



Transportation Master Plan Update

Town of Markham
Development Services Committee

Loy Cheah
November 10, 2009

Integration, collaboration and coordination of Regional studies



Integration, collaboration and coordination of Regional studies

Common Themes

- ❑ Integration & coordination
- ❑ Sustainable development focussed
- ❑ Extensive consultation/liaison

Some Major Steps To Get Here

- ❑ Developed Sustainability Principles to guide the Master Plan studies
- ❑ Analyzed population projections and future land-use scenarios
- ❑ Produced several Issue Papers addressing infrastructure challenges & opportunities
- ❑ Analyzed preferred growth scenario
- ❑ Identified and assessed alternative solutions

Comprehensive Consultation Program

- ❑ Held three rounds of interactive public workshops in locations throughout York
- ❑ Conducted comprehensive consultation program engaging local municipalities and other stakeholders
- ❑ Participated in stakeholder workshops discussing sustainability principles
- ❑ Held two symposiums with community leaders, area agencies
- ❑ Produced three newsletters
- ❑ Developed comprehensive project websites

Draft Master Plan Review

- ❑ Presented to Regional Council May 28
- ❑ Released for public/stakeholder review
- ❑ 4 month review period ended Sept 30
- ❑ Written comments received
- ❑ Discussed with some stakeholders
- ❑ Changes to Master Plan made

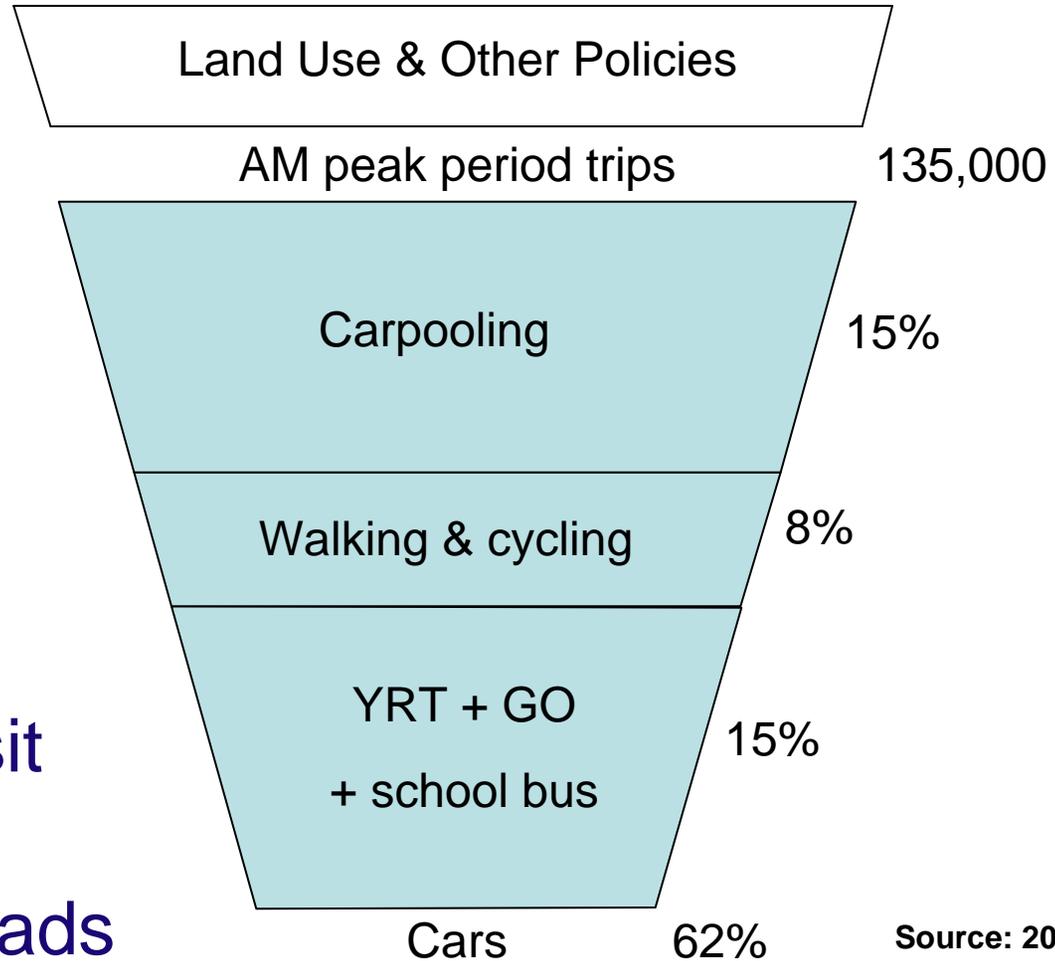
Objectives of this Transportation Master Plan (TMP) Update

- ❑ Updates 2002 TMP transit and road networks
- ❑ Prioritize short, medium and long-term transportation goals through 2031
- ❑ Identify policy and program needs
- ❑ Master Plan process address Phases 1 and 2 of project Class EAs



Sustainable Transportation Planning Approach

- ❑ Reduce need to travel
- ❑ Alternative modes
- ❑ Public Transit
- ❑ Optimize Roads



Source: 2006 TTS

Major Findings and Recommendations

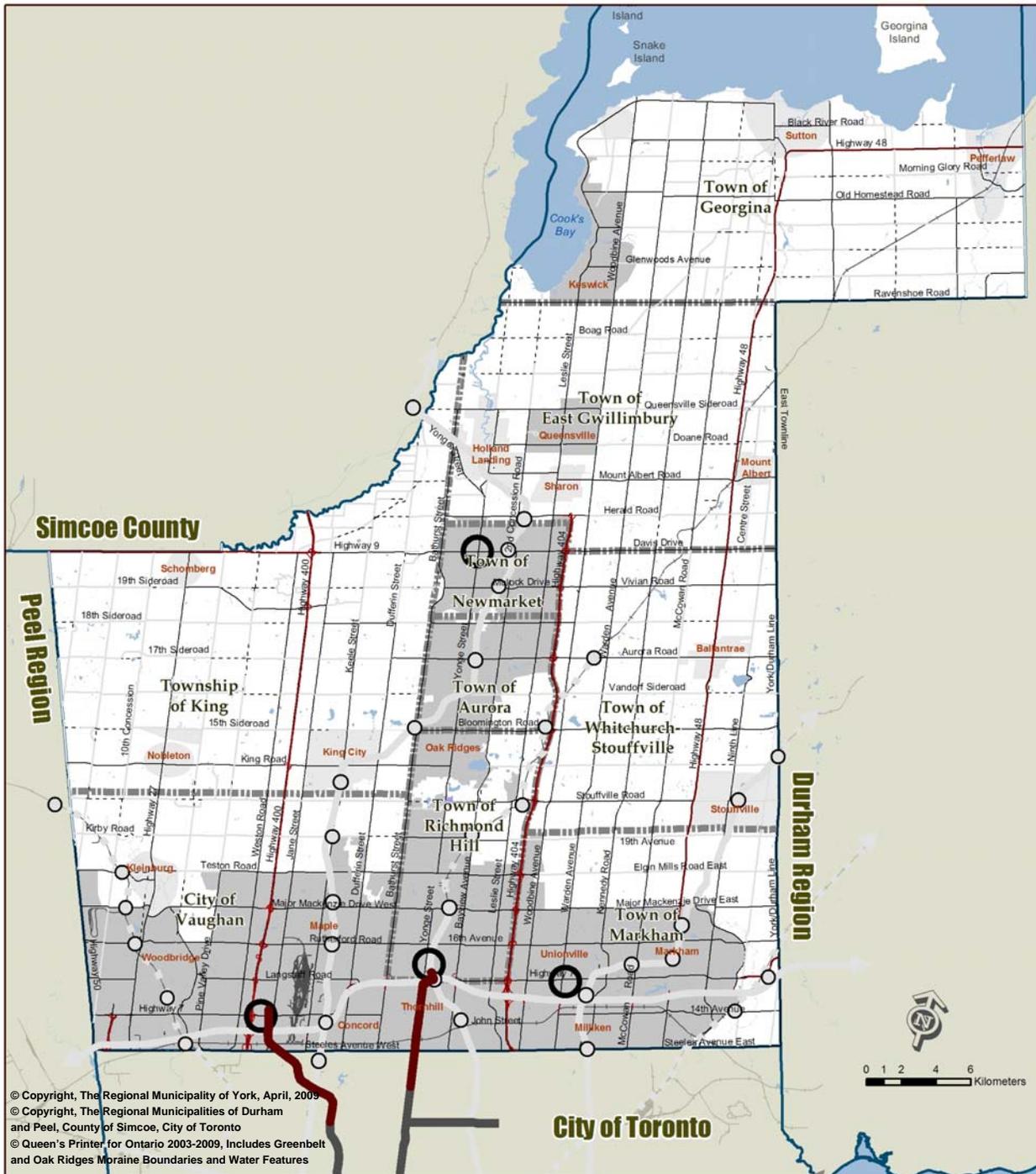
- ❑ Projects in the 2002 Master Plan
 - ❑ Majority of planned rapid transit network projects confirmed
 - ❑ Some road projects altered to support transit and alternative modes
 - ❑ Road widenings limited to new growth areas
- ❑ Major new infrastructure
 - ❑ More rapid transit lines and transit priority improvements
 - ❑ Highway extensions with transit service, connections with GO, TTC, and adjacent municipalities
 - ❑ Mid-block collectors and missing links to move people and goods



GO Rail and Highway 407 Transitway

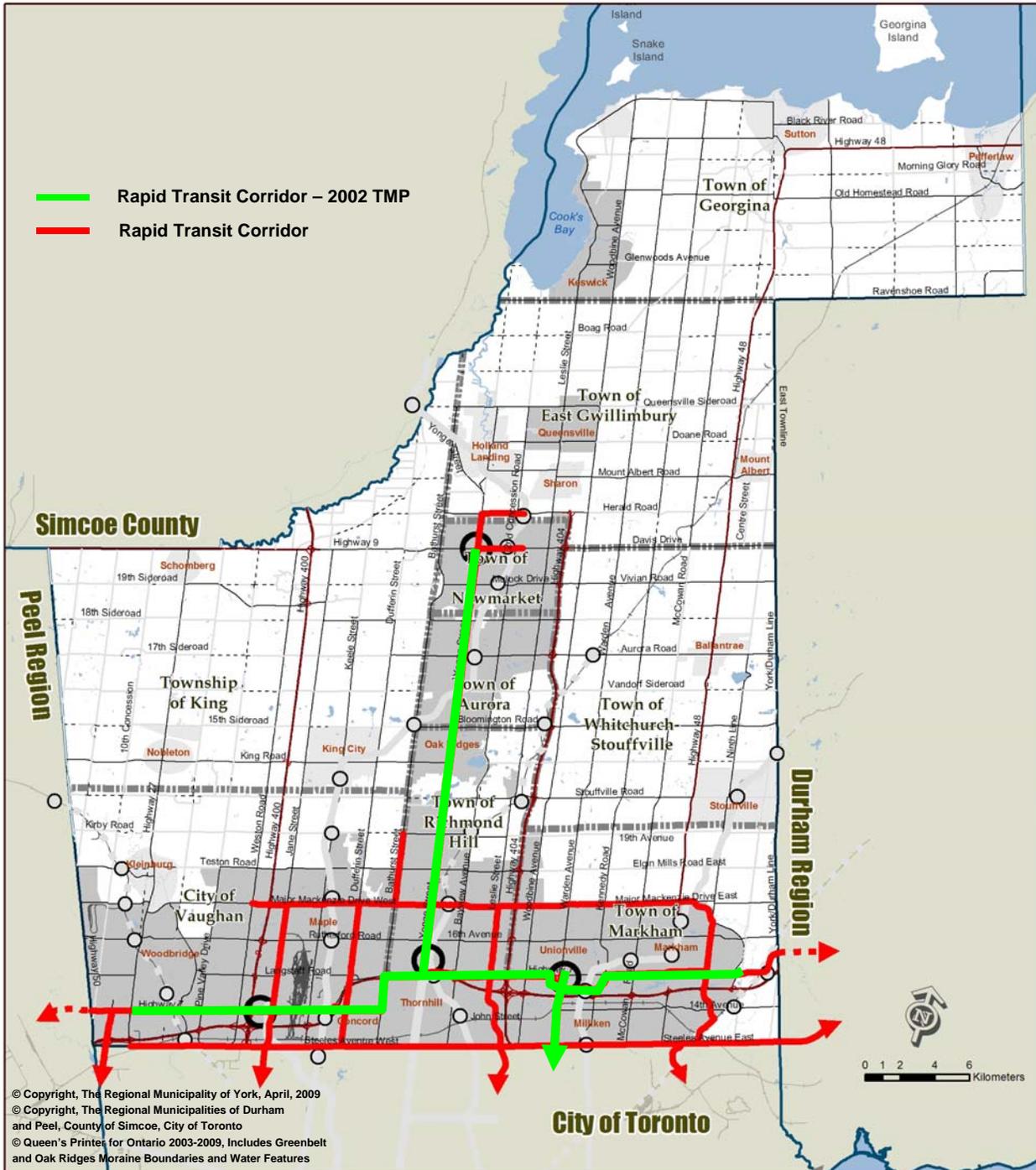
© Copyright, The Regional Municipality of York, April, 2009
 © Copyright, The Regional Municipalities of Durham and Peel, County of Simcoe, City of Toronto
 © Queen's Printer for Ontario 2003-2009, Includes Greenbelt and Oak Ridges Moraine Boundaries and Water Features

Subway Extensions



© Copyright, The Regional Municipality of York, April, 2009
 © Copyright, The Regional Municipalities of Durham and Peel, County of Simcoe, City of Toronto
 © Queen's Printer for Ontario 2003-2009, Includes Greenbelt and Oak Ridges Moraine Boundaries and Water Features

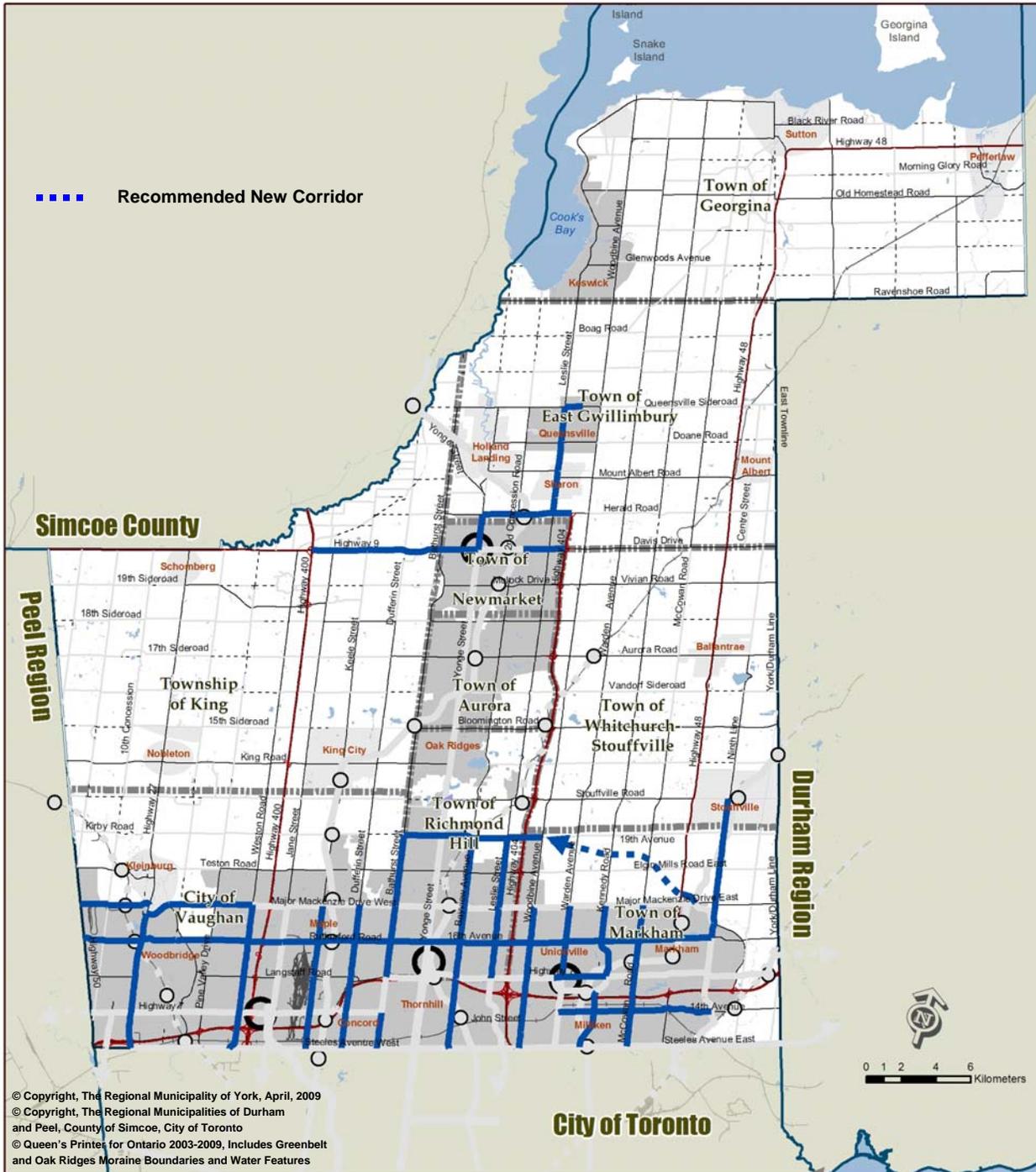
— Rapid Transit Corridor – 2002 TMP
— Rapid Transit Corridor



LRT / BRT

© Copyright, The Regional Municipality of York, April, 2009
 © Copyright, The Regional Municipalities of Durham and Peel, County of Simcoe, City of Toronto
 © Queen's Printer for Ontario 2003-2009, Includes Greenbelt and Oak Ridges Moraine Boundaries and Water Features

Transit Priority Corridors



© Copyright, The Regional Municipality of York, April, 2009
 © Copyright, The Regional Municipalities of Durham and Peel, County of Simcoe, City of Toronto
 © Queen's Printer for Ontario 2003-2009, Includes Greenbelt and Oak Ridges Moraine Boundaries and Water Features



Rural and Highway Transit Service

© Copyright, The Regional Municipality of York, April, 2009
 © Copyright, The Regional Municipalities of Durham and Peel, County of Simcoe, City of Toronto
 © Queen's Printer for Ontario 2003-2009, Includes Greenbelt and Oak Ridges Moraine Boundaries and Water Features



YORK REGION 2031 TRANSIT NETWORK

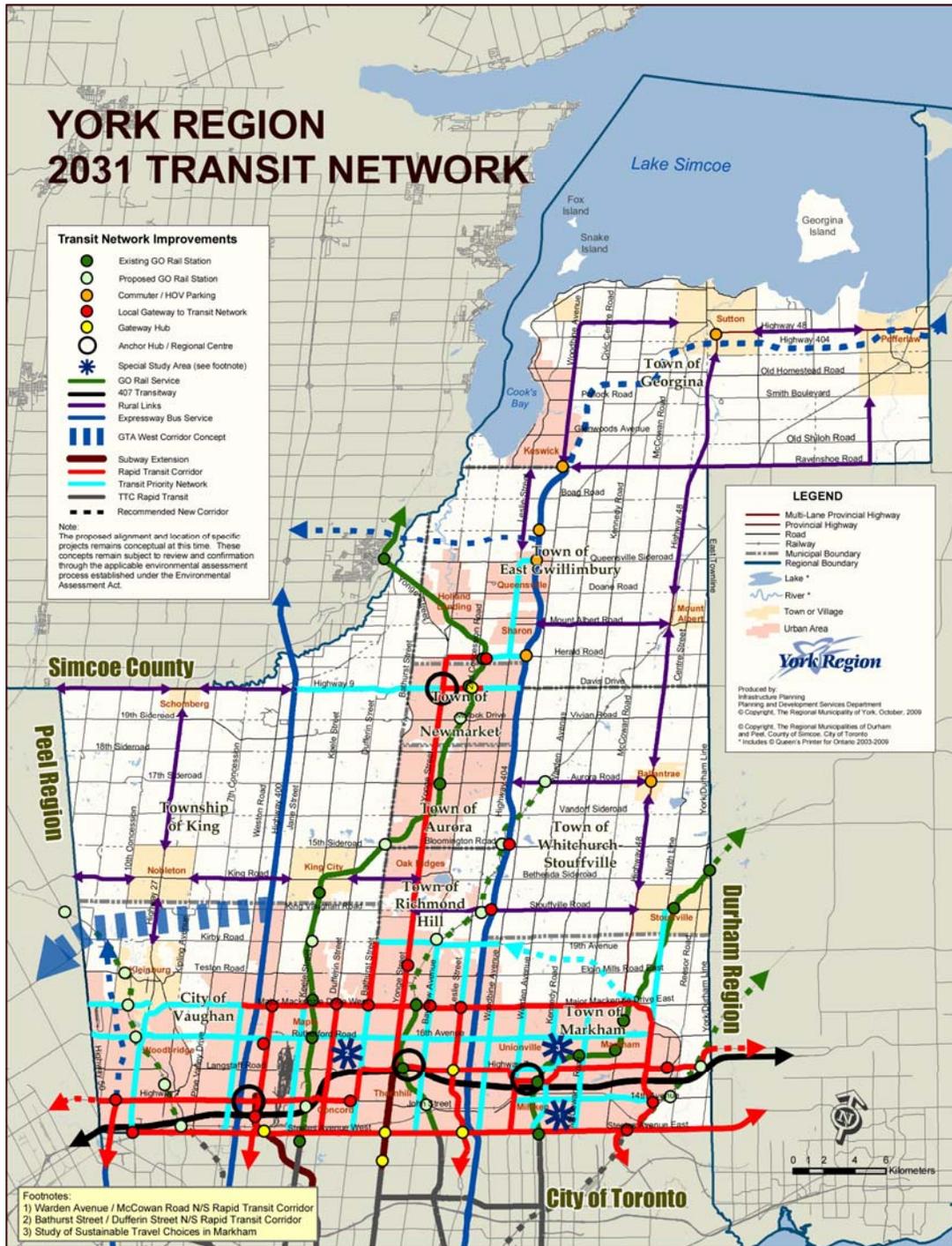
Transit Network Improvements

- Existing GO Rail Station
- Proposed GO Rail Station
- Commuter / HOV Parking
- Local Gateway to Transit Network
- Gateway Hub
- Anchor Hub / Regional Centre
- Special Study Area (see footnote)
- GO Rail Service
- 407 Transitway
- Rural Links
- Expressway Bus Service
- GTA West Corridor Concept
- Subway Extension
- Rapid Transit Corridor
- Transit Priority Network
- TTC Rapid Transit
- Recommended New Corridor

Note
The proposed alignment and location of specific projects remains conceptual at this time. These concepts remain subject to review and confirmation through the applicable environmental assessment process established under the Environmental Assessment Act.

- ### LEGEND
- Multi-Lane Provincial Highway
 - Provincial Highway
 - Road
 - Railway
 - Municipal Boundary
 - Regional Boundary
 - Lake *
 - River *
 - Town or Village
 - Urban Area

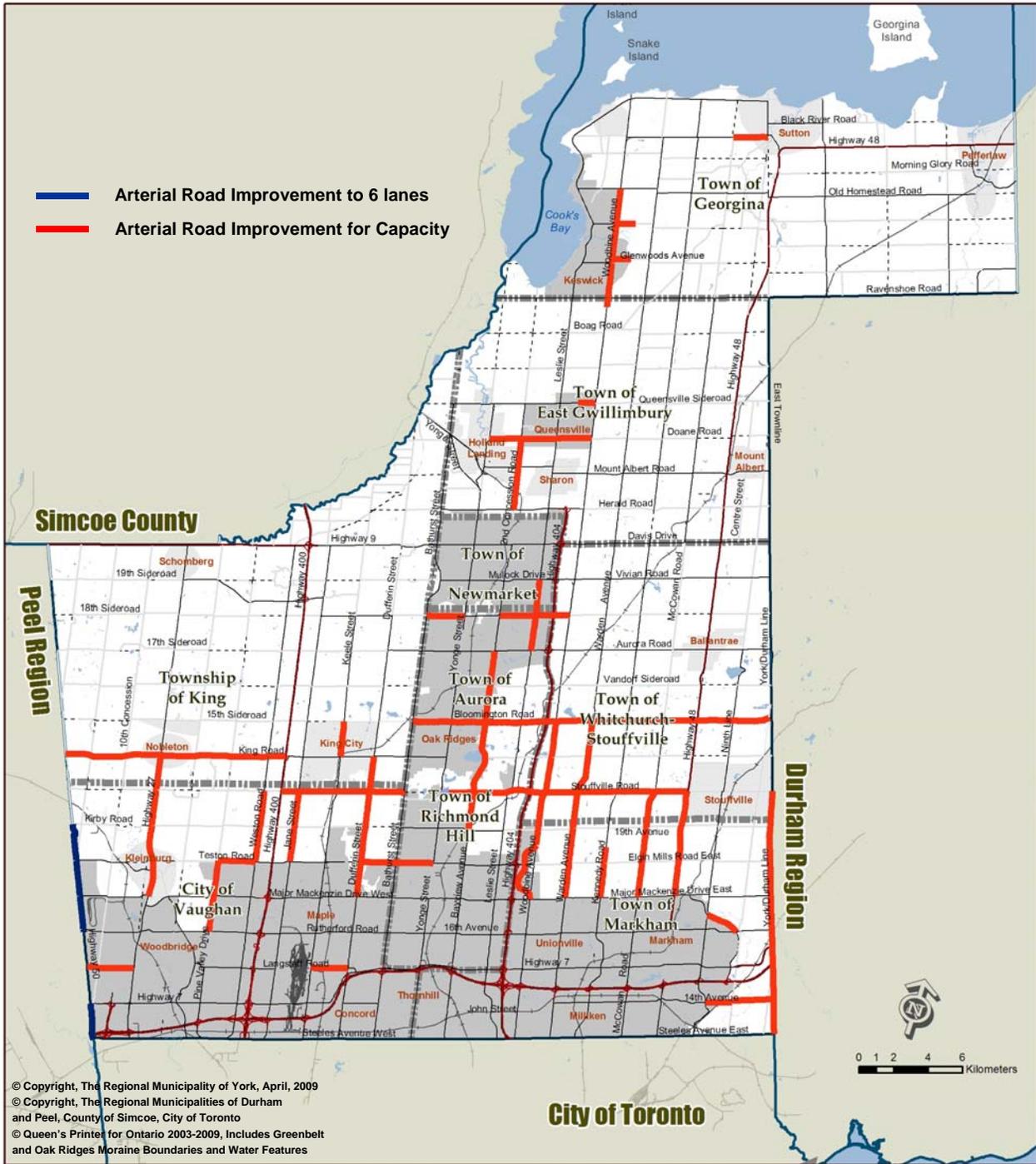
Produced by:
Infrastructure Planning
and Development Services Department
© Copyright, The Regional Municipality of York, October, 2009
© Copyright, The Regional Municipality of Durham and Peel, County of Simcoe, City of Toronto
*Includes © Queen's Printer for Ontario 2003-2009



Footnotes:
1) Warden Avenue / McCowan Road N/S Rapid Transit Corridor
2) Bathurst Street / Dufferin Street N/S Rapid Transit Corridor
3) Study of Sustainable Travel Choices in Markham

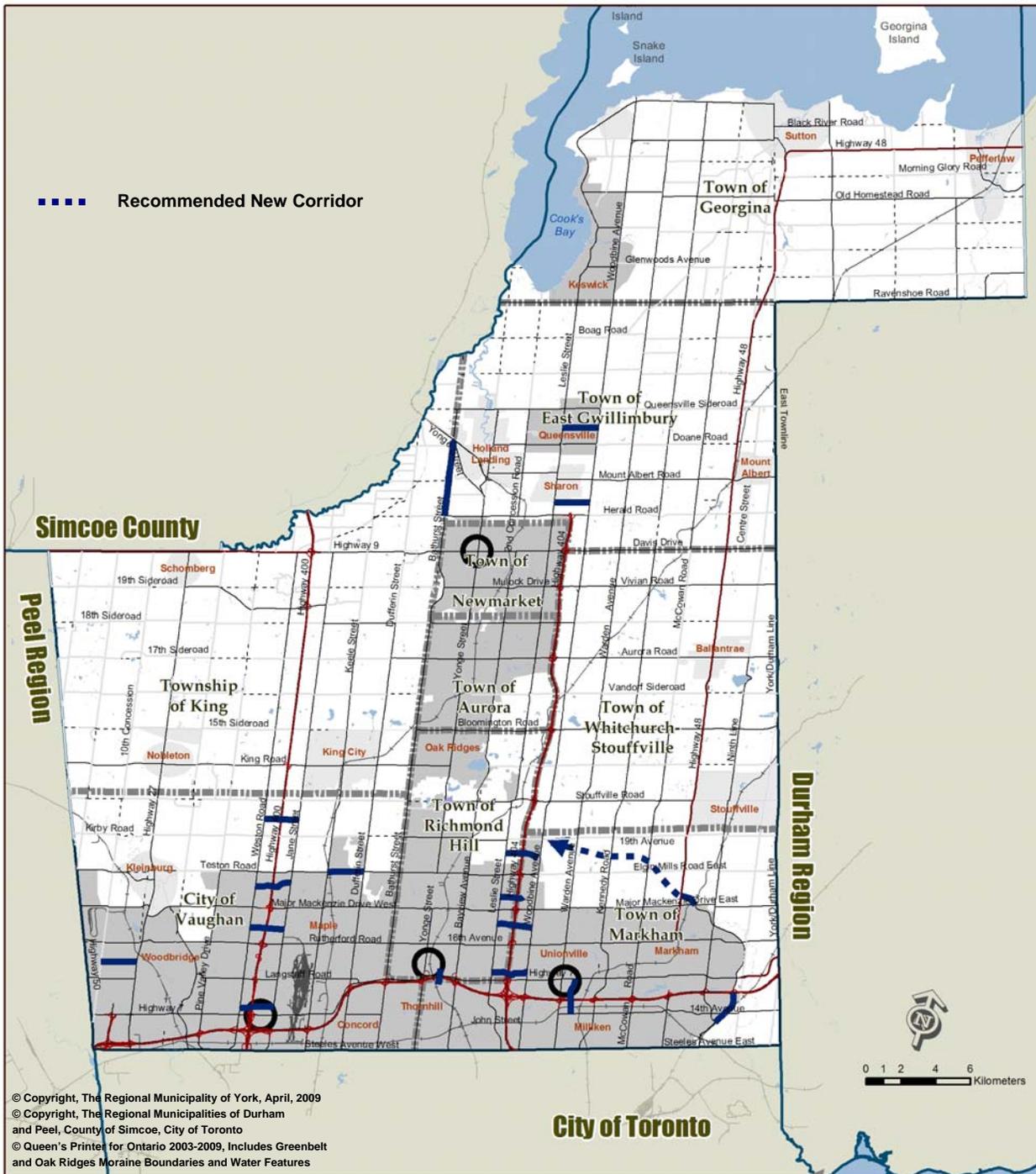
Recommended
2031 Transit Network

Total Cost = \$12.5B



Arterial Road Improvements for Capacity

New local / Regional Roads



© Copyright, The Regional Municipality of York, April, 2009
 © Copyright, The Regional Municipalities of Durham and Peel, County of Simcoe, City of Toronto
 © Queen's Printer for Ontario 2003-2009, Includes Greenbelt and Oak Ridges Moraine Boundaries and Water Features



New Highway and Major Road Crossing Improvements



YORK REGION 2031 ROAD NETWORK

Road Network Improvements

- Jog Elimination
- New or Improved Highway Interchange
- Grade Separation
- Special Study Area (see footnote)
- Anchor Hub / Regional Centre
- New Local/Regional Road
- Arterial Road Improvement for Capacity
- Arterial Road Improvement to 6 lanes
- Road Improvements to support Transit
- New Provincial Road
- GTA West Corridor Concept
- Provincial Road Improvement
- Recommended New Corridor

Note: The proposed alignment and location of specific projects remains conceptual at this time. These concepts remain subject to review and confirmation through the applicable environmental assessment process established under the Environmental Assessment Act.

Road projects identified are for capacity improvements only and do not reflect reconstruction projects in the Region's DC-Bylaw or 10-Year Roads Construction Plan.

- ### LEGEND
- Multi-Lane Provincial Highway
 - Provincial Highway
 - Road
 - Railway
 - Municipal Boundary
 - Regional Boundary
 - Lake *
 - River *
 - Town or Village
 - Urban Area

Produced by:
Infrastructure Planning
Planning and Development Services Department
© Copyright, The Regional Municipality of York, October, 2009
© Copyright, The Regional Municipality of Durham and Peel County of Simcoe, City of Toronto
* Includes © Queen's Printer for Ontario, 2003-2009



Recommended
2031 Road Network

Total Cost = \$2.5B

Footnotes:
1) Road improvements for potential Pickering Airport
2) Langstaff Road Missing Link Transportation Needs Study
3) East-west mid-York Transportation Needs Study
4) Highway 404 Interchange Study at John Street / 14th Avenue



Policy Groups

Full policy/program framework includes about 100 recommendations

1. Reduce need to travel

- Land use planning
- Transit oriented development
- Travel demand management

2. Alternative modes

- Cycling and pedestrians
- Parking management/policies
- Collaboration and partnering
- Marketing and education

3. Transit

- Funding
- ITS applications
- Transit priority

4. Roads

- Mid-block collectors
- Integrated ITS Strategy
- Goods movement
- Environmental protection



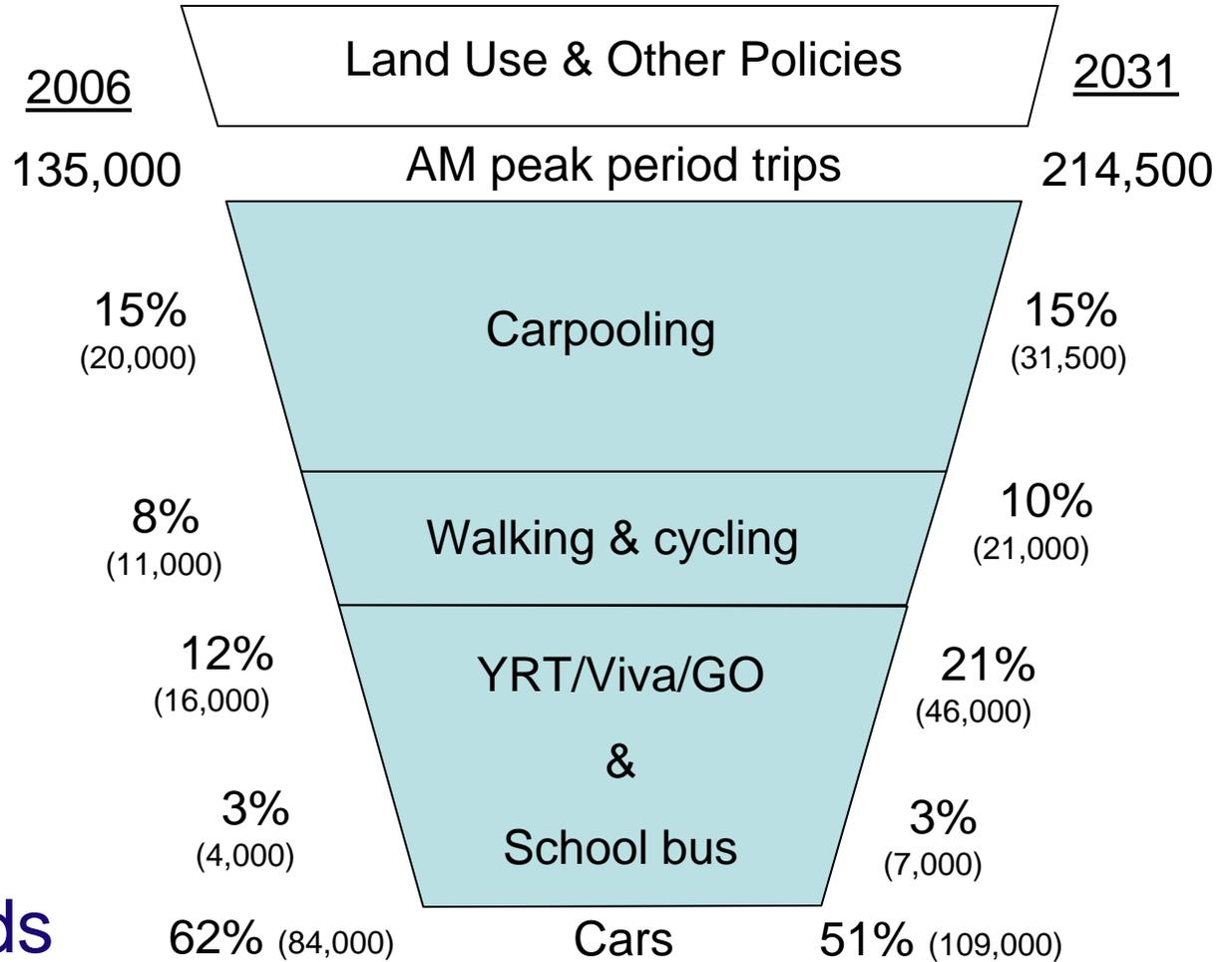
2031 Modal Shift - Markham

☐ Reduce need to travel

☐ Alternative modes

☐ Public tRansit

☐ Optimize Roads



5-Year Action Plan – Key Actions

- ❑ Yonge subway - continue to work with Metrolinx, Province and Feds
- ❑ Complete special area studies (e.g. Markham N-S link, mid-York Corridor)
- ❑ Bradford Bypass – work with Metrolinx and Province to include in Provincial plans
- ❑ Integration and implementation of ITS Strategy
- ❑ Implement sustainable and active transportation plans and policies
- ❑ Push for Hwy 427 ext & 400/404 improvements

Estimated 2031 TMP Costs

	COSTS (Millions) ¹
	Capital
REGIONAL TRANSIT	
Infrastructure Expansion ²	12,500
Rehab/replacement	2,150
Subtotal	14,650
REGIONAL ROADS	
Infrastructure Expansion ³	2,540
Rehab/replacement	1,000
Subtotal	3,540
PROGRAMS & INITIATIVES	150
TOTAL	18,340

Footnotes:

1. In 2008 Dollars
2. Exclude GO Rail improvements
3. Exclude Provincial highway and interchange improvements

Next Steps for the Master Plan

- ❑ Regional Council adoption on November 19, 2009
- ❑ Publish reports for distribution
- ❑ Identify process for more frequent updates

York Region Transportation Master Plan Update

Markham Comments

Engineering Department

Development Services Committee

Nov 10, 2009

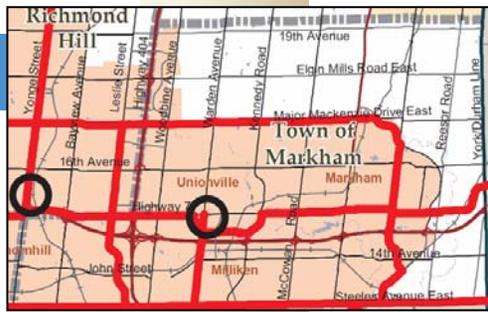
Regional Assumptions

Region Forecasts (2031)	Population	Employment
	1,507,400	780,300*
Markham Forecasts (2031)	423,500	240,600*
Increased target in non-auto modal split (transit, walking, cycling)	Target Year	Split Percentage
	2006	35%
	2031	50%
Incorporates Metrolinx - The Big Move transit and policy assumptions	√	
Policy Initiatives (TDM, Parking, Pedestrian, Cycling)	√	

*Based on revised number in the Official Plan.

Staff Comments:

- Clarification on intensification / new community development assumptions used for Markham in the TMP
- Regional TMP needs to be coordinated with Markham's Growth Management Strategy



Transit

Rapid Transit Corridor, RTC (BRT or LRT) and Subway within Markham - Implementation Timing	Short-Term (0 to 10 yr)	Mid-Term (10 yr)	Long-Term (20 yr)
Metrolinx - The Big Move:			
1. Yonge Subway (to Richmond Hill Centre)	√		
2. Yonge RTC (Hwy 7 to 19th Ave)	√		
3. Hwy 7 RTC (Pine Valley Dr to Kennedy GO)	√		
4. Leslie RTC (Steeles Ave to Hwy 7)		√	
5. Steeles RTC (Hwy 27 to York-Durham Boundary)			√
6. McCowan RCT (Steeles Ave to Hwy 7)	Special Study Area		
New Regional Initiatives:			
7. Major MacKenzie RTC (Weston Rd to 9th Line)		√	
8. 9th Line RTC (Steeles Ave to Major MacKenzie Dr)		√	
9. Warden RTC (Steeles Ave to Hwy 7)		√	
10. Leslie RTC (Hwy 7 to Major MacKenzie Dr)		By 2031 Pending Ridership Level	

Transit (Cont.)

- Transit priority corridors

- Bayview Ave, Leslie St, Woodbine Ave, Warden Ave, Kennedy Rd, McCowan Rd, 9th Line, Hwy 7, 14th Ave, 16th Ave, 19th Ave, Donald Cousens Pkwy
- Sustainable Travel Choices and EA Studies to identify Transit Priority options in Markham (i.e. 4 to 6-lanes)



- Preliminary funding options, cost and implementation strategy provided

Staff Comments:

- Given the sensitivity of widening roads to accommodate HOV or dedicated transit lane, the Region needs to discuss with Markham Council a consultation strategy (i.e. Sustainable Travel Choices) prior to initiating any EA study

Transit (Cont.)

Staff Comments (Cont.):

- Although performance monitoring discussed in TMP, linkages between growth and transit delivery not provided
- Limited details on local service / feeder system, required to minimize driving trips to transit hubs
- Identified working towards fare integration (2 to 5 years), no specific initiatives mentioned
- Other potential rapid transit initiatives to be considered
 - North/south corridor (Warden or Kennedy between Hwy 7 and Major MacKenzie), including potential linkages between Sheppard subway and Markham Centre, and connections to new communities
 - Transit corridor along Hwy 404 and DVP

Policies

- Sustainability - best practices reviewed and principles established (e.g. put pedestrians and transit first, integrate transportation and land use planning, adopt energy efficient transportation systems)
- Promoting Transit Orientated Developments (TOD)
- TDM / Parking
 - Will coordinate with area municipalities to establish parking authority and strategies (e.g. parking standards, supplies, carpool parking, etc)
 - Identified network of carpool and commuter parking lots
 - Requires TDM plans or strategies for major development applications

Policies (Cont.)

- Pedestrians and Cycling
 - Will consult area municipalities to develop sidewalk and bicycling network
 - Recommends Regional bike sharing programs
- Policy integration with TMP, Regional OP, sustainability plan, 10 Yr Capital Works Plan, Development Charges Bylaw

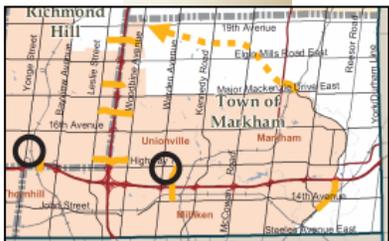
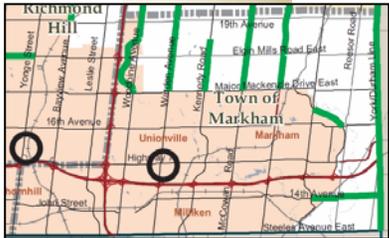
Staff Comments:

- Region and Markham need to review their respective pedestrian/cycling and parking plans pertaining to jurisdiction, funding, and implementation
- Review location of commuter parking lots (not at mobility hubs?)
- Region should review a variety of cycling path opportunities (e.g. off-road, barrier separated)

Roads

TMP Highlights:

- Optimize existing road through ITS and traffic management (signal progression, intersection timing)
- Road widenings
 - North of Major MacKenzie (Woodbine Ave, Warden Ave, Kennedy Rd, McCowan Rd, Hwy 48)
 - York Durham Line
 - 14th Ave east of 9th Line
- Hwy 404 and Hwy 407 mid-block crossings
- New road through white belt area proposed (Donald Cousens Pkwy to 19th Ave/Hwy 404)



Road Network Improvements



Note:
The proposed alignment and location of specific projects remains conceptual at this time. These concepts remain subject to review and confirmation through the applicable environmental assessment process established under the Environmental Assessment Act.

Road projects identified are for capacity improvements only and do not reflect reconstruction projects in the Region's DC-Bylaw or 10-Year Roads Construction Plan.

Roads (Cont.)

- Grade separation at GO lines
 - Stouffville Line at Kennedy Rd (2), Hwy 7, and McCowan Rd
 - Havelock Line at 14th Ave
- Region identified Special Study Areas
 - Pickering Airport road improvements at Major MacKenzie Dr / Ressor Rd area
 - John St at Hwy 404 interchange study

Staff Comments:

- 10-Yr Capital Implementation Plan needs to be updated in consultation with Markham (Donald Cousens Pkwy – Major MacKenzie to Hwy 48)
- Strategy/consultation plan for sensitive road projects/studies need to be vetted by Markham Council before proceeding

Overview

- Regional TMP leading edge
- Given the growth targets (approximately 1.5 million population and 780K employments), roads will continue to be congested even with substantial investment in transit and decrease in single occupant auto percentages
- Key challenges
 - Secure capital funding for transit and roads (\$18.3 billion) and operating costs (\$800 million)
 - Behavioural changes for commuters to use transit vs. single occupant vehicles

Next Steps

- Staff be authorized to provide comments to Region
- Staff to follow up with Region on noted issues
- Upon completion of the Markham Transportation Strategic Plan (MTSP), Growth Management Strategy (GMS), and parking strategy, the Region be requested to update the TMP
- Staff to report back in early 2010 with MTSP and parking strategy