

Upper Thames River Conservation Authority Hearing Committee Meeting Agenda

Date: November 26, 2024

Time: 1:00pm

Place: Watershed Conservation Centre Board Room, Fanshawe Conservation Area – 1424 Clarke Road, London, ON

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 – August 27, 2024

4. Business Arising from the Minutes

5. Application #153-24

Proposed Development Activity within a Riverine Flooding Hazard Regulated by UTRCA located at 1310 Adelaide Street North and 795 Windermere Road, City of London

6. Adjournment

Tracy Annett, General Manager

HEARING PROCEDURES

a) Motion to sit as Hearing Committee

Proposed wording for Motion: To sit as a Hearing Committee to consider application #153-24 by **2796539 Ontario Inc. c/o Farhad Noory of Royal Premier Development** to consider development within a riverine flood hazard associated with a river or stream valley and within an area regulated by the Upper Thames River Conservation Authority at 1310 Adelaide Street North and 795 Windermere Road in the City of London, Ontario.

b) The Chair asks if any of the Hearing Committee members have any conflicts to declare related to the hearing.

c) Roll Call followed by the Chair's opening remarks. For electronic hearings, the Chair shall ensure that all parties and the Hearing Committee are able to clearly hear one another and any witnesses throughout the hearing.

d) The Chair will start a round-table self-introduction to include the Hearing Committee members, staff present, the applicant/owner, their agent and others wishing to speak.

e) Staff will indicate the nature and location of the subject application and the conclusions.

f) Staff will present the staff report included in the agenda.

g) The applicant and/or their agent will present their material.

h) Staff and the conservation authority's agent may question the applicant and/or their agent if reasonably required for a full and fair disclosure of matters presented at the hearing.¹

i) The applicant and/or their agent may question the conservation authority staff and/or their agent if reasonably required for full and fair disclosure of matters presented at the Hearings.²

1 As per the Statutory Powers Procedure Act a tribunal may reasonably limit further examination or cross-examination of a witness where it is satisfied that the examination or cross-examination has been sufficient to disclose fully and fairly all matters relevant to the issues in the proceeding.

2 As per the Statutory Powers Procedure Act a tribunal may reasonably limit further examination or cross-examination of a witness where it is satisfied that the examination or cross-examination has been sufficient to disclose fully and fairly all matters relevant to the issues in the proceeding.

j) The Hearing Committee will question, if necessary, both the staff and the applicant/agent.

The Hearing Committee will move into deliberation. For Electronic meetings, the Hearing Committee will separate from other participants for deliberation.

i. In the event that the Hearing Committee is able to make a decision within a reasonable length of time, the Hearing Committee will reconvene the hearing and announce its decision.

ii. In the event that the Hearing Committee wishes more time within which to consider its decision, the hearing will be adjourned and the applicant and staff will be advised that a decision will be made by the Hearing Committee, which decision will be communicated to both the applicant and staff.

k) Members of the Hearing Committee will move and second a motion.

l) A motion will be carried which will culminate in a decision

m) In all events, the Chair or Acting Chair of the Hearing Committee will advise the staff and the applicant/owner of the Hearing Committee's decision in writing.

n) If decision is "to refuse", or "approve with conditions", the Chair or Acting Chair shall provide the applicant reasons for the decision and notify the owner/applicant of his/her right to either:

1. Request a Minister's review within 15 days of receiving reasons for the authority's decision; or
2. Appeal the authority's decision to the Ontario Land Tribunal within 90 days after receiving the reasons for the authority's decision.

In accordance with section 28.1 subparagraphs (8) to (26) of the Act.

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: 2796539 Ontario Inc. (Farhad Noory) c/o Royal Premier Development
(Application #153-24)

For consideration of a Permit from the Upper Thames River Conservation Authority pursuant to Regulations made under Section 28 of said Act.

TAKE NOTICE that a hearing before the Hearings Committee of the Upper Thames River Conservation Authority will be held under Section 28.1(5) of the *Conservation Authorities Act* at the UTRCA Administration Office, 1424 Clarke Road, London, Ontario N5V 5B9 at the hour of **1:00 pm, Tuesday, November 26, 2024** with respect to the application by 2796539 Ontario Inc. to permit development with a flooding hazard regulated by the Upper Thames River Conservation Authority under Section 28 of the *Conservation Authorities Act* and Ontario Regulation 41/24 at 1310 Adelaide Street North and 795 Windermere Rd, City of London, 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 November 26, 2024. If you intend to appear and/or submit further written material, please contact Joe Gordon ((519)-451-2800 ext. 334, e-mail: gordonj@thamesriver.on.ca). Any further written material (submitted electronically) will be required prior to Friday, November 8, 2024, 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 November 15, 2024 (local time) as to whether you and/or your agent(s) will be attending. A copy of Ontario Regulation 41/24 and Section 28 of the Conservation Authorities Act will be made available to you upon request.

DATED the 25th Day of October, 2024

Registered
The Hearings Committee of
The Upper Thames River Conservation Authority



Tracy Annett, General Manager/Secretary-Treasurer

TO: Chair and Members of the UTRCA Hearing Committee

FROM: Joe Gordon, Regulations Coordinator

DATE: November 26, 2024

FILE NUMBER: HC-11-24-07

AGENDA ITEM: #5

SUBJECT: Section 28 Permit Application #153-24 for Proposed Development Activity within a Riverine Flooding Hazard Regulated by UTRCA located at 1310 Adelaide Street North and 795 Windermere Road, City of London

RECOMMENDATION:

THAT Application #153-24 for the proposed development activity within a riverine flooding hazard regulated by the UTRCA at 1310 Adelaide Street North and 795 Windermere Road, City of London be refused for the following reasons:

1. The development *is an intensification of the property as a whole*, contrary to UTRCA Replacement Structures in the Floodway Policy 4.2.2.6 c) iii) and therefore, should be considered under new development policies.
2. The development is located within a high risk floodway :
 - a) that would be rendered inaccessible to people and vehicles (*ie. Safe Access*) during times of flooding hazards, contrary to UTRCA Floodway and Riverine Flooding Hazard Policies 3.2.3.1(4) & 4.2.1(a) & 4.2.2(e) and PPS policy 3.1.2 c);
 - b) that results in an area of inundation that contains high points of land not subject to flooding, contrary to UTRCA Floodway Policy 3.2.3.1(2) and PPS policy 3.1.2 d);
3. The development includes activities that rely upon lands owned by the UTRCA and managed by the City of London under agreement (Flood Plain Acquisition Program). UTRCA land management staff do not support such proposed activities upon its lands for the purpose of facilitating private development on abutting properties.
4. The prior City of London Official Plan and Zoning Bylaw amendment (OZ-8709) to permit the proposed land uses was not supported by UTRCA; and
5. Therefore, the development activity will likely create conditions or circumstance that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property.

SUMMARY:

- A *Conservation Authorities Act* [Section 28] permit application has been submitted for development within a high risk flood area of the North Thames River and within an area regulated by Upper Thames River Conservation Authority (UTRCA).
- The application proposes replacement of prior existing buildings and structures (demolished in 2021) that previously existed within the floodplain with *“two new non-residential buildings consisting of a restaurant and commercial retail/service uses with surface parking”*.

- The current development proposal represents a significant departure from a replacement concept that was previously supported by UTRCA staff in principle, and subject to satisfying UTRCA policy and consideration of the UTRCA Hearing Committee.
- Application #153-24 proposes dry-passive flood-proofing and site-specific flood damage mitigation measures in attempt to address UTRCA’s Replacement of Structures in the Floodway policy requirements.
- The proposed development results in an intensification of the property as a whole where safe access cannot be achieved during a regulatory flood event which is contrary to UTRCA and Provincial Natural Hazard policies.
- The application is further complicated by recent municipal zoning and official plan amendments that were approved by London Council to permit the proposed land uses despite objections from their own professional planning staff and the UTRCA.
- Several components of the development concept rely upon works to be constructed on abutting lands owned by UTRCA. Although the lands are subject to terms and conditions outlined within a land management agreement with the City of London, UTRCA should not support construction, temporary or permanent, upon its lands for the sole purpose of facilitating private development on an abutting property.

APPLICATION:

A Section 28 permit application (#153-24) has been submitted for development activity within an area entirely regulated by the Upper Thames River Conservation Authority (UTRCA). Specifically, the proposed activities include development within a floodway of a riverine flooding hazard located at 1310 Adelaide Street North and 795 Windermere Road (“the subject lands”) within the City of London.

The applicant proposes to replace previous structures which were located on the subject lands with the construction of two new non-residential buildings consisting of a restaurant (ie. McDonalds with drive-thru) and commercial retail/service uses (ie. Shops) with surface parking.

The following structures previously existed upon the subject lands when replacement proposal discussions began. All pre-existing structures were demolished after 2021 as a result of fire damage and to facilitate future development:

- 1310 Adelaide St N: existing vacant residential dwelling with ancillary buildings/structures
- 795 Windermere Rd: a former Goodlife Fitness centre with outdoor recreational amenity spaces

SITE INFORMATION:

The subject lands are currently vacant and are entirely affected by regulations enacted under Section 28 of the *Conservation Authorities Act*. The regulation applies to the subject lands because they are located within a confined river or stream valley, adjacent to a watercourse (North Thames River) and are subject to riverine flooding hazards during a regulatory storm event.

The subject lands are located within a high risk flood area subject to frequent flooding from the North Branch of the Thames River. Historically, there have been multiple flood events that have resulted in road closures and/or damage to properties in the vicinity of the intersection of Adelaide Street North and Windermere Road.

The surrounding land uses are primarily environmental greenspace and open passive recreational uses as a result of the flooding hazard risks and constraints within the valley system.

Please refer to the following attachments:

Attachment #1 – Location Map

Attachment #2 – UTRCA Regulation Limit Mapping

Attachment #3 – Photographs of Historical Flooding Events

PLANNING BACKGROUND:

2014 Initial Development Proposal (1310 Adelaide St N – Retail, Personal Service, Office)

UTRCA staff has been involved with the planning/pre-consultation process for the subject lands since 2014. At that time, the previous landowner approached the City and the UTRCA regarding the possibility of redeveloping the site pursuant to the UTRCA's policies for Replacement Structures in the Floodway. While the proposal was not in keeping with the typical/traditional approach for replacement structures, it was communicated that the initial project had merit subject to satisfying all of the policy and technical requirements of UTRCA, including consideration of the UTRCA Hearing Committee.

The initial proposal consolidated the gross floor area of the prior structures associated with the former Goodlife fitness facility and the residential dwelling. Through the review of City building records, it was determined that the existing total/maximum permitted gross floor area of the buildings on site was 982m² and that there were 9 parking spaces associated with the uses. UTRCA was of the understanding that the initial replacement project was to be entirely located on the 1310 Adelaide Street North portion of the subject lands. The initial proposal appeared to provide for an improved layout and a structure that was safer and floodproofed.

The prior landowner intended to dedicate the balance of the lands known municipally as 795 Windermere Road to the City as parkland, which City staff deemed to be a public net benefit. Accordingly, the City agreed to credit 68 parking spaces located on the abutting public parkland property (815 Windermere Road) to the replacement project. The abutting land is owned by the UTRCA but is being managed as parkland through a management agreement with the City of London. The east parking lot on the abutting property was to be restored to open space by the previous landowner. The informal west parking lot containing 42 spaces was to remain to serve the City-managed sport fields. Effectively, there are a total of 119 existing parking spaces combined on the development site and on the abutting public lands. Of those spaces, 77 in total (68 on public lands and 9 from the former Goodlife operation) were previously agreed to be allocated for a potential replacement commercial structure/use(s) upon the subject lands.

The initial concept proposed one structure intended to accommodate locally-oriented commercial uses such as retail, personal service and small-scale office uses. It should be noted that no prior UTRCA approvals were provided for the initial development as the previous landowner did not complete the required modelling of the floodplain which was a key component of securing the support of UTRCA at that time.

Current Development Proposal – (1310 Adelaide St N/795 Windemere Rd – Drive-Through Restaurant & Shops)

The current development proposal (2024) represents a significant departure from the initial replacement concept and prior proposed public benefit that City and UTRCA staff previously agreed had merit, in principle. The current proposal includes two (2), one storey, commercial buildings with a combined gross floor area of 975.6 m², requiring 33 parking spaces.

One of the buildings is proposed for a drive through fast food restaurant with queuing for an additional 12 vehicles. The second commercial building has two (2) commercial units labelled as “SHOPS”. The proposed replacement structures are wholly located on the subject lands known municipally as 1310 Adelaide Street North and 795 Windermere Road.

The previous zoning of the subject lands was *Open Space Special Provision (OS4(2))*, which is a restrictive open space zone, generally applied to natural hazard lands with limited development permissions. The special provision in this zoning allowed for *commercial recreation establishments in existing buildings*, (ie. Goodlife Fitness) in addition to the uses permitted in the *OS4* zone. This use is considered to be relatively passive as indicated by the parking requirement of 1 parking space for 50m² of gross floor area. The subject lands and the surrounding area are located within a high risk flood area and within the floodway of the North Thames River. The limited range of uses and structures permitted under the *OS4(2)* Zone would have been required to satisfy the regulatory requirements of UTRCA, including but not limited to safe access and floodproofing.

The Official Plan designation and zoning of the subject lands was approved by London City Council on February 13, 2024 despite objections from UTRCA and their own professional planning staff. The UTRCA did not support the amendment due to the floodplain and safe access concerns noted above, and requested that the subject lands remain within the *Open Space 4 Zone (OS4)*, with *special provision regarding use permissions and restrictions*, maximum gross floor area, and maximum parking requirements. The City of London professional planning staff recommended denial of the proposed permitted uses associated with the application to amend the zoning of the subject property.

Throughout the municipal planning process, UTRCA staff recommended a scoped range of commercial uses that may be considered appropriate considering UTRCA’s replacement structure policies upon the subject lands. UTRCA did not support the “Drive-thru Facility” use; however other lower intensity commercial and office uses were outlined in the recommendation.

Despite the concerns raised by UTRCA and City of London Planning staff, the proposed Official Plan and Zoning By-law amendments were approved by Council. The text of the Official Plan was amended to include Specific Policies for the Green Space Place Type and Map 7 – Specific Policy Areas was amended to identify the subject lands. The Zoning By-law was amended to Open Space 4 Zone with special provisions and site-specific holding provisions (h-18)*OS4(14). The site-specific zoning of the subject lands includes retail stores and one (1) restaurant, among other uses, as permitted uses.

Please refer to the following attachments:

Attachment #4 – Existing Site Conditions (SBM Ltd.)

Attachment #5 – 2014 Development Concept (York Development Group, 2016)

Attachment #6 – 2024 Conceptual Site Plan (SBM Ltd.)

Attachment #7 – UTRCA Letter of December 8, 2023

PROPOSAL:

The Section 28 application was received by the UTRCA on June 21, 2024 with final clarifications provided on October 15, 2024. The application is for development activity that includes land uses that UTRCA could not support as part of the prior City of London Official Plan and Zoning By-law Amendments.

The application was submitted by Strik Baldinelli Moniz Ltd on behalf of the owner 2796539 Ontario Inc. (Farhad Norry) c/o Royal Premier Development and included the following supporting documentation:

- i. **Cover Letter – Request for UTRCA Hearings Committee** – 1310 Adelaide Street North and 795 Windermere Road, London prepared by Strik, Baldinelli Moniz Ltd., dated June 20, 2024
- ii. **UTRCA Section 28 Permit Application Form** – 1310 Adelaide Street North and 795 Windermere Road, London prepared by Strik, Baldinelli Moniz Ltd., dated June 21, 2024
- iii. **2D Hydraulic Modeling Assessment – Version 3** prepared by Matrix Solutions Inc., dated October 6, 2023
- iv. **Site Plan & Zoning Chart** – 1310 Adelaide Street North and 795 Windermere Road, London, ON, Sheet No. SP1, prepared by Strik, Baldinelli Moniz Ltd., dated June 20, 2024
- v. **Civil Plans** – 1310 Adelaide Street North and 795 Windermere Road, London, ON, prepared by Strik, Baldinelli Moniz Ltd., dated June 20, 2024 *provided with a stamped and not stamped version
- vi. **Civil Plans** – 1310 Adelaide Street North and 795 Windermere Road, London, ON, prepared by Strik, Baldinelli Moniz Ltd., signed/sealed R.S. Frouws, dated June 20, 2024 *provided with a stamped and not stamped version
- vii. **Stormwater Management Report Proposed Redevelopment** - 1310 Adelaide Street North & 795 Windermere Road, London, Ontario prepared by Strik, Baldinelli Moniz Ltd., dated June 20, 2024;
- viii. **Response to UTRCA Review Comments** (Dec. 23, 2023) – 1310 Adelaide Street North and 795 Windermere Road, London, ON, prepared by Strik, Baldinelli Moniz Ltd., dated June 21, 2024
- ix. **Memo to City of London Planning & Environment Committee**, 1310 Adelaide Street North and 795 Windermere Road prepared by Royal Premier Homes, dated January 29, 2024
- x. **Existing Site Conditions** – prepared by Strik Baldinelli Moniz Ltd., dated June 29, 2024
- xi. **Commercial Development Plan** – 13010 Adelaide St N & 795 Windmere Rd, prepared by Strik Baldinelli Moniz Ltd., Revision 3, dated June 9, 2024.
- xii. **Municipal Parking & Typ Development** – 816 Windemere Road, prepared by Strik Baldinelli Moniz Ltd., Revision 3, dated June 9, 2024.
- xiii. **Response to UTRCA Review Comments** (Sept. 6, 2024) RE: SPC-03-2022 prepared by Strik Baldinelli Moniz Ltd.
- xiv. **Preliminary Construction Management Plan** (SBM, 03/10/24)
- xv. **SBM email of October 15, 2024** RE: alternate outlet for drainage channel.

In general, the application for development of the subject lands within a flooding hazard attempts to address UTRCA policy for replacement of structures in the floodway. It incorporates dry-passive flood-proofing measures that raise the existing grades of the defined development area (ie. an area where all buildings and parking are proposed) to an elevation above the regulatory flood standard. The application also proposes site-specific flood damage mitigation measures that consist of two vegetated drainage channels around the perimeter of the defined development area to provide major overland conveyance to the North Branch of the Thames River. The preferred outlet for the drainage channels crosses UTRCA lands to the south.

A Floodplain Impact Assessment was prepared by Matrix Solutions Inc. (V.3 October 6, 2023) and submitted in support of the application. The following are some of the conclusions of, but not limited to, the floodplain impact assessment:

Regulatory Event

- Adelaide Street: The preferred site layout changes flow conveyance over Adelaide Street during the Regulatory flow event causing a redistribution of velocity-based flood risk along Adelaide Street. Despite this change in the spatial distribution of flood risk, there is no expected net increase in high flood risk and there is no change in the access and egress conditions along Adelaide Street compared to existing conditions.
- Onsite Flood Risk Impacts: The proposed floodproofing reduces flood risk on the site and the City-owned parking lot and proposed fieldhouse.
- Offsite Depth Impacts: The proposed floodproofing does not increase flood depth along Windermere Road, Adelaide Street, and adjacent private property (1324 Adelaide Street). Changes in flood depth on the development site and adjacent City owned property are associated with changes in grading. These changes do not increase flood risk during the Regulatory Flood.
- Offsite Velocity Impacts: The proposed floodproofing changes floodplain conveyance immediately surrounding the site which results in a redistribution of flow velocity on the adjacent City-owned property and 1324 Adelaide Street. Most of 1324 Adelaide Street north of Windermere Road is shown to have a decrease or no change in velocity. A small area of nominal increase in velocity (+0.1 m/s to +0.25 m/s) is observed on the south-west corner of 1324 Adelaide Street. This is offset by a much larger area of nominal decrease in velocity (-0.1 m/s to -0.25 m/s) adjacent to Windermere Road. The velocity in the area experiencing the nominal increase remains below 1.0 m/s, therefore, there is no increase in flood risk (velocity is less than 1.7 m/s or high velocity-based flood risk) and will not increase flood damages or place existing structures at additional risk of failure.

Access and Egress

- Access and Egress: The existing site entrance off Windermere Road is not accessible during the Regulatory flow event due to water depths exceeding 0.3 m. Additionally, Windermere Road becomes inundated during lower flows (e.g. 850 cms) which would restrict access/egress during these lower flow events. Due to the higher elevation of Adelaide Street, access/egress to the site can be maintained for higher flows and for a longer period during the Regulatory flow event compared to the existing entrance off Windermere Road. Therefore, a second entrance was provided off Adelaide Street to improve access and egress during flooding events. Adelaide Street remains accessible by emergency vehicles under the Regulatory event and is dry under lower flow events (e.g. 850 cms). A suitably sized culvert crossing under the Adelaide Street and Windermere Road entrances will be required to accommodate the conveyance channel.

Cut Fill Balance:

- The floodproofing provided for the 1310 Adelaide Street property, the proposed fieldhouse, and the City-owned parking lot improvements results in a net fill for the site.
- Opportunities to compensate on site were assessed. The surrounding grading and proximity to Adelaide Street and Windermere Road prevented achieving a cut fill balance. A total of 2,596 m³ of cut was achieved through the conveyance channels. The cut within the channels was constrained by the elevation of the receiving roadside ditch.
- There are no offsite compensation opportunities due to the surrounding land use constraints.
- The stage storage analysis shows an increase in flood storage below 242.75 m due to the cut for the flow conveyance channels and a loss of storage above 242.75 due to the fill associated with the floodproofing.

- *The net fill for the site is 4,434 m³. This volume is 0.23% of the available floodplain storage volume within this reach of the North Branch of the Thames River (from Adelaide Street North to approximately 2.2 m upstream. The small fill volume is not expected to impact flood storage considering the very large storage available within this reach.*

Site Plan Considerations

- *The flow conveyance channel considered in the model has approximate dimensions of 2 m bottom width, 4:1 side slopes and 0.5 to 2.0 m depth.*
- *Higher velocities are experienced at the corners of the fill site. The site grading should include rounded/smoothed corners to reduce the abrupt change in flow direction. Additionally, erosion protection will be considered at these locations.*

While a number of improvements have been made to the site and the proposed structures with respect to floodproofing, the overall flood risk has not changed. The impact assessment concludes that there is no expected net increase in flood risk and that the proposed development site is floodproofed, but the site remains within and surrounded by high risk flooding hazards during a regulatory storm.

The Matrix Solutions assessment also provided statements with specific regard to compliance with UTRCA's Replacement of Structures in the Floodway policy but acknowledges that their engineering study did not discuss the policy requirement for intensification of use.

As part of the prior municipal planning approval process, a Planning Justification Report prepared by Strik Baldinelli Moniz Ltd provided the following response on the intensification of the proposed development in an attempt to address UTRCA policy 4.2.2.6 c) iii).

“Response: *The proposed floodproofing would improve the entire site and remove the flood risk for the proposed buildings, as demonstrated in the Flood Impact Assessment which reviewed up to the Regulatory Event.*

Potential risk may be considered in terms of consequences, such as the number of persons at risk of loss of life or for the dollar value of property damage. In terms of flood damage costs, the proposed development remains unchanged, if not reduced, from the former commercial use as the proposed ground floor area remains the same however the new buildings would be floodproofed.

As suggested in policy (ii), the type of use would also vary the levels of risk to loss of life. Residential uses pose a higher level of risk, thus conversion from residential uses to non-habitable uses is a preferred intensification of use. Commercial uses generally do not require lengthy or overnight periods of stay and are designed for prompt evacuation and access by emergency services and therefore have less risk.

Intensity of uses (policy iii) is also considered to measure risk. For the proposed development, the intensity of commercial use remains the same, if not improved (less intense) with regard to risk.

The intended commercial (ex. drive-through restaurant, retail, and personal service) uses would have higher visitors per day but, would also typically have less occupancy limits under the Ontario Building Code than other commercial/office uses. For instance, a recreational facilities may have larger washrooms, changing facilities, and open rooms/gymnasiums to accommodate

a larger assembly of people (e.g. spectators, training classes), while restaurants and retail spaces are limited by the number of washrooms or fixed seating, and require larger unoccupied spaces such as storage areas. Therefore, the number of people using the facilities, or building occupancy, would be lower at any moment of time.

While the former recreational use would have less visitors per day, the length of stay would also be longer and more involved – including activities where people may be unaware of the surroundings (e.g. wearing headphones, showering, sport). Whereas restaurants or retail commercial stores may have a higher volume of users, but the visit would be a shorter duration and less involved; therefore, able to immediately evacuate if needed.

The floodproofing reduces risk to property damage and public safety by removing the flood risk within the property limits for the buildings and entire parking area. The proposed use of the buildings would be for commercial uses that have a short-term visit with a smaller occupancy limit and would not exceed the potential risk associated with the previous development.”

UTRCA did not support the prior municipal Official Plan and Zoning By-Law amendment including the rationale provided on intensification of use.

Application #153-24 has been referred to the UTRCA Hearing Committee due to existing policy requirements for “Replacement of Structures in the Floodway” and because UTRCA staff are not in a position to offer support for the application.

Please refer to the following attachments:

Attachment #8 – Commercial Development Plan (SBM)

Attachment #9 – Floodplain Impact Assessment (Matrix Solutions Inc.)

OTHER FACTORS:

The following are other factors related to the subject application file:

- As part of the municipal planning process, the applicant proposed compensation through improvements on the abutting parkland and parking lot as a community benefit.
- The abutting parkland property located at 815 Windermere Road is owned by the UTRCA and is managed by the City of London under a Land Management Agreement (Scheme 43 Agreement – Floodplain Acquisition Program).
- Application #153-24 being considered is solely for the subject lands (Phase 1) and does not include any proposed development activity (temporary or permanent) upon the abutting parkland property of 815 Windermere Road (Phase 2) at this time.
- The Preliminary Construction Management Plan (SBM, 03/10/24) illustrates a preferred outlet for construction of the perimeter drainage swale across lands owned by UTRCA and is labelled as “Phase 2 Construction”. Subsequent information from the applicant suggests an alternate outlet may be viable that avoids construction of the outlet on abutting property. However, the alternate option has yet to be reviewed by UTRCA technical staff.
- The applicant has also included for consideration of Phase 2 development, a Preliminary Grading Plan for proposed Municipal Parking and TVP Development prepared by SMB, September 9, 2024. The plan for UTRCA owned land illustrates a new washroom building and a mixed surface parking area with 91 proposed parking spaces.

- The subject lands are under historical agreements with UTRCA established in 1984 and 1986. Portions of the recreational amenities (ie. tennis courts) with the former Goodlife Fitness Centre are located upon the abutting parkland owned by UTRCA. Notwithstanding the applicant’s compensation proposal these agreements require that the owners are required to demolish and remove all structures and utilities that currently encroach upon UTRCA owned lands.
- All Phase 2 development activities intended upon 815 Windermere Road will require a subsequent Section 28 permit application to UTRCA and will require applicable authorization from the City of London and, if applicable, written approval by the Authority.

Please refer to the following attachments:

Attachment #10 – Municipal Parking & TVP Development Plan (SBM)

Attachment #11 – SBM Email of October 15, 2024

LEGISLATIVE POLICY CONSIDERATIONS:

UTRCA staff relies upon the following legislation and policy framework to review and assess applications for permits submitted under section 28 of the *Conservation Authorities Act*:

Conservation Authorities Act (CA Act):

Section 28(1) of the *Conservation Authorities Act* (CA Act) generally states that no person shall carry out development activities or permit another person to carry out development activities in the area of jurisdiction of the Authority.

Section 28.1(1) of the CA Act allows the Authority to issue a permit to a person to engage in activities specified in the permit that would otherwise be prohibited by section 28, if in the opinion of the Authority,

- (a) *the activity is not likely to affect the control of flooding, erosion, dynamic beaches or unstable soil or bedrock;*
- (b) *the activity is not likely to create conditions or circumstances that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property; and*
- (c) *any other requirements that may be prescribed by the regulations are met.*

“Ontario Regulation 41/24: Prohibited Activities, Exemptions and Permits” enacted under Section 28 of the CA Act further prescribes the areas of jurisdiction, prohibited activities, exemptions and application process requirements.

Conservation Authorities Act: <https://www.ontario.ca/laws/statute/90c27>

Ontario Regulation 41/24: <https://www.ontario.ca/laws/regulation/r24041>

UTRCA Board Approved Policies:

The UTRCA’s Environmental Planning Policy Manual (Revised October 24, 2017) provides the policy direction for UTRCA staff’s administration when reviewing applications made under Section 28 of the *Conservation Authorities Act*. The following UTRCA policies are applicable to the subject application for development activity within a riverine flooding hazard:

3.2.3.1 Floodway Policies

1. *Floodway policies apply to all land within the Regulatory Flood Plain except for specifically identified flood fringe areas and specifically identified Special Policy Areas.*
2. *Development and site alteration is generally prohibited within the floodway of any watercourse regardless of whether the area of inundation contains high points of land not subject to flooding.*
4. *For new development, vehicular and pedestrian access must be dry (at or above the Regulatory Flood Elevation).*

4.2.1 General Policies for Hazard Limit

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.*
 - b. *No new hazards will be created and existing hazards will not be aggravated.*
 - c. *No adverse environmental impacts will result.*
 - d. *The development does not include institutional uses or essential emergency services or the disposal, manufacture, treatment or storage of hazardous substances.*

4.2.2 Riverine Flooding Hazard Policies

1. *Floodway – New development is generally not permitted within the floodway of any watercourse.*
6. *Replacement of 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 non-habitable to 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” and “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.*
12. *Parking Lots – Parking lots will only be considered within the flooding hazard limit in cases where the flooding hazard limit is within a not-apparent valley or in areas of existing development within the valley with acceptable access to the site. ...*

Definition of “Floodway”:

UTRCA Environmental Policy Manual:

Floodway means the channel of a watercourse and the inner portion of the flood plain where flood depths and velocities are generally greater than those experienced in the flood fringe. The floodway represents that area required for the safe passage of flood flow and/or that area where flood depths and/or velocities are considered to pose a potential threat to life and/or property damage. Where the one zone concept is applied, the floodway is the entire contiguous flood plain.

<https://thamesriver.on.ca/wp-content/uploads/EnvPlanningPolicyManual-update2017.pdf>

2020 Provincial Policy Statement (PPS)

The 2020 Provincial Policy Statement (2020 PPS) is a guiding policy document issued by the Province of Ontario in which all planning and development applications made under the *Ontario Planning Act* must be consistent with. Section 3 – Protecting Public Health and Safety of the 2020 PPS provides the provincial direction on natural hazards management. These policy statements, reflecting matters

considered provincial interests, form the regulatory objectives of UTRCA's Board Approved Policies for Conservation Authorities Act, Section 28 permit applications.

Ontario's long-term prosperity, environmental health and social well-being depend on reducing the potential for public cost or risk to Ontario's residents from natural or human-made hazards.

Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage, and not create new or aggravate existing hazards.

Mitigating potential risk to public health or safety or of property damage from natural hazards, including the risks that may be associated with the impacts of a changing climate, will require the Province, planning authorities, and conservation authorities to work together.

The following are applicable natural hazard policies of the PPS:

3.1.1 *Development shall generally be directed, in accordance with guidance developed by the Province (as amended from time to time), to areas outside of:*

...

b) hazardous lands adjacent to river, stream or small inland lake systems which are impacted by flooding hazards, erosion hazards and/or dynamic beach hazards;

c) hazardous sites.

3.1.2 *Development and site alteration shall not be permitted within:*

...

c) areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of the development and the natural hazard;

d) a floodway regardless of whether the area of inundation contains high points of land not subject to flooding.

Definition of "Floodway"

Provincial Policy Statement:

Where the two zone concept is applied, the floodway is the contiguous inner portion of the flood plain, representing that area required for the safe passage of flood flow and/or that area where flood depths and/or velocities are considered to be such that they pose a potential threat to life and/or property damage. Where the two zone concept applies, the outer portion of the flood plain is called the flood fringe.

<https://files.ontario.ca/mmah-provincial-policy-statement-2020-accessible-final-en-2020-02-14.pdf>

On October 22, 2024, the 2024 Provincial Planning Statement (2024 PPS) came into effect. The 2024 PPS replaces the 2020 PPS. General policy direction for protecting public health and safety, include policies for natural and human-made hazards, is contained within Sections 5.1 to 5.3. Direction within the 2024 PPS generally reflects the statements of the 2020 PPS

<https://www.ontario.ca/files/2024-08/mmah-provincial-planning-statement-en-2024-08-19.pdf>

CONCLUSION:

UTRCA staff have reviewed the details of Application #153-24 and supporting documentation with consideration of the legislative and policy framework described above.

Staff is recommending denial of Application #153-24. The area is a high flood risk area within a floodway of the North Thames River that is routinely subject to flooding causing overtopping of roads and/or damage to private properties. The proposed development activity is an intensification of use to the property as a whole where safe access cannot be achieved during a Regulatory Storm event. These considerations are contrary to Riverine Flooding Hazard and Floodway policies of UTRCA's Environmental Planning Policy Manual and guiding natural hazard policies of the 2020 Provincial Policy Statement and the 2024 Provincial Planning Statement.

UTRCA's Replacement Structures in the Floodway policies were not intended to support increased commercial development opportunities or intensification of existing uses or the property as a whole within the floodway. Replacement policies are intended to allow existing structures located in the floodway (prior to current prohibitive policies) to continue to maintain their existing use, or a use that exhibits a lesser risk, and for any hardships that may be experienced from existing structures being destroyed by forces other than flooding and erosion. (ie. Fire, wind damage, old age, etc..)

While a number of improvements have been made to the site with respect to floodproofing, the overall flood risk has not changed. The impact assessment concludes that there is no expected net increase in flood risk and that the proposed development site is floodproofed, but the site remains within and surrounded by high risk flooding hazards during a regulatory storm. As a result of the intensification of use, the proposed development does not satisfy UTRCA's Replacement Structures in the Floodway policy and should be considered as new development.

In consideration of the above, the proposed development activity will likely create conditions or circumstances that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property. Therefore, staff cannot support issuing a permit for the proposed development pursuant to section 28.1 of the *Conservation Authorities Act*.

The overall development proposal also contemplates additional development activities on abutting lands owned by the UTRCA and managed by the City of London. Approval from UTRCA would be required to construct the preferred drainage channel outlet, subsequent field house and parking area improvements that were presented to the City of London as a public benefit notwithstanding the historical UTRCA agreements affecting the subject lands. The UTRCA should not support works upon its lands for the sole purpose of facilitating development on a neighbouring property that is contrary to its own policies.

The following information was considered as part of UTRCA staff assessment process that resulted in a position of non-support:

- 1) Development should be directed away from areas of flooding hazards where there is an unacceptable risk to public health or safety or property damage.

The subject properties are located within a high risk flood area of the City adjacent the North Thames River that are known to be flood prone and have on numerous occasions been subject to road closures and/or damage to private properties during previous flood events.

- 2) The proposed development is an intensification of the property as whole for the following reasons:
 - a) The current development proposal has significant changes from the initial development proposal that was originally supported in principle by staff subject to satisfying UTRCA policy requirements, including uses that increase density and visitor traffic to the property.
 - b) “Intensification” is a defined term in the Provincial Policy Statement (PPS) which includes “*development of a property, site or area at higher density than currently exists.*” Prior Ontario Land Tribunal (OLT) decisions suggest that consideration of both intensification and density should extend beyond “traditional metrics” due to restrictiveness. The idea of measuring intensification through increases to service provision is also suggested in case law.
 - c) Through prior consultation, UTRCA provided measures for intensification based on differences between the *existing use and the proposed uses*, with specific references to *gross floor area, hours of operation, and parking requirements*. Prior UTRCA comments identified that the existing Goodlife Fitness Gym located upon the subject lands was not a full size, standard gym as we know today and would not have the same level of intensity of use as other Goodlife Fitness Gyms that were used for considerations of intensification by the applicant. Hours of Operation were also considered. Many fast food restaurants are open 24 hours per day, seven days a week. This would result in a constant and steady flow of traffic to the site including patrons, staff and delivery trucks to support day-to-day operations. Additionally, the parking requirements for the proposed uses greatly exceed those of the existing uses.
 - d) The parking requirement for a Restaurant use is more than double that of the previous commercial/recreation establishment use. The proposed Restaurant (458m²) requires 23 parking spaces as opposed to 9 parking spaces required for a similar sized commercial/retail use. In addition, the restaurant use has a capacity for an additional 12 vehicles within the drive-through lane.
 - e) From a service provision lens, density is most easily measured in people and jobs per hectare. The proposed uses would provide greater services, both in the type and range of uses proposed and accessibility of those services to the public. The SBM Planning Justification Report acknowledges increased visitor traffic as a result of the proposed development uses.
 - f) Traditional metrics suggest that there is greater intensity of the use proposed on the subject lands as measured by the increased parking requirements and the increased visitor traffic anticipated.

3. The Flood Impact Assessment generally concludes that overall, the proposed floodproofing and parking lot improvements do not increase flood depths and velocities on adjacent properties, and therefore, does not increase flood risk. However, the report also states that the change in floodplain conveyance caused by filling the site does result in a small area of increase in maximum flow velocities and flood depths on the adjacent City [UTRCA] owned property and a small portion of 1324 Adelaide Street North. The report further states that because the increase in velocity does not increase above 1.7 m/s that the flood severity and frequency is not expected to increase.
 - a. Although the impact assessment suggests that the increase to the adjacent parkland is minimal and considered not a change in risk, the fact remains that the adjacent UTRCA/London property will experience an increase in flood velocities and flood depths resulting from the proposed development and remains a high flood risk area.
4. The application details propose that the existing access conditions to the property which currently do not provide for safe access will not change from the post development conditions, and that only emergency services would be able to access the property off of Adelaide Street North in the event of a Regulatory Storm.
 - a. Recognizing the proposed intensification of use, UTRCA would require dry or safe access for the proposed development. There has been no demonstration to show that the property has “safe access for people and vehicles” appropriate for the nature of the development as required by UTRCA and Provincial policy.
 - b. UTRCA Policy 3.2.3.1(4) requires vehicular and pedestrian access for new development must be dry. (ie. At or above the regulatory flood elevation).
 - c. PPS Policy 3.1.2 c) provides clear direction that development shall not be permitted within areas that would be rendered inaccessible to people and vehicles during times of flooding hazards where safe access appropriate for the development cannot be demonstrated.
5. The application details propose flood-proofing and flood risk reduction mitigation measures to alleviate the flood risk impacts directly to the development site which results in an area of the floodway with high points of land not susceptible to flooding and conveyance of flood flows through a perimeter drainage swale.
 - a. Recognizing UTRCA does not permit the intensification of use, the proposed development cannot be supported within a floodway.
 - b. UTRCA Policy 3.2.3.1(2) prohibits development and site alterations within the floodway regardless of whether the area of inundation contains high points of land not subject to flooding.
 - c. PPS Policy 3.1.2 d) provides clear direction that development shall not permitted within a floodway regardless of whether the area of inundation contains high points of land not subject to flooding.
 - d. The proposed flood risk reduction mitigation measures propose construction of a drainage outlet channel across the abutting property which is owned by the UTRCA and

managed by the City of London. To date, there has been no confirmation whether the UTRCA would permit the proposed works upon lands of its ownership.

OTHER OUTSTANDING MATTERS:

The following provides a list of other outstanding requirements to the application that would still need to be addressed to staff satisfaction if the Hearing Committee’s opinion on the proposed development activity differs from the staff recommendation:

1. Submission of the following documentation prepared by qualified professionals and to the satisfaction of UTRCA staff:
 - a. Complete Building Design Drawings to include design measures with provisions for hydrostatic pressure.
 - b. Detailed Erosion and Sediment Control Plan and Restoration Plans
 - c. Final Stormwater Management Plan
 - d. Final Construction Management Plan;
 - e. Compensation Plan, including Letter of Credit to ensure compensation is completed to UTRCA/City of London satisfaction.
2. Determination of UTRCA’s willingness to allow proposed development upon lands of its ownership through the management agreement requirements with the City of London; and
3. Submission of a subsequent complete s.28 application for any required and/or proposed development activities that may result upon 815 Windermere Road, including associated written Landowner Authorization.

Recommended by:

Jenn Allain, Manager –Planning and Regulations

Prepared by:

Joe Gordon, Regulations Coordinator

- c.c. Christie Kent, Planning Coordinator
Christine Creighton, Planner II
Jessica Schnaithmann, Land Use Regulations Officer
Brent Verscheure, Manager – Lands, Facilities and Conservation Areas

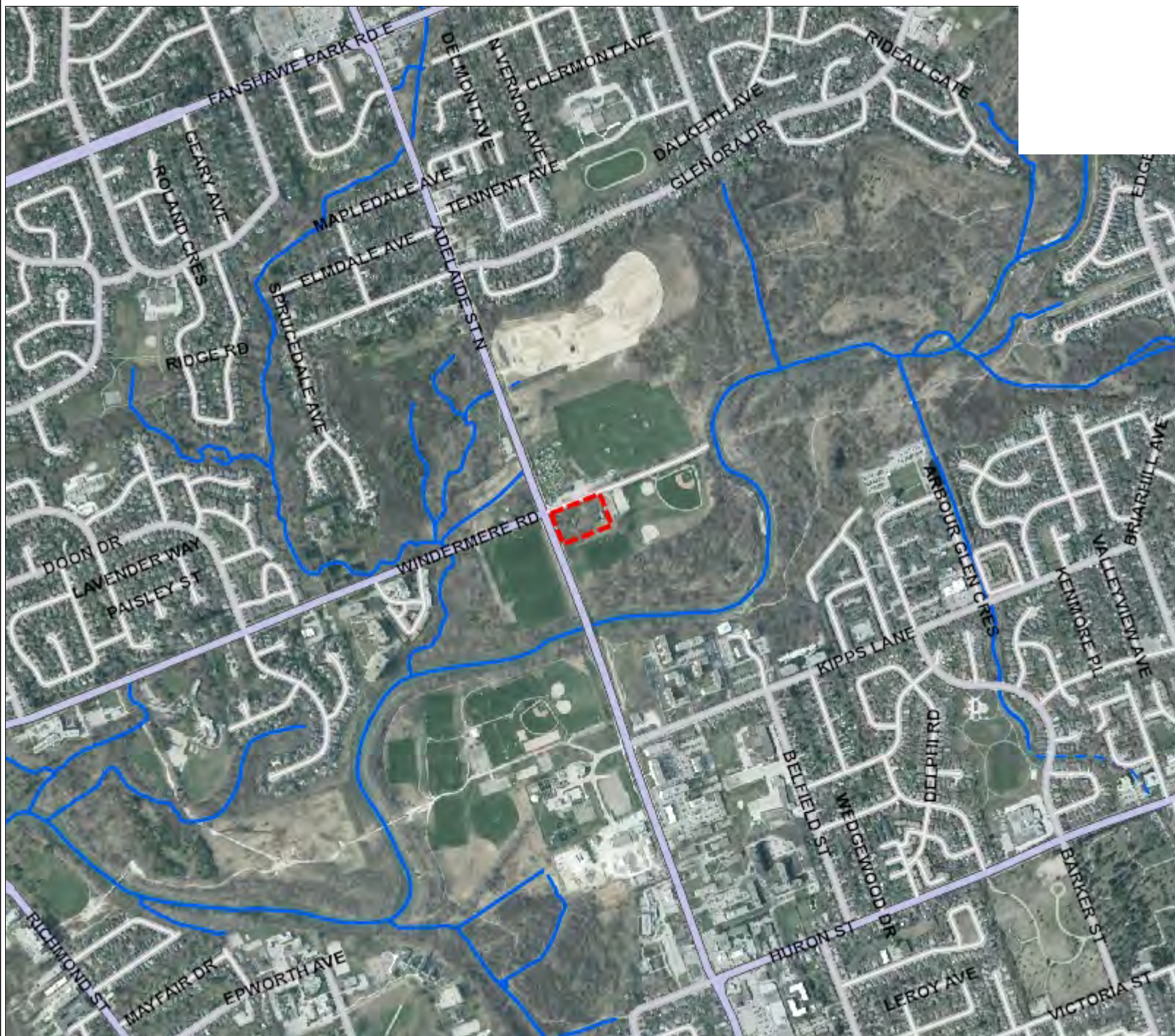
Attachments:

- Attachment #1 – Location Map
- Attachment #2 – UTRCA Regulation Limit Mapping
- Attachment #3 – Photographs of Historical Flooding Events
- Attachment #4 – Existing Site Conditions (SBM Ltd.)
- Attachment #5 – 2014 Development Concept (York Development Group, 2016)
- Attachment #6 – 2024 Conceptual Site Plan (SBM Ltd.)
- Attachment #7 – UTRCA Letter of December 8, 2023
- Attachment #8 – Commercial Development Plan (SBM)
- Attachment #9 – Floodplain Impact Assessment (Matrix Solutions Inc.)
- Attachment #10 – Municipal Parking & TVP Development Plan (SBM)
- Attachment #11 – SBM Email of October 15, 2024

Legend

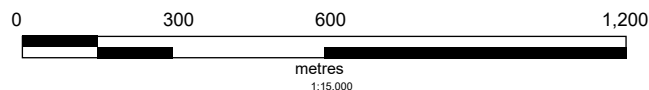
- UTRCA Watershed (2017 LiDAR)
- Watercourse (UTRCA, 2020)
 - Open
 - Closed Design/Tiled

Attachment #1










Notes:
1310 Adelaide St N and 795 Windermere Rd

Created By: JG October 23, 2024

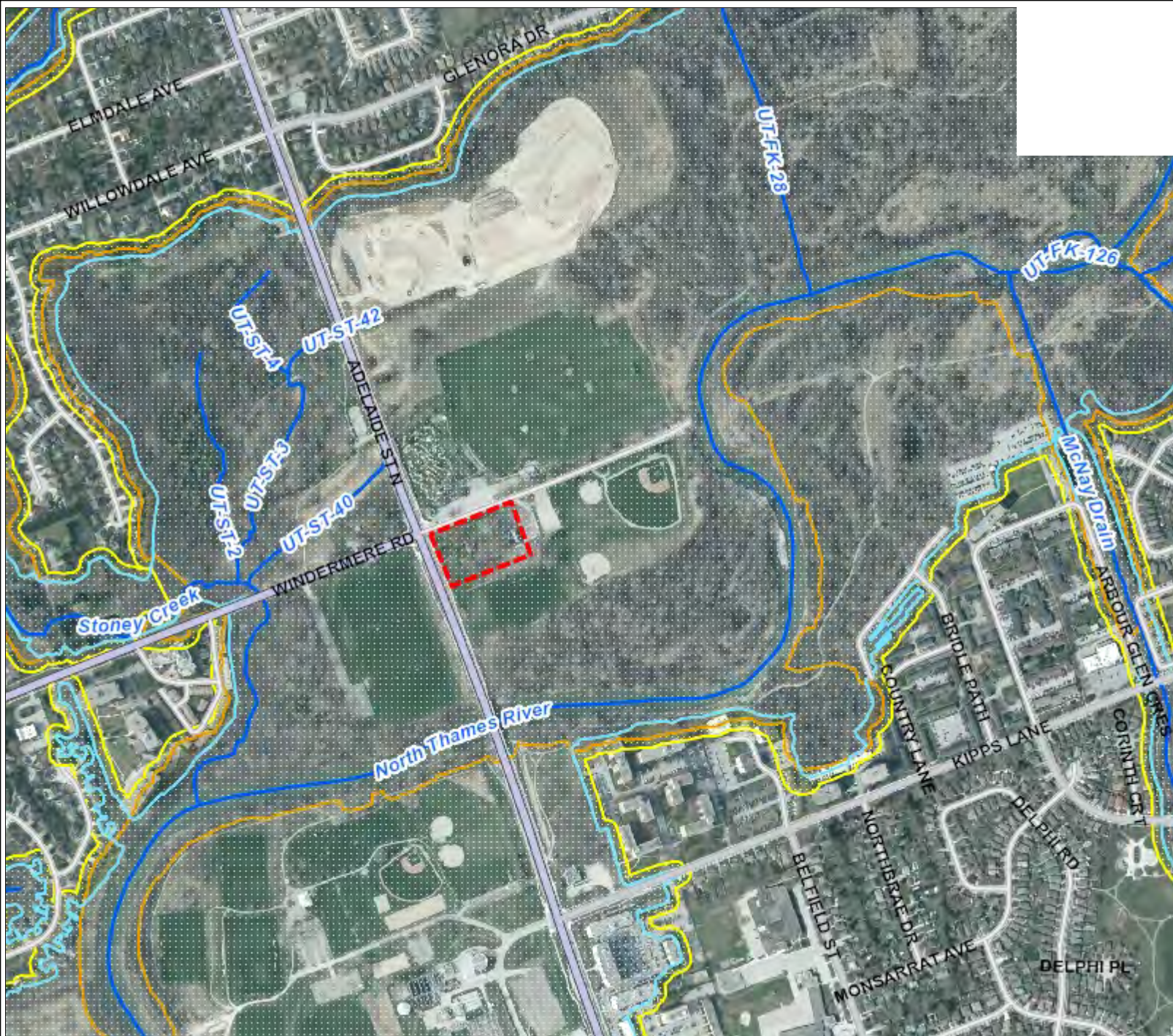


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Legend

-  UTRCA Watershed (2017 LiDAR)
-  Watercourse (UTRCA, 2020)
 -  Open
 -  Closed Design/Tiled
-  Flooding Hazard Limit
-  Erosion Hazard Limit
-  Approximate Regulated Area 2

Attachment #2



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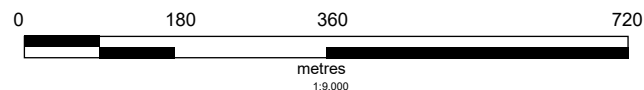
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This document is not a Plan of Survey.

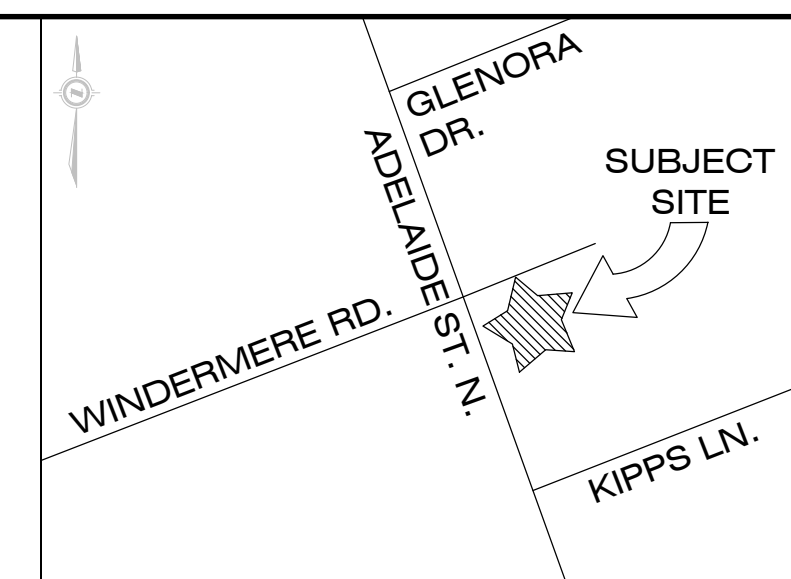
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Notes:
1310 Adelaide St N & 795 Windermere Rd





Attachment #3
Photographs of Historical
Flooding Events



KEY PLAN
N.T.S.

LEGAL INFORMATION

PART OF
CON 3 PT LOT 12 RP 33R2314 PT PART 1 REG &
CON 3 PT LOT 12 RP 33R2314 PART 2
IN THE
CITY OF LONDON
COUNTY OF MIDDLESEX

ATTACHMENT #4

REFERENCE DOCUMENTS:

1. TOPOGRAPHIC PLAN OF SURVEY PLAN NO. E-1357 BY CALLON DIETZ DATED 2018.
2. CITY OF LONDON AERIAL MAPPING, IMAGE DATED 2016.

THE PLAN IS COMPILED AND SHOULD NOT BE CONSIDERED A PLAN OF SURVEY.

AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	D/M/Y	BY	CONSULTANT
DESIGN	JR	1	ISSUED FOR UTRCA SUBMISSION	06/09/24	JR	
DRAWN	JR					
CHECKED	ND					
APPROVED	ND					
DATE	05/04/2024					
CAD	21-0642					

STRIK BALDINELLI MONIZ
CIVIL STRUCTURAL MECHANICAL ELECTRICAL
1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8
Tel: (519) 471-6667 Fax: (519) 471-0034
Email: sbm@sbmltd.ca

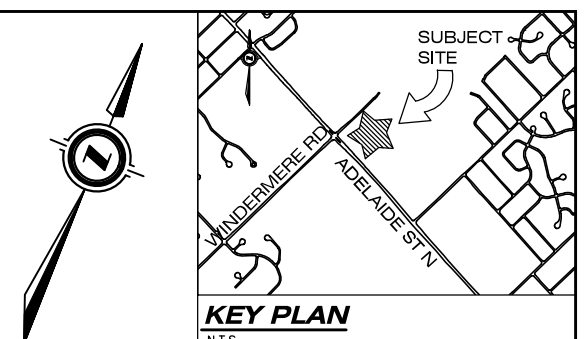
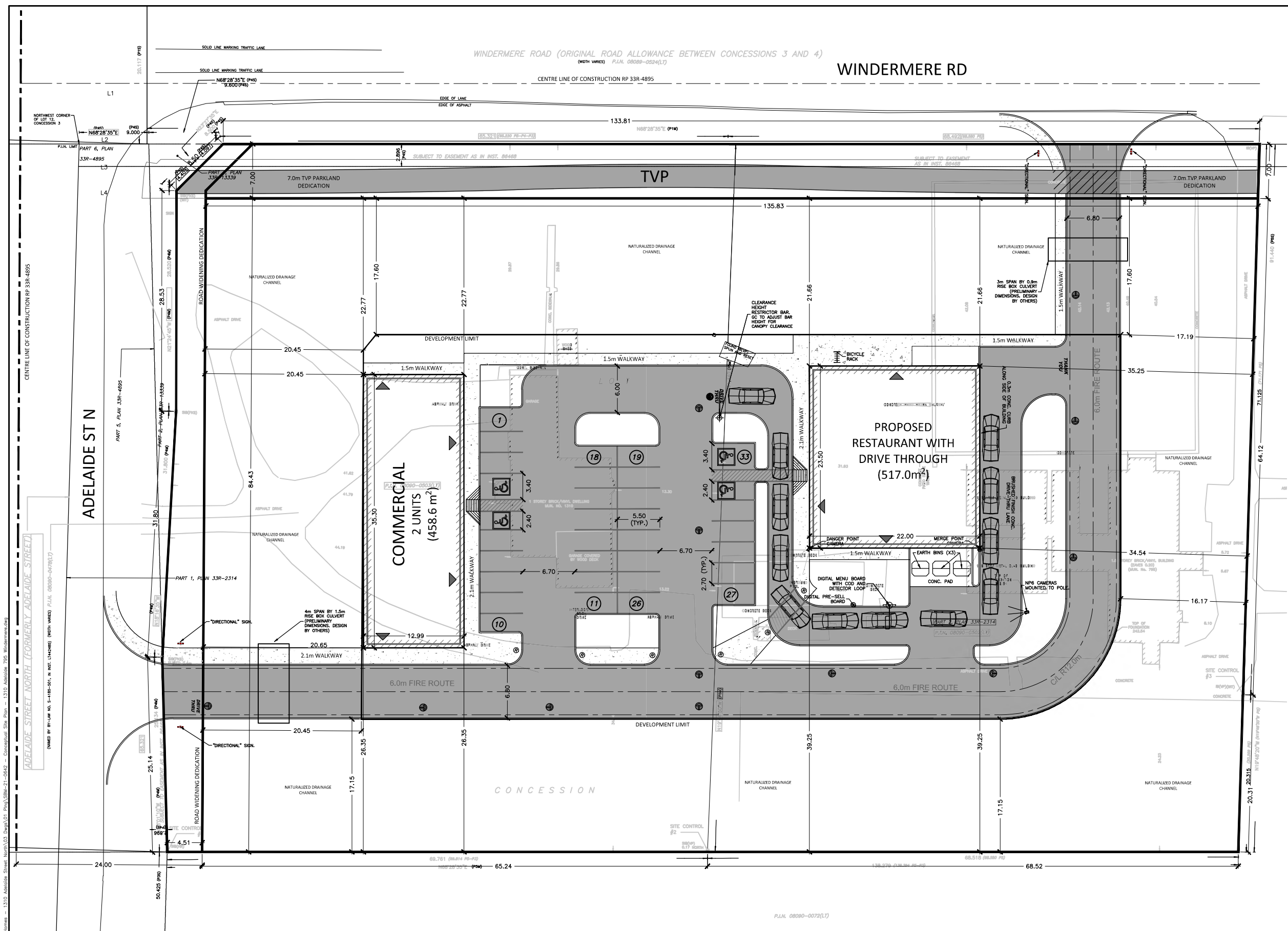
ENGINEER'S STAMP
**PRELIMINARY
NOT FOR
CONSTRUCTION**

CLIENT
2796539 ONTARIO INC.
425-509 COMMISSIONERS ROAD W
LONDON, ON
N6J 1Y5

SCALE
SCALE - 1:400
4.0 0 8.0m

TITLE
EXISTING SITE & PARKING LOTS
COMMERCIAL DEVELOPMENT
1310 ADELAIDE ST. N & 795 WINDERMERE RD
LONDON, ON.

PROJECT No.
SBM-21-0642
SHEET No.
EP1
PLAN FILE No.
-



LEGAL INFORMATION

PART OF
 CON 3 PT LOT 12 RP 33R2314 PT PART 1 REG &
 CON 3 PT LOT 12 RP 33R2314 PART 2
 IN THE
 CITY OF LONDON
 COUNTY OF MIDDLESEX

ZONING DATA CHART

ITEM	OPEN SPACE OS4(14)	REQUIRED	PROVIDED
1	LOT AREA (m ² MIN)	4,000	12,312.3 NET SITE
2	LOT FRONTAGE (m MIN)	15.0	84.4 (ADELAIDE ST N.)
3	FRONT YARD SETBACK (m MIN)	8.0 (ARTERIAL)	20.4
4	EXTERIOR YARD SETBACK (m MIN)	6.0 (LOCAL)	21.6
5	REAR YARD SETBACK (m MIN)	7.0	34.5
6	INTERIOR YARD SETBACK (m MIN)	6.0	26.3
7	LANDSCAPED OPEN SPACE (% MIN)	20.0	69.3
8	LOT COVERAGE (% MAX)	10.0	7.6
9	HEIGHT MAXIMUM (m)	12	<12
10	GROSS FLOOR AREA (m ² MAX)	976	975.6
11	NUMBER OF COMMERCIAL UNITS	3	3

PARKING REQUIREMENTS

MINIMUM PARKING SPACE DIMENSIONS 2.7mX5.5m, TYPE A 3.4mX5.5m, TYPE B 2.4mX5.5m

REQUIRED PARKING FAST FOOD 1/20m² 517.0m² = 26 SPACES
 COMMERCIAL RETAIL 1/50m² 458.6m² = 10 SPACES
 TOTAL PARKING REQUIRED MAXIMUM OS4(14) = 33 SPACES

TOTAL PROVIDED PARKING = 33 SPACES
 STACKED DRIVE-THRU = 12 SPACES

B/F PARKING REQUIRED: 4% OF TOTAL PARKING REQUIRED = 2 SPACES
 B/F PROVIDED = 2 TYPE 'A', 2 TYPE 'B'

BICYCLE PARKING: 3+(0.3/100m²) OF GFA 975.3m² = 3 = 6 SPACES
 BICYCLE PARKING PROVIDED: = 6 SPACES

ATTACHMENT #6

REFERENCE DOCUMENTS:

- TOPOGRAPHIC PLAN OF SURVEY PLAN NO. E-1357 BY CALLON DIETZ DATED 2018.

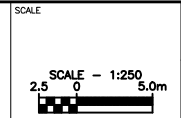
THE PLAN IS COMPILED AND SHOULD NOT BE CONSIDERED A PLAN OF SURVEY.

AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	D/M/Y	BY	CONSULTANT
DESIGN	JR	1	FOR SITE PLAN CONSULTATION/DESIGN	14/03/24	JR	
DRAWING	JR					
CHECKED	ND					
APPROVED	ND					
DATE				14/03/2024		
CAD				21-0642		

STRIK BALDINELLI MONIZ
 PLANNING • CIVIL • STRUCTURAL • MECHANICAL • ELECTRICAL
 1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8
 Tel: (519) 471-6667 Fax: (519) 471-0034
 Email: sbm@sbmtd.ca

ENGINEER'S STAMP
**PRELIMINARY
 NOT FOR
 CONSTRUCTION**

CLIENT
2796539 ONTARIO INC.
 425-509 COMMISSIONERS ROAD W
 LONDON, ON
 N6J 1Y5



TITLE
SITE PLAN & ZONING CHART
CONCEPTUAL SITE PLAN
 1310 ADELAIDE ST N & 795 WINDERMERE RD
 LONDON, ON.

PROJECT No.
SBM-21-0642

SHEET No.
SP1

PLAN FILE No.
 -

December 8, 2023

City of London – Planning & Development
P.O. Box 5035
London, Ontario N6A 4L9

Attention: Nancy Pasato (sent via e-mail)

Re: UTRCA Comments
REVISED Application to Amend the Official Plan & Zoning-By-Law (OZ-8709)
Applicant: Royal Premier Homes
1310 Adelaide Street North and 795 Windermere Road, London

Further to our correspondence dated April 11, 2023, the Upper Thames River Conservation Authority (UTRCA) has reviewed the additional information that has been submitted alongside the proposed Official Plan and Zoning By-Law Amendment applications.

CONSERVATION AUTHORITIES ACT

As shown on the enclosed mapping, the subject lands are located entirely within the flood plain of the Thames River and are regulated by the UTRCA in accordance with Ontario Regulation 157/06, made pursuant to Section 28 of the *Conservation Authorities Act*.

PLANNING BACKGROUND & PROPOSALS

Initial Development Proposal

Conservation Authority staff have been involved with the planning/pre-consultation process for the subject lands since 2014. At the time, the previous landowner had approached the City and the UTRCA regarding the possibility of redeveloping the site pursuant to the UTRCA's policies for Replacement Structures in the Floodplain (please see below). While the proposal was not in keeping with the typical/traditional approach for replacement structures, it was felt that the project had merit subject to satisfying all of the policy and technical requirements.

The initial proposal consolidated the gross floor area of the existing structures associated with a former Goodlife fitness facility which included a residential component as shown on enclosed Figure 1B "Existing Conditions". Through the review of City building records, it was determined that the existing total/maximum permitted gross floor area of the buildings on site was 982m² and that there were 9 parking spaces associated with the use. The Conservation Authority was of the opinion that the replacement project which was to be entirely located on 1310 Adelaide Street North portion of the site, would provide for an improved layout and a structure that was safer and floodproofed.

The landowner intended to dedicate the balance of the lands known municipally as 795 Windermere Road to the City as parkland which City staff deemed to be a public net benefit. Accordingly, the City agreed to credit the 68 parking spaces located in the east parking lot to a replacement project. The parking lot was to be restored to open space by the proponent. The informal west parking lot containing 42 spaces was to remain to serve the City-owned sport fields. Effectively, there are a total of 119 parking spaces on the development site and on the City lands. Of those spaces, 77 in total (68 on City lands and 9 from the former Goodlife operation) could be allocated for a potential replacement commercial structure/use(s).

The concept was comprised of one structure - a plaza that included locally oriented commercial uses such as retail, personal service and small-scale office uses (Please refer to *Figure 2 - Overlay Topo Site Plan*, MHBC, October 2016). It should be noted that the previous landowner did not complete the required flood modelling of the flood plain which was a key component of securing the necessary *Planning Act* and *Conservation Authorities Act* approvals.

Current Development Proposal

The current development proposal represents a significant departure from the initial replacement concept that City and UTRCA staff agreed had merit, in principle. The current proposal includes two (2), one storey, commercial buildings with a combined gross floor area of 975 m², requiring 48 parking spaces. One of the buildings is proposed for a fast food restaurant with a drive through with queuing for 16 vehicles. As shown on Figure 9 “Plan View Rendering” of the proposed Site Development in the Planning Justification Report, the second commercial building appears to have four (4) commercial units labelled as “SHOPS”. The proposed replacement structure utilizes the entirety of the site known municipally as 1310 Adelaide Street North and 795 Windermere Road.

The existing zoning is *Open Space OS4 (2)* which is one the most restrictive open space zones and applies to natural hazards. As indicated, the subject lands and the surrounding area are located within the flood plain of the Thames River. Only a very limited range of uses and structures are permitted and must satisfy the regulatory requirements of the Conservation Authority, including but not limited to access and floodproofing. The special provision in the current zoning allows for *commercial recreation establishments in existing buildings*, in addition to the standard uses permitted in the *OS4* zone which are restrictive in nature. This use is considered to be relatively passive as is reflected by the parking requirement of 1 parking space for every 50 square metres.

The applicant has requested that the lands be rezoned to *Neighbourhood Shopping Area NSA4* which permits a range of commercial uses. Given that the lands are in the flood plain, the request cannot be supported and we recommend that the lands continue to be zoned *Open Space OS4* and include special provisions regarding the permitted and restricted uses, the permitted maximum gross floor area, and the parking requirements.

The recent submission includes:

- i. **2D Hydraulic Modeling Assessment – Version 3** prepared by Matrix Solutions Inc., dated October 6, 2023
- ii. **Stormwater Management Report Proposed Redevelopment - 1310 Adelaide Street North & 795 Windermere Road, London, Ontario** prepared by Strik, Baldinelli Moniz Ltd., dated June 23, 2023; and
- iii. **Planning Justification Report – Official Plan and Zoning By-Law Amendments – 1310 Adelaide St N. & 795 Windermere Rd, London**, prepared by Strik, Baldinelli Moniz Ltd., dated September 2023

TECHNICAL PEER REVIEW

UTRCA staff have completed a technical review of the aforementioned documents, and offer the following comments:

Stormwater Management Report

- S1. **New.** Please confirm if the minimum on-site storage volume of 18.18 m³ is under the 250-year storm. Using a Rational Method and flows under the pre- and post-development conditions shows that approximately 80 m³ of volume is required for the 100-year storm on the site under the proposed conditions. Please provide storage to control the flows under the proposed conditions to the 250-year storm.

- S2. **New.** Please provide details of the proposed naturalized drainage channel including detailed design, parameters, cross sections showing the 100-year and the 250-year flood elevations and the conveyance capacity of the proposed channel.
- S3. **New.** Please provide justification for the C- value of 0.42 under the proposed conditions.
- S4. **New.** Please report flows for all the storm events ranging from 2 to the 250-year storms under the pre- and post-development conditions.
- S5. **New.** Please provide justification and supporting calculations for the Time of Concentration (Tc) of 23 and 21.7 minutes used under the pre- and post-development conditions.

2D Hydraulic Modeling Floodplain Impact Assessment

- 1. **Addressed.**
- 2. **Addressed.**
- 3. **Addressed.**
- 4. **Addressed.**

Planning Justification Report

The Conservation Authority has reviewed the revised Planning Justification Report (September, 2023) prepared by Strik Baldinelli Moniz and offers the following comments:

- 5. **Partially Addressed.** As noted previously, there are significant changes from the initial development proposal to the current development proposal. Additionally, as part of the proposals there was discussions amongst the developer and the City regarding parking credits. A breakdown of the previously existing versus proposed spaces is as follows:

Existing		Proposed	
Location	# of Spaces	Location	# of Spaces
Municipal Lots	110 spaces (68 in east + 42 in west)	Municipal Lot	91 spaces
Goodlife	9 spaces*	Development	48 spaces
TOTAL	119	TOTAL	139

*The parking requirement as per the City's Comprehensive Zoning By-Law Z-1 for a commercial recreation establishment is 1 space for every 50 m² and the former facility would have required 13 spaces whereas only 9 spaces were provided.

As outlined by the calculations above, there is intensification of parking from the existing to the proposed conditions. While the City will be reducing the number of parking spaces under municipal ownership, the development will be increasing substantially. Furthermore, the uses proposed under the current development proposal require a higher rate of parking spaces in the City's Zoning By-law. The UTRCA is not supportive of intensifying the number of parking spaces.

The intensification of use is evident in the parking standard for a restaurant use of one (1) space per 20 square metres as compared with the previous commercial recreation establishment which required only one (1) parking space per 50 square metres of gross floor area. The proposed restaurant has a gross floor area of 458 square metres and would require 23 parking spaces whereas a commercial recreation establishment or a broad range of other permitted commercial uses would only require 9 parking spaces. Effectively the parking requirement for a restaurant use is more than double that of the previous commercial recreation establishment use. In addition to the required parking, the submitted proposed site plan (Planning Justification Report – P.8 – Proposed Site Plan) shows stacking/queuing for 12 vehicles to move through the drive through.

6. **Not addressed.** This comment speaks to connecting the planning and technical requirements for permitting replacement structures within the floodplain.
- a. Intensification.
 - b. Change in Use.

As it relates to the UTRCA’s policies, the following criteria are required to be met, to the satisfaction of Conservation Authority staff and/or the Hearings Committee. The specific policies have been relocated into this comment to aid in establishing an understanding for how these policies are to be applied to the review of this application.

4.2.2.6	Replacement Structure Policy	Applicability to this Application
a)	The structure can be floodproofed to the level of the <i>Regulatory Flood</i> . If <i>Regulatory Flood</i> 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.	Addressed. Flood modeling has been completed and accepted.
b)	The proposed structure must not exceed the total “footprint” area of the original structure as it existed on April 25, 2000.	Addressed. The existing gross floor area was 982 m ² , whereas the proposed development has a gross floor area of 975m ² .
c)	The flood risk must not exceed the risk associated with the previous/existing structure or development such that:	(see below)
c) i.	The location of the <i>replacement structure</i> and services are not susceptible to higher depths and/or velocities of flooding;	Addressed. The development has been designed with floodproofing, to be finalized through the Section 28 permit application/Hearing process.
c) ii.	The use associated with the <i>replacement structure</i> and development does not increase the risk to property damage or public safety (e.g. converting from habitable to non-habitable); and,	Partially Addressed. While there is benefit to removing the existing residential dwelling unit and replacing with a commercial use, there is an overall increase in the number of units proposed. Although floodproofing is proposed to reduce the risk of property damage, concerns remain as it relates to public safety.
c) iii.	The use within the <i>replacement structure</i> and/or the property as a whole is not intensified.	Not addressed. As identified in comment c) ii. above, the lands previously contained a residential dwelling unit and a commercial recreational establishment (gym). The proposed development now includes a total of five (5) commercial units, resulting in an increase of three (3) units from the existing conditions. There are many differences between the existing use and the proposed uses. The former Goodlife operation was not a full size, standard gym as we know today and would not have had the same level of intensity of use. The previous fitness centre had a gross floor area of 635 m ² while the Goodlife fitness centre located at 710 Proudfoot Lane has a gross floor area of 1,745 m ² . To compare the

		<p>existing development to current standards does not provide an accurate description of the intensity of the existing versus proposed use(s).</p> <p>Another matter to consider is the hours of operation. Many fast food restaurants are open 24 hours per day, seven (7) days a week. This would result in a constant and steady flow of traffic to the site including patrons, staff (with overlapping shifts) and delivery trucks bringing supplies to support the day to day operations.</p> <p>Additionally, the parking requirements for the proposed uses greatly exceed those of the existing uses. Please refer to comment 5 for more details.</p> <p>While a number of improvements have been made to the site and the proposed structure with respect to floodproofing, the flood risk has not been removed as has been suggested by the consultant. Rather, the flood risk has been addressed/reduced. (Figure 12. Preferred Site Layout – Flood Risk for Regulatory Event).</p>
d)	<p>The proponent agrees to carry out site-specific flood damage reduction measures such that, in order of priority:</p> <ul style="list-style-type: none"> i. <i>Dry, passive floodproofing</i> measures shall be implemented to the extent technically possible to achieve the required level of flood protection; and /or, ii. <i>Wet floodproofing</i> measures are incorporated as required to achieve and maximize the required level of flood protection. 	<p>Partially addressed. Further details are required for the Section 28 permit application/Hearing process, should the <i>Planning Act</i> applications receive approval.</p>
e)	<p>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.</p>	<p>Addressed. Safe or dry access cannot be achieved on these lands, however the applicant has designed to the maximum extent feasible based on the limitations on existing transportation infrastructure.</p>
f)	<p>The proposed flood damage reduction measures do not increase flood risk on adjacent, upstream and/or downstream properties.</p>	<p>Addressed. The required flood modeling confirmed no impacts.</p>
g)	<p>All applications for development approval must be accompanied by engineering studies, prepared by qualified professional, detailing such matters as flood frequency, depth and velocity 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.</p>	<p>Partially addressed. Comments have been provided herein which can be finalized through the Section 28 permit application/Hearing process, should the <i>Planning Act</i> applications receive approval.</p>

<p>h)</p>	<p>Approval of an application under this policy will be subject to the consent of the UTRCA’s Hearings Committee</p>	<p>Forthcoming. If the application receives approval from City of London Council through the <i>Planning Act</i> application, the applicant will then be required to apply for a Section 28 permit application under the <i>Conservation Authorities Act</i>, including a presentation before the UTRCA Hearings Committee.</p> <p>The UTRCA’s Land Use Regulations staff will prepare a report and provide a recommendation to assist the UTRCA’s Hearings Committee. While we are supportive of the conversion from habitable/residential to unhabitable/ commercial uses, a restaurant with a drive through is not considered to be an appropriate use in the flood plain and is not considered to be consistent with our intensification policy.</p> <p>Based on the details on the application before us, staff’s recommendation to the Hearings Committee will be to refuse/deny a restaurant use in the flood plain and to consider the following commercial uses which offer a service for the local community and have the same parking standard as the previous commercial recreation establishment use which is one (1) space per 20 m²: Bake Shop, Convenience Store, Duplicating Shop, Financial Institution, Food Store, Garden Store, Hardware Store, Laundromat, Office (not medical/dental), Pharmacy, Post Office, Retail Store, Service & Repair Establishment</p>
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SUMMARY & RECOMMENDATIONS

The subject lands are regulated by the UTRCA due to the presence of a riverine flooding hazard associated with the Thames River. These lands are subject to frequent flooding and have been predicted to require evacuation within approximately five (5) year cycles. The most recent flood event occurred in 2018, closing down Windermere Road and flooding surrounding buildings and facilities. Due to the frequency of flooding events in this area, Adelaide Street North underwent improvements during its reconstruction to raise the road and yet would also be inundated with floodwaters during a regulatory storm, which has been experienced within the last 100 years.

The UTRCA’s core mandate focuses on protecting both people and property through staff’s review of development applications. This is a challenging site and project, and the proper due diligence must be completed to the satisfaction of the Conservation Authority to ensure that the necessary Section 28 permit can be issued. Both City and UTRCA staff have been flexible in working with the land owner to ensure that the proposed redevelopment/replacement structure is consistent with policy and will be safe. Based on the information submitted to date, certain concerns have been addressed while others remain outstanding.

Based on a summary of the policies provided herein, the application is not consistent with the Provincial Policy Statement, does not conform to the London Plan, and does not comply with Ontario Regulation 157/06 – *Development shall be directed away from areas of natural or human-made hazards where there is an unacceptable risk to public health or safety or of property damage, and not create new or aggravate existing hazards.* Modifications are required to ensure that this can be satisfied.

We offer the following recommendations:

Recommendation 1

As per the Notice of Revised Planning Application, the applicant is requesting that the subject lands be redesignated to *Shopping Area* Place Type and rezoned to *Neighbourhood Shopping Area (NSA4)* to permit a broad range of retail, service, office, entertainment recreational, educational, institutional and residential uses. Given that the lands are located within the riverine flooding hazard associated with the Thames River, it would be inappropriate to remove the *Green Space* Place Type and *Open Space* zone from the lands; as such, the UTRCA recommends that the applicant’s application **be refused.**

Recommendation 2

As per the revised submission of the Planning Application, the applicant is requesting that the subject lands remain within the *Green Space* Place Type with a site-specific policy, and remain within the Open Space OS4 zone to permit a broad range of restaurant, retail or personal service uses.

Based on the rationale provided throughout this letter, the UTRCA recommends modifying the proposed list of permitted uses to ensure that the overall use of the lands is not intensified, including matching the rate of parking spaces to that which was permitted for the existing commercial recreation establishments (1 space per 20m²).

Requested by Applicant	Permissible by UTRCA
Bake Shop Convenience Store Commercial Recreation Establishment Drive-through Facility Financial Institutions Food Stores Personal Service Establishments Restaurants Retail Stores	Bake Shop Convenience Store Commercial Recreation Establishment Duplicating Shop Financial Institution Food Store Garden Store Hardware Store Laundromat Office – not medical/dental Pharmacy Post Office Retail Store Service & Repair Establishment

The UTRCA is offering a recommendation of no objections subject to modifications, to establish the principle of development through the planning process given the existing use and the UTRCA’s replacement structure policies. Should Council approve the *Planning Act* application, a decision from the UTRCA’s Hearing Committee on the Section 28 permit application under the *Conservation Authorities Act* is still required to address the outstanding comments identified herein. Should Council approve the *Planning Act* application without modifications, there is a chance that the UTRCA’s Hearings Committee will not be able to approve a drive-through/restaurant use at this location.

If the necessary Section 28 approvals are not obtained from the Hearing’s Committee for the proposed redevelopment, the lands are to be zoned Open Space (OS4) with the removal of the special provisions.

UTRCA REVIEW FEES

Consistent with UTRCA Board of Directors approved policy, Authority Staff are authorized to collect fees for the review of *Planning Act* applications. Our fee for this review of the revised application is \$265, representing a processing fee for a second round of comments within the same calendar year.

Thank you for the opportunity to comment. Please contact the undersigned if there are any questions.

Yours truly,
UPPER THAMES RIVER CONSERVATION AUTHORITY

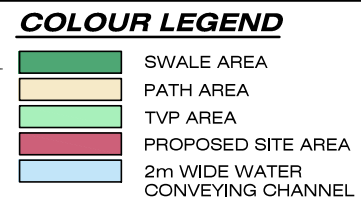
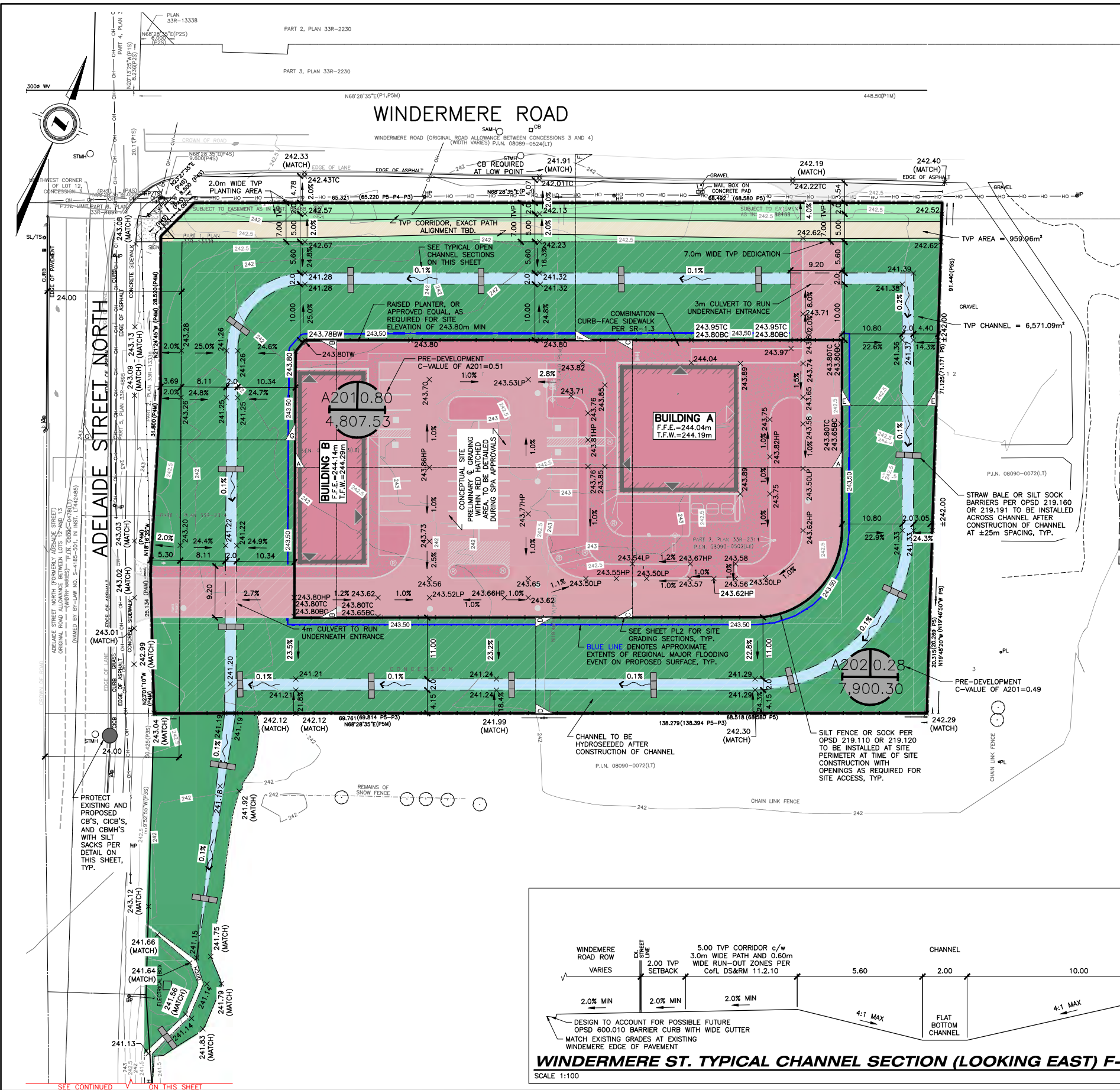


Stefanie Pratt
Planning Coordinator

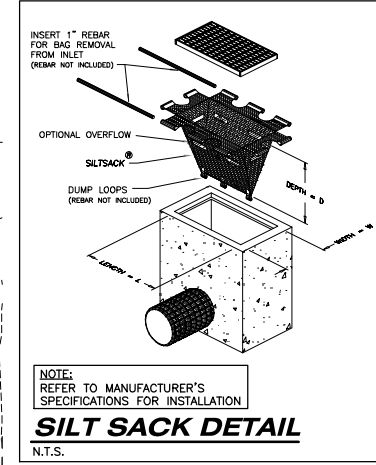
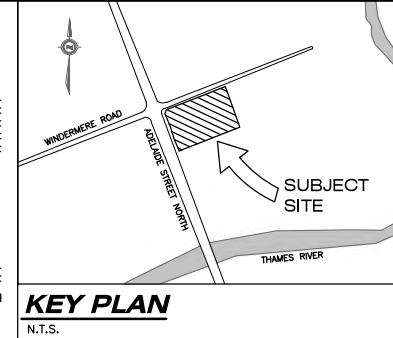
SS/JS/JA/CC/SP/sp

Enclosure:

1. UTRCA Regulation Limit Mapping (please print on legal size paper for accurate scales)
 2. *Figure 1B – Existing Conditions Gross Floor Area – Subject Lands* from Proposal Summary (MHBC, Revised March 2016)
 3. *Figure 2 - Overlay Topo Site Plan* (MHBC, October 2016)
 4. Sheet No. SP1 – Area Context Plan – Municipal Parking & TVP Development (SBM, October 2022)
 5. Figure 12. Preferred Site Layout – Flood Risk for Regulatory Event (SBM September 2023)
 6. 2018 Flood Event, Drone Footage (London Police Service, 2018)
 7. 1963 Flood Event, Airplane Footage
- c.c. Farhad Nooray - Royal Premier Homes, Applicant
Mike Corby, City of London
Christine Creighton, UTRCA
Jessica Schnaithmann, UTRCA
Jenna Allain, UTRCA

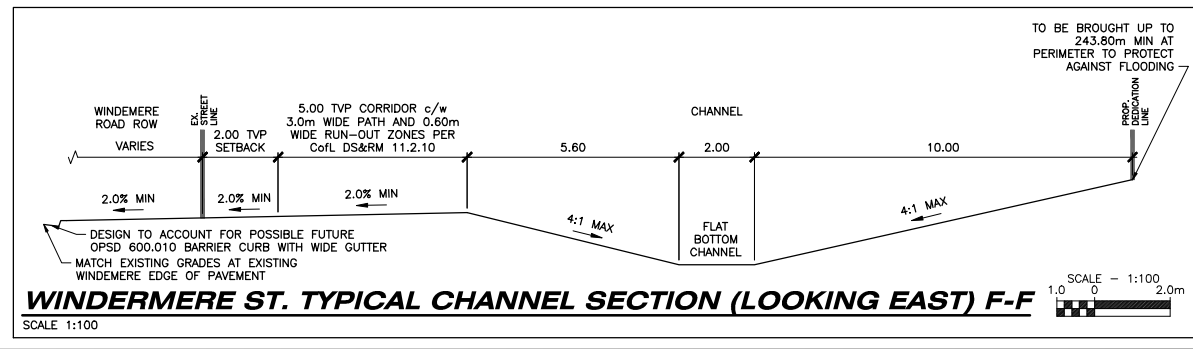
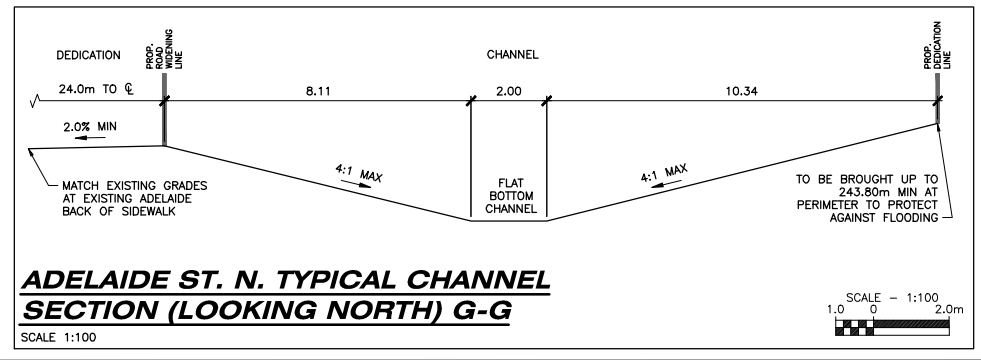
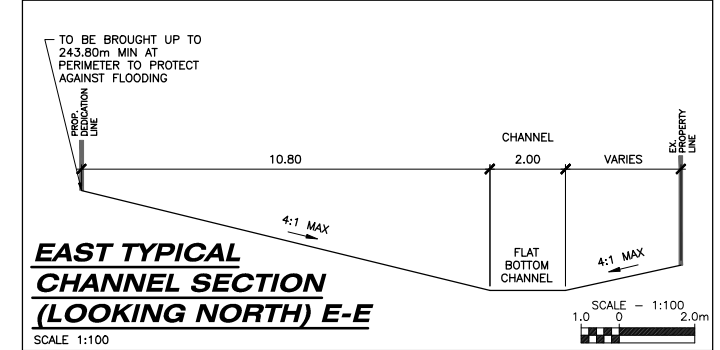
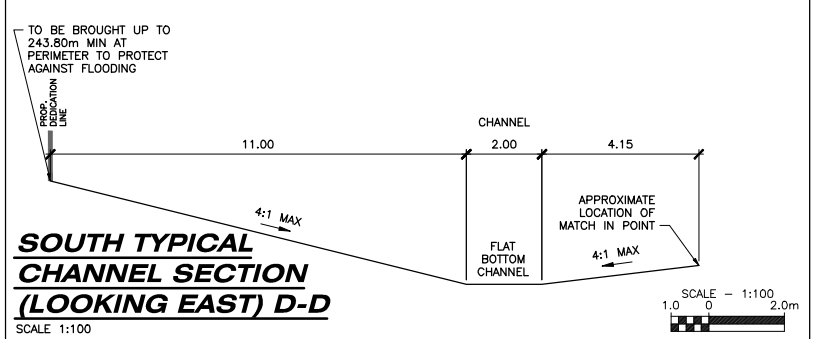


SITE BENCHMARK:
 MONUMENT NAME: V92-9
 MONUMENT TYPE: BRONZE CAP IN CONCRETE
 LOCATION: ON ADELAIDE STREET, 300m SOUTH OF THE CENTRELINE OF WINDERMERE ROAD, 7.0m WEST OF THE CENTRELINE OF ADELAIDE STREET, SET IN THE CONCRETE SIDEWALK ON THE NORTHWEST CORNER OF THE BRIDGE CARRYING ADELAIDE STREET OVER THE NORTH BRANCH OF THE THAMES RIVER.
 GEODETIC ELEVATION: 245.641m (CGVD28, 1978)
 MONUMENT NAME: BM02-40
 MONUMENT TYPE: BOLT
 LOCATION: BRIDGE ON ADELAIDE STREET NORTH, OVER THE THAMES RIVER, BOLT SET IN THE EAST FACE ON THE EAST SIDE OF ADELAIDE STREET NORTH, 0.39m SOUTH OF NORTH END.
 GEODETIC ELEVATION 245.373m (CGVD28, 1978)
 (CONTRACTOR TO CONFIRM BENCHMARK ELEVATIONS)



LEGAL INFORMATION
 PART OF
 CON 3 PT LOT 12 RP 33R2314 PT
 PART 1 REG 1.64AC 299.98FR D
 &
 CON 3 PT LOT 12 RP 33R2314
 PART 2 67500.00SF 225.00FR
 300.00D
 IN THE
 CITY OF LONDON
 COUNTY OF MIDDLESEX

ATTACHMENT #8

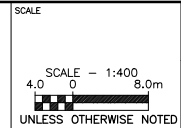


AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	D/M/Y	BY	CONSULTANT
DESIGN	JSF/NEP	1	ISSUED FOR URTCA APPROVAL	02/04/24	JSF	STRIK BALDINELLI MONIZ
DRAWING	JSF	2	ISSUED FOR SECTION 28 PERMIT	20/06/24	JSF	
CHECKED	NEP	3	REVISED TO URTCA COMMENTS	06/09/24	JSF	
APPROVED	JSF					
DATE	22/12/2021					
CAD	21-0642					

STRIK BALDINELLI MONIZ
 PLANNING - CIVIL - STRUCTURAL - MECHANICAL - ELECTRICAL
 1599 Adelaide St. N, Unit 301, London, Ontario, N5X 4E8
 Tel: (519) 471-6667 Fax: (519) 471-0034
 Email: sbm@sbmltd.ca

PRELIMINARY NOT FOR CONSTRUCTION

CLIENT: **ROYAL PREMIER HOMES**
 #425 509 COMMISSIONERS ROAD WEST
 LONDON, ON
 N6K 1J5
 P: 519.495.0115
 E: RPH@ROYALPREMIERHOMES.CA



TITLE: **PLAN OF DEVELOPMENT, CONSERVATION, AND PRELIMINARY SEDIMENT AND EROSION CONTROL**
 COMMERCIAL DEVELOPMENT
 1310 ADELAIDE ST N & 795 WINDERMERE RD
 LONDON, ON.

PROJECT No. **SBM-21-0642**
 SHEET No. **PL1**
 PLAN FILE No. _____

ATTACHMENT #9

To: Stefanie Pratt
Planning Coordinator
Upper Thames River Conservation Authority
1424 Clarke Rd, London, ON N5V 5B9

Date: October 06, 2023

From: Natalie Burrows ,M.A.Sc., P.Eng.
Adam Spargo, B.Sc.
Nicholas Krygsman, P.Eng.

Matrix Project No. 189395

CC: Farhad Noory Royal Premier Homes
Jamie Robertson Strik Baldinelli Moniz
Chris Moon Matrix Solutions Inc.
Jessica Schnaithmann UTRCA

Project: 1310 Adelaide Street Floodplain Impact Assessment

Re: 2D Hydraulic Modeling Assessment - Version 3.0

1 Introduction

1.1 Background

Matrix Solutions Inc. (Matrix), formerly Ecosystem Recovery Inc., was retained to provide consulting services related to the assessment of floodplain impacts resulting from site improvements at 1310 Adelaide Street North and 795 Windermere Road in London, Ontario. For the purpose of this report, the subject site is referred to as 1310 Adelaide Street but combines both 1310 Adelaide Street North and 795 Windermere Road. The subject site is located south-east of the intersection of Adelaide Street North and Windermere Road within the regulated floodplain of the Thames River North Branch. The site measures approximately 91 m along Adelaide Street North and 135 m along Windermere Road with a total area of 1.2 ha.

1.2 UTRCA Consultation Process To Date

The flood impact assessment has been completed in an iterative manner through consultation with UTRCA with the intent of developing a site plan with the least impact to flood depth and velocity at the site and adjacent properties. The following meetings and document submissions have occurred throughout the consultation process:

- **UTRCA Project Scoping Meeting (September 2019):** Matrix and UTRCA staff met to discuss the project history and UTRCA's hydraulic modeling requirements for the floodplain impact assessment.
- **Submission of the 1D Modeling Flood Impact Assessment (FIA) Memo (May 8, 2020):** Matrix completed a 1D hydraulic assessment of the proposed site development. The memo provided the results of the 1D hydraulic assessment.
- **1D and 2D Modeling Discussion Meeting (September 29, 2020):** Matrix and UTRCA staff met to review the results of the 1D hydraulic model assessment. UTRCA provided a 2D hydraulic model for the study area to Matrix for detailed assessment of the velocity impacts surrounding the site.

- **2D Modeling Results Meeting #1 (November 18, 2020):** Matrix and UTRCA staff met to review the first round of 2D modeling results which included 4 site layout alternatives (Alternatives 1 to 4). UTRCA staff requested that a full floodproofing scenario for the site be considered along with a review of specific flow conditions (approximately 850 cubic metres per second (cms)) relevant to the site and presentation of change in velocity-based flood risk to better understand the impact to surrounding properties and Adelaide Street.
- **2D Modeling Results Meeting #2 (January 12, 2021):** Matrix and UTRCA staff met to review the Alternative 5 full site floodproofing scenario and the revised results. This alternative raised the site, including the parking lot to an elevation of 244.0 m which is above the Regulatory event water surface elevation. UTRCA staff requested that a conveyance channel between Adelaide Street and the property be considered to improve conveyance conditions during more frequent flooding events (~850 cms) than the Regulatory flow (1250 cms). UTRCA requested that the change in velocity during these lower flow events be assessed for the surrounding properties. UTRCA recommended that the final revisions requested during the meeting be presented in a memo to be submitted to UTRCA for review and comment.
- **Submission of the 2D Modeling FIA Memo (February 18, 2021):** The memo provided results for six site layout alternatives (Alternatives 1 to 6), including the requested conveyance channel parallel and adjacent to Adelaide Street (Alternative 6).
- **UTRCA Comments on the 2D Modeling FIA Memo (email – June 14, 2021):** UTRCA provided an email with comments on the 2D Modeling Memo. Specifically, UTRCA requested that further investigation of the site layout and conveyance channel be undertaken to mimic the existing site conveyance conditions during flooding events. This involved creating conveyance channels around the site and pulling the development back from Adelaide Street and Windermere Road.
- **2D Modeling Results Meeting #3 (December 14, 2021):** Matrix presented the results of two additional site layout alternatives that were developed based on the comments received from UTRCA on June 14, 2021. The two new alternatives considered were:
 - Alternative 7: Providing a flood conveyance channel along the north and west side of the property (adjacent to Windermere Road and Adelaide Street); and,
 - Alternative 8: Providing a second conveyance channel along the east and south boundary of the property.

The results identified that Alternative 8 produced the least impact to flood depth during the 850 cms event with less than 2 cm change in flood depth and a reduction in velocity. Additionally, this alternative has no adverse impact on flood depth and velocity during the Regulatory event (1250 cms).

- **SBM Submission of Site Layout to City of London (December 23, 2021):** SBM provided an email submission to the City of London summarising the proposed site development, including the proposed flood mitigation measures and public benefit.
- **City of London Response to SBM Submission (February 07, 2022):** The City of London provided an email response to SBM's submission on December 23, 2021. The response indicated that City staff were unable to support the proposed site plan as submitted.
- **SBM Submission of Revised Site Layout to the City of London (October 19, 2022):** SBM prepared a revised site layout to address the concerns raised by the City in their response provide February 07, 2022. The revised site layout included; a reduction in the footprint of the floodproofed area to within the property boundary; and addition of a field house east of the development.
- **Submission of the Revised Site Layout 2D Modeling FIA Memo to UTRCA (October 28, 2022):** The memo provided results for the revised site layout. The results were consistent with the results presented to the UTRCA at the 2D Modeling Results Meeting #3 held on December 14, 2021. The submission included the 2D hydraulic modeling files.
- **UTRCA comments on Revised Site Layout FIA Memo (April 11, 2023):** UTRCA provided a technical peer review of the FIA. The comments and responses are further detailed below.

- **Submission of the Updated 2D Modeling FIA Memo to UTRCA (June 11, 2023):** The FIA Memo was updated to address UTRCA’s comments received on April 11, 2023.
- **UTRCA comments (July 31, 2023):** UTRCA provided additional comments on the Updated 2D modeling FIA Memo. The comments and responses are further detailed in Table 1.
- **Meeting with UTRCA (September 19, 2023):** Matrix presented preliminary results for a fully floodproofed parking lot which showed an additional impact on flood depth at upstream and adjacent properties. Matrix indicated that based on the impacts, Matrix would be recommending the partial floodproofing of the parking lot. UTRCA requested that the fully floodproofed parking lot scenario be included in the FIA Memo.

The UTRCA Technical Peer review Comments received on April 11, 2023, and comments received during further discussions with UTRCA on July 31, 2023 are presented in Table 1 along with Matrix’s responses.

Table 1. Responses to UTRCA comments received April 11, 2023 and July 31, 2023

UTRCA Comments	Responses
UTRCA Comments provided April 11, 2023	
<p><i>The Conservation Authority has reviewed the Matrix Solutions Inc. submission and while generally satisfied with the provided information, the following matters are outstanding and need to be addressed:</i></p> <ol style="list-style-type: none"> <i>Version 2 of the Conceptual Site Plan (SP1) identifies a proposed/improved 91 space gravel parking lot on City-owned lands. This parking area/proposed development does not appear to have been included in the hydraulic analysis. The design/layout/floodproofing of this proposed / improved parking lot may impact the hydraulics in the area and therefore must be included in the assessment. Please revise the model/report.</i> <i>The report should include clear statements/summaries which demonstrate that the proposed development is consistent with and satisfies the requirements of Policy 4.2.2.6 of the UTRCA Environmental Planning Policy Manual, and will not result in a negative impact on flood storage, surrounding properties, etc. Please revise the report to provide responses/justification to the each of the aforementioned policies.</i> <i>Through the pre-consultation process, the UTRCA advised that a preliminary Staged Storage Analysis was required which accounted for all of the proposed development and grading, and must strive to achieve a balance. It is recognized that grading is generally finalized through the Site Plan/Section 28 Permit process, however a preliminary submission is required now in order to ensure the development can be accommodated in principle. Please provide.</i> 	<p><i>Matrix’s responses are provided below:</i></p> <ol style="list-style-type: none"> <i>The preferred site plan includes floodproofing of the field house by raising the structure and approximately 984 m² of the parking lot to the Regulatory standard. The remaining areas of the parking lot have been raised to provide some additional level of floodproofing. Note: following further discussion with UTRCA (July 31, 2023) a fully floodproofed scenario has been added to the memo under Section 3.4 (see comment 1 from July 31, 2023 in this table).</i> <i>Statements have been included in Section 4 of this memo to demonstrate the proposed development is consistent with the requirements of Policy 4.2.2.6 as related to flood risk and hydraulic modeling. The issue of intensification of the use of the property not related to the hydraulic modeling assessment and has not been discussed in this report.</i> <i>A Staged Storage Analysis has been included in Section 3.3.3 of this memo.</i>

<p>4. Please note that if the redevelopment concept for the site changes including the proposed uses, building footprint, parking etc, the model must be revised.</p>	<p>4. Noted, if the redevelopment concept changes the model will be revised and resubmitted to UTRCA for review.</p>
<p>Additional UTRCA Comments provide July 31, 2023</p>	
<p>1. UTRCA requested that an additional scenario considering fully floodproofing the Stoneybrook Recreational Fields parking lot be included in the FIA memo. UTRCA indicated that the fully floodproofed scenario is required by UTRCA for a full package application. A comparison between the proposed layout and the fully floodproofed layout should be included in the memo along with justification if a lower level of floodproofing is recommended.</p> <p>2. Overall the site does not achieve a cut fill balance, with a net increase in fill. UTRCA requested clearer statements regarding the impact of the net fill.</p> <p>3. UTRCA requested further clarification / statements regarding the changes in flood risk upstream of the site, particularly with respect to the impact of the proposed floodproofing on adjacent properties.</p>	<p>1. A fully floodproofed Stoneybrook Recreational Fields parking lot scenario has been included in this Memo and presented in Section 3.4. The results indicate that the additional floodproofing causes a greater than 2 cm increase in flood depths on upstream and adjacent properties. Based on these results we do not recommend fully floodproofing the Stoneybrook Recreational Fields parking lot.</p> <p>2. Further discussion regarding the cut fill assessment and opportunities to compensate for fill have been added to Section 4.1.</p> <p>3. Further discussion regarding the specific changes in velocity and depth at adjacent properties, and how that impacts flood risk, has been added to Section 4.1 and 4.2.</p>

2 Site Conditions

2.1 Existing Site Conditions

The subject site is located at 1310 Adelaide Street North in the City of London, Ontario. The property, along with the adjacent 795 Windermere Road property, has been used as a fitness complex/racket club. The existing facility consists of an at-grade parking lot, tennis courts, buildings and greenspace. Immediately to the south and directly adjacent to the Thames River North Branch is a City owned soccer pitch while to the east and directly adjacent to the Thames River North Branch is a City owned baseball complex. The recreational facilities are commonly referred to as the Stoneybrook Recreational Sports Field Complex and is owned and operated by the City of London. **Figure 1** shows an aerial photo of the site looking in a south-easterly direction. The intersection of Adelaide Street and Windermere Road is shown at the bottom of the photo.



Figure 1: Aerial Photo of 1310 Adelaide Street North and Surrounds

The subject property and surrounding area fall within the UTRCA Regulatory limits. **Figure 2** shows the subject property (highlighted) located within the current Regulatory limits of the Thames River North Branch under the jurisdiction of UTRCA.

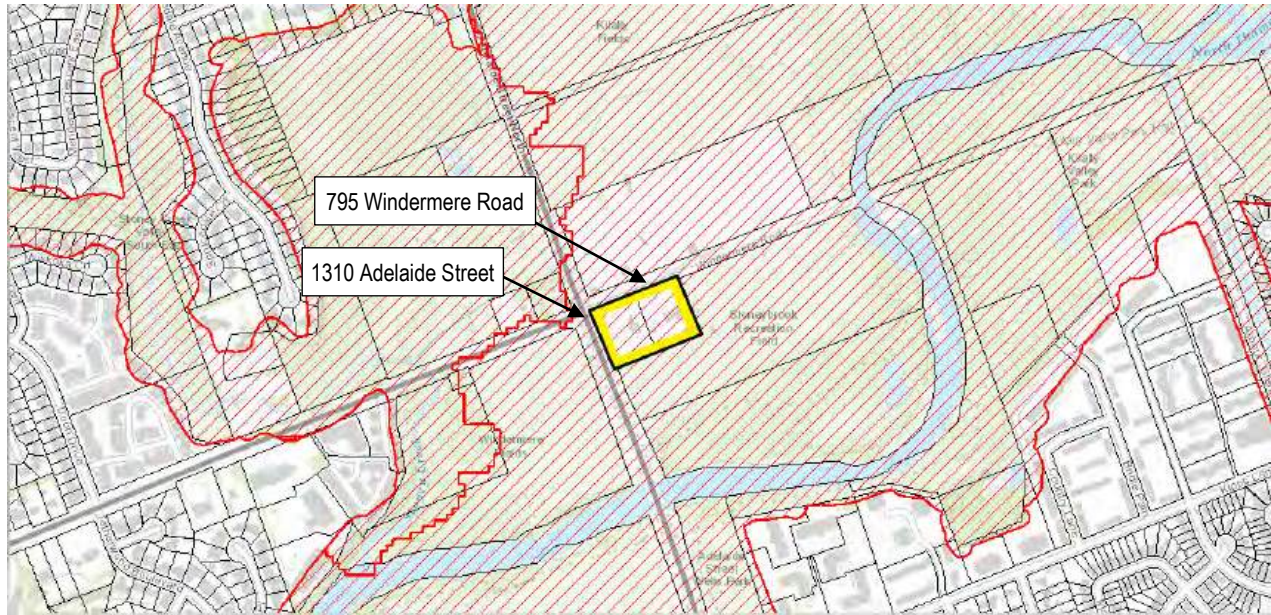


Figure 2: Subject Site Location within UTRCA Regulatory Limits

The southerly property limit is located approximately 180 m north of the main channel of the Thames River North Branch while the easterly property boundary is located approximately 280 m from the main channel. At the subject site location, the Thames River North Branch floodplain measures over 1400 m wide, extending from south of Glenora Drive to Kipps Lane with relatively flat topographic relief and well-defined valley walls. The main channel of the river meanders through the wide floodplain area making a series of 90 degree bends at 300 m and 600 m upstream of the Adelaide Street bridge.

Figure 3 illustrates some of the key riverine and floodplain features within the area surrounding the intersection of Windermere Road and Adelaide Street including the Stoney Creek bridge, the Adelaide Street Thames River North Branch bridge, and two relief culverts under Adelaide Street north of Windermere Road. Flow arrows indicate the direction of river and overland flow through the floodplain area. The configuration and topography of the lands surrounding the Thames River North Branch and the location of the Adelaide Street and Windermere Road bridges dictate the way floodwaters are conveyed through this section of the Thames River valley. Topography and the presence of the two relief flow culverts under Adelaide Street allow for short-circuiting of the North Branch flows around the Adelaide Street bridge.

During high flow conditions short-circuited flow combines with the flows generated by Stoney Creek north of Windermere Road resulting in inundation of the wide flat floodplain and under extreme conditions, overtopping of Adelaide Street from the area just south of Windermere Road to a location corresponding to the north relief culvert under Adelaide Street on the north side of the main channel. Overtopping of Adelaide Street also occurs under high flow conditions on the south side of the Thames River North Branch channel.



Figure 3: Thames River North Branch Floodplain Features

2.2 Proposed Site Conditions

The subject site, 1310 Adelaide Street North, is being considered for rezoning and redevelopment. As part of the site planning and approval process, approval from UTRCA for rezoning of the property is required. The City and UTRCA provided a letter in 2016 outlining the general requirements for redevelopment of the property. This included:

Prior to submission of the application, the proponent must demonstrate to the UTRCA that the proposed redevelopment will reduce the risk to life and property in order for the UTRCA to be able to consider the demolition of the existing building and the construction of a new building(s) and related facilities within the floodway. The proponent must provide the required information and receive written approval from the UTRCA for the determination of the allowable replacement gross floor area and number of parking spaces, taking into account any buildings on the UTRCA land with the City will retain.

Through consultation with UTRCA and 2D modeling of the site, the site layout has been developed to address concerns and recommendations from UTRCA staff regarding flood conveyance and flood proofing. The proposed site plan for the redevelopment of 1310 Adelaide Street is illustrated in **Figure 4**

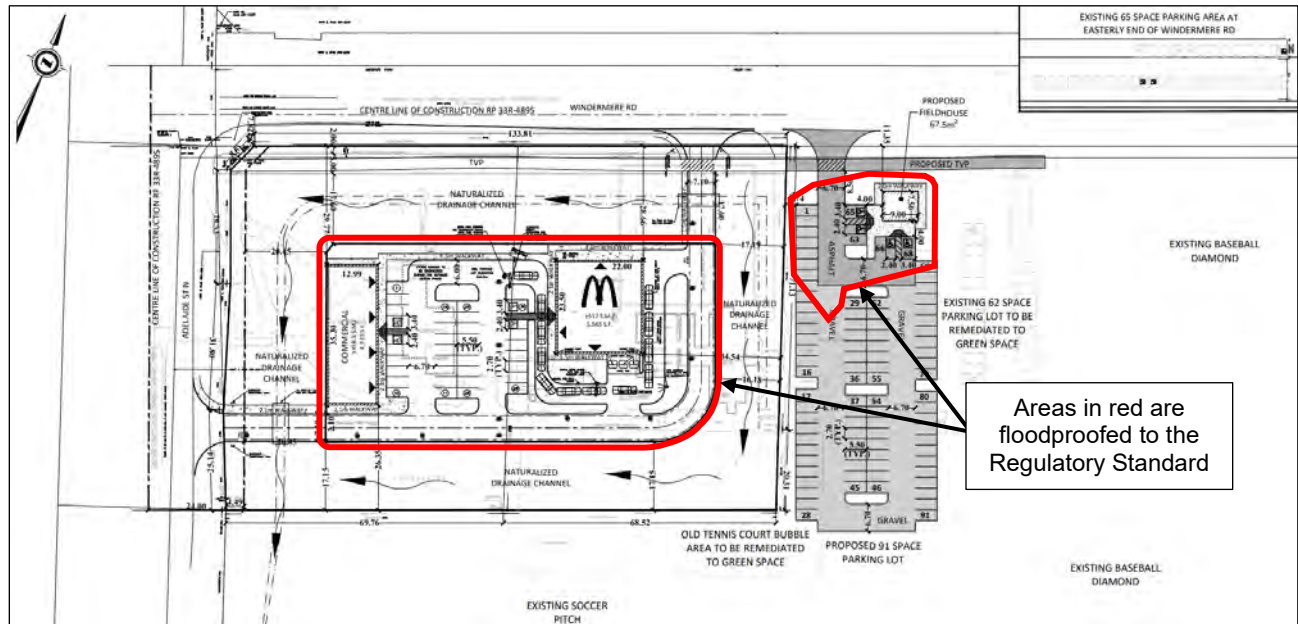


Figure 4: Proposed Site Plan for 1310 Adelaide Street North (SBM, October 2022)

As shown on the site plan, the key features of the redevelopment include:

- Construction of two new buildings, one on the east side and one on the west side, with a parking lot in between.
- Floodproofing of the buildings and parking lot by raising the site to 244.0 m elevation which is above the Regulatory event water surface elevation.
- Construction of two vegetated drainage channels around the floodproofed (filled) area to mitigate flood impacts associated with the floodproofing and provide major overland conveyance to the North Branch of the Thames River; the first channel along the north and west of the site and the second along the east and south of the site.
- Two site entrances with culverts crossing the drainage channels, one to Adelaide Street at the southwest corner of the site and one to Windermere Road at the northeast corner.
- Extension of the Thames Valley Parkway through the property along the north boundary.
- A field house and washroom (9 m x 7.5 m) at the paved parking lot entrance off Windermere Road to service the Stoney Creek Recreational Sports Field Complex. The field house is floodproofed by raising the structure and surrounding parking lot to 244.0 m elevation which is 0.5 m above the Regulatory event water surface elevation. The parking lot elevation ranges from 244.0 m in the north near the field house, to 242.2 m on the south similar to grading of the existing parking lot. The parking lot has been raised where practical to provide the best case floodproofing while allowing the parking lot to be graded / feathered into the adjacent sports field for pedestrian access.
- A 93-space paved and gravel parking lot on City property immediately west of the site to service the Stoney Creek Recreational Sports Field Complex. The parking lot has been raised to facilitate floodproofing grading of the field house.
- Removal and restoration of the existing tennis courts, a 62-space gravel parking lot, and other ancillary structures outside of the site boundary. These areas will be restored as green space.

3 2D Hydraulic Modeling Impact Assessment

The objectives of the 2D hydraulic modeling impact assessment are:

- Confirm flooding elevations and subsequent flood proofing requirements;
- Assess impacts of the proposed development on flow velocities at adjacent properties (Adelaide Street, Windermere Road, and 1324 Adelaide Street);
- Compare the proposed site layout with a fully floodproofed scenario; and
- Determine the onsite flood risk associated with flow velocity at 1310 Adelaide Street for the proposed redevelopment.

UTRCA developed a 2D hydraulic model for the Thames River North Branch that includes the subject site. The 2D model was provided to Matrix for the Flood Impact Assessment.

MNRF's 2002 Technical Guide titled River and Stream Systems: Flooding Hazard Limit identifies low and high flood risk conditions based on flow depth and velocity. For the purpose of this assessment, UTRCA has requested we consider flow velocity when assessing changes to flood risk. MNRF's (2002) Technical Guide identifies the following categories for flood risk:

- Low Risk for Human Life:
 - Velocity less than 1.7 m/s;
 - Depth less than 0.8 m and
 - Product of velocity and depth ($V \times D$) is less than 0.4 m²/s.
- Low Risk for Vehicles:
 - Depths less than 0.3 m;
 - Velocity less than 4.5 m/s at shallow flow depths (e.g., less than 0.2 m);
 - Velocity less than 3.0 m/s at depths around 0.3 m; and
 - Velocity less than 0.6 m/s at depths around 0.4 m.

3.1 Existing 2D Hydraulic Model

The 2D hydraulic model provided by UTRCA is a 2D HEC model with 1D linkages for culvert crossings. The 2D surface has been generated from LiDAR data and supplemented with topographic survey completed by UTRCA staff. Manning's roughness coefficients are defined based on land use. Buildings are included in the 2D surface by artificially raising the surface at building locations. The study area within the 2D mode environment is shown in **Figure 5**.



Figure 5: Subject Site in the Thames River North Branch 2D model.

3.2 Basis of Comparison Model

Matrix reviewed UTRCA's 2D hydraulic model and determined that further detail at the subject site and surrounding properties was required to better evaluate the impact of the proposed development. The following updates were made to develop the Basis of Comparison (BOC) model:

- UTRCA's model applies open space and built-up manning's roughness coefficients for the site. The built-up manning's roughness is 0.15 and accounts for impediments to flow caused by buildings, fences and other constructed features that are typically closely spaced in residential and commercial subdivisions causing flow to move around the features and slow it down. This is appropriate for broad scale floodplain modeling for which the original model is intended. However, at the site scale, the higher resolution flow characteristics are lost. Instead, site scale flow characteristics can be better understood by further discretizing manning's roughness. Therefore, the manning's roughness coefficients were updated based on the aerial photo with open space and pavement applied to 1310 Adelaide Street, 795 Windermere Road, and 1324 Adelaide Street (Waltzing Weasel restaurant and Tin Cup driving range property). The change to manning's roughness coefficients is presented in **Figure 6**. The existing buildings on the site and the surrounding area are not shown in the manning's roughness layer; the buildings are represented in the 2D model as obstructions extruded from the DEM based on the building boundary GIS shapefile from the City of London.

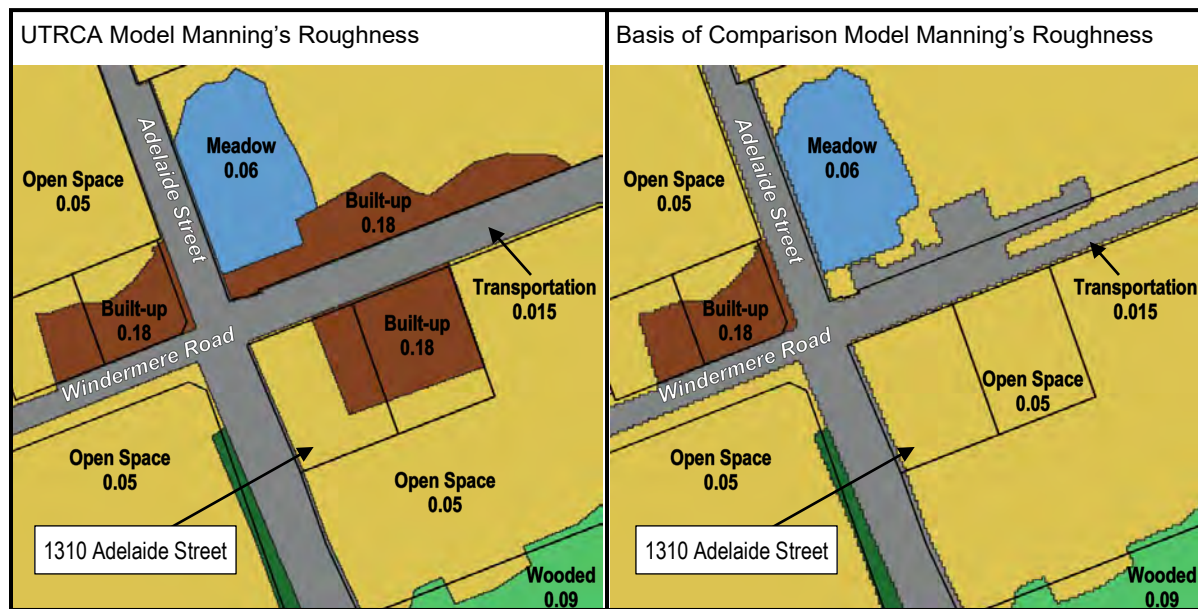


Figure 6: Manning's Roughness for UTRCA Model and Basis of Comparison Model.

3.2.1 Basis of Comparison Model Results

Flow tracking for two flow values (850 cms and 1250 cms) is provided in **Figure 7** and **Figure 8**, respectively. The flow tracking shows that when flows are high but not yet overtopping Adelaide Street (i.e., approximately 850 cms), flow is conveyed south from Windermere Road towards the Thames River North Branch via the front of 1310 Adelaide Street. As flow increases and Adelaide Street overtops, flow moves east to west along Windermere and 1310 Adelaide Street. Therefore, during the 850 cms event, the 1310 Adelaide Street site provides conveyance from north to south.

The Basis of Comparison model flow velocities, flow depths, and flood risk at the 850 cms flow are shown in Figure 9, Figure 10, and Figure 11 respectively for the subject site and adjacent properties. The Basis of Comparison model flow velocities, flow depths, and flood risk for the Regulatory event is shown in Figure 12, Figure 13, and Figure 14 respectively for the subject site and adjacent properties. Velocities across the site during these two flow scenarios are similar. The highest velocity on Adelaide Street, Windermere Road and adjacent properties (including 1324 Adelaide Street) occurs during the Regulatory flow.

The following observations have been made based on the existing conditions results:

- Offsite Considerations:
 - During the 850 cms event, the 1310 Adelaide Street site provides conveyance from north to south. During the 1,250 cms Regulatory flow, Adelaide Street is overtopped flow moves from east to west across the site.
 - Regulatory event water depths on Adelaide Street and Windermere Road are greater than 0.3 m and are not passable by passenger vehicles.
 - Regulatory event flow velocities on Adelaide Street, adjacent to the subject site, are greater than 1.7 m/s and pose a high risk to pedestrians.
 - Flow velocities on the adjacent 1324 Adelaide Street property are below 1.7 m/s, however, the property is considered high risk because flood depths are greater than 0.8 m.
- Onsite Considerations:
 - Flow velocities on the subject site are less than 1.7 m/s, however, the site is considered high risk because flood depths are greater than 0.8 m. Under the 850 cms flow, approximately half of 1310 Adelaide Street is considered high risk due to depths greater than 0.8 m and depth x velocity greater than 0.4 m²/s.
 - There is a small area of low flood risk around the existing building at 1310 Adelaide Street due to higher ground elevations causing shallower flow depths.

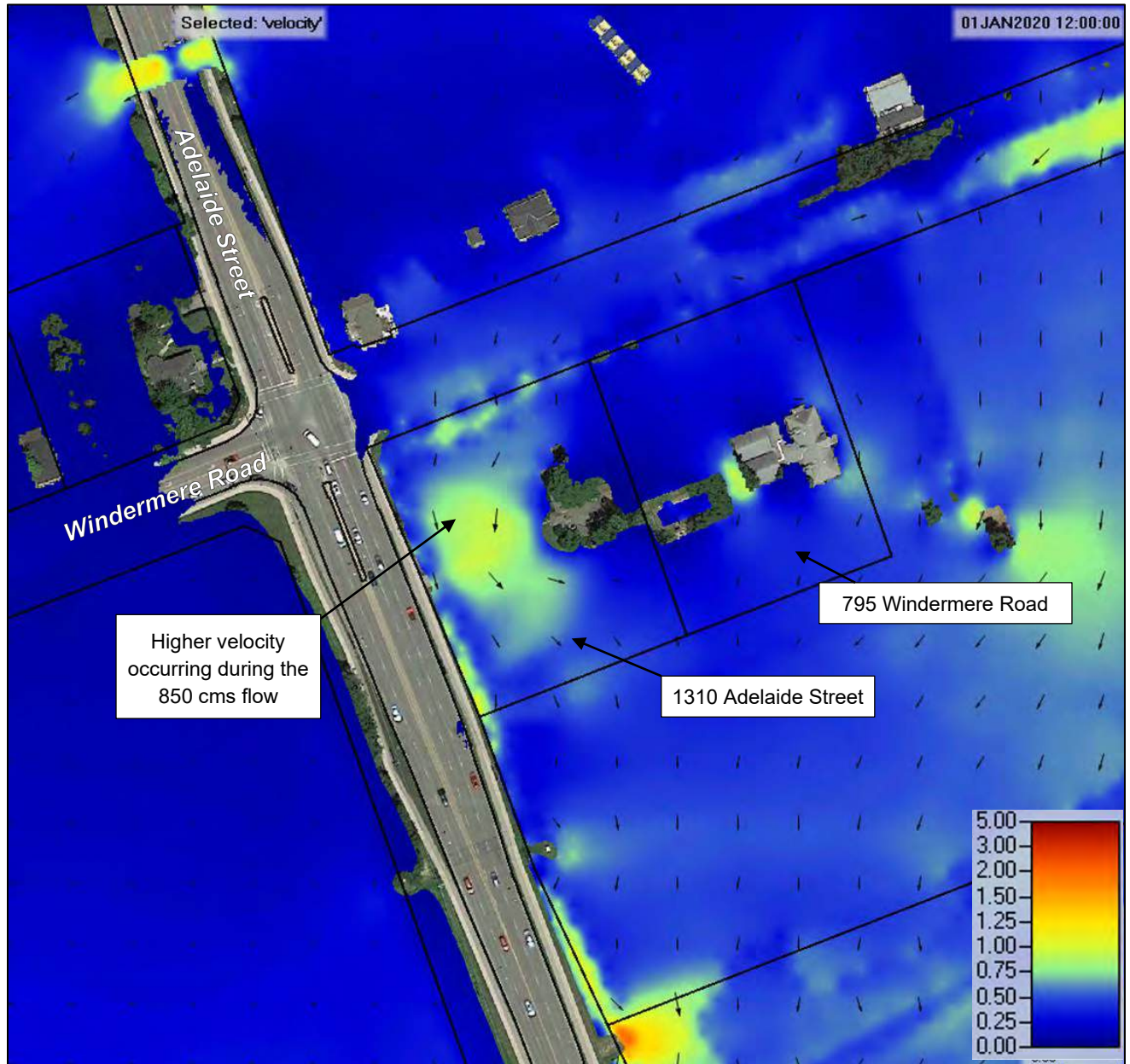


Figure 7: Flow Tracking and Flow Velocities for the 850 cms Flow.

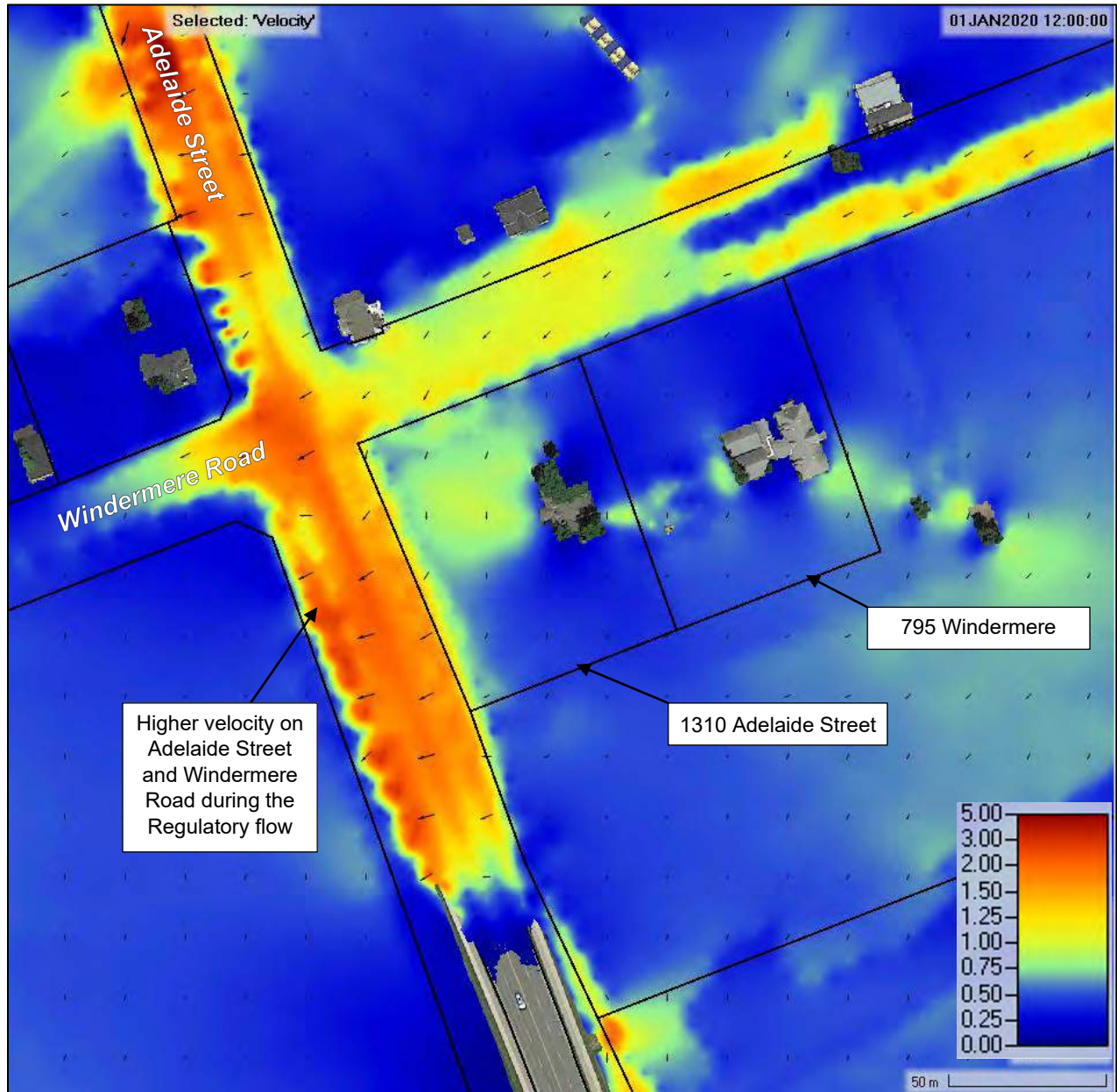


Figure 8: Flow Tracking and Flow Velocities for the Regulatory Flow Event (1250 cms).



Figure 9: Existing Conditions (BOC Model) Velocity for the 850 cms Flow Event.

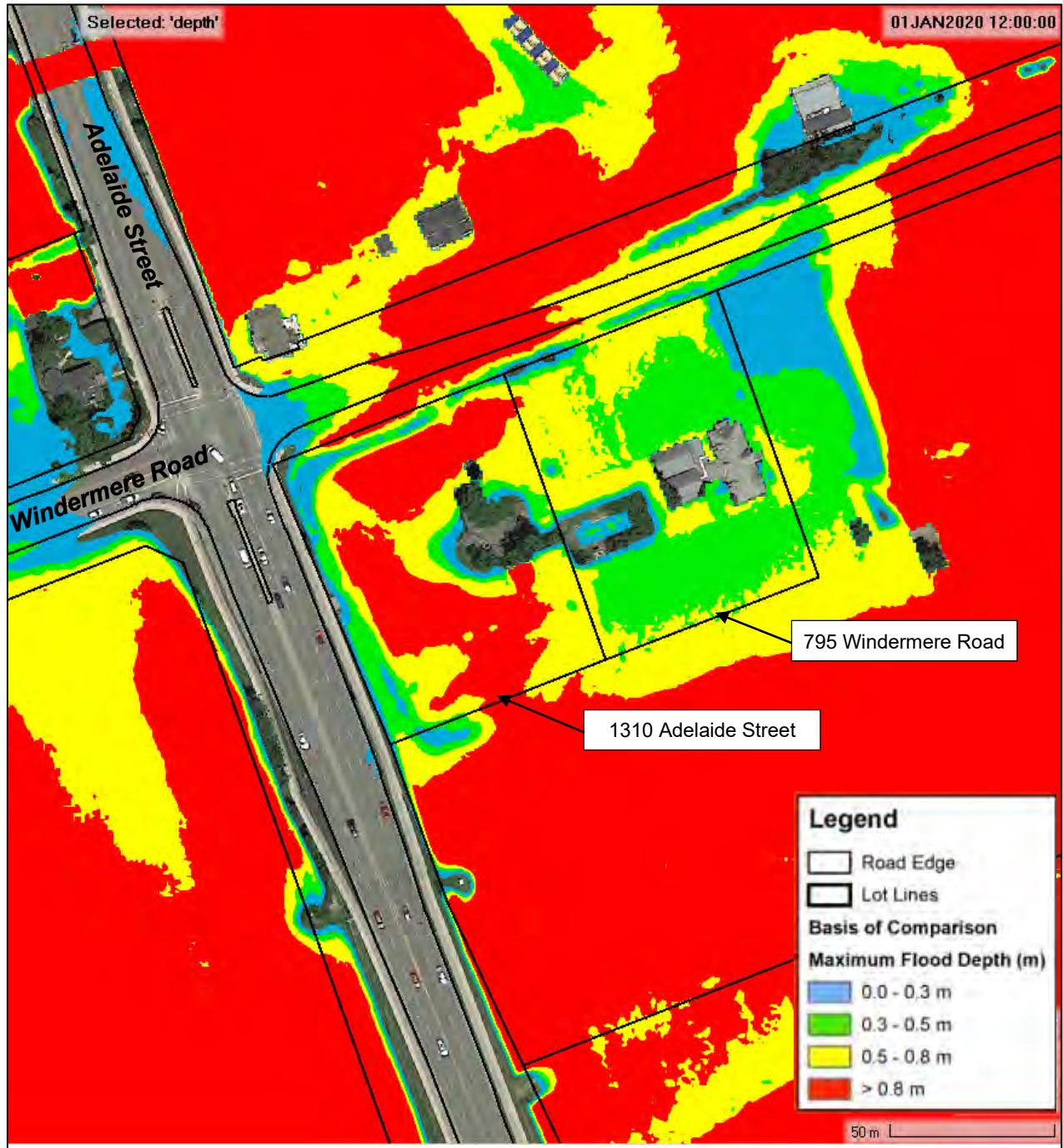


Figure 10: Existing Conditions (BOC Model) Flow Depth for the 850 cms Flow Event

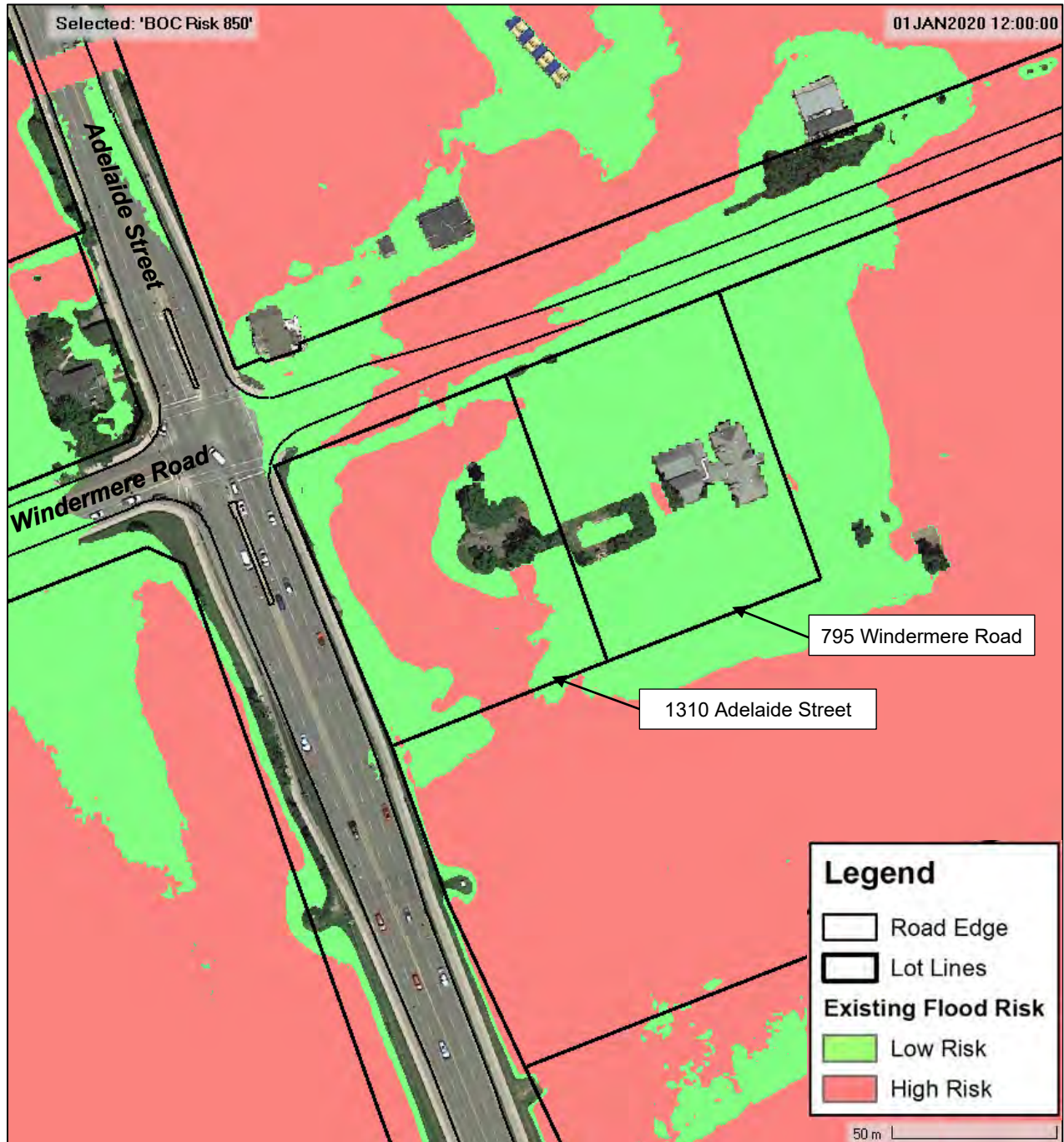


Figure 11: Existing Conditions (BOC Model) Flood Risk for the 850 cms Flow Event.



Figure 12: Existing Conditions (BOC Model) Velocity for the Regulatory Flow Event (1250 cms).



Figure 13: Existing Conditions (BOC Model) Flow Depth for the Regulatory Flow Event (1250 cms).



Figure 14: Existing Conditions (BOC Model) Flood Risk for the Regulatory Flow Event (1250 cms).

3.3 Assessment of Preferred Site Layout

Various alternative site layouts were previously considered in the 2D hydraulic assessment to identify potential impacts to adjacent properties and flood risk on the site. These were documented in the February 2021 2D Hydraulic Memorandum. The preferred layout has since been identified and modelled based on the proposed design described in Section 2.2 and **Figure 4**. The model terrain was updated to reflect these changes as shown in **Figure 15**.

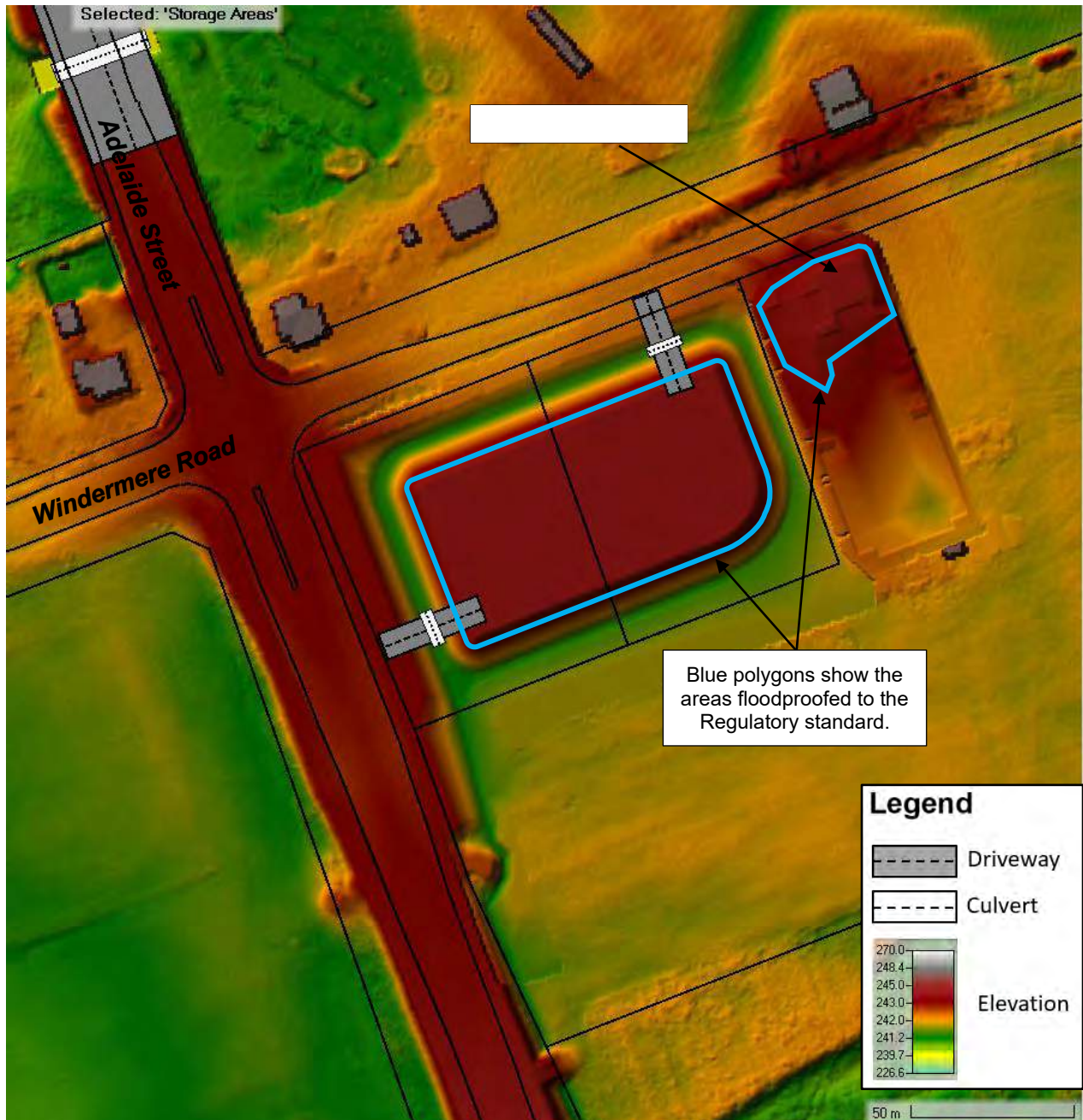


Figure 15: 2D Surface for the Preferred Alternative

The following modifications were made to the Basis of Comparison model to represent the Preferred Alternative:

- The 2D surface was updated to remove the two existing buildings on 1310 Adelaide Street and 795 Windermere Road
- The 1310 Adelaide Street and 795 Windermere Road property was raised above the Regulatory event water surface elevation.
- The conveyance channels were constructed around the property to convey flood waters that flowed through site under existing conditions. The flow conveyance channels have approximate dimensions of 2 m bottom width, 4:1 side slopes and between 0.5 to 2.0 m depth, with the deepest part between the property and Windemere Road and Adelaide Street.
- Two driveway entrances were added over the conveyance channels. Culverts were included below the driveway entrances.
- The raised parking lot grading was added to the adjacent City-owned parking lot and Stoney Creek Recreational Sports Field Complex property.

3.3.1 Regulatory Event Assessment

The preferred site layout was evaluated using the 2D HEC model. Depth, velocity and flood risk were compared against existing conditions BOC results and flood risk criteria for the Regulatory event. Additional comparison was made for the lower flow scenario (850 cms) against existing conditions. The assessment and comparison are described in the following sections.

3.3.1.1 Offsite Impacts to Flow Velocity and Velocity Flood Risk

To determine potential impacts to surrounding properties, the change in maximum velocity and the change in velocity-based flood risk were assessed. The flow tracking and velocities for the preferred alternative are shown in **Figure 16**. The change in flow velocities compared to existing conditions for the preferred alternative is presented in **Figure 17**. Change in velocity-based flood risk compared to existing conditions is presented in

Figure 18. The following observations have been made:

- The preferred alternative results in small changes in maximum velocities in the immediate surrounding area due to the change in flow conveyance within this section of the floodplain.
- The change in maximum velocity primarily occurs on the subject site and along Windermere Road and Adelaide Street.
- A small area of increase in velocity occurs on adjacent City owned property, mainly along the east and south boundaries of the site. The increase is mostly in the range of 0.05 m/s to 0.25 m/s. A smaller area along the edge of Adelaide Street experiences increases between the range of 0.25 m/s and 0.5 m/s.
- The area immediately north of the subject site (Windemere Road and 1324 Adelaide Street) and an area on Adelaide Street immediately west of the subject site experiences a decrease in velocity between 0.05 m/s to 0.5 m/s.
- Despite the change in velocity, the velocity-based flood risk remains low (i.e., velocity < 1.7 m/s) on adjacent private property for all alternatives.
- The velocity-based flood risk along Adelaide Street shifts due to the “shadow effect” of the floodproofing landform which diverts a portion of the floodplain flow to the north and south of the site.
- Velocity based flood risk on Adelaide Street immediately west of the subject site decreases to low risk and flood risk along Adelaide Street at the north and south corners of the subject site increases to high risk. The result is a zero net increase in high flood risk area along Adelaide Street.

3.3.1.2 Offsite Impacts to Flood Depths

To determine potential impacts to surrounding properties, the change in maximum depth and the change in flood risk were also assessed. The maximum depth for the preferred site layout is shown in **Figure 19**. The change in flood depths compared to existing conditions for the preferred alternative is presented in **Figure 20**. The following observations have been made:

- Flood depth increases within the proposed flood conveyance channels due to the change in grading.
- There is a small area on Adelaide Street which sees minor decreases in flood depths (< 0.05 m).
- The area to the east of the site, within the proposed regraded parking lot, sees a decrease in depth along the northern end (> 0.3 m) due to the proposed fill, and a localised increase in depth along the southern end (> 0.3 m) due to the proposed cut.
- There are no further changes in flood depths (± 2 cm) beyond the areas described above including at the adjacent private properties along Windermere Road.
- The changes in depth described above do not change flood risk or result in additional flood damages.

3.3.1.3 Flood Risk

The flood risk as defined by the three criteria (depth, velocity and depth x velocity) is presented in **Figure 21**. The following observations have been made for onsite velocity-based flood risk and overall flood risk based on the results presented in **Figure 18 to Figure 21**:

- There is no flood risk on the proposed developed portion of the site due to the proposed floodproofing to the Regulatory standards.
- Within the proposed conveyance channels, velocity based flood risk remains low while depths within the channel remain high risk, similar to existing conditions.
- There is no flood risk at the fieldhouse and approximately 948 m² of the parking lot due to the proposed floodproofing of a portion of the parking lot and the fieldhouse to the Regulatory standard.
- Raising the City parking lot reduces flood risk within the parking lot, with the northern portion of the parking lot above the Regulatory flood water surface elevation.
- The site entrance off Windermere Road is not accessible during the Regulatory flood event, similar to existing conditions, due to water depths exceeding 0.8 m on Windemere Road.
- Access to the site from Adelaide Street is passable by emergency vehicles under the Regulatory event. Due to the higher elevation of Adelaide Street compared to Windermere Road, access/egress to the site can be maintained for a longer portion of flood events. This provides an improvement to overall site access/egress during the Regulatory flood event.
- Velocity-based risk is low on Adelaide Street, while overall flood risk remains high (depth x velocity > 0.4 m²/s). There is a spatial redistribution of low and high risk areas on Adelaide Street, however, there is no net change in overall flood risk on Adelaide Street compared to existing conditions (refer to Figure 18).

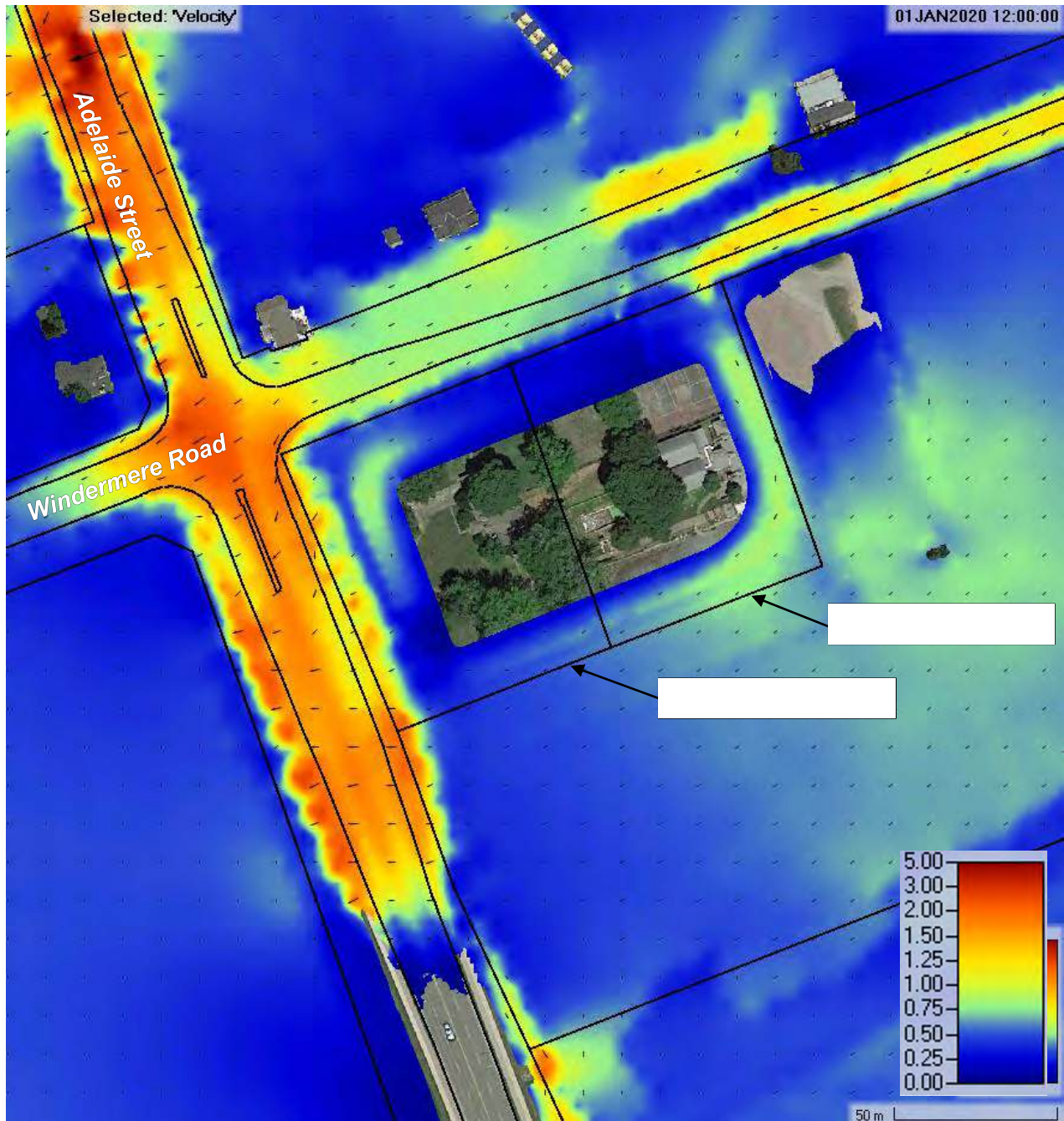


Figure 16: Preferred Alternative Flow Tracking and Flow Velocities for the Regulatory Flow Event (1250 cms).

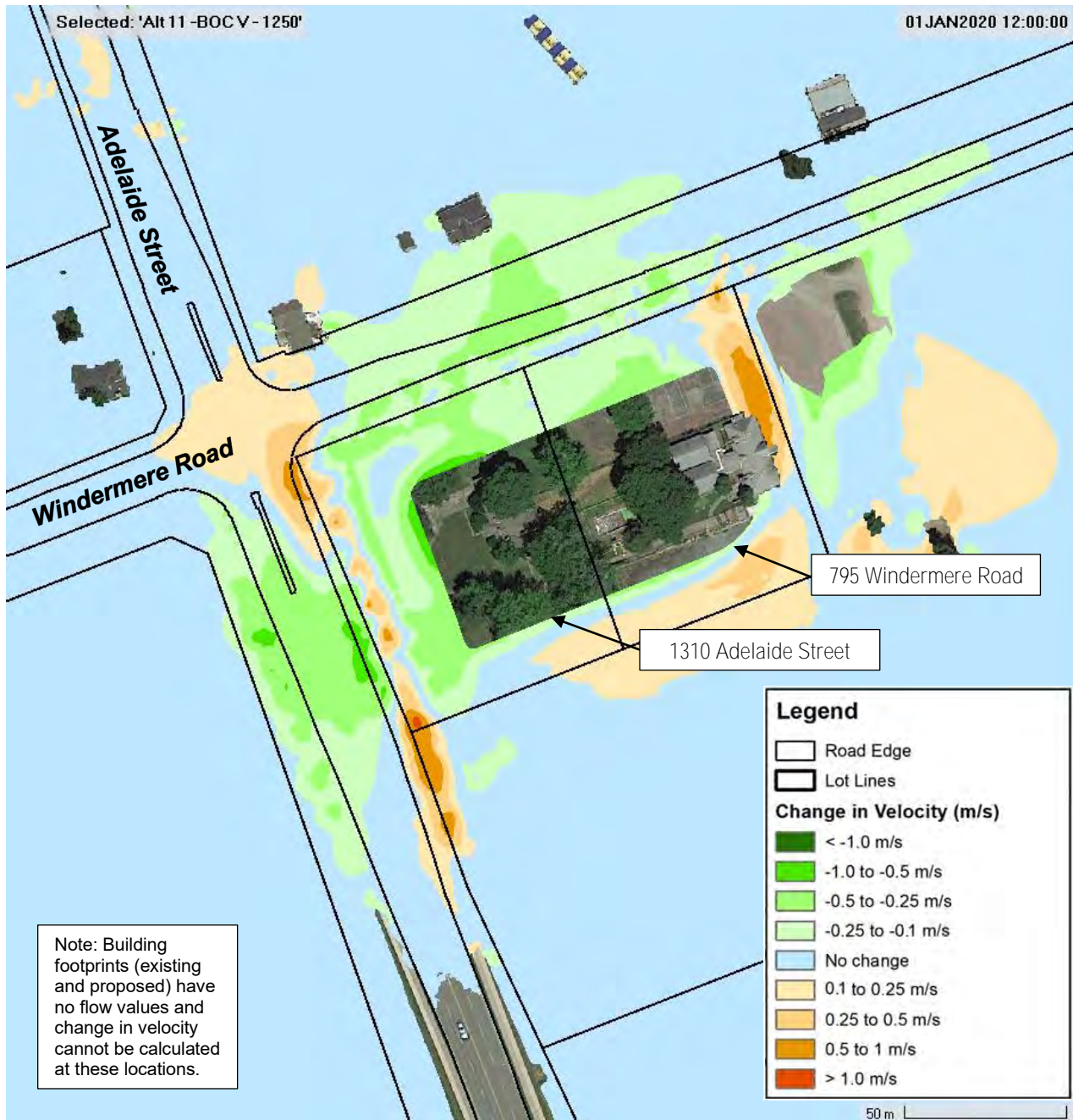


Figure 17: Preferred Alternative – Change in Flow Velocity for the Regulatory Flow Event (1250 cms).

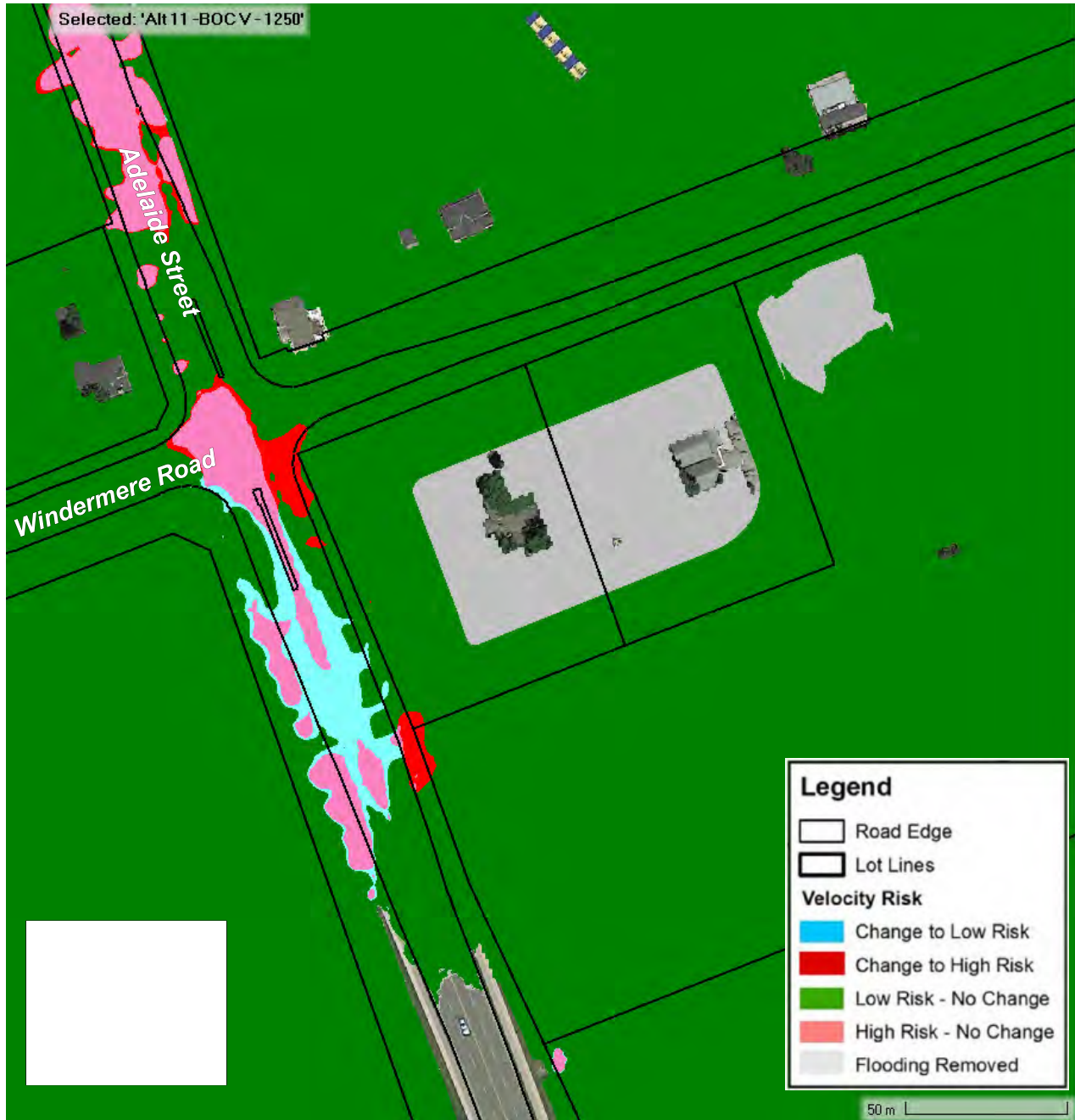


Figure 18: Preferred Alternative – Change in Velocity Based Flood Risk for the Regulatory Flow Event (1250 cms).

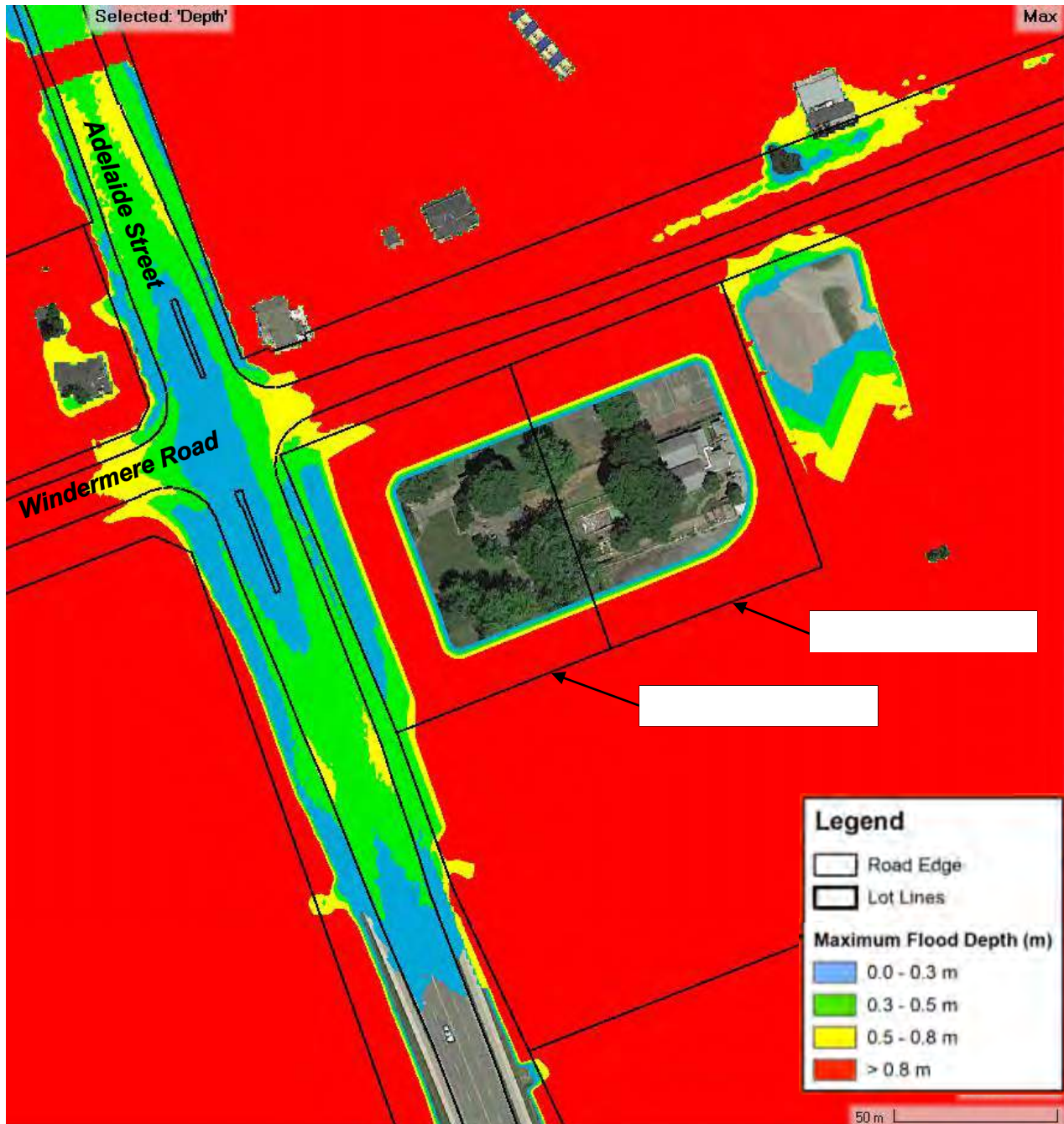


Figure 19: Preferred Alternative Maximum Flow Depth for the Regulatory Flow Event (1250 cms).



Figure 20: Preferred Alternative – Change in Depth for the Regulatory Flow Event (1250 cms).



Figure 21: Preferred Alternative Flood Risk for the Regulatory Flow Event (1250 cms).

3.3.2 Lower Flow Conditions Assessment

The assessment in **Section 3.3.1** considered the impact of the site layout during the Regulatory flow event because it presents the highest velocities along Adelaide Street and the surrounding properties. During smaller flood events (flow around 850 cms) before Adelaide Street overtops, flood waters are conveyed south through the front of the 1310 Adelaide Street property. During these flows, the surrounding properties are also flooded. The preferred site layout provides a flow conveyance channel around the property to offset a portion of the lost conveyance during these lower flow events. To supplement the Regional flood impact assessment provided in **Section 3.3.1**, an analysis of the 850 cms flow was undertaken to determine if the preferred alternative has an adverse impact on flow velocity and depth in the surrounding area during these lower flow events.

The change in flow velocity for the 850 cms flow is shown in **Figure 22**. The change in flow depth for the 850 cms flow is shown in **Figure 23**, respectively. The results show that flow velocities are the same or decrease on properties north of Windermere Road. The results also show that flow depths do not change with the exception of a small increase of approximately 0.02 m near the intersection of Windermere Road and Adelaide Street. There is a slight increase in velocities within the Stoney Creek Recreational Sports Field Complex immediately to the east and south of the parking lot, however, this small increase does not increase flood risk. This indicates that the proposed fill required to floodproof the subject site and the field house will not increase the frequency of flooding, the severity of flooding, or cause additional erosion concerns at the adjacent properties during these lower flow events.



Figure 22: Preferred Site Layout – Change in Flow Velocity for the 850 cms Flow Event

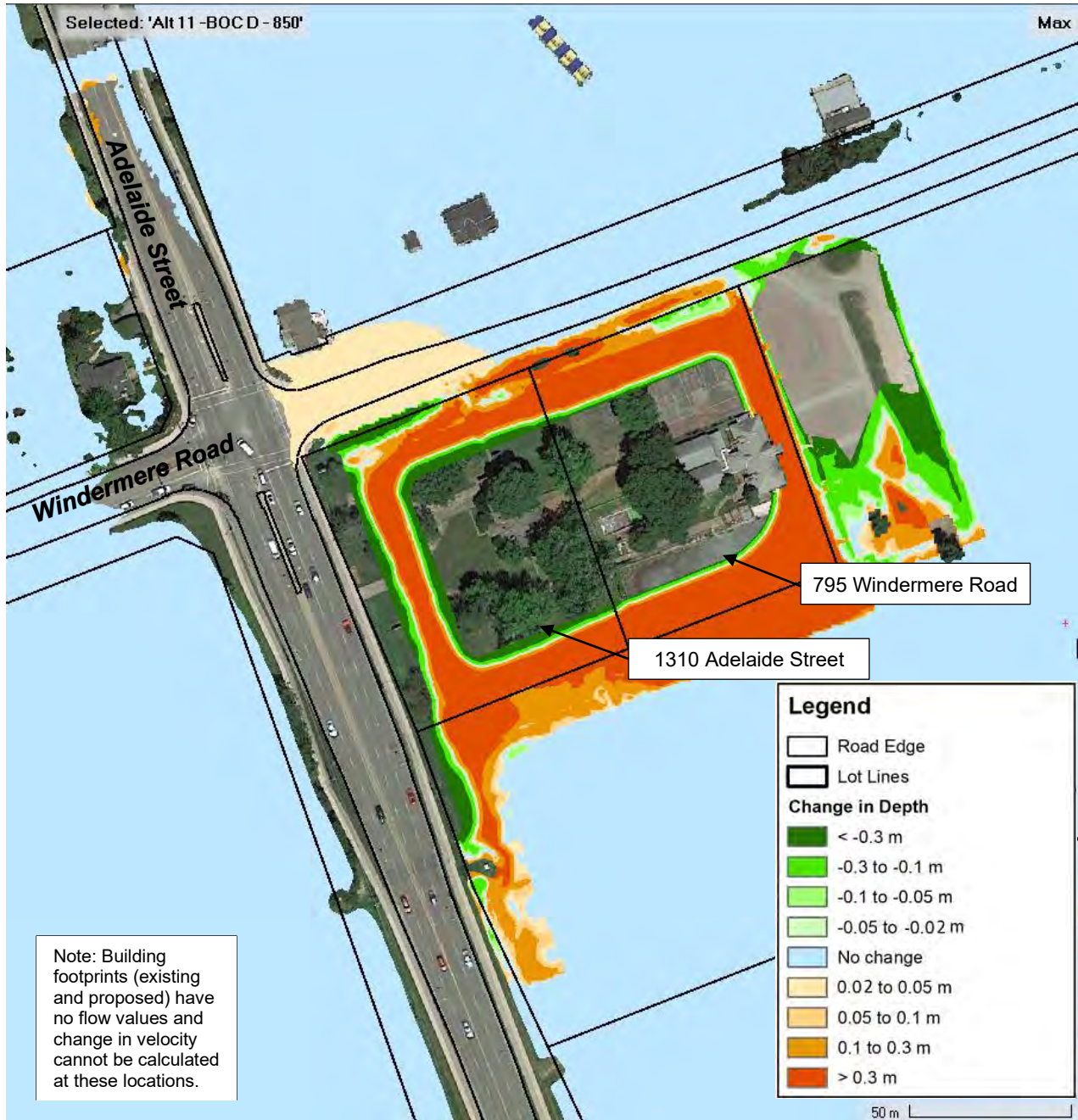


Figure 23: Preferred Site Layout – Change in Depth for the 850 cms Flow Event

3.3.3 Stage Storage Analysis

A stage storage analysis was completed for the proposed development and floodplain to determine the change in floodplain storage resulting from the proposed floodproofing. The total floodplain storage was calculated for the reach from Adelaide Street North to the upstream extent of the 2D model reach (approximately 2.2 km upstream of Adelaide Street North). The stage storage analysis is presented in **Table 2**. The cut fill for the site is a net 4,434 m³ fill which results in a 0.11% reduction in storage for the reach. The stage storage analysis shows an increase in flood storage below 242.75 m due to the cut required for the flow conveyance channels and a loss of storage above 242.75 due to the fill associated with the floodproofing.

Table 2. Stage Storage Analysis

Elevation	Existing Floodplain Storage		Proposed Floodplain Storage		Change in Storage		Percentage Change
	Incremental Storage (m ³)	Cumulative Storage (m ³)	Incremental Storage (m ³)	Cumulative Storage (m ³)	Incremental Change (m ³)	Cumulative Change (m ³)	
240.00	23,463	23,463	23,463	23,463	0	0	0.0%
240.25	15,412	38,875	15,412	38,875	0	0	0.0%
240.50	20,044	58,919	20,044	58,919	0	0	0.0%
240.75	26,752	85,671	26,752	85,671	0	0	0.0%
241.00	35,800	121,471	35,800	121,471	0	0	0.0%
241.25	52,158	173,629	52,162	173,633	4	4	0.0%
241.50	72,124	245,753	72,390	246,023	266	270	0.11%
241.75	94,276	340,029	95,124	341,147	848	1,118	0.33%
242.00	125,524	465,553	126,578	467,725	1,054	2,172	0.47%
242.25	161,196	626,749	161,620	629,345	424	2,596	0.41%
242.50	196,423	823,172	195,856	825,201	-567	2,029	0.25%
242.75	229,139	1,052,311	227,518	1,052,719	-1,621	408	0.04%
243.00	262,356	1,314,667	260,535	1,313,255	-1,821	-1,413	-0.11%
243.25	291,473	1,606,141	289,860	1,603,115	-1,613	-3,026	-0.19%
243.50	313,279	1,919,420	311,871	1,914,985	-1,408	-4,434	-0.23%

3.4 Fully Floodproofed Stoneybrook Fields Parking Lot

A fully floodproofed Stoneybrook Fields parking lot scenario was also considered in the 2D Model assessment. Under this scenario, the Stoneybrook Fields parking lot along with the field house has been raised to 224.5 m elevation. This requires approximately 1,100 m³ of additional fill. The floodproofed area is shown in **Figure 24**.

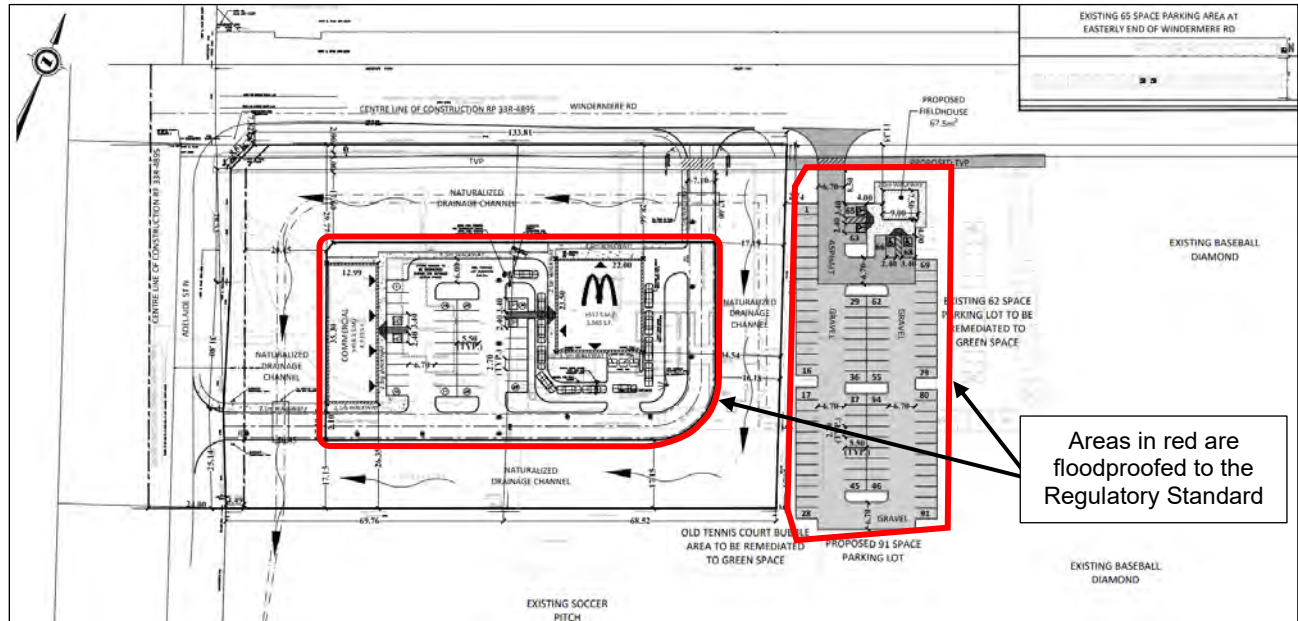


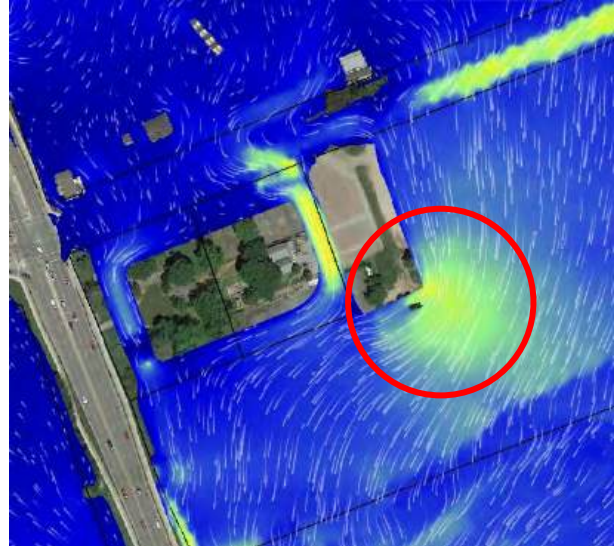
Figure 24: Proposed Site Plan for 1310 Adelaide Street North (SBM, October 2022)

The analysis found the additional floodproofing causes water depths to increase by more than 2 cm during the 850 cms flow and the Regulatory flow (1,250 cms) on the properties north of Windermere Road. The impact on water depths is due to the larger area that impedes flow within the floodplain as shown in **Figure 25**.

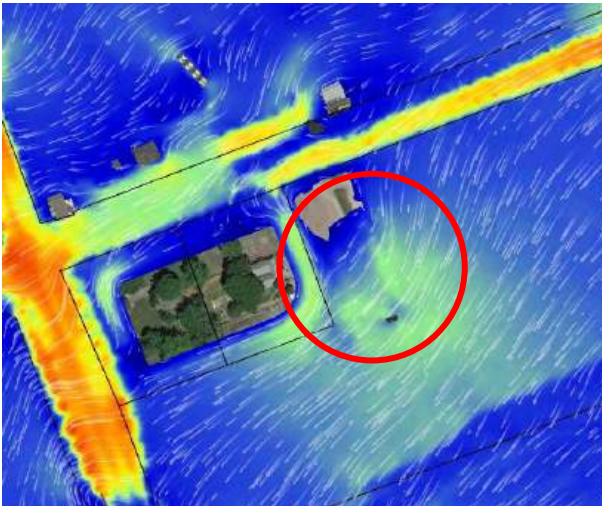
A side by side comparison of the change in water depth and velocity compared to the basis of comparison model is presented in **Figures 26 to 29**. The increase in water depth north of Windermere Road is evident in the fully floodproofed scenario shown by the orange areas. Based on these results, we do not recommend fully floodproofing the Stoneybrook Fields parking lot. As a result, UTRCA may require additional non-passive measures to be implemented including flood warning signage and a swing gate to restrict access during flood events.



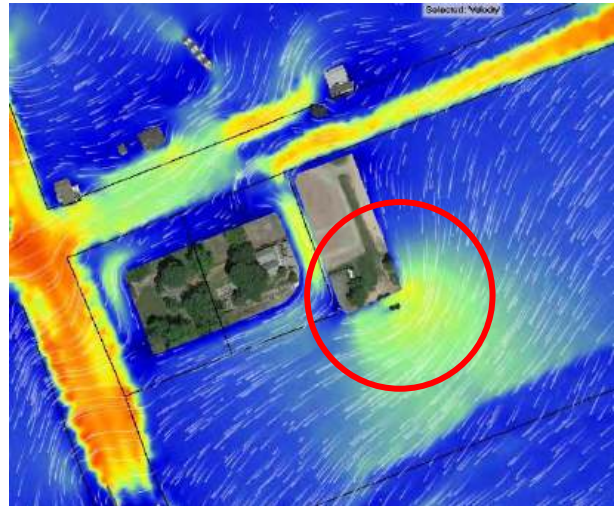
a) 850 cms flow for the partially floodproofed parking lot. Flow moves from north east to south west through the parking lot area (circled in red).



b) 850 cms flow for the fully floodproofed parking lot. Flow is forced around the floodproofed parking lot (circled in red) which constricts flow and causes the upstream increase in water depth.



c) Regulatory flow for the partially floodproofed parking lot. Flow is generally moving east to west through the floodplain, including the parking lot area (circled in red).



d) Regulatory flow for the fully floodproofed parking lot. Similar to the 850 cms event, flow is forced around the floodproofed parking lot (circled in red).

Figure 25: The flow tracking results shown above demonstrate how flow is moving generally east to west through the Stoneybrook Recreational Fields parking lot under the partially floodproofed parking lot scenario (area circled in red). The fully floodproofed parking lot forces flow around the area causing a constriction in flow and the increase in water depth upstream.

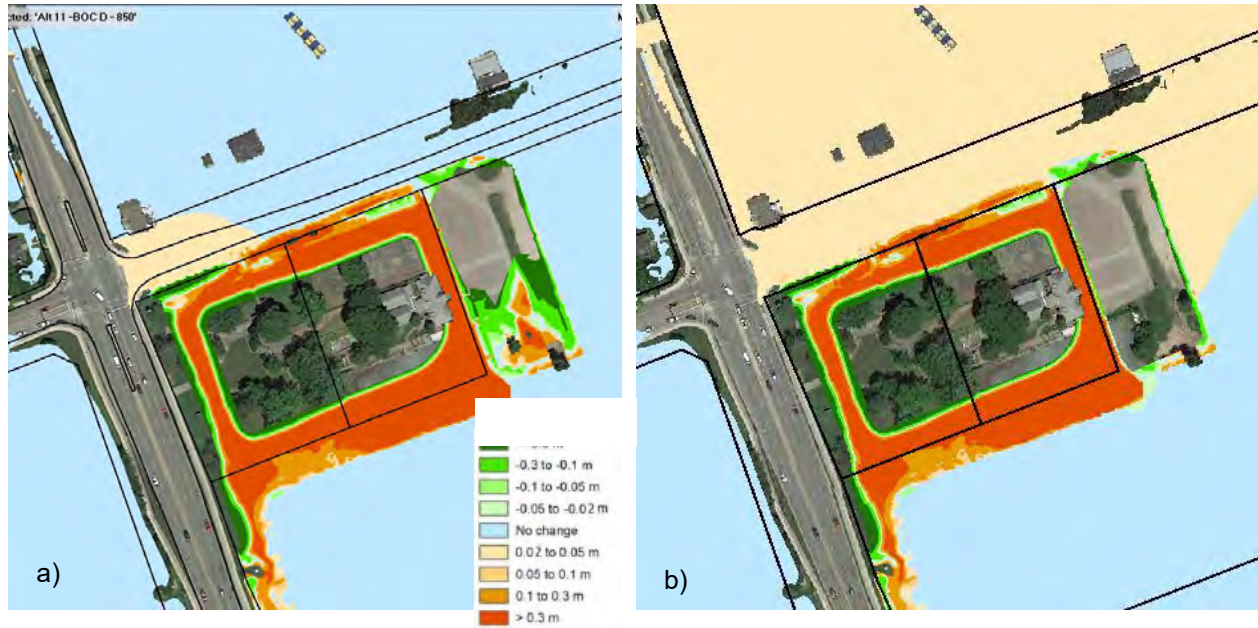


Figure 26: 850 cms flow change in water depth from the basis of comparison model to a) partially floodproofed sports field parking lot and b) fully floodproofed parking lot. The light orange area north of the site shows an increase of greater than 2 cm on adjacent properties and Windermere Road for the fully floodproofed parking lot.

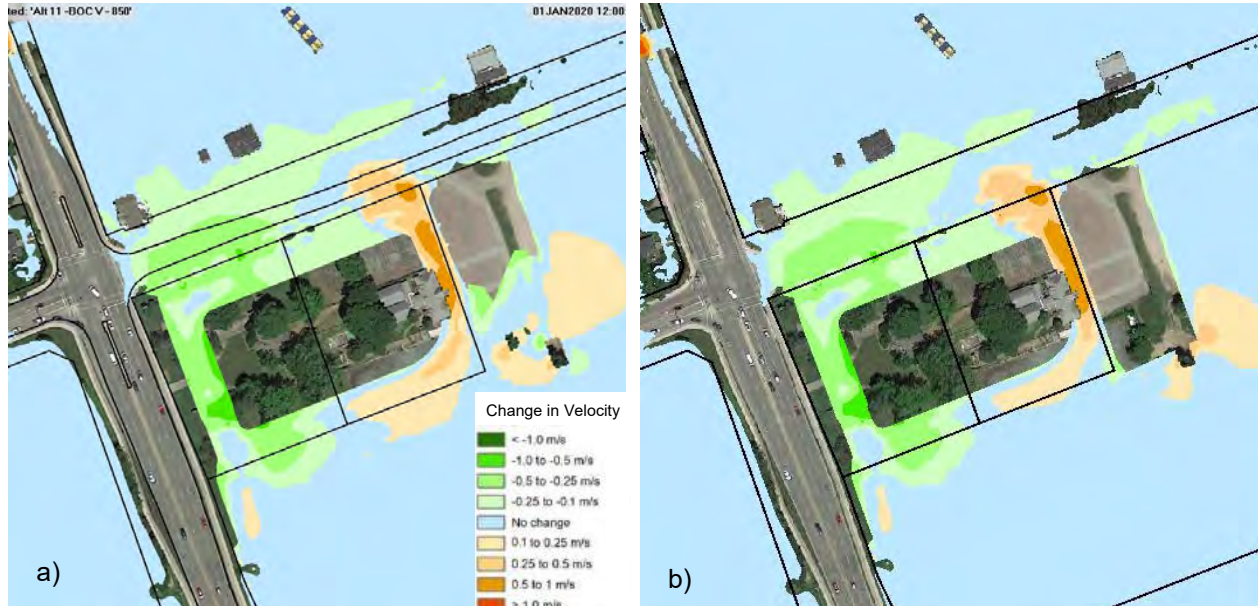


Figure 27: 850 cms flow change in velocity from the basis of comparison model to a) partially floodproofed sports field parking lot and b) fully floodproofed parking lot. There is a spatial change in velocity but no net increase in velocities when comparing both scenarios.

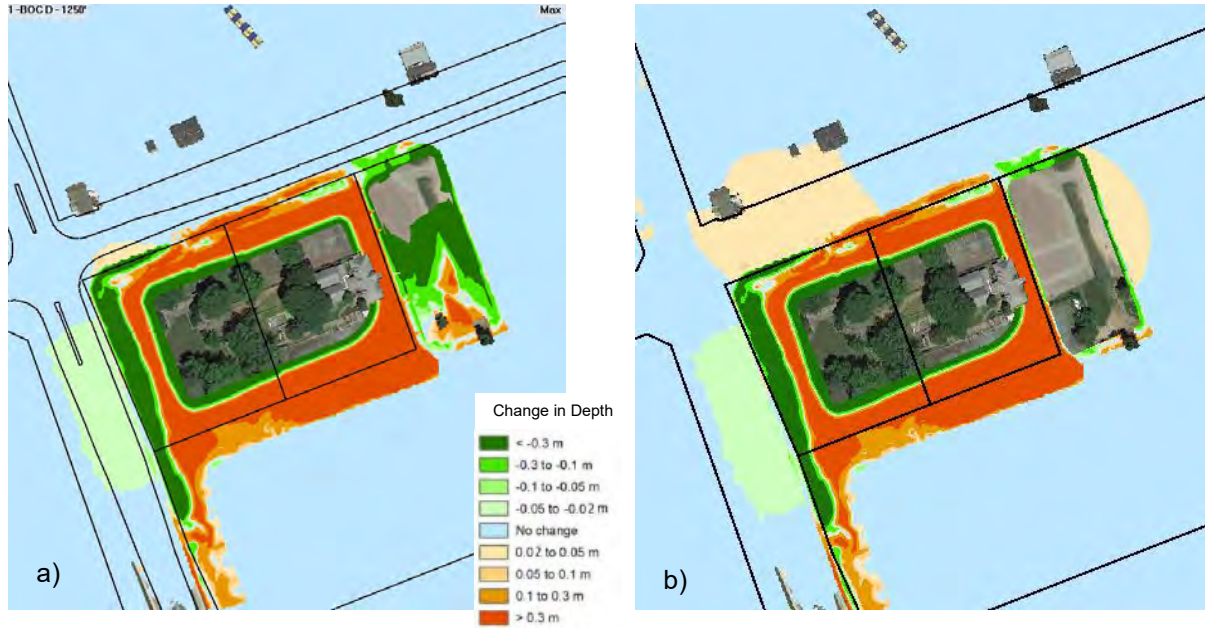


Figure 28: Regional flow change in water depth from the basis of comparison model to a) partially floodproofed sports field parking lot and b) fully floodproofed parking lot. An area of depth increase is observed north of the site as a result of the additional floodproofing. The area of impact is less compared to the 850 cms flow because there is additional relief over Adelaide Street during the Regulatory flow.

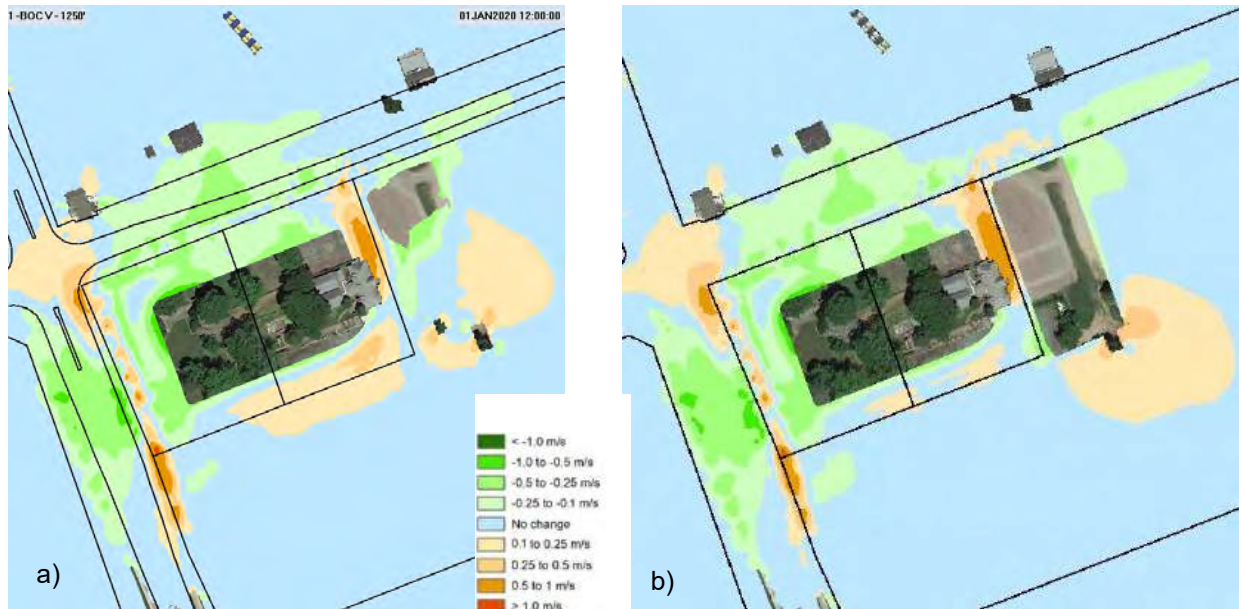


Figure 29: Regional flow change in velocity from the basis of comparison model to a) partially floodproofed sports field parking lot and b) fully floodproofed parking lot. Similar to the 850 cms flow, there is a spatial change in velocity but no net increase in velocities when comparing both scenarios.

4 Conclusion and Recommendations

4.1 Summary of Results and Recommendations

A 2D hydraulic modeling flood impact assessment was completed for the proposed site layout for 1310 Adelaide Street, the proposed field house, and the adjacent City-owned parking lot. The site layout includes floodproofing by raising the site to 244.0 m elevation and providing conveyance channels around the floodproofed area. The following conclusions and recommendations were derived from the 2D modeling assessment:

Regulatory Event

- Adelaide Street: The preferred site layout changes flow conveyance over Adelaide Street during the Regulatory flow event causing a redistribution of velocity-based flood risk along Adelaide Street. Despite this change in the spatial distribution of flood risk, there is no expected net increase in high flood risk and there is no change in the access and egress conditions along Adelaide Street compared to existing conditions.
- Onsite Flood Risk Impacts: The proposed floodproofing reduces flood risk on the site and the City-owned parking lot and proposed fieldhouse.
- Offsite Depth Impacts: The proposed floodproofing does not increase flood depth along Windermere Road, Adelaide Street, and adjacent private property (1324 Adelaide Street). Changes in flood depth on the development site and adjacent City owned property are associated with changes in grading. These changes do not increase flood risk during the Regulatory Flood.
- Offsite Velocity Impacts: The proposed floodproofing changes floodplain conveyance immediately surrounding the site which results in a redistribution of flow velocity on the adjacent City-owned property and 1324 Adelaide Street. Most of 1324 Adelaide Street north of Windemere Road is shown to have a decrease or no change in velocity. A small area of nominal increase in velocity (+0.1 m/s to +0.25 m/s) is observed on the south-west corner of 1324 Adelaide Street. This is offset by a much larger area of nominal decrease in velocity (-0.1 m/s to -0.25 m/s) adjacent to Windemere Road. The velocity in the area experiencing the nominal increase remains below 1.0 m/s, therefore, there is no increase in flood risk (velocity is less than 1.7 m/s or high velocity-based flood risk) and will not increase flood damages or place existing structures at additional risk of failure.

Lower Flow Event - 850 cms

- The 850 cms event was also assessed as it represents a critical stage in which flood waters have not yet overtopped Adelaide Street and flows are being conveyed from north to south through the 1310 Adelaide Street property. As such, floodproofing at 1310 Adelaide Street has the greatest potential to impact flow dynamics and upstream flooding at the 850 cms flow. At higher flows, including the Regulatory Event, flow relief over Adelaide Street occurs and the flow moves from east to west through the floodplain. During these higher flows, floodproofing has less potential to impact flow dynamics and upstream flooding.
- Flood conveyance channels have been included in the site design to allow flow to move from north to south through the site and around the proposed floodproofing in order to mimic the existing flow dynamics during the 850 cms flow.
- Offsite Depth Impacts: During the 850 cms flow there is a small area within the Windermere Road boulevard adjacent to 1324 Adelaide Street and the intersection at Adelaide Street where flow depths increase by approximately 3 cm (refer to **Figure 23**). This very small increase in depth will not increase flood risk or flood damages at 1324 Adelaide Street or place existing structures at additional risk of failure. All other areas upstream of the site have no change in depth (± 2 cm).
- Offsite Velocity Impacts: A small decrease in velocity (-0.1 m/s to -0.25 m/s) occurs at 1324 Adelaide Street in the vicinity of the increase in depth described above (refer to **Figure 22**). This change in velocity does not impact flood risk. There is also a small area of nominal increase in

velocity (0.1 m/s to 0.25 m/s) on greenspace associated with the adjacent Stoneybrook Recreational Fields. Again, this small change does not cause velocities to increase above 1.7 m/s and is not considered high risk. Additionally, the change in velocity does not place any structures at additional risk.

- Based on the depth and velocity results, the flood frequency and flood severity at adjacent and upstream properties is not expected to increase during the 850 cms flow.

Access and Egress

- Access and Egress: The existing site entrance off Windermere Road is not accessible during the Regulatory flow event due to water depths exceeding 0.3 m. Additionally, Windermere Road becomes inundated during lower flows (e.g. 850 cms) which would restrict access/egress during these lower flow events. Due to the higher elevation of Adelaide Street, access/egress to the site can be maintained for higher flows and for a longer period during the Regulatory flow event compared to the existing entrance off Windermere Road. Therefore, a second entrance was provided off Adelaide Street to improve access and egress during flooding events. Adelaide Street remains accessible by emergency vehicles under the Regulatory event and is dry under lower flow events (e.g. 850 cms). A suitably sized culvert crossing under the Adelaide Street and Windermere Road entrances will be required to accommodate the conveyance channel.

Cut Fill Balance:

- The floodproofing provided for the 1310 Adelaide Street property, the proposed fieldhouse, and the City-owned parking lot improvements results in a net fill for the site.
- Opportunities to compensate on site were assessed. The surrounding grading and proximity to Adelaide Street and Windermere Road prevented achieving a cut fill balance. A total of 2,596 m³ of cut was achieved through the conveyance channels. The cut within the channels was constrained by the elevation of the receiving roadside ditch.
- There are no offsite compensation opportunities due to the surrounding land use constraints.
- The stage storage analysis shows an increase in flood storage below 242.75 m due to the cut for the flow conveyance channels and a loss of storage above 242.75 due to the fill associated with the floodproofing.
- The net fill for the site is 4,434 m³. This volume is 0.23% of the available floodplain storage volume within this reach of the North Branch of the Thames River (from Adelaide Street North to approximately 2.2 m upstream). The small fill volume is not expected to impact flood storage considering the very large storage available within this reach.

Site Plan Considerations

- The flow conveyance channel considered in the model has approximate dimensions of 2 m bottom width, 4:1 side slopes and 0.5 to 2.0 m depth.
- Higher velocities are experienced at the corners of the fill site. The site grading should include rounded/smoothed corners to reduce the abrupt change in flow direction. Additionally, erosion protection will be considered at these locations.

Fully Floodproofed Stoneybrook Fields Park Lot

- A fully floodproofed Stoneybrook Fields parking lot scenario was also considered. Under this scenario, the full Stoneybrook Fields parking lot along with the field house has been raised to 224.5 m elevation. This requires approximately 1,100 m³ of additional fill compared to the preferred site layout.
- The 2D hydraulic analysis found that the additional floodproofing results in an increase of more than 2 cm on the properties north of Windermere Road during the 850 cms flow and the Regulatory flow (1,250 cms).
- Based on these results, we do not recommend fully floodproofing the Stoneybrook Fields parking lot.

- UTRCA may require additional non-passive measures to be implemented including flood warning signage and a swing gate to restrict access during flood events.

4.2 Reference to UTRCA Policy 4.2.2.6 Replacement Structures in the Floodway

Based on the conclusions of the 2D Flood Impact Assessment, the following statements are made with respect to UTRCA Policy 4.2.2.6 *Replacement Structures in the Floodway*:

- In accordance with *Policy 4.2.2.6 a)*, the proposed structures including the buildings and parking lot at 1310 Adelaide Street and the neighbouring field house and portion of the City-owned parking lot, can be floodproofed to the level of the Regulatory Flood. The level of the Regulatory Flood at the site is 243.5 m. The proposed floodproofing has been set at 244.0 m, 0.5 m above the Regulatory Flood. This meets the UTRCA requirement for floodproofing to be a minimum 0.3 m above the Regulatory Flood and the City of London requirement for the ground level to be 0.25 m above the Regulatory Flood.
- In accordance with *Policy 4.2.2.6 b)*, the proposed structures do not exceed the total footprint area of the original structure as they existed on April 25, 2000. The proposed structures presented have a combined area of 975.3 m² and the structures as they existed on April 25, 2000 have a combined area of 981.2 m².
- In accordance with *Policy 4.2.2.6 c) i.*, the proposed floodproofing removes the flood risk for the proposed structures, therefore, the replacement structures are not susceptible to higher depths and velocities of flooding. Further, in *Policy 4.2.2.6 c) ii.*, the floodproofing reduces risk to property damage and public safety by removing the flood risk within the property.
- In accordance with *Policy 4.2.2.6 d)*, dry, passive floodproofing measures (fill) have been implemented for the site to achieve the required level of flood protection (Regulatory flood).
- In accordance with *Policy 4.2.2.6 e)*, ingress and egress to the site will be improved during flooding conditions by construction of the Adelaide Street entrance. The Adelaide Street entrance has a higher elevation compared to the existing Windermere Road entrance, therefore, access and egress to the site can be maintained for higher flows and for a longer period during the Regulatory flow event compared to existing conditions.
- In accordance with *Policy 4.2.2.6 h)*, the Flood Impact Assessment found that the proposed floodproofing and parking lot improvements result in small areas where flood depths and velocities increase at adjacent properties, including 1324 Adelaide Street. However, these increases are nominal (3 cm depth and < 0.25 m/s velocity) and do not result in an increase in flood risk or potential flood damages on adjacent, upstream and/or downstream properties. Additionally, the frequency and severity of flooding at 1324 Adelaide Street does not increase.
- In accordance with *Policy 4.2.2.6 g)*, this Flood Impact Assessment memorandum (engineering study) details the flood frequency, depth and velocity, proposed flood damage reduction measures.
- In accordance with *Policy 4.2.2.6 h)*, it is understood that the application will be subject to the consent of the UTRCA's Hearings Committee.

We note that *Policy 4.2.2.6 c) iii.* which stipulates that the use within the replacement structures and/or the property as a whole is not intensified, has not been discussed above. This engineering study is intended to assess flood risk through hydraulic analysis; therefore, property use should be addressed separately through planning and land use discussions.

5 CLOSURE

We trust that this letter report suits your present requirements. If you have any questions or comments, please contact the undersigned at aspargo@matrix-solutions.com.

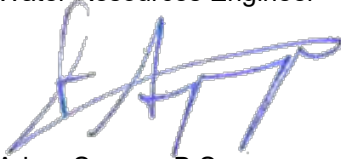
Yours truly,

MATRIX SOLUTIONS INC.

Report Prepared by



Natalie Burrows, M.A.Sc., P.Eng.
 Water Resources Engineer



Adam Spargo, B.Sc.
 Senior Project Manager

Report Reviewed by



Nicholas Krygsman, P.Eng.
 Principal/Practice Lead, Engineering

CONTRIBUTORS

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Adam Spargo, B.Sc.	Senior Project Manager	Co-author
Nicholas Krygsman, P.Eng.	Principal/Practice Lead, Engineering	Reviewer

VERSION CONTROL

Version	Date	Issue Type	Filename	Description
V1.0	25-Oct-2022	Draft	PN1925-1310 Adelaide Street 2D Modeling Floodplain Impact Assessment-2022-10-25	Issued for UTRCA review
V2.0	11-Jun-2023	Final	PN1925-1310 Adelaide Street 2D Modeling Floodplain Impact Assessment-2023-06-09	Issued for UTRCA review
V3.0	06-Oct-2023	Final	PN1925-1310 Adelaide Street 2D Modeling Floodplain Impact Assessment-2023-10-06-V3.0	Issued for UTRCA Approval

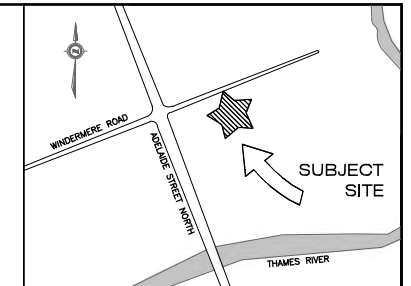
DISCLAIMER

Matrix Solutions Inc. certifies that this report is accurate and complete and accords with the information available during the project. Information obtained during the project or provided by third parties is believed to be accurate but is not guaranteed. Matrix Solutions Inc. has exercised reasonable skill, care, and diligence in assessing the information obtained during the preparation of this report.

This report was prepared for Royal Premier Homes. The report may not be relied upon by any other person or entity without the written consent of Matrix Solutions Inc. and of Royal Premier Homes. Any uses of this report by a third party, or any reliance on decisions made based on it, are the responsibility of that party. Matrix Solutions Inc. is not responsible for damages or injuries incurred by any third party, as a result of decisions made or actions taken based on this report.

LEGAL INFORMATION

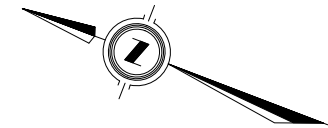
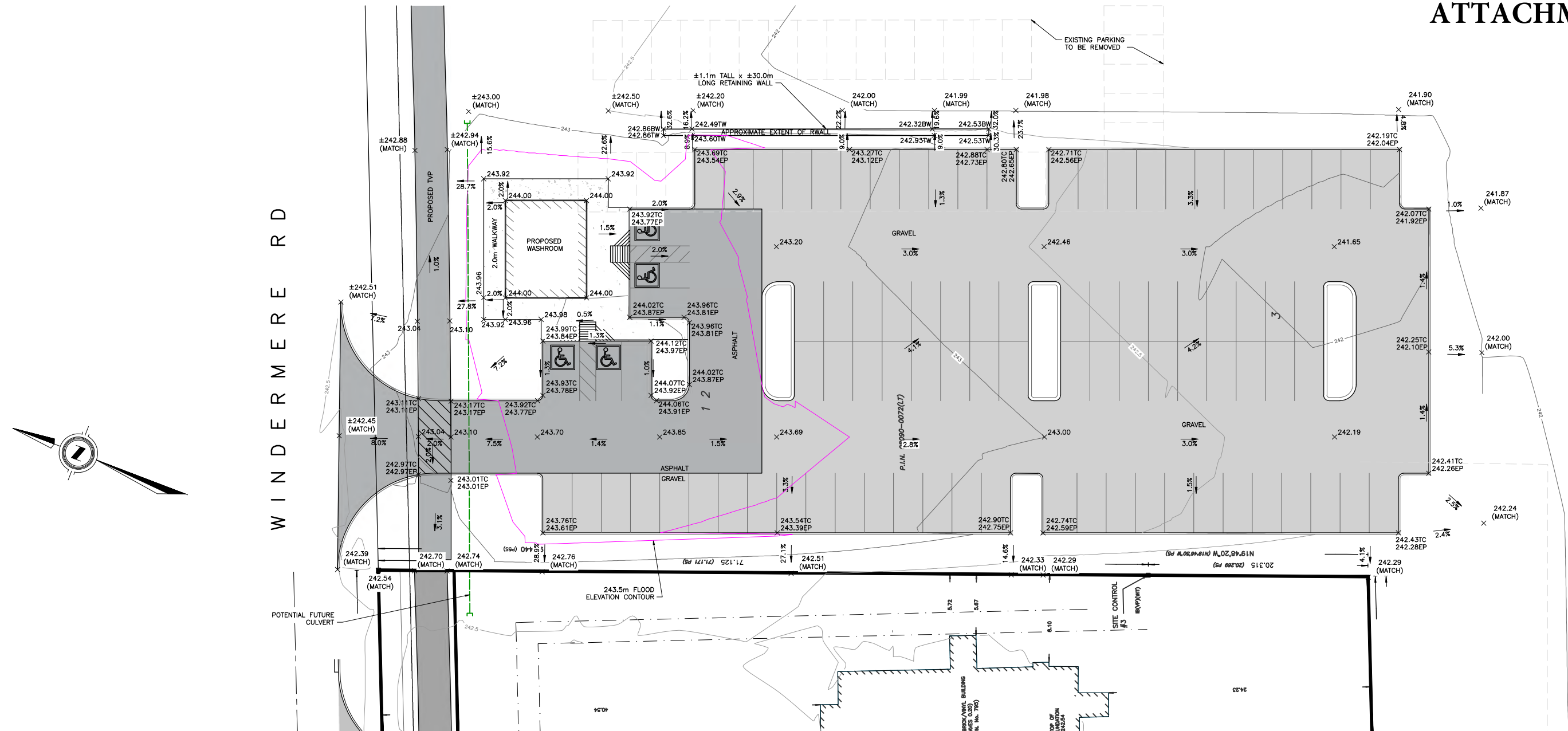
PART OF
CON 3 PT LOT 12 RP 33R2314 PT
PART 1 REG &
CON 3 PT LOT 12 RP 33R2314
PART 2
IN THE
CITY OF LONDON
COUNTY OF MIDDLESEX



KEY PLAN
N.T.S.

ATTACHMENT #10

SURVEYOR TO CONFIRM ELEVATIONS DENOTED WITH ± PRIOR TO DETAILED DESIGN



S:\2022\Job\SBM-21-0642\Drawings\03_CAD\03_Production\Drawings\SBM-21-0642_Royal Premier Homes - 1310 Adelaide St. N. - East Parking Addition - Grading\10.dwg

AS CONSTRUCTED SERVICES	COMPLETION	No.	REVISIONS	D/M/Y	BY	CONSULTANT	ENGINEER'S STAMP	ENGINEER'S STAMP	CLIENT	SCALE	TITLE	PROJECT No.
DESIGN	LA	1	PRELIMINARY GRADING FOR COORDINATION	06/06/23	LA	STRIK BALDINELLI MONIZ PLANNING - CIVIL - STRUCTURAL - MECHANICAL - ELECTRICAL 1599 Adelaide St. N., Unit 301, London, Ontario, N5X 4E8 Tel: (519) 471-6667 Fax: (519) 471-0034 Email: sbm@sbmlltd.ca	<p>PRELIMINARY NOT FOR CONSTRUCTION</p>	2796539 ONTARIO INC. ROYAL PREMIER DEVELOPMENT 425-509 COMMISSIONERS RD W LONDON, ON, N6J 1Y5	SCALE 2.0 0 4.0m 	PRELIMINARY GRADING PLAN MUNICIPAL PARKING & TVP DEVELOPMENT 815 WINDERMERE RD LONDON, ON.	PROJECT No.	
DRAWN	LA	2	ISSUED FOR SECTION 28 PERMIT	20/06/24	JSF						SHEET No.	
CHECKED	JEL	3	REVISED TO URTCA COMMENTS	06/09/24	JSF						C4	
APPROVED	JEL										PLAN FILE No.	
DATE	06/06/2023											
CAD	21-0642											

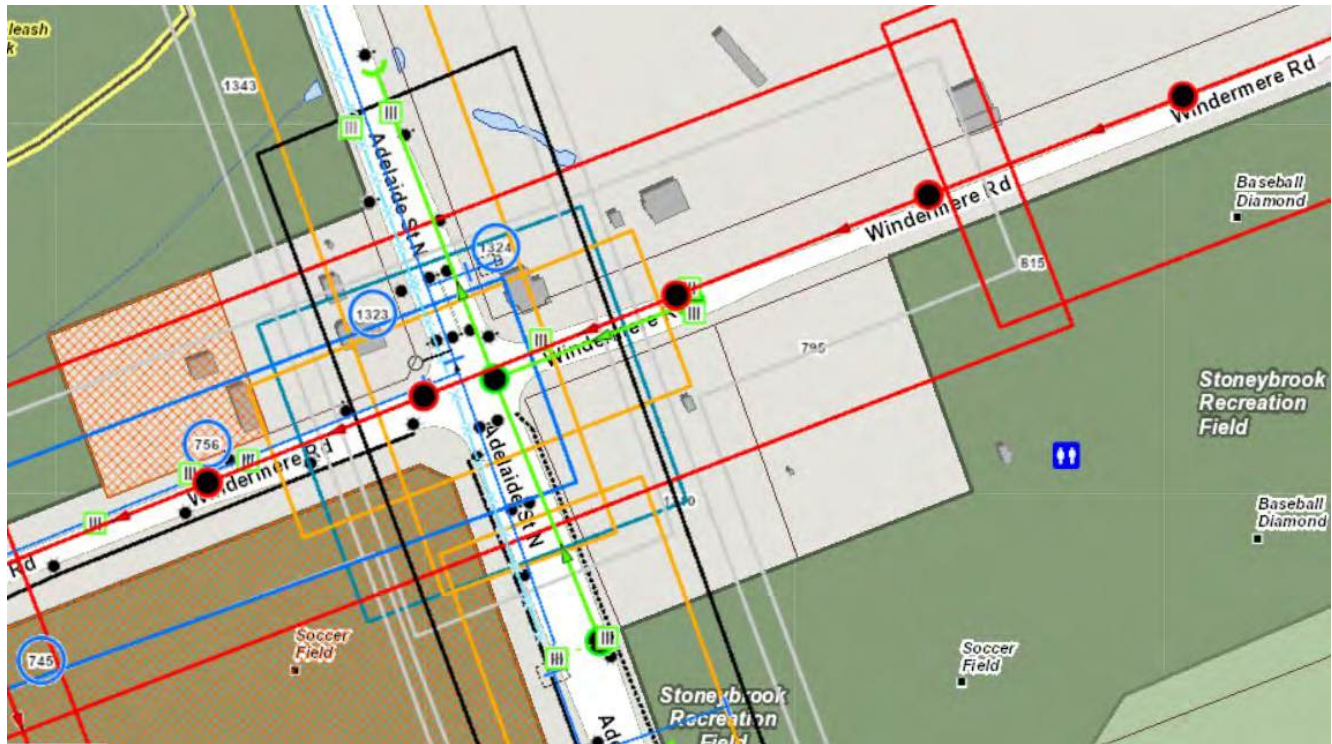
ATTACHMENT #11

Joe Gordon - EXTERNAL EXTERNAL RE: EXTERNAL EXTERNAL RE: UTRCA Comments - 1310 Adelaide St N and 795 Windermere Rd

From: Ryan Frouws <rfrouws@sbmltd.ca>
To: Joe Gordon <gordonj@thamesriver.on.ca>, Jenna Allain <AllainJ@thamesrive...>
Date: 2024-10-15 1:07 PM
Subject: EXTERNAL EXTERNAL RE: EXTERNAL EXTERNAL RE: UTRCA Comments - 1310 Adelaide St N and 795 Windermere Rd
CC: Adam Spargo <aspargo@matrix-solutions.com>, Christine Creighton <Creight...>

Hi Joe,

Thanks for the email response. We have reviewed this with the City during the consultation process for the site plan approval phase and there is another alternate outlet for the minor storm event if phase 2 is not accepted. The snippet below shows the alternate outlet which has been discussed with the City as well as a potential outlet (ie the storm sewer in Adelaide and/ or Windermere Rd which outlets through the culvert/ headwall north of our site). For the flood proofing component the flood waters from the Thames River will continue to sheet flow south from the site as they do under the existing condition.



Again as discussed the construction management plan previously provided is for the site only which is Phase 1 which is the primary focus right now.

Regards,

Ryan Frouws, P. Eng

Civil Team Lead, Eng III
P: 519-471-6667 EXT 173
E: rfrouws@sbmltd.ca



From: Joe Gordon <gordonj@thamesriver.on.ca>
Sent: Tuesday, October 15, 2024 8:32 AM
To: Jenna Allain <AllainJ@thamesriver.on.ca>; Nick Dyjach <ndyjach@sbmltd.ca>; RPH . <rph@royalpremierhomes.ca>; Ryan Frouws <rfrouws@sbmltd.ca>
Cc: Adam Spargo <aspargo@matrix-solutions.com>; Christine Creighton <CreightonC@thamesriver.on.ca>; Jessica Schnaithmann

November 7, 2024

SBM-21-0642

Upper Thames River Conservation Authority
1424 Clarke Rd,
London, ON N5V 5B9

Attn: Chair & Members of the UTRCA Hearing Committee

**Re: #153-24; Section 28 Permit Application for Proposed Development at
1310 Adelaide Street North and 795 Windermere Road, London**

This response letter has been prepared by Strik, Baldinelli, Moniz Ltd. (SBM) on behalf of Royal Premier Homes Inc. (RPH), in relation to the submission of a Section 28 permit application (#153-14) and associated Hearing for lands municipally identified as 1310 Adelaide Street North and 795 Windermere Road in London, Ontario.

Discussions with the City of London and the UTRCA have been ongoing as it relates to the re-development of these lands since 2016, under previous ownership and transition to RPH in 2020. These discussions included several iterations of modelling, redesign, and consultations that have been completed for the purpose of satisfying the comments and direction provided by various UTRCA reviewers. For context, **Appendix A** includes a detailed overview of the project history (noting that this was initiated in 2016 with the prior owner).

In my opinion, the proposed development discussed below satisfies the UTRCA Policy (4.2.2.6.c)iii) for Replacement Structures in the Floodway Policy and the proposed application should be approved. An overview of the project and responses have been prepared below.

1. SITE CONTEXT

The subject lands are comprised of two parcels of land that together are approximately 1.2 ha in area, with approximately 85m of frontage along Adelaide St. N. and 133m along Windermere Rd. All existing structures were demolished due in part to fire damage and removed from the subject lands in 2021 leaving the site vacant. The subject lands formerly included:

- Existing vacant residential dwelling with ancillary buildings/structures (#1310 Adelaide St N); and
- Commercial recreation facility (Nautilus Fitness and Racquet Centre, otherwise known as Goodlife Fitness and Tennis Club) with two portable classrooms and eight (8) indoor and outdoor tennis courts (#795 Windermere Rd)

It is recognized that the entirety of the subject lands are located within the floodplain of the North Thames River. In pursuit of redevelopment of the site under the Replacement Structures in the Floodway policies, a site visit was completed on July 28, 2016 with the City of London staff. In cooperation with UTRCA, the maximum replacement rates of the existing structures and parking in the floodway was determined to be a maximum of 982 square meters of gross floor area and 77 parking spaces (9 spaces on site and up to 68 spaces from the abutting municipal parking lot).

While only nine (9) parking spaces were considered to be located within the legal property limit, the former Goodlife Fitness and Tennis Club building was configured (with principal entrance oriented to the parking lot) to use the adjacent municipal parking lot and access on Windermere Road (refer to **Figure 1**).

The previous structure containing five (5) indoor tennis courts is also identified as encroaching onto UTRCA-owned lands and would be removed and restored as part of any redevelopment activities.

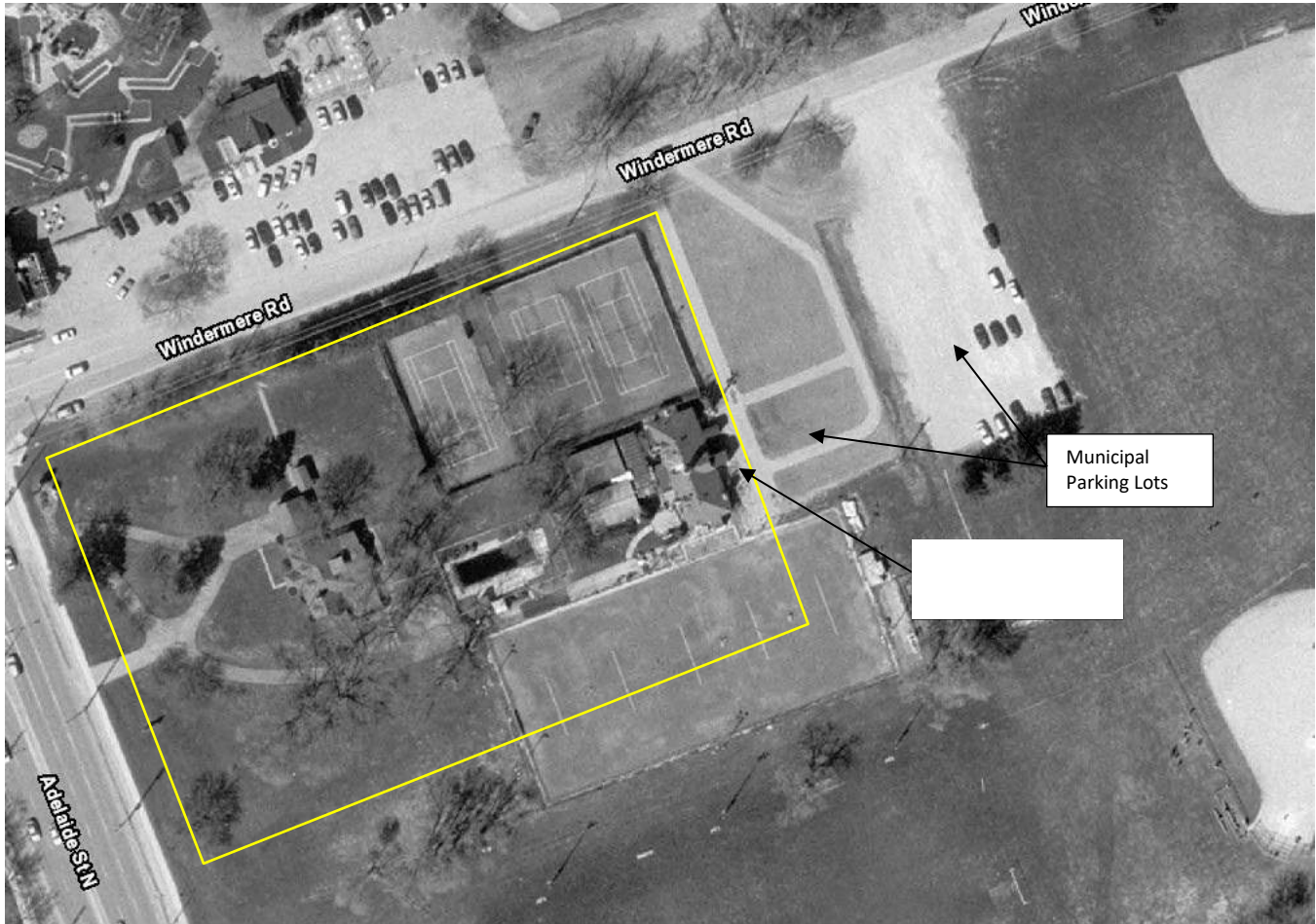


Figure 1. Aerial photo – 1310 Adeliade Street North and 795 Windermere Road c.2006.

2. SURROUNDING LAND USES

In addition to greenspace and passive recreational uses, the surrounding lands that are also situated within the area identified by the UTRCA as floodplain include:

- Restaurant (Waltzing Weasel) located north of the site (#1324 Adelaide St N);
- Commercial recreation facility (Tin Cup Golf), including mini-putt, driving range, pro shop and maintenance buildings (#1324 Adelaide St N);
- Two single detached residential buildings (#756 Windermere Road and #1323 Adelaide St N);
- Four (4) soccer fields and three (3) baseball diamonds (#745 and #815 Windermere Rd); and,

Further north of the site ($\pm 200\text{m}$) is the Northridge Fields containing two (2) baseball diamonds and two (2) cricket pitches. Northridge Fields is a relatively new public park that received approval from the UTRCA in 2018 for installation of the sports fields, associated parking areas, and an elevated fieldhouse.

3. CONCEPT DEVELOPMENT

The proposed commercial redevelopment of the subject lands has been contemplated since 2016 by York Developments. The initial design layout (Figure 2) contemplated a one-storey commercial/office development of approximately 982m² and 77 parking spaces. Official Plan Amendment (OPA) and Zoning Bylaw Amendment (ZBA) applications were submitted to the City of London and put on hold until the 2D Hydraulic Modelling Flood Impact Assessment was completed.

York developments ultimately sold the lands to RPH in 2020. PRH retained Ecosystem Recovery Inc (now Matrix Solutions) to prepare the flood modelling assessment. The OPA and ZBA applications continued to be on hold until the flood modelling was now accepted by the UTRCA.



Figure 2. Initial Development Concept (2016)



Figure 3. Proposed Development Concept (2024)

After acquiring the subject lands from York Developments, RPH maintained consistency in applying the agreed upon development limits; however, due to the 2-D hydraulic modelling flood impact assessment, additional flow channels were recommended by the UTRCA review. Thus, revising the site plan layout to facilitate the conveyance channels.

Vegetated channels were allocated around the periphery of the site to divert floodplain conveyance during a Regulatory event. The central area of the site would be floodproofed and the original proposal to amalgamate the ground floor area into one (1) building would be separated. There would be two proposed buildings, one storey in height. The first building facing Adelaide Street would have a proposed floorplate of 458.6m². This building will be divided into maximum of two (2) different commercial units. The second building, a proposed restaurant with drive-through facility, is planned to be 517.0m² meters in floor area. In total, there would 33 parking spaces on site and 12 drive-through stacking-spaces, which represent a significant decrease in the parking area that was previously agreed to in principle under the previous owners - refer to **Figure 2** and **Figure 3**.

4. RESPONSE TO UTRCA STAFF RECOMMENDATION:

SBM staff have reviewed the draft Staff Report with a recommendation to the Hearing Committee, and offer the following additional information and responses to aid in the decision making process:

1. The development is an intensification of the property as a whole, contrary to UTRCA Replacement Structures in the Floodway Policy 4.2.2.6 c) iii) and therefore, should be considered under new development policies.

Response: There has not been any previous communication with regard to this permit being reviewed as a “new development”. Since 2016, the intended applications and proposed redevelopment have always been considered under the UTRCA Replacement Structures in the Floodway Policy 4.2.2.6. During our pre-application consultation process with UTRCA staff, complete application requirements were provided by Jessica Schnaithmann on March 5, 2024, which stated that based on the scope of work the current proposal will be subject to the UTRCA’s replacement structures policy (Policy 4.2.2.6.). The revised approach taken by staff to consider this “new development” after the application has been consulted on and deemed complete is not in keeping, and does not align, with the requirements of section 7(3) of Ontario Regulation 41/24.

Under UTRCA policy 4.2.2.6, the proposed development has demonstrated that:

- a) The proposed structures can be floodproofed to the Regulatory Flood event.
- b) The proposed structures do not exceed the “footprint” are of the original structures as existing on April 25, 2000.
- c) There is no expected increase in flood risk.
 - i. Location of replacement structures would not be susceptible to flooding.
 - ii. The proposed commercial uses would not increase risk to property damage or public safety.
 - iii. The proposed uses would not be intensified (refer to discussion below).
- d) The proponent agrees to carry out floodproofing/mitigation measures to achieve flood protection.
- e) Ingress/Egress would be improved upon existing conditions and would be accessible by emergency vehicles.
- f) The proposed flood mitigation measures would not increase flood risk on adjacent properties.
- g) The proponent has completed or agrees to, carry out the necessary technical and engineering studies.
- h) The proponent has submitted a request for approval of the UTRCA Hearing Committee.

Prior to the OPA and ZBA applications being presented to the City of London Planning and Environment Committee, UTRCA review comments dated December 8, 2023, responded:

“While there is benefit to removing the existing residential dwelling unit and replacing with a commercial use, there is an overall increase in the number of units proposed. Although floodproofing is proposed to reduce the risk of property damage, concerns remain as it relates to public safety....The proposed development now includes a total of five (5) commercial units, resulting in an increase of three (3) units from the existing conditions.”

As a result, RPH had indicated to City staff that they would be amenable to revising the draft Bylaw. Through the approved Zoning Bylaw, passed by City Council (Bylaw Z.-1-2431), a maximum of 3 commercial units and 33 parking spaces may be permitted on the site. This represents a significant reduction from the initial 2016 concepts plan with 77 parking spaces that was initially discussed and agreed to in principle, under the Replacement Structures in a Floodway policy, and also reduces the number of units originally proposed in the RPH concept as well.

*2. The development is located within a high risk floodway:
a) that would be rendered inaccessible to people and vehicles (i.e. Safe Access) during times of flooding hazards, contrary to UTRCA Floodway and Riverine Flooding Hazard Policies 3.2.3.1(4) & 4.2.1(a) & 4.2.2(e) and PPS policy 3.1.2 c);*

Response: The proponent had retained Matrix Solutions and SBM Civil Engineering to review the site design to ensure that the ingress and egress would be “safe” 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.

Although Windermere Road becomes inundated during the Regulatory event, Adelaide Street remains accessible by emergency vehicles under the Regulatory event and is dry under lower flow events (e.g. 850 cms).

The proposed development would improve the two existing accesses from Windermere Road and Adelaide St N. such that access/egress to the site can be maintained for higher flows and for a longer period during the Regulatory flow event, representing an improvement to the existing conditions of the site itself.

Access from the surrounding road network will be maintained under existing conditions, representing a feasible and practical approach to maintaining access. Through previous correspondence with UTRCA staff, including as recently as the December 8, 2023 letter from UTRCA planning staff on the proposed OPA/ZBA application, RPH has addressed the UTRCA's requirements relating to access and no further information was required.

The Ministry of Natural Resources and Forestry (MNR)'s 2002 Technical Guide titled 'River and Stream Systems: Flooding Hazard Limit' identifies low and high flood risk conditions based on flow depth and velocity and provided further guidance regarding flood risk:

Low Risk for Human Life:

- Velocity less than 1.7 m/s
- Depth less than 0.8m and
- Product of velocity and depth (VxD) is less than 0.4 m²/s.

Low Risk for Vehicles:

- Road passable at depths less than 0.3m
- Velocity less than 4.5 m/s at shallow flow depths (e.g. less than 0.2m)
- Velocity less than 3.0 m/s at depths around 0.3m; and
- Velocity less than 0.6 m/s at depths around 0.4m.

Emergency Vehicle Access:

- Depth less than 0.8m; and
- Velocity less than 4.5 m/s.

In accordance with Matrix Memorandum section 3.3.1.3 and correspondence with the UTRCA, it's noted that the access to the site from Adelaide Street is passable by emergency vehicles under the Regulatory event. This new connection to Adelaide would be an improvement to the original condition as the access/egress can be maintained for a longer portion of flood events. Velocity-based risk is low on Adelaide Street, while overall flood risk remains high (depth x velocity > 0.4 m²/s, however there is no net change in overall flood risk on Adelaide Street compared to existing conditions.

b) that results in an area of inundation that contains high points of land not subject to flooding, contrary to UTRCA Floodway Policy 3.2.3.1(2) and PPS policy 3.1.2 d);

Response: UTRCA Floodway Policy 3.2.3.1(2) and 4.2.2.1 generally prohibits new development or site alteration within the Floodway; however as noted above, pursuant to 4.2.2.6, Replacement Structures within the Floodway may be permitted subject to subsection a) through h).

Policy 3.1.2 of the 2020 Provincial Policy Statement, and now Policy 5.2.3 of the 2024 Provincial Planning Statement, states that development and site alteration within a Floodway shall not be permitted within areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of the development and the natural hazard, or within the floodway, "regardless of whether the area of inundation contains high points of land subject to flooding".

Policy 3.1.7 and now 5.2. 8 of the 2024 Provincial Planning Statement, permits development and site alteration in those portions of hazardous lands where the effects and risk to public safety are minor, could be mitigated in accordance with provincial standards, and where development and site alteration is carried out in accordance with floodproofing standards, protection works standards, and access standards, vehicles and people have a way of safely entering and exiting the area

during times of flooding, new hazards are not created and existing hazards are not aggravated, and no adverse environmental impacts will result.

The proposed floodproofing has been set at 244.0 m, 0.5 m above the Regulatory Flood. The proposed floodproofing removes the flood risk for the proposed structures and reduces the risk to public safety. Ingress and egress to the site via the driveways would be improved during flooding conditions and can be maintained for higher flows and for a longer period during the Regulatory flow event compared to existing conditions.

3. The development includes activities that rely upon lands owned by the UTRCA and where the UTRCA does not support such activities upon its lands for the purpose of facilitating development on neighbouring properties that are contrary to its own policies.

Response: Presently, it is proposed that the channels convey the minor storm event through an overland ditch along Adelaide St N toward the Thames River in accordance with its current pre-development condition. In discussion with City of London Development Engineering department, there are alternative options for conveyance of stormwater flows through the Adelaide Street storm sewer system. The development does not rely on lands owned by the UTRCA to convey stormwater flows to the Thames River; however, it is the preferred option that would not require additional infrastructure cost and maintenance for the minor to major storm water design which in our opinion would benefit both landowners. The alternate storm outlet would be either the storm sewer in Windemere or Adelaide as discussed with the City of London during Record of Site Plan Consult – refer to **Figure 4**.



Figure 4. Existing Municipal (Stormwater, Water and Sanitary) Servicing North of Windemere Road

4. The prior City of London Official Plan and Zoning Bylaw amendment (OZ-8709) to permit the proposed land uses was not supported by UTRCA; and

Response: As confirmed by the City of London staff report, staff were generally supportive of the development, but recommended an alternative list of uses including: bake shops, convenience store, commercial recreation establishment,

financial institutions, food stores, and retail stores, all without drive through facilities, which was not accepted by City Council. Instead, City Council had approved the Zoning Bylaw Amendment (Z.-1-243188) with a reduced number of permitted units (from 5 units to 3 units) and parking spaces (from 48 spaces to 33 spaces), which would reduce the perceived impact.

5. Therefore, the development activity will likely create conditions or circumstance that, in the event of a natural hazard, might jeopardize the health or safety of persons or result in the damage or destruction of property.

Response: Any replacement structures on these lands would have the same limited level risk associated to them. To reduce the potential for loss of life or property damage, significant engineering design has been prepared to ensure the proposed site development would be floodproofed under a Regulatory event, therefore the commercial buildings and their patrons would be protected regardless of the type of use or intensity of the site and there would be no loss of life as a result of the proposed redevelopment of the site.

5. UTRCA REASONS FOR NON-SUPPORT

SBM staff have reviewed the draft Staff Report with reasons for non-support and offer the following additional information and responses to aid in the decision making process:

1) Risk Management

Development should be directed away from areas of flooding hazards where there is an unacceptable risk to public health or safety or property damage.

The subject properties are located within a high-risk flood area of the City adjacent the North Thames River that are known to be flood prone and have on numerous occasions been subject to road closures and/or damage to private properties during previous flood events.

Response: The submission materials have demonstrated that the proposed development can be suitably floodproofed, to ensure safe access for emergency vehicles under a Regulatory event, and maintain access for any and all visitors to the site from the surrounding road network. The proposed floodproofing reduces flood risk on the site itself.

2) Intensification of the Site

The proposed development is an intensification of the property as a whole for the following reasons:

a) The current development proposal has significant changes from the initial development proposal that was originally supported in principle by staff subject to satisfying UTRCA policy requirements, including uses that increase density and visitor traffic to the property.

Response: The proposed development would replace the existing buildings using a maximum floor area of 982m² that has been agreed to by the UTRCA and City of London staff in 2016 and re-confirmed in 2021. The proposed development would also decrease the number of parking spaces and commercial units within the buildings that was initially agreed to in principle.

b) "Intensification" is a defined term in the Provincial Policy Statement (PPS) which includes "development of a property, site or area at higher density than currently exists."

It is notable that prior Ontario Land Tribunal (OLT) decisions suggest that consideration of both intensification and density should extend beyond "traditional metrics" due to restrictiveness. The idea of measuring intensification through increases to service provision is also suggested in case law.

Response: As vaguely defined in the PPS, intensification is measured by the increase in density of the site. For residential uses this is on a unit per hectare basis or by floor area for non-residential uses. As per UTRCA Policy, the change of use from residential to non-residential uses is encouraged. In 2016, there was an agreement in principle to replace the existing residential building and commercial recreational building with a maximum of 982m² of floor area for non-residential uses.

c) Through prior consultation, UTRCA provided measures for intensification based on differences between the existing use and the proposed uses, with specific references to gross floor area, hours of operation, and parking requirements.

Prior UTRCA comments identified that the existing Goodlife Fitness and Tennis Club located upon the subject lands was not a full size, standard gym as we know today and would not have the same level of intensity of use as other Goodlife Fitness Gyms that were used for considerations of intensification by the applicant. Hours of Operation were also considered. Many fast food restaurants are open 24 hours per day, seven days a week. This would result in a constant and steady flow of traffic to the site including patrons, staff and delivery trucks to support day-to-day operations. Additionally, the parking requirements for the proposed uses greatly exceed those of the existing uses.

Response: This assessment of intensity is entirely subjective, not based on any legislative or statutory requirements and entirely opinion based. There is no basis upon which the UTRCA can arbitrarily make such conclusions. The prior uses of the property have been established. In terms of the gross floor area, the proposed development is consistent with and matches the former building's floor area. The hours of operation are not dictated or governed by the comprehensive zoning by-law which only governs the permitted use of the property. In terms of traffic generation, any non-residential use exceeds the number of trips per day compared to a single detached dwelling, including active recreational facilities.

d) The parking requirement for a Restaurant use is more than double that of the previous commercial/recreation establishment use. The proposed Restaurant (458m²) requires 23 parking spaces as opposed to 9 parking spaces required for a similar sized commercial/retail use. In addition, the restaurant use has a capacity for an additional 12 vehicles within the drive-through lane.

Response: While the City of London Zoning Bylaw requires minimum parking spaces; it is not uncommon to find alternative parking standards in other municipalities or developments that would exceed the minimum requirements. The proposed development is permitted a maximum of 33 parking spaces in accordance with the Zoning Bylaw requirements noting that this is less than half of what was agreed to in principle in 2016. Despite the parking ratio being higher for a drive-through restaurant use, it is also important to note that the duration of both the parking and queuing lanes is temporary in nature and the use of these spaces will be on average for a few minutes and likely not in excess of one (1) hour.

e) From a service provision lens, density is most easily measured in people and jobs per hectare. The proposed uses would provide greater services, both in the type and range of uses proposed and accessibility of those services to the public. The SBM Planning Justification Report acknowledges increased visitor traffic as a result of the proposed development uses.

f) Traditional metrics suggest that there is greater intensity of the use proposed on the subject lands as measured by the increased parking requirements and the increased visitor traffic anticipated.

Response (to e and f): From either a traditional or service provision lens, any conversion of a residential use to non-residential would be considered an increase in intensity as a single family dwelling it is typically estimated at 2.5 people per single detached home and a minimum of 2 parking spaces.

UTRCA Policy 4.2.2.6.c.ii), the conversion from habitable to non-habitable use is encouraged with the goal of reducing risk to property damage and/or public safety. Under the Replacements Structures in the Floodway policies, reducing intensity and converting single detached dwelling to non-residential use would not be possible. Additionally, and as previously noted, the total number of parking spaces within the development and adjacent municipal lot has not increased and the overall duration of visits, based on the use being proposed is expected to be for a short term.

3. Flood Impact Assessment

The Flood Impact Assessment generally concludes that overall, the proposed floodproofing and parking lot improvements do not increase flood depths and velocities on adjacent properties, and therefore, does not increase flood risk. However, the report also states that the change in floodplain conveyance caused by filling the site does result in a small area of increase in maximum flow velocities and flood depths on the adjacent City [UTRCA] owned

property and a small portion of 1324 Adelaide Street North. The report further states that because the increase in velocity does not increase above 1.7 m/s that the flood severity and frequency is not expected to increase.

a) Although the impact assessment suggests that the increase to the adjacent parkland is minimal and considered not a change in risk, the fact remains that the adjacent UTRCA/London property will experience an increase in flood velocities and flood depths resulting from the proposed development and remains a high flood risk area.

Response: This statement is misleading and fails to take into consideration the complete picture associated with the change in flow dynamics. Implementing dry, passive floodproofing requires changes to existing grades that will always slightly change 2-D flow dynamics in the floodplain due to the redirection of floodwaters around the floodproofed area. This is the effect of any floodproofing project and it is inappropriate for this alone to be considered a negative impact. This is reflected in UTRCA's Replacement Structure in the Floodway policy which requires assessment of changes in flood risk:

4.2.2.6 f) The proposed flood damage reduction measures do not increase flood risk on adjacent, upstream and/or downstream properties.

MNRF's 2002 Technical Guide categorizes flood risk based on flow depth and velocity:

- Low Risk for Human Life
 - Velocity less than 1.7 m/s;
 - Depth less than 0.8 m; and
 - Product of velocity and depth ($V \times D$) is less than $0.4 \text{ m}^2/\text{s}$.

The proposed floodproofing of the subject lands will change flow dynamics such that there are both increases and decreases in flow velocity as flood waters move around the floodproofed area. While small areas of increase in velocity are expected to occur, these are offset by areas of decrease in flow velocity, resulting in an overall reduction in flow velocity. This is presented in Figure 17 of the Floodplain Impact Assessment Report.

The Flood Impact Assessment found that for areas experiencing an increase in flow velocity, the increase is less than 0.25 m/s and the velocity remains below 1.7 m/s, resulting in no change in the velocity based flood risk.

With respect to the statement: *UTRCA/London property will experience an increase in...flood depths resulting from the proposed development*; the Flood Impact Assessment found that there is no change in the flood water surface elevation as a result of the proposed floodproofing; therefore, changes in flood depth only occur at locations where grade changes are proposed – that is, flood depth decreases where the ground is raised, and flood depth increases where the ground is lowered. The proposed floodproofing does not change flow depth on upstream and downstream properties; therefore, there is no change in depth-based flood risk on upstream and downstream properties.

Previous Technical Review by UTRCA accepted the findings of the Flood Impact Assessment. No rationale or justification has been provided as to why a different determination has been made at this stage of the permit application.

We note the following UTRCA Application Comments:

- UTRCA Comments received April 11, 2023, page 5 of 8, noting that “The Conservation Authority has reviewed the Matrix Solutions Inc. submission and while generally satisfied with the provided information, the following matters are outstanding and need to be addressed:
 - *Version 2 of the Conceptual Site Plan (SP1) identifies a proposed/improved 91 space gravel parking lot on City-owned lands. This parking area/proposed development does not appear to have been included in the hydraulic analysis. The design/layout/floodproofing of this proposed/improved parking lot may impact the hydraulics in the area and therefore must be included in the assessment. Please revise the model/report.*
 - *The report should include clear statements/summaries which demonstrate that the proposed development is consistent with and satisfies the requirements of Policy 4.2.2.6 of the UTRCA Environmental Planning Policy Manual, and will not result in a negative impact on flood storage, surrounding properties, etc. Please revise the report to provide responses/justification to the each of the aforementioned policies*

- *Through the pre-consultation process, the UTRCA advised that a preliminary Staged Storage Analysis was required which accounted for all of the proposed development and grading, and must strive to achieve a balance. It is recognized that grading is generally finalized through the Site Plan/Section 28 Permit process, however a preliminary submission is required now in order to ensure the development can be accommodated in principle. Please provide*
- *Please note that if the redevelopment concept for the site changes including the proposed uses, building footprint, parking etc., the model must be revised*
- UTRCA Comments received August 30, 2024, page 2 of 4, noting all technical comments provided on April 11, 2023 had been addressed in the revised Flood Impact Assessment submission.

4. Safe Access

The application details propose that the existing access conditions to the property that currently do not provide for safe access will not change from the post development conditions, and that only emergency services would be able to access the property off of Adelaide Street North in the event of a Regulatory Storm.

a) Recognizing the proposed intensification of use, UTRCA would require dry or safe access for the proposed development. There has been no demonstration to show that the property has “safe access for people and vehicles” appropriate for the nature of the development as required by UTRCA and Provincial policy.

b) UTRCA Policy 3.2.3.1(4) requires vehicular and pedestrian access for new development must be dry. (i.e. At or above the regulatory flood elevation).

c) PPS Policy 3.1.2 c) provides clear direction that development shall not be permitted within areas that would be rendered inaccessible to people and vehicles during times of flooding hazards where safe access appropriate for the development cannot be demonstrated.

Response (a - c): Further to the information contained in response to comments 1 and 2 above, the submitted application(s) and all correspondence leading up to this point has considered the proposed development under the UTRCA Policy 4.2.2.6 Replacement Structures in the Floodway. The direction of this policy is to improve access where feasible. Since both Adelaide Street North and Windermere Road were known not to be dry under the Regulatory event, the depths are lesser on Adelaide compared to Windermere. The existing conditions of the property would have improved access for the replacement structures by including the proposed access on Adelaide Street North. Improvements to raise Adelaide St N to provide dry access are not a reasonable requested and cannot be completed by the proponent, nor does the proponent have any control over such improvements. As the proposed development represents the replacement of an existing form of development, the access standards are “safe” – refer to section 4.2 above.

5. Floodproofing and Flood Risk Mitigation

The application details propose flood-proofing and flood risk reduction mitigation measures to alleviate the flood risk impacts directly to the development site which results in an area of the floodway with high points of land not susceptible to flooding and conveyance of flood flows through a perimeter drainage swale.

a) Recognizing UTRCA does not permit the intensification of use, the proposed development cannot be supported within a floodway.

Response: Refer to section 2) Intensification of the Site above.

b) UTRCA Policy 3.2.3.1(2) prohibits development and site alterations within the floodway regardless of whether the area of inundation contains high points of land not subject to flooding.

Response: This policy is not applicable as it is not new development, rather a replacement of structures permitted under UTRCA Policy 4.2.2.6.c, per discussions with UTRCA since 2016.

c) PPS Policy 3.1.2 d) provides clear direction that development shall not be permitted within a floodway regardless of whether the area of inundation contains high points of land not subject to flooding.

Response: Policy 3.1.2 of the 2020 Provincial Policy Statement (or Policy 5.2.3 of the 2024 Provincial Planning Statement) states that development and site alteration within a Floodway shall not be permitted within areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of the development (in this case redevelopment) and the natural hazard, or within the floodway, “regardless of whether the area of inundation contains high points of land subject to flooding”.

Policy 3.1.7 (or 5.2. 8 of the 2024 Provincial Planning Statement), however, does permit development and site alteration in those portions of hazardous lands “where the effects and risk to public safety are minor, could be mitigated in accordance with provincial standards, and where the following are demonstrated and achieved:

- a) development and site alteration is carried out in accordance with floodproofing standards, protection works standards, and access standards;
- b) vehicles and people have a way of safely entering and exiting the area during times of flooding, erosion and other emergencies;
- c) new hazards are not created and existing hazards are not aggravated; and
- d) no adverse environmental impacts will result.”

This is a re-development of the property. New hazards are not created and existing hazards are not aggravated. The proposal is consistent with the PPS, 2020 and the Provincial Planning Statement, 2024. Also, an agreement on the status of access has been in place between the applicant, the City and the UTRCA for a numerous years and has been well documented in various versions of correspondence as acceptable.

d) The proposed flood risk reduction mitigation measures propose construction of a drainage outlet channel across the abutting property which is owned by the UTRCA and managed by the City of London. To date, there has been no confirmation whether the UTRCA would permit the proposed works upon lands of its ownership.

Response: The development does not rely on lands owned by the UTRCA to construct a drainage outlet channel to the Thames River; however, it is the preferred option that would not require additional infrastructure cost and maintenance.

Royal Premier Homes is committed to the redevelopment of 1310 Adelaide Street North and 795 Windermere Road. As evidenced above, the proposed development should be considered as a replacement structure under UTRCA Policy 4.2.2.6.c and represents good planning, utilizes sound engineering practices that ensure flood proofing, safe access and no significant impacts to the environment. We thank you for your consideration.

Respectfully submitted,

Strik, Baldinelli, Moniz Ltd.

Planning • Civil • Structural • Mechanical • Electrical



Nick Dyjach, MCIP RPP CPT

Associate, Planning Division Manager

APPENDIX A: DETAILED PROJECT HISTORY

The lands were previously owned by David Patchell Evans – founder of Nautilus Fitness and Racquet Centre (now known as Goodlife Fitness), but subsequently sold to York Developments who then submitted an Official Plan And Zoning Bylaw Amendment applications to the City of London in 2016 to redevelopment the site with a one-storey commercial and office development.

- 1) On September 14, 2016, the redevelopment of the lands were based on the following agreed upon principles between the City, UTRCA and York Developments:
 1. Permitting redevelopment under the Replacement Structures in the Floodway Policies;
 2. Naturalizing certain surrounding parking areas, and providing new improved parking facilities;
 3. Flood proofing of any future development;
 4. Limiting new development on site to 982m² and having a maximum of 77 parking spaces on the subject property (based on previous development); and
 5. Conveyance of lands not redeveloped to CA/City for expansion of parklands/sports fields
- 2) January 23, 2017: the UTRCA recommended that the application be deferred until such time that the applicant had demonstrated, through the preparation and acceptance of the necessary technical studies (e.g. 2D Floodplain Modelling, confirmation of floodproofing requirements), that the development could proceed for consideration of approval to the UTRCA's Hearings Committee and City Council.
- 3) York Developments ultimately sold the lands to Royal Premier Homes (RPH) in 2020. However, the above-mentioned development concept and principles were carried forward in RPH's land purchase and continued application with the City of London.
- 4) The City's application was placed on hold until the 2D Flood Impact Assessment was completed to the satisfaction of the UTRCA and City staff. PRH maintained Matrix Solutions (formerly Ecosystem Recovery Inc.) as the flood modelling consultant to continue the flood modelling assessment with the UTRCA.
- 5) May 17, 2021: email correspondence from Brent Verscheure indicated that *"UTRCA staff have been working on this file in the background and running various 2D modeling scenarios to assist with the evaluation of potential development alternatives."*
- 6) June 4, 2021: email correspondence from Brent Verscheure outlined the next steps regarding the refinement of the 2-D Hydraulic Modeling Floodplain Impact Assessment, including:
 - (a) Determine transportation and access requirements,
 - (b) Review potential for a flow path (cut) to:
 - i. assist with the offsetting (intent for balanced storage analysis) of the required fill required for the development, and
 - ii. provide for improved conveyance of flows around the subject site during significant events
 - (c) The email also confirmed that, *"UTRCA staff will then collaborate to prepare a report and recommendation for an "approval in principle" for the development as per the UTRCA Environmental Planning Policy Manual, Replacement Structures in the Floodway policy";*
- 7) September 2021: Matrix Solutions advised that the flood proofed development area, based on UTRCA's recommendations, would require new flow channels along Adelaide Street and Windermere Road.
- 8) December 2021: Matrix Solutions advised that the revised 2-D hydraulic modelling floodplain impact assessment revealed that the two flow channels around the site caused increased depths and that additional flow channels around the site would optimize the flood depths and provide relief for flow conveyance. The conceptual Site Plan design was revised accordingly and design layout options were provided for direction from UTRCA and City staff in order to proceed with revising/finalizing the 2-D modelling.
- 9) February 7, 2022: Response from City regarding Plan of Conservation and Development Plan and proposed public benefits.
- 10) October 2022: Applications for OPA and ZBA were re-initiated with the City of London.
- 11) December 2023: UTRCA had accepted Matrix Solutions 2D Hydraulic Modeling Floodplain Impact Assessment without further comments or revisions needed.

- 12) January 30, 2024: OPA and ZBA applications are presented to the City of London Planning and Environment Committee (PEC). A motion is made to revise the draft Bylaw to maintain the proposed uses, reduce parking and the number of units and endorsed by the Committee.
- 13) February 13, 2024: Both Official Plan and Zoning Bylaw amendments are approved by City Council
- 14) March 5, 2024: pre-application consultation meeting with UTRCA staff for Section 28 permit application submission
- 15) June 21,2014: Section 28 permit application submitted to UTRCA