ORDINANCE NO. 509-0

AN ORDINANCE ENSURING THAT LAND IS DIVIDED SO THAT STRUCTURES CAN BE ORIENTED TO MAXIMIZE SOLAR ACCESS AND TO MINIMIZE SHADE ON ADJOINING PROPERTIES FROM STRUCTURES AND TREES.

- 3.470 SOLAR ACCESS NEW DEVELOPMENT STANDARDS
- 3.471 <u>Purpose</u>. The purpose of the solar access section for new development is to ensure that land is divided so that structures can be oriented to maximize solar access and to minimize shade on adjoining properties from structures and trees.
- 3.472 <u>Applicability</u>. The solar standard in S3.473 shall apply to applications for a development to create lots in R20, R10, R7, R5, R4 and A2 zoning districts and for single family detached dwelling in any zone, except to the extent the City finds that the applicant has shown one or more of the conditions listed in S3.474 and S3.475 exist, and exemptions or adjustments provided for therein are warranted.
- 3.473 <u>Design Standard</u>. At least 80 percent of the lots in a development subject to these regulations shall comply with one or more of the options in this section.
 - A. Basic Requirement (see Figure 3.470 (i). A lot complies with S3.473 if it:
 - 1. Has a north-south dimension of 90 feet or more; and
 - 2. Has a front lot line that is oriented within 30 degrees of a true east-west axis.
 - B. Protected Solar Building Line Option (see Figure 3.470 (j)). In the alternative, a lot complies with S3.473 if a solar building line is used to protect solar access as follows:
 - 1. A protected solar building line for the lot to the north is designated on the plat, or documents recorded with the plat; and
 - 2. The protected solar building line for the lot to the north is oriented within 30 degrees of a true east-west axis; and
 - 3. There is at least 70 feet between the protected solar building line on the lot to the north and the middle of the north-south dimension of the lot to the south, measured along a line perpendicular to the protected solar building line; and

- 4. There is at least 45 feet between the protected solar building line and the northern edge of the buildable area of the lot, or habitable structures are situated so that at least 80 percent of their south-facing wall will not be shaded by structures or non-exempt vegetation.
- C. Performance Option. In the alternative, a lot complies with S3.473 if:
 - 1. Habitable structures built on that lot will have their long axis oriented within 30 degrees of a true east-west axis and at least 80% of their ground floor south wall protected from shade by structures and non-exempt trees; or
 - 2. Habitable structures built on that lot will have at least 32% of their glazing and 500 square feet of their roof area which faces within 30 degrees of south and is protected from shade by structures and non-exempt trees.
- 3.474 Exemptions from Design Standard. A development is exempt from S3.473 if the Director finds the applicant has shown that one or more of the following conditions apply to the site. A development is partially exempt from S3.473 if the Director finds the applicant has shown that one or more of the following conditions apply to a corresponding portion of the site. If a partial exemption is granted for a given development, the remainder of the development shall comply with S3.473.
 - A. Slopes. The site, or a portion of the site for which the exemption is sought, is sloped 20 percent or more in a direction greater than 45 degrees east or west of true south, based on a topographic survey by a licensed professional land surveyor.
 - B. Off-site shade. The site, or a portion of the site for which the exemption is sought, is within the shadow pattern of off-site features, such as but not limited to structures, topography, or non-exempt vegetation, which will remain after development occurs on the site from which the shade is originating.
 - 1. Shade from an existing or approved off-site dwelling in a single family residential zone and from topographic features is assumed to remain after development of the site.
 - 2. Shade from an off-site structure in a zone other than a single family residential zone is assumed to

SOLAR ACCESS - NEW DEVELOPMENT - PAGE 2

be the shadow pattern of the existing or approved development thereon or the shadow pattern that would result from the largest structure allowed at the closest setback on adjoining land, whether or not that structure now exists.

- 3. Shade from off-site vegetation is assumed to remain after development of the site if: the trees that cause it are situated in a required setback; or they are part of a developed area, public park, or legally reserved open space; or they are in or separated from the developable remainder a of parcel by an undevelopable area or feature; or they are part of landscaping required pursuant to local law.
- 4. Shade from other off-site sources is assumed to be shade that exists or that will be cast by development for which applicable local permits have been approved on the date a complete application for the development is filed.
- C. On-Site shade. The site, or a portion of the site for which the exemption is requested, is:
 - 1. With the shadow pattern of on-site features such as, but not limited to structures and topography which will remain after the development occurs; or
 - 2. Contains non-exempt trees at least 30 feet tall and more than 6 inches in diameter measured 4 feet above the ground which have a crown cover over at least 80% of the site or relevant portion. The applicant can show such crown cover exists using a scaled survey or an aerial photograph. If granted, the exemption shall be approved subject to the condition that the applicant preserve at least 50% of the trees that cause the shade that warrants the exemption. The applicant shall file a note on the plat or other documents in the office of the County Recorder binding the applicant to comply with this requirement. The City shall be made a party of any covenant or restriction created to enforce any provision of this section. The covenant or restriction shall not be amended without written City approval.
- 3.475 <u>Adjustments to Design Standard.</u> The Director shall reduce the percentage of lots that must comply with S3.473 to the minimum extent necessary if it finds the applicant has shown one or more of the following site characteristics apply.

- Α. Density and cost. If the design standard in S3.473 is applied, either the resulting density is less than that proposed, or on-site development costs (e.g. grading, water, storm drainage and sanitary systems, and roads) and solar related off-site site development costs are at least 5% more per lot than if the standard is not applied. The following conditions, among others, could constrain the design of a development in such a way that compliance with S3.473 would reduce density or increase per lot costs in this manner. The applicant shall show which if any of these or other similar site characteristics apply in an application for a development.
 - 1. The portion of the site for which the adjustment is sought has a natural grade that is sloped 10 percent or more and is oriented greater than 45 degrees east or west of true south based on a topographic survey of the site by a professional land surveyor.
 - 2. There is a significant natural feature on the site, identified as such in the Comprehensive Plan, Parks Plan or Development Ordinance, that prevents given streets or lots from being oriented for solar access, and it will exist after the site is developed.
 - 3. Existing road patterns must be continued through the site or must terminate on-site to comply with applicable road standards or public road plans in a way that prevents given streets or lots in the development from being oriented for solar access.
- B. Development amenities. If the design standard in S3.473 applies to a given lot or lots, significant development amenities that would otherwise benefit the lot(s) will be lost or impaired. Evidence that a significant diminution in the market value of the lot(s) would result from having the lot(s) comply with S3.473 is relevant to whether a significant development amenity is lost or impaired.

The following amenities qualify for this adjustment:

Access to public parks, greenway or dedicated open space or other items similar in nature.

C. Existing shade. Non-exempt trees at least 30 feet tall and more than 6 inches in diameter measured 4 feet above the ground have a crown cover over at least 80% of the lot and at least 50% of the crown cover will remain after development of the lot. The applicant can show such crown cover exists using a scaled survey of non-exempt trees on the site or using an aerial photograph.

- 1. Shade from non-exempt trees is assumed to remain if: the trees are situated in a required setback; or they are part of an existing or proposed park, open space, or recreational amenity; or they are separated from the developable remainder of their parcel by an undevelopable area or feature; or they are part of landscaping required pursuant to local law; and they do not need to be removed for a driveway or other development.
- 2. Also, to the extent the shade is caused by on-site trees or off-site trees on land owned by the applicant, it is assumed to remain if the applicant files in the office of the County Recorder a covenant binding the applicant to retain the trees causing the shade on the affected lots.
- 3.476 <u>Protection from Future Shade.</u> Structures and non-exempt vegetation must comply with the Solar Balance Point Regulations, S3.480-489, of existing lots if located on a lot that is subject to the solar design standard in S3.473, or if located on a lot south of and adjoining a lot that complies with S3.473.

The applicant shall file a note on the plat or other documents in the office of the County Recorder binding the applicant and subsequent purchasers to comply with the future shade protection standards in S3.476. The City shall be made a party of any covenant or restriction created to enforce any provision of this ordinance. The covenant or restriction shall not be amended without written City approval.

- 3.477 <u>Application</u>. An application for approval of a development subject to this ordinance shall include:
 - A. Maps and text sufficient to show the development complies with the solar design standard of S3.473, except for lots for which an exemption or adjustment from S3.473 is requested, including at least:
 - 1. The north-south lot dimension and front lot line orientation of each proposed lot.
 - 2. Protected solar building lines and relevant building site restrictions, if applicable.

SOLAR ACCESS - NEW DEVELOPMENT - PAGE 5

- 3. For the purpose of identifying trees exempt from S3.476, a map showing existing trees at least 30 feet tall and over 6 inches diameter at a point 4 feet above grade, indicating their height, diameter and species, and stating that they are to be retained and are exempt.
- 4. Copies of all private restrictions relating to solar access.
- B. If an exemption or adjustment to S3.473 is requested, maps and text sufficient to show that given lots or areas in the development comply with the standards for such an exemption or adjustment in S3.474 and S3.475, respectively.
- 3.478 <u>Process.</u> All applications for new developments shall comply with all provisions of the Development Ordinance and the Development Standards documents. All violations of any provisions of this section are subject to abatement and penalty procedures listed in S10.230 of the Development Ordinance.

NOW, THEREFORE, BE IT ORDAINED BY THE COMMON COUNCIL OF THE CITY OF TROUTDALE THAT:

Section 3.470 through 3.478 be adopted and included in Article 3, Development Ordinance document and referenced in Chapter 6, Development Standards for New Developments.

Effective Date of Ordinance: September 1, 1988

PASSED BY THE COMMON COUNCIL OF THE CITY OF TROUTDALE THIS ______ DAY OF MARCH_____, 1988.

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Sam	К.	Cox,	Mayor

Date Signed: MARCH 24, 1988

ATTEST: Valerie J. Racione Ci/ty Recorder CD24|14 SOLAR ACCESS - NEW DEVELOPMENT - PAGE 6