

From: [Eric Olsen](#)
To: [citycouncil](#); [Mike Erdmann](#); [Natalie G. Janney, P.E.](#)
Subject: Tree Ordinance Testimony
Date: Monday, December 13, 2021 3:56:43 PM
Attachments: [PROPOSAL FROM WORKGROUP OF ENGINEERS Tree ordinance.pdf](#)

Good Evening Councilors.

At the last meeting that City Council reviewed the proposed STAFF amendments to the UDC, a number of us voiced concerns regarding the proposed tree ordinance as it relates to the real effect this will have on our ultimate ability to encourage density (important as we strive to reduce our carbon footprint).

To that end, the Mayor asked that we put together recommended changes to the proposed amendments. I hope you understand that this was a challenge to generate a thorough and comprehensive submittal given we had only one week to do so. But we have made a big effort to recommend modifications to those amendments which we think will move to mitigate many of our concerns.

Thanks so much and look forward to answering questions this evening.

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PROPOSAL FROM AD HOC WORKGROUP OF ENGINEERS,
HOMEBUILDERS AND LOCAL BUILDING ASSOCIATION (Mark Grenz,
Natalie Janney, Mike Erdmann, Eric Olsen)

Summary: The Mayor asked a few citizens who spoke in opposition at the City Council against some amendments to **SRC Chapter 808 Tree Ordinance** to make recommendations for revisions that would address concerns. There are four primary modifications we would recommend. The recommendations are built on the following tenets:

- A. Assure trees slated for protection are indeed protected
- B. Increased density is an important aspect of the City's vision
- C. Curbing Carbon Dioxide emission is critical to our community...and world

Recommendation 1: Permit an arborist to be hired in lieu of utilizing the prescriptive critical root zone protection for non-significant trees which would be a detailed method for protecting the health of the tree.

Explanation: Many development codes are written to permit a Prescriptive Path in which one follows a set of guidelines to satisfy a regulation. Often there is an alternative to hire a professional to deviate from that standard (e.g. prescriptive path for brace wall panels in a home versus having the house lateral system engineered). In this case, we think having the option to hire a professional certified arborist would potentially offer a method preserve the health of the trees while also permitting a less "one-size-fits-all" standard. We have found numerous jurisdictions who have adopted the critical root zone requirement, but also permit an arborist to look at the specific trees and provide a better (or less conservative) tree preservation method. For instance, one jurisdiction describes their alternative method:

A biological CRZ area is determined by an arborist through analyzing tree characteristics, site factors, and anticipated construction impacts. In other words, the biological CRZ is defined as the area needed to preserve the roots necessary for the tree to survive

construction. For most trees growing in an open setting, the biological CRZ spans from the trunk to the edge of the canopy, or the “dripline.” For older trees, sensitive species, or trees growing in poor sites, the biological CRZ may actually be much larger than the dripline. Conversely, younger trees, resilient species or trees on good sites may have a biological CRZ smaller than their driplines.

Our very own Oregon State Extension Service writes:

Some tree species are more tolerant of damage and disturbance in the CRZ than others. A tree’s tolerance depends not only upon the species but also upon conditions present prior to and at the time of the damage. Tree health, age of the tree, soil aeration and moisture, the time of year the damage occurs, its severity, and the weather conditions prior to, during, and after the damage all contribute to the tree’s response. An experienced ISA certified arborist can analyze these variables and make specific recommendations to retain or recover a tree’s health and safety during and after the construction process.

Suggested Amendment: Section 808.046 add a(5) to read:

For non-significant trees a report from a certified arborist may be submitted as an alternative to procedures 1-4 above to protect the long term health and stability of the tree.

Recommendation 2: Specify clear and objective standards for the removal of significant trees which are within the development improvement area (e.g. streets, PUE’s, driveway approaches).

Current language states that no significant tree may be removed unless “there are no reasonable design alternatives that would enable preservation of such trees.” While we agree with this in theory—as we read it—from experience this becomes almost impossible to know specifically what is meant and how “no

reasonable” would be interpreted by staff. To remedy this, we suggest including affirmative language of what would be a “reasonable” justification for such removal. See proposed language.

Suggested Amendment: Amend Section 808.035 d (2) to read:

When a tree conservation plan proposes the removal of a significant tree, there are no reasonable design alternatives that would enable preservation of the tree. Street right-of-ways, PUE’s, storm water easements, driveway approaches, and increasing density would be justification for removal.

Recommendation 3. Permit the additional removal of Significant Trees when designing subdivisions with a Solar Panel offset. (This would not be available to a single homeowner.)

As stated at Council, we believe that climate change is real and must be addressed at the local level. To that end, we are proposing an offset requirement that would allow in exchange for the removal of a significant tree, a corresponding deeded restriction which requires a particular property or properties to install a defined sized solar array. For instance, as an example tradeoff, we propose for every significant tree removed, at least one 3 KW system would be mandated on a lot in the subdivision when a home is built. This would help to balance the CO2 “cost” of such removal. Below is a outline of how one might calculate the CO2 cost and benefit of a 40 inch tree removal and 3KW solar array installation.

CO2 Calculation 3 KW System	CO2 Calculation	
Assume 40 inch diameter tree		
Sequestered	100,000 lbs	Assumes released to the environment--See Note 1
400 lbs per year (50 years)	20,000 lbs	Assumes tree going to live 50 more years
Cost of manufacturing KW System	12000 lbs	2.5-3 years

Total CO2 Cost	132000 lbs	
3 KW Solar Panel Savings	5500 lb/yr	Based on typical Oregon home
Carbon Offset Timeframe	24 Years	Life span of panels 25 years
Notes:		
1. Sustainable removal and sequestration (wood product, agricultural organic use) reduces this significantly		
2. Does not consider cost from loss of shading of removed trees but this is only applicable in trees placed in very specific location relative to home		
3. Does not consider effect on heat islands in urban environments		

Suggested Amendment: Amend Section 808.035 d (2) to read:

When a tree conservation plan proposes the removal of a significant tree, there are no reasonable design alternatives that would enable preservation of the tree with the exception of d (2) A. Street right-of-ways, PUE's, storm water easements, driveway approaches, other public improvements, and maximizing density would be justification for removal.

Add d (2) A to read:

A tree conservation plan may include a path to significant tree removal not otherwise exempted if a deeded requirement for installation of a 25 year 3KW Solar array per tree is part of the approval. Location of the solar array must be within 1000 ft of the removed tree and must consider solar orientation and potential shading.