

8TH REPORT OF THE
TREES AND FORESTS ADVISORY COMMITTEE

Meeting held on November 25, 2015, commencing at 12:15 PM, in Committee Room #4, Second Floor, London City Hall.

PRESENT: R. Mannella (Chair), A. Cantel, P. Ciufu, C. Haindl, J. Kogelheide, C. Linton and J. Martin (Secretary).

ABSENT: A. Adgria, I. Kalsi, Listar and G. Mitchell.

ALSO PRESENT: A. Beaton, R. Postma, S. Rowlands and B. Williamson.

I. CALL TO ORDER

1. Disclosures of Pecuniary Interest

That it BE NOTED that no pecuniary interests were disclosed.

II. ORGANIZATIONAL MATTERS

2. Advisory Committee Work Plan

That the Municipal Council resolution from its meeting held on June 10, 2015, with respect to an annual work plan for advisory committee's BE RECEIVED; it being noted that the Trees and Forests Advisory Committee formed a sub-committee to develop a list of initiatives for the work plan.

III. SCHEDULED ITEMS

None.

IV. CONSENT ITEMS

3. 6th and 7th Reports of Trees and Forests Advisory Committee

That it BE NOTED that the 6th and 7th Reports of the Trees and Forests Advisory Committee, from its meetings held on September 23, 2015, and October 28, 2015, respectively, were received.

4. Municipal Council resolution Re: 6th Report of the Trees and Forests Advisory Committee

That the Municipal Council resolution from its meeting held on October 13, 2015, with respect to the 6th Report of the Trees and Forests Advisory Committee, BE RECEIVED.

V. SUB-COMMITTEES & WORKING GROUPS

5. Allergens, Climate Change and Invasives Working Group

That it BE NOTED that there was not an Allergens, Climate Change and Invasives working group report.

VI. ITEMS FOR DISCUSSION

6. Past TFAC Summary Report – Proposed Recommendations

That Municipal Council BE REQUESTED to consider appointing a member of the Planning and Environment Committee to the Trees and Forests Advisory Committee (TFAC) as a non-voting resource member; it being noted that the attached presentation from A. Cantel with respect to the TFAC Summary Report was received; it being further noted that the TFAC is not endorsing any specific recommendations at this time, beyond amending its membership as noted above.

7. Park and Street Tree Watering

That it BE NOTED that the attached-presentation from A. Cantel with respect to park and street tree watering was received; it being noted that the Trees and Forests Advisory Committee is not endorsing any specific recommendations at this time.

8. Road Work in Rowntree Neighbourhood and Impact on Trees

That it BE NOTED that discussion related to road work in the Rowntree neighbourhood and impact on trees was deferred to the next meeting of the Trees and Forests Advisory Committee.

9. Tree Trimming Policy

That it BE NOTED that a verbal update from A. Beaton, Forestry Supervisor, with respect to tree trimming, was received.

10. Green Legacy

That it BE NOTED that discussion related to Green Legacy was deferred to the next meeting of the Trees and Forests Advisory Committee

11. Budget Process

That the Civic Administration BE REQUESTED to consider an extension to the deadline for Advisory Committee presentations and submissions with respect to the 2016-2019 multi-year budget process; it being noted that the Trees and Forests Advisory Committee received a presentation from D. Bordin, Manager, Finance, with respect to this matter.

VII. DEFERRED MATTERS/ADDITIONAL BUSINESS

12. Environmental and Ecological Planning Advisory Committee Representative

That it BE NOTED that the Trees and Forests Advisory Committee (TFAC) appointed P. Ciufo as the TFAC representative to the Environmental and Ecological Planning Advisory Committee Representative.

13. (ADDED) December Meeting

That it BE NOTED that the December meeting will be held on Tuesday, December 15, 2015.

VIII. ADJOURNMENT

The meeting adjourned at 2:45 PM.

NEXT MEETING DATE: December 15, 2015



Documents Worked On

Strategies & Official Plans

- Urban Forest Strategy (Jan. 2013 & June 2014)
- Planting Strategy (Jan. 2015)
- The London Plan (Sept. 2014)

Bylaws & Guidelines

- Tree Conservation Bylaw (Aug. 2013 & Jan. 2014)
- Boulevard Tree Protection Bylaw & Tree Valuation
- Tree Planting Guidelines
- Tree Protection Guidelines (Jan. 2015)

Urban Forest Strategy

- Main focus for TFAC
- Lots of consultation with public, stakeholder groups
- Draft provided to TFAC ~ Dec. 2012
- Comments compiled by Sara Rowland (Jan. 2013)
- TFAC recommended adoption of the UFS by Council
- UFS approved (Sept. 2, 2014)

Urban Forest Strategy

- Some key points of feedback from last TFAC:
 - City needs to have targets for **woodland cover** as well as **canopy cover**: UFS sets no targets for forests, just trees
 - **Invasive species** largely unaddressed
 - Supportive of “**green infrastructure**” direction
 - “**Right Tree Right Place**” good idea, but who decides what’s “right”? Needs more clarification

Urban Forest Strategy

- Some key points of feedback from last TFAC:
 - Exploration of **woodland purchases & mitigation banking**
 - **Emergency funding** be set aside (EAB, ALB)
 - **Modeling** needs to be used to assess canopy cover impacts of different possible approaches to reaching targets

Tree Conservation Bylaw

- Designed to protect trees in environmentally important areas on private land
- TFAC responded to initial round of comments from EEPAC
 - Support for penalties exceeding value of lumber
 - Need for enforcement
 - A lot of recommendations dealt with ecological concerns (e.g., snags, retaining trees for seed) or practicalities (e.g. use of trees for firewood, allowing selection of poor quality trees to improve stand quality, length of permit, etc.)

Boulevard Tree Protection Bylaw

- Put to City Council January, 2015
- Major Changes:
- **Expanded to include all City-owned trees**
- to require **fees to cover value of tree based on (trunk) size**, not the price of what it is replaced with
 - But would only apply to residents (or businesses) wanting to cut down City trees: not the City itself (specifically exempt)
 - Uses Council of Tree & Landscape Appraisers Guide for Plant Appraisals (9th ed.) + Ontario's supplementary booklet
- Added fees for planting trees on City land without permission
- Status: Sent back to staff for review

Tree Planting Strategy

- TFAC approached last winter about TPS
- TPS is an integral part of the Urban Forest Strategy, and will deal with **how the City can plant or support the planting of trees on public and private lands**
- Rick Postma proposed as a first step **prioritizing order of planting of City trees** to maximize benefit (e.g., plant largest species first)
- TFAC members surveyed to see what we thought was best; an alternative approach was recommended (assessing canopy impacts of different planting locations)
- Most recent update: draft needs to be more "strategic" / "out of the weeds"

Tree Planting Guidelines

- Updated every year (not always with TFAC input)
- Deal with **what can be planted** (species, size) and **how** (for City-owned trees)
- Substantial draft recommendations and proposed changes being worked on by the allergens, climate change, and invasives working group
- Initial draft has been prepared, but need to reconcile with newest version of the TPG and submit to TFAC for review

Miscellaneous Notes

- TFAC previously had a member who was a Councillor on PEC (Joni Baechler)
- Agenda setting always very ad hoc: perhaps we can be more proactive? (New work plans)
- Topical "training/overview" sessions
- Need system to track what recs & progress
- More monitoring on UFS progress needed; maybe status update as rolling agenda item
- Time goes by quickly!

Proposed Motions

- **Motion:** That a Council member who sits on the Planning and Environment Committee be appointed as a non-voting member of the Trees and Forests Advisory Committee



Caliper or "Balled & Burlapped" Trees



Park & Street Caliper Tree Planting in London

- Planted by contractor (annual bids)
 - ~\$225 - 250 / tree (vs. up to \$450 for residents)
- Warranty: 2 year
- Watering: The responsibility of the contractor awarded the **planting** contract

Park & Street Caliper Tree Watering

- No monitoring of watering by City staff (just warranty replacement checks)
- For contractor: replacing tree - less expensive than watering
- Result: trees in poor condition, esp. in parks (no homeowners)
- After replacement, still no watering, and 2 years of lost growth
- After 2 years: no tree?

White Oaks Park, Carling Heights

- **White Oaks Park:** ~90% mortality in stand of about 15 caliper trees planted by fence along Renny Cres.
- **Carling Heights:** ~50-60% mortality in row of about 10 caliper trees along McMahan Street



Street & Park Tree Planting in 2014

Type of Planting	# of Caliper Trees Planted	Cost (Est., based on \$250/plant)
Street Trees - Infill	2,305	\$576,250
Street & SWM Trees – New Subdivisions	1,680	\$420,000
Park & Commemorative Trees	650	\$162,500
TOTAL	4,635	\$1,158,750

Watering

- One City-owned truck goes around to do some watering in summer
 - Downtown trees?
- No private watering contracts
- Homeowners MAY water street trees (park trees probably out of luck)
- Climate change will exacerbate problem (2.7 °C commitment in Paris = ~ 5.5 °C increase in Canada)

Recommendations

That:

- 1) No caliper trees be planted unless they can be watered, either via written homeowner commitment or watering contract, at least 1x / week in May, June and September and 2x / week in July and August

Recommendations

- 2) Companies bidding for watering contracts must be different from those who give the warranty on newly planted caliper trees

Recommendations

- 3) The City investigate the possibility of using large potted stock in lieu of caliper trees in some situations (particularly parks), as these have intact roots and are much less expensive, which could help reduce the need for watering while helping to provide the funds to do so

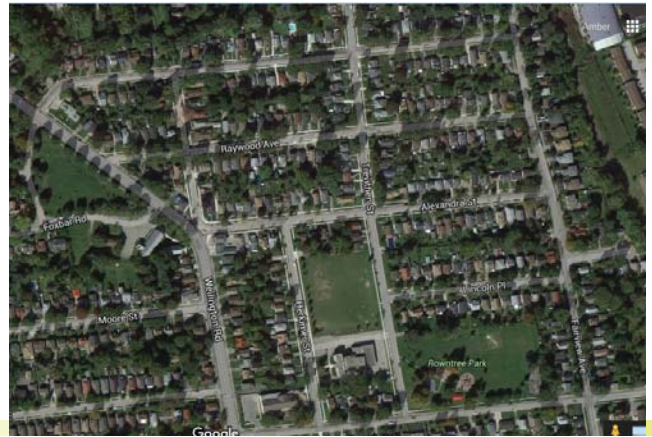


Overview

- TFAC: Provide advice to PEC on matters related to Urban Forestry
- Rowntree : Opportunity for better understanding of what's occurring from residents' perspective
- Feedback: Discuss at this meeting, submit draft for January

Case Study: Rowntree Neighbourhood

- Residential neighbourhood with several streets getting road work (and sewer line replacement) in 2014
- Substantial removal of street trees both before and after construction



Case Study: Rowntree Neighbourhood

- Assessment of tree condition by Dillon Consulting
- Letter sent to residents (17 trees to be removed for Weston/Fairview; 7 (?) for Alexandra/Beverley)
- Duration of roadwork: ~6 months (est.) on any given street
- Substantial excavation

Anger from residents

- One side of Fairview Ave. lost all 17 of its trees... despite the fact that all were still alive
 - Media coverage (LFP, McLeod Report)
- (Beverley St. just lost most of its trees as well post-construction)



<http://www.lfpress.com/2014/05/20/city-trees-face-the-axe>

Loss of all cover on one side of the street (Fairview)



<http://themcleodreport.ca/columns/1340-is-this-how-we-protect-our-trees.html>

Loss of all cover on both sides of street (Beverley)



Loss of all cover on both sides of street (Beverley)



Attempts to protect trees from grade changes



Privately Owned Sprinkler Systems, Landscaping or Fencing: If you have a sprinkler system, landscaping, or fence on the City Boulevard that conflicts with the construction project you will need to remove and re-install it, at your expense, onto your own property. The City will not accept any liability for damage to items on the City Boulevard (as per the City's S-1 By-Law). Please contact us to determine if this applies to you.

Garbage and Recycling Collection: If your pick-up point is temporarily blocked by construction the contractor will assist in collecting and transporting your garbage and recycling. Please clearly label your containers with your address.

Tree Removal: 17 trees have been identified for removal by the City's Urban Forester due to health or construction conflicts. Trees will be marked on-site in advance. After construction, the City Forester will review the tree inventory on your street and determine the number and species of trees to replant. New trees are typically planted the following year. The tree report can be found on the Renew London Road Report online at www.london.ca/construction. Type in the name of your street and click on the hyperlink to view a copy of the letter and tree report.

Nursery Sod: The contractor will water and maintain all new sod for 60 days following placement. During this maintenance period we encourage you to participate in the watering process as well. After the 60 days, all sod maintenance and watering becomes your responsibility as it was prior to construction. Watering restrictions do not apply to newly seeded or sodded areas.

Inventory of Trees – Fairview Avenue/Weston Street/Fairview Court, London, Ontario (cont'd)

	Common Name	Scientific Name	DBH ¹ (cm)	Location	Condition and Comments	Potential Impact	Mitigation Strategy
9	Norway Maple	<i>Acer platanoides</i>	(53)	118 Fairview Ave within boulevard	<ul style="list-style-type: none"> • Good condition 	Sanitary connection will occur in close proximity to trunk and roots	Directional drilling is recommended
5	Norway Maple	<i>Acer platanoides</i>	(39)	124 Fairview Ave within boulevard	<ul style="list-style-type: none"> • Poor condition • Severe rot in lower trunk • Lots of suckering • Girdling roots present • Recommend removal 	Sanitary connection will occur in close proximity to trunk and roots	Remove tree before construction starts
2	Norway Maple	<i>Acer platanoides</i>	(61)	110 Fairview Ave within boulevard	<ul style="list-style-type: none"> • Good to fair condition • Minor rot in scaffold branches 	Sanitary connection will occur in close proximity to trunk and roots	Directional drilling is recommended
3	Norway Maple	<i>Acer platanoides</i>	(50)	108 Fairview Ave within boulevard	<ul style="list-style-type: none"> • Good condition 	Sanitary and water connections will occur in close proximity to trunk and roots	Directional drilling is recommended
a	Spirea hedge	<i>Spiraea sps</i>	(-)	108 Fairview Ave within boulevard	<ul style="list-style-type: none"> • Good condition • Parallel to sidewalk • Hedge is 1.5 m high 	Removal of sidewalk may cause damage to roots	Avoid impacts if possible

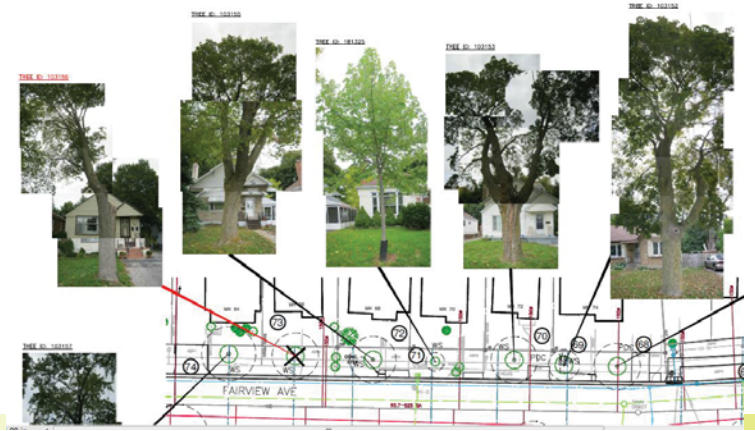
Defining Condition

Table 1: Inventory of Trees – Fairview Avenue/Weston Street/Fairview Court, London, Ontario (cont'd)

Fair Condition - The specimen tree shows moderate symptoms of decline in lower canopy of scaffold branches, but at least 75% of scaffold branches are present and viable. Trunk shows limited evidence of rot or insect damage. Callus growth is present near wound areas. Trees that have scaffold branches that are healthy but are in a "Y" formation are also included in this category due to the risk of splitting or breakage as the tree matures. Removal or preservation of these trees depends on each situation and would depend on the species and its tolerance to grading and surviving in an urban environment. Some major arboricultural maintenance would be required in the future and may include major scaffold or secondary branch removal, bracing and/cabling.

Good Condition - The specimen tree shows no symptoms of decline in trunk, and all scaffold branches are present and are in good condition. Most scaffold branches are at right angles to the trunk, and show good vigour. Small amounts of dead wood are present in secondary branches, but account for less than 10% of the canopy. Depending on the grading in the immediate area, a tree in good condition would be recommended for preservation. Such a tree would survive to maturity without major arboricultural maintenance.

Excellent Condition - The specimen tree shows no symptoms of decline in trunk, scaffold or secondary branches. Tree has excellent habit and should survive to maturity without major arboriculture maintenance.



During Constuction

Design Specifications & Requirements Manual:

- 12.1.3.3 (.....) "Roots that are exposed should be covered with **wet burlap** or soil as soon as possible and **watered regularly** to prevent them from drying out. Watering is required until such time as the topsoil and sod has been replaced satisfactorily or as otherwise directed by the City. "

12.1.3 Tree Protection Zones

12.1.3.1 Tree protection zones (TPZ) shall be established based on the criteria in Table 1;

12.1.3.2 Barriers will not be placed within the TPZ rather on the outside of the predetermined area.

Table 1 Tree Protection Zones:

Trunk Diameter (DBH)	Minimum Protection Distances Required City-owned Trees	Minimum Protection Distances Required For areas designated Open Space or Woodlands
	Whichever of the two is greater:	Whichever of the two is greater:
< 10cm	The drip line or 1.2 m	The drip line or 1.2 m
10-29 cm	The drip line or 1.8 m	The drip line or 3.6 m
30-40 cm	The drip line or 2.4 m	The drip line or 4.8 m
41-50 cm	The drip line or 3.0 m	The drip line or 6.0 m
51-60 cm	The drip line or 3.6 m	The drip line or 7.2 m
61-70 cm	The drip line or 4.2 m	The drip line or 8.4 m
71-80 cm	The drip line or 4.8 m	The drip line or 9.6 m



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Responsibility for enforcement?

- Presumably with the Construction Administrator (Dillon) who remains on site during the construction process
- Contractors may not be aware of extent of post-construction damage

Post-Construction

- Post-construction monitoring (Forestry Ops): find trees in poor condition
- **Most** of remaining large trees to end up being removed (17 in pre-construction for Fairview/Weston, and a further 18 post-construction in Fairview/Weston + Alexandra/Beverley likely to come down)
- **Also flagged as problems:**
 - Grade changes
 - Timing/length of construction steps that leave roots exposed (esp. curbs)

Post-Road Work Removals

- 50% canopy loss, hazard, or not structurally sound used as a guideline
 - But not formalized / publicly available as in letters
- No photos for trees removed post road-work
- No letters for trees removed post road-work (City staff spoke to adjacent residents, but does not create awareness of neighbourhood level effects): cutting comes as surprise to residents!

Notification Policy (Removals Outside of Construction Projects)

- Council directive for Operations is to notify homeowner and adjacent homes of removals.
- If a maintenance crew is onsite working no notification is required if criteria found for removal. (Do try to notify, but not required).

Post-Road Work Plantings

- Replacement trees are to be planted the following year
- Rowntree fully replanted last month by Kamarah
 - Some trees planted on "inside" side of sidewalk, allowing larger species to be used (new practice?)



Frequency of road construction

- How often does work like this happen?
- If Rowntree is typical (?), and almost all mature shade trees have to come down as a result of road work, **does road work put a max. life span on street trees?**
 - Impact on canopy cover goals?

Frequency of Road Construction (Construction Administration)

REPLACEMENTS:

- Roads typically last ~60 years (min. 50 years for new subdivisions, barring some minor road rehabs if needed)
- Underground work required ~100 years

Frequency of Road Construction (Construction Administration)

MAINTENANCE:

- **Mill & Pave:** lasts 3-5 years, does not involve underground or working around trees.
- **Mat Replacements:** every 15-20 years; underground pipes typically not included but impacts to trees are reviewed during design as sometimes street widths change or sidewalks modified added.
- **Curb & Gutters Replacements:** Impacts to trees always evaluated as machines need space to complete work.

Staff Notes

- Most construction completed with minimal impacts:
 - Grade changes and widening cause worst impacts
 - Rowntree a large project (pipes: 1920s, separating sewer & stormwater)
- Road narrowing in effect to reduce impacts
- Construction administration looking at reducing length of root exposure

Costs

- Loss of trees:
 - Reduced environmental services
 - Habitat loss
- Loss to community & residents:
 - Property values
 - Local character / aesthetics
 - Loss of cooling in summer
 - Health impacts (UV exposure, air quality)
- Loss to municipality:
 - Increased "grey" infrastructure costs
 - Reduced ability to meet canopy cover goals

Property Value & Trees

- Toronto: 9.5 – 18.5% increase in real estate value on treed streets (controlled for age and size of home)¹
- 7% increase (avg. across several studies)²

• Sources:

- 1) <http://www.chrischopik.com/urban-forest/2013/5/22/study-shows-tree-lined-streets-add-real-estate-value.html>
- 2) <http://www.naturewithin.info/Policy/Hedonics.pdf>

Property Value & Trees

- If we conservatively est.:
 - 5% value
 - Homes : \$200,000 each
 - ~ 100 homes on Beverley, Alexandra and Fairview
- = \$1,000,000 property loss for residents.**

.... Though having bad roads would be a loss too!
(But by how much is unknown)

Valuation of Trees Using "Guide for Plant Appraisal, 9th Edition"

- Proposed for use in the updated "**Boulevard Tree Protection Bylaw**"
- Using the "**Trunk Formula Method**" and the "Ontario Appraisal Booklet" (adjusted for inflation):
 - 20 cm Norway Maple, removed and replaced with 50 mm caliper
 - Loss of \$1,027 in value per tree
 - Cost of removing 35 trees is **\$35,945**
 - At \$250/tree, = **143 tree shortfall (based on trunk area) if replacing on a 1:1 basis**

Motion

- That a working group be formed to discuss issues around road construction and its impact on street trees, and that the working group provide a set of recommendations to TFAC for its January meeting



Green Legacy Programme

- Program fully funded by county (2004) to plant 150,000 trees to celebrate county's 150th
- Grows 161,000 seedlings and saplings a year for distribution, for free, to area residents (primarily rural)
- School children do majority of work: all elementary school grades participate in some stage



Green Legacy Programme

- Nursery manager passionate about sharing methods, information with other interested communities
- Province recently voted unanimously to take Wellington County's Green Legacy Programme province-wide by planting 150 million trees, beginning in 2017.
- RFL looking into what plans are for London: will keep TFAC updated



- Ask Rick:
 - Fwd Parsons e-mail
 - Fill out table

- ASK CANUFET: WHAT CITIES HAVE WATERING CONTRACTS
- (Surrey has 2 crews full time, half a million)

Motions

- That a working group be formed to review examples of past planting contracts, RFPs, caliper tree planting numbers and annual planting costs and submit recommendations to TFAC for its December meeting on how watering practices could be improved

Questions

- How is watering monitored / enforced? (If occurring at all)
- How are replacements requested? (Are all trees checked for condition at the end of the warranty period?)
- What proportion of trees that are assessed end up needing replaced? Have City staff also observed a discrepancy between street and park tree survival?



Park & Street Caliper Tree Watering

Nov. 25, 2015



Caliper or "Balled & Burlapped" Trees



Caliper trees have lost up to 2/3 of their roots, but still have all their leaves and branches to support

Park & Street Caliper Tree Planting in London

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