



Master Tree Management and Strategy Plan Report:
St. Francis Xavier University Campus
Phase I: Inventory & Condition Assessment, Campus Trees



Master Tree Management and Strategy Plan Report: St. Francis Xavier University Campus

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1.0 Summary

This report presents the results of Phase One of a Master Tree Management and Strategy Plan for the Saint Francis Xavier University (St. FX) Campus. The Phase One Objectives were to identify and assess the condition of the St. FX University campus trees. The report consists of the inventory and condition assessment of some 1230 campus trees. Stan Kochanoff, a Registered Consulting and Certified Arborist of Environova Planning Group Inc. conducted the assessment work during the period May 1 through August 31, 2005 with assistance from Patricia Gough, a local landscape architect.

The trees were numbered on a campus plan, identified as to species, measured for trunk diameter, height and canopy spread and assessed by visual inspection for their condition classification. Comments were recorded on especially designed data sheets for each tree. The numbered sheets for each tree include comments indicating various levels of action required pertaining to the health of the tree. In a number of cases immediate action was recommended where trees presented a hazard and posed potential liability problems for the university if left unattended. These trees requiring immediate attention were noted and communicated to staff through

a number of briefing reports on an on-going basis through the assessment period.

Three large binders with hard copies of each data sheet of each of the 1230 plus trees were submitted to Facilities Management staff along with digital files of each data sheet and the numbered campus map. An analysis was made of the species diversity of the campus trees and an over-all condition rating of the trees by International Society of Arboriculture (ISA) classification standards.

The recommendations section outlines a plan of action to ensure the health and viability of the campus trees including remedial pruning, structural support work, tree health issues, replacements and removals where required. The report also addresses future tree plantings, changes in the current mix, transplanting for better landscape effect and environmental protection and the preservation of existing mature and unique trees on campus.

and construction of major new buildings in recent years, the tree plantings that have been installed as part of the project are largely of a monoculture (single species) nature. In particular, the development of the Millennium Centre complex has added a large population of young trees that require attention to ensure proper establishment. The older section of the campus has a number of major tree species in various condition, sizes and maturity.

The president of the university, Sean Riley and the staff charged with the management of the campus grounds under the direction of Leon MacLellan, the Director of Facilities Management and Christene McInnis, Manager of Cleaning and Grounds have expressed a strong desire for a long term tree planning strategy and maintenance program to ensure a healthy tree population and green campus environment.

2.0 Background

Saint Francis Xavier University (St. FX) is located in Antigonish, Nova Scotia. The campus comprises of approximately 65 acres (26.3 hectares) and has a mixed population of approximately 1,250 trees of various species, sizes and maturity. With the expansion of the campus

2.1 Assignment & Scope of the Project

After a visit to the campus on March 17, 2005 and a review of the services sought by the staff of the Facilities Management Department, I was asked to prepare a proposal for a long-term strategy and master plan for the health and condition of its campus trees.



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The master plan is to include recommendations for under planting, new tree plantings and transplanting of existing trees and shrubs for a more favorable effect or ease of maintenance. As well, a requirement for tree preservation policies is needed to protect existing trees during new construction projects. The plan is to consider the possibility of relocating existing trees that otherwise may be destroyed because of construction sites.

After submitting a proposal on April 15, 2005 I was commissioned to carry out Phase One of the Campus Master Tree Management and Strategy Plan for the St. FX university campus. The goal of Phase One was to carry out an inventory and assess the condition of an earlier recorded total of 805 campus trees. I was also asked to look at the possibility of relocating several large trees on a new dormitory construction site opposite the Millennium Centre.

2.2 Limits of the Assignment

Most of the inventory was conducted in early spring while most of the deciduous trees were in a dormant stage making identification of the actual species and cultivars somewhat difficult. In some cases it was required to make a second inspection of certain trees to determine their actual genus, species or

cultivar type (e.g. Crimson King Norway Maple vs. Green leaf forms of Norway Maple).

2.3 Purpose and Use of this Report

The purpose of this report / project is to assist the Facilities Management Department staff with their goals of improving the landscape environment of the St. FX campus and produce a long term Master Tree Management and Strategy Plan.

3.0 Methodology

3.1 Identification and Method used to Assess the Condition of Campus Trees

With the assistance of local landscape architect, Patricia Gough, I carried out the tree inventory and condition assessment work during the spring / summer of 2005 (May - July). A field data sheet with was designed and used for recording pertinent information and later converted to an electronic file. Each inventory sheet was numbered in the top right hand corner, which correspond with numbered trees on a site plan of the campus.

The trees were also numbered on a campus plan to correspond with the numbered data sheets.

Comments were recorded on the custom designed data sheets for each tree. The trees were identified as to genus, species and cultivars where possible, measured for trunk diameter, height and canopy spread. The condition of the trees was assessed by visual inspection as to their ISA classification.

The data sheets comments indicate various levels of action required pertaining to the maintenance and health of the tree. In several cases there were trees that presented an immediate hazard and posed potential liability problems if left unattended. This information was communicated to staff through a number of fax memos on an on-going basis through the assessment period. A sample of the proposed field sheet is shown on the following page.

3.2 Assessment

The assessment that we carried out identifies the tree location, genera and species and notes the condition class and the general health of each tree. The condition class is rated according to guidelines established International Society of Arboriculture (ISA). Definitions of the classes are located in the appendices.

The data collected from the condition assessment provides the basis for recommendations require



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for staff follow-up. This includes recommendations for trees that require corrective pruning & deadwood removal, installation of structural support systems where needed such as cabling, cleaning up of decayed cavity wood, fertilizing and removals if necessary. As well, trees were identified that are determined to be in a hazardous condition. These trees could potentially be a threat to private and university property and to public and student safety.

All together there were 1230 inventory sheets completed. One of the sheets included 14 trees. The total trees assessed were 1244. This is approximately 55% more than the original estimated figure of 805 trees recorded on campus.

Three large binders with hard copies of each data sheet of each of the 1230 plus trees were submitted to Facilities Management staff along with digital files of each data sheet and the numbered campus map. An analysis was made of the species diversity of the campus trees and an over-all condition rating of the trees by International Society of Arboriculture (ISA) classification standards

*Field Data Sheet for ST FX Campus Trees Assessment:

Date
Assessment by:
Species
Common name
Tree size (trunk diameter (DBH), caliper)
Approximate Height
Canopy spread
Campus Location
Street Name
Building
Access Points and Linkages:
Orientation:
Situation:
ISA Condition Class
Hazardous situations
Tree locale & environment
<ul style="list-style-type: none"> • Power lines • Utility Poles • Cross walks/ intersections
Problem Areas:
General Comments:
Recommendations / Remedial Action:
Other

4.0 Observations and Findings

All 1230 (1244 trees) inventory sheets are compiled into 4 summaries. The summaries include the following:

1. Genus and Species breakdown and percentage of total number of campus trees

- There are 112 different species of trees located on St. FX. Campus. The most dominant species is Norway Maple (*Acer platanoides*) with a total of 130 trees, accounting for 10.5 % of all campus trees.

- Three conifer or evergreen species each represent 6% of all campus trees. There 72 White Spruce (*Picea glauca*), 69 Jack Pine (*Pinus banksiana*) and 73 Austrian Pine (*Pinus nigra*)

- Three deciduous species represent approximately 5% each of all campus trees. These include: 68 Honey Locust (*Gleditsia triacanthos*), 61 Sugar Maple (*Acer saccharum*) for and, 57 Black Birch (*Betula lenta*).

- White Cedar (*Thuja occidentalis*) and Little leaf Linden (*Tilia cordata*) each represent 4% of the campus trees. There are 51 White Cedar and 55 Little leaf Linden.



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- Colorado Spruce (*Picea pungens*), English Oak (*Quercus robur*), and Red Oak (*Quercus rubra*) each make up 3% of campus trees. There are 32 Colorado Spruce, 35 English Oak, and 32 Red Oak.
- White Ash (*Fraxinus americana*), Flowering Crabapple (*Malus*), Colorado Blue Spruce (*Picea pungens* 'Glauca'), Columnar English Oak (*Quercus robur* 'Fastigiata') and Linden (*Tilia*) each represent approximately 2% of campus trees. There are 29 White Ash, 23 Flowering Crabapple, 26 Colorado Blue Spruce, 20 Columnar English Oak, and 21 Linden species.
- Each of the following represent about 1% each of all campus trees 13 Korean Fir (*Abies koreana*), 15 Serviceberry (*Amelanchier canadensis*), 18 Birch (*Betula*), 11 Ash (*Fraxinus*), 10 Magnolia (*Magnolia*), 13 Ironwood (*Ostrya virginiana*), 14 Spruce (*Picea*), and 10 Mountain Ash (*Sorbus aucuparia*).

2. General Species (Genus) - see summary spreadsheet in appendices

This summary was condensed into a general plant genus list. For example Paperbark Maple (*Acer griseum*), Manitoba Maple (*Acer negundo*), Japanese Maple (*Acer palmatum*), Norway Maple (*Acer platanoides*), Red Maple (*Acer*

rubrum), Silver Maple (*Acer saccharinum*), and Sugar Maple (*Acer saccharum*) are all members of the maple genus (*Acer*).

- Maple (*Acer*), Spruce (*Picea*), and Pine (*Pinus*) species dominate the St. FX campus tree population. There are 227 Maple species accounting for 18% of all campus trees.
- 166 Spruce and 158 Pine species each make up 13% of all campus trees.
- 94 Oak species (*Quercus*) represent 8% of campus trees,
- There are 85 Linden species (*Tilia*) and 85 Birch species (*Betula*) and each representing 7% of campus trees.
- 68 Honey Locust (*Gleditsia triacanthos*) represents 5% of all campus trees.
- 51 Cedar species (*Thuja*) represents 4% of campus trees.
- 42 Flowering Crabapple (*Malus*) and 40 Ash (*Fraxinus*) represent approximately 3% of all campus trees
- 28 Magnolia species (*Magnolia*) represent 2%. Of all trees
- There are 12 species that each account for approximately 1% of

all campus trees. These include 18 Fir species (*Abies*), 15 Serviceberry (*Amelanchier*), 17 False Cypress (*Chamaecyparis*), 9 Flowering Dogwood (*Cornus florida*), 12 Beech (*Fagus*), 10 Juniper (*Juniperus*), 13 Ironwood (*Ostrya virginiana*), 8 Cherry (*Prunus*), 9 Black Locust (*Robinia pseudoacacia*), 10 Mountain Ash (*Sorbus aucuparia*), 12 Hemlock (*Tsuga*), and 8 Elms (*Ulmus*)

3. Condition Classification (see summary spreadsheet in appendices)

- Only 1 tree is rated as ISA Class I. It is a Norway Maple. Class I trees are in exceptional condition and have the best qualities of their species. They have excellent form and require very minor maintenance. They are generally in a location, which allows full maturity.
- 411 trees are rated as ISA Class II. This is 33% or one third of all campus trees. Class II trees are in relatively good condition. They can easily be brought into top condition with relatively little maintenance. These trees may be overcrowded, have some insect problems or nutritional deficiencies.
- 806 out of 1244 trees are identified as Class III. This represents 65% and the highest number of all campus trees. Class III trees

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are rated in fair condition but require various levels of maintenance. Many of these trees require deadwood removal and structural pruning. There are number of trees requiring support work such as cabling and bracing to reduce the loss of limbs and split trunks during adverse weather conditions. There are also some trees that require wound tracing and cleaning out of rot and fungus in trunk cavities.

- There are 26 trees that are rated Class IV. This represents only 2% of all campus trees. Class IV trees are either dead or partially dead or in very poor condition with irreversible problems and should be removed.

4. General Observations

- Many of the younger trees planted in the past few years have been over-mulched resulting in the formation of “teepees or volcanos” around the bases of the trees which creates an unfavorable growing environment.
- The majority of smaller and mid-sized trees require larger tree circles (grass-free areas) to avoid damage by mowers and cord trimmers and reduce the competition for moisture and nutrition from weeds and grass.
- There are a number of conifers

that require tip dieback pruning of diseased or dead branches and central leader dieback.

- In a number of planting sites, the soil is in a very compacted condition making it very difficult for plant growth.
- Several of the newly landscaped areas around recently built dormitories such as Somers and Power Halls were planted with single species (Honey Locusts) that are not performing well and are not conducive for the wind tunnel environment. The majority of these trees part will require replanting.
- A number of the newly planted trees have been vandalized with broken tips, trunks and branches and in some cases totally destroyed. The majority of these trees are located around the perimeter of the south perimeter road behind the Millennium Centre.
- Many of the recently newly planted trees still have their stakes and wire supports and in some cases are chafing or girdling the tree trunks or branches.
- There are a number of young seedlings, particularly, Norway Maples which have established in some areas in or near window wells and very close to the building foundations (MacNeil and Science Hall Buildings). If left, these trees

will undoubtedly cause problems and possible damage to the buildings.

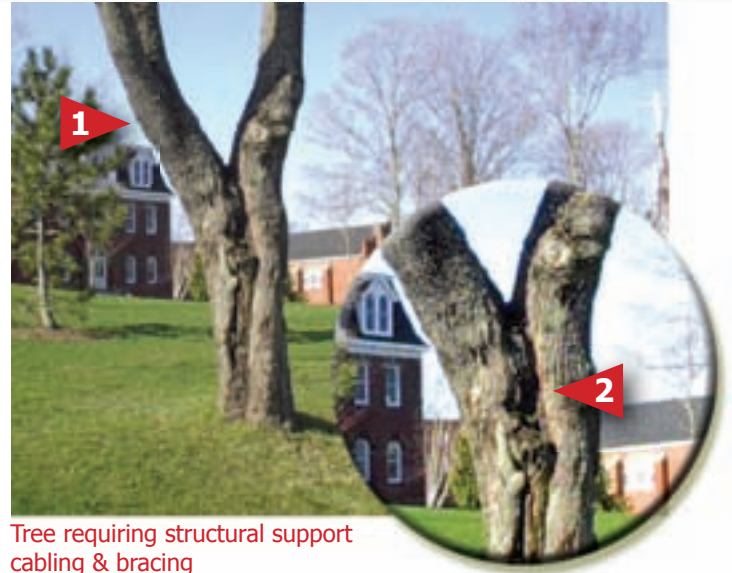
5.0 Recommendations

- All trees that have considerable or large sections of deadwood that have been identified as hazardous and pose potential liability problems for the university should be attended to immediately. There are also several trees requiring stake and guy wire adjustments to avoid girdling and chafing damage to the tree trunks. These trees have been noted in fax memos to staff. And a number of these recommendations have been acted upon.
- The grounds crew personnel from Facilities Management should reduce the excess mulch piled around the base of the young trees in the newer planted sections of the campus (Oland & Millennium Centres) to a minimum of two to three inches depth. This should be done immediately to prevent basal trunk rot and provide proper aeration to the flare roots of the trees.
- All vandalized and destroyed trees should be attended to and replacement trees planted back as soon as possible. As observed, the majority of vandalized trees are located around the south perimeter road behind the Millennium Centre

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Hazardous tree # 1065 with large deadwood limb requiring removal at Confusion Square



Tree requiring structural support cabling & bracing

1 - Tree support & bracing needed between branches to avoid trunk splitting
2 - Potential Fracture Area

- The grounds crew personnel from Facilities Management should reduce the excess mulch piled around the base of the young trees in the newer planted sections of the campus (Oland & Millennium Centres) to a minimum of two to three inches depth. This should be done immediately to prevent basal trunk rot and provide proper aeration to the flare roots of the trees.

- All vandalized and destroyed trees should be attended to and replacement trees planted back as soon as possible. As observed, the majority of vandalized trees are located around the south perimeter road behind the Millennium Centre.

List of Trees Needing Structural Support or Bracing

The following is a list of Trees requiring structural support of bracing as identified by their number in the St. FX Tree Inventory Database. The trees are grouped in numbers in lots of 100:

Trees 0 - 99 includes #'s:
12, 34, 36, 49, 50, 65, 66, 71, 72, 73

Trees 100 - 199 includes #'s:
103, 105

Trees 200 - 299: none

Trees 300 - 399 includes #'s:
388, 389, 390, 393

Trees 400 - 499 includes #'s:
403, 405

Trees 500 - 599: none

Trees 600 - 699 includes #'s:
636, 638, 639, 640, 641, 643, 644,
645, 646, 648, 649, 650, 651, 660,
661

Trees 700 - 799 includes #'s:
757, 764, 765, 794, 795

Trees 800 - 899: none

Trees 900 - 999 includes #'s:
942, 984, 99

Trees 1000 - 1099:
1017, 1029, 1030, 1047, 1054, 1058,
1063

Trees 1100 - 1199: 1103

Trees 1200 - 1230: none

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Linden on St. Nivians Street frontage requiring removal of basal suckers



Older section of Saint Francis Xavier University Campus by Xavier Hall

- A Tree under-planting program for the older sections of the campus at the north end should be instituted as soon as possible to ensure a continuing green canopy

- Approximately 65% of the campus trees are classified in the Class III category and require varying of levels of maintenance Staff should consider contracting out the more technical work to a commercial arboricultural firm. This includes structural pruning and support work such as cabling and bracing. This work generally requires trained climbing arborists or personnel operating aerial lift or bucket trucks. Specialized equipment such as chippers and stump grinders will also be needed.

- In view of the problems with monoculture (single species) plantings and the use of species that are not suitable for particular growing environments, the uni-

versity should consider separating the landscape contract from the general building contract to exercise greater control of the plantings around new buildings. In many cases, the general contractors do not award the landscape contract work to properly qualified sub-contractors and often the work is short to reduce cost over-runs.

Staff should have input into the landscape design process and the hiring of qualified contractors to carry out the landscape work to ensure it conforms to the long term Master Tree Plan and Strategy.

This problem is particularly evident in the new plantings around

the Somers and Power dormitory buildings where a large number of Sunburst Honey Locusts are partially dead and are failing. The failing trees should be transplanted elsewhere in more protected areas. The dorm area should be replanted with species more suitable to the site.

- Trees that occupy future building sites such as those that were moved in the spring of 2005 should be selected and catalogued for possible re-location at a later date. The year prior to tree transplanting, these trees should be root-pruned the season before moving for optimum results.

- The university president has

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indicated interest in the installation of larger and more mature trees from on-site and off-site locations. A list of possible large tree acqui-

sitions from various nurseries in Nova Scotia should be compiled. Future planting sites for trees that become available should be

designated and where possible, the trees should be prepared by root-pruning the season before transplanting.



Frontal area of Xavier Hall along St Nivian St.

- 1 • Large shrubs should be consolidated into beds for better effect and ease of maintenance



Natural tree stands along slope between Upper and Lower campus

- There are a number of locations where shrubs are sprinkled through the lawn areas
- Maintenance costs could be reduced and a better landscape effect could be achieved by consolidating these plants into beds



Slope below upper campus south of Oland Field



Natural tree stands along slope between Upper and Lower campus

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Linking trail between upper and Lower campus

- The natural stands of trees and shrubs along the slope between the upper and lower campus should be preserved and maintained as they stabilize the bank and provide a green buffer between campus areas

• Even though the campus at St. FX enjoys a very diverse population of trees on its campus, new plantings and under planting of trees should include more of the species that are flourishing and appear to be more suitable for campus growing conditions.

6.0 Conclusions

• The inventory and condition assessment carried out of 1244 trees on the Saint Francis Xavier University campus represents a diverse

population of some 121 different species. These trees are a valuable resource to the campus and are conservatively valued at 5.5 to 6 million dollars on a replacement value basis

• There is some remarkable diversity of hardy and border-line hardy tree species on campus. A number of trees that would not be normally hardy in the Antigonish area are thriving in several micro-climatic environment areas on campus.

These include a number of Zone 6 trees or higher that are growing extremely well in protected areas of the campus. In the Confusion Square area, there are tender species of Magnolias, Flowering Dogwoods, Flowering Cherries and Dawn Redwoods that provide unique displays in the spring and throughout the season.

- Previous grounds staff and those on staff currently responsible for the introduction of many of these unique plants should be complimented on their foresight and willingness to trial borderline hardy plants.

- To meet the requirements of achieving a high quality campus landscape environment, the entire green areas (shrubs, perennials, ground covers and turf areas) should be inventoried and assessed as to their condition in order to accomplish the goals desired.

A complete Green Area assessment combined with the Master Tree management Plan and Strategy will form a firm foundation for staff to manage its green resources effectively over the next twenty years.

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7.0 Appendices and Supporting Information

- Additional Pictures
- Abbreviations and Definitions
- Glossary of Scientific Terms
- Qualifications of Consulting Arborist

Additional Pictures



Donated Japanese Red Maple from Halifax transplanted to Confusion Square April, 2005

- This tree was relocated from a development site in Halifax in April of 2005. It now occupies a focal point in front of Alumni Hall in Confusion Square. Special after care over the next 2 years will be critical in then tree's long time survival.



Designated Norway Maple trees to be preserved at new dormitory site opposite Millennium Centre Spring 2005

- 1** - Trees located to Physical Science Centre Spring of 2005
- 2** - Building to be demolished and site leveled



Preserved Maple trees transplanted to Physical Science Centre Building Summer 2005



Transplanted Maples to north side of Oland Centre

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View of all 4 transplanted Maples at Oland Centre and Physical Science buildings

Abbreviations and Definitions

- **American Society of Consulting Arborists (ASCA):** The society was founded in 1967 and is a non-profit professional society, which represents a high level of accomplishment in the field of arboricultural, consulting. Its members are recognized for their demonstrated ability to provide diagnostic, appraisal, evaluation, expert witness and other arboricultural consulting services to their clients. ASCA members must meet certain education and experience requirements. To maintain their membership, members must adhere to a specific Standards of Professional Practice and comply with a mandatory continuing education program

to maintain a high level of knowledge and proficiency.

- **Consulting Arborist:** This term usually refers to Arborists who regularly carry out tree surveys, design tree preservation plans, make evaluations and appraisals for damaged or destroyed trees and vegetation. Consulting Arborists are often involved in tree and plant health care and diagnostic work. They are often called in to appear as expert witnesses in court for forensic testimony in arboricultural legal cases. In the United States and Canada, many Consulting Arborists are members of the American Society of Consulting Arborists where, through experience and accreditation, they

can become Registered Consulting Arborists.

- **ISA:** The International Society of Arboriculture is an international organization founded in 1924 to foster the dissemination of information and research for the science of Arboriculture. Its head office is in Savoy, Illinois in the USA. The association administers a program for certification of Arborists throughout the world and a research trust for the study of trees. Educational conferences and workshops are held throughout the US and Canada on an ongoing basis. An educational conference and annual general meeting is held annually in major cities throughout North America and occasionally in Europe and Great Britain.

- **ISA Certified Arborist:** An arborist who has successfully qualified through a combination of formal training, experience and completion of a technical exam as administered by the certification board of the ISA. All ISA Certified Arborists must participate in an ongoing continuing education program to maintain certification or rewrite an exam every three years.

- **MCIP:** Member of the Canadian Institute of Planners. The Canadian Institute of Planners (CIP) is the national organization representing professional planners across Canada. It consists of a number of



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component associations representing planners in various regions or provinces across Canada. Affiliated with the CIP are The Atlantic Planners Institute (API) the regional planner's association and the Nova Scotia Association of Professional Planners (NSAPP), the provincial group.

- ISA Classifications for Tree Conditions

Class I: 90 to 100%, excellent condition. Trees in this class are judged to be exceptional trees and possess the best qualities of the species. They have excellent form and require very minor maintenance and are generally growing in a location, which allows a full and mature shape.

Class II: 70-89%, good condition. Trees are judged to be in relatively good shape, which with proper maintenance can be brought into good condition in the future. They may be growing in interference with utility lines or overcrowded or may have insect problems or nutritional deficiencies.

Class III: 50 to 69%, fair condition. Most trees in this group have problems such as large dead limbs, considerable canopy degradation or with up to as much as half of the tree already dead, large cavities, some or drastic deformities, girdling roots, severe insect or

pathological problems.

Class IV: 1-49%, poor condition. Trees in this group are either dead, partially dead or in very poor condition with irreversible problems. Will require removal.

Glossary of Scientific Terms

- **Cabling or bracing:** metal cables or threaded rod used to support weak branching situations.

- **Co-dominant stems or branches:** Forked branches or stems of the same size

- **Crown:** The upper part of the tree that carries the main system of branches and the foliage.

- **Crown area:** The area covered by the vertical projection of a tree crown to a horizontal plane. Measurement is usually determined in the field from crown-diameter measurements or from aerial photographs by dot grids or digitizers.

- **DBH:** Stands for diameter at breast height. This is the standard method used by arborists and urban foresters to measure trees. This distance above ground is 4.5 feet or 1.4 meters.

- **Encroachment:** Intrusion, trespass, extending onto an adjacent section or property.

- **Girdling:** Bark of tree is growing around wire or metal band originally placed around tree trunk to support or secure tree. Usually occurs when wire supports are left on for several years.

- **Included bark or embedded wood:** Bark formed in a pronounced ridge at the junction of two or more trunks or stems in a tree, due to being pushed inwards rather than outwards. Included bark is an indication of potentially weak points of attachments between trunks or stems.

- **Suckering or suckers:** Are epicormic shoots and generally refer to vegetative growth that appears when a tree has been cut down to the ground level and usually appears from the base of the stump or severely pruned branch. They tend to be formed below from the roots below the ground or from the trunk part below the graft union.

- **Waterspouts:** Are another form of epicormic shoots that develop from a dormant or adventitious bud often in response to a pathogen, severe defoliation by an insect, or to the opening up of a stand of trees. They generally develop above ground on older wood or above the graft union of landscape trees.



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Qualifications of Consulting Arborist

Certification:

I certify that all the statements made in this report are true, complete and correct to the best of my knowledge and belief and are made in good faith.

I am a Registered Consulting Arborist (RCA #427) with the American Society of Consulting Arborists and an ISA Certified Arborist (AT-0106 International Society of Arboriculture)

MCIP, RCA # 427
Stan Kochanoff

About the Tree Assessment Leader

Stanley T. Kochanoff, MCIP, RCA #427 Project Manager and Registered Consulting ISA Certified Arborist MURP, BS, NPD, President and Principal Environova Planning Group Inc.

FORMAL EDUCATION

- Master of Urban and Rural Planning / Technical University of Nova Scotia (TUNS) Dalhousie University 1994
- B.S. Ornamental Horticulture & Landscape Design / Cornell Univer-

sity, Ithaca, New York 1966
• N.P.D Diploma Ornamental Horticulture / Niagara Parks Commission School of Horticulture, Niagara Falls, Ont. 1962

Background Experience and Areas of Expertise

Stan Kochanoff MCIP, RCA #427 is a practicing landscape architect, environmental planner, horticulturist and a Registered Consulting and Certified ISA Arborist. Mr. Kochanoff has over 32 years of experience working on a wide variety of planning and landscape design projects throughout Nova Scotia, New Brunswick, Prince Edward Island, and Quebec. He is also the first person in Atlantic Canada to qualify through The American Society of Consulting Arborists as a Registered Consulting Arborist and one of seven in Canada.

Mr. Kochanoff is the Project manager and lead tree and plant materials surveyor for the identification and condition assessment of all woody plant materials (trees and shrubs) located on the St. FX campus. He has a solid practical and educational background from the Niagara Parks Commission's highly respected School of Horticulture and Botanical Gardens. He also worked at the Cornell University Plantations as a student and has over 32 years experience of involvement in the Nova Scotia

landscape and ornamental plant industry.

Recent involvement in plant assessment work includes the Hurricane Juan Remediation and Mitigation Report for Street and Boulevard Trees in the HRM Urban Core Area and an assessment of the tree and plant material losses due to Hurricane Juan on the campus of Mount Saint Vincent University.

His associated firm, Maritime Landscape Services was responsible for the clean-up and arboricultural services at the MSUV campus and Motherhouse property. Other arboriculture related projects include the Trigen-NSP Tree Condition and Protection Assessment at University Avenue in Halifax for CBCL and Nova Scotia Power, The Fort Massey Cemetery Tree Condition Assessment in Halifax for Parks Canada The Town of Kentville's Inventory and Hazardous Tree Survey (Phase One Urban Forest Design and Management Plan) and the Patterson Hall Garden Relocation Study at Acadia University.

Along with his assessment work at St FX, he is currently involved with the preparation and monitoring of a Buffer Zone Management Plan for Clayton Developments Ltd for their Russell Lake West Development Project in Dartmouth, NS. He is also working with Defence Construction Canada and Maxim



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Construction Inc. on a mature tree relocation project at CFB Gagetown in Oromocto, New Brunswick.

Associations:

- Member, Canadian Institute of Planners (CIP) & Atlantic Planners Institute (API)
- Member and a director at-large Nova Scotia Professional Planners Association
- Member of International Society of Arboriculture (ISA)
- Member and vice-president ISA-Atlantic Chapter
- Member, American Society of Consulting Arborists (ASCA),

- Member, Recreation Nova Scotia (RNS)

- He is a member and past-president of Landscape Canada / Canadian Nursery Landscape Association (CNLA) and Landscape Nova Scotia (LNS).

- He is also a past-president of Landscape Atlantic (APNTA), the former landscape umbrella association for the Atlantic region and the Canadian Ornamental Plant Foundation (COPF)

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