



Board Report Briefing

Subway Closure & Streetcar Diversions – 2022 Review and 2023/2024 Forecast

January 19, 2023

Fort Monaco – Operations & Infrastructure Officer

Why Are Closures and Diversions Needed?

- A subway full weekend closure is the equivalent to about five weeks of night work
 - weekend closures provide more than 50 uninterrupted hours of work availability
 - larger maintenance windows to schedule more complicated scopes of work
- The streetcar network runs 24 hour service on most major routes
 - Majority of maintenance for streetcar network is performed during service, in live traffic
 - Any work requiring a power isolation or removal/replacement of rail requires a diversion to complete
- Closures are coordinated to keep the level of disruption to TTC customers and road users to a minimum
 - multiple groups participate to maximize the boundaries of the closure
- Closures allow us to enhance the transit system; projects are focused on improving and expanding the transit network

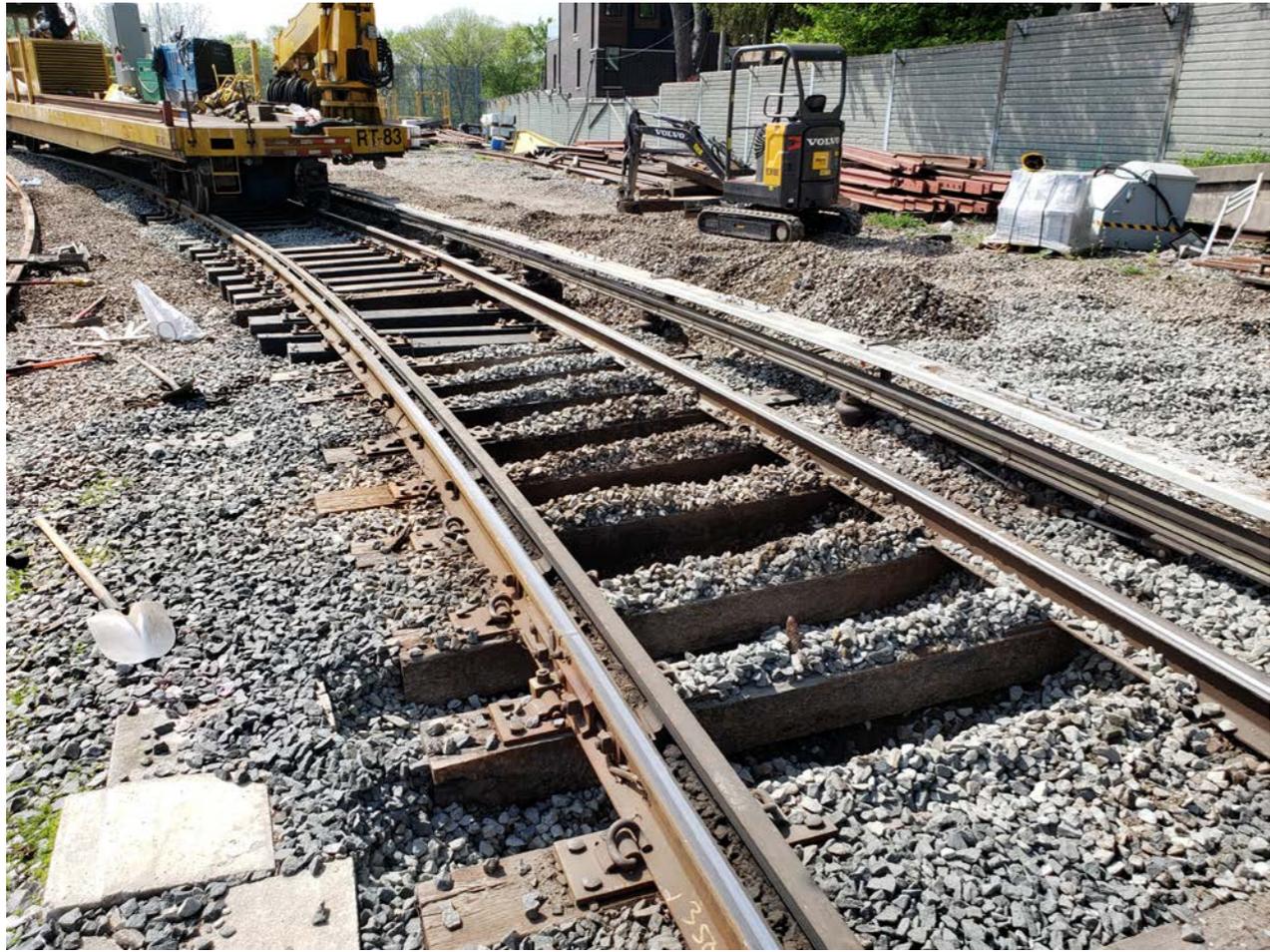


ATC – Phase 5 (St Clair to Finch)



ATC resignalling on the Yonge-University-Spadina Line

SOGR – Full Turnout Replacement (Greenwood Yard)



Removal of ballast and ties



Replacement of ties and ballast

Capital Project – (King, Queen, The Queensway, Roncesvalles)

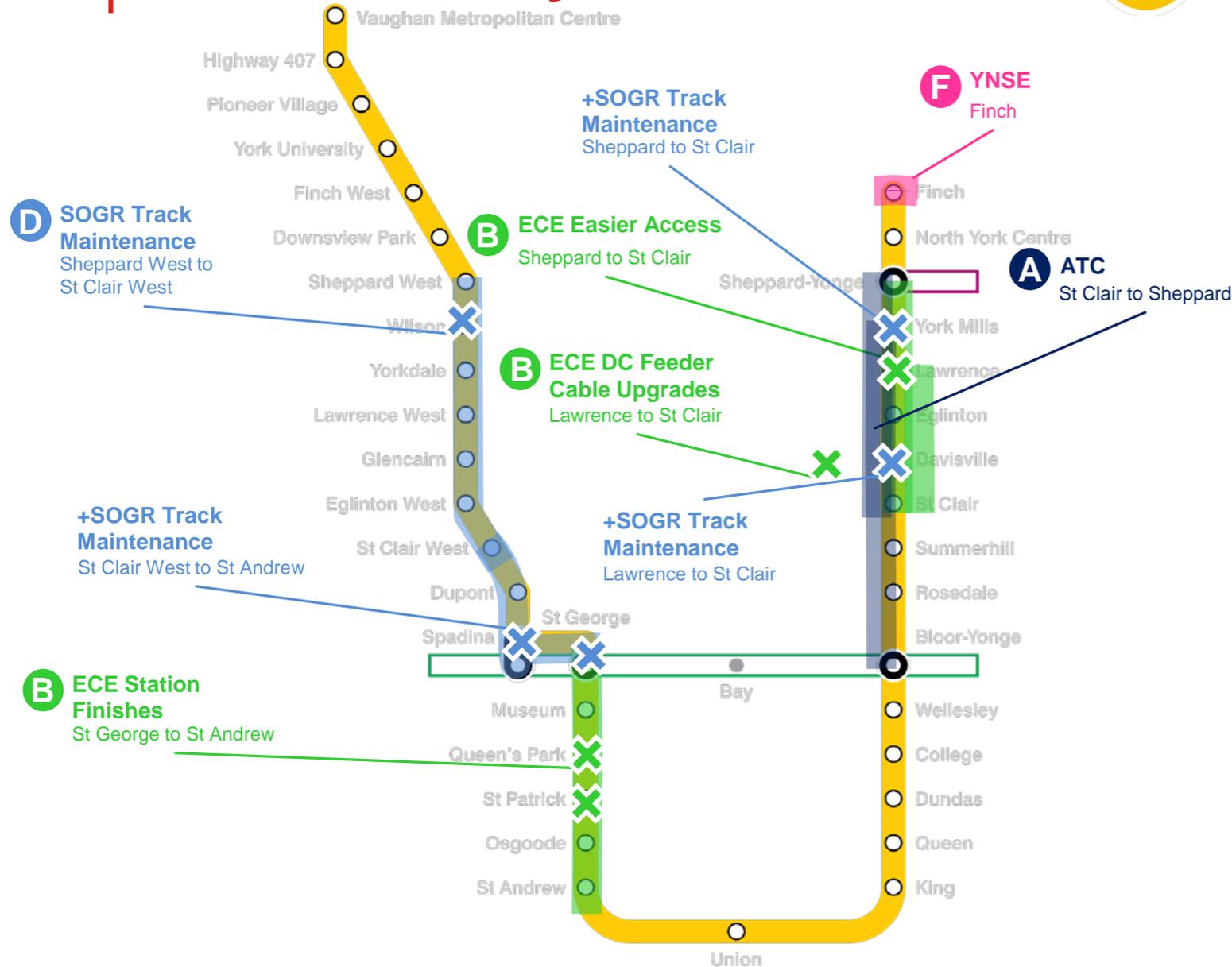


Track installation on The Queensway



Track Installation at Sunnyside Loop

2023 Subway Closures Line 1

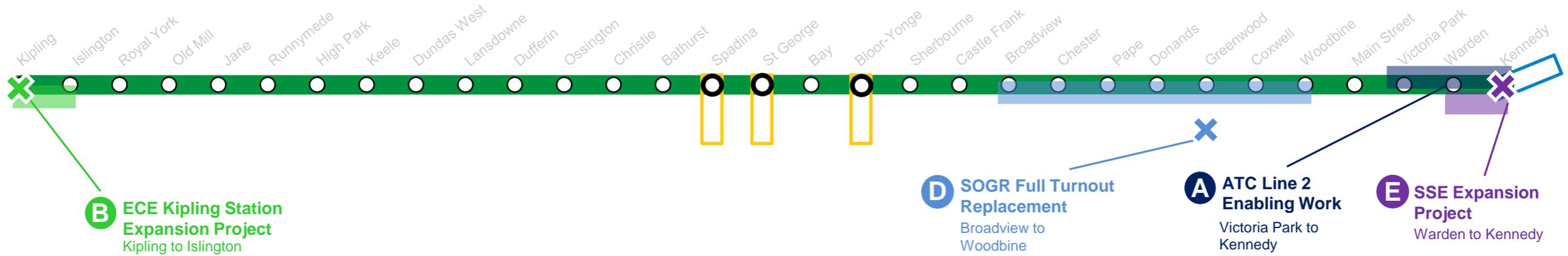


CLOSURE TYPE	SOGR	ECE	ATC	YNSE	SSE	TOTAL
FW	1	12	2			15
SD			1			1
SBY				29		29



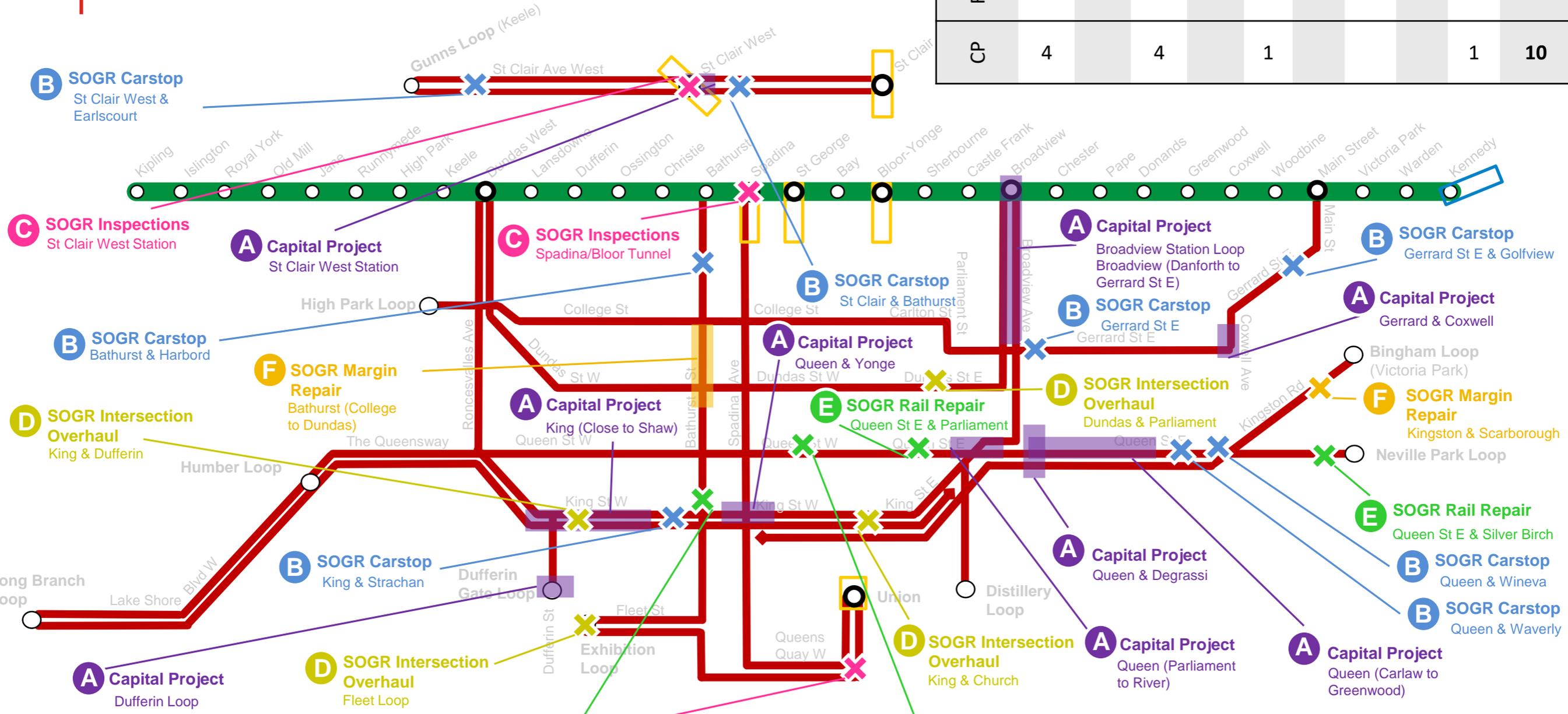
2023 Subway Closures Line 2

CLOSURE TYPE	SOGR	ECE	ATC	YNSE	SSE	TOTAL
FW	1	2	3		3	9



2023 Streetcar Diversions

CLOSURE TYPE	501	503	504	505	506	509	510	511	512	TOTAL
FW	5	1	3	1	2	8	3	3	3	29
CP	4		4		1				1	10



2024 Look Ahead

STREETCAR DIVERSIONS			
CLOSURE TYPE	LINE	SOGR	TOTAL
C	501 Queen	4	4
	504 King	1	1
	506 Carlton	2	2
	510 Spadina	1	1
	512 St Clair	1	1

SUBWAY CLOSURES							
CLOSURE TYPE	LINE	SOGR	ECE	ATC	YNSE	SSE	TOTAL
FW	LINE 1	2	18	-	-	-	20
	LINE 2	4	7	3	-	3	17

EA Early Weeknight Closure
 LO Late Opening
 FW Weekend Closure
 SD Single Day Closure

SOGR State-of-Good Repair
 ATC Automatic Train Control
 SBY Station Bypass
 CP Capital Project

ECE Engineering, Construction and Expansion
 SSE Scarborough Subway Extension
 YNSE Yonge North Subway Extension





| Appendix 1 – Differences Closures Make: Assets Reliability

- MTBF on YUS Line 1 has increased by 128% from 2019 to 2022
- Track level fire incidents have reduced by 39% from 2019 to 2021
- Switch failures have reduced by 33% from 2019 to 2022
- Signal failures have reduced by 37% from 2019 to 2022
- Subway Track insulated joint (IJ) failures have reduced by 92% from 2019 to 2022



Appendix 2 – 2023 Subway Closure Forecast

DATE	CLOSURE TYPE	PROJECT	OTHER PROJECT	SHUTTLE BUS SERVICE
Jan 21 - 23	FW	ECE Easier Access Lawrence Station Elevator Access		Eglinton to Sheppard
Jan 30 – Feb 3	EA	SOGR Structure Maintenance: Concrete Rehabilitation		Osgoode to King
Feb 6 – 10	EA	SOGR Structure Maintenance: Concrete Rehabilitation		Osgoode to King
Feb 13 – 17	EA	SOGR Structure Maintenance: Concrete Rehabilitation		Osgoode to King
Feb 20 – 24	EA	SOGR Structure Maintenance: Concrete Rehabilitation	+SOGR Track Maintenance Fast Clip Installations	Osgoode to College
Feb 27 – Mar 3	EA	SOGR Structure Maintenance: Concrete Rehabilitation	+SOGR Track Maintenance Fast Clip Installations	Osgoode to College
Mar 4 – 6	FW	ATC Line 1 Phase 6		Bloor to York Mills
Mar 6 -10	EA	SOGR Structure Maintenance: Concrete Rehabilitation	+SOGR Track Maintenance Fast Clip Installations	Osgoode to College
Apr 8 – 10	FW	ATC Line 1 Phase 6		St Clair to Sheppard
Apr 9	LO	SOGR Structure Maintenance PEV Beam Replacement		St George to Broadview
Apr 15 – 17	FW	ECE Station Finishes (U60-9)	+SOGR Track Maintenance: Delkor Plates Installation	St Clair West to St Andrew
Apr 23	LO	SOGR Structure Maintenance PEV Beam Replacement		St George to Broadview
Apr 24 – 28	EA	SOGR Structure Maintenance: Asbestos Abatement		Eglinton to Sheppard

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 FW Weekend Closure
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 SBY Station Bypass



May 1 – 5	EA	SOGR Track Maintenance: Open cut maintenance		Woodbine to Kennedy
May 6 – 7	SD	ATC Line 1 Phase 6		St Clair to Sheppard
May 8 – 12	EA	SOGR Track Maintenance: Open cut maintenance		Woodbine to Kennedy
May 13 – 15	FW	ATC Line 2 Enabling Works		Victoria Park to Kennedy
May 15 – 19	EA	SOGR Track Maintenance: Open cut maintenance		Woodbine to Kennedy
May 20 – 22	FW	ECE Station Finishes (U60-9)	+SOGR Track Maintenance: Delkor Plates Installation	St Clair West to St Andrew
May 22 – 26	EA	SOGR Track Maintenance: Open cut maintenance		Kipling to Keele
May 23 – Jun 6	SBY	ECE YNSE Metrolinx		Finch Platform (NB) to Finch Tail Track
May 28	LO	SOGR Structure Maintenance PEV Beam Replacement		St George to Broadview
May 29 – Jun 2	EA	SOGR Track Maintenance: Open cut maintenance		Kipling to Keele
Jun 3 – 5	FW	ATC Line 2 - Enabling Works		Victoria Park to Kennedy
Jun 5 – 9	EA	SOGR Track Maintenance: Open cut maintenance		Kipling to Islington
Jun 6 – 20	SBY	ECE YNSE Metrolinx Project		Finch Platform (SB) to Finch Tail Track
Jun 12 – 16	EA	SOGR Track Maintenance: Open cut maintenance		Kipling to Islington
Jun 18	LO	SOGR Structure Maintenance PEV Beam Replacement		St George to Broadview

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Jun 20 – 24	EA	SOGR Track Maintenance PREP for Greenwood WYE weekend closure		Broadview to Woodbine
Jun 24 – 26	FW	SOGR O&I Maintenance: Greenwood WYE		Broadview to Woodbine
Jun 26 – 30	EA	SOGR Track Maintenance Post Greenwood WYE weekend closure		Broadview to Woodbine
Jul 2	LO	SOGR Structure Maintenance PEV Beam Replacement		St George to Broadview
Jul 3 – 7	EA	SOGR Track Maintenance: Davisville Yard - Major maintenance of switches DS12S & DS14S		St Clair to Lawrence
Jul 12 – 15	EA	SOGR Track Maintenance: Davisville Yard - Major maintenance of switches DS12S & DS14S		St Clair to Lawrence
Jul 15 – 17	FW	ECE Hydrovac (6149, Retrofit of CH & Shop traction power pendent system)	+SOGR Track Maintenance: Davisville Yard - Major maintenance of switches DS12S & DS14S	St Clair to Lawrence
Jul 17 – 21	EA	SOGR Track Maintenance: Davisville Yard - Major maintenance of switches DS12S & DS14S		St Clair to Lawrence
Jul 22 – 24	FW	ECE Station Finishes (U60-9)		St George to St Andrew
Jul 23	LO	SOGR Structure Maintenance PEV Beam Replacement		St George to Broadview
Aug 12 – 14	FW	ECE Station Finishes (U60-9)		St George to St Andrew
Aug 19 – 21	FW	ATC Line 2 - Enabling Works		Victoria Park to Kennedy
Aug 27	LO	SOGR Structure Maintenance PEV Beam Replacement		St George to Broadview

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Sep 11 – 15	EA	SOGR Track Maintenance: Wilson Yard - Full turnout replacement of WS2		St Clair West to Sheppard West
Sep 15 – 18	FW	ECE SSE Kennedy Station Hoarding		Warden to Kennedy
Sep 19 – 23	EA	SOGR Track Maintenance: Wilson Yard - Full turnout replacement of WS2		St Clair West to Sheppard West
Sep 23 – 25	FW	SOGR Track Maintenance: Wilson Yard - Full turnout replacement of WS2		St Clair West to Sheppard West
Sep 24	LO	SOGR Structure Maintenance PEV Beam Replacement		St George to Broadview
Sep 25 – 29	EA	SOGR Track Maintenance: Wilson Yard - Full turnout replacement of WS2		St Clair West to Sheppard West
Oct 2 – 6	EA	ECE / Track Maintenance Kipling Storage Track – Prep for Kipling weekend closure		Kipling to Islington
Oct 7 – 9	FW	ECE Station Finishes (U60-9)		St George to St Andrew
Oct 10 – 14	EA	ECE / Track Maintenance Kipling Storage Track – Prep for Kipling weekend closure		Kipling to Islington
Oct 14 – 16	FW	ECE / Track Maintenance Kipling Storage Track		Kipling to Islington
Oct 16 – 20	EA	ECE / Track Maintenance Kipling Storage Track – post Kipling weekend closure		Kipling to Islington
Oct 21 – 23	FW	ECE Easier Access Lawrence Station Elevator Access	+SOGR Track Major Maintenance (York Mills Centre Track)	St Clair to Sheppard
Oct 28 – 30	FW	ECE Station Finishes (U60-9)		St George to St Andrew

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Oct 30 – Nov 3	EA	SOGR Structure Maintenance: Asbestos Abatement		Eglinton to Sheppard
Nov 4 – 6	FW	ECE Easier Access Lawrence Station Elevator Access	+SOGR Track Major Maintenance (York Mills Centre Track)	St Clair to Sheppard
Nov 4 – 6	FW	ECE / Signals Maintenance Kipling Storage Track		Kipling to Islington
Nov 6 – 10	EA	SOGR Structure Maintenance: Asbestos Abatement		Eglinton to Sheppard
Nov 11 – 13	FW	ECE SSE Kennedy Station Vent Shafts		Warden to Kennedy
Nov 13 – 17	EA	SOGR Structure Maintenance: Asbestos Abatement		Eglinton to Sheppard
Nov 25 – 27	FW	ECE Station Finishes (U60-9)		St George to St Andrew
Nov 27 – Dec 1	EA	SOGR Structure Maintenance: Asbestos Abatement		Eglinton to Sheppard
Dec 2 – 4	FW	ECE SSE Kennedy Station Vent Shafts		Warden to Kennedy
Dec 9 – 11	FW	ECE Station Finishes (U60-9)		St George to St Andrew

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Appendix 3 – 2023 Streetcar Diversion Forecast

- *Currently finalizing with City of Toronto and other planned projects*

DATE	CLOSURE TYPE	PROJECT	OTHER PROJECT
Jan 24 – 27	ND	SOGR Inspection - St Clair West Station	
Feb 6 – Nov 18	CP	SOGR Gerrard Street East	
Feb 7 – 10	ND	SOGR Inspection - Bloor/Spadina Loop	
Feb 17 – 20	FW	SOGR Harbourfront Tunnel Maintenance	
Feb 27 – Mar 26	CP	SOGR King Street West	
Feb 28 – Mar 3	ND	SOGR Inspection - King & Bathurst	
Mar 3 – 6	FW	SOGR Bloor Tunnel Maintenance	
Mar 7 – 10	ND	SOGR Inspection - Bloor/Spadina Loop	
Mar 10 – Oct 29	CP	SOGR Dufferin Loop	
Mar 14 – 17	ND	SOGR STW Welding - College & Spadina	
Mar 17 – 20	FW	SOGR Intersection Overhaul - King & Dufferin	
Mar 21 – 24	ND	SOGR Inspection - Queen & Bathurst	
Mar 24 – Nov 28	CP	SOGR Queen Street East (Carlaw to Leslie & Leslie to Greenwood)	
Mar 24 – 27	FW	SOGR Carstop – Queen St at NEC Waverly WB rail	
Mar 26 – May 6	CP	SOGR King Street East	

ND	Nightly Diversion	SOGR	State-of-Good Repair
FW	Full Closure (>24 hours)	CP	Capital Project
SD	Single Day Closure	OL	Ontario Line



Mar 28 – Jun 20	CP	SOGR King Street West	
Mar 31 – Apr 7	FW	SOGR Intersection Overhaul - King & Church	
Apr 4 – 7	ND	SOGR Inspection - Bloor/Spadina Loop	
Apr 7 – 10	FW	SOGR Carstop – Queen St E of Wineva WB	
Apr 11 – 14	ND	SOGR STW Welding - King & Spadina	
Apr 14 – 17	FW	SOGR Harbourfront Tunnel Maintenance	
Apr 18 – 21	ND	SOGR Inspection - Neville Loop	
Apr 25 – 28	ND	SOGR Inspection - St Clair West Station	
May 1 – Nov 29	CP	SOGR York - Queen to Adelaide	
May 2 – 5	ND	SOGR Inspection - Bloor/Spadina Loop	
May 2 – 5	ND	SOGR STW Welding - Queen & Spadina	
May 6 – Jul 8	CP	SOGR Gerrard & Coxwell	
May 6 – Nov 21	CP	SOGR Russell Yard	
May 7 – Dec 31	CP	OL Queen & Yonge – Joint Corridor enabling work	
May 7 – Jun 17	CP	SOGR Parliament to Dufferin & KQQR stage 3	
May 7 – Sep 10	CP	SOGR Queen Station	

ND	Nightly Diversion	SOGR	State-of-Good Repair
FW	Full Closure (>24 hours)	CP	Capital Project
SD	Single Day Closure	OL	Ontario Line



May 9 – 12	ND	SOGR Inspection - McCaul Loop	
May 9 – 12	ND	SOGR Inspection - Bathurst & Fleet, Fleet Loop, CNE Loop	
May 12 – 15	FW	SOGR Carstop – Gerrard NS E of Golfview WB	
May 14 – Nov 8	CP	SOGR Broadview (Danforth to Gerrard & Broadview Station Loop)	
May 15 – 19	ND	SOGR Rail Grinding - Gerrard	
May 16 – 19	ND	SOGR Inspection - Springhurst Loop	
May 16 – 19	ND	SOGR STW Welding - Queen & Broadview	
May 22 – 26	ND	SOGR Rail Grinding - Gerrard	
May 26 – 29	FW	SOGR Harbourfront Tunnel	
May 29 – Jun 2	ND	SOGR Rail Grinding - King	
Jun 2 – 5	FW	SOGR Carstop – Gerrard E of Boulton	
Jun 2 – 5	FW	SOGR Rail Repair - Queen St E & Parliament	
Jun 5 – 9	ND	SOGR Rail Grinding – King	
Jun 6 – 9	ND	SOGR STW Welding - Dundas & Broadview	
Jun 9 – 12	FW	SOGR Margin Repair - Kingston Rd & Scarborough EB	+ SOGR Margin Repair - Kingston Rd & Main EB

ND	Nightly Diversion	SOGR	State-of-Good Repair
FW	Full Closure (>24 hours)	CP	Capital Project
SD	Single Day Closure	OL	Ontario Line



Jun 13 – 16	ND	SOGR Inspection - Bloor/Spadina Loop	
Jun 13 – 16	ND	SOGR Inspection - Dundas W Station	
Jun 16 – 19	FW	SOGR Bloor Tunnel Maintenance	
Jun 18 – Jul 29	CP	SOGR King & Parliament	
Jun 20 – 23	ND	SOGR Inspection - Queen & Bathurst	
Jun 23 – 26	FW	SOGR Rail Repair - Queen St E (between Jarvis & St George)	
Jun 27 – 30	ND	SOGR Inspection - King & Bathurst	
Jun 27 – 30	ND	SOGR Inspection - Bathurst Station	
Jul 4 – 7	ND	SOGR Inspection - Degrassi Underpass	
Jul 4 – 7	ND	SOGR Inspection - Bloor/Spadina Loop	
Jul 7 – 10	FW	SOGR Harbourfront Tunnel	
Jul 8 – 9	FW	SOGR Inspection - St Clair West Station	
Jul 14 – 17	FW	SOGR Intersection Overhaul - Parliament & Dundas	
Jul 18 – 21	ND	SOGR Inspection - Main Station	
Jul 21 – 24	FW	SOGR Margin Repair - Bathurst (south of College to south of Dundas)	

ND
FW
SD

Nightly Diversion
Full Closure (>24 hours)
Single Day Closure

SOGR
CP
OL

State-of-Good Repair
Capital Project
Ontario Line



Jul 30 – Sep 2	CP	SOGR Russell Yard Stage 1	
July 30 – Nov 18	CP	OL Queen & Degrassi – Joint Corridor enabling work	
Aug 1 – 4	ND	SOGR Inspection - King & Bathurst	
Aug 4 – 7	FW	SOGR Carstop – St Clair W E of Earls court WB	
Aug 4 – 7	FW	SOGR Intersection Overhaul - Fleet Loop	
Aug 8 – 11	ND	SOGR Inspection - Bloor/Spadina Loop	
Aug 11 – 14	FW	SOGR Carstop – St Clair W, E Bathurst EB	
Aug 11 -14	FW	SOGR Harbourfront Tunnel	
Aug 15 – Aug 18	ND	SOGR Inspection - St Clair West Station	
Aug 18 – 21	FW	SOGR Carstop – Bathurst St at Harbord St SB	
Aug 18 – 21	FW	SOGR Rail Repair - Queen St E (Willow & Silver Birch)	
Aug 22 – Aug 25	ND	SOGR Inspection - Broadview Station	
Sep 3 – Oct 2	CP	SOGR Broadview Station Loop	
Sep 7 – Oct 29	CP	SOGR Queen Street East (Parliament to River & Davies to Broadview)	
Sep 19 – 22	ND	SOGR Inspection - Bloor/Spadina Loop	
Sep 22 – 25	FW	SOGR Harbourfront Tunnel	

ND	Nightly Diversion	SOGR	State-of-Good Repair
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Sep 26 – 29	ND	SOGR STW Welding - King & Bathurst	
Oct 3 – 6	ND	SOGR Inspection - St Clair West Station	
Oct 3 – 6	ND	SOGR STW Welding - College & Bathurst	
Oct 6 – 9	FW	SOGR Harbourfront Tunnel	
Oct 6 – 9	FW	SOGR Rail Repairs - Bathurst (between King and Adelaide)	
Oct 8 – Dec 16	CP	SOGR Oakwood Loop	
Oct 9 – 12	ND	SOGR Margin Repair - Bathurst (between Carr & Austin Terrace)	
Oct 16 – Feb 12	CP	SOGR St Clair West Station	
Oct 17 – 20	ND	SOGR Inspection - Bloor/Spadina Loop	
Oct 17 – 20	ND	SOGR STW Welding - Queen & Bathurst	
Oct 24 – 27	ND	SOGR Inspection - Queen & Bathurst	
Nov 3 – 6	FW	SOGR Carstop – King St W at Strachan WB	
Nov 7 – 10	ND	SOGR Inspection - Degrassi Underpass	
Nov 10 – 13	FW	SOGR Bloor Tunnel Maintenance	
Nov 14 – 17	ND	SOGR Inspection – Bloor/Spadina Loop	

ND	Nightly Diversion	SOGR	State-of-Good Repair
FW	Full Closure (>24 hours)	CP	Capital Project
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Nov 21 – 24	ND	SOGR Inspection - Springhurst Loop	
Nov 27 – 30	ND	SOGR Inspection - King & Bathurst	

ND	Nightly Diversion	SOGR	State-of-Good Repair
FW	Full Closure (>24 hours)	CP	Capital Project
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Appendix 4 – Pantograph Upgrades

