



MEMORANDUM

TO: Heritage Markham Committee

FROM: Evan Manning, Senior Heritage Planner

DATE: December 14, 2022

SUBJECT: Committee of Adjustment – Minor Variance Application
33 Washington Street, Markham Village
Proposed Two-Storey Detached Dwelling with Detached Garage

FILE: A/004/22

Property/Building Description: One-Storey Dwelling with Detached Garage constructed in 1903 as per MPAC records

Use: Residential

Heritage Status: 33 Washington Street is designated under Part V of the *Ontario Heritage Act* as part of the Markham Village Heritage Conservation District (the “MVHCD” or the “District”).

Application/Proposal

- The City has received a Committee of Adjustment application seeking variances to enable construction of a two-storey detached dwelling and detached garage at 33 Washington Street (the “subject property” or the “property”). Vehicular access to the proposed garage will be achieved from Jerman Street;
- The proposed development will remove and replace the existing structures on the subject property.

Requested Variances to the Zoning By-law

The applicant is seeking relief from the following zoning by-laws to permit:

a) By-law 1229, Table 11.3(a)(i):

To permit an accessory building with a height of 12.83ft; whereas the bylaw requires a maximum height of 12ft.

b) By-law 1229, Table 11.1:

To permit a front yard setback of 11.91ft; whereas the bylaw permits a minimum of 25ft.

c) By-law 99-90, Section 1.2(vi):

To permit a maximum floor area ratio of 55.51%; whereas the bylaw permits 45%.

d) By-law 99-90, Section 1.2(ii):

To permit a depth of 19.16m; whereas the bylaw permits 16.8m.

The requested variances were confirmed via a Zoning Preliminary Review in November 2022 with a tentative Committee of Adjustment Hearing date set for Winter 2023 (note that this meeting date is subject to change).

Background

Context

- The subject property is located on the east side of Washington Street midway between Centre Street to the south, and Joseph Street to the north;
- The subject property is located within an established residential neighbourhood comprised of predominately one to two-storey detached dwellings. These dwellings were constructed predominantly in the nineteenth and early twentieth centuries, with pockets of mid-century and contemporary infill. Lot coverage along with front and rear yard setbacks is variable within the neighbourhood. Mature vegetation exists on and adjacent to the subject property.

Heritage Markham Committee

- The Heritage Markham Committee (the “Committee”) was consulted on a previous Minor Variance application for the subject property at its meeting on February 9, 2022;
- In its previous iteration, the applicant proposed removing and replacing the existing structures on the subject property with a two-storey semi-detached dwelling with detached shared garage;
- While Heritage Section Staff (“Staff”) were supportive from a heritage perspective of the scale and massing of the proposed semi-detached dwelling, excavation would have adversely impacted a mature Black Walnut tree located along the property line with 29 Washington Street. As a result, the Committee opposed the variances and encouraged the applicant to work with Staff on a revised development scheme. Note that neither Staff nor the Committee objected to removal of the existing structures on the subject property. Refer to Appendix C for a copy of the relevant Heritage Markham Extract.

Heritage Policy

- The subject property is categorized as a Type ‘C’ property. As described in Section 3.2 (‘Building Classification’) of the MVHCD Plan, Type ‘C’ properties possess the following characteristics within the District:
 - *These buildings do not relate to the historical character.*
 - *They do not reinforce the historical character.*
 - *Any redevelopment on a lot with this designation will be subject to the policies set out herein and handled in the same manner as a NEW BUILDING.*

The following guidelines from the MVHCD Plan are relevant to the proposed minor variance application:

- Section 4.2.1 provides guidelines for the proportions and height of residential buildings:
 - 1. Additions and new infill buildings should be designed to be compatible in terms of height, massing and proportions with those of adjacent heritage buildings;*
 - 2. The size of the new structure should neither dominate the adjacent heritage structures, nor be diminutive in scale.*

- Section 4.2.2 provides guidelines for the setback and siting of residential buildings:
2. Addition or infill buildings are to be set-back and sited so that they do not obscure the adjacent heritage building(s).
- Sections 1.7 and 2.5 acknowledge the importance of the existing tree canopy in the District:
“these large older trees contribute significantly to the heritage ambience of the district and every effort should be made to ensure that they are retained” and; “that mature, healthy trees be preserved wherever possible on both private and public property”.

Staff Comment

Demolition of Existing Structures

- The existing dwelling and detached garage are together not considered significant cultural heritage resource as described within the MVHCD Plan. Staff concur with the subject property’s rating within the MVHCD Plan given the minimal design value of the existing structures, and are of the opinion that their removal will not have an adverse impact on the cultural heritage value of the District.

Requested Variances (Dwelling)

- Staff have no objection from a heritage perspective to the requested variances for the new dwelling given conformance to the policies and guidelines of the MVHCD Plan;
- Given the variability of front yard setbacks along the portion of Washington Street between Centre and Joseph Streets, Staff are of the opinion that the requested setback of 11.91ft is supportable. Notably, this front yard setback is greater than those of the nearby dwellings at 25 and 27 Washington Street which are each approximately 6.6ft, and 30 Washington Street which is approximately 9.2ft;
- While relief from the zoning by-law is also being sought for floor area ratio, relief is not being sought for lot coverage or building height, both of which are more useful indicators for visual impact on adjacent properties. As such, Staff are of the opinion that the requested variance is supportable;
- The requested variance for building depth is also supportable given that it is entirely attributable to the proposed rear veranda.

Requested Variances (Garage)

- Staff have no objection from a heritage perspective to the requested variance for accessory building height. As the proposed increase in permitted height is less 1ft, the visual impact is nearly imperceptible.

Next Steps

- As the subject property is designated under Part V of the *Ontario Heritage Act*, review by Heritage Markham and approval by City Council is necessary to permit the demolition of the on-site structures. At this time, a demolition permit has not been submitted;
- Redevelopment of the property will be subject to review by Staff to ensure conformance to the policies and guidelines of MVHCD in order to obtain the necessary approval and permits.

Suggested Recommendation for Heritage Markham

THAT Heritage Markham has no objection from a heritage perspective to the requested variances to permit a new two-storey detached dwelling with detached garage at 33 Washington Street (A/004/22).

AND THAT review of any application required to approve the proposed development be delegated to Heritage Section staff should the design be generally consistent with the conceptual drawings appended to this memo.

ATTACHMENTS:

Appendix 'A'	Property Map
Appendix 'B'	Photographs of the Subject Property
Appendix 'C'	Heritage Markham
Appendix 'D'	Drawings

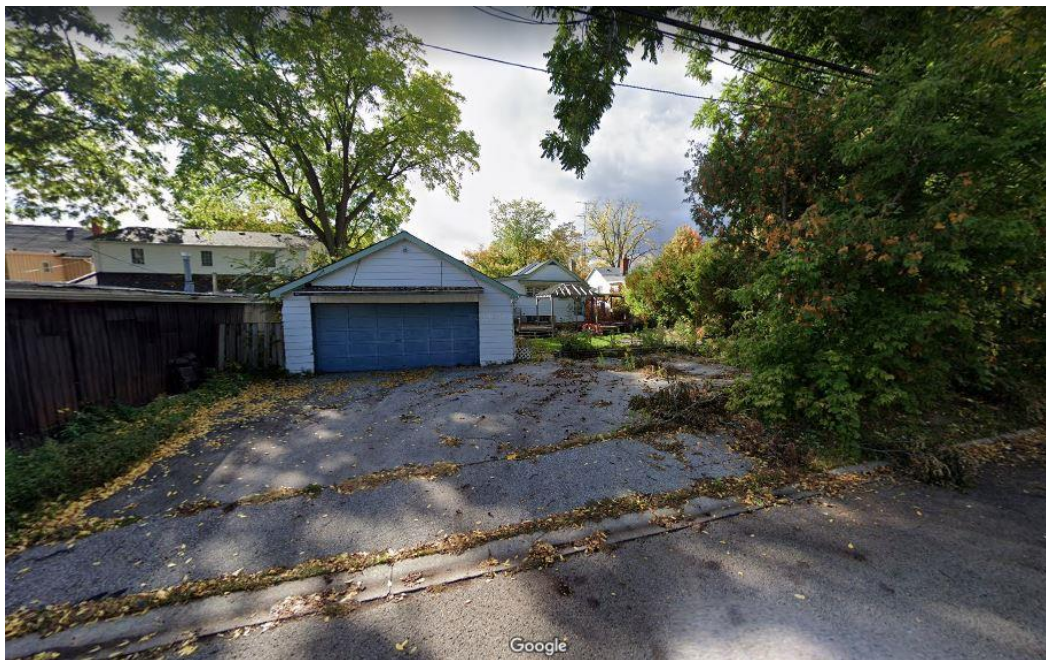
Appendix 'A'

Property Map



Appendix 'B'

Photographs of the Subject Property



The west (primary) elevation of 33 Washington Street (above) and the rear elevation fronting Jerman Street (below) (Source: Google)

Appendix 'C'

Heritage Markham Extract

HERITAGE MARKHAM EXTRACT

Date: February 9, 2022

To: R. Hutcheson, Manager of Heritage Planning
E. Manning, Heritage Planner

EXTRACT CONTAINING ITEM # 6.4 OF THE SECOND HERITAGE MARKHAM
COMMITTEE MEETING HELD ON FEBRUARY 9, 2022

6.4 COMMITTEE OF ADJUSTMENT VARIANCE APPLICATION

PROPOSED TWO-STOREY SEMI-DETACHED DWELLING WITH DETACHED GARAGE

33 WASHINGTON STREET (MVHCD) (16.11)

FILE NUMBER:

A/004/22

Extracts:

R. Hutcheson, Manager, Heritage Planning
E. Manning, Heritage Planner

Evan Manning, Heritage Planner, addressed the Committee and summarized the memorandum, expressing staff's concerns with the site plan as currently composed as it would require removal of two mature trees.

The applicant, Shane Gregory, was present to answer questions from the Committee.

Mr. Gregory commented that he did not wish to see the tree on the south lot line removed and was willing to work with staff for a reduction in GFA or to cantilever the structure so as to not affect its root system. Mr. Gregory noted that the variance matter was time sensitive in order to meet an upcoming scheduled Committee of Adjustment meeting. He advised that strategically planted trees may adequately address removal of the tree along Jerman Street as it was in poor condition per the Arborist report.

The Committee provided the following feedback:

- Inquired whether the applicant considered orienting the development to have one dwelling fronting Washington Street and the other fronting Jerman Street:

- Gregory responded that it was considered, but Jerman Street (west side) was primarily existing garages and dilapidated rear yards. He noted a lot depth issue for setbacks for parking and that it would remove amenity space.
- Commented that the Jerman Street streetscape could be improved with more houses fronting on it;
- Requested the City review and provide comment on the submitted Tree Preservation Plan and whether the City would support the removal of the tree on municipal property;
- Commented that the applicant consider moving the garage closer to Jerman Street with a patio on the side:
 - Gregory advised that moving the driveway would shift the dividing line of the properties;
 - Gregory expressed willingness to consider plantings on either side of the driveway to prevent future paving.
- Inquired whether shifting the proposed dwelling a meter to the south would reduce impact on the tree fronting Jerman Street:
- Gregory advised that the tree has already been sculpted to accommodate power lines, and a southward shift would still require removal of the tree.
- Commented that sculpted trees can be healthy and live for a long time;
- Requested that the applicant review the properties at 35 and 37 Washington Street for consideration when revising the site plan.

Recommendations:

THAT Heritage Markham opposes the proposed variances from a heritage perspective to permit a new semi-detached dwelling with a shared detached garage, and requests that City Staff work with the applicant on a revised development concept.

Carried

Appendix ‘D’
Drawings

SURVEYOR'S REAL PROPERTY REPORT OF
PART 1:
PLAN OF PART OF LOT 7
REGISTERED PLAN 18

CITY OF MARKHAM
(REGIONAL MUNICIPALITY OF YORK)



A. AZIZ SURVEYORS INC., O.L.S.

METRIC: DISTANCES SHOWN HEREON ARE IN METRES AND
CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

© COPYRIGHT 2017
THE REPRODUCTION, ALTERATION OR USE OF THIS REPORT IN WHOLE OR IN
PART WITHOUT THE EXPRESS PERMISSION OF A. AZIZ SURVEYORS INC. O.L.S.
IS STRICTLY PROHIBITED.

PART 2:
REPORT
* THIS REPORT WAS PREPARED FOR R. GREGORY, AND THE UNDERSIGNED
ACCEPTS NO RESPONSIBILITY FOR ITS USE BY OTHER PARTIES.
BOUNDARIES
* PART OF LOT 7, REGISTERED PLAN 18
TITLE SEARCH INDICATES
* NO EASEMENTS OR RIGHT OF WAYS REGISTERED ON TITLE.
ZONING
* NO INVESTIGATION WITH RESPECT TO MUNICIPAL ZONING BY LAW HAS BEEN MADE
FOR THE SUBJECT PROPERTY (PROPERTIES).
ENCROACHMENTS
* PLEASE NOTE THE POSITION OF THE FENCES IN RELATION TO THE SOUTHERLY
& NORTHERLY BOUNDARIES. THEY ARE LOCATED OVER THE
SUBJECT BOUNDARIES TO THE EXTENT SHOWN ON THE PLAN.
BEARING NOTE
* BEARING ARE ASTRONOMIC AND ARE REFERRED TO THE EASTERLY LIMIT
OF WASHINGTON STREET HAVING A BEARING OF N 09°31'30" W
AS SHOWN ON PLAN 65R-32689
GEODETIC:
* ELEVATIONS SHOWN GEODETIC DRIVEN FROM CITY OF MARKHAM
BENCH MARK # 3294-66, ELEVATION 184.249m

LEGEND:
■ DENOTES SURVEY MONUMENT FOUND
□ DENOTES SURVEY MONUMENT SET
SB = STANDARD IRON BAR
N.E.S.W. = NORTH, EAST, SOUTH, WEST
BF = BOARD FENCE
CLF = CHAIN LINK FENCE
SP = REGISTERED PLAN 18
P = PLAN 65R-32689
D = INST. # 465064
D1 = INST. # 465064
1137 = R. G. MCKIBBIN
IB DENOTES IRON BAR
FH = FIRE HYDRANT
CB = CATCH BASIN
WH = MANHOLE
O/H WIRE = OVERHEAD WIRE
HP = HYDRO PULL
OU = ORIGIN UNKNOWN
MS = MEASURED
DTL = DECIDUOUS TREE
CTL = CONIFEROUS TREE
DS = DOOR SILL

**SITE PLAN SHOWING
33 WASHINGTON ST**

SURVEYOR'S CERTIFICATE
I CERTIFY THAT:
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE
WITH THE SURVEY ACT, THE SURVEYORS ACT AND THE
ACT AND THE REGULATIONS MADE UNDER THEM.
2. THE SURVEY WAS COMPLETED ON THE 22nd DAY OF MARCH, 2017

DATE: MARCH 22, 2017

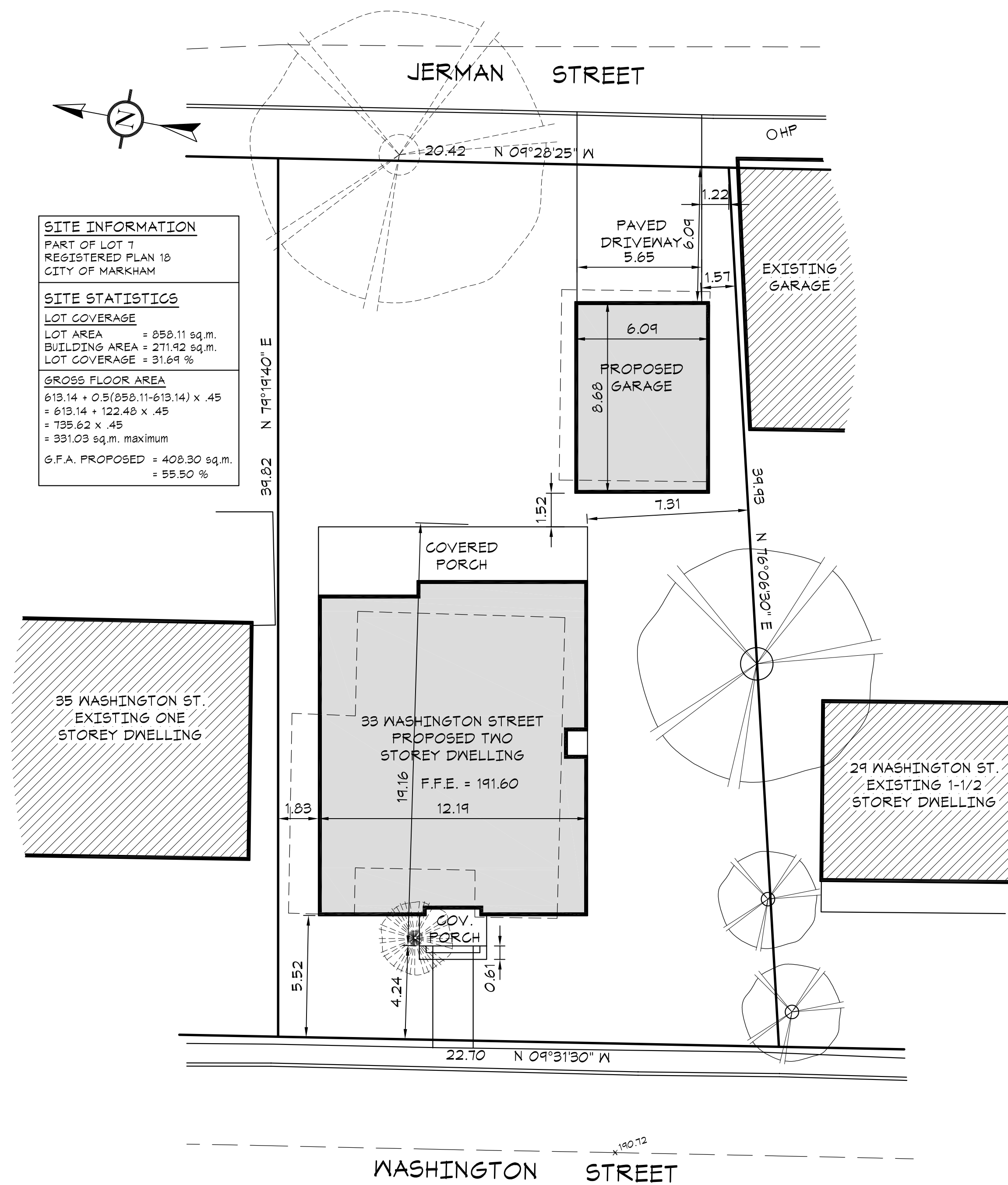
A. ABDELSHAHID
ONTARIO LAND SURVEYOR

A. AZIZ SURVEYORS INC
ONTARIO LAND SURVEYORS
120 NEWKIRK ROAD- #31, RICHMOND HILL, ONT. L4C-9S7
Tel. (905) 237-8224 Fax: (416) 477-5465
Website: M-Azizsurveyors.ca
E-Mail: aziz@m-azizsurveyors.ca

PROJECT NUMBER	PROJECT
17-091	33 WASHINGTON STREET (SR-PR)
DRAWN BY	CHECKED BY
KU	A.A.

ASSOCIATION OF ONTARIO
LAND SURVEYORS
PLAN SUBMISSION FORM
2009804

THIS PLAN IS NOT VALID
UNLESS IT IS AN EMBOSSED
ORIGINAL COPY
ISSUED BY THE SURVEYOR.
In accordance with
Regulation 1026, Section 22(3).



SITE INFORMATION	
PART OF LOT 7 REGISTERED PLAN 10 CITY OF MARKHAM	
SITE STATISTICS	
LOT COVERAGE	
LOT AREA	= 850.11 sq.m.
BUILDING AREA	= 271.92 sq.m.
LOT COVERAGE	= 31.61 %
GROSS FLOOR AREA	
613.14 + 0.5(850.11-613.14) x .45	
= 613.14 + 122.48 x .45	
= 135.62 x .45	
= 331.03 sq.m. maximum	
G.F.A. PROPOSED	= 408.30 sq.m.
	= 55.50 %

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. - 25025
Firm B.C.I.N. - 30506

Russ Gregory
NAME SIGNATURE

PROJECT TITLE

NEW HOUSE DESIGN
33 WASHINGTON STREET
CITY OF MARKHAM

THE GREGORY
DESIGN GROUP

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

SCALE	DATE
1:150	11/08/22
PROJECT NUMBER	SHEET NUMBER
2284-21	SP-1
DRAWN BY	
S.Gregory	
CHECKED BY	
R.G.	



FRONT ELEVATION



RIGHT SIDE ELEVATION

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. - 25025
Firm B.C.I.N. - 30506

Russ Gregory
NAME SIGNATURE

PROJECT TITLE

NEW HOUSE DESIGN
33 WASHINGTON STREET
CITY OF MARKHAM

THE GREGORY
DESIGN GROUP

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

SCALE 1/4"=1'-0"	DATE 11/08/22
PROJECT NUMBER 2284-21	SHEET NUMBER A-3
DRAWN BY S.Gregory	CHECKED BY R.G.



REAR ELEVATION



LEFT SIDE ELEVATION

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

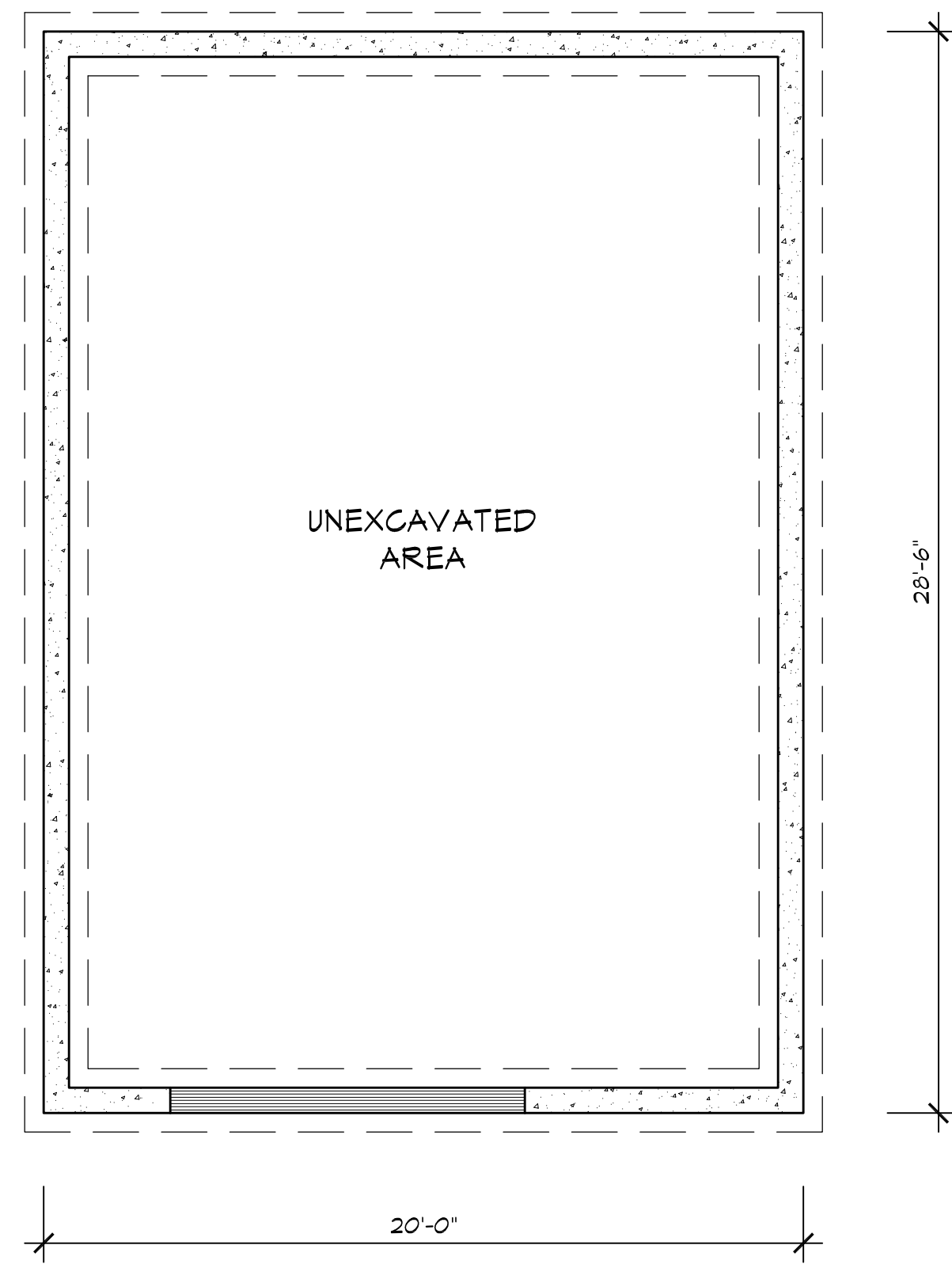
PROJECT TITLE

NEW HOUSE DESIGN
33 WASHINGTON STREET
CITY OF MARKHAM
CITY OF MARKHAM

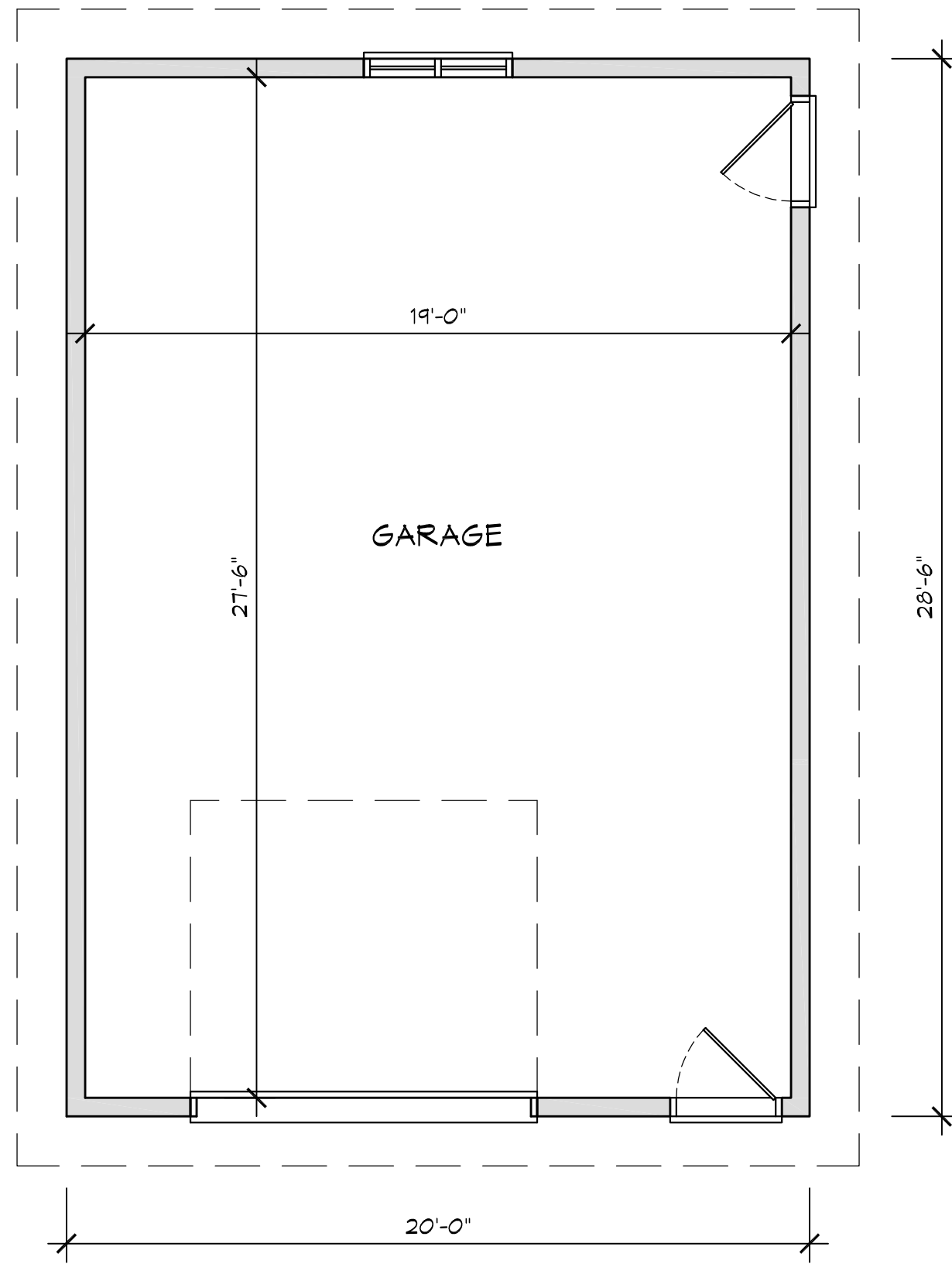
THE GREGORY
DESIGN GROUP

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

SCALE 1/4"=1'-0"	DATE 11/08/22
PROJECT NUMBER 2284-21	SHEET NUMBER A-4
DRAWN BY S.Gregory	CHECKED BY R.G.

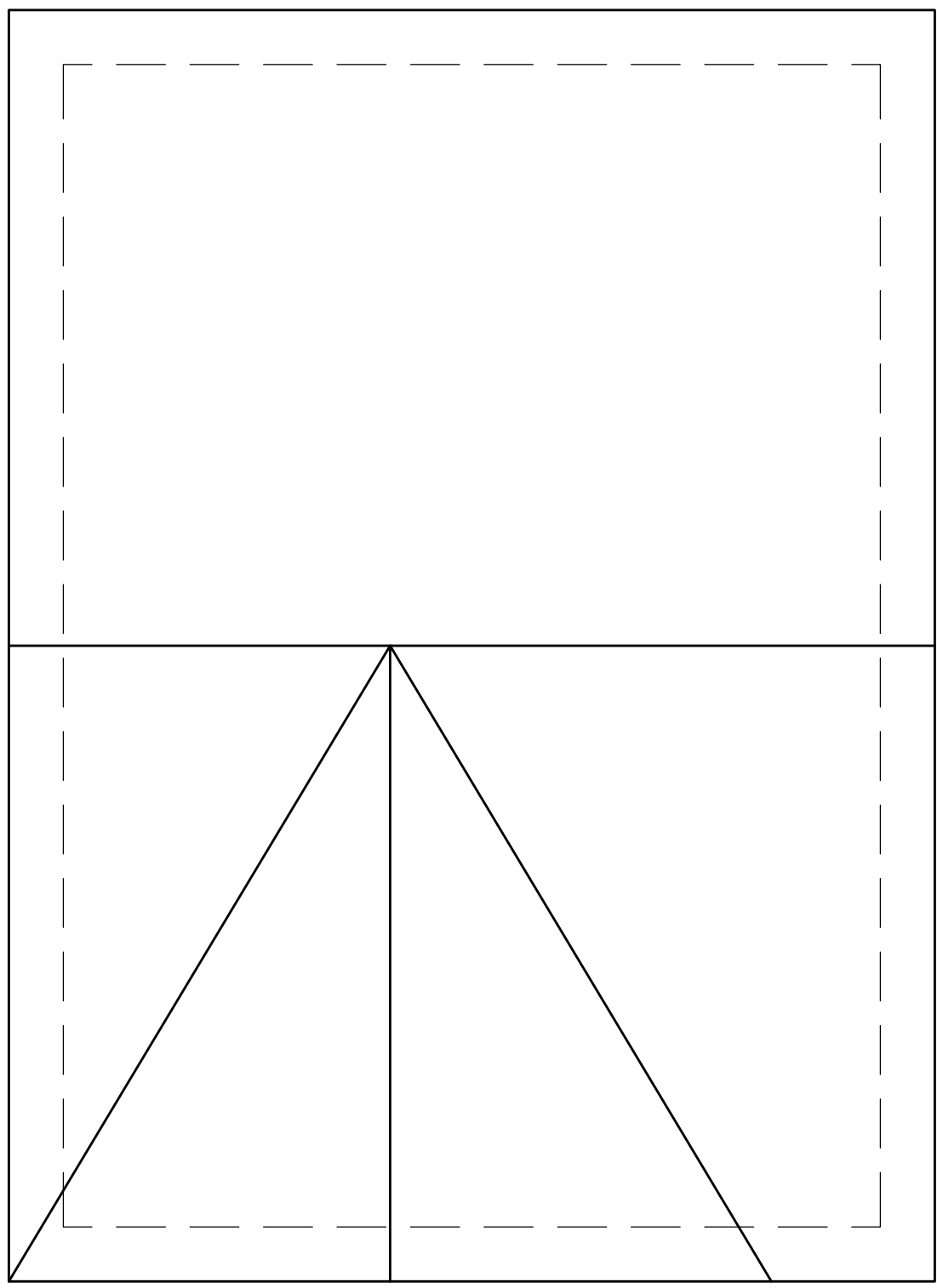


FOUNDATION PLAN

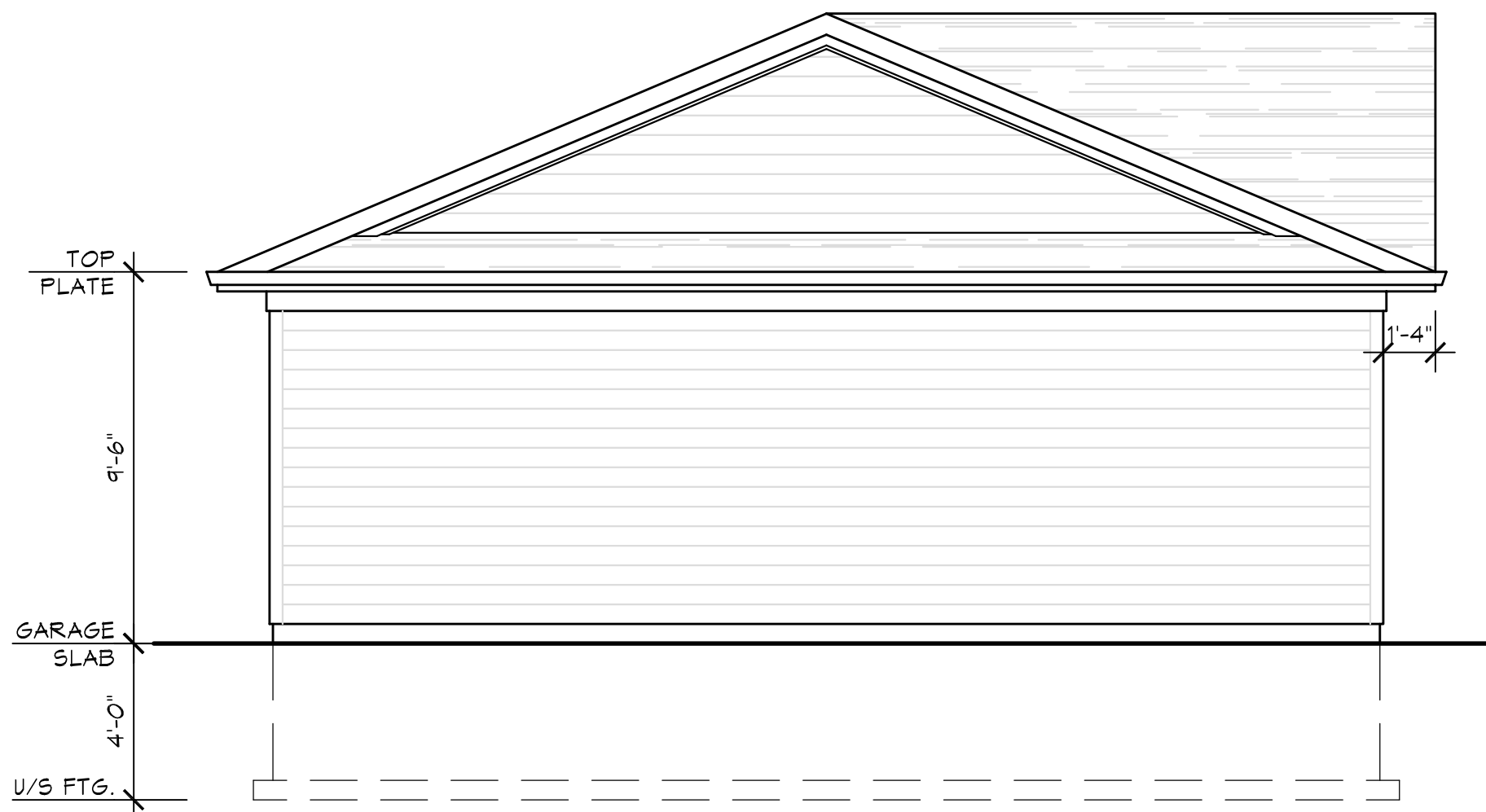


GARAGE PLAN

BUILDING AREA = 570 sq.ft.



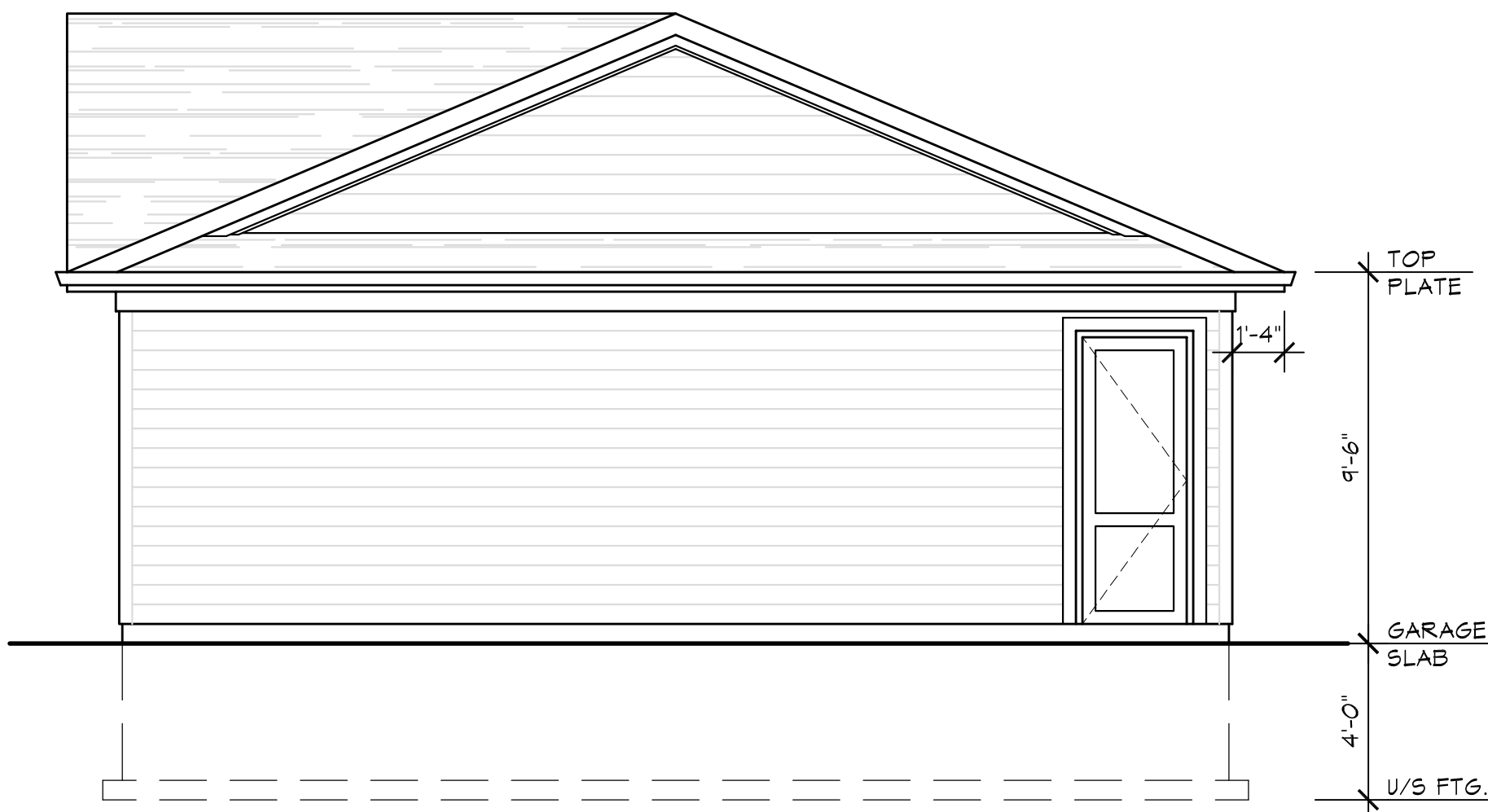
ROOF PLAN



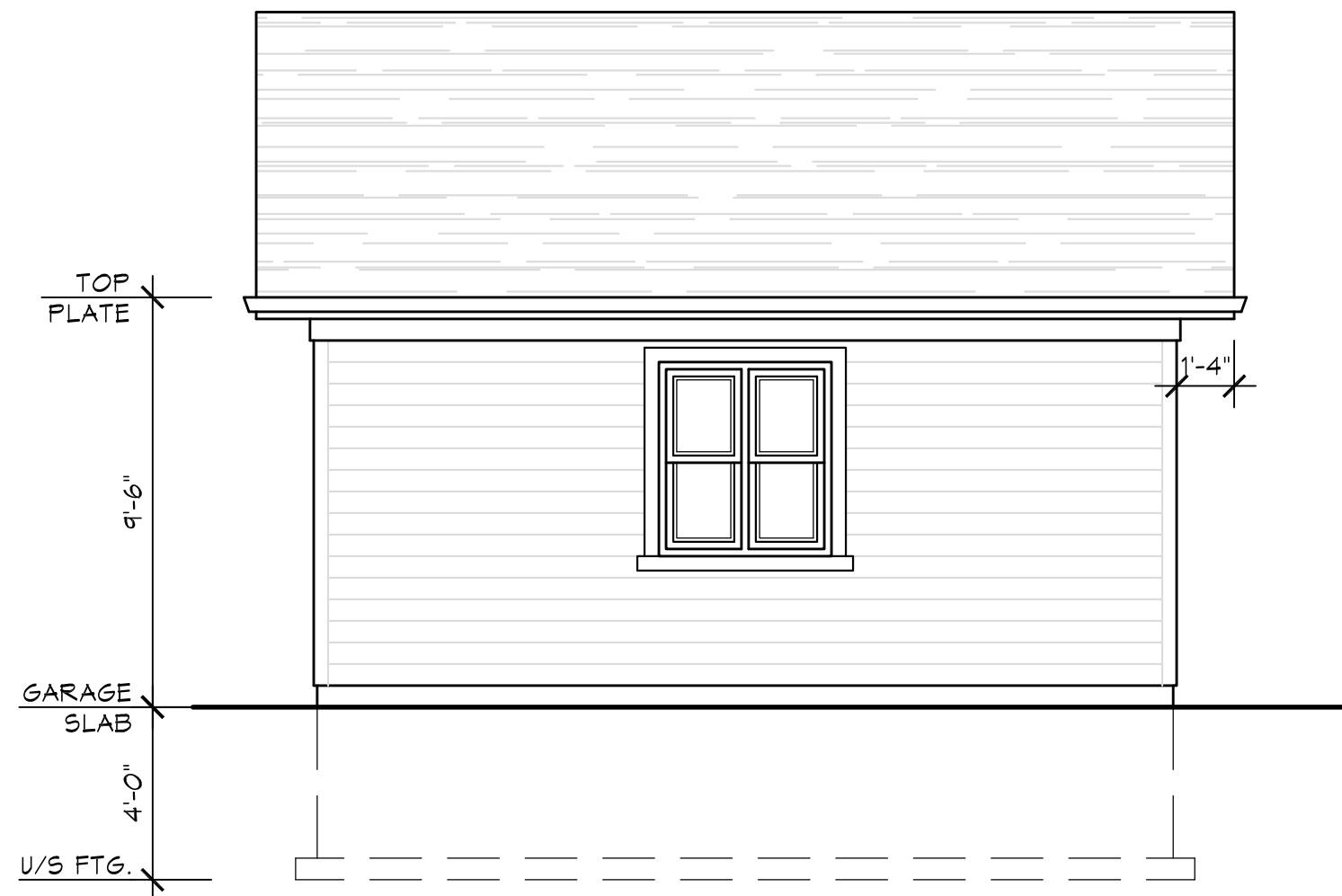
LEFT SIDE ELEVATION



FRONT ELEVATION



RIGHT SIDE ELEVATION



REAR ELEVATION

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. - 25025
Firm B.C.I.N. - 30506

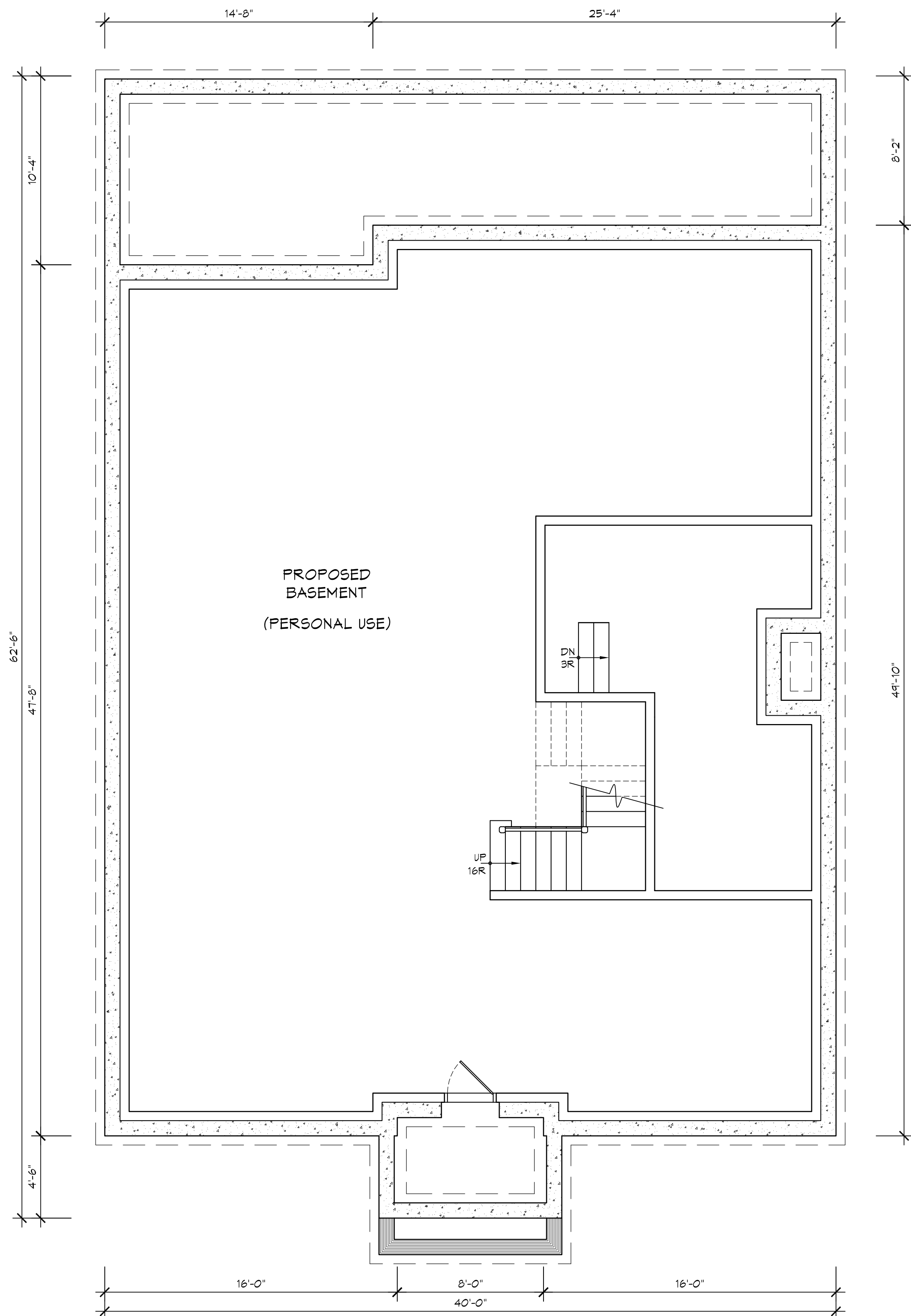
Russ Gregory
NAME SIGNATURE

PROJECT TITLE

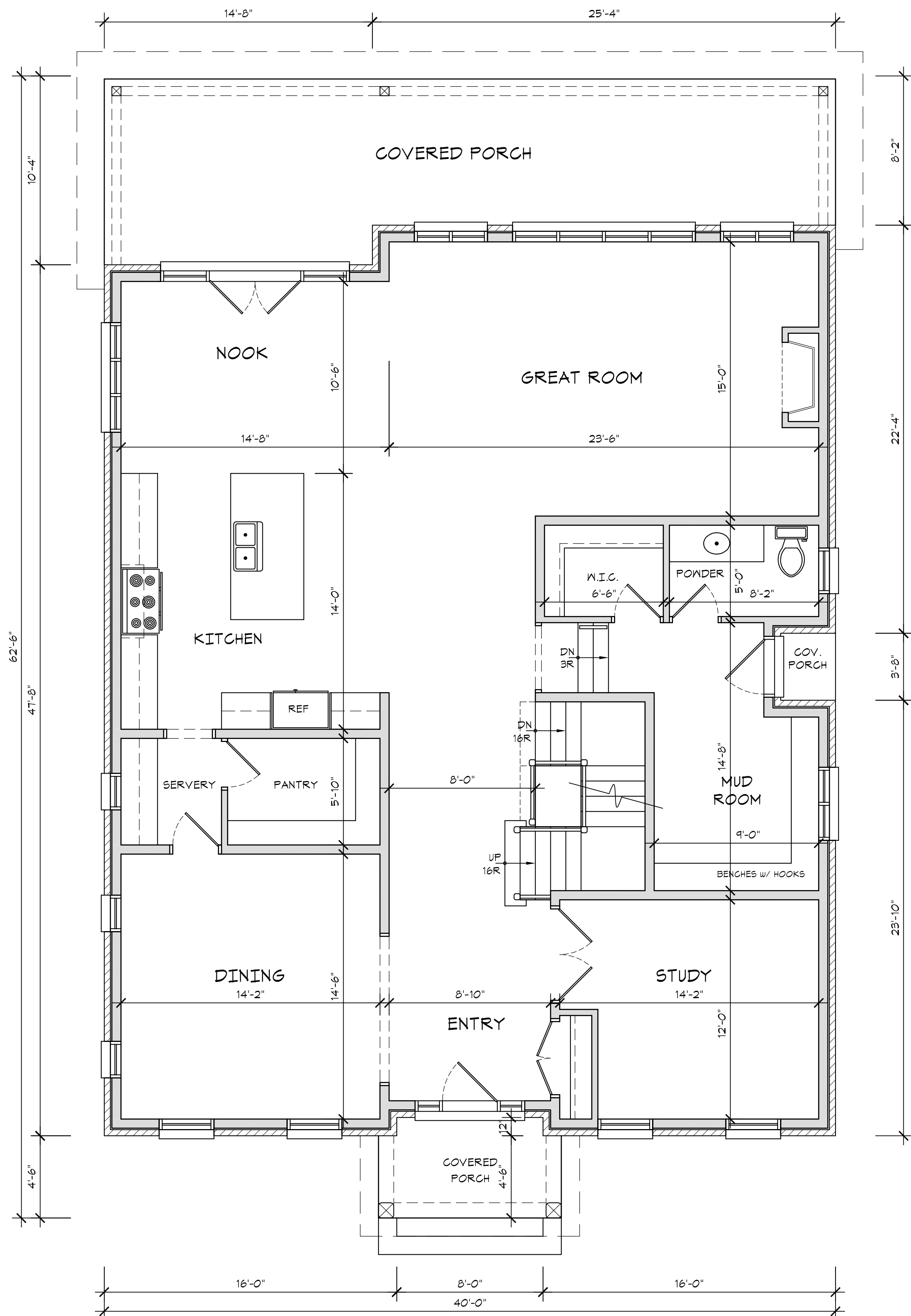
PROPOSED GARAGE
33 WASHINGTON STREET
CITY OF MARKHAM

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

SCALE 1/4"=1'-0"
PROJECT NUMBER 2284-21
DRAWN BY S.Gregory
CHECKED BY R.G.
DATE 11/08/22
SHEET NUMBER A-5



BASEMENT & FOUNDATION PLAN



GROUND FLOOR PLAN

FLOOR AREA = 1,942 sq.ft.
BUILDING AREA = 2,358 sq.ft.
(INC. COVERED PORCHES)

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

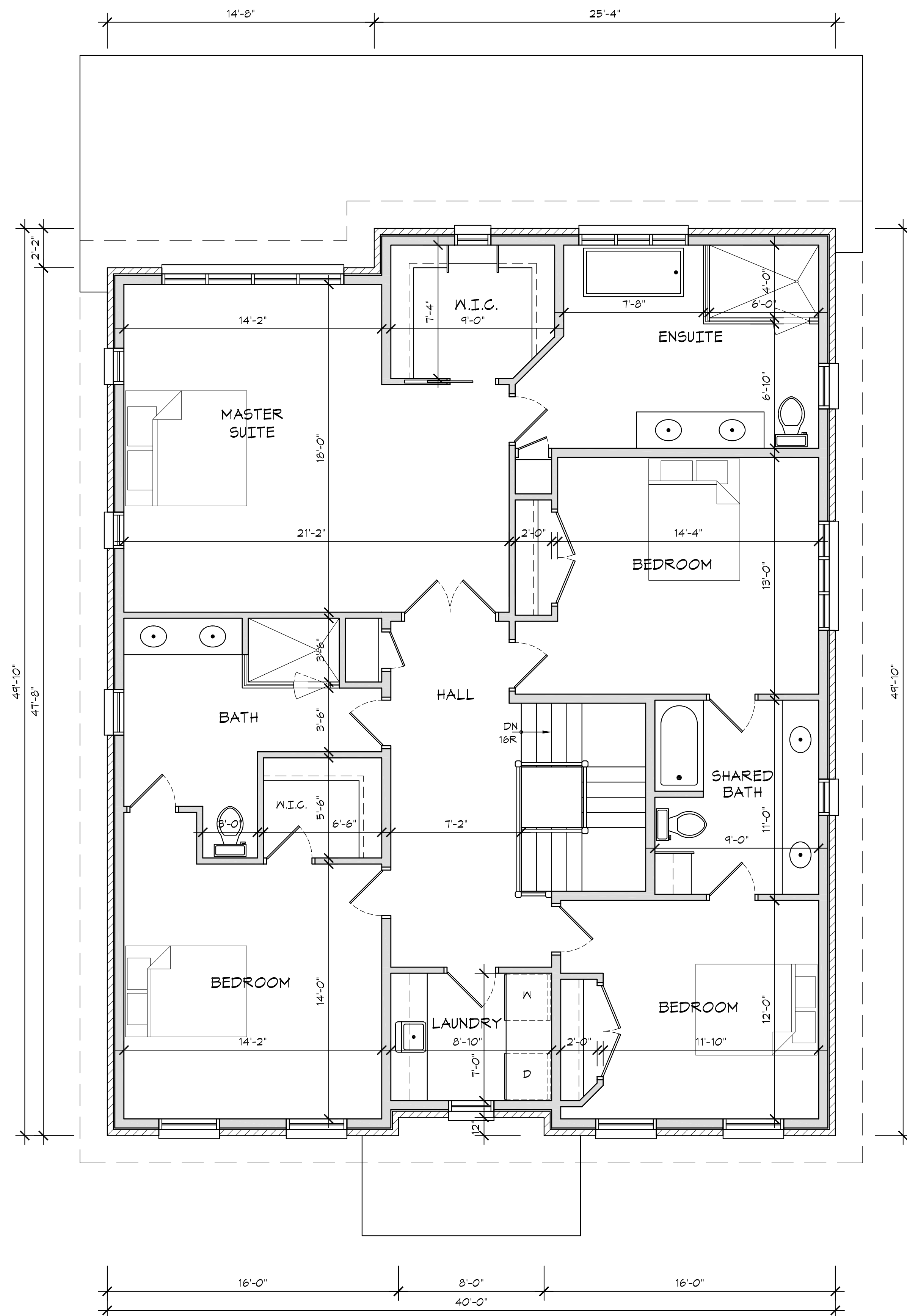
PROJECT TITLE

NEW HOUSE DESIGN
33 WASHINGTON STREET
CITY OF MARKHAM

THE GREGORY
DESIGN GROUP

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

SCALE 1/4"=1'-0"	DATE 11/08/22
PROJECT NUMBER 2284-21	SHEET NUMBER A-1
DRAWN BY S.Gregory	
CHECKED BY R.G.	



SECOND FLOOR PLAN

FLOOR AREA = 1,953 sq.ft.
OPEN SPACE = 70 sq.ft.
TOTAL NET FLOOR AREA = 1,883 sq.ft.

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

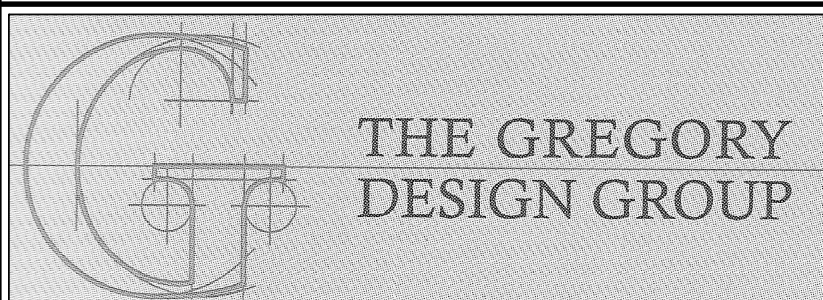
I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4 of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.

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

Russ Gregory
NAME SIGNATURE

PROJECT TITLE

NEW HOUSE DESIGN
33 WASHINGTON STREET
CITY OF MARKHAM



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

SCALE	DATE
1/4"=1'-0"	11/08/22
PROJECT NUMBER	SHEET NUMBER
2284-21	A-2
DRAWN BY	
S.Gregory	
CHECKED BY	
R.G.	