

Meeting of the Upper Thames River Conservation Authority  
Hearing Committee – Agenda  
Friday December 17, 2021 9:00am

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Virtual Meeting Due to COVID-19 Pandemic

Memo to Hearing Committee Members: M. Blosch, T.Jackson, B.Petrie, A. Dale, S.Levin

Please be advised that a meeting of the Hearings Committee will be as follows:

- 1. Approval of Agenda**
- 2. Declaration of Conflicts of Interest**
- 3. Minutes of the Previous Meeting: March 18, 2021**
- 4. Business Arising from the Minutes**
- 5. Application #90-21 (Streamline ‘Consent’ Hearing)**  
Proposed Development within a Regulated Area  
2533 Gideon Drive, Delaware
- 6. Application #120-21 (Full Hearing)**  
Proposed Development within a Regulated Area  
1326 Sprucedale Ave., London
- 7. Adjournment**



Tracy Annett, General Manager

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**To:** Chair and Members of the UTRCA Hearing Committee  
**From:** Jenna Alain, Manager, Environmental Planning and Regulations  
Brent Verscheure, Land Use Regulations Officer  
**Date:** December 10, 2021  
**Agenda #:** 5  
**Subject:** Section 28 Permit Application #90-21 Proposed Replacement Structure in the Floodway, 2533 Gideon Drive, Delaware, Middlesex County

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**Recommendation:**

**THAT the UTRCA Hearings Committee consent to the issuance of a permit under O. Reg. 157/06 made pursuant to Section 28 of the *Conservation Authorities Act* for *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* Permit Application #90-21 for the replacement of a single family residence at 2533 Gideon Drive, Delaware in Middlesex County.**

**Background**

An application for a *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* Permit (Permit Application #90-21) has been submitted for the proposed reconstruction of one (1) single family residence at 2533 Gideon Drive, Delaware. The existing building contains habitable living space on both the main and lower levels. The proposed reconstruction would remove all habitable living space to an area above the regulatory flooding hazard elevation, while ensuring that there will be no net increase to the overall footprint and gross floor area.

UTRCA staff have reviewed the submitted site plan, architectural drawings and information in support of the proposed re-development. The application has been evaluated for conformity with Policy 4.2.2.6 *Replacement Structures in the Floodway* within the *UTRCA Environmental Planning Policy Manual (June 2006)*. The development, as currently proposed, meets the requirements of the aforementioned UTRCA Policy 4.2.2.6 (a) through (f).

At the applicant's request, we have brought forward this application without site specific engineering/ floodproofing (required by UTRCA Policy 4.2.2.6 (g)) to avoid incurring any unnecessary costs associated with potential amendments made through this consent hearing. It has further been acknowledged by the applicant that, pending approval by the UTRCA Hearings Committee, will be conditional upon the architectural plans being sealed and signed by a qualified professional engineer implementing site specific floodproofing measures, to the satisfaction of UTRCA staff.

Finally, this report is being provided to the committee as a summary for the consideration and consent of the Hearings Committee as, Policy 4.2.2.6 (h) requires that, "*Approval of an application under this policy will be subject to the consent of the UTRCA's Hearings and Personnel Committee.*"

Prepared by:



Brent Verscheure, Land Use Regulations Officer

Reviewed by:



Jenna Allain, Manager, Environmental Planning and Regulations

Attachments:

1. Notice of Hearing
2. Appendix A – Instructions for the Applicant
3. UTRCA Regulatory Mapping\_1 - 2533 Gideon Drive, Delaware
4. UTRCA Regulatory Mapping\_2 - 2533 Gideon Drive, Delaware
5. UTRCA Application for Development - 2533 Gideon Drive, Delaware
6. Architectural Drawings – 2533 Gideon Drive, Delaware
7. Legal Survey – MTE Consultants -2533 Gideon Drive, Delaware
8. UTRCA EPPM (June 2006) – Section 4.2.2.6 –Replacement Structures in the Floodway

## Appendix B NOTICE OF HEARING

### IN THE MATTER OF

The Conservation Authorities Act, R.S.O. 1990, Chapter C. 27 As Amended;

### AND IN THE MATTER OF

An Application By: **776497 Ontario Limited (signed by Rene Caron)**

For the permission of the Upper Thames River Conservation Authority pursuant to Regulations made under Section 28, subsection 12 of said Act.

**TAKE NOTICE** that a hearing before Hearing Committee of the Upper Thames River Conservation Authority will be held under Section 28 of the Conservation Authorities Act at the offices of said Authority at the UTRCA Administration Office, 1424 Clarke Road, London, Ontario N5V 5B9 at the hour of **0905hrs on December 17, 2021** with respect to the application by **776497 Ontario Limited (signed by Rene Caron)** to permit development within an area regulated by the Upper Thames River Conservation Authority under Ontario Regulation 157/06 - *Development, Interference with Wetlands and Alterations to Shorelines and made pursuant to Section 28 of the Conservation Authorities Act on 2533 Gideon Drive, Delaware.*

***Please refer to the attached information page for additional details regarding the virtual meeting format in which this hearing will be conducted.***

**TAKE NOTICE THAT** you are invited to make a delegation and submit supporting written material to the Hearing Committee for the meeting of **UTRCA Permit Application #90-21**. If you intend to appear, and/or if you believe that holding the hearing electronically is likely to cause significant prejudice, please contact Michelle Viglianti at ext. 222 or by email at [vigliantim@thamesriver.on.ca](mailto:vigliantim@thamesriver.on.ca). Written material will be required by **December 3, 2021**, to enable the Committee members to review the material prior to the meeting.

**AND FURTHER TAKE NOTICE** that if you do not attend at this Hearing, the Hearing Committee may proceed in your absence, and you will not be entitled to any further notice in the proceedings.

**PLEASE NOTIFY THIS OFFICE** by **Monday November 29, 2021** as to whether you and/or your agent will be attending. A copy of Ontario Regulation 157/06 and Section 28 of the Conservation Authorities Act will be made available to you upon request.

**DATED** the 25<sup>th</sup> day of November, 2021.

Registered

The Hearings Committee of  
The Upper Thames River Conservation Authority



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Tracy Annett, General Manager/Secretary-Treasurer

## Appendix A

### INSTRUCTIONS FOR THE APPLICANT

Conservation Authorities, including the Upper Thames River Conservation Authority (UTRCA), have enacted regulations pursuant to Section 28 of the Conservation Authorities Act. Section 28(12) of the Act requires that an applicant be party to a hearing by the local Conservation Authority Board, Executive Committee or Subcommittee of the Board. In the case of the UTRCA, a Subcommittee of the Board, serves as the Hearing Committee. The Hearing Committee is an Administrative Tribunal within the definitions of the Statutory Powers Procedure Act. It is the purpose of this Hearing Committee to evaluate the information presented at the hearing by both the Conservation Authority staff and the applicant and to decide whether the application will be approved or refused.

The applicant has several responsibilities to bear in mind in proceeding to a hearing. To assist with this process, the UTRCA has provided you with the following documents:

- a) Notice of Hearing
- b) Hearing Procedure
- c) Rights of a Witness with Regard to Evidence

Well in advance of the scheduled hearing, please read this information. The **Notice of Hearing** refers to the jurisdiction and regulation(s) involved in the matter, the name of the applicant, when the hearing is scheduled to take place and where it will occur. It also asks the applicant to confirm that he/she or an agent will be able to attend on the scheduled date. Please respond by the time indicated on this Notice, which will have been either hand-delivered as part of this package or forwarded via Registered Mail.

The enclosed **Hearing Procedure** outlines the actual hearing process and the sequence of steps that the Chair will be obligated to follow. If you have any questions regarding this process, please contact the Conservation Authority at your earliest convenience. Note that upon conclusion of the hearing, the Hearing Committee will then adjourn the hearing to confer in private and will then reconvene shortly to either render its decision or announce the time and date when the Hearing Committee will reconvene to announce its decision or will forward its written decision.

On the single page entitled, **Conservation Authority Hearings - Rights of a Witness with Regard to Evidence**, an explanation is given for those who will be in a position to present information during the hearing. This page also cites the relevant statutes which apply in these matters, noting in particular that hearings such as this are governed by the Statutory Powers Procedure Act.

It is noted that all information about an application should have been provided to the Conservation Authority to assist staff with making a recommendation on the application. If new information is brought before the Hearing Committee which was not part of the application that was processed by staff, the Hearing Committee may need to adjourn the hearing to allow UTRCA staff sufficient time to review the new information. Similarly, staff should make all information that it intends to utilize in the hearing available to the applicant prior to the hearing.

Following the hearing, you will be formally advised of the Hearing Committee's decision with a **Notice of Decision**. This Notice will include the following information:

- (a) The names of the Hearing Committee members who participated in the decision;
- (b) The name(s) of persons who presented the UTRCA staff information;
- (c) The name(s) of persons who presented the applicant's information;
- (d) The identification of the applicant, property and the nature of the application that was the subject of the hearing.
- (e) The decision to refuse or approve the application. A copy of the Hearing Committee resolution should be attached.

If the decision is to **deny** the application, the Notice also explains that you have the right to appeal the decision to the Mining and Lands Tribunal **within 30 days of receipt of the Notice**. The Conservation Authority will be prepared to provide you with information on how to make proper notification with the Mining and Lands Tribunal if necessary.













If, upon reviewing all of the information provided in the enclosed package you have any questions, you are encouraged to contact the Upper Thames River Conservation Authority at your earliest convenience.

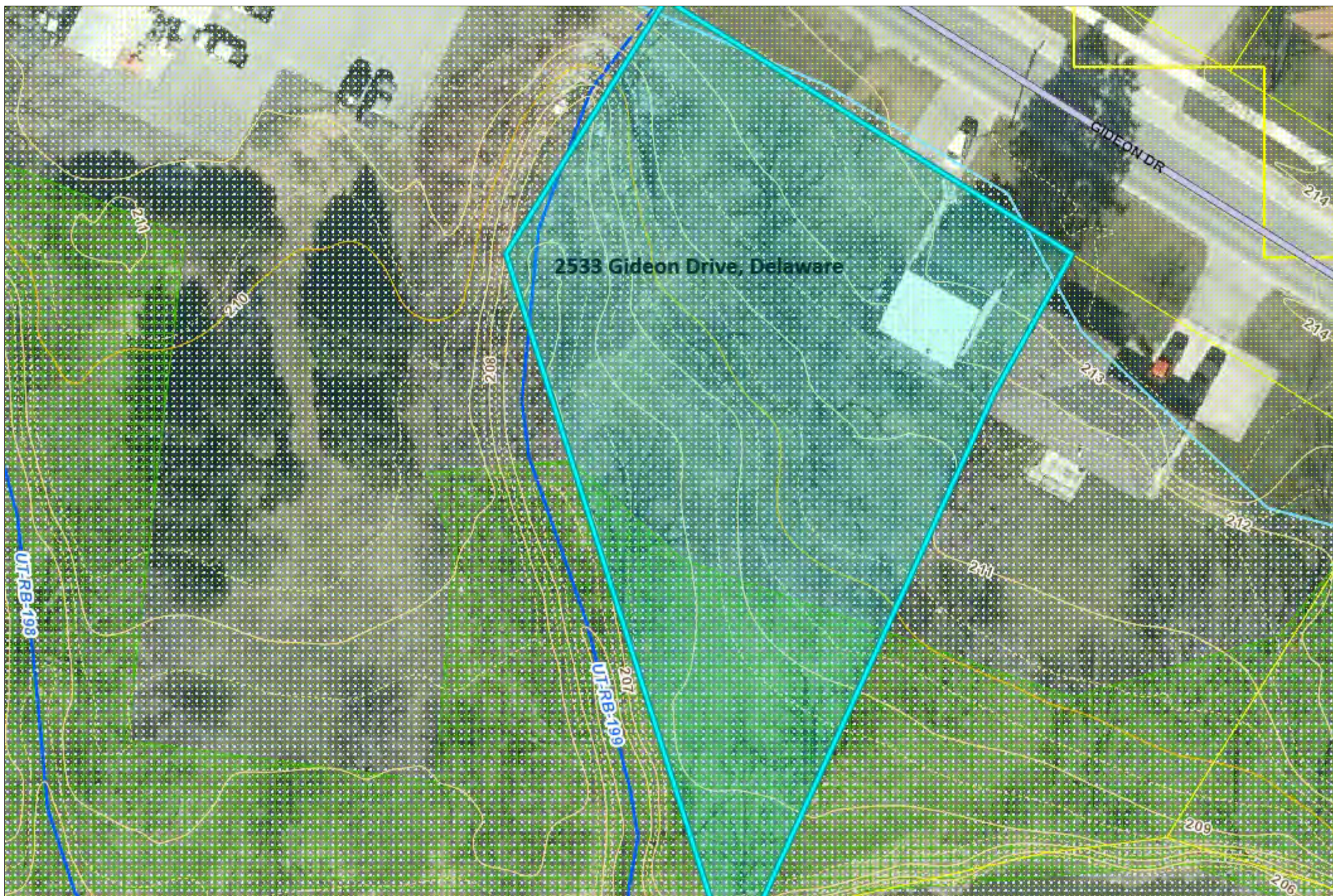
**UPPER THAMES RIVER CONSERVATION AUTHORITY**

# Regulation Limit

Regulation under s.28 of the *Conservation Authorities Act*  
Development, interference with wetlands, and alterations to shorelines and watercourses. O.Reg 157/06, 97/04.

## Legend

-  UTRCA Watershed (1:10K)
-  Assessment Parcel (MPAC)
- 0.5 m Contour (UTRCA, 2017)
  -  0.5 m
  -  1 m
  -  5 m
- Watercourse (UTRCA)
  -  Open
  -  Tiled
- Middlesex NHSS Woodland (2014)
  -  Candidate for Ecologically Important
  -  Ecologically Important
  -  Significant Ecologically Important
-  Flooding Hazard
-  Regulation Limit 2018



The Regulation Limit depicted on this map schedule is a representation of O.Reg 157/06 under O.Reg 97/04.  
The Regulation Limit is a conservative estimation of the hazard lands within the UTRCA watershed. In the case of discrepancies between the mapping and the actual features on a property, the text of Ontario Regulation 157/06 prevails and the jurisdiction of the UTRCA may extend beyond areas shown on the maps.

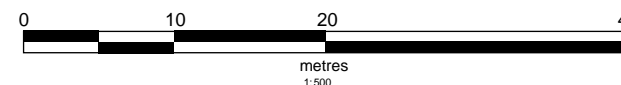
The UTRCA disclaims explicitly any warranty, representation or guarantee as to the content, sequence, accuracy, timeliness, fitness for a particular purpose, merchantability or completeness of any of the data depicted and provided herein.  
The UTRCA assumes no liability for any errors, omissions or inaccuracies in the information provided herein and further assumes no liability for any decisions made or actions taken or not taken by any person in reliance upon the information and data furnished hereunder.  
This map is not a substitute for professional advice. Please contact UTRCA staff for any changes, updates and amendments to the information provided.  
This document is not a Plan of Survey.

Sources: Base data, 2015 Aerial Photography used under licence with the Ontario Ministry of Natural Resources Copyright © Queen's Printer for Ontario; City of London.

Notes:  
2533 Gideon Drive, Delaware - UTRCA Regulatory Mapping\_1

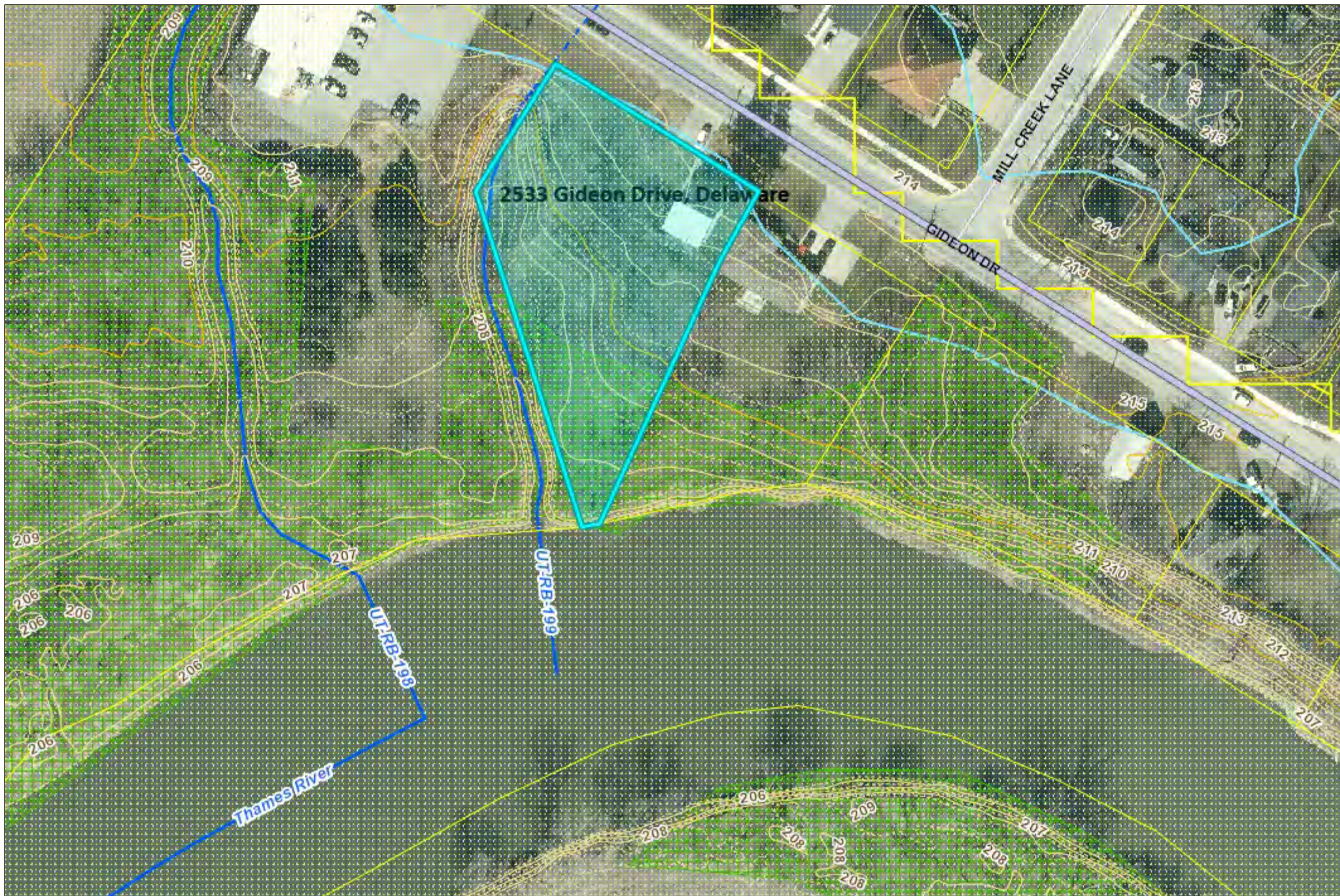
Created By: BV November 25, 2021

\* Please note: Any reference to scale on this map is only appropriate when it is printed landscape on legal-sized (8.5" x 14") paper.



**UPPER THAMES RIVER**  
CONSERVATION AUTHORITY

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## Regulation Limit

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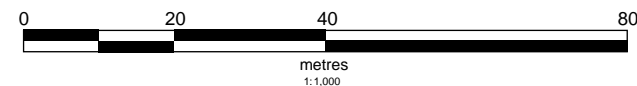
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Sources: Base data, 2015 Aerial Photography used under licence with the Ontario Ministry of Natural Resources Copyright © Queen's Printer for Ontario; City of London.

Notes:  
 2533 Gideon Drive, Delaware - UTRCA Regulatory Mapping\_2

Created By: BV November 25, 2021

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**UPPER THAMES RIVER**  
 CONSERVATION AUTHORITY  
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Upper Thames River Conservation Authority  
1424 Clarke Road London, Ontario N5V 5B9  
Tel. (519) 451-2800 Fax (519) 451-1188

Conservation Authorities Act - Ontario Regulation 157/06, under O.reg. 97/04

Application # 90-21

Name of Landowner: Cheryl & Barry Crookshank Tel. Home: [REDACTED]  
Address: [REDACTED] Postal Code: [REDACTED] Tel. Business: [REDACTED]  
Location of Project: 2533 Gideon Drive, Delaware Middlesex Centre  
Street and Number, or Lot(s) and Concession Number/ 911 Address Municipality

**DESCRIPTION OF PROJECT**

General description of project: Demolish existing 1 storey single detached dwelling with finished basement.  
Construct new 2-storey single detached dwelling with unhabitable basement.

All applications must be accompanied by a detailed site plan, providing information on the following:

1. general location of property in relation to roads
2. location and dimensions of all existing structures on the property
3. location of any watercourse, wetland or steep slope on or near the subject property
4. intended location of all proposed work, including construction, filling/grading/excavation, wetland interference or watercourse alteration
5. location of septic system, if applicable and other property utilities, wells, etc.
6. cross-section of proposed work, showing existing and final grades and structure openings

Works including floodproofing of structures must be accompanied by detailed drawings, prepared by qualified professional engineers, with proper dates and stamps appearing on all plans. If filling is proposed, details on the type, area and volume of fill must be provided to the UTRCA, with existing and proposed grades clearly presented on plans.

UNLESS OTHERWISE REQUESTED, THE CONSERVATION AUTHORITY ONLY REQUIRES ONE COPY OF ALL PROJECT DRAWINGS. MULTI-PAGED ENGINEERING DRAWINGS MUST BE FOLDED OR REPRODUCED ON 11 x 17" SHEETS.

Dates of Commencement and Completion of Project: September 2021 to May 2022

If other approvals required for this project please indicate

- |   |  |
|---|--|
| <input type="checkbox"/> Federal - Fisheries Act                | <input type="checkbox"/> Other _____   |
| <input type="checkbox"/> Province - MNR Work Permit             | <input type="checkbox"/> Permit to Take Water  |
| <input checked="" type="checkbox"/> Municipal - Building Permit | <input type="checkbox"/> Zoning <input type="checkbox"/> Severance <input type="checkbox"/> OPA <input type="checkbox"/> |

Name of Applicant if different than Landowner: 776497 Ontario Limited

Mailing Address if different than above: 127 Faye Street, Port Burwell

Postal Code: N0J 1T0 Phone Number: 519-268-2995x1 Email Address: barry@barrywade.ca

Applicant's Signature: [Signature]

Application Date Month: June Day: 1 Year: 2021

Agent for Applicant (if different from above): Rene Caron

Mailing Address: \_\_\_\_\_

Postal Code: \_\_\_\_\_ Phone Number: 519-268-2995x2 Email Address: rene@barrywade.ca

**For UTRCA Completion Only**Application fee: \$1,200.00 Date received: June 25, 2021 Received by: AD/BV

Regulatory floodline elevation: \_\_\_\_\_ Typical ground elevation: \_\_\_\_\_

Other pertinent comments \_\_\_\_\_

Project-specific requirements (refer to page 2 for general conditions) \_\_\_\_\_

Approved by: \_\_\_\_\_ Date approved: \_\_\_\_\_

Site inspection: Date: \_\_\_\_\_ By: \_\_\_\_\_

**TERMS AND CONDITIONS**

The Owner and Applicant, by acceptance of and in consideration of the issuance of this permit, agree to the following terms and conditions:

1. Permission granted by the Upper Thames River Conservation Authority cannot be transferred without prior written approval from the Upper Thames River Conservation Authority.
2. Approvals may be required from other agencies prior to undertaking the work proposed. The Upper Thames River Conservation Authority does not exempt the Applicant from complying with any or all other approvals, laws, statutes, or regulations.
3. The Upper Thames River Conservation Authority may at any time withdraw any permission given if, in the opinion of the Conservation Authority, the representations contained in the application for permission are not carried out or the conditions/requirements of the permit are not complied with.
4. Authorized representatives of the Upper Thames River Conservation Authority may at any time enter onto the lands that are described herein, in order to make any surveys, examinations, investigations or inspections that are required for the purpose of insuring that the work(s) authorized by this permit are being carried out according to the terms of this permit.
5. The Owner and Applicant agree:
  - To indemnify and save harmless the Upper Thames River Conservation Authority and its officers, employees, or agents from and against all damage, loss, costs, claims, demands, actions and proceedings, arising out of or resulting from any act or omission of the Owner and/or Applicant or any of his agents, employees or contractors relating to any of the particulars, terms or conditions of this permit;
  - That this permit shall not release the Applicant from any legal liability or obligation and remains in force subject to all limitations, requirements and liabilities imposed by law;
  - That all complaints arising from the execution of the works authorized under this permit shall be reported immediately by the Applicant to the Upper Thames River Conservation Authority. The Applicant shall indicate any action that has been taken, or is planned to be taken, with regard to each complaint.
6. The project shall be carried out in full accordance with the plans submitted in support of the application.
7. The Applicant agrees to install and maintain all sedimentation controls until all disturbed areas have been stabilized.
8. All disturbed areas shall be seeded, sodded, or stabilized in some other manner acceptable to the Conservation Authority as soon as possible, and prior to the expiry of this permit.
9. The Applicant agrees to maintain all existing drainage patterns, and not to obstruct external drainage from other adjacent private lands.

NOTE: The information on this form is being collected for the purpose of administering a regulation made pursuant to Section 28, Conservation Authorities Act, R.S.O. 1990, Chapter 27. This application and supporting documents and any other documentation received relating to this application, may be released, in whole or in part, to other persons in accordance with the Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990c. M.56, as amended

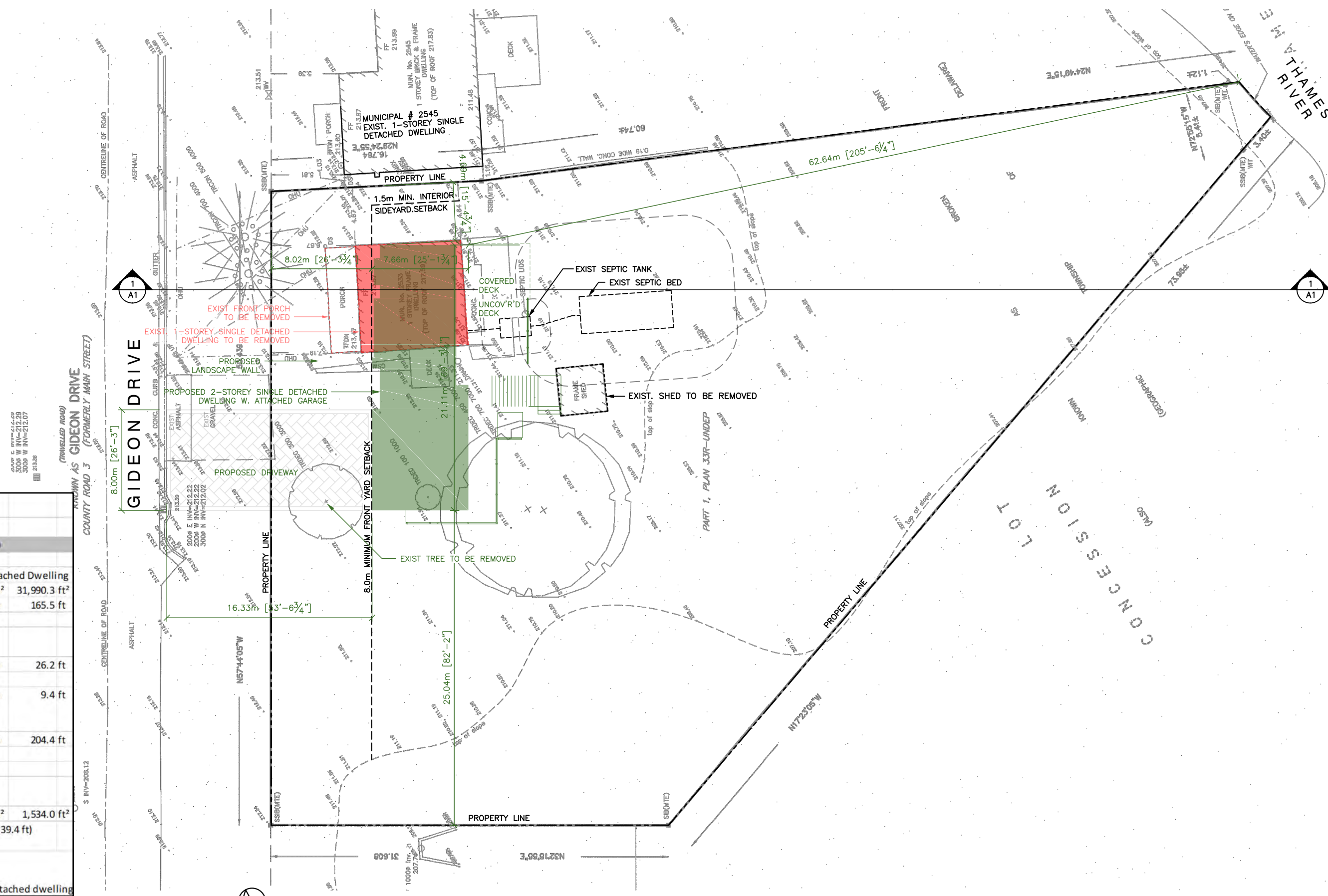
BUILDING DATA			
Proposed Finished Floor Areas	(m <sup>2</sup> )	(ft <sup>2</sup> )	
Main Floor	74.9	806	
Second Floor	67.6	728	
<b>Total Proposed Area</b>	<b>142.5</b>	<b>1,534</b>	
Other Proposed Areas	(m <sup>2</sup> )	(ft <sup>2</sup> )	
Attached Garage	74.0	796	
Unfinished Crawlspace	62.2	669	
Rear Covered Deck	24.2	260	
Rear Uncovered Deck	82.2	885	

CONSERVATION AUTHORITY DATA			
Existing	(m <sup>2</sup> )	(ft <sup>2</sup> )	
Habitable Ground Floor Area	71.3	767	
Habitable Basement Area	71.3	767	
<b>Total of Existing Areas</b>	<b>142.6</b>	<b>1,535</b>	
Proposed	(m <sup>2</sup> )	(ft <sup>2</sup> )	
Habitable Ground Floor Area	74.9	806	
Habitable Second Floor Area	67.6	728	
<b>Total of Proposed Areas</b>	<b>142.5</b>	<b>1,534</b>	

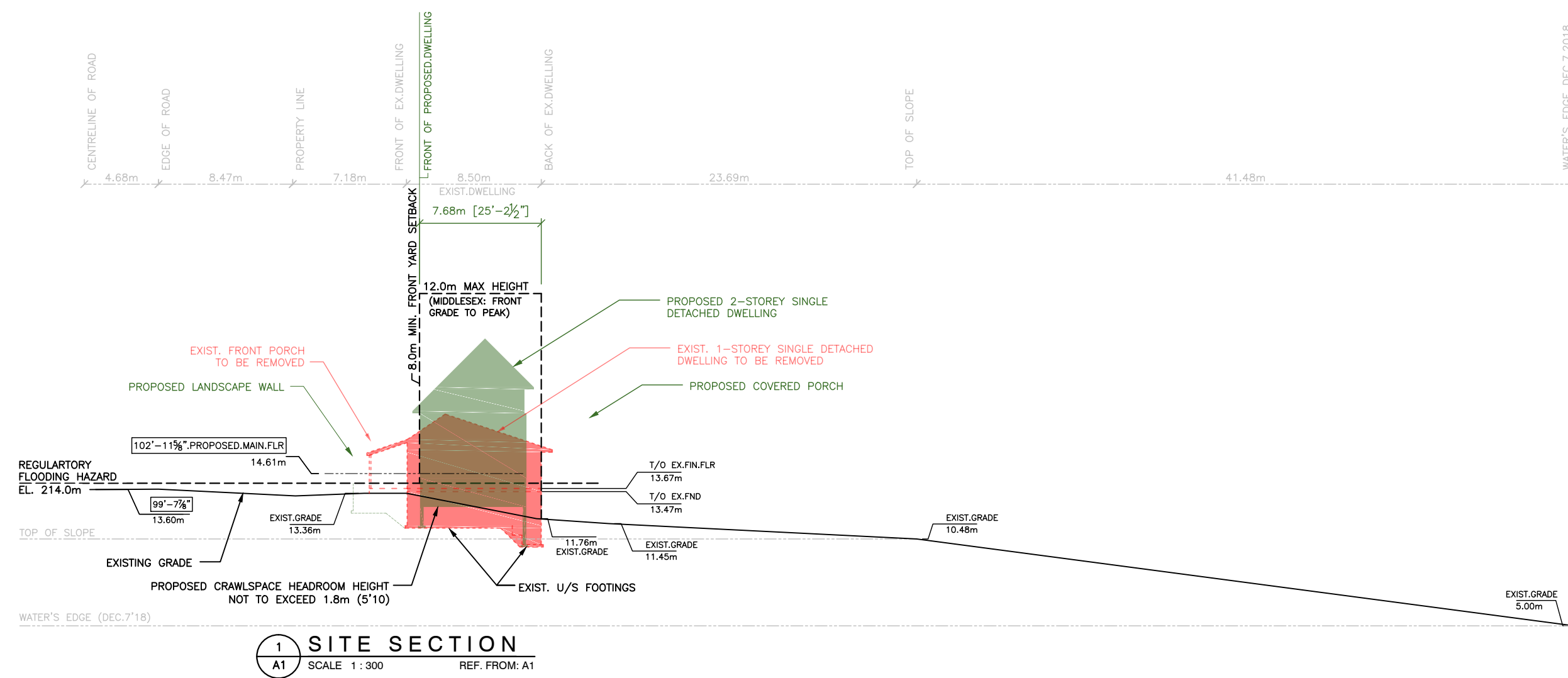
ZONING DATA			
ZONING DESIGNATION: COMMUNITY RESIDENTIAL FIRST DENSITY (CR1) ZONE			
	PERMITTED	PROPOSED	
<b>11.1 GENERAL USE REGULATIONS</b>			
11.1.1 PERMITTED USES	Single Detached Dwelling	Single Detached Dwelling	
11.1.2 MINIMUM LOT AREA	700.0 m <sup>2</sup> (7,535 ft <sup>2</sup> )	297.2 m <sup>2</sup> 31,990.3 ft <sup>2</sup>	
11.1.3 MINIMUM LOT FRONTAGE	20.0 m (66 ft)	50.439 m 165.5 ft	
11.1.4 MINIMUM FRONT YARD SETBACK			
(a) in accordance with Section 4.18 of this By-law	N/A		
(b) all other roads	8.0 m (26 ft)	8 m 26.2 ft	
11.1.5 MINIMUM SIDE YARD SETBACK			
(a) Interior lot	1.5 m (5 ft) on one side and 2.5 m (8 ft) on the other side	2.87 m 9.4 ft	
11.1.6 MINIMUM REAR YARD SETBACK	8.0 m (26 ft)	62.29 m 204.4 ft	
11.1.7 MAXIMUM LOT COVERAGE			
(a) main building	35%	5.8%	
(b) all buildings including accessory buildings subject to Section 4.1a)	38%	N/A	
11.1.8 MINIMUM FLOOR AREA	90.0 m <sup>2</sup> (969 ft <sup>2</sup> )	142.5 m <sup>2</sup> 1,534.0 ft <sup>2</sup>	
11.1.9 MAXIMUM HEIGHT	12.0 m (39.4 ft)	< 12.0 m (39.4 ft)	
(a) single detached dwelling			
11.1.10 MAXIMUM NUMBER OF DWELLINGS PER LOT		1 single detached dwelling	
(a) one single detached dwelling			

EXISTING SEPTIC DATA			
Table 7.4.9.3. - ... Hydraulic Loads for Fixtures			
	Quan.	Units	Total
2. Bathroom group a) with flush tank	1	6	6
12. Dishwasher (a) domestic	1	1.5	1.5
15. Floor drain (with 2" trap)	1	2	2
19. Lavatory (c) domestic type single, or 2 single with common trap	1	1.5	1.5
23. Kitchen Sink (a) domestic and other small type with or without garbage grinders, single, double or 2 single with a common trap	1	1.5	1.5
25. Water Closet (a) with flush tank	1	4	4
<b>TOTAL FU (FIXTURE UNITS)</b>			<b>16.5</b>
Table 8.2.1.3.A. - Residential Occupancy			
	Volume, litres		
Base Load - 4. Dwellings c) 3 Bedroom	1,600		
Fixture Unit Option (FU-20) x 50	0		
Living Area Option (150-200)/10 x 100	0		
<b>EXISTING TOTAL SEWAGE LOAD (LITRES / DAY)</b>			<b>1,600</b>

PROPOSED SEPTIC DATA			
Table 7.4.9.3. - ... Hydraulic Loads for Fixtures			
	Quan.	Units	Total
2. Bathroom group a) with flush tank	2	6	12
12. Dishwasher (a) domestic	1	1.5	1.5
15. Floor drain (with 2" trap)	1	2	2
19. Lavatory (c) domestic type single, or 2 single with common trap	1	1.5	0
23. Kitchen Sink (a) domestic and other small type with or without garbage grinders, single, double or 2 single with a common trap	1	1.5	1.5
25. Water Closet (a) with flush tank	4	0	0
<b>TOTAL FU (FIXTURE UNITS)</b>			<b>17</b>
Table 8.2.1.3.A. - Residential Occupancy			
	Volume, litres		
Base Load - 4. Dwellings a) 2 Bedroom	1,100		
Fixture Unit Option (FU-20) x 50	0		
Living Area Option (190-200)/10 x 100	0		
<b>PROPOSED TOTAL SEWAGE LOAD (LITRES / DAY)</b>			<b>1,100</b>



**SITE PLAN**  
SCALE 1 : 300



**SITE SECTION**  
SCALE 1 : 300 REF. FROM: A1

No.	Issue/Revision Description	Date (y.m.d.)
	Plot File Created:	21.12.07
5	Raised for UTRCA Approval	21.08.23
4	Reduced for UTRCA Approval	21.08.16
3	Issued for UTRCA Approval	21.06.01
2	Revised for min front setback	20.06.02
1	Issued for Site Plan Review	20.04.02



DESIGNER

*[Signature]*

776497 ONT LTD  
Barry Wade Group  
(519) 268-2995  
barry@barrywade.ca

BUILDER

*The Highlander's*  
STONE & MASONRY INC.  
(519) 857-4235

Project 1927

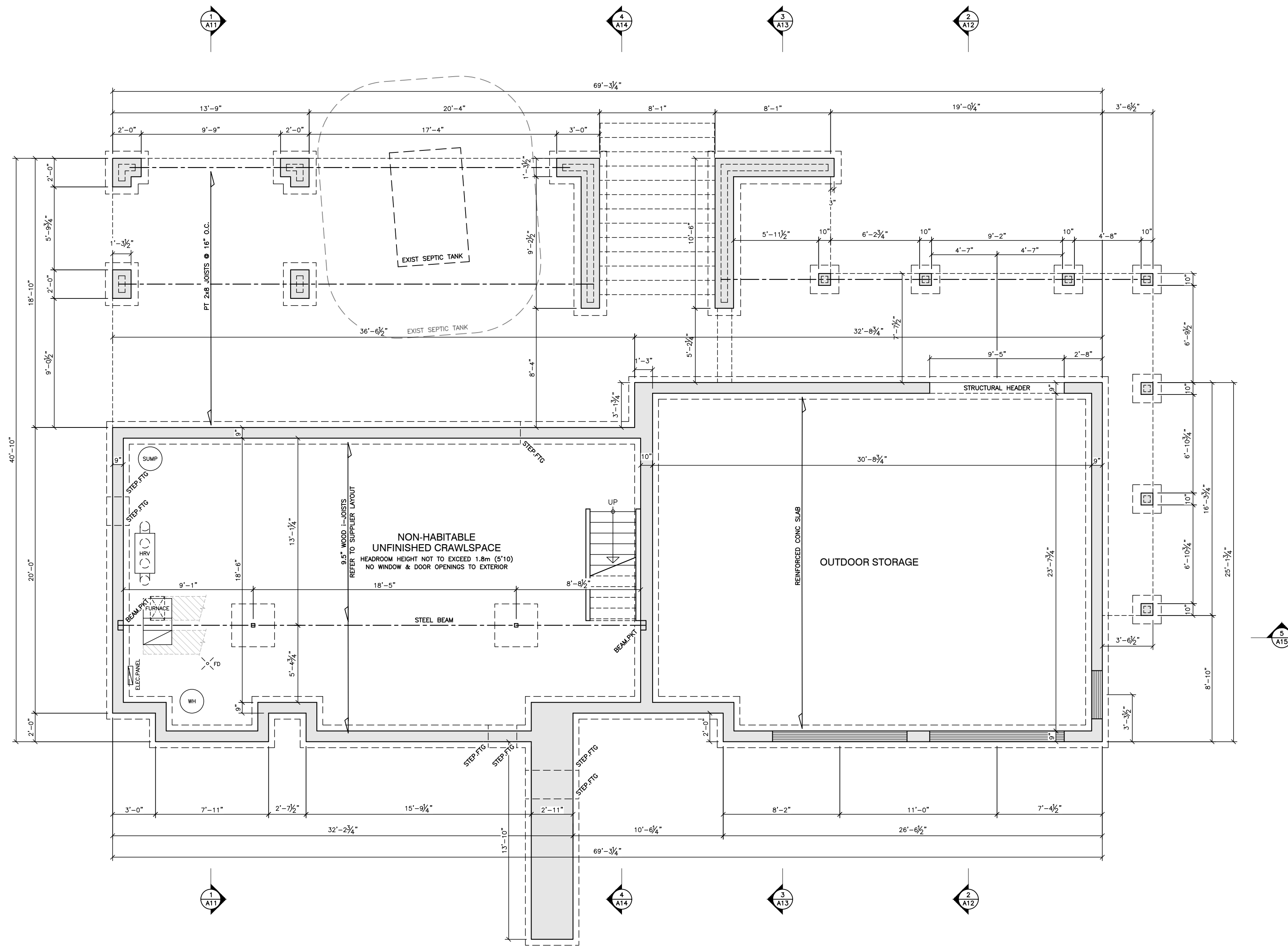
**CROOKSHANK RESIDENCE**

Address  
**2533 GIDEON DR DELAWARE, ON**

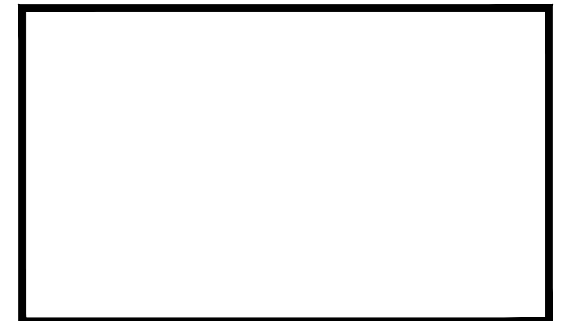
Drawing

**SITE PLAN**

Scale AS NOTED	Page No.
Sheet Size 22x17"	<b>A1</b>
Plot File Created Dec. 07, 2021	



No.	Issue/Revision	Description	Date (y.m.d.)
		Plot File Created:	21.12.07
5	Raised for UTRCA Approval		21.08.23
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3	Issued for UTRCA Approval		21.06.01
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DESIGNER

*[Signature]*

776497 ONT LTD  
Barry Wade Group  
(519) 268-2995  
barry@barrywade.ca

BUILDER

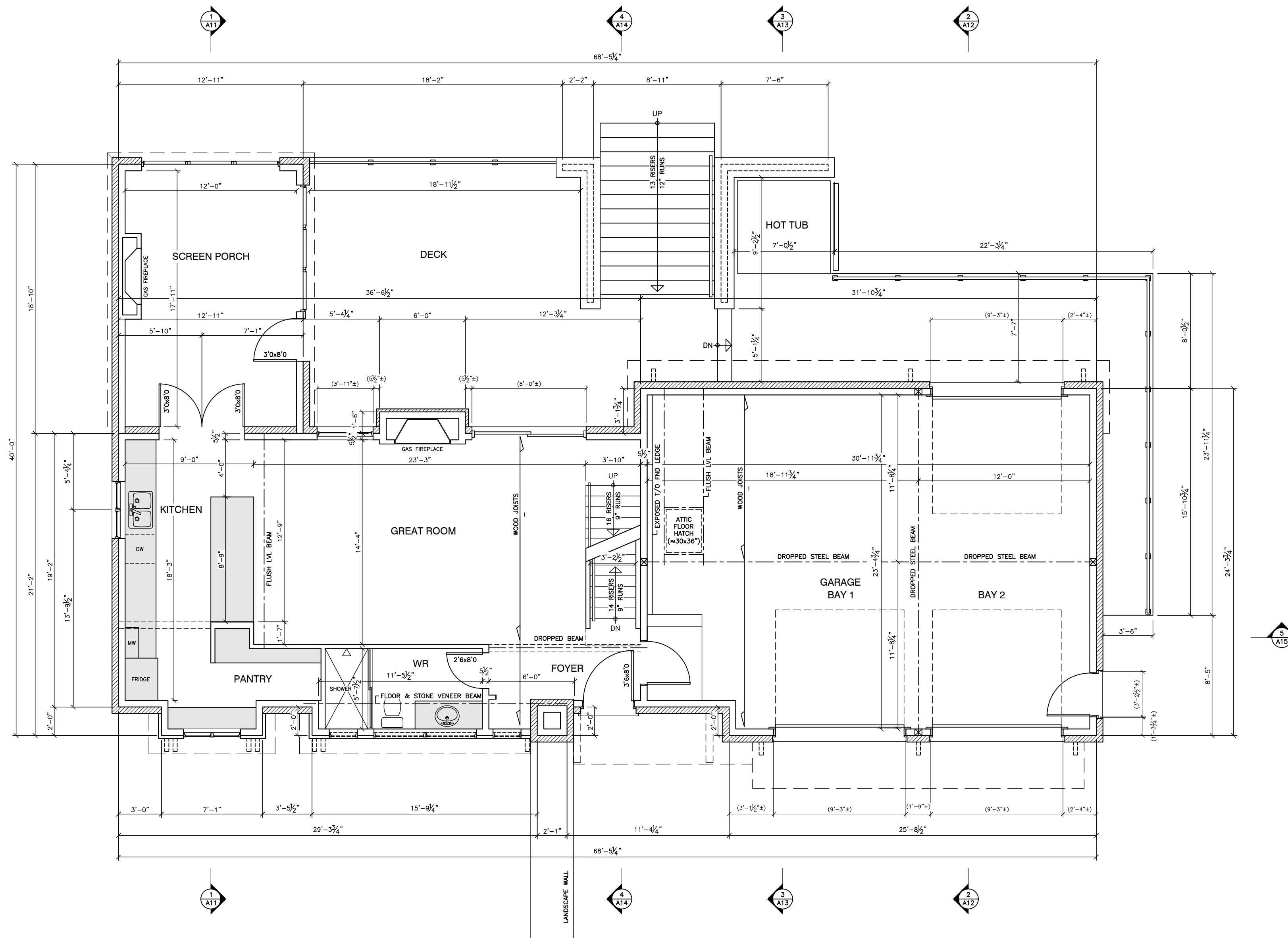
*The Highlander's*  
STONE & MASONRY INC.  
(519) 857-4235

Project 1927  
**CROOKSHANK RESIDENCE**  
Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**FOUNDATION PLAN**

Scale 3/16"=1'-0"	Page No.
Sheet Size 22x17"	<b>A2</b>
Plot File Created Dec. 07, 2021	





No.	Issue/Revision	Description	Date (y.m.d)
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5	Raised for UTRCA Approval		21.08.23
4	Reduced for UTRCA Approval		21.08.16
3	Issued for UTRCA Approval		21.06.01
2	Revised for min front setback		20.06.02
1	Issued for Site Plan Review		20.04.02



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 776497 ONT LTD  
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 (519) 268-2995  
 barry@barrywade.ca

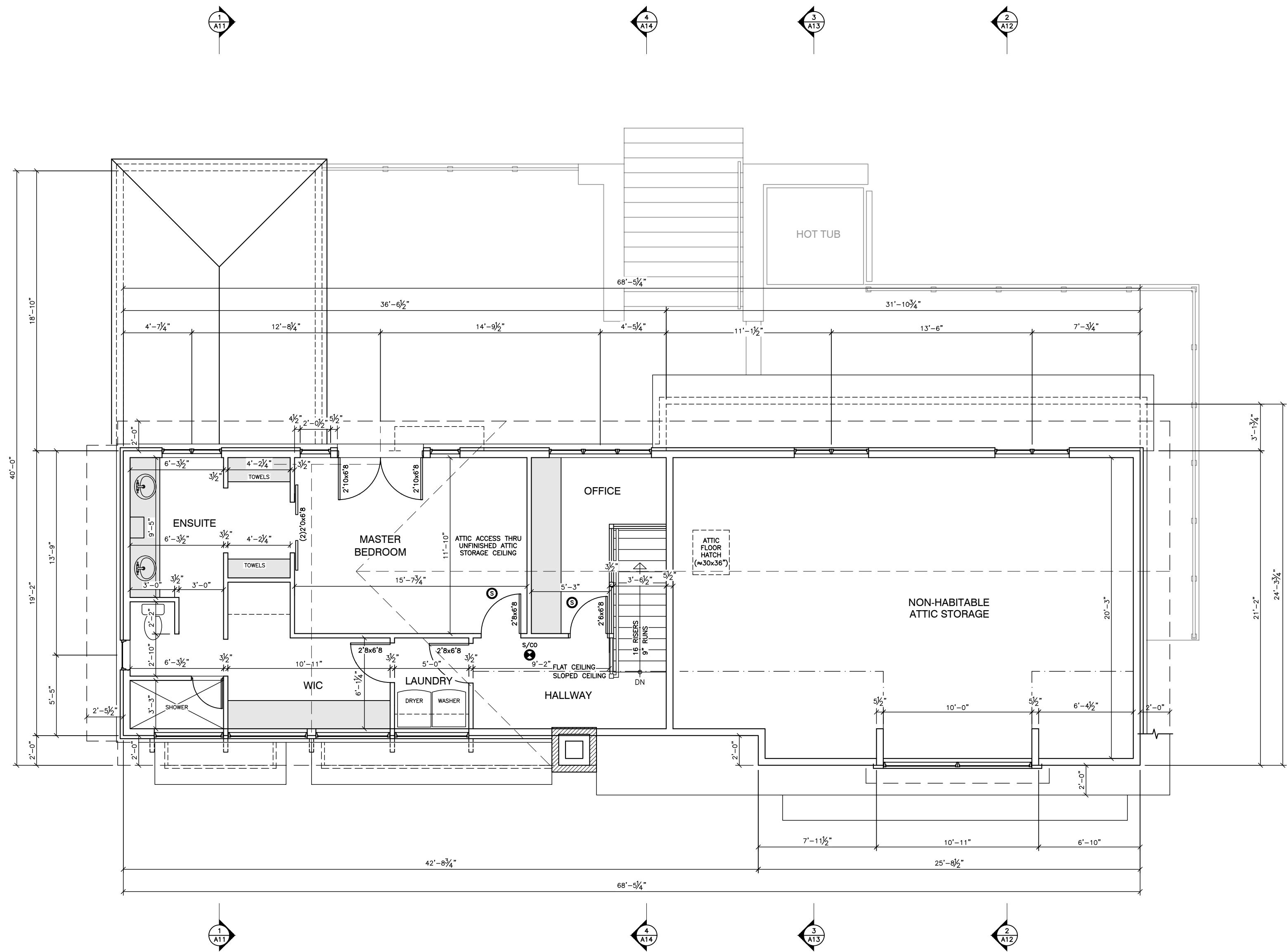
BUILDER  
*The Highlander's*  
 STONE & MASONRY INC.  
 (519) 857-4235

Project 1927  
**CROOKSHANK RESIDENCE**  
 Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**MAIN FLOOR PLAN**  
 Scale 3/16"=1'-0" Page No.  
 Sheet Size 22x17" **A3**  
 Plot File Created Dec. 07, 2021

**MAIN FLOOR 806 SF**





No.	Issue/Revision	Description	Date (y.m.d.)
		Plot File Created:	21.12.07
5	Raised for UTRCA Approval		21.08.23
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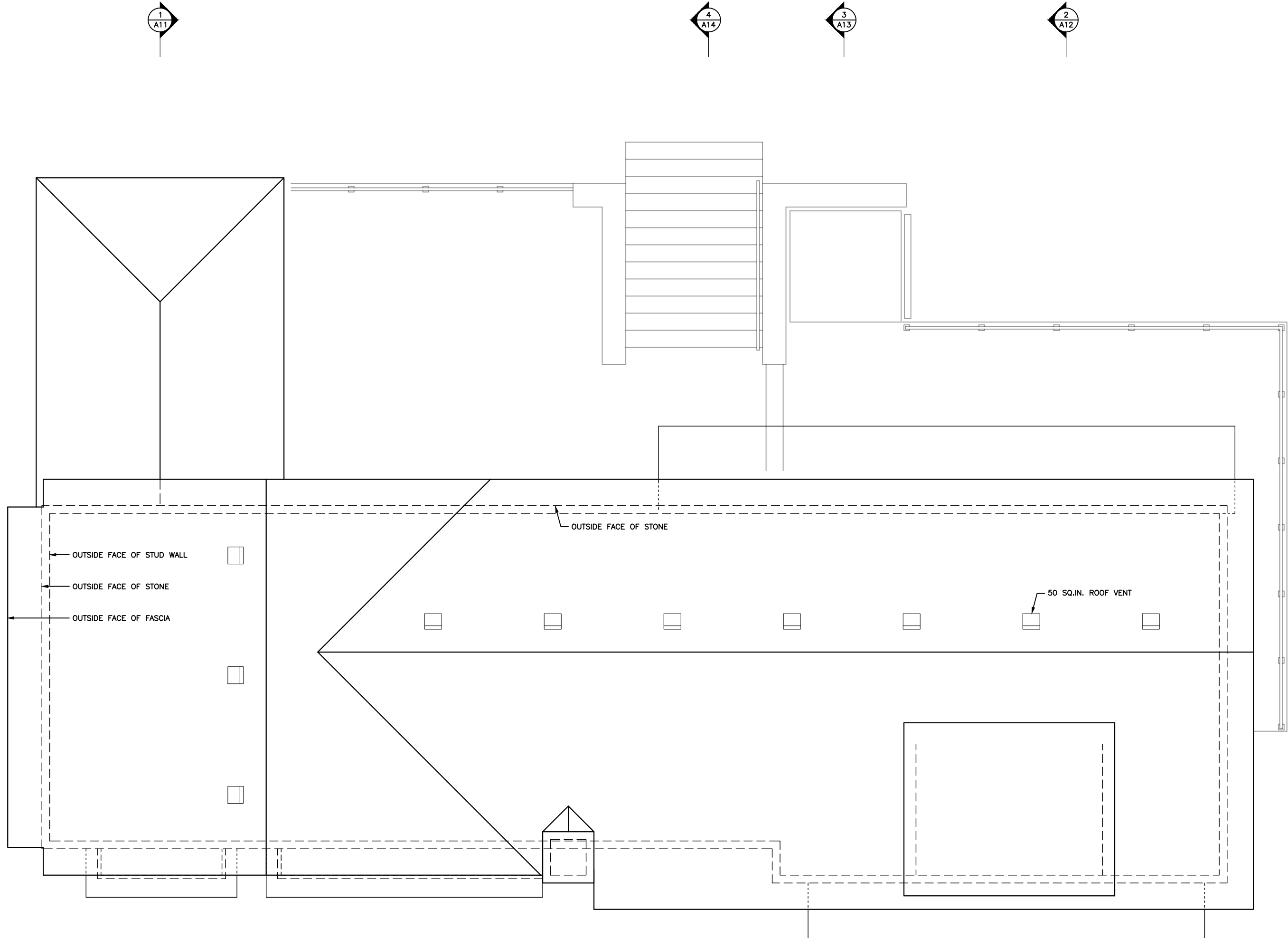
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Project 1927  
**CROOKSHANK RESIDENCE**  
 Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**SECOND FLOOR PLAN**  
 Scale 3/16"=1'-0" Page No.  
 Sheet Size 22x17" **A4**  
 Plot File Created Dec. 07, 2021

**SECOND FLOOR 728 SF**





No.	Issue/Revision Description	Date (y.m.d.)
	Plot File Created:	21.12.07
5	Raised for UTRCA Approval	21.08.23
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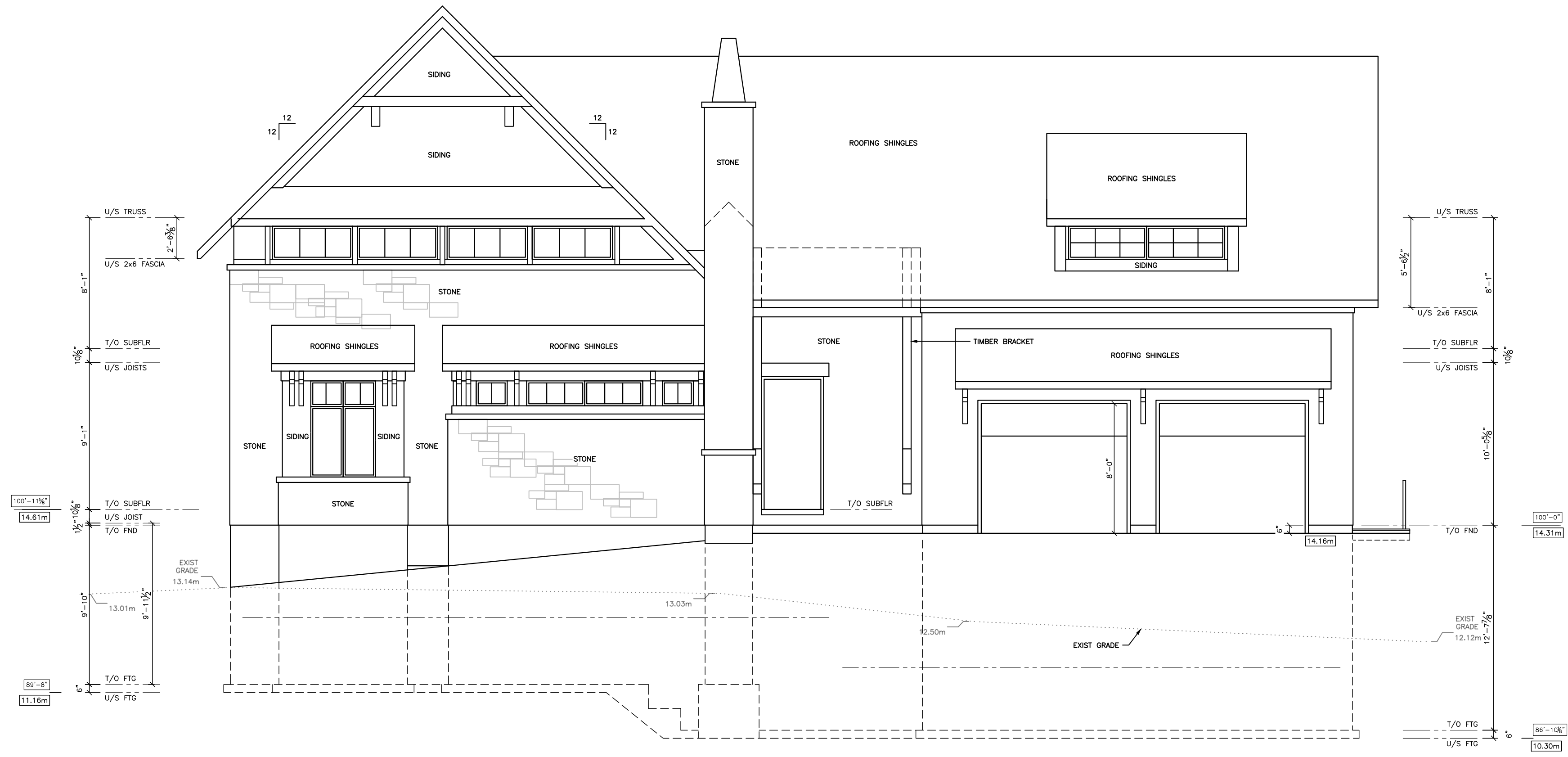
Project 1927  
**CROOKSHANK RESIDENCE**  
 Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**ROOF PLAN**  
 Scale 3/16"=1'-0" Page No.  
 Sheet Size 22x17" **A5**  
 Plot File Created Dec. 07, 2021



10.95m PROPOSED ELEVATION

11.19m EXIST ELEVATION



**NORTH ELEVATION**  
SCALE 3/16" = 1'-0"

No.	Issue/Revision Description	Date (y.m.d)
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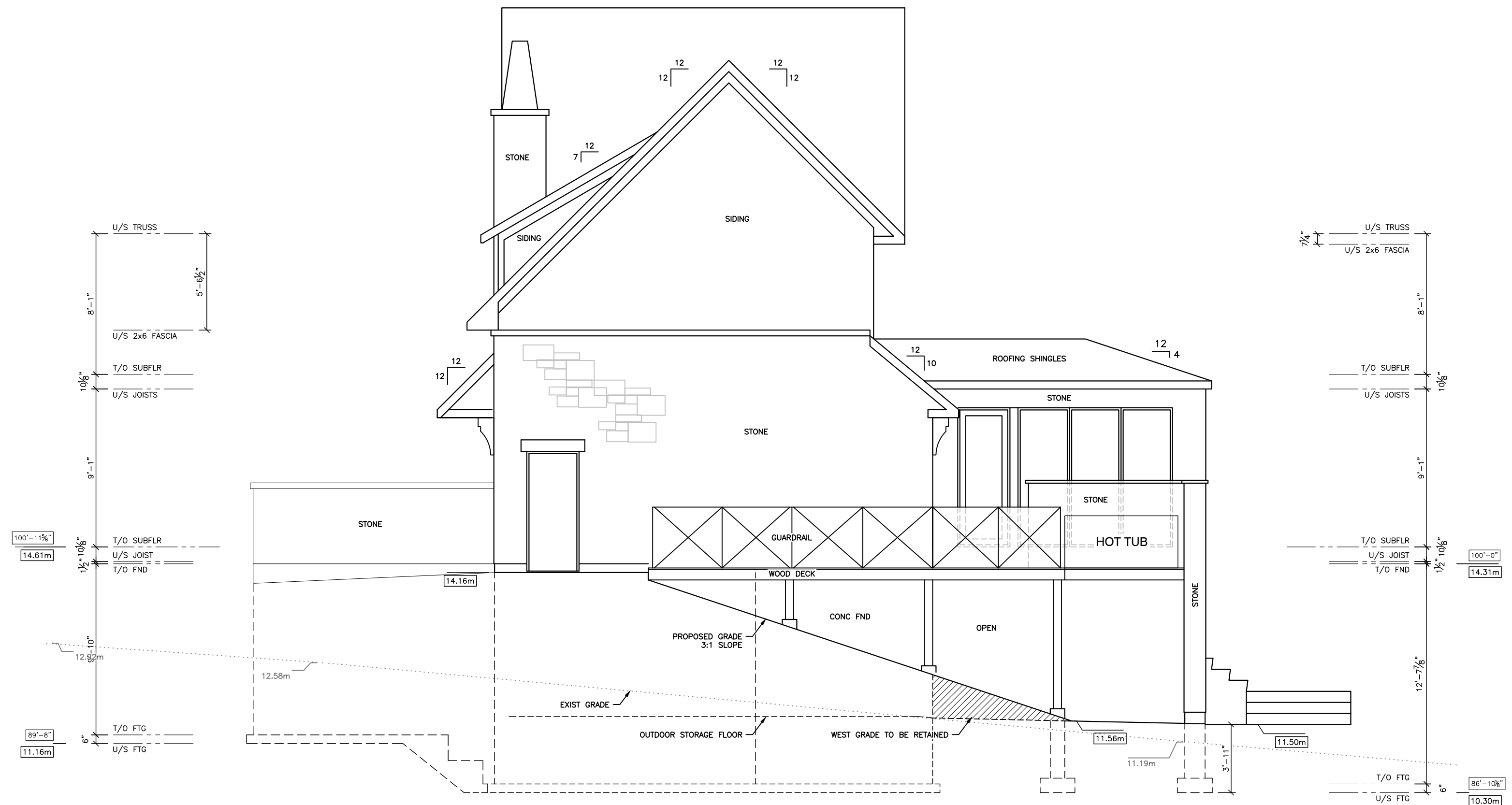
Project 1927  
**CROOKSHANK RESIDENCE**  
 Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**NORTH ELEVATION**  
 Scale 3/16"=1'-0" Page No.  
 Sheet Size 22x17"  
 Plot File Created Dec. 07, 2021 **A6**



10.95m PROPOSED ELEVATION

11.19m EXIST ELEVATION



**WEST ELEVATION**  
SCALE 3/16" = 1'-0"

No.	Issue/Revision Description	Date (y.m.d)
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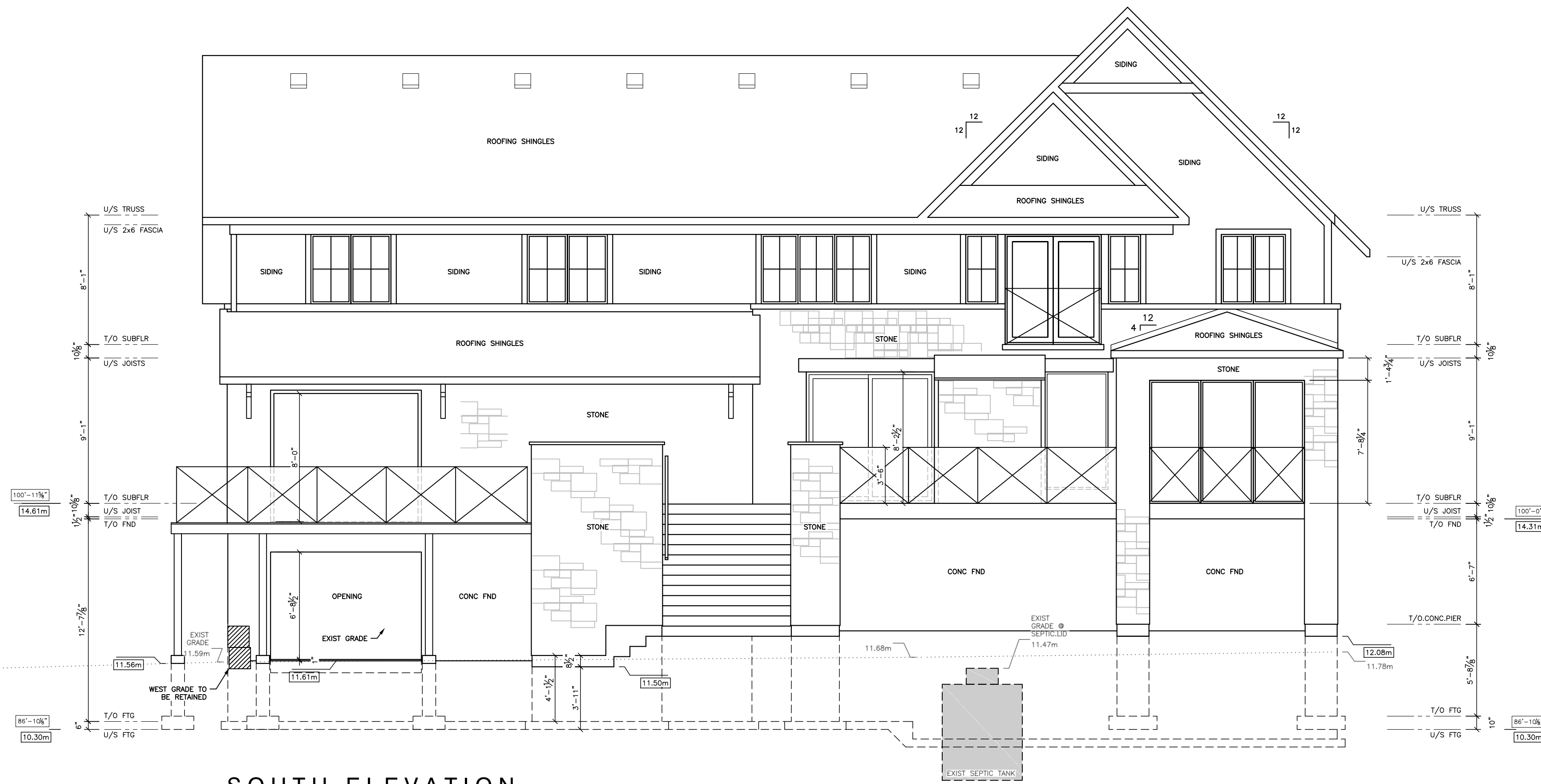
Project 1927  
**CROOKSHANK RESIDENCE**  
 Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**WEST ELEVATION**

Scale 3/16"=1'-0" Page No.  
 Sheet Size 22x17"  
 Plot File Created Dec. 07, 2021 **A7**

10.95m PROPOSED ELEVATION

11.19m EXIST ELEVATION



**SOUTH ELEVATION**  
SCALE 3/16" = 1'-0"

No.	Issue/Revision	Description	Date (y.m.d)
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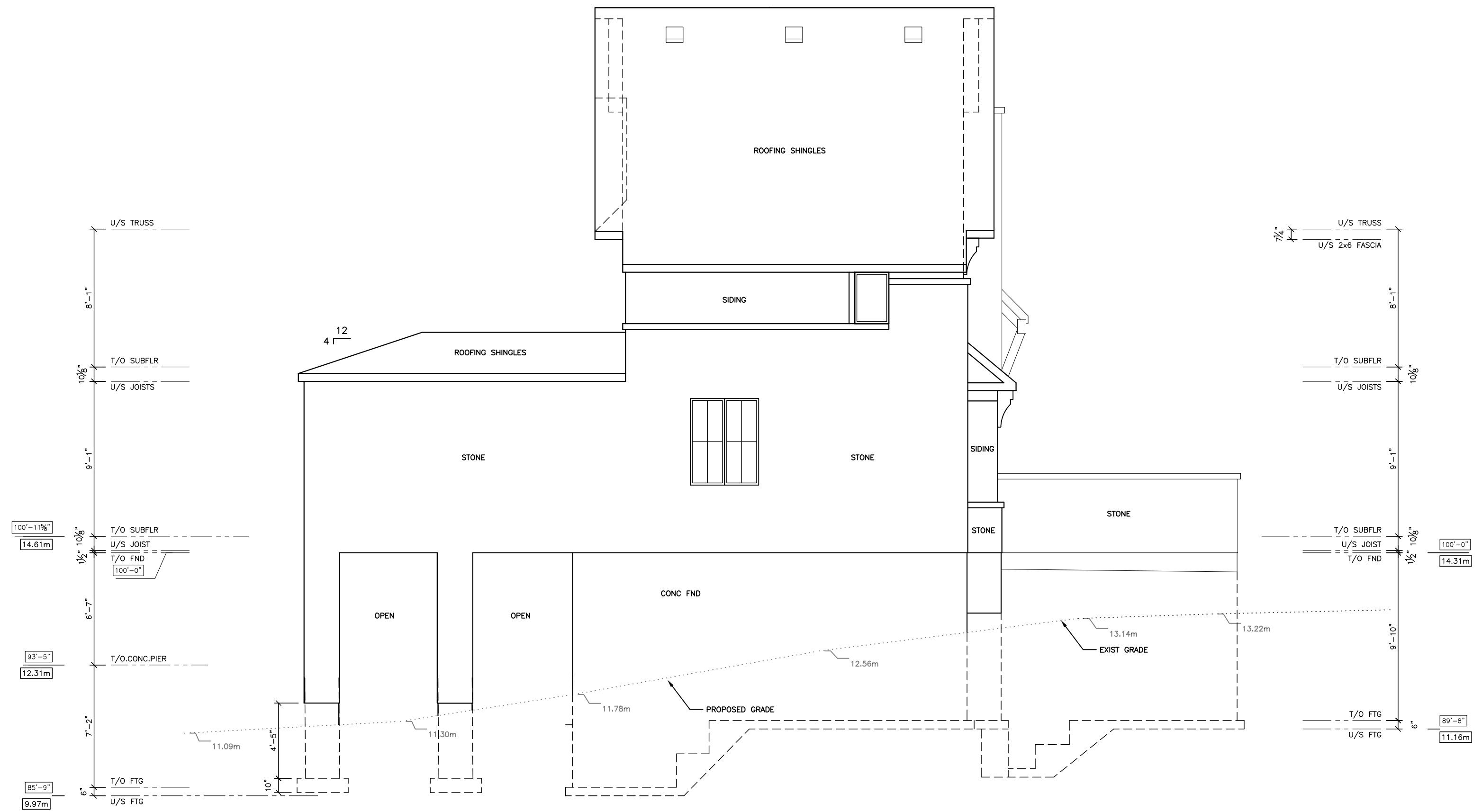
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 STONE & MASONRY INC.  
 (519) 857-4235

Project 1927  
**CROOKSHANK RESIDENCE**  
 Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**SOUTH ELEVATION**  
 Scale 3/16"=1'-0" Page No.  
 Sheet Size 22x17"  
 Plot File Created Dec. 07, 2021 **A8**

10.95m PROPOSED ELEVATION

11.19m EXIST ELEVATION



**EAST ELEVATION**  
SCALE 3/16" = 1'-0"

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Project 1927  
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 Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**EAST ELEVATION**  
 Scale 3/16"=1'-0" Page No.  
 Sheet Size 22x17"  
 Plot File Created Dec. 07, 2021 **A9**

# LEGEND

SECTION/DETAIL IDENTIFICATION  
 SHEET WHERE SECTION/DETAIL LOCATED

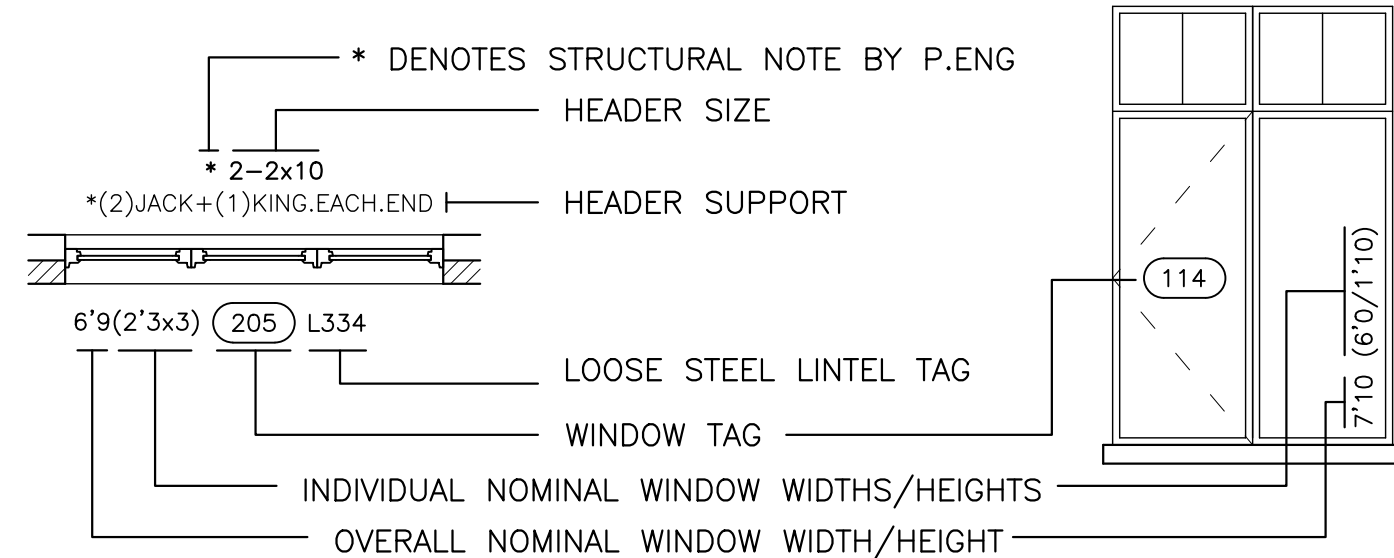
ASSEMBLY TAG (WALLS, FLOORS, ROOFS)

DOWNSPOUT

WOOD POST & SIZE

POINT LOAD

## WINDOW & DOOR NOTATION



S/CO  
 COMBINATION SMOKE/CO  
 SMOKE  
 ALL DETECTORS TO HAVE STROBE LIGHTS ARE TO BE INTERCONNECTED AND HARDWIRED.

## AIR BARRIER CONTINUITY - OBC 9.25.3.3.

EXTERIOR AIR BARRIER TYPICALLY PROVIDED BY TYVEK, ATTIC POLY, AND SPRAYED URETHANE INSULATION APPLIED TO EXPOSED FLOORS.

INTERIOR AIR BARRIER TYPICALLY PROVIDED BY POLY VAPOUR BARRIER

FOUNDATION WALL AND BASEMENT FLOOR SLAB CONSIDERED AN AIR BARRIER.

CONTINUITY OF AIR BARRIERS TO BE MAINTAINED AT ALL WALL, FLOOR, CEILING, AND WINDOW & DOOR INTERSECTIONS.

ALL JOINTS TO BE SEALED OR LAPPED 4" MINIMUM AND CLAMPED BETWEEN FRAMING MEMBERS.

MAINTAIN AIR BARRIER CONTINUITY AT INTERIOR PARTITIONS. PROVIDE BLOCKING AT CEILING HEIGHT TRANSITIONS FOR AIR BARRIER SEALING.

PENETRATIONS OF THE AIR BARRIER SYSTEM (DOORS, WINDOWS, MECHANICAL, ELECTRICAL, ETC.) TO BE SEALED TO MAINTAIN INTEGRITY OF THE SYSTEM OVER THE ENTIRE SURFACE.

POT LIGHT AND EXHAUST FANS ARE TO BE ENCAPSULATED W. FLEXIBLE AIR BARRIER MATERIAL AND SEALED TO THE CEILING AIR / VAPOUR BARRIER. SEAL ANY PENETRATION THRU ENCAPSULATION.

SEAL AROUND ATTIC HATCH

ALL LAPS IN AIR BARRIER LOCATED BEHIND TUBS, SHOWERS AND FIREPLACES TO BE SEALED AND CLAMPED,

SEAL ALL PENETRATIONS THRU BASEMENT FLOOR (CONC CURBS, STRUCTURAL COLUMNS, PLUMBING, ETC.)

CLEANOUT COVERS TO BE WEATHERSTRIPPED

SUMP PIT TO HAVE A SEALED COVER

# ASSEMBLY SCHEDULE

TYPICAL UNFINISHED CRAWLSPACE BASEMENT WALL CONSTRUCTION

CONC FOUNDATION WALL  
 R20 BLANKET WRAP

TYPICAL OUTDOOR STORAGE RM WALL CONSTRUCTION

CONC FOUNDATION WALL

TYPICAL CRAWLSPACE SLAB CONSTRUCTION

3" CONC SLAB  
 6 MIL POLY VAPOUR BARRIER  
 6" CRUSHED STONE

TYPICAL OUTDOOR STORAGE RM SLAB CONSTRUCTION

4" 32MPa CONC SLAB C/W SAW-CUTS ON SAND TAMPED IN 2' LIFTS

TYPICAL STONE VENEER WALL CONSTRUCTION

3.5" STONE W. TIES  
 1" AIR SPACE  
 TYVEK AIR BARRIER  
 7/16" OSB SHEATHING  
 2x6 STUDS @ 16" O.C.  
 R22 BATT INSULATION  
 6 MIL AIR/VAPOUR BARRIER  
 1/2" GYPSUM BOARD

TYPICAL SIDING WALL CONSTRUCTION

SIDING  
 STRAPPING IF REQUIRED  
 TYVEK AIR BARRIER  
 7/16" OSB SHEATHING  
 2x6 STUDS @ 16" O.C.  
 R22 BATT INSULATION  
 6 MIL AIR/VAPOUR BARRIER  
 1/2" GYPSUM BOARD

TYPICAL GARAGE/HOUSE PARTITION WALL CONSTRUCTION

1/2" GYPSUM BOARD CAULKED TO CONCRETE (GAS-PROOF)  
 2x6 STUDS @ 16" O.C.  
 R22 BATT INSULATION  
 6 MIL POLY AIR/VAPOUR BARRIER  
 1/2" GYPSUM BOARD

TYPICAL HOUSE/ATTIC PARTITION WALL CONSTRUCTION

7/16" OSB SHEATHING  
 2x6 STUDS @ 16" O.C.  
 R22 BATT INSULATION  
 6 MIL AIR/VAPOUR BARRIER  
 1/2" GYPSUM BOARD

TYPICAL INTERIOR PARTITION WALL CONSTR.

1/2" GYPSUM BOARD  
 2x\_ STUDS @ 16" O.C. (REFER TO PLAN FOR SIZE)  
 1/2" GYPSUM BOARD

TYPICAL WOOD FLOOR CONSTRUCTION

5/8" T&G OSB SHEATHING  
 WOOD JOISTS. REFER TO PLANS  
 REFER TO CEILING ASSEMBLY TYPES FOR FINISHES AND INSULATION.

TYPICAL PITCHED ROOF CONSTRUCTION

ROOFING SHINGLES  
 7/16" OSB SHEATHING W. CLIPS  
 WOOD FRAMING. REFER TO PLANS.  
 REFER TO CEILING ASSEMBLY TYPES FOR FINISHES AND INSULATION.

TYPICAL UNINSULATED INTERIOR CEILING CONSTRUCTION

REFER TO FLOOR PLANS FOR STRUC.FRAMING  
 1/2" CEILING GRADE GYPSUM

TYPICAL INTERIOR CEILING CONSTRUCTION W. BLOWN INSULATION

REFER TO FLOOR PLANS FOR STRUC.FRAMING  
 R60 BLOWN INSULATION  
 6 MIL POLY AIR/VAPOUR BARRIER  
 1/2" CEILING GRADE GYPSUM

TYPICAL INTERIOR CEILING CONSTRUCTION W. BATT INSULATION

REFER TO FLOOR PLANS FOR STRUC.FRAMING  
 R31 BATT INSULATION  
 6 MIL POLY AIR/VAPOUR BARRIER  
 1/2" CEILING GRADE DRYWALL

TYPICAL INTERIOR CEILING CONSTRUCTION W. SPRAYED URETHANE INSULATION

REFER TO FLOOR PLANS FOR STRUC.FRAMING  
 R31 SPRAYED URETHANE INSULATION  
 1/2" CEILING GRADE DRYWALL

TYPICAL FRONT PORCH CEILING CONSTRUCTION

REFER TO FLOOR PLANS FOR STRUC.FRAMING SOFFIT

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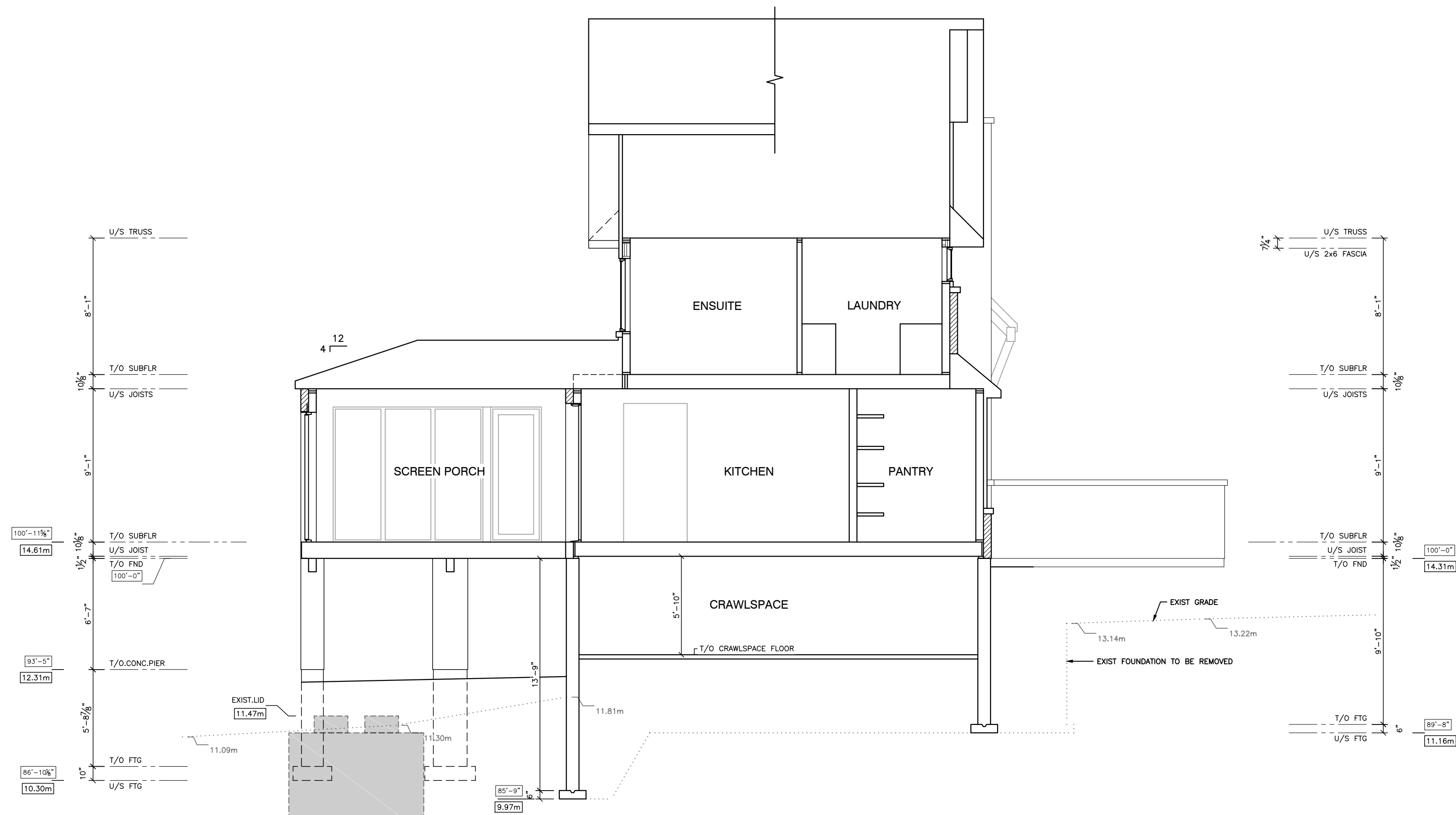
BUILDER  
**The Highlander's**  
 STONE & MASONRY INC.  
 (519) 857-4235

Project 1927  
**CROOKSHANK RESIDENCE**  
 Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**LEGEND ASSEMBLY SCHEDULE GENERAL NOTES**  
 Scale **NO SCALE** Page No.  
 Sheet Size **22x17"**  
 Plot File Created **Dec. 07, 2021** **A10**

10.95m PROPOSED ELEVATION

11.19m EXIST ELEVATION



1 BUILDING SECTION  
 A11 SCALE 3/16" = 1'-0"

No.	Issue/Revision	Description	Date (y.m.d.)
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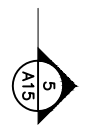


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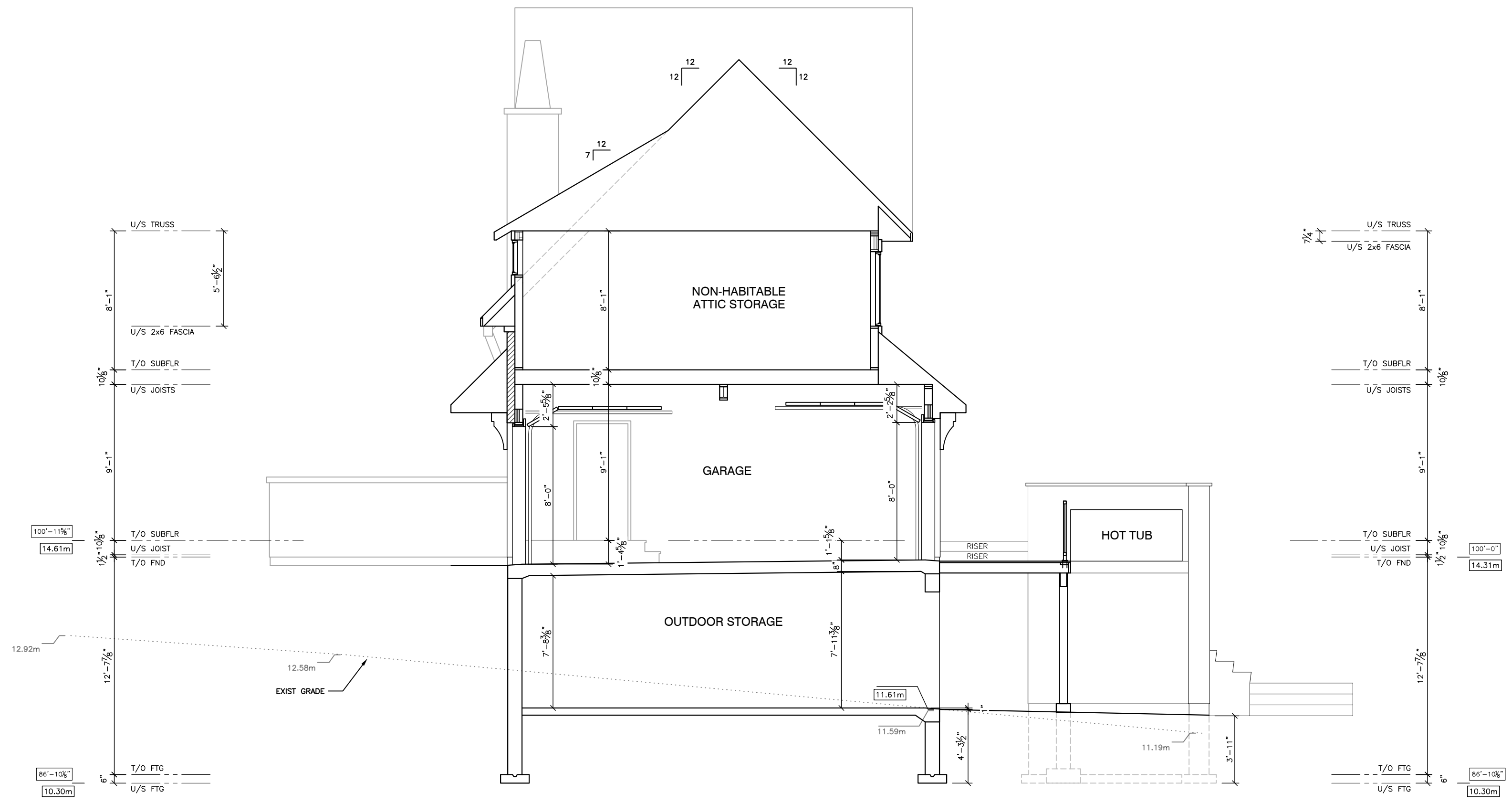
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Project 1927  
**CROOKSHANK RESIDENCE**  
 Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**BUILDING SECTION 1**  
 Scale 3/16"=1'-0" Page No.  
 Sheet Size 22x17"  
 Plot File Created Dec. 07, 2021 **A11**



10.95m PROPOSED ELEVATION  
 11.19m EXIST ELEVATION



**2 BUILDING SECTION**  
 A12 SCALE 3/16" = 1'-0"

No.	Issue/Revision	Description	Date (y.m.d.)
		Plot File Created:	21.12.07
5	Raised for UTRCA Approval		21.08.23
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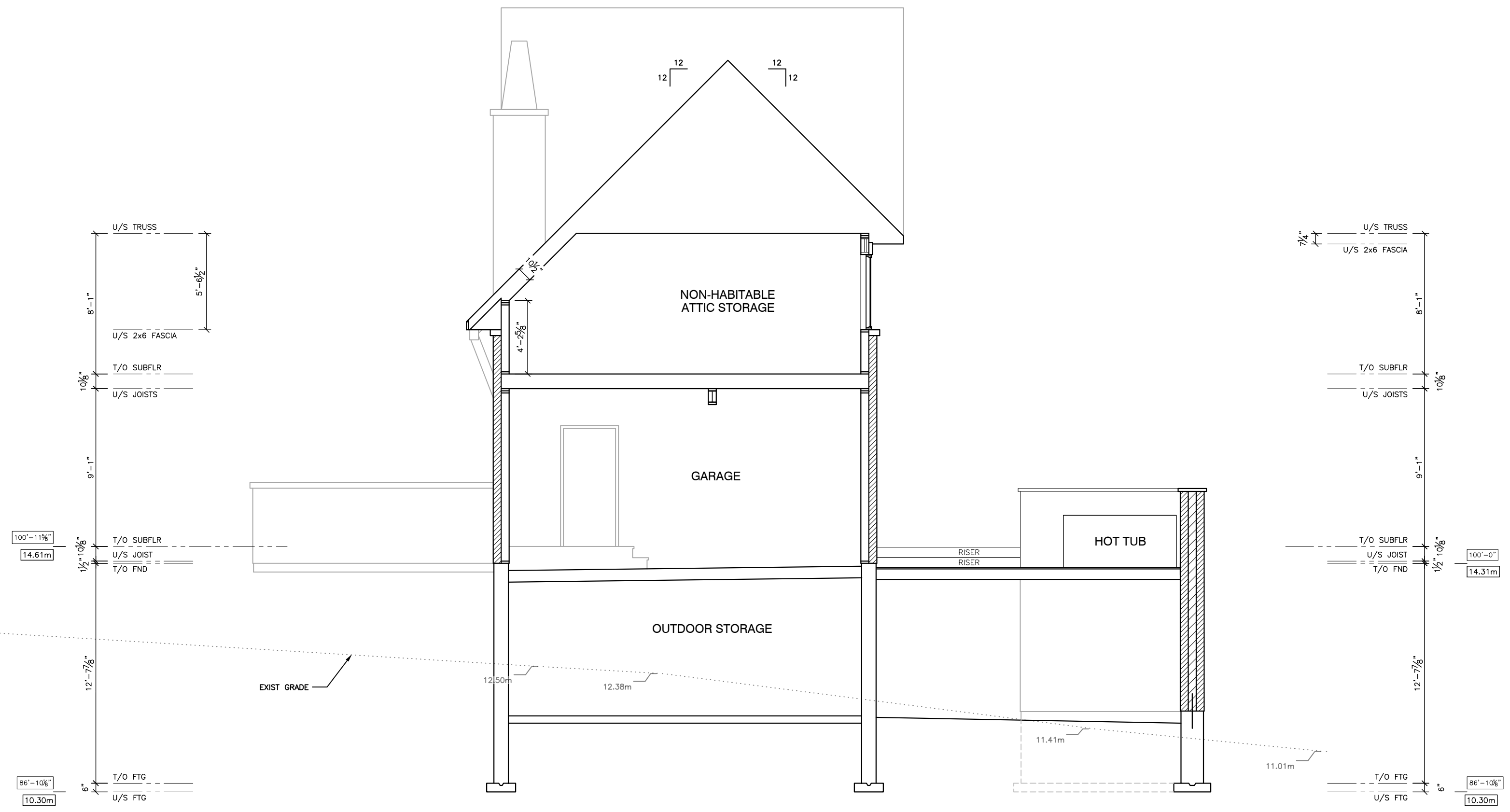
Project 1927  
**CROOKSHANK RESIDENCE**  
 Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**BUILDING SECTION 2**

Scale 3/16"=1'-0" Page No.  
 Sheet Size 22x17" **A12**  
 Plot File Created Dec. 07, 2021

10.95m PROPOSED ELEVATION

11.19m EXIST ELEVATION



No.	Issue/Revision Description	Date (y.m.d.)
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**3 BUILDING SECTION**  
A13 SCALE 3/16" = 1'-0"



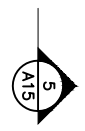
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 (519) 268-2995  
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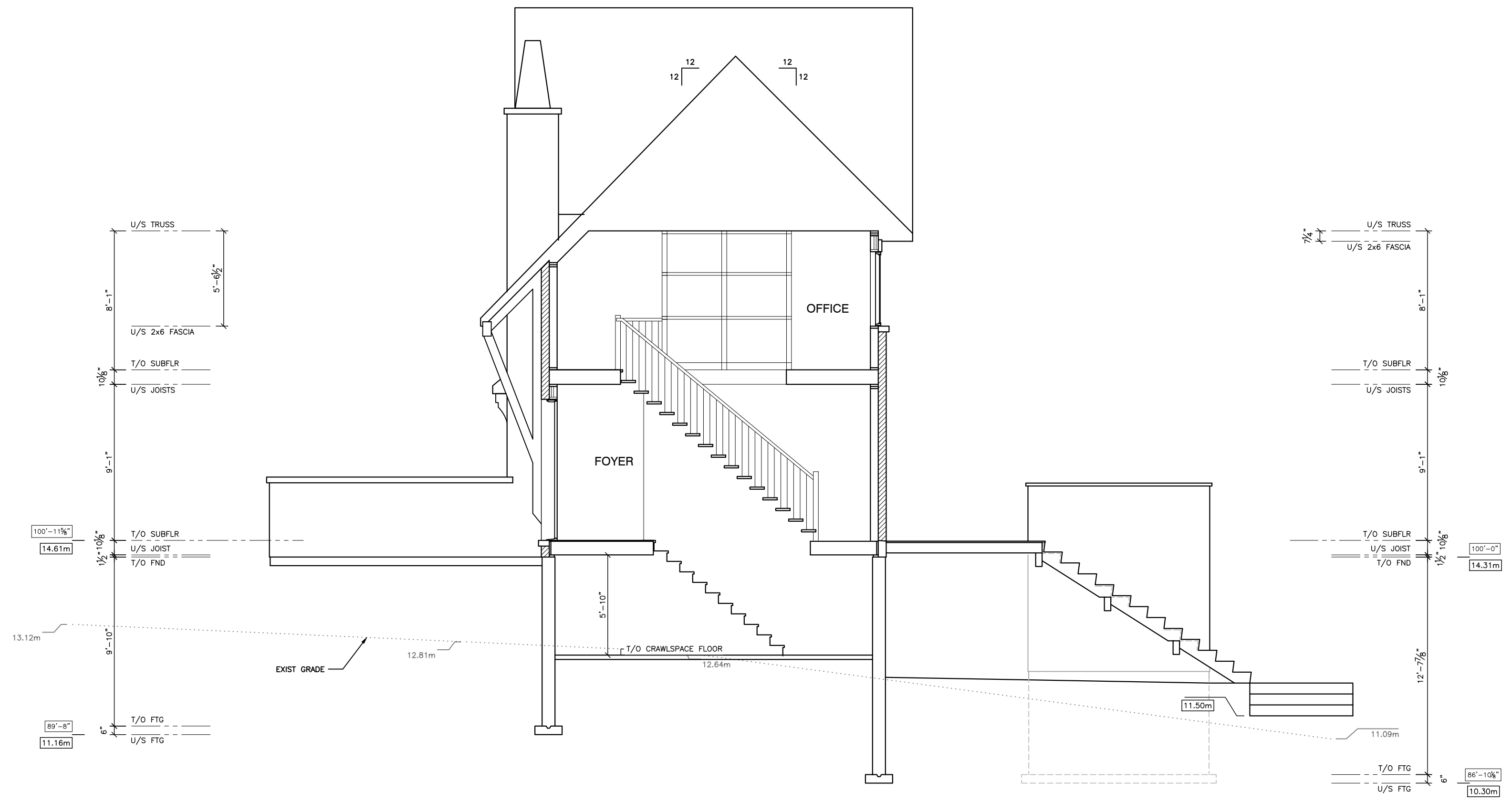
Project 1927  
**CROOKSHANK RESIDENCE**  
 Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**BUILDING SECTION 3**

Scale 3/16"=1'-0" Page No.  
 Sheet Size 22x17" **A13**  
 Plot File Created Dec. 07, 2021



10.95m PROPOSED ELEVATION  
 11.19m EXIST ELEVATION



**4 BUILDING SECTION**  
 A14 SCALE 3/16" = 1'-0"

No.	Issue/Revision	Description	Date (y.m.d.)
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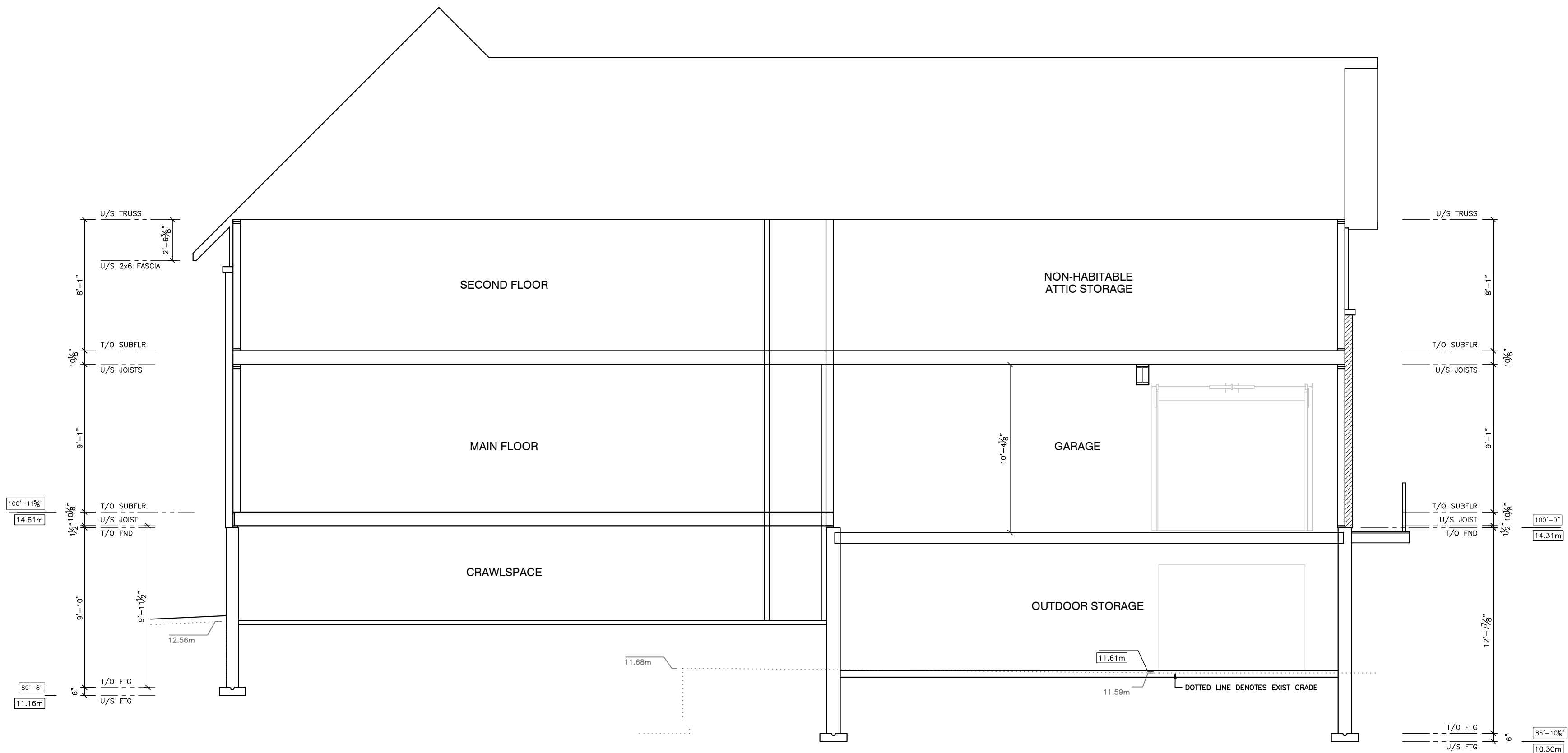
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 Barry Wade Group  
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 barry@barrywade.ca

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Project 1927  
**CROOKSHANK RESIDENCE**  
 Address  
**2533 GIDEON DR DELAWARE, ON**

Drawing  
**BUILDING SECTION 4**  
 Scale 3/16"=1'-0" Page No.  
 Sheet Size 22x17" **A14**  
 Plot File Created Dec. 07, 2021





5 BUILDING SECTION  
 A15 SCALE 3/16" = 1'-0"

No.	Issue/Revision Description	Date (y.m.d.)
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Project 1927  
**CROOKSHANK RESIDENCE**  
 Address  
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Drawing  
**BUILDING SECTION 5**

Scale 3/16"=1'-0" Page No.  
 Sheet Size 22x17"  
 Plot File Created Dec. 07, 2021 **A15**

2006 E INV=212.29  
3006 W INV=212.29  
3006 W INV=212.07  
213.36

(TRAVELLED ROAD)  
KNOWN AS GIDEON DRIVE  
COUNTY ROAD 3  
(FORMERLY MAIN STREET)




TOPOGRAPHIC PLAN OF SURVEY  
OF PART OF  
LOT 4  
CONCESSION D  
(ALSO KNOWN AS BROKEN FRONT CONCESSION)  
(GEOGRAPHIC TOWNSHIP OF DELAWARE)  
IN THE  
MUNICIPALITY OF MIDDLESEX CENTRE  
COUNTY OF MIDDLESEX  
MTE | OLS LTD.  
SCALE 1 : 200



**METRIC:** DISTANCES AND COORDINATES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048  
AREAS SHOWN ON THIS PLAN ARE IN SQUARE METRES AND CAN BE CONVERTED TO SQUARE FEET BY MULTIPLYING BY 10.7639

**UTILITY NOTE:**  
CAUTION: MANY OF THESE PIPES, WIRES AND CONDUIT ARE BURIED AT VARIOUS DEPTHS. LOCATIONS SHOWN ARE APPROXIMATE ONLY. IT IS THE OWNER/CONTRACTOR'S RESPONSIBILITY TO VERIFY AND LOCATE ALL UNDERGROUND FACILITIES PRIOR TO ANY CONSTRUCTION.  
UTILITY INFORMATION PROVIDED IS FOR REFERENCE PURPOSES ONLY. MTE DOES NOT WARRANT THE ACCURACY OR COMPLETENESS OF THIS UTILITY INFORMATION AND IS NOT RESPONSIBLE FOR ANY DAMAGES OR LIABILITY DUE TO RELIANCE ON UTILITY INFORMATION SHOWN ON THIS PLAN.

**NOTES**  
BEARINGS ARE UTM GRID IN NAD83 (2010.0) DERIVED FROM G.P.S. OBSERVATIONS AND THE CAN-NET BASE STATION NETWORK AND ARE REFERRED TO THE CENTRAL MERIDIAN 81°00' WEST LONGITUDE, ZONE 17  
DISTANCES SHOWN ON THIS PLAN ARE GROUND LEVEL DISTANCES AND CAN BE CONVERTED TO GRID DISTANCES BY MULTIPLYING BY A COMBINED SCALE FACTOR OF 0.9999569425

- SIB DENOTES STANDARD IRON BAR
  - IB# IRON BAR
  - IB# ROUND IRON BAR
  - CC CUT CROSS
  - WT WITNESS
  - (MTE) MTE | OLS LTD., O.L.S.'s
  - (HR) HOLSTED & REDMOND LIMITED, O.L.S.'s
  - MF MONUMENT FOUND
  - MS MONUMENT SET
  - DH# OVERHEAD UTILITY LINE
  - UP UTILITY POLE
  - GW GUY WIRE
  - CONC. CONCRETE
  - FP FENCE POST
  - BF BOARD FENCE
  - CLF CHAIN LINK FENCE
  - MH MANHOLE
  - CB CATCH BASIN
  - WV WATER VALVE
  - FH FIRE HYDRANT
  - STM STORM
  - SAN SANITARY
  - TFDN TOP OF FOUNDATION ELEVATION
  - FF FINISHED FLOOR ELEVATION
  - DS DOWN SPOUT
  - CLV CULVERT
  - CSW CONCRETE SIDEWALK
  - CONBX CONCRETE BOX
  - GM GAS METER
-  DEODOROUS TREE (CALIPER mm CANOPY mm RADIUS)
  -  CONIFEROUS TREE (CALIPER mm CANOPY mm RADIUS)
  -  SHRUB
- ELEVATIONS ARE GEODETIC AND ARE DERIVED FROM GPS OBSERVATIONS

**SURVEYOR'S CERTIFICATE**

I CERTIFY THAT:  
1. THIS SURVEY AND PLAN ARE CORRECT AND IN ACCORDANCE WITH THE SURVEYS ACT AND THE SURVEYORS ACT AND THE REGULATIONS MADE UNDER THEM.  
2. THE SURVEY WAS COMPLETED ON THE 7th DAY OF DECEMBER, 2018.

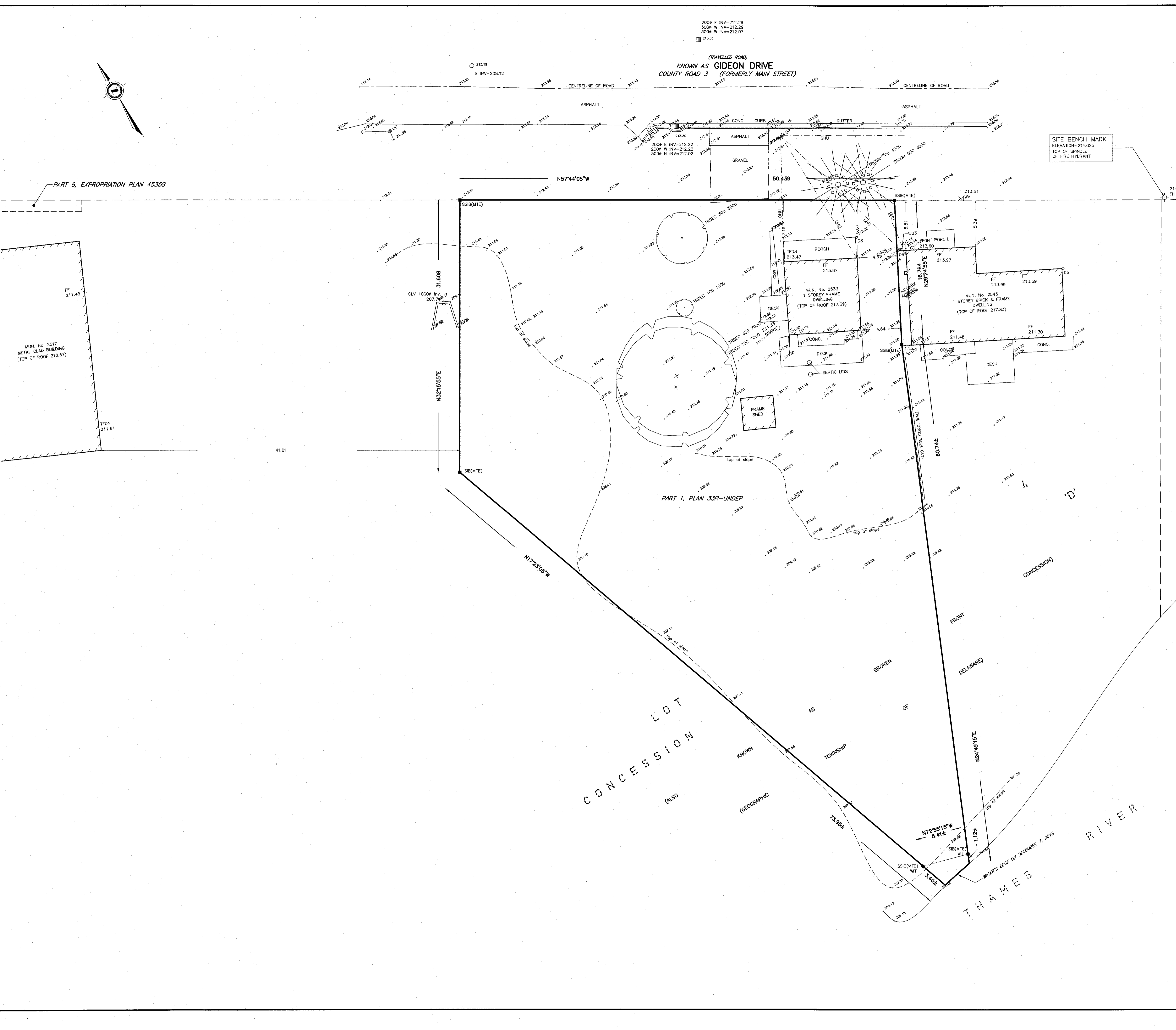
JANUARY 2, 2019  
LONDON, ONTARIO

  
P.R. LEVAC  
ONTARIO LAND SURVEYOR

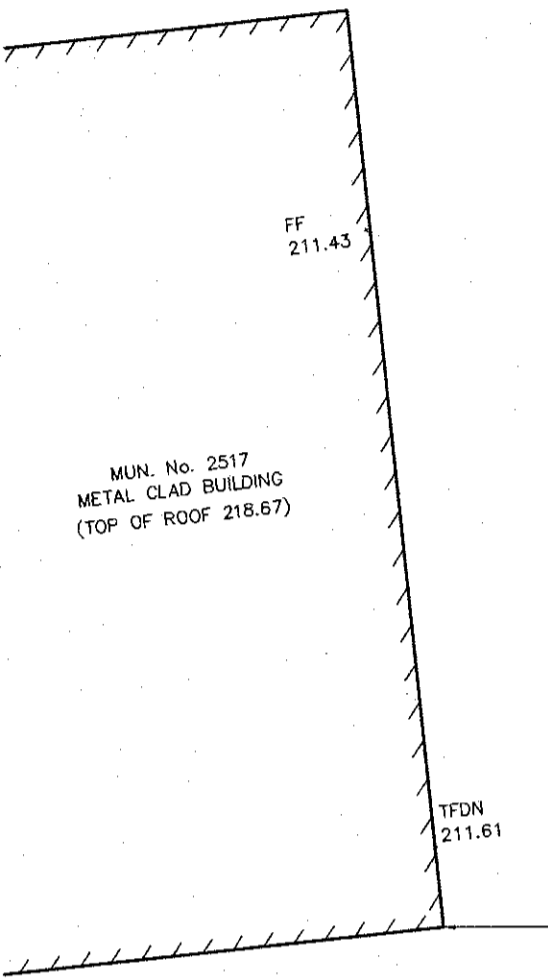
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**MTE | OLS Ltd.**  
ONTARIO LAND SURVEYORS  
123 St. George Street  
London, Ontario, N6A 3A1  
phone 519-672-4551 toll free 1-800-265-4945

Surveyed by: D. Bianchi checked by: Blake van der Veen, O.L.S.  
Drawn by: R. Crowell Date: January 2, 2019 File No: 45209-101



PART 6, EXPROPRIATION PLAN 45359



SITE BENCH MARK  
ELEVATION=214.025  
TOP OF SPINDLE  
OF FIRE HYDRANT

LOT  
CONCESSION  
(ALSO  
GEOGRAPHIC

THAMES RIVER  
WATER'S EDGE ON DECEMBER 7, 2018

**Attachment # 12: Excerpt from UTRCA Environmental Planning Policy Manual**  
**Policy 4.2.2.6 - Replacement Structures in the Floodway**

6. *Replacement Structures in the Floodway* – *Replacement structures* are structures that replace existing building or structures, including buildings and structures designated as architecturally or historically important and that have (recently) been demolished or destroyed but does not include reconstruction on remnant foundations. *Replacement structures* may be permitted by the UTRCA provided that the *replacement structure*, its construction and any new servicing requirements comply with the following:
  - a) The structure can be *floodproofed* to the level of the *Regulatory Flood*. If *Regulatory Flood* protection is not technically feasible, a lower level of flood risk protection may be permitted and must be provided to the maximum elevation possible as determined on the basis of site-specific evaluation.
  - b) The proposed structure must not exceed the total "footprint" area of the original structure as it existed on (April 25, 2000).
  - c) The flood risk must not exceed the risk associated with the previous/existing structure or development such that
    - i. The location of the *replacement structure* and services are not susceptible to higher depths and/or velocities of *flooding*;
    - ii. The use associated with the *replacement structure* and development does not increase risk to property damage or public safety (e.g. converting from habitable to non-habitable); and
    - iii. The use within the *replacement structure* and/or the property as a whole is not intensified.
  - d) The proponent agrees to carry out site-specific flood damage reduction measures such that, in order of priority:
    - i. *Dry, passive floodproofing* measures shall be implemented to the extent technically possible to achieve the required level of flood protection and/or
    - ii. *Wet floodproofing* measures are incorporated as required to achieve and maximize the required level of flood protection.
  - e) Ingress and egress should be "safe" or "dry" pursuant to contemporary *floodproofing* guidelines in addition to Provincial Policy and/or achieve the maximum level of flood protection determined to be feasible and practical based on existing infrastructure.
  - f) The proposed *flood* damage reduction measures do not increase flood risk on adjacent, upstream and/or downstream properties.
  - g) All applications for *development* approval must be accompanied by engineering studies, prepared by qualified professionals, detailing such matters as *flood* frequency, depth and velocity of flow, soil conditions, proposed *flood* damage reduction measures including structural design details, stormwater management and other information and studies as may be required by the UTRCA and the local municipality.
  - h) Approval of an application under this policy will be subject to the consent of the UTRCA's Hearings and Personnel Committee.

---

**To:** Chair and Members of the UTRCA Hearing Committee  
**From:** Jenna Alain, Manager, Environmental Planning and Regulations  
Brent Verscheure, Land Use Regulations Officer  
**Date:** December 10, 2021  
**Agenda #:** 6  
**Subject:** Section 28 Permit Application #120-21 Proposed Construction of a 12'-0" x 20'-0" Pool Cabana, 1326 Sprucedale Avenue, City of London

---

**RECOMMENDATION:**

**THAT the Hearings Committee of the Upper Thames River Conservation Authority (UTRCA) refuse the issuance of a permit under O. Reg. 157/06 made pursuant to Section 28 of the *Conservation Authorities Act for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (Application #120-21)*, as it is contrary to UTRCA Board-approved general hazard and riverine erosion hazard policies.**

**THE APPLICATION**

A Section 28 Application for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses, Application #120-21 (see Attachment #5), has been submitted by Markus Brunner, owner of Forest City Pool and Patio Inc., on behalf of the landowners, Dr. & Mrs. Leeper, for the proposed new construction of a 12'-0" x 20'-0" pool cabana/accessory structure (covered roof with 3 open sides) within lands forming part of the erosion hazard limit, at 1326 Sprucedale Avenue, London (the "subject lands").

**SITE INFORMATION**

The subject lands are regulated by the Upper Thames River Conservation Authority (UTRCA) in accordance with O. Reg. 157/06, pursuant to Section 28 of the *Conservation Authorities Act* due to the presence of a riverine erosion hazard associated with the Stoney Creek valley. Refer to UTRCA Regulation Limit Mapping (see Attachment #3 and #4) that outlines the location of the subject lands and the extent of the mapped hazards.

It should be noted that the Regulation is "text-based". In the case of a discrepancy between the mapping and what is actually observed in the field, the text of the regulation shall prevail over the areas shown as being regulated on the mapping. UTRCA regulatory mapping is used by staff as a tool to guide the review and inform the decision making process for development applications. For the subject lands, UTRCA regulatory mapping identifies an erosion hazard that is based on site topography and generally provides a conservative approach to identifying and mapping hazard limits. UTRCA flood hazard mapping has further identified riverine flood hazard land associated with Stoney Creek that reaches to the slope on the subject property suggesting that a flood event (up to and including a Regulatory (1: 250 Year) Flood) could impact the stability of the slope and any development associated with it.

As you will note from the attached information there is an existing in-ground pool located in the north east corner of the subject lands. According to historical aerial imagery, this pool was constructed prior to the year 2000 and would have pre-dated the O. Reg. 157/06. The pool,

pool equipment pad and shed, and surrounding landscape also form part of the site plan that is being considered and reviewed by UTRCA staff for approval.

Generally speaking, through pre-consultation and upon receipt of an application for development, appropriate technical studies are requested by staff to more accurately inform the site specific hazard limits and potential for development. For the subject lands, a slope stability assessment was requested by UTRCA staff. This assessment was prepared and submitted by EXP Services Inc. without the recommended consultation and scoping with UTRCA staff. As you will note from the Attachment 6 – Slope Assessment, Proposed Cabana – Site Plan and Cross Section, the Top of Existing Slope and the Top of Long Term Stable Slope have been further refined based on a site specific evaluation of soil conditions and groundwater conditions, prepared by a qualified geotechnical engineer. However, a 6m erosion access allowance (setback), which forms part of the components of a slope and is considered as part of the “hazard land”, has not been included per the MNRF Technical Guide, River and Stream Systems: Erosion Hazard Limit – a provincial technical guide that outlines specific guidelines on how to evaluate hazard limits.

## **BACKGROUND AND CONSULTATION**

On March 31<sup>st</sup>, 2021 UTRCA staff received an email request by Forest City Pool and Patio (the “Contractor”) requesting the review and authorization for a back yard development proposal at 1326 Sprucedale Avenue, London. A concept plan (see Attachment 7) was included and identified an existing pool, patio and shed. Also included in the concept plan, was a proposed 12’x 20’ pool cabana (accessory structure) and outdoor kitchen area.

Following a cursory review of the concept plan and regulatory mapping, UTRCA staff advised the contractor via email that the subject lands were regulated due to the presence of a riverine erosion hazard associated with the Stoney Creek valley. Prior to suggesting to the contractor that they (the contractor and the “landowner/client”) may need to consider relocating or refining the proposed works, and/or undertake a slope stability analysis to better understand the site specific characteristics of the slope, UTRCA staff recommended a site meeting.

Included in an April 4, 2021 response email to the contractor, was current UTRCA regulatory mapping, as well as regulatory mapping dated February 25, 2016. The 2016 mapping was provided to the landowner/client as an attachment to a *Conservation Authorities Act* inquiry (see Attachment #8) when they purchased the property. That correspondence had informed the property owners of UTRCA jurisdiction of regulated lands, and the requirement for landowners to obtain written approval prior to undertaking any site alteration.

On April 13<sup>th</sup>, 2021 UTRCA staff attended the subject lands and met with the contractor to review the proposed concept plan. Upon entering the rear yard, it was evident that work had already commenced and was in progress prior to submitting and obtaining a Section 28 permit approval for development within regulated lands. The rear yard had been graded and granular material had been placed in preparation for the proposed hardscape/patio area (see Attachment 9 – Photo 1 – Apr13/21). Additionally, UTRCA staff note that there was ‘big O’ drain pipe traversing the top of the slope and there was no attempt at ensuring adequate erosion and sediment control/protections were in place and effective prior to construction.

UTRCA staff identified that works that had been completed were in violation of the *Conservation Authorities Act* as the contractor had commenced works without a Section 28 permit approval. Further, staff confirmed that it would be very challenging to approve the placement of a 12’x20’ structure (new development not yet undertaken) at the top of the slope, as notwithstanding there did not appear to be any consideration for the required 6 metre erosion access allowance from the long term stable top of slope limit. It is important to note that during the site visit UTRCA staff suggested as an alternative to the contractor, that should the client be willing to relocate, if

the 12'x 20' pool cabana could be moved to the existing trampoline and play area south of the existing dwelling (see Attachment \_7 – Concept Plan), that this potential for a revised proposal would ensure the pool cabana would be located sufficiently away from the top of slope and outside of the hazard lands, to ultimately gain support by UTRCA staff.

On April 19<sup>th</sup>, 2021, UTRCA staff received email correspondence from the contractor requesting details of how to appeal staff direction and maintain the proposed location of the pool cabana. Staff provided a response on April 30<sup>th</sup>, 2021 that outlined the complete application requirements to be submitted by the applicant for consideration. These requirements included a slope stability assessment for review prior to confirming whether or not the application could be approved by staff or, if needed, proceed to the Hearings Committee.

On August 6<sup>th</sup>, 2021, a slope stability assessment was submitted to UTRCA staff for review (see Attachment\_10 – Slope Stability Assessment). UTRCA technical staff undertook a review of the report and comments were provided back to the contractor/geotechnical consultant on September 15, 2021. Most notably, the report did not fulfill the provincial requirements as set out in the MNRF Technical Guide – River and Stream Systems: Erosion Hazard Limit to appropriately define the erosion hazard limit.

The following excerpt is taken directly from the aforementioned technical guide:

*Three main principles support the inclusion of the erosion access allowance:*

- *providing for emergency access to erosion prone areas;*
- *providing for construction access for regular maintenance and access to the site in the event of an erosion event or failure of a structure; and*
- ***providing protection against unforeseen or predicted external conditions which could have an adverse effect on the natural conditions or processes acting on or within an erosion prone area of provincial interest.***

It was the opinion of the author/geotechnical engineer of the slope stability assessment that due to the nature of the proposed cabana having a “small footprint” and “generally open concept”, the stable slope setback (~0.60 m) was adequate from a geotechnical perspective, and that the 6 metre erosion access allowance reference in the technical guide to form a component of the erosion hazard, was not required. Unfortunately this approach to defining the erosion hazard and ultimately the development limits is contrary to the provincial technical guide, provincial hazard policy and UTRCA policy. UTRCA staff was unable to approve the application and outlined the next steps that would be required to bring forward the application with the status quo pool cabana to the UTRCA Hearing Committee.

## **DISCUSSION**

The application has been evaluated by staff for conformity with the UTRCA Board-approved *Environmental Planning Policy Manual* (June 2006) (EPPM). Section 4.2.1 General Policies for Hazard Limit (1) states that, “development and site alteration shall be directed away from hazard lands where there is an unacceptable risk to public health or safety or property damage and shall be directed to areas located outside of the defined limits of the hazard.

Policy 4.2.3 Riverine Erosion Hazard Policies (1) states that “*Fill and grading and related site alteration activities shall not be permitted in erosion hazard lands, unless associated with measures prescribed and/or approved by a municipality or environmental agency specifically intended to remediate erosion concerns.*”. Additionally, Policy 4.2.3 (3) states that “*Any development or site alteration proposal which is in close proximity to an erosion hazard and located within the Regulation Limit must be supported by a favourable geotechnical report and an Environmental Impact Study (EIS), prepared by a qualified professional, to the satisfaction of the UTRCA.*”.

UTRCA staff is seeking direction from the Hearings Committee on this concept plan and application for development, with consideration for the UTRCA policy framework for new development in hazard lands and the disregard for provincial technical guidelines. As mentioned above, there is an opportunity and development 'envelope' to relocate the proposed pool cabana to an area outside of the hazard lands. However, should the Hearings Committee decision be favourable for the applicant to proceed, staff will reference the slope stability assessment in an approval letter, and require the presence of a qualified on-site geotechnical inspector throughout construction.

## **CONCLUSION**

The Conservation Authority's approval is required for the issuance of permits under the *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* Regulation in accordance with Section 28 of *the Conservation Authorities Act*. Applications which conform to board approved policy found within the UTRCA Environmental Planning Policy Manual (June 2006) may be recommended for approval by authority staff who have been granted responsibility to process such proposals. When applications for development are submitted that do not conform to board approved policy, authority staff cannot refuse the application without the benefit of a hearing. Approval of a non-conforming application is then subject to the review and consent of the UTRCA Hearings Committee. Only the UTRCA Hearings Committee can refuse the application. Based on technical guidelines set forth by the province, provincial hazard policy, UTRCA policy, and the opportunity to relocate the proposed pool cabana structure to a location outside of the hazard lands which would significantly reduce the risk to both life and property, UTRCA staff must recommend refusal of Application #120-21 to ensure safety and long-term stability of the development and to ensure that there is no adverse environmental impacts to the existing natural features and functions created by or exacerbated by this proposal.

Prepared by:



Brent Verscheure, Land Use Regulations Officer

Reviewed by:



Jenna Allain, Manager, Environmental Planning and Regulations

Attachments:

1. Appendix B - Notice of Hearing
2. Appendix A - Hearings Procedures (Instructions for the Applicant)
3. UTRCA Regulatory Mapping\_1
4. UTRCA Regulatory Mapping\_2
5. Application for Development
6. Slope Assessment, Proposed Cabana – Site Plan and Cross Section
7. Concept Plan
8. Conservation Authorities Act Inquiry – February 26, 2016
9. Photo 1 – April 13, 2021
10. Slope Stability Assessment

## Appendix B NOTICE OF HEARING

### IN THE MATTER OF

The Conservation Authorities Act, R.S.O. 1990, Chapter C. 27 As Amended;

### AND IN THE MATTER OF

An Application By: **Forest City Pool and Patio (signed by Markus Brunner)**

For the permission of the Upper Thames River Conservation Authority pursuant to Regulations made under Section 28, subsection 12 of said Act.

**TAKE NOTICE** that a hearing before Hearing Committee of the Upper Thames River Conservation Authority will be held under Section 28 of the Conservation Authorities Act at the offices of said Authority at the UTRCA Administration Office, 1424 Clarke Road, London, Ontario N5V 5B9 at the hour of **0930hrs on December 17, 2021** with respect to the application by **Forest City Pool and Patio (signed by Markus Brunner)** to permit development within an area regulated by the Upper Thames River Conservation Authority under Ontario Regulation 157/06 - *Development, Interference with Wetlands and Alterations to Shorelines* and made pursuant to Section 28 of the Conservation Authorities Act on **1326 Sprucedale Avenue, London**.

***Please refer to the attached information page for additional details regarding the virtual/electronic meeting format in which this hearing will be conducted.***

**TAKE NOTICE THAT** you are invited to make a delegation and submit supporting written material to the Hearing Committee for the meeting of **UTRCA Permit Application #120-21**. If you intend to appear, and/or if you believe that holding the hearing electronically is likely to cause significant prejudice, please contact Michelle Viglianti at ext. 222 or by email at [vigliantim@thamesriver.on.ca](mailto:vigliantim@thamesriver.on.ca). Written material will be required by **December 3, 2021**, to enable the Committee members to review the material prior to the meeting.

**AND FURTHER TAKE NOTICE** that if you do not attend at this Hearing, the Hearing Committee may proceed in your absence, and you will not be entitled to any further notice in the proceedings.

**PLEASE NOTIFY THIS OFFICE** by **November 29, 2021** as to whether you and/or your agent will be attending. A copy of Ontario Regulation 157/06 and Section 28 of the Conservation Authorities Act will be made available to you upon request.

**DATED** the 25<sup>th</sup> day of November, 2021.

Registered

The Hearings Committee of  
The Upper Thames River Conservation Authority



---

Tracy Annett, General Manager/Secretary-Treasurer



## Appendix A

### INSTRUCTIONS FOR THE APPLICANT

Conservation Authorities, including the Upper Thames River Conservation Authority (UTRCA), have enacted regulations pursuant to Section 28 of the Conservation Authorities Act. Section 28(12) of the Act requires that an applicant be party to a hearing by the local Conservation Authority Board, Executive Committee or Subcommittee of the Board. In the case of the UTRCA, a Subcommittee of the Board, serves as the Hearing Committee. The Hearing Committee is an Administrative Tribunal within the definitions of the Statutory Powers Procedure Act. It is the purpose of this Hearing Committee to evaluate the information presented at the hearing by both the Conservation Authority staff and the applicant and to decide whether the application will be approved or refused.

The applicant has several responsibilities to bear in mind in proceeding to a hearing. To assist with this process, the UTRCA has provided you with the following documents:

- a) Notice of Hearing
- b) Hearing Procedure
- c) Rights of a Witness with Regard to Evidence

Well in advance of the scheduled hearing, please read this information. The **Notice of Hearing** refers to the jurisdiction and regulation(s) involved in the matter, the name of the applicant, when the hearing is scheduled to take place and where it will occur. It also asks the applicant to confirm that he/she or an agent will be able to attend on the scheduled date. Please respond by the time indicated on this Notice, which will have been either hand-delivered as part of this package or forwarded via Registered Mail.

The enclosed **Hearing Procedure** outlines the actual hearing process and the sequence of steps that the Chair will be obligated to follow. If you have any questions regarding this process, please contact the Conservation Authority at your earliest convenience. Note that upon conclusion of the hearing, the Hearing Committee will then adjourn the hearing to confer in private and will then reconvene shortly to either render its decision or announce the time and date when the Hearing Committee will reconvene to announce its decision or will forward its written decision.

On the single page entitled, **Conservation Authority Hearings - Rights of a Witness with Regard to Evidence**, an explanation is given for those who will be in a position to present information during the hearing. This page also cites the relevant statutes which apply in these matters, noting in particular that hearings such as this are governed by the Statutory Powers Procedure Act.

It is noted that all information about an application should have been provided to the Conservation Authority to assist staff with making a recommendation on the application. If new information is brought before the Hearing Committee which was not part of the application that was processed by staff, the Hearing Committee may need to adjourn the hearing to allow UTRCA staff sufficient time to review the new information. Similarly, staff should make all information that it intends to utilize in the hearing available to the applicant prior to the hearing.

Following the hearing, you will be formally advised of the Hearing Committee's decision with a **Notice of Decision**. This Notice will include the following information:

- (a) The names of the Hearing Committee members who participated in the decision;
- (b) The name(s) of persons who presented the UTRCA staff information;
- (c) The name(s) of persons who presented the applicant's information;
- (d) The identification of the applicant, property and the nature of the application that was the subject of the hearing.
- (e) The decision to refuse or approve the application. A copy of the Hearing Committee resolution should be attached.

If the decision is to **deny** the application, the Notice also explains that you have the right to appeal the decision to the Mining and Lands Tribunal **within 30 days of receipt of the Notice**. The Conservation Authority will be prepared to provide you with information on how to make proper notification with the Mining and Lands Tribunal if necessary.

If, upon reviewing all of the information provided in the enclosed package you have any questions, you are encouraged to contact the Upper Thames River Conservation Authority at your earliest convenience.

**UPPER THAMES RIVER CONSERVATION AUTHORITY**



## Regulation Limit

Regulation under s.28 of the *Conservation Authorities Act*  
 Development, interference with wetlands, and alterations  
 to shorelines and watercourses. O.Reg 157/06, 97/04.

### Legend

- UTRCA Watershed (1:10K)
- Assessment Parcel (MPAC)
- 0.5 m Contour (UTRCA, 2017)
  - 0.5 m
  - 1 m
  - 5 m
- Watercourse (UTRCA)
  - Open
  - Tiled
- Flooding Hazard
- Erosion Hazard
- Regulation Limit 2018

The Regulation Limit depicted on this map schedule is a representation of O.Reg 157/06 under O.Reg 97/04.

The Regulation Limit is a conservative estimation of the hazard lands within the UTRCA watershed. In the case of discrepancies between the mapping and the actual features on a property, the text of Ontario Regulation 157/06 prevails and the jurisdiction of the UTRCA may extend beyond areas shown on the maps.

The UTRCA disclaims explicitly any warranty, representation or guarantee as to the content, sequence, accuracy, timeliness, fitness for a particular purpose, merchantability or completeness of any of the data depicted and provided herein.

The UTRCA assumes no liability for any errors, omissions or inaccuracies in the information provided herein and further assumes no liability for any decisions made or actions taken or not taken by any person in reliance upon the information and data furnished hereunder.

This map is not a substitute for professional advice. Please contact UTRCA staff for any changes, updates and amendments to the information provided.

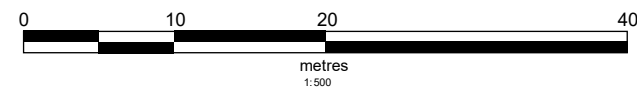
This document is not a Plan of Survey.

Sources: Base data, 2015 Aerial Photography used under licence with the Ontario Ministry of Natural Resources Copyright © Queen's Printer for Ontario; City of London.

Notes:  
 1326 Sprucedale Avenue, London - UTRCA Regulatory Mapping

Created By: BV November 25, 2021

\* Please note: Any reference to scale on this map is only appropriate when it is printed landscape on legal-sized (8.5" x 14") paper.



# Regulation Limit

Regulation under s.28 of the Conservation Authorities Act  
 Development, interference with wetlands, and alterations  
 to shorelines and watercourses. O.Reg 157/06, 97/04.

## Legend

- UTRCA Watershed (1:10K)
- Assessment Parcel (MPAC)
- 0.5 m Contour (UTRCA, 2017)
  - 0.5 m
  - 1 m
  - 5 m
- Watercourse (UTRCA)
  - Open
  - Tiled
- Middlesex NHSS Woodland (2014)
  - Candidate for Ecologically Important
  - Ecologically Important
  - Significant Ecologically Important
- Flooding Hazard
- Erosion Hazard



The Regulation Limit depicted on this map schedule is a representation of O.Reg 157/06 under O.Reg 97/04.

The Regulation Limit is a conservative estimation of the hazard lands within the UTRCA watershed. In the case of discrepancies between the mapping and the actual features on a property, the text of Ontario Regulation 157/06 prevails and the jurisdiction of the UTRCA may extend beyond areas shown on the maps.

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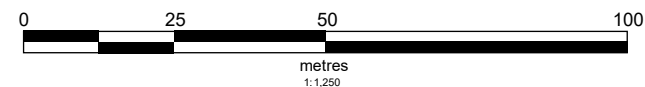
This document is not a Plan of Survey.

Sources: Base data, 2015 Aerial Photography used under licence with the Ontario Ministry of Natural Resources Copyright © Queen's Printer for Ontario; City of London.

Notes:  
 1326 Sprucedale Avenue, London - UTRCA Regulatory Mapping\_2

Created By: BV November 25, 2021

\* Please note: Any reference to scale on this map is only appropriate when it is printed landscape on legal-sized (8.5" x 14") paper.



**UPPER THAMES RIVER**  
 CONSERVATION AUTHORITY  
 Copyright ©2021 UTRCA.

UPPER THAMES RIVER  
CONSERVATION AUTHORITY

Application For Development, Interference with Wetlands and Alterations to Shorelines and Watercourses

Upper Thames River Conservation Authority  
1424 Clarke Road London, Ontario N5V 5B9  
Tel. (519) 451-2800 Fax (519) 451-1188

Conservation Authorities Act - Ontario Regulation 157/06, under O.reg. 97/04

Application #

Name of Landowner: Dr & Mrs Leepol Tel. Home: [REDACTED]  
 Address: 1326 SPRUCEDALE AVE Postal Code: NSX 2N8 Tel. Business: \_\_\_\_\_  
 Location of Project: LONDON ON  
Street and Number, or Lot(s) and Concession Number/ 911 Address Municipality

DESCRIPTION OF PROJECT

General description of project: To construct a 12'-0" x 20'-0" covered roof with 3 open sides.

All applications must be accompanied by a detailed site plan, providing information on the following:

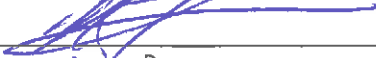
1. general location of property in relation to roads
2. location and dimensions of all existing structures on the property
3. location of any watercourse, wetland or steep slope on or near the subject property
4. intended location of all proposed work, including construction, filling/grading/excavation, wetland interference or watercourse alteration
5. location of septic system, if applicable and other property utilities, wells, etc.
6. cross-section of proposed work, showing existing and final grades and structure openings

Works including floodproofing of structures must be accompanied by detailed drawings, prepared by qualified professional engineers, with proper dates and stamps appearing on all plans. If filling is proposed, details on the type, area and volume of fill must be provided to the UTRCA, with existing and proposed grades clearly presented on plans.

UNLESS OTHERWISE REQUESTED, THE CONSERVATION AUTHORITY ONLY REQUIRES ONE COPY OF ALL PROJECT DRAWINGS. MULTI-PAGED ENGINEERING DRAWINGS MUST BE FOLDED OR REPRODUCED ON 11 x 17" SHEETS.

Dates of Commencement and Completion of Project: AUGUST 2021 to MAY 2022 Depending  
 If other approvals required for this project please indicate  
 Federal - Fisheries Act       Other \_\_\_\_\_  
 Province - MNR Work Permit       Permit to Take Water  
 Municipal - Building Permit       Zoning       Severance       OPA     

Name of Applicant if different than Landowner: Forest City Pool & Patio Inc. (Markus Brunner)  
 Mailing Address if different than above: 3392 Wonderland Rd S. BLD 9, UNIT 14/15  
 Postal Code: N6L 1A8 Phone Number: 519 808 6248 Email Address: Markus@Forestcitypools.com

Applicant's Signature:   
 Application Date Month: 08 Day: 06 Year: 2021  
 Agent for Applicant (if different from above): \_\_\_\_\_  
 Mailing Address: \_\_\_\_\_  
 Postal Code: \_\_\_\_\_ Phone Number: \_\_\_\_\_ Email Address: \_\_\_\_\_

**For UTRCA Completion Only**

Application fee: \_\_\_\_\_ Date received: \_\_\_\_\_ Received by: \_\_\_\_\_

Regulatory floodline elevation: \_\_\_\_\_ Typical ground elevation: \_\_\_\_\_

Other pertinent comments \_\_\_\_\_

Project-specific requirements (refer to page 2 for general conditions) \_\_\_\_\_

Approved by: \_\_\_\_\_ Date approved: \_\_\_\_\_

Site inspection: Date: \_\_\_\_\_ By: \_\_\_\_\_

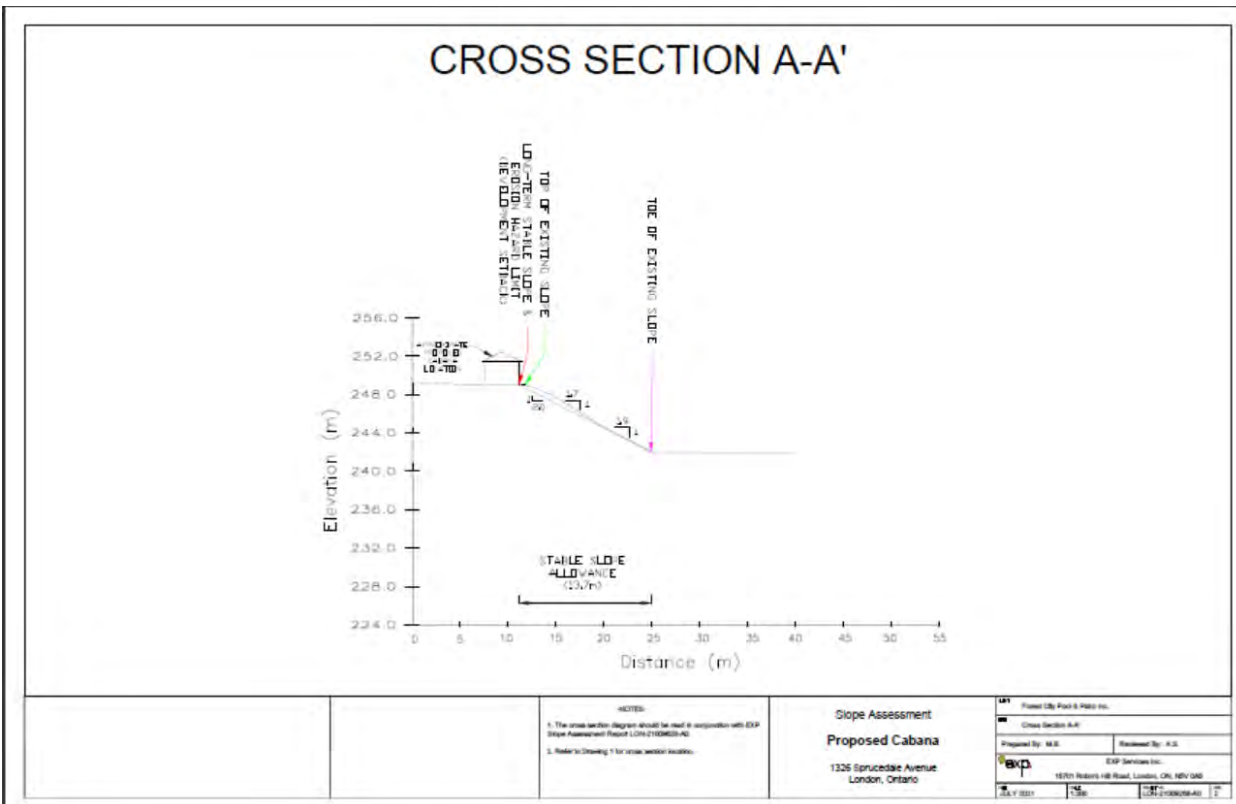
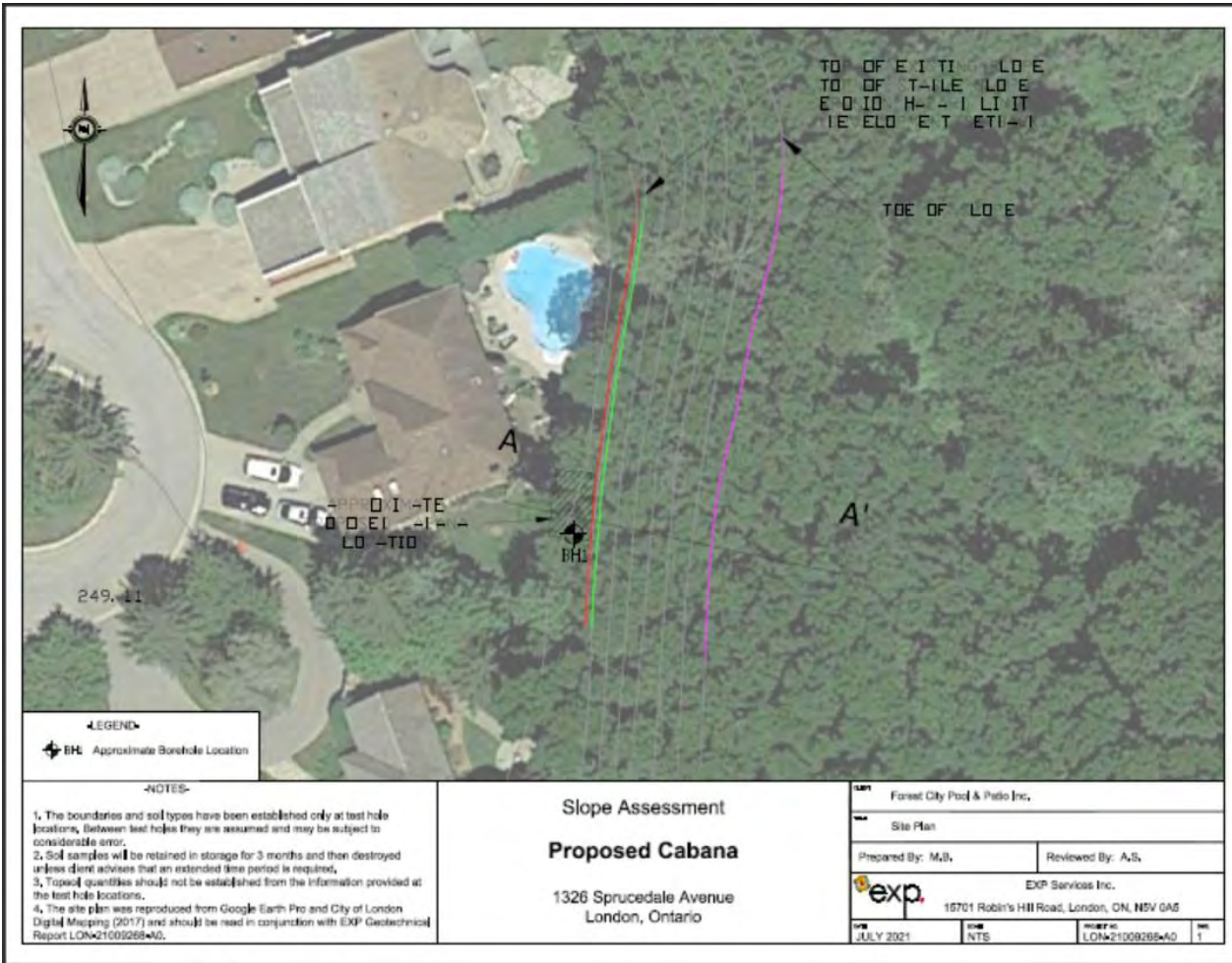
**TERMS AND CONDITIONS**

The Owner and Applicant, by acceptance of and in consideration of the issuance of this permit, agree to the following terms and conditions:

1. Permission granted by the Upper Thames River Conservation Authority cannot be transferred without prior written approval from the Upper Thames River Conservation Authority.
2. Approvals may be required from other agencies prior to undertaking the work proposed. The Upper Thames River Conservation Authority does not exempt the Applicant from complying with any or all other approvals, laws, statutes, or regulations.
3. The Upper Thames River Conservation Authority may at any time withdraw any permission given if, in the opinion of the Conservation Authority, the representations contained in the application for permission are not carried out or the conditions/requirements of the permit are not complied with.
4. Authorized representatives of the Upper Thames River Conservation Authority may at any time enter onto the lands that are described herein, in order to make any surveys, examinations, investigations or inspections that are required for the purpose of insuring that the work(s) authorized by this permit are being carried out according to the terms of this permit.
5. The Owner and Applicant agree:
  - To indemnify and save harmless the Upper Thames River Conservation Authority and its officers, employees, or agents from and against all damage, loss, costs, claims, demands, actions and proceedings, arising out of or resulting from any act or omission of the Owner and/or Applicant or any of his agents, employees or contractors relating to any of the particulars, terms or conditions of this permit;
  - That this permit shall not release the Applicant from any legal liability or obligation and remains in force subject to all limitations, requirements and liabilities imposed by law;
  - That all complaints arising from the execution of the works authorized under this permit shall be reported immediately by the Applicant to the Upper Thames River Conservation Authority. The Applicant shall indicate any action that has been taken, or is planned to be taken, with regard to each complaint.
6. The project shall be carried out in full accordance with the plans submitted in support of the application.
7. The Applicant agrees to install and maintain all sedimentation controls until all disturbed areas have been stabilized.
8. All disturbed areas shall be seeded, sodded, or stabilized in some other manner acceptable to the Conservation Authority as soon as possible, and prior to the expiry of this permit.
9. The Applicant agrees to maintain all existing drainage patterns, and not to obstruct external drainage from other adjacent private lands.

NOTE: The information on this form is being collected for the purpose of administering a regulation made pursuant to Section 28, Conservation Authorities Act, R.S.O. 1990, Chapter 27. This application and supporting documents and any other documentation received relating to this application, may be released, in whole or in part, to other persons in accordance with the Municipal Freedom of Information and Protection of Privacy Act, R.S.O. 1990c. M.56, as amended

# Attachment 6 - Slope Assessment, Proposed Cabana - Site Plan and Cross Section



ITEMS:

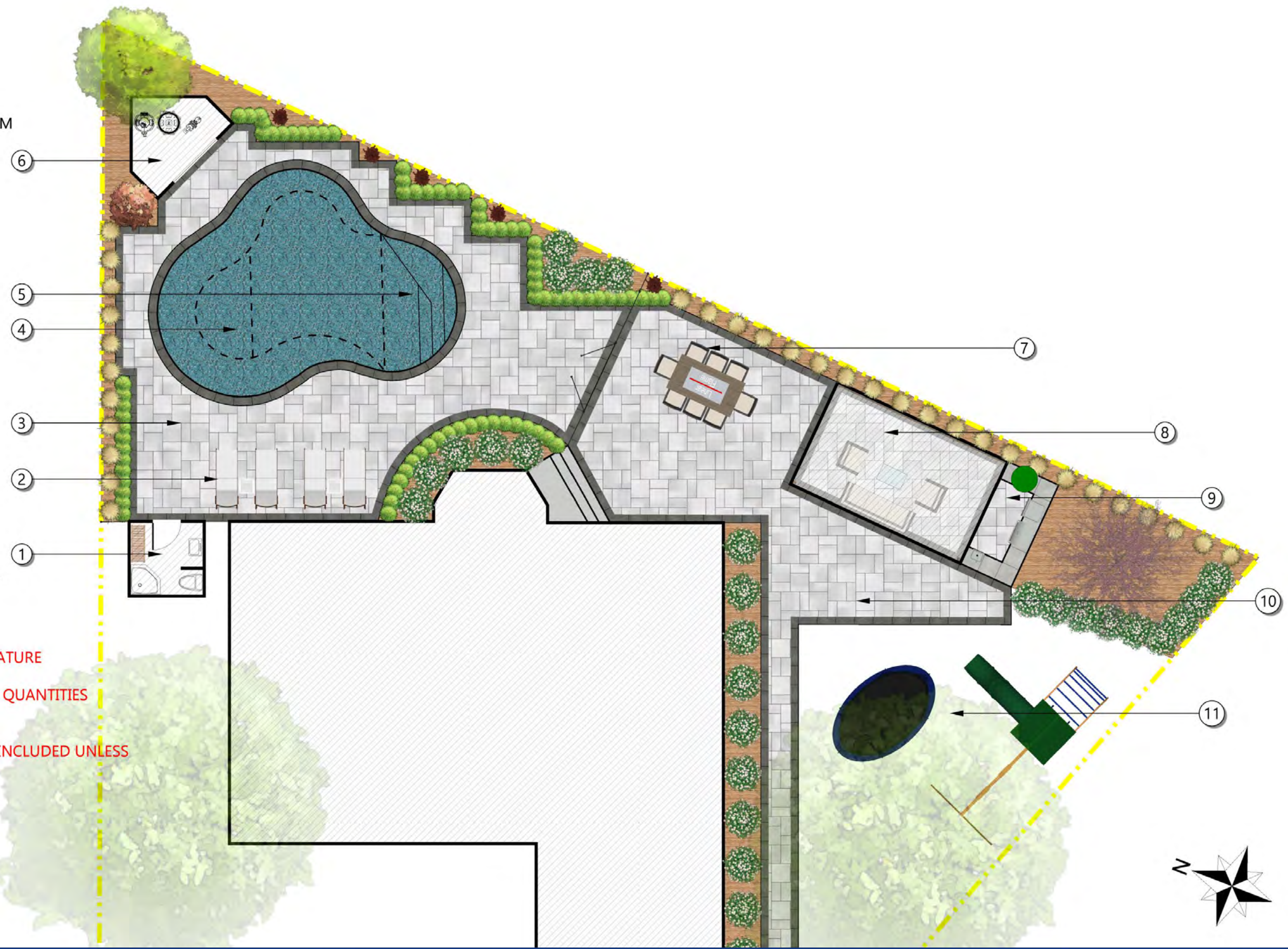
- 1) 8'x8' SHED - 3PC W/C & CHANGE ROOM
- 2) SUN LOUNGE AREA
- 3) PROPOSED FLAG STONE OR INTERLOCK PATIO
- 4) EXISTING 18'x32' 'TAMPA' POOL
- 5) PROPOSED VINYL-OVER STAIRS W/ CUSTOM BENCH
- 6) 8'x8' 5-SIDED SHED - MECHANICAL ROOM & STORAGE
- 7) PROPOSED DINING AREA
- 8) 12'x20' POOL CABANA
- 9) PROPOSED OUTDOOR KITCHEN AREA
- 10) PROPOSED FLAG STONE OR INTERLOCK PATIO & WALKWAY
- 11) EXISTING TRAMPOLINE & PLAY AREA

\*\*\* DISCLAIMER \*\*\*

-ALL DRAWINGS ARE CONCEPTUAL IN NATURE

-FINISHED GRADES & ACTUAL MATERIAL QUANTITIES ARE SUBJECT TO CHANGE.

-ALL ITEMS ON THE DRAWING ARE NOT INCLUDED UNLESS OTHERWISE STATED ON THE CONTRACT







*"Inspiring a Healthy Environment"*

February 26, 2016

Lerners LLP  
88 Dufferin Avenue  
P.O. Box 2335  
London, Ontario N6A 4G4

**Attention: David Lyons**

Dear Mr. Lyons:

**Re: Leeper purchase from Clement  
1326 Sprucedale Avenue, London, Ontario**

---

The Upper Thames River Conservation Authority (UTRCA) has reviewed this inquiry with regard for policies in the *Environmental Planning Policy Manual for the Upper Thames River Conservation Authority (June 2006)*. These policies include regulations made pursuant to Section 28 of the *Conservation Authorities Act*, and are consistent with the natural hazard and natural heritage policies contained in the *Provincial Policy Statement (2014)*. The Upper Thames River Source Protection Area Assessment Report has also been reviewed in order to confirm whether these lands are located in a vulnerable area. We offer the following comments.

### **CONSERVATION AUTHORITIES ACT**

As shown on the enclosed mapping, the subject lands are regulated by the UTRCA in accordance with Ontario Regulation 157/06 made pursuant to Section 28 of the *Conservation Authorities Act*. The regulation limit is comprised of a riverine erosion hazard. The UTRCA has jurisdiction over lands within the regulated area and requires that landowners obtain written approval from the Authority prior to undertaking any site alteration or development within this area including filling, grading, construction, alteration to a watercourse and/or interference with a wetland.

### **DRINKING WATER SOURCE PROTECTION**

#### **Clean Water Act**

The *Clean Water Act (CWA)*, 2006 is intended to protect existing and future sources of drinking water. The Act is part of the Ontario government's commitment to implement the recommendations of the Walkerton Inquiry as well as protecting and enhancing human health and the environment. The CWA sets out a framework for source protection planning on a watershed basis with Source Protection Areas established based on the watershed boundaries of Ontario's 36 Conservation Authorities. The Upper Thames River, Lower Thames Valley and St. Clair Region Conservation Authorities have entered into a partnership for The Thames-Sydenham Source Protection Region.

The Assessment Report for the Upper Thames watershed delineates three types of vulnerable areas: Wellhead Protection Areas, Highly Vulnerable Aquifers and Significant Groundwater Recharge Areas. We wish to advise that the subject property is within identified as being within a vulnerable area. Mapping which shows these areas is available at:

[http://maps.thamesriver.on.ca/Viewer\\_HTML5\\_233/?viewer=tsrassessmentreport](http://maps.thamesriver.on.ca/Viewer_HTML5_233/?viewer=tsrassessmentreport)

**Provincial Policy Statement (PPS, 2014)**

**Section 2.2.1** requires that *“Planning authorities shall protect, improve or restore the quality and quantity of water by: e) implementing necessary restrictions on development and site alteration to:*

- 1. protect all municipal drinking water supplies and designated vulnerable areas; and*
- 2. protect, improve or restore vulnerable surface and ground water features, and their hydrological functions.”*

**Section 2.2.2** requires that *“Development and site alteration shall be restricted in or near sensitive surface water features and sensitive ground water features such that these features and their related hydrologic functions will be protected, improved or restored”*.

Policies in the *Approved Source Protection Plan* may prohibit or restrict activities identified as posing a *significant threat* to drinking water. Municipalities may also have or be developing policies that apply to vulnerable areas when reviewing development applications. Proponents considering land use changes, site alteration or construction in these areas need to be aware of this possibility. The *Approved Source Protection Plan* is available at:

<http://www.sourcewaterprotection.on.ca/source-protection-plan/approved-source-protection-plan/>

**Based on a review of our records, we are not aware of any directives, orders or breach of regulations with respect to the current use of the subject lands.**

Please contact the undersigned at extension 293 if you have any questions.

Yours truly,  
UPPER THAMES RIVER CONSERVATION AUTHORITY



Christine Creighton  
Land Use Planner  
CC/cc

Enclosure – Regulations Mapping (please print on legal size paper to ensure that the scales are accurate)





## Slope Assessment

*Forest City Pool & Patio Inc.*

**Project Name:**

Slope Assessment  
1326 Sprucedale Avenue  
London, Ontario

**Project Number:**

LON-21009268-A0

**Prepared By:**

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**Date Submitted:**

July 20, 2021  
Updated November 29, 2021

## Slope Assessment

Forest City Pool & Patio Inc.

### Type of Document:

Final Report

### Project Name:

Slope Assessment  
1326 Sprucedale Avenue  
London, Ontario

### Project Number:

LON-21009268-A0

### Prepared and Reviewed By:

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### Date Submitted:

July 20, 2021

Updated November 29, 2021

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## 1. Introduction and Background

### 1.1 Introduction

EXP Services Inc. (EXP) was retained by **Forest City Pool & Patio Inc.** (Client) to carry out a Slope Assessment and prepare a report relating to the proposed development to be located at 1326 Sprucedale Avenue in London, Ontario, hereinafter referred to as the 'site'.

It is understood that the Client is proposing to construct a cabana structure near the crest of the slope at the rear of the residence. It is understood from the client that the proposed Cabana will be approximately 12'x20', consist of a slab-on-grade concrete pad and roof that is founded on shallow augered piers (sonotubes). As illustrated on **Drawing 1**, the proposed development area is located on the southeast side of the existing building.

Based on an interpretation of the factual test hole data and a review of soil and groundwater information from the test hole advanced at the site, EXP has provided geotechnical engineering guidelines to support the construction of the proposed cabana structure, and an assessment of the stability of the slope, once construction is complete.

The proposed development is within an area regulated by the Upper Thames River Conservation Authority (UTRCA). As a result, consent from the Conservation Authority is required prior to construction of the proposed development.

### 1.2 Terms of Reference

The geotechnical investigation was generally completed in accordance with the scope of work outlined through correspondence with the Client. Authorization to proceed with this investigation was received from Mr. Markus Brunner of **Forest City Pool & Patio Inc.** through email correspondence.

The purpose of the assessment was to examine the subsoil and groundwater conditions at the site, assess the stability of the slopes within the vicinity of the proposed cabana location and determine the recommended development setback limit, in general accordance with the Ontario Ministry of Natural Resources (MNR) Technical Guide – River & Streams Systems: Erosion Hazard Limit and the Upper Thames River Conservation Authority guidelines.

Based on a site reconnaissance, interpretation of the factual test hole data, and a review of soil and groundwater information from test hole excavated at the site, EXP has provided geotechnical comments and recommendations on slope stability and development setback.

This report is provided on the basis of the terms of reference presented above, and on the assumption that the design will be in accordance with applicable codes and standards. If there are any changes in the design features relevant to the geotechnical analyses, or if any questions arise concerning geotechnical aspects of the codes and standards, this office should be contacted to review the design.

The information in this report in no way reflects on the environmental aspects of the soil. Should specific information in this regard be needed, additional testing may be required.

## 2. Methodology

### 2.1 Site Reconnaissance

A site reconnaissance survey was carried out on April 23<sup>rd</sup> and June 21<sup>st</sup>, 2021. The purpose of the site visits was to examine the existing conditions of the site slope which is located on the east side of the property. The survey included detailed observations such as slope vegetation, and potential old slump scars and seepage.

During the site reconnaissance, the 'Slope Stability Rating Chart', which was developed by MNR, was utilized to score a number of site characteristics, to determine the potential for slope instability. Site conditions which were reviewed include: slope height and inclination, soil stratigraphy, the presence and location of seepage zones, vegetative cover, overland drainage, and evidence of previous instability or landslide activity. A rating chart was completed at one location (indicated as Cross Sections A-A' on **Drawing 1**) throughout the existing slope profiles. The rating chart for the cross section examined is provided in **Appendix C** for review and consideration. Based on the values recorded on the Slope Stability Rating Charts, the existing site slope is considered to have a slight potential for instability indicated by Slope Instability Rating of 29.

At the time of the investigation, the slope surface was typically well vegetated with shrubs, and occasional mature trees. No previous surficial sliding failures were observed. Select photos are attached in **Appendix B**.

### 2.2 Field Work

In addition to the site reconnaissance, one (1) borehole was advanced on the Site to provide information on the soil stratigraphy and groundwater conditions at the location denoted on **Drawing 1** as BH1. The fieldwork was carried out on June 21<sup>st</sup>, 2021.

In the boreholes, disturbed soil samples were recovered using conventional split spoon sampling equipment and Standard Penetration Test (SPT) methods. The boreholes were advanced to depths of up to 9.6 m below existing grade. During the sampling, the stratigraphy in the test holes was examined and logged in the field by EXP geotechnical personnel.

Short-term groundwater level observations within the open boreholes and observations pertaining to groundwater conditions at the test hole locations are recorded in the borehole logs found in **Appendix A**. Following the drilling, the water level was measured in the open boreholes.

Representative samples of the various soil strata encountered at the test locations were taken to our laboratory in London for further examination by a Geotechnical Engineer and laboratory classification testing. Laboratory testing for this investigation comprised of moisture content determinations with moisture content results presented on the borehole logs found in **Appendix A**.

Borehole samples remaining after the classification testing will be stored for a period of three months following the date of this report. After this time, they will be discarded unless prior arrangements have been made for longer storage.



## 2.3 Review of Topographic Data and Analysis

City of London topographic mapping was utilized to create the cross sections for use in assessing the slope stability and Development Setback for the proposed cabana structure. Using engineering judgement and technical experience, the various cross sections (which are considered to be representative of typical site conditions) have been reviewed.

Examination of factors of safety using Morgenstern Price methods were carried out and analyzed by computer methods utilizing the Slope/W computer program. Using engineering judgement and technical experience, one cross section (which is considered to be representative of typical site conditions) has been reviewed. Consideration has also been given to incorporate potential slope sections which have a higher potential for slope instability indicated by the presence of more steeply inclined slopes. Soil strength parameters used in the analyses were based on our observations and experience with similar soil and groundwater conditions and are consistent with typical values in literature sources.

## 3. Site and Subsurface Conditions

### 3.1 Site Description

The site for the proposed cabana structure (see **Drawing 1**) is located on the southwest side of municipal number (MN) 1326 Sprucedale Avenue in London, Ontario. The property is bounded by the slope on the east, existing residences to the north and south and Sprucedale Avenue cul-de-sac on the west.

The site currently contains an existing residence with a pool in the backyard near the crest of the slope. The table lands (rear yard of the residence) is generally flat. The base of the slope is a woodlot with mature trees. No water course was observed near the base of the slope. The slope has an overall inclination of approximately 1.9 horizontal to 1 vertical (1.9H:1V), height of approximately 7.0 m and is vegetated with some mature trees and shrubbery. The trees show no signs of rotational movement or failure. There were also no signs of active erosion or water seepage along the slope face.

The following sections provide a summary of the soil conditions and groundwater conditions.

### 3.2 Soil Stratigraphy

The detailed stratigraphy encountered in the test hole is shown on the test hole summary found in **Appendix A** and summarized in the following paragraphs. It must be noted that the boundaries of the soil indicated on the test hole summary are inferred from non-continuous sampling and observations during excavation and drilling. These boundaries are intended to reflect transition zones for geotechnical design and should not be interpreted as exact planes of geological change.

#### Topsoil

Topsoil surfaced the borehole advanced. The topsoil was approximately 200 mm in thickness.

*It should be noted that topsoil quantities should not be established from the information provided at the test hole locations only. If required, a more detailed analysis (involving additional shallow test pits) is recommended to accurately quantify the amount of topsoil to be removed for construction purposes.*

#### Sand and Gravel

Underlying the topsoil was sand and gravel that extended to approximately 1.4 m bgs. The sand and gravel was brown, contained trace silt, was in a compact state (SPT N-value of 14) and damp based on an in-situ moisture content of 2 percent.

#### Sandy Silt/Sand

Beneath the sand and gravel a layer of sandy silt/sand was encountered. The sandy silt/sand extended to a depth of approximately 4.0 m bgs, was brown and in a compact to dense state with SPT N-values of 13 to 31. The sandy silt was noted to contain trace clay. The sandy silt/sand was damp to moist with in-situ moisture content of 3 to 16 percent.

## Clayey Silt Till

Underlying the sandy silt and sand and extending to termination depth of the borehole was a layer of till. The till predominantly comprised clayey silt and was grey in colour. The clayey silt till contained trace sand, trace gravel and was hard in consistency (based on SPT N-values of 31 to 55 blows per 300 mm sample spoon penetration). The till was generally in a moist state based on tactile examination and in-situ moisture contents of 14 to 15 percent.

### 3.3 Groundwater Conditions

Details of the groundwater conditions observed within the test hole are provided on the attached test hole summary. Upon completion of drilling, the open test hole was examined for the presence of groundwater and groundwater seepage. No groundwater was observed in the test hole upon completion of drilling.

It should be noted that insufficient time was available for the measurement of the depth to the stabilized groundwater table prior to backfilling the borehole. The depth to the groundwater table may vary in response to climatic or seasonal conditions, and, as such, may differ with high levels occurring in wet seasons. Capillary rise effects should also be anticipated in fine-grained soil deposits.

## 4. Slope Stability

### 4.1 General

The purpose of this investigation was to assess the stability of the slope to determine a safe setback distance from the existing slope profile in the area of the proposed cabana structure using the information which is currently available. It is anticipated that no significant alterations to the site grading will occur as part of the cabana construction.

The slope was evaluated generally using the method prescribed by Ministry of Natural Resources in the Technical Guide for Assessing the Erosion Hazard Limit for River and Stream Systems. One cross section (Cross Sections A-A') has been shown on **Drawing 1** along the existing slope profile and were used for assessing the slope stability.

A Slope Stability Rating Chart has been completed for the referenced cross section and is attached, see **Appendix C**. Based on the values recorded on the Slope Stability Rating Charts, the ratings suggest that a slight potential of slope instability exists.

#### 4.1.1 Stable Slope Geometry

The stability of the existing slope was investigated for a number of different Factors of Safety (FOS). The various types of failures resulting include shallow, moderate depth and deep rotational failures, occasionally through the entire height of the slope. The analyses were undertaken by computer methods utilizing the Slope/W computer program for select slope profiles.

The soil parameters used were conservative to build in an added safety factor for the analyses. The following table summarizes the parameters for the predominant soils which were used in EXP's evaluation of the stable slope configuration:

**Table 1 – Soil Parameters**

Soil Type	Density	Cohesion	Angle of Internal Friction
Compact Sand & Gravel	19.5 kN/m <sup>3</sup>	0 kPa	35°
Compact to Dense Sandy Silt/Sand	18.5 kN/m <sup>3</sup>	0 kPa	32°
Hard Clayey Silt Till	19.5 kN/m <sup>3</sup>	10 kPa	31°

Minimum factors of safety are provided in the report "Geotechnical Principles for Stable Slopes" prepared for the Ministry of Natural Resources, for infrastructure and public use (Section 4.3.3.1 in the MNR Technical Guide).

In order to determine a stable slope, a minimum factor of safety of 1.20 was used during the computerized analyses for long term stable slope analyses in the area of the proposed cabana. The following table from the MNR Technical Guide provides guidance on how to select a minimum factor of safety based on the intended land use above or below the slope. The cabana can be considered a light land-use.

**Table 2 – Design Minimum Factor of Safety**

	LAND-USES	FACTOR OF SAFETY
<b>A</b>	<b>PASSIVE</b> ; no buildings near slope; farm field, bush, forest, timberland, woods, wasteland, badlands, tundra	1.10
<b>B</b>	<b>LIGHT</b> ; no habitable structures near slope; recreational parks, golf courses, buried small utilities, tile beds, barns, garages, swimming pools, sheds, satellite dishes, dog houses	1.20 to 1.30
<b>C</b>	<b>ACTIVE</b> ; habitable or occupied structures near slope; residential, commercial, and industrial buildings, retaining walls, storage/warehousing of non-hazardous substances	1.30 to 1.50
<b>D</b>	<b>INFRASTRUCTURE and PUBLIC USE</b> ; public use structures or buildings (i.e., hospitals, schools, stadiums), cemeteries, bridges, high voltage power transmission lines, towers, storage/warehousing of hazardous materials, waste management areas	1.40 to 1.50

Table obtained from page 60 of MNR Technical Guide – River and Stream Systems: Erosion Hazard Limit

One cross section was assessed in the area of the proposed cabana and was generally selected to represent the worst-case-scenario of the slope. The cross section location is shown on **Drawing 1** with the profiles provided on **Drawings 2**. The failures at the cross section consisted of shallow, moderate depth and deep rotational failures for both existing and post construction conditions. Summarized results are provided in the following table:

**Table 3 - Summary of Pertinent Slope Stability Analyses**

Cross-Section Condition	Description of Failure Mode	Computed Factor of Safety
Slope Section, A-A'	Shallow Depth Failure	1.64
Slope Section, A-A'	Moderate Depth Failure	1.85
Slope Section, A-A'	Deep Rotational Failure	1.86

The soil conditions encountered in the test hole were generally found to comprise of sand and gravel over sandy silt and sand. Hard clayey silt till was encountered under the compact to dense cohesionless deposits at a depth of approximately 4.0 m bgs. Upon completion of drilling the borehole was dry and no seepage from the slope face was observed.

The average inclination along the existing slope profile at the investigated cross section is approximately 1.9H:1V. The influence of the cabana structure on the slope stability was considered. The results indicate that the typical influence from the cabana structure will not have a significant impact to the stability of the slope. Based on the soil conditions encountered during the field investigation and based on the results of the computerized slope stability analysis a stable slope line of 2.0H:1V has been applied and should be considered suitable for the long-term stability of the slope based on the results of the current geotechnical study.

It should be noted that the theoretical calculations for FOS are conservative. Based on the site reconnaissance conducted by EXP, it was observed that the slopes at the site are generally covered by mature trees and heavy shrubs. The trees were generally in an upright state. The deep roots of mature trees assist to reinforce and to enhance the stabilization of slopes.

#### 4.1.2 Erosion Access Allowance

It is understood that the erosion access allowance is typically required to ensure that there is a large enough safety zone for people and vehicles to enter and exit an area during an emergency, such as slope failure and flooding. Provided that the proposed cabana is a small and generally open ancillary structure in an existing residential development, it is not anticipated to further significantly impede the access that may be required to the slope on the Site or neighboring properties. It should be noted that the slope could potentially be accessed from the base of the slope as there is no water course in close proximity to the toe.

#### 4.1.3 Toe Erosion Allowance

No water course was observed within 15 m of the toe of the slope and no toe erosion was observed during the site reconnaissance. No toe erosion allowance is required to be applied.

The UTRCA provided a regulatory riverine flooding hazard elevation of 243.0 m for consideration in regards to toe erosion. After reviewing the slope assessment with the inclusion of a regulatory riverine flooding hazard geodetic elevation of 243.0 m it is anticipated that flooding at that elevation will not impose any undercutting or toe erosion of the slope at the Site.

A flood elevation of 243.0 m will flood an extremely large area from approximately Adelaide Street (~375 m east of the Site) to Windermere Road on the south. The flood plain between the nearest water course and the toe of the slope is well vegetated with mature trees and shrubbery. The slope including the toe is also vegetated by mature trees and shrubbery.

Based on the extremely large flood plain and depth of flood water at the provided elevation, distance from the nearest water course, topography and the well vegetated slope and flood plain, it is anticipated that flooding at that elevation will not have significant velocity (tractive force) near the toe of the slope at the Site which could induce undercutting/erosion of the slope toe soils. Flood water velocity is anticipated to be dampened by the vegetation in the flood plain leading up to the slope and the root structure of the slope's vegetation (including the toe) is anticipated to provide additional protection for the hard cohesive soils to resist the low tractive forces. Additionally, there was no indication of previous toe erosion.

From a geotechnical standpoint, additional toe erosion allowance is not anticipated to be required based on the regulatory flood elevation provided by the UTRCA.

#### 4.1.4 Erosion Hazard Limit

The Erosion Hazard Limit is defined by the sum of the Stable Safe Slope Line plus the Toe Erosion Component plus the Erosion Access Allowance. The table below summarizes the 3 components to the Recommended Development Limit Setback.

**Table 4 – Erosion Hazard Limit Components**

Cross Section	Toe Erosion Allowance (m)	Stable Slope Allowance (From Top of Slope, m)	Emergency Access Allowance (m)	Erosion Hazard Limit (From Top of Slope)
A-A'	0	0.6	0.0	0.6

The Stable Slope Setback and Erosion Hazard Limit are shown on **Drawings 1 and 2**.

The potential impact to the stability of the slope from the construction of the cabana has been analyzed. The computed factor of safety (FOS) considering the influence of the proposed cabana and the existing slope geometry was in excess of 1.20, indicative of long-term stable slope conditions. No significant loss to slope accessibility is anticipated as a result of the construction of the proposed structure.

It is EXP’s opinion that no significant impact to slope stability will occur as a result of the proposed cabana structure.

#### 4.2 UTRCA Generic Regulation

In May 2006, Ontario Regulation 157/06 came into effect in the Upper Thames River Conservation Authority (UTRCA) watershed, which locally implements the Generic Regulation (Development, Interference with Wetlands and Alterations to Shoreline and Watercourses). This regulation replaces the former Fill, Construction and Alteration to Waterways regulations, and is intended to ensure public safety, prevent property damage and social disruption, due to natural hazards such as flooding and erosion. Ontario Regulation 157/06 is implemented by the local Conservation Authority, by means of permit issuance for works in or near watercourses, valleys, wetlands, or shorelines, when required.

Property owners must obtain permission from the UTRCA before beginning any development, site alteration, construction, or placement of fill on or in the areas within the regulation limit. Permits are also required for any wetland interference, or for altering, straightening, diverting or interfering in any way with the existing channel of a creek, stream or river. Proposed development within the study area will be subject to the above referenced Regulation. Consultation with the local Conservation Authority for review of site-specific development plans is recommended in this regard.

#### 4.3 Additional Comments

No drainage should be directed over the crest of the slope. The Site should be regraded such that water is directed away from the slope. Existing downspouts and drainage tiles that outlet towards the slope should be extended to outlet beyond the toe of the slope.

Spoils from any excavation should be removed from the site. Excavated soils should not be placed over the table land near the crest of slope, unless the soil is placed as engineered structural fill. No net surcharge should be placed on the slope.

During construction, large construction equipment near the crest of the slope should be avoided.

During construction, stockpiles of materials, supplies and construction debris should be located away from the slope crest. Additional loading from stockpiled materials should be avoided in proximity to the slope crest.

Debris littering the slope should be removed and vegetation on the slope should be maintained.

Any bare spot or cracks observed at the slope should be revegetated to a state similar to prior to construction.

A regular maintenance program should be implemented such as tree preservation, grading, and drainage control.



## 5. General Comments

The information presented in this report is based on a limited investigation designed to provide information to support an assessment of the current geotechnical conditions within the subject property. The conclusions and recommendations presented in this report reflect site conditions existing at the time of the investigation. Consequently, during the future development of the property, conditions not observed during this investigation may become apparent. Should this occur, EXP Services Inc. should be contacted to assess the situation, and the need for additional testing and reporting. EXP has qualified personnel to provide assistance in regards to any future geotechnical and environmental issues related to this property.

Our undertaking at EXP, therefore, is to perform our work within limits prescribed by our clients, with the usual thoroughness and competence of the engineering profession.

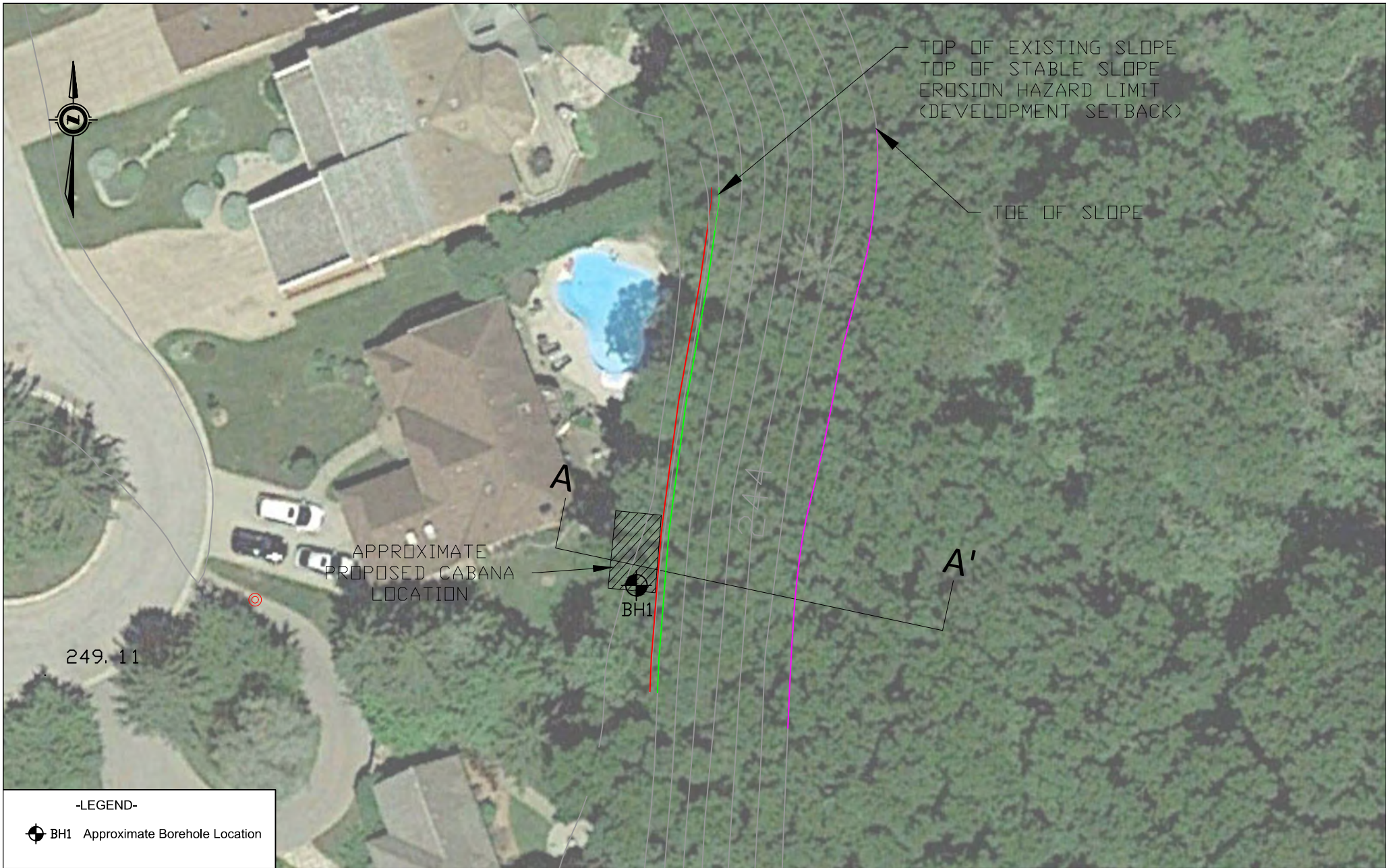
The comments given in this report are intended only for the guidance of design engineers. The number of test holes required to determine the localized underground conditions between test holes affecting construction costs, techniques, sequencing, equipment, scheduling, etc. would be much greater than has been carried out for design purposes. Contractors bidding on or undertaking the works should in this light, decide on their own investigations, as well as their own interpretations of the factual borehole results, so that they may draw their own conclusions as to how the subsurface conditions may affect them.

EXP Services Inc. should be retained for a general review of the final design and specifications to verify that this report has been properly interpreted and implemented. If not afforded the privilege of making this review, EXP Services Inc. will assume no responsibility for interpretation of the recommendations in this report.

This report was prepared for the exclusive use of **Forest City Pool & Patio Inc.** and may not be reproduced in whole or in part, without the prior written consent of EXP, or used or relied upon in whole or in part by other parties for any purposes whatsoever. Any use which a third party makes of this report, or any part thereof, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. EXP Services Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

We trust this report is satisfactory for your purposes. Should you have any questions, please do not hesitate to contact this office.

## Drawings



-LEGEND-

⊕ BH1 Approximate Borehole Location

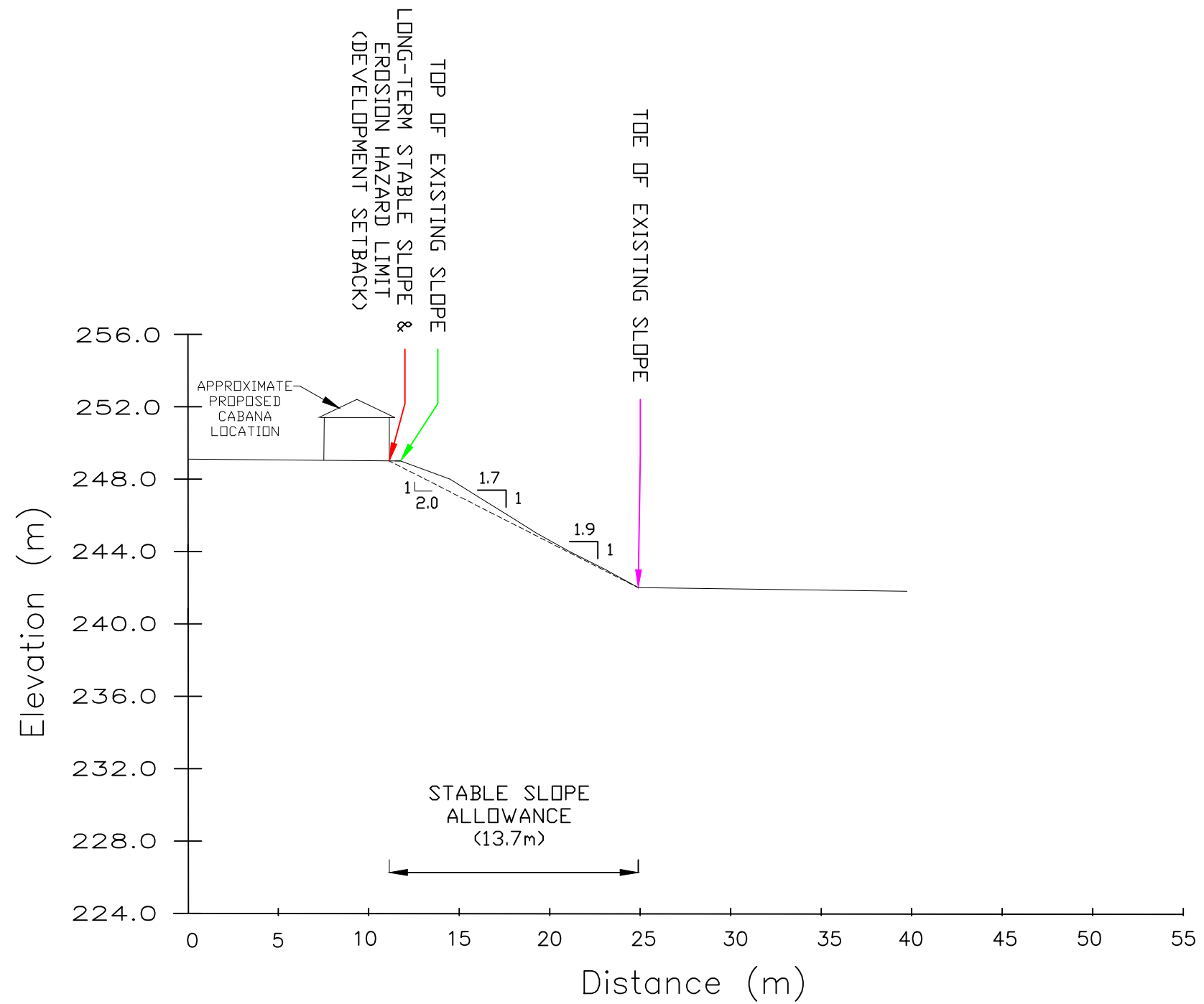
-NOTES-

1. The boundaries and soil types have been established only at test hole locations. Between test holes they are assumed and may be subject to considerable error.
2. Soil samples will be retained in storage for 3 months and then destroyed unless client advises that an extended time period is required.
3. Topsoil quantities should not be established from the information provided at the test hole locations.
4. The site plan was reproduced from Google Earth Pro and City of London Digital Mapping (2017) and should be read in conjunction with EXP Geotechnical Report LON-21009268-A0.

Slope Assessment  
**Proposed Cabana**  
1326 Sprucedale Avenue  
London, Ontario

CLIENT Forest City Pool & Patio Inc.			
TITLE Site Plan			
Prepared By: M.B.		Reviewed By: A.S.	
		EXP Services Inc. 15701 Robin's Hill Road, London, ON, N5V 0A5	
DATE JULY 2021	SCALE NTS	PROJECT NO. LON-21009268-A0	DWG. 1

# CROSS SECTION A-A'



**-NOTES-**

1. The cross section diagram should be read in conjunction with EXP Slope Assessment Report LON-21009628-A0.
2. Refer to Drawing 1 for cross section location.

Slope Assessment  
**Proposed Cabana**  
 1326 Sprucedale Avenue  
 London, Ontario

CLIENT Forest City Pool & Patio Inc.	
TITLE Cross Section A-A'	
Prepared By: M.B.	Reviewed By: A.S.
 EXP Services Inc. 15701 Robin's Hill Road, London, ON, N5V 0A5	
DATE JULY 2021	SCALE 1:300
PROJECT NO. LON-21009268-A0	DWG. 2

## Appendix A – Borehole Log

## NOTES ON SAMPLE DESCRIPTIONS

- All descriptions included in this report follow the 'modified' Massachusetts Institute of Technology (M.I.T.) soil classification system. The laboratory grain-size analysis also follows this classification system. Others may designate the Unified Classification System as their source; a comparison of the two is shown for your information. Please note that, with the exception of those samples where the grain size analysis has been carried out, all samples are classified visually and the accuracy of the visual examination is not sufficient to differentiate between the classification systems or exact grain sizing. The M.I.T. system has been modified and the EXP classification includes a designation for cobbles above the 75 mm size and boulders above the 200 mm size.

UNIFIED SOIL CLASSIFICATION	Fines (silt and clay)		Sand			Gravel		Cobbles		
			Fine	Medium	Coarse	Fine	Coarse			
M.I.T. SOIL CLASSIFICATION	Clay	Silt	Sand			Gravel				
			Fine	Medium	Coarse					
Sieve Sizes										
Particle Size (mm)										
	0.002		0.06	0.075 - 200	0.2	0.6	2.0 - 10	5.0 - 4	20 - 3/4	80

- Fill:** Where fill is designated on the borehole log, it is defined as indicated by the sample recovered during the boring process. The reader is cautioned that fills are heterogeneous in nature and variable in density or degree of compaction. The borehole description therefore, may not be applicable as a general description of the site fill material. All fills should be expected to contain obstructions such as large concrete pieces or subsurface basements, floors, tanks, even though none of these obstructions may have been encountered in the borehole. Since boreholes cannot accurately define the contents of the fill, test pits are recommended to provide supplementary information. Despite the use of test pits, the heterogeneous nature of fill will leave some ambiguity as to the exact and correct composition of the fill. Most fills contain pockets, seams, or layers of organically contaminated soil. This organic material can result in the generation of methane gas and/or significant ongoing and future settlements. The fill at this site has been monitored for the presence of methane gas and the results are recorded on the borehole logs. The monitoring process neither indicates the volume of gas that can be potentially generated or pinpoints the source of the gas. These readings are to advise of a potential or existing problem (if they exist) and a detailed study is recommended for sites where any explosive gas/methane is detected. Some fill material may be contaminated by toxic waste that renders the material unacceptable for deposition in any but designated land fill sites; unless specifically stated, the fill on the site has not been tested for contaminants that may be considered hazardous. This testing and a potential hazard study can be carried out if you so request. In most residential/commercial areas undergoing reconstruction, buried oil tanks are common, but not detectable using conventional geotechnical procedures.
- Glacial Till:** The term till on the borehole logs indicates that the material originates from a geological process associated with glaciation. Because of this geological process, the till must be considered heterogeneous in composition and as such, may contain pockets and/or seams of material such as sand, gravel, silt or clay. Till often contains cobbles (75 to 200 mm in diameter) or boulders (greater than 200 mm diameter) and therefore, contractors may encounter them during excavation, even if they are not indicated on the borehole logs. It should be appreciated that normal sampling equipment can not differentiate the size or type of obstruction. Because of the horizontal and vertical variability of till, the sample description may be applicable to a very limited area; therefore, caution is essential when dealing with sensitive excavations or dewatering programs in till material.



# BOREHOLE LOG

BH1

Sheet 1 of 1

CLIENT Forest City Pool & Patio Inc. PROJECT NO. LON-21009268-A0  
 PROJECT 1326 Sprucedale Avenue DATUM \_\_\_\_\_  
 LOCATION London, Ontario DATES: Boring June 21, 2021 Water Level \_\_\_\_\_

DEPTH (m bgs)	ELEVATION (-m)	STRATA DESCRIPTION	STRATA PLOT	WELL LOG	SAMPLES			MOISTURE CONTENT (%)	SHEAR STRENGTH	
					TYPE	NUMBER	RECOVERY (mm)		N VALUE (blows)	Field Vane Test (#=Sensitivity)
0	0.2	TOPSOIL - 200 mm -								
		SAND AND GRAVEL - brown, trace silt, - compact, damp -			SS	S1	300	14	2	○ ●
	1.4	SANDY SILT - brown, trace clay, compact, - moist -			SS	S2	450	13	16	○ ●
	2.5	SAND - brown, fine to medium grained, trace - silt, compact to dense, damp			SS	S3	400	28	9	○ ●
					SS	S4	450	31	3	○ ●
	4.0	CLAYEY SILT TILL - grey, trace sand, trace - gravel, hard, moist -			SS	S5	450	34	14	○ ●
					SS	S6	450	31	14	○ ●
					SS	S7	450	34	14	○ ●
	9.6	End of borehole at 9.6 m bgs.			SS	S8	400	55	15	○ ●
-10										

**NOTES**

- Borehole Log interpretation requires assistance by EXP before use by others and must be read in conjunction with EXP Report LON-21009268-A0.
- bgs denotes below ground surface.
- Borehole open and dry upon completion of drilling.
- No significant methane gas concentration was detected upon completion. -

**SAMPLE LEGEND**

- AS Auger Sample
- SS Split Spoon
- ST Shelby Tube
- Rock Core (eg. BQ, NQ, etc.)
- VN Vane Sample

**OTHER TESTS**

- G Specific Gravity
- H Hydrometer
- S Sieve Analysis
- γ Unit Weight
- P Field Permeability
- K Lab Permeability
- C Consolidation
- CD Consolidated Drained Triaxial -
- CU Consolidated Undrained Triaxial
- UU Unconsolidated Undrained Triaxial
- UC Unconfined Compression
- DS Direct Shear

**WATER LEVELS**

- Apparent
- Measured
- Artesian (see Notes)

## Appendix B – Site Photos





Photo 1 – Top of Existing Slope Near Proposed Cabana Location



Photo 2 – Slope Surface Near Proposed Cabana

## Appendix C – Slope Stability Rating Chart

## Slope Stability Rating Chart

### Geotechnical Principles for Stable Slopes Ontario Ministry of Natural Resources

<b>Site Location:</b> 1326 Sprucedale Avenue <b>Town/City:</b> London, Ontario <b>Inspected by:</b> D. Leech	<b>Project No.:</b> LON-21009238-A0 <b>Inspection Date:</b> 6/21/21 <b>Weather:</b> Sunny 28C	
<b>Slope Inclination</b> degrees or less (3H:1V or flatter) to 28 degrees (2H:1V to 3H:1V) degrees or more (steeper than 2H:1V)	<b>Rating Value</b>  0 6 16	<b>Slope Rating</b>   <b>16</b>
<b>Soil Stratigraphy</b> shale / limestone sand, gravel till clay, silt fill leda clay	0 6 9 12 18 24	  <b>9</b>
<b>Seepage from Slope Face</b> none, or near bottom only near mid-slope only near crest only, or from several levels	0 6 12	  <b>0</b>
<b>Slope Height</b> 2 m or less 2.1 to 5 m 5.1 to 10 m more than 10 m	0 2 4 8	  <b>4</b>
<b>Vegetation Cover on Slope Face</b> well vegetated: heavy shrubs or forested with mature trees light vegetation: grass, weeds, occasional trees, shrubs no vegetation: bare	0 4 8	  <b>0</b>
<b>Table Land Drainage</b> table land flat, no apparent drainage over slope minor drainage over slope, no active erosion drainage over slope, active erosion, gullies	0 2 4	  <b>0</b>
<b>Proximity of Watercourse to Slope Toe</b> 15 m or more from slope toe Less than 15 m from slope toe	0 6	  <b>0</b>
<b>Previous Landslide Activity</b> No Yes	0 6	  <b>0</b>
<b>Slope Instability Rating</b>		<b>29</b>
Low Potential < 24 Site Inspection only, confirmation, report letter Slight Potential 25-35 Site Inspection and surveying, preliminary study, detailed report Moderate Potential > 35 BH Investigation, piezometers, lab tests, surveying, detailed report		
<b>Notes:</b> Is there is a water body (stream, creek, river, pond, bay, lake) at the toe of slope? If YES - the potential for toe erosion and undercutting should be evaluated in detail.		

## **Appendix D – Limitations and Use of Report**

## LIMITATIONS AND USE OF REPORT

### BASIS OF REPORT

This report (“Report”) is based on site conditions known or inferred by the geotechnical investigation undertaken as of the date of the Report. Should changes occur which potentially impact the geotechnical condition of the site, or if construction is implemented more than one year following the date of the Report, the recommendations of EXP may require re-evaluation.

The Report is provided solely for the guidance of design engineers and on the assumption that the design will be in accordance with applicable codes and standards. Any changes in the design features which potentially impact the geotechnical analyses or issues concerning the geotechnical aspects of applicable codes and standards will necessitate a review of the design by EXP. Additional field work and reporting may also be required.

Where applicable, recommended field services are the minimum necessary to ascertain that construction is being carried out in general conformity with building code guidelines, generally accepted practices and EXP’s recommendations. Any reduction in the level of services recommended will result in EXP providing qualified opinions regarding the adequacy of the work. EXP can assist design professionals or contractors retained by the Client to review applicable plans, drawings, and specifications as they relate to the Report or to conduct field reviews during construction.

Contractors contemplating work on the site are responsible for conducting an independent investigation and interpretation of the borehole results contained in the Report. The number of boreholes necessary to determine the localized underground conditions as they impact construction costs, techniques, sequencing, equipment and scheduling may be greater than those carried out for the purpose of the Report.

Classification and identification of soils, rocks, geological units, contaminant materials, building envelopment assessments, and engineering estimates are based on investigations performed in accordance with the standard of care set out below and require the exercise of judgment. As a result, even comprehensive sampling and testing programs implemented with the appropriate equipment by experienced personnel may fail to locate some conditions. All investigations or building envelope descriptions involve an inherent risk that some conditions will not be detected. All documents or records summarizing investigations are based on assumptions of what exists between the actual points sampled. Actual conditions may vary significantly between the points investigated. Some conditions are subject to change over time. The Report presents the conditions at the sampled points at the time of sampling. Where special concerns exist, or the Client has special considerations or requirements, these should be disclosed to EXP to allow for additional or special investigations to be undertaken not otherwise within the scope of investigation conducted for the purpose of the Report.

## **RELIANCE ON INFORMATION PROVIDED**

The evaluation and conclusions contained in the Report are based on conditions in evidence at the time of site inspections and information provided to EXP by the Client and others. The Report has been prepared for the specific site, development, building, design or building assessment objectives and purpose as communicated by the Client. EXP has relied in good faith upon such representations, information and instructions and accepts no responsibility for any deficiency, misstatement or inaccuracy contained in the Report as a result of any misstatements, omissions, misrepresentation or fraudulent acts of persons providing information. Unless specifically stated otherwise, the applicability and reliability of the findings, recommendations, suggestions or opinions expressed in the Report are only valid to the extent that there has been no material alteration to or variation from any of the information provided to EXP.

## **STANDARD OF CARE**

The Report has been prepared in a manner consistent with the degree of care and skill exercised by engineering consultants currently practicing under similar circumstances and locale. No other warranty, expressed or implied, is made. Unless specifically stated otherwise, the Report does not contain environmental consulting advice.

## **COMPLETE REPORT**

All documents, records, data and files, whether electronic or otherwise, generated as part of this assignment form part of the Report. This material includes, but is not limited to, the terms of reference given to EXP by its client ("Client"), communications between EXP and the Client, other reports, proposals or documents prepared by EXP for the Client in connection with the site described in the Report. In order to properly understand the suggestions, recommendations and opinions expressed in the Report, reference must be made to the Report in its entirety. EXP is not responsible for use by any party of portions of the Report.

## **USE OF REPORT**

The information and opinions expressed in the Report, or any document forming part of the Report, are for the sole benefit of the Client. No other party may use or rely upon the Report in whole or in part without the written consent of EXP. Any use of the Report, or any portion of the Report, by a third party are the sole responsibility of such third party. EXP is not responsible for damages suffered by any third party resulting from unauthorized use of the Report.

## **REPORT FORMAT**

Where EXP has submitted both electronic file and a hard copy of the Report, or any document forming part of the Report, only the signed and sealed hard copy shall be the original documents for record and working purposes. In the event of a dispute or discrepancy, the hard copy shall govern. Electronic files transmitted by EXP have utilize specific software and hardware systems. EXP makes no representation about the compatibility of these files with the Client's current or future software and hardware systems. Regardless of format, the documents described herein are EXP's instruments of professional service and shall not be altered without the written consent of EXP.

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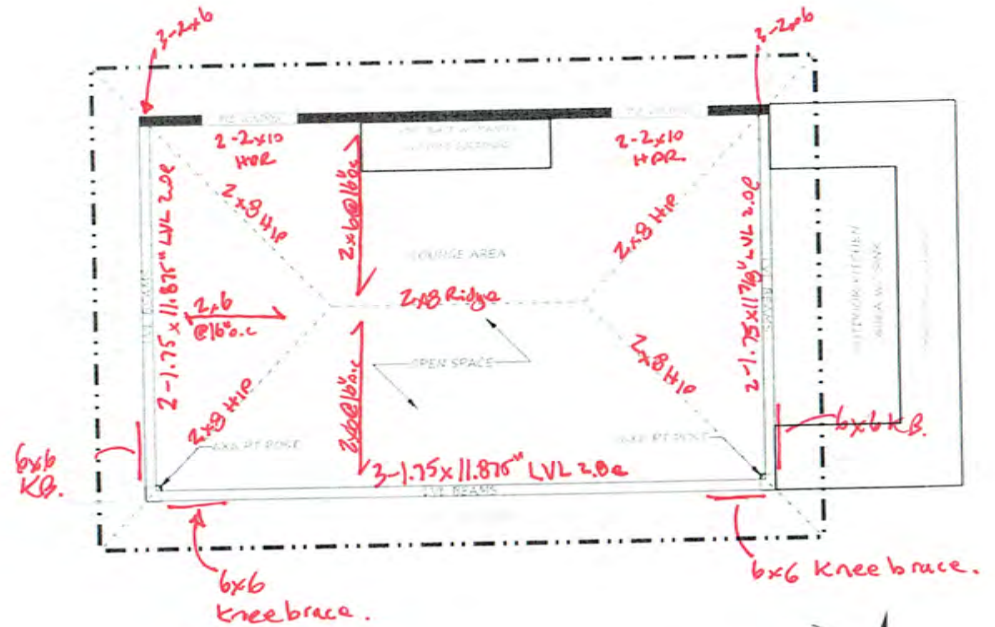
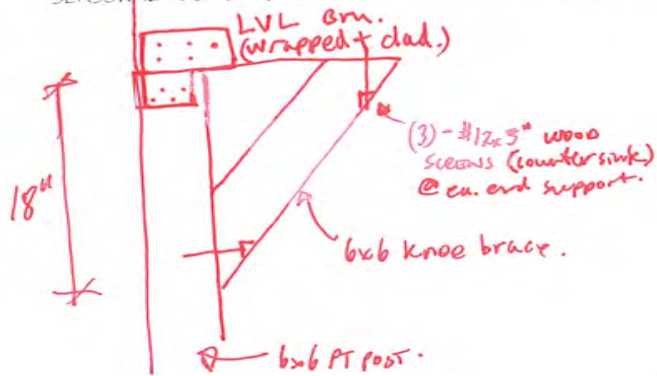
# Applicant Submissions

December 9, 2021



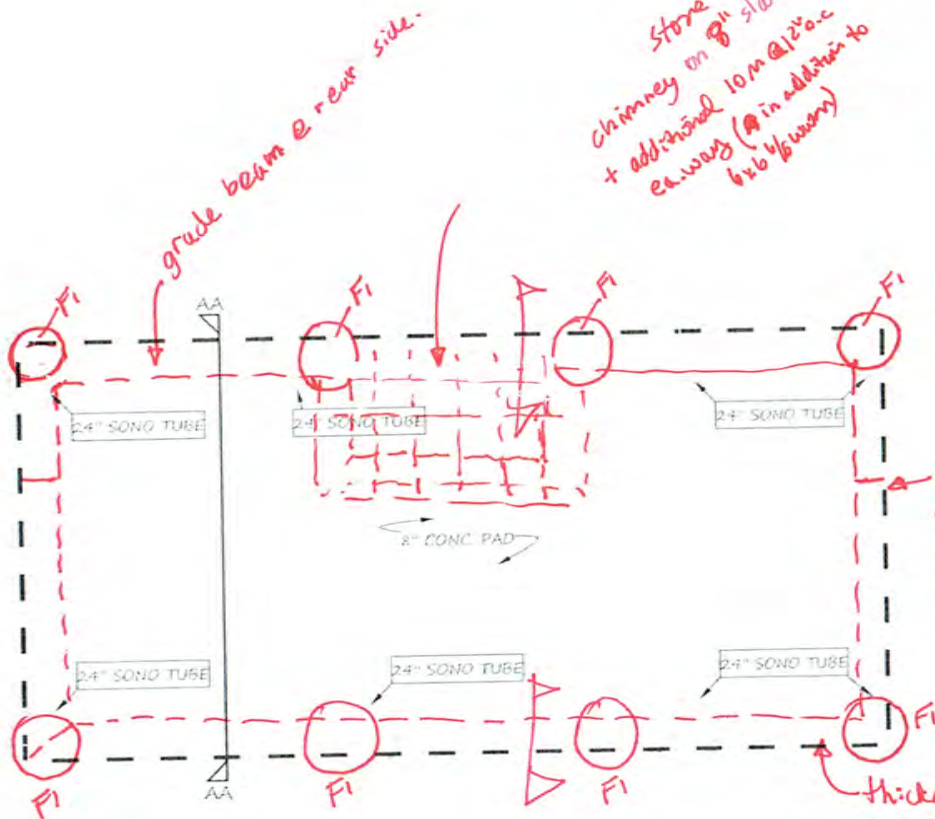
NOTES:

- 7/12 PITCH
- VAULTED CEILING IN OPEN AREA FINISHED IN TWG CEDAR OR PINE
- COTTAGE STYLE ROOF - STICK FRAMING
- 25 YR TYP ASPHALT SHINGLES
- 18" FINISHED OVERHANG
- LVL BEAMS TO SPAN OPEN AREA - SEE NOTED SPEC'S
- 2x6 RAFTERS
- 2x8 RIDGES
- (2) 6x6
- 2x4 BEARING WALL W/ 7/16" OSB & VINYL SIDING
- STANDARD KING STUDS & 2X10 LINTELS ON WINDOWS
- (2) 36"x72" PICTURE WINDOWS
- WOOD BURNING FIRE PLACE TO BE FINISHED IN STONE
- OUTDOOR KITCHEN AREA IS OPEN & WILL NOT HAVE A ROOF
- OUTDOOR KITCHEN TO BE FINISHED IN STONE VENEER
- SEASONAL PLUMBING TO TIE INTO EXISTING PLUMBING IN HOUSE
- SEASONAL PLUMBING TO BE SHUT-OFF & WINTERIZED WHEN NOT IN USE

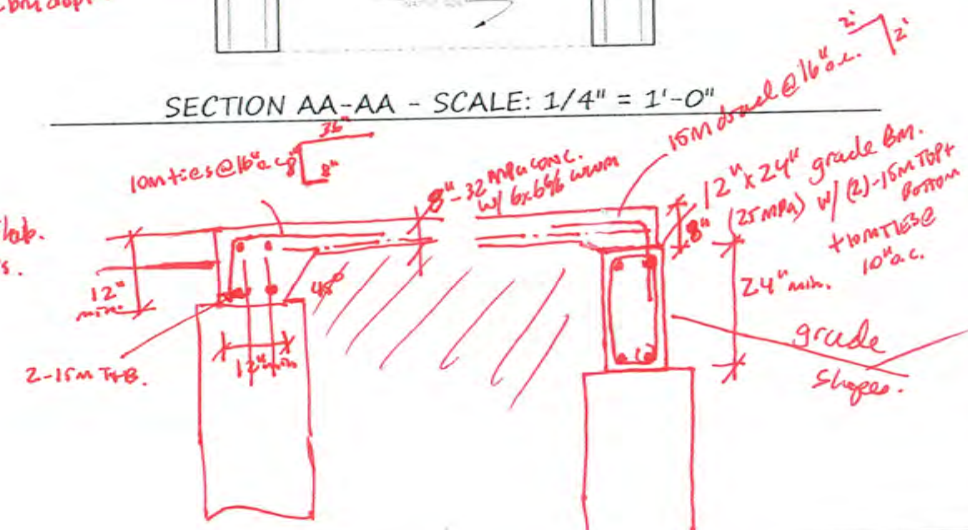
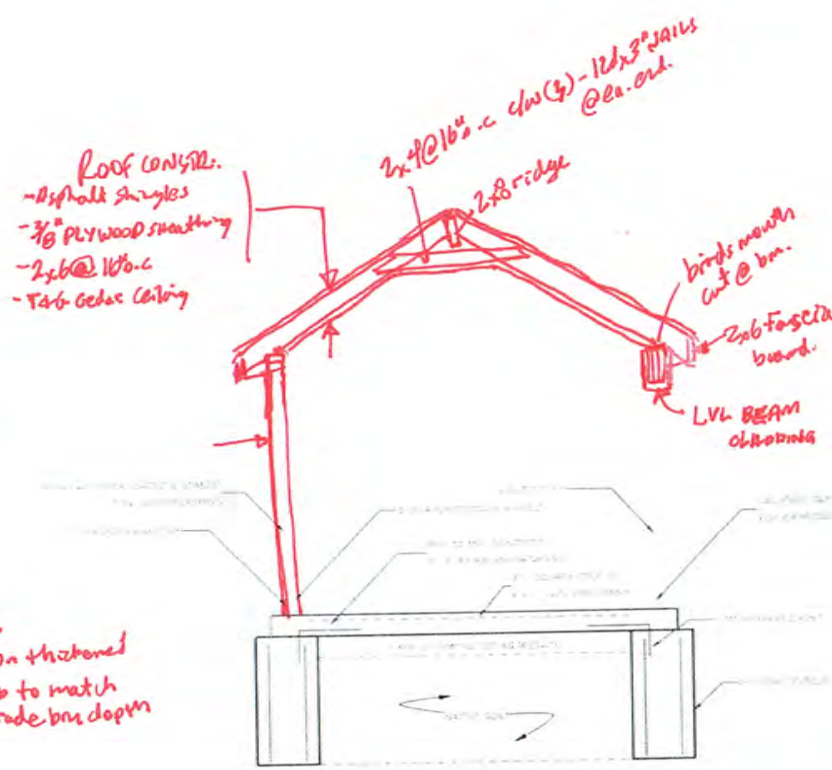


LEEPER - FLOOR PLAN - SCALE: 1/4" = 1'-0"

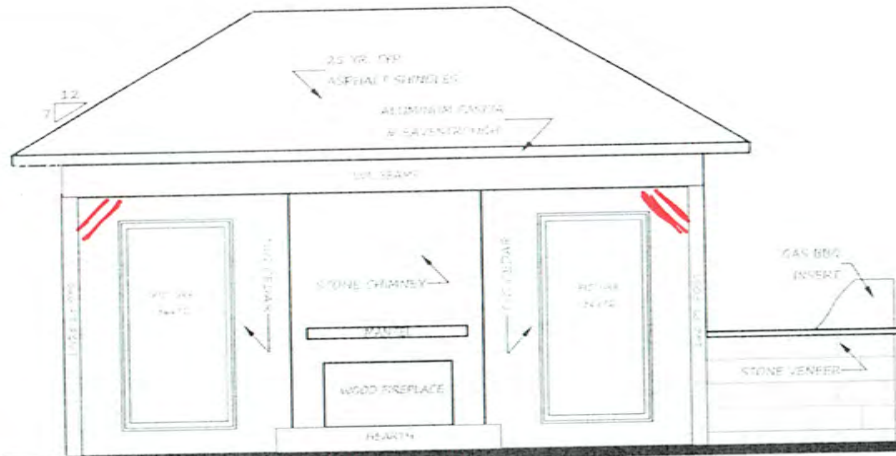
LOCATION: LEEPER RESIDENCE 1326 SPRUCEDALE AVENUE LONDON, ON	DATE: MARCH 30, 2021 DRAWN BY: ROBERT LEEPER	SCALE: 1/4" = 1'-0" *LEDGER* DRAWING NUMBER: 001	TITLE: POOL CABANA SQUARE FOOTAGE: 240 ft <sup>2</sup>	DRAWING TITLE: FLOOR PLAN	P1
---	---	---	---	------------------------------	----



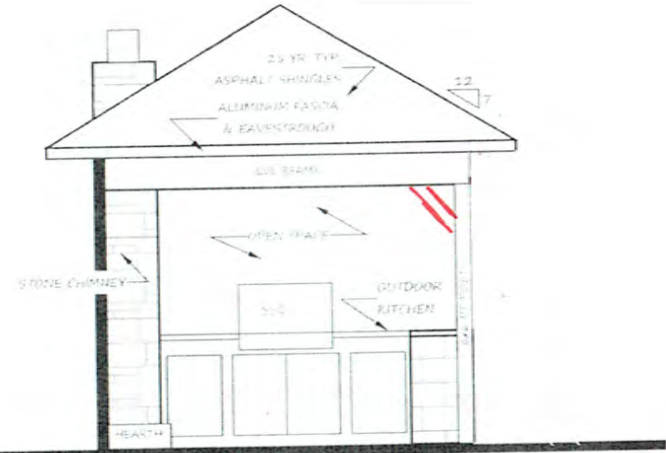
(F1) 24"  $\phi$  SONOTUBE x 48 min. below grade  
 - rear side sonotube to extend deeper to suit rear slope approximated to 72".  
 - to be confirmed on site to suit grades.



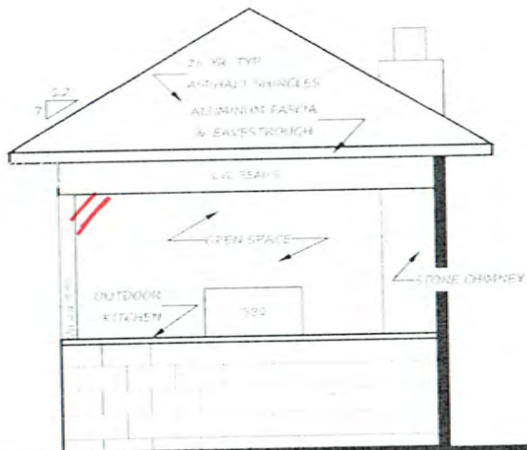
LOCATION LEEPER RESIDENCE 1326 SPRUCEDALE AVENUE LONDON, ON	DATE MARCH 30, 2021	SCALE 1/4" = 1'-0" "LEDGER"	TITLE POOL CABANA SOURCE FOOTING 240 ft <sup>2</sup>	P2
DRAWN BY ROBERT LEEPER	DRAWING NUMBER 001	FOUNDATION PLAN		



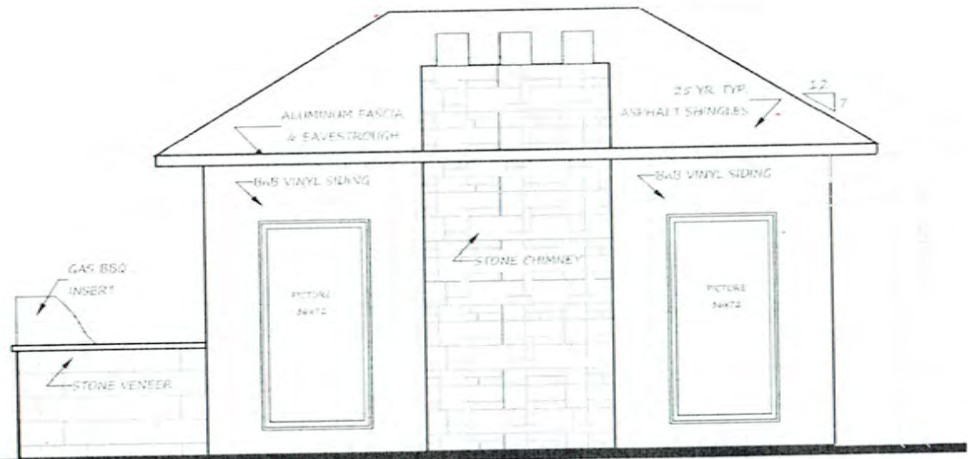
FRONT ELEVATION - SCALE: 1/4" = 1'-0"



LEFT ELEVATION - SCALE: 1/4" = 1'-0"



RIGHT ELEVATION - SCALE: 1/4" = 1'-0"



REAR ELEVATION - SCALE: 1/4" = 1'-0"

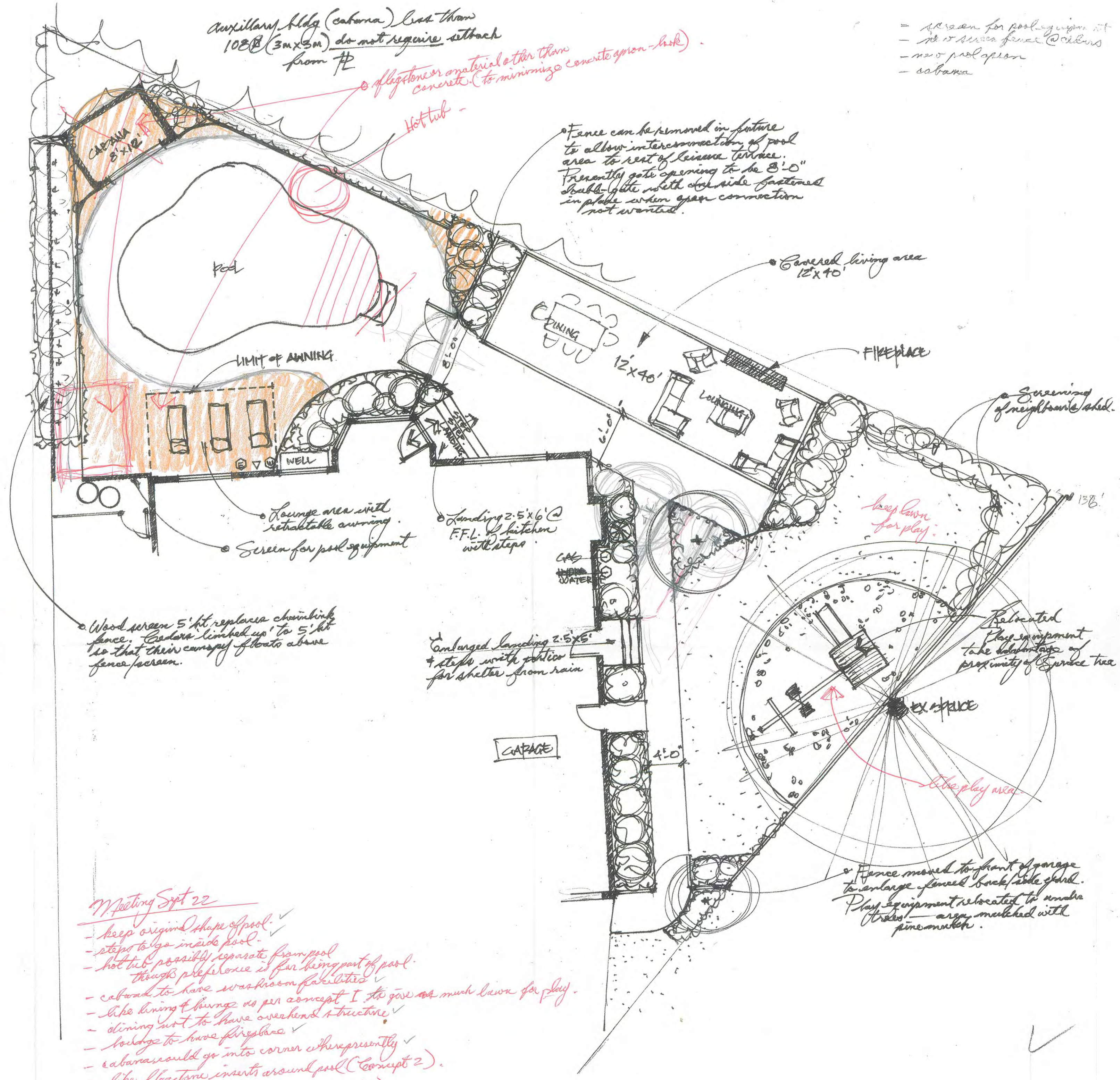
LOCATION  
LEEPER RESIDENCE  
1326 SPRUCEDALE AVENUE  
LONDON, ON

DATE  
MARCH 30, 2021  
DRAWN BY  
ROBERT LEEPER

SCALE  
1/4" = 1'-0" \*LEDGER\*  
DRAWING NUMBER  
001

TITLE  
POOL CABANA  
SQUARE FOOTAGE  
240 ft<sup>2</sup>

DRAWING TITLE  
ELEVATIONS



- Meeting Sept 22
- keep original shape of pool.
  - steps to go inside pool.
  - hot tub possibly separate from pool. think preferable if far being part of pool.
  - cabana to have washroom facilities.
  - like living & lounge as per concept 1. to give as much lawn for play.
  - dining not to have overhead structure.
  - lounge to have fireplace.
  - cabana could go into corner where presently.
  - like flagstone inserts around pool (Concept 2).
  - like garden accessories upboard (Concept 2).

- screen for pool equipment.
- it is nice fence @ 108 sq ft.
- no pool apron.
- cabana.



# Leeper Residence

1326 Sprucedale Ave.

## Landscape Considerations

### Concept 1

Dr & Mrs Clement

DATE OF ORIGINAL CONSTRUCTION  
was 1995

RAVINE

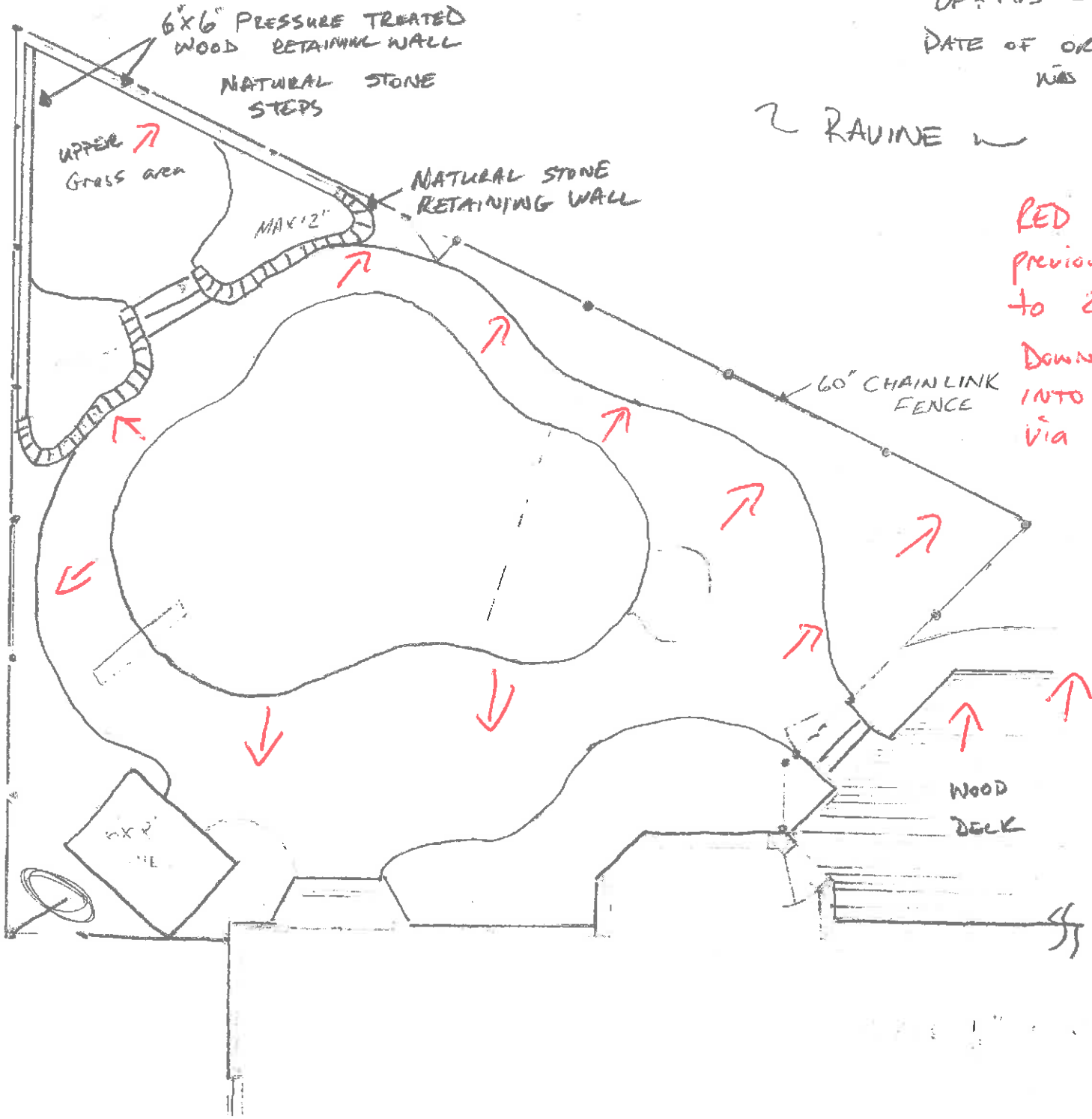
RED ARROWS "↑" denote  
previous drainage from 1995  
to 2021

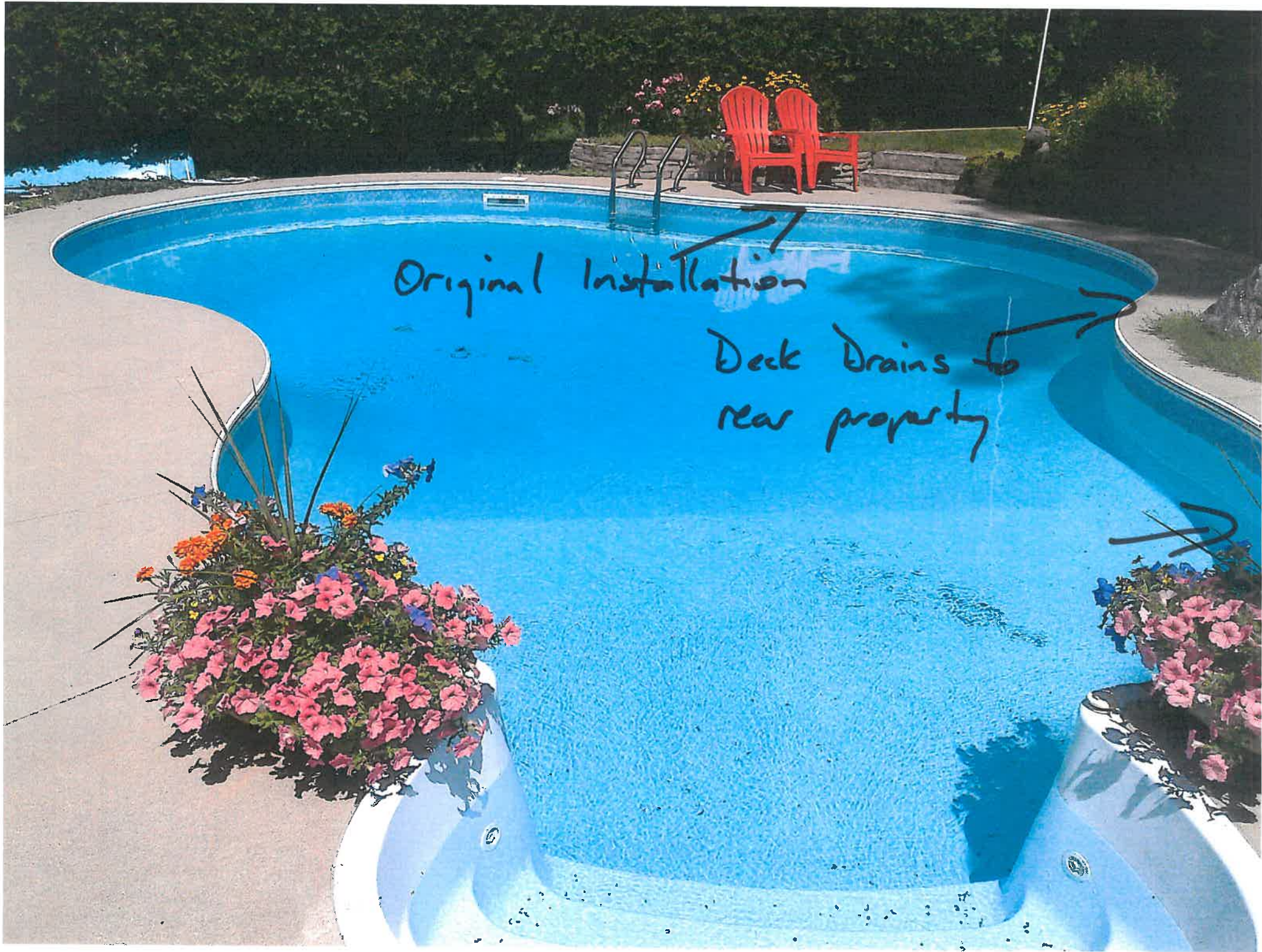
Downspouts were  
into ravine  
via "big O"

DRAWING

Forest City  
Pool & Patio  
INC.

1 McGill Place, London, Ontario N5X 1W1  
(519) 438-5578

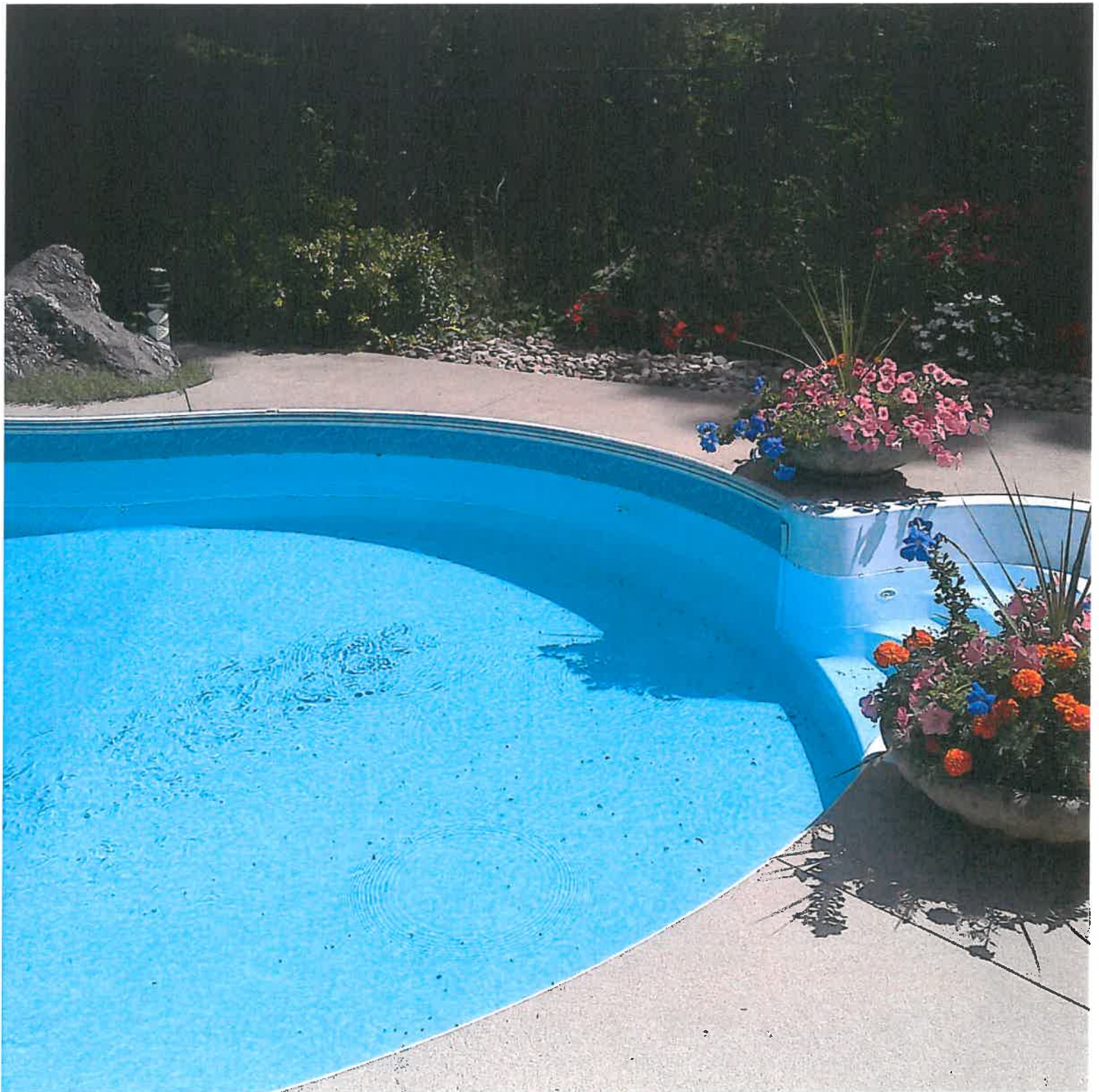




Original Installation

Deck Drains to  
rear property















ITEMS:

- 1) 8'x8' SHED - 3PC W/C & CHANGE ROOM
- 2) SUN LOUNGE AREA
- 3) PROPOSED FLAG STONE OR INTERLOCK PATIO
- 4) EXISTING 18'x32' 'TAMPA' POOL
- 5) PROPOSED VINYL-OVER STAIRS W/ CUSTOM BENCH
- 6) 8'x8' 5-SIDED SHED - MECHANICAL ROOM & STORAGE
- 7) PROPOSED DINING AREA
- 8) 12'x20' POOL CABANA
- 9) PROPOSED OUTDOOR KITCHEN AREA
- 10) PROPOSED FLAG STONE OR INTERLOCK PATIO & WALKWAY
- 11) EXISTING TRAMPOLINE & PLAY AREA

\*\*\* DISCLAIMER \*\*\*

-ALL DRAWINGS ARE CONCEPTUAL IN NATURE

-FINISHED GRADES & ACTUAL MATERIAL QUANTITIES ARE SUBJECT TO CHANGE.

-ALL ITEMS ON THE DRAWING ARE NOT INCLUDED UNLESS OTHERWISE STATED ON THE CONTRACT

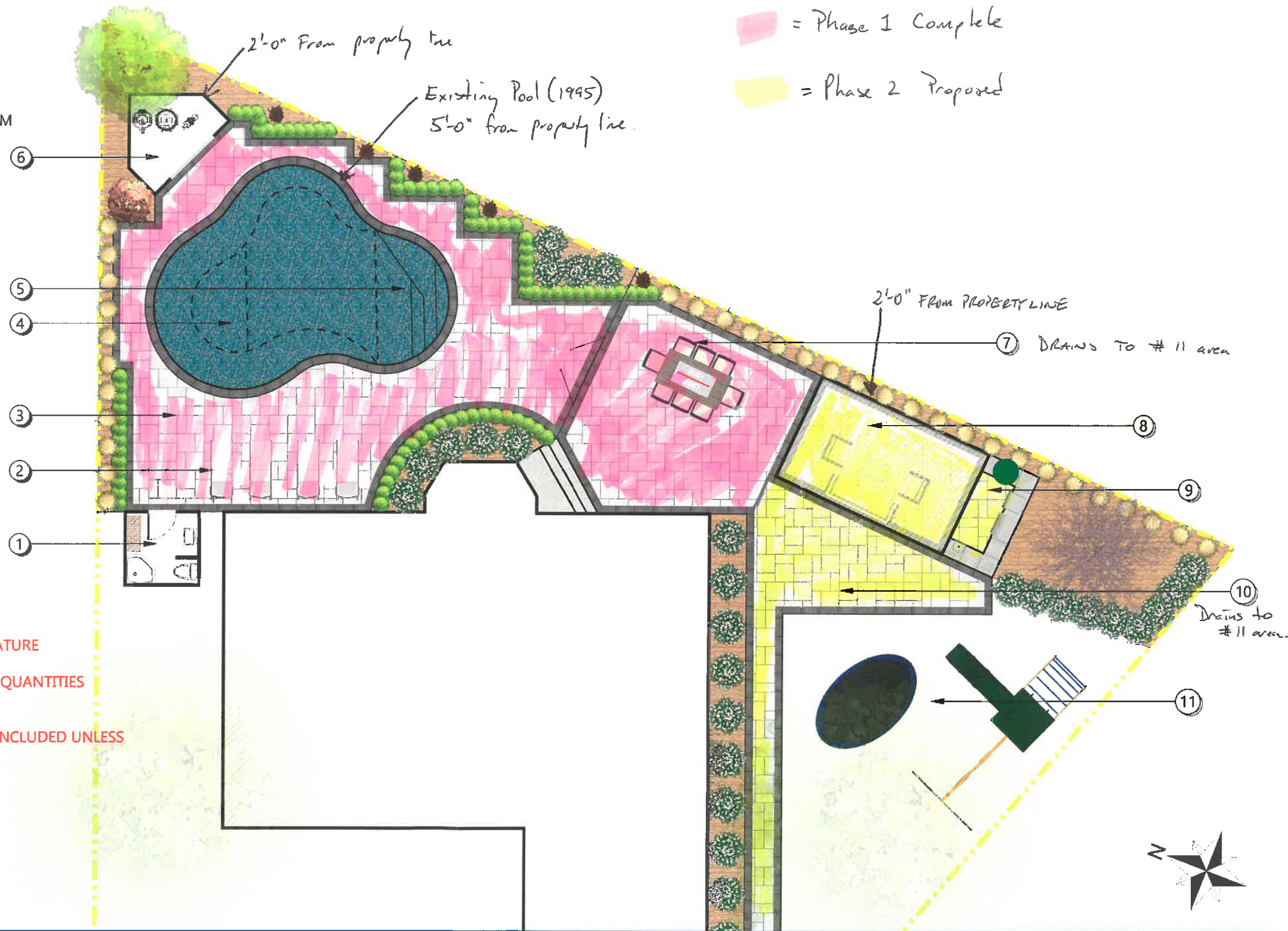


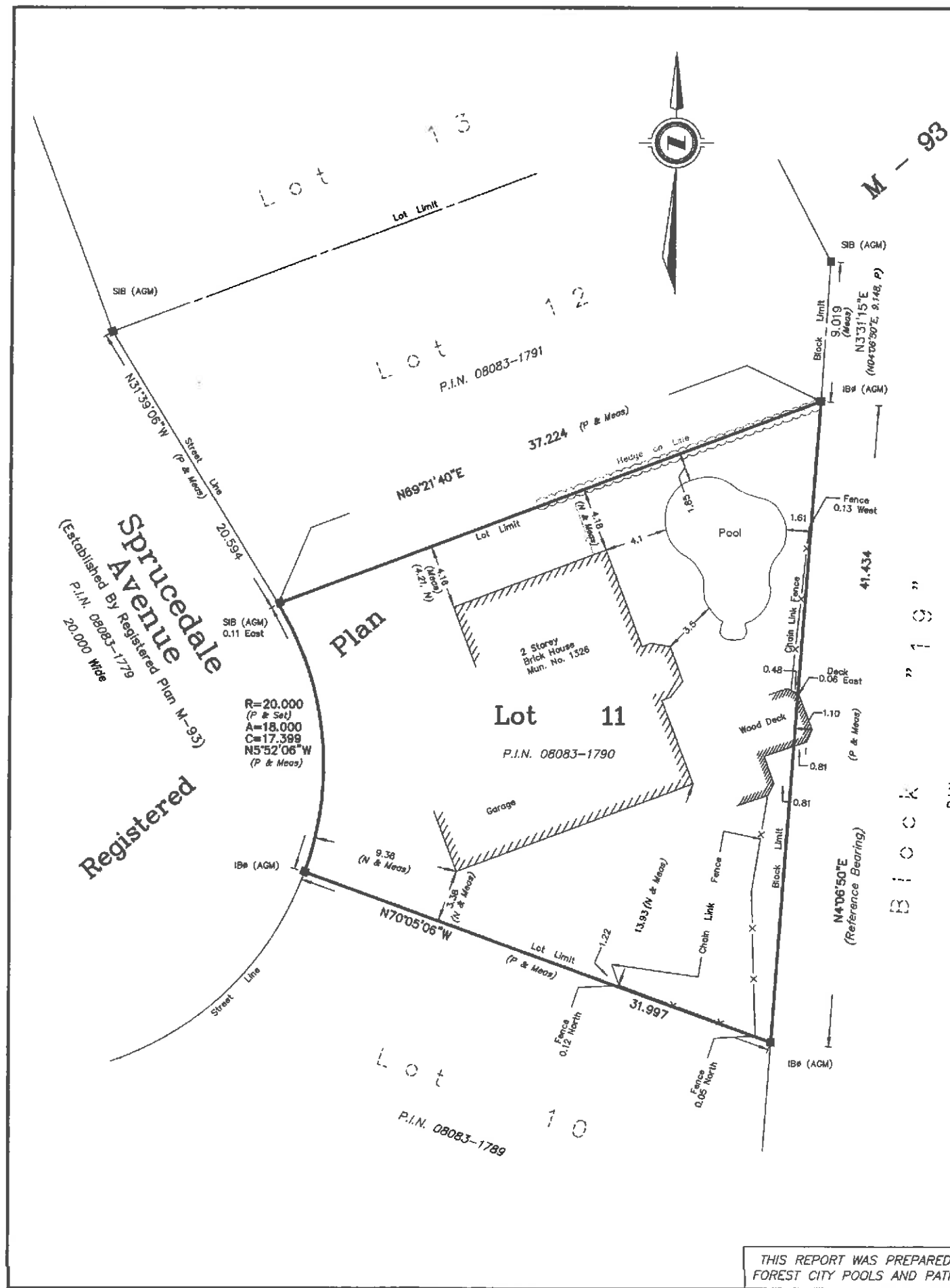
MET, S...

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**PLAN OF SURVEY**  
 SHOWING POOL LOCATION AND  
 PARTIAL HOUSE LOCATION  
 ON  
**LOT 11**  
**REGISTERED PLAN M-93**  
 MUNICIPAL NUMBER 1326  
 IN THE  
**CITY OF LONDON**  
 COUNTY OF MIDDLESEX  
 SCALE 1:250  
 5 4 3 2 1 0 5 10 15  
 SCALE IN METRES  
 2020  
 ARCHIBALD, GRAY & MCKAY LTD.  
 ONTARIO LAND SURVEYORS

**NOTES & LEGEND**  
 BEARINGS ARE ASTRONOMIC AND ARE REFERRED TO THE EAST LIMIT  
 OF LOT 11 HAVING A BEARING OF N04°06'50"E ACCORDING TO  
 REGISTERED PLAN M-93.  
 DISTANCES SHOWN HEREON ARE GROUND DISTANCES.

■ DENOTES MONUMENT FOUND  
 SIB DENOTES STANDARD IRON BAR  
 IB# DENOTES ROUND IRON BAR  
 AGM DENOTES ARCHIBALD, GRAY & MCKAY LTD., O.L.S.'s  
 P DENOTES REGISTERED PLAN M-93  
 N DENOTES AGM FILE LC-093-01-1 (PLAN W-650)

**METRIC:** DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND  
 CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048.

**SURVEYOR'S CERTIFICATE:**

I CERTIFY THAT:  
 1) THIS SURVEY AND PLAN ARE CORRECT AND IN  
 ACCORDANCE WITH THE SURVEYS ACT AND THE  
 SURVEYORS ACT AND THE REGULATIONS MADE  
 UNDER THEM.  
 2) THE SURVEY WAS COMPLETED ON THE  
 14TH DAY OF OCTOBER, 2020.

October 22nd, 2020  
 JUAN D. ZAPATA  
 ONTARIO LAND SURVEYOR

ASSOCIATION OF ONTARIO  
 LAND SURVEYORS  
 PLAN SUBMISSION FORM  
 2140134

THIS PLAN IS NOT VALID  
 UNLESS IT IS AN EMBOSSED  
 ORIGINAL COPY  
 ISSUED BY THE SURVEYOR  
 In accordance with  
 Regulation 228 Section 28(5)

**AGM**  
 PLAN • SURVEY • ENGINEER

**ARCHIBALD, GRAY & MCKAY LTD.**  
 3514 WHITE OAK ROAD, LONDON, ON, N6E 2Z9  
 PHONE 519-685-5300 FAX 519-685-5303  
 EMAIL info@agm.on.ca WEB www.agm.on.ca

THIS REPORT WAS PREPARED FOR FOREST CITY POOLS AND PATIO INC.	DRAWN BY: JGH CHECKED BY: TJS Plot Date: October 19, 2020	DIGITAL FILE: L20134SR1MS.DWG FILE No: LC-M093-01-5	PLAN No: <b>1-A-5094</b>
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F:\PROJECTS\LONDON\LC-M093\LC-M093-01\LC-M093-01-5\CAD\L20134SR1MS.DWG

## Markus Brunner

---

**To:** Markus Brunner  
**Cc:** Travis Sherman (design@forestcitypools.com)  
**Subject:** FW: Leeper (Sprucedale) - Cabana Drawing for Stamp & Markups

**From:** Dwayne C Buck, P.Eng. [mailto:dwayne@dcbuckengineering.com]  
**Sent:** 9-Dec-21 2:04 PM  
**To:** Markus Brunner  
**Cc:** 'Travis Sherman'  
**Subject:** RE: Leeper (Sprucedale) - Cabana Drawing for Stamp & Markups

Markus,

I have completed the preliminary engineering for the Cabana located at 1326 Sprucedale Ave in London, Ontario and confirm that the design for the foundations of the cabana are self-supported on the native undisturbed soils by use of concrete piers and slab foundations. A final P.Eng. stamped copy of the drawings will be completed once the approval is confirmed.

Thanks,  
Dwayne C. Buck, P.Eng.  
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