

PART E
SPECIFICATIONS

PART E - SPECIFICATIONS

GENERAL

E1. APPLICABLE SPECIFICATIONS, STANDARD DETAILS AND DRAWINGS

E1.1 *The City of Winnipeg Works and Operations Division Standard Construction Specifications* in its entirety, whether or not specifically listed on Form B: Prices, shall apply to the Work.

E1.1.1 Division 2 - Standard Provisions, Provision CW 1100 of *The City of Winnipeg Works and Operations Division Standard Construction Specifications* shall apply to the Work.

E1.1.2 Further to GC:2.4(d), Specifications included in the Tender Package shall govern over *The City of Winnipeg Works and Operations Division Standard Construction Specifications*.

E1.2 The following Drawings are applicable to the Work:

<u>Drawing No.</u>	<u>Drawing</u>
L-1	SITE PLAN & LANDSCAPE IMPROVEMENTS
L-2	MISCELLANEOUS DETAILS
L-3	MISCELLANEOUS DETAILS

E2. SCOPE OF WORK TO BE DELETED

E2.1 The Bidder is made aware certain portions of the Work may be deleted from the Contract in order to meet the budgetary constraints. See section B15.4.2(b) for a listing of the components.

E3. LAYOUT OF WORK

E3.1 The Contractor shall set control lines and bench marks by means of stakes, buoys or marks and the Contractor shall make the completed Works conform to the lines and marks thus indicated. The Contractor shall furnish all other lines and levels required. The Contractor shall be responsible for the careful preservation of all stakes and marks. Care must be taken that the Contract Administrator be notified immediately of the disturbance of any such stakes or marks; the cost of correcting any errors arising out of neglect of the Contractor or his agent or his employees, to so notify the Contract Administrator shall be borne entirely by the Contractor, as well as the cost of replacing any disturbed stakes or marks.

E3.2 All layout Work shall be inspected and approved by the Contract Administrator prior to construction.

E3.3 Before commencing Work the Contractor shall satisfy himself as to the meaning and correctness of all stakes and marks and no claims shall be entertained by the City of Winnipeg on account of any alleged inaccuracies. If any error is suspected in the plans, Specifications or the directions of the Contract Administrator, Work shall be discontinued until the errors are rectified, but no claims shall be made on account of any delay occasioned thereby.

E3.4 All proposed tree planting locations shall be staked with minimum 610mm height vertical markers, and be approved by the Contract Administrator prior to excavating the tree pit.

E3.5 The Contractor shall locate and protect all underground utilities prior to commencing construction.

E4. EXISTING SURVEY INFORMATION

- E4.1 The Site plan is based on drawing data supplied by the City of Winnipeg and additional field data added to the drawings by Ken Rech Landscape Architects.
- E4.2 Survey grade elevations have not been provided due to the snow cover, and fact the viewing plazas will be field located, and the grades vary throughout the proposed locations. The construction cross section drawings, shown for the viewing plazas, allow for the anticipated grade change in all areas.

E5. SITE ACCESS

- E5.1 Access to the Work areas shall be off North Meadow Drive (existing vehicle opening in wood bollard and chain fence) and Blostein Bay.

E6. DEMOLITION AND SALVAGE

- E6.1 In general terms the following outlines the demolition and salvage Work:
- a. Removal and salvaging of two sets of soccer goal posts. Deliver salvaged goal posts to City of Winnipeg storage yards (location to be supplied at a later date). Fill holes with compacted sand and top with 100mm depth of topsoil and sod.
 - b. Removal of one large gravel paved area, and related timber edging. Gravel paving may be salvaged and reused for new viewing and entrance plazas if suitable material is encountered. The City of Winnipeg will negotiate a credit with the Contractor, if the Contractor wishes to reuse the existing gravel paving. Contractor to base bid for new viewing and entrance plazas based on utilizing off Site sources of granular material.
 - c. Removal of one wood bollard which has been burnt. Salvage 4 wood bollards and deliver to City of Winnipeg storage facility. Salvage and relocate 15 existing wood bollards. Salvage existing wood bollard chain, and reinstall at new locations.
 - d. Removal of existing sod and granular paving to allow construction of the new viewing and entrance plazas.
 - e. Salvaging and reinstallation of two benches (by existing large gravel paved area).
 - f. Removal of two benches and one picnic table (by existing dedication plaza).
- E6.2 The cost for all demolition, and salvage and reinstallation Work is to be included in the unit price form, of the most applicable Work area, or description. No separate payment will be made for this Work.

E7. SITE RESTORATION

- E7.1 Total Performance of the Work shall not be attained until the Contractor has cleaned up the Site and has removed all plant, tools, equipment, waste, debris and surplus foundation earth to the satisfaction of the Contract Administrator. Unless otherwise specified, the Contractor shall restore all areas of the Site beyond the established limit of Work, which have been disturbed by the Contractor's operations to as good as or better than the original condition to the satisfaction of the Contract Administrator. The Contractor shall pay all costs associated with this Work.

E8. CRUSHED LIMESTONE PAVING

- E8.1 This Specification shall amend and supplement City Specification CW 3110-R6. The Work to be done by the Contractor under this Specification shall cover all phases of supply and placement of crushed limestone surfacing materials necessary to install gravel paved walkways, by the three entrance plazas and the one dedication plaza.
- E8.2 In general terms, limestone paving will be required to tie in and adjust the existing walkways into the new plaza areas.
- E8.3 New walkway paving shall consist of a 125 mm depth subbase of 19 mm diameter crushed limestone down, with a 25 mm depth capping of 6 mm diameter limestone dust.
- E8.4 Install material to the depth and design elevations indicated on the Construction Drawings. Install only on clean unfrozen surface, properly shaped and compacted. Place the material using methods which do not lead to segregation or degradation of aggregate.
- E8.5 The finished surface is to be within plus or minus 10 mm of established grade and cross section, but not uniformly high or low. Any surface irregularities shall be corrected by loosening and adding or removing material until surface is within specified tolerance.
- E8.6 The cost for the supply and installation of Crushed Limestone paving shall be included in the lump sum cost of the related plaza.

E9. INTERLOCKING PAVING

- E9.1 Interlocking paving shall be installed in accordance with CW 3330-R3 Specification for Installation of Interlocking Paving Stones.
- E9.2 Type, size, colours and paving pattern are shown in the Details on Drawing L2 and L3. All paving stones shall be as manufactured by Barkman Concrete.
- E9.3 Edging for paving shall be "Snap Edge".
- E9.4 Install granular sub-base for interlocking paving a minimum 150mm past all edges of the paving stones, to permit the snap edge to be installed on a compacted granular base.
- E9.5 Cost for interlocking paving is to be included in the related Unit Price No. 3, 4, 5, 6, and 7. Payment will be based on each entrance plaza constructed in accordance with the drawings, and as accepted by the Contract Administrator.

E10. PRECAST CONCRETE RETAINING WALLS

- E10.1 This Specification covers the supply and installation of precast concrete retaining walls as located at the four viewing plazas and the one dedication plaza, and as shown on drawing L-2.
- E10.2 The Bidder is made aware that the number of viewing plazas may be reduced in quantity as per section B15.4.2(b).
- E10.3 Materials
- (a) Precast concrete retaining wall shall be constructed with Barkman Concrete Pisa 2 Roman Stones, Desert Buff in colour.
 - (b) Granular base shall be 19 mm diameter crushed limestone
 - (c) Filter fabric shall be Armtec 150 Nonwoven geotextile or approved equal.
 - (d) Adhesive shall be Snap Edge "Bond'Loc" or approved equal.

- E10.4 The Contractor shall install the concrete retaining walls to the shapes shown on Detail 1, 6, - L2, and construction details shown in detail 3, 4, - L2.
- E10.5 Construct wall on compacted granular base. Compact granular base to 95% Proctor Density. Ensure wall is constructed so one full layer of retaining wall stone is below grade.
- E10.6 Install geotextile filter cloth where topsoil shrub beds will backfill wall.
- E10.7 Glue all layers of the wall together with a double bead, minimum 6mm dia. bead, of adhesive. Glue top cap to wall with double bead, minimum 12mm dia. bead, of adhesive, including adhesive beads on sides of all caps.
- E10.8 Fastening of all retaining wall blocks and caps is to be warranted for a full five (5) years, against separation. Repair and replace any blocks which become loose or missing during warranty period.
- E10.9 The cost for the supply and installation of the Roman Stone Retaining Walls shall be included in the lump sum cost of the related plaza.

E11. WOOD BOLLARDS SALVAGING AND RELOCATION

- E11.1 This Specification shall cover the salvaging and reinstallation of existing wood bollards.
- E11.2 Materials
- (a) Granular backfill shall be 6mm or 19mm diameter crushed limestone.
- E11.3 Contractor shall salvage all existing wood bollards and chain shown to be removed on drawing details shown on sheet L-2 and L-3. The wood bollards are to be removed by the existing dedication plaza and relocated to the three new entry plazas. Additional wood bollards are to be relocated by the existing Site entrances/new entry plazas.
- E11.4 When reinstalling wood bollards, select only the best wood bollards for reinstallation. The surplus poorer quality bollards are to delivered to the City Works yard.
- E11.5 Install wood bollards in 400mm diameter holes, minimum 900mm below grade, and backfill with compacted granular material, installed completely up to finish grade. Adjust depth of installing if required so top of relocated bollards match existing bollard top elevations.
- E11.6 Cost for salvaging and reinstalling all wood bollards is to be included in the lump sum cost of the related plaza.

E12. STEEL BOLLARD SALVAGING AND RELOCATION

- E12.1 This Specification shall cover the salvaging and reinstallation of two existing steel bollards.
- E12.2 Materials
- (a) Concrete shall be in accordance with C.W. 2160-R5 Concrete for Underground Structures and Works.
- E12.3 Contractor shall salvage two existing steel bollards by the existing North Meadow Drive entrances for reinstallation in the new plazas, as shown in details 1, 5 – L3. The Contractor shall remove the concrete footing from the steel bollard, and backfill the old hole with compacted sand.

- E12.4 Reinstall steel bollards in concrete filled holes, minimum 400mm diameter by 900mm depth. Top of concrete shall be 100mm below top of granular paving. Slope top of concrete to drain away from post.
- E12.5 Cost for salvaging and reinstalling all two steel bollards is to be included in the lump sum cost of the related plaza.

E13. INSTALLATION OF SITE FURNISHINGS

- E13.1 This Specification will cover the salvage and installation of two existing benches, and supply and installation of new benches. The Bidder is made aware the quantity of new benches may vary depending on the number of viewing plazas constructed. A maximum of six (6), and minimum of four (4) new benches will be required.
- E13.2 Materials
- (a) Benches shall be Cascades Re-Plast 6' (1830mm) Deluxe Contour Bench, model 234 green inground mount, black frame.
 - (b) Concrete shall be in accordance with C.W. 2160-R5 Concrete for Underground Structures and Works.
- E13.3 Contractor shall salvage two existing benches by the large gravel paved areas, for reinstallation at another location. Location to be field determined. The Contractor shall remove the concrete footing from the bench legs, and backfill the old hole with compacted sand, topped with a 100 mm depth of topsoil and sand.
- E13.4 Reinstall salvaged wood benches in concrete filled holes, minimum 400mm diameter by 600mm depth. Top of concrete shall be flush with sod elevation. Slope top of concrete to drain away from post.
- E13.5 Install new benches in concrete filled holes, minimum 400mm diameter by 600mm depth. Top of concrete shall be 100mm below top of new interlocking paving. Slope top of concrete to drain away from post.
- E13.6 Cost for salvaging and reinstalling all two wood benches is to be included in the lump sum cost of Unit Price Item No: 1.
- E13.7 The cost for supply and installation of new benches is to be included in the lump sum cost of the related plaza.

E14. TOPSOIL AND FINISH GRADING

- E14.1 This Specification shall amend CW 3540-R2 Specification for Topsoil and Finish Grading for Establishment of Turf Areas.
- E14.2 The cost for supply and installation of topsoil is to be included in the lump sum cost of the related plaza repair, or Item No: 1, for the major area of sod to be replaced for the existing gravel area.

E15. SODDING

- E15.1 This Specification shall amend CW 3510-R6.
- E15.2 The cost for supply and installation of sod is to be included in the lump sum cost of the related plaza repair, or Item No: 1, for the major area of sod to be replaced for the existing gravel area.

E16. PLANT MATERIAL

E16.1 Description: This Specification shall cover the supply and installation of nursery grown trees, shrubs and shrub bed installation.

E16.2 Materials**E16.2.1 General**

- (a) Trees shall be the size and variety noted on the Plant List on drawing L-1. Plant material which does not have the specified root ball diameter will be rejected.
- (b) All nursery stock supplied shall be Canadian prairie nursery grown, of the species and sizes indicated on the drawings. Quality shall be in accordance with the latest "Guide Specification for Nursery Stock of the Canadian Nursery Trades Association".
- (c) Any nursery stock dug from native stands, wood lots, orchards or neglected nurseries and which have not received proper cultural maintenance as advocated by the Canadian Nursery Trades Association, shall be designated as "collected plants". The use of "collected plants" will not be permitted unless approved by the Contract Administrator.
- (d) The Contract Administrator reserves the right to inspect the plant material at their original source, and to instruct the supplier on root and branch pruning requirements.
- (e) Nomenclature of specified nursery stock 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. The names of varieties not names therein are generally in conformity with the names accepted in the nursery trades.
- (f) Plants larger than specified may be used if approved by the Contract Administrator. The use of such plants shall not increase the Contract price.
- (g) All nursery stock shall be measured when the branches are in their normal position. Height and spread dimensions specified refer to the main body of the plant and not from branch tip.
- (h) Where trees are measured by calliper (cal.), reference is made to the diameter of the trunk measured 300 mm above ground as the tree stands in the nursery.
- (i) All nursery stock shall be well branched, true to type, structurally sound, possess a well developed, undamaged root system and shall be free of disease, insect infestations, rodent damage, sunscald, frost cracks and other abrasion or scare to the bark. All parts of the nursery stock shall be moist and show live, green cambium when cut.
- (j) All trees shall have one only, sturdy, reasonably straight and vertical trunk and a well balanced crown with fully developed leader. All evergreens shall be symmetrically grown and branched from ground level up, and must be balled and burlapped unless noted otherwise on the plant list. At least one plant of each variety supplied shall bear a tag showing both the botanical and common name of the plant.

E16.2.2 Protection of Stock

- (a) All nursery stock shall be well protected from damage and drying out from the time of digging until the time of planting on Site. All roots shall be cleanly cut; split roots are not acceptable.
- (b) Nursery stock shall be transplanted with care to prevent damage. Branches shall be carefully tied in such a manner so as not to break or damage trunks. Points of contact with equipment shall be padded. All nursery stock, which cannot be planted immediately upon arrival at the Site, shall be well protected to prevent drying out and shall be kept moist until commencement of planting.

- E16.2.3 Topsoil Backfill Mix
- (a) Backfill mix shall be screened garden soil mixture of two parts black loam topsoil, one part milled peat moss and one part sharp sand.
- E16.2.4 Stakes
- (a) T-rail iron stakes 40 x 40 x 5 x 1540 mm long, primed with 1 brush coat of black zinc rich plant paint to CGSB 1-GP-181B. Paint section of stake above ground with 1 coat of green enamel paint.
- E16.2.5 Tree Rings
- (a) Fabricated from 3 mm galvanized wire encased in two ply reinforced 12 mm dia. rubber garden hose of equivalent.
- E16.2.6 Anti-Desiccant
- (a) Wax-like emulsion to provide film over plant surfaces reducing evaporation, but permeable enough to permit transpiration.
- E16.2.7 Wound Dressing
- (a) Horticulturally accepted non-toxic, non-hardening emulsion.
- E16.2.8 Wood Chip Mulch
- (a) Shall be standard tree limbs and leaves chippings, containing a maximum of 5% conifer branches.
- E16.3 Construction Methods
- E16.3.1 General
- (a) Planting pits shall be excavated in a square shape with vertical sides to a depth and width amounting to twice the diameter of the root system. The minimum depth shall be 610 mm (24") and the minimum diameter shall be 1530 mm (5'). The excavated tree pits shall be refilled with backfill mix (E16.2.3). Hand dig pits where required to protect underground utilities.
 - (b) Shrub beds shall be excavated with vertical sides to the width shown on the drawings, and to a depth of 400mm. The excavated shrub bed shall be refilled with backfill mix (E16.2.3) to a 300mm depth, and covered with a 100mm depth of wood chip mulch.
- E16.3.2 Installation
- (a) Upon excavation of the tree pits, and protection of any underground utility lines, the holes shall be backfilled with a topsoil mixture to a depth to permit adequate installation and stabilization of the plant material.
 - (b) Each balled specimen shall be handled with great care, to ensure that the root balls will not be broken. Burlap shall be folded back only at the top and sides. Broken roots of deciduous stock shall be pruned back prior to planting.
 - (c) After inserting the tree and filling the planting hole with topsoil, water shall be poured in until the pit is thoroughly soaked. Filling of the hole shall then be completed and the fill-in soil shall be packed firmly around the roots, leaving a concave surface for convenient watering 75 mm below rounding and grade elevation. After filling, the planting shall be watered at frequent intervals.
 - (d) Planting shall be done during periods suitable to weather conditions and locally accepted practice. All nursery stock shall be set plumb in the centre of pits and at levels as shown on the planting details after settlement has taken place.

- (e) Nursery stock shall be faced to give the best appearance or relationship to adjacent structures and to the approval of the Contract Administrator.
- (f) Wood chip mulch shall be installed over the tree rootball as shown on the drawings.

E16.3.3

Pruning

- (a) All deciduous trees shall be pruned immediately after planting. The amount of pruning shall be limited to the minimum necessary to remove dead or injured branches and to compensate for the loss of roots as a result of transplanting operations. Pruning shall be done in such a manner as to preserve the natural character of the plants. Leaders shall not be removed. Only clean, sharp tools shall be used. All cuts shall be clean and flush, leaving no stubs. Cuts, bruises or scars on the bark shall be traced back to living tissue and removed. The affected areas shall be shaped so as not to retain water and all cuts of more than 25 mm in diameter shall be painted with approved tree paint.

E16.3.4

Staking

- (a) All trees shall be staked using metal T-BAR stakes. The number of stakes required per tree is shown in the Plant List. The tree trunk shall be completely encircled and protected with two rubber tree rings and secured to each tree stake. Top of each tree stake shall be at the same elevation above finished grade, approximately 1200 – 1500 mm height.

E16.4 Maintenance and Guarantee of Nursery Stock

- (a) The Contractor shall provide all watering, weeding, tightening and repairing tree stakes and rings, removal of dead material and all repairing tree stakes and rings, removal of dead material and all other maintenance operations required for two years after the date of the Certificate of Total Performance. See E17 for additional information.
- (b) The Contractor shall agree and guarantee to replace and replant any nursery stock found dead and/or in poor condition two years from the date of the Certificate of Total Performance, at his cost. "Poor condition" shall be interpreted as meaning nursery stock on which branches are dying, or have not shown satisfactory growth of leaves.
- (c) Exempted is nursery stock damaged by accidental causes or vandalism, which stock shall be replaced at the cost of the Owner.
- (d) All required replacements shall be by plants of at least the same size and species as specified, and shall be supplied and planted in accordance with the original drawings and Specifications, and the replaced material shall carry an additional two-year guarantee and maintenance period.

E16.5 Method of Measurement

- (a) Plant Material will be measured on a unit basis. The number to be paid for shall be the total number of each type and size of tree supplied and installed in accordance with the Specification and accepted by the Contract Administration.

E16.6 Basis of Payment

- (a) The supply and installation of Plant Material will be paid for at the Contract unit price for each tree, measured as specified herein, which price shall be payment in full including all costs for the tree, tree pit and topsoil backfill, tree stakes, tree rings, pruning, two year maintenance, and all other items incidental to the Work included in this Specification.
- (b) Twenty five (25) % of the value of all plant material, as itemized on the unit price forms, shall be held back to pay for the two year maintenance period. See E17 and D17.1 for payment during two year maintenance period.
- (c) Seventy five (75) % of the value of all plant material, as itemized on the unit price forms, will be paid for when the plant material complies with the supply and installation sections of the Specification requirements.

E17. TREE MAINTENANCE SCHEDULE

E17.1 Description: This Specification shall cover the landscape maintenance requirements for all trees and associated tree pits, shrubs and associated shrub beds.

E17.2 Related Work: Plant material and tree pits are specified elsewhere in this Specification and form an integral part to all Work described herein.

E17.3 Maintenance Period: Undertake maintenance from the date of installation for a period of two years past the date of Total Performance.

E17.4 Description of Work

- (a) Maintain trees shown on the drawings, to the satisfaction of the Contract Administrator
- (b) Work includes:
 - Fertilizing
 - Watering

- Weed Control of tree pits, wood chip mulch areas
- Pest and disease control
- Pruning
- Mulching
- Tree support and tie adjustment
- Winter protection

E17.5 Protection

- (a) Prevent damage to fencing, other trees, landscaping, bench marks, building, pavement, surface and underground utility facilities.

E17.6 Materials

- (a) Materials are to conform to the requirements of related Specifications.

E17.7 Maintenance Requirements

- (a) Condition of Equipment

Prior to the commencement of tree and shrub planting, the Contractor will be required to arrange to have the equipment to be supplied under this Contract inspected by the Contract Administrator to verify that the equipment is in good operating condition and meets the requirements of the Specifications.

- (b) Replacement Equipment

The supply of replacement equipment of equal or larger size, if regular units are under repair, will be the responsibility of the Contractor.

- (c) General Workmanship

Program timing of operations to growth, weather conditions and use of Site.

Do each operation continuously and complete within reasonable time period.

Store equipment and materials off-Site.

Collect and dispose of debris or excess material on daily basis.

E17.8 Fertilizing

- (a) Apply fertilizer no later than May 30th of each maintenance year.

E17.9 Watering

- (a) The Contractor shall acquire and pay for all water from off site sources.
- (b) Apply water as required to supplement rainfall and to maintain optimum growing conditions. In general, water once a week to achieve rates as indicated below. Allow soil to dry adequately between watering to prevent over-saturation without creating water stress.
- (c) Subject to the requirements above, the Contractor must water at least once a week inclusive between May 1st and October 30th. A complete record is to be kept of each series of waterings for all planted and transplanted trees, noting: 1) location, and 2) date of watering. This record is to be given to the Contract Administrator when requested.
- (d) Apply 40 litres of water per 25mm caliper, per application using deep root feeder or low pressure open flow nozzle and hose. The water stream must not gouge out a hole in the soil and mulch.

- (e) Apply 4 litres of water per shrub per application.
- (f) The Contractor shall maintain all sodded areas for 30 days from the Contract completion.

E17.10 Weed Control

- (a) Maintain surface of tree pit, shrub bed and mulched areas, free of weeds. Do not allow weeds to establish for a period longer than one (1) week.
- (b) Do not use dicamba and picloram solutions near trees.

E17.11 Pests and Diseases

- (a) Obtain written approval of Contract Administrator prior to using any pesticide.
- (b) Control pests and disease through pruning or application of pesticides. Use species specific pesticides where possible. Use only pesticides of low mammalian toxicity. Strictly follow manufacturer's written instructions.

E17.12 Pruning

- (a) The Contractor shall provide a person with a valid Manitoba tree Pruner's License for each Work crew or Work Site.
- (b) Prune trees as required to remove dead, broken or damaged limbs. Prune back to healthy growth while maintaining balanced crown shape.
- (c) Employ clean sharp tools. Make cuts coincident with the branch collar near the main stem or branch. Cuts must be smooth and sloping to prevent accumulation of water on cut. Do not leave little stumps ("horns") on trunks or main branches.
- (d) Prune trees according to accepted horticultural practices as outlined in the Pruning Manual, Publication No. 1505 by Agriculture Canada.

E17.13 Mulching

- (a) Add mulch as required to maintain 100 mm thickness.

E17.14 Tree Supports and Tie Adjustments

- (a) Maintain tree supports and ties in proper repair.
- (b) Remove supports and ties at end of two year maintenance period or earlier if directed by City.
- (c) Straighten any tree which is leaning.

E17.15 Winter Protection

- (a) Ensure adequate moisture in tree zones prior to freeze-up.
- (b) Apply anti-desiccant to evergreen trees susceptible to winter desiccation as directed by Contract Administrator.

E17.16 Maintenance Schedule

- (a) The Contractor shall provide a complete written maintenance schedule to the Contract Administrator prior to the commencement of the two year maintenance period, and must provide weekly reports of all maintenance to the City of Winnipeg, Forestry Department, within one week of the maintenance being provided.

E17.17 Maintenance Period

- (a) The two year maintenance period shall be based on a six month growing season per year. The two year maintenance program will consist of a total of 12 months of maintenance. In general the maintenance shall commence on May 1st and terminate on October 30th of each year. In the event of any early spring, whereby the weather conditions are conducive

to plant growth, the Contractor shall start the maintenance period at such time as they deem necessary. However, the City of Winnipeg, Forestry Branch, must be notified prior to commencing the maintenance period. Where the maintenance Contract is started prior to May 1st, the actual number of days that the plant material is maintained prior to May 1st will be deducted from the October 30th completion period.

E17.18 Cost of Two Year Maintenance Period

- (a) The cost for the Two Year Plant Maintenance Period will be twenty-five (25) % of the total cost of all the trees and shrubs, as shown in Form B: Prices, items eight (8) to twenty-nine (29) inclusive. The remaining seventy five (75) % value will be paid on a per unit basis, for each plant properly installed, and which plant complies with the Specification requirements.
- (b) Where the plant material has been replaced and is covered under the extended warranty period, a proportional amount of holdback will be further maintained, until the plant has survived for a full two years and is accepted.

E17.19 Payment of Two Year Maintenance Period

- (a) The basis of payment cost, will be based on a pro rated basis, based on each full month of maintenance, and the respective proportion of the total twelve (12) months. Progress payments will be made once a year at the end of each growing season.