



Tree Protection Plan During Construction

(adapted from University of Illinois in Chicago Forest Management Plan 2011)

Approved by WSU Arboretum and Land Stewardship Committee on June 12, 2013

Approved by WSU Cabinet on June 24, 2013

Protection and Preservation

The Facilities Planning and Construction Office will enforce the Tree Protection Plan During Construction and shall be contacted with any questions or items to be clarified prior to the start of work.

Facilities Planning and Construction Office

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All trees should be evaluated for their potential to be preserved when located in an area planned for construction. Trees should only be removed for construction when the cost to preserve them is too significant to justify the loss of potential future benefits. Therefore, benefits such as aesthetics, energy savings, carbon sequestration and pollutant removal, among others should be closely weighed against the cost of preservation.

Tree removal decisions shall be made by Facilities Management (Campus Planner, Grounds Supervisor), with assistance from the All University Arboretum and Land Stewardship Tree Advisory Committee and other appropriate personnel associated with the location of the construction (for example, Kryzsko Commons, Director of the Student Union and Design Team).

All sites planned for construction where trees may be potentially impacted shall follow five steps to ensure proper tree preservation.

1. Tree Preservation Plan

A Tree Preservation Plan shall be developed for every construction site where trees may be potentially impacted by construction. Such a plan shall consist of the following:

a. Map indicating boundary of construction zone and all trees to be potentially impacted. Trees should be placed into the following categories:

A. Not salvageable.

1. Trees within the footprint of construction that must be removed to accommodate construction.
2. Trees in too poor of health prior to construction to make it likely for them to survive disturbance from construction activities.

B. Low Priority for Protecting

1. Trees that are below 8" DBH, 20 foot canopy width or 25 foot height
2. Trees with low value in terms of energy savings, carbon sequestration, aesthetics or pollutant removal
3. Invasive species

C. High Priority for Protecting

1. Trees that are above 8" DBH, 20 foot canopy width or 25 foot height
2. Trees with a high value in terms of energy savings, carbon sequestration, aesthetics or pollutant removal
3. Trees that are a part of Winona State University's Minnesota Collection
4. Trees that are significant for our collection: memorial trees, special "one of a kind" or groupings of unique specimens

b. Plan for preserving all existing trees

Methodology for preserving the health and structural integrity of all trees on the construction site must be mapped and explained in detail.

c. Rationale for removing trees

Before a decision is made to remove any trees, reasoning must be given as to why removal is the best option. Effort must be made to explore preservation options for every tree before removal is decided upon. This includes protection for trees during construction and exploration of construction plan modification to limit tree impact.

2. Tree Protection Zones

A tree protection zone (TPZ) should be established for all trees selected for preservation. A TPZ is meant to protect the tree's limbs, trunk and roots from construction damage. The TPZ shall extend 1 foot from the face of the trunk for each inch in trunk diameter measured at a height of 4.5 feet with a minimum of 2 feet. Signage shall be placed on the outside of the TPZ which clearly states the purpose of the zone, with instructions to keep construction activities outside of fencing. Fencing shall be temporary chain link sections which are gated for maintenance personnel access for watering and otherwise maintaining the tree during the construction period. It is preferred that construction materials and equipment not be leaned against fencing.

3. Pre-Construction Inspection

All trees to be protected should be inspected prior to the commencement of construction activities and a value established for the tree by Facilities Management (Campus Planner, Grounds Supervisor) using the Council of Tree and Landscape Appraisers' valuation method (*Guide for Plant Appraisal*, CTLA) or i-Tree software. Documentation, including dated photographs, should be completed detailing the state of trees prior to construction. Inspections should be performed by a qualified Facilities Management employee (Campus Planner, Grounds Supervisor, groundskeeper) and/or a member of the All University Arboretum and Land Stewardship Tree Advisory Committee.

4. Inspections During Construction

Trees should be inspected at least monthly during construction to ensure that they are being properly preserved. Inspections should be performed by a qualified Facilities Management employee (Campus Planner, Grounds Supervisor, groundskeeper) and/or a member of the All University Arboretum and Land Stewardship Tree Advisory Committee. A proper record (see attached Tree Protection Inspection Report Form) should be taken of every inspection performed. Such a record should include dated photographs of trees being preserved and notes on any work being performed that might be harmful to trees within the protection zone (see examples and instructions with Tree Protection Inspection Report Form). Construction may be stopped at any location where trees are not being preserved according to plans.

5. Post-Construction Inspection

Trees should be inspected once construction has been completed to ensure proper preservation procedures were followed throughout construction and to inspect the overall health and appearance of trees. If any damage or potential concerns are noted, proper action must be taken to ensure tree health and safety and determine liability.

Tree Damage Assessment

Assessment of tree damage caused by any contractor will be the responsibility of Facilities Management (Campus Planner, Grounds Supervisor), with assistance from the All University Arboretum and Land Stewardship Tree Advisory Committee. Assessment will include determination of the cause of damage and appropriate remedies to return the damaged tree to health, if possible. Any contractor found to be responsible for damage to trees during construction or other activity shall be held liable. They will be required to fund the replacement cost of any trees lost, or to fund the cost to repair damage to any trees that can be saved. Replacement cost shall be determined prior to construction using the valuation method established by the Council for Tree and Landscape Appraisers (CTLA). Any individual or entity wishing to appeal a tree damage penalty may request a meeting with Facilities Management (Campus Planner, Grounds Supervisor, Facilities Manager) and Vice-President of Finance and Administrative Services, where they can explain why they should not be held liable.