TREE ASSESSMENT REPORT

42 MILL STREET, GEORGETOWN HALTON HILLS, ON

Prepared

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Prepared by

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INTRODUCTION

On October 7th, 2016, RKLA Inc. undertook an assessment of the existing trees on the above noted project site with respect to tree health and preservation. Assessment of all the existing trees was undertaken with consideration of the construction of a new multi-unit residence building and associated parking requirements.

Existing trees on the site and within 3 meters of the property boundary were identified and assessed. Prominent species on the site include Black Walnut, Manitoba Maple, and Norway Maple. Three trees along the City ROW along Dayfoot Drive were included in the inventory.

ASSIGNMENT

Our firm was instructed to undertake an assessment of the existing trees located within and along the perimeter of the new building site to help establish a preservation strategy and a removals plan for the existing trees.

The report outlines specific trees within the subject site and 3 meters beyond the boundary. The report outlines specific trees to preserve; trees to remove; and recommendations for pre-, during, and post-construction.

TREE PRESERVATION/REMOVAL ANALYSIS

Trees to be retained and trees to be removed were assessed using the standard ISA evaluation criteria based upon tree vigour data, a detailed site-examination, and a review of the requirements for the installation of a new residential building and the associated parking. The site plan was prepared and supplied by Holabird & Root. Topographic information was supplied by Fiddes Clipsham Inc. Consulting Engineering Land Surveying. Trees were assessed in the field by RKLA Inc. See Drawing T-1 (appendix C) for tree locations and reference numbers.

The proposed development and its required grading will impact the existing trees with respect to root and canopy zones. Tree Preservation measures will be implemented to minimize damage to trees that are being retained beyond the property boundary.

No construction, stockpiling, or heavy equipment will be permitted beyond the tree preservation barrier (refer to T-1). Trees in poor condition that are to be removed should be felled carefully to minimize the impact to trees to be preserved (refer to pre-construction recommendations). The trees that are to be removed have been indicated by the appropriate symbol (refer to T-1).

Potential impacts on trees to be preserved may include:

- 1. Physical damage to branches, trunks, and roots of trees to be retained.
- 2. Local moisture loss which may result from a decline in the water table during and after construction.
- 3. Contamination of the soil from chemicals.
- 4. Increased sun/wind exposure which could result in scald or windthrow.

5. Placement of fill material on root zones resulting in stress and damage to the root structure.

The successful; survival of the trees to be preserved is largely dependent on adhering to the recommendations that follow.

RECOMMENDATIONS

These recommendations are designed to enhance the survival of trees to be preserved. While it is always desirable to retain as many trees as possible on a site, some trees, because they are in poor condition or are undesirable species, cannot be saved for safety, aesthetic, or sylvicultural reasons.

There is no guarantee, however, that the trees to be preserved will not be impacted by the construction process. The following recommendations are supplied to ensure minimal impact on and to enhance the survival potential of the trees to be preserved:

A) PRE-CONSTRUCTION RECOMMENDATIONS

- 1. Prior to tree removal operations, the limit of the removals will be clearly marked (i.e. all trees designated for removal are to be marked with spray paint).
- 2. Trees on site to be removed for sylvicultural, safety, or aesthetic reasons should be marked for removal (e.g. spray paint). All removals should be encouraged to take place between October and April. All cutting will be done by chainsaw. These trees to be identified by the project Landscape Architect working in conjunction with a qualified arborist.
- 3. Undertake a tree education program for all contractors and put in place enforceable penalties for any damage resulting from neglect.
- 4. Care should be taken during the felling operation to avoid damaging the branches, stems, trunks, and roots of the trees to be preserved. Where possible, all trees are to be felled towards the construction zone to minimize impacts on adjacent vegetation.
- 5. Stem damage to trees from skidding operations during the removal process should be avoided. Trunks of trees to be preserved near the construction zone should be wrapped with three layers of snow fencing to provide protection.
- 6. Heavy equipment should not be allowed under the drip line (limit of branches) of the trees to be preserved.
- 7. Broken branches on trees to be preserved should be cleanly cut by a qualified arborist/horticulturalist as soon as possible after the damage has occurred. Do not apply wound dressings to the cut areas.
- 8. Final site grading should ensure that surface water is discharged from the site and that the existing soil moisture conditions are maintained.
- 9. Some trees may be candidates for pre-construction root pruning to help reduce stress and prepare the tree for nearby construction activity.

B) RECOMMENDATIONS RELATED TO THE CONSTRUCTION PROCESS

- 1. Heavy duty protection fencing (see appendix B) is to be maintained until all heavy construction work is complete. No movement of equipment or dumping of solvents, gasoline, etc. is permitted beyond this fence line.
- 2. Where high-quality specimens exist adjacent to areas subject to intensive construction activity, wooden cribbing (e.g. planks, plywood constructions) should be erected to protect their trunks from damage.
- 3. During the excavation process, roots that are severed and exposed should be hand pruned to leave a clean-cut surface. This will reduce the opportunity for pests or disease to enter through the wounds. Wound dressing may be used in this process.
- 4. If grade changes are required in areas adjacent to trees to be preserved, work should be done to minimize the impact on the trees. Tree wells, retaining walls, or other site features should be used.
- 5. Avoid running above-ground wires and underground services near trees to be preserved. Avoid open trenching within the tree root zone. Utilize horizontal boring techniques to install utilities below root areas.
- 6. Regular monitoring of the site by the Landscape Architect will help to ensure proper procedures are followed and protection barriers are maintained.

C) <u>POST-CONSTRUCTION REOMMENDATIONS</u>

- 1. After construction, a qualified arborist/horticulturalist should deep root feed and prune all trees that were preserved near the construction zone.
- 2. Avoid discharging rain water leaders adjacent to retained trees. This may result in an overly moist environment which will cause the tree roots to rot.
- 3. After all work is completed, snow fences and other barriers should be removed.
- 4. A final review must be undertaken by the Landscape Architect to ensure that all mitigation measures as described above have been met.
- 5. It is recommended that the existing ground-layer vegetation remain intact so as not to disturb the soil around the base of the existing trees.

TREE REMOVAL/RETENTION RECOMMENDATIONS

GENE	ERAL INFORMATION	SIZE			В	IOLOGICAL H	IEALTH	RECO	MMENDATION
TAG#	TREE SPECIES	DBH (cm)	CANOPY RADIUS (m)	CROWN COND.	STRUCTURAL CONDITION	DECLINE Symptom	COMMENTS	PROPOSED ACTION	RATIONALE
								P-preserve R-remove	
206	Juglans nigra	30	5	5		С8	suppressed on north side, pruned	R	Construction
207	Robinia pseudoacacia	27	6	4		C8	suppressed, lean SE, epicormic shoots	R	Construction
208	Robinia pseudoacacia	27, 25	5	5	MS2		subgrade union, codominant stems, dead branches, pruned,	R	Construction
209	Juglans nigra	25	3	5		S2, C8	insect damage on leaves main leader gone, dead branches, trunk scars, insect damage to	R	Construction
210	Juglans nigra	39	10	5			leaves abutting chainlink fence, sooty wound at base	R	Construction
211	Robinia pseudoacacia	36	4.5	5		С8	suppressed, epicormic shoots	R	Construction
212	Juglans nigra	33	6	5			minor dieback	R	Construction
213	Juglans nigra	16	2	5		C8	major trunk wound, peeling bark	R	Construction
214	Juglans nigra	34	5	5			minor trunk wounds	R	Construction
215	Acer negundo	55, 45	9	3	MS2	L, C8	unbalanced canopy, dead leader, major dead branches, lean S	R	Construction
216	Acer negundo	40	6	4		C8, R1,	exposed roots, erosion at roots, abutting swale, suckers, lean N	R	Construction
217	Juglans nigra	33	5	5		C8, C7	at top of slope, vine	R	Construction
218	Acer negundo	13,12,12,12	4	5	MS4	C8	abutting fence, pushing against fence	R	Construction
219	Ulmus americana	15	3	5		C8, S1	growing at/under fence causing wounds	R	Construction
220	Acer negundo	28,20,20	9	4	MS3	C8	major dead limb, elevated root plate, low branches, low union, die	R	Construction
221	Acer platanoides	15	5	4			back Iean S, suppressed, ants, dead branches	R	Construction
222	Acer negundo	35,30,20,19	9	5	MS4	C8	growing into fence, low branches, low union	R	Construction
223	Acer negundo	23,15,14	10	4	MS3	C8	unbalanced canopy, majority of tree growing horizontally, very low	R	Construction
224	Acer negundo	25	3	3		S1, C8	branches die back, sooty wounds, abutting fence, poor vigour	R	Construction

225	Pinus sylvestris	38	3	4			insect exit holes	R	Construction
226	Acer negundo	12,10,9,8,7	5	4	MS6	(8	growing around and under #225, dead branches, pruned at base	R	Construction
227	Acer negundo	20,20,20,18,15	5	4	MS5	C8, S1	dieback,suckers, low union, growing under a collapsed stone	R	Construction
228	Pinus sylvestris	45	5	4			wall contorted at top, insect exit holes, near hydro line, leader removed	R	Construction
229	Pinus sylvestris	22	3	3			dead branches, leader removed, dieback	R	Construction
230	Pinus sylvestris	58	6	5			dead branches	R	Construction
231	Pinus sylvestris	48	4.5	5			insect exit holes, healed prune cuts, low union, minor dead	R	Construction
232	Thuja occidentalis	30,30,20	3.5	4	MS3		branches low union, codominant stems, yellowing foliage throughout	R	Construction
233	Thuja occidentalis	40,33	3.5	4	MS2		competing vegetation, low union, girdling roots, yellowing foliage	R	Construction
234	Juglans nigra	35	5	5			throughout abutting chainlink fence, low union, dead branches, trunk	R	Construction
235	Salix babylonica	10	4	5		S4	damage - possibly from animals coppice - tree growing from large old stump	R	Construction
236	Morus alba	20,20,15,15,10,10	6	5	MS6		minor dieback,abutting fence, low union, competing buckthorn, leaking sap	R	Construction
237	Acer negundo	35	7	5		C8, L	burls, suckers, low branches, lean N	R	Construction
238	Thuja occidentalis	b/w 7&30	5	3/4	HEDGE ROW		on prop line, competing with small buckthorn and norway maple, thin	R	Construction
239	Taxus spp.	30,20,15,5	5	4	MS4	S1	canopy suppressed, pruned, thin canopy, within cedar hedgerow (#238)	R	Construction
240	Juglans nigra	48	9	5			at head of cedar hedgerow (#238), fine girdling roots, low major branches	R	Construction
241	Acer platanoides	46	6	5			minor vertical scar, dead inner branches, leaf scorch - city ROW	R	Construction
242	Picea pungens var. glauca	60	4	4		R1	limbed up to 20', exposed roots, browing foliage	R	Construction
243	Acer platanoides	40	5.5	4		R1	dead branches, low unions, thin canopy, leaf scorch - city ROW	R	Construction
244	Acer platanoides	38	6	5			dead branches, branch wounds - city ROW	R	Construction
245	Acer negundo	14	4	4		L	suppressed, unbalanced canopy, lean SW	R	Construction
246	Acer negundo	24	4	4		L	lean W, major dead branches, suckers, growing into fence	R	Construction
247	Acer negundo	40	8	4		R1	suppressed, dieback, abutting chainlink fence, within cedar hedgerow (#238)	R	Construction
248	Picea glauca	38	5	4			limbed up to 10', stubs left from pruning, thin canopy	R	Construction

249	Acer negundo	20	4.5	4		C8	Coppice, suckers, growing in fence	R	Construction
250	Juglans nigra	12	3	5			low branches, growing near house	R	Construction
251	Acer platanoides	10	4	5		L	lean N, abutting fence, competing lilac	R	Construction
252	Acer negundo	75	4	1			suckers, coppice, big fungus filled stump, growing at/under fence	R	Construction
253	Ulmus americana	14,10	3	4	MS2		suppressed, dead branches, elevated root plate	R	Construction
254	Ulmus americana	30,30,25	9	5	MS3		growing on fence, open crown, competing grape vine	R	Construction
255	Syringa reticulata 'Ivory Silk'	10	2	5		C8	competing with shrubs at base	R	Construction
256	Acer negundo	29	5	5		L	growing at fence & stone retaining wall, unbalanced canopy, dieback,	R	Construction
257	Acer negundo	10,10,10	4	4	MS3	C8, L	lean NE growing at stone retaining wall, lean SE	R	Construction
258	Ulmus americana	10	4	4		C8	suppressed, unbalanced canopy, suckers, growing at stone retaining	R	Construction
259	Acer negundo	15,15,10	6	4	MS3	S4, C7	wall coppice, crotch fungus, grapevine choking	R	Construction
260	Rhamnus cathartica	10	3	4			suppressed, dieback, grapevine growing on	R	Construction
261	Acer platanoides	35	7	5			codominant stems, included bark, growing on slope	R	Construction
262	no tag							R	Construction
263	Acer negundo	15,10,6	10	4	MS3	L, C8	unbalanced canopy, growing on slope, lean S, suppressed, suckers	R	Construction
264	Picea glauca	40	5	4		R1	thin canopy, limbed up to 15'	R	Construction
265	Acer negundo	35	8	3		S1, S2,L	coppice growth from large dead stump, lean SW	R	Construction
266	Acer negundo	17,15	8	4	MS2	S2, C8	large dead branch at base	R	Construction
267	Juglans nigra	45	10	5		C8, S4	low union, grown along fence, basal fungus	R	Construction
268	Acer platanoides	33,29,20,18,10	9	5	MS5	SI	fence damage, girdling roots	R	Construction
269	Acer negundo	30	12	4		S1, S2, C8, L	lean N, unbalanced canopy	R	Construction
270	Acer platanoides	50	10	5				R	Construction
271	Picea glauca	40	3	3			suppressed, dead lower branches	R	Construction
272	Acer negundo	30	7	3		C8, L, C7	many dead branches, lean N	R	Construction
273	Acer platanoides	30	5	3		C7, L	suppressed, lean NW	R	Construction

274	Acer platanoides	50	12	5		codominant stems, low union, included bark, minor dieback	R	Construction
275	Acer negundo	60	7	3	S2, S4	coppice, dead main trunk, insect damage, large fungal body	R	Construction
276	Acer platanoides	50,40	10	5	MS2	low union, included bark, small vine	R	Construction
277	Acer platanoides	40,10	9	5	MS2	subgrade union, suppressed, small vine	R	Construction
278	Acer platanoides	15	8	5		suppressed	R	Construction
279	Acer platanoides	55,40	10	5	MS2 R1	growing at edge of grade change, low union, suckers, exposed roots	R	Construction
280	Acer platanoides	15,10	8	5	MS2 L	lean SW, stem scars, suppressed, growing at edge of grade change	R	Construction
281	Acer platanoides	20	7	4		growing on slope, suppressed	R	Construction
282	Acer platanoides	10	4	5		suppressed, asphalt poured up against west side of trunk	R	Construction
283	Acer platanoides	74	11	3	51	peeling bark, severe dieback, growing at edge of slope, cable line	R	Construction
284	Acer platanoides	74	11	5	S1	low union, growing on slope	R	Construction
285	Picea glauca	15	2	5		limbed up to 8', flanking front door of house	R	Construction
286	Picea glauca	20	3	5		limbed up to 8', flanking front door of house	R	Construction
vegetat	tion unit 1	b/w 2-30	varies	5	primary tree species:	Acer nugundo, Juglans nigra, Acer platanoides	R	Construction
				5	primary understory species:	Rhamnus cathartica, Rubus spp, vitis spp, parthenocissus spp	R	Construction
Troos p	ot tagged (on neighbourir	a proportios)						
1	Acer negundo	85	8	4	C8, L	not tagged but relevant - on neighbouring property - major dead branches, lean N, very poor condition overall	Ρ	
2	Tilia americana	100	10	5		not tagged but relevant - on neighbouring property - excellent condition	Ρ	

EXECUTIVE SUMMARY

It is our recommendation that a Tree Preservation Barrier shall be established and maintained for trees 1 and 2. There are no interior trees to be preserved. Refer to appendices B and C for more details.

APPENDIX A - TREE INVENTORY CODES

SYMBOL TREE STRUCTURE

FSignificant forking contributing to structural instabilityLSignificant lean (>15%) contributing to structural instability

CROWN CONDITION

- 5 Healthy: less than 10% crown decline
- 4 Slight decline: 11% 30% crown decline
- 3 Moderate decline: 31% 60% crown decline
- 2 Severe decline: 61% 90% crown decline

1

DECLINE SYMPTOMS

CANOPY

Dead

- C2 Leaf disfiguration
- C3 Leaf chlorosis
- C4 Abnormal leaf shape
- C5 Abnormal leaf size
- C6 Insect infestation
- C7 Girdling vine
- C8 Epicormic shoots

STEM

- S1 Extensive cavity
- S2 Visible basal rot
- S3 Entry point for insect infestation
- S4 Fungi/galls/cankers
- S5 Sun scald
- S6 Frost cracks
- S7 Lightning scar
- S8 Bark stripping
- S9 Bark girdling

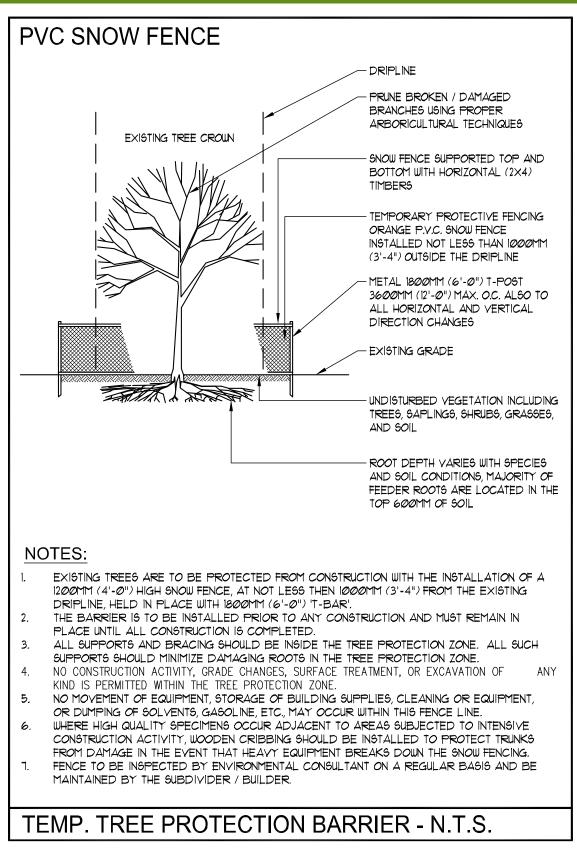
ROOTS

- R1 Exposed surface roots
- R2 Severed roots
- R3 Absence of buttress flare

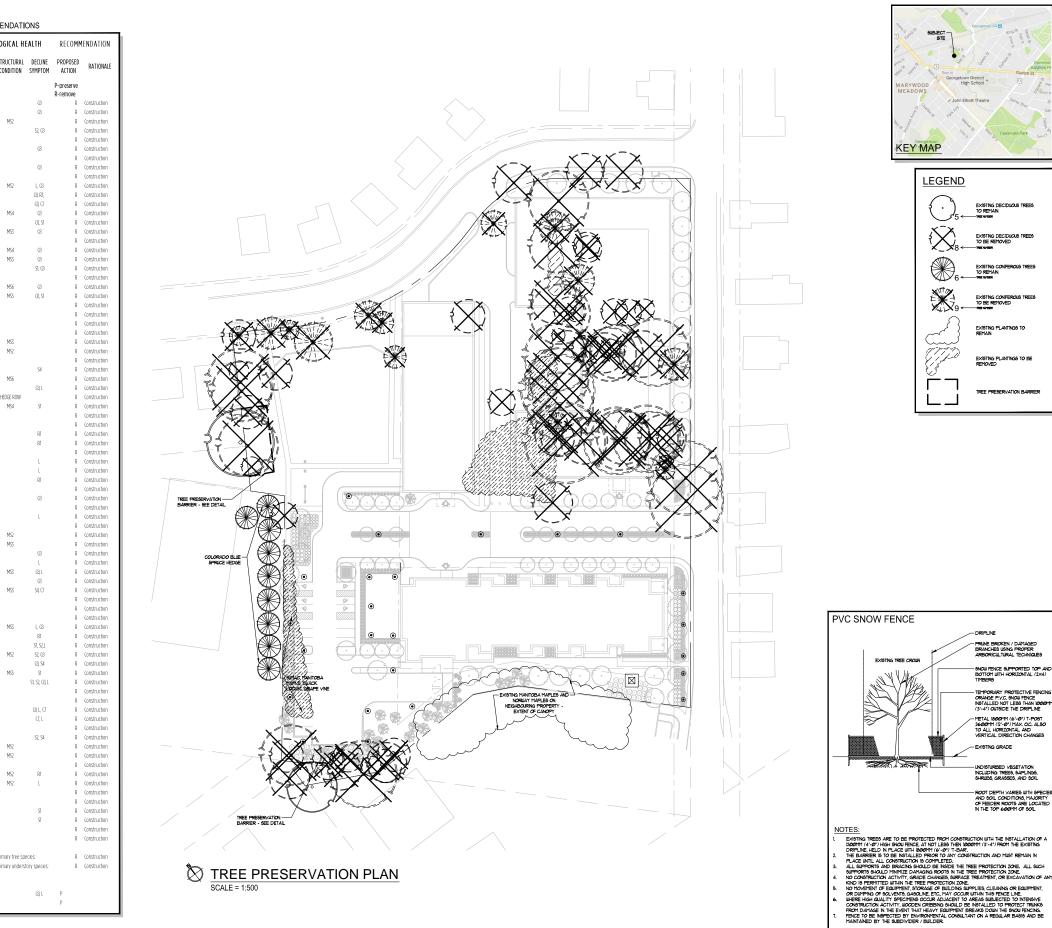
ECO-SETTING

- Og Open grown
- Hr Hedgerow
- Fe Forest edge
- Fi Forest interior

APPENDIX B - TREE PROTECTION ZONE FENCE DETAILS

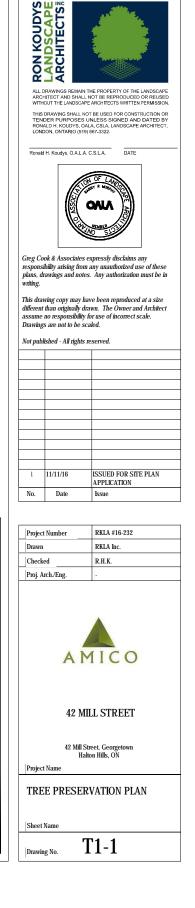


APPENDIX C - TREE PRESERVATION PLAN T-1



TAG# 206 207 208 209 210 211 212 213 214 215 216 217 218 219	TREE SPECIES Jugians nigra Robiniapseudoacacia	DBH (cm)	CANOPY RADIUS (m)	CROWN COND.	STRUCTURAL CONDITION	DECLINE Symptom	PROPOSED	RATIONA
207 208 209 210 211 212 213 214 215 216 217 218 219				cono.	compilition	JINITON	ACTION	
207 208 209 210 211 212 213 214 215 216 217 218 219			(,				P-preserve	
207 208 209 210 211 212 213 214 215 216 217 218 219		30	5	5		(8	R-remove R	Construction
209 210 211 212 213 214 215 216 217 218 219		27	6	4		(8	R	Construction
210 211 212 213 214 215 216 217 218 219	Robiniapseudoacacia	27, 25	5	5	MS2		R	Construction
211 212 213 214 215 216 217 218 219	Juglans nigra	25	3	5		52, 68	R	Construction
212 213 214 215 216 217 218 219	Juglans nigra	39	10	5			R	Construction
213 214 215 216 217 218 219	Robiniapseudoacacia	36	45	5		(8	R	Construction
214 215 216 217 218 219	Juglans nigra	33	6	5			R	Construction
215 216 217 218 219	Juglans nigra	16	2	5		68	R	Construction
216 217 218 219	Juglans nigra	34	5	5			R	Construction
217 218 219	Acer negundo	55, 45	9	3	MS2	L, C8	R	Construction
218 219	Acer negundo Jugians nigra	40 33	6 5	4 5		C8, R1, C8, C7	R	Construction Construction
219	Jugians ingra Acerneaundo	13,12,12,12	2	5	MS4	(8	R	Construction
	Acei negunuv Ulmus americana	15, 12, 12, 12	3	5	1104	C8, S1	R	Construction
220	Acer negundo	28,20,20	9	4	MS3	(8	R	Construction
221	Acer platanoides	15	5	4	1100		R	Construction
222	Acer negundo	35,30,20,19	9	5	MS4	(8	R	Construction
223	Acer negundo	23,15,14	10	4	MS3	(8	R	Construction
224	Acer negundo	25	3	3		S1, C8	R	Construction
225	Pinus sylvestris	38	3	4			R	Construction
226	Acer negundo	12,10,9,8,7	5	4	MS6	(8	R	Construction
227	Acer negundo	20, 20, 20, 18, 15	5	4	MSS	C8, S1	R	Construction
228	Pinus sylvestris	45	5	4			R	Construction
229	Pinus sylvestris	22	3	3			R	Construction
230	Pinus sylvestris	58	6	5			R	Construction
231	Pinus svivestris	48	45	5			R	Construction
232	Thuja occidentalis	30,30,20	3.5	4	MS3		R	Construction
233	Thuja occidentalis	40,33	3.5	4	MS2		R	Construction
234	Juglans nigra	35	5	5			R	Construction
235	Salix.babylonica	10	4	5		S4	R	Construction
236	Morus alba	20,20,15,15,10,10	6	5	MS6		R	Construction
237	Acer negundo	35	7	5		C8, L	R	Construction
238	Thuja occidentalis	b/w 7830	5	3/4	HEDGE ROW		R	Construction
239	Taxus spp.	30,20,15,5	5	4	MS4	51	R	Construction
240	Juglans nigra	48	9	5			R	Construction
241	Acer platanoides	46	6	5			R	Construction
242	Piceapungens var.	60	4	4		RI	R	Construction
243	Acer platanoides	40	5.5	4		RI	R	Construction
244	Acer platanoides	38	6	5			R	Construction
245	Acer negundo	14	4	4		L	R	Construction
246	Acer negundo	24	4	4		t	R	Construction
247	Acer negundo	40	8	4		R1	R	Construction
248	Piceaglauca	38	5	4			R	Construction
249	Acer negundo	20	45	4		68	R	Construction
250	Juglans nigra	12	3	5			R	Construction
251	Acer platanoides	10	4	5		L	R	Construction
252	Acer negundo	75	4	1			R	Construction
253	Ulmus americana	14,10	3	4	MS2		R	Construction
254	Ulmus americana	30,30,25	9	5	MS3		R	Construction
255	Syringa reticulata 'Ivory	10	2	5		(8	R	Construction
256	Acer negundo	29	5	5		L	R	Construction
257	Acer negundo	10,10,10	4	4	MS3	C8, L	R	Construction
258	Ulmus americana	10	4	4		(8	R	Construction
259	Acer negundo	15,15,10	6	4	MS3	54 (7	R	Construction
260	Rhamnus cathartica	10	3	4			R	Construction
261	Acer platanoides	35	7	5			R	Construction
262	no tag						R	Construction
263	Acer negundo	15,10,6	10	4	MS3	L, C8	R	Construction
264	Piceaglauca	40	5	4		RI	R	Construction
265	Acer negundo	35	8	3		SI, S2,L	R	Construction
266	Acer negundo	17,15	8	4	MS2	\$2, 68	R	Construction
267	Juglans nigra	45	10	5		C8, S4	R	Construction
268	Acer platanoides	33,29,20,18,10	9	5	MSS	SI	R	Construction
269	Acer negundo	30	12	4		ST, S2, C8, L	R	Construction
270	Acer platanoides	50	10	5			R	Construction
271	Piceaglauca	40	3	3			R	Construction
272	Acer negundo	30	7	3		CB, L, C7	R	Construction
273	Acer platanoides	30	5	3		(7, L	R	Construction
274	Acer platanoides	50	12	5			R	Construction
275	Acer negundo	60	7	3		S2, S4	R	Construction
276	Acer platanoides	50,40	10	5	MS2		R	Construction
277	Acer platanoides	40,10	9	5	MS2		R	Construction
278	Acer platanoides	15	8	5			R	Construction
279	Acer platanoides	55,40	10	5	MS2	R1	R	Construction
280	Acer platanoides	15,10	8	5	MS2	L	R	Construction
281	Acer platanoides	20	7	4			R	Construction
282	Acer platanoides	10	4	5			R	Construction
285	Acer platanoides	74	11	3		21	R	Construction
284	Acer platanoides	74	11	5		SI	R	Construction
285	Picea glauca	15	2	5			R	Construction
286	Piceaglauca	20	3	5			R	Construction
retati	ion unit 1	b/w 2-30	varies	5 5	primary tree spi primary underst		R	Construction Construction
e ge tot						, provinski		
	rot tagged (on neight		ties)					
	Acer negundo	85	8	4		C8, L	Р	

TEMP. TREE PRO



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