October 6, 2021 **Our File: AVE 866.4**

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Reference: Updated technical memorandum addressing agency comments on environmental reports for Site 3 of the National Capital Business Park, 4055 Russell Road, Ottawa

1.0 INTRODUCTION

Kilgour & Associates Ltd. (KAL) was retained by AVENUE31 to conduct natural environment studies in support of their proposed development of the National Capital Business Park (NCBP) on lands owned by the National Capital Commission (NCC) at 4055 and 4120 Russell Road, Ottawa. This technical memorandum addresses natural environment information related to the proposed development of Site 3 of the NCBP at 4055 Russell Road (Figure 1, Appendix A) in support of the Site Plan Control application for Site 3.

In a pre-consultation meeting on January 20, 2021, the City of Ottawa ("the City"; Matthew Hayley) indicated to AVENUE31 (Jennifer Murray) that a technical memorandum (this document) may replace the requirement for an Environmental Impact Statement (EIS) for the Site Plan Control application for Site 3. This is because an EIS was already prepared for the Master Concept Plan submission for the NCBP (the "Master-level EIS"; including Site 3; KAL, 2020a) and previously reviewed by the City, Rideau Valley Conservation Authority (RVCA), and the NCC. The NCC confirmed that they would also accept a technical memorandum in place of an EIS for Site 3 (KAL (K. Black) personal communication with the NCC (C. Cranmer) on January 21, 2020). This revised technical memorandum 1) addresses agency comments on the previously submitted Master-level EIS and the previous version of this document, and 2) discusses the results of environmental studies that have been conducted for Site 3 since the submission of the Master-level EIS.

1.1 Relevant Applications and Approvals

As part of the NCC's Federal Land Use, Design, and Transaction Approval (FLUDTA) process, a Master Concept Plan for the entire NCBP was submitted to the NCC and the City in March 2020 and the submission was deemed complete by the City on May 19, 2020. The Master-level EIS was approved by the NCC on April 21, 2020 but has not been approved by the City or RVCA to date. Comments from the City and RVCA on the Master-level EIS were provided to AVENUE31 in June 2020 but previously were not addressed; they are addressed in Section 2 of this document.

Figure 1 Map showing the location and existing conditions of Site 3 of the NCBP at 4055 Russell Road

Property lines

Site 3

Not subject to development under current proposal

Drainage feature

N

0 100 m

Project: AVE 866.4
Universal Transverse Mercator - Zone 18 (N)
Printed on: 2021-01-18

KILGOUR & Associates

The proposed development of the NCBP is currently undergoing the Site Plan Control process at the City with review by the NCC and RVCA. The proposed NCBP development consists of three different sites (i.e., Site 1, Site 2, and Site 3). Each individual site within the NCBP requires an EIS (in the form of a technical memorandum) and a TCR through the Site Plan Control process. A Basic Project Mitigation Measures Form ("MMF") for each individual site within the NCBP will also be submitted to the NCC for their review and approval.

A revised EIS (KAL, 2020b), a TCR (KAL, 2020c), and a MMF (KAL, 2020d) were prepared for Site 1 of the NCBP (4120 Russell Road) on behalf of AVENUE31 and approved by the NCC in October 2020. The City issued a tree cut permit (D06-01-20-0060) for Site 1 on October 14, 2020 in advance of Site Plan Control approval. Technical circulation comments from the City regarding the Site Plan Control application for Site 1 dated January 14, 2021 indicated that there were no further comments on the EIS. The Site Plan Control application for Site 1 was approved June 14, 2021.

Conceptual plans for Site 2 are currently under development. Preparation of an EIS in the form of a technical memorandum, a TCR, and a MMF will be produced for Site 2 once the development plan is finalized.

A MMF (KAL, 2020e) was prepared on behalf of the NCC for the demolition of houses and agricultural structures on Site 3. This was approved through a FLUDTA by the NCC on November 19, 2020 and a building demolition permit was issued in April 2021. A TCR (Appendix B) and MMF for tree removal and topsoil stripping (KAL, 2021a) for Site 3 were approved by the NCC on March 4, 2021. The City issued a tree cut permit for Site 3 on March 9, 2021 (Appendix C). All trees and buildings on Site 3 have since been removed.

2.0 ADDRESSING OUTSTANDING COMMENTS ON THE MASTER-LEVEL ENVIRONMENTAL IMPACT STATEMENT

2.1 Comments from the City of Ottawa

The City offered the following comment in the pre-consultation meeting minutes for Site Plan Control for Site 3 on January 20, 2021 (Appendix D):

The comments provided on the "Master Site Plan" and in particular on the EIS need to be addressed. It wasn't my understanding that the 1 "master" submission was approved. I provided several comments on the May 2020 EIS that would apply to the 4055 Russell Road site and to my knowledge they haven't been responded to.

KAL's response:

- This is correct; the City's comments on the Master-level EIS are addressed below.

The following numbered comments on the Master-level EIS were provided by the City on June 25, 2020 (Appendix E).

Environmental Impact Statement

47.Table 3 - soil information should be up-dated to include information obtained on site as part of the geotechnical study and through the EIS if soil augers used.

KAL's response:

- Soil information collected through the geotechnical investigation performed by Paterson Group (2020) includes more detail than that collected from soil augers used in Ecological Land

Classification conducted for the EIS. Relevant soil information from Paterson Group (2020) is presented in the bullet point below. Soil information collected by Paterson Group (2020) is representative of soil information presented in the Ecological Land Classification for the NCBP (KAL, 2020a).

- Generally, the soil profile encountered at 11 test hole locations on Site 3 consisted of a 100 to 250 mm layer of topsoil underlain by 0.3 to 3 m of loose to compact brown silty sand. A silty clay deposit was found to be underlying the silty sand for nine out of 11 boreholes on Site 3, extending to depths from 2.1 to 9.5 m. The silty clay generally had an upper crust consisting of a hard to stiff brown silty clay, becoming a stiff to firm grey silty clay at approximate depths of 1.5 to 5 m. A glacial till deposit was generally encountered underlying the silty clay, consisting of a compact to dense grey silty clay with sand, gravel, cobbles, and boulders. Depth to bedrock was estimated to range from 2.3 to 10.3 m. Bedrock in the area consists of shale of the Carlsbad Formation with overburden drift thicknesses between approximately 2 and 10 m depth.

48.Wetlands - the NCC will comment on the wetlands from the Federal perspective as that is the policy that applies.

KAL's response:

- The proponent proposes to remove the cattail marsh along the northwestern edge of Site 3. The NCC has consulted with Environment and Climate Change Canada (ECCC) and RVCA to determine wetland compensation criteria. AVENUE31 is in the process of preparing a wetland compensation plan to be reviewed by the NCC and RVCA based on the criteria provided. Compensation will occur off-site at an area ratio of 2:1. Detailed design for wetland compensation will be reviewed by the NCC through a separate approval process.
- A FLUDTA for topsoil removal associated with the wetland was granted on March 4, 2021.

49.Significant Woodlands - this paragraph refers to an outdated version of the significant woodland guidelines/policy. Although it doesn't make difference in terms of the analysis of significance since the threshold for significance is 60 years and not 40.

KAL's response:

- Thank you for catching this. As noted, Site 3 did not contain Significant Woodlands based on the age criterion of 60 years and older.

50.Barn swallows – the EIS recommends further field work, this will need to be completed.

KAL's response:

- This field work has been completed. The context for this additional field work and the results are provided below.
- Multiple Barn Swallows (*Hirundo rustica*) were observed foraging over fallow fields by KAL on Site 3 on July 1, 2019. Following this observation, KAL inspected potential nesting structures on and adjacent to Site 3, including: abandoned agricultural structures on site, nearby bridges and culverts, and buildings at the nearby cemetery at 3970 Russell Road. Potential nesting structures on nearby private properties were viewed from the road with binoculars. No Barn Swallow nests were observed in 2019. Additional field work relating to Barn Swallows was recommended in the Master-level EIS and conducted in 2020 to determine the approximate locations of Barn Swallow nests.

- The area within 200 m of a Barn Swallow nest is protected under the *Endangered Species Act* (ESA) as foraging (Category 3) habitat (MECP, 2019). There is no federal recovery strategy for Barn Swallow describing protected habitat under the *Species at Risk Act* (SARA). In the absence of a federal recovery strategy for Barn Swallow, SARA only provides protection for individuals of the species and their places of residence (e.g., nests; Government of Canada, 2007). As such, the description of protected habitats for Barn Swallow under the ESA (MECP, 2019) were applied.
- Since Barn Swallows were observed foraging over Site 3 in 2019, follow-up surveys were conducted in 2020 to determine if ESA-defined foraging habitat fell on Site 3 (i.e., to determine if Barn Swallow nests were located within 200 m of Site 3). Follow-up breeding bird surveys in 2020 used the same survey stations and methods as in 2019 (Bird Studies Canada et al., 2011; KAL, 2020a). If a Barn Swallow was observed during surveys, surveyors would follow its flight path on foot with the aim of identifying the approximate location of a nest. Specific dates and weather conditions for bird surveys conducted in 2020 are shown in Table 1. No "new" bird species were observed on Site 3 during 2020 surveys compared to the list of species observed during 2019 surveys for Site 3 (KAL, 2020a).

Table 1 Dates and weather conditions of Barn Swallow (breeding bird) surveys conducted for Site 3 in 2020

Survey date	Average weather conditions during survey
June 10, 2020	Temperature: 15°C Cloud cover: 40-60% Wind: 3 (Beaufort scale) Precipitation: None
June 25, 2020	Temperature: 16°C Cloud cover: 75-100% Wind: 3 (Beaufort scale) Precipitation: None
July 10, 2020	Temperature: 21°C Cloud cover: 0-10% Wind: 1 (Beaufort scale) Precipitation: None

- Barn Swallows were not observed on Site 3 in 2020, but they were observed nearby from Sites 1 and 2 of the NCBP (4120 Russell Road). The number of individual Barn Swallows observed off-site ranged from one to 10. During most Barn Swallow observations, individuals were seen flying back and forth from Site 2 of the NCBP and industrial buildings north of Site 2 along Belgreen Drive. Since some of these buildings fall within 200 m of the proposed NCBP, KAL obtained permission from adjacent property owners to inspect the industrial buildings. Several of the inspected industrial buildings contain open garages, warehouses, and shipping containers that may provide nesting habitat for Barn Swallow. In addition to inspecting industrial buildings along Stevenage Drive, Belgreen Drive, and Hawthorne Road, KAL re-checked all structures that were inspected in 2019 for Barn Swallow nests. No Barn Swallow nests were found within approximately 400 m of Site 3.
- Due to the absence of Barn Swallow nests on suitable nesting structures within approximately 400 m of Site 3, KAL concludes that Barn Swallows are unlikely to be nesting within 200 m of

the site. Site 3 and adjacent areas where Barn Swallows were observed foraging are therefore not legally protected Category 3 habitat under the ESA, nor are they protected by SARA.

- Suitable foraging habitat for Barn Swallow (i.e., fallow fields) on Site 3 would be removed under the proposed development, but as previously mentioned, it is not protected under the ESA or SARA. The proposed development of Site 3 does not remove all suitable foraging habitat in the area; suitable foraging habitat associated with the stormwater management pond south of Site 2 off Hunt Club Road would remain under the proposed development.
- No mitigation measures specific to Barn Swallow were required beyond following the standard vegetation clearing protocols provided in the Master-level EIS and the TCR for Site 3 (Appendix B). This included conducting vegetation removal outside of April 1 to September 30 to prevent impacts to both birds and bats.

51.Bobolink - habitat potential but have they checked with MECP? The timing restrictions recommended. What about registration?

KAL's response:

- Three Bobolink (*Dolichonyx oryzivorus*) were observed around the agricultural structures on Site 3 by NCC staff on May 16, 2019. KAL did not observe Bobolink on Site 3 during subsequent breeding bird surveys conducted in 2019 (KAL, 2020a) or 2020 (a total of six surveys). As such, the Bobolink observed by NCC staff were likely transient individuals, and it is therefore unlikely that Bobolink use Site 3 as breeding or nesting habitat.
- Critical habitat for Bobolink is identified based on habitat occupancy and biophysical attributes of the habitat (ECCC, 2020). "Habitat occupancy" is defined as confirmed breeding by Bobolink in suitable habitat as documented through standardized survey data, identified nest locations, and/or incidental observations of breeding evidence (ECCC, 2020). No such breeding evidence was observed for Bobolink on Site 3 and no critical habitat exists on Site 3.
- Given that Site 3 does not contain critical habitat for Bobolink, consultation with the relevant species at risk (SAR) agency (ECCC) is not required. However, since the proposed development would remove potentially suitable breeding and nesting habitat for Bobolink (i.e., fallow fields) and the species is known to generally occur in the area, mitigation measures shall be implemented to prevent potential impacts to this species. This includes removing vegetation and topsoil in the fallow fields outside of May through August 2021.
    - The estimated maximal nesting period for Bobolink in Ontario is May 1 to August 31 (MNRF, 2013). Vegetation removal in the fallow fields may only be conducted during this period if a qualified Biologist has confirmed the absence of grassland bird nests within 48 hours of vegetation removal. If any at-risk bird species are found to be nesting within the fallow fields, vegetation removal must be delayed until all nestlings are fledged (typically in July; MNRF, 2013).
    - Even if vegetation in the fallow fields is removed by May 1, vegetation may re-colonize and re-create suitable nesting habitat for Bobolink. The fallow fields should be maintained (i.e., mowed or ploughed) or continually stressed (e.g., via the presence of active machinery) during the nesting season to prevent attracting Bobolink to the site.

52.Bats -- the EIS provides specific recommendations for monitoring that affect tree removal and house demolition. How will these be implemented and what are the mitigation measures that are necessary if the bats are present? Under the Federal process are the buildings allowed to be removed after the bats have left?

KAL's response:

- Site 3 previously contained several features suitable for bat roosting, including two vacant houses, several agricultural outbuildings, and treed areas, all of which have recently been removed.
- KAL conducted bat emergence surveys for the two vacant houses on Site 3 (Figure 2) on behalf of the NCC in June 2020 to confirm the presence/absence of maternity roosts and at-risk bats in the houses in advance of their demolition (KAL, 2020f). Surveys were conducted following the Guelph District Ministry of Natural Resources and Forestry's (MNRF's) survey methods (MNRF, 2014a). These methods involve monitoring potential bat exit points on buildings for two nights each in June using a combination of visual observations and acoustic monitoring equipment. This method allows for the detection of bats as they exit buildings in the early evening to forage, and therefore allows for the detection of possible use or occupation of the buildings by bat maternity colonies and at-risk bats, including Little Brown Myotis (*Myotis lucifugus*), Northern Myotis (*Myotis septentrionalis*), Tri-colored Bat (*Perimyotis subflavus*), and Eastern Small-footed Bat (*Myotis leibii*).
    - KAL and the NCC agreed that detailed bat monitoring was not necessary for the agricultural outbuildings on Site 3 (i.e., barns and silos) due to their open nature. These outbuildings were assessed as having a low potential for the presence of maternity roosts as they may be exposed to the elements and are unlikely to provide sufficient shelter for maternity colonies compared to the abandoned houses. Maternity colonies are most likely to use anthropogenic structures that provide consistent daytime temperatures within approximately 26 to 32°C or that are sufficiently insulated that body warmth is easily trapped (Gerson, 1984).

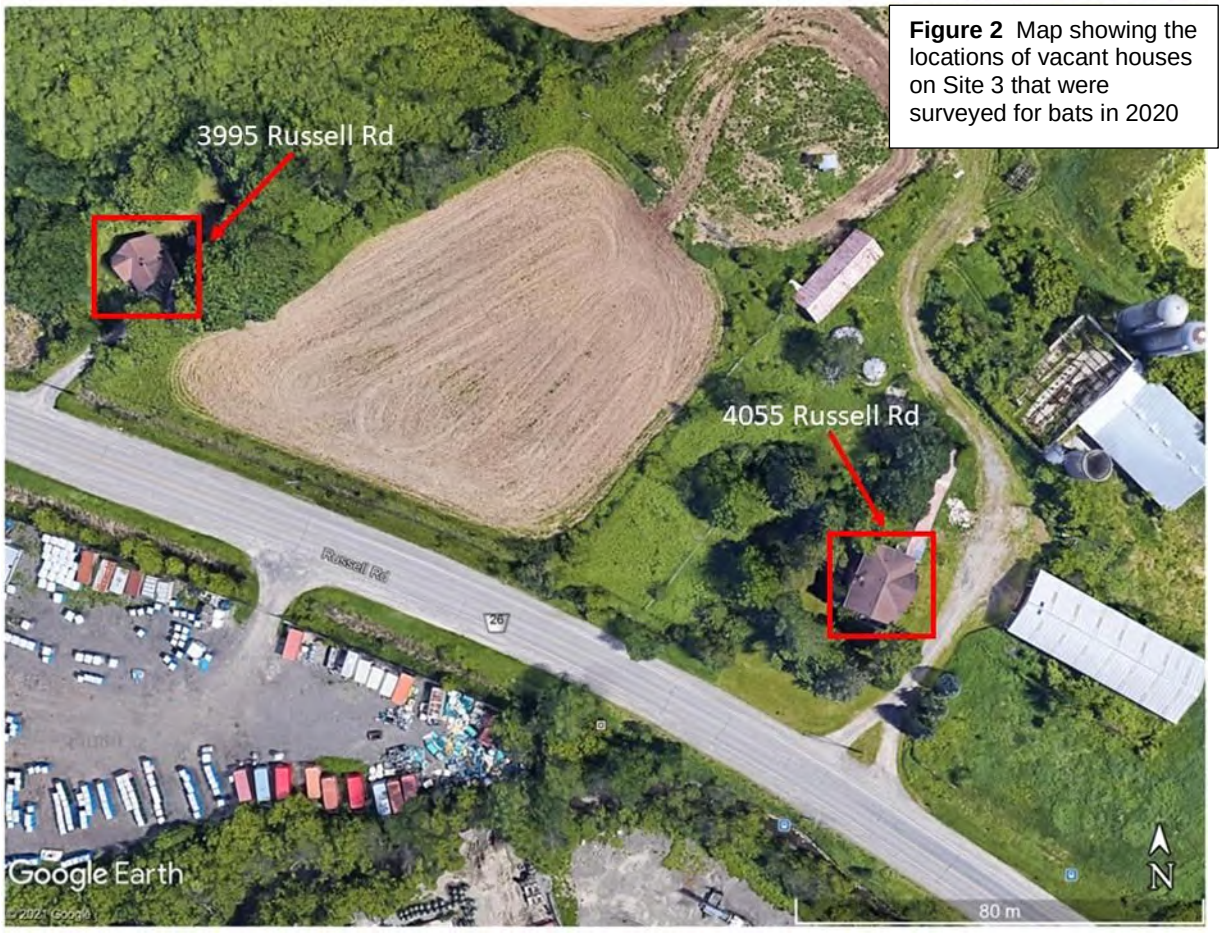


Figure 2 Map showing the locations of vacant houses on Site 3 that were surveyed for bats in 2020

- Weather conditions followed those recommended by MNRF (2014a) for bat emergence surveys (Table 2). No bats were observed exiting or entering either of the vacant houses (Table 2).

Table 2 Results of bat emergence surveys conducted for the two houses on Site 3 in 2020

Survey date	Location	Weather conditions	Survey time		Bats observed
			Start	End	
June 18, 2020	18T 453687E 5025782N (4055 Russell Rd)	Temperature (°C): 28 Cloud cover: 5% Wind (Beaufort scale): 1 Precipitation: None	20:45	23:00	1 small animal observed, but assumed to be a small bird because observation did not coincide with an acoustic recording
June 25, 2020	18T 453687E 5025782N (4055 Russell Rd)	Temperature (°C): 21 Cloud cover: 0-25% Wind (Beaufort scale): 2 Precipitation: None	20:54	22:30	None
	18T 453550E 5025850N	Temperature (°C): 21 Cloud cover: 0-25% Wind (Beaufort scale): 1	20:54	22:30	None

Survey date	Location	Weather conditions	Survey time		Bats observed
			Start	End	
	(3995 Russell Rd)	Precipitation: None			
June 29, 2020	18T 453550E 5025850N (3995 Russell Rd)	Temperature (°C): 24 Cloud cover: 0-5% Wind (Beaufort scale): 1 Precipitation: None	20:54	22:30	None

- Acoustic monitors were successful in capturing some bat calls though the recordings were only from bats flying overhead or nearby and not from bats entering or exiting the houses (Table 3). This conclusion was supported by the combination of acoustic and visual observation data as no bats were observed entering or exiting buildings, and the one small animal observed near the farmhouse at 4055 Russell Road did not result in a coincident acoustic recording (Table 2).

Table 3 Number of acoustic recordings by bat species at the houses surveyed on Site 3 in 2020

Location	Survey date	Big Brown Bat (*Eptesicus fuscus*)	Hoary Bat (*Lasiurus cinereus*)	Silver-haired Bat (*Lasionycteris noctivagans*)
18T 453687E 5025782N (4055 Russell Rd)	June 18, 2020	3	0	0
	June 25, 2020	2	9	2
18T 453550E 5025850N (3995 Russell Rd)	June 25, 2020	0	3	2
	June 29, 2020	2	2	0

- Big Brown Bat (*Eptesicus fuscus*), Hoary Bat (*Lasiurus cinereus*), and Silver-haired Bat (*Lasionycteris noctivagans*) were detected via acoustic monitors. No at-risk bats were identified during the surveys and very few bat calls were recorded in general. These results suggested that the houses were not being used by maternity colonies or at-risk bat species. Both Big Brown and Silver Haired Bats may form maternity colonies in buildings (as well as in tree cavities) where there is access and appropriate roosting habitat (Kunz and Fenton, 2003). Big Brown Bats generally form colonies of 10-100 individuals while Silver Haired Bats typically form colonies of 1-100 individuals (Kunz and Fenton, 2003). If the houses were being used by a maternity colony, more bat activity would have been detected during surveys when bats leave roosts to feed at night (Kunz and Fenton, 2003). Additionally, both Big Brown and Silver Haired Bats change their roosts fairly frequently (every 3-10 days) with all their roosts for a season usually found within a small area (<400 m; Kunz and Fenton, 2003). Therefore, the two houses on Site 3 were unlikely to provide sufficient habitat to support maternity colonies. Much larger forested areas occur just north of the site across Highway 417 and would offer many more roosting opportunities for bats in the area. Hoary Bats, the most frequently recorded bat species during the surveys, typically roost in the tops of trees and not in cavities (Gerson, 1984) and are unlikely to be inhabiting either of the surveyed houses.

- The demolition of the houses prior to the return of bats in May (MNRF, 2015) eliminated potential impacts to bats. In addition, clearing trees prior to April 1, 2021 prevented impacts to bats that may have roosted in trees on Site 3.

53.Has the EIS authors reviewed the lighting plans for the site?

KAL's response:

- No. The photometric plan for Site 3 is still being developed. The consultant that is designing the photometric plan (Hammerschlag & Joffe Inc.) has indicated that it will meet The Royal Astronomical Society of Canada "Dark Sky 2018 guidelines" and the City of Ottawa's Bird-Safe Design Guidelines (2020).
- The operation of Site 3 will also incorporate design principles from LEED v4 Building, Design, and Construction – Sustainable Sites: Light Pollution Reduction.

54.Map on Page 72, how is the offsetting of the function of the wetland going to work and where will it be located? We are not supportive of SWM being placed within the watercourse setback, ecological enhancements are allowed.

- Wetland compensation will occur at a ratio of 2:1. The compensation will occur off-site on NCC-owned lands as determined in collaboration with the NCC and RVCA. AVENUE31 is engaging in ongoing discussions with the NCC to determine an alternative off-site location for wetland compensation. Priority will be given to lands within the McEwan Creek/Ramsay Creek catchment.
- The features and functions of the cattail marsh to be removed are summarized below:
    - It is a 1.937 ha wetland that was classified via Ecological Land Classification (Lee et al., 1998) as a Cattail Mineral Shallow Marsh Type (MAS2-1). It has a water table that seasonally drops below the substrate surface; the water table is typically above the surface in the spring and then the substrate surface dries in the summer. It is a homogenous marsh with only one vegetation community and dominant form and species (robust emergent and Broadleaf Cattail (*Typha latifolia*), respectively) based on classification used in the Ontario Wetland Evaluation System (OWES; MNRF, 2014b). The substrate material is coarse mineral sand (i.e., sand, loamy sand, loamy fine sand) over clay.
    - The cattail marsh has no known significant biological, social, or otherwise "special" features (e.g., no critical habitat for SAR, no documented SAR occurrences, no rare or unique vegetation species, no Significant Wildlife Habitat, etc.). However, it likely plays an important role in stormwater attenuation as it is an isolated wetland with no surface outflow, is located at the top of its catchment, and is surrounded on three sides by impervious surfaces. It mainly receives water from precipitation and stormwater runoff from Russell Road to the west along with some groundwater input, although there were no obvious groundwater seeps observed by KAL.
    - The cattail marsh was formally evaluated by KAL using OWES and resulted in a low score of 325 (the score for provincial significance is ≥ 600 points), mainly because it is relatively small and lacks biological and social significance.

- Based on the features and functions of the cattail marsh to be removed, the NCC and RVCA have provided a set of requirements and recommendations for wetland compensation based on their expertise and wetland policies (Table 4).

Table 4 Wetland compensation requirements and recommendations provided by the NCC and RVCA

Agency	Requirements and recommendations
RVCA	**Target functions of the wetland must include: stormwater attenuation and flood storage** (i.e., the functions being lost) **and should have a net environmental gain**. Objectives should include flood storage, fish and wildlife habitat, and water quality improvement. Net environmental gain may be achieved through the following examples: • Increasing biodiversity and enhancing habitat for reptiles, amphibians, Monarch, and other pollinators. • Incorporating habitat features such as shoreline inverted root wads, turtle basking logs, sweeper trees, submerged inverted root wads, and other wood structures. • Using local native wetland seed mixes and native pollinator seed mixes. • Incorporating a variety of depths and slopes in wetland design. • Providing overwintering habitat for reptiles and amphibians in the form of an open pool of permanent water with a minimum depth of 1 m. • Incorporating aquatic benches. • Including native, diverse riparian vegetation including aquatic and upland herbaceous species of herbs, shrubs, and trees (deciduous and coniferous).
	Provide a Conceptual Design (planning level requirement) with the following information requirements: **1.** Clear project goals and objectives from a watershed management context (including wetland functions, aquatic and terrestrial habitat, water quality, biodiversity, etc.). **2.** Details on the restoration potential/net environmental gain based on existing conditions from existing assessment data. **3.** The conceptual wetland features including plans showing the proposed layout, widths, depths, and riparian buffers **4.** A general description of species targeted for restoration and habitat descriptions (e.g., the use of wood structures and shallow vs. deep water zones, etc.).
	Provide a Detailed Design Plan (regulatory permit requirement) with the following information: **1.** Hydraulic assessment (i.e., expected seasonal water levels). **2.** Ecological values evaluation/summary. **3.** An explanation of the design criteria used to design the wetland. **4.** Wetland feature plan view, profile view, cross sections, structures plan, and landscape plan. **5.** Specifications for materials and construction procedures. **6.** Detailed drawings for each type of in-water structure (e.g., root wads, sweeper trees, etc.).

Agency	Requirements and recommendations
	Provide and execute a Post-Effectiveness Monitoring Plan (regulatory permit requirement) with the following components: **1.** Project goals and objectives. **2.** Performance criteria. **3.** The spatial extent of monitoring. **4.** The duration and frequency of monitoring (to be completed in years 1, 3, and 5 post-construction). **5.** Monitoring parameters and monitoring methods. **6.** Documentation of the monitoring plan. **7.** Management of monitoring data. **8.** Analysis of monitoring results. **9.** Reporting of monitoring outcomes. **10.** Contingency plan to repair or address deficiencies. **11.** Responsibility for all components of the monitoring program and implementation of contingency plan.
NCC	To inform the conceptual and detailed designs, the following are required: **1.** Site reconnaissance. **2.** SAR desktop screening (and targeted SAR surveys if needed). **3.** Groundwater and bedrock level investigation. **4.** If the compensation feature is to be connected to fish habitat, DFO needs to be informed and may require a review of the compensation plan.

- Implementation of wetland compensation is subject to approval by the NCC and RVCA under a separate approval process. Detailed design of the off-site wetland compensation would be a condition of the FLUDTA and Site Plan Approval for Site 3.

55.The watercourse setback, what are the plans for this area? Will it be planted with riparian tree species? The landscape context plan indicates this is the case, can the EIS provide examples of ecological functions that can be added to this area?

KAL's response:

- The Site 3 Site Plan Approval scope does not include the limits of the Mather Award Drain. However, AVENUE31 is open to continuing discussions with the NCC, the City, and RVCA regarding potential improvements to the ecological function of the watercourse and its riparian area, outside of the requirements of the FLUDTA or Site Plan Approval.

Planning Forester

56.The EIS notes in sections 5.2 and 6.3 that more work needs to be done to determine which trees will be impacted by the proposed development. I'll need a formal TCR that address our requirements before I can consider issuing a tree permit.

57.A Tree Conservation Report (TCR) must be supplied for review along with the suite of other plans/reports required by the City; an approved TCR is a requirement of Site Plan or Plan.

58.Any removal of privately-owned trees 10cm or larger in diameter requires a tree permit issued under the Urban Tree Conservation Bylaw; the permit is based on the approved TCR.

KAL's response to comments 56-58:

- Please see the TCR for Site 3 (Appendix B) and the tree cut permit issued by the City for Site 3 (Appendix C). All trees on Site 3 have since been removed. Tree compensation plans have been approved per the FLUDTA issued by the NCC in May 2021.

2.2 Comments from Rideau Valley Conservation Authority

The following comments on the Master-level EIS were provided by RVCA on June 25, 2020 (Appendix E).

100. Watercourses
In support of the application, the applicant has submitted the report "Environmental Impact Statement for 4055 and 4120 Russell Road, Ottawa, Ontario" dated March 30th, 2020, prepared by Kilgour & Associates Ltd. The report has completed a Headwater Drainage Features Assessment for the watercourses and also provided recommendations on wetland features. The report was reviewed by Jennifer Lamoureux, RVCA Aquatic and Fish Habitat Biologist.

4055 Russell Road
The report has identified several watercourses on the property including the Mather Award Drain. The report has provided a management recommendation of protection for Reach 1, Mitigation for Reach 2 and No Management Required for Reach 3. Based on the report it is our understanding that Reach 1 and 2 will not be altered. The report also provided a management recommendation for the Cattail Marsh, noting that even though the feature is not considered an HDF, this wetland likely plays an important role in stormwater attenuation because it is an isolated wetland with no surface outflow. The report concludes that this feature be considered for full retention in its current state and/or for incorporation into the stormwater management plan for this site. The RVCA concurs with the management recommendations provided for these features. Based on the plans provided, it is our understanding that the applicant would be pursuing the option of replicating the wetland function through the stormwater management plan.

KAL's response:

- Reaches 1 and 2 are not to be directly altered under the proposed development. The proposed stormwater management system includes headwall outlets that discharge into Reaches 1 and 2.
- The upstream end of Reach 3 slightly overlaps with the proposed development footprint for Site 3 and therefore the development is expected to interfere with this surface water feature. AVENUE31 shall seek written approval from RVCA to interfere with Reach 3 prior to its alteration. According to the Headwater Drainage Features Assessment prepared for the NCBP (KAL, 2020a), Reach 3 does not require additional management or compensation.
- Replicating wetland function will be achieved through off-site wetland compensation at a ratio of 2:1 (i.e., approximately 4 ha of wetland will be created).

101. Watercourse Setbacks
It is not clear on the plans provided what watercourse setback is being provided for Reaches 1 and 2. A site plan clearly identifying the 30 metre setback from the normal highwater mark for Reaches 1 and 2 (as identified in the Kilgour & Associates report) is required. The plan should also include the limit of hazard lands proposed by Paterson Group.

KAL's response:

- Please see Figure 3 below.

102. Watercourse Crossing
Based on the landscape package, there is a crossing proposed on the Mather Award Drain. No details on this proposed crossing were provided. If a crossing is going to form part of this submission, then details on the watercourse crossing are going to be required which may include engineering drawings and a hydraulic analysis. It is recommended that the applicant consult further with the RVCA on these requirements prior to initiating any studies.

KAL's response:

- The current proposed site plan does not include a crossing over the Mather Award Drain. AVENUE31 will consult further with RVCA and the NCC if they plan to pursue such a design feature.

RVCA offered the following environmental comments in the pre-consultation meeting minutes for Site Plan Control for Site 3 on January 20, 2021 (Appendix D):

A 30 metre setback is required from the normal high water mark of the watercourse. The proposed outlet should be discussed in the EIS, including the evaluation of its location and potential mitigation measures required.

KAL's response

- Please see the response to comment 101 from the RVCA above and Figure 3 regarding setbacks.
- Regarding the proposed stormwater outlet into the Mather Award Drain:
    - The proposed headwall location is within a relatively shallow grade outside of the hazard limit (Appendix F) which, combined with erosion control measures (such as a rip-rap spillway at the outfall), should prevent scouring in the drain by discharged water. The stormwater management plan also incorporates retention basins on the site which will also aid in the reduction of flows (Appendix F).
    - Discharged water from the stormwater management facility must follow requirements of RVCA (e.g., 80% removal of total suspended solids through on-site treatment prior to outletting to the receiver) and the NCC.
    - In terms of the release rate of discharged water, the 25 mm rainfall event will be controlled to meet the established erosion threshold target in the drain by restricting release via an inlet control device at the outfall and by temporarily detaining water directly on site (KAL (K. Black) personal communication with DSEL (M. Wingate) on February 16, 2021). Post-development peak flow rates leaving the developed area should not differ from pre-development conditions.
    - Temperature mitigation measures will be incorporated into the site development design to protect against changes to the thermal regime of the receiver. Different aquatic organisms have different temperature tolerances, and changes to the thermal regime of a watercourse can impact fish community structure (e.g., community composition, species richness, and standing stock) and growth rate (e.g., Chu et al., 2009).

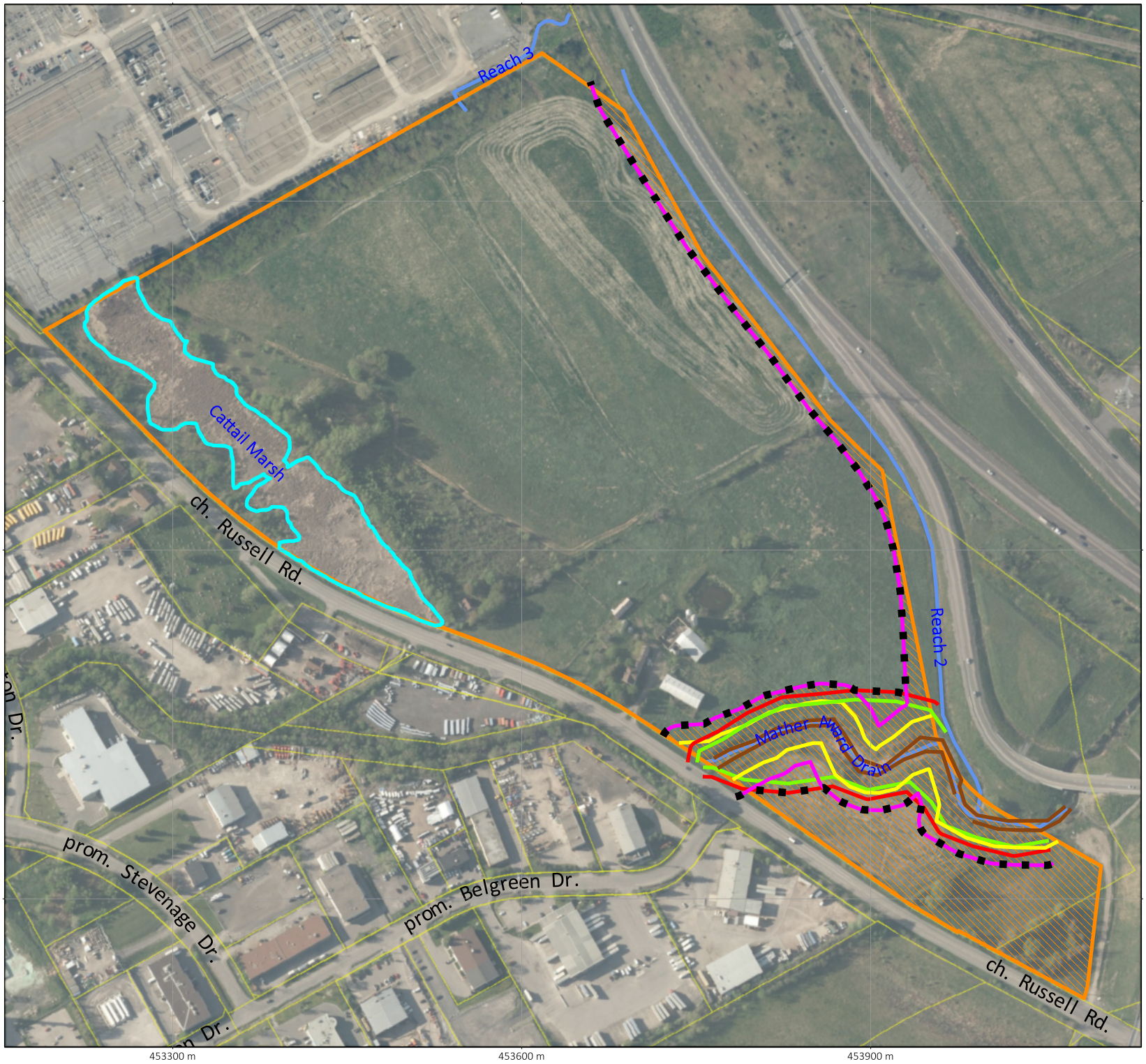


Figure 3 Map showing development setbacks for Site 3 based on environmental constraints

- Property Lines
- Site 3
- Not subject to development under current proposal
- Top of Bank
- Top of Valley
- 15 m setback
- 30 m setback
- Hazard Limit
- Development Limit
- Wetland Edge
- Drainage Feature

N

0 100 m

Project: AVE 866.4
Universal Transverse Mercator - Zone 18 (N)
Printed on: 2021-02-16

KILGOUR & Associates

- The TCR for Site 3 (Appendix B) recommends planting tree and shrub species tolerant of fluctuating water regimes within the proposed shallow stormwater retention areas intended to provide redundancy to the rooftop stormwater detention system (Appendix F). Trees should be planted in high density along the south sides of these retention areas and over open ditches to provide shading (when mature) and therefore cooling of stormwater prior to its discharge into receiving bodies. In addition, the proposed development incorporates the use of white roofs and underground detention in storm sewers, which should provide further temperature control on stormwater prior to its conveyance into the receiver.

A wetland compensation plan should be prepared in support of the removal of the wetland pockets identified. Discussions with the NCC and the proponent have already taken place regarding some of the information required.

KAL's response:

- Please see the response to comment 54 from the City.

3.0 ADDRESSING COMMENTS ON THE PREVIOUS VERSION OF THIS MEMORANDUM

The City reviewed a previous version of this document and provided comments on July 16, 2021 (Appendix G). Relevant comments are shown below, followed by KAL's response to each comment.

5.3. Confirm if there ae any trees within the Russell Road allowance.

KAL's response:

- All trees with a diameter at breast height (DBH) of 10 cm or greater on Site 3 are shown in Figure 2 of the TCR (Appendix B). There are no such trees located within the road allowance for Russell Road.

5.4. EIS needs to be up-dated and revised to address the Bird-safe Design Guidelines. Where an Environmental Impact Statement (EIS) is required to support a development application, the EIS consultant will review and consider the Bird-Safe Design Guidelines in the preparation of the EIS and any associated recommendations. The EIS should specifically include consideration of risks to birds and recommend mitigation measures in accordance with all applicable guidelines in the Guidelines (e.g., bird safe glass, identify bird traps in the design, other structures, landscaping, etc). The assessment of potential risks should consider any planned greenspaces and landscaping within the new development, not just existing habitat areas.

KAL's response:

- Relevant recommendations are provided below. The design, construction, and maintenance of buildings should follow the City's *Bird-Safe Design Guidelines* (City of Ottawa, 2020). This includes the following building, landscape, and lighting design guidelines.

Building design guidelines:

- Where possible, the layout of the site should minimize intrusion into habitat features by buildings and other potentially hazardous structures. In addition, the orientation of buildings should avoid or reduce reflection of this habitat and landscaped trees near habitat features in glazing, to the extent possible.

  - The Mather Award Drain bisects the parcel associated with Site 3. The layout of proposed infrastructure minimizes intrusion into this habitat area by incorporating a landscaped buffer between buildings and the setback associated with the drain.

- Minimize the transparency and reflectively of glazing:
  - Avoid monolithic, undistinguished expanses of glazing.
  - Incorporate visual interest or differentiation of material, texture, colour, opacity, or other features to fragment reflections.
  - Where glazing is used, bird-safe glass or glass with integrated protection measures is preferred. Treatments to make glass more visible to birds should be applied to a minimum of 90% of the glass within the first 16 m of height as measured from the finished grade, or to the height of the adjacent mature tree canopy, whichever is greater.
    - The proposed project includes the incorporation of bird-safe frit-patterned glass to prevent bird collisions. The specifications of the frit pattern will be determined during the detailed design phase.
  - Where green roofs, rooftop gardens, or terraces are included in a design, any adjacent glazing should also be treated to a height of 4 m from the surface of the roof/terrace or the height of the adjacent mature vegetation, whichever is greater.
    - No green roofs, rooftop gardens, or terraces are proposed at this time. However, the proponent is considering opportunities for solar power and longer-term rooftop agriculture opportunities. The above bird-friendly design guidelines would be incorporated into any such design features.

- Avoid or mitigate design traps:
  - The use of glass or other reflective surfaces to enclose outdoor areas or in outdoor guardrails or parapets can create a “mirror-maze” or the impression of passage where there is none (i.e., “black hole” effect). Such design traps should be avoided. Where they cannot be eliminated from a building’s design, the following measures should be used to reduce risks to birds:
    - All glazing that could create a fly-through, mirror-maze, or black hole effect should be made bird-safe using bird-safe glass or integrated protection measures as above.
    - Glass corners should be treated to render them bird-safe for 5 m in each direction.
    - Glass railing, parapets, and similar clear barriers should use bird-safe glass.

- Consider other structural features:

- Minimize the number of exterior antennas and other tall structures, including cell phone, television, and other media equipment, if applicable. Consolidate all necessary antennas and tall equipment into a single tower, where possible, and locate it to minimize conflicts with birds.

- Utilize self-supporting lattice or monopole towers that do not require the use of guy wire supports.

- Avoid up-lighting rooftop antennas and tall equipment, as well as decorative architectural spires.

- Grates should have a maximum porosity of 20 mm by 20 mm or 40 mm by 10 mm or should be screened to prevent birds from falling through.

- Ensure that vertical pipes, flues, and vents are capped or screened to prevent wildlife entry.

Landscape design guidelines:

- Design landscape plantings to minimize reflections of trees and shrubs in nearby buildings. In cases where landscape planting near a glazed building façade or other reflective surface is desirable for shading or other purposes, minimize the transparency and reflectivity of glazing.

    - The landscape plan for the Site includes plantings of trees and shrubs near buildings, but buildings will have frit-patterned glass to prevent bird collisions.

- Avoid or minimize the number of linear landscape features leading directly into glass façades or doors. Where such features cannot be avoided, minimize the transparency and reflectivity of glazing.

    - The landscape plan for the Site includes linearized landscape plantings near buildings, but buildings will have frit-patterned glass to prevent bird collisions.

- Avoid using plant species known to attract birds (e.g., those with abundant fruit or seed crops, or with flowers attractive to hummingbirds) in locations that could result in harmful collisions.

- Minimize the reflection of rooftop landscapes in adjacent building features or surrounding properties, as applicable.

- Minimize the exterior visibility of any indoor vegetation, green walls, or water features to reduce their attractiveness to birds.

- Avoid locating ornamental fountains, ponds, stormwater retention basins, wetlands, swales or related infrastructure near glass façades or windows.

    - The proposed stormwater retention basins are not located near glass façades or windows.

Lighting design guidelines:

- Design exterior lighting to minimize light trespass at night which may harm migratory songbirds:
    - Avoid up-lighting.
    - Specify dark sky compliant, full-cutoff exterior fixtures to reduce light trespass.
    - Use motion detectors and other automatic lighting controls to reduce or extinguish non-essential lighting between 11 pm and 6 am.
    - Use minimum wattage fixtures to achieve appropriate lighting levels (note: minimum required lighting levels are established in the Ontario Building Code).
    - Minimize amount and visual impact of perimeter lighting.
    - Avoid use of floodlighting.
- Avoid nighttime light trespass from building interiors:
    - Use window shades or blinds to prevent light trespass from occupied spaces between sunset and sunrise.
    - Use motion detectors and/or other automatic lighting controls to extinguish lights from unoccupied spaces in buildings after business hours.
    - Create smaller zones in lighting layouts to discourage wholesale area illumination.
    - Incorporate and encourage the use of localized task lighting.
    - Install light dimmers in lobbies, atria, and perimeter corridors for nighttime use.

5.5. Species at risk, please consult with MECP to determine if ESA approval is required for any of the species present (e.g., bobolink, barn swallow etc) due to this project being undertaken by a private corporation.

KAL's response:

- Please see responses to comments 50 and 51 from the City.
- The MECP does not have jurisdiction over the site because it is federally owned. The relevant SAR agency is ECCC. Since critical habitat for Barn Swallow and Bobolink do not exist on the site per federal definitions, consultation with ECCC is not required. This has been confirmed with the NCC.

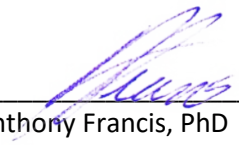
4.0 CLOSURE

It is our professional opinion that the responses provided in this technical memorandum sufficiently address agency comments on the environmental reports prepared for Site 3 of the NCBP. Questions relating to the content of this memorandum can be addressed to the undersigned.

Respectfully submitted,

KILGOUR & ASSOCIATES LTD.

Katherine Black, MSc
Project Director



Anthony Francis, PhD
Senior Ecologist

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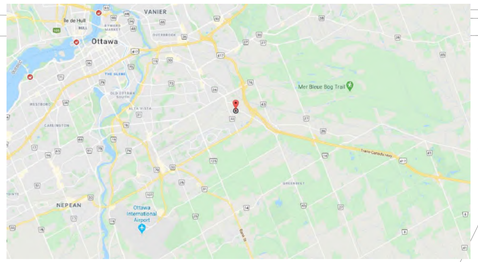
Appendix A

Proposed development of Site 3 of the NCBP

CAUTION: IF THIS SHEET IS NOT 24"x36" IT IS A REDUCED PRINT



TRANS CANADA HWY.

SNOW STORAGE
105.0 m²

BLDG A2

FOOTPRINT: 12,140.94 SM
(130,684 SF)
CLR. HGT: 9.75m (32')

SNOW STORAGE
105.0 m²

SNOW STORAGE
1050 m² ea.

BLDG B

FOOTPRINT: 9,300.5 SM
100,846 SF
CLR. HGT: 9.75m (24')

TENANT 1	TENANT 2	TENANT 3	TENANT 4
14,865.9 SM	14,759.7 SM	14,759.7 SM	14,940.2 SM
160,015 SF	159,260 SF	159,260 SF	160,815 SF

BLDG A1

FOOTPRINT: 59,323.1 SM (638,550 SF)
CLR. HGT: 10.97m (36'-0")

SNOW STORAGE
660.0 m²

SNOW STORAGE
360.0 m²

30.0 metres offset to Channel Top of Slope

Hazard Limit Per Paterson Group

Top of Bank

Channel Top of Slope

RUSSELL RD.

RUSSELL ROAD ALIGNMENT (Centreline of constructed Road)

RUSSELL RD.

0.8/100m2 = 111

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NATIONAL CAPTIAL BUILDING A2 RUSSELL RD

OTTAWA, ONTARIO

OVERALL SITE PLAN

	DATE	REMARKS
1	2021-05-13	ISSUED FOR SPA

PA / PM:	AS/LN
DRAWN BY:	HW
JOB NO.:	TOR21-0007-00

SHEET
A1.0

13-05-2021 - RE-ISSUED FOR SPA

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Appendix B

Tree Conservation Report for Site 3 of the NCBP

Tree Conservation Report for the Proposed Development of Site 3 of the National Capital Business Park at 4055 Russell Road, Ottawa, Ontario

Revised Report

March 4, 2021

Submitted to:
R. Michel Pilon
AVENUE31
236 Metcalfe Street, Unit 206
Ottawa, ON
K2P 1R3

KILGOUR & ASSOCIATES LTD.
www.kilgourassociates.com
Project Number: AVE 866.4

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List of Acronyms and Abbreviations

CRZ – critical root zone
KAL – Kilgour & Associates Ltd.
MMF – Basic Project Mitigation Measures Form
NCBP – National Capital Business Park
NCC – National Capital Commission
RVCA – Rideau Valley Conservation Authority
TCR – Tree Conservation Report

1.0 INTRODUCTION

Kilgour & Associates Ltd. (KAL) was retained by AVENUE31 to provide a Tree Conservation Report (TCR) for the proposed development of Site 3 of the National Capital Business Park (NCBP) on lands owned by the National Capital Commission (NCC) at 4055 Russell Road in Ottawa, Ontario (Figure 1). This report identifies and describes trees in the northern portion of Site 3; tree removal and topsoil stripping are currently only proposed for this area of the site to facilitate future development. This TCR has been prepared following the City of Ottawa's guidelines (2020).

In the City of Ottawa, a TCR is required for all Plans of Subdivision, Site Plan Control Applications, Common Elements Condominium Applications, and Vacant Land Condominium Applications where there is a tree of 10 cm in diameter at breast height (DBH) or greater on the site and/or if there is a tree on an adjacent site that has a critical root zone (CRZ) extending onto the development site. A "tree" is defined as any species of woody perennial plant, including its root system, which has reached or can reach a minimum height of at least 450 cm at physiological maturity. The CRZ is calculated as DBH x 10 cm.

The removal of trees on Site 3 cannot occur until written approval is granted from the NCC. Site 3 is also subject to the City of Ottawa's Tree Protection By-law (No. 2020-340). The approved TCR and associated Basic Project Mitigation Measures Form (MMF) are required for the approval of tree removal on Site 3. A copy of this TCR must be available on-site during tree removal, grading, construction, or any other site alteration activities.

2.0 PROPERTY INFORMATION

Site 3 is approximately 28.3 ha and is zoned as IH – Heavy Industrial Zone. This zoning designation is intended for industrial development with a wide range of uses. Land cover on Site 3 is dominated by fallow fields and includes a cattail marsh (~2 ha) and two vacant houses and several agricultural buildings to be demolished in the winter/spring of 2021. Trees in the northern portion of Site 3 (the portion of the site addressed in this TCR) are limited to areas adjacent to the cattail marsh along the northwestern edge of the site, the agricultural buildings near the centre of the site, and hedgerows.

Site 3 is bordered by a Hydro One distribution plant to the north, Highway 417 to the east, Hunt Club Road to the south, and Russell Road to the west.

Figure 1 Map showing existing conditions of Site 3 at 4055 Russell Road, Ottawa

Property Lines
Site 3
Not subject to development under current proposal
Drainage Feature

N

0 100 m

Project: AVE 866.4
Universal Transverse Mercator - Zone 18 (N)
Printed on: 2021-01-18

KILGOUR & Associates

2.1 Property Owner and Applicant Contact Information

Table 1 Organization, role, contact person, phone number, and email address for property owner and applicant

Organization	Role	Contact Person	Phone Number	Email Address
National Capital Commission	Property owner	Bill Leonard	(613) 239-5678 x5728	Bill.Leonard@ncc-ccn.ca
National Capital Commission	Property owner	Jennifer Halsall	(613) 239-5678 x5589	Jennifer.Halsall@ncc-ccn.ca
AVENUE31 and National Capital Business Park Inc.	Developer and project entity, respectively (Applicant)	Michel Pilon	(613) 850-3132	mpilon@ave31.com

Table Notes: AVENUE31 has leased the land from the National Capital Commission.

2.2 Arborist Contact Information and Qualifications

Table 2 Organization, role, contact person, phone number, and email address for arborists

Organization	Role	Contact Person	Phone Number	Email Address
KAL	Biologist	Katherine Black	(613) 260-5555	kblack@kilgourassociates.com
KAL	Biologist	Anthony Francis	(613) 260-5555	afrancis@kilgourassociates.com

Katherine Black has over six years of comprehensive field experience in biology and has worked in a variety of field settings, including undisturbed natural environments, construction sites, and greenhouses. Ms. Black's background is predominantly in vegetation ecology; she has performed vegetation surveys in a variety of natural and disturbed environments, including wetland, tundra, field, and forest environments. Since joining KAL in 2019, Ms. Black has contributed to numerous Environmental Impact Statements and TCRs. Ms. Black is also a certified Butternut Health Assessor (BHA #731).

Anthony Francis, Ph.D. is a Senior Ecologist with 20 years' consulting experience to both government agencies and private industry. He has worked on a diversity of projects relating to species at risk, invasive species, terrestrial and aquatic habitat, environmental effects monitoring and mitigation, and fate/effects of

contaminants. Within each of these subject areas, Dr. Francis has completed projects addressing specific site concerns and broader policy initiatives. Dr. Francis's academic background is in spatial ecology with a focus on tree species diversity. As a Senior Ecologist at KAL, he regularly completes Tree Conservation Reports, Environmental Impact Statements, Integrated Environmental Reviews for land development projects throughout Ottawa and Eastern Ontario. He is also a certified Butternut Health Assessor (BHA #104).

2.3 Additional Applications

As part of the NCC's Federal Land Use, Design, and Transaction Approval (FLUDTA) process, a Master Concept Plan for the NCBP was completed in May 2020 which included recommended urban design and sustainability guidelines. Guiding principles included maintaining a welcoming gateway to the National Capital Region, creating and maintaining economic opportunity, and respecting the natural environment. The proposed development of the NCBP is also undergoing the Site Plan Control process with the City of Ottawa and review by Rideau Valley Conservation Authority (RVCA). An Environmental Impact Statement (EIS; Kilgour & Associates Ltd. (KAL), 2020) was also completed for the entire NCBP. Main conclusions and recommendations were integrated into the design of the NCBP. Each individual site within the NCBP (Site 1, Site 2, and Site 3) will satisfy the requirement for an EIS and TCR through the Site Plan Control process.

An EIS, TCR, and MMF were prepared by KAL for Site 1 of the NCBP (4120 Russell Road) on behalf of the proponent and approved by the NCC in October 2020. A MMF was also prepared by KAL on behalf of the NCC for the demolition of houses and agricultural structures on Site 3, which was approved through a FLUDTA by the NCC in November 2020. As such, the development of Site 3 is consistent with planning applications previously approved by the NCC and other authorities on the project.

3.0 EXISTING CONDITIONS

3.1 Tree Inventory

A detailed inventory of the trees north of the Mather Award Drain on Site 3 was performed on July 8-10, 2020 following guidelines set forth by the City of Ottawa (2020). At the request of the NCC, all trees with a diameter at breast height (DBH) ≥ 10 cm having potential to be removed under the proposed development were identified, enumerated, mapped, their DBH measured, and their general health and condition documented (Appendix A, Figure 2). In general, 974 trees with DBH ≥ 10 cm from 32 species were identified on Site 3, with 60% of trees observed dominated by five species: Trembling Aspen (*Populus tremuloides*) followed by Sugar Maple (*Acer saccharum*), American Elm (*Ulmus americana*), Green Ash (*Fraxinus pennsylvanica*), and Manitoba Maple (*Acer negundo*; Table 3).

Figure 2 Map showing existing vegetation and surface water features on Site 3 of the proposed National Capital Business Park at 4055 Russell Road, Ottawa

- Property Lines
- Site 3
- Not subject to development under current proposal
- Drainage Feature

ELC

- CUM1-1
- CUT1
- CVR-4
- FODM11
- MAS2-1
- THDM3-1

\# Tree

N

0 100 m

Project: AVE 866.4
Universal Transverse Mercator - Zone 18 (N)
Printed on: 2021-01-18

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Table 3 Tree species count and percent composition for Site 3 of the National Capital Business Park

Species (*Taxonomic Name*)	Count	Percent Composition (%)
American Beech (*Fagus grandifolia*)	6	0.6
American Elm (*Ulmus americana*)	107	11.0
American Mountain Ash (*Sorbus americana*)	3	0.3
Amur Maple (*Acer ginnala*)	1	0.1
Basswood (*Tilia americana*)	15	1.5
Black Ash (*Fraxinus nigra*)	2	0.2
Black Cherry (*Prunus serotina*)	7	0.7
Black Walnut (*Juglans nigra*)	2	0.2
Blue Spruce (*Picea pungens*)	38	3.9
Bur Oak (*Quercus macrocarpa*)	7	0.7
Common Apple (*Malus* sp.)	3	0.3
Crack Willow (*Salix fragilis*)	7	0.7
Eastern Cottonwood (*Populus deltoides*)	21	2.2
Eastern White Cedar (*Thuja occidentalis*)	30	3.1
Glossy Buckthorn (*Rhamnus frangula*)	5	0.5
Green Ash (*Fraxinus pennsylvanica*)	106	10.9
Largetooth Aspen (*Populus grandidentata*)	4	0.4
Lombardy Poplar (*Populus nigra*)	33	3.4
Manitoba Maple (*Acer negundo*)	105	10.8
Pussy Willow (*Salix discolor*)	1	0.1
Red Maple (*Acer rubrum*)	5	0.5
Red Pine (*Pinus resinosa*)	1	0.1
Siberian Elm (*Ulmus pumila*)	2	0.2
Silver Maple (*Acer saccharinum*)	75	7.7
Sugar Maple (*Acer saccharum*)	117	12.0
Snag	25	2.6
Trembling Aspen (*Populus tremuloides*)	149	15.3
Yellow Birch (*Betula alleghaniensis*)	15	1.5
White Oak (*Quercus alba*)	3	0.3
White Birch (*Betula papyrifera*)	74	7.6
White Pine (*Pinus strobus*)	4	0.4
White Spruce (*Picea glauca*)	1	0.1
SUM	**974**	**100**

3.1.1 Ecological Significance of Trees on Site

Site 3 does not contain any federally or provincially significant tree species (i.e., those listed under the *Species at Risk Act*, the *Endangered Species Act*, or those tracked on the Natural Heritage Information Centre (MNRF, 2021). Site 3 contains three White Oaks (*Quercus alba*), two Black Walnuts (*Juglans nigra*), 33 Lombardy Poplars (*Populus nigra*), and two Siberian Elms (*Ulmus pumila*), all of which are considered regionally significant (rare) species in the Ottawa area (Brunton, 2005). Note that Lombardy Poplar and Siberian Elm

are non-native, and Siberian Elm is considered invasive by the Toronto and Region Conservation Authority (http://www.trca.on.ca/dotAsset/36890.pdf). The following tree species considered uncommon (Brunton, 2005) were also identified on Site 3: American Mountain Ash (*Sorbus americana*), Amur Maple (*Acer ginnala*), and Red Pine (*Pinus resinosa).*

Ecological functions of the trees on Site 3 include:

- Providing terrestrial habitat for wildlife such as common mammals and birds.
- Providing a vegetated buffer between natural features of the site (such as the cattail marsh) and adjacent developed areas, including providing functions such as:
    - Regulation of relative humidity and other microclimatic variables.
    - Sequestration of carbon.
    - Removal of pollutants.
    - Wind-shielding.
    - Shading and reduction of urban heat island effects.

3.2 Other Natural Environment Elements

3.2.1 Surface Water Features

Site 3 contains the following surface water features (Figure 2):

- The cattail marsh along the northwestern edge of the site. This feature does not contain trees with DBH ≥ 10 cm but is bordered by hedgerows on its eastern and western sides. This wetland is an isolated feature that is not hydrologically connected to other surface water features via surface flow.
- A headwater drainage feature (swale) along the eastern edge of the site that flows into the Mather Award Drain. This feature does not have tree cover. Only the southeastern portion of this feature contained water during the spring freshet and then retained scattered puddles during the summer.
- A small headwater feature (ditch) along the northeastern edge of the site accompanied by a tile drain. This feature is associated with the easternmost portion of the hedgerow along the northern edge of the site.
- An abandoned manure pond towards the centre of the site. This pond is an isolated feature that retains a small amount of surface water in the spring.

A portion of the Mather Award Drain is directly south of the subject area of Site 3 (Figure 2). The riparian corridor of the drain does not contain trees with DBH ≥ 10 cm. The trees presented in this TCR are those on Site 3 north of the Mather Award Drain.The Mather Award Drain is a perennially flowing feature whereas the other surface water features associated with Site 3 are dry in the summer (KAL, 2020).

3.2.2 Steep Slopes

The existing ground surface across Site 3 is generally flat, and slightly slopes upward from Russell Road and then down toward the Highway 417 eastbound off-ramp ditch. There are no steep slopes in the northern portion (subject area) of Site 3. The adjacent banks of the Mather Award Drain were subject to previous hazard land analysis by a geotechnical engineer and a setback has been identified.

3.2.3 Valued Woodlots

Site 3 does not contain any woodlots designated as Urban Natural Features or Natural Environment Areas, areas evaluated in the Urban Natural Areas Environmental Evaluation Study (UNAEES), or other areas that meet the criteria used in the UNAEES (Brunton and Muncaster, 2005).

3.2.4 Significant Woodlands

Site 3 does not contain any significant woodlands per *Significant Woodlands: Guidelines for Identification, Evaluation, and Impact Assessment* (City of Ottawa, 2018).

3.2.5 Greenspace Linkages

Site 3 does not contain any greenspace linkages identified in the Greenspace Master Plan (City of Ottawa, 2016) or as may occur in the larger landscape.

3.2.6 Distinctive Trees

One hundred and seventy-three distinctive trees (DBH ≥ 30 cm) were identified on Site 3 (Appendix A).

3.2.7 Unique Ecological Features

The cluster of trees east of the cattail marsh (Figure 2) is the most unique and naturalized treed area on the site. It contains several large and old (>45 years) specimen trees and the greatest abundance of native forest species observed on Site 3. Some areas here have an intact forest floor which contrasts with other wooded areas on the site which are “scrubby” thickets with understories dominated by non-native species. However, there is no evidence that this cluster of trees provides habitat for species at risk (SAR) or other significant natural heritage values that receive protection.

Site 3 does not contain any other unique ecological features (e.g., riparian woodlots or rare communities). None of the treed communities on the site exist as natural forests or woodlands but instead are a result of hedgerows that have filled in and naturalized over time.

3.2.8 Species at Risk

No known legally protected habitats or critical habitats for SAR occur on Site 3 based on vegetation, bird, amphibian, and turtle surveys performed by KAL in 2019 and 2020. Two Barn Swallows (*Hirundo rustica;* Threatened under the *Species at Risk Act*) were observed foraging over fields on Site 3 by KAL in 2019. No impacts are anticipated to this species as no Barn Swallow nests were found directly on the site or in the vicinity. Further, areas to remain open/naturalized under the proposed development could still provide foraging habitat if the species were nesting nearby. Three Bobolink (*Dolichonyx oryzivorus*; Threatened under

the *Species at Risk Act*) were observed near the agricultural structures on Site 3 by NCC staff in spring 2019. Their presence was deemed transient as they were not observed during subsequent surveys in 2019 or 2020. Potential impacts to Bobolink (and other bird species) would be mitigated by conducting vegetation clearing outside of the breeding and nesting season.

4.0 PROPOSED DEVELOPMENT

The proposed NCBP is a business and industrial park intended to service the warehousing, data communications centers, distribution, and employment needs of the National Capital Region by providing over 100,000 m^2 of new build-to-suit office, warehouse, and industrial space on approximately 40 ha of urban land spanning 4120 and 4055 Russell Road. The NCBP will be composed of three phases (Site 1, Site 2, and Site 3) and developments planned and designed as a cohesive industrial park through urban design, landscape architecture, and architecture.

Building plans for the northern portion of Site 3 have not yet been finalized, but will likely include three warehouse buildings with office space, parking areas, and stormwater management facilities including rooftop detention and naturalized retention systems (Figure 3, Appendix B). Vegetation removal and topsoil stripping are proposed to occur in 2021 prior to April 1 to avoid disturbing the site during sensitive times for wildlife (i.e., breeding season). Site preparation will also involve grading (cut and fill; Appendix C). Earthworks and site servicing are expected to start in May 2021, subject to future FLUDTA and Site Plan Control.

Since the proposed development involves re-grading almost all the northern portion of Site 3 (Appendix C), the project will require the removal of most trees, including 755 live trees and 135 dead trees (165 are distinctive trees; Figure 3; Appendix A). The cattail marsh will be filled during site preparation and compensated for at a ratio of 2:1 off-site on adjacent NCC-owned lands, as determined in consultation with the NCC and RVCA. Implementation of wetland compensation is subject to approval by the NCC and RVCA under a separate approval process. The proposed development will respect a 30 m setback from the Mather Award Drain and hazard limit established through the Master Site Plan FLUDTA approval.

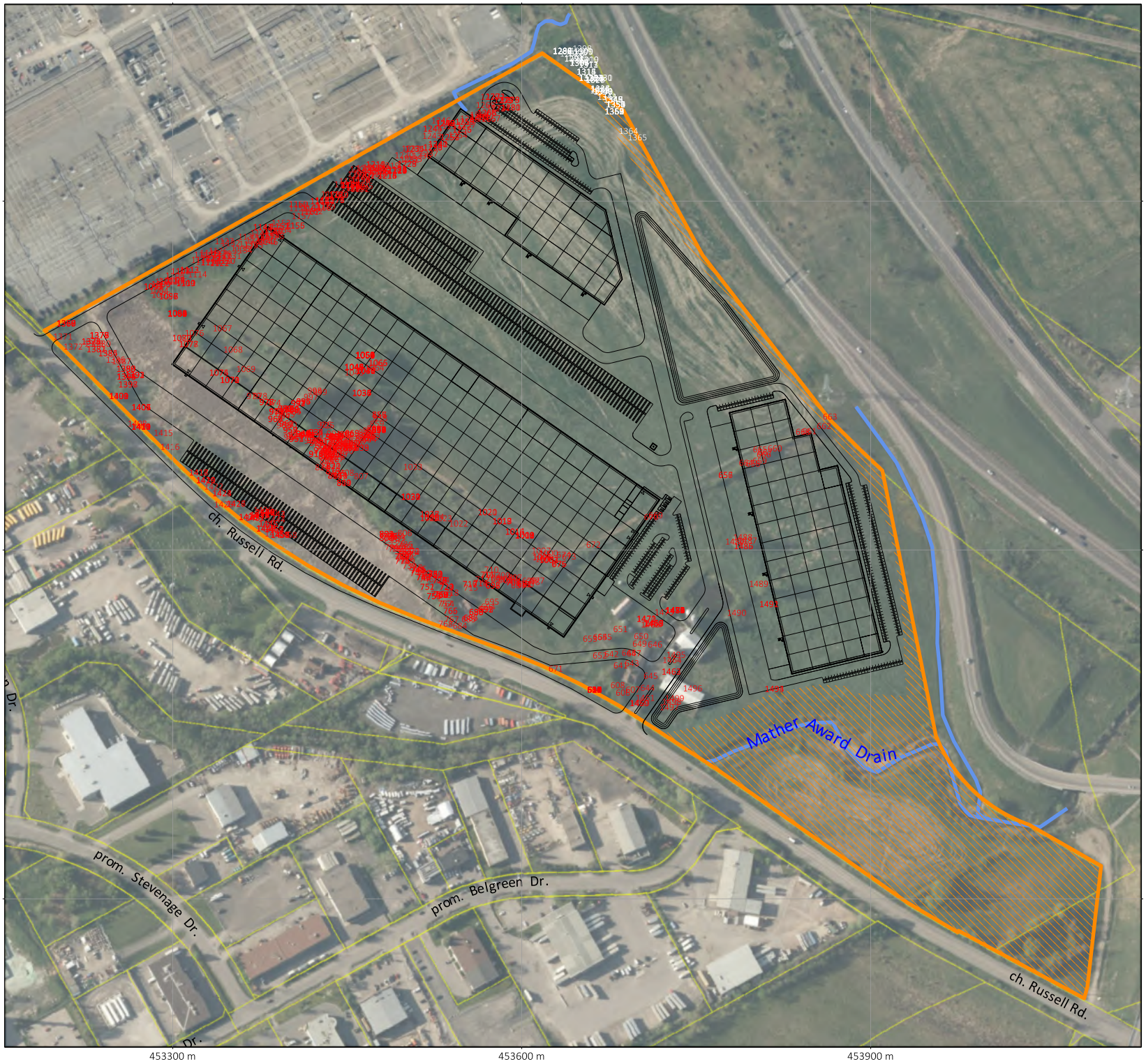

Figure 3 Map of the proposed development of Site 3 of the National Capital Business Park at 4055 Russell Road, Ottawa

Property Lines

Site 3

Not subject to development under current proposal

Drainage Feature

Tree

\# Retained

\# Removed

N

0 100 m

Project: AVE 866.4
Universal Transverse Mercator - Zone 18 (N)
Printed on: 2021-01-18

KILGOUR & Associates

5.0 MITIGATION MEASURES

5.1 Site Preparation and Construction

The following mitigation measures must be applied during site preparation and construction:

- Tree removal on Site 3 should be limited to that which is necessary to accommodate construction.
- Tree and vegetation clearing will not take place during sensitive times of the year for wildlife (breeding season; early spring throughout summer) unless mitigation measures are implemented and/or the habitat has been inspected by a qualified Biologist.
    - The *Migratory Birds Convention Act*, 1994 protects the nests and young of migratory breeding birds in Canada. The NCC recognizes April 1 to August 31 as the breeding bird period for the Ottawa area (KAL (K. Black) personal communication with the NCC (T. Zukerman), February 5, 2020). Combining the breeding bird window with the bat roosting season (May to September; MNRF, 2015), no clearing of vegetation shall occur between April 1 and September 30 inclusive to prevent impacts to both birds and bats, unless a qualified Biologist has determined that no nesting/roosting is occurring within 24 hours prior to the clearing.
- To minimize impacts to remaining trees during development:
    - Erect a fence beyond the critical root zone (CRZ; equivalent to ten times the diameter of trunk) of retained trees. The fence should be highly visible (orange construction fence) and paired with erosion and sediment control fencing. Pruning of branches is recommended in areas of potential conflict with construction equipment;
    - Do not place any material or equipment within the CRZ of trees unless otherwise approved by the General Manager;
    - Do not attach any signs, notices, or posters to any trees unless otherwise approved by the General Manager;
    - Do not raise or lower the existing grade within the CRZ of trees unless otherwise approved by the General Manager;
    - Do not extend any hard surface or significantly change landscaping within the CRZ of trees unless otherwise approved by the General Manager;
    - Do not damage the root system, trunk, or branches of any remaining trees unless otherwise approved by the General Manager;
    - Use tunneling or boring when digging within the CRZ of a tree; and
    - Ensure that exhaust fumes from equipment are not directed towards any tree's canopy.

5.2 Planting Recommendations

To offset vegetation loss, native tree and shrub species must be planted. Plantings will follow compensation requests of the NCC based on the number of trees to be removed:

- Total number of trees to be removed: 890
- Total number of dead trees: 135 (1:1 compensation with seedlings and shrubs = 135)
- Total number of live trees between 10 cm and 29 cm DBH: 590 (2:1 compensation with potted stock = 1180)
- Total number of distinctive trees: 165 (3:1 compensation with caliper-size deciduous and coniferous trees = 495)

Based on the above compensation requests, the proponent will aim to implement the plantings indicated in Table 4. The combination of these plantings (e.g., seedlings, potted stock, caliper trees, and shrubs) is intended to mimic the structure and composition of a natural woodland when plantings reach maturity.

Table 4 Number and type of plantings to offset vegetation loss

Type of planting	Quantity
Seedlings (preferably deciduous)	100
Potted stock (variety)	1180
Deciduous caliper (50 mm) stock	425
Coniferous 1.5-2m height	70
Shrubs (variety)	35
TOTAL	1810

If all the compensation plantings cannot be implemented on Site 3, they may be planted in other areas within the broader NCBP or on other lands owned by the NCC (e.g., potentially paired with off-site wetland compensation on the east side of Highway 417). The NCC will also accept a "cash in lieu" rate of $488 per caliper planting for trees that cannot be planted on site.

Landscaping and planting plans must be submitted to the NCC for review and approval. Tree planting should also follow the guidelines provided in *Tree Planting in Sensitive Marine Clay Soils* (City of Ottawa, 2017) where sensitive marine clay soils are present by using trees with low water demand and planting trees at a distance equivalent to the full mature height of a tree from a building or foundation structure. Tree and shrub species tolerant of fluctuating water regimes shall be planted within the shallow stormwater retention areas on site intended to provide redundancy to the rooftop stormwater detention system (Appendix B). Trees and shrubs may be proposed to be planted within the corridor of the Mather Award Drain to further stabilize the slope of the banks here and to improve the riparian area (to be determined in consultation with the NCC, the City of Ottawa and RVCA).

The following tree and shrub species are recommended for planting for Site 3 and should be used to direct the development of the landscape plan. The following species are appropriate given site conditions and are native and non-invasive: Alternate-leaf Dogwood (*Cornus alternifolia*), Balsam Poplar (*Populus balsamifera*), Basswood, Bitternut Hickory (*Carya cordiformis*), Black Cherry, Black Walnut, Bur Oak, Chokecherry (*Prunus virginiana*), Eastern White Cedar, Eastern White Pine, Flowering Dogwood (*Cornus*

florida), Hawthorns (*Crataegus* sp.), Ironwood (*Ostrya virginiana*), Largetooth Aspen, Peachleaf Willow (*Salix amygdaloides*), Red Maple, Red Oak (*Quercus rubra*), Serviceberries (*Amelanchier* spp.), Silver Maple, Sugar Maple, Tamarack (*Larix laricina*), Trembling Aspen, White Birch, White Oak, White Spruce (*Picea glauca*), and Yellow Birch (*Betula alleghaniensis*).

A two-year maintenance regime for plantings will include watering at least once per month during the growing season, weeding, installing tree protection against rodents, mulching, adding soil if required, staking large deciduous trees, and installing winter tree protection for large coniferous trees. For plantings to occur off-site, planted areas will be fenced to protect against deer browsing.

6.0 CLOSURE

This report was prepared for exclusive use by AVENUE31 and may be distributed only by AVENUE31. Questions relating to the data and interpretation can be addressed to the undersigned.

Respectfully submitted,

KILGOUR & ASSOCIATES LTD.

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Senior Review

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Appendix A Tree inventory table for Site 3 of the National Capital Business Park

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
606	Blue Spruce	*Picea pungens*	1	1	54.8	Healthy	Removed
607	Sugar Maple	*Acer saccharum*	1	1	49.3	Healthy	Removed
608	Sugar Maple	*Acer saccharum*	1	1	123.4	Healthy	Removed
609	Eastern White Cedar	*Thuja occidentalis*	1	2	23	Healthy	Removed
610	Eastern White Cedar	*Thuja occidentalis*	1	2	24.5	Healthy	Removed
611	Eastern White Cedar	*Thuja occidentalis*	1	1	17.2	Healthy	Removed
612	Eastern White Cedar	*Thuja occidentalis*	1	1	13	Healthy	Removed
613	Snag	N/A	1	1	59.7	Signs of insect predation	Removed
614	Eastern White Cedar	*Thuja occidentalis*	1	1	10	Healthy	Removed
615	Eastern White Cedar	*Thuja occidentalis*	1	1	15.8	Healthy	Removed
616	Eastern White Cedar	*Thuja occidentalis*	1	1	18.8	Healthy	Removed
617	Snag	N/A	1	1	19	Peeling bark	Removed
618	Black Walnut	*Juglans nigra*	1	1	30	Healthy; forked	Removed
619	Eastern White Cedar	*Thuja occidentalis*	1	1	19	Healthy	Removed
620	Eastern White Cedar	*Thuja occidentalis*	1	1	13.1	Healthy	Removed
621	Eastern White Cedar	*Thuja occidentalis*	1	1	16.9	Healthy	Removed
622	Eastern White Cedar	*Thuja occidentalis*	1	1	15.5	Healthy	Removed
623	Eastern White Cedar	*Thuja occidentalis*	1	1	30.1	Healthy	Removed
624	Eastern White Cedar	*Thuja occidentalis*	1	1	11.2	Healthy	Removed
625	Eastern White Cedar	*Thuja occidentalis*	1	1	22.5	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
626	Eastern White Cedar	*Thuja occidentalis*	1	1	17.2	Healthy	Removed
627	Eastern White Cedar	*Thuja occidentalis*	1	1	16.9	Healthy	Removed
628	Eastern White Cedar	*Thuja occidentalis*	1	1	16.2	Healthy	Removed
629	Eastern White Cedar	*Thuja occidentalis*	1	1	36	Healthy	Removed
630	Eastern White Cedar	*Thuja occidentalis*	1	1	20.9	Healthy	Removed
631	Eastern White Cedar	*Thuja occidentalis*	1	1	19.4	Healthy	Removed
632	Eastern White Cedar	*Thuja occidentalis*	1	2	17.4	Healthy	Removed
633	Eastern White Cedar	*Thuja occidentalis*	1	1	20.4	Healthy; forked	Removed
634	Eastern White Cedar	*Thuja occidentalis*	1	1	15.3	Healthy	Removed
635	Eastern White Cedar	*Thuja occidentalis*	1	2	21.4	Healthy	Removed
636	Eastern White Cedar	*Thuja occidentalis*	1	1	15.3	Healthy	Removed
637	Eastern White Cedar	*Thuja occidentalis*	1	1	10.5	Healthy	Removed
638	Eastern White Cedar	*Thuja occidentalis*	1	1	13.6	Healthy	Removed
639	Snag	N/A	1	1	24.2	Peeling bark	Removed
640	Snag	N/A	1	1	26.8	No bark	Removed
641	Sugar Maple	*Acer saccharum*	1	1	27	Healthy	Removed
642	Largetooth Aspen	*Populus grandidentata*	1	1	62	Healthy	Removed
643	Manitoba Maple	*Acer negundo*	1	7	18.1	Healthy	Removed
644	Manitoba Maple	*Acer negundo*	1	3	13.5	Healthy	Removed
645	Manitoba Maple	*Acer negundo*	1	1	14.2	Healthy	Removed
646	Manitoba Maple	*Acer negundo*	1	1	17.3	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
647	White Oak	*Quercus alba*	1	1	38.2	Healthy	Removed
648	Manitoba Maple	*Acer negundo*	1	2	10.2	Healthy	Removed
649	White Oak	*Quercus alba*	1	1	56.7	Healthy; forked	Removed
650	Blue Spruce	*Picea pungens*	1	1	35.9	Healthy	Removed
651	White Birch	*Betula papyrifera*	1	1	39.9	Healthy; forked	Removed
652	Black Walnut	*Juglans nigra*	1	1	40.2	Lower branch dieback	Removed
653	American Elm	*Ulmus americana*	1	1	13.5	Healthy; forked	Removed
654	White Oak	*Quercus alba*	1	2	17.1	Healthy	Removed
655	American Elm	*Ulmus americana*	1	1	31.4	Dead; peeling bark	Removed
656	Common Apple	*Malus* sp.	1	1	19.7	Healthy	Removed
657	Manitoba Maple	*Acer negundo*	1	3	19	Healthy	Removed
658	Manitoba Maple	*Acer negundo*	1	1	12.8	Healthy	Removed
659	Manitoba Maple	*Acer negundo*	1	3	24.9	Healthy	Removed
660	Manitoba Maple	*Acer negundo*	1	1	14.4	Healthy	Removed
661	Manitoba Maple	*Acer negundo*	1	4	38.6	Healthy	Removed
662	Manitoba Maple	*Acer negundo*	1	1	12	Healthy	Removed
663	Manitoba Maple	*Acer negundo*	1	1	14.5	Healthy	Removed
664	Manitoba Maple	*Acer negundo*	1	1	17.6	Healthy	Removed
665	Manitoba Maple	*Acer negundo*	1	2	28.4	Healthy	Removed
666	American Elm	*Ulmus americana*	1	1	34.5	Dead; peeling bark	Removed
667	American Elm	*Ulmus americana*	1	1	49.5	Dead; peeling bark	Removed
668	American Elm	*Ulmus americana*	1	1	71	Dead; peeling bark	Removed
669	American Elm	*Ulmus americana*	1	1	34.5	Dead; peeling bark	Removed
670	Manitoba Maple	*Acer negundo*	1	1	10.5	Healthy	Removed
671	Blue Spruce	*Picea pungens*	1	1	41.1	Healthy	Removed
672	Siberian Elm	*Ulmus pumila*	1	1	14	Healthy; forked	Removed
673	American Elm	*Ulmus americana*	1	1	21.4	Dead; still has bark	Removed
674	Trembling Aspen	*Populus tremuloides*	1	1	17.4	Healthy	Removed
675	Manitoba Maple	*Acer negundo*	1	6	14.8	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
676	Sugar Maple	*Acer saccharum*	1	1	55	Significant dieback of one branch	Removed
677	American Elm	*Ulmus americana*	1	1	37.7	Dead; no bark	Removed
678	American Elm	*Ulmus americana*	1	1	56.5	Dead; no bark	Removed
679	Green Ash	*Fraxinus pennsylvanica*	1	1	15	Dead crown; lower epicormic branching; still has bark	Removed
680	Green Ash	*Fraxinus pennsylvanica*	1	1	14.5	Dead crown; lower epicormic branching; sloughing bark	Removed
681	Common Apple	*Malus* sp.	1	6	12	Healthy	Removed
682	Common Apple	*Malus* sp.	1	5	14	Healthy	Removed
683	Green Ash	*Fraxinus pennsylvanica*	1	1	11	Dead crown; lower epicormic branching; sloughing bark	Removed
684	Black Cherry	*Prunus serotina*	1	2	14.8	Healthy	Removed
685	Sugar Maple	*Acer saccharum*	1	4	38.2	Signs of cutting	Removed
686	Sugar Maple	*Acer saccharum*	1	3	35.7	Healthy	Removed
687	Glossy Buckthorn	*Rhamnus frangula*	1	1	12.7	Healthy	Removed
688	American Elm	*Ulmus americana*	1	2	24.9	One stem is dead with peeling bark	Removed
689	Glossy Buckthorn	*Rhamnus frangula*	1	1	17.5	Healthy	Removed
690	Sugar Maple	*Acer saccharum*	1	4	35.5	Healthy	Removed
691	Sugar Maple	*Acer saccharum*	1	1	65.6	Gurdled trunk	Removed
692	Sugar Maple	*Acer saccharum*	1	1	61.8	Minor bark damage	Removed
693	Sugar Maple	*Acer saccharum*	1	1	25.2	Dead; peeling bark	Removed
694	Sugar Maple	*Acer saccharum*	1	3	51	Healthy	Removed
695	Sugar Maple	*Acer saccharum*	1	3	57	Healthy	Removed
696	Sugar Maple	*Acer saccharum*	1	1	59	Healthy	Removed
697	Sugar Maple	*Acer saccharum*	1	1	46.2	Healthy	Removed
698	Snag	N/A	1	1	35.4	Peeling bark; cavities	Removed
699	Black Cherry	*Prunus serotina*	1	1	14	Healthy	Removed
700	Green Ash	*Fraxinus pennsylvanica*	1	1	12.6	Dead crown; sloughing bark; lower epicorming branching	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
701	Green Ash	*Fraxinus pennsylvanica*	1	1	16.2	Dead crown; sloughing bark; lower epicorming branching	Removed
702	Green Ash	*Fraxinus pennsylvanica*	1	1	23	Dead crown; sloughing bark; lower epicorming branching; forked	Removed
703	Green Ash	*Fraxinus pennsylvanica*	1	1	14.5	Dead crown; sloughing bark; lower epicorming branching	Removed
704	Green Ash	*Fraxinus pennsylvanica*	1	1	12.3	Dead crown; sloughing bark; lower epicorming branching	Removed
705	Green Ash	*Fraxinus pennsylvanica*	1	2	16.5	Healthy	Removed
706	Pussy Willow	*Salix discolor*	1	1	10.6	Healthy	Removed
707	Black Ash	*Fraxinus nigra*	1	1	11.4	Healthy	Removed
708	Green Ash	*Fraxinus pennsylvanica*	1	1	16.5	Healthy	Removed
709	Black Cherry	*Prunus serotina*	1	1	25.6	Healthy	Removed
710	Green Ash	*Fraxinus pennsylvanica*	1	1	12	Dead crown; still has bark; lower epicormic branching	Removed
711	Sugar Maple	*Acer saccharum*	1	6	54	Healthy	Removed
712	Black Ash	*Fraxinus nigra*	1	1	31.7	Healthy	Removed
713	Green Ash	*Fraxinus pennsylvanica*	1	1	48.3	Dead; peeling bark	Removed
714	Snag	N/A	1	1	15.7	No crown; no bark	Removed
715	Sugar Maple	*Acer saccharum*	1	3	29.5	Healthy	Removed
716	Manitoba Maple	*Acer negundo*	1	1	32	Healthy	Removed
717	Sugar Maple	*Acer saccharum*	1	1	40.5	Damaged bark; forked	Removed
718	Green Ash	*Fraxinus pennsylvanica*	1	3	12	Healthy	Removed
719	Trembling Aspen	*Populus tremuloides*	1	1	12	Healthy	Removed
720	Trembling Aspen	*Populus tremuloides*	1	1	11.9	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
721	Trembling Aspen	*Populus tremuloides*	1	1	11.4	Crown dieback; sloughing bark	Removed
722	Trembling Aspen	*Populus tremuloides*	1	1	16	Healthy	Removed
723	Trembling Aspen	*Populus tremuloides*	1	1	16.1	Sloughing bark; lower branch dieback	Removed
724	Trembling Aspen	*Populus tremuloides*	1	1	16	Healthy	Removed
725	Trembling Aspen	*Populus tremuloides*	1	5	13.6	Healthy	Removed
726	Trembling Aspen	*Populus tremuloides*	1	1	12.9	Healthy	Removed
727	Trembling Aspen	*Populus tremuloides*	1	1	10.5	Healthy	Removed
728	Trembling Aspen	*Populus tremuloides*	1	1	14.7	Healthy	Removed
729	Trembling Aspen	*Populus tremuloides*	1	1	11.5	Healthy	Removed
730	Trembling Aspen	*Populus tremuloides*	1	2	10.9	Healthy	Removed
731	Trembling Aspen	*Populus tremuloides*	1	1	10.5	Healthy	Removed
732	Trembling Aspen	*Populus tremuloides*	1	1	11	Healthy	Removed
733	Trembling Aspen	*Populus tremuloides*	1	1	11	Healthy	Removed
734	Trembling Aspen	*Populus tremuloides*	1	2	12.7	Healthy	Removed
735	Trembling Aspen	*Populus tremuloides*	1	1	11	Healthy	Removed
736	Trembling Aspen	*Populus tremuloides*	1	1	13.4	Healthy	Removed
737	Trembling Aspen	*Populus tremuloides*	1	1	12.4	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
738	Trembling Aspen	*Populus tremuloides*	1	1	15.4	Healthy	Removed
739	Sugar Maple	*Acer saccharum*	1	4	15	Healthy	Removed
740	American Elm	*Ulmus americana*	1	1	21.3	Dead; no bark	Removed
741	Sugar Maple	*Acer saccharum*	1	1	27	Healthy	Removed
742	Green Ash	*Fraxinus pennsylvanica*	1	2	25.3	Dead; still has bark	Removed
743	Sugar Maple	*Acer saccharum*	1	1	14.2	Healthy	Removed
744	Black Cherry	*Prunus serotina*	1	1	25.4	Healthy	Removed
745	Trembling Aspen	*Populus tremuloides*	1	1	13.1	Healthy	Removed
746	Trembling Aspen	*Populus tremuloides*	1	1	18.8	Healthy	Removed
747	Sugar Maple	*Acer saccharum*	1	1	23	Healthy	Removed
748	American Mountain Ash	*Sorbus americana*	1	1	20.6	Healthy	Removed
749	Snag	N/A	1	1	23.8	No bark; cavities	Removed
750	American Elm	*Ulmus americana*	1	1	12.6	Healthy	Removed
751	Black Cherry	*Prunus serotina*	1	1	22.2	Healthy	Removed
752	Sugar Maple	*Acer saccharum*	1	2	28.8	Healthy	Removed
753	Trembling Aspen	*Populus tremuloides*	1	3	13.7	One stem is dead	Removed
754	Trembling Aspen	*Populus tremuloides*	1	1	22.1	Broken upper branches	Removed
755	Trembling Aspen	*Populus tremuloides*	1	1	12.4	Crown and branch dieback	Removed
756	Basswood	*Tilia americana*	1	2	25	One stem is forked	Removed
757	Basswood	*Tilia americana*	1	5	56.9	Healthy	Removed
758	Basswood	*Tilia americana*	1	1	18	Healthy	Removed
759	Basswood	*Tilia americana*	1	1	19.2	Healthy	Removed
760	Basswood	*Tilia americana*	1	1	15.3	Healthy	Removed
761	Basswood	*Tilia americana*	1	1	26.5	Healthy	Removed
762	Basswood	*Tilia americana*	1	1	25.8	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
763	Basswood	*Tilia americana*	1	1	27.5	Healthy	Removed
764	White Spruce	*Picea glauca*	1	1	24.4	Healthy	Removed
765	Eastern White Cedar	Thuja occidentalis	1	1	21.4	Healthy; forked	Removed
766	Eastern White Cedar	Thuja occidentalis	1	1	12	Healthy	Removed
767	Basswood	*Tilia americana*	1	1	26	Healthy	Removed
768	Manitoba Maple	*Acer negundo*	1	1	11	Healthy	Removed
769	Snag	N/A	1	1	27.2	No bark	Removed
770	Trembling Aspen	*Populus tremuloides*	1	1	15.4	Healthy	Removed
771	Trembling Aspen	*Populus tremuloides*	1	1	10.4	Healthy	Removed
772	Trembling Aspen	*Populus tremuloides*	1	1	12.5	Healthy	Removed
773	American Elm	*Ulmus americana*	1	2	16.4	Some crown dieback	Removed
774	Trembling Aspen	*Populus tremuloides*	1	1	11	Healthy	Removed
775	Trembling Aspen	*Populus tremuloides*	1	1	13.2	Healthy	Removed
776	Snag	N/A	1	1	23.2	Peeling bark, cavities	Removed
777	Trembling Aspen	*Populus tremuloides*	1	1	12.6	Dead; no crown	Removed
778	Trembling Aspen	*Populus tremuloides*	1	1	18	Healthy	Removed
779	American Elm	*Ulmus americana*	1	1	10.3	Healthy	Removed
780	Sugar Maple	*Acer saccharum*	1	3	10.6	Healthy	Removed
781	Sugar Maple	*Acer saccharum*	1	1	18	Healthy; forked	Removed
782	Green Ash	*Fraxinus pennsylvanica*	1	1	28	Dead; sloughing bark	Removed
783	Trembling Aspen	*Populus tremuloides*	1	1	14.6	Healthy	Removed
784	Trembling Aspen	*Populus tremuloides*	1	1	15.3	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
785	Trembling Aspen	*Populus tremuloides*	1	1	17.3	No crown; damaged bark	Removed
786	Trembling Aspen	*Populus tremuloides*	1	1	10.9	No crown; damaged bark	Removed
787	Trembling Aspen	*Populus tremuloides*	1	1	15.3	Dead crown; still has bark	Removed
788	Green Ash	*Fraxinus pennsylvanica*	1	1	17.3	Dead crown; sloughing bark	Removed
789	Sugar Maple	*Acer saccharum*	1	2	14.9	Healthy	Removed
790	Sugar Maple	*Acer saccharum*	1	1	14.3	Healthy; forked	Removed
791	American Elm	*Ulmus americana*	1	1	16.8	Healthy	Removed
792	Trembling Aspen	*Populus tremuloides*	1	1	12.6	Dead; peeling bark	Removed
793	White Birch	*Betula papyrifera*	1	1	19.2	Healthy	Removed
794	White Birch	*Betula papyrifera*	1	2	14.5	No crown	Removed
795	Sugar Maple	*Acer saccharum*	1	2	14.7	Healthy	Removed
796	Sugar Maple	*Acer saccharum*	1	3	15.2	Healthy	Removed
797	Sugar Maple	*Acer saccharum*	1	1	14.2	Healthy	Removed
798	Green Ash	*Fraxinus pennsylvanica*	1	1	14.8	Dead; no bark	Removed
799	Green Ash	*Fraxinus pennsylvanica*	1	1	15.3	Dead; no bark	Removed
800	Green Ash	*Fraxinus pennsylvanica*	1	1	12.8	Dead; no bark	Removed
801	Green Ash	*Fraxinus pennsylvanica*	1	1	17.3	Dead; no bark	Removed
802	Sugar Maple	*Acer saccharum*	1	1	14.6	Healthy	Removed
803	Sugar Maple	*Acer saccharum*	1	1	21.8	Healthy; forked	Removed
804	Sugar Maple	*Acer saccharum*	1	1	22	Healthy; forked	Removed
805	Sugar Maple	*Acer saccharum*	1	1	10	Healthy	Removed
806	White Birch	*Betula papyrifera*	49	1 per tree	Smallest = 10; largest = 22; average = 11	All healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
807	Largetooth Aspen	*Populus grandidentata*	1	1	17	Healthy	Removed
808	Trembling Aspen	*Populus tremuloides*	21	1 per tree	Smallest = 10; largest = 15.8; Average = 11.5	17 are healthy; 4 are dead	Removed
809	Sugar Maple	*Acer saccharum*	1	1	31.1	Healthy	Removed
810	Sugar Maple	*Acer saccharum*	1	2	17.7	Healthy	Removed
811	Sugar Maple	*Acer saccharum*	1	1	10.2	Healthy	Removed
812	American Elm	*Ulmus americana*	1	1	18.7	Crown dieback	Removed
813	Sugar Maple	*Acer saccharum*	1	1	14.8	Healthy	Removed
814	Sugar Maple	*Acer saccharum*	1	1	11.8	Healthy	Removed
815	American Elm	*Ulmus americana*	1	1	17	Severe crown dieback	Removed
816	Sugar Maple	*Acer saccharum*	1	1	16.6	Healthy; forked	Removed
817	Sugar Maple	*Acer saccharum*	1	1	17	Healthy; forked	Removed
818	Sugar Maple	*Acer saccharum*	1	1	11.4	Healthy	Removed
819	American Elm	*Ulmus americana*	1	1	13	Canopy dieback	Removed
820	American Elm	*Ulmus americana*	1	1	19.6	Dead; sloughing bark	Removed
821	Sugar Maple	*Acer saccharum*	1	1	19	Healthy	Removed
822	American Elm	*Ulmus americana*	1	1	12	Healthy	Removed
823	Sugar Maple	*Acer saccharum*	1	1	14.5	Healthy	Removed
824	Bur Oak	*Quercus macrocarpa*	1	1	32	Healthy	Removed
825	Green Ash	*Fraxinus pennsylvanica*	1	1	19.7	Dead; still has bark	Removed
826	Sugar Maple	*Acer saccharum*	1	1	16	Healthy	Removed
827	Sugar Maple	*Acer saccharum*	1	1	16.3	Healthy	Removed
828	Sugar Maple	*Acer saccharum*	1	1	16.3	Healthy	Removed
829	Sugar Maple	*Acer saccharum*	1	1	22.6	Healthy	Removed
830	Black Cherry	*Prunus serotina*	1	1	23.5	Healthy	Removed
831	Sugar Maple	*Acer saccharum*	1	1	11.8	Healthy	Removed
832	Sugar Maple	*Acer saccharum*	1	1	20.2	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
833	Trembling Aspen	*Populus tremuloides*	1	1	14.5	Dead; no crown; peeling bark	Removed
834	Trembling Aspen	*Populus tremuloides*	1	1	14.5	Dead; no crown; peeling bark	Removed
835	Trembling Aspen	*Populus tremuloides*	1	1	16.2	Healthy	Removed
836	Trembling Aspen	*Populus tremuloides*	1	1	32	Some crown dieback	Removed
837	Trembling Aspen	*Populus tremuloides*	1	3	18.4	Some crown dieback	Removed
838	Bur Oak	*Quercus macrocarpa*	1	1	15.4	Healthy	Removed
839	Trembling Aspen	*Populus tremuloides*	1	1	12.5	Healthy	Removed
840	Trembling Aspen	*Populus tremuloides*	1	2	25.9	One stem is dead	Removed
841	Trembling Aspen	*Populus tremuloides*	1	1	11.6	Healthy	Removed
842	Trembling Aspen	*Populus tremuloides*	1	1	25.9	Healthy	Removed
843	Trembling Aspen	*Populus tremuloides*	1	1	30	Healthy	Removed
844	Trembling Aspen	*Populus tremuloides*	1	1	21.4	Healthy	Removed
845	Trembling Aspen	*Populus tremuloides*	1	1	16.6	Healthy	Removed
846	Trembling Aspen	*Populus tremuloides*	1	1	29.8	Healthy	Removed
847	Trembling Aspen	*Populus tremuloides*	1	1	28.5	Healthy	Removed
848	Trembling Aspen	*Populus tremuloides*	1	1	25.4	Healthy	Removed
849	Trembling Aspen	*Populus tremuloides*	1	1	16	Healthy	Removed
850	Trembling Aspen	*Populus tremuloides*	1	2	30	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
851	Trembling Aspen	*Populus tremuloides*	1	2	20.5	Healthy	Removed
852	Trembling Aspen	*Populus tremuloides*	1	1	14.8	Dead, peeling bark	Removed
853	Trembling Aspen	*Populus tremuloides*	1	1	30	Healthy	Removed
854	Trembling Aspen	*Populus tremuloides*	1	1	24.2	Healthy	Removed
855	Trembling Aspen	*Populus tremuloides*	1	1	20.8	Crown and branch dieback	Removed
856	Trembling Aspen	*Populus tremuloides*	1	1	23	Crown and branch dieback	Removed
857	Trembling Aspen	*Populus tremuloides*	1	1	23.7	Minor bark loss	Removed
858	Trembling Aspen	*Populus tremuloides*	1	3	33.8	One stem is dead	Removed
859	Trembling Aspen	*Populus tremuloides*	1	1	25.4	Healthy	Removed
860	Trembling Aspen	*Populus tremuloides*	1	1	28.4	Healthy	Removed
861	Trembling Aspen	*Populus tremuloides*	1	1	20.3	Healthy	Removed
862	American Elm	*Ulmus americana*	1	1	16.5	Dead; no bark	Removed
863	American Elm	*Ulmus americana*	1	1	15.6	Healthy	Removed
864	Eastern Cottonwood	*Populus deltoides*	1	1	52.5	Gurdled trunk	Removed
865	Trembling Aspen	*Populus tremuloides*	1	1	11.6	Healthy	Removed
866	Trembling Aspen	*Populus tremuloides*	1	2	15.7	Healthy	Removed
867	Eastern Cottonwood	*Populus deltoides*	1	1	82.2	Healthy	Removed
868	American Mountain Ash	*Sorbus americana*	1	1	12.1	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
869	Trembling Aspen	*Populus tremuloides*	1	1	19	Healthy	Removed
870	Eastern Cottonwood	*Populus deltoides*	1	1	54.2	Healthy	Removed
871	Sugar Maple	*Acer saccharum*	1	1	24.2	Healthy	Removed
872	Eastern Cottonwood	*Populus deltoides*	1	1	72.5	Healthy	Removed
873	Sugar Maple	*Acer saccharum*	1	1	20.3	Healthy	Removed
874	Eastern Cottonwood	*Populus deltoides*	1	1	52.3	Healthy	Removed
875	Eastern Cottonwood	*Populus deltoides*	1	1	65	Healthy	Removed
876	Eastern Cottonwood	*Populus deltoides*	1	1	72.4	Healthy	Removed
877	Sugar Maple	*Acer saccharum*	1	1	10.3	Healthy	Removed
878	Sugar Maple	*Acer saccharum*	1	1	54	Healthy	Removed
879	Sugar Maple	*Acer saccharum*	1	2	58.2	One stem is dead	Removed
880	Eastern Cottonwood	*Populus deltoides*	1	1	46	Healthy	Removed
881	Eastern Cottonwood	*Populus deltoides*	1	1	54	Healthy	Removed
882	Eastern Cottonwood	*Populus deltoides*	1	1	54.5	Healthy	Removed
883	Eastern Cottonwood	*Populus deltoides*	1	1	80.6	Healthy	Removed
884	Eastern Cottonwood	*Populus deltoides*	1	1	52.4	Healthy	Removed
885	Sugar Maple	*Acer saccharum*	1	2	11.8	Healthy	Removed
886	Sugar Maple	*Acer saccharum*	1	2	13	Healthy	Removed
887	Sugar Maple	*Acer saccharum*	1	1	15	Healthy	Removed
888	Sugar Maple	*Acer saccharum*	1	1	15	Healthy	Removed
889	Sugar Maple	*Acer saccharum*	1	1	31	Healthy; forked	Removed
890	Trembling Aspen	*Populus tremuloides*	1	1	28	Crown dieback	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
891	Trembling Aspen	*Populus tremuloides*	1	1	15.2	Crown dieback; cavities	Removed
892	Trembling Aspen	*Populus tremuloides*	1	1	16.1	Healthy	Removed
893	Sugar Maple	*Acer saccharum*	1	1	17.9	Healthy	Removed
894	Sugar Maple	*Acer saccharum*	1	1	12.5	Healthy	Removed
895	Sugar Maple	*Acer saccharum*	1	1	10.7	Fallen trunk	Removed
896	Sugar Maple	*Acer saccharum*	1	1	12.5	Healthy	Removed
897	Sugar Maple	*Acer saccharum*	1	1	13	Healthy	Removed
898	Sugar Maple	*Acer saccharum*	1	1	13.5	Healthy	Removed
899	Trembling Aspen	*Populus tremuloides*	1	1	21.6	Crown dieback; cavities	Removed
900	Trembling Aspen	*Populus tremuloides*	1	1	16.2	Broken trunk	Removed
901	Sugar Maple	*Acer saccharum*	1	1	19.3	Healthy	Removed
902	Snag	N/A	1	1	17	No bark	Removed
903	Sugar Maple	*Acer saccharum*	1	1	14.4	Healthy	Removed
904	Sugar Maple	*Acer saccharum*	1	1	11	Healthy	Removed
905	Sugar Maple	*Acer saccharum*	1	1	19.5	Healthy	Removed
906	Sugar Maple	*Acer saccharum*	1	1	13.2	Healthy	Removed
907	Sugar Maple	*Acer saccharum*	1	1	15.8	Healthy	Removed
908	Sugar Maple	*Acer saccharum*	1	1	14.4	Healthy	Removed
909	Sugar Maple	*Acer saccharum*	1	1	15.5	Healthy	Removed
910	Trembling Aspen	*Populus tremuloides*	1	1	18	Some branch dieback	Removed
911	Sugar Maple	*Acer saccharum*	1	1	18.8	Healthy	Removed
912	Sugar Maple	*Acer saccharum*	1	1	20.2	Healthy	Removed
913	Sugar Maple	*Acer saccharum*	1	1	26.6	Forked	Removed
914	Sugar Maple	*Acer saccharum*	1	1	17.2	Healthy	Removed
915	Sugar Maple	*Acer saccharum*	1	1	15	Healthy	Removed
916	Snag	N/A	1	2	37	Still has bark; cavities	Removed
917	Trembling Aspen	*Populus tremuloides*	1	1	12	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
918	American Elm	*Ulmus americana*	1	1	11.4	Healthy	Removed
919	Sugar Maple	*Acer saccharum*	1	1	21.1	Branch dieback	Removed
920	Snag	N/A	1	1	23	No bark	Removed
921	Sugar Maple	*Acer saccharum*	1	1	21.5	Healthy	Removed
922	Sugar Maple	*Acer saccharum*	1	1	17	Healthy	Removed
923	Yellow Birch	*Betula alleghaniensis*	1	1	17.7	Healthy	Removed
924	Trembling Aspen	*Populus tremuloides*	1	1	15.9	Healthy	Removed
925	Trembling Aspen	*Populus tremuloides*	1	1	24.2	Canopy and branch dieback; forked	Removed
926	Siberian Elm	*Ulmus pumila*	1	1	23	Healthy	Removed
927	American Elm	*Ulmus americana*	1	1	15	Dead; no bark	Removed
928	Snag	N/A	1	1	18	No crown; still has bark	Removed
929	Sugar Maple	*Acer saccharum*	1	1	13.7	Healthy	Removed
930	Sugar Maple	*Acer saccharum*	1	1	13.1	Healthy	Removed
931	Sugar Maple	*Acer saccharum*	1	1	12.8	Healthy	Removed
932	Sugar Maple	*Acer saccharum*	1	1	15.1	Healthy	Removed
933	Sugar Maple	*Acer saccharum*	1	1	16.4	Healthy	Removed
934	Sugar Maple	*Acer saccharum*	1	1	15.9	Healthy	Removed
935	Sugar Maple	*Acer saccharum*	1	1	13	Healthy	Removed
936	Yellow Birch	*Betula alleghaniensis*	1	1	19.9	Healthy; forked	Removed
937	Sugar Maple	*Acer saccharum*	1	1	16	Healthy; forked	Removed
938	Sugar Maple	*Acer saccharum*	1	1	13.2	Healthy	Removed
939	Sugar Maple	*Acer saccharum*	1	1	17.5	Healthy	Removed
940	Sugar Maple	*Acer saccharum*	1	1	10.7	Healthy	Removed
941	Sugar Maple	*Acer saccharum*	1	1	18	Healthy	Removed
942	Sugar Maple	*Acer saccharum*	1	1	15.5	Healthy	Removed
943	Basswood	*Tilia americana*	1	1	41	Healthy	Removed
944	Yellow Birch	*Betula alleghaniensis*	1	1	30	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
945	Yellow Birch	*Betula alleghaniensis*	1	1	19.5	Healthy	Removed
946	Yellow Birch	*Betula alleghaniensis*	1	1	20	Healthy	Removed
947	Yellow Birch	*Betula alleghaniensis*	1	1	21.6	Healthy	Removed
948	Yellow Birch	*Betula alleghaniensis*	1	1	12.1	Healthy	Removed
949	Yellow Birch	*Betula alleghaniensis*	1	1	27.5	Healthy	Removed
950	Yellow Birch	*Betula alleghaniensis*	1	1	18.6	Healthy	Removed
951	Yellow Birch	*Betula alleghaniensis*	1	2	16	Healthy	Removed
952	Snag	N/A	1	1	32	No crown; no bark	Removed
953	Snag	N/A	1	1	21	No crown; no bark	Removed
954	American Mountain Ash	*Sorbus americana*	1	1	11.2	Healthy	Removed
955	Red Maple	*Acer rubrum*	1	1	65	Dead; peeling bark, cavities	Removed
956	Sugar Maple	*Acer saccharum*	1	1	13.5	Healthy	Removed
957	Yellow Birch	*Betula alleghaniensis*	1	1	14	Healthy; forked	Removed
958	Snag	N/A	1	1	36	No bark; cavity	Removed
959	American Elm	*Ulmus americana*	1	1	14.5	Dead crown; peeling bark	Removed
960	Yellow Birch	*Betula alleghaniensis*	1	1	27	Healthy	Removed
961	Black Cherry	*Prunus serotina*	1	1	28.5	Healthy	Removed
962	Yellow Birch	*Betula alleghaniensis*	1	1	12.2	Healthy	Removed
963	Sugar Maple	*Acer saccharum*	1	2	89.2	One stem is dead with peeling bark and cavities	Removed
964	American Beech	*Fagus grandifolia*	1	1	20.6	Healthy	Removed
965	Yellow Birch	*Betula alleghaniensis*	1	1	40.5	Healthy; forked	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
966	Sugar Maple	*Acer saccharum*	1	1	36	Healthy; forked	Removed
967	Snag	N/A	1	1	24	Peeling bark; cavities	Removed
968	American Elm	*Ulmus americana*	1	1	13	Healthy	Removed
969	American Beech	*Fagus grandifolia*	1	1	14.4	Healthy	Removed
970	American Beech	*Fagus grandifolia*	1	1	16	Healthy	Removed
971	American Elm	*Ulmus americana*	1	1	17	Healthy	Removed
972	American Beech	*Fagus grandifolia*	1	1	83.5	Healthy	Removed
973	American Beech	*Fagus grandifolia*	1	1	10	Healthy	Removed
974	American Beech	*Fagus grandifolia*	1	1	14	Healthy	Removed
975	Sugar Maple	*Acer saccharum*	1	1	38.4	Healthy	Removed
976	Yellow Birch	*Betula alleghaniensis*	1	2	37	Healthy; one stem is forked	Removed
977	Snag	N/A	1	1	28	Still has bark	Removed
978	Bur Oak	*Quercus macrocarpa*	1	1	22.5	Healthy	Removed
979	Sugar Maple	*Acer saccharum*	1	1	33.7	Healthy	Removed
980	American Elm	*Ulmus americana*	1	1	15	Dead; peeling bark	Removed
981	Sugar Maple	*Acer saccharum*	1	1	21.5	Healthy	Removed
982	Manitoba Maple	*Acer negundo*	1	1	13	Healthy	Removed
983	Sugar Maple	*Acer saccharum*	1	1	14.4	Healthy	Removed
984	American Elm	*Ulmus americana*	1	1	13.1	Dead; no bark	Removed
985	Sugar Maple	*Acer saccharum*	1	1	10.1	Dead; no bark	Removed
986	Eastern Cottonwood	*Populus deltoides*	1	1	90	Dead crown, peeling bark	Removed
987	Sugar Maple	*Acer saccharum*	1	1	12	Healthy	Removed
988	Sugar Maple	*Acer saccharum*	1	1	15.7	Healthy	Removed
989	Sugar Maple	*Acer saccharum*	1	3	38	Healthy	Removed
990	Sugar Maple	*Acer saccharum*	1	1	10.5	Healthy	Removed
991	American Elm	*Ulmus americana*	1	1	19.6	Healthy	Removed
992	Sugar Maple	*Acer saccharum*	1	1	37	Healthy	Removed
993	American Elm	*Ulmus americana*	1	1	14.6	Healthy	Removed
994	Sugar Maple	*Acer saccharum*	1	1	20	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
995	American Elm	*Ulmus americana*	1	1	17	Healthy	Removed
996	Eastern Cottonwood	*Populus deltoides*	1	1	146.4	Dead; peeling bark	Removed
997	Sugar Maple	*Acer saccharum*	1	1	35.5	Dead; peeling bark	Removed
998	Eastern Cottonwood	*Populus deltoides*	1	1	90.3	Healthy	Removed
999	Sugar Maple	*Acer saccharum*	1	1	41.8	Healthy	Removed
1000	Trembling Aspen	*Populus tremuloides*	1	1	14.1	Healthy	Removed
1001	Trembling Aspen	*Populus tremuloides*	1	1	20.2	Healthy	Removed
1002	Trembling Aspen	*Populus tremuloides*	1	1	24	Healthy	Removed
1003	Green Ash	*Fraxinus pennsylvanica*	1	1	10.2	Healthy	Removed
1004	Largetooth Aspen	*Populus grandidentata*	1	1	13.9	Healthy	Removed
1005	Largetooth Aspen	*Populus grandidentata*	1	1	29.5	Healthy	Removed
1006	Green Ash	*Fraxinus pennsylvanica*	1	1	10	Crown dieback	Removed
1007	Eastern Cottonwood	*Populus deltoides*	1	1	27.7	Healthy	Removed
1008	White Birch	*Betula papyrifera*	1	1	14.7	Healthy	Removed
1009	Trembling Aspen	*Populus tremuloides*	1	1	16.6	Healthy	Removed
1010	White Birch	*Betula papyrifera*	1	1	14.5	Healthy	Removed
1011	White Birch	*Betula papyrifera*	1	1	15	Healthy	Removed
1012	White Birch	*Betula papyrifera*	1	1	10	Healthy	Removed
1013	White Birch	*Betula papyrifera*	1	1	12	Healthy	Removed
1014	White Birch	*Betula papyrifera*	1	1	12.6	Healthy	Removed
1015	Manitoba Maple	*Acer negundo*	1	3	14.8	Healthy	Removed
1016	Snag	N/A	1	1	15	Peeling bark	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1017	Trembling Aspen	*Populus tremuloides*	1	1	19.8	Healthy	Removed
1018	Trembling Aspen	*Populus tremuloides*	1	1	15.5	Healthy	Removed
1019	Trembling Aspen	*Populus tremuloides*	1	1	14.8	Healthy	Removed
1020	Trembling Aspen	*Populus tremuloides*	1	1	15.3	Healthy	Removed
1021	Trembling Aspen	*Populus tremuloides*	1	1	10.4	Healthy	Removed
1022	White Birch	*Betula papyrifera*	1	1	14	Healthy	Removed
1023	White Birch	*Betula papyrifera*	1	1	18	Healthy	Removed
1024	White Birch	*Betula papyrifera*	1	1	12.3	Healthy	Removed
1025	White Birch	*Betula papyrifera*	1	1	16.5	Healthy	Removed
1026	White Birch	*Betula papyrifera*	1	1	10	Healthy	Removed
1027	White Birch	*Betula papyrifera*	1	1	13.6	Healthy	Removed
1028	White Birch	*Betula papyrifera*	1	1	16.6	Healthy	Removed
1029	White Birch	*Betula papyrifera*	1	1	17	Healthy	Removed
1030	White Birch	*Betula papyrifera*	1	1	14	Healthy	Removed
1031	White Birch	*Betula papyrifera*	1	1	15	Healthy	Removed
1032	White Birch	*Betula papyrifera*	1	1	16	Healthy	Removed
1033	Manitoba Maple	*Acer negundo*	1	3	11.3	Healthy	Removed
1034	Manitoba Maple	*Acer negundo*	1	1	40.5	Healthy; forked	Removed
1035	Manitoba Maple	*Acer negundo*	1	1	23	Healthy	Removed
1036	Manitoba Maple	*Acer negundo*	1	3	33.2	Healthy	Removed
1037	Manitoba Maple	*Acer negundo*	1	1	31.8	Healthy	Removed
1038	Manitoba Maple	*Acer negundo*	1	1	23.1	Healthy	Removed
1039	Manitoba Maple	*Acer negundo*	1	2	30	Healthy	Removed
1040	Manitoba Maple	*Acer negundo*	1	2	17.5	Healthy	Removed
1041	Manitoba Maple	*Acer negundo*	1	1	18	Healthy	Removed
1042	Manitoba Maple	*Acer negundo*	1	1	24	Healthy	Removed
1043	Sugar Maple	*Acer saccharum*	1	1	56.6	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1044	Manitoba Maple	*Acer negundo*	1	1	17.5	Healthy	Removed
1045	Manitoba Maple	*Acer negundo*	1	2	38.6	Both stems are dead	Removed
1046	Manitoba Maple	*Acer negundo*	1	1	17.4	Healthy	Removed
1047	Manitoba Maple	*Acer negundo*	1	2	22.1	Healthy	Removed
1048	Manitoba Maple	*Acer negundo*	1	1	18	Healthy	Removed
1049	Snag	N/A	1	1	34	Severed trunk; peeling bark	Removed
1050	Manitoba Maple	*Acer negundo*	1	1	26.5	Healthy	Removed
1051	Manitoba Maple	*Acer negundo*	1	1	21.5	Healthy; forked	Removed
1052	Manitoba Maple	*Acer negundo*	1	1	26.8	Healthy	Removed
1053	Manitoba Maple	*Acer negundo*	1	1	15	Healthy	Removed
1054	Manitoba Maple	*Acer negundo*	1	1	20.1	Healthy	Removed
1055	Manitoba Maple	*Acer negundo*	1	1	17	Healthy; forked	Removed
1056	Manitoba Maple	*Acer negundo*	1	1	16	Healthy	Removed
1057	Manitoba Maple	*Acer negundo*	1	2	10.3	Healthy	Removed
1058	Manitoba Maple	*Acer negundo*	1	1	17.6	Healthy	Removed
1059	Manitoba Maple	*Acer negundo*	1	1	25.2	Healthy	Removed
1060	Manitoba Maple	*Acer negundo*	1	2	30.5	Healthy	Removed
1061	Manitoba Maple	*Acer negundo*	1	1	13.4	Healthy	Removed
1062	Manitoba Maple	*Acer negundo*	1	1	26.3	Healthy	Removed
1063	Manitoba Maple	*Acer negundo*	1	3	15.2	Healthy	Removed
1064	Manitoba Maple	*Acer negundo*	1	1	31.5	Healthy	Removed
1065	Manitoba Maple	*Acer negundo*	1	4	23.4	Healthy	Removed
1066	Manitoba Maple	*Acer negundo*	1	4	24.5	Healthy	Removed
1067	Manitoba Maple	*Acer negundo*	1	2	16	Healthy	Removed
1068	Manitoba Maple	*Acer negundo*	1	1	15	Healthy; forked	Removed
1069	Manitoba Maple	*Acer negundo*	1	1	14.6	Healthy; forked	Removed
1070	Eastern White Cedar	*Thuja occidentalis*	1	1	35.4	Cavities	Removed
1071	Sugar Maple	*Acer saccharum*	1	1	16	Crown dieback	Removed
1072	American Elm	*Ulmus americana*	1	1	41.6	Dead; no bark	Removed
1073	Red Maple	*Acer rubrum*	1	1	40	No crown	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1074	Red Maple	*Acer rubrum*	1	1	18.7	Healthy	Removed
1075	Red Maple	*Acer rubrum*	1	1	14.5	Healthy; forked	Removed
1076	Trembling Aspen	*Populus tremuloides*	13	1 per tree	Smallest = 10; largest = 14.3; average = 12	Healthy	Removed
1077	American Elm	*Ulmus americana*	1	1	20.4	Dead; peeling bark	Removed
1078	Red Maple	*Acer rubrum*	1	2	25	Healthy	Removed
1079	American Elm	*Ulmus americana*	1	1	10	Branch dieback	Removed
1080	Bur Oak	*Quercus macrocarpa*	1	1	21.6	Healthy	Removed
1081	Trembling Aspen	*Populus tremuloides*	1	1	12	No crown	Removed
1082	Trembling Aspen	*Populus tremuloides*	1	1	13	Healthy	Removed
1083	Trembling Aspen	*Populus tremuloides*	1	1	13	Healthy	Removed
1084	Trembling Aspen	*Populus tremuloides*	1	1	10	Healthy	Removed
1085	Trembling Aspen	*Populus tremuloides*	1	1	10	Healthy	Removed
1086	Trembling Aspen	*Populus tremuloides*	1	1	17	Healthy	Removed
1087	White Birch	*Betula papyrifera*	1	1	10	Healthy	Removed
1088	White Birch	*Betula papyrifera*	1	1	10	Healthy	Removed
1089	White Birch	*Betula papyrifera*	1	1	22	Healthy	Removed
1090	White Birch	*Betula papyrifera*	1	1	13	Healthy	Removed
1091	Lombardy Poplar	*Populus nigra*	1	1	50.4	Healthy	Removed
1092	Lombardy Poplar	*Populus nigra*	1	1	28.4	Healthy	Removed
1093	Trembling Aspen	*Populus tremuloides*	1	1	12	Healthy	Removed
1094	Lombardy Poplar	*Populus nigra*	1	1	55.6	Healthy	Removed
1095	Lombardy Poplar	*Populus nigra*	1	1	57.1	Healthy	Removed
1096	Blue Spruce	*Picea pungens*	1	1	24.7	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1097	Silver Maple	*Acer saccharinum*	1	1	29.7	Healthy	Removed
1098	Blue Spruce	*Picea pungens*	1	1	23.8	Healthy	Removed
1099	Trembling Aspen	*Populus tremuloides*	1	1	40.2	Healthy	Removed
1100	Trembling Aspen	*Populus tremuloides*	1	1	39	Healthy	Removed
1101	Silver Maple	*Acer saccharinum*	1	1	18.5	Healthy	Removed
1102	Lombardy Poplar	*Populus nigra*	1	1	46.8	Healthy	Removed
1103	Snag	N/A	1	1	51.6	Peeling bark	Removed
1104	Lombardy Poplar	*Populus nigra*	1	1	48	Healthy	Removed
1105	Silver Maple	*Acer saccharinum*	1	1	20	Healthy; forked	Removed
1106	Silver Maple	*Acer saccharinum*	1	1	38	Healthy	Removed
1107	Lombardy Poplar	*Populus nigra*	1	1	44.6	Dead crown; bark damage	Removed
1108	Lombardy Poplar	*Populus nigra*	1	1	45	Dead; peeling bark	Removed
1109	Silver Maple	*Acer saccharinum*	1	1	33.5	Healthy; forked	Removed
1110	Silver Maple	*Acer saccharinum*	1	4	33	Healthy	Removed
1111	Lombardy Poplar	*Populus nigra*	1	1	64	Healthy	Removed
1112	Lombardy Poplar	*Populus nigra*	1	1	63	Healthy	Removed
1113	Silver Maple	*Acer saccharinum*	1	1	35	Healthy	Removed
1114	Blue Spruce	*Picea pungens*	1	1	24.5	Healthy	Removed
1115	Crack Willow	*Salix fragilis*	1	2	43.5	Covered in wild grape	Removed
1116	Lombardy Poplar	*Populus nigra*	1	1	75.5	Cavity	Removed
1117	Manitoba Maple	*Acer negundo*	1	2	14.7	Healthy	Removed
1118	Lombardy Poplar	*Populus nigra*	1	1	45.2	Crown dieback; lower epicormic branching	Removed
1119	Blue Spruce	*Picea pungens*	1	1	12.1	Healthy	Removed
1120	Blue Spruce	*Picea pungens*	1	1	14.9	Healthy	Removed
1121	Sugar Maple	*Acer saccharum*	1	4	58	Healthy	Removed
1122	Manitoba Maple	*Acer negundo*	1	2	20.4	Healthy	Removed
1123	Silver Maple	*Acer saccharinum*	1	1	32.3	Healthy	Removed
1124	Lombardy Poplar	*Populus nigra*	1	1	40.4	Dead; no bark	Removed
1125	Lombardy Poplar	*Populus nigra*	1	1	64.1	Some branch dieback	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1126	Lombardy Poplar	*Populus nigra*	1	1	65.6	Some branch dieback	Removed
1127	Silver Maple	*Acer saccharinum*	1	1	42.1	Healthy; forked	Removed
1128	Blue Spruce	*Picea pungens*	1	1	20.6	Dead; peeling bark	Removed
1129	American Elm	*Ulmus americana*	1	2	15.8	Dead; peeling bark	Removed
1130	Crack Willow	*Salix fragilis*	1	4	58.8	Healthy	Removed
1131	Blue Spruce	*Picea pungens*	1	1	31.7	Dead; peeling bark	Removed
1132	Silver Maple	*Acer saccharinum*	1	1	40.2	Healthy; forked	Removed
1133	Silver Maple	*Acer saccharinum*	1	4	43.7	Healthy	Removed
1134	Silver Maple	*Acer saccharinum*	1	3	45.3	Healthy; one stem is forked	Removed
1135	Blue Spruce	*Picea pungens*	1	1	24.7	Lower branch dieback	Removed
1136	Blue Spruce	*Picea pungens*	1	1	24	Healthy	Removed
1137	Blue Spruce	*Picea pungens*	1	1	20.6	Dead, peeling bark	Removed
1138	Crack Willow	*Salix fragilis*	1	2	14.6	One stem is dead	Removed
1139	Silver Maple	*Acer saccharinum*	1	2	43	Healthy	Removed
1140	Silver Maple	*Acer saccharinum*	1	6	52.3	Healthy	Removed
1141	Lombardy Poplar	*Populus nigra*	1	1	67.1	Healthy	Removed
1142	Silver Maple	*Acer saccharinum*	1	1	33	Healthy	Removed
1143	Manitoba Maple	*Acer negundo*	1	1	10.8	Healthy	Removed
1144	Silver Maple	*Acer saccharinum*	1	4	24.5	Healthy; one stem is forked	Removed
1145	Blue Spruce	*Picea pungens*	1	1	19	Dead; peeling bark	Removed
1146	Silver Maple	*Acer saccharinum*	1	1	62	Healthy	Removed
1147	Blue Spruce	*Picea pungens*	1	1	18	Dead; peeling bark	Removed
1148	Silver Maple	*Acer saccharinum*	1	2	38.5	Both stems are forked	Removed
1149	Silver Maple	*Acer saccharinum*	1	1	63.9	Healthy; forked	Removed
1150	Lombardy Poplar	*Populus nigra*	1	1	63.3	Dead; peeling bark	Removed
1151	Blue Spruce	*Picea pungens*	1	1	22.6	Dead; peeling bark	Removed
1152	Blue Spruce	*Picea pungens*	1	1	20	Dead; peeling bark	Removed
1153	Silver Maple	*Acer saccharinum*	1	6	54.5	Healthy	Removed
1154	Crack Willow	*Salix fragilis*	1	1	28	Healthy	Removed
1155	Blue Spruce	*Picea pungens*	1	1	30.2	Lower branch dieback	Removed
1156	Blue Spruce	*Picea pungens*	1	1	22.8	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1157	Crack Willow	*Salix fragilis*	1	4	46.6	Healthy; one stem is forked	Removed
1158	Crack Willow	*Salix fragilis*	1	3	29.5	Healthy	Removed
1159	Silver Maple	*Acer saccharinum*	1	3	26.4	Black fungus on leaves	Removed
1160	Silver Maple	*Acer saccharinum*	1	1	32.6	Healthy	Removed
1161	Silver Maple	*Acer saccharinum*	1	1	39.8	Healthy	Removed
1162	Silver Maple	*Acer saccharinum*	1	6	60	Healthy	Removed
1163	Lombardy Poplar	*Populus nigra*	1	1	22	Healthy	Removed
1164	Lombardy Poplar	*Populus nigra*	1	1	72	Healthy; forked	Removed
1165	Lombardy Poplar	*Populus nigra*	1	1	60.4	Lower branch dieback	Removed
1166	Lombardy Poplar	*Populus nigra*	1	1	24.5	Healthy	Removed
1167	Green Ash	*Fraxinus pennsylvanica*	1	1	18.3	Dead crown; lower epicormic branching; sloughing bark	Removed
1168	Green Ash	*Fraxinus pennsylvanica*	1	1	25	Dead crown; lower epicormic branching; sloughing bark	Removed
1169	Green Ash	*Fraxinus pennsylvanica*	1	1	13	Dead crown; lower epicormic branching; sloughing bark	Removed
1170	Green Ash	*Fraxinus pennsylvanica*	1	1	19.6	Dead crown; lower epicormic branching; sloughing bark	Removed
1171	Green Ash	*Fraxinus pennsylvanica*	1	1	20	Dead crown; lower epicormic branching; sloughing bark	Removed
1172	Green Ash	*Fraxinus pennsylvanica*	1	1	19.5	Dead crown; lower epicormic branching; sloughing bark	Removed
1173	Silver Maple	*Acer saccharinum*	1	5	19	Healthy	Removed
1174	Manitoba Maple	*Acer negundo*	1	3	13.2	Healthy	Removed
1175	Blue Spruce	*Picea pungens*	1	1	20.9	Lower branch dieback	Removed
1176	Blue Spruce	*Picea pungens*	1	1	21	Healthy	Removed
1177	Blue Spruce	*Picea pungens*	1	1	19	Healthy	Removed
1178	Manitoba Maple	*Acer negundo*	1	3	12.5	Healthy	Removed
1179	Silver Maple	*Acer saccharinum*	1	1	37.8	Healthy	Removed
1180	Green Ash	*Fraxinus pennsylvanica*	1	1	25	Dead; peeling bark	Removed
1181	White Pine	*Pinus strobus*	1	1	30.1	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1182	Silver Maple	*Acer saccharinum*	1	1	27.5	Healthy	Removed
1183	American Elm	*Ulmus americana*	1	1	12	Healthy	Removed
1184	American Elm	*Ulmus americana*	1	1	12	Epicormic branching	Removed
1185	American Elm	*Ulmus americana*	1	1	10	Epicormic branching	Removed
1186	American Elm	*Ulmus americana*	1	1	10.5	Epicormic branching	Removed
1187	American Elm	*Ulmus americana*	1	1	10.5	Epicormic branching	Removed
1188	American Elm	*Ulmus americana*	1	1	10.5	Epicormic branching	Removed
1189	Silver Maple	*Acer saccharinum*	1	3	28	Healthy	Removed
1190	Silver Maple	*Acer saccharinum*	1	1	29	Healthy	Removed
1191	American Elm	*Ulmus americana*	1	1	15.6	Dead; peeling bark	Removed
1192	Silver Maple	*Acer saccharinum*	1	1	35	Healthy	Removed
1193	Silver Maple	*Acer saccharinum*	1	1	18.8	Dead; still has bark	Removed
1194	Lombardy Poplar	*Populus nigra*	1	1	55.6	Healthy	Removed
1195	Silver Maple	*Acer saccharinum*	1	1	34.5	Healthy	Removed
1196	American Elm	*Ulmus americana*	1	1	25	Healthy	Removed
1197	Green Ash	*Fraxinus pennsylvanica*	1	1	18	Dead crown; lower epicormic branching; sloughing bark	Removed
1198	Silver Maple	*Acer saccharinum*	1	1	21	Crown dieback; bark damage	Removed
1199	Silver Maple	*Acer saccharinum*	1	2	27	Lower branch dieback	Removed
1200	Silver Maple	*Acer saccharinum*	1	1	15	Crown dieback	Removed
1201	Silver Maple	*Acer saccharinum*	1	1	47.6	Some lower branch dieback	Removed
1202	Silver Maple	*Acer saccharinum*	1	1	33	Some lower branch dieback	Removed
1203	Silver Maple	*Acer saccharinum*	1	1	29	Lower branch dieback	Removed
1204	Silver Maple	*Acer saccharinum*	1	1	26.3	Lower branch dieback	Removed
1205	Silver Maple	*Acer saccharinum*	1	1	26	Healthy	Removed
1206	American Elm	*Ulmus americana*	1	1	10	Healthy	Removed
1207	Silver Maple	*Acer saccharinum*	1	1	39	Healthy	Removed
1208	Silver Maple	*Acer saccharinum*	1	3	28.7	Covered in wild grape	Removed
1209	American Elm	*Ulmus americana*	1	1	16.3	Healthy	Removed
1210	Silver Maple	*Acer saccharinum*	1	1	30.9	Lower branch dieback	Removed
1211	Silver Maple	*Acer saccharinum*	1	1	29	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1212	Silver Maple	*Acer saccharinum*	1	1	32.8	Lower branch dieback	Removed
1213	American Elm	*Ulmus americana*	1	1	19	Healthy	Removed
1214	American Elm	*Ulmus americana*	1	1	17	Healthy	Removed
1215	American Elm	*Ulmus americana*	1	1	16	Healthy	Removed
1216	Blue Spruce	*Picea pungens*	1	1	14.5	Dead; peeling bark	Removed
1217	American Elm	*Ulmus americana*	1	1	16	Dead; still has bark	Removed
1218	American Elm	*Ulmus americana*	1	1	11.5	Dead; still has bark	Removed
1219	Silver Maple	*Acer saccharinum*	1	3	34	Healthy	Removed
1220	Blue Spruce	*Picea pungens*	1	1	16.2	Dead; peeling bark	Removed
1221	American Elm	*Ulmus americana*	1	1	15	Dead crown; still has bark	Removed
1222	American Elm	*Ulmus americana*	1	1	14	Healthy	Removed
1223	American Elm	*Ulmus americana*	1	1	10	Healthy	Removed
1224	Green Ash	*Fraxinus pennsylvanica*	1	3	13	Dead crown; still has bark	Removed
1225	Green Ash	*Fraxinus pennsylvanica*	1	1	12	Dead crown; still has bark	Removed
1226	American Elm	*Ulmus americana*	1	1	10	Lower branch dieback	Removed
1227	American Elm	*Ulmus americana*	1	1	19.6	Healthy	Removed
1228	American Elm	*Ulmus americana*	1	1	24.5	Healthy	Removed
1229	Green Ash	*Fraxinus pennsylvanica*	1	1	21	Dead crown; lower epicormic branching; sloughing bark	Removed
1230	Lombardy Poplar	*Populus nigra*	1	1	49.2	Branch dieback	Removed
1231	Lombardy Poplar	*Populus nigra*	1	1	56.5	Branch dieback	Removed
1232	Silver Maple	*Acer saccharinum*	1	1	25.8	Lower branch dieback	Removed
1233	Silver Maple	*Acer saccharinum*	1	5	23	Healthy	Removed
1234	Green Ash	*Fraxinus pennsylvanica*	1	1	13	Dead crown; lower epicormic branching; sloughing bark	Removed
1235	American Elm	*Ulmus americana*	1	1	22.5	Healthy	Removed
1236	Green Ash	*Fraxinus pennsylvanica*	1	3	14	Dead crown; lower epicormic branching; sloughing bark	Removed
1237	Green Ash	*Fraxinus pennsylvanica*	1	1	21	Dead crown; lower epicormic branching; sloughing bark	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1238	Green Ash	*Fraxinus pennsylvanica*	1	1	19.5	Dead crown; lower epicormic branching; sloughing bark	Removed
1239	Silver Maple	*Acer saccharinum*	1	4	23.4	Healthy	Removed
1240	Blue Spruce	*Picea pungens*	1	1	25	No crown	Removed
1241	Amur Maple	*Acer ginnala*	1	2	11	Healthy	Removed
1242	Silver Maple	*Acer saccharinum*	1	3	39	Overgrown by Glossy Buckthorn	Removed
1243	Green Ash	*Fraxinus pennsylvanica*	1	1	21	Dead; sloughing bark	Removed
1244	Green Ash	*Fraxinus pennsylvanica*	1	1	28	Dead; sloughing bark	Removed
1245	American Elm	*Ulmus americana*	1	1	20.3	Healthy	Removed
1246	Silver Maple	*Acer saccharinum*	1	1	29.9	Healthy	Removed
1247	Silver Maple	*Acer saccharinum*	1	1	31.6	Lower branch dieback	Removed
1248	Green Ash	*Fraxinus pennsylvanica*	1	1	13.5	Dead crown; peeling bark	Removed
1249	Manitoba Maple	*Acer negundo*	1	2	10	Branch dieback	Removed
1250	Green Ash	*Fraxinus pennsylvanica*	1	1	19	Peeling bark; epicormic branching	Removed
1251	Silver Maple	*Acer saccharinum*	1	1	47.7	Lower branch dieback	Removed
1252	Silver Maple	*Acer saccharinum*	1	2	27	Lower branch dieback	Removed
1253	Green Ash	*Fraxinus pennsylvanica*	1	1	19	Peeling bark; epicormic branching	Removed
1254	Silver Maple	*Acer saccharinum*	1	1	30	Healthy	Removed
1255	Green Ash	*Fraxinus pennsylvanica*	1	1	20	Healthy	Removed
1256	Manitoba Maple	*Acer negundo*	1	2	14.5	Lower branch dieback	Removed
1257	Green Ash	*Fraxinus pennsylvanica*	1	1	29	Healthy	Removed
1258	American Elm	*Ulmus americana*	1	1	30	Healthy; forked	Removed
1259	Green Ash	*Fraxinus pennsylvanica*	1	1	26	Peeling bark; epicormic branching	Removed
1260	Blue Spruce	*Picea pungens*	1	1	23	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1261	Silver Maple	*Acer saccharinum*	1	2	29.6	Lower branch dieback	Removed
1262	Green Ash	*Fraxinus pennsylvanica*	1	2	14	Healthy	Removed
1263	Green Ash	*Fraxinus pennsylvanica*	1	1	18	Healthy	Removed
1264	Lombardy Poplar	*Populus nigra*	1	1	51.3	Healthy	Removed
1265	Silver Maple	*Acer saccharinum*	1	1	27	Healthy	Removed
1266	Silver Maple	*Acer saccharinum*	1	1	25	Lower branch dieback	Removed
1267	Silver Maple	*Acer saccharinum*	1	1	31.6	Healthy	Removed
1268	Silver Maple	*Acer saccharinum*	1	1	29.7	Healthy	Removed
1269	Silver Maple	*Acer saccharinum*	1	1	28	Healthy	Removed
1270	Silver Maple	*Acer saccharinum*	1	3	34.5	Healthy	Removed
1271	Silver Maple	*Acer saccharinum*	1	2	16	Lower branch dieback	Removed
1272	Lombardy Poplar	*Populus nigra*	1	1	56.8	Lower branch dieback; damaged trunk	Removed
1273	Green Ash	*Fraxinus pennsylvanica*	1	1	16.5	Dead crown; lower epicormic branching; peeling bark	Removed
1274	Green Ash	*Fraxinus pennsylvanica*	1	1	21	Dead crown; lower epicormic branching; peeling bark	Removed
1275	Manitoba Maple	*Acer negundo*	1	1	17.5	Healthy	Removed
1276	Blue Spruce	*Picea pungens*	1	1	25	Healthy	Removed
1277	Blue Spruce	*Picea pungens*	1	1	24.5	Healthy	Removed
1278	Lombardy Poplar	*Populus nigra*	1	1	12	Healthy	Removed
1279	Green Ash	*Fraxinus pennsylvanica*	1	1	14.2	Dead crown; lower epicormic branching; peeling bark	Removed
1280	Green Ash	*Fraxinus pennsylvanica*	1	1	21	Dead crown; lower epicormic branching; peeling bark	Removed
1281	Green Ash	*Fraxinus pennsylvanica*	1	1	19	Dead crown; lower epicormic branching; peeling bark	Removed
1282	Green Ash	*Fraxinus pennsylvanica*	1	1	19	Dead crown; lower epicormic branching; peeling bark	Retained

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1283	Green Ash	*Fraxinus pennsylvanica*	1	1	17	Dead crown; lower epicormic branching; peeling bark	Retained
1284	Green Ash	*Fraxinus pennsylvanica*	1	1	14	Dead crown; lower epicormic branching; peeling bark	Retained
1285	Green Ash	*Fraxinus pennsylvanica*	1	1	10	Dead crown; lower epicormic branching; peeling bark	Retained
1286	Green Ash	*Fraxinus pennsylvanica*	1	1	13	Dead crown; lower epicormic branching; peeling bark	Retained
1287	Green Ash	*Fraxinus pennsylvanica*	1	1	11	Dead crown; lower epicormic branching; peeling bark	Retained
1288	Silver Maple	*Acer saccharinum*	1	2	17.8	Healthy	Retained
1289	Manitoba Maple	*Acer negundo*	1	2	12.8	Healthy	Retained
1290	Green Ash	*Fraxinus pennsylvanica*	1	1	10	Dead crown; lower epicormic branching; peeling bark	Retained
1291	Sugar Maple	*Acer saccharum*	1	1	35.4	Healthy	Retained
1292	Sugar Maple	*Acer saccharum*	1	1	29.1	Healthy	Retained
1293	Green Ash	*Fraxinus pennsylvanica*	1	1	16	Dead crown; lower epicormic branching; peeling bark	Retained
1294	Green Ash	*Fraxinus pennsylvanica*	1	1	19	Dead crown; lower epicormic branching; peeling bark	Retained
1295	Sugar Maple	*Acer saccharum*	1	1	21.4	Healthy	Retained
1296	Blue Spruce	*Picea pungens*	1	1	18.6	Healthy	Retained
1297	Green Ash	*Fraxinus pennsylvanica*	1	1	10	Dead crown; lower epicormic branching; peeling bark	Retained
1298	Green Ash	*Fraxinus pennsylvanica*	1	1	12	Dead crown; lower epicormic branching; peeling bark	Retained
1299	Lombardy Poplar	*Populus nigra*	1	1	62	Healthy	Retained
1300	Manitoba Maple	*Acer negundo*	1	2	15	Healthy	Retained
1301	Green Ash	*Fraxinus pennsylvanica*	1	2	18	Dead crown; lower epicormic branching; peeling bark	Retained
1302	Blue Spruce	*Picea pungens*	1	1	13.2	Healthy	Retained
1303	Silver Maple	*Acer saccharinum*	1	2	38	Healthy; one stem is forked	Retained

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1304	Green Ash	*Fraxinus pennsylvanica*	1	1	20	Healthy	Retained
1305	Green Ash	*Fraxinus pennsylvanica*	1	1	15	Healthy	Retained
1306	Green Ash	*Fraxinus pennsylvanica*	1	1	18	Healthy	Retained
1307	Green Ash	*Fraxinus pennsylvanica*	1	2	20	Dead crown; lower epicormic branching; peeling bark	Retained
1308	Blue Spruce	*Picea pungens*	1	1	12	Healthy	Retained
1309	Blue Spruce	*Picea pungens*	1	1	19.4	Healthy	Retained
1310	Green Ash	*Fraxinus pennsylvanica*	1	4	10	Dead crown; lower epicormic branching; peeling bark	Retained
1311	Lombardy Poplar	*Populus nigra*	1	1	60.3	Healthy	Retained
1312	Lombardy Poplar	*Populus nigra*	1	1	48	Healthy	Retained
1313	Green Ash	*Fraxinus pennsylvanica*	1	1	12	Healthy	Retained
1314	Silver Maple	*Acer saccharinum*	1	6	25.4	One stem is broken	Retained
1315	Green Ash	*Fraxinus pennsylvanica*	1	1	18	Healthy	Retained
1316	Green Ash	*Fraxinus pennsylvanica*	1	3	19	Healthy	Retained
1317	Green Ash	*Fraxinus pennsylvanica*	1	1	16	Healthy	Retained
1318	Sugar Maple	*Acer saccharum*	1	1	11.9	Healthy	Retained
1319	Green Ash	*Fraxinus pennsylvanica*	1	1	19	Dead crown; lower epicormic branching; peeling bark	Retained
1320	Silver Maple	*Acer saccharinum*	1	1	28.5	Healthy	Retained
1321	Green Ash	*Fraxinus pennsylvanica*	1	1	13	Healthy	Retained
1322	Silver Maple	*Acer saccharinum*	1	1	27.5	Healthy	Retained
1323	Green Ash	*Fraxinus pennsylvanica*	1	1	10	Healthy	Retained
1324	Green Ash	*Fraxinus pennsylvanica*	1	1	13	Healthy	Retained

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1325	Manitoba Maple	*Acer negundo*	1	1	10	Healthy	Retained
1326	Green Ash	*Fraxinus pennsylvanica*	1	2	10	Healthy	Retained
1327	Silver Maple	*Acer saccharinum*	1	1	22.2	Healthy	Retained
1328	Blue Spruce	*Picea pungens*	1	1	20	Healthy	Retained
1329	Blue Spruce	*Picea pungens*	1	1	24	Healthy	Retained
1330	Lombardy Poplar	*Populus nigra*	1	1	46.4	Lower branch dieback	Retained
1331	Green Ash	*Fraxinus pennsylvanica*	1	2	11	Healthy	Retained
1332	Silver Maple	*Acer saccharinum*	1	1	28	Healthy	Retained
1333	Green Ash	*Fraxinus pennsylvanica*	1	1	11	Healthy	Retained
1334	Silver Maple	*Acer saccharinum*	1	4	17	Covered in wild grape	Retained
1335	Green Ash	*Fraxinus pennsylvanica*	1	2	18	Healthy	Retained
1336	Green Ash	*Fraxinus pennsylvanica*	1	1	12	Healthy	Retained
1337	Green Ash	*Fraxinus pennsylvanica*	1	1	17	Healthy	Retained
1338	Silver Maple	*Acer saccharinum*	1	1	26	Healthy	Retained
1339	Blue Spruce	*Picea pungens*	1	1	19.5	Healthy	Retained
1340	Green Ash	*Fraxinus pennsylvanica*	1	1	13	Healthy	Retained
1341	Green Ash	*Fraxinus pennsylvanica*	1	1	18.5	Healthy	Retained
1342	Green Ash	*Fraxinus pennsylvanica*	1	1	17	Healthy	Retained
1343	Silver Maple	*Acer saccharinum*	1	1	29.2	Healthy	Retained
1344	Green Ash	*Fraxinus pennsylvanica*	1	2	16.5	Healthy	Retained
1345	Silver Maple	*Acer saccharinum*	1	1	20.4	Healthy	Retained
1346	Green Ash	*Fraxinus pennsylvanica*	1	1	20	Healthy	Retained

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1347	Green Ash	*Fraxinus pennsylvanica*	1	1	17	Healthy	Retained
1348	Green Ash	*Fraxinus pennsylvanica*	1	1	18	Healthy	Retained
1349	Green Ash	*Fraxinus pennsylvanica*	1	1	10	Healthy	Retained
1350	Silver Maple	*Acer saccharinum*	1	1	20.3	Healthy	Retained
1351	Green Ash	*Fraxinus pennsylvanica*	1	1	15	Healthy	Retained
1352	Green Ash	*Fraxinus pennsylvanica*	1	1	14	Healthy	Retained
1353	Green Ash	*Fraxinus pennsylvanica*	1	1	10	Healthy	Retained
1354	Green Ash	*Fraxinus pennsylvanica*	1	1	7.5	Healthy	Retained
1355	Green Ash	*Fraxinus pennsylvanica*	1	2	18.5	Healthy	Retained
1356	Green Ash	*Fraxinus pennsylvanica*	1	1	13	Broken trunk	Retained
1357	Green Ash	*Fraxinus pennsylvanica*	1	1	14	Healthy	Retained
1358	Green Ash	*Fraxinus pennsylvanica*	1	1	22	Healthy	Retained
1359	Green Ash	*Fraxinus pennsylvanica*	1	1	19	Healthy	Retained
1360	Green Ash	*Fraxinus pennsylvanica*	1	2	12	Healthy	Retained
1361	Green Ash	*Fraxinus pennsylvanica*	1	1	10	Healthy	Retained
1362	Green Ash	*Fraxinus pennsylvanica*	1	3	20	Healthy	Retained
1363	Manitoba Maple	*Acer negundo*	1	2	17.5	Healthy	Retained
1364	Lombardy Poplar	*Populus nigra*	1	1	52.7	Healthy	Retained
1365	Lombardy Poplar	*Populus nigra*	1	1	49.6	Healthy	Retained
1366	American Elm	*Ulmus americana*	1	1	12.4	Dead; no bark	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1367	American Elm	*Ulmus americana*	1	1	14	Dead; no bark	Removed
1368	American Elm	*Ulmus americana*	1	1	12	Healthy	Removed
1369	Snag	N/A	1	1	14.1	Peeling bark	Removed
1370	Snag	N/A	1	1	16	Peeling bark	Removed
1371	American Elm	*Ulmus americana*	1	1	12.8	Healthy	Removed
1372	Glossy Buckthorn	*Rhamnus frangula*	1	5	16.5	Healthy	Removed
1373	American Elm	*Ulmus americana*	1	1	12	Dead; peeling bark	Removed
1374	American Elm	*Ulmus americana*	1	1	13	Dead; peeling bark	Removed
1375	American Elm	*Ulmus americana*	1	1	15	Healthy	Removed
1376	American Elm	*Ulmus americana*	1	1	17	Lower branch dieback; forked	Removed
1377	American Elm	*Ulmus americana*	1	1	10.5	Lower branch dieback	Removed
1378	American Elm	*Ulmus americana*	1	1	18	Lower branch dieback	Removed
1379	American Elm	*Ulmus americana*	1	1	13	Lower branch dieback	Removed
1380	American Elm	*Ulmus americana*	1	1	15.1	Dead; no bark	Removed
1381	American Elm	*Ulmus americana*	1	1	16.6	Healthy	Removed
1382	American Elm	*Ulmus americana*	1	1	14	Dead; no bark	Removed
1383	American Elm	*Ulmus americana*	1	1	14.6	Healthy	Removed
1384	American Elm	*Ulmus americana*	1	2	12.6	Dead, no bark	Removed
1385	American Elm	*Ulmus americana*	1	1	12.6	Dead; no bark	Removed
1386	American Elm	*Ulmus americana*	1	1	10.2	Lower branch dieback	Removed
1387	American Elm	*Ulmus americana*	1	1	16.4	Dead; no bark	Removed
1388	American Elm	*Ulmus americana*	1	1	14.2	Dead; no bark	Removed
1389	American Elm	*Ulmus americana*	1	1	10.6	Healthy	Removed
1390	Glossy Buckthorn	*Rhamnus frangula*	1	6	14	Healthy	Removed
1391	American Elm	*Ulmus americana*	1	1	12	Healthy	Removed
1392	American Elm	*Ulmus americana*	1	1	12	Healthy	Removed
1393	American Elm	*Ulmus americana*	1	1	13	Dead; no bark	Removed
1394	American Elm	*Ulmus americana*	1	1	13.5	Crown dieback	Removed
1395	American Elm	*Ulmus americana*	1	1	14.5	Dead; no bark	Removed
1396	American Elm	*Ulmus americana*	1	1	12.6	Healthy	Removed

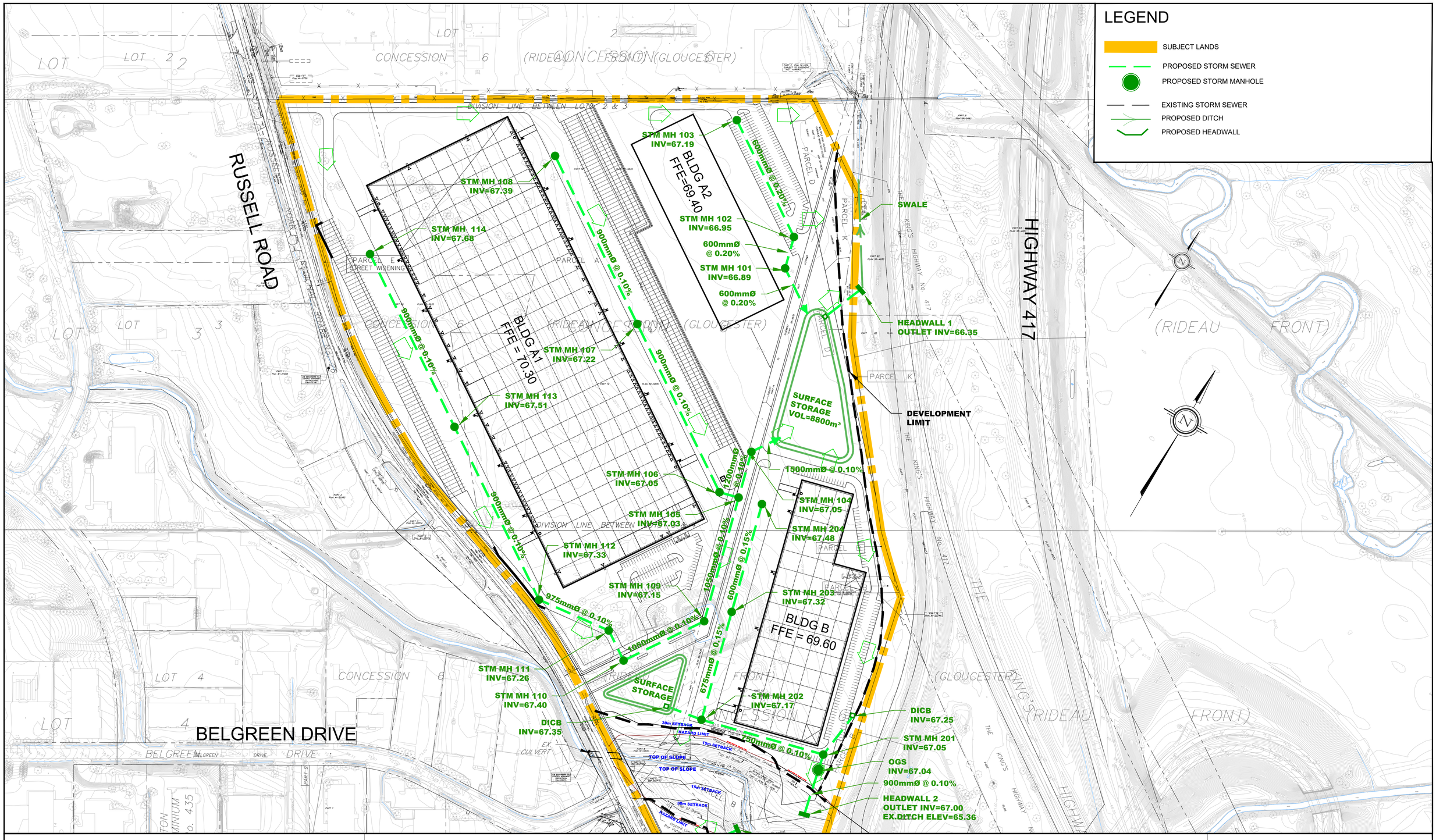
Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1397	Glossy Buckthorn	*Rhamnus frangula*	1	1	18	Healthy; forked	Removed
1398	Green Ash	*Fraxinus pennsylvanica*	1	1	18	Dead; peeling bark	Removed
1399	Manitoba Maple	*Acer negundo*	1	1	16.2	Healthy; forked	Removed
1400	Manitoba Maple	*Acer negundo*	1	1	16	Healthy	Removed
1401	Manitoba Maple	*Acer negundo*	1	1	14	Healthy	Removed
1402	American Elm	*Ulmus americana*	1	1	26	Some epicormic branching	Removed
1403	Snag	N/A	1	1	25	No bark	Removed
1404	American Elm	*Ulmus americana*	1	1	33.4	Dead; no bark	Removed
1405	American Elm	*Ulmus americana*	1	1	30	Dead; peeling bark	Removed
1406	Snag	N/A	1	1	15	Peeling bark	Removed
1407	Snag	N/A	1	1	15	Peeling bark	Removed
1408	Manitoba Maple	*Acer negundo*	1	5	15.6	Healthy	Removed
1409	Manitoba Maple	*Acer negundo*	1	1	16	Healthy	Removed
1410	Manitoba Maple	*Acer negundo*	1	3	13.4	Healthy	Removed
1411	Manitoba Maple	*Acer negundo*	1	2	13	Healthy	Removed
1412	Manitoba Maple	*Acer negundo*	1	2	20.7	Healthy	Removed
1413	Manitoba Maple	*Acer negundo*	1	1	10.7	Healthy	Removed
1414	Manitoba Maple	*Acer negundo*	1	1	20.2	Healthy	Removed
1415	Snag	N/A	1	1	41	No bark	Removed
1416	American Elm	*Ulmus americana*	1	1	76.4	Healthy	Removed
1417	American Elm	*Ulmus americana*	1	1	25.7	Healthy	Removed
1418	American Elm	*Ulmus americana*	1	1	12.8	Healthy	Removed
1419	American Elm	*Ulmus americana*	1	1	25.5	Dead; no bark	Removed
1420	American Elm	*Ulmus americana*	1	1	12	Healthy	Removed
1421	American Elm	*Ulmus americana*	1	1	13	Healthy	Removed
1422	American Elm	*Ulmus americana*	1	1	12	Dead; no bark	Removed
1423	American Elm	*Ulmus americana*	1	1	10	Healthy	Removed
1424	American Elm	*Ulmus americana*	1	1	32	Dead; no bark; no crown	Removed
1425	American Elm	*Ulmus americana*	1	1	20	Dead, peeling bark	Removed
1426	American Elm	*Ulmus americana*	1	1	27	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1427	Bur Oak	*Quercus macrocarpa*	1	1	22.6	Healthy	Removed
1428	Trembling Aspen	*Populus tremuloides*	1	1	11.5	Healthy	Removed
1429	Red Pine	*Pinus resinosa*	1	1	13	Healthy	Removed
1430	American Elm	*Ulmus americana*	1	1	11.4	Healthy	Removed
1431	Trembling Aspen	*Populus tremuloides*	1	1	10.5	Healthy	Removed
1432	Trembling Aspen	*Populus tremuloides*	1	1	10	Healthy	Removed
1433	Trembling Aspen	*Populus tremuloides*	1	4	21	Healthy	Removed
1434	Basswood	*Tilia americana*	1	2	20.1	Healthy	Removed
1435	Trembling Aspen	*Populus tremuloides*	1	1	10	Healthy	Removed
1436	Bur Oak	*Quercus macrocarpa*	1	1	17.5	Healthy	Removed
1437	Trembling Aspen	*Populus tremuloides*	1	1	15	Healthy	Removed
1438	Trembling Aspen	*Populus tremuloides*	1	1	10	Healthy	Removed
1439	Trembling Aspen	*Populus tremuloides*	1	1	11	Healthy	Removed
1440	Trembling Aspen	*Populus tremuloides*	1	1	13	Healthy	Removed
1441	American Elm	*Ulmus americana*	1	1	12	Dead; peeling bark	Removed
1442	Trembling Aspen	*Populus tremuloides*	1	1	28.1	Lower branch dieback	Removed
1443	Trembling Aspen	*Populus tremuloides*	1	1	10	Healthy	Removed
1444	American Elm	*Ulmus americana*	1	1	12	Dead; peeling bark	Removed
1445	Basswood	*Tilia americana*	1	1	18	No crown	Removed
1446	Basswood	*Tilia americana*	1	1	10.5	Healthy	Removed
1447	Basswood	*Tilia americana*	1	3	17.8	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1448	Trembling Aspen	*Populus tremuloides*	1	1	12	Healthy	Removed
1449	Trembling Aspen	*Populus tremuloides*	1	1	10.6	Healthy	Removed
1450	Trembling Aspen	*Populus tremuloides*	1	1	11.5	Healthy	Removed
1451	Trembling Aspen	*Populus tremuloides*	1	1	12	Healthy	Removed
1452	Trembling Aspen	*Populus tremuloides*	1	1	12.5	Healthy	Removed
1453	Snag	N/A	1	1	23	Peeling bark; cavities	Removed
1454	Basswood	*Tilia americana*	1	3	18.5	Healthy	Removed
1455	American Elm	*Ulmus americana*	1	1	15.5	Dead; still has its bark	Removed
1456	Green Ash	*Fraxinus pennsylvanica*	1	1	14.5	Dead; still has its bark	Removed
1457	American Elm	*Ulmus americana*	1	1	11	Healthy	Removed
1458	Bur Oak	*Quercus macrocarpa*	1	1	15.7	Healthy	Removed
1459	Blue Spruce	*Picea pungens*	1	1	35	Healthy	Removed
1460	Blue Spruce	*Picea pungens*	1	1	31	Healthy	Removed
1461	Blue Spruce	*Picea pungens*	1	1	32	Healthy	Removed
1462	Manitoba Maple	*Acer negundo*	1	1	11	Healthy	Removed
1463	Manitoba Maple	*Acer negundo*	1	1	13	Healthy	Removed
1464	Manitoba Maple	*Acer negundo*	1	4	17.5	Healthy	Removed
1465	Manitoba Maple	*Acer negundo*	1	1	14.7	Healthy	Removed
1466	Manitoba Maple	*Acer negundo*	1	1	10.5	Healthy	Removed
1467	White Pine	*Pinus strobus*	1	1	15	Healthy	Removed
1468	White Pine	*Pinus strobus*	1	1	15.8	Healthy	Removed
1469	White Pine	*Pinus strobus*	1	1	14.2	Healthy	Removed
1470	Manitoba Maple	*Acer negundo*	1	1	14	Healthy	Removed
1471	Manitoba Maple	*Acer negundo*	1	1	13.8	Healthy	Removed
1472	Manitoba Maple	*Acer negundo*	1	1	12	Healthy	Removed
1473	Manitoba Maple	*Acer negundo*	1	3	11.5	Healthy	Removed

Tree ID	Species Common Name	Species Taxonomic Name	Count	# Stems	DBH (cm)	General Health	Fate
1474	Manitoba Maple	*Acer negundo*	1	5	15	Healthy	Removed
1475	Manitoba Maple	*Acer negundo*	1	1	14.8	Healthy	Removed
1476	Manitoba Maple	*Acer negundo*	1	1	10.5	Healthy	Removed
1477	Manitoba Maple	*Acer negundo*	1	2	14	Healthy	Removed
1478	Manitoba Maple	*Acer negundo*	1	4	14.5	Healthy	Removed
1479	Manitoba Maple	*Acer negundo*	1	1	15.8	Healthy	Removed
1480	Manitoba Maple	*Acer negundo*	1	1	13.7	Healthy	Removed
1481	Manitoba Maple	*Acer negundo*	1	1	15.6	Healthy; forked	Removed
1482	Manitoba Maple	*Acer negundo*	1	2	14.9	Healthy	Removed
1483	Manitoba Maple	*Acer negundo*	1	3	12.7	Healthy	Removed
1484	Crack Willow	*Salix fragilis*	1	5	26	Some broken branches	Removed
1485	Eastern Cottonwood	*Populus deltoides*	1	2	34	Healthy	Removed
1486	Eastern Cottonwood	*Populus deltoides*	1	1	20.9	No crown	Removed
1487	Eastern Cottonwood	*Populus deltoides*	1	2	52.8	Healthy	Removed
1488	Eastern Cottonwood	*Populus deltoides*	1	1	42	Lower branch dieback; forked	Removed
1489	Eastern Cottonwood	*Populus deltoides*	1	1	72.1	Healthy	Removed
1490	Manitoba Maple	*Acer negundo*	1	1	40	Dead; peeling bark	Removed
1491	Manitoba Maple	*Acer negundo*	1	3	12.6	Healthy	Removed
1492	Manitoba Maple	*Acer negundo*	1	3	12.5	Healthy	Removed
1493	Manitoba Maple	*Acer negundo*	1	1	12.1	Healthy	Removed
1494	Manitoba Maple	*Acer negundo*	1	3	13.5	Gurdled trunk	Removed
1495	Manitoba Maple	*Acer negundo*	1	4	16.6	Healthy	Removed
1496	Manitoba Maple	*Acer negundo*	1	1	16.8	Healthy	Removed
1497	Manitoba Maple	*Acer negundo*	1	1	12.8	Healthy	Removed
1498	American Elm	*Ulmus americana*	1	2	24.5	Covered in wild grape; gurdled trunk	Removed
1499	Manitoba Maple	*Acer negundo*	1	1	14.4	Covered in wild grape	Removed

Appendix B Stormwater management plan for Site 3 of the National Capital Business Park (prepared by David Schaeffer Engineering Ltd.)



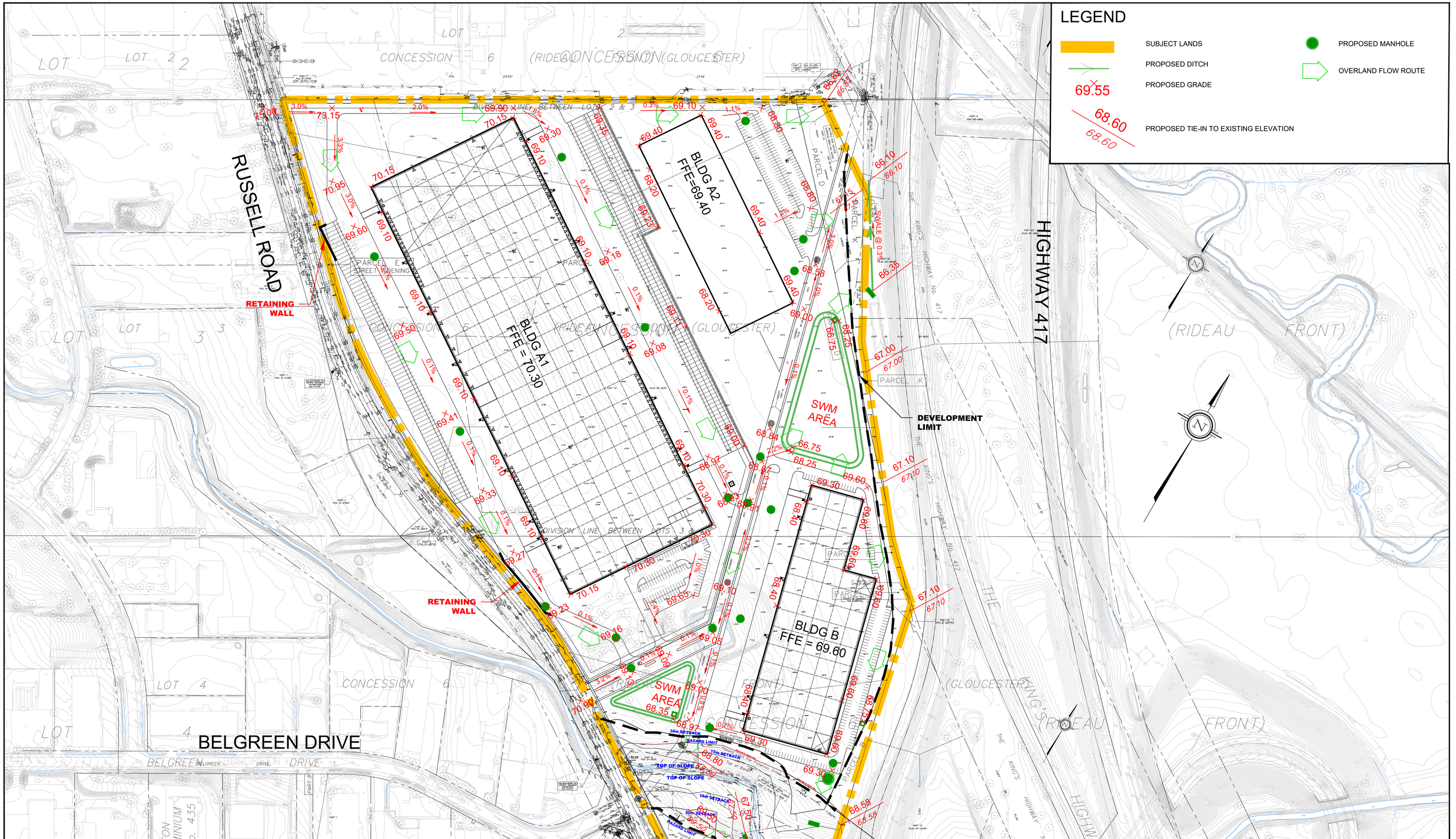
david schaeffer engineering ltd
SMART SUBDIVISIONS™

120 Iber Road Unit 103
Stittsville, Ontario, K2S 1E9
Tel. (613) 836-0856
Fax. (613) 836-7183
www.DSEL.ca

4120 RUSSEL ROAD
STORM SERVICING SKETCH - SITE 3

PROJECT No. :	19-1155
SCALE:	1:1500
DATE:	DECEMBER 2020
DRAWING No.	FIG 1

Appendix C Grading plan for Site 3 of the National Capital Business Park (prepared by David Schaeffer Engineering Ltd.)



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4120 RUSSEL ROAD
CONCEPTUAL GRADING - SITE 3

PROJECT No. :	19-1155
SCALE:	1:1500
DATE:	DECEMBER 2020
DRAWING No.	FIG 1

z:\projects\19-1155_4120-russell-road\b_design\b2_drawings\b2-2_main (dsel)\site-1_spa_sub1\prelim\2020-12-02_1155_fsr_site-3_v2.dwg

Appendix C

Tree cut permit for Site 3 of the NCBP

File Number D06-01-21-0045

March 9, 2021

National Capital Business Park Inc.
222 Somerset Street West
Ottawa, ON K2P 2G3

Attention: Barry McKibbon COO, Avenue 31 (Capital) Inc.

Dear Mr. McKibbon:

Re: Tree Cut Permit for 4120 Russell Rd., Ottawa issued in accordance with Urban Tree Conservation By-law No. 2009-200

This letter confirms the receipt of the Tree Conservation Report developed by Kilgour & Associates.

Permission is hereby granted to remove privately owned trees as identified in the above-mentioned documents subject to the following conditions:

1. The harm or destruction of Butternut trees on site, or on adjacent sites, will be in accordance with the Endangered Species Act. Habitat requirements for retained Butternut trees must be in accordance with MECP guidelines.

2. Tree protection measures must be implemented for retained trees, both on site and on adjacent sites as per the City guidelines and the above-mentioned Tree Conservation report.

Don Herweyer, MCIP, RPP
Director, Economic Development and Long Range Planning
Planning, Infrastructure and Economic Development Department
City of Ottawa
613.580.2424 ext. 28311
Don.Herweyer@Ottawa.ca

Don Herweyer, MCIP, RPP
Directeur, Développement économique et planification à long terme
Direction général de la planification, de l'infrastructure et du développement économique
Ville d'Ottawa
613.580.2424 poste 28311
Don.Herweyer@Ottawa.ca

3. Mark Richardson, Planning Forester with the City of Ottawa's Planning, Infrastructure and Economic Development Department will be notified after tree protection measures are installed and prior to the commencement of tree removal operations. Contact information: mark.richardson@ottawa.ca 613-580-2424, ext. 23839. A preclearing site inspection is required unless otherwise indicated.

4. The removal of private trees on a property line or on an adjacent property cannot occur until written permission from the adjacent property owner has been obtained.

5. The removal of trees not identified for removal in the above-mentioned report or plans is prohibited. If additional tree removals are required, the planning forester may permit them via email approval. Additional documentation will be required validating the need for removal.

6. No clearing of vegetation shall occur between April 15 and August 15, unless a qualified biologist has determined that no bird nesting is occurring within 5 days prior to the clearing. A pre-clearing survey for active stick nests and cavity nests shall also be conducted between April 1 and April 15, in order to identify and protect early-nesting owls and raptors.

7. The permit holder will comply with any federal regulations or orders relating to the movement of wood or wood products including ministerial orders issued by the Canadian Food Inspection Agency.

8. Impacts on wildlife will be minimized in accordance with Ottawa's Wildlife Protocol.

9. Notwithstanding the issuance of this permit, it is noted that Ontario Regulation 82/20, as amended, being made under the Emergency Management and Civil Protection Act, orders the closure of all places of non-essential business and for greater certainty, that all construction cease and not proceed except those essential businesses listed in Schedule 2 of the regulation. It is the owner's responsibility to comply with the Emergency Management and Civil Protection Act and all applicable Regulations and Orders, until such times as the order is lifted. Ontario Regulation 82/20 can be found at https://www.ontario.ca/page/emergency-information#emergencyorders;.

10. Where construction can lawfully proceed under the Emergency Management and Civil Protection Act including applicable regulations, it is the owner's responsibility or the person responsible for the place of business to ensure that the business operates in accordance with all applicable laws, including the Occupational Health and Safety Act, and the regulations made under it.

Unless otherwise specified, this permit does not authorize the harm or removal of trees located on either City-owned land or adjacent properties. In addition, this permit does not relieve the owner, applicant and/or permit holder from any responsibility to comply with all applicable provincial or federal legislation.

Please note that any personal information required for this permit is collected under the authority of Section 135 of the Municipal Act, 2001, S.O. 2001, c. 25, as amended and will be used for the administration and enforcement of the City's Tree Protection By-law, as amended.

If you have any questions regarding this permission, please contact Mark Richardson R.P.F, in the Planning, Infrastructure and Economic Development Department at 613-580-2424, ext. 23839.

In signing this letter, you agree to the following:

(a) to comply with the above noted conditions;
(b) to indemnify and save harmless the City from any claims, demands and causes of action arising out of or incurred by reason of the issuance of the permit or the tree removal, and;
(c) that the removal of the above-noted trees in this permit is done at the owner's risk and the City of Ottawa assumes no responsibility for the removal or any residual effects of the removal.

Please return a signed copy of this letter to Mark Richardson, Planning Forester at the following address: City of Ottawa, Planning, Infrastructure and Economic Development Department, 110 Laurier Avenue, Ottawa, ON, K1P 1J1.

Regards,

Don Herweyer, MCIP, RPP
Director, Economic Development and Long Range Planning
Planning, Infrastructure and Economic Development Department

Attachment 1

Property Address where tree removal will occur: **4055 Russell Road, Ottawa**

Name of Owner/Property Manager: **Barry McKibbon**

Date: _____

Print: _____

Signature: _____ **Witness:** _____

NOTE: THIS PERMIT AND THE APPROVED TREE CONSERVATION REPORT AND/OR LANDSCAPE PLAN MUST BE AVAILABLE ON-SITE DURING TREE REMOVAL, GRADING, CONSTRUCTION, AND ANY OTHER SITE ALTERATION ACTIVITIES

Appendix D

City of Ottawa pre-consultation meeting minutes for Site Plan Control for Site 3

From: Gervais, Melanie <Melanie.Gervais@ottawa.ca>
Sent: January 29, 2021 8:34 AM
To: jennifer@terraindevelopment.ca
Subject: 4055 Russell - pre-consult recap

Hi Jennifer,

As a recap of our informal pre-consult for the next phase of the National Capital Business Park, please find below the requirements for the Site Plan application. Please note that during the COVID-19 pandemic the department is accepting electronic applications. Please send pdfs of your submission material (including a scanned copy of the signed & sworn application form) to planningcirculations@ottawa.ca (and cc myself). They will create the file number and upload the files to the proper location. Following the receipt of the electronic submission I will send you an email with your new file number and the new process/options for submitting payment.

Planning:

You will need to submit a New - Complex Site Plan application. A fee of $48,298.80 + engineering review fees + $1,040 (Conservation Authority fee).

The property is zoned IH (Heavy Industrial Zone), which permits warehouse and office. The zoning provisions for IH can be found here and all the provisions for parking lots can be found here.

Ensure the Site Plan includes a zoning chart, showing what's required and what's proposed.

All dimensions should be in metric.

Provide accessible parking spaces as per the Accessibility Design Standards link.

Show parking calculations in zoning chart.

Show bicycle parking calculations in zoning chart and rack details on the Site Plan or the Landscape Plan.

Wherever possible, enlarge the islands within the parking lot to facilitate tree plantings within these islands. This will help reduce the heat island effect.

Retain as many mature trees as possible. Any trees that must be removed should be compensated with new native species plantings.

Please note that all Landscape Plans need to be stamped by a Landscape Architect.

Please see the attached list identifying the submission requirements. Although the list identifies numbers of paper copies these are **not** required at this time.

Urban Design:

This update to Site 3 sounds well engineered and surely addresses many of the technical concerns of realizing the project, however, in the process it appears to have lost some of its design aspirations and pedestrian considerations and we look forward to its development with these issues addressed;

- Building design;

- Green roof's;

- Plentiful landscaping with themes and artistry;

- Fulsome pedestrian access and experiences;

A Design Brief is a required submittal for all Site Plan/Re-zoning applications. Please see the Design Brief Terms of Reference provided.

This is an exciting project in an area full of potential. We look forward to helping you achieve its goals with the highest level of design resolution. We are happy to assist and answer any questions regarding the above.

Environmental:

The comments provided on the “Master Site Plan” and in particular on the EIS need to be addressed. It wasn’t my understanding that the 1 “master” submission was approved. I provided several comments on the May 2020 EIS that would apply to the 4055 Russell Road site and to my knowledge they haven’t been responded to.

Transportation:

A TIA report will be required. The TIA Step 1 - Screening Form and Step 2 – Forecasting Report can be submitted together. Applicant advised that their application will not be deemed complete

until the submission of the draft step 1-4, including the functional draft RMA package (if applicable) and/or monitoring report (if applicable).

On site plan:

- Show all details of the roads abutting the site up to and including the opposite curb; include such items as pavement markings, accesses and/or sidewalks.
- Turning templates will be required for all accesses showing the largest vehicle to access the site; required for internal movements and at all access (entering and exiting and going in both directions).
- Show all curb radii measurements; ensure that all curb radii are reduced as much as possible
- Show lane/aisle widths.
- Ensure pedestrian connections are provided on the site.
- Grey out any area that will not be impacted by this application.

The City recommends development on private property be in accordance with the City's Accessibility Design Standards link (see attached Site Plan Checklist, which summarizes AODA requirements). As the proposed site is commercial/institutional/industrial and for general public use, AODA legislation applies.

For any transportation questions, please contact Wally Dubyk (Wally.Dubyk@ottawa.ca).

Engineering:

Storm

- When draining to a surface drainage system, the post development peak flow rate must match the pre-development pear flow rate.
- RVCA require 80% TSS removal through on-site treatment prior to outletting to a natural watercourse.

Sanitary

- As an industrial site the peak flow timing will be different than residential, so the impact on the trunk system will be low.
- No direct connections to the trunk sewer would be permitted; they would have to make use of one of the existing MH/shafts on the sewer.
- For 4055, they have the existing chambers on the property.

Water

- To be looped via a new watermain along Russell Rd. Please submit a request for boundary conditions.

MECP ECA's would be required for the industrial use (direct submission), any new sewers within the right of way (new sanitary along Russell) (transfer of review) and any storm outlets (transfer of review).

Noise Impact Study will be required if you have any on-site noise sensitive uses (typ. Offices) to analyze the noise levels to ensure the building components mitigate sound levels to acceptable levels at the plane of window.

Parks:

The amount of parkland dedication that is required is to be calculated as per the City of Ottawa Parkland Dedication By-law No 2009-95. For commercial and industrial purposes, the parkland dedication requirement is calculated as 2% of the gross land area of the property being developed. Parks and Facilities Planning is requesting 'land conveyance' as the form of parkland dedication (not cash-in-lieu of parkland). See attached sketch showing a potential option.

RVCA:

Natural Hazard

The impact of a new outlet to the watercourse will need to be properly addressed through the identification of erosion threshold, and consideration for erosion as a result of the additional flows will need to be addressed.

A geotechnical report identifying the limit of hazard lands in accordance with the MNR Technical Guides will be required. This was already done at the first submission.

Environmental

A 30 metre is required from the normal high water mark of the watercourse. The proposed outlet should be discussed in the EIS, including the evaluation of the its location and potential mitigation measures required.

A wetland compensation plan should be prepared in support of the removal of the wetland pockets identified. Discussions with the NCC and the proponent have already taken place regarding some of the information required.

Stormwater Management

The plan will need to ensure that the erosion thresholds for the receiving watercourse are not exceeded. The plan must be in conformity with the MOE Stormwater Management Planning and Design Manual and should strive to meet the requirements for the new linear ECA process. LID's should be explored for the site, and a treatment train approach should be considered. The water quality objective is 80% TSS removal.

****

Please refer to the links to "Guide to preparing studies and plans" and fees for general information. Additional information is available related to building permits, development charges, and the Accessibility Design Standards. Be aware that other fees and permits may be required, outside of the development review process. You may obtain background drawings by contacting informationcentre@ottawa.ca (613-580-2424 ext. 44455).

All required plans are to be submitted utilizing a reasonable and appropriate metric scale as per City of Ottawa Servicing and Grading Plan Requirements: title blocks are to be placed on the right of the sheets and not along the bottom. Engineering plans may be combined, but the Site Plans must be provided separately. Plans shall include the survey monument used to confirm datum. Information shall be provided to enable a non-surveyor to locate the survey monument presented by the consultant.

All required plans & reports are to be provided in *.pdf format (at application submission and for any, and all, re-submissions).

Please do not hesitate to contact me if you have any questions.

Regards,

Mélanie Gervais *MCIP, RPP*

Planner / Urbaniste

Development Review /

Examen des demandes d'aménagement

Planning, Infrastructure and Economic Development Department /

Services de la planification, de l'infrastructure et du développement économique

City of / Ville d'Ottawa

110, avenue Laurier Avenue West / Ouest,

4th Floor / 4ième étage

Ottawa, ON K1P 1J1

Appendix E

Technical circulation comments on the Master-level EIS for the NCBP

File No. D07-12-20-0028

June 25, 2020

Jennifer Murray Land Development + Project Management
45 Spencer Street, Suite 101
Ottawa, ON
K1Y 2P5

Attention: Jennifer Murray

Dear Mrs. Murray:

Subject: Technical Circulation Comments
Site Plan Control Application: 4055 & 4120 Russell Road

The following comments are provided in response to the submission received by the City on March 20, 2020 and deemed complete on May 19, 2020:

Planning Comments:

1. An updated Concept Plan was provided on June 15th, this plan was not circulated to everyone who received the technical circulation since it was submitted after the technical circulation had been sent. Therefore, please ensure that you clearly show changes to the new proposed public road from Hunt Club Rd to Russell Rd on all plans and reports.
    - If this changes the orientation of the buildings, please note that Hunt Club Road is also a Scenic-Entry Route in the City's Official Plan.

Site Plan

2. Add a legend for graphic symbols used on the plan (ex. types of lines) and bar scale.

3. Add the legal description of the property and municipal addresses

4. Show existing features within 5 meters of property.

5. Show existing features to be retained, removed or relocated.

6. Show proposed fire route and fire route sign locations.

7. Show truck turning movements.

City of Ottawa
Planning, Infrastructure, and Economic Dev.
110 Laurier Avenue West
Ottawa ON K1P 1J1
Tel : 613-580-2400
Fax : 613-580-2576
www.ottawa.ca

Ville d'Ottawa
Services de l'urbanisme et de la gestion de la croissance
110, avenue Laurier Ouest
Ottawa ON K1P 1J1
Tél : 613-580-2400
Fac : 613-580-2576
www.ottawa.ca

8. Add dimensions of all proposed buildings, roads, radii of turns, parking aisle widths, fences (if any), walkway widths, private approaches (driveways) and dimensions required for zoning compliance.

9. The plan gets very confusing with all the lines, please clearly show the property boundaries and setbacks.

10. Please add the following provisions to the zoning chart:
    - Minimum width of landscaping (3m)
    - Bicycle parking (warehouse: 1 per 2000 m2 of gross floor area, light industrial use: 1 per 1000 m2 of gross floor area, office: 1 per 250 m2 of gross floor area)

11. Provide bicycle parking as per Section 111 and show details.

12. Provide your calculations for the minimum required parking. Please note that if parts of the buildings will be used for offices, the office rate should also be used.

13. How will garbage be handled? Provide garbage pickup area and enclosure details.

14. Please show all building-mounted lights and light standards. All exterior lighting proposed for the subject lands shall be installed only in the location that will minimize the impacts on the adjacent properties.
    - Typically, sharp cut-off fixtures or an alternative fixture design approved by the General Manager, Planning and Growth Management Department are used to minimize possible lighting glare onto adjacent properties.
    - Further, a certificate from an acceptable professional engineer, licensed in the Province of Ontario, which certificate shall state that the exterior site lighting has been designed to meet the following criteria:
        - it must be designed using only fixtures that meet the criteria for full cut-off (sharp cut-off) classification, as recognized by the Illuminating Engineering Society of North America (IESNA or IES); and
        - it must result in minimal light spillage onto adjacent properties. As a guideline, 0.5 fc is normally the maximum allowable spillage.

15. Provide a location for snow storage. Snow storage shall not interfere with approved grading and drainage patterns or servicing. If snow is to be removed from the site, then please make a note of that on the Site Plan and include where the snow will be placed in the interim. Temporary snow storage areas should not conflict with utility box, landscaping, required parking, and site circulation.

16. Accessible parking will be required for all buildings as per the Accessibility Design Standards (link).

Landscape Plan

17. Provide a Landscape Plan stamped by a Landscape Architect that shows all the required information as per the City's guide to preparing plans (link).

Urban Design Comments

18. No urban design comments at this time. We will have an opportunity to have a more detailed look at Site 1 once those plans are submitted.

Engineering Comments – Cody Oram

Geotechnical Investigation

19. The proposed service trenches are within the groundwater table. Provide service trench recommendations to reduce groundwater lowering.

20. Provide a section in the report that speaks to potential impacts to neighbouring properties due to excavation. Provide recommendations to mitigate impacts (if applicable).

21. Provide a section in the report that speaks to the potential impacts to the Green's Creek Collector sewer. Provide recommendations to mitigate impacts (if applicable).

22. Provide a section on post construction groundwater impacts to subject site and potential impacts to neighbouring properties.

23. Provide a summary of recommendations listed in the report in Section 7.0 Recommendations.

Phase I - Environmental Site Assessment

24. The report states that a request for information had been submitted to the MECP for Instruments, Submissions, Incident Reports, and Waste Management Records, on this property by your firm. Submit all received information for our review if applicable.

25. The report states that a request for information had been submitted to the City of Ottawa HLUI by your firm, regarding the status of the subject land. Submit all received information for our review.

Functional Servicing Report

26. See the attached City guidelines and add a completed checklist with the report.

27. Provide updated report demonstrating the revised development plan. The following items need further consideration:

a. proposed access road standard cross section
b. configuration and sizing of public infrastructure
c. construction phasing.
d. Public versus private stormwater management arrangement

28. An inspection and CCTV report must be provided to confirm feasibility of connection to existing trunks sewer manhole (drop pipe).

29. Indicate all proposed sewer and culvert crossings. Please provide sufficient details and information regarding all proposed crossings.

30. The City's Wastewater Collection Group has requested confirmation on how accessibility will be provided to the existing sanitary manhole along the Green's Creek Collector Sewer (behind proposed parking space on Site 3). Note:

a. Vehicular access to all manholes along the Greens Creek Collector (GCC) sewer must be available.
b. Limited construction is permissible within the GCC easement.
c. Invert of connection point (at drop pipe) needs to be verified on site
d. CCTV footage of the GCC pre and post construction will be required to verify integrity of the pipe.

31. The quality of water in the 250mm watermain loop is a concern due to size and potential of low draw. Review if watermain size could be reduced and still meet fire protection.

32. In general, the watermain layout looks good, and reduces the Vulnerable Servicing Areas.

33. All sewer and watermain crossings will need to be detailed and as-builts will need to be reviewed to ensure all crossings are feasible.

34. The value in Table 7 of the total estimated sanitary flow for the average dry weather flow rate is 7.08 L/s. Revise accordingly.

35. Geotechnical Report referenced in Section 2.0 must be most up to date report.

Other

36. Please note that we are still waiting for comments from the following:

- ROW Approvals Unit
- Wastewater Collection
- Transportation Management

Environmental Remediation Unit

Phase One ESA

37. The phase one ESA report has significant deficiencies in the environmental source information, without them the conclusions and recommendations of the report may not be comprehensive. These mainly include missing: ERIS report, HLUI report, MECP response.

38. A Hydro Ottawa power substation is located immediately north of 4055 Russell. A justification from the QP is required why this substation has not been considered as a potentially contaminating activity.

39. The report indicates one former landfill is located 200 m west of 4120 Russell Road. However, geoOttawa, which is based on various provincial and municipal sources, shows two former landfills that are located adjacent to the each of the properties. As indicated by geoOttawa, the QP may contact eru@ottawa.ca to obtain further information. The phase one report has not considered these former landfills as potential contaminating activities for the purpose of further intrusive investigations during the phase two ESA. Of note,

based on the phase two ESA, the groundwater flow direction is toward east and thus, these former landfills are located upgradient of the properties:

- GI-4, located immediately west of 4120 Russell Rd.
- "Ghanem Property" located at 4000 Russell.

Heritage Planner

40. 4055 Russell Road is a property listed on the City's Heritage Register. If you are planning to demolish 4055 Russell Road, you are required to submit a completed Form for Buildings Listed on the Heritage Register (link) and provide 60 days notice.

For more details, please refer to Changes to listed heritage properties (link) or contact Avery Marshall directly at Avery.Marshall@ottawa.ca .

Ottawa Public Health

41. It's nice to see that the development with be striving to obtain LEED points. Can you tell us what level of LEED certification are you looking to achieve?

42. Bicycle parking is a requirement under the Zoning By-law. Please add bicycle parking to the Site Plan.

43. Business parks are known to contribute to the formation of urban heat islands because of the large usually black roofs and parking lots that absorb heat. Please consider cool roofs and light cool colour parking lots to help reduce the albedo of the area.

Parks Planner

44. Parkland Dedication
The Planning Rationale, nor any other documentation submitted, made reference to the Parkland Dedication requirement. Parks & Facilities Planning has calculated the Parkland Dedication requirement using the formula of 2% of the gross land area as per the City of Ottawa Parkland Dedication By-law No 2009-95:

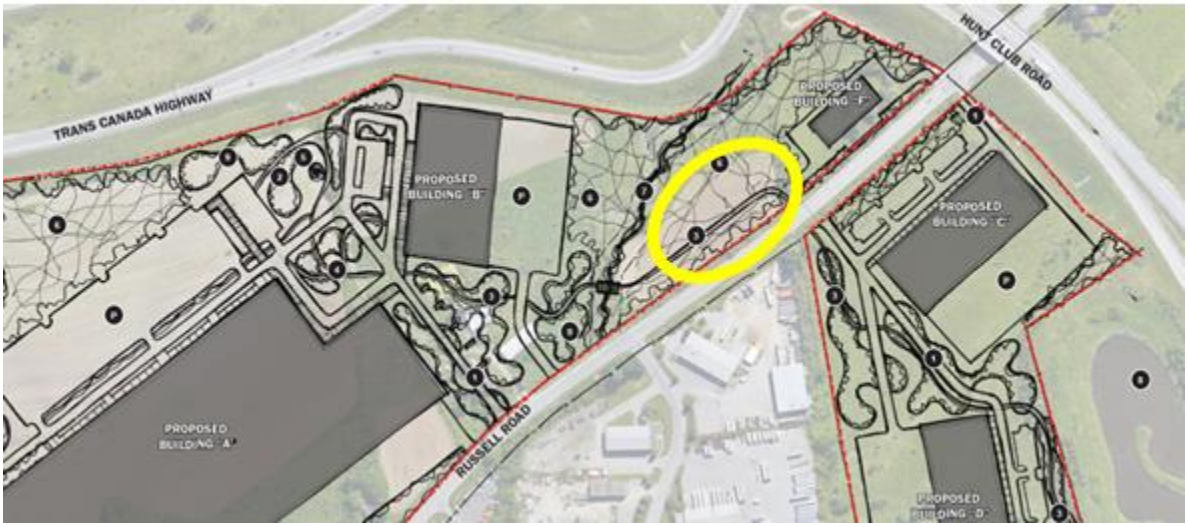
Approx. Gross Land Area = 40.507 hectares (4.665 + 7.472 + 28.370)
2% Parkland Requirement = 0.810 hectares

Parks & Facilities Planning is requesting land conveyance as the form of parkland dedication for this Site Plan application.
If the Parkland Dedication for this development has been satisfied previously, please indicate (if applicable):

- the application number of the previous development;
- the calculation (including types and quantities of units and/or gross areas) used to determine the amount of parkland dedication required;
- the total area of Parkland Dedication required (in hectares); and
- whether the dedication was satisfied through land conveyance or Cash-in-Lieu-of-Parkland.

Below is a possible location although it must be reviewed for suitability (in terms of geotech, water and drainage setbacks, vegetation etc.). Please provide Parks & Facilities Planning with a concept plan showing the proposed location of the park block, keeping in

mind the design criteria and guidelines as set out the Park Development Manual, 2nd edition.



Environmental Planner

Site Plan

45. Please indicate and label the location of the watercourse and its setbacks on the site plan (as well as how the setback is calculated (Normal High Water Mark, Top Of Bank, geotech).

Landscape Plan

46. Is a more detailed landscape plan available?

Environmental Impact Statement

47. Table 3 - soil information should be up-dated to include information obtained on site as part of the geotechnical study and through the EIS if soil augers used.

48. Wetlands - the NCC will comment on the wetlands from the Federal perspective as that is the policy that applies.

49. Significant Woodlands - this paragraph refers to an outdated version of the significant woodland guidelines/policy. Although it doesn't make difference in terms of the analysis of significance since the threshold for significance is 60 years and not 40.

50. Barn swallows – the EIS recommends further field work, this will need to be completed.

51. Bobolink - habitat potential but have they checked with MECP? The timing restrictions recommended. What about registration?

52. Bats -- the EIS provides specific recommendations for monitoring that affect tree removal and house demolition. How will these be implemented and what are the mitigation measures that are necessary if the bats are present? Under the Federal process are the buildings allowed to be removed after the bats have left?

53. Has the EIS authors reviewed the lighting plans for the site?

54. Map on Page 72, how is the offsetting of the function of the wetland going to work and where will it be located? We are not supportive of SWM being placed within the watercourse setback, ecological enhancements are allowed.

55. The watercourse setback, what are the plans for this area? Will it be planted with riparian tree species? The landscape context plan indicates this is the case, can the EIS provide examples of ecological functions that can be added to this area?

Planning Forester

56. The EIS notes in sections 5.2 and 6.3 that more work needs to be done to determine which trees will be impacted by the proposed development. I'll need a formal TCR that address our requirements before I can consider issuing a tree permit.

57. A Tree Conservation Report (TCR) must be supplied for review along with the suite of other plans/reports required by the City; an approved TCR is a requirement of Site Plan or Plan.

58. Any removal of privately-owned trees 10cm or larger in diameter requires a tree permit issued under the Urban Tree Conservation Bylaw; the permit is based on the approved TCR.

Transportation

General

59. Proposed road modifications and new signals will require the delegated authority approval from the Manager of Design Review, Transportation Engineering Services.

60. Russell Road is designated as an Arterial road within the City's Official Plan with a ROW protection limit of 30.0 metres from Hawthorne Road to the Greenbelt Boundary. The ROW protection limit and the offset distance (15.0 metres) are to be dimensioned from the existing centerline of pavement and shown on the drawings.

61. Hunt Club Road is designated as an Arterial road within the City's Official Plan with a ROW protection limit of 42.5 - 50m varies as per Innes- Walkley-Hunt Club Road Connection Transportation Environmental Study Report.

62. ROW interpretation - Land for a road widening will be taken equally from both sides of a road, measured from the centreline in existence at the time of the widening if required by the City. The centreline is a line running down the middle of a road surface, equidistant from both edges of the pavement. In determining the centreline, paved shoulders, bus lay-bys, auxiliary lanes, turning lanes and other special circumstances are not included in the road surface.

63. The City's policy for the provision of pedestrian facilities as set forth by the Official Plan (OP), the Transportation Master Plan (TMP) and the Pedestrian Plan (OPP) specifically direct pedestrian facilities on City roads that lead to areas of work and employment ("retail/commercial/employment").

64. The concrete sidewalk is to meet City standards and be 2.0 metres in width and to be continuous along property frontage and depressed through the proposed access (please refer to the City's sidewalk and curb standard drawing SC7.1 for unsignalized entrance).

65. The Tactile Walking Surface Indicator (TWSI) should be provided at pedestrian crossings. Under the Integrated Accessibility Standards of the Accessibility for Ontarians with Disabilities Act, 2005, and the City of Ottawa Accessibility Design Standards, TWSI's are required for new construction and the redevelopment of elements in public spaces, such as for exterior paths of travel (e.g. sidewalks and at the top of stairs).

Transportation Engineering

66. Section 4.1.6 Collision Data:

Update the description of the collision data at Hawthorne Road and Hunt Club Road to break-down the 22 turning movement collisions that occurred at this intersection from January 1, 2014 to December 31, 2018.

67. Section 5.2.4 Future Background and Total Traffic Volume Projections:

Figure 10 and Figure 11 have mislabeled the accesses on the west side of Russell Road as "Site 2 N Access" and "Site 2 S Access". These should read "Site 1 N Access" and "Site 1 S Access".

68. Section 6.1 Development Design:

As the TIA notes, travel to/from the site via sustainable modes is challenging "as the site is somewhat removed from significant residential development with minimal active transportation connections and transit service". However, the site should endeavor to do more to modify its layout and facilities to encourage sustainable modes to/from the boundary streets.

- Section 3 of the Planning Rationale prepared by Re: public Urbanism shows a conceptual "central path linking all three sites". In the Planning Rationale this path appears to be designed in such a way as to encourage employees to partake in recreational walks, but it does little to encourage or enable use of sustainable transportation modes to/from the sites. The site plan attached as Appendix A of the TIA takes steps to increase the functionality of this pathway, but further improvements would support sustainable modes including transit.
- Specifically, the existing transit stops on Russell Road should be connected to the on-site pedestrian network and the Russell Road transit stops themselves should be enhanced. In addition, Site 2 (Building D and Building E) should be connected to the sidewalk and transit stops on Hunt Club Road.
- While the orientation buildings towards Highway 417 and Hunt Club Road ensures a “strong presence” along these Scenic Entry Routes, it also means that some of the largest buildings proposed for Site 3 (Building A and Building B) are oriented away from Russell Road with truck loading occurring between the buildings and Russell Road. This isolates the existing transit stops on Russell Road and increases the walking distance from the transit stops to the building entrances. It is also contrary to 1.1.1, 1.1.2, and 1.1.3 of the TDM-Supportive Development Design and Infrastructure Checklist. To improve the site’s accessibility to sustainable modes, it is recommended

that design team explore adding secondary entrances on the sides and corners of the buildings that obliquely face Russell Road. These secondary entrances would be approximately within the “vistas” depicted in Section 3.5 of the Planning Rationale. Ensure safe, direct, and attractive active transportation routes are provided between these secondary entrances and the sidewalks and bus stops on Russell Road.

69. Section 6.3 Boundary Streets:

Even though neither boundary street is identified as a transit priority corridor, the MMLOS Guidelines note that corridors with regular bus routes (without transit priority) can still be evaluated with the TLOS methodology.

70. Section 6.4 Access Intersections:

As noted during the Forecasting Submission, the site plan application of Building F may require further justification for why two accesses are provided to/from this site given that minimal volumes are assigned to them.

Site 1 North Access is shown to intersect Russell Road at approximately a 75-degree angle. Modify this access so that it intersects Russell Road at closer to a 90-degree angle, and ensure it is directly opposite the Building F North Access.

Regarding the Street 1 connection with Hunt Club Road, provide additional details on the referenced ultimate functional design of the intersection and associated tri-party agreement.

Clarify the proposed function/classification of the Site 1 North Access / Street 1 connection. Specifically, clarify whether this will be a public roadway, or whether it will be a private roadway with provisions that permit use by vehicles to/from Site 3.

71. Section 6.5 Transportation Demand Management:

Provide additional supporting information (whatever is known) for TDM as required by Element 4.5.1-Context for TDM and Element 4.5.2 - Need and Opportunity.

Note that many of the measures included in the TDM Measures Checklist and the TDM Supportive Development Design and Infrastructure Checklist will help achieve the objectives described in Section 2.3.10 of the Planning Rationale.

For additional assistance with TDM strategies, contact Kathleen.Wilker@ottawa.ca

72. Section 6.6 Transit:

Provide comment on the fact that the development generates both in and out trips during the AM peak hour and PM peak hour, yet Route 47 operates in the peak direction only. Discuss whether the City will need to add trips on Route 47 in the off-peak direction to accommodate the development.

73. Section 6.7.1 Existing MMLOS:

Add evaluation of TLOS for any signalized intersections with movements that accommodate transit routes.

6.7.3 2023 Intersection Operations - Total Traffic with Site Generated Trips and 6.7.5 2028 Intersection Operations - Total Traffic with Site Generated Trips:

Please present within Tables 10, 11, 14, and 15 the traffic operations at the Russell Road and Hawthorne Road intersection with the proposed southbound left-turn protected-permissive signal phasing (in addition to operations with the current timing plan).

Traffic Signal Operations

74. Proposed reduction in vehicle volumes to specific movements at any network intersections is highly unlikely and not indicative of future operations.

Traffic Signal Design

75. No comments to this TIA for this circulation. Traffic Signal Design and Specification reserves the right to make future comments based on subsequent submissions.

76. Future considerations:

If there are any proposed changes in the future (as suggested in the TIA) to the existing roadway geometry for the purpose of construction of a new TCS(s) or modifications to existing TCS(s) the City of Ottawa Traffic Signal Design & Specification Unit is required to complete a review for traffic signal plant re-design and provide the actual (re)-design to the proponent or involved consulting entity.

If the proposed traffic signals are warranted/approved for installation or modifications to existing TCS are RMA, please forward an approved geometry detail design drawings (dwg digital format in NAD 83 coordinates) including base mapping, existing and new underground utilities/sewers, new/existing catch basins locations, AutoTurn-Radius Modeling for approved vehicles and approved pavement markings drawings in separate files for detail traffic plant design lay out.

Please send all digital (CADD) design files to Peter.Grajcar@ottawa.ca 613-580-2424x23035.

Street Lighting

77. No comments with initial TIS for this circulation. Street Lighting reserves the right to make future comments based on subsequent submissions.

78. Future considerations are as follows:

If there are any proposed changes to the existing roadway geometry, the City of Ottawa Street Light Asset Management Group is required to provide a full street light design. Upon completion of proposed roadway geometry design changes, please submit digital Micro Station drawings with proposed roadway geometry changes to the Street Lighting Department, so that we may proceed with the detailed street light design and coordination with the Street Light maintenance provider and all necessary parties. Be advised that the

applicant will be 100% responsible for all costs associated with any Street Light design as a result of the roadway geometry change.

Alterations and/or repairs are required where the existing street light plant is directly, indirectly or adversely affected by the scope of work under this circulation, due to the proposed road reconstruction process. All street light plant alterations and/or repairs must be performed by the City of Ottawa's Street Light maintenance provider.

Be advised that the applicant will be 100% responsible for all costs associated with any relocations/modifications to the existing street light plant.

OC Transpo

79. Waiting for comments.

Ottawa Police – CPTED

80. Waiting for Comments.

City Surveyor

81. The site plan requires a note stating where the property boundary information was derived from and how the topographic features were related to that boundary.

Building Code Services

82. Please provide a site plan indicating the Fire Access Route (FAR) showing compliance with the Ontario Building Code (OBC) section 3.2.5.

83. Please includes set back dimensions from property lines.

84. Please be aware that as shown on the drawings submitted for Site Plan Control Approval, the location of the building on-site may require shoring during the construction stage and possibly permanent encroachment consent. If so, please contact The ROW Permit Office (Right Of Way) at 613-580-2424 x16000 to enquire/obtain a temporary and/or permanent encroachment letter as the shoring is to be adjacent to city property.

85. Please ensure that the shoring details are included in the building permit application. Shoring details between private properties will also be reviewed by Building Code Service Branch at time of building permit application submission and will require permission(s) from the neighboring property(s) owners if any portion of the shoring is located on the neighboring property.

Fire Services

86. Waiting for comments.

Accessibility Advisory Committee

87. The proposal seems to follow and comply with all accessibility requirements as directed by the Province of Ontario as well as those requested by the City of Ottawa Accessibility policies for buildings design and pedestrian ways. According to the records there will be 6 buildings identified as A, B, C, D, E, and F (Site 1, 2 and 3) that will include built to suit offices, data communications centres and warehouses. However, of the about 940 parking spaces that will be built only 4 are accessible and are clearly identified on Site Plan, site No.1 that indicate 86 parking spaces.

Consequently for a project of this size, magnitude and importance the number of accessible parking spaces is not sufficient and poses an additional burden to people with disabilities to seek job opportunities on this industrial complex with diverse offices and warehouses on the premises or be a potential visitor as consumer on the businesses located on this to be important industrial park in the City of Ottawa.

From the Accessibility Advisory Committee is recommended to increase the number of accessible parking spaces.

Ministry of Transportation – Stephen Kapusta

Traffic Impact Study

88. For the MTO ramp terminal intersections, please confirm that the appropriate truck percentages were used in the Synchro analysis. The Synchro summary reports in the appendices do not show whether or not this was done.

89. Please confirm if truck percentages were calculated for each specific turning movement for Novatech's Dec. 12, 2019 TMC (Hwy 417 EB Off-Ramp at Hunt Club Rd). There are no truck percentages shown in the TMC summary in Appendix D.

90. For the MTO ramp terminal intersections, under existing conditions a peak hour factor of 0.90 was used, however this was then changed to 1.00 for all future background/total future scenarios. Please explain why this change was made.

91. In Section 7 of the report, Novatech suggests that the MTO should consider installing traffic signals at both Highway 417 ramp terminal intersections at Walkley Road. Under the following scenarios, traffic signal warrants for these two intersections should be added to Appendix I:

- Existing Conditions
- 2033 Future Background Conditions
- 2033 Total Future Conditions

92. Please make the necessary corrections and updates to the study and resubmit the report for our review.

Stormwater Management

93. Comments are not yet available as the reports are being reviewed.

Site Plan

94. The site plan is challenging to review as a result of the many overlapping property fabric lines. It is therefore not clear as to whether all of the proposed site works are beyond the ministry's permit control area. We respectfully ask that the site plan be enhanced to illustrate the property boundaries relative to road right of ways. Please note that the ministry requires that all structures, stormwater infrastructure and all bylaw required elements to be a minimum of 14 metres from the ministry's right of ways.

95. Security fencing is required along the perimeter of the site where it meets ministry right of ways on both Highway 417 and Hunt Club Road.

Illumination

96. The submission package does not include the required photometric plan and is therefore not a complete submission for the ministry's purposes. Please provide a photometric plan as part of the site plan submission that meets the Ministry's requirement of having no light spill over from the development into our right of ways. Ensure that submission meets the following requirements:

a. Scaled plan showing the site location, all municipal right of ways and Highway 417 right of way.
b. Lighting layout showing pole/luminaire locations and orientation.
c. Luminaire installation info such as mounting height, orientation angle, shielding info, etc.
d. Luminaire material info including catalog info and photometric data file.
e. Lighting calculation plan showing horizontal illuminance levels at and beyond the MTO right-of-way in metric units of lux to 1 decimal place minimum.

Conclusion

97. The submission package is incomplete and therefore our response time service standards do not yet apply. Please ensure that the revised submission includes all the required elements.

98. The proponent should be made aware that the subject property is within the Ministry's permit control area as defined by the Public Transportation and Highway Improvement Act R.S.O. 1990. Therefore, Ministry approvals and permits are required prior to the construction and/or demolition of any building and/or structures and/or alteration of the grade of any property within the permit control area and prior to the issuance of any municipal building permits or approvals as per section 8. (2) and section 8. (3) of the Building Code Act.

RVCA

Natural Hazards

99. Slope Stability
Conservation Authorities were delegated natural hazard responsibilities by the Minister of Natural Resources. This includes flood plain management, hazardous slopes, Great Lakes shorelines, unstable soils and erosion which are now encompassed by Section 3.1 "Natural Hazards" of the Provincial Policy Statement.

There are two properties which are subject to this application; 4055 Russell Road and 4120 Russell Road. In support of the application, the applicant has submitted a geotechnical report “Geotechnical Investigation – National Capital Business Park, 4055 & 4120 Russell Road, Ottawa, Ontario” dated March 18th, 2020, prepare by Paterson Group. The report was reviewed by Terry K. Davidson, P.Eng, RVCA Director of Engineering and Regulations.

4055 Russell Road
The report analyzed two slope cross-sections and defined a limit of hazard lands for the slopes of the confined valley corridor adjacent the Mather Award Drain. The field observations for the site were made in December 2019 representing winter conditions. The Conservation Authority recommends that a follow up site visit be conducted to ensure that the observations are still valid. It is our understanding that an erosion threshold analysis is currently underway and therefore it is important to note that the results of this analysis may impact the limit of hazard lands, specifically as it relates to the toe erosion allowance.

4120 Russell Road
The report analyzed the 5 to 6 metre slope in the southwestern portion of the site. No watercourse was present. The report concluded that no hazard lands are required, however grading plans should be reviewed for potential impacts to the existing slope.

Natural Heritage

100. Watercourses
In support of the application, the applicant has submitted the report “Environmental Impact Statement for 4055 and 4120 Russell Road, Ottawa, Ontario” dated March 30th, 2020, prepared by Kilgour & Associates Ltd. The report has completed a Headwater Drainage Features Assessment for the watercourses and also provided recommendations on wetland features. The report was reviewed by Jennifer Lamoureux, RVCA Aquatic and Fish Habitat Biologist.

4055 Russell Road
The report has identified several watercourses on the property including the Mather Award Drain. The report has provided a management recommendation of protection for Reach 1, Mitigation for Reach 2 and No Management Required for Reach 3. Based on the report it is our understanding that Reach 1 and 2 will not be altered. The report also provided a management recommendation for the Cattail Marsh, noting that even though the feature is not considered an HDF, this wetland likely plays an important role in stormwater attenuation because it is an isolated wetland with no surface outflow. The report concludes that this feature be considered for full retention in its current state and/or for incorporation into the stormwater management plan for this site. The RVCA concurs with the management recommendations provided for these features. Based on the plans provided, it is our understanding that the applicant would be pursuing the option of replicating the wetland function through the stormwater management plan.

4120 Russell Road
The report has provided management recommendations of No Management Required for Reaches 4, 5 and 6. The report has also indicated that the wet depression would not

qualify as a wetland due to its size. The RVCA concurs with the management recommendations provided.

101. Watercourse Setbacks

It is not clear on the plans provided what watercourse setback is being provided for Reaches 1 and 2. A site plan clearly identifying the 30 metre setback from the normal highwater mark for Reaches 1 and 2 (as identified in the Kilgour & Associates report) is required. The plan should also include the limit of hazard lands proposed by Paterson Group.

102. Watercourse Crossing

Based on the landscape package, there is a crossing proposed on the Mather Award Drain. No details on this proposed crossing were provided. If a crossing is going to form part of this submission, then details on the watercourse crossing are going to be required which may include engineering drawings and a hydraulic analysis. It is recommended that the applicant consult further with the RVCA on these requirements prior to initiating any studies.

Stormwater Management

103. The report “Functional Servicing Report – National Capital Business Park, 4120 & 4055 Russell Road” dated March 2020, prepared by DSEL was reviewed by Evelyn Liu, M.A.Sc., P.Eng, RVCA Water Resources Engineer. The review has identified some additional pieces of information/clarification required to continue our review (see memo attached). We acknowledge that the intent is for the site servicing report to act as a high level master servicing study for the overall site, however some of the details are still required at this level in order to move forward. This includes the information on the erosion threshold for the Mather Award Drain and details as to how the stormwater management report is incorporating the recommendations from the Kilgour & Associates report for the Cattail Marsh.

Conservation Authority Regulations

104. It is our understanding that the lands are currently in the ownership of the NCC, and therefore the Federal Government is exempt obtaining a permit from the Conservation Authority under Ontario Regulation 174/06. However, this is only the case if the applicant itself is the Federal Government. If the applicant is a separate entity (not a Crown Corporation), then the watercourses would be subject to Ontario Regulation 174/06 "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation" made pursuant to Section 28 of the Conservation Authorities Act. Any alteration, straightening, changing, diverting or interfering in any way with any watercourse requires the prior written approval from the Conservation Authority.

Conclusion

105. In conclusion, the RVCA recommends this application be placed ON HOLD until the above noted matters have been addressed. The Conservation Authority asks that you keep us informed on the status of this application. For any questions regarding the information contained in this letter, please feel free to contact me.

Hydro Ottawa Ltd.

106. The development application indicates a new signalized intersection on Hunt Club to provide access to the 417 from the development lands. Hydro Ottawa Ltd. (HOL) advises that this new intersection and the shared access road from the new intersection to both the HOL lands and the Russell Rd., development lands is governed by several tripartite contracts between HOL, the NCC and the City of Ottawa (re: execution date June 19th, 2019). The terms and covenants of these agreements must be adhered with by all Parties (and the Developer assuming contractual assignment by the NCC to the Developer), and more specifically, that HOL will be provided design review and approval rights of the new intersection and shared access road prior to construction and that the City accepts and designates the new shared access road as a municipal roadway post construction by the Developer/NCC.

107. Further to the above, HOL wants to ensure that traffic load calculations from the fully developed Russel Rd. lands and HOL's current and future staff and operational volumes, will be incorporated by the NCC/Developer in the engineering and design of the new Hunt Club intersection and shared access road.

108. The development application summary indicates that "Roadway modifications to along Hunt Club Road may be required". All roadway modifications that could impact HOL's access to their campus, both by staff and operational vehicles, is of critical importance to HOL. HOL's eastern access road provides both vehicle access for HOL staff and as a secondary means of emergency access to the 417 for HOL's operational fleet. HOL's entrance/egress from their eastern access road and the emergency left turn to Hunt Club must be maintained at all times during the development/construction of the new intersection and shared access road.

109. The Owner is advised that there are medium voltage overhead lines along Russell Rd and servicing building within the property.

a. The Owner shall ensure that no personnel or equipment encroaches within three meters (3.0m) of the Hydro Ottawa overhead medium voltage distribution lines, unless approved by Hydro Ottawa. The Owner shall contact Hydro Ottawa prior to commencing work when proposing to work within 3.0m of Hydro Ottawa distribution lines. No such work shall commence without approval of Hydro Ottawa.

b. The Owner is advised that permanent structures located within the "restricted zone" surrounding overhead lines are prohibited. This zone is defined by Hydro Ottawa's standard OLS0002 "Overhead High Voltage Clearances to Adjacent Building", which can be found at http://www.hydroottawa.com/residential/renovating/guide/clearances/. This standard complies with the requirements of the Ministry of Labour's Occupational Health & Safety Act, the Ontario Building Code, and the Ontario Electrical Safety Code. Permanent structures include buildings, signs (even lit signs when open for maintenance), antennas, pools, and fences.

c. Should any activity, such as tree trimming or working on the sides of a building, be anticipated within three meters (3m) of Hydro Ottawa's overhead lines, contact Hydro Ottawa to discuss arrangements before any activity is undertaken. In line with the

Ministry of Labour's Occupational Health & Safety Act, only a Hydro Ottawa employee or Hydro Ottawa approved contractor can work in proximity of these lines.

d. If the change in grade is more than three tenths of a meter (0.3m) in the vicinity of proposed or existing electric utility equipment. Hydro Ottawa requests to be consulted to prevent damages to its equipment.

e. The Owner shall ensure that any landscaping or surface finishing does not encroach into existing or proposed Hydro Ottawa overhead or underground assets or easement. When proposing to plant trees in proximity of existing power lines, the Owner shall refer to Hydro Ottawa's free publication "Tree Planting Advice" which can be found at https://hydroottawa.com/outages-safety/safety-home/outside-home/planting-trees. The shrub or tree location and expected growth must be considered. If any Hydro Ottawa related activity requires the trimming, cutting or removal of vegetation, or removal of other landscaping or surface finishing, the activity and the re-instatement shall be at the owner's expense.

110. The Owner shall ensure the proposed building modifications do not hinder Hydro Ottawa's ability to access the electricity meters or other distribution assets.

111. The Owner shall contact Hydro Ottawa to arrange for disconnecting the service from the distribution system and removal of all Hydro Ottawa assets at least ten (10) business days prior to demolition/removal of the serviced structure.

112. The Owner is to contact Hydro Ottawa if the electrical servicing of the site is to change in location or in size. A load summary will be needed for the technical evaluation.

113. The Owner shall be responsible for servicing the buildings within the property. Only one service entrance per property shall be permitted.

114. The Owner has the obligation to ensure that power quality problems, either steady state or transient, do not arise on the distribution system per Hydro Ottawa's Conditions of Service Section 2.3.2 "Power Quality." If a power quality problem arises on the distribution system that originates from the Owner's property, the Owner shall be responsible for rectification to Hydro Ottawa's satisfaction.

115. The Owner is advised that there is limited capacity to service the proposed development at this time. The Owner may be responsible for a Capital Contribution payment(s) towards a distribution system expansion if the proposed development requires electrical servicing greater than can be provided by the existing distribution system in the vicinity, either in capacity or in extension limit. This amount shall be in accordance with Hydro Ottawa's Contributed Capital Policy and Conditions of Service.

116. The Owner shall enter an Installation and Service agreement with Hydro Ottawa.

117. The Owner shall convey, at their cost, all required easements as determined by Hydro Ottawa.

118. The Owner shall comply with Hydro Ottawa's Conditions of Service and thus should be consulted for the servicing terms. The document, including referenced standards,

guidelines and drawings, may be found at http://www.hydroottawa.com/residential/rates-and-conditions/conditions-of-service/. The Owner should consult Hydro Ottawa prior to commencing engineering designs to ensure compliance with these documents.

119. Hydro Ottawa reserves the right to raise conditions throughout the development of this proposal should the revisions contain non-conformances with, for example, Hydro Ottawa's Conditions of Service or Standards. To ensure the best outcome, Hydro Ottawa welcomes an early discussion on the proposal.

Hydro One Networks Inc.

120. Please be advised that Hydro One Networks Inc. ("HONI") has completed a preliminary review of the proposed plan of the above noted site plan application. As the subject property is abutting and/or encroaching onto a HONI high voltage transmission corridor (the "transmission corridor"), HONI does not approve of the proposed site plan application **at this time**, pending review and approval of the required information.

121. Please be advised that the transmission corridor lands affected by the proposed development and identified as such herein are subject to a statutory right in favour of HONI pursuant to Section 114.5(1) of The Electricity Act, 1998, as amended. The owner of these lands is Her Majesty, The Queen In Right of Ontario, as represented by The Minister of Infrastructure ("MOI"). Ontario Infrastructure & Lands Corporation ("OILC") as agent for the Province, must review and approve all secondary land uses such as roads that are proposed on these lands. HONI is currently acting as a service provider to OILC, and undertakes this review on their behalf.

122. The comments detailed herein do not constitute an endorsement of any element of the site plan design or road layout, nor do they grant any permission to access, use, proceed with works on, or in any way alter the transmission corridor lands, without the express written permission of HONI.

123. Should the developer require any use of and/or access to the transmission corridor at any time, the developer must contact Greg Gowan at 905-946-6232 in order to ensure all of HONI's technical requirements are met to its satisfaction, and acquire any applicable agreements.

124. The following should be included in the Site Plan Agreement:

i. Prior to HONI providing its final approval, the developer must make arrangements satisfactory to HONI for lot grading and drainage. Digital PDF copies of the lot grading and drainage plans (true scale), showing existing and proposed final grades, must be submitted to HONI for review and approval. The drawings must identify the transmission corridor, location of towers within the corridor and any proposed uses within the transmission corridor. Drainage must be controlled and directed away from the transmission corridor.

ii. Any development in conjunction with the site plan must not block vehicular access to any HONI facilities located on the transmission corridor. During construction, there must be no storage of materials or mounding of earth, snow or other debris on the transmission corridor.

iii. At the developer's expense, temporary fencing must be placed along the transmission corridor prior to construction, and permanent fencing must be erected along the common property line after construction is completed.

iv. The costs of any relocations or revisions to HONI facilities which are necessary to accommodate this site plan will be borne by the developer. The developer will be responsible for restoration of any damage to the transmission corridor or HONI facilities thereon resulting from construction of the site plan.

v. Some noise from the existing Transformer/Distribution Station, which is in close proximity, may interfere with the proposed development/site. An acoustic assessment should be undertaken at the developer's expense. If noise abatement (eg. walls, berms, etc.) are required to meet applicable Ministry of the Environment or Municipal criteria, the costs involved will be the sole responsibility of the developer. Hydro One Networks Inc. (HONI) will not be responsible for any costs involved. Please relay this to the appropriate parties.

In addition, HONI requires the following be conveyed to the developer as a precaution:

vi. The transmission lines abutting the subject lands operate at either 500,000, 230,000 or 115,000 volts. Section 188 of Regulation 213/91 pursuant to the Occupational Health and Safety Act, require that no object be brought closer than 6 metres (20 feet) to an energized 500 kV conductor. The distance for 230 kV conductors is 4.5 metres (15 feet), and for 115 kV conductors it is 3 metres (10 feet). It is the developer's responsibility to be aware, and to make all personnel on site aware, that all equipment and personnel must come no closer than the distance specified in the Act. They should also be aware that the conductors can raise and lower without warning, depending on the electrical demand placed on the line.

125. Our preliminary review only considers issues affecting HONI's transmission facilities and transmission corridor lands. For any proposals affecting distribution facilities (low voltage), the developer should consult the local distribution supplier.

If you have any questions, please dennis.derango@hydroone.com or at 905-946-6237.

Enbridge Gas Distribution

126. Waiting for comments

Bell Canada

127. We have reviewed the circulation regarding the above noted application. The following paragraphs are to be included as a condition of approval:

- "The Owner acknowledges and agrees to convey any easement(s) as deemed necessary by Bell Canada to service this new development. The Owner further agrees and acknowledges to convey such easements at no cost to Bell Canada.
- The Owner agrees that should any conflict arise with existing Bell Canada facilities or easements within the subject area, the Owner shall be

responsible for the relocation of any such facilities or easements at their own cost."

128. The Owner is advised to contact Bell Canada at planninganddevelopment@bell.ca during the detailed utility design stage to confirm the provision of communication/telecommunication infrastructure needed to service the development.

129. It shall be noted that it is the responsibility of the Owner to provide entrance/service duct(s) from Bell Canada's existing network infrastructure to service this development. In the event that no such network infrastructure exists, in accordance with the Bell Canada Act, the Owner may be required to pay for the extension of such network infrastructure.

130. If the Owner elects not to pay for the above noted connection, Bell Canada may decide not to provide service to this development.

Rogers

131. Waiting for comments.

Canada Post

Service type and location

132. Canada Post will provide mail delivery service to the development through centralized Community Mail Boxes (CMBs).

133. Given the number and the layout of the lots in the development, we have determined the amount will be 1 site. The CMB location will be determined at the time of the preliminary CUP Plan.

134. If the development includes plans for (a) multi-unit building(s) with a common indoor entrance, the developer must supply, install and maintain the mail delivery equipment within these buildings to Canada Post's specifications.

Municipal requirements

135. Please update our office if the project description changes so that we may determine the impact (if any).

136. Should this subdivision application be approved, please provide notification of the new civic addresses as soon as possible.

Developer timeline and installation

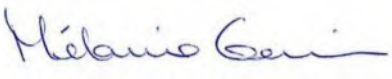
137. Please provide Canada Post with the excavation date for the first foundation/first phase as well as the date development work.

Please provide a resubmission that addresses each of the comments in the form of a cover letter stating how each were addressed on the resubmission. Co-ordinate the numbering of

each resubmission comment or issue with the above noted comment number. As part of your resubmission, provide all plans and reports as pdf. Ensure that all plans are revised where necessary to ensure consistency.

Please contact me at Melanie.Gervais@Ottawa.ca if you have any questions regarding design, site plan or landscaping comments. The Senior Engineer, Cody Oram, may be contacted directly for questions regarding engineering comments at Cody.Oram@ottawa.ca.

Regards,



Mélanie Gervais
Planner II
Development Review, South
Planning, Infrastructure, and Economic Development

Attachments:
Servicing Study Checklist

Appendix F

Stormwater drainage and servicing sketch for Site 3 of the NCBP

OUTLET A

HIGHWAY 417

HIGHWAY 417

McEWAN CREEK

OUTLET B/C

RUSSELL ROAD

MATHER AWARD DRAIN

BELGREEN DRIVE

LAST MILE DRIVE

U1 | 0.733 | 0.20

A209 | 0.413 | 0.85

BLDG A2 | 1.216 | 0.90
BLDG A2
FFE=69.40

A208 | 0.168 | 0.55

A207 | 0.270 | 0.50

A101 | 1.004 | 0.25

V AVAILABLE=10522.8m³
V 2-YEAR REQUIRED=3564.5m³
V 2-YR MAX PONDING ELEV=67.39m
V 100-YEAR REQUIRED=8497.3m³
100-YEAR MAX PONDING ELEV=68.12m

A206 | 0.360 | 0.85

A205 | 0.332 | 0.85

A204 | 0.394 | 0.85

A203 | 0.214 | 0.55

A307 | 0.467 | 0.80

A306 | 0.803 | 0.85

A305 | 0.663 | 0.85

A304 | 0.312 | 0.85

A302 | 0.210 | 0.50

A405 | 0.310 | 0.85

A401 | 0.804 | 0.50

BLDG B
FFE = 69.60

BLDG B | 1.539 | 0.90

A314 | 0.163 | 0.55

A404 | 0.405 | 0.85

A403 | 0.309 | 0.70

A313 | 0.563 | 0.80

A315 | 0.398 | 0.65

A402A | 0.267 | 0.20

A402 | 0.164 | 0.60

U2 | 0.439 | 0.20

A308 | 0.263 | 0.60

BLDG A1
FFE = 70.90

BLDG A1 | 5.943 | 0.90

A310 | 0.453 | 0.60

A317 | 0.446 | 0.50

V AVAILABLE=3151.3m³
V 2-YEAR REQUIRED=743.9m³
2-YEAR MAX PONDING ELEV=68.66m
V 100-YEAR REQUIRED=1503.5m³
100-YEAR MAX PONDING ELEV=68.79m

A321 | 1.231 | 0.60

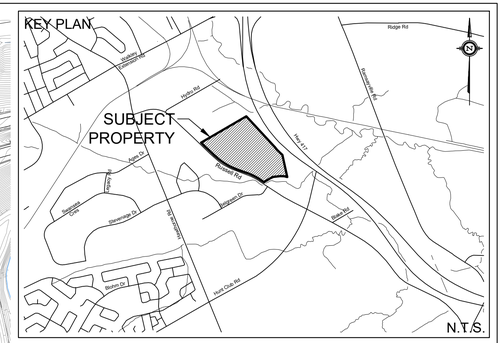
A320 | 0.644 | 0.80

A319 | 0.916 | 0.75

A318 | 0.128 | 0.55

EX-A1 | 0.436 | 0.40

KEY PLAN



LEGEND

EX6 | 4.010 | 0.19

DRAINAGE AREA ID
AREA IN Ha
RATIONAL METHOD RUNOFF COEFFICIENT

PROPERTY LINE
PROPOSED STORM SEWER
DRAINAGE DIVIDE
PROPOSED SWALE
PROPOSED PERFORATED SUBDRAIN
PROPOSED STORM MANHOLE
PROPOSED CATCH BASIN
PROPOSED CB 'I'
EMERGENCY FLOW ROUTE
SURFACE PONDING AREA
MAX PONDING
100-YR PONDING
2-YR PONDING

NOT FOR CONSTRUCTION

TOPOGRAPHIC INFORMATION
TOPOGRAPHIC INFORMATION PROVIDED BY ANNIS, O'SULLIVAN, VOLLBEKK LTD.
PROJ. NO. 17730-19
DATED JUNE 18, 2020

SITE PLAN INFORMATION
SITE PLAN PROVIDED BY WARE MALCOMB
PROJ. NO. TOR20-0028-00
DATED AUGUST 31, 2021

GEOTECHNICAL STUDY
GEOTECHNICAL RECOMMENDATIONS PROVIDED BY PATERSON GROUP
PROJ. NO. PG4854-1
DATED AUGUST 13, 2020.

SITE SERVICING AND STORMWATER MANAGEMENT STUDY
SERVICING AND STORMWATER MANAGEMENT RECOMMENDATIONS PROVIDED BY DSEL
PROJ. NO. 1155
DATED SEPTEMBER 2021

BENCH MARK
JOB BENCHMARK No.1 CONTROL MONUMENT 0011962U3456
ELEV=73.746
JOB BENCHMARK No.2 CONTROL MONUMENT 00819678094
ELEV=69.215

No.	BY	YY.MM.DD	DESCRIPTION
2	B.N.C.	21.09.15	ISSUED FOR MUNICIPAL REVIEW
1	B.N.C.	21.05.13	ISSUED FOR MUNICIPAL REVIEW

PROJECT No.19-1155

LICENSED PROFESSIONAL ENGINEER
S. L. MERRICK
100186523
2021-09-15
PROVINCE OF ONTARIO

REVIEWED BY

STORMWATER MANAGEMENT PLAN
4055 RUSSELL ROAD - SITE 3

31 AVENUE CAPITAL INC.
222 SOMERSET STREET WEST,
UNIT 401 OTTAWA, ONTARIO K2P 2G3
Tel. 1-833-283-3131

david schaeffer engineering ltd
SMART SUBDIVISIONS™
120 Iber Road Unit 103
Stittsville, Ontario, K2S 1E9
Tel. (613) 836-0856
Fax. (613) 836-7183
www.DSEL.ca

DRAWN BY:	C.P.B.	CHECKED BY:	B.N.C.	DRAWING NO.	SHEET NO.
DESIGNED BY:	B.N.C.	CHECKED BY:	S.L.M.	SWM-1	1 of 2
SCALE:	1:1500	DATE:	MAY 2021		

CITY PLAN No.: 18486
CITY FILE No.: D07-12-21-0069

z:\projects\19-1155_4120-russell-road\b_design\b2_drawings\b2-2_main (dsel)\site-3_spa_sub2\2021-09-20_1155_spa.dwg

Appendix G

City of Ottawa comments on the previous version of the ecological technical memorandum prepared for Site 3 of the NCBP

File No.: D07-12-21-0069

July 16, 2021

Jennifer Murray
Avenue 31 Capital Inc.
Via email: jmurray@ave31.com

Subject: Site Plan Control Application – 4055 Russell Rd - 1st Review Comments

Please find below the consolidated comments from the 1st review of the above noted application.

1. Engineering

List of Report(s) reviewed:

- **Geotechnical Investigation**, prepared by Paterson Group Inc., Revision 3, dated March 18, 2020.

Comments:

1.1. Provide final Geotechnical Investigation Report with additional boreholes following the review of detailed development drawings.

- **Site Servicing and Stormwater Management Report**, prepared by David Schaeffer Engineering Ltd., Revision 1, dated May 2021

Comments:

1.2. Section 3.3 Water Supply Conclusion: Confirm why a daily consumption rate deviation is required if water demand flows are calculated under industrial demand criteria.

1.3. Provide sanitary sewer design sheet and confirm why dry/wet extraneous flow allowances were calculated separately and not by overall 0.28L/s/ha.

1.4. Provide sanitary sewer drainage plan.

1.5. Average wastewater flow for office space for Site 3 is 0.41. Please review and revise.

1.6. Provide post development storm drainage plan that includes arrows demonstrating overall direction of flow.

1.7. Storm Sewer Design Sheet – Site 3: BLDG A2 sewer diameter should be 300mm as per servicing plan and not 450mm.

1.8. Storm services for roof drainage and foundation laterals must be separate. Foundation laterals must also connect downstream of any proposed ICD's..

List of Report(s) reviewed:

- **Grading Plan**, prepared by David Schaeffer Engineering Ltd., Revision 1 , dated May 13, 2021

Comments:

1.9. Provide TOW/BOW elevations for all proposed retaining walls.

1.10. Retaining walls over 1.0m in height must be designed and sealed by a structural P.Eng. A stamped engineering report stating that the retaining wall is designed with a factor of safety greater or equal to 1.5 against global instability is required.

1.11. Provide 2-year and 100-year ponding elevations as well as volume and depth of ponds on plan or on separate ponding plan

Additional Comments:

1.12. Please note comments from internal City departments will be forwarded (if applicable) when received. Comments are expected by July 27

Feel free to contact Jeff Shillington, Infrastructure Project Manager, for follow-up questions.

2. Transportation

2.1. Waiting for comments

Feel free to contact Wally Dubyk, Transportation Project Manager, for follow-up questions.

3. Noise

Comments:

3.1. Please submit the Noise Study.

4. Conservation Authority

4.1. The RVCA advised that they need to meet with the NCC prior to providing their comments. They currently have a meeting booked for July 21st.

5. Environmental and Trees

Comments:

5.1. Please provide a formal Landscape Plan.

5.2. The tree permit for site 3 was issued 2021-03-11.

5.3. Confirm if there ae any trees within the Russell Road road allowance.

5.4. EIS needs to be up-dated and revised to address the Bird-safe Design Guidelines. Where an Environmental Impact Statement (EIS) is required to support a development application, the EIS consultant will review and consider the Bird-Safe Design Guidelines in the preparation of the EIS and any associated recommendations. The EIS should specifically include consideration of risks to birds and recommend mitigation measures in accordance with all applicable guidelines in the Guidelines (e.g., bird safe glass, identify bird traps in the design, other structures, landscaping, etc). The assessment of potential risks should consider any planned greenspaces and landscaping within the new development, not just existing habitat areas.

5.5. Species at risk, please consult with MECP to determine if ESA approval is required for any of the species present (e.g., bobolink, barn swallow etc) due to this project being undertaken by a private corporation.

5.6. Landscaping - locally appropriate native species should dominate the planting plans.

6. Planning

Site Plan Comments:

6.1. The three sets of Site Plans indicate that the other areas are “under separate SPA application”. This is incorrect since the whole site is one SPA.

6.2. Drawing number A1.0 for buildings A1 and B has the wrong title, they both refer to building A2.

6.3. The parking calculation should refer to both Heavy Industrial and/or Warehouse use. The parking rate table does not have rates for simply “industrial”.

6.4. Building A1 requires 8 accessible parking spaces, please correct the “required” column in the zoning chart.

6.5. Show width of landscape area along the northern boundary.

6.6. Provide snow storage areas for all the buildings not just A1.

6.7. Provide a connection to the bus stop or relocate existing bus stop, subject to discussions with OC Transpo.

6.8. The zoning requires a setback from the watercourse of either 30 m to the normal high-water mark of any watercourse or waterbody, or 15 m to the top of the bank of any watercourse or waterbody, whichever is the greater. Please ensure that the Site Plan clearly identify this setback.

6.9. Add the municipal address in the title block.

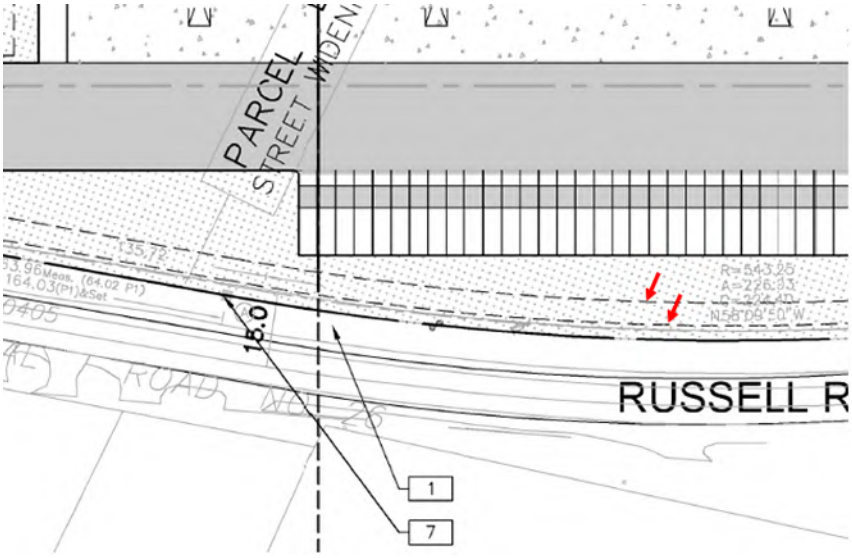
6.10. How will garbage be handled? Provide garbage pickup area and enclosure details.

6.11. Show locations of fire route signs, although it’s in the legend I cannot find them.

6.12. Add dimensions of all proposed drive aisle & parking aisle widths (min 6.7m), fences (if any), walkway widths, private approaches (driveways) and dimensions required for zoning compliance.

6.13. Clearly show road widening on Site Plans.

6.14. What are the one or two dashed lines going around all three sites?



6.15. The number of provided parking spaces is over the zoning requirement by 115 spaces. Please explain why so many extra spaces are required.

Landscape Comments:

6.16. No comments on the Landscape Concept. Please submit a proper Landscape Plan.

7. Urban Design

7.1. No remaining design comments.

8. Heritage

8.1. The property at 4055 Russell Road is listed on the City's Heritage Register under section 27 of the Ontario Heritage Act. Legal has advised that, because the property is federally owned, the NCC is not obliged to follow the procedures under the Act. Heritage staff have no concerns with the proposal, and we will not be taking any further action.

9. Parkland

9.1. Waiting for comments

10. Forestry Services

10.1. The landscape plan is only a conceptual plan. Please provide an actual Landscape Plan.

11. City Surveyor

11.1. Must provide a deposited survey plan.

11.2. The Site Plan must include a statement about where the property boundaries have been derived from.

12. Environmental Remediation Unit

12.1. Waiting for comments

13. Building Code Services

13.1. The maximum distance a fire hydrant is permitted to be from the building's fire department connection is 45 metres, and shall be along an unobstructed path of travel, as per Article 3.2.5.16. via 3.2.5.5., of the Ontario Building Code. Unfortunately, BCSB was unable to identify the location of the fire department connection, in order to verify the design as being O.B.C. compliant in this regard.

14. CPTED

14.1. There appear to be good sightlines to the property from Russell Rd. Good lighting around the exterior of the buildings will be important for safety purposes. Also lighting and possibly video surveillance will be important for the parking areas to help prevent theft. Try and avoid alcoves (if possible) around the exterior of the building as these create spots for loitering, drug use, etc. It is great to see a formalized bike parking area on site.

14.2. No major issues were identified from a Police/CPTED viewpoint with this plan.

15. MTO

15.1. Waiting for comments

16. Via Rail

16.1. Waiting for comments

17. NCC

17.1. Waiting for comments

18. Hydro One

18.1. Please be advised that Hydro One Networks Inc. ("HONI") has completed a preliminary review of the proposed plan of the above noted site plan application. As the subject property is abutting and/or encroaching onto a HONI high voltage transmission corridor (the "transmission corridor"), HONI does not approve of the proposed site plan application at this time, pending review and approval of the required information.

The comments detailed herein do not constitute an endorsement of any element of the site plan design or road layout, nor do they grant any permission to access, use, proceed with works on, or in any way alter the transmission corridor lands, without the express written permission of HONI.

Should the developer require any use of and/or access to the transmission corridor at any time, the developer must contact Megan Breitner, Sr. Real Estate Coordinator at 647-395-7267 in order to ensure all of HONI's technical requirements are met to its satisfaction, and acquire any applicable agreements.

18.2. The following should be included in the Site Plan Agreement:

18.2.1. Prior to HONI providing its final approval, the developer must make arrangements satisfactory to HONI for lot grading and drainage. Digital PDF copies of the lot grading and drainage plans (true scale), showing existing and proposed final grades, must be submitted to HONI for review and approval. The drawings must identify the transmission corridor, location of towers within the corridor and any proposed uses within the transmission corridor. Drainage must be controlled and directed away from the transmission corridor.

18.2.2. Any development in conjunction with the site plan must not block vehicular access to any HONI facilities located on the transmission corridor. During construction, there must be no storage of materials or mounding of earth, snow or other debris on the transmission corridor.

18.2.3. The costs of any relocations or revisions to HONI facilities which are necessary to accommodate this site plan will be borne by the developer. The developer will be responsible for restoration of any damage to the transmission corridor or HONI facilities thereon resulting from construction of the site plan.

18.2.4. HONI's easement rights must be protected and maintained.

18.3. In addition, HONI requires the following be conveyed to the developer as a precaution:

18.3.1. The transmission lines abutting the subject lands operate at either 500,000, 230,000 or 115,000 volts. Section 188 of Regulation 213/91 pursuant to the Occupational Health and Safety Act, require that no object be brought closer than 6 metres (20 feet) to an energized 500 kV conductor. The safe vertical distance for 230 kV conductors is 4.5 metres (15 feet), and for 115 kV conductors it is 3 metres (10 feet). It is the developer's responsibility to be aware, and to make all personnel on site aware, that all equipment and personnel must come no closer than the safe vertical distance specified in the Act. All parties should also be aware that the conductors can raise and lower without warning, depending on the electrical load placed on the line.

18.4. Our preliminary review only considers issues affecting HONI's transmission facilities and transmission corridor lands. For any proposals affecting distribution facilities (low voltage), the developer should consult the local distribution supplier.

If you have any questions, please contact me at dennis.derango@hydroone.com or at 905-946-6237.

19. <u>Hydro Ottawa</u>

19.1. The Owner is advised that there are existing and proposed medium voltage overhead lines along Russell Road, as well as, overhead line entering the property from Russell Road.

a. The Applicant is advised that permanent structures located within the "restricted zone" surrounding overhead lines are prohibited. This zone is defined by Hydro Ottawa's standard OLS0002 "Overhead High Voltage Clearances to Adjacent Building", which can be found at https://hydroottawa.com/accounts-services/accounts/contractors-developers/clearances. This standard complies with the requirements of the Ministry of Labour's Occupational Health & Safety Act, the Ontario Building Code, and the Ontario Electrical Safety Code. Permanent structures include buildings, signs (even lit signs when open for maintenance), antennas, pools, and fences.

b. Should any activity, such as tree trimming or working on the sides of a building, be anticipated within three meters (3m) of Hydro Ottawa's overhead lines, contact Hydro Ottawa to discuss arrangements before any activity is undertaken. In line with the Ministry of Labour's Occupational Health & Safety Act, only a Hydro Ottawa employee or Hydro Ottawa approved contractor can work in proximity of these lines.

19.2. The Owner shall ensure that any landscaping or surface finishing does not encroach into existing or proposed Hydro Ottawa overhead or underground assets or easement. When proposing to plant trees in proximity of existing power lines, the Owner shall refer to Hydro Ottawa's free publication "Tree Planting Advice" which can be found at https://hydroottawa.com/outages-safety/safety-home/outside-home/planting-trees. The shrub or tree location and expected growth must be considered. If any Hydro Ottawa related activity requires the trimming, cutting or removal of vegetation, or removal of other landscaping or surface finishing, the activity and the re-instatement shall be at the owner's expense.

19.3. If the change in grade is more than three tenths of a meter (0.3m) in the vicinity of proposed or existing electric utility equipment. Hydro Ottawa requests to be consulted to prevent damages to its equipment.

19.4. Hydro Ottawa requires to be pre-consulted before approving any proposed reduction to the City of Ottawa three meter (3m) minimum standard setback prior to designing the electrical servicing, as it may affect the electrical servicing design timeline for installation and cost. This includes any proposed overhang encroachment into the three meter (3m) setback space.

19.5. The Owner is to contact Hydro Ottawa if the electrical servicing of the site is to change in location or in size. A load summary will be needed for the technical evaluation.

19.6. The Owner may be responsible for a Capital Contribution payment(s) towards a distribution system expansion if the proposed development requires electrical servicing greater than can be provided by the existing distribution system in the vicinity, either in capacity or in extension limit. This amount shall be in accordance with Hydro Ottawa's Contributed Capital Policy and Conditions of Service. The Owner shall convey, at their cost, all required easements as determined by Hydro Ottawa.

19.7. The Owner shall contact Hydro Ottawa to arrange for disconnecting any existing service from the distribution system and removal of all Hydro Ottawa assets at least ten (10) business days prior to demolition/removal of the serviced structure.

19.8. The Owner shall be responsible for servicing the buildings within the property. Only one service entrance per property shall be permitted.

19.9. The Owner is advised that Hydro Ottawa does not provide servicing through rear lanes.

19.10. The Owner shall enter an Installation and Service agreement with Hydro Ottawa.

19.11. The Owner shall be responsible for all costs for feasible relocations, protection or encasement of any existing Hydro Ottawa plant.

19.12. The Owner shall convey, at their cost, all required easements as determined by Hydro Ottawa.

19.13. The Applicant shall comply with Hydro Ottawa's Conditions of Service and thus should be consulted for the servicing terms. The document, including referenced standards, guidelines and drawings, may be found at https://hydroottawa.com/about-us/policies/conditions-service. The Owner should consult Hydro Ottawa prior to commencing engineering designs to ensure compliance with these documents.

19.14. Hydro Ottawa reserves the right to raise conditions throughout the development of this proposal should the revisions contain non-conformances with, for example, Hydro Ottawa’s Conditions of Service or Standards. To ensure the best outcome, Hydro Ottawa welcomes an early discussion on the proposal.

19.15. For more information on electrical servicing, the following link outlines Hydro Ottawa’s services for Commercial, Overhead and Underground, and Residential projects, together with contact information for Hydro Ottawa representatives.

https://hydroottawa.com/accounts-and-billing/contractors-and-developers/guide/distribution-system-design

20. Enbridge

20.1. Enbridge Gas Inc. does not object to the proposed application(s) however, we reserve the right to amend or remove development conditions.

20.2. This response does not constitute a pipe locate, clearance for construction or availability of gas.

20.3. The applicant shall contact Enbridge Gas Inc.'s Customer Connections department by emailing SalesArea60@Enbridge.com to determine gas availability, service and meter installation details and to ensure all gas piping is installed prior to the commencement of site landscaping (including, but not limited to: tree planting, silva cells, and/or soil trenches) and/or asphalt paving.

20.4. If the gas main needs to be relocated as a result of changes in the alignment or grade of the future road allowances or for temporary gas pipe installations pertaining to phased construction, all costs are the responsibility of the applicant.

20.5. In the event that easement(s) are required to service this development, and any future adjacent developments, the applicant will provide the easement(s) to Enbridge Gas Inc. at no cost. The inhibiting order will not be lifted until the application has met all of Enbridge Gas Inc.'s requirements.

20.6. The applicant will contact Enbridge Gas Inc.'s Customer Connections department by emailing SalesArea60@Enbridge.com prior to any site construction activities to determine if existing piping facilities need to be relocated or abandoned.

21. Rogers

21.1. Rogers has no comment or concerns regarding this circulation. Please contact John Davin at 613-759-8588 or e-mail at johnj.davin@rci.rogers.com for Rogers Site Servicing if approved, or if you require additional information.

22. Bell

22.1. The following paragraphs are to be included as a condition of approval:

22.1.1. "The Owner acknowledges and agrees to convey any easement(s) as deemed necessary by Bell Canada to service this new development. The Owner further agrees and acknowledges to convey such easements at no cost to Bell Canada.

22.1.2. The Owner agrees that should any conflict arise with existing Bell Canada facilities where a current and valid easement exists within the subject area, the Owner shall be responsible for the relocation of any such facilities or easements at their own cost."

22.2. The Owner is advised to contact Bell Canada at planninganddevelopment@bell.ca during the detailed utility design stage to confirm the provision of communication/telecommunication infrastructure needed to service the development.

22.3. It shall be noted that it is the responsibility of the Owner to provide entrance/service duct(s) from Bell Canada's existing network infrastructure to service this development. In the event that no such network infrastructure exists, in accordance with the Bell Canada Act, the Owner may be required to pay for the extension of such network infrastructure.

22.4. If the Owner elects not to pay for the above noted connection, Bell Canada may decide not to provide service to this development.

22.5. To ensure that we are able to continue to actively participate in the planning process and provide detailed provisioning comments, we note that we would be pleased to

receive circulations on all applications received by the Municipality and/or recirculations.

22.6. Please note that WSP operates Bell's development tracking system, which includes the intake of municipal circulations. WSP is mandated to notify Bell when a municipal request for comments or for information, such as a request for clearance, has been received. All responses to these municipal circulations are generated by Bell, but submitted by WSP on Bell's behalf. WSP is not responsible for Bell's responses and for any of the content herein.

22.7. If you believe that these comments have been sent to you in error or have questions regarding Bell's protocols for responding to municipal circulations and enquiries, please contact planninganddevelopment@bell.ca

23. Canada Post

Service type and location

23.1. Canada Post will provide mail delivery service to the development through centralized Community Mail Boxes (CMBs).

23.2. Given the number and the layout of the lots in the development, The development will be served by 1 CMB located at 4055 Russell Road.

23.3. If the development includes plans for (a) multi-unit building(s) with a common indoor entrance, the developer must supply, install and maintain the mail delivery equipment within these buildings to Canada Post's specifications.

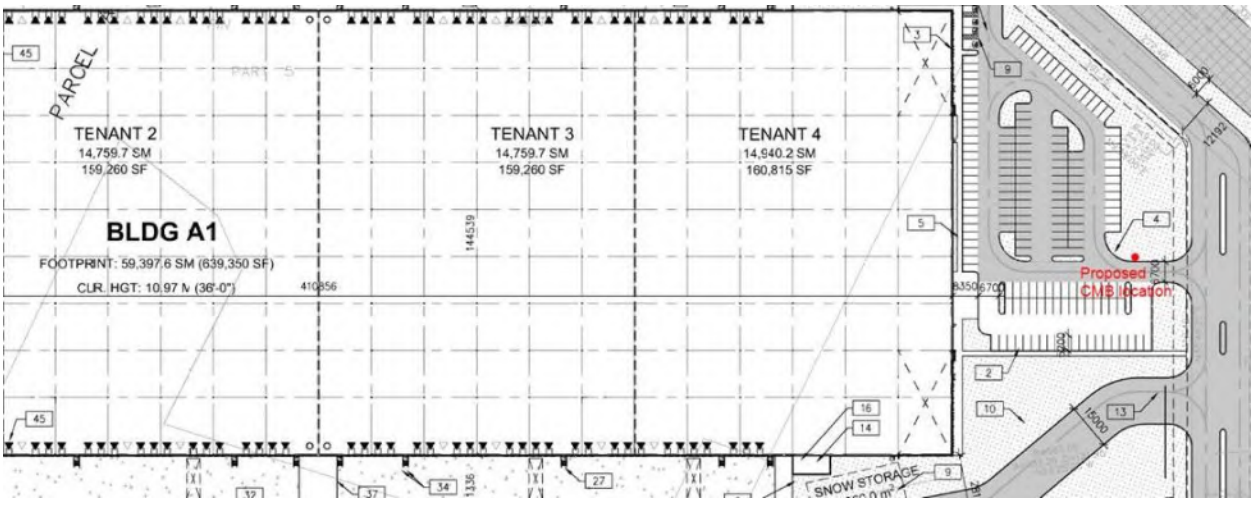
Municipal requirements

23.4. Please update our office if the project description changes so that we may determine the impact (if any).

23.5. Should this subdivision application be approved, please provide notification of the new civic addresses as soon as possible.

Developer timeline and installation

23.6. Please provide Canada Post with the excavation date for the first foundation/first phase as well as the date development work is scheduled to begin. Finally, please provide the expected installation date(s) for the CMB(s).



24. Councillor and Community issues

24.1. Concerned with no u-turn and turn signs on Hawthorne, as well as lane painting after construction to ensure they are properly marked. The HCPCA would like this done right after construction.

24.2. Concern over the number of parking spaces, and that 583 is excessive for the intended uses. Could an explanation be provided for the number of proposed parking spaces?

24.3. Concern about a possible change in the road, without any description or what this change could do to traffic flow. Could any more detail be provided about this?

25. For the next submission

- The next submission should address all and each of the comments or issues, to ensure the effectiveness and consistency of the next review.
- A cover letter must be included that states how each comment was addressed in the resubmission. Please co-ordinate the numbering of each resubmission comment, or issue, with the above noted comment number.
- Please ensure the File Number **D07-12-21-0069** and Plan Number **#(waiting to receive number from Jeff Shillington)** are incorporated in the bottom right hand corner of all plans.
- Plans are to be standard A1 size (594 mm x 841 mm) sheets, utilizing an appropriate Metric scale (1:200, 1:250, 1:300, 1:400 or 1:500).
- All addenda or revisions to any studies or plans must be submitted as a PDF. All PDF documents are to be unlocked and flattened.

The development review team will be happy to meet you to discuss comments and resolve issues. Please contact me at your earliest convenience to confirm the meeting date and time.

Should there be any other questions, please do not hesitate to contact me.

Yours Truly,

Mélanie Gervais

cc.

Jeff Shillington, Senior Project Manager

Wally Dubyk, Transportation Project Manager

Matthew Hayley, Environmental Planner

Phil Castro, Park Planner

Mark Richardson, Planning Forester

Tracy Smith, Forester

Amy MacPherson, Planner – Natural Systems

Bill Harper, City Surveyor

Vahid Arasteh - ERU

Michel Pilon, Avenue 31