



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170301-WMATA-WP-1		
	2017	03	01				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	Maintenance
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	A-Line, track 1, between Bethesda Station and Grosvenor-Strathmore						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-INS				
Inspection Units	1	1				
Inspection Subunits	4	15				
Defects (Number)	0	15				
Recommended Finding	No	Yes				
Remedial Action Required ¹	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Roadway Worker Protection – Job Safety Briefing			Activity Code		TRK	RWP	OBS
Job Briefing Employee Name/Title	TRST Unit 6241, RWIC TRST Unit 6144, Inspector NHTB Contractor					Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1000 1430	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
	RWPM													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X							X	X	X				
Line(s)	A-Line	Track Number	1	Chain Marker and/or Station(s)			From		To					
							A-09 CM 395+00		A-11 CM 560+00					
Vehicles	Head Car Number		Number of Cars			Equipment	N/A							
	N/A		N/A											
Description	The job safety briefing was provided by TRST Unit 6241 at Bethesda Station. The briefing was complete and fully compliant with all WMATA requirements.							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2017.03.14 08:11:12 -0400</small>		Date
Inspector in Charge – Name Winslow Powell	Inspection Team Alexander Nepa	



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		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Track General Inspection				Activity Code	TRK	GEN	INS						
Job Briefing Employee Name/Title	TRST Unit 6241, RWIC TRST Unit 6285, Inspector HNTB Contractor			Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1000 1430	Outside Shift	No					
Related Reports	Related CAPS / Findings															
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference								
	TRST 1000	P.O. T-16-07														
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A					
	X							X	X	X						
Line(s)	A-Line	Track Number	1	Chain Marker and/or Station(s)	From			To								
					A-09 CM 395+00			A-11 CM 560+00								
Vehicles	Head Car Number		Number of Cars		Equipment	N/A										
	N/A		N/A													
Description	<p>An inspection of the A-Line, track 1, from Bethesda to Grosvenor-Strathmore was conducted. The FWSO inspector, WMATA personnel, and a contractor representative from NHTB were present for the inspection.</p> <p>During the inspection, the following three trains did not appear to slow to the required 10 MPH while passing the watchman and work group, as required by P.O. T-16-07:</p> <ul style="list-style-type: none"> At 1247 hours, lead car number 5186 At 1326 hours, lead car number 7018 At 1236 hours, lead car number 3031 <p>To determine the speed of the train, the FWSO inspector relied on a speed calculation formula that states the length of a 75-foot car traveling at 10MPH takes five seconds to pass a stationary object. Each incident was reported by the roadway worker in charge (RWIC) to the Rail Operations Control Center (ROCC).</p> <p>In addition, the following defects were identified:</p> <ul style="list-style-type: none"> Between CM 402+00 and CM 413+ 00, the relay rail between the field side of the track and the catwalk is potentially causing a trip and fall hazard. At CM 442+30, an arching insulator was detected. At CM 451+60, there is a broken pipe leaking water on the third rail side of the track bed. Between CM 451+00 and 453+00, a relay rail, mud, and debris are potentially causing a trip and fall hazard. Between CM 467+00 and 468+00, wires are obstructing eight inches of the cat walk, creating a trip and fall hazard to customers in the event of a train evacuation. At CM 482+00, a 110-volt electrical box is lying on the walkway, unsecured from the wall. Between CM 487+00 and the vent shaft, wires are obstructing eight inches of the catwalk, creating a trip and fall hazard to customers in the event of an evacuation. At CM 497+00 on the left and right rail, there are three loose fasteners in a row on both sides. The closest holding fasteners were 120 inches apart. (black condition) At CM 497+00 left rail, there is a rail head defect measuring 8 inches long and 1 ½ inch wide. (yellow condition) 						Number of Defects		15							
							Recommended Finding?		Yes							
							Remedial Action Required?		Yes							
							Recommended Reinspection?		Yes							



	<ul style="list-style-type: none">• At CM 510+98 at the portal, the ETS box has no cover.• Between CM 541 and 546 on the Grosvenor aerial structure—both tracks—the egg shape fasteners are failing. This condition is allowing the rail to float in an unsecure manor, which threatens track geometry. Due to the distance between non-defective supporting fasteners, this defect is a black condition.• At CM 547+30 next to the third rail power cables, there are five defective ties in-a-row. Due to the distance between non defective ties and holding spikes, this defect is a red condition.		
Remedial Action	<ul style="list-style-type: none">• Between CM 402+00 and CM 413+ 00, the relay rail must be collected, and the mud and debris must be cleared away.• At CM 442+30, the arching insulator must be replaced.• At CM 451+60, the leaking valve must be repaired or replaced.• Between CM 467+00 and 468+00, the wires obstructing the walkway must be re-secured to the wall.• At CM 482+00, the 110-volt electrical box must be re-secured to the wall.• Between CM 487+00 and the vent shaft, the wires obstructing the walkway must be re-secured to the wall.• At CM 497+00 on the left and right rail, the fasteners must be tightened or replaced.• At CM 497+00 left rail, the rail head defect must be repaired.• At CM 510+98 at the portal, the ETS box cover must be replaced.• Between CM 541 and 546 on the Grosvenor aerial structure—both tracks—WMATA must assess the condition of the egg shape fastener on the aerial structure. Until that time, WMATA must apply a speed restriction and gage rods must be installed to protect gage.• At CM 547+30 next to the third rail power cables, WMATA must replace the five defective ties in-a-row.		

Photos:



Conduit that became unattached from the wall and lying on the walkway



Unsecure conduit from the wall on the walking occupying 8-1/2 of the 24-inch walkway, leaving only 15-1/2 inches of useable walkway in the event of a train evacuation of passengers.



Walkway measurement



Damaged running surface of rail.



Defect measurements.



110-volt electrical box unsecured from the wall and on the walkway



Broken and cracked egg fasteners. 360 degree cracks, not secure to the fastener and allowing rails to float, which threatens track geometry.



Inspection Form

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United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170302-WMATA-WP-1		
	2017	03	02				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	Maintenance
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]				
	[REDACTED]		[REDACTED]				
	[REDACTED]		[REDACTED]				
Inspection Location	A-Line, track 1, between Metro Center Station and Farragut North Station						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-INS				
Inspection Units	1	1				
Inspection Subunits	4	4				
Defects (Number)	0	4				
Recommended Finding	No	Yes				
Remedial Action Required ¹	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Roadway Worker Protection – Job Safety Briefing			Activity Code		TRK	RWP	OBS
Job Briefing Employee Name/Title	TRST Unit 6144, RWIC TRST Unit 6241, Inspector NHTB Contractor					Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1100 1430	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard		Other / Title		Checklist Reference				
	RWPM													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X								X					
Line(s)	A-Line	Track Number	1	Chain Marker and/or Station(s)			From		To					
							A-01 CM 00+00		A-02 CM 040+00					
Vehicles	Head Car Number		Number of Cars		Equipment		N/A							
	N/A		N/A											
Description	The job safety briefing was provided by TRST Unit 6144. The briefing was complete and fully compliant with all WMATA requirements. At the end of the job safety briefing, the FWSO inspector inquired if the roadway worker in charge (RWIC) Unit										Number of Defects		0	
											Recommended Finding?		No	
											Remedial Action Required?		No	

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Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W.L. Powell, o=FTA, ou=FTAHQ, email=WINSLOW.L.POWELL@FTA.HQ, c=US Date: 2017.03.14 08:16:42 -0400</small>		
Inspector in Charge – Name	Inspection Team	
Winslow Powell	Alexander Nepa	

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	<p>6144 was in possession of an air horn. The RWIC stated that he had a whistle and that it was his understanding that one or the other was required but not both. An informal challenge was made by the FWSO inspector, who consulted the Roadway Worker Protection (RWP) Manual and verified that both an air horn and whistle are required. The RWIC agreed and phoned his supervisor, who provided an air horn prior to the work group entering the track.</p> <p>At the end of the job safety briefing, the FWSO inspector asked if there were any areas of the track listed as red, hot-spots, no-clearance or restricted view. The RWIC referred to the RWP Manual for the A-Line between Metro Center and Farragut Center and informed the FWSO inspector that there was only a yellow (restricted view) area. Once the inspection began, the FWSO inspector observed that the restricted view area began at CM 020+00, and a single watchman/lookout would not have the required 990 feet for safety. Therefore, the area between CM 020+00 and CM 035+00 should be listed as a red area, requiring an advance watchman/lookout or foul time. The inspector understands that WMATA is conducting an assessment of restricted view areas.</p>	Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Track General Inspection					Activity Code	TRK	GEN	INS
Job Briefing Employee Name/Title	TRST Unit 6144, RWIC TRST Unit 6241, Inspector NHTB Contractor		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1100 1430	Outside Shift	No	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	TRST 1000	P.O. T-16-07									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X								X		
Line(s)	A-Line	Track Number	1	Chain Marker and/or Station(s)		From		To			
						A-01 CM 000+00		A-02 CM 040+00			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								
Description	<p>An inspection of the A-Line, track 1, from Metro Center to Farragut North was conducted. The FWSO inspector, WMATA personnel, and a contractor from NHTB were present for the inspection. The following defects were identified:</p> <ul style="list-style-type: none"> At 1157 hours, while proceeding to Metro Center Station, a 7000 series train did not appear to slow to the required 10 MPH and did not sound the horn or dim the lights while passing the watchman/lookout and the work group. Due to the speed of this train, neither a lead car number or trailing car number could be obtained. The RWIC reported this incident to the Rail Operations Control Center. At CM A1-004+00, on the left rail, four defective non-holding fasteners in-a-row were observed, and 144 inches were measured between holding fasteners. (black condition) At CM A1-012+80, on the right rail, three defective non-holding fasteners in-a-row were observed, and 108 inches were measured between holding fasteners. (red condition) Between CM A1-013+00 and CM 012+50, on the right rail, 10 defective non-holding fasteners in-a-row were observed, and 300 inches were measured between holding fasteners. This condition also allowed ¾ inch dynamic vertical deflection under load. (black condition) <p>Due to the conditions of the curve between CM 020+00 and 035+00, the work group cleared to the catwalk and did not inspect the area between CM 020+00 and 040+00.</p>						Number of Defects		4		
							Recommended Finding?		Yes		
							Remedial Action Required?		Yes		
							Recommended Reinspection?		Yes		
Remedial Action	Between CM 020+00 and CM 00+00 on both rails, WMATA should identify and replace or tighten all defective non-holding fasteners.										





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FOIA Exemption: All (b)(6)

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Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170302-WMATA-WP-2		
	2017	03	02				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	POWR	Sub- Department	CM
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	C02 – McPherson Square – Wayside						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TP-RM-OBS					
Inspection Units	1					
Inspection Subunits	6					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject	C02 – McPherson Square – Pigtail Feeder Cable Replacement			Activity Code		TP	RM	OBS
Job Briefing Employee Name/Title	WMATA RWIC WMATA Power Supervisor		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	0100-0500	Outside Shift	Yes
Related Reports			Related CAPS / Findings							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard		Other / Title		Checklist Reference			
	PREVENTIVE MAINTENANCE INSPECTION (PMI) FOR TRACK FEEDER CABLE - 1000 KCMIL / 1500 KCMIL (REVISION 4, JUNE 16, 2015)									
	ENGINEERING MODIFICATION INSTRUCTIONS (EMI) FOR JUMPER, EXPANSION, AND TRANSITION POWER CABLES REPLACEMENT SYSTEM WIDE (REVISION 2, SEPTEMBER 16, 2016)									

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Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, ou=WINSLOW L. POWELL Date: 2017.03.14 07:32:09 -0400</small>		
Inspector in Charge – Name Winslow Powell	Inspection Team Tino Sahoo	



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Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X		X						X		
Line(s)	C-Line	Track Number	1	Chain Marker and/or Station(s)		From		To			
						C02 – McPherson Square		C02 – McPherson Square			
Vehicles	Head Car Number		Number of Cars		Equipment		Feeder Cable Repair/Replacement				
	N/A		N/A								
Description	<p>The job safety briefing was comprehensive. The hot spots, hazards, clearance areas, communication, and Roadway Access Guide were used as part of the discussion. No exceptions were taken to the job safety briefing.</p> <p>WMATA was replacing the “pigtailed” or “whips” on the traction power feeder cables energizing the 3rd rail. A “pigtail” or “whip” is the flexible-stranded horizontal length of cable (as it needs more give/take compared to stranded) that is either cad welded or huck bolted to the 3rd rail, depending on the 3rd rail material construct (steel or composite). The “pigtail” is connected to the traction power feeder cable coming through the power duct bank via an orange boot. In the orange boot, there is a mechanical connection (nuts and bolts) between the two copper lugs of each respective cable.</p> <p>WMATA employs electrical contractors from C3M to complete this switch out of cables. From speaking with the WMATA power maintenance supervisor that was present, WMATA has trained C3M contractors on the exact installation procedure. C3M had a crew of eight, and WMATA had a crew of three supervising their work. WMATA has four cable repair crews: two crews use contractors to handle cables on the ground (COG), and two crews concentrate on a state of good repair for the cables.</p> <p>In WMATA’s shop before the night of work, 6-foot length portions of 1000 kcmil cable are cut and pre-meggered (700 giga-ohm or higher). One end of the cable has a copper lug crimped on. As the maintenance window during a night shift is short, measures are taken to expedite the installation in the field (1300 – 1700 hours). The cables out in the field are cut to their needed length and installed to the 3rd rail ensuring enough slack in the “pigtail”. In addition, anytime there is a new cable replacement on the feeder cables, 2 kV (voltage rating) cables are being used to upgrade the system for the future employment of 100 percent 7000 series, 8-car trains.</p> <p>The electrical contractor, C3M, installed six “pigtailed” via CADWELD. The CADWELD procedure and materials for the welding come from the manufacturer, ERICO. The procedure was followed correctly by the C3M contractors and no issues or concerns were noted.</p> <p>Section 8.2, PREVENTIVE MAINTENANCE INSPECTION (PMI) FOR TRACK FEEDER CABLE - 1000 KCMIL / 1500 KCMIL (REVISION 4, JUNE 16, 2015) covers the procedure for removing and replacing the orange boot to install the feeder cable “pigtail”:</p> <ol style="list-style-type: none"> 1. Remove the ten peripheral captive screws from the two-piece insulating cover (Orange Boot). 2. Carefully remove the two-piece insulating cover and inspect for damage. If the existing boot is broken or cracked or the gasket material is damaged, it should be replaced with new one. 3. Remove the four 1/2” x 2” bolts, washers, lock washer and nuts from the lugs. (This bolt size is applicable for 1000 kcmil cable lugs. Determine the bolt size for 1500 kcmil cable lugs.) 4. Inspect the cable lugs for evidence of overheating and corrosion. If a lug has corrosion it shall be cleaned as per 7.1.6 in this PMI. 5. Apply 1000 V-rated electrical tape over the compression lug and cable inside the boot (for each cable) for additional protection of the copper of the cable. The electrical tape shall not interfere with the work of the sealing collar and shall not hamper the installation of the two-piece 						Number of Defects		0		
							Recommended Finding?		No		
							Remedial Action Required?		No		
							Recommended Reinspection?		No		



	<p>insulating cover (Orange Boot).</p> <ol style="list-style-type: none">6. If the cable does not have a sealing collar, install one over the cable.7. Install a heat shrink tube over the conduit and the cable.8. Bolt together the two lugs using four 1/2" x 2" bolts. Each bolt shall have one flat washer on the "head" side of the bolt; one flat washer, and one split-lock washer, to the nut side of the bolt. All four bolts, washers, and nuts shall be silicon-bronze material. (This bolt size is applicable for the 1000 kcmil cable lugs. Verify the bolt size for the 1500 kcmil cable lugs.)9. All bolts connecting the cable lugs shall be torqued according to the specification found in this PMI. (for track feeder cable 1000 kcmil with 1/2" x 2" lug bolts, the torque shall be 40 foot per pound)10. Install the two-piece insulating cover (Orange Boot) along with the cable-sealing collars using the 10 peripheral captive screws. If there are stripped or missing screws, replace with new screws. Replace the boot if it is beyond repair.11. The cable connector size shall correspond to the size of the cable. If 1500 kcmil cable was used for any reason, the cable connector shall be designed to be used with 1500 kcmil cables.		
Remedial Action	N/A		



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United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170307-WMATA-WP-3		
	2017	03	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	Production
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Surge 13 - Eisenhower Ave. to Braddock Road						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-JSB-OBS	TRK-WI-PI				
Inspection Units	1	1				
Inspection Subunits	1	1				
Defects (Number)	0	0				
Recommended Finding	No	No				
Remedial Action Required ¹	No	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Inspection Subject				Job Safety Briefing			Activity Code		TRK	JSB	OBS
Job Briefing Employee Name/Title	Surge 13 Briefing Table				Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1000-1500	Outside Shift	No	
Related Reports	N/A				Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	TRST 1000												
	RWPM												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X							X					
Line(s)	Track Number				Chain Marker and/or Station(s)		From		To				
							Eisenhower Ave. (C14)		Braddock Road (C12)				
Vehicles	Head Car Number		Number of Cars		Equipment		N/A						
	N/A		N/A										
Description	FWSO personnel received a job safety briefing from the Surge 13 briefing table. All personal protective equipment (PPE) and roadway worker protection (RWP) IDs were checked, and the working limits were reviewed. The briefer covered the locations and types of work taking place, as well as the nearest hospital and safety rule of the day. FWSO personnel were provided a purple bracelet indicating their receipt of the briefing and were granted access to the roadway. No exceptions were taken.							Number of Defects		0			
								Recommended Finding?		No			
								Remedial Action Required?		No			
								Recommended Reinspection?		No			

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Inspector in Charge - Signature WINSLOW L. POWELL		Date	
Inspector in Charge - Name Winslow Powell		Inspection Team Troy Lloyd, Mike Vitale	



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Remedial Action	N/A													
Inspection Activity #	2	Inspection Subject					Safe Track Surge Inspection			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	Surge 13 Briefing Table					Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1000-1500	Outside Shift	No	
Related Reports	N/A					Related CAPS / Findings			N/A					
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
	TRST 1000													
	RWPM													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X							X						
Line(s)			Track Number		Chain Marker and/or Station(s)			From		To				
								Eisenhower Ave. (C14)		Braddock Road (C12)				
Vehicles	Head Car Number		Number of Cars			Equipment		N/A						
	N/A		N/A											
Description	FWSO personnel performed an inspection of SafeTrack Surge #13 between Eisenhower Ave. and Braddock Road. WMATA structures personnel were in the process of replacing grout pads on the right rail of track 1, using the rail elevation process used in surge 12. WMATA personnel were jackhammering old pads and constructing forms for new pads. All personnel were wearing required PPE. FWFO personnel also observed contract personnel performing fastener renewal. FWFO inspectors noted deteriorating conditions at station platforms, currently being supported with jacks, which is not scheduled to be corrected in the SafeTrack scope of work.							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				
Remedial Action	N/A													

Photos:



WMATA personnel jackhammering old grout pads.



Newly installed forms for grout pads



Contract Personnel performing fastener renewal



Granite platform edge supported by jacks



Inspection Form

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Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170307-WMATA-WP-1		
	2017	03	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST - QICO	Sub- Department	Maintenance
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	C-Line, track 1, between McPherson Square Station and Foggy Bottom Station						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-INS				
Inspection Units	1	1				
Inspection Subunits	2	3				
Defects (Number)	0	3				
Recommended Finding	No	Yes				
Remedial Action Required ¹	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	Inspection Subject				Roadway Worker Protection (RWP) – Job Safety Briefing			Activity Code		TRK	RWP	OBS
Job Briefing Employee Name/Title	Quality Assurance, Internal Compliance & Oversight (QICO) Unit 1				Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1130 1430	Outside Shift	No	
Related Reports					Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	RWPM, 2014 Rev. 2												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X								X				
Line(s)	C-Line	Track Number	1	Chain Marker and/or Station(s)		From		To					
						C-02 CM 26+00		A-04 CM 78+45					
Vehicles	Head Car Number		Number of Cars		Equipment	N/A							
	N/A		N/A										
Description								Number of Defects		0			
								Recommended Finding?		No			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W. L. Powell, o=FTA, ou=FTAHQ, email=W. L. POWELL, date=2017.03.22 11:30:05 -0400</small>		Date
Inspector in Charge – Name Winslow Powell	Inspection Team Alexander Nepa	



	The briefing was provided by WMATA Quality Assurance, Internal Compliance & Oversight (QICO) Unit 1 at McPherson Station. The briefing was complete and fully compliant with all WMATA requirements.	Remedial Action Required?	No
		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Track General Inspection				Activity Code	TRK	GEN	INS						
Job Briefing Employee Name/Title	Quality Assurance, Internal Compliance & Oversight (QICO) Unit 1		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1100 1430	Outside Shift	No						
Related Reports			Related CAPS / Findings		Remedial Actions 136, 134, 300, 135, 1043, 1042, 1041, 137											
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference								
	TRST 1000															
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A					
	X								X							
Line(s)	C-Line	Track Number	1	Chain Marker and/or Station(s)	From			To								
					C-02 CM 26+00			C-04 CM 78+45								
Vehicles	Head Car Number		Number of Cars		Equipment	N/A										
	N/A		N/A													
Description	An inspection of C-Line track 1 from McPherson Square Station to Foggy Bottom Station was conducted to inspect, confirm repair, and close-out Remedial Actions. The following Remedial Actions were inspected, verified, repaired, and they are now compliant with WMATA, TRST 1000 maintenance standards: <ul style="list-style-type: none"> At CM 27+20, all third rail boots were inspected and none are in contact with the ground. Remedial Action 136 is closed. At CM 28+50, near the boots, there was no presence of debris. Remedial Action 134 is closed. At CM 43+00, the third rail cover has been replaced. Remedial Action 1043 is closed. At CM 53+00, all rail lying along the roadway has been collected and removed. Remedial Action 1042 is closed. At CM 55+70, all defective fixation fasteners have been repaired or replaced and the speed restriction removed. Remedial Action 1041 is closed. At CM 78+45, all cables have been attached to the wall. Remedial Action 137 is closed. 						Number of Defects		3							
							Recommended Finding?		Yes							
							Remedial Action Required?		Yes							
	The following Remedial Actions could not be closed: <ul style="list-style-type: none"> At CM 30+10, track 1 right rail, the two defective fasteners have not been repaired. This condition now includes five defective fasteners, with the closest non-defective holding fasteners 164 inches apart. TRST 1000 lists this as a black condition; track geometry is not affected by this condition. At CM 31+20, grout pads and fastening systems in this area were compliant with TRST 1000 standards. WMATA must provide FTA with results of the engineering review configuration before Remedial Action 135 can be closed. Remedial Action 135 remains open. The following new defects were observed: <ul style="list-style-type: none"> At CM 28+00 A-1 switch, there is a missing end cover board. At CM 45+50, the third rail support brace cable is not holding. 						Recommended Reinspection?		Yes							
Remedial Action	<ul style="list-style-type: none"> At CM 28+00 A-1 switch, the cover board must be replaced. At CM 45+50, the third rail support brace must be repaired or replaced. 															





Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170307-WMATA-WP-2		
	2017	03	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	RTRA	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Orange Line, Silver Line						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RI-OBS	RTRA-RI-OBS	RTRA-RI-OBS			
Inspection Units	1	1	1			
Inspection Subunits	N/A	N/A	N/A			
Defects (Number)	0	0	0			
Recommended Finding	No	No	No			
Remedial Action Required ¹	No	No	No			
Recommended Reinspection	No	No	No			

Activity Summaries

Inspection Activity #	1	Inspection Subject	Rail Compliance Inspection				Activity Code	RTRA	RI	OBS	
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	No	Out Brief Conducted	No	Time	1000-1100	Outside Shift	No	
Related Reports	N/A		Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	MetroRail Safety Rules and Procedures Handbook Permanent Order No. T-16-07	MSRPH General Rules 1.46-1.52 1.69-1.84 MSRPH Operating Rules 3.87 3.119, 3.120, 3.121,3.121.1, 3.79.1, 3.141 SOP# 12, 15, 16, 35, 45, 50									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	x										x
Line(s)	Orange	Track Number	N/A	Chain Marker and/or Station(s)	From			To			
					New Carrollton			West Falls Church			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W.L. POWELL, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2017.03.14 07:58:39 -0400</small>		
Inspector in Charge - Name	Inspection Team	
Winslow Powell	Chris Difatta	



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Vehicles	Head Car Number	Number of Cars	Equipment	N/A	
	2052	8			
Description	<p>The FWSO inspector observed train operations from New Carrollton to West Falls Church. The following observations were made:</p> <ul style="list-style-type: none"> <u>Train Handling:</u> <ul style="list-style-type: none"> Operated to 8-car station berthing marker at the end of the platform. Head was out of the window when stopping an 8-car consist. Application of good train handling with smooth station stops as well as smooth, even acceleration and deceleration. <u>Announcements:</u> <ul style="list-style-type: none"> Made proper announcements when departing initial terminal. Made proper announcements when berthed at the station. Made announcement when train stopped due to another train crossing over. Made proper announcements when train would be arriving at terminal. <u>Train Operations through Work Zones/Passing Roadway Workers between Ballston and East Falls Church</u> <ul style="list-style-type: none"> The train operator was in compliance with Metro Safety Rules and Procedures Handbook (MSRPH) Operating Rule 3.87 and Permanent Order No. T-16-07, Rev 1. The train operator acknowledged hand signals and responded with two short horn blasts. <p>No exceptions were taken during observations.</p>			Number of Defects	0
				Recommended Finding?	No
				Remedial Action Required?	No
				Recommended Reinspection?	No
	Remedial Action	N/A			

Inspection Activity #	2	Inspection Subject	Rail Compliance Inspection				Activity Code	RTRA		RI	OBS
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	No	Out Brief Conducted	No	Time	1200-1230	Outside Shift	No	
Related Reports	N/A		Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	MetroRail Safety Rules and Procedures Handbook Permanent Order No. T-16-07	MSRPH General Rules 1.46-1.52 1.69-1.84 MSRPH Operating Rules 3.87 3.119, 3.120, 3.121, 3.121.1, 3.79.1, 3.141 SOP# 12, 15, 16, 35, 45, 50									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	x										x
Line(s)	Silver	Track Number	N/A	Chain Marker and/or Station(s)		From		To			
						East Falls Church		McPherson Sq			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	6000		8								



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Description	<p>Then FWSO inspector observed train operations from East Falls Church to McPherson Square, the following was observed:</p> <ul style="list-style-type: none"> <u>Train Operator Adherence to Electronic Device Policy:</u> <ul style="list-style-type: none"> Train Operators were in compliance with MSRP General Rules 1.46-1.52 and MSRP Safety Rule 4.227. <u>Train Handling:</u> <ul style="list-style-type: none"> Operated to 8-car station berthing marker at the end of the platform. Head was out of the window when stopping an 8-car consist. Application of good train handling with smooth station stops, as well as smooth, even acceleration and deceleration. <u>Train Operations through Work Zones/Passing Roadway Workers between Rosslyn and McPherson Square:</u> <ul style="list-style-type: none"> The train operator was in compliance with MSRP Operating Rule 3.87 and Permanent Order No. T-16-07, Rev 1. The train operator acknowledged hand signals and responded with two short horn blasts. <u>Train Horn Communications:</u> <ul style="list-style-type: none"> Train operator complied with MSRP Operating Rule 3.87.1 that states: "A rail vehicle shall sound their horns when entering and exiting tunnel portals." <p>No exceptions were taken during observation.</p>	Number of Defects	0
		Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	3	Inspection Subject	Rail Compliance Inspection					Activity Code	RTRA	RI	OBS
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	No	Out Brief Conducted	No	Time	1300-1400	Outside Shift	No	
Related Reports	N/A		Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	MetroRail Safety Rules and Procedures Handbook Permanent Order No. T-16-07	MSRP General Rules 1.46-1.52 1.69-1.84 MSRP Operating Rules 3.87 3.119, 3.120, 3.121, 3.121.1, 3.79.1, 3.141 SOP# 12, 15, 16, 35, 45, 50									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	x										x
Line(s)	Silver	Track Number	N/A	Chain Marker and/or Station(s)		From		To			
						McPherson Sq		Court House			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	6011		8								
Description	The FWSO inspector observed train operations from McPherson Square to Court House, and the following was observed:							Number of Defects	0		
								Recommended Finding?	No		
								Remedial Action Required?	No		



	<ul style="list-style-type: none">• <u>Train Handling:</u><ul style="list-style-type: none">○ Operated to 8-car station berthing marker at the end of the platform.○ Head was out of the window when stopping an 8-car consist.○ Application of good train handling with smooth station stops, as well as smooth, even acceleration and deceleration.• <u>Train Operations through Work Zones/Passing Roadway Workers between McPherson Square and Rosslyn:</u><ul style="list-style-type: none">○ The train operator was in compliance with MSRPH Operating Rule 3.87 and Permanent Order No. T-16-07, Rev 1.○ The train operator acknowledged hand signals and responded with two short horn blasts. <p>No exceptions were taken during observation.</p>	Recommended Reinspection?	No
Remedial Action	N/A		



Inspection Form

FOIA Exemption: All (b)(6)
Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170309-WMATA-WP-1		
	2017	03	09				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	RTRA	Sub- Department	RSTO
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	C05 (Rosslyn) – Track 1						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RSTO-RC-OBS	RSTO-RC-OBS				
Inspection Units	1	1				
Inspection Subunits	10	2				
Defects (Number)	5	0				
Recommended Finding	No	No				
Remedial Action Required ¹	Yes	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Inspection Subject					SOP #40 – Compliance Checks			Activity Code		RSTO	RC	OBS
Job Briefing Employee Name/Title	N/A					Accompanied Inspector?	N/A	Out Brief Conducted	No	Time	0915-1015	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	SOP #40		40.5.5.1											
	MSRPH													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
			X						X					
Line(s)	C-Line	Track Number	1	Chain Marker and/or Station(s)			From		To					
							C05 (Rosslyn)							
Vehicles	Head Car Number		Number of Cars		Equipment		N/A							
	N/A		N/A											
Description	Standard Operating Procedure (SOP) #40 – 40.5.5.1 states: "During Rush Hours, personnel shall secure cab door to isolate operator seat and console area, allowing access to seats and intercom for customers." The following rear cars were observed for compliance with the requirements stated above.							Number of Defects		5				
								Recommended Finding?		No				
								Remedial Action Required?		Yes				
								Recommended Reinspection?		No				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W.L. Powell, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2017.03.22 09:55:27 -0400</small>		
Inspector in Charge – Name Winslow Powell	Inspection Team Robert Maniuszko	



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

	Line Blue Silver Silver Orange Orange Orange Silver Orange Orange Silver Car # 3226 6058 3024 5183 5036 3081 6087 3026** 5019 3134 Compliant No Yes Yes No Yes Yes No No No Yes Time 0918 0921 0930 0932 0938 0941 0944 0949 0953 1002 **WMATA should verify this car number based on the time berthed at Rosslyn Station		
Remedial Action	WMATA should forward these observations to the responsible superintendents for follow-up.		

Inspection Activity #	2	Inspection Subject	Permanent Order T-16-07 Rev. 1 Compliance Check				Activity Code	RSTO	RC	OBS						
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	No	Time	1122 – 1240	Outside Shift	No						
Related Reports			Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference							
	Permanent Order		T-16-07 rev. 1													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A					
	X							X	X							
Line(s)	C-Line	Track Number	1	Chain Marker and/or Station(s)	From			To								
					C1 CM145+00			C1 CM258+33								
Vehicles	Head Car Number		Number of Cars		Equipment	N/A										
	N/A		N/A													
Description	The FWSO inspector observed two train consists for compliance with the requirements of T-16-07 rev. 1. Both trains complied with the requirements of the order. No exceptions were taken. <ul style="list-style-type: none"> Lead car 8002 – OK – 1320 hours Lead car 3143 – OK – 1336 hours 						Number of Defects		0							
							Recommended Finding?		No							
							Remedial Action Required?		No							
							Recommended Reinspection?		No							
Remedial Action	N/A															



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170309-WMATA-WP-2		
	2017	03	09				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST SMNT	Sub- Department	PROD POWR
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		
	[REDACTED]		[REDACTED]		[REDACTED]		
Inspection Location	C-Line – C05 (Rosslyn) to C07 (Pentagon) – Track 1						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-OBS	POWR-GEN-OBS			
Inspection Units	1	1	1			
Inspection Subunits	2	1	2			
Defects (Number)	0	0	2			
Recommended Finding	No	No	No			
Remedial Action Required ¹	No	No	Yes			
Recommended Reinspection	No	No	No			

Activity Summaries

Inspection Activity #	1	Inspection Subject			Roadway Worker Protection – Job Safety Briefing and Field Implementation			Activity Code		TRK	RWP	OBS
Job Briefing Employee Name/Title	Track Unit #638			Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1100 – 1300	Outside Shift	No	
Related Reports				Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference			
	RWPM											
	MSRPH											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A	
	X							X	X			
Line(s)	C-Line	Track Number	1	Chain Marker and/or Station(s)	From			To				
					C1 CM145+00			C1 CM258+33				
Vehicles	Head Car Number		Number of Cars		Equipment	N/A						
	N/A		N/A									
Description	Track Unit #638 provided the job safety briefing. <ul style="list-style-type: none">#638 is a Level 4 qualified track supervisor and would be the Roadway Worker in charge (RWIC) and escort for this inspection.							Number of Defects		0		
								Recommended Finding?		No		
								Remedial Action Required?		No		

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W.L. Powell, o=FTA, ou=FTAHQ, email=W.L. POWELL Date: 2017.03.22 09:59:08 -0400</small>		Date
Inspector in Charge – Name Winslow Powell	Inspection Team Bob Maniuszko	



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

	<ul style="list-style-type: none"> All hazards were discussed. The hot spots were also discussed. The tunnel areas all have low catwalks. Trains on this section and track had 20 plus minute headways. In the C07, Interlocking Foul Time would be required. A Train Approach Warning (TAW) was our form of protection. The area from Rosslyn to Arlington Cemetery uses OPS #2. The area from Arlington Cemetery to Pentagon uses OPS #3. <p>Implementation:</p> <ul style="list-style-type: none"> The Rail Operations Control Center (ROCC) controller gave permission to access the tracks at 1122 hours. The RWIC cleared OPS #2 and reestablished OPS#3 as directed by the ROCC. Foul time was granted to traverse through the C07 crossover. <p>No exceptions were taken to the protections provided by track unit #638.</p>	Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Track Inspection – Surge 12 area – Track #1				Activity Code	TRK	GEN	OBS	
Job Briefing Employee Name/Title	Track Unit #638		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1100 – 1300	Outside Shift	No	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	TRST 1000										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X							X	X		
Line(s)	C-Line	Track Number	1	Chain Marker and/or Station(s)		From		To			
						C1 CM145+00		C1 CM258+33			
Vehicles	Head Car Number		Number of Cars		Equipment		N/A				
	N/A		N/A								
Description	<p>Due to a lot of activity on the roadway, the ROCC was extremely busy during the time of our inspection. Our group received permission to access the roadway at 1122 hours. We were only able to complete an inspection of track 1.</p> <p>Surge Area Observations:</p> <ul style="list-style-type: none"> WMATA has performed a number of activities in the work area. We observed new stud bolts, fasteners, plates, grout pads, insulators, expansion joint cables, joint elimination, leak mitigation, tie replacement and new ballast. Significant lighting improvements were also observed within the Pentagon portion of the tunnel. <p>No exceptions were taken to the work performed on track 1 throughout the area.</p>						Number of Defects		0		
							Recommended Finding?		No		
							Remedial Action Required?		No		
							Recommended Reinspection?		No		
Remedial Action	N/A										

Inspection Activity #	3	Inspection Subject	ETS Box Observation				Activity Code	POWR	GEN	OBS
Job Briefing Employee Name/Title	Track Unit #638		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1100 – 1300	Outside Shift	No
Related Reports			Related CAPS / Findings							
	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference		



United States Department of Transportation
Federal Transit Administration

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Related Rules, SOPs, Standards, or Other												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A	
	X							X				
Line(s)	C-Line	Track Number	1	Chain Marker and/or Station(s)	From			To				
					C1 CM145+00			C1 CM258+33				
Vehicles	Head Car Number		Number of Cars		Equipment	N/A						
	N/A		N/A									
Description	<p>Concerns:</p> <ol style="list-style-type: none">The Emergency Trip Station (ETS) Box C-51 is leaning and appears to not be supported by footers. This box could eventually fall over.The ETS Box C-63 has a broken conduit with exposed wires. (See photo.) <p>General Observations:</p> <ul style="list-style-type: none">The ETS boxes were in good shape. All boxes appear to be new. Maps are inside and the latches all work.							Number of Defects		2		
								Recommended Finding?		No		
								Remedial Action Required?		Yes		
								Recommended Reinspection?		No		
Remedial Action	<ul style="list-style-type: none">WMATA must repair ETS box number C-51.WMATA must repair ETS box number C-63.											

Photos:



Figure 1 - C63 - Broken Conduit



Figure 2 - New Grout Pads and Expansion Joint Cabling



Figure 3 - New Grout Pad, Fasteners and Stud Bolts



Inspection Form

FOIA Exemption: All (b)(6)
Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170309-WMATA-WP-3		
	2017	03	09				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	Maintenance/Safe
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	A-Line, track 1, between Metro Center and Shady Grove						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-INS				
Inspection Units	1	1				
Inspection Subunits	4	1				
Defects (Number)	0	1				
Recommended Finding	No	No				
Remedial Action Required ¹	No	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Roadway Worker Protection – Job Safety Briefing			Activity Code		TRK	RWP	OBS
Job Briefing Employee Name/Title	TRST Unit 80					Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	2200-0600	Outside Shift	Yes	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
	RWPM													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X		X					X	X	X				
Line(s)	A-Line	Track Number	1	Chain Marker and/or Station(s)			From		To					
							Metro Center A-0, CM 00+00		Shady Grove A-14, CM 950+00					
Vehicles	Head Car Number		Number of Cars		Equipment		TGV-01							
	TGV-01		1											
Description	The job safety briefing was provided by TRST Unit 80 in the TGV vehicle. The briefing was thorough and complied with all WMATA requirements.								Number of Defects		0			
									Recommended Finding?		No			
									Remedial Action Required?		No			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W. L. Powell, o=U.S. Department of Transportation, ou=FTAHQ, email=WINSLOW.L.POWELL@FTA.DOT.gov, c=US Date: 2017.03.21 11:19:53 -0500</small>		
Inspector in Charge – Name	Inspection Team	
Winslow Powell	Alexander Nepa	



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		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Track Geometry Inspection, TGV-01.				Activity Code	TRK	GEN	INS							
Job Briefing Employee Name/Title	TRST Unit 80		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	2200-0600	Outside Shift	Yes							
Related Reports	Related CAPS / Findings																
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference									
	TRST-1000																
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A						
	X		X					X	X	X							
Line(s)	A-Line	Track Number	1	Chain Marker and/or Station(s)			From		To								
							Metro Center A-0, CM 00+00		Shady Grove A-14, CM 950+00								
Vehicles	Head Car Number		Number of Cars		Equipment	TGV-01											
	TGV-01		1														
Description	The FWSO inspector observed a track geometry inspection of track 1 between Metro Center and Shady Grove. During the observation, the work group observed a tight (narrow) gauge measuring 55-3/4 inches at CM 366+80. WMATA TRST 1000 lists this as a black condition. TGV-01 had a support gang following the inspection vehicle, and this area was taken out of service and immediately repaired by the support gang.						Number of Defects		1								
							Recommended Finding?		No								
							Remedial Action Required?		No								
							Recommended Reinspection?		No								
Remedial Action	N/A																



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170310-WMATA-WP-1		
	2017	03	10				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	Production
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Surge 13 - Eisenhower Avenue to Braddock Road						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-JSB-OBS	TRK-WI-PI				
Inspection Units	1	1				
Inspection Subunits	1	1				
Defects (Number)	0	0				
Recommended Finding	No	No				
Remedial Action Required ¹	No	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Job Safety Briefing			Activity Code		TRK	JSB	OBS
Job Briefing Employee Name/Title	Surge 13 Briefing Table					Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1000-1500	Outside Shift	No	
Related Reports	N/A					Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	TRST 1000													
	RWPM													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X							X						
Line(s)	Track Number		Chain Marker and/or Station(s)		From		To							
					Eisenhower Ave. (C14)		Braddock Road (C12)							
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description	FWSO personnel received a job safety briefing from the Surge 13 briefing table. All personal protective equipment (PPE) and roadway worker protection (RWP) IDs were checked and the working limits reviewed. The briefer covered the locations and types of work taking place, as well as the nearest hospital and safety rule of the day. FWSO personnel were provided a purple bracelet indicating their receipt of the briefing. They were granted access to the roadway. No exceptions were taken.							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHO, cn=WINSLOW L. POWELL Date: 2017.03.20 16:09:45 -0400</small>		Date
Inspector in Charge - Name Winslow Powell	Inspection Team Mike Vitale	



United States Department of Transportation
Federal Transit Administration

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Remedial Action	N/A												
------------------------	-----	--	--	--	--	--	--	--	--	--	--	--	--

Inspection Activity #	2		Inspection Subject					SafeTrack Surge 13 Inspection				Activity Code		TRK	WI	PI	
Job Briefing Employee Name/Title	Surge 13 Briefing Table					Accompanied Inspector?		Yes		Out Brief Conducted		No		Time	1000-1500	Outside Shift	No
Related Reports	N/A					Related CAPS / Findings			N/A								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title			Checklist Reference					
	TRST 1000								FTA-TPE-17-005-a, -b								
	RWPM																
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type		At-grade	Tunnel	Elevated	N/A					
	X								X								
Line(s)			Track Number				Chain Marker and/or Station(s)		From		To						
									Eisenhower Ave. (C14)		Braddock Road (C12)						
Vehicles	Head Car Number		Number of Cars		Equipment		N/A										
	N/A		N/A														
Description	<p>FWSO personnel observed a Quality Assurance, Internal Compliance & Oversight (QICO) inspection of the SafeTrack surge 13 work area. QICO attempts to walk the entire surge area once per week and provide feedback to the SafeTrack project management team regarding items needing correction.</p> <p>FWSO inspectors noted continued progress in grout pad and fastener renewal. Due to inclement weather, WMATA was unable to pour new grout pads during the inspection, but continued to demolish old grout pads in preparation. WMATA has also replaced ties at the Braddock Road station platform. Future work on track 1 includes the welding of joints and the replacement of insulators between Eisenhower Avenue and Huntington. WMATA contractors were just beginning to work on insulator replacements at the time of the inspection.</p> <p>WMATA has also recently installed a new double crossover for the yard lead tracks leading into the Alexandria yard.</p> <p>FWSO and QICO inspectors noted several items, which were provided to the QICO inspector for his report:</p> <ul style="list-style-type: none"> At C1 575+00, the 3rd rail end approaches for both the C and J Lines were found to be gouged. QICO noted this in report to be marked for replacement. Automatic Train Control equipment had been removed from the running rail at C1 575+00. FWSO noted that the cables were connected to the running rails using Polidori rail clamps. In FWSO's Special Directive 17-1 on traction power, the Federal Transit Administration (FTA) issued three required actions related to these mechanical clamps, instructing WMATA to: <ul style="list-style-type: none"> Discontinue the practice of using clamped bonds as a permanent installation (FTA-TPE-17-005-a). Locate and replace all clamped bonds with drilled rail web/bolted crimped cable connections, suitable for permanent installations (FTA-TPE-17-005-b). <p>These findings were relayed to the QICO inspector.</p> <ul style="list-style-type: none"> Several tunnel lights were out near the King Street portal. WMATA is currently using auxiliary lighting near the interlocking to light the area, but should address the lighting condition during the surge. QICO noted this in report to be followed up on. At C1 573+00, FWSO and QICO inspectors noted several fasteners that were placed on steel shims, with the most frequently used plastic shims on top. 								Number of Defects		0						
									Recommended Finding?		No						
									Remedial Action Required?		No						
									Recommended Reinspection?		No						



	<ul style="list-style-type: none">• The contractors installing the third rail insulators were paying close attention to the lateral gauge of the third rail relative to the running rail. However, it was unclear how they would ensure the third rail was at the proper height. WMATA should ensure the third rail is properly gauged prior to the end of the surge.• At C1 603+00, a drain was completely clogged. <p>The QICO inspector also noted the deteriorating conditions at the platform edge at the King Street and Braddock Road stations FWSO previously noted this in the 3/7/2017 inspection of the area (see FTA inspection report 20170307-WMATA-WP-3).</p>		
Remedial Action	N/A		

Photos:



Clogged Drain at C1 603+00



Recently Replaced Ties at Braddock Road Station



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170314-WMATA-AD-1		
	2017	03	14				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	ROCC	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Carmen Turner Facility 3500 Pennsy Drive, Hyattsville, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ROCC-RC-OBS					
Inspection Units	1					
Inspection Subunits	0					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject	Rules Compliance & Safety Management Inspection (SMI) Required Actions Observation of Rail Traffic Controllers (RTC)			Activity Code	ROCC	RC	OBS	
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	1200-1530	Outside Shift	No
Related Reports	Safety Management Inspection (SMI), Final Report, June 17, 2015		Related CAPS / Findings		Required Actions: R-1-6-a					
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard		Other / Title		Checklist Reference			
	MetroRail Safety Rules and Procedures Handbook & Roadway Worker Protection Manual	Section 1 – General Rules (Radio Usage and Operation): Rules 1.69 – 1.88	X		X		X			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2017.03.21 16:50:58 -04'00'		Date
Inspector in Charge – Name	Ambur Daley		
Inspection Team	Tamara Powell		



	(2014)										
	Permanent Order		NO. T-16-10								
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	Main Track	Yard	At-grade	Tunnel	Elevated	N/A
				X							X
Line(s)	N/A	Track Number	N/A	Chain Marker and/or Station(s)		From		To			
						N/A		N/A			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								
Description	<p>The FWSO inspector conducted an observation of the rail traffic controllers (RTC) at the Ops 3 console, which controls and oversees operations on the Green, Yellow, and Blue lines.</p> <p>The FWSO inspector performed an observation and compliance check that focused mainly on the Rail Operations Control Center (ROCC) required actions and radio usage and operation (General Rules #1.69 – 1.88 and Permanent Order T-16-10). The observation and compliance check were based on findings from the SMI report, rules from the MetroRail Safety Rules & Procedures Handbook (MSRPH), procedures and rules from the Roadway Worker Protection (RWP) Manual (2014), and Level IV RWP Training Course.</p> <p>General observations:</p> <ul style="list-style-type: none"> SafeTrack Surge 13 (Yellow & Blue lines) is currently in effect. However, its routing and operations were overseen and monitored by another controller manning the Ops 4 console. <p>Observations related to MSRPH:</p> <ul style="list-style-type: none"> Cardinal Rule 1.78: <i>"Employees shall, when communicating with ROCC, provide train/unit number and location...ROCC shall acknowledge employee by repeating train number, location, and track."</i> <ul style="list-style-type: none"> The RTCs ensured all requests and transmissions were both given and received properly through read-backs. Train operators radioed in regarding loss of speed commands, slow speed read-outs, and requesting emergency reliefs. The RTC replied with positive acknowledgement of the request. For each command given thereafter, the operators repeated back their permissive block locations and understanding of direction as provided by the RTC. The same process was followed by units calling on for roadway access – each acknowledged his requested location, via chain marker or station (some including alpha numeric identification). ROCC repeated each requested clearance verbatim accordingly. 							Number of Defects		0	
								Recommended Finding?		No	
								Remedial Action Required?		No	
								Recommended Reinspection?		No	



	<p>Observations related to SMI report findings:</p> <ul style="list-style-type: none">• <i>R-1-6-a: "WMATA must establish and enforce a proper protocol for language and terminology that is used over the radio – to include 100 percent word-for-word read-back for safety-related instructions and unusual train movements." (Also see Permanent Order T-16-10.)</i><ul style="list-style-type: none">○ Starting at 1200 hours (beginning of observation period), the inspector observed operators, as well as track and power personnel, contacting the RTC over the radio to request permission to access the roadway to perform maintenance and track activities.○ The RTCs ensured all requests were received properly through read-backs. Power and track personnel each performed word-for-word confirmation of walking rights on the roadway. Operators also acknowledged clearing points, as well as understanding with all direction provided by the ROCC.○ The RTC closed out each radio check transmission by acknowledging, "That is a good copy," over the radio.○ For each communication loop, RTCs closed out each and every transmission with "over" until she closed the loop with "Central out." The operators, in response, using "over" sporadically, did not achieve 100% compliance in this mandate.○ When calling in and/or confirming locations, both the RTC and units used the International Civil Aviation Organization (ICAO) standard for communicating accordingly, as warranted by the transmission.• <i>Level IV WMATA Roadway Worker Protection (RWP) Course and Manual:</i><ul style="list-style-type: none">○ RTC followed all procedures as required by the RWP Manual (See "General RWP Guidelines"), accordingly.<ul style="list-style-type: none">▪ When calling on, each unit provided his/her ID number, exact location (by chain marker), and identified his/her level of protection.▪ Both the RTC and unit provided 100% repeat back when requesting and granting roadway access, stating hot spots and confirming safety briefings.▪ When signing off, the unit acknowledged and repeated back his/her clearing time. <p>There were no exceptions noted during this observation shift.</p>		
Remedial Action	N/A		





Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170315-WMATA-WP-1		
	2017	03	15				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Automatic Train Control	Sub- Department	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Eisenhower Avenue (C14) - Train Control Room						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ATC-FI-PI					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject				ATC Room Inspection			Activity Code		ATC	FI	PI
Job Briefing Employee Name/Title	N/A				Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1000-1400	Outside Shift	No	
Related Reports	20160127-WMATA-EN-1				Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	ATC 1000												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
					X							X	
Line(s)	N/A	Track Number		N/A	Chain Marker and/or Station(s)		From		To				
							Eisenhower Ave. (C14)						
Vehicles	Head Car Number		Number of Cars		Equipment		N/A						
	N/A		N/A										
Description									Number of Defects		0		

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=WINSLOW L. POWELL, ou=FTA, email=WINSLOW.L.POWELL@FTA.DOT.gov, c=US Date: 2017.03.21 10:49:30 -0400</small>		
Inspector in Charge - Name Winslow Powell	Inspection Team Leon Ferguson, Ed Nicholson, Al Nepa	



	FWSO inspectors visited the train control room at the Eisenhower Avenue (C14) station to follow up on a previous inspection conducted January 27, 2016. FWSO inspectors were able to close remedial action ID #17, which required WMATA to obtain a copy of the November and December 2015 Test 1008 data sheets and add them to the log book. Missing data sheets for switch obstruction tests conducted in October and November 2015 were properly filed in the log book. FWSO inspectors also confirmed that data sheets for monthly switch obstruction tests from October 2015 to February 2017 were properly filed in the log book.	Recommended Finding?	No
		Remedial Action Required?	No
		Recommended Reinspection?	No
Remedial Action	N/A		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170316-WMATA-WP-1		
	2017	03	16				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	A-Line, between Medical Center and Metro Center.						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-GEN-INS					
Inspection Units	1					
Inspection Subunits	9					
Defects (Number)	9					
Recommended Finding	Yes					
Remedial Action Required ¹	Yes					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Track Station Inspection			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	N/A	Time	0800 1500	Outside Shift	No			
Related Reports				Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	TRST 1000													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
			X						X					
Line(s)	A-Line	Track Number	tracks 1 and 2		Chain Marker and/or Station(s)		From		To					
							Medical Center (A10)		Metro Center (A01)					
Vehicles	Head Car Number		Number of Cars		Equipment		N/A							
	N/A		N/A											
Description									Number of Defects		9			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W.L. Powell, o=U.S. Government, ou=DOT Headquarters, ou=FTBHQ, c=US, email=W.L. POWELL, serial=20170327132733, d=100</small>		
Inspector in Charge - Name	Inspection Team	
Winslow Powell	Alexander Nepa	



	<p>The FWSO inspector performed a general inspection of track conditions throughout the station platform areas. This inspection was performed from the platform; no escort or safety briefing was required. The following conditions were observed, and there were no color coded conditions noted:</p> <p>The below are TRST 1000 defects, rule 3.2.2.2:</p> <ul style="list-style-type: none">• Medical Center Station, track 1: Standing water on the inbound entrance side of the platform was observed; water is not draining as designed.• Bethesda Station, tracks 1 and 2: Standing water was observed; water is not draining as designed due to debris blocking the drain entrance.• Friendship Heights, tracks 1 and 2: Standing water from the escalator to the outbound entrances was observed; water is not draining as designed.• Tenleytown-AU, track 1: Standing water and mud were observed in the gauge area of the track.• Van Ness-UDC, track 2: Standing water was observed; water is not draining as designed.• Woodley Park, track 2: Muddy conditions prevented standing water from draining as designed, and debris was observed blocking the drain entrance. <p>The below are TRST 1000 defects, rule 10.17.4.1:</p> <ul style="list-style-type: none">• Medical Center Station, track 1: Relay third rail on the field side of the track towards the platform presents a trip-and-fall hazard.• Woodley Park Station, track 2: Relay rail in the gauge and field side of the track presents a trip-and-fall hazard. <p>The following is a TRST 1000 defect, rule 13.2.2:</p> <ul style="list-style-type: none">• Van Ness Station, track 2: Towards the middle of the platform, a broken third rail anchor arm was observed. <p>Other notable observations:</p> <ul style="list-style-type: none">• Bethesda, track 2: Paper and debris were present at the third rail insulator support along the track.• Van Ness, track 1: Paper and debris were present at the third rail insulator within the station area.	Recommended Finding?	Yes
		Remedial Action Required?	Yes
		Recommended Reinspection?	Yes
Remedial Action	<ul style="list-style-type: none">• Medical Center: WMATA should clean all scuppers, inlets and catch basin approaches so accumulated water can be drained as designed (track 1).• Medical Center: All relay rail should be collected and stored to prevent a trip/fall hazard (track 1).• Bethesda Station: WMATA should clean all scuppers, inlets and catch basin approaches so accumulated water can be drained as designed (tracks 1 and 2).• Friendship Heights: WMATA should clean all scuppers, inlets and catch basin approaches so accumulated water can be drained as designed (tracks 1 and 2).• Tenleytown Station: WMATA should clean all scuppers, inlets and catch basin approaches so accumulated water can be drained as designed (track 1).• Van Ness Station: WMATA should clean all scuppers, inlets and catch basin approaches so accumulated water can be drained as designed (track 2).• Van Ness Station: WMATA should replace third rail anchor arm (track 2).• Woodley Park: WMATA should clean all scuppers, inlets and catch basin approaches so accumulated water can be drained as designed (track 2).• Woodley Park: All rails should be collected and stored to prevent a trip/fall hazard (track 2).		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170316-WMATA-WP-2		
	2017	03	16				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Car Maintenance and RTRA	Sub- Department	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	West Falls Church Car Shop and Glenmont Rail Yard						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	VM-RM-PI	RTRA-GEN-PI				
Inspection Units	1	1				
Inspection Subunits	0	N/A				
Defects (Number)	0	0				
Recommended Finding	No	No				
Remedial Action Required ¹	No	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Inspection Subject				Remedial Action Verification Inspection-West Falls Church Yard				Activity Code		VM	RM	PI
Job Briefing Employee Name/Title	Gary Reynolds				Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1030-1130	Outside Shift	No		
Related Reports	20160412-WMATA-TGB-1				Related CAPS / Findings		Remedial Action #278							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard			Other / Title		Checklist Reference				
	N/A		N/A		N/A			N/A		N/A				
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
		X										X		
Line(s)	N/A	Track Number	N/A	Chain Marker and/or Station(s)			From		To					
							N/A		N/A					
Vehicles	Head Car Number		Number of Cars		Equipment		3142							
	N/A		N/A											
Description	The FWSO inspector observed that the right headlight on car #3142 has been repaired as required by remedial action #278. This action is now closed.							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				
Remedial Action	N/A													

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2017.03.22 13:05:05 -0400</small>		
Inspector in Charge - Name	Inspection Team	
Winslow Powell	Chris Difatta	



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Inspection Activity #	2	Inspection Subject	Remedial Action Verification Inspection-Glenmont Yard					Activity Code		RTRA	GEN	PI
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	No	Out Brief Conducted	Yes	Time	1230-1330	Outside Shift	No	
Related Reports	20160317-WMATA-JMC-2			Related CAPS / Findings		Remedial Action #46						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference			
	N/A		N/A		N/A		N/A		N/A			
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A	
		X										x
Line(s)	N/A	Track Number	N/A	Chain Marker and/or Station(s)	From			To				
					N/A			N/A				
Vehicles	Head Car Number		Number of Cars		Equipment	N/A						
	N/A		N/A									
Description	FWSO inspectors verified that remedial action #46, which states that, "WMATA should place a bulletin board in the Glenmont Operator Lounge for employees to review the instructions and notices that are Issued," has been addressed. Remedial action #46 is now closed.							Number of Defects		0		
								Recommended Finding?		No		
								Remedial Action Required?		No		
								Recommended Reinspection?		No		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170316-WMATA-WP-3		
	2017	03	16				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	POWR	Sub- Department	CM
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	K04 – Ballston – Wayside						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TP-RM-OBS					
Inspection Units	1					
Inspection Subunits	2					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject	K04 –Ballston – Jumper Cable Replacement			Activity Code		TP	RM	OBS
Job Briefing Employee Name/Title	WMATA RWIC		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	0100-0500	Outside Shift	Yes
Related Reports			Related CAPS / Findings							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard		Other / Title		Checklist Reference			
	PREVENTIVE MAINTENANCE INSPECTION (PMI) FOR TRACK FEEDER CABLE - 1000 KCMIL / 1500 KCMIL (REVISION 4, JUNE 16, 2015)									
	ENGINEERING MODIFICATION INSTRUCTIONS (EMI) FOR JUMPER, EXPANSION, AND TRANSITION POWER CABLES REPLACEMENT SYSTEMWIDE (REVISION 2, SEPTEMBER 16, 2016)									

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=WINSLOW L. POWELL, o=U.S. Government, ou=DOT Headquarters, ou=FTAMPQ Date: 2017.03.21 09:09:27 -0400</small>		
Inspector in Charge – Name Winslow Powell	Inspection Team Tino Sahoo	



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X		X						X		
Line(s)	K-Line	Track Number	2	Chain Marker and/or Station(s)	From		To				
					Ballston (K04), CM 275+00		Ballston (K04), CM 274+00				
Vehicles	Head Car Number	Number of Cars	Equipment	Jumper Cable Replacement							
	N/A	N/A									
Description	<p>The job safety briefing was comprehensive. The hot spots, hazards, clearance areas, communication, and Roadway Access Guide were used as part of the discussion. Track protection was Exclusive Track Occupancy (ETO), and the deenergization of the 3rd rail was done via a red tag. No exceptions were taken to the job safety briefing.</p> <p>WMATA was replacing two power jumper cables (120ft, 1000 kcmil, 2 kV (Voltage Rating). Jumper cables are cables that energize one small portion of 3rd rail (like a kicker rail) from another longer piece of 3rd rail; hence the term "jumper." The two jumper cables being replaced were routed underneath the concrete slab in polyvinyl chloride (PVC) conduit (3" or 4" depending on location). Work did not start until 0215 hours. The Rail Operations Control Center (ROCC) wanted clearance of all equipment and personnel off the roadway by 1600 - 1615 hours at the latest, unless there was an emergency (approximately 2 hours for repairs).</p> <p>In WMATA's shop preceding night of work, two 120 foot-length portions of 1000 kcmil cable were cut and pre-meggered (500 megaohms or higher). In addition, anytime there was a new cable replacement on the feeder cables, 2 kV (voltage rating) cables were being used to upgrade the system for the future employment of 100 percent 7000 series 8-car trains.</p> <p>The orange boot assemblies (on each end of the jumper cables) being replaced were removed, but the whips were kept intact. Also, the OZ Gedney bushing on the conduit stub-up was removed. This will be replaced with the new jumper cable. The old jumper cables were removed by pulling them out of the PVC conduit. While pulling out the old cables, a "fishing" nylon rope was attached to one end of the cable at the conduit stub up in order to pull the new jumper cable through. The new jumper cable was fished through the conduit. Copper lugs were crimped on each end of the jumper cable. New OZ Gedney bushings were installed in the conduit stub-up on each end. Field meggering was done for each of the new jumper cables to ensure the cable insulation met the minimum resistance threshold (500 mega-ohms). An electrical device called a fluke was used to pulsate ~1000 V through the cable (one probe attached to the cable and one probe attached to the running rail (ground)). The resistance readings were taken in 1-minute increments up to 3-minutes. For each of the new cables tested, the reading was 57 giga-ohms and easily met the minimum resistance threshold. New orange boot assemblies were then installed on each end of the jumper cable.</p> <p>WMATA employs electrical contractors from C3M to complete this switch out of cables. The WMATA power maintenance supervisor that was present related that WMATA had trained C3M on the exact installation procedure. C3M had a crew of seven, and WMATA had a crew of three supervising their work. WMATA had four cable repair crews: two crews used contractors to handle cables on the ground (COG) and two crews concentrated on a state-of-good repair for the cables.</p> <p>The electrical contractor, C3M, successfully replaced the two power jumper cables.</p> <p>Section 8.2 in PREVENTIVE MAINTENANCE INSPECTION (PMI) FOR TRACK FEEDER CABLE - 1000 KCMIL / 1500 KCMIL (REVISION 4, JUNE 16, 2015) covers the procedure for removing and replacing the orange boot which must be done when replacing jumper cables:</p>							Number of Defects	0		
								Recommended Finding?	No		
								Remedial Action Required?	No		
								Recommended Reinspection?	No		



	<ol style="list-style-type: none">1. Remove the 10 peripheral captive screws from the Two-piece Insulating Cover (Orange Boot).2. Carefully remove the Two-piece Insulating Cover and inspect for damage. If the existing boot is broken, cracked or gasket material is damaged it shall be replaced with new one.3. Remove the four 1/2" x 2" bolts, washers, lock washer and nuts from the lugs. (This bolt size is applicable for 1000 kcmil cable lugs. Verify/determine the bolt size for 1500 kcmil cable lugs.)4. Inspect the cable lugs for evidence of overheating and corrosion, if a lug has corrosion it shall be cleaned as per 7.1.6 in this PMI.5. Apply 1000 V rated electrical tape over the compression lug and cable inside the boot (for each cable) for additional protection of the copper of the cable. The electrical tape shall not interfere with the work of the sealing collar and shall not hamper the installation of the Two-piece Insulating Cover (Orange Boot).6. If cable and does not have sealing collar, install sealing collar over cable.7. Install heat shrink tube over the conduit and the cable.8. Bolt together the two lugs using four 1/2" x 2" bolts, each bolt shall have one flat washer on the Head side of the bolt, one flat washer, and one split lock washer to the nut side of the bolt. All four bolts, washers and nuts shall be silicon-bronze material. (This bolt size is applicable for 1000 kcmil cable lugs. Verify/determine the bolt size for 1500 kcmil cable lugs.)9. All bolts connecting the cable lugs, shall be torqued according to the specification found in this PMI. (for Track Feeder Cable 1000 kcmil with 1/2" x 2" lug bolts, the torque shall be 40 Foot – Pounds)10. Install the Two-piece Insulating Cover (Orange Boot) along with the cable sealing collars using the 10 peripheral captive screws. If there are stripped or missing screws, replace with new screws. If the Boot is beyond repair replace with new Boot.11. The cable connector size shall correspond to the size of the cable. If 1500 kcmil cable was used for any reason, the cable connector shall be designed to be used with 1500 kcmil cables.		
Remedial Action	N/A		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170317-WMATA-AD-1		
	2017	03	17				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	ROCC	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Carmen Turner Facility 3500 Pennsy Drive, Hyattsville, MD 20785						


Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ROCC-RC-OBS					
Inspection Units	1					
Inspection Subunits	0					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject	Rules Compliance & Safety Management Inspection (SMI) Required Actions Observation of Rail Traffic Controllers (RTC)				Activity Code	ROCC	RC	OBS	
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	1600-1900	Outside Shift	No	
Related Reports	Safety Management Inspection (SMI), Final Report, June 17, 2015		Related CAPS / Findings	Required Actions: R-1-6-a							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	MetroRail Safety Rules and Procedures Handbook		Section 1 – General Rules (Radio Usage and Operation): Rules 1.69 – 1.88		X		X		X		
	Permanent Order		NO. T-16-10								
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	Main Track	Yard	At-grade	Tunnel	Elevated	N/A
				X							X
Line(s)	N/A	Track Number	N/A	Chain Marker and/or Station(s)		From		To			
						N/A		N/A			
Vehicles	Head Car Number		Number of Cars		Equipment		N/A				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature			Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2017.03.21 17:14:14 -04'00'	Date	
Inspector in Charge – Name	Ambur Daley		Inspection Team	Tamara Powell	



	N/A	N/A		
Description	<p>The FWSO inspector conducted an observation of the rail traffic controllers (RTC) at the Ops 1 console, which controls and oversees operations on the Red Line.</p> <p>The FWSO inspector performed an observation and compliance check that focused mainly on the Rail Operations Control Center (ROCC) required actions and radio usage and operation (General Rules #1.69 – 1.88 and Permanent Order T-16-10). The observation and compliance check were based on findings from the Safety Management Inspection (SMI) report, as well as rules from the MetroRail Safety Rules & Procedures Handbook (MSRPH).</p> <p>General observations:</p> <ul style="list-style-type: none">The FWSO Inspector visited the Maintenance Operations Center (MOC) desk to learn procedures and discuss open issues in regard to the 2015 SMI Report. The inspector reviewed the speed restriction implementation process. <p>Observations related to MSRPH:</p> <ul style="list-style-type: none">Cardinal Rule 1.78: <i>“Employees shall, when communicating with ROCC, provide train/unit number and location...ROCC shall acknowledge employee by repeating train number, location, and track.”</i> (Also see Permanent Order T-16-10.)<ul style="list-style-type: none">The RTCs ensured all requests and transmissions were both given and received properly through read-backs.Train operators contacted the RTC via the radio with the train number and specific locations regarding loss of speed commands, slow speed read-outs, and requesting emergency reliefs, to which the RTC replied with positive acknowledgement of the requests.For each command given thereafter, the operators repeated back their permissive block locations and understanding of direction as provided by the RTC. <p>There were no exceptions noted during this observation shift.</p>	Number of Defects	0	
		Recommended Finding?	No	
		Remedial Action Required?	No	
		Recommended Reinspection?	No	
Remedial Action	N/A			



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170317-WMATA-WP-1		
	2017	03	17				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	POWR	Sub- Department	CBL. IN.
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	B99 – Brentwood Yard						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TP-WI-OBS					
Inspection Units	1					
Inspection Subunits	12					
Defects (Number)	4					
Recommended Finding	Yes					
Remedial Action Required ¹	Yes					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Walking Observation (Cable Inspection)			Activity Code		TP	WI	OBS
Job Briefing Employee Name/Title	WMATA RWIC WMATA Watchman/Lookout WMATA Documenter					Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1000-1400	Outside Shift	No	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
	RWPM													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
		X						X						
Line(s)	B-Line	Track Number	N/A		Chain Marker and/or Station(s)		From		To					
							B99 – Brentwood Yard		B99 – Brentwood Yard					
Vehicles	Head Car Number		Number of Cars			Equipment	N/A							
	N/A		N/A											
Description	The job safety briefing was comprehensive. The hot spots, hazards, clearance areas, communication, and Roadway Access Guide were used as part of the discussion. No exceptions were taken to the job safety briefing.								Number of Defects		4			
									Recommended Finding?		Yes			
									Remedial Action Required?		Yes			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W.L. Powell, o=FTA, ou=FTA, email=W.L.Powell@FTA.DHS.gov Date: 2017.03.17 11:03:38 -0400</small>		Date
Inspector in Charge – Name Winslow Powell	Inspection Team Tino Sahoo	



	<p>Daily cable inspections are part of the holistic approach WMATA has instituted to prevent cable fires and arcing incidents. On a typical day there are three different WMATA cable inspection crews that are active, and they include three personnel—the Roadway Worker in Charge (RWIC), the Watchman/Lookout, and a documenter of conditions in wayside power cable and/or connections. Each crew inspects a different portion of the mainline from 1000–1400 hours. The pictures taken and conditions noted are entered into a database for nighttime cable repair crews to fix.</p> <p>The FWSO Inspector and WMATA personnel noted the following defects during the course of the cable inspection at Brentwood Yard:</p> <ul style="list-style-type: none">• YCR 81 – Conduit stub-ups broken (see Figure 1)• YCR 81 – three missing OZ Gedney bushings on stub-ups (see Figure 2)• YCR 16 – Conduit stub-ups missing heat shrink (see Figure 3)• YCR 25 – Heat shrink compromised on conduit stub-ups (see Figure 4) <p>Other Notable Observations</p> <p>The FWSO Inspector and WMATA personnel also observed the following instances of cables lying on ballast:</p> <ul style="list-style-type: none">• Yard Contact Rail (YCR) 70 – Cables lying on the ballast• YCR 56 – Cables lying on the ballast• YCR 65 – Cables lying on the ballast• YCR 76 – Cables lying on the ballast• YCR 81 – Cables Lying on the ballast;• YCR 11 – Cables lying on the ballast• YCR 80 – Cables lying on the ballast• YCR 13 – Cables lying on the ballast• YCR 14 – Cables lying on the ballast• YCR 9 – Cables lying on the ballast <p>FWSO will follow up to confirm the conclusion of the work once the cable issues have been corrected.</p>	Recommended Reinspection?	Yes
Remedial Action	<ul style="list-style-type: none">• YCR 81 – Replace conduit stub-ups• YCR 81 – Replace OZ Gedney bushings• YCR 16 – Replace missing heat shrink on conduit stub-ups• YCR 25 – Replace heat shrink on conduit stub-ups		



FIGURE 1 - YCR (YARD CONTACT RAIL) 81 – CONDUIT STUB-UPS BROKEN



FIGURE 2 - YCR (YARD CONTACT RAIL) 81 – OZ GEDNEY BUSHINGS COMPROMISED



FIGURE 3 - YCR (YARD CONTACT RAIL) 16 – MISSING HEAT SHRINK ON CONDUIT STUB-UPS



FIGURE 4 - YCR (YARD CONTACT RAIL) 25 – HEAT SHRINK COMPROMISED ON CONDUIT STUB-UPS



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170318-WMATA-AD-1		
	2017	03	18				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	ROCC	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Carmen Turner Facility 3500 Pennsy Drive, Hyattsville, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ROCC-RC-OBS					
Inspection Units	1					
Inspection Subunits	0					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject	RWP Procedures and Rules Compliance Observation of Rail Traffic Controllers (RTC)				Activity Code	ROCC	RC	OBS	
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	1500-2200	Outside Shift	Yes	
Related Reports	Safety Management Inspection (SMI), Final Report, June 17, 2015		Related CAPS / Findings		Required Actions: R-1-6-b, R-1-9-a						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	MetroRail Safety Rules and Procedures Handbook & Roadway Worker Protection Manual (2014)		Section 1 – General Rules (Radio Usage and Operation): Rules 1.69 – 1.88		X		X		X		
	Permanent Order		NO. T-16-10								
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	Main Track	Yard	At-grade	Tunnel	Elevated	N/A
				X							X
Line(s)	N/A	Track Number	N/A	Chain Marker and/or Station(s)		From			To		
						N/A			N/A		
Vehicles	Head Car Number		Number of Cars		Equipment		N/A				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	AMBUR I DALEY <small>Digitally signed by AMBUR I DALEY DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FMCSAHQ, cn=AMBUR I DALEY Date: 2017.03.28 09:39:38 -04'00'</small>		Date
Inspector in Charge – Name Ambur Daley	Inspection Team Tamara Powell		



	N/A	N/A		
Description	<p>The FWSO inspector conducted an observation of the rail traffic controllers (RTC) at the Ops 2 console, which controls and oversees operations on the Orange and Silver lines.</p> <p>The FWSO inspector performed an observation and compliance check that focused mainly on the Rail Operations Control Center (ROCC) required actions and radio usage and operation (General Rules #1.69 – 1.88 and Permanent Order T-16-10). The observation and compliance checks were based on findings from the SMI report, rules from the MetroRail Safety Rules & Procedures Handbook (MSRPB), procedures and rules from the Roadway Worker Protection (RWP) Manual (2014), and the Level IV RWP Training Course.</p> <p>General observations, regarding SMI:</p> <ul style="list-style-type: none">• R-1-6-b: <i>“As part of the radio protocol required in R-1-6-a, WMATA must establish an approach for communicating and managing all speed restrictions that required two-way communication between the ROCC and train operator and takes full advantage of available electronic AIM system features.”</i><ul style="list-style-type: none">○ One speed restriction was imposed on the Orange Line: Medium couplers turned (speed restriction of 35 mph) at Cheverly (D11), due to defective module (track defect) at Chain Marker-D2 416+00. The speed restriction was imposed on the morning of 3/18/17.○ RTC made proper radio announcements to operators, as required by ROCC procedures.○ Observed the RTC use AIM system visual features (blue man) to indicate personnel on roadway.○ At 1724 hours, the ATC unit called on to investigate the speed restriction. Unit cleared at 1812 hours; defect was addressed and the speed restriction was lifted.• R-1-9-a <i>“Until such time as electronic transfer records are implemented, WMATA must ensure that its Rail Traffic Controller use paper-based logs with formal signatures.”</i><ul style="list-style-type: none">○ Inspector observed that both RTCs were relieved at 2100 hours and at 2130 hours.○ Both relieving RTCs properly logged onto the AIM system by resetting the system with their respective IDs entered into the system. <p>Observations related to MSRPB:</p> <ul style="list-style-type: none">• Cardinal Rule 1.78: <i>“Employees shall, when communicating with ROCC, provide train/unit number and location...ROCC shall acknowledge employee by repeating train number, location, and track.”</i><ul style="list-style-type: none">○ The RTCs ensured all requests and transmissions were both given and received properly through read-backs. Train operators radioed in regarding loss of speed commands, slow speed read-outs, and requesting emergency reliefs. The RTC replied with positive acknowledgement of the request. For each command given thereafter, the operators repeated back their permissive block locations and understanding of direction as provided by the RTC.○ For each communication loop, the RTC closed out each and every transmission with “over” until she closed the loop with “Central out.”• Cardinal Rule 1.79: <i>“...When communicating location information related information related to Power Rooms only (TPSS or TBS)...employees must use the International Civil Aviation Organization (ICAO) standard for communicating the “Alpha” character.”</i><ul style="list-style-type: none">○ When an ATC unit contacted the RTC for roadway access, he used the proper ICAO assignment when communicating his requested location and track rights	Number of Defects	0	
		Recommended Finding?	No	
		Remedial Action Required?	No	
		Recommended Reinspection?	No	



	<ul style="list-style-type: none">• <i>Level IV WMATA Roadway Worker Protection (RWP) Course and Manual:</i><ul style="list-style-type: none">○ RTC followed all procedures as required by the RWP Manual (See "General RWP Guidelines"), accordingly:<ul style="list-style-type: none">▪ During hours of observation, three units called onto the roadway for RWP under Train Approach Warning (2) and Exclusive Track Occupancy (1) protection.▪ When calling on, each unit provided his/her ID number, exact location (by chain marker), and identified the level of protection he/she would be under for the evening.▪ Units also properly identified themselves (as required by rule/procedures), identifying hotspots and confirmation of safety briefings.▪ Proper repeat-backs were used during transmissions.▪ Once permission was granted to the units, the RTC made proper announcements to the trains, as required.▪ When signing off, the unit acknowledged and repeated back his/her clearing time. <p>There were no exceptions noted during this observation shift. Inspector informed Assistant Superintendent of the same at end of shift.</p>		
Remedial Action	N/A		



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170320-WMATA-WP-1		
	2017	03	20				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	RTRA	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Red Line						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RI-OBS					
Inspection Units	1					
Inspection Subunits	N/A					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject				Rail Compliance Inspection			Activity Code		RTRA	RI	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	No	Time	0600-1100	Outside Shift	No		
Related Reports	N/A			Related CAPS / Findings		N/A							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard		Other / Title		Checklist Reference			
	MetroRail Safety Rules and Procedures Handbook Permanent Order No. T-16-07		MSRPH General Rules 1.46-1.52 1.69-1.84 MSRPH Operating Rules 3.87 3.119, 3.120, 3.121,3.121.1, 3.79.1, 3.141 SOP# 12, 15, 16, 35, 45, 50										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X		X									x	
Line(s)	Red		N/A					From		To			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2017.03.27 07:02:28 -04'00'</small>		Date
Inspector in Charge - Name Winslow Powell	Inspection Team Chris Difatta	



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

		Track Number		Chain Marker and/or Station(s)	Shady Grove	Metro Center
Vehicles	Head Car Number	Number of Cars		Equipment	N/A	
	N/A	N/A				
Description	<p>An FWSO Inspector conducted observations on the Red Line, and the following observations were conducted on 15 trains:</p> <p>Shady Grove Station:</p> <p>FWSO Inspector positioned himself at the 8-car berthing mark on the station platform to observe the following:</p> <ul style="list-style-type: none">Train Handling:<ul style="list-style-type: none">Operated to 8-car station berthing marker at the end of the platform.Head was out of the window when stopping an 8-car consist.Applied good train handling with smooth station stops. This consisted of smooth and even acceleration and deceleration.Stations and Doors:<ul style="list-style-type: none">Verified platform side of the train by sticking his/her head out of the cab window.Observed doors on platform side of train to verify any activity in front of the doors for 5 seconds before opening the doors.Opened the doors on the correct platform side and made station announcements.Observed train loading with head outside cab window to ensure that customers were not hit or trapped within doors.Closed the window and looked in the direction of travel before moving the train forward. <p>Train Operations:</p> <p>FWSO Inspector observed train operations on one train from Shady Grove to Metro Center. The following was observed:</p> <ul style="list-style-type: none">Train Operator Adherence to Electronic Device Policy:<ul style="list-style-type: none">Train Operator was in compliance with WMATA's Metrorail Safety Rules and Procedures Handbook (MSRPH) General Rules 1.46-1.52 and MSRPH Safety Rule 4.227.Train Handling:<ul style="list-style-type: none">Operated to 8-car station berthing marker at the end of the platform.Train engineer's head was out of the window when stopping an 8-car consist.Applied good train handling with smooth station stops. This consisted of smooth and even acceleration and deceleration.Fitness for Duty:<ul style="list-style-type: none">Operator was in proper uniform and without the appearance of being under the influence of alcohol or impaired by drugs.Announcements:<ul style="list-style-type: none">Made proper announcements when departing initial terminal.Made proper announcements when berthed at the station.Made announcement when train stopped due to another train crossing over.Made proper announcements when train would be arriving at terminal.Train Horn Communication:<ul style="list-style-type: none">Operator was in compliance with MSRPH Operating Rules 3.87 and 3.168.				Number of Defects	0
					Recommended Finding?	No
					Remedial Action Required?	No
					Recommended Reinspection?	No



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

	No exceptions were taken during observations.		
Remedial Action	N/A		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration**Agency/Department Information**

Inspection Date	YYYY	MM	DD	Report Number	20170321-WMATA-WP-1		
	2017	03	21				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	RTRA	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Green Line Stations						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	EMGT-GEN-PI					
Inspection Units	1					
Inspection Subunits	11					
Defects (Number)	10					
Recommended Finding	Yes					
Remedial Action Required ¹	Yes					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Fire Life Safety Inspection			Activity Code		EMGT	GEN	PI
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	No	Out Brief Conducted	No	Time	0700-1300	Outside Shift	No			
Related Reports	N/A			Related CAPS / Findings			N/A							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard		Other / Title		Checklist Reference				
	MetroRail Safety Rules and Procedures Handbook		SOP# 1A SOP# 8 SOP# 5											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
			X									X		
Line(s)	Green	Track Number	N/A		Chain Marker and/or Station(s)		From		To					
							Greenbelt		Branch Ave.					
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description	The FWSO Inspector conducted Fire Life Safety inspections on the Green Line between Branch Avenue and Archives, as well as Greenbelt. During the inspection, the FWSO inspector ensured that each station had the correct							Number of Defects		10				
								Recommended Finding?		Yes				
								Remedial Action Required?		Yes				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=WLS, o=U.S. Government, ou=DOT Headquarters, ou=FTA, email=WINSLOW.L.POWELL, c=US Date: 2017.04.03 10:48:50 -0400</small>		
Inspector in Charge - Name	Inspection Team	
Winslow Powell	Chris Difatta	



	<p>emergency evacuation maps, functioning fire extinguishers, and that the station manager was in possession of the current MetroRail Safety Rules and Procedures Handbook (MSRPH) and Emergency Evacuation Procedures for reference in case of emergency.</p> <p>The following new non-color-coded defects were observed:</p> <ul style="list-style-type: none">• 2015 Emergency Evacuation Maps were observed with 2016 maps at the Branch Ave. station.• 1997 Emergency Evacuation Maps were observed with 2016 maps at the Naylor Road station.• 1997 Emergency Evacuation Maps were observed with 2016 maps at the Southern Ave. station.• Station Manager was not in possession of MSRPH or Emergency Evacuation Procedures at the Southern Ave. station.• 2015 Emergency Evacuation Maps were observed with 2016 maps at the Congress Heights station.• Station Manager was not in possession of MSRPH or Emergency Evacuation Procedures at the Congress Heights station.• The Anacostia station did not have current 2016 Emergency Evacuation Maps.• Station Manager was not in possession of MSRPH or Emergency Evacuation Procedures at the Anacostia station.• Station Manager was not in possession of MSRPH and Emergency Evacuation Procedures at the Waterfront station.• Station Manager was not in possession of MSRPH and Emergency Evacuation Procedures at the Archives station. <p>Other Notable Observations:</p> <ul style="list-style-type: none">• Fire Equipment Room door was propped open with a trash receptacle at the Anacostia station.	Recommended Reinspection?	Yes
Remedial Action	<p>To achieve compliance with WMATA's requirements:</p> <ul style="list-style-type: none">• WMATA must ensure all stations have the most current version of the emergency evacuation map.• WMATA must ensure that all station managers are in possession of the MSRPH and Emergency Evacuation Procedures.		



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170321-WMATA-WP-2		
	2017	03	21				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	RTRA	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Green Line						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-RI-OBS					
Inspection Units	1					
Inspection Subunits	N/A					
Defects (Number)	1					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Rail Compliance Inspection			Activity Code		RTRA	RI	OBS
Job Briefing Employee Name/Title	N/A					Accompanied Inspector?	No	Out Brief Conducted	No	Time	1200-1300	Outside Shift	No	
Related Reports	20170110-WMATA-WP-1					Related CAPS / Findings		Remedial Actions: #1044 and #1048						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard		Other / Title		Checklist Reference				
	MetroRail Safety Rules and Procedures Handbook Permanent Order No. T-16-07		MSRPH General Rules 1.46-1.52 1.69-1.84 MSRPH Operating Rules 3.87 3.119, 3.120, 3.121,3.121.1, 3.79.1, 3.141 SOP# 12, 15, 16, 35, 45, 50											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X											x		
Line(s)	Green		N/A					From		To				

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W.L. Powell, o=U.S. Government, ou=DOT Headquarters, ou=FTAG, cn=WINSLOW L. POWELL Date: 2017.03.28 19:48:57 -0400</small>		
Inspector in Charge - Name Winslow Powell	Inspection Team Chris Difatta	



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

		Track Number		Chain Marker and/or Station(s)	Georgia Ave	Greenbelt
Vehicles	Head Car Number	Number of Cars		Equipment	N/A	
	2034	8				
Description	An FWSO Inspector conducted observations on the Green Line. The following observations were conducted on one train:				Number of Defects	1
	<ul style="list-style-type: none"> <u>Train Handling:</u> <ul style="list-style-type: none"> Operated to 8-car station berthing marker at the end of the platform. Head was out of the window when stopping an 8 car consist. Application of good train handling with smooth station stops. Operator provided smooth and even acceleration and deceleration. <u>Stations and Doors:</u> <ul style="list-style-type: none"> Verified platform side of the train by operator sticking his/her head out of the cab window. Looked at doors on platform side of train to verify any activity in front of the doors for 5 seconds before opening the doors. The operator opened the doors on the correct platform side. The operator observed the train loading with their head outside cab window to ensure that customers were not hit or trapped within the doors of the train. The operator closed the window and looked in the direction of travel before moving the train forward. <p>The FWSO Inspector observed the following operating rule was not complied with between Georgia Avenue and Greenbelt Station:</p> <ul style="list-style-type: none"> <u>Train Horn Communications:</u> <ul style="list-style-type: none"> The train operator did not comply with WMATA's Metrorail Safety Rules and Procedures Handbook (MSRPH) Operating Rule 3.87.1 that states: "A rail vehicle shall sound their horns when entering and exiting tunnel portals." This defect was previously noted in FWSO report 20170110-WMATA-WP-1 and was issued a corresponding remedial action. 				Recommended Finding?	Yes
					Remedial Action Required?	No
					Recommended Reinspection?	Yes
Remedial Action	N/A					



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170322-WMATA-WP-1		
	2017	03	22				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	POWR	Sub- Department	CM
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Bethesda (A09)– Wayside						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TP-RM-OBS					
Inspection Units	1					
Inspection Subunits	4					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject	Bethesda (09)– Expansion Cable Replacement			Activity Code		TP	RM	OBS
Job Briefing Employee Name/Title	WMATA RWIC		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	0100-0500	Outside Shift	Yes
Related Reports			Related CAPS / Findings							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard		Other / Title		Checklist Reference			
	PREVENTIVE MAINTENANCE INSPECTION (PMI) FOR TRACK FEEDER CABLE - 1000 KCMIL / 1500 KCMIL (REVISION 4, JUNE 16, 2015)									
	ENGINEERING MODIFICATION INSTRUCTIONS (EMI) FOR JUMPER, EXPANSION, AND TRANSITION POWER CABLES REPLACEMENT SYSTEMWIDE (REVISION 2, SEPTEMBER 16, 2016)									

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=WINSLOW L. POWELL, o=FTA Headquarters, ou=FTA Date: 2017.04.20 09:44:26 -0400</small>		
Inspector in Charge – Name Winslow Powell	Inspection Team Tino Sahoo	

Form FTA-IR-1

Version date: 8/26/16



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Form FTA-IR-1

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X		X						X		
Line(s)	A-Line	Track Number	1	Chain Marker and/or Station(s)	From		To				
					Bethesda (A09) CM 384+00		Bethesda (K04) CM 384+00				
Vehicles	Head Car Number	Number of Cars		Equipment	Expansion Cable Replacement						
	N/A	N/A									
Description	<p>The job safety briefing was comprehensive. The hot spots, hazards, clearance areas, communication, and Roadway Access Guide were used as part of the discussion. Track protection was Exclusive Track Occupancy (ETO) and the de-energization of the 3rd rail was done via a red tag. No exceptions were taken to the job safety briefing.</p> <p>In WMATA's shop before the night of work, four 22-foot length portions of 1000 kcmil cable were cut and pre-meggered (500 mega-ohms or higher). In addition, anytime there is a new cable replacement on the feeder cables, 2 kV (voltage rating) cables are being used to upgrade the system for the future employment of 100 percent 7000 series 8-car trains.</p> <p>The FWSO Inspector and WMATA personnel did not note any defects.</p> <p>Other Notable Observations: At the location of CM 384+00, track 1: The expansion cables had been removed and replaced with a splice bar. Since there were no cables to replace, the C3M crew along with WMATA walked the full work area (CM 330+00 – CM 402+00 on track 1) to see if any other cables needed be to stood off the ground or if there was another set of expansion cables to be replaced. All cables had been stood off the ground in this area, and all expansion cables had been removed and replaced with a splice bar at the expansion joint.</p> <p>WMATA employs electrical contractors from C3M to complete this switch out of cables. WMATA had trained C3M on the exact installation procedure. C3M had a crew of seven and WMATA had a crew of three supervising their work. WMATA has four cable repair crews: two crews use contractors to handle cables on the ground (COG) and two crews concentrate on a state of good repair for the cables.</p>							Number of Defects	0		
								Recommended Finding?	No		
								Remedial Action Required?	No		
								Recommended Reinspection?	No		
Remedial Action	N/A										



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170322-WMATA-WP-2		
	2017	03	22				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	POWR	Sub- Department	PMI
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Traction Power Substation (TPSS) #2 (920 North Frederick Street, Arlington, VA 22205); Ballston (K04) - Closest Metro Station						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TP-RM-OBS					
Inspection Units	1					
Inspection Subunits	5					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject			TPSS #2 - DC switchgear (CPC) 750 V DC switchgear preventive maintenance inspection			Activity Code		TP	RM	OBS
Job Briefing Employee Name/Title	WMATA Electrician			Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1000-1400	Outside Shift	No	
Related Reports				Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference			
	PMI FOR GEC EEC CPC 750 VOLT DC SWITCHGEAR ANNUAL INSPECTION (REVISION 3, JUNE 20, 2013)											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A	
			X									X
Line(s)	K-Line	Track Number	N/A		Chain Marker and/or Station(s)		From		To			
							TPSS #2		TPSS #2			
Vehicles	Head Car Number		Number of Cars		Equipment		750 V DC (Controlled Power Corporation – Manufacturer) SWGR					

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Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2017.04.03 10:00:10 -0400</small>		
Inspector in Charge – Name Winslow Powell	Inspection Team Tino Sahoo	

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	N/A	N/A		
Description	<p>Two WMATA high-voltage power electricians performed the preventive maintenance on the lineup (5 total) of 750 V DC circuit breakers on the Controlled Power Corporation (CPC) DC switchgear. These breakers energize the 3rd rail trackside. The electricians' job safety briefing outlining potential safety hazards and work to be performed was done by their supervisor at their home rail yard or facility before appearing at the work site (Traction Power Substation #2). A job safety briefing was done at the Traction Power Substation also for FTA personnel. No issues or concerns were noted. The Rail Operations Control Center (ROCC) was notified by the WMATA personnel that power was to be de-energized to the individual breaker (ex. E-K04-53). Once the "go-ahead" was given by ROCC, the WMATA electricians put on switching suits and 1000 V-rated rubber gloves in order to de-energize and rack out the individual breaker. During this switching event, per WMATA protocol, any non-WMATA personnel must leave the room in case of any type of potential arc flash events. Maintenance was then performed according to the published Preventive Maintenance and Inspection (PMI) manual listed above.</p> <p>The FWSO Inspection and WMATA personnel did not note any defects.</p> <p>Other Notable Observations: General Procedure for Preventive Maintenance of 750 V DC (CPC) switchgear (SWGR):</p> <ol style="list-style-type: none"> Each of the five breakers had to be racked out of their respective DC SWGR cubicle one at a time as maintenance is performed one breaker at a time. Any brake dust and contaminants were wiped away from the surface and internals of the breaker using industrial wipes. A blower and vacuum was also used to blow and suck contaminants from the device. The copper bus "stabs" were greased or lubricated with the manufacturer-recommended lubricants. The breaker was wheeled to the breaker test cabinet—which is mounted on the adjacent wall—and connected. "Open" and "close" mechanisms of the breaker were tested using the test cabinet. Various measurements were taken and noted on a checklist for (half shaft limit screw, hand/shunt trip rod adjustment, over/reverse current trip rod adjustment, trip knife gap, knife safety screw, arc contact set point, main contact gap with aux. contacts touching, main contact pressure gap, closing solenoid cap, under the voltage coil). These measurements (in millimeters) should fall within a certain range for each of parts noted above. The condition of the arc chute, operation of the puffer, and operation of anti-pump relay are observed for good condition and correct operation. The insulation resistance of circuit breaker control wiring at 500 VDC is measured and noted. It should fall within a certain range if the insulation has not degraded. The micro-Ohm meter was used to measure resistance of the copper bus to ensure it was within the proper limits (0-20 micro-ohms). Inspection of the frame of the breaker was done visually. Inspection of the DC SWGR cubicle was done visually for rust, corrosion, loose connections, dust, and contaminants. Switches and knobs, DC control power components, and space heaters were checked to ensure they were working properly. Electricians re-racked the breaker back into the DC SWGR cubicle and verified it was properly working. Verification was done by checking the operation of the circuit breaker in the TEST position (operate controls - close and trip breakers electrically). This included the annunciator - alarm or target operation, etc. ROCC was notified that the individual breaker was racked in and energized. Procedures 1-9 were to be repeated for the other four breakers in the lineup. 			<p>Number of Defects 0</p> <p>Recommended Finding? No</p> <p>Remedial Action Required? No</p>
Remedial Action	N/A			





Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170323-WMATA-WP-1		
	2017	03	23				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	Maintenance/Safe
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	F-Line, track 1 and 2 between Gallery Place and Branch Avenue						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-INS				
Inspection Units	1	1				
Inspection Subunits	4	1				
Defects (Number)	0	6				
Recommended Finding	No	No				
Remedial Action Required ¹	No	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Inspection Subject				Roadway Worker Protection – Job Safety Briefing			Activity Code		TRK	RWP	OBS
Job Briefing Employee Name/Title	TRST UNIT 89				Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	2200 0600	Outside Shift	Yes	
Related Reports					Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	RWPM												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X		X					X	X	X			
Line(s)	F-Line	Track Number	Track 1 and 2		Chain Marker and/or Station(s)		From		To				
							Gallery Place B01, CM 00+00		Branch Ave. F11, CM 549+00				
Vehicles	Head Car Number		Number of Cars		Equipment		TGV-01						
	TGV-01		1										
Description	The job safety briefing was provided by Track and Structures (TRST) unit 89 in the TGV vehicle. The briefing was thorough and complied with all WMATA's requirements.							Number of Defects		0			
								Recommended Finding?		No			
								Remedial Action Required?		No			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2017.03.27 06:56:12 -0400</small>		
Inspector in Charge – Name	Winslow Powell	Inspection Team
		Alexander Nepa



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		Recommended Reinspection?	No
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Track Geometry Inspection, TGV-01.				Activity Code	TRK	GEN	INS						
Job Briefing Employee Name/Title	TRST UNIT 89		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	2200 0600	Outside Shift	Yes						
Related Reports	Related CAPS / Findings															
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference								
	TRST-1000															
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A					
	X		X					X	X	X						
Line(s)	F-Line	Track Number	Tracks 1 and 2	Chain Marker and/or Station(s)	From			To								
					Gallery Place F-B01, CM 00+00			Branch Avenue F11, CM 549+0								
Vehicles	Head Car Number		Number of Cars		Equipment	TGV-01										
	TGV-01		1													
Description	A track geometry inspection of tracks 1 and 2 between Gallery Place and Branch Avenue Station was conducted by WMATA, TGV-01 and observed by FWSO. During the observation, the following defects were identified: <ul style="list-style-type: none">At CM 144+38, track 2: A wide gauge measuring 57.01 (57-1/64) inches was observed. (red condition)At CM 324+40, track 2: A wide gauge measuring 57.08 (57-5/64) inches was observed. (red condition)At CM 538+30, track 2: A wide gauge measuring 57.08 (57-5/64) inches was observed. (red condition)At CM 202+70, track 1: A wide gauge measuring 57.90 (57-3/32) inches was observed. (red condition)At CM 60+53, track 1: A wide gauge measuring 57.07 (57-5/64) inches was observed. (red condition)At CM 59+38, track 1: A wide gauge measuring 57.03 (57-1/32) inches was observed. (red condition) The areas of concern were immediately protected with a slow speed restriction.						Number of Defects		0							
							Recommended Finding?		No							
							Remedial Action Required?		No							
							Recommended Reinspection?		No							
Remedial Action	N/A															



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170323-WMATA-WP-2		
	2017	03	23				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track	Sub- Department	Production
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Surge 13 Work Area Eisenhower Avenue (C14) to Braddock Road (C12)						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-JSB-OBS	TRK-WI-PI				
Inspection Units	1	1				
Inspection Subunits	1	1				
Defects (Number)	0	0				
Recommended Finding	No	No				
Remedial Action Required ¹	No	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Inspection Subject				Job Safety Briefing Observation			Activity Code		TRK	JSB	OBS
Job Briefing Employee Name/Title	Job Safety Briefing Table				Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1200-1400	Outside Shift	No	
Related Reports	N/A				Related CAPS / Findings			N/A					
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard			Other / Title		Checklist Reference			
	MSRPH												
	RWPM												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X							X	X				
Line(s)	C-Line	Track Number	1	Chain Marker and/or Station(s)			From		To				
							Eisenhower Ave. (C14)		Braddock Road (C12)				
Vehicles	Head Car Number		Number of Cars		Equipment		N/A						
	N/A		N/A										
Description	FWSO personnel received a Job Safety Briefing from the Surge 13 briefing table. All personnel protective equipment (PPE) and roadway worker protection (RWP)							Number of Defects		0			
								Recommended Finding?		No			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W.L. POWELL, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ c=US, email=W.L. POWELL, serial=102700-0400 Date: 2017.03.30 10:27:00 -0400</small>		
Inspector in Charge - Name Winslow Powell	Inspection Team Adam Giovando, Mike Vitale	

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Federal Transit Administration

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	ID were checked and the working limits were reviewed. The briefer covered the locations and types of work taking place as well as the nearest hospital and safety rule of the day. FWSO personnel were provided a purple bracelet indicating their receipt of the briefing and were granted access to the roadway. No exceptions were taken.							Remedial Action Required?		No
								Recommended Reinspection?		No
Remedial Action	N/A									

Inspection Activity #	2	Inspection Subject					SafeTrack Surge 13 Walking Inspection			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	Job Safety Briefing Table				Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1200-1400	Outside Shift	No		
Related Reports	N/A				Related CAPS / Findings		N/A							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard		Other / Title			Checklist Reference			
	MSRPH													
	RWPM													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X							X	X					
Line(s)	C-Line	Track Number	1	Chain Marker and/or Station(s)	From			To						
					Eisenhower Ave. (C14)			Braddock Road (C12)						
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description	<p>FWSO personnel walked track 1 of the C-Line between Eisenhower Avenue and Braddock Road also inspecting the J-Line between the C and J connector (C97) and the yard lead interlocking near the telegraph road systems maintenance facility. WMATA is nearing completion of this track, preparing to change over to track 2.</p> <p>FWSO inspectors noted that the grout pad and fastener rehabilitation between the Eisenhower Avenue platform and the portal were nearly complete, with the final work being completed that day. ATC personnel were observed reattaching equipment to the running rail to return the track to service. FWSO did notice several e-Clips that had been overdriven. This was reported to a Track and Structures (TRST) quality officer who was performing an inspection in the area. FWSO also observed fastener and grout pad renewal activities at the King Street Station that was nearing completion.</p> <p>In addition to this work, FWSO observed recently completed tie work between King Street and Braddock Road. This involved the addition of new ties, new Pandrol plates and clips, and new ballast. No exceptions were taken.</p> <p>Finally, FWSO noted new additional signage at the C and J connectors indicating track identification, which was helpful in alleviating potential confusion for WMATA personnel.</p>							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				
Remedial Action	N/A													



Photos:



Completed Grout Pad Replacement at Eisenhower Avenue Station



Overdriven Clip observed and reported to TRST Quality Officer



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170324-WMATA-WP-1		
	2017	03	24				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track	Sub- Department	Maintenance
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	D-Line tracks 1 and 2 between Stadium-Armory (D08) and the D and G Junction (D98)						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-JSB-OBS	TRK-WI-PI				
Inspection Units	1	1				
Inspection Subunits	1	1				
Defects (Number)	0	4				
Recommended Finding	No	Yes				
Remedial Action Required ¹	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	Inspection Subject				Job Safety Briefing Observations			Activity Code		TRK	JSB	OBS
Job Briefing Employee Name/Title	TRST 6430				Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1000-1400	Outside Shift	No	
Related Reports	20161020-WMATA-PH-1 20170125-WMATA-AMD-1 20170131-WMATA-CB-1 20170126-WMATA-AD-3				Related CAPS / Findings			Remedial Action IDs: 995, 1085, 1086, 1087, 1088, 1100, 1101, 120, 1121					
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard			Other / Title		Checklist Reference			
	TRST 1000												
	RWPM												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X								X	X			
Line(s)	D-Line	Track Number	Tracks 1 and 2	Chain Marker and/or Station(s)	From			To					
					Stadium Armory (D08)			D and G Junction (D98)					
Vehicles	Head Car Number		Number of Cars		Equipment	N/A							
	N/A		N/A										
Description	FWSO personnel received a job safety briefing from Track and Structures (TRST) Unit 6430. All personal protective equipment (PPE) and roadway worker							Number of Defects		0			
								Recommended Finding?		No			

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Inspector in Charge - Signature WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2017.04.03 10:06:34 -0400</small>		Date
Inspector in Charge - Name Winslow Powell	Inspection Team Adam Giovando, Mike Vitale	



United States Department of Transportation
Federal Transit Administration

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	protection (RWP) ID were checked and the inspection limits were reviewed. The briefer covered the type of protection in place, hotspots in the area, as well as the nearest hospital and safety rule of the day. No exceptions were taken.						Remedial Action Required?		No	
							Recommended Reinspection?		No	
Remedial Action	N/A									

Inspection Activity #	2	Inspection Subject	Remedial Action Follow Up Inspection				Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	TRST 6430		Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1000-1400	Outside Shift	No	
Related Reports	20161020-WMATA-PH-1 20170125-WMATA-AMD-1 20170131-WMATA-CB-1 20170126-WMATA-AD-3		Related CAPS / Findings		Remedial Action IDs: 995, 1085, 1086, 1087, 1088, 1100, 1101, 120, 1121						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	TRST 1000										
	RWPM										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X								X	X	
Line(s)	D-Line	Track Number	Tracks 1 and 2	Chain Marker and/or Station(s)	From			To			
					Stadium Armory (D08)			D and G Junction (D98)			
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								
Description	<p>FWSO personnel inspected tracks 1 and 2 of the D-Line between Stadium Armory and the D and G Junction to follow up on remedial actions with WMATA's Quality and Internal Compliance Office (QICO). Remedial Actions included replacing fasteners, replacing cover boards, and plugging leaks. FWSO closed the following remedial actions:</p> <ul style="list-style-type: none"> • 1085 - WMATA has replaced fasteners at D1 231+10. • 1086 - WMATA has replaced fasteners at D1 230+60. • 1087 - WMATA has plugged a tunnel leak at D1 230+30. • 995- WMATA reinstalled a bolt in a joint bar at D1 270+10. <p>FWSO could not close the following remedial actions, which have not been addressed:</p> <ul style="list-style-type: none"> • 1088 - WMATA has not addressed leak at D1 229+60. • 1100 - WMATA has not addressed drainage issues between the portal and chain marker D2 226+50. • 1101 - WMATA has not replaced cover boards or repaired 3rd rail anchors at D2 266+20. • 1120 - WMATA has not replaced a grout pad under the 3rd rail insulator at D1 227+30. • 1121 - WMATA has not addressed low rail spalling at D1 219+90. <p>The following new non-color-coded defects were observed:</p> <ul style="list-style-type: none"> • D1 270+10 – FWSO noted that when repairs were made to the joint bar to address remedial action 995, WMATA installed two different joint bars. • D2 231+50-230+50 – FWSO noted seven of eight fasteners with broken anchor bolts on the left rail. The fasteners are still supporting gauge and this item is classified as a maintenance defect per WMATA's TRST 1000 standard. • D2 265+75 – FWSO noted five consecutive fasteners which are defective and allowing pumping on the left rail. Additionally, the grout pads in this location are crumbling. The fasteners are still supporting gauge and this item is classified as a maintenance defect per WMATA's TRST 1000 standard. • D2 262+00 – FWSO noted expansion cables on the aerial deck. 						Number of Defects		4		
							Recommended Finding?		No		
							Remedial Action Required?		No		
							Recommended Reinspection?		No		



	Other Notable Observations: <ul style="list-style-type: none">• D2 230+50 – Clog under ATC impedance bond.• D1 226+70 – Clog under marker coil		
Remedial Action	To achieve compliance with WMATA's requirements: <ul style="list-style-type: none">• WMATA must install correct joint bar at D1 270+10.• WMATA must replace defective fasteners at D2 231+50.• WMATA must replace defective fasteners at D2 265+75.• WMATA must elevate cables at D2 262+00.		

Photos:



Poor drainage at D2 226+50.



Clog under impedance bond at D2 230+50.



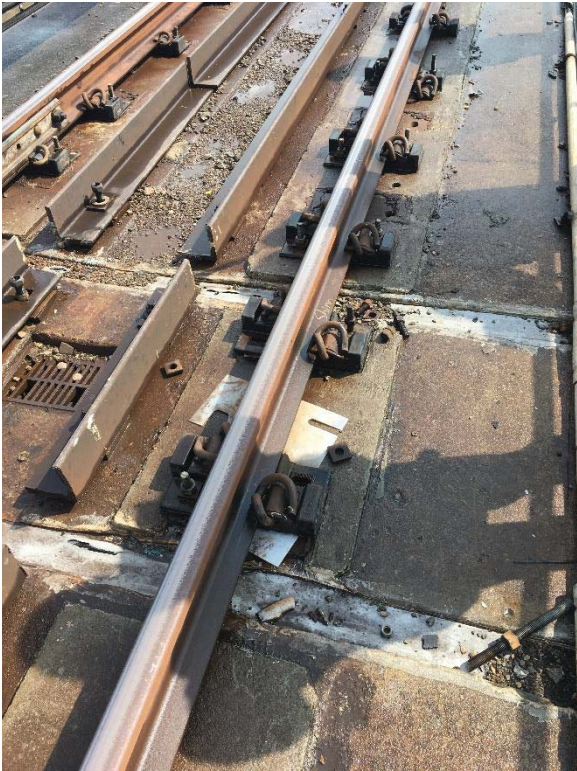
Defective fasteners at D2 231+50.



Cables on deck of aerial structure at D2 262+00.



Broken third rail anchor at D2 266+20.



Defective fasteners at D2 265+75.



Joint bar mismatch at D1 270+10.



Clog under marker coil at D1 226+70



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170325-WMATA-WP-1		
	2017	03	25				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TRST	Sub- Department	Maintenance
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	B-Line main line switch inspection between Silver Spring (B08) and Takoma (B07).						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RWP-OBS	TRK-GEN-INS				
Inspection Units	1	1				
Inspection Subunits	6	11				
Defects (Number)	0	9				
Recommended Finding	No	Yes				
Remedial Action Required ¹	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	Inspection Subject				Roadway Worker Protection – Job Safety Briefing			Activity Code		TRK	RWP	OBS
Job Briefing Employee Name/Title	TRST UNIT 6168, RWIC TRST UNIT 6296, Watchman Lookout				Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	0800 1700	Outside Shift	No	
Related Reports					Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	RWPM												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X							X					
Line(s)	B Line	Track Number	Tracks 1 & 2		Chain Marker and/or Station(s)		From		To				
							Silver Spring (B08)		Fort Totten (B06)				
Vehicles	Head Car Number		Number of Cars		Equipment	N/A							
	N/A		N/A										
Description	The job safety briefing was provided by TRST Unit #6168 at Silver Spring Station. The briefing was fully compliant with WMATA requirements. It included WMATA level 1 ID check, type of protection, train approach warning (TAW), potential hazards, hot spots and hospital locations. No exceptions were taken with the job safety briefing.							Number of Defects		0			
								Recommended Finding?		No			
								Remedial Action Required?		No			
								Recommended Reinspection?		No			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W, ou=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, c=US, email=WINSLOW.L.POWELL@FTA.DOT.gov Date: 2017.04.03 09:29:21 -0400</small>		
Inspector in Charge – Name	Inspection Team	
Winslow Powell	Adam Giovando & Alexander Nepa	



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Remedial Action	N/A												
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Inspection Activity #	2	Inspection Subject						Track General Inspection			Activity Code		TRK	GEN	INS
Job Briefing Employee Name/Title	TRST Unit 6168, RWIC and TRST Unit 6296 watchman lookout						Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	0800 1700	Outside Shift	No	
Related Reports							Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard		Other / Title		Checklist Reference					
	TRST 1000		T-16-07												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A				
	X							X							
Line(s)	B-Line	Track Number	Tracks 1 and 2	Chain Marker and/or Station(s)	From				To						
					Silver Spring (B08)				Fort Totten (B06)						
Vehicles	Head Car Number		Number of Cars		Equipment	N/A									
	N/A		N/A												
	<p>An inspection of B-Line main line switches between Silver Spring (B08) and Fort Totten (B06) was conducted. Two FWSO Inspectors accompanied WMATA personnel and a contractor representative from Harsco. The contractor conducted the inspection using a new version of the TRST 1000 track maintenance standards that has not been distributed. FWSO conducted its inspection using the January 1, 2015 revision 6 standards.</p> <p>The FWSO Inspector noted the following black defect:</p> <ul style="list-style-type: none"> TRST 1000 defect 6.8.1: On track one at the B07-04 signal, six defective ties in a row were observed. The distance between non-defective ties was 180 inches. This is listed in the TRST 1000 manual as a black condition. <p>The FWSO Inspector noted the following non-color-coded defects:</p> <ul style="list-style-type: none"> TRST 1000 defect 9.22.4: At B2 351+10, switch 3B, six loose frog bolts were observed. TRST 1000 defect 9.22.4: At B2 351+10, switch 3B, the switch point protector, loose bolts on the right-side plate were observed. TRST 1000 defect 9.27.1: At B2 351+10, switch 3B, On the number four rod, right side, loose transit clip bolts were observed. TRST 1000 defect 8.10.6: At B2 351+10, outbound of the 3B switch, it was observed that the foul ballast was not providing drainage as designed. TRST 1000 defect 8.10.6: At B2 352+00, one tie showed signs of foul ballast. This condition is not allowing water to drain as designed. TRST 1000 defect 8.10.6: At B2 353+50, four ties in a row with foul ballast were not draining water as designed. TRST 1000 defect 9.28: At B2 351+10, switch 3B, on the main side guard rail, loose bolts were observed. TRST 1000 defect 13.3.14: At B2 354+00, the B07 switch was missing end approach cover boards. <p>Other Notable Observations:</p> <ul style="list-style-type: none"> SOP T-16-07: At CM 353+00, 1314 hours, a 7000-series train, lead car number 7164, did not appear to slow to the required 10 mph, dim the lights or sound the horn, as required. This incident was immediately reported to the Rail Operations Control Center (ROCC) by the roadway worker in charge (RWIC). The remedial action for this defect was previously issued in FWSO report 20170301-WMATA-WP-1. 										Number of Defects		9		
											Recommended Finding?		Yes		
											Remedial Action Required?		Yes		
											Recommended Reinspection?		Yes		
Remedial Action	<p>To achieve compliance with WMATA's requirements:</p> <ul style="list-style-type: none"> WMATA must replace defective ties at the B07-04 Signal. WMATA must tighten frog bolts at B2 351+10, switch 3B. 														



- WMATA must tighten switch point protector bolts at B2 351+10, switch 3B.
- WMATA must tighten transit clip switch rod bolts at B2 351+10, switch 3B.
- WMATA must replace ballast and stabilize track geometry between B2 351+10 and 353+50.
- WMATA must tighten guard rail bolts at B2 351+10, switch 3B.
- WMATA must replace missing end approach cover board at B2 354+00.

Photos:



Foul ballast CM 351+10 static condition



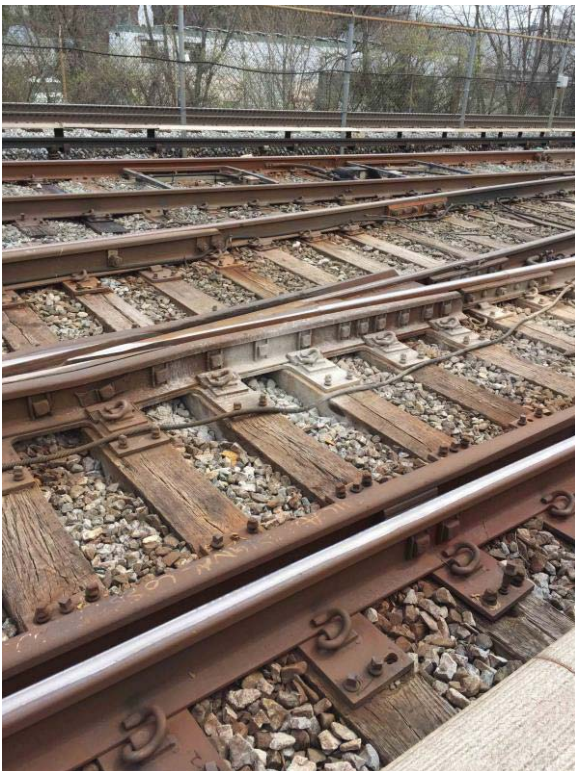
Foul ballast CM 351+10 dynamic condition



Foul ballast CM 351+50



Foul ballast CM 351+50



Caption 5: Foul ballast and loose bolt condition



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170325-WMATA-WP-2		
	2017	03	25				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	POWR	Sub- Department	CBL. IN.
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Greenbelt Yard (E99)						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TP-WI-OBS					
Inspection Units	1					
Inspection Subunits	29					
Defects (Number)	22					
Recommended Finding	Yes					
Remedial Action Required ¹	Yes					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	Inspection Subject				Walking Observation (Cable Inspection)			Activity Code		TP	WI	OBS
Job Briefing Employee Name/Title	WMATA RWIC WMATA Watchman/Lookout WMATA Documenter				Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1000-1400	Outside Shift	No	
Related Reports					Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard			Other / Title		Checklist Reference			
	RWPM												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
		X						X					
Line(s)	E-Line	Track Number	N/A	Chain Marker and/or Station(s)			From		To				
							Greenbelt Yard (E99)		Greenbelt Yard (E99)				
Vehicles	Head Car Number		Number of Cars		Equipment		N/A						
	N/A		N/A										
Description	The job safety briefing was comprehensive. The hot spots, hazards, clearance areas, communication, and Roadway Access Guide were used as part of the discussion. No exceptions were taken to the job safety briefing.							Number of Defects		22			
								Recommended Finding?		Yes			
								Remedial Action Required?		Yes			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W. L. Powell, o=U.S. Department of Transportation, ou=FTA, email=W. POWELL@FTA.DOT.gov Date: 2017.04.06 08:55:38 -0400</small>		Date
Inspector in Charge - Name Winslow Powell	Inspection Team Tino Sahoo	



	<p>Daily cable inspections are part of the holistic approach WMATA has instituted to prevent cable fires and arcing incidents. On a typical day there are three different WMATA cable inspection crews that are active, and they include three personnel—the Roadway Worker in Charge (RWIC), the watchman/lookout, and a documenter of issues in wayside power cable and/or connections. Each crew inspects a different portion of the mainline from 1000–1400 hours. The pictures taken and issues noted are entered into a database for nighttime cable repair crews to fix.</p> <p>The FWSO Inspector and WMATA personnel noted the following defects during the course of the cable inspection at Greenbelt Yard:</p> <ul style="list-style-type: none">• Yard Contact Rail (YCR) 63 – Neoprene sleeve compromised on orange boots (“blow dryers”) (See Figure 1).• YCR 62 – Neoprene sleeve compromised on orange boots (See Figure 2).• YCR 64 – Neoprene sleeve compromised on orange boots; orange boot needs replacement (See Figure 3).• YCR 77 – Neoprene sleeve compromised on orange boots; heat shrink compromised on conduit stub-up (See Figures 4 and 5).• YCR 76 – Neoprene sleeve compromised on orange boots (See Figure 6).• YCR 78 – Neoprene sleeve compromised on orange boots (See Figure 7).• YCR 82 – Neoprene sleeve compromised on orange boots (See Figure 8).• YCR 75 – Neoprene sleeve compromised on orange boots (See Figure 9).• YCR 61 – Neoprene sleeve compromised on orange boots. Cable with temporary repair should be replaced (See Figures 10 and 11).• YCR 124 – Neoprene sleeve compromised on orange boots (See Figure 12).• YCR 123 – Neoprene sleeve compromised on orange boots (See Figure 13).• YCR 59 – Neoprene sleeve compromised on orange boots (See Figure 14).• YCR 58 – Neoprene sleeve compromised on orange boots (See Figure 15).• YCR 60 – Neoprene sleeve compromised on orange boots; heat shrink compromised on conduit stub-ups (See Figures 16 and 17).• YCR 144 – Neoprene sleeve compromised on orange boots (See Figure 18).• YCR 38 – Cables and orange boots too close to 3rd rail (See Figure 19).• YCR 35 – Heat shrink compromised on conduit stub-up. Ductline transition of cable into orange boot needs more length vertical portion (See Figures 20 and 21).• YCR 37 – Neoprene sleeve compromised on orange boots (See Figure 22). <p>Other Notable Observations:</p> <ul style="list-style-type: none">• YCR 67 – Cables lying on the ballast.• YCR 47 – Cables lying on the ballast.• YCR 46 – Cables lying on the ballast.• YCR 66 – Cables lying on the ballast.• YCR 65 – Cables lying on the ballast.• YCR 45 – Cables lying on the ballast.• YCR 63 – Cables lying on the ballast.• YCR 62 – Cables lying on the ballast.• YCR 64 – Cables lying on the ballast.• YCR 77 – Cables lying on the ballast.• YCR 76 – Cables lying on the ballast.• YCR 78 – Cables lying on the ballast.• YCR 82 – Cables lying on the ballast.• YCR 75 – Cables lying on the ballast.• YCR 61 – Cables lying on the ballast and buried underneath ballast.• YCR 124 – Cables lying on the ballast.• YCR 123 – Cables lying on the ballast.• YCR 59 – Cables lying on the ballast.• YCR 58 – Cables lying on the ballast.• YCR 60 – Cables lying on the ballast.• YCR 144 – Cables lying on the ballast.• YCR 38 – Cables lying on the ballast.	<p>Recommended Reinspection?</p>	<p>Yes</p>
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	<ul style="list-style-type: none">• YCR 36 – Cables lying on the ballast.• YCR 35 – Cables lying on the ballast.• YCR 37 – Cables lying on the ballast.• YCR 122 – Cables lying on the ballast.• YCR 34 – Cables lying on the ballast.• YCR 32 – Cables lying on the ballast.• YCR 31 – Cables lying on the ballast. <p>FWSO will follow up to confirm the conclusion of the work once the cable issues have been corrected.</p>		
Remedial Action	<p>To achieve compliance with WMATA's requirements, WMATA must:</p> <ul style="list-style-type: none">• YCR 63 – Replace with new orange boots. Installing new orange boots requires a new neoprene sleeve to be installed.• YCR 62 – Replace with new orange boots.• YCR 64 - Replace with new orange boots.• YCR 77 – Replace with new orange boots.• YCR 77 – Replace heat shrink on conduit stub-ups.• YCR 76 - Replace with new orange boots.• YCR 78 - Replace with new orange boots.• YCR 82 - Replace with new orange boots.• YCR 75 - Replace with new orange boots.• YCR 61 - Replace with new orange boots.• YCR 61 – Replace cable with temporary repair with new cable.• YCR 124 - Replace with new orange boots.• YCR 123 - Replace with new orange boots.• YCR 59 - Replace with new orange boots.• YCR 58 – Replace with new orange boots.• YCR 60 – Replace with new orange boots.• YCR 60 - Replace heat shrink on conduit stub-ups.• YCR 144 – Replace with new orange boots.• YCR 38 – Move 3rd rail cables and boots farther away from the 3rd rail.• YCR 35 – Replace heat shrink on conduit stub-ups.• YCR 35 – Replace vertical portion of cable going into orange boot with a longer length cable such that the boot has enough slack to stand vertically upwards.• YCR 37 – Replace with new orange boots.		



FIGURE 1 - YCR 63 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 2 - YCR 62 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 3 - YCR 64 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 4 - YCR 77 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 5 - YCR 77 – HEAT SHRINK COMPROMISED
ON CONDUIT STUB-UP



FIGURE 6 - YCR 76 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 7 - YCR 78 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 8 - YCR 82 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 9 - YCR 75 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 10 - YCR 61 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 11 - YCR 61 – CABLE WITH TEMPORARY
REPAIR



FIGURE 12 - YCR 124 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 13 - YCR 123 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 14 - YCR 59 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 15 - YCR 58 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 16 - YCR 60 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 17 - YCR 60 – HEAT SHRINK COMPROMISED
ON CONDUIT STUB-UP



FIGURE 18 - YCR 144 – NEOPRENE SLEEVE
COMPROMISED ON ORANGE BOOT



FIGURE 19 - YCR 138 – CABLES AND "BLOW DRYERS" TOO CLOSE TO 3RD RAIL



FIGURE 20 - YCR 35 – HEAT SHRINK COMPROMISED ON CONDUIT STUB-UP



FIGURE 21 - YCR 35 –VERTICAL PORTION OF CABLE COMING THROUGH POWER DUCT BANK INTO "BLOW DRYER" TOO SHORT



FIGURE 22 - YCR 37 – NEOPRENE SLEEVE COMPROMISED ON ORANGE BOOT



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170327-WMATA-WP-1		
	2017	03	27				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Production
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Surge 12 – C-Line Track 2 Pentagon (C07) to Rosslyn (C05)						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-JSB-OBS	TRK-WI-PI				
Inspection Units	1	1				
Inspection Subunits	1	1				
Defects (Number)	0	2				
Recommended Finding	No	Yes				
Remedial Action Required ¹	No	Yes				
Recommended Reinspection	No	Yes				

Activity Summaries

Inspection Activity #	1	Inspection Subject	Job Safety Briefing Observation				Activity Code		TRK	JSB	OBS
Job Briefing Employee Name/Title	TRST 6392		Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	1100-1500	Outside Shift	No	
Related Reports	N/A		Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	RWPM										
	MSRPH										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X							X	X		
Line(s)	C-Line	Track Number	Track 2	Chain Marker and/or Station(s)	From		To				
					Pentagon (C07)		Rosslyn (C05)				
Vehicles	Head Car Number		Number of Cars		Equipment	N/A					
	N/A		N/A								
Description								Number of Defects		0	

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=WINSLOW L. POWELL, o=U.S. Government, ou=DOT Headquarters, email=WINSLOW.L.POWELL@DOT.GOV</small>		
Inspector in Charge – Name Winslow Powell	Inspection Team Adam Giovando, Mike Vitale	



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

	Track and Structures (TRST) Unit 6392 provided a job safety briefing for the work group consisting of two FWSO inspectors and three WMATA employees at the Pentagon Station platform prior to the work group entering the roadway. The briefing was comprehensive and covered the type of protection the group would be using (Train Approach Warning), hotspots in which foul time would be invoked, personal protective equipment (PPE) requirements, places of safety throughout the work area, and the nearest hospital and emergency contact methods. TRST 6392 then checked each member of the work group for the correct PPE and roadway worker protection (RWP) badge. TRST 6392 then radioed the Rail Operations Control Center (ROCC) and was granted permission to access the roadway. No exceptions were taken with the briefing.							Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				
Remedial Action		N/A												
Inspection Activity #	2	Inspection Subject					SafeTrack Surge 12 Post-Surge Inspection			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	TRST 6392			Accompanied Inspector?		Yes	Out Brief Conducted		No	Time	1100-1500	Outside Shift	No	
Related Reports		N/A			Related CAPS / Findings		N/A							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard			Other / Title		Checklist Reference			
	RWPM													
	TRST 1000													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X							X	X					
Line(s)	C-Line	Track Number	Track 2	Chain Marker and/or Station(s)	From				To					
					Pentagon (C07)				Rosslyn (C05)					
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description	<p>FWSO inspectors performed a Post Surge Inspection of Track 2 of the C-Line. FWSO inspectors observed newly poured grout pads, newly replaced ties, repaired tunnel lighting, fresh and regulated ballast, new fasteners, new insulators, and replaced running rail. All work was of good quality.</p> <p>FWSO inspectors observed the following defects which were not in compliance with WMATA's TRST 1000, Rule 3.2.2.2:</p> <ul style="list-style-type: none"> C2 162+60 – WMATA has installed a grout pad that is obstructing the drain. This condition is not applied a color code. C2 144+90 – Water failing to drain properly causing standing water just off platform of Rosslyn station. (NOTE: This was not within the SafeTrack working limits.) This condition is not applied a color code. <p>Other notable observations:</p> <ul style="list-style-type: none"> C2 249+70 – Tunnel light was burned out. C2 240+20-241+20 – Water in culvert was draining slowly. C2 233+90 – Tunnel leak was in ceiling. C2 195+40-207+00 – Ballast piled up against third rail from track 2. 							Number of Defects		2				
								Recommended Finding?		No				
								Remedial Action Required?		No				
Recommended Reinspection?		No												
Remedial Action	<p>To achieve compliance with WMATA's requirements:</p> <ul style="list-style-type: none"> WMATA must correct grout pad obstructing drain at C2 162+60. WMATA must clear drain to relieve standing water at C2 144+90. 													



Photos:



Leak in tunnel ceiling at C2 233+90.



Ballast piled up against third rail between C2 195+40 and C2 207+00.



Grout pad obstructing drain at C2 162+60.



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170330-WMATA-WP-1		
	2017	03	30				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	RTRA	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Green Line Stations						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	EMGT-GEN-PI					
Inspection Units	1					
Inspection Subunits	10					
Defects (Number)	9					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Fire Life Safety Inspection			Activity Code		EMGT	GEN	PI
Job Briefing Employee Name/Title	N/A					Accompanied Inspector?	No	Out Brief Conducted	No	Time	0800-1200	Outside Shift	No	
Related Reports	20170321-WMATA-WP-1					Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP			Standard		Other / Title		Checklist Reference				
	MetroRail Safety Rules and Procedures Handbook		SOP# 1A SOP# 8 SOP# 5											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
			X									X		
Line(s)	Green	Track Number	N/A		Chain Marker and/or Station(s)		From		To					
							College Park		Gallery Place					
Vehicles	Head Car Number		Number of Cars			Equipment	N/A							
	N/A		N/A											
Description	The FWSO Inspector conducted Fire Life Safety inspections on the Green Line between College Park and Gallery Place. During the inspection, the FWSO inspector ensured that each station had the correct emergency evacuation maps,								Number of Defects		9			
									Recommended Finding?		No			
									Remedial Action Required?		No			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature		Date
WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: cn=W, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2017.04.06 09:26:11 -0400</small>		
Inspector in Charge - Name	Inspection Team	
Winslow Powell	Chris Difatta	

Form FTA-IR-1

Version date: 8/26/16



	<p>functioning fire extinguishers, and that the station manager was in possession of the current MetroRail Safety Rules and Procedures Handbook (MSRPH) and Emergency Evacuation Procedures for reference in case of an emergency.</p> <p>The following items were also listed as Remedial Actions in Report Number 20170321-WMATA-WP-1:</p> <p>The following new non-color-coded defects were observed:</p> <ul style="list-style-type: none">• Station manager was not in possession of the MSRPH or Emergency Evacuation Procedures at the College Park station.• 1997 Emergency Evacuation Maps were observed with 2016 Maps at the Georgia Ave-Petworth Station.• Station Manager was not in possession of the MSRPH or Emergency Evacuation Procedures at the Georgia Ave-Petworth Station.• 1997 Emergency Evacuation Maps were observed with 2016 Maps at the Columbia Heights Station.• Station Manager was not in possession of the MSRPH or Emergency Evacuation Procedures at the Columbia Heights Station.• 1997 Emergency Evacuation Maps were observed with 2016 Maps at the Shaw-Howard University Station.• Station Manager was not in possession of the MSRPH or Emergency Evacuation Procedures at the Shaw-Howard University Station.• 1997 Emergency Evacuation Maps were observed with 2016 Maps at the Mt. Vernon Square Station.• Station Manager was not in possession of the MSRPH or Emergency Evacuation Procedures at the Mt. Vernon Square Station. <p>Other Notable Observations:</p> <ul style="list-style-type: none">• Two fire extinguishers in the fire equipment room at the Columbia Heights Station were not inspected for the month of March.	Recommended Reinspection?	Yes
Remedial Action	N/A		



Inspection Form

FOIA Exemption: All (b)(6)
Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170330-WMATA-WP-2		
	2017	03	30				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	RTRA	Sub- Department	N/A
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Union Station						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTRA-GEN-OBS					
Inspection Units	1					
Inspection Subunits	10					
Defects (Number)	0					
Recommended Finding	No					
Remedial Action Required ¹	No					
Recommended Reinspection	No					

Activity Summaries

Inspection Activity #	1	Inspection Subject				Rail Compliance Inspection			Activity Code		RTRA	GEN	OBS
Job Briefing Employee Name/Title	N/A				Accompanied Inspector?	No	Out Brief Conducted	No	Time	0600-0800	Outside Shift	Yes	
Related Reports	N/A				Related CAPS / Findings		N/A						
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	MetroRail Safety Rules and Procedures Handbook Permanent Order No. T-16-07		MSRPH General Rules 1.46-1.52 1.69-1.84 MSRPH Operating Rules 3.87 3.119, 3.120, 3.121,3.121.1, 3.79.1, 3.141 SOP# 12, 15, 16, 35, 45, 50										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X		X									X	
Line(s)	Red		N/A					From		To			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature WINSLOW L. POWELL <small>Digitally signed by WINSLOW L. POWELL DN: c=US, ou=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2017.04.06 09:17:11 -0400</small>		Date
Inspector in Charge - Name Winslow Powell	Inspection Team Chris Difatta	



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

		Track Number		Chain Marker and/or Station(s)	Union Station	N/A
Vehicles	Head Car Number	Number of Cars	Equipment	N/A		
	N/A	N/A				
Description	<p>The FWSO Inspector positioned himself at the 8-car berthing mark on the station platform at Union Station to observe 10 trains for compliance with the following:</p> <ul style="list-style-type: none">• <u>Train Handling:</u><ul style="list-style-type: none">○ Operated to 8-car station berthing marker at the end of the platform.○ Train operator's head was out of the window when stopping an 8-car consist.○ Application of good train handling with smooth station stops, as well as smooth and even acceleration and deceleration.• <u>Stations and Doors:</u><ul style="list-style-type: none">○ Verified platform side of the train by sticking his/her head out of the cab window.○ Looked at doors on platform side of train to verify any activity in front of the doors for five seconds before opening the doors.○ Opened the doors on the correct platform side and made station announcements.○ Train operator observed train loading with head outside cab window to ensure that customers were not hit or trapped within the doors.○ The train operator closed the window and looked in the direction of travel before moving the train forward. <p>No exceptions were taken during observations.</p>				Number of Defects	0
					Recommended Finding?	No
					Remedial Action Required?	No
					Recommended Reinspection?	No
Remedial Action	N/A					



Inspection Form

FOIA Exemption: All (b)(6)
Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170331-WMATA-WP-1		
	2017	03	31				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	POWR	Sub- Department	CM
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Surge 13 Work Area –Eisenhower Ave Station (C14)						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TP-JSB-OBS	TP-RM-OBS				
Inspection Units	1	1				
Inspection Subunits	1	4				
Defects (Number)	0	0				
Recommended Finding	No	No				
Remedial Action Required ¹	No	No				
Recommended Reinspection	No	No				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Eisenhower Ave (C14) – Pigtail Feeder Cable Replacement			Activity Code		TP	JSB	OBS
Job Briefing Employee Name/Title	SafeTrack Dedicated Safety Briefer					Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	0100-0500	Outside Shift	Yes	
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref					Rule or SOP		Standard		Other / Title		Checklist Reference		
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X									X				
Line(s)	C-Line	Track Number			Track 2	Chain Marker and/or Station(s)		From		To				
								CM 592+00		CM 592+00				
Vehicles	Head Car Number		Number of Cars			Equipment		Traction Power Feeder Cable Repair/Replacement						
	N/A		N/A											
Description	FWSO personnel received a Job Safety Briefing from the Surge 13 briefing table. All personal protective equipment (PPE) and roadway worker protection (RWP) ID								Number of Defects		0			
									Recommended Finding?		No			

¹ The rail transit agency must provide FTA with the necessary evidence (e.g. maintenance work order system records, photos, documentation, records, data, or other evidence) to close out the Remedial Action. Closeout of Remedial Actions may also be subject to ongoing FTA verification inspections to ensure corrections are sufficient and effective.

Inspector in Charge - Signature	WINSLOW L. POWELL		Digitally signed by WINSLOW L. POWELL DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=WINSLOW L. POWELL Date: 2017.04.07 10:01:07 -04'00'	Date
Inspector in Charge – Name Winslow Powell	Inspection Team Tino Sahoo			



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

	were checked and the working limits were reviewed. Briefer covered the locations and types of work taking place as well as the nearest hospital and safety rule of the day. FWSO personnel were provided a bracelet indicating their receipt of the briefing and were granted access to the roadway. No exceptions were taken.							Remedial Action Required?		No	
								Recommended Reinspection?		No	
Remedial Action	N/A										

Inspection Activity #	2		Inspection Subject				Eisenhower Ave (C14) – Pigtail Feeder Cable Replacement			Activity Code		TP	RM	OBS
Job Briefing Employee Name/Title	SafeTrack Dedicated Safety Briefer				Accompanied Inspector?	Yes		Out Brief Conducted	Yes	Time	0100-0500	Outside Shift	Yes	
Related Reports	20170217-WMATA-WP-1				Related CAPS / Findings									
Related Rules, SOPs, Standards, or Other	Ref				Rule or SOP		Standard		Other / Title			Checklist Reference		
	PREVENTIVE MAINTENANCE INSPECTION (PMI) FOR TRACK FEEDER CABLE - 1000 KCMIL / 1500 KCMIL (REVISION 4, JUNE 16, 2015)													
	ENGINEERING MODIFICATION INSTRUCTIONS (EMI) FOR JUMPER, EXPANSION, AND TRANSITION POWER CABLES REPLACEMENT SYSTEMWIDE (REVISION 2, SEPTEMBER 16, 2016)													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X									X				
Line(s)	C-Line	Track Number	Track 2	Chain Marker and/or Station(s)	From			To						
					CM 592+00			CM 592+00						
Vehicles	Head Car Number		Number of Cars		Equipment	Traction Power Feeder Cable Repair/Replacement								
	N/A		N/A											
Description	<p>FWSO inspectors observed WMATA's power department and electrical contractors performing cable replacement in the SafeTrack surge 13 work zone. During the inspection, FWSO observed the contractor's installation of four pigtails via CADWELD to the steel 3rd rail, which were completed per the Engineering Modification Instruction (EMI) for jumper, expansion, and transition power cables replacement system wide, issued September 16, 2016.</p> <p>To expedite the installation process, WMATA prepared and tested 6-foot length portions of 1000 kcmil cable, including installing the necessary connection components. FWSO inspectors observed the prepared cables being installed at the orange boot, and then cut to a more exact length and welded to the running rail. All installations included the required slack to allow for the expansion and contraction of the 3rd rail, and all cables were elevated from the bridge deck in accordance with the EMI. Finally, in order to support the 100 percent 8-car train power system upgrades, 2 kV voltage rated cables were used.</p> <p>The FWSO Inspector and WMATA personnel did not note any defects during the replacement process.</p>							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				
Remedial Action	N/A													



Inspection Form

FOIA Exemption: All (b)(6)

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20170331-WMATA-WP-2		
	2017	03	31				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	POWR	Sub- Department	CBL. IN.
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Woodley Park (A04) to Van Ness (A06), track 1						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TP-WI-OBS					
Inspection Units	1					
Inspection Subunits	9					
Defects (Number)	7					
Recommended Finding	Yes					
Remedial Action Required ¹	Yes					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	Inspection Subject				Walking Observation (Cable Inspection)			Activity Code		TP	WI	OBS
Job Briefing Employee Name/Title	WMATA RWIC WMATA Watchman/Lookout WMATA Documenter				Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1000-1400	Outside Shift	No	
Related Reports	RWPM				Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X								X				
Line(s)	A-Line	Track Number	1		Chain Marker and/or Station(s)		From		To				
							Woodley Park (A04)		Van Ness (A06)				
Vehicles	Head Car Number		Number of Cars		Equipment	N/A							
	N/A		N/A										
Description	The job safety briefing was comprehensive. The hot spots, hazards, clearance areas, communication, and Roadway Access Guide were used as part of the							Number of Defects		7			
								Recommended Finding?		Yes			

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Inspector in Charge - Signature WINSLOW L. POWELL		Date
Inspector in Charge - Name Winslow Powell	Inspection Team Tino Sahoo	



	<p>discussion. No exceptions were taken to the job safety briefing.</p> <p>Daily cable inspections are part of the holistic approach WMATA has instituted to prevent cable fires and arcing incidents. On a typical day, there are three different WMATA cable inspection crews that are active, and they include three personnel—the Roadway Worker in Charge (RWIC), the Watchman/Lookout, and a documenter of issues in wayside power cable and/or connections. Each crew inspects a different portion of the mainline from 1000–1400 hours. The pictures taken and issues noted are entered into a database for night time cable repair crews to fix.</p> <p>The FWSO Inspector and WMATA personnel noted the following defects:</p> <ul style="list-style-type: none">• TRK 1 CM 135+00 – Standing water was observed in the tunnel. (See Figure 1)• TRK 1 CM 146+00 – Standing water was observed in the tunnel. (See Figure 2)• TRK 1 CM 154+00 to CM 156+00 – Catch basin approaches were clogged with mud and debris. (See Figure 3)• TRK 1 CM 195+00 – Existing orange boots were on the deck and corroded; missing OZ Gedney bushings and heat shrink on conduit stub-ups. (See Figure 4 and 5)• TRK 1 CM 198+00 – The heat shrink was compromised on one conduit stub-up. <p>Other Notable Observations:</p> <ul style="list-style-type: none">• TRK 1 CM 147+00 – Cables were lying on the deck (concrete slab).• TRK 1 CM 157+00 – Cables were lying on the deck. Mud, trash, and debris were surrounding the cables.• TRK 1 CM 158+00 – Cables were lying on the deck.• TRK 1 CM 173+00 to CM 185+00 – 3rd rail cover_board was missing.• TRK 1 CM 198+00 – Cables were lying on the deck. <p>FWSO will follow up to confirm the conclusion of the work once the cable issues have been corrected.</p>	Remedial Action Required?	Yes
		Recommended Reinspection?	Yes
Remedial Action	<p>To achieve compliance with WMATA's requirements:</p> <ul style="list-style-type: none">• WMATA must mitigate water intrusion at TRK 1 CM 135+00.• WMATA must mitigate water intrusion at TRK 1 CM 146+00.• WMATA must clean out catch basin approaches at TRK 1 CM 154+00 to CM 156+00.• WMATA must replace existing orange boots with new orange boots at TRK 1 CM 195+00.• WMATA must install OZ Gedney bushings at TRK 1 CM 195+00.• WMATA must install heat shrink on conduit stub-ups at TRK 1 CM 195+00.• WMATA must replace heat shrink on conduit stub-up at TRK 1 CM 198+00.		



FIGURE 1 - TRK 1 CM 135+00 – STANDING WATER WAS OBSERVED IN THE TUNNEL



FIGURE 2 - TRK 1 CM 146+00 – STANDING WATER WAS OBSERVED IN THE TUNNEL



FIGURE 3 - TRK 1 CM 194+00 TO CM 196+00 - EXISTING DRAINAGE DITCHES IN TUNNEL ARE FULL OF MUD AND DEBRIS.





FIGURE 5 - TRK 1 CM 195+00 – MISSING OZ GEDNEY BUSHINGS AND
HEAT SHRINK ON CONDUIT STUB-UPS