
Lot Size:	Minimum: 7,000 square feet. Maximum: 15,000 square feet.
Lot Width:	50-feet for detached dwellings. 24-feet for attached townhome.
Neighborhood Planning Area Residential Center District Standards:	
Standards Neighborhood 1	Requirements
Lot Size:	Minimum: 2,400 square feet. Maximum: 4,500 square feet.
Lot Width:	35-feet for detached single family dwelling. 24-feet for attached town home or zero lot line development.
Standards Neighborhood 2	Requirements
Lot Size:	Minimum: 3,500 square feet. Maximum: 5,000 square feet.
Lot Width:	35-feet for detached single family dwelling. 24-feet for attached town home or zero lot line development.

As you can see from the above tables, the lot sizes and dimensions required in the Neighborhood Planning Area are reflective of urban style and density of development. This urban development pattern is what was envisioned by the establishment of the Urban Unincorporated Community (UUC) and Neighborhood Planning Area. What was

not anticipated, though, were the difficulties arising from the required application of the current solar setback requirements per Chapter 18.116.180 on these smaller lots.

While the code allows for homes up to 30-feet in height, with the solar roof protection standards listed below, only single story homes would be allowed on lots that are 50 feet wide, which is the minimum lot width in the this zone. The matrix below shows the standards that would apply on a variety of lot widths and the resultant effect. Some assumptions are factored into this matrix:

- the houses are placed as far to the south property line as allowed, which is 10-feet per the standards of the Residential General zone,
- each house has a 2-car garage (22 feet wide) which is very typical and highly desired in new homes, and
- the solar setback is from the north property line as per the standards outlined in DCC Section 18.116.180 Appendix B-2.

Lot Width	Side Setbacks	Roof Height	Solar Setback	Approx. House Width	Discussion
24' X 100'	Zero lot line development				
35' X 100'	5'				
40' X 100'					
50' X 100'	10'	16'	6.5'	30'	Limited to a single story home with 2-car garage. 2 story home not possible.
60' X 100'	10'	18'	12.9'	37'	Limited to a single story home with 2 car garage. 2 story home not possible.
70' X 100'	10'	24'	32.3'	27'	2 story home with 22 foot wide 2-car garage and 5 feet of house as the front façade. Doesn't create an attractive and appropriately scaled front façade. Width of house not to scale with width of lot.
70' X 130'	10'	26'	38.7'	21'	2 story home – 2 car garage not possible.
80' X 100'	10'	26'	38.7'	31'	2 story home limited to 26' tall. Width of house not to scale with width of lot.
80' X 120'	10'	28'	45.25'	24'	2 story home - 2 car garage not possible.

The shaded areas indicate limitations on what can be built on the lot, and demonstrate how the resulting house size or width is disproportionate to the size of the lot, and inconsistent with what is considered urban style development. As indicated above, application of the solar roof protection standard will only allow for a single story homes on lots meeting the minimum width requirement within the Residential General Zone. Because the minimum lot size is 7,000 feet, the typical residential lot would be 70 wide x 100 feet deep. With a lot width of 70 feet (which is a bit wider than standard urban lot widths) and assuming a 24 foot tall 2-story home (most people buying a 7,000 square foot lot are not going to want a single story height limitation placed on the lot given what they have paid for the land) the maximum width of the house would be 27 feet. Assuming the 2-car garage at 22 feet, this leaves only 5 feet for the rest of the house to be visible from the street. We don't believe this was what was envisioned for the Neighborhood Planning Area. The same lot width would not allow a 2-story 26' tall (steeper pitched roof) house. However, lots over 10,000 square feet in size and greater than 80-feet in width are large enough to easily meet the solar standard and provide for a house to scale with the lot.

APPLICABLE COMPREHENSIVE PLAN BACKGROUND, GOALS and POLICIES

Chapter 23.16.

EXISTING CONDITIONS AND CONCERNS

23.16.050. Land use.

One of the most obvious results of growing County population has been the sprawling residential development that has spread rapidly over much of western Deschutes County. This has caused the loss of valuable agricultural and forestland and accentuated the need for expensive public services. Recreational and rural tract lots in the County in 1979 accounted for 58 percent of the total lots. Interestingly, of these lots, 17,377 were found to be undeveloped.

In the La Pine area, recreational subdivisions once seen as a boon to the County taxpayer have slowly been changing to more permanent occupancies that demand schools, buses, sheriff and fire patrol, as well as a variety of other expensive services that must be delivered over a large area.

Rural Service Centers have not been used as originally intended. Often the land uses constructed have little or nothing to do with the servicing of the rural population, but instead are just further examples of the spread of commercial uses along the highways or the use of loopholes to avoid planned development (i.e., Deschutes Junction).

23.16.080. Other.

Energy usage has been growing dramatically in Deschutes County, not only because of the population growth but also due to the low-density

sprawled-out pattern, construction of energy consumptive commercial uses and a general unconcern about energy by many citizens.

This brief summary of conditions, trends and local issues is not meant to be all-encompassing, but it does include the major characteristics and trends of concern in the preparation of this plan. Deschutes County has available tremendous environmental and human resources but it also suffers from many of the problems common to areas with rapid rates of growth. The scenic and environmental qualities that first attracted people will be needed in the future as well.

RESPONSE: One of the primary objectives of creating the Neighborhood Planning Area was to help reduce rural sprawl, which is reflected by the seven (7) different zoning districts within the Neighborhood Planning Area. The creation of the Neighborhood Planning area reduces rural sprawl and increases energy efficiency by having commercial, residential, public facilities (i.e. schools, community centers, etc.), and parks/open space zoning districts located in a coordinated planning area with adequate infrastructure to support these diverse uses. This pattern of development provides much greater efficiency in the provision of public services (i.e. water and sewer, police and fire protection, road maintenance, etc.) and promotes savings in energy, particularly in transportation through the provision for integrated trail systems. By reducing motorized vehicle trips within the Neighborhood Planning Area through comprehensive development patterns that integrate low and higher density residential development with trails and open space, dependence on automobiles and the consumption of gasoline will be reduced thereby lowering energy use, pollution levels, and expenses to the citizens of the La Pine UUC.

By amending the solar setback standards for the Neighborhood Planning Area to exempt lots that are less than 10,000 square feet in size and under 80-feet in average width, development in the Neighborhood Planning area will be able to achieve the land use goals and objectives of the Comprehensive Plan, and be consistent with the intent of the Neighborhood Planning area.

Chapter 23.20. COMPREHENSIVE PLANNING PROCESS

23.20.040. Goals and policies.

A. Introduction.

The alternative chosen for growth in Deschutes County was one which emphasized accommodating the anticipated growth of the area primarily in the urban areas, with some rural development taking place in the Rural Service Centers and in existing subdivisions. This new pattern would then provide much greater efficiency in the provision of public services and foster savings in energy, particularly in transportation. The development pattern would also protect scarce resources, while permitting compatible improvements.

B. Rural development.

DCC 23.20.040(B), Rural Development, serves as the basis for the rest of the plan. Basic guidelines to do away with the former inefficient development pattern and to accommodate the anticipated 7,050 new rural residents are contained in DCC 23.20. Emphasis is placed on maintaining the existing rural character of the County, while acknowledging that Deschutes County is becoming more urban, by concentrating new rural development in the Rural Service Centers. In that way people desiring a rural lifestyle may do so without unduly increasing the costs to others or utilizing resource lands. The only exception to this rural pattern is in the La Pine area where emphasis is laid on the incorporation of the community and improvements in local services provided. The La Pine rural area is also likely to receive many of the over 3,000 new rural homes which will be built, because so many lots already exist in that area.

C. Urbanization.

Urbanization links this plan to those of the three incorporated communities. DCC Chapter 23.20 provides parameters for the establishment and expansion of the urban boundaries and provides common guidelines to the cities to help them accommodate the 71,450 new residents that will need over 35,600 homes and 29,000, perhaps as high as 35,000, new jobs. Sufficient land must be allocated and managed to serve these new local citizens.

E. Housing.

Housing emphasizes the need for flexibility in housing styles and costs so as to provide adequate homes for all segments of the community. Also fostered are programs to help rehabilitate existing homes and to accommodate low and moderate-income families through government programs and efforts to reduce development costs.

I. Energy.

The Energy chapter emphasizes more local independence in providing energy, protection of future energy resources and better coordination with energy providers. Information and education about energy and local opportunities are stressed. As the population continues to grow and because of the importance of tourism, energy will play an ever more dominate role in local planning efforts. These policies seek to emphasize the need for greater efficiency in development patterns and construction, while surveying our available future options.

RESPONSE: As noted above under "B. Rural development", the basic principle for the County is to do away with the "former inefficient development pattern", which serves as the foundation for the rest of the Comprehensive Plan, in order to accommodate future residents and maintain the rural character of the County. To move towards this goal

and ultimately achieve the objective, the County adopted rules and regulations that would help concentrate rural development in Rural Service Centers (RSC) and/or Urban Unincorporated Communities (UUC), rather than to allow rural subdivisions with 2 ½ acre lots.

With the creation of the Neighborhood Planning Area, the County is able to reduce ground water pollution in South Deschutes County, while at the same time, allow for reasonable residential densities that will help reduce rural sprawl. The Neighborhood Planning Area has been designed to make more efficient use of the land by having commercial, residential, and park uses located in close proximity to each other, thereby reducing infrastructure costs by serving a smaller area, limiting vehicle trips by grouping multiple uses together, and promoting alternative modes of transportation through the use of paths and trails. By reducing vehicle trips (commercial, residential, and parks all located together) and decreasing public infrastructure costs by serving more people in a smaller area, the Neighborhood Planning Area greatly decrease the amount of energy being consumed.

The Neighborhood Planning area development pattern, lot sizes, and densities help to reduce sprawl and promote alternative modes of transportation. Together, these provide greater efficiency in development patterns consistent with the Energy goals and policies of the Comprehensive Planning process outlined above. Please refer to the more detailed description of how the proposed text amendments are consistent with the discussion under Comprehensive Plan Chapter 23.76 Energy below.

As with any business or industry there is always a trade off and the underlying value in the State of Oregon has always been to make the most efficient use of our land in order to prevent sprawl into our resource and forest zoned lands. We understand the intent behind the solar setback ordinance; however in an urban environment like the La Pine UUC – Neighborhood Planning Area, the existing solar setback standards severely restrict the allowed building sizes, heights and the ability to have a variety of housing styles. Because the Neighborhood Planning Area requires smaller lot sizes, which in turn helps to create more affordable home prices, it is important then to have relative and achievable standards proportionate to the lot size. The current solar standards for the smaller lots within the Neighborhood Planning Area reduces the County's ability to meet the densities and housing goals envisioned by the Comprehensive Plan for this area.

In summary, the proposed text amendment is limited to only the smaller lots within the Neighborhood Planning area and is proportionate to the size and dimension of the lots. The proposed text amendment enables development within the Neighborhood Planning area to achieve the Comprehensive Plan's land use and housing goals envisioned for this area.

Chapter 23.76.

ENERGY

Energy conservation is another important resource that can reduce pollution, free existing energy resources for other uses and reduce the outflow of money for energy. Education is possibly the most obvious way to promote conservation. Coordination through the Extension Service and by establishing a paid coordinator could do much to encourage conservation. Another way to obtain conservation is by regulation, such as by establishing higher building and subdivision standards. Sometimes education and regulation can be combined to require thermal ratings for new buildings so people can determine more efficient lay-outs, or by requiring the heat loss analyses performed by utility companies to be kept on file for public review.

Solar energy is a real possibility for Deschutes County. Proper siting of housing with a solar orientation can permit critical sunlight access. Passive solar methods, such as proper window placement and seasonal shading, can have significant impact.

Certainly one of the biggest energy issues to face Deschutes County is transportation. State-wide transportation consumes 36 percent of total State-wide energy use, and it constitutes 56 percent of an average household's energy use. As a rural area, Deschutes County is heavily dependent on automobiles and thereby consumes considerable gasoline. Efforts to reduce motorized vehicles would be difficult but the effect would be lower energy use, pollution levels and expenses.

23.76.020. Goals.

- 1. To protect local natural energy sources.**
- 2. To manage land uses to maximize the conservation of all forms of energy.**
- 3. To assist, as appropriate, in the provision for adequate local energy supplies.**

23.76.030. Policies.

- 1. General.**
 - a. The County shall review and promote the development and use of local alternative energy sources in order to prepare for future shortages and to reduce the outflow of local dollars to buy energy.**
- 3. Alternative energy sources.**
 - c. Solar. Because it is renewable and in plentiful supply locally the County shall encourage the use of solar energy by:**

1. *Promoting the construction of housing with its long axis in the east-west direction and having solar access three hours before and after solar noon (variances because of topography, rock outcroppings or alternative solar access means may be permitted);*
2. *Providing avenues for establishing solar property rights (see ORS 215.110) by such methods as solar sky space protective covenants in new developments and creating standard methodology for adjacent properties to establish solar sky space easements; and,*
3. *Allowing for future centralized solar generation of electricity in the large vacant areas in the eastern portions of the County (particularly on BLM lands).*

f. Conservation.

1. *All homes constructed in Deschutes County shall meet State insulation standards. The County shall consider more stringent standards (both prescriptive and equivalent performance criteria) and encourage innovative building design which meets the intent of the prescriptive standards.*
2. *To assist the public in understanding energy conservation in their homes the County will rate the "thermal effectiveness" of new or existing dwellings, if an owner requests, based on such factors as window placement, shading, insulation values and thermal mass, and other factors similar to the City of Davis, California, Community Development Department Standards.*
3. *Because multi-family housing and other types of common wall construction is more energy efficient the County shall encourage such development in urban areas.*
4. *Since "leapfrog" and scattered development is wasteful of energy in the provision of services (school buses, fire protection, utilities and transportation) these patterns shall not be permitted (see Rural Development and Urbanization chapters), and future development should occur in higher densities along existing corridors in urban areas.*
7. *Oregon imports 45% of its energy as fuel for motorized vehicles. Non-motorized transportation is recognized as an important way to conserve energy. The County shall provide bicycle and pedestrian connections between schools, residential areas, parks and other recreation attractions, shopping centers, and other commercial and industrial centers. In addition, the County shall encourage non-motorized modes through the use of techniques such as designating non-motorized areas (pedestrian malls), installing*

traffic cells and traffic calming designs, allocating a greater share of street space to non-motorized modes, restricting motor vehicle parking, and other pedestrian and bicycle-oriented land use patterns.

8. *As much as possible non-motorized systems should be favored over motorized transportation systems.*

RESPONSE: As noted in Comprehensive Plan Chapter 23.76 Energy above, as well as by Goal 13 – Energy (See Exhibit 3) there are numerous components to the use of and conservation of energy, and solar energy is only one of those many components. More specifically, Section 23.76.020(2) states that one of the energy goals of the County is to “manage land uses to maximize the conservation of *all* forms of energy”. As such, the County needs to balance the application of specific solar standards with other planning goals for the Neighborhood Planning area. The proposed text amendment would allow for an exemption to the solar standard for smaller lots within the Neighborhood Planning Area in order to achieve greater land use efficiency so conservation of other energy forms can be realized.

While Pahlisch Homes is only one of perhaps several future builders within the Neighborhood Planning area, the homes we are building are based on the “Earth Advantage” principles and incorporate the following features:

- Energy Star High Efficiency Vinyl Windows – Outperform standard code windows by 15%. They reduce heat loss in the winter and heat gain in the summer by use of a Low-E coating, inert Argon gas and advanced frame technologies.
- R-38 Vaulted Ceilings – Insulation reduces a home’s heat loss in winter and heat gain in summer.
- R-49 Attic Insulation – Reduces a home’s heat loss in winter and heat gain in summer
- Efficient Ductwork Design and Seal – Standard duct systems can lose up to 30% of every dollar of heating and cooling costs. By using mastic to seal all duct connections, conditioned air loss is reduced to less than 6%. Mastic-sealed ducting also reduces air contaminants from entering the home through the ducting.
- High Efficiency Gas Water Heater – Reduces energy use through a superior burner design and a storage tank that limits heat loss.
- R-30 Insulated Floors – Provide above-code thermal protection
- Energy Star Qualified Furnace – Has annual fuel utilization efficiency (AFUE) rating of 90% or greater, making it about 15% more efficient than standard models.
- Energy Star Qualified Dishwasher – Uses 25% less energy and saves about 1,000 gallons of water annually compared to a conventional model.

In addition to using the above elements in our homes, we also use other sustainable features and techniques when building our homes that help promote high energy

efficiency and environmental responsibility; such as, but not limited to, placing the utilities in a common trench, avoiding leapfrog construction, water-wise landscaping, and recycling up to 65% of the job site waste.

While the proposal is to exempt lots less than 10,000 square feet in size and under 80-feet in average width from the solar setback provisions, it still meets the goals of the Energy chapter through energy efficient lotting patterns and house design and construction, and allows reasonable roof-top solar access, which is the one of the purposes of the ordinance. The solar ordinance attempted to balance the development potential prior with the need to maintain a "reasonable amount of sunlight" for the residential properties. The proposed text amendment is the minimal necessary to achieve the overarching planning goals for the Neighborhood Planning Area while balancing the goals for Energy conservation.

Summary and Conclusions: Solar setback standards at the County are applied to all lots within the County regardless of their location, zoning, and minimum lot size requirements. These solar standards were adopted before the Neighborhood Planning area was established. The current solar setback requirements for the Neighborhood Planning Area within the Urban Unincorporated Community – La Pine should be amended to reflect a standard proportionate to the required lot sizes, and the development pattern intended for the Neighborhood Planning area. Allowing more compact development within the Neighborhood Planning Area boundary is achievable provided the solar setback requirement is amended to exempt lots that are less than 10,000 square feet in size and under 80-feet in average width as defined by Section 17.08.030 of the DCC.

The proposed text amendment(s) allow for:

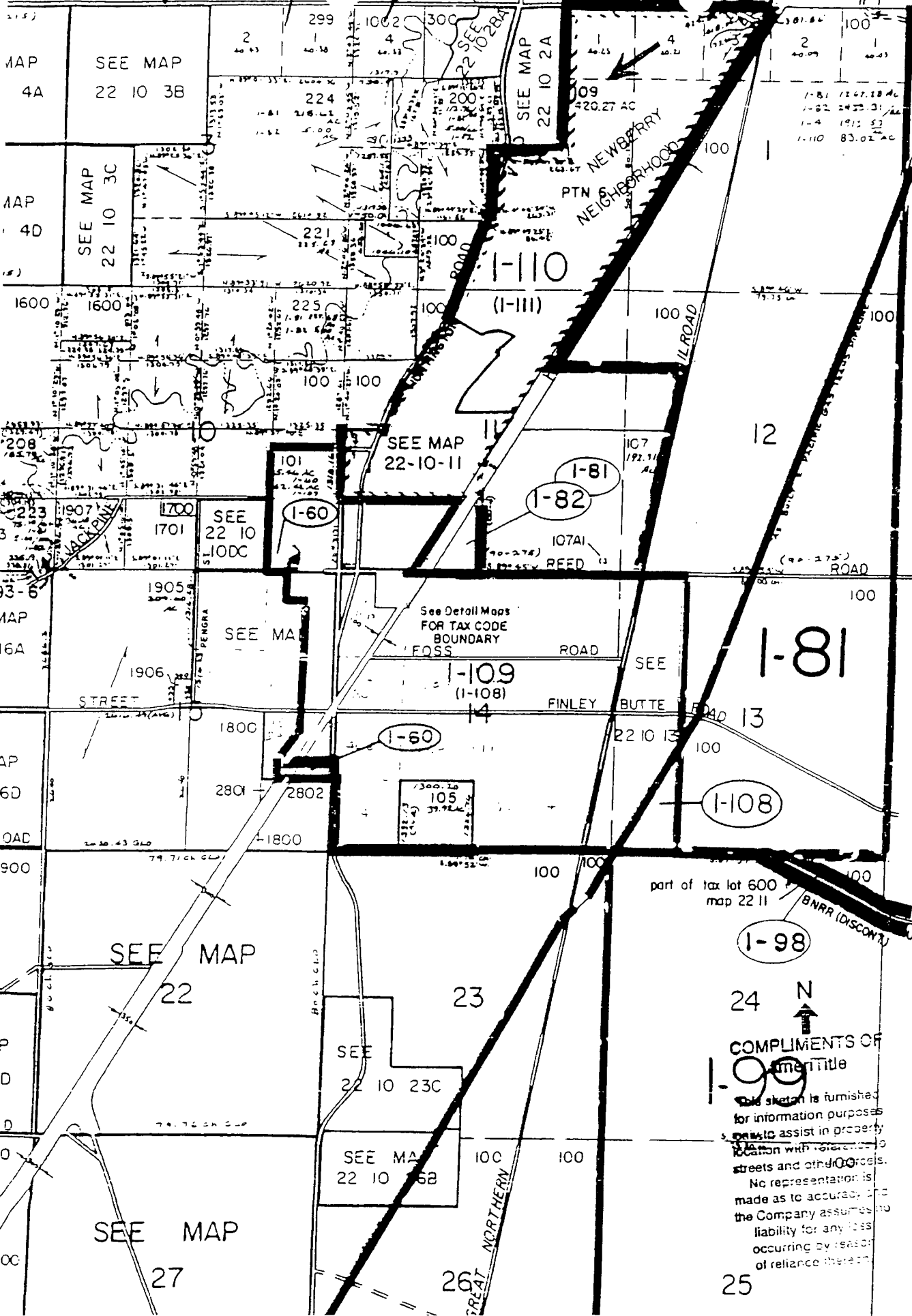
- Urban development and density/lot size patterns consistent with the purposes of the Neighborhood Planning Area.
- Solar access protection for larger lots that allow adequate setbacks commensurate with the lot size.
- House sizes and widths to scale with the lot widths/sizes.
- Facilitates residential development that is consistent with the Housing and Energy goals and policies of the Comprehensive Plan for the Urban Unincorporated Community – La Pine.

Therefore, we respectfully request **approval** of the proposed Text Amendment request.

See Map 21 10

Vicinity Map

ROSLAND RD.



24 N
 ↑
 COMPLIMENTS OF
 1-99
 This sketch is furnished for information purposes only to assist in property location with reference to streets and other parcels. No representation is made as to accuracy and the Company assumes no liability for any loss occurring by reason of reliance thereon.

See Map 22 11

part of tax lot 600 map 22 11

1-98

24

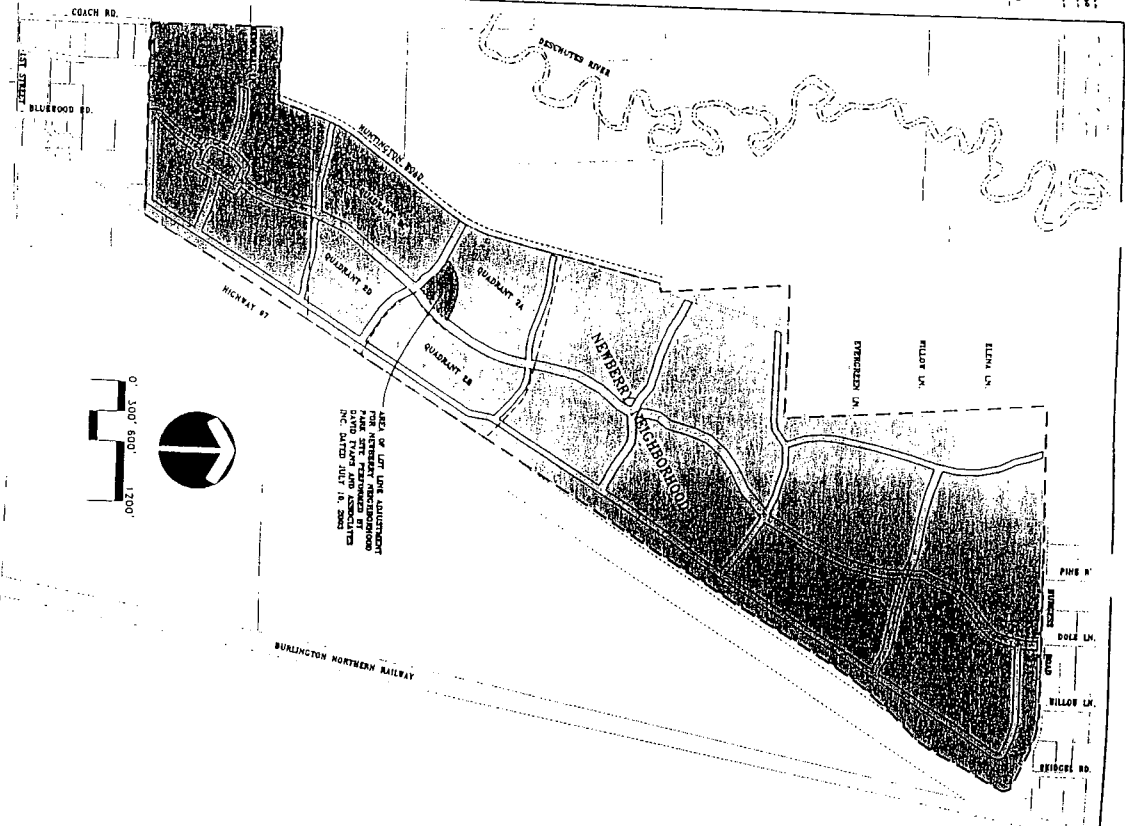
COMPLIMENTS OF 1-99

This sketch is furnished for information purposes only to assist in property location with reference to streets and other parcels. No representation is made as to accuracy and the Company assumes no liability for any loss occurring by reason of reliance thereon.

25

DATE PLOTTED: 10/15/03
 PLOTTER: HP DesignJet 500
 PLOT SCALE: 1" = 1200'
 PLOT SHEET: 1 OF 1

**NEWBERRY MASTER PLAN
 WITH LOT LINE ADJUSTMENT**



AREA OF LOT LINE ADJUSTMENT
 FOR INTEREST REPRESENTATION
 LAND TRUST AND ASSOCIATES
 INC. DATED JULY 18, 2002

**NEWBERRY NEIGHBORHOOD 2
 MASTER PLAN**

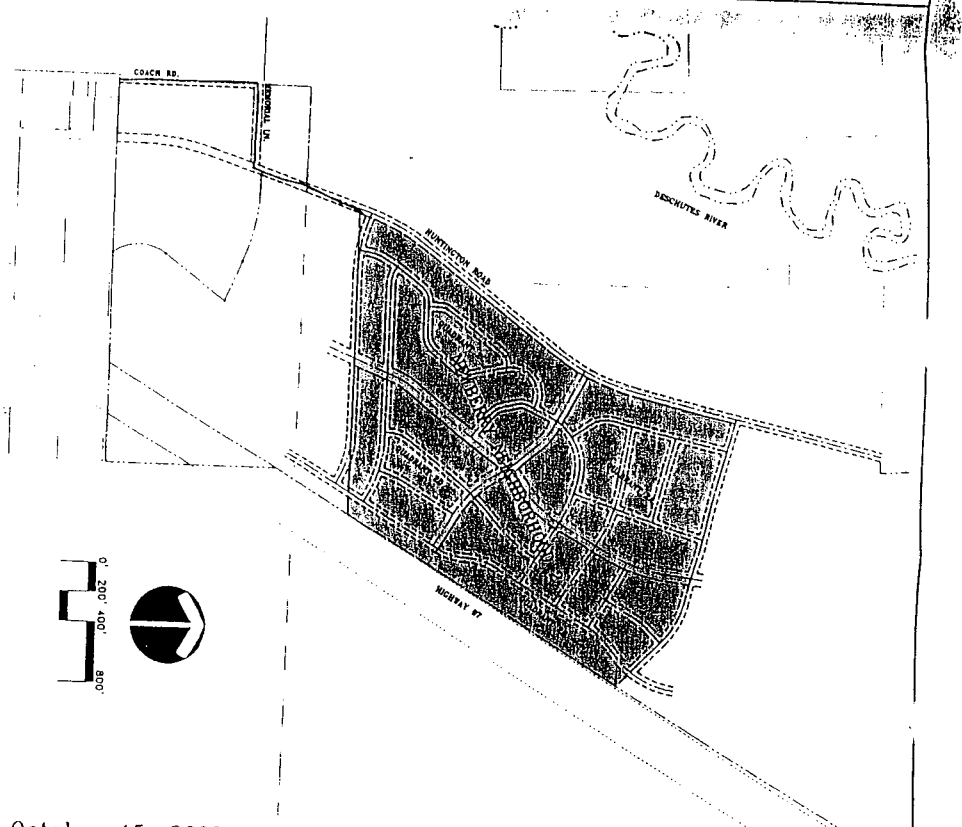


EXHIBIT 1

PLANNING SUBMITTAL - October 15, 2003

100% RECYCLED
 30% SOFT COPY
 70% HARD COPY
 11899 9583074
 Project No. Drawing No.
 Sheet No. 74
 October 2003

NEWBERRY NEIGHBORHOOD 2
 BEND, OREGON
 NEWBERRY NEIGHBORHOOD 2 MASTER PLAN

Pahlisch Homes
 There's Integrity Here

DESCHUTES COUNTY

NO.	DATE	BY	REVISION COMMENTS

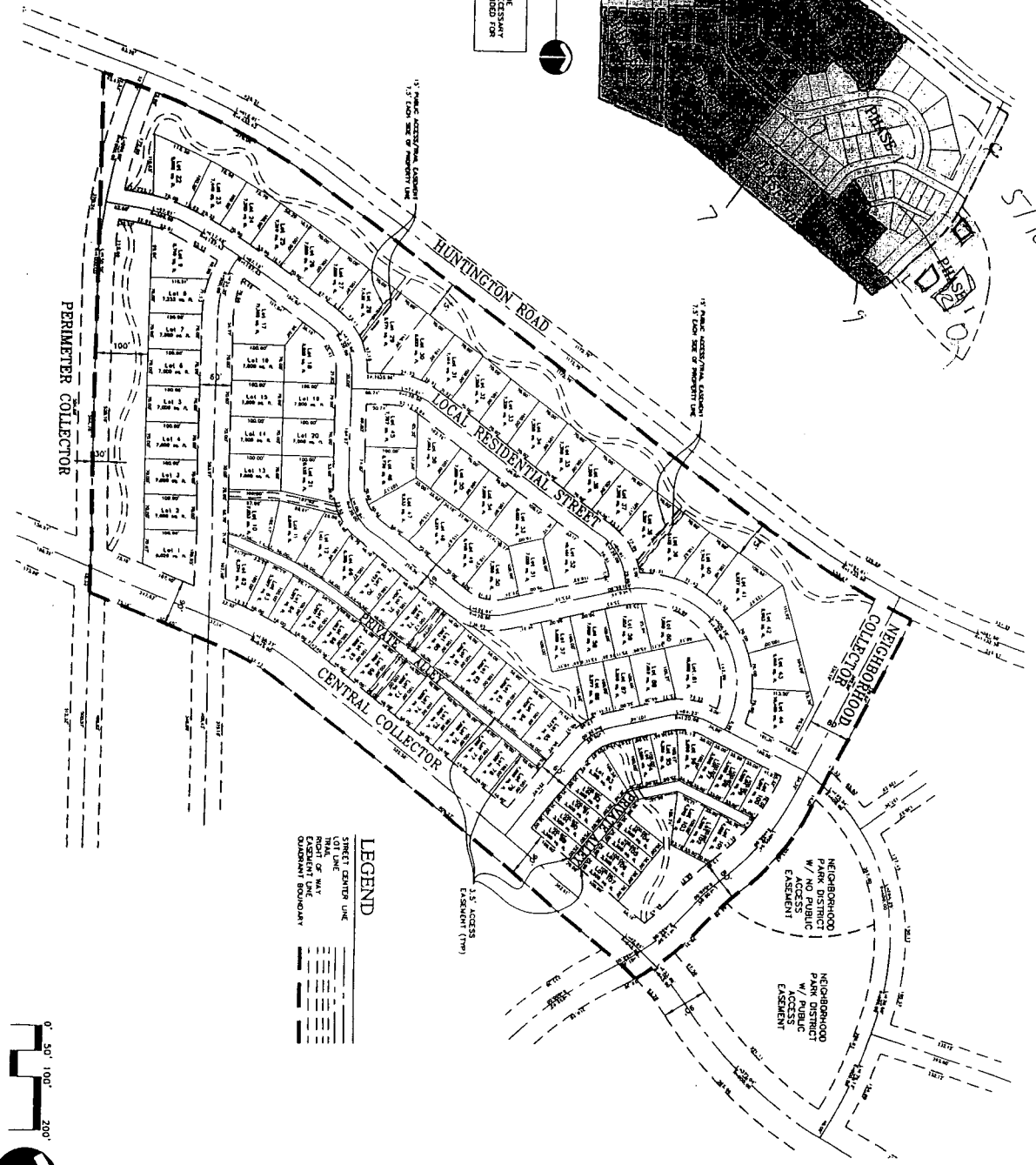
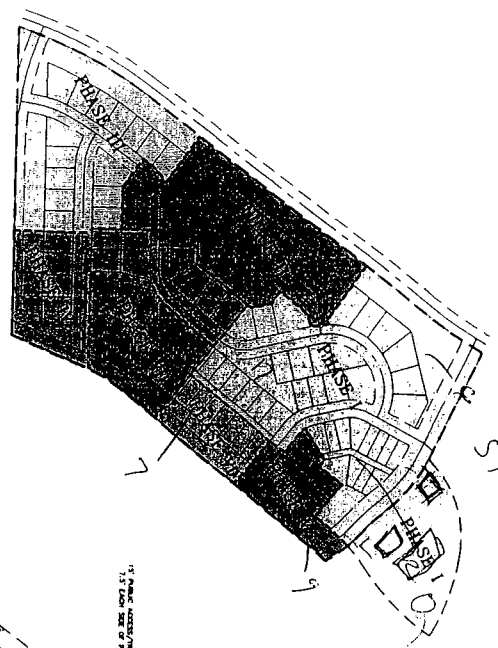
Design: []
 Check: []
 Date: 10/15/03
 Initial: []
 Date: []
 PSS | CDC | 10/15 | October 15, 2003

SCANNED

NOTE: PLEASE REFER TO SHEET 19 TO VERIFY THE PHASING PROVIDED. ALL UTILITIES AND NECESSARY EASEMENTS ARE ACCORDING TO RECORDS PROVIDED FOR THIS PROJECT.

SCALE: 1"=50'

PHASING



LEGEND

- SHEET CENTER LINE
- LOT LINE
- RIGHT OF WAY
- EASEMENT LINE
- BOUNDARY



Full 2.7.7

PLANNING SUBMITTAL - October 15, 2003

ORAK
 Incorporated
 1100 NE 10th St.
 Bend, Oregon 97701
 Phone: (503) 338-7777
 Fax: (503) 338-7778
 Email: orak@orakinc.com
 Website: www.orakinc.com

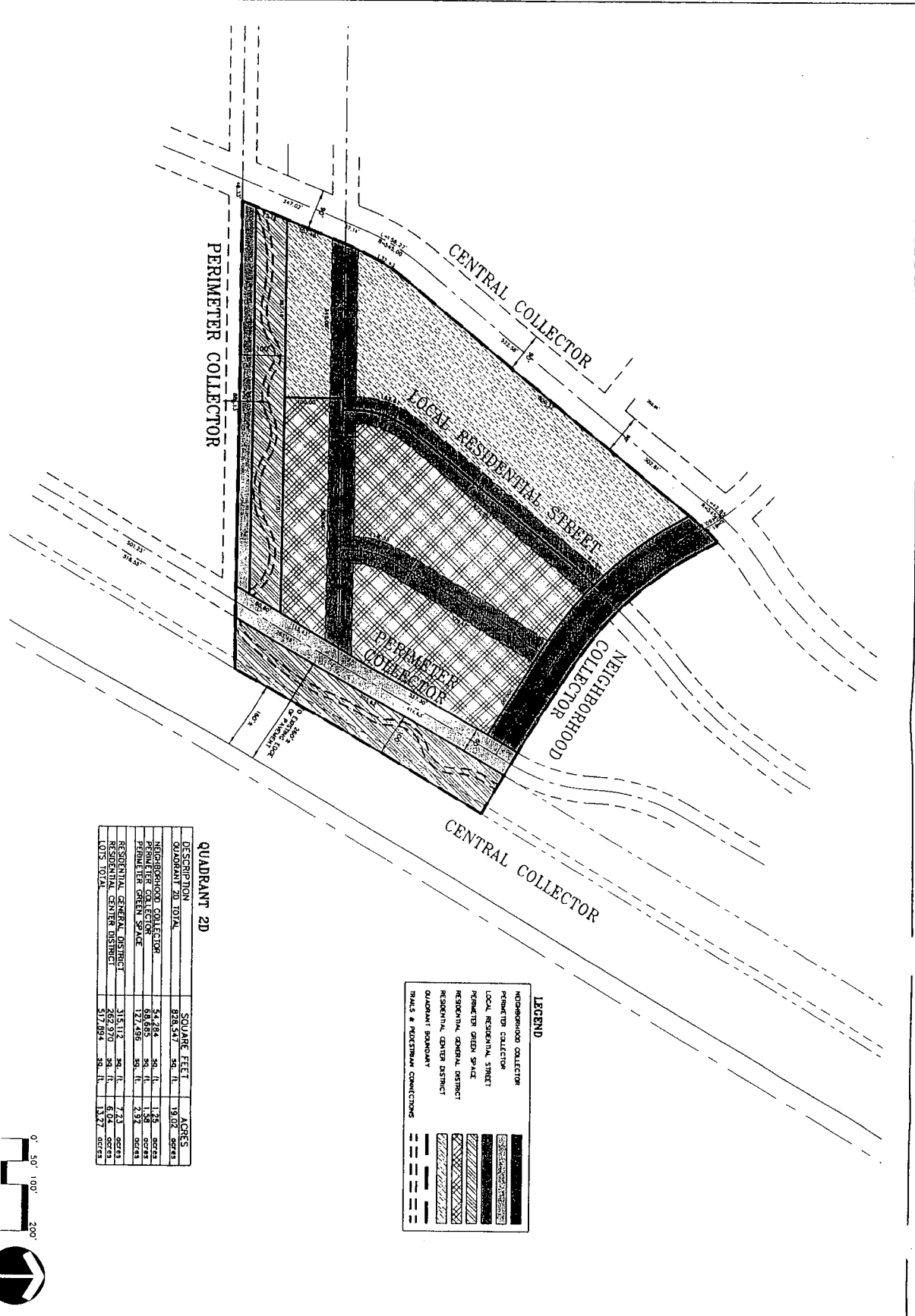
NEWBERRY NEIGHBORHOOD 2
 BEND, OREGON
 TENTATIVE PLAT PLAN
 QUADRANT 2C

Pahlisch Homes
 There's Integrity Here



NO.	DATE	BY	REVISION COMMENTS

SCANNED



QUADRANT 2D

DESCRIPTION	SQUARE FEET	ACRES
QUADRANT 2D TOTAL	828,547	19.02
NEIGHBORHOOD COLLECTOR	2,424	0.055
PERIMETER COLLECTOR	2,424	0.055
PERIMETER OPEN SPACE	177,496	4.02
RESIDENTIAL GENERAL DISTRICT	315,112	7.23
RESIDENTIAL CENTER DISTRICT	517,894	11.77
LOTS TOTAL		

LEGEND

- NEIGHBORHOOD COLLECTOR
- PERIMETER COLLECTOR
- LOCAL RESIDENTIAL STREET
- PERIMETER OPEN SPACE
- RESIDENTIAL GENERAL DISTRICT
- RESIDENTIAL CENTER DISTRICT
- QUADRANT BOUNDARY
- TRAILS & FORESTWAY CONNECTIONS



PLANNING SUBMITTAL - October 15, 2003

OLAK
 Incorporated
 1000 N. 10th St.
 Bend, Oregon 97701
 Phone: (503) 325-4000
 Fax: (503) 325-4000
 Website: www.olak.com
 T8A

NEWBERRY NEIGHBORHOOD 2
 BEND, OREGON
 TENTATIVE QUADRANT PLAN
 QUADRANT 2D - OPTION 2

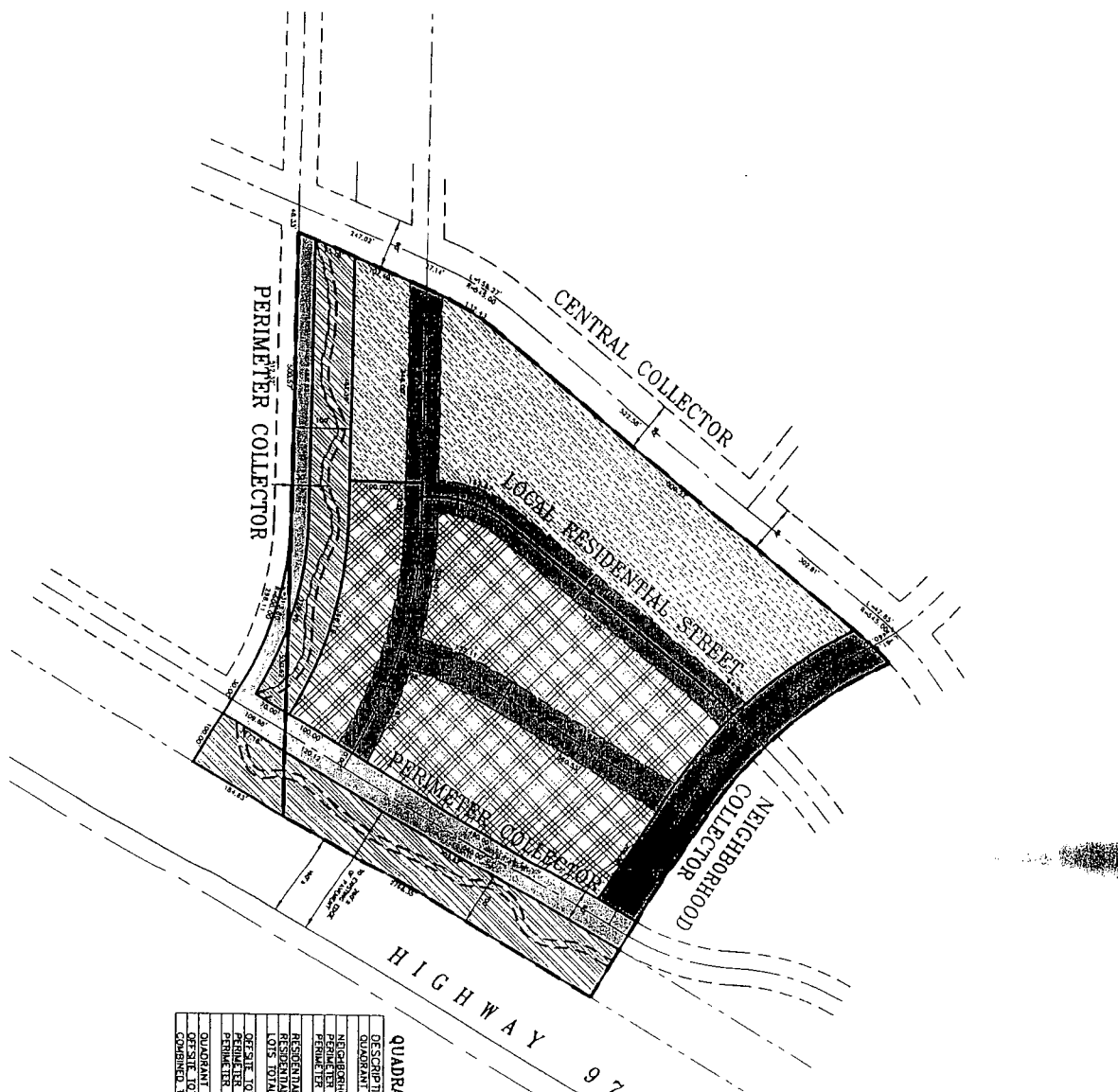
Pahisch Homes
 There's Integrity Here



NO.	DATE	BY	REVISION COMMENTS

Design: PSS Drawn: PSS Check: CDC Date: 10/15/03 Issue Date: 10/15/03

SCANNER



QUADRANT 2D

DESCRIPTION	SQUARE FEET	ACRES
QUADRANT 2D TOTAL	828,547	19.02
NEIGHBORHOOD COLLECTOR	54,284	1.25
PERIMETER COLLECTOR	61,908	1.42
PERIMETER GREEN SPACE	121,152	2.78
RESIDENTIAL GENERAL DISTRICT	326,212	7.54
RESIDENTIAL CENTER DISTRICT	262,970	6.04
LOIS TOTAL	517,882	11.88
OFF-SITE TOTAL	31,633	0.73
PERIMETER COLLECTOR	12,382	0.28
PERIMETER GREEN SPACE	19,451	0.45
QUADRANT 2D TOTAL	828,547	19.02
OFF-SITE TOTAL	31,633	0.73
COMBINED TOTAL	860,180	19.75

LEGEND

- NEIGHBORHOOD COLLECTOR
- PERIMETER COLLECTOR
- LOCAL RESIDENTIAL STREET
- PERIMETER GREEN SPACE
- RESIDENTIAL GENERAL DISTRICT
- RESIDENTIAL CENTER DISTRICT
- QUADRANT BOUNDARY
- THAMES & FOXGLOAM CONNECTIONS



PLANNING SUBMITTAL - October 15, 2003

Incorporated

 11855 S. RIVERVIEW

 BEND, OREGON 97701

 PHONE: 531-321-0700

 FAX: 531-321-0700

 PROJECT NO. 9720

 SHEET NO. 18

 DRAWN BY: [Signature]

 CHECKED BY: [Signature]

 DATE: 10/15/03

NEWBERRY NEIGHBORHOOD 2

 BEND, OREGON

 TENTATIVE QUADRANT PLAN

 QUADRANT 2D - OPTION 1

Pahlisch Homes

 There's Integrity Here

NO.	DATE	BY	REVISION COMMENTS

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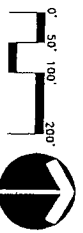
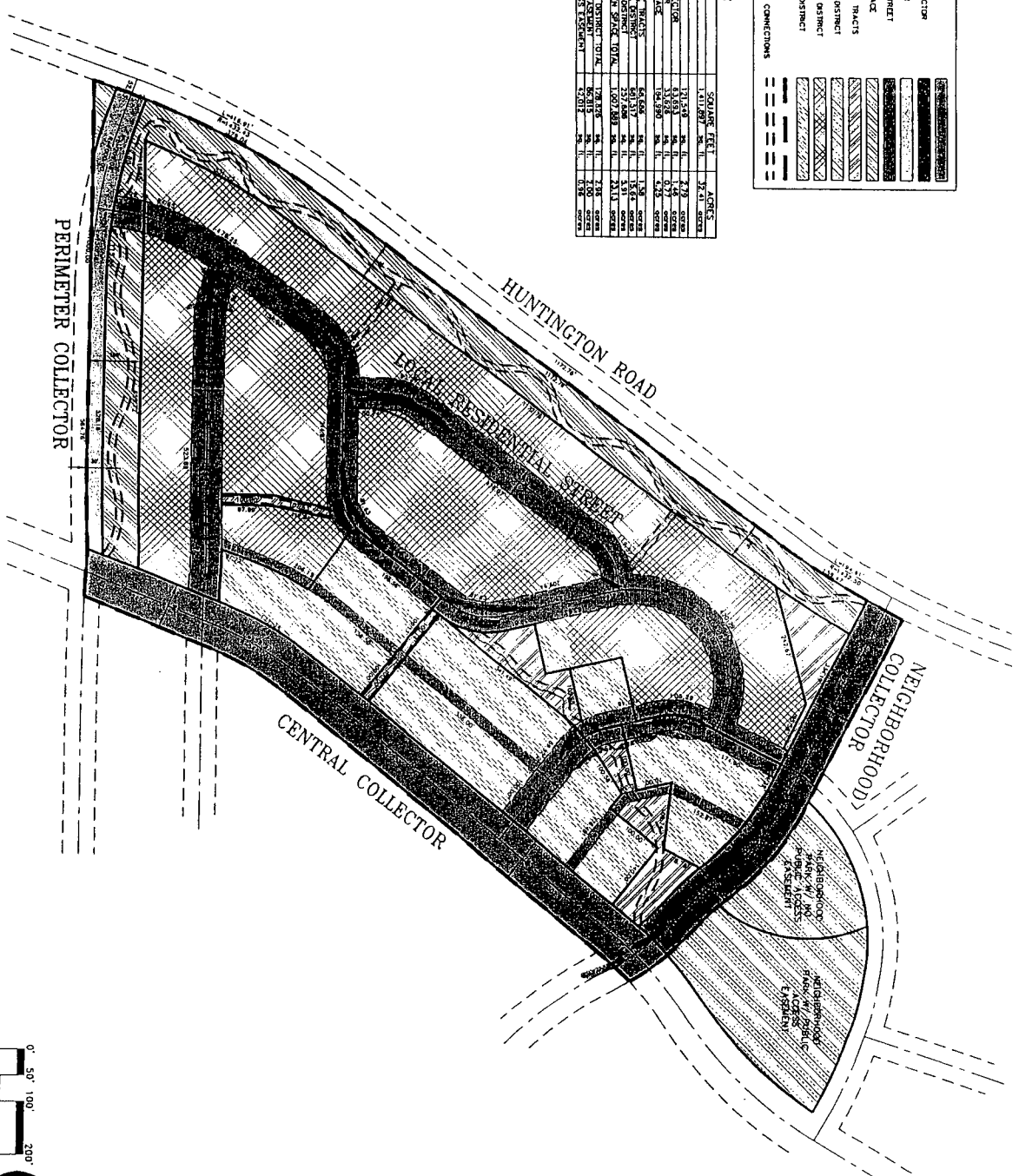
SCANNER

LEGEND

	CENTRAL COLLECTOR
	NEIGHBORHOOD COLLECTOR
	PERIMETER COLLECTOR
	LOCAL RESIDENTIAL STREET
	PERIMETER OPEN SPACE
	CADDEN OPEN SPACE TRACTS
	NEIGHBORHOOD PARK DISTRICT
	RESIDENTIAL GENERAL DISTRICT
	RESIDENTIAL CENTER DISTRICT
	QUADRANT BOUNDARY
	TRAILS & PEDESTRIAN CONNECTIONS

QUADRANT 2C

DESCRIPTION	SQUARE FEET	ACRES
QUADRANT TOTAL	1,111,879	25.31
CENTRAL COLLECTOR	1,111,879	25.31
NEIGHBORHOOD COLLECTOR	0	0
PERIMETER COLLECTOR	0	0
LOCAL RESIDENTIAL STREET	174,200	3.97
PERIMETER OPEN SPACE	0	0
CADDEN OPEN SPACE TRACTS	44,606	1.02
RESIDENTIAL GENERAL DISTRICT	501,117	11.41
RESIDENTIAL CENTER DISTRICT	501,117	11.41
QUADRANT TOTAL	1,207,882	27.73
QUADRANT TOTAL	1,111,879	25.31
NEIGHBORHOOD PARK DISTRICT	0	0
TRAILS & PEDESTRIAN CONNECTIONS	0	0
W/NO PUBLIC ACCESS EXCEPT	25,012	0.57



PLANNING SUBMITTAL - October 15, 2003

OLAK
Incorporated
2000 NW 11th St.
Bend, Oregon 97701
Tel: (503) 325-2700
Fax: (503) 325-2700
www.olak.com

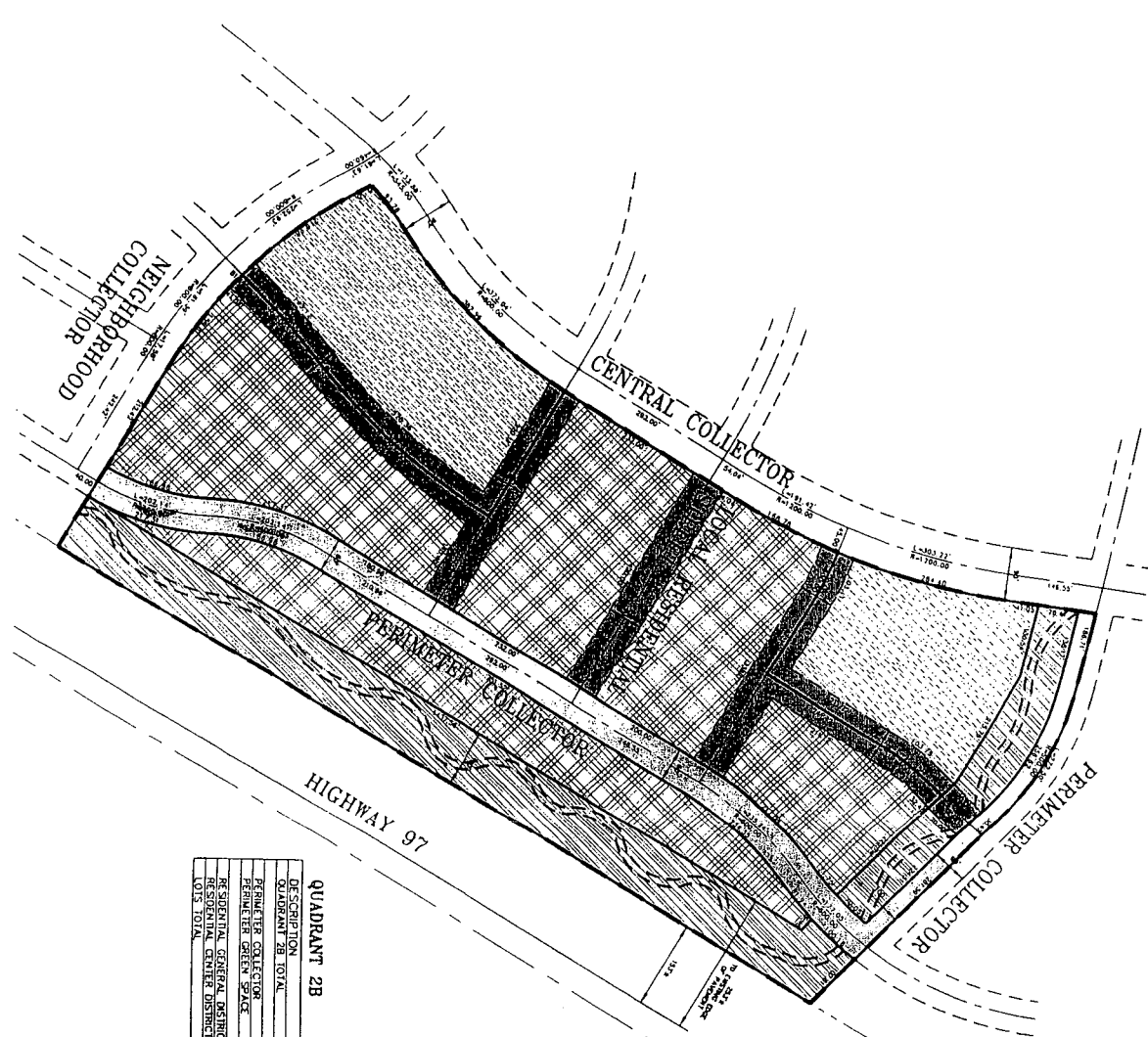
NEWBERRY NEIGHBORHOOD 2
BEND, OREGON
TENTATIVE QUADRANT PLAN
QUADRANT 2C

Pahlisch Homes
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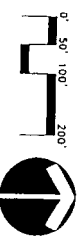


QUADRANT 2B

DESCRIPTION	SQUARE FEET	ACRES
QUADRANT 2B TOTAL	1,138,423 SQ. FT.	16.112 ACRES
PERIMETER COLLECTOR	115,402 SQ. FT.	2.65 ACRES
PERIMETER GREEN SPACE	202,581 SQ. FT.	4.95 ACRES
RESIDENTIAL GENERAL DISTRICT	574,473 SQ. FT.	13.18 ACRES
RESIDENTIAL CENTER DISTRICT	247,030 SQ. FT.	5.67 ACRES
OPEN SPACE	821,503 SQ. FT.	18.83 ACRES

LEGEND

- PERIMETER COLLECTOR
- LOCAL RESIDENTIAL STREET
- PERIMETER GREEN SPACE
- RESIDENTIAL GENERAL DISTRICT
- RESIDENTIAL CENTER DISTRICT
- QUADRANT BOUNDARY
- TRAILS & PEDESTRIAN CONNECTIONS

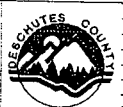


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OLAK
 Incorporated
 1545 NW 4th St.
 Suite 100
 Bend, OR 97701
 Phone: (503) 325-2900
 Fax: (503) 325-2700
 11899 2589795
 Project No. Drawing No.

NEWBERRY NEIGHBORHOOD 2
 BEND, OREGON
 TENTATIVE QUADRANT PLAN
 QUADRANT 2B

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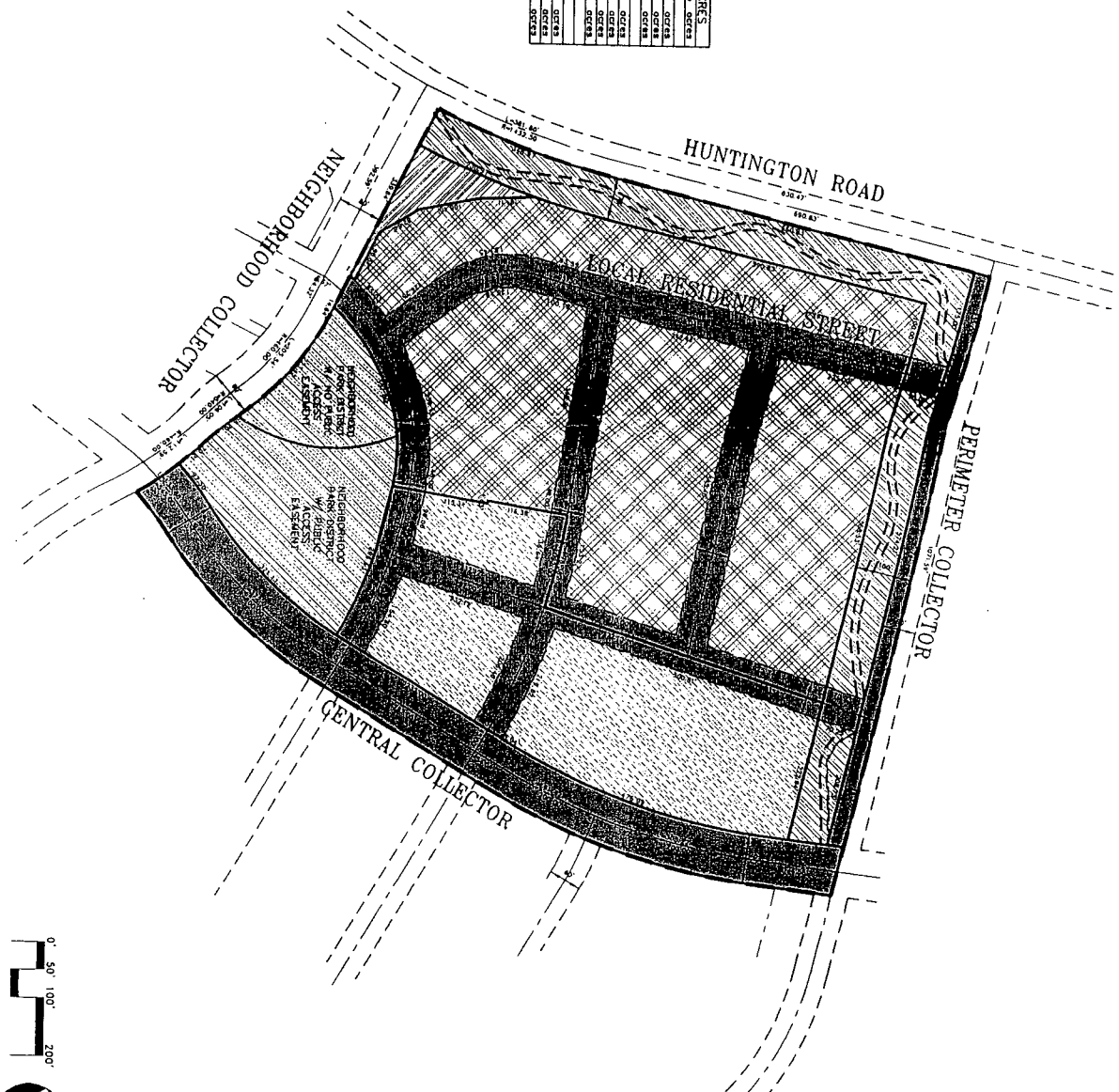
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 Title: 16
 Project: PSS | PSS | CDC | 10/15/03 (October 15, 2003)

QUADRANT 2A

DESCRIPTION	SQUARE FEET	ACRES
QUADRANT 2A TOTAL	1,330,850	30.35
PERIMETER COLLECTOR	133,784	3.07
LOCAL RESIDENTIAL STREET	172,425	3.95
PERIMETER OPEN SPACE	146,895	3.37
COMMON OPEN SPACE TRACTS	18,537	0.43
RESIDENTIAL CENTER DISTRICT	514,150	11.70
RESIDENTIAL CENTER DISTRICT	261,900	6.00
COMMON OPEN SPACE TOTAL	892,240	20.48
AREA INCLUDED IN QUADRANT 2C	120,828	2.76
NEIGHBORHOOD PARK DISTRICT TOTAL	269,815	6.13
W/NO TRAIL & PERIMETER CONNECTIONS	269,815	6.13
W/NO TRAIL & PERIMETER CONNECTIONS	14,012	0.32

LEGEND

- PERIMETER COLLECTOR
- LOCAL RESIDENTIAL STREET
- PERIMETER OPEN SPACE
- COMMON OPEN SPACE TRACTS
- NEIGHBORHOOD PARK DISTRICT
- RESIDENTIAL CENTER DISTRICT
- RESIDENTIAL CENTER DISTRICT
- QUADRANT BOUNDARY
- TRAIL & PERIMETER CONNECTIONS



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OTAK
 Incorporated
 1000 W. Main St.
 Bend, Oregon 97701
 Tel: (503) 325-2899
 Fax: (503) 325-2899
 www.otak.com

NEWBERRY NEIGHBORHOOD 2
 BEND, OREGON
 TENTATIVE QUADRANT PLAN
 QUADRANT 2A

Pahlisch Homes
 There's Integrity Here



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 Hours: 10
 Date: October 15, 2003

SCANNED

Oregon's Statewide Planning Goals & Guidelines

GOAL 13: ENERGY CONSERVATION

OAR 660-015-0000(13)

To conserve energy.

Land and uses developed on the land shall be managed and controlled so as to maximize the conservation of all forms of energy, based upon sound economic principles.

GUIDELINES

A. PLANNING

1. Priority consideration in land use planning should be given to methods of analysis and implementation measures that will assure achievement of maximum efficiency in energy utilization.
2. The allocation of land and uses permitted on the land should seek to minimize the depletion of non-renewable sources of energy.
3. Land use planning should, to the maximum extent possible, seek to recycle and re-use vacant land and those uses which are not energy efficient.
4. Land use planning should, to the maximum extent possible, combine increasing density gradients along high capacity transportation corridors to achieve greater energy efficiency.
5. 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.

B. IMPLEMENTATION

1. Land use plans should be based on utilization of the following techniques and implementation devices which can have a material impact on energy efficiency:
 - a. Lot size, dimension, and siting controls;
 - b. Building height, bulk and surface area;
 - c. Density of uses, particularly those which relate to housing densities;
 - d. Availability of light, wind and air;
 - e. Compatibility of and competition between competing land use activities; and
 - f. Systems and incentives for the collection, reuse and recycling of metallic and nonmetallic waste.

Chapter 23.16. EXISTING CONDITIONS AND CONCERNS

- 23.16.010. Introduction.
- 23.16.020. Population.
- 23.16.030. Economy.
- 23.16.040. Housing.
- 23.16.050. Land use.
- 23.16.060. Public facilities.
- 23.16.070. Transportation.
- 23.16.080. Other.

23.16.010. Introduction.

Before a plan can be prepared for a community, there must be an understanding of the physical structure, general attitudes and existing trends which identify that community as the unique society that it constitutes. Further, it is important that there exist some understanding of the problems and issues facing the local community. The purpose of this portion of the plan is to briefly review the status of some of the elements which make up Deschutes County in 1979 and discuss the apparent direction which the County seems to be taking into the future. More detailed information on local conditions and trends may be found in the Resource Element which is part of this plan.

(Ord. 2000-017 § 1, 2000; PL-20, 1979)

23.16.020. Population.

The population of the County has increased significantly since the adoption of the comprehensive plan in 1979.

Population Growth in Deschutes County: 1980 to 2000			
Sources	1980	1990	2000
Population Research Center - July 1 estimates	62,500	75,600	116,600
Census Bureau - April 1 census counts	62,142	74,958	115,367

ORS 195.025(1) requires the counties to coordinate local plans and population forecasts. In 1996, Bend, Redmond, Sisters and the County reviewed the most recent population forecasts from the Portland State University Center for Population Research and Census, the Department of Transportation, Woods and Poole, the Bonneville Power Administration and the State Department of Administrative Services Office of Economic Analysis. After review of these projections, the cities and Deschutes County agreed on the coordinated population forecast adopted by the County in 1998 by Ordinance 98-084

The results of the 2000 decennial census and subsequent population estimates prepared by the Population Research Center (PRC) at Portland State University revealed the respective populations of the County and the incorporated cities were growing faster than contemplated under the 1998 coordinated forecast. The cities and the County engaged in a coordination process between 2002 and 2004 that culminated with the County adopting a revised population forecast that projected population for the cities and the County to the year 2025. The following table displays the 2004 coordinated population forecast for Deschutes County and the urban growth boundaries of the cities of Bend, Redmond, and Sisters from 2000 to 2025:

2000-2025 Coordinated Population Forecast					
Year	Bend UGB	Redmond UGB	Sisters UGB	Unincorporated County	Total County
2000	52,800	15,505	975	47,320	116,600
2005	69,004	19,249	1,768	53,032	143,053
2010	81,155	23,897	2,306	59,127	166,572
2015	91,158	29,667	2,694	65,924	189,443
2020	100,646	36,831	3,166	73,502	214,145
2025	109,389	45,724	3,747	81,951	240,811

The process through which the County and the cities coordinated to develop the 2000-2025 coordinated forecast is outlined in the report titled "*Deschutes County Coordinated Population Forecast 2000-2025: Findings in Support of Forecast*" dated July 2004. This report provides the findings in support of the adopted forecast. The Deschutes County Year 2000 Comprehensive Plan (1979) included a population forecast from 1980 to 2000 that was incorporated in several chapters. In 1998, the County adopted a coordinated population forecast under ORS 195.036. The following table displays all three forecasts for comparison:

Deschutes County Population Forecasts from 1979, 1998, and 2004			
Year	1979 forecast	1998 forecast	2004 forecast
1980	53,400	-	-
1985	66,600	-	-
1990	82,900	74,958	-
1995	103,400	94,100	-
2000	128,200	113,231	116,600
2005	-	132,239	143,053
2010	-	151,431	166,572
2015	-	167,911	189,443
2020	-	182,353	214,145
2025	-	-	240,811

In the fall of 1998, the Oregon Water Resources Department acknowledged that virtually all groundwater in the Deschutes River basin discharges to the rivers of the basin. The Water Resources Department may place restrictions on the consumptive use of groundwater to protect the free flowing nature of the Deschutes River, instream water rights and existing water rights. These restrictions may affect the use of groundwater resources for future development and consequently affect the future growth and allocation of population in the County and the three urban jurisdictions.

(Ord. 2003-078 § 1, 2003; Ord. 2003-001 § 1, 2003; Ord. 2000-017 § 1, 2000; Ord. 98-084 § 1, 1998; PL-20, 1979)

23.16.030. Economy.

Equally important in understanding the local area is the economic base of the community. Presently the timber and wood products sector is the major manufacturing employer locally, with 2,720 employees as of March 1978. However, major changes may be expected during the 20-year planning period and the overall result is difficult to assess. It does appear that conversion to processing smaller trees and maintenance of the allowable cut will permit some growth in employment but overall timber and wood products will probably play a proportionally smaller role in the County's future economy. In fact, total manufacturing is presently decreasing in importance locally. How much decrease this ultimately will amount to is difficult to predict. Regionally and nationally the economy is shifting to a more service and trade-oriented status. Given the emphasis on promoting manufacturing in Redmond and to a lesser extent in La Pine and the growing local labor pool, it seems probably that some gains in industrial employment may be expected although as a proportion of the economy some small decline may occur.

One of the strongest segments of the local economy is construction which grew 187.5 per cent between 1970 and 1978. Related to construction is the growth in finance, insurance and real estate employment, up 95.8 per cent during the same period. These industries are directly related to the large in-migration of people occurring in the County.

Tourism is also a significant factor locally, as is reflected in the strong growth (up 107.3 per cent) taking place in the services sector of the economy. Some of this growth is likely to be related to population growth and a national trend to more services. Unfortunately, service jobs tend to be somewhat lower paying and more seasonal than some other types of employment. However, the City of Sisters has chosen to base its economy almost solely on tourism. And tourism locally is a less seasonable economy which seems to provide many jobs for the young and second incomes for families.

Wholesale and retail trade has also witnessed rapid growth, up 96.9 per cent, and is probably tied to a burgeoning population and a growing importance for Bend as a regional shopping center. Agriculture, once a major factor in the local economy, has continued to decline. Only livestock areas and some of the better cropland areas, which have remained largely undivided, have continued to produce significant amounts of agricultural products. Many small farms exist in the County, but their agricultural production is largely subsidized by off-farm employment. The definition of marginal farmland and how much is marginal is a major issue in this area.

It appears Deschutes County is shifting from a rural economy to one more characteristic of a growing urban area. Growth in trade and services seems likely to continue with a growing interest in manufacturing employment, presently not evident, probable once an adequate pool of labor exists.

Unemployment has consistently been higher in Deschutes County for many years. To some extent, this situation is related to the seasonable fluctuations of such industries as tourism, logging and agriculture. Most recently, the major reason is probably the rapid influx of new residents. Many of these people are young skilled individuals who have moved here for the higher quality of life available locally and are willing to accept jobs for which they are over-qualified or to create their own employment. Given the rapid influx of people, which likely hides a large out-migration of people unable to find adequate employment (in-migration is still faster than the out-migration so the population increases), it is perhaps surprising the economy has accommodated so many.

(Ord. 2000-017 § 1, 2000; PL-20, 1979)

23.16.040. Housing.

Nineteen seventy-seven housing data indicate Deschutes County residents build more single family units (62.5 per cent of all new dwelling unit permits versus a State average of 55.32 per cent), buy more mobile homes (20.4 per cent versus 15.92 per cent), and construct fewer multiple family units (17.1 per cent versus 28.75 per cent) than is characteristic Statewide. These findings appear to be consistent with the earlier

population information. The low vacancy rates found locally, for single-family dwellings and multiple family units, are indicative of the rapid growth locally. One aspect of the local housing situation that is difficult to determine is the effect of seasonable housing on local housing demand. Surveys indicate about 10 per cent of the local housing stock is used as seasonal housing and is, therefore, generally unavailable to meet the need of local residents. This is a factor which must be remembered when assessing how much land needs to be set aside for housing construction.

(Ord. 2000-017 § 1, 2000; PL-20, 1979)

23.16.050. Land use.

One of the most obvious results of growing County population has been the sprawling residential development that has spread rapidly over much of western Deschutes County. This has caused the loss of valuable agricultural and forestland and accentuated the need for expensive public services. Recreational and rural tract lots in the County in 1979 accounted for 58 percent of the total lots. Interestingly, of these lots, 17,377 were found to be undeveloped.

It appears the County presently has enough available empty lots to more than serve the needs of the anticipated new rural residents.

In the La Pine area, recreational subdivisions once seen as a boon to the County taxpayer have slowly been changing to more permanent occupancies that demand schools, buses, sheriff and fire patrol, as well as a variety of other expensive services that must be delivered over a large area.

Historic structures and sites, so important to the preservation of the County's history and the education of the community, have been lost to the dictates of unregulated change.

Strip commercial development has continued to stretch out from the urban areas along the highways, often obliterating scenic views and natural lands while promoting inefficient energy consumption and traffic patterns.

Rural Service Centers have not been used as originally intended. Often the land uses constructed have little or nothing to do with the servicing of the rural population, but instead are just further examples of the spread of commercial uses along the highways or the use of loopholes to avoid planned development (i.e., Deschutes Junction).

(Ord. 2000-017 § 1, 2000; PL-20, 1979)

23.16.060. Public facilities.

As has been mentioned previously, the sprawling pattern of development which has been characteristic locally has resulted in extensions of increasingly expensive public services. Further, growth has been so rapid that even in urban areas services have lagged behind the population growth, although not so seriously as in La Pine. Occasionally, the lack of services has even created the potential for serious problems, such as the lack of sheriff's protection in La Pine and the use of irrigation water for drinking in the Bend-Tumalo areas.

Many people have expressed concern over rising tax rates and the possibility that they are subsidizing those areas of the County they would like to see left open and unchanged.

(Ord. 2000-017 § 1, 2000; PL-20, 1979)

23.16.070. Transportation.

In Deschutes County, as is typical of rural areas, the primary mode of transportation is the private automobile. In fact, this area's love of outdoor activities and sprawled development seems to have resulted

in a higher rate of vehicular ownership than is characteristic Statewide. Certainly these attitudes and conditions are much of the reason mass transit has been so unsuccessful locally.
(Ord. 2000-017 § 1, 2000; PL-20, 1979)

23.16.080. Other.

Concern has been expressed over the loss of wildlife habitat, such as the subdivision of deer winter ranges and the blockage of deer migration corridors in the La Pine area. The Oregon Fish and Wildlife Department has been outspoken in its concern and has, upon occasion, sued to protect the dwindling habitat.

Problems with water quality have been found to exist in La Pine and septic tanks have failed in Terrebonne. Increasingly the major environmental damage has been the loss of scenic vistas and sensitive environment areas along highways, rivers and other areas where development has occurred. Often the resources lost have been irreplaceable locally.

Fortunately, Deschutes County still has many scenic and natural resources available. Public ownership constitutes over 78 per cent of the land in the County. Proper management of both public and private lands can assure the area's primary resource--its natural beauty and diversity--is maintained for future residents.

Energy usage has been growing dramatically in Deschutes County, not only because of the population growth but also due to the low-density sprawled-out pattern, construction of energy consumptive commercial uses and a general unconcern about energy by many citizens. Interestingly, the heavy use of wood heat locally does seem to have saved a significant amount of electrical energy. Problems with coordinating activities and regulations between the various Federal, State and local agencies have often created unnecessary delays and expenses. Often this has been expressed in comments about comments about lax enforcement of local ordinances are being received. While improvement has been noted, much more will be necessary for the coordinated and productive management of public resources and services locally, particularly if growth and change continue to occur at a pace as rapid as it is now.

This brief summary of conditions, trends and local issues is not meant to be all-encompassing, but it does include the major characteristics and trends of concern in the preparation of this plan. Deschutes County has available tremendous environmental and human resources but it also suffers from many of the problems common to areas with rapid rates of growth. The scenic and environmental qualities that first attracted people will be needed in the future as well.

However, not all of the results of growth are bad. Increasing population has brought new businesses and services to the area. Educational and cultural opportunities have improved significantly. Employment alternatives have increased, as have wages. And, a lot of new people have been able to improve their quality of life. Growth and change is a mixed blessing. The purpose of this plan is to address the issues and provide the best available development alternative for this County's people. Given the complexity of local issues and the importance of the task, it is not surprising that the preparation of this plan has been a controversial and lengthy process.

(Ord. 2000-017 § 1, 2000; PL-20, 1979)

Chapter 23.20. COMPREHENSIVE PLANNING PROCESS

- 23.20.010. Planning organization.
- 23.20.020. Comprehensive planning process.
- 23.20.030. Alternatives.
- 23.20.040. Goals and policies.

23.20.010. Planning organization.

In order to actually prepare a comprehensive plan, it is necessary to develop an organizational network which outlines tasks and assigns responsibilities within the bounds set by the available time and the applicable State laws. Deschutes County chose to develop an organization that relied upon citizen involvement and initiative to complete the necessary plan.

Citizen involvement in land use planning has been mandatory statewide since 1973. Senate Bill 100 (ORD 197.160) required each County-governing body to submit a program for citizen involvement in preparing, adopting and revising comprehensive plans within each County. Each program must at least contain provision for a citizen advisory committee broadly representative of geographic areas and interest relating to land use. All jurisdictions must develop, publicize and adopt a program appropriate to the local level of planning and containing the following:

- A. Provision for widespread citizen involvement;
- B. Assurance of effective two-way communication with citizens;
- C. Provision of opportunities for citizens to be involved in all phases of the planning process;
- D. Assurance that technical information is available in an understandable form;
- E. Assurance that citizens will receive a response from policy makers;
- F. Assurance that there will be funding for the citizen involvement process.

Further, the law requires that Federal, State and local agencies, as well as special districts, coordinate their planning efforts and make use of existing citizen involvement programs.

In Deschutes County, citizen participation in planning has occurred since 1968 but with the advent of the LCDC goals and the project of updating the Deschutes County Comprehensive Plan, the citizen involvement program experienced a dramatic expansion.

The planning process followed in the plan preparation was largely based upon citizens' participation, agency involvement and both local and outside professional analysis to assure consistency with the LCDC goals and good planning.

(Ord. 2002-005 § 1, 2002; Ord. 2000-017 § 1, 2000; PL-20, 1979)

23.20.020. Comprehensive planning process.

The program began with a well-publicized educational meeting at the local college to acquaint Deschutes County residents with citizen involvement in land use planning and the upcoming opportunities for participation. One hundred and fifty persons attended to view a slide show on the goals, hear an explanation of the program, fill out an attitude survey (later compiled by college students) and receive several handouts. For a month thereafter, people volunteered for advisory committee membership and were accepted without restrictions.

The Board of County Commissioners, acting as the committee to evaluate the citizen involvement program, appointed 17 technical and area advisory committees and an Overall Citizens Advisory Committee with a total of 326 officially appointed members. Up to 300 additional persons also were indirectly involved.

The technical committee functioned as a panel of experts (often including Federal, State, local and district agency personnel) and interested citizens. These committees covered the following topics: minerals and aggregates, agriculture, forest lands, fish and wildlife, historic and cultural, economy, transportation, public facilities and services, recreation, housing and energy. Each committee was given a general work program to collect information, identify needs and problems and prepare justified recommendations. Committees met two to four times per month and 10 to 20 times totally. Each group prepared a detailed and factual preliminary report which was then submitted to the Overall Citizens Advisory Committee (OCAC) for comment. Revisions to each report were made and submitted as a final report to the OCAC and Planning staff. The initially weak database as well as the demanding time schedule for plan completion were handicaps the committee had to overcome. Their detailed reports were used word for word in the preparation of the resource element and preliminary plan.

The area committees involved interested citizens from the three major rural service center areas: La Pine, Terrebonne and Tumalo. An attempt was also made to form a Sunriver committee but little interest was expressed by residents of that area. The committees addressed each of the LCDC goals and developed a list of programs, needs and directions for future community growth. Their reports were reviewed by the OCAC in the same manner as the technical reports and eventually used in the preparation of the preliminary plan.

There were also three urban area advisory committees appointed to work with each city's planning staff in order to prepare urban area plans for each city and its surrounding urbanizing area. While the Bend Urban Area Plan was largely completed by the time the OCAC was formed, the Redmond and Sisters planner periodically reported to the Overall Citizens Advisory Committee to assure communication and coordination.

The Overall Citizens Advisory Committee was the largest committee and the one most broadly representative of the various interests and areas of the County. Their primary function was to resolve conflicts between the recommendations of the various committees. In addition, they also reviewed the recommendations to assure they met the State's goals and guidelines. The OCAC also initiated many of the recommendations regarding development in urbanizing and rural areas of the County, thereby tying together the various elements of the plan. It was their direction to the staff which served as the basis for the preliminary plan.

In this period the County Planning staff also wrote several reports to provide information to the OCAC. These papers covered geology, geomorphology, soils, areas of special interest, climate, hydrology, history and population. The OCAC also considered this information in its deliberations.

During this citizens' committee stage of the process, over 200 meetings were held and in excess of over 10,000 hours of time were spent by volunteers working on the plan. More than 5,000 newsletters were mailed to interested citizens and thousands of letters, mailings, posters and flyers were also distributed. Radio, television and newspaper coverage was extensive. The largest local newspaper printed an explanatory article on each of the committees' and staff's reports. This was to insure that everyone whether involved directly in the process or not, was kept up to date as to where the plan was heading.

Once in the preliminary plan stage, the document was brought to the County Planning Commission for review. A newspaper supplement describing the major elements of the plan was placed in the major newspaper in Deschutes County and the local news media were very cooperative in disseminating information about the plan. The Planning staff also spoke to various groups in the community. Copies of

the plan were placed in local libraries and made available to everyone interested. The Planning Commission held a number hearings on the preliminary plan and then provided a services of recommendations to the Board of County Commissioners.

The County Commissioners also held hearings on the plan. These hearings seemed to be emotion-packed events which generated large turnouts and spirited testimony. Using the public testimony (both written and verbal) and the recommendations of the Planning Commission and staff, the Board compiled a working draft of the Comprehensive Plan. This working draft was then sent out to outside legal and planning consultants for review and comment. Earlier, the preliminary plan had been given to an outside reviewer to determine the adequacy of the energy elements of the plan. All these reports were then delivered to the Board of County Commissioners. Their determination was that the Planning staff should take some additional time to use these studies to improve the plan where necessary. This new draft was then taken to the Overall Citizens Advisory Committee and Planning Commission for comment, before the Board took any final action. The Board also determined that an additional public hearing would be held to hear testimony on planned exceptions to be taken to the agricultural and forest land goals of the State Land Conservation and Development Commission. The use of such an extensive citizen involvement program, as well as the utilization of specific professional assistance, was a complex but extremely useful combination. The preparation of the plan was not only speeded but the quality of the overall document was significantly improved. It is expected that this will produce a document that will effectively serve as a basis upon which to build a bright future for the people of Deschutes County.
(Ord. 2002-005 § 1, 2002; Ord. 2000-017 § 1, 2000; PL-20, 1979)

23.20.030. Alternatives.

A. Introduction.

Choosing a course into the future is a difficult task. To help in making adequate decisions, it is often most desirable to consider a number of alternatives. In the preparation of the Deschutes County Plan, a number of different options were considered at several levels. First, each of the citizen advisory committees reviewed and discussed a variety of different policies, each with varying impacts, and chose the recommendations most likely to achieve the desired result. After their deliberations, the policies were sent on to the Overall Citizens' Advisory Committee, where decisions had to be made about tying the various elements of the plan together into a cohesive document. To do that it was necessary for the membership to determine a consistent philosophy and direction for development in Deschutes County.

B. Population and housing projections.

This subsection, and the following Table 1, represents the population forecast adopted with the Comprehensive Plan in 1979. The initial decision which had to be reached was which population projection to use in preparing for the future. The Center for Population Research and Census at Portland University had prepared a population estimate indicating Deschutes County would grow at an approximate rate of 2.8 per cent annually. A study by the Economic CAC indicated the present growth rate (1970-77) was 6.3 per cent annually. The committees felt that CPRC's estimate was too far off and should not be used but that use of the present growth rate would certainly exceed the actual growth because of economic fluctuations and a declining percentage gain near the end of the planning period (Planning Period = present to the year 2000). The preferred alternative was one, which would use the 4.5 per cent annual growth rate to yield 128,200 people in Deschutes County by the year 2000. Section 23.16.020, Population, of the Comprehensive Plan includes the updated population forecast for 2000 to 2025.

**TABLE 1
DESCHUTES COUNTY
POPULATION PROJECTIONS (1979)**

	PSU 2.8%	PRESENT RATE	PREFERRED ALTERNATIVES
1980	50,500	56,324	53,400
1985	56,700	76,298	66,600
1990	60,700	103,557	82,900
1995	63,900	140,554	103,400
2000	65,700	190,770	128,200

Recognizing the need for a single target population and in light of the Economic ACA's research and expertise the 4.5 per cent annual growth was chosen as the "best guess" option and the one to be used in the preparation of comprehensive plans in Deschutes County. Ultimately, this was to result in allocations of population to different parts of the County with the Bend Urban Area receiving 84,000, the Redmond Urban Area obtaining 23,093, the Sisters Urban Area having 2,135, and the remainder of the County getting 18,972. Once the population figure was chosen, it was possible to determine housing needs to the year 2000 by making some assumptions about household size and rehabilitation.

**TABLE 2
NEW HOUSING UNITS (1979)**

1980	3,181
1985	6,339
1990	7,740
1995	9,669
2000	11,753
	38,682

The question still remaining was how to allocate this new population and housing throughout the County. Several different alternatives were directly and indirectly discussed by members of the OCAC.

Underlying all of the alternatives were a number of basic assumptions:

1. LCDC will require some protection and coordination.
2. Energy will become increasingly expensive and relatively more scarce.
3. Much of the area's growth is tied to amenities.
4. Federal agencies will continue to use their lands for multiple public uses.

C. Alternative One - Current Trends.

1. Land Uses: Continue with the present trends without modification of the dispersed housing pattern that was developing in Deschutes County. Anticipate that most people would live in the urban areas but that many would choose to scatter throughout rural areas. Recognize that much of the agricultural and forest lands of the County would be lost or replaced by hobby farms. And expect a less than stringent enforcement of regulations to protect unique historic and environmental areas. Environmental: Anticipate the loss of additional scenic and natural amenities. Recognize that the deer winter ranges would almost certainly be developed and the wildlife lost. And prepare for increasing problems with air and water quality.
2. Social and Economic: Continue the strong economic growth of the area, particularly in the service, trade and construction industries. Expect more cultural amenities. Anticipate increasing social problems such as crime.

3. Public Services and Facilities: Expect to see an expanding road system and a growing demand for other public services. Recognize that these services will continue to lag behind demand and taxes are rising rapidly to provide the necessary services. Other: While there will be some improvement in land use controls and increasing cities and County cooperation there is likely to be continued State review and occasional intervention. Ultimately, population increase is expected to decline as the environmental amenities of the area decline.

D. Alternative Two – Unrestricted Development.

1. Land Uses: Greater amount of urban sprawl from all growth centers; in addition rural sprawl also occurs in the vicinity of the Rural Service Centers as they rapidly develop. Some protection is given the most dramatic and publicly supported historic and environmental sites. Agriculture ceases to exist as pollution problems in parts of the County ultimately requiring some areas to be mandated to install expensive sewer and water facilities. The growing development on private lands interspersed within the public lands severely reduce the beauty and usefulness of the public lands.
2. Social and Economic: Continued high employment, particularly in construction, for the next 10 to 15 years with the development ultimately resulting in a loss of amenities which sharply reduce unemployment in the non-manufacturing industries. Cultural amenities increase in conjunction with the population, but there are serious social dislocations resulting from the inequitable tax burdens created by the growth and loss of esthetics.
3. Public Facilities and Services: Serious problems with providing adequate services, resulting in higher taxes and public dissatisfaction. Recreation demands continue to grow and demand expands rapidly as the formerly available outdoor areas become lost to development. Finally an expensive mass transit system must be constructed to bring people into the urban centers as the gasoline prices continue to climb. Other: Energy costs locally continue to increase finally leading some people to begin leaving. There is little effective coordination or local authority to control unnecessary subdivision and construction. Increasingly, the State intercedes in Deschutes County to assure State interests and people's lives and safety are protected.

E. Alternative Three – Strict Growth Controls.

1. Land Uses: No further residential, commercial or industrial construction is permitted in rural areas and ultimately the rural population begins to decline. Urban areas grow rapidly but the restrictiveness of the regulations result in a slower growth rate. Historic and environmental sites receive strict protection. Increasingly, apartments and higher densities are common.
2. Social and Economic: Housing and land costs rise rapidly because of the relative shortage of buildable land. Lower and middle-income families find themselves effectively excluded from the community. Cultural amenities rise. Employment suffers to some extent and much of the higher paying construction jobs are replaced by lower paying service employment. This situation leads to considerable social and economic dissatisfaction.
3. Public Facilities and Services: Few new roads are constructed and an emphasis on alternative transportation methods provides effective local people and freight movement. Public facilities, such as sewer and water, catch up and keep pace but may be somewhat more expensive than otherwise due to the reduced tax base.
4. Environmental: Pollution levels rise only slightly and the natural amenities are protected. Public lands receive heavy use but are protected from the more serious effects of development.
5. Other: Energy costs are down. There is considerable upheaval over government regulations, such as zoning and environmental controls, as well as mandated local government coordination.

F. Alternative Four – Chosen Alternative.

After considering the various alternatives available, the citizens chose a compromise between current trends and strict growth control, the emphasis to be on restricting sprawl and protecting resources while accommodating the new population in adequately large urban boundaries and Rural Service Centers.

1. Land Uses: Major growth occurs in urban areas as the County continues its shift from a rural to urban area. Rural development is largely restricted to rural service centers and on existing rural lots. An active housing program seeks to offset the costs created by the regulations. Some hobby farming occurs and the existing agriculture and forest areas are protected.
2. Social and Economic: Taxes increase but not so rapidly as in the other alternatives because a more efficient growth pattern exists as does a growing tax base. Jobs continue to increase with some shift from construction to services, and growth in manufacturing, but not as rapidly as the commercial sector. Cultural amenities continue to increase.
3. Public Facilities and Services: Few new roads are constructed and a greater emphasis on transit alternatives reduces automobile use. Energy costs rise but within the capabilities of the area's residents. Most public facilities catch up with the growth and provide adequate services.
4. Environmental: Wildlife and vegetative areas particularly vulnerable to damage are protected from excessive development. Pollution increases are small. Public lands continue to be adequate to meet the demand. There is some loss of visual amenities but it is minimal.
5. Other: Continuing controversy over how much control to use but general acceptance of local ordinances and little State intervention. Coordination is mandated and controls are strict but oriented to achieving a specified result rather than being a routine and/or arbitrary mechanism.

The process by which the final alternative was chosen was not a smooth one. Many meetings were required and the alternatives are certainly more clearly identified here than was true during their discussion by the committees. Yet, as the process continued, it became increasingly clear that the people wanted to see growth guided but not stopped, except where development was proceeding too rapidly and needed to be slowed, or where important natural or cultural resources needed to be protected. They were convinced that the inefficient sprawled pattern of development must be curtailed in a way to restrict additional subdivision while permitting existing development to be utilized. To do that, the philosophy of Alternative Four was used to develop the goals and policies that are contained within this plan.

(Ord. 2004-012 § 2, 2004; Ord. 2002-005 § 1, 2002; Ord. 2000-017 § 1, 2000; PL-20, 1979)

23.20.040. Goals and policies.

A. Introduction.

The alternative chosen for growth in Deschutes County was one which emphasized accommodating the anticipated growth of the area primarily in the urban areas, with some rural development taking place in the Rural Service Centers and in existing subdivisions. This new pattern would then provide much greater efficiency in the provision of public services and foster savings in energy, particularly in transportation. The development pattern would also protect scarce resources, while permitting compatible improvements.

B. Rural development.

DCC 23.20.040(B), Rural Development, serves as the basis for the rest of the plan. Basic guidelines to do away with the former inefficient development pattern and to accommodate the anticipated 7,050 new rural residents are contained in DCC 23.20. Emphasis is placed on maintaining the existing rural character of the County, while acknowledging that Deschutes County is becoming more urban, by concentrating new rural development in the Rural Service Centers. In that way people desiring a rural lifestyle may do so without unduly increasing the costs to others or utilizing resource lands. The only exception to this rural pattern is in the La Pine area where emphasis is laid on the incorporation of the community and improvements in local services provided. The La Pine rural area is also likely to receive many of the over 3,000 new rural homes which will be built, because so many lots already exist in that area.

C. Urbanization.

Urbanization links this plan to those of the three incorporated communities. DCC Chapter 23.20 provides parameters for the establishment and expansion of the urban boundaries and provides common guidelines to the cities to help them accommodate the 71,450 new residents that will need over 35,600 homes and 29,000, perhaps as high as 35,000, new jobs. Sufficient land must be allocated and managed to serve these new local citizens.

D. Economy.

The Economy chapter discusses the need to protect our existing timber, agriculture, mining and scenic resources for our future prosperity. It also provides policies to help Deschutes County in its metamorphosis from a rural resource economy to a more commercial/industrial orientation as an urban center, perhaps providing between 7,700 and 16,000 new manufacturing jobs and 27,000 to 32,000 new non-manufacturing positions.

E. Housing.

Housing emphasizes the need for flexibility in housing styles and costs so as to provide adequate homes for all segments of the community. Also fostered are programs to help rehabilitate existing homes and to accommodate low and moderate-income families through government programs and efforts to reduce development costs.

F. Transportation.

The Transportation chapter seeks to aid movement to and between the communities, and to improve the ability of the communities to efficiently deal with the new residential, commercial and industrial uses which are anticipated. Greater public safety is promoted, as is preparation of a shift from automobile dependence to public transit and other transportation alternatives.

G. Public facilities and services.

To accommodate existing and anticipated populations and land uses the Public Facilities and Services chapter provides basic guidelines for the construction of new facilities, while again fostering urban rather than rural development.

H. Recreation.

Recreation seeks to accommodate both the growing local population and the tourist industry. New facilities and cooperative plans are identified and, while the county seeks to provide primarily a facilitator function, greater commitment to recreation and associated activities is made.

I. Energy.

The Energy chapter emphasizes more local independence in providing energy, protection of future energy resources and better coordination with energy providers. Information and education about energy and local opportunities are stressed. As the population continues to grow and because of the importance of tourism, energy will play an ever more dominant role in local planning efforts. These policies seek to emphasize the need for greater efficiency in development patterns and construction, while surveying our available future options.

J. Natural hazards.

The Natural Hazards chapter seeks to guide development away from identified hazards, such as wildfire, while making use of areas that need to be protected from development for other useful purposes. The protection of the 100-year flood plain is an example of an area where development shall be prohibited but wildlife and recreation opportunities will be fostered.

K. Agriculture.

One of the more controversial resource chapters has been Agriculture. The policies in this plan seek to protect identified agricultural areas, while recognizing that marginal agricultural conditions are present in some areas. Some hobby farming is permitted in the more marginal areas so as to increase agricultural productivity, while a program to research local marginal lands and to determine how they may be utilized while agricultural production is preserved, is mandated for future updates of the plan.

L. Forest lands.

Forest Land seeks to protect existing areas with timber capability, while permitting compatible development on non-productive lands that will foster other aspects of the local economy. The loss of much of La Pine to development is recognized (see Exceptions Statement) but in those areas where larger lots exist, small woodlot management is encouraged and commercial timber is protected where it remains feasible (primarily the national forest and on timber company ownerships).

M. Open spaces.

The local economy and environment is very dependent on the protection of this County's scenic and natural areas. Because of that, the Open Spaces chapter identifies the policies required to protect those resources for the area's tourism, recreation and quality of life needs, while recognizing the appropriateness of flexibility when dealing with individual property owners.

N. Surface mining.

The Surface Mining chapter seeks to preserve known mining resource sites for ultimate mining activity and to permit mining as it is needed in the County. There is also recognition of the County's responsibility to protect adjoining residents (safety and health hazards) and the general public (excessive construction costs and hazards created by a shortage of building materials as well as loss of scenic qualities and pollution).

O. Fish and wildlife.

Fish and Wildlife seeks to balance the wildlife needs of the area against the requirements of a growing population. The important economic and lifestyle qualities are recognized and irreplaceable wildlife areas protected, while precautions that permit limited development are identified.

P. Historic and cultural.

One of the most non-controversial chapters is Historic and Cultural, which seeks to protect the ever dwindling supply of historic and cultural sites, protection that will have important economic and social benefits for a community growing as is Deschutes County presently.

Q. Water resources.

Water is the resource without which there will be no future growth in Deschutes County. Preservation of existing water quality and greater efficiency in delivering available water supplies is being sought. The new and existing residents will need all that is presently identified. Agriculture, new employment opportunities and maintenance of the tourism/ recreation industry all require water. This plan seeks to improve coordination and planning for that water's use.

R. Citizen involvement.

DCC 23.20.040(R) of this plan is Citizen Involvement. Planning is a dynamic process and one that does not stop with the adoption of a plan. More study to keep the plan functional and up-to-date will be required. The County's efforts will continue to be aimed at involving the public, in meaningful ways, with the preparation of future plans and studies. There is also an emphasis on explaining planning, its purposes and techniques, so that it will be better understood and more usable by County residents.

S. Plan policies.

The plan policies must be read as a whole, as the County will grow as a single unit, not sixteen separate pieces or aspects. Taken together these policies point the direction for the County's future, a future full of change but one full of promise as well.

(Ord. 2002-005 § 1, 2002; Ord. 2000-017 § 1, 2000; PL-20, 1979)

Chapter 23.76. ENERGY

23.76.010. Energy.

23.76.020. Goals.

23.76.030. Policies.

23.76.010. Energy.

Deschutes County is presently an importer of energy. After 1983 the Bonneville Power Administration will no longer assure 100 per cent distribution of electrical power. As with the rest of the nation, Deschutes County can anticipate increasingly expensive and possibly even shortages of gasoline. Therefore, it is likely that the County will face serious problems in the near future unless precautions are taken in time.

Hydropower generation in the County is limited to two sites, which are operating at capacity. There is another potential site at Wickiup Dam.

There is a possibility for fossil fuel development in the eastern portion of the County, but it is presently unfeasible. Local natural gas supplies could increase in the mid-1980's with the construction of a second natural gas pipeline through Central Oregon. There also exists a possibility for a third gas line in the future.

There is presently some geothermal investigation occurring in the County near Newberry Crater and also near the Three Sisters Mountains. Environmental impact statements to permit appropriate exploration in the Cascades have already been prepared. Problems with objectionable smells from released gases, possible groundwater contamination, earth subsidence or quakes are all hazards to be considered in geothermal energy use. Loss of recreational lands and esthetic qualities are also possibilities.

It appears Deschutes County would have few, if any, appropriate sites for coal or natural gas thermal generation plants, according to the State-wide Siting Task Force Report.

The County does have some possibility for other types of energy production. Wind generation may be feasible if it can be tied to the existing power grid. Waste wood burning is popular and feasible and one local manufacturer has constructed a 9000 KW facility, while another will save 6.9 million cubic feet of natural gas each year using waste wood. County Pollution Control Bonds can be used to finance conversion from fossil fuels to wood waste because it reduces a major solid waste problem, as well as reducing energy costs to local industries and the outflow of local money for imported energy.

Energy conservation is another important resource that can reduce pollution, free existing energy resources for other uses and reduce the outflow of money for energy. Education is possibly the most obvious way to promote conservation. Coordination through the Extension Service and by establishing a paid coordinator could do much to encourage conservation. Another way to obtain conservation is by regulation, such as by establishing higher building and subdivision standards. Sometimes education and regulation can be combined to require thermal ratings for new buildings so people can determine more efficient lay-outs, or by requiring the heat loss analyses performed by utility companies to be kept on file for public review.

Recycling is also an energy saver. For example, aluminum when reclaimed takes only four percent of the energy required to process raw ore, including handling and transportation costs. Recycled copper requires only 11 percent of the energy needed to obtain the metal from raw ores. Some recycling already exists locally but much more is possible.

Solar energy is a real possibility for Deschutes County. Proper siting of housing with a solar orientation can permit critical sunlight access. Passive solar methods, such as proper window placement and seasonal shading, can have significant impact.

Certainly one of the biggest energy issues to face Deschutes County is transportation. State-wide transportation consumes 36 percent of total State-wide energy use, and it constitutes 56 percent of an average household's energy use. As a rural area, Deschutes County is heavily dependent on automobiles and thereby consumes considerable gasoline. Efforts to reduce motorized vehicles would be difficult but the effect would be lower energy use, pollution levels and expenses. Just the reduction of road construction and maintenance (re-sealing, snowplowing, etc.) would save considerable energy.

In light of local conditions and trends the following goals were chosen.

(Ord. 2002-005 § 1, 2002; Ord. 2000-017 § 1, 2000; Ord. 93-003, 1993; Ord. 92-051, 1992; Ord. 85-001, 1985; PL-20, 1979)

23.76.020. Goals.

1. To protect local natural energy sources.
2. To manage land uses to maximize the conservation of all forms of energy.
3. To assist, as appropriate, in the provision for adequate local energy supplies.

(Ord. 2002-005 § 1, 2002; Ord. 2000-017 § 1, 2000; Ord. 93-003, 1993; Ord. 92-051, 1992; Ord. 85-001, 1985; PL-20, 1979)

23.76.030. Policies.

1. General.
 - a. The County shall review and promote the development and use of local alternative energy sources in order to prepare for future shortages and to reduce the outflow of local dollars to buy energy.
 - b. Coordinated planning between local energy providers, particularly electrical, and the County Planning Department shall be sought. This planning is to be directed at determining energy needs in all parts of the County and assisting in the provision of adequate supplies and capital facilities.
 - c. Construction of large thermal or nuclear plants locally should be discouraged unless approved by a public vote.
 - d. Energy Assessment. During major plan updates, or more often as necessary, the County shall assess its energy use and the potential for energy conservation. The County shall use information available from the state and federal governments and utility companies.
2. Alternative energy sources - Geothermal resources policies.
 - a. Public involvement.
 1. The Planning Division shall ensure that citizens, land owners, and lease holders are given ample opportunity to be involved in all phases of geothermal planning and decision-making that occur under the County's jurisdiction. This involvement program shall provide for continuity of citizen participation, and for information that enables citizens to identify and comprehend geothermal issues.
 2. Federal and state agencies exercising geothermal responsibilities in the County shall be expected and encouraged to make use of the County's existing citizen involvement program whenever appropriate.
 - b. Intergovernmental coordination
 1. The County shall encourage the formulation of federal and state land and resource management policies which are consistent with the County's geothermal policies. In this regard the County shall endeavor to become a partner with the federal and state governments in determining the future of geothermal energy in the County.

2. In view of the multiplicity of governmental jurisdiction over geothermal resources, the County shall seek close coordination with all affected local, state, and federal agencies. In this regard the Planning Division shall maintain regular communications with federal and state agencies that are exercising geothermal responsibilities in the County, and shall keep local officials informed of federal and state actions accordingly.
- c. Resource assessment.
1. In order to identify and protect the undefined values of its geothermal resources, the County shall support continued resource assessment activities by the public and private sectors. In this regard, the Planning Division shall monitor such activities and collect additional resource data wherever possible for inclusion in the Geothermal Element during updates or amendments.
 2. In recognition of the public benefit derived from greater resource knowledge, the County may undertake its own resource assessment activities where such work is expected to ultimately benefit the local economy. The results of County-sponsored resource assessment will be given the widest possible dissemination in order to facilitate further geothermal development consistent with County policies.
- d. Resource Utilization.
1. The County supports utilization of geothermal resources, either with heat pumps, direct applications, or for purposes of generating power. However, such support is conditioned on the determination that the proposed use can be developed in a timely, orderly, and environmentally-sound manner, and that adequate protection of the resource is provided so as to ensure its continued availability and productivity over time. Further, such support is limited to those resource areas where conflicting uses are not considered predominant, as identified in Policy 5(F).
 2. When County facilities are to be renovated or newly constructed, consideration shall be given to the use of geothermal resources in these facilities when such use is technically and economically advantageous. The County shall encourage other local entities to conduct similar geothermal evaluations during their facility planning processes.
- e. Economic development.
1. The County's support for geothermal development shall be closely coordinated with its economic development program. The County believes that its low and moderate-temperature resources may offer a significant comparative advantage to business and industry, and it shall support geothermal projects that serve to retain or create employment opportunities in the County.
- f. Land-Use
1. For purposes of compliance with Statewide Planning Goal 5, the County believes its geothermal resources and the conflicting uses identified in Section 4 of the Element should be balanced according to site-specific relative merits. Implementation measures shall provide protection for conflicting uses by conditionally allowing geothermal exploration and production, thereby balancing the benefits to the County from both geothermal resources and conflicting uses. This policy shall apply to all resource areas inventoried in Section 2 of the Element, except in those areas where the conflicting uses listed in Table 4.1 of the Element shall be fully protected as follows:
 - a. Exploration and Production Prohibited.
 - i. That portion of the Newberry Volcano resource area lying within the exclusion area boundary shown in Exhibit "B."
 - ii. Those areas presently defined by the Deschutes National Forest Land & Resource Management Plan, incorporated hereby reference, as ineligible for leasing, specifically: Wilderness, Research Natural Areas, Experimental Forest, Bend Municipal Watershed, Developed Recreation Areas, and Dispersed Recreation Unroaded Winter Areas.
 - b. Production Prohibited (Exploration Allowed).

- i. Those areas presently defined by the Deschutes National Forest Land & Resource Management Plan, incorporated hereby by reference, as being limited to no surface occupancy, specifically: Experimental Forest, Dispersed Recreation Unroaded Areas, Dispersed Roaded Areas, Developed Recreation Areas, Protection Management Areas, Special Management Areas, Potential Research Natural Areas, and Threatened and Endangered Species Areas.

The County has determined that conflicting uses shall be fully protected in the foregoing areas because of the greater economic, social, and environmental benefits that accrue from the conflicting uses. In researching this determination, the County has relied upon the discussion of conflicting uses and their consequences contained in Sections 4 and 5 of the Geothermal Element; the Rural Development, Economy, and Recreation sections of the Growth Management Element of the Comprehensive Plan; the Forest Lands, Open Spaces, Fish & Wildlife, and Historic & Cultural sections of the Resource Management Element of the Comprehensive Plan; the Recreation, Fish & Wildlife, Special Uses, Visual Quality, Economy, Employment, and Forest Dependent Community Concept sections of the Deschutes National Forest Land & Resource Management Plan; and the Oregon Department of Economic Development 1983 Annual Economic Report for Deschutes County. It is the County's determination that the conflicting use information contained in these references constitutes sufficient evidence of the greater importance of the conflicting uses to the County, thereby warranting exclusion of geothermal exploration and/ or production in the areas cited above.

- ii.. The County recognizes that if utilization of geothermal energy is to be optimized, the designation of land-uses for areas overlying geothermal resources must accommodate those uses to which the resources can be applied. In this regard, the County shall incorporate geothermal utilization as a determinant in land-use planning; and, where appropriate, shall review permitted uses that can utilize geothermal resources if and when suitable resources are confirmed in an area. However, geothermal end-uses shall be permitted only where their compatibility with surrounding land-uses can be demonstrated with certainty.
- g. Environmental protection.
 1. In all cases the County's support for geothermal development shall be conditioned upon satisfactory evidence that sufficient environmental safeguards are provided. Environmental concerns of the County shall include, but not be limited to: air quality, water quality, noise, subsidence, induced seismicity, water consumption, fish and wildlife, vegetation, historic and cultural resources, visual and scenic qualities, erosion and earth stability, waste disposal, and public safety and health.
 - h. Public facilities and services.
 1. In addition to Policy G(1), in all cases the County's support for geothermal development shall depend on the extent of impacts to public facilities and services. In this regard, the County's concerns shall include, but not be limited to: roads, drainage, schools, law enforcement, fire protection, water supply, sewage disposal, solid waste disposal, and general administrative services.
 2. The Planning Division, in consultation with the Public Works Department, shall monitor geothermal activities in order to forecast impacts to public facilities and services; and shall prepare capital improvement or related plans accordingly so as to support geothermal development in a timely and orderly manner with a level of facilities and services appropriate to such development.
 - i. Fiscal responsibilities.
 1. In recognition of specialized administrative demands that may be placed on the County by geothermal developers, the County shall require said developers to defray County expenses associated with processing a geothermal permit request, or conduction related studies or

monitoring programs, directly required by a geothermal project. This Policy shall also extend to any government agency engaged in geothermal development.

3. Alternative energy sources.
 - a. Wind. Because the wind is a non-polluting, renewable energy source, major wind devices and associated facilities shall be conditional uses in agricultural, forest and other rural zones. Also, small scale (less than 20 KW) private use of wind generators or pumps shall be encouraged.
 - b. Wood and slash wood. Given the availability and usefulness of waste and slash wood the County shall maintain a waste wood dump for processors where the material shall be made available to the public, and shall encourage U.S. Forest Service projects which make slash wood available.
 - c. Solar. Because it is renewable and in plentiful supply locally the County shall encourage the use of solar energy by:
 1. Promoting the construction of housing with its long axis in the east-west direction and having solar access three hours before and after solar noon (variances because of topography, rock outcroppings or alternative solar access means may be permitted);
 2. Providing avenues for establishing solar property rights (see ORS 215.110) by such methods as solar sky space protective covenants in new developments and creating standard methodology for adjacent properties to establish solar sky space easements; and,
 3. Allowing for future centralized solar generation of electricity in the large vacant areas in the eastern portions of the County (particularly on BLM lands).
 - d. Internal Operations. The County shall, when practicable, make energy efficiency and the use of renewable resources a regular practice in its design and operation of buildings, equipment and public facilities and services.
 - e. Recycling.
 1. Recycling is an effective method of energy conservation. The County has adopted a County-wide recycling program in compliance with Senate Bill 405. The primary responsibility for this program is through the County Solid Waste Division. The ongoing recycling program will provide for the following:
 - a. Identify projects and methods to achieve the specific goals; and
 - b. Require and annual review of program status.
 2. The County shall consider the designation of a County employee as Recycling Coordinator who is responsible for:
 - a. Encouraging recycling throughout the County;
 - b. Fostering communications about recycling among local governmental agencies, organizations and the public; and,
 - c. Providing assistance to the County Solid Waste Advisory Committee in considering and implementing ways to increase local recycling activities.
 3. The County shall also consider recycling when enacting ordinances, issuing contracts and franchises and when purchasing supplies.
 4. The County shall study the possibility of initiating pilot projects regarding source separation of recyclables and their collection in existing or new garbage franchises.
 5. The County shall seek funds to provide staff assistance and resources for developing recycling drop-off and storage centers in the Bend, Redmond, Sisters and La Pine areas.
 - f. Conservation.
 1. All homes constructed in Deschutes County shall meet State insulation standards. The County shall consider more stringent standards (both prescriptive and equivalent performance criteria) and encourage innovative building design which meets the intent of the prescriptive standards.
 2. To assist the public in understanding energy conservation in their homes the County will rate the "thermal effectiveness" of new or existing dwellings, if an owner requests, based on such factors as window placement, shading, insulation values and thermal mass, and other

factors similar to the City of Davis, California, Community Development Department Standards.

3. Because multi-family housing and other types of common wall construction is more energy efficient the County shall encourage such development in urban areas.
4. Since "leapfrog" and scattered development is wasteful of energy in the provision of services (school buses, fire protection, utilities and transportation) these patterns shall not be permitted (see Rural Development and Urbanization chapters), and future development should occur in higher densities along existing corridors in urban areas.
5. Public/Private Actions: The County shall encourage local residents and businesses to conserve energy, to use renewable resources and to recycle materials. The County shall coordinate its efforts with those of local organizations, special districts, utility companies and state and federal agencies.

At the time of subdivision review, the County shall see that: Covenants which prevent energy conservation, such as roofline requirements precluding solar panels, bans on clotheslines and prohibitions on street motorcycles, shall not be established in proposed developments.

6. The County shall account for its 1% bicycle funds from the State Highway Funds, and shall provide this accounting to the Bicycle Advisory Committee on an annual basis. The 1% funds shall be the minimum spent to provide bicycle and pedestrian facilities within the County. The County shall establish methods for funding pedestrian and bicycle facilities that are not within the public right-of-way and therefore are not eligible for the 1% funds. The County shall consider setting aside monies which might otherwise be used for expanding motorized traffic ways and apply them toward a non-motorized transportation system which accesses educational, recreation, employment and shopping areas as well as connects to new development.
7. Oregon imports 45% of its energy as fuel for motorized vehicles. Nonmotorized transportation is recognized as an important way to conserve energy. The County shall provide bicycle and pedestrian connections between schools, residential areas, parks and other recreation attractions, shopping centers, and other commercial and industrial centers. In addition, the County shall encourage nonmotorized modes through the use of techniques such as designating nonmotorized areas (pedestrian malls), installing traffic cells and traffic calming designs, allocating a greater share of street space to nonmotorized modes, restricting motor vehicle parking, and other pedestrian and bicycle-oriented land use patterns.
8. As much as possible non-motorized systems should be favored over motorized transportation systems.
9. New major consumers of energy, such as commerce and industry, shall be located whenever possible near established energy distribution centers.
10. The County should set an example by weatherizing its buildings and considering passive or active solar heat, perhaps with assistance from retrofit grants.
11. To promote public awareness of the reasons and need for energy conservation the County shall develop an educational program for use County-wide.

(Ord. 2002-005 § 1, 2002; Ord. 2000-017 § 1, 2000; Ord. 93-003, 1993; Ord. 92-051, 1992; Ord. 85-001, 1985; Ord. 80-203, 1979; PL-20, 1979)

SUPPLEMENTAL BURDEN OF PROOF STATEMENT

PROPOSED TEXT AMENDMENTS

18.61.020(A) Standards in All Districts – Solar Setback 18.116.180(A) and (B) Building Setbacks for the Protection of Solar Access

APPLICANT: Pahlisch Homes
Attn: Steve Miller
63088 NE 18th Street, Ste 100
Bend, OR 97701

REQUEST: **Text Amendment to the Solar Setback provisions for the Urban Unincorporated Community – La Pine; Neighborhood Planning Area.** In order to achieve the goals and purpose of the Neighborhood Planning Area, we hereby request a Text Amendment to the text of Chapter 18.61.020(A) and Chapter 8.116.180(A) and (B).

I. APPLICABLE SECTIONS:

The following Sections of the Deschutes County Code (DCC) are affected by the proposed Text Amendment.

- A. Chapter 18.61, Urban Unincorporated Community Zone - La Pine Subsection 18.61.020(A), Standards in All Districts.
- B. Chapter 18.116, Supplementary Provisions Subsections 18.116.180(A) and (B), Building Setbacks for the Protection of Solar Access.

II. SITE FACTS:

- A. **LOCATION:** The area affected by the proposed text amendment includes only the Urban Unincorporated Community – La Pine; Neighborhood Planning Area.
- B. **ZONING:** Urban Unincorporated Community – La Pine; Neighborhood Planning Area.
- C. **SITE DESCRIPTION:** The La Pine UUC is located in South Deschutes County and is characterized as recreational Mecca due to its close proximity to the Cascade Lakes and Mt. Bachelor. The La Pine UUC includes three (3) separate planning areas, La Pine, Wickiup Junction and Neighborhood, each with its own zoning districts. Development in the La Pine UUC area includes residential, commercial, and industrial type uses similar to any other small town. With the development of the La Pine sewer and La Pine water districts single-family residential parcels are now located throughout the La Pine UUC with lot sizes and development patterns resembling those found in an incorporated city.

Per the La Pine Neighborhood Forest Plan, the La Pine area is characterized as Classic Lodgepole Pine Forest primarily in the western and northeastern portion

of the UUC and Low-Dense Lodgepole Pine Forest in the southeastern portion of the UUC. The surrounding forest is generally healthy with limited evidence of insect and/or mistletoe intrusion, though some porcupine damage is common. Topography is relatively flat within and around the La Pine UUC boundary.

Comments from County Staff

1) Proposal (paraphrasing)

Applicant's statement:

The Solar Setback amendment applies to all new structures on lots less than 10,000 square feet in size and under 80-feet in average width, as defined by Section 17.08.030 of the DCC, and located in the Neighborhood Planning Area of the La Pine UUC. (Page 2)

Response:

This is a conjunctive clause, requiring that all three circumstances be met in order for a lot in the NPA to receive a solar setback exception. Based on my phone discussion with Steve, Pahlisch's intent is to except lots that are less than 10,000 square feet in the NPA as well as lots in the NPA that have an average lot width under 80-feet, regardless of their lot area.

If this is accurate, you will need to resubmit your proposal to reflect this intent.

Applicant's Response: Yes, we incorrectly stated our proposal for the solar setback. We would like the proposal to read as follows:

Proposal: We hereby propose the following amendments (all proposed amendments are in **bold underline**) to the text of Chapter 18.61.020(A) and Chapter 8.116.180(A) and (B) to read as follows:

Section 18.61.020(A):

- A. Solar Setback. The setback from the north lot line shall meet the solar setback requirement in DCC 18.116.180; **excepting lots less than 10,000 square feet in size or under 80-feet in average width and located in the Neighborhood Planning Area of the Urban Unincorporated Community – La Pine. Average lot width shall be determined per the “lot width” definition as defined by Section 17.08.030 of the DCC.**

Section 18.116.180(A) and (B):

- A. Purpose. The purpose of DCC 18.116.180 is to provide as much solar access as practical during the winter solar heating hours to existing or potential buildings by

requiring all new structures, excepting those structures on lots less than 10,000 square feet in size or under 80-feet in average width and located in the Neighborhood Planning Area of the Urban Unincorporated Community – La Pine (average lot width shall be determined per the “lot width” definition as defined by Section 17.08.030 of the DCC), to be constructed as far south on their lots as is necessary and feasible.

- B. Standards. Every new structure or addition to an existing structure, excepting those structures on lots less than 10,000 square feet in size or under 80-feet in average width and located in the Neighborhood Planning Area of the Urban Unincorporated Community – La Pine (average lot width shall be determined per the “lot width” definition as defined by Section 17.08.030 of the DCC), shall meet the following standards for a solar setback from the north lot line, except as provided in DCC 18.116.180(B)(3).

2) Average width (paraphrasing)

The Solar Setback amendment applies to all new structures less than 10,000 square feet in size and under 80-feet in average width, as defined by Section 17.08.30. **(Page 2)**

Response:

There is no definition for "average width" in DCC 17.08.030. I believe you are referring to "lot width" in 17.08.030 which includes a reference to averaging the distance between side lot lines within the buildable area.

Applicant's statement: Correct, there is not a definition for "average lot width" in DCC 17.08.030. We were referring to the "Lot Width" definition in Section 170.08.030 as noted by staff and further corrected above.

3) History and Background of La Pine Area

Applicant's statement:

"Solar standards for smaller lots are one of the areas where difficulties arise in trying to achieve the density and lotting pattern envisioned for this area." **(Page 3)**

Response:

How are these circumstances different than the lotting pattern and density of the residences located in Quadrant 2c?

Applicant's Response: As discussed with staff since the initial submittal of the requested Text Amendment, Quadrant 2C was confronted with numerous solar setback difficulties, however we were able to resolve these issues by working closely with County staff to identify the lots that could not comply and then work on creating solutions. For instance, we adjusted numerous north lot lines within Quadrant 2C so they would be oriented below 45-degrees north, which in turn exempted those lots from

the solar setback per County Code. In addition, the County also exempted all of the zero lot-line lots within Quadrant 2C from the solar setback requirements due to the nature of the development. Thus, by making small adjustments to the alignment of the north lot lines on numerous lots, as well as the County waiving the solar setback requirement for the zero lot-line development, we were able to develop Quadrant 2C without any conflicts with the solar setback.

However, this is not the case with the remaining Quadrants within Neighborhood 2. One of the major limiting factors has to do with the location and classification of the surrounding roadways. Neighborhood 2 is bound by Huntington Road on the west and US Highway 97 on the east and both of these roads are designed to limit access points in order to facilitate the movement of traffic. By minimizing the number of access points to Huntington Road and US Highway 97, the County consolidates turning movements onto these streets thereby limiting the number of possible conflict points along these designated collector/arterial roadways, thus improving roadway safety and efficiency of these roadways. In addition, with the adoption of the Neighborhood Planning Area the County designated the alignment of several Collector Streets within the Neighborhood Planning Area and these street locations when coupled with the limited access to the surrounding collector/arterial streets greatly influence the layout of each quadrant. Furthermore, the approved Quadrant Plan for Neighborhood 2 established the location of the Residential General District, Residential Center District, Open Space, and Neighborhood Park for each Quadrant. Thus, when all of these factors are combined with the block length requirement of the Counties Subdivision Ordinance, it becomes extremely difficult to achieve a rectangular grid pattern to allow for the ultimate solar setback lot configuration as opportunities for connectivity to the east and west is restricted. As such, alternatives to the street layout, lotting patterns, and access points had to be considered for each of the remaining quadrants within Neighborhood 2.

We understand the intent of the solar ordinance was to provide solar access protection throughout Deschutes County and for rural developments, which are generally characterized by lower densities and larger lots, solar access is feasible. However, in a more urban environment like the Neighborhood Planning Area, strict application of the solar setback standards on urban style/dimensioned lots severely restricts the allowed building sizes, heights and the ability to have a variety of housing styles. We believe this is out of character with urban development and it works against the intent of the establishment of the Urban Unincorporated Community – La Pine.

Discussion:

As noted above, the solar setback standards at the County are applied to all lots within the County regardless of there location, zoning, and minimum lot size requirements. We feel the current solar setback requirements for the Neighborhood Planning Area within the Urban Unincorporated Community – La Pine should be amended to reflect a changing community (i.e. urban lot sizes and development patterns), increased demand on current land supply and desires to limit the size of the La Pine Urban Unincorporated

Community (UUC) boundary to help facilitate the incorporation of City of La Pine by increasing the areas core population. Allowing more compact development within the Neighborhood Planning Area boundary should be encouraged by amending the solar setback requirements to exempt lots that are less than 10,000 square feet in size or under 80-feet in average width. Even though the objective behind such a setback is well intended, it is not practical when trying to achieve the overall goals and objectives of a rapidly growing Urban Unincorporated Community. Communities that accommodate more compact and multi-modal transit-oriented development can greatly reduce the environmental impacts of development by reducing auto trip distances and thereby conserving energy. This type of development pattern also has significant health benefits as it encourages citizens to use alternative forms of transportation, as opposed to using the automobile for daily activities. The appropriate pattern of development would build development where infrastructure and public services are in place; where it is out of harm's way of potential natural disasters; and in a way that enhances the unique character of a community. This type of development provides more people with better access to shopping, employment or transportation hubs and promotes the conservation of energy by limiting out of distance travel and by reuse of existing impervious surface instead of spreading out development.

As the La Pine UUC continues to grow and seek incorporation, we strongly believe the development of 10,000 square foot lots or greater with average lot widths of 80-feet or more will be the exception because they use the land inefficiently, increase energy consumption, and promote sprawl. As such, we believe the County should amend the solar setback standards for lots that are less than 10,000 square feet in size or under 80-feet in average width within the Neighborhood Planning Area of the La Pine UUC because without an amendment it will further complicate the County's ability to achieve increased densities, limit traffic congestion, conserve energy, promote alternative means of transportation, and promote diversity in housing types.

But, as with all land use tools, there are lines and boundaries involved and by allowing for a reasonable solar access standard for the residential properties within the Neighborhood Planning Area, it would permit greater housing diversity, more attractive street scenes, and less urban sprawl. For example, similarly to living next to a zoning district that allows multi-family development for your neighbor, but only a single family home for you, the solar access ordinance also needs some boundaries. While based on lot dimensions, size, slope, and orientation, it is very possible that two (2) adjoining neighbors may be subject to different solar access standards. While it may seem unfair in an individual instance, it is necessary to set limits and boundaries for the application of all regulations. While the proposal is to exempt lots less than 10,000 square feet in size or under 80-feet in average width from the solar setback provisions, it still allows for reasonable roof-top solar access, which is the primary purpose of the ordinance. The solar ordinance attempted to balance the development potential prior to the adoption of the UUC boundary, with the need to maintain a "reasonable amount of sunlight" for the residential properties. Compatibility can be achieved through many different mechanisms: architectural/design standards for PUD's and certain housing types; landscaping requirements; pedestrian/bicycle path connectivity; developments that

provide for a variety of housing types, styles, and lot sizes; and adequate and well-planned open spaces. The unjustifiable and high costs of urban sprawl to the County, and ultimately the tax-payer, are well documented. Larger lots translate to more expensive housing, fewer options for the residents of Deschutes County, and increased transportation costs. Additionally, given the recent measure proposed by the County Road Department to place a freeze or moratorium on the maintenance of new County roads due to the potential future loss of federal funding, which in turn will place a significant burden on future homeowners in the La Pine UUC to maintain roads, it is critical that the County encourages higher density development through the code were practicable in order to help with the increased public infrastructure maintenance costs. Local regulations should allow and encourage new developments to be built in such a way that it creates walkable communities with the pedestrian and bicyclist in mind thereby allowing freedom of mobility to a much broader range of the population and creating a more vibrant and energy efficient community.