

November 11, 2020 [Revised, January 20, 2023]

ARBORIST REPORT

3171 Lakeshore Rd West (Cudmore's Nursery Site), Oakville, Ontario

MHBC File: 11161E

BACKGROUND

MHBC was retained to conduct a detailed tree assessment and arborist report for the existing trees within the boundaries of 3171 Lakeshore Rd West, in the Town of Oakville. Original field work was completed on April 20th, 2017 and follow up field reviews were completed in 2019, 2020 and 2022. A Tree Risk Assessment Survey was conducted by GreenPrint Consulting Arborists on April 11-13, 2022 with the final report being dated May 16th, 2022. This report shall be read in conjunction with this Tree Risk Assessment Survey.

PROCEDURE

The on-site inventory of existing trees was carried out using the current survey of the property and relies on the accuracy of this survey. The inventory includes all trees within the site boundary, all trees within 6.0 metres of the site boundary and all Town owned trees along the adjacent boulevards.

This inventory is summarized graphically in the Tree Inventory Plan TI-1, which shall form part of this report and shall always be read in conjunction with this report. For the purposes of this report, trees and groupings of trees are identified by both common and botanical name and are evaluated in terms of size and condition per Town of Oakville standards. Comments and recommendations are provided based on our observations.

The following codes were used in describing the ownership of the trees inventoried:

- P Privately owned tree on subject property
- N Neighbour (privately) owned tree
- SN Shared ownership with neighbour (private)
- M Municipal tree on boulevard
- M1 Municipal / Public tree in park, open space, or naturalized area
- SM Shared ownership with Municipality / Public Agency

The following rating system was used in describing the general condition of the trees inventoried:

- Good: Indicates a condition of vigor and no major concerns.
- Fair: Indicates an adequate tree, which may have some minor issues.
- Poor: Indicates declining health, bad form, or other more serious issues.
- Dead: Indicates a dead tree that should be removed.

ASSUMPTIONS AND LIMITING CONDITIONS

- Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible and is assumed to be correct; however MHBC can neither guarantee nor be responsible for the accuracy of information provided by others.
- It is assumed that the properties are not in violation of any applicable codes, ordinances, statutes, or other governmental regulations.
- Unless otherwise required by law, possession of this report or a copy thereof does not imply right of publication or use for any purpose in whole or in part by any other than the person or company by whom it was commissioned.
- The use of excerpts from this report or alterations to this report, without the authorization of MHBC Planning will invalidate the entire report. This report may not be used for any purpose other than its intended purpose as outlined.
- Unless expressed otherwise: 1) information contained in this report covers only those items that were examined and reflect the condition of those items at the time of inspection; and 2) the inspection is limited to visual examination or accessible items without dissection, excavation, probing, or coring. There is no warranty or guarantee, expressed or implied, that problems or deficiencies in the plants inventoried may not arise in the future.
- The determination of ownership of any subject tree(s) is the responsibility of the owner and any civil or common-law issues, which may exist between property owners with respect to trees, must be resolved by the owner. The recommendation to remove or maintain any tree(s) does not grant authority to encroach in any manner onto adjacent private properties.

SUMMARY OF TREES INVENTORIED

The following table summarizes our findings and comments. The trees shown with a tone are recommended for removal due to conflicts with the proposed development or due to condition.

Tree No.	Owner	Common Name	Botanical Name	DBH (CM)	Min. TPZ Radius (m)	Cond.	Structure	Canopy Diameter (m)	Comments	Recommendation
658	P	Austrian Pine	Pinus nigra	39	3	F/G	F	10		Remove
659	P	Col. Blue Spruce	Picea pungens	17	2.4	F/G	F/G	4	Competing for sunlight has led to crooked form.	Remove
660	P	Austrian Pine	Pinus nigra	38	3	F	F/G	7	Tree in decline.	Remove
661	P	Paper Birch	Betula papyrifera	49	3	F	F	14	Light amount of deadwood in canopy.	Remove
662	P	Black Walnut	Juglans nigra	53	3.6	F	F/G	14	Volunteer tree.	Remove
663	P	Black Walnut	Juglans nigra	68	4.2	F	F	15	Volunteer tree. Co-dominant stems.	Retain

664	P	Red oak	Quercus rubra	45	3	D	D	12	Heavy amounts of deadwood in canopy. Tree has been topped and is dead	Remove
665	P	White Ash	Fraxinus americana	31	3	F/P	F/G	10	Signs of EAB.	Remove
666	P	Littleleaf Linden	Tilia cordata	26	2.4	F/G	F/G	7		Remove
667	P	Chanticleer Pear	Pyrus calleryana	25	2.4	F/G	F/G	6		Remove
668	P	Sugar Maple	Acer saccharum	22	2.4	F/G	F/G	7		Remove
669	P	Norway Maple	Acer platanoides	57	3.6	F/P	F	15	Volunteer tree. Tree is in decline. Moderate to heavy amounts of deadwood in canopy. Root girdling evident	Remove
670	P	Norway Maple	Acer platanoides	21	2.4	F/G	F/G	7		Remove
671	P	Blue Ash	Fraxinus quadrangulata	42	3	F	F	14	Signs of EAB. Moderate deadwood in canopy.	Remove
672	P	Austrian Pine	Pinus nigra	42	3	F/G	F	11	Double leader.	Remove
673	P	Black Walnut	Juglans nigra	39	3	F	F	12	Volunteer tree. Exposed roots.	Remove
674	P	Red Oak	Quercus rubra	28	2.4	F/G	F/G	11		Remove
675	N	Norway Maple	Acer platanoides	41	3	F	F	14	Moderate to severe crown dieoff. Tree is in decline.	Retain
676	P	Norway Maple	Acer platanoides	44	3	F	F	16	Beginning signs of decline.	Retain
677	M	Norway Maple	Acer platanoides	75	4.8	F	F/P	18		Retain
678	M	Norway Maple	Acer platanoides	68	4.2	F	F/P	18	Moderate deadwood in canopy. Co-dominant leaders. Signs of internal rot.	Remove
679	M	White Spruce	Picea glauca	22	2.4	F	F/P	6	Tree has been topped in past.	Remove
680	M	White Spruce	Picea glauca	19	2.4	F	F	4		Retain
681	M	White Spruce	Picea glauca	26	2.4	F	F	5		Retain

682	M	White Spruce	<i>Picea glauca</i>	18	2.4	F	F	4	Past insect damage evident.	Retain
683	M	White Cedar	<i>Thuja occidentalis</i>	20	2.4	F	F	3	Trunk split; Healed over.	Retain
684	M	White Cedar	<i>Thuja occidentalis</i>	16	2.4	F	F	3	Trunk split; Healed over.	Retain
685	M	White Cedar	<i>Thuja occidentalis</i>	17	2.4	F	F/P	2	Trunk split; Healed over.	Remove
686	M	Scots Pine	<i>Pinus sylvestris</i>	28	2.4	F	F	6		Retain
687	M	Scots Pine	<i>Pinus sylvestris</i>	29	2.4	F	F	6		Retain
688	M	Silver Maple	<i>Acer saccharinum</i>	117	7.2	F	F/P	24	Moderate deadwood in canopy. Older growth tree. Evidence of branch breakage. Beginning stages of decline.	Retain
689	M	Sugar Maple	<i>Acer saccharum</i>	78	4.8	F	F	19	Shallow, girdled roots. Moderate deadwood in canopy. Water shoots present.	Retain
690	M	Norway Maple	<i>Acer platanoides</i>	32	3	F	F	14	Shallow exposed, girdled roots. Minor deadwood in canopy.	Remove
691	M	Norway Maple	<i>Acer platanoides</i>	63	4.2	F	F	18	Shallow exposed roots. Moderate deadwood in canopy. Showing girdling. Signs of crown dieoff. Tree is in decline.	Retain
692	M	Norway Maple	<i>Acer platanoides</i>	42	3	F	F	12		Retain
693	M	Norway Maple	<i>Acer platanoides</i>	52	3.6	F	F	18	Slight lean. Interfering with hydro lines. Moderate deadwood in canopy. Signs of crown dieoff. Beginning stages of decline.	Retain

694	M	White Oak	Quercus alba	16	2.4	F/G	F/G	8	Interfering with hydro lines.	Retain
695	M	Norway Maple	Acer platanoides	75	4.8	F	F	20	Shallow exposed, girdled roots. Minor deadwood in canopy.	Retain
696	M	Black Walnut	Juglans nigra	71	4.8	F	F/G	24		Retain
697	M	White Cedar	Thuja occidentalis	30	2.4	F	F/G	7		Retain
698	M	Black Walnut	Juglans nigra	67	4.2	F	F	20	Minor to moderate deadwood in canopy.	Retain
699	M	Silver Maple	Acer saccharinum	47	3	F/P	F/P	11	Tree is in decline. Evidence of rot in trunk. Moderate to heavy deadwood in canopy. Tree has been heavily pruned in past.	Retain
700	M	Manitoba Maple	Acer negundo	32	3	F/P	P	6	Moderate lean. Water shoots present.	Retain
906	P	Manitoba Maple	Acer negundo	23, 27, 62	4.2	p	P	22	Volunteer tree. 3 stems. 1 stem limb failure. Growing into fence.	Removed previously due to tree failure. Town issued permit
907	SN	Manitoba Maple	Acer negundo	37	3	P	P	14	Significant lean; 100% of canopy overhangs subject site.	Retain. Prune to remove lowest 20cm south secondary leader
908	SN	Manitoba Maple	Acer negundo	29	2.4	F	F	14	Slight lean to east; girdling root; included bark; minor deadwood; 95% of canopy overhangs subject site	Retain. Prune to remove lower over-extended limbs
909	P	Grey Birch	Betula populifolia	38	3	D	P	12	Tree 100% dead	Remove

910	N	Manitoba Maple	Acer negundo	30	2.4	P	P	12	Severe lean to west; poor form; two leaders removed in past	Retain. Prune to remove deadwood
911	SN	Manitoba Maple	Acer negundo	36	3	F	F	10	significant lean over subject site; co-dominant leader previously removed; 100% canopy overhangs subject site	Remove
912	P	Manitoba Maple	Acer negundo	25	2.4	P	P	8	75% of canopy overhangs subject site; decay in upper trunk;	Retain. Prune to remove deadwood
913	P	Manitoba Maple	Acer negundo	20	2.4	F	F	8	Severe lean over subject site, poor form and structure	Remove
914	P	Manitoba Maple	Acer negundo	15	2.4	F	P	5	co-dominant stem previously removed; moderate lean;	Retain
915	SN	Manitoba Maple	Acer negundo	16	2.4	P	P	4	decay at base; moderate lean.	Remove
916	SN	Manitoba Maple	Acer negundo	18, 20	2.4	P	P	10	included bark; advanced decay in leaders; stormbroken split in union; 2 stems fused at centre point	Remove
917	SN	Manitoba Maple	Acer negundo	26	2.4	F	P	8	slight lean to west; minor deadwood; 65% of canopy overhangs subject site	Retain. Prune to remove deadwood
918	SN	Manitoba Maple	Acer negundo	24	2.4	F	F/P	8	average vigour	Retain. Prune to elevate lowest 18cm north limb and elevate canopy over subject site

919	SN	Manitoba Maple	Acer negundo	30	2.4	F	F/P	10	girdled root; several significant bark scars in upper crown; 95% canopy overhangs subject site	Retain
920	SN	Manitoba Maple	Acer negundo	31	3	F	F/P	13	girdled root; slight lean to south; 60% canopy overhangs subject site	Retain
921	P	Manitoba Maple	Acer negundo	20	2.4	P	P	7	Poor vigour; large deadwood; moderate lean to south	Retain
922	SN	Manitoba Maple	Acer negundo	50	3	P	F/P	23	twisted trunk; included bark; stormbroken hangers in canopy; 50% canopy overhangs subject site	Retain. Prune to remove 15cm limb, head back canopy on south leader to reduce weight
923	P	Manitoba Maple	Acer negundo	35	3	P	F/P	24	poorly attached stem; decay in trunk; portion of stem 100% dead; 50% of canopy overhangs subject site	Retain. Prune to remove dead stem and lowest stem
924	P	Manitoba Maple	Acer negundo	28	2.4	F	P	8	Volunteer tree. Moderate to heavy lean.	Tree has been removed prior to construction
925	SN	Manitoba Maple	Acer negundo	29	2.4	P	P	9	poor vigour; significant lean; minor deadwood; 100% of canopy overhangs subject site	Retain. Prune to remove south leader
926	SN	Manitoba Maple	Acer negundo	40	3	F	P	12	Volunteer tree. minor deadwood; 10% of canopy overhangs subject site	Retain. Prune to remove deadwood over subject site
927	SN	Manitoba Maple	Acer negundo	30	2.4	P	P	12	poor vigour; significant lean; large deadwood; split in secondary union; decay at main union; 100% of canopy overhangs subject site	Remove

928	SN	Manitoba Maple	Acer negundo	39	3	P	P	14	poor vigour; storm broken leader; large deadwood; 100% of remaining canopy overhangs neighbors site	Remove
929	SN	Manitoba Maple	Acer negundo	27	2.4	P	F/P	8	advanced girdled root; decay in trunk; 50% of crown storm broken; 100% of canopy overhangs subject site	Remove
930	P	Manitoba Maple	Acer negundo	14, 22	2.4	F	F/P	7	minor deadwood; one stem previously removed; 95% of canopy overhangs neighbors site	Retain. Prune to remove deadwood over subject site
931	P	Manitoba Maple	Acer negundo	16	2.4	P	P	6	Poor vigour; significant lean; minor deadwood; 100% of canopy overhangs subject site, poor form and structure	Remove
932	P	Manitoba Maple	Acer negundo	27	2.4	P	P	9	Significant lean; no upward response growth; poorly attached union; 100% of canopy overhangs subject site	Remove
933	P	Manitoba Maple	Acer negundo	28	2.4	F	P	8	minor deadwood; 35% of canopy overhangs subject site	Retain. Prune to remove deadwood over subject site
934	P	Manitoba Maple	Acer negundo	36	3	F	F/P	12	minor deadwood	Retain. Prune to remove lowest 15cm limb and deadwood

935	SN	Manitoba Maple	Acer negundo	33	3	F	F/P	14	minor deadwood	Retain. Prune to remove deadwood
936	P	Manitoba Maple	Acer negundo	17	2.4	P	F/P	6	50% dead; 100% of canopy overhangs subject site	Remove
937	SN	Manitoba Maple	Acer negundo	30	2.4	P	F/P	12	minor decay at base; minor deadwood; 30% of canopy overhangs subject site	Retain. Prune to remove deadwood
938	P	Manitoba Maple	Acer negundo	40	3	F	F/P	22	minor included bark at main union; minor deadwood; 80% of canopy overhangs subject site	Retain. Prune to remove deadwood over subject site and 20cm south limb
939	P	Manitoba Maple	Acer negundo	22	2.4	F	P	9	Moderate lean; 100% of canopy overhangs subject site	Retain. Prune to remove deadwood over subject site
940	P	Manitoba Maple	Acer negundo	32	3	F	F/P	18	minor deadwood; 60% of canopy overhangs subject site	Retain. Prune to remove deadwood
941	P	Manitoba Maple	Acer negundo	17	2.4	P	F/P	5	Significant lean; basal decay at base; large deadwood; 90% of canopy overhangs subject site	Remove
942	P	Manitoba Maple	Acer negundo	30	2.4	F	F/P	16	Large deadwood; 10% canopy overhangs subject site	Retain. Prune to remove deadwood over subject site

943	P	Manitoba Maple	Acer negundo	15	2.4	F	P	3	Moderate to heavy deadwood in canopy.	Retain. Prune to remove deadwood over subject site
944	P	Manitoba Maple	Acer negundo	30	2.4	F	F/P	19	included bark at main union; minor deadwood; 80% of canopy overhangs subject site	Retain. Prune to remove deadwood over subject site
945	P	Manitoba Maple	Acer negundo	26	2.4	F	P	16	limited root flare; 10% of canopy overhangs subject site	Retain
946	P	Manitoba Maple	Acer negundo	20	2.4	F	P	14	minor deadwood; slight lean; limited root flare; 20% of canopy overhangs subject site	Retain
947	P	Manitoba Maple	Acer negundo	20	2.4	F	P	10	Slight lean; minor deadwood; no portion of canopy overhangs subject site	Retain
948	P	Manitoba Maple	Acer negundo	30	2.4	P	P	18	50% missing bark at main union with limited compartmentalization; heavy bark scarring; 90% of canopy overhangs subject site	Remove
949	P	Manitoba Maple	Acer negundo	37	3	P	P	20	large deadwood; 95% of canopy overhangs subject site	Retain. Prune to remove deadwood over subject site

950	P	Manitoba Maple	Acer negundo	35	3	P	P	22	Large deadwood, poorly attached union, fungus growing at base; 85% canopy overhangs subject site	Remove
951	P	Manitoba Maple	Acer negundo	23, 22	2.4	P	P	20	Large bark scars at base, in trunk/limbs; included bark; weak attachment; poor vigour	Remove
952	P	Manitoba Maple	Acer negundo	24	2.4	D	D	12	100% dead	Remove
953	P	Manitoba Maple	Acer negundo	30	2.4	P	P	22	Decay evident at base, growing on minor lean; 100% canopy overhangs subject site	Remove
954	SN	Manitoba Maple	Acer negundo	27, 38	3	P	P	25	Large cavity in SE leader; large sections of deadwood in upper crown; included bark	Remove
955	P	Austrian Pine	Pinus nigra	25	2.4	F	F/P	10	Moderate lean.	Remove
956	P	Austrian Pine	Pinus nigra	25	2.4	F	F	8		Remove
957	P	Colorado Spruce	Picea pungens	19	2.4	F/G	F/G	6		Remove
958	P	Scots Pine	Pinus sylvestris	21	2.4	F	F	8	Insect infestation.	Remove
959	P	Colorado Spruce	Picea pungens	17	2.4	F/G	F/G	5		Remove
960	M	Black Walnut	Juglans nigra	74	4.8	F	P	19	Cavity in trunk. Minor to moderate deadwood in canopy. Signs of rot extending through main trunk into upper canopy. Structural limb failure.	Retain

961	P	Black Walnut	Juglans nigra	66	4.2	F	F	24	Minor to moderate deadwood in canopy.	Retain
962	P	Black Walnut	Juglans nigra	69	4.2	F	F	24	Minor to moderate deadwood in canopy.	Retain
963	M	Silver Maple	Acer saccharinum	91	6	F/P	F/P	21	Tree is in decline. Moderate deadwood in canopy. Very heavily limbed over time.	Retain
964	M	Black Walnut	Juglans nigra	67	4.2	F	F	25	Minor to moderate deadwood in canopy.	Retain
O1	M	Norway Maple	Acer platanoides	60	3.6	F/G	F	12	Off property. Near 659.	Retain
O2	M	Black Walnut	Juglans nigra	70	4.2	F	F	25	Off property. Near 964. Minor deadwood in canopy.	Retain
O3	N	Paper Birch	Betula papyrifera	20	2.4	F/P	F/P	9	5-stem clump. Tree is in decline. 3/5 stems showing stress.	Retain
O4	N	Oak sp.	Quercus sp.	65	4.2	F	F	20	Moderate deadwood in canopy.	Retain
O5	M	Manitoba Maple	Acer negundo	30	2.4	F	F/P	15	Moderate deadwood in canopy.	Retain

TREE APPRAISAL

The following tree appraisal was conducted on all municipally owned trees surrounding the subject property.

Tree #	Botanical Name	DBH (cm)	Condition Rating	Species Rating	Location Rating	Replacement Tree Size (Trunk Area cm ²)	Replacement Tree Cost	Installation Cost	Installed Tree Cost	Unit Tree Cost	Appraised Trunk Area (cm ²)	Appraised Trunk Area Increase (cm ²)	Basic Tree Cost	Appraised Value
664	Quercus Rubra	45	0%	81	75%	78.54	\$325.00	487.5	812.5	6.51	1589.625	1511.085	\$10,649.66	\$0.00
677	Acer platanoides	75	70%	68%	75%	78.54	\$325.00	487.5	812.5	6.51	4415.625	4337.085	\$29,046.92	\$10,369.75

678	Acer platanoides	68	60%	68%	75%	78.54	\$325.00	487.5	812.5	6.51	3629.84	3551.3	\$24,442.76	\$7,479.48
679	Picea glauca	22	60%	72%	75%	78.54	\$300.00	450	750	6.51	379.94	301.4	\$3,223.41	\$1,044.38
680	Picea glauca	19	70%	72%	75%	78.54	\$300.00	450	750	6.51	283.385	204.845	\$2,594.84	\$980.85
681	Picea glauca	26	70%	72%	75%	78.54	\$300.00	450	750	6.51	530.66	452.12	\$4,204.60	\$1,589.34
682	Picea glauca	18	70%	72%	75%	78.54	\$300.00	450	750	6.51	254.34	175.8	\$2,405.75	\$909.37
683	Thuja occidentalis	20	70%	70%	75%	78.54	\$300.00	450	750	6.51	314	235.46	\$2,794.14	\$1,026.85
684	Thuja occidentalis	16	70%	70%	75%	78.54	\$300.00	450	750	6.51	200.96	122.42	\$2,058.25	\$756.41
685	Thuja occidentalis	17	60%	70%	75%	78.54	\$300.00	450	750	6.51	226.865	148.325	\$2,226.89	\$701.47
686	Pinus sylvestris	28	70%	53%	75%	78.54	\$300.00	450	750	6.51	615.44	536.9	\$4,756.51	\$1,323.50
687	Pinus sylvestris	29	70%	53%	75%	78.54	\$300.00	450	750	6.51	660.185	581.645	\$5,047.80	\$1,404.55
688	Acer saccharinum	117	70%	60%	75%	78.54	\$325.00	487.5	812.5	6.51	10745.865	10667.325	\$70,768.08	\$22,291.95
689	Acer saccharinum	78	70%	60%	75%	78.54	\$325.00	487.5	812.5	6.51	4775.94	4697.4	\$31,903.87	\$10,049.72
690	Acer platanoides	32	70%	68%	75%	78.54	\$325.00	487.5	812.5	6.51	803.84	725.3	\$6,045.50	\$2,158.24
691	Acer platanoides	63	70%	68%	75%	78.54	\$325.00	487.5	812.5	6.51	3115.665	3037.125	\$21,095.48	\$7,531.09
692	Acer platanoides	42	70%	68%	75%	78.54	\$325.00	487.5	812.5	6.51	1384.74	1306.2	\$9,827.16	\$3,508.30
693	Acer platanoides	52	70%	68%	75%	78.54	\$325.00	487.5	812.5	6.51	2122.64	2044.1	\$14,630.89	\$5,223.23
694	Quercus alba	16	80%	79%	75%	78.54	\$325.00	487.5	812.5	6.51	200.96	122.42	\$2,120.75	\$1,005.24
695	Acer platanoides	75	70%	68%	75%	78.54	\$325.00	487.5	812.5	6.51	4415.625	4337.085	\$29,558.22	\$10,552.28
696	Juglan nigra	71	70%	67%	75%	78.54	\$325.00	487.5	812.5	6.51	3957.185	3878.645	\$26,573.77	\$9,347.33
697	Thuja occidentalis	30	70%	70%	75%	78.54	\$300.00	450	750	6.51	706.5	627.96	\$5,349.32	\$1,965.87
698	Juglan nigra	67	70%	67%	75%	78.54	\$325.00	487.5	812.5	6.51	3523.865	3445.325	\$23,752.86	\$8,355.07
699	Acer saccharinum	47	50%	60%	75%	78.54	\$325.00	487.5	812.5	6.51	1734.065	1655.525	\$12,101.26	\$2,722.78
700	Acer negundo	32	50%	38%	75%	78.54	\$325.00	487.5	812.5	6.51	803.84	725.3	\$6,045.50	\$861.48
960	Juglan nigra	74	70%	67%	75%	78.54	\$325.00	487.5	812.5	6.51	4298.66	4220.12	\$28,796.78	\$10,129.27
961	Juglan nigra	66	80%	67%	75%	78.54	\$325.00	487.5	812.5	6.51	3419.46	3340.92	\$23,073.18	\$9,275.42
962	Juglan nigra	69	80%	67%	75%	78.54	\$325.00	487.5	812.5	6.51	3737.385	3658.845	\$25,142.88	\$10,107.44
963	Acer saccharinum	91	85%	60%	75%	78.54	\$325.00	487.5	812.5	6.51	6500.585	6422.045	\$43,131.31	\$16,497.73
964	Juglan nigra	67	80%	67%	75%	78.54	\$325.00	487.5	812.5	6.51	3523.865	3445.325	\$23,752.86	\$9,548.65
												Total to be Removed		\$11,383.58

PHOTO RECORD



Trees 658, 659, O1 looking South West.



Trees 907 through 911 looking West.



Trees 911 through 939, 955 through 959 looking North West.



Tree 660 looking North.



Trees 665 through 667 looking South.



Trees 950 through 959, 661 looking South West.



Trees 943 through 947 looking North East.



Trees 668 through 670 looking East.



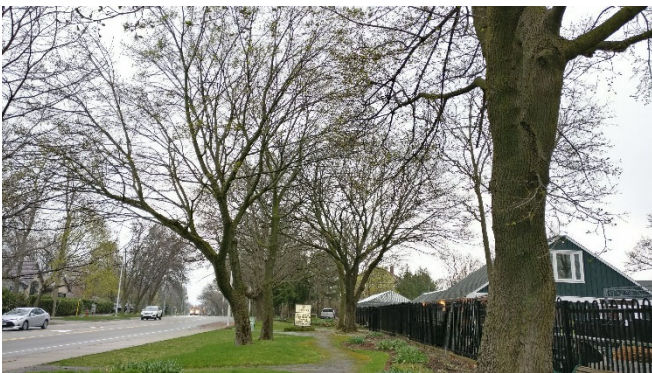
Trees 960 through 964, 697 through 700, 664 looking East.



Trees 949 through 954 looking South.



Trees 697 through 700, 960 through 964, 664 looking West.



Trees 695 through 690 looking South.

TREE PROTECTION MEASURES

The following tree protection measures shall be undertaken and are shown on the accompanying Tree Protection Plan 2/TI-2. All tree protection measures cited for retained trees must comply with the Town of Oakville EN-TRE-001 Tree Protection Policy and Tree Protection During Construction specifications noted under procedure number EN-TRE-001-001 (as updated from time to time). Any variation from the standard tree protection must be approved by Development Services, Urban Forestry Coordinator.

1.0 ESTABLISH A TREE PROTECTION ZONE

The purpose of the tree protection zone is to prevent root damage, soil compaction and soil contamination during construction activities. Workers and machinery shall not disturb the tree protection zone in any way. In order to prevent access, the following directives are offered.

- Install tree protection hoarding as per Town of Oakville detail 2/TI-2. Trees to be retained shall be protected with a tree protection barrier which shall consist of a 3/8" thick, 8'x4' (1.2m or 4 ft. high) plywood hoarding. Within a Town road allowance or when visibility is a consideration, the barrier shall consist of a 1.2 meter (4 ft.) high orange plastic snow fence on 2" x 4" frame.
- Attach a filter cloth 600mm high to the construction side of the hoarding to act as sediment control. Sediment control fencing per OPSD-219.110, and installed to the satisfaction of Urban Forestry.
- All supports and bracing used to safely secure the barrier should be located outside the Tree Protection Zone (TPZ). All supports and bracing should minimize damage to roots.
- The fence is to be installed along the edge of the tree protection zones. This hoarding is to remain in place and remain in good condition throughout the entire duration of the project. Dismantling the tree protection barrier prior to approval by the Town of Oakville, Urban Forestry staff may constitute a contravention to the Town of Oakville bylaw or permit issue.
- The applicant shall notify the Town of Oakville and the Consulting Arborist to confirm that the tree protection barriers are in place.
- A **TREE PROTECTION ZONE** sign must be mounted on one side of the tree protection barrier for the duration of site construction. The sign should be a minimum of 40cm x 60cm and made of white gator board or equivalent material. The sign must contain the same notes and be similar to the illustration shown below.

TREE PROTECTION ZONE (TPZ)

No grade change, storage of materials or equipment is permitted within this area. Tree protection barrier must not be removed without the written authorization of the Town of Oakville.

Report any contraventions to

Contact Name _____ **Tel. No.** _____

Unauthorized removal of the tree protection barrier or other contraventions may result in prosecution.

- Where some fill or excavated material must be temporarily located near a TPZ, a wooden barrier must be used to ensure no material enters the TPZ. Allow no fill, equipment, supplies, or waste within the tree protection zone.
- Remove any garbage and foreign debris from the tree protection zones.
- All contractors shall be informed of the tree preservation and protection measures at a pre-construction meeting.

2.0 ROOT PRUNING

Where possible, and in particular within the Tree Protection Zone for municipally owned trees along Lakeshore Road West, hand dig areas closest to each tree to prevent any unnecessary tearing or pulling of roots. Removal of roots that are greater than 2.5 centimeters in diameter or roots that are injured or diseased should be performed as follows:

- Preserve the root bark ridge (similar in structure to the branch bark ridge). Directional Root Pruning (DRP) is the recommended technique and should be employed during hand excavation around tree roots. Roots are similar to branches in their response to pruning practices. With DRP, objectionable and severely injured roots are properly cut to a lateral root that is growing downward or in a favorable direction.
- All roots needing to be pruned or removed shall be cut cleanly with sharp hand tools, by a Certified Arborist.
- No wound dressings or pruning paint shall be used to cover the ends of each cut.
- All roots requiring pruning shall be cut using any of the following tools:
Large or small loppers, Hand pruners, Small hand saws, Wound scribes
- Avoid prolonged exposure of tree roots during construction - keep exposed roots moist and dampened with mulching materials, irrigation or wrap in burlap if exposed for longer than 4 hours.

3.0 FERTILIZATION AND IRRIGATION

The following measures are recommended:

- Aeration and deep root fertilize to ensure that all trees receive the appropriate nutrients for healthy growth.
- Fertilizer must be a low nitrogen formula such as 5-30-30 to promote root growth rather than shoot growth.
- If construction occurs during July and / or August, roots must be irrigated during conditions of drought.

4.0 ESTABLISH MAINTENANCE PROGRAM

Pre-Construction:

- Prune all trees to remove any deadwood and obstruction prune as required.

During Construction:

- All areas within the protective hoarding shall remain undisturbed for the duration of construction. There will be no grade changes, dumping, and storage of any materials, structures or equipment within these areas. The tree protection barrier must not be removed without written authorization of the Town of Oakville.
- Minor grading works will be permitted at the edge of the preservation zone as required to correct localized depressions adjacent to the new development, and for hand-digging of swales for minor

grading through TPZ's of trees as shown on the approved Tree Protection Plan. This work to be undertaken under the direct supervision of a Certified Arborist.

- All underground services and utilities should be routed around tree protection zones (TPZ's). If this is not possible, they should utilize directional underground boring / tunneling under the root zones of trees (minimum 1.6m depth). All service and utility connections and disconnections / decommissioning must be made outside of the TPZ's of trees to prevent significant root damage from occurring.
- A qualified Arborist will undertake proper root pruning in accordance with acceptable arboriculture practices when and if roots of retained trees are to be exposed, damaged, or severed by construction work. The exposed roots will be backfilled with appropriate material as soon as possible to prevent desiccation. Root pruning prior to excavation will help prevent unnecessary damage to tree roots. The use of low-water pressure Hydrovac technology or careful hand digging to expose roots is recommended.
- The Town of Oakville and the designated on-site Certified Arborist must be notified for all work that impacts the tree preservation zones or for temporary removal of a section of hoarding to gain access for fine grading or other works. All works to be supervised by the Town of Oakville and/or on-site Certified Arborist.
- No cables, wire or ropes of any kind shall be wrapped around or installed in trees to be preserved.
- No contaminants will be dumped or flushed in the TPZ areas or where feeder roots of trees exist (generally beyond the TPZ areas).
- Inspect the site daily to ensure hoarding is in place and in good condition. Inspect trees to monitor condition.

Post Construction:

- Following the completion of all site works, and after review by a Certified Arborist and approval by the Town of Oakville Urban Forestry staff, the protective hoarding may be removed.
- After removal of the protective hoarding, the tree protection areas shall be inspected by a Certified Arborist and Town of Oakville Urban Forestry staff. Any remaining dead, diseased, or hazardous limbs or trees are to be removed by a qualified tree care professional as directed by a Certified Arborist.
- Inspect trees two times per year, May and September to monitor condition for a minimum of two years.

5.0 LANDSCAPING

Any landscaping completed within the tree preservation zones, after construction is completed and tree protection fencing / hoarding has been removed, is to be carried out in such a way that it will not cause damage to any of the trees or their roots. The trees must be protected to the same standards listed earlier in this report, but without the use of tree protection fence or hoarding.

The following guidelines are recommended:

- **No grade changes** are permitted which include adding and/or removing soil.
- **No excavation** is permitted that can cause damage to the roots of the tree.
- **No heavy equipment** can be used to compact the soil within the tree protection zone.

- Where possible, hard surface paving around trees to be protected should be constructed using permeable products such as interlocking stone. Areas to be paved must be hand dug when encroaching within the tree protection zone.

CONCLUSIONS

Based on our detailed review of the existing trees on the subject site and our evaluation of same with respect to the lotting pattern for the proposed development, we offer several observations and conclusions, with notable trees and groupings being referenced.

With respect to this proposal, trees that come into conflict with the proposed development are recommended for removal. This includes tree numbers 658-662, 665-674, 678-679, 685, 690, 911, 913, 929, and 955-959. In addition, there are a number of trees that are recommended for removal due to their current state of health. These are 664, 909, 915-916, 927-928, 931-932, 936, 941, 948, and 950-954. Trees 906 and 924 were previously removed prior to construction and had received permit for their removal. For ease of reference, these are identified with a dark grey tone on the corresponding identification keys and on the Tree Inventory List on drawings TI-1 and TI-2.

All other trees noted are to be retained. In retaining these trees, a number of methods are recommended in order to minimize damage to roots, particularly when working near or within the prescribed Tree Protection Zones. Considerations should include: hand digging or the use of low pressure hydrovac / air spade to minimize root damage; the use of structural soil and granite based HPB type granular to reduce compaction; and the use of alternative materials such as larger permeable pavers which will minimize point loads and disperse weight over a larger area. Per the request of Town staff, Airvac technology should be used to excavate the post holes for the fencing along lots 1-8 under the supervision of a licensed arborist. A design to address each of the trees specifically will need to be developed during the detailed design phase.

It is our opinion that the trees identified for retention can be successfully retained if the recommendations contained herein are followed. The trees along the Lakeshore Road West boulevard will require site specific details and recommendations for their protection. As requested by the Town of Oakville, root exploration will be required (through low pressure hydrovac or air spade method), after which site specific recommendations can be made for these trees.

Kindly direct any questions regarding this report to the undersigned.

Respectfully submitted,

MHBC Planning, Urban Design & Landscape Architecture



Nick A. Miele BLA, OALA, CSLA, ISA
Partner
ISA Certified Arborist No. ON-1251A

**BLOCK 2
CONDOMINIUM TOWNHOUSES
& SEMI-DETACHED DWELLINGS
32 units**

**BLOCK 1
TOWNHOUSES
3 units**

AREA OF VICTORIA STREET
CUL-DE-SAC
(NOT INCLUDED IN SITE
AREA)



General Note:
Prior to the commencement of any site activity the tree protection barriers specified on this plan must be installed and written notice provided to Urban Forestry. The tree protection barriers must remain in effective condition until all site activities including landscaping are complete. Where required, signs as specified in the Arborist Report "Tree Protection Zone" must be attached to all sides of the barrier. Written notice must be provided to Urban Forestry prior to the removal of the tree protection barriers.

ARBOREAL WORK:
Any roots or branches which extend beyond TPZ indicated on this plan which require pruning, must be pruned by a qualified Arborist or other tree professional as approved by Urban Forestry. All pruning of tree roots and branches must be in accordance with good arboricultural standards. Roots located outside the TPZ that have received approval from Urban Forestry to be pruned must first be exposed by hand digging or by using a low pressure hydro vac method. This will allow a proper pruning cut and minimize rearing of the roots. The Arborist/tree professional retained to carry out crown or root pruning must contact Urban Forestry no less than 48 hours prior to conducting any specified work.

THE TREE PROTECTION ZONE:
The following chart is showing minimum required distances for determining a Tree Protection Zone (TPZ) for City-owned trees located on a City Street, in parks and trees on private property subject to either the Ravine and Natural Feature Protection By-law or the Private Tree By-law. Some trees and some site conditions may require a larger TPZ.

Table 1 - Tree Protection Zones:

Trunk Diameter DBH*	Minimum Protection Distances Required**	
	City-owned and Private Trees	Trees in Areas Protected by the Ravine and Natural Feature Protection By-law Whichever of the two is greater:
<10cm	1.8m	The drip line***or 1.2m
10-30cm	2.4m	The drip line or 3.6m
31-50cm	3.0m	The drip line or 4.8m
51-60cm	3.6m	The drip line or 6.0m
61-70cm	4.2m	The drip line or 8.4m
71-80cm	4.8m	The drip line or 9.6m
81-90cm	5.4m	The drip line or 10.8m
91-100cm	6.0m	The drip line or 12.0m

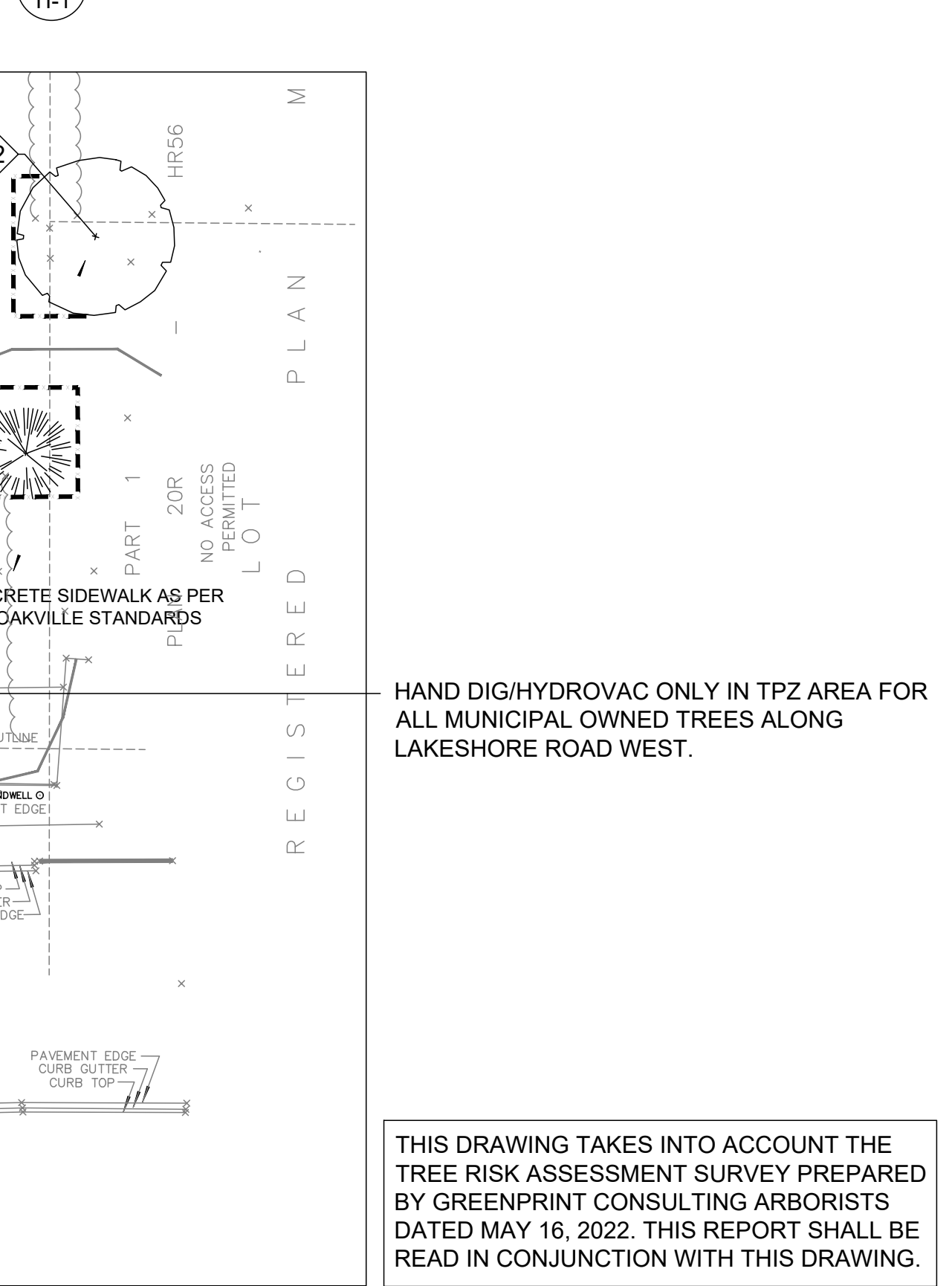
- For trees over 100 cm. DBH, add 10cm. to the TPZ for every one centimeter of DBH.
- Roots can extend from the trunk to 2-3 times the distance of the drip line (See Detail 3, TP-2)
- Diameter at breast height (DBH) measurement of tree trunk taken at 1.37 metres above ground.
- Tree Protection Zone distances are to be measured from the outside edge of the tree base towards the drip line and may be limited by an existing paved surface, provided the existing paved surface remains intact throughout the construction work.

- *Diameter at breast height (DBH) measurement of tree trunk taken at 1.4 metres above the ground.**
**** Tree Protection Zone distances are to be measured from the outside edge of the tree base.**
***** Diameter (30cm) at which the trees qualify for protection under the private tree by-law.**
****** The drip line is defined as the area beneath the outer most branch tips of the tree.**
******* Converted from ISA Arborists' Certification Study Guide, general guideline for tree protection barriers of 1 foot of diameter from the stem for each inch of stem diameter.**

- Within a TPZ there must be:**
- no construction;
 - no altering of grade by adding fill, excavating, trenching, scraping, dumping or disturbance of any kind;
 - no storage of construction materials, equipment, soil, construction waste or debris;
 - no disposal of any liquids e.g. concrete slush, gas, oil, paint;
 - no movement of vehicles, equipment, or pedestrians;
 - no parking of vehicles or machinery;
 - directional micro-tunneling and boring may be permitted with the limits of a TPZ subject to approval by Urban Forestry;
 - open face cuts outside a TPZ that are consistent with an approved plan and that require root pruning, require the services of a qualified arborist or approved tree professional. An exploratory dig, either by hand or using low water pressure hydro vac method, must be completed prior to commencing with open face cuts outside the TPZ.

The above mentioned requirements are for area(s) designated as a TPZ. These requirements should also be implemented outside the TPZ in areas where tree roots are located. The roots of a tree can extend from the trunk to approximately 2-3 times the distance of the dripline.

Tree Protection Specifications



HAND DIG/HYDROVAC ONLY IN TPZ AREA FOR ALL MUNICIPAL OWNED TREES ALONG LAKESHORE ROAD WEST.

THIS DRAWING TAKES INTO ACCOUNT THE TREE RISK ASSESSMENT SURVEY PREPARED BY GREENPRINT CONSULTING ARBORISTS DATED MAY 16, 2022. THIS REPORT SHALL BE READ IN CONJUNCTION WITH THIS DRAWING.

LEGEND

- CONIFEROUS TREE - TO BE RETAINED
- DECIDUOUS TREE - TO BE RETAINED
- CONIFEROUS TREE - TO BE REMOVED
- DECIDUOUS TREE - TO BE REMOVED
- TREE IDENTIFICATION KEY TREE TO BE RETAINED
- TREE IDENTIFICATION KEY TREE TO BE REMOVED
- TREE IDENTIFICATION KEY TREE REMOVED PRIOR TO CONSTRUCTION
- TREE PROTECTION ZONE PER TOWN OF OAKVILLE STANDARDS.

- General Notes**
- Do not scale the drawings. All dimensions are in millimetres unless noted otherwise.
 - This drawing is to be read in conjunction with the site plan and architectural drawings prepared by the Architect, and engineering drawings prepared by the Civil, Mechanical, and Electrical Engineers.
 - The tree inventory includes assessment of all on site trees. The trees have been assessed based on species, size and condition.
 - The contractor is to have required Municipality Tree Removal Permits in hand prior to the removal of any trees.
 - The contractor shall check and verify all existing and proposed grading and conditions on the project and immediately report any discrepancies to the consultant before proceeding with any removals.
 - The contractor is to be aware of all existing and proposed services and utilities. The contractor is responsible for having all underground services and utility lines staked by each agency having jurisdiction prior to commencing work.
 - This drawing is to be used for development approval only.
 - Do not leave any holes open overnight.
 - Keep area outside construction zone clean and useable by others at all times. Contractor shall thoroughly clean areas surrounding the construction zone at the end of each work day.
 - Contractor to make good any and all damages outside of the development area that may occur as a result of tree removals at no extra cost.
 - This drawing is Copyright MHBC, 2020.

Revision No.	Date	Issued / Revision	By
5	JANUARY 20, 2023	ISSUED FOR SPA	CC
4	OCTOBER 14, 2022	ISSUED FOR SPA	CC
3	NOVEMBER 11, 2020	ISSUED FOR REVIEW	CC
2	AUGUST 19, 2019	ISSUED FOR SPA	CC

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Stamp

ASSOCIATION OF LANDSCAPE ARCHITECTS
 ONTARIO
 ISSUED FOR SPA ONLY NOT FOR CONSTRUCTION

Date: JAN 2023
 Drawn By: DC
 Plan Scale: 1:300
 File No.: 11161E
 Checked By: NM
 Other:

Project

3171 Lakeshore Rd W
 OAKVILLE, ONTARIO

File Name

TREE INVENTORY, PRESERVATION AND REMOVALS PLAN

Dwg No.

TI-1

