

## **CITY OF VAUGHAN**

### **EXTRACT FROM COUNCIL MEETING MINUTES OF MARCH 22, 2022**

Item 1, Report No. 11, of the Committee of the Whole (Working Session), which was adopted without amendment by the Council of the City of Vaughan on March 22, 2022.

#### **1. MOVESMART MOBILITY MANAGEMENT STRATEGY ANNUAL PROGRESS REPORT**

**The Committee of the Whole (Working Session) recommends:**

- 1. That the recommendations contained in the following report of the Deputy City Manager, Public Works, dated March 2, 2022, be approved; and**
- 2. That the staff presentation and Communication C1., presentation material, entitled “*2022 Annual Report MoveSmart Mobility Management Strategy*”, dated March 2, 2022, be received.**

#### **Recommendations**

- 1. That the MoveSmart Strategy Annual Report, as outlined in Attachment 1, be received; and**
- 2. That the City Clerk forward a copy of this report to York Region, York Region’s Local Municipalities, York Regional Police, York Region District School Board, York Region Catholic School Board, Metrolinx, and the Ministry of Transportation.**

## Committee of the Whole (Working Session) Report

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**DATE:** Wednesday, March 2, 2022

**WARD(S):** ALL

**TITLE: MOVESMART MOBILITY MANAGEMENT STRATEGY ANNUAL  
PROGRESS REPORT**

**FROM:**

Zoran Postic, Deputy City Manager, Public Works

**ACTION:** FOR INFORMATION

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**Purpose**

To provide an annual update on the progress of the five-year MoveSmart Mobility Management Strategy highlighting achievements in support of Council's commitment to provide a transportation system that is safe, more efficient, and sustainable.

**Report Highlights**

- On March 10, 2021, Council endorsed the five-year MoveSmart Mobility Management Strategy (MoveSmart Strategy).
- Road safety, active and sustainable travel, and effective traffic management remain a top priority as Vaughan continues to experience significant growth.
- Fourteen out of the twenty-nine MoveSmart Strategy initiatives have started, or are ready to start, in 2022 with two specific initiatives brought forward from future years that include the Road Safety Strategic Plan and the Intelligent Transportation System Strategy.

### **Report Highlights continued**

- Progress has been made within all four programs of the MoveSmart Strategy. Piloting new traffic calming measures within existing school zones, the rollout of the City's Slow Down lawn sign campaign, the implementation of a new speed limit policy, the acquisition of a Traffic Data Management System and the use of smart technology enhancements to both the streetlights and traffic signals network are some of the more notable accomplishments.
- Building partnerships with stakeholders and raising public awareness continue to be integrated into this strategy with a key focus on building a road safety culture based on shared values and responsibilities.

### **Recommendations**

1. That the MoveSmart Strategy Annual Report, as outlined in Attachment 1, be received; and
2. That the City Clerk forward a copy of this report to York Region, York Region's Local Municipalities, York Regional Police, York Region District School Board, York Region Catholic School Board, Metrolinx, and the Ministry of Transportation.

### **Background**

**On March 10, 2021, Council endorsed the MoveSmart Strategy that set the direction and priorities for the next five years; to create a progressive and holistic traffic management and mobility plan for all road users.**

With significant population and employment growth expected within the next ten years, the road network throughout the City of Vaughan continues to expand and the number of daily trips made in and out of the City is expected to increase. This creates many operational challenges on the City's road network including increased congestion and potentially more conflicts between vehicles, cyclists, and pedestrians. Despite these challenges, a high level of safety is expected from Vaughan's citizens.

**Road safety, maximizing existing road capacity, and providing alternative active and sustainable transportation modes continue to be the City's top priorities.**

In response to the substantial growth on the road network and guided by extensive input from key stakeholders and feedback from the public, staff developed the MoveSmart Strategy to direct the development of operational policies, allocate resources and establish priorities. Since the adoption of the Strategy, staff organized the City's mobility related services into the four highly integrated programs; road safety, mobility management, sustainable mobility and traffic data management. For more information

on these programs, please refer to Attachment 1, page 8 of the *2022 Annual Report - MoveSmart Mobility Management Strategy*.

The Strategy is designed to routinely adapt to the needs of the City's transportation network. It will also be updated every five years (in parallel with the Transportation Master Plan) to reflect changes in growth, the availability of new technologies and to align with the City's term of Council priorities.

### **Previous Reports/Authority**

MoveSmart – Mobility Management Strategy, Extract from Council meeting of March 10, 2021 (Item 1, Report No. 10 of the Committee of the Whole (Working Session)):

[filestream.ashx \(escribemeetings.com\)](filestream.ashx (escribemeetings.com))

Establishing Speed Limits on City Roadways, Extract from Council meeting of June 22, 2021 (Item 1, Report No. 31 of the Committee of the Whole (Working Session)):

<https://pub-vaughan.escribemeetings.com/filestream.ashx?DocumentId=78914>

School Crossing Guard Program Review, Extract from Council meeting of November 17, 2020 (Item 2, Report No. 53 of the Committee of the Whole (Working Session)):

[filestream.ashx \(escribemeetings.com\)](filestream.ashx (escribemeetings.com))

School Crossing Guard Policy, Extract from Council meeting of November 17, 2020 (Item 3, Report No. 53 of the Committee of the Whole (Working Session)):

[filestream.ashx \(escribemeetings.com\)](filestream.ashx (escribemeetings.com))

Vaughan Official Plan 2010:

[https://www.vaughan.ca/projects/policy\\_planning\\_projects/official\\_planning\\_2010/Pages/default.aspx](https://www.vaughan.ca/projects/policy_planning_projects/official_planning_2010/Pages/default.aspx)

Green Directions:

[https://www.vaughan.ca/cityhall/environmental\\_sustainability/GreenDirections/Pages/Green-Directions-Vaughan.aspx](https://www.vaughan.ca/cityhall/environmental_sustainability/GreenDirections/Pages/Green-Directions-Vaughan.aspx)

Pedestrian and Cycling Master Plan:

[https://www.vaughan.ca/projects/projects\\_and\\_studies/pedestrian\\_master\\_plan/Pages/default.aspx](https://www.vaughan.ca/projects/projects_and_studies/pedestrian_master_plan/Pages/default.aspx)

Active Travel Charter for Canadian Children and Youth, Extract from Council meeting of March 19, 2013 (Item 8, Report No. 9 of the Committee of the Whole):

[https://www.vaughan.ca/council/minutes\\_agendas/AgendaItems/CW0226\\_13\\_8.pdf](https://www.vaughan.ca/council/minutes_agendas/AgendaItems/CW0226_13_8.pdf)

## **Analysis and Options**

**Progress has been made in all four MoveSmart Strategy programs.**

Going into 2022 the MoveSmart Strategy is proving highly effective at achieving its aspirational goal; to provide consistent, reliable, and safer streets for all road users. The four MoveSmart programs encompass twenty-nine initiatives, fourteen of which have commenced or are ready to commence.

Three staff have been added to help develop and manage the foundations of the Strategy. Additional staffing resources are required over the next four years to continue to implement, manage and operate the various initiatives within the strategy.

Some of the more notable achievements to date include piloting new traffic calming measures within existing school zones, the rollout of the City's Slow Down lawn sign campaign, the implementation of a new speed limit policy, the acquisition of a traffic data management system and smart technology enhancements to the streetlight system and upgrade to the traffic signals network.

A comprehensive list of achievements from the first year of the MoveSmart Strategy and key planned initiatives are contained in Attachment 1, pages 12 to 23 of the *2022 Annual Report - MoveSmart Mobility Management Strategy*.

**Building partnerships with stakeholders, public engagement and public awareness initiatives continue to be instrumental components of the MoveSmart strategy, with a focus on safer transportation mobility options for vulnerable road users.**

The City continues to leverage partnerships with both internal and external stakeholders to help foster shared values and responsibilities when it comes to road safety. Collaboration to help raise awareness, enable communications, and share road safety information is key in building a road safety culture.

Key public awareness initiatives achieved and planned under the MoveSmart Strategy are contained in Attachment 1, page 24 of the *2022 Annual Report - MoveSmart Mobility Management Strategy*.

Over the next few years, MoveSmart will continue to guide the City in achieving the vision of providing a transportation system that is more safe, efficient and sustainable. To realize this vision, the MoveSmart Strategy will endorse road safety procedures that identify locations with the highest potential to improve safety and bring together stakeholders to integrate programs and safety knowledge to improve the City's roads

and trail systems. The strategy will continue to focus on managing congestion and optimizing the existing road network. With the newly acquired traffic data management system, the City will be able to make evidence-based decisions and assess the effectiveness of new policies and changes on the roadways.

### **Financial Impact**

**There are no financial impacts associated with this report.**

Cost estimates for the various initiatives continue to be further refined as projects are implemented and additional funding will be requested through the annual budget process. Staff will continue to explore opportunities, partnerships, and alternative funding sources to help support the strategy implementation.

### **Broader Regional Impacts/Considerations**

Since the City's transportation system is integrated with the Regional road network and adjacent to those of other local municipalities, it is critical that the MoveSmart Strategy is implemented in coordination with these other key stakeholders. Staff have begun to engage with the Regional Municipality of York by sharing data through its traffic data management system and are also pursuing a collaborative partnership in the development of a Road Safety Strategic Plan. Furthermore, York Regional Police, York Region School Boards, York Region Public Health, along with other City Departments continue to play a vital role in the MoveSmart Strategy with a focus on stakeholder engagement and public awareness initiatives within the four MoveSmart Strategy programs.

### **Conclusion**

Since the endorsement of the MoveSmart Strategy in March 2021, progress has been made or is ready to commence on fourteen of the twenty-nine initiatives.

Building partnerships and collaboration with key stakeholders continue to be a key focus to help raise awareness, enable communication, and share information in building a road safety culture focused on safety, mobility, sustainability, and data. As the programs in the strategy continue to be implemented, the vision of a safer, more efficient, and sustainable transportation system is being realized.

Staff recommend that Committee receive this first annual MoveSmart Strategy report and presentation outlining the achievements to date as information.

**For more information**, please contact:

Peter Pilateris, Director Transportation and Fleet Management Services ext. 6141

## **Attachments**

1. 2022 Annual Report MoveSmart Mobility Management Strategy, March 2, 2022

## **Prepared by**

Margie Chung, Manager of Traffic Engineering, 6173

Brenda Bisceglia, Acting Manager MoveSmart, 6144

## **Approved by**



Zoran Postic  
Deputy City Manager  
Public Works

## **Reviewed by**



Nick Spensieri  
City Manager



# 2022 Annual Report

# MOVESMART

## MOBILITY MANAGEMENT STRATEGY



VAUGHAN



# MOVESMART

## MOBILITY MANAGEMENT STRATEGY



On March 10, 2021, Vaughan Council endorsed MoveSmart, reinforcing the City's commitment to Transportation and Mobility – a strategic priority in the 2018-2022 Term of Council Service Excellence Strategic Plan. With a focus on improving the municipal road network, enhancing road safety and supporting more cycling and pedestrian infrastructure to create a fully connected and integrated community, MoveSmart positions the City to achieve the strategic goals and objectives set forth by Council.



# MESSAGE FROM THE **MAYOR**



We are pleased to present the City of Vaughan's first annual MoveSmart Report, a plan that ensures an efficient, reliable, safe and sustainable transportation system for generations to come.

By 2031, Vaughan's population is projected to increase by 36 per cent, while jobs are expected to grow by 18 per cent. As a result, road safety and effective traffic management remain a top priority to meet the community's existing and evolving transportation requirements. In March 2021, Council endorsed the MoveSmart strategy, reinforcing the City's commitment to advancing transportation and mobility. This report sheds further light on improving our municipal road network, enhancing road safety and supporting more cycling and pedestrian infrastructure to create a fully connected and integrated community.

In Vaughan, we are laser-focused on enhancing the exceptional quality of life and standard of living for everyone who lives, works and visits

our community. Vaughan continues to lead with innovation at the forefront. Our interconnected transportation network is an example of what can be achieved when design excellence, flexible planning for the future and convenient travel options are combined and implemented to suit the needs of a rapidly growing municipality.

I want to recognize and thank the Public Works team, our community partners and residents for their meaningful contributions to this important initiative. Together, we will continue to create safe, accessible and seamless connections to surrounding communities and make it easier for people to get where they need to go.

Sincerely,

A handwritten signature in blue ink that reads "Maurizio Bevilacqua". The signature is fluid and cursive, with the first name and last name clearly distinguishable.

Hon. Maurizio Bevilacqua  
Mayor, City of Vaughan



# MESSAGE FROM THE **CITY MANAGER**



The City of Vaughan's MoveSmart Mobility Management Strategy is a first-of-its-kind approach to managing future growth, transportation demand and public safety.

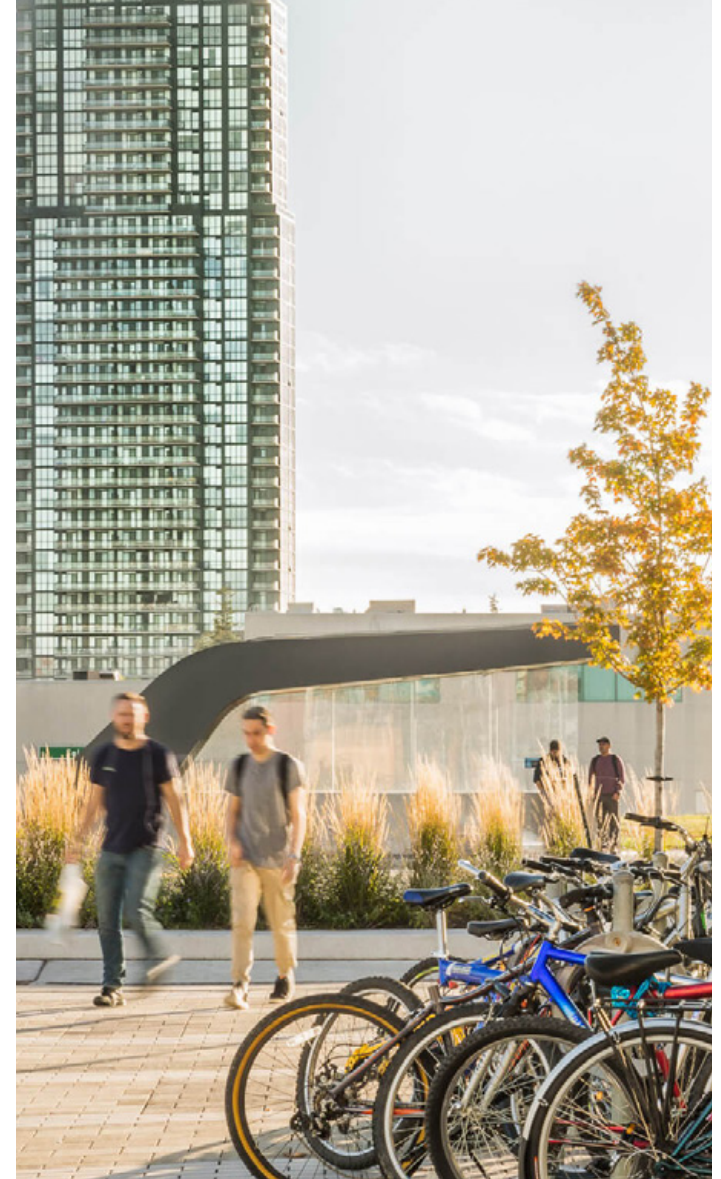
I want to extend my deep appreciation and thanks to our Public Works professionals, who continue to champion MoveSmart with corporate-wide support and deliver on Council-approved city-building programs that enhance the quality of life for Vaughan citizens, businesses and visitors.

On behalf of the Senior Leadership Team – Executive, I thank you for your hard work in keeping our city moving.

Thank you,

A handwritten signature in black ink, appearing to read 'Nick Spensieri', written over a white background.

Nick Spensieri  
City Manager, City of Vaughan



# MESSAGE FROM THE **DEPUTY CITY MANAGER**



It is an exciting time for the City of Vaughan, and I am pleased to share the first annual MoveSmart Mobility Management Strategy Report. This report reinforces our commitment to managing future growth, transportation demand and road safety – with an integrated and focused approach to addressing one of the largest challenges of a prosperous urban city. As our population continues to grow, so do the number of citizens who walk, cycle and drive on local and regional roads and related networks.

The MoveSmart Mobility Strategy is a first of its kind and has four key programs: road safety, mobility management, traffic data management and sustainable mobility – with a combined

29 initiatives. The strategy will allow us to take advantage of emerging and future technologies that will make travel more efficient and enhance the lives of our citizens. These programs will frequently connect with the public to encourage collaboration and will also serve to support partnerships with key stakeholders, including York Region, York Regional Police, Public Health, York Region and York Catholic District School Boards, partner agencies and local community groups that share a common interest in the betterment of transportation and mobility options for all road users.

~ **Zoran Postic**,  
Deputy City Manager, Public Works

# MESSAGE FROM THE **DIRECTOR**



The MoveSmart Mobility Management Strategy forms the roadmap to facilitate collaboration between key provincial, regional and municipal stakeholders to realize the City's vision of providing a safe, efficient and sustainable transportation network. This strategy will continue to focus on managing urbanization and congestion and optimizing the existing road network by leveraging technology and utilizing data to

make evidence-based decisions. Continuing to improve the safety, efficiency and sustainability of our transportation system – while enhancing the mobility options for all road users – are the guiding principles of the strategy, and creating safe, integrated and prosperous communities for the citizens of Vaughan remains our focus.

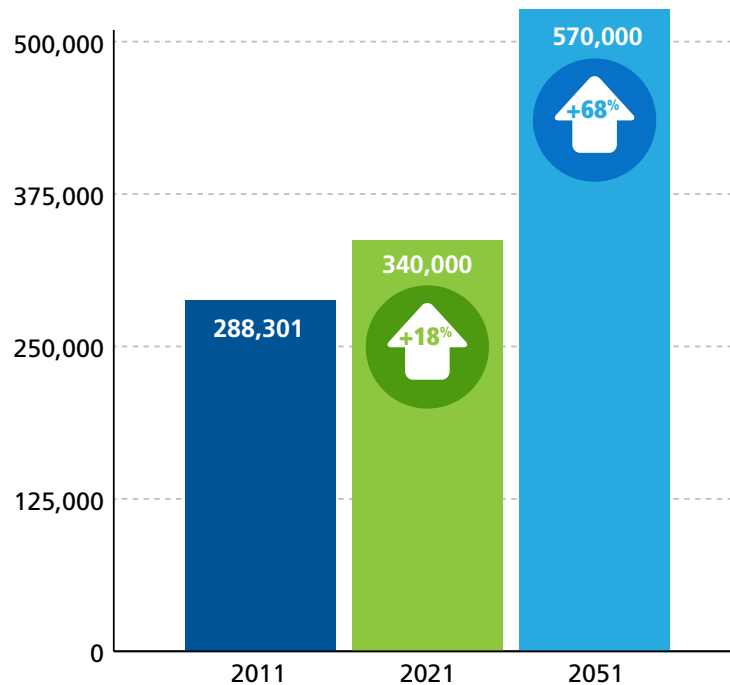
~ **Peter Pilateris**, Director of Transportation and Fleet Management Services

# MOVESMART AT-A-GLANCE

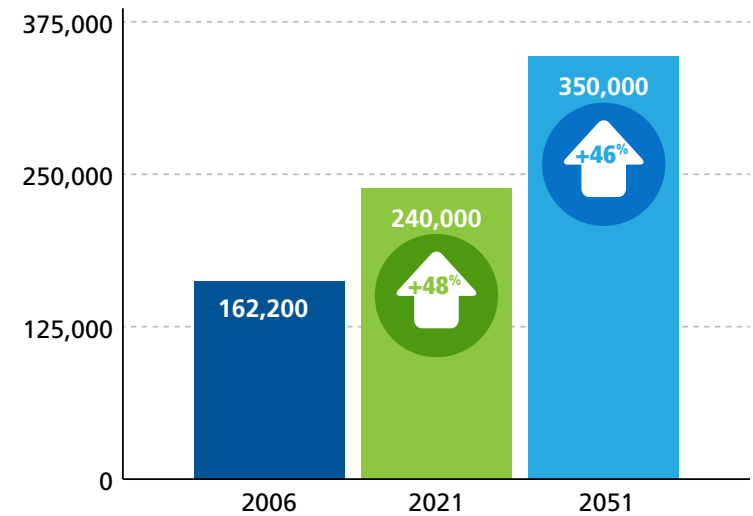
The City of Vaughan is one of Ontario's fastest growing municipalities, with a population today of over 340,000 people and a forecast of 570,000 people by 2051. Employment is expected to keep pace with population growth, increasing from 240,000 jobs in 2021 to over 350,000 jobs by 2051. With such high population and employment growth, the number of daily trips made by Vaughan residents and businesses, and external trips in and out of Vaughan, are expected to continue to increase over and above the rapid increases experienced over the last 25 years.



## Population



## Jobs







To keep up with the increase in trips, the road network throughout the city of Vaughan continues to expand; new roads and recreation trails have been created to serve new development, and existing roads are being widened. This expansion creates many operational challenges in all parts of the City, including more construction, more controls for traffic and more vehicles, cyclists and pedestrians.

In response, the City initiated the MoveSmart Mobility Management Strategy (MoveSmart) in 2021. The strategy integrates existing activities and projects, leverages research on trends and best practices, co-ordinates with internal departments and intends to change mindsets through public engagement.

The MoveSmart Strategy consists of four highly integrated programs:



### **Road Safety**

**to increase road safety and raise public awareness**

- To bring together key stakeholders to keep the City's streets safer for all road users and promote a road safety culture
- To take a more proactive approach to road safety by using data and proven statistical procedures and identify additional road safety opportunities



### **Mobility Management**

**to improve efficiency through innovation and technology**

- To modernize the City's traffic signals system, providing more efficient traffic flow and link to existing and future technologies
- To ensure pedestrians, cyclists and vehicle traffic continue to move safely and efficiently through signalized intersections and pedestrian crossings using the existing road network



### **Sustainable Mobility**

**to support active and sustainable transportation**

- To support the development of additional active and sustainable transportation options and ensure that they focus on the safety of all road users
- To support the expansion of the pedestrian and cycling network through consideration of the operations and maintenance services



### **Traffic Data Management**

**to assure accuracy and availability of traffic data**

- To modernize traffic data management with up to date traffic data to form the core of the Strategy and support data-driven and evidence-based decision-making
- To have traffic data to allow for ongoing tracking of performance of the transportation system over time





## 2021 / 2022

- In-Service Road Safety and Corridor Operational Review**  
Identify safety measures for priority locations, community areas and corridors
- Neighbourhood Traffic and Speed Management Plan**  
Improve safety and livability of neighbourhoods by calming traffic

## 2023

- Construction Management and Work Zone Safety Plan**  
Develop guidelines to minimize impacts and maximize safety for construction workers and the public
- Road Safety Strategic Plan**  
Foster partnerships and a data-driven approach for improving safety

## 2024

- Network Screening and Annual Report**  
Prioritize safety resources for roads and intersections
- Automated Speed Enforcement Plan**  
Use technology for enforcement in school zones and other community areas
- Speed Compliance Plan**  
Address speeding behaviour with feedback to drivers

## 2025

- Low-Cost Safety Countermeasures Plan**  
Implement low-cost measures such as pavement markings, signage, etc.

## 2026

- Rail Transportation and Safety Plan**  
Improve mobility while minimizing noise at crossings near residential area
- Heavy Traffic and Truck Routing Plan**  
Manage heavy vehicle and truck transport throughout the City

## 2021 / 2022

- Traffic Signal Control System and Upgrades**  
Establish a traffic signal control system and upgrade field equipment
- Pavement Markings and Signs**  
Replace and optimize markings and signs
- Update Streetlights**  
Continue LED retrofit with smart adaptive features

## 2023

- Traffic Signal Operations and Maintenance**  
Maximize the efficiency of traffic signal operations
- Curbside Parking Management**  
Establish parking policies and procedures throughout the City
- Traffic By-Law Consolidation**  
Consolidate the City's road-related by-laws
- Intelligent Transportation System (ITS) Strategy and Plan**  
Establish a roll-out plan for existing and emerging smart mobility technologies

## 2024

- Traveller Information Systems**  
Generate and present data to support travellers

## 2021 / 2022

- School Crossing Guards**  
Manage the City's school crossing guard program
- Safer School Zones Plan**  
Develop and implement safety measures near schools for traffic, pedestrians, and pick-ups/drop-offs
- Input into Development Planning**  
Provide insights to help the City's planning for future development

## 2023

- Pedestrian Infrastructure Enhancement Plan**  
Optimize and upgrade the City's pedestrian infrastructure
- Creation of Community Safety Zones**  
Develop guidelines to create and operate community safety zones

## 2024

- Cycling Network Expansion**  
Optimize and upgrade the City's cycling infrastructure
- Travel Demand Management Plan**  
Share insights and decisions for the City's travel demand management plan

## 2021 / 2022

- Traffic Data Needs Assessment**  
Identify traffic data requirements to support the MoveSmart Strategy
- Traffic Data Management System**  
Procure and implement a traffic data management system
- Traffic Data Services**  
Enhance the City's traffic data collection programs and contracts



## Communications and Public Awareness Initiative

Ongoing awareness of tangible benefits through communication and education

# MOVESMART

## Mobility Management Strategy



# MOVESMART AT ONE YEAR

The MoveSmart Strategy is designed to continuously adapt to the ever-changing dynamics of the city's travellers, take advantage of new or emerging technologies and leverage opportunities as they become available. In this way, the strategy can continue to support the City's changing goals and priorities.

## Accelerating the Plan

Fourteen out of the 29 MoveSmart Strategy initiatives have started, or are ready to start, in 2022 with two specific initiatives brought forward from future years that include the Road Safety Strategic Plan and the Intelligent Transportation System Strategy.



The City continues to build partnerships with York Region, York's school boards and the York Regional Police. In addition, three staff positions have been created to support the strategy. The acceleration of the Road Safety Strategic Plan initiative will allow the City to realize a safety plan sooner and leverage it as a guide to focus resources and the investments of our partners on road safety improvements. By accelerating the schedule, a Road Safety Strategic Plan can be realized by the end of 2023.



*Smart streetlights are gaining attention as a future interface to the public. Smart streetlights connect with a wide range of devices, including electronic banners, environmental sensors, parking monitoring devices, cameras, traffic and pedestrian sensors and WiFi. They also monitor and control the street lighting; dimming when there is no activity and brightening when pedestrians or cyclists are detected. When streetlights need service or repair, maintenance personnel can issue alerts for a response.*



The schedule for the Intelligent Transportation System (ITS) Strategy and Plan has also been fast-tracked to take advantage of the outcomes of the Traffic Control System and Upgrades and the Smart Streetlights initiatives. As the procurement of the traffic control system proceeds, new opportunities emerge, including the integration of other field equipment, new sources of data and the integration of several ITS systems. A plan is needed to guide the City's actions around these new opportunities and to optimize the benefits they provide.







# ROAD SAFETY PROGRAM

Road safety has been identified as one of the top priorities for Vaughan citizens. The Road Safety Program is designed to create a culture of safety for all road users through partnerships and education. It consists of a set of initiatives that are carefully followed to monitor, assess and improve the safety performance of a roadway network.



## Neighbourhood Traffic and Speed Management Plan

### Accomplishments

- ✓ Approved Speed Limit Policy – Phase 1 and 2 completed (school zone areas and public laneways)
- ✓ Ongoing traffic and speed management studies in select locations
- ✓ Expansion of the Radar Speed Board Program (15 new signs)

### What's Next

- Approved Speed Limit Policy – pilot 40 kilometre an hour neighbourhood area zones at selected locations throughout the City (Q3 2022)
- Complete neighbourhood traffic and speed management studies in select locations
- Expand Radar Speed Board Program
- Monitor effectiveness of speed limit framework and include results in next MoveSmart annual report
- Procure consulting services to develop the Neighbourhood Traffic and Speed Management Plan (Q3 2022)

### GOAL: Increase road safety and raise public awareness

- To bring together key stakeholders to keep the City's streets safer for all road users and help foster a road safety culture
- To take a more proactive approach to road safety by using data and proven statistical procedures and identify additional road safety opportunities





## In-Service Road Safety and Corridor Operational Reviews

### Accomplishments

- ✓ Proactive inventory of neighbourhood concerns

### What's Next

- Develop in-service road safety and corridor operational review framework (Q2 2022)
- Develop in-service road safety guidelines (Q3 2022)
- Planning operational reviews in select corridors (Q3 2022)



## Road Safety Strategic Plan

### Accomplishments

- ✓ Developed shared principles with York Region for a joint Traveller Safety Strategy

### What's Next

- Investigating best practices
- Establish a scope of work and areas of focus to develop the road safety strategic plan

## **Automated Speed Enforcement Plan**

### Accomplishments

- ✓ Preliminary discussions with stakeholders (York Region and By-law and Compliance, Licensing and Permit Services)
- ✓ Staff participated in the Ontario Traffic Council (OTC) Automated Speed Enforcement (ASE) Municipal Working Group to guide the planning and development of the ASE program guidelines

### What's Next

- Monitoring York Region's two-year ASE pilot project (to be completed by the end of 2022) to serve as the blueprint for the City's program
- Establishing criteria for candidate areas for ASE within the City (2022)
- Staff continue to work with York Region, OTC, and other municipalities to advocate for an ASE program using an Administrative Monetary Penalty System (AMPS)





# MOBILITY MANAGEMENT PROGRAM

## **GOAL: Improve efficiency through innovation and technology**

- To modernize the City's traffic signals system, providing more efficient traffic flow and link to existing and future technologies
- To ensure pedestrians, cyclists and vehicle traffic continue to move safely and efficiently through signalized intersections and pedestrian crossings using the existing road network



The City of Vaughan requires the necessary systems, policies and plans to address the complex mobility needs across the city. The Mobility Management Program includes initiatives that allow the City to acquire and operate traffic management systems such as traffic signals, cameras, sensors, variable message signs and other technologies and to use these systems to manage traffic and record traffic data. It also includes initiatives needed to maintain pavement markings and signs that will enhance safety and support sustainable mobility. Lastly, some initiatives involve the development of plans and frameworks to assure optimal integration of these systems and services with the required resources at the most appropriate time.



## **Traffic Control System and Upgrades**

### **Accomplishments**

- ✓ Developed a methodology and plan for the Intelligent Transportation System (ITS) and Traffic Management Centre



- ✓ Upgraded 25 signalized intersections with LED traffic signals with reflective backboards and pedestrian countdown timers
- ✓ Continue to co-ordinate and work with internal departments through capital programs to upgrade pedestrian signals to include countdown timers, audible crossing signals (cuckoo and chirp), properly aligned crosswalks with depressed curbs and tactile walking surface indicators that are inlaid in the concrete at intersections
- ✓ Adjusted walk speed at selected intersections to increase walk time for children and older adults
- ✓ Provided lead green time for pedestrians at a pilot intersection to minimize vehicle and pedestrian conflicts (e.g. Clark Avenue at Hilda Avenue)

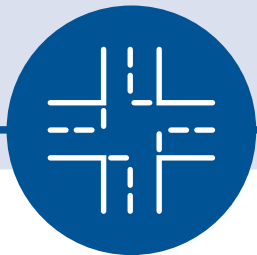
*There are many existing applications (apps) that provide traveller information and trip planning services. In this respect, the City has an opportunity to support and encourage these apps by providing open data. Information that would be highly valuable on an open data platform includes active work zones, locations of traffic signals and crosswalks, recreation trail crossings, school and community safety zones, speed limits, road closures and special events. This information will further improve the effectiveness of the traveller information and trip planning apps.*

*Smart mobility refers to the use of different modes of transportation alongside, or instead of, gasoline-powered vehicles. Smart mobility includes (among other modes): e-bikes, scooters, skatellong-boards, ridesharing, car sharing and integrated public transportation.*





*The University of Purdue in the U.S. has developed a set of Automatic Traffic Signal Performance Measures (ATSPM) for contemporary traffic signal controllers. These measures monitor the state of all aspects of the traffic signals (indications, detectors, timers, peripherals, etc.) and are logged 10 times per second. The logs can then be used to assess the signal performance for a wide range of considerations, including timing, unused cycle times, effectiveness of transit signal priority, frequency of pedestrian calls and more. The algorithms and programs that analyze the ATSPMs are available as Software-as-a-Service (SaaS) over the cloud.*



## What's Next

- Procuring a vendor (in progress)
- Planning the development of an advanced traffic signal control system and traffic data management centre (ongoing)
- Preparing for the retrofit of 30 additional signalized intersections with LED traffic signals with reflective backboards and pedestrian countdown timers





## Upgrade Streetlights

### Accomplishments

- ✓ Operating and maintaining the new 'smart' LED streetlight system
- ✓ Implemented adaptive controls
- ✓ Completed inventory for streetlight pole replacement program
- ✓ Replaced 50 streetlight poles in the streetlight pole replacement program

### What's Next

- Phase 2 of the LED Streetlight Retrofit program will upgrade locations to meet city illumination standard (Q2 2022)
- Additional 50 streetlight pole replacements (Q4 2022)
- Underground infrastructure cable mapping of streetlight system (throughout 2022)
- Monitoring the 'smart' streetlight system (ongoing)







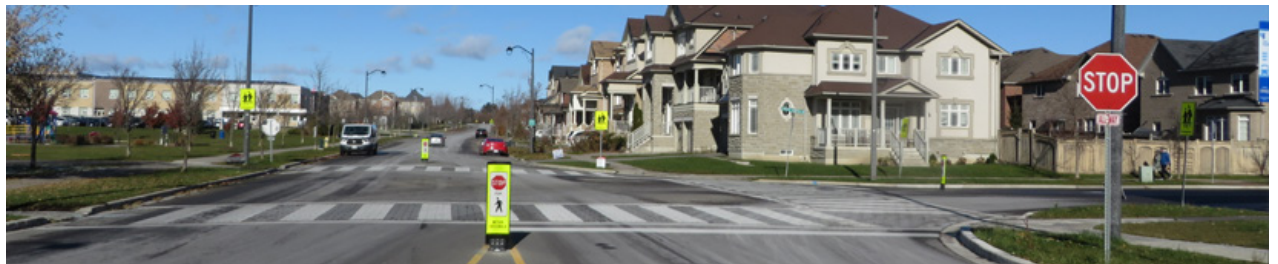
## Pavement Markings and Signs

### Accomplishments

- ✓ Piloted “Slow School Zone” pavement stencilling in a school zone
- ✓ Implemented roadway edge lines and enhanced crosswalks at select locations throughout the City
- ✓ Launched Flexible In-Road Traffic Calming Program – flexi posts have been installed within select school zone areas

### What’s Next

- Developing a framework for the In-Road Flexi Sign Program – pilot additional locations (Q2 2022)
- Conducting an inventory of pavement markings across City’s road network (Q4 2022)
- Evaluating the effectiveness of the “Slow Down 40km and Slow School Zone” pilot projects in each Ward and develop a framework for future locations (2022+)
- Identifying additional locations for pavement marking upgrades to enhance road safety including crosswalks (Q2 2022)



# SUSTAINABLE MOBILITY PROGRAM

The City has a progressive track record for constructing state-of-the-art active transportation infrastructure, including recreation trails, pedestrian crossings and cycling lanes. The Sustainable Mobility Program serves to operate and maintain that infrastructure, so it is safe and reliable. Furthermore, considering operations and maintenance requirements during the conceptual design stages results in more efficient and cost-effective services to the public in the long run.



## Pedestrian Infrastructure Enhancement, Cycling Network Expansion and Development Planning

### Accomplishments

- ✓ Continue to co-ordinate with internal departments to advance improvements for pedestrian crossings and cycling networks at various locations across the city
- ✓ Implemented two Type B Pedestrian Crossovers at Valley Vista/South Down Avenue and York Hill Boulevard near Gailcrest Circle
- ✓ Provided input during the feasibility and design study of Clark Avenue
- ✓ Continue to provide insight to help the City's planning and future development in order to design and build safe communities



### What's Next

- To continue to work with internal departments to advance the Cycling Network Expansion Program through the Pavement Marking Design Program.
- Pedestrian Infrastructure Enhancement Plan identified for 2023

### GOAL: Support active and sustainable transportation

- To support the development of additional active and sustainable transportation options and ensure that they focus on the safety of all road users
- To support the expansion of the pedestrian and cycling network through consideration of the operations and maintenance services



*Today's emerging systems use Artificial Intelligence (AI) to identify pedestrian-vehicle conflicts or non-compliance of pedestrians with traffic signals. These systems consist of cameras installed at intersections and connections to the traffic signal controllers. The intervals of the signal are monitored against the movements of pedestrians. If pedestrians are detected to advance into the crosswalk at any time in the signal cycle (other than during a walk signal) a non-compliance action is recorded. Image processing is used to identify moving vehicles as they come in close proximity to pedestrians and can register a pedestrian-vehicle conflict. These reports can identify safety issues at traffic signals.*



## School Crossing Guards

### Accomplishments:

- ✓ Developed the framework for establishing the School Crossing Guard Program Exposure Index
- ✓ Created a Safety School Zone website landing page - [vaughan.ca/SchoolZoneSafety](https://vaughan.ca/SchoolZoneSafety)
- ✓ Developed a training video for the City's School Crossing Guards

### What's Next

- Report to Council on the School Crossing Guard Exposure Index (Q4 2022)







## Safer School Zones Plan and Creation of Community Safety Zones

### Accomplishments:

- ✓ Peer review of other municipalities for a Safer School Zones Plan
- ✓ Prepared a scope of work for the Safer School Zones Plan
- ✓ Active School Travel Pilot Project (soft launch)
- ✓ Staff and stakeholder meetings with nine local schools

### What's Next

- Developing a framework for both the Safer School Zones Plan and Community Safety Zones Plan (Q4 2022)
- Continue to engage with school board stakeholders (ongoing)



# TRAFFIC DATA MANAGEMENT PROGRAM

## **GOAL: Assure accuracy and availability of traffic data**

- To modernize traffic data management with up to date traffic data to form the core of the Strategy and support data-driven and evidence-based decision-making
- To have traffic data to allow for ongoing tracking of performance of the transportation system over time



Traffic data is at the heart of good decision-making. It can help identify and alleviate mobility issues, focus resources, and guide best practices. The Traffic Data Management Program will allow the City to expand on the traffic data collected, optimize the efficiency and timeliness in which the data is collected, and enable data analysis tools and techniques. By availing the City with timely, accurate and reliable data, the Traffic Data Management Program supports the other three programs of MoveSmart.



## **Traffic Data Management System**

### **Accomplishments:**

- ✓ Acquired a traffic data management system
- ✓ Developed a plan for system integration
- ✓ Entering current and historical data

### **What's Next**

- Complete data migration into the traffic data management system (Q4 2022)
- Conduct a data needs assessment to build baseline data and mapping of the transportation network conditions (Q4 2022)

# PUBLIC AWARENESS INITIATIVES

## Changing mindsets...

### Accomplishments:

- ✓ #SlowDownVaughan campaign - the campaign was approved by Council on Oct. 20, 2021 and to date over 2,600 signs have been distributed to various community centres and Vaughan Public Library locations for pick up
- ✓ Development of a comprehensive School Zone Safety web page sharing stakeholder information on road safety initiatives
- ✓ Road and School Zone Safety promotion with Mayor and Members of Council
- ✓ Public service announcements and postcards related to road safety
- ✓ Promoting Road Watch Program (in collaboration with York Regional Police)

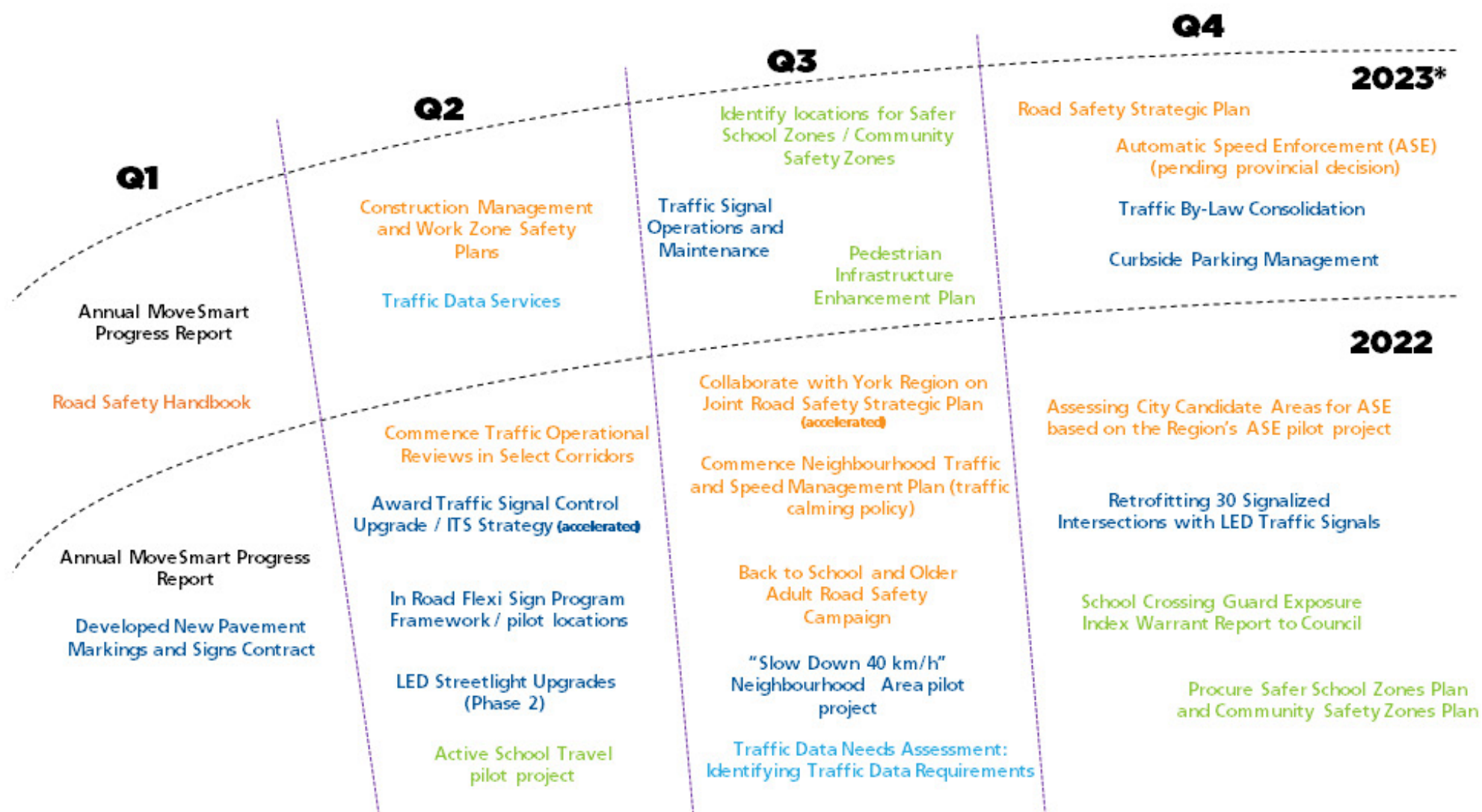
### What's Next

- Continued public consultation when developing the Road Safety Strategic Plan and the Neighbourhood Traffic and Speed Management Plan (Q4 2022)
- Develop a digital Road Safety Handbook (Q1 2023)
- Continue to work with key stakeholders such as the school boards, school administration, York Region and York Regional Police to promote road safety initiatives (ongoing)

The Corporate and Strategic Communications department supports the MoveSmart Strategy with a comprehensive communications approach that includes:

- **PUBLIC SERVICE ANNOUNCEMENTS AND NEWS RELEASES** – with approximately **2,101,000 impressions** since launch
- **SOCIAL MEDIA MESSAGING** – shared with **more than 62,000 followers** across the City's four corporate social media platforms
- **NUMEROUS WEBPAGES** – dedicated to MoveSmart, Speed Limit Policy and School Zone Safety and featured on vaughan.ca, which garners almost **2 million visits annually**
- **DIGITAL SIGNS** – shared throughout our city-wide network and garnering more than **63,000 daily impressions** or **more than 23 million impressions annually**
- **FEATURES IN CITY HALL CONNECTS NEWSLETTER** – distributed to all residences and businesses across the city (nearly **115,000 mailboxes**)
- **MOBILE SIGNS** – **10 signs across the city** were strategically placed in each ward





\*Note: 2023 project timelines are reflective of anticipated commencement date and subject to budget approval process

# CONCLUSION

Though only in its first year, the MoveSmart Mobility Management Strategy has seen significant progress to date. Over the next few years, MoveSmart will continue to guide the City through its vision to provide a transportation system that is safe, efficient and sustainable. The success of MoveSmart will rely on partnerships between road users and internal and external stakeholders, as there is a part to play for everyone in creating and sustaining a culture of road safety. The MoveSmart Strategy will take five years to fully implement and requires the City to continually challenge existing processes and services to meet yearly milestones. It will require continuous adjustments, and we will need to rely on partnerships and the public to make it happen. Throughout the next four years, the strategy will form a road map for these efforts and encourage dedicated partners to assemble, work together and continue delivering efficient traffic services to Vaughan citizens.

## MOVESMART MOBILITY MANAGEMENT STRATEGY









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**MOVESMART**

MOBILITY MANAGEMENT STRATEGY

