



# Western Road / Sarnia Road / Philip Aziz Avenue Environmental Assessment



## Ecological Community Advisory Committee Meeting

June 15, 2022

The Purpose of PIC#2 will be to:

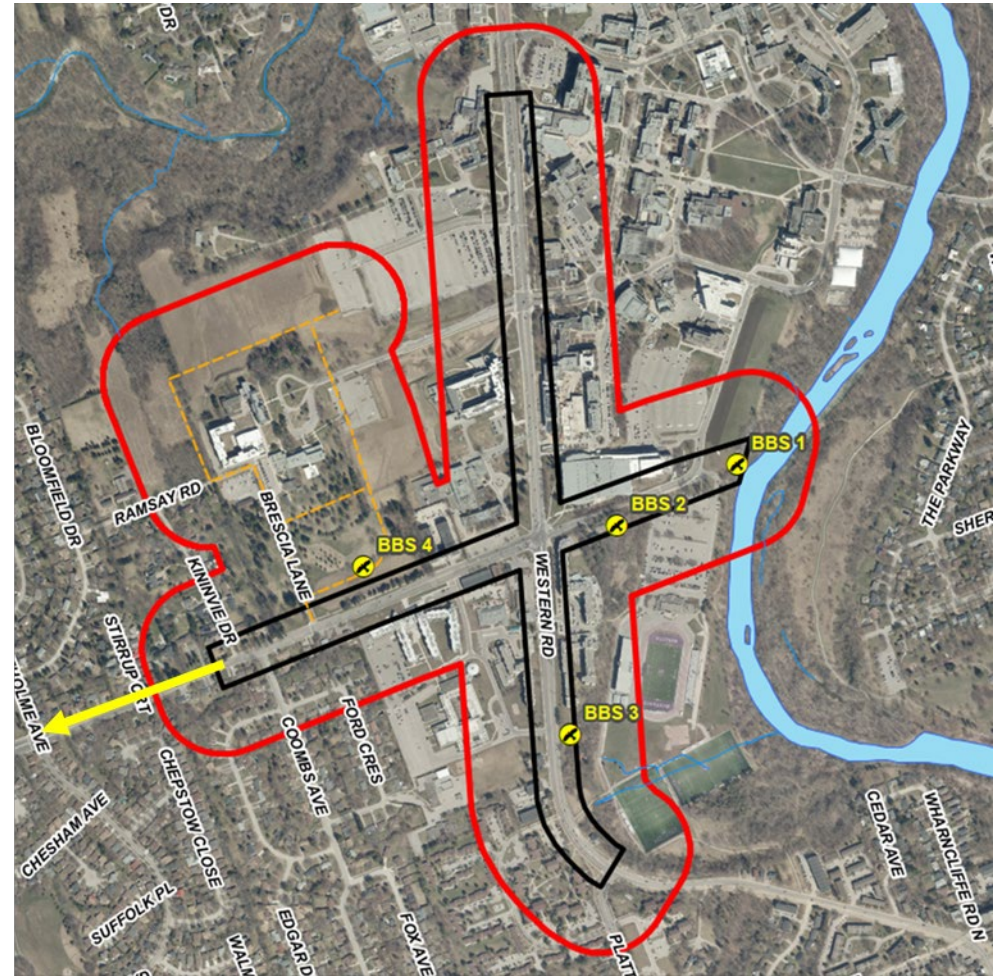
- Present the alternative design concepts
- Present the evaluation of alternative design concepts
- Solicit feedback



# Study Area- Natural Heritage Scope of Work

## Project Extents

- Western Rd from Huron College entry (north) to Platts Ln (south)
- Sarnia Rd / Philip Aziz Ave corridor from Sleightholme Ave (west) to the Thames River (east)
  - Coombs Ave to Sleightholme Ave was added after PIC#1 (Yellow Arrow in the image)
  - This additional piece of Study area allows for the existing cycling lanes to the west to be extended all the way to the East Limits of the Study Area
- Coombs Ave (previous west limits)
- As per the City's Environmental Management Guidelines, inventory data older than 4 years should be re-confirmed.
- Natural habitat within the Study Area is limited; however, the east end of Philip Aziz Avenue lies within 120m of the Thames which triggers the need for an Environmental Impact Study (EIS) to be completed.
- The Thames River is also known to contain several SAR.



# Existing Conditions – Natural Environment

An analysis was conducted to determine potential Species at Risk (SAR) within 1 km of the study area. The following species may occur within the study area:

## Terrestrial Species\*

- 9 breeding birds (including Bank Swallow, Barn Swallow and Bobolink)
- 14 reptiles (including Spiny Softshell, Spotted Turtle, Queensnake and Blanding's Turtle)
- 8 bats (including Little Brown Myotis and Northern Long-eared Myotis)



Little Brown  
Myotis

## Aquatic Conditions\*

### Aquatic Species – Thames River

- Fish SAR species: Silver Shiner and Black Redhorse, including Critical Habitat under the *Species at Risk Act* for both species within the Thames River;
- No mussel SAR have been identified in the Thames River adjacent to the Study Area.



Barn Swallow

\* Majority of these species are associated with the Thames River corridor.

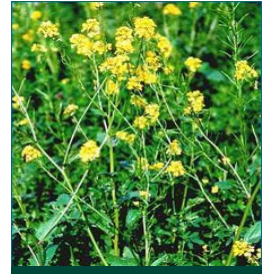
## Woodland Area:

The woodland located southeast of the Western Road/Sarnia Road intersection contains the following vegetation:

- Manitoba Maple, Black Walnut, Wild Mustard, Common Buckthorn, Hackberry
- A small cattail wetland also occurs

## Tree Assessment:

- A boulevard tree inventory and assessment was conducted and evaluated 130 trees along the study corridor
- Most trees were found to be in fair to good condition



Wild Mustard



Common  
Buckthorn

# Natural Heritage Studies

## Studies completed include:

- SAR Habitat Assessment
- Aquatic Habitat Assessment
- Breeding Bird Surveys
- Three season vegetation inventory
- ELC community confirmation



# Problem/Opportunity Statement

## Problem

- The City of London Transportation Master Plan (2030 TMP) identified the need to improve the Western Rd and Sarnia Rd/Philip Aziz Ave intersection in the next 5 years.
- This intersection accommodates approximately pedestrians, cyclists, transit routes carrying thousands of passengers and over 41,000 vehicles (per day).
- The intersection experiences traffic congestion, safety concerns, increased delays and decreasing levels of service for all users and this will continue if left untreated.
- The existing storm drainage in the area does not meet current design standards and requires upgrades.

## Opportunity Statement

- Develop a range of planning and design alternatives that can improve pedestrian and cyclist facilities and safety, improve intersection operations, and provide additional capacity by removing constraints.
- Improve continuity with Western Road north and south of the study area, address stormwater drainage and enhance streetscape conditions.
- Consult the public and agencies and solicit feedback to select the best plan for the future.
- Follow the City of London's 'Complete Streets' guidelines, 'Urban Design' guidelines, and Western University's Master Plan Vision, to potentially create a gateway to the campus.
- Create a street/intersection that is as functional and comfortable as possible for all users (students, children, seniors, cyclists, motorists, transit users and pedestrians)

# Issues / Items to be Aware of

- Few environmental impacts on Western Road
  - Potential to impact some street trees (No SAR trees)
- No environmental Impacts on Sarnia Road
- Buried Services:
  - New stormwater piping (Western Rd and Philip Aziz Ave ) with outfall to Thames River.
- Environmental:
  - No SARs trees in the study area.
    - Breeding birds protected under the Migratory Birds Convention Act (MBCA) may be nesting in the vegetation during the breeding bird season of April 1 to August 31.
    - Vegetation removal should be scheduled outside of the breeding bird season to avoid contravention of the MBCA.
  - SARs potential (terrestrial/aquatic) in the Thames River area.



# Design Alternatives

## Sarnia Rd

1. Full Urban Cross Section with reconstructed entrance to Philip Aziz property.
2. Full Urban Cross Section with relocated entrance to Philip Aziz property.  
**Recommended**

## Philip Aziz Ave

1. Full Urban Cross Section with reconstructed entrance to Philip Aziz property.
2. Full Urban Cross Section with relocated entrance to Philip Aziz property.  
**Recommended**

## Western Rd

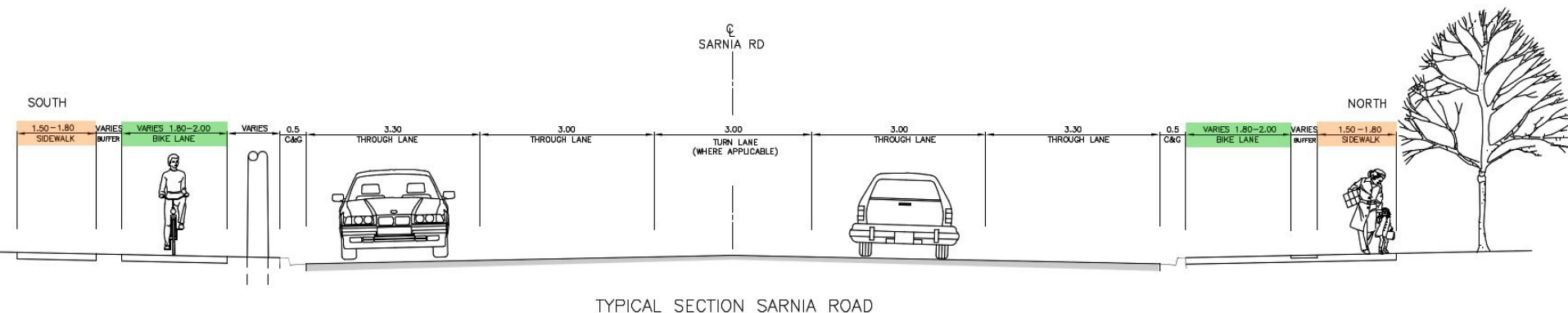
1. Extended SB turn lane  
**Recommended**
2. Added bus bays **Recommended**
3. Active transportation improvements: **Recommended**
4. Active Transportation in ROW.  
**Recommended**

## Intersection

1. Roundabout
2. Pedestrian Tunnel
3. Single (**Recommended**) vs Double left turn lane
4. Typical Pedestrian Crossway (**Recommended**) vs Scramble

# Sarnia Rd – Design Summary

- Maintain the current 4 lane configuration.
- Extend bicycle lanes to Sleightholme Ave to connect to the existing lanes.
- Bicycle lanes will be raised.
- Utilizes existing generous ROW for improving active transportation.
- No utility relocation, except for minor work involving relocation of guy poles.
- Minor regrading adjacent to existing retaining wall on north side.
- Some (minor) loss of trees along the corridor.
- Small property taking area on north side.
- Reconstruction of bus stops (with bus pads).

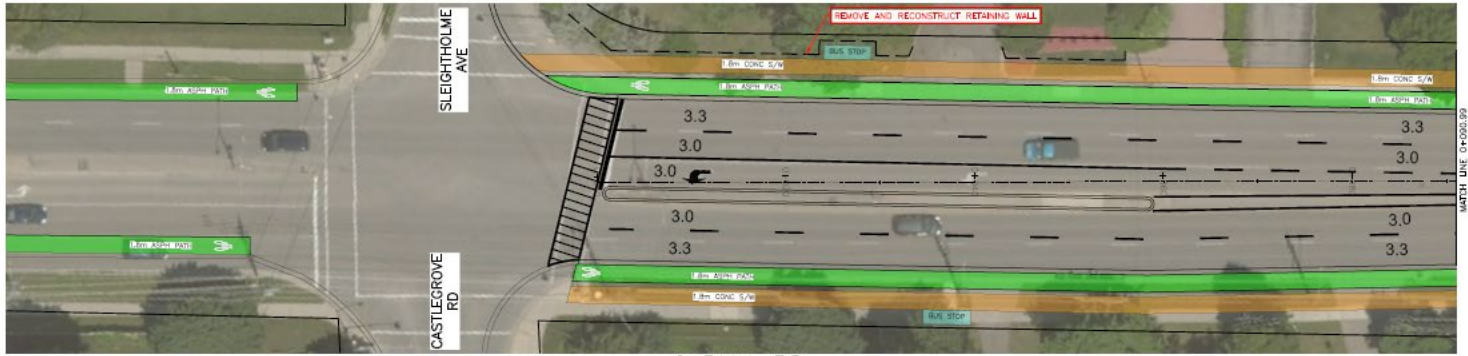


TYPICAL SECTION SARNIA ROAD

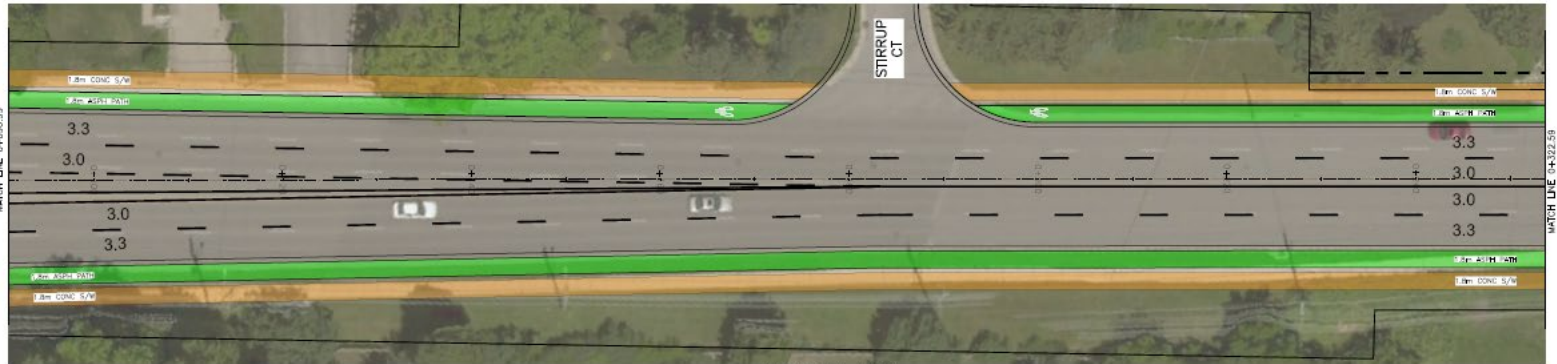


London  
CANADA

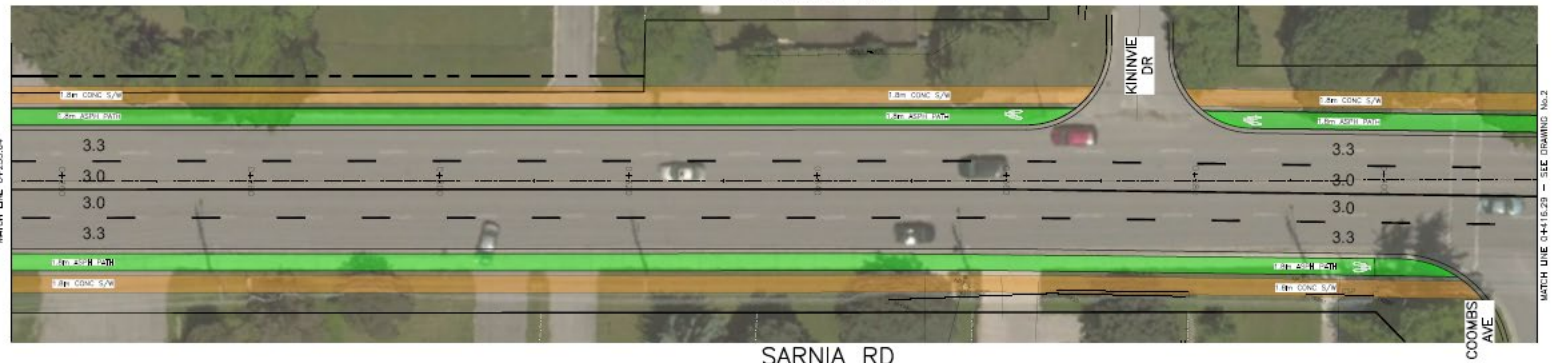
# Sarnia Rd – Layout



SARNIA RD



SARNIA RD

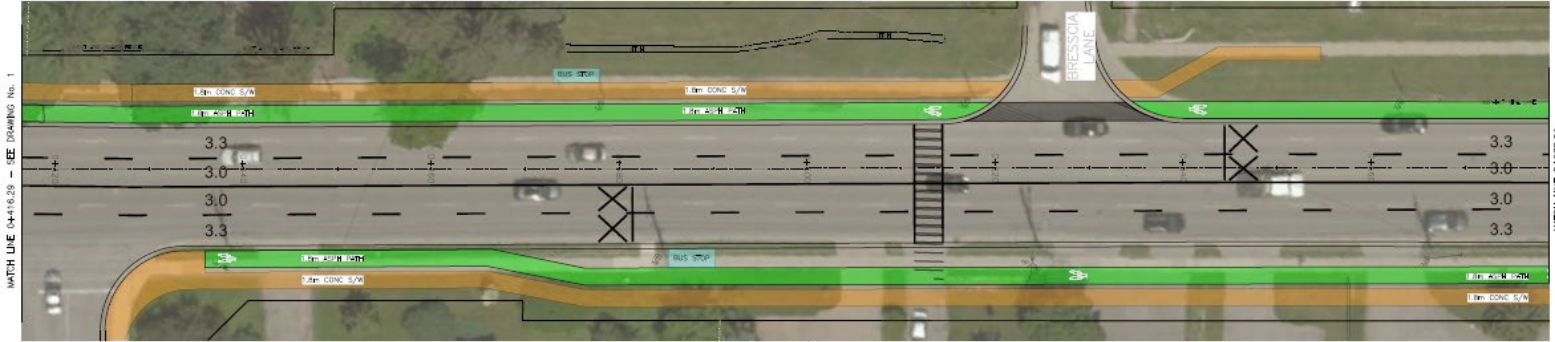


SARNIA RD





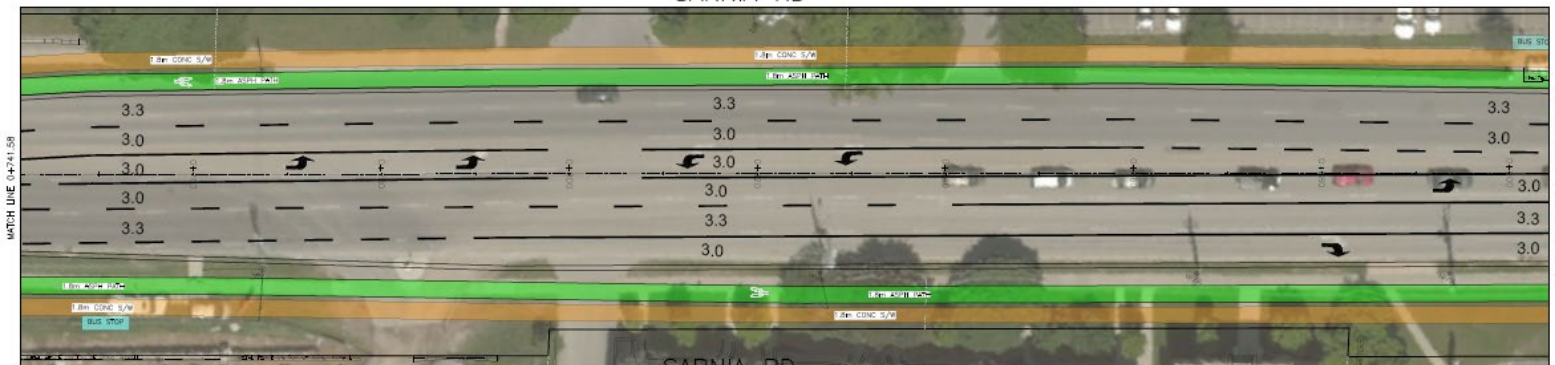
# Sarnia Rd – Layout



SARNIA RD



SARNIA RD



SARNIA RD







## Philip Aziz Ave - Existing

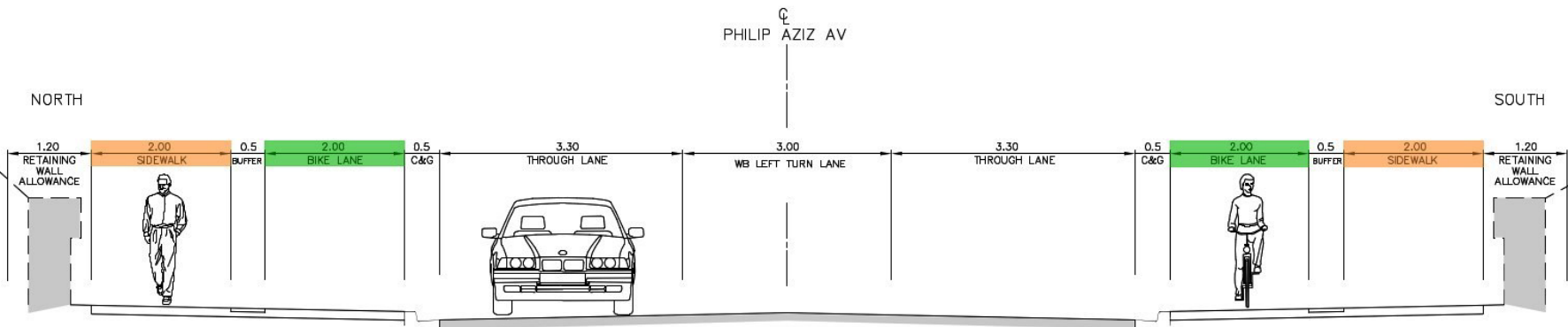
- Two lanes, short left turn lane to Western Rd, no sidewalks, no bike lanes.
- Gabion wall, heritage property entrance, overhead service, undersized storm sewer.





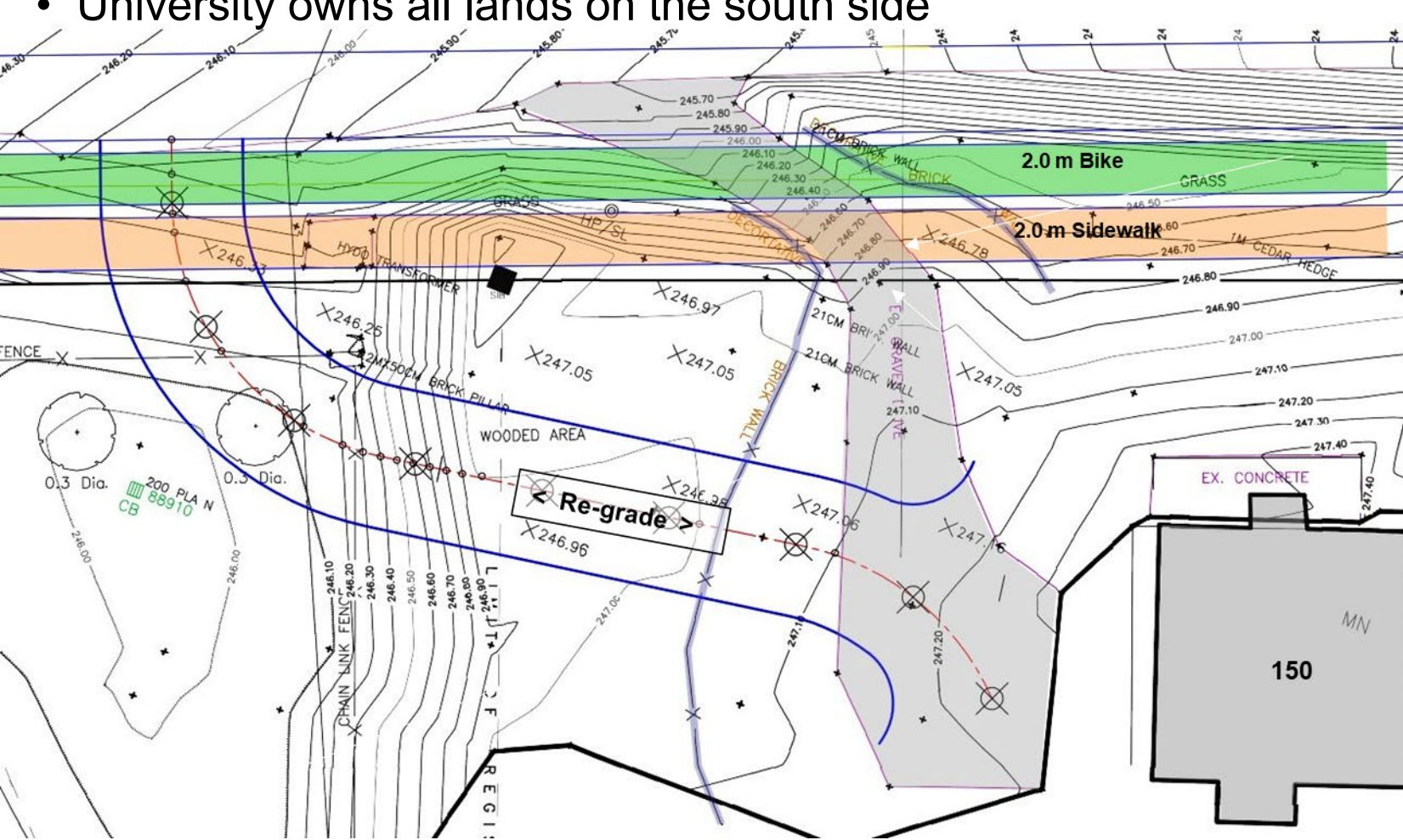
# Philip Aziz Avenue – Design Summary

- Urban Cross Section with reconstructed/realigned Philip Aziz property gate/entrance
- Overhead Services (south) relocation
- Retaining walls (N+S) with fence
- Increased left turn lane length
- Loss of vegetation (no SARs)
- Property
  - N+S sides of road
  - Area at Thames River
- Stormwater Outfall relocation
- Reconstruct bus stop (just east of Western Rd)

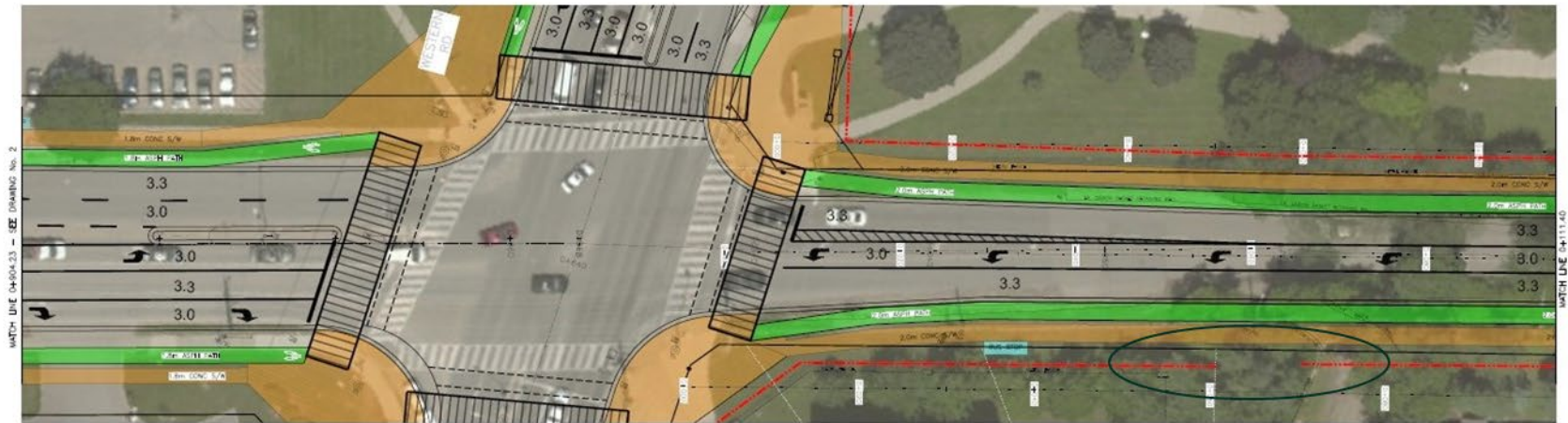


# Philip Aziz Ave – Property Entrance Concept

- Realigned for maintenance and fire access (max 3% grade vs 8%)
- Reconstruct / reconfigure wall (HIA required)
- University owns all lands on the south side

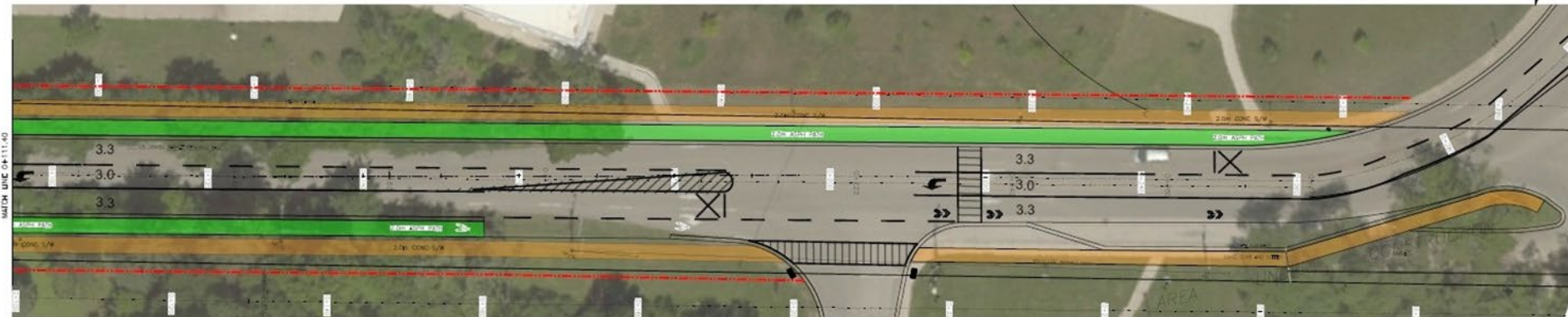


# Philip Aziz Ave - Layout



SARNIA RD

PHILIP AZIZ AVE



PHILIP AZIZ AVE



# Philip Aziz Ave – Existing Outfall

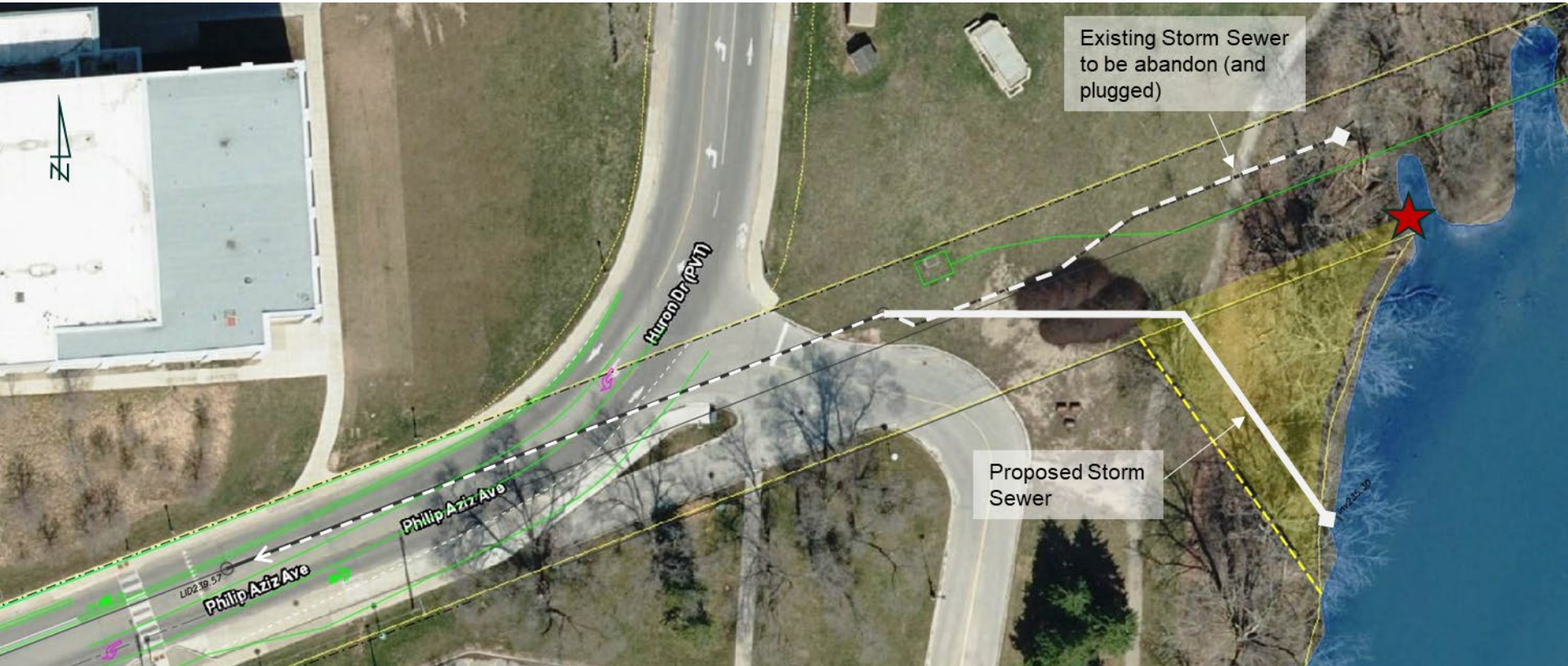
- 2 Existing Storm Sewer Outfalls
- One outfall is used for the Western Campus Storm sewers, and one used for the Philip Aziz Ave Storm sewer.
- Deposits from these outfalls have created a preferred habitat for Spiny Soft Shell Turtles





# Philip Aziz Ave – 1050 mm diameter Outfall

- **Recommendation**- Relocate outfall 50 m to south away from Spiny Soft Shell Turtle SAR
- Maintain campus outfall
- Existing outfall and portion of sewer to remain disconnected & plugged, but not functional.
- No work in or around the existing outfall to protect habitat
- This reach of the Thames also provides Critical Habitat under SARA for Silver Shiner and Black Redhorse
  
- Next steps - Review outfall concept with City Natural Heritage team and UTRCA
- Permits/Approvals – UTRCA and MECP (Environmental Compliance Approval) MECP (*Endangered Species Act*), and DFO (*Fisheries Act and SARA*)



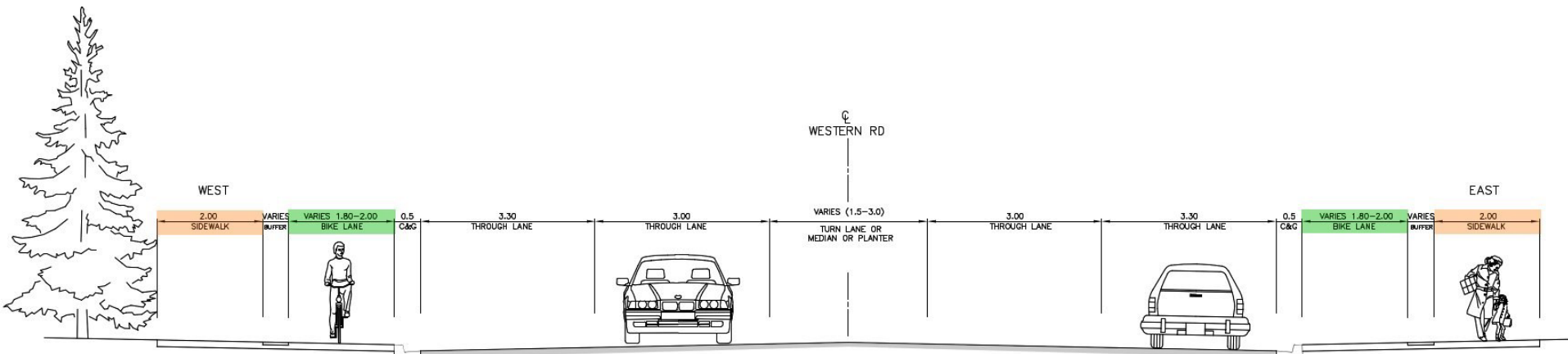


# Outfall Permitting

- Obtaining a UTRCA permit under O. Reg 157/06
- Thames River provides habitat for Spiny Softshell, Silver Shiner, and Black Redhorse near this location. Under the *Endangered Species Act* (ESA), Silver Shiner and Spiny Softshell are afforded habitat protection beyond the wetted portion of the river, which includes a riparian buffer on land (i.e., the regulated floodplain limit). Any work to decommission the old outlet and reconstruct a new outlet downstream may require a Section 17 (2) (c) permit under the ESA.
- Under the Fisheries Act, any in-water work (i.e., work below the high-water mark (2-year return event)) will require review by DFO. DFO is also now including considerations for impacts to the riparian buffer for Silver Shiner and so an Authorization under the Fisheries Act may be required for both in-water work and work within the riparian area.
- Silver Shiner and Black Redhorse are also protected under the Species at Risk Act (SARA), depending on the scale or work within the high-water mark, a SARA permit may be required.

# Western Rd – Design Summary

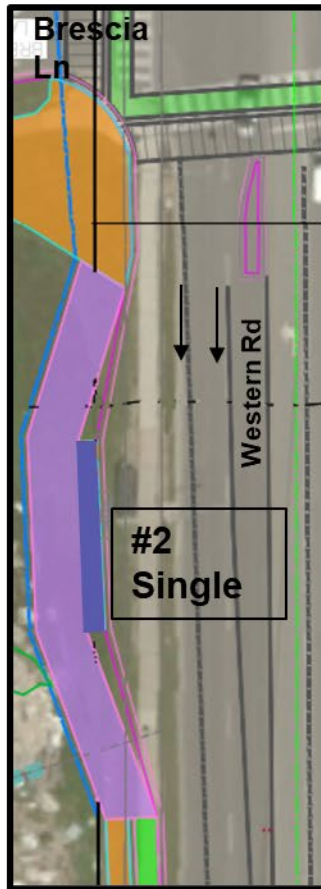
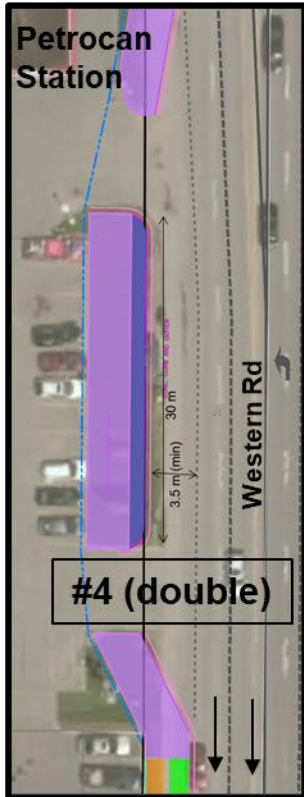
- Connections with existing active-transportation facilities (N&S ends)
- Extended Southbound Turn Lane
- Adding bus bays (requires property) and maintaining other bus stops
- Active transportation in ROW
- Opportunity for median planters south of Lambton Drive (30-40 m)
- Relocation of numerous street light poles and guy poles/wires along entire length
- Hydro pole relocation – east side (from Essex Hall to Philip Aziz Ave)
- Property required throughout the corridor



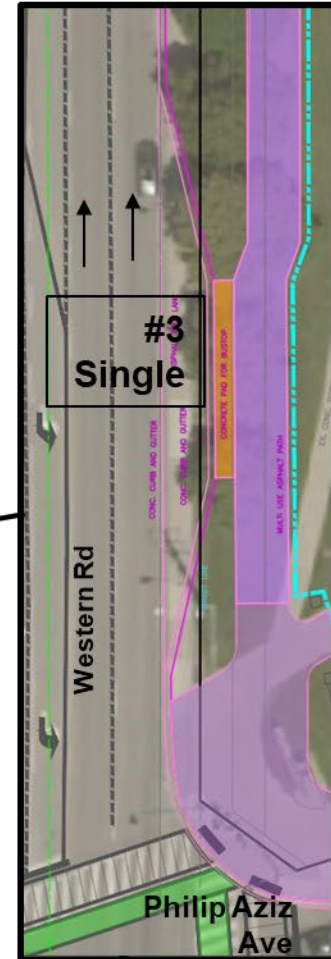
# Proposed Bus Bays

- Property required for all locations
- All locations **recommended**

LTC to confirm length requirements for articulated vs multi-bus storage



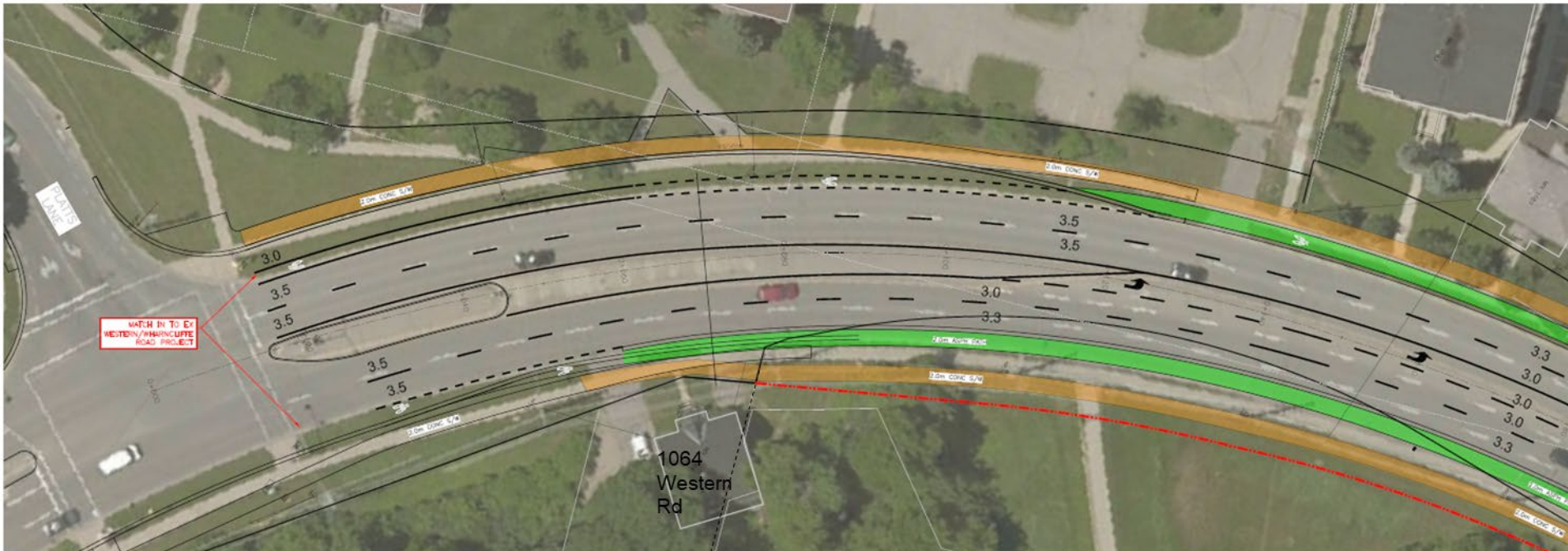
Existing Bay (north of Lambton Dr to be reconstructed



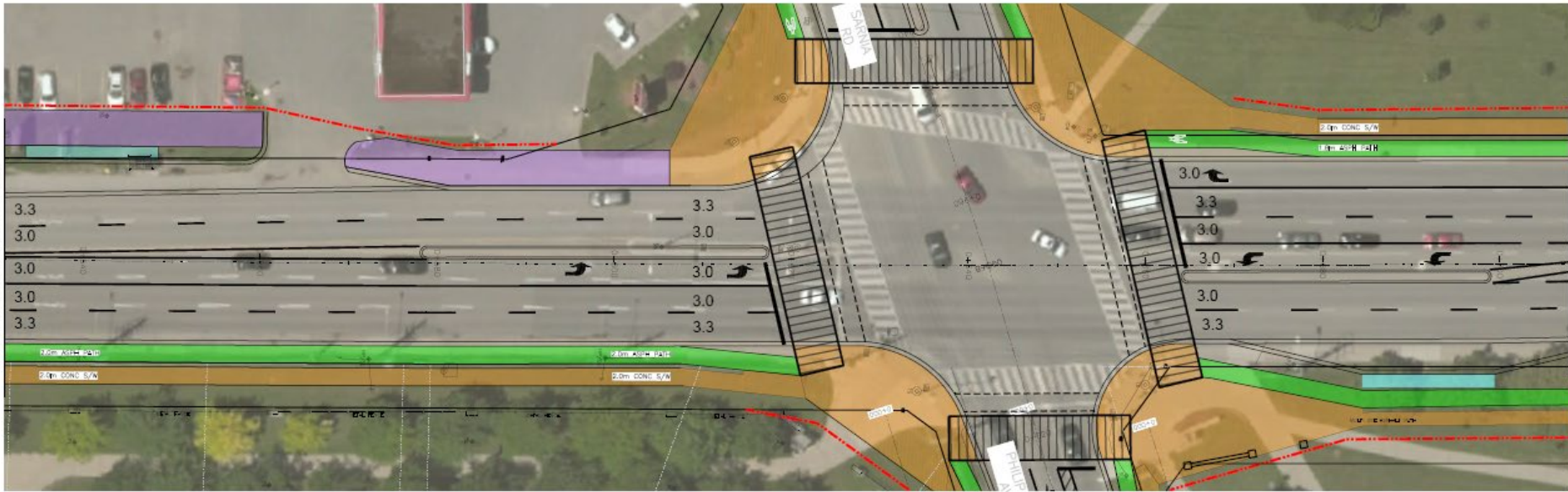


# Western Rd – at Platts Lane

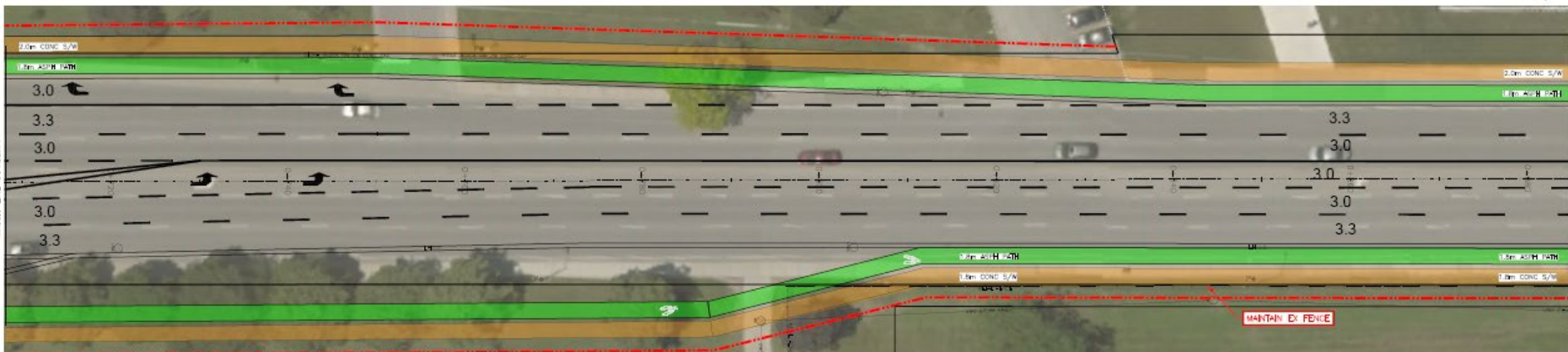
- Tight clearances at 1064 Western Rd (but no property required)
- East side requires grading for  $\pm 140$  m and property taking
- Regrading and reconstruction of the walkway to Western Un. fields



# Western Rd - Layout



WESTERN ROAD



WESTERN ROAD



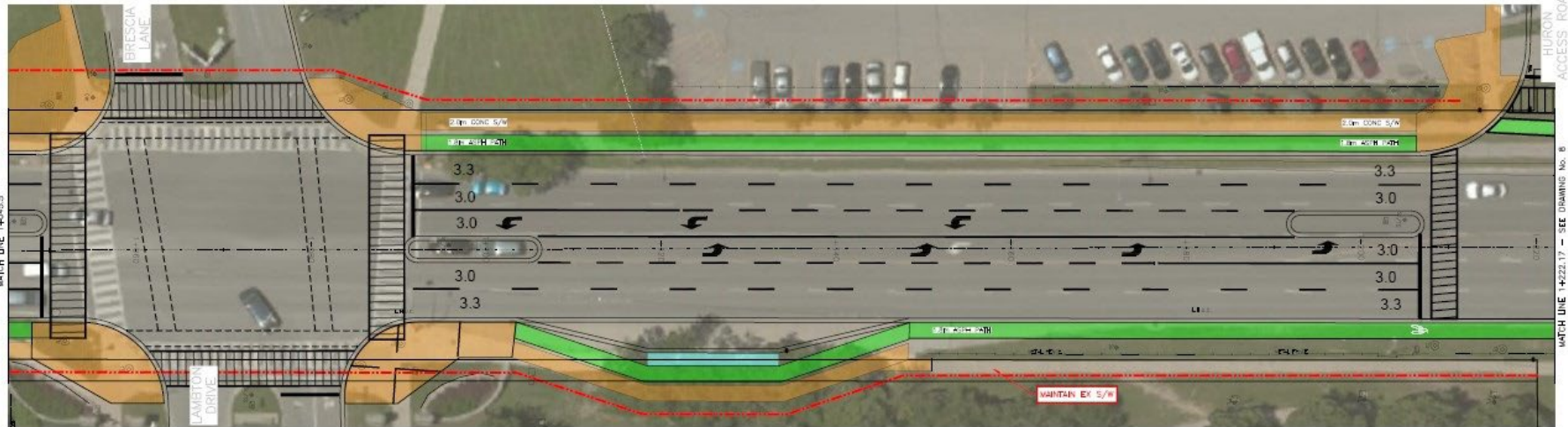


London  
CANADA

# Western Rd - Layout



WESTERN ROAD



WESTERN ROAD



# Next Steps

- Issue PIC Notices
- Hold PIC #2 (June 23<sup>rd</sup>)
- Draft ESR – Summer/Fall