

Memorandum to the City of Markham Committee of Adjustment

March 16, 2021

File: A/013/21
Address: 26 Windridge Drive – Markham, ON
Applicant: Neil Mehta and Pragnya Jagdish Patel
Agent: Gregory Design Group
Hearing Date: March 24, 2021

The following comments are provided on behalf of the East Team.

The applicant is requesting relief from the following “Residential One (R1)” zone requirements under By-law 1229, as amended, as they relate to a proposed two-storey dwelling, to permit:

a) Section 1.2(vi):

a maximum floor area ratio of 52.80%, whereas the By-law permits a maximum floor area ratio of 45.0%;

b) Section 1.2(iii):

a maximum building depth of 21.0 m (68.90 ft), whereas the By-law permits a maximum building depth of 16.80 m (55.12 ft).

BACKGROUND

Property Description

The 1,015.50 m² (10,931.10 ft²) subject property is located on the west side of Windridge Drive, north of Highway 7 East, east of Galsworthy Drive, and south of Robinson Street. The subject property is developed with a one-storey single detached dwelling, which according to assessment records was built in 1953. Mature trees exist in both the front and rear yards of the subject property.

The property is located within an established residential neighbourhood which contains a mix of one and two-storey detached dwellings. The surrounding area context can be described as one that is in transition with several examples of newer infill development along the street, which have been redeveloped as two-storey dwellings with various forms of massing, shapes, sizes, heights, and depths.

Proposal

The applicant is proposing to demolish the existing one-storey detached dwelling, and to construct a new two-storey detached dwelling with an attached two-car garage on the subject property. The proposed dwelling also includes a front covered porch and rear covered patio. The proposed dwelling would have an approximate first floor area of 255.38 m² (2,749.89 ft²) including the garage, with a second floor area of 174.46 m² (1,877.87 ft²) for a total gross floor area of 429.84 m² (4,627.76 ft²).

Official Plan and Zoning

Official Plan 2014 (partially approved on November 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. Section 8.2.3.5 of the Official Plan outlines development criteria for the “Residential Low Rise” designation with respect to height, massing and setbacks. This criteria is established to ensure that the development

is appropriate for the site and generally consistent with the zoning requirements for adjacent properties and properties along the same street. In considering applications for development approval in a “Residential Low Rise” area, which includes variances, infill development is required to meet the general intent of these development criteria. Regard shall also be had for the retention of existing trees and vegetation, and the width of proposed garages and driveways within a residential neighbourhood.

Zoning By-Law 1229, as amended

The subject property is zoned “Residential One (R1)” under By-law 1229, as amended, which permits one single detached dwelling per lot.

Residential Infill Zoning By-law 99-90

The subject property is also subject to the Residential Infill Zoning By-law 99-90. The intent of this By-law is to ensure the built form of new residential construction will maintain the character of existing neighbourhoods. It specifies development standards for building depth, garage projection, garage width, floor area ratio, height, and number of storeys. The proposed development does not comply with the Infill By-law requirements with respect to maximum floor area ratio, and maximum building depth.

Zoning Preliminary Review (ZPR) Not Undertaken

The applicant has confirmed that a ZPR has not been conducted. It is the applicant’s responsibility to ensure that the application has accurately identified all the variances to the By-law required for the proposed development. If the variance request in this application contains 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 (“the Committee”):

- a) The variance must be minor in nature;
- b) The variance must be desirable, in the opinion of the Committee, 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 Floor Area Ratio

The applicant is requesting a floor area ratio of 52.80%, whereas the By-law permits a maximum floor area ratio of 45.0%. The variance will facilitate the construction of a two-storey detached dwelling with a floor area of 429.97 m² (4,628.16 ft²), whereas the By-law permits a dwelling with a maximum floor area of 366.45 m² (3,944.43 ft²) on the subject property, inclusive of the attached garage as required by the By-law. This is an increase of approximately 63.52 m² (683.73 ft²).

As previously noted, the surrounding context can be described as one that is in transition with examples of larger newer infill homes. Staff are of the opinion that the proposed development is compatible with redevelopment along the street and within the area. Staff have also considered that the proposed dwelling incorporates massing elements, such as variation in building setbacks, and second-storey setbacks that assist in mitigating the

overall bulk and scale of the dwelling and do not anticipate that the proposed development would adversely impact neighbouring properties.

Increase in Maximum Building Depth

The applicant is requesting a maximum building depth of 21.0 m (68.90 ft), whereas the By-law permits a maximum building depth of 16.80 m (55.12 ft).

Building depth is measured based on the shortest distance between two lines, both parallel to the front lot line, one passing through the point on the dwelling which is the nearest and the other through the point on the dwelling which is the farthest from the front lot line.

The requested variance includes a covered front porch and covered rear patio which are both one-storey in height and cumulatively add approximately 4.20 m (13.78 ft) to the overall depth of the building. The two storey dwelling has a depth of 16.79 m (55.09 ft) which complies with the By-law. Staff are of the opinion that the requested building depth is a result of the covered front porch and rear patio which would not adversely impact neighbouring dwellings, and generally meets the intent of the By-law.

Tree Protection & Compensation

A Tree Assessment and Preservation Plan dated January 30, 2021 was submitted by the applicant to assist with staff's review. The Tree Preservation and Planting Plan prepared by the applicant's arborist shows a total of four trees located on the subject property, with trees also located in close proximity to the subject property on abutting properties (Appendix "C"). As a result of the proposed development, the applicant is proposing to remove two trees located in the rear yard, assessed as "poor-fair" and "poor health and structure". The applicant is also proposing to preserve two trees, one of which is located in the front yard, the other in the rear yard. Additionally, a total of four new trees will be planted in the rear yard. The proposed development will not impact neighbouring trees.

Operations staff reviewed the application, and do not object to the removal considering the poor condition of the trees. Accordingly, Planning staff recommend that the related tree conditions provided in Appendix "A" be adopted by the Committee in any event of approval to ensure that appropriate tree protection and hoarding be installed, as well as any replacement fees and trees be provided in accordance with the Tree Assessment and Preservation Plan.

PUBLIC INPUT SUMMARY

A total of 25 letters of support were received from area residents as of March 16, 2021.

It is noted that additional information may be received after the writing of this 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 request meets 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 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.

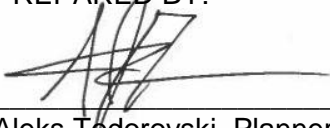
APPENDICES

Appendix "A" – Conditions of Approval

Appendix "B" – Plans

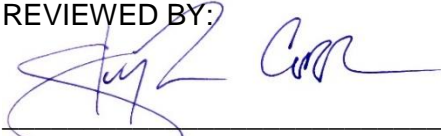
Appendix "C" – Tree Preservation and Planting Plan

PREPARED BY:



Aleks Todorovski, Planner, Zoning and Special Projects

REVIEWED BY:



Stephen Corr, Senior Planner, East District

APPENDIX "A"

CONDITIONS TO BE ATTACHED TO ANY APPROVAL OF FILE A/013/21

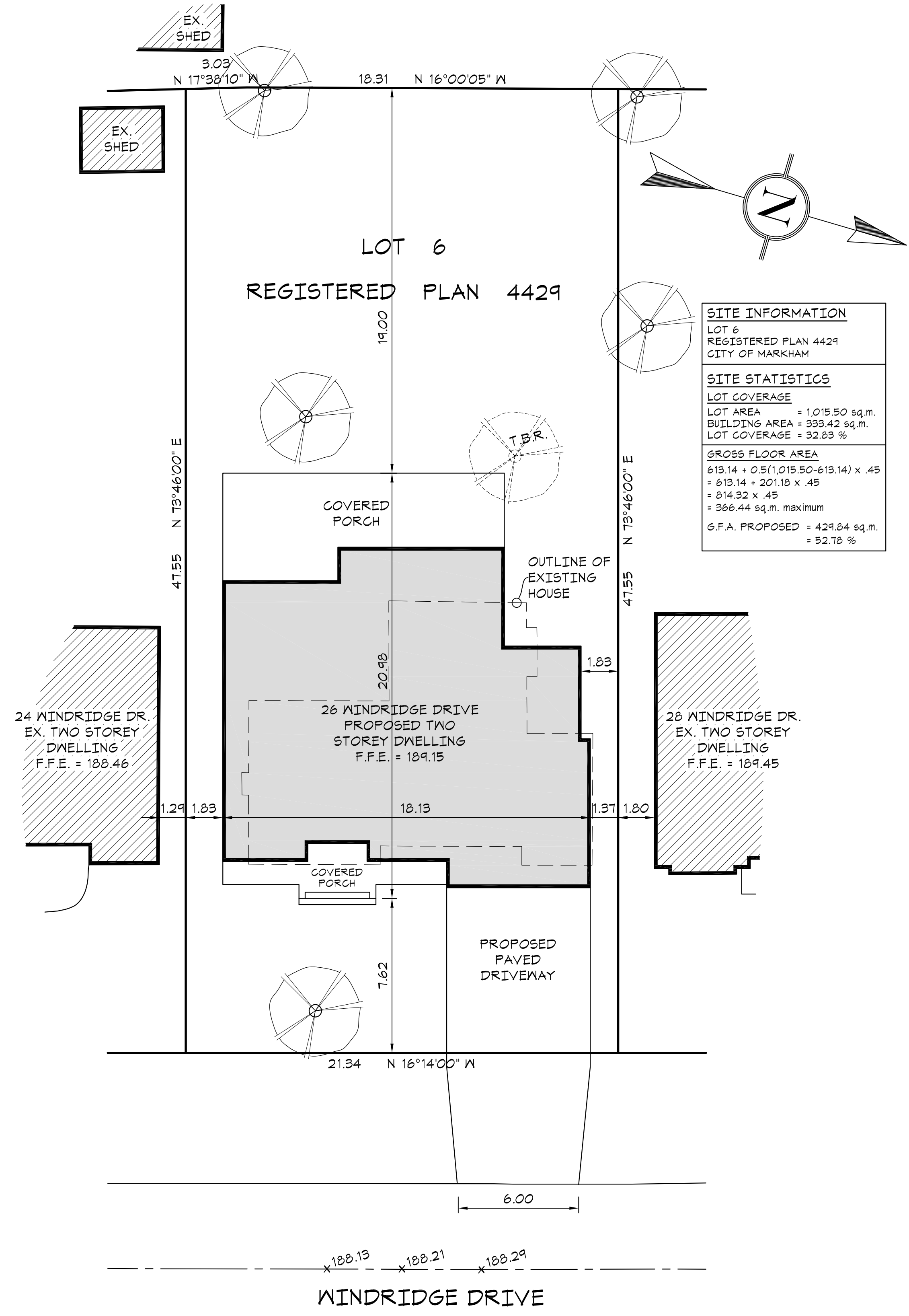
1. The variances apply only to the subject development as long as it remains.
2. That the variances apply only to the subject development, in substantial conformity with the plans attached as Appendix "B" to this Staff Report, and that the Secretary-Treasurer receive written confirmation from the Director 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 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, 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.
5. That tree replacements be provided and 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.

CONDITIONS PREPARED BY:



Aleks Todorovski, Planner, Zoning and Special Projects

APPENDIX "B"
PLANS TO BE ATTACHED TO ANY APPROVAL OF FILE A/013/21



GENERAL NOTES:

ALL CONSTRUCTION IS TO CONFORM TO SECTION "4" OF THE ONTARIO BUILDING CODE (LATEST EDITION).

CONTRACTOR SHALL CHECK AND VERIFY ALL NOTES AND DIMENSIONS.

DO NOT SCALE DRAWINGS.

OWNER / CONTRACTOR / DESIGNER IS RESPONSIBLE TO RE-CLAIM AND DESTROY ALL PREVIOUS AND UN-REVISED COPIES OF THIS DRAWING.

THESE DRAWINGS ARE THE PROPERTY OF THE GREGORY DESIGN GROUP AND / OR ITS CLIENTS ONLY.

BUILDING PERMITS TO BE OBTAINED PRIOR TO COMMENCING CONSTRUCTION.

REVISIONS AND DATA	DATE

I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4 of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.

Individual B.C.I.N. - 25825
 Firm B.C.I.N. - 30506

Russ Gregory
 NAME SIGNATURE

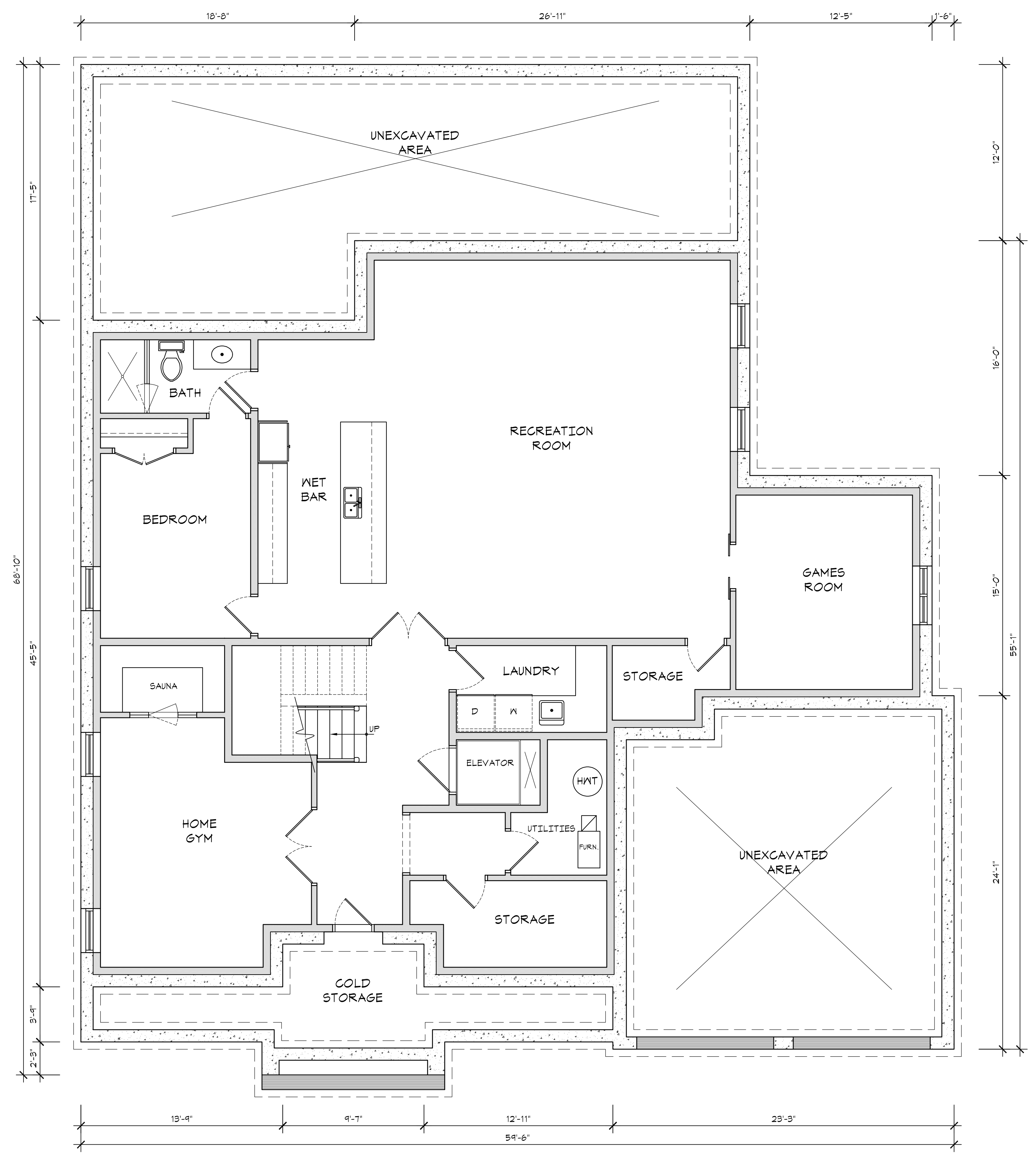
PROJECT TITLE

**THE MEHTA RESIDENCE
26 WINDRIDGE DRIVE
CITY OF MARKHAM**

THE GREGORY DESIGN GROUP

16 CHURCH STREET
 MARKHAM, ONTARIO L3P 2L6
 416-520-0978
 shane@gregorydesigngroup.net

SCALE 1:150	DATE 01/26/21
PROJECT NUMBER 2250-20	SHEET NUMBER SP-1
DRAWN BY S.Gregory	CHECKED BY R.G.



BASEMENT & FOUNDATION PLAN
 PROPOSED LAYOUT

GENERAL NOTES:
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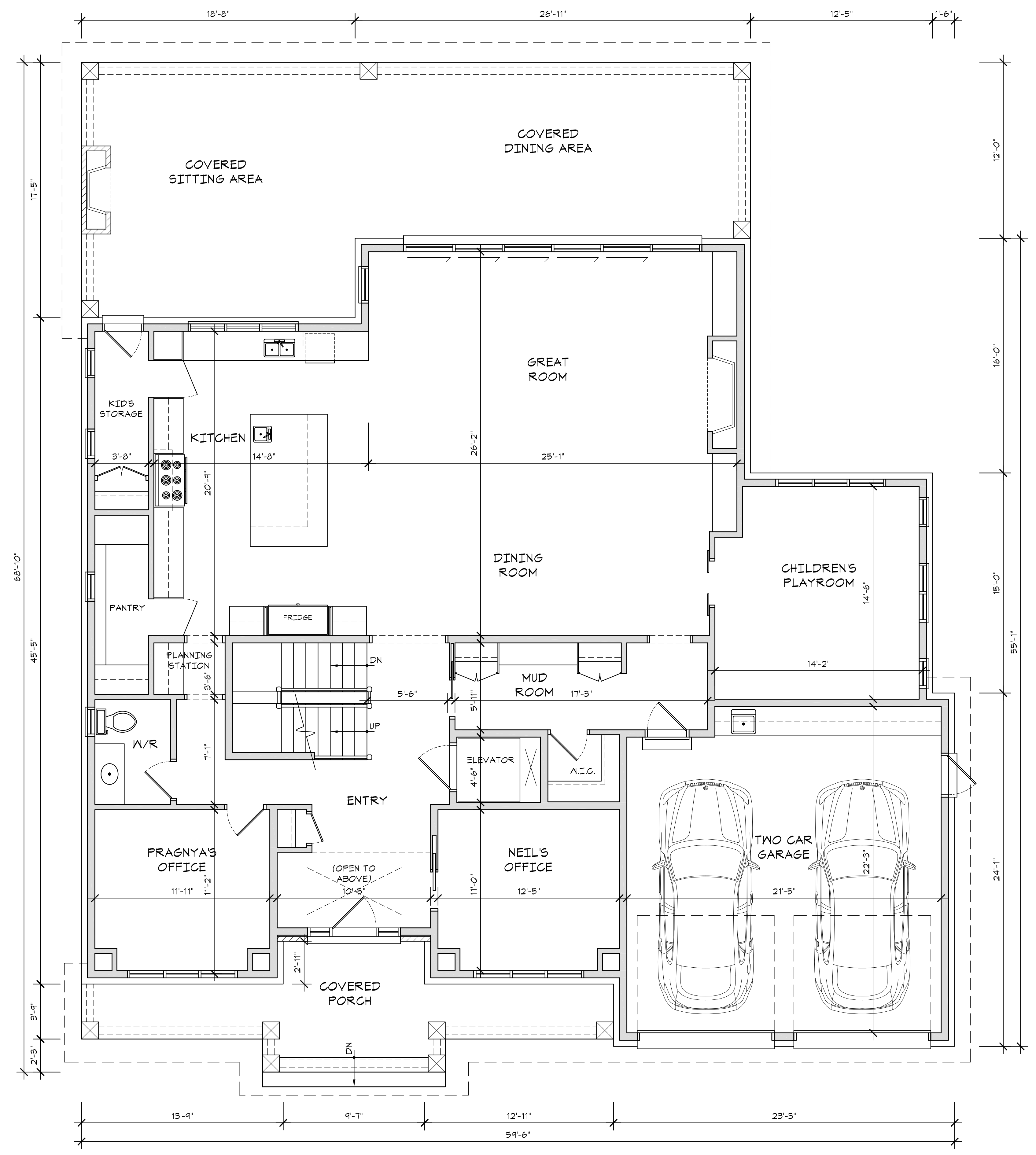
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Russ Gregory
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SCALE 1/4"=1'-0"	DATE 01/26/21
PROJECT NUMBER 2250-20	SHEET NUMBER A-1
DRAWN BY S.Gregory	A-1
CHECKED BY R.G.	



GROUND FLOOR PLAN

PROPOSED LAYOUT
 FLOOR AREA = 2,239 sq.ft.
 GARAGE AREA = 510 sq.ft.
 TOTAL NET FLOOR AREA = 2,749 sq.ft. (255.38 sq.m.)
 BUILDING AREA = 3,509 sq.ft. (323.42 sq.ft.)
 (inc. covered porches)

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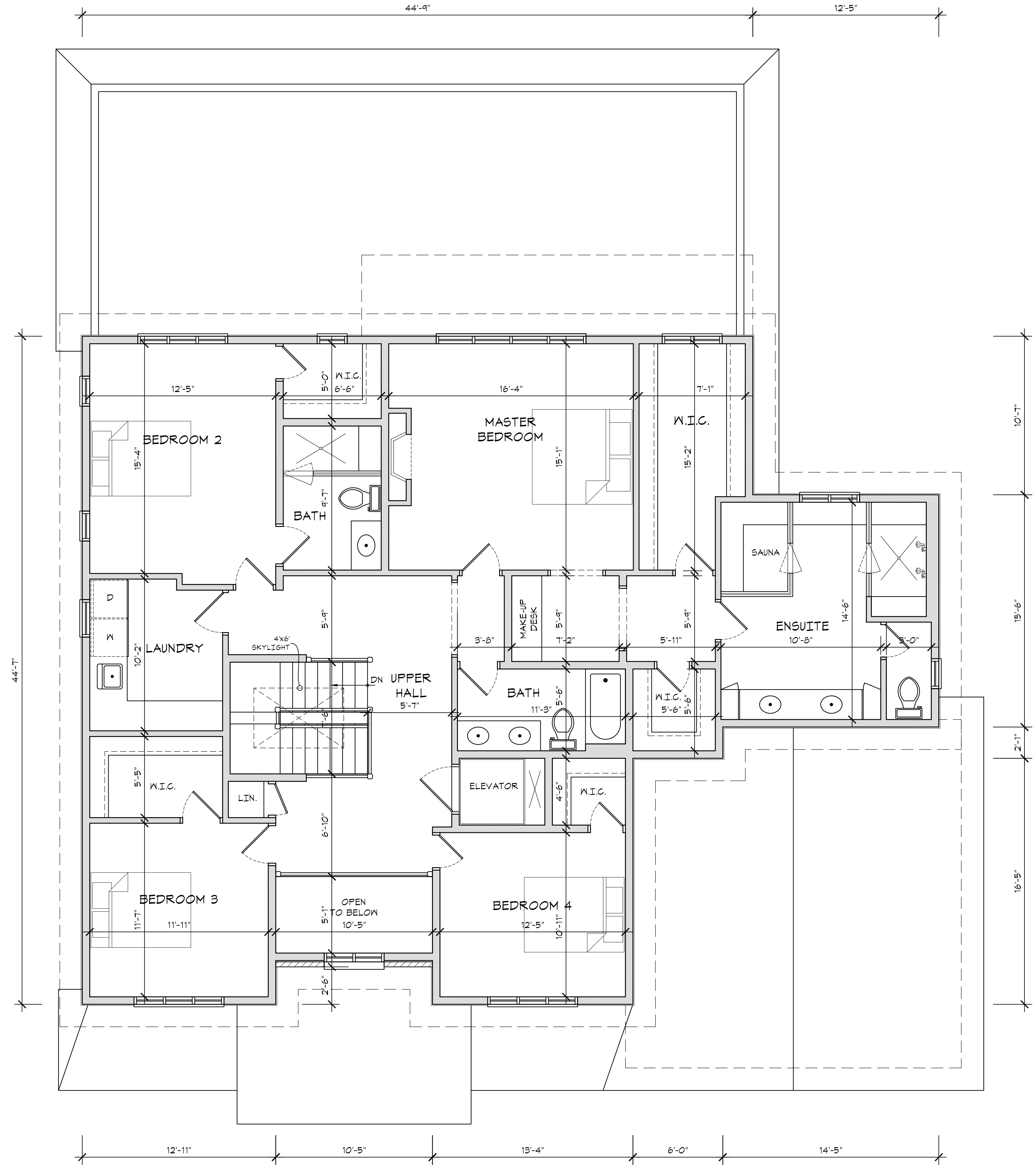
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SCALE 1/4"=1'-0"	DATE 01/26/21
PROJECT NUMBER 2250-20	SHEET NUMBER A-2
DRAWN BY S.Gregory	CHECKED BY R.G.



SECOND FLOOR PLAN
 PROPOSED LAYOUT
 FLOOR AREA = 2,025 sq.ft.
 OPEN SPACE = 147 sq.ft.
 TOTAL NET FLOOR AREA = 1,878 sq.ft. (174.46 sq.m.)

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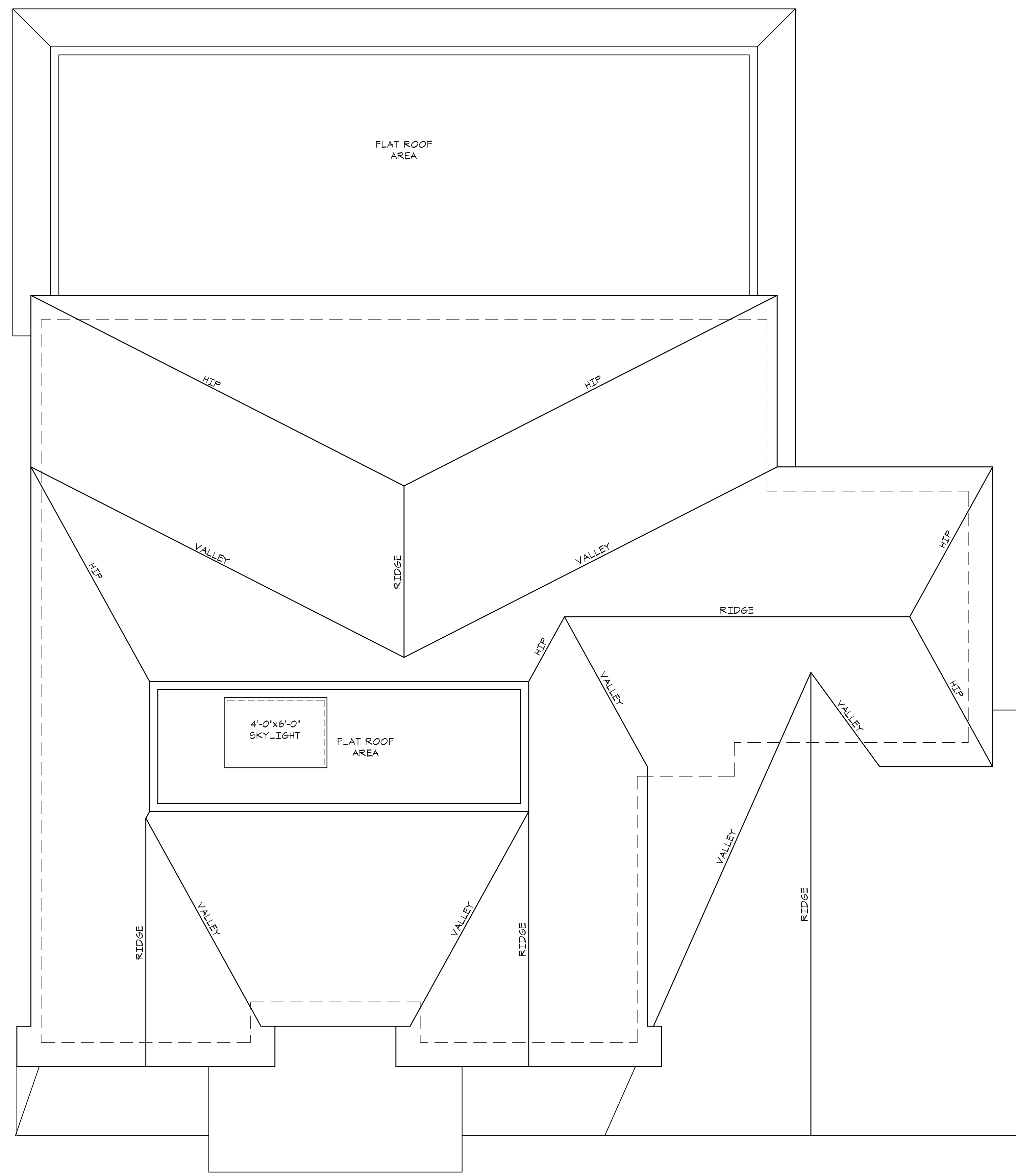
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Russ Gregory
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CITY OF MARKHAM

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 416-520-0978
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SCALE 1/4"=1'-0"	DATE 01/26/21
PROJECT NUMBER 2250-20	SHEET NUMBER A-3
DRAWN BY S.Gregory	CHECKED BY R.G.



ROOF PLAN
 PROPOSED LAYOUT

GENERAL NOTES:
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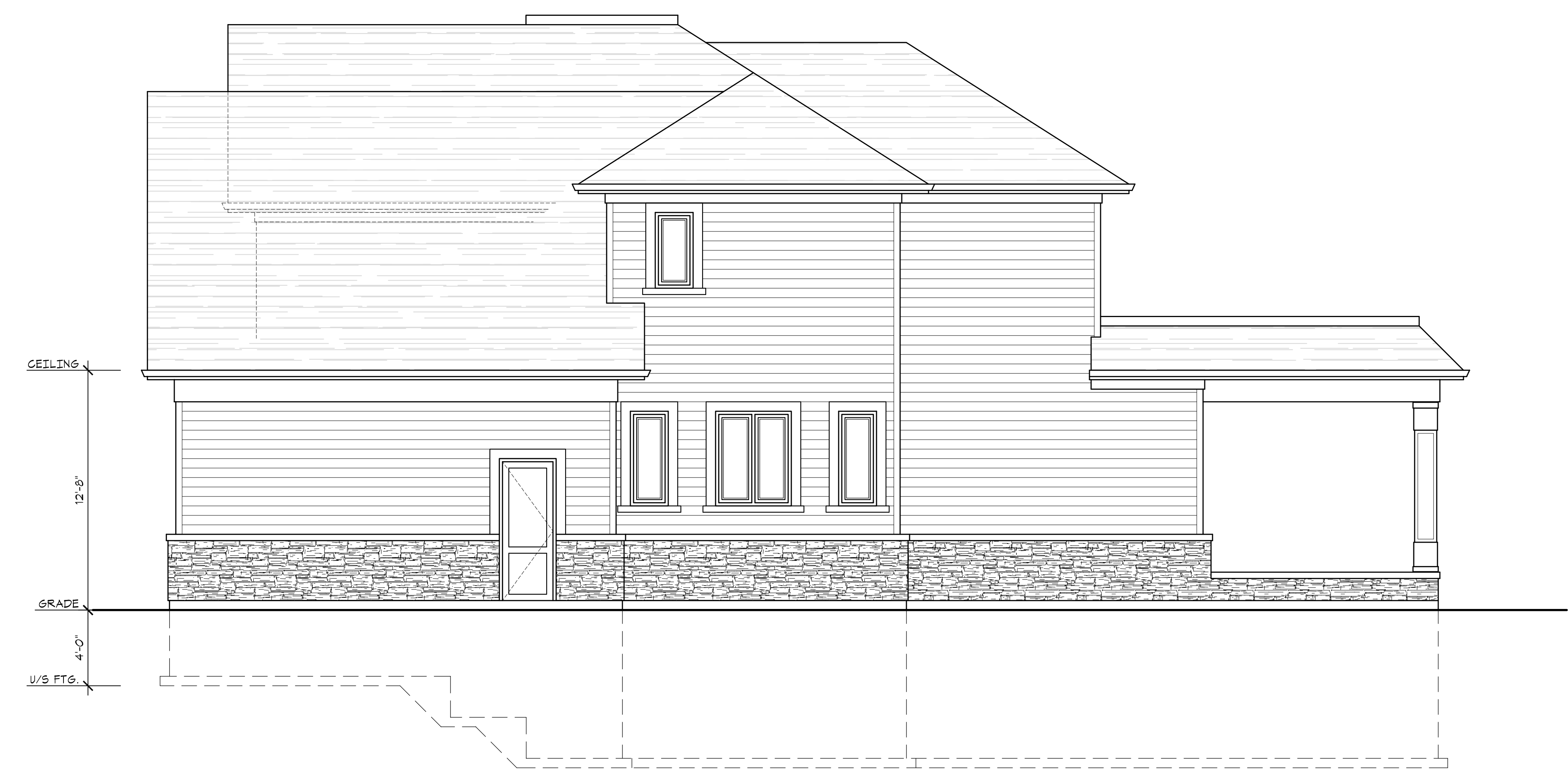
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SCALE 1/4"=1'-0"	DATE 01/26/21
PROJECT NUMBER 2250-20	SHEET NUMBER A-4
DRAWN BY S.Gregory	CHECKED BY R.G.



FRONT ELEVATION



RIGHT SIDE (NORTH) ELEVATION

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SCALE 1/4"=1'-0"	DATE 01/26/21
PROJECT NUMBER 2250-20	SHEET NUMBER A-5
DRAWN BY S.Gregory	CHECKED BY R.G.



REAR ELEVATION



LEFT SIDE (SOUTH) ELEVATION

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SCALE 1/4"=1'-0"	DATE 01/26/21
PROJECT NUMBER 2250-20	SHEET NUMBER A-6
DRAWN BY S.Gregory	CHECKED BY R.G.

APPENDIX "C"
TREE PRESERVATION AND PLANTING PLAN

THOMSON WATSON CONSULTING ARBORISTS Inc.

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

January 30, 2021

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

Re: Tree Assessment and Preservation Plan for 26 Windridge Drive, Markham

Thomson Watson Consulting Arborists Inc. was asked to prepare a Tree Assessment and Preservation Plan (TAPP) for 26 Windridge Drive in Markham. It is proposed to demolish the existing house and rebuild with a larger footprint. The existing driveway will be expanded in width. The report provides the information required by the City of Markham.

INSPECTION

The trees were inspected on January 8, 2021. 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:

SP-1 Site Plan by The Gregory Design Group dated 1/28/21

A-1 Basement and Foundation Plan by The Gregory Design Group dated 01/26/21

Grading and Site Services Plans were not provided.

The property owner information is as follows

Neil & Pragnya Mehta

26 Windridge Drive, Markham, Ontario. L3P 1T8

windridge26@outlook.com

DISCUSSION

It is proposed to demolish the existing house and rebuild the house with a larger footprint. This construction will affect four trees.

The existing house has a brick patio adjacent to the front door extending to the driveway. A short brick wall is located to the east and south of this patio. Tree 1, a 64.5 cm Honeylocust (*Gleditsia triacanthos*) is located 3.9 metres east of the brick wall. A Tree Protection Fence should be erected 2.95 metres west of Tree 1, extending from the south property line to a position 4.2 metres north of the tree. The Fence should be continued 4.2 metres north and

east of Tree 1 and along the south property line. The brick patio and wall should be removed by hand. The depth of the wall in the soil should be determined and documented; if the wall is 30 to 100 cm deep in the soil, the growth of roots may have been restricted under the patio area.

Once the brick patio and wall is removed, Horizontal Protection Boards should be placed to the west of the Fence, within 4.2 metres of Tree 1. Prior to the machine excavation of the house foundation, a trench must be dug 100 cm from the proposed foundation of the porch, to a depth of 100 cm; if the brick wall depth equaled 100 cm or more, this trench does not need to be dug as no roots are expected within this area. All exposed roots will be cut sharply at the east edge of the trench. When it is proposed to install the front walkway, the Horizontal Boards will be removed and a trench will be dug by hand to a maximum depth of 30 cm at and within the east and south edge of the walkway within 4.2 metres of Tree 1.

Tree 1 will need to be pruned to provide clearance to the new two-storey house. Four branches measuring 4 to 6 inches in diameter will need to be pruned off the west side of the canopy. A photograph has been attached which shows the location of these four branches. No additional branches should be removed.

Tree 2 is a Norway Maple (*Acer platanoides*) which has a diameter of 47.5 cm. The tree is located approximately 75 cm from the proposed northwest corner of the covered porch. Tree 3 is a Silver Maple (*Acer saccharinum*) which has a diameter of 86 cm, measured 50 cm from grade. Tree 3 is located approximately 2.35 metres from the west edge of the covered porch. Both trees will need to be removed to allow the excavation of the porch foundation, which will extend approximately 1.0 metre out from the proposed foundation. Both trees have been topped in the past resulting in dieback from the topping wound, death of some stems and a canopy created from sprouts. I would not recommend these two trees be preserved.

Trees 4 to 10 are located around the perimeter of the backyard. I recommend a Tree Protection Fence be placed across the width of the yard, placed a minimum 7.2 metres from Tree 4, minimum 2.4 metres east of Tree 5 and 10 metres south and east of Tree 10. The Fence should be placed 3.0 metres from the covered porch or approximately 6 metres to the southeast of Tree 10. Horizontal Protection Boards should be placed to the south and east of the Fence within 10 metres of Tree 10. Tree 10 has been given a 10 m Tree Protection Zone as it has three stems and one stem was estimated at 55 cm. It is assumed that the sum of the three diameters would equal 165 cm.

TREE WORK REQUIRED

Tree seedlings that have grown up the property line fences should be cut off at ground level and not allowed to grow again. This is particularly important where two fences have been installed side-by-side and the trees have grown up between the fences.

The owner of Tree 4 should be informed that the main union of the Norway Maple has partially failed and there is an open crack from the union down to grade. This tree is at a higher risk of failure.

TREE REMOVALS AND INJURIES REQUIRED

It is proposed to remove Trees 2 and 3 and injure Trees 1 and 10.

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
- 41 to 60 cm diameter – 3 to 1 (Tree 2)
- 61 to 80 cm diameter - 4 to 1
- 81 to 100 cm diameter – 5 to 1 (Tree 3)

At this time, it is proposed to replace Tree 3 with one tree only, due to its poor structure and health from previous topping. Four trees will need to be planted to compensate for the removal of Trees 2 and 3.

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.

- Silver Maple (*Acer saccharinum*)
- Sugar Maple (*Acer saccharum*)
- European Beech (*Fagus sylvatica*)
- Burr Oak (*Quercus macrocarpa*)

All trees, whether proposed for preservation and removal, with diameters of 40 cm + DBH are to be valued using the Council of Tree and Landscape Appraisers Guide for Plant Appraisal. Trees 1, 2, 3, 4, 7 and 10 have diameters of 40 cm or greater. The condition of Tree 3 was set at 0% as it has been topped and should be removed. The condition of Tree 7 was set at 0% as it is assumed to be infested with Emerald Ash Borer and should be dying.

The trees were valued 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” be 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) of the same species. 90 mm (deciduous) 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 (eighth edition revised) at \$6.51 in 2003. This basic price was used.

The Valuation of the trees is shown in the table below

Tree Number	1	2	3	4	7	10
Tree Species	Honey-locust	Norway Maple	Silver Maple	Norway Maple	European Ash	Basswood
Diameter (cm)	64.5	47.5	86	120	60	55
Species Rating %	73%	68%	60%	68%	60%	63%
Condition Rating %	80%	40%	0%	20%	0%	40%
Location Rating %	70%	70%	70%	70%	70%	70%
Wholesale Cost of Replacement Tree 90 mm or 300 cm	\$367	\$328	\$330	\$328	\$0	\$345
Installed Cost of Replacement Tree	\$1,101	\$984	\$990	\$984	\$0	\$1,035
Appraised Trunk Area	3265.80	1771.16	5805.86	11304.00	2826.00	2374.63
Appraised Tree Trunk Increase	3202.20	1707.56	5742.26	11240.40	2762.40	2311.03
Basic Tree Cost	21947.30	12100.19	38372.11	74159.00	17983.22	16079.77
Appraised Value	8972.06	2303.88	0.00	7059.94	0.00	2836.47
Appraised Value (rounded)	8970.00	2300.00	0.00	7060.00	0.00	2840.00

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 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 2 and 3 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 Tree 1 will be pruned by ISA or Ontario Certified Arborists to provide clearance to the new building. The photograph attached shows the location of four branches that need to be pruned off and the location of the proposed cuts. The tree will be climbed using ropes and saddle; climbing spurs will not be used. The tree will be pruned to current Arboricultural standards.

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 – minimum 4.2 metres to north and east, along south property line, 2.95 metres to west of tree

Tree 4 – minimum 7.2 metres northeast of Tree 4

Tree 5 – minimum 2.4 metre east

Tree 10 -minimum 10 m to south and east, 6 m to southeast with Fence placed 3.0 metres from proposed porch foundation

3.4 The Fence on the municipal boulevard adjacent to Tree 1 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 Removal of Brick Patio and Wall

4.1 The front brick patio and wall will be removed with the brick wall piled into the patio area and all materials removed from site.

4.2 The depth of the brick wall will be measured and documented, so that it can be determined if roots extend under the brick patio and wall area.

5.0 Placement of Horizontal Protection Boards

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

-over the soil between the edge of the Fence west of Tree 1 and the foundation excavation edge, covering all exposed soil within 4.2 metres of Tree 1.

-to the southeast of Fence within 10 metres of Tree 10

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

5.2 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, the foundation excavation 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.

5.3 Ten (10) cm of wood chips must be placed under the Horizontal Protection Boards to help spread the load and reduce soil compaction

5.4 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.

5.5 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.

6.0 Foundation Excavations

6.1 A trench will be dug 100 from the edge of the proposed porch foundation wall within 4.2 metres of Tree 1. The trench will be dug by hand (alternatively by air spade or hydro-vac machinery) for the first one metre of depth. This location is shown on Tree Preservation and Planting Plan.

6.2 The soil excavated should be placed within the house 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.

6.3 Any tree roots excavated will be cut sharply using a handsaw or chainsaw.

6.4 When house construction is completed and it is proposed to install the new walkway, a trench will be dug by hand to a maximum depth of 30 cm along the east and south edge of the walkway within 4.2 metres of Tree 1. All exposed roots will be cut sharply at the edge of the trench.

7.0 Construction Phase Tree Protection

7.1 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.

7.2 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.

7.3 New underground utilities will be placed outside of the Tree Protection Zone of Tree 1, to avoid root injury to the tree.

8.0 Post Construction Tree Maintenance

8.1 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.

8.2 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 (1 page)
Tree Inventory (1 page)
Tree Preservation and Planting Plan
Basement and Foundation Plan
T1- Tree Preservation Details



Tree 1- 64.5 cm Honeylocust with brick wall patio to west



Branches to be pruned to provide house clearance



Trees 2 (Norway Maple - left) and 3 (Silver Maple – right) with topping cuts and sprouts shown

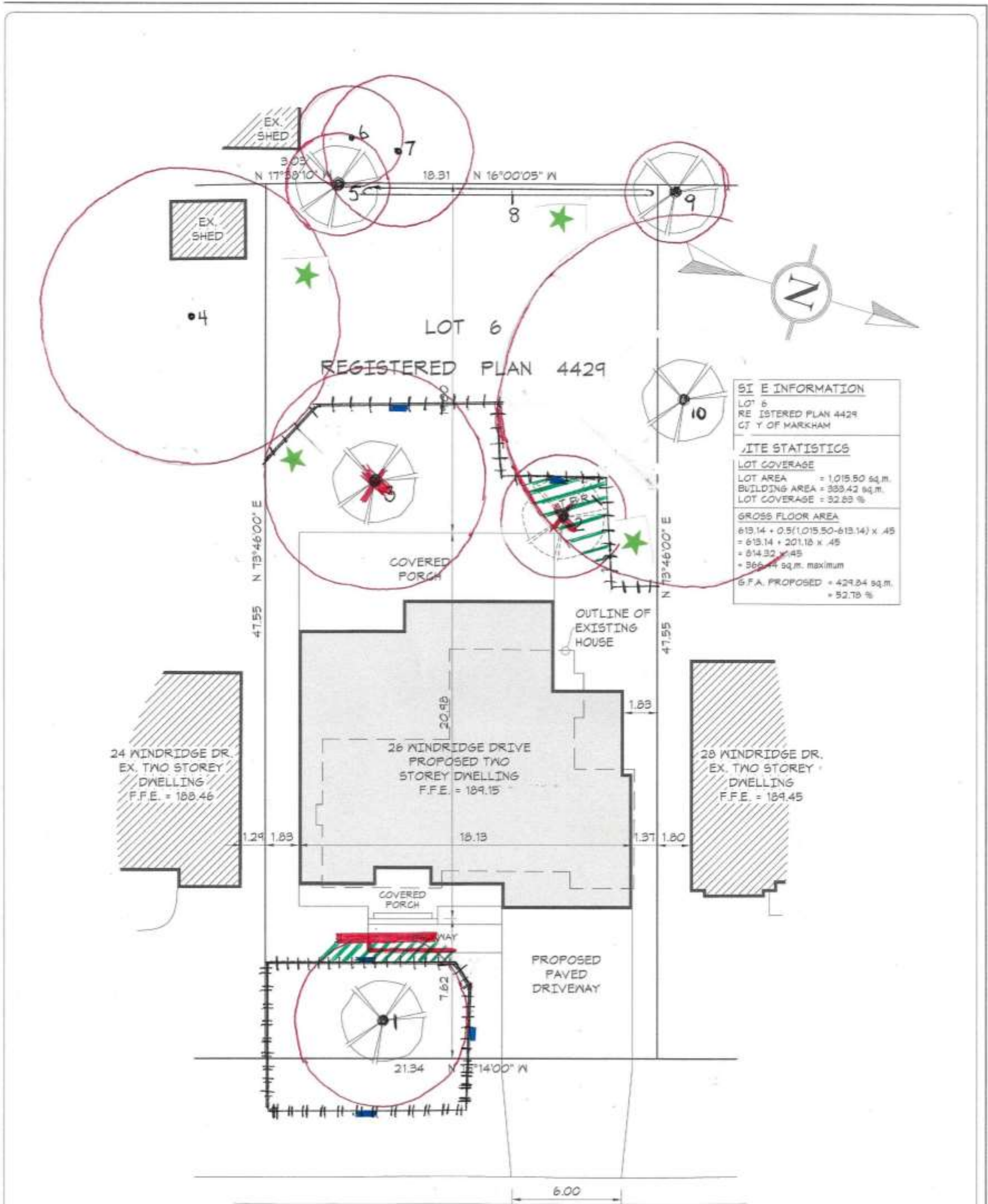
Inventory Date
January 8, 2021

TREE INVENTORY

26 Windridge Drive, Markham, Ontario

Arborist : Patricia Thomson
Thomson Watson Consulting Arborists Inc.

Tree No.	Tree Species	Latin Binomial	Diameter (cm)	Condition	Ownership	TPZ (m)	Future on site	Notes
1	Honeylocust	<i>Gleditsia triacanthos</i>	64.5	good	private	4.2	preserve with injury	tree splits into 3 stems at 2.5-3 m with included bark, cut for hydro
2	Norway Maple	<i>Acer platanoides</i>	47.5	poor-fair	private	3	remove	stems topped with lateral branches and sprouts alive
3	Silver Maple	<i>Acer saccharinum</i>	86 at 50 cm	poor health and structure	private	5.4	remove	all stems topped at 5 metres, dieback from topping cuts, sprouts create small canopy
4	Norway Maple	<i>Acer platanoides</i>	approx. 120 cm at 30 cm	poor structure	neighbours	7.2	preserve	tree splits into 3 stems at 1 m with included bark in union, open crack down north side of trunk from union
5	Norway Maple	<i>Acer platanoides</i>	24.5	fair-good	joint owned	2.4	preserve	trunk engulfing x bar of fence
6	Norway Maple	<i>Acer platanoides</i>	approx. 35	fair-good	neighbours	2.4	preserve	tree splits into two stems at 4 m with included bark in union
7	European Ash?	<i>Fraxinus excelsior</i>	approx. 60	poor-fair?	neighbours	3.6	preserve	trunk sprouts, thin canopy, small deadwood, probable Emerald Ash Borer infestation
8	White Cedar hedge	<i>Thuja occidentalis</i>	<10 cm	fair-good	private		preserve	trunk 50 cm from property line, canopy extends 3 m east of west property line
9	Basswood	<i>Tilia americana</i>	approx. 20	fair-good	neighbours	2.4	preserve	
10	Basswood	<i>Tilia americana</i>	55 caliper at 1.2 m	poor-fair	neighbours	10	preserve	tree splits into 3 stems at grade - probable included bark in union, wound on SE stem covering 50% circumference



TREE PRESERVATION AND PLANTING PLAN – 26 Windridge Drive, Markham
 January 30, 2021
 This Tree Preservation and Planting Plan is to be read in conjunction with the TAPP

- > Tree locations
- > Tree Protection Zones
- > Tree Protection Fence Locations
- > Protection Fence Sign Locations
- > Horizontal Protection Board Locations
- > Hand Excavation Areas
- > Trees to be Removed
- > Trees to be Planted

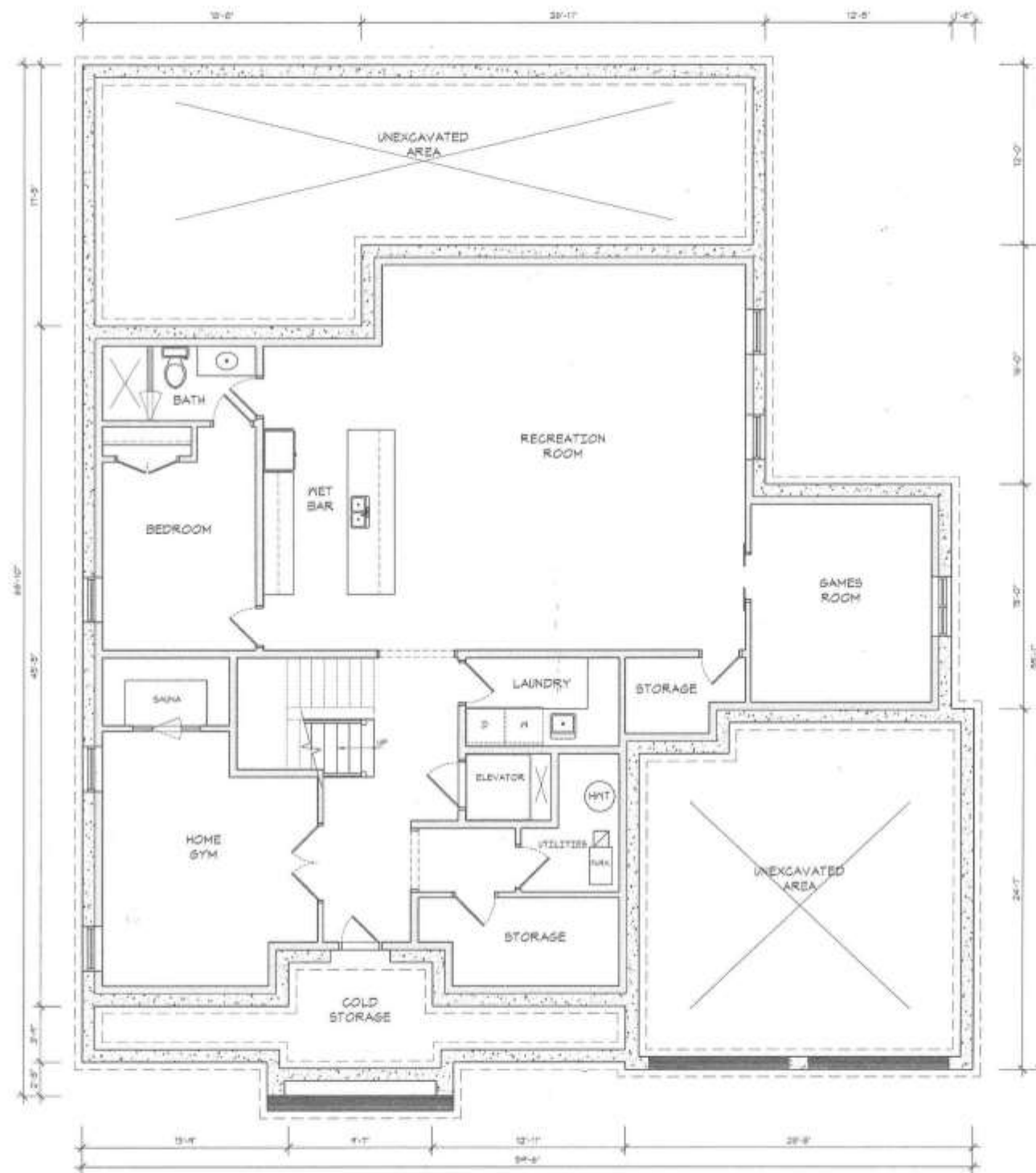
Thomson Watson Consulting Arborists Inc 4 Elmvale Blvd, Stouffville, L4A 2Y3

GENERAL NOTES:
 ALL CONSTRUCTION IS TO CONFORM TO SECTION "4" OF THE ONTARIO BUILDING CODE (LATEST EDITION). CONTRACTOR SHALL CHECK AND VERIFY ALL NOTES AND DIMENSIONS. DO NOT SCALE DRAWINGS. OWNER / CONTRACTOR / DESIGNER IS RESPONSIBLE TO RE-CLAIM AND DESTROY ALL PREVIOUS AND UN-REVISED COPIES OF THIS DRAWING. THESE DRAWINGS ARE THE PROPERTY OF THE GREGORY DESIGN GROUP AND / OR ITS CLIENTS ONLY. BUILDING PERMITS SHOULD BE OBTAINED PRIOR TO COMMENCING CONSTRUCTION.

SITE PLAN
26 WINDRIDGE DRIVE
CITY OF MARKHAM

THE GREGORY DESIGN GROUP
 16 CHURCH STREET
 MARKHAM, ONTARIO L3P 3L6
 CELL (416) 520-0978
 shane@gregorydesigngroup.net

SCALE	1:200	DATE	01/28/21
PROJECT NUMBER	2250-20	SHEET NUMBER	SP-1
DRAWN BY	S.Gregory		
CHECKED BY	R.G.		



BASEMENT & FOUNDATION PLAN
PROPOSED LAYOUT

GENERAL NOTES:
 ALL CONSTRUCTION IS TO CONFORM TO SECTION W OF THE ONTARIO BUILDING CODE (LATEST EDITION).
 CONTRACTOR SHALL CHECK AND VERIFY ALL NOTES AND DIMENSIONS.
 DO NOT SCALE DRAWINGS.
 OWNER / CONTRACTOR / DESIGNER IS RESPONSIBLE TO RE-CLAIM AND DESTROY ALL PREVIOUS AND UN-REVISED COPIES OF THIS DRAWING.
 THESE DRAWINGS ARE THE PROPERTY OF THE GREGORY DESIGN GROUP AND / OR ITS CLIENTS ONLY.
 BUILDING PERMITS TO BE OBTAINED PRIOR TO COMMENCING CONSTRUCTION.

REVISIONS AND DATA	DATE

I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4 of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.

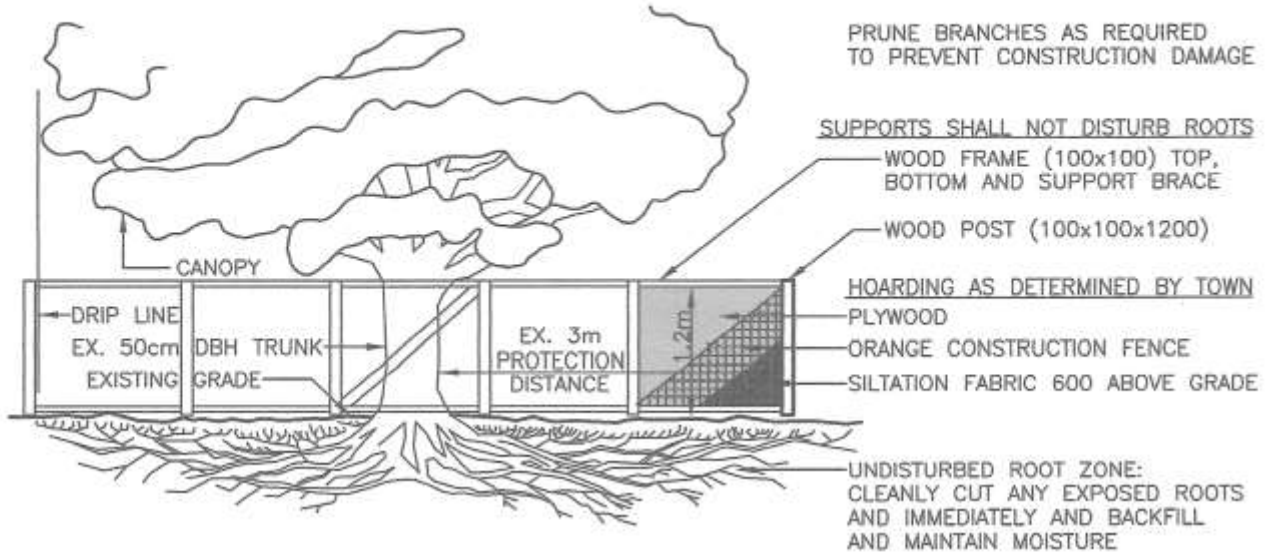
Individual B.C.I.N. - 25525
 Firm B.C.I.N. - 50506

Russ Gregory
 NAME SIGNATURE

PROJECT TITLE
 THE MEHTA RESIDENCE
 26 WINDRIDGE DRIVE
 CITY OF MARKHAM

THE GREGORY DESIGN GROUP
 16 CHURCH STREET
 MARKHAM, ONTARIO L3P 2L6
 416-520-0975
 shane@gregorydesigngroup.net

SCALE 1/4"=1'-0"	DATE 01/26/21
PROJECT NUMBER 2250-20	SHEET NUMBER
DRAWN BY S.Gregory	A-1
CHECKED BY R.G.	




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
> 100cm DBH	6cm/1cm ϕ

(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:

1. ALL TREE PROTECTION BARRIERS SHALL BE IN PLACE AND APPROVED BY THE TOWN PRIOR TO CONSTRUCTION ACCESS.
2. 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.	DATE: JUNE 2009	DRAWING No. T-1
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