LONDON BIKES
CYCLING MASTER PLAN 2015

Progress report #1

Cycling advisory committee meeting#1
Wednesday April 15th, 2015

LONDON BIKES

London CANADA

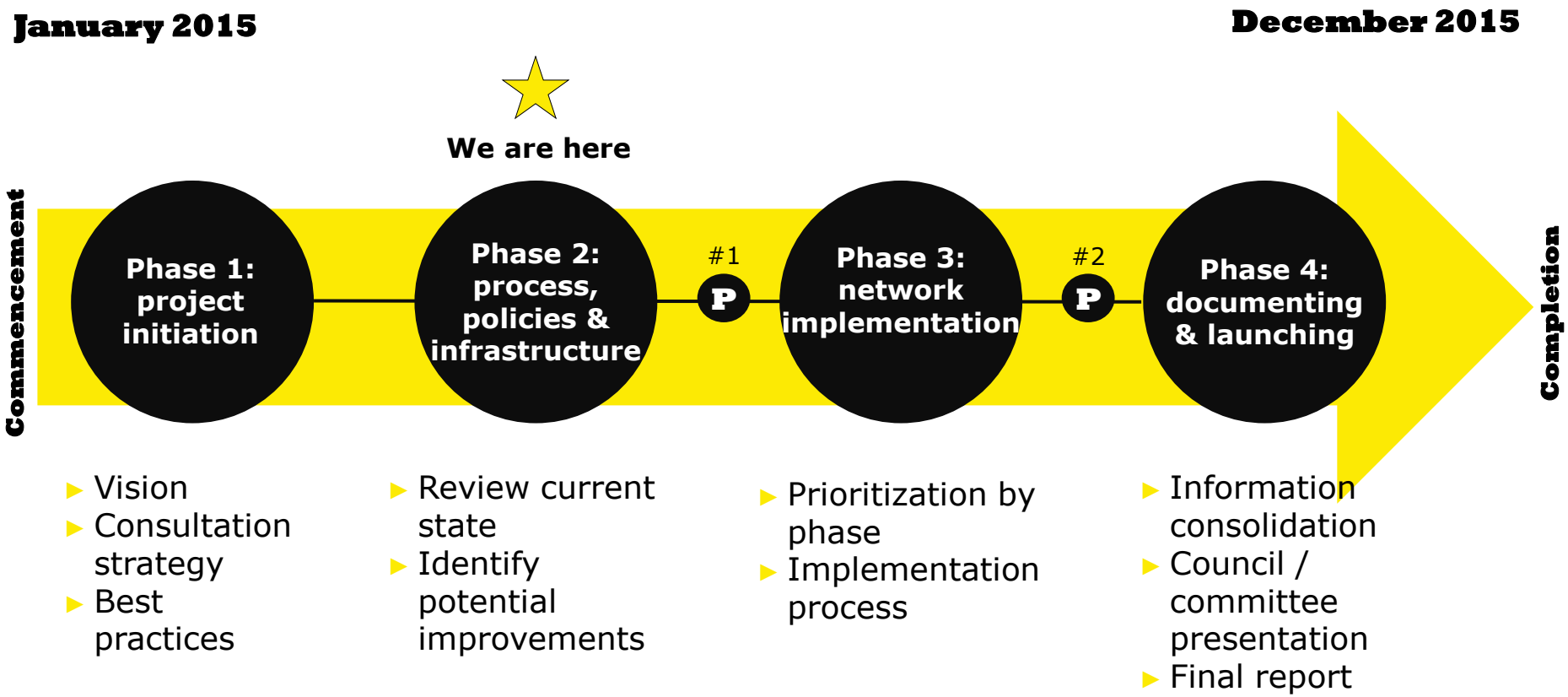
MMM GROUP

Presentation outline

1. Project status and overview
2. Cycling network development: input and process
3. Candidate routes
4. Facility selection
5. Design considerations in road ROW
6. Off-road path design considerations
7. Next steps

1. **Project status and overview**
2. **Cycling network development: input and process**
3. **Candidate routes**
4. **Facility selection**
5. **Design considerations in road ROW**
6. **Off-road path design considerations**
7. **Next steps**

Project work plan



- Vision
- Consultation strategy
- Best practices

- Review current state
- Identify potential improvements

- Prioritization by phase
- Implementation process

- Information consolidation
- Council / committee presentation
- Final report

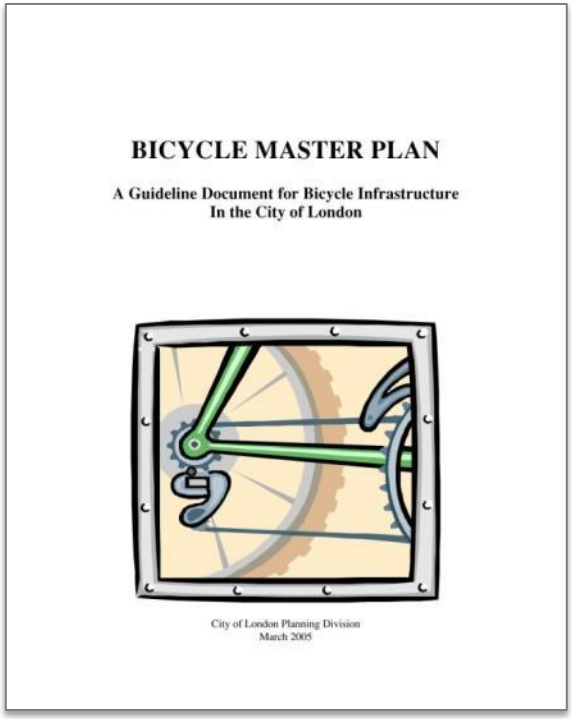
The consultation program

Phase	Internal	External	Ongoing
1	▸ TAC meeting #1 ▸ Councilor information report #1 ▸ Cycling advisory Committee meeting #1 ▸ Project status update	▸ Stakeholder information report #1	▸ Study promotion ▸ Study webpage: online questionnaire, network commentary & network routing app ▸ Infographic newsletter #1
2	▸ Councilor information report #2 ▸ TAC meeting & cycling advisory committee meeting #2 ▸ Project status update	▸ Public information centre #1 ▸ Stakeholder information report #2	▸ Webpage updates ▸ PIC #1 pop-up consultation ▸ Infographic newsletter #2
3	▸ TAC meeting #3 ▸ Cycling advisory committee meeting #2 ▸ Project status update	▸ Public information centre #2	▸ Webpage updates ▸ PIC #2 pop-up consultation ▸ MetroQuest: network assessment & Recommendation
4	▸ Committee & council presentations	▸ N/A	▸ Webpage updates

The webpage - www.Londonbikes.ca

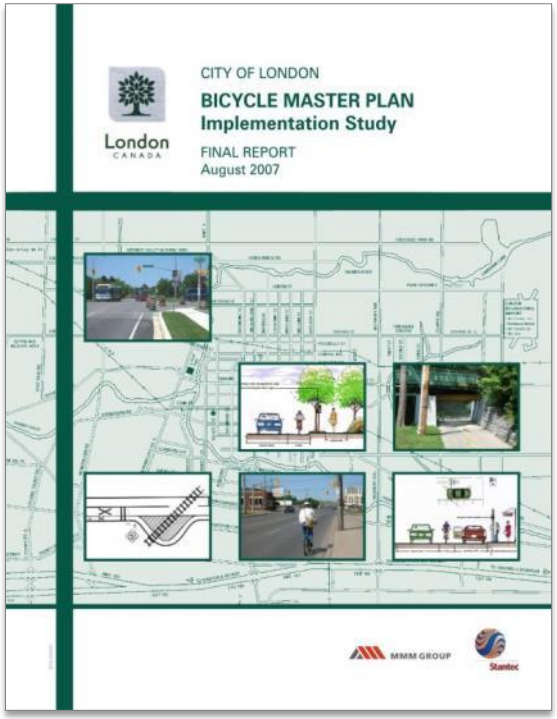
1. Project status and overview
2. **Cycling network development: input and process**
3. Candidate routes
4. Facility selection
5. Design considerations in road ROW
6. Off-road path design considerations
7. Next steps

Building upon previous plans


BICYCLE MASTER PLAN

A Guideline Document for Bicycle Infrastructure
In the City of London

City of London Planning Division
March 2005


CITY OF LONDON

BICYCLE MASTER PLAN
Implementation Study

FINAL REPORT
August 2007

London
CANADA

MMM GROUP

Stantec


Agenda Item # Page #

TO:	CHAIR AND MEMBERS CIVIC WORKS COMMITTEE MEETING ON SEPTEMBER 22, 2014
FROM:	EDWARD SOLDO, P. ENG. DIRECTOR, ROADS & TRANSPORTATION
SUBJECT:	SHORT TERM CYCLING LANE IMPLEMENTATION PLAN

RECOMMENDATION

That on the recommendation of the Director, Roads & Transportation, the following report on the Short Term Cycling Facility Implementation Plan **BE RECEIVED** for information.

PREVIOUS REPORTS PERTINENT TO THIS MATTER

- Environment and Transportation Committee – March 21, 2005 – Bicycle Master Plan, "A Bicycle Infrastructure Guideline for London"
- Civic Works Committee – June 19, 2012 – London 2030 Transportation Master Plan

BACKGROUND

Purpose

This report presents Committee and Council with the status of the cycling lanes program on City roadways and identifies planned installations to the end of 2016.

The report is a companion report to the Active Transportation (AT) and Transportation Demand Management (TDM) report on the Civic Works agenda.

DISCUSSION

Context

London has a long history of planning and constructing cycling infrastructure. Implementation of the Thames Valley Parkway and boulevard bicycle paths on roads began in the 1980s. Cycling infrastructure promotes active lifestyles and environmentally responsible transportation choices. Bike lanes directly support the Council Strategic Plan Key Results of A Caring Community and

LondON Bikes, London's Cycling Master Plan, will build upon the successes of the 2005 Bicycle Master Plan, the 2007 Bicycle Master Plan Implementation Study and other completed plans / studies that provide cycling recommendations.

Supportive policies & guidelines

1 High-level policies

2 Municipal policies

3 Design guidelines

Recent municipal and provincial policies provide significant support. The plan will need to reflect new approaches to land use and transportation planning.

What have you told us to date?

The results are based on responses gathered as of April 6th, 2015. A total of 157 responses have been received to date.

Respondents typically cycle 5-10 km (42%) for a typical cycling trip followed by **1-5km (20%)**.

Respondents indicated that **providing people with more options to cycle is very important or somewhat important (96%)**. Respondents also indicated that cycling improvements to **improve the quality of health of citizens in very important or somewhat important (95%)**.

Respondents are motivated to cycle for **physical health and fitness benefits (36%)** and **mental health benefits (27%)**.

Respondents are **very comfortable or somewhat comfortable** cycling on **off-road multi-use pathways (87%), bike lanes (84%) and buffered bike lanes (83%)**. Respondents are very uncomfortable or uncomfortable cycling on paved shoulders (37%) and buffered paved shoulders (24%).

What Have you Told us to Date?

The results are based on responses gathered as of April 6th, 2015. A total of 157 responses have been received to date.

Respondents identified the following as the top locations to cycle in the City of London:

- Thames Valley Parkway
- Within residential neighbourhoods / areas
- Fanshawe Lake
- Rural areas
- Commercial / shopping areas

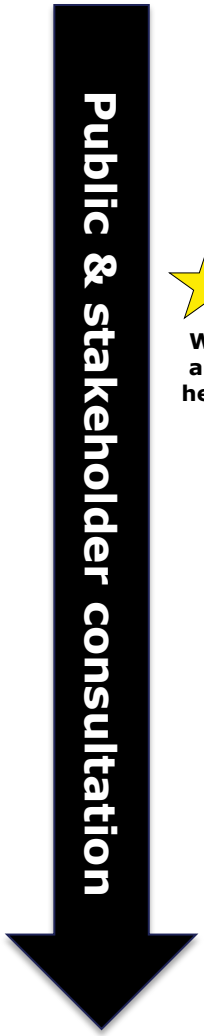
42% of respondents **live within 4-10 km** of their place of work or school.

Respondents typically use their **past experience / memory** to guide them along a route **(39%)** or **pathway / route signage (26%).**

44% of respondents use a car as their main mode of transportation. **35% of respondents cycle as their main mode of transportation.**

Respondents typically **cycle 2-3 times per week (46%) or daily (29%).**

How is the cycling network being developed?



Steps	
1	**Prepare base mapping:** ▸ Include existing on and off-road cycling facilities and any known planned routes and facilities
2	**Determine route selection criteria**
3	**Prepare candidate route network**
4	**Undertake field investigation**
5	**Prepare draft route network concept** ▸ Including selection of alignments and on and off-road designations
6	**Determine facility types and confirm cycling network**
7	**Determine route priorities (phasing & implementation plan)**
8	**Develop implementation costing**
9	**Finalize Steps 5, 6, 7 and 8**

1. Project status and overview
2. Cycling network development: input and process
3. **Candidate routes**
4. Facility selection
5. Design considerations in road ROW
6. Off-road path design considerations
7. Next steps

Route selection criteria

- Based on criteria outlined in OTM Book 18: Cycling Facilities
- Consideration for previous criteria identified in the 2005 Bicycle Master Plan, the 2013 Transportation Master Plan for London and the London Plan (Official Plan Update)
- Consideration for other planning / policy documents e.g. Official Plan, Parks Master Plan, Strategic Plan, Strengthening Neighbourhoods and Age Friendly Network

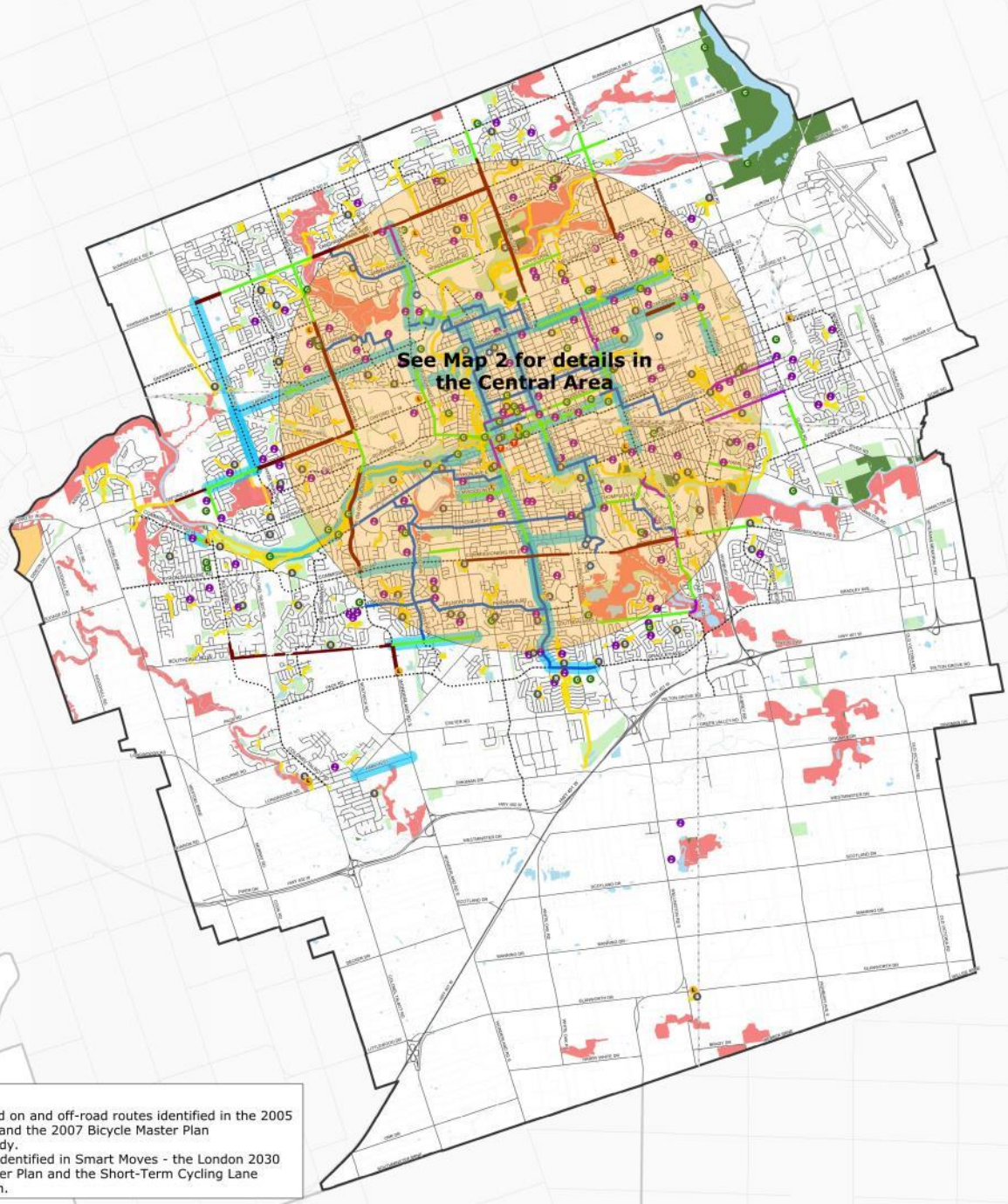
Access & potential use	**Connectivity & directness**	**Environmental sustainability**
Safety & comfort	**Attractiveness or aesthetics**	**Consideration of future use**
Tourism	**Cost**	**Environmental protection**

City of London Cycling Master Plan Update

Draft April 2015

Map 1

City wide Map
Existing and Previously Proposed Routes



Legend

Existing Cycling Routes
- Bike Lane
- Signed Bike Route
- In-Boulevard Facility
- Signed Bike Route with Sharrow
- Multi Use Pathway

Previously Proposed Routes
- Proposed Route[1]
- Priority Project[2]

Key Destinations
- Community Destination
- Hospital
- Public Library
- School
- Sport Facility
- Transit Hub

Other
- Road Network
- Railway
- Environmentally Sensitive Area
- Park
- Conservation Authority Land
- Provincial Park
- Parcel Property
- Watercourse

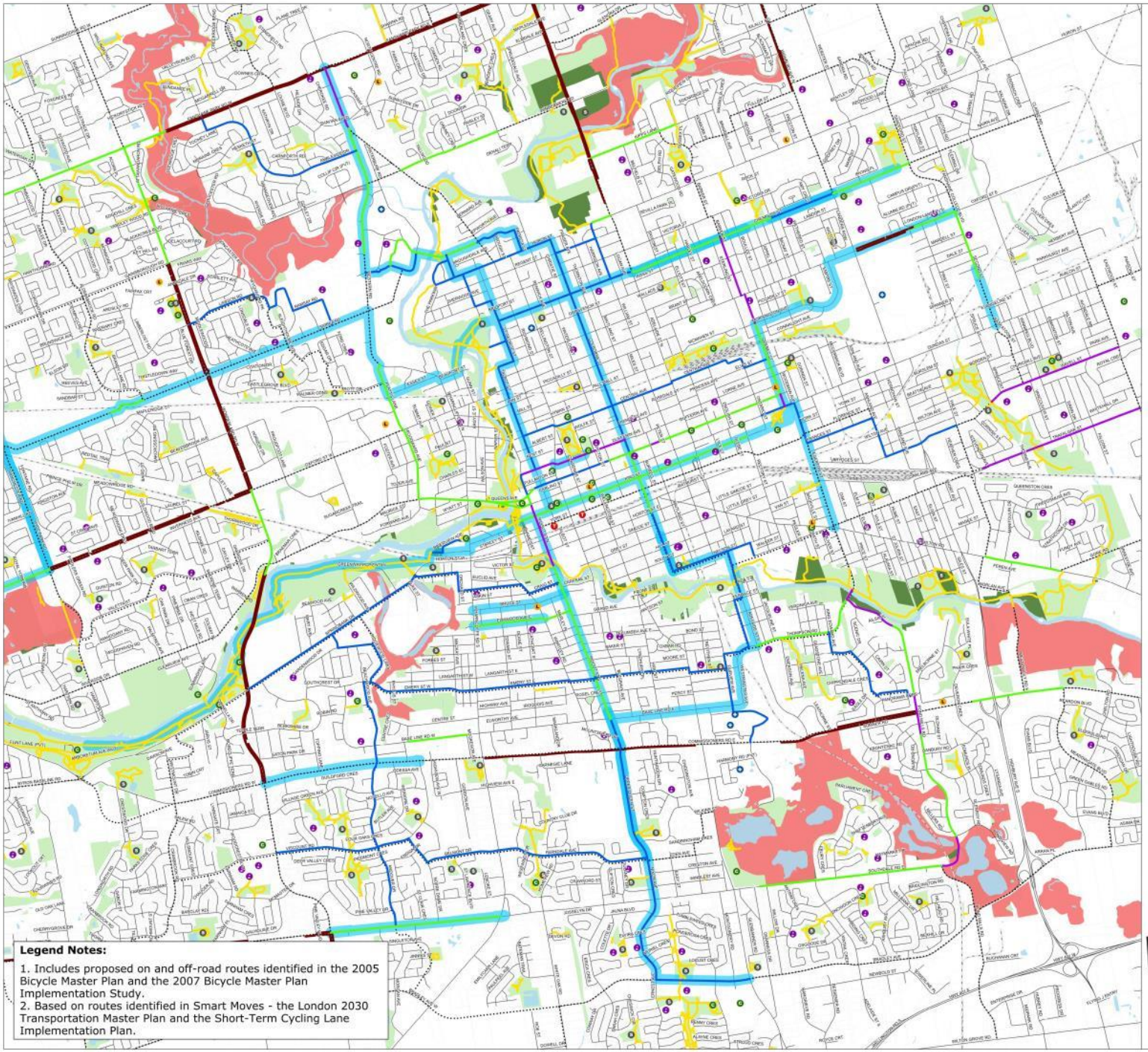
LONDON BIKES

N

0 1 2 4 Kilometres

Legend Notes:

1. Includes proposed on and off-road routes identified in the 2005 Bicycle Master Plan and the 2007 Bicycle Master Plan Implementation Study.
2. Based on routes identified in Smart Moves - the London 2030 Transportation Master Plan and the Short-Term Cycling Lane Implementation Plan.



City of London Cycling Master Plan Update

Draft April 2015

Map 2

Central Area Existing and Previously Proposed Routes

Legend

Existing Cycling Routes
- Bike Lane
- Signed Bike Route
- In-Boulevard Facility
- Signed Bike Route with Sharrow
- Multi Use Pathway

Previously Proposed Routes
- Proposed Route[1]
- Priority Project[2]

Key Destinations
- Community Destination
- Hospital
- Public Library
- School
- Sport Facility
- Transit Hub

Other
- Road Network
- Railway
- Environmentally Sensitive Area
- Park
- Conservation Authority Land
- Parcel Property
- Watercourse

Legend Notes:

1. Includes proposed on and off-road routes identified in the 2005 Bicycle Master Plan and the 2007 Bicycle Master Plan Implementation Study.
2. Based on routes identified in Smart Moves - the London 2030 Transportation Master Plan and the Short-Term Cycling Lane Implementation Plan.

LONDON BIKES

N

0 0.5 1 2 Kilometres

1. Project Status and Overview
2. Cycling Network Development: Input and Process
3. Candidate Routes
4. **Facility Selection**
5. Design Considerations in Road ROW
6. Off-Road Path Design Considerations
7. Next Steps

Facility types within the road right of way

Generally Lower Volume, Lower Speed Less Facility Separation

Generally Higher Volume, Higher Speed Greater Facility Separation

SHARED SPACE


DESIGNATED SPACE



SEPARATED FACILITIES



Off-road pathway facility types

RECREATIONAL PATHWAYS

Off-road, generally multi-use

OTM book 18: facility selection tool

STEP 1:

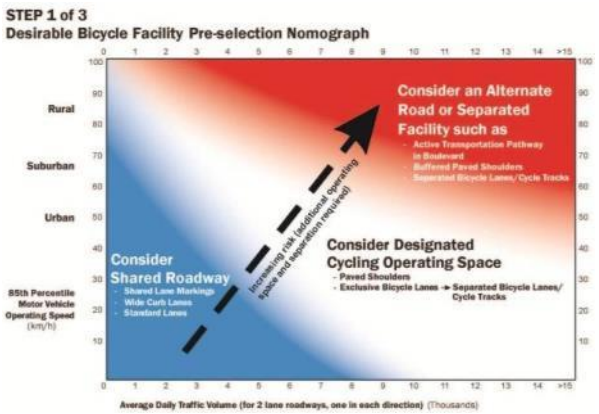
Pre-select facility type using the nomograph (in road ROW)

STEP 2:

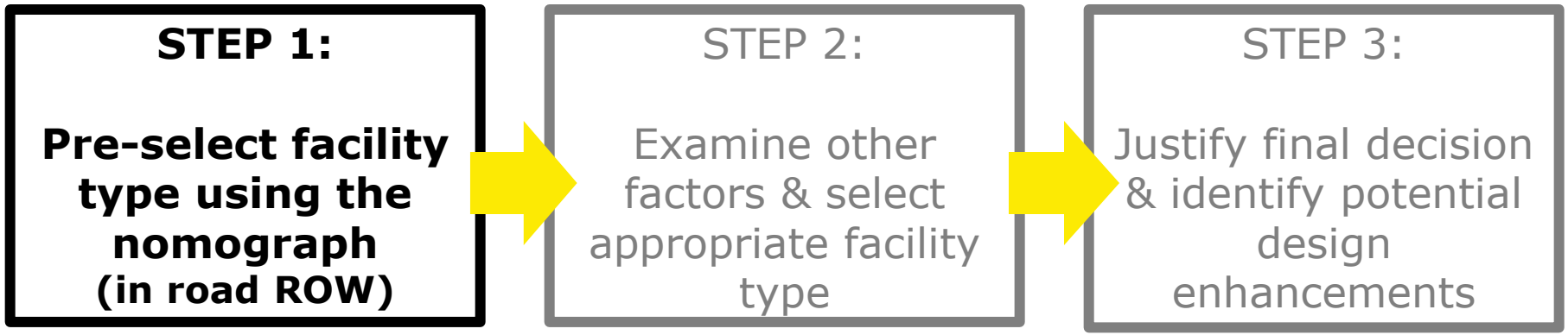
Examine other factors & select appropriate facility type

STEP 3:

Justify final decision & identify potential design enhancements

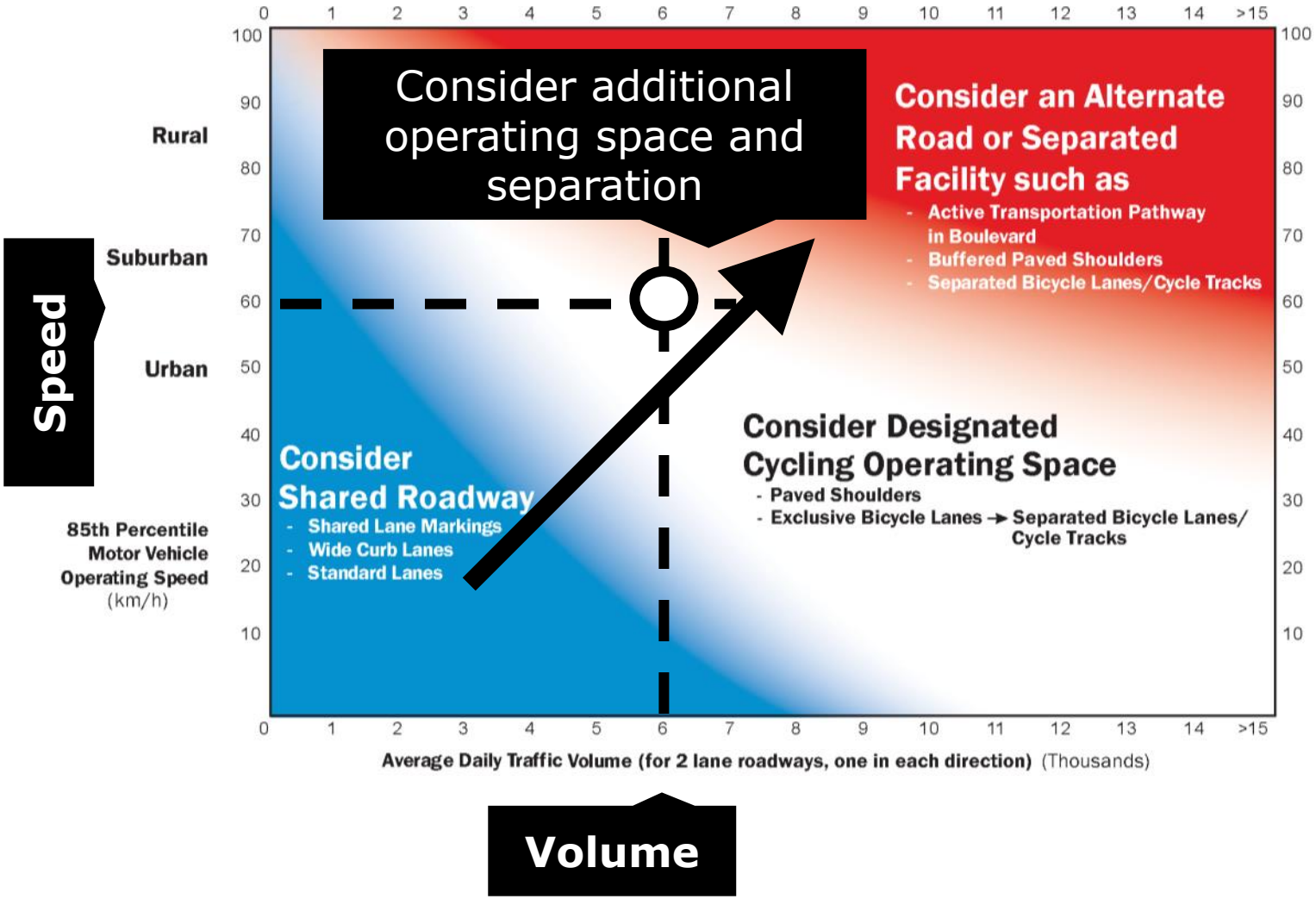


Facility selection tool: step #1

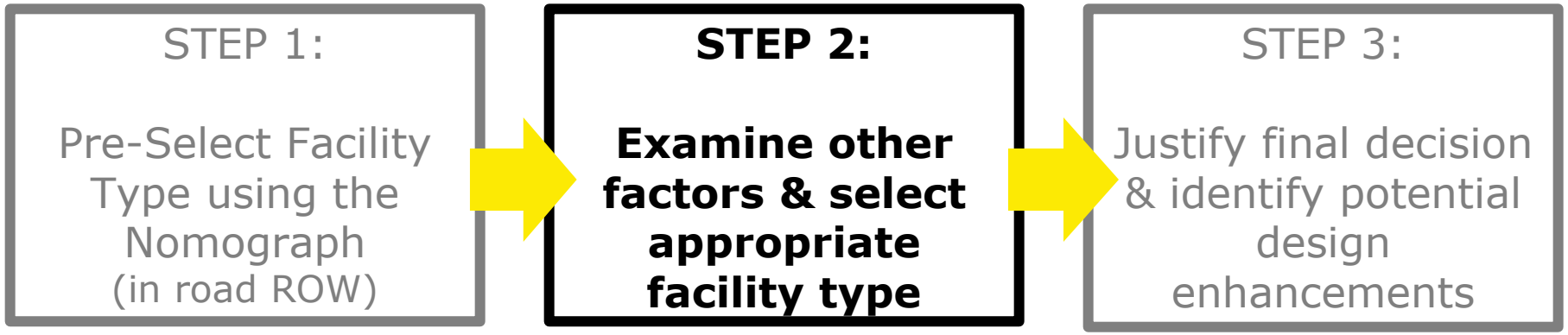


- Collect and review existing and future AADT volumes and 85th percentile motor vehicle operating speeds
- Plot on nomograph
- Identify bicycle facility options in terms of shared space, designated space, or a separated facility

Facility selection tool: step #1



Facility selection tool: step #2



- Inventory site conditions
- Review key design considerations and application heuristics
- Select appropriate and feasible bicycle / pathway facility type

Facility selection too: step #3

STEP 1:

Pre-select facility type using the nomograph (in road ROW)

STEP 2:

Examine other factors & select appropriate facility type

STEP 3:

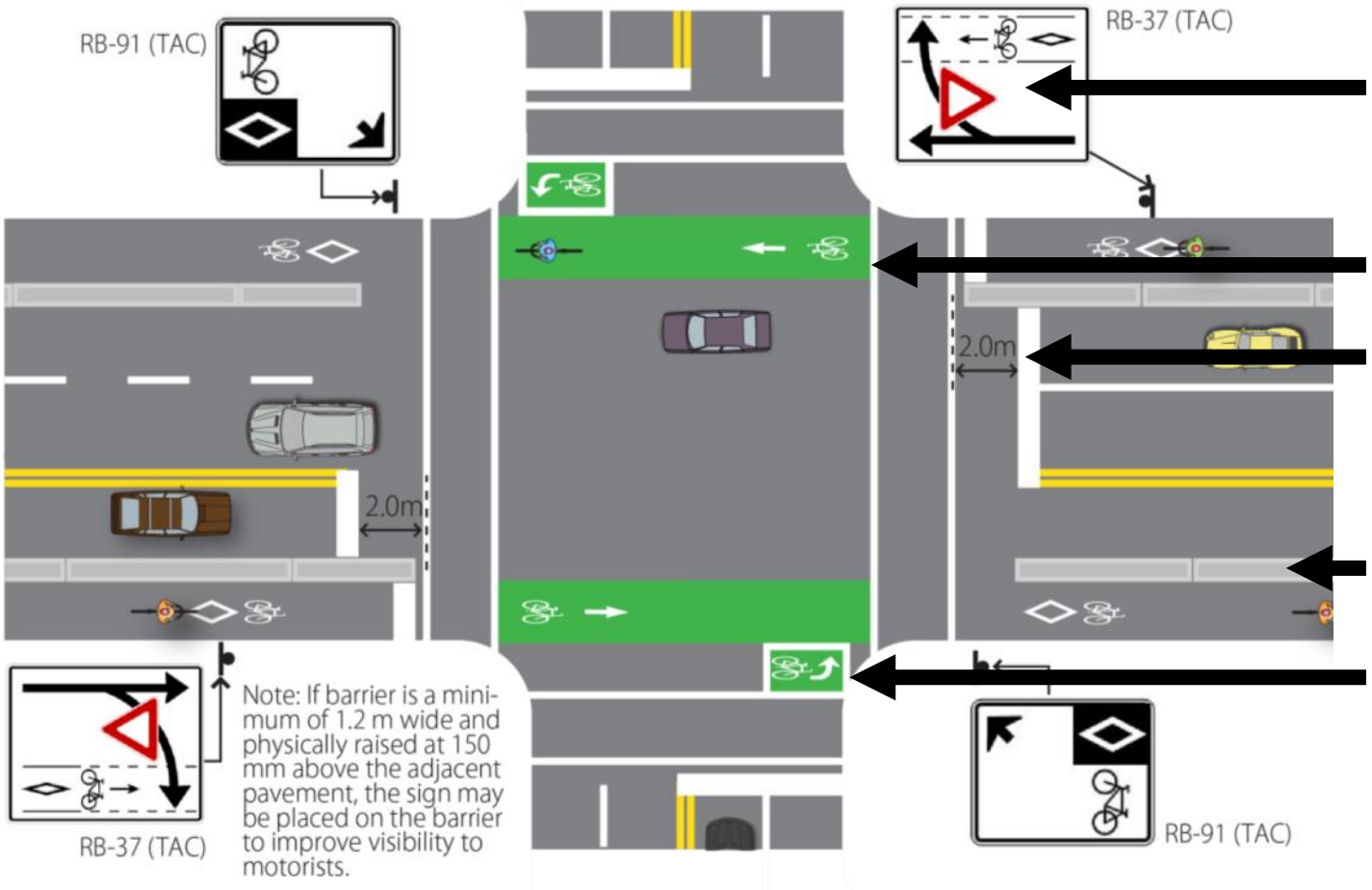
Justify preferred corridors & identify potential design enhancements

Exercise sound planning, design and engineering judgement

- Justify decision and describe changes (if any) between results from Steps 1 and 2
- Identify design enhancements
- Document rationale and principles used to make recommendations

1. Project status and overview
2. Cycling network development: input and process
3. Candidate routes
4. Facility selection
5. **Design considerations in road ROW**
6. Off-road path design considerations
7. Next steps

Enhanced intersection treatment options



Signage reminds turning motorists to yield to cyclists

Green surface treatment

Staggered stop bar to improve visibility of cyclists

Physical / spatial separation

Left turn queue boxes

Enhanced intersection treatment options

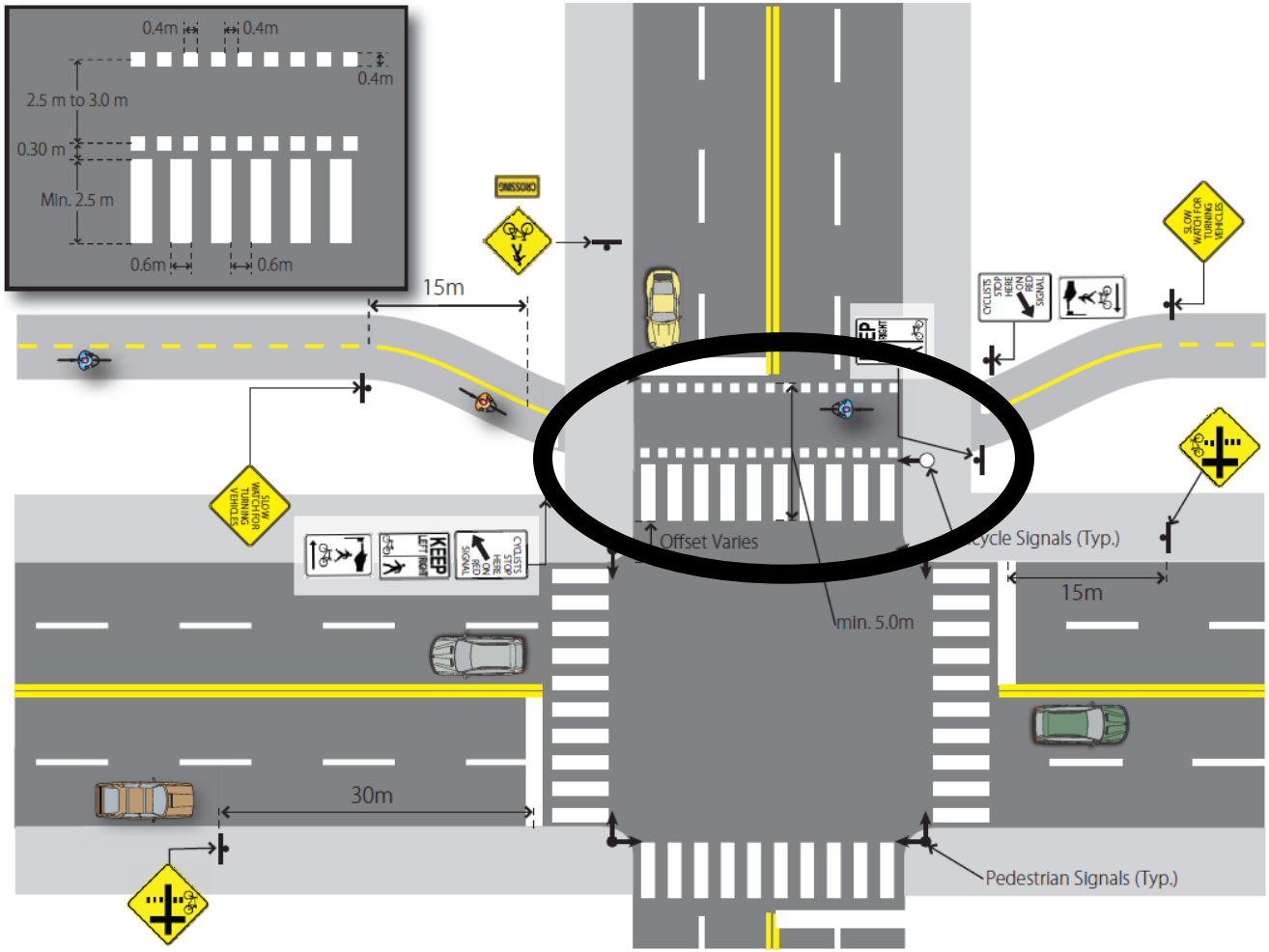
Left turn queue box and intersection pavement markings on the Laurier Bikeway in Ottawa.

Off-set Intersection: Chevrons are used to mark the facility through the intersection.

Intersection treatments

Highway 7 at East Beaver Creek Road features a left turn queue box in the boulevard.

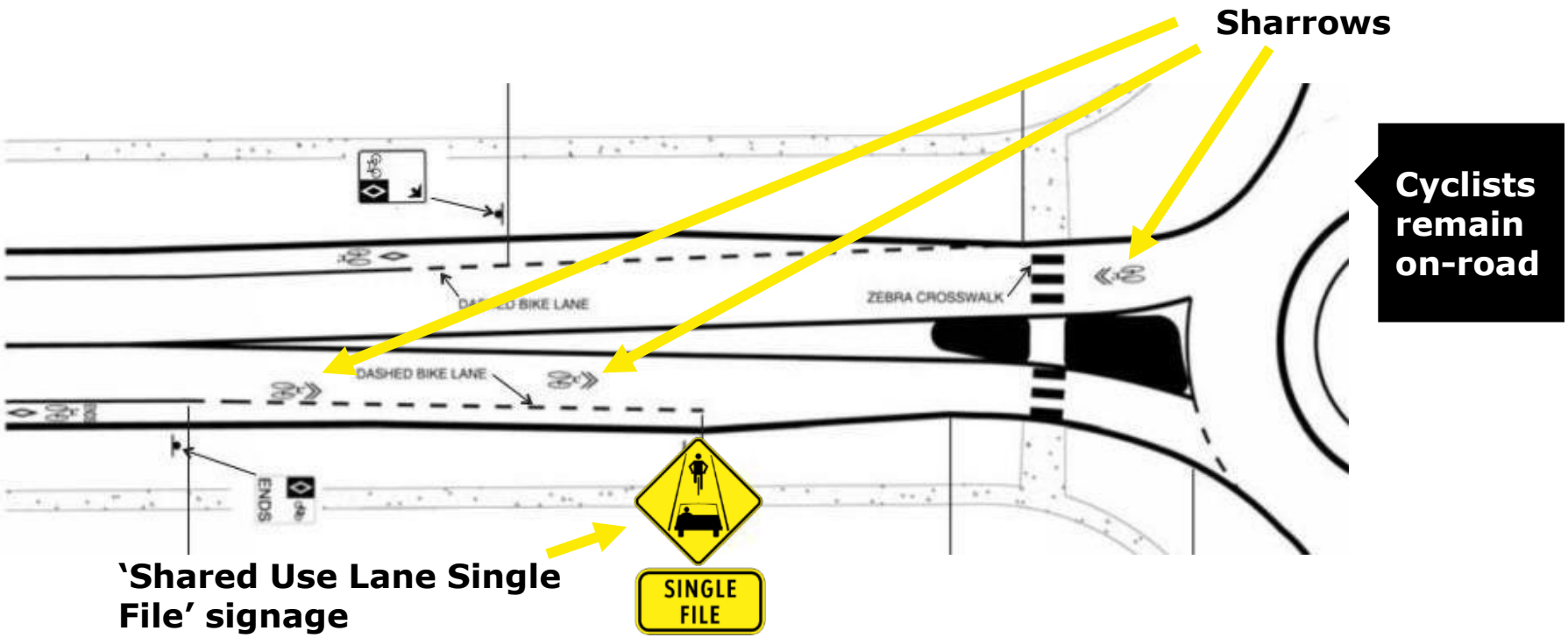
Crossrides



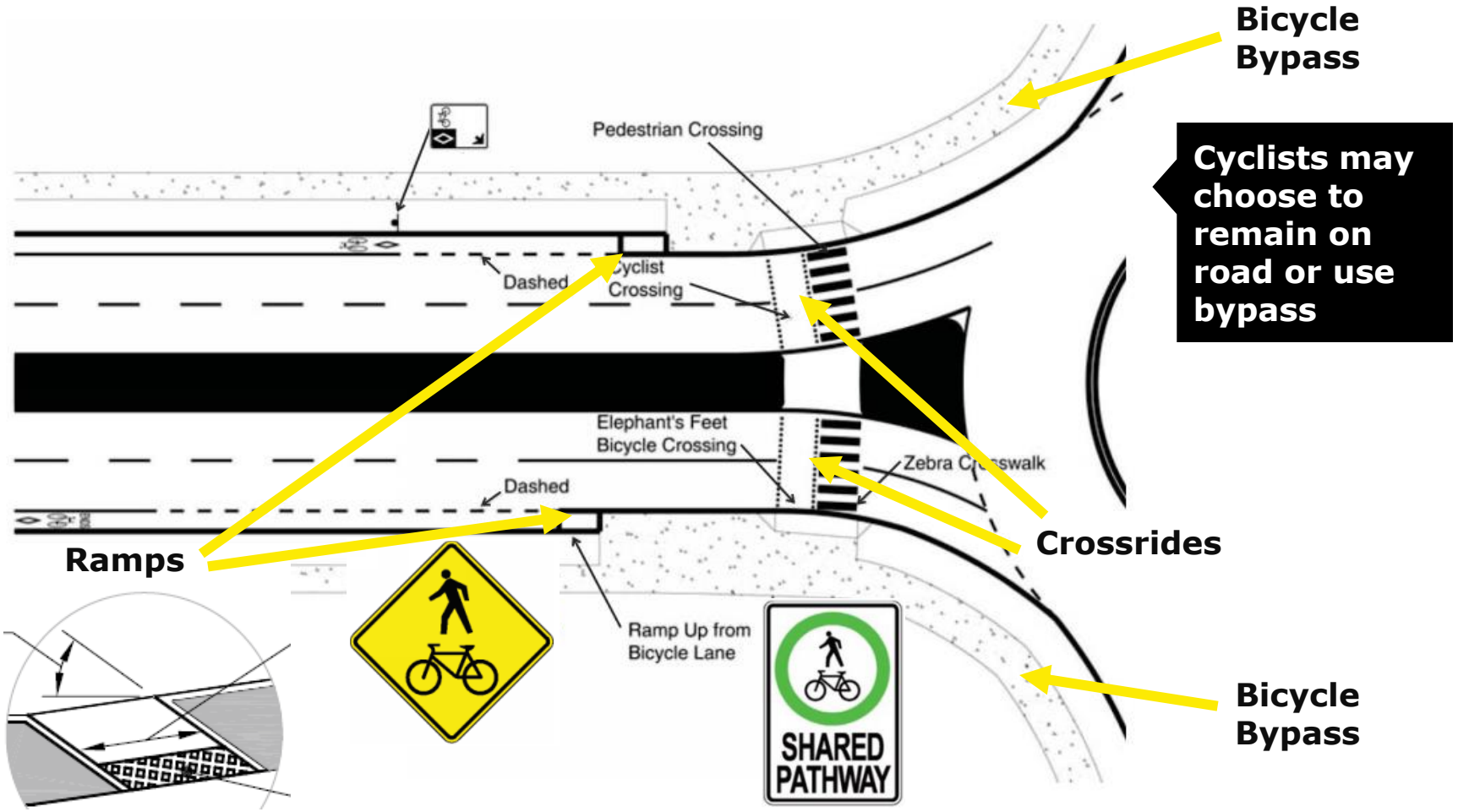
Cyclists can legally cross without dismounting

Roundabouts (single lane)

OTM 18 SECTION

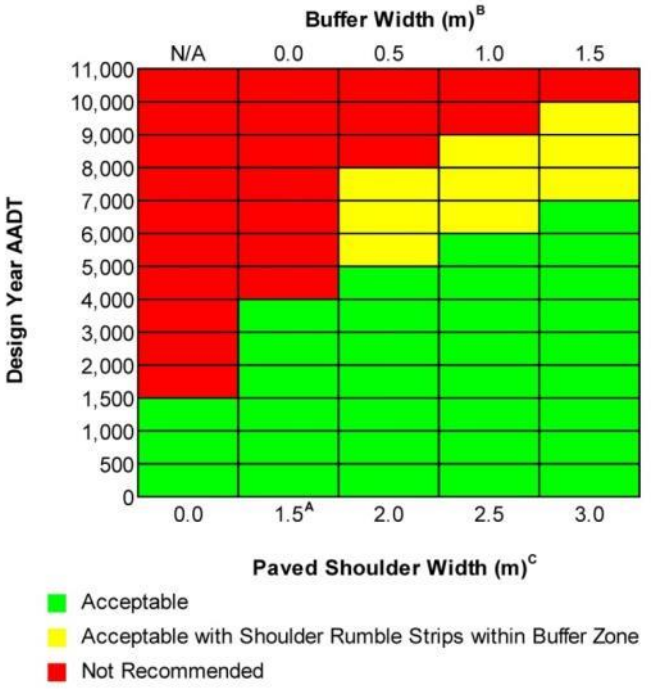


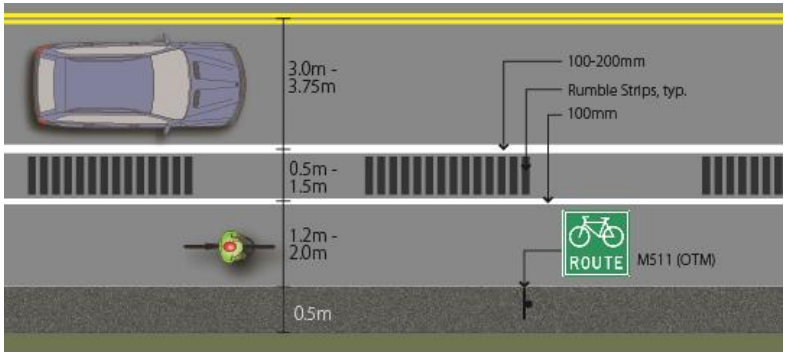
Roundabouts (multi-lane)



Paved shoulders

- MTO Bikeways Design Manual provides guidance on recommended width and buffer
- "Skip pattern" rumble strips allow cyclists to manoeuvre in and out of the paved shoulder when necessary
- Forthcoming HTA amendments will make it legal for cyclists to ride on paved shoulders (except on 400 series highways or where specifically prohibited)



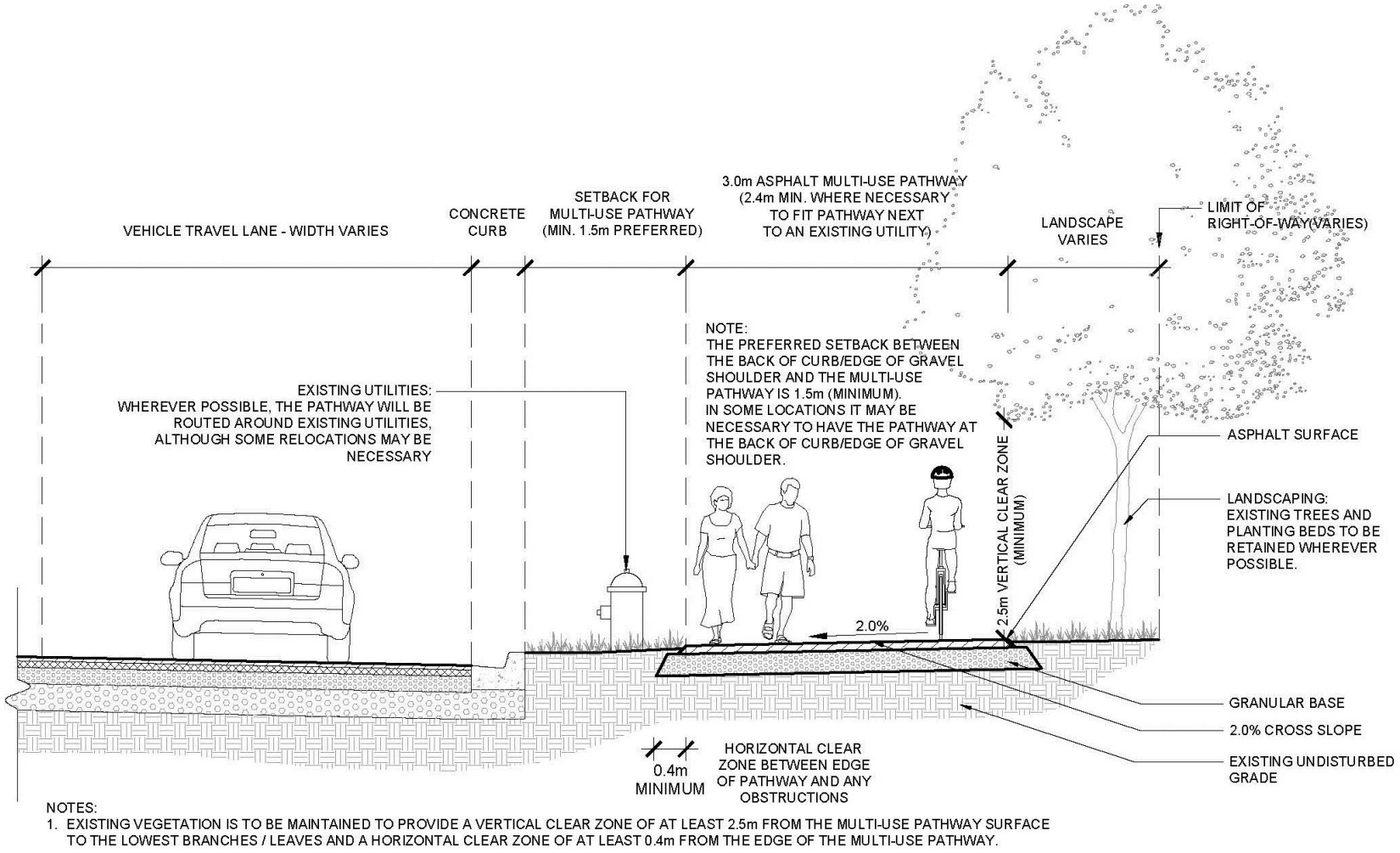


Changes to the Municipal Class Environmental Assessment (MCEA) process

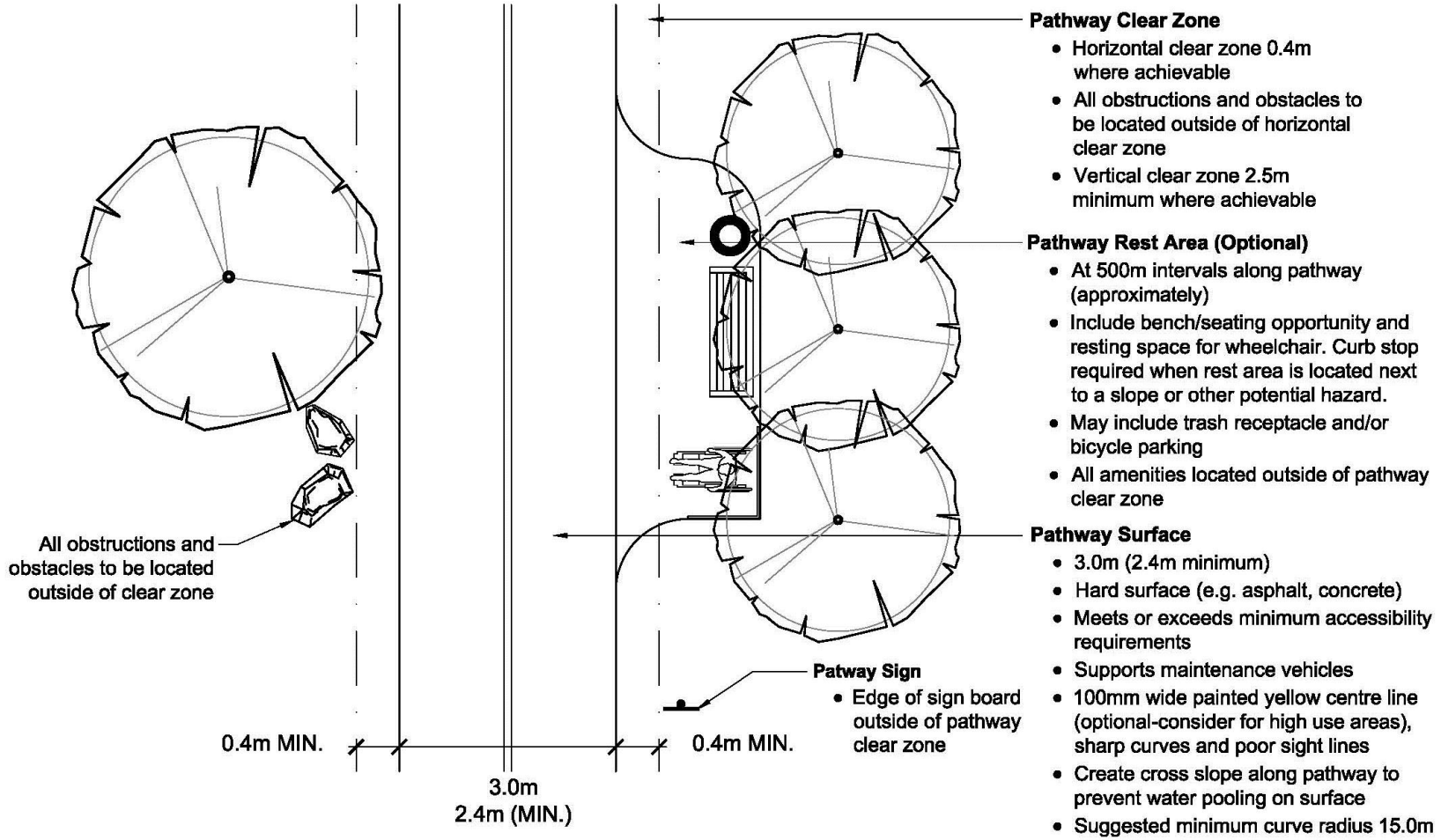
- Changes are expected to be officially adopted by the Ministry of Environment and Climate Change in late May
- Amendments were vetted through a formal consultation process
- Currently many cycling projects such as road diets must undergo an MCEA before they can be implemented
- Once adopted (summer 2015), these amendments will allow projects that only require operational modifications (such as pavement marking changes to implement a road diet) to be pre-approved and not require a Schedule "B" or "C" Class EA process

1. Project status and overview
2. Cycling network development: input and process
3. Candidate routes
4. Facility selection
5. Design considerations in road ROW
6. **Off-road path design considerations**
7. Next steps

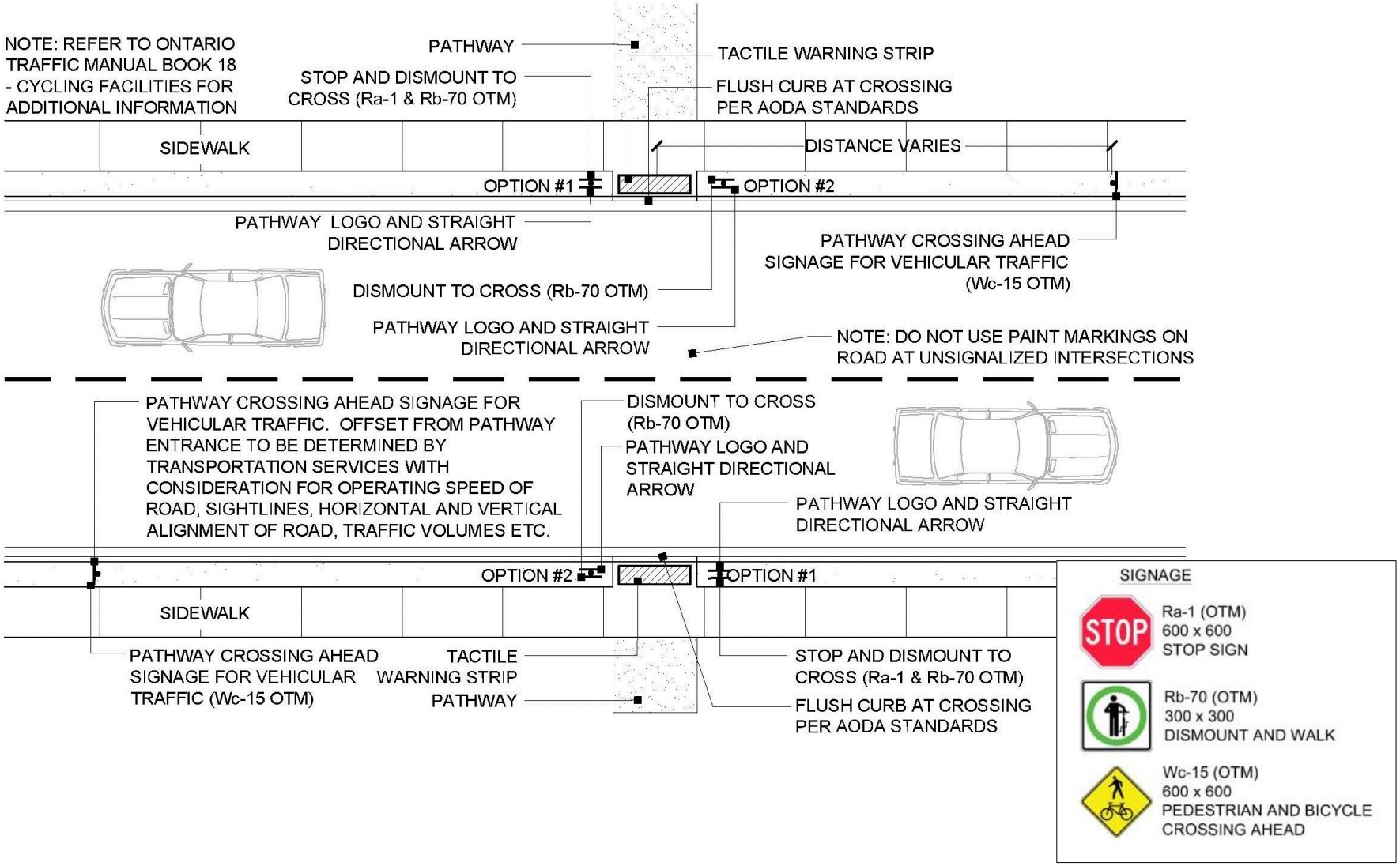
Multi-use pathway within the road right-of-way



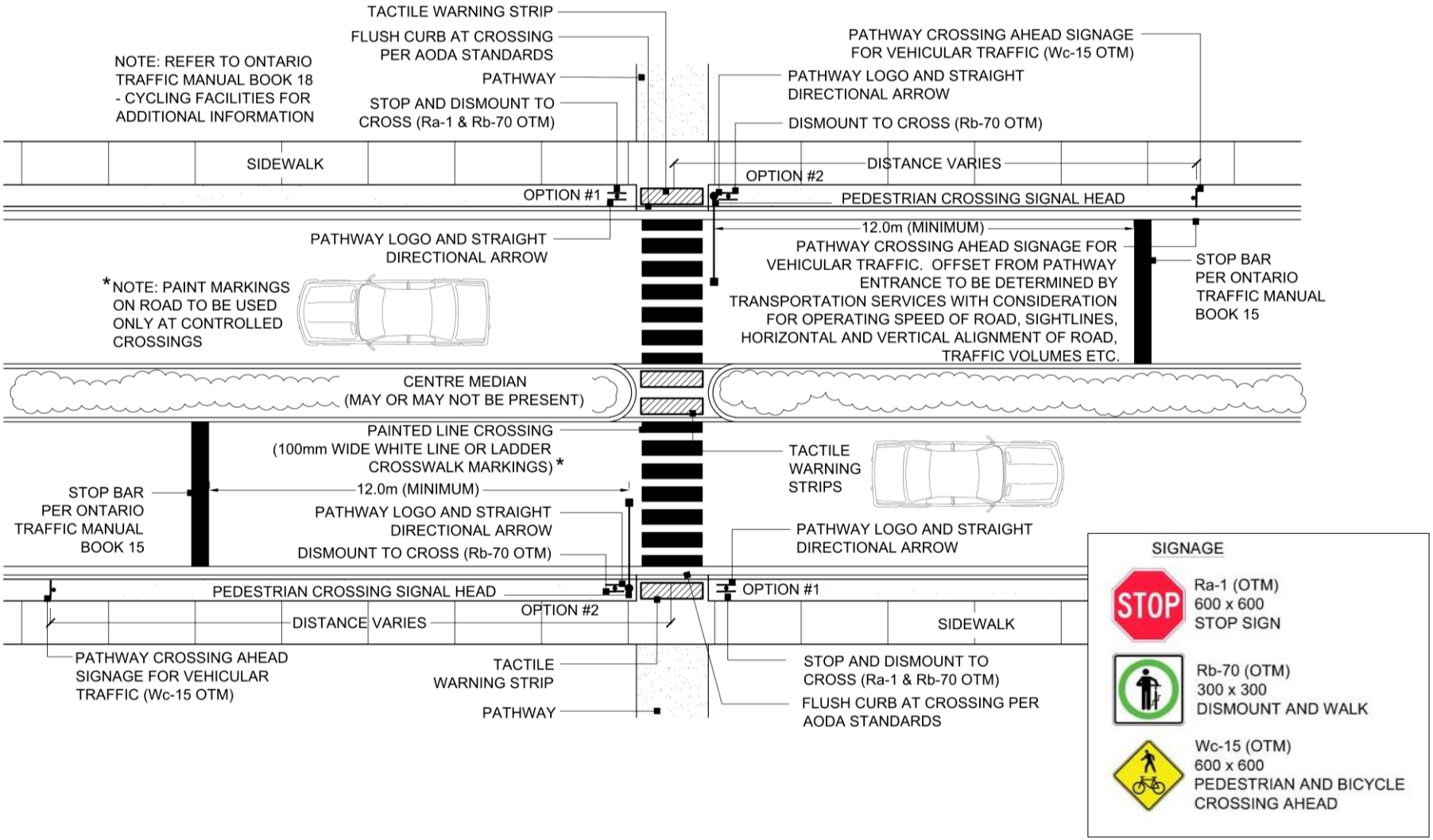
Multi-use pathway outside of a road right-of-way



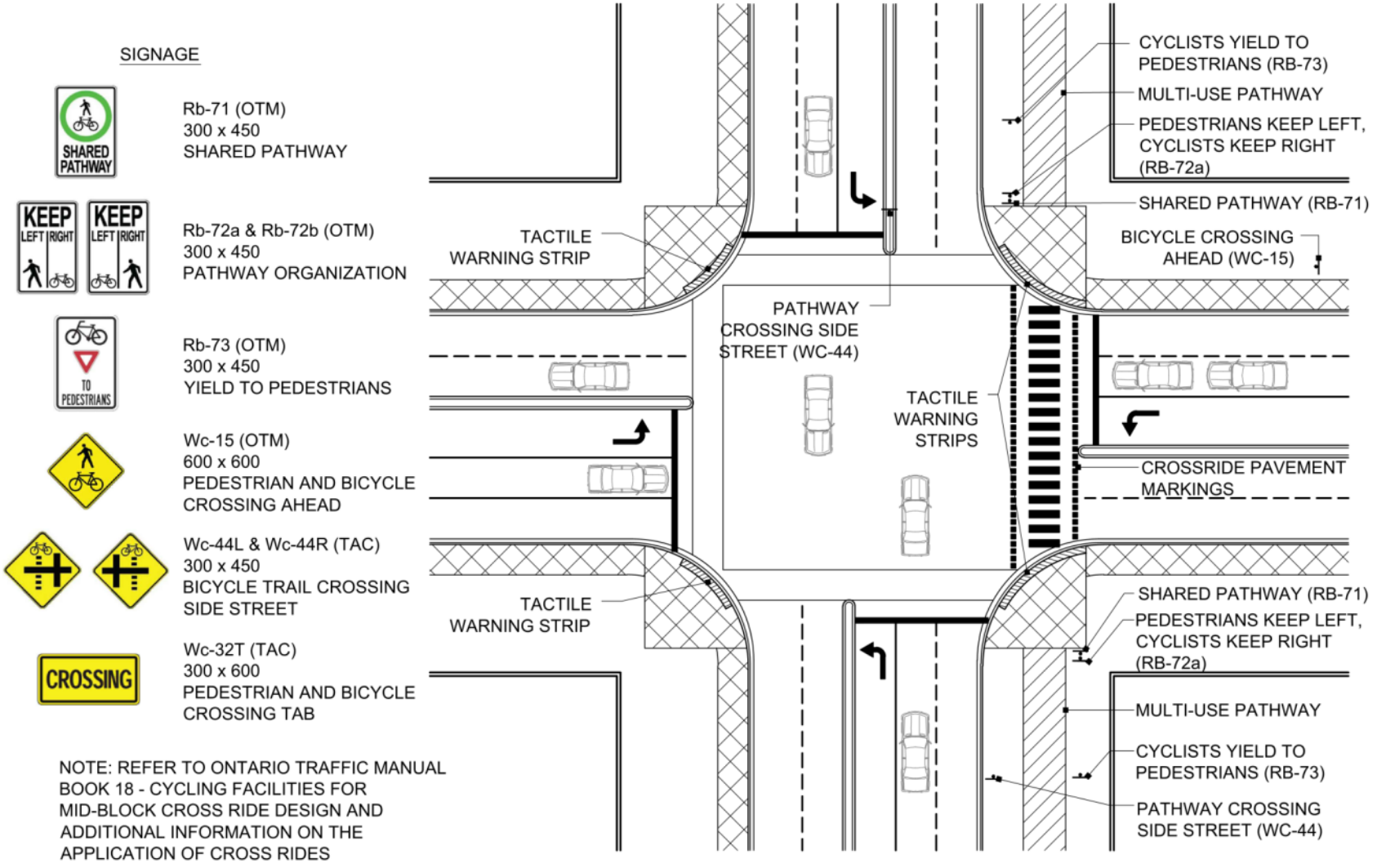
Uncontrolled mid-block pathway crossing



Controlled mid-block pathway crossing



Crossride at a signalized intersection



Pathway design: AODA standards-built environment

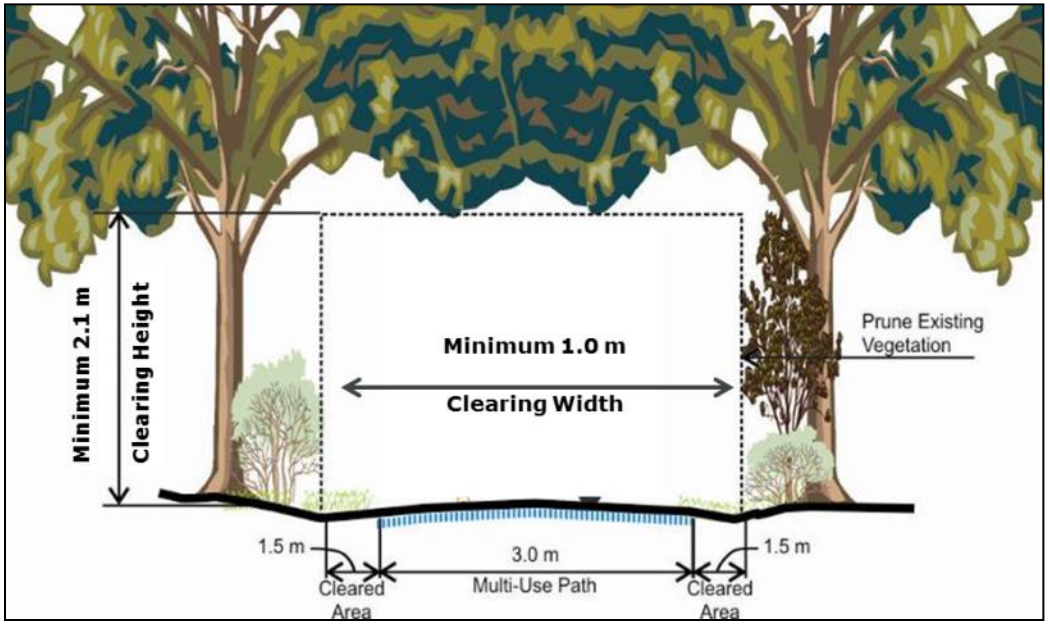
Accessibility for Ontarians with Disabilities Act, 2005, Amending O. Reg. 191/11. Part IV.1 design of Public Spaces Standards (Accessibility Standards for the Built Environment)

Definition of recreational pathway:

- Accommodates cyclists and pedestrians
- Intended for recreational and leisure uses

Technical requirement for recreational pathways:

- Minimum pathway clear width of 1.0 m
- Minimum pathway head room clearance of 2.1 m



Pathway design: AODA standards-built environment

Accessibility for Ontarians with Disabilities Act, 2005, Amending O. Reg. 191/11. Part IV.1 design of Public Spaces Standards (Accessibility Standards for the Built Environment)

Surface:

- Firm and stable surface
- Resists permanent indentation
- Concrete and Asphalt
- Wood (e.g. boardwalk)
- Granular Surfaces
- Packed Earth and Soil Cement
- Wood chips

Opening in the surface:

- Does not allow passage of an object greater than 20 mm in diameter
- Oriented perpendicular to the path of travel
- Edge protection when next to water or a drop off

Pathway design: AODA standards-built environment

Accessibility for Ontarians with Disabilities Act, 2005, Amending O. Reg. 191/11. Part IV.1 design of Public Spaces Standards (Accessibility Standards for the Built Environment)

Entrances

- Where gates, bollards or some other form of pathway entrance is used
- Opening between 850 mm and 1000 mm to allow passage for mobility devices

1. Project status and overview
2. Cycling network development: input and process
3. Candidate routes
4. Facility selection
5. Design considerations in road ROW
6. Off-road path design considerations
7. **Next steps**

Next Steps

- **Complete Phase 1:**
  - Develop Progress Report #1

- **Initiate Phase 2:**
  - Complete policy review and infrastructure review
  - Field investigate candidate routes and assess
  - Prepare mapping of potential candidate routes to be investigated in the field
  - Consult with Stakeholders and the Public
  - Develop Progress Report #2