

For Information

DATE: May 18, 2010

REPORT TITLE: **2009 REGION OF PEEL CORDON COUNT SURVEY**

FROM: Dan Labrecque, Commissioner of Public Works

OBJECTIVE

To inform Council of the findings of the 2009 Region of Peel Cordon Count Survey.

REPORT HIGHLIGHTS

- The Cordon Count Survey helps to monitor travel patterns and volume changes in Peel and assists in the planning of Regional transportation improvements.
- A total of 131 locations along Provincial highways, Regional and local roads across the Region of Peel were counted in 2009.
- The next Cordon Count Survey will be conducted in 2011 with over 250 count locations.

DISCUSSION**1. Background**

The 2009 Peel Region Cordon Count Survey is a continuation of a program initiated in 1981 with the objective of regular collection of consistent and comprehensive Regional transportation data on daily vehicle and person movements in Peel Region. The program helps to monitor travel patterns and volume changes in Peel and assists in the planning of Regional transportation improvements.

The Cordon Count Survey is a manual traffic counting program conducted every two to three years in coordination with the Ministry of Transportation and Greater Toronto Area regions and municipalities, including the Region of Halton, Region of York, City of Toronto and Region of Durham. Full counts are conducted in census years, to enable comparisons to be made against population and employment growth, as well as other factors. Partial counts are conducted in between full counts and provide a scaled down version of data, typically focusing on external screenlines or traffic entering and leaving the Region.

2. 2009 Cordon Count Survey

The 2009 Cordon Count Survey was a partial count that included 131 locations across the Region of Peel. Vehicles were classified into several categories and vehicle occupancy was also counted. Counts took place between 5:30 a.m. and 8:30 p.m. during the months of May and June (and September for locations requiring recounts).

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A series of successive counting stations were grouped to form screenlines. A cordon refers to the geographic area enclosed by a set of screenlines. A new station was added in 2009 to capture traffic on the Highway 410 extension to Mayfield Road.

The Cordon Count Survey database remains a valuable source of information for the Region of Peel and GTA municipalities. The database provides access to historical vehicle classification and occupancy information from GTA regions and municipalities.

The Region of Peel uses Cordon Count data to calibrate the Regional Travel Demand Forecasting Model. Cordon Count data is also used by both the Region of Peel and area municipalities for strategic decision making on infrastructure investments and policy development. The Cordon Count database is available to the public free of charge through the University of Toronto's Data Management Group.

3. Key Travel Trends

When compared to data from previous counts in 2001, 2004 and 2006, the 2009 Region of Peel Cordon Count Program data identified the following trends (see Appendix I for detailed information):

a) Decrease in Trips Crossing the Peel East and West Screenlines

Although traffic volumes decreased across the Peel East Boundary Screenline and Peel West Boundary Screenline between 2006 and 2009, these screenlines exhibited an average annual growth rate of 1.7 per cent and 0.7 per cent, respectively since 2001.

b) Increase in Trips Crossing the Peel North Screenline

Traffic crossing the Peel North Screenline increased by 1,900 vehicles from 2006 to 2009 (an increase of 4.6 per cent). The average annual increase in traffic volume across the Peel North Boundary was 2.3 per cent since 2001.

c) Increase in Trips Crossing the Brampton/Caledon Screenline

Vehicle trips crossing the Brampton/Caledon Boundary Screenline have increased by 17 per cent or 21,500 trips since 2006 alone. The average annual growth rate for trips across the Brampton/Caledon Boundary Screenline since 2001 was 2.9 per cent - the largest average annual screenline increase since 2001.

d) Decrease in Trips Crossing the Mississauga/Brampton Boundary Screenline

Although vehicle trips crossing the Mississauga/Brampton Boundary Screenline decreased slightly in 2009 (from 440,200 to 431,200), the average annual growth rate since 2001 was 0.8 per cent.

e) Increase in GO Rail Trips on the Lakeshore, Milton and Georgetown Lines

GO Rail trips have been steadily increasing over the past several years, with average annual growth rates of 0.8 per cent on the Lakeshore line, 3.6 per cent on the Milton line, and 3.7 per cent on the Georgetown line since 2001.

f) Increase in Share of Single Occupant Vehicles

Despite some variability, there has been an average decline in auto occupancy since 2001 and a corresponding increase in single occupant vehicles. The percentage of vehicles with two or more occupants has decreased from 14.4 per cent in 2001 to 10.4 per cent in 2009 while the percentage of single occupant vehicles increased from 85.6 per cent in 2001 to 89.6 per cent in 2009 (an increase of 4 per cent over the eight year period).

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g) Decrease in the Share of Commercial Vehicles/Increase in Share of Passenger Vehicles

The percentage share of commercial vehicles has decreased from 18% in 2001 to 14.8% in 2009. This corresponds to an increase in passenger vehicles from 82% in 2001 to 85.2% in 2009.

h) Increase in Share of Heavy Truck Traffic

Although the share of commercial vehicles as a whole has decreased since 2001, the share of heavy trucks as compared to medium and light commercial vehicles increased from 35.9% in 2001 to 42.2% in 2009.

i) Highways and Arterials in Peel Continue to Carry Heavy Traffic Volumes

Many highway and arterial stations experienced an increase in traffic volume since 2006. Highway 401 at the Etobicoke Creek was the busiest highway station in both 2006 and 2009, with over 358,000 vehicles crossing this screenline in 2009 (a 1% increase over 2006).

Although it exhibited a 10% decrease in traffic volumes from 2006 to 2009, Dixie Road north of the 401 was the busiest arterial station in both 2006 and 2009, with traffic volumes exceeding 45,000 vehicles.

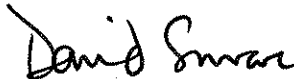
CONCLUSION

The 2009 Cordon Count Survey provides valuable information pertaining to auto volumes and occupancy, transit data, and commercial vehicle classification and volumes. The survey continues to monitor travel patterns and volume changes in Peel and assists in the planning of Regional transportation improvements.



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Approved for Submission:



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c. Legislative Services

2009 REGION OF PEEL CORDON
COUNT SURVEY

Transportation Planning

2009 Region of Peel Cordon Count Program

Region of Peel
Working for you

May 2010

This bulletin highlights key findings and trends of vehicle travel patterns in the Region of Peel based on the 2009 Cordon Count Program. It includes an analysis of changes in inter-regional and inter-municipal trips by automobiles, trucks, and GO Rail, as well as automobile occupancy.

What is the Cordon Count Program?

The Cordon Count Program involves counting vehicle types (including cars, trucks, buses, trains, and bicycles), vehicle occupancy, and their direction of travel. Vehicles are counted manually when they pass select locations. This is done over a 15-hour period from 5:30 a.m. to 8:30 p.m. on a single day during the months of May and June, 2009. A total of 131 stations located on Provincial highways, Regional roads and local roads, were counted in 2009.

Stations, Screenlines, & Cordons

A series of successive counting *stations* are grouped to form a *screenline*. Screenlines typically follow municipal, regional, or other physical boundaries. A *cordon* refers to a geographic area enclosed by a set of screenlines. The map on page 2 shows the Region of Peel's screenlines, cordons, as well as the stations counted in 2009.

Benefits of the Program

Peel Region and area municipalities use the resulting data in developing transportation policy and capital plans. Specifically, the results of the Cordon Count Program are used in planning regional transportation infrastructure by forecasting future passenger and commercial vehicle trips, as well as public transit use. This helps the Region and area municipalities more accurately determine future infrastructure needs and resource allocation.

Population Growth & Vehicle Trips

Between 2001 and 2006, the population of Peel Region increased by more than 14% or 170,000 people. In addition, 74,000 jobs were added (an increase of 12%). The Cordon Count program provides an understanding of how this growth is changing travel trends and aids in determining how these changes can best be accommodated.

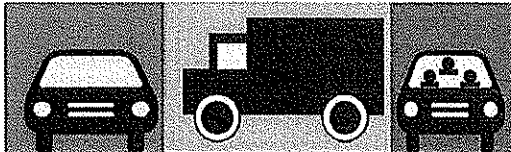
The complete Cordon Count database is available to the public through the Data Management Group at the University of Toronto. [<http://www.dmg.utoronto.ca/>]

What are the Travel Trends in Peel?

The next three pages illustrate the changes in inter-regional and inter-municipal trips, automobile occupancy, station volumes, proportion of commercial vehicles, as well as GO Transit ridership.

HIGHLIGHTS

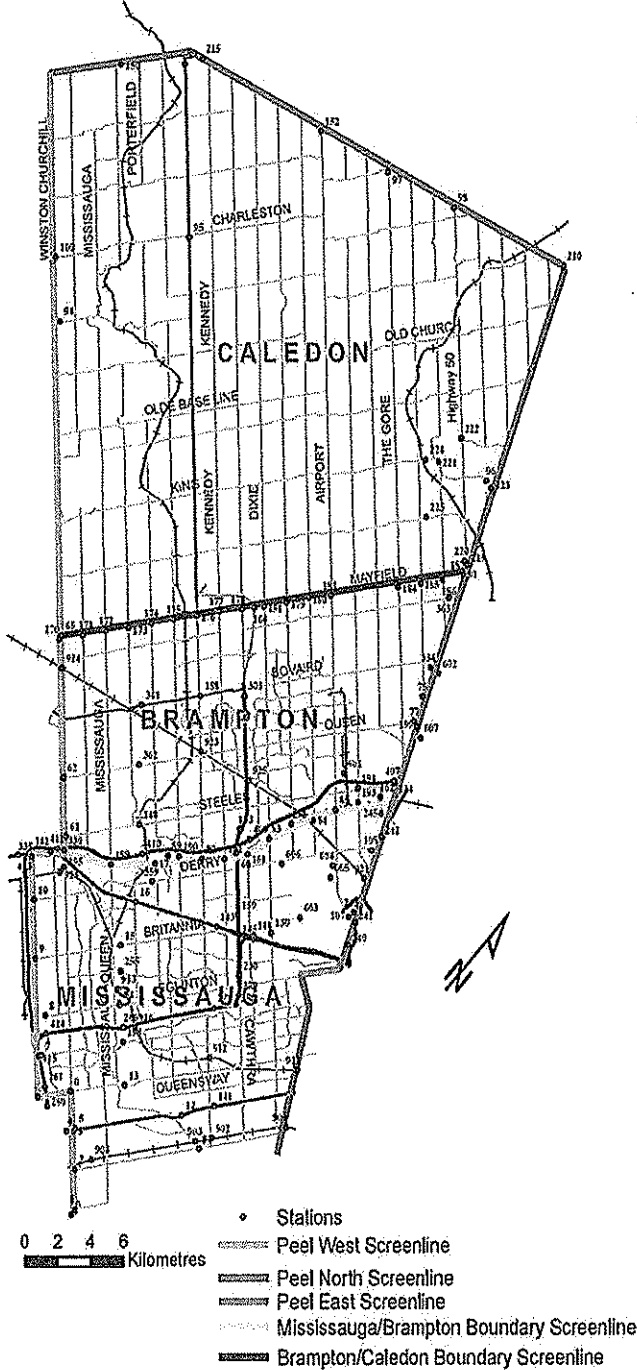
- Vehicles and occupants were counted at 131 locations across the Region of Peel.
- Vehicle trips crossing the Peel East and West Boundary Screenlines decreased between 2006 and 2009.
- Vehicle trips crossing the Peel North Boundary Screenline increased by 4.6% from 2006 to 2009.
- Vehicle trips crossing the Brampton/Caledon Boundary Screenline increased by 17% since 2006.
- Trips crossing the Mississauga/Brampton Boundary Screenline decreased slightly between 2006 and 2009.
- Average annual growth rates in GO Rail trips on the Lakeshore, Milton and Georgetown lines were 0.8%, 3.6% and 3.7%, respectively since 2001.
- Average auto occupancy declined from 1.16 in 2001 to 1.11 persons per vehicle in 2009.
- The percentage share of commercial vehicles compared to passenger vehicles decreased from 18% in 2001 to 14.8% in 2009.
- The share of heavy truck traffic (as compared to light and medium commercial vehicles), increased from 35.9% in 2001 to 42.2% in 2009.
- Highway 401 at the Etobicoke Creek was the busiest highway station in Peel, with over 358,000 vehicles counted in 2009.
- Dixie Road north of the 401 was the busiest arterial station in Peel, with 45,000 vehicles counted in 2009.



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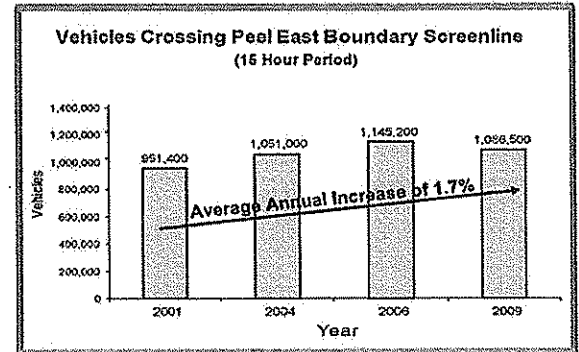
2009 Region of Peel Cordon Count Program

2009 Cordon Count Stations



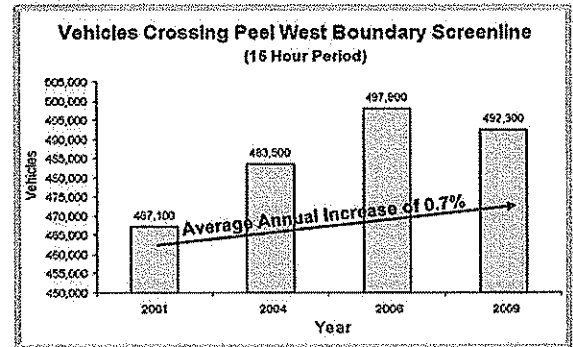
Inter-regional Trips Increased Over the Long-Term Peel East Screenline

Vehicle trips crossing the eastern boundary of the Region decreased by 5% from 2006. However, average annual growth in vehicle trips crossing the eastern boundary since 2001 was 1.7%.



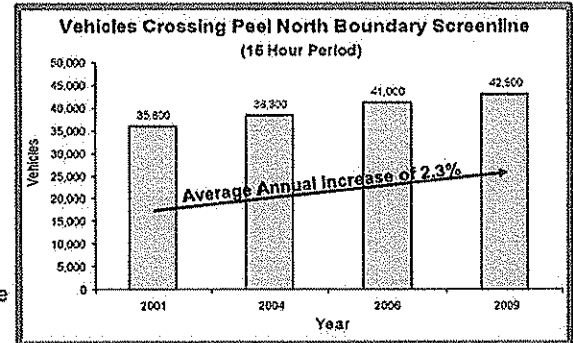
Peel West Screenline

From 2006 to 2009, there was a decrease in vehicle trips by 1.1% for the western boundary. However, the average annual change shows a growth of 0.7% annually from 2001 to 2009.



Peel North Screenline

Along the northern boundary, vehicle trips increased by 4.6% from 2006 resulting in an average annual increase of 2.3% since 2001.



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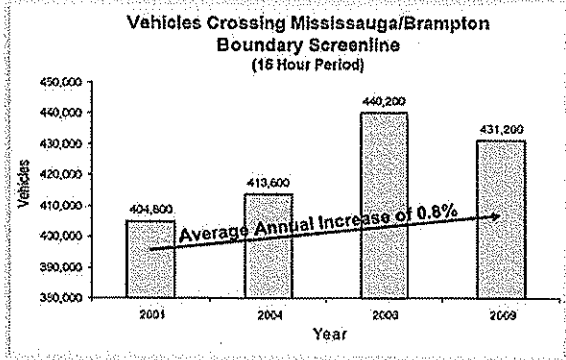
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2009 Region of Peel Cordon Count Program



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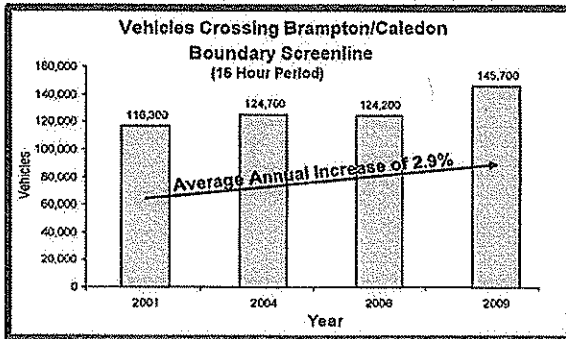
Inter-municipal Trips Continue to Increase
Mississauga/Brampton Screenline

Similar to some inter-regional trips, since 2006 the number of vehicles crossing the Mississauga/Brampton boundary decreased by 2%. However, the average annual change shows an increase of 0.8% since 2001.



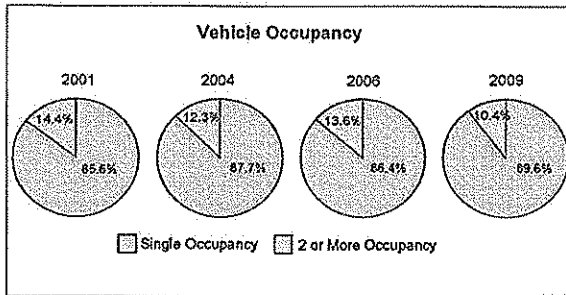
Brampton/Caledon Screenline

Trips crossing the Brampton/Caledon boundary increased by 17% between 2001 and 2009, or an average annual increase of 2.9%.

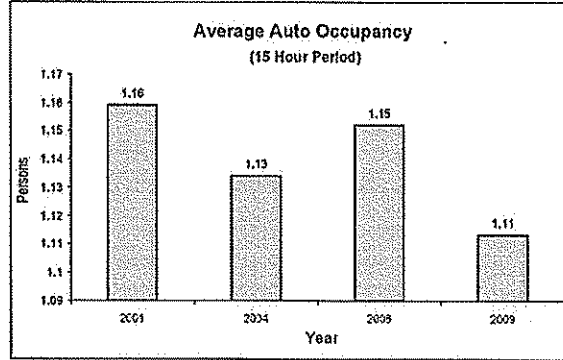


Single Occupant Trips are Increasing

The percentage of single-occupant vehicles has increased from 85.6% in 2001, to 89.6% in 2009, or a 4% increase over the eight year period.



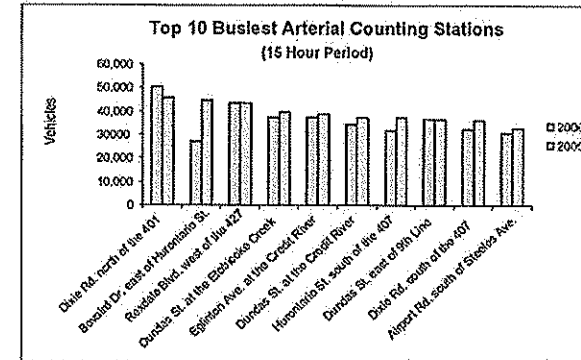
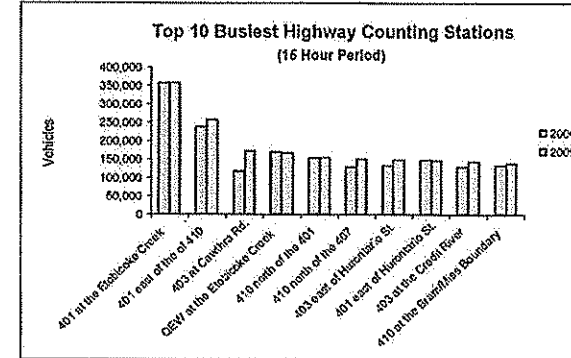
Average auto occupancy has declined from 1.16 in 2001 to 1.11 in 2009.



Highways & Arterials Continue to Carry Heavy Traffic

Highways

Provincial highways carry heavy traffic through and within Peel. Of the locations counted, the highest traffic volumes were recorded on Highway 401 at the Etobicoke Creek, where more than 350,000 vehicles were recorded in the 15-hour count period in 2009. Most of the busiest highway stations showed an increase or a slight decrease in trips from 2006 to 2009.



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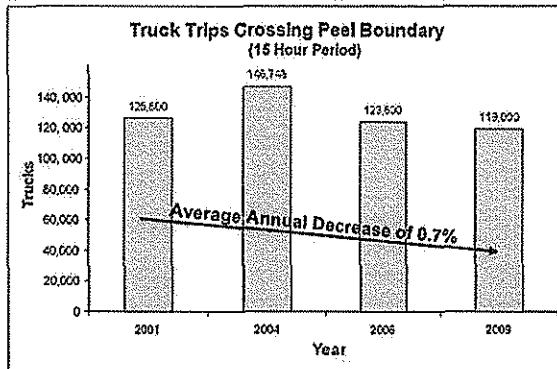
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Arterials

Most of the major arterial roads in Peel saw an increase in traffic from 2006. [Graph on page 3.] However, the station at Dixie Rd north of the 401, saw a 10% decrease in traffic volumes, while the station at Bovaird Dr. east of Hurontario saw an increase of about 63%.

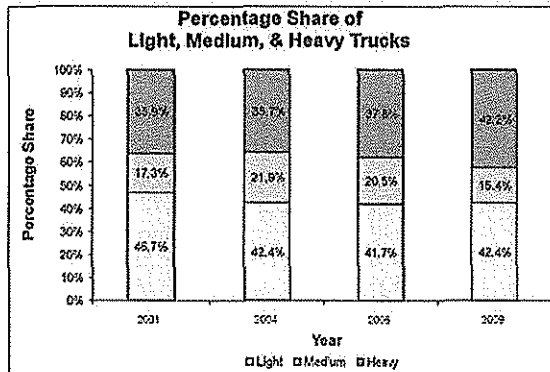
Truck Trips are Decreasing

There has been some variability in truck trips since 2001. Notably, there was an increase of 16.7% between 2001 and 2004. However, the average annual decrease between 2001 and 2009 was 0.7%.



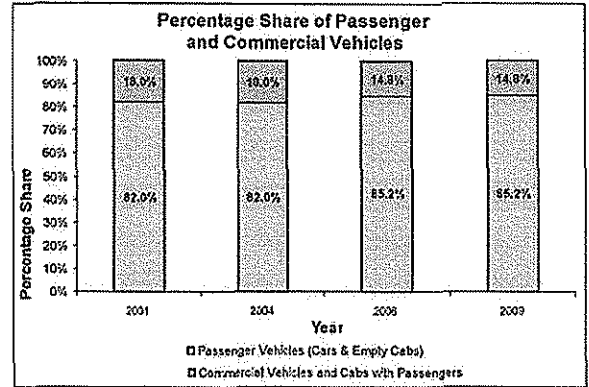
Increase in Heavy Truck Traffic

There are three main types of trucks: heavy, medium, and light. Light trucks include cars and minivans that are used for commercial purposes. Of the above mentioned truck trips, a greater proportion are being made by heavy trucks. Between 2001 and 2009, the proportion of heavy trucks grew by 6.3% up to 42.2%. The proportion of light trucks decreased by 4.2%.



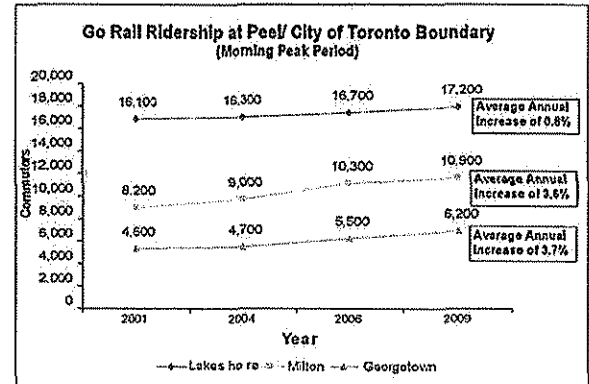
Fewer Commercial, More Passenger Vehicles

Since 2001, the proportion of passenger vehicles to commercial vehicles has grown by 3.2%. However, the proportions have remained consistent between 2006 and 2009: 85.2% passenger vehicles, and 14.8% commercial vehicles.



GO Rail Trips Increasing

The number of passengers using GO Rail has been steadily increasing over the past eight years. Between 2001 and 2009, the Georgetown line saw an average annual increase of 3.7%, the Milton line saw an average annual increase of 3.6%, and the Lakeshore line saw an average annual increase of 0.8%.



Summary

The 2009 Cordon Count Survey provides valuable information pertaining to auto and commercial volumes and occupancy as well as transit data. The survey monitors travel patterns and volume changes in Peel and assists in the planning of Regional transportation improvements.

FOR MORE INFORMATION:

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