

Malton Flood Mitigation Study – Etude Drive to Justine Drive

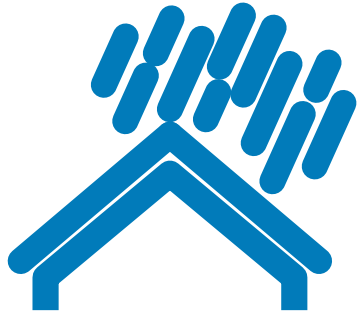
Municipal Class Environmental
Assessment

Public Information Centre

Date: June 16, 2023



What is the Purpose of this Presentation?



- Introduce you to the study, work completed to date and review alternatives, including the preliminary preferred solution



- Review what we have heard from residents and how impacts are being addressed



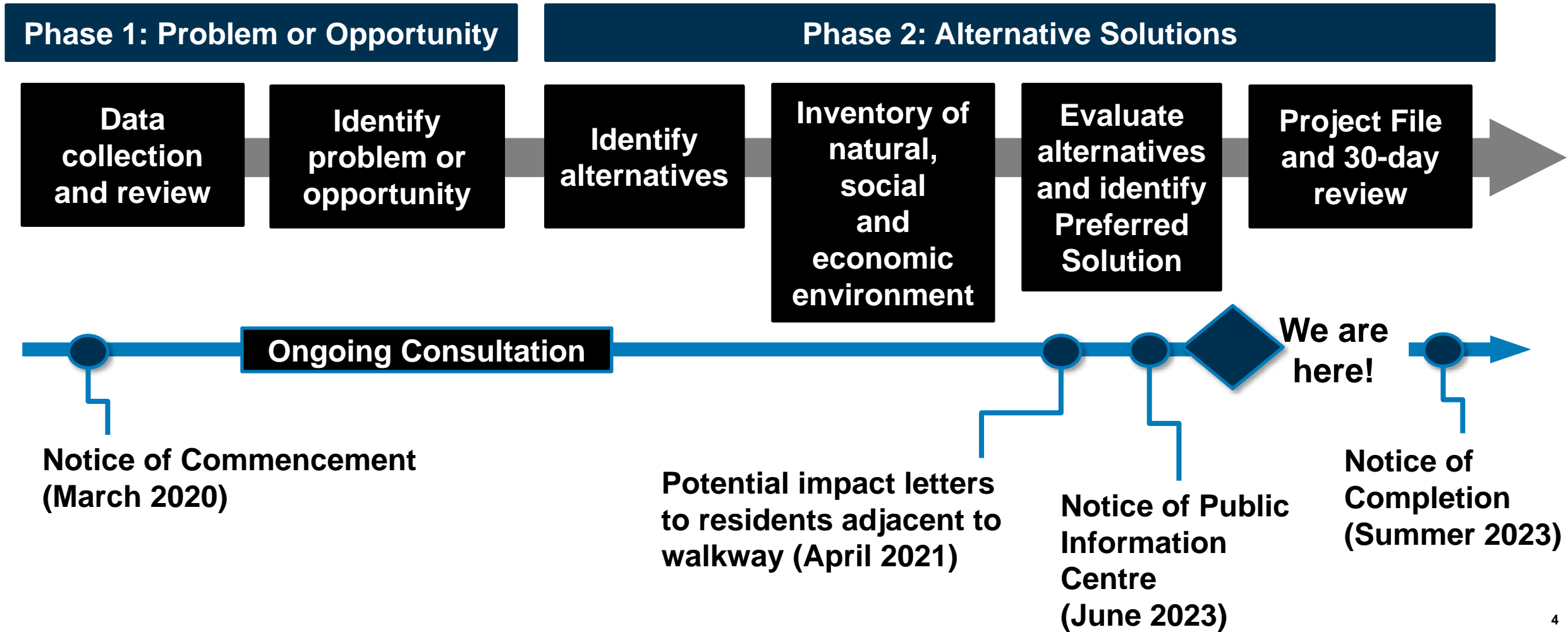
- Present next steps and receive your feedback

Project Overview

- The study area is comprised of single detached residential properties
- The study area has been subject to urban flooding during previous storm events, including the July 8th, 2013 rainstorm event
- A previous flood study for the larger Malton community identified this area as a high-priority site for potential flood mitigation efforts
- The City has initiated this study to mitigate urban flooding risks for this study area
- This study includes identifying and evaluating alternative solutions, including the preliminary preferred solution

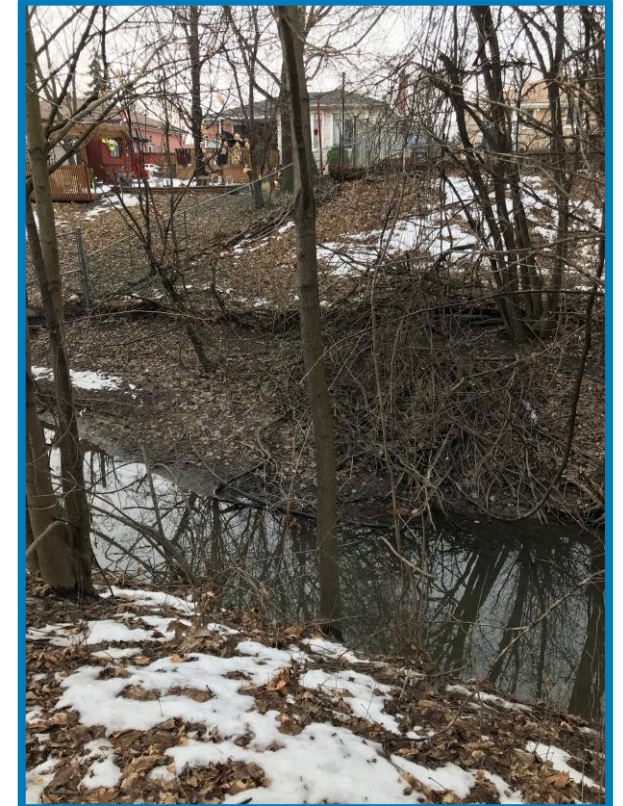


Environmental Assessment Process



What has been Completed?

- Hydraulic/Flood Modeling
- Supporting studies:
 - Flood Mitigation Preliminary Design Report
 - Natural Environment Report
 - Fluvial Geomorphological Assessment
 - Arborist Report and Tree Preservation Plan
 - Stage 1 Archaeological Assessment Report
 - Cultural Heritage Memorandum



Supporting Studies

Natural Environment Report

- Inventory of the existing natural environment conditions:
 - Aquatics (e.g., fish and fish habitat)
 - Vegetation Communities
 - Significant Wildlife Habitat
 - Species at Risk
- Natural environment features within the Study Area include:
 - Mimico Creek and its surrounding natural area
 - Street trees and public parks

Fluvial Geomorphological Assessment Report

- Characterization of fluvial geomorphological conditions along the Tributary of East Mimico Creek and East Mimico Creek itself, including:
 - Delineation of reaches, including their stability and any potential erosion concerns
 - Future channel design considerations



Supporting Studies

Arborist Report and Tree Preservation Plan

- Assessed the general health and structure of the trees within the anticipated areas of proposed work
- Tree removals will be required with final details confirmed prior to construction

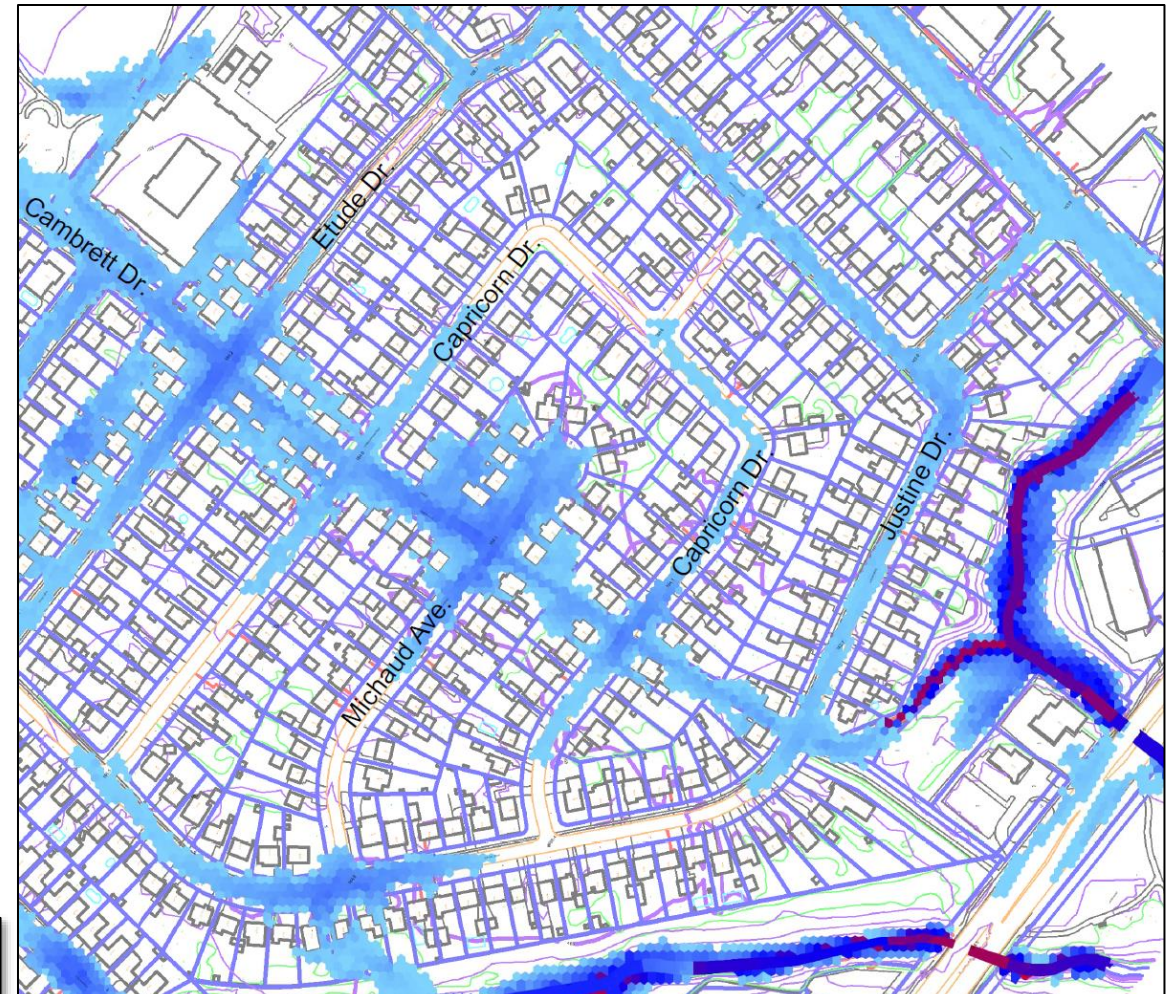
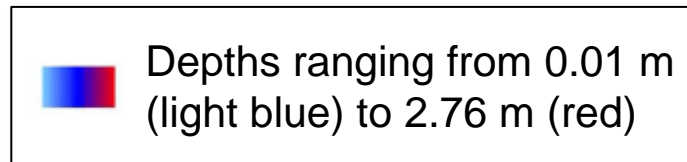


Stage 1 Archaeological Assessment Report and Cultural Heritage Memorandum

- Potential for cultural heritage resources reviewed, including
 - Archaeological resources
 - Built heritage resources
 - Cultural heritage landscapes
- Stage 2 archaeological assessment is required for areas not previously disturbed
- There are no known previously identified or potential built heritage resources or cultural heritage landscapes






Existing Conditions - Flooding

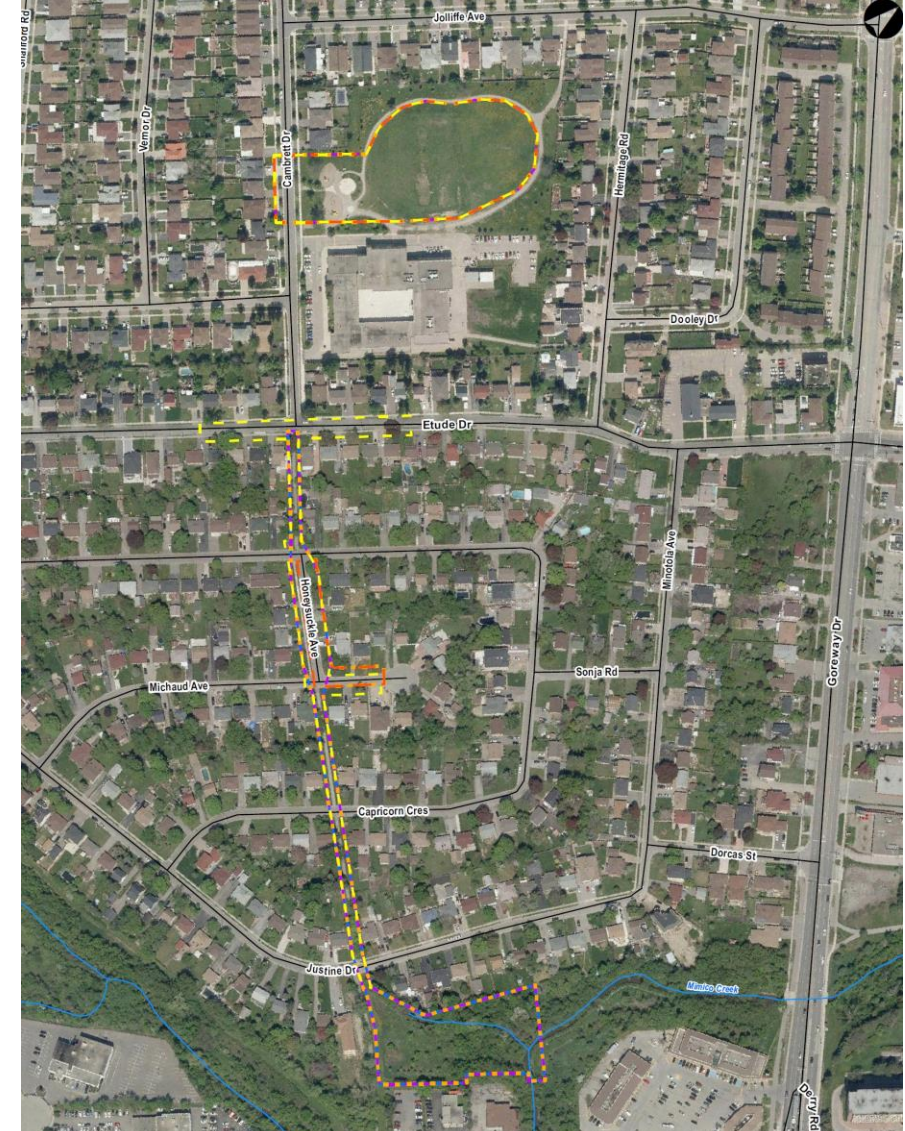
- The Flood Mitigation Preliminary Design Report details the modelling steps completed to determine existing flooding conditions
- Results show 37 homes being impacted during the 100-year storm event
- These properties are also being impacted during more frequent storm events, such as 2-year and 5-year storm events



Results of 100-year storm event


Alternative Solutions

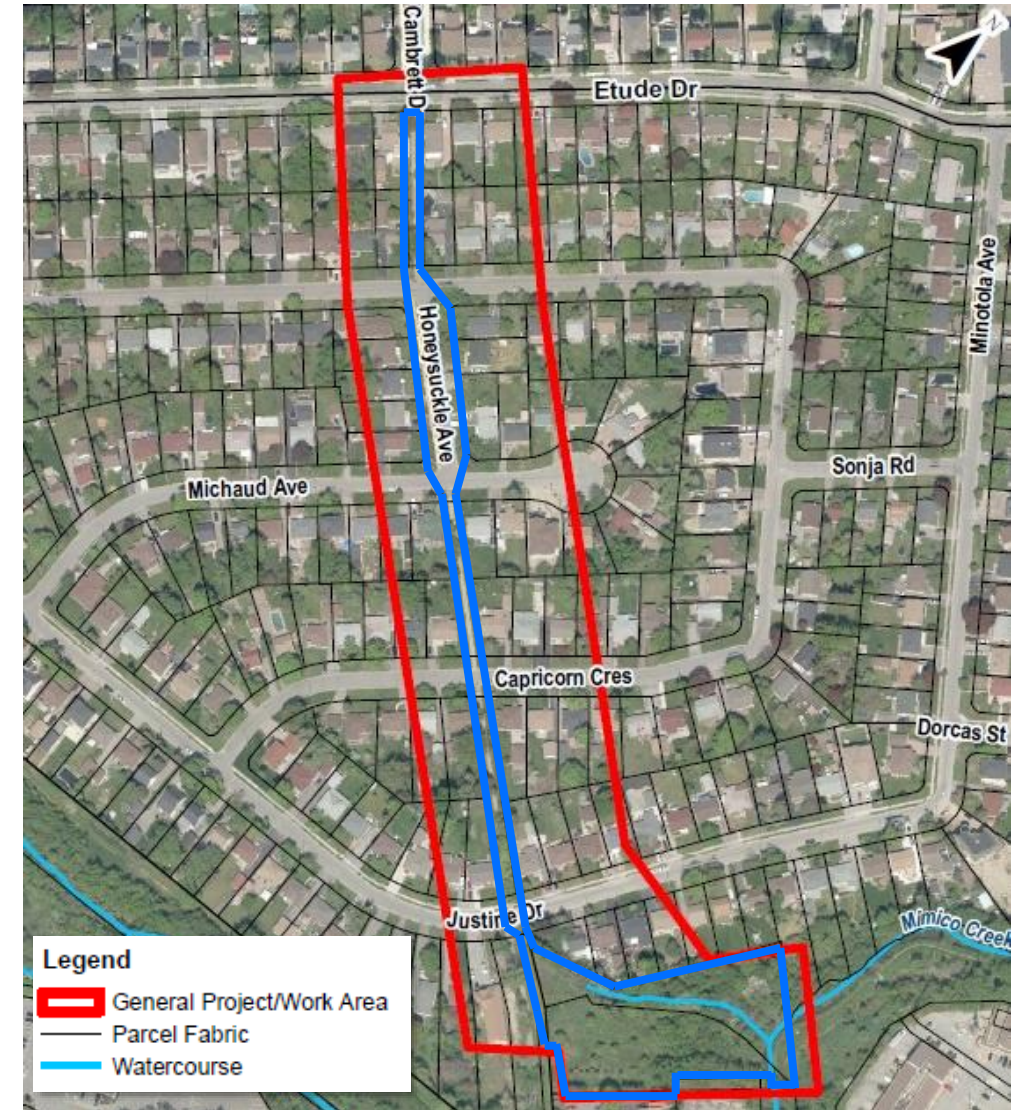
-  Alternative 1: Replace storm sewer, regrade walkway and outlet upgrades
-  Alternative 2: Construct storage in Ridgewood Park, relief storm sewer, regrade walkway and outlet upgrades
-  Alternative 3: Construct storage in Ridgewood Park, relief storm sewer, bioswales and outlet upgrades
-  Alternative 4: Construct storage in Ridgewood Park and bioswale
-  Alternative 5: Construct storage in Ridgewood Park, additional storage and regrade walkway



The Alternative Solutions Map is available at:
www.mississauga.ca/malton-flood-mitigation


Preliminary Preferred Solution

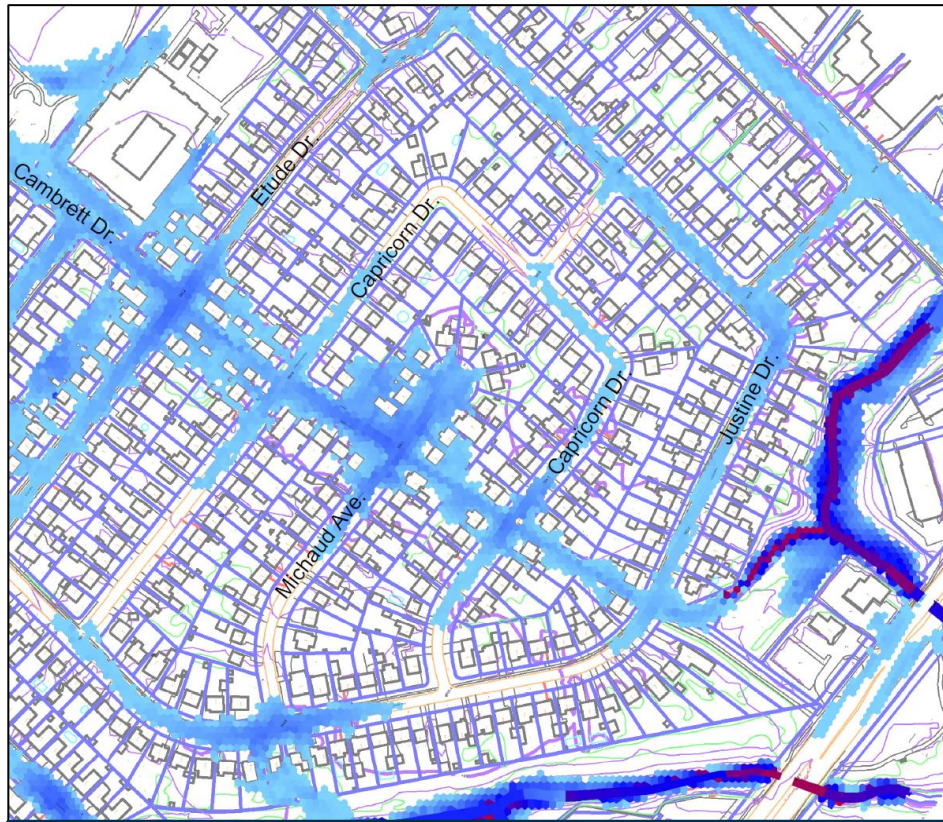
-  Alternative 1: Replace storm sewer with 3.0m span and 1.8m rise box culvert, regrade walkway to convey overland flow and outlet upgrades at sewer outfall is preferred:
 - Significantly reduces the potential impacts of flooding
 - Minimizes impacts to public park space
 - Lower construction cost



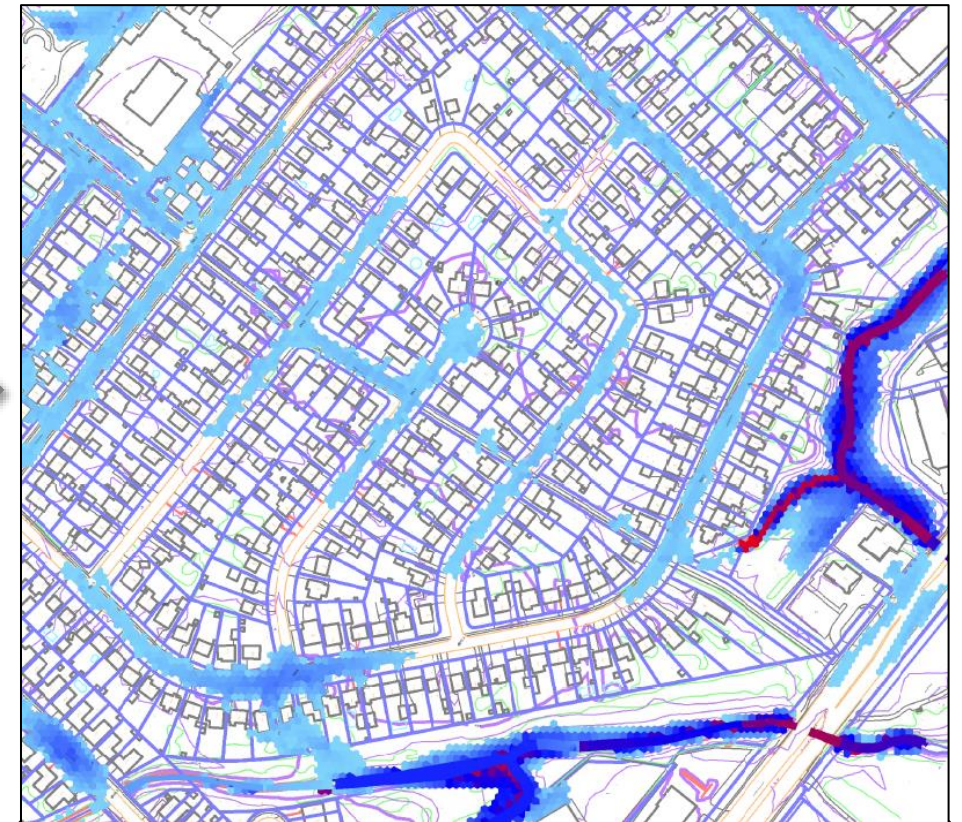
Preferred Solution- Flooding

- Based on the modeling results of the 100-year storm event for the preferred solution, there is a significant reduction in flooding when compared to existing conditions. The preferred solution would eliminate all homes along the walkway from being impacted during a 100-year storm event


Depths ranging from 0.01 m (light blue) to 2.76 m (red)

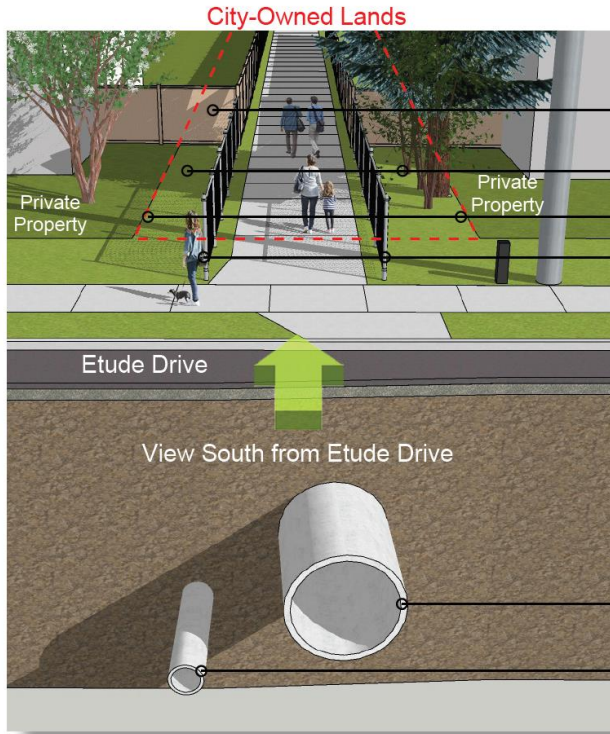


Existing Conditions – 100-year Storm Event



Preferred Solution – 100-year Storm Event

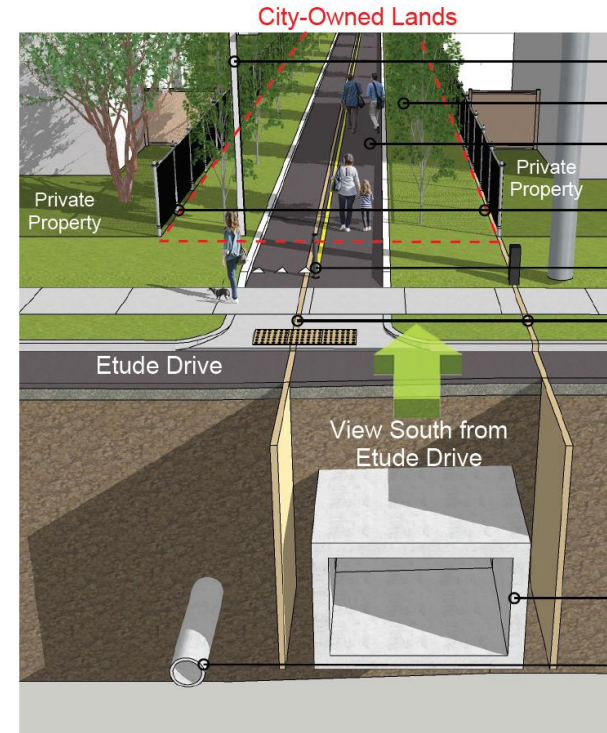
Conceptual Renderings – Storm Sewer



- Fence and Tree/ Vegetation Encroachments to be Removed
- Zone of Encroachment on City-owned Lands
- Property Line
- Existing Chain Link Fence to be Replaced and Relocated

- Existing Storm Sewer to be Replaced
- Existing Sanitary Sewer

Existing Condition



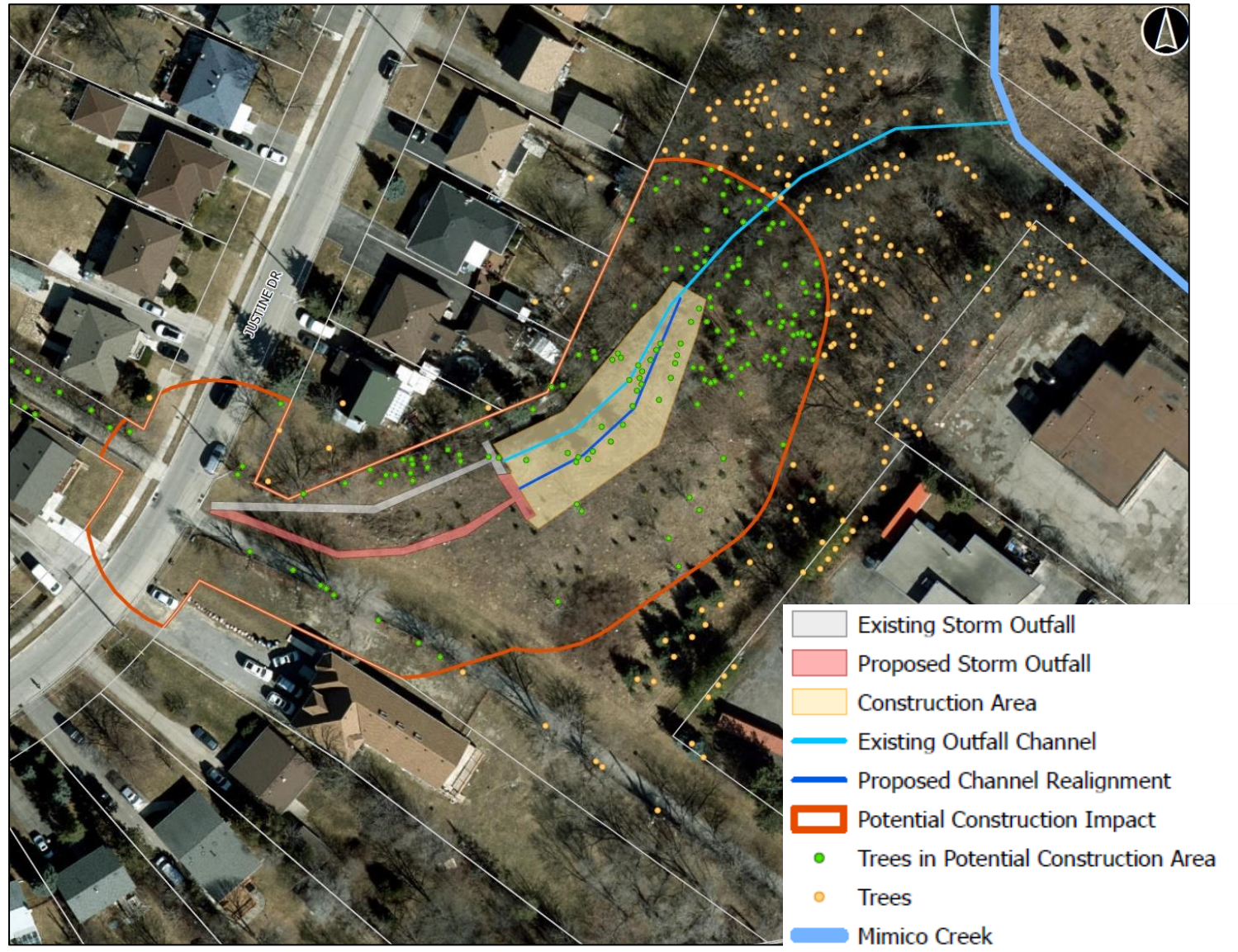
- Pathway Light Standard
- New Tree Planting
- Improved Walkway (3.0m Wide Asphalt Path with 150mm Wide Concrete Curbs on Each Side)
- New Chain Link Fence at Property Line
- Relocatable Bollard
- Excavation Limit for New Storm Sewer

- Proposed Storm Box Sewer
- Existing Sanitary Sewer

Proposed Condition

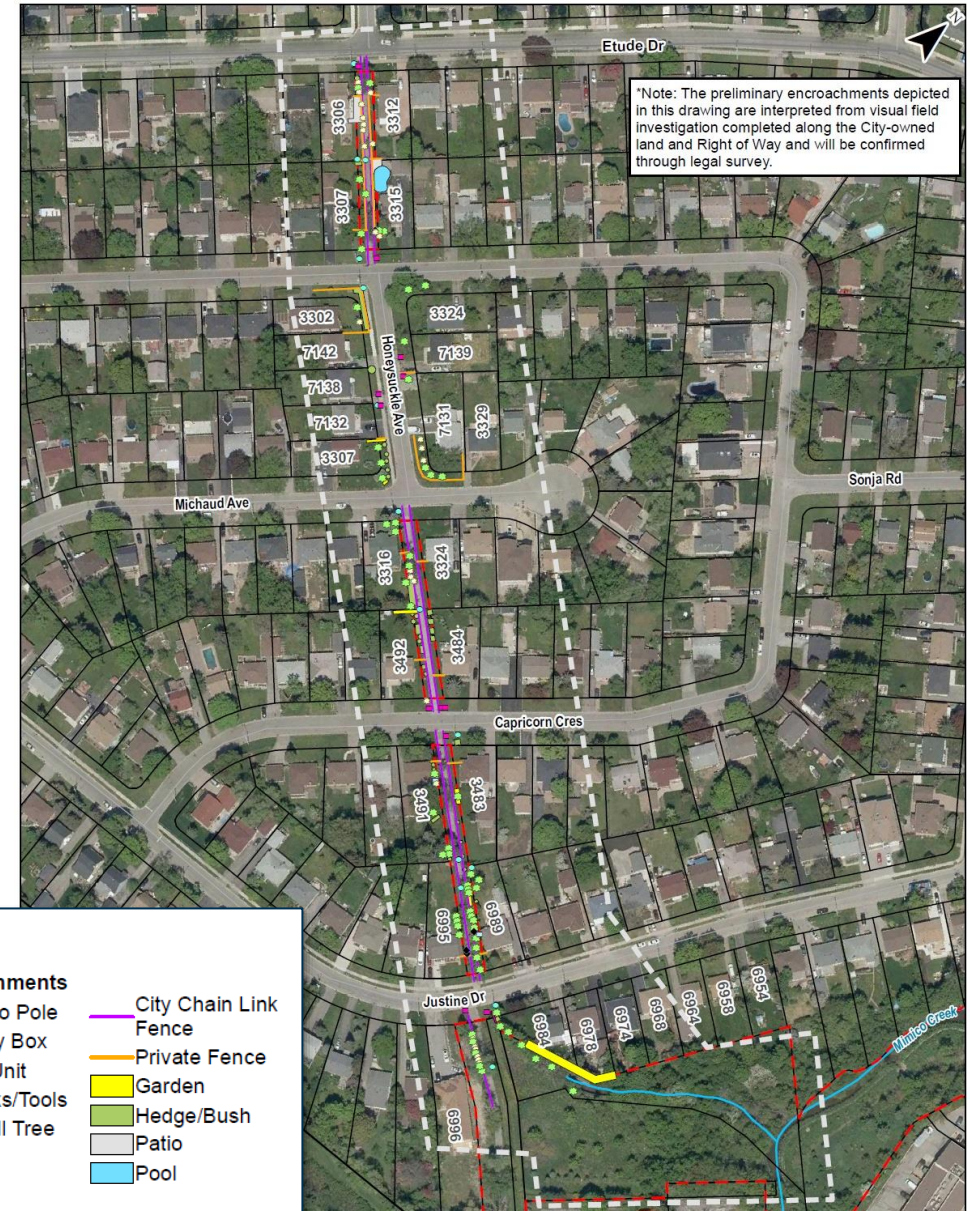
Outlet Upgrades

- Larger outlet structure and channel realignment south of Justine Drive upstream of Mimico Creek
- Future design will minimize impacts to trees and vegetation to fullest extent possible



Encroachments Plan

- The pedestrian walkway area, including lands extending beyond the walkways chain-link fence, are City-owned lands and many illegal encroachments exist (e.g., trees, gardens, fences)
- The chain-link fence would be relocated further out to the City's property line
- Encroachments would be removed, at the City's expense, and not reinstated
- Efforts will be made to keep existing trees where possible and new trees/vegetation will be planted for those removed



Encroachments Plan available at:
www.mississauga.ca/malton-flood-mitigation

Notice of Public Impacts Letter

- Notice letter mailed out in April 2021 to directly affected property owners
- Purpose was to provide a project update, share preliminary preferred solution and identify specific encroachments adjacent to properties and the City's plan for encroachments
- Requested feedback and many residents provided their thoughtful comments
- Thank you to everyone who provided feedback

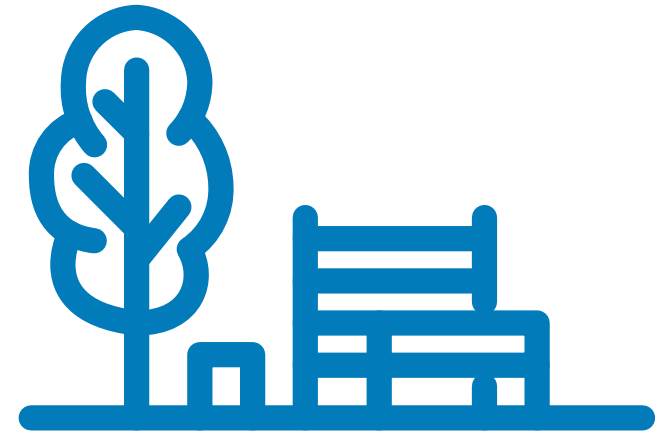
What we heard from Residents



- Public support for solution given past flooding experiences



- Inquiries about specific impacts to encroachments on City's property
- Walkway maintenance



- How concerns about loitering and litter would be addressed through the new walkway design

Project Timeline and Next Steps

**Incorporate
feedback and
finalize preferred
solution**
June 2023

**Finalize project
file and issue
Notice of
Completion**
Summer 2023

**Preliminary and
detailed design
phases**
2023-2024

**Construction
tentatively
starting**
*2024



**Subject to
City's capital
budget process*

Questions? Would you like to be added to the Contact List? Please Contact:

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Project website: www.mississauga.ca/malton-flood-mitigation

Comment form: <https://forms.office.com/r/0uwTQ5m3FT> - *submit comments by **July 19, 2023***