

**1. OCCUPATIONAL HEALTH AND SAFETY****1.1 The following requirements and conditions shall be included in all agreements with Contractors (and sub-Contractors) engaged by or on behalf of the Applicant:**

- i. Contractors with known poor safety records or with inadequate qualifications or equipment will not be considered;
- ii. Contractors acknowledge that they have regularly read and understood the Occupational Health and Safety Act R.S.O. 1990, C. 0.1 ("OHS") and regulations, made under that statute;
- iii. The Contractor shall comply with all health and safety requirements established by the Occupational Health and Safety Act and regulations;
- iv. The Contractor shall allow access to the work site on demand to representatives of the Applicant or representatives from the City of Vaughan Forestry Department provided that they are in full compliance of the Occupational Health and Safety Act and Regulations;
- v. The Applicant will take all action necessary to support the Contractor's health and safety efforts and to ensure that the Resident-owned and controlled environments in the vicinity of the project are free from hazards;
- vi. The Contractor acknowledges and agrees that any serious breach or breaches of health and safety requirements, whether by the Contractor or any of its Subcontractors may permit the Applicant to elect to cancel the Contract; and

1.2 The Contractor shall provide a list of all controlled hazardous materials or products containing hazardous materials, all physical agents or devices or equipment producing or emitting physical agent(s) and any substance, compound, product or physical agent that is deemed to be or contains a designated substance in accordance with the Workplace Hazardous Materials Information System (WHMIS) as defined under the OHS and shall provide appropriate Material Health and Safety Data Sheets for these substances used for the performance of the required work, all prior to the performance of said work.

1.3 Where hazardous materials, physical agents and/or designated substances are used in the performance of the required work, the Contractor shall ensure that the requirements of the OHS and associated regulations are complied with.

1.4 The Contractor shall follow Workplace Hazardous Materials Information Systems (WHMIS) requirements and ensure all employees are given required training and support.

1.5 The Contractor shall have a clearly defined safety plan/rescue plan for its workers involved in hazardous activities. This plan shall include, but not be limited to, procedures for entering a confined space on the work site.

1.6 The Contractor agrees at all times to comply with Occupational Health and Safety Standards in the workplace and further agrees to adhere to Health and Safety Standards set out in applicable statutes and regulations.

## **2. SAFETY STANDARDS**

2.1 It is the responsibility of the Contractor to work in a safe and orderly manner so as not to constitute any safety hazards. The following standards are some of the standards which must be complied with by the Contractor when working on the project:

- i. The Contractor will be responsible for the placement of appropriate physical barriers between the work area, public and staff occupied areas;
- ii. The Contractor shall control pedestrian and vehicular traffic as required and in accordance with current manual of Traffic Control Devices;
- iii. When operating Equipment in a School Zone or Playground appropriate physical barriers and personnel shall be in place to ensure the safety of the public;
- iv. No loose clothing shall be worn in the vicinity of moving or rotating equipment;
- v. Housekeeping standards are to be maintained in the work areas, debris and material are not to be allowed to accumulate;
- vi. Keep extension cords and hoses off the floor and out of traffic aisles and highlight any tripping, slipping, or bump hazards by using cones, hazard tape or other means appropriate to the situation;
- vii. The Contractor shall have and use a "Lock, Tag and Try" procedure that, as a minimum, meets the requirements of the Regulations made under the OHSA;
- viii. The Contractor is responsible for ensuring that all reasonable precautions for the protection and safety of workers in addition to those listed above are maintained;
- ix. The Contractor shall provide written notice to the Applicant in advance of the need to close any exit or emergency exit, electrical system etc. that may affect a potential evacuation of an Applicant's dwelling;

## **3. GUARANTEED MAINTENANCE AND WARRANTY**

3.1 Upon completion of the installation of the tree, the Applicant shall maintain the health of the tree for a warranty period of *Twelve (12) Months* commencing on the date of tree installation. The Applicant shall correct any imperfections due to material or workmanship. The decision of the City of Vaughan or designate as to the nature and cause of any imperfections and the necessity for the type of repair shall be final. If the Applicant fails to comply with the direction from the City of Vaughan or designate within Five (5) Working Days or immediately in the case of an emergency the City of Vaughan or designate may complete the required work at the Applicant's expense.

3.2 If, after the warranty inspection, the tree is not accepted for assumption by the City of Vaughan or designate, the Applicant is to replace the tree making use of the *one* year warranty given by the nursery.

## SECTION II

## SPECIFICATIONS

**1 PLANTING STANDARDS**

- 1.1 The Applicant shall adhere to all standards of the contract. The Applicant shall be responsible to remove and replace any materials that do not meet the contract standards at no cost to the City.
- i. In all cases, unless otherwise specified, the planting soil mixture shall consist of existing native material in a friable condition free of any lumps, stones or any other extraneous material.
  - ii. Where additional backfill is required triple mix shall be provided by the Applicant and used on top of existing native material at no additional expense to the City.
  - iii. All plant materials shall meet the Horticultural Standards, based on the latest edition of the Canadian Nursery Trades Association with respect to size, grading and quality.
  - iv. Trees purchased shall be nursery grown, under proper horticultural practices as recommended by the Canadian Nursery Trades Association and must be a minimum of **50 mm in diameter** but not greater than **100 mm in diameter**.
  - v. Nomenclature of specified plants shall conform to the International Code of Nomenclature for Cultivated Plants and shall be in accordance with the approved scientific names given in the latest edition of Standardized Plant Names, Names or varieties not named therein are generally in conformity with the names accepted in the nursery trade.
  - vi. Container grown stock shall conform to the Canadian Nursery Trades Association specifications found in Landscape Ontario Guide Specifications for Nursery Stock.
  - vii. Plants dug from native stands, wood lots, orchards or neglected nurseries which have not received proper cultural maintenance as advocated by the Canadian Nursery Trades Association, shall be designated as "Collected plants".
  - viii. "Collected plants" shall **not** be permitted.
  - ix. Plants shall be true to type, structurally sound, well branched, healthy, and vigorous.
  - x. Plants shall be free from disease, insect infestation, rodent, damage, sun & wind scald, frost cracks and abrasions or scars to the bark.
  - xi. Plants shall be densely foliated when in leaf and have healthy well developed root systems.
  - xii. Pruning wounds shall show vigorous bark on all of the edges and all parts shall be moist and show live, green cambium tissue when cut. All trees should have only one unpruned and undamaged leader.
  - xiii. Plant materials shall conform to the measurements as specified in the plant list. Plants that are larger than specified may be used if approved by the Forestry Supervisor. When larger plants are used, the earth ball shall be increased proportionally to the size of the plant. The unit price shall not be affected due to the use of a larger plant. Undersized plants shall be rejected and replaced by the Applicant at no additional cost to the City.
  - xiv. The plant branching height shall be 1.5m from the ground for all deciduous trees.
  - xv. All trees shall be from a parent material that is proven to be hardy within the limits of the

City of Vaughan (Zone 5b).

- xvi. The Caliper of the trees specified shall be of the minimum caliper measured at 15cm above the buttress roots and above the grafting line. The Caliper shall be the determining measure of size.
- xvii. The substitution of any materials shall be requested in writing by the Applicant and approval must be received in writing from the Forestry Supervisor before any substitution is attempted.
- xviii. The Applicant is responsible for reviewing each planting site and to report to the Forestry Supervisor any conditions or defects that may hinder any planting before any planting commences.
- xix. Planting shall **NOT** take place until all conditions and or defects have been reported by the Applicant to the Forestry Supervisor and corrected to the mutual satisfaction of the Applicant and the City.
- xx. Container Stock
  - Tree holes shall be excavated a minimum of 35cm wider than the container on all sides and to the same depth.
  - The sides of the hole shall be made rough.
  - All stock shall be removed from their containers.
  - Container root balls shall be cut, several times, from the top of the soil ball directly to the bottom with a knife to a minimum depth of 10cm to loosen the roots.
  - All conditions for planting S.B. (String Balled) or W.B. (Wire Basket) stock shall apply to bare root and container stock.
- xxi. Balled Trees
  - Plants specified S.B. (String Balled) or W.B. (Wire Basket) shall be moved with solid, well-formed balls wrapped in burlap.
  - Plants with burlap, staves or ropes removed prior to transplanting shall **not** be used and shall be subject to rejection by the Forestry Supervisor.
  - The size of the root balls shall conform to the Canadian Nursery Trades Associations Specifications found in Landscape Canada, 'Trade Specifications for Nursery Stock'.
  - All root balls shall be wrapped in a 142 gram (5oz.) Hessian Burlap or approved equivalent biodegradable burlap.
  - S.B. (String Balled) root balls less than 450mm shall be wrapped once
  - S.B. (String Balled) root balls from 450mm to 750mm in diameter shall be wrapped twice.
  - S.B. (String Balled) root balls 750mm or larger in diameter shall be wrapped twice and drum laced with 6mm rope at 200mm spacing.
  - Plants moved with a frozen root ball shall be moved only when the ball is completely frozen, and the root systems intact. Such plants shall be planted as soon as possible after digging.

## 1.2 Planting

- i. Open planting holes shall **not** be left unattended, under any circumstances, unless suitable markers, fencing or covering is properly in place and approved by the City.
- ii. The diameter of the planting hole shall be at least 35cm from the edge of the root ball. The depth of the planting hole shall be determined by the depth of the root ball.
- iii. The root ball shall rest on undisturbed soil with the top of the root ball being no higher than 10 cm above the grade. **TREES SHALL NOT BE PLANTED BELOW THE GRADE.**
- iv. All soil shall be loose and friable.
- v. Plant material shall be oriented in the most appealing position taking into consideration adjacent structures. Should the City staff **not** approve of the orientation of any plant material the Applicant shall be responsible for reorienting it to where it is appropriate. Moving material shall be at no additional cost to the City.
- vi. All burlap, ropes, wires and any other bindings shall be removed and disposed of off-site once the plant has been placed as noted above including the stem wrap and the first row of wire on each basket.
- vii. Backfill shall be done with soil mixture in layers **not** exceeding 150mm in depth. Soil shall be of a native material in a friable condition free from lumps, stones and any other material.
- viii. Each layer shall be tamped firmly in place in such a manner that the plant retains its vertical position. **NO AIR POCKETS** shall remain under or around the roots.
- ix. An earth saucer shall be constructed around each plant, **NOT THE BED**, to retain water around the roots of the plant. The diameter of the saucer shall be as large as the excavated area.
- x. The plant is to be watered thoroughly with clean water, soaking the entire root ball, immediately after installation and **once every other week** for the entire warranty period.
- xi. Mulch shall be placed over the entire root area to a thickness of 10cm. The mulch shall **not** to be applied directly on the trunk of the tree. Mulch shall consist of clean wood chips or shredded bark or wood from a source approved by the Forestry Supervisor.
- xii. The Applicant shall be responsible for cleaning up and restoration of each site upon completion of the work and shall include the removal and disposal of all burlap and twine. Where necessary seeding and/or sodding may be required.
- xiii. The tree tie shall be fastened around the tree in a figure eight (8) fashion using wire and rubber hose as specified, (see 'Planting Accessories'). The hose length encasing the wire shall be of a sufficient length to ensure that the wire does not touch the bark at any one point. Sufficient slack shall be allowed in the wire loop to permit a tree growth of two (2) years.
- xiv. **Stakes**: Wooden tree stakes shall be 2in.X 2in. X 7ft.
- xv. **Wires**: Shall be a pliable #11 gauge, minimum, galvanized iron wire used to fastened around tree in a figure eight, encased in rubber hose.
- xvi. **Rubber Hose**: Shall be made of new material, 25mm in diameter, two-ply and reinforced and shall be used to encase the wires that encircle the trunk or the branches of the tree.
- xvii. **Tree Guards**: Shall be made of black plastic perforated weeping tile pipe. The guard shall

be 20cm high and 10cm in diameter. It shall be cut on one side and wrapped around the tree at grade level, carefully avoiding damages to the bark.

### 1.3 Tree Locating Guidelines

All trees to be planted on public right-of-way

The minimum acceptable green boulevard area between curb and sidewalk shall be **2 m**

Trees shall be planted **1.5 m** from curb face, subject to all utility clearances.

Trees shall be planted, once all utility clearances have been approved.

Where the sidewalk and the curb edge are attached, trees shall be planted **1.3 m** back of the sidewalk.

Trees shall be planted, a minimum of **1.5 m** from driveway edge.

Trees shall be planted a minimum distance of **15 m** from a stop sign.

Trees shall be planted, a minimum distance of **2.75 m** from a street light, selecting from the following tree species: Columnar Maple, Pyramidal English Oak, Ivory Silk Lilac.

Trees shall be planted a minimum distance of **1.5 m** from Bell Canada and cable boxes. There must be a minimum of **3.5 m** of green boulevard area from driveway edge and bell box to accommodate a street tree.

Trees shall be planted a minimum distance of **2 m** from fire hydrants and hydro transformers. There must be at least **2.5 m** of green boulevard area between the driveway edge and above ground fixtures.

Trees shall be planted **2 m** from the sides and back of a Hydro Transformer & **3 m** from the hood side

Plant only salt tolerant Ornamental/Specialty trees under high voltage service lines.

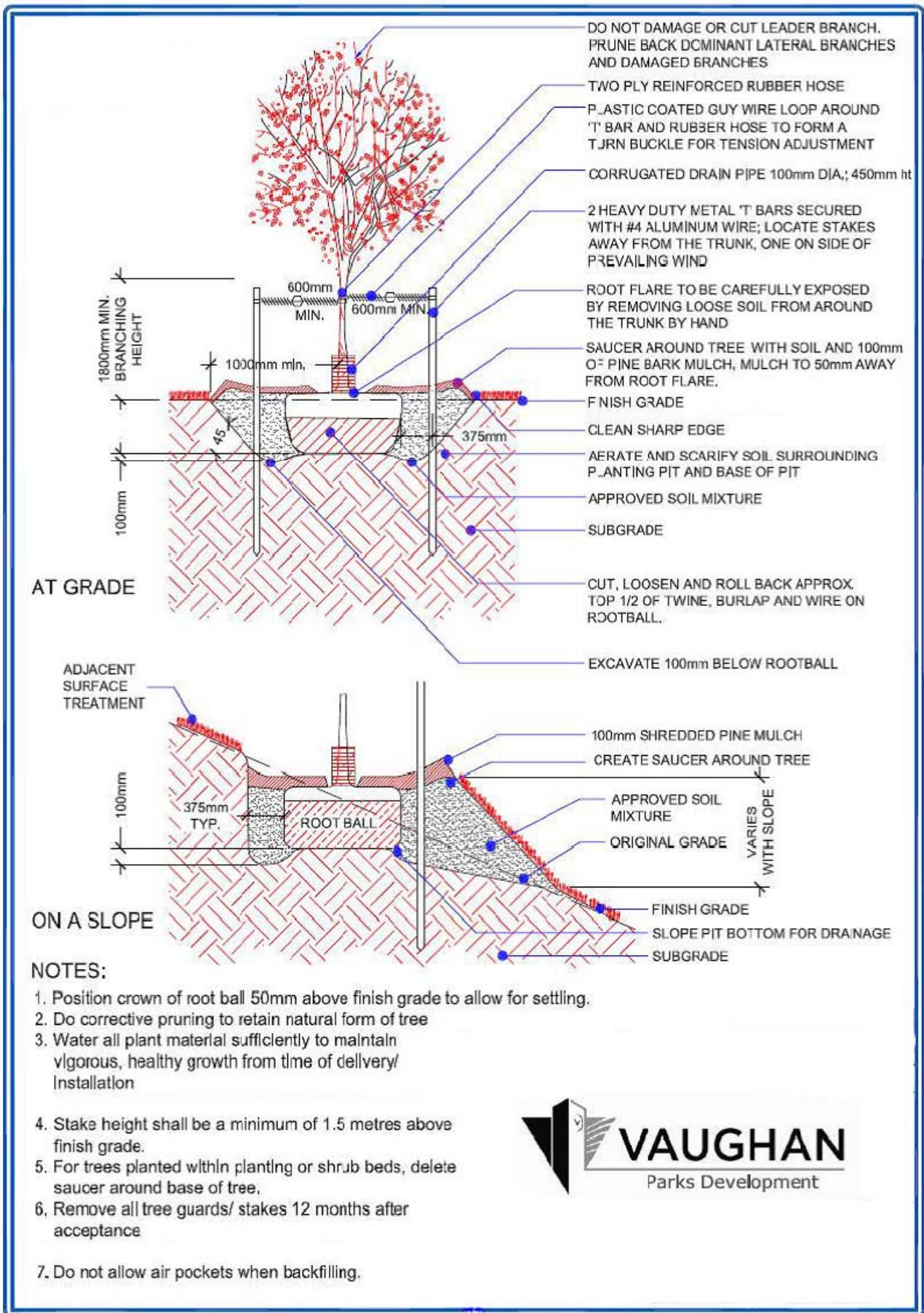
Trees are not to be planted in line with lot drainage swales.

Place trees far enough away from buildings to allow proper crown growth without excessive pruning. Species selection is important in tight situations.

No tree planting shall be made within **1 m** of any building or structure.

There needs to be a minimum of **6 m** between trees.

Figure 1: Guidelines for Planting a Deciduous Tree





**1.4 TREE SELECTION CRITERIA**

| WHAT TO ACCEPT   | WHAT TO REJECT  |
|--|---|
| <ul style="list-style-type: none"> <li>• have a straight dominant unclipped central leader</li> <li>• have sufficient and properly spaced lateral branches - dominant lateral branches shall be pruned back</li> <li>• have straight trunks and be clear of any defects</li> <li>• have 80% foliation</li> <li>• be healthy and vigorous</li> <li>• be insect and disease free</li> <li>• have a minimum average of 10 cm (4 inches) of growth from the previous year</li> <li>• have healthy viable buds on all main branches which are green when split open</li> <li>• free from wounds unless they are small superficial cuts or abrasions which do not penetrate the outer bark</li> <li>• pruning wounds of less than 2.54cm (1in.) in diameter on the lower 1.5m (6ft.) of the trunk</li> </ul> | <ul style="list-style-type: none"> <li>• without a dominant central leader</li> <li>• with insufficient branching</li> <li>• any loss of symmetry, natural form or specified size when tree form defects are pruned</li> <li>• average 2.54cm. (1in.) of new growth from previous year</li> <li>• 40% - 50% defoliation</li> <li>• wounds into the xylem</li> <li>• trees with branch stubs</li> <li>• wounds that exceed 1/3 of the circumference in width and 5cm (2in.) in length.</li> <li>• trees that are leaning more than 10° from upright</li> <li>• exposed roots</li> <li>• exposed root balls or wire baskets</li> <li>• trees with the branch collars pruned off</li> <li>• trees are planted in an incorrect location</li> <li>• buttress roots are more than 10 cm (4 inches) above grade.</li> <li>• buttress roots are below grade</li> <li>• significant deadwood.</li> <li>• trees under the designated size.</li> </ul> |

**1.5 UTILITIES**

- i. The Applicant shall be responsible for obtaining all utility locates. The Applicant shall verify the completeness and correctness of utilities information in the field, by contacting utility companies, and shall exercise the necessary care in work operations, to take such other precautions as may be necessary to safeguard the utilities from damages and to repair any utilities damaged during work at no cost to the City.
- ii. The Applicant shall request and obtain locates from all utilities prior to any excavation. All excavations near the vicinity of any underground utility shall be conducted in accordance with utility(s) policy/standards.

**1.6 GENERAL**

Inspection

- i. The City reserves the right to inspect the plant material from the nursery. Any tree that fails to meet the selection criteria shall be subject to rejection, including any tree of poor quality.



- ii. The root balls, trunks and branches of all trees shall be protected from the sun and wind while they are in transit till the time they are planted.
- iii. It is the responsibility of the Applicant to inspect the tree to ensure it meets the City of Vaughan's standards.
- iv. The Forestry Department reserves the right to inspect and accept or reject the tree upon their delivery to the location(s) and before the actual planting. Any tree deemed unacceptable by the City shall be removed from any such location, at the Applicant's expense, in an approved manner, and replaced within an acceptable period of time.

### **1.7 MAINTENANCE AND CARE**

- i. The Applicant shall be responsible for maintaining the tree from the date of installation of the tree and up to the expiration of warranty period and final assumption inspection conducted by the Forestry Department.
- ii. All necessary measures must be taken by the Applicant to establish and maintain all trees in an acceptable, vigorous and healthy growing condition. This shall include, but shall not be limited to:
  - When trees are "in-leaf", watering shall be performed bi-weekly, from date of installation to end of the warranty period, sufficiently to saturate the root system. Trees shall be watered to a point of saturation immediately following planting. The Applicant shall be responsible for the supply, delivery and application of the water. In no case shall the foliage be allowed to wilt or the evergreens be allowed to dry out. The Applicant may increase the watering frequencies during prolonged dry periods, and decrease watering with the Forestry Supervisor or designate's consent, during rainy periods.
  - Watering shall begin during the growing season of planting and continue throughout the warranty period, May 1 to November 15.
  - Fertilize all plant material once during the warranty period and prior to the final inspection using a controlled release fertilizer 'Agriform Tablets' or the approved equal, minimum analysis is 20-10-5 to provide a minimum of 35 grams of available Nitrogen. Fertilizer tablets are to be applied to the root ball surface after cultivation.
  - When pruning, including the removal of dead or broken branches, the resident is not to leave any branch stubs.
  - Prune lower branches for clearance in such a manner as to preserve the natural character of the plants.
  - Do not remove leaders or top trees.
  - Trace cut, bruises or scars, on the bark back to the living tissue and leave flesh clean with no stubs.
- iii. Control any diseases, insects and rodents when required. When chemicals are used for such control they shall be used in accordance with the manufacturer's recommendations.

- iv. Maintain all accessories, such as tree guys, when required. Straightening of leaning trees shall be the responsibility of the Applicant up to the end of warranty. Vandalized trees will be the responsibility of the City.
- v. Stakes and collar removal shall be the responsibility of the Applicant and shall be done prior to the final inspection.
- vi. Maintain all plant and tree wells, keeping them free of weeds and well cultivated until expiration of the guarantee period. Cultivating shall be executed by the Applicant, once in the spring prior to the final inspection.
- ix. Prior to cultivation all mulch shall be removed from the plant pit surface. The area shall be cultivated to a depth of 5 cm. The mulch shall be applied to a depth of 10 cm. only after the area has been weeded and cultivated.
- xv. Upon completion of the work, at each location, the Applicant shall rake, sweep and restore each site to the Forestry Supervisor's satisfaction.
- xvi. The Applicant shall be responsible for the wrapping of the evergreens and removal of wraps, as specified by the City and at no additional cost to the City.

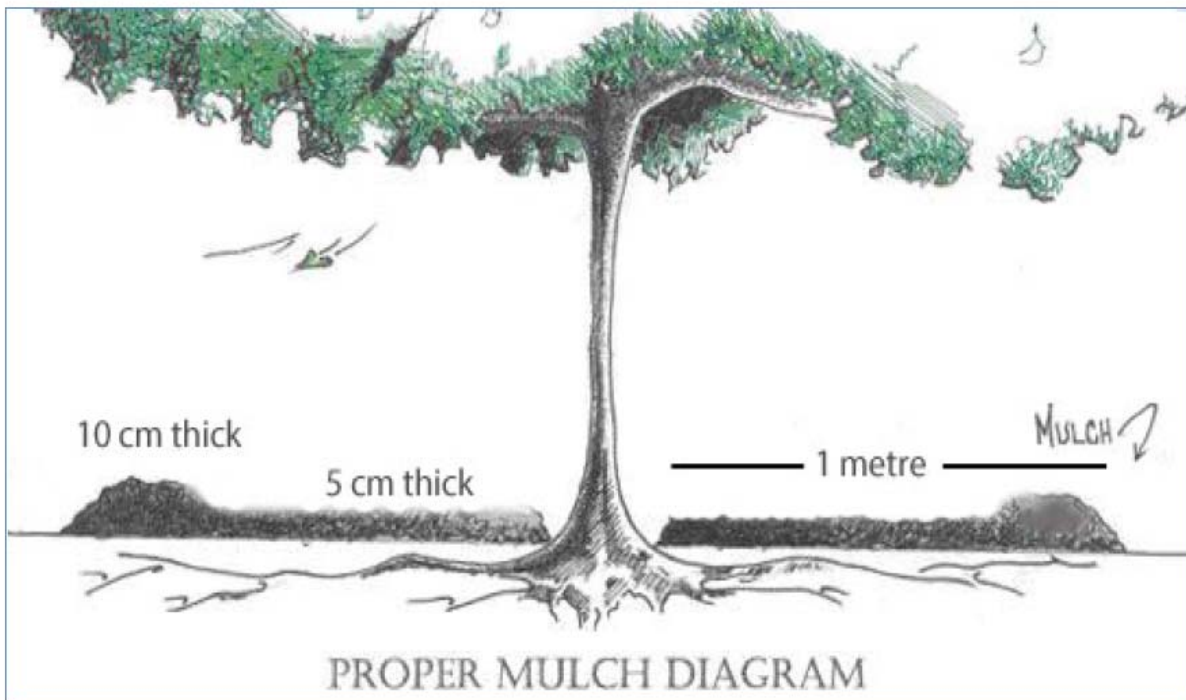
Figure 2: Mulching Tips

## MULCHING

Mulch serves a dual purpose of retaining moisture in the soil and providing extra nutrients for the plants as the mulch decomposes.

- Mulching helps young plants get established.
- Mulching helps keep roots cool and moist in the summer and insulated in the winter.
- Mulch suppresses weeds and competing grasses.

### Mulching of Trees and Shrubs:



1. Mulch shall consist only of woody material and is to be free of foreign material and refuse. Avoid the use of stone or rock near trees as this increases soil temperatures and moisture loss from leaves and stems. Do not use grass clippings as mulch. They will reduce airflow into the soil and also cause Nitrogen loss as they break down.
2. Tree mulch shall be applied 50 centimeters from the main stem at a thickness of 5 cm  $\frac{2}{3}$  of the radius and 10 cm for the edge adding up to a radius of 1 metre- see diagram.
3. Mulch shall not be applied directly around the above ground tissue of the stems/trunks of the tree as this promotes excess moisture against the bark causing rot and ultimately the death of the tree.
4. For shrub beds, mulch shall be applied evenly at a thickness of 75 – 100 millimeters (3-4 inches).
5. Volcano type mulch mounds are to be avoided at all times.

**By following these mulching steps, you will be able to provide your tree the benefits of mulching but avoid the hazards of over mulching.**

### **1.8 REPLACEMENTS DURING WARRANTY PERIOD**

- i. The Applicant will ensure that the tree meets the City specifications at the expiration date of the warranty.
- ii. The Applicant shall replace the tree that is considered dead, dying or in unsatisfactory growing conditions during the warranty period at no additional expense to the City.
- iii. Plant material requiring replacement shall be removed and replaced in accordance with approved arboricultural standards.
- iv. The Applicant shall be responsible for the disposal of any removed materials in a legal manner and under no circumstances shall the Applicant leave any materials on City property or be dumped at City Facilities.
- v. Replacement materials shall be of the same size and species as specified on the planting list and supplied and planted in accordance with the specifications. Replacement materials are subject to inspection by the City's Forestry Department. The City reserves the right to reject any material that does not meet the City's standards.

### **1.9 ASSUMPTION INSPECTION**

The Applicant will include with the submission for Assumption:

- i. The City will verify that the tree meets the City's specifications. The tree selection criteria chart will be referred to, during the warranty inspection.

At the time of assumption inspection:

- ii. The tree shall be healthy with a vigorous growth rate, growing straight and free of insects, disease and trunk defects.
- iii. Tree wells shall be free of all weeds, cultivated and mulched as specified in the Guideline Document.
- iv. Remove any stakes and accessories.
- v. Correct any leaning trees.
- vi. Prune the lowest whorl of branches, where necessary.

### **2.0 INCIDENTS**

- vii. The Applicant shall be responsible to restore any damage to properties as the result of the planting activities. Sites are to be left clean and free of debris.
- viii. Should a person or persons interfere with the work or enter the work area, all work shall cease and the Applicant or designate will instruct the person or persons to leave the site immediately.

**2.1 DEFICIENCY RESPONSE TIME**

- i. The Applicant shall correct any deficiency within one month of receiving notification.
- ii. If the deficiency is deemed an emergency by the Forestry Supervisor or designate it shall be rectified immediately at the Applicant's expense.

**SECTION III**

**DOCUMENTS**

**Pre-Approved Species List**

|                   |   | Caliper | Height | Branching |                  | Minimum Container |              |
|-------------------|---|---------|--------|-----------|------------------|-------------------|--------------|
| COMMON NAME       | SCIENTIFIC NAME                             | mm.     | cm.    | Ht. m.    | Branches In Head | Dia. (cm)         | Tree Stature |
| Hedge Maple       | <i>Acer campestre</i>                       | 50      | 250    | 1.5       | 10               | 70                | Small        |
| Freeman Maple     | <i>Acer freemanii</i>                       | 50      | 250    | 1.5       | 10               | 70                | Large        |
| Amur Maple        | <i>Acer ginnala</i>                         | 50      | 250    | 1.5       | 10               | 70                | Small        |
| Norway Maple      | <i>Acer platanioides</i><br>'Emerald Queen' | 50      | 250    | 1.5       | 10               | 70                | Large        |
| Deborah Maple     | <i>Acer platanioides</i><br>'Deborah'       | 50      | 250    | 1.5       | 10               | 70                | Large        |
| Columnar Maple    | <i>Acer platanioides</i><br>'Columnare'     | 50      | 250    | 1.5       | 10               | 70                | Very Tall    |
| Royal Red Maple   | <i>Acer platanioides</i> 'Royal Red'        | 50      | 250    | 1.5       | 10               | 70                | Large        |
| Karpick Maple     | <i>Acer rubrum</i> 'Karpick'                | 50      | 250    | 1.5       | 10               | 70                | Large        |
| Sugar Maple       | <i>Acer saccharum</i>                       | 50      | 250    | 1.5       | 10               | 70                | Very Large   |
| Tartarian Maple   | <i>Acer tartaricum</i>                      | 50      | 250    | 1.5       | 10               | 70                | Small        |
| Ohio Buckeye      | <i>Aesulus glabra</i>                       | 50      | 250    | 1.5       | 10               | 70                | Large        |
| Serviceberry      | <i>Amelanchier spp</i>                      | 50      | 250    | 1.5       | 10               | 70                | Small        |
| European Hornbeam | <i>Carpinus betulus</i><br>"Fastgiata"      | 50      | 250    | 1.5       | 10               | 70                | Medium       |
| Musclewood        | <i>Carpinus caroliniana</i>                 | 50      | 250    | 1.5       | 10               | 70                | Medium       |
| Northern Catalpa  | <i>Catalpa speciosa</i>                     | 50      | 250    | 1.5       | 10               | 70                | Large        |
| Katsura           | <i>Cercidiphyllum japonicum</i>             | 50      | 250    | 1.5       | 10               | 70                | Medium       |
| Red Bud           | <i>Cercis canadensis</i>                    | 50      | 250    | 1.5       | 10               | 70                | Small        |
| Hackberry         | <i>Celtis occidentalis</i>                  | 50      | 250    | 1.5       | 10               | 70                | Large        |
| Turkish Hazel     | <i>Corylus colurna</i>                      | 50      | 250    | 1.5       | 10               | 70                | Medium       |

|                          |                                    | Caliper    | Height     | Branching     |                         | Minimum Container |                     |
|--------------------------|------------------------------------|------------|------------|---------------|-------------------------|-------------------|---------------------|
| <b>COMMON NAME</b>       | <b>SCIENTIFIC NAME</b>             | <b>mm.</b> | <b>cm.</b> | <b>Ht. m.</b> | <b>Branches In Head</b> | <b>Dia. (cm)</b>  | <b>Tree Stature</b> |
| European Beech           | Fagus sylvatica                    | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Columnar European Beech  | Fagus sylvatica 'Fastigiata'       | 50         | 250        | 1.5           | 10                      | 70                | Very Tall           |
| Ginkgo / Maidenhair Tree | Ginkgo biloba                      | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Skyline Honeylocust      | Gleditsia triocanthos 'Skycole'    | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Sunburst Honeylocust     | Gleditsia triocanthos 'Suncole'    | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Kentucky Coffee Tree     | Gymnocladus dioica                 | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Tulip Tree               | Liriodendron tulipifera            | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Amur Cork                | Phellodendron amurense             | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| London Plane Tree        | Platanus x acerifolia              | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Ornamental Pear          | Pyrus calleryana                   | 50         | 250        | 1.5           | 10                      | 70                | Small               |
| White Oak                | Quercus alba                       | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Swamp White Oak          | Quercus bicolor                    | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Burr Oak                 | Quercus macrocarpa                 | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| English Oak              | Quercus robur                      | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Crimson Spire Oak        | Quercus robur x alba 'Crimschmidt' | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Pyramidal English Oak    | Quercus robur 'Fastigiata'         | 50         | 250        | 1.5           | 10                      | 70                | Very Tall           |
| Northern Red Oak         | Quercus rubra                      | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Ivory Silk Tree Lilac    | Syringa reticulata 'Ivory Silk'    | 50         | 250        | 1.5           | 10                      | 70                | Small               |
| Redmond Linden           | Tilia americana 'Redmond'          | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Greenspire Linden        | Tilia cordata 'Greenspire'         | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Pioneer Elm              | Ulmus x 'Pioneer'                  | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| American Elm             | Ulmus americana                    | 50         | 250        | 1.5           | 10                      | 70                | Large               |
| Zelcova                  | Zelcova serrata                    | 50         | 250        | 1.5           | 10                      | 70                | Medium              |

