

## DETAILED SPECIFICATIONS

### SECTION 1: 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 2: 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.

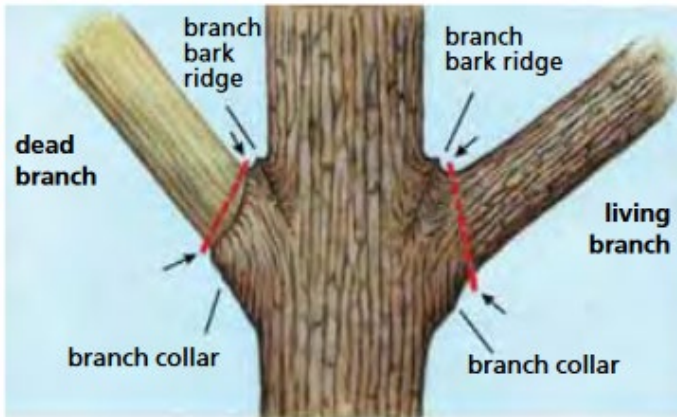
Unacceptable trimming practices include peeling or tearing of the bark, topping or pollarding, lion's tailing, rounding-over or shearing. Extreme care shall be taken so as to prevent limbs and branches from falling and creating damage to adjacent homes, driveways, sidewalks, streets and other property,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

The following specifications shall be followed:

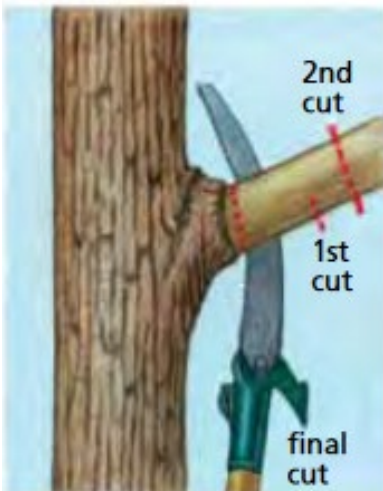
- A. A natural pruning system shall be utilized. Live branches shall be removed to maintain the natural form and appearance of the tree. Mutilation and loss of characteristic shape of the tree is prohibited.
  - i. Pruning activities should remove no more living material than is necessary to achieve the tree pruning objectives outlined in these specifications.
- B. Trees shall be pruned to remove all dead, diseased, broken, and crossing branches that are two (2) inches 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 ten (10) feet of clearance to the ground under the dripline from the curb to residence.

- ii. Raise lower scaffold branches for a minimum of fifteen (15) feet of clearance to the ground under the dripline over the street.  
NOTE: Make sure to leave the crown as balanced as possible.
- 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 the tree after trimming is complete.
- I. For young and medium trees (1 – 15 diameter inches) prune to develop/improve structure.
  - i. Develop dominate 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 trees 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 one-third (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: Branch bark ridge & branch bark collar diagram.** Source: "How to Prune Trees," USDA Forest Service



**Figure B: Tri-cut method.** Source: "How to Prune Trees," USDA Forest Service

### SECTION 3: 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 A300 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 devices.
- D. Once tree removal has begun, the Contractor will have three (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 Road, to dispose of wood waste, if they so choose. Contact the MRF 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 4: 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 four (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 six (6) inches, the Contractor must contact the City to make adjustments to the scope of work and price of the stump.

- C. Stump locations that will not be replanted shall be fully grind out stumps to a depth of 12 (12) inches, leaving no wood and no woody surface roots.
- D. Stump locations that will be replanted shall be fully ground down to a depth of twenty-four (24) inches, leaving no wood and no woody surface roots.
- E. 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.

#### **SECTION 5: EMERGENCY/MISCELLANEOUS BY THE HOUR REMOVAL AND PRUNING**

- A. 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.
- B. Contractor shall perform all emergency tree work according to the specifications within the RFP documents.

#### **SECTION 6: 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 7: 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 8: WORK ASSIGNMENTS**

The City will prepare Work Orders through CityWorks. The Contractor shall download the CityWorks app for iPad/Android device. All work will be assigned through CityWorks.

#### **SECTION 9: NO PARKING**

It is the responsibility of the Contractor(s) to post temporary "No Parking" signs according to City regulations and permit requirements. Contractor(s) 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 parking signs is available online at <https://www.a2gov.org/departments/engineering/Pages/Right-Of-Way-and-Lane-Closure-Permits.aspx>.

#### **SECTION 10: 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:  
[https://library.municode.com/mi/ann\\_arbor/codes/code\\_of\\_ordinances](https://library.municode.com/mi/ann_arbor/codes/code_of_ordinances).

### **SECTION 11: 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 reseeding with turf grass.

### **SECTION 12: PROPERTY ACCESS**

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

### **SECTION 13: WOOD DISPOSAL**

- A. The bidder will be responsible to pay for the disposal of all wood waste generated from tree maintenance 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.
- B. The City encourages applicants to consider wood utilization options for some larger branches and trunks generated during tree maintenance activities (e.g. woodworker/artisan use; local sawmills, etc.). Wood utilization options may be discussed with winning applicant(s).
- C. The Contractor can use the City of Ann Arbor's Material Recovery Facility (MRF), 4150 Platt Road, 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.
- D. Ensure that the bid prices for tree pruning and removal reflect the Applicants responsibility to pay for the cost of wood waste disposal.
- E. No wood or debris may be left overnight on the extension, unless arrangements have been made with the City prior to each incidence.

### **SECTION 14: 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 Applicant(s).

### **SECTION 15: 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:

- A. If the minimal approach distance cannot be maintained during pruning or removal 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 prior to night fall each day.

- B. Only qualified line-clearance arborist or trainees shall be assigned to work where an electrical hazard exists.
- C. 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.