

Wabash Valley College



Tree Campus USA Application

Stuart Balding

President
Dr. Matt Fowler

Abstract

Wabash Valley College adopted this Tree Care Plan to accomplish the following:

1. Repopulate the aging and damaged 4 acre woods located in the center of the WVC campus.
2. Repopulate areas of campus adding trees for beauty and shade.
3. To maintain an attractive, safe, and sustainable tree population within the entire campus.

Wabash Valley College is teaming with local schools and Beal Woods State Park to provide educational opportunities to better understand the tree population with activities like tree identification. In addition, learning opportunities will include benefits of trees and core sampling of the tree trunks. Participants will include various ages, households, and interests.

Tree Campus USA Application

1. PURPOSE: Wabash Valley College establishes the Tree Care Plan in order to: 1. re-populate the aging and damaged 4 acre woods beautifully located in the center of the WVC campus buildings. 2. Repopulate other areas of campus that need trees for beauty and shade. 3. Repair and maintain all trees on campus to preserve an attractive, safe, and sustainable tree population within the entire campus.

2. RESPONSIBLE AUTHORITY/DEPARTMENT - WHO ENFORCES THE CAMPUS TREE CARE PLAN? The tree campus plan will be enforced by the Tree Advisory Committee and the Tree Advisory Committee team leader. The plan will have the support of Wabash Valley College administration.

3. ESTABLISHMENT OF A CAMPUS TREE ADVISORY COMMITTEE, TERMS OF REPRESENTATIVES, AND ROLE COMMITTEE PLAYS. The Tree Campus Advisory Committee will be comprised, at a minimum, of (1) outdoor facility groundskeeper, (3) faculty members, (1) WVC Student Senate President, (1) WVC administrator, and (2) community representatives.

CAMPUS TREE ADVISORY COMMITTEE MEMBERS 2014

Dr. Matt Fowler - President - Wabash Valley College

David Wilderman - Instructor of Marketing and Business Management – Wabash Valley College

Steve Hnetkovsky - Instructor of Agriculture - Wabash Valley College

Doug Robb - Instructor of Agriculture - Wabash Valley College

Jill Winter - Instructor of Communications - Wabash Valley College

Stuart Balding - Groundskeeper, Operations and Maintenance Department - Wabash Valley College

Trina Dunkel – Office Assistant – Wabash Valley College

Marissa Hicks – Student, Student Senate President - Wabash Valley College

Colleen Kensler – Resident of Wabash County; Wabash County Soil and Water Conservation District Resource Conservationist

Tom Saxe - Resident of Wabash County; Investment Executive, Trust Bank

Date of committee establishment: September 17, 2012

Meeting dates for the past year: First of every month as of March 2014

4. CAMPUS TREE CARE POLICIES FOR PLANTING, LANDSCAPING, MAINTENANCE AND REMOVAL INCLUDING ESTABLISHING AND UPDATING A LIST OF RECOMMENDED AND PROHIBITED SPECIES; MANAGING FOR CATASTROPHIC EVENTS.

WABASH VALLEY COLLEGE TREE CARE PLAN PRACTICES

PLANTING

Mulching

Organic mulch shall be applied late spring after the soil has warmed. The mulched area will be 3-6 feet from the base of the tree and include as much of the root zone as possible. Mulch shall be 2-4 inches free from the trunk after settling to prevent bark decay.

Irrigation

Newly planted trees are immediately watered after planting. During periods of heat and drought, watering techniques such as drip lines are utilized. The soil is soaked to at least the first foot. The entire root system is saturated. Newly planted trees are watered for at least the first full growing season until dormancy. Additionally, if the following year is a drought year, trees will be watered as necessary.

Soil

Organic compost is added to the soil when planting new young trees. Freshmen and sophomore agriculture club students will assist with soil testing annually in April.

Staking

Young trees are susceptible to strong winds, mowers, and traffic. Each shall be staked using one 3 foot steel stake and one 3 foot wood stake. Tree supports for young trees are used with flexible ties between two stakes on either side of the trunk.

Sustainability

Traffic around trees

Foot traffic around trees is limited. Walkways throughout the campus are utilized. Vehicle and heavy machine traffic use are also limited. Parking lots and desirable paths away from trees are utilized.

Integrated Pest Management (IPM)

IPM is a program the Tree Committee uses to solve pest problems while minimizing risks to people and the environment. Crop scouting is the first step in the Campus Tree IPM program. Scouting is critical for pest management decisions and saves the Tree Committee time and money by being able to correct parasite, disease and pest problems before they escalate.

The tree campus management generally involves caring for trees to prevent plant disease caused by parasites, diseases, and pests including vines. All types of poisonous vines, clinging, and aesthetic vines will be cut down using hand held pruning shears. Herbicides kill vines; however, they also may harm trees, people, and the environment. Chemicals are only used when absolutely necessary and only in certain areas on campus to prevent run off into the campus surface lake. Organic mulch is used to suppress weeds around new trees. Mowing and cutting at 3 inches eliminates tall weeds. Certain pests can be controlled only by chemicals; others can be controlled through sustainable cultural practices, and some cannot be controlled with pesticides.

PRUNING

General Principles of Pruning

General principles of pruning are followed to maintain a safe and sustainable campus along with strong, healthy trees. The maintenance pruning schedule follows tree species, age, function, and placement. Trees close to roadways, sidewalks, signs, and streetlights are annually inspected for safety and clearance issues and maintenance pruned as necessary.

Reasons for Pruning

Annual pruning encourages new branches which flowers more eagerly and is more resistant to disease and insects. Pruning also maintains plant health improving the quality of flowers, fruit, foliage, and stems.

Effects of Pruning

Regular and early pruning will prevent the need for major pruning later. Removing branches also allows the sun to penetrate deep into the interior of the tree. Foliage exposed to sun expands to its fullest maximizing photosynthesis. Annual pruning spreads the regrowth throughout the entire tree.

Effects of Timing

- New trees 3 - 7 years old receive structural pruning on an annual or biennial basis and as needed.
- Trees 7-20 years old receive maintenance pruning every 5 to 7 years to clean diseased, dying, and dead branches from the crown.
- Trees older than 20 years are pruned as needed.
- Trees close to roadways, sidewalks, signs, and streetlights are annually inspected for safety and clearance issues and maintenance pruned as necessary.

Improper Pruning

Improper pruning techniques will damage trees and their growth process. Pruning techniques, such as cutting branches back to stubs, often activate dormant buds to form behind the stub. Improper pruning also results in failure of the tree to generate food and fuel for nitrogen uptake. Only trained maintenance personnel will prune trees, ensuring the use of proper techniques.

Pruning tools and their application

Pruning tools utilized on campus include hand held pruning shears, lopping shears, bow saws, gas powered pole saws, and chain saws.

- Hand held pruning shears
Used for cutting stems up to 1½" in diameter.
- Lopping shears
The long handles provide extra leverage making lopping shears capable of cutting through stems up to 1 ½" in diameter.
- Bow saw
Used to cut through large tree branches.
- Gas powered pole saw
Extendable pole useful for removing small overhead or hard-to-reach tree branches.
- Chain saw
Utilized to cut tree branches larger than 3" in diameter.

Pruning Techniques

Cleaning

Cleaning involves removal of dead, dying, diseased, weakened, crossing and rubbing branches. Cleaning cuts improves both tree health and appearance.

Crown Reduction

Crown reduction pruning decreases the overall height and size of a tree or decreases the length of an individual branch. If more than half of the foliage from a branch is removed, the entire branch will be removed. Reduction pruning should only be practiced as a last resort method. Compared to topping, reduction helps maintain the form and structural integrity of the tree. Crown reduction pruning follows the International Society of Arboriculture (ISA) standards.

Thinning

The thinning cut involves cutting off a tree branch at its point of origin on the parent branch. Thinning cuts may also be used to shorten a branch by cutting it back to a crotch where the branch forms a Y. Thinning controls size and restores the tree making it more active, healthier and stronger.

Raising

Branches are removed only from the bottom of crown. Often the branches are removed to promote crown height.

Vista Pruning

Vista pruning involves selectively pruning a window of view in a tree.

Restoration

Trees abused by misguided pruning efforts or trees damaged in storms or cold can recover due to restoration pruning. Restoring a tree to a sustainable structure following damage takes a number of prunings over a period of years. It is difficult to restore a tree to its previous condition. Restoration does more to improve structure than it does to restore it.

Topping

Topping is a pruning application to reduce tree size or the removal of the crown. Topping is not a recommended practice as it severely damages the long-term health of a tree.

Directional

This style of maintenance guides the tree to grow in a certain direction by removing live branches from other portions of the tree.

Subordination

Subordination restricts the growth of specific branches to help develop a strong central leader.

Utility Pruning

It is essential to prune near utility lines and tree branches under power lines to improve reliability of electric service on campus.

MAINTENANCE AND REMOVAL

Live trees are removed only when required to protect the public safety when they interfere with construction or detract from the quality of the landscape.

Notification: The Tree Campus Community will be notified of the removal of significant trees via a campus-wide email, which will include reasons for removal of the tree.

Landscaping

Pruning is essential in preserving the integrity and scale of the landscape design. Regular and correct pruning keeps trees healthy and prevents potential problems. Pruning may guide the tree branch structure so that when the tree is mature the branches are strong and resist storm damage.

RECOMMENDED AND PROHIBITED SPECIES

Recommended Trees: Native trees of Illinois including hardwoods, maples, and flowering trees.

Prohibited Tree Species: Trees that cause maintenance, safety, environmental, and allergy issues.

MANAGING FOR CATASTROPHIC EVENTS

Snowstorms, tornadoes, severe winds, and thunderstorms may damage even properly pruned trees. When severe weather causes tree limbs to snap, the damage can often be repaired and the tree saved with the proper pruning techniques. Large tree branches that break high in a tree are hazardous to remove, and professional tree service equipment is required to safely lower the branches to the ground. If the damaged tree may be saved, extra care is provided by supporting the tree with guy rope or stakes, mulching, adding organic compost to the soil, and controlling pests to help the tree recover.

5. PROTECTION AND PRESERVATION POLICIES AND PROCEDURES

Include process for implementing tree protection plan including step-by-step process that every project must follow including construction and trenching.

PROTECTION AND PRESERVATION

Measures shall be taken by the contractor to protect adjacent property at all times during construction and trenching. Contractors shall be careful to not cause any mud, silt or debris to get onto public or adjacent property. Any damage to existing roads, sidewalks, landscaping, trees, etc. by the contractor shall be repaired or replaced to the original condition at his expense. Repairs shall be acceptable to the contractor. The contractor shall be responsible for exact field location of all existing utilities including but not limited to: cable, electric, water, gas, sewer, etc. Contractor shall contact J.U.L.I.E. prior to the start of construction and anytime utility markings need to be reestablished. Contractor shall take necessary precautions to protect existing surfaces. Any damage to existing utility services shall be repaired immediately at contractor's expense.

6. GOAL AND TARGETS - DEVELOP AT LEAST ONE GOAL AND TARGET FOR YOUR CAMPUS TREE PLAN. These could include but are not limited to: tree canopy target; development of a link between the campus tree plan and other green initiatives on campus or in the community; completion of a campus-wide tree inventory, etc. Include how the goal will be measured.

- A campus-wide tree inventory was updated August 20, 2014. See Appendix B.
- A map of the wooded area designating donated trees will represent the tree donor plaques. See Appendix C.
- A full-campus 5-year plan, which includes assessment, replacement, planning, pruning, and maintenance will be completed by December 31, 2014.
- An additional 48 Colorado blue spruce trees were planted around the softball and baseball fields on October 3, 2014.

7. TREE DAMAGE ASSESSMENT - ENFORCEMENT, PENALTIES, AND APPEALS. The Campus Tree Advisory Committee assesses damaged trees, and enforces and penalizes against tree damage. Any tree damage created by a contractor or their suppliers will be evaluated, and the cost of damage, replacement, or maintenance will be evaluated by Wabash Valley College grounds manager.

8. PROHIBITED PRACTICES

Indiscriminate cutting, pruning, including tree topping, and other activities related to campus trees will be prohibited without the study and consent of the Campus Tree Advisory Committee. All changes and activities must meet the specifications and guidelines within the Campus Tree Care Plan.

9. DEFINITIONS OF TERMINOLOGY RELATED TO CAMPUS TREES.

Catastrophic event - A sudden or widespread disaster including severe weather which destroys or damages trees and their root systems.

Organic Mulch - Mulch made from an organic plant material.

Water logging - Saturation of the soil by ground water sufficient to prevent or hinder tree growth.

Photosynthesis - The process of plants producing food energy to power their growth.

10. COMMUNICATION STRATEGY - HOW THE CAMPUS TREE CARE PLAN WILL BE COMMUNICATED TO THE COLLEGE COMMUNITY AND CONTRACTORS TO HEIGHTEN AWARENESS ABOUT POLICIES AND PROCEDURES AS WELL AS THE GOALS OF THE INSTITUTION.

Wabash Valley College Marketing Department will communicate the policies and procedures as well as the goals of the institution via social media, TV, radio, newspaper, handouts for students and employees, and the college website. Publicity will also be communicated through local schools and members of the community. Contractors will be given a copy of the Tree Care Plan and will be expected to follow its guidelines.

11. CAMPUS TREE CARE PLAN EXPENDITURE

See Table 1.

12. ARBOR DAY OBSERVANCE/SERVICE LEARNING PROJECT

In combination with Arbor Day observance day held on April 9, 2014, Wabash Valley College incorporated a service learning project. Wabash Valley College Diesel Club and Student Senate members helped plant, stake, mulch, and water trees while learning about trees and the benefits of trees on campus and in the community. WVC Diesel Club and Student Senate members planted (25) 4' bare rooted hardwoods.

See Figure 1.

References

- Bode, L., & Pearson, S. (Eds.). *Ornamentals* [Special Issue]. *Illinois Pesticide Applicator Training Manual*, 1, 32-33.
- International Society of Arboriculture. (2005, September). *New tree planting*. Retrieved from http://www.treesaregood.com/treecare/tree_planting.aspx.
- Lowe, Judy. (1999). *Ortho's all about pruning*. Des Moines: Meredith Books.
- Mohlenbrock, Robert H. (1972). *Forest trees of Illinois*. Springfield: Illinois Department of Conservation, Division of Forestry.

Appendix A

CAMPUS TREE ADVISORY COMMITTEE

MEMBERS 2014

Dr. Matt Fowler - President - Wabash Valley College, fowlerm@iecc.edu

David Wilderman - Instructor of Marketing and Business Management – Wabash Valley College, wildermand@iecc.edu

Steve Hnetkovsky - Instructor of Agriculture - Wabash Valley College, hnetkovskys@iecc.edu

Doug Robb - Instructor of Agriculture - Wabash Valley College, robbd@iecc.edu

Jill Winter - Instructor of Communications - Wabash Valley College, winterj@iecc.edu

Stuart Balding - Groundskeeper, Operations and Maintenance Department - Wabash Valley College, baldingst@iecc.edu

Trina Dunkel – Office Assistant – Wabash Valley College, dunkelt@iecc.edu

Marissa Hicks – Student, Student Senate President - Wabash Valley College, hicksm@iecc.edu

Colleen Kensler - Wabash County Soil and Water Conservation District Resource Conservationist, colleen.kensler@il.nacdnet.net

Tom Saxe - Resident of Wabash County; Investment Executive, Trust Bank, thomas.saxe@trustbank.net

Appendix B

Campus Tree Inventory

<u>Common Name</u>	<u>Scientific Name</u>
Japanese stewartia	<i>Stewartia pseudocamelia</i>
Sugar maple	<i>Acer saccharum</i>
Paper mulberry	<i>Broussonettia papyrifera</i>
Japanese maple	<i>Acer palmatum</i>
Pignut hickory	<i>Carya glabra</i>
Red maple	<i>Acer rubrum</i>
Chestnut oak	<i>Quercus montana</i>
American linden	<i>Tilia americana</i>
Red oak	<i>Quercus rubra</i>
Redbud	<i>Cercis canadensis</i>
Crimson king maple	<i>Acer platanoides</i>
Tulip-tree	<i>Liriodendron tulipifera</i>
Sweet-gum	<i>Liquidambar styraciflua</i>
European linden	<i>Tilia europaea</i>
Bitternut hickory	<i>Carya cordiformis</i>
Star magnolia	<i>Magnolia stellata</i>
American holly	<i>Ilex opaca</i>
Pin oak	<i>Quercus palustris</i>
Common persimmon	<i>Diospyros virginiana</i>
Black locust	<i>Robinia pseudo-acacia</i>

Appendix B

Black oak	<i>Quercus velutina</i>
Fragrant snowbell	<i>Styrax obassia</i>
Sweet crabapple	<i>Malus coronaria</i>
Whitebarked himalayan birch	<i>Betula jacqemontii</i>
Weeping willow	<i>Salix babylonica</i>
Sycamore	<i>Platanus occidentalis</i>
Shingle oak	<i>Quercus imbricaria</i>
Sourwood	<i>Oxydendrum arboreum</i>
Japanese zelkova	<i>Zelkova serrata</i>
Higan cherry	<i>Prunus subhirtella</i>
Hardy rubber tree	<i>Eucommia ulmaides</i>
Sassafras	<i>Sassafras albidum</i>
Littleleaf linden	<i>Tilia cordata</i>
Kentucky coffeetree	<i>Gymnocladus dioicus</i>
Downy serviceberry	<i>Amelanchier arborea</i>
Fragrant snowbell	<i>Styrax obassia</i>
White ash	<i>Fraxinus americana</i>
Shagbark hickory	<i>Carya ovata</i>
Black Tupelo	<i>Nyssa sylvatica</i>
Bigleaf magnolia	<i>Magnolia macrophylla</i>
Bur oak	<i>Quercus macrocarpa</i>

Appendix B

Pin oak	<i>Quercus palustris</i>
White oak	<i>Quercus alba</i>
Sweetbay magnolia	<i>Magnolia virginiana</i>
Cornelian cherry	<i>Cornus mas</i>
Red mulberry	<i>Morus rubra</i>
Japanese flowering crabapple	<i>Malus floribunda</i>
Green hawthorn	<i>Crataegus viridis</i>
Shingle oak	<i>Quercus imbricaria</i>
Eastern white pine	<i>Pinus strobus</i>
Scotch pine	<i>Pinus Sylvestris</i>
Bald cypress	<i>Taxodium distichum</i>
Black spruce	<i>Picea mariana</i>
White spruce	<i>Picea glauca</i>
Black cherry	<i>Prunus serotina</i>
Canaert Eastern red-cedar	<i>Juniperus Virginiana 'Canaertii'</i>
Cypress, leyland	<i>X Cupressocyparis leylandii</i>
Longleaf pine	<i>Pinus palustris</i>
Colorado blue spruce	<i>Picea pungens</i>
White mulberry	<i>Morus alba</i>
Cucumbertree	<i>Magnolia acuminata</i>
Black hickory	<i>Carya texana</i>

Appendix C

Map Designating Plaques



- | | |
|--|---|
| <ol style="list-style-type: none"> 1. Red Maple –Donated by Dr. Patricia Owens 2. White Oak-Donated by Advanced Technologies Club 3. Red Maple-In memory of Ruth and Wayne Vangilder and Bessie and Raymond Mayes 4. White Oak-Donated by Agriculture Club 5. White Oak-In memory of Janetta F. McClane 6. Sugar Maple-In memory of Don Balding 7. White Oak-Donated by Belmont Volunteer Fire Department 8. White Oak-Donated by Marketing Business Management Club 9. White Oak-Donated by Doug Robb 10. White Oak-Donated by Stand Up Against Bullying Club 11. White Oak-Donated by Jonathon Leach “Huzzah” 12. White Oak-Donated by Bo Cook 13. White Oak-Donated by Bo Cook 14. White Oak-Donated by Social Service Club 15. White Oak-Donated by Pat Williams 16. White Oak-In memory of Kendra Healy | <ol style="list-style-type: none"> 17. Red Maple-Donated by Allan and Clare Kidd 18. White Oak-Donated by Gary Wise 19. Red Maple-In memory of Norman A. Kieffer 20. White Oak-Donated by Larry Hoeszle 21. White Oak-Donated by Steve Hnetkovsky 22. White Oak-Donated by John Kendall 23. Sugar Maple-Donated by Jill Winter 24. Red Maple-Donated by Dave Wilderman 25. White Oak-Donated by Tom and Donna Deckard 26. White Oak-Donated by Trina and Chris Dunkel-
In memory of John Naney and Debra Dunkel 27. White Oak-Donated by Trio Student 28. Red Maple-Donated by Diesel Club 29. White Oak-Donated by Beth Graham 30. White Oak-In memory of Michelle “Hoffman” Frerking 31. White Oak-Donated by Kyle Peach 32. Sugar Maple-Donated by Scott Balding |
|--|---|



Table 1

Campus Tree Care Program Expenditure Worksheet

College: Wabash Valley College

Application Year: 2014

TREE PLANTING AND INITIAL CARE:

Include cost of tree purchase, labor, and equipment for planting, planting materials, staking, watering, mulching, competition control, etc.

\$ 1,800.00

CAMPUS TREE MANAGEMENT:

Pruning, public education, professional training, association memberships, campus tree inventory, pest management, fertilization, tree removals, and all associated costs.

\$ 2,500.00

VOLUNTEER TIME:

Value of volunteer labor (hours x \$18) and other contributions from student and civic organizations. (Value of volunteer labor taken from www.independentsector.org.)

\$ 1,530.00

OTHER ACTIVITIES:

Briefly describe other undefined costs not already mentioned.

150' of fencing to use as cages and 25 4' metal stakes to protect trees from wildlife.

\$ 150.00

TOTAL CAMPUS TREE CARE PROGRAM EXPENDITURES:

\$ 5,980.00

Table 1

73 Number of trees planted

200 Number of trees pruned

7 Number of trees removed and reason: Disease and dying or dead were removed.

85 Number of volunteer hours

2,600 Full-time student population

Figure 1

Arbor Day/Service Learning Project



Jennifer Loesch/The Register

A member of the Wabash Valley College diesel club, Chariton Greathouse, pats the dirt around a newly planted white oak sapling. The club was volunteering for a service project with the student senate.

JENNIFER LOESCH
Staff Report

MT. CARMEL—Wabash Valley College is going green, really green.

Last year, operations and maintenance – with help from students – planted 50 saplings to reinvigorate the once-wooded area on campus. On Wednesday, April 9, members of the student senate and the diesel club planted 20 saplings with guidance from Stuart Balding, an operations and maintenance employee.

“We are planting trees in honor of Arbor Day,” Balding said.

National Arbor Day is Friday, April 25, and it’s something the Wabash Valley College staff members take seriously.

Another 30 trees will be planted later this year by staff to keep pace with last year.

The white oak saplings planted Wednesday were purchased at the price of \$1.25 per sapling from a donation fund.

Balding said the college raised over \$800 last years for its tree fund and some of that money was leftover to buy trees for this year.

The college has recently been recognized for its efforts to promote trees. “This college is being recognized as Tree Campus USA,” he said.

To receive the distinction from the National Arbor Day Foundation, Wabash Valley College had to comply with a five-point criteria, which includes forming a campus tree advisory committee and a campus tree care plan. A college must also create a campus tree program with dedicated annual expenditures and observe National Arbor Day.

The fifth requirement is to get

the student body involved with trees through service learning projects, which Wabash Valley College has done by asking for assistance with planting from student organizations.

Wabash Valley College Student Senate Treasurer Annie Garner put in some shovel time Wednesday planting trees, which not only gave her the chance to be outdoors but to also fulfill a service requirement for her organization. This is the second year the student senate has participated.

“Stuart brought it to our attention,” Garner said. “It’s something for the community.”

Garner and several ladies from the student senate dug small holes and planted saplings, while men from the diesel club did the same.

“Right now what we’re trying to do is fill in the woods more,” Balding said. “We’ve had a lot

of trees that were damaged, destroyed by disease over the past 20 years.”

Balding said the college would like to re-establish its wooded areas that have been cleared out.

“We want to establish the woods again like it used to be,” Balding said. “We have a lot bare spots in the woods and that’s where we’re planting trees.”

Balding said care is being taken to place the saplings away from sidewalks and roads and in areas where they won’t compete with trees for sunlight. Trees have been planted near the lake and tennis courts, but the woods are the main focus for now.

“We’re really do this all over campus. It’s not just the wooded area,” Balding said. “We’re trying to make the campus more green and sustainable.”

(Figure 1) In combination with Arbor Day observance day held on April 9, 2014, Wabash Valley College incorporated a service learning project. Wabash Valley College diesel club and Student Senate members helped plant, stake, mulch, and water trees while learning about trees and the benefits of trees on campus and in the community. WVC diesel club and Student Senate members planted (25) 4’ bare rooted hardwoods.