



SafeTrack: Surge 7

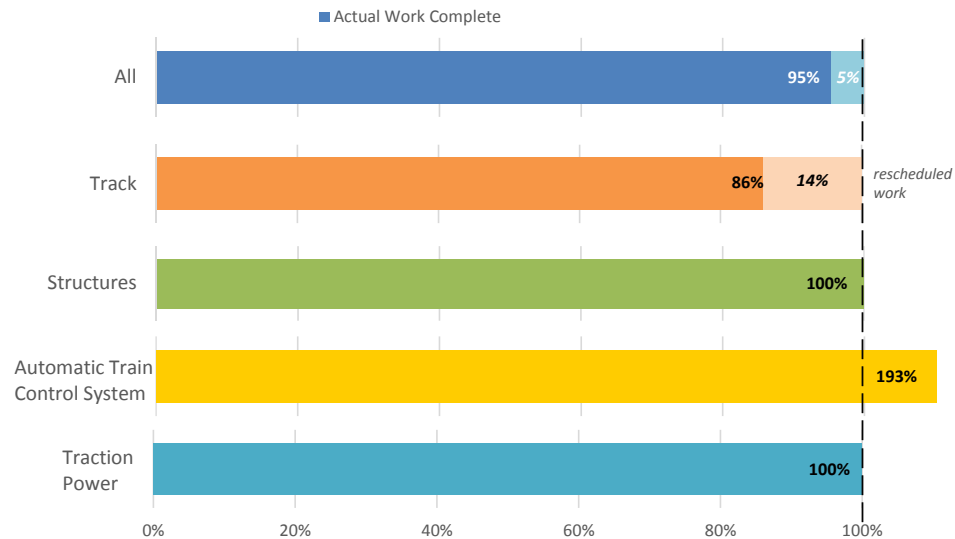
DATES:
August 9-21

WORK ZONE:
Shady Grove to Twinbrook, Continuous Single Tracking (with Full Shutdown August 13-14, August 20-21)

Final Report
Data as of 08/30/16

SCOPE OF WORK: Renewal of rail and power infrastructure on this portion of the Red line, including crossties, track circuit equipment, and power cables.

Overall Progress (% Planned Work Complete)



Notes:

*Surge #7 results are preliminary and subject to quality control processes which will remain continuous throughout the duration of SafeTrack. Any remediation work that is identified will be accomplished during normal maintenance times.

Actual work complete represents the % complete across all tasks.



Surge 7 concluded on August 21, 2016 with most planned tasks complete. During the surge, priority was given to addressing potential defects and repairing or replacing critical rail infrastructure that affects train speeds and ride quality. Additional regular and preventive maintenance activities were fit in as time permitted. These maintenance activities are and will continue to be conducted on a regular basis to keep the infrastructure in a state of good repair.

The main focus of the work was to replace deteriorating crossties in this area. The surge was originally scheduled to end August 18th, but was extended through the 21st to allow for additional work on two key crossover tracks, address new safety recommendations and account for the impact of extreme heat, humidity and electrical storms which slowed productivity. Due to these factors, track crews were unable to complete all tasks in the expanded scope and will return to the area to finish maintenance, including crossties, rail renewal and welding.

The surge included two weekend shutdowns, which allowed crews to make repairs on both sets of tracks. These weekend shutdowns enabled crews working on Automatic Train Control systems to complete additional repairs, including refurbishing four times as many Track Junction boxes as originally planned and converting 12 signals to LED lights.

The critical tasks completed during the surge include:

- + Replaced over 3,500 crossties, about 35 percent of crossties in this area
- + Welded 6 joints
- + Replaced over 1,100 insulators
- + Repaired 72 power cables, 4 damaged orange boots and 36 pigtails
- + Repaired 19 track junction boxes and over 60 Intrusion Detection Warning System boxes, important safety features along fence lines
- + Removed vegetation and trash from over 1,600 feet of the track bed, improving drainage and eliminating fire hazards

Limiting service for 13 days on this segment of the Red line allowed the necessary repairs to be completed much more quickly than would otherwise be possible. Replacing over 3500 crossties would take over 2 years if performed only after the system closed.



SafeTrack: Surge 7 Detailed Report

Final Report: 8/30/2016

	Task	unit	Completed During Surge
Track	Crosstie renewal	# crossties	3,572
	Insulator replacement	# insulators	1,120
	Ballast renewal	# tons	140
	Tamping	# linear feet	25,300
	Third Rail maintenance	# linear feet cover board	2,000
	Joint elimination	# joints welded	6
Structures	Track Bed cleaning	# linear feet	1,692
Automatic Train Control System	Intrusion Detection Warning System (IDW) refurbishment and replacement	# boxes	62
	Track Junction Box refurbishment	# boxes	19
	Signal conversion to LED lighting	# signals	12
Traction Power System	Power Cable repair/replacement	# cables	72



SafeTrack: Surge 8

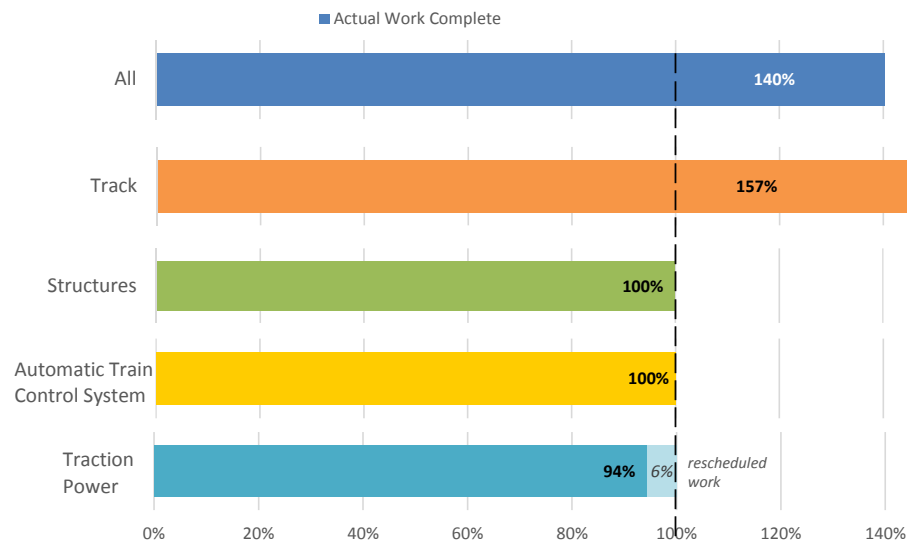
Final Report
Data as of 09/16/2016

DATES:
August 27 -
September 11

WORK ZONE:
Franconia-Springfield to Van Dorn St., Continuous Single Tracking
(with Full Shutdown August 27-28, September 3-5, 10-11)

SCOPE OF WORK: Renewal of rail and power infrastructure on this portion of the Blue and Yellow Rush+ lines, including crossties, track circuit equipment, and power cables.

Overall Progress (% Planned Work Complete)



Notes:

*Surge #8 results are preliminary and subject to quality control processes which will remain continuous throughout the duration of SafeTrack. Any remediation work that is identified will be accomplished during normal maintenance times.

Actual work complete represents the % complete across all tasks.



Surge 8 concluded on September 11, 2016 with most planned tasks completed. During the surge, priority was given to addressing potential defects and repairing or replacing critical rail infrastructure that affects train speeds and ride quality. Additional regular and preventive maintenance activities were fit in as time permitted. These maintenance activities are and will continue to be conducted on a regular basis to keep the infrastructure in a state of good repair.

The main focus of the work was to replace deteriorating crossties on both sets of tracks in this area, many of which were original to this part of the system. Approximately 4,000 crossties needed to be replaced to achieve a state of good repair. Due to better planning and milder weather, crews replaced over 7,000 crossties, the most of any surge to date, which allows WMATA to get ahead of the goal of eliminating crosstie backlog. With the increased track access provided by SafeTrack, WMATA was able to accomplish in 16 days about 70 percent of what it accomplished in all of 2015, when crews replaced a total of 10,000 crossties system-wide. Faster-moving crossties work also enabled crews to weld 27 open joints in this area, which were not part of the original scope.

The critical tasks completed during the surge include:

- + Replaced over 7,000 crossties
- + Welded 27 joints
- + Replaced over 350 insulators
- + Repaired over 50 power cables, over 190 damaged orange boots and over 25 pigtails
- + Repaired 66 track junction boxes and 500 Intrusion Detection Warning System boxes, important safety features along fence lines
- + Inspected and repaired power and IT connections to 70 emergency trip station boxes, ensuring that power can be quickly removed from the third rail in case of emergencies
- + Removed vegetation and trash from over 16,000 feet of the track bed, improving drainage and eliminating fire hazards, and replaced missing or damaged signs

Power crews also addressed recent FTA Safety Directive 16-4 by changing out bolts on expansion cables throughout the area. They will return to the area to complete work on several remaining power connection cables near Van Dorn Street station after the system closes. All other tasks were complete.



SafeTrack: Surge 8 Detailed Report

Final Report: 9/16/2016

	Task	unit	Completed During Surge
Track	Crosstie renewal	# crossties	7,102
	Insulator replacement	# insulators	353
	Ballast renewal	# tons	2,000
	Tamping	# linear feet	39,400
	Third Rail maintenance	# linear feet cover board	230
	Joint elimination	# joints welded	27
Structures	Track Bed cleaning	# linear feet	16,180
Automatic Train Control System	Intrusion Detection Warning System (IDW) refurbishment and replacement	# boxes	500
	Track Junction Box refurbishment	# boxes	66
	Signal conversion to LED lighting	# signals	16
Traction Power System	Power Cable repair/replacement	# cables	52