EXQUISITE DEVELOPERS INC.

TREE MANAGEMENT PLAN

78-82 EASTVIEW ROAD, GUELPH, ONTARIO

NOVEMBER 3, 2020

TREE MANAGEMENT PLAN, 78-82 EASTVIEW ROAD

17M-01526-00

EXQUISITE DEVELOPERS

SECOND SUBMISSION

PROJECT NO.: 17M-01526-00
DATE: NOVEMBER 2020

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1 INTRODUCTION

WSP Canada Group Ltd. has been retained to conduct a tree inventory and prepare a Tree Management Plan and Arborist report for a proposed residential development at 78-82 Eastview. The project is located near the eastern edge of the City of Guelph. The current zoning of the site is Urban Reserve and Residential Single Detached. It has been proposed the property be re-zoned as Residential Townhouse, and will involve the construction of approximately 57 townhouse units in seven blocks. It will have two separate common element roadways accessed from Eastview Road. A single storm water management (SWM) facility is also identified on the Preliminary Site Plan, as well as landscaped, amenity and parking areas.

This report is a detailed inventory of the trees located within the limits of work of the subject property. It encompasses approximately 3.25 ha and is surrounded by urban residential (south, west, east) and natural area associated with the Guelph Northeast PSW complex (north).

2 PROJECT BACKGROUND

The subject property contains designated natural heritage features including a portion of the Guelph Northeast Provincially Significant Wetland (PSW) complex and various City of Guelph Natural Heritage System (NHS) components (i.e. 'Significant Woodlands', 'Locally Significant Wetland'), together leading to designation as a 'Significant Natural Area'. No 'Significant Valleylands and Significant Landforms' or 'Surface Water and Fish Habitat' are identified on the subject property (per Official Plan March 2018 Consolidation NHS mapping).

At the time this report was prepared, grading plans and site plans showing the limits of work, the location of proposed townhouses, storm water management facility, and parking were made available. Determinations were made with respect to tree survival and removal based on the limits of these works. Recommendations have been provided for tree protection and tree removals based on these limitations.

This report is to be read in conjunction with:

Tree Data Sheets (Table 1)

Tree Management and Buffer Enhancement Planting Plans (Appendix A)

2.1 OVERVIEW

The subject property is located within the Eramosa River Watershed, which dominated by bottomlands, with tableland and predominantly gently rolling topography on the southern half of the site. There is an abrupt grade change along a wetland at the southwest corner of the site and much of the property (including the treed areas) has been altered through fill, grading and other anthropogenic uses. One unnamed, poorly defined tributary to Hadati Creek is present in the northeast corner of the subject property.

The southwest corner of the subject property previously had a residential property (since removed) with adjacent cleared areas, which have succeeded to cultural meadow. The north end of the property supports natural vegetation cover (swamp and forest communities), and this area contains designated natural heritage feature including a portion of the Guelph Northeast Provincially Significant Wetland (PSW) complex and various City of Guelph Natural Heritage System (NHS) components (i.e.,

Significant Woodlands, Locally Significant Wetland, and Potential Habitat for Locally Significant Species), together leading to designation as a Significant Natural area.

Surrounding land uses predominantly urban residential (south and west), with future urban residential to the northeast on / adjacent to the former Eastview landfill site and some agricultural /natural areas further north and east.

Trees were inventoried within the proposed limit of development, abutting adjacent properties, and 10-20m within the wetland setback and drip line limit of both areas (one off of Eastview Road and the other off Carter Drive). Vegetation within the subject property is a mixture of non-native and native deciduous and coniferous trees young to medium aged trees ranging in size between 5-20 cm DBH and 2-12 m in height. There are a minimal amount of mature specimens ranging in size between 20-35 cm DBH and 10-16 m in height.

Tree species within the subject property consist of: Acer negundo, Acer platanoides, Acer saccharum, Betulus papyrifera, Catalpa spp., Fraxinus americana, Juglans nigra, Juniperus spp., Malus spp., Picea glauca, Picea pungens, Pinus resinosa, Populus deltoides, Populus tremuloides, Prunus serotina, Rhamnus spp., Salix babylonica, Thuja spp., Tilia americana, Ulmus americana, etc.

3 FIELD OBSERVATIONS

3.1 FIELD SURVEYS

The field observations were undertaken by staff from WSP on June 14th, 2018 and February 19, 2017 within the subject property, with an update in March 2020. Only trees with a diameter at breast height (DBH) of 10 cm or greater were inventoried. Surveys assessed all Vegetation Units and Ecological Subunits shown in the EIS. Detailed tree assessments for tree species, general health condition and drip line radius were taken for trees within 5 metres of and within of the subject property limits.

A total of eighty-four (84) trees and sixteen (16) tree groups were inventoried. Trees in accessible locations were tagged using aluminum numbered tags affixed to the tree (1157-1185 & 1701-1725). Trees out of reach of an adjacent property were not tagged, but were given a number and located on the Tree Management Plans (T1-T4 & H1-H22). The drip line edge was identified in the field for areas containing multiple trees in close proximity. These areas were given a grouping number. Individual trees were located in the field using the following criteria; the tree is out in the open, a regionally significant species, proposed removal requiring compensation, of significant size or near a property line. Both individual trees and the drip line edge are referenced in the Tree Management Plans (Appendix A).

3.2 METHODOLOGY

Trees were inventoried within the limits of work and adjacent properties/environmental buffers which may be impacted. Trees sized at 10 cm DBH and above were individually inventoried and tagged. Inventoried trees were assessed for species, health, structure, risk, and average canopy drip line. Trees were tagged using aluminum numbered tags and affixed to the tree using galvanized nails. Trees under 10 cm DBH size were review and characterized.

The following are the general methods of vegetation evaluation that were used as part of this tree inventory.

Assessment:

Vegetation is assessed based on a visual inspection of the trunk and branch condition, structure, foliage condition, and evidence of abiotic (environmental, mechanical and physical damage) and biotic (insects and disease) stressors.

Recommendations:

Vegetation recommended to be 'Retained' is deemed to be minimally affected by development and/ or outside of the limits of construction. This designation may also be applied to trees that are in excellent, good or fair conditions.

Vegetation recommended to be 'Removed' is deemed to be within development/construction limits and would not be able to withstand construction related activities or changes to grading. This designation also may be applied to trees that are dead, in poor condition or trees that could pose future safety concerns.

3.3 DEFINITIONS

The following are the definitions of the assessment categories utilized in our tree assessment:

Tree Number	Refers to the aluminum numbered tag, alphabetical value and tree grouping number on the Tree Management Plans e.g.: T001, 'A' and G-1
Species	The botanical and common names are provided for each tree.
DBH	Refers to diameter (in centimetres) at breast height and is measured at 1.4 m above the ground for each tree.
Canopy Width	Measurement of the tree canopy from its trunk to its drip line, recorded as a radius.
Tree Protection Zone	Refers to the preservation area of the tree to be protected with tree protection measures. No construction activities are to be undertaken within this zone.
Suppressed	Refers to trees that have their crowns completely overtopped by adjacent trees and received limited to very limited sunlight.
Co-dominant Stem	Stems equal in size and relative importance, usually associated with either the trunks and stems or scaffold limbs and branches in the crown.
Union	Junction point where two or more stems meet. A 'U' shaped junction indicates a well-formed union. A 'V' shaped junction indicates a weakly formed union, whereas stems grow and increase in girth, bark called 'included bark' forms within the junction and stems start to push apart causing vertical cracks and loss of structure.
Tree form	Refers to branches and stems that have formed irregularly often resulting in contorted growth, weak attachments, weakly formed unions and co-dominant stems. The irregular growth of scaffold (lateral) branches typically leads to damage to other scaffold branches
Root Zone	Refers to the subterranean area around the tree measured from the trunk to the drip line plus one metre.

3.4 TREE ASSESSMENT CRITERIA

All inventoried trees have been reviewed using the following criteria. The tree condition for each of the criteria is assessed on a scale of poor, fair and good.

Trunk Integrity (T.I.) An assessment of the trunk for any defects or weaknesses. It is measured on a scale of poor, fair, good.

Canopy Structure (C.S.) An assessment of the scaffold branches, unions and the canopy of the tree. This is measured on a scale of poor, fair, good.

Canopy Vigour (C.V.) An assessment of the health of the tree, based on comparison of the amount of deadwood and live growth in the crown compared to a 100% healthy tree. The size, colour and amount of foliage are also considered in this category. This is measured on a scale of poor, fair, good.

3.5 TREE CONDITION

Tree health recorded in relation to each of the assessment criterion (TI, CS and CV)

Good: Tree displays less than 15% deficiency/defect within the given tree assessment criteria (TI, CS, CV).

Fair: Tree displays 15%-40% deficiency/defect within the given tree assessment criteria (TI, CS, CV).

Poor: Tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI, CS, CV).

3.6 BY-LAWS / PERMITS / DIRECTIVES

3.6.1 TREE PROTECTION BYLAW

The City of Guelph has a By-Law that regulates the destruction or injuring of trees in the City of Guelph (By-Law No. (2010) - 19058). This By-Law applies to regulated trees on private property only.

'Regulated Trees' means a specimen of any species (deciduous or coniferous), supported by a single root system, that has reached a height of 4.5m from the ground, is located on a lot larger than 0.2ha (0.5) ac in size and has a DBH of at least 10cm.

3.6.2 GUELPH OFFICIAL PLAN (OPA 42)

The purpose of the Natural Heritage System is to establish a sustainable greenspace network throughout the City. The protection of the Natural Heritage System will be achieved through an update to the Official Plan. The Natural Heritage System and Policies proposed through Amendment 42 to the Official Plan will replace the current Official Plan Core and Non-Core Greenland policies and mapping in accordance with the Provincial Policy Statement.

3.6.3 MIGRATORY BIRDS CONVENTION ACT (MBCA), 1994

The Migratory Birds Convention Act, MBCA (1994) and Migratory Birds Regulations, MBR (2014) protect most species of migratory birds anywhere they are found in Canada, including surrounding ocean waters, regardless of ownership. General prohibitions under the MBCA and MBR protect migratory birds, their nests and eggs and prohibit the deposit of harmful substances in waters / areas frequented by them. The MBR includes an additional prohibition against incidental take, defined by Environmental Canada as:

"*The inadvertent harming, killing, disturbance or destruction of migratory birds, nests and eggs*."

Environment Canada implements policies and guidelines to protect migratory birds, their eggs and their nests. There is guidance on the Environment Canada website to minimize the risk of incidental take effects on migratory birds, achieve compliance with the law and maintain sustainable populations of migratory birds.

Compliance with the MBCA and MBR is best achieved through a due diligence approach, which identifies potential risk, based on a site-specific analysis in consideration of the Avoidance Guidelines and Best Management Practices information on the Environment Canada website.

3.6.4 SPECIES AT RISK ACT (SARA), 2002

The federal Species at Risk Act (SARA) incorporates several prohibitions to protect individuals of listed threatened, endangered or extirpated Species at Risk (per Schedule 1 of the Species at Risk Act), including:

- Section 32(1). No person shall kill, harm, harass, capture or take an individual of a Threatened, Endangered or Extirpated species.
- Section 32(2). No person shall possess, collect, buy, sell or trade an individual of a Threatened, Endangered or Extirpated species, or any part or derivative of such an individual.

- Section 33. No person shall damage or destroy the residence of one or more individuals of a Threatened or Endangered species, or of an Extirpated species if a recovery strategy has recommended the reintroduction of the species into the wild in Canada.
- Section 58. No person shall destroy any part of the critical habitat of any listed Endangered species or of any listed Threatened species – or of any listed Extirpated species if a recovery strategy has recommended the reintroduction of the species into the wild in Canada.

Per Section 34, Section 58 and Section 61, these prohibitions apply to:

1. Aquatic species – on any lands
2. Species of migratory birds protected by the Migratory Birds Convention Act – on any lands
3. Any listed wildlife species – when on federal lands
4. Any listed wildlife species – when on non-federal lands, if recommended by the Minister of the Environment to the Governor in Council.

3.6.5 ENDANGERED SPECIES ACT (ESA), 2007

Species designated as *Threatened or Endangered* by the Committee on the Status of Species at Risk in Ontario (COSSARO), otherwise known as Species at Risk in Ontario (SARO), and their habitats (e.g. areas essential for breeding, rearing, feeding, hibernation and migration) are automatically afforded legal protection under the Endangered Species Act (ESA) (Government of Ontario 2007). ESA Subsection 9(1) states that:

"No person shall,

(a) kill, harm, harass, capture or take a living member of a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species;
(b) possess, transport, collect, buy, sell, lease, trade or offer to buy, sell, lease or trade,
  (i) a living or dead member of a species that is listed on the Species at Risk in Ontario List as an extirpated, endangered or threatened species,
  (ii) any part of a living or dead member of a species referred to in subclause (i),
  (iii) anything derived from a living or dead member of a species referred to in subclause (i); or
(c) sell, lease, trade or offer to sell, lease or trade anything that the person represents to be a thing described in subclause (b) (i), (ii) or (iii).

Clause 10(1) (a) of the ESA states that:

"No person shall damage or destroy the habitat of a species that is listed on the Species at Risk in Ontario list as an endangered or threatened species"

The ESA also calls for the development of species-specific Recovery Strategies and Habitat Regulations. Unlike the *general habitat* of a species, *regulated habitat* may include areas that are currently unoccupied

by the species. These areas are commonly referred to as “recovery habitat.”

To balance social and economic considerations with protection and recovery goals, the ESA also enables the MNRF to issue permits or enter into agreements with proponents to authorize activities that would otherwise be prohibited by subsections 9(1) or 10(1) of the Act provided the legal requirements of the Act are met.

3.6.6 CFIA DIRECTIVE (D-03-08): PHYTOSANITARY REQUIREMENTS TO PREVENT THE INTRODUCTION INTO AND SPREAD WITHIN CANADA OF THE EMERALD ASH BORER, AGRILUS PLANIPENNIS (FAIRMAIRE)

The Canadian Food Inspection Agency issues a prohibition of movement where the emerald ash borer (EAB) has been confirmed. EAB has been found in Guelph and thus the City of Guelph has been identified as part of the EAB Regulated Area encompassing most of southern Ontario. The subject property is within identified areas prohibiting the movement of regulated materials (including but not limited to ash wood or bark and ash wood chips or bark chips) from a regulated area. EAB regulated articles moving out of a regulated area must be accompanied by a Movement Certificate issued by the CFIA. Refer to the EAB Regulated Areas of Canada found on the CFIA website.

Based on the above definitions the proposed work would be subject to this By-Law. The Emerald Ash Borer is present within Ash trees on this site. Ash materials must not leave the ‘Regulated Area’. Contractor to consult with the CFIA Central Guelph office for specific requirements (259 Woodlawn Road, West, Suite A, Guelph, ON, 519-837-5817)

4 ANALYSIS

4.1 VEGETATION UNIT 3

1712-1716

Recommendation – Removals

Trees 1712-1715 are recommended for removal as they are in poor condition and/or within the limits of the proposed development and/or trail and would not survive impacts from grading.

Tree 1716 is recommended for removal although it is in good condition, it is relatively small and directly within the path of the proposed trail.

4.2 VEGETATION UNIT 5

G21

Recommendation – Retention

Group G21 consists of 7 trees within the first 15m of the woodlot edge and is recommended to be retained to protect the integrity of the wetland and act as buffer between the developed subdivision and existing Guelph North-East Wetland Complex to the south of the site.

4.3 VEGETATION UNIT 6

T3, H1, H2, 1701-1706, 1710, 1711

Recommendation – Retention

Trees, 1704-1706 and T3 are to be retained and protected as they are in good condition and outside of the development limits.

Recommendation – Removals

Trees H1 and H2 have been identified as hazard trees and are recommended for removal due to their poor condition, largely due to emerald ash borer infestation.

Trees 1701, 1703, 1710 and 1711 are recommended for removal as they are in poor condition and/or within the limits of the proposed development, including a road, a trail and buildings, and would not survive impacts from grading.

4.4 VEGETATION UNIT 7A

1161-1167, 1174, G9

Recommendation – Removals

Trees and groupings 1161-1167, 1174 and G9 range from good to poor condition but are recommended for removal as they are within the limits of the proposed development and would not survive the impacts of grading.

4.5 VEGETATION UNIT 7B

G16a, T15

Recommendation – Retention

All trees within group G16a and tree T15 are to be retained and protected as they are in good to fair condition and located outside of the development limits.

4.6 VEGETATION UNIT 8HR

T4, T10, T11, 1717-1723, 1166, 1168-1173, 1175, 1176, G13, G14

Recommendation – Retention

Trees T4, 1717-1719, 1722 and 1723 are to be retained and protected as they are in fair to good condition and located outside of the grading limits of the proposed development.

Recommendation – Removals

Trees and groupings T10, T11, 1720, 1721, 1166, 1168-1173, 1175, 1176, G13 and G14 are recommended for removal as they are in poor condition, largely due to emerald ash borer infestation, and within the limits of the proposed development, including a road and buildings, and would not survive the impacts from grading.

4.7 VEGETATION UNIT 9

1157-1160, 1177-1182, 1184, 1185, 1711, H1724, 1725, G2, G3, G4, G5, G8, T1, T2, T6, T7

Recommendation – Retention

Trees and grouping T1, T2, 1185 and 1725 are to be retained and protected as they are in good condition and outside of the grading limits of the proposed development. Tree 1185's dripline will be minimally impacted due to its proximity to the proposed trail.

Recommendation – Removals

Trees and groupings 1157-1160, 1177-1182, 1184, 1711, H1724, G2, G3, G4, G5, G8, T6 and T7 are recommended for removal as they are either in poor condition and/or within the limits of the proposed development including, buildings, a parking lot and roads, and would not survive impacts from grading.

4.8 VEGETATION UNIT 19

H3-H5, H8-H22, 1707-1709, G16b, G17-G22

Recommendation – Retention

Trees and groupings 1708, 1709, G16b and G17-G22 are to be retained and protected as they are in good condition and outside of the grading limits of the proposed development. Trees within the groupings are within the first 15m of the woodlot edge and are recommended to be retained to protect the integrity of the wetland and act as buffer between the developed subdivision and existing Guelph North-East Wetland Complex to the south of the site.

Recommendation – Removals

Trees H3-H5, H8-H22 and 1707 have been identified as hazard trees and are recommended for removal due to their poor condition, largely due to emerald ash borer infestation.

5 RECOMMENDATIONS

5.1 GENERAL RECOMMENDATIONS

The following is a list of practical considerations for the construction phase of the project that applies to all trees that may be impacted by the construction.

- Prior to the commencement of tree removals, all limits of the locations of the tree preservation fencing must be clearly staked in the field and approved by a third party environmental consultant. All trees within the tree preservation zone must be left standing. The tree removals must be coordinated to be completed outside of the nesting season, April 1 to October31.

- All removals must be felled into the work area to ensure that damage does not occur to the trees within the tree preservation zone.

- Upon completion of the tree removals, all felled trees are to be removed from the site, and all brush chipped. All brush, roots and wood debris must be shredded into pieces that are smaller than 25 mm in size to ensure that any insect pests that could be present within the wood are destroyed. This work must be completed outside of the nesting season, April 1 to October 31.

- The City of Guelph is within the EAB Regulated area covering most of southern Ontario. The removal and disposal of Ash (*Fraxinus sp*.) is subject to the Canadian Food and Inspections Agencies (CFIA) regulations. As mandated by the Canadian Food Inspection Agency a ***prohibition of movement will be issued for properties where the emerald ash borer (EAB) has been confirmed***. This measure prohibits the movement of regulated materials from the specific property. Regulated materials include: ash trees (whole or parts), ash nursery stock, ash logs and branches, ash lumber, wood, packaging materials with an ash component, ash wood or bark, ash wood chips or bark chips, firewood from all tree species. EAB regulated articles moving out of a regulated area must be accompanied by a ***Movement Certificate issued by the CFIA***. All vehicles used to transport regulated articles must be cleaned of debris prior to loading at origin and prior to departure from the receiving facility. The required treatment will depend upon the regulated article transported, but may include sweeping or power washing. Should it be necessary to dispose of materials on site methods of disposal include incineration or deep burial. For more information about transporting regulated articles and disposal contact your local CFIA office

- Tree protection fencing must be constructed and installed as per the details on the approved Tree Management Plans (Appendix A). Upon installation of the fencing, the contractor will contact the third party environmental consultant to review and approve the fencing and its location prior to commencement of any grading work.

- Areas within the tree preservation zone are not to be used for any type of storage (e.g. storage of debris, construction material, surplus soils, and construction equipment). No trenching or tunneling for underground services shall be located within the tree protection zone or dripline of trees designated for preservation within or adjacent to the construction zone.

- No grade changes shall occur within tree preservation zone unless approved as part of this report. In the event that any grade changes may occur, either as a cut or fill situation, the third party environmental consultant must be notified prior to such work occurring to ensure that all precautions to preserve the tree can be made.

- Trees shall not have any rigging cables or hardware of any sort attached or wrapped around them, nor shall any contaminants be dumped within the protective areas. Further, no contaminants shall be dumped or flushed where they may come into contact with the feeder roots of the trees.

- In the event that it is necessary to remove additional limbs or portions of trees, after construction has commenced, to accommodate construction, the third party environmental consultant is to be informed and under their direction the removal is to be executed carefully and in full accordance with arboricultural techniques, by a certified arborist.

5.2 PRUNING PRACTICES

- All limbs damaged or broken during the course of construction should be pruned cleanly, utilizing by-pass secateurs in accordance with approved horticultural practices. Should there be a potential risk of transfer of disease from infected to non-infected trees; tools must be disinfected after pruning each tree by dipping in methyl hydrate. This practice is particularly important during periods of tree stress and when pruning many members of the same genera, within which a disease could be spread quickly (i.e., Verticillium Wilt on Maples or Fireblight on genera of the Rosacea family).

- During excavation operations in which the root area is affected, the contractor is to prune all exposed roots cleanly. Pruned root ends are to be neatly and squarely trimmed and the area is

to be backfilled with clean native fill as soon as possible to prevent desiccation and promote root growth. The exposed roots should not be allowed to dry out, and the contractor shall discuss watering of the roots with the consulting arborist so that the roots shall maintain optimum soil moisture during construction and backfilling operations, yet so not to interfere with construction operations. Backfilling must be with clean uncontaminated topsoil from an approved source. Texture must be coarser than existing soils, and to come into clean contact with existing soils (remove air pockets, sod, etc.)

- All pruning cuts should be made to a growing point such as a bud, twig or branch, cut just outside the branch collar (the swollen area at the base of the branch that sometimes has a bark ridge), and perpendicular to the branch being pruned rather than as close to the trunk as possible. This minimizes the site of the wound. No stubs should be left. Poor cut location, poor cut angle and torn cuts are not acceptable.

- Tree roots should not be excavated within the critical structural rooting area.
  This is the minimum area of the root system necessary to maintain vitality or stability of the tree. Typically this area extends to the dripline of the tree. The severing of one root can cause approximately 5-20% loss of the root system. A reduction of this area by greater than 30% can pose stability concerns for the tree.

- Extensive pruning is best completed before plants break dormancy. Pruning should be limited to the removal of no more than one third (1/3) of the total bud and leaf bearing branches. Pruning should include the careful removal of:
  - deadwood,
  - branches that are weak, damaged, diseased and those which will interfere with construction activity,
  - secondary leaders of conifers,
  - trunk and root suckers,
  - trunk waterspouts, and
  - tight V-shaped or weak crotches (included unions).

The Contractor must report immediately any damage to trees such as broken limbs, damage to roots, or wounds to the main trunk or stem systems so that the damage can be assessed immediately.

The tree protection fencing will be maintained until all construction is completed, soils are stabilized and all of the equipment has been removed from the site.

5.3 ESTABLISHMENT OF TREE PROTECTION ZONE (TPZ)

- Tree preservation measures, including the establishment of Tree Protection Zone (TPZ) shall apply to the individual trees denoted for preservation on the Tree Management Plan (Appendix A), as well as all vegetated areas noted for retention.

- Trees located within the project area that are to be preserved will have tree protection fencing installed at the dripline plus 1 metre to establish a tree protection zone. All trees located on adjacent properties shall be preserved unless otherwise stated in this report.

- No grade changes shall occur within tree protection zone. In the advent that grade changes occur either as a cut or fill situation, the third party environmental consultant must be notified so that precautions to preserve the tree can be determined prior to the placement of fill or excavation activities.

- Every precaution must be taken to prevent damage to trees and root systems from damage, compaction and contamination resulting from the construction to the satisfaction of the third party environmental consultant.

- Trees that require pruning to permit construction activities have been identified in the Arborist report. In the event that it is necessary to remove additional limbs or portions of trees, after construction has commenced, to accommodate construction, third party environmental consultant is to be informed and under their direction the removal is to be executed carefully and in full accordance with arboricultural techniques, by a certified arborist.

- Any damage to trees such as broken limbs, damage to roots, or wounds to the main trunk or stem systems are to be reported to the consulting arborist so that the damage can be assessed immediately and mitigation can be promptly implemented.

5.4 WORK AREA

- The work area will consist of the balance of the property exclusive of those areas protected by the temporary tree protection measures.

- The work area will be used for all construction activities including but not limited to the following; general site grading, installation of essential services, road/sidewalk construction, house building and landscape restoration works. The storage of fill and topsoil will also be contained within the work area.

6 DISCUSSION

6.1 TREE SPECIES OF CONSERVATION CONCERN

A visual assessment of trees within the limit of work and up to the property lines was undertaken to assess for the presence of any trees listed as 'endangered' under the province of Ontario's 'Species at Risk' act, in particular Butternut (*Juglans cinerea*). *No trees listed as 'endangered' on the Species at Risk Act were observed within the limit of work.*

6.2 SPECIES AT RISK

To reduce potential of harm to Species at Risk bats, tree removal is to occur outside of the active season for bats (April 1 - October 31)

6.3 HAZARD TREES

Hazard and high-risk tree assessments are required for any land to be conveyed to the City as Park or Open Space and have been noted within the Tree Management Plans in Appendix A. Risk assessments are typically based on identifying the potential targets, the likelihood of a hazard tree hitting that target and the likelihood of failure. Tree risk assessments have been based on the International Society of Arboriculture's Best Management Practices: Tree Risk Assessment (2011).

This tree risk assessment is based on the significance of defects, conditions and response growth, the occupancy rate of any targets within the target zone and any factors that could affect the failed tree as it falls toward the target. In this case the occupancy rate is people using the park or rear yard of proposed Lots.

Trees within the south end woodlot were assessed for hazard potential. Hazard trees to be removed are listed in the Tree Data Sheets [(H1-H22 & H1724) (Table 1)].

It is recommended that Woodlot Edge Planting Plans be submitted at detailed design to infill wood lot edge locations where hazard tree removals have created gaps. Total quantity of woodlot edge planting to be based on available space. Planting species utilized are recommended to be succession shrubs and tree whips capable of out completing established invasives. Plantings are to be installed by hand, without the use of machinery immediately after removal of hazards.

6.4 EDGE MANAGEMENT

The clearing of trees along the existing forest edge will create a new exposed edge within the naturalized area adjacent to portions of the proposed development. When trees are removed from a wooded edge, the remaining trees that form the new edge of the woodland could develop health issues.

Due to the change in their environment, trees at the new edge can be exposed to more sun, wind and other altered growing conditions. As a result, they may be more likely to be desiccated, and vulnerable to competition from invasive species and to human encroachment. The changes in conditions can negatively affect their health and stability. Their condition could decline, and potentially create a hazardous tree where it could fall on a target (eg. cars, people, and structures). Existing trees that are located at the new edge and are in poor condition could be hazardous trees.

To manage this situation, we recommend the following:

An inspection of the remaining trees at the new edge is to be undertaken by the Arborist at WSP Canada Group to identify any hazardous trees, after the initial tree removal has been completed. Trees identified as being in poor health and/or having poor or unstable structure are to be removed.

After the secondary tree removal, new tree and shrub planting is to be undertaken to buffer the new edge and fill in holes. The proposed native planting are detailed in the Buffer Enhancement Planting Plans (Appendix A).

Edge management should be applied in a 10m buffer along all woodlot edges within the development.

During and after the construction works, the trees that could be hazardous should be reviewed as-needed for health condition for a period up to a minimum of three years. These inspections are recommended to occur as a minimum annually during the season when the deciduous trees have foliage. Trees found to be hazardous should be removed as soon as possible to maintain a safe environment.

6.5 INVASIVE SPECIES

6.5.1 BUCKTHORN MANAGEMENT

There is a limited occurrence of invasive species such as Buckthorn throughout the site. Some of these trees will be removed as part of the earthworks, however Buckthorn that will not be impacted by grading or construction is recommended to be removed as per the specified locations within Tree Management Plans (Appendix A). The following guidelines should be followed:

SMALL POPULATIONS (<300 M2) EXCLUDING LARGE TREES (>5 CM DIAMETER)

Small populations of small plants (up to 1m tall) may be manually controlled by hand-pulled any time of the year. Manual control is easiest after rain when the soil is soft and pliable. Remove the entire root

crown to prevent re-sprouting. Re-sprouting can be considerable after a failed control attempt. Disturbed soil shall be tamped down or covered with a 75mm thick layer of mulch to minimize exposing new buckthorn seeds.

Alternatively, cut off and dispose of branches containing fruit in summer before they ripen and remove the cut stems in the fall when dormancy has begun dormancy to minimize disturbance to surrounding plant.

If the removal must be staged, remove the most prolific seed producers first to prevent further spread.

LARGE POPULATIONS (>300 M2) AND LARGER SHRUBS OR TREES (>5 CM DIAMETER)

Large populations (>300 m2) are effective managed with a glyphosate-based or triclopyr-based herbicide. Foliar application of a glyphosate-based herbicide is recommended for large populations of small trees.

Large trees (>5 cm diameter) shall be cut and the stumps treated with glyphosate (applied immediately following the cut) or trichlopyr mixed with bark oil. Alternatively, large trees shall be sprayed with triclopyr using a basal bark application. Herbicide applications must be carried out during the growing season to ensure optimal translocation to the roots.

Remove in early Spring prior to fruit production to mitigate any fruits falling to the ground and germinating. If removals cannot be undertaken at this time then the fall between mid-October to mid-November when surrounding plants are dormant and soil is moist and pliable is acceptable. The leaves of Buckthorn stay on longer than most trees and shrubs making it easier to identify them in the late fall.

Herbicides may only be applied by a licensed pesticide applicator in accordance with the federal Pest Control Products Act, the Ontario Pesticides Act, Ontario Regulation 63/09 and in accordance with all label directions.

HERBICIDES

1. Foliar Application

Glyphosate (3 - 5% solution based on a product containing 540 g/l of chemical), applied during the active growing season to be effective effectiveness (spring and summer).

2. Cut Stump Application
   a. Glyphosate (95% solution based on a product containing 540 g/l of chemical). Spring, summer or fall application using a paint brush or squirt bottle to apply immediately after the cut.

or;

   b. Triclopyr (20% solution based on a product containing 755 g/l of chemical) mixed with bark oil. May be applied at any time of the year, up to two weeks after cutting provided temperatures are conducive to applying the herbicide with a paint brush or squirt bottle.

BASAL BARK APPLICATION

Triclopyr (20% solution based on a product containing 755 g/l of chemical) mixed with bark oil. May be applied at any time of the year, provided temperatures are conducive to applying the herbicide. Apply chemical all the way around the stem in a 30cm high strip.

DISPOSAL OF PLANT MATERIAL

3. Viable plant material (i.e. berries and roots) shall not be composted unless at a municipal high-heat compost site. Alternatively, viable plant material may be solarized by placing it in sealed black plastic bags in direct sunlight for 1-3 weeks, or left covered with a dark-coloured tarp in direct sun for 1-3 weeks.
4. When seedlings or young shrubs are pulled ensure that roots dry out completely before disposing.
5. When feasible remove limbs containing dense clusters of berries and dispose of in a municipal landfill. The remaining biomass can be sent to municipal composting facilities.
6. Wood that is free of viable seeds and roots may be burned as firewood.

Source: Best Management Practice Technical Document for Land Managers, March 2017
https://www.ontarioinvasiveplants.ca/

It is recommended that Woodlot Edge Planting Plans be submitted at detailed design to infill wood lot edge locations where invasive species removals have created gaps. Total quantity of woodlot edge planting to be based on available space. Planting species utilized are recommended to be succession shrubs and tree whips capable of out completing established invasives. Plantings are to be installed by hand, without the use of machinery immediately after removal of invasives.

6.6 TEMPORARY TREE PROTECTION FENCE

Temporary tree protection fencing is to be installed per the recommendations in this report and as shown on the Tree Management Plans (Appendix A). Fencing is to be installed in accordance with the Tree Management Plans (Appendix A). Temporary tree protection fencing is to remain in place (regardless of the timing of installation of permanent fencing) until after all the construction has ended, soils are stabilized and all the equipment has been removed.

6.7 COMPENSATION PLANTING

In total there are 65 trees in fair to good condition which have been recommended for removal. These trees are to be compensated at a 3:1 ratio. For 65 trees removed there should be a minimum of 195 (50mm caliper minimum size) trees planted to compensate. The planting plans proposes 98 new trees within the buffer areas. The remaining 97 trees are to be planted elsewhere within the proposed development.

Woodlot edge planting plans are to be recommended for the detailed design phase upon determination of space made available by hazard and invasive removals. Woodlot edge planting plans are to be limited to potted shrubs and tree whips. It is recommended that tree whips count towards total compensation at a 6:1 ratio.

6.8 MULTI-USE TRAIL

As part of the development, a trail connection conforming to the Guelph Trail Master Plan is required. The proposed trail is located within the 10m woodlot buffer and connects existing trails to the south of the property and informal trails to the north which will become formalized as those properties are developed. The trail will be installed primarily on existing grades. The 2.5m wide multi-use trail will be constructed per the Tree Management and Buffer Enhancement Plans and Details (Appendix A). Minor field fitting is to occur in order to minimize the impacts of development.

7 LANDSCAPE MONITORING

7.1.1 PRE-CONSTRUCTION

- Prior to the commencement of any site activity such as site alteration, demolition or construction, the tree protection measures specified on this plan must be installed.
- Tree protection barriers must remain in place and in good condition during demolition, construction and/or site disturbance, and must not be altered, moved or removed until construction is completed.
- Tree protection fencing for these trees should be placed as near the edge of construction as possible. Alternatively, construction along the tree protection fencing that defines these trees should be limited to the extent necessary.
- Prune low branches near trunk if they can be injured by machinery. Specifically, branches that hang lower than the tallest vehicle to be used for construction should be pruned to avoid breakage. If possible, tree protection fence may be used to move very low hanging branches away from the construction zone without injury or need for pruning.
- Wherever possible, avoid cutting surface roots of trees to be retained. In excavation, if root cuts are necessary, they should be done quickly, making smooth, flush cuts supervised by a tree management professional.

7.1.2 DURING CONSTRUCTION

If there is any lag time between construction and soil replacement is required, exposed root areas should be covered in 5 to 10 cm of mulch and kept moist. Mulch should be removed only when site restoration occurs if tree removal is required.

7.1.3 POST CONSTRUCTION

- Any damage to trees such as broken limbs, damage to roots, or wounds to the main trunk or stem systems are to be reported to the consulting arborist so that the damage can be assessed immediately.
- If replacement soil is required, it should be contaminant and weed-free topsoil.
- If replacement soil is required, it should be watered during summer dry periods to maintain moisture.
- If any trees must be removed during construction, it is suggested that they be replaced with equivalent caliper native trees (i.e. a 10 cm DBH tree should be replaced by either one 10 cm tree or two 5 cm DBH trees).
- The temporary protection fence will be removed last after all construction has ended, soils are stabilized and all of the equipment has been removed

7.2 BUFFER ENHANCEMENT PLANTING, MONITORING AND REPORTING

- The Consulting Arborist will undertake an inspection at the time of planting to verify species, size and condition. During this inspection an assessment of the health and condition of transplanted trees will be reviewed.

- Upon completion of planting the Consulting Landscape Architect will undertake an inspection to confirm completion and compliance to all landscape compensation plantings.

- The Consulting Arborist will undertake an inspection at 1 year and 2 years post completion to inspect and report plant material which is dead or in poor condition. Recommendations will be made for any replacements, pruning, weeding, mulching and/or watering as required to ensure the continued success of the introduced plant material.

The Contract Administrator or Contractor must contact the Consulting Arborist at the required milestones in order to facilitate inspections and comply with the approved environmental protection measures.

8 LIMITATIONS OF ASSESSMENT

It is our policy to attach the following clause regarding limitations. We do this to ensure that the client is aware of what is technically and professionally realistic in retaining trees.

The assessment of the trees presented in this report has been made using accepted arboricultural techniques. These include a visual examination of all the above ground parts of the tree for structural defects, scars, external indications of decay such as fungal fruiting bodies, evidence of attack by insects, discoloured foliage, the condition of any visible root structures, the degree and direction of lean (if any), the general condition of the trees and the surrounding site, and the proximity of property and people. Except where specifically noted, the trees were not cored, probed or climbed and there was no detailed inspection of the root crowns involving excavations.

Notwithstanding the recommendations and conclusions made in this report, it must be recognized that trees are living organisms, and their health and vigour constantly change over time. They are not immune to changes in site conditions or seasonal variations in the weather conditions.

While reasonable efforts have been made to ensure that the subject trees are healthy, no guarantees are offered, or implied, that these trees or any of their parts will remain standing. It is both professionally and practically impossible to predict with absolute certainty the behaviour of any single tree or its component parts under all circumstances. Inevitably, a standing tree will always pose some level of risk. Most trees have the potential for failure under adverse weather conditions, and the risk can only be eliminated if the tree is removed.

Although every effort has been made to ensure that this assessment is reasonably accurate, the trees should be re-assessed periodically. The assessment presented in this report is valid at the time of inspection.

WSP GROUP CANADA LIMITED

Ben Vander Veen , BLA, OALA, CSLA, ISA

Landscape Architect

ISA Certified Arborist ON-1851A

9 CONCLUSION

The proposed development at 78-82 Eastview Road will impact approximately 65 trees. A detailed compensation plan, including a woodlot edge planting plan, will be provided as part of the Environmental Implementation Report (EIR). The implementation of tree management and protection measures outlined within this report will promote the continued health of remaining trees. Enhancement of the urban and naturalized areas through restoration will help mitigate the overall loss of vegetation. Any trees slated for removal should be done so with care, avoiding and mitigating any negative impacts to adjacent trees to be retained, and in accordance with good arboricultural practices. Care should be taken to protect trees with tree protection fencing as illustrated on the attached plans. Tree protection fencing shall be erected prior to the start of construction and demolition.

10 REFERENCES

City of Guelph. *By-Law No. 19058*. 2010.

City of Guelph. *Guelph Official Plan*. 2017.

Government of Canada. *CFIA Directive (D-03-08): Phytosanitary Requirements to Prevent the Introduction Into and Spread Within Canada of the Emerald Ash Borer, Agrilus planipennis (Fairmaire)*. 2014.

Government of Canada. *Endangered Species Act*. 2007.

Government of Canada. *Migratory Birds Convention Act*. 1994.

Government of Canada. *Species at Risk Act*. 2002.

APPENDIX

TABLE 1

TREE DATA SHEETS

Table 1: Tree Data Charts

Project: 78 & 82 Eastview Road | **Field Work Completed By: S. Taslimi and N. Minigan**

Date of Field Work: June 14, 2018 | **Weather: Sunny, 25 to 30 degrees** | **Conditions:** Good, Fair, Poor, Dead, Very Poor, Extremely Poor

Tree Assessment Criteria:
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses.
CS - Canopy Structure: assessment of scaffold branches, unions and canopy
CV - Canopy vigour: assessment of the health of the tree, based on comparison of the amount of deadwood and live growth in the crown.
OV - Overall tree condition

Tree Condition
Good: tree displays less than 15% deficiency/defect within the given tree assesment criteria (TI,CS,CV)
Fair: tree displays 15-40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)
Poor: tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)

Tree Preservation / Removal Legend
Trees to be removed
Trees to be Saved

Tree Preservation / Removal Legend
Dead standing trees to be relocated
Trees to be Transplanted

Tree Tag #	Botanical Name	Common Name	No.	DBH (cm)	Height (m)	Tree Condition				Tree Ownership	Dripline Radius	Recommendation	Remarks
						TI	CS	CV	OV				
T1	Picea pungens	Blue Spruce	1	30		G	G	G	G	City	2	retain	5% branches dead
T2	Picea pungens	Blue Spruce	1	35		G	G	G	G	City	2	retain	5% branches dead
T3	Picea glauca	White Spruce	1	16		G	G	G	G	Applicant	2	retain	
T4	Prunus serotina	Black Cherry	1	20		G	F	F	F	Private	3	retain	
T6	Malus spp	Apple Species	1	15		G-F	F-P	G	F	Applicant	3	remove	5% branches dead, Multi stem 14, 15, 12, within the proposed parking lot layout
T7	Malus spp	Apple Species	1	10		F	F-P	G	F	Applicant	3	remove	5% breanches dead, Multistem - 10, 7, 14, within the proposed parking lot layout
T10	Prunus serotina	Black Cherry	1	30		F-P	P	F	P	Applicant	1	remove	30% branches dead, Multistem, 25, 30, covered in grapevine & buckthorn. Impacted by grading cut of approximately 20cm
T11	Ulmus americana	American Elm	1	18		F-P	F-P	P	P	Applicant	2	remove	50% branches dead. Impacted by grading cut of approximately 30cm
T15	Prunus serotina	Black Cherry	1	40		F	F-P	F	F	Applicant	6	retain	30% branches dead, Multistem (2@40), corner of property outside fence line
H1	Populus tremuloides	Trembling Aspen	1	15		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H2	Fraxinus americana	White Ash	1	20		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H3	Fraxinus americana	White Ash	1	13		P	P	P	P	Applicant	2	remove	Within 15m of woodlot edge. Hazard.
H4	Fraxinus americana	White Ash	1	13		P	P	P	P	Applicant	2	remove	Within 15m of woodlot edge. Hazard.
H5	Fraxinus americana	White Ash	1	13		P	P	P	P	Applicant	2	remove	Within 15m of woodlot edge. Hazard.
H6	Fraxinus americana	White Ash	1	15		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H7	Populus tremuloides	Trembling Aspen	1	23		P	P	P	P	Applicant	4	remove	Within 15m of woodlot edge. Hazard.
H8	Populus tremuloides	Trembling Aspen	1	27		P	P	P	P	Applicant	4	remove	Within 15m of woodlot edge. Hazard.
H9	Populus tremuloides	Trembling Aspen	1	22		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H10	Populus tremuloides	Trembling Aspen	1	20		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H11	Populus tremuloides	Trembling Aspen	1	26		P	P	P	P	Applicant	4	remove	Within 15m of woodlot edge. Hazard.
H12	Fraxinus americana	White Ash	1	25		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H13	Fraxinus americana	White Ash	1	15		P	P	P	P	Applicant	6	remove	Within 15m of woodlot edge. Hazard.
H14	Fraxinus americana	White Ash	1	15		P	P	P	P	Applicant	5	remove	Within 15m of woodlot edge. Hazard.
H15	Fraxinus americana	White Ash	1	12		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H16	Fraxinus americana	White Ash	1	10		P	P	P	P	Applicant	4	remove	Within 15m of woodlot edge. Hazard.
H17	Fraxinus americana	White Ash	1	10		P	P	P	P	Applicant	4	remove	Within 15m of woodlot edge. Hazard.
H18	Fraxinus americana	White Ash	1	15		P	P	P	P	Applicant	4	remove	Within 15m of woodlot edge. Hazard.

Table 1: Tree Data Charts

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Poor: tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)

Tree Preservation / Removal Legend
Trees to be removed
Trees to be Saved

Tree Preservation / Removal Legend
Dead standing trees to be relocated
Trees to be Transplanted

Tree Tag #	Botanical Name	Common Name	No.	DBH (cm)	Height (m)	Tree Condition TI	Tree Condition CS	Tree Condition CV	Tree Condition OV	Tree Ownership	Dripline Radius	Recommendation	Remarks
H19	Fraxinus americana	White Ash	1	15		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H20	Populus tremuloides	Trembling Aspen	1	21		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H21	Fraxinus americana	White Ash	1	10		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H22	Fraxinus americana	White Ash	1	12		P	P	P	P	Applicant	2	remove	Within 15m of woodlot edge. Hazard.
1157	Acer platanoides	Norway Spruce	1	50		G	G	G	G	Applicant	7	remove	5% branches dead. Located within proposed building footprint
1158	Catalpa species	Catalpa Species	1	25		G	G	G	G	Applicant	2	remove	5% branches dead. Located within proposed hardscape area, impacted by 30cm grading fill
1159	Prunus spp	Cherry Species	1	20		G	G	G	G	Applicant	2	remove	10% branches dead. Located within proposed hardscape area, impacted by 30cm grading fill
1160	Juglans nigra	Black Walnut	1	35		G-F	F	G	F	Applicant	4	remove	10% branches dead, Codominant leaders. Impacted by grading fill of 2.00m for parking lot
1161	Ulmus americana	American Elm	1	45		G	F	G	G	Applicant	10	remove	5% branches dead, Heavy lean upper canopy. Impacted by 20cm grading fill for backyard lot
1162	Juglans nigra	Black Walnut	1	30		G-F	G	G-F	F	Applicant	8	remove	20% branches dead. Impacted by approximately 30cm grading cut for backyard lot
1163	Juglans nigra	Black Walnut	1	25		G-F	G-F	G	F	Applicant	7.5	remove	10% branches dead. Impacted by approximately 20cm grading cut for backyard lot
1164	Rhamnus speicies	Buckthorn Species	1	10		F-P		F	F	Applicant	5	remove	15% branches dead, Multistem, invasive. Impacted by approximately 20cm grading cut for backyard lot
1165	Fraxinus americana	White Ash	1	25		F-P		F	F	Applicant	1	remove	20% branches dead. Within location of proposed road way, impacted by 10cm grading cut.
1166	Fraxinus americana	White Ash	1	25		P	F-P	P	P	Applicant	2	remove	50% branches dead, Eab. Within location of proposed road way, impacted by 30cm grading cut.
1167	Ulmus americana	American Elm	1	15		F-P	P	F	P	Applicant	1	remove	15% branches dead, Codominant leaders (15each), covered in vine, buckthorn understory. Within location of proposed road way, impacted by 40cm grading cut.
1168	Fraxinus americana	White Ash	1	35		F-P	P	F-P	P	Applicant	4	remove	40% branches dead, Eab, Included codominant leader, 35, 30. Impacted by 40cm grading cut for proposed roadway.
1169	Fraxinus americana	White Ash	1	35		F-P	P	F-P	P	Applicant	2	remove	75% branches dead, Eab, Codominant leaders, 4 dead Ash surrounding. Impacted by 40cm grading cut for proposed road way.
1170	Fraxinus americana	White Ash	1	25		F-P	P	F-P	P	Applicant	2	remove	75% branches dead, Eab
1171	Prunus serotina	Black Cherry	1	20		G	G	G-F	G	Applicant	2	remove	5% branches dead. Impacted by 70cm grading cut for proposed roadway
1172	Tilia americana	Basswood	1	45		F-P	F	P	P	Applicant	3	remove	50% branches dead, 30 dieback, crowded by smaller Tilia. Impacted by 70cm grading cut for proposed roadway
1173	Tilia americana	Basswood	1	15		F	G-F	F	F	Applicant	3	remove	10% branches dead, Crowding out mature Tilia adjacent. Impacted by 70cm grading cut for proposed roadway
1174	Prunus serotina	Black Cherry	1	25		F	F-P	G-F	F	Applicant	3	remove	15% branches dead, Codominant leaders. Impacted by 60cm grading cut for proposed roadway
1175	Acer negundo	Manitoba Maple	1	30		P	P	P	P	Applicant	3	remove	40% branches dead, Lean, 40% dieback, large broken wound

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Tree Preservation / Removal Legend
Trees to be removed
Trees to be Saved

Tree Preservation / Removal Legend
Dead standing trees to be relocated
Trees to be Transplanted

Tree Tag #	Botanical Name	Common Name	No.	DBH (cm)	Height (m)	Tree Condition TI	CS	CV	OV	Tree Ownership	Dripline Radius	Recommendation	Remarks
1176	Prunus species	Cherry Species	1	10		F	P	G	F	Applicant	2	remove	10% branches dead, Codominant leaders (10). Impacted by 10cm grading fill for proposed parking
1177	Salix babylonica	Weeping willow	1	120		F-P	P	G-F	P	Applicant	10	remove	25% branches dead, large broken wound. Within location of proposed parking lot, impacted by 30cm grading fill.
1178	Picea glauca	White spruce	1	35	12	G	G	G	G	Applicant	4	remove	5% branches dead. Within location of proposed road, impacted by 10cm grading cut.
1179	Juglans nigra	Black Walnut	1	13		G-F	G-F	G-F	F	Applicant	5	remove	15% branches dead. Impacted by 1.00m grading fill
1180	Juglans nigra	Black Walnut	1	30		F	F	F	F	Applicant	4	remove	25% branches dead. Impacted by 1.00m grading fill
1181	Ulmus species	Elm Species	1	35		F	F-P	F	F	Applicant	4	remove	25% branches dead, Codominant leaders. Impacted by 1.00m grading fill
1182	Juglans nigra	Black Walnut	1	10		G	G	G	G	Applicant	5	remove	5% branches dead. Within location of proposed trail and slope, impacted by 30cm grading fill.
1184	Acer saccharum	Sugar Maple	1	15		F	F-P	F	F	Applicant		remove	15% branches dead, Crowded by buckthorn. Within location of proposed trail and slope, impacted by 30cm grading fill.
1185	Juglans nigra	Black Walnut	1	30		G	G	G-F	G	Applicant	4	retain	10% branches dead, Surrounded by debris/garbage. Dripline to be minimally impacted due to location near proposed trail
1701	Fraxinus americana	White Ash	1	15		P	P	P	P	Applicant	3	remove	EAB Infested. Impacted by 30cm grading fill
1702	Fraxinus americana	White Ash	1	18		P	P	P	P	Applicant	3	remove	EAB Infested.
1703	Populus tremuloides	Trembling Aspen	1	11		G	G	G	G	Applicant	3	remove	Within proposed location of trail.
1704	Populus tremuloides	Trembling Aspen	1	14		G	G	G	G	Applicant	3	retain	
1705	Populus tremuloides	Trembling Aspen	1	17		G	G	G	G	Applicant	4	retain	
1706	Populus tremuloides	Trembling Aspen	1	15		G	G	G	G	Applicant	4	retain	
1707	Fraxinus americana	White Ash	1	16		P	P	P	P	Applicant	3	remove	EAB Infested.
1708	Populus tremuloides	Trembling Aspen	1	11		G	G	G	G	Applicant	3	retain	
1709	Populus tremuloides	Trembling Aspen	1	13		G	G	G	G	Applicant	3	retain	
1710	Fraxinus americana	White Ash	1	17		P	P	P	P	Applicant	3	remove	EAB Infested.
1711	Fraxinus americana	White Ash	1	17		P	P	P	P	Applicant	3	remove	EAB Infested.
1712	Acer negundo	Manitoba Maple	1	17		P	P	P	P	Applicant	4	remove	Poor condition
1713	Juglans nigra	Black Walnut	1	18		P	F	P	P	Applicant	3	remove	Poor condition
1714	Acer negundo	Manitoba Maple	1	35		P	F	P	P	Applicant	7	remove	Poor condition
1715	Acer negundo	Manitoba Maple	1	25		P	F	P	P	Applicant	5	remove	Poor condition and within proposed trail location
1716	Juglans nigra	Black Walnut	1	16		G	G	G	G	Applicant	3	remove	Within proposed trail location
1717	Prunus serotina	Black Cherry	1	35		F	F	F	F	Applicant	6	retain	Grading to occur within dripline
1718	Prunus serotina	Black Cherry	1	25		F	F	F	F	Shared	5	retain	

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CV - Canopy vigour: assessment of the health of the tree, based on comparison of the amount of deadwood and live growth in the crown.
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Tree Condition
Good: tree displays less than 15% deficiency/defect within the given tree assesment criteria (TI,CS,CV)
Fair: tree displays 15-40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)
Poor: tree displays greater than 40% deficiency/defect within the given tree assessment criteria (TI,CS,CV)

Tree Preservation / Removal Legend
Trees to be removed
Trees to be Saved

Tree Preservation / Removal Legend
Dead standing trees to be relocated
Trees to be Transplanted

Tree Tag #	Botanical Name	Common Name	No.	DBH (cm)	Height (m)	Tree Condition TI	CS	CV	OV	Tree Ownership	Dripline Radius	Recommendation	Remarks
1719	Prunus serotina	Black Cherry	1	23		F	P	P	P	Shared	3	retain	
1720	Prunus serotina	Black Cherry	1	19		P	F	P	P	Applicant	4	remove	Poor condition
1721	Prunus serotina	Black Cherry	1	21		P	F	P	P	Applicant	4	remove	Poor condition
1722	Prunus serotina	Black Cherry	1	22		F	F	F	F	Applicant	4	retain	
1723	Prunus serotina	Black Cherry	1	19		F	F	F	F	Applicant	3	retain	
H1724	Acer platanoides	Norway Maple	1	21		P	F	P	P	Applicant	3	remove	Extensive dieback. Hazard to trail users.
1725	Acer saccharum	Sugar Maple	1	11		F	F	P	F	Applicant	2	retain	
G2	Juniperus hedge speices	Juniper hedge	3	5		G	G	G	G	Applicant	1	remove	Within proposed location of building footprint
G3	Juniperus spp	Juniper Species	3	8		G	G	G	G	Applicant	2	remove	Within proposed hardscape location, impacted by 50cm grading fill
G4	Thuja spp	Cedar hedge	5	8		G	G	G	G	Applicant	1	remove	Wihtin proposed location of road, impacted by 50-80cm grading fill
G5	Malus spp	Apple Species	3	17		G	F	G	G	Applicant	3	remove	5% branches dead, Codominant leaders. Within proposed hardscape location, impacted by 60cm grading fill.
G8	Ornamental Pear	Pear Species	3	20		P	P	P	P	Applicant	4	remove	10% branches dead. Within proposed parking lot location, impacted by 1.00m grading fill
G9	Thuja spp	Cedar hedge	30	8		G	F	G	G	Applicant	1	remove	5% branches dead; understorey: buckthorn. Within proposed location of lots and road
G13	Fraxinus americana	White Ash	3	30		F-P	P	F-P	P	Applicant	3	remove	75% branches dead, Eab, 3 dying Ash, dense buckthorn understory. Impacted by 40cm grading cut
G14	Fraxinus americana	White Ash	7	10-20		P	P	P	P	Applicant	4	remove	EAB Infested. Hazard.
G16a	Populus species	Cottonwood	200(+/-)	5		G	G	G	G	City	1	retain	V. young
G16b	Populus deltoides	Cottonwood	5	20		G	G	G	G	Applicant	1	retain	understory: buckthorn, cottonwood, Manitoba maple, young hickory
G17	Populus deltoides	Cottonwood	9	15-20		F	F	F	F	Applicant	2	retain	30% branches dead (3-5m spacing); understory: buckthorn, cedar, grapevine, young birch (river?)
G17	Fraxinus americana	White Ash	1	20		P	P	P	P	Applicant	2	retain	EAB; understory: buckthorn, cedar, grapevine, young birch (river?)
G18	Populus deltoides	Cottonwood	10	10-25		G	G	G	G	Applicant	2	retain	10% branches dead; understory: buckthorn, balsam poplar, river birch, cottonwood, black Walnut, cedar,
G19	N/A	N/A	10+	15		P	P	P	P	Applicant	1-3	retain	Many dead standing trees, understory: white cedar,river birch, cottonwood, buckthorn, white willow,
G20	Betulus papyrifera	White Birch	5	10		P	P	P	P	Applicant	1-3	retain	15% branches dead; understory: minimal buckthorn, white cedar, cottonwood, river birch
G20	Pinus resinosa	Red Pine	1	25		G	G	G	G	Applicant	1-3	retain	15% branches dead; minimal buckthorn, white cedar, cottonwood, river birch
G20	Populus deltoides	Cottonwood	3	20		G	G	G	G	Applicant	1-3	retain	15% branches dead; minimal buckthorn, white cedar, cottonwood, river birch

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						TI	CS	CV	OV				
G20	Acer saccharum	Sugar Maple	1	20		G	G	G	G	Applicant	1-3	retain	15% branches dead; minimal buckthorn, white cedar, cottonwood, river birch
G21	Populus deltoides	Cottonwood	7	10-25		G	G	G	G	Applicant	1-3	retain	5% branches dead, 7 cottonwood (10-25); understory: white Ash (eab!), white willow, river birch, dogwood, cottonwood, white cedar, 1 broken cottonwood - hazard
G21	Picea glauca	White Spruce	1	15		G	G	G	G	Applicant	1-3	retain	5% branches dead; understory: white ash (EAB), white willow, river birch, dogwood, cottonwood, white cedar, 1 broken cottonwood - hazard
G22		Grouping		20						Applicant		retain	15% branches dead
G22	Populus Tremuloides	Trembling Aspen	50 (+/-)	25						Applicant	1-3	retain	10% branches dead
G22	Populus deltoides	Cottonwood	15 (+/-)	5-25		G	G	G	G	Applicant	1-3	retain	10% branches dead; understory: grapevine, dogwood, 2 young elm, buckthorn
G22	Fraxinus americana	White Ash	1	25		P	P	P	P	Applicant	1-3	retain	understory: grapevine, dogwood, 2 young elm, buckthorn

APPENDIX

A TREE MANAGEMENT AND BUFFER ENHANCEMENT PLANTING PLANS

GENERAL NOTES:

- CONTRACTOR TO REMOVE AND DISPOSE OF OFF-SITE AT NO ADDITIONAL COST TO THE CONTRACT ITEMS NOTED FOR REMOVAL INCLUDING BUT NOT LIMITED TO ALL ASPHALT PAVING, CONCRETE CURBS, CONCRETE PAVING, STUMPS, SOD,TOPSOIL, SIGNAGE AND FILL AS REQUIRED TO FACILITATE THE IMPLEMENTATION OF CHANGES AS PER PLANS AND DETAILS. ANY SIGNAGE OR ANY OTHER ITEMS IDENTIFIED BY THE CLIENT TO BE SALVAGED, SHALL BE STORED AT A LOCATION ON-SITE AS IDENTIFIED BY THE CLIENT.
- CONTRACTOR TO MAKE GOOD TO CONTRACT ADMINISTRATOR'S APPROVAL ALL DAMAGES THAT OCCUR DURING CONSTRUCTION.
- CONTRACTOR TO REVIEW DRAWINGS AND REPORT ANY ERRORS, OMISSIONS, AND / OR DISCREPANCIES TO CONTRACT ADMINISTRATOR IN WRITING PRIOR TO CONSTRUCTION. PROPERTY LINES TO BE VERIFIED PRIOR TO INITIATING ANY CONSTRUCTION.
- THE CONTRACTOR IS RESPONSIBLE FOR ALL UTILITY LOCATES. CONTRACTOR TO VERIFY LOCATION AND PROTECT ALL SERVICES PRIOR TO ANY EXCAVATION.
- EXTENT OF WORK SHOWN IS TO CONVEY INTENT ONLY. EXTENT OF CONSTRUCTION IS TO BE VERIFIED ON SITE PRIOR TO CONSTRUCTION. IF THERE IS AMBIGUITY OR LACK OF INFORMATION, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE CONTRACT ADMINISTRATOR. THE CONTRACTOR MAY BE HELD RESPONSIBLE TO REMOVE ANY CHANGES MADE WITHOUT WRITTEN PERMISSION OF THE CONTRACT ADMINISTRATOR.
- ALL CONSTRUCTION TO BE CARRIED OUT IN ACCORDANCE WITH THE MOST CURRENT DESIGN STANDARDS, CRITERIA, AND SPECIFICATIONS FORM THE ONTARIO BUILDING CODE, THE ONTARIO PROVINCIAL STANDARD DETAIL, THE ONTARIO PROVINCIAL STANDARD SPECIFICATION AND LANDSCAPE ONTARIO.
- CONTRACTOR TO ENSURE PROPER DEPTH OF EXCAVATIONS ACCOMMODATE HARD SURFACE AND LANDSCAPING AS SPECIFIED ON THESE DRAWINGS.
- CONTRACTOR IS RESPONSIBLE FOR ALL FEES ARISING FROM THE COMPLETION OF WORKS CONVEYED BY THESE DRAWINGS AND IN THE SPECIFICATION PACKAGE. FEES INCLUDE BUT ARE NOT LIMITED TO SECURITIES, PERMIT FEES, DEPOSITS, APPLICATION FEES, LETTERS OF CREDIT, OR ANY OTHER RELATED FUNDING REQUIREMENTS.
- CONTRACTOR IS RESPONSIBLE FOR DAMAGE TO ALL UNDERGROUND SERVICES INCLUDING LIGHT STANDARD ELECTRICAL LINES.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CALL A PRIVATE LOCATING COMPANY AND PAY ALL COSTS RELATING TO ALL SERVICES NOT STAKED OUT BY GAS, HYDRO, BELL, AND CABLE.
- QUALIFIED REGISTERED LAND SURVEYOR (OLS), ACCEPTABLE TO OWNER. TO LOCATE, CONFIRM AND PROTECT CONTROL POINTS PRIOR TO STARTING SITE WORK. PRESERVE PERMANENT REFERENCE POINTS DURING CONSTRUCTION.
- ESTABLISH TWO PERMANENT BENCH MARKS ON SITE, REFERENCED TO ESTABLISHED BENCH MARKS BY SURVEY CONTROL POINTS. RECORD LOCATIONS, WITH HORIZONTAL AND VERTICAL DATA IN PROJECT RECORD DOCUMENTS.
- ESTABLISH LINES AND LEVELS, LOCATED AND LAY OUT, BY INSTRUMENTATION.
- THE CONTRACTOR SHALL RETAIN AN INDEPENDENT INSPECTION AND TESTING COMPANY TO ENSURE THAT ALL WORK IS DONE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. TESTING SHALL INCLUDE REINFORCING STEEL PLACEMENT, CONCRETE TESTS, SOIL BEARING AND COMPACTION TESTS AND STRUCTURAL STEEL.
- SUBSTITUTIONS FROM SPECIFIED PRODUCTS AND MATERIALS MUST BE APPROVED BY THE CONTRACT ADMINISTRATOR PRIOR TO THE ORDERING OF MATERIALS.
- THESE DESIGN DRAWINGS ARE PREPARED SOLELY FOR THE USE BY THE PARTY WITH WHOM THE DESIGN PROFESSIONAL HAS ENTERED INTO A CONTRACT WITH.

SITE PREPARATION NOTES:

- CONTRACTOR TO ENSURE POSITIVE DRAINAGE OF ALL AREAS WITHIN THE LIMIT OF THE CONTRACT.
- CONTRACTOR TO WORK WITHIN GUIDELINES FOR THE MUNICIPALITY'S NOISE BY-LAWS.
- ANY REFUSE, GARBAGE, OR OTHER DEBRIS ON SITE MUST BE REMOVED AND DISPOSED OF OFF SITE AT THE EXPENSE OF THE CONTRACTOR.
- AREAS TO BE SODDED SHALL BE BACKFILLED WITH NATIVE SOIL TO 150mm BELOW FINISHED GRADE TO ALLOW FOR TOPSOIL INSTALLATION.
- CONTRACTOR TO DETERMINE A SINGLE POINT OF CONSTRUCTION ACCESS AND RESTORE BOULEVARD TO EXISTING OR BETTER CONDITION AFTER THE COMPLETION OF CONSTRUCTION.
- ABSOLUTELY NO STORAGE OF EQUIPMENT OR MATERIALS OUTSIDE OF CONSTRUCTION FENCING.

LAYOUT NOTES:

- LAYOUT TO BE STAKED BY CONTRACTOR AND APPROVED BY THE CONTRACT ADMINISTRATOR.
- ALL PLANT MATERIAL TO BE INSPECTED BY CONTRACT ADMINISTRATOR PRIOR TO INSTALLATION. ALL PLANT MATERIAL MAY BE REJECTED AT ANY TIME DURING CONSTRUCTION AND WARRANTY PERIOD.
- CONTRACTOR TO REVIEW DRAWINGS AND REPORT ANY ERRORS, OMISSIONS, OR DISCREPANCIES TO THE CONTRACT ADMINISTRATOR IN WRITING.
- PROPERTY LINES TO BE VERIFIED PRIOR TO INITIATING CONSTRUCTION.
- SITE FURNISHINGS TO BE AS SPECIFIED UNLESS SUBSTITUTION IS APPROVED IN WRITING BY CONTRACT ADMINISTRATOR.
- NOTIFY CONTRACT ADMINISTRATOR IMMEDIATELY, IN WRITING, IF ANY DISCREPANCIES WITH STATED REQUIREMENTS ARE DISCOVERED.

SEDIMENTATION CONTROL:

- ALL SILTATION CONTROL FENCING SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF EXCAVATION OR GRADING.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING ALL SILTATION CONTROL DEVICES IN GOOD WORKING ORDER AT ALL TIMES. CONTRACTOR SHALL INSPECT SUCH DEVICES DAILY AND AFTER EACH RAINFALL EVENT.
- FOLLOWING COMPLETION OF CONSTRUCTION, COLLECTED SILT SHALL BE DISPOSED OFF-SITE, SILT FENCE SHALL BE REMOVED AND THE AFFECTED AREAS SHALL BE RESTORED IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DRAWINGS.
- ALL ON-SITE STORAGE OF GRANULAR MATERIALS WILL BE ISOLATED AND SECURED WITH SILT FENCING
- NO IN-WATER WORKS ARE PERMITTED.
- NO VEHICLES OR EQUIPMENT WILL BE REFUELLED WITHIN 30 METRES OF THE WATERCOURSE.
- NO MATERIAL WILL BE STOCKPILED ON THE WATERCOURSE BANKS.
- THE EROSION AND SEDIMENT CONTROL STRATEGIES OUTLINED ON THE PLANS ARE NOT STATIC AND MAY NEED TO BE UPGRADED/AMENDED AS SITE CONDITIONS CHANGE TO PREVENT SEDIMENT RELEASES TO THE NATURAL ENVIRONMENT. THE CONTRACT ADMINISTRATOR ENFORCEMENT OFFICER SHOULD BE IMMEDIATELY CONTACTED SHOULD THE EROSION AND SEDIMENT CONTROL PLANS CHANGE FROM THE APPROVED PLANS. FAILED EROSION AND SEDIMENTATION CONTROL MEASURES SHOULD BE REPAIRED IMMEDIATELY.

PLANT MATERIAL ORDER, DELIVERY AND INSPECTION:

- CONTRACTOR TO CHECK ALL QUANTITIES AND REPORT ANY DISCREPANCIES TO THE CONTRACT ADMINISTRATOR IN WRITING. THE QUANTITIES INDICATED ON THE PLAN SUPERCEDE THE TOTALS OF THE PLANT LIST.
- OBTAIN CONTRACT ADMINISTRATOR'S APPROVAL ON ALL PLANT MATERIAL AT SOURCE OR UPON DELIVERY, PRIOR TO COMMENCEMENT OF PLANTING WORK.
- APPROVAL OF PLANT MATERIAL PRIOR TO PLANTING SHALL NOT IMPAIR THE RIGHT OF THE CONTRACT ADMINISTRATOR TO REJECT PLANTS AFTER PLANTING, WHICH HAVE BEEN DAMAGED, OR WHICH IN ANY WAY DO NOT CONFORM TO THE SPECIFICATIONS.
- SUBSTITUTIONS OF SIZE, OR WITH OTHER PLANT MATERIAL WILL ONLY BE ALLOWED WITH THE WRITTEN APPROVAL OF THE CONTRACT ADMINISTRATOR.
- ALL MATERIAL MUST CONFORM TO THE SIZES SHOWN ON THE PLANT LIST, EXCEPT WHERE LARGER PLANT MATERIAL IS USED WHEN APPROVED BY THE CONTRACT ADMINISTRATOR. USE OF LARGER PLANTS WILL NOT INCREASE THE CONTRACT PRICE. UNDERSIZED MATERIAL WILL BE REJECTED.
- ALL SHRUBS AND TREES SHALL CONFORM TO THE PRESENT STANDARDS OF THE CANADIAN NURSERY TRADES ASSOCIATION FOR SIZE AND SPECIES.
- PLANTS ARE TO BE NURSERY GROWN UNDER PROPER CULTURAL CONDITIONS, IN PARTICULAR WITH RESPECT TO SPACING, PEST AND DISEASE CONTROL, AND BRANCH AND ROOT PRUNING.
- TREES ARE TO HAVE STRAIGHT STURDY TRUNKS.
- TREES SHALL BE WELL BRANCHED AND BALANCED WITH A STRONG CENTRAL LEADER.
- DECIDUOUS SHADE TREES SHALL BE FREE OF BRANCHES FROM GROUND LEVEL TO A HEIGHT OF 1.8M ABOVE THE GROUND.
- TREES WITH OPEN SCARS ARE NOT ACCEPTABLE.
- KEEP ALL ROOTS AND ROOTBALLS MOIST PRIOR TO PLANTING.

PLANT MATERIAL GUARANTEE AND FINAL INSPECTION:

- AT THE COMPLETION OF PLANTING OPERATIONS, REMOVE ALL SURPLUS MATERIAL FROM THE SITE AT NO EXTRA CHARGE TO THE PROJECT.
- MAKE GOOD ALL DAMAGE RESULTING FROM PLANTING OPERATIONS AT NO EXTRA CHARGE TO THE PROJECT.
- PLANT MATERIAL SHALL BE GUARANTEED FOR A MINIMUM OF TWO YEARS FROM THE ISSUE DATE OF THE CERTIFICATE OF COMPLETION.
- ALL PLANTS SHALL BE INSPECTED TWICE, ONCE HALFWAY THROUGH THE GUARANTEE PERIOD, AND AGAIN AT THE END OF THE GUARANTEE PERIOD. PLANTS WHICH, AT THAT TIME, ARE NOT IN HEALTHY VIGOROUS GROWING CONDITION, TO THE CONSULTANT'S APPROVAL, SHALL BE REPLACED AT NO EXTRA CHARGE TO THE PROJECT.
- CONTRACTOR TO CONTACT CONTRACT ADMINISTRATOR AND/OR APPROVAL AGENCY/MUNICIPALITY TO REVIEW PROJECT FOR GUARANTEE INSPECTIONS.

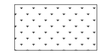
HYDROSEEDING:

HYDROSEEDING SHALL BE APPLIED TO ALL AREAS DISTURBED BY THE CONSTRUCTION OPERATION THAT WILL NOT BE COVERED WITH ASPHALT OR MULCH/OTHERE PATHWAY SURFACING.
AT TIME OF HYDROSEEDING, ALL SURFACE AREAS MUST BE UNIFORMLY GRADED AND SHALL BE FREE OF EROSION, STONES GREATER THAN 50mm IN DIAMETER, WEEDS AND ANY OTHER UNWANTED VEGETATION. EXISTING SURFACE SOIL SHALL BE UNIFORMLY CULTIVATED TO A MINIMUM DEPTH 50mm TO PROVIDE A LOOSE AND FRIABLE SEEDBED TO ACCELERATE GERMINATION OF SEED.

THE BLOWER TRUCK SHALL BE EQUIPPED WITH A COMPUTER-CALIBRATED SEED INJECTION SYSTEM AND SHALL BE CAPABLE OF UNIFORMLY APPLYING COMPOSTED TOPSOIL AND SEED AT A RATE GREATER THAN 0.25 m3 PER MINUTE.
COMPOSTED TOPSOIL SHALL BE PRE-MIXED AND CONSIST OF A MINIMUM 60% COMPOST MATERIAL.

NOTE:
- SEEDING SHALL BE PLACED ON 150mm OF TOPSOIL.
- ALL SEED TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS FOR MULCH, TACKIFIER, AND SPECIFIC SEEDING RATE AND TIMING OF APPLICATION.
- CONTRACTOR TO VERIFY SEEDING RATES RELATIVE TO SOIL TYPE PRIOR TO INSTALLATION OF SEED.
- ALL SEEDING ON SLOPE ADJACENT TO THE PROPOSED ROAD SHALL BE TREATED WITH 'BONDED FIBRE MATRIX ADDITIVE" TO MANUFACTURER'S SPECIFICATIONS.
- SEEDING TO BE APPLIED AROUND AND BETWEEN MULCH SAUCERS

CUSTOM - 'WOODLAND SEED MIX' (CUSTOM OSC #8275)



5% Beardtongue (Penstemon digitalis)
3% Bebbs Sedge (Carex bebbii)
3% Common Milkweed (Ascelpias syriaca)
1% Flat Topped White Aster (Aster umbellatus)
10% Fox Sedge (Carex vulpinoidea)
5% Nodding/Fringed Sedge (Carex crinita)
32% Riverbank Wild Rye (Elymus riparius)
4% Showy Tick Trefoil (Desmodium canadense)
1% Spotted Joe Pye Weed (Eupatorium maculatum)
35% Virginia Wild Rye (Elymus virginicus)
1% White Avens (Geum canadense)

SEED AT RATE OF 22KG/HA. SIMULTANEOUSLY SOW COVER CROP OF COMMON OATS (AVENA SATIVA) AND BUCKWHEAT (FAGOPYRUM ESCULENTUM) FOR EROSION CONTROL AT A RATE OF 22KG/HA. ALL SEED MIXTURE MANUFACTURED BY 'ONTARIO SEED COMPANY (OSC)' OR APPROVED EQUAL. ALL PACKING SLIPS MUST BE PROVIDED TO CLIENT PRIOR TO SEED PLACEMENT.
NOTE:
- MINIMUM OF 150mm OF APPROVED GROWING MEDIUM TO BE PROVIDED FOR ALL AREAS.

TOPSOIL PLANTING BED PREPARATION:

- MIX TOPSOIL AS RECOMMENDED BY SOIL TEST RESULTS AND RECOMMENDATIONS OF SOIL TESTING AGENCY.
- TOPSOIL SHALL NOT BE USED TO CONSTRUCT PERMANENT BERMS.
- ALL TOPSOIL SHOULD BE FREE OF SUBSOILS, CLAY, STONES, ROOTS, EXCESS WATER, FROST AND OTHER EXTRANEOUS MATTER.
- PREPARE PLANTING BEDS PRIOR TO ARRIVAL OF PLANT MATERIAL ON SITE.

EXCAVATE PER PLANTING DETAILS. THE FOREGOING PROPORTIONS ARE SUBJECT TO CHANGE UPON RECEIPT OF TOPSOIL ANALYSIS.
PREPARE PLANTING SOIL BY EVENLY MIXING:
- 5 PARTS NATIVE SOIL
- 1 PART SHARP SAND
- 2 PARTS ¼" SCREENED COMPOST
- 500g OF BONE MEAL PER CUBIC METRE.
- MIX THOROUGHLY

COMPENSATION PLANTING:

- 65 TREES INVENTORIED IN FAIR TO GOOD CONDITION ARE RECOMMENDED TO BE REMOVED DUE TO THEIR LOCATION WITHIN GRADING LIMITS OF THE PROPOSED DEVELOPMENT. THESE TREES ARE TO BE COMPENSATED AT A 3:1 RATIO. 65 TREES x 3 = 195 NEW TREES TO BE PLANTED. 98 TREES HAVE BEEN PROPOSED WITHIN THE PLANTING PLANS. THEREFORE, 97 TREES REMAIN TO BE PLANTED WITHIN THE PROPOSED DEVELOPMENT.

TREE PRESERVATION NOTES AND GUIDELINES

ESTABLISHMENT OF TREE PROTECTION ZONE (TPZ):

- TREE PRESERVATION MEASURES, INCLUDING THE ESTABLISHMENT OF TREE PROTECTION ZONE (TPZ) SHALL APPLY TO THE VEGETATION IDENTIFIED TO BE RETAINED AND PROTECTED. THE TREE PROTECTION ZONE SHALL CONSIST OF TREE PROTECTION FENCING AS PER CITY OF GUELPH STANDARD SD-90A AND SD-90C, PLACED AT THE DRIPLINE OF VEGETATION TO BE PRESERVED. REFER TO DETAILS ON THIS SHEET.
- NO GRADE CHANGES SHALL OCCUR WITHIN TREE PROTECTION ZONE. IN THE EVENT THAT GRADE CHANGES OCCUR EITHER AS A CUT OR FILL SITUATION, THE CONSULTING ARBORIST MUST BE NOTIFIED SO THAT PRECAUTIONS TO PRESERVE THE TREE CAN BE DETERMINED PRIOR TO THE PLACEMENT OF FILL OR EXCAVATION ACTIVITIES.
- EVERY PRECAUTION MUST BE TAKEN TO PREVENT DAMAGE TO TREES AND ROOT SYSTEMS FROM DAMAGE, COMPACTION AND CONTAMINATION RESULTING FROM THE CONSTRUCTION TO THE SATISFACTION OF THE CONSULTING ARBORIST.
- TREES THAT REQUIRE PRUNING TO PERMIT CONSTRUCTION ACTIVITIES WILL BE DONE SO IN ACCORDANCE WITH GOOD ARBORICULTURAL PRACTICES. IN THE EVENT THAT IT IS NECESSARY TO REMOVE ADDITIONAL LIMBS OR PORTIONS OF TREES, AFTER CONSTRUCTION HAS COMMENCED, TO ACCOMMODATE CONSTRUCTION, THE CONSULTING ARBORIST IS TO BE INFORMED AND UNDER THEIR DIRECTION THE REMOVAL IS TO BE EXECUTED CAREFULLY AND IN FULL ACCORDANCE WITH ARBORICULTURAL TECHNIQUES, BY A CERTIFIED ARBORIST.
- ANY DAMAGE TO TREES SUCH AS BROKEN LIMBS, DAMAGE TO ROOTS, OR WOUNDS TO THE MAIN TRUNK OR STEM SYSTEMS ARE TO BE REPORTED TO THE CONSULTING ARBORIST SO THAT THE DAMAGE CAN BE ASSESSED IMMEDIATELY AND MITIGATION CAN BE PROMPTLY IMPLEMENTED.

TREE PROTECTION ZONE:

APPLIES TO TREES LOCATED THE LIMIT OF GRADING OR NOTED OTHERWISE. THESE TREES ARE TO BE PRESERVED AND WILL HAVE SILT / TREE PROTECTION FENCING INSTALLED AT ALONG THE LIMIT OF GRADING / LIMIT OF WORK TO ESTABLISH THE TREE PROTECTION ZONE. ANY DAMAGE TO TREES SUCH AS BROKEN LIMBS, DAMAGE TO ROOTS, OR WOUNDS TO THE MAIN TRUNK OR STEM SYSTEMS ARE TO BE REPORTED TO THE CONSULTING ARBORIST SO THAT THE DAMAGE CAN BE ASSESSED IMMEDIATELY AND MITIGATION CAN BE PROMPTLY IMPLEMENTED. WITHIN A TREE PROTECTION ZONE THERE IS TO BE:
- NO CONSTRUCTION
- NO ALTERING OF GRADE BY ADDING FILL, EXCAVATING, TRENCHING, SCRAPING, DUMPING OR DISTURBANCE OF ANY KIND.
- NO STORAGE OF CONSTRUCTION MATERIALS, EQUIPMENT, SOIL, CONSTRUCTION WASTE OR DEBRIS WITHIN THE DRIP LINE
- NO MOVEMENT OF VEHICLES, EQUIPMENT
- NO PARKING OF VEHICLES OR MACHINERY
- NO DIGGING, BORING
- NO RIGGING CABLES SHALL BE WRAPPED AROUND OR INSTALLED IN TREES
- NO CONTAMINANTS WILL BE PLACED OVER ROOT SYSTEM
- NO CONTAMINANTS WILL BE DUMPED OR FLUSHED WHERE FEEDER ROOTS OF TREES EXIST

WORK WITHIN A TREE PROTECTION ZONE:

IF WORK MUST BE CONDUCTED WITHIN A TREE PROTECTION ZONE THE CONTRACTOR SHOULD MINIMIZE SOIL COMPACTION AND MECHANICAL ROOT DAMAGE BY UTILIZING ONE OF THE FOLLOWING FOUR METHODS:
1. APPLYING 150-300mm OF MULCH TO AREA. UPON COMPLETION REMOVE EXCESS MULCH LEAVING A 100mm DEPTH LAYER OF MULCH.
2. LAYING 20mm THICK PLYWOOD OR 100X100mm WOOD BEAMS OVER A 100+MM THICK LAYER OF WOOD CHIP MULCH. UPON COMPLETION REMOVE PLYWOOD AND LEAVE MULCH LAYER IN PLACE.
3. APPLYING 100-150mm DEPTH OF GRAVEL OVER A TAUT, STAKED GEOTEXTILE FABRIC. UPON COMPLETION REMOVE GRAVEL AND GEOTEXTILE.
4. PLACING COMMERCIAL LOGGING OR ROAD MATS ON TOP OF A MULCH LAYER. UPON COMPLETION REMOVE MATS. STONE, GEOTEXTILE, AND MULCH EXCEEDING 100mm THICK WILL BE REMOVED FROM THE TREE PRESERVATION AREA ONCE THE THREAT OF SOIL OR ROOT DAMAGE HAS PASSED.

TREE PRESERVATION AND PROTECTION RECOMMENDATIONS:

THE SURVIVAL RATES FOR TREES, WHICH ARE IN PROXIMITY TO CONSTRUCTION SITES ARE DEPENDENT ON THE RESULTANT CHANGES TO A VARIETY OF ENVIRONMENTAL AND ANTHROPOGENIC FACTORS. THESE CONSTRUCTION ACTIVITIES BRING ABOUT CHANGES TO A VARIETY OF ENVIRONMENTAL FEATURES INCLUDING THE EXISTING MICROCLIMATE INCLUDING WINDS, TEMPERATURE, SOIL MOISTURE, AMOUNT OF AVAILABLE SUNLIGHT, SOIL QUALITY, AND THE LEVEL OF THE WATER TABLE. INCREASED HUMAN ACTIVITIES MAY ALSO DAMAGE THE STRUCTURE AND / OR PHYSIOLOGICAL ACTIVITIES OF THE TREES. THE FULL EFFECTS OF THE DAMAGE MAY NOT APPEAR UNTIL SEVERAL YEARS AFTER ITS OCCURRENCE. THUS, IT IS ESSENTIAL THAT BOTH VEGETATIVE CLEARING AND PRESERVATION METHODS FOLLOW THE GUIDELINES BELOW AND THOSE GENERALLY ACCEPTED AS KEEPING WITH GOOD HORTICULTURAL AND CONSTRUCTION PRACTICES. THE GUIDELINES ARE SUBJECT TO ADJUSTMENTS DEEMED REASONABLE AND APPROPRIATE CONSIDERING THE PROXIMITY AND NUMBER OF TREES INVOLVED AND THE SITE-SPECIFIC SERVICING REQUIREMENT.

GENERAL RECOMMENDATIONS:

- ALL TREES WITHIN THE TREE PRESERVATION ZONE MUST BE LEFT STANDING. THE TREE REMOVALS MUST BE COORDINATED TO BE COMPLETED OUTSIDE OF THE ACTIVE SEASON FOR BATS, **APRIL 1 TO OCTOBER 31**.
- ALL REMOVALS MUST BE FELLED INTO THE WORK AREA TO ENSURE THAT DAMAGE DOES NOT OCCUR TO THE TREES WITHIN THE TREE PRESERVATION ZONE.
- UPON COMPLETING OF THE TREE REMOVALS, ALL FELLED TREES ARE TO BE CHIPPED. THIS WORK MUST BE COMPLETED OUTSIDE OF THE ACTIVE SEASON FOR BATS, **APRIL 1 TO OCTOBER 31.**
- TREE PROTECTION FENCING / SILT FENCE MUST BE INSTALLED AS PER THE CITY OF GUELPH STANDARD SILT FENCE DETAIL AND AS SHOWN ON THE APPROVED MUNICIPAL ENGINEERING PLAN. UPON INSTALLATION OF THE FENCING, THE CONTRACTOR WILL CONTACT THE CONSULTING ARBORIST TO REVIEW AN APPROVE THE FENCING AND ITS LOCATION PRIOR TO COMMENCEMENT OF ANY GRADING WORK.
- AREAS WITHIN THE TREE PRESERVATION ZONE ARE NOT TO BE USED FOR ANY TYPE OF STORAGE (E.G. STORAGE OF DEBRIS, CONSTRUCTION MATERIAL, SURPLUS SOILS, AND CONSTRUCTION EQUIPMENT), NO TRENCHING OR TUNNELLING FOR UNDERGROUND SERVICES SHALL BE LOCATED WITHIN THE TREE PROTECTION ZONE OR DRIPLINE OF TREES DESIGNATED FOR PRESERVATION WITHIN OR ADJACENT TO THE CONSTRUCTION ZONE.

ROOT PRUNING:

AT THE COMMENCEMENT OF CONSTRUCTION PRUNE ROOTS CLEANLY USING ACCEPTABLE ARBORICULTURAL PRACTICES AND IMMEDIATELY BACKFILL WITH APPROPRIATE MATERIAL. ROOTS OVER 2.5cm DIAMETER THAT ARE TO BE CUT SHOULD BE PRUNED RATHER THAN LEFT TORN OR CRUSHED. THE FOLLOWING ARE GENERAL METHODS OF ROOT PRUNING:
1. SOIL EXCAVATION USING SUPERSONIC AIR TOOLS, PRESSURIZED WATER OR HAND TOOLS, FOLLOWED BY SELECTIVE ROOT CUTTING
2. CUTTING THROUGH THE SOIL ALONG A PREDETERMINED LINE ON THE SURFACE USING TOOL SPECIFICALLY DESIGNED TO CUT ROOTS
3. MECHANICALLY EXCAVATING (e.g. BACKHOE) THE SOIL AND PRUNING WHAT IS LEFT OF THE EXPOSED ROOTS.
4. CUTS TO BE MADE WITH HAND PRUNING SHEARS, BY-PASS BLADE, PRUNING SAW. DO NOT USE ANVIL TYPE PRUNERS.

PRUNING PRACTICES:

- ALL LIMBS DAMAGED OR BROKEN DURING THE COURSE OF CONSTRUCTION SHOULD BE PRUNED CLEANLY, UTILIZING BY-PASS SECATEURS IN ACCORDANCE WITH APPROVED HORTICULTURAL PRACTICES. SHOULD THERE BE A POTENTIAL RISK OF TRANSFER OF DISEASE FROM INFECTED TO NON-INFECTED TREES; TOOLS MUST BE DISINFECTED AFTER PRUNING EACH TREE BY DIPPING IN METHYL HYDRATE. THIS PRACTICE IS PARTICULARLY IMPORTANT DURING PERIODS OF TREE STRESS AND WHEN PRUNING MANY MEMBERS OF THE SAME GENERA, WITHIN WHICH A DISEASE COULD BE SPREAD QUICKLY (I.E., VERTICILLIUM WILT ON MAPLES OR FIRE BLIGHT ON GENERA OF THE ROSACEA FAMILY).
- DURING EXCAVATION OPERATIONS IN WHICH THE ROOT AREA IS AFFECTED, THE CONTRACTOR IS TO PRUNE ALL EXPOSED ROOTS CLEANLY. PRUNED ROOT ENDS ARE TO BE NEATLY AND SQUARELY TRIMMED AND THE AREA IS TO BE BACKFILLED WITH CLEAN NATIVE FILL AS SOON AS POSSIBLE TO PREVENT DESICCATION AND PROMOTE ROOT GROWTH. THE EXPOSED ROOTS SHOULD NOT BE ALLOWED TO DRY OUT, AND THE CONTRACTOR SHALL DISCUSS WATERING OF THE ROOTS WITH THE CONSULTING ARBORIST SO THAT THE ROOTS SHALL MAINTAIN OPTIMUM SOIL MOISTURE DURING CONSTRUCTION AND BACKFILLING OPERATIONS, YET SO NOT TO INTERFERE WITH CONSTRUCTION OPERATIONS. BACKFILLING MUST BE WITH CLEAN UNCONTAMINATED TOPSOIL FROM AN APPROVED SOURCE. TEXTURE MUST BE COARSER THAN EXISTING SOILS, AND TO COME INTO CLEAN CONTACT WITH EXISTING SOILS (REMOVE AIR POCKETS, SOD, ETC.)
- ALL PRUNING CUTS SHOULD BE MADE TO A GROWING POINT SUCH AS A BUD, TWIG OR BRANCH, CUT JUST OUTSIDE THE BRANCH COLLAR (THE SWOLLEN AREA AT THE BASE OF THE BRANCH THAT SOMETIMES HAS A BARK RIDGE), AND PERPENDICULAR TO THE BRANCH BEING PRUNED RATHER THAN AS CLOSE TO THE TRUNK AS POSSIBLE. THIS MINIMIZES THE SITE OF THE WOUND. NO STUBS SHOULD BE LEFT. POOR CUT LOCATION, POOR CUT ANGLE AND TORN CUTS ARE NOT ACCEPTABLE.
- TREE ROOTS SHOULD NOT BE EXCAVATED WITHIN THE CRITICAL STRUCTURAL ROOTING AREA. THIS IS THE MINIMUM AREA OF THE ROOT SYSTEM NECESSARY TO MAINTAIN VITALITY OR STABILITY OF THE TREE. TYPICALLY THIS AREA EXTENDS TO THE DRIPLINE OF THE TREE. THE SEVERING OF ONE ROOT CAN CAUSE APPROXIMATELY 5-20% LOSS OF THE ROOT SYSTEM. A REDUCTION OF THIS AREA BY GREATER THAN 30% CAN POSE STABILITY CONCERNS FOR THE TREE.
- A SLOW RELEASE FERTILIZER EG: BONE MEAL OR APPROVED EQUAL TO BE APPLIED TO TREES WHERE ROOT PRUNING OR ROOT DAMAGE HAS OCCURRED. APPLY PER MANUFACTURER'S RECOMMENDATIONS
- EXTENSIVE PRUNING IS BEST COMPLETED BEFORE PLANTS BREAK DORMANCY. PRUNING SHOULD BE LIMITED TO THE REMOVAL OF NO MORE THAN ONE THIRD (1/3) OF THE TOTAL BUD AND LEAF BEARING BRANCHES. PRUNING SHOULD INCLUDE THE CAREFUL REMOVAL OF:
  - DEADWOOD,
  - BRANCHES THAT ARE WEAK, DAMAGED, DISEASED AND THOSE WHICH WILL INTERFERE WITH CONSTRUCTION ACTIVITY,
  - SECONDARY LEADERS OF CONIFERS,
  - TRUNK AND ROOT SUCKERS,
  - TRUNK WATERSPOUTS, AND
  - TIGHT V-SHAPED OR WEAK CROTCHES (INCLUDED UNIONS).

THE CONTRACTOR MUST IMMEDIATELY REPORT ANY DAMAGE TO TREES SUCH AS BROKEN LIMBS, DAMAGE TO ROOTS, OR WOUNDS TO THE MAIN TRUNK OR STEM SYSTEMS SO THAT THE DAMAGE CAN BE ASSESSED IMMEDIATELY.

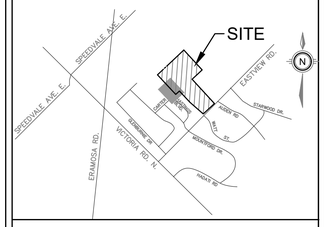
THE TREE PROTECTION FENCING WILL BE MAINTAINED UNTIL ALL CONSTRUCTION IS COMPLETED, SOILS ARE STABILIZED AND ALL OF THE EQUIPMENT HAS BEEN REMOVED FROM THE SITE.

TREE INJURY:

TYPICALLY TREE ROOTS EXTEND 1.5 TO 3 TIMES BEYOND THE DRIPLINE OF THE TREE AND ARE WITHIN THE TOP 150mm OF THE SOIL. TYPES OF DAMAGE FROM CONSTRUCTION INCLUDE:
- PHYSICAL INJURY
- SOIL COMPACTION
- SEVERING OF ROOTS
- SMOTHERING OF ROOTS
- SPLIT OR BROKEN BRANCHES
- EXCESSIVE PRUNING

SOIL COMPACTION REDUCES PORE SPACE, OXYGEN AVAILABLE TO ROOTS INCREASES CARBON DIOXIDE ACCUMULATION, RESTRICTS ROOT GROWTH AND THE ABILITY TO ABSORB WATER AND NUTRIENTS, AS WELL AS IMPAIRS DRAINAGE.
SMOTHERING OF ROOTS: 90% OF FINE ABSORBING ROOTS ARE WITHIN THE UPPER 150-300mm OF THE SOIL. SMOTHERING WITH THE ADDITION OF SOIL CAN KILL THE ROOTS AND STRESS THE TREE.
PHYSICAL INJURY, SPLIT OR BROKEN BRANCHES HINDER THE TREES ABILITY TO COMPARTMENTALIZE (CLOSE) WOUNDS PROPERLY.

KEY MAP



NO	DATE	REVISION/ISSUED	BY	APPD
3	11/03/20	2ND SUBMISSION	JB	BV
2	29/07/19	TRAIL CONCEPT FOR INT REV	WL	BV
1	26/02/19	ISSUED FOR SITE PLAN	WL	BV

wsp
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www.wsp.com

CLIENT:
EXQUSITE HOMES
221 HELEN AVE, MARKHAM, ONTARIO

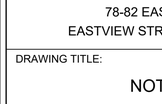
PROJECT TITLE:
78-82 EASTVIEW DVP

SP #1

SITE ADDRESS:
78-82 EASTVIEW
EASTVIEW STREET, GUELPH

DRAWING TITLE:
NOTES

STAMP



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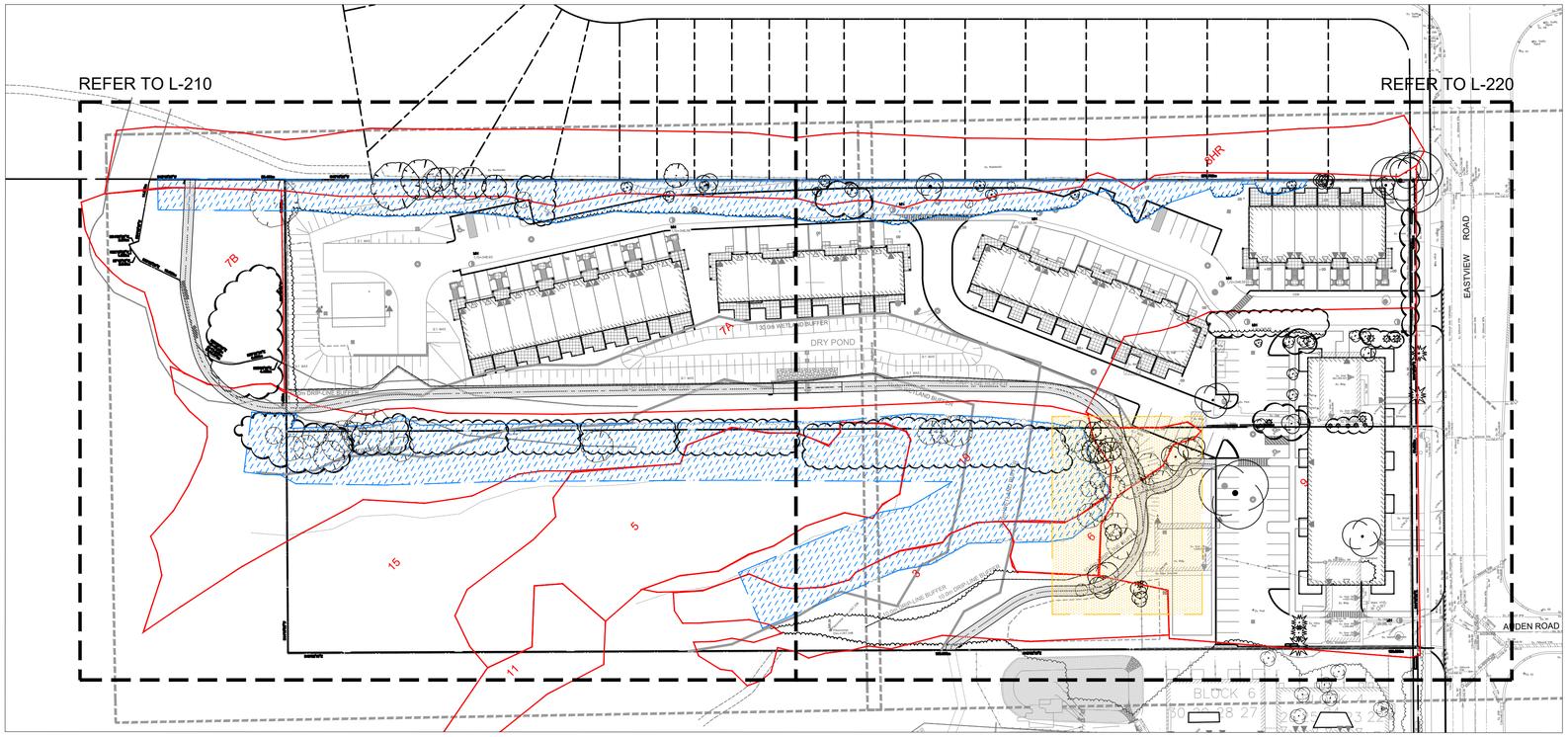
DESIGNED	DRAWN	CHECKED
BV	WL	BV

SCALE N/A | DATE January 25th, 2019

PROJECT NUMBER 17M-01526-00 | DWG. NUMBER L-100



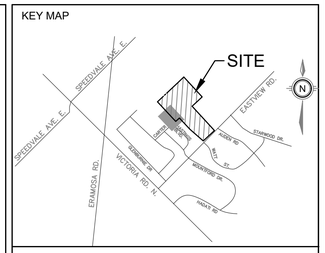


Table 1: Tree Data Charts

Project: 78 & 82 Eastview Road
Date of Field Work: June 14, 2018
Field Work Completed By: S. Tasdivi and N. Mirzaei
Weather: Sunny, 25 to 30 degrees

Tree Tag # | Botanical Name | Common Name | No. | DBH (cm) | Height (m) | Tree Condition: TI, CB, CV, OV | Tree Ownership | Skyline Redline | Recommendation | Remarks

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Tree Preservation / Removal Legend:
Trees to be Preserved — Trees to be relocated
Trees to be Saved — Trees to be Transplanted

Tree Tag #	Botanical Name	Common Name	No.	DBH (cm)	Height (m)	TI	CB	CV	OV	Tree Ownership	Skyline Redline	Recommendation	Remarks
T1	Picea pungens	Blue Spruce	1	30		G	G	G	G	City	2	retain	5% branches dead
T2	Picea pungens	Blue Spruce	1	35		G	G	G	G	City	2	retain	5% branches dead
T3	Picea glauca	White Spruce	1	16		G	G	G	G	Applicant	2	retain	
T4	Prunus serotina	Black Cherry	1	20		G	F	F	F	Private	3	retain	
T6	Malus spp	Apple Species	1	15		G-F	F-P	G	F	Applicant	3	remove	6% branches dead, Multi stem 14, 15, 12, within the proposed parking lot layout
T7	Malus spp	Apple Species	1	10		F	F-P	G	F	Applicant	3	remove	30% branches dead, Multistem - 10, 7, 14, within the proposed parking lot layout
T10	Prunus serotina	Black Cherry	1	30		F-P	P	F	P	Applicant	1	remove	30% branches dead, Multistem, 25, 30, covered in grapevine & - buckthorn. Impacted by grading cut of approximately 20cm
T11	Ulmus americana	American Elm	1	18		F-P	F-P	P	F	Applicant	2	remove	50% branches dead. Impacted by grading cut of approximately 30cm
T15	Prunus serotina	Black Cherry	1	40		F	F-P	F	F	Applicant	6	retain	30% branches dead, Multistem (3@40), corner of property outside fence line
H1	Populus tremuloides	Trembling Aspen	1	15		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H2	Fraxinus americana	White Ash	1	20		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H3	Fraxinus americana	White Ash	1	13		P	P	P	P	Applicant	2	remove	Within 15m of woodlot edge. Hazard.
H4	Fraxinus americana	White Ash	1	13		P	P	P	P	Applicant	2	remove	Within 15m of woodlot edge. Hazard.
H5	Fraxinus americana	White Ash	1	13		P	P	P	P	Applicant	2	remove	Within 15m of woodlot edge. Hazard.
H6	Fraxinus americana	White Ash	1	15		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H7	Populus tremuloides	Trembling Aspen	1	23		P	P	P	P	Applicant	4	remove	Within 15m of woodlot edge. Hazard.
H8	Populus tremuloides	Trembling Aspen	1	27		P	P	P	P	Applicant	4	remove	Within 15m of woodlot edge. Hazard.
H9	Populus tremuloides	Trembling Aspen	1	22		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H10	Populus tremuloides	Trembling Aspen	1	20		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H11	Populus tremuloides	Trembling Aspen	1	26		P	P	P	P	Applicant	4	remove	Within 15m of woodlot edge. Hazard.
H12	Fraxinus americana	White Ash	1	25		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H13	Fraxinus americana	White Ash	1	15		P	P	P	P	Applicant	6	remove	Within 15m of woodlot edge. Hazard.
H14	Fraxinus americana	White Ash	1	15		P	P	P	P	Applicant	5	remove	Within 15m of woodlot edge. Hazard.
H15	Fraxinus americana	White Ash	1	12		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H16	Fraxinus americana	White Ash	1	10		P	P	P	P	Applicant	4	remove	Within 15m of woodlot edge. Hazard.
H17	Fraxinus americana	White Ash	1	10		P	P	P	P	Applicant	4	remove	Within 15m of woodlot edge. Hazard.
H18	Fraxinus americana	White Ash	1	15		P	P	P	P	Applicant	4	remove	Within 15m of woodlot edge. Hazard.

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Tree Tag #	Botanical Name	Common Name	No.	DBH (cm)	Height (m)	TI	CB	CV	OV	Tree Ownership	Skyline Redline	Recommendation	Remarks
H19	Fraxinus americana	White Ash	1	15		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H20	Populus tremuloides	Trembling Aspen	1	21		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H21	Fraxinus americana	White Ash	1	10		P	P	P	P	Applicant	3	remove	Within 15m of woodlot edge. Hazard.
H22	Fraxinus americana	White Ash	1	12		P	P	P	P	Applicant	2	remove	Within 15m of woodlot edge. Hazard.
1157	Acer platanoides	Norway Spruce	1	50		G	G	G	G	Applicant	7	remove	5% branches dead. Located within proposed building footprint
1158	Catalpa species	Catalpa Species	1	25		G	G	G	G	Applicant	5	remove	5% branches dead. Located within proposed hardscape area, impacted by 30cm grading fill
1159	Prunus spp	Cherry Species	1	20		G	G	G	G	Applicant	2	remove	10% branches dead. Located within proposed hardscape area, impacted by 30cm grading fill
1160	Juglans nigra	Black Walnut	1	35		G-F	F	G	F	Applicant	4	remove	10% branches dead, Codominant leaders. Impacted by grading fill of 2.00m for parking lot
1161	Ulmus americana	American Elm	1	45		G	F	G	G	Applicant	10	remove	5% branches dead, Heavy lean upper canopy. Impacted by 20cm grading fill for backyard lot
1162	Juglans nigra	Black Walnut	1	30		G-F	G	G-F	F	Applicant	8	remove	20% branches dead. Impacted by approximately 30cm grading cut for backyard lot
1163	Juglans nigra	Black Walnut	1	25		G-F	G-F	G	F	Applicant	7.5	remove	10% branches dead. Impacted by approximately 20cm grading cut for backyard lot
1164	Rhamnus species	Buckthorn Species	1	10		F-P		F	F	Applicant	5	remove	15% branches dead, Multistem, invasive. Impacted by approximately 20cm grading cut for backyard lot
1165	Fraxinus americana	White Ash	1	25		F-P		F	F	Applicant	1	remove	20% branches dead. Within location of proposed road way, impacted by 10cm grading cut.
1166	Fraxinus americana	White Ash	1	25		P	F-P	P	P	Applicant	2	remove	50% branches dead, Esh. Within location of proposed road way, impacted by 30cm grading cut.
1167	Ulmus americana	American Elm	1	15		F-P	P	F	P	Applicant	1	remove	15% branches dead, Codominant leaders (15each), covered in vine, buckthorn understory. Within location of proposed road way, impacted by 40cm grading cut.
1106	Fraxinus americana	White Ash	1	35		F-P	P	F-P	P	Applicant	4	remove	40% branches dead, Esh. Included codominant leader, 35, 30. Impacted by 40cm grading cut for proposed roadway.
1169	Fraxinus americana	White Ash	1	35		F-P	P	F-P	P	Applicant	2	remove	75% branches dead, Esh, Codominant leaders, 4 dead Ash surrounding. Impacted by 40cm grading cut for proposed road way.
1170	Fraxinus americana	White Ash	1	25		F-P	P	F-P	P	Applicant	2	remove	75% branches dead, Esh
1171	Prunus serotina	Black Cherry	1	20		G	G	G-F	G	Applicant	2	remove	5% branches dead. Impacted by 70cm grading cut for proposed roadway
1172	Tilia americana	Basswood	1	45		F-P	F	P	P	Applicant	3	remove	50% branches dead, 30 dieback, crowded by smaller Tilia. Impacted by 70cm grading cut for proposed roadway
1173	Tilia americana	Basswood	1	15		F	G-F	F	F	Applicant	3	remove	10% branches dead, Crowding out mature Tilia adjacent. Impacted by 70cm grading cut for proposed roadway
1174	Prunus serotina	Black Cherry	1	25		F	F-P	G-F	F	Applicant	3	remove	15% branches dead, Codominant leaders. Impacted by 60cm grading cut for proposed roadway
1175	Acer negundo	Manitoba Maple	1	30		P	P	P	P	Applicant	3	remove	40% branches dead, Lean, 40% dieback, large broken wound

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G20	Acer saccharum	Sugar Maple	1	20		G	G	G	G	Applicant	1-3	retain	15% branches dead; minimal buckthorn, white cedar, cottonwood, river birch
G21	Populus deltoides	Cottonwood	7	10-25		G	G	G	G	Applicant	1-3	retain	5% branches dead, 7 cottonwood (10-25); understory; white Ash (sapl.), white willow, river birch, dogwood, cottonwood, white cedar, 1 broken cottonwood - hazard
G21	Picea glauca	White Spruce	1	15		G	G	G	G	Applicant	1-3	retain	5% branches dead; understory; white ash (EAB), white willow, river birch, dogwood, cottonwood, white cedar, 1 broken cottonwood - hazard
G22		Grouping		20						Applicant		retain	15% branches dead
G22	Populus Tremuloides	Trembling Aspen	50 (+/-)	25						Applicant	1-3	retain	10% branches dead
G22	Populus deltoides	Cottonwood	15 (+/-)	5-25		G	G	G	G	Applicant	1-3	retain	10% branches dead; understory: grapevine, dogwood, 2 young elm, buckthorn
G22	Fraxinus americana	White Ash	1	25		P	P	P	P	Applicant	1-3	retain	understory: grapevine, dogwood, 2 young elm, buckthorn

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1176	Prunus species	Cherry Species	1	10		F	P	G	F	Applicant	2	remove	10% branches dead, Codominant leaders (10). Impacted by 10cm grading fill for proposed parking
1177	Salix babylonica	Weeping willow	1	120		F-P	P	G-F	P	Applicant	10	remove	25% branches dead, large broken wound. Within location of proposed parking lot, impacted by 30cm grading fill.
1178	Picea glauca	White spruce	1	35	12	G	G	G	G	Applicant	4	remove	5% branches dead. Within location of proposed road, impacted by 10cm grading cut.
1179	Juglans nigra	Black Walnut	1	13		G-F	G-F	G-F	F	Applicant	5	remove	15% branches dead. Impacted by 1.00m grading fill
1180	Juglans nigra	Black Walnut	1	30		F	F	F	F	Applicant	4	remove	25% branches dead. Impacted by 1.00m grading fill
1181	Ulmus species	Elm Species	1	35		F	F-P	F	F	Applicant	4	remove	25% branches dead, Codominant leaders. Impacted by 1.00m grading fill
1182	Juglans nigra	Black Walnut	1	10		G	G	G	G	Applicant	5	remove	5% branches dead. Within location of proposed trail and slope, impacted by 30cm grading fill.
1184	Acer saccharum	Sugar Maple	1	15		F	F-P	F	F	Applicant		remove	15% branches dead, Crowded by buckthorn. Within location of proposed trail and slope, impacted by 30cm grading fill.
1185	Juglans nigra	Black Walnut	1	30		G	G	G-F	G	Applicant	4	retain	10% branches dead, Surrounded by debris/garbage. Dripline to be minimally impacted due to location near proposed trail
1701	Fraxinus americana	White Ash	1	15		P	P	P	P	Applicant	3	remove	EAB Infested. Impacted by 30cm grading fill.
1702	Fraxinus americana	White Ash	1	18		P	P	P	P	Applicant	3	remove	EAB Infested.
1703	Populus tremuloides	Trembling Aspen	1	11		G	G	G	G	Applicant	3	remove	Within proposed location of trail.
1704	Populus tremuloides	Trembling Aspen	1	14		G	G	G	G	Applicant	3	retain	
1705	Populus tremuloides	Trembling Aspen	1	17		G	G	G	G	Applicant	4	retain	
1706	Populus tremuloides	Trembling Aspen	1	15		G	G	G	G	Applicant	4	retain	
1707	Fraxinus americana	White Ash	1	16		P	P	P	P	Applicant	3	remove	EAB Infested.
1708	Populus tremuloides	Trembling Aspen	1	11		G	G	G	G	Applicant	3	retain	
1709	Populus tremuloides	Trembling Aspen	1	13		G	G	G	G	Applicant	3	retain	
1710	Fraxinus americana	White Ash	1	17		P	P	P	P	Applicant	3	remove	EAB Infested.
1711	Fraxinus americana	White Ash	1	17		P	P	P	P	Applicant	3	remove	EAB Infested.
1712	Acer negundo	Manitoba Maple	1	17		P	P	P	P	Applicant	4	remove	Poor condition
1713	Juglans nigra	Black Walnut	1	18		P	F	F	P	Applicant	3	remove	Poor condition
1714	Acer negundo	Manitoba Maple	1	35		P	F	F	P	Applicant	7	remove	Poor condition
1715	Acer negundo	Manitoba Maple	1	25		P	F	F	P	Applicant	5	remove	Poor condition and within proposed trail location
1716	Juglans nigra	Black Walnut	1	16		G	G	G	G	Applicant	3	remove	Within proposed trail location
1717	Prunus serotina	Black Cherry	1	35		F	F	F	F	Applicant	6	retain	Grading to occur within dripline
1718	Prunus serotina	Black Cherry	1	25		F	F	F	F	Shared	5	retain	

Page 3

Table 1: Tree Data Charts

Project: 78 & 82 Eastview Road
Date of Field Work: June 14, 2018
Field Work Completed By: S. Tasdivi and N. Mirzaei
Weather: Sunny, 25 to 30 degrees

Tree Tag # | Botanical Name | Common Name | No. | DBH (cm) | Height (m) | Tree Condition: TI, CB, CV, OV | Tree Ownership | Skyline Redline | Recommendation | Remarks

Condition: Good, Fair, Poor, Dead, Very Poor, Extremely Poor

Tree Assessment criteria:
TI - Trunk Integrity: assessment of the trunk for any defects or weaknesses.
CB - Canopy Structure: assessment of scaffold branches, unions and canopy.
CV - Canopy Vigour: assessment of the health of the tree, based on comparison of the amount of deadwood and live growth in the crown.
OV - Overall tree condition.

Tree Preservation Criteria:
Good: tree displays less than 10% defoliation/pitted within the given tree assessment criteria (TI,CB,CV)
Fair: tree displays 10-40% defoliation/pitted within the given tree assessment criteria (TI,CB,CV)
Poor: tree displays greater than 40% defoliation/pitted within the given tree assessment criteria (TI,CB,CV)

Tree Preservation / Removal Legend:
Trees to be Preserved — Trees to be relocated
Trees to be Saved — Trees to be Transplanted

Tree Tag #	Botanical Name	Common Name	No.	DBH (cm)	Height (m)	TI	CB	CV	OV	Tree Ownership	Skyline Redline	Recommendation	Remarks
1719	Prunus serotina	Black Cherry	1	23		F	P	P	P	Shared	3	retain	
1720	Prunus serotina	Black Cherry	1	19		P	F	P	P	Applicant	4	remove	Poor condition
1721	Prunus serotina	Black Cherry	1	21		P	F	P	P	Applicant	4	remove	Poor condition
1722	Prunus serotina	Black Cherry	1	22		F	F	F	F	Applicant	4	retain	
1723	Prunus serotina	Black Cherry	1	19		F	F	F	F	Applicant	3	retain	
H1724	Acer platanoides	Norway Maple	1	21		P	F	P	P	Applicant	3	remove	Extensive dieback. Hazard to trail users.
1725	Acer saccharum	Sugar Maple	1	11		F	F	P	F	Applicant	2	retain	
G2	Juniperus hedge species	Juniper hedge	3	5		G	G	G	G	Applicant	1	remove	Within proposed location of building footprint
G3	Juniperus spp	Juniper Species	3	8		G	G	G	G	Applicant	2	remove	Within proposed hardscape location, impacted by 50cm grading fill
G4	Thuja spp	Cedar hedge	5	8		G	G	G	G	Applicant	1	remove	Within proposed location of road, impacted by 50-80cm grading fill
G5	Malus spp	Apple Species	3	17		G	F	G	G	Applicant	3	remove	5% branches dead, Codominant leaders. Within proposed hardscape location, impacted by 60cm grading fill.
G8	Ornamental Pear	Pear Species	3	20		P	P	P	P	Applicant	4	remove	10% branches dead. Within proposed parking lot location, impacted by 1.00m grading fill
G9	Thuja spp	Cedar hedge	30	8		G	F	G	G	Applicant	1	remove	5% branches dead; understorey: buckthorn. Within proposed location of lots and road
G13	Fraxinus americana	White Ash	3	30		F-P	P	F-P	P	Applicant	3	remove	75% branches dead, Esh, 3 dying Ash, dense buckthorn understory. Impacted by 40cm grading cut
G14	Fraxinus americana	White Ash	7	10-20		P	P	P	P	Applicant	4	remove	EAB Infested. Hazard.
G16a	Populus species	Cottonwood	200(+/-)	5		G	G	G	G	City	1	retain	1' young
G16b	Populus deltoides	Cottonwood	5	20		G	G	G	G	Applicant	1	retain	understory: buckthorn, cottonwood, Manitoba maple, young hickory
G17	Populus deltoides	Cottonwood	9	15-20		F	F	F	F	Applicant	2	retain	90% branches dead (3-5m spacing); understory; buckthorn, cedar, grapevine, young birch (river?)
G17	Fraxinus americana	White Ash	1	20		P	P	P	P	Applicant	2	retain	EAB; understory: buckthorn, cedar, grapevine, young birch (river?)
G18	Populus deltoides	Cottonwood	10	10-25		G	G	G	G	Applicant	2	retain	10% branches dead; understory: buckthorn, balsam poplar, river birch, cottonwood, black Walnut, cedar
G19	N/A	N/A	10+	15		P	P	P	P	Applicant	1-3	retain	Many dead standing trees, understory: white cedar,river birch, cottonwood, buckthorn, white willow,
G20	Betulus papyrifera	White Birch	5	10		P	P	P	P	Applicant	1-3	retain	15% branches dead; understory: minimal buckthorn, white cedar, cottonwood, river birch
G20	Pinus resinosa	Red Pine	1	25		G	G	G	G	Applicant	1-3	retain	15% branches dead; minimal buckthorn, white cedar, cottonwood, river birch
G20	Populus deltoides	Cottonwood	3	20		G	G	G	G	Applicant	1-3	retain	15% branches dead; minimal buckthorn, white cedar, cottonwood, river birch

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SCALE 1:750(m)

NO	DATE	REVISION/ISSUED	BY	APPD
3	11/03/20	2ND SUBMISSION	JB	BV
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1	26/02/19	ISSUED FOR SITE PLAN	WL	BV

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CLIENT:
EXQUSITE DEVELOPERS
221 HELEN AVE, MARKHAM, ONTARIO

PROJECT TITLE:
78-82 EASTVIEW DVP
TREE MANAGEMENT PLANS
SP #1

SITE ADDRESS:
78-82 EASTVIEW
EASTVIEW STREET, GUELPH

DRAWING TITLE:
KEY PLAN

STAMP
ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS
BENJAMIN D. VANDERVEEN
OALA
11 / 2 / 2020
MEMBER

STAMP

DESIGNED	DRAWN	CHECKED
BV	JB	BV

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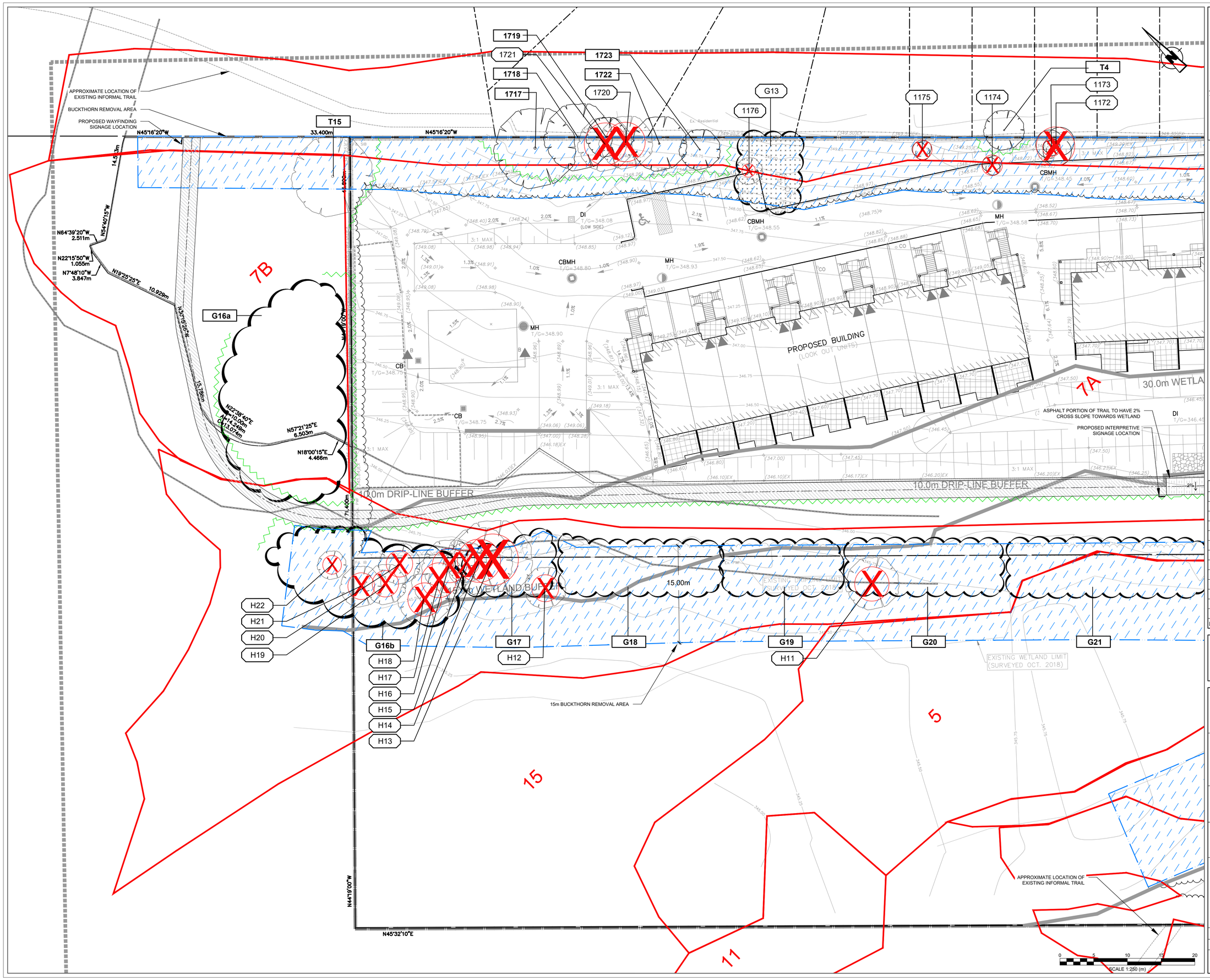
DATE January 25th, 2019
PROJECT NUMBER 17M-01526-00
DWG. NUMBER L-200



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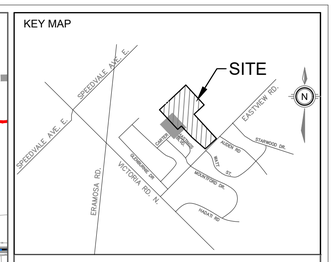

LEGEND

- EXISTING TREE GROUPING
- EXISTING TREE GROUP/ WOODLOT TO BE REMOVED
- EXISTING SURVEYED TREE
- EXISTING TREE TO BE REMOVED
- T/G — IDENTIFICATION NUMBER FOR EXISTING INDIVIDUAL TREE OR GROUP TO BE REMOVED
- H — IDENTIFICATION NUMBER FOR EXISTING INDIVIDUAL HAZARD TREE OR GROUP TO BE REMOVED
- T/G — IDENTIFICATION NUMBER FOR EXISTING INDIVIDUAL TREE OR GROUPING TO REMAIN IN WHOLE OR IN PART
- BUCKTHORN REMOVAL AREA
- DEBRIS CLEAN-UP AREA
- VEGETATION UNIT
- TREE PROTECTION FENCE WITH EROSION CONTROL. REFER TO DETAIL L-210, L-220
- SITE BOUNDARY
- PROPOSED WAYFINDING/INTERPRETIVE SIGNAGE LOCATION
- PROPOSED STONE DUST TRAIL AS PER 6/L-500
- PROPOSED ASPHALT TRAIL AS PER 7/L-500

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TREE MANAGEMENT PLANS
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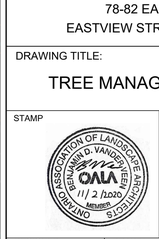
SITE ADDRESS:
78-82 EASTVIEW
EASTVIEW STREET, GUELPH

DRAWING TITLE:
TREE MANAGEMENT PLAN

STAMP



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BV	JB	BV

SCALE 1:250 — DATE January 25th, 2019

PROJECT NUMBER 17M-01526-00 — DWG. NUMBER L-210

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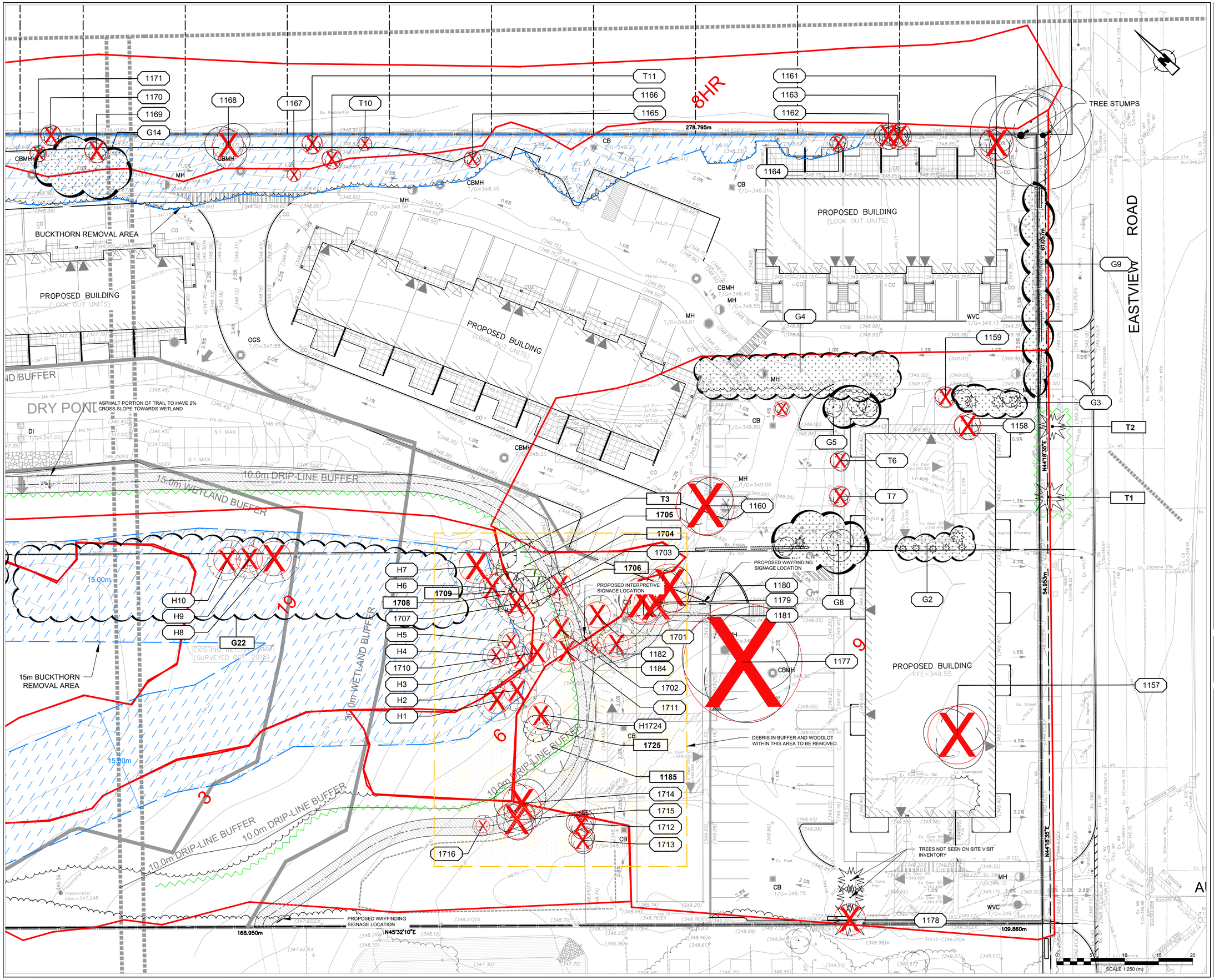

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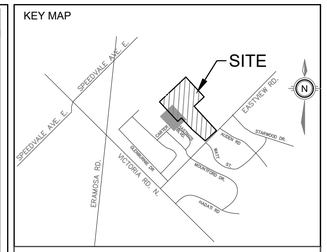

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- PROPOSED WAYFINDING/INTERPRETIVE SIGNAGE LOCATION
- PROPOSED STONE DUST TRAIL AS PER 6/L-500
- PROPOSED ASPHALT TRAIL AS PER 7/L-500

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221 HELEN AVE, MARKHAM, ONTARIO

PROJECT TITLE:
78-82 EASTVIEW
TREE MANAGEMENT PLANS
SP #1

SITE ADDRESS:
78-82 EASTVIEW
EASTVIEW STREET, GUELPH

DRAWING TITLE:
TREE MANAGEMENT PLAN

STAMP: ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — BENJAMIN D. VANDERVEEN — OALA — 11/2/2020

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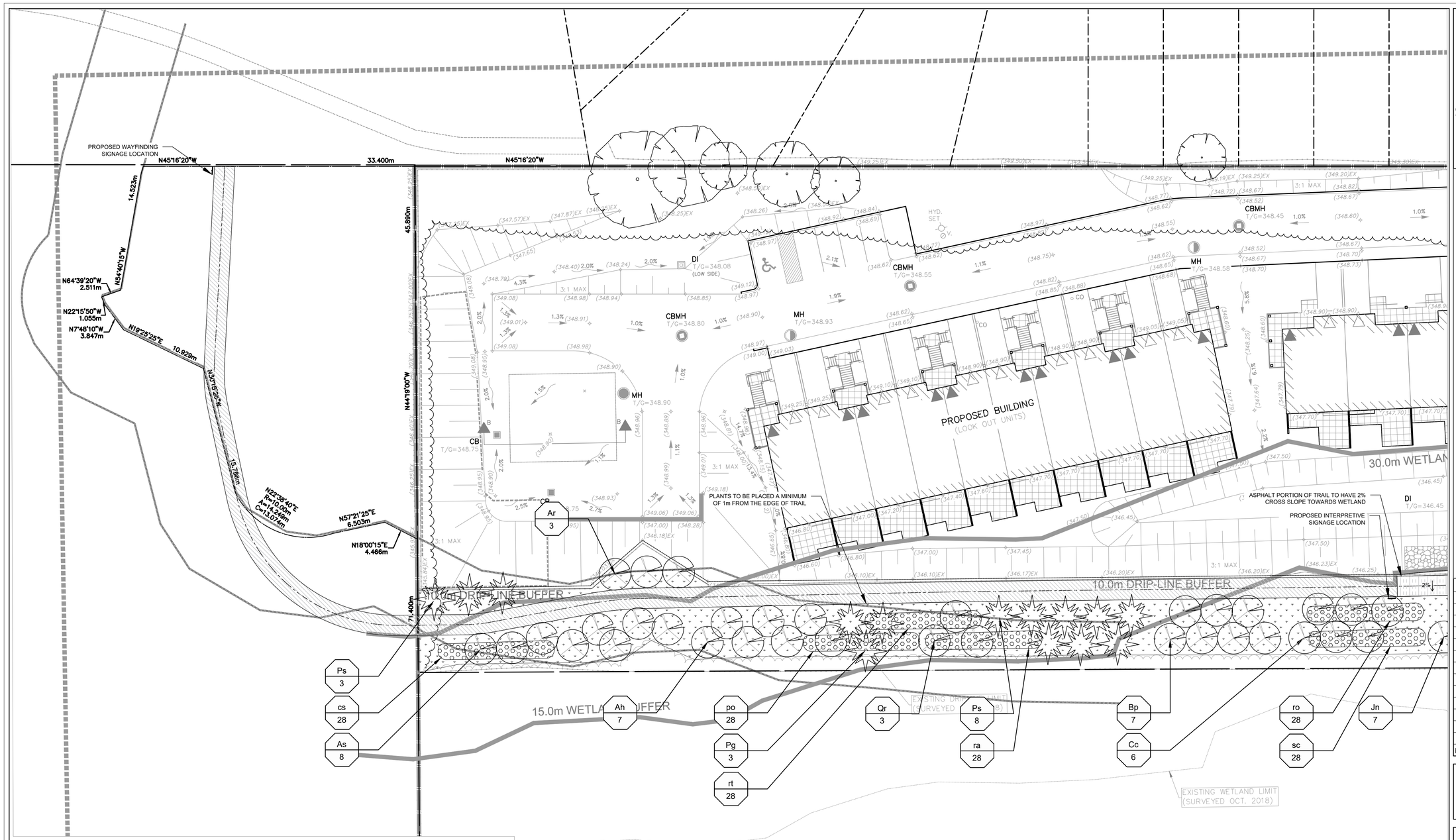
DESIGNED	DRAWN	CHECKED
BV	JB	BV

SCALE 1:250 — DATE January 25th, 2019

PROJECT NUMBER 17M-01526-00 — DWG. NUMBER L-220



PLANT MASTER LIST

Key		Total Qty.	Botanical Name	Common Name	Condition	Spacing	Remarks
DECIDUOUS TREES							
Ar		10	Acer rubrum	Red Maple	W.B., 50 cal.	As Shown	straight trunk, full crown
As		11	Acer saccharum	Sugar Maple	W.B., 50 cal.	As Shown	straight trunk, full crown
Ah		13	Aesculus hippocastanum	European Horse-Chestnut	W.B., 50 cal.	As Shown	straight trunk, full crown
Bp		7	Betula papyrlfera	Paper Birch	W.B., 50 cal.	As Shown	straight trunk, full crown
Cc		6	Carya cordiformis	Bitternut Hickory	W.B., 50 cal.	As Shown	straight trunk, full crown
Jn		7	Juglans nigra	Black Walnut	W.B., 50 cal.	As Shown	straight trunk, full crown
Qr		12	Quercus rubra	Red Oak	W.B., 50 cal.	As Shown	straight trunk, full crown
CONIFEROUS TREES							
Pg		11	Picea glauca	White Spruce	200cm ht.	As Shown	straight trunk, full crown
Ps		21	Pinus strobus	Eastern White Pine	200cm ht.	As Shown	straight trunk, full crown
SHRUB GROUPINGS							
cs		84	Cornus sericea	Redosier Dogwood	3 gal.	As Shown	full, bushy specimen
po		58	Physocarpus opulifolius	Common Ninebark	3 gal.	As Shown	full, bushy specimen
rt		58	Rhus typhina	Staghorn Sumac	3 gal.	As Shown	full, bushy specimen
ra		56	Rhus aromatica	Fragrant Sumac	3 gal.	As Shown	full, bushy specimen
ro		56	Rubus occidentalis	Black Raspberry	3 gal.	As Shown	full, bushy specimen
sc		56	Sambucus canadensis	American Elder	3 gal.	As Shown	full, bushy specimen
vl		56	Viburnum lentago	Nannyberry	3 gal.	As Shown	full, bushy specimen

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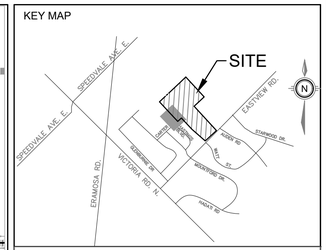
KEY MAP



LEGEND

- EXISTING TREE
- PROPOSED DECIDUOUS TREE PLANTING AS PER 3/L-500 & 4/L-500
- PROPOSED CONIFEROUS TREE PLANTING AS PER 3/L-500 & 4/L-500
- PROPOSED SHRUB GROUP PLANTING AS PER 5/L-500
- PROPOSED HYDRO- SEEDING AS PER NOTES AND SPECS
- PROPOSED STONE DUST TRAIL AS PER 6/L-500
- PROPOSED ASPHALT TRAIL AS PER 7/L-500
- PROPOSED WAYFINDING/INTERPRETIVE SIGNAGE LOCATION
- Aa / ## PLANT KEY

NO	DATE	REVISION/ISSUED	BY	APPD
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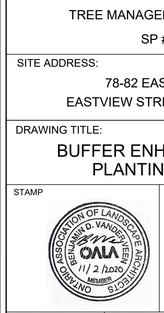
SITE ADDRESS:
78-82 EASTVIEW
EASTVIEW STREET, GUELPH

DRAWING TITLE:
BUFFER ENHANCEMENT PLANTING PLAN

STAMP



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DESIGNED	BV	DRAWN	JB	CHECKED	BV
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PROJECT NUMBER	17M-01526-00	DWG. NUMBER	L-400		

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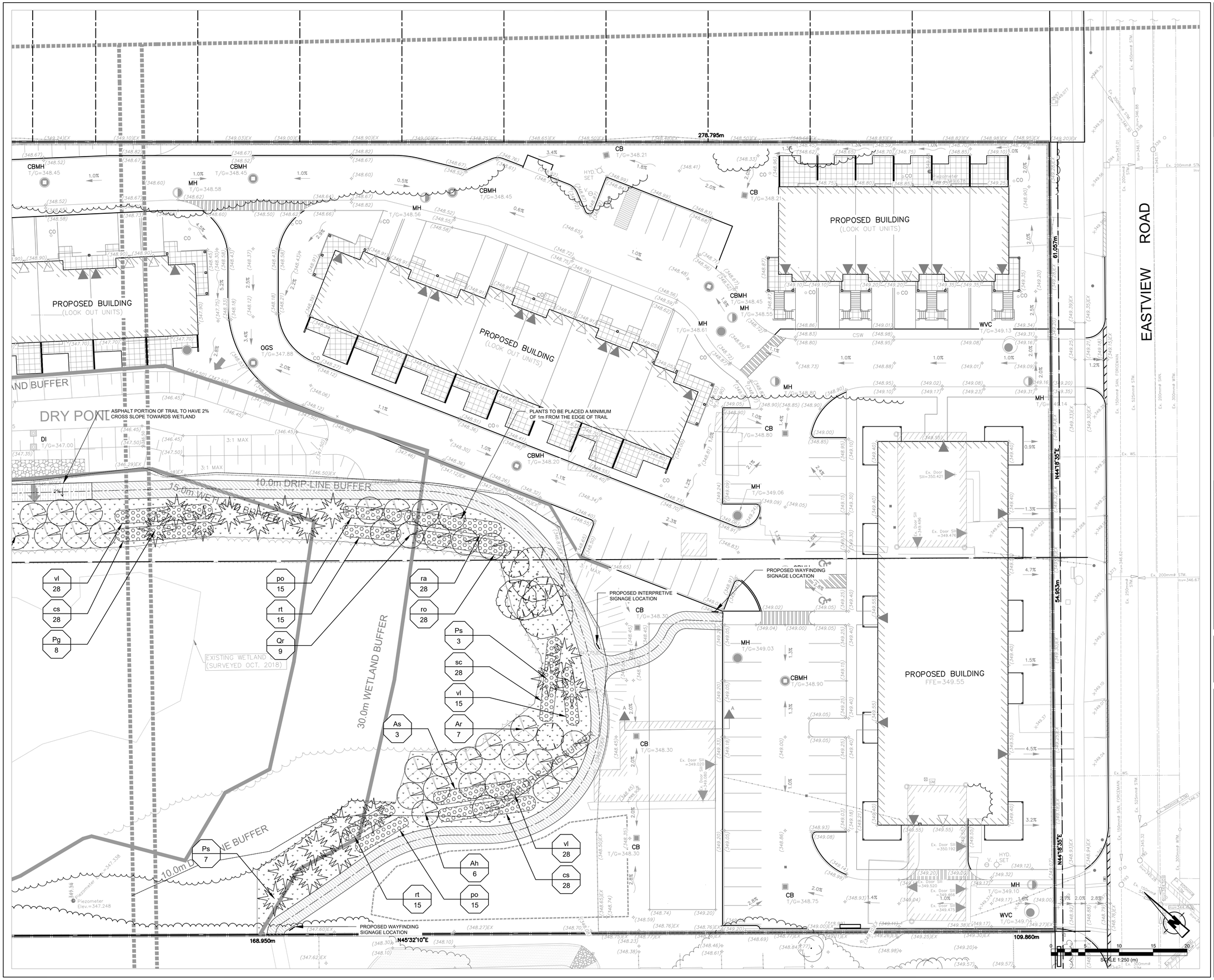

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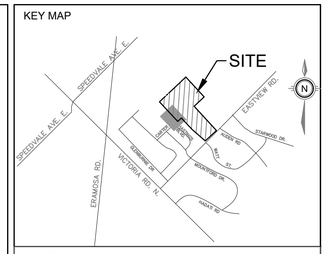

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BUFFER ENHANCEMENT PLANTING PLAN

STAMP: ONTARIO ASSOCIATION OF LANDSCAPE ARCHITECTS — BRIAN C. VANDERWEY — OALA — 11 / 2 /2020 — Renewed

STAMP

DESIGNED	DRAWN	CHECKED
BV	JB	BV

SCALE 1:250 — DATE January 25th, 2019

PROJECT NUMBER 17M-01526-00 — DWG. NUMBER L-410

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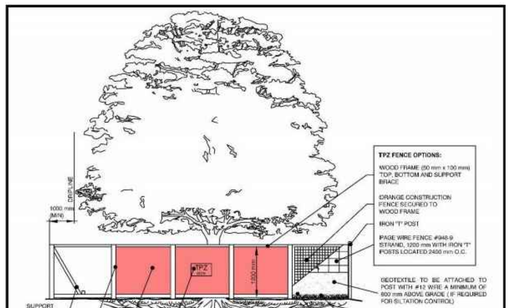


TREE PROTECTION BARRIER NOTES:

1. ALL TREE PROTECTION TO BE IN ACCORDANCE WITH THE "TREE TECHNICAL MANUAL".
2. REFER TO SPECIFICATION FOR ADDITIONAL DETAILS AND REQUIREMENTS RELATED TO THIS DETAIL.
3. HOARDING TYPE SHOULD BE DETERMINED IN CONSULTATION WITH THE CITY.
4. ALL TREE PROTECTION HOARDING SHALL BE IN PLACE AND MUST BE INSPECTED AND APPROVED BY THE CITY PRIOR TO ANY CONSTRUCTION ACTIVITIES.
5. ALL ARBORICULTURE WORK SUCH AS PRUNING OF BRANCHES AND ROOTS SHALL BE CONDUCTED BY A CERTIFIED ARBORIST.
6. CONSTRUCTION ACTIVITIES, GRADE CHANGES, AND STORAGE OF EQUIPMENT AND MATERIALS ARE NOT ALLOWED WITHIN THE TREE PROTECTION ZONE.

Tree Protection Zones (TPZ)

Diameter of Trunk Centimeters at 1.4 m above grade (DBH)	Minimum Tree Protection Zone (TPZ) Distance from trunk, measured in metres.	Potential Rooting Area (PRA) for all trees and TPZ for trees in MNS,[1] parks, open spaces and other significant natural heritage areas.
<10	1.2	2.4
10-29	1.8	3.6
30-40	2.4	4.8
41-50	3.0	6.0
51-60	3.6	7.2
61-70	4.2	8.4
71-80	4.8	9.6
81-90	5.4	10.8
91-100	6.0	12.0
>100	6 cm per 1 cm DBH	12 cm per 1 cm DBH

Note:
1- Or dripline plus 1 metre, whichever is greater.
2- Natural Heritage System

CITY OF GUELPH STANDARD DRAWING

TREE PROTECTION ZONE (TPZ) FENCE DETAIL

DATE DRAWN: JAN/11 | REV. No.: 4 | DESCRIPTION: N.T.S. | REV. DATE: NOV/18 | REV. BY: T.F. | APPROVED BY: | MANAGER PARKS, OPERATIONS AND FORESTRY | PARKS OPERATIONS AND FORESTRY | SD - 90a

1 L-500 TREE PROTECTION ZONE FENCE DETAIL

N.T.S.

TREE PROTECTION ZONE (TPZ)

NO GRADE CHANGE
DUMPING
STORAGE OF MATERIALS
STORAGE OF EQUIPMENT
UNAUTHORIZED ENTRY
TREE INJURY OR REMOVAL
DISTURBANCE OF ANY KIND

THIS FENCING MUST NOT BE DAMAGED OR MOVED

CONTACT: Contractor name and telephone number of contact

City of Guelph: Forestry 519-837-5626 (parks@guelph.ca)
Planning 519-837-5616 (planning@guelph.ca)

40 CM MIN.

60 CM MIN.

Sign Design, Installation and Maintenance: TPZ information signs shall be constructed from metal, corrugated plastic, Gatorboard or wood, and shall be installed in an appropriate manner such that it will be able to withstand inclement weather conditions. Signage shall be maintained in good condition and in the original location throughout the duration of site development works. Signage shall be clearly legible, with black text on a white background being the preferred design.

Sign Content: The TPZ information sign shall, at minimum, provide a list of activities prohibited within the TPZ. Such activities shall include, but not be limited to: grade change, dumping, storage of equipment and materials, unauthorized entry by personnel, tree injury or removal, or other disturbance of any kind. The signage shall also note that TPZ fencing shall not be damaged or removed. The signage shall also provide the contact information for the City of Guelph Planning, Building, Engineering and Environmental Services Department. A City of Guelph corporate logo shall be displayed on the TPZ information sign.

Sign Placement: TPZ information signs shall be affixed no more than 20 m apart on each side of tree protection fencing, at a height of no less than 100 cm.

Sign Size: TPZ information signs shall be a minimum of 40 cm × 60 cm in size

CITY OF GUELPH STANDARD DRAWING

TREE PROTECTION ZONE (TPZ) INFORMATION SIGNAGE DETAIL

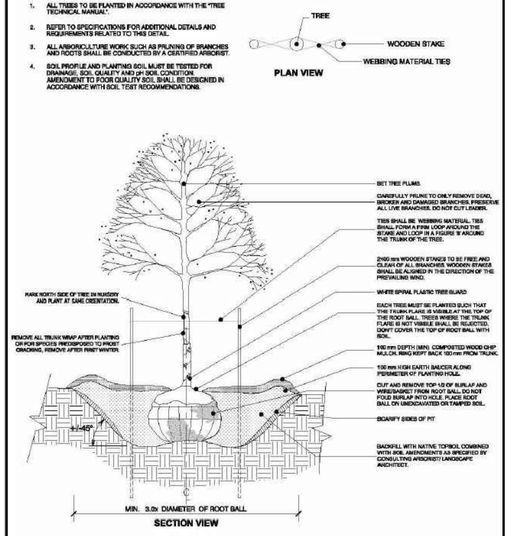
DATE DRAWN: JAN/11 | REV. No.: 2 | DESCRIPTION: N.T.S. | REV. DATE: FEB/18 | REV. BY: C.M.C. | APPROVED BY: | MANAGER PARKS, OPERATIONS AND FORESTRY | PARKS OPERATIONS AND FORESTRY | SD - 90c

2 L-500 TREE PROTECTION ZONE INFO SIGNAGE DETAIL

N.T.S.

NOTES:

1. ALL TREES TO BE PLANTED IN ACCORDANCE WITH THE "TREE TECHNICAL MANUAL".
2. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS RELATED TO THIS DETAIL.
3. ALL ARBORICULTURE WORK SUCH AS PRUNING OF BRANCHES AND ROOTS SHALL BE CONDUCTED BY A CERTIFIED ARBORIST.
4. SOIL PROFILE AND PLANTING SOIL MUST BE TESTED FOR DRAINAGE, SOIL QUALITY AND pH SOIL CONDITION. AMENDMENT TO POOR QUALITY SOIL SHALL BE DESIGNED IN ACCORDANCE WITH SOIL TEST RECOMMENDATIONS.



CITY OF GUELPH STANDARD DRAWING

TREE PLANTING - DECIDUOUS
(PARKS, OPEN SPACES AND STORMWATER MANAGEMENT FACILITIES)

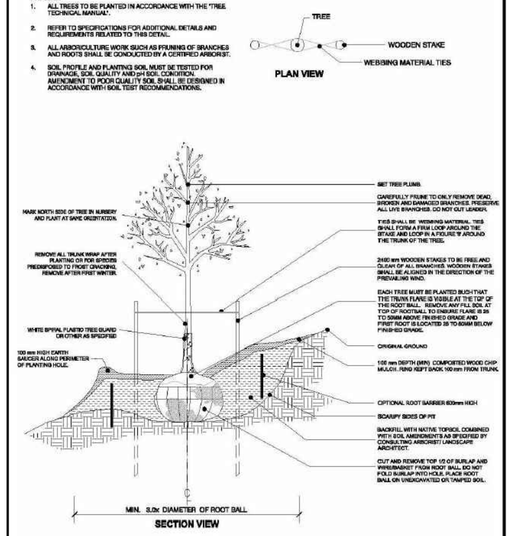
DATE DRAWN: FEB/18 | REV. No.: - | DESCRIPTION: N.T.S. | REV. DATE: | REV. BY: | APPROVED BY: | MANAGER PARKS OPERATIONS AND FORESTRY | PARKS OPERATIONS AND FORESTRY | SD - XX

3 L-500 TREE PLANTING

NTS

NOTES:

1. ALL TREES TO BE PLANTED IN ACCORDANCE WITH THE "TREE TECHNICAL MANUAL".
2. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS RELATED TO THIS DETAIL.
3. ALL ARBORICULTURE WORK SUCH AS PRUNING OF BRANCHES AND ROOTS SHALL BE CONDUCTED BY A CERTIFIED ARBORIST.
4. SOIL PROFILE AND PLANTING SOIL MUST BE TESTED FOR DRAINAGE, SOIL QUALITY AND pH SOIL CONDITION. AMENDMENT TO POOR QUALITY SOIL SHALL BE DESIGNED IN ACCORDANCE WITH SOIL TEST RECOMMENDATIONS.



CITY OF GUELPH STANDARD DRAWING

TREE PLANTING - DECIDUOUS (SLOPE)

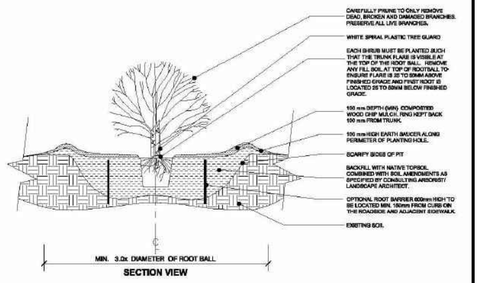
DATE DRAWN: FEB/18 | REV. No.: - | DESCRIPTION: N.T.S. | REV. DATE: | REV. BY: | APPROVED BY: | MANAGER PARKS OPERATIONS AND FORESTRY | PARKS OPERATIONS AND FORESTRY | SD - XX

4 L-500 TREE PLANTING ON A SLOPE

NTS

NOTES:

1. ALL TREES TO BE PLANTED IN ACCORDANCE WITH THE "TREE TECHNICAL MANUAL".
2. REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND REQUIREMENTS RELATED TO THIS DETAIL.
3. ALL ARBORICULTURE WORK SUCH AS PRUNING OF BRANCHES AND ROOTS SHALL BE CONDUCTED BY A CERTIFIED ARBORIST.
4. SOIL PROFILE AND PLANTING SOIL MUST BE TESTED FOR DRAINAGE, SOIL QUALITY AND pH SOIL CONDITION. AMENDMENT TO POOR QUALITY SOIL SHALL BE DESIGNED IN ACCORDANCE WITH SOIL TEST RECOMMENDATIONS.



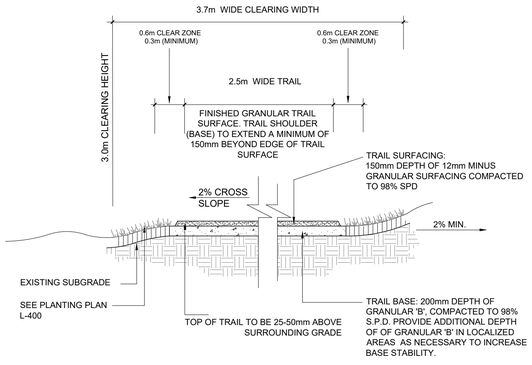
CITY OF GUELPH STANDARD DRAWING

TYPICAL SHRUB PLANTING - POTTED

DATE DRAWN: FEB/18 | REV. No.: - | DESCRIPTION: N.T.S. | REV. DATE: | REV. BY: | APPROVED BY: | MANAGER PARKS OPERATIONS AND FORESTRY | PARKS OPERATIONS AND FORESTRY | SD - XX

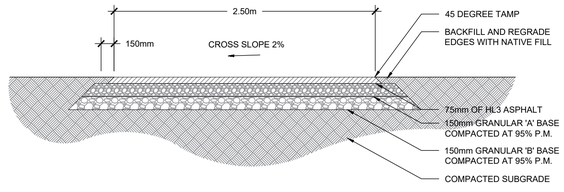
5 L-500 SHRUB PLANTING

NTS



6 L-500 2.5m STONE DUST TRAIL

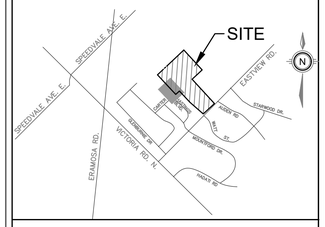
NTS



7 L-500 2.5m ASPHALT TRAIL

NTS

KEY MAP



NO	DATE	REVISION/ISSUED	BY	APPD
3	11/03/20	2ND SUBMISSION	JB	BV
2	29/07/19	TRAIL CONCEPT FOR INT REV	WL	BV
1	26/02/19	ISSUED FOR SITE PLAN	WL	BV

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t. 519-743-8777
www.wsp.com

CLIENT:
EXQUSITE DEVELOPERS
221 HELEN AVE, MARKHAM, ONTARIO

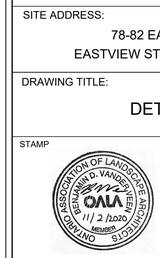
PROJECT TITLE:
78-82 EASTVIEW

SP #1

SITE ADDRESS:
78-82 EASTVIEW
EASTVIEW STREET, GUELPH

DRAWING TITLE:
DETAILS

STAMP



STAMP

DESIGNED	DRAWN	CHECKED
BV	JB	BV

SCALE N/A | DATE January 25th, 2019

PROJECT NUMBER 17M-01526-00 | DWG. NUMBER L-500