## **Denise Holmes**

From: Restivo, David <drestivo@dillon.ca>

Sent: January-14-15 2:06 PM

To: dholmes@melancthontownship.ca

Cc: Rebecca Crump; 138287; Erick Matthiesen; Sean Robinson

Subject: DWP Arborist Reports

Attachments: William&Associates\_4thLine\_revised Oct 07 2014.pdf; William&Associates\_SR240\_Feb

19 2014.pdf; RayFlanagan\_T&VRoadEntrances\_Jan 23 2014.pdf; RayFlanagan\_ 3rdLine\_Mar 24 2014.pdf; DWP Municipal Tree Replacement Tally\_revised Jan 14

2015.xlsx

## Denise,

As requested, attached are the four Arborist Reports applicable to trees removed within the Township of Melancthon property to facilitate the construction of the Dufferin Wind Power Project. Based on these Arborist Reports, the total number of replacement trees is 1,319. The replacement tree total was derived as follows:

- William&Associates\_4thLine\_revised Oct 07 2014 33 replacement trees
- William&Associates\_SR240\_Feb 19 2014 1,196 replacement trees
- RayFlanagan\_T&VRoadEntrances\_Jan 23 2014 25.5 replacement trees
- RayFlanagan\_3rdLine\_Mar 24 2014 64.5 replacement trees

## Total = 1,319



## **David Restivo**

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> Website <u>www.forestar.ca</u> Email forstar@execulink.com

October 7, 2014

2239198 Ontario Inc. Attn: Glen Lundy 793202 Grey Road, Hwy 124 Creemore, ON L0M 1G0 Attn: Dufferin Wind

Re:

Trees that require removal on the east side of Concession 4 for a hydro-line installation just north of County Rd 21

Dear Mr. Lundy:

At your request, I met with you yesterday to inspect trees where the installation of a hydro line requires the removal of a row of sugar maple on the east side of Con 4. The design of the east/west line requires that it runs along the east side of Con 4 for a short stretch. Along this section the line installation is adjacent to a row of sugar maple trees growing along the road allowance on private property.

The trees appeared to be about 70 years old and, prior to construction, were in good condition considering their exposed situation and had relatively good structure and were the subject of a March 1 assessment that suggested that they could be trimmed and retained. However, the Electrical Safety Commission (ESC) had determined that these trees must be removed for safety reasons. Photo 1 (attached) shows these trees prior to construction. Some trees had to be removed for construction and Photo 2 shows the remaining trees post construction. Three trees had been removed for construction and their diameters were estimated based on examination of Photos 1 and 2, and the stumps and root balls remaining on site.

The number of replacement trees to compensate for the removal of these 9 trees was calculated based on Melancthon Town requirements. The Table below shows the number of trees that will be removed tallied by size class and species, and the required number of replacement trees. Nine trees will be removed during construction and that the replanting plan would include the planting of 33 replacement trees.

Please contact me if you have any questions about this report or if you require additional work.

Sincerely,

Peter A. Williams, M.Sc., RPF Consulting Forester/Arborist

Veter William



Table. Trees to be removed for installation and safety of overhead power lines on the east side of Con4, north of Dufferin 21.

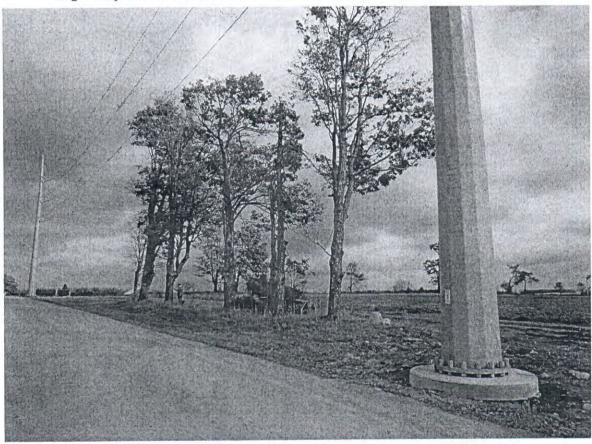
	# of trees to be removed in 4 classes				
Tree Species	50 to 100 mm	100 to 199 mm	200 to 399 mm	>400 mm	Species total
Maple, sugar			3	6	9
Removal subtotal Total trees to be removed	0	0	3	6	9
Replacement trees per removal	1.5	2	3	4	
Replacement trees/size class	0	0	9	24	
Total Replacement trees					33

Attachments

Photo 1 Sugar maple trees on east side of Con 4, north of County Rd 21 prior to construction.



Photo 2 Sugar maple trees on east side of Con 4, north of County Rd 21 after construction





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February 19, 2014

2239198 Ontario Inc. Attn: Glen Lundy 793202 Grey Road, Hwy 124 Creemore, ON L0M 1G0

Attn: Mortensen Construction Dufferin Wind

Re: Removal of Treeline on 240 Sideroad for Mortenson Construction for an underground wire trench for Dufferin Wind project

Dear Mr. Lundy:

At your request, I met with you yesterday to inspect trees at the location described above where the installation of a cable requires the removal of a hedgerow on municipal property at the eastern edge of the road allowance. The purpose was to tally the trees that were to be removed by size classes specified in the development agreement between the proponents and Melancthon Township, and to calculate the number of replacement trees that would be incorporated in a replanting plan at a later date. You showed me the specific areas where trees must be removed from the project.

The subject hedgerow was composed mostly of cedar and spruce that had been planted along the road allowance as a windbreak approximately 20 years ago (i.e., between 1990 and 1995). The density, size and species varied over the length of the hedgerow and there were two sugar maple that were older than the planted trees. There were other hardwoods (e.g., elm, apple and basswood) that had become established naturally. Some small poplar may have been planted.

I tallied the trees greater than 50 mm in diameter (5 cm or 2 inches diameter) and greater than 2.25 metres tall into the four diameter classes by species. I then totalled the number of trees in each size class; multiplied the number in each class by the replacement factors specified in the development agreement; and added those to estimate the number of replacement trees. The Table below shows the number of trees planned for removal in each size class tallied by species and the estimated number of replacement trees. It is my estimate that 685 trees will be removed during construction and that the replanting plan would include the planting of 1196 replacement trees.

It is my understanding that the final number of replacement trees depends on the number actually removed. If some of the tallied trees can be retained through construction, the number of required replacement trees will drop accordingly.

It is my understanding that this project will require construction monitoring and the development of a replanting plan. We would be very interested in helping you with these tasks as required. Please contact me if you have any questions about this report or if you require additional work.

Sincerely,

Peter A. Williams, M.Sc., RPF Consulting Forester/Arborist

Williams

1468 1468 PETER WILLIAMS AND THE STEP CONTESTER

Table. Trees to be removed for installation of underground wire for Dufferin Wind Project from roadside hedgerow on 240 Sideroad between the 8<sup>th</sup> and 9<sup>th</sup> Concession

# of trees to be removed in 4 classes

Tree Species	50 to 100 mm	100 to 199 mm	200 to 399 mm	>400 mm	Species total
Cedar	302	112	8		422
Spruce	105	106	28		239
Poplar	5	5	1		11
Apple	2	1			3
Basswood	4				4
Elm		1			1
Maple, sugar				2	2
Removal subtotal Total trees to be removed	418	225	37	2	682
Replacement trees per removal	1.5	2	3	4	
Replacemnt trees/size class	627	450	111	8	
Total Replacement trees					1196

Arborist Report	Location	Tree Size Categories	Number of Tree Removals	Number of Replacement Trees
RayFlanagan_3rdLine_Mar 24 2014.pdf	West of 3rd Line, South of CR-2	50 mm - 99 mm	17	25.5
RayFlanagan_3rdLine_Mar 24 2014.pdf	West of 3rd Line, South of CR-2	100 mm - 200 mm	15	30
RayFlanagan_3rdLine_Mar 24 2014.pdf	West of 3rd Line, South of CR-2	200 mm - 399 mm	3	9
RayFlanagan_3rdLine_Mar 24 2014.pdf	West of 3rd Line, South of CR-2	400 mm+	C	0
William&Associates_SR240_Feb 19 2014.pdf	Sideroad 240	50 mm - 99 mm	418	627
William&Associates_SR240_Feb 19 2014.pdf	Sideroad 240	100 mm - 200 mm	225	450
William&Associates_SR240_Feb 19 2014.pdf	Sideroad 240	200 mm - 399 mm	37	111
William&Associates_SR240_Feb 19 2014.pdf	Sideroad 240	400 mm+	2	8
RayFlanagan_T&VRoadEntrances_Jan 23 2014.pdf	5th Line, Sourth of CR-21 (T-Road Entrance)	50 mm - 99 mm	6	9
RayFlanagan_T&VRoadEntrances_Jan 23 2014.pdf	5th Line, Sourth of CR-21 (T-Road Entrance)	100 mm - 200 mm	5	10
RayFlanagan_T&VRoadEntrances_Jan 23 2014.pdf	5th Line, Sourth of CR-21 (T-Road Entrance)	200 mm - 399 mm	1	. 3
RayFlanagan_T&VRoadEntrances_Jan 23 2014.pdf	5th Line, Sourth of CR-21 (T-Road Entrance)	400 mm+	0	0
RayFlanagan_T&VRoadEntrances_Jan 23 2014.pdf	SR250, West of 5th Line (V-Road Entrance)	50 mm - 99 mm	1	1.5
RayFlanagan_T&VRoadEntrances_Jan 23 2014.pdf	SR250, West of 5th Line (V-Road Entrance)	100 mm - 200 mm	1	. 2
RayFlanagan_T&VRoadEntrances_Jan 23 2014.pdf	SR250, West of 5th Line (V-Road Entrance)	200 mm - 399 mm	0	0
RayFlanagan_T&VRoadEntrances_Jan 23 2014.pdf	SR250, West of 5th Line (V-Road Entrance)	400 mm+	0	0
William&Associates_4thLine_revised Oct -7 2014.pdf	4th Line, North of CR-21	50 mm - 99 mm	0	0
William&Associates_4thLine_revised Oct -7 2014.pdf	4th Line, North of CR-21	100 mm - 200 mm	0	0
William&Associates_4thLine_revised Oct -7 2014.pdf	4th Line, North of CR-21	200 mm - 399 mm	3	9
William&Associates_4thLine_revised Oct -7 2014.pdf	4th Line, North of CR-21	400 mm+	6	24
Total			740	1319