

(m) Tree Protection Ordinance. General Provisions. Projects shall be designed to minimize the destruction of protected trees. With development permits, a site plan shall be submitted that depicts the location of all protected trees greater than nine inches (9") and their protected perimeters in areas that will be impacted by the proposed development, such as the building envelopes, access roads, leachfields, etc. Lot line adjustments, zoning permits and agricultural uses are exempt from this requirement. The provisions of this section shall not apply to trees which are the subject of a valid timber harvesting permit approved by the state of California. This section shall not be applied in a manner that would reduce allowable density lower than that permitted as a result of C.E.Q.A. or by other county ordinances or render a property undevelopable. To achieve this end, adjustments may be made. Agricultural uses exempt from the tree protection ordinance are as follows: the raising, feeding, maintaining and breeding of confined and unconfined farm animals, commercial aquaculture, commercial mushroom farming, wholesale nurseries, greenhouses, wineries and agricultural cultivation. Construction Standards. Applicants are encouraged to use a qualified specialist to establish tree protection methods.

(1) Protected trees, their protected perimeters and whether they are to be retained or removed are to be clearly shown on all improvement plans. A note shall be placed on the improvement plans that "Construction is subject to requirements established by Sonoma County to protect certain trees."

(2) Before the start of any clearing, excavation, construction or other work on the site, every tree designated for protection on the approved site plan shall be clearly delineated with a substantial barrier (steel posts and barbed wire or chain link fencing) at the protected perimeter, or limits established during the permit process. The delineation markers shall remain in place for the duration of all work. All trees to be removed shall be clearly marked. A scheme shall be established for the removal and disposal of brush, earth and other debris as to avoid injury to any protected tree.

(3) Where proposed development or other site work must encroach upon the protected perimeter of a protected tree, special measures shall be incorporated to allow the roots to obtain oxygen, water and nutrients. Tree wells or other techniques may be used where advisable. No changes in existing ground level shall occur within the protected perimeter unless a drainage and aeration scheme approved by a certified arborist is utilized. No burning or use of equipment with an open flame shall occur near or within the protected perimeter (except for authorized controlled burns).

(4) No storage or dumping of oil, gasoline, chemicals or other substances that may be harmful to trees shall occur within the drip line of any tree, or any other location on the site from which such substances might enter the drip line.

(5) If any damage to a protected tree should occur during or as a result of work on the site, the county shall be promptly notified of such damage. If a protected tree is damaged so that it cannot be preserved in a healthy state, the planning director shall require replacement in accordance with the arboreal value chart. If on-site replacement is not feasible, the applicant shall pay the in-lieu fee to the tree replacement fund.

(6) The following design standards for protected trees shall be adhered to:

(i) Underground trenching for utilities should avoid tree roots within the protected perimeter. If avoidance is impractical, tunnels should be made below major roots. If tunnels are impractical and cutting roots is required, it shall be done by hand-sawn cuts after hand digging trenches. Trenches should be consolidated to serve as many units as possible.

(ii) Compaction within the drip line or protected perimeter shall be avoided.

(iii) Paving with either concrete or asphalt over the protected perimeter should be avoided. If paving over the protected perimeter cannot be avoided, affected trees shall be treated as removed for purposes of calculating arboreal values.

(iv) Wherever possible, septic systems and/or leachlines shall not be located on the uphill side of a protected tree.

(7) Security posted for the purpose of insuring the proper construction of public or private improvements shall also include an amount sufficient to secure any requirements imposed pursuant to this section. In addition, security for potential tree damage shall be twenty-five percent (25%) of the

amount posted for planned tree replacement. In lieu fees shall be paid prior to recording any maps. Such security shall not be released until protection requirements, including planting replacement trees, and any long term maintenance requirements have been satisfactorily discharged. The initial bond amount may be reduced to cover only the maintenance and replacement of trees after construction is completed.

(8) The Valley Oak-Quercus lobata shall receive special consideration in the design review process to the extent that mature specimens shall be retained to the fullest extent feasible. Valley Oaks contribute greatly to Sonoma County's visual character, landscape and they provide important visual relief in urban settings. On existing parcels created without the benefit of an accompanying EIR, design review shall focus on the preservation of Valley Oaks to the fullest extent feasible. Where such preservation would render a lot unbuildable, partial protection with accompanying appropriate mitigations developed by a certified arborist shall be incorporated into the project design. In such cases where only partial protection can be achieved, full replacement in accordance with the arboreal value chart shall be required. Arboreal Value Charts. One of the following charts is to be used for determining arboreal values. The applicant shall indicate at time of application which chart is to be used. Chart No. 1 requires analysis to be done only in the development areas (building envelopes, access roads, etc.) and requires one hundred percent (100%) replacement or in-lieu fees. Chart No. 2 requires analysis of the entire site but allows for removal of up to fifty percent (50%) of the arboreal value. Compensation for the loss of greater than fifty percent (50%) arboreal value will require replacement by using the chart.

Chart No. 1: To Be Used For Measuring Trees Removed Only in The Development Areas.

[TABLE BELOW]

d.b.h. (inches)	Removed Trees	Weighted Value	Arboreal Value
9-15		1	
over 15-21		2	
over 21-27		3	
over 27-33		4	
over 33		5	

Total;#rule;

This value (the A.V.) is used to calculate the replacement number.

* d.b.h. (diameter at breast height, four and one-half (4) feet above ground) can be calculated by measuring the circumference of the tree and dividing by 3.14 or pi.

Chart No. 2 Complete Site Analysis.

a. To Be Used For Measuring Existing Trees On The Entire Site.

d.b.h.* (inches)	Existing Trees	Weighted Value	Existing Arboreal Value
9-15		1	
over 15-21		2	
over 21-27		3	
over 27-33		4	

over 33		5	
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Total;#rule;

b. To Be Used For Measuring Trees To Be Removed.

d.b.h.* (inches)	Removed Trees	Weighted Value	Removed Arboreal Value
9-15		1	
over 15-21		2	
over 21-27		3	
over 27-33		4	
over 33		5	

* d.b.h. (diameter at breast height, four and one-half (4) feet above ground) can be calculated by measuring the circumference of the tree and dividing by 3.14 or pi.

Total;#rule;

Subtract the removed arboreal value from the existing arboreal value. If the removed arboreal value is more than fifty percent (50%) of the existing arboreal value, the developer must replace the difference between removed arboreal value and fifty percent (50%) of existing arboreal value using the arboreal valuations.

Arboreal Valuations. All trees to be replaced shall be the same native species as that removed unless specific approval has been granted by the planning director.

[TABLE BELOW]

1 point A.V.	= six 5-gallon trees (can be existing trees on site that are below 9" d.b.h. if preservation methods are part of the development permit)
	= two 15-gallon trees**
	= \$200 in-lieu fee***
2 points A.V.	= 24" Box Tree**
	= \$400 in-lieu fee***

Editor's note—** The large trees must come from nurseries where they have been irrigated. They must have on-site irrigation to insure their survival.

Editor's note—*** Annual average retail cost can be changed to reflect cost increases.

Replacement trees may be located on residentially zoned parcels of at least