UPPER THAMES RIVER
CONSERVATION AUTHORITY

Meeting of the Upper Thames River Conservation Authority Hearing Committee – Agenda
Tuesday March 26, 2024 12:30pm, 1424 Clarke Rd. London

Memo to Hearing Committee Members: Sandy Levin, Paul Mitchell, Brian Petrie, Mark Schadenberg, Dean Trentowsky.

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: January 30, 2024**

4. **Business Arising from the Minutes**

5. **Application #33-24**
   Proposed Development within a Riverine Flood Hazard Area Regulated by the Upper Thames River Conservation Authority at 49 Blackburn Crescent, Municipality of Middlesex Centre (Komoka), Ontario

6. **Adjournment**

Tracy Annett, General Manager

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: Aaron and Lindsay Lyndsay (Application #33-24)

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

TAKE NOTICE that a hearing before the Hearings 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 12:30 pm, Tuesday, March 26, 2024 with respect to the application by Aaron and Lindsay Lyndsay to permit interference with a flood hazard associated with a river or stream valley and 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 Watercourses* made pursuant to Section 28 of the Conservation Authorities Act at 49 Blackburn Crescent in the Municipality of Middlesex Centre (Komoka), Ontario.

TAKE NOTICE THAT you are invited to make a delegation and submit supporting written material (electronically) to the Hearings Committee for the meeting of March 26, 2024. If you intend to appear and/or submit further written material, please contact Cari Ramsey ((519)-451-2800 ext. 289, e-mail ramseyc@thamesriver.on.ca). Any further written material (submitted electronically) will be required as soon as possible, 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 Hearings Committee may proceed in your absence, and you will not be entitled to any further notice in the proceedings.

PLEASE NOTIFY THIS OFFICE by 12:00 noon March 18, 2024 (local time) as to whether you and/or your agent(s) 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 4th Day of March 2024

Registered

The Hearings Committee of
The Upper Thames River Conservation Authority

Tracy Annett, General Manager/Secretary-Treasurer

HEARING PROCEDURES

1. Motion to sit as a Hearings Committee to consider the application by Aaron and Lindsay Lyndsay, 49 Blackburn Crescent in the Municipality of Middlesex Centre, Komoka, Ontario (Application #33-24)

1. Chair's opening remarks.

2. Staff will introduce Hearings Committee members (and the UTRCA Solicitor if present) to the applicant/owner, his/her agent and others wishing to speak.

3. Staff will indicate the nature and location of the subject application.

4. Staff will present their report on the application.

5. The applicant and/or his/her agent will speak and also make any comments on the staff report, if he desires.

6. Members of the Hearings Committee will question, if necessary, both the staff and the applicant/agent.

7. The Hearings Committee may make a motion to adjourn and go into camera and/or may make a motion to arrange to visit the subject site.

8. Upon completion of their deliberations, members of the Hearings Committee may make a motion regarding the application or may resolve to defer any decision on the application.

9. A motion will be carried which will culminate in the decision.

10. The Hearings Committee will move out of camera.

11. The Chair will advise the owner/applicant of the Hearings Committee decision, through Conservation Authority staff if the applicant/agent has left the Hearing location or in person if a decision is rendered with the Applicant/agent still on hand at the UTRCA office.

12. If decision is made to "to refuse", the Chair or Acting Chair shall notify the owner/applicant of his right to appeal the decision to the Minister of Natural Resources and Forestry within 30 days of receipt of the reasons for the decision.

13. Motion to move out of the Hearing.

UPPER THAMES RIVER
CONSERVATION AUTHORITY

MEMO

To: Chair and Members of the UTRCA Hearing Committee
From: Cari Ramsey, Land Use Regulations Officer
Date: March 13, 2024
File Number: HC-03-24-02
Agenda Number: 5
Subject: Section 28 Permit Application #33-24 for Proposed Development within a Riverine Flood Hazard Area Regulated by the Upper Thames River Conservation Authority at 49 Blackburn Crescent, Municipality of Middlesex Centre (Komoka), Ontario

Recommendation

THAT Application #33-24 for the proposed development within a riverine flood hazard associated with a river or stream valley and area regulated by the Upper Thames River Conservation Authority (UTRCA) at 49 Blackburn Crescent, Municipality of Middlesex Centre (Komoka), Ontario be denied as it is contrary to UTRCA riverine flood hazard policies.

The Application

A Section 28 *Application for Development, Interference with Wetlands and Alterations to Shorelines and Watercourses* permit application (#33-24) has been submitted for a proposed addition of 1097 square feet to an existing single family residence located on a property entirely regulated by the UTRCA due to the presence of riverine flood hazard land associated with the main branch of the Thames River at 49 Blackburn Crescent in the Municipality of Middlesex Centre (Komoka), Ontario.

Site Information

The property located at 49 Blackburn Crescent in Komoka, ON is entirely regulated by the Upper Thames River Conservation Authority (in accordance with Ontario Regulation 157/06), due to the presence of riverine flood hazard land associated with the main branch of the Thames River. The property is zoned as urban residential. While the existing residence is serviced by the municipal drinking water supply system, it is connected to a private septic system located in the rear yard (also in the floodplain).

Attachment #1 is a basic location map of the property at 49 Blackburn Crescent, Komoka, ON.
Attachment #2 is a UTRCA map showing the approximate size of house and garage in 2000.
Attachment #3 is a UTRCA map showing the approximate size of the house and garage as they are in 2024.

According to current elevation information and flood modeling, the flood depths on the property during a Regulatory (1:250 Year) Flood Event would be estimated to range from a depth of 3.5 metres at the rear of the property to approximately 1.5 metres at the front of the property. According to current flood modeling, the road would overtop in a Regulatory Flood event (potentially to a depth of more than a metre), cutting off flood free access to the lot.

Background

The property at this address falls entirely within an area impacted by the floodplain of the Thames River. Due to the extent of the floodplain (**Attachment 4**), this property lies entirely within the flood hazard and does not have what would be considered "safe/dry access" according to current provincial technical standards (*Ontario Ministry of Natural Resources (OMNR) River and Stream Systems: Flooding Hazard Limit, Technical Guide, 2002*) and UTRCA flood hazard policies. For a scenario such as this (no provision for safe and/or dry access), the accepted UTRCA standard has been that new additions of greater than 25% of the original house size (as it existed on April 25, 2000) would not be supported. The residence and garage already acquired a previous addition greater than the 25% within the last 10 years.

2015 – Previous Proposal/Permit

In 2015, previous landowners and their builder (Oke Woodsmith Building Sytems Inc.) applied to UTRCA (K. Winfield) for an addition to the existing home and garage at 49 Blackburn Crescent. At that point, the single family dwelling and attached garage was a total of 3184 sq. ft. in size. Landowners applied for an increase in size of 1255 sq. ft. which was a 39% increase from the original residence/garage as it existed as of April 2000. In 2015, with the most up-to-date elevation and flood modeling information available at the time, floodproofing requirements for the garage were set at the elevation of 219.31 metres geodetic and the top of the foundation for the addition to the home was at 219.68 metres geodectic. The floodproofing requirements were met through engineering design by the applicant and on November 2, 2015, UTRCA staff approved a 39% increase in size for the residence and attached garage at 49 Blackburn Crescent (Application #165-15).

Google Street View - September 2009

Google Street View - January 2023

2023 – Current Proposal

On August 8, 2023, UTRCA (C. Ramsey) received an application from Oke Woodsmith Building Systems Inc. on behalf of new landowners (Aaron and Lyndsay Lindsay) for a second addition. This new proposal would be for a 1085 sq. ft. addition (an additional 34% over what existed in April 2000) onto the current home which had already had an increase of 1255 sq. ft. (39%) in 2015 (over the original structure size as of April 2000). This new proposal would result in a 73% total increase from the original structure size.

Attachment #5 is meant to quantify the approximate size of the original structure (as it existed in April 2000), the addition(s) constructed in 2015-2016, and the current proposal.

As of 2023, UTRCA engineering staff had a more accurate floodline available due to updated survey and hydraulic modelling information which showed that the flood plain had a far greater reach than initially modelled (**Attachment #4**) and verified that there is no safe or dry access into the property. C. Ramsey informed the applicant that since an addition has already been constructed in the floodplain, and given there is no provision for safe/dry access, any additional increase in size could not be approved at a staff level. The applicant was further advised that they were welcome to apply for a Hearing before the UTRCA Hearing Committee for review. It was also discussed that should they choose to request a hearing, any plans submitted as part of their application would need to confirm how the addition could be floodproofed to an elevation of 220.5 metres geodetic. If floodproofing to 220.5 metres geodetic would not be technically feasible, then any plans submitted would have to show the elevation to which the addition could be floodproofed.

Discussion/Analysis

Copies of the UTRCA Permit Application Form and the Report from Oke Woodsmith Building Systems Inc. (**Attachment #6**), – as well as applicable UTRCA Natural Hazard policies are included with this report. The application has been evaluated for conformity with our general flood hazard policies contained within Section 4.2 of the *UTRCA Environmental Planning Policy Manual (June 2006)*. There are a variety of policies contained within this section that speak to new development, additions, and access. These policies are included with this report for comparison.

Applicable Policy

Please Note: the following policies referenced are taken from the *UTRCA Environmental Planning Policy Manual,* approved by the Board of Directors, June 28, 2006. While the following policies have been included within this report to assist with review, we note that policies in the manual are intricately interwoven and should always be read in their entirety. The UTRCA Environmental Planning Policy Manual (2006) is available on our website at:

http://thamesriver.on.ca/wp-content/uploads//PlanningRegulations/UTRCA-EnvironmentalPlanningPolicyManual-2006.pdf.

A hard-copy can be made available to you upon request. It is advised that you refer to all the policies contained within the manual as other policies, not listed below, may also be applicable.

A) Regulation of Development

The proposed addition would be considered development (by definition).

Definitions

Development:
(a) the construction, reconstruction, erection or placing of a building or structure of any kind,
(b) any change to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure,
(c) site grading, or
(d) the temporary or permanent placing, dumping or removal of any material, originating on the site or elsewhere.

(*Conservation Authorities Act, R.S.O. 1990 c. C.27*)

Through our individual *Development, Interference With Wetlands and Alterations to Shorelines and Watercourses* Regulations and *Ontario Regulation 97/04,* Conservation Authorities have a legislated responsibility to regulate development and activities in or adjacent to river or stream valleys, Great Lakes and inland lakes shorelines, watercourses, hazardous lands, and wetlands. Development taking place on these lands within the watershed requires permission from the Conservation Authority.

Section 3 of Ontario Regulation 157/06 states that "the Authority may grant permission for development in or on the areas described in subsection 2(1) if, in its opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development." These are referred to as the "5 Tests" and these tests must be considered in Conservation Authority decisions for permit applications. (Please note that the UTRCA only considers "4 Tests" as without Great Lakes Shoreline there are no dynamic beaches within our watershed.)

B) General Flood Hazard Policies

Section 4.2.2 (subsections 1 & 2) of the UTRCA Environmental Planning Policy Manual reads:

1. *Floodway* – New *development* is generally not permitted within the *floodway* of any *watercourse*.
2. *Flood Fringe – Development* and *site alteration* is permitted in identified *flood fringe* areas, subject to satisfying *floodproofing* requirements through the UTRCA's Section 28 Permit Process. Specific policies are provided below.
    a) Residential – For new development, no building openings are permitted below the *Regulatory Flood* Elevation. Construction drawings with *floodproofing* considerations must be prepared by a qualified professional. If a basement is proposed, *dry, passive floodproofing* measures must be presented on detailed drawings prepared by a qualified professional. Sufficient surveys and inspections will be required to allow for provision of as-built drawings upon completion of the project. Additions will be permitted (including bedrooms and associated increases in density) if access is safe or dry and *floodproofing* is achieved to the level of the *Regulatory Flood* Elevation. If *floodproofing* to the Regulatory Flood Elevation is not feasible, additions must be less than 25 per cent of the existing ground floor area and must not include bedrooms or require zoning by-law amendments to increase population density.

The above noted (Floodway and Flood Fringe policy) sections are meant to refer to areas of the watershed identified as "Two-Zone". Two-Zones are specific to, among other things, urban areas that have both municipal water and wastewater servicing, and where the flood fringe (outer floodplain with generally slower moving shallower water that poses a lower risk to life and property during a flood event) and the floodway (main channel of the floodplain with generally higher velocity, deeper water that poses a higher risk to life and property during a flood event) have been identified through site specific modeling, depth, and velocity studies. The subject property at 49 Blackburn Crescent does not meet the criteria of an identified Two-Zone but the referenced 25% size increase is a standard consideration in the evaluation of any new additions in a flood hazard. Generally, staff do not approve an increase in size greater than 25% for habitable space in the floodplain in the absence of flood-free access, unless the works fall under a Special Policy Area location approved by the province. Komoka does not fall within an area designated as a provincially approved Special Policy Area.

C) Reference To Structure Sizes As They Exist April 25, 2000

Section 4.2.2.6 of the Environmental Planning Policy Manual reads:

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).

These Replacement Structures in the Floodway policies are meant to refer to the replacement of an existing structure while the current application is for an addition. However, the April 25, 2000 date is the standard point in time that staff use in the comparison and evaluation of sizing for new additions in a flood hazard.

D) Policies Related to New Development, Vehicle, and Pedestrian Access

With regard to access, Section 4.2.1.2 of the Environmental Policy Manual reads:

2. *Development* and *site alteration* may only be permitted in *hazard lands* provided that all of the following conditions can be implemented to the satisfaction of the Authority:

   a) Appropriate *floodproofing* measures, *protection works* and safe and dry *access* during times of *flooding*, *erosion* and other emergencies are provided.

Also with regard to access, Section 4.2.2.13 of the Environmental Policy Manual reads:

> 13. *Access* – For new *development*, vehicular and pedestrian *access* must be dry, to an elevation matching or exceeding the Regulatory Flood Elevation. For existing *development* and *infill* proposals, vehicular and pedestrian *access* must be "safe", within 0.3 metres of the Regulatory Flood Elevation or as determined through use of the following documents: a) Technical Guide – River and Stream Systems: Erosion Hazard Limit and b) Technical Guide – River and Stream Systems: Flooding Hazard Limit (Ministry of Natural Resources & Watershed Science Centre, 2002)

According to current flood modeling, the road may overtop in a Regulatory Flood Event to an elevation of more than a metre and accordingly, there is neither safe nor dry flood-free access to the property.

E) General Policy for Addition in a Flood Hazard

Section 4.2.2.4 addresses our general addition policy:

> 4. Additions to existing buildings and *replacement structures* may be permitted in the *flood plain* subject to satisfying the Authority's requirements.

As "subject to satisfying the Authority's requirements" has always been a particularly vague policy direction, staff use the following internal guidelines when reviewing addition proposals to ensure greater consistency, clarity, and precedent setting for applications in what constitutes the "Authority's requirements":

- Size increases for additions should be calculated based on the structure as it existed on April 25, 2000, as per the "replacement structures in the floodway" policy.
- Where floodproofing to the regulatory flood elevation is not feasible, additions must be less than 25% of the existing gross floor area (GFA) and building area (BA).
- **For Residential:**
  - Additions (up to 50%) will be permitted (including bedrooms and associated increases in density) if access is safe or dry and floodproofing is achieved to the level of the Regulatory Flood Elevation.
  - If floodproofing to the regulatory flood elevation is not feasible or they do not have safe access, additions must be less than 25% of the existing ground floor area and must not include bedrooms or require zoning by-law amendments to increase population density.

The addition for 49 Blackburn Crescent as currently proposed:

- Will be larger than 25% of the structure as it existed in April of 2000.
- Does not have flood-free access.
- Contains one opening below the level of the Regulatory Flood Elevation. Generally, the UTRCA does not permit new openings (windows, doors, servicing vents) below the level

of the floodproofing elevation. However, they have advised that the proposed door is a floodproofing door made to withstand hydraulic pressures.

Therefore, the proposed addition does not meet all of the standard review criteria for staff to permit another addition greater than 25% of what existed in April 2000. This proposal is contrary to the types of residential additions that have been approved at a staff level in a flood hazard.

Conclusion

The Authority's approval is required for the issuance of permits under Ontario Regulation 157/06 – *Development, Interference with Wetlands and Alterations to Shorelines and Watercourses,* in accordance with Section 28 of the *Conservation Authorities Act*. Applications which conform to this regulation and 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. If applications are submitted which do not conform to board-approved policy, Authority staff cannot approve the application and a hearing may be requested. The application is then subject to the consent of the UTRCA Hearing Committee. Only the UTRCA Hearing Committee can refuse the application.

This report is provided to the Hearing Committee to advise that the application does not meet the riverine flood hazard policies (found within Section 4 of the *UTRCA Environmental Planning Policy Manual* (June 2006) and the standard review guidelines used by UTRCA staff. Staff recommend denial of Application #33-24 as it is contrary to policy and previous staff approvals. The applicant has advised they wish to proceed with a hearing before the UTRCA Hearing Committee to obtain consent for the proposed addition within the riverine flood hazard.

Recommended by:

Jenna Allain, Manager
Environmental Planning and Regulations

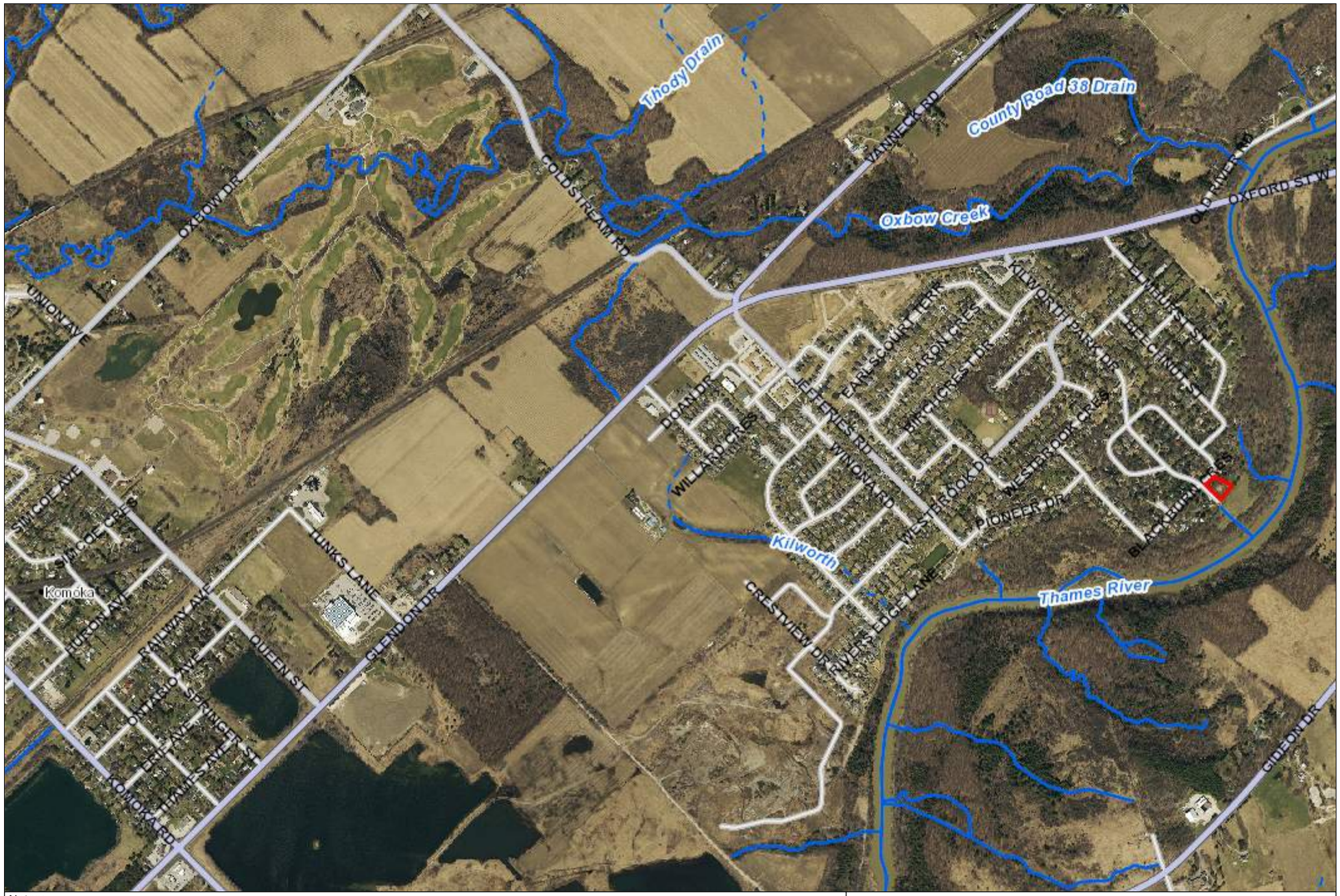
Prepared by:

Cari Ramsey
Land Use Regulations Officer

c.c. Members of the UTRCA Hearing Committee
Tracy Annett, UTRCA
Grant Inglis, UTRCA Solicitor

Attachments:

Notice of Hearing
Hearing Procedures
Attachment #1 – Location map of the property at 49 Blackburn Crescent, Komoka, ON
Attachment #2 – UTRCA map showing approximate size of house in 2000
Attachment #3 – UTRCA map showing approximate size of house as it is in 2023
Attachment #4 – UTRCA 2024 floodplain mapping
Attachment #5 – House size increases 2000 – 2024
Attachment #6 and 6a – Oke Woodsmith Building Systems Inc. report and Application for Consent



Notes:
49 Blackburn Cres, Komoka, Middlesex-Centre

Created By: RB February 29, 2024

* 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.

0 300 600 1,201
metres
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N

Regulated Areas

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

- Place Name
- UTRCA Watershed (2017 LiDAR)
- Watercourse (UTRCA)
  - Open
  - Tiled
- Perth NHSS Woodland 2015 Imagery (Draft,2019)
  - Candidate for Ecologically Important
  - Ecologically Important
  - Significant Ecologically Important

ATTACHMENT #1

The mapping is for information screening purposes only, and shows the approximate regulation limits. The text of Ontario Regulation 157/06 supersedes the mapping as represented by this data layer. This mapping is subject to change. A site specific determination may be made by the UTRCA.

This layer is the approximate limit for areas regulated under Ontario Regulation 157/06 - Upper Thames River Conservation Authority: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses, which came into effect May 4, 2006.

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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.

UPPER THAMES RIVER CONSERVATION AUTHORITY

Regulated Areas

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 (2017 LiDAR)
- Assessment Parcel (MPAC)
- Watercourse (UTRCA)
  - Open
  - Tiled

ATTACHMENT #2

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UPPER THAMES RIVER CONSERVATION AUTHORITY

Notes:
49 Blackburn Crescent, Komoka - 2000

Created By: RB March 4, 2024

* 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.

0 10 20 40
metres
1:500

N

Regulated Areas

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 (2017 LiDAR)
- Watercourse (UTRCA)
  - Open
  - Tiled

ATTACHMENT #3

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UPPER THAMES RIVER CONSERVATION AUTHORITY

Notes:
49 Blackburn - 2020

Created By: cr March 18, 2024

* 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.

0 15 30 60
metres
1:750

N

49 Blackburn Cr.

Komoka, ON

Legend

- Subject Parcel
- Assessment Parcel (MPAC)
- Flood Hazard (UTRCA)

Map Created by UTRCA
Mar 04, 2024

Notes:

Flood model and mapping updates are ongoing. Updated information may need to be considered for your project as it becomes available.

Please note: Any reference to scale on this map is only appropriate when it is printed landscape on Letter-sized (8.5"x11") paper. Contours are for display purposes only and are not a definitive source for elevations.

Horizontal Datum : NAD83 UTM Zone 17
Vertical Datum: CGVD 1928

N

0 10 20

metres

The mapping is for information screening purposes only, and shows the approximate flood hazard limits. The text of Ontario Regulation 157/06 - Upper Thames River Conservation Authority: Development, Interference with Wetlands and Alterations to Shorelines and Watercourses (which came into effect May 4, 2006) supersedes the mapping as represented by this data layer. This mapping is subject to change. A site specific determination may be made by the UTRCA.
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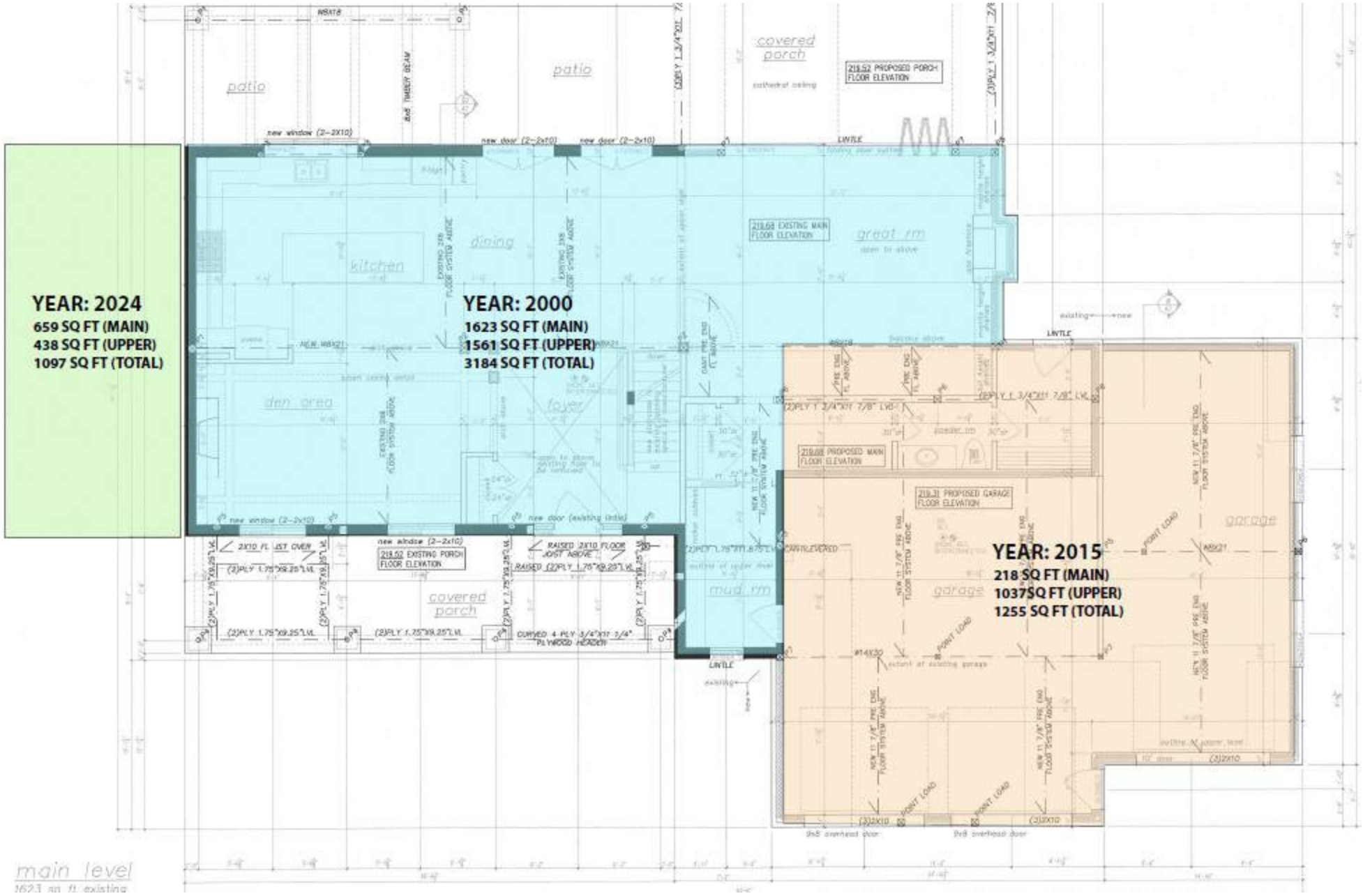

ATTACHMENT #5

Oke Woodsmith Building Systems Inc.

Upper Thames River Conservation Authority Attention: Cari Ramsey
1424 Clarke Road
London, Ontario, N5V 5B9

Attention: Cari Ramsey
From: Kristi Willmore
RE: Hearing - 49 Blackburn Crescent, Part Lot 31, Concession Geographic Township of Komoka, Municipality of Middlesex, Aaron Lindsay

Cari, please find the attached documents for the proposed addition for the Lindsay Hearing. Proposed 2-story addition on to the existing residence.

Description:
This is a Proposal for a 2-story addition to be added to the existing residence. The home owners have been in the home since August of 2022 and realize that they need more space for family and guests to visit comfortably.

We have shown that the proposed development for the addition fits within Municipal standards of the bylaws for setbacks and lot coverages, etc.
To Ensure all flood plain regulations align with the design and have been considered; the professional services of a licensed Engineering company (MTE Engineering) were obtained. The professional services were also obtained from (FlowSpec) to ensure and assess the feasibility of onsite wastewater and the characterization of the subsurface for the septic.

The new addition will include a main level (659 sq ft) and second story (438 sq ft), the design is conceptual and will be finalized as we look for your guidance in the development of the property in your governance.

Sincerely,
Kristi Willmore
Kristi Willmore

HEARING
LINDSAY FAMILY

OWNERS
Aaron and Lyndsay Lindsay
49 Blackburn Cresent
Komoka, ON

OKE WOODSMITH BUILDING SYSTEMS INC.
70964 Bluewater Highway,Grand Bend, ON N0M 1T0
jeremy.oke@okewoodsmith.com
kwillmore@okewoodsmith.com
rsoke@okewoodsmith.com
www.okewoodsmith.com

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FIGURES

DRAWINGS

Statement to committee:

Owner:
Aaron and Lyndsay Lindsay
49 Blackburn Cresent
Komoka, ON

Lindsay Family - Address to the Committee:

I would like to formally present a proposal for the addition to be added on to our residence located at 49 Blackburn Crescent, Komoka, Ontario.

We have familiarized ourselves with the floodplain regulations including the restrictions on the type of construction, elevation requirements, and mitigation measures to reduce flood risk. We are seeking an exception to the limitation of addition size of 25%, to accommodate the unique needs of our family.

Our property is of a larger-than-normal lot size in the community, and should also be an exception to the limiting size restrictions to accommodate the unique needs of our family.

We have hired professionals, such as MTE engineering firm who are familiar with the history of our home and have extensive experience and expertise in floodplain management. They have assessed our property, provided expert advice, and helped develop a plan that aligns with the regulations. Our objective is to create an addition to our home that not only meets the needs of our family but also contributes to the overall aesthetics of the area.

The primary motivation behind this proposal is to provide a supportive living arrangement for my aging parents. As they enter a phase where additional assistance is required, having a secondary suite within our home will enable us to offer the necessary care and support while maintaining their autonomy. As of recently my father has been diagnosed with Alzheimer's. As his condition worsens, he will require ongoing assistance and care. As a result, our family would like to create a supportive living environment that allows him to age in place while receiving the necessary care and attention from his loved ones. We believe this will enable us to offer the required care within the comfort and familiarity of our family home.

Thank you for considering our proposal. We appreciate the role of the conservation authority in ensuring responsible development, and we look forward to your decision for the possibility of creating a supportive and environmentally conscious living space for our aging parents.

Sincerely,

Attendees:

Home Owner - Aaron Lindsay
Jeremy Oke – Owner - Oke Woodsmith Building Systems Inc.
Kristi Willmore – Designer - Oke Woodsmith Building Systems Inc.
Mario Duscio - Structural Engineer - MTE Consultants Inc.

Objective:

To gain permission for development in creating a secondary suite to accommodate the needs of the family.

Explanation of Property:

History of property:

Residential Renovation and Construction information as of 2015

Oke Woodsmith Building Systems Inc. has once more been retained as the building contractor for this project. The original renovation was completed in 2015. The 2015 renovations were constructed at a Finished Floor Elevation of 219.68. Due to the Site grading limitations and building code requirements, it was the concern of MTE Engineering, at that time, that the exterior grading was not to be raised anymore and it would restrict the water flow around the building.

Floodproofing measures that were included into the construction when the renovations took place in 2015 are listed below and referenced in the Figures 1-3 of this document.

1. Figure 1 - *Englobe Corp.* Conducted T-Time Testing (Percolation Time Assessment) on November 20, 2015. The testing and results are found in Figure 1
2. Figure 2 - *MTE Report from 2015.* The Report reflects the flood proofing measures taken from the addition and renovations competed in 2015.
3. Figure 3 - *MTE Report from 2024.* Review of Flood Proofing Measures for the Proposed Addition.
4. Figure 4 – *FlowSpec Engineering Report.* Completed on March 4, 2024

Improvements Made to the Home:

Improvements made to the home since the Lindsay family have taken ownership as of August of 2022.

1. Updates to the Septic Tank and Water Shed, which was completed by Atchinson Plumbing & Heating.
2. RH2O Conducts annual Site Inspections that include sample testing and measurements of sludge levels.

Proposed New Addition Explanation:

To ensure all floodplain regulations align with the design and have been considered; the professional services of a licensed Engineering company (MTE Engineering) were obtained to ensure the addition meets flood-resistant Building Design Standards and the addition shall be flood-proofed as required by the Upper Thames River Conservation Authority (UTRCA).

The proposed new addition will be Slab-on-Grade and will include Insulated Concrete Form (ICF) walls that will be waterproofed from the footings to the top of floor and will withstand the lateral pressures. The top of the concrete foundation wall around the proposed addition will be at the regulatory flood elevation of 220.50 meters.

The Exterior Foundation will be wrapped with Damproofing (Roll or Spray Type) and drainage board (Dimpleboard). The new foundation walls have been designed for lateral loads due to soil pressure and potential flood-water pressure and will provide a drainage system under new flood slabs that are connected to a sump that empties outside to prevent hydrostatic uplift on the concrete floor slab. There is an option of continuing the ICF to the second story using the floor-system as support if needed.

The concrete foundation wall for the addition has been reviewed by a structural engineer (MTE) and designed to resist the lateral load imposed by flood waters up to an elevation of 220.00 meters.

In regard to the Septic System, the services from FlowSpec Engineering were obtained to complete an assessment of the current subsurface, via test pit. The finding and full report are included in Figure 4 of this document.

In the proposed design, Flood Mitigation techniques were also met by introducing a flood door at the rear of the addition, that will be installed in the opening between the existing and new addition. By including this door and waterproofing at the end wall of the existing house, the new addition will be "dry-flood protected", meaning no water should enter into the addition. The door openings will be the only cutout from the floor level to the top of wall and will have added outswing doors to handle the pressure at that point. The windows in the addition are at or above the 220.50 meter geodetic and can be used as means of egress if necessary.

Our design prioritizes minimal impact on neighboring properties, and adheres to environmental regulations to preserve the integrity of local watercourses. The proposed addition demonstrates compliance with the Act by meeting the regulated setbacks and property line regulations.

It is our belief that the proposed design will benefit the community by increasing the property value and implementing design concepts that reflect forward thinking for aging-in-place housing for residents.

To whom it may concern:

The Lindsay family have been our neighbors for 1.5 years. We have grown to know them as being a family that is community oriented, respectful and kind neighbors. They show regard to the landscaping and upkeep of their property. We know that family matters to them and have learned recently about the decline in their parents' heath. It would make things easier for them and the family to have the parents close by to look after them and care for them in a way that I know they all want to.

I would like to give my personal endorsement for the Lindsay family to be granted permission to build the addition to their home.

[redacted]
45 Blackburn Cresent

To whom it may concern:

The Lindsay have been great neighbors. We fully support them building an addition and give them permission to do so. We think it will be good for the community.

[redacted]

41 Blackburn Cresent

Figure 1 – ENGLOBE CORP (2015)

Englobe

englobecorp.com

November 27, 2015

Mr. Steve Poortinga
Oke Woodsmith Building Systems Inc.
70964 Bluewater Highway
Grand Bend, Ontario
N0M 1T0

Subject: T-Time Testing for Oke Woodsmith
Percolation Time Assessment
Van Holst Residence
Lot 31, Registered Plan No. 958
Blackburn Crescent and Kilworth Park Drive
Municipality of Middlesex Centre, Ontario
161-B-0008978-5-TU-L-0001-00

Dear Mr. Poortinga:

Englobe Corp. is pleased to submit this letter that provides the results of a particle size distribution analysis and percolation time assessment for a sample of soil submitted to our laboratory on November 20, 2015. It is understood that the sample was taken from the above-referenced property by the client.

The results of the particle size distribution analysis are presented on Figure 1, appended, and indicate that the sample contains 2% gravel, 61% sand, 30% silt, and 7% clay. The percolation time of the sample was assessed based on soil type as described by the Unified Soil Classification System in MMAH Supplementary Standard SB-6 "Percolation Time and Soil Descriptions" of the Ontario Building Code (OBC), and determined by the laboratory test results. The sample is classified as "SM", for which the OBC specifies a percolation time (T) in the range of 8 to 20 min/cm. A minimum percolation time of T=20 min/cm is appropriate for the sample.

In addition to gradation, the percolation time of the soil is dependent upon many on-site factors that were not considered as part of this assessment, such as density, structure, and moisture content. It is the responsibility of the sewage system designer to consider these factors prior to choosing a percolation time suitable for design.

Englobe supervised on-site the excavating of one test pit in the area of the proposed sewage system installation on November 26, 2015 to confirm that the soil and groundwater conditions. The test pit encountered approximately 300 mm of surficial topsoil overlying native silty sand, which was in turn underlain by sand and gravel. The native soils were damp to moist at the time of the fieldwork. The test pit was terminated in the sand and gravel at a depth of 2.1 m below existing grade. The test pit was open and dry, and no groundwater was encountered.

Englobe Corp.

T 519.273.0101
F 519.273.7188
info@englobecorp.com

25 Market Place
Stratford (ON)
Canada N5A 1A4

Figure 2 – MTE REPORT (2015)

MTE
More Than Engineering

STRUCTURAL REPORT

JOB NAME:	Van Holst Residence	MTE FILE NO.:	40857-100
LOCATION:	49 Blackburn Crescent, Komoka	DATE/TIME:	October 15, 2015
CONTRACTOR:	Oke Woodsmith	WEATHER:	N/A
C.C.:	Karen Winfield - UTRCA		

Review and Comment:

At the request of Oke Woodsmith, MTE reviewed the flood proofing measures for the proposed addition and renovation to the existing single family residential house at 49 Blackburn Crescent in Komoka. The existing house is in the floodplain and the main floor elevation is 219.68. This is about 0.32 m (12") below the regulatory flood elevation of 220.00. In addition, the existing garage floor elevation is 219.00. This is 1.0 m (39") below the regulatory flood elevation of 220.00.

The proposed work involves renovating the interior of the existing house and the construction of a new expanded garage on the west side of the house. It is not feasible for the addition to fully conform to the Flooding Hazard Policy because the existing house is below the regulatory flood elevation of 220.00. Outlined below is a description of the proposed measures being proposed to mitigate damage in the event of a flood.

1. The garage floor is being raised 12" (0.3m) to elevation 219.31 to minimize the potential for flooding. This will apply to the new and existing garage floor areas. Due to site grading limitations and building code requirements we are unable to raise the floor any higher. In addition, we were concerned that raising exterior grades further to accommodate a higher floor would restrict water flowing around the building in the event of a flood.
2. There will be no bedrooms on the main floor of the house. All bedrooms will be on the second storey level (elevation 222.42) above the regulatory flood elevation of 220.00.
3. The addition is being constructed on the downstream side of the house where water levels will be slightly lower and where the addition does not restrict water flowing around the house.
4. The top of the concrete foundation wall around the proposed garage will be at elevation 219.69. This is the same elevation as the existing main floor.
5. The concrete foundation wall for the addition has been reviewed by a structural engineer and designed to resist the lateral load imposed by flood waters up to an elevation of 220.00.
6. Lastly, the existing house and proposed addition are at least 30 meters from the bank of the river.

Based on the measures noted above, it is our opinion that no new hazards will be created and existing hazards will not be aggravated. In addition, the proposed work will have no adverse environmental impact on the floodplain.

If you have any questions or require additional information please contact the undersigned.

Sincerely,
MTE Consultants Inc.

LICENSED PROFESSIONAL ENGINEER
S. T. COOPER
90256641
PROVINCE OF ONTARIO

Stephen Cooper, P.Eng.

Figure 3 – MTE REPORT (2023)

MTE Consultants
365 Home St., Stratford, ON N5A 2A5

January 12, 2023

MTE File No.: C 40857-102

Cari Ramsey
Upper Thames River Conservation Authority
1424 Clarke Road
London, ON N5V 5B9

Dear Cari Ramsey:

RE: Lindsay Residence
49 Blackburn Crescent, Komoka, ON N0L 1R0

At the request of Oke Woodsmith, MTE reviewed the flood proofing measures for the proposed addition and renovation to the existing single family residential house at 49 Blackburn Crescent in Komoka. The existing house is in the floodplain and the main floor elevation is 219.68. This is about 0.82 m (+/-32") below the regulatory flood elevation of 220.50. In addition, the existing garage floor elevation is 219.00. This is 1.5 m (59") below the regulatory flood elevation of 220.50.

The proposed work involves the construction of a new addition on the east side of the house. It is not feasible for the addition to fully conform to the Flooding Hazard Policy because the existing house is below the regulatory flood elevation of 220.50. Outlined below is a description of the proposed measures being proposed to mitigate damage in the event of a flood.

1. There will be no bedrooms on the main floor of the house. All bedrooms will be on the second storey level (elevation 222.42) above the regulatory flood elevation of 220.50.
2. The top of the concrete foundation wall around the proposed addition will be at the regulatory flood elevation of 220.50.
3. The concrete foundation wall for the addition has been reviewed by a structural engineer and designed to resist the lateral load imposed by flood waters up to an elevation of 220.00.
4. There will be no opening in the proposed addition below the regulatory flood elevation except for a flood proof door at the rear of the addition.
5. Lastly, the existing house and proposed addition are at least 30 meters from the bank of the river.

Based on the measures noted above, it is our opinion that no new hazards will be created and the existing hazards will not be aggravated.

If you have any questions or require additional information please contact the undersigned.

Body

Yours Truly,

MTE Consultants Inc.

Mario Duscio

Mario Duscio, M.Eng, P.Eng
Structural Engineer
519-271-7952 ext. 2347
mduscio@mte85.com

Encl.

CC:

M:\40857\102\40857-100_LTR_2024-01-12.docx

March 4, 2024

Oke Woodsmith Building Systems Inc.
Attention: Kristi Willmore
70964 Bluewater Highway
Grand Bend, ON N0M 2T0

File Number: 00961-1
Document Number: 00961-1.01

Dear Ms. Willmore:

Subject: Onsite Wastewater Servicing Assessment for
Existing Dwelling with Proposed Addition
Lindsay Property
49 Blackburn Crescent, Kilworth
Municipality of Middlesex Centre

Our firm was retained to assess the technical feasibility of onsite wastewater servicing of an existing single-family dwelling with a proposed addition at the above-referenced location.

The property is currently serviced by an onsite "Class 4" wastewater system, comprised of a WSB Clean treatment unit, pump tank, and shallow buried trench bed. The system is insufficiently sized to service the dwelling, upon expansion; and therefore, the purpose of this assessment is to derive an appropriate servicing solution for the expanded dwelling from the following options: (i) upgrade of the existing system, (ii) a new system dedicated to the addition only, or (iii) a new system for the entire dwelling, upon expansion. This report sets forth our assessment and recommendations.

Characterization of Subsurface

We recently explored the subsurface via test pit excavation (by others) and performed laboratory particle-size analysis of collected soil. The resultant test pit and soil particle-size distribution information are enclosed, and the test pit location and approximate elevation are depicted on Figure A, enclosed.

The soil stratigraphy encountered in the test pit was comprised of surficial topsoil and silty sand to a depth of 0.8 m (approximate elevation of 216.7 m), overlying a deposit of sand and gravel. Major groundwater seepage was observed at a depth of 1.7 m (approximate elevation of 215.8 m); and given recent snowmelt and rain, is taken to represent the seasonal high groundwater-table.

Derivation of Assessment Parameters

Soil percolation time (i.e., infiltration rate) and peak wastewater flow were the principal parameters used for the assessment, and are discussed further in the following sections.

Soil Percolation Time

A soil percolation time was determined using the following methodology: (i) classification of each relevant soil deposit using the Unified Soil Classification System, (ii) correlation with a percolation time using Ontario Building Code ("OBC") Supplementary Standard SB-6, "Percolation Time and Soil Descriptions", and (iii) modification, as necessary, to reflect observed physical characteristics (i.e., density, consistency, and structure). Table 1 summarizes the relevant soil deposits and corresponding percolation times, as follows:

Table 1: Percolation Time

Soil Description	Unified Soil Classification	Percolation Time (min/cm)
SILTY SAND (above approximate elevation of 216.7 m)	SM	20 (Englobe, 2015)
SAND AND GRAVEL, trace silt (below approximate elevation of 216.7 m)	SW	3

Based on founding of a new bed on the lower sand and gravel deposit, a soil percolation time of 3 minutes per centimetre ("min/cm") was used for the assessment.

Peak Wastewater Flow

A theoretical peak wastewater flow was calculated for the entire dwelling, upon expansion, using supplied occupancy data and prescribed flow-rates from OBC Table 8.2.1.3.A. Table 2 details the calculation, as follows:

Table 2: Peak Wastewater Flow – Entire Dwelling (upon expansion)

Occupancy Data		Peak Wastewater Flow (L/day)
A	4 bedrooms *(3 current plus 1 proposed)*	2000
B	515 m^2 finished floorspace (above-grade storeys only) *(413 m^2 current plus 102 m^2 proposed)*	2900
C	44.5 plumbing fixture units as per OBC Table 7.4.9.3. *(33.5 current plus 11 proposed)*	1250
Total = A + (greater of B and C)		**4900**

A peak wastewater flow of 4900 L/day was used for the assessment.

Preliminary Design

With consideration for the options described above (upgrade of the existing system, a new system dedicated to the addition only, or a new system for the entire dwelling, upon expansion), the presence of a soil deposit with a favourable percolation time (i.e., sand and gravel) would accommodate construction of a new "conventional" system (i.e., septic tank treatment only) to service the entire dwelling, upon expansion. This option would thereby eliminate the existing WSB Clean treatment unit (with its inherent mechanical componentry and requirement for a maintenance/servicing agreement) and shallow buried trench bed.

The new system is recommended to consist of a septic tank (with a minimum effective volume of 9800 L) and an inground trench bed with a total Type II chamber length of 50.4 m. A preliminary layout of the bed is illustrated on Figure A to demonstrate spatial feasibility.

The following calculations depict the OBC's minimum capacity requirements for a septic tank and inground trench bed:

Septic Tank

V = *Q x 2 (OBC Sentence 8.2.2.3.(1))*
= *4900 L/day x 2*
= *9800 L*

where:
V = required minimum effective volume (L)
Q = peak wastewater flow (L/day)

Inground Trench Bed

L = *Q x T ÷ 300 (OBC Sentence 8.7.3.1A.(2))*
= *4900 L/day x 3 min/cm ÷ 300*
= *49 m*

where:
L = required minimum length of Type II chamber (m)
Q = peak wastewater flow (L/day)
T = soil percolation time (min/cm)

The preliminary system layout illustrated on Figure A demonstrates compliance with the OBC's minimum capacity requirement, as well as the OBC's minimum required clearances.

Of note, the septic tank location is yet to be confirmed, and is therefore shown conceptually on Figure A; a specific location will be illustrated in future detailed design documents. The property's location within the regulatory floodplain of the Thames River requires the septic tank to be anchored in accordance with OBC Sentence 8.2.2.2.(7).

Conclusion

In conclusion, based on the soil percolation time and peak wastewater flow determined above, it is the opinion of our firm that the proposed addition to the existing dwelling is technically feasible with respect to onsite wastewater servicing. The entire dwelling, upon expansion, may be serviced by a wastewater system comprised of a septic tank and inground trench bed (as illustrated preliminarily on Figure A).

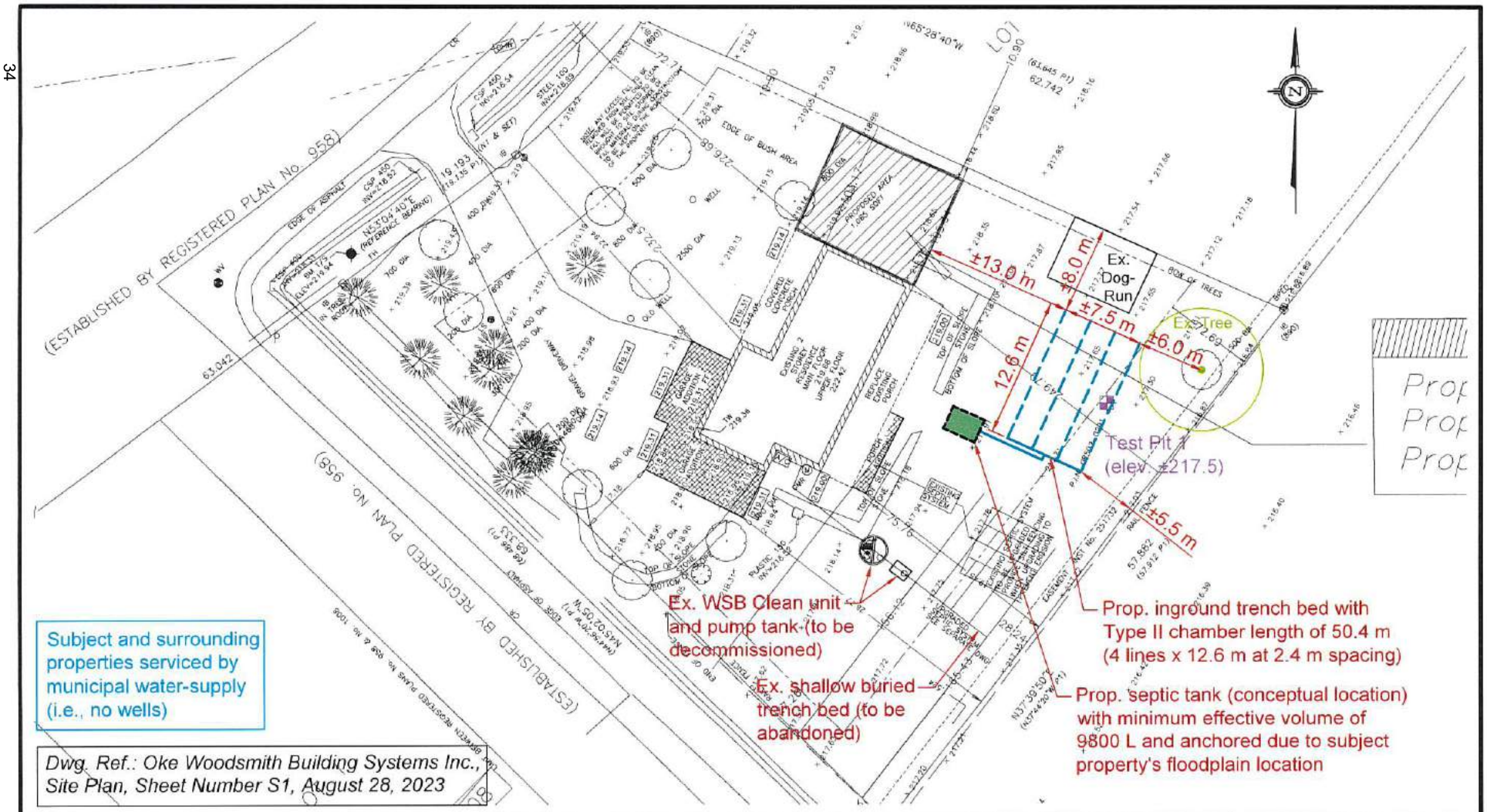
Upon site plan approval, a detailed wastewater system design should be prepared and submitted for approval to the Municipality of Middlesex Centre Building Department.

Should you have any questions regarding the above, please do not hesitate to contact the undersigned.

Yours truly,
FlowSpec Engineering Ltd.

David Morlock, P.Eng.
Consulting Engineer

encl. Figure A - preliminary layout plan
Test pit and particle-size distribution information



FlowSpec ENGINEERING
FlowSpec Engineering Ltd., 31 McBrine Drive, Unit 1, Kitchener, ON N2R 1J1
Office: 519-744-9336 Web: www.flowspec.ca

Client:	Oke Woodsmith Building Systems Inc.
Project:	Onsite Wastewater Servicing Assessment for Existing Dwelling with Proposed Addition Lindsay Property
Location:	49 Blackburn Crescent, Kilworth Municipality of Middlesex Centre
Figure:	Preliminary System Layout

No.	Date	Revision	Checked

Scale: 0 5 10 15 — 1:500
Drawn: DM
Date: March 4, 2024
File Number: 00961-1
Figure Number: A

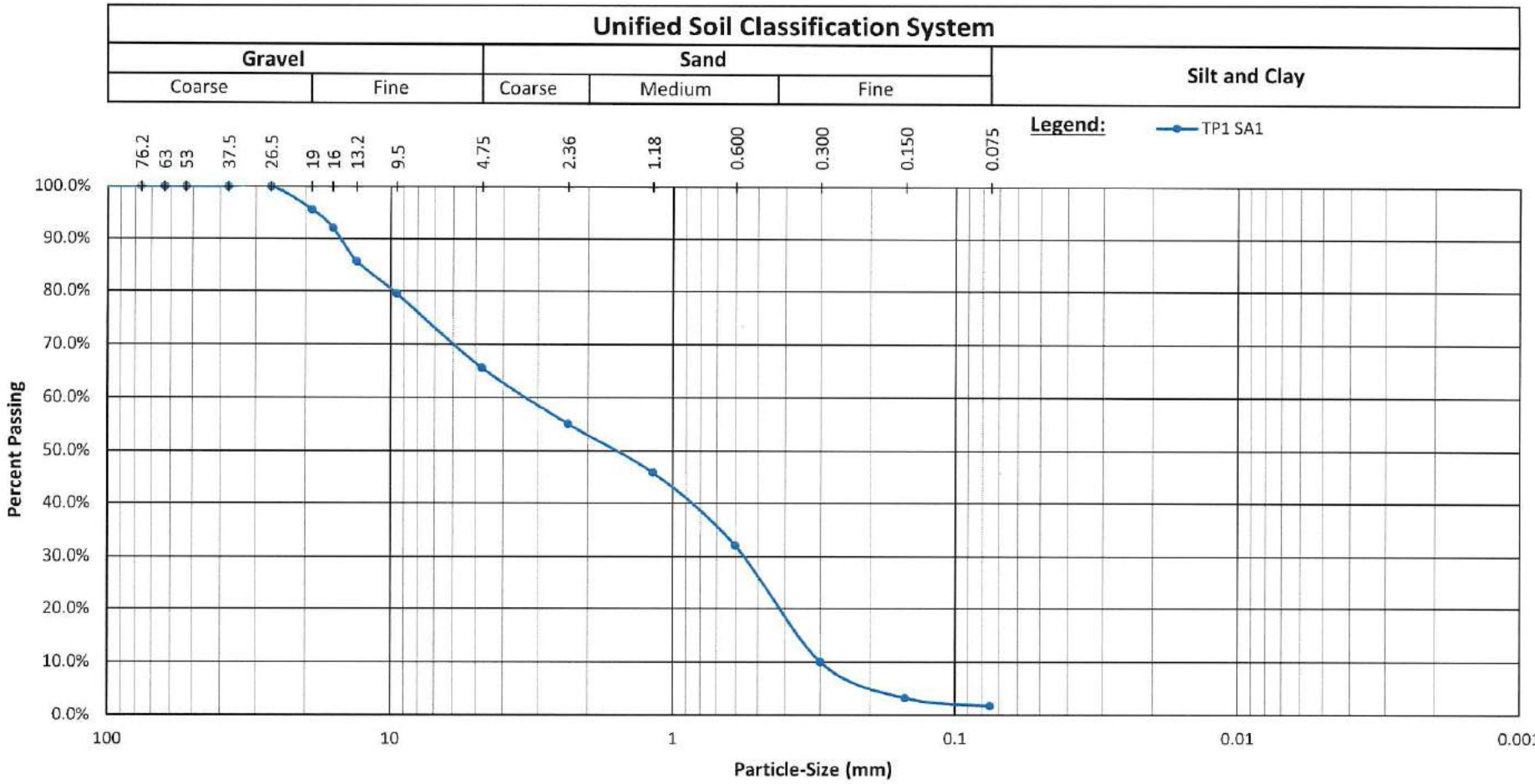
Test Pit 1

Date of excavation: *February 22, 2024*
Machine: *Mini-Excavator*
Ground-surface elevation: *±217.5 m (geodetic)*
Field Technician: *DM*

Depth (m)	Elevation (m)	Soil Description	Sample No.	Sample Depth (m)
0.0	±217.5	*TOPSOIL*: Dark brown silt, moist		
0.2	±217.3	*SILTY SAND*: Loose to compact, light brown fine sand, some silt to silty, moist		
0.8	±216.7	*SAND AND GRAVEL*: Loose to compact, brown sand and gravel, trace silt, damp	1	1.0 - 1.3
1.7	±215.8	saturated		

Comments:

- test pit terminated due to wet caving at 2.0 m (±215.5 m)
- major groundwater seepage observed at 1.7 m (±215.8 m)
- caving observed at 1.5 m
- irrigation line and associated tracer-wire encountered at 0.15 m



Test Pit No.	Sample No.	Depth (m)	D_{60}	D_{10}	C_U	% Gravel	% Sand	% Silt and Clay	Classification
1	1	1.0 - 1.3				34.4%	63.9%	1.7%	

FlowSpec ENGINEERING

FlowSpec Engineering Ltd., 31 McBrine Drive, Unit 3, Kitchener, ON N2R 1J1
Office: 519-744-9830 Web: www.flowspec.ca

Client: Oke Woodsmith Building Systems Inc.

Project: Existing Dwelling with Proposed Addition
Lindsay Property

Location: 49 Blackburn Crescent, Kilworth
Municipality of Middlesex Centre

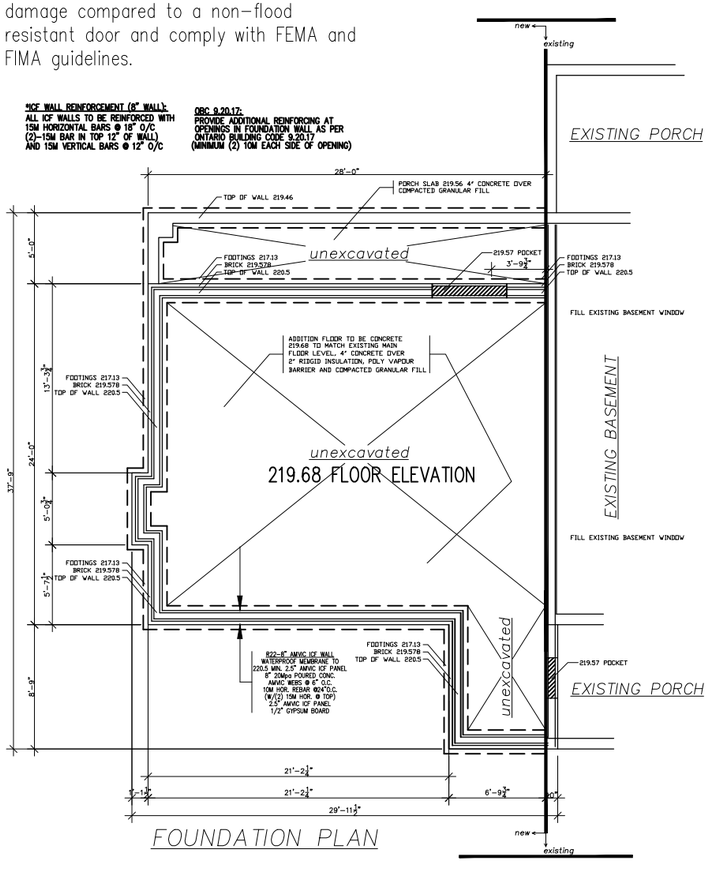
Particle-Size Distribution

File No.: 00961-1

D1 – Flood Doors

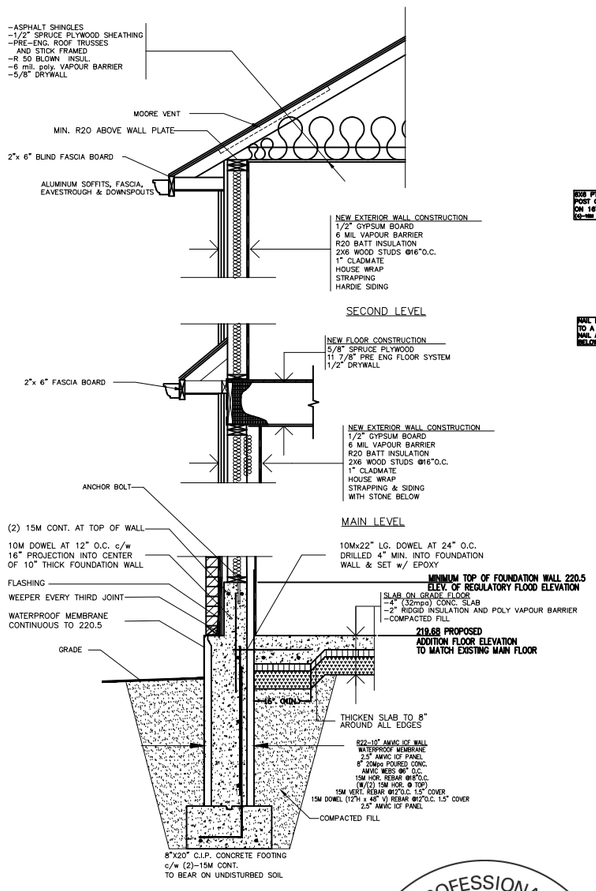
Flood–resistant door systems are designed to prevent floodwater from entering your building. These systems are a great option if you are worried about rising floodwater pushing against your exterior doors, or if you have a building/room that could be easily damaged by water but still needs to be accessible (pump rooms, electrical/data centers, manufacturing floors, warehouses, etc.). Flood doors allow for a small amount of water leakage, but not enough to cause severe damage to the building's interior; they still help to minimize damage compared to a non–flood resistant door and comply with FEMA and FIMA guidelines.

Flood doors are "passive" systems, meaning that you don't have to activate them during a flood; they are constantly protecting your facility as long as the door is closed and maintained. These systems are engineered to withstand hydrostatic pressure caused by floodwater pushing against the opening. Their integrity will not be compromised by flooding as long as the water level does not exceed the designated maximum water level.

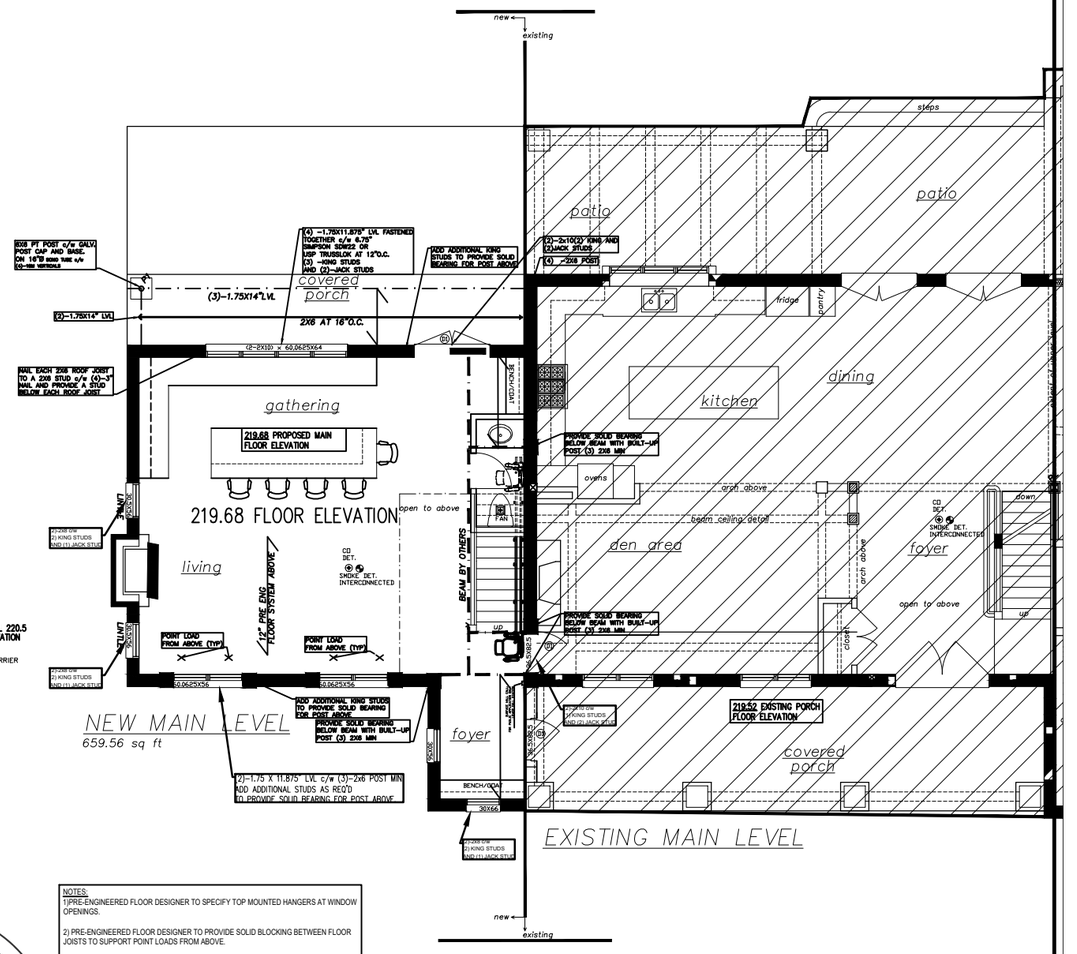


NOTE: INSTALL (2) ADDITIONAL 15M VERTICALS DIRECTLY BELOW ANY BUILT UP POST SUPPORTING A GIRDER TRUSS OR ANY BEAM BEARING POCKETS.

NOTE: INSTALL 24"x24" BENT HORIZONTALS AT ALL CORNERS. SIZE AND SPACING TO MATCH HORIZONTAL BARS IN THE WALL.



D1 NEW WALL SECTION
A1-3 SCALE 3/4"=1'–0"



NOTES:
1) PRE-ENGINEERED FLOOR DESIGNER TO SPECIFY TOP MOUNTED HANGERS AT WINDOW OPENINGS.

2) PRE-ENGINEERED FLOOR DESIGNER TO PROVIDE SOLID BLOCKING BETWEEN FLOOR JOISTS TO SUPPORT POINT LOADS FROM ABOVE.

3) ADD ADDITIONAL STUDS AS REQ'D TO PROVIDE SOLID BEARING BELOW ALL POSTS FROM ABOVE.

LICENSED PROFESSIONAL ENGINEER
DIGITAL ORIGINAL
M. S. DUSCIO
100505795
Marie Duscio
2024-01-12
PROVINCE OF ONTARIO

MTE CONSULTANTS INC. 40857-102
STRUCTURAL DESIGN ONLY.

ENERGY EFFICIENCY DESIGN SUMMARY
COMPLIANCE OPTION – SB–12 Prescriptive – Pkg "A5"
Zone 1, 9216 AFUE, Gas Heat
GROSS WALL AREA – 375.42 sq m
GROSS WINDOW AREA – 52.39 sq m
% OF GLAZING – 13%
REQUIRED MAX U – 0.25
NOTE: GROSS WALL AREA IS CALCULATED FROM GRADE TO THE TOP OF THE UPPER MOST CEILING. GLAZING CALCULATIONS DO NOT INCLUDE ENTRY DOORS AS PER SB–12 2.1.1.1.(9)

KEY
HATCH INDICATES EXISTING STRUCTURE

OKE WOODSMITH BUILDING SYSTEMS INC

CONSTRUCTION

ISSUED FOR

PROJECT LOCATION: 49 BLACKBURN CREST. ZURICH, MUNICIPALITY

DRAWING DATE: January 8, 2024

PROJECT: LINDSAY PRELIMINARY DESIGN
2023 ADDITION

PROJECT POSITION:

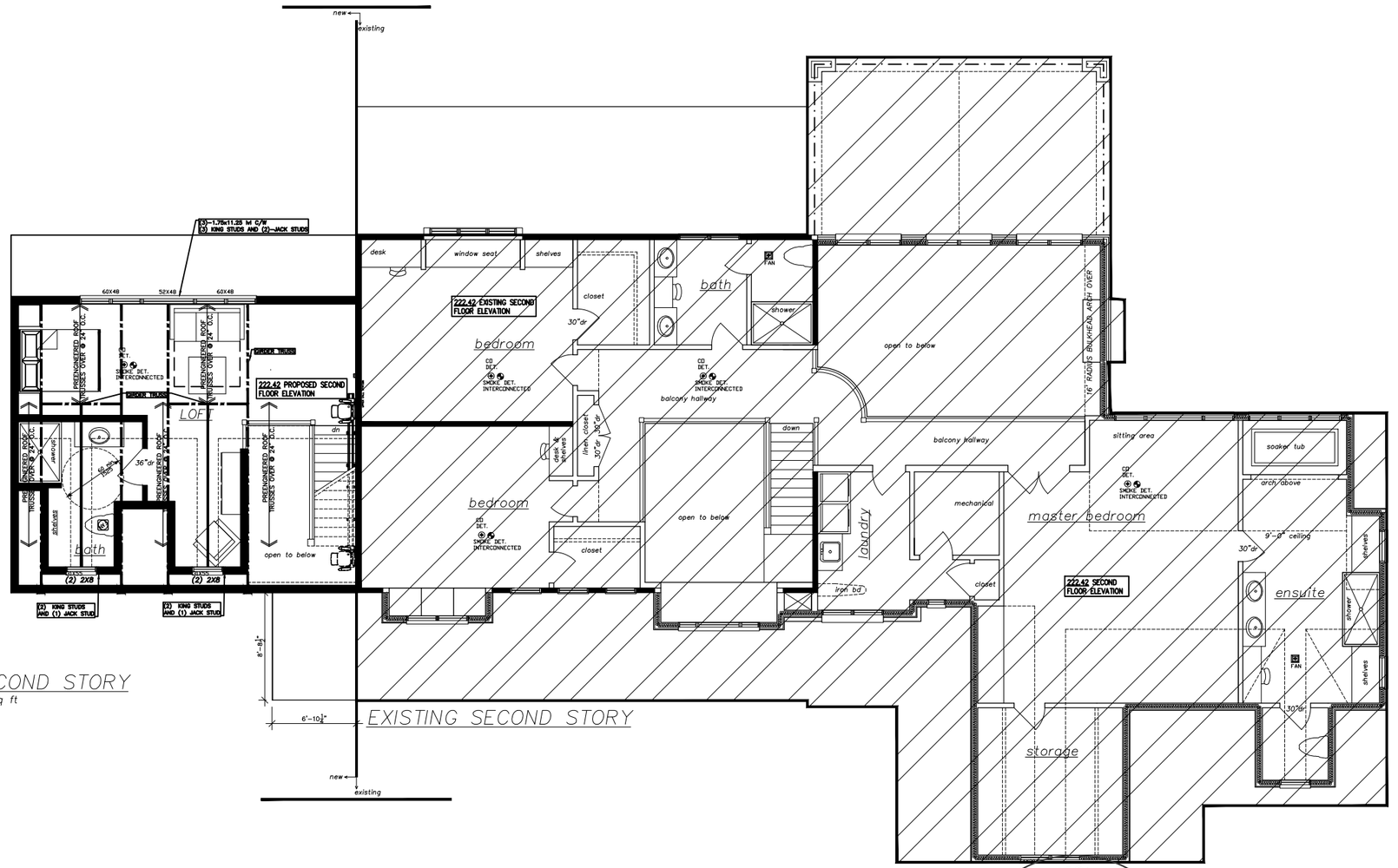
DRAWING DESCRIPTION: MAIN FLOOR LEVEL PLAN

OKE WOODSMITH BUILDING SYSTEMS
DESIGN & ADMINISTRATION OFFICE
70964 BLUEWATER HIGHWAY
GRAND BEND, ONTARIO
PHONE 519.238.5885
EMAIL: woodsmith@okewoodsmith.com
WEBSITE: www.okewoodsmith.com

OWS Oke Woodsmith

SHEET No. A1

DRAWING SCALE 3/16"=1'–0"



LICENSED PROFESSIONAL ENGINEER
DIGITAL ORIGINAL
M. S. DUSCIO
100505795
Marie Duscio
2024-01-12
PROVINCE OF ONTARIO

MTE CONSULTANTS INC: 40857-102
STRUCTURAL DESIGN ONLY.

KEY
HATCH INDICATES
EXISTING STRUCTURE

DESIGN LOADS
FLOOR LOADS
DL=1.15kPa
LL=1.90kPa
ROOF LOADS
DL=0.75kPa
SL=1.40kPa

1. CONFORM TO THE REQUIREMENTS OF THE 2006 ONTARIO BUILDING CODE (OBC) INCLUDING ALL THE LATEST STANDARDS REFERENCED THEREIN, AND ANY APPLICABLE ACTS OF AUTHORITY HAVING JURISDICTION. THE LATEST VERSION OF ALL STANDARDS AND CODES LISTED BELOW SHALL BE USED.

2. READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ALL OTHER SPECIFICATIONS AND CONTRACT DOCUMENTS.

3. WHERE DISCREPANCIES EXIST BETWEEN CONTRACT DOCUMENTS, INCLUDING DRAWINGS AND APPLICABLE CODES AND ACTS, THE MOST STRINGENT SHALL GOVERN. CONTRACTOR SHALL CHECK ALL DIMENSIONS ON WORKING DRAWINGS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

4. BEFORE PROCEEDING WITH WORK, THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIARIZED WITH ALL CHARACTERISTICS AFFECTING NEW AND EXISTING CONSTRUCTION. ANY CHANGES, ALTERATIONS OR REVISIONS MUST BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.

5. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS – O.REG. 213/91.

6. IT IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN ALL SHORING AND TEMPORARY BRACING AS PER O.REG 213/91 AND THE CONTRACTOR SHALL RETAIN AN ENGINEER AS REQUIRED.

7. THE CONTRACTOR SHALL RETAIN AN INDEPENDENT INSPECTION AND TESTING COMPANY TO ENSURE THAT ALL WORK IS DONE IN ACCORDANCE WITH THE DRAWINGS AND SPECIFICATIONS. REQUIRED TESTING SHALL BE AS PER THE TESTING AND INSPECTION TABLE BELOW.

8. IT IS THE RESPONSIBILITY OF BOTH THE OWNER AND THE CONTRACTOR TO NOTIFY THE ENGINEER OF CONSTRUCTION PROGRESS SO THE ENGINEER CAN COMPLETE THE GENERAL REVIEW OF CONSTRUCTION WHERE REQUIRED BY THE LOCAL BUILDING OFFICIAL.

FOUNDATIONS

1. ALL FOOTINGS SHALL REST DIRECTLY ON NATURALLY CONSOLIDATED, UNDISTURBED SOIL OR COMPACTED FILL WITH A MINIMUM SOIL BEARING CAPACITY OF 150 kPa (SLS) AT THE DEPTHS INDICATED ON THE DRAWINGS.

2. REMOVE ALL TOPSOIL, ORGANIC LOOSE FILL AND OTHER DELETERIOUS MATERIAL FROM BUILDING AREA BEFORE STARTING CONSTRUCTION.

3. WHERE APPROVED, GRANULAR FILL UNDER ALL FOOTINGS ON GRADE SHALL BE COMPACTED IN 150mm (6") LAYERS TO 100% STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).

4. FOUND ALL FOOTINGS BELOW THE LEVEL AT WHICH POTENTIAL DAMAGE RESULTING FROM FROST ACTION CAN OCCUR FOR THE FINISHED STRUCTURE, BUT A MINIMUM 1200 mm (4 FT.) BELOW FINISHED EXTERIOR GRADE, UNLESS NOTED OTHERWISE.

5. PROTECT ALL SOIL FROM FREEZING ADJACENT TO AND BELOW ALL FOUNDATIONS DURING CONSTRUCTION.

6. SLABS ON GRADE
   A.) PLACE SLABS ON GRADE ON MATERIAL CAPABLE OF SAFELY SUPPORTING 25 kPa WITHOUT SETTLEMENT RELATIVE TO THE BUILDING FOUNDATIONS.
   B.) PROOF-ROLL EXISTING FILL MATERIAL. REMOVE ANY LOOSE OR SOFTENED AREAS BENEATH SLAB-ON-GRADE BEFORE PLACING GRANULAR FILL.
   C.) APPROVED GRANULAR FILL UNDER ALL FLOOR SLABS ON GRADE SHALL BE COMPACTED IN 100mm (4") LAYERS TO 98% STANDARD PROCTOR MAXIMUM DRY DENSITY (SPMDD).
   D.) WHERE THE SLAB-ON-GRADE IS USED TO LATERALLY RESTRAIN THE TOP OF AN EARTH-RETAINING WALL, ADEQUATELY SHORE THE WALL UNTIL THE SLAB HAS BEEN CAST AND ATTAINED 70% OF ITS SPECIFIED STRENGTH.

11. CARRY OUT BACKFILLING AGAINST FOUNDATION WALLS WHERE THERE IS GRADE ON BOTH SIDES IN SUCH A MANNER THAT THE LEVEL OF BACKFILLING ON ONE SIDE OF THE WALL IS NEVER MORE THAN 500 mm (20 ") DIFFERENT FROM THE LEVEL ON THE OTHER SIDE OF THE WALL, EXCEPT WHERE TEMPORARY SHORING FOR THE WALL IS PROVIDED.

12. DO NOT PLACE BACKFILL AGAINST WALLS RETAINING EARTH (OTHER THAN CANTILEVERED RETAINING WALLS) UNTIL THE WALLS AND THE FLOOR CONSTRUCTIONS AT THE TOP AND BOTTOM OF THE WALLS HAVE BEEN CAST AND HAVE ATTAINED 100% OF THEIR DESIGN STRENGTH.

FLOOD PROOFING REQUIREMENTS UPPER THAMES RIVER C.A.

THE ADDITION SHALL BE FLOOD PROOFED AS REQUIRED BY THE UPPER THAMES CONSERVATION AUTHORITY (UTRCA).

THE ADDITION HAS BEEN DESIGNED TO ACCOMMODATE THE LOADS FROM FLOOD WATER AND FLOOD PROOFING OF THE STRUCTURE IS TO BE PROVIDED.

1. **WRAP EXTERIOR FOUNDATION WITH DAMPROOFING (ROLL OR SPRAY TYPE) AND DRAINAGE BOARD (DIMPLEBOARD)**
2. **NEW FOUNDATION WALLS HAVE BEEN DESIGNED FOR LATERAL LOADS DUE TO SOIL PRESSURE AND POTENTIAL FLOOD WATER PRESSURE**
3. **PROVIDE DRAINAGE SYSTEM UNDER NEW FLOOD SLABS CONNECTED TO A SUMP THAT EMPTIES OUTSIDE TO PREVENT HYDROSTATIC UPLIFT ON CONCRETE FLOOR SLABS.**
4. **PROVIDE PERIMETER DRAINAGE SYSTEM AROUND EXISTING AND ADDITION CONNECTED TO SUMP.**
5. **A 6" RAISED CONCRETE DAIS SHALL BE PROVIDED FOR PLACEMENT OF MECHANICAL AND RELATED BUILDING EQUIPMENT.**
6. **PROVIDE BACKUP ELECTRICAL POWER SUPPLY FOR ALL SUMP PUMPS WITH WITHER A BACKUP BATTERY SYSTEM OR A NATURAL GAS POWERED GENERATOR. SUMP PUMP/SYSTEM SHALL INCLUDE A VISUAL AND AUDIBLE ALERT FUNCTION WITHIN THE HOME IN THE EVENT OF SUMP PUMP FAILURE. THE SYSTEM SHALL INCLUDE A MOBILE PHONE APP CONNECTION FOR CONTINUOUS, REMOTE MONITORING IN THE EVENT OF PUMP FAILURE OR POWER FAILURE.**
7. **NO OPENINGS ARE LOCATED IN THE PROPOSED FOUNDATION BELOW THE FLOOD LINE. THE FLOOR LINE HAS BEEN DETERMINED BY THE UPPER THAMES RIVER AUTHORITY AT 220.5**

1. ALL CONCRETE WORK TO CONFORM TO THE LATEST REQUIREMENTS OF CSA STANDARDS A23.1, A23.2 & A23.3.

2. REINFORCING BARS SHALL CONFORM TO THE REQUIREMENTS OF CAN/CSA G30.18 GRADE 400W FOR REINFORCING STEEL AND BE DEFORMED HI-BOND WITH MINIMUM YIELD STRENGTH OF Fy = 400 MPa.

3. WELDED WIRE MESH AND WELDED WIRE FABRIC SHALL CONFORM TO THE REQUIREMENTS OF CAN/CSA G30.15 WITH A MINIMUM YIELD STRENGTH OF Fy = 450 MPa. ALL WELDED WIRE PRODUCTS ARE TO BE SUPPLIED AS FLAT SHEETS AND SHALL BE LAPPED A MINIMUM OF 150mm (6") AT JOINTS (U.N.O.).

4. DETAILING AND PLACING OF ALL REINFORCING STEEL SHALL BE IN ACCORDANCE WITH THE REINFORCING STEEL INSTITUTE OF CANADA "MANUAL OF STANDARD PRACTICE".

5. ALL REINFORCING STEEL SHALL BE SHOP FABRICATED TO INCLUDE HOOKS AND BENDS AS REQUIRED.

6. ALL REINFORCING LAP SPLICES SHALL CONFORM TO THE LATEST CSA STANDARD A23.3 AND ALL BAR SPLICES SHALL BE CLASS B(T) TENSION SPLICES (U.N.O.).
   - 10M BARS – LAP 400mm (16")
   - 15M BARS – LAP 600mm (24")
   - 20M BARS – LAP 800mm (32")

7. ALL DOWEL EMBEDMENT SHALL MATCH THE ABOVE TENSION SPLICE LENGTH, UNLESS NOTED OTHERWISE.

8. ALL HORIZONTAL BARS SHALL BE HOOKED 300mm (12") AROUND CORNERS.

9. PLACE REINFORCING BARS SYMMETRICALLY OVER SUPPORTS AND SYMMETRICALLY IN SPANS, UNLESS NOTED OTHERWISE.

10. REINFORCING BARS, DOWELS AND ANCHOR BOLTS SHALL BE SECURELY TIED IN PLACE SO AS TO MAINTAIN THEIR EXACT POSITION BEFORE AND DURING PLACEMENT OF CONCRETE. BAR SUPPORTS SHALL ONLY BE MADE OF PRECAST CONCRETE BLOCKS, PLASTIC OR WIRE.

11. ALL OIL, GREASE, MUD AND DEBRIS SHALL BE ENTIRELY REMOVED FROM THE REINFORCING STEEL AND ANCHOR BOLTS PRIOR TO THE PLACEMENT OF CONCRETE. REBAR SHALL BE STORED ON SITE IN A MANNER TO BE KEPT CLEAN AND FREE FROM DELETERIOUS MATERIALS.

12. WELDING OF REINFORCING STEEL SHALL NOT BE PERMITTED UNLESS SPECIFICALLY NOTED ON THE DRAWINGS.

13. CONFORM TO THE CONCRETE COVER REQUIREMENTS OF CSA A23.1 AND THE FOLLOWING, UNLESS NOTED OTHERWISE:
   A.) CONCRETE CAST AGAINST EARTH: 75 mm (3")
   B.) PIERS AND WALL: 40 mm (1.5")
   C.) EXTERIOR EXPOSED TO SALT: 40 mm (2.5")
   D.) INTERIOR SLABS AND BEAMS: 40 mm (1.5")

15. CONCRETE PROPERTIES:
   A.) ALL CONCRETE SHALL HAVE A 28 DAY BUT A MINIMUM 1200 mm (4 FT.) BELOW FINISHED MINIMUM COMPRESSIVE STRENGTH OF 20 MPa UNLESS OTHERWISE SPECIFIED.

16. WHEN SUPER-PLASTICIZERS ARE USED, THE SLUMP MAY BE INCREASED BEYOND THE VALUES GIVEN, BUT SHALL BE BELOW THE POINT WHERE SEGREGATION WILL OCCUR. THE COST OF SUPER-PLASTICIZERS SHALL BE INCLUDED IN THE COST OF CONCRETE.

17. DO NOT ADD WATER TO CONCRETE UNLESS WRITTEN APPROVAL GIVEN BY THE ENGINEER. IF HIGHER SLUMP CONCRETE IS DESIRED, CONCRETE SUPPLIER SHALL DESIGN AND SUPPLY ACCORDINGLY.

18. HOT AND COLD WEATHER CONCRETING SHALL COMPLY WITH ALL REQUIREMENTS OF CSA STANDARD A23.1. CALCIUM CHLORIDE ADDITIVES WILL NOT BE PERMITTED.

19. ALL CONCRETE FORMWORK TOLERANCES AND SURFACE FINISHES SHALL COMPLY WITH CSA STANDARD A23.1 UNLESS NOTED OTHERWISE ON THE ARCHITECTURAL DRAWINGS.

20. ALL CONCRETE FORMS TO BE WET THOROUGHLY BEFORE POURING CONCRETE.

21. WATER CURING OF CONCRETE IS RECOMMENDED. CURE AND PROTECT ALL CONCRETE IN ACCORDANCE WITH CSA A23.1 SECTION 7.4.

22. ALL CONCRETE EXCEPT SLABS ON GRADE 150mm (6") THICK OR LESS SHALL BE MECHANICALLY VIBRATED SO AS TO COMPLETELY FILL THE FORM WITHOUT CAUSING UNDUE SEGREGATION.

23. WHERE STEEL BEARING PLATES ARE SHOWN ON THE DRAWINGS, THEY SHALL BE ANCHORED WITH A MINIMUM OF TWO 12mm DIA x 300mm LONG + 50mm (1/2" DIA x12" LONG + 2") HOOKED ANCHOR BOLTS WELDED TO THE PLATES AND EMBEDDED INTO THE CONCRETE.

24. CHECK ALL STRUCTURAL, ARCHITECTURAL, MECHANICAL, ELECTRICAL, CIVIL, LANDSCAPE AND ALL OTHER RELEVANT DRAWINGS FOR LOCATIONS AND SIZES OF BOLTS, SLEEVES AND OPENINGS. ENSURE SLEEVES AND OPENINGS DO NOT PENETRATE CONCRETE BEAMS, LINTELS AND COLUMNS.

25. CAST IN ANCHOR BOLTS SHALL CONFORM TO THE LATEST CSA STANDARD G40.21 OR ASTM F1554 WITH A MINIMUM YIELD STRENGTH OF 250 MPa AND SHALL BE SET TRUE AS TO LOCATION, ELEVATION AND PROJECTION TO THE FOLLOWING TOLERANCES:
   ANCHOR BOLT LOCATION = +/- 3 mm (1/8")
   ANCHOR BOLT PROJECTION = +/- 6 mm (1/4").

1. SAWN LUMBER PRODUCTS SHALL CONFORM TO THE REQUIREMENTS OF CSA STANDARD O141. ALL SAWN LUMBER IS TO BE SPF GRADE NO. 2 OR BETTER, UNLESS NOTED OTHERWISE.

2. STRUCTURAL COMPOSITE LUMBER SHALL BE THE FOLLOWING (OR APPROVED EQUIVALENT) UNLESS NOTED OTHERWISE ON THE DRAWINGS:

   LAMINATED STRAND LUMBER (LSL)
   GRADE 1.55E – MANUFACTURED BY WEYERHAEUSER

   LAMINATED VENEER LUMBER (LVL) : MICRO=LAM
   GRADE 1.9E – MANUFACTURED BY WEYERHAEUSER

   PARALLEL STRAND LUMBER (PSL) : PARALLAM
   GRADE 2.0E – MANUFACTURED BY WEYERHAEUSER

5. NAILS AND SPIKES SHALL CONFORM TO THE CSA STANDARD B111 "WIRE NAILS, SPIKES AND STAPLES".

6. ALL STEEL BEARING, SIDE PLATES, CONNECTOR PLATES, AND GUSLAM RIVETS SHALL CONFORM TO THE CSA STANDARD G40.21

7. ALL BOLTS AND THREADED ROD CONNECTING WOOD MEMBERS SHALL CONFORM TO ASTM A307.

8. JOISTS HANGERS SHALL BE MINIMUM 0.879 mm (0.0347") GALVANIZED STEEL AND SHALL CONFORM TO THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS "ACCEPTANCE CRITERIA FOR JOIST HANGERS AND SIMILAR DEVICES".

9. PRESERVATIVE-TREATED LUMBER OF 38 mm (1.5") SMALLER DIMENSION SHALL NOT BE INCISED.

10. NAILING REQUIREMENTS TO CONFORM TO THE ONTARIO BUILDING CODE (PART 9).

11. ALL STUD WALLS SHALL BE ANCHORED TO THE FOUNDATION OR FLOOR SLAB WITH 12 mm (1/2") DIAMETER ANCHOR BOLTS AT 1200 mm (4 FT.) O.C. MAXIMUM.

12. RE-TIGHTEN ALL BOLTED CONNECTIONS SIX MONTHS AFTER FIRST INSTALLATION, AND EVERY SIX MONTHS THEREAFTER UNTIL NO APPRECIABLE CHANGE IS EVIDENT.

13. ALL LUMBER FOR WOOD TRUSSES SHALL BE KILN DRIED AND WELL SEASONED IN ORDER TO PREVENT POSSIBLE DISTORTION OR DEFORMATION OF THE TRUSSES.

14. TRUSS DESIGN IS BY OTHERS. DESIGN SHALL CONFORM TO THE TPIC, THE ONTARIO BUILDING CODE, AND CSA O86.1 AND INCLUDE ALL TRUSS BRACING.

STRUCTURAL STEEL

1. ALL STRUCTURAL STEEL AND CONNECTIONS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH THE LATEST CSA STANDARD S16

2. STRUCTURAL STEEL SHALL CONFORM TO CAN/CSA-G40.20 FOR GENERAL REQUIREMENTS, AND CAN/CSA-G40.21 FOR QUALITY
   A.) GRADE 350W CLASS C FOR H.S.S. TUBES.
   B.) GRADE 350W FOR W SHAPES AND S SHAPES.
   C.) ALL OTHER METAL SHALL BE 300W (U.N.O.)

3. ALL CONNECTIONS, BOLTS, NUTS AND WASHERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A325 EXCEPT THAT ANCHOR BOLTS SHALL BE CONFORMING TO CSA STANDARD G40.21 OR ASTM F1554 WITH A MINIMUM YIELD STRENGTH OF 250 MPA.

4. STEEL COATINGS – UNLESS NOTED OTHERWISE ALL STRUCTURAL STEEL SHALL BE CLEANED AND PREPARED TO A MINIMUM LEVEL OF SSPC SP–3 AND IN ACCORDANCE WITH CSA STANDARD S16:
   A.) ALL INTERIOR STRUCTURAL STEEL SHALL BE SHOP PRIME PAINTED AS PER CSA/CAN–S–16 CONFORMING TO CGC/CPMA 1–73A.
   B.) ALL STEEL EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED AS PER CAN/CSA–G164. TOUCH UP OF WELDS, CUTS OR SCRATCHES TO GALVANIZING SHALL BE DONE WITH A MINIMUM OF 3 COATS OF ZINC RICH PAINT.

5. WELDING OF STRUCTURAL STEEL SHALL CONFORM TO THE REQUIREMENTS OF CSA STANDARD W59 AND SHALL BE UNDERTAKEN BY A FABRICATOR AND ERECTOR FULLY APPROVED BY THE CANADIAN WELDING BUREAU TO THE REQUIREMENTS OF CSA STANDARD W47, DIVISION 1 AND DIVISION 2.

6. FABRICATOR SHALL DESIGN CONNECTIONS AND THE LIKE IN ACCORDANCE WITH THE 2006 OBC FOR THE FORCES SHOWN ON THE DRAWINGS. WHERE FORCES ARE NOT NOTED ON THE DRAWINGS, BEAM REACTIONS SHALL BE TAKEN AS ONE–HALF OF THE TOTAL UNIFORMLY DISTRIBUTED FACTORED LOADS.

7. ALL BEAMS CANTILEVERED OR CONTINUOUS OVER A COLUMN OR OTHER SUPPORT, AND BEAMS SUPPORTING POINTS OF CONCENTRATED LOAD, SHALL HAVE A MIN. OF 2–10 mm (3/8") STIFFENERS EACH SIDE OF WEB UNLESS OTHERWISE NOTED.

8. EXTEND BOTTOM CHORD OF STEEL JOISTS (TE JOIST) AT ALL COLUMNS TO BRACE TOP OF COLUMN.

9. COLUMN BASE PLATES AND BEAM BEARING PLATES SHALL BE GROUTED WITH 40 mm (1.5") NON–SHRINK KOMPLI GROUT.

10. STEEL BEAMS AND LINTELS SHALL HAVE 200 mm (8") MINIMUM END BEARING ON MASONRY AND 65 mm (2 1/2") MINIMUM BEARING ON STEEL UNLESS INDICATED OTHERWISE.

11. FOR ALL BEAMS AND LINTELS ON STEEL BEARING PLATES.
   A.) BEARING PLATES ARE TO BE CENTRED BELOW ALL BEAMS OR LINTELS U.N.O ON THE DRAWINGS.
   B.) WELD TO BEARING PLATE WITH A MINIMUM 50 mm x 5 mm (2" x 3/16") FILLET ON BOTH SIDES OF BEAM.

18. WHERE BACK–TO–BACK ANGLES ARE USED AS LINTELS OR SUPPORTS, STITCH WELD TOGETHER AT A MAXIMUM SPACING OF 300mm (12") O.C.

WOODSMITH BUILDING SYSTEMS INC

CONSTRUCTION

ISSUED FOR

PROJECT LOCATION: 49 BLACKBURN CREST. ZURICH, MUNICIPALITY

DRAWING DATE: January 8, 2024

PROJECT: LINDSAY PRELIMINARY DESIGN
2023 ADDITION

PROJECT POSITION:

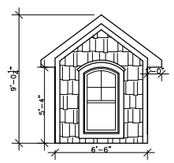
DRAWING DESCRIPT: SECOND STORY PLAN

OKE WOODSMITH BUILDING SYSTEMS
DESIGN & ADMINISTRATION OFFICE
70994 BLUEWATER HIGHWAY
GRAND BEND, ONTARIO
PHONE: 519.238.8883
EMAIL: woodsmith@okewoodsmith.com
WEBSITE: www.okewoodsmith.com

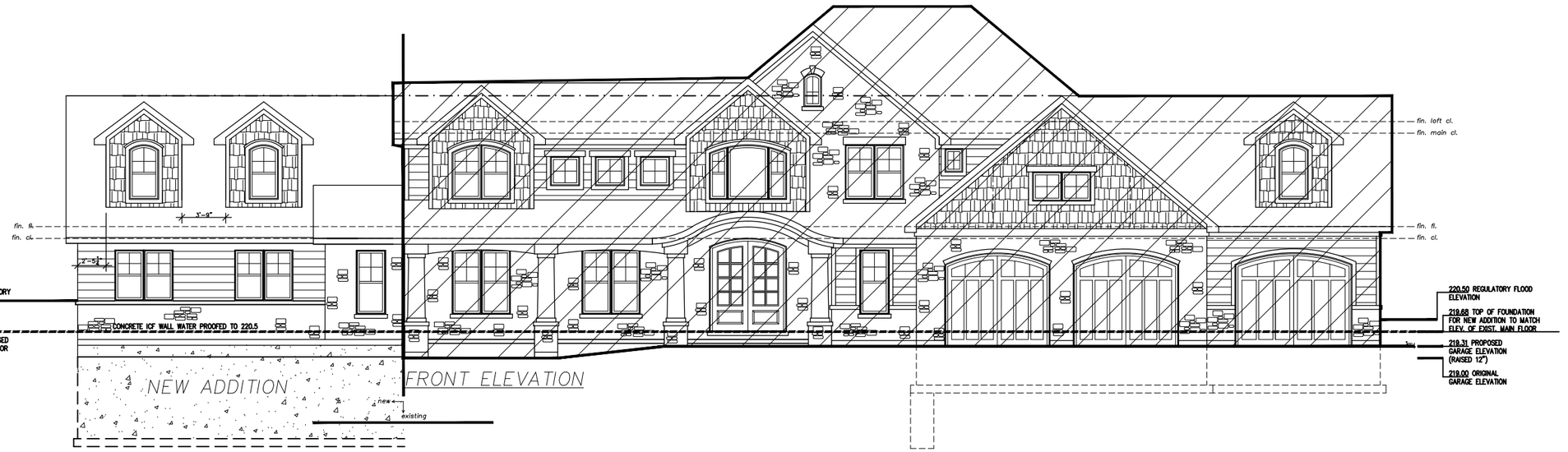
OWS
Oke Woodsmith

SHEET No. A2

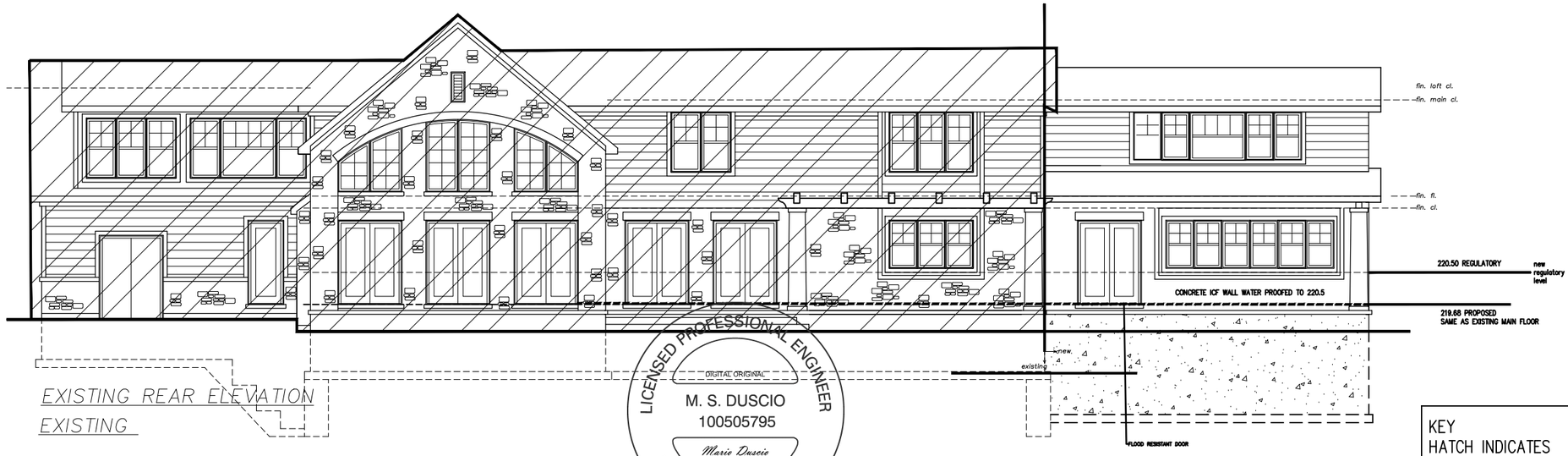
DRAWING SCALE 3/16"=1'-0"



DORMER DETAIL



FRONT ELEVATION



EXISTING REAR ELEVATION
EXISTING

LICENSED PROFESSIONAL ENGINEER
ORIGINAL
M. S. DUSCIO
100505795
Marie Duscio
2024-01-12
PROVINCE OF ONTARIO

MTE CONSULTANTS INC. 40857-102
STRUCTURAL DESIGN ONLY.

KEY
HATCH INDICATES
EXISTING STRUCTURE

OKE WOODSMITH BUILDING SYSTEMS INC

CONSULTANTS

ISSUED BY:

PROJECT LOCATION: 49 BLACKBURN CREST. ZURICH, MUNICIPALITY

DRAWING DATE: January 8, 2024

PROJECT: LINDSAY PRELIMINARY DESIGN
2023 ADDITION

PROJECT PORTION:

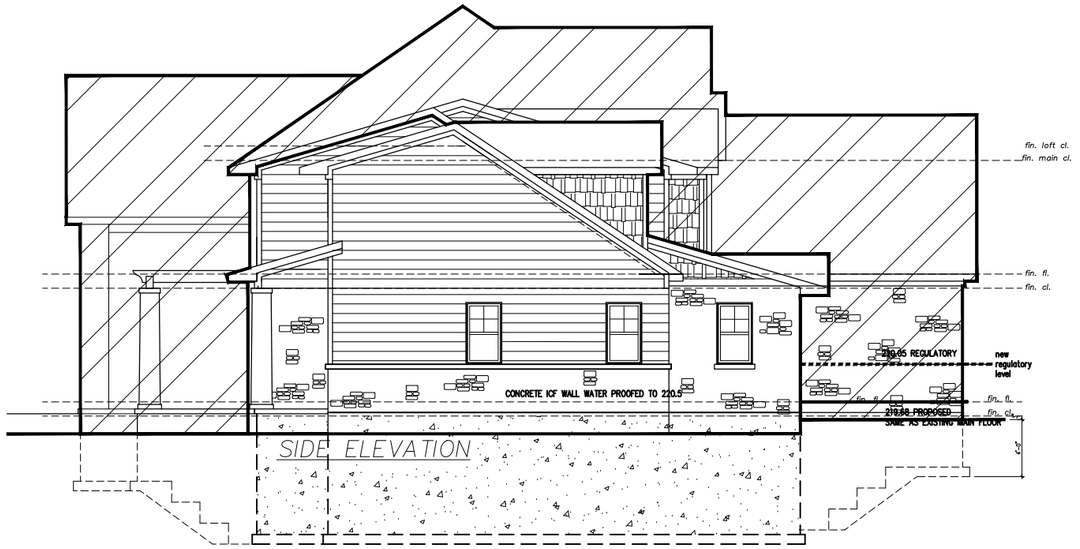
DRAWING SUBJECT: ELEVATIONS

OKE WOODSMITH BUILDING SYSTEMS
DESIGN & ADMINISTRATION OFFICE
70964 BLUEWATER HIGHWAY
GRAND BEND, ONTARIO
PHONE: 519.238.5893
EMAIL: woodsmith@okewoodsmith.com
WEBSITE: www.okewoodsmith.com

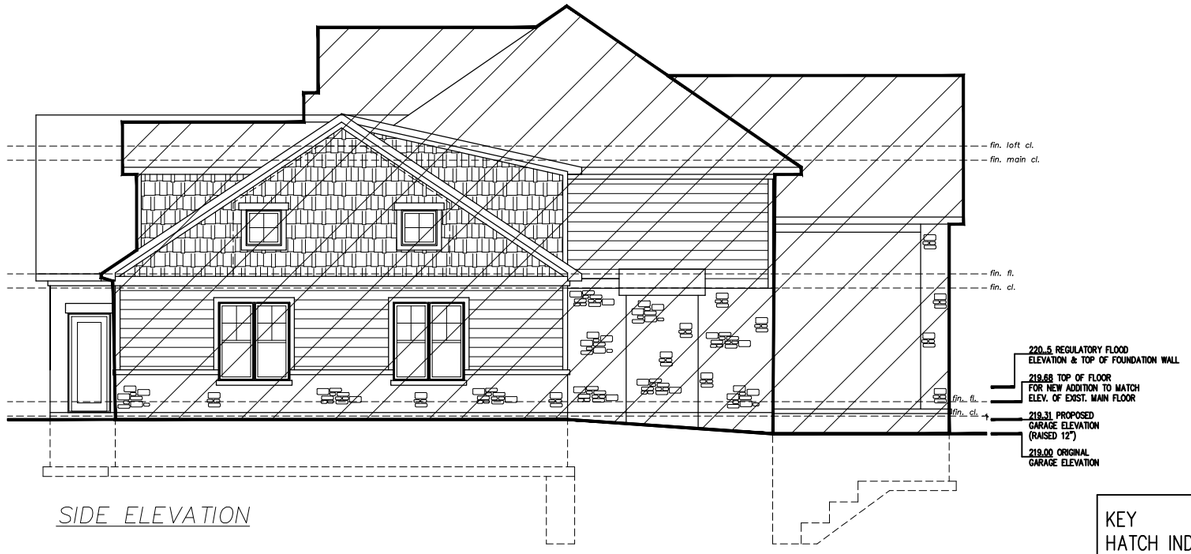
OWS
Oke Woodsmith

SHEET No. A3

DRAWING SCALE 3/32"=1'-0"

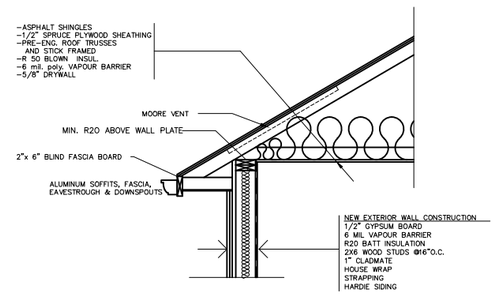


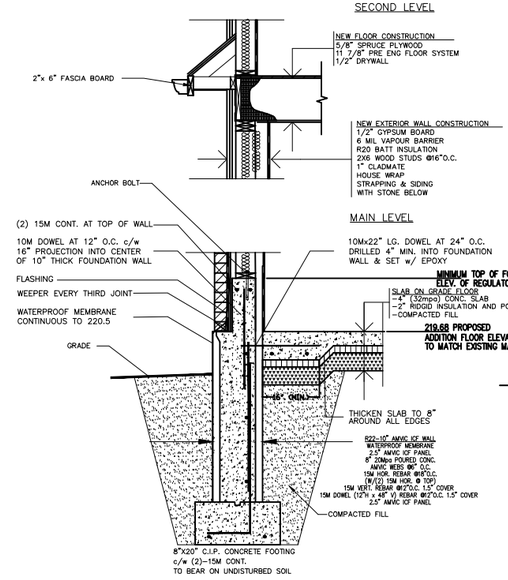
SIDE ELEVATION



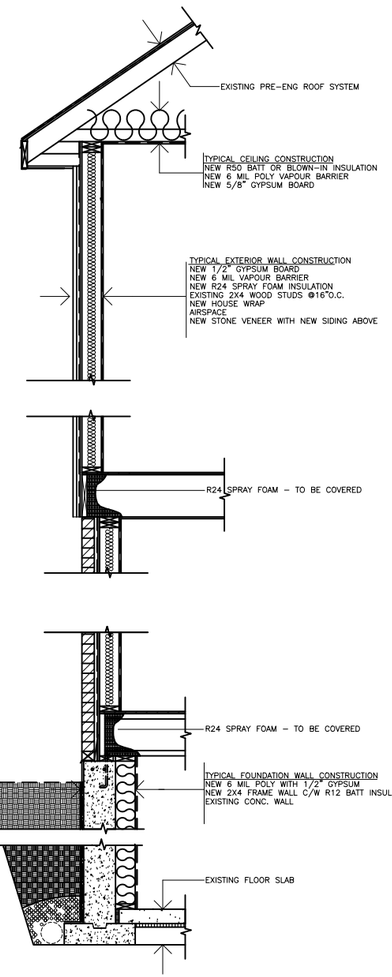
SIDE ELEVATION

KEY
HATCH INDICATES
EXISTING STRUCTURE





D1 A1-3 NEW WALL SECTION
SCALE 3/4"=1'-0"



D2 A1-3 EXISTING WALL SECTION
SCALE 3/4"=1'-0"

MTE CONSULTANTS INC. 40857-102
STRUCTURAL DESIGN ONLY.

CONSULTANTS:

ISSUED FOR:

PROJECT LOCATION: 49 BLACKBURN CREST. ZURICH, MUNICIPALITY

DRAWING DATE: January 8, 2024

PROJECT: LINDSAY PRELIMINARY DESIGN
2023 ADDITION

PROJECT POSITION:

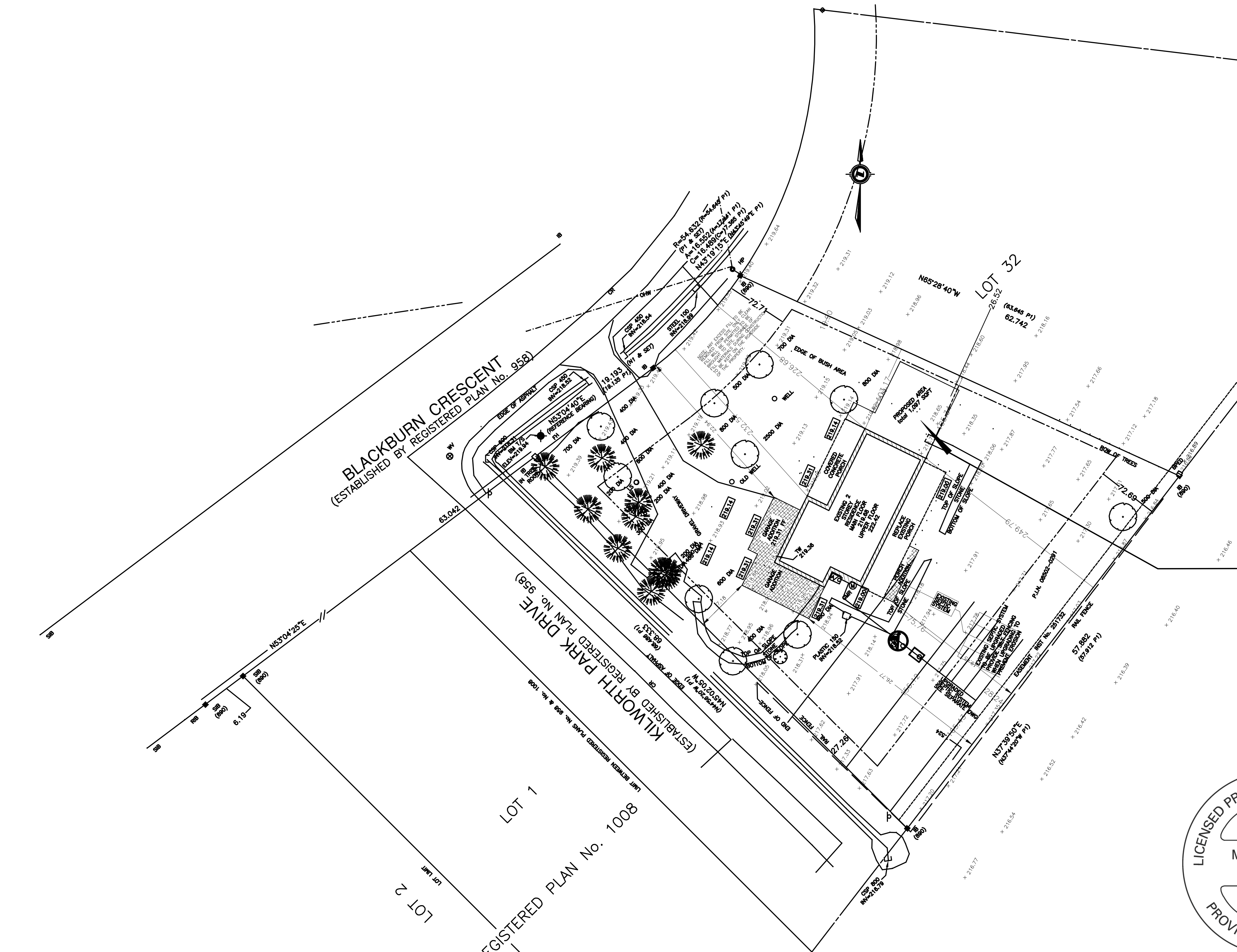
DRAWING NUMBER: ELEVATIONS

OKE WOODSMITH BUILDING SYSTEMS
DESIGN & ADMINISTRATION OFFICE
70964 BLUEWATER HIGHWAY
GRAND BEND, ONTARIO
PHONE: 519.238.5893
EMAIL: woodsmith@okewoodsmith.com
WEBSITE: www.okewoodsmith.com

OWS Oke Woodsmith

SHEET No. A4

DRAWING SCALE 3/32"=1'-0"



Proposed New Addition
Proposed 659 sqft Main Floor
Proposed 438 sqft Second Story

LICENSED PROFESSIONAL ENGINEER
DIGITAL ORIGINAL
M. S. DUSCIO
100505795
Mario Duscio
2024-01-12
PROVINCE OF ONTARIO

MTE CONSULTANTS INC. 40857-102
STRUCTURAL DESIGN ONLY.

OKE WOODSMITH BUILDING SYSTEMS INC

CONSULTANTS:

DESIGN BY:

PROJECT LOCATION: 49 BLACKBURN CREST. ZURICH, MUNICIPALITY

DRAWING DATE: January 8, 2024

PROJECT:

LINDSAY PRELIMINARY DESIGN

2023 ADDITION

PROJECT PORTION:

DRAWING SUBJECT: SITE PLAN N.T.S

OKE WOODSMITH BUILDING SYSTEMS
DESIGN & ADMINISTRATION OFFICE
70964 BLUEWATER HIGHWAY
GRAND BEND, ONTARIO
PHONE: 519.238.8893
EMAIL: woodsmith@okewoodsmith.com
WEBSITE: www.okewoodsmith.com

OWS
Oke Woodsmith

SHEET NO: S1

DRAWING SCALE: 3/32"=1'-0"

Oke Woodsmith Building Systems Inc.

Upper Thames River Conservation Authority Attention: Jenna Allain
1424 Clarke Road
London, Ontario, N5V 5B9

Attention: Jenna Allain
From: Kristi Willmore
RE: 49 Blackburn Crescent, Part Lot 31, Concession Geographic Township of Komoka, Municipality of Middlesex, Aaron Lindsay

Jenna, please find the attached application for permit to add a 2-story addition on to the existing residence.

Description:
The home owners have been in the home for a year now, and realize that they need more space for family and guest to visit comfortably.

We have shown the proposed development for the addition that fits within Municipal standards of the bylaws for setbacks and lot coverages and etc.

The new addition will include a main level (659 sq ft) and second story (438 sq ft), the design is conceptual and will be finalized as we look for your guidance in the development of the property in your governance.

Thank you for your consideration and we look forward to hearing from you soon.

Sincerely,

Kristi Willmore

Kristi Willmore

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: Aaron Lindsay Tel. Home: [redacted]
Address: [redacted] Postal Code: _____ Tel. Business: _____
Location of Project: 49 Blacktusn Crescent LOT 31 Middlesex
Street and Number, or Lot(s) and Concession Number/ 911 Address Municipality

DESCRIPTION OF PROJECT

General description of project: Proposed New Addition
Proposed Main Floor 659 sqft.
Proposed Second Story 426 sqft.

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: _____ to _____
If other approvals required for this project please indicate

- ☐ Federal - Fisheries Act
- ☐ Province - MNR Work Permit
- ☒ Municipal - Building Permit
- ☐ Other _____
- ☐ Permit to Take Water
- ☐ Zoning ☐ Severance ☐ OPA ☐

Name of Applicant if different than Landowner: _____
Mailing Address if different than above: _____
Postal Code: _____ Phone Number: _____ Email Address: _____

Applicant's Signature: Kristi Willmore
Application Date Month: 08 Day: 08 Year: 2023
Agent for Applicant (if different from above): Okewoodsmith Building Systems Inc.
Mailing Address: 70964 Bluewater Highway, Grand Bend
Postal Code: N0M 1T0 Phone Number: [redacted] 519-238-8893 Email Address: kwillmore@okewoodsmith.com

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 dam age, 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 Up per 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.

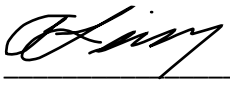
9. The Applicant agrees to maintain all existing drainage patterns, and not to obstruct external drainage from other adjacent private lands.

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

July 24, 2023

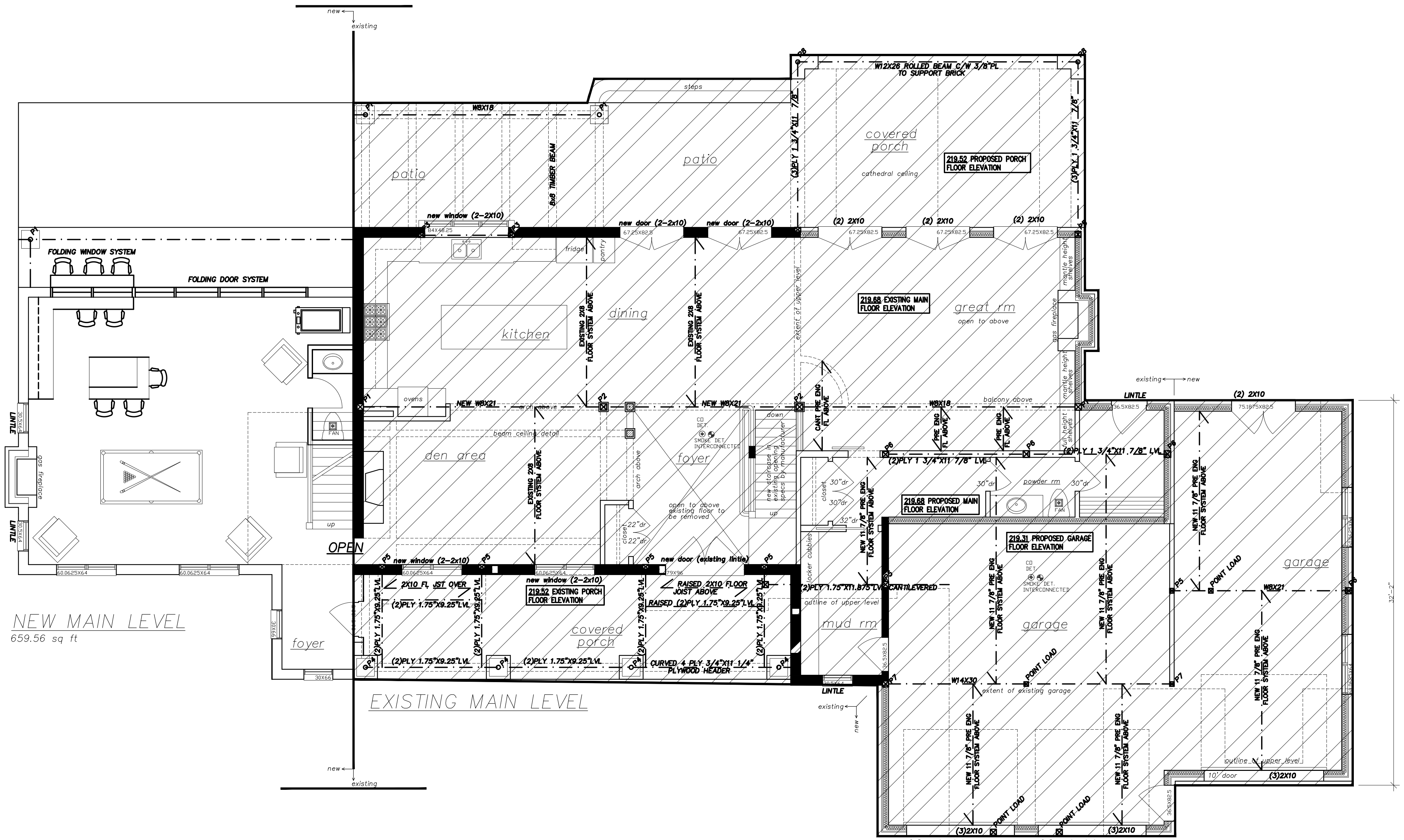
To whom it may concern

I, Aaron Lindsay, authorize Oke Woodsmith Building Systems Inc. and its staff to act on our behalf with regards to our property located at: 49 Blackburn Crescent, Part Lot 49, Concession Geographic Township of Komoka, Municipality of Middlesex. With regards to planning, preparation, permitting and the addition/renovations of our existing home with Municipal and Provincial authorities.



_____ _____

Aaron Lindsay


new
existing
W8X18
steps
W12X26 ROLLED BEAM C/W 3/8"PL TO SUPPORT BRICK
patio
8x8 TIMBER BEAM
patio
covered porch
cathedral ceiling
219.52 PROPOSED PORCH FLOOR ELEVATION
(3)PLY 1 3/4"X11 7/8"
new window (2-2X10)
new door (2-2x10)
new door (2-2x10)
(2) 2X10
(2) 2X10
(2) 2X10
84X48.25
67.25X82.5
FOLDING WINDOW SYSTEM
FOLDING DOOR SYSTEM
fridge
pantry
kitchen
dining
EXISTING 2X8 FLOOR SYSTEM ABOVE
extent of upper level
219.68 EXISTING MAIN FLOOR ELEVATION
great rm
open to above
mantle height shelves
gas fireplace
existing
new
LINTLE
36.5X82.5
75.1875X82.5
ovens
NEW W8X21
arch above
balcony above
CANT PRE ENG FL ABOVE
PRE ENG FL ABOVE
W8X18
beam ceiling detail
CO DET.
SMOKE DET. INTERCONNECTED
down
den area
foyer
new staircase in existing opening specs by manufacturer
full height shelves
(2)PLY 1 3/4"X11 7/8" LVL
closet
30"dr
powder rm
FAN
219.68 PROPOSED MAIN FLOOR ELEVATION
219.31 PROPOSED GARAGE FLOOR ELEVATION
NEW 11 7/8" PRE ENG FLOOR SYSTEM ABOVE
open to above existing floor to be removed
22"dr
32"dr
up
LINTLE
30.5X64
gas fireplace
OPEN
new window (2-2x10)
new door (existing lintle)
60.0625X64
79X96
2X10 FL JST OVER
(2)PLY 1.75"X9.25"LVL
219.52 EXISTING PORCH FLOOR ELEVATION
RAISED 2X10 FLOOR JOIST ABOVE
RAISED (2)PLY 1.75"X9.25"LVL
covered porch
CURVED 4 PLY 3/4"X11 1/4" PLYWOOD HEADER
locker cubbies
(2)PLY 1.75"X11.875"LVL CANTILEVERED
outline of upper level
mud rm
garage
POINT LOAD
W8X21
W14X30
extent of existing garage
32'-2"
NEW MAIN LEVEL
659.56 sq ft
foyer
30X66
EXISTING MAIN LEVEL
outline of upper level
10' door
(3)2X10
9x8 overhead door
9x8 overhead door
P1
P2
P3
P4
P5
P6
P7
P8

KEY
HATCH INDICATES
EXISTING STRUCTURE
▨

OKE WOODSMITH BUILDING SYSTEMS INC

CONSULTANTS:

DESIGN BY:

PROJECT LOCATION:
49 BLACKBURN CREST.
ZURICH, MUNICIPALITY

DRAWING DATE:
August 9, 2023

PROJECT:
LINDSAY PRELIMINARY DESIGN
2023 ADDITION

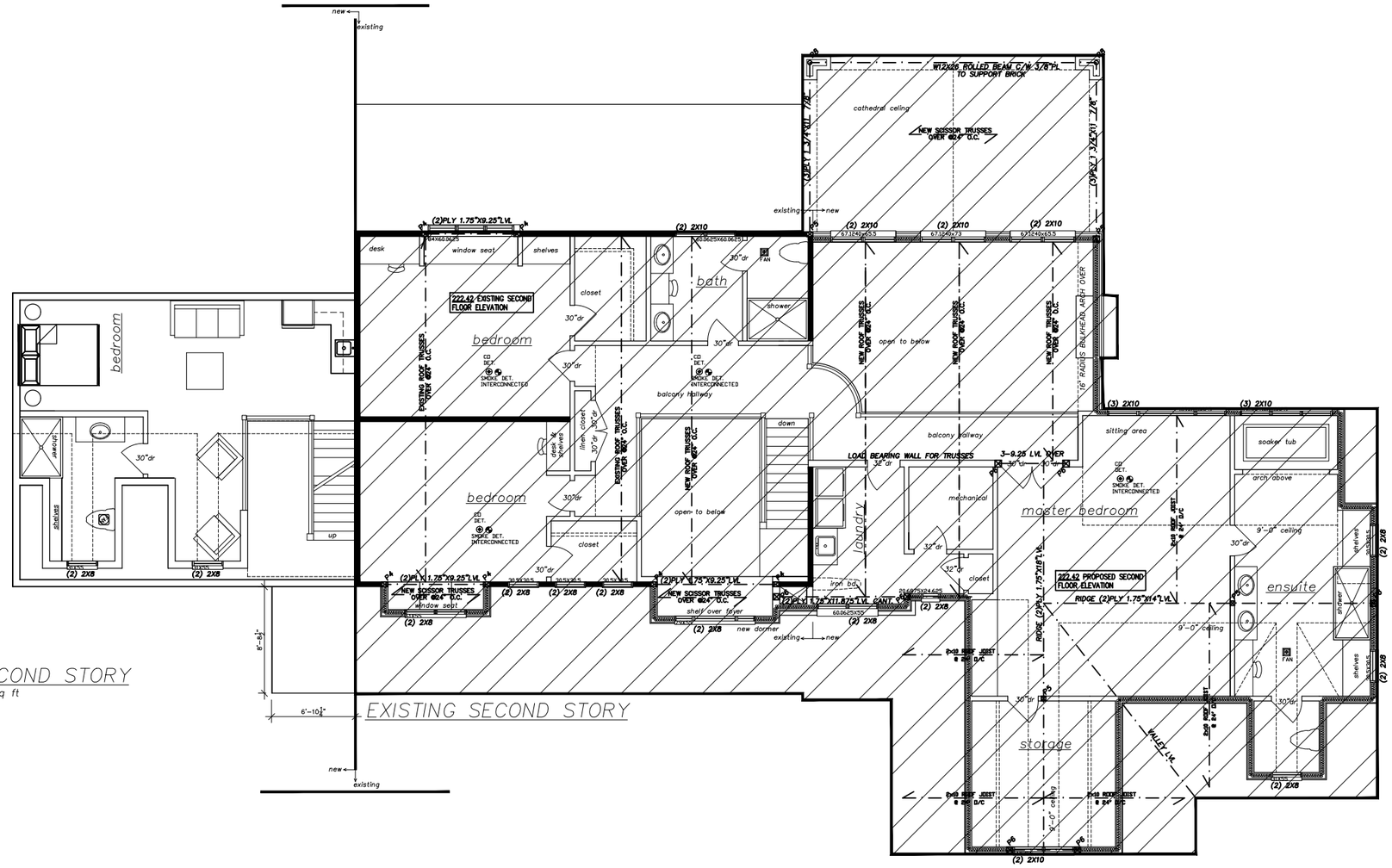
PROJECT PORTION:

DRAWING SUBJECT:
MAIN FLOOR LEVEL PLAN

OKE WOODSMITH BUILDING SYSTEMS
DESIGN & ADMINISTRATION OFFICE
70964 BLUEWATER HIGHWAY
GRAND BEND, ONTARIO
PHONE: 519.238.8893
EMAIL: woodsmith@okewoodsmith.com
WEBSITE: www.okewoodsmith.com

OWS
Oke Woodsmith

SHEET NO:
A1
DRAWING SCALE: 3/32"=1'-0"



KEY
HATCH INDICATES
EXISTING STRUCTURE

CONSULTANTS:

ISSUED FOR:

PROJECT LOCATION:
49 BLACKBURN CREST.
ZURICH, MUNICIPALITY

DRAWING DATE:
August 9, 2023

PROJECT:
LINDSAY PRELIMINARY DESIGN
2023 ADDITION

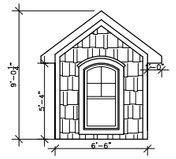
PROJECT PHASE:

DRAWING DESCRIPTION:
SECOND STORY PLAN

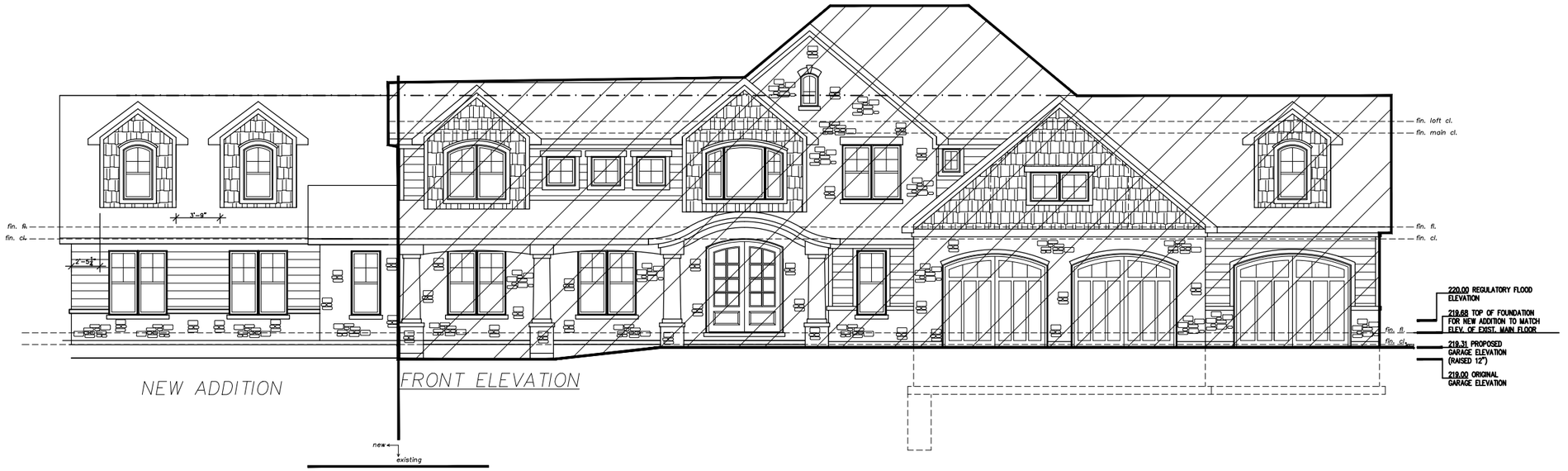
OKE WOODSMITH BUILDING SYSTEMS
DESIGN & ADMINISTRATION OFFICE
70984 BLUEWATER HIGHWAY
GRAND BEND, ONTARIO
PHONE: 519.238.8808
EMAIL: woodsmith@okewoodsmith.com
WEBSITE: www.okewoodsmith.com

OWS
Oke Woodsmith

SHEET No.
A2
DRAWING SCALE: 1/4"=1'-0"

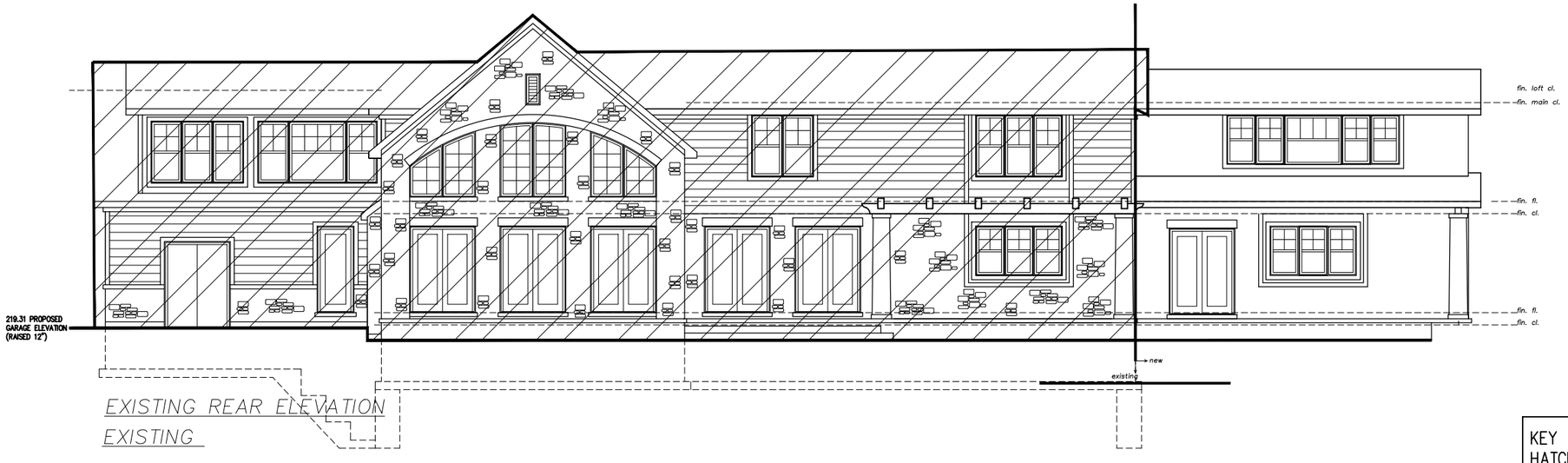


DORMER DETAIL



NEW ADDITION

FRONT ELEVATION



EXISTING REAR ELEVATION
EXISTING

KEY
HATCH INDICATES
EXISTING STRUCTURE

CONSULTANTS:

ISSUED BY:

PROJECT LOCATION: 49 BLACKBURN CREST. ZURICH, MUNICIPALITY

DRAWING DATE: August 9, 2023

PROJECT: LINDSAY PRELIMINARY DESIGN
2023 ADDITION

PROJECT PHASE:

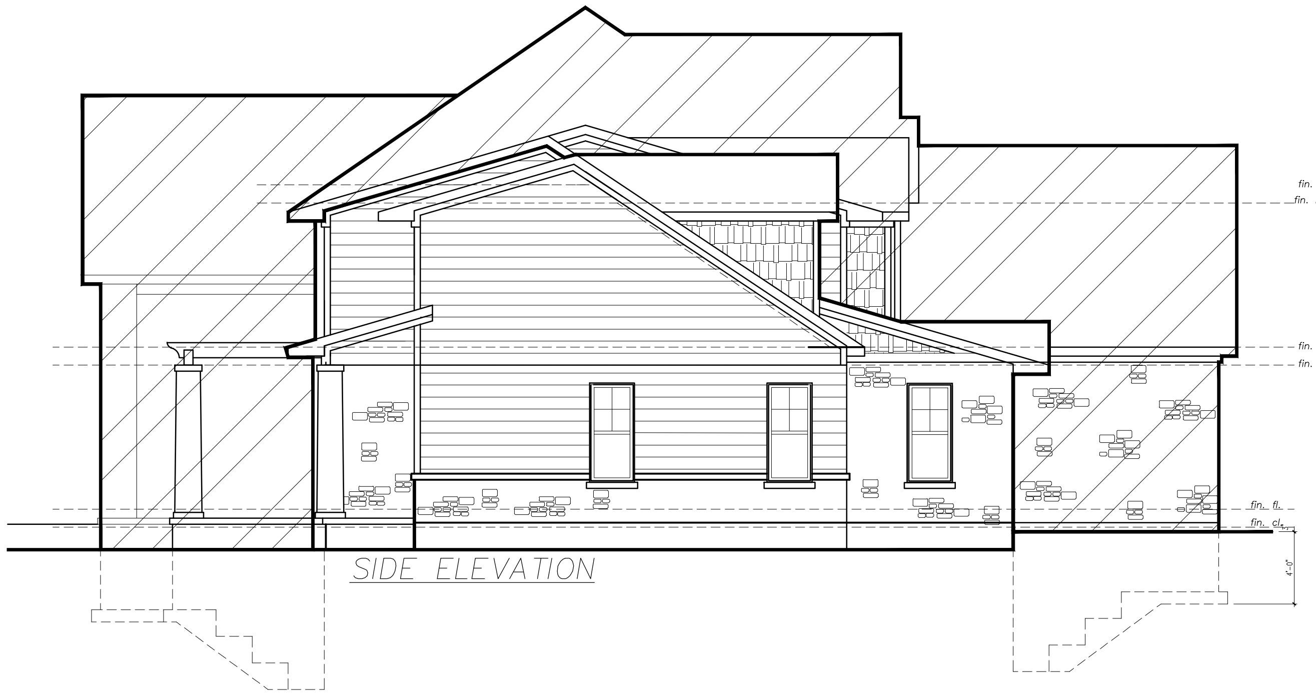
DRAWING SUBJECT: ELEVATIONS

OKE WOODSMITH BUILDING SYSTEMS
DESIGN & ADMINISTRATION OFFICE
70964 BLUEWATER HIGHWAY
GRAND BEND, ONTARIO
PHONE: 519.238.5893
EMAIL: woodsmith@okewoodsmith.com
WEBSITE: www.okewoodsmith.com

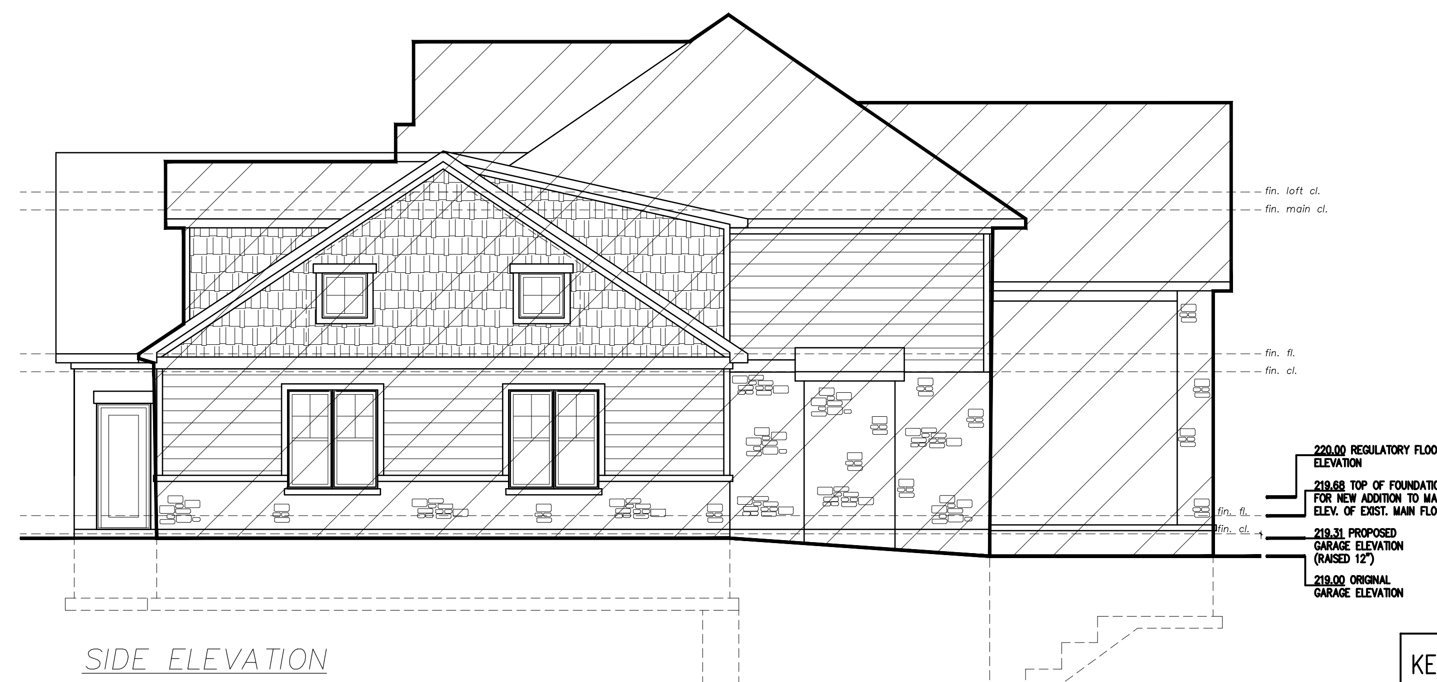
OWS
Oke Woodsmith

SHEET No. A3

DRAWING SCALE 3/32"=1'-0"



SIDE ELEVATION



SIDE ELEVATION

KEY
HATCH INDICATES
EXISTING STRUCTURE
▨

OKE WOODSMITH BUILDING SYSTEMS INC

CONSULTANTS:

DESIGN BY:

PROJECT LOCATION:
49 BLACKBURN CREST.
ZURICH, MUNICIPALITY

DRAWING DATE:
August 9, 2023

PROJECT:
LINDSAY PRELIMINARY DESIGN
2023 ADDITION

PROJECT PORTION:

DRAWING SUBJECT:
ELEVATIONS

OKE WOODSMITH BUILDING SYSTEMS
DESIGN & ADMINISTRATION OFFICE
70964 BLUEWATER HIGHWAY
GRAND BEND, ONTARIO
PHONE: 519.238.8893
EMAIL: woodsmith@okewoodsmith.com
WEBSITE: www.okewoodsmith.com

OWS
Oke Woodsmith

SHEET NO:
A4
DRAWING SCALE: 3/32"=1'-0"

OKE WOODSMITH BUILDING SYSTEMS INC

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CONSULTANTS:

DESIGN BY:

PROJECT LOCATION: 49 BLACKBURN CREST. ZURICH, MUNICIPALITY

DRAWING DATE: August 9, 2023

PROJECT:

LINDSAY PRELIMINARY DESIGN

2023 ADDITION

PROJECT PORTION:

DRAWING SUBJECT: SITE PLAN N.T.S

OKE WOODSMITH BUILDING SYSTEMS
DESIGN & ADMINISTRATION OFFICE
70964 BLUEWATER HIGHWAY
GRAND BEND, ONTARIO
PHONE: 519.238.8893
EMAIL: woodsmith@okewoodsmith.com
WEBSITE: www.okewoodsmith.com

OWS
Oke Woodsmith

SHEET NO: S1

DRAWING SCALE: 3/32"=1'-0"