



# Windermere Road Improvements Municipal Class Environmental Assessment



EEPAC Meeting  
January 20, 2022

# Agenda

- Project Process Overview Design and Natural Heritage
- Review EIS Studies
- Survey Findings
- Impact Assessment - Natural Heritage
- Proposed Mitigation Measures and Recommendations

# Study Area and Objectives

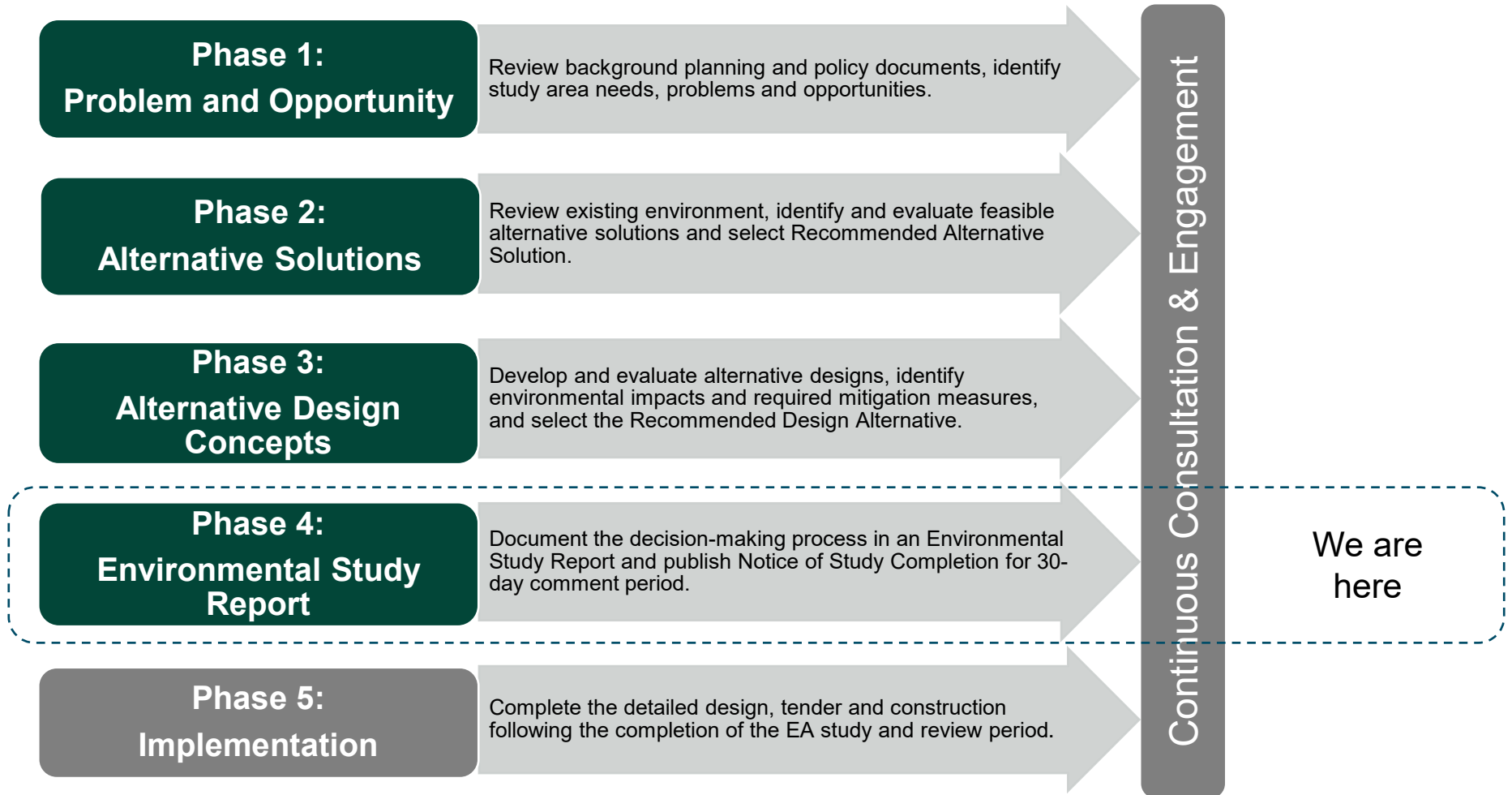
## Study Objectives

- Provide accessible conditions for all road users along the corridor within the study area.
- Identify watermains and sewers that need replacement.
- Assess the potential of an active transportation connection from Windermere Road to the Thames Valley Parkway.



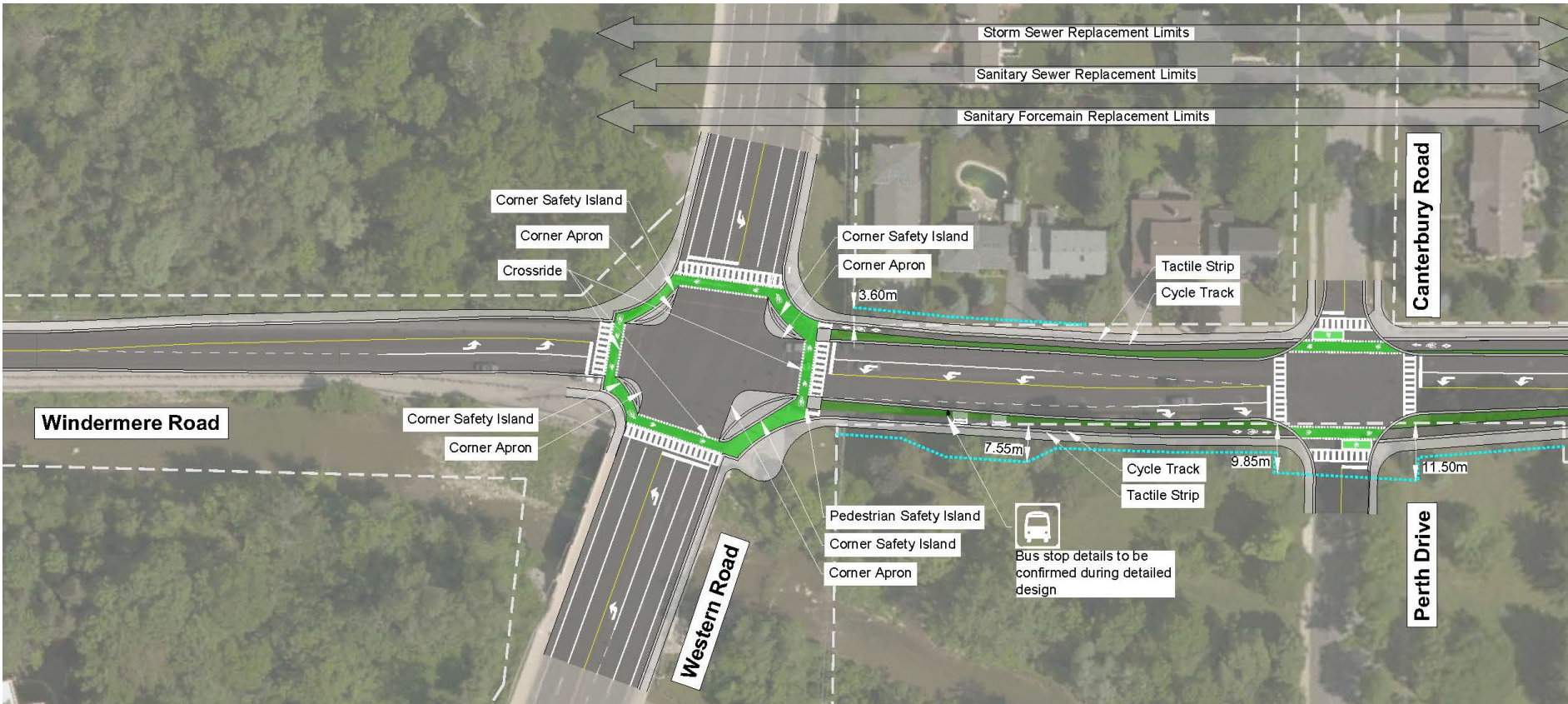


# Municipal Class EA Study Process










# Proposed Improvements – Windermere Road west of Richmond



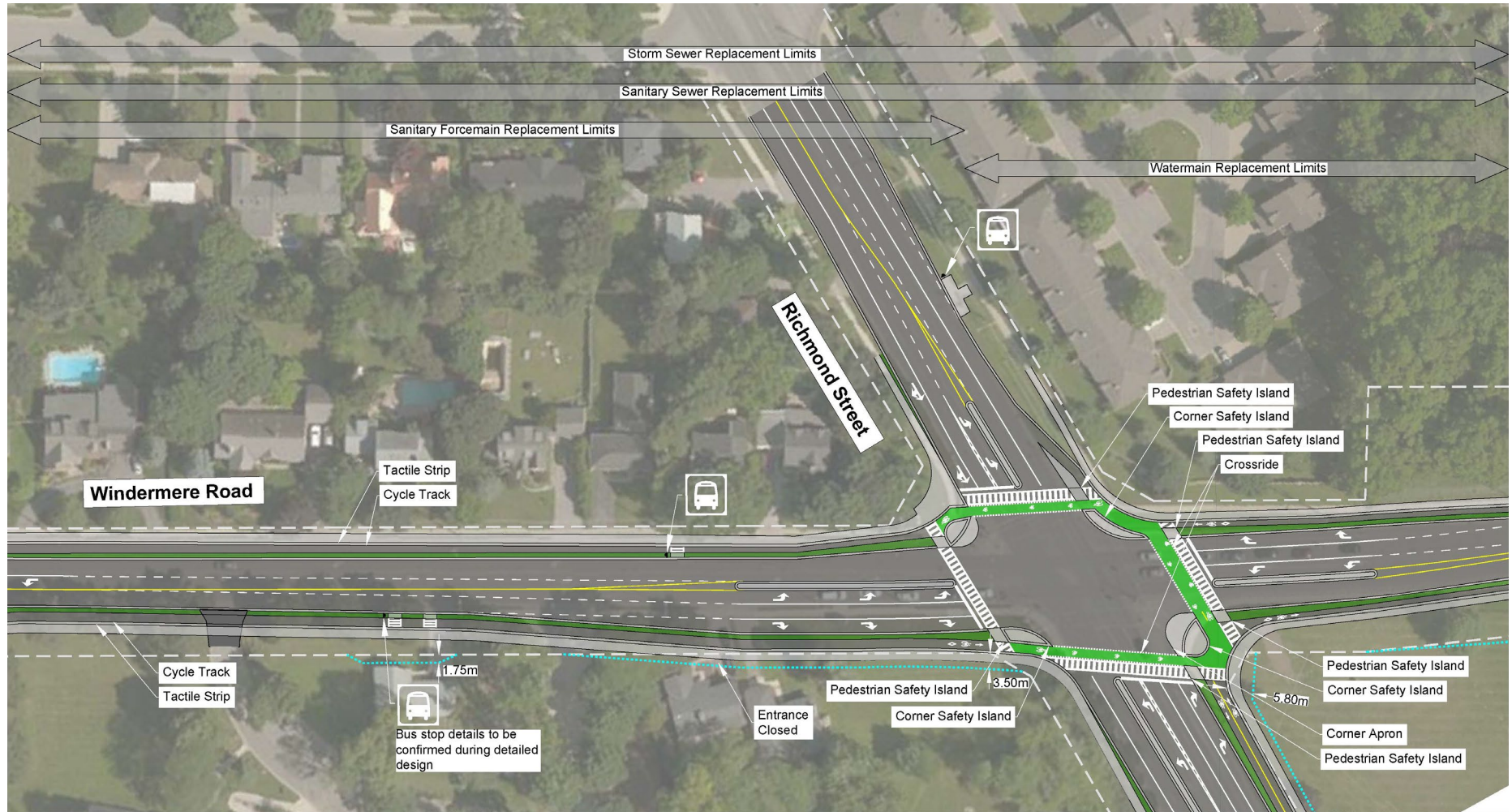
**Supplemental Legend:**

-  Proposed Roadway Platform
-  Proposed Sidewalk/Median/Curb
-  Proposed Boulevard/Green Space
-  Proposed Crossside









-  Proposed Crosswalk
-  Existing ROW
-  Proposed New ROW Limit
-  Proposed New Bus Stop



# Proposed Improvements – Richmond Street Intersection

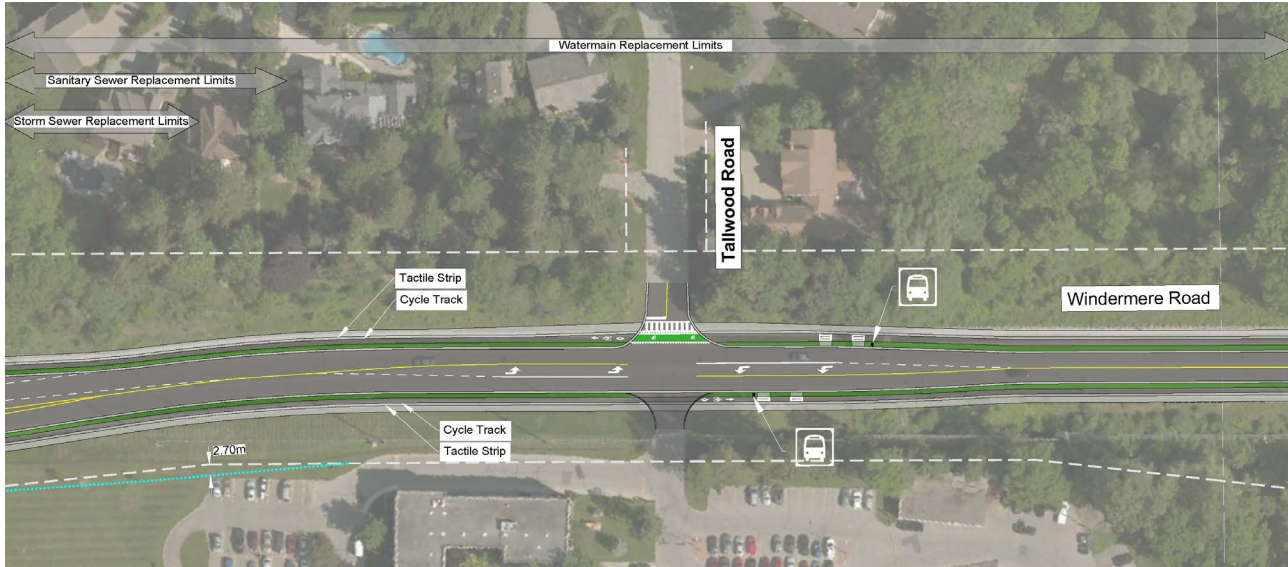


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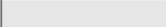






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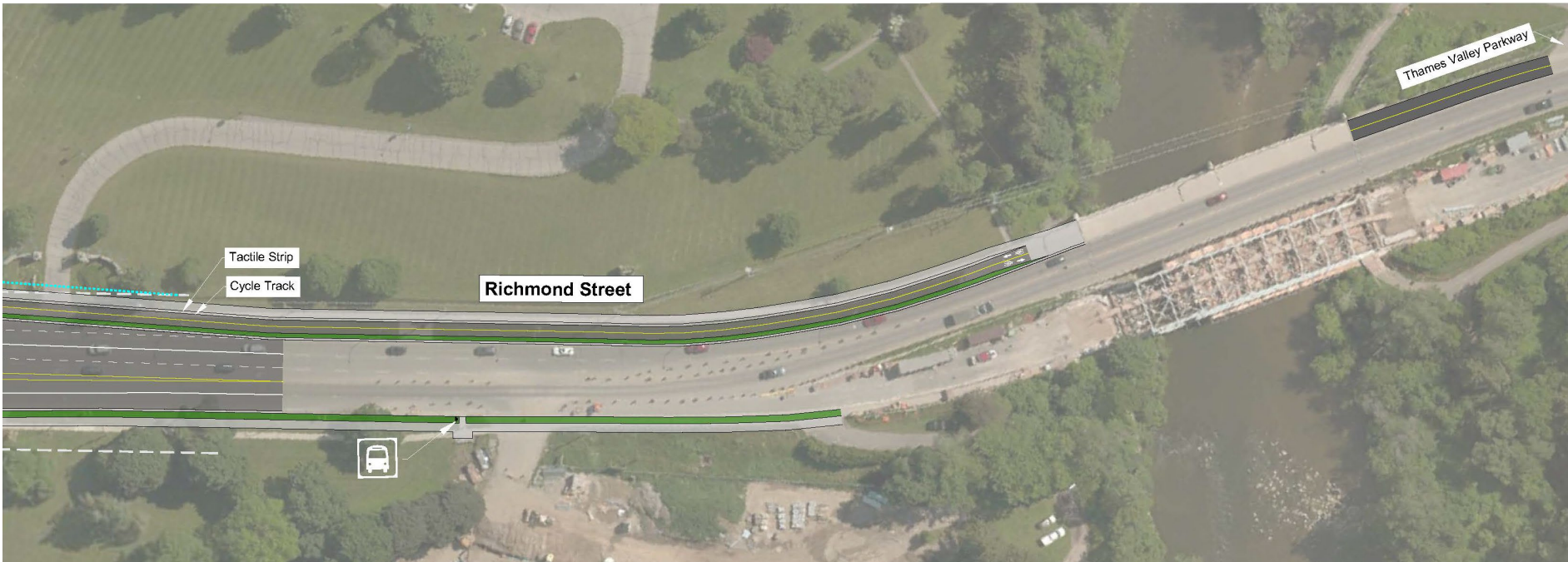
# Proposed Improvements – Windermere Road east of Richmond







### Supplemental Legend:





-  Proposed Roadway Platform
-  Proposed Sidewalk/Median/Curb
-  Proposed Boulevard/Green Space
-  Proposed Crossside
-  Proposed Crosswalk
-  Existing ROW
-  Proposed New ROW Limit
-  Proposed New Bus Stop

# Proposed Improvements – Richmond Street south of Windermere



**Supplemental Legend:**

-  Proposed Roadway Platform
-  Proposed Sidewalk/Median/Curb
-  Proposed Boulevard/Green Space
-  Proposed Crossside

-  Proposed Crosswalk
-  Existing ROW
-  Proposed New ROW Limit
-  Proposed New Bus Stop



## Background Information

- Land Information Ontario (LIO) database
- Natural Heritage Information Centre (NHIC) database
- Species at Risk in Ontario List
- DFO's Aquatic Species at Risk maps
- Various wildlife atlases, municipal Official Plan and other planning reports
- EEPAC Information
- UTRCA (S. Gillingwater)



# Natural Heritage Studies Completed

## Surveys 2020

- ELC vegetation communities
- Fall floristic inventory
- Bat habitat
- Fish habitat

## Survey 2021

- Spring & summer flora (May and July)
- Anuran call count surveys (April, May, and June)
- Breeding bird surveys, including species at risk (late May to July)
- Habitat assessments for Species at Risk (bats, turtles, snakes, flora inventory)
- Incidental wildlife observations (during all field surveys)



## Aquatic Resources

- Tributary to Medway
- Tallwood Creek
- Thames River
- Adjacent to Medway creek
- Aquatic SAR – Fish, Reptiles, Unionids

## Terrestrial Resources

- Valleylands Medway and Thames (Significant Natural Heritage Systems)
- Medway ESA
- Adjacent Woodlands (Deciduous and mixed Coniferous)
- Roadside and Landscape Trees and Shrubs
- SAR Bat Potential Maternity Roosts





## Species At Risk

- Fish Species - Medway and Thames
- Reptiles - Medway and Thames
- Mussel Species - Medway and Thames
- Mammals - Potential Bats Roost trees – WODM



# Impacts Overview

- Approximately 24 trees proposed for removal within parklands, institutional lands, and road ROW.
- Woodland/Tree removal in ELC WODM and FOMM (see specific slide)
- Breeding Bird Nest Impacts
- Bat Maternity Roost – Tree Impact
- Wildlife encounters SAR and other wildlife during construction
- Aquatic impacts to fish habitat and associated SAR habitats in the Medway and Thames – Fish, reptiles and mussels species



# Vegetation Impacts

ELC Ecosite	ELC Code 2008	Vegetation Loss (m <sup>2</sup> )	No Impact (m <sup>2</sup> )
Fresh – Moist White Cedar – Hardwood Mixed Forest Ecosite	FOMM7	51	5837
Dry - Fresh Black Walnut Deciduous Woodland Type	WODM4-4	75	4521
	Total	126	23702



## Vegetation Mitigation

- A landscape planting plan is recommended for the detailed design phase of this project.
- Plant material should be native species that are suitable for the site conditions and sourced from a local nursery
- Planting plan for near-road areas should focus on a planting regime that would support edge management objectives - long term visual and noise barriers, creating a living barrier to discourage anthropogenic entry at unwanted locations, and providing shade to reduce sun scalding and woodland desiccation
- It is recommended that an invasive species control be implemented at the transition zone between the active tree removal and the remaining forest to the extent possible.
- Mitigation measures for sedimentation, erosion, and dust control should be implemented to prevent sediment and dust from entering sensitive natural features. Equipment should not be permitted to enter any natural areas beyond the vegetation protection fencing.





# Mitigation Measures

## Vegetation Mitigation (Con't)

- All exposed soil areas should be stabilized and re-vegetated, through the placement of seed and mulching or seed and an erosion control blanket, promptly upon completion of construction activities.
- Disturbed natural areas should be restored to pre-construction conditions, or better, where areas for restoration are available locally beyond, the footprint of the sidewalk and road ROW.

## Wildlife and SAR Mitigation

- Transport of sediment to, and siltation of watercourses can impact life cycle processes. Implementation of proper erosion and sedimentation control is instrumental in reducing these potential impacts.
- Trees proposed for removal were not found to support habitat of SAR or SOCC wildlife species.
- To further reduce the likelihood of harm to bats, it is recommended that trees greater than 10 cm diameter at breast height (DBH) be removed outside the bat maternity roost season. Bats typically give birth in late May to early June
- Sediment and erosion control fencing (geotextile fences) are effective for the temporary exclusion of amphibians and reptiles (MECP 2021).

## Wildlife and SAR Mitigation (Con't)

- Temporary geotextile fencing is recommended to be installed at potential wildlife crossing locations including on the north side of Windermere Road and on the north and south sides of Windermere Road at the Tallwood Valley Creek corridor. The fencing in these areas can double as standard sediment and erosion control fencing.
- Prior to work commencing, thorough visual search of the work area should be conducted by construction contractors to locate snakes or other wildlife, particularly between April 1 and October 31 when snakes are most active.
- The Regional Nesting Period (RNP) for the Study Area is considered to fall between April 3 and August 15, (Government of Canada 20180. If a migratory bird nest is located within the work area at any time, a no-disturbance buffer will be delineated.



## Aquatic Mitigation

- Aquatic impacts could include eroded sediment transport from exposed soil surfaces, entry of construction debris (e.g., asphalt slurry, dust, etc.) into the tributary and spills associated with refueling of equipment.
- Implementation of sediment and erosion control measures, as described in the vegetation mitigation section, that would be designed to minimize the impact on fish and fish habitat for areas adjacent to the road footprint or topographic areas that could convey sediment to watercourses - Medway Creek and the Thames and their tributaries

# Q&A Session

