WORKSHOP

ACTIVE TRANSPORTATION MASTER PLAN

Development Services Committee
November 8, 2021

WORKSHOP AGENDA

1. Workshop Purpose and Recommended Outcomes
2. Next steps after Council endorsement of the ATMP
3. Critical Importance of Active Transportation and need for an ATMP

Break for Questions and Discussion

1. Identification and selection of Active Transportation Facilities
2. Implementation process for individual projects

Break for Questions and Discussion

1. Draft ATMP recommendations
2. Financial implications and sustainability
3. Questions and Discussion

Workshop Purpose and Recommended Outcomes

Purpose

1. That the Active Transportation Staff Presentation be received to encourage questions, open dialogue and discussion.

Recommended Outcomes

1. That the Active Transportation Master Plan be endorsed in princple; and
2. That implementation funding of the Active Transportation Master Plan be assessed and included as part of the current Development Charges Bylaw update as appropriate.

Next Steps

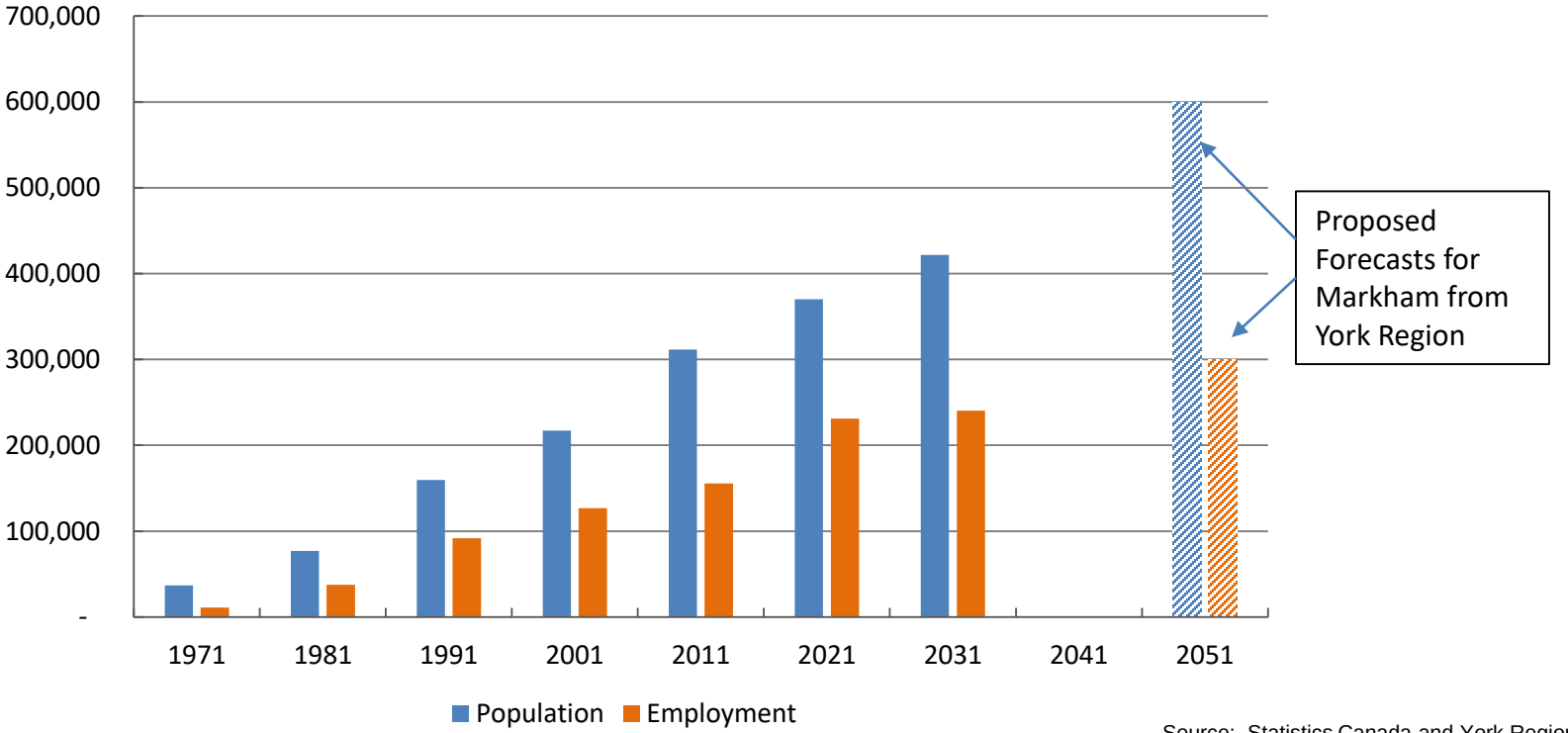
Staff report to DSC (Q1/Q2 2022) on implementation & prioritization process for 10-year plan:

- Define project prioritization process
- Identify the draft short term projects within 10-year plan
- Identify first (5-year) project priorities
- Identify the capital and operating costs
- Identify funding sources for first 5-year projects
- Identify options to address any funding shortfall
- Identify resources required for implementation

PART 1:
Critical Importance of Active Transportation and Need for Active Transportation Master Plan

Critical Importance of Active Transportation

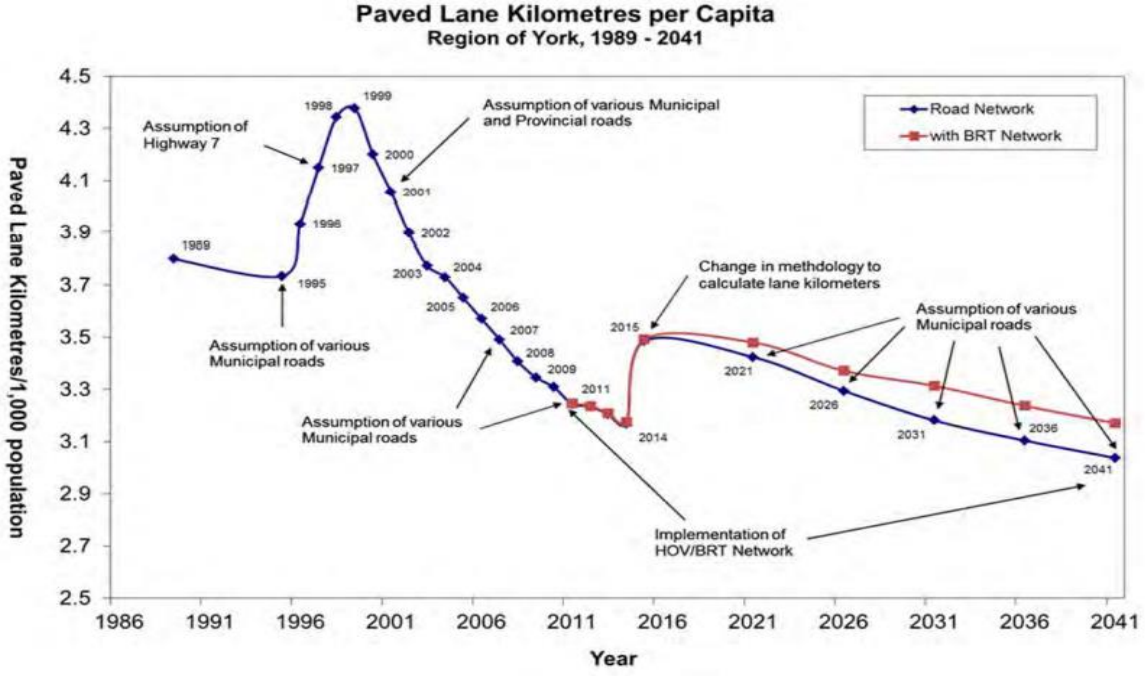
Population and Employment Growth



Source: Statistics Canada and York Region

Critical Importance of Active Transportation

Roads - York Region's Historical Level of Service

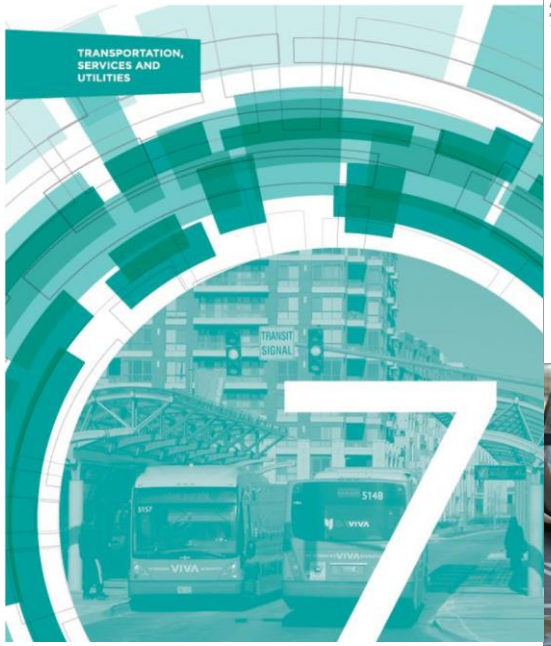


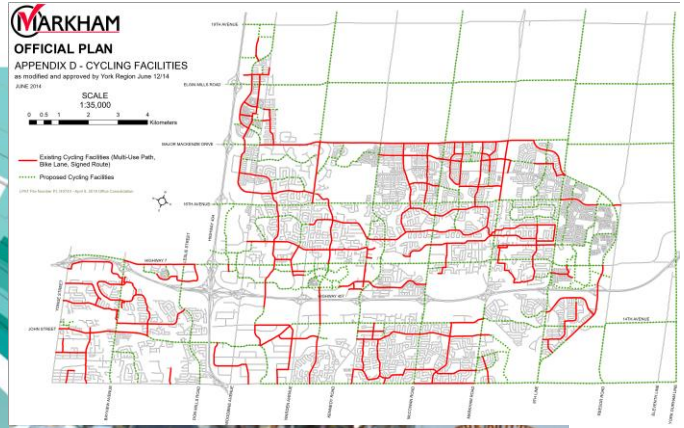
- Downward trend in per capita road capacity not unusual or unique
- Typical organic change for other modes of transport such as transit and active transportation
- Necessary change to meet the needs of growing urban regions

Source: York Region's 2018 Development Charge Background Study, May 10, 2018

Critical Importance of Active Transportation

City of Markham Official Plan Policies





Markham Official Plan Policy

7.1.4

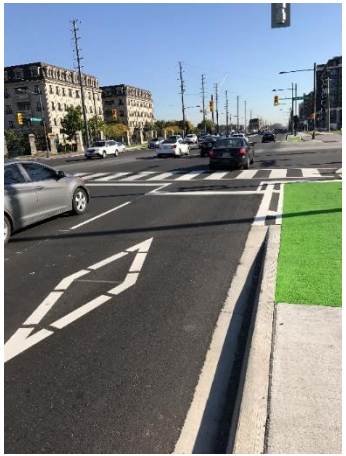
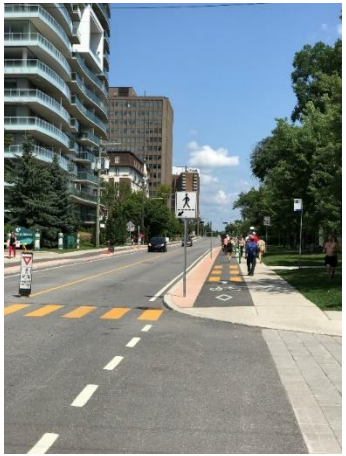
...e) promoting a safe and comprehensive network of signed bike routes, bike lanes, cycling trails and multi-use paths for cyclists of all ages and abilities generally as identified in Appendix D – Cycling Facilities based on the Markham and York Region Cycling Master Plans;

f) implementing segregated bicycle lanes and/or off-road bicycle paths along arterial roads and major and minor collector roads where cycling safety is a foremost concern

Critical Importance of Active Transportation

Markham's Transportation Strategic Plan

- Selective road capacity enhancements;
- Increased and enhanced transit services;
- Transit-supportive development;
- Transportation demand management (TDM); and
- Active transportation.


Critical Importance of Active Transportation

Building Markham's Future Together Strategic Plan

BMFT Strategic Plan

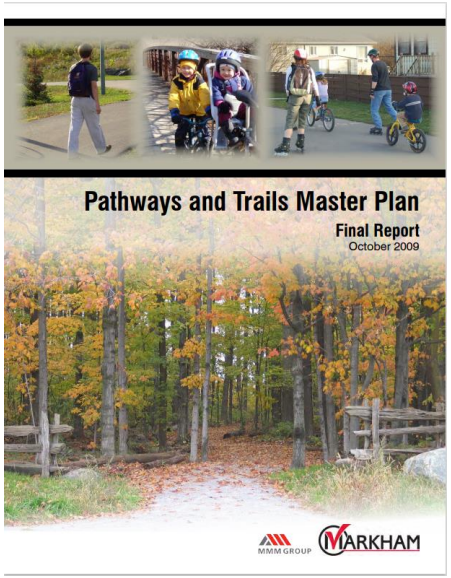
Goal #3 -Safe, Sustainable & Complete Community

Strategic Action 3.1.5 - Implement an Active Transportation Master Plan, and first and last mile solutions (biking, walking and transit)".

The need for Active Transportation Master Plan

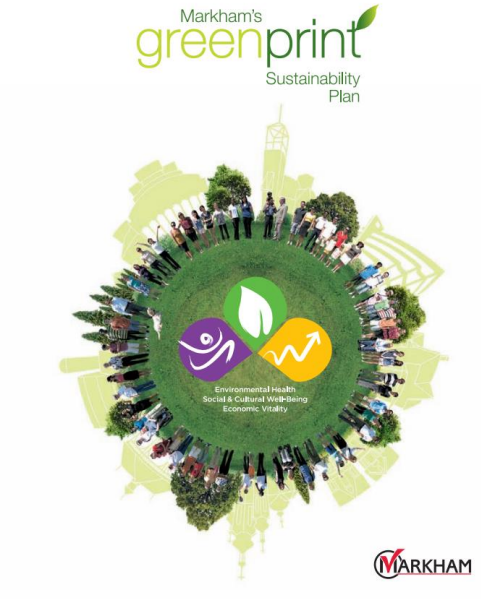
Consolidating and Updating Old Plans

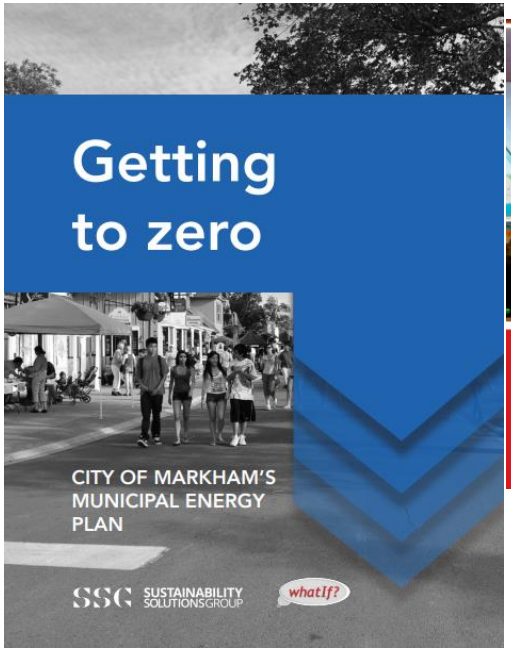
- 2009 Pathways and Trails MP
- 2010 Cycling MP



The need for Active Transportation Master Plan

Support Other City Strategic Plans





Markham's Active Transportation Master Plan

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Key Study Themes

- Pursue Pedestrian Network Improvements
- Connect & Enhance the Cycling Network
- Encourage & Engage our Community
- Evolve Design & Maintenance for Active Transportation Facilities

PART 2:
Active Transportation Facility Types and Selection Process

Active Transportation Facility Types (Pedestrian)

Sidewalks

Active Transportation Facility Types (Cycling)

Designated Bike Lanes

Buffered Bike Lanes

Protected Bike Lanes

Active Transportation Facility Types (Cycling)

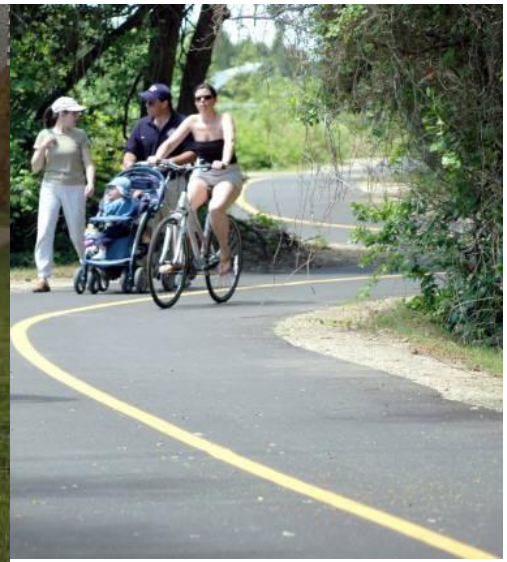
Cycle Tracks

Active Transportation Facility Types (Cycling)

Multi-Use Paths (MUP)

Active Transportation Facility Types (Cycling)

Off-road (Multi-use) Trails - MUTs



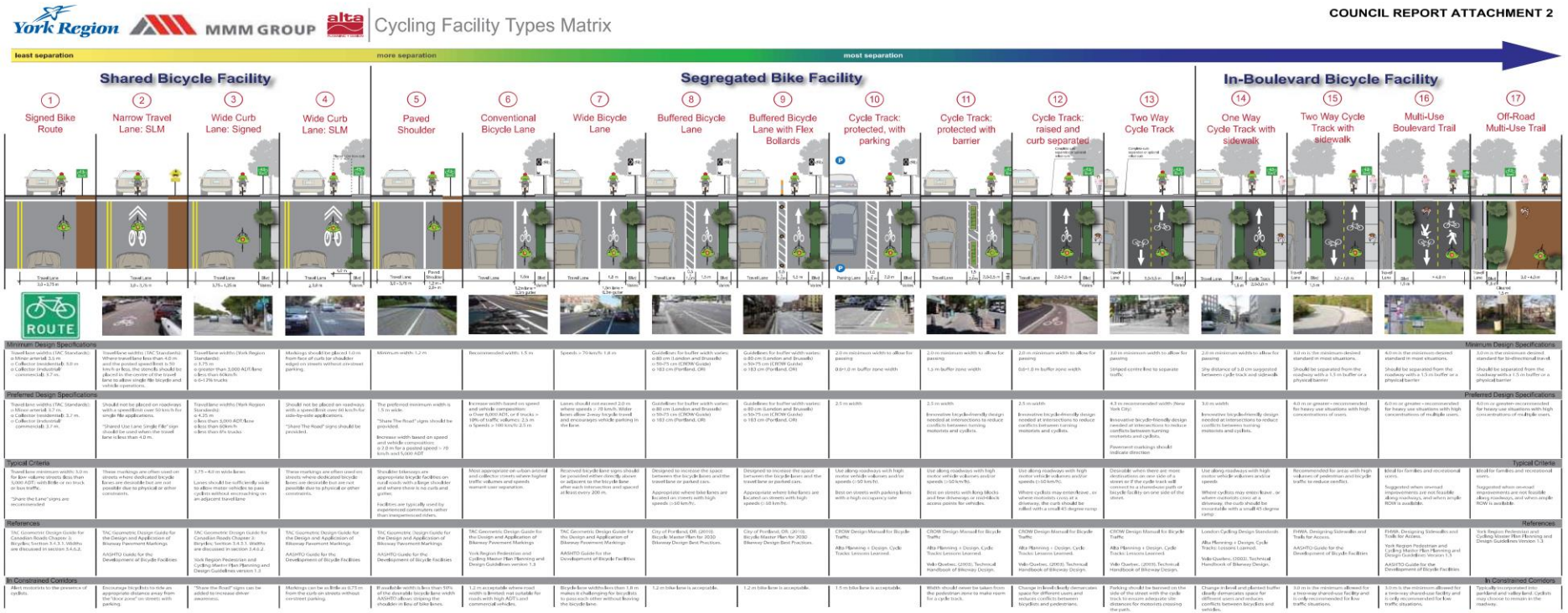
AT Facility Selection Process

	Shared Roadway	Neighbourhood Bikeway	Rural Paved Shoulder	Advisory Bicycle Lane	Bicycle Lane	Buffered Bicycle Lane	Separated Bicycle Lane	Cycle Track	Multi-Use Path
Motor vehicle speed									
30 km/h or less	✓	✓	?	?					
40 km/h	?	?	?	✓	✓	✓	✓	✓	✓
50 km/h			?	✓	✓	✓	✓	✓	✓
60 km/h			?			?	✓	✓	✓
70 to 90 km/h			?					✓	✓
Over 90 km/h								✓	✓
Motor vehicle volumes									
<1,500 vehicles/day	✓	✓	?	?	?	?			
1,500 to 3,000 vpd	?	?	?	✓	✓	✓	✓	✓	✓
3,000 to 6,000 vpd			?	?	?	?	✓	✓	✓
6,000 to 10,000 vpd			?				✓	✓	✓
>10,000 vpd							?	✓	✓

Selecting a Cycling Facility

- Context-dependent and relies on practitioner knowledge and experience
  - Not a simple "yes" or "no"
- Design criteria and thresholds need to be flexible & accommodate site characteristics and must balance:
  - land use
  - traffic volumes and speed
  - right-of-way availability
  - facility cost
  - value of safety improvements

Selection Process- Context Dependent

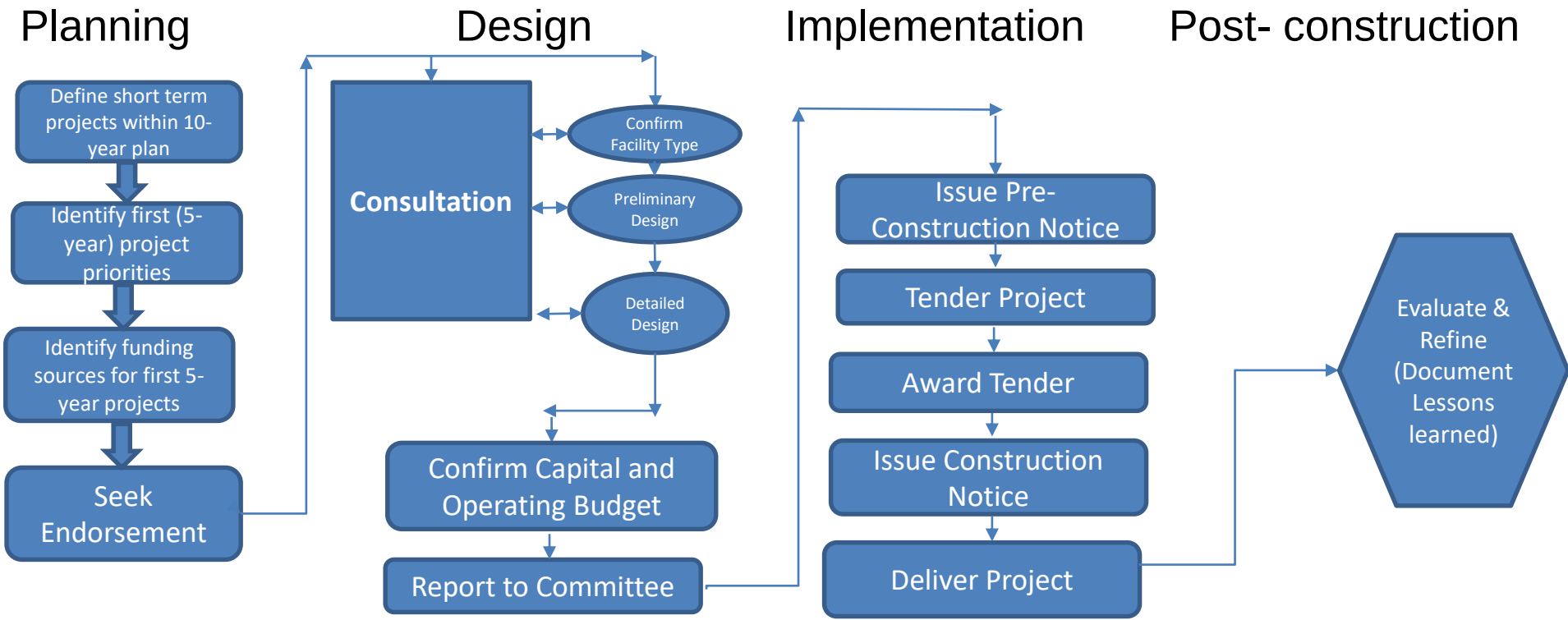


Source: Report No. 6 of the Transportation Services Committee Regional Council Meeting of June 23, 2011

Implementation Process for AT Projects

1. AT project identified from 10-year Capital Plan
2. Preliminary facility type identified through Selection Process
3. Public/community consultation
4. Committee and Council report and approval
5. Budget approval for detailed design
6. Construction budget approval
7. Construction timelines

Implementation Process for AT Projects



PART 3:
ATMP recommendations and Financial implication

Active Transportation Master Plan

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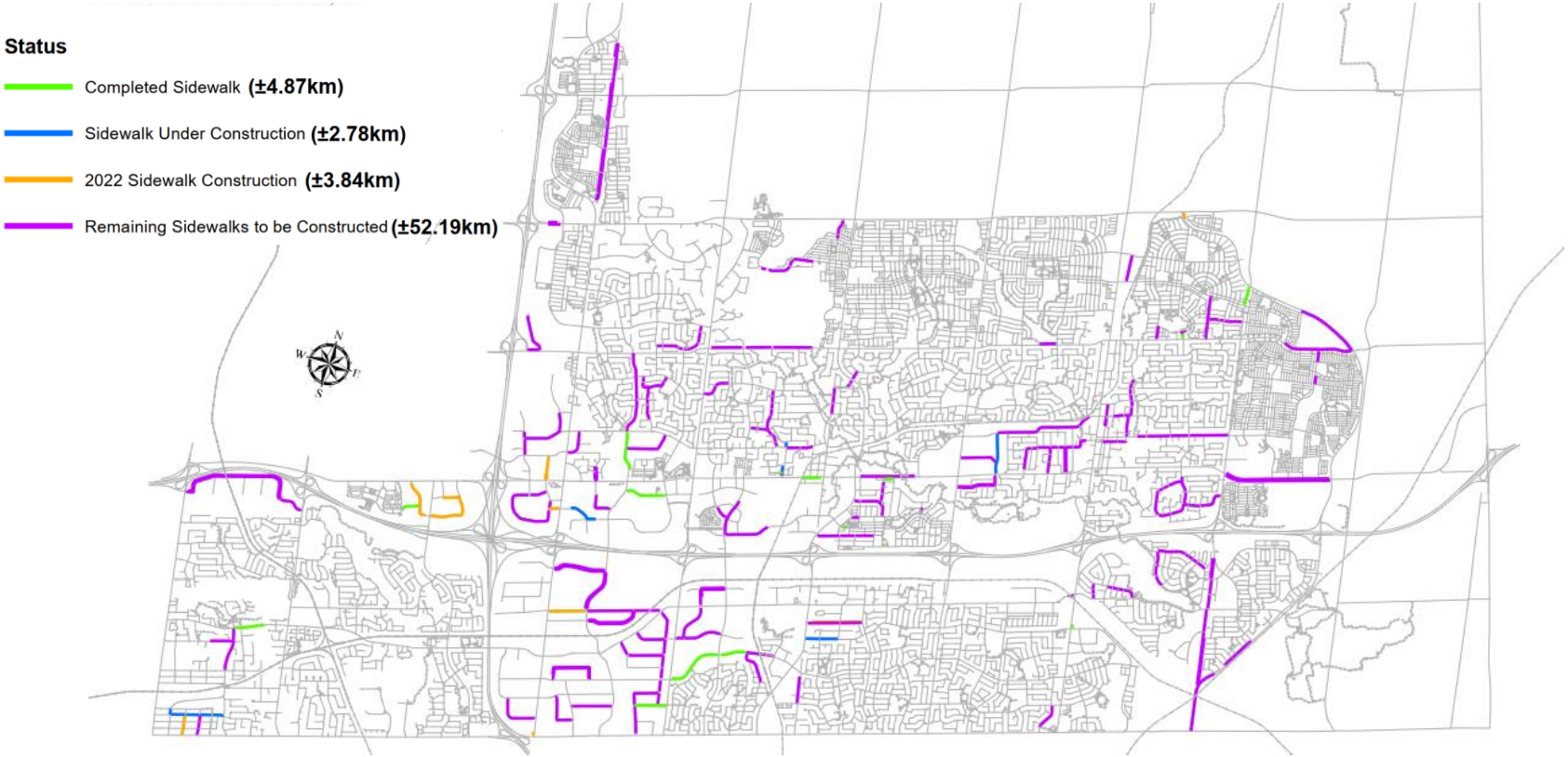
Recommendations

- Pursue Pedestrian Network Improvements
- Connect & Enhance the Cycling Network
- Encourage & Engage our Community
- Evolve Design & Maintenance for Active Transportation Facilities

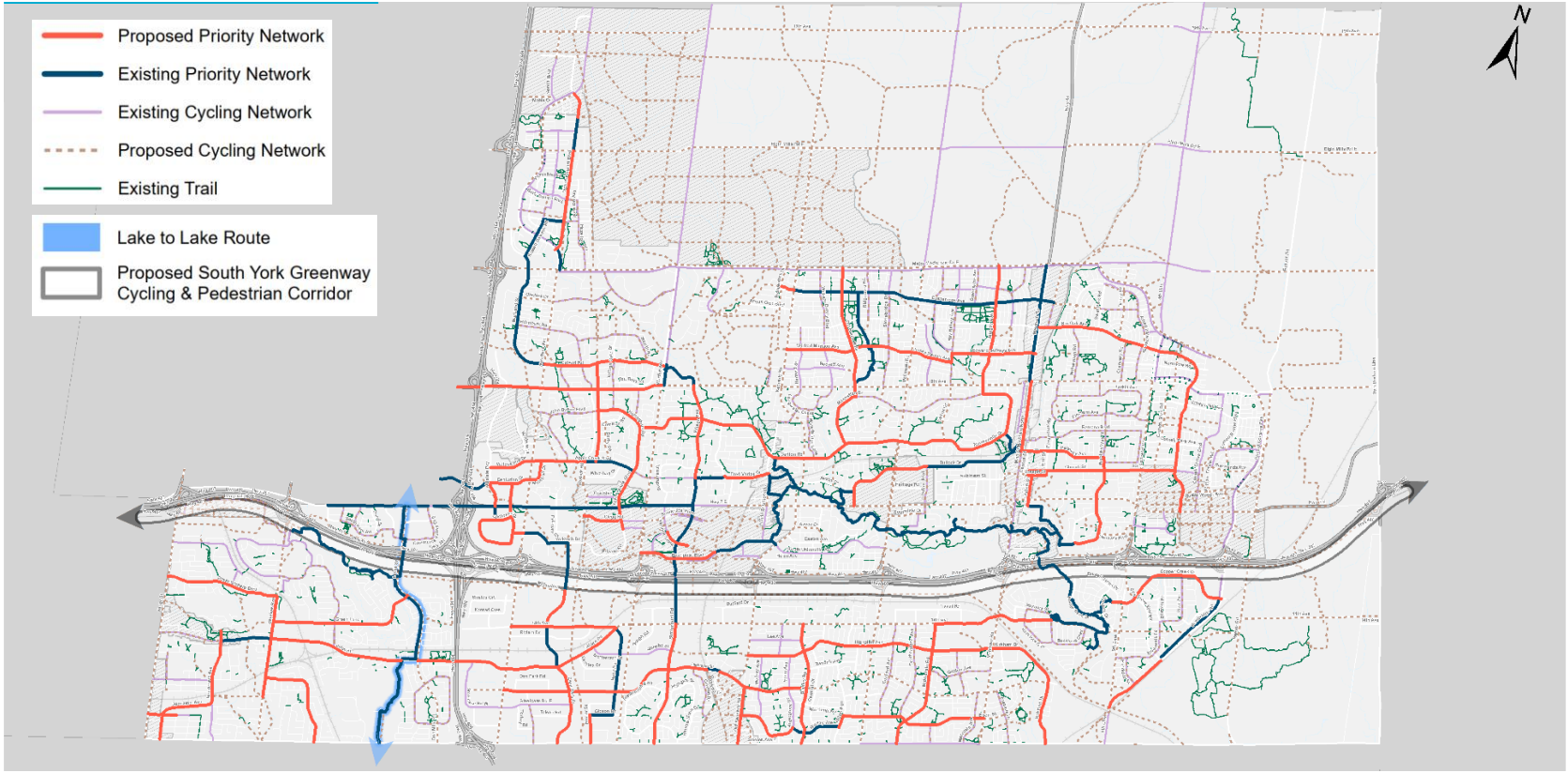
ATMP Network Recommendations

- Infrastructure network plans
  - Sidewalk Network Completion Program
  - 10-year cycling & trails network plan
  - Ultimate cycling & trails network plan
- Supporting programs and initiatives
  - Existing, enhancements and new
  - Covers safety public information and communications

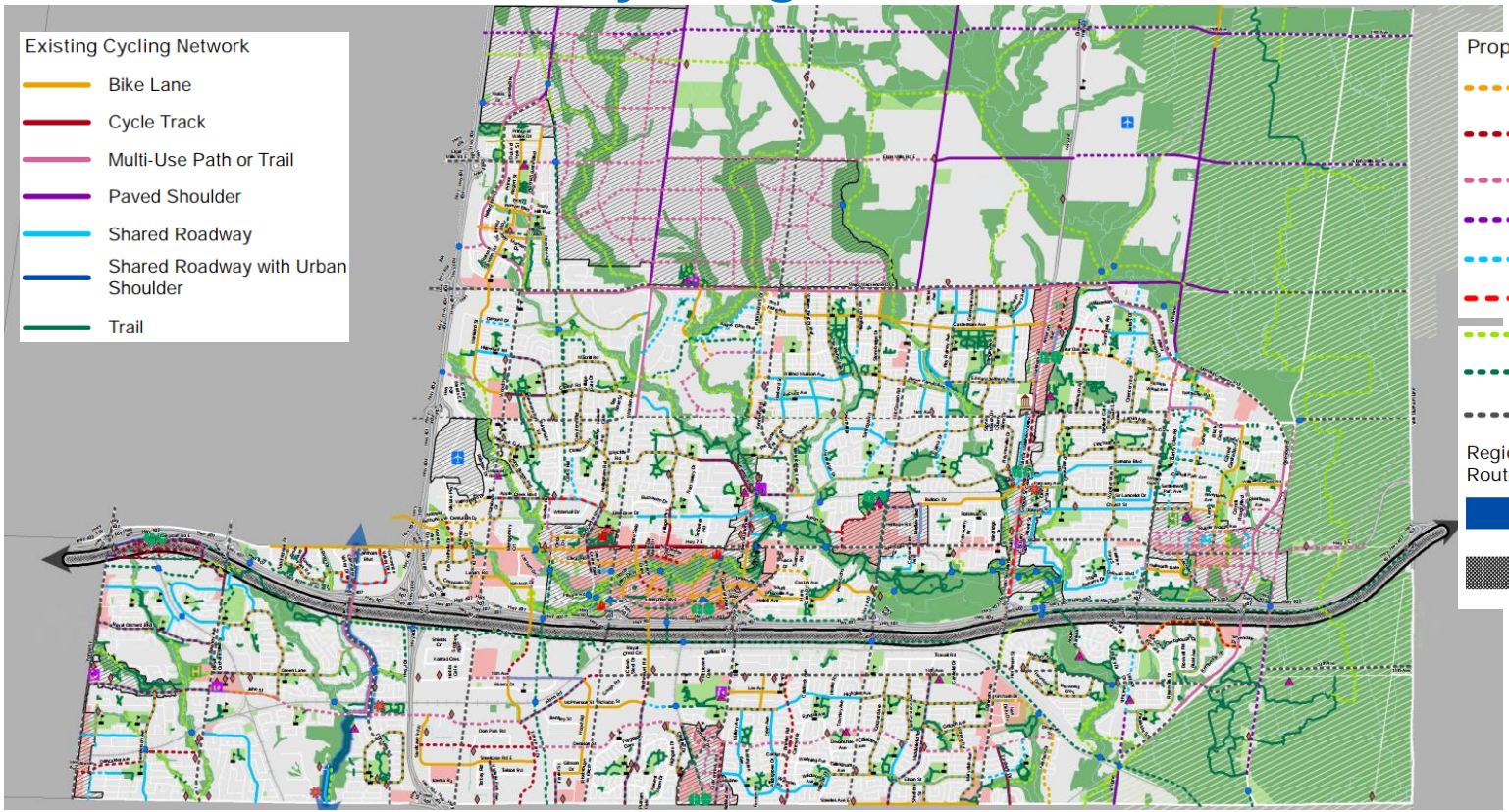
Sidewalk Network Completion Program



Short-Term Cycling & Trails Network Plan



Ultimate Cycling & Trails Network Plan



ATMP Network Recommendations

	Existing (km)	Short-Term (10 yrs) (km)	Long-Term (beyond 25 yrs) (km)	Ultimate (km)
Shared Roadways	66.1	45	6.8	117.9
Multi-use Paths	31.1	20.5	58.8	110.4
Bike lanes & Buffered Bike Lanes	49.4	93.7	5.7	148.8
Cycle Tracks & Protected Bike Lanes	2.4	24.3	120.3	147.0
Off-road Trails	16.8	31.5	135.9	184.2
TOTAL	**165.8**	**215**	**327.5**	**708.3**

Financial Implications and Sustainability

- Capital cost estimates
- Operating cost estimates
- Potential funding sources
- Financial sustainability process

ATMP Short-Term Capital Costs

Theme	Short-Term Infrastructure Capital Costs (10 years)
Pursuing Pedestrian Network Improvements	$13,050,000
Connecting & Enhancing the Cycling Network	$50,000,000
TOTAL	**$63,050,000**

AT Facility Annual Operating Costs

Facility	Unit cost ($/linear m)	Short-Term Plan	
		Length (km)	Annual Operating Cost ($/yr) *Lifecycle costs not included*
Sidewalk	$ 6.25	60	$ 375,000 *already anticipated as part of the Sidewalk Program*
Multi-Use Path (MUP) on boulevard	$2.00- $6.25	20	$40,000- $128,000 *Range dependent on operation*
Cycle tracks & bike lanes • **Without snow load and hauling** • **With snow load and hauling**	 $ 10.01 $ 19.58	24	 $ 0 - $ 486,000 $ 0 - $ 950,000 *Range dependent on facility selection*
Anticipated Total Incremental Increase in Operating Costs over 10 years		**104**	**$40,000 - $1,078,000**

Financial Implications and Sustainability

Potential capital funding sources for Short-Term (10-year) Plan

- Development charges (full cost being considered in current DC Bylaw Background Study)
- Community Benefit Charges (CBC) also being considered as part of any potential funding shortfall
- Provincial and Federal grant programs (e.g. National Active Transportation Strategy, Ontario Municipal Commuter Cycling program, York Region's Pedestrian & Cycling Municipal Partnership Program, etc)

Financial sustainability process

- Short-term capital plan will be subject to funding/budget availability
- Council approval for annual capital plan

ATMP – Summary of Expected Outcomes

- Improved protection & safety for vulnerable road users
- Completing gaps in our existing sidewalk, trails and cycling networks
- Facilitating movement of growing volumes of pedestrians and cyclists
  - First/last km of transit trips
  - Active school travel needs
  - Recreational and public health needs
- Ensuring that our intensification and growth areas are connected by AT to amenities and the rest of Markham

Questions & Answers