

SNOHOMISH COUNTY COUNCIL



CO00027752

ORDINANCE NO. 85-104  
AMENDING SNOHOMISH COUNTY CODE,  
TITLE 18, RELATING TO DEVELOPMENT ON STEEP SLOPES

BE IT ORDAINED:

Section 1. That Snohomish County Code, Title 18, subsection 18.78.030, last amended by Ord. 82-149 adopted January 10, 1983, is amended to read:

18.78.030 Subdivision Regulations. In addition to the requirements of Snohomish County Code Title 19, the following procedures and regulations shall apply to all subdivision activity:

(A) Determination of Slope. The subdivider shall determine land slope and assess the applicability of this chapter. This information shall be provided to the ~~[(Office-of-Community Planning)]~~ Planning Division along with the completed application. The Planning Director may call for engineering or other technical justification for any development in sloped areas if he or she determines that public health, safety, welfare or environment may be jeopardized by such development. The imposition of such requirements may be appealed as an Administrative Determination under ~~[(Snohomish-County-Code)]~~ SCC 18.88.

The subdivider may use either or both of the following methods to determine land slope except that all subdivisions under ~~[(Snohomish-County-Code)]~~ SCC Title 19 require use of method 2.:

1. Inquire at the ~~[(office-of-community-planning)]~~ planning division for pre-existing slope information. Available information may be adequate for slope assessment in certain situations.

2. Obtain a topographic survey from a registered professional engineer or land surveyor which defines the slope of the property to a recognized and acceptable mapping standard. In all areas proposed for roads or dwellings, elevations of ninety percent (90%) of the area shall be within three (3) feet of the actual ground elevations.

(B) Determination of Potential Maximum ~~[(Lot)]~~ Dwelling Unit Density. The subdivider shall ~~[(use-the-Table-Method-to)]~~ determine maximum potential lot yield ~~[(and-the)]~~ from Table 1 ~~[(and/or-Professional-Planning-Methods-to-determine-minimum-lot size)]~~.

~~[(1.--Table-Method.--Use-the-method described-in-the-following-table-\*)]~~

TABLE 1

RESIDENTIAL DENSITY GUIDE FOR SLOPING LAND

Potential ~~Lot~~ Yield 1: ~~(+)~~dwelling units/gross acre~~(+)~~

Zoning ~~(\*\*)~~ 2

Slopes ~~(\*\*\*)~~ 3

	<del>(0-15%)</del>	16-20%	21-25%	26-35%	36%+
Rural Conservation/ Rural Diversification	<del>(.5)</del>	.5	.5	.5	.25
SA 1-Acre	<del>(1-0)</del>	1.0	1.0	1.0	.25
RR 20,000	<del>(1-8)</del>	1.8	1.8	1.8	.25
RR 12,500	<del>(2-8)</del>	2.8	2.8	1.8	.25
RR 9,600	<del>(4-0)</del>	4.0	2.8	1.8	.25
RR 8,400	<del>(4-2)</del>	4.0	2.8	1.8	.25
RR 7,200/WFB	<del>(4-8)</del>	4.0	2.8	1.8	.25

~~(Minimum-Lot-Size)~~

~~(Underlying-Zone-or--6,000-SF--8,400-SF--20,000-SF--43,560-SF  
100,000-SF) [(\*-An-example-is-presented-below-)]~~

1. For land areas less than fifteen percent (15%) natural slope, maximum unit yield shall be determined by dividing the net development area (gross site area minus unbuildable and circulation areas) by the minimum lot size of the zone.

~~(\*\*)~~ 2. In areas zoned Rural Use, the potential lot yield in the category 0-15% slope will be based on the maximum density designated by the applicable comprehensive plan.

~~(\*\*\*)~~ 3. Slope shall be defined as the ratio of vertical rise over horizontal run, expressed as a percentage (also known as the tangent of the slope angle), i.e., twenty-five percent (25%) (14 deg.) equals twenty-five (25) feet vertical distance (rise) for each one hundred (100) feet of horizontal distance (run) or one hundred (100) foot rise over one hundred (100) foot run equals one hundred (100) percent slope or 45 deg.

For land areas greater than sixteen percent (16%) natural slope, maximum unit yield shall be determined by multiplying the gross site area by the appropriate density factors found in Table 1.

For the purpose of this table, continuous slopes with a horizontal run of less than fifty (50) feet shall be considered level when ~~[(35-percent)]~~ thirty-five percent (35%) (19.3 deg.) or less.

C. Determination of minimum lot size. The subdivider shall determine minimum lot size by either of the following methods:

1) Table Method: Minimum lot size under this method is as shown on Table 2.

TABLE 2  
Minimum Lot Size

<u>Minimum Lot Size</u>	<u>Slopes</u>				
	<u>0-15%</u>	<u>16-20%</u>	<u>21-25%</u>	<u>26-35%</u>	<u>36%+</u>
<u>Underlying zone, or: 6,000 SF* 8,400 SF 20,000* SF 43,560 SF* 100,000 SF* (whichever is greater)</u>					

\* May be achieved only with lot size averaging pursuant to SCC 18.76.115.

2. Professional Planning Method. As an alternative to the table method described above, a subdivider may utilize the services of licensed professionals who are experienced in land planning and engineering to determine potential minimum lot size. If this alternative is selected, the following requirements shall apply:

To support the requested lot size, the professional shall submit a report as set forth below which indicates that the proposed earthwork for the road and dwelling sites may be safely constructed and that each lot has sufficient area to provide location for the dwelling together with associated space for parking, yards and utilities. If, upon review of said engineering evidence and other relevant factors, the Planning Director is satisfied that the public health and safety can be maintained, he or she shall allow smaller lots than those set forth in the Table in certain steep slope situations.

The report shall generally address the following:

- a. surveyed cross sections of the property;
- b. grading and structure siting plans;

- c. clearing and landscaping plans;
- d. a description of groundwater levels throughout the area affected by grading for both summer and winter conditions;
- e. an evaluation of changes in groundwater conditions that would result from the project and the resulting effects, if any;
- f. a description of on-site and off-site storm water drainage, and recommendations for carrying the drainage to an established system;
- g. the depth of weathered or loosened soils on the site and the nature of the weathered and underlying basement soils;
- h. an evaluation of slope stability before, during and after construction;
- i. an evaluation of the effect of the project on surrounding properties including any limitations on subsequent development or grading on adjacent properties;
- j. recommendations for site preparation, excavation procedures, fill placement and landscaping; and
- k. recommendations for foundation support and later retention of earth.

3. Soils [(Subsections)] Report Required. Notwithstanding the provisions of [(1-and-2)] B and C above, a soils report prepared by a professional engineer experienced in soil mechanics shall be required whenever any grading or construction is proposed on slopes 50% (2:1) or steeper. The soils report shall report the on-site conditions encountered and provide an evaluation of slope stability before, during and after construction.

The soils report may set forth conditions relating to the design and/or construction of the development which, unless otherwise waived by the County, shall be followed in the design and construction of the project.

[(Example:--The-following-example-utilized-the-Table-Method-for density-calculation:)]

[(Step-1---"Identify-Sloped-Areas-and-Calculate-Potential-Lot Yield".--Areas-of-varying-slope-characteristics-as-defined-in-the slope-table-are-to-be-identified-on-the-property-and-displayed-on-the preliminary-plat-map-through-surveyed-topographic-lines-and-shading. Potential-lot-yield-is-to-be-consistent-with-the-table.--Lot-size averaging-shall-be-used-in-non-sloped-areas-suited-for-higher-density development-to-provide-larger-lots-in-sloped-areas-and-to-try-to achieve-potential-lot-yield.--Minimum-lot-sizes-in-sloped-areas-are-to be-consistent-with-the-table-except-as--provided-in-Step-2.)]

[(1:--Less-than-15% slope-over-6 acres-allowing-full-density

credit-of-4-dwellings/acre--24  
units-)]

[(2.--25% slope-over-2-acres-allowing  
density-credit-of-2.8  
dwellings/acre--5.6-units-)]

[(3.--35% slope-over-2-acres-allowing  
density-credit-of-1.8  
dwellings/acre--3.6-units-)]

[(4.--33.2-(33)-total-unit-maximum-)]

[(5.--Developer-uses-minimum-lot-size  
restrictions-in-the-Table  
together-with-lot-size  
averaging-to-place-maximum  
feasible-lots-in-0-15% sloped  
areas.--Achieves-full-potential  
lot-yield-(33-units)-)]

[(Step-2---In-cases-where-the-Potential-Lot-Yield, i.e., 33-units,  
may-not-be-achieved-through-the-use-of-lot-size-averaging-in-Step-1,  
the-developer-may-pursue-smaller-lots-in-steep-sloped-areas-than-those  
set-forth-in-the-Table.--Subdivision-designs-incorporating-such  
smaller-lots-shall-be-accompanied-by-a-report-as-set-forth-in-Section  
2-above.--(See-1-of-Ord.-82-149-adopted-January-10-1983)-)]

Dated this 4<sup>th</sup> day of December, 1985.

SNOHOMISH COUNTY COUNCIL  
Snohomish County, Washington

Bruce A. ...  
Chairman

Kathryn J. Morton  
Clerk of the Council

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THOMAS G. CARLSON  
DEPUTY EXECUTIVE  
DATE 12/6/85

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County Executive

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Approved as to form