

DETAILED SPECIFICATIONS

Section 1: General Information

The City of Ann Arbor, Michigan, is requesting proposals from Forestry contractors able to provide scheduled and emergency tree maintenance required by the City of Ann Arbor Community Services Unit, and to assist the Community Services Unit as needed.

The Contractor(s) will perform the work with due care taking precautions against injury to persons, damage to public/private property and interference with vehicular or pedestrian traffic. The Contractor(s) shall take necessary precautions to ensure the safety of all persons engaged in the work of this Contract. Individual tasks will be determined and assigned during the contract period. The Contractor shall furnish all labor, machinery, tools, fuel, repairs, and other items necessary to trim, remove, and perform other tree care as authorized and directed by the Parks and Recreation Deputy Manager, or his designee, on trees located across the City of Ann Arbor's Park system.

Work within Natural Areas. Natural Areas are comprised of woodlands, wetlands and prairies. Access to these locations with heavy equipment may be limited or in some circumstances prohibited, and will be coordinated by the City's Natural Area Preservation Unit. Work within these Natural Areas will be on a case by case basis. In some instances the scope of the work will be limited to felling of hazardous trees, or removing hangers leaving all woody debris on site. In other instances all woody debris is to be removed with the Natural Area if doing so does not have a significant impact on native vegetation as determined by the Natural Area Preservation Unit.

The Contractor shall provide qualified supervision of the work crew at all times while working under this contract. A Certified Arborist (as administered by the International Society of Arboriculture) shall be on each tree maintenance crew.

A representative of the Contractor having the authority to speak on the behalf of the Contractor relative to this contract, shall meet weekly, or more frequently as may be determined by the City, to discuss and be given work assignments. Contractor is to notify the City in advance of all occasions when absence of crew is anticipated, or, if due to unforeseen emergency, within an hour after normal starting time. Work on holidays observed by the City may be worked by the Contractor provided advance permission of this intent is provided by the City.

Contractor agrees to start work under this proposal. Contractor will establish a work schedule that is acceptable to the City, and agrees to provide employees and equipment to the City on this schedule for the duration of the contract, unless advance notice is given to, and approval granted by, the City.

Equipment and tools must not be left unsecured at any time. All equipment and tools must be stored in such manner to ensure that residents and the public do not have access to them. Spiked shoes/boots are prohibited as a part of this ITB.

The Contractor shall provide notification to the City Representative and personnel directly affected by the work of any potentially dangerous situations. In the event of an emergency affecting the safety of persons or property, the Contractor shall act immediately to prevent threatened loss or damage. The Contractor shall immediately stop any activity or operation affecting safety until the situation(s) is corrected.

Where work is conducted in streets or other public thoroughfares, the Contractor(s) shall so plan and schedule work as to cause as little interference as possible with general public traffic, both vehicular and pedestrian. Street surfaces shall be maintained and kept clean. Access to Fire, Police, ambulance and other emergency vehicles shall be maintained at all times.

Blocking of public streets shall not be permitted unless prior arrangements have been made by submitting an **Application for Traffic Detour or Lane Closure for each job**. The form is available online at the city website www.a2gov.org.

Whenever working in the street the Contractor must provide the **required traffic control signage and flaggers** as described in the Michigan Manual of Uniform Traffic Control Devices. **Bids should account for the cost of flagging personnel and traffic control devices as applicable.**

The City shall inspect work periodically to insure that all specifications are adhered to.

Section 2: Tree Pruning Practices

All pruning must be performed in accordance with the latest revision of the ANSI A300 and Z133.1 standards, and the International Society of Arboriculture's Tree Pruning Best Management Practices. Contractor(s) should expect that it might be necessary to climb trees to perform the tree trimming for this specification. Tree climbing with spikes or any equipment that can damage the tree is prohibited

Extreme care shall be taken so as to prevent limbs, branches, and trunks from falling and creating damage to adjacent homes, driveways, sidewalks, streets and other property, both public and private.

Limbs and branches larger than four (4) inches in diameter shall be lowered to the ground through the use of ropes or other mechanical devices

Section 3: Tree Pruning Specifications

The purpose of pruning is to prune to manage tree health, develop/improve structure, mitigate risk, provide clearance and improve aesthetics.

All pruning shall be performed in accordance with the latest revision of the ANSI A300 and Z133.1 standards, and the International Society of Arboriculture's Tree Pruning Best Management Practices.

Unacceptable trimming practices include peeling or tearing of the bark, topping or pollarding, lion's tailing, rounding-over or shearing. Extreme care shall be taken so as to prevent limbs, and branches from falling and creating damage to adjacent homes, driveways, sidewalks, streets and other property, both public and private.

The following specifications shall be followed:

- A. A natural pruning system shall be utilized. Live branches shall be removed to maintain the natural form and appearance of the tree. Mutilation and loss of characteristic shape of the tree is prohibited.
 - i. Pruning activities should remove no more living material than is necessary to achieve the tree pruning objectives outlined in these specifications.
- B. Trees shall be pruned to remove all dead, diseased, broken and crossing branches that are 2" in diameter or larger.
- C. In raising lower branches for clearance, care should be given to symmetrical appearance and cuts shall not be made so large that it will prevent normal sap flow. Trim to allow for several years growth before smaller secondary and tertiary limbs will be below the required clearance height. Raise lower scaffold branches...
 - i. for a minimum of 10 feet of clearance to the ground under the dripline from the street curb to residence.
 - ii. Raise lower scaffold branches for a minimum of 14 feet of clearance to the ground under the dripline over the street.
- D. Trees shall be pruned to provide clear, unobstructed views of street signs, traffic signs and traffic signals.

- E. When street tree limbs are in conflict with private trees or are overhanging structures, trees shall be pruned to provide clearance.
- F. Remove old stubs leaving the branch collar intact.
- G. "Natural" or "Drop-crotch" technique shall be used when removing or shortening branches.
- H. No hanger shall be left in tree after trimming is complete.
- I. For young and medium trees (1-15" DBH) prune to develop/improve structure.
 - i. Develop dominant leader(s) and scaffold branches appropriate for the species and the site while maintaining the tree's natural shape.
 - ii. Subordinate or remove competing leader, branches or shoots (subordination is preferred over removal) while maintaining the tree's natural shape.
 - iii. Subordinate or remove branches that have poor branch angles, including branches with included bark.
 - iv. Remove suckers and stump sprouts
 - v. No more than 1/3 of the living branches shall be removed
- J. To allow for proper wound closure to occur, all cuts shall be made sufficiently close to the trunk or parent limb without cutting into the branch bark ridge or branch collar (Figure A) or leaving a protruding stub. Clean cuts shall be made at all times.
- K. Branches shall be pre-cut when necessary to prevent splitting or peeling of the bark (see Figure B)
- L. All necessary precautions should be taken to prevent unnecessary damage to the remaining tree.
- M. To avoid unnecessarily large cuts do not remove limbs that are greater than one-third (1/3) the diameter of the trunk unless directed by the City.
- N. Oak, Elm and Crabapple trees are only to be pruned between November 1 and March 15 or as directed by the City, to prevent the spread of diseases. If, with City permission, an Oak/Elm must be pruned between April and October, wound/latex paint must be applied to the pruning cut to avoid the spread of diseases.
- O. For diseased trees, tools shall be sterilized between pruning cuts, to avoid spreading disease to unaffected branches.

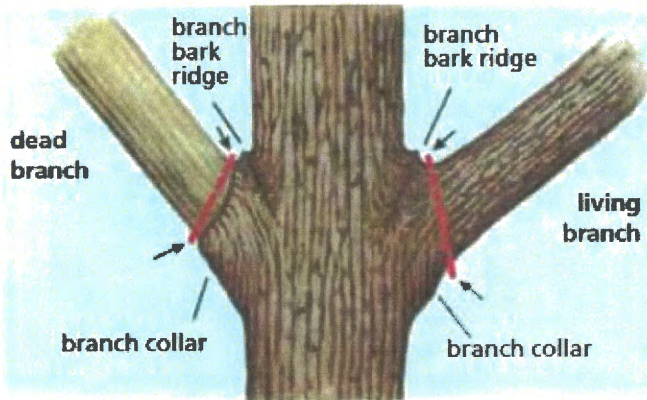
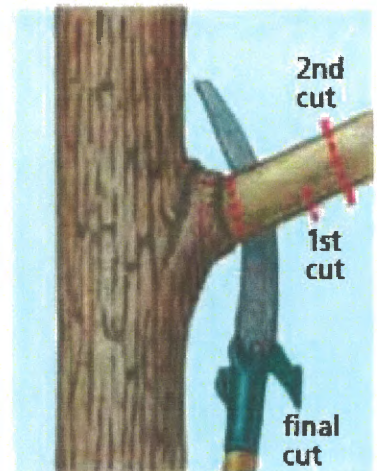


Figure A

Source: "How to Prune Trees,"
USDA Forest Service

Figure B

Source: "How to Prune Trees,"
USDA Forest Service



Section 4: Tree Removal Specifications

Note: Bidders shall be required to self-perform the required tree removals under this scope of work. Contractors may self-perform or subcontract stump removals.

Tree Removal Procedures

- A. All trees to be removed shall be painted with a green dot by City Staff. Trees without a dot shall not be removed.
- B. Trees must be removed using acceptable industry practices for removal, including provisions outlined in ANSI A-30 and Z133 standards. Contractor(s) should expect that it might be necessary to climb trees to perform the tree removal for this specification. Extreme care shall be taken so as to prevent limbs, branches and trunks from falling and creating damage to adjacent homes, driveways, sidewalks, streets and other property, both public and private.
- C. Limbs and branches larger than four (4) inches in diameter shall be lowered to the ground through the use of ropes or other mechanical device.
- D. Once tree removal has begun, the Contractor will have 3 business days to remove the entire tree, unless arrangement for an extension of this timeline have been made with the City.
- E. No wood or debris may be left overnight on the extension, or on park property unless arrangements have been made with the City contact prior to each incident.
- F. Ensure that the bid prices for tree removal, stump removal and pruning reflects the Bidders responsibility to pay for the cost of wood waste disposal. The Bidder can use the City of Ann Arbor's Material Recovery Facility (MRF), located at 4150 Platt Rd, to dispose of wood waste, if they so choose. Contact the MFR Scale House at 734-971-8600 for the current per ton cost or arrange to arrange other payment options. Ensure that the bid price for stump and tree removals reflect the Bidders responsibility to pay for the cost of wood waste

Section 5: Stump Removal Specifications

Stump Removal Procedures

- A. When the contractor has been tasked with the removal of a tree, the stump must be ground within 4 weeks of the removal. Contractors may self-perform or subcontract stump removal.
- B. It is the responsibility of the contractor(s) to call MISS DIG(1-800-482-7171) and have all utilities clearly marked prior to any underground work commencing.
NOTE: Gas lines often run underneath the extension. It is expected that Contractors will contact Miss Dig for location of **gas lines AND gas line service drops to buildings**, and will **hand dig** as necessary so that stumps can be fully ground. Should the Contractor opt not to grind to a depth of 6", the Contractor must contact the City to make adjustments to the scope of work and price of the stump.
- C. Fully grind out stump to a depth of 6" leaving no wood and no woody surface roots.
- D. Stumps or holes that will pose an immediate and considerable hazard to pedestrians or vehicles shall be adequately barricaded with appropriate warning devices. All excavated stumping holes must be filled the day they are excavated. No excavated stumping holes shall be left open after the work day is complete.

- E. Fill stump hole with landscape grade soil, tamping down soil and continuing to add soil until it is level with the surrounding ground and the area where the hole was, no longer settles when tamped.
- F. Seed with landscape grade turf grass mix, or leave planting-ready, as directed by the City.
- G. Repair any tracks, ruts or divots with soil and grass seed. If ruts or divots are not repaired at the time of the removal, Contractor will be required to return to the site and repair the area to its original condition.
- H. Rake stump grindings off of surrounding turf/planting beds. Broom or walks and drives, clear roadway of any stump grindings, soil or other debris.
- I. Prevent damage to any surrounding structures, sidewalks, pavements or amenities.
- J. At the end of each day, leave no equipment, materials, stump chips or debris on site, unless otherwise arranged with by the City.

Section 6: Natural Areas

City of Ann Arbor Natural Areas are comprised of woodlands, wetlands and prairies. Access to these locations with heavy equipment may be limited or in some circumstances prohibited, and will be coordinated by the City's Natural Area Preservation Unit. Work within these Natural Areas will be on a case by case basis. In some instances the scope of the work will be limited to felling of hazardous trees, or removing hangers leaving all woody debris on site. In other instances all woody debris is to be removed with the Natural Area if doing so does not have a significant impact on native vegetation as determined by the Natural Area Preservation Unit.

Section 7: Emergency/Miscellaneous by the hour tree removal and pruning

Contractor will be contacted as emergencies occur. If the contractor cannot or will not complete emergency tree work in a timely manner, the City of Ann Arbor is free to contact another entity to complete the emergency tree work.

Contractor shall perform all emergency tree care work according to the specifications within the bid documents.

Section 8: Hazardous Trees

Any dead/dying or hazardous trees, including trees that have structural weaknesses, decayed trunk/branches, and/or split crotches/branches should be reported to the City immediately. The City will evaluate trees and will notify Contractor if the tree should be pruned.

Section 9: Public Interaction

The Contractor will interact with the public in a professional and courteous manner.. If Contractor or employee cannot satisfy a citizen they are to refer the citizen to the City of Ann Arbor. City staff contact information will be provided to the winning bidder(s).

Section 10: Work Logs

Work logs including, name of Park/Natural area, species, size and location of tree must be provided to the Contractor administrator as requested and must be submitted with invoice.

Section 11: No Parking

It is the responsibility of the Contractor(s) to post temporary “No Parking” signs according to City regulations and permit requirements Contractors may obtain signs from the City, but must provide their own posts. Note that Miss Dig must be called prior to digging post holes.

Information about the form and process to post temporary no parking signs is available online at www.a2gov.org; Departments; Engineering; Private Development; Work in the Right-of-Way.

Section 12: Noise and Traffic Control

The Contractor is expected to follow City of Ann Arbor ordinances and laws including noise and traffic control. For City of Ann Arbor Ordinances visit <http://www.a2gov.org/departments/city-clerk/Pages/Ordinances-and-City-Code.aspx>.

Section 13: Property Damage

It is the Contractors' responsibility to repair any damages to property including walks, roads, drives, structures, lawn, landscaping, trees, fencing and other improvements. Ruts, divots and holes in the lawn and landscape areas caused by tree care operations are to be repaired, including reseeded with turf grass.

Section 14: Property Access

Access to residential and commercial driveways must be provided at all times.

Section 15: Wood Disposal

The bidder will be responsible to pay for the disposal of all wood waste generated from tree pruning activities. The property owner shall have the first right to all wood accumulated. Any reasonable request to place wood at a convenient location shall be honored.

The City encourages Bidders to consider wood utilization options for some larger branches generated during tree pruning (e.g. woodworker/artisan use; local sawmills, etc.). Wood utilization options may be discussed with winning Bidder(s).

The Bidder can use the City of Ann Arbor's Material Recover Facility (MRF), 4150 Platt Rd, to

dispose of the wood waste, if they choose. Contact the MRF Scale House at 734-971- 8600 for the current per ton cost or to arrange other payment options.

Ensure that the bid prices for tree pruning reflect the Bidders responsibility to pay for the cost of wood waste disposal.

No wood or debris may be left overnight on the extension, unless arrangements have been made with the City prior to each incidence

Section 16: Equipment Storage

Equipment may be parked at designated City of Ann Arbor property during the contract period. There may not be facilities at the property, but it will be fenced with gate-card access. Location, hours the property will be open and accessible and possible issuance of a gate card will be provided to the winning Bidder(s).

Section 17: Electrical Hazards

The Contractor(s) is expected to follow safety precautions as outlined in ANSI Z133 section 5 - Electrical Hazards, including but not limited to:

- i. If the minimal approach distance cannot be maintained during pruning operations, electrical system owner/operator shall be advised before any work is performed in proximity to energized electrical conductors. The Contractor(s) is also responsible for notifying the utility companies as to when service can be restored and to cooperate with the utility companies to ensure service is restored prior to night fall each day.
- ii. Only qualified line-clearance arborists or trainees shall be assigned to work where an electrical hazard exists.
- iii. If the utility company must remedy a hazard before tree work can commence, the Contractor shall notify the City to establish a work plan and scheduling.