

18.70 Solar Access

18.70.010 Purpose and Intent

The purpose of the Solar Access Chapter is to provide protection of a reasonable amount of sunlight from shade from structures and vegetation whenever feasible to all parcels in the City to preserve the economic value of solar radiation falling on structures, investments in solar energy systems, and the options for future uses of solar energy.

18.70.020 Definitions

A. Exempt Vegetation. All vegetation over fifteen (15) feet in height at the time a solar access permit is applied for.

B. Highest Shade Producing Point. The point of a structure which casts the longest shadow beyond the northern property boundary at noon on December 21st.

C. Natural Grade. The elevation of the natural ground surface in its natural state, before man-made alterations. The natural ground surface is the ground surface in its original state, before any grading, excavation, or filling.

D. Northern Lot Line. Any lot line or lines less than forty-five (45) degrees southeast or southwest of a line drawn east-west and intersecting the northernmost point of the lot. If the northern lot line adjoins any unbuildable area (e.g., street, alley, public right-of-way, parking lot, or common area) other than a required yard area, the northern lot line shall be that portion of the northerly edge of the unbuildable area which is due north from the actual northern edge of the applicant's property.

E. North-South Lot Dimension. The average distance in feet between lines from the corners of the northern lot line south to a line drawn east-west and intersecting the southernmost point of the lot.

F. Solar Energy System. Any device or combination of devices or elements which rely upon direct sunlight as an energy source, including but not limited to any substance or device which collects sunlight for use in the heating or cooling of a structure or building, the heating or pumping of water, or the generation of electricity. A solar energy system may be used for purposes in addition to the collection of solar energy. These uses include, but are not limited to, serving as a structural member of part of the roof of a building or structure and serving as a window or wall.

G. Solar Envelope. A three dimensional surface which covers a lot and shows, at any point, the maximum height of a permitted structure which protects the solar access of the parcel(s) to the north.

H. Solar Heating Hours. The hours and dates during which solar access is protected by a solar access permit, not to exceed those hours and dates when the sun is lower than twenty-four (24) degrees altitude and greater than seventy (70) degrees east and west of true south.

I. Solar Access Permit Height Limitations. The height limitations on affected properties required by the provisions of a Solar Access Permit displayed as a series of five (5) foot contour lines which begin at the bottom edge of the solar energy system protected by the permit, rise at an angle to the south not less than twenty-four (24) degrees from the horizon, and extend at an angle not greater than seventy (70) degrees to the east and west of true south and run parallel to the solar energy system.

J. Solar Setback. The minimum distance that a structure, or any part thereof, can be located from a property boundary.

K. Slope. A vertical change in elevation divided by the horizontal distance of the vertical change. Slope is measured along lines extending one hundred fifty (150) feet north from the end points of a line drawn parallel to the northern lot line through the midpoint of the north-south lot dimension. North facing slopes will have negative (-) values and south facing slopes will have positive (+) values.

L. Sunchart. Photographs or drawings, taken in accordance with the guidelines of the Staff Advisor, which plot the position of the sun during solar heating hours. The sunchart shall contain at a minimum the southern skyline as seen through a grid which plots solar altitude for a forty-two (42) degree northern latitude in ten (10) degree increments and solar azimuth measured from true south in fifteen (15) degree increments. If the solar energy system is less than twenty (20) feet wide, a minimum of one (1) sunchart shall be taken from the bottom edge of the center of the solar energy system. If the solar energy system is greater than twenty (20) feet wide, a minimum of two (2) suncharts shall be taken, one (1) from the bottom edge of each end of the solar energy system.

18.70.030 Lot Classifications

Affected Properties. All lots shall meet the provisions of this Section and will be classified according to the following

formulas and table:

FORMULA I:

Minimum N/S lot dimension for Formula I =
$$\frac{30'}{0.445 + S}$$

Where: S is the decimal value of slope, as defined in this Chapter.

FORMULA II:

Minimum N/S lot dimension for Formula II =
$$\frac{10'}{0.445 + S}$$

Lots whose north-south lot dimension exceeds that calculated by Formula I shall be required to meet the setback in Section (A), below.

Those lots whose north-south lot dimension is less than that calculated by Formula I, but greater than that calculated by Formula II, shall be required to meet the setback in Section (B), below.

Those lots whose north-south lot dimension is less than that calculated by Formula II shall be required to meet the setback in Section (C), below.

TABLE I

Lot Classification Standards

Slope	-.30	-.25	-.20	-.15	-.10	-.05	0.0	.05	.10	.15	.20
STD A	207	154	122	102	87	76	67	61	55	50	46
STD B	69	51	41	34	29	25	22	20	18	17	15

18.70.040 Solar Setbacks

A. **Setback Standard A.** This setback is designed to insure that shadows are no greater than six (6) feet at the north property line. Buildings on lots which are classified as Standard A, and zoned for residential uses, shall be set back from the northern lot line according to the following formula:

$$\frac{SSB = H - 6'}{0.445 + S}$$

WHERE:

SSB = the minimum distance in feet that the tallest shadow producing point which creates the longest shadow onto the northerly property must be set back from the northern property line.

H = the height in feet of the highest shade producing point of the structure which casts the longest shadow beyond the northern property line.

S = the slope of the lot, as defined in this Chapter.

B. **Setback Standard B.** This setback is designed to insure that shadows are no greater than sixteen (16) feet at the north property line.

Buildings for lots which are classified as Standard B, or for any lot zoned C-1, E-1 or M-1, or for any lot not abutting a residential zone to the north, shall be set back from the northern lot line as set forth in the following formula:

$$\frac{SSB = H - 16'}{0.445 + S}$$

C. **Setback Standard C.** This setback is designed to insure that shadows are no greater than twenty-one (21) feet at the north property line.

Buildings for lots in any zone whose north/south lot dimension is less than Standard B shall meet the setback set forth in the following formula:

$$\frac{SSB = H - 21'}{0.445 + S}$$

D. **Exempt Lots.** Any lot with a slope of greater than thirty percent (30%) in a northerly direction, as defined by this Ordinance, shall be exempt from the effects of the Solar Setback Section.

E. **Lots Affected By Solar Envelopes.** All structures on a lot affected by a solar envelope shall comply with the height requirements of the solar envelope.

F. **Exempt Structures.**

1. Existing Shade Conditions. If an existing structure or topographical feature casts a shadow at the northern lot line at noon on December 21, that is greater than the shadow allowed by the requirements of this Section, a structure on that lot may cast a shadow at noon on December 21, that is not higher or wider at the northern lot line than the shadow cast by the existing structure or topographical feature. This Section does not apply to shade caused by vegetation.

2. Actual Shadow Height. If the applicant demonstrates that the actual shadow which would be cast by the proposed structure at noon on December 21, is no higher than that allowed for that lot by the provisions of this Section, the structure shall be approved. Refer to Table D for actual shadow lengths.

18.70.050 Solar Access Performance Standard

A. Assignment of Solar Factor. All land divisions which create new lots shall be designed to permit the location of a twenty-one (21) foot high structure with a setback which does not exceed fifty (50%) percent of the lot's north-south lot dimension. Lots having north facing (negative) slopes of less than fifteen percent (15%) (e.g., 10%), and which are zoned for residential uses, shall have a north-south lot dimension equal to or greater than that calculated by using Formula I. Lots having north facing (negative) slopes equal to or greater than fifteen percent (15%) (e.g., 20%), or are zoned for non-residential uses, shall have a north-south lot dimension equal to or greater than that calculated by using Formula II.

B. Solar Envelope. If the applicant chooses not to design a lot so that it meets the standards set forth in (A) above, a Solar Envelope shall be used to define the height requirements which will protect the applicable Solar Access Standard. The Solar Envelope, and written description of its effects, shall be filed with the land partition or subdivision plat for the lot(s).

18.70.060 Variances

A. Variances to this Chapter shall be processed as a Type I procedure, except that variances granted under subsection B of this Section may be processed as a Staff Permit. (Ord. 2484 S3, 1988)

B. A variance may be granted with the following findings being the sole facts considered by the Staff Advisor:

1. That the owner or owners of all property to be shaded, sign and record with the County Clerk on the affected properties' deed, a release form supplied by the City, which contains the following information:

a. The signatures of all owners or registered leaseholders who hold an interest in the property in question.

- b. A statement that the waiver applies only to the specific building or buildings to which the waiver is granted.
 - c. A statement that the solar access guaranteed by this Section is waived for that particular structure and the City is held harmless for any damages resulting from the waiver.
 - d. A description and drawing of the shading which would occur, and
2. The Staff Advisor finds that:
- a. The variance does not preclude the reasonable use of solar energy on the site by future buildings; and
 - b. The variance does not diminish any substantial solar access which benefits a habitable structure on an adjacent lot.
 - c. There are unique or unusual circumstances which apply to this site which do not typically apply elsewhere.

18.70.070 Solar Access Permit for Protection from Shading by Vegetation

- A. A Solar Access Permit is applicable in the City of Ashland for protection of shading by vegetation only. Shading by buildings is protected by the setback provisions of this Ordinance.
- B. Any property owner or lessee, or agent of either, may apply for a Solar Access Permit from the Staff Advisor. The application shall be in such form as the Staff Advisor may prescribe but shall, at a minimum, include the following:
1. A fee of Fifty (\$50.00) Dollars plus Ten (\$10.00) Dollars for each lot affected by the Solar Access Permit.
 2. The applicant's name and address, the owner's name and address, and the tax lot number of the property where the proposed solar energy system is to be located.
 3. A statement by the applicant that the solar energy system is already installed or that it will be installed on the property within one (1) year following the granting of the permit.
 4. The proposed site and location of the solar energy system, its orientation with respect to true south, and its slope from the horizontal shown clearly in drawing form.
 5. A sun chart.
 6. The tax lot numbers of a maximum of ten (10) adjacent properties proposed to be subject to the Solar Access Permit. A parcel map of the owner's property showing such adjacent properties with the location of existing buildings and vegetation, with all exempt vegetation labeled exempt.
 7. The Solar Access Permit height limitations as defined in Section 18.70.050 of this Ordinance, for each affected property which are necessary to protect the solar energy system from shade during solar heating hours. In no case shall the height limitations of the Solar Access Permit be more restrictive than the building setbacks.
- C. If the application is complete and complies with this Ordinance, the Staff Advisor shall accept the solar access recordation application and notify the applicant. The applicant is responsible for the accuracy of all information provided in the application.
- D. The Staff Advisor shall send notice by certified letter, return receipt requested, to each owner and registered lessee of property proposed to be subject to the Solar Access Permit. The letter shall contain, at a minimum, the following information:
1. The name and address of the applicant.
 2. A statement that an application for a Solar Access Permit has been filed.
 3. Copies of the collector location drawing, sunchart, and parcel map submitted by the applicant.
 4. A statement that the Solar Access Permit, if granted, imposes on them duties to trim vegetation at their expense.
 5. The advisability of obtaining photographic proof of the existence of trees and large shrubs.
 6. The times and places where the application may be viewed.
 7. Telephone number and address of the City departments that will provide further information.
 8. That any adversely affected person may object to the issuance of the permit by a stated time and date, and how and where the objection must be made.
- E. If no objections are filed within thirty (30) days following the date the final certified letter is mailed, the Staff Advisor shall issue the Solar Access Permit.
- F. If any adversely affected person or governmental unit files a written objection with the Staff Advisor within the specified time, and if the objections still exist after informal discussions among the objector, appropriate City Staff, and the applicant, a hearing date shall be set and a hearing held in accordance with the provisions of Section 18.70.080.

18.70.080 Hearing Procedure

- A. The Staff Advisor shall send notice of the hearing on the permit application to the applicant and to all persons originally notified of the Solar Access Permit application, and shall otherwise follow the procedures for a Type I hearing.
- B. The Staff Advisor shall consider the matters required for applications set forth in Section 18.70.070(B) on which

the applicant shall bear the burden of proof, and the following factor on which the objector shall bear the burden of proof: A showing by the objector that the proposed collector would unreasonably restrict the planting of vegetation on presently under-developed property.

1. If the objector is unable to prove these circumstances and the applicant makes the showings required by Section 18.70.060(B), the Staff Advisor shall approve the permit.
 2. If the applicant has failed to show all structures or vegetation shading of the proposed collector location in his application, the Staff Advisor may approve the permit while adding the omitted shading structures or vegetation as exemptions from this Chapter.
 3. If the objector shows that an unconditional approval of the application would unreasonably restrict development of the objector's presently under-developed property, the Staff Advisor may approve the permit, adding such exemptions as are necessary to allow for reasonable development of the objector's property.
 4. If the Staff Advisor finds that the application contains inaccurate information which substantially affects the enforcement of the Solar Access Permit, the application shall be denied.
- C. Any decision by the Staff Advisor is subject to review before the Planning Commission as a Type II planning action according to the usual procedures contained in this Title. (Ord. 2775, 1996)

18.70.090 Limits On Solar Access Permits

A. No Solar Access Permit may be filed which would restrict any lot which has an average slope of fifteen (15) percent in the northerly direction.

B. A Solar Access Permit becomes void if the use of the solar collector is discontinued for more than twelve (12) consecutive months or if the solar collector is not installed and operative within twelve (12) months of the filing date of the Solar Access Permit. The applicant may reapply for a Solar Access Permit in accordance with Chapter 18.70.070, however, the application fee shall be waived.

18.70.100 Entry of Solar Access Permit Into Register

A. When a Solar Access Permit is granted, the Staff Advisor shall:

1. File the Solar Access Permit with the County Clerk. This shall include the owner's name and address and tax lot of the property where the recorded collector is to be located, any special exceptions or exemptions from the usual affects of a Solar Access Permit, and the tax lots of the ten (10) or fewer adjacent properties subject to the Solar Access Permit.
2. File a notice on each affected tax lot that the Solar Access Permit exists and that it may affect the ability of the property owner to grow vegetation, and that it imposes certain obligations on the property owner to trim vegetation.
3. Send a certified letter, return receipt requested, to the applicant and to each owner and registered lessee of property subject to the Solar Access Permit stating that such permit has been granted.

B. If a Solar Access Permit becomes void under Section 18.70.090(B), the Staff Advisor shall notify the County Clerk, the recorded owner, and the current owner and lessee of property formerly subject to the Solar Access Permit.

18.70.110 Effect and Enforcement

A. No City department shall issue any development permit purporting to allow the erection of any structure in violation of the setback provisions of this Chapter.

B. No one shall plant any vegetation that shades a recorded collector, or a recorded collector location if it is not yet installed, after receiving notice of a pending Solar Access Permit application or after issuance of a permit. After receiving notice of a Solar Access Permit or application, no one shall permit any vegetation on their property to grow in such a manner as to shade a recorded collector (or a recorded collector location if it is not yet installed) unless the vegetation is specifically exempted by the permit or by this Ordinance.

C. If vegetation is not trimmed as required or is permitted to grow contrary to Section 18.70.100(B), the recorded owner or the City, on complaint by the recorded owner, shall give notice of the shading by certified mail, return receipt requested, to the owner or registered lessee of the property where the shading vegetation is located. If the property owner or lessee fails to remove the shading vegetation within thirty (30) days after receiving this notice, an injunction may be issued, upon complaint of the recorded owner, recorded lessee, or

the City, by any court of jurisdiction. The injunction may order the recorded owner or registered lessee to trim the vegetation, and the court shall order the violating recorded owner or registered lessee to pay any damages to the complainant, to pay court costs, and to pay the complainant reasonable attorney's fees incurred during trial and/or appeal.

D. If personal jurisdiction cannot be obtained over either the offending property owner or registered lessee, the City may have a notice listing the property by owner, address and legal description published once a week for four (4) consecutive weeks in a newspaper of general circulation within the City, giving notice that vegetation located on the property is in violation of this Ordinance and is subject to mandatory trimming. The City shall then have the power, pursuant to court order, to enter the property, trim or cause to have trimmed the shading parts of the vegetation, and add the costs of the trimming, court costs and other related costs as a lien against that property.

E. In addition to the above remedies, the shading vegetation is declared to be a public nuisance and may be abated through Title 9 of the Ashland Municipal Code.

F. Where the property owner or registered lessee contends that particular vegetation is exempt from trimming requirements, the burden of proof shall be on the property owner or lessee to show that an exemption applies to the particular vegetation.

Ashland Setback Table

Setback Standard "A" Slope

-0.30 -0.25 -0.20 -0.15 -0.10 -0.05 -0.00 0.05 0.10 0.15

Height in feet

8 * 14 10 8 7 6 5 4 4 4 3
 10 * 28 20 6 4 2 0 9 8 7 7
 12 * 41 31 24 20 17 15 13 21 11 10
 14 * 55 41 33 27 23 20 18 16 15 13
 16 * 69 51 41 34 29 25 22 20 18 17
 18 * 83 61 49 41 35 30 27 24 22 20
 20 * 96 72 57 47 41 35 31 28 26 24
 22 * 110 82 65 54 46 40 36 32 29 27
 24 * 124 92 73 61 52 46 40 36 33 30
 26 * 138 102 82 68 58 51 45 40 37 34
 28 * 151 113 90 75 64 56 49 44 40 37
 30 * 165 123 98 81 70 61 54 48 44 40
 32 * 179 133 106 88 75 66 58 53 48 44
 34 * 193 143 114 95 81 71 63 57 51 47
 36 * 207 154 122 102 87 76 67 61 55 50
 38 * 220 164 130 108 93 81 72 65 59 54
 40 * 234 174 139 115 98 86 76 69 62 57

Ashland Setback Table

Setback Standard "B"

Slope

0.30 -0.25 -0.20 -0.15 -0.10 -0.05 0.00 0.05 0.10 0.15

Height in feet

8 * 0 0 0 0 0 0 0 0 0 0
 10 * 0 0 0 0 0 0 0 0 0 0
 12 * 0 0 0 0 0 0 0 0 0 0
 14 * 0 0 0 0 0 0 0 0 0 0
 16 * 0 0 0 0 0 0 0 0 0 0

18 *14 10 8 7 8 5 4 4 4 3
 20 *28 20 16 14 12 10 9 8 7 7
 22 *41 31 24 20 17 15 13 12 11 10
 24 *55 41 33 27 23 20 18 16 15 13
 26 *69 51 43 34 29 25 22 20 18 17
 28 *83 61 49 41 35 30 27 24 22 20
 30 *96 72 57 47 41 35 31 28 26 24
 32 *110 82 65 54 46 40 36 35 29 27
 34 *124 92 73 61 52 46 40 36 33 30
 36 *138 102 82 68 58 51 45 40 37 34
 38 *151 113 90 75 64 56 49 44 40 37
 40 *165 123 98 81 70 61 54 48 44 40

Ashland Setback Table

Setback Standard "C" Slope

-0.30 -0.25 -0.20 -0.15 -0.10 -0.05 0.00 0.05 0.10 0.15

Height in feet

8 *0 0 0 0 0 0 0 0 0 0
 10 *0 0 0 0 0 0 0 0 0 0
 12 *0 0 0 0 0 0 0 0 0 0
 14 *0 0 0 0 0 0 0 0 0 0
 16 *0 0 0 0 0 0 0 0 0 0
 18 *0 0 0 0 0 0 0 0 0 0
 20 *0 0 0 0 0 0 0 0 0 0
 22 *7 5 4 3 3 3 2 2 2 2
 24 *21 15 12 10 9 8 7 6 6 6
 26 *34 26 20 17 14 13 11 10 9 8
 28 *48 36 29 24 20 18 16 14 13 12
 30 *62 46 37 30 26 23 20 18 17 15
 32 *76 56 45 37 32 28 25 22 20 18
 34 *90 67 53 44 38 33 29 26 24 22
 36 *103 77 61 51 43 38 34 30 28 25
 38 *117 87 69 58 49 43 38 34 31 29
 40 *131 97 77 64 55 48 43 38 35 32

Ashland Setback Table "D"

Actual Shadow Length (at solar noon on December 21st)

Slope

-0.30 -0.25 -0.20 -0.15 -0.10 -0.05 0.00 0.05 0.10 0.15

Height in feet

8 *55 41 33 27 23 20 18 16 15 13
 10 *69 51 41 34 29 25 22 20 18 17
 12 *83 61 49 41 35 30 27 24 22 20
 14 *96 72 57 47 41 35 31 28 26 24
 16 *110 82 65 54 46 40 36 32 29 27
 18 *124 92 73 61 52 46 40 36 33 30
 20 *138 102 82 68 58 51 45 40 37 34
 22 *151 113 90 75 64 56 49 44 40 37
 24 *165 123 98 81 70 61 54 48 44 40
 26 *179 133 106 88 75 66 58 53 48 44
 28 *193 143 114 95 81 71 63 57 51 47
 30 *207 154 122 102 87 76 67 61 55 50

32 *220 164 130 108 93 81 72 65 59 54|
34 *234 174 139 115 98 86 76 69 62 57
36 *248 184 147 122 104 91 81 73 66 60
38 *262 195 155 129 110 96 85 77 70 64
40 *275 205 163 135 116 101 90 81 73 67

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