

Eastern Illinois University Tree Care Plan 2018-2019

Table of Contents

| | |
|--|----|
| Purpose | 1 |
| Responsible Authorities..... | 1 |
| Campus Tree Advisory Committee..... | 1 |
| Campus Tree Care Policies..... | 2 |
| Protection and Preservation Policies..... | 3 |
| Landscaping | 4 |
| Soil Preparation and Maintenance | 5 |
| Plant Maintenance and Protection | 7 |
| Tree Damage Assessment..... | 10 |
| Safety Procedures and Prohibited Practices | 13 |
| Goals and Targets..... | 15 |
| Communication Strategy..... | 15 |

Purpose

The goal of this tree care plan is to ensure the proper planting and care of trees on Eastern Illinois University's campus. An up-to-date inventory of trees on campus will be used to monitor trees and their maintenance. This plan aims to promote proper consideration when selecting trees for new planting to replacing trees that are removed. Particular care will be taken when dealing with the disposal of Ash trees infected with Emerald Ash Borers to protect the remaining Ash trees.

On a larger scale, this plan will work to encourage respect and appreciation of campus trees and urban forestry on campus as well as in the community. Efforts will be made to inform the student population of tree-related activities on campus and in the community, such as service learning projects and tree plantings.

Responsible Authorities

Responsibility for enforcement of the campus tree care plan will be shared between several departments, with the majority being within the Grounds Department through the University Arborist. Facilities Planning & Management will also be involved in enforcement of planting, warranty, plant protection, etc., specifications that are provided to contractors when landscaping is part of a campus project. The project manager from Facilities Planning & Management will be responsible for implementation of certain aspects of the plan, such as tree protection, site preparation, and plant quality control to name a few, as they will have day to day contact with contractors. The Grounds Department has formed a very good relationship with the project manager unit and they are willing to work with us to achieve the final goal that we have in mind both aesthetically and in regard to future maintenance. The Campus Tree Advisory Committee will work with the above parties in planning and carrying out projects related to trees and forestry on campus.

Campus Tree Advisory Committee

Established in 2010, and re-established in 2017, the Eastern Illinois University Tree Campus Advisory Committee plays an important role in maintaining and furthering the vision of the National Arbor Day Foundation in the utilization of trees as a learning tool for our students as well as our community at Eastern Illinois University. The committee will look for opportunities to reach out to students and provide them with "hands on" opportunities with tree plantings, care and maintenance in order to give them additional field experience that can enhance their classroom education. The committee will also look for ways to involve the community of Charleston with trees and invite them to campus to enjoy the beauty of the specimen trees on campus. Student members and community members of the committee will serve two year terms. The faculty and other campus committee members will serve five year terms, corresponding with their university employment.

Campus Tree Care Policies

Planting

Tree plantings will be approved by the Grounds Department's arborist and, unless contracted out via a project, will be performed by the University Arborist and tree crew. Species selection will be at the discretion of the University Arborist, taking into consideration current inventory and the desire to diversify species as needed. Most trees will be at least 2.5" in diameter, with the exception being bare root stock plantings. When utilizing a contractor, trees will be inspected by the University Arborist upon arrival to the job site and the University reserves the right to refuse any plant material due to damage, small size, insect/disease problems or any other visible problem that would jeopardize the vigor of the tree. The University also reserves the right to reject a planting due to improper techniques at the time of installation. Specifications for planting of trees and shrubs have been developed by the Superintendent of Grounds and the Grounds Department's arborist.

A. Delivery, Storage and Handling

1. All plants shall be sound, healthy specimens of plants, representative of their species with well-formed tops and good, healthy root systems.
 - a. Plants shall be free from injurious pests, pest damage, disease, broken branches, objectionable disfigurements, etc.
 - b. Plants shall be nursery grown.
 - c. Plants which have unsymmetrical heads, sparse branch structure, damaged roots balls, are of wrong species, have evidence of insects or insect damage, disease, or weeds or are undersized may be rejected by the University.
 - d. No waiver or responsibility for defective work shall be claimed or allowed due to failure to report unfavorable conditions affecting the work.
 - e. No plant shall be so bound with rope or wire at any time as to damage the bark, break branches or destroy its natural shape.

B. Preparation

1. Verify with University's Project Manager and Superintendent of Grounds that topsoil is ready to receive the work.
2. Prepare topsoil to receive plant materials.

C. Installation

1. Plant installation shall include all provision and placement of plants, digging, soil preparation and all other operations in accordance with specifications and drawings.
2. Plants marked "B & B" shall be balled and burlapped with ball diameters as specified in the "American Standard for Nursery Stock ANSI 760.1-1980." No plant will be accepted when the ball has been cracked or broken in moving or during the process of planting or when the burlap and ropes have been removed. All balled and burlapped plants that cannot be planted immediately on delivery shall be set on the ground with

the balls well covered with soil or other acceptable mulch material and shall be kept moist until planted. All plants shall be handled so that the roots are adequately protected at all times. All plants shall be properly protected by a tarpaulin or other suitable covering during shipment.

Protection and Preservation Policies

1. Prior to installation the contractor shall identify tree planting locations that have been authorized by the Superintendent of Grounds. Layout of plant material needs University approval prior to installation.
2. All balled and burlapped shade trees, shrubs and ornamental trees shall be planted in excavated holes.
 - a. Pits for plants shall be dug prior to moving plants to the pit location.
 - b. Sides shall be vertical with a diameter of three times greater than the root ball or container diameter.
 - c. Plant pits shall be filled with topsoil and compacted to accommodate for settling.
 - d. The ball shall be covered to approximately 3/4 of its depth with the planting soil mixture and thoroughly watered in place.
 - e. All twine or rope shall be cut from the trunk and the burlap folded away from the top of the ball.
 - f. The remaining 1/4 fill shall be dry soil and settled in place.
3. Enough planting mixture shall be used to bring the surface, when settled, to the required grade.
 - a. The grading of the tree and shrub pits shall form a saucer at least 2 inches in depth and the diameter of the planting pit.
 - b. This trench is a small 2 to 3-inch edging bed to keep the mulch in.
 - c. No more than 3 inches of mulch shall be used around trees, shall not be piled around the trunk of any trees
4. All deciduous trees shall be wrapped at the discretion of the Superintendent of Grounds
 - a. Wrappings shall start at the base of the tree and extend up the entire trunk to the height of the first branches.
 - b. Each turn shall overlap the preceding wrap by two inches.
 - c. Each wrap shall be taped at the top and bottom

Maintenance of new plants

1. Maintain plant life immediately after placement until plants are well established and exhibit a vigorous growing condition.
2. Continue maintenance until all plant installation is complete and accepted and for one year following that date.
3. Maintenance shall include:
 - a. Cultivation and weeding of plant beds and tree pits.
 - b. Irrigation sufficient to saturate root system.

- c. Trimming and pruning, including removal of clippings and dead or broken branches, and treatment of pruned areas or other wounds.
- d. Maintain wrapping, guys and stakes. Adjust guy accessories as required.
- e. Addition of shredded bark mulch as required.
- f. Provide adequate protection to prevent plant materials from damage until final acceptance.
- g. We do not fertilize the grass under the trees. The only fertilizer used is applied to trees that appear to be stressed and nutrient deficient. In these cases, a low-nitrogen deep root fertilizer is used in these cases. No young trees are fertilized.

Landscaping

Depending upon scope of project or time restrictions, landscape designs may be provided via in-house or per landscape architect/contractor. Eastern Illinois University Grounds Department reserves the right to review all landscape design plans when an outside contractor is utilized, and to make suggestions, refuse species and request substitutions as needed in order to address maintenance or species issues. When utilizing an outside contractor, the University Arborist will be at the site upon delivery of plant material and the University reserves the right to refuse any plant that does not meet specifications, is damaged, or has signs of disease, insects, or poor cultural traits.

Landscaping soil and debris

It is understood that landscaping is an integral part of overall exterior development and aesthetics of a facility and it is expected that the project architect will develop a conceptual landscaping scheme. The stockpiling of debris free topsoil (including turf) on campus on each construction project is required. Reserve excavated earth on campus when requested. Topsoil preparation - Provide a combination 3-1-2 fertilizer at 3# nitrogen/1000sq.ft for areas to be sodded and a combination 2-3-2 fertilizer at 5# nitrogen/1000 sq.ft for areas to be seeded. As noted earlier, areas under trees are not fertilized.

Soil Preparation and Maintenance

Imported Topsoil shall be natural, fertile, agricultural soil typical of locality, capable of sustaining vigorous plant growth from well drained site free of flooding, not in frozen or muddy condition, not less than six percent organic matter and pH value between 5.4 and 7.0. Free from subsoil, slag, clay, stones, lumps, live plants, roots, sticks, crabgrass, noxious weeds and foreign matter. Use topsoil excavated from site only when it conforms to these specifications.

Grass under trees shall not be fertilized. The only fertilizer applied to trees are ones that appear to be stressed and are nutrient defect, a low nitrogen deep root fertilizer shall be used in these cases. We do not fertilize young trees.

Water shall be clean, fresh, and free of substances or matter which would inhibit vigorous growth of grass.

Preparation of Sub Grade

Soil Preparation

1. Contractor shall eliminate uneven and depressed areas. Remove any debris, roots, branches, stones and gravel in excess of 1/2 inch in size. Remove subsoil contaminated with petroleum products.
2. Contractor shall scarify sub grade to a depth of 12 inches where topsoil is scheduled. Scarify all areas where equipment has compacted subsoil.
3. The Superintendent of Grounds must approve all scarified areas prior to the application of topsoil.

Topsoil

1. Contractor shall provide topsoil level to grade and place in areas where seeding or sodding is scheduled.
2. Contractor shall install topsoil during favorable weather conditions. Topsoil and installation area must be dry.
3. Topsoil shall be placed over all backfilled trenches, excavations and disturbed areas that are not scheduled for paving.
4. Topsoil shall be placed to a depth of 12 inches where possible.

Finish Grading

1. Contractor shall mechanically cultivate to a minimum 4" (four inch) depth and fine grade topsoil eliminating rough, uneven or depressed areas. Maintain levels, profiles and contours of sub grade. All vegetation shall be removed.
 - a. Finished grade shall provide positive drainage away from buildings at all times and shall prevent pooling or puddling of water at any/all locations.
 - b. Finished grade top or topsoil tolerance shall be plus or minus one inch.

- c. Finished grade to be level, firm and sufficient to prevent areas from settling when irrigation is applied.
 - d. Cultivate mechanically inaccessible areas by hand. Rake until surface is smooth.
 - e. Grade to perimeter contours to allow for proper drainage.
2. Contractor shall remove stones, roots, grass, weeds, debris, and foreign materials while grading. Do not bury foreign material.

Protection and Preservation policies and procedures

Specifications for maintenance of trees and shrubs have been developed by the Grounds Department's arborist. They are as follows: The purpose of this plan is to make a continual effort to provide a safe, attractive environment for students and faculty. This presents a unique challenge to balance the needs and requirements of the trees with those of the human population that coexist in the same environment with as little intervention as possible. All trees are different; they will have different shapes, sizes, colors, textures (evergreens) and reasons for being the way that they are. It is the desire of the arborist to maintain the character of each tree; to treat every tree as an individual and stand back to assess the tree before initial pruning starts. Think before you cut.... minimal pruning is desired in order to create a naturally appealing campus. Trees will only be staked when absolutely necessary, as specified.

A. Exterior Plants

The Eastern Illinois University campus is a living classroom for the students and the public. Therefore, the care of trees and plants is a high priority on campus.

Contractor to provide: topsoil for plant installation; trees and plants; mulch, landscape accessories, soil amendments; and, replacement warranty.

Contractor shall furnish the University with a warranty against defective materials and workmanship for a period of one year growing season.

1. Replacement of all plant materials found dead or not in a healthy growing condition at no expense to the University.
2. Replacements will be plant materials of same size and species with a new warranty commencing on date of replacement.
3. Contractors who do not meet specifications or provide defective materials will not be renewed.

Plant names indicated shall comply with "Standardized Plant Names" as adopted by the latest edition of the American Joint Committee of Horticultural Nomenclature. Names of varieties not listed conform generally with names accepted by the nursery trade (provided that the stock is true to its botanical name and legibly tagged).

We will comply with sizing and grading standards of the latest edition of "American Standard for Nursery Stock ANSI 760.1-1980." A plant shall be dimensioned as it stands in its natural position. All tree diameters will be at "breast" height.

The quality and size of plants shall comply with standards of the American Association of Nurserymen: normal growth habit, free from disease, insect infestation or damage or weeds.

Arrange the delivery in sufficient quantities and time to maintain the approved construction schedule as amended.

Plant materials will be moved in solid root balls, wrapped in burlap or grown in containers.

Deliver plant materials immediately prior to placement. Keep plant materials moist.

Species and sizes of trees and plants shall be as identified in the Plant Material Schedule on the drawings, grown in climatic conditions similar to those in climatic conditions work. Include labels on each plant with correct botanical name, size and nursery source.

Peat moss or compost shall be shredded, loose, brown fibrous vegetable material, free of lumps, roots, inorganic material or acidic materials, minimum of 85% organic material measured by oven dry weight; 4 – 5 pH range; moisture content 30%.

Water shall be clean, fresh, and free of substances or matter which would inhibit vigorous growth of plants. Water may be available from the University depending on the location. Availability and location to be determined at site visit.

Mulching material shall be fine grade shredded hardwood bark, dry and free from weeds and foreign matter detrimental to plant life. Large chunks of bark or wood, hay, chopped cornstalks, or litter are not acceptable. No mulch is placed around tree trunks.

Wrapping materials shall be tree wrap paper, brown, crinkled bituminous impregnated crepe paper four inches wide.

Support stakes shall be painted steel T posts that are five-foot minimum length. Three stakes per tree.

Cables and wires shall be non-corrosive, of sufficient strength to withstand pressure and resultant movement of plant life, but not less than 14-gauge.

Plant protectors shall be rubber sleeves over cable to protect plant stems, trunks and branches.

B. Pruning

Adopted Guidelines and Standards

The following are adopted guidelines and standards as part of this policy:

ANSI A133.1-2006 American National Standard for Arboricultural Operations-Safety

Requirements

ANSI A300(Part 3)-2000 American National Standard for Tree Care Operations-Tree, shrub, and other Woody Plant Maintenance-Standard Practices (Support Systems a. Cabling, Bracing, and Guying)

ANSI A300(Part 1)-2001 Pruning American National Standard for Tree Care Operations-Tree, Shrub, and Other Woody Plant Maintenance-Standard Practices (Pruning)

ANSI Z133.1-2000-American National Standard for Arboricultural Operations-Pruning, Repairing, Maintaining, and Removing Trees, and Cutting Brush-Safety Requirements

General guidelines for pruning shrubs

1. Remove dead, damaged, and diseased wood
2. Remove unwanted sucker growth
3. Prune into desired shrub structure

Pruning deciduous shrubs

1. Prune spring flowering shrubs after they bloom, remove app. 1/3 of the old growth to the ground, thin out any weak smaller growth and prune any remaining stems to one or two side laterals near their base
2. Shrubs flowering on current season growth can be cut back to ground level
3. Broad-leaved evergreen shrubs that are planted to allow for optimal growth will require minimal pruning, it is the University Arborists desire to maintain naturally and not shear, unless in a formal setting
4. Pruning of evergreen shrubs requires annual pruning to control size and desired form; prune in early spring and possibly after second flush of growth

Pruning hedges

1. Prune an informal hedge back to at least half way to encourage low dense branching; after controlled size is met hand prune individual branches with thinning cuts
2. For a formal hedge once the desired height has been met, shear according to the amount and cycle of growth, broad leaved hedges can be pruned back severely just before growth begins in the spring to allow it to be bare for a short period of time

Vine Management

1. Prune vines on buildings once a year before new growth begins and again during growing season as needed. Remove any large vines that could become top-heavy and fall from structure. Occasionally vines will be reduced to the lowest level of the building to renew smaller growing canes.
2. Remove vines from windows, doorways, and fire exits

3. Remove vines from exterior structures such as stairs, railings, electrical boxes, and any historical architectural structure
4. Remove vines from rooftop, gutter, rain spouts
5. Remove vines from all other plant material in the area.
6. Groundcover vines should be removed from all hard surfaces. Shear ivy as needed before new growth in the spring. Fertilize groundcover as needed. Young Trees are not to be fertilized.

Training young trees

After initial planting, trees on campus shall be inspected the following year for the following:

1. Damage from winter (frost cracks), animal damage, or vandalism.
2. Stakes are to be removed after 6 months following planting, unless a condition occurs where a tree needs to be corrected. Stakes are left on only for the length of time needed for the correction. Stakes are continually checked to make sure they do not girdle the tree.
3. Supply tree with a water bag for the growing season for the first two years
4. Mulch as needed, though no more than 3 inches of mulch and never directly around the tree trunk.
5. Prune only dead, diseased, or damaged branches on newly planted trees
6. Young trees are not to be fertilized. Only trees that appear to be stressed and are nutrient defect, use a low nitrogen deep root fertilizer.

The second-year trees shall be pruned to develop a strong central leader and allow for the development of good crown structure. The first three to five years are the most important in the training of the trees structure.

- a. Remove dead, diseased, or dying branches
- b. Select or maintain a central leader. Prune any branches that could compete with the leader
- c. Select and establish the lowest permanent scaffold braches with the strongest attachment.
- d. Remove or cut any competing branches
- e. Select scaffold branches that are well spaced on the trunk of the tree

Pruning mature established trees

The goal of pruning mature trees on campus it to enhance health and structure, as appropriate for the species of tree, desired results, and existing conditions.

1. Clean the crown of the tree by removing diseased, crossing, weak, and dead wood, not exceeding 2” in diameter
2. Selectively remove branches, not to exceed 2,” in diameter to increase light penetration and air movement and to decrease branch weight
3. Remove any epicormic (“suckers”) from the trunk and base of tree
4. Prune off broken or dead stubs back to developing collar

5. Remove lower branches to allow for clearance preferably in the summer when branches are the heaviest. Sidewalk clearance on campus is minimum of 8 feet. Vehicular access should be a clearance of 12'
6. Inspect any existing cables or support systems in mature trees
7. Inspect tree of any insect or disease infestations

Tree Damage Assessment

Occasionally trees will require more extensive pruning due to vandalism, storm damage, or improperly pruned trees. Some trees may be candidates for a support system. If at all possible all pruning practices should be evaluated before this decision is to be considered. If necessary, trees should be removed. Support systems are not appropriate for all trees and can fail. Some trees do not compartmentalize as well as others and therefore may not be appropriate. These pruning determinations shall be made by the arborist and/or the Superintendent of Grounds. The University shall not prune any trees to control growth around utility lines. Any power line should be considered energized and it is not permissible to prune trees with power lines through them. The utility company will be notified.

Disease and Pest Management

Eastern Illinois University's approach to disease and pest management is a good basis of plant health care. Good pruning, watering, and fertilizing make for good trees to grow vigorously and have good structure. Trees are attractive, safe, and function appropriately. Under this program healthy trees are better able to resist environmental stress, diseases, insects, as well as any other stresses that may occur in a campus setting. Trees and shrubs are to be monitored on a regular basis for any pest or disease infestation to be able to determine what is an appropriate level of infestation before chemical intervention is necessary.

Emerald Ash Borer Management Plan

Emerald Ash Borer is a small metallic green beetle, ½ to 3/8 of an inch long. No bigger than a penny, this exotic beetle came from Asia and was first discovered on Ash trees in southeastern Michigan. The beetle lays eggs on the bark of the tree. In the fall, the eggs hatch and become larvae that bore into the cambium layer of the tree, thereby cutting off the tree's nutrient supply which causes the tree's decline and ultimately the death of the tree.

Emerald Ash Borer is difficult to detect when it first arrives on the tree. The tree can be a host for 3-5 years before symptoms become noticeable to anyone. Emerald Ash Borer has killed trees of various sizes and conditions. Larvae have developed in trees as small as 1 inch up to 55 inches in diameter. Ash trees under stress are especially vulnerable. However, Emerald Ash Borer has killed vigorous trees in woodlots and trees under fertilization and irrigation. The Emerald Ash Borer was first detected in Illinois in 2006 and is currently reported from ten states including parts of Canada. The Emerald Ash Borer's natural spread is moderate, but its artificial spread can be rapid by people unknowingly transporting this pest through infested firewood and landscape waste.

Ash trees are very common as a landscape tree and most species are native to Illinois forests. Ash trees are any tree in the genus *Fraxinus* (Green, White, Black, Blue, and Pumpkin Ash). This does not include Mountain Ash which belongs in the genus *Sorbus*. Characteristics of an ash tree include:

- Compound leaves made up of five-nine small, glossy green leaflets
- Leaves, twigs and branches grow symmetrically in opposite pairs.
- Bark of a mature tree is gray and furrowed, often in a diamond pattern.
- Small canoe paddle-shaped seeds
- Seedless ash trees are very common.
- Conspicuous hard, brown “flower galls” on the twigs.

The most visible sign of infestation is tree crown dieback. Branches die from the top down as a result of the damage to the cambium layer of wood. As the tree declines, epicormic shoots or ‘suckers’ sprout from the base of the tree or the trunk. In the first two years of infestation the tree will lose 30-50% of the canopy and results in the death of the tree in 3-4 years. The bark on the tree may split vertically revealing serpentine tunnels under the bark of the tree. Woodpecker damage may be apparent on the bark as well. However, woodpeckers are not effective enough to be considered a biological control. Adult beetles leave a unique “D” shaped emergence hole in the bark because the beetles have a flat-topped body and a rounded lower side. These holes can appear anywhere on the tree and is one of the reasons this insect is so difficult to locate on a tree. Ash trees can suffer from a number of other problems that cause similar symptoms including drought stress, root damage from construction and general ash decline.

The campus currently contains 250 Ash trees (two different kinds) and their loss will represent a major impact to the campus environment. All trees on campus are mapped and identified in an electronic database, facilitating the detection and monitoring of the Emerald Ash Borer outbreak, when it occurs. Trees will be monitored (see Disease and Pest Management above) and removed as necessary. Where Ash trees are removed will be considered for replanting of trees of desirable species.

Safety Procedures and Prohibited Practices

The Grounds Department's arborist and Superintendent of Grounds have collaborated to develop a departmental safety plan for the pruning, trimming or removal of trees on campus. This safety plan not only protects staff during these procedures, but also the University community. The safety plan, which includes prohibited practices, is as follows:

1.0 Purpose and Scope

The purpose of Eastern Illinois University's Pruning, Trimming and Tree Removal Procedure is to ensure that all reasonable efforts are taken to safeguard the public and Grounds employees during pruning, trimming, and tree removal operations. This Policy pertains to all Grounds crews involved in the removal of trees and limbs.

2.0 References

2.1 ANSI Z133.1

3.0 Attachments

None

4.0 Definitions

5.1 Responsibilities

- 5.1.1 Review and update the Eastern Illinois University Pruning, Trimming and Tree Removal Procedure to conform to current Occupational Safety and Health Administration regulations.
- 5.1.2 Monitor compliance with standards set forth in the program by periodic inspections.
- 5.1.3 Provide guidance for the proper selection and use of appropriate personal protective equipment to meet the requirements of this program.

5.2 Supervisors

- 5.2.1 Ensure that all employees perform their assigned duties as outlined in this procedure.
- 5.2.2 Ensure employees are trained for the appropriate tasks assigned to them.
- 5.2.3 Ensure employees are provided with and use appropriate protective equipment.
- 5.2.4 Ensure that all equipment is in proper working order and has been inspected.

5.3 Employees

5.3.1 Follow the work practices described in this document.

5.3.2 Attend all training required.

6.0 Training

6.1 All personnel engaged in pruning, trimming, and tree removal must be properly trained by their supervisor in accordance with this procedure.

6.2 Employees must complete training upon initial assignment or when there is a change that presents a hazard about which employees have not been trained.

6.3 Training records will be maintained by Facilities Planning & Management. These records must include the date(s) of the training, the name of the instructor, and the name of the employee(s) to whom the training was given.

6.4 The training shall include the following topics as applicable:

6.4.1 The use of personal protective equipment.

6.4.2 Traffic control around jobsites.

6.4.3 Overhead electrical hazards.

6.4.4 The safe use of vehicles and aerial equipment.

6.4.5 The use of portable power hand tools.

6.4.6 Other requirements contained in this procedure.

7.0 Work Procedure

7.1 Before any tree removal operation, the crew leader shall carefully consider all relevant factors pertaining to the tree/site and shall take appropriate actions to ensure a safe removal operation. The following factors should be considered:

7.1.1 The area surrounding the tree to be removed, including nearby trees.

7.1.2 Lean of the tree.

7.1.3 Loose limbs, chunks, or other overhead material.

7.1.4 Wind force and direction.

7.1.5 Decay or weak spots throughout the tree.

- 7.1.6 Location and means to protect other persons, property, and electrical hazards.
- 7.1.7 Size and terrain characteristics or limitations of the work area.
- 7.2 Workers not directly involved in the removal operation shall be clear of the work area.
- 7.3 The crew leader shall determine the number of workers necessary for tree removal operations.
- 7.4 Wedges, blocks and tackle, rope, wire cable (except where an electrical hazard exists), or other appropriate devices shall be used when there is a danger that the tree or trees being removed may fall in the wrong direction or damage property.
- 7.5 When a pull line is being used, workers involved in removing a tree or trunk shall be clear by a minimum of one tree length.
- 7.6 Workers not directly involved in manual land clearing operations shall be at least two tree lengths away from the tree or trunk being removed.
- 7.7 Notching shall be used on all trees and trunks greater than 5 inches in diameter at breast height.
- 7.8 Communications among workers on the ground shall be established before cutting and dropping limbs.
- 7.9 Cut branches shall not be left in trees upon completion of work. **(Prohibited practice)**

8.0 Aerial Devices

- 8.1 Prior to use an inspection shall be made in accordance with the aerial lift truck training.
- 8.2 All individuals must be trained before operating an aerial lift.
- 8.3 Aerial devices shall have an approved point of attachment on which to secure a full body harness with energy- absorbing lanyard.
- 8.4 Booms, buckets, or any other aerial device shall not be allowed to make contact or violate minimum approach distances with electrical hazards. **(Prohibited practice)**
- 8.5 Only insulated aerial devices shall be used when an electrical hazard is present.
- 8.6 Aerial devices shall not be used as cranes or hoists. **(Prohibited practice)**
- 8.7 Wheel chokes shall be set before using an aerial device unless specified by manufacturer.

8.8 One person buckets shall not have more than one person in them during operations.
(Prohibited Practice)

9.0 Electrical Hazards

9.1 All overhead electrical hazards shall be considered energized with potentially fatal voltage until verified otherwise.

9.2 An inspection of the work site will be completed by the crew leader to determine whether an electrical hazard exists.

9.3 All employees shall maintain minimum approach distances from electrical hazards.

Goals and Targets

Building on the success of last year's (2018) Arbor Day tree planting activities, we intend to expand our cooperation with the City of Charleston in their Arbor Day tree planting activities. In order to achieve this end, we have already begun to meet our goal, as one member of our Tree Advisory Committee meet with the Charleston City Council on November 6, 2018 to discuss future cooperation in the coming spring.

This year, we also included a new campus tree map that was created in spring 2018. Members of our Tree Campus Advisory Committee plan to update and revise this map as necessary in the spring semester 2019 to increase campus knowledge of current trees present on campus.

Communication Strategy

The Tree Care Plan is posted on the university website to ensure broad readership among interested constituencies. The Tree Care plan is also shared with all contractors. In addition, the University Public Relations Coordinator will share all updates related to campus Arbor Day Activities. The Tree Campus Advisory Committee will also share all related developments with the student newspaper and will continue to work with EIU's Office of Volunteerism and Civic Engagement to encourage wide participation in Arbor Day Activities.