



## STAFF REPORT INFORMATION ONLY

### **Presentation: Subway Closures - 2016 Year In Review and 2017 Forecast**

<b>Date:</b>	January 18, 2017
<b>To:</b>	TTC Board
<b>From:</b>	Chief Executive Officer

### **Summary**

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The purpose of this report is to present the following:

- 2016 Subway Closure Schedule and Accomplishments
- 2016 Initiatives to Improve Service During Subway Closures
- 2017 Subway Closure Forecasted Schedule
- 2017 Initiatives to Improve Service During Subway Closures

### **Financial Summary**

This report has no financial impact beyond what has been approved in the current year's budget.

The Chief Financial and Administration Officer has reviewed this report and agrees with the financial impact information.

### **Accessibility/Equity Matters**

All subway closures ensure that accessibility is maintained with the alternative service provided.

### **Decision History**

A report was submitted to the Board on August 19, 2014 which provided background on why regular subway closures are required. Refer to item 8 h) in the following link:

[https://www.ttc.ca/About the TTC/Commission reports and information/Commission meetings/2014/August 19/Reports/Explanation of Subway Closures.pdf](https://www.ttc.ca/About%20the%20TTC/Commission%20reports%20and%20information/Commission%20meetings/2014/August%2019/Reports/Explanation%20of%20Subway%20Closures.pdf)

## **Contact**

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## **Attachment**

Presentation: Subway Closures – 2016 Year In Review and 2017 Forecast



# SUBWAY CLOSURES: 2016 IN REVIEW AND 2017 FORECAST

TTC Board, January 2017



# AGENDA



- 2016 Subway Closure Schedule
- 2016 Subway Closure Accomplishments
- 2016 Closure Service Improvement Initiatives 2017 Subway Closure Schedule
- 2017 Closure Service Improvement Initiatives
- Beyond 2017: ATC and Crosstown



# 2016 SUBWAY CLOSURES COMPLETED



## 2016

January							February							March							April						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
					1	2	1	2	3	4	5	6			1	2	3	4	5						1	2	
3	4	5	6	7	8	9	7	8	9	10	11	12	13	6	7	8	9	10	11	12	3	4	5	6	7	8	9
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24	25	26	27	28	29	30	28	29						27	28	29	30	31			24	25	26	27	28	29	30
31																											
May							June							July							August						
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1	2	3	4	5	6	7				1	2	3	4						1	2	1	2	3	4	5	6	7
8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9	7	8	9	10	11	12	13
15	16	17	18	19	20	21	12	13	14	15	16	17	18	10	11	12	13	14	15	16	14	15	16	17	18	19	20
22	23	24	25	26	27	28	19	20	21	22	23	24	25	17	18	19	20	21	22	23	21	22	23	24	25	26	27
29	30	31					26	27	28	29	30			24	25	26	27	28	29	30	28	29	30	31			
														31													
September							October							November							December						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
				1	2	3						1			1	2	3	4	5					1	2	3	
4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12	4	5	6	7	8	9	
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18	19	20	21	22	23	24	16	17	18	19	20	21	22	20	21	22	23	24	25	26	18	19	20	21	22	23	
25	26	27	28	29	30		23	24	25	26	27	28	29	27	28	29	30				25	26	27	28	29	30	
							30	31																			



# 2016 SUBWAY CLOSURE SUMMARY



Month	Closures
Jan	-
Feb	-
Mar	2
Apr	6
May	4
Jun	5
Jul	2
Aug	3
Sep	4
Oct	5
Nov	4
Dec	2
<b>Total</b>	<b>38</b>

## Line 1 YUS – 16 Closures

- 6 – St George to Lawrence West
- 3 – St Clair West to Downsview
- 1 - St George to Union
- 1 - Bloor to Lawrence
- 3 – Wilson to Downsview
- 1 - Bloor to Osgoode
- 1 – Finch to Lawrence

## Line 2 BD – 16 Closures

- 2 – Kennedy to Victoria Park
- 2 – Bathurst to Jane
- 11 – St George to Pape
- 1 - St George to Main

## Line 3 SRT – 4 Closures

- 4 – Kennedy to McCowan

## Line 4 – 2 Closures



# 2016 CLOSURE ACCOMPLISHMENTS



- Replaced 5044m of running rail on Lines 1 and 2
- Replaced 500m of power rail on Lines 1 and 2

- Major maintenance on 8 crossovers on Lines 1 and 2
- 180 trainstops rehabilitated, 22 replaced

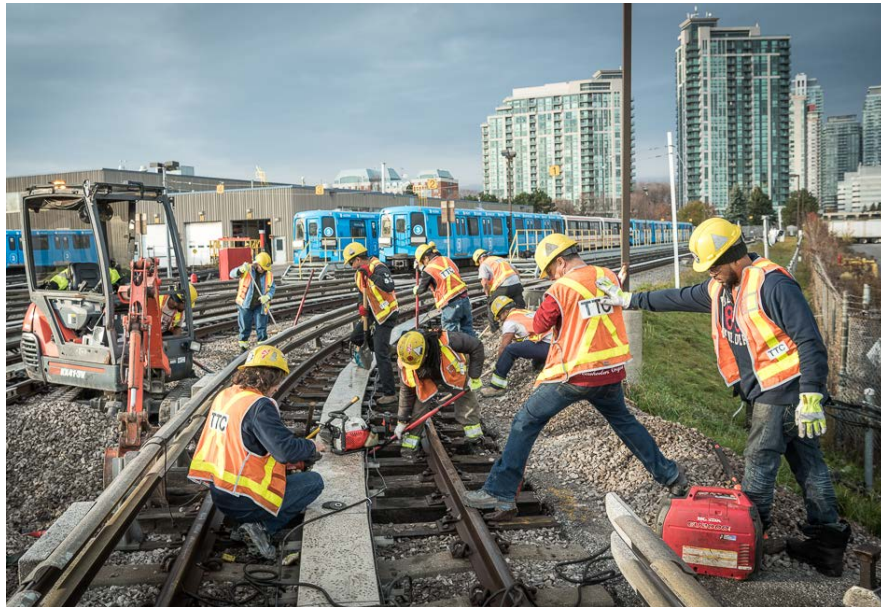




# 2016 CLOSURE ACCOMPLISHMENTS



- Rail grinding 6500m along southbound track of Scarborough Line 3
- Replaced 950m of power rail on Scarborough Line 3



- Replaced power rail, track fasteners, ties and communication cables on Scarborough Line 3





# 2016 CLOSURE ACCOMPLISHMENTS



- Installed 181,000m of cabling for ATC on Line 1, as well installing and connecting hundreds of pieces of critical equipment

- Upgraded 250 track circuit locations on Lines 1 and 2
- Replaced 24 switch point heaters and 56 trainstop heaters on Lines 1 and 2 for winter resilience



# 2016 CLOSURE ACCOMPLISHMENTS

- Replaced skylights, painted station ceilings, replaced platform edge tiles, cleaned drains, structural inspections, replaced and relamped lights in stations, installed Presto equipment, upgraded electrical panels



- Escalator rehabilitation, repaired fencing along the right of way, flooring repairs, signage installation and removals, asbestos removal





- Continued to work with Transportation Services to improve shuttle services by modifying signal timing along shuttle routes and adding functionality where feasible (for example, NB Yonge to WB Lawrence left turn signal)
- Employed Toronto Police PDOs where possible to assist with shuttle movements into and out of stations and at intersections that couldn't be modified
- Restricted on-street parking during several closures along shuttle routes to improve trip times for shuttle buses





On-street parking was restricted on our shuttle routes for 21 of 38 subway closures

## Benefits

- Improved trip times for shuttle services – getting already disrupted customers to their destination faster
- Less crowding on buses and less buses required along route
- Buses are able to maintain reliable headways

## Disadvantages

- Impact to local businesses that are dependent on street parking for customers
- Increased operational costs for TPE and towing contractors







April 9-10, 2016 and May 7-8, 2016 – Line 2 Bathurst to Jane

- Parking restrictions along Bloor St W resulted in peak period improvement of 20% and off-peak improvement of up to 47%

June 12, 2016 – Line 2 St George to Pape

- Parking restrictions on Danforth Ave and Bloor St, with trip time improvements of up to 44% as compared to previous closure

November 12-13, 2016 – Line 1 St George to Lawrence West

- Parking restrictions at strategic locations along the shuttle route, improvement of up to 30% or 20 mins in one-way travel time compared to previous closure





# 2017 CLOSURE SCHEDULE



January							February							March							April						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
1	2	3	4	5	6	7				1	2	3	4				1	2	3	4							1
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22	23	24	25	26	27	28	19	20	21	22	23	24	25	19	20	21	22	23	24	25	16	17	18	19	20	21	22
29	30	31					26	27	28					26	27	28	29	30	31	23	24	25	26	27	28	29	
																					30						

May							June							July							August								
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S		
						6						1	2	3							1				1	2	3	4	5
7	8	9	10	11	12	13	4	5	6	7	8	9	10	2	3	4	5	6	7	8	6	7	8	9	10	11	12		
14	15	16	17	18	19	20	11	12	13	14	15	16	17	9	10	11	12	13	14	15	13	14	15	16	17	18	19		
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28	29	30	31				25	26	27	28	29	30	23	24	25	26	27	28	29	27	28	29	30	31					
													30	31															

September							October							November							December							
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	
					1	2		1	2	3	4	5	6	7				1	2	3	4						1	2
3	4	5	6	7	8	9	8	9	10	11	12	13	14	5	6	7	8	9	10	11	3	4	5	6	7	8	9	
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24	25	26	27	28	29	30	29	30	31				26	27	28	29	30	24	25	26	27	28	29	30				
																		31										

1

2

3

4



# 2017 CLOSURE FORECAST



Month	Closures
Jan	1
Feb	1
Mar	2
Apr	4
May	4
Jun	4
Jul	4
Aug	4
Sep	3
Oct	4
Nov	3
Dec	1
<b>Total</b>	<b>35</b>

## Line 1 YUS – 18 Closures

- 11 – St George to Downsview
- 2 – Wilson to Downsview
- 4 – Davisville to Lawrence
- 1 – Lawrence West to Downsview
- 1 – King to St Andrew

## Line 2 BD – 8 Closures

- 5 – St George to Broadview
- 1 – Kennedy to Warden
- 2 – Kipling to Islington

## Line 3 SRT – 3 Closures

- 3 – Kennedy to McCowan

## Line 4 – 1 - Sheppard

- 1 – Sheppard to Don Mills





- By improving the traction power infrastructure at Broadview Station, we can reduce four scheduled Pape to St George closures down to Broadview to St George - avoids congestion along Danforth and provides multi-modal travel options from Broadview Station
- By developing special operating procedures, we can reduce a planned Bloor to St Andrew closure down to King to St Andrew, drastically reducing (or eliminating) the need for shuttles
- With ATC testing and commissioning scheduled for 11 closures from St George to Downsview, developed an alternative shuttle plan to move most customers to their destinations faster than by a traditional shuttle, while reducing the overall number of shuttle buses required

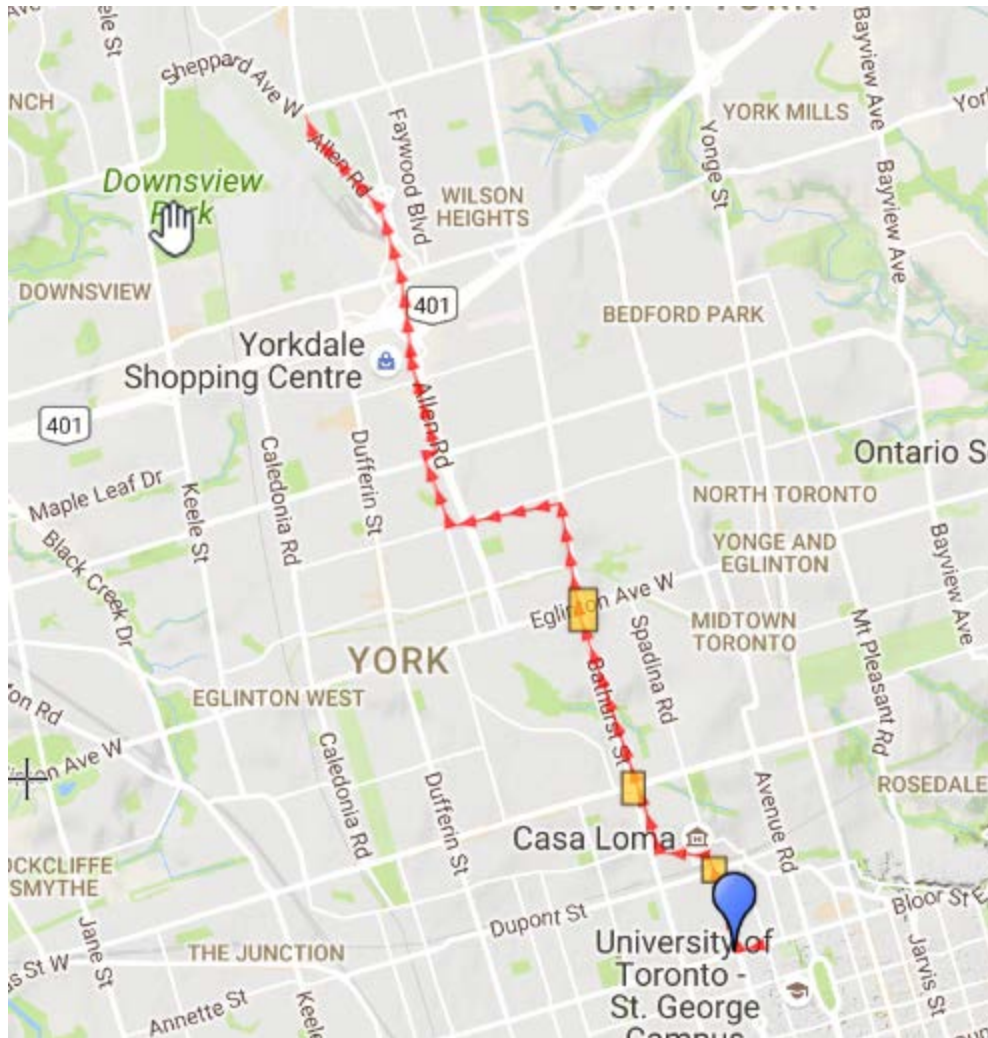




- 11 full weekend closures St George to Downsview for ATC
  - 8 closures for commissioning and testing
  - 3 closures for trial operations
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- January 21 – 22
  - February 25 – 26
  - April 8 – 9
  - April 29 – 30
  - May 20 – 21
  - June 3 – 4
- June 17 – 1
  - July 29 – 30
  - September 16 – 17
  - October 21 – 22
  - November 4 -5



# TYPICAL SHUTTLE BUS STRATEGY



Average time on shuttle buses from St George to Downsview Stations – 60 minutes

3 construction sites affecting traffic along the route

Average # of Buses Required:

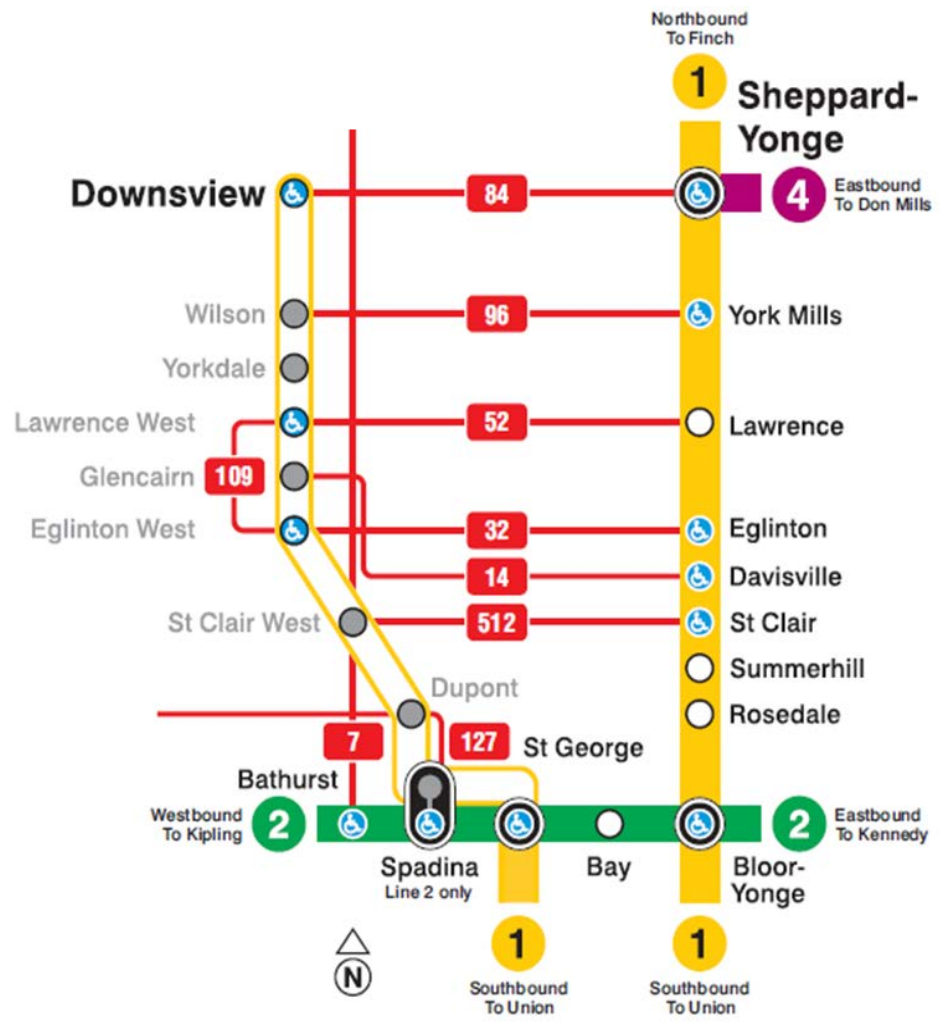
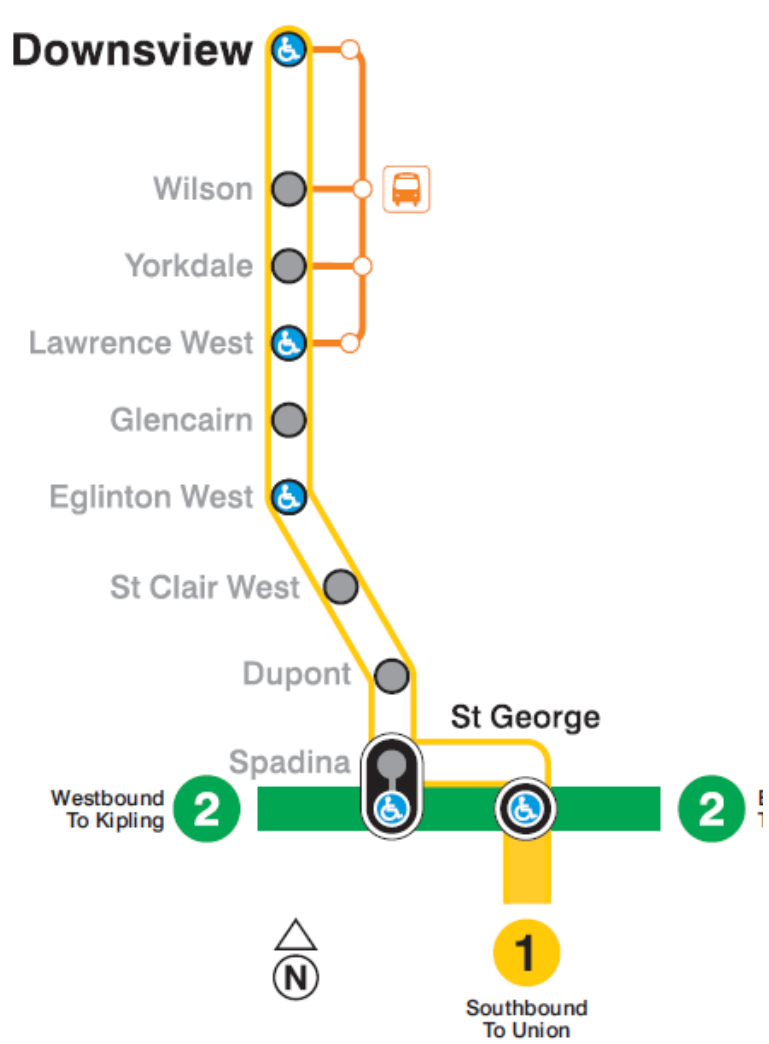
AM	60
Midday	80+
PM	60

Overlap periods will require approximately 100 buses on route





# A BETTER WAY





- Additional closures for ATC Phases 3, 4 and 5 as the project works its way towards Finch Station in 2019
- Additional closures for Eglinton Crosstown construction at Yonge-Eglinton 2018 – 2020





## Questions?

