Muncaster Environmental Planning Inc.

September 12, 2025

1000198532 Ontario Inc.
c\o Mr. T J Sohal
1172 Walkley Road
Ottawa, ON
K1V 1P7

Dear Mr. Sohal:

RE: 2726 Moodie Drive – Proposed Commercial Development
Environmental Impact Study and Tree Conservation Report - Updated

This Environmental Impact Study (EIS) and Tree Conservation Report (TCR) address proposed warehouses in the west portion of Barrhaven at 2726 Moodie Drive. The site is on the west side of Moodie Drive and south of Fallowfield Road. The 6.6 hectare site has approximately 165 and 235 metres of frontage on Moodie Drive and Fallowfield Road, respectively. The site is described as Part of Lot 20, Concession 5 (Rideau Front) of Nepean Geographic Township, City of Ottawa. A 1.5 storey residence adjacent to Moodie Drive has been removed. An apple orchard was on the site in 1976, with those trees mostly removed by 1999. Since then, the land was part of a local produce farm with several greenhouses in the east end. The greenhouses have been removed and the site is now unmaintained.

This EIS/TCR has been updated to address City of Ottawa comments from December, 2023 and a new site plan dated January 14, 2025.

Methodology

This EIS and TCR was prepared in accordance with the EIS Guidelines and the Guidelines for City of Ottawa Tree Conservation Report, with guidance from the Natural Heritage Reference Manual (OMNR, 2010). The field survey and this report were completed by Bernie Muncaster, who has a Master's of Science in Biology and over thirty-five years of experience completing natural environment assessments. The purpose of the Tree Conservation Report component is to determine any tree stands that should be retained and protected and the associated protection measures. It is proposed to remove the remaining trees not identified for retention in 2025 or 2026, outside of the breeding bird period.

The EIS will provide the methodology to mitigate as required negative impacts on significant features and functions. Potential Species at Risk in the general area were identified from Ministry of Natural Resources and Forestry databases, the Ontario Breeding Bird Atlas, and Species at Risk reported for the overall City of Ottawa.

Field surveys of the site and adjacent lands was completed on April 21st, 2023 from 10:05 to 12:30 and during good conditions for observations including a light to moderate breeze, partly sunny skies, and an air temperature of 10° C. An additional field survey was completed on May 25th, 2023 from 09:55 to 12:10 and also during good conditions for observations including a light breeze, sunny skies, and an air temperature of 16° C. It was noted from Fallowfield Road in 2024 that many of the trees in the southwest portion of the site had been removed and the trees removed were confirmed in a site review on March 28th, 2024.

Environmental Features

The site is zoned Rural General Industrial (*RG(886r)*) and identified as Rural Industrial and Logistics on Schedule B9 of the new City of Ottawa Official Plan. There are no portions of the City's Natural Heritage System on the site, with the Monahan Forest to the north of the site, north of Fallowfield Road, identified as Natural Heritage Features Overlay on Schedule C11-C of the new City Official Plan. The closest Natural Heritage System Core Area is the south portion of the Stony Swamp Natural Area, approximately 1.7 kilometres to the north of the site. This is also the closest Provincially Significant Wetland, Natural Area (Brunton, 1997), Provincially Significant Wetland, and Area of Natural and Scientific Interest. There are no environment constraints shown on or adjacent site on Schedule C15.

Although not delineated as a Natural Area in the 1997 study, the Monahan Forest is a relatively undisturbed upland deciduous forest with a trail system easily accessible from parking on the north side of Fallowfield Road, or to the north on the south side of Alti Place. The forest is approximately 18 hectares on the north side of Fallowfield Road and east of a hydro corridor, with a larger forest to the west of the hydro corridor, extending from Fallowfield Road north to large aggregate operations. The forest is known as Lorenzetti Forest on some mapping.

Proposed Commercial Development

The proposal includes plans to construct five (5) warehouse buildings that will each have a section of office space. Two-hundred and eight-nine (289) surface parking spaces will be provided, along with fifty-six (56) 'loading' spaces for parking during the loading and unloading of the trucks and other delivery vehicles. Access to the site is proposed for both Fallowfield Road and Moodie Drive. Large transport trucks servicing the warehouse space will use the Moodie Drive access as it is the minor street and to be as far away from the traffic lights at the Fallowfield and Moodie intersection, and the regular vehicle access will be off Fallowfield Road, the major street. The operation will utilize municipal water, with a skid-mounted treatment system to be installed.

Existing Conditions

The topography of the site is generally level, with a very gentle slope to the west and east from the centre of the site. Clay soils are mapped for the site. Gravel fill is in the east portion of the site where the greenhouses were and much of the topsoil appears to have been stripped elsewhere, with a small stockpile present in the central west portion of the site. A ditch along the west site boundary does not appear to represent potential fish habitat due to a lack of connection

with potential habitat upstream and downstream of the site. The ditched is fed by a culvert and two drain outlets in the northwest corner of the site (Photo 10). There is no channel present to the north of the site, with a poorly defined scratch swale to the southwest. Some standing water, up to two cm deep, was present in the ditch on April 21st and May 25th (Photo 11). No fish were observed in the clear, very shallow water during either survey.

The site is dominated by cultural meadow and thicket habitats, with trees along the northwest, west and south boundaries.

Cultural Meadows and Thickets

Ground vegetation and shrubs have regenerated on the site. Map 1 shows the west portion of the site as cultural thicket as the extent of woody vegetation is greater than 25 percent. The common ground flora generally reflects the past site disturbances. In areas orchard grass, reed canary grass, and Canada goldenrod are dominant (Photo 1). Other ground flora includes curled dock, colt's-foot, bull thistle, Canada thistle, wild carrot, evening primrose, common burdock, awnless brome grass, June meadow grass, barnyard grass, field sow-thistle, Canada thistle, common mugwort, tall buttercup, wormseed mustard, field mustard, white bedstraw, field horsetail, Canada goldenrod, heart-leaved aster, white-sweet clover, common mullein, blueweed, hoary alyssum, wild grape, common milkweed, wild parsnip, common dandelion, and ox-eye daisy, with trout lily and sensitive fern also observed. A small area of broad-leaved cattail is among goldenrod and field horsetail in the northwest corner of the site, adjacent to the north portion of the ditch described above. Spotted jewelweed is also along portions of the ditch edge.

Slender willow, Bebb's willow, prickly ash, common lilac, red-osier dogwood, the highly invasive Japanese smartweed, and staghorn shrubs and regenerating trembling aspen, Manitoba maple, basswood, and ash stems are common, especially in the west portion of the site (Photo 2). This area is identified as cultural thicket on Map 1. Perimeter trees are described below. The only trees greater than 10cm diameter at breast height (dbh) off the site perimeter are associated with the former residence on the west side of Moodie Drive. There was a mature coppice (multi-stem) red maple in the east portion of the site, approximately 30 metres west of Moodie Drive (Tree 'A' on Map 1, Photo 3). The tree had poor form with six main trunks, although leaf-out was good. The largest stem on the red maple is 50cm dbh and trunk damage appeared minor. White cedar hedges up to 20cm dbh were to the north and east of the former residence (Trees 'B' on Map 1). These trees have been removed.

Deciduous Hedgerows

Northeast Property Line

A deciduous hedgerow dominated by Manitoba maple (Trees 'C' on Map 1) was along the northwest property line shared with 4644 Fallowfield Road, south of Moodie Drive. In addition to extensive wind damage, there was major trunk damage on the maples (Photo 4). Most of the Manitoba maple were coppice, with the largest individual stems up to 35cm dbh. Other trees in the deciduous hedgerow included green ash and basswood up to 25cm and 20cm dbh, respectively (Trees 'D' on Map 1) and regenerating stems of Manitoba maple and white cedar.

Some of the ash stems appeared dead. Basswoods not impacted by wind damage appeared to be in good condition, though many were multi-stem and had no dominant leader. Slender willow, black currant, common lilac, and red raspberry shrubs were among the hedgerow trees.

North Property Line

An intermittent deciduous hedgerow was along the north property line shared with the rear of 4644 to 4670 Fallowfield Road. A mature Manitoba maple (approximately 75cm dbh and Tree 'E' on Map 1) was just north of the property line (Photo 5). Wind damage was common on this tree, as it was on a 24cm dbh white elm to the east of the large Manitoba maple. Green ash and white cedars up to 20cm dbh and common buckthorn shrubs were also along and just north of the property line in this area. Wild grape coverage was common on the lower portions of these trees and many of the ash and elm had poor leaf-out. Further to the west, along the west portion of the property line with the rear of 4658 Fallowfield Road, was a 32cm dbh black walnut (Tree 'F' on Map 1, Photo 6). This tree was in poor condition, with many dead branches. This black walnut was told from butternut by the lack of a developed terminal leaflet, terminal buds that are as long as broad, and notched, non-hairy leaf scars. Thicket creeper growth was common on the lower branches. To the west of this tree regenerating Manitoba maple and ash stems have wind damage. Slender willow shrubs are also very common in this area. Along the property line with 4664 Fallowfield Road, five Norway maples are between 25cm and 48cm dbh (Trees 'G' on Map 1). The trees appeared to be in generally good condition, with some pruning. The properly line at the rear of 4664 Fallowfield Road was not easily identified in this area. Regenerating ash stems are common at the rear of 4670 Fallowfield Road. All of these stems are less than 20cm dbh.

It is understood that 4644 and 4658 Fallowfield Road are both also owned by the Applicant. Trees 'C', 'D', 'E', and 'F' have been removed, leaving Trees 'G' (four Norway maples, one of which is on-site) as the only co-owned or adjacent tree with critical root zones extending onto the site along the north or northeast property lines.

West Property Line

The ditch described above is along the west property line. The closest trees to the west of the site are approximately two metres west of the property line. Basswood is dominant along the east forest edge, with, green ash, sugar maple, red maple, and black cherry also present. The largest outer tree stems are 28cm dbh. Mature sugar maples are present deeper into the adjacent forest, with the closest larger trees more than 15 metres to the west of the property line. Again, wind damage is extensive in this area. The site is at a noticeably lower elevation than the deciduous forest to the west. Woody vegetation on the site, to the east of the ditch, include red-osier dogwood, red raspberry, prickly gooseberry, Bebb's willow, and slender willow shrubs, along with regenerating ash stems.

South Property Line

In the west portion of the south property line, a deciduous hedgerow begins immediately north of the property line and extends onto the site by up to five metres (Trees 'H" on Map 1, Photo 7).

There are no trees along or south of the property line. Basswood up to 25cm dbh are dominant, with black cherry and trembling aspen up to 28cm dbh and smaller green ash, red maple, Manitoba maple, and white elm also present. These trees have some wind damage but generally appear to be in good condition. Common buckthorn, prickly ash, staghorn sumac, black currant, tartarian honeysuckle, common lilac, slender willow, and red raspberry shrubs are among the hedgerow trees, along with regenerating basswood, Manitoba maple, cherry, and ash stems. Ground cover includes the highly invasive lamium, along with common mullein, wild carrot, evening primrose, thicket creeper, common strawberry and blue violet. White trillium, wild ginger, Canada mayflower, and trout lily are likely remnants from former forested conditions.

The east portion of the property line is contiguous with a 2.3 hectare young upland deciduous forest to the south of the site. The outer edge of trees along the property line includes trembling aspen, red maple, sugar maple, and Manitoba maple up to 32cm dbh and smaller basswood, American beech, chokecherry, and green ash (Photo 8, Trees 'I' on Map 1). Many of the upper trunks of the trees along the east portion of the property line are strongly angled to the north. The largest trees in proximity to the property line are maples up to 40cm dbh. The critical root zones of these would extend on the site by up to one metre, less than the three plus metres of the critical root zones associated with the deciduous trees on the property line.

Monahan Forest

Sugar maple, red maple, white cedar, trembling aspen, and basswood are well represented in the portion of the Monahan Forest closest to the site, north of Fallowfield Road (Photo 13). The largest trees in proximity to the south portion of the forest are up to 40cm dbh, with most trees in the 15cm to 25cm dbh range. As the south edge of the forest trees are approximately 25 metres north of the site, there is no potential for critical root zones of these trees extending south onto the site.

Wildlife

Wildlife observations during the spring 2023 surveys include Canada goose, turkey vulture, wild turkey, European starling, red-winged blackbird, common grackle, chipping sparrow, song sparrow, American crow, black-capped chickadee, northern flicker, common yellowthroat, American robin, American goldfinch, northern cardinal, white-tailed deer tracks, woodchuck, and grey squirrel. The only tree with potential wildlife cavities along or immediately adjacent to the site was a Norway maple along the property line with 4664 Fallowfield Road. Woodpecker activity is common in a damaged red maple along the east portion of the property line but the cavities are too close to the ground to be suitable for potential wildlife cavities. Stone piles which may be used by snakes and other wildlife are common immediately north of the west portion of the south property line (Photo 9).

Photo 1 – Site looking north from the south-central edge.
Note Monahan Forest in the background, on the north side of Fallowfield Road

Photo 2 – Cultural thicket in the west portion of the site. View looing northeast.

Photo 3 – Red maple, Tree 'A' on Map 1, to the east of Moodie Drive. View looking north. Tree now removed

Photo 4 – Extensive damage on the Manitoba maples, Trees 'C' on Map 1, along the northwest site boundary. View looking northwest. Tree now removed

Photo 5 – Mature Manitoba maple, Tree 'E' on Map 1, immediately north of the northwest portion of the site. View looking north. Tree now removed

Photo 6 – Black walnut, Tree 'F' on Map 1, along the northwest portion of the property line. View looking northeast. Tree now removed

Photo 7 – Deciduous hedgerow, Trees 'H' on Map 1, immediately to the north of the south property line. View looking east

Photo 8 – North edge of young deciduous forest (Trees 'I' on Map 1), which is along the east portion of the south property line. View looking southeast

Photo 9 – Stone piles immediately north of the west portion of the south property line. View looking southeast

Photo 10 – Culvert and drain outlets entering the ditch along the west property line. View looking northeast

Photo 11 – A wider section of standing water up to 2cm deep in the ditch on May 25th, 2023. View looking north

Photo 12 –Residence, now removed, on the east side of Moodie Drive. View looking northeast

Photo 13 – Monahan Forest to the north of the site, north of Fallowfield Road. View looking north

Species at Risk and Other Species of Special Interest

On August 20th, 2025, the Ministry of the Natural Resources and Forestry's Make a Map: Natural Heritage Areas website was reviewed again. This site allows for a search of Threatened and Endangered species covered by the 2008 *Endangered Species Act*, as well as other species of interest. A search was conducted on the 1 km squares including the site and adjacent areas (18VR31 – 62, - 63, and - 73). Five Species at Risk were noted for these squares; Blanding's turtle, black ash, butternut, eastern meadowlark, and bobolink. In addition, three species of special interest were recorded; snapping turtle, wood thrush, and eastern wood pewee. Bank swallow and barn swallow are additional Species at Risk and species of special interest, respectively, identified for the overall 10 km square (18VR31), including the current site, in the Ontario Breeding Bird Atlas.

Eastern meadowlark and bobolink utilize larger grassland areas such as hay fields. The cultural meadow habitat at less than 2.5 hectares is too small and lacks a diversity of ground flora in most areas. No bobolink or eastern meadowlark were observed on May 25th. The meadow does not appear to be maintained as a hayfield and topsoil has been removed in many areas. Bank swallows nest in open sand walls, often in association with sand pits, habitat also not present. No structures were present on or adjacent to the site that may be utilized by chimney swift or barn swallow. No chimney was observed on the now removed residence in the east portion of the site (Photo 12). Wood thrush and eastern wood pewee are found in the interior of deciduous forests, habitat also not present on the site.

Butternut trees are found in a variety of habitats but no butternuts were observed on or within 50 metres of lands proposed for development. No black ash was observed on or adjacent to the site. No suitable turtle or other wetland habitats are present on the site. The ditch along the west property line lacks adjacent marsh habitat and contained too little and far too shallow water to be considered potential turtle habitat.

Many endangered and threatened species have historically been reported in the overall City, including butternut, black ash, American ginseng, eastern prairie fringed-orchid, wood turtle, spiny softshell, Blanding's turtle, musk turtle, Henslow's sparrow, loggerhead shrike, nine-spotted lady beetle, Suckley's cuckoo bumble bee, Hudsonian godwit, lesser yellowlegs, red-headed woodpecker, short-eared owl, eastern red bat, hoary bat, silver-haired bat, little brown myotis, northern long-eared bat, olive hickorynut, bald eagle, golden eagle, cerulean warbler, least bittern, eastern cougar, lake sturgeon, and American eel. Except for butternut, no specific habitat characteristics related to these potential Species at Risk were observed on the site. Only one potential cavity tree was observed on the site, along the northwest property line. This tree will be retained and as it is in a very open area, it is not anticipated that the tree would be used by bats for summer colonies. An evening survey for bat utilization on the site, with an emphasis on the residence since demolished, was completed on June 30th, 2023 from 20:35 to 21:55 under clear skies and a light breeze. No bats were observed during the survey.

Other Significant Features

The significance of woodlands is evaluated using the criteria in the Natural Heritage Reference Manual (OMNR, 2010). There are no on-site forests, however the Monahan Forest to the north of the site, north of Fallowfield Road, would be considered Significant Woodlands due to its size and associated presence of a large amount of forest interior habitat. The forest has been present since at least 1976 and there may be other functions associated with the Monahan Forest that would contribute to its significance. As assessed below, provided the recommended mitigation measures are properly implemented no impacts are anticipated on the Monahan Forest due to the construction and operation of the proposed commercial operation.

The potential for significant wildlife habitat was assessed using the guidance in OMNR (2010) and MNRF (2015). Potential components which may lead to a designation of significant wildlife habitat include seasonal concentration areas of animals, rare vegetation communities or specialized habitat for wildlife, habitat for species of conservation concern, and animal movement corridors. No Species of Conservation Concern or Provincially rare species were observed on the site and potential habitat for these species such as marsh, open country, or shrub/early successional breeding bird habitats were not observed. No evidence of animal movement corridors, such as those for deer or amphibians, were noted. Wetlands are not present. Other than stone piles along the west portion of the south property line, potential criteria for a significant wildlife habitat designation were not observed on or adjacent to the site. For example, wetland habitat for waterfowl stopover and staging areas was not observed, nor was evidence of colonial nesting bird breeding habitat or other examples of seasonal concentration areas. Rare or specialized habitat such as alvars, other rare vegetation communities, old growth forest, or areas of broken and fissured rock for potential use by snakes, seeps, or springs were not

observed on or adjacent to the site. No evidence of raptor utilization was observed. Stone piles along the west portion of the south property line could provide over-wintering habitat for snakes and other wildlife.

No significant linkage functions are anticipated for the area given the very busy Fallowfield Road and Moodie Drive, extensive areas of agricultural, industrial and aggregate operations along Moodie Drive, and the Highway 416 corridor approximately 500 metres to the east.

Impact Assessment and Mitigation Measures

No significant natural heritage features, as defined in the Provincial Policy Statement, were identified for the site, with the significant Monahan Forest to the north, north of Fallowfield Road. The site has been highly disturbed with vegetation removal and gravel fill where former greenhouses were and elsewhere in the east portion of the site. The only tree of note on the interior of the site is a coppice red maple with an extensive number of leaders. Due to its location and proposed grade raises of more than 1.5 metres in this area, this tree will not be retained. The tree cover for the site over time will be greater than the existing conditions following plantings of native trees and shrubs as described below.

Table 1 – Description of Tree Groups (located on Map 1)

Tree Letter	Species	dbh (cm)	Condition and Comments	Fate
A	Red maple (1)	up to 50	Multi-stem in fair condition with poor form and good leaf-out	Now removed
B	White cedar	up to 20	Hedges in good condition. Total length of hedges is approximately 30 metres	Now removed
C	Manitoba maple	up to 35	In a deciduous hedgerow along property line (though same landowner). Manitoba maple in poor condition with significant wind and trunk damage	Now removed
D	Basswood Green ash	up to 20 up to 25	Also along property line (though same landowner). Basswoods not impacted by wind damage appear to be in good condition, though many are multi-stem and have no dominant leader. Some of the green ash are dead with EAB damage	Now removed
E	Manitoba maple (1)	75	Just north of property line (though same landowner). Fair condition with wind damage	Now removed
F	Black walnut (1)	32	On property line (though same landowner). Poor condition with many dead branches	Now removed
G	Norway maples (4)	25, 36, 43, and 48	The 43 cm maple is on-site, the 36cm (twin stem) is co-owned. The other maples are 0.5 metres north of the property line. CRZs extend up to 4.3 onto site. The main stem of the 48cm is in poor condition with major trunk damage and major scaffold branches have been pruned. Pending discussions with the	Retain or replace

			adjacent landowner this tree is recommended for replacement. Outer portion of critical root zones of 36cm and 48cm maples likely impacted	
H	Basswood Trembling aspen Black cherry	up to 25 up to 28 up to 28	Smaller green ash, red maple, Manitoba maple, and white elm also present. These trees have some wind damage but generally appear to be in good condition. The regenerating area is up to 5 metres wide and approximately 130 metres in length	Remove
I	Trembling aspen Red maple Sugar maple Manitoba maple	up to 32	North edge of a young deciduous forest. Smaller basswood, American beech, chokecherry, and green ash are also present. Many of the upper trunks of the trees along the east portion of the property line are strongly angled to the north but otherwise appear to be in good condition. The outer two metres of the north portion of the critical root zones of the trees along the property line will be impacted.	Retain

As indicated in Table 1 boundary trees are present on portions of the site periphery. The critical root zones of the boundary and adjacent trees are shown on Map 2. For the northwest boundary, including Trees 'C' and 'D', no impacts were anticipated on these trees and their critical root zones. The landowner to the west is the same as the Applicant and these trees have been removed.

The outer portions of the critical root zones of Trees 'E' and 'G' along the north boundary in the west portion of the site may be impacted by the construction as the critical root zones extend onto the site up to 7 metres and 4.8 metres for Trees 'E' and 'G', respectively. Tree 'E' has been removed. If the adjacent landowner for the row of maples (Trees 'G') choses to retain these trees in lieu of new plantings of native species, excavations within the outer critical root zones of adjacent trees to the north are to be completed by hand where feasible. Exposed roots either should be kept moist and protected until they can be backfilled, or as advised by a certified arborist, the roots cut cleanly at a proper angle to facilitate healing.

Trees to the west of the west site boundary are not anticipated to be impacted as due to the existing ditch along the property line, the critical root zones of the outer trees to the west extend less than one metre onto the site. There are no boundary trees or adjacent trees to the south along the west portion of the south property line. To the east, the trees along the south property line are up to 28cm dbh. These young trees may be less vulnerable to impacts on the north edge of their critical root zones. No new forest edge will be created. It is recommended that these trees be retained and replaced as needed following construction.

Tree protection fencing in the form of silt fencing is recommended along the outer edge of the critical root zones shown on Map 2 or the site boundary where critical root zones of adjacent trees to be retained area not present. In locations where the edge of construction will occur within the outer portions of the critical root zones, the temporary fencing is to be installed as

close to the outer edge of the critical root zones as possible. The silt fencing will also assist in sediment and erosion control as well as protecting the adjacent trees to be retained and isolating the work area from wildlife. It is important that the fencing, at least 1.3 metres in height, be properly installed and maintained. Signs, notices or posters are not to be attached to any tree. No grading, heavy machinery traffic, stockpiling of material, machinery maintenance and refueling, or other activities that may cause soil compaction is to occur on the development side of the protective fencing. The root system, trunk, and branches of the trees to be retained are to be protected and not damaged unless necessary. Any roots that must be cut are to be cut cleanly to facilitate healing and as far from the tree as possible. Exhaust fumes from all equipment during construction will not be directed towards the canopy of the retained trees.

All of the supports and bracing for the protective fencing should be placed outside of the protected area and should be installed in such a way as to minimize root damage. Also, since a major objective of the temporary barrier is to prevent construction traffic from entering the trees' critical root zones, the barrier should be kept in place until all site construction has been completed in the vicinity of the trees.

Several planting areas are shown on the Preliminary Grading Plan by Kollaard Associates. These plantings will provide a diversity of natural environment and aesthetic features, including increasing the extent of woody vegetation on the site, screening, and reducing potential light impacts on the Monahan Forest. To provide a natural appearance, trees and shrubs should be planted in a random, cluster fashion rather than in a grid system. Potential native species to plant include nannyberry, elderberry and dogwood shrubs along with sugar maple, red maple, basswood, balsam fir, white cedar, tamarack, red oak and white spruce trees. Sourcing native species from local seed sources is strongly recommended to ensure adaptability and longevity. To provide screening for the adjacent residents, plantings should also be placed along the currently open portions of the north property line in the west portion of the site. These plantings will provide more tree cover than is currently on the site and will support the City's tree canopy targets.

Due to the clay soils, fast-growing trees located near buildings founded on cohesive soils that shrink on drying can result in long-term differential settlements of the structures. Tree varieties that may have the most pronounced effect in clay soils are poplars, willows and Manitoba Maple and these species should not be considered in the landscaping design for the site.

The City's Bird-Safe Design Guidelines (City of Ottawa, 2020) are to be incorporated into the building design and also be addressed during the construction, and operational phases of this project. This will involve treating glass to make it more visible as a barrier to birds through minimizing the transparency and reflectivity of glazing, eliminating design traps such as glass passageways or corners that are invisible to birds, designing landscaping to reduce the risk of collisions, designing and managing exterior lighting to minimize impacts on night migrating or nocturnal birds, and turning off or minimizing interior lighting, especially during spring and fall migration periods (City of Ottawa, 2020). The site's location adjacent to the Monahan Forest may increase the potential for bird strikes;

Many helpful wildlife-oriented mitigation measures are detailed in the City's Protocol for Wildlife Protection during Construction (City of Ottawa, 2022). Contractors are to review in detail and understand the City's Protocol for Wildlife Protection during Construction prior to commencement of construction. Listed below are specific mitigation measures associated with the Protocol for Wildlife Protection during Construction (City of Ottawa, 2022).

Summary of Mitigation Measures

1. The extent of exposed soils shall be kept to a minimum at all times. Re-vegetation of exposed, non-developed areas shall be achieved as soon as possible;

2. During construction, sediment and erosion control measures will be implemented as required, including filtering of pumped groundwater, properly installed and maintained silt fencing, and seepage barriers deployed in any temporary drainage ditches, until the construction is completed. These control measures must be properly maintained to maximize their function during construction. For example, the silt fencing must be properly keyed in to filter runoff and be maintained as required, including repair of broken panels and removal of accumulated sediment;

3. The contractor is to be aware of potential Species at Risk in the vicinity of the site such as butternut. Appendix 1 of City of Ottawa (2022) describes these species. The contact biologist for this project is Bernie Muncaster (613-748-3753). Any Species at Risk sightings are to be immediately reported to the project manager and the Ministry of the Environment, Conservation, and Parks and activities that may impact the species are to be stopped until further direction is received from the Ministry;

4. As recommended in City of Ottawa (2022), prior to beginning work each day thorough visual inspections of the work space and immediate surroundings are to be completed for wildlife. See Section 2.5 of the City's Protocol for Wildlife Protection during Construction (City of Ottawa, 2022) for additional recommendations on construction site management. Any turtles and snakes in the work area are to be relocated to the west. Animals should be moved only far enough to ensure their immediate safety. See Appendix 1 and the links in Section 4 of City of Ottawa (2022) for suggestions on how to effectively relocate turtles and snakes;

5. To protect breeding birds, no tree or shrub removal should occur between April 15th and August 15th unless a breeding bird survey conducted within five days of the woody vegetation removal identifies no active nests in the trees or shrubs. No stick nests or other evidence of raptor utilization was observed on or adjacent to the site;

6. The stone piles along the west portion of the south property line are not anticipated to be impacted. If these piles need to be altered, the disturbance is to take place between April and October to minimize the potential for impacts to reptile hibernaculum or other over-wintering wildlife;

7. As indicated above, discussions with the adjacent landowners will determine whether the existing boundary and adjacent trees in poorer condition are retained or removed and replaced with native plantings. During detailed design and construction, the critical root zones of boundary and adjacent trees should be avoided as much as possible. If the adjacent landowners wish the Norway maples (Tree 'G') to be retained and their critical root zones will be impacted, a certified arborist should provide an opinion on the projected health of these trees following removal of a portion of their critical root zones. Additional tree protection measures are provided above;

8. Retention of existing trees along the north and northwest boundaries, augmented with new plantings in currently open portions of the shared property lines will provide important screening for the adjacent rural residences;

9. Outdoor lighting is to be kept to an absolute minimum and not in directed to the north towards the Monahan Forest. The outdoor lighting should be low wattage and produce minimal glare to reduce the potential for impacts on wildlife. The planting beds along the north site edge also will assist in reducing potential light impacts on the forest to the north of Fallowfield Road;

10. Municipal by-laws and provincial regulations for noise will be followed and utilities will be located as required in the vicinity of the site prior to construction; and,

11. Waste will be managed in accordance with provincial regulations. The contractor will have a spill kit on-hand at all times in case of spills or other accidents.

Schedule of Proposed Works

Removal of the on-site woody vegetation not to be retained is proposed for 2025 or 2026, outside of the breeding bird season. As applicable, City of Ottawa staff (Forester – Planning) are to be contacted at least two business days prior to any tree removal so staff have the opportunity to verify that the protective fencing has been properly constructed. There are no City-owned trees adjacent to the site on the south side of Fallowfield Road or west of Moodie Drive.

Conclusion

No significant natural heritage features, as defined in the Provincial Policy Statement, were identified for the site, with the significant Monahan Forest to the north. The site has been highly disturbed with former agricultural activity, vegetation removal, and some areas of fill. The only tree of note on the site is a former multi-stem red maple. This tree cannot be retained due to its location. Several planting areas of native trees and shrubs will provide more canopy cover than currently on the site, support the City's tree canopy targets, provide screening, and reduce light impacts on the Monahan Forest to the north. Boundary trees along the property lines will be retained unless requested for removal by the co-owner and replaced with native plantings. No other features for potential retention were observed on the site.

This EIS and TCR concludes that it is the professional opinion of the author that the construction and operation of the proposed commercial development will not have a negative impact, as defined in the Provincial Policy Statement, on the significant natural heritage features and functions of the general area, including the Monahan Forest to the north, provided the above recommended mitigation measures are properly implemented.

References

Brunton, D.F. 1997. Summary: Natural Area Reports for Natural Areas West of Rideau River (500 series). Prepared for the Regional Municipality of Ottawa-Carleton, Planning and Development Approvals Department. 164 pp.

City of Ottawa. 2020. Bird-Safe Design Guidelines. September, 2020. 24 pp & Append

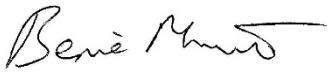
City of Ottawa. 2022. Protocol for Wildlife Protection during Construction. Revised December, 2022. 14 pp & Append.

Ontario Ministry of Natural Resources. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. Second Edition. March 2010. 233 pp.

Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. January, 2015. 38 pp.

Please call if you have any questions regarding this updated EIS and TCR

Yours Sincerely,
MUNCASTER ENVIRONMENTAL PLANNING INC.



Bernie Muncaster, M.Sc.
Principal

\2726 Moodie Drive EISTCR24

Vegetation Communities

1. Cultural meadow
2. Cultural thicket
3. Deciduous hedgerow
4. Upland deciduous forest

Legend

- Site
- Natural Heritage Features Overlay per Schedule C11-C
- Vegetation Communities
- A — Tree(s) Letter

Approx. Scale 1: 2,300

0 25 50 75 METRES

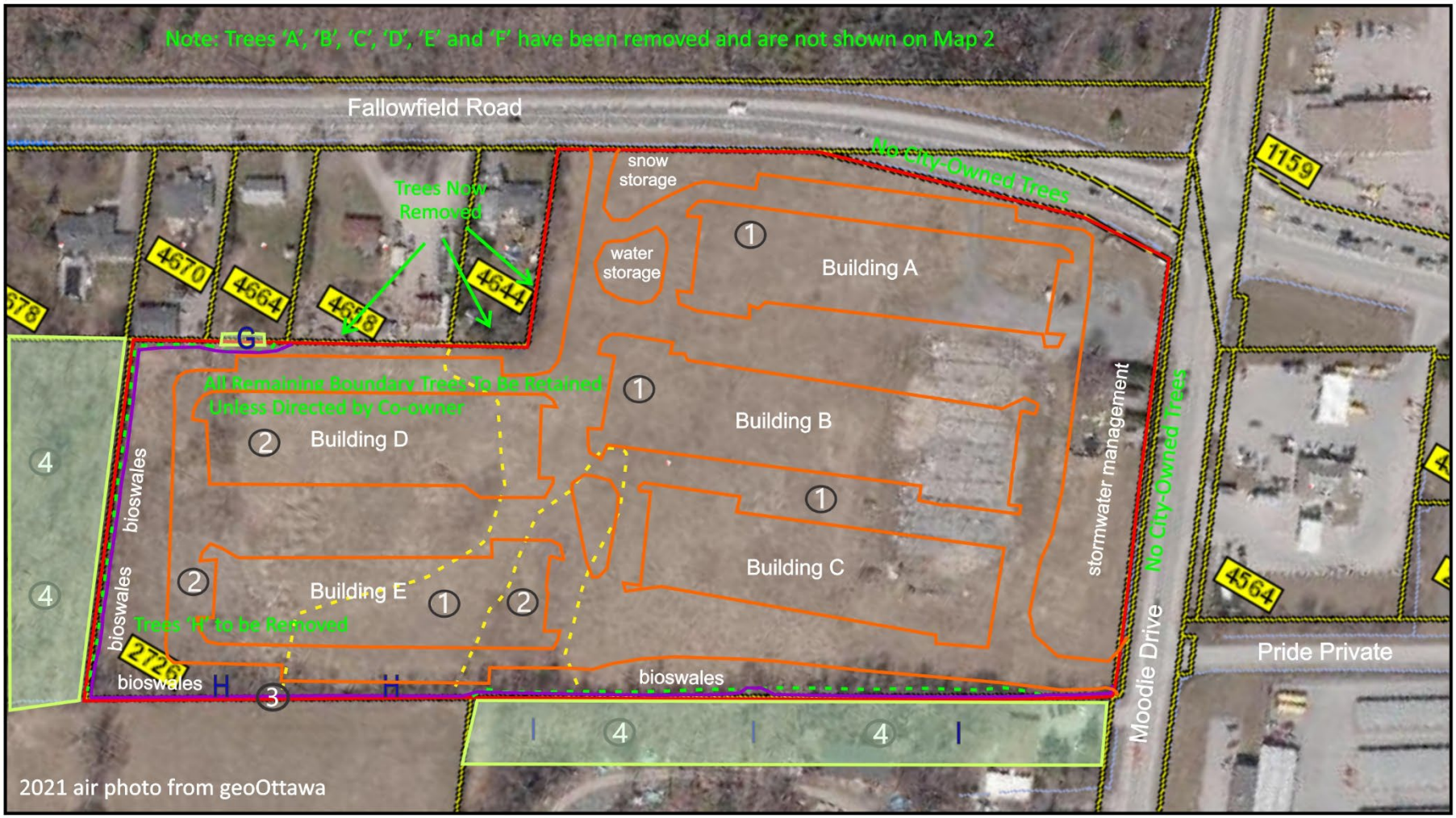
Map 1	FILE: 23 - 03	May 1, 2023

Prepared for: 1000198532 Ontario Inc.

Prepared by: Muncaster Environmental Planning Inc.

EXISTING CONDITIONS - EIS & TCR

2726 Moodie Drive
Nepean, City of Ottawa



Vegetation Communities

1. Cultural meadow
2. Cultural thicket
3. Deciduous hedgerow
4. Upland deciduous forest

Legend

- Site
- A — Tree(s) Letter
- On-site Critical Root Zone of Property/Adjacent Trees
- Vegetation Communities
- Tree Protection Fencing

Approx. Scale 1: 2,300

0 25 50 75 METRES

Map 2	FILE: 23 - 03	Sept. 6, 2025

Prepared for: 1000198532 Ontario Inc.

Prepared by: Muncaster Environmental Planning Inc.

PROPOSED CONSERVED VEGETATION - EIS & TCR

2726 Moodie Drive
Nepean, City of Ottawa