Tree Preservation Plan

291 North Service Road, Burlington, On.

Prepared for

King Paving Ltd.

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Project No. P2020-433

Prepared by

GeoProcess
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1. Introduction

GeoProcess Research Associates Inc. (GRA) was retained King Paving Ltd. to complete a Tree Preservation Plan for the development of a new asphalt plant on a property leased from Halton Region, located at 291 North Service Road, Burlington, Ontario. Herein referred to as the "Study Area". GRA conducted multiple field studies to identify and assess the existing trees for the Study Area. An inventory and assessment of existing trees was undertaken with consideration of the proposed development, footprint and construction phasing. Recommendations have been provided for tree protection and tree removals based on tree condition, tree species and the limits of construction.

1.1. Site Description

The Study Area is limited to the southwestern portion of the Regional Landfill site, which has been disturbed by former landfill operations including the placement of fill, access roads and a leachate collection system (**Map 1)**. Currently, the Study Area is accessed by Hickory Lane (from the North Service Road and the internal landfill road network. The proposed development site is located adjacent to an Environmental Protection Area (EPA) to the west, the Sassafrass Woodlands Earth Science Area of Natural and Scientific Interest (ANSI). The Study Area is approximately 50 m north of the 403 and is just west of the Mercedes Benz car dealership. The proposed extension of Hickory Lane will cross the former regional landfill site, within an existing road easement immediately east of the proposed asphalt plant.

Natural Heritage Features within the Study Area includes unevaluated wetlands, candidate Significant Woodlands, and anthropogenic surface drainage features draining to Falcon Creek. The subject lands form part of the approved Regional Natural Heritage System (RNHS) for the Region of Halton. A portion of these natural heritage features, including the tributaries of Falcon Creek and wetlands regulated under Ontario Regulation 162/06 *Halton Region Conservation Authority: Regulation of Development, Interference with Wetlands and Alteration to Shorelines and Watercourses*. Approximately half of the Study Area was recently designated as a City's Natural Heritage System under the revised City of Burlington Official Plan (OP). However, it still maintains a designation of Urban Growth Area as well.

2. Study Methodology

GRA conducted field studies on August 29-31, 2020, November 12, 2020, and August 3, 2021, to identify and assess the existing tree resources of the Study Area.

2.1. Tree Inventory

An assessment of individual trees included all trees 10 cm Diameter at Breast Height (DBH) or greater for the Study Area. Trees were surveyed using a handheld GPS with +/- 5 m of accuracy. Species nomenclature and ranking is based on the Ministry of Natural Resources and Forestry Natural Heritage Information Centre species list.

Trees were assessed for condition utilizing the following parameters:

- **Tree #** - numbers assigned to tree that corresponds to their surveyed/mapped location.
- **Species** - common and botanical names provided in the inventory table.
- **DBH** - diameter (centimeters) at breast height, measured at 1.4 m above the ground.
- **Condition** - condition of trees were assessed as follows:
    - **Trunk integrity (TI)**: conditions on trunk that might affect likelihood of failure based on factors including co-dominant stems, cracks, decay, poor taper, lean, response growth, abnormal or missing/dead bark, etc.
    - **Crown Structure (CS)**: condition on crown structure that might affect likelihood of failure including live crown ratio, presence of defects (including bark, weak attachments, cracks, decay, cavities), crown density.
    - **Crown Vigor (CV)**: an assessment of overall tree health classified as weak/under stress (poor), average vigor for its species and site condition with some signs of stress (fair), growing well and appears to be free of significant health stress factors (good).
    - **Canopy Dieback (CDB):** extent dead branching and canopy cover loss measured as a percentage of the entire crown. Note: Due to leaf-off conditions, CDB was not assessed as part of this inventory.
- **Comments** - additional relevant detail.

This report has been prepared under the following applicable municipal by-laws and guidelines of the City of Burlington:

- By-Law to conserve and protect trees on private land within the Urban Planning Area Boundary of City of Burlington (02-2020);
- By-law to regulate planting, maintenance and preservation of trees on or affecting public property (68-2013); and
- City of Burlington Specifications Index for Tree Protection and Preservation (SPEC NO. SS12A).

2.2. Region of Halton Official Plan: Woodland Analysis

A Region of Halton (ROH) woodland on the Study Area was staked with regional staff in August 2020. The staked limits included a portion of the woodland dripline. A stand analysis was required to define the remaining limits per the criteria provided within the Region of Halton Tree By-law. The stand analysis was conducted based on vegetation form and cover, utilizing fixed area circular plots with a set radius of 5.64 m, including 6 total plots; 2 plots within compartment A in the northern portion of the feature and 4 plots within compartment B within the southern portion of the feature. Refer to Map 2 for the location of the density plots and compartments.

Plots were established in areas representative of the larger area where tree cover was present as well as areas where large variations in canopy cover exists to confirm presence/absence of woodland density. Variations in canopy cover exists in the southern portion of the feature due to impacts from Emerald Ash Borer (EAB) and from the disturbed overall condition of the property resulting in a dense Common Buckthorn (*Rhamnus cathartica*) understory. Due to this variation in canopy cover and dense shrub thicket, multiple check plots were established to confirm the presence/absence of regenerating trees.

For Ash in poor condition as a result of impacts from EAB, only trees with epicormic branching at the base greater than 50% were counted as a live stem.

For each plot, trees were inventoried based on species type and diameter class. To determine the number of trees per hectare, total trees tallied were multiplied by the plot per hectare factor (100) based on the fixed area sample plot size. The limit of woodland for the Study Area was established where multiple density plots met the criteria of a woodland per the By-Law. Within the feature, density was verified by the plot per hectare factor (100) based on the fixed area sample plot size multiplied by the number of trees tallied per plot divided by the number of plots per area.

The results of the assessment identified woodland in compartment A of the feature based on overall size of the feature (over 0.5 ha) and the number of stems per hectare corresponding to the criteria set out in the ROH Tree By-Law. Areas corresponding to compartment B of the feature do not meet the density per the By-Law for a woodland. Refer to **Error! Reference source not found.** below for the woodland tree tally and Map 5 for the limits of the woodland.

3. Existing Conditions & Results

3.1. Tree Inventory

The tree inventory documented a total of 344 trees on and adjacent to the Study Area. The majority of trees identified are confined to woodland immediately to the east of the proposed asphalt plant. The trees ranged in size from 10-47 cm DBH. Common trees surveyed for the property included trembling aspen (*Populus tremuloides*), declining white ash (*Fraxinus americana*), shagbark hickory (*Carya ovata*) and black locust (*Robinia psuedoacacia*).

Tree heath was good overall, with the exception of white ash, which has been heavily impacted by the invasive emerald ash borer beetle. Refer to Map 2 for general tree locations.

3.2. RHOP Woodland Assessment

The results of the assessment identified woodland in compartment A of the feature based on overall size of the feature (over 0.5 ha) and the number of stems per hectare corresponding to the criteria set out in the ROH Tree By-Law. Areas corresponding to compartment B of the feature do not meet the density per the By-Law for a woodland. Refer to Table 1 below for the woodland tree tally and Map 7 b for the limits of the woodland.

Table 1. Woodland tree tally surveyed on August 4, 2020.

Compartment A					
# Plots: 2	Start Time: 9 a.m.	r = 5.64m	100m^2	1/100ha	
Tree Tally (number of stems per 100m^2)					
		Diameter cm (dbh)			
Species	**≤5**	**>5 ≤12**	**>12 ≤20**	**>20**	**All Diam.**
At		3	11		14
Hs	8	11	3		22
Aw		2			2
Total Trees/ha		**800**	**700**		**1900**
Threshold trees/ha		750	500	250	1000
Compartment B					
# Plots: 4	Start Time: 10 a.m.	r = 5.64m	100m^2	1/100ha	
Tree Tally (number of stems per 100m^2)					
		Diameter cm (dbh)			
Species	**≤5**	**>5 ≤12**	**>12 ≤20**	**>20**	**All Diam.**
Aw	1	2	1	2	6
Wi				1	1
Mm				1	1
At		2			2
Hs		1		1	2
Cb				1	1
Total Trees/ha		**125**	**25**	**150**	**325**
Threshold trees/ha		750	500	250	1000

4. Impact Assessment

King Paving is proposing to build a new, cutting-edge asphalt plant on a portion of the Halton Region City of Burlington closed landfill property. This application also includes constructing a new Hickory Lane for Halton Region, that will provide access to the landfill for on-going maintenance and to provide landfill maintenance staff with access to cleanouts along the leachate collection system.

The asphalt plant will include the following main elements:

- A combined entrance and exit using the new Hickory Lane to the North Service Road.
- Truck staging area immediately north of the plant.
- Material storage (primarily aggregate). On-site material storage is minimized as the plant operates as a just on time delivery, meaning base ingredients are brought into the site as needed and fresh mixed asphalt is immediately placed in trucks for delivery.
- The 'plant' where aggregate is mixed with asphalt cement/binder and then loaded onto trucks.
- A stormwater management pond, which is a dry pond, to control site run-off.

The proposed development will require the removal of 105 trees, 73 trees within the asphalt plant development envelope and 32 within the Hickory Lane footprint. Of the 73 trees identified for removal, three are considered hazardous, of the 32 trees identified for removal, four are considered hazardous. These trees are considered hazardous due to impacts from Emerald Ash Borer.

Site planning, grading, and the installation of the plant, the new hickory valley road and proposed stormwater management pond precludes the retention of trees identified for removal. Refer to Table 3 and Map 3, 3a, 3b,3c,3d, and 3e for the full tree inventory and Tree Preservation Plan.

4.1. Trees Recommended for Removal

Trees recommended for removal have been assessed using one or more of the following criteria:

- Location conflicts with proposed works to a degree that would compromise the long term structural and/or health integrity;
- Current health condition suggests tree is undergoing significant decline and/or death;
- Potential impacts from proposed works will cause the tree to become a hazard to person or property; and
- General species intolerance of construction-related and other expected stressors.

Trees to be Removed

- Tree #'s 47,49,51,52,62,68,69,170-183,190-207,209,221,227,231,245,249,250,253-283,286 300,304,312,314,318-327 will be impacted by the proposed works, including grading, infrastructure, servicing
- Tree #'s 209, 221,227 298,299 and 300 are considered hazard trees.

4.2. Trees Recommended for Preservation

Trees recommended for preservation have been assessed using one or more of the following criteria:

- Location sufficiently distanced from proposed site works and/or construction related stresses;
- Current health condition is acceptable;
- Tree poses a low hazard level to person or property; and
- General species tolerance to construction-related and other expected stressors.

Two-hundred and thirty-eight (238) trees are recommended for preservation. All trees to be preserved are to be protected to the satisfaction of the City of Burlington prior to the commencement of construction. Tree protection measures are to remain in place during all stages of construction, as specified in the City of Burlington Specifications Index for Tree Protection and Preservation (SPEC NO. SS12A).

Trees to be Preserved:

- Tree #'s 1-48,50,53-61,63-67,70-169,184-189,208,210-220,222-226,228-230,232-244,246-248,251,252,284,285,301-303,305-311,313,315-317,328-344 are proposed to be retained. Refer to Section 5 and Map 3, 3a, 3b,3c,3d, and 3e for tree protection details.

5. Mitigation Recommendations and Tree Preservation Measures

The following section identifies recommended mitigation measures to avoid and minimize effects of the proposed works on the trees identified for preservation. The following requirements will ensure short- and long-term preservation of trees identified for preservation.

Tree protection zones (TPZ) provide an approximation of the tree's critical root zone and are used for protection guidelines. The TPZ is measured from the outside edge of the base of tree to the dripline. Table 2 summarizes the TPZ's per DBH class for the City of Burlington.

Table 2. Minimum Tree Protection Zones per DBH Class

Diameter of Trunk (DBH) in centimetres	Tree Protection Zone Distance from trunk measured in metres
<10 cm	1.8
11-40 cm	2.4
41-50 cm	3.0
51-60 cm	3.6
61-70 cm	4.2
71-80 cm	4.8
81-90 cm	5.4
91-100+ cm	6.0

Tree Preservation Measures:

- Tree protection measures will have to be implemented prior to the commencement of construction (earthworks) to ensure trees identified for preservation are not affected by the proposed works;
- Tree protection fencing should comprise paige wire fencing supported on metal T-bars at 3 m centres. Fences should be erected per **Error! Reference source not found.** for the trees identified for preservation;
- Tree protection barriers need to be inspected regularly to ensure they meet the design requirements detailed within this report and **Error! Reference source not found.**;
- No machinery or disturbance of any type is permitted within the tree protection fence (tree protection zone). If disturbance within the TPZ is unavoidable, placement of ¾ in thick plywood over an 8-in deep mulch should be placed in the TPZ to avoid or reduce soil compaction;
- Do not store construction materials, soil, waste material or dispose of liquid material within the TPZ. Any grading within the root zone must be completed by hand (rake, shovel,) to ensure tree roots are not damaged;
- A sign should be displayed on the tree protection fencing and placed on the hoarding in various locations, which describes the TPZ and restrictions within the TPZ. Signage informs the public and reminds the contractors of the significance of the TPZs and the efforts put forward by the client in tree preservation; and
- Regular inspections should be completed by a qualified person (s) to ensure all tree protection and mitigation measures are implemented as intended.

Construction Measures:

- A construction work plan should designate specific locations for stockpiling of soils and other material;
- Upon completion of construction works, site grading should ensure proper drainage of surface water to maintain original/pre-construction soil moisture regime conditions;
- Where root systems of protected trees are exposed directly adjacent to or damaged by construction work, they shall be trimmed neatly, and the area immediately backfilled with appropriate material to prevent desiccation; and
- Trees to be preserved that have died or have been damaged beyond repair shall be replaced by the developer at his own expense with trees of a size and species approved by the City.

Wildlife Disturbance Measures:

- Tree removal and clearing of vegetation should occur outside breeding bird season (March 31st to August 31st). If clearing of vegetation is to occur during breeding bird season, or if birds are suspected of nesting within this area, an ecologist should undertake detailed nest searches immediately prior (within 48 hours) to site alteration to ensure no active nests are present, and Trees identified for removal should be clearly marked with paint prior to their removal and felled into the proposed construction area. Effects on adjacent vegetation should be avoided during the felling process.

6. Conclusions

The tree inventory documented a total of 344 trees within the Study Area. The majority of trees identified are confined to woodland immediately to the east and west of the proposed asphalt plant and to the south where the proposed stormwater management pond is located. The proposed development will require the removal of 105 trees located in the Study Area, seven of which are considered hazard trees and the preservation of 238 trees. All trees to be preserved are to be protected to the satisfaction of the City of Burlington prior to the commencement of construction.

Regards,

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Table 3. Tree Preservation Results

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
1	Shagbark Hickory	*Carya ovata*	23.5	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
2	Shagbark Hickory	*Carya ovata*	22	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
3	Shagbark Hickory	*Carya ovata*	26	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
4	Quaking Aspen	*Populus tremuloides*	10.5	Good	Good	Good	10	wound	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
5	White Ash	*Fraxinus americana*	31.5	Good	Good	Good	100	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
6	White Ash	*Fraxinus americana*	23	Good	Good	Good	100	0.5 cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
7	White Ash	*Fraxinus americana*	11	Good	Good	Good	100	0.5 cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
8	Red Oak	*Quercus Rubra*	CD 47, 27.5	Good	Good	Good	60	CD at 1m	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
9	Red Oak	*Quercus Rubra*	MS 45, 47, 42.5	Good	Good	Good	20	MS at base	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
10	Shagbark Hickory	*Carya ovata*	17	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
11	Black Cherry	*Prunus serotina*	24, 27 base	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
12	Quaking Aspen	*Populus tremuloides*	14	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
13	Quaking Aspen	*Populus tremuloides*	11	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
14	Shagbark Hickory	*Carya ovata*	27,28 base	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
15	White Ash	*Fraxinus americana*	32, 31, 47 1m	Good	Good	Good	95	1m 1cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
16	Shagbark Hickory	*Carya ovata*	34	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
17	White Ash	*Fraxinus americana*	20, 19, 22,base	Poor	Poor	Poor	100	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
18	White Ash	*Fraxinus americana*	18.5	Poor	Poor	Poor	100	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
19	Quaking Aspen	*Populus tremuloides*	14.5	Good	Good	Good	10		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
20	Quaking Aspen	*Populus tremuloides*	11.5	Good	Good	Good	45	dwd	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
21	Quaking Aspen	*Populus tremuloides*	18	Good	Good	Good	5		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
22	Quaking Aspen	*Populus tremuloides*	16.5	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
23	Quaking Aspen	*Populus tremuloides*	17.5	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
24	Quaking Aspen	*Populus tremuloides*	17	Good	Good	Good	45		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
25	Quaking Aspen	*Populus tremuloides*	21.5	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
26	Quaking Aspen	*Populus tremuloides*	13.5	Poor	Poor	Poor	70		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
27	White Ash	*Fraxinus americana*	14.5	Poor	Poor	Poor	90	5 cm suck, alm dd	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
28	White Ash	*Fraxinus americana*	10.5	Poor	Poor	Poor	100	0.5 cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
29	White Ash	*Fraxinus americana*	17	Pool	Poor	Poor	95	1.5 cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
30	Quaking Aspen	*Populus tremuloides*	19.5	Good	Good	Good	5		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
31	Quaking Aspen	*Populus tremuloides*	12.5	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
32	White Ash	*Fraxinus americana*	17.5	Good	Good	Good	100	5 cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
33	White Ash	*Fraxinus americana*	12	Good	Good	Good	100	0.5 cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
34	White Ash	*Fraxinus americana*	10.5	Good	Good	Good	90	3cm suck, alm dd	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
35	White Ash	*Fraxinus americana*	13.5	Good	Good	Good	95	1cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
36	White Ash	*Fraxinus americana*	cd 13.5, 9	Good	Good	Good	65	1 cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
37	Manitoba Maple	*Acer Negundo*	25.5, 22.5	Good	Good	Good	40		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
38	Crack Willow	*Salix fragilis*	31, 34, 26.5, 13	Good	Good	Good	20	crack	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
39	Black Locust	*Robinia pseudoacacia*	42	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
40	Black Locust	*Robinia pseudoacacia*	20, 11	Good	Good	Good	40		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
41	Black Locust	*Robinia pseudoacacia*	20	Good	Good	Good	25		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
42	Black Locust	*Robinia pseudoacacia*	21	Good	Good	Good	25		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
43	Black Locust	*Robinia pseudoacacia*	10.5	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
44	Black Locust	*Robinia pseudoacacia*	12	Good	Good	Good	20	wound	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
45	Black Locust	*Robinia pseudoacacia*	cd 14, 13	Good	Good	Good	35	cd at 1m	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
46	Black Locust	*Robinia pseudoacacia*	13	Good	Good	Good	40		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
47	White Ash	*Fraxinus americana*	10.5	Good	Good	Good	0	epi and sucks		x	Conflicts from site preparation.
48	Black Locust	*Robinia pseudoacacia*	13.5	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
49	Black Locust	*Robinia pseudoacacia*	16	Good	Good	Good	0			x	Conflicts from site preparation.
50	Red Oak	*Quercus Rubra*	27.5, 24.5	Good	Good	Good	45		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
51	Red Oak	*Quercus Rubra*	4x 30-50	Good	Good	Good	65	lots of dwd		x	Conflicts from site preparation.
52	Red Oak	*Quercus Rubra*	37	Good	Good	Good	40			x	Conflicts from site preparation.
53	Shagbark Hickory	*Carya ovata*	11	Good	Good	Good	1		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
54	Shagbark Hickory	*Carya ovata*	21.5	Good	Good	Good	10		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
55	Shagbark Hickory	*Carya ovata*	17.5	Good	Good	Good	30		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
56	Shagbark Hickory	*Carya ovata*	17.5	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
57	Shagbark Hickory	*Carya ovata*	22	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
58	Red Oak	*Quercus Rubra*	63	Good	Good	Good	40	bk br/stem	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
59	Red Oak	*Quercus Rubra*	43	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
60	Shagbark Hickory	*Carya ovata*	22.5	Good	Good	Good	10		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
61	Shagbark Hickory	*Carya ovata*	17.5	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
62	Shagbark Hickory	*Carya ovata*	15.5	Good	Good	Good	15			x	Conflicts from site preparation.
63	Shagbark Hickory	*Carya ovata*	16.5	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
64	Shagbark Hickory	*Carya ovata*	19.5	Good	Good	Good	10		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
65	Shagbark Hickory	*Carya ovata*	16	Good	Good	Good	25		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
66	Shagbark Hickory	*Carya ovata*	14	Good	Good	Good	40		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
67	Shagbark Hickory	*Carya ovata*	18	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
68	Shagbark Hickory	*Carya ovata*	16.5	Good	Good	Good	45			x	Conflicts from site preparation.
69	Eastern Cottonwood	*Populus deltoides*	12	Good	Good	Good	0			x	Conflicts from site preparation.
70	Quaking Aspen	*Populus tremuloides*		Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
71	Quaking Aspen	*Populus tremuloides*	16	Good	Good	Good	25		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
72	Quaking Aspen	*Populus tremuloides*	14.5	Good	Good	Good	20		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
73	Quaking Aspen	*Populus tremuloides*	11.5	Poor	Poor	Poor	60		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
74	Quaking Aspen	*Populus tremuloides*	11	Poor	Poor	Poor	65		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
75	Quaking Aspen	*Populus tremuloides*	17	Good	Good	Good	20		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
76	Quaking Aspen	*Populus tremuloides*	19	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
77	Quaking Aspen	*Populus tremuloides*	14.5	Good	Good	Good	30		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
78	Quaking Aspen	*Populus tremuloides*	10.5	Good	Good	Good	45		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
79	Quaking Aspen	*Populus tremuloides*	18.5	Good	Good	Good	20		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
80	Quaking Aspen	*Populus tremuloides*	17	Good	Good	Good	30		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
81	Quaking Aspen	*Populus tremuloides*	19	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
82	Quaking Aspen	*Populus tremuloides*	13	Dead	Dead	Dead	100		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
83	Quaking Aspen	*Populus tremuloides*	19	Good	Good	Good	40		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
84	Quaking Aspen	*Populus tremuloides*	13.5	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
85	Quaking Aspen	*Populus tremuloides*	18	Good	Good	Good	60		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
86	Quaking Aspen	*Populus tremuloides*	20	Good	Good	Good	25		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
87	Quaking Aspen	*Populus tremuloides*	23	Good	Good	Good	30		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
88	Quaking Aspen	*Populus tremuloides*	21.5	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
89	Quaking Aspen	*Populus tremuloides*	13	Poor	Poor	Poor	65		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
90	White Ash	*Fraxinus americana*	cd 11, 8	Good	Good	Good		no suck, cd at 1.5m	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
91	White Ash	*Fraxinus americana*	25.5	Good	Good	Good		no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
92	White Ash	*Fraxinus americana*	17.5	Good	Good	Good		0.5 cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
93	Quaking Aspen	*Populus tremuloides*	22.5	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
94	White Ash	*Fraxinus americana*	10.5	Poor	Poor	Poor	50	dying, no suck, epi	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
95	White Ash	*Fraxinus americana*	10	Good	Good	Good		dying, 0.5 cm suck, epis	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
96	Quaking Aspen	*Populus tremuloides*	26.5	Good	Good	Good	10		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
97	Quaking Aspen	*Populus tremuloides*	14	Good	Good	Good	45		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
98	Quaking Aspen	*Populus tremuloides*	13	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
99	Quaking Aspen	*Populus tremuloides*	26	Good	Good	Good	20		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
100	Quaking Aspen	*Populus tremuloides*	22	Good	Good	Good	30		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
101	Quaking Aspen	*Populus tremuloides*	19.5	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
102	Quaking Aspen	*Populus tremuloides*	12	Dead	Dead	Dead	100		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
103	Quaking Aspen	*Populus tremuloides*	20.5	Fair	Fair	Fair	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
104	Quaking Aspen	*Populus tremuloides*	23	Good	Good	Good	30		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
105	Quaking Aspen	*Populus tremuloides*	22	Fair	Fair	Fair	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
106	Quaking Aspen	*Populus tremuloides*	11	Good	Good	Good			x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
107	Quaking Aspen	*Populus tremuloides*	17	Poor	Poor	Poor	65		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
108	Quaking Aspen	*Populus tremuloides*	15	Poor	Poor	Poor	70		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
109	Quaking Aspen	*Populus tremuloides*	21	Good	Good	Good	20		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
110	White Ash	*Fraxinus americana*	15.5	Poor	Poor	Poor	95	0.5 cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
111	Quaking Aspen	*Populus tremuloides*	23	Good	Good	Good	20		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
112	Quaking Aspen	*Populus tremuloides*	12	Dead	Dead	Dead	100		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
113	Quaking Aspen	*Populus tremuloides*	17.5	Fair	Fair	Fair	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
114	Quaking Aspen	*Populus tremuloides*	18.5	Good	Good	Good			x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
115	White Ash	*Fraxinus americana*	11.5	Dead	Dead	Dead	100	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
116	Quaking Aspen	*Populus tremuloides*	18.5	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
117	Quaking Aspen	*Populus tremuloides*	13	Dead	Dead	Dead	100		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
118	White Ash	*Fraxinus americana*	17.5	Dead	Dead	Dead	100	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
119	Quaking Aspen	*Populus tremuloides*	20	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
120	Quaking Aspen	*Populus tremuloides*	16	Dead	Dead	Dead	100		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
121	Quaking Aspen	*Populus tremuloides*	23.5	Dead	Dead	Dead	100	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
122	White Ash	*Fraxinus americana*	3x 10-20	Poor	Poor	Poor	90	hv epi, 0.5cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
123	Quaking Aspen	*Populus tremuloides*	10	Dead	Dead	Dead	100		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
124	Quaking Aspen	*Populus tremuloides*	15.5	Good	Good	Good	25		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
125	Quaking Aspen	*Populus tremuloides*	12.5	Good	Good	Good	10		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
126	Quaking Aspen	*Populus tremuloides*	14.5	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
127	Quaking Aspen	*Populus tremuloides*	19.5	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
128	Quaking Aspen	*Populus tremuloides*	19	Good	Good	Good	30		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
129	Quaking Aspen	*Populus tremuloides*	14	Good	Good	Good	25		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
130	Quaking Aspen	*Populus tremuloides*	16	Good	Good	Good	10		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
131	Quaking Aspen	*Populus tremuloides*	16.5	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
132	Quaking Aspen	*Populus tremuloides*	12	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
133	Quaking Aspen	*Populus tremuloides*	18	Good	Good	Good	30		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
134	Quaking Aspen	*Populus tremuloides*	12	Fair	Fair	Poor	45		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
135	Quaking Aspen	*Populus tremuloides*	14.5	Good	Good	Good	20		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
136	Quaking Aspen	*Populus tremuloides*	11.5	Fair	Fair	Poor	45		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
137	White Ash	*Fraxinus americana*	15.5	Dead	Dead	Dead	100	1cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
138	White Ash	*Fraxinus americana*	12.5	Poor	Poor	Poor	95	epis, 0.5cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
139	Quaking Aspen	*Populus tremuloides*	18	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
140	Quaking Aspen	*Populus tremuloides*	13.5	Fair	Fair	Poor	45		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
141	Quaking Aspen	*Populus tremuloides*	19.5	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
142	Quaking Aspen	*Populus tremuloides*	18	Good	Good	Good	30		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
143	Quaking Aspen	*Populus tremuloides*	18.5	Fair	Fair	Poor	45		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
144	Quaking Aspen	*Populus tremuloides*	14	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
145	Quaking Aspen	*Populus tremuloides*	20.5	Good	Good	Good	5		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
146	Quaking Aspen	*Populus tremuloides*	19	Poor	Poor	Poor	85		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
147	Quaking Aspen	*Populus tremuloides*	18	Good	Good	Good	30		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
148	Quaking Aspen	*Populus tremuloides*	13	Poor	Poor	Poor	60		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
149	Quaking Aspen	*Populus tremuloides*	17	Poor	Poor	Poor	60		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
150	Quaking Aspen	*Populus tremuloides*	15	Dead	Dead	Dead	100		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
151	Quaking Aspen	*Populus tremuloides*	14.5	Poor	Poor	Poor	75		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
152	Quaking Aspen	*Populus tremuloides*	17	Poor	Poor	Poor	65		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
153	Quaking Aspen	*Populus tremuloides*	21.5	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
154	Quaking Aspen	*Populus tremuloides*	15.5	Fair	Fair	Poor	45		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
155	Quaking Aspen	*Populus tremuloides*	18	Good	Good	Good	25		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
156	Quaking Aspen	*Populus tremuloides*	19	Fair	Fair	Poor	40		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
157	Quaking Aspen	*Populus tremuloides*	19	Good	Good	Good			x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
158	Quaking Aspen	*Populus tremuloides*	14	Dead	Dead	Dead	100		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
159	Quaking Aspen	*Populus tremuloides*	17	Dead	Dead	Dead	100		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
160	Quaking Aspen	*Populus tremuloides*	19	Poor	Poor	Poor	65		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
161	Quaking Aspen	*Populus tremuloides*	18	Fair	Fair	Poor	40		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
162	Quaking Aspen	*Populus tremuloides*	19	Poor	Poor	Poor	70		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
163	Quaking Aspen	*Populus tremuloides*	10	Good	Good	Good	10		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
164	Quaking Aspen	*Populus tremuloides*	15	Good	Good	Good	20		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
165	Quaking Aspen	*Populus tremuloides*	14	Fair	Fair	Fair	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
166	White Ash	*Fraxinus americana*	16.5	Dead	Dead	Dead	100		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
167	White Ash	*Fraxinus americana*	12.5	Dead	Dead	Dead	100		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
168	White Ash	*Fraxinus americana*	17	Dead	Dead	Dead	100	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
169	White Ash	*Fraxinus americana*	17	Dead	Dead	Dead	100	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
170	Manitoba Maple	*Acer Negundo*	19.5	Good	Good	Good	20			x	Conflicts from site preparation.
171	American Elm	*Ulmus americana*	12	Good	Good	Good	0			x	Conflicts from site preparation.
172	Russian Olive	*Elaeagnus angustifolia*	12	Fair	Fair	Fair	30			x	Conflicts from site preparation.
173	White Ash	*Fraxinus americana*	10	Dead	Dead	Dead	100	no suck		x	Conflicts from site preparation.
174	American Elm	*Ulmus americana*	21.5	Good	Good	Good	0			x	Conflicts from site preparation.
175	White Ash	*Fraxinus americana*	11.5	Good	Good	Good	0			x	Conflicts from site preparation.
176	White Ash	*Fraxinus americana*	10.5	Good	Good	Good	20			x	Conflicts from site preparation.

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
177	Russian Olive	*Elaeagnus angustifolia*	3x 10-30	Poor	Poor	Poor	65			x	Conflicts from site preparation.
178	Manitoba Maple	*Acer Negundo*	19, 10	Good	Good	Good	20			x	Conflicts from site preparation.
179	White Ash	*Fraxinus americana*	13.5	Dead	Dead	Dead	100	3cm suck		x	Conflicts from site preparation.
180	White Ash	*Fraxinus americana*	11.5	Dead	Dead	Dead	100	no suck		x	Conflicts from site preparation.
181	Willow Species	*Salix sp.*	5x5-30	Fair	Fair	Poor	40			x	Conflicts from site preparation.
182	Willow Species	*Salix sp.*	11.5	Good	Good	Good	15			x	Conflicts from site preparation.
183	Willow Species	*Salix sp.*	18	Fair	Fair	Fair	30			x	Conflicts from site preparation.
184	Willow Species	*Salix sp.*	4x 10-40	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
185	White Ash	*Fraxinus americana*	13.5	Dead	Dead	Dead	100	5cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
186	White Ash	*Fraxinus americana*	11.5	Dead	Dead	Dead	100	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
187	White Ash	*Fraxinus americana*	20	Dead	Dead	Dead	100	5cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
188	White Ash	*Fraxinus americana*	22	Dead	Dead	Dead	100	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
189	Black Locust	*Robinia pseudoacacia*	17, 19.5	Good	Good	Good	5		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
190	Willow Species	*Salix sp.*	5x20-30	Good	Good	Good	5			x	Conflicts from site preparation.
191	Willow Species	*Salix sp.*	40.5	Good	Good	Good	20			x	Conflicts from site preparation.

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
192	Willow Species	*Salix sp.*	3x 15-40	Good	Good	Good	0			x	Conflicts from site preparation.
193	Eastern Cottonwood	*Populus deltoides*	20.5	Fair	Fair	Poor	30	dying leaves		x	Conflicts from site preparation.
194	Eastern Cottonwood	*Populus deltoides*	22	Good	Good	Good	25			x	Conflicts from site preparation.
195	Black Locust	*Robinia pseudoacacia*	17, 23	Good	Good	Good	15			x	Conflicts from site preparation.
196	Black Locust	*Robinia pseudoacacia*	18	Good	Good	Good	10			x	Conflicts from site preparation.
197	Black Locust	*Robinia pseudoacacia*	16.5	Fair	Fair	Fair	35			x	Conflicts from site preparation.
198	Black Locust	*Robinia pseudoacacia*	16	Good	Good	Good	15			x	Conflicts from site preparation.
199	Black Locust	*Robinia pseudoacacia*	20	Good	Good	Good	10			x	Conflicts from site preparation.
200	Black Locust	*Robinia pseudoacacia*	35, 21	Fair	Fair	Fair	30			x	Conflicts from site preparation.
201	Black Locust	*Robinia pseudoacacia*	28	Good	Good	Good	20			x	Conflicts from site preparation.
202	Manitoba Maple	*Acer Negundo*	16	Good	Good	Good	15			x	Conflicts from site preparation.
203	Black Locust	*Robinia pseudoacacia*	23, 28 1m	Good	Good	Good	20			x	Conflicts from site preparation.
204	Black Locust	*Robinia pseudoacacia*	18	Good	Good	Good	15			x	Conflicts from site preparation.
205	Black Locust	*Robinia pseudoacacia*	18.5	Good	Good	Good	0			x	Conflicts from site preparation.
206	Black Locust	*Robinia pseudoacacia*	11.5	Good	Good	Good	10			x	Conflicts from site preparation.
207	Black Locust	*Robinia pseudoacacia*	10	Good	Good	Good	0			x	Conflicts from site preparation.
208	Shagbark Hickory	*Carya ovata*	15	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
209	White Ash	*Fraxinus americana*	11.5	Poor	Dead	Poor	100	no suck		x	Hazard tree, remove
210	Shagbark Hickory	*Carya ovata*	10.5	Good	Good	Good	15		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
211	Shagbark Hickory	*Carya ovata*	12.5	Good	Good	Good	10		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
212	Shagbark Hickory	*Carya ovata*	10	Good	Good	Good	0		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
213	Shagbark Hickory	*Carya ovata*	11.5	Good	Good	Good	30		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
214	Shagbark Hickory	*Carya ovata*	13	Good	Good	Good	35		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
215	White Ash	*Fraxinus americana*	cd 14, 12	Poor	Poor	Poor	100	2cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
216	Shagbark Hickory	*Carya ovata*	52	Dead	Dead	Dead	100		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
217	Manitoba Maple	*Acer Negundo*	3x 10-20	Good	Good	Good	20		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
218	White Ash	*Fraxinus americana*	14	Good	Good	Good	100	2cm sck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
219	White Ash	*Fraxinus americana*	4x 10-15	Good	Good	Good	95	1cm suck 5cm epi	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
220	Manitoba Maple	*Acer Negundo*	23	Good	Good	Good	10		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
221	White Ash	*Fraxinus americana*	37.5	Good	Good	Good	100	no suck		x	Hazard tree, remove
222	White Ash	*Fraxinus americana*	4x 5-20	Good	Good	Good	100	1cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
223	White Ash	*Fraxinus americana*	20	Good	Good	Good	100	0.5 cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
224	White Ash	*Fraxinus americana*	11	Good	Good	Good	100	1cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
225	White Ash	*Fraxinus americana*		Good	Good	Good	25		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
226	White Ash	*Fraxinus americana*	16.5	Good	Good	Good	100	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
227	White Ash	*Fraxinus americana*	22.5	Good	Good	Good	100	1cm suck		x	Hazard tree, remove
228	White Ash	*Fraxinus americana*	31.5	Good	Good	Good	100	1cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
229	White Ash	*Fraxinus americana*	32	Good	Good	Good	100	no suck	x		
230	White Ash	*Fraxinus americana*	12	Good	Good	Good	100	no suck	x		
231	White Ash	*Fraxinus americana*	a120	Poor	Poor	Poor	75	41cm live, rest dead		x	Hazard tree, remove
232	Willow Species	*Salix sp.*	4x15-35	Good	Good	Good	55		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
233	Willow Species	*Salix sp.*	7x20-40	Good	Good	Good	50		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
234	Willow Species	*Salix sp.*	22.5	Good	Good	Good	90	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
235	White Ash	*Fraxinus americana*	21.5	Good	Good	Good	100	1cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
236	White Ash	*Fraxinus americana*		Good	Good	Good	30	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
237	White Ash	*Fraxinus americana*	14, 7	Good	Good	Good	85	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
238	White Ash	*Fraxinus americana*	11.5	Good	Good	Good	95	0.5 cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
239	White Ash	*Fraxinus americana*	18	Good	Good	Good	100	0.5 cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
240	Willow Species	*Salix sp.*	a55, 25	Good	Good	Good	50		x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
241	White Ash	*Fraxinus americana*	11	Good	Good	Good	100	0.5cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
242	White Ash	*Fraxinus americana*	12.5	Good	Good	Good	100	1cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
243	White Ash	*Fraxinus americana*	20	Good	Good	Good	80	1cm suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
244	White Ash	*Fraxinus americana*	11.5	Good	Good	Good	100	no suck	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
245	Black Locust	*Robinia pseudoacacia*	cd 9.5, 17	Good	Good	Good				x	Conflicts from site preparation.
246	Eastern Cottonwood	*Populus deltoides*	25	Good	Good	Good		some yellowed leaves	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
247	Eastern Hemlock	*Tsuga canadensis*	ms 5-16	Good	Good	Good			x		
248	Eastern Cottonwood	*Populus deltoides*	16.5	Good	Good	Good			x		
249	Willow Species	*Salix sp.*	ms 10-15	Good	Good	Good				x	Conflicts from site preparation.
250	Eastern Cottonwood	*Populus deltoides*	16	Good	Good	Good				x	Conflicts from site preparation.
251	Manitoba Maple	*Acer negundo*	cd 12, 5	Good	Good	Good			x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
252	Eastern Cottonwood	*Populus deltoides*	11.5	Good	Good	Good		moderate yellowing of leaves	x		
253	Eastern Cottonwood	*Populus deltoides*	14	Good	Good	Good				x	Conflicts from site preparation.
254	Eastern Cottonwood	*Populus deltoides*	14.5	Good	Good	Good		moderate yellowing of leaves		x	Conflicts from site preparation.
255	Eastern Cottonwood	*Populus deltoides*	21	Good	Good	Good		moderate leaf yellowing		x	Conflicts from site preparation.
256	Eastern Hemlock	*Tsuga canadensis*	cd 11, 12.5	Good	Good	Good		potential trunk canker, see pic		x	Conflicts from site preparation.
257	Eastern Cottonwood	*Populus deltoides*	13	Good	Good	Good				x	Conflicts from site preparation.
258	Eastern Cottonwood	*Populus deltoides*	15	Good	Good	Good				x	Conflicts from site preparation.
259	Eastern Cottonwood	*Populus deltoides*	15	Good	Good	Good				x	Conflicts from site preparation.
260	Eastern Cottonwood	*Populus deltoides*	11	Good	Good	Good				x	Conflicts from site preparation.
261	Willow Species	*Salix sp.*	ms 5-15	Good	Good	Good				x	Conflicts from site preparation.
262	Black Locust	*Robinia pseudoacacia*	16	Good	Good	Good		cd just above bh		x	Conflicts from site preparation.

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
263	Willow Species	*Salix sp.*	ms 5-15	Good	Good	Good				x	Conflicts from site preparation.
264	Eastern Cottonwood	*Populus deltoides*	11	Good	Good	Good				x	Conflicts from site preparation.
265	Eastern Cottonwood	*Populus deltoides*	cd 9.5, 15	Good	Good	Good		some rusty looking spots on trunk		x	Conflicts from site preparation.
266	Eastern Cottonwood	*Populus deltoides*	13	Good	Good	Good				x	Conflicts from site preparation.
267	Eastern Cottonwood	*Populus deltoides*	10	Good	Good	Good		lean towards east path		x	Conflicts from site preparation.
268	Willow Species	*Salix sp.*	ms 5-15	Good	Good	Good		slight lean to devel		x	Conflicts from site preparation.
269	Eastern Cottonwood	*Populus deltoides*	15	Good	Good	Good				x	Conflicts from site preparation.
270	Black Locust	*Robinia pseudoacacia*	23	Good	Good	Good		moderate vine competition (virginia creeper)		x	Conflicts from site preparation.
271	Black Locust	*Robinia pseudoacacia*	cd 10.5, 10.5	Good	Good	Good				x	Conflicts from site preparation.
272	Black Locust	*Robinia pseudoacacia*	ms 5-20	Good	Good	Good	5	slight lean to lane		x	Conflicts from site preparation.
273	Black Locust	*Robinia pseudoacacia*	14	Good	Good	Good	5	slight lean to lane		x	Conflicts from site preparation.
274	Black Locust	*Robinia pseudoacacia*	cd 10.5, 5	Good	Good	Good	10			x	Conflicts from site preparation.
275	Black Locust	*Robinia pseudoacacia*	ms 5-15	Good	Good	Good				x	Conflicts from site preparation.
276	Black Locust	*Robinia pseudoacacia*	cd 15.5, 5	Good	Good	Good	5			x	Conflicts from site preparation.
277	Black Locust	*Robinia pseudoacacia*	18	Good	Good	Good				x	Conflicts from site preparation.
278	Black Locust	*Robinia pseudoacacia*	17	Good	Good	Good				x	Conflicts from site preparation.
279	Eastern Cottonwood	*Populus deltoides*	15	Good	Good	Good				x	Conflicts from site preparation.
280	White Ash	*Fraxinus americana*	cd 11, 8.5	Good	Good	Good		holes along trunk, suckering, no obvious eab holes.see photos		x	Conflicts from site preparation.
281	Ash Species	*Fraxinus sp.*	23	Good	Good	Good				x	Conflicts from site preparation.
282	Ash Species	*Fraxinus sp.*	cd 19, 15	Good	Good	Good				x	Conflicts from site preparation.

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
283	American Elm	*Ulmus americana*	17.5	Good	Good	Good		unsure of siberian, leaves seem bigger sse pics		x	Conflicts from site preparation.
284	White Ash	*Fraxinus americana*		Good	Good	Good		not certain of sp, see pics. no obvious eab	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
285	Willow Species	*Salix sp.*	ms 10-35	Good	Good	Good	15		x		
286	Ash Species	*Fraxinus sp.*	14	Good	Good	Good				x	Conflicts from site preparation.
287	Ash Species	*Fraxinus sp.*	13	Good	Good	Good		1cm suckers at base0		x	Conflicts from site preparation.
288	White Ash	*Fraxinus americana*	12	Good	Good	Good		1cm suckers at base		x	Conflicts from site preparation.
289	White Fir	*Abies concolor*	12.5	Good	Good	Good		6cm sucker, another4cm		x	Conflicts from site preparation.
290	White Ash	*Fraxinus americana*	7.5	Good	Good	Good				x	Conflicts from site preparation.
291	White Ash	*Fraxinus americana*	13	Good	Good	Good		heavy epcormic branching, suckers 1cm, .5cm, 1cm		x	Conflicts from site preparation.
292	White Ash	*Fraxinus americana*	26	Good	Good	Good		eab holes, heavy suckering, largest sucker 1cm		x	Conflicts from site preparation.
293	White Ash	*Fraxinus americana*	20.5	Good	Good	Good		heavy suckering largest 1cm		x	Conflicts from site preparation.
294	White Ash	*Fraxinus americana*	11.5	Good	Good	Good		no suckers		x	Conflicts from site preparation.
295	White Ash	*Fraxinus americana*	ms 5-15	Good	Good	Good		mushrooms on trunk, largest sucker 1.5cm, heavy epicormic		x	Conflicts from site preparation.
296	White Ash	*Fraxinus americana*	12	Good	Good	Good		eab, heavy epicormic, 1cm sucker		x	Conflicts from site preparation.
297	White Ash	*Fraxinus americana*	ms 10-20	Good	Good	Good		eavy epicormic, .5cm sucker		x	Conflicts from site preparation.
298	White Ash	*Fraxinus americana*	21.5	Good	Good	Good		2cm sucker, mod epicormic		x	Hazard tree, remove
299	White Ash	*Fraxinus americana*	22	Good	Good	Good		5.5CM SUCKER		x	Hazard tree, remove
300	White Ash	*Fraxinus americana*	12	Good	Good	Good		HEAVY Vines, 4cm sucker		x	Hazard tree, remove

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
301	White Ash	*Fraxinus americana*	19	Good	Good	Good		heavy epicormic, .5cm sucker	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
302	White Ash	*Fraxinus americana*	11	Good	Good	Good		heavy vine, .5cm sucker, mod epicormic	x		
303	White Ash	*Fraxinus americana*	cd 20, 24	Good	Good	Good		.5cm suckering mod	x		
304	White Ash	*Fraxinus americana*	ms 5-10	Good	Good	Good		one dead stem		x	Conflicts from site preparation.
305	White Ash	*Fraxinus americana*	11.5	Good	Good	Good			x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
306	White Ash	*Fraxinus americana*	cd 11, 17	Good	Good	Good		no suckers	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
307	White Fir	*Abies concolor*	10	Good	Good	Good		heavy epicormic, small suckers below hip	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
308	White Ash	*Fraxinus americana*	12	Good	Good	Good			x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
309	White Ash	*Fraxinus americana*	16	Good	Good	Good		sm suckes, .5cm	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
310	White Ash	*Fraxinus americana*	20.5	Good	Good	Good			x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
311	White Ash	*Fraxinus americana*	14	Good	Good	Good			x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
312	Willow Species	*Salix sp.*	ms 5-15	Good	Good	Good				x	Conflicts from site preparation.

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
313	White Ash	*Fraxinus americana*	11	Good	Good	Good		.5cm sucker	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
314	Willow Species	*Salix sp.*	cd 14, 5	Good	Good	Good				x	Conflicts from site preparation.
315	Willow Species	*Salix sp.*	cd 10, 20	Good	Good	Good		branch breakage	x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
316	Willow Species	*Salix sp.*	cd 14, 5	Good	Good	Good			x		
317	Russian Olive	*Elaeagnus angustifolia*	ms 15-20	Good	Good	Good			x		
318	Black Locust	*Robinia pseudoacacia*	14.5	Good	Good	Good		lower branch dieback		x	Conflicts from site preparation.
319	Siberian Elm	*Ulmus pumila*	10,10,13	Good	Good	Good				x	Conflicts from site preparation.
320	Black Locust	*Robinia pseudoacacia*	28.5	Good	Good	Good				x	Conflicts from site preparation.
321	Black Locust	*Robinia pseudoacacia*	19,20	Good	Good	Good		some dead branched		x	Conflicts from site preparation.
322	Siberian Elm	*Ulmus pumila*	15.5	Good	Good	Good		leaf defoliation		x	Conflicts from site preparation.
323	Siberian Elm	*Ulmus pumila*	11	Good	Good	Good				x	Conflicts from site preparation.
324	Siberian Elm	*Ulmus pumila*	13	Good	Good	Good		lower branch dieback		x	Conflicts from site preparation.
325	Siberian Elm	*Ulmus pumila*	11	Good	Good	Good				x	Conflicts from site preparation.
326	Siberian Elm	*Ulmus pumila*	10	Good	Good	Good				x	Conflicts from site preparation.
327	Siberian Elm	*Ulmus pumila*	12,12.5	Good	Good	Good				x	Conflicts from site preparation.
328	Trembling Aspen	*Populus tremuloides*	22,10,15	Good	Good	Good			x		Establish fencing per TPP Figure. No machinery or disturbance within the TPZ
329	Trembling Aspen	*Populus tremuloides*	22,15,12	Good	Fair	Poor		Shaded by pines	x		
330	White Ash	*Fraxinus americana*	13	Good	Good	Good			x		
331	Trembling Aspen	*Populus tremuloides*	13	Good	Fair	Fair			x		
332	Siberian Elm	*Ulmus pumila*	18,16	Good	Good	Good			x		
333	Austrian Pine	*Pinus nigra*	29	Good	Good	Good			x		

Tree Map #	Common Name	Scientific Name	DBH	TI	CS	CV	CDB	Comments	Retain	Remove	Proposed Action
334	Austrian Pine	*Pinus nigra*	30.5	Good	Good	Good			x		
335	Austrian Pine	*Pinus nigra*	30.5	Good	Good	Good			x		
336	Austrian Pine	*Pinus nigra*	31	Good	Good	Good			x		
337	Austrian Pine	*Pinus nigra*	32	Good	Good	Good			x		
338	Austrian Pine	*Pinus nigra*	33	Good	Good	Good			x		
339	Austrian Pine	*Pinus nigra*	33	Good	Good	Good			x		
340	Austrian Pine	*Pinus nigra*	34	Good	Good	Good			x		
341	Austrian Pine	*Pinus nigra*	34.5	Good	Good	Good			x		
343	Austrian Pine	*Pinus nigra*	36.5	Good	Good	Good			x		
344	Austrian Pine	*Pinus nigra*	50	Good	Good	Good			x		

Maps



Legend

Study Area

N

0 150 300 450 600 750 metres

Prepared using QGIS and Google Satellite Imagery

GeoProcess RESEARCH ASSOCIATES

CREATED BY:	MD	PROJECT NO.:	P2020-433
CHECKED BY:	KG	DATE:	May 13, 2021

Map 1.

Key Map

ENVIRONMENTAL IMPACT ASSESSMENT
291 NORTH SERVICE ROAD
KING PAVING LTD.

G:\My Drive\Projects\P2020-433 King Paving Asphalt Plant EIS\Mapping\GIS\Projects\Basemap - all EIS maps.qgz



GeoProcess RESEARCH ASSOCIATES

CREATED BY:	MD	PROJECT NO.:	P2020-433
CHECKED BY:	JR	DATE:	Sep 17, 2021

Map 2.

Woodland Assesment Plots and Tree Locations

TREE PRESERVATION PLAN
291 NORTH SERVICE ROAD
KING PAVING LTD.

G:\My Drive\Projects\P2020-433 King Paving Asphalt Plant EIS\Mapping\GIS\Projects\DH\TPP_DH.qgz

592790 592875 592960 4797360 593045 593130

4797360 4797280 4797200 4797120 4797040

Legend

- Study Area
- Compartment A (woodland per by-law)
- Site Plan
- Dripline-Staked by ROH (August 2020)

Tree Preservation Plan

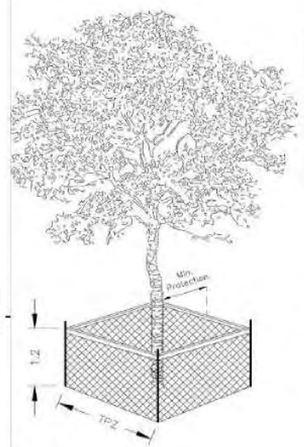
- Tree Protection Fencing
- Tree Protection Zone
- Removal Tree
- Retention Tree
- Hazard Trees for Removal

N

0 12 24 36 48 60 m

Prepared using QGIS and Google Satellite Imagery

Tree Protection and Preservation Specification No.: SS12A



TREE PROTECTION BARRIER

Detail TP-1 – Tree Protection Detail.

Trunk Diameter (DBH) [2]	Minimum Tree Protection Zone (MTPZ) Distances Required [3]	Critical Root Zone (CRZ) Distances Required [3&4]
< 10 cm	1.8 m	1.8 m
11 - 40 cm	2.4 m	4.0 m
41 - 50 cm	3.0 m	5.0 m
51 - 60 cm	3.6 m	6.0 m
61 - 70 cm	4.2 m	7.0 m
71 - 80 cm	4.8 m	8.0 m
81 - 90 cm	5.4 m	9.0 m
91 - 100+ cm	6.0 m	10.0 m

NOTES:

[1] The roots of a tree can extend from the trunk to approximately 2-3 times the distance of the drip line.
[2] Diameter at breast height (DBH) is the measurement of tree trunk taken at 1.4 metres above ground.
[3] Minimum Tree Protection Zone and Critical Root 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 and is subject to Section 6 of this specification.
[4] Where work is being performed beyond the Minimum Tree Protection Zone but within the Critical Root Zone the works are subject to Section 8 of this specification.

Notes
1.Removal of vegetation should be avoided during the period of March 31st to August 31st as per the Migratory Birds Convention Act, 1994

GeoProcess RESEARCH ASSOCIATES

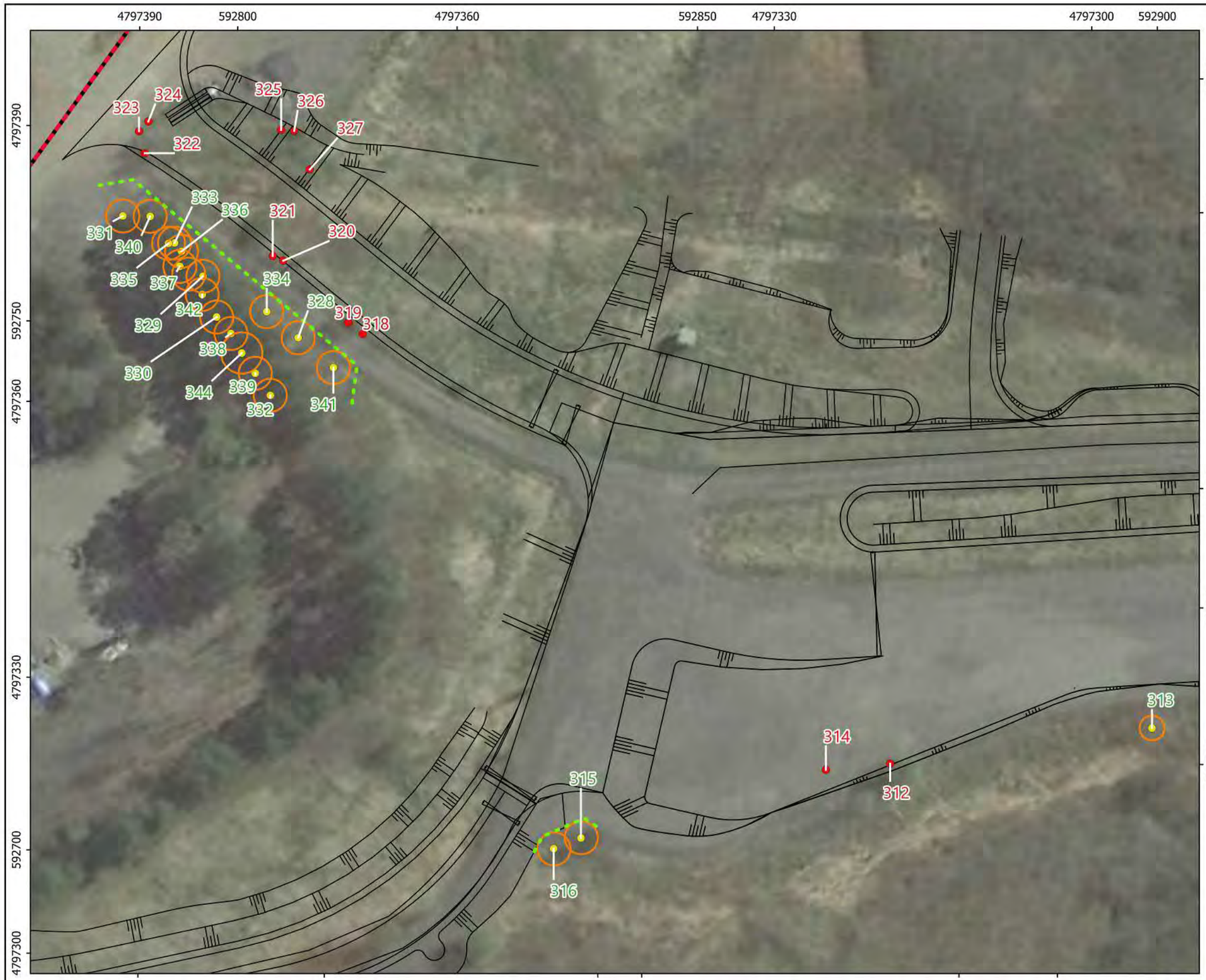
CREATED BY:	MD	PROJECT NO.:	P2020-433
CHECKED BY:	JR	DATE:	Apr 07, 2022

Map 3.

Tree Preservation Plan
Full Scale

TREE PRESERVATION PLAN
291 NORTH SERVICE ROAD
KING PAVING LTD.

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Legend

- Study Area
- Site Plan

Tree Preservation Plan

- Minimum Tree Protection Zone for planning purposes
- Tree Protection Fencing
- Removal Tree
- Retention Tree

N

0 2 4 6 8 10 m

Prepared using QGIS and Google Satellite Imagery

GeoProcess RESEARCH ASSOCIATES

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CHECKED BY:	JR	DATE:	Feb 16, 2022

Map 3a.

Tree Preservation Plan
Northwest Corner

ENVIRONMENTAL IMPACT ASSESSMENT
291 NORTH SERVICE ROAD
KING PAVING LTD.

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4797300 592950 4797270 592980 4797240

4797240 592890 4797210 592920 4797180

Legend

- Compartment A(woodland per by-law)
- Site Plan
- Dripline-Staked by ROH (August 2020)

Tree Preservation Plan

- Minimum Tree Protection Zone for planning purposes
- Tree Protection Fencing
- Removal Tree
- Retention Tree

N

0 2 4 6 8 10 m

Prepared using QGIS and Google Satellite Imagery

GeoProcess RESEARCH ASSOCIATES

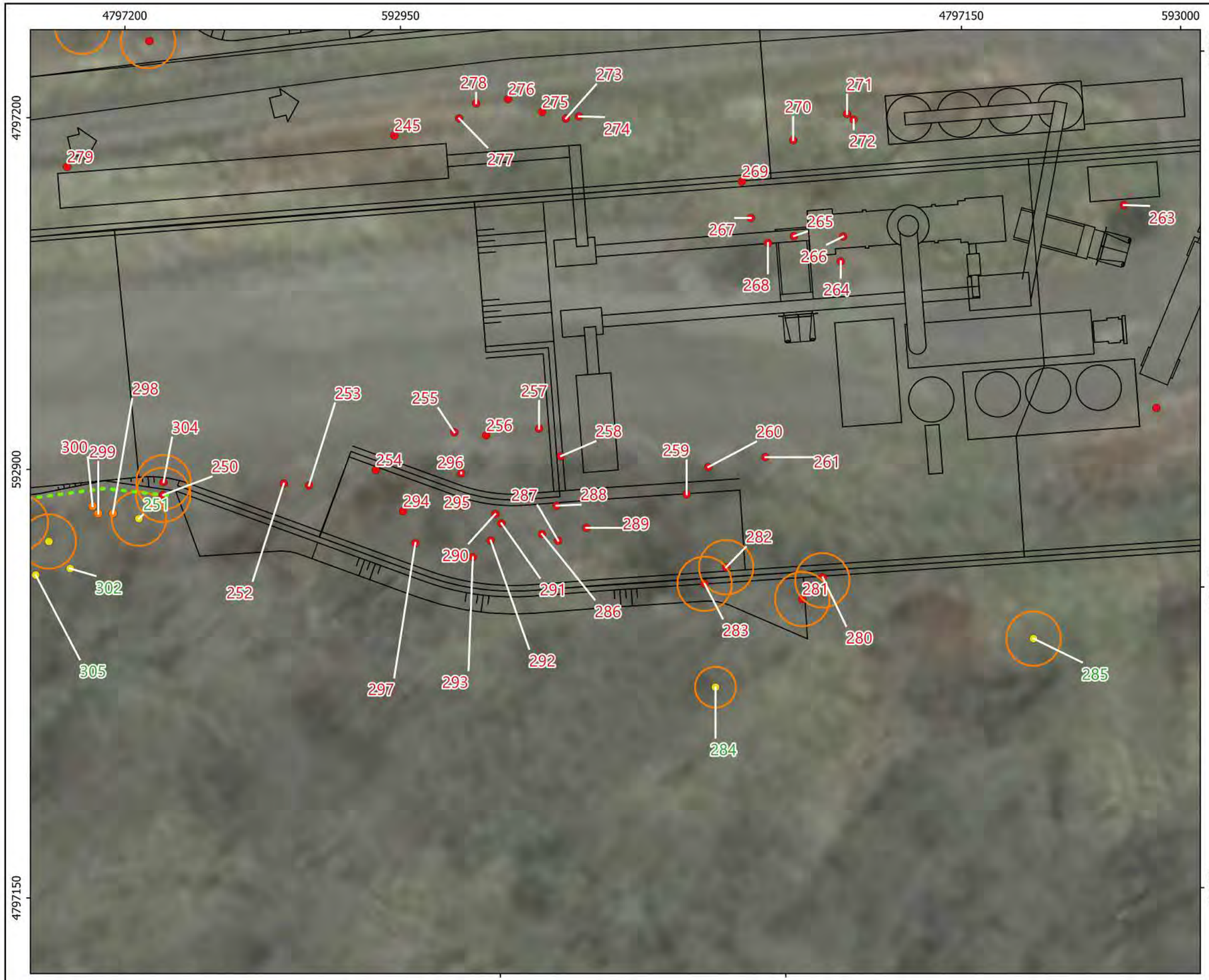
CREATED BY:	MD	PROJECT NO.:	P2020-433
CHECKED BY:	JR	DATE:	Feb 16, 2022

Map 3b.

Tree Preservation Plan
Northeast Woodland

ENVIRONMENTAL IMPACT ASSESSMENT
291 NORTH SERVICE ROAD
KING PAVING LTD.

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Legend

- Site Plan

Tree Preservation Plan

- Minimum Tree Protection Zone for planning purposes
- Tree Protection Fencing
- Removal Tree
- Retention Tree
- Hazard Trees for Removal

N

0 2 4 6 8 10 m

Prepared using QGIS and Google Satellite Imagery

GeoProcess RESEARCH ASSOCIATES

CREATED BY:	MD	PROJECT NO.:	P2020-433
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Map 3c.

Tree Preservation Plan
Asphalt Plant

ENVIRONMENTAL IMPACT ASSESSMENT
291 NORTH SERVICE ROAD
KING PAVING LTD.

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592980 593010 593040 593070 593100

4797150 4797120 4797090 4797060

592950

274 270 269 271 267 272 268 265 264 263 262 285

179 178 180 205 204 203 201 200 207 206 202 199 198 197 196 175 176 177 170 171 172 173 174 195 181 193 192 182 184 194 191 183 317 189 186 187 185 188

Legend

- Study Area
- Site Plan

Tree Preservation Plan

- Minimum Tree Protection Zone for planning purposes
- Tree Protection Fencing
- Removal Tree
- Retention Tree

N

0 2 4 6 8 10 m

Prepared using QGIS and Google Satellite Imagery

GeoProcess RESEARCH ASSOCIATES

CREATED BY:	MD	PROJECT NO.:	P2020-433
CHECKED BY:	JR	DATE:	Feb 16, 2022

Map 3d.

Tree Preservation Plan
Southeast Corner

ENVIRONMENTAL IMPACT ASSESSMENT
291 NORTH SERVICE ROAD
KING PAVING LTD.

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Legend

- Site Plan

Tree Preservation Plan

- Tree Protection Zone
- Minimum Tree Protection Zone for planning purposes
- Removal Tree
- Retention Tree
- Hazard Trees for Removal

N

0 2 4 6 8 10 m

Prepared using QGIS and Google Satellite Imagery

GeoProcess RESEARCH ASSOCIATES

CREATED BY:	MD	PROJECT NO.:	P2020-433
CHECKED BY:	JR	DATE:	Feb 16, 2022

Map 3e.

Tree Preservation Plan
Southeast Woodland

ENVIRONMENTAL IMPACT ASSESSMENT
291 NORTH SERVICE ROAD
KING PAVING LTD.

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