## City of Toronto – Major Arterials

- Albion Rd Wilson Ave
- Bathurst St.
- Bayview Ave.
- Bloor St.
- College St.
- Don Mills Rd.
- Dufferin St.
- Dundas St.
- Eglinton Ave.
- Jane St./S. Kingsway
- Jarvis St.
- King St.
- Kingston Rd.

- Kipling Ave.
- Lake shore Blvd.
- Markham Rd.
- Martin Grove Rd.
- Mount Pleasant Rd.
- Queen St.
- The Queensway
- Sheppard Ave.
- St. Clair Ave.
- Steeles Ave.
- Victoria Park Ave.
- Yonge St.
- York Mills Rd.



## Albion Rd - Wilson Ave (EB)

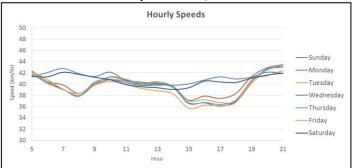
Steeles Ave. to Yonge St.

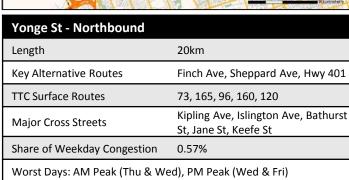
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	43	42	36	- 7
(km/h)	PM Peak	42	42	34	- 8
Travel Time	AM Peak	1.08	1.08	1.28	+ 0.2
Index	PM Peak	1.11	1.10	1.37	+ 0.26
Dolov House	AM Peak	35	37	132	+ 97
Delay Hours	PM Peak	26	26	92	+ 66
Planning Time Index		1.09	1.04	1.20	+ 0.11
Buffer Time I	ndex	1.18	1.13	1.09	- 0.09

Travel Time Index: ratio of average to uncongested travel times AM Peak: 8-9AM, PM Peak: 5-6PM Delay: average peak-hour vehicular delay per weekday (in hours)

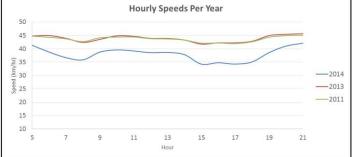
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014



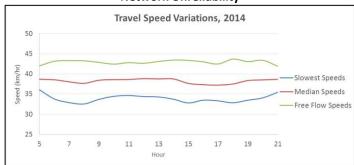




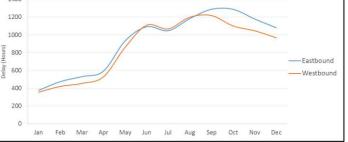


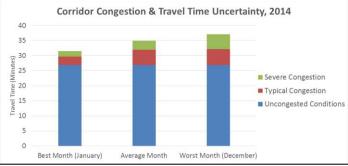
Seasonal Variations, 2014

## **Network Unreliability**



## Typical Daily Delay 1400 1200 800









## Albion Rd - Wilson Ave (WB)

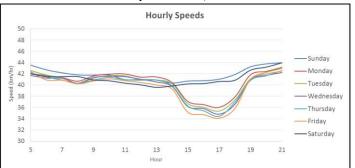
Yonge St. to Steeles Ave.

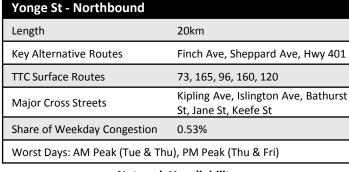
Key Perforn Indicators	nance	2011	2013	2014	Change (2011-2014)
Speed	AM Peak	43	44	39	- 4
(km/h)	PM Peak	41	41	33	- 8
Travel Time	AM Peak	1.07	1.02	1.18	+ 0.11
Index	PM Peak	1.12	1.13	1.42	+ 0.3
Dolov House	AM Peak	26	9	68	+ 42
Delay Hours	PM Peak	42	46	151	+ 109
Planning Time Index		1.16	1.09	1.29	+ 0.13
Buffer Time I	ndex	1.19	1.15	1.12	- 0.07

Travel Time Index: ratio of average to uncongested travel times AM Peak: 8-9AM, PM Peak: 5-6PM Delay: average peak-hour vehicular delay per weekday (in hours)

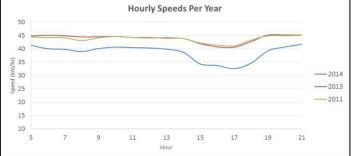
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

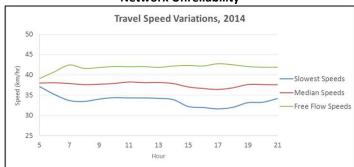


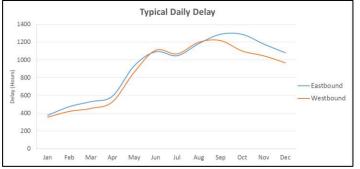


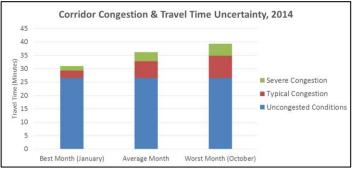




## **Network Unreliability**











## Bathurst St. (NB)

Queens Quay to Steeles Ave.

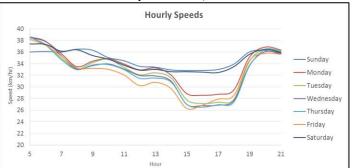
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	37	38	31	- 6
(km/h)	PM Peak	33	31	26	- 7
Travel Time	AM Peak	1.07	1.05	1.29	+0.22
Index	PM Peak	1.21	1.26	1.53	+ 0.32
Dalau Haum	AM Peak	33	26	143	+ 110
Delay Hours	PM Peak	104	129	266	+ 162
Planning Time Index		1.17	1.05	1.29	+ 0.12
Buffer Time I	ndex	1.25	1.12	1.14	- 0.11

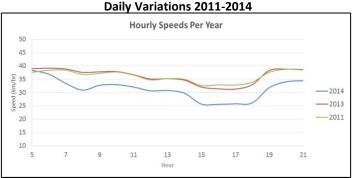
Travel Time Index: ratio of average to uncongested travel times

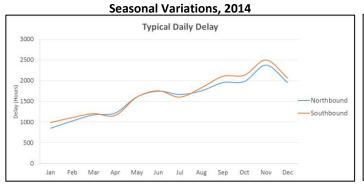
AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

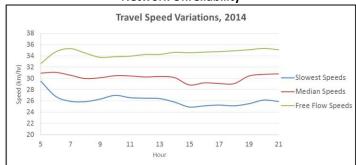








Bathurst St – Northbound		
Length	17.8 km	
Key Alternative Routes	Yonge St, Dufferin St	
TTC Surface Routes	7, 14, 33, 145, 109, 160	
Major Cross Streets	Eglinton Ave, St. Clair Ave, Bloor St, Wilson Ave, Finch Ave	
Share of Weekday Congestion	0.99%	
Worst Days: AM Peak (Thu & Tue), PM Peak (Thu & Wed)		









## Bathurst St. (SB)

Steeles Ave. to Queens Quay

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	34	33	27	- 7
(km/h)	PM Peak	36	38	29	- 7
Travel Time	AM Peak	1.20	1.21	1.51	+ 0.31
Index	PM Peak	1.10	1.06	1.36	+ 0.26
Delavillavina	AM Peak	139	155	374	+ 235
Delay Hours	PM Peak	43	27	162	+ 119
Planning Time Index		1.12	1.01	1.27	+ 0.15
Buffer Time I		1.21	1.09	1.14	- 0.07

Travel Time Index: ratio of average to uncongested travel times

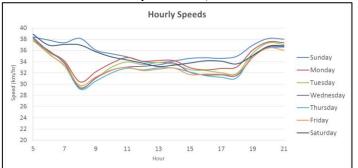
AM Peak: 8-9AM, PM Peak: 5-6PM

Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014



Bathurst St. – Southbound

Length 17.8km

Key Alternative Routes Yonge St, Dufferin St

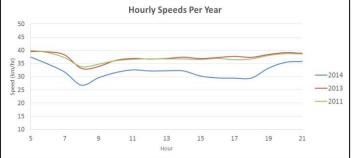
TTC Surface Routes 7, 14, 33, 145, 109, 160

Major Cross Streets Eglinton Ave, St. Clair Ave, Bloor St, Wilson Ave, Finch Ave

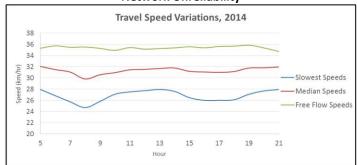
Share of Weekday Congestion 1.03%

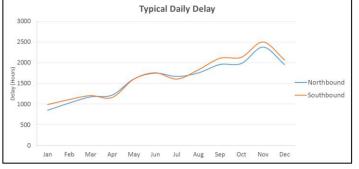
Worst Days: AM Peak (Thu & Wed), PM Peak (Thu & Wed)

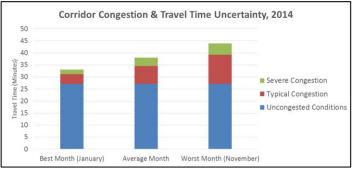
## Daily Variations 2011-2014



## **Network Unreliability**











## Bayview Ave. (NB)

Queen St. to Steeles Ave.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	47	47	38	- 9
(km/h)	PM Peak	41	41	35	- 6
Travel Time Index	AM Peak	1.11	1.08	1.36	+ 0.25
	PM Peak	1.30	1.32	1.57	+ 0.27
Dalau Haum	AM Peak	26	21	99	+ 73
Delay Hours	PM Peak	61	66	118	+ 57
Planning Time Index		1.21	1.07	1.24	+ 0.03
Buffer Time I	ndex	1.19	1.11	1.11	- 0.08

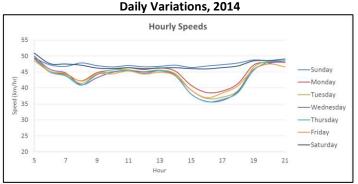
Travel Time Index: ratio of average to uncongested travel times

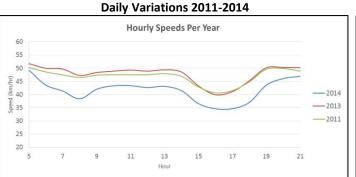
AM Peak: 8-9AM, PM Peak: 5-6PM

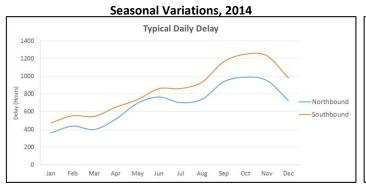
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

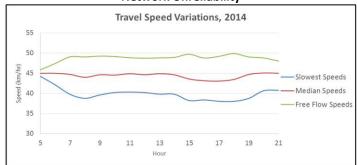


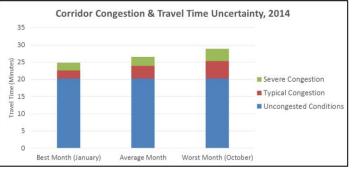






Bayview Ave. – Northbound			
Length	17.2km		
Key Alternative Routes	Yonge St, Leslie St, Don Valley Parkway		
TTC Surface Routes	11, 124, 28		
Major Cross Streets	Cummer Ave, Sheppard Ave, York Mills Rd, Danforth Ave, Dundas St		
Share of Weekday Congestion 0.42%			
Worst Days: AM Peak (Thu & Wed), PM Peak (Wed & Thu)			









## Bayview Ave. (SB)

Steeles Ave. to Queen St.

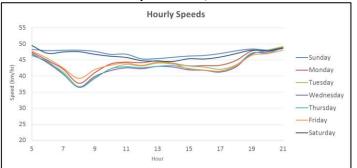
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	41	41	35	- 6
(km/h)	PM Peak	47	47	39	- 8
Travel Time Index	AM Peak	1.25	1.25	1.51	+ 0.26
	PM Peak	1.09	1.07	1.34	+ 0.25
Dalay Hayna	AM Peak	109	108	224	+ 115
Delay Hours	PM Peak	20	16	81	+ 61
Planning Time Index		1.09	0.99	1.18	+ 0.09
Buffer Time I	ndex	1.14	1.09	1.09	- 0.05

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

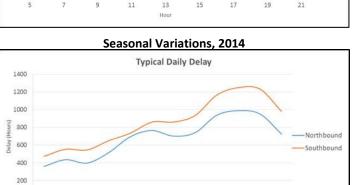
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014



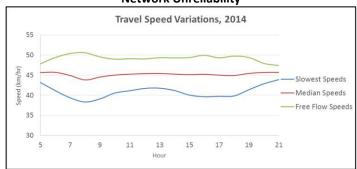
Daily Variations 2011-2014

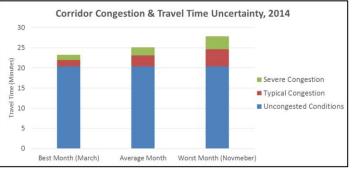






Bayview Ave. – Southbound		
Length	17.2km	
Key Alternative Routes	Yonge St, Leslie St, Don Valley Parkway	
TTC Surface Routes	11, 124, 28	
Major Cross Streets	Cummer Ave, Sheppard Ave, York Mills Rd, Danforth Ave, Dundas St	
Share of Weekday Congestion	0.52%	
Worst Days: AM Peak (Thu & Tue), PM Peak (Wed & Fri)		









## Bloor St. (EB)

West Boundary to Bayview Ave.

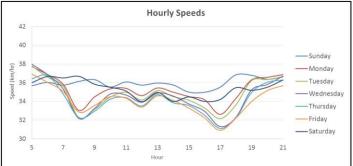
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	36	37	31	- 5
(km/h)	PM Peak	36	37	29	- 7
Travel Time Index	AM Peak	1.15	1.13	1.38	+ 0.23
	PM Peak	1.19	1.13	1.43	+ 0.24
Dalau Haura	AM Peak	88	74	225	+ 137
Delay Hours	PM Peak	81	57	187	+ 106
Planning Time Index		1.38	1.16	1.42	+ 0.04
Buffer Time I	ndex	1.28	1.12	1.18	- 0.10

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

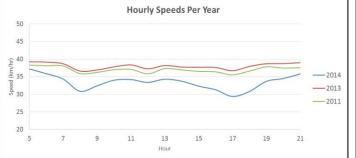
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

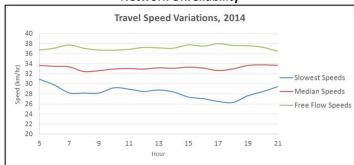
## Daily Variations, 2014

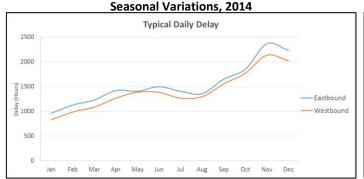


## Bloor St. – Eastbound Length 17.5km Key Alternative Routes St. Clair Ave, Dundas St, College St TTC Surface Routes 49, 31, 83, 168, 504 Major Cross Streets Kipling Ave, Jane St, Dufferin St, Bathurst St, Yonge St Share of Weekday Congestion 0.95% Worst Days: AM Peak (Tue & Thu), PM Peak (Thu & Wed)

## Daily Variations 2011-2014













## Bloor St. (WB)

Bayview Ave. to West Boundary

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	36	37	31	- 5
(km/h)	PM Peak	35	36	31	- 4
Travel Time Index	AM Peak	1.16	1.13	1.39	+ 0.23
	PM Peak	1.18	1.14	1.37	+ 0.19
Dalau Haum	AM Peak	81	62	191	+ 110
Delay Hours	PM Peak	71	56	148	+ 77
Planning Time Index		1.14	1.07	1.32	+ 0.18
Buffer Time I	ndex	1.13	1.08	1.16	+ 0.03

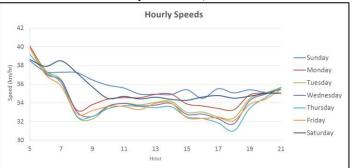
Travel Time Index: ratio of average to uncongested travel times

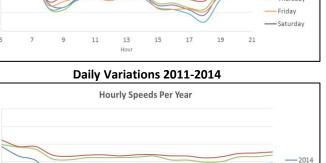
AM Peak: 8-9AM, PM Peak: 5-6PM

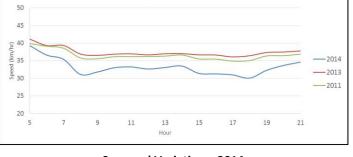
Delay: average peak-hour vehicular delay per weekday (in hours)

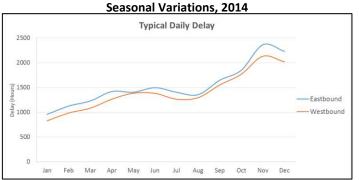
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014



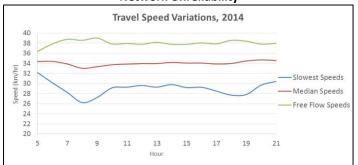


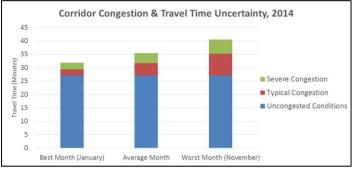






Bloor St. – Westbound		
Length	17.5km	
Key Alternative Routes	St. Clair Ave, Dundas St, College St	
TTC Surface Routes	49, 31, 83, 168, 504	
Major Cross Streets	Kipling Ave, Jane St, Dufferin St, Bathurst St, Yonge St	
Share of Weekday Congestion	0.87%	
Worst Days: AM Peak (Tue & Thu), PM Peak (Thu & Fri)		









## College St. (EB)

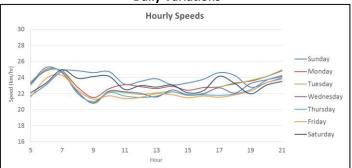
Dundas St. to Yonge St.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	26	26	20	- 6
(km/h)	PM Peak	26	27	20	- 6
Travel Time Index	AM Peak	1.06	1.04	1.34	+ 0.28
	PM Peak	1.06	1.03	1.39	+ 0.33
Delay Hours	AM Peak	11	8	68	+ 57
	PM Peak	6	3	41	+ 35
Planning Time Index		0.90	1.32	1.30	+ 0.40
Buffer Time I	ndex	1.19	1.18	1.17	- 0.02

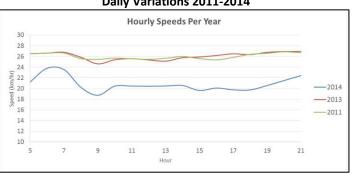
Travel Time Index: ratio of average to uncongested travel times AM Peak: 8-9AM, PM Peak: 5-6PM Delay: average peak-hour vehicular delay per weekday (in hours)

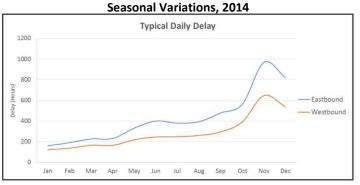
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## **Daily Variations**



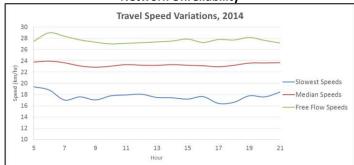
Daily Variations 2011-2014 **Hourly Speeds Per Year** -2013







Yonge St - Northbound	
Length	4.8km
Key Alternative Routes	Bloor St, Dundas St
TTC Surface Routes	506
Major Cross Streets	Ossington Ave, Bathurst St, Spadina Ave, Yonge St, Dufferin St
Share of Weekday Congestion	0.26%
Worst Days: AM Peak (Thu & W	ed), PM Peak (Thu & Wed)









## College St. (WB)

Yonge St. to Dundas St.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	27	28	22	- 5
(km/h)	PM Peak	26	26	18	- 8
Travel Time Index	AM Peak	1.05	1.02	1.33	+ 0.28
	PM Peak	1.11	1.11	1.58	+ 0.47
Delay Hours	AM Peak	5	2	31	+ 26
	PM Peak	9	9	49	+ 40
Planning Time Index		1.28	1.11	1.62	+ 0.34
Buffer Time I	ndex	1.28	1.14	1.27	- 0.01

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

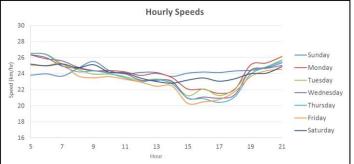
Buffer Time Index: ratio of the 95th percentile slowest to gree-jow travel times, PM peak

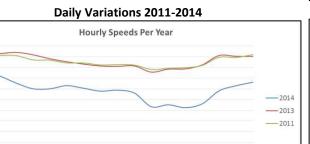
peed 18

16

14 12 10

## **Daily Variations**

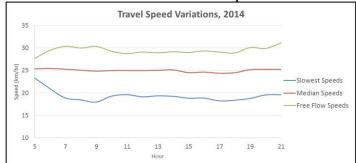


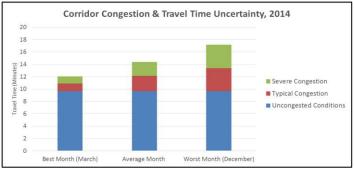


	Typical Daily Delay	
1200		
1000		
800		
600		Eastbound
400		Westbound
200		
0		



Yonge St - Northbound	
Length	4.9km
Key Alternative Routes	Bloor St, Dundas St
TTC Surface Routes	506
Major Cross Streets	Ossington Ave, Bathurst St, Spadina Ave, Yonge St, Dufferin St
Share of Weekday Congestion	0.18%
Worst Days: AM Peak (Fri & Thu)	), PM Peak (Thu & Wed)









## Don Mills Rd. (NB)

O'Connor Dr. to Steeles Ave.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	46	47	37	- 9
(km/h)	PM Peak	43	41	33	- 10
Travel Time Index	AM Peak	1.06	1.05	1.32	+ 0.26
	PM Peak	1.15	1.20	1.51	+ 0.36
Delay Hours	AM Peak	15	12	76	+ 61
	PM Peak	30	40	102	+ 72
Planning Time Index		1.14	1.04	1.30	+ 0.16
Buffer Time I	ndex	1.18	1.09	1.12	- 0.06

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM

Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

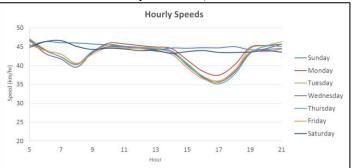
55 50

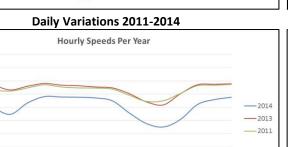
eeg 35

30

25

## Daily Variations, 2014





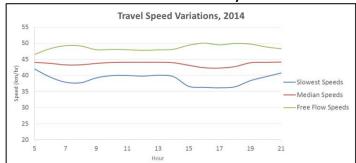
## Seasonal Variations, 2014 Typical Daily Delay 1600 1400 1200 800 1400 200 0 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

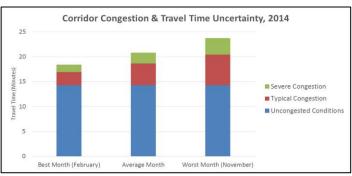
11

13



Yonge St - Northbound	
Length	13.1km
Key Alternative Routes	DVP, Leslie St, Bayview Ave
TTC Surface Routes	25, 139
Major Cross Streets	Eglinton Ave, Lawrence Ave, York Mills Rd, Sheppard Ave, Finch Ave
Share of Weekday Congestion	0.30%
Worst Days: AM Peak (Wed & T	hu), PM Peak (Thu & Fri)









## Don Mills Rd. (SB)

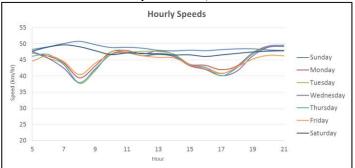
Steeles Ave. to O'Connor Dr.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	41	42	35	- 6
(km/h)	PM Peak	47	47	37	- 10
Travel Time Index	AM Peak	1.30	1.25	1.52	+ 0.22
	PM Peak	1.11	1.10	1.39	+ 0.28
Delay Hours	AM Peak	159	140	289	+ 130
	PM Peak	40	37	148	+ 108
Planning Time Index		1.08	1.00	1.27	+ 0.19
Buffer Time I	ndex	1.16	1.08	1.14	- 0.02

Travel Time Index: ratio of average to uncongested travel times AM Peak: 8-9AM, PM Peak: 5-6PM Delay: average peak-hour vehicular delay per weekday (in hours)

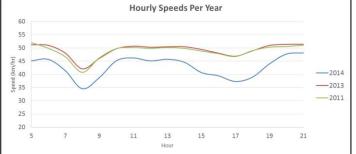
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

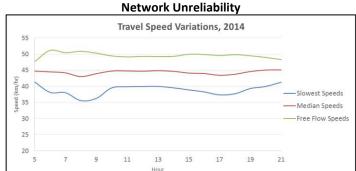
## Daily Variations, 2014

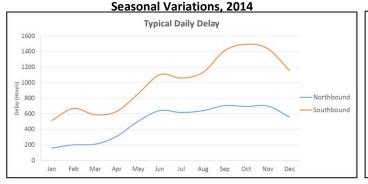


## Yonge St - Northbound Length 13.1km Key Alternative Routes DVP, Leslie St, Bayview Ave TTC Surface Routes 25, 139 Major Cross Streets Eglinton Ave, Lawrence Ave, York Mills Rd, Sheppard Ave, Finch Ave Share of Weekday Congestion 0.62% Worst Days: AM Peak (Tue & Wed), PM Peak (Wed & Thu)

## Daily Variations 2011-2014













## **Dufferin St. (NB)**

Overbrook Pl. to Steeles Ave.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	38	39	31	- 7
(km/h)	PM Peak	33	31	25	- 8
Travel Time Index	AM Peak	1.05	1.04	1.32	+ 0.27
	PM Peak	1.27	1.35	1.74	+ 0.47
Delay Hours	AM Peak	20	15	137	+ 117
	PM Peak	98	130	278	+ 180
Planning Time Index		1.26	1.11	1.32	+ 0.06
Buffer Time I	ndex	1.29	1.14	1.13	- 0.16

Travel Time Index: ratio of average to uncongested travel times

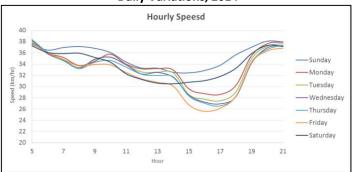
AM Peak: 8-9AM, PM Peak: 5-6PM

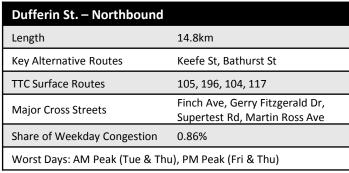
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

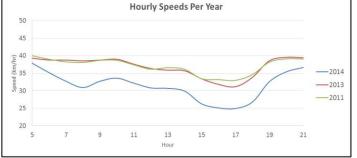
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

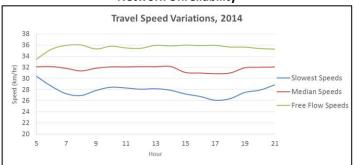
## Daily Variations, 2014

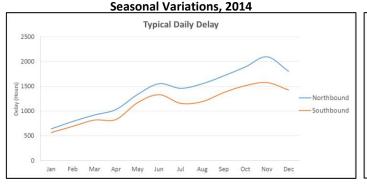


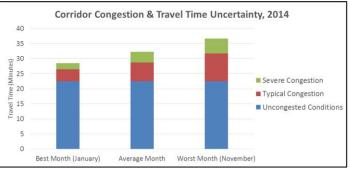


## Daily Variations 2011-2014













## **Dufferin St. (SB)**

Steeles Ave. to Overbrook Pl.

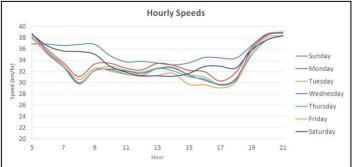
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	33	34	29	- 4
(km/h)	PM Peak	36	35	27	- 9
Travel Time Index	AM Peak	1.20	1.18	1.42	+ 0.22
	PM Peak	1.12	1.13	1.48	+ 0.36
Delay Hours	AM Peak	87	80	190	+ 103
	PM Peak	32	35	135	+ 103
Planning Time Index		1.11	1.00	1.18	+ 0.07
Buffer Time I		1.24	1.12	1.08	- 0.16

Travel Time Index: ratio of average to uncongested travel times

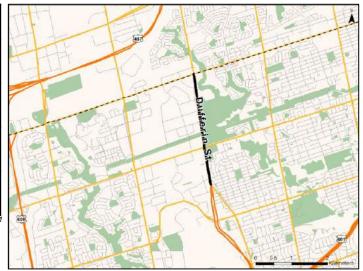
AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

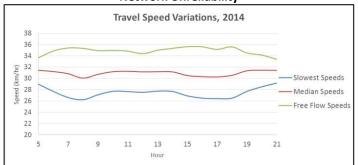
## Daily Variations, 2014

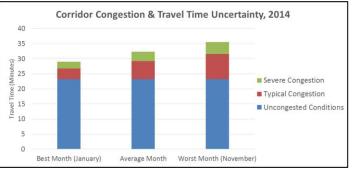


## Seasonal Variations, 2014 Typical Daily Delay 2500 2000 Northbound Southbound Southbound



Dufferin St. – Southbound	
Length	14.8km
Key Alternative Routes	Keefe St, Bathurst St
TTC Surface Routes	105, 196, 104, 117
Major Cross Streets	Finch Ave, Gerry Fitzgerald Dr, Supertest Rd, Martin Ross Ave
Share of Weekday Congestion	0.70%
Worst Days: AM Peak (Thu & Wo	ed), PM Peak (Fri & Tue)









## **Dundas St. (EB)**

Bloor St. to Kingston Rd.

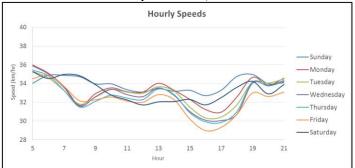
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	36	36	30	- 6
(km/h)	PM Peak	35	35	28	- 7
Travel Time Index	AM Peak	1.07	1.05	1.29	+ 0.22
	PM Peak	1.11	1.08	1.41	+ 0.30
Delay Hours	AM Peak	43	28	181	+ 138
	PM Peak	48	36	188	+ 140
Planning Time Index		1.10	1.01	1.25	+ 0.15
Buffer Time I	ndex	1.17	1.10	1.13	- 0.04

Travel Time Index: ratio of average to uncongested travel times

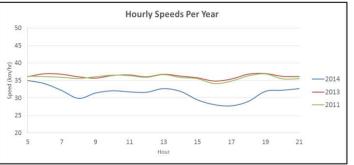
AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

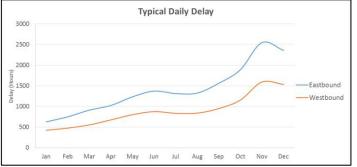
## Daily Variations, 2014



## Daily Variations 2011-2014

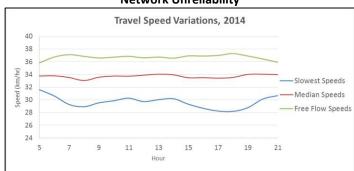


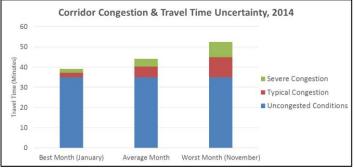
## Seasonal Variations, 2014





Dundas St. – Eastbound				
Length	22.1km			
Key Alternative Routes	College St, Queen St, Bloor St			
TTC Surface Routes	193, 505			
Major Cross Streets	Coxwell Ave, Carlaw Ave, Parliament St, Ossington Ave, Dufferin St			
Share of Weekday Congestion	0.87%			
Worst Days: AM Peak (Thu & Tue), PM Peak (Fri & Thu)				









## Dundas St. (WB)

Kingston Rd. to Bloor St.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	39	40	33	- 6
(km/h)	PM Peak	38	38	31	- 7
Travel Time Index	AM Peak	1.06	1.04	1.30	+ 0.24
	PM Peak	1.08	1.07	1.31	+ 0.23
Delay Hours	AM Peak	27	16	133	+ 106
	PM Peak	28	28	120	+ 92
Planning Time Index		1.13	1.05	1.26	+ 0.13
Buffer Time I	ndex	1.17	1.10	1.13	- 0.04

Travel Time Index: ratio of average to uncongested travel times

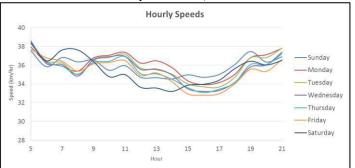
AM Peak: 8-9AM, PM Peak: 5-6PM

Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

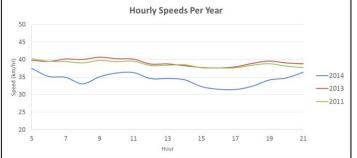
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

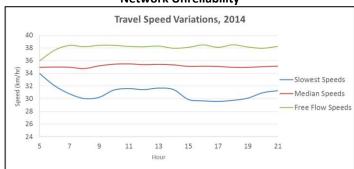


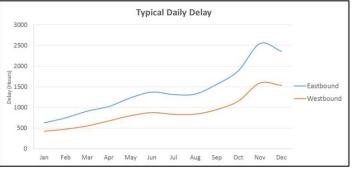
## Dundas St. - Westbound Length 22.1km Key Alternative Routes College St, Queen St, Bloor St TTC Surface Routes 193, 505 Coxwell Ave, Carlaw Ave, Parliament St, Ossington Ave, Dufferin St Share of Weekday Congestion 0.55% Worst Days: AM Peak (Wed & Tue), PM Peak (Fri & Thu)

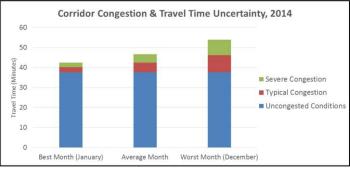




## **Network Unreliability**











## Eglinton Ave. (EB)

West Boundary to Kingston Rd.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	43	43	36	- 7
(km/h)	PM Peak	41	41	32	- 9
Travel Time Index	AM Peak	1.13	1.11	1.39	+0.26
	PM Peak	1.16	1.18	1.57	+ 0.41
Delay Hours	AM Peak	146	132	468	+ 322
	PM Peak	128	138	450	+ 322
Planning Time Index		1.17	1.08	1.35	+ 0.18
Buffer Time I	ndex	1.20	1.11	1.15	- 0.05

Travel Time Index: ratio of average to uncongested travel times

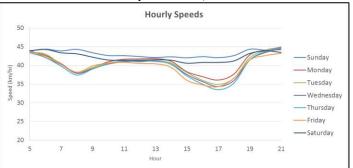
AM Peak: 8-9AM, PM Peak: 5-6PM

Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

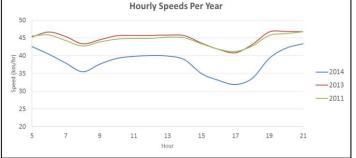
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014



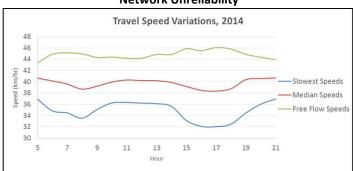


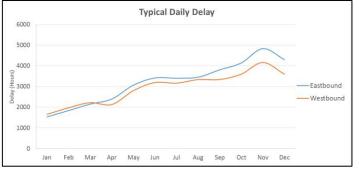
## Daily Variations 2011-2014

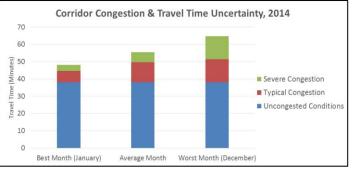


## **Network Unreliability**

Worst Days: AM Peak (Thu & Wed), PM Peak (Thu & Wed)











## Eglinton Ave. (WB)

Kingston Rd. to West Boundary

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	39	40	33	- 6
(km/h)	PM Peak	42	41	33	- 9
Travel Time Index	AM Peak	1.20	1.20	1.46	+ 0.26
	PM Peak	1.15	1.17	1.53	+ 0.38
Delay Hours	AM Peak	187	185	434	+ 247
	PM Peak	104	117	369	+ 265
Planning Time Index		1.10	1.02	1.23	+ 0.13
Buffer Time I	ndex	1.19	1.10	1.11	- 0.08

Travel Time Index: ratio of average to uncongested travel times

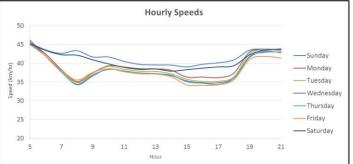
AM Peak: 8-9AM, PM Peak: 5-6PM

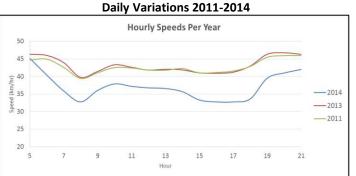
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

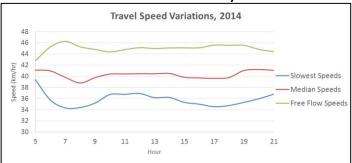


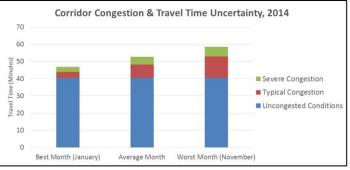


# Seasonal Variations, 2014 Typical Daily Delay 6000 4000 2000 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec



Eglinton Ave. – Westbound	
Length	31.9km
Key Alternative Routes	St. Clair Ave, Lawrence Ave
TTC Surface Routes	32+, 141, 34, 56A, 100C, 73B, 74, 71B, 51, 131E, 86E, 112B, 198, 54AB, 73B
Major Cross Streets	Kipling Ave, Islington Ave, Bathurst St, Yonge St, Bayview Ave
Share of Weekday Congestion	1.80%
Worst Days: AM Peak (Thu & We	ed). PM Peak (Fri & Thu)









## Jane St./S. Kingsway (NB)

The Queensway to Steeles Ave.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	40	41	34	- 6
(km/h)	PM Peak	39	39	30	- 9
Travel Time Index	AM Peak	1.04	1.03	1.27	+ 0.23
	PM Peak	1.09	1.07	1.44	+ 0.35
Delay Hours	AM Peak	21	16	121	+ 100
	PM Peak	34	30	179	+ 145
Planning Time Index		1.08	1.02	1.25	+ 0.17
Buffer Time I	ndex	1.21	1.14	1.13	- 0.08

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

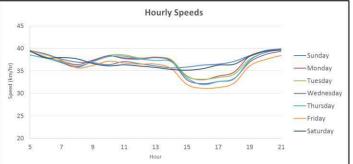
50

45 (Jų/u 40

30

25

## Daily Variations, 2014



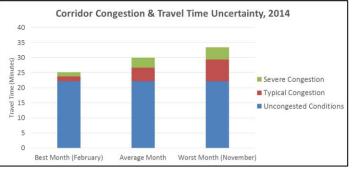


## Seasonal Variations, 2014 Typical Daily Delay 1800 1400 1200 1200 600 400 200 0 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec



Jane St./S. Kingsway – Northbound				
Length	16.2km			
Key Alternative Routes	Weston Rd, Keefe St			
TTC Surface Routes	35+, 84D, 99, 120, 77, 26, 161, 171, 80A, 195			
Major Cross Streets	Finch Ave, Lawrence Ave, St. Clair Ave, Bloor St			
Share of Weekday Congestion	0.63%			
Worst Days: AM Peak (Wed & Fri), PM Peak (Fri & Thu)				









## Jane St./S. Kingsway (SB)

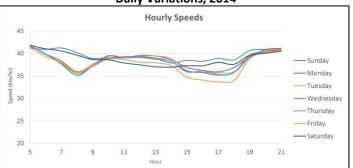
Steeles Ave. to The Queensway

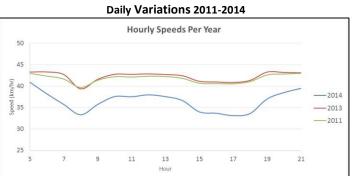
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	40	39	33	- 7
(km/h)	PM Peak	41	41	33	- 8
Travel Time Index	AM Peak	1.10	1.11	1.31	+ 0.21
	PM Peak	1.09	1.08	1.35	+ 0.26
Delay Hours	AM Peak	39	43	124	+ 85
	PM Peak	21	18	80	+ 59
Planning Time Index		1.10	1.07	1.26	+ 0.16
Buffer Time I	ndex	1.15	1.12	1.11	- 0.04

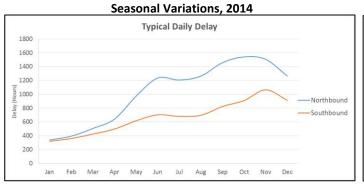
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

Daily Variations, 2014

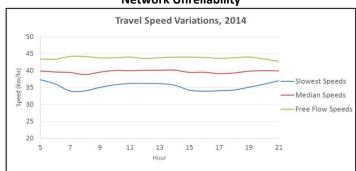


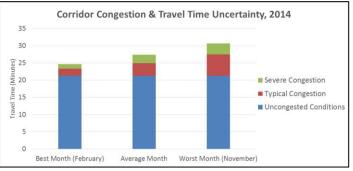






Jane St./S. Kingsway – Southbound					
Length	16.2km				
Key Alternative Routes	Weston Rd, Keefe St				
TTC Surface Routes	35+, 84D, 99, 120, 77, 26, 161, 171, 80A, 195				
Major Cross Streets	Finch Ave, Lawrence Ave, St. Clair Ave, Bloor St				
Share of Weekday Congestion 0.41%					
Worst Days: AM Peak (Thu & Wed), PM Peak (Fri & Wed)					









## Jarvis St. (NB)

Lake Shore Blvd. to Charles St.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	29	28	23	- 6
(km/h)	PM Peak	28	28	23	- 5
Travel Time Index	AM Peak	1.05	1.09	1.34	+ 0.29
	PM Peak	1.09	1.10	1.37	+ 0.28
Delay Hours	AM Peak	3	5	21	+ 18
	PM Peak	5	5	20	+ 15
Planning Time Index		1.24	1.12	1.46	+ 0.22
Buffer Time I	ndex	1.24	1.13	1.22	- 0.02

Travel Time Index: ratio of average to uncongested travel times

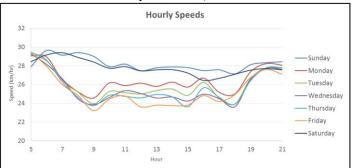
AM Peak: 8-9AM, PM Peak: 5-6PM

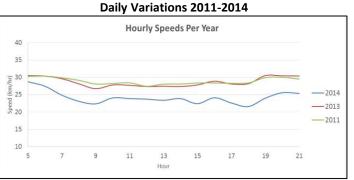
Delay: average peak-hour vehicular delay per weekday (in hours)

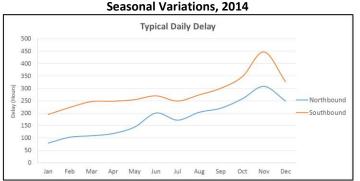
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

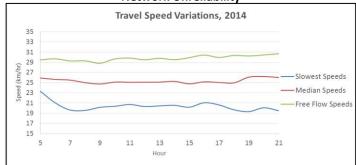


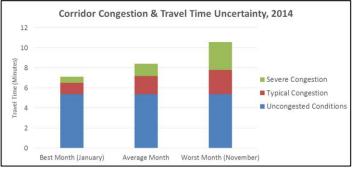






Jarvis St. – Northbound				
Length	3km			
Key Alternative Routes	Parliament St, Yonge St			
TTC Surface Routes	141			
Major Cross Streets	Queen St, Gerrard St, Wellesley St, Carlton St, Front St			
Share of Weekday Congestion	0.11%			
Worst Days: AM Peak (Wed & Fri), PM Peak (Fri & Thu)				









## Jarvis St. (SB)

Charles St. to Lake Shore Blvd.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	28	28	24	- 4
(km/h)	PM Peak	27	25	19	- 8
Travel Time Index	AM Peak	1.10	1.12	1.29	+ 0.19
	PM Peak	1.20	1.24	1.73	+ 0.53
Dalau Haum	AM Peak	9	10	27	+ 18
Delay Hours	PM Peak	13	16	48	+ 35
Planning Time Index		1.32	1.19	1.57	+ 0.25
Buffer Time I	ndex	1.31	1.18	1.28	- 0.03

Travel Time Index: ratio of average to uncongested travel times

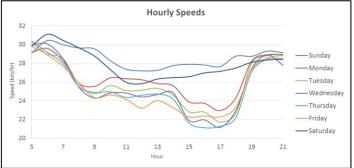
AM Peak: 8-9AM, PM Peak: 5-6PM

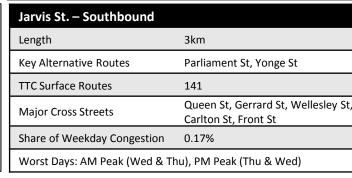
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

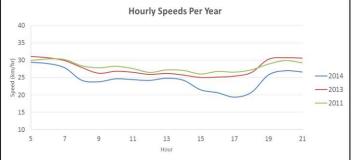
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

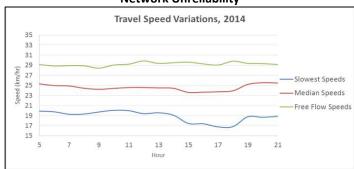


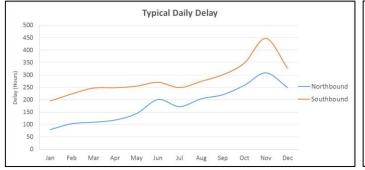


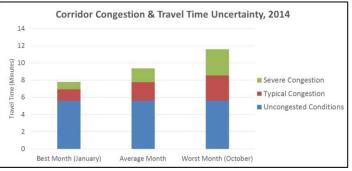
## Daily Variations 2011-2014



## **Network Unreliability**











## King St. (EB)

Queen St. W to Queen St. E.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	26	27	20	- 6
(km/h)	PM Peak	28	28	21	- 7
Travel Time Index	AM Peak	1.12	1.09	1.52	+ 0.40
	PM Peak	1.07	1.06	1.41	+ 0.34
Delay Hours	AM Peak	22	18	99	+ 77
	PM Peak	10	9	63	+ 53
Planning Time Index		1.09	1.04	1.45	+ 0.36
Buffer Time I		1.18	1.12	1.23	+ 0.05

Travel Time Index: ratio of average to uncongested travel times

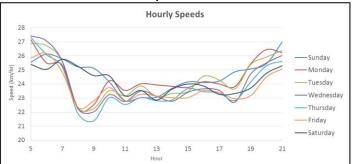
AM Peak: 8-9AM, PM Peak: 5-6PM

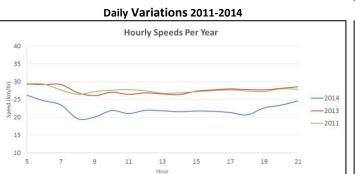
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## **Daily Variations**

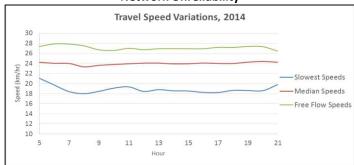


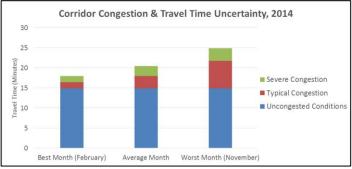


# Seasonal Variations, 2014 Typical Daily Delay 1400 1200 1000 800 400 200 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec



King St. – Eastbound	
Length	7.9km
Key Alternative Routes	Queen St, Front St
TTC Surface Routes	508, 504
Major Cross Streets	Parliament St, Bathurst St, Yonge St, University Ave, Spadina Ave
Share of Weekday Congestion	0.38%
Worst Days: AM Peak (Thu & Fri	), PM Peak (Wed & Thu)









## King St. (WB)

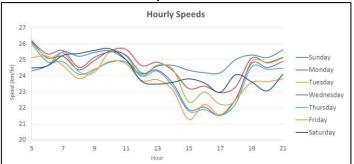
Queen St. E. to Queen St. W.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	27	29	22	- 5
(km/h)	PM Peak	26	26	20	- 6
Travel Time Index	AM Peak	1.07	1.02	1.32	+ 0.25
	PM Peak	1.14	1.11	1.48	+ 0.34
Delay Hours	AM Peak	8	2	37	+ 29
	PM Peak	14	11	52	+ 38
Planning Time Index		1.28	1.11	1.55	+ 0.27
Buffer Time I		1.19	1.12	1.29	+ 0.10

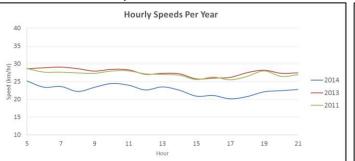
Travel Time Index: ratio of average to uncongested travel times Delay: average peak-hour vehicular delay per weekday (in hours) Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## **Daily Variations**



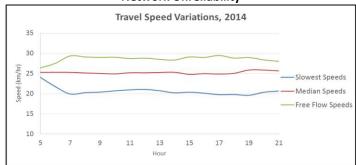
Daily Variations 2011-2014 **Hourly Speeds Per Year** 

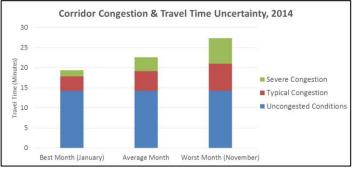


## Seasonal Variations, 2014 Typical Daily Delay 1400 1200 1000 800 Eastbound 600 Westbound 200



King St. – Westbound	
Length	7.9km
Key Alternative Routes	Queen St, Front St
TTC Surface Routes	508, 504
Major Cross Streets	Parliament St, Bathurst St, Yonge St, University Ave, Spadina Ave
Share of Weekday Congestion	0.22%
Worst Days: AM Peak (Fri & We	d), PM Peak (Wed & Fri)









## Kingston Rd. (EB)

Queen St. to East Boundary

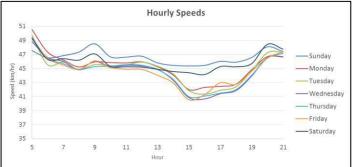
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	48	49	44	- 4
(km/h)	PM Peak	44	45	40	- 4
Travel Time Index	AM Peak	1.05	1.03	1.17	+ 0.12
	PM Peak	1.17	1.14	1.32	+ 0.15
Delay Hours	AM Peak	18	12	62	+ 44
	PM Peak	59	49	110	+ 51
Planning Time Index		1.17	1.08	1.20	+ 0.03
Buffer Time I		1.14	1.09	1.09	- 0.05

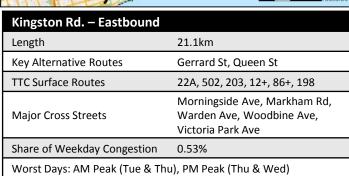
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-0
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

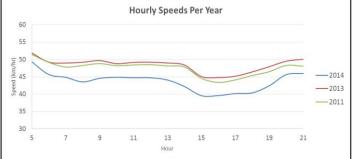
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

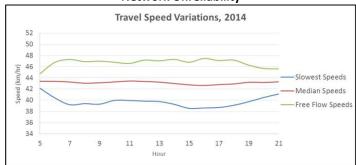


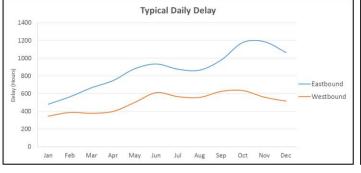


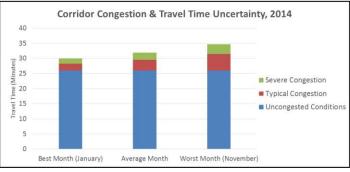




## **Network Unreliability**











## Kingston Rd. (WB)

East Boundary to Queen St.

Kingston Rd. - Westbound

**Key Alternative Routes** 

**TTC Surface Routes** 

Length

44

42

40

38 36

34

2014

-2013

-2011

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	42	43	38	- 4
(km/h)	PM Peak	44	45	39	- 5
Travel Time Index	AM Peak	1.19	1.16	1.35	+ 0.16
	PM Peak	1.10	1.07	1.26	+ 0.16
Delay Hours	AM Peak	54	46	100	+ 46
	PM Peak	18	13	51	+ 33
Planning Time Index		1.23	1.14	1.42	+ 0.19
Buffer Time I		1.15	1.11	1.19	+ 0.04

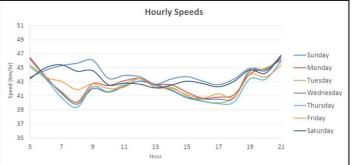
Travel Time Index: ratio of average to uncongested travel times AM Peak: 8-9AM, PM Peak: 5-6PM Delay: average peak-hour vehicular delay per weekday (in hours) Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

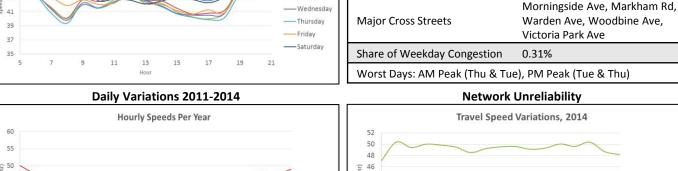
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

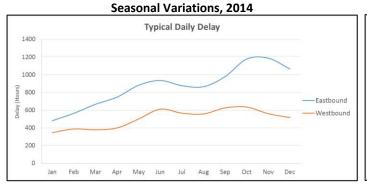
45

30

## Daily Variations, 2014







13

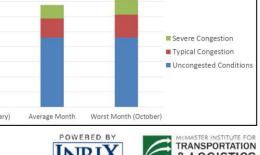


13

21.1km

Gerrard St, Queen St

22A, 502, 203, 12+, 86+, 198







-Slowest Speeds

-Median Speeds

21

Free Flow Speeds

## Kipling Ave. (NB)

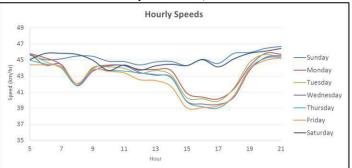
Lake Shore Blvd. to Steeles Ave.

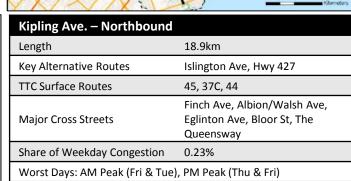
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	46	47	40	- 6
(km/h)	PM Peak	44	45	37	- 7
Travel Time Index	AM Peak	1.07	1.05	1.24	+ 0.17
	PM Peak	1.12	1.09	1.32	+ 0.20
Delay Hours	AM Peak	15	10	50	+ 35
	PM Peak	19	14	53	+ 34
Planning Time Index		1.11	1.00	1.20	+ 0.09
Buffer Time I	ndex	1.17	1.09	1.10	- 0.07

Travel Time Index: ratio of average to uncongested travel times

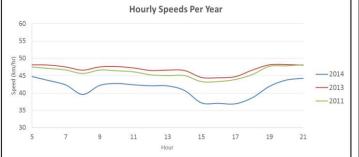
AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

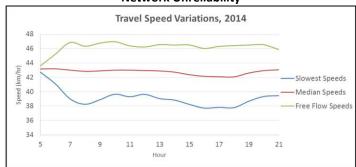


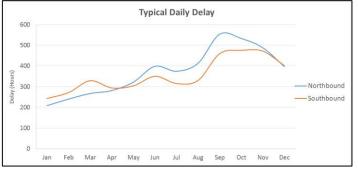


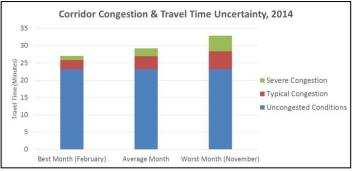
## Daily Variations 2011-2014



## **Network Unreliability**











## Kipling Ave. (SB)

Steeles Ave. to Lake Shore Blvd.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	45	46	40	- 5
(km/h)	PM Peak	46	47	40	- 6
Travel Time Index	AM Peak	1.09	1.06	1.22	+ 0.13
	PM Peak	1.06	1.04	1.22	+ 0.16
Delay Hours	AM Peak	22	16	57	+ 35
	PM Peak	10	6	35	+ 25
Planning Time Index		1.05	1.00	1.14	+ 0.09
Buffer Time I	ndex	1.11	1.08	1.07	- 0.04

Travel Time Index: ratio of average to uncongested travel times

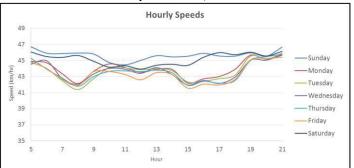
AM Peak: 8-9AM, PM Peak: 5-6PM

Delay: average peak-hour vehicular delay per weekday (in hours)

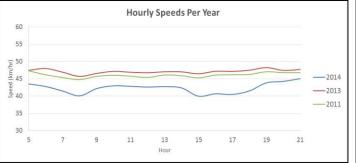
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014



Daily Variations 2011-2014



Typical Daily Delay

500

400

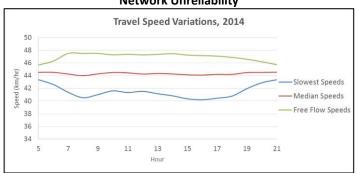
Northbound
Southbound

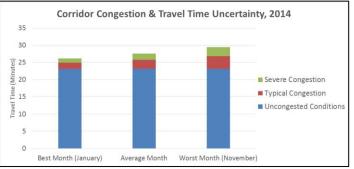
Oct Nov

Seasonal Variations, 2014



Kipling Ave. – Southbound			
Length	18.9km		
Key Alternative Routes	Islington Ave, Hwy 427		
TTC Surface Routes	45, 37C, 44		
Major Cross Streets	Finch Ave, Albion/Walsh Ave, Eglinton Ave, Bloor St, The Queensway		
Share of Weekday Congestion	0.22%		
Worst Days: AM Peak (Tue & Thu), PM Peak (Fri & Thu)			









## Lake Shore Blvd. (EB)

Yonge St. to Woodbine Ave.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	43	44	38	- 5
(km/h)	PM Peak	44	45	38	- 6
Travel Time Index	AM Peak	1.17	1.13	1.32	+ 0.15
	PM Peak	1.14	1.12	1.34	+ 0.20
Delay Hours	AM Peak	18	14	36	+ 18
	PM Peak	11	9	26	+ 15
Planning Time Index		1.16	1.09	1.28	+ 0.12
Buffer Time I	ndex	1.13	1.10	1.13	

Travel Time Index: ratio of average to uncongested travel times

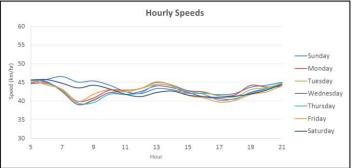
AM Peak: 8-9AM, PM Peak: 5-6PM

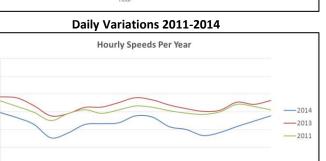
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014





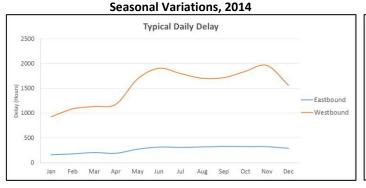
60

55

45

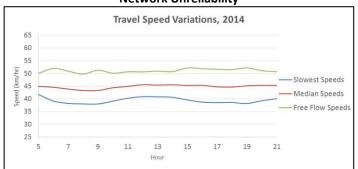
35

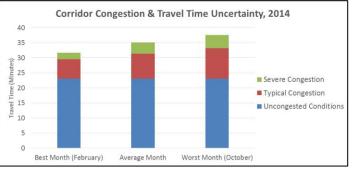
30





Lake Shore Blvd. – Eastbound				
Length	23.4km			
Key Alternative Routes	Gardiner Exp, Eastern Ave			
TTC Surface Routes	145, 501, 508, 80A, 76A, 66B, 92			
Major Cross Streets	York St, Coxwell Ave, Lower Jarvis St, Leslie St, Carlaw Ave			
Share of Weekday Congestion 0.16%				
Worst Days: AM Peak (Wed & Tue), PM Peak (Fri & Thu)				









## Lake Shore Blvd. (WB)

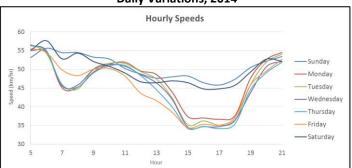
Woodbine Ave. to Yonge St.

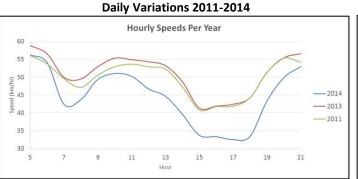
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	47	50	44	- 3
(km/h)	PM Peak	42	42	33	- 9
Travel Time Index	AM Peak	1.28	1.23	1.42	+ 0.14
	PM Peak	1.54	1.50	2.14	+ 0.60
Delay Hours	AM Peak	72	60	111	+ 39
	PM Peak	133	126	292	+ 159
Planning Time Index		1.31	1.29	1.45	+ 0.14
Buffer Time I		1.20	1.23	1.18	- 0.02

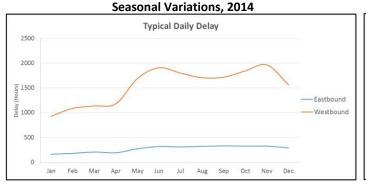
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

Daily Variations, 2014

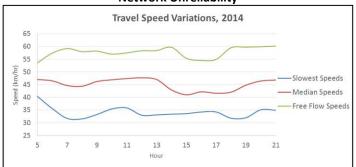


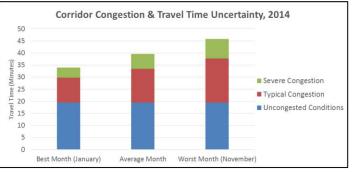






Lake Shore Blvd. – Westbound			
Length	23.7km		
Key Alternative Routes	Gardiner Exp, Eastern Ave		
TTC Surface Routes	145, 501, 508, 80A, 76A, 66B, 92		
Major Cross Streets	York St, Coxwell Ave, Lower Jarvis St, Leslie St, Carlaw Ave		
Share of Weekday Congestion 0.95%			
Worst Days: AM Peak (Tue & Thu), PM Peak (Thu & Wed)			









## Markham Rd. (NB)

Kingston Rd. to Steeles Ave.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	46	47	38	- 8
(km/h)	PM Peak	45	45	36	- 9
Travel Time Index	AM Peak	1.08	1.06	1.32	+ 0.24
	PM Peak	1.12	1.09	1.37	+ 0.25
Delay Hours	AM Peak	19	13	76	+ 57
	PM Peak	25	18	76	+ 51
Planning Time Index		1.24	1.09	1.36	+ 0.12
Buffer Time Index		1.26	1.13	1.16	- 0.10

Travel Time Index: ratio of average to uncongested travel times

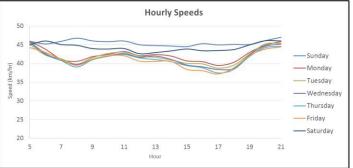
AM Peak: 8-9AM, PM Peak: 5-6PM

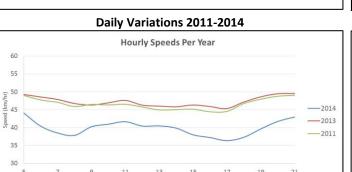
Delay: average peak-hour vehicular delay per weekday (in hours)

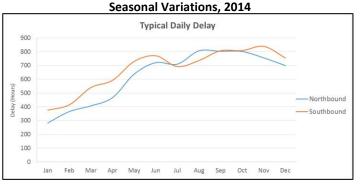
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

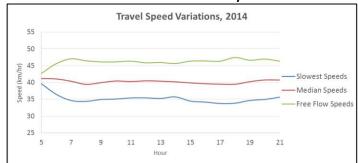


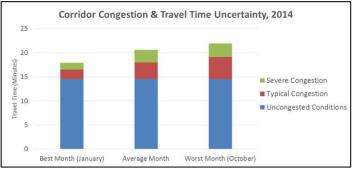






Markham Rd. – Northbound			
Length	11.9km		
Key Alternative Routes	Scarborough Golf Club Rd, Bellamy Rd		
TTC Surface Routes	102+		
Major Cross Streets	Lawrence Ave, Ellesmere Rd, Finch Ave, Eglinton Ave, Sheppard Ave		
Share of Weekday Congestion	0.38%		
Worst Days: AM Peak (Thu & Fri	), PM Peak (Fri & Thu)		









## Markham Rd. (SB)

Steeles Ave. to Kingston Rd.

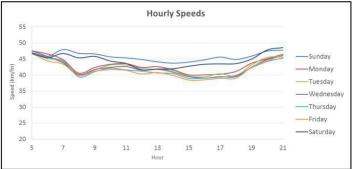
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	44	45	38	- 6
(km/h)	PM Peak	46	47	37	- 9
Travel Time Index	AM Peak	1.13	1.11	1.33	+ 0.20
	PM Peak	1.08	1.07	1.35	+ 0.27
Delay Hours	AM Peak	36	31	96	+ 60
	PM Peak	16	13	71	+ 55
Planning Time Index		1.22	1.08	1.26	+ 0.04
Buffer Time Index		1.22	1.11	1.10	- 0.12

Travel Time Index: ratio of average to uncongested travel times

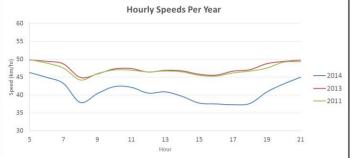
AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

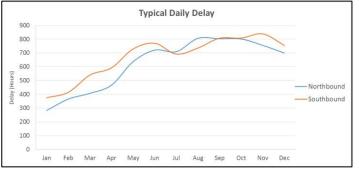
## Daily Variations, 2014



## Daily Variations 2011-2014

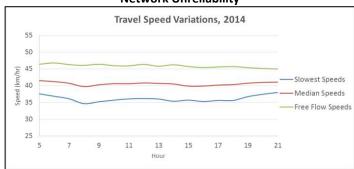


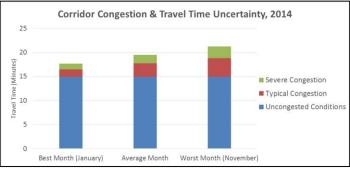
## Seasonal Variations, 2014





Markham Rd. – Southbound				
Length	11.9km			
Key Alternative Routes	Scarborough Golf Club Rd, Bellamy Rd			
TTC Surface Routes	102+			
Major Cross Streets	Lawrence Ave, Ellesmere Rd, Finch Ave, Eglinton Ave, Sheppard Ave			
Share of Weekday Congestion	0.41%			
Worst Days: AM Peak (Thu & Wed), PM Peak (Fri & Thu)				









## Martin Grove Rd. (NB)

Eglinton Ave. to Steeles Ave.

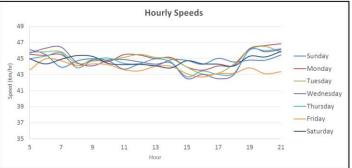
Key Perforn Indicators	nance	2011	2013	2014	Change (2011-2014)
Speed	AM Peak	46	48	42	- 4
(km/h)	PM Peak	46	48	41	- 5
Travel Time Index	AM Peak	1.07	1.02	1.16	+ 0.09
	PM Peak	1.07	1.03	1.20	+ 0.13
Delay Hours	AM Peak	29	9	75	+ 46
	PM Peak	24	11	72	+ 48
Unreliability (BTI)	AM Peak	1.23	1.05	1.21	- 0.02
	PM Peak	1.18	1.09	1.10	- 0.08

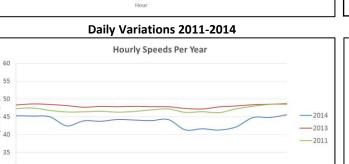
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014



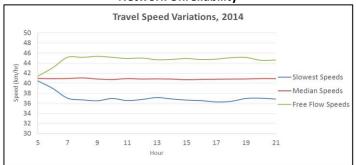


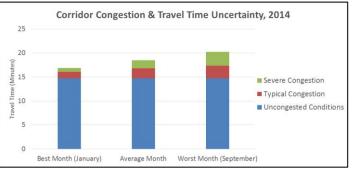
## Seasonal Variations, 2014 Typical Daily Delay 900 800 700 600 500 100 0 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

30



Martin Grove Rd. – Northbound			
Length	11.4km		
Key Alternative Routes	Kipling Ave, Hwy 27		
TTC Surface Routes	46, 191, 96B, 111, 52G		
Major Cross Streets	Albion Rd, Finch Ave, Rexdale Blvd, Dixon Rd		
Share of Weekday Congestion 0.36%			
Worst Days: AM Peak (Thu & Mon), PM Peak (Wed & Thu)			









## Martin Grove Rd. (SB)

Steeles Ave. to Eglinton Ave.

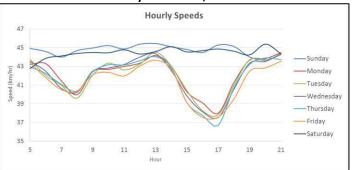
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	42	44	39	- 5
(km/h)	PM Peak	44	44	35	- 7
Travel Time Index	AM Peak	1.12	1.10	1.25	+ 0.13
	PM Peak	1.17	1.13	1.46	+ 0.29
Delay Hours	AM Peak	34	30	74	+ 40
	PM Peak	29	21	79	+ 50
Planning Time Index		1.37	1.21	1.50	+ 0.13
Buffer Time Index		1.23	1.15	1.20	- 0.03

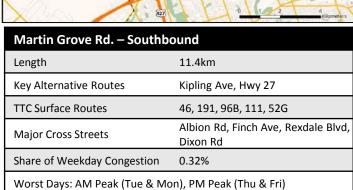
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

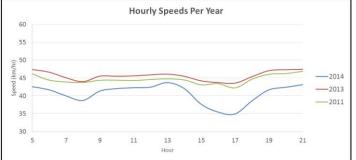
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

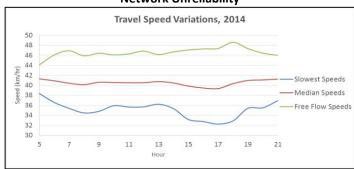


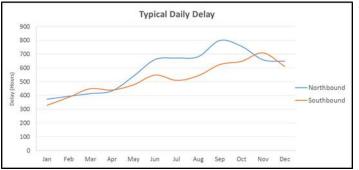


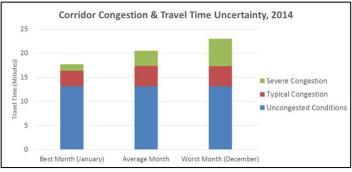
## Daily Variations 2011-2014



## **Network Unreliability**











## Mount Pleasant Rd. (NB)

Jarvis St. to Lawrence Ave.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	40	41	33	- 7
(km/h)	PM Peak	36	35	27	- 9
Travel Time Index	AM Peak	1.07	1.04	1.31	+ 0.24
	PM Peak	1.24	1.25	1.58	+ 0.34
Delay Hours	AM Peak	8	5	36	+ 28
	PM Peak	25	27	63	+ 38
Planning Time Index		1.10	1.02	1.24	+ 0.14
Buffer Time Index		1.11	1.07	1.11	

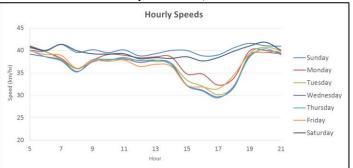
Travel Time Index: ratio of average to uncongested travel times

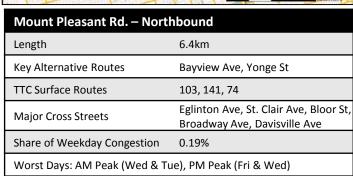
AM Peak: 8-9AM, PM Peak: 5-6PM

Delay: average peak-hour vehicular delay per weekday (in hours)

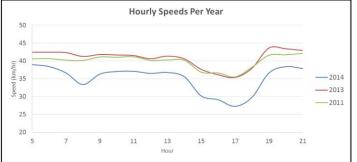
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

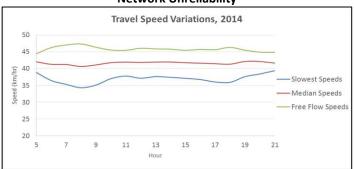


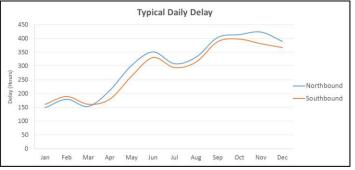


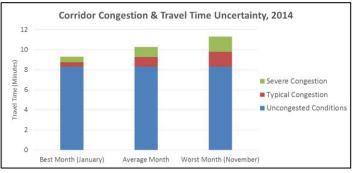
## Daily Variations 2011-2014



## **Network Unreliability**











# Mount Pleasant Rd. (SB)

Lawrence Ave. to Jarvis St.

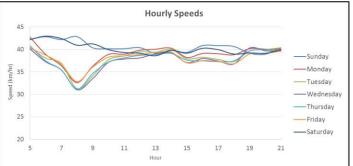
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	37	36	29	- 8
(km/h)	PM Peak	42	42	35	- 7
Travel Time Index	AM Peak	1.26	1.31	1.57	+ 0.31
	PM Peak	1.04	1.03	1.27	+ 0.23
Delay Hours	AM Peak	38	46	85	+ 47
	PM Peak	4	3	27	+ 23
Planning Time Index		1.24	1.11	1.42	+ 0.18
Buffer Time I	ndex	1.25	1.16	1.21	- 0.04

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

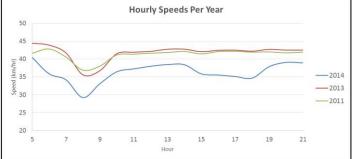
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014



# Mount Pleasant Rd. – Southbound Length 6.5km Key Alternative Routes Bayview Ave, Yonge St TTC Surface Routes 103, 141, 74 Major Cross Streets Eglinton Ave, St. Clair Ave, Bloor St, Broadway Ave, Davisville Ave

# Daily Variations 2011-2014

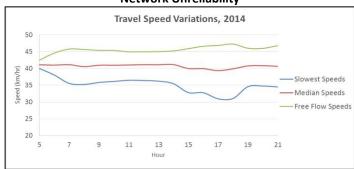


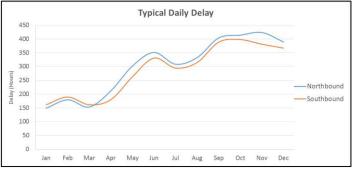
### Network Unreliability

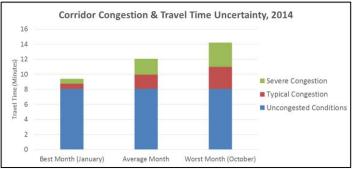
Worst Days: AM Peak (Wed & Thu), PM Peak (Thu & Wed)

0.18%

Share of Weekday Congestion











# Queen St. (EB)

Roncesvalles Ave. to Victoria Park Ave.

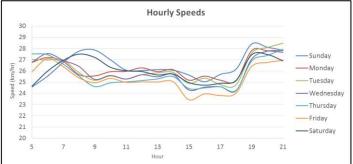
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	28	29	24	- 4
(km/h)	PM Peak	27	29	22	- 5
Travel Time Index	AM Peak	1.09	1.04	1.28	+ 0.19
	PM Peak	1.12	1.07	1.39	+ 0.27
Dalau Hauna	AM Peak	39	16	125	+ 86
Delay Hours	PM Peak	45	25	143	+ 98
Planning Time Index		1.13	1.03	1.37	+ 0.24
Buffer Time I	ndex	1.17	1.09	1.20	+ 0.03

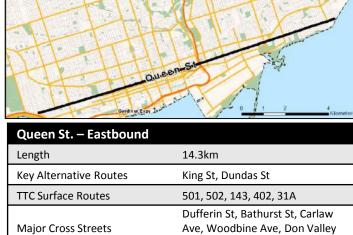
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

### **Daily Variations**





### Daily Variations 2011-2014



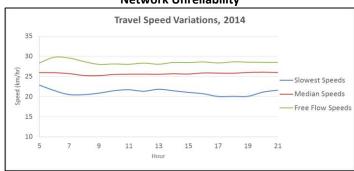
### **Network Unreliability**

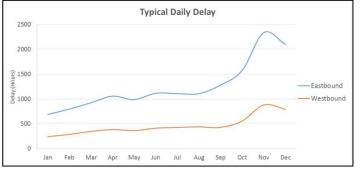
Worst Days: AM Peak (Fri & Thu), PM Peak (Fri & Wed)

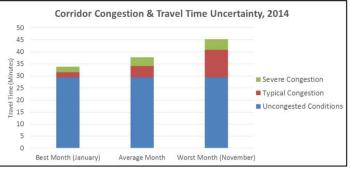
Share of Weekday Congestion

**Parkway** 

0.77%











# Queen St. (WB)

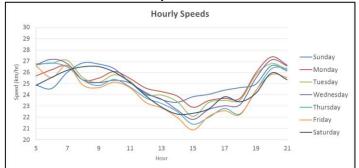
Victoria Park Ave. to Roncesvalles Ave.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	27	28	24	- 3
(km/h)	PM Peak	27	27	21	- 6
Travel Time Index	AM Peak	1.10	1.04	1.25	+ 0.15
	PM Peak	1.10	1.09	1.41	+ 0.31
Delay Hours	AM Peak	18	8	47	+ 29
	PM Peak	14	12	58	+ 44
Planning Time Index		1.19	1.12	1.46	+ 0.27
Buffer Time I	ndex	1.17	1.12	1.22	+ 0.05

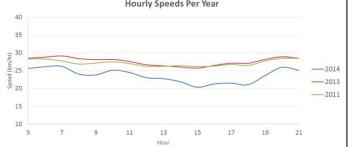
Travel Time Index: ratio of average to uncongested travel times AM Peak: 8-9AM, PM Peak: 5-6PM Delay: average peak-hour vehicular delay per weekday (in hours) Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

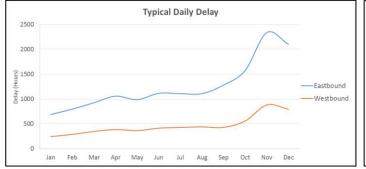
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

### **Daily Variations**





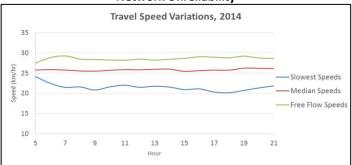


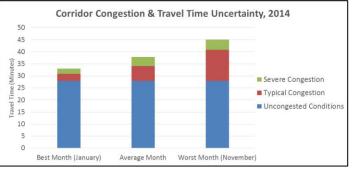


Seasonal Variations, 2014



Queen St. – Westbound		
Length	14.3km	
Key Alternative Routes	King St, Dundas St	
TTC Surface Routes	501, 502, 143, 402, 31A	
Major Cross Streets	Dufferin St, Bathurst St, Carlaw Ave, Woodbine Ave, Don Valley Parkway	
Share of Weekday Congestion	0.29%	
Worst Days: AM Peak (Fri & Tue), PM Peak (Fri & Thu)		









# The Queensway (EB)

West Boundary to Southport St.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	44	44	38	- 6
(km/h)	PM Peak	45	46	35	- 10
Travel Time Index	AM Peak	1.15	1.14	1.34	+ 0.19
	PM Peak	1.11	1.07	1.43	+ 0.32
Delay Hours	AM Peak	41	38	94	+ 53
	PM Peak	19	12	74	+ 55
Planning Time Index		1.12	1.03	1.27	+ 0.15
Buffer Time I	ndex	1.17	1.13	1.13	- 0.04

Travel Time Index: ratio of average to uncongested travel times

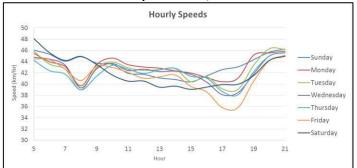
AM Peak: 8-9AM, PM Peak: 5-6PM

Delay: average peak-hour vehicular delay per weekday (in hours)

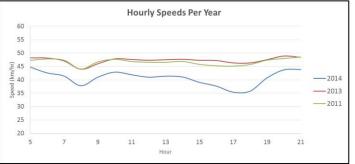
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

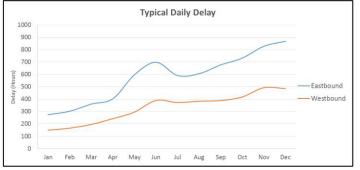
## Daily Variations, 2014



# Daily Variations 2011-2014

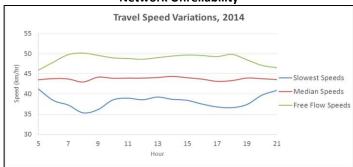


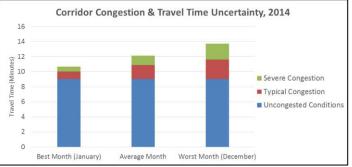
# Seasonal Variations, 2014





The Queensway – Eastbound			
Length	7.8km		
Key Alternative Routes	Gardiner Exp, Bloor St		
TTC Surface Routes	80+		
Major Cross Streets	Park Lawn Rd, Royal York Rd, Islington Ave, S Kingsway, Kipling Ave		
Share of Weekday Congestion	0.36%		
Worst Days: AM Peak (Thu & Tue), PM Peak (Fri & Wed)			









# The Queensway (WB)

Southport St. to West Boundary

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	48	48	41	- 7
(km/h)	PM Peak	43	44	36	- 7
Travel Time Index	AM Peak	1.04	1.02	1.20	+ 0.16
	PM Peak	1.14	1.10	1.37	+ 0.23
Delay Hours	AM Peak	5	4	30	+ 25
	PM Peak	16	11	42	+ 26
Planning Time Index		1.18	1.04	1.29	+ 0.11
Buffer Time I	ndex	1.20	1.11	1.15	- 0.05

Travel Time Index: ratio of average to uncongested travel times

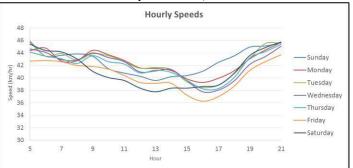
AM Peak: 8-9AM, PM Peak: 5-6PM

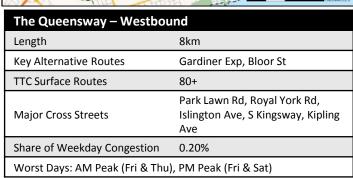
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

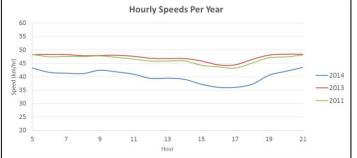
## Daily Variations, 2014



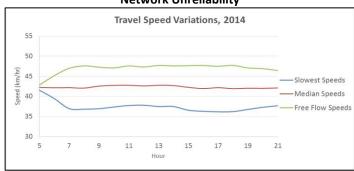


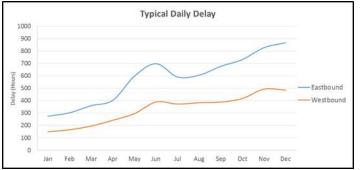
Che-Queen

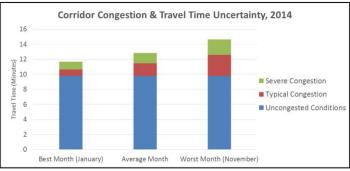
# Daily Variations 2011-2014



### **Network Unreliability**











# Sheppard Ave. (EB)

Weston Rd. to Yonge St.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	44	45	39	- 5
(km/h)	PM Peak	43	44	35	- 8
Travel Time Index	AM Peak	1.08	1.07	1.22	+ 0.14
	PM Peak	1.13	1.10	1.42	+ 0.29
Delay Hours	AM Peak	89	78	269	+ 180
	PM Peak	110	93	371	+ 261
Planning Time Index		1.10	1.04	1.17	+ 0.07
Buffer Time I	ndex	1.17	1.12	1.08	- 0.09

Travel Time Index: ratio of average to uncongested travel times

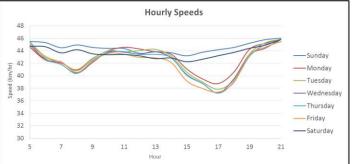
AM Peak: 8-9AM, PM Peak: 5-6PM

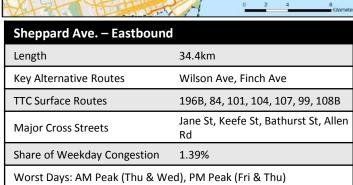
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

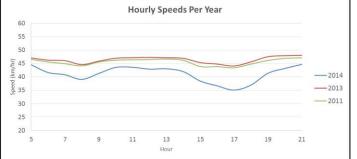
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

# Daily Variations, 2014

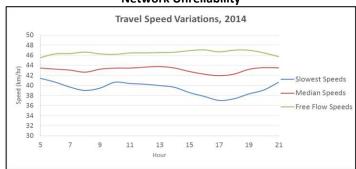


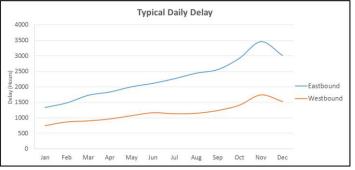


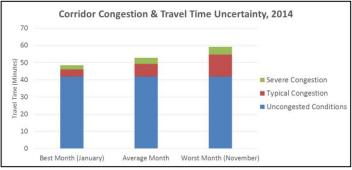
# Daily Variations 2011-2014



### **Network Unreliability**











# Sheppard Ave. (WB)

Yonge St. to Weston Rd.

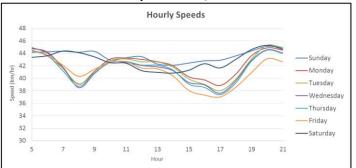
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	43	43	37	- 6
(km/h)	PM Peak	42	43	36	- 6
Travel Time Index	AM Peak	1.11	1.10	1.29	+ 0.18
	PM Peak	1.14	1.11	1.34	+ 0.20
Delay Hours	AM Peak	79	69	212	+ 133
	PM Peak	61	52	162	+ 101
Planning Time Index		1.15	1.09	1.23	+ 0.08
Buffer Time I		1.18	1.19	1.11	- 0.07

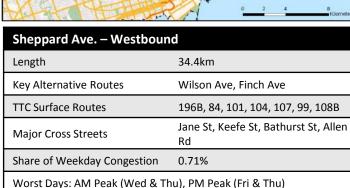
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6P
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

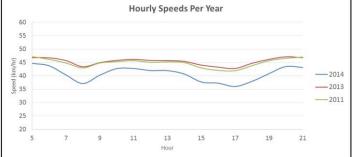
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

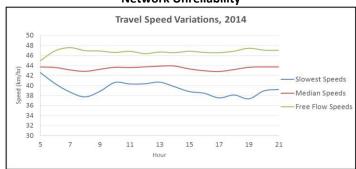


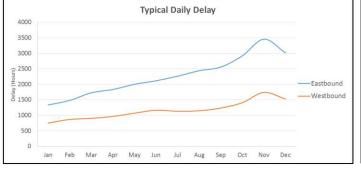


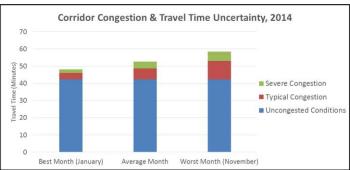
# Daily Variations 2011-2014



# **Network Unreliability**











# St. Clair Ave. (EB)

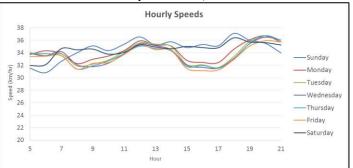
Scarlett Rd. to Mount Pleasant Rd.

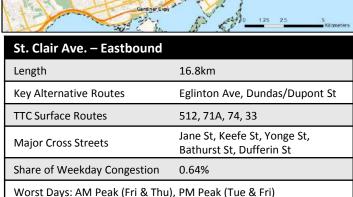
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	35	35	30	- 5
(km/h)	PM Peak	35	37	30	- 5
Travel Time	AM Peak	1.09	1.06	1.28	+ 0.19
Index	PM Peak	1.11	1.06	1.33	+ 0.22
Dalau Hauma	AM Peak	50	35	165	+ 115
Delay Hours	PM Peak	40	21	118	+ 78
Planning Time Index		1.12	1.02	1.23	+ 0.11
Buffer Time I	ndex	1.18	1.10	1.12	- 0.06

Travel Time Index: ratio of average to uncongested travel times AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

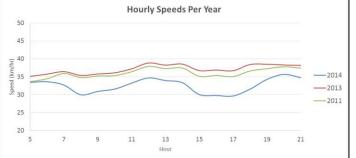
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

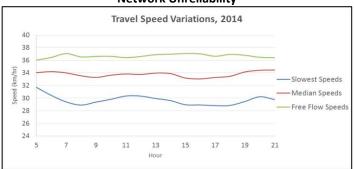


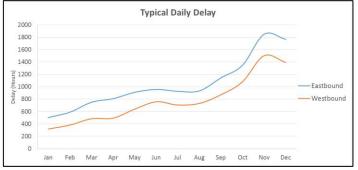


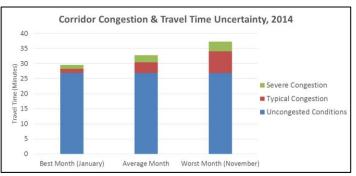
# Daily Variations 2011-2014



### **Network Unreliability**











# St. Clair Ave. (WB)

Mount Pleasant Rd. to Scarlett Rd.

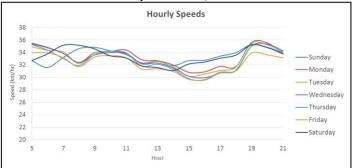
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	36	37	30	- 6
(km/h)	PM Peak	34	36	29	- 5
Travel Time Index	AM Peak	1.06	1.02	1.27	+ 0.21
	PM Peak	1.11	1.06	1.36	+ 0.25
Dalau Haum	AM Peak	21	7	104	+ 83
Delay Hours	PM Peak	35	20	123	+ 88
Planning Time Index		1.08	1.00	1.24	+ 0.16
Buffer Time I	ndex	1.15	1.09	1.11	- 0.04

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

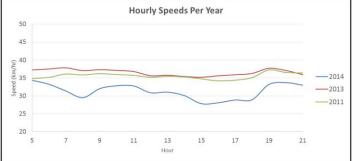
### Daily Variations, 2014



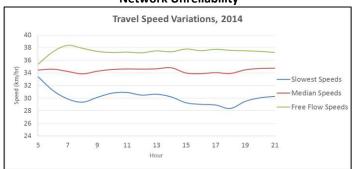


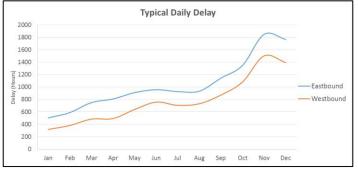
St. Clair Ave. – Westbound	
Length	16.8km
Key Alternative Routes	Eglinton Ave, Dundas/Dupont St
TTC Surface Routes	512, 71A, 74, 33
Major Cross Streets	Jane St, Keefe St, Yonge St, Bathurst St, Dufferin St
Share of Weekday Congestion	0.48%
Worst Days: AM Peak (Fri & Thu)	, PM Peak (Fri & Thu)

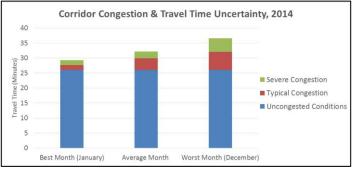
# Daily Variations 2011-2014



# **Network Unreliability**











# Steeles Ave. (EB)

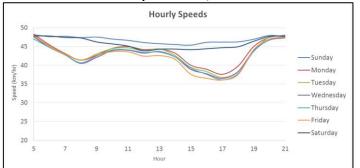
Highway 400 to Pickering Townline

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	46	46	39	- 7
(km/h)	PM Peak	44	44	33	- 11
Travel Time Index	AM Peak	1.11	1.11	1.36	+ 0.25
	PM Peak	1.19	1.18	1.58	+ 0.39
Delay Hours	AM Peak	83	91	295	+ 212
	PM Peak	90	85	281	+ 191
Planning Time Index		1.08	0.98	1.21	+ 0.13
Buffer Time I	ndex	1.22	1.11	1.11	- 0.11

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

### Daily Variations, 2014



Steeles Ave. – Eastbound

Length 36.6km

Key Alternative Routes Finch Ave, Sheppard Ave

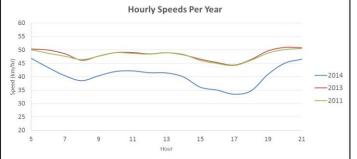
TTC Surface Routes 60, 37C, 17, 195, 105, 53

Major Cross Streets Yonge St, Bayview Ave, Kennedy Rd, Markham Rd, Warden Ave

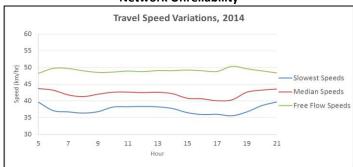
Share of Weekday Congestion 1.25%

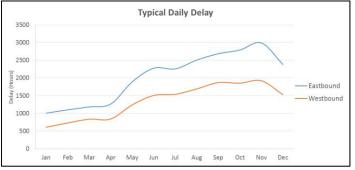
Worst Days: AM Peak (Wed & Thu), PM Peak (Thu & Fri)

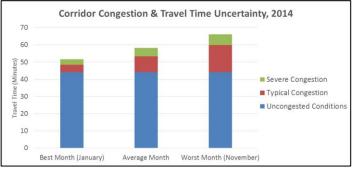
# Daily Variations 2011-2014



### **Network Unreliability**











# Steeles Ave. (WB)

Pickering Townline to Hwy 400

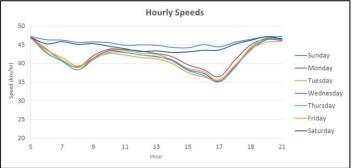
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	44	45	36	- 8
(km/h)	PM Peak	43	42	32	- 11
Travel Time Index	AM Peak	1.12	1.09	1.36	+ 0.24
	PM Peak	1.14	1.15	1.53	+ 0.39
Delay Hours	AM Peak	68	50	205	+ 137
	PM Peak	58	63	231	+ 173
Planning Time Index		1.14	1.02	1.21	+ 0.07
Buffer Time I	ndex	1.26	1.13	1.08	- 0.18

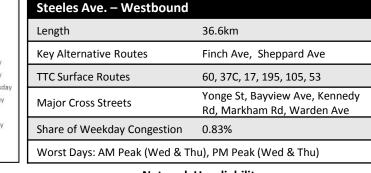
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

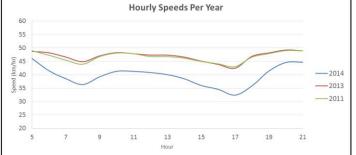
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

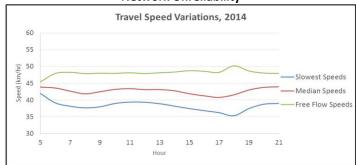


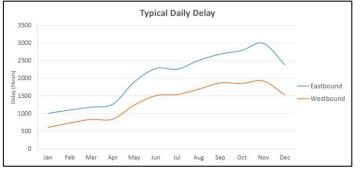


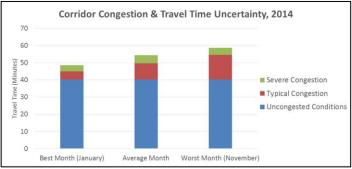
# Daily Variations 2011-2014



# **Network Unreliability**











# Victoria Park Ave. (NB)

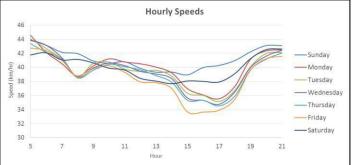
Kingston Rd. to Steeles Ave.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	42	43	37	- 5
(km/h)	PM Peak	40	40	33	- 7
Travel Time Index	AM Peak	1.08	1.05	1.22	+ 0.14
	PM Peak	1.12	1.12	1.37	+ 0.25
Delay Hours	AM Peak	22	14	67	+ 45
	PM Peak	32	32	100	+ 68
Planning Time Index		1.11	1.00	1.22	+ 0.11
Buffer Time I	ndex	1.17	1.08	1.11	- 0.06

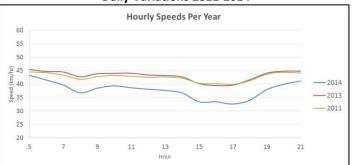
Travel Time Index: ratio of average to uncongested travel times AM Peak: 8-9AM, PM Peak: 5-6PM Delay: average peak-hour vehicular delay per weekday (in hours) Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014



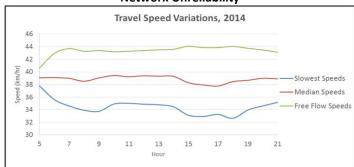
Daily Variations 2011-2014 **Hourly Speeds Per Year** 

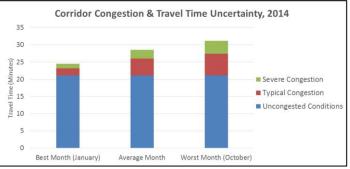


# Seasonal Variations, 2014 Typical Daily Delay 1200 1000 800 -Northbound 600 -Southbound 200



Victoria Park Ave. – Northbound			
Length	16.5km		
Key Alternative Routes	Hwy 404, Warden Ave		
TTC Surface Routes	224, 24, 144, 12, 70, 91B, 167		
Major Cross Streets	Ellesmere Rd, Finch Ave, Sheppard Ave, Danforth Ave, St. Clair Ave		
Share of Weekday Congestion	0.36%		
Worst Days: AM Peak (Wed & Thu), PM Peak (Fri & Thu)			









# Victoria Park Ave. (SB)

Steeles Ave. to Kingston Rd.

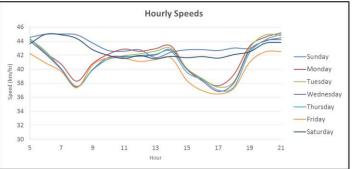
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	40	40	35	- 5
(km/h)	PM Peak	41	42	35	- 6
Travel Time Index	AM Peak	1.19	1.19	1.34	+ 0.15
	PM Peak	1.14	1.11	1.35	+ 0.21
Delay Hours	AM Peak	65	67	122	+ 57
	PM Peak	35	27	87	+ 52
Planning Time Index		1.18	1.05	1.21	+ 0.03
Buffer Time I		1.18	1.09	1.09	- 0.09

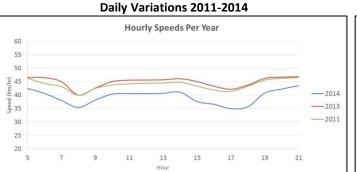
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

# Daily Variations, 2014

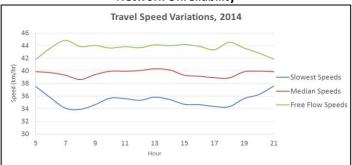


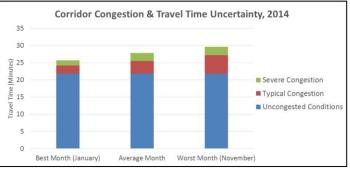


# Seasonal Variations, 2014 Typical Daily Delay 1200 1000 800 400 200 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec



Victoria Park Ave. – Southbound			
Length	16.5km		
Key Alternative Routes	Hwy 404, Warden Ave		
TTC Surface Routes	224, 24, 144, 12, 70, 91B, 167		
Major Cross Streets	Ellesmere Rd, Finch Ave, Sheppard Ave, Danforth Ave, St. Clair Ave		
Share of Weekday Congestion	0.40%		
Worst Days: AM Peak (Fri & Thu), PM Peak (Fri & Thu)			









# Yonge St. (NB)

Queens Quay to Steeles Ave.

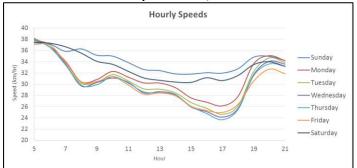
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	31	32	29	- 2
(km/h)	PM Peak	27	27	24	- 3
Travel Time Index	AM Peak	1.29	1.23	1.31	+ 0.02
	PM Peak	1.44	1.42	1.64	+ 0.20
Delay Hours	AM Peak	159	131	177	+ 18
	PM Peak	223	214	330	+ 107
Planning Time Index		1.16	1.10	1.29	+ 0.13
Buffer Time I	ndex	1.15	1.12	1.15	

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

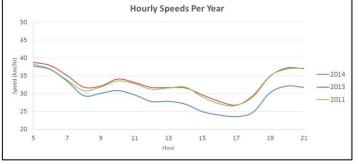
Buffer Time Index: ratio of the 95th percentile slowest to free-flow travel times, PM peak

## Daily Variations, 2014

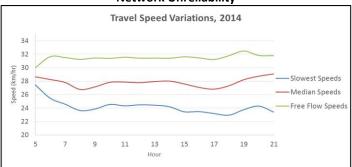


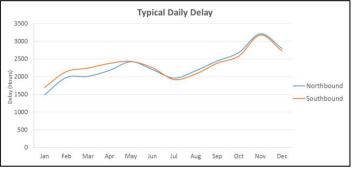
# Yonge St. - Northbound Length 17.8km Key Alternative Routes Avenue Rd, Mount Pleasant Rd/Jarvis St TTC Surface Routes 97, 60F, 53 Major Cross Streets Queen St, Bloor St, St. Clair Ave, Eglinton Ave, Finch Ave Share of Weekday Congestion 1.41% Worst Days: AM Peak (Thu & Wed), PM Peak (Thu & Wed)

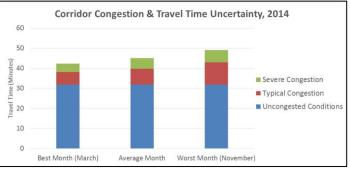
# Daily Variations 2011-2014



# **Network Unreliability**











# Yonge St. (SB)

Steeles Ave. to Queens Quay

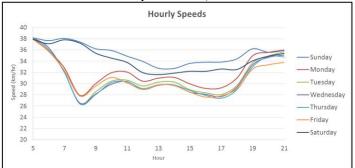
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	28	28	25	- 3
(km/h)	PM Peak	30	30	27	- 3
Travel Time Index	AM Peak	1.41	1.38	1.57	+ 0.16
	PM Peak	1.32	1.32	1.43	+ 0.11
Delay Hours	AM Peak	279	265	403	+ 124
	PM Peak	156	156	214	+ 58
Planning Time Index		1.23	1.10	1.28	+ 0.05
Buffer Time I	ndex	1.20	1.08	1.14	- 0.06

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

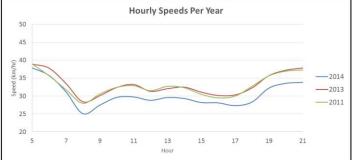
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

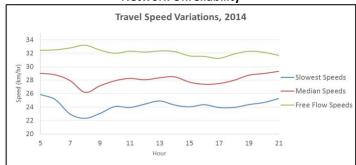


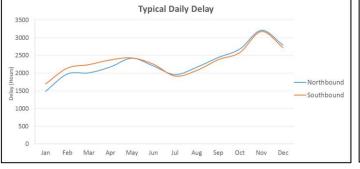
# Yonge St. - Southbound Length 17.8km Key Alternative Routes Avenue Rd, Mount Pleasant Rd/Jarvis St TTC Surface Routes 97, 60F, 53 Major Cross Streets Queen St, Bloor St, St. Clair Ave, Eglinton Ave, Finch Ave Share of Weekday Congestion 1.43% Worst Days: AM Peak (Tue & Thu), PM Peak (Thu & Wed)

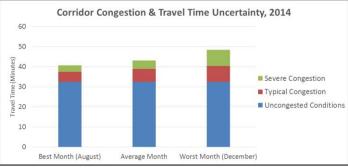
# Daily Variations 2011-2014



# **Network Unreliability**











# York Mills Rd. - Ellesmere Rd. (EB)

Yonge St. to Kingston Rd.

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	46	47	42	- 4
(km/h)	PM Peak	45	46	37	- 8
Travel Time Index	AM Peak	1.10	1.06	1.21	+ 0.11
	PM Peak	1.12	1.10	1.37	+ 0.25
Delay Hours	AM Peak	47	30	99	+ 52
	PM Peak	48	37	142	+ 94
Planning Time Index		1.15	1.06	1.25	+ 0.10
Buffer Time I	ndex	1.14	1.08	1.12	- 0.02

Travel Time Index: ratio of average to uncongested travel times

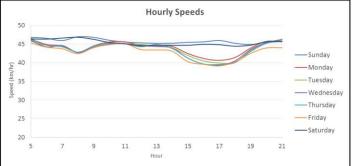
AM Peak: 8-9AM, PM Peak: 5-6PM

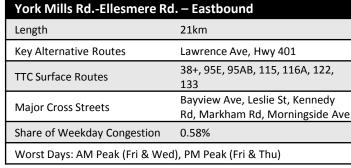
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

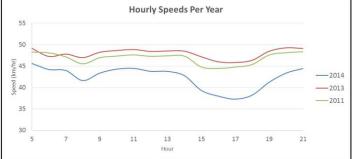
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014



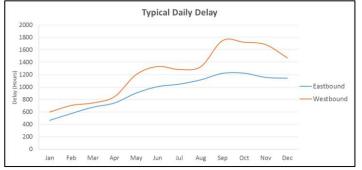


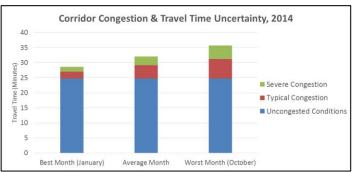




### Network Unreliability











# York Mills Rd. - Ellesmere Rd. (WB)

Kingston Rd. to Yonge St.

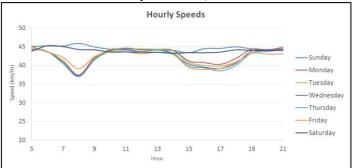
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	40	42	34	- 6
(km/h)	PM Peak	44	45	37	- 7
Travel Time Index	AM Peak	1.27	1.18	1.48	+ 0.21
	PM Peak	1.11	1.08	1.33	+ 0.22
Delay Hours	AM Peak	206	131	341	+ 135
	PM Peak	56	42	173	+ 117
Planning Time Index		1.16	1.06	1.21	+ 0.05
Buffer Time I	ndex	1.18	1.10	1.09	- 0.09

Travel Time Index: ratio of average to uncongested travel times

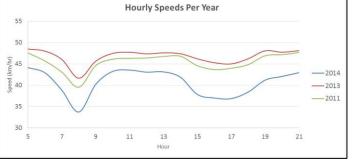
AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of the 95th percentile slowest to free-flow travel times, PM peak

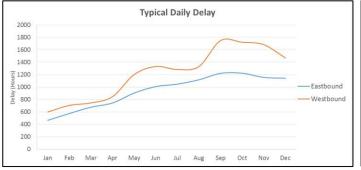
## Daily Variations, 2014





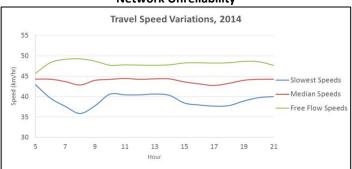


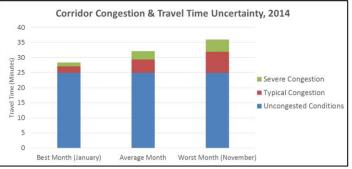
# Seasonal Variations, 2014





York Mills RdEllesmere Rd. – Westbound				
Length	21km			
Key Alternative Routes	Lawrence Ave, Hwy 401			
TTC Surface Routes	38+, 95E, 95AB, 115, 116A, 122, 133			
Major Cross Streets	Bayview Ave, Leslie St, Kennedy Rd, Markham Rd, Morningside Ave			
Share of Weekday Congestion	0.75%			
Worst Days: AM Peak (Tue & Thu), PM Peak (Thu & Fri)				









# City of Toronto – Highways

- Don Valley Parkway
- Gardiner Expressway
- William R. Allen. Rd.



# Don Valley Parkway (NB)

Gardiner Expressway to North Boundary

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	58	58	58	
(km/h)	PM Peak	40	40	43	+ 3
Travel Time Index	AM Peak	2.18	2.07	2.12	- 0.06
	PM Peak	3.1	3.27	2.86	- 0.24
Delay Hours	AM Peak	568	512	534	- 34
	PM Peak	1037	1120	916	- 121
Planning Time Index		1.80	1.63	1.87	+ 0.07
Buffer Time I	ndex	1.40	1.27	1.47	+ 0.07

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM

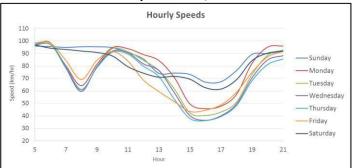
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of the 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014



Don Valley Parkway – Northbound

Length 15.1km

Key Alternative Routes Don Mills Rd, Victoria Park Ave, Bayview Ave

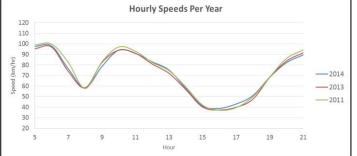
TTC Surface Routes 144

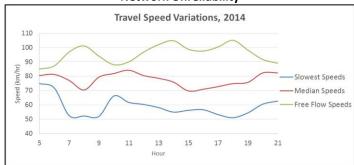
Major Cross Streets Finch Ave, Sheppard Ave, York Mills Rd, Danforth Ave, Queen St

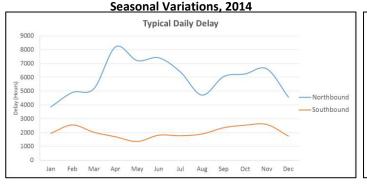
Share of Weekday Congestion 3.65%

Worst Days: AM Peak (Wed & Thu), PM Peak (Thu & Wed)

# Daily Variations 2011-2014













# Don Valley Parkway (SB)

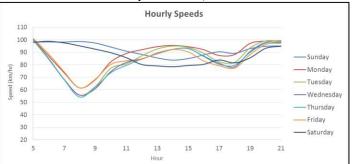
North Boundary to Gardiner Expressway

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	56	54	55	- 1
(km/h)	PM Peak	81	82	77	-4
Travel Time Index	AM Peak	2.27	2.27	2.43	+ 0.16
	PM Peak	1.33	1.33	1.47	+ 0.14
	AM Peak	646	661	753	+ 107
Delay Hours	PM Peak	109	111	159	+ 50
Planning Time Index		1.32	1.27	1.32	
Buffer Time I	ndex	1.17	1.14	1.16	- 0.01

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

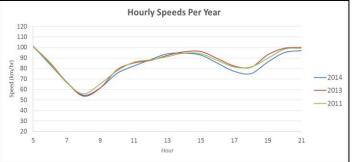
### Daily Variations, 2014



— Wednesday — Thursday — Friday — Saturday

Daily Variations 2011-2014

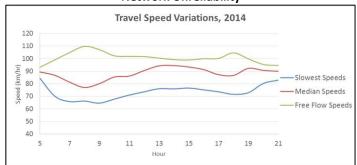
Hour Speeds Per Year

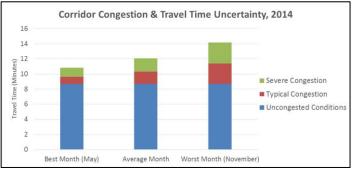


# 



Don Valley Parkway – Southbound			
Length	15.1km		
Key Alternative Routes	Don Mills Rd, Victoria Park Ave, Bayview Ave		
TTC Surface Routes	144		
Major Cross Streets	Finch Ave, Sheppard Ave, York Mills Rd, Danforth Ave, Queen St		
Share of Weekday Congestion 1.24%			
Worst Days: AM Peak (Thu & Tue), PM Peak (Fri & Thu)			









# Gardiner Expressway (EB)

Don Valley Parkway to West Boundary

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	54	45	61	+ 7
(km/h)	PM Peak	71	61	55	- 16
Travel Time Index	AM Peak	2.36	2.79	2.95	+ 0.59
	PM Peak	1.50	1.81	2.47	+ 0.97
	AM Peak	1131	1531	1698	+ 567
Delay Hours	PM Peak	280	459	838	+ 558
Planning Time Index		1.46	1.64	1.53	+ 0.07
Buffer Time I	ndex	1.30	1.38	1.22	- 0.08

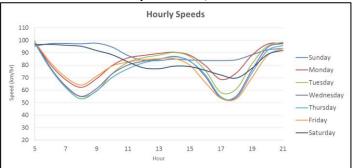
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM

Delay: average peak-hour vehicular delay per weekday (in hours)

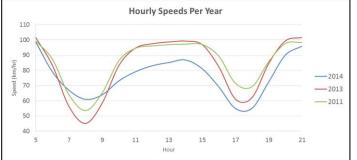
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

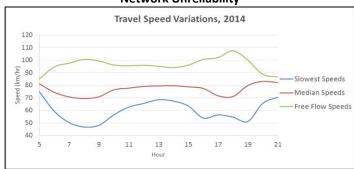


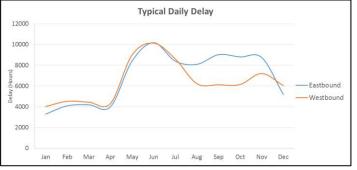
# Gardiner Expressway – Eastbound Length 19.8km Key Alternative Routes Queen St, Lake Shore Blvd TTC Surface Routes n/a Royal York Rd, Kipling Ave, Islington Ave, Bathurst St, Spadina Ave Share of Weekday Congestion 4.22% Worst Days: AM Peak (Thu & Tue), PM Peak (Fri & Wed)

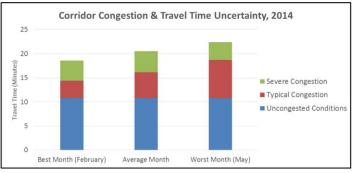
### Daily Variations 2011-2014



### **Network Unreliability**











# Gardiner Expressway (WB)

West Boundary to Don Valley Parkway

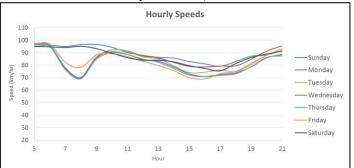
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	61	58	73	+ 12
(km/h)	PM Peak	60	69	75	+ 15
Travel Time Index	AM Peak	1.85	1.95	1.56	- 0.29
	PM Peak	2.07	1.91	2.01	- 0.03
	AM Peak	689	816	496	- 193
Delay Hours	PM Peak	967	828	931	- 36
Planning Time Index		1.75	1.61	1.25	- 0.50
Buffer Time I	ndex	1.51	1.47	1.15	- 0.36

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6F
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

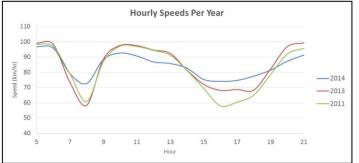
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

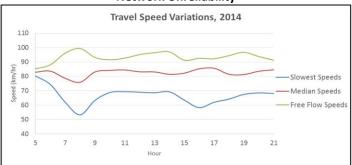


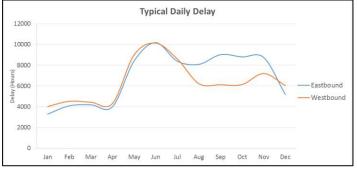
# Gardiner Expressway – Westbound Length 19.8km Key Alternative Routes Queen St, Lake Shore Blvd TTC Surface Routes n/a Royal York Rd, Kipling Ave, Islington Ave, Bathurst St, Spadina Ave Share of Weekday Congestion 3.93% Worst Days: AM Peak (Thu & Mon), PM Peak (Thu & Wed)

# Daily Variations 2011-2014



### **Network Unreliability**











# William R. Allen Rd. (NB)

Eglinton Ave. to Wilson Heights

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	65	67	64	- 1
(km/h)	PM Peak	68	71	65	- 3
Travel Time Index	AM Peak	1.31	1.24	1.33	+ 0.02
	PM Peak	1.19	1.14	1.25	+ 0.06
	AM Peak	130	102	141	+ 11
Delay Hours	PM Peak	80	60	103	+ 23
Planning Time Index		1.12	1.07	1.31	+ 0.19
Buffer Time I	ndex	1.03	1.05	1.20	+ 0.17

Travel Time Index: ratio of average to uncongested travel times

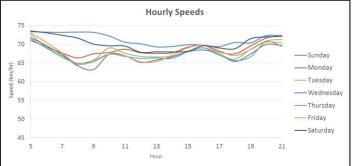
AM Peak: 8-9AM, PM Peak: 5-6PM

Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

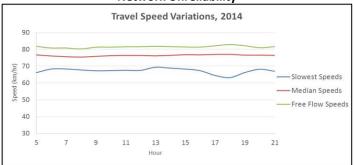
## Daily Variations, 2014

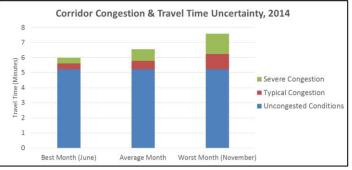


# Seasonal Variations, 2014 Typical Daily Delay Southbound Northbound Southbound Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec



William R. Allen Rd. – Northbound			
Length	7.3km		
Key Alternative Routes	Bathurst St, Dufferin St		
TTC Surface Routes	n/a		
Major Cross Streets	Glencairn Ave, Lawrence Ave, Wilson Ave, Hwy 401, Ranee Ave		
Share of Weekday Congestion 0.90%			
Worst Days: AM Peak (Wed & Fri), PM Peak (Thu & Tue)			









# William R. Allen Rd. (SB)

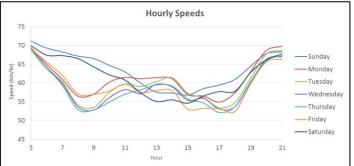
Wilson Heights to Eglinton Ave.

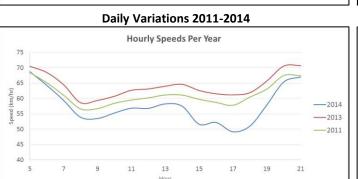
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	57	59	54	- 3
(km/h)	PM Peak	58	61	49	- 9
Travel Time Index	AM Peak	1.48	1.37	1.57	+ 0.09
	PM Peak	1.37	1.23	1.62	+ 0.25
	AM Peak	216	169	261	+ 45
Delay Hours	PM Peak	161	100	269	+ 108
Planning Time Index		1.15	1.13	1.33	+ 0.18
Buffer Time I		1.08	1.10	1.18	+ 0.10

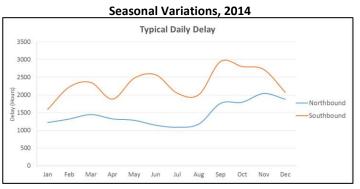
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

### Daily Variations, 2014

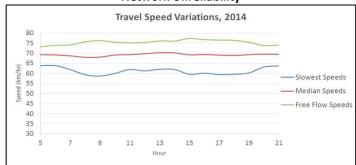


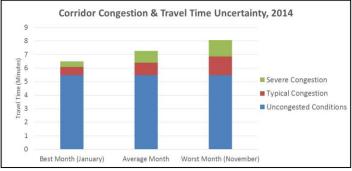






William R. Allen Rd. – Southbound			
Length	7.3km		
Key Alternative Routes	Bathurst St, Dufferin St		
TTC Surface Routes	n/a		
Major Cross Streets	Glencairn Ave, Lawrence Ave, Wilson Ave, Hwy 401, Ranee Ave		
Share of Weekday Congestion 1.42%			
Worst Days: AM Peak (Thu & Wed), PM Peak (Thu & Wed)			









# MTO – Highways

- Highway 400
- Highway 401 Collectors
- Highway 401 Express
- Highway 404
- Highway 409
- Highway 427 Collectors
- Highway 427 Express



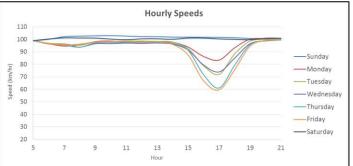
# Highway 400 (NB)

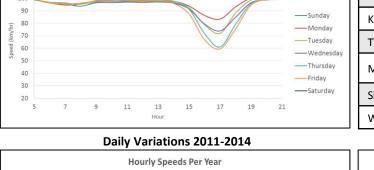
Highway 401 to Steeles Ave.

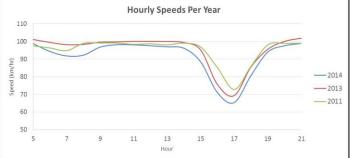
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	99	98	92	- 7
(km/h)	PM Peak	73	69	65	- 8
Travel Time Index	AM Peak	1.06	1.07	1.20	+ 0.14
	PM Peak	1.48	1.66	1.77	+ 0.29
	AM Peak	26	31	91	+ 65
Delay Hours	PM Peak	220	301	350	+ 130
Planning Time Index		1.88	2.11	2.14	+ 0.26
Buffer Time I	ndex	1.46	1.66	1.57	+ 0.11

Travel Time Index: ratio of average to uncongested travel times AM Peak: 8-9AM, PM Peak: 5-6PM Delay: average peak-hour vehicular delay per weekday (in hours) Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

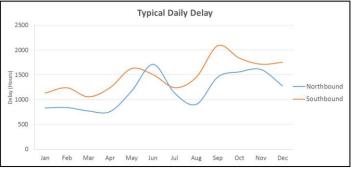
### Daily Variations, 2014





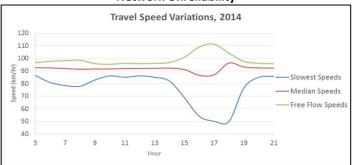


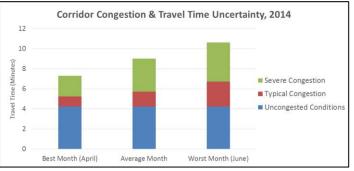
# Seasonal Variations, 2014





Highway 400 – Northbound			
Length	8km		
Key Alternative Routes	Weston Rd, Jane St		
TTC Surface Routes	n/a		
Major Cross Streets	Finch Ave, Sheppard Ave, Wilson Ave, Steeles Ave		
Share of Weekday Congestion 0.72%			
Worst Days: AM Peak (Wed & Thu), PM Peak (Thu & Fri)			









# Highway 400 (SB)

Steeles Ave. to Highway 401

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	79	68	66	- 13
(km/h)	PM Peak	90	85	74	- 16
Travel Time Index	AM Peak	1.41	1.77	1.76	+ 0.35
	PM Peak	1.23	1.29	1.55	+ 0.32
	AM Peak	218	417	416	+ 198
Delay Hours	PM Peak	111	141	267	+ 156
Planning Time Index		1.22	1.35	1.52	+ 0.30
Buffer Time I	ndex	1.07	1.21	1.29	+ 0.22

Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM

Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

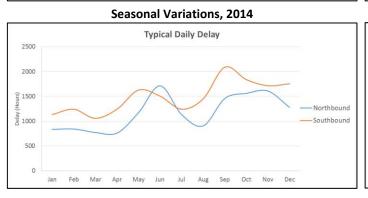
### Daily Variations, 2014 **Hourly Speeds** 110 100 90 80 70 60 Wednesday Thursday 40 Friday 30 -Saturday 20 13 15 21

# 

13

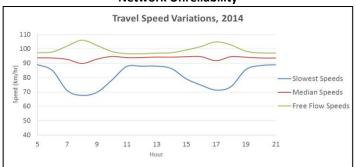
15

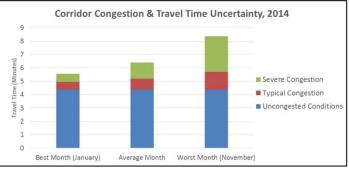
50





Highway 400 – Southbound				
Length	8km			
Key Alternative Routes	Weston Rd, Jane St			
TTC Surface Routes	n/a			
Major Cross Streets	Finch Ave, Sheppard Ave, Wilson Ave, Steeles Ave			
Share of Weekday Congestion	0.92%			
Worst Days: AM Peak (Thu & Tue), PM Peak (Wed & Thu)				









# Highway 401 Collectors (EB)

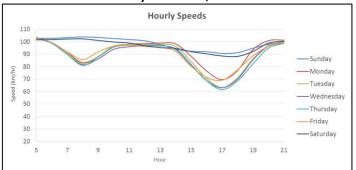
West Boundary to East Boundary

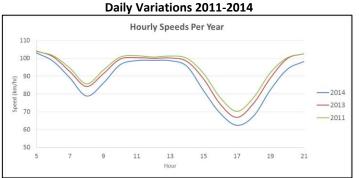
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	86	84	79	- 7
(km/h)	PM Peak	70	67	62	- 8
Travel Time Index	AM Peak	1.33	1.41	1.54	+ 0.21
	PM Peak	1.73	1.94	2.14	+ 0.41
_	AM Peak	512	645	852	+ 340
Delay Hours	PM Peak	1087	1398	1695	+ 608
Planning Time Index		1.36	1.28	1.33	- 0.03
Buffer Time I	ndex	1.29	1.19	1.20	- 0.09

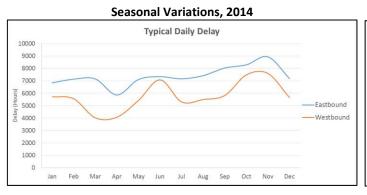
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

### Daily Variations, 2014

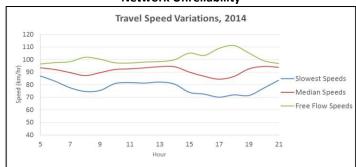


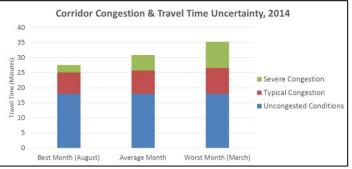






Highway 401 Collectors – Eastbound					
Length	36.6km				
Key Alternative Routes	Sheppard Ave, Wilson/York Mills/Ellesmere				
TTC Surface Routes	n/a				
Major Cross Streets	Markham Rd, McCowan Rd, Warden Ave, Don Mills Rd, Yonge St				
Share of Weekday Congestion	4.53%				
Worst Days: AM Peak (Wed & Thu), PM Peak (Thu & Wed)					









# Highway 401 Collectors (WB)

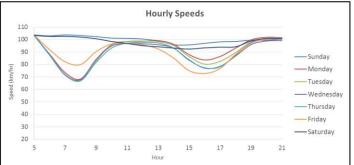
East Boundary to West Boundary

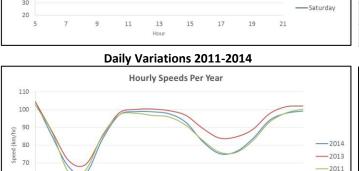
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	66	69	64	- 2
(km/h)	PM Peak	76	85	76	
Travel Time Index	AM Peak	1.77	1.78	1.91	+ 0.14
	PM Peak	1.63	1.34	1.53	- 0.10
	AM Peak	1160	1166	1372	+ 212
Delay Hours	PM Peak	843	452	706	- 137
Planning Time Index		1.54	1.49	1.69	+ 0.15
Buffer Time I	ndex	1.27	1.28	1.38	+ 0.11

Travel Time Index: ratio of average to uncongested travel times

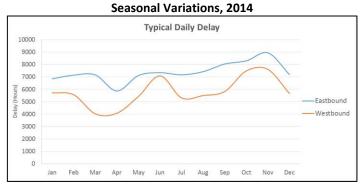
AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

### Daily Variations, 2014



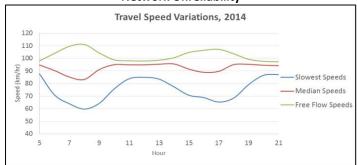


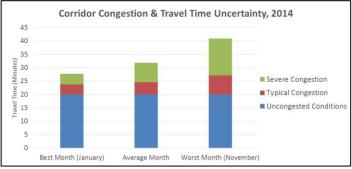
60





Highway 401 Collectors – Westbound					
Length	36.6km				
Key Alternative Routes	Sheppard Ave, Wilson/York Mills/Ellesmere				
TTC Surface Routes	n/a				
Major Cross Streets	Markham Rd, McCowan Rd, Warden Ave, Don Mills Rd, Yonge St				
Share of Weekday Congestion	3.55%				
Worst Days: AM Peak (Tue & Thu), PM Peak (Fri & Thu)					









# Highway 401 Express (EB)

West Boundary to East Boundary

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	87	85	79	- 8
(km/h)	PM Peak	74	68	63	- 11
Travel Time Index	AM Peak	1.38	1.58	1.74	+ 0.36
	PM Peak	1.68	2.01	2.26	+ 0.58
	AM Peak	831	1288	1645	+ 814
Delay Hours	PM Peak	1448	2163	2686	+ 1238
Planning Time Index		1.38	1.33	1.38	
Buffer Time I	ndex	1.25	1.17	1.19	- 0.06

Travel Time Index: ratio of average to uncongested travel times

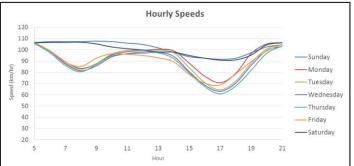
AM Peak: 8-9AM, PM Peak: 5-6PM

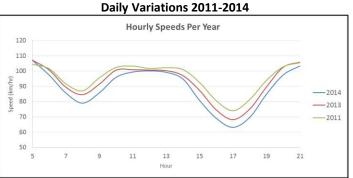
Delay: average peak-hour vehicular delay per weekday (in hours)

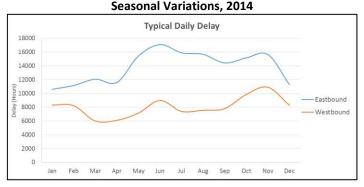
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

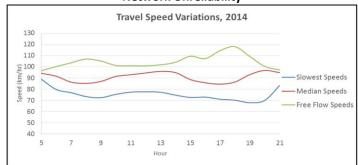


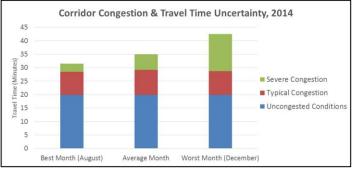






Highway 401 Collectors – Eastbound					
Length	41.9km				
Key Alternative Routes	Sheppard Ave, Wilson/York Mills/Ellesmere				
TTC Surface Routes	n/a				
Major Cross Streets	Markham Rd, McCowan Rd, Warden Ave, Don Mills Rd, Yonge St				
Share of Weekday Congestion	8.50%				
Worst Days: AM Peak (Thu & Wed), PM Peak (Thu & Wed)					









# Highway 401 Express (WB)

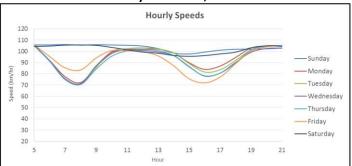
East Boundary to West Boundary

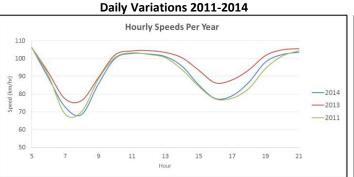
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	70	76	69	- 1
(km/h)	PM Peak	78	88	79	+ 1
Travel Time Index	AM Peak	1.82	1.69	1.84	+ 0.02
	PM Peak	1.79	1.30	1.48	- 0.31
Deleville	AM Peak	1773	1478	1816	+ 43
Delay Hours	PM Peak	1593	613	977	- 616
Planning Time Index		1.51	1.49	1.80	+ 0.29
Buffer Time I	ndex	1.23	1.27	1.45	+ 0.22

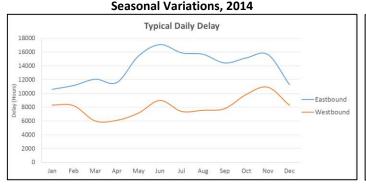
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak
Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

Daily Variations, 2014

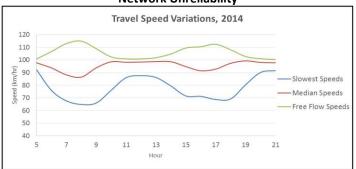


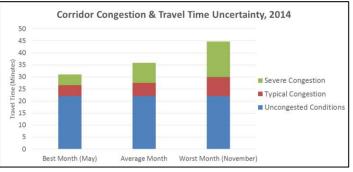






Highway 401 Express – Westbound					
Length	41.9km				
Key Alternative Routes	Sheppard Ave, Wilson/York Mills/Ellesmere				
TTC Surface Routes	n/a				
Major Cross Streets	Markham Rd, McCowan Rd, Warden Ave, Don Mills Rd, Yonge St				
Share of Weekday Congestion	4.94%				
Worst Days: AM Peak (Thu & Wed), PM Peak (Fri & Thu)					









# Highway 404 (NB)

Highway 401 to Steeles Ave.

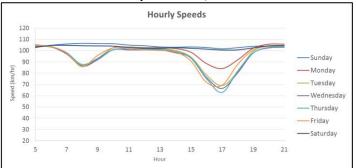
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	84	91	85	+ 1
(km/h)	PM Peak	56	70	63	+ 7
Travel Time Index	AM Peak	1.37	1.22	1.31	- 0.06
	PM Peak	2.02	1.65	1.90	- 0.12
Dalau Hauma	AM Peak	105	63	88	- 17
Delay Hours	PM Peak	278	177	245	- 33
Planning Time Index		2.11	2.56	2.46	+ 0.35
Buffer Time I	ndex	1.48	1.94	1.80	+ 0.32

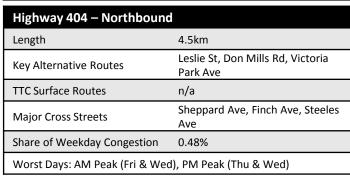
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

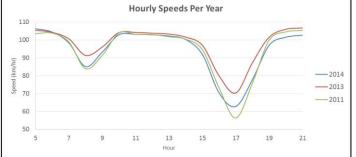
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

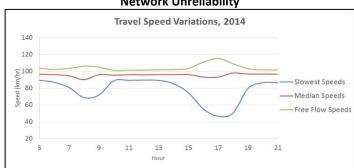


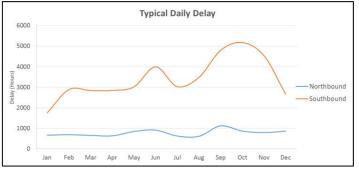


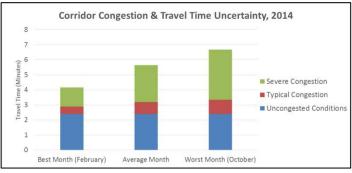




# **Network Unreliability**











# Highway 404 (SB)

Steeles Ave. to Highway 401

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	53	51	35	- 18
(km/h)	PM Peak	63	53	34	- 29
Travel Time Index	AM Peak	2.24	2.36	3.74	+ 1.5
	PM Peak	1.83	2.19	3.52	+ 1.69
Dalau Hauma	AM Peak	391	435	885	+ 494
Delay Hours	PM Peak	213	305	645	+ 432
Planning Time Index		2.03	2.07	2.23	+ 0.20
Buffer Time I		1.58	1.52	1.35	- 0.23

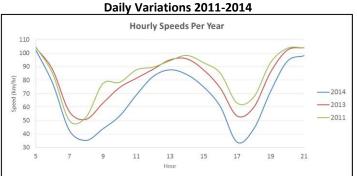
Travel Time Index: ratio of average to uncongested travel times AM Peak: 8-9AM, PM Peak: 5-6PM Delay: average peak-hour vehicular delay per weekday (in hours) Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

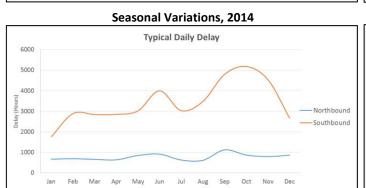
Daily Variations, 2014

Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

# **Hourly Speeds** 110 100 90 80

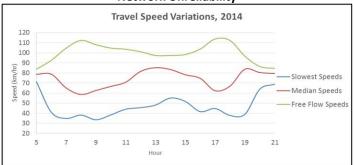


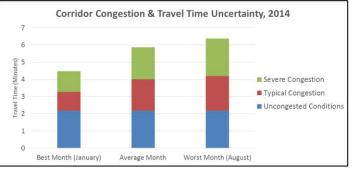






Highway 404 – Southbound				
Length	4.5km			
Key Alternative Routes	Leslie St, Don Mills Rd, Victoria Park Ave			
TTC Surface Routes	n/a			
Major Cross Streets	Sheppard Ave, Finch Ave, Steeles Ave			
Share of Weekday Congestion	2.10%			
Worst Days: AM Peak (Thu & Tue), PM Peak (Thu & Wed)				









# Highway 409 (EB)

Highway 427 to Highway 401

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed	AM Peak	78	53	56	- 22
(km/h)	PM Peak	74	66	62	- 12
Travel Time Index	AM Peak	1.52	2.65	2.64	+ 1.12
	PM Peak	1.55	1.93	2.01	+ 0.46
	AM Peak	46	146	145	+ 99
Delay Hours	PM Peak	49	84	91	+ 42
Planning Time Index		1.91	2.79	2.39	+ 0.48
Buffer Time I	ndex	1.45	1.94	1.64	+ 0.19

Travel Time Index: ratio of average to uncongested travel times

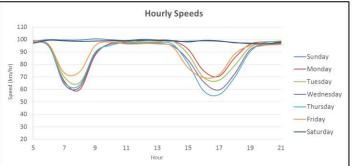
AM Peak: 8-9AM, PM Peak: 5-6PM

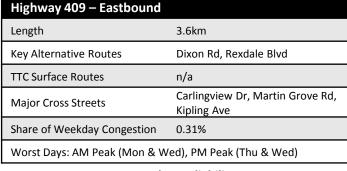
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

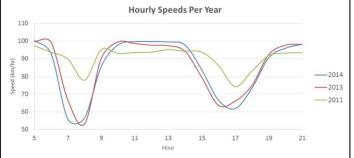
# Daily Variations, 2014



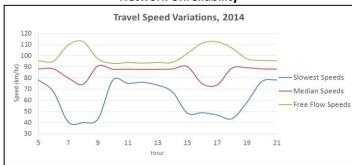


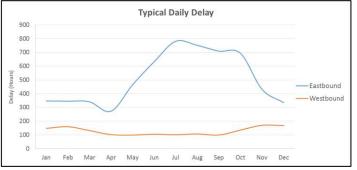
409

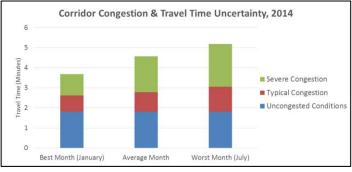




# **Network Unreliability**











# Highway 409 (WB)

Highway 401 to Highway 427

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed (km/h)	AM Peak	96	100	96	1
	PM Peak	96	93	92	- 4
Travel Time Index	AM Peak	1.09	1.03	1.08	- 0.01
	PM Peak	1.08	1.12	1.15	+ 0.07
Delay Hours	AM Peak	8	3	7	- 1
	PM Peak	8	11	14	+ 6
Planning Time Index		1.17	1.21	1.25	+ 0.08
Buffer Time Index		1.08	1.14	1.15	+ 0.07

Travel Time Index: ratio of average to uncongested travel times

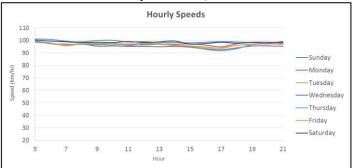
AM Peak: 8-9AM, PM Peak: 5-6PM

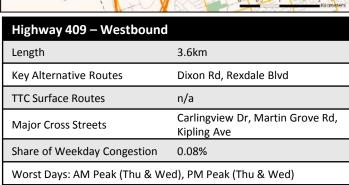
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

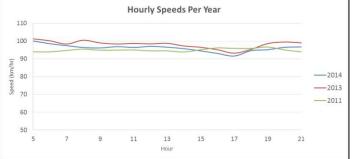
## Daily Variations, 2014



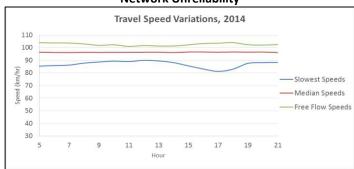


409





### Network Unreliability











# Highway 427 Collectors (NB)

QEW/Gardiner Expressway to North Boundary

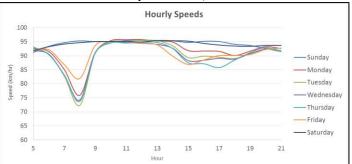
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed (km/h)	AM Peak	78	76	72	- 6
	PM Peak	85	90	88	+ 3
Travel Time Index	AM Peak	1.32	1.39	1.54	+ 0.22
	PM Peak	1.19	1.11	1.15	- 0.04
Delay Hours	AM Peak	90	109	152	+ 62
	PM Peak	52	31	40	- 12
Planning Time Index		1.28	1.32	1.50	+ 0.22
Buffer Time Index		1.10	1.19	1.34	+ 0.24

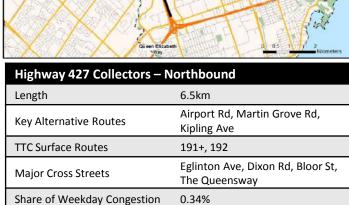
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

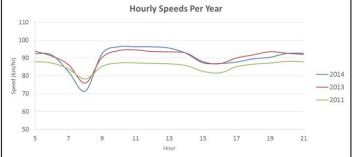
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014



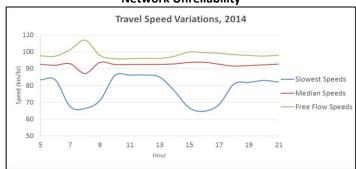


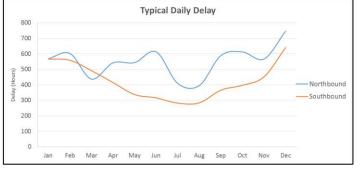
# Daily Variations 2011-2014

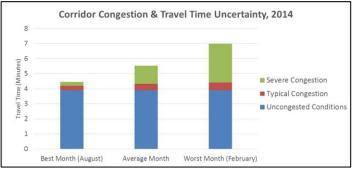


# **Network Unreliability**

Worst Days: AM Peak (Tue & Thu), PM Peak (Thu & Wed)











# Highway 427 Collectors (SB)

North Boundary to QEW/Gardiner Expressway

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed (km/h)	AM Peak	80	93	95	+ 15
	PM Peak	69	84	80	+ 11
Travel Time Index	AM Peak	1.27	1.09	1.07	- 0.20
	PM Peak	1.47	1.22	1.28	- 0.19
Delay Hours	AM Peak	92	32	23	- 69
	PM Peak	152	69	91	- 61
Planning Time Index		1.69	1.47	1.45	- 0.24
Buffer Time Index		1.35	1.29	1.28	- 0.07

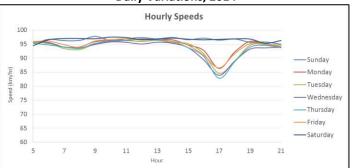
Travel Time Index: ratio of average to uncongested travel times

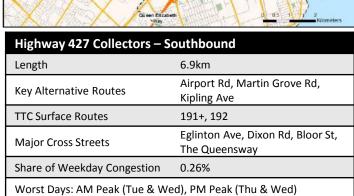
AM Peak: 8-9AM, PM Peak: 5-6PM

Delay: average peak-hour vehicular delay per weekday (in hours)

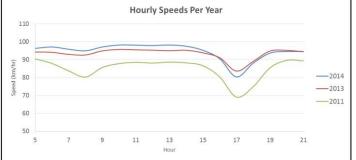
Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

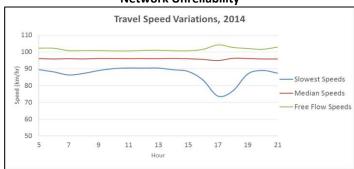


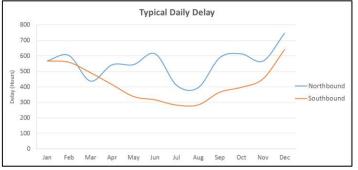


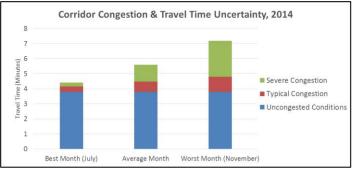




# **Network Unreliability**











# Highway 427 Express (NB)

QEW/Gardiner Expressway to North Boundary

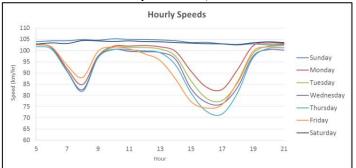
Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed (km/h)	AM Peak	88	82	78	- 10
	PM Peak	75	74	74	- 1
Travel Time Index	AM Peak	1.25	1.40	1.46	+ 0.21
	PM Peak	1.95	2.14	1.97	+ 0.02
Delay Hours	AM Peak	210	332	388	+ 178
	PM Peak	766	922	782	+ 16
Planning Time Index		1.55	1.59	1.87	+ 0.32
Buffer Time Index		1.32	1.33	1.56	+ 0.24

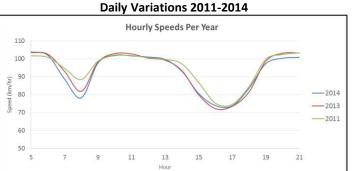
Travel Time Index: ratio of average to uncongested travel times

AM Peak: 8-9AM, PM Peak: 5-6PM
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014

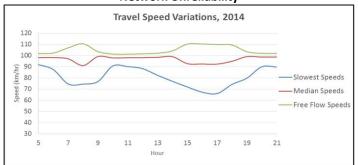




# Seasonal Variations, 2014 Typical Daily Delay 4500 4000 3500 3000 2500 1500 1000 500 0 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec



Highway 427 Express – Northbound		
Length	17.6km	
Key Alternative Routes	Airport Rd, Martin Grove Rd, Kipling Ave	
TTC Surface Routes	191+, 192	
Major Cross Streets	Eglinton Ave, Dixon Rd, Bloor St, The Queensway	
Share of Weekday Congestion 1.77%		
Worst Days: AM Peak (Thu & Wed), PM Peak (Thu & Fri)		









# Highway 427 Express (SB)

North Boundary to QEW/Gardiner Expressway

Key Performance Indicators		2011	2013	2014	Change (2011-2014)
Speed (km/h)	AM Peak	84	91	92	+ 8
	PM Peak	71	80	79	+ 8
Travel Time Index	AM Peak	1.35	1.26	1.25	- 0.10
	PM Peak	1.77	1.68	1.59	- 0.18
Delay Hours	AM Peak	355	268	252	- 103
	PM Peak	711	623	541	- 170
Planning Time Index		1.55	1.46	1.43	- 0.12
Buffer Time Index		1.23	1.25	1.22	- 0.01

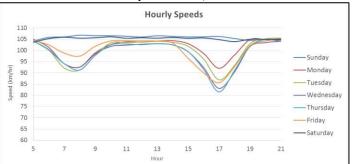
Travel Time Index: ratio of average to uncongested travel times

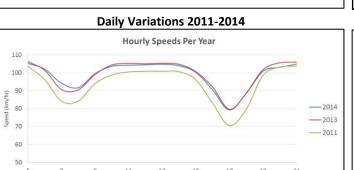
AM Peak: 8-9AM, PM Peak: 5-6PM

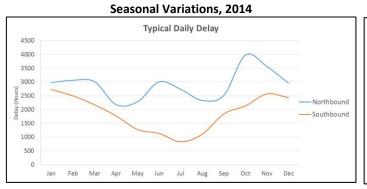
Delay: average peak-hour vehicular delay per weekday (in hours)

Planning Time Index: ratio of 95th percentile slowest to free-flow travel times, PM peak Buffer Time Index: ratio of the 95th percentile slowest to average travel times, PM peak

## Daily Variations, 2014









Highway 427 Express – Southbound		
Length	17.8km	
Key Alternative Routes	Airport Rd, Martin Grove Rd, Kipling Ave	
TTC Surface Routes	191+, 192	
Major Cross Streets	Eglinton Ave, Dixon Rd, Bloor St, The Queensway	
Share of Weekday Congestion	1.15%	
Worst Days: AM Peak (Tue & Thu), PM Peak (Thu & Wed)		

