

Monthly Report
SafeTrack Program
Washington Metropolitan Area Transit Authority (WMATA)

May 2017 Progress



Surge 14 – Prince George's Plaza Station to Greenbelt Station – Track 2 at completion of Surge 14.

June 26, 2017

PMOC Contract Number: DTFT60-14-D-00011

Task Order Number: 006, Project Number: DC-27-5272, Work Order No. 01

OPs Referenced: 01, 25

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Length of Time PMOC Assigned to Project under current Contract: 3 Years, 1 Month

Length of Time PMOC Lead Assigned to Project: 5 Years, 2 Months

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EXECUTIVE SUMMARY

Note: Italics in this report denotes a change from the previous report.

This *tenth* monthly PMOC report for SafeTrack is based on information provided by WMATA at the oversight meeting held on *June 20, 2017*, and subsequent weekly updates. The PMOC concurs with WMATA's assessment of progress in *May 2017* as stated in its monthly report:¹

"May was a productive month for the SafeTrack program, with new records set for crosstie, fastener and insulator work completed within a surge. In May SafeTrack ended Surge 14, a shutdown of a portion of the Green Line between Prince George's Plaza, College Park-University of Maryland and Greenbelt stations. The first half of the 30 day surge was executed in April and the last 14 days in May were spent wrapping up Surge 14. As part of the crosstie replacement efforts, crews also serviced the interlockings at both College Park and Greenbelt stations with replacements of switch ties and molding repairs to the switch components. In addition to the planned work, the shutdown and improved work efficiencies allowed track crews to improve the track alignment and platform interface at the outbound end of College Park station, as well as the track transitions to the bridge structure. Crews also replaced the at-grade crossing at the Greenbelt station interlocking used by maintenance crews. [See system map in Appendix B.]

"In addition to the physical work completed, significant planning was done to prepare for Surge 16, the final SafeTrack shutdown from Twinbrook to Shady Grove commencing on June 17, 2017."

Here is a summary of PMOC oversight activities for *May 2017*:

- *May 16 – Conducted monthly SafeTrack oversight meeting*
- *Coordinated on different days in May 2017 with SafeTrack management team for clarification of reported accomplishments and details on budget development*

A. Program Description

WMATA's PMP, Revision 6, describes the program description as "a year-long track work plan to accelerate three years' worth of work into approximately one year by significantly expanding maintenance time on weeknights, weekends, and midday hours, and includes 15 "Safety Surges" – long duration track outages in key parts of the system.

"SafeTrack is a massive, comprehensive, holistic effort to address safety recommendations and rehabilitate the Metrorail system on an accelerated basis by expanding ALL available maintenance windows. It is also an emergency response by new WMATA management to the deteriorating track conditions recognized in early 2016. Through this focused effort, WMATA will eliminate the backlog of track work and enable Metro to return to a sustainable steady-state of annual track and systems renewal projects that can maintain the system in a state of

¹ WMATA's May 2017 SafeTrack Report to the PMOC dated June 16, 2017, page 1.

good repair. In addition to delivering this scope, the intent is to carry forward the lessons learned and improvements in work efficiency and productivity to future maintenance and capital rehabilitation programs, after SafeTrack ends.”²

The majority of SafeTrack work is being performed by WMATA forces and is funded primarily through WMATA’s Capital Improvement Plan (CIP) 0024, Track Rehabilitation. Additional CIPs fund other related work during the SafeTrack surges. Federal funding sources include PRIIA (Passenger Rail Investment Improvement Act), §5307 (Urbanized Area Formula), and §5337 (State of Good Repair Formula). The SafeTrack Program started on June 4, 2016; the present scope is scheduled to be completed by June 25, 2017.

B. Program Status

With the *completion* of Surge 14, SafeTrack crews continued making improvements to the Metrorail System. Adding the accomplishments from Surge 15 in *May 2017*, to the previous accomplishments of 14 surges, SafeTrack crews and their contractor partners working 374 days have brought *nearly* 88 miles of track to a state of good repair. (The table on page 8 of this report shows the days worked by surge.) SafeTrack Program work accomplished through *May 31, 2017*, includes:

- Replaced 50,221 crossties
- Replaced 11,352 insulators
- Replaced 37,138 fasteners
- Replaced 58,445 feet of rail (11 miles)
- Welded 754 rail joints
- Installed 33,291 feet of new grout pads
- Repaired/replaced 1,828 tunnel lights
- Repaired/replaced 1,105 power cables
- Replaced 34,274 feet third rail cover board
- Cleaned 108,996 linear feet of track bed
- Refurbished/replaced 2,643 IDW boxes
- Converted 114 wayside signals to LEDs
- Repaired 97 emergency trip stations

May 2017 Activity

- **Surge 14** – *which* was started on April 15, 2017, was completed on May 14, 2017. During this 30-day surge, “WMATA track crews replaced 9,569 ties, 5,704 fasteners, and 2,864 insulators, the most of any surge to date.” No grout pads were repaired/replaced. Crews also rebuilt the Greenbelt station at-grade maintenance crossing by replacing ties and placing 15 tons of asphalt paving.”³
- **Surge 15** – “which shut down the Orange Line outbound of Stadium Armory (D08), started on May 16. At the end of May, halfway through Surge 15, most of the work was on schedule. As of June 4, 2017, Metro staff and contractors managed to complete about 76 percent of all work planned for the entire Surge.”
- **Surge 16** – WMATA also concentrated on planning for Surge 16 in May 2017. SafeTrack and Mobile Command developed work area maps for Surge 16, including reviewing

² From WMATA’s SafeTrack Project Management Plan, Revision 6, dated April 21, 2017, page 1.

³ WMATA’s June 16, 2017 SafeTrack report, page 6.

logistics, access, and options to mitigate service impact. Track and Structures developed their scope and preliminary execution plan, which includes plans to replace approximately 3,500 ties.

C. Core Accountability Information

1. Cost

Cost – Current SafeTrack Budget (as of May 31, 2017)

Approved FY16-FY17 budget for SafeTrack:	\$151,415,899
Current Budget:	\$151,415,899
Amount Expended:	\$133,268,816
Percent expended:	88%

The SafeTrack team reported that on May 25, 2017, the WMATA Board approved a new budget of \$151,415,899. In addition, the Board approved a contingency amount of \$2,818,615.

Cost – Latest available forecast for SafeTrack (as of May 31, 2017)

Estimated total cost for SafeTrack work (Surges 1 thru 16):	\$ 151,415,899
Contingency (see contingency below):	\$ 993,098
Projected total CIP0024 cost during SafeTrack:	\$ 154,234,514

Cost – Summary of Funding for SafeTrack

The funding table below is a revision of the table in the last report. This revision more clearly shows the federal and local funding amounts, as well as a contingency amount. The federal PRIIA grants must be matched by WMATA 100%. The other two federal grants must be matched by WMATA with a 20% local share. (FFY = federal fiscal year)

SafeTrack Planned Funding Sources

Federal Fiscal Year	Federal Funding		Local Funding	Total Funding
	Source	Amount	Amount	
FFY15 ¹	PRIIA	\$17,927,080	\$17,927,080	\$ 35,854,160
FFY16	PRIIA	\$18,620,641	\$18,620,641	\$ 37,241,282
FFY17	PRIIA	\$22,973,500	\$22,973,500	\$ 45,947,000
FFY17	§5337	\$8,000,000	\$2,000,000	\$ 10,000,000
FFY17	§5307	\$8,000,000	\$2,000,000	\$ 10,000,000
Subtotal		\$75,521,221	\$63,521,221	\$139,042,442
FFY17	Short-term borrowing		\$12,373,457	
Total		\$75,521,221	\$75,894,678	\$151,415,899
Contingency			\$2,818,615	\$2,818,615
Grand Total	All Sources			\$154,234,514

1. Funds provided from WMATA's FY16 Budget to support the first month of SafeTrack

2. Schedule

- Original SafeTrack Program completion date: June 2017

- Current forecast completion date: June 2017. See Appendix I for a summary schedule of the program.
- Project Duration: June 4, 2016, through June 30, 2017, 392 days
- Calendar days expended: June 4, 2016 through *May 31*, 2017, 362 days
- Percent of time expended: 92%

3. Contingency

- Current contingency amount *is* \$993,098.

D. Major Problems/Issues

NOTE: Issues are shown in regular type and their latest status is in *italics*. When an issue is closed, it will be marked CLOSED for the month it was closed. The issue will not appear in the report for the following month.

1. Status of Problems/Issues Identified in the PMOC's Previous Monthly Reports

a. Tracking and Completion of Punch List Work

- Appendix M of the approved SafeTrack PMP describes how crews are to address incomplete (*punch list*) work items:

“All defects or incomplete work that renders the track unsafe for operation will be fixed immediately, extending the time of the event if necessary.

“All restrictable conditions will get raised immediately to the General Superintendent for TRST and the SafeTrack Director for a decision on whether to extend the surge or close it and schedule a separate event to complete the work. Any such work will be completed within 15 calendar days. These work items will continue to be tracked as SafeTrack scope to finish.

“All remaining maintenance items will be entered into Maximo as a work list with a new work order and the Surge Work Order is closed out. These work list items are not considered part of the SafeTrack scope, and responsibility for the work list is transferred to Track Maintenance and will be completed based on track access and crew availability.

- *During its post-surge walkthroughs, WMATA's Office of Quality and Internal Compliance (QICO), as the second line of defense and separate from maintenance crews, identifies discrepancies with the work and codes them high, medium, or low priority in its Surge Asset Tracking Log. High priority items must be addressed before a rail line can be returned to revenue service. QICO also follows up to make sure medium and low priority discrepancies are recorded in Maximo, WMATA's enterprise asset management system, addressed on-site, and then closed out in Maximo. According to QICO's Closeout Report, the four high priority items identified at the conclusion of Surge 14 were addressed. This issue will remain **OPEN** through the end of the SafeTrack Program.*

b. Safety

In May 2017, SafeTrack experienced one recordable injury, as defined by the Occupational

Safety and Health Administration (OSHA).⁴ Details of this injury incident are provided in the Main Report below. *No accidents were reported for the month of May 2017.*

This issue will remain **OPEN** through the completion of the SafeTrack Program, and the PMOC will continue to review and report on WMATA's management of safety.

c. Grout for Grout Pads

This issue is the absence of field testing of grout for new grout pads. The PMOC first became aware of and reported on this issue in November 2016. At the *June 20, 2017 PMOC oversight meeting, the Director of Maintenance of Way Engineering (MOWE) reported that MOWE was still reviewing a draft specification for testing the concrete used in grout pads. It should be noted that WMATA has had a specification for testing concrete used in grout pads constructed by a contractor. The specification being reviewed would apply to WMATA crews constructing grout pads as a part of their maintenance activities. The PMOC will continue to monitor this issue after the end of the SafeTrack program. This issue will remain OPEN.*

d. Project Funding

With the revised budget approved by the WMATA Board on May 25, 2017, the SafeTrack Program should be fully funded through its completion. The team explained the major cause of the budget increase is increased scope of planned work. The scope change came about from utilizing a total shutdown as opposed to single tracking. The PMOC will monitor the expenditure of SafeTrack funds through the payment of all invoices related to the SafeTrack Program. This issue remains OPEN.

e. Personal Protective Equipment (PPE)

SafeTrack's report (with data collected by WMATA's Department of Safety and Environmental Management [SAFE]) shows crews are complying with the requirements to use PPE. *The table in the June 16, 2017 report of May 2017 activity shows 100% compliance in all categories. The PMOC will continue to monitor this issue through the completion of the SafeTrack Program. This issue remains OPEN.*

2. New Problems/Issues

No new problems or issues were identified in May 2017.

⁴ An OSHA recordable injury is defined as an injury where the individual received medical care greater than first aid.

MAIN REPORT

1. Program Status

The following table shows the percent complete for each surge of the SafeTrack Program through the completion of Surge 14 on May 14, 2017, based on reports submitted by WMATA.

SURGE No.	FROM – TO	TYPE	DAYS SURGING	APPROXIMATE TOTAL MILES		OVERALL % COMPLETE
				TRK 1	TRK 2	
1	East Falls Church to Ballston	Single Tracking	13	2.4	0	100%
2	Eastern Market & Minnesota Ave to Benning Road	Total Shutdown	16	2.0	2.0	100%
3	Natl. Airport to Braddock Rd.	Total Shutdown	7	0.7	0.7	97%
4	Pentagon City to Natl. Airport	Total Shutdown	7	1.3	1.3	100%
5	East Falls Church to Ballston	Single Tracking	12	0	2.4	108%
6	Single Spring to Takoma	Single Tracking	7	1.1	0	105%
7	Shady Grove to Twin Brook	Single Tracking & Wknd Shutdown	12	4.4	0	95%
8	Franconia-Springfield to Van Dorn Street	Single Tracking	17	3.7	3.7	140%
9	West Falls Church to Vienna	Single Tracking Wknd Shutdowns	42	5.2	5.2	111%
10	NoMa Gallaudet U to Fort Totten	Total Shutdown	29	1.3	1.3	133%
11	East Falls Church to West falls Church	Single Tracking	23	1.5	1.5	115%
Non-surge period	Red Line Van Ness-UDC to Grosvenor-Strathmore	Single Tracking	31	2.1	2.1	See Note 2
	Orange/Blue/Silver Line from Rosslyn to Eastern Market	Single Tracking & Shutdown	31	0.9	0.9	See Note 2
12	Blue Line - Rosslyn to Pentagon	Total Shutdown	18	2.4	2.4	121%
13	Yellow/Blue Line Braddock Rd to Huntington & Van Dorn	Single Tracking	40	5.3	5.3	117%
14	Green Line Greenbelt to College Park	Total Shutdown	30	4.4	4.4	120%
15	Orange Line Minnesota Ave to New Carrollton	Total Shutdown	30	6.0	6.0	
16	Red Line Shady Grove to Twinbrook	Total Shutdown	9	See Note 3	4.4	
Totals to Date			374	44.7	43.6	111% (Note 1)
Note 1: Average percentage of the 14 surges on which WMATA has reported.						
Note 2: Non-surge period overall percent complete was not reported.						
Note 3: Surge 16 focuses on Track 2; mileage is not counted on Track 1 because it would double count surge 7.						

The table in Appendix C provides details of the work completed during the 14 surges and the non-surge period.

Surge 14 Close-Out, Surge 15 Pre-Inspection, and Work Completed in May 2017

- ***Surge 14 Summary and Close-Out Report***

The PMOC concurs with SafeTrack's report on Surge 14, which upgraded track and other facilities on the Green Line between Prince George's Plaza and Greenbelt Stations. The report stated:

"Surge 14 concluded on May 14, 2017, with all planned tasks completed. The main focus of the surge was to replace deteriorating crossties, fasteners and insulators on both sets of tracks in this area. At the end of the surge, track crews replaced 9,569 ties, 5,704 fasteners and 2,864 insulators, the most of any surge to date. Structure crews focused on repairing tunnel leaks, drain openings and retaining wall panels. As part of the crosstie replacement efforts, crews also serviced the interlockings at both College Park and Greenbelt stations with replacements of switch ties and molding repairs to the switch components. Automatic Train Control (ATC) crews focused on replacing 28 marker coil assemblies, as well as replacing signal lights with brighter, longer-lasting LED bulbs.

*In addition to the planned work, the shutdown and improved work efficiencies allowed track crews to improve the track alignment and platform interface at the outbound end of College Park station, as well as the track transitions to the bridge structure. Crews also replaced the maintenance grade crossing of both tracks at the Greenbelt interlocking station with new ties and asphalt paving (15 tons)."*⁵





*The following table reflects the accomplishments of Surge 14.*⁶

Maintenance Group	Task	Unit	Completed During Surge 14
Track & Structures	Crosstie renewal	# crossties	9,569
	Insulator replacement	# insulators	2,864
	Ballast renewal	# tons	3,230
	Tamping	# linear feet	30,640
	Fastener renewal	# fasteners	5,704
	Joint elimination	# joints welded	221
	Third Rail maintenance	# linear feet cover board	6,440
	Rail replacement	# linear feet	3,078
Automatic Train Control	Signal conversion to LED	# signals	8
Traction Power	Power Cable repair/replacement	# cables	160

⁵ WMATA's June 16, 2017 SafeTrack report, page 6.

⁶ WMATA's June 16, 2017 SafeTrack report, page 7.

QICO issued its Surge 14 Close-Out Report on June 24, 2017, in which it recorded “wins” for Surge 14. The report also tabulated results of its final walkthrough of the work zone:⁷

2 WINS		
WHAT WORKED WELL?		
Category	Description	Photo
Performance of Work	All fasteners on the aerial structure inbound of College Park Station (E1/E2 512+00) have been replaced. This satisfies a major area of concern (consecutive defective fasteners, a speed-restrictable condition) QICO identified on the Surge 14 Pre-Surge Report . In addition, broken grout pads were replaced in the vicinity on both tracks, with the work accurately tracked in Maximo (13413780, 13413789). (Photo: New fasteners with female threaded inserts system)	
Performance of Work	Ballasted track has been renewed on both tracks E1 and E2, affecting over five miles of track in total. This includes timber tie replacement/remediation, ballast placement and track tamping. QICO's pre-surge report for Surge 14 found over 12 speed restrictions were implemented over the past year for timber tie related defects; as of 6/23/2017, no speed restrictions have been implemented since closeout, with the exception of a temporary speed restriction for ballast settlement (8226127). As observed in the final assessment, the timber ties (both new and remediated) are largely in good condition. A number of pre-existing remediated ties have undesirable features (long checks or end-splitting), but were not structurally defective. (Photo: Finished track around E2 585+00 (May 10, 2017))	
Quality Control	QICO shadowed the Track and Structures (TRST) Quality Control group during one of the SafeTrack closeout inspections. Three QC inspectors (one WMATA, two contractors) were observed closing previously noted defects and adding final observations to QC reports while inspecting the entire SafeTrack Surge area. Defects noted in reports were added to a system-wide non-compliance spreadsheet. Inspectors were detail-oriented and comprehensive during their inspections. (Photo: QC Inspectors E1 636+00, (May 10, 2017))	
Performance of Work	Rail defects were removed and replaced with new rail, with a focus on three aerial structures (E1/E2 538+00 through 560+00) and the curve inbound of Greenbelt Station (627+75 through 640+25). Both of these areas have historically been affected by rail integrity issues (rail pull-aparts) and had a large number of pre-existing open joints (100+ listed in optram). Removal of the vast majority of these joints will improve ride quality for passengers, and rail replacement will potentially alleviate rail integrity issues. (Photo: a rail fracture in the Surge 14 area, 2015, E2 628+00)	

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Quality Assurance, Internal Compliance & Oversight
"Quality Trumps Quantity"

⁷ QICO Close-Out Report, SafeTrack Surge 13, May 25, 2017, pages 6 & 7.

QICO FINAL TRACK WALKTHROUGH

Description

QICO's Field Team performed the Surge 14 closeout walkthroughs on 4/27/2017 and 5/10/2017. Throughout the surge, each discrepancy found by QICO officers relating to quality of work or safety was assigned a priority (low, medium, high) and tracked in the QICO Surge Asset Tracking Log. The closeout walkthroughs were conducted to verify the status of these items (open or closed).

Priority	Total Observations	Open	Closed	% Closed
Low	20	12	8	40%
Medium	12	4	8	67%
High	4	0	4	100%
Total	36	16	20	56%

See [7.3.Tracking Log](#) for a list of these items, with before and after photo evidence.

High Priority – items that are either safety critical or have high probability of negatively impacting operations/safety

Medium – items that could soon negatively impact safety or operations.

Low – items unlikely to impact operations but should be addressed as part of Surge activities.

- **Surge 15 Pre-Inspection**

QICO conducted independent walking track inspections for SafeTrack Surge 15 during five days in May 2017:

- *May 1 & 2, 2017, Track #1, from New Carrollton (D13) to Cheverly (D11)*
- *May 9 - 11, 2017, Tracks #1 & #2, from Cheverly to Minnesota Ave (D09), and Track #2, from New Carrollton to Cheverly.*

In its Pre-Surge Report, QICO stated explained why it performs pre-surge inspections.

“Field observations were compared to WMATA’s defect and speed restriction history in Optram/Maximo, as well as scopes of work provided by maintenance groups. The completed inspection and the following analysis provide a robust second line of defense to ensure critical SafeTrack maintenance items are addressed and tracked to completion during the surge.

SUMMARY OF FINDINGS

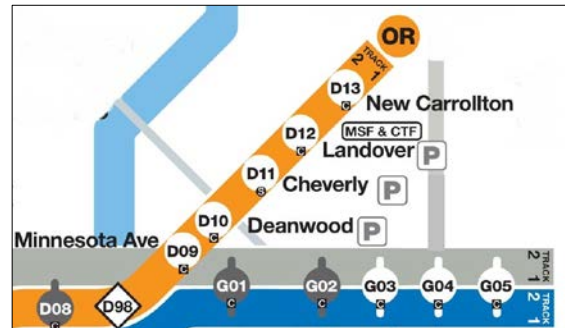
“The significant deterioration in the track structure observed during the QICO pre—surge walkthrough justifies the substantial service disruption proposed for upcoming Surge 15 (31 days). Ballasted track areas show signs of failure which require replacement and is evidenced by deteriorated cross ties, plate cutting, third rail anchors issues, and pumping. Direct fixation track throughout the aerial structures in the SafeTrack Surge 15 area were observed during field inspection as the greatest cause for concern — anchor bolts, grout pads, and fastener spacing/offsets.”⁸

⁸ Quality Pre-Surge Report, SafeTrack Surge 15: D&G Junction – New Carrollton, May 12, 2017, page 1.

- **Surge 15 May 2017 Progress**

Surge 15 started on May 15, 2017. It is scheduled to last 30 days and end on June 15, 2017. The Surge required the complete shutdown of the Orange Line from outbound of Stadium-Armory Station (D08) to D13. According to the SafeTrack team, “halfway through Surge 15, most of the work was on schedule. As of June 4th, Metro crews and contractors managed to complete about 67 percent of all work planned for the entire Surge.

Mini-Map of Surge 15 - D08 to D13



“The main focus of the surge was to replace deteriorating crossties as well as grout pad and fastener replacement on the aerial structures. Track crews progressed with their plans to replace over 14,000 ties through the entire area (12 track miles). They have also been able to replace direct fasteners between Minnesota Ave and the D&G Junction where the Orange and Silver/Blue lines converge outside Stadium-Armory. [The photo to the right shows, crews replacing ties between Deanwood and Minnesota Avenue Stations.]

Structures crews focused on replacing grout pads on the aerial structures, clearing brush and repairing fencing. Final quantities will be issued in the Final surge report on or about June 23.

“Automatic Train Control (ATC) crews focused on repairing intrusion detection warning (IDW) boxes as well as signal lights and data transmission system (DTS) cables. They also assisted track with moving equipment in the area by manually operating switches that are powered down for safety. Crews continue to inspect and repair IDW boxes in the area and replace lights with brighter, longer-lasting LED bulbs.

Work on the traction power system requires that power be removed on both tracks. As Surge 15 is a shutdown, traction power crews have been able to work more hours and



make more repairs than if trains had continuously single tracked. In addition to the planned work, traction power crews discovered negative return cables at the substations that required replacement.”⁹

- **Surge 16 Planning**

The SafeTrack team reported that in May 2017, “SafeTrack and Mobile Command developed work area maps for Surge 16, including reviewing logistics, access and options to mitigate service impact. WMATA’s Department of Track and Structures (TRST) developed their scope and preliminary execution plan, which includes plans to replace approximately 3,500 ties.”⁹

- **Work Planned for June 2017**

WMATA will complete Surge 15 on June 15, 2017; then two days later on June 17, 2017, WMATA will begin Surge 16. This final SafeTrack Program surge will last nine days and conclude on June 25, 2017. This surge will be a total shutdown of the Red Line between Twinbrook Station (A13) and Shady Grove Station (A15). Track #1, the inbound track, was previously addressed in Surge 7 in August 2016. Track #2, outbound from DC to Shady Grove, will be the major focus of Surge 16.

- *Track crews will focus on replacing cross ties, fasteners, running rail, third rail cover boards, and insulators. The contractor will thermite weld open joints.*
- *Structures crews will perform fence repair.*
- *Communications crews will replace platform speakers at Rockville and Shady Grove stations. They also plan to troubleshoot and replace faulty cameras at stations.*
- *IT crews will inspect and repair Emergency Trip Station (ETS) phone deficiencies found during inspection.*
- *ATC crews will inspect and refurbish if necessary IDW boxes from A13 to A15 on the Track #2 side. They also plan to replace loop junction boxes.¹⁰*
- *Traction Power crews plan to replace, transition cables, expansion cables, ETS lights, perform switchgear testing and maintenance, test cables, and replace yard cable boots. If time permits, 1000MCM cable pig tails and heat tape will be replaced.*

The following table shows the forecast dates for Surge 15 and 16 activities in June 2017.¹¹

⁹ WMATA’s June 16, 2017 SafeTrack report, page 7.

¹⁰ A loop junction box is a small 4x4 inch box found in the interlocking area where WMATA has crossover loops.

¹¹ WMATA’s June 16, 2017 SafeTrack report, page 8.

Surge	Surges 15 & 16 Activities	NLT Dates
15	End Surge 15	15-Jun-17
15	Post Surge 15 TGV Run	21-Jun-17
15	QICO Closeout Report – 15	5-Jul-17
16	Develop plan for work zone and employee parking – 16	7-Jun-17
16	Final Work Plan and Surge Scope (March Chart) – 16	9-Jun-17
16	QICO Pre-Surge Report – 16	9-Jun-17
16	Issue Coordinated Work Plan (MCC) – 16	9-Jun-17
16	Begin Surge 16	17-Jun-17
16	End Surge 16	25-Jun-17
16	Post Surge 16 TGV Run	3-Jul-17
16	QICO Closeout Report – 16	16-Jul-17

2. Program Cost

- The SafeTrack budget status as of *May 31, 2017*, is reflected in the following table. *It should be noted that the number of variances climbed from two last month to four this month. Also, last month, total reported expenditures were 99% of a \$134 million budget, and this month, total reported expenditures are 97% of a \$151 million budget. Reported expenditures in the month of May 2017 were \$13,843,651.*

SafeTrack Program as of May 31, 2017

Preliminary Estimated Budget	Approved SafeTrack FY18 Budget	Expenditures Thru May 31, 2017	Percent of Budget Expended
\$118,797,984	\$151,415,899	\$ 147,112,467	97%
Discussion of Variances ¹	WMATA reported four variances: the Force Account and Indirect Cost activity lines have exceeded their budgets.		
	Crane Masters Contract	\$747,249	124%
	Progress Rail (Fasteners)	\$2,836,784	108%
	Force Account	\$77,685,260	116%
	WMATA Indirect Cost	\$12,656,987	114%
Discussion of Funding sources	Funding for SafeTrack is from Passenger Rail Investment and Improvement Act (PRIIA), §5307 & §5337 formula funds, and short-term borrowing.		
Contingency as of May 31, 2017	\$2,818,816		
Notes:	1. These variances should be shown as reconciled in the next budget report.		

- Budget Analysis by PMOC

In last month's report, the PMOC stated it estimates the final cost for SafeTrack will be between \$150 and \$160 million. This estimate has not changed.

- Budget Analysis by SafeTrack Team

In its April 2017 report, the SafeTrack team projected a program budget of \$151 million. The SafeTrack report of May 2017 progress issued June 20, 2017 did not change this

projection. Although the June 20, 2017 report did not change budget projections, the SafeTrack team revealed in discussions at the June 20, 2017 oversight meeting that it has been discussing with WMATA's Office of Management and Budget Services (OMBS) a total cost of \$154 million to complete SafeTrack.

- **Contingency**

In May 2017, the WMATA Board approved a SafeTrack budget of \$151,415,899 along with a contingency of \$2,818,615. Expenditures through May 31, 2017, reported by WMATA's Capital Project Financial Support Group shows costs depleted the \$2.8 million contingency by \$1,825,517. The remaining contingency as of May 31, 2017, was \$993,098. The following table summarizes the use of contingency since a revised SafeTrack budget was established in November 2016.

As-of Date	Amount Expended	Remaining Contingency
November 30, 2016	---	\$17,661,436
December 31, 2016	\$ 7,201,324	\$10,460,112
January 31, 2017	\$ 5,683,374	\$ 4,776,738
February 28, 2017	\$ 1,434,044	\$ 3,342,694
March 31, 2017	\$ 3,342,694	\$ 0
April 30, 2017	\$ 0	\$ 0
May 31, 2017	\$1,825,517	\$ 993,098

3. Program Schedule

For Surges 1 through 16, the bar chart in Appendix "I" reflects actual dates the work was accomplished. Although Surge 15 ended in June, and Surge 16 was started and completed in June, because this report was issued after the completion of Surge 16, all actual dates are reflected in the Appendix I.

4. Environmental Mitigation Measures

During each surge, WMATA continues to perform maintenance on drainage facilities and clean up trash along the track right of way.

5. Program Management Capacity and Capability

There were no staffing changes during May 2017.

6. Quality Assurance/Quality Control (QA/QC)

- *WMATA's QICO conducted several quality assurance inspection activities during May 2017. These activities are discussed earlier in this report and are enumerated here for information.*
 - *Quality post-surge inspection of Surge 14 work zone on April 27 and May 10, 2017*
 - *Quality pre-surge inspection of Surge 15 work zone on May 1, 2, 9, 10, and 11, 2017*
 - *Quality assurance inspection of Surge 15 work zone on May 10, 2017*

- *The FTA WMATA Safety Oversight Office (FWSO) conducted several safety inspections that also relate to the quality of SafeTrack work. These activities are listed here to show the oversight on SafeTrack work in May 2017.*
 - *Inspection of Surge 14 completed track repairs, May 1, 2017*
 - *Inspection of Surge 14 completed track repairs, May 13, 2017: no defects noted.*
 - *Inspection of Surge 15 completed track repairs, May 19 2017; work zone setup was inspected; no re-inspection required.*
 - *Inspection of Surge 15 completed track repairs, May 20, 2017; work zone setup was inspected; no re-inspection required; track rehabilitation observed; no re-inspection required at observed location.*

- **Project Audit**

The SafeTrack Program was audited in April 2017. QICO conducted the audit and compared SafeTrack activities with requirements spelled out in the SafeTrack PMP, as well as WMATA standards. The SafeTrack audit report was given to the SafeTrack team for review. According to the Managing Director of QICO, the results of the audit will be made public in July 2017.

7. Safety and Security

- Safety and Security for SafeTrack are addressed by WMATA in several ways.
 - Level 1, full-day training course for WMATA staff, consultants, and contractors entitled Roadway Worker Protection Training.
 - WMATA’s “System Safety Program Plan” (SSPP)
 - WMATA’s “Construction Safety and Environmental Manual” (CSEM)
 - WMATA contracts, which among other safety requirements, states, “Contractor personnel required to work on WMATA property must obtain a WMATA vendors badge and successfully complete the mandatory safety training which must be renewed yearly. To obtain a vendors badge a signed waiver to perform a background check will be required. Contractors who perform safety-sensitive functions shall be subject to compliance with a drug and alcohol testing program according to Federal guidelines published in FTA regulations (49 CFR Part 655).”
 - Metrorail Safety Rules and Procedures Handbook
- The SafeTrack PMP addresses safety in two areas: Section 2.4.2 addresses the responsibilities of the Department of Safety and Environmental Management (SAFE), and Section 9 entitled Safety, addresses responsibilities and activities of the SafeTrack team during the duration of the SafeTrack Program.
- As a part of its safety and security program, WMATA has developed an outreach program to keep the public apprised of the plans for each surge. As a part of that program, the WMATA public outreach team continues to inform riders about the upcoming surges and the impact to their commute. Informational material is provided to explain safety risks, train delays, bus schedules, and contact information available to the riders.
- PPE Compliance – In addition to tracking recordable injuries, SafeTrack has been reporting worker compliance with requirements for wearing PPE. In its report for the month of May 2017, page 1, SafeTrack reported *100% compliance in all areas of PPE as the following table shows.*

Personal Protective Equipment Compliance						
Date		Hard Hats	Footwear	Reflective Shirt	Safety Glasses	Working Radio
2016	Sept	99%	100%	100%	89%	100%
	Oct	98%	100%	100%	96%	100%
	Nov	99%	100%	100%	98%	100%
	Dec	100%	100%	100%	100%	100%
2017	Jan	100%	100%	100%	100%	100%
	Feb	98%	96%	100%	96%	98%
	Mar	100%	100%	100%	94%	100%
	Apr	97%	100%	100%	90%	100%
	May	100%	100%	100%	100%	100%

- **OSHA Recordable Injuries**

There was one OSHA recordable injury in the month of May 2017. In its report for the month of May 2017, the SafeTrack team reported: “SafeTrack experienced one OSHA recordable injury (defined as an injury where the individual received medical care greater than first aid), in the surge areas.” The incident was reported in the SafeTrack June 2017 monthly report:¹²

“On May 2, a WMATA Track worker fell off the unit at Greenbelt while loading 390 foot stringer rails onto the rail train in Greenbelt yard. The employee was using a lining bar as a guide in order to prevent binding while loading the rail. It was later determined that the Car Track Equipment Maintenance (CTEM) group supported by Engineering installed a new joystick on the unit prior to the crew performing the task on May 2. The new joystick had no intermittent operation once engaged which would not allow the actual function to be stopped immediately. Once the joystick was engaged the rail swung out hitting the employee instantly knocking him off of the rail flat car onto the rail laying on the ground.

“The employee, who sustained injuries to his elbows, right ankle, and also suffered a bruised hip, was transported to Doctor’s Community Hospital in PG County. The employee returned to full duty the following day. No time was lost from work. The employee went to his personal doctor for his ankle.

“Immediate Mitigation: The employee was transported to Doctor’s Community Hospital in PG County. The remaining crew members stopped

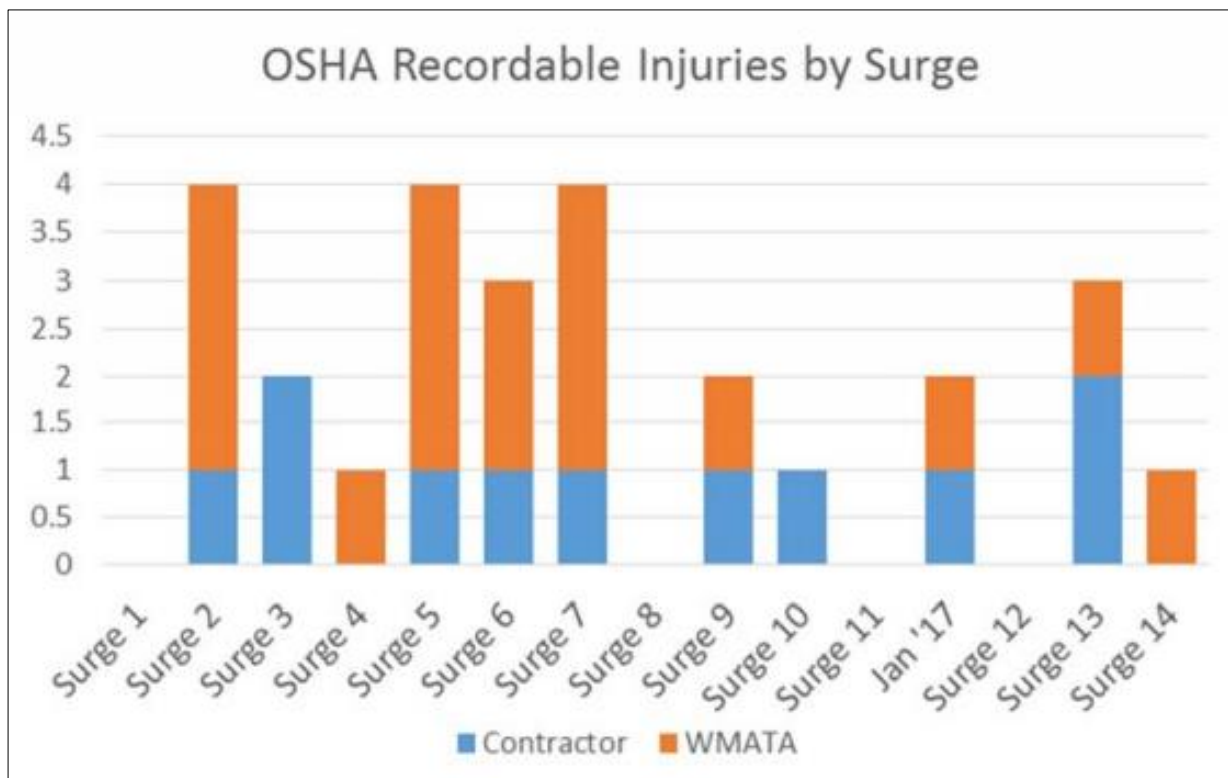
¹² SafeTrack May 2017 report, pages 1 and 2.

loading stringer rails. CTEM was given notification of the incident. CTEM immediately removed the new joystick and re-installed the old joystick.

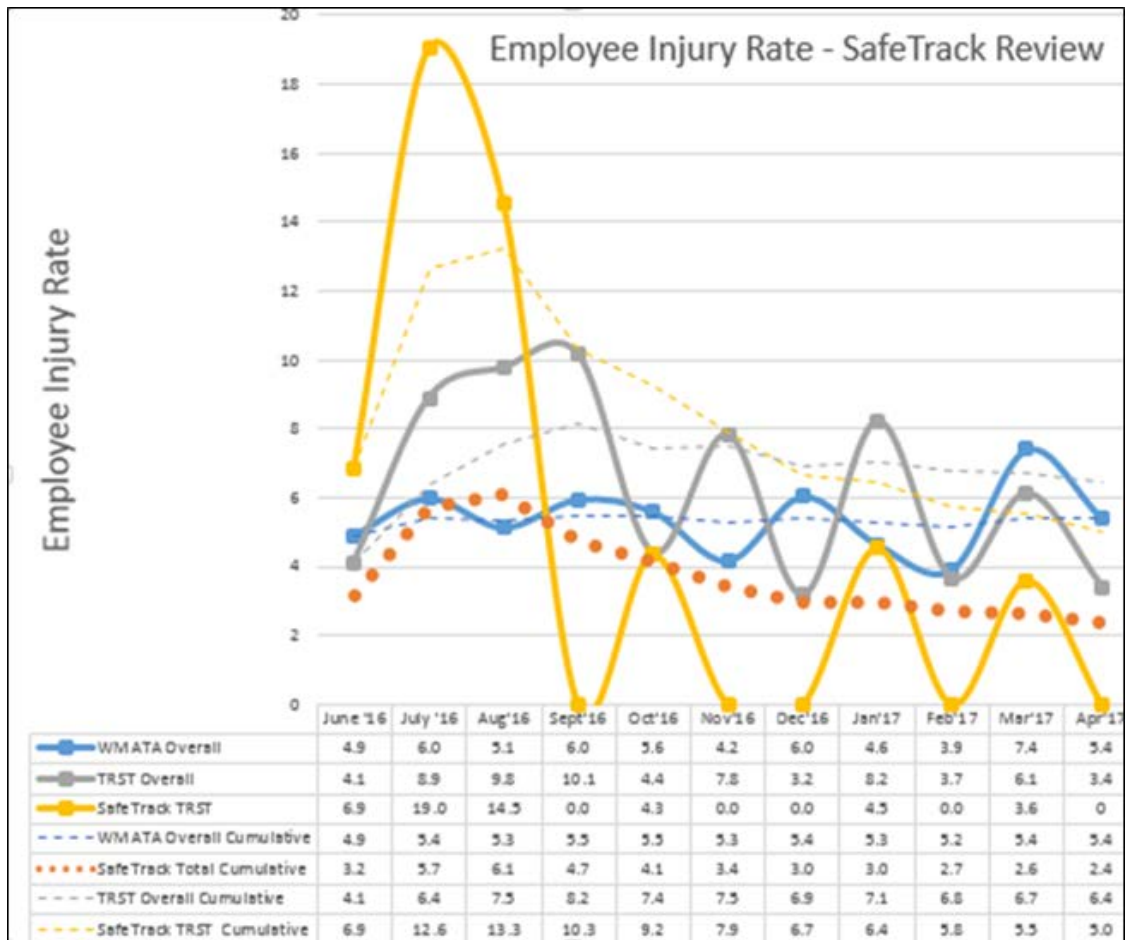
“Root Cause: Equipment complications, technical design needs improvement and inadequate safe guards.

“Corrective Actions: Recommendations of extensive testing of all new safety critical components that are installed onto WMATA equipment.

SafeTrack’s history of OSHA recordable injuries is depicted in the chart below. The chart shows that there were no recordable injuries during Surges 1, 8, 11, and 12.



- Employee Injury Rate – The next *chart*, provided by WMATA, compares various employee injury rates¹³ through April 2017 (*latest data available*).



The PMOC averaged the Employee Injury Rates (EIRs) for each of the following for the June 16 – April 17, 2017 time period:

- Average EIR for WMATA Overall = 5.01
- Average EIR for TRST Overall = 6.34
- Average EIR for SafeTrack TRST = 4.78

These averages show that the TRST crews working on SafeTrack had a much lower injury rate than all TRST crews working throughout the WMATA system, which includes the Safe Track crews. Equally significant, TRST crews on SafeTrack had a lower EIR than all WMATA employees combined. Thus, it can be concluded that the SafeTrack Program is doing a good job of promoting job safety.

¹³ Employee injury rate = (N x 200,000) / total employee hours worked, where N = the number of injuries requiring immediate transportation from the scene to a medical facility for the reporting period.

8. Contract Administration

- Administration of third-party contracts related to SafeTrack is the responsibility of WMATA's maintenance departments. This responsibility is explained in Section 7 of the PMP.
- Disadvantaged Business Enterprise (DBE) Participation – SafeTrack provided a summary of the DBE goals and attainment of those goals through *May 2017*.

DBE Goals and Accomplishments through *May 2017*

Contract Number	Name of Prime Contractor	DBE Participation Goal	Goal Attainment as of 5/31/17
FQ13027A	Lewis Bolt	5.0%	100%
FQ13027C	Pandrol USA,LP	8.0%	100%
FQ14103	G.W. Peoples Contracting Co., Inc.	DBE Prime	95%
FQ15083	Unitrac Railroad Materials	5.0%	100%
FQ16128	Stella -Jones Corporation	5.0%	84%
FQ17011	G.W. Peoples Contracting Co., Inc.	DBE Prime	6%
FQ16119	Progress Rail Services	2.0%	100%
FQ12201	Davis Freight	5.5%	100%
FQ13027C	Langley Traffic Services	5.0%	100%
FQ15083	Curdco, LLC	5.0%	100%

9. Program Risk

- The SafeTrack management team published a two-page risk register in Revision 1 to its draft PMP, which has been updated in Revision 6 of the PMP. The SafeTrack risk register includes a mitigation/response plan for each risk identified. This risk register was reviewed by the PMOC as a part of the review of the PMP. The PMOC had no comments on the risk register.

10. Action Items

- Action Items are shown in Appendix H of this report.

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APPENDIX I – SUMMARY SAFETRACK SCHEDULE	36

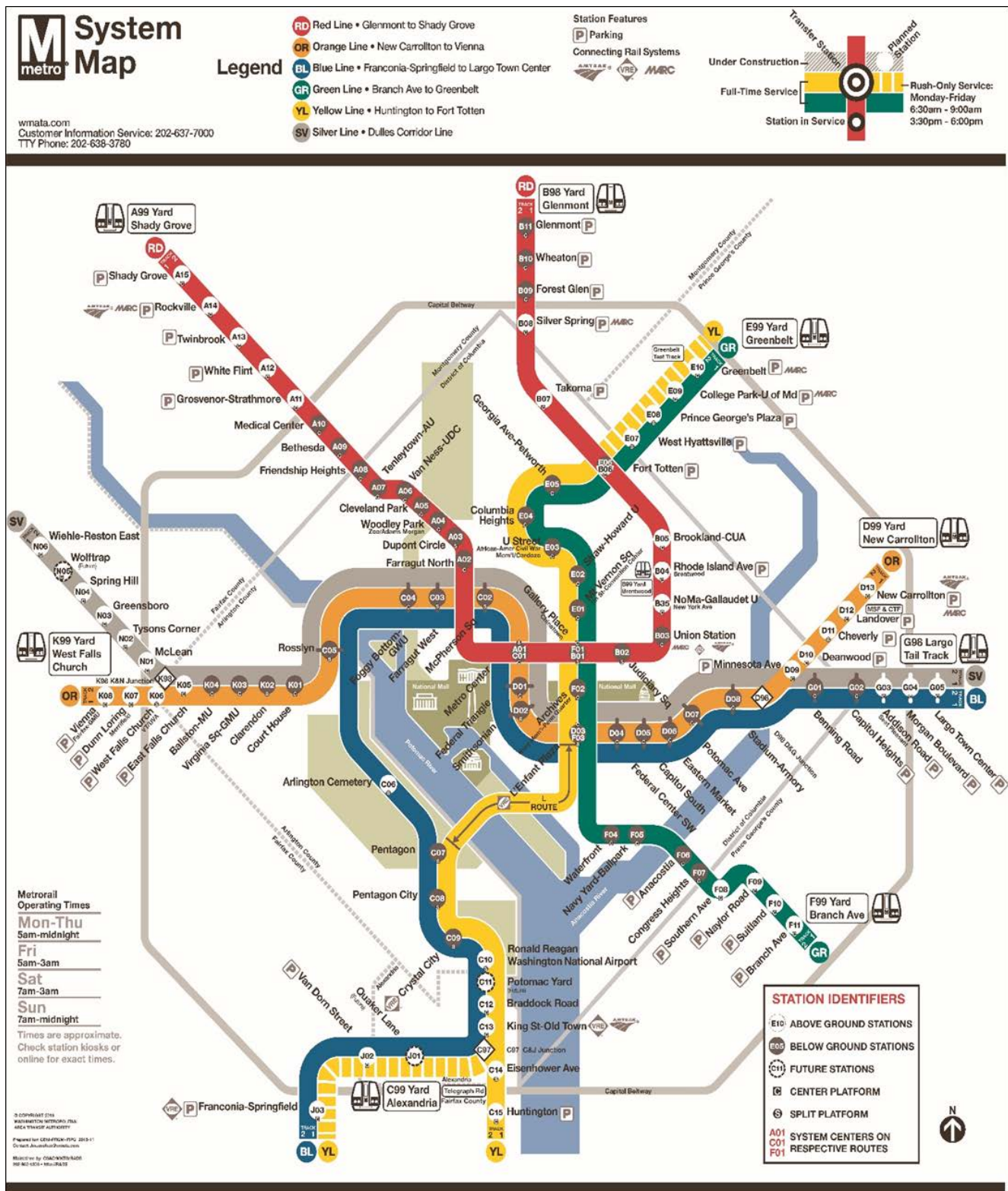
APPENDIX A – ACRONYMS AND ABBREVIATIONS

ACC	Air Conditioner Condenser (a rooftop or a ground-mounted unit)
ADA	Americans with Disabilities Act
AGT	Aboveground Storage Tank
AHU	Air Handling Unit
APM	Assistant Project Manager
ARF	Authority Representative's Facility
ARRA	American Recovery and Reinvestment Act
AST	Aboveground Storage Tank
ATC	Automatic Train Control
ATO	Automatic Train Operation
BAFO	Best and Final Offer
BFMP	Bus Fleet Management Plan
BMNT	Office of Bus Maintenance
BMP	Best Management Practice for storm water (by Maryland Dept. of Environment)
BOM	Bill of Materials
BOMF	Bus Operations and Maintenance Facility
C-35A	WMATA Form for Work Authorization
CA	Conditional Acceptance
CCB	Car Control Building at New Carrollton Rail yard
CCTV	Closed Circuit Television
CENI	Chief Engineer Infrastructure
CIP	Capital Improvement Program
CMF	Car Maintenance Facility (a building in a rail yard)
CMB	Car Maintenance Building
CNG	Compressed Natural Gas
COUN	WMATA's Office of General Counsel
CPM	Critical Path Method (Schedule)
CPDO	Capital Project Delivery Office (office responsible for the SIRP)
CPMO	Capital Project Management Office
CPN	Contractor Proposal Number
CSP	Construction Safety Program
CSX	The name of a Class 1 Freight Railroad
<i>CTEM</i>	<i>Car Track Equipment Maintenance Group</i>
CWP	Coordinated Work Plan
D-B	Design-Builder
DAS	Distributed Antenna System
DBE	Disadvantaged Business Enterprise
DDOE	District of Columbia Department of the Environment
DEF	Diesel Exhaust Fluid
ENSS	WMATA Engineering Support Services
<i>EIR</i>	<i>Employee Injury Rate</i>
ETS	Emergency Trip Station
FA	Force Account

FACP	Force Account Capital Projects
FTA	Federal Transit Administration
FWSO	FTA's WMATA Safety Oversight Office
FY	Fiscal Year
GOTRS	General Orders/Track Rights System
HAZMAT	Hazardous Materials
HVAC	Heating, Ventilating, and Air Conditioning
IDW	Intrusion Detection Warning
ICE	Independent Cost Estimate
IEEE	Institute of Electrical and Electronic Engineers
IFC	Issued for Construction
IRPG	Infrastructure Rehabilitation Program
JOC	Job Order Contract
LEED	Leadership in Energy and Environmental Design
MAXIMO	WMATA's Enterprise Maintenance Management System
MCAP	Major Capital Project (as defined by WMATA)
MCX	Medical Center Crossover
MOW	Maintenance of Way, a personnel qualification by CSX
MWOE	Maintenance of Way Engineering
NCN	Non-conformance Notice
NTP	Notice to Proceed
OSHA	Occupational Safety and Health Administration
OMBS	WMATA's Office of Management and Budget Services
O&M	Operation and Maintenance
OFS	Order for Services
NOV	Notice of Violation
O/B 1	Orange/Blue Lines 1 Contract
PA	Public Address
PCCI	Potomac Construction Company, Inc.
PCN	Proposed Change Notice (from the contractor)
PCO	Pending Change Order
Pepco	Potomac Electric Power Company
PG	Prince George's (County)
PLNT	Office of Plant Maintenance
PM	Project Manager
PMOC	Project Management Oversight Consultant
PMP	Project Management Plan
PPE	Personal Protective Equipment
PPLE	Program, Planning and Energy
PRMT	WMATA's Office of Procurement
QA	Quality Assurance
QAP	Quality Assurance Plan
QICO	WMATA's Department of Quality and Internal Compliance Operations
QPRM	Quarterly Progress Review Meeting
RAMP	Real Estate Acquisition Management Plan

RF	Radio Frequency
RFMP	Rail Fleet Management Plan
RFP	Request for Proposal
RFQ	Request for Qualifications
RMM	Railway Maintenance Machine
RSA	Rail Service Adjustment
RTU	Remote Terminal Unit
SAFE	WMATA's Department of Safety and Environmental Management
SCADA	Supervisory Control and Data Acquisition
S&I	Service and Inspection
SCI	Substantial Completion Inspection
SCWG	Safety Certification Working Group
SOW	Scope of Work
SHPO	State Historical Preservation Office
SIRP	Systemwide Infrastructure Rehabilitation Program
S/O	Switch Order (needed for removal of AC power)
SOA	State Oversight Agency (for Safety and Security) [formerly SSOA]
SPM	Senior Program Manager (Most senior WMATA manager on a project)
SSCP	Safety and Security Certification Plan
SSCMP	Safety and Security Certification Management Plan
SSMP	Safety and Security Management Plan
SSP	System Security Plan
SSPP	System Safety Program Plan
SSPS	System Safety Program Standards
SSWP	Site Specific Work Plan
T&E	Trainman and Engineman, a personnel qualification by CSX
TAES	Track Allocation & Escort Support Office at WMATA
TAMS	Transit Asset Management System
TASS	Track Access Support Services
TBS	Tiebreaker Station
TCR	Train Control Room
TPSS	Traction Power Substation
TRST	WMATA's Department of Track and Structures
TSSM	Track and Structures – System Maintenance
TTCF	Test Track and Commissioning Facility
TUN	Temporary Use Notice
TVA	Threat Vulnerability Analysis
UPS	Uninterrupted Power Supply
UST	Underground Storage Tank
VEF	Ventilation & Exhaust Fans
WMATA	Washington Metropolitan Area Transit Authority
WSSC	Washington Suburban Sanitary Commission
YOB	Yard Operations Building

APPENDIX B – MAP OF WMATA's RAIL TRANSIT SYSTEM



APPENDIX C – SAFETRACK WORK COMPLETED TO DATE

As of May 31, 2017

Surge No.	Miles in Length ¹	Crosstie Renewal (each)	Insulator Renewal (each)	Fasteners Replaced (each)	Stringer Rail Renewal (feet)	Joints Welded (each)	Grout Pad Renewal (feet)	Tunnel Light Repair (each)	Power Cables (each)	Third Rail Cover Board (feet)	IDW Boxes (each)	Signal Conversion to LED (each)	Track Bed Cleaning (feet)	Emergency Trip Station Repair (each)
1	2.4	1,856	541	2,214	3,184	16		17	54	410	208	0	3,150	0
2	4.0	533	235	2,116	1,745	22	2,005	140	183	642	0	12	3,160	13
3	1.4	1,327	233	1,062	78	6	800	355	20	170	0	0	0	19
4	2.6	81	31	2,463	2,730	26	959	178	54	310	0	0	3,200	0
5	2.4	1,405	121	2,369	4,680	24	0	242	79	820	0	0	5,110	0
6	1.1	1,311	496	0	312	14	0	0	20	1,280	0	0	8,129	0
7	4.4	3,572	1,120	0	0	6	0	0	72	2,000	62	12	1,692	0
8	7.4	7,102	353	0	0	27	0	0	52	230	500	16	16,180	0
9	10.4	7,159	402	0	4,758	97	0	0	225	8,490	1,090	16	30,021	0
10	2.6	2,028	795	1,245	1,738	105	5,737	0	38	4,910	405	15	38,354	0
11	3.0	1,937	213	0	15,795	50	0	0	106	3,450	366	0	0	0
Note 2	4.2	0	0	3,261	12,129	42	0	212	0	0	0	0	0	0
Note 3	1.8	0	49	4,954	1,560	47	3,113	218	Note 4	32	0	5	0	12
12	4.8	695	900	5,631	5,265	51	7,877	436	35	0	0	4	0	29
13	10.5	5,646	1,799	4,619	1,393	0	12,800	30	67	5,090	12	26	0	24
14	8.8	9,569	2,864	5,704	3,078	221	0	0	160	6,440	0	8	0	0
15	12.0													
16	4.4													
Totals	88.2	44,221	10,152	35,638	58,445	754	33,291	1,828	1,165	34,274	2,643	114	108,996	97

Note 1: Miles are computed by adding length of track 1 and track 2 rehabilitated during the surge. See other table for breakdown of each surge.

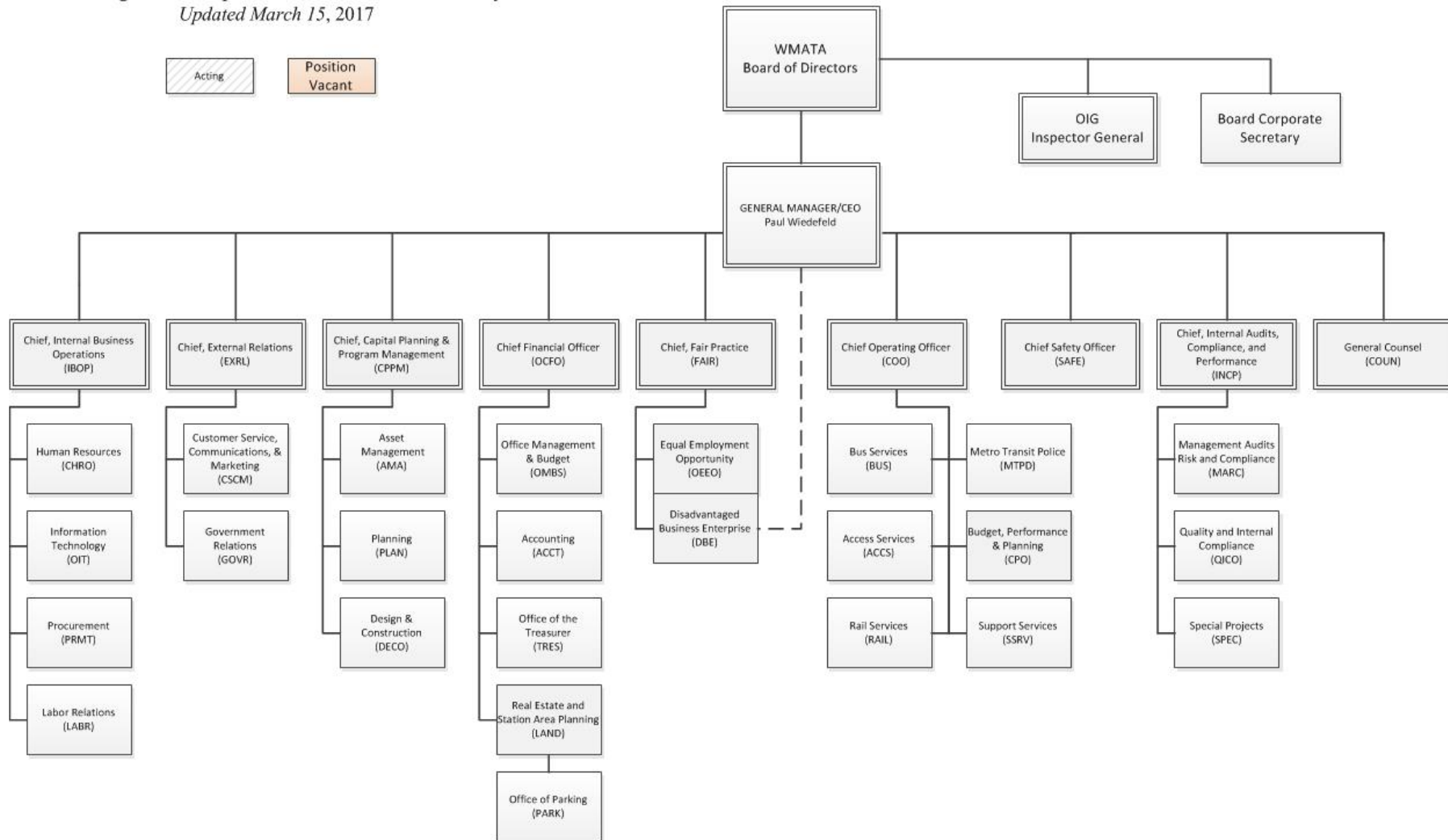
Note 2: Non-surge work on the A Line reported in WMATA's January SafeTrack report, page 9.

Note 3: Non-surge work on the C & D Lines reported in WMATA's January SafeTrack report, page 9.

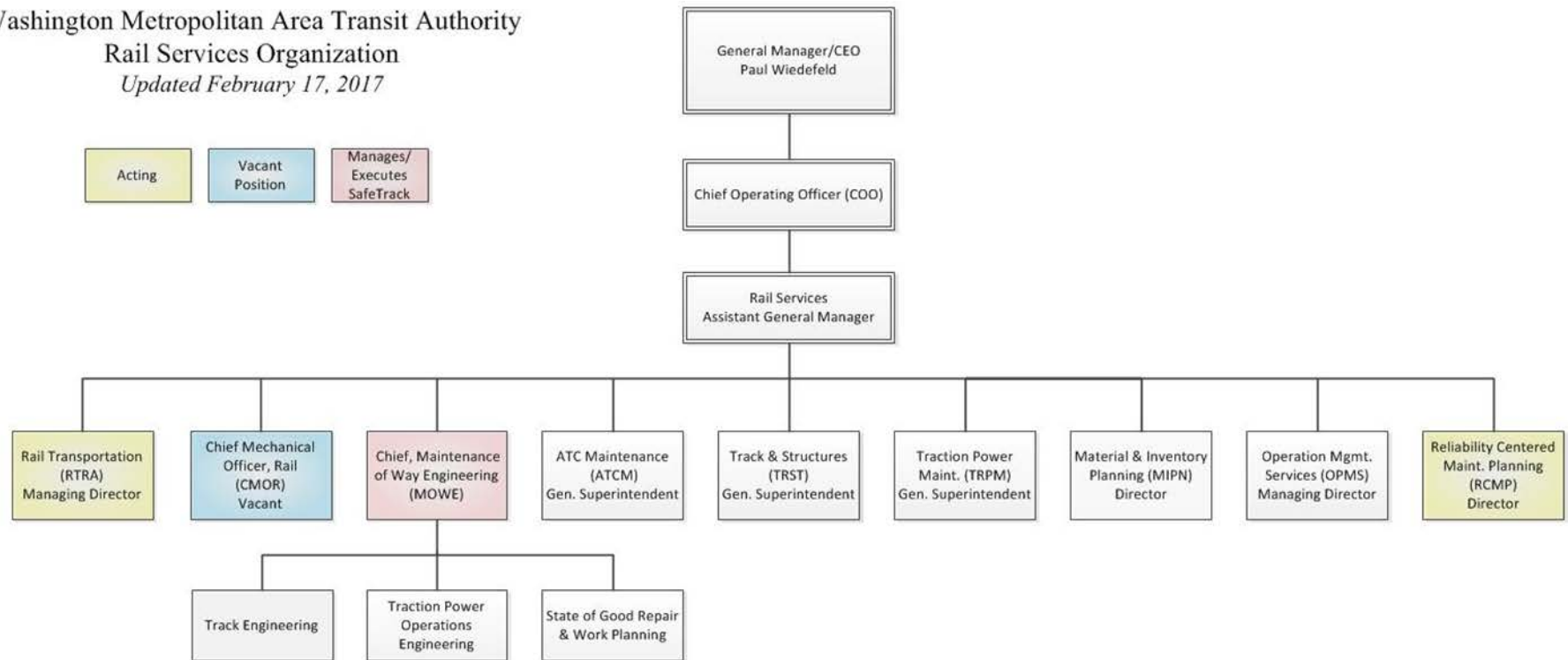
Note 4: WMATA reported 1,060 feet of cable replaced in lieu of report number of cables replaced as it had for the first 11 surges.

APPENDIX D – ORGANIZATION CHARTS & DESCRIPTION

Washington Metropolitan Area Transit Authority
Updated March 15, 2017



Washington Metropolitan Area Transit Authority
 Rail Services Organization
Updated February 17, 2017



APPENDIX E – QICO’s CLOSEOUT REPORT – SURGE 14 (Summary)

Interval	Saturday, April 15 – Sunday, May 14, 2017 (30 days).
Location	E-Line (Green Line). Prince George’s Plaza (E08) – Greenbelt (E10) .
Service Impact	Shutdown of both tracks with phased return to service; PG Plaza (E08) – College Park Station (E09) returned to service April 30 th (two weeks). Greenbelt returned to service May 15 th .
Track Type	Three route-miles of ballasted track, interspersed with aerial structures. One route-mile of tunneled track.
Work Summary	Track: Timber Tie Replacement (13352533), Fasteners and Anchorage (13452075) Structures: Fencing, Leaks, Graphics, Grout Pads, Wall Panels (13413780, 13413789) Power: Expansion Cables, Transition Cables, Pigtail Connections (3412429) ATC: Signal LED Upgrade (13330800, 13330605), General Procedures (13441567) IT: Emergency Trip Station Keypads, Dial Tones (13533149)
Personnel	Track and Structures (TRST), GW Peoples (Contractor)
Surge 14 Map	





QICO FINAL TRACK WALKTHROUGH

Description

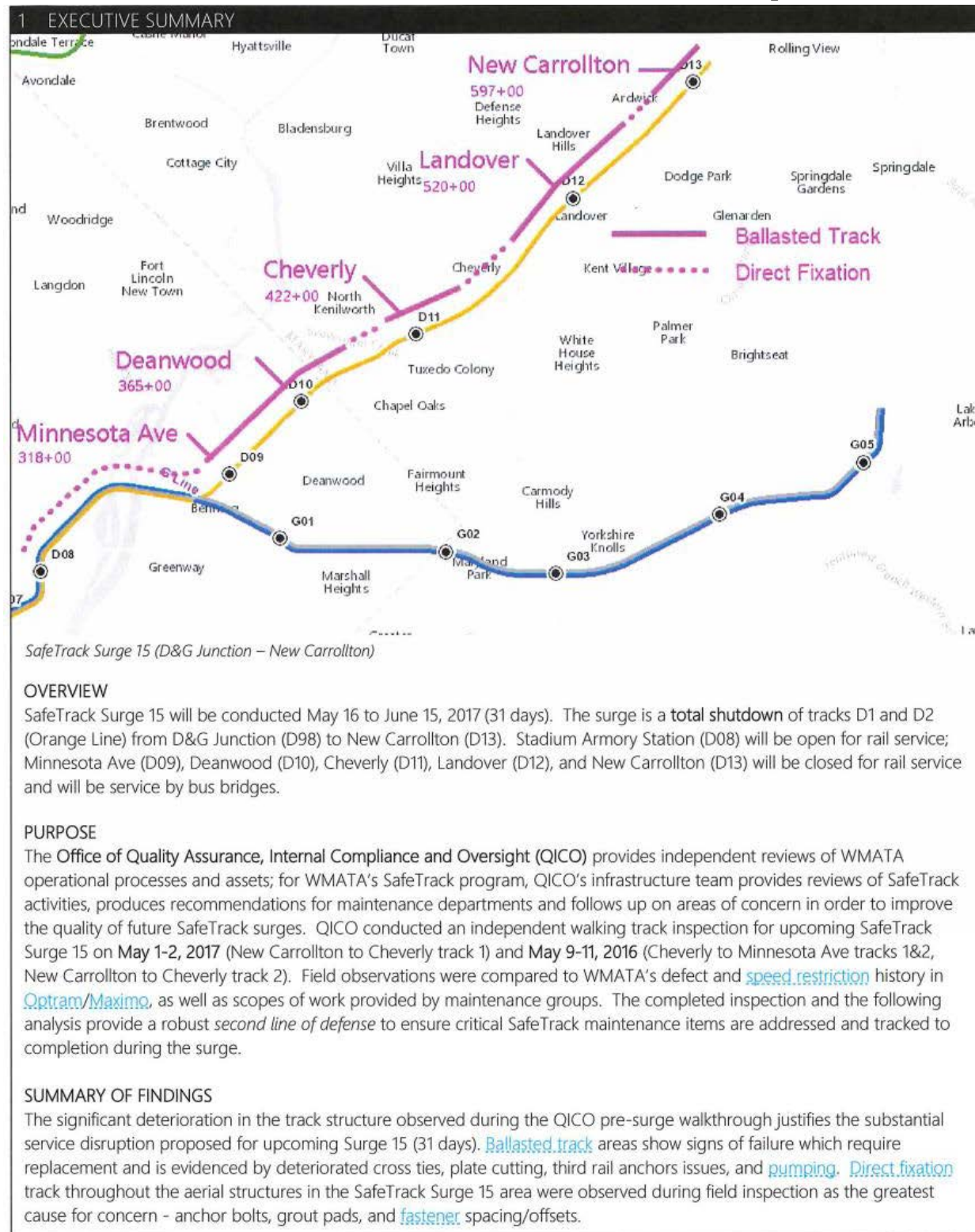
QICO’s Field Team performed the Surge 14 closeout walkthroughs on 4/27/2017 and 5/10/2017. Throughout the surge, each discrepancy found by QICO officers relating to quality of work or safety was assigned a priority (low, medium, high) and tracked in the QICO Surge Asset Tracking Log. The closeout walkthroughs were conducted to verify the status of these items (open or closed).

Priority	Total Observations	Open	Closed	% Closed
Low	20	12	8	40%
Medium	12	4	8	67%
High	4	0	4	100%
Total	36	16	20	56%

See [7.3 Tracking Log](#) for a list of these items, with before and after photo evidence.

WHAT WORKED WELL?		
Category	Description	Photo
Performance of Work	<p>All fasteners on the aerial structure inbound of College Park Station (E1/E2 512+00) have been replaced. This satisfies a major area of concern (consecutive defective fasteners, a speed-restrictable condition) QICO identified on the Surge 14 Pre-Surge Report. In addition, broken grout pads were replaced in the vicinity on both tracks, with the work accurately tracked in Maximo (13413780, 13413789). (Photo: New fasteners with female threaded inserts system)</p>	
Performance of Work	<p>Ballasted track has been renewed on both tracks E1 and E2, affecting over five miles of track in total. This includes timber tie replacement/remediation, ballast placement and track tamping. QICO's pre-surge report for Surge 14 found over 12 speed restrictions were implemented over the past year for timber tie related defects; as of 6/23/2017, no speed restrictions have been implemented since closeout, with the exception of a temporary speed restriction for ballast settlement (8226127). As observed in the final assessment, the timber ties (both new and remediated) are largely in good condition. A number of pre-existing remediated ties have undesirable features (long checks or end-splitting), but were not structurally defective. (Photo: Finished track around E2 585+00 (May 10, 2017))</p>	
Quality Control	<p>QICO shadowed the Track and Structures (TRST) Quality Control group during one of the SafeTrack closeout inspections. Three QC inspectors (one WMATA, two contractors) were observed closing previously noted defects and adding final observations to QC reports while inspecting the entire SafeTrack Surge area. Defects noted in reports were added to a system-wide non-compliance spreadsheet. Inspectors were detail-oriented and comprehensive during their inspections. (Photo: QC Inspectors E1 636+00, (May 10, 2017))</p>	
Performance of Work	<p>Rail defects were removed and replaced with new rail, with a focus on three aerial structures (E1/E2 538+00 through 560+00) and the curve inbound of Greenbelt Station (627+75 through 640+25). Both of these areas have historically been affected by rail integrity issues (rail pull-aparts) and had a large number of pre-existing open joints (100+ listed in optram). Removal of the vast majority of these joints will improve ride quality for passengers, and rail replacement will potentially alleviate rail integrity issues. (Photo: a rail fracture in the Surge 14 area, 2015, E2 628+00)</p>	
<div> <div>3 of 56</div> <div> Quality Assurance, Internal Compliance & Oversight "Quality Trumps Quantity" </div> </div>		

APPENDIX F – QICO’s QUALITY PRE-SURGE 15 REPORT (Excerpt)



APPENDIX G – SAFETY AND SECURITY CHECKLIST

(Updated 5/31/17)

Project Overview	SafeTrack Program		
Project Mode	Rail		
Project Phase	Construction		
Project Delivery Method	Force Account & Third Party Contractor		
Project Plans	Version	Review By FTA	Status
Safety and Security Management Plan (SSMP)		N/A	SSMP not required for SafeTrack, FTA C 5800.1 4. Applicability.
Safety and Security Certification Plan (SSCP)	March 2015 Rev. 3	N/A	<i>TOC does not approve or accept this plan.</i>
System Safety Program Plan (SSPP)	January 2017	Yes FWSO	Draft SSPP submitted to FWSO and currently under review.
Security and Emergency Preparedness Plan (SEPP)	2016	N/A	This is a Security Sensitive Information (SSI) document.
Construction Safety and Security Plan (CSSP)	March 15, 2013	N/A	WMATA’s “Construction Safety and Environmental Manual” provides guidelines for WMATA construction, maintenance, and rehabilitation projects. Contractors are required to submit individual plans. WMATA employees follow safety rules outlined in their MSRPH.

AREA OF FOCUS	Y/N	NOTES/STATUS
Safety and Security Authority		
Is the Project Sponsor subject to 49 CFR Part 659 State Safety Oversight Requirements?	Y	FTA WMATA Safety Oversight (FWSO) has temporary direct responsibility and oversees any TOC activities. FTA "Oversight and Surveillance Plan" Version 1.7, September 2, 2016, defines responsibilities, requirements, processes, and activities to implement FTA's direct safety oversight of the WMATA Metrorail system and to ensure that these goals are achieved.
Has the State designated an oversight agency as per Part 659.9?	Y	TOC was designated per 659.9, and performs oversight responsibilities as directed by FWSO. See notes/status above.

Has the oversight agency reviewed and approved the Project Sponsor's Security Plan or SSPP as per 49 CFR Part 659.17?	Y	WMATA SSPP January 2015 was reviewed and approved by TOC. WMATA SSPP DRAFT 2017 has been received by FWSO and is currently under review.
Did the oversight agency participate in the last Quarterly Program Review Meeting?	Y	The FWSO did attend the QPRM held on November 14, 2016.
Has the Project Sponsor submitted its safety certification plan to the oversight agency?	No	The SSCP of March 20, 2012, was accepted by TOC on April 2012, however a March 2015 version is noted in the DRAFT 2017 SSPP that has not been provided to FTA.
Has the Project Sponsor implemented security directives issued by the Department Homeland Security, Transportation Security Administration?	N/A	DHS Coordination is to be addressed in Section 11 of the SSMP. A SSMP is not required for SafeTrack, FTA C 5800.1 4. Applicability.
SSMP Monitoring		
Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project?	N/A	WMATA's SSPP applies to this work instead of a separate SSMP.
Does the Project Sponsor review the SSMP and related project plans to determine if updates are necessary?	Open	PMOC coordination with and input from FWSO will determine this.
Does the Project Sponsor implement a process through which the Designated Function (DF) for Safety and DF for Security are integrated into the overall project management team? Please specify.	Open	PMOC working with FWSO is reviewing this.
Does the Project Sponsor maintain a regularly scheduled report on the status of safety and security activities?	Y	SafeTrack Monthly Reports issued to FWSO include a safety section with trends of increased RWP, personnel PPE compliance, OSHA recordable injuries by surge, etc.
Has the Project Sponsor established staffing requirements, procedures and authority for safety and security activities throughout all project phases?	Y	SSPP Section 3.0 and Appendix E.
Does the Project Sponsor update the safety and security responsibility matrix/organizational chart as necessary?	Y	SSPP is updated annually.
Has the Project Sponsor allocated sufficient resources to oversee or carry out safety and security activities?	Y	Two safety officers are assigned to construction safety by SAFE. The conduct field observations, inspections of work area, and compliance checks.

Has the Project Sponsor developed hazard and vulnerability analysis techniques, including specific types of analyses to be performed during different project phases?	Y	Section 6 of SSPP defines Hazard Management Program.
Does the Project Sponsor implement regularly scheduled meetings to track resolution of any identified hazards and/or vulnerabilities?	Y	FWSO holds weekly meetings with WMATA staff to address safety events, corrective action implementation, and other hazards.
Does the Project Sponsor monitor the progress of safety and security activities throughout all project phases? Please describe briefly.	Y	Two safety officers are assigned to construction safety by SAFE. The conduct field observations, inspections of work area, and compliance checks.
Does the Project Sponsor ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted.	N/A	SafeTrack is a maintenance activity with an existing system.
Has the Project Sponsor ensured the development of <u>safety design criteria</u> ?	Y	WMATA Manual of Design Criteria for Maintaining and Continued Operation of Facilities and Systems.
Has the Project Sponsor ensured the development of <u>security design criteria</u> ?	Y	Incorporated into WMATA Manual of Design Criteria for Maintaining and Continued Operation of Facilities and Systems.
Has the Project Sponsor ensured conformance with safety and security requirements in design?	Y	Materials are physically received by each Department's Materials Controls Group. The Materials Controls Group, briefed by the COTR regarding contract requirements, performs a physical inspection for accuracy and quality of the delivered order.
Has the Project Sponsor verified conformance with safety and security requirements in equipment and materials procurement?	Y	QICO performs quality inspections.
Has the Project Sponsor verified construction specification conformance?	Y	QICO tracks and reports on the results of maintenance and repair activities by the SafeTrack crews.
Has the Project Sponsor identified safety and security critical tests to be performed prior to passenger operations?	Y	WMATA runs a test train through the area. ATC uses ATC 1000, Track and Structures uses WMATA 1000 and WMATA 2000, and POWR uses SMNT POWR.
Has the Project Sponsor verified conformance with safety and security requirements during testing, inspection and start-up phases?	Y	The various departments working on SafeTrack under the Rail Services Group are responsible for verification. QICO verifies this.

Has the Project Sponsor evaluated change orders, design waivers, or test variances for potential hazards and /or vulnerabilities?	N/A	Work is being conducted by WMATA or under direct WMATA supervision. There are no change orders or waivers.		
Has the Project Sponsor ensured the performance of safety and security analyses for proposed work-arounds?	Y	SAFE has the responsibility for hazard mitigation with SafeTrack work and ensures mitigation with WMATA’s MSRPH and RWPM.		
Has the Project Sponsor demonstrated through meetings or other methods, the integration of safety and security in the following: <ul style="list-style-type: none">• Activation Plan and Procedures• Integrated Test Plan and Procedures• Operations and Maintenance Plan• Emergency Operations Plan?	N/A	SafeTrack is a maintenance activity. All work is being conducted with existing standards/procedures. Plans listed with this element are associated with new starts and system extensions.		
Has the Project Sponsor issued final safety and security certification?	N/A	Safety and Security Certification is not done with this work. SafeTrack is a maintenance activity. All work is being conducted with existing standards/ procedures. No new designs have been introduced and there are no system modifications.		
Has the Project Sponsor issued the final safety and security verification report?	N/A	Safety and Security Certification is not done with this work. SafeTrack is a maintenance activity. All work is being conducted with existing standards/procedures. No new designs have been introduced and there are no system modifications.		
Construction Safety				
Does the Project Sponsor have a documented/implemented Contractor Safety Program with which it expects contractors to comply?	Y	WMATA “Construction Safety and Environmental Manual” provides guidelines for WMATA construction, maintenance, and rehabilitation projects. Contractors are required to submit individual plans.		
Do the Project Sponsor’s contractor(s) have a documented company-wide safety and security program plan?	Open	Check G.W. Peoples, Crane Masters, and Crane Services Company, Inc. The PMOC is in the process of evaluating this.		
Do the Project Sponsor’s contractor(s) have a site-specific safety and security program plan?	Open	PMOC in coordination with and input from FWSO will determine this.		
Provide the Project Sponsor’s OSHA statistics compared to the national average for the same type of work.	Open	All SafeTrack Contracts	WMATA Recordable Rate	National Average
		WMATA	PMOC Verifying	PMOC Verifying
If the comparison is not favorable, what actions are being taken by the Project Sponsor to improve its safety record?	Open	PMOC coordination with and input from FWSO will determine this.		

Does the Project Sponsor conduct site audits of the contractor's performance versus required safety/security procedures?	Y	WMATA's QICO group monitors work quality and site safety and performs QC inspection consistent with Section 9 of the SafeTrack PMP.
Federal Railroad Administration		
If shared track: has Project Sponsor submitted its waiver request application to FRA? (Please identify specific regulations for which waivers are being requested)	N/A	No shared track. This is a heavy rail transit project. There is no FRA involvement.
If shared corridor: has Project Sponsor specified specific measures to address shared corridor safety concerns?		
Is the Collision Hazard Analysis underway?		
Other FRA required Hazard Analysis – Fencing, etc.?		
Does the project have Quiet Zones?		
Does FRA attend the Quarterly Review Meetings?		

APPENDIX H – ACTION ITEMS – SAFETRACK PROGRAM

PR	ITEM	IDENTIFICATION	NATURE OF PROBLEM	D	A	I	COMMENTS	PMOC STATUS
2	2A	Incorporate PMOC comments on PMP Rev 0 and issue Revision 1.	No plan was developed before this program began.	Y	N	N	The SafeTrack Team submitted PMP Revision 6 to FTA and the PMOC on April 21, 2017. FTA approved Revision 6 by letter dated April 24, 2017.	C

ITEM KEY

Subtask 2A CLIN 0002A – PMP Review Subtask 2B CLIN 0002B – On-Site Monitoring

LEGEND

PRIORITY (PR)

- 1- Most Critical
- 2- Critical
- 3- Least Critical

PROJECT SPONSOR ACTION

- D – Remedial Action Developed
- A – Remedial Action Approved
- I – Action Implemented

PMO CONTRACTOR STATUS

- R – Review On-going
- C – Completed – No further review required

Note – Items marked with a ‘C’ in the ‘PMO Contractor Status’ column will be dropped from future reports.

APPENDIX I – SUMMARY SAFETRACK SCHEDULE

Surge	Start	Finish	2016										2017					
			Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun			
Surge 1 — Ballston - East Falls Church	4-Jun-16	16-Jun-16																
Surge 2 — Eastern Market - Benning Rd & Minn. Ave	18-Jun-16	3-Jul-16																
Surge 3 — Natl. Airport - Braddock Rd	5-Jul-16	11-Jul-16																
Surge 4 — Natl. Airport-Crystal City-Pentagon City	12-Jul-16	18-Jul-16																
Surge 5 — Ballston - East Falls Church	20-Jul-16	31-Jul-16																
Surge 6 — Takoma - Silver Spring	1-Aug-16	7-Aug-16																
Surge 7 — Shady Grove - Twinbrook	9-Aug-16	21-Aug-16																
Surge 8 — Franconia-Springfield - Van Dorn St	27-Aug-16	11-Sep-16																
Surge 9 — Vienna - West Falls Church	15-Sep-16	26-Oct-16																
Surge 10 — NoMa - Fort Totten	29-Oct-16	22-Nov-16																
Surge 11 — East Falls Church - Vienna	28-Nov-16	20-Dec-16																
Surge 12 — Rosslyn - Pentagon	11-Feb-17	28-Feb-17																
Surge 13 — Braddock Rd - Huntington/Van Dorn St	4-Mar-17	12-Apr-17																
Surge 14 — Greenbelt - College Park	15-Apr-17	14-May-17																
Surge 15 — Minnesota Avenue - New Carrollton	17-May-17	15-Jun-17																
Surge 16 — Shady Grove - Twinbrook	17-Jun-17	25-Jun-17																
Cherry Blossom Festival	Mar-17	16-Apr-17																

Inauguration Week