

PROCEDURE BULLETIN NO. 51

Tree Trimming and Planting Procedure

I. PURPOSE

This procedure has been developed to implement the guidelines established in Policy Bulletin No. 6, Rights Of Way with regards to trees and vegetation. Trees in both rural and urban settings are a vital element of the quality of life. However, when tree limbs come in contact with power lines, it is dangerous and electric service can be impaired. As part of the District's obligation to provide reliable electrical service to customers, this procedure is designed to keep tree limbs and shrubs safely away from power lines.

II. RESPONSIBILITIES

KPUD is authorized by RCW 64.12.035 to trim or remove any tree or vegetation that poses an imminent hazard to the general public or is a potential threat that could damage electric facilities. Tree Trimming Crew employees are responsible for trimming trees and vegetation around its energized power lines, utility poles and pad-mount transformers to obtain clearance with due regard to current and future tree health and symmetry.

III. CLEARANCE STANDARDS

KPUD attempts to maintain an average seven-year trim cycle with specific feeders to be scheduled based on satellite imagery and data analytics at the expense of the District. The exact amount of clearance needed in a given area depends on the voltage of the line and type of line construction. Line sag during temperature extremes, as well as wind movement of power lines and trees also must be taken into consideration. The following guides have been established for Transmission and Distribution line right of way clearing per KPUD Engineering Specifications ROW-T and ROW-D.

Any limb within 10 feet of distribution electrical lines and 10 feet from conductor or 23 feet from the centerline of an H structure of transmission lines are those to be achieved at the time of cutting. Because proper pruning techniques require cutting at certain points, branches will be cut at a main branching point, or at the trunk, leaving no stub. This may mean the branch is cut more than ten feet from the lines, but it helps preserve the health of the tree.

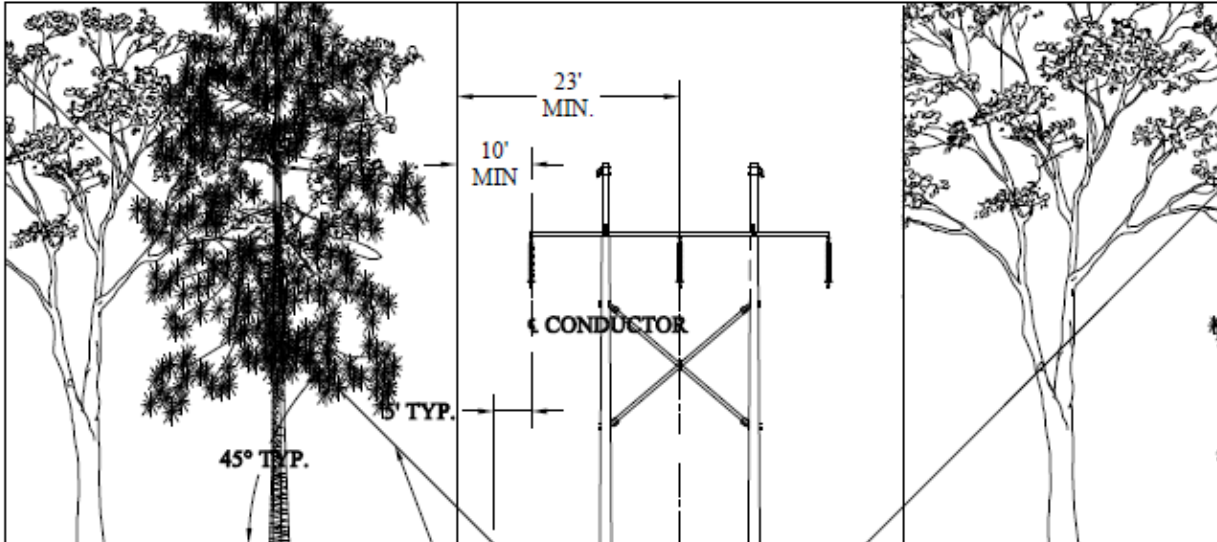
Any limb within 15 feet above the conductor and 10 feet horizontally from the conductor to the ground will be removed. Certain main branches on older trees can remain inside the minimum clearance, but this depends on the health of the tree, direction of growth and likelihood of its limbs reaching the lines. In addition, any dead tree that has the

potential of reaching the power lines or any hazard tree defined as leaning, uprooting, or dead will be removed if necessary even if it resides outside the following specs.

230 KV TRANSMISSION

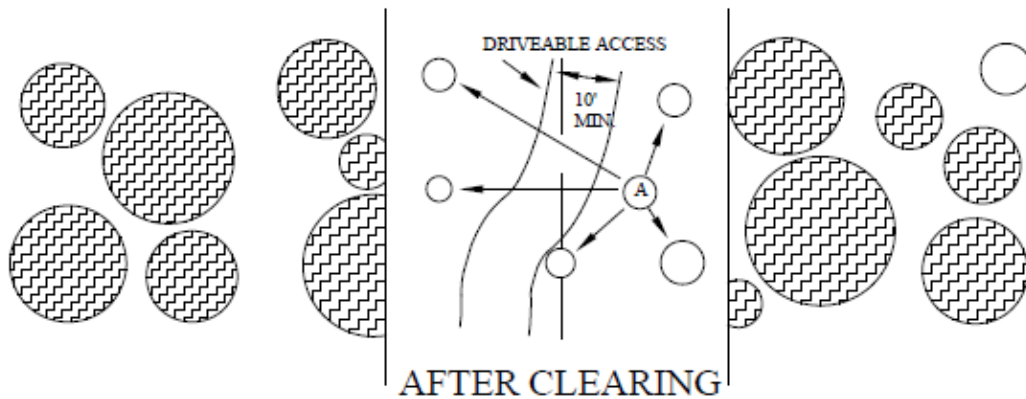
Klickitat PUD will ensure compliance with the tree-based vegetation management concepts contained in NERC Reliability Standard FAC-003-3. This could mean the removal of any tree or woody shrub growing on the transmission line right of way that exceeds a height of 10 feet at the time of trimming or encroaches within the Minimum Vegetation Clearance Distance (MVCD). (See KPUD Procedure Bulletin 50 "Transmission Vegetation Management Program Appendix D).

TRANSMISSION

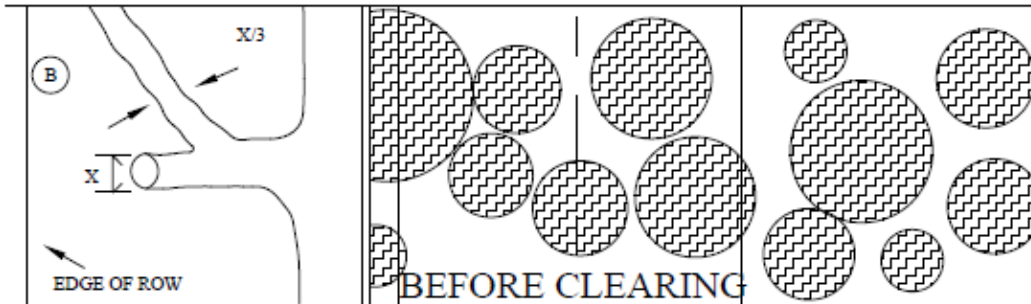


TRIM/REMOVE DANGER TREES ABOVE THIS LINE PER ARBORIST. SEE RCW 64.12.035

ELEVATION



AFTER CLEARING



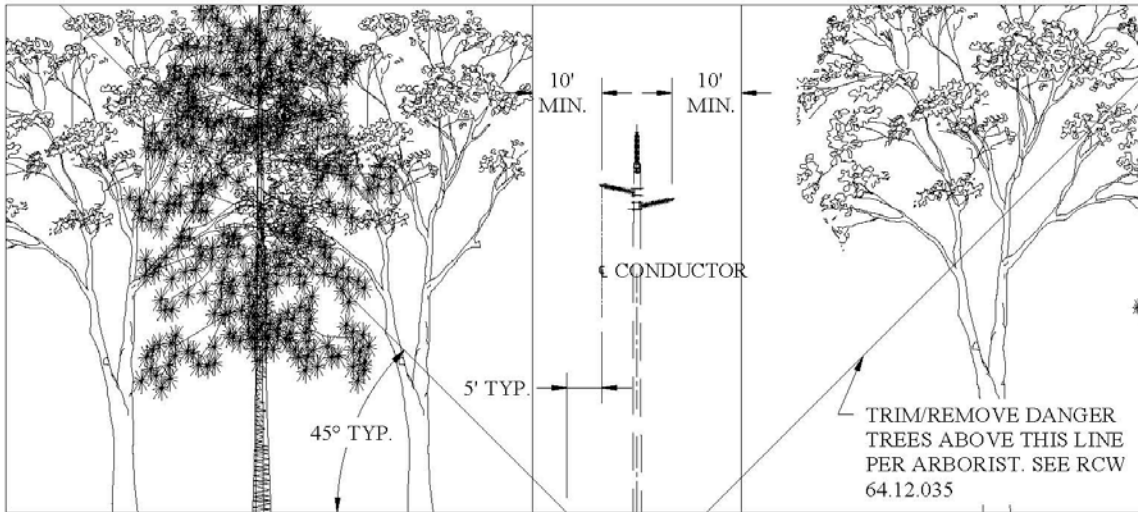
BEFORE CLEARING

(A) All tree stumps should be cut flat and stand no more than four inches (4") above ground.

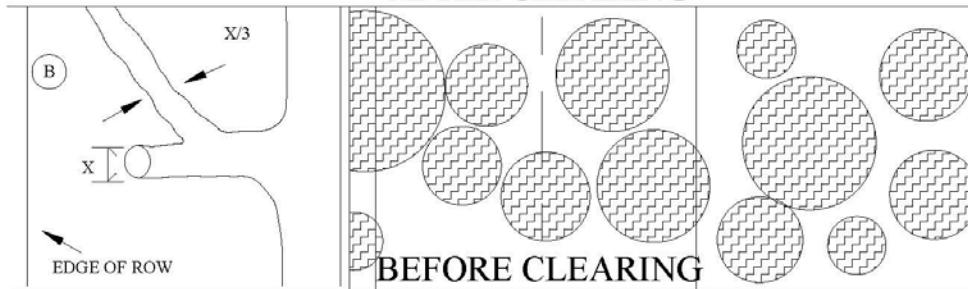
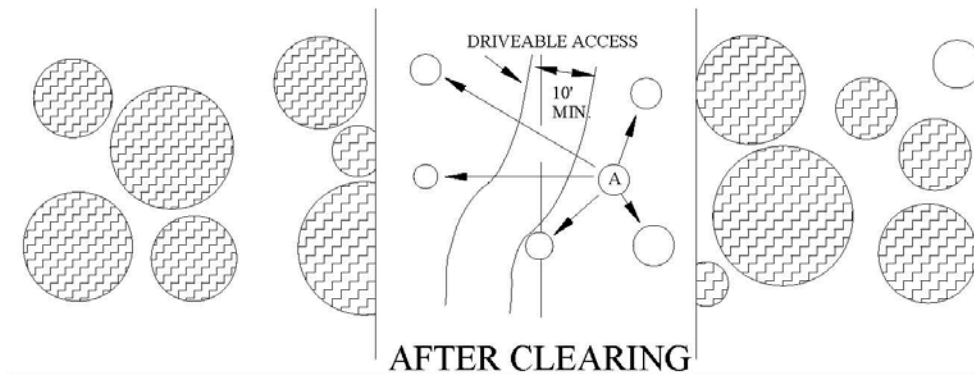
(B) All branches should be cut back to a crotch where the side branch is greater than 1/3 the thickness of the main branch, or else it should be cut back to the trunk.

REVISION: 11-1-17		<h1>KLICKITAT COUNTY</h1> <h2>PUD</h2>	ROW-TH
DRAWN BY: RDP			
APPROVED BY:		GUIDE FOR 2-POLE TRANSMISSION RIGHT-OF-WAY CLEARING	

TRANSMISSION



ELEVATION

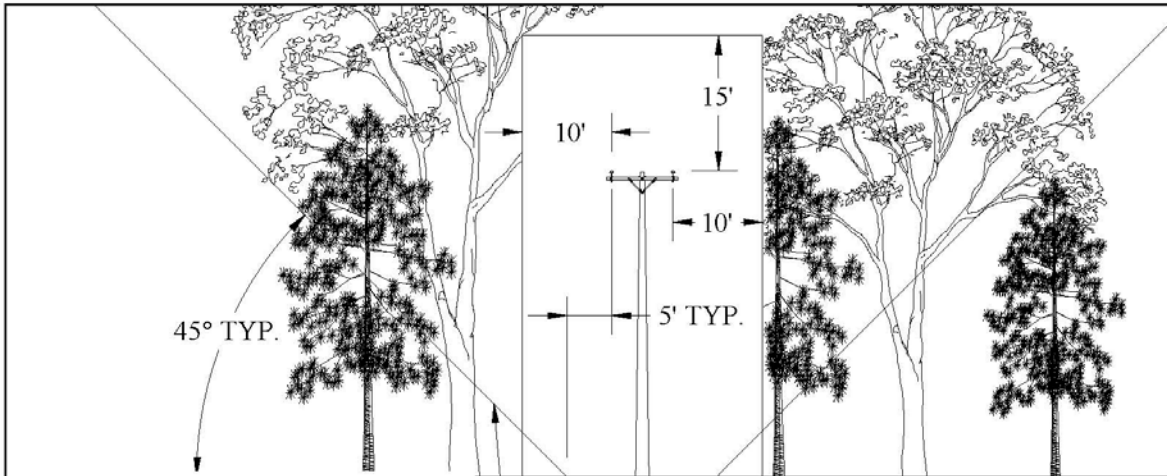


(A) All tree stumps should be cut flat and stand no more than four inches (4 ") above ground

(B) All branches should be cut back to a crotch where the side branch is greater than 1/3 the thickness of the main branch, or else it should be cut back to the trunk.

REVISION: 6-14-16		<h1>KLICKITAT COUNTY PUD</h1>	ROW-T
DRAWN BY: RDP			
APPROVED BY:		<p>GUIDE FOR 1-POLE TRANSMISSION RIGHT-OF-WAY CLEARING</p>	

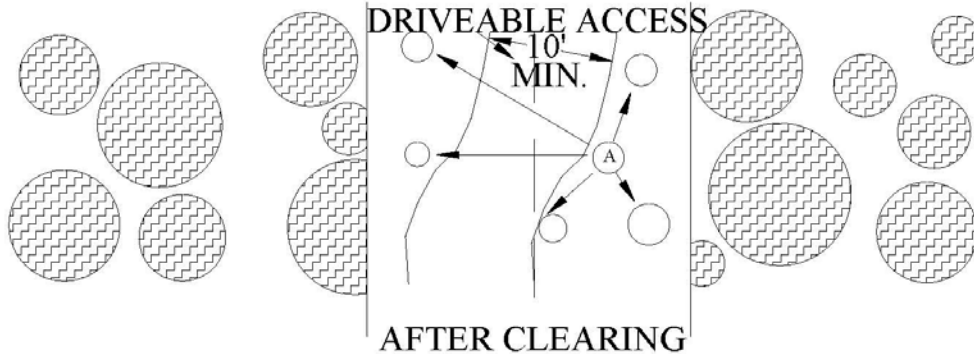
DISTRIBUTION



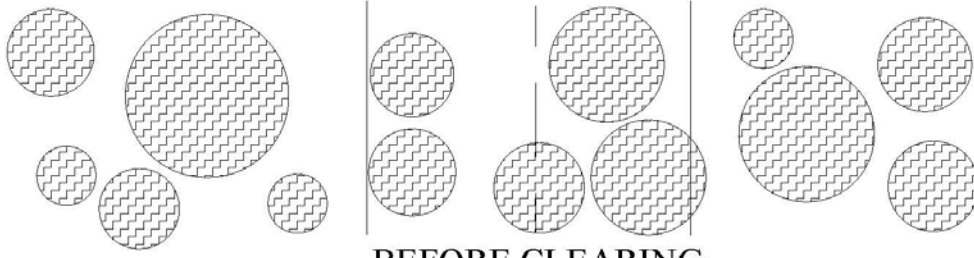
TRIM/REMOVE DANGER TREES ABOVE THIS LINE PER ARBORIST. SEE RCW 64.12.035

ELEVATION

NOTE: ALL DIMENSIONS ARE FROM CONDUCTOR



AFTER CLEARING



BEFORE CLEARING

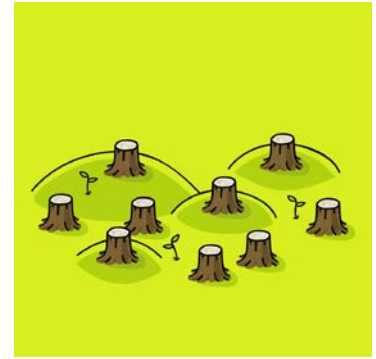
NOTES:

- (A) ALL TREE STUMPS SHOULD BE CUT FLAT AND STAND NO MORE THAN FOUR INCHES (4") ABOVE GROUND.

REVISION: 3-10-16		<h2 style="text-align: center;">KLICKITAT COUNTY</h2> <h2 style="text-align: center;">PUD</h2>	ROW-D
DRAWN BY: RDP			
APPROVED BY:		GUIDE FOR DISTRIBUTION RIGHT-OF-WAY CLEARING	

III. CLEARANCE STANDARDS CONTINUED

All species located directly under the line that have a maturity height exceeding 15 feet will be removed at ground level. All tree stumps will be cut flat and stand no more than 4 inches above ground. Slower growing species may be left if they have a minimum trunk size exceeding 10 inches and will be pruned to maintain noted clearance to the nearest primary conductor.



Trees directly in front of a residence will be cut with a clearance of 10 feet to the nearest conductor and left for a buffer. If the tree does not fit within IV. Planting Guide, (below), it will be removed to meet the seven-year average trim cycle.

IV. PLANTING GUIDE

To ensure reliable electric service for the future, special care must be taken in the selection and placement of new trees. Wise tree planting will also protect street and sidewalk visibility and clearance, and prevent damage to pavement, water and sewer lines, and buildings. In addition, properly located trees can increase property values. Choosing the right tree and the best place to plant will help provide beautiful, healthy trees that need little maintenance. When planting near a power line, plant trees that are less than 25 feet high when mature. This reduces the chance of power outages and avoids annual pruning. Remember to locate all underground utilities before planting. Washington state law requires notification at least three days in advance of digging to have all local utilities located free of charge. See the Tree Certificate Brochure for further information.

V. METHODS

To ensure the tree trimming crew equipment is always in safe working condition, daily inspection of the trucks and equipment is required. The Tree Trimming foreman then determines if equipment needs maintenance or can be put to use for the job. Periodic routine maintenance is mandatory.

VI. TRAINING

A line clearance/tree trimmer engages in a variety of tree care operations which include tree pruning, tree removal, and brush clearing. Much of this work is done in the vicinity of energized, high voltage power lines. The apprentice program is a 4000 hour program broken into four steps, based on training both on the job and classroom. Journeyman Trimmers also receive continuing education to maintain pesticide licenses and proficiency in the trade.

ATTACHMENT A - TO PROCEDURE BULLETIN NO. 51
Klickitat PUD Tree Trimming Request/Questionnaire

C/S Rep-Eng/Ops Support fill out top section, give to Line Superintendent or Serviceman for field evaluation

Date: _____ Name: _____
Address: _____ City: _____
Phone: _____

Description of problem:

Questions: Primary or Secondary line?: _____
Within 10' of pole?: _____ Limb or Tree? Live or Dead?
Property owner? _____
Is there access Y/N? How do we access?: _____

Explain we do trim insulated-secondary service drops, but do not remove the trees. A field representative will evaluate and determine if it qualifies or not, and if it does it will be prioritized and put on a list. The waiting time can be several months.

Field Evaluation fill out this section and forward to Operations Mgr. for follow up if necessary
Tree Limb Live Tree Dead Tree Primary Open Secondary Ins. Secondary
In Line Near Line Leaning towards line Clearance in ft. _____
In ROW Y/N? PUD responsibility Y/N?

Notes:

Final Evaluation/Work Done

Approved at Staff Meeting: 03/02/2010

REVISED: 11/04/2014, 06/21/2016, 01/18/2022