

#### Special Development Services Committee Agenda

Meeting Number 1 January 22, 2020, 9:00 AM - 12:00 PM Council Chamber

Note: Committee is scheduled to break from 10:30 am to 10:40 am. This meeting will be Audio Streamed. Alternate formats for this document are available upon request.

#### Pages

1.	CALL TO ORDER				
2.	DISCLOSURE OF PECUNIARY INTEREST				
3.	TRA	TRANSPORTATION WORKSHOP - EDUCATION & TRAINING SESSION			
	3.1	INTRODUCTION AND PURPOSE OF WORKSHOP	3		
		(9:00 am - 9:10 am)			
		Brian Lee, Director of Engineering			
	3.2	YORK REGION'S GROWTH STRATEGY AND PLANNING CONTEXT	6		
		(9:10 am - 9:30 am)			
		Paul Freeman, Chief Planner, Regional Municipality of York			
	3.3	MARKHAM'S GROWTH STRATEGY AND PLANNING CONTEXT	29		
		(9:30 am - 9:40 am)			
		Arvin Prasad, Commissioner of Development Services			
	3.4	AN EXPERT'S VIEW ON LAND USE & TRANSPORTATION PLANNING	39		
		(9:40 am - 10:30 am)			
		Ian Lockwood, Livable Transportation Engineer, Toole Design Group			
	3.5	YORK REGION TRANSPORTATION PLANNING	212		
		(10:40 am - 11:00 am)			
		Brian Titherington, Director of Transportation and Infrastructure Planning,			

Regional Municipality of York

#### 3.6 MANAGING TRANSPORTATION DEMAND IN MARKHAM

(11:00 am - 11:20 am)

Loy Cheah, Senior Manager, Transportation

#### 3.7 QUESTIONS AND ANSWERS

(11:20 am - 11:55 am)

#### 3.8 WRAP UP & NEXT STEP

(11:55 am 12:00 noon)

Brian Lee, Director of Engineering

#### 4. ADJOURNMENT

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# Managing Growth & Traffic Congestion in Markham

**Special Development Services Committee Meeting** 

January 22, 2020





### Workshop Objective – October 2019 DSC Resolution

 That staff be directed to organize a transportation education workshop for members of Council and members of the public to consider potential strategies for mitigating traffic congestion including road widenings.





#### AGENDA

- 1. York Region growth and development planning (Paul Freeman)
- 2. Markham growth and development planning (Arvin Prasad)
- 3. An expert's view on land use and transportation planning (lan Lockwood)
- 4. York Region transportation planning (Brian Titherington)
- 5. Managing Transportation Demand in Markham (Loy Cheah)
- 6. Q & A
- 7. Wrap up and next steps (Brian Lee)

# MARKHAM TRANSPORTATION FORUM

LEFT

January 22, 2020



# YORK REGION GROWTH & DEVELOPMENT PLANNING

Paul Freeman, Chief Planner

January 22, 2020



### **PRESENTATION OUTLINE**





1

Intensification & Transit-Oriented Development

# **OUR GROWING REGION**

## YORK REGION GROWTH FORECASTS TO 2041

York Region's population is expected to grow from



York Region's **employment** is expected to grow from



#### York Region Population Growth - 1971 to 2041



York Region's continued success depends on responsible planning for growth

### YORK REGION'S SHARE OF GROWTH TO 2041



# INTENSIFICATION & TRANSIT-ORIENTED DEVELOPMENT

### PLANNED URBAN STRUCTURE



### **CENTRES & CORRIDORS**



9













## PAST INVESTMENTS WERE KEY TO BUILDING THE REGION'S URBAN INFRASTRUCTURE



# **PROPOSED MAJOR TRANSIT STATION AREAS**

N

0 1 2 3 4 5 Km

York Region



Municipality	Required MTSAs	Additional MTSAs	Total MTSAs
Aurora	1	0	1
East Gwillimbury	0	2	2
Georgina	0	0	0
King	1	0	1
Markham	11	4	15
Markham / Richmond Hill	5	0	5
Markham / Vaughan	0	4	4
Newmarket	10	2	12
Richmond Hill	10	1	11
Richmond Hill / Vaughan	1	0	1
Vaughan	18	0	18
Whitchurch-Stouffville	0	2	2
York Region	57	15	72

# **GREATER GOLDEN HORSESHOE EMPLOYMENT**



Source: The Neptis Foundation, 2015

# **EMPLOYMENT LANDS IN YORK REGION**





# ONGE Subwa EXTENSIO remains the top transit priority

## **BUS RAPID TRANSIT SUPPORTS REGIONAL CENTRES & CORRIDORS**



## **KEY MESSAGES**



Opportunities to get involved through the Municipal Comprehensive Review (MCR) york.ca/mcr

# QUESTIONS/DISCUSSION

For more information, contact: **Paul Freeman**, Chief Planner York Region, Corporate Services Department Paul.Freeman@york.ca 1-877-464-9675 ext. 71534



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# Special Development Services Committee Meeting

### January 22, 2020 Arvin Prasad, Commissioner Development Service





## Markham Official Plan's Vision for Sustainable Growth

- Protecting the natural environment and agricultural lands
- Building complete communities
- Increasing mobility options
- Maintaining a vibrant and competitive economy







## Markham's Population and Employment Growth 1971 to 2031







## **Planning Markham's Future**







## Majority of Growth to 2031 in the Urban Area



- Allowed limited expansion of the urban area (Future Urban Area) – 20%
- Completed the existing urban area communities and
- employment districts outside the built boundary – 20%
- Directed the majority of growth to Centres and
  Corridors along rapid transit routes within the built boundary (intensification) 60%





## Markham Centre: Creating a Downtown Destination

















## Langstaff Gateway: Significant Redevelopment Opportunity









## Highway 7 & Yonge St. Corridors




#### BUILDING MARKHAM'S FUTURE TOGETHER 2020 – 2023 Strategic Plan



# **Greenfield Areas and Beyond Centres/Corridors**













# Summary

- Significant growth in Markham expected
- Directing majority of growth to centres and corridors on major transit routes
- Minimize travel demand and trip length
- Encourage office development, compact development, and a range of housing options
- Greenfields and areas outside of centres/corridors increasing in density



Some Thoughts about Transportation for Markham

> **TOOLE** DESIGN



# Toole Design Group

- Engineers
- Planners
- Landscape Architects
- Authors

















## **Modern Conception of the Purpose of Streets**





#### Ottawa

## **Modern Conception of the Purpose of Streets**





#### Buffalo



#### Detroit







#### Markham

## **Modern Conception of the Purpose of Streets**





## **Traditional Conception of Access & Throughput**











## Place, Exchange, Multi-Modal Access, Image

# Motorist LOS, Speed, Safety











A 1989 Nominated for Academy Award for Best Documentary Feature




















#### **Concurrency:**

Development was only permitted if public infrastructure was provided concurrently (i.e., schools, water, sewer..., & transportation)

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Development was only permitted if public infrastructure was provided concurrently (i.e., schools, water, sewer..., & transportation)

**Transportation = Level of Service** 

Cities Adopted an: "Acceptable Peak-Hour L.O.S."

#### **Concurrency Exception Area:**

Transportation = access, walkability, aesthetics, supporting land uses, ...

#### and L.O.S. no longer took priority





The Mythical Role of Traffic Demand Forecast Models































## 1. Street design shapes land use.

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Transportation planning should be based on community "vision."

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1. Street design shapes land use. 2. Transportation planning should be based on community "vision." L.O.S. is not important for planning. Traffic demand forecast models are only one version of the future.

1. Street design shapes land use. 2. Transportation planning should be based on community "vision." L.O.S. is not important for planning. 4. Traffic demand forecast models are only one version of the future. 5. You get what you buy.

Litmus Test:

Does the "change" reward the short trip or transit, bike, or walk trip?

Change:

change in policy, street design, land use, operations, transit initiative, etc.

# FUNDAMENTALS

# The purpose of cities: to advance efficient & effective exchange.

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The purpose of cities: to advance efficient & effective exchange.

The "transportation purpose" of cities is to minimize long-distance travel (i.e., maximize short trips)

## **Traditional Values**

**Design for Short Trips Transit-Oriented** Walkable **Proximity Important** Mixed Land Use **Connected Street** Network Access is Key **Buildings Address Streets Slow Speeds** 





**Modernism** (Laid the Foundation for the Conventional Transportation Paradigm)





#### "Cars, cars, fast, fast!" Le Corbusier, 1924






THE GENERAL MOTORS EXHIBIT BUILDING















## "We shall solve the problem of the city by leaving the city"

CON

#### ry Ford, 1922









### Traditional City Value = fn (proximity to center)





#### Traditional City Value = fn (proximity to center)

#### **Conventional Theory** Value = fn (travel time to center)

## Conventional/Modernist Values

**Reward Long Trips** Automobile Focus Automobile LOS Speed Important Single Use Land Use **Dendritic Street Hierarchy** Congestion is Bad Individually Appealing Simple (get from A to B quickly)



## Which is better; Fast or Slow?











## Tragedy of the Commons





# Tragedy of the Commons





















#### **1949 Street Network**



#### **Existing Street Network**













#### 1

# ite journa A COMMUNITY OF TRANSPORTATION PROFESSIONALS **New Ways** of Thinking

## Making the Case for Transportation Language Reform: **Removing Bias**

by Ian Lockwood, P.E.

amuel Beckett (1906–1989), the Irish novelist and playwright, wrote "Words are the clothes that thoughts wear." Throughout history and in many fields, the use of language has influenced how ideas have been received by adorning thoughts with words that carry subjective meaning. Strategically assigning words to ideas can challenge or perpetuate biases, attitudes, and public opinion, and ultimately influence policies and culture.

Examples of language that contain and reinforce biases abound. In the 1970s, common terms in workplaces included, "policeman, fireman, manpower, chairman, and man hours." The language was gender-biased and excluded women. Over time, societal values evolved to the point where the language to be gender-neutral, while opponents called the reform "being politically correct" and unnecessary. Today, gender-neutral language is common and accepted; examples include, "police officer, firefighter, human resources, chair, and person hours." This language reform supports gender equality, helping to change attitudes, policies, and culture. Gender-neutral language is not pro-woman; it is inclusive and objective.

Improvement



Improvement Capacity



Improvement Capacity Upgrade/Enhance UPGRADES? SURE IT'S GOT PLENTY. EVEN THE STREET GOT UPGRADED TO AN ARTERIAL JUST THE OTHER DAY.



Improvement Capacity Upgrade/Enhance Efficient

> TO MAKE THIS MORE EFFICIENT, SHOULD I ADD TWO MORE OR FOUR MORE LANES?

> > Lockwood

Improvement Capacity Upgrade/Enhance Efficient **Traffic Demand** Accidents Level of Service Delay A, B, C, D, E, and F Reliability **Functional Classification Right-of-Way Preservation** Mass Transit Freeway Capacity Deficiencies **Conflict Points** Access Management Regional Travel...




Regional Travel: a post-WWII euphemism for long & unsustainable car trips

#### Words

**Context-Sensitive Design Context-Sensitive** Solutions Traditional Neighborhood Design Smart Growth **Road Diets** Safe Routes to School Shared Spaces Vision Zero Path as Place Traffic Calming **Complete Streets** 







a street that is designed to comfortably accommodate those who use the street.





a street that is designed to comfortably accommodate those who use the street.



MOBILE



a street that is designed to comfortably accommodate those who use the street.





The Transition to





#### I-635, DALLAS

#### CHAMPS ELYSEES, Paris

# The difference between "volume, & trips"



Mobility (in the past)

the movement of people & goods

assumption: faster, farther, and in greater numbers means progress for society

Mobility (now and in the future) The populations' capabilities and strategies to move in order to access what they need to live within the city.

Many Populations: people who have disabilities, have different income levels, and/or are young, elderly, millennials, pedestrians, cyclists, transit users, students...

# Mobility (now and in the future)

The populations' capabilities and strategies to move in order to access what they need to live within the city.

the movement is purposeful:

<u>Trip Type</u>	<u>%</u>
work	18.0
work-related	2.6
shopping	20.2
doctor/dentist	1.5
family/personal	24.2
church/school	8.8
social/recreational	24.5
other	0.2







With 2020 hindsight, you decide the truth:

**Option A:** "The City's lifeblood is the highway. The mobility it provides is vital for economic health and the convenience of the motoring public. If anything, the highway should be expanded to fight congestion. Removing it is simply anti-progress."

**Option B:** "Walkability and access to the waterfront, parks, trails, and other places in the downtown is key to the economic and social health of the City. The highway has contributed to the woes of the City and needs to be replaced with something that contributes to an urban context."























### Developer Coordination Stakeholders Competing Priorities



















"...the possible benefits of required seat belts would not justify the costs to the manufacturers and the public."



"...the possible benefits of required seat belts would not justify the costs to the manufacturers and the public."

### National Highway Traffic Safety Administration, 1970

Environmental Assessments

Air quality Water Noise Land use

Traffic  $\rightarrow$  L.O.S.

# Environmental Assessments

Air quality Water Noise Land use

. . .

## Traffic $\rightarrow$ L.O.S.

# L.O.S.

- Last-in problem
- Infill vs green-field
- Obstacle to transit & active transport
- Induced car travel, longer trips...
- Resources (land, energy, money...
#### Environmental Assessments

Air quality Water Noise Land use

Traffic  $\rightarrow$  L.O.S.  $\rightarrow$  V.M.T.

#### L.O.S.

- Last-in problem
- Infill vs green-field
- Obstacle to transit & active transport
- Induced car travel, longer trips...
- Resources (land, energy, money...

#### Environmental Assessments

Air quality Water Noise Land use

Traffic  $\rightarrow$  L.OS.  $\rightarrow$  V.M.T.

#### V.M.T.

- VMT total
- VMT/capita
- VMT/resident
- VMT/employee
- Resources (land,

energy, money...)









# The New York Times



#### Grand Makeover Is Set for Maryland Strip City

#### by EUGENE L. MEYER

Rockville Pike, heading north.



Above, a rendering of the White Flint plan, which seeks to create a walkable community.





































Be empathetic in your arterial designs.



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Switch from LOS to VMT for planning purposes.



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Stop rewarding the problem.



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Update your transportation language/culture.



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Break up your superblocks were feasible with parallel network and focus on 2-lane streets.



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Update your transportation language/culture.

Break up your superblocks were feasible with parallel network and focus on 2-lane streets.

Know that you are on the right side of history.



### **Thank You**



🈏 @lanLockwoodPE

# MARKHAM TRANSPORTATION FORUM

January 22, 2020

Brian Titherington Director of Transportation and Infrastructure Planning



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#### **PRESENTATION OUTLINE**



# **OUR GROWING REGION**

#### WE KNOW THAT GROWTH IS COMING



York Region is forecasted to accommodate the highest share of growth in the Greater Golden Horseshoe

#### YORK REGION GROWTH FORECAST TO 2041



#### York Region Population Growth - 1971 to 2041



Effectively planned growth is vital for York Region's economic success
# **CURRENT TRAVEL TRENDS**

# **CURRENT TRAVEL TRENDS**

Travel by SUSTAINABLE MODES has

Travel by sustainable modes has increased from 14.2% in 2001 to 17.7% in 2016 FEWER young people ARE DRIVING \* 2 \* \* \* and are choosing OTHER MODES

The percentage of 16 to 24 year olds with a license has decreased from 82% in 1991 to 73% in 2016



# travel has INCREASED

Intra-Regional travel has increased from 61% in 2001 to 64% in 2016

# **CURRENT TRAVEL TRENDS**



**Travel Time in Minutes** 

# **INVESTING IN TRANSPORTATION IMPROVEMENTS**

# YORK REGION IS PART OF A LARGER TRANSPORTATION SYSTEM



# **OBJECTIVES OF THE TRANSPORTATION MASTER PLAN**



# WORLD CLASS TRANSIT SYSTEM









# **ROAD NETWORK FIT FOR THE FUTURE**









# **PRIORITIZATION OF REGIONAL INVESTMENTS**

- Connect to transit and transit hubs
- Complete missing links and cross barriers
- Support growing communities for travel by all users
- Connect to freeways and the Provincial HOV network

#### Need to balance transportation needs with fiscal reality

# **10-YEAR ROADS AND TRANSIT CAPITAL CONSTRUCTION PROGRAM**

Road Project

**Other Project** 

Δ

VivaNext Projects

Year

Type

Status



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# **CAPITAL INVESTMENT IS REGIONAL CORRIDORS IS ONLY ONE TOOL**



Join the movement



**Enhancing Transit** 



Travel Demand Management



Pedestrian and Cycle Planning

# **KEY MESSAGES**



Land use and transportation planning work together to accommodate Provincial growth

York Region is identifying transportation investments to address increasing travel demand over the next 10 years and beyond

3

4

2

Travel by car during rush hours will continue to be challenging

Need to prioritize investments that have the most benefits for travel by all users

# **QUESTIONS / DISCUSSION**

Brian Titherington Director of Transportation and Infrastructure Planning brian.titherington@york.ca







# Managing Transportation Demand in Markham

**Special Development Services Committee Meeting** 

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#### AM Peak Period Trip Characteristics for Markham

#### **MODE SHARE**

BUILDING MARKHAM'S

\_\_\_\_\_

111111

■ 2001 ■ 2006 ■ 2011 ■ 2016



TRIP RATE



#### **TRIP PURPOSE**





# Data Source: 2016 Transportation Tomorrow Survey

2





### Markham's Transportation Challenge

- To accelerate the transition from a primarily car-dependent community to one where walking, cycling, transit and carpooling are seen as increasingly viable and attractive alternatives
- To develop a transportation system that increases mobility options for all users, including pedestrians, cyclists and transit riders
- To plan and design Markham's streets and the Region's arterial roads to better balance the needs of all road users including pedestrians, cyclists, transit users and motorists







### Markham's Transportation Strategy

- selective road capacity enhancements;
- increased and enhanced transit services;
- transit-supportive development;
- transportation demand management (TDM); and
- active transportation.













## **Support Regional Projects**

- Regional improvements in transit, TDM and active transportation infrastructure and services:
  - Metrolinx (e.g. Yonge subway, RER & GO stations)
  - York Region (e.g. Viva, transit/HOV network, YRT)
  - MTO (e.g. H404 HOV lanes, H407 Transitway plan)





ARKHAM



### **Active Transportation Projects**

- Active school travel programs and pilots
- Sidewalk network completion program (10-year capital plan)
- Bikeway and trails network projects (e.g. Rouge Valley Trail, Lake-to-Lake Route, John Street MUP, Markham Centre Trail)
- Pedestrian safety initiatives:
  - School crossing guards
  - Pedestrian cross-overs
  - Zebra crosswalks
  - Accessibility improvements at traffic signals
  - YR-Police Road Watch program
- Markham Cycling Day
- Markham Cycles Community Bike Hub
- Smart Commute Markham Richmond Hill
- Active Transportation Master Plan study (on-going)













# **Traffic Safety Projects**

- Intersection control when warrants are met:
  - All-way stops
  - Traffic signals
- Traffic calming:
  - Radar speed display boards
  - Edge-line pavement markings
  - Centreline flex posts in school zones
- Parking restrictions
- Traffic signal coordination
- Road safety planning









### Summary

- Encourage walkable/bikeable and transit-supportive development plans
  - Fine grain street network with major and minor collector roads
  - Protected (in-boulevard) cycling facilities
  - Sidewalks on both sides of collector roads
- Complete and enhance the City-wide sidewalk and bikeway networks
- Focus on initiatives that improve and promote the safety of walking and cycling





