Memorandum to the City of Markham Committee of Adjustment July 28, 2020

File: A/070/20

Address: 95 Emmeloord Cres Markham

Applicant: Jim Kalogiros

Agent: Gregory Design Group (Russ Gregory)

Hearing Date: Wednesday, July 29, 2020

The following comments are provided on behalf of the Central Team. The Applicant requests relief from the following requirements of the "Fourth Density Single Family Residential (R4)" Zone in By-law 11-72, as amended. The variances requested are to permit:

a) Section 6:

a minimum side yard setback of 4 feet for a two storey structure, whereas the By-law requires 6 feet;

b) **Section 6.1:**

a maximum height of 26.75 feet, whereas the By-law requires 25 feet;

c) Section 6.1:

a maximum lot coverage of 40.3 percent, whereas the By-law requires 33.3 percent;

d) Section 6:

a minimum front yard setback of 22 feet 11 inches, whereas the By-law requires 25 feet;

e) <u>Section 4.6:</u>

To permit an accessory building located 17.7 inches from the rear lot line with no parts of it closer than 6 inches, whereas the By-law requires 2 feet;

The variances relate to a proposed two storey detached house and accessory structure.

BACKGROUND

Property Description

The 633.30 m² (6,817 ft²) subject property is located east of Village Parkway, north of Highway 7 East, and west of Sciberras Road. The property is located within the neighbourhood known as Varley Village, which is an established neighbourhood characterized by two-storey single detached dwellings. Mature vegetation is a predominant characteristic of the property and of the neighbourhood. The property currently contains a 235 m² (2529.52 ft²) detached dwelling with an attached double-car garage.

Proposal

The applicant proposes to demolish the existing home and construct a two storey detached dwelling with a gross floor area ("GFA") of 387 m² (4,165.63 ft²), an accessory cabana structure in the rear yard with a GFA of 13.9 m² (149.6 ft²), and a pool in the rear yard (the "proposed development"). The applicant is proposing the removal of two trees and the partial removal of a hedge to facilitate the construction of the proposed development. The hedge is located on the eastern lot line of the subject property and its removal will require the consent of the adjacent property owner as a condition of approval to this application.

Official Plan and Zoning

Official Plan 2014 (partially approved on Nov 24/17, and updated on April 9/18)

The subject property is designated "Residential Low Rise", which provides for low rise housing forms including single detached dwellings. Infill development is required to meet the general intent of the 2014 Official Plan with respect to height, massing, and setbacks to ensure that the development is appropriate for the site and also generally consistent with the zoning requirements for adjacent properties and properties along the same street. Planning staff have had regard for the infill development criteria in the preparation of the comments provided below. The proposed single family detached dwelling conforms with the Residential Low Rise criteria in the City of Markham's 2014 Official Plan.

Zoning By-Law 11-72

The subject property is zoned "Fourth Density Single Family Residential (R4)" under By-law 11-72, which permits single detached dwellings. The proposed development does not comply with the by-law with respect to height, side and front yard setbacks, lot coverage, and rear yard setback for an accessory building.

Varley Village Infill Area

The subject property is located within an area of the City that is currently experiencing a transition towards the redevelopment of existing dwellings to larger dwellings. In response to concerns with this trend, a number of residents requested that the City of Markham consider an infill housing by-law for the Varley Village neighbourhood. The Unionville Sub-Committee, a Committee of Council, undertook a review of this issue with community consultation, and ultimately recommended that no action be taken on an infill by-law at this time. This position was endorsed by the Development Services Committee on June 19, 2012. As such, the existing by-law standards continue to apply.

Notwithstanding that an infill by-law was not adopted, the Committee should be aware of Council's and the community's concerns with regard to variances and its decision to maintain the current standards of the zoning by-law. In addition, the Committee should consider public input before making a decision.

Zoning Preliminary Review (ZPR) Undertaken

The owner completed a Zoning Preliminary Review (ZPR) on June 18, 2020 to confirm the variances required for the proposed development. If the variances requested in this application contain errors, or if the need for additional variances is identified during the Building Permit review process, further variance application(s) may be required to address the non-compliance.

COMMENTS

The *Planning Act* states that four tests must be met in order for a variance to be granted by the Committee of Adjustment:

- a) The variance must be minor in nature;
- The variance must be desirable, in the opinion of the Committee of Adjustment, for the appropriate development or use of land, building or structure;
- c) The general intent and purpose of the Zoning By-law must be maintained;
- d) The general intent and purpose of the Official Plan must be maintained.

Increase in Maximum Building Height

The applicant is requesting a maximum building height of 26.75 feet (8.15 metres), whereas the bylaw permits 25 feet (7.62 metres). This represents an increase of approximately 1.75 feet (0.53 metres), or 6.5% from the by-law.

If approved, the proposed dwelling will be slightly taller than other existing homes on the street, although the height is generally consistent with other newer infill residential developments in the area.

Staff do not evaluate the architectural design of buildings that are the subject of a variance application. However, consideration is given to many aspects of the development proposal including, but not limited to, the extent of the variances sought, the additional height and massing that may be created, any projections, setbacks, or stepbacks proposed, and other developments in an area. This evaluation assists Staff in forming their professional opinion on whether the character of an area may be negatively impacted by an approved variance.

Ensuring that an area's character is not negatively impacted is evaluated by Staff against all four tests of the Planning Act; that it is minor in nature; is desirable, is appropriate, meets the intent of the Zoning By-law; and, Official Plan conformity. Staff are of the opinion that the proposed increase in building height is consistent with the character of the neighbourhood and have no objection to the requested height variance.

Reduced Side Yard Setbacks

The applicant is requesting minimum side yard setbacks of 4 feet (1.22 metres) for a two storey structure, whereas the by-law requires a minimum side yard setback of 6 feet (1.83 metres). This represents a decrease of 2 feet (0.61 metres), or a 34% reduction from the by-law.

On the western façade, the variance applies to the northern portion of the proposed dwelling and the covered terrace at the rear. On the eastern façade, the variance applies to a 1 foot, 6 inch projection of the dining room and washroom. The remaining portions of the façades comply with the 6 foot side yard requirement. Staff do not anticipate the proposed side yard setback reduction having adverse impacts on neighbouring properties in terms of grading or landscaping.

Reduction in Front Yard Setback

The applicant is requesting relief to permit a minimum front yard setback of 22 feet, 11 inches (6.9 metres), whereas the By-law requires a minimum front yard setback of 25 feet (7.62 metres). This represents a reduction of 2.1 feet (0.64 metres), or 9.5% reduction from the by-law. The variance is entirely attributable to the front covered porch which projects 5 feet from the rest of the proposed dwelling's façade. The main front wall of the building provides a front yard setback of 27.97 feet (8.52 metres) and is consistent with the established front yard setback pattern on the street.

Increase in Maximum Lot Coverage

The applicant is requesting relief for a maximum lot coverage of 40.3%, whereas the By-law permits a maximum lot coverage of 33.3%. This represents an increase of 7%.

The proposed lot coverage includes the front covered porch, and the rear covered terrace, which combined adds approximately 23.38 m² (251.66 ft²) to the overall building area. Excluding the front covered porch and rear covered terrace, the proposed dwelling unit has an approximate lot coverage of 36.6%. Given that both the front covered porch and rear terrace are unenclosed, and that an approximate rear amenity area of 177 m² (1,905.2 ft²) is being provided, Staff are of the opinion that the proposed increase in lot coverage will not significantly add to the scale and massing of the proposed dwelling.

Reduced Rear Yard Setback for an Accessory Cabana Structure

The applicant is requesting a rear yard setback of 17.7 inches (0.45 metres) for a 149.62ft² (13.9 m²) accessory cabana structure proposed in the rear yard, whereas the by-law requires a minimum rear yard setback of 2ft (0.60 metres). The proposed cabana was initially proposed to be located closer to the eastern property line, however the Applicant worked with Staff to relocate the structure towards the centre of the rear yard to mitigate any potential damage to two trees on the neighbouring property to the east. Staff have no objections to the request for the reduced rear yard setback of the proposed accessory structure.

EXTERNAL AGENCIES

This application has been circulated to various departments and external agencies and their comments have been addressed.

PUBLIC INPUT SUMMARY

Eight written submissions were received from neighbouring property owners in support of the application as of July 21, 2020. It is noted that additional information may be received after the writing of the report, and the Secretary-Treasurer will provide information on this at the meeting.

CONCLUSION

Planning Staff have reviewed the application with respect to Section 45(1) of *The Planning Act*, R.S.O. 1990, c. P.13, as amended, and are of the opinion that the variance requests meet the four tests of the Planning Act and have no objection. Staff recommend that the Committee consider public input in reaching a decision.

The onus is ultimately on the applicant to demonstrate why they should be granted relief from the requirements of the zoning by-law, and how they satisfy the tests of the Planning Act required for the granting of minor variances.

Please see Appendix "A" for conditions to be attached to any approval of this application.

PREPARED BY:

Luis Juarez, Planner II, Central District

REVIEWED BY:

Sabrina Bordone, Senior Planner, Central District

File Path: Amanda\File\ 20 117135 \Documents\District Team Comments Memo

Appendices:

Appendix "A": Conditions of Approval (A/070/20)

Appendix "B": Zoning & Context Map

Appendix "C": Plans

Appendix "D": Tree Assessment and Preservation Plan

APPENDIX "A" CONDITIONS TO BE ATTACHED TO ANY APPROVAL OF FILE A/070/20

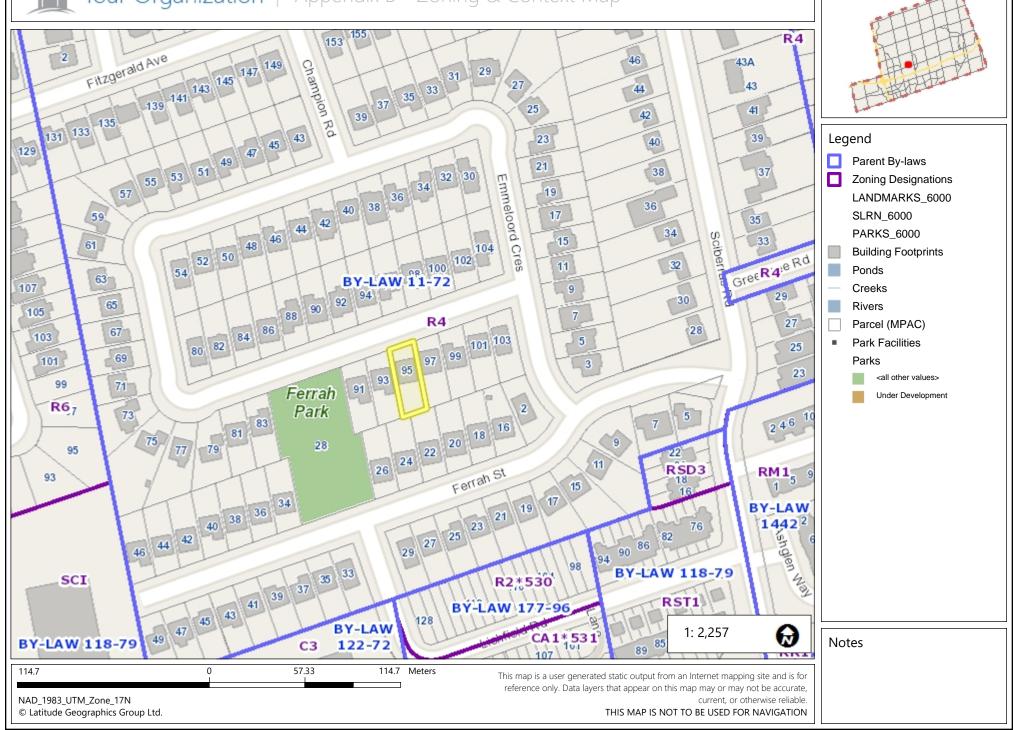
- 1. The variances apply only to the proposed development as long as it remains;
- 2. That the variances apply only to the subject development, in substantial conformity with the plan(s) attached as 'Appendix B' to this Staff Report and received by the City of Markham on July 10, 2020, and that the Secretary-Treasurer receive written confirmation from the Director of Planning and Urban Design or designate that this condition has been fulfilled to his or her satisfaction;
- 3. Submission of a Tree Assessment and Preservation Plan, prepared by a qualified arborist in accordance with the City's Streetscape Manual (2009), as amended, to be reviewed and approved by the City, and that the Secretary-Treasurer receive written confirmation from Tree Preservation Technician or Director of Operations that this condition has been fulfilled to his/her satisfaction, and that any detailed Siting, Lot Grading and Servicing Plan required as a condition of approval reflects the Tree Assessment and Preservation Plan;
- 4. That prior to the commencement of construction or demolition, tree protection be erected and maintained around all trees on site in accordance with the City's Streetscape Manual, including street trees, in accordance with the City's Streetscape Manual (2009) as amended, and inspected by City Staff to the satisfaction of the Tree Preservation Technician or Director of Operations.
- 5. That tree replacements be provided and/or tree replacement fees be paid to the City if required in accordance with the Tree Assessment and Preservation Plan, and that the Secretary-Treasurer receive written confirmation that this condition has been fulfilled to the satisfaction of the Tree Preservation Technician or Director of Operations;
- 6. That neighbouring consent be received in writing for the partial removal of the shared hedge with 97 Emmeloord Crescent (referred to as Tree 14 in the TAPP), and that the Secretary-Treasurer receive written confirmation that this condition has been fulfilled to the satisfaction of the Tree Preservation Technician or Director of Operations;

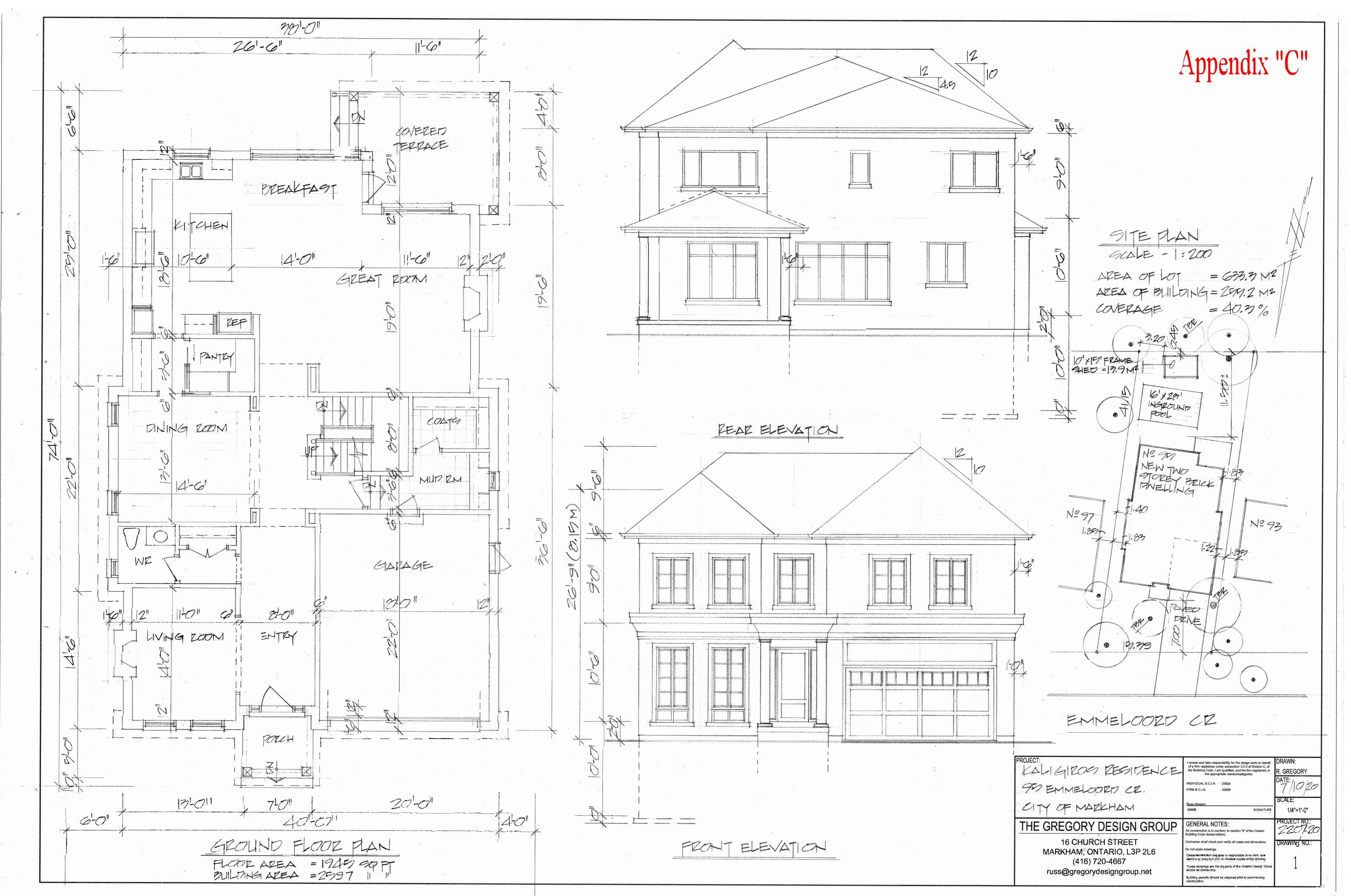
CONDITIONS PREPARED BY:

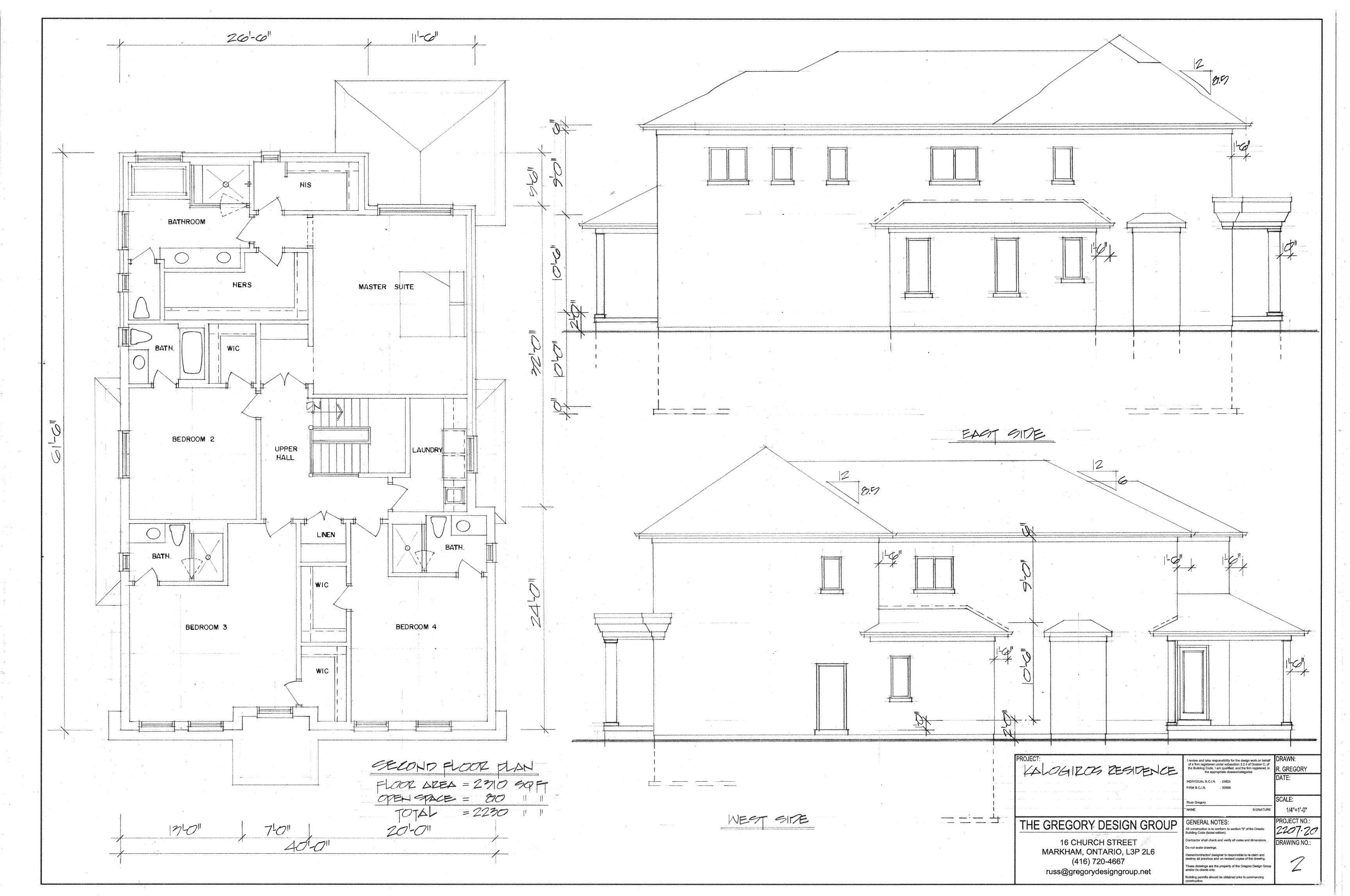
<u>Juáru</u> Luis Juarez, Planner II, Central District



Your Organization | Appendix B - Zoning & Context Map







THOMSON WATSON CONSULTING ARBORISTS Inc.

4 Elmvale Boulevard, Stouffville, Ontario. L4A 2Y3 416-821-5003 trish@thomsonwatson.ca

July 15, 2020

The Gregory Design Group 16 Church Street Markham, Ontario. L3P 2L6 Appendix "D"

Re: Tree Assessment and Preservation Plan for 95 Emmeloord Crescent, Markham

Thomson Watson Consulting Arborists Inc. was asked to prepare a Tree Assessment and Preservation Plan (TAPP) for 95 Emmeloord Crescent in Markham. It is proposed to demolish the existing house and rebuild with a larger footprint. It is proposed to install a pool and cabana in the backyard. The existing driveway will remain in place. The report provides the information required by the City of Markham.

INSPECTION

The trees were inspected on June 11, 2020. All trees of any size on the municipal boulevard and private trees 20 cm or greater in diameter (measured at 1.4 metres from grade) on the subject property or within six metres of the property line within proximity to the proposed construction were examined and inventoried. The number given each tree was placed by hand on the site plan, which is attached as Tree Preservation and Planting Plan.

For each tree, the species was identified, diameter measured and the health and structural condition determined. Tree inspection was limited to visual on-ground examination without dissection, excavation, probing, or coring. Furthermore, any data and information collected is based on the conditions at the time of inspection. This information is attached within a one page excel spreadsheet titled Tree Inventory. Photographs of the significant trees are attached.

PLANS AND OWNER INFORMATION PROVIDED

The following plans were provided for use in this TAPP: Site Plan by The Gregory Design Group dated 7/10/20

Grading and Site Services Plans were not provided.

The property owner information is as follows
Mr. and Mrs. Kaligiros
95 Emmeloord Crescent, Markham, Ontario

DISCUSSION

It is proposed to demolish the existing house, install a pool and cabana in the backyard and rebuild the house with a larger footprint. This construction will affect trees.

The Site Plan does not show the location of the existing house. A 60 cm high wooden retaining wall surrounds the base of Tree 6, an 80 cm Silver Maple (*Acer saccharinum*) growing at the northwest corner of the house. The retaining wall is located 1.5 metres from the edge of the garage foundation. The proposed house is located approximately 1.0 metre from the base of the tree. Excavation for the new foundation should expose very large

structural roots, which would need to be removed. Tree 6 needs to be removed to allow house construction.

Tree 3 is a triple stemmed White Birch (*Betula papyrifera*) growing at the front of the house. Deadwood has developed at the tops of the three stems. I recommend the removal of this tree, as the tree is slowly declining in health. It will not make a good tree specimen at the front of the new house.

Tree 1 is a 43 cm White Fir (*Abies concolor*) which requires a 3.0 metre Tree Protection Zone. It is proposed to place Tree Protection Fences 3.0 metres to the south, west and north of the tree. The Fence on the municipal boulevard would be created from orange snow fencing on a wooden frame. The Fence on private property would need to be created from solid wood boards.

Trees 4 and 5 are growing to the west of the existing driveway. A Tree Protection Fence will be placed 2.4 metres to the north and east of the trees, in front of 95 Emmeloord Crescent.

It is proposed to build a cabana in the backyard along the south property line. The cabana will have a four foot foundation, as it will house the pool equipment. A pool will be installed in the backyard. Four trees will be affected by the pool and cabana construction.

Tree 8 is a 64.5 cm White Oak (*Quercus alba*) growing in the southwest corner of the property. The tree requires a 4.2 metre Tree Protection Zone. The tree is located approximately 4.9 metres from the edge of the pool. It is assumed that the pool will require 100 cm overdig and an additional 100 cm should be provided for construction access around the pool. A Tree Protection Fence should be erected 4.2 metres north and 2.9 metres east of the tree (2.0 metres from the pool edge) extending to the south and west property lines. Horizontal Protection Boards should be placed over the exposed 4.2 metre Tree Protection Zone to the east of the Fence. Prior to the machine excavation of the pool, a trench should be dug at the edge of the excavation within 4.2 metres of Tree 8. The trench should be dug by hand (alternatively by hydro-vac or air spade equipment) to a depth of one metre and all exposed roots cut by hand at the tree edge of the trench.

Tree 11 is a 45 cm (estimated) Norway Maple (*Acer platanoides*) growing to the south of the south property line. The tree is located 1.3 metres south of the property line fence. The tree is in poor condition. The tree has three stems and only the north stem overhanging the subject property has live canopy. The excavation for the cabana is within the 3.0 metre Tree Protection Zone of this tree. I recommend that tree removal is discussed with the south neighbour. The neighbour should apply for the removal of the tree online, as it has poor structure and can be expected to die in time. Alternatively the owner of 95 Emmeloord Crescent could apply to remove the tree, to allow excavation for the cabana foundation to occur.

Tree 12 is a 70 cm (estimated) Silver Maple growing in the rear yard to the southeast of the property. The tree requires a 4.2 metre Tree Protection Zone. A raised water feature is located in the southeast corner of the subject property. This feature is proposed to be removed. The feature should be removed by hand down to the existing adjacent grade. Any underground utilities within 4.2 metres of Tree 12 should be left in place in the soil. This work should be done in the presence of a competent Arborist who will watch for roots and document the process and roots found. Any exposed roots should be preserved if possible. Once the feature has been removed to grade, a Tree Protection Fence should be erected 3.0 metres north of the south property line and 2.4 metres west of the east property line. This

Fence location will provide 2.0 metres of working space around the cabana and pool. Horizontal Protection Boards will be placed over the exposed soil within 4.2 metres of Tree 12. The east foundation line for the cabana will be dug by hand to a depth of 100 cm, within 4.2 metres of Tree 12 and exposed roots will be documented and cut by a competent Arborist.

Tree 13 is a 49 cm Sugar Maple (*Acer saccharum*) growing in the rear yard of 97 Emmeloord Crescent. The tree requires a 3.0 metre Tree Protection Zone. This zone extends in to the subject site by approximately 40 cm. The pool location is approximately 4.0 metres from the tree. A solid Tree Protection Fence should be erected along the east property line, within 3.0 metres of Tree 13. Prior to the machine excavation of the pool, a trench should be dug at the edge of the excavation within 3.0 metres of Tree 12. The trench should be dug by hand (alternatively by hydro-vac or air spade equipment) to a depth of one metre and all exposed roots cut by hand at the tree edge of the trench.

Tree 14 is a White Cedar hedge (*Thuja occidentalis*) growing along the east property line. The hedge to the east of the proposed house will be damaged by house construction and can be expected to be removed. This removal should be discussed with the owner of 97 Emmeloord Crescent.

Tree 7 is also a White Cedar hedge growing on the property of 93 Emmeloord Crescent. I recommend that a Tree Protection Fence be placed along the west property line adjacent to the hedge, to provide protection to the hedge.

TREE REMOVALS AND INJURIES REQUIRED

It is proposed to remove Trees 3, 6 and 11 and injure Trees 8, 12 and 13. The removal of Tree 11 may be requested by the owner of the tree

COMPENSATION AND VALUATION FOR TREES PROPOSED FOR REMOVAL AND PRESERVATION

The City of Markham is looking to achieve a zero net loss of trees or canopy cover due to construction. It is required that trees to be removed are replaced with the following ratio

20 to 40 cm diameter - 2 to 1 (Tree 3).

41 to 60 cm diameter – 3 to 1

61 to 80 cm diameter - 4 to 1 (Tree 6)

Six trees will need to be planted to compensate for the removal of Trees 3 and 6. Due to the poor structural condition of Tree 11, compensation may not be required for this tree. Compensation will be decided by the City of Markham.

It is proposed to plant the following in the spring of 2022. The trees will have a minimum caliper of 60 mm at planting. The proposed location of these trees is shown on the Tree Preservation and Planting Plan.

- Sugar Maple (*Acer saccharum*)
- Burr Oak (Quercus macrocarpa)

Four trees will need to be paid out in cash at \$600 per tree in lieu of replanting, as there is insufficient space to plant additional trees on site.

All trees, whether proposed for preservation and removal, with diameters of 40 cm + DBH are to be valuated using the Council of Tree and Landscape Appraisers Guide for Plant Appraisal.

Trees 1, 6, 8, 10, 12 and 13 have diameters of 40 cm or greater. Valuation of Tree 11 was not completed as the tree has poor structure and should be removed.

The trees were valuated using the Trunk Formula Method, a method endorsed by the Council of Tree and Landscape Appraisers (CTLA) of which the International Society of Arboriculture is a member. This method of appraisal is described in detail in the *Guide for Plant Appraisal 9th Edition*, which is authored by the CTLA.

The diameters of the trees were measured 1.4 metres from grade, unless the trunk swells at this height; if the diameter was measured lower on the trunk, this height is noted.

The Trunk Formula Method requires the tree be examined for its condition and that a condition rating out of 100% be assigned to each tree. The condition of the tree is determined by evaluating its present structural integrity and state of health. The following percentages were provided for the determined condition rating:

Poor – 20 % Poor-fair – 40% Fair – 60 % Fair to Good – 70% Good – 80%

The method requires a species rating. The Ontario Supplement to Guide for Plant Appraisal (8th edition revised) provided the species rating. If a range was provided, the average of the range was used.

The method requires that each tree be examined relative to its location and that this "location factor" by reflected as a percentage rating. The location factor is a combination of site rating, contribution rating and placement rating. A Location factor of 70% was used for all of the trees.

Three wholesale nursery catalogues were checked for the cost of 90 mm trees (deciduous) or 300 cm (coniferous) of the same species. 90 mm (deciduous) or 300 cm (conifers) is the replacement size recommended for use in Ontario Supplement to Guide for Plant Appraisal. Wholesale tree prices from Dutchmaster Nurseries Ltd, Connon Nurseries NVK and Uxbridge Nurseries were used and averaged.

The "basic price" per square centimeter in Ontario was published in the Ontario Supplement to Guide for Plant Appraisal (8th edition revised) at \$6.51 in 2003. This is the basic price that was used.

The Valuation of the trees is shown in the table below

Tree Number	1	6	8	10	12	13
	White	Silver	White	White	Silver	Sugar
Tree Species	Fir	Maple	Oak	Birch	Maple	Maple
Diameter (cm)	43	80	64.5	45	70	49
Species Rating %	76%	60%	79%	59%	60%	78%
Condition Rating %	60%	60%	60%	40%	60%	60%
Location Rating %	70%	70%	70%	70%	70%	70%
Wholesale Cost of Replacement Tree 300						
cm	\$385	\$330	\$428	\$330	\$330	\$438
Installed Cost of Replacement Tree	\$1,155	\$990	\$1,284	\$990	\$990	\$1,314
Appraised Trunk Area	1451.47	5024.00	3265.80	1589.63	3846.50	1884.79
Appraised Tree Trunk Increase	1387.87	4960.40	3202.20	1526.03	3782.90	1821.19
Basic Tree Cost	10190.00	33282.20	22130.30	10924.42	25616.68	13169.91

Ар	praised Value	3252.65	8387.12	7342.83	1804.71	6455.40	4314.46
Ар	praised Value (rounded)	3250.00	8390.00	7340.00	1800.00	6460.00	4310.00

TREE PROTECTION SPECIFICATION

The following Tree Protection Specifications should be followed to protect the trees to remain on site from construction injury.

1.0 Adherence to Conditions from the City of Markham

- 1.1 Compliance with all conditions specified by the City of Markham is required. Specifications outlined on T1 Tree Preservation Details (attached) and within specifications listed below must be followed.
- 1.2 Prior to site disturbance the owner must confirm that no migratory birds are making use of the site for nesting. The owner must ensure that the works are in conformance with the Migratory Bird Convention Act and that no migratory bird nests will be impacted by the proposed work.
- 1.3 It is the property owners' responsibility to discuss potential impacts to trees located near or wholly on adjacent properties or on shared boundary lines with their neighbours. Should such trees be injured to the point of instability or death the property owner may be held responsible through civil action. The property owner would also be required to replace such trees to the satisfaction of the City of Markham.

2.0 Care for Trees Prior to Construction

- 2.1 Trees 3, 6 and 11 will be removed by ISA or Ontario Certified Arborists. They will be removed in such a way that adjacent trees are not injured.
- 2.2 The water feature located within the protection distance of Tree 12 will be removed by hand to the level of existing grade. The stones, wood and excess soil will be removed off site. All exposed roots will be left in place undamaged. Any underground utilities (electrical, water) will be left in place in the ground within 4.2 metres of Tree 12.

3.0 Installation of Tree Protection Fences

- 3.1 The Tree Protection Fence must be installed prior to the commencement of any construction activities. The Tree Protection Fences shall be erected to protect the trunk and root system of the trees to be preserved.
- 3.2 The Tree Protection Fence must remain in place throughout the entire project and cannot be altered, moved, or removed in any way without the written authorization of the City of Markham, Tree Preservation Technician.
- 3.3 The Tree Protection Fence will be placed as shown on the Tree Preservation and Planting Plan.

Tree 1 - 3.0 metres to south, west and north of tree

Trees 4 and 5 – minimum 2.4 metres east of trees on subject property

Tree 7 – along edge of west property line where White Cedar hedge exists

Tree 8 – minimum 4.2 metres north, 2.9 metres east, extending to south and west property lines

Tree 12 – minimum 3.0 metres north of south property line and 2.4 metres west of east property line

Tree 13 – along property line within 3.0 metres of Tree

- 3.4 The Fence on the municipal boulevard and adjacent to Tree 7 will be a barricade constructed of L-shaped supports created from 2 by 4 wood placed 4 feet apart covered with orange snow fencing. A 2 inch by 4 inch board will be placed across the top, bottom and diagonals of the fencing to provide a more rigid fence. The snow fencing will be secured to the frame by screws, not nails. The bottom of the fence will touch and be secured to the ground. There will be no gaps in the fence.
- 3.5 The Fences on private property will be a barricade constructed of L-shaped supports created from 2 by 4 wood placed 4 feet apart covered with ¾ inch plywood. The hoarding will be secured to the frame by screws, not nails. The bottom of the fence will touch and be secured to the ground. There will be no gaps in the fence.
- 3.6 To the tree side of the Tree Protection Fence, the following will be required:
 - no grade change
 - no storage or temporary storage of any materials or equipment
 - no washing of equipment
 - no the dumping of any debris is permitted in this area
- 3.7 Placement of the following items will be outside of the Tree Protection Fence: parking for construction workers, garbage bins, construction equipment, building supplies, lunch area, washroom facilities. The area inside of the Tree Protection Fence will not be used for any purpose except the protection of trees and their roots.
- 3.8 Signs shall be attached to the Fence denoting the purpose of the Fence and indicating the Fence cannot be moved or removed without the consent of the City of Markham. The sign will read as follows:

Tree Protection Zone (TPZ)

No grade change, storage or temporary storage of any materials or equipment, washing of equipment, or the dumping of any debris is permitted within this area. The tree protection barrier must not be altered, moved or removed in any way without the written authorization of the City of Markham. Breach or removal of the Tree Protection Zone barrier is subject to a fine of up to \$100,000. Report any contravention to City of Markham: 905-477-7000 x 2703.

- 3.9 The City of Markham will be contacted once the Fence has been erected so the Fence can be inspected by the City Inspector and Arborist.
- 3.10 The Fence is to be inspected daily, first thing in the morning, by the Site Supervisor. Any failure/breach of the Tree Protection Fence will be fixed immediately upon discovery.

4.0 Placement of Horizontal Protection Boards

4.1 After the erection of the Tree Protection Fence, Horizontal Protection Boards will be placed in the following locations

Tree 8 – to east of Fence within 4.2 metres of Tree

Tree 12 – to north and west of Fence within 4.2 metres of Tree

The placement of the Horizontal Protection Boards is shown on Tree Preservation and Planting Plan.

4.2 The Horizontal Protection Boards will be created out of a double layer of 3/4-inch thick, 4-foot wide by 8-foot long plywood, staggered and screwed together. The ends of the boards will be flush against the Tree Protection Fence and adjacent boards. All exposed soil outside of the Tree Protection Fence and within the Tree Protection Zone of the tree will remain

covered. The Boards must be adequately secured to the ground.

- 4.3 Ten (10) cm of wood chips must be placed under the Horizontal Protection Boards to help spread the load and reduce soil compaction.
- 4.4 The Boards must remain in place throughout the entire project, unless specified within this TAPP. The location of the Boards cannot be altered, moved or removed in any way without the written authorization of the City of Markham, Tree Preservation Technician.
- 4.5 No grade change, storage or temporary storage of any materials or equipment, washing of equipment, nor the dumping of any debris is permitted within this area.

5.0 Pool and Pool Cabana Excavation Tree Protection

5.1 Prior to the machine excavation of the cabana foundation and pool footprint, trenches will be dug at the edge of the proposed excavation in the following locations:

Tree 8 – within 4.2 metres of Tree 8

Tree 12 – within 4.2 metres of Tree 12

Tree 13 – within 3.0 metres of Tree 13

These locations are shown on Tree Preservation and Planting Plan. The excavation will not be located further than 100 cm from the edge of the pool or cabana.

- 5.2 The trenches will be dug by hand (alternatively by air spade or hydro-vac machinery) for the first one metre of depth.
- 5.3 The trenches will be dug under the direct supervision of an ISA or Ontario Certified Arborist. The Arborist will document the roots exposed and determine which roots can be cut.
- 5.4 The soil excavated should be placed within the pool or cabana footprint or removed off site immediately. The soil will not be spread out over the root system of the trees or stored on the Horizontal Protection Boards.
- 5.5 Any tree roots excavated and approved by the ISA or Ontario Certified Arborist will be cut sharply using a handsaw or chainsaw.

6.0 Construction Phase Tree Protection

- 6.1 Soil that is dug up from the building foundation will be removed off site immediately. A small amount of soil may be stockpiled outside of the Tree Protection Fences for backfilling the foundation. Any additional soil will be brought in when needed.
- 6.2 No pruning of the crowns of any tree is permitted by construction staff. If branches are found to be in the way of construction activities or traffic, pruning of trees should be arranged by the Site Supervisor with ISA or Ontario Certified Arborist.
- 6.3 New underground utilities will be placed outside of the Tree Protection Zone of Tree 1, to avoid root injury to the tree.

7.0 Post Construction Tree Maintenance

7.1 When all construction has ceased and grading outside the Tree Protection Fences is complete, the City of Markham will be contacted to arrange a site visit. Completeness of the project will be determined.

7.2 Once permission from the City of Markham is granted, the Tree Protection Fences and Horizontal Protection Boards may be removed.

I trust that this report provides the information you require. If you have any questions or concerns, please contact me.

Yours truly,

Patricia Thomson, B.Sc.F.

I.S.A. Certified Arborist ON- 0132A

Attachments: Tree Photographs (2 pages)

Tree Inventory (1 page)

Tree Preservation and Planting Plan

T1- Tree Preservation Details



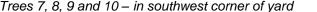
Tree 1 – 43 cm White Fir





Trees 4 (right), 5 and 6 (left) with planting box shown around base of Tree 6







Tree 12 – Silver Maple

Tree 13 with White Cedar hedge 14 to west

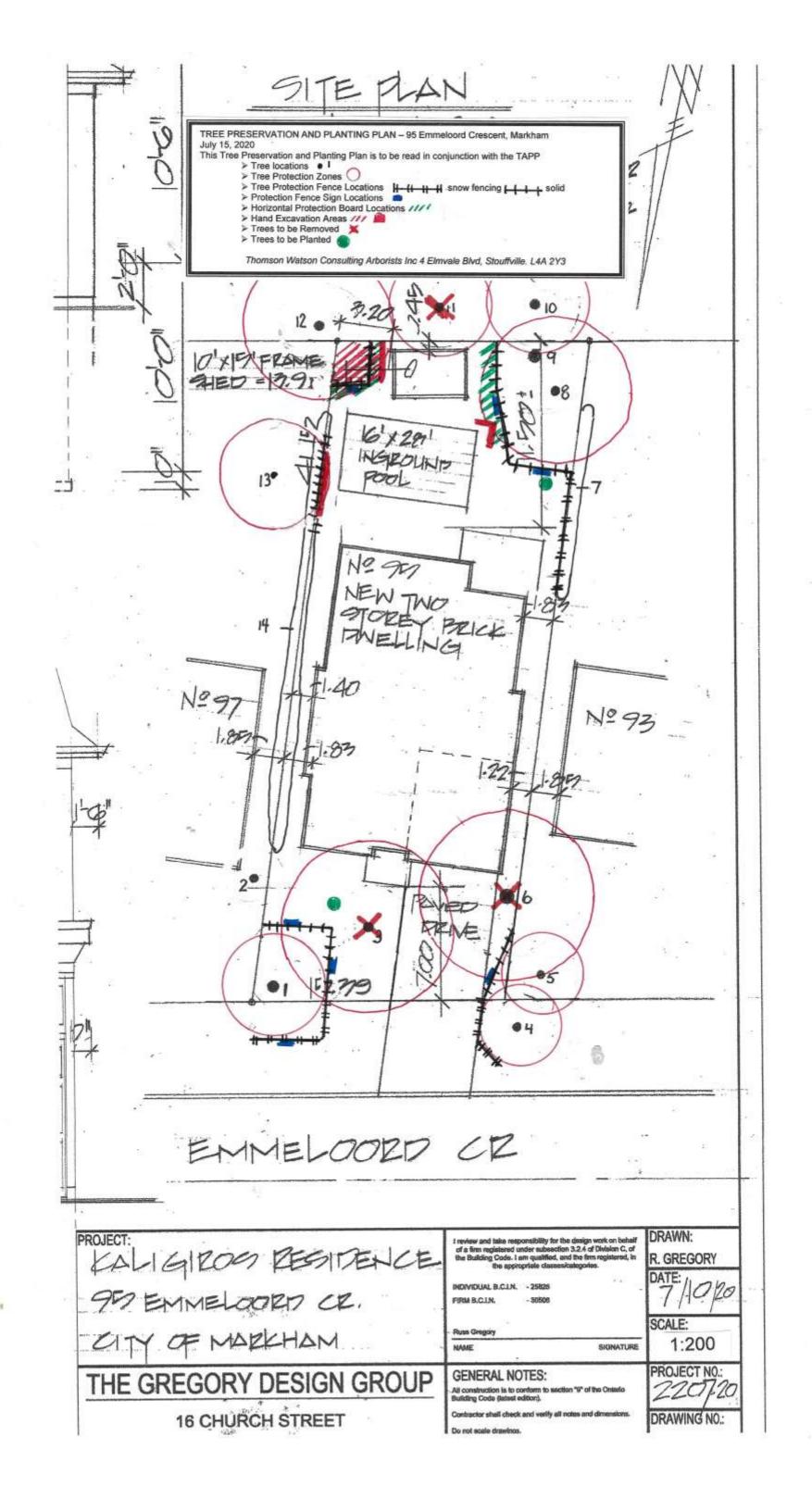
Inventory Date June 11, 2020

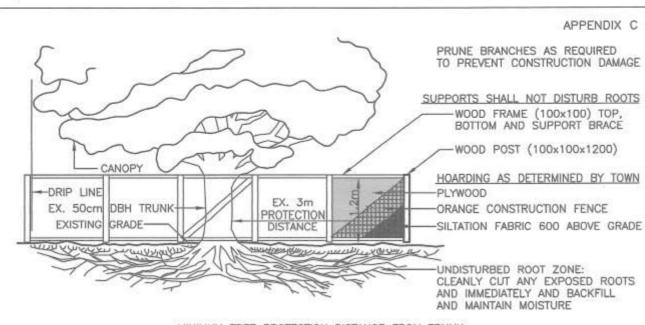
TREE INVENTORY Arborist: Patricia Thomson Thomson Watson Consulting Arborists Inc. 95 Emmeloord Crescent, Markham Ontario

Tree No.	Tree Species	Latin Binomial	Diameter (cm)	Condition	Ownership	TPZ (m)	Future on site	Notes	
1	White Fir	Abies concolor	43	fair	site	3.0 m		tree splits into two stems at 4 m with included bark	<u> </u>
241	Common Buckthorn	Rhamnus cathartica	10	poor	neighbour		preserve	canopy poor pruned	<20cm Exempt
3	White Birch	Betula papyrifera	24.5, 23.5, 23.5	poor-fair	site	4.8 m	remove	deadwood in tops of NE, W and WE stems	
4	Colorado Spruce	1	39	fair	municipal		preserve	extensive lower deadwood, 1-2 inch growth rate	5
	Balsam Fir	Abies balsamea	23	poor	neighbour			growth within 2 m of top, sparse lower growth, growth rate < 1 inch	1
6	Silver Maple	Acer saccharinum	80	health good, structure poor-fair	site	VI desp		tree splits into two stems at 4 metres with included bark in union, retaining wall around trunk and root flare	
	White Cedar hedge	Thuja occidentalis	3 m tall	fair	neighbour		preserve	open to site (no fence)	
8	White Oak	Quercus alba	64.5	fair	site	4.2 m	preserve with injury	limited branching to west, slow Arb	Monitor - Undertakin izontal
9	Yew	Taxus sp.	<10		(preserve		
10	White Birch	Betula papyrifera	approx. 45	fair health structure poor	neighbour	3.0 m	preserve	approx. 30 cm from fence on slight lean to south, 2 stems at 4 metre, with north stem failed and hole on east side at 3 m	9
11	Norway Maple	Acer platanoides	approx. 45	poor	neighbour		neighbour should be requesting	1.3 m from fence, tree splits into two	Neighbour-Monitor
12	Silver Maple	Acer saccharinum	approx. 70	poor health, structure good	neighbour		preserve with	dieback in top of canopy, 1.1 m to ur	
		Acer saccharum	49	fair	neighbour		preserve with injury	tree splits into two stems at 1.1 m H	Hand dig, arb monitor undertaking
23/25/1		Thuja occidentalis	3 to 4 m tall	fair	jointly owned		remove north portion	Co	consent - leighbour

Page 1 of 1

TPZ = Tree Protection Zone





MINIMUM TREE PROTECTION DISTANCE FROM TRUNK;

< 10cm DBH 1.2m 10-29cm DBH 1.8m 30-40cm DBH 2.4m 41-50cm DBH 3.0m 51-60cm DBH 3.6m 61-70cm DBH 4.2m 71-80cm DBH 4.8m 81-90cm DBH 5.4m 91-100cm DBH 6.0m 6cm/1cmø > 100cm DBH (DIAMETER AT BREAST HEIGHT) DBH = TRUNK DIAMETER AT 1.4m HEIGHT

40cmx60cm SIGN MOUNTED ON ALL SIDES OF BARRIER



TREE PROTECTION ZONE

NO WORK IS PERMITTED WITHIN THE TREE PROTECTION ZONE INCLUDING GRADING, CONSTRUCTION ACCESS AND MATERIAL STORAGE.

BREACH OF TREE PROTECTION ZONE
IS SUBJECT TO A FINE OF \$_____

CONTACT TOWN OF MARKHAM FOR MORE INFORMATION: 905-477-5530

TREE PROTECTION NOTES:

- ALL TREE PROTECTION BARRIERS SHALL BE IN PLACE AND APPROVED BY THE TOWN PRIOR TO CONSTRUCTION ACCESS.
- ALL SUPPORTS AND STAKES SHALL BE OUTSIDE THE TREE PROTECTION ZONE AND SHALL MINIMIZE ROOT DAMAGE.
- 3. TREE PROTECTION BARRIERS SHALL REMAIN IN PLACE AND IN GOOD CONDITION UNTIL ALL CONSTRUCTION IS COMPLETE AND APPROVED BY THE TOWN.
- 4. ALL ARBORICULTURE WORK SUCH AS PRUNING OF BRANCHES AND ROOTS, SHALL BE DONE BY A QUALIFIED TREE WORKER CERTIFIED WITH THE INTERNATIONAL SOCIETY OF ARBORICULTRE APPROVED BY THE TOWN.

TREE PRESERVATION DETAILS

THE CORPORATION OF THE TOWN OF MARKHAM	SCALE: N.T.S.	JUNE 2009	T-
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