


To

Date


Monday October 29, 2012

3 pages from Mario Lanthier

SIDEWALKS AND TREES

 **Sidewalks and Trees**
How to repair and maintain the structural integrity of both

Thursday, October 27th, 2011
Rotary Centre for the Arts - 421 Cawston Ave, Kelowna
8:30 am to 3:30 pm (Registration begins at 8:15 am)



Morning indoor presentation will discuss:

- The "root" of the conflict between trees and sidewalks
- Principles and methods to reduce damage and costs
- Options to repair or minimize tree and sidewalk issues

Cost:
\$96.00 Member (ISA, BCLNA & DCSLA)
\$120.00 Non-member
\$48.00 Student

5 ISA C.E.U.s approved

Light buffet lunch will be provided

Afternoon outdoor field demonstration:

- Visit to a sidewalk repair site
- Dress appropriately

For registration visit the website:
<http://www.sidewalks.com/home.html>

Organised by CropHealth Advising & Research, www.crophealth.com
For more information, contact Jeanette Merrick at 250-717-1898 OR
jeanette@crophealth.com

This event was organized by our company for the Pacific NorthWest Chapter of the ISA (International Society of Arboriculture).

It was attended by 33 persons, either municipal employees of landscape architects.

The main speaker was Gordon Mann, a former community forest manager now working as a consultant. See the website

<http://www.mannandtrees.com/home.html>.

Mitigating conflict between sidewalk and tree roots

The scope of sidewalk and tree conflict is large. In California alone, the cost of repairing sidewalks damaged by trees is reported at \$70 million per year.

The 2 main causes of conflict between trees and sidewalk are:

- Trunk flare damage where the actual trunk of the tree is lifting the sidewalk.
- Root damage where a root emanating from the tree has caused sidewalk damage.

Solutions include:

- Root pruning and soil grading will avoid removing the tree but may lead to tree decline.
- Preserve the tree by relocating the sidewalk and minimizing root excavation or injury.
- Select a sidewalk material that require less excavation and retains more of the roots.
- Sidewalk materials being used include concrete, asphalt, tree grates, brick over sand, interlocking pavers, decomposed granite, rubber panels, plastic panels, poured in-place rubber, polymer bonded aggregate, root bridging, aggregate walkways and steel plates.

FIELD PICTURES # 1



The morning session was indoors with a picture presentation of the topic. The afternoon session was outdoors with a visit to near-by sites of interest.



Left: Damage by trunk flare occurs when there is lack of space to accommodate growth. An opening must be created to repair and retain the tree. Root pruning is not possible. Right: Shallow roots in contact with pavement are growing larger and causing damage. Repair will require root pruning and changing the sidewalk materials.



Left: The sidewalk was installed away from the tree. Right: Sidewalk built with decomposed granite walkway. Both pictures by the speaker.

FIELD PICTURES # 2



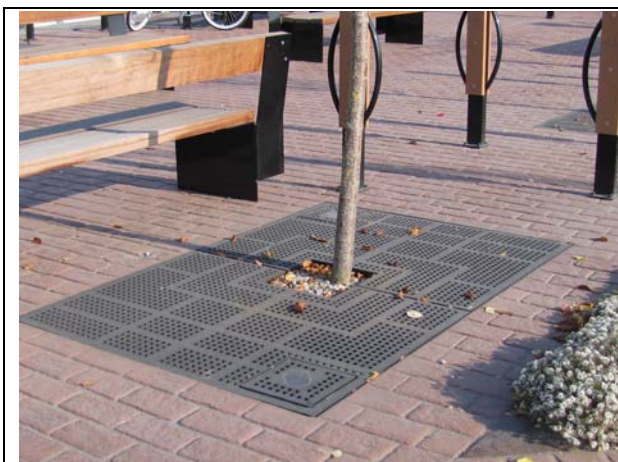
Left: Sidewalk repair where tree roots caused pavement lifting.

Right: To ensure tree survival, root pruning should be on roots smaller than 5-cm diameter and start 25 to 30-cm away from the trunk.



Left: An interim solution is to build a new sidewalk away from an existing tree.

Right: Another interim solution is to use rubber panels installed over the tree roots.



Above: Larger tree grates will move the concrete footing farther away from the tree.