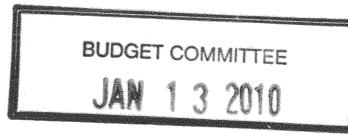




# Corporate Report



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**DATE:** November 30, 2009

**TO:** Chair and Members of Budget Committee  
Meeting Date: January 13, 2010

**FROM:** Martin Powell, P. Eng.  
Commissioner of Transportation and Works

**SUBJECT:** **Mississauga Transit Service Rationalization Recommendations  
and Implementation Plan for 2010 (Wards 2,3,4,6,7,8,9,10,11)**

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**RECOMMENDATION:** That the service rationalization measures and proposed implementation plan outlined in this report dated November 30, 2009 from the Commissioner of Transportation and Works Department be approved.

**BACKGROUND:** At the June 9, 2009, Budget Committee meeting, the Transportation and Works Department submitted the report attached in Appendix 1 ("Mississauga Transit Service Reduction Recommendation for Year 2010"). This report includes maps of the routes under discussion in this report. This document recommended that the Transportation and Works Department should review the performance of certain routes included in the initial service reduction recommendations, using 2009 updated ridership and operating data to finalize the list and develop an implementation plan in accordance with the final recommendations, to be brought back to Budget Committee with substantiation of the total achievable savings.

**COMMENTS:** **Service Reduction Recommendation**  
The following measures were initially identified as recommendations for 2010 implementation, with a forecasted result of \$270,100 savings for the 2010 Budget:

**Route Cancellation**

**Route 62 – Cooksville Shuttle-Webb.** Whereby more than 73% of current riders (less than 100 per day) on this route could continue to commute between their place of residence and the Cooksville GO Station using already existing services (see Table 1 below), or by redesigning other routes, Mississauga Transit proposes that this poorly performing service will be scheduled for cancellation, with annualized savings of \$59,200.

**Table 1**

	Alternative Service			Abandoned	Daily Total
	On the path of Route 61	Near Route 61	Forced Transfers		
Inbound from GO Station	36	4	5	4	49
	73%	8%	10%	8%	100%
Outbound to GO Station	32	1	11	0	44
	73%	2%	25%	0%	100%

**Service Reduction**

**Route 33 Erin Centre Loop.** This local community route has already been redesigned based on newly identified demand for service to-from the Streetsville GO Station. The service changes came into affect September 7, 2009 and the full year savings of \$103,000 per year will be obtained in 2010. As customer travel patterns consolidate in the catchment area, this route will continue to be evaluated by staff, but there are no current expectations of further savings in the course of 2010 for this concept.

**Frequency Reductions**

Late evening frequency reductions to some routes were originally identified, as follows:

- **Route 31 Folkway-Homelands**, from 30 to 60 minutes
- **Route 44 Mississauga Road**, from 30 to 45 minutes
- **Route 26 Burnhamthorpe**, from 17 to 19 minutes

- Upon further examination, it became apparent that a reduction in late evening frequency on **Route 31** would have unfavourable results in terms of customer connections. This change is not recommended.
- An analysis of late evening ridership on **Route 44** shows that travel pattern adjustments for the small number of riders involved (see Table 2 below) may result following a reduction of frequency. The majority of those customers originate from the university campus. The effect on connections should be negligible.

**Table 2**

	10:15 PM	10:45 PM	11:15 PM	11:45 PM	Total Boardings
Southbound from Meadowvale	12	3	4	10	29
	10:00 PM	10:30 PM	11:00 PM	11:30 PM	
Northbound from Westdale	8	8	11	4	31

- Changes to late evening frequency on Route 26 will be done in such a manner that any possible connection issues will be minimized by means of scheduling adjustments.
- The estimated annual savings from late evening services realignment on both Route 44 and Route 26 will produce estimated annual savings of \$142,200.

### Implementation Plan

- Reduction to Route 44 evening service after 10:00 pm will be in effect as of June 28, 2010;
- Late evening frequency reductions on Route 26 will be implemented, as proposed, effective June 28, 2010;
- Cancellation of Route 62 – Cooksville Shuttle-Web should take effect with the September 6, 2010 board period.

**FINANCIAL IMPACT:** From the initial estimation of \$270,100 of potential savings achievable in 2010, the following totals are now forecasted:

Action	Route	2010 Savings	Full Year Savings
Service Cancellation	<b>62</b>	\$19,730	\$59,200
Service Reduction	<b>33</b>	\$130,000	\$130,000
Evening Frequency Adjustment	<b>44</b>	\$24,200	\$48,400
Evening Frequency Adjustment	<b>26</b>	\$39,100	\$93,800
<b>Totals</b>		<b>\$213,030</b>	<b>\$331,400</b>

The difference between the results above and the original forecast of \$270,100, or \$57,070, will still be obtained through the ongoing trip/route rationalization, gapping of service improvements and/or improved efficiencies in resources allocation (bus utilization and labour force assignments), with the objective of achieving annualized savings in the amount of \$335,400 as initially envisioned.


**CONCLUSION:**

Mississauga Transit has completed the additional evaluation required under the Corporate Report from the Transportation and Works Department submitted to Budget Committee on June 9, 2009. That analysis resulted on a recommendation to cancel service on Route 62 Cooksville Shuttle-Webb, effective with the September 2010 board period, for annual savings of \$59,200. Additional savings have already been attained by redesigning Route 33 in 2009, and by adjusting late evening frequencies on Routes 44 Mississauga Road and Route 26 Burnhamthorpe, for a total of \$213,030 in savings during 2010, annualized to \$331,400. Further service rationalization measures across the board will produce \$57,070 bringing the total annualized savings to \$335,400.



**ATTACHMENTS:**

Appendix 1: Corporate Report from the Transportation and Works Department submitted to Budget Committee on June 9, 2009.

A handwritten signature in black ink, appearing to read 'Martin Powell', is written over a horizontal line.

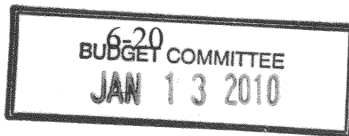
Martin Powell, P. Eng.  
Commissioner, Transportation and Works

*Prepared By: Gustavo Delfino  
Service Development, Mississauga Transit*



# Corporate Report

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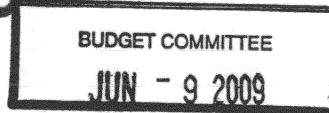
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Appendix 1

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**DATE:** June 1, 2009

**TO:** Chair and Members of Budget Committee  
Meeting Date: June 9, 2009

**FROM:** Martin Powell, P. Eng.  
Commissioner, Transportation and Works

**SUBJECT:** Mississauga Transit Service Reduction Recommendation for Year  
2010 (Wards 2, 3, 4, 6, 7, 8, 9, 10, 11)

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**RECOMMENDATION:** That the Transportation and Works Department undertake a detailed analysis using 2009 ridership information of service reductions outlined in the Mississauga Transit Service Reduction Recommendation for Year 2010 report dated June 1, 2009 to Budget Committee from the Transportation and Works Department and develop an implementation plan to be brought back to Budget Committee by year end.

**BACKGROUND:** As part of its annual route performance analysis, Mississauga Transit submits this Corporate Report which documents the detailed findings of the review with the rationale for the recommendations. It follows the same process and format of the Corporate Report entitled "Mississauga Transit Service Reduction Recommendations", which was submitted to Budget Committee at the October 15, 2008 Budget Committee Meeting.

**COMMENTS:** The analysis was divided into two different categories: route elimination and frequency reductions.

The following discussion provides an overview of the analysis procedure and the results of these two categories.

In the report dated November 25, 2008 entitled "Mississauga Transit Final Service Reduction Recommendations & Implementation Plan", the following routes were identified for elimination in 2009:

- Route 15B, 37, 37A, 43, 60, 63, 74

Therefore, the above routes were not considered in the 2010 analysis.

### **Route Elimination**

The entire route network was analyzed for overall ridership performance and operating efficiency. Any routes that were identified as poor performing were studied further.

Given that the weekend service level and coverage of Mississauga Transit routes are minimal, the weekend routes were not considered for the route elimination.

### **A. Ridership Performance**

In order to evaluate the ridership performance of each route, the 2008 spring ridership count data was used. Appendix 1: Weekday Daily Ridership, provides daily ridership numbers and the ranking of the routes. Based on the review of the ridership performance, the poor performing routes were identified by using a selection criterion of less than 200 passengers per day. The routes identified are **82A, 25, 64, 32 and 62.**

### **B. Operating Efficiency**

Subsidy per boarding of each route was examined to review the operating efficiency. In order to estimate the performance the system wide average cost-per-service-hour of \$108.44 and average revenue-per-boarding of \$1.33 were applied. The figures are based on the 2008 annual operating statistics submitted to CUTA.

The subsidy per boarding calculation results with the ranking of the routes are provided in Appendix 2: Weekday Daily Subsidy per Boarding. The poor performing routes were identified by using a selection criterion of greater than \$4.25 per boarding. The routes identified are **25, 33, 50, 32 and 62.**

The results of the review of both performance measures are summarized in the table below:

<b>Poor Performing Routes</b>	Regular Service	GO Shuttle Service
A. Ridership Performance	82A, 25	64, 32, 62
B. Operating Efficiency	25, 33, 50	32, 62

Route 82A was identified as a poor performing route based on ridership data but not in operating efficiency since the amount of resource required to operate this route is relatively low due to the service interlining with other unidirectional routes. Therefore, Route 82A was not considered for the route elimination proposal.

Consequently, Route **25, 32, 33, 50, 62 and 64** were analysed further with more detailed information.

### **C. Detailed Route Analysis**

The Detailed Route Analysis presented in Appendix 3 includes investigation of the historical ridership trend over the past 5 years, the review of ridership by stop level and the availability of alternate routes. This analysis was conducted to understand the level of impact that would occur should these routes be eliminated.

According to the results of the performance review and the detailed route analysis the recommended route for elimination for Council's consideration is **Route 62 Cooksville Shuttle-Webb**.

**Route 33 Erin Centre Loop** is not recommended for elimination however, service reduction/rationalization is being considered to improve operating efficiency.

### **Frequency Reduction**

The existing 2009 May service design including frequency, running time and the number of buses required were reviewed to select the routes that could accommodate service frequency reductions.

The routes currently provide greater than 40 min. headway were not considered for the service reduction proposal since further reduction of frequency would mean essentially cancelling the service.

Our system wide route performance for peak periods and midday service is above the ridership performance standards adopted in the Ridership Growth Strategy.

In particular, reducing the service frequencies during midday service would not be beneficial for scheduling and crewing perspective since it can result in creating more split operators' work schedules that require higher operating cost due to increased non-productive hours.

The Ridership Growth Strategy outlines that the minimum service frequency standard of late evening and weekend services is 30 min for core routes and 45 min for local routes, and the minimum service frequency standard of evening service is 30 min for core and local routes. Hence, service reductions that resulted in lower than the minimum frequency standards were not considered except for those routes with minimal ridership.

Since the existing service levels of weekday evenings and weekends just meet and occasionally fail to meet the standard, any reductions would only make the situation worse. Therefore, the analysis was limited to late evening services only.

For the subsidy per boarding calculation to review the operating efficiency for the late evening services, the adjusted system wide average cost-per-service-hour of \$88.05 was applied. This rate is not a full operating cost but a labour and fuel related cost, which is 81% of the total direct operating cost. The adjustment was made to avoid overestimating the operating cost of off peak operations.

The completed Frequency Reduction Analysis table for the late evening services is provided in Appendix 4.

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The results of the frequency reduction analysis are summarized in the table below.

*Frequency Reduction Proposed*

Service Period	Route	Frequency	No. of Bus
Late Evening	31 Folkway-Homelands	30 min to 60 min	2 to 1
	44 Mississauga Road	30 min to 45 min	3 to 2
	26 Burnhamthorpe	17 min to 19 min	8 to 7

**FINANCIAL IMPACT:** The following tables outline the potential savings should the service reductions outlined in the report be adopted.

**Route Elimination**

Routes	Service Type	Potential Savings
62 Cooksville Shuttle-Webb	GO Shuttle	\$ 59,200

**Service Reduction**

Routes	Service Type	Potential Savings
33 Erin Centre Loop	Community Local	\$ 103,000

**Frequency Reduction**

Routes	Service Period	Potential Savings
26 Burnhamthorpe 31 Folkway-Homelands 44 Mississauga Road	Late Evening	\$ 173,200

Total potential savings of **\$335,400 (full year)** could be realized through adoption of the service reduction proposal outlined. Implementation would have to occur in a phased manner so full year savings could not be realized. Consequently, total savings of **\$270,100** are achievable in 2010.

**CONCLUSION:**

Mississauga Transit has conducted a system wide review of route performance with a view towards eliminating or reducing service levels on poor performing transit routes. Based on a system wide review using the 2008 ridership count data, Mississauga Transit recommends that the following transit routes be further evaluated for service reductions using updated 2009 ridership count data:

- Route reduction/rationalization: Route 33 Erin Centre Loop
- Weekday Service Elimination: Route 62 Cooksville Shuttle-Webb
- Late Evening Frequency Reduction: Routes 26 Burnhamthorpe, 31 Folkway-Homelands and 44 Mississauga Road

Upon further review, the Transportation and Works Department will report back to Budget Committee on the feasibility and impacts associated with reducing service as outlined in this report in order to save **\$270,100** in 2010.

**ATTACHMENTS:**

Appendix 1: Weekday Daily Ridership

Appendix 2: Weekday Daily Subsidy per Boarding

Appendix 3: Detailed Route Analysis

Appendix 4: Frequency Reduction Analysis

Appendix 5: Maps of Proposed Routes for Elimination/Reductions  
(Routes 62, 33, 31, 44, 26)



Martin Powell, P. Eng.

Commissioner, Transportation and Works

*Prepared By: Ji-Yeon Lee, Senior Transit Planner  
Service Development, Mississauga Transit*


## APPENDIX 1 Weekday Daily Ridership

2008 Daily Boardings			
Ranking	Routing	Daily	Status
1	19	14,565	
2	26	10,161	
3	3	8,146	
4	19A	8,047	
5	1C	7,894	
6	1	7,774	
7	5	5,987	
8	42	4,426	
9	7	4,397	
10	13	4,393	
11	20	3,533	
12	10	3,469	
13	110	3,231	
14	201	3,052	
15	23	3,040	
16	34	2,979	
17	61	2,694	
18	38	2,663	
19	8	2,530	
20	66	2,481	
21	9	2,465	
22	5B	2,348	
23	89	2,330	
24	76	2,246	
25	202	2,154	
26	44	2,065	
27	51	2,038	
28	22	1,951	
29	6	1,897	
30	28	1,871	
31	11	1,846	
32	35	1,763	
33	39	1,735	
34	48	1,670	
35	53	1,667	
36	45	1,554	
37	36	1,473	
38	61A	1,341	
39	18	1,324	
40	15	1,185	
41	4	1,166	
42	51A	1,063	
43	11A	923	
44	68	915	
45	57	882	
46	31	868	
47	45A	781	
48	16	682	
49	70	622	
50	27	597	
51	12	488	
52	67	438	
53	49A	409	
54	49	405	
55	17	387	
56	30	364	
57	65	325	
58	82	281	
59	33	254	
60	47	249	
61	50	219	
62	82A	112	
63	25	99	
64	64	74	
65	32	53	
66	62	45	

System Wide Daily Ridership: 155,000

Route Average Daily Ridership = 2,047

Daily Ridership Less Than 200

 Recommended routes for service reduction analysis



## APPENDIX 2 Weekday Daily Subsidy per Boarding

2008 Subsidy/Boarding			
Ranking	Route	Daily	Status
1	1C	\$ 0.29	
2	19	\$ 0.31	
3	19A	\$ 0.47	
4	3	\$ 0.60	
5	1	\$ 0.63	
6	202	\$ 0.73	
7	22	\$ 0.78	
8	5B	\$ 0.81	
9	26	\$ 0.89	
10	20	\$ 0.91	
11	5	\$ 0.99	
12	49A	\$ 1.08	
13	11	\$ 1.09	
14	70	\$ 1.09	
15	66	\$ 1.17	
16	28	\$ 1.20	
17	34	\$ 1.22	
18	89	\$ 1.23	
19	201	\$ 1.24	
20	51A	\$ 1.25	
21	76	\$ 1.25	
22	61	\$ 1.26	
23	61A	\$ 1.28	
24	23	\$ 1.30	
25	7	\$ 1.32	
26	42	\$ 1.35	
27	230	\$ 1.45	
28	11A	\$ 1.53	
29	16	\$ 1.60	
30	10	\$ 1.61	
31	9	\$ 1.65	
32	110	\$ 1.70	
33	15A	\$ 1.77	
34	13	\$ 1.88	
35	51	\$ 1.88	
36	36	\$ 1.91	
37	53	\$ 1.92	
38	68	\$ 1.94	
39	45A	\$ 1.96	
40	47	\$ 2.11	
41	82	\$ 2.17	
42	6	\$ 2.24	
43	12	\$ 2.34	
44	8	\$ 2.35	
45	18	\$ 2.41	
46	35	\$ 2.42	
47	45	\$ 2.43	
48	44	\$ 2.57	
49	39	\$ 2.59	
50	38	\$ 2.65	
51	27	\$ 2.88	
52	4	\$ 2.69	
53	48	\$ 3.18	
54	30	\$ 3.24	
55	57	\$ 3.28	
56	49	\$ 3.32	
57	82A	\$ 3.32	
58	15	\$ 3.38	
59	67	\$ 3.73	
60	31	\$ 3.91	
61	17	\$ 4.02	
62	65	\$ 4.19	
63	25	\$ 4.53	
64	50	\$ 5.65	
65	33	\$ 10.28	

System Wide Average  
Subsidy/Boarding = \$1.39

Subsidy/Boarding  
More Than \$4.25

## Mississauga Transit GO Shuttles:

2008 Subsidy/Boarding			
Ranking	Route	Daily	Status
1	64	\$ 2.94	
2	32	\$ 5.02	
3	62	\$ 5.49	

Subsidy/Boarding  
More Than \$4.25

NOTE: GO Shuttle routes are calculated separately due to GO Transit Fare Integration

  - Recommended routes for service reduction

## APPENDIX 3 Detailed Route Analysis

Route	Daily 08 Subsidy /Boarding	Daily 08 Boardings	Daily 07 Boardings	Daily 06 Boardings	Daily 05 Boardings	Daily 04 Boardings	Service Period	Service Type	Impacts/Comments	Alternative Options	Recommendation
Regular Routes											
25	\$ 4.53	99	74	61	50	50	Peak	Industrial Local Feeder	- historical ridership trend indicates steady and high rate of growth over the past 5 years - industrial local route feeding Hurontario service and the ridership expected to grow more as Hurontario service gets improved significantly	no practical alternative options available	Remain
33	\$ 10.28	254					All Day	Community Local	- route was designed to streamline Route 34 and it is a local community route that required for the south Churchill Meadow community connecting Shopping Centre, School, Community Centre and hospital - route rationalization is required to attract more peak period riders since peak period performance is worse than midday, and customer requests of connecting to Streetsville GO Station	Route 46 is available for Erin Centre Blvd portion during peak only and no alternative routes available for the rest of the route section	Service reduction / rationalization
50	\$ 5.65	219	214	283	264	222	Peak	Industrial Local	- route provides connection to/from Islington Subway for employees working in the Airport Corporate Centre and the route carries ridership on peak direction only and it is interlining with Route 17 - future plan to change Route 17 and 50 as employment local feeder in the Airport Corporate Centre	alternate routes are available but require number of transfers and longer walking	Remain
GO Shuttles											
32	\$ 5.02	53					Peak	GO Shuttle	- route introduced in October 2007 when Lisgar GO Station was opened, ridership can be reached to 60 during winter time and historical trend not established yet - ridership pattern should be monitored cautiously and no practical alternative options available	no practical alternative options available	Remain
62	\$ 5.49	45	92	87	n/a	n/a	Peak	GO Shuttle	- ridership has dropped significantly for the past 3 years and the subsidy per boarding is highest among GO Shuttle routes - with Cooksville area local route plan revision in future, 100% of the passengers should have alternative option to access Cooksville GO Station	alternate routes available in future with Cooksville area local route plan revision	Cancel
64	\$ 2.94	74	101	146	n/a	n/a	Peak	GO Shuttle	- Route 64 is the best performing route among all GO shuttle routes and the ridership impact would be more significant than other GO Shuttle services and no practical alternative options available - ridership has dropped significantly for the past 3 years and should be monitored cautiously	no practical alternative options available	Remain

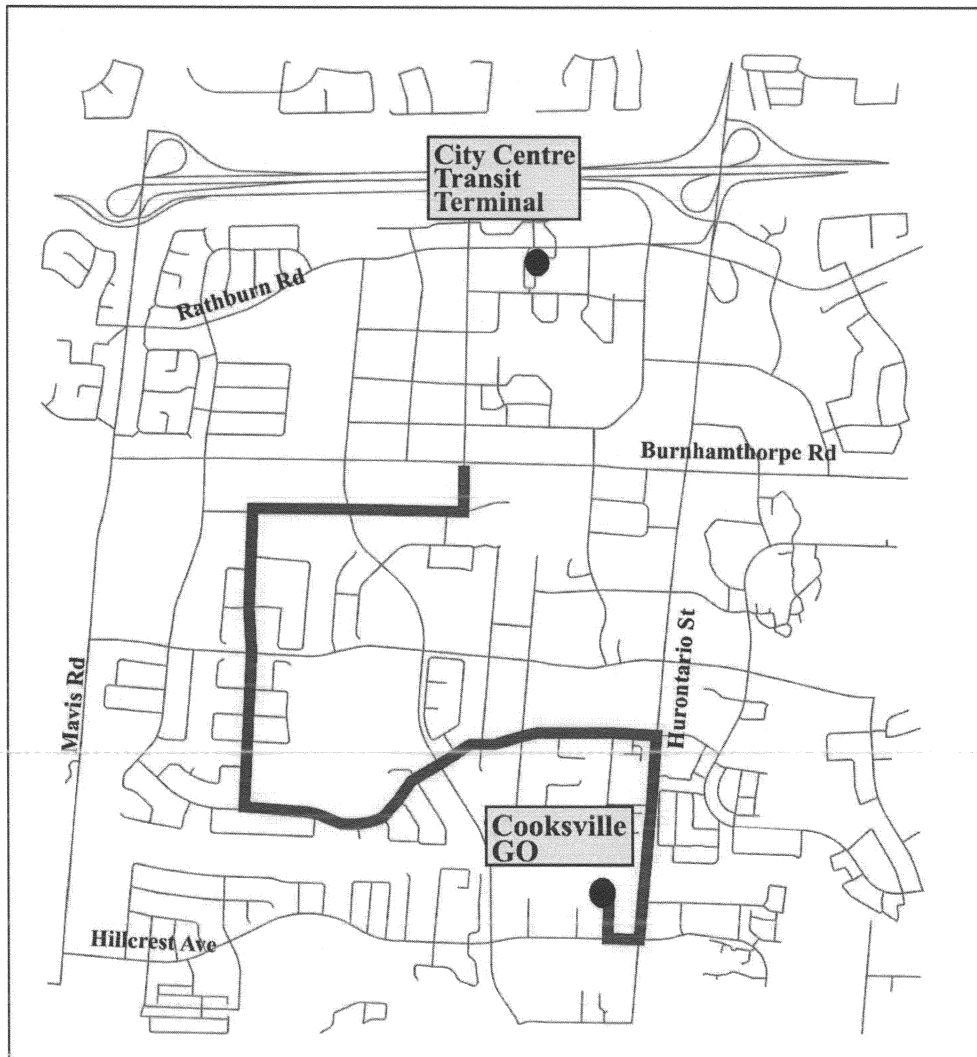
## APPENDIX 4 Frequency Reduction Analysis

Ranking	Route	2008	2008	2008	2009 Service Hours		2009 Service Design			Avg Loading	Recommendation	Proposed		
		Boardings	Subsidy/Boarding	Serv Hrs	Last Trip	Direction	Hwy	RTT	No. Veh			Frequency	Savings in Veh	Savings in Hrs
1	19	715	\$ 0.90	18.13	1:25 AM	North	20	120	6	18				
2	42	255	\$ 1.54	8.30	12:53 AM	East	34	102	3	13				
3	11	177	\$ 1.61	5.90	2:22 AM	North	36	72	2	11				
4	1C	279	\$ 1.61	9.30	12:21 AM	East	28	112	4	17				
7	61	125	\$ 2.74	5.78	11:58 PM	South	34	102	3	11				
8	10	110	\$ 3.01	5.42	11:35 PM	North	30	120	4	13				
9	7	211	\$ 3.24	10.95	12:36 AM	North	30	120	4	13				
10	5	266	\$ 3.26	13.88	1:07 AM	North	27	108	4	11				
11	26	649	\$ 3.28	33.97	2:22 AM	West	17	136	8	12	Reduce Freq	19	1	4.25
12	1	415	\$ 3.39	22.23	3:16 AM	East	28	112	4	9				
13	20	141	\$ 3.46	7.67	12:44 AM	West	26	78	3	10				
14	28	70	\$ 3.61	3.93	12:03 AM	South	22	44	2	6				
15	36	76	\$ 3.73	4.37	2:08 AM	CCW	32	32	1	8				
16	48	164	\$ 4.16	10.23	1:45 AM	North	30	60	2	5				
18	34	135	\$ 4.65	9.17	1:02 AM	West	25	75	3	7				
19	16	22	\$ 4.67	1.50	11:30 PM	South	30	30	1	8				
20	23	96	\$ 4.74	6.62	1:20 AM	West	34	68	2	6				
21	9	101	\$ 4.84	7.08	12:34 AM	North	30	90	3	9				
22	68	22	\$ 5.59	1.73	11:45 PM	CW	36	36	1	6				
24	53	25	\$ 5.64	1.98	11:10 PM	South	29	58	2	5				
25	66	44	\$ 6.01	3.67	11:58 PM	North	28	56	2	6				
26	13	151	\$ 7.63	15.37	2:01 AM	North	33	99	3	5				
28	33	22	\$ 8.36	2.42	12:18 AM	West	30	30	1	4				
29	51	50	\$ 8.48	5.57	12:25 AM	North	34	68	2	4				
30	39	42	\$ 8.59	4.73	12:06 AM	West	35	105	3	5				
31	44	50	\$ 10.24	6.57	12:17 AM	South	30	90	3	4	Reduce Freq	45	1	2.19
32	31	21	\$ 10.41	2.80	11:21 PM	North	30	60	2	3	Reduce Freq	60	1	1.4

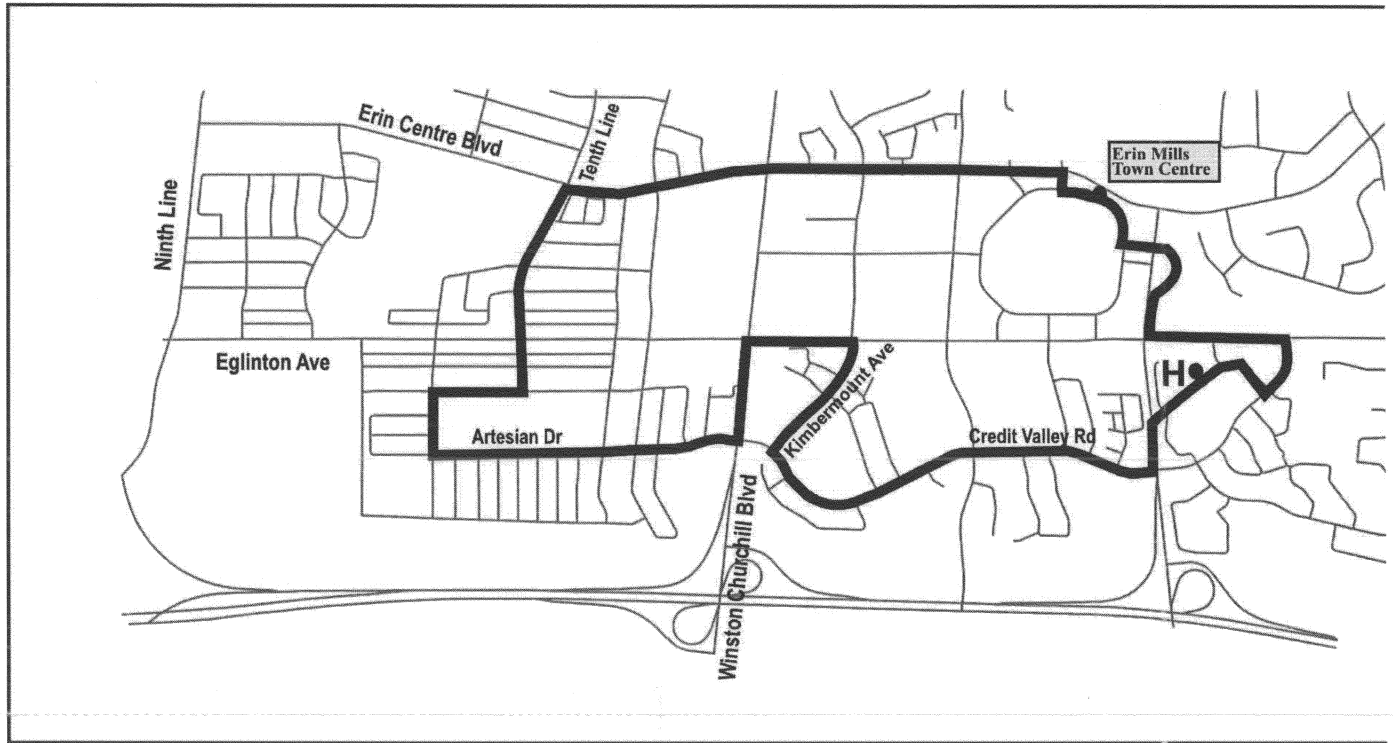
NOTE: Frequencies &amp; # of Trips according to May 2009 Board Period

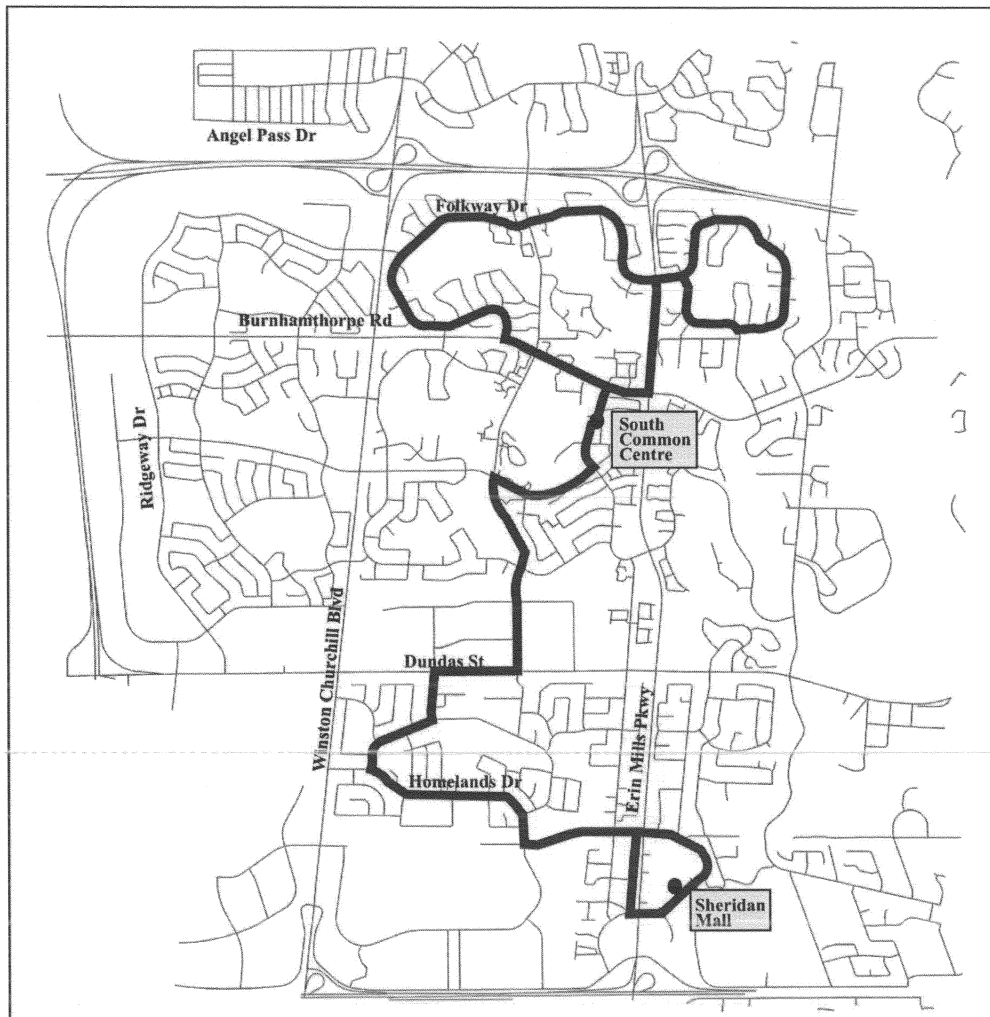
Total savings in hrs	7.84
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Total savings operating cost	\$ 173,200
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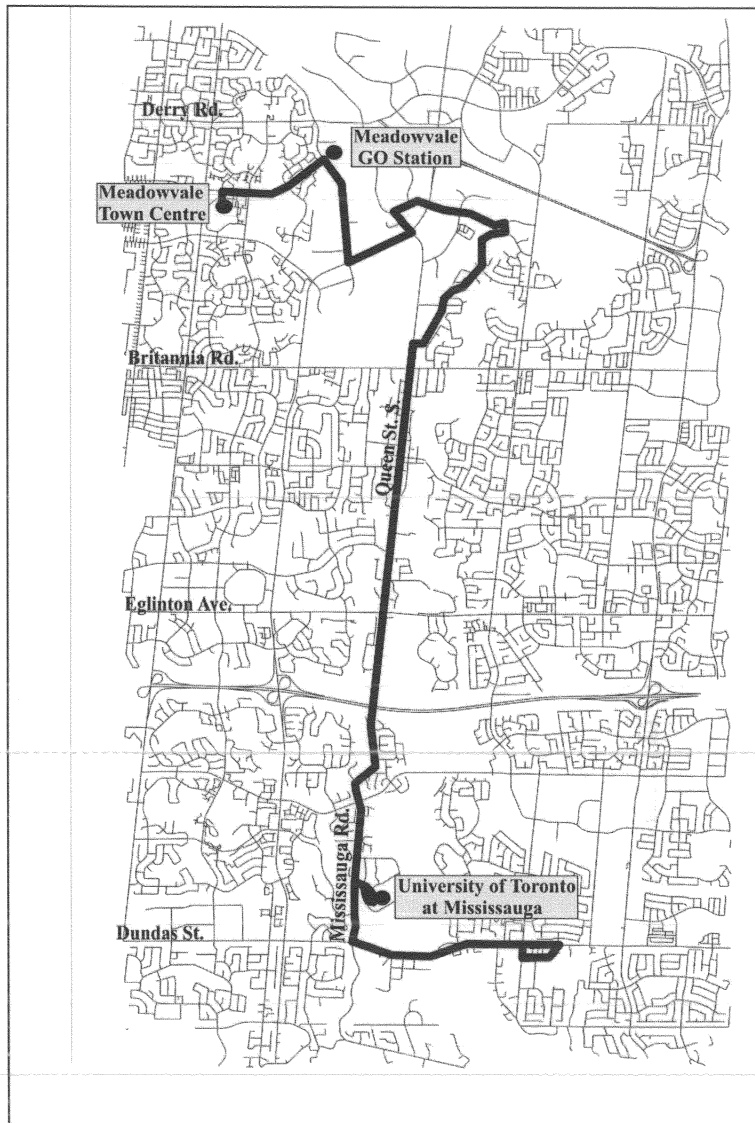
**Appendix 5: Route 62 – Cooksville Shuttle-Webb**

# Appendix 5: Route 33 – Erin Centre Loop



**Appendix 5: Route 31 – Folkway-Homelands**

## Appendix 5: Route 44 – Mississauga Road



## Appendix 5: Route 26 – Burnhamthorpe

