



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

all (b)(6)

Inspection Date	YYYY	MM	DD	Report Number	20160404-WMATA-JMC-1		
	2016	04	04				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Rail Transportation	Sub-Department	Shady Grove Subdivision
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	WMATA Grosvenor-Strathmore Station, 10300 Rockville Pike, Bethesda, MD 20852						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6	7	8
Activity Code	RTRA-GEN-MTG	RTRA-RAD-OBS	RTRA-RI-OBS					
Inspection Units	1	1	1					
Inspection Subunits	6	1	1					
Defects (Number)	0	2	0					
Recommended Finding	No	Yes	No					
Remedial Action Required?	No	Yes	No					
Recommend Reinspection	No	Yes	No					

Individual Inspection Activity

Inspection Activity #	1	Inspection Subject					General Meeting			Activity Code	RTRA	GEN	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	0700-1000	Outside Shift	Yes		
Related Reports				Related CAPS / Findings									
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	MSRPH		1.69-1.79										
	ROCC Manual												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
					X							X	
Line(s)	Red	Track Number		Chain Marker	From			To					
Vehicles	Head Car Number		Number of Cars		Equipment								
Description	FWSO met with Superintendent [REDACTED] and Terminal Supervisor [REDACTED] Mr. [REDACTED] met with Operators and Mechanical Employees. He had job safety briefing with them when arriving at the Grosvenor-Strathmore Block House. FWSO monitored train movement, radio communications at Grosvenor-Strathmore Block House. The Operator performed his duties as per SOP's, Metrorail Safety Rules and Procedures Handbook and train movements.							Number of Defects		0			
								Recommended Finding?		No			
								Action Required?		No			
								Recommend Reinspection?		No			

Inspector in Charge - Signature

James Cassatt, Jr

Digitally signed by James Cassatt, Jr
DN: cn=James Cassatt, Jr, o=FRA, ou=DOT, email=james.cassatt@dot.gov, c=US
Date: 2016.04.05 16:41:41 -04'00'

Date

April 4, 2016

Inspector in Charge - Name
Jim CassattInspection Team
Jim Cassatt

Form FTA-IR-1

Version date: 1/19/16



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Federal Transit Administration

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Remedial Action		N/A									
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Inspection Activity #	2	Inspection Subject						Repeat Backs/ Observations			Activity Code	RTRA	RAD	OBS
Job Briefing Employee Name/Title	N/A						Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	0700-1000	Outside Shift	Yes
Related Reports		Related CAPS / Findings												
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP				Standard		Other / Title			Checklist Reference			
	MSRPH	1.73, 1.79												
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 Line	Track Number		Chain Marker	From				To					
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO observed and monitored the Largo Terminal Supervisor and Train Operators for compliance with radio rules and monitored radio transmissions. Proper repeat backs were given for Permissive block movement, radio checks and other instructions regarding employee movement within Grosvenor-Strathmore pocket track. The following non-compliance was noted 1. Radio communications were difficult to receive and transmit on number one, two and pocket track in the tunnel portal at Grosvenor-Strathmore. WMATA needs to comply with CAP FTA-RAIL-1-14-B and FTA-RAIL-1-14-A.										Number of Defects		1	
											Recommended Finding?		Yes	
											Remedial Action Required?		Yes	
												Recommend Reinspection?		Yes
Remedial Action	FTA has issued a Corrective Action Plan (CAP) number FTA-RAIL-1-14-B and FTA-RAIL-1-14-A. WMATA's original estimate to request closure is Jan 2017													

Inspection Activity #	3	Inspection Subject						Close Clearance			Activity Code	RTRA	RI	OBS
Job Briefing Employee Name/Title	N/A						Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	0300-0900	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				X					
Line(s)	RedLine	Track Number	pocket	Chain Marker	From				To					
Vehicles	Head Car Number		Number of Cars		Equipment									



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Description	FWSO observed with Superintendent DeFlippo the clearance of an eight car train in the pocket track at the Grosvenor-Strathmore pocket track between interlocking signals. There is only a few feet between the end of the car and signal at either end of the train. We observed Operators moving the train at restricted speed and stopping the train at the proper marker.	Number of Defects	0	
		Recommended Finding?	No	
		Remedial Action Required?	No	
		Recommend Reinspection?	No	
Remedial Action	N/A			



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United States Department of Transportation
Federal Transit Administration

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Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160406-WMATA-TGB-1		
	2016	04	06				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking inspection of track Clarendon Station and Rosslyn Station						

Inspection Summary

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

Activity Summaries

Inspection Activity #	1	Inspection Subject					Activity Code				
Job Briefing Employee Name/Title	[REDACTED] Supervisor			Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	2200 0400	Outside Shift	Yes
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	MSRPH		General Rules								
	TRST1000										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	x								x		
Line(s)	OR	Track Number	2	Chain Marker and/or Station(s)	From			To			
					Clarendon			Rosslyn			
					229+00			151+50			
Vehicles	Head Car Number		Number of Cars		Equipment	Prime Mover #PM47					
	PM47		1								
Description	FRA Inspectors were requested to perform a visual inspection of the track structure and turnouts between Clarendon Station and Rosslyn Station. In New Carrollton Yard the FRA observed two RMMs, PM60 and PM56, parked in the foul of turnouts at separate locations in the yard In New Carrollton Yard the FRA observed 1 equipment defect. The work equipment							Number of Defects		6	
								Recommended Finding?		No	
								Remedial Action Required?		Yes	
								Recommended Reinspection?		Yes	

Inspector in Charge - Signature

SEAN L THOMPSON

Digitally signed by SEAN L THOMPSON
DN: cn=US, o=U.S. Government, ou=DOT,
Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON
Date: 2016.04.12 14:31:15 -0400

Date

04/06/2016

Inspector in Charge - Name
Sean Thompson

Inspection Team
Tom Beck, Joe Kennedy, Mark Adamczak



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	<p>flat car attached to PM47 failed the required initial brake test and was found unserviceable prior to departing New Carrollton Yard</p> <p>At 170+50 the drain in the gage of track was observed to be obstructed by debris allowing water to flow in the gage to the next working drain.</p> <p>At 170+20 and KO 216+50 there were exposed impedance bond cables noted.</p> <p>At 214+00 there was scrap train control case covers left in manway passage between tracks 1 and 2 creating a safety hazard for any worker attempting to use the manway as a place of safety</p> <p>At 184+00 there were no working overhead lights at the emergency exit and fire department standpipe locations, as well as at various other locations throughout the inspection.</p> <p>At Potomac Station the FRA observed that the operator of PM47 could not contact the ROCC via radio (dead area?)</p> <p>FRA Inspector performed a physical inspection of one turnout between Clarendon and Rosslyn Stations at the K Line turnout. There were no exceptions taken.</p>		
Remedial Action	Repair/correct defects as appropriate.		



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Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160406-WMATA-MWP-1		
	2016	04	06				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track & Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking inspection of track between New Carrollton Station CM 211+46 and end point CM 260+00 at D&G Aerial Structure.						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-RWP-PI	TRK-RMM-PI	TRK-RAD-OBS	TRK-RMM-OBS	
Inspection Units	1	1	1	1	1	
Inspection Subunits	2	1	1	1	1	
Defects (Number)	12	0	See RMM note	1	See RMM note	
Recommended Finding	Yes	N/A	Yes	No	Yes	
Remedial Action Required	Yes	N/A	No	No	Yes	
Recommended Reinspection	Yes	N/A	No	No	Yes	

Activity Summaries

Inspection Activity #	Inspection Subject						Activity Code				
Job Briefing Employee Name/Title	Employee [REDACTED] s RWIC Level 4 (Replace with Employee Number)			Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	2311 0345	Outside Shift	N/A
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	MSRPH	General Rules									
	TRST 1000										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	X	X	<input type="checkbox"/>
Line(s)	D-Line	Track Number	2	Chain Marker and/or Station(s)	From		To				
					211+46		260.00				
Vehicles	Head Car Number		Number of Cars		Equipment						
	PM 43		3								
Description	Federal inspection Team 4, requested to perform visual inspection of Track 2 structure and switches between Stadium-Armory Station and New Carrollton Station. During the inspection I was accompanied by FTA members; Troy Lloyd & Phil Herbert, DRPT Rudy Flowers, WMATA Supervisor [REDACTED] and RWIC [REDACTED] During the inspection the following items were identified by hi-rail vehicle and						Number of Defects		33		
							Recommended Finding?		Yes		
							Remedial Action Required?		Yes		
							Recommended Reinspection?		Yes		
Inspector in Charge - Signature						SEAN L THOMPSON		<small>Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 14:30:41 -04'00'</small>			
Inspector in Charge - Name		Inspection Team 4 Troy Lloyd (FTA), Michael W. Pirato (FRA), Phil Herbert (FTA), Rudy Flowers (DRPT)									

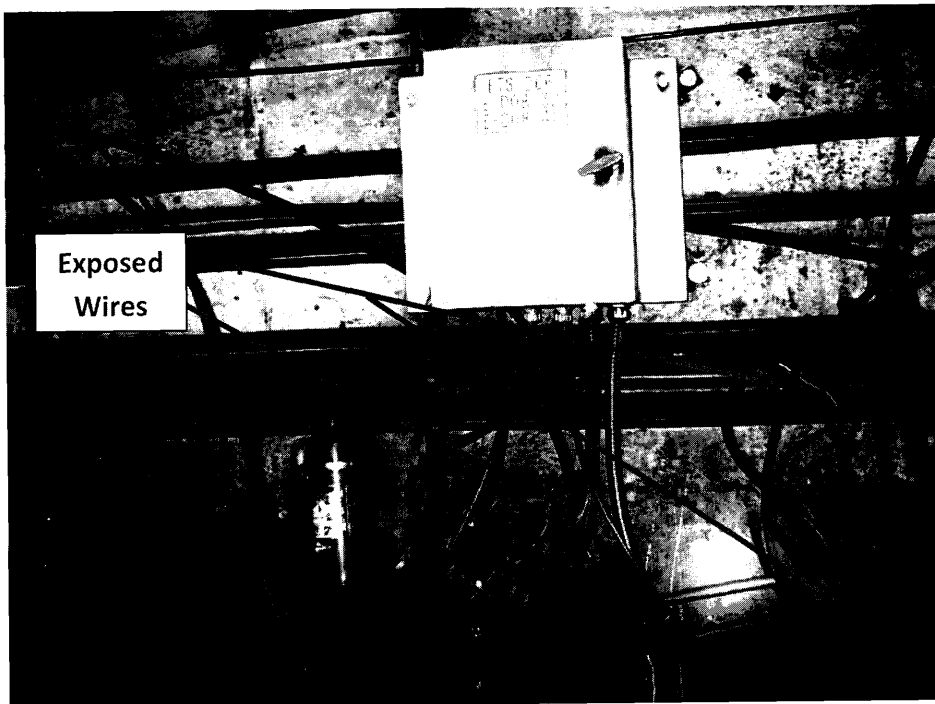
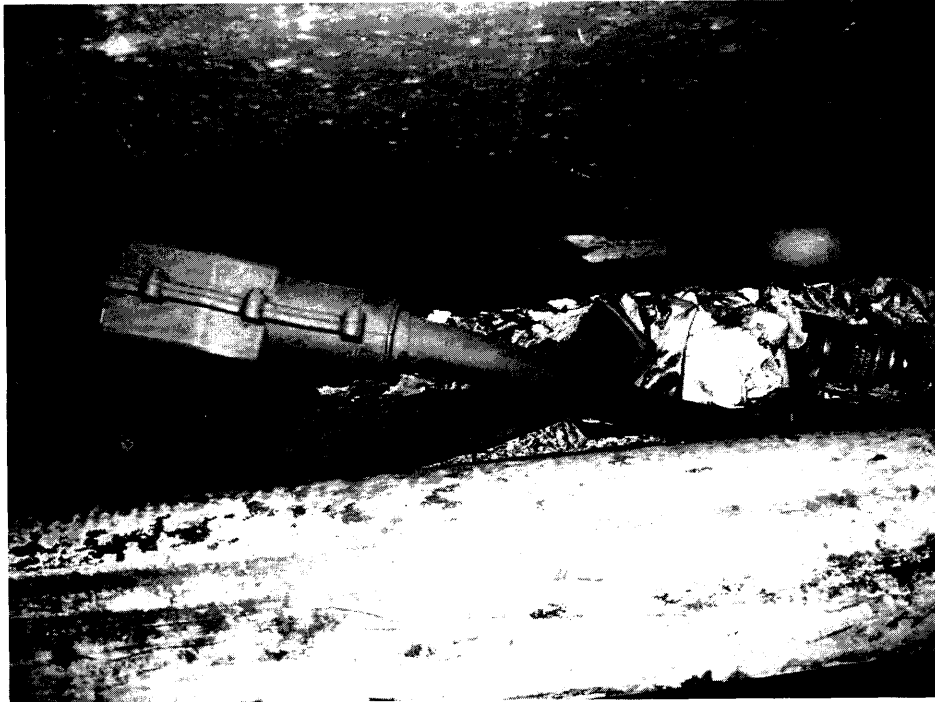


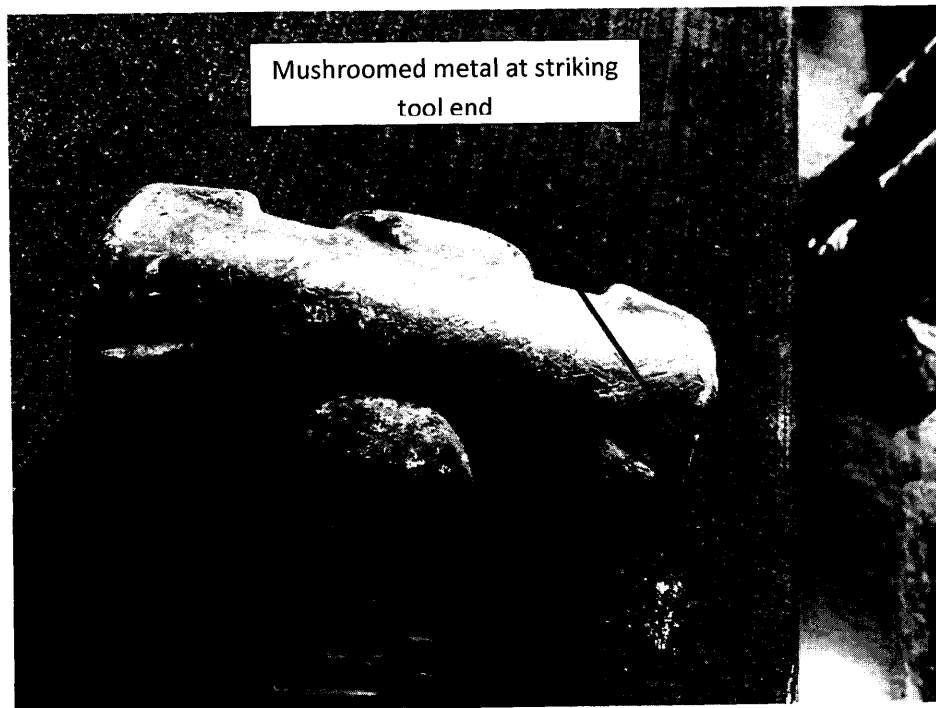
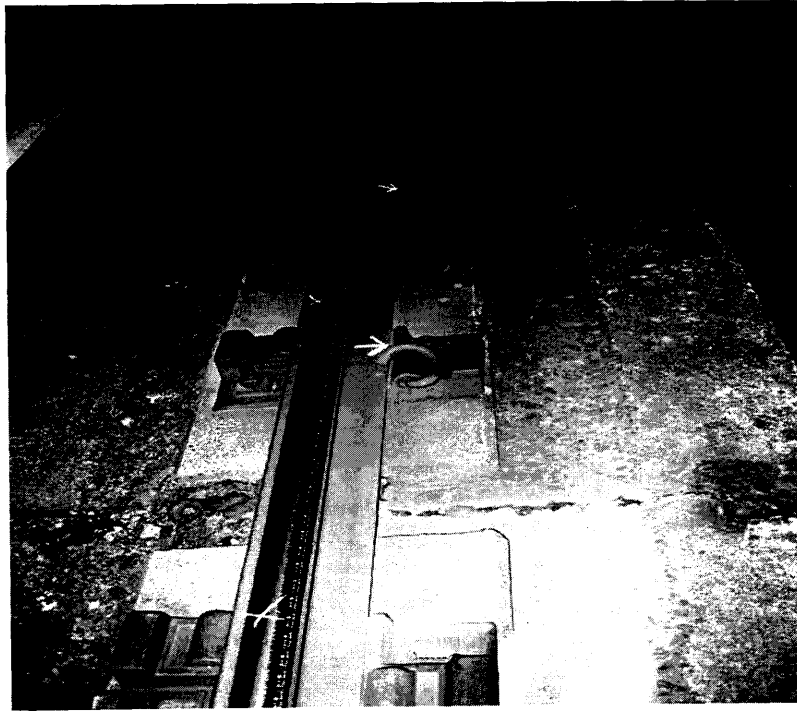
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	<p>walking as defects.</p> <p>Railway Maintenance Machines (RMM)</p> <ul style="list-style-type: none">• Clearing points at New Carrollton Yard (D99). Equipment fouling adjacent MOW tracks.<ul style="list-style-type: none">○ PM56○ Flat 506○ Flat 606• Operator Level 4 – did not have required manuals/RWP/Line Information, etc. in vehicle.• Walkways not kept clear of tripping hazards. <p>3rd Rail</p> <ul style="list-style-type: none">• Missing cover board at end approach at D99-142 Sig. at crossing• Missing cover board at end approach at D99-22 Sig. at crossover switch• Missing cover board just passed D99-22 Sig. at power feed cable• Missing cover board at end approach at end of Cheverly Station• A total of 14 additional occurrences of "missing cover boards" between New Carrollton Yard and Stadium- Armory Station clearly visible from PM 43. <p>Fasteners/Direct Fixation Items</p> <ul style="list-style-type: none">• D2 213+60<ul style="list-style-type: none">○ 3 non-effective fasteners in a row.• D2 236+55 to 238+00<ul style="list-style-type: none">▪ 3 separate occurrences of less than 10 effective fasteners in 40 ft. (Note) in this area there were the track modulus transitions from a ballasted wood tie construction to a direct fixation system entering into the portal, a number of locations had just the minimum amount of 10 effective (non-broken pads and or loose and sheared anchor bolts). <p>Safety Items of Concern</p> <ul style="list-style-type: none">• D2 221+70<ul style="list-style-type: none">○ Trash / debris around power cable• D2 227+00<ul style="list-style-type: none">○ ETS Box # D-66 has exposed bare wires.• D2 229+60<ul style="list-style-type: none">○ Pandrol clips/OTM on safety catwalk where personnel clear. <p>WMATA Work Rule</p> <p>Sledge hammer in use with metal flow "mushroomed" at striking end with potential for spalling and injury.</p>		
Remedial Action			









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Federal Transit Administration

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Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	160406-WMATA-NAV-1		
	2016	04	06				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking inspection of track 1 and track 2 between McPherson Square to Foggy Bottom-GWU						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-WI-OBS	TRK-SW-PI	TRK-RAD-OBS	TRK-RWP-PI	
Inspection Units	1	1	1	1	1	
Inspection Subunits	3	1	8	1	2	
Defects (Number)	41	0	1	0	0	
Recommended Finding	YES	N/A	YES	NO	NO	
Remedial Action Required	YES	N/A	YES	NO	NO	
Recommended Reinspection	YES	N/A	YES	NO	NO	

Activity Summaries

Inspection Activity #	1	Inspection Subject					Track, Switch, Turnout and Third Rail Inspection			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	RWIC [REDACTED] Supervisor [REDACTED]		Accompanied Inspector?		YES	Out Brief Conducted		Yes	Time	2230 0210	Outside Shift		Yes	
Related Reports	Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Maintenance Standards											
	TRST1000													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X		X						X					
Line(s)	Orange	Track Number	1, 2	Chain Marker and/or Station(s)	From				To					
	Silver				20+51				68+17					
	Blue													
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description	FRA inspectors conducted a focused walking inspection of WMATA Orange/Silver/Blue Line track one and two to include switches, turnouts, crossovers and components between McPherson Square Station and Foggy Bottom Station. During the inspection the following items were identified.								Number of Defects		41			
									Recommended Finding?		NO			
									Remedial Action Required?		YES			
									Recommended Reinspection?		YES			

Inspector in Charge - Signature		SEAN L THOMPSON		Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 14:21:35 -04'00'		Date 04/06/2016	
Inspector in Charge - Name Sean Thompson		Inspection Team Nathan Vance / Chris Schulte					



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	<p>MISSING COVER BOARDS, TRST1000, 13.3.15: - TRACK 1: CM28+65, 39+90, 64+60, 65+10, 66+65, - TRACK 2: CM66+40, 62+70, 62+30, 61+50, 61+70, 53+00, 38+00, 29+20</p> <p>HEAD SURFACE/RUNNING SURFACE SPALLING, TRST1000, 5.11.7: - TRACK 2: CM56+00</p> <p>DIRECT FIXATION RAIL SUPPORT TRST 1000 7.7, (Defective Fasteners): - TRACK 1: CM28+65 right rail 2 defective fasteners in row at joint; CM28+65 at heel of frog (L Rail) 3 defective fasteners in row; CM30+10 R Rail 4 missing fasteners in row; CM53+20 R rail 2 defective fasteners in row; CM55+70 R rail 5 defective fasteners in row of curve; CM57+10 R rail 2 defective fasteners in row; CM60+05 2 defective fasteners in row; CM60+70 L rail 2 defective fasteners in row; CM60+95 R rail 2 defective fasteners in row; CM62+60 R rail 3 defective fasteners in row; CM65+80 R rail 3 defective fasteners in row; CM66+60 L rail 5 defective fasteners in row; CM66+65 L rail 3 defective fasteners in row; CM68+09 R rail 2 defective fasteners in row.</p> <p>- TRACK 2: CM67+50 R rail 3 defective fasteners in row; CM66+90 in T.O. closure rail 4 defective fasteners in row; CM66+60 L rail 3 defective fasteners in row; CM65+30 on turnout rails 6 defective fasteners in row; CM63+45 R rail 6 defective fasteners in row; CM62+00 R rail 2 defective fasteners in row; CM60+00 R rail 3 defective fasteners in row; CM56+30 R rail 2 defective fasteners in row; CM56+00 L rail 3 defective fasteners in row; CM32+90 R rail 2 defective fasteners in row; CM30+40 R rail 4 defective fasteners in row.</p> <p>3RD RAIL CRACK, TRST100, 13.3.1: - TRACK 2: CM65+20 account defective weld.</p> <p>3RD RAIL SUPPORT BRACKETS, TRST1000, 13.3.13: - TRACK 2: CM62+00 Broken bracket</p>		
Remedial Action	Correct/repair defects.		

Inspection Activity #	2	Inspection Subject	Observation comments to WMATA				Activity Code		TRK	WI	OBS
Job Briefing Employee Name/Title	Employee [REDACTED] (b)(6)		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	2230 0210	Outside Shift	YES	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP			Standard		Other / Title		Checklist Reference		
	COMMENTS										
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	1, 2	Chain Marker and/or Station(s)	From			To			
	Silver				20+51			68+17			
	Blue										
Vehicles	Head Car Number		Number of Cars		Equipment						
	N/A		N/A								
Description	OBSERVATIONS MADE: - 3 rd rail power cables rubbing on concrete floor: CM50+40, 30+40.						Number of Defects		0		
							Recommended Finding?		NO		
							Remedial Action Required?		Optional		
							Recommended Reinspection?		NO		
Remedial Action											



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Inspection Activity #	3	Inspection Subject	Switch Inspection					Activity Code	TRK	SW	PI
Job Briefing Employee Name/Title	Employee [REDACTED] (b)(6)		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	2230 0210	Outside Shift	YES	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP			Standard		Other / Title		Checklist Reference		
	MSRPH	General Maintenance Standards									
	TRST1000										
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	1, 2	Chain Marker and/or Station(s)	From			To			
	Silver				20+51			68+17			
	Blue										
Vehicles	Head Car Number		Number of Cars		Equipment						
	N/A		N/A								
Description	FRA inspectors conducted a physical inspection of eight switches between McPherson Square Station and Foggy Bottom Station. TURNOUT STANDARDS, TRST1000, 9.27.1 - TRACK 2: CM31+00 (Rockville connection Switch) #4 Switch Rod loose center bolts account of loss of insulating material							Number of Defects		1	
								Recommended Finding?		NO	
								Remedial Action Required?		YES	
								Recommended Reinspection?		YES	
Remedial Action	Correct/repair defects.										



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United States Department of Transportation
Federal Transit Administration

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Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160406-WMATA-CDF-1		
	2016	04	06				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking Inspection of track one between West Hyattsville and West Totten, CM 368+15 to 258+07						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI					
Inspection Units	2					
Inspection Subunits	4					
Defects (Number)	10					
Recommended Finding	NO					
Remedial Action Required	YES					
Recommended Reinspection	YES					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Track, Switch, Turnout and Third Rail Inspection			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	RWIC [REDACTED] employee number [REDACTED] Supervisor [REDACTED] employee number [REDACTED]		Accompanied Inspector?		YES	Out Brief Conducted		YES	Time	2130 0345	Outside Shift		YES	
Related Reports	Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Maintenance Standards											
	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)	YELLOW/ GREEN LINE	Track Number	ONE	Chain Marker and/or Station(s)	From		To							
					357+20		357+20							
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO Inspection team in conjunction with FRA support, conducted a focused walking inspection of WMATA YELLOW/GREEN Line track one to include switches, turnouts, crossovers and components between HYATTSVILLE TO FORT TOTTEN, CM 368+15 and Fort Totten, CM 258+7. During the inspection the following items were identified.							Number of Defects		10				
								Recommended Finding?		NO				
								Remedial Action Required?		YES				
								Recommended Reinspection?		YES				

Inspector in Charge - Signature	SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 14:23:54 -04'00'	Date	04/06/2016
Inspector in Charge - Name	Sean Thompson			
Inspection Team	[REDACTED], [REDACTED]			



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	Missing tie pads /fasteners 357+20 RIGHT RAIL Missing tie pads / fasteners 355+85 Right RAIL Missing tie pads / fasteners 354+45 Right RAIL Engine burn 339+50 Engine burn 20% left rail. Switch 1 A E1 284+50 Loose missing or worn frog bolts . Switch 1A E1 284+50 Loose fastners at frog Switch 1A E1 284+50 Tread wear exceeds allowable measurement. Measured ½ in tread wear.		
Remedial Action	Complete repairs identified in inspection.		



Inspection Form

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Federal Transit Administration

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Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160406-WMATA-AAN-1		
	2016	04	06				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking Inspection of track one between Medical Center and Friendship Heights, CM 304+20 to 444+00						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-WI-OBS	TRK-SW-PI	TRK-RAD-OBS	TRK-RWP-PI	
Inspection Units	1	1	1	1	1	
Inspection Subunits	4	2	4	1	2	
Defects (Number)	10	0	0	1	0	
Recommended Finding	NO	N/A	NO	NO	NO	
Remedial Action Required	YES	N/A	NO	NO	NO	
Recommended Reinspection	YES	N/A	NO	NO	NO	

Activity Summaries

Inspection Activity #	1	Inspection Subject				Track, Switch, Turnout and Third Rail Inspection			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	RWI [REDACTED] employee number [REDACTED] Level 4 Supervisor [REDACTED] employee number [REDACTED]		Accompanied Inspector?		Yes	Out Brief Conducted		YES	Time	2200 0330	Outside Shift		YES
Related Reports			Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	MSRPH		General Maintenance Standards										
	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)	RED LINE	Track Number	ONE	Chain Marker and/or Station(s)	From				To				
					304+20				444+00				
Vehicles	Head Car Number		Number of Cars		Equipment								
Description	FWSO Inspection team in conjunction with FRA support, conducted a focused walking inspection of WMATA Red Line Track One to include switches, turnouts, crossovers and components between Friendship Heights, CM 304+20 and Medical Center, CM 444+00. During the inspection the following items were identified.								Number of Defects		10		
									Recommended Finding?		NO		
									Remedial Action Required?		YES		
									Recommended Reinspection?		YES		

Inspector in Charge - Signature	SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTA/HQ, cn=SEAN L THOMPSON Date: 2016.04.12 14:22:54 -04'00'	Date 04/06/2016
Inspector in Charge - Name Sean Thompson	Inspection Team Alexander Nepa, William Wilson		



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Form FTA-IR-1

	<p>MISSING COVER BOARDS, TRST1000, 13.3.15. CM323+00, 356+00 and 396+50 TO 416+60.</p> <p>HEAD SURFACE/RUNNING SURFACE SPALLING, TRST1000, 5.11.7 CM 307+60.</p> <p>DIRECT FIXATION RAIL SUPPORT TRST 1000 7.7, (Missing Clips). CM 304+20 to 304+80 series of missing clips supporting rail joints, two-in-a-row. CM 307+60 three consivative missing clips, closest supporting fastener 93 inches. CM 328+30 four missing clips in-a-row, closest supporting fastener 144 inches. Between CM 357+50 and 357+60 left rail four missing clips in-a-row, closest supporting fastener 147 inches.</p> <p>MATERIAL TRIP/FALL HAZARD TRST1000 10.17.4.1, CM 316+00 to 321+00, 324+00 to 325+00, 385+00 to 387+50 and 440.50, relay rail on catwalk side or in the gage creating a tripping hazard to employees while exiting the track.</p>		
Remedial Action	Repair/correct identified defects.		

Inspection Activity #	2	Inspection Subject	Observations comments to WMATA				Activity Code	TRK	WI	OBS	
Job Briefing Employee Name/Title	Employee number 001410, level 4		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	2000 0300	Outside Shift	YES	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	COMMENTS										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X								X		
Line(s)	Red Line	Track Number	One	Chain Marker and/or Station(s)	From		To				
					304+20		444+00				
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	Observations made, standing water not draining allowing silting creating a trip/fall hazard and pre-mature rail life due to rust .						Number of Defects		0		
							Recommended Finding?		0		
							Remedial Action Required?		Optional		
							Recommended Reinspection?		No		
Remedial Action											

Inspection Activity #	3	Inspection Subject	Switch Inspection				Activity Code	TRK	SW	PI
Job Briefing Employee Name/Title	Employee number 001410 level 4		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	2000 0300	Outside Shift	YES
Related Reports			Related CAPS / Findings							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference		
	MSRPH	General Maintenance Standards								
	TRST1000									



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Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	One								X		
Line(s)	Red Line	Track Number	One	Chain Marker and/or Station(s)	From		To				
					304+20		444+00				
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	FWSO Inspector with FRA support conducted a physical inspection of four switches between Friendship Heights and Medical Center. No defects were noted; no exceptions taken.							Number of Defects		0	
								Recommended Finding?		0	
								Remedial Action Required?		0	
								Recommended Reinspection?		0	
Remedial Action											

Inspection Activity #	4	Inspection Subject	Radio Communication Observation					Activity Code		TRK	RAD	OBS
Job Briefing Employee Name/Title	Employee number 001410 level 4			Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	2200 0330	Outside Shift	YES	
Related Reports				Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference			
	MSRPH		General Rules									
	TRST1000											
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 Line	Track Number	One	Chain Marker and/or Station(s)	From		To					
					304+20		444+00					
Vehicles	Head Car Number		Number of Cars		Equipment							
Description	FWSO and FRA Inspector monitored radio communication between RWIC and ROCC Controller. All communications were correct and legible. ROCC made required general announcements to railcar operators of signal tracking.							Number of Defects		0		
								Recommended Finding?		0		
								Remedial Action Required?		N/A		
								Recommended Reinspection?		N/A		
Remedial Action												

Inspection Activity #	5	Inspection Subject	Roadway Worker Protection					Activity Code		TRK	RWP	PI
Job Briefing Employee Name/Title	Employee number 001410 level 4			Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	2200 3300	Outside Shift	YES	
Related Reports				Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference			
	MSRPH		General Rules									
	TRST1000		RWPM									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A	
	X		X						X			



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Line(s)	Red Line	Track Number	One	Chain Marker and/or Station(s)	From	To
					304+20	444+00
Vehicles	Head Car Number	Number of Cars	Equipment			
Description	FWSO and FRA inspector met WMATA level four RWIC at Medical Center Station, we drove to Friendship Heights station where a job briefing was conducted, appropriate forms signed and a visual inspection of level one badges performed. It should be noted RWIC level 4 failed to have required WMATA RWP PPE, (hot sticks and insulated gloves). We were later joined by Supervisor [REDACTED] who did have all the required PPE. FWSO and FRA were afforded exclusive track occupancy (ETO) for the inspection both points of entrance to track one were protected and we proceeded and concluded without incident. No exceptions were taken.				Number of Defects	0
					Recommended Finding?	0
					Remedial Action Required?	N/A
					Recommended Reinspection?	N/A
Remedial Action	(b)(6)					



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

022 (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160406-WMATA-MWP-1		
	2016	04	11				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track & Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
Inspection Location	Walking inspection of track 2 and Aerial Structures between Branch Station and Suitland Station on the Green Line.						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-RWP-PI	TRK-RAD-OBS			
Inspection Units	1	2	2			
Inspection Subunits	2	1	4			
Defects (Number)	19	0	1			
Recommended Finding	Yes	N/A	Yes			
Remedial Action Required	Yes	N/A	No			
Recommended Reinspection	Yes	N/A	No			

Activity Summaries

Inspection Activity #	Inspection Subject						Activity Code				
Job Briefing Employee Name/Title	RWIC Employee [REDACTED] Level 4 [REDACTED]		Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	10:00 03:45	Outside Shift	N/A	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	MSRPH		General Rules								
	TRST 1000										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	X	X	<input type="checkbox"/>
Line(s)	F-Line	Track Number	2	Chain Marker and/or Station(s)	From			To			
					F2 538+00			F2 455+00			
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	Federal inspection Team 4, conducted visual inspection of Track 2 structure and switches between Branch Station and Suitland Station. During the inspection I was accompanied by FTA member; Troy Lloyd, WMATA representative [REDACTED] and RWIC [REDACTED] During the inspection the following items were identified by walking as defects.							Number of Defects		20	
								Recommended Finding?		Yes	
								Remedial Action Required?		Yes	
								Recommended Reinspection?		Yes	

Inspector in Charge - Signature

SEAN L THOMPSON

Digitally signed by SEAN L THOMPSON
DN: c=US, ou=U.S. Government, ou=DOT
Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON
Date: 2016.04.12 16:02:29 -0400

Date

4/6/2016

Inspector in Charge - Name
Sean Thompson

Inspection Team 4
Troy Lloyd (FTA), Michael W. Pirato (FRA), Phil Herbert
(FTA), Rudy Flowers (DRPT)

Form FTA-IR-1

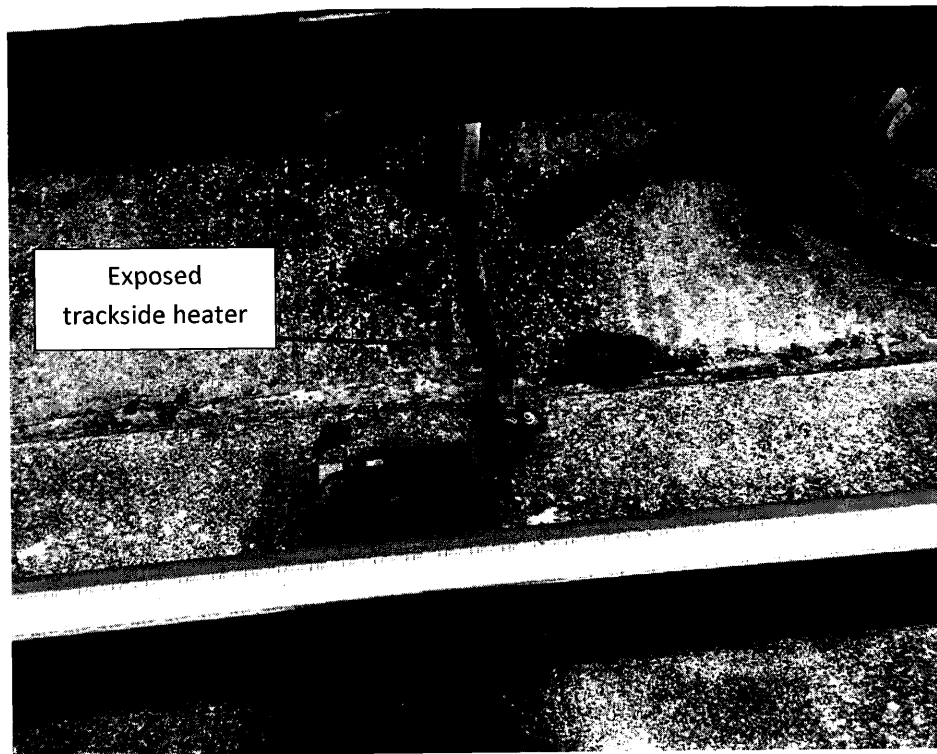
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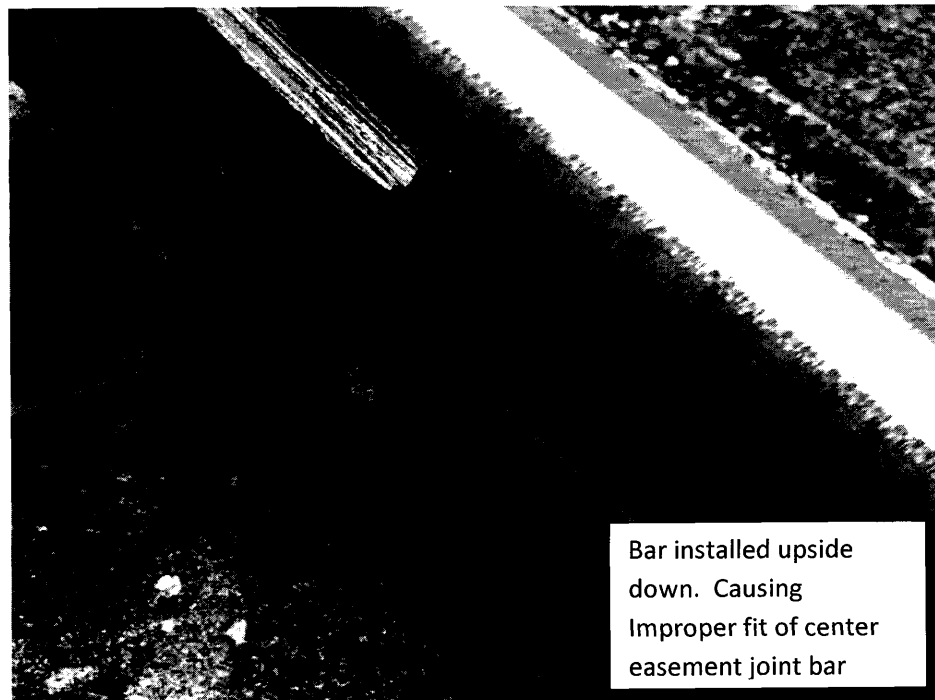
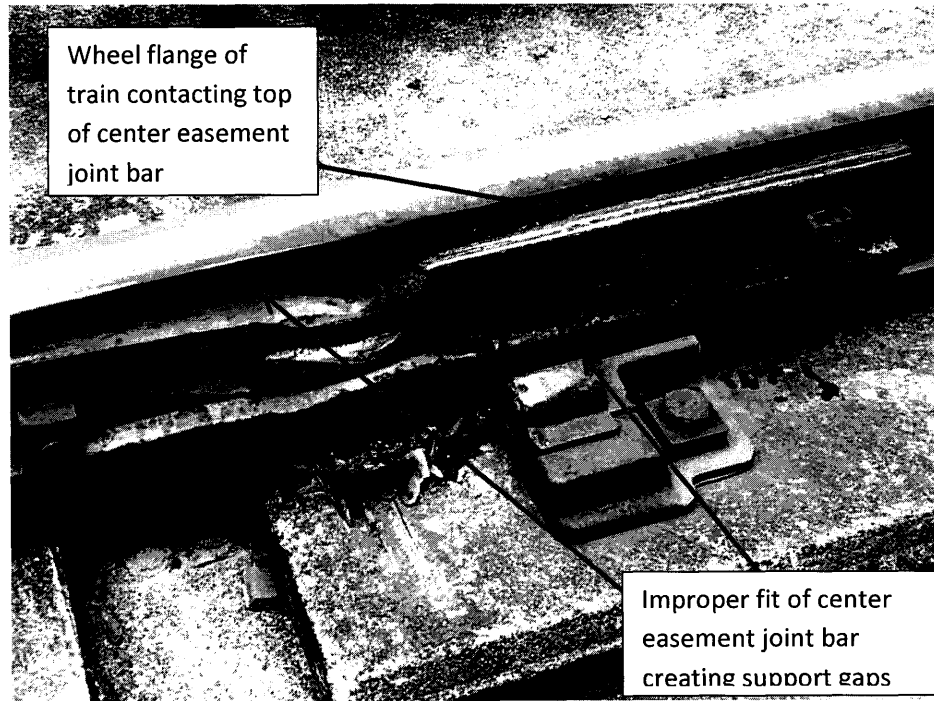


United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

	<p>3rd Rail</p> <ul style="list-style-type: none">• F1 529+55<ul style="list-style-type: none">○ Missing cover board at two locations.• F2 515+00<ul style="list-style-type: none">○ Missing cover board.• F2 505+70<ul style="list-style-type: none">○ Missing cover board at 3rd rail expansion joint.• F2 495+80<ul style="list-style-type: none">○ Missing cover board at 3rd rail expansion joint.▪ F2 480+80<ul style="list-style-type: none">○ Broken 3rd rail anchor arms. <p>Fasteners/Direct Fixation Items</p> <ul style="list-style-type: none">• F2 533+20<ul style="list-style-type: none">○ Suspended joint on the "right rail" missing Pandrol clips.• F2 525+50 to 525+70<ul style="list-style-type: none">○ Maintenance ballast shoulder needed on high rail.• Track 2 - Aerial structure between Branch to Suitland.<ul style="list-style-type: none">○ General condition of loose Richmond anchors on high rail beginning to form clusters defects.• F2 497+70 (Ballasted Track)<ul style="list-style-type: none">○ 1-5/8 inch difference in crosslevel in 31 feet in spiral.○ 181 inches between effective tie fasteners.<ul style="list-style-type: none">▪ NOTE: 15 MPH speed restriction placed.• F2 495+50<ul style="list-style-type: none">○ Six ties in a row with non-effective tie fasteners. (This was previously marked by WMATA track inspector)• F2 495+10<ul style="list-style-type: none">○ Rail head spalling in two spots 8 feet apart in rail head.• F2 2 495+40<ul style="list-style-type: none">○ Slotted center easement joint bars contacting field welding material. (Portec bar)• F2 456+85<ul style="list-style-type: none">○ Improperly applied center easement joint bar (Portec bar) permitting wheels to become flange-bearing. <p>Special Work</p> <ul style="list-style-type: none">• Branch Ave Interlocking<ul style="list-style-type: none">▪ 3B Switch 3 out of 4 loose fasteners at crossover at toe of frog.▪ Several missing/loose DF hold down bolts within the diamond area. (This is a general condition) <p>Safety Items of Concern</p> <ul style="list-style-type: none">• F2 512+00<ul style="list-style-type: none">○ Trackside heater control wire exposed – possible 750 vdc hazard if energized.○ ETS Box lights are "out" – general safety concern for evacuations.○ Train not operated at 15 MPH through slow zone.		
Remedial Action			







Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160412-WMATA-WHW-1		
	2016	04	12				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED] (b)(6)		[REDACTED] (b)(6)		[REDACTED] (b)(6)		[REDACTED] (b)(6)
Inspection Location	Observation No. 2 Lead track at West Falls Church Yard						

Inspection Summary

Inspection Activity #	1					
Activity Code	TRK-WI-OBS					
Inspection Units	1					
Inspection Subunits	6					
Defects (Number)	3					
Recommended Finding	NO					
Remedial Action Required	YES					
Recommended Reinspection	YES					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Track, Switch, Turnout and Third Rail Inspection			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	Unaccompanied					Accompanied Inspector?		Out Brief Conducted	NO	Time	1100 1200	Outside Shift		NO
Related Reports						Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Maintenance Standards											
	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)	Orange	Track Number	Yard Lead	Chain Marker and/or Station(s)	From				To					
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO observation conducted by FRA support team, conducting a focused This is a reinspection of the following defects identified during a walking inspection conducted on 4-9-2016 and recorded on inspection report Number 20160409-WMATA-WHW-1 Three Wide Gage locations between crossing and portal on number two lead • 57-1/4 inch static + 1/8 lateral deflection on the low rail and 15/16 inch lateral							Number of Defects						
								Recommended Finding?						
								Remedial Action Required?						
								Recommended Reinspection?		YES				

Inspector in Charge - Signature		SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 16:05:45 -04'00'	Date 04/06/2016
Inspector in Charge - Name Sean Thompson		Inspection Team Alexander Nepa, William Wilson		



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Federal Transit Administration

Form FTA-IR-1

	<p>deflection high rail totaling 58-1/4 inch gage</p> <ul style="list-style-type: none">• 57-1/4 inch static + 5/8 inch lateral deflection <p>totaling 57-7/8 inch gage</p> <ul style="list-style-type: none">• 57-3/4 inch static + 1 inch lateral deflection on the high rail and 1/8 inch lateral deflection on the low rail totaling 58-15/16 inch gage <p>Out bound lead # 2 restraining rail, wide flange opening measuring 2-5/8 inch</p> <p>During the 4-9-2016 inspection wide gage conditions were identified throughout the curve and as is customary during a compliance inspection we measured the locations with the greatest lateral movement. The transit representative marked the locations, removed the track from service and called a crew to remediate the curve. When the crew arrived we informed them the wide gage problem extended through the whole curve from the Grade Crossing to the Tunnel Portal.</p> <p>During this return visit we were unable to take new measurements because we could not foul the track. We were able to observe the curve from the crossing and the bridge on the access road over the curve. From these observations we could not discern and gage work and only a couple of new gage rods installed. These observations indicate WMATA did not address the entire curve, leaving potential wide gage conditions.</p>		
Remedial Action	Repair/correct identified defects.		



Inspection Form

Form FTA-IR-1

United States Department of Transportation
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all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160407-WMATA-TGB-1		
	2016	04	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking inspection of track Smithsonian Station to L'Enfant Station						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-WI-PI				
Inspection Units	1	1				
Inspection Subunits	2	4				
Defects (Number)	7	2				
Recommended Finding	No	No				
Remedial Action Required	N/A	N/A				
Recommended Reinspection	N/A	N/A				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Activity Code				
Job Briefing Employee Name/Title	[REDACTED] Supervisor			Accompanied Inspector?	y	Out Brief Conducted	n	Time	2200 0400	Outside Shift	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	MSRPH		General Rules								
	TRST1000										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	x								x		
Line(s)	D	Track Number	1	Chain Marker and/or Station(s)	From			To			
					Smithsonian			L'Enfant			
					040+00			059+00			
Vehicles	Head Car Number		Number of Cars		Equipment	Prime Mover #PM64					
	PM64		2								
Description	FRA Inspectors were requested to perform a visual inspection of the track structure between Smithsonian Station and L'Enfant Station. At 045+00 there were 5 lights not working on tunnel wall At 045+00 there were exposed impedance bond cables noted.							Number of Defects		7	
								Recommended Finding?		No	
								Remedial Action Required?		Yes	
								Recommended Reinspection?		No	

Inspector in Charge - Signature		SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 14:40:03 -0400	Date	04/07/2016
Inspector in Charge - Name		Sean Thompson			
Inspection Team		Tom Beck, Joe Kennedy			



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Form FTA-IR-1

	At 049+50 there 3 missing third rail cover boards At 050+00 there were no working lights at the D3 fan shaft and emergency exit From 050+00 to 051+50 there were no working lights on tunnel wall At 053+50 there was 1 third rail cover board missing At 057+50 there was 1 third rail coverboard missing		
Remedial Action	Complete repairs.		

Inspection Activity #	2	Inspection Subject						Activity Code				
Job Briefing Employee Name/Title							Accompanied Inspector?		Out Brief Conducted		Time	Outside Shift
Related Reports	Related CAPS / Findings											
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference			
	MSRPH		General Rules									
	TRST1000											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A	
	x								x			
Line(s)	D	Track Number	2	Chain Marker and/or Station(s)	From			To				
					L'Enfant			Smithsonian				
					059+00			040+00				
Vehicles	Head Car Number		Number of Cars		Equipment	Prime Mover PM64						
	PM64		2									
Description	FRA Inspectors were requested to perform a visual inspection of the track structure between L'Enfant Station and Smithsonian Station. At 058+07 the middle of track trough was blocked by debris At 044+40 there was one third rail coverboard missing							Number of Defects		2		
								Recommended Finding?		n		
								Remedial Action Required?		n		
								Recommended Reinspection?		n		
Remedial Action	N/A											



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160407-WMATA-MWP-2		
	2016	04	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track & Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking inspection of track between New Carrollton Station CM 211+46 and end point CM 260+00 at D&G Aerial Structure.						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-RWP-PI	TRK-RMM-PI	TRK-RAD-OBS	TRK-RMM-OBS	TRK-SW-PI
Inspection Units	1	1	1	1	1	1
Inspection Subunits	1	1	1	1	1	1
Defects (Number)	12	0	1	1	1	7
Recommended Finding	Yes	N/A	No	No	Yes	Yes
Remedial Action Required	Yes	N/A	No	No	Yes	Yes
Recommended Reinspection	Yes	N/A	No	No	Yes	Yes

Activity Summaries

Inspection Activity #	Inspection Subject						Activity Code							
Job Briefing Employee Name/Title	Employee [REDACTED] RWIC Level 4			Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	0012 0356	Outside Shift	N/A			
Related Reports	Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Rules											
	TRST 1000													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	X			<input type="checkbox"/>		
Line(s)	G-Line	Track Number	1	Chain Marker and/or Station(s)	From		To							
					3+00		024+00							
Vehicles	Head Car Number		Number of Cars		Equipment									
	PM 42		3											
Description	Federal inspection Team 4, requested to perform visual inspection of Track 1 structure and switches between Gallery Place Station and Mt. Vernon Square Station. During the inspection I was accompanied by FTA members; Troy Lloyd & Phil Herbert, DRPT Rudy Flowers, WMATA Supervisor & RWIC [REDACTED] During the inspection the following items were identified by hi-rail vehicle and walking as defects.							Number of Defects		20				
								Recommended Finding?		Yes				
								Remedial Action Required?		Yes				
								Recommended Reinspection?		Yes				

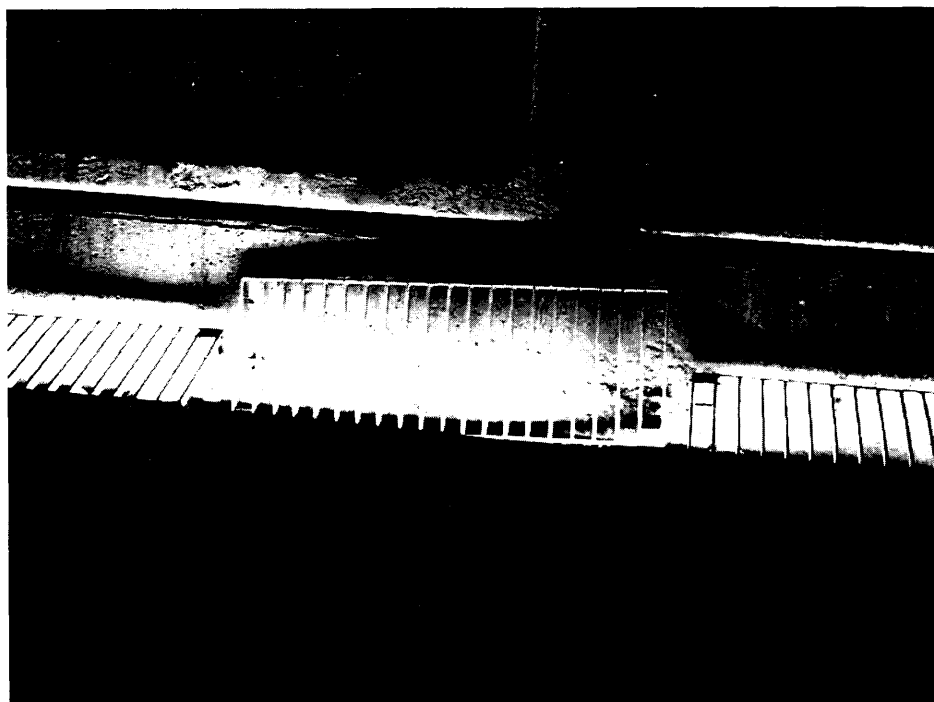
Inspector in Charge - Signature	SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 14:38:58 -04'00'	Date 4/6/2016
Inspector in Charge - Name Sean Thompson	Inspection Team 4 Troy Lloyd (FTA), Michael W. Pirato (FRA), Phil Herbert (FTA), Rudy Flowers (DRPT)		



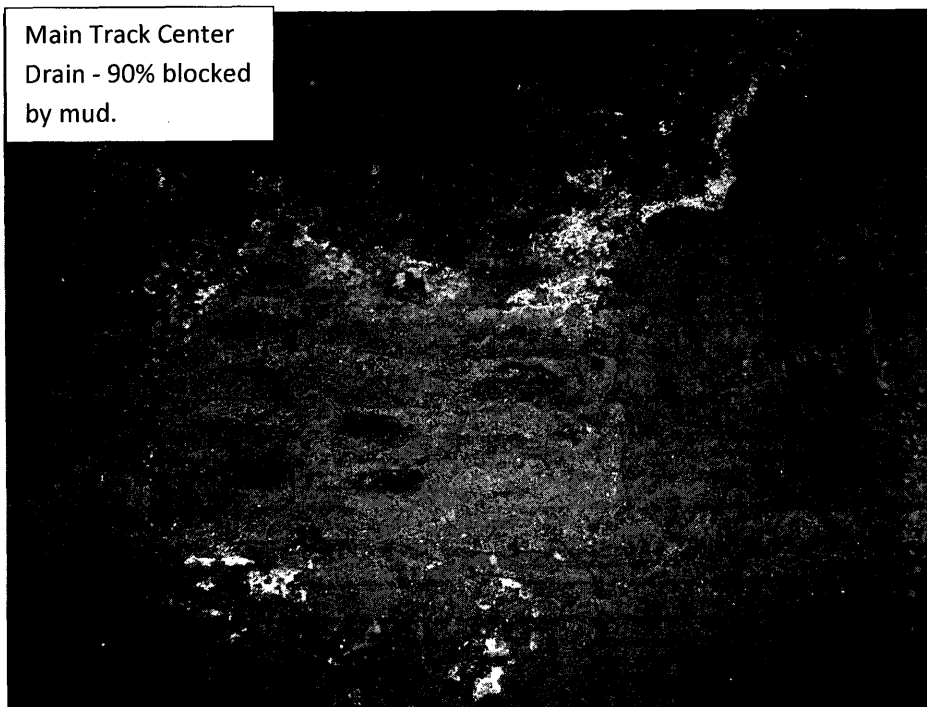
	<p>Railway Maintenance Machines (RMM)</p> <ul style="list-style-type: none">• Safety kit inspection revealed two incomplete safety kits (combined both to make one kit). <p>NOTE:</p> <ul style="list-style-type: none">○ Operator and flagman had all required books to include; MSRPH, Track Map, RWP Manual.○ Observed operator communications with F99 Tower – all within MSRPH compliance.○ RWP – was complete and well done. <p>3rd Rail (NOTE: See Item at E1 014+90 to E1 015+45)</p> <ul style="list-style-type: none">• Missing cover board at end approach at F2-397+80. <p>Fasteners/Direct Fixation Items</p> <ul style="list-style-type: none">• E1 04+10<ul style="list-style-type: none">○ Missing/unbolted 3rd rail anchor arm• E1 014+90<ul style="list-style-type: none">○ Clogged center track drain with mud and debris.○ 3 consecutive non-effective fasteners in a row○ 56-3/4 inch gage with measured 3/8 inch lateral dynamic deflection• E1 014+90 to E1 015+10<ul style="list-style-type: none">○ Two locations with 3 consecutive non-effective fasteners in a row○ Less than 10 effective fasteners within 40 of rail• E1 014+90 – E1 015-45<ul style="list-style-type: none">○ 3rd rail measurement less than allowable. Static measurement of 20-3/4 inch with 3/8 dynamic lateral movement in running rail resulting in 20-3/8 inch tight 3rd rail gage with contact of 3rd rail joints. (See picture below)• E1 015+10<ul style="list-style-type: none">○ Suspended rail joint on right rail with 2 non-effective F17 fasteners.• E1 015+45<ul style="list-style-type: none">○ Suspended rail joint on right rail with no rail holding clips on F17 fasteners. <p>Switches / Interlocking</p> <p>Mount Vernon A1 Switch</p> <ul style="list-style-type: none">• E1 022+50<ul style="list-style-type: none">○ Suspended joints on left and right rails with no Pandrol clips ahead of switch.○ Straight stock rail joint missing Pandrol clips.○ Straight closure rail joint missing Pandrol clips.○ Heel Block insecure # 3 bolt missing nut on left hand side.○ All joints in throughout switch # 1A missing Pandrol "C" clips as a general condition.○ Tread Frog wear measured at 7/16 inch○ Frog point wear measured at 1/2 inch <p>Safety Items of Concern</p> <ul style="list-style-type: none">• Gallery Place/Chinatown Station<ul style="list-style-type: none">○ Platform limits – broken light grate, which could be used as an emergency clear point.		
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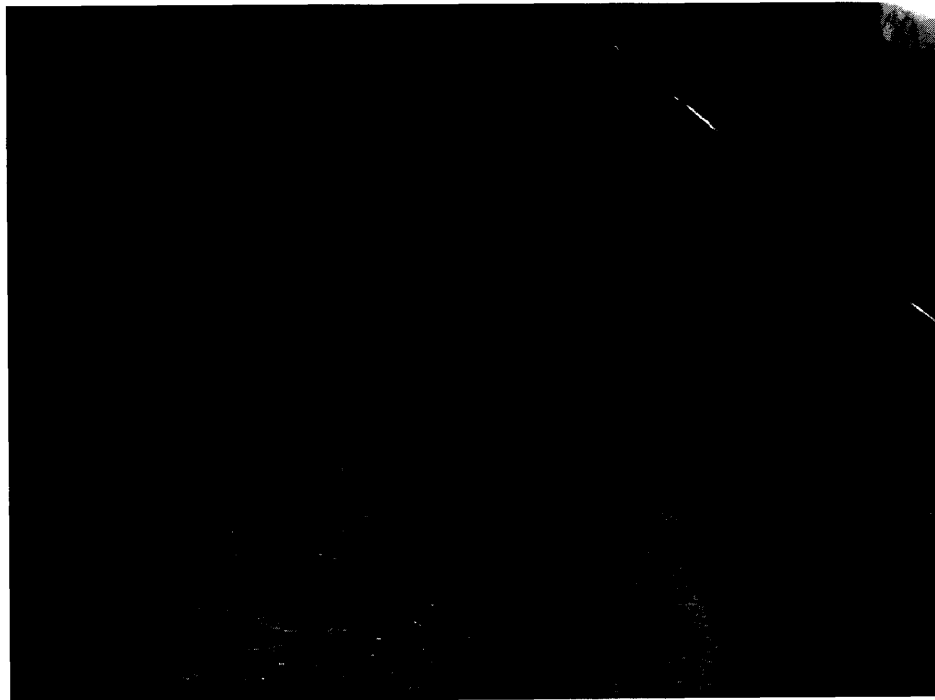
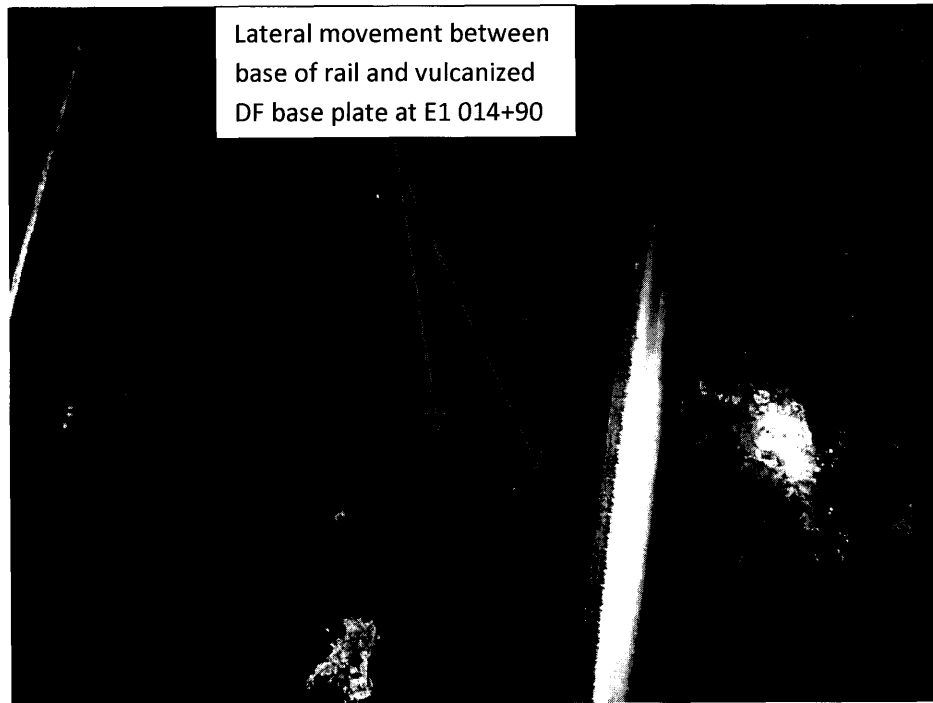


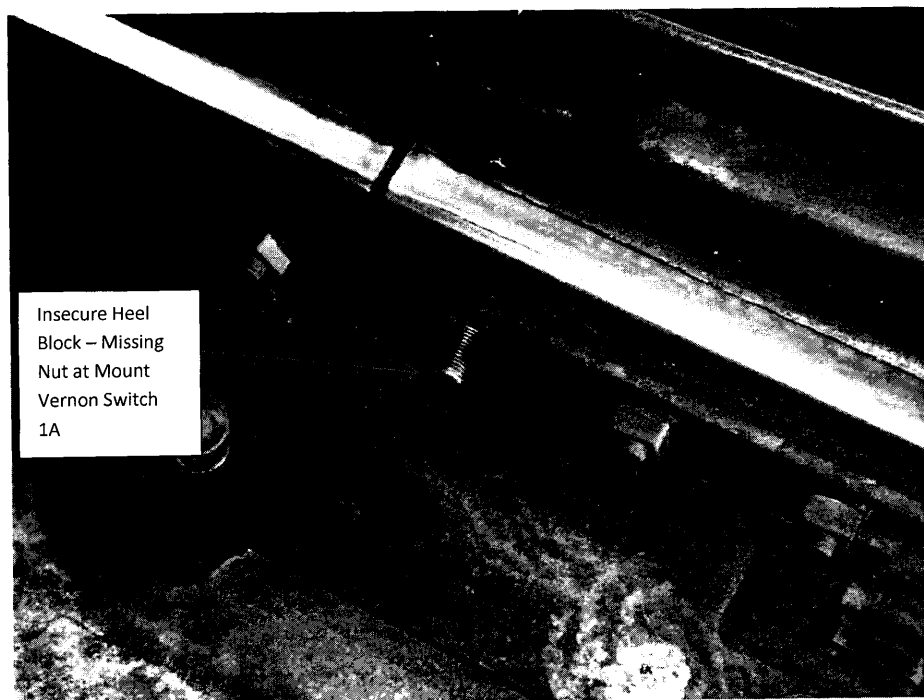
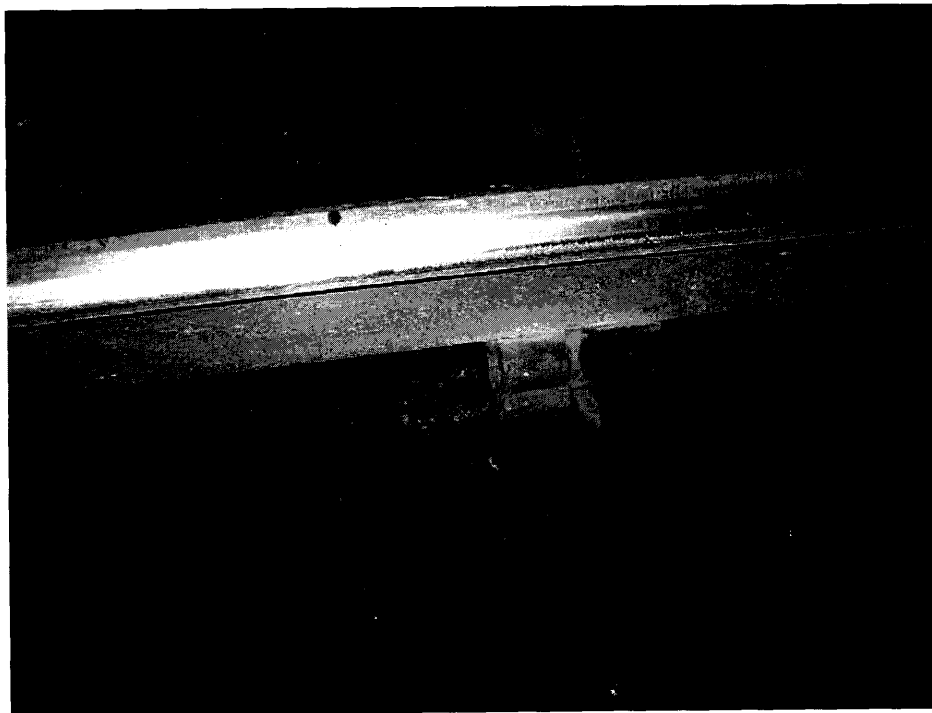
Remedial Action			
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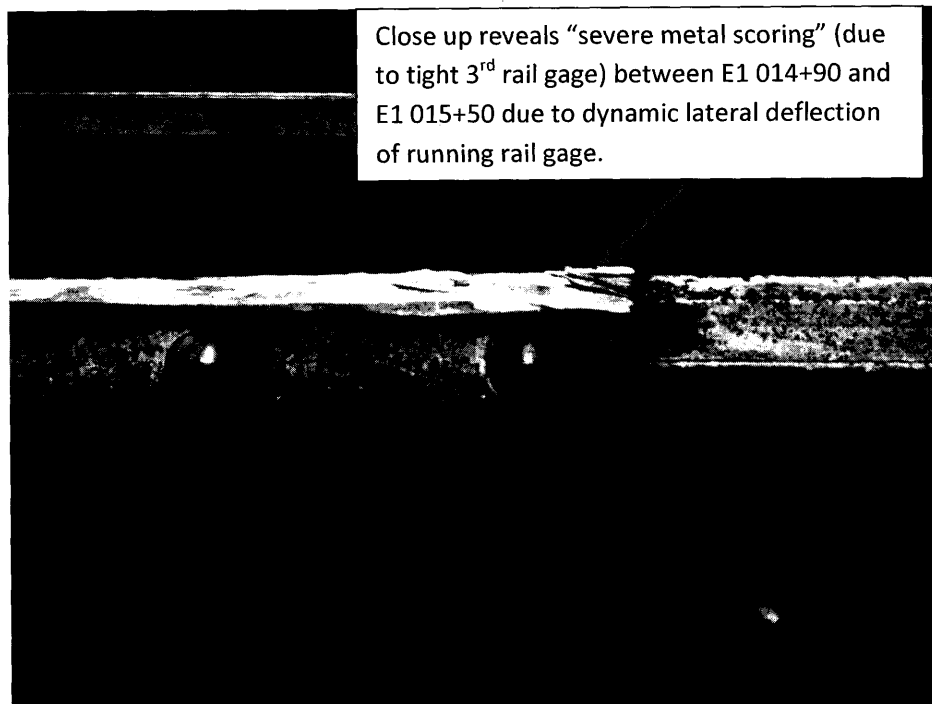
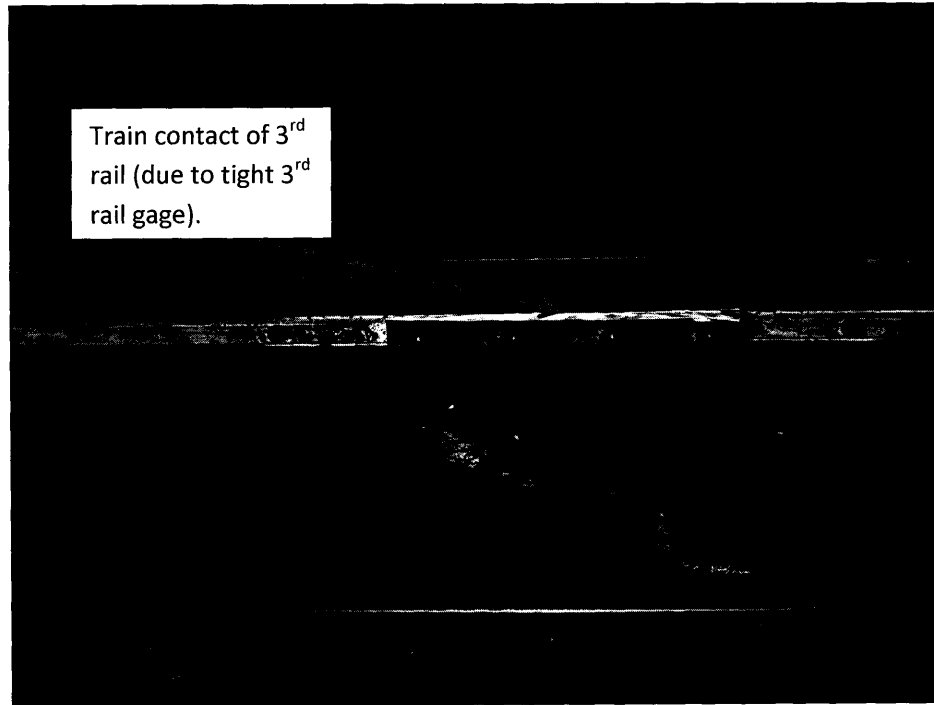


Main Track Center
Drain - 90% blocked
by mud.











Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

See (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160407-TW-2		
	2016	04	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TASS	Sub- Department	Power
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	D-Line, Tracks 1 and 2 – Various Locations as detailed below						

Inspection Summary

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

Activity Summaries

Inspection Activity #	1	Inspection Subject					Roadway Worker Protection Briefing			Activity Code		TASS	RWP	OBS
Job Briefing Employee Name/Title	Track Unit 679					Accompanied Inspector?	Y	Out Brief Conducted	No	Time	1000 – 1330	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)	D-Line	Track Number	1&2	Chain Marker and/or Station(s)	From		To							
					D04 (Federal Center)		D08 (Stadium Armory)							
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO Inspector was provided with a Job Safety Briefing prior to accessing the roadway at two locations. The briefing was complete and all associated hazards were discussed including clearance locations and track geometry (curves). The RWIC contacted central control to received clearance to enter each location.							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				
Remedial Action	N/A													

Inspector in Charge – Signature		SEAN L THOMPSON		Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.18 14:56:25 -04'00'		Date		04/07/2016			
Inspector in Charge – Name		Sean Thompson		Inspection Team						Terrell Williams, Brian Finn, David Crow, Tino Sahoo, Mike Vitale, John Weisgerber	



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Inspection Activity #	2	Inspection Subject	Power Repairs Physical Inspection					Activity Code	TASS	TP	PI
Job Briefing Employee Name/Title	Track Unit 679			Accompanied Inspector?	Y	Out Brief Conducted	No	Time	1000 - 1330	Outside Shift	No
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)	D-Line	Track Number	Track 1&2	Chain Marker and/or Station(s)	From		To				
					D04 (Federal Center)		D08 (Stadium Armory)				
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	FWSO performed a physical inspection of the repairs made at D1 CMs 67+00 (incorrectly noted as 61+00 in WMATA repair list), 68+00, 108+00, 187+00, and 202+00 as well as D2 CMs 87+00, 88+00, 134+00, and 174+00. All repairs had been made according to the WMATA standard with the exception of D1 108+00 which has a unique configuration and D2 174+00 which has a cable in contact with the ground after installation. Photos of all repairs can be found below. In addition to this non-conforming repair, FWSO noted 3 other defects. A large water leak was found at D1 182+00, a duct line transition of feeder cable stub-up was under stress at D1 67+00 and arcing damage was noted at D2 88+00.							Number of Defects		4	
								Recommended Finding?		No	
								Remedial Action Required?		Yes	
								Recommended Reinspection?		Yes	
Remedial Action	WMATA should mitigate water leak at D1 182+00. WMATA engineering should review repairs made at D1 108+00 and D2 174+00 and, if needed, make necessary corrections. WMATA should review duct line transition at D1 67+00.										

Photos:

New Boot and Cable at D2 CM 87+00





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Form FTA-IR-1

New Boot at D2 CM 88+00



Arcing Damage at D2 CM 88+00



New Cable at D2 CM 134+00



New Cable at D2 CM 174+00 (Note: Cable on ground in this location)



Cable on Ground

New Cable at D1 CM 202+00





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Federal Transit Administration

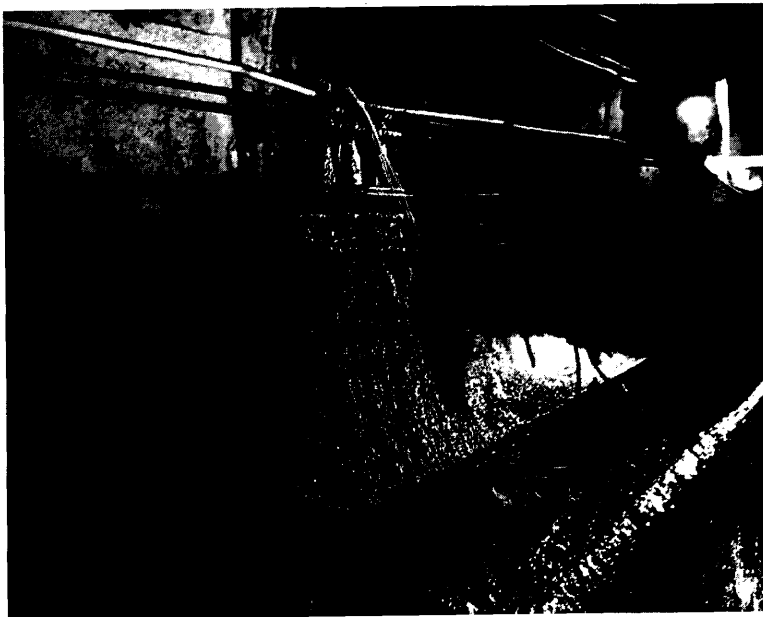
Form FTA-IR-1

New Boot and Cable at D1 CM 187+00 (Note: FWSO alerted Power department to water leak and mud accumulation near this boot)



Water Leak and Mud Accumulation

Water Leak at D1 CM 182+00





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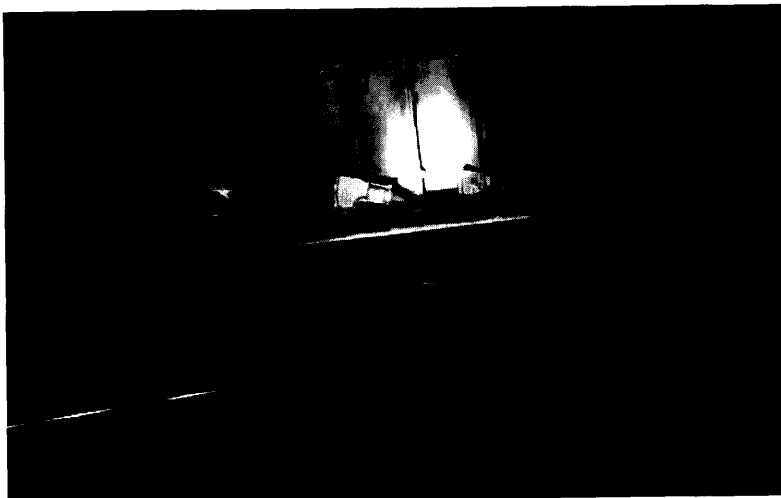
Form FTA-IR-1

New Boot at D1 CM 108+00 (Note: This location was not installed according to WMATA design criteria due to proximity of cable to wall and orientation of feeder cables coming from above rather than below as typical)

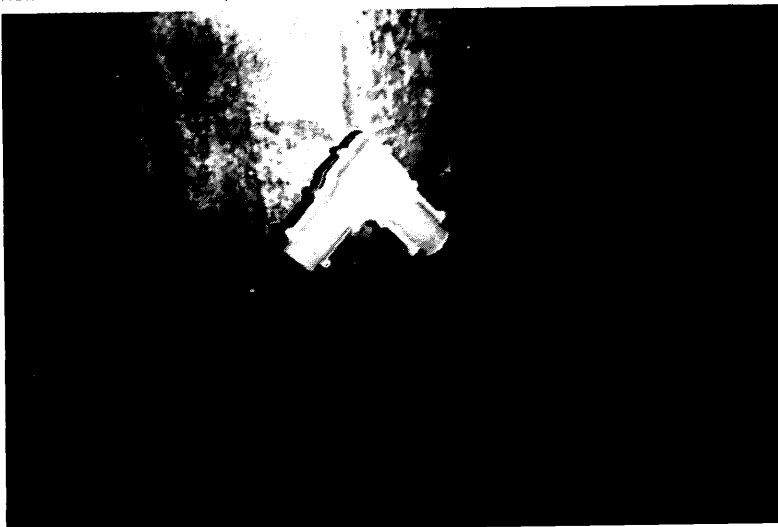


Feeder Cables

New Boot and Cable at D1 CM 68+00



New Boot at D1 CM 67+00 (Note: This was labelled incorrectly as CM 61+00 in WMATA report)

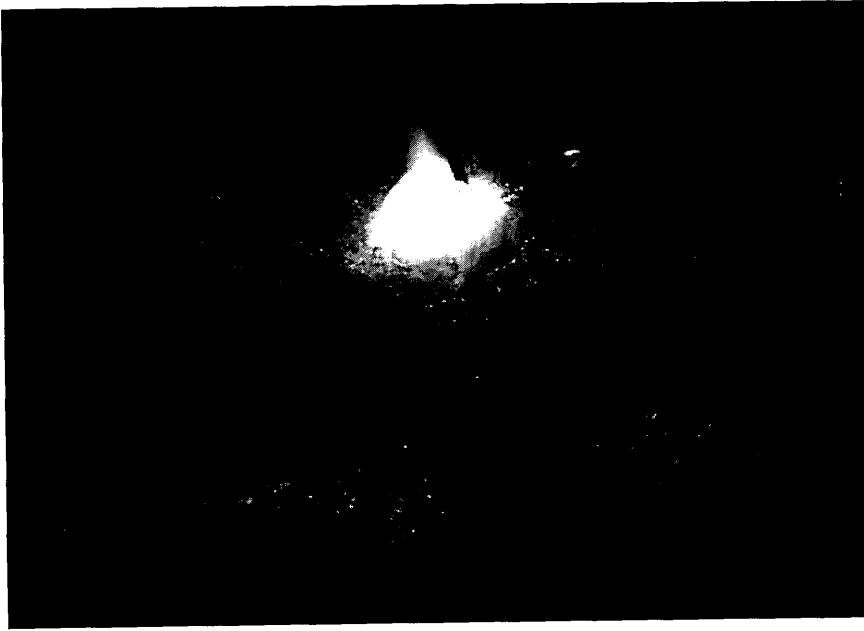




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Form FTA-IR-1

Stressed duct line transition of feeder cable stub-up is at D1 CM 67+00.





Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

000 (K) (6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160407-TW-1		
	2016	04	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TASS	Sub- Department	Power
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	C-Line, Track 1 – Various Locations as detailed below						

Inspection Summary

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

Activity Summaries

Inspection Activity #	1	Inspection Subject					Roadway Worker Protection Briefing			Activity Code		TASS	RWP	OBS
Job Briefing Employee Name/Title	Track Unit #634					Accompanied Inspector?	Y	Out Brief Conducted	No	Time	1000 – 1200	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)	C-Line	Track Number	1&2	Chain Marker and/or Station(s)	From		To							
					C14 (Eisenhower Ave)		C13 (King Street)							
					C12 (Braddock Road)		C10 (National Airport)							
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO Inspector was provided with a Job Safety Briefing prior to accessing the roadway at two locations. The briefing was complete and all associated hazards were discussed including the weather (Rain) and clearance locations. The RWIC contacted central control and arranged for a drop off and pick up from the areas that were accessed.							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				
Remedial Action	N/A													

Inspector in Charge – Signature		SEAN L THOMPSON		Date	
Inspector in Charge – Name		Inspection Team		04/07/2016	
Sean Thompson		Terrell Williams, [REDACTED]			



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Inspection Activity #	2	Inspection Subject	Power Repairs Physical Inspection				Activity Code		TASS	TP	PI
Job Briefing Employee Name/Title	Track unit #634			Accompanied Inspector?	Y	Out Brief Conducted	No	Time	1000 - 1200	Outside Shift	No
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 1&2	Chain Marker and/or Station(s)	From		To				
					C14 (Eisenhower Ave)		C13 (King Street)				
					C12 (Braddock Road)		C10 (National Airport)				
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	FWSO performed a physical inspection of the repairs made at C1 CM 574+00. The repairs were complete. See photos below. FWSO also attempted to perform a physical inspection at C1 CM 504+00. The location was not correct and will need to be followed up with the TASS group to properly identify the location. During this visit the inspector noted two (2) other conditions that will be brought to the attention of the TASS group. See photos below.						Number of Defects		2		
							Recommended Finding?		No		
							Remedial Action Required?		Yes		
							Recommended Reinspection?		Yes		
Remedial Action	There are two recommended remedial actions: 1) FWSO will follow-up with the TASS Power group to properly identify the area currently noted as C1 CM 504+00. Once clarified a follow-up visit is required to verify the repair. 2) FWSO will follow-up with the TASS Power group on the two (2) locations identified during the inspection. Photos are provided below along with the chain markers.										

Photos:

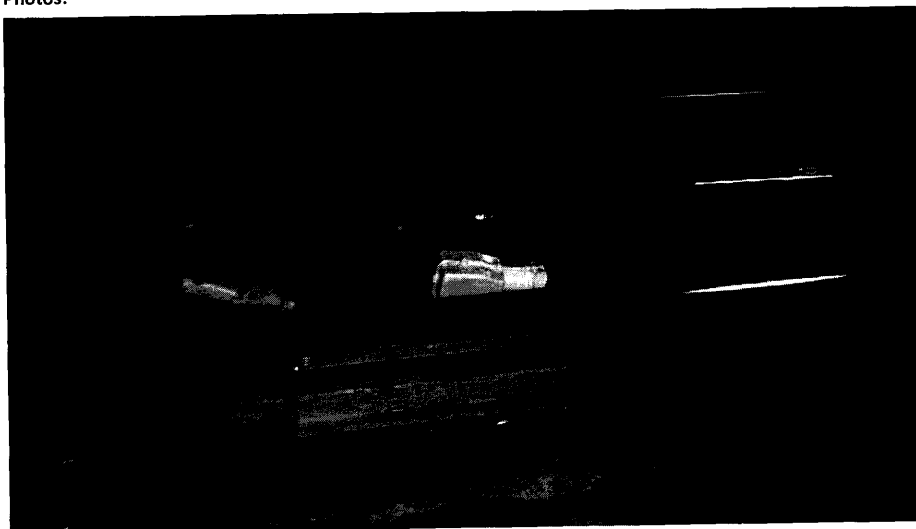


Figure 1 - C1 CM 574+00

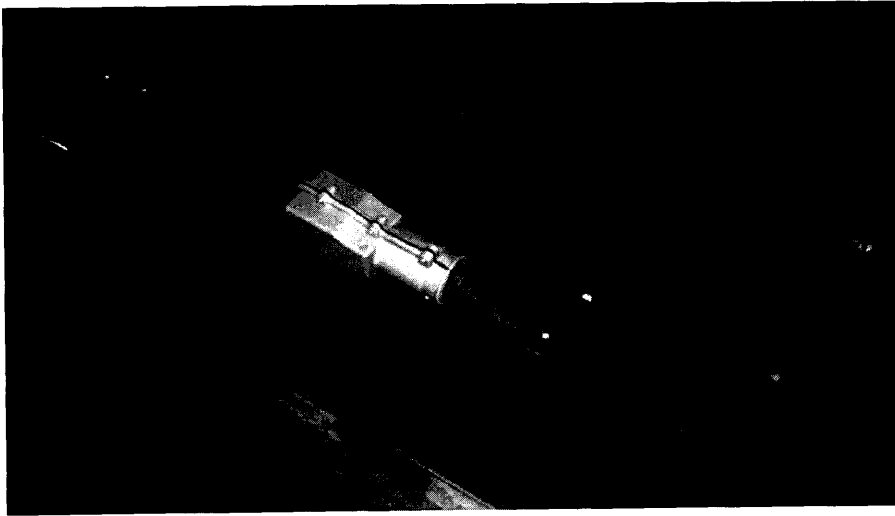


Figure 2 - C1 CM 574+00

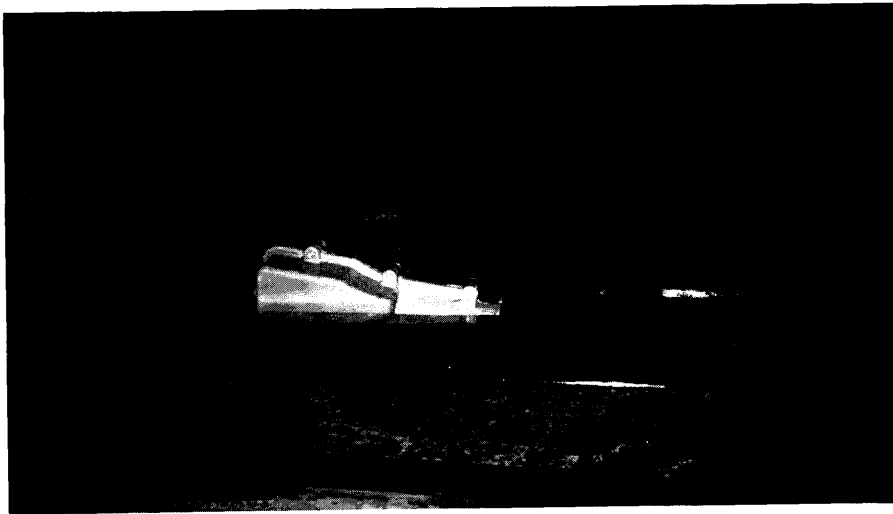


Figure 3 - C1 CM 574+00



Additional Locations:

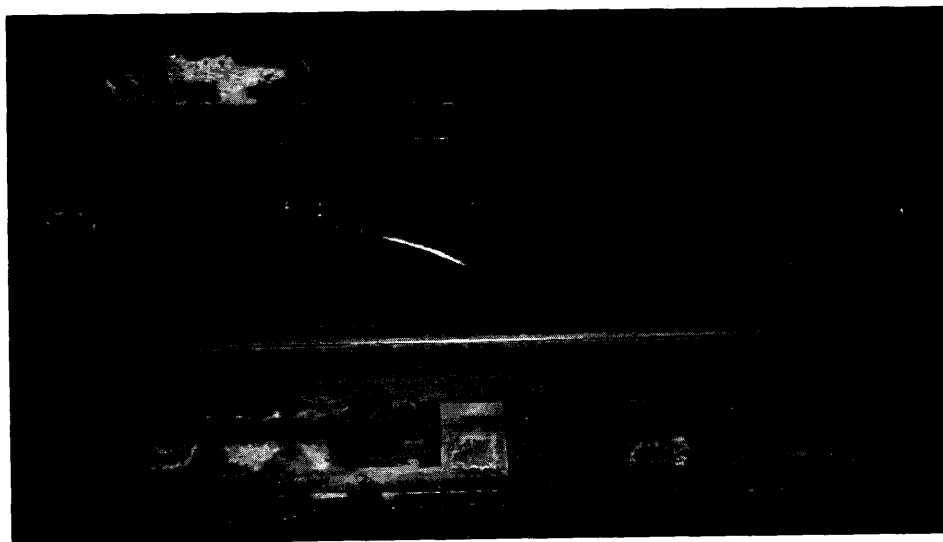


Figure 4 - C1 CM 505+50 - Third Rail Tensioner under strain

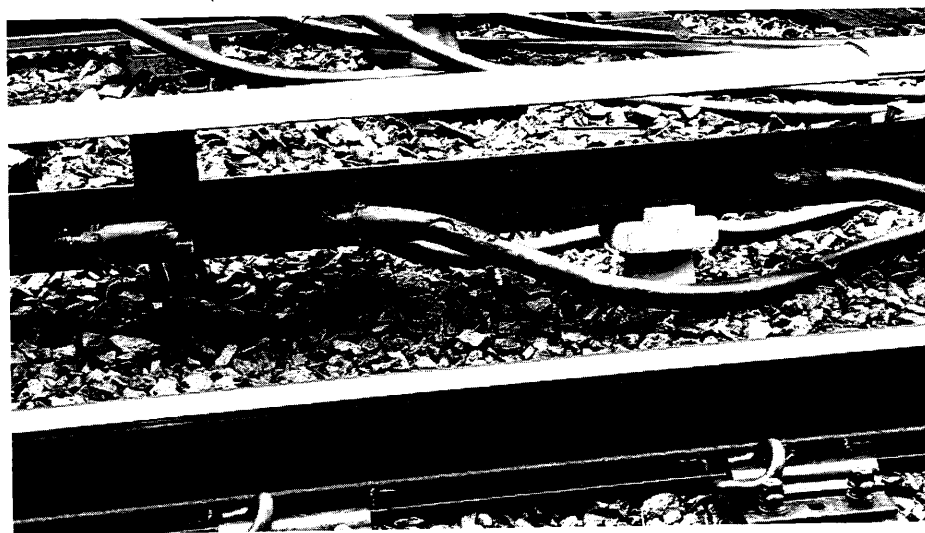


Figure 5 - C2 CM 507+00 Expansion Joint Cables with slashed insulation - Cables are lying on the ground with some tie plates on them



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160407-WMATA-WHW-1		
	2016	04	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]				540-642-2187
Inspection Location	Walking inspection of track between Metro Center CM 00+00 and Federal Triangle CM13+00						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI					
Inspection Units	1					
Inspection Subunits	2					
Defects (Number)	0					
Recommended Finding	N/A					
Remedial Action Required	N/A					
Recommended Reinspection	N/A					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Track and Safety		Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	[REDACTED] RIC Level 4 [REDACTED] [REDACTED] Tack Supervisor [REDACTED] Acting as RIC performing Job briefing and obtaining on-track-protection and authority to enter track.					Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	2400 0200	Outside Shift	YES
Related Reports	Related CAPS / Findings												
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	MSRPH		Maintenance Standards										
	Trst1000												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X		X						X				
Line(s)	Orange Line	Track Number	1 & 2	Chain Marker and/or Station(s)	From		To						
					CM 00+00		CM 13+00						
Vehicles	Head Car Number		Number of Cars		Equipment								
Description	FRA inspector along with FWSO inspector performed a visual walking inspection of track one and two between Metro Center and Federal Triangle. No exceptions taken for units observed.								Number of Defects		0		
									Recommended Finding?		No		
									Remedial Action Required?		N/A		

Inspector in Charge - Signature	SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 14:40:46 -04'00'	Date 04/07/2016
Inspector in Charge - Name Sean Thompson	Inspection Team William Wilson, FRA Alexander Nepa, FTA/FRA		



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		Recommended Reinspection?	
Remedial Action	None		



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160407-WMATA-JLK-1		
	2016	04	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking Inspection of track two between Silver Spring and Forest Glenn, CM 451+0 to 546+0						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-WI-OBS	TRK-SW-PI	TRK-RAD-OBS	TRK-RWP-PI	
Inspection Units	2	1	2	1	1	
Inspection Subunits	4	2	2	10	3	
Defects (Number)	8	0	0	0	0	
Recommended Finding	YES	N/A	NO	NO	NO	
Remedial Action Required	YES	N/A	NO	NO	NO	
Recommended Reinspection	YES	N/A	NO	NO	NO	

Activity Summaries

Inspection Activity #	1	Inspection Subject				Track, Switch, Turnout and Third Rail Inspection				Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	RWIC [REDACTED] employee number [REDACTED] Watchmen employee number [REDACTED]		Accompanied Inspector?		YES	Out Brief Conducted		YES	Time	2145 0215	Outside Shift		YES	
Related Reports					Related CAPS / Findings									
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Maintenance Standards											
	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)	Red Line	Track Number	TWO	Chain Marker and/or Station(s)	From				To					
					451+0				546+0					
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO Inspection team in conjunction with FRA support, conducted a focused walking inspection of WMATA Red Line track one to include switches, turnouts, crossovers and components between Silver Spring to Forest Glenn, CM 451+0 and Forest Glen, CM 546+0 During the inspection the following items were identified.							Number of Defects		08				
								Recommended Finding?		NO				
								Remedial Action Required?		YES				
								Recommended Reinspection?		YES				

Inspector in Charge - Signature		SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 14:34:48 -0400	Date	04/07/2016
Inspector in Charge - Name		Sean Thompson			
Inspection Team		Justin Killingsworth, Corwyn Foster			



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

	Missing cover boards throughout inspection CM 456+00 Rail joint not of structurally sound and design demension 7 Switch CM 459+30 7 Defective wooden crossites in a row CM 459+85 Loose or missing fasteners CM 496+25 right rail Rail corrosion 538+80 CM 538+80 Left rail Loose missing fasteners CM 540+24 Right rail Joint Tie Defect CM 467+60 Joint Tie Defect CM 474+50		
Remedial Action			



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160407-WMATA-MWP-2		
	2016	04	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track & Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]						
Inspection Location	Walking inspection of track between New Carrollton Station CM 211+46 and end point CM 260+00 at D&G Aerial Structure.						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-RWP-PI	TRK-RMM-PI	TRK-RAD-OBS	TRK-RMM-OBS	TRK-SW-PI
Inspection Units	1	1	1	1	1	1
Inspection Subunits	1	1	1	1	1	1
Defects (Number)	12	0	1	1	1	7
Recommended Finding	Yes	N/A	No	No	Yes	Yes
Remedial Action Required	Yes	N/A	No	No	Yes	Yes
Recommended Reinspection	Yes	N/A	No	No	Yes	Yes

Activity Summaries

Inspection Activity #	Inspection Subject						Activity Code					
Job Briefing Employee Name/Title	Employee [REDACTED] RWIC Level 4			Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	0012 0356	Outside Shift	N/A	
Related Reports	Related CAPS / Findings											
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference			
	MSRPH		General Rules									
	TRST 1000											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A	
	X	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	X		<input type="checkbox"/>	
Line(s)	G-Line	Track Number	1	Chain Marker and/or Station(s)	From		To					
					3+00		024+00					
Vehicles	Head Car Number		Number of Cars		Equipment							
	PM 42		3									
Description	Federal inspection Team 4, requested to perform visual inspection of Track 1 structure and switches between Gallery Place Station and Mt. Vernon Square Station. During the inspection I was accompanied by FTA members; Troy Lloyd & Phil Herbert, DRPT Rudy Flowers, WMATA Supervisor & RWIC [REDACTED] During the inspection the following items were identified by hi-rail vehicle and walking as defects.						Number of Defects		20			
							Recommended Finding?		Yes			
							Remedial Action Required?		Yes			
							Recommended Reinspection?		Yes			
Inspector in Charge - Signature						SEAN L THOMPSON		Date 4/6/2016				
Inspector in Charge - Name Sean Thompson						Inspection Team 4 Troy Lloyd (FTA), Michael W. Pirato (FRA), Phil Herbert (FTA), Rudy Flowers (DRPT)						



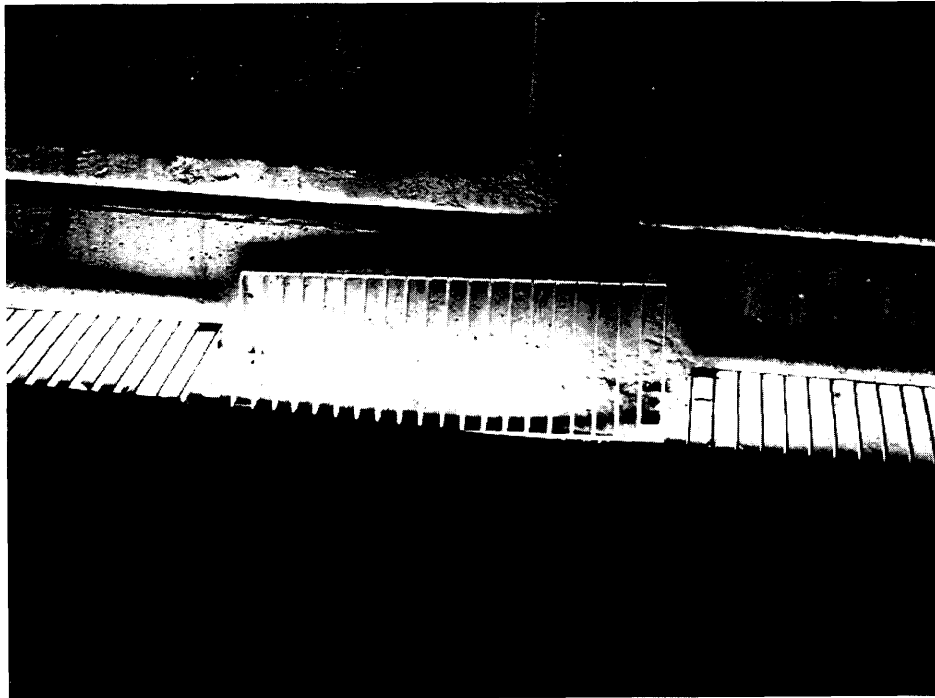
<p>Railway Maintenance Machines (RMM)</p> <ul style="list-style-type: none">• Safety kit inspection revealed two incomplete safety kits (combined both to make one kit). <p>NOTE:</p> <ul style="list-style-type: none">○ Operator and flagman had all required books to include; MSRPH, Track Map, RWP Manual.○ Observed operator communications with F99 Tower – all within MSRPH compliance.○ RWP – was complete and well done. <p>3rd Rail (NOTE: See Item at E1 014+90 to E1 015+45)</p> <ul style="list-style-type: none">• Missing cover board at end approach at F2-397+80. <p>Fasteners/Direct Fixation Items</p> <ul style="list-style-type: none">• E1 04+10<ul style="list-style-type: none">○ Missing/unbolted 3rd rail anchor arm• E1 014+90<ul style="list-style-type: none">○ Clogged center track drain with mud and debris.○ 3 consecutive non-effective fasteners in a row○ 56-3/4 inch gage with measured 3/8 inch lateral dynamic deflection• E1 014+90 to E1 015+10<ul style="list-style-type: none">○ Two locations with 3 consecutive non-effective fasteners in a row○ Less than 10 effective fasteners within 40 of rail• E1 014+90 – E1 015-45<ul style="list-style-type: none">○ 3rd rail measurement less than allowable. Static measurement of 20-3/4 inch with 3/8 dynamic lateral movement in running rail resulting in 20-3/8 inch tight 3rd rail gage with contact of 3rd rail joints. (See picture below)• E1 015+10<ul style="list-style-type: none">○ Suspended rail joint on right rail with 2 non-effective F17 fasteners.• E1 015+45<ul style="list-style-type: none">○ Suspended rail joint on right rail with no rail holding clips on F17 fasteners. <p>Switches / Interlocking</p> <p>Mount Vernon A1 Switch</p> <ul style="list-style-type: none">• E1 022+50<ul style="list-style-type: none">○ Suspended joints on left and right rails with no Pandrol clips ahead of switch.○ Straight stock rail joint missing Pandrol clips.○ Straight closure rail joint missing Pandrol clips.○ Heel Block insecure # 3 bolt missing nut on left hand side.○ All joints in throughout switch # 1A missing Pandrol "C" clips as a general condition.○ Tread Frog wear measured at 7/16 inch○ Frog point wear measured at 1/2 inch <p>Safety Items of Concern</p> <ul style="list-style-type: none">• Gallery Place/Chinatown Station<ul style="list-style-type: none">○ Platform limits – broken light grate, which could be used as an emergency clear point.		
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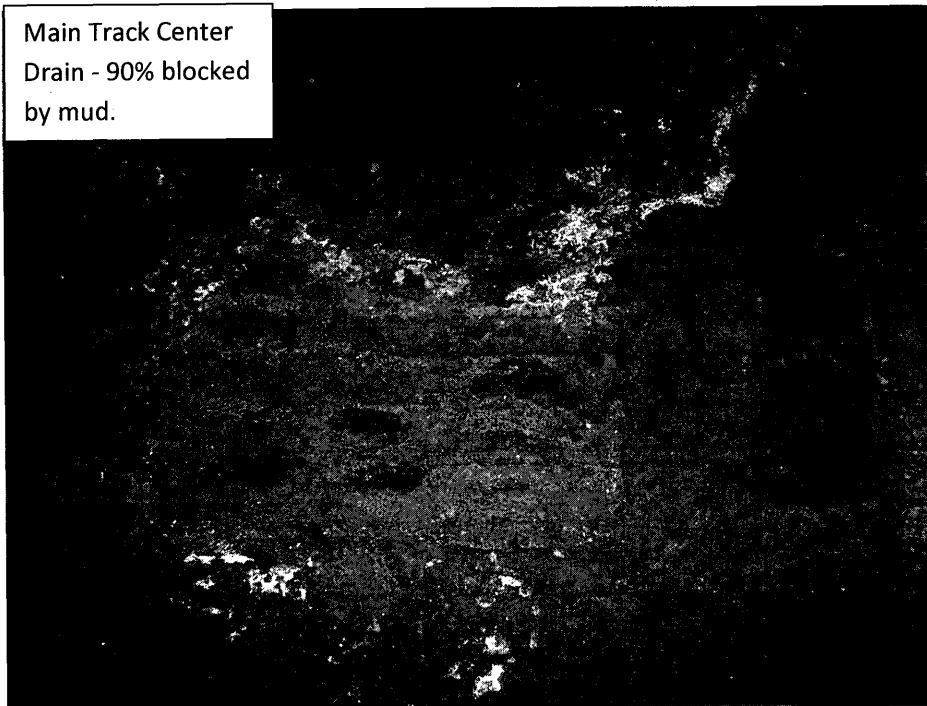
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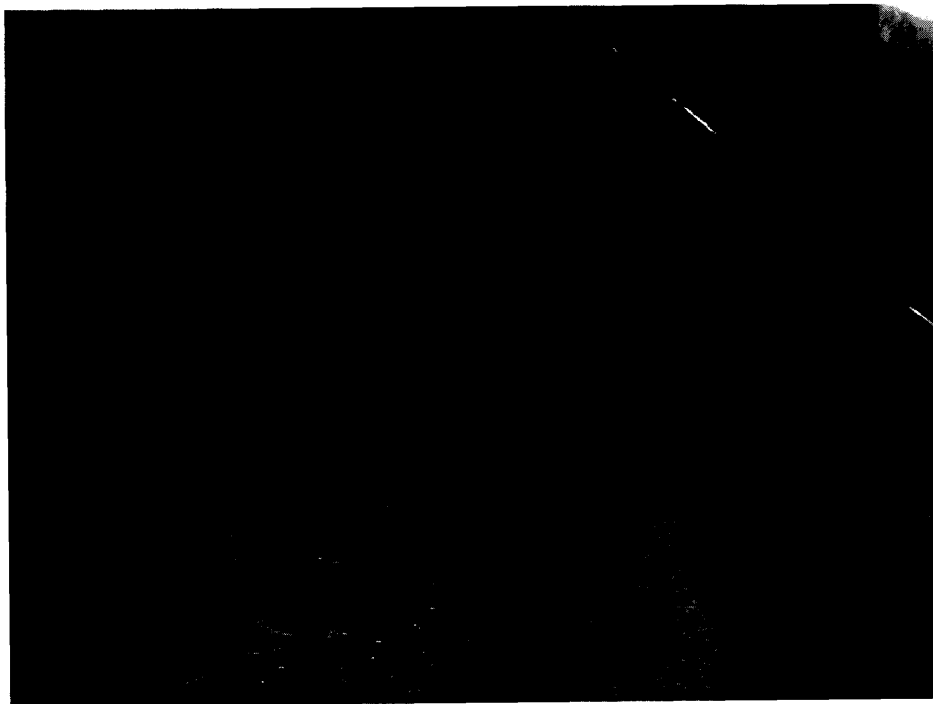
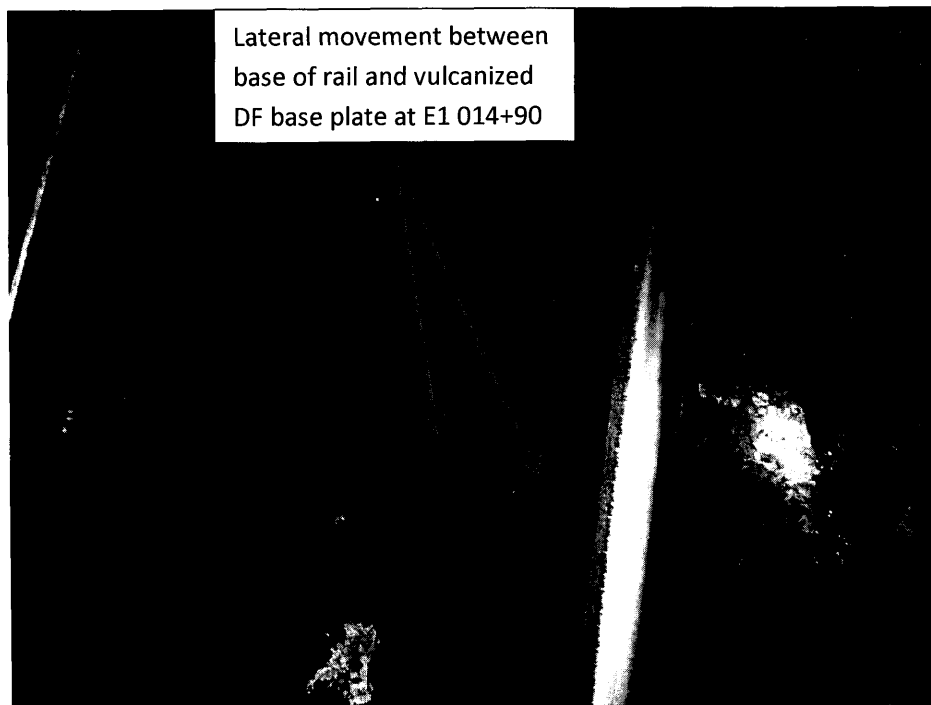
Form FTA-IR-1

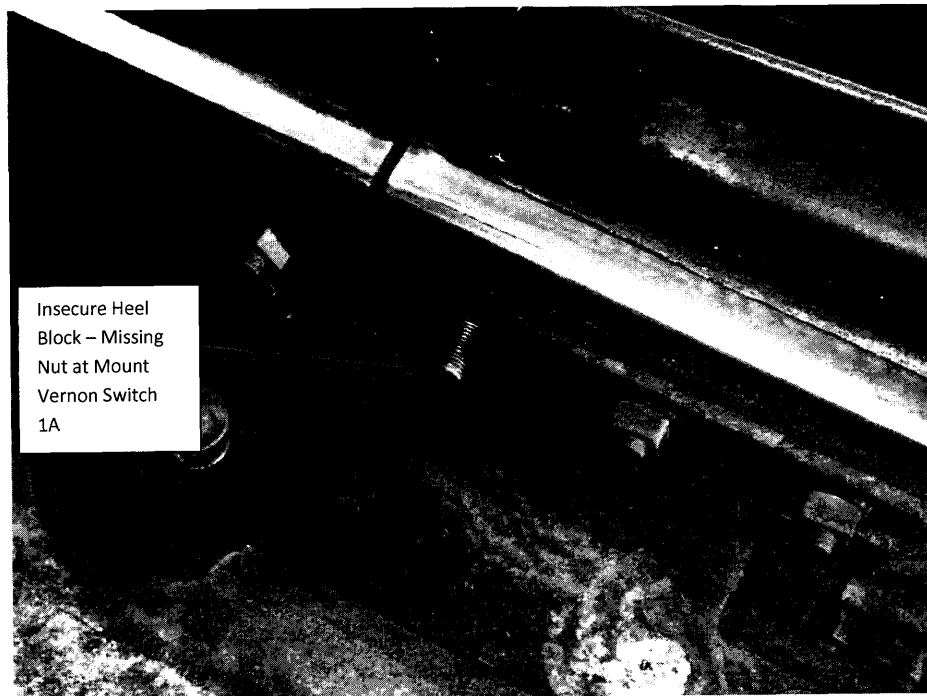
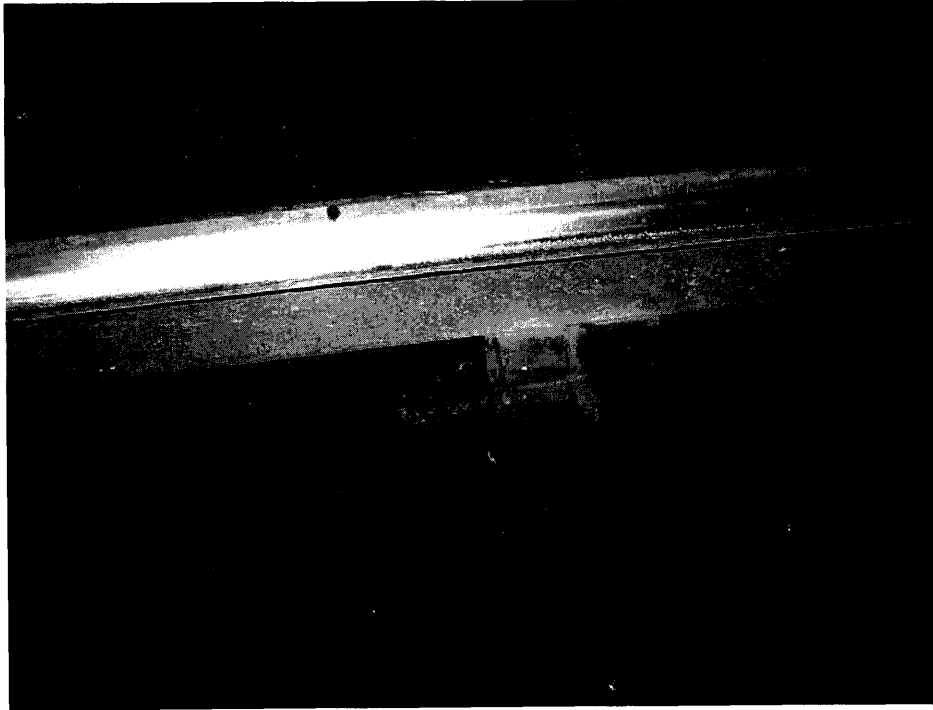
Remedial Action			
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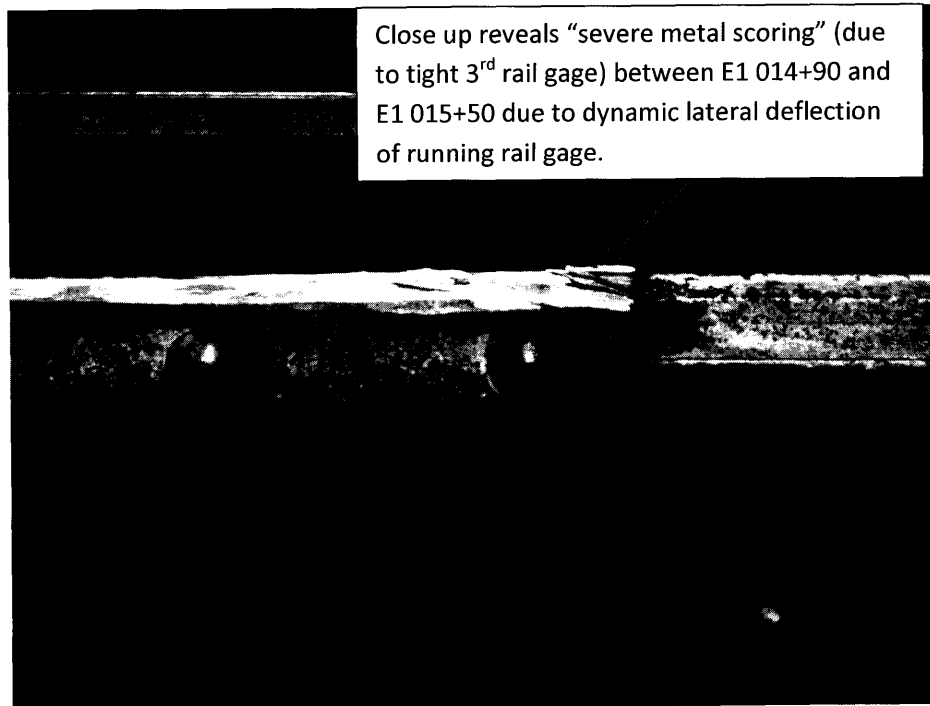
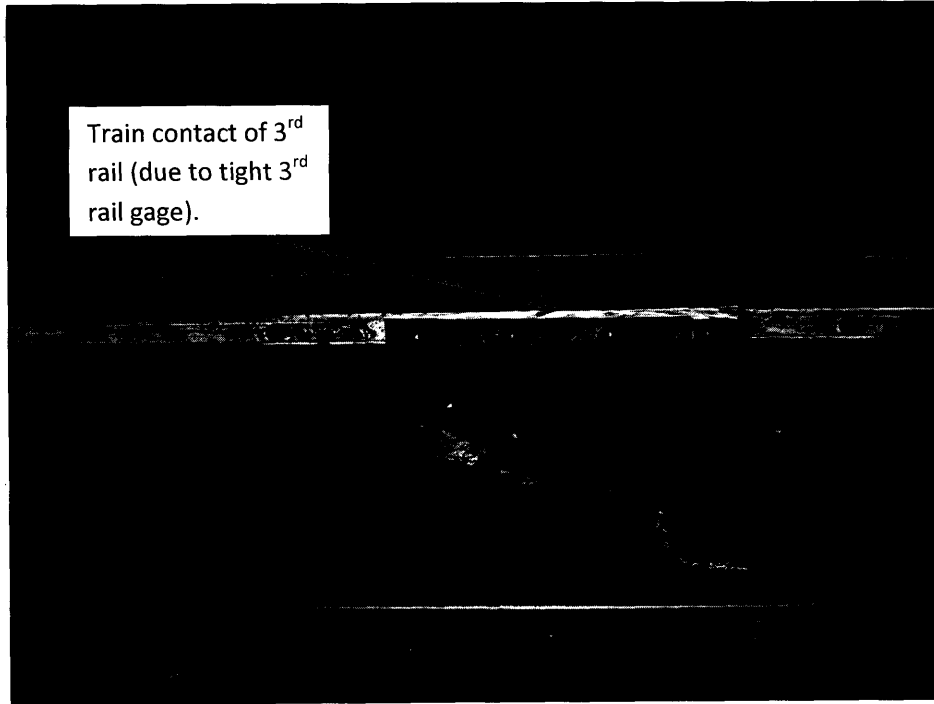


Main Track Center
Drain - 90% blocked
by mud.











Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

all (k)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	160407-WMATA-NAV-1		
	2016	04	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking inspection of track 1 and track 2 between Navy Yard Station and Waterfront Station.						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-WI-OBS	TRK-SW-PI			
Inspection Units	1	1	1			
Inspection Subunits	2	1	4			
Defects (Number)	5	0	1			
Recommended Finding	N/A	N/A	NO			
Remedial Action Required	YES	N/A	YES			
Recommended Reinspection	YES	N/A	NO			

Activity Summaries

Inspection Activity #	1	Inspection Subject				Track, Switch, Turnout and Third Rail Inspection				Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	RWIC - [REDACTED] Supervisor - [REDACTED]		Accompanied Inspector?		YES	Out Brief Conducted		Yes	Time	2215 2355	Outside Shift	Yes		
Related Reports	Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Maintenance Standards											
	TRST1000													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X		X						X					
Line(s)	Green	Track Number	1, 2	Chain Marker and/or Station(s)	From				To					
					126+59				87+33					
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description	FRA inspectors conducted a focused walking inspection of WMATA Green Line track one and two to include switches, turnouts, crossovers and components between Navy Yard Station and Waterfront Station. During the inspection the following items were identified. MISSING COVER BOARDS, TRST1000, 13.3.15:										Number of Defects		5	
											Recommended Finding?		N/A	
											Remedial Action Required?		YES	
											Recommended Reinspection?		YES	

Inspector in Charge - Signature	SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 14:34:07 -04'00'	Date	04/07/2016
Inspector in Charge - Name	Sean Thompson			
Inspection Team	Nathan Vance / Chris Schulte			



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	- TRACK 2: CM119+20 DIRECT FIXATION RAIL SUPPORT TRST 1000 7.7, (Defective Fasteners): - TRACK 1: CM99+50 Left rail only 5 effective fasteners in 40 foot section; CM117+70 at heel of frog on Left rail 3 defective fasteners in row; CM119+00 Right rail 4 defective fasteners in row. - TRACK 2: CM119+90 Left rail 3 defective fasteners in row.		
Remedial Action	Complete repairs.		

Inspection Activity #	2	Inspection Subject	Observation comments to WMATA				Activity Code		TRK	WI	OBS
Job Briefing Employee Name/Title	(b)(6)		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	2215 2355	Outside Shift	YES	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	COMMENTS										
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	1, 2	Chain Marker and/or Station(s)	From		To				
					126+59		87+33				
Vehicles	Head Car Number		Number of Cars		Equipment						
	N/A		N/A								
Description	OBSERVATIONS MADE: - Observed radio communications between RWIC and ROCC. No defects were noted; no exceptions taken.						Number of Defects		0		
							Recommended Finding?		NO		
							Remedial Action Required?		NO		
							Recommended Reinspection?		NO		
Remedial Action	N/A										

Inspection Activity #	3	Inspection Subject	Switch Inspection				Activity Code		TRK	SW	PI
Job Briefing Employee Name/Title	(b)(6)		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	2215 2355	Outside Shift	YES	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	MSRPH		General Maintenance Standards								
	TRST1000										
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	1, 2	Chain Marker and/or Station(s)	From		To				
					126+59		87+33				
Vehicles	Head Car Number		Number of Cars		Equipment						
	N/A		N/A								



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Description	FRA inspectors conducted a physical inspection of four switches between Navy Yard Station and Waterfront Station. TURNOUT INSPECTION STANDARDS 9.27.1 - TRACK 2: CM119+10 2 broke Fasteners in row on frog plate.	Number of Defects	1
		Recommended Finding?	NO
		Remedial Action Required?	YES
		Recommended Reinspection?	NO
Remedial Action	Complete repairs.		



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160406-WMATA-MKD-1		
	2016	04	06				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track & Structures	Sub-Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
Inspection Location	Track Geometry Vehicle – N Line – Track #1 & 2 from West Falls Church (K98) to Wiehle-Reston East (N06) and return.						

Inspection Summary

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

Activity Summaries

Inspection Activity #	1	Inspection Subject				Rules Compliance			Activity Code		TRK	TGV	RC
Job Briefing Employee Name/Title	Mr. [REDACTED] / RWIC Level 4				Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	0000 to 0300	Outside Shift	Yes	
Related Reports	Related CAPS / Findings												
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP			Standard		Other / Title		Checklist Reference				
	MSRPH	3.87.1, 3.122, 3.67, SOP #23.5.5.3											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		X	x	X			
Line(s)	N Line (Silver)	Track Number	1 & 2	Chain Marker and/or Station(s)	From		To						
					N2 488+00		N2 1081+00 and return						
Vehicles	Head Car Number		Number of Cars		Equipment		Track Geometry Vehicle (TGV)						
Description	FWSO team monitored the Track Geometry Vehicle crew and their compliance with MSRPH rules: 3.87.1 – sounding of horns when exiting or entering tunnels 3.122 – sounding of the horn in short blasts when operated against the normal direction of traffic 3.67 – Rail vehicle not operated past or closer than a point 10-feet in approach of an interlocking signal or lamp displaying a red signal							Number of Defects		0			
								Recommended Finding?		No			
								Remedial Action Required?		No			
								Recommended Re-Inspection?		No			

Inspector in Charge - Signature	MEDENIA DASHIELL		Digitally signed by MEDENIA DASHIELL DN: cn=US, o=U.S. Government, ou=DOT Headquarters, ou=FRAHQ, cn=MEDENIA DASHIELL Date: 2016.04.08 14:18:28 -0400	Date	04/08/2016
Inspector in Charge - Name	Inspection Team				
Medenia K. Dashiell	Medenia K. Dashiell – FWSO, James Payne – FRA				

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Version date: 1/19/16



United States Department of Transportation
Federal Transit Administration

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		SOP #23 – 23.5.5.3 – Class II operators shall sound horns through stations. No deficiencies identified with or approach to interlocking signals and lamps.																					
Remedial Action		N/A																					
Inspection Activity #		2		Inspection Subject				Track Geometry Vehicle Testing				Activity Code		TRK		TGV		PI					
Job Briefing Employee Name/Title		Please See Above				Accompanied Inspector?		Yes		Out Brief Conducted		Yes		Time		0000 to 0300		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				<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>				X		X		X			
Line(s)		N Line (Silver)		Track Number		1 & 2		Chain Marker and/or Station(s)		From				To									
										N2 488+00				N2 1081+00 and return									
Vehicles		Head Car Number		Number of Cars				Equipment		Track Geometry Vehicle (TGV)													
		N/A																					
Description		<p>FWSO and FRA accompanied the TGV inspection team during geometry testing on the N-line from West Falls Church (K98) to Wiehle-Reston East (N06). The purpose of this audit was to determine the effectiveness of the program; broken down into 3 main categories: crew knowledge, equipment functionality, and data analysis as follows:</p> <p>Crew Knowledge: The crew was very passionate about the task that they were performing with the TGV, but did express and show some frustration with the lack of knowledge of the system and car. When asked questions about the ENSCO geometry system being used, the crew could not go into details about most actions that were being taken. The crew was able to see that there was an error with the system but did not know what the error was and how to troubleshoot the problem. The crew even lacked access to the computer cabinets to try and troubleshoot the system. The crew also had very limited knowledge of the Plasser train that they were operating. The crew could not tell me about the inner workings of the car.</p> <p>Equipment functionality: The equipment appeared to be working as designed. There were many exceptions found and a small percentage was found to be false positives. All the false positives that were found are a known short coming of modern geometry systems. There was nothing out of the ordinary that would make the crew feel that the system was not working properly.</p> <p>Data Analysis: The single data analyst had enough knowledge to determine if an event was a legitimate exception. The analysis of the data was very basic and the analyst leaned heavily on the routine checks of the system. The Video Strip Chart (VSC) was set so short that the data was gone off the screen by the time an analysis could be performed. The analyst was not able to tell me (FRA) what was being</p>																		Number of Defects		0	
																				Recommended Finding?		No	
																				Remedial Action Required?		No	
																				Recommended Re-inspection?		No	



	analyzed other than to walk me through a very regimented process and; as long as the images were good it was determined that the exception was legitimate by TGV standards.		
Remedial Action	<p>Recommendations:</p> <p>One of the contributing factors to the TGV crew's lack of knowledge is that the car only operates a handful of times throughout the year.</p> <ul style="list-style-type: none">• This technology is being underutilized and serious consideration should be given to expanding this program into full time deployment.• The current crew should be made a full time TGV crew and continual annual training should be provided to bring their knowledge up to the standards needed to operate such an expensive program. <p>WMATA should consider adopting a set of geometry standards. The car found many exceptions that were still within the parameter of the priority standard that the company has set. Most of the exceptions found were yellow while the speed of the track was yellow.</p> <ul style="list-style-type: none">• It is recommended that WMATA either adopt a standard as the railroad industry or work with a consultant such as the VOLPE Center to determine standards that are more designed for the equipment that they operate. Since this is a closed system, WMATA would be able to adopt a set of standards that could differ from the rail industry. <p>It appears the TGV is reporting more examples of a deviation from design standard than a maintenance exception standard that would require the track to be slowed down or repaired.</p> <ul style="list-style-type: none">• WMATA should establish a test that would include a maintenance standard for type of testing. Design standards give WMATA very little room for track deviations and; appears to be creating an abundance of work that may need to be performed since safety is at risk.		

Track Geometry Inspection Compliance Form

Subject	Track Geometry Inspection Compliance Form		
Purpose	The intent of this form is to verify compliance with the Track Geometry Inspection requirements detailed in the Washington Metropolitan Area Transit Authority (WMATA) 1000 Track Maintenance & Inspection Manual		
References	WMATA – 1000 Track Maintenance & Inspection Manual, revision 6, dated January 1, 2015 – section 11		
Date(s) of Review	4/6-7/2016	WMATA Department	Track and Structures (TRST)
FTA Reviewers	Medenia Dashiell James Payne - FRA	WMATA Person(s) Contacted	(b)(6)
Date		Time	2200 to 0600
Location	West Falls Church to Wiehle-Reston East + Return	Track #	142

Item	Required Observation	Compliant	Non-compliant	N/A
11.23.2	All measured values can be displayed in a graphic format;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Recorded on a computer hard drive;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Or printed as an exception report for the maintenance forces.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notes:				
11.23.3	User-defined measurement threshold values include:			
A	Track Gauge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	Horizontal and Vertical Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C	Left and Right Surface	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D	Cross-Level	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Item	Required Observation	Compliant	Non-compliant	N/A
E	Twist and Warp	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notes:				
	How are noted defects Addressed?	Check One or More		
	Maximo	<input type="checkbox"/>		
	Email	<input type="checkbox"/>		
	Direct Contact with Supervisor for the specific territory	<input checked="" type="checkbox"/>		
	Chase Crew	<input checked="" type="checkbox"/>		
	Deferred	<input type="checkbox"/>		
Notes:				
	Onboard Calibration Verification – Method of Verification			
	Calibration Sticker indicating a current date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Documentation (Specify in Notes)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Visual Verification	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Notes: <i>No instrumental verifications, not a part of procedures.</i>				
Required Actions				
<input checked="" type="checkbox"/>	No action required			
<input type="checkbox"/>	Action required. WMATA will respond to FTA within ____ days demonstrating the action(s) taken to address the deficiencies noted in this inspection report. WMATA will provide FTA with a signed statement of completed action, accompanied by photographic evidence or reports from information management systems, or other evidence of completion as appropriate.			
Results/Comments				
<i>Additional training on system/networks for crew.</i>				
Findings/Corrective Actions				

Item	Required Observation	Compliant	Non-compliant	N/A
				✓

NOTE: This form will be adjusted as FTA is informed of the internal standard operating procedures used by the WMATA TRST TGV team.

WMATA
TRACK INSPECTION PROGRAM

TRACK GEOMETRY INSPECTION REPORT

N LINE - #1 TRACK

N1 1096+00 to N1 488+00

RR: WASHINGTON METRO AREA TRANSIT AUTHORITY (WMATA)

Survey Number:

Chain 1096 to Chain 488

Direction: Descending Chain



Washington Metro Area Transit Authority

Washington, D.C.

Exception Report
Exception List Section
Chain 1096 to Chain 488

Page 1 of 7
2016-04-07
Run ID: 2016040701

N1 1096+00 to N1 488+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
0	0	Class Change	5.00		0	T		5	1	
0	0	Posted Speed	90.00		0	T		5	1	
0	0	Track Change	0.00		0	T		5	7	
0	55	Track Change	0.00		7	T		5	1	38.949824 -77.346598
1096	88	Railroad	WMATA		7	T		5	1	38.949823 -77.346595
1096	46	Down Marker	1096.00		7	T		5	1	38.949823 -77.346595
1096	0	Subdivision	N LINE		7	T		5	1	38.949822 -77.346592
1093	97	Switch Pt			12	T		5	1	38.949589 -77.345937
1093	84	L N Guard Check	53.90	0	12	T		5	1	38.949576 -77.345898
1093	25	Frog			13	T		5	1	38.949513 -77.345705
1090	99	Down Chain	1090.00		15	T		5	1	38.949171 -77.344652
1082	49	Frog			16	T		5	1	38.948378 -77.342222
1082	18	R Cant Neg	-0.50	17	16	T		5	1	38.948347 -77.342128
1081	52	Switch Pt			16	T		5	1	38.948278 -77.341908
1080	99	Down Chain	1080.00		15	T		5	1	38.948128 -77.341413
1079	71	Platform Start			12	T		5	1	38.948098 -77.341319
1073	72	Platform End			22	T		5	1	38.947478 -77.339391
1070	99	Down Chain	1070.00		27	E		5	1	38.947091 -77.338180
1060	13	Down Marker	1060.00		34	T		5	1	38.946071 -77.334965
1060	12	Down Chain	1060.00		34	T		5	1	38.946070 -77.334962
1050	99	Down Chain	1050.00		35	C		5	1	38.945135 -77.331657
1040	99	Down Chain	1040.00		34	C		5	1	38.944628 -77.328218
1040	84	Down Marker	1040.00		34	C		5	1	38.944624 -77.328155
1040	12	Down Chain	1040.00		34	C		5	1	38.944623 -77.328152
1033	77	Bridge Start			33	C		5	1	38.944569 -77.325972
1031	74	Bridge End			32	C		5	1	38.944591 -77.325261
1030	99	Down Chain	1030.00		32	C		5	1	38.944627 -77.324652
1020	2	Down Marker	1020.00		32	C		5	1	38.945107 -77.321204
1020	12	Down Chain	1020.00		33	C		5	1	38.945108 -77.321200
1011	50	Switch Pt			34	T		5	1	38.945872 -77.318389
1010	76	Frog			34	T		5	1	38.945947 -77.318150
1010	99	Down Chain	1010.00		33	T		5	1	38.946025 -77.317903
1007	58	Frog			34	T		5	1	38.946281 -77.317118
1007	31	W Grd Face	53.07	3	34	T		5	1	38.946308 -77.317034
1006	60	Switch Pt			34	T		5	1	38.946385 -77.316796
1000	99	Down Chain	1000.00		35	T		5	1	38.947047 -77.314652

Exception Report
Exception List Section
Chain 1096 to Chain 488

Page 2 of 7
2016-04-07
Run ID: 2016040701

N1 1096+00 to N1 488+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
1000	97	Down Marker	1000.00		35	T		5	1	38.947052 -77.314636
1000	12	Down Chain	1000.00		35	T		5	1	38.947053 -77.314633
992	87	Bridge Start			35	C		5	1	38.947698 -77.312275
991	38	Bridge End			35	C		5	1	38.947796 -77.311768
990	99	Down Chain	990.00		36	C		5	1	38.947872 -77.311294
980	6	Down Marker	980.00		35	C		5	1	38.948168 -77.307823
980	12	Down Chain	980.00		35	C		5	1	38.948168 -77.307819
970	99	Down Chain	970.00		33	C		5	1	38.948111 -77.304320
960	99	Down Chain	960.00		34	C		5	1	38.947727 -77.300859
960	93	Down Marker	960.00		34	C		5	1	38.947722 -77.300828
960	12	Down Chain	960.00		34	C		5	1	38.947722 -77.300824
950	99	Down Chain	950.00		32	C		5	1	38.947040 -77.297435
940	99	Down Chain	940.00		33	C		5	1	38.946048 -77.294174
940	93	Down Marker	940.00		33	C		5	1	38.946038 -77.294145
940	12	Down Chain	940.00		33	C		5	1	38.946036 -77.294142
937	37	Bridge Start			32	C		5	1	38.945729 -77.293310
935	25	Bridge End			32	C		5	1	38.945466 -77.292651
930	99	Down Chain	930.00		30	T		5	1	38.944771 -77.291042
920	99	Down Chain	920.00		29	C		5	1	38.943477 -77.287959
920	88	Down Marker	920.00		30	C		5	1	38.943461 -77.287915
920	12	Down Chain	920.00		30	C		5	1	38.943460 -77.287912
910	99	Down Chain	910.00		32	C		5	1	38.942536 -77.284624
900	99	Down Chain	900.00		33	C		5	1	38.942060 -77.281184
900	94	Down Marker	900.00		33	C		5	1	38.942058 -77.281156
900	12	Down Chain	900.00		33	C		5	1	38.942057 -77.281153
897	40	Switch Pt			32	T		5	1	38.942006 -77.280255
897	5	R Cant Neg	-0.90	30	31	T		5	1	38.941997 -77.280136
896	69	Frog			31	T		5	1	38.941989 -77.280006
896	53	R Cant Neg	-0.30	20	31	T		5	1	38.941986 -77.279954
893	49	Frog			32	T		5	1	38.941917 -77.278881
893	24	R Cant Neg	-0.20	14	33	T		5	1	38.941912 -77.278797
892	53	Switch Pt			33	T		5	1	38.941898 -77.278546
890	99	Down Chain	890.00		34	T		5	1	38.941844 -77.277664
880	2	Down Marker	880.00		32	C		5	1	38.941260 -77.274260
880	12	Down Chain	880.00		32	C		5	1	38.941259 -77.274257
870	99	Down Chain	870.00		32	C		5	1	38.939811 -77.271305

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CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
887	82	Lmt Speed 3	64.00	2047	33	C		5	1	38.941725 -77.276333
860	99	Down Chain	860.00		34	T		5	1	38.937797 -77.268944
860	92	Down Marker	860.00		34	T		5	1	38.937776 -77.268921
860	12	Down Chain	860.00		34	T		5	1	38.937774 -77.268919
850	99	Down Chain	850.00		31	B		5	1	38.935706 -77.266647
840	99	Down Chain	840.00		31	C		5	1	38.933871 -77.264052
840	84	Down Marker	840.00		31	C		5	1	38.933844 -77.264000
840	12	Down Chain	840.00		31	C		5	1	38.933842 -77.263997
830	99	Down Chain	830.00		32	C		5	1	38.932670 -77.260849
820	99	Down Chain	820.00		31	C		5	1	38.932216 -77.257406
820	94	Down Marker	820.00		31	C		5	1	38.932215 -77.257379
820	12	Down Chain	820.00		31	C		5	1	38.932215 -77.257375
810	99	Down Chain	810.00		33	C		5	1	38.932436 -77.253894
811	43	Lmt Speed 3	71.00	4296	33	C		5	1	38.932406 -77.254090
800	27	Bridge Start			30	T		5	1	38.933193 -77.250629
800	99	Down Chain	800.00		30	T		5	1	38.933216 -77.250539
800	92	Down Marker	800.00		30	T		5	1	38.933224 -77.250506
800	12	Down Chain	800.00		30	T		5	1	38.933225 -77.250503
790	99	Down Chain	790.00		29	C		5	1	38.933496 -77.247099
789	71	Excess Elevation	6.35	898	29	C	3	5	1	38.933473 -77.247002
785	1	Excess Elevation	6.21	132	29	C	4	5	1	38.932841 -77.245588
784	63	Excess Elevation	6.11	2	29	C	4	5	1	38.932772 -77.245491
784	33	Excess Elevation	6.13	10	29	E	4	5	1	38.932715 -77.245416
781	19	Switch Pt			30	E		5	1	38.932054 -77.244714
795	21	Lmt Speed 3	51.00	1041	30	C		5	1	38.931950 -77.244612
780	70	R Cant Neg	-0.10	18	30	T		5	1	38.931895 -77.244559
780	46	Frog			30	T		5	1	38.931806 -77.244472
780	7	Down Marker	780.00		30	T		5	1	38.931804 -77.244470
780	12	Down Chain	780.00		30	T		5	1	38.931764 -77.244432
779	85	W Grd Face	53.06	2	29	T		5	1	38.931714 -77.244383
779	58	L Cant Neg	-0.20	15	29	T		5	1	38.931701 -77.244370
779	52	R Cant Neg	-0.80	36	29	T		5	1	38.931598 -77.244268
779	5	Switch Pt			29	B		5	1	38.931200 -77.243885
778	77	Lmt Speed 3	77.00	91	24	C		5	1	38.930354 -77.243107
774	58	Lmt Speed 3	74.00	100	21	C		5	1	38.929835 -77.242604
771	4	Platform Start			21	T		5	1	

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CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
770	99	Down Chain	770.00		21	T		5	1	38.929610 -77.242382
765	2	Platform End			27	T		5	1	38.928533 -77.241332
763	23	Lmt Speed 3	70.00	68	30	C		5	1	38.928045 -77.240840
760	99	Down Chain	760.00		30	B		5	1	38.927471 -77.240233
760	98	Down Marker	760.00		30	B		5	1	38.927462 -77.240224
760	12	Down Chain	760.00		30	B		5	1	38.927460 -77.240222
759	40	Lmt Speed 3	80.00	65	32	C		5	1	38.927148 -77.239900
750	99	Down Chain	750.00		31	T		5	1	38.925283 -77.238067
744	45	Lmt Speed 3	88.00	179	29	C		5	1	38.923873 -77.236712
740	99	Down Chain	740.00		30	B		5	1	38.923080 -77.236002
740	92	Down Marker	740.00		30	B		5	1	38.923058 -77.235982
740	12	Down Chain	740.00		30	B		5	1	38.923056 -77.235980
737	13	L Cant Pos	4.40	36	30	E		5	1	38.922426 -77.235386
734	70	Platform Start			30	T		5	1	38.921894 -77.234872
730	99	Down Chain	730.00		29	T		5	1	38.920860 -77.233899
728	68	Platform End			29	T		5	1	38.920572 -77.233621
728	10	Tunnel Start			28	B		5	1	38.920445 -77.233499
720	99	Down Chain	720.00		28	C		5	1	38.919267 -77.231206
720	38	Down Marker	720.00		28	E		5	1	38.919251 -77.230984
720	12	Down Chain	720.00		28	E		5	1	38.919251 -77.230980
726	96	Lmt Speed 3	38.00	534	28	C		5	1	38.919818 -77.232795
710	99	Down Chain	710.00		27	C		5	1	38.919610 -77.227526
717	25	Lmt Speed 3	77.00	955	27	C		5	1	38.919277 -77.229844
704	37	L Cant Pos	3.90	16	26	B		5	1	38.920106 -77.225667
701	77	Switch Pt			26	E		5	1	38.920249 -77.224773
701	43	Tunnel End			26	E		5	1	38.920260 -77.224655
704	47	Lmt Speed 3	39.00	57	26	C		5	1	38.920168 -77.225380
701	9	Frog			26	T		5	1	38.920272 -77.224537
700	99	Down Chain	700.00		26	T		5	1	38.920310 -77.224159
700	99	Down Marker	700.00		26	T		5	1	38.920311 -77.224149
700	12	Down Chain	700.00		26	T		5	1	38.920312 -77.224145
699	3	Frog			26	T		5	1	38.920345 -77.223809
698	6	Switch Pt			26	T		5	1	38.920379 -77.223472
698	19	R Cant Neg	-0.40	19	26	T		5	1	38.920374 -77.223521
695	74	Platform Start			26	T		5	1	38.920459 -77.222667
690	99	Down Chain	690.00		28	T		5	1	38.920658 -77.220676

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CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
689	71	Platform End			28	T		5	1	38.920668 -77.220575
686	61	Lmt Speed 3	49.00	41	31	C		5	1	38.920933 -77.219080
680	99	Down Chain	680.00		30	T		5	1	38.921620 -77.217406
680	89	Down Marker	680.00		30	T		5	1	38.921637 -77.217366
680	12	Down Chain	680.00		30	T		5	1	38.921638 -77.217363
676	32	Lmt Speed 3	83.00	151	31	C		5	1	38.922171 -77.216021
670	99	Down Chain	670.00		31	T		5	1	38.922786 -77.214199
665	44	Lmt Speed 3	80.00	201	22	C		5	1	38.923413 -77.212468
661	16	Platform Start			21	T		5	1	38.923801 -77.211393
660	99	Down Chain	660.00		20	T		5	1	38.923955 -77.211039
660	87	Down Marker	660.00		20	T		5	1	38.923990 -77.211006
660	12	Down Chain	660.00		20	T		5	1	38.923992 -77.211003
655	29	Platform End			17	T		5	1	38.924699 -77.209607
650	99	Down Chain	650.00		25	C		5	1	38.925460 -77.208023
649	3	L Cant Neg	-0.50	31	26	E		5	1	38.925639 -77.207775
650	2	Lmt Speed 3	45.00	37	26	C		5	1	38.925463 -77.208017
645	54	Switch Pt			27	T		5	1	38.926316 -77.206907
645	32	L N Guard Check	53.78	0	27	T		5	1	38.926357 -77.206856
644	81	Frog			28	T		5	1	38.926459 -77.206729
644	32	Frog			29	T		5	1	38.926555 -77.206609
644	84	R Cant Neg	-1.00	88	28	T		5	1	38.926451 -77.206739
644	2	L Cant Neg	-0.70	24	30	T		5	1	38.926614 -77.206536
643	33	Switch Pt			30	T		5	1	38.926749 -77.206367
641	70	L Cant Pos	3.90	20	31	B		5	1	38.927066 -77.205972
640	10	Down Marker	640.00		31	B		5	1	38.927383 -77.205572
640	12	Down Chain	640.00		31	B		5	1	38.927385 -77.205569
638	27	Excess Elevation	6.14	20	31	B	4	5	1	38.927665 -77.205088
637	88	Excess Elevation	6.10	1	31	C	4	5	1	38.927724 -77.204976
637	21	Excess Elevation	6.14	22	31	C	4	5	1	38.927820 -77.204777
636	87	Excess Elevation	6.17	41	30	C	4	5	1	38.927865 -77.204674
634	98	Excess Elevation	6.22	505	29	C	4	5	1	38.928071 -77.204070
630	99	Down Chain	630.00		24	C		5	1	38.928212 -77.202369
627	87	L Cant Pos	3.90	14	26	C		5	1	38.928081 -77.201651
626	93	Excess Elevation	6.34	511	27	C	3	5	1	38.927988 -77.201341
626	29	L Cant Pos	3.80	27	28	E		5	1	38.927915 -77.201143
624	4	L Cant Pos	5.50	125	31	E		5	1	38.927597 -77.200473

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CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
631	36	Lmt Speed 3	50.00	1113	33	C		5	1	38.928228 -77.202590
620	99	Down Chain	620.00		33	C		5	1	38.926902 -77.199387
620	92	Down Marker	620.00		33	C		5	1	38.926883 -77.199362
620	12	Down Chain	620.00		33	C		5	1	38.926881 -77.199359
620	22	R Cant Pos	4.90	50	33	C		5	1	38.926944 -77.199446
619	90	Bridge End			33	C		5	1	38.926862 -77.199334
610	99	Down Chain	610.00		32	E		5	1	38.924707 -77.197291
615	76	Lmt Speed 3	71.00	1189	33	C		5	1	38.925705 -77.198049
605	60	Bridge Start			36	T		5	1	38.923637 -77.196588
604	19	Bridge End			36	T		5	1	38.923294 -77.196364
600	99	Down Chain	600.00		34	T		5	1	38.922280 -77.195694
601	0	Down Marker	601.00		34	T		5	1	38.922275 -77.195691
600	12	Down Chain	600.00		34	T		5	1	38.922272 -77.195689
590	99	Down Chain	590.00		33	T		5	1	38.919837 -77.194092
580	99	Down Chain	580.00		30	T		5	1	38.917395 -77.192497
580	96	Down Marker	580.00		30	T		5	1	38.917380 -77.192487
580	12	Down Chain	580.00		30	T		5	1	38.917378 -77.192486
576	60	Excess Elevation	-6.11	2	32	B	4	5	1	38.916559 -77.191922
576	19	Excess Elevation	-6.16	45	31	B	4	5	1	38.916462 -77.191850
575	19	Excess Elevation	-6.17	37	31	C	4	5	1	38.916221 -77.191663
574	79	Excess Elevation	-6.11	1	31	C	4	5	1	38.916129 -77.191586
576	42	Lmt Speed 3	82.00	190	30	C		5	1	38.916314 -77.191737
570	99	Down Chain	570.00		30	T		5	1	38.915074 -77.190594
566	41	Switch Pt			30	T		5	1	38.914307 -77.189835
565	72	Frog			29	T		5	1	38.914159 -77.189690
562	52	Frog			29	T		5	1	38.913461 -77.189007
561	51	Switch Pt			29	T		5	1	38.913241 -77.188793
560	99	Down Chain	560.00		29	B		5	1	38.912911 -77.188471
557	80	Excess Elevation	6.10	1	28	B	4	5	1	38.912417 -77.188028
553	80	Excess Elevation	6.13	21	28	C	4	5	1	38.911449 -77.187415
553	49	Excess Elevation	6.14	28	28	C	4	5	1	38.911369 -77.187378
553	8	Excess Elevation	6.22	255	29	C	4	5	1	38.911262 -77.187326
550	9	Down Marker	550.00		29	C		5	1	38.910467 -77.187078
550	12	Down Chain	550.00		29	C		5	1	38.910465 -77.187078
548	32	Excess Elevation	6.25	404	30	C	4	5	1	38.909996 -77.187008
555	88	Lmt Speed 3	65.00	1209	30	C		5	1	38.911527 -77.187451

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CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
541	61	Switch Pt			30	T		5	1	38.908178 -77.187208
540	84	Frog			30	T		5	1	38.907970 -77.187256
540	99	Down Chain	540.00		31	T		5	1	38.907758 -77.187316
530	99	Down Chain	530.00		31	T		5	1	38.905050 -77.187966
531	0	Down Marker	531.00		31	T		5	1	38.905045 -77.187967
530	12	Down Chain	530.00		31	T		5	1	38.905042 -77.187968
529	70	Bridge Start			30	T		5	1	38.904962 -77.187987
521	76	L Cant Pos	3.80	14	28	C		5	1	38.902829 -77.188252
520	99	Down Chain	520.00		29	C		5	1	38.902360 -77.188106
511	91	L Cant Pos	3.90	38	28	C		5	1	38.900661 -77.186397
510	99	Down Chain	510.00		29	E		5	1	38.900422 -77.185802
510	28	L Cant Pos	4.30	55	29	E		5	1	38.900453 -77.185895
510	50	Down Marker	510.00		31	E		5	1	38.900280 -77.185302
510	12	Down Chain	510.00		31	E		5	1	38.900280 -77.185298
509	50	Bridge End			31	E		5	1	38.900238 -77.185131
515	92	Lmt Speed 3	49.00	1319	32	C		5	1	38.901014 -77.187001
506	4	Lmt Speed 3	65.00	85	32	C		5	1	38.899931 -77.183952
500	99	Down Chain	500.00		32	B		5	1	38.899326 -77.182051
491	7	L Align 62	-1.63	8	17	C	3	5	1	38.898365 -77.179145
491	7	R Align 62	-1.63	8	17	C	3	5	1	38.898365 -77.179145
490	99	Down Chain	490.00		15	E		5	1	38.898270 -77.178799
491	6	Lmt Speed 3	52.00	22	15	C		5	1	38.898353 -77.179101
489	81	Frog			14	B		5	1	38.898248 -77.178731
489	57	W Grd Face	53.09	3	13	T		5	1	
488	49	Down Marker	488.00		12	E		5	1	38.898206 -77.178595
487	93	L Align 62	1.71	8	12	E	3	5	1	
487	93	R Align 62	1.71	8	12	E	3	5	1	
489	30	Lmt Speed 3	40.00	26	13	C		5	1	

Notes:

Cant Exceptions are in degrees
The following fields are irrelevant for Cant Exceptions: LC, PC

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Elevation plus(+) = L Rail High, minus(-) = R Rail High Curvature plus(+) = Curve to Right, minus(-) = Curve to Left

Track	Starting		Ending		Len	Spd	Average		Speed		Limiting Point		Total FT Grp	Limiting Speed at									
	CH	FT	CH	FT			Deg/M	inches	Post	Lmt	CH	FT		Deg/M	inches								
																3"	4"	5"	6"	7"	8"	9"	
1	1073	45	1069	9	365	27	-0/37	-1.80	90	102	1071	1	-0/39	-1.82		102	113	122	131	139	147	154	
1	1068	17	1064	5	389	30	0/39	2.41	90	105	1067	87	0/41	2.30		105	114	123	131	139	146	153	
1	1059	55	1012	9	4675	36	-0/57	-3.89	90	100	1050	48	-0/58	-3.85		100	108	114	120	126	132	138	
1	1000	25	986	3	1379	36	1/21	5.37	90	93	994	80	1/24	5.47		93	98	103	108	112	117	121	
1	986	3	932	21	5436	36	0/37	2.84	90	112	976	17	0/39	2.79		112	121	130	138	146	153	160	
1	926	11	898	53	2867	35	-0/52	-3.59	90	100	905	40	-0/55	-3.63		100	108	115	122	128	134	139	
1	890	9	866	72	2465	33	1/54	2.59	90	64	887	82	1/55	2.56	2047	1	64	70	75	80	84	88	93
1	859	94	856	61	268	37	0/25	1.55	90	113	857	32	0/33	2.00		113	124	134	143	152	160	168	
1	851	5	805	63	4687	35	-1/27	-2.91	90	71	811	43	-1/21	-1.83	4296	1	71	79	85	91	97	102	107
1	799	12	781	15	1804	30	4/54	6.21	90	51	795	21	4/57	6.16	1041	1	51	54	57	59	62	64	66
1	780	85	775	7	423	28	0/48	0.76	90	77	778	77	0/55	0.82	91	1	77	87	95	103	110	117	123
1	775	7	772	32	326	22	-0/47	-0.42	90	74	774	58	-0/52	-0.41	100	1	74	85	94	102	110	117	124
1	765	52	761	19	368	29	-1/06	-1.01	90	71	763	23	-1/07	-1.00	68	1	71	80	87	94	101	107	112
1	761	62	757	15	359	31	1/04	2.14	90	81	759	40	1/07	2.15	65	1	81	88	95	102	108	113	119
1	747	46	743	83	438	30	0/41	0.86	90	88	744	45	0/42	0.86	179	1	88	100	109	118	127	134	142
1	741	51	737	53	414	30	-0/40	-0.96	90	90	739	53	-0/40	-0.94			90	102	112	121	129	137	144
1	729	62	719	92	1096	28	-6/34	-4.05	90	39	726	96	-6/36	-3.91	534	1	39	41	44	46	49	51	53
1	719	92	707	37	1146	28	-1/39	-4.06	90	78	717	25	-1/39	-4.04	955	1	78	83	88	93	97	102	106
1	707	97	702	76	480	26	4/29	1.98	90	39	704	47	4/31	1.94	57	1	39	43	47	50	53	56	59
1	690	74	682	23	750	29	-5/10	-5.79	90	49	686	61	-5/12	-5.78	41	1	49	52	54	57	59	61	64
1	679	35	673	84	650	32	1/25	4.09	90	83	676	32	1/28	4.14	151	1	83	89	94	99	104	108	113
1	669	48	662	57	710	30	-1/35	-4.29	90	80	665	44	-1/38	-4.44	201	1	80	86	91	95	100	104	108
1	654	79	648	90	612	25	-4/49	-4.05	90	46	650	2	-4/51	-4.07	37	1	46	49	52	54	57	60	62
1	643	90	623	9	1913	33	5/11	6.19	90	50	631	36	5/13	6.15	1113	1	50	53	55	58	60	62	64
1	623	9	610	93	1396	34	1/55	4.07	90	72	615	76	1/56	3.96	1189	1	72	77	81	86	90	94	98
1	580	41	572	79	839	32	-1/49	-5.96	90	83	576	42	-1/52	-6.03	190	1	83	88	92	96	100	104	107
1	561	8	542	33	1920	31	2/57	6.10	90	66	555	88	2/57	6.00	1209	1	66	69	73	76	79	82	85
1	528	44	509	79	2089	30	-4/56	-5.56	90	49	515	92	-4/57	-5.45	1319	1	49	52	55	57	60	62	65
1	509	79	504	58	480	32	1/53	2.90	90	65	506	4	1/58	2.88	85	1	65	70	75	80	84	89	93
1	502	81	498	89	409	33	-0/22	-0.63	90	103	500	50	-0/30	-0.87			103	117	128	139	148	158	166
1	498	89	495	73	285	28	0/40	1.10	90	92	496	28	0/42	1.20			92	102	112	120	128	136	143

Exception Report
Curve Analysis Section
Chain 1096 to Chain 488

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N1 1096+00 to N1 488+00

Elevation plus(+) = L Rail High, minus(-) = R Rail High Curvature plus(+) = Curve to Right, minus(-) = Curve to Left

					Average					Limiting Point													
Track	Starting		Ending		Len	Spd	Curve Elev		Speed		CH	FT	Curve Deg/M	Elev inches	Total FT Grp	Limiting Speed at							
	CH	FT	CH	FT			Deg/M	inches	Post	Lmt						3"	4"	5"	6"	7"	8"	9"	
1	494	56	490	0	345	17	-2/11	-1.21	90	52	491	6	-2/10	-1.20	22	1	52	58	64	69	73	78	82
1	490	0	487	1	256	12	2/35	0.11	90	41	489	30	2/37	0.02	26	1	41	47	52	57	62	66	70

[illegible]

Lmt

[illegible]

[illegible]

Exception Report
Exception Summary Section
Chain 1096 to Chain 488

N1 1096+00 to N1 488+00

[illegible]

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[illegible]

Exception Report
Exception Summary Section
Chain 1096 to Chain 488

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N1 1096+00 to N1 488+00

		Wide Gage		Tight Gage		Alignment		Crosslevel		Rockoff		Profile		Run Off		Warp		Twist-31		Lmt	
		Tot	Exc	2 Cl	Tot	Exc	2 Cl	Tot	Exc	2 Cl	Tot	Exc	2 Cl	Tot	Exc	2 Cl	Tot	Exc	2 Cl	Tot	Exc
CH	FT	Exc	FT	Drop	Exc	FT	Drop	Exc	FT	Drop	Exc	FT	Drop	Exc	FT	Drop	Exc	FT	Drop	Exc	Trk

Total CH : 615.8

Exceptions per 100 CH : 7.47

WMATA
TRACK INSPECTION PROGRAM

TRACK GEOMETRY INSPECTION REPORT

N LINE - #2 TRACK
N2 488+00 to N2 1081+00
RR: WASHINGTON METRO AREA TRANSIT AUTHORITY (WMATA)
Survey Number:
Chain 488 to Chain 1081
Direction: Ascending Chain



Washington Metro Area Transit Authority
Washington, D.C.

Exception Report
Exception List Section
Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
0	0	Posted Speed	90.00		0	T		5	1	
0	0	Track Change	0.00		0	T		5	7	
0	0	Class Change	5.00		0	T		5	1	
0	9	Track Change	0.00		2	T		5	2	
0	10	Railroad	WMATA		2	T		5	2	
0	11	Subdivision	N LINE		2	T		5	2	
0	69	R Cant Neg	-0.60	26	8	T		5	2	38.897796 -77.177258
1	96	L Cant Neg	-0.30	22	10	T		5	2	38.897941 -77.177668
2	52	R Cant Neg	-0.40	16	11	T		5	2	38.898003 -77.177848
488	74	Up Marker	488.00		11	B		5	2	38.898142 -77.178246
488	28	R Align 62	2.11	23	11	B	3	5	2	38.898173 -77.178335
488	28	L Align 62	2.11	23	11	B	3	5	2	38.898173 -77.178335
489	1	Frog			13	E		5	2	38.898261 -77.178564
489	15	L Cant Neg	-1.00	33	14	E		5	2	38.898278 -77.178604
488	69	Lmt Speed 3	40.00	28	16	C		5	2	38.898222 -77.178464
490	99	Up Chain	490.00		16	B		5	2	38.898387 -77.178875
491	99	Lmt Speed 3	76.00	103	22	C		5	2	38.898642 -77.179500
500	44	Up Marker	500.00		27	T		5	2	38.899439 -77.181904
507	14	Bridge Start			30	T		5	2	38.900234 -77.184189
510	99	Up Chain	510.00		27	T		5	2	38.900544 -77.185104
514	4	Lmt Speed 3	48.00	96	29	C		5	2	38.901048 -77.186358
515	91	Excess Elevation	6.17	59	29	E	4	5	2	38.901377 -77.186858
517	7	Excess Elevation	6.17	86	30	C	4	5	2	38.901611 -77.187132
520	98	Up Marker	520.00		33	C		5	2	38.902284 -77.187686
518	34	Excess Elevation	6.28	304	32	C	3	5	2	38.901890 -77.187398
521	54	Excess Elevation	6.21	133	35	C	4	5	2	38.902673 -77.187890
522	22	Excess Elevation	6.13	31	35	C	4	5	2	38.902850 -77.187960
522	49	Excess Elevation	6.10	1	35	C	4	5	2	38.902921 -77.187985
523	23	Excess Elevation	6.17	87	35	C	4	5	2	38.903119 -77.188041
523	71	Excess Elevation	6.12	21	35	C	4	5	2	38.903248 -77.188068
524	13	Excess Elevation	6.11	11	35	C	4	5	2	38.903362 -77.188087
524	54	Excess Elevation	6.11	9	35	C	4	5	2	38.903474 -77.188101
525	33	Excess Elevation	6.11	9	35	C	4	5	2	38.903689 -77.188112
527	1	L Cant Pos	4.00	21	35	E		5	2	38.904145 -77.188079
527	17	Bridge End			35	E		5	2	38.904188 -77.188072
516	81	Lmt Speed 3	52.00	1050	35	C		5	2	38.901557 -77.187073

Exception Report
Exception List Section
Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
530	99	Up Chain	530.00		35	T		5	2	38.904953 -77.187897
540	99	Up Chain	540.00		35	T		5	2	38.907640 -77.187236
540	21	R Cant Neg	-0.70	16	35	T		5	2	38.907696 -77.187222
545	24	Excess Elevation	-6.25	93	39	B	3	5	2	38.909051 -77.186923
546	16	Excess Elevation	-6.12	14	38	C	4	5	2	38.909302 -77.186899
550	99	Up Chain	550.00		35	C		5	2	38.910352 -77.186966
550	14	Up Marker	550.00		35	C		5	2	38.910395 -77.186977
557	95	Excess Elevation	-6.14	19	33	C	4	5	2	38.912411 -77.187956
558	99	Bridge Start			34	E		5	2	38.912646 -77.188159
560	99	Up Chain	560.00		34	E		5	2	38.912868 -77.188367
561	0	Bridge End			35	E		5	2	38.913086 -77.188577
548	68	Lmt Speed 3	65.00	1228	35	C		5	2	38.909989 -77.186906
562	84	Frog			35	T		5	2	38.913487 -77.188957
562	97	L Cant Neg	-0.40	17	35	T		5	2	38.913516 -77.188994
563	80	Switch Pt			35	T		5	2	38.913696 -77.189171
564	54	Switch Pt			35	T		5	2	38.913858 -77.189327
564	80	R Cant Neg	-0.70	17	35	T		5	2	38.913914 -77.189382
565	25	Frog			35	T		5	2	38.914012 -77.189478
570	99	Up Chain	570.00		34	T		5	2	38.915043 -77.190488
570	10	Up Marker	570.00		34	T		5	2	38.915069 -77.190514
575	10	Excess Elevation	6.18	38	36	B	4	5	2	38.916183 -77.191580
575	38	Excess Elevation	6.11	3	36	C	4	5	2	38.916248 -77.191633
575	46	Excess Elevation	6.12	5	36	C	4	5	2	38.916266 -77.191648
575	74	Excess Elevation	6.16	57	36	C	4	5	2	38.916331 -77.191700
576	35	Excess Elevation	6.11	5	35	C	4	5	2	38.916473 -77.191812
575	48	Lmt Speed 3	81.00	177	34	C		5	2	38.916271 -77.191652
580	99	Up Chain	580.00		34	T		5	2	38.917348 -77.192419
590	99	Up Chain	590.00		34	T		5	2	38.919781 -77.194009
590	5	Up Marker	590.00		34	T		5	2	38.919798 -77.194020
600	99	Up Chain	600.00		33	T		5	2	38.922235 -77.195614
604	27	Bridge Start			35	T		5	2	38.923278 -77.196297
605	66	Bridge End			36	T		5	2	38.923617 -77.196519
610	99	Up Chain	610.00		35	B		5	2	38.924680 -77.197212
610	0	Up Marker	610.00		35	B		5	2	38.924682 -77.197214
619	92	Bridge Start			32	C		5	2	38.926863 -77.199242
620	99	Up Chain	620.00		32	C		5	2	38.926878 -77.199262

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Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
612	39	Lmt Speed 3	70.00	1173	31	C		5	2	38.925253 -77.197617
625	79	L Cant Pos	4.80	101	31	B		5	2	38.927851 -77.200850
626	85	Excess Elevation	-6.12	10	31	B	4	5	2	38.927989 -77.201176
627	37	Excess Elevation	-6.35	228	32	B	3	5	2	38.928049 -77.201341
630	99	Up Chain	630.00		33	C		5	2	38.928252 -77.202220
630	13	Up Marker	630.00		33	C		5	2	38.928259 -77.202272
629	56	Excess Elevation	-6.24	72	33	C	4	5	2	38.928228 -77.202069
632	31	Excess Elevation	-6.39	418	35	C	3	5	2	38.928291 -77.203076
634	75	Excess Elevation	-6.17	30	37	C	4	5	2	38.928183 -77.203916
637	56	Excess Elevation	-6.20	24	36	C	4	5	2	38.927886 -77.204818
638	8	Excess Elevation	-6.17	33	35	C	4	5	2	38.927812 -77.204973
638	12	L Cant Pos	4.20	52	35	C		5	2	38.927806 -77.204985
638	44	Excess Elevation	-6.17	24	35	C	4	5	2	38.927758 -77.205078
639	3	Excess Elevation	-6.16	44	35	C	4	5	2	38.927663 -77.205244
639	44	R Cant Pos	4.00	27	35	E		5	2	38.927593 -77.205356
640	99	Up Chain	640.00		34	E		5	2	38.927493 -77.205503
636	87	Lmt Speed 3	50.00	1193	32	C		5	2	38.927977 -77.204603
643	53	Switch Pt			32	T		5	2	38.926810 -77.206371
644	25	Frog			32	T		5	2	38.926670 -77.206547
643	94	L Cant Neg	-0.70	37	32	T		5	2	38.926731 -77.206472
644	77	Frog			31	T		5	2	38.926570 -77.206676
645	4	L Cant Neg	-1.60	17	31	T		5	2	38.926517 -77.206741
645	71	Switch Pt			31	T		5	2	38.926386 -77.206905
650	99	Up Chain	650.00		32	C		5	2	38.925583 -77.207998
649	61	Lmt Speed 3	53.00	62	34	C		5	2	38.925647 -77.207889
655	48	Platform Start			33	T		5	2	38.924811 -77.209645
660	99	Up Chain	660.00		29	T		5	2	38.924215 -77.211005
660	9	Up Marker	660.00		29	T		5	2	38.924200 -77.211039
661	38	Platform End			31	T		5	2	38.923995 -77.211457
670	99	Up Chain	670.00		28	E		5	2	38.922882 -77.214097
667	85	Lmt Speed 3	88.00	165	27	C		5	2	38.923124 -77.213425
676	27	Lmt Speed 3	83.00	174	22	C		5	2	38.922196 -77.216106
680	99	Up Chain	680.00		21	T		5	2	38.921714 -77.217262
680	7	Up Marker	680.00		21	T		5	2	38.921702 -77.217290
685	54	Excess Elevation	6.28	182	21	C	3	5	2	38.921051 -77.219036
685	3	Lmt Speed 3	54.00	96	25	C		5	2	38.921094 -77.218865

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Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
689	85	Platform Start			25	T		5	2	38.920845 -77.220520
690	99	Up Chain	690.00		25	T		5	2	38.920840 -77.220572
695	87	Platform End			28	T		5	2	38.920631 -77.222609
698	13	Switch Pt			29	T		5	2	38.920551 -77.223393
698	85	Frog			29	T		5	2	38.920525 -77.223643
700	99	Up Chain	700.00		28	T		5	2	38.920484 -77.224042
700	11	L Cant Neg	-0.30	18	28	T		5	2	38.920480 -77.224080
700	91	Frog			28	T		5	2	38.920459 -77.224372
701	35	L Cant Neg	-0.60	37	28	T		5	2	38.920445 -77.224524
701	93	Switch Pt			28	B		5	2	38.920425 -77.224721
705	75	R Cant Pos	4.20	21	27	E		5	2	38.920187 -77.226018
704	18	Lmt Speed 3	39.00	52	27	C		5	2	38.920318 -77.225496
707	35	R Cant Pos	4.10	23	27	B		5	2	38.920038 -77.226545
708	19	R Cant Pos	4.00	19	28	B		5	2	38.919960 -77.226821
710	99	Up Chain	710.00		29	B		5	2	38.919803 -77.227422
710	7	Up Marker	710.00		29	C		5	2	38.919796 -77.227452
713	84	Lmt Speed 3	76.00	871	34	C		5	2	38.919548 -77.228756
720	99	Up Chain	720.00		33	B		5	2	38.919403 -77.230900
728	18	Tunnel End			28	E		5	2	38.920456 -77.233301
723	17	Lmt Speed 3	37.00	515	28	C		5	2	38.919586 -77.231977
728	96	Platform Start			28	T		5	2	38.920625 -77.233467
730	99	Up Chain	730.00		28	T		5	2	38.920851 -77.233687
730	6	Up Marker	730.00		28	T		5	2	38.920869 -77.233704
734	90	Platform End			31	T		5	2	38.921933 -77.234745
740	99	Up Chain	740.00		32	E		5	2	38.923061 -77.235832
750	99	Up Chain	750.00		32	T		5	2	38.925236 -77.237957
750	14	Up Marker	750.00		32	T		5	2	38.925270 -77.237991
760	99	Up Chain	760.00		24	C		5	2	38.927436 -77.240100
765	21	Platform Start			23	T		5	2	38.928575 -77.241190
770	99	Up Chain	770.00		15	T		5	2	38.929618 -77.242207
770	5	Up Marker	770.00		14	T		5	2	38.929634 -77.242222
771	18	Platform End			0	T		5	2	38.929904 -77.242484
773	84	Lmt Speed 3	88.00	22	24	C		5	2	38.930453 -77.243051
777	54	Lmt Speed 3	88.00	43	26	C		5	2	38.931240 -77.243867
780	0	L Cant Neg	-0.80	40	26	T		5	2	38.931772 -77.244387
780	99	Up Chain	780.00		27	T		5	2	38.931772 -77.244387

Exception Report
Exception List Section
Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
780	26	L Cant Neg	-0.30	15	27	T		5	2	38.931829 -77.244442
785	12	Excess Elevation	-6.48	314	27	B	3	5	2	38.932844 -77.245533
790	99	Up Chain	790.00		31	C		5	2	38.933508 -77.246996
788	3	Excess Elevation	-6.22	270	30	C	4	5	2	38.933298 -77.246364
790	78	Excess Elevation	-6.12	20	31	C	4	5	2	38.933568 -77.247258
793	49	Excess Elevation	-6.11	6	32	C	4	5	2	38.933658 -77.248195
794	0	Excess Elevation	-6.13	32	32	C	4	5	2	38.933656 -77.248373
794	33	Excess Elevation	-6.14	30	32	C	4	5	2	38.933652 -77.248488
794	78	Excess Elevation	-6.15	43	32	C	4	5	2	38.933642 -77.248645
795	72	Excess Elevation	-6.13	11	33	C	4	5	2	38.933608 -77.248970
794	11	Lmt Speed 3	51.00	1051	34	C		5	2	38.933655 -77.248412
800	99	Up Chain	800.00		33	T		5	2	38.933281 -77.250404
800	9	Up Marker	800.00		33	T		5	2	38.933271 -77.250441
800	83	Bridge End			32	T		5	2	38.933200 -77.250720
810	99	Up Chain	810.00		33	C		5	2	38.932485 -77.253791
820	99	Up Chain	820.00		36	C		5	2	38.932248 -77.257273
820	8	Up Marker	820.00		36	C		5	2	38.932249 -77.257308
830	99	Up Chain	830.00		34	C		5	2	38.932690 -77.260754
840	99	Up Chain	840.00		31	C		5	2	38.933857 -77.263909
850	99	Up Chain	850.00		34	E		5	2	38.935659 -77.266524
850	9	Up Marker	850.00		34	E		5	2	38.935682 -77.266549
813	52	Lmt Speed 3	71.00	4259	33	C		5	2	38.932242 -77.256751
860	99	Up Chain	860.00		33	T		5	2	38.937747 -77.268830
870	99	Up Chain	870.00		34	C		5	2	38.939775 -77.271178
870	9	Up Marker	870.00		34	C		5	2	38.939794 -77.271207
880	99	Up Chain	880.00		33	C		5	2	38.941250 -77.274150
890	99	Up Chain	890.00		29	E		5	2	38.941867 -77.277552
890	6	Up Marker	890.00		29	E		5	2	38.941869 -77.277580
878	90	Lmt Speed 3	63.00	2073	29	C		5	2	38.941126 -77.273796
893	67	Frog			34	T		5	2	38.941947 -77.278857
894	65	Switch Pt			34	T		5	2	38.941968 -77.279198
895	37	Switch Pt			34	T		5	2	38.941984 -77.279450
895	69	R Cant Neg	-0.20	15	34	T		5	2	38.941990 -77.279561
896	9	Frog			34	T		5	2	38.941999 -77.279701
900	99	Up Chain	900.00		34	C		5	2	38.942095 -77.281067
910	99	Up Chain	910.00		34	C		5	2	38.942565 -77.284510

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CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
910	2	Up Marker	910.00		34	C		5	2	38.942566 -77.284525
920	99	Up Chain	920.00		32	C		5	2	38.943481 -77.287820
930	99	Up Chain	930.00		36	T		5	2	38.944760 -77.290900
930	9	Up Marker	930.00		36	T		5	2	38.944775 -77.290934
935	48	Bridge Start			34	C		5	2	38.945501 -77.292605
937	58	Bridge End			33	C		5	2	38.945759 -77.293258
940	99	Up Chain	940.00		34	C		5	2	38.946045 -77.294023
950	99	Up Chain	950.00		32	C		5	2	38.947050 -77.297280
950	6	Up Marker	950.00		32	C		5	2	38.947057 -77.297306
960	99	Up Chain	960.00		24	C		5	2	38.947754 -77.300689
970	99	Up Chain	970.00		32	C		5	2	38.948137 -77.304152
970	6	Up Marker	970.00		32	C		5	2	38.948138 -77.304180
980	99	Up Chain	980.00		34	C		5	2	38.948216 -77.307678
990	99	Up Chain	990.00		28	C		5	2	38.947955 -77.311156
990	15	Up Marker	990.00		28	C		5	2	38.947947 -77.311215
991	23	Bridge Start			27	C		5	2	38.947880 -77.311637
992	85	Bridge End			27	C		5	2	38.947778 -77.312189
1000	99	Up Chain	1000.00		27	T		5	2	38.947135 -77.314546
1007	90	Frog			31	T		5	2	38.946322 -77.317113
1008	88	Switch Pt			30	T		5	2	38.946221 -77.317432
1008	77	R Cant Neg	-0.30	19	30	T		5	2	38.946232 -77.317396
1009	61	Switch Pt			29	T		5	2	38.946145 -77.317669
1010	99	Up Chain	1010.00		29	T		5	2	38.946105 -77.317795
1010	34	Frog			29	T		5	2	38.946070 -77.317906
1020	99	Up Chain	1020.00		33	C		5	2	38.945184 -77.321083
1020	12	Up Marker	1020.00		34	C		5	2	38.945173 -77.321130
1030	99	Up Chain	1030.00		32	C		5	2	38.944680 -77.324579
1031	96	Bridge Start			32	C		5	2	38.944641 -77.325264
1033	93	Bridge End			32	C		5	2	38.944618 -77.325952
1040	99	Up Chain	1040.00		31	C		5	2	38.944667 -77.328073
1040	0	Up Marker	1040.00		31	C		5	2	38.944667 -77.328080
1050	99	Up Chain	1050.00		32	C		5	2	38.945122 -77.331526
1060	99	Up Chain	1060.00		31	T		5	2	38.946048 -77.334825
1060	5	Up Marker	1060.00		31	T		5	2	38.946055 -77.334847
1070	99	Up Chain	1070.00		23	B		5	2	38.947140 -77.338062
1073	83	Platform Start			17	T		5	2	38.947548 -77.339291

Exception Report
Exception List Section
Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
1079	87	Platform End			9	T		5	2	38.948048 -77.340813
1080	99	Up Chain	1080.00		8	T		5	2	38.948048 -77.340813
1080	13	Up Marker	1080.00		7	T		5	2	38.948048 -77.340813
1080	94	R Runoff	-9.62	31	1	T	0	5	2	
1081	0	L Runoff	9.90	31	1	T	0	5	2	
1081	5	Up Marker	1081.00		1	T		5	2	38.948048 -77.340813
1081	18	R Runoff	9.62	31	1	T	0	5	2	
1081	24	L Runoff	-9.90	31	1	T	0	5	2	
1081	99	L Runoff	5.84	31	1	T	0	5	2	
1082	17	R Runoff	-5.81	31	1	T	0	5	2	

Notes:

Cant Exceptions are in degrees
The following fields are irrelevant for Cant Exceptions : LC, PC

Exception Report
Curve Analysis Section
Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

Elevation plus(+) = L Rail High, minus(-) = R Rail High Curvature plus(+) = Curve to Right, minus(-) = Curve to Left

Track	Starting		Ending		Len	Spd	Average		Speed		Limiting Point		Total FT Grp	Limiting Speed at									
	CH	FT	CH	FT			Deg/M	inches	Post	Lmt	CH	FT		Deg/M	inches	3"	4"	5"	6"	7"	8"	9"	
2	2	99	489	85	263	13	2/41	0.17	90	41	488	69	2/44	0.19	28	1	41	47	52	57	61	65	69
2	489	85	494	54	470	20	-1/31	-3.42	90	77	491	99	-1/33	-3.43	103	1	77	83	88	93	98	103	107
2	510	24	515	94	571	29	5/20	5.95	90	48	514	4	5/25	5.94	96	1	48	51	54	56	58	61	63
2	515	94	529	62	1369	35	4/40	6.12	90	52	516	81	4/43	6.11	1050	1	52	55	58	61	63	65	68
2	541	81	561	17	1953	38	-2/55	-5.95	90	65	548	68	-2/55	-5.73	1228	1	65	69	72	76	79	82	85
2	571	54	579	98	845	36	1/52	6.03	90	82	575	48	1/56	6.11	177	1	82	86	90	94	98	102	105
2	609	31	623	94	1465	34	-1/55	-3.92	90	70	612	39	-1/58	-3.86	1173	1	70	75	80	85	89	93	97
2	623	94	642	52	1874	37	-5/07	-6.15	90	50	636	87	-5/06	-5.98	1193	1	50	53	55	58	60	63	65
2	646	17	653	3	687	32	4/07	5.29	90	53	649	61	4/10	5.28	62	1	53	56	59	62	65	67	70
2	663	35	671	23	789	31	1/34	5.77	90	88	667	85	1/39	6.01	165	1	88	93	98	102	106	110	114
2	672	52	679	0	649	24	-1/25	-4.05	90	83	676	27	-1/26	-4.05	174	1	83	89	95	100	105	109	114
2	681	13	689	44	832	21	4/28	6.24	90	54	685	3	4/29	6.20	96	1	54	57	60	62	65	67	70
2	701	61	706	36	476	27	-4/26	-1.99	90	40	704	18	-4/27	-1.96	52	1	40	44	47	51	54	56	59
2	707	25	718	70	1155	34	1/42	4.08	90	77	713	84	1/42	4.05	871	1	77	82	87	92	96	101	105
2	718	70	728	82	1013	31	6/55	3.94	90	37	723	17	6/57	3.75	515	1	37	40	42	45	47	49	51
2	738	31	740	65	235	33	-0/12	-0.99	90	166	739	62	-0/12	-0.98			166	189	207	223	239	253	267
2	741	62	744	13	252	32	0/13	0.95	90	152	743	7	0/15	0.97			152	169	185	200	213	226	239
2	756	99	760	59	361	26	0/23	1.85	90	124	758	92	0/28	2.13			124	135	146	156	165	174	182
2	761	20	764	69	350	23	-0/23	-1.91	90	128	763	32	-0/26	-2.11			128	141	152	162	172	181	190
2	772	6	776	16	411	18	-0/56	-2.25	90	89	773	84	-0/56	-2.25	22	1	89	97	105	112	119	125	131
2	776	16	779	29	314	25	0/48	1.96	90	89	777	54	0/55	2.13	43	1	89	97	105	112	118	125	131
2	781	25	799	12	1788	33	-4/55	-6.13	90	51	794	11	-4/57	-6.08	1051	1	51	54	56	59	61	64	66
2	804	75	851	24	4671	37	1/28	3.03	90	71	818	52	1/22	1.89	4259	1	71	78	85	91	96	102	107
2	853	20	856	72	353	34	-0/15	-1.27	90	148	855	68	-0/16	-1.31			148	168	183	197	210	222	234
2	865	67	890	13	2466	34	-1/53	-2.45	90	64	878	90	-1/54	-2.43	2073	1	64	69	75	79	84	88	92
2	897	8	926	43	2940	35	0/52	3.58	90	100	912	53	0/57	3.80			100	108	114	121	127	133	138
2	932	51	987	68	5534	35	-0/37	-2.47	90	107	987	67	-0/42	-2.76			107	117	125	133	140	147	154
2	987	68	999	65	1215	29	-1/22	-5.36	90	92	989	78	-1/22	-5.26			92	98	103	108	113	118	122
2	1012	63	1058	86	4640	36	0/57	3.95	90	100	1032	80	0/59	3.90			100	107	113	120	125	131	136
2	1064	73	1068	16	344	20	0/39	2.00	90	103	1066	51	0/40	2.07			103	113	122	130	138	145	152
2	1069	10	1072	88	379	21	-0/39	-1.90	90	101	1071	44	-0/40	-1.93			101	112	121	129	137	144	152

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Lmt

[illegible]

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Lmt Spd

[illegible]

Exception Report
Exception Summary Section
Chain 488 to Chain 1081

N2 488+00 to N2 1081+00

[illegible]

Exception Report
Exception Summary Section
Chain 488 to Chain 1081

N2 488+00 to N2 1081+00

[illegible]

Exception Report
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N2 488+00 to N2 1081+00

		Wide Gage		Tight Gage		Alignment		Crosslevel		Rockoff		Profile		Run Off		Warp		Twist-31		Lmt	
		Tot	Exc	2 Cl	Tot	Exc	2 Cl	Tot	Exc	2 Cl	Tot	Exc	2 Cl	Tot	Exc	2 Cl	Tot	Exc	2 Cl	Tot	Exc
CH	FT	Exc	FT	Drop	Exc	FT	Exc	FT	Drop	Exc	FT	Exc	FT	Drop	Exc	FT	Drop	Exc	FT	Drop	Exc

Total CH : 600.9
Exceptions per 100 CH : 10.82



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160406-WMATA-MKD-1		
	2016	04	06				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track & Structures	Sub-Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Track Geometry Vehicle - N Line - Track #1 & 2 from West Falls Church (K98) to Wiehle-Reston East (N06) and return.						

Inspection Summary

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

Activity Summaries

Inspection Activity #	1	Inspection Subject				Rules Compliance			Activity Code		TRK	TGV	RC
Job Briefing Employee Name/Title	[REDACTED] RWIC Level 4				Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	0000 to 0300	Outside Shift	Yes	
Related Reports	Related CAPS / Findings												
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	MSRPH		3.87.1, 3.122, 3.67, SOP #23.5.5.3										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		X	x	X			
Line(s)	N Line (Silver)	Track Number	1 & 2	Chain Marker and/or Station(s)	From		To						
					N2 488+00		N2 1081+00 and return						
Vehicles	Head Car Number		Number of Cars		Equipment		Track Geometry Vehicle (TGV)						
Description	FWSO team monitored the Track Geometry Vehicle crew and their compliance with MSRPH rules: 3.87.1 - sounding of horns when exiting or entering tunnels 3.122 - sounding of the horn in short blasts when operated against the normal direction of traffic 3.67 - Rail vehicle not operated past or closer than a point 10-feet in approach of an interlocking signal or lamp displaying a red signal							Number of Defects		0			
								Recommended Finding?		No			
								Remedial Action Required?		No			
								Recommended Re-Inspection?		No			

Inspector in Charge - Signature

MEDENIA DASHIELL

Digitally signed by MEDENIA DASHIELL
DN: cn=US, o=U.S. Government, ou=DOT Headquarters, ou=FRAHQ,
cn=MEDENIA DASHIELL
Date: 2016.04.08 14:16:28 -0400

Date

04/08/2016

Inspector in Charge - Name

Inspection Team

Medenia K. Dashiell

Medenia K. Dashiell - FWSO, James Payne - FRA

Form FTA-IR-1

Version date: 1/19/16



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

		SOP #23 – 23.5.5.3 – Class II operators shall sound horns through stations.									
		No deficiencies identified with or approach to interlocking signals and lamps.									
Remedial Action		N/A									
Inspection Activity #	2	Inspection Subject	Track Geometry Vehicle Testing				Activity Code	TRK	TGV	PI	
Job Briefing Employee Name/Title	Please See Above		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	0000 to 0300	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		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		X	X	X	
Line(s)	N Line (Silver)	Track Number	1 & 2	Chain Marker and/or Station(s)	From		To				
					N2 488+00		N2 1081+00 and return				
Vehicles		Head Car Number	Number of Cars		Equipment		Track Geometry Vehicle (TGV)				
		N/A									
Description	<p>FWSO and FRA accompanied the TGV inspection team during geometry testing on the N-line from West Falls Church (K98) to Wiehle-Reston East (N06). The purpose of this audit was to determine the effectiveness of the program; broken down into 3 main categories: crew knowledge, equipment functionality, and data analysis as follows:</p> <p>Crew Knowledge: The crew was very passionate about the task that they were performing with the TGV, but did express and show some frustration with the lack of knowledge of the system and car. When asked questions about the ENSCO geometry system being used, the crew could not go into details about most actions that were being taken. The crew was able to see that there was an error with the system but did not know what the error was and how to troubleshoot the problem. The crew even lacked access to the computer cabinets to try and troubleshoot the system. The crew also had very limited knowledge of the Plasser train that they were operating. The crew could not tell me about the inner workings of the car.</p> <p>Equipment functionality: The equipment appeared to be working as designed. There were many exceptions found and a small percentage was found to be false positives. All the false positives that were found are a known short coming of modern geometry systems. There was nothing out of the ordinary that would make the crew feel that the system was not working properly.</p> <p>Data Analysis: The single data analyst had enough knowledge to determine if an event was a legitimate exception. The analysis of the data was very basic and the analyst leaned heavily on the routine checks of the system. The Video Strip Chart (VSC) was set so short that the data was gone off the screen by the time an analysis could be performed. The analyst was not able to tell me (FRA) what was being</p>						Number of Defects		0		
							Recommended Finding?		No		
							Remedial Action Required?		No		
							Recommended Re-inspection?		No		



	analyzed other than to walk me through a very regimented process and; as long as the images were good it was determined that the exception was legitimate by TGV standards.		
Remedial Action	<p>Recommendations:</p> <p>One of the contributing factors to the TGV crew's lack of knowledge is that the car only operates a handful of times throughout the year.</p> <ul style="list-style-type: none">• This technology is being underutilized and serious consideration should be given to expanding this program into full time deployment.• The current crew should be made a full time TGV crew and continual annual training should be provided to bring their knowledge up to the standards needed to operate such an expensive program. <p>WMATA should consider adopting a set of geometry standards. The car found many exceptions that were still within the parameter of the priority standard that the company has set. Most of the exceptions found were yellow while the speed of the track was yellow.</p> <ul style="list-style-type: none">• It is recommended that WMATA either adopt a standard as the railroad industry or work with a consultant such as the VOLPE Center to determine standards that are more designed for the equipment that they operate. Since this is a closed system, WMATA would be able to adopt a set of standards that could differ from the rail industry. <p>It appears the TGV is reporting more examples of a deviation from design standard than a maintenance exception standard that would require the track to be slowed down or repaired.</p> <ul style="list-style-type: none">• WMATA should establish a test that would include a maintenance standard for type of testing. Design standards give WMATA very little room for track deviations and; appears to be creating an abundance of work that may need to be performed since safety is at risk.		

Track Geometry Inspection Compliance Form

Subject	Track Geometry Inspection Compliance Form		
Purpose	The intent of this form is to verify compliance with the Track Geometry Inspection requirements detailed in the Washington Metropolitan Area Transit Authority (WMATA) 1000 Track Maintenance & Inspection Manual		
References	WMATA – 1000 Track Maintenance & Inspection Manual, revision 6, dated January 1, 2015 – section 11		
Date(s) of Review	4/6-7/2016	WMATA Department	Track and Structures (TRST)
FTA Reviewers	Medenia Dashiell James Payne - FRA	WMATA Person(s) Contacted	(b)(6) (b)(6)
Date		Time	2200 to 0600
Location	West Falls Church to Wiehle-Reston East + Return	Track #	142

Item	Required Observation	Compliant	Non-compliant	N/A
11.23.2	All measured values can be displayed in a graphic format;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Recorded on a computer hard drive;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Or printed as an exception report for the maintenance forces.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notes:				
11.23.3	User-defined measurement threshold values include:			
A	Track Gauge	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B	Horizontal and Vertical Alignment	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C	Left and Right Surface	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D	Cross-Level	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Item	Required Observation	Compliant	Non-compliant	N/A
E	Twist and Warp	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notes:				
	How are noted defects Addressed?	Check One or More		
	Maximo	<input type="checkbox"/>		
	Email	<input type="checkbox"/>		
	Direct Contact with Supervisor for the specific territory	<input checked="" type="checkbox"/>		
	Chase Crew	<input checked="" type="checkbox"/>		
	Deferred	<input type="checkbox"/>		
Notes:				
	Onboard Calibration Verification – Method of Verification			
	Calibration Sticker indicating a current date	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Documentation (Specify in Notes)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Visual Verification	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Notes: <i>No instrumented verifications, not a part of procedures.</i>				
Required Actions				
<input checked="" type="checkbox"/>	No action required			
<input type="checkbox"/>	Action required. WMATA will respond to FTA within ____ days demonstrating the action(s) taken to address the deficiencies noted in this inspection report. WMATA will provide FTA with a signed statement of completed action, accompanied by photographic evidence or reports from information management systems, or other evidence of completion as appropriate.			
Results/Comments				
<i>Additional training on system/networks for crew.</i>				
Findings/Corrective Actions				

Item	Required Observation	Compliant	Non-compliant	N/A
				✓

NOTE: This form will be adjusted as FTA is informed of the internal standard operating procedures used by the WMATA TRST TGV team.

WMATA
TRACK INSPECTION PROGRAM

TRACK GEOMETRY INSPECTION REPORT

N LINE - #1 TRACK
N1 1096+00 to N1 488+00
RR: WASHINGTON METRO AREA TRANSIT AUTHORITY (WMATA)
Survey Number:
Chain 1096 to Chain 488
Direction: Descending Chain



Washington Metro Area Transit Authority
Washington, D.C.

Exception Report
Exception List Section
Chain 1096 to Chain 488

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N1 1096+00 to N1 488+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
0	0	Class Change	5.00		0	T		5	1	
0	0	Posted Speed	90.00		0	T		5	1	
0	0	Track Change	0.00		0	T		5	7	
0	55	Track Change	0.00		7	T		5	1	38.949824 -77.346598
1096	88	Railroad	WMATA		7	T		5	1	38.949823 -77.346595
1096	46	Down Marker	1096.00		7	T		5	1	38.949823 -77.346595
1096	0	Subdivision	N LINE		7	T		5	1	38.949822 -77.346592
1093	97	Switch Pt			12	T		5	1	38.949589 -77.345937
1093	84	L N Guard Check	53.90	0	12	T		5	1	38.949576 -77.345898
1093	25	Frog			13	T		5	1	38.949513 -77.345705
1090	99	Down Chain	1090.00		15	T		5	1	38.949171 -77.344652
1082	49	Frog			16	T		5	1	38.948378 -77.342222
1082	18	R Cant Neg	-0.50	17	16	T		5	1	38.948347 -77.342128
1081	52	Switch Pt			16	T		5	1	38.948278 -77.341908
1080	99	Down Chain	1080.00		15	T		5	1	38.948128 -77.341413
1079	71	Platform Start			12	T		5	1	38.948098 -77.341319
1073	72	Platform End			22	T		5	1	38.947478 -77.339391
1070	99	Down Chain	1070.00		27	E		5	1	38.947091 -77.338180
1060	13	Down Marker	1060.00		34	T		5	1	38.946071 -77.334965
1060	12	Down Chain	1060.00		34	T		5	1	38.946070 -77.334962
1050	99	Down Chain	1050.00		35	C		5	1	38.945135 -77.331657
1040	99	Down Chain	1040.00		34	C		5	1	38.944628 -77.328218
1040	84	Down Marker	1040.00		34	C		5	1	38.944624 -77.328155
1040	12	Down Chain	1040.00		34	C		5	1	38.944623 -77.328152
1033	77	Bridge Start			33	C		5	1	38.944569 -77.325972
1031	74	Bridge End			32	C		5	1	38.944591 -77.325261
1030	99	Down Chain	1030.00		32	C		5	1	38.944627 -77.324652
1020	2	Down Marker	1020.00		32	C		5	1	38.945107 -77.321204
1020	12	Down Chain	1020.00		33	C		5	1	38.945108 -77.321200
1011	50	Switch Pt			34	T		5	1	38.945872 -77.318389
1010	76	Frog			34	T		5	1	38.945947 -77.318150
1010	99	Down Chain	1010.00		33	T		5	1	38.946025 -77.317903
1007	58	Frog			34	T		5	1	38.946281 -77.317118
1007	31	W Grd Face	53.07	3	34	T		5	1	38.946308 -77.317034
1006	60	Switch Pt			34	T		5	1	38.946385 -77.316796
1000	99	Down Chain	1000.00		35	T		5	1	38.947047 -77.314652

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CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
1000	97	Down Marker	1000.00		35	T		5	1	38.947052 -77.314636
1000	12	Down Chain	1000.00		35	T		5	1	38.947053 -77.314633
992	87	Bridge Start			35	C		5	1	38.947698 -77.312275
991	38	Bridge End			35	C		5	1	38.947796 -77.311768
990	99	Down Chain	990.00		36	C		5	1	38.947872 -77.311294
980	6	Down Marker	980.00		35	C		5	1	38.948168 -77.307823
980	12	Down Chain	980.00		35	C		5	1	38.948168 -77.307819
970	99	Down Chain	970.00		33	C		5	1	38.948111 -77.304320
960	99	Down Chain	960.00		34	C		5	1	38.947727 -77.300859
960	93	Down Marker	960.00		34	C		5	1	38.947722 -77.300828
960	12	Down Chain	960.00		34	C		5	1	38.947722 -77.300824
950	99	Down Chain	950.00		32	C		5	1	38.947040 -77.297435
940	99	Down Chain	940.00		33	C		5	1	38.946048 -77.294174
940	93	Down Marker	940.00		33	C		5	1	38.946038 -77.294145
940	12	Down Chain	940.00		33	C		5	1	38.946036 -77.294142
937	37	Bridge Start			32	C		5	1	38.945729 -77.293310
935	25	Bridge End			32	C		5	1	38.945466 -77.292651
930	99	Down Chain	930.00		30	T		5	1	38.944771 -77.291042
920	99	Down Chain	920.00		29	C		5	1	38.943477 -77.287959
920	88	Down Marker	920.00		30	C		5	1	38.943461 -77.287915
920	12	Down Chain	920.00		30	C		5	1	38.943460 -77.287912
910	99	Down Chain	910.00		32	C		5	1	38.942536 -77.284624
900	99	Down Chain	900.00		33	C		5	1	38.942060 -77.281184
900	94	Down Marker	900.00		33	C		5	1	38.942058 -77.281156
900	12	Down Chain	900.00		33	C		5	1	38.942057 -77.281153
897	40	Switch Pt			32	T		5	1	38.942006 -77.280255
897	5	R Cant Neg	-0.90	30	31	T		5	1	38.941997 -77.280136
896	69	Frog			31	T		5	1	38.941989 -77.280006
896	53	R Cant Neg	-0.30	20	31	T		5	1	38.941986 -77.279954
893	49	Frog			32	T		5	1	38.941917 -77.278881
893	24	R Cant Neg	-0.20	14	33	T		5	1	38.941912 -77.278797
892	53	Switch Pt			33	T		5	1	38.941898 -77.278546
890	99	Down Chain	890.00		34	T		5	1	38.941844 -77.277664
880	2	Down Marker	880.00		32	C		5	1	38.941260 -77.274260
880	12	Down Chain	880.00		32	C		5	1	38.941259 -77.274257
870	99	Down Chain	870.00		32	C		5	1	38.939811 -77.271305

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CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
887	82	Lmt Speed 3	64.00	2047	33	C		5	1	38.941725 -77.276333
860	99	Down Chain	860.00		34	T		5	1	38.937797 -77.268944
860	92	Down Marker	860.00		34	T		5	1	38.937776 -77.268921
860	12	Down Chain	860.00		34	T		5	1	38.937774 -77.268919
850	99	Down Chain	850.00		31	B		5	1	38.935706 -77.266647
840	99	Down Chain	840.00		31	C		5	1	38.933871 -77.264052
840	84	Down Marker	840.00		31	C		5	1	38.933844 -77.264000
840	12	Down Chain	840.00		31	C		5	1	38.933842 -77.263997
830	99	Down Chain	830.00		32	C		5	1	38.932670 -77.260849
820	99	Down Chain	820.00		31	C		5	1	38.932216 -77.257406
820	94	Down Marker	820.00		31	C		5	1	38.932215 -77.257379
820	12	Down Chain	820.00		31	C		5	1	38.932215 -77.257375
810	99	Down Chain	810.00		33	C		5	1	38.932436 -77.253894
811	43	Lmt Speed 3	71.00	4296	33	C		5	1	38.932406 -77.254090
800	27	Bridge Start			30	T		5	1	38.933193 -77.250629
800	99	Down Chain	800.00		30	T		5	1	38.933216 -77.250539
800	92	Down Marker	800.00		30	T		5	1	38.933224 -77.250506
800	12	Down Chain	800.00		30	T		5	1	38.933225 -77.250503
790	99	Down Chain	790.00		29	C		5	1	38.933496 -77.247099
789	71	Excess Elevation	6.35	898	29	C	3	5	1	38.933473 -77.247002
785	1	Excess Elevation	6.21	132	29	C	4	5	1	38.932841 -77.245588
784	63	Excess Elevation	6.11	2	29	C	4	5	1	38.932772 -77.245491
784	33	Excess Elevation	6.13	10	29	E	4	5	1	38.932715 -77.245416
781	19	Switch Pt			30	E		5	1	38.932054 -77.244714
795	21	Lmt Speed 3	51.00	1041	30	C		5	1	38.933603 -77.248751
780	70	R Cant Neg	-0.10	18	30	T		5	1	38.931950 -77.244612
780	46	Frog			30	T		5	1	38.931895 -77.244559
780	7	Down Marker	780.00		30	T		5	1	38.931806 -77.244472
780	12	Down Chain	780.00		30	T		5	1	38.931804 -77.244470
779	85	W Grd Face	53.06	2	29	T		5	1	38.931764 -77.244432
779	58	L Cant Neg	-0.20	15	29	T		5	1	38.931714 -77.244383
779	52	R Cant Neg	-0.80	36	29	T		5	1	38.931701 -77.244370
779	5	Switch Pt			29	B		5	1	38.931598 -77.244268
778	77	Lmt Speed 3	77.00	91	24	C		5	1	38.931200 -77.243885
774	58	Lmt Speed 3	74.00	100	21	C		5	1	38.930354 -77.243107
771	4	Platform Start			21	T		5	1	38.929835 -77.242604

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770	99	Down Chain	770.00		21	T		5	1	38.929610 -77.242382
765	2	Platform End			27	T		5	1	38.928533 -77.241332
763	23	Lmt Speed 3	70.00	68	30	C		5	1	38.928045 -77.240840
760	99	Down Chain	760.00		30	B		5	1	38.927471 -77.240233
760	98	Down Marker	760.00		30	B		5	1	38.927462 -77.240224
760	12	Down Chain	760.00		30	B		5	1	38.927460 -77.240222
759	40	Lmt Speed 3	80.00	65	32	C		5	1	38.927148 -77.239900
750	99	Down Chain	750.00		31	T		5	1	38.925283 -77.238067
744	45	Lmt Speed 3	88.00	179	29	C		5	1	38.923873 -77.236712
740	99	Down Chain	740.00		30	B		5	1	38.923080 -77.236002
740	92	Down Marker	740.00		30	B		5	1	38.923058 -77.235982
740	12	Down Chain	740.00		30	B		5	1	38.923056 -77.235980
737	13	L Cant Pos	4.40	36	30	E		5	1	38.922426 -77.235386
734	70	Platform Start			30	T		5	1	38.921894 -77.234872
730	99	Down Chain	730.00		29	T		5	1	38.920860 -77.233899
728	68	Platform End			29	T		5	1	38.920572 -77.233621
728	10	Tunnel Start			28	B		5	1	38.920445 -77.233499
720	99	Down Chain	720.00		28	C		5	1	38.919267 -77.231206
720	38	Down Marker	720.00		28	E		5	1	38.919251 -77.230984
720	12	Down Chain	720.00		28	E		5	1	38.919251 -77.230980
726	96	Lmt Speed 3	38.00	534	28	C		5	1	38.919818 -77.232795
710	99	Down Chain	710.00		27	C		5	1	38.919610 -77.227526
717	25	Lmt Speed 3	77.00	955	27	C		5	1	38.919277 -77.229844
704	37	L Cant Pos	3.90	16	26	B		5	1	38.920106 -77.225667
701	77	Switch Pt			26	E		5	1	38.920249 -77.224773
701	43	Tunnel End			26	E		5	1	38.920260 -77.224655
704	47	Lmt Speed 3	39.00	57	26	C		5	1	38.920168 -77.225380
701	9	Frog			26	T		5	1	38.920272 -77.224537
700	99	Down Chain	700.00		26	T		5	1	38.920310 -77.224159
700	99	Down Marker	700.00		26	T		5	1	38.920311 -77.224149
700	12	Down Chain	700.00		26	T		5	1	38.920312 -77.224145
699	3	Frog			26	T		5	1	38.920345 -77.223809
698	6	Switch Pt			26	T		5	1	38.920379 -77.223472
698	19	R Cant Neg	-0.40	19	26	T		5	1	38.920374 -77.223521
695	74	Platform Start			26	T		5	1	38.920459 -77.222667
690	99	Down Chain	690.00		28	T		5	1	38.920658 -77.220676

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689	71	Platform End			28	T		5	1	38.920668 -77.220575
686	61	Lmt Speed 3	49.00	41	31	C		5	1	38.920933 -77.219080
680	99	Down Chain	680.00		30	T		5	1	38.921620 -77.217406
680	89	Down Marker	680.00		30	T		5	1	38.921637 -77.217366
680	12	Down Chain	680.00		30	T		5	1	38.921638 -77.217363
676	32	Lmt Speed 3	83.00	151	31	C		5	1	38.922171 -77.216021
670	99	Down Chain	670.00		31	T		5	1	38.922786 -77.214199
665	44	Lmt Speed 3	80.00	201	22	C		5	1	38.923413 -77.212468
661	16	Platform Start			21	T		5	1	38.923801 -77.211393
660	99	Down Chain	660.00		20	T		5	1	38.923955 -77.211039
660	87	Down Marker	660.00		20	T		5	1	38.923990 -77.211006
660	12	Down Chain	660.00		20	T		5	1	38.923992 -77.211003
655	29	Platform End			17	T		5	1	38.924699 -77.209607
650	99	Down Chain	650.00		25	C		5	1	38.925460 -77.208023
649	3	L Cant Neg	-0.50	31	26	E		5	1	38.925639 -77.207775
650	2	Lmt Speed 3	45.00	37	26	C		5	1	38.925463 -77.208017
645	54	Switch Pt			27	T		5	1	38.926316 -77.206907
645	32	L N Guard Check	53.78	0	27	T		5	1	38.926357 -77.206856
644	81	Frog			28	T		5	1	38.926459 -77.206729
644	32	Frog			29	T		5	1	38.926555 -77.206609
644	84	R Cant Neg	-1.00	88	28	T		5	1	38.926451 -77.206739
644	2	L Cant Neg	-0.70	24	30	T		5	1	38.926614 -77.206536
643	33	Switch Pt			30	T		5	1	38.926749 -77.206367
641	70	L Cant Pos	3.90	20	31	B		5	1	38.927066 -77.205972
640	10	Down Marker	640.00		31	B		5	1	38.927383 -77.205572
640	12	Down Chain	640.00		31	B		5	1	38.927385 -77.205569
638	27	Excess Elevation	6.14	20	31	B	4	5	1	38.927665 -77.205088
637	88	Excess Elevation	6.10	1	31	C	4	5	1	38.927724 -77.204976
637	21	Excess Elevation	6.14	22	31	C	4	5	1	38.927820 -77.204777
636	87	Excess Elevation	6.17	41	30	C	4	5	1	38.927865 -77.204674
634	98	Excess Elevation	6.22	505	29	C	4	5	1	38.928071 -77.204070
630	99	Down Chain	630.00		24	C		5	1	38.928212 -77.202369
627	87	L Cant Pos	3.90	14	26	C		5	1	38.928081 -77.201651
626	93	Excess Elevation	6.34	511	27	C	3	5	1	38.927988 -77.201341
626	29	L Cant Pos	3.80	27	28	E		5	1	38.927915 -77.201143
624	4	L Cant Pos	5.50	125	31	E		5	1	38.927597 -77.200473

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631	36	Lmt Speed 3	50.00	1113	33	C		5	1	38.928228 -77.202590
620	99	Down Chain	620.00		33	C		5	1	38.926902 -77.199387
620	92	Down Marker	620.00		33	C		5	1	38.926883 -77.199362
620	12	Down Chain	620.00		33	C		5	1	38.926881 -77.199359
620	22	R Cant Pos	4.90	50	33	C		5	1	38.926944 -77.199446
619	90	Bridge End			33	C		5	1	38.926862 -77.199334
610	99	Down Chain	610.00		32	E		5	1	38.924707 -77.197291
615	76	Lmt Speed 3	71.00	1189	33	C		5	1	38.925705 -77.198049
605	60	Bridge Start			36	T		5	1	38.923637 -77.196588
604	19	Bridge End			36	T		5	1	38.923294 -77.196364
600	99	Down Chain	600.00		34	T		5	1	38.922280 -77.195694
601	0	Down Marker	601.00		34	T		5	1	38.922275 -77.195691
600	12	Down Chain	600.00		34	T		5	1	38.922272 -77.195689
590	99	Down Chain	590.00		33	T		5	1	38.919837 -77.194092
580	99	Down Chain	580.00		30	T		5	1	38.917395 -77.192497
580	96	Down Marker	580.00		30	T		5	1	38.917380 -77.192487
580	12	Down Chain	580.00		30	T		5	1	38.917378 -77.192486
576	60	Excess Elevation	-6.11	2	32	B	4	5	1	38.916559 -77.191922
576	19	Excess Elevation	-6.16	45	31	B	4	5	1	38.916462 -77.191850
575	19	Excess Elevation	-6.17	37	31	C	4	5	1	38.916221 -77.191663
574	79	Excess Elevation	-6.11	1	31	C	4	5	1	38.916129 -77.191586
576	42	Lmt Speed 3	82.00	190	30	C		5	1	38.916314 -77.191737
570	99	Down Chain	570.00		30	T		5	1	38.915074 -77.190594
566	41	Switch Pt			30	T		5	1	38.914307 -77.189835
565	72	Frog			29	T		5	1	38.914159 -77.189690
562	52	Frog			29	T		5	1	38.913461 -77.189007
561	51	Switch Pt			29	T		5	1	38.913241 -77.188793
560	99	Down Chain	560.00		29	B		5	1	38.912911 -77.188471
557	80	Excess Elevation	6.10	1	28	B	4	5	1	38.912417 -77.188028
553	80	Excess Elevation	6.13	21	28	C	4	5	1	38.911449 -77.187415
553	49	Excess Elevation	6.14	28	28	C	4	5	1	38.911369 -77.187378
553	8	Excess Elevation	6.22	255	29	C	4	5	1	38.911262 -77.187326
550	9	Down Marker	550.00		29	C		5	1	38.910467 -77.187078
550	12	Down Chain	550.00		29	C		5	1	38.910465 -77.187078
548	32	Excess Elevation	6.25	404	30	C	4	5	1	38.909996 -77.187008
555	88	Lmt Speed 3	65.00	1209	30	C		5	1	38.911527 -77.187451

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541	61	Switch Pt			30	T		5	1	38.908178 -77.187208
540	84	Frog			30	T		5	1	38.907970 -77.187256
540	99	Down Chain	540.00		31	T		5	1	38.907758 -77.187316
530	99	Down Chain	530.00		31	T		5	1	38.905050 -77.187966
531	0	Down Marker	531.00		31	T		5	1	38.905045 -77.187967
530	12	Down Chain	530.00		31	T		5	1	38.905042 -77.187968
529	70	Bridge Start			30	T		5	1	38.904962 -77.187987
521	76	L Cant Pos	3.80	14	28	C		5	1	38.902829 -77.188252
520	99	Down Chain	520.00		29	C		5	1	38.902360 -77.188106
511	91	L Cant Pos	3.90	38	28	C		5	1	38.900661 -77.186397
510	99	Down Chain	510.00		29	E		5	1	38.900422 -77.185802
510	28	L Cant Pos	4.30	55	29	E		5	1	38.900453 -77.185895
510	50	Down Marker	510.00		31	E		5	1	38.900280 -77.185302
510	12	Down Chain	510.00		31	E		5	1	38.900280 -77.185298
509	50	Bridge End			31	E		5	1	38.900238 -77.185131
515	92	Lmt Speed 3	49.00	1319	32	C		5	1	38.901014 -77.187001
506	4	Lmt Speed 3	65.00	85	32	C		5	1	38.899931 -77.183952
500	99	Down Chain	500.00		32	B		5	1	38.899326 -77.182051
491	7	L Align 62	-1.63	8	17	C	3	5	1	38.898365 -77.179145
491	7	R Align 62	-1.63	8	17	C	3	5	1	38.898365 -77.179145
490	99	Down Chain	490.00		15	E		5	1	38.898270 -77.178799
491	6	Lmt Speed 3	52.00	22	15	C		5	1	38.898353 -77.179101
489	81	Frog			14	B		5	1	38.898248 -77.178731
489	57	W Grd Face	53.09	3	13	T		5	1	
488	49	Down Marker	488.00		12	E		5	1	38.898206 -77.178595
487	93	L Align 62	1.71	8	12	E	3	5	1	
487	93	R Align 62	1.71	8	12	E	3	5	1	
489	30	Lmt Speed 3	40.00	26	13	C		5	1	

Notes:

Cant Exceptions are in degrees
The following fields are irrelevant for Cant Exceptions: LC, PC

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Chain 1096 to Chain 488

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N1 1096+00 to N1 488+00

Elevation plus(+) = L Rail High, minus(-) = R Rail High Curvature plus(+) = Curve to Right, minus(-) = Curve to Left

Track	Starting		Ending		Len	Spd	Average		Speed		Limiting Point		Total	Limiting Speed at									
	CH	FT	CH	FT			Deg/M	inches	Post	Lmt	CH	FT		Deg/M	Elev	inches	FT	Grp	3"	4"	5"	6"	7"
1	1073	45	1069	9	365	27	-0/37	-1.80	90	102	1071	1	-0/39	-1.82			102	113	122	131	139	147	154
1	1068	17	1064	5	389	30	0/39	2.41	90	105	1067	87	0/41	2.30			105	114	123	131	139	146	153
1	1059	55	1012	9	4675	36	-0/57	-3.89	90	100	1050	48	-0/58	-3.85			100	108	114	120	126	132	138
1	1000	25	986	3	1379	36	1/21	5.37	90	93	994	80	1/24	5.47			93	98	103	108	112	117	121
1	986	3	932	21	5436	36	0/37	2.84	90	112	976	17	0/39	2.79			112	121	130	138	146	153	160
1	926	11	898	53	2867	35	-0/52	-3.59	90	100	905	40	-0/55	-3.63			100	108	115	122	128	134	139
1	890	9	866	72	2465	33	1/54	2.59	90	64	887	82	1/55	2.56	2047	1	64	70	75	80	84	88	93
1	859	94	856	61	268	37	0/25	1.55	90	113	857	32	0/33	2.00			113	124	134	143	152	160	168
1	851	5	805	63	4687	35	-1/27	-2.91	90	71	811	43	-1/21	-1.83	4296	1	71	79	85	91	97	102	107
1	799	12	781	15	1804	30	4/54	6.21	90	51	795	21	4/57	6.16	1041	1	51	54	57	59	62	64	66
1	780	85	775	7	423	28	0/48	0.76	90	77	778	77	0/55	0.82	91	1	77	87	95	103	110	117	123
1	775	7	772	32	326	22	-0/47	-0.42	90	74	774	58	-0/52	-0.41	100	1	74	85	94	102	110	117	124
1	765	52	761	19	368	29	-1/06	-1.01	90	71	763	23	-1/07	-1.00	68	1	71	80	87	94	101	107	112
1	761	62	757	15	359	31	1/04	2.14	90	81	759	40	1/07	2.15	65	1	81	88	95	102	108	113	119
1	747	46	743	83	438	30	0/41	0.86	90	88	744	45	0/42	0.86	179	1	88	100	109	118	127	134	142
1	741	51	737	53	414	30	-0/40	-0.96	90	90	739	53	-0/40	-0.94			90	102	112	121	129	137	144
1	729	62	719	92	1096	28	-6/34	-4.05	90	39	726	96	-6/36	-3.91	534	1	39	41	44	46	49	51	53
1	719	92	707	37	1146	28	-1/39	-4.06	90	78	717	25	-1/39	-4.04	955	1	78	83	88	93	97	102	106
1	707	97	702	76	480	26	4/29	1.98	90	39	704	47	4/31	1.94	57	1	39	43	47	50	53	56	59
1	690	74	682	23	750	29	-5/10	-5.79	90	49	686	61	-5/12	-5.78	41	1	49	52	54	57	59	61	64
1	679	35	673	84	650	32	1/25	4.09	90	83	676	32	1/28	4.14	151	1	83	89	94	99	104	108	113
1	669	48	662	57	710	30	-1/35	-4.29	90	80	665	44	-1/38	-4.44	201	1	80	86	91	95	100	104	108
1	654	79	648	90	612	25	-4/49	-4.05	90	46	650	2	-4/51	-4.07	37	1	46	49	52	54	57	60	62
1	643	90	623	9	1913	33	5/11	6.19	90	50	631	36	5/13	6.15	1113	1	50	53	55	58	60	62	64
1	623	9	610	93	1396	34	1/55	4.07	90	72	615	76	1/56	3.96	1189	1	72	77	81	86	90	94	98
1	580	41	572	79	839	32	-1/49	-5.96	90	83	576	42	-1/52	-6.03	190	1	83	88	92	96	100	104	107
1	561	8	542	33	1920	31	2/57	6.10	90	66	555	88	2/57	6.00	1209	1	66	69	73	76	79	82	85
1	528	44	509	79	2089	30	-4/56	-5.56	90	49	515	92	-4/57	-5.45	1319	1	49	52	55	57	60	62	65
1	509	79	504	58	480	32	1/53	2.90	90	65	506	4	1/58	2.88	85	1	65	70	75	80	84	89	93
1	502	81	498	89	409	33	-0/22	-0.63	90	103	500	50	-0/30	-0.87			103	117	128	139	148	158	166
1	498	89	495	73	285	28	0/40	1.10	90	92	496	28	0/42	1.20			92	102	112	120	128	136	143

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N1 1096+00 to N1 488+00

Elevation plus(+) = L Rail High, minus(-) = R Rail High Curvature plus(+) = Curve to Right, minus(-) = Curve to Left

					Average				Limiting Point														
Track	Starting		Ending		Len	Spd	Curve Elev		Speed		CH	FT	Curve Deg/M	Elev inches	Total FT Grp	Limiting Speed at							
	CH	FT	CH	FT			Deg/M	inches	Post	Lmt						3"	4"	5"	6"	7"	8"	9"	
1	494	56	490	0	345	17	-2/11	-1.21	90	52	491	6	-2/10	-1.20	22	1	52	58	64	69	73	78	82
1	490	0	487	1	256	12	2/35	0.11	90	41	489	30	2/37	0.02	26	1	41	47	52	57	62	66	70

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Lmt

[illegible]

N1 1096+00 to N1 488+00

[illegible]

Lmt

[illegible]

Lmt

[illegible]

Run ID: 2016040701

[illegible]

N1 1096+00 to N1 488+00

[illegible]

WMATA
TRACK INSPECTION PROGRAM

TRACK GEOMETRY INSPECTION REPORT

N LINE - #2 TRACK
N2 488+00 to N2 1081+00
RR: WASHINGTON METRO AREA TRANSIT AUTHORITY (WMATA)
Survey Number:
Chain 488 to Chain 1081
Direction: Ascending Chain



Washington Metro Area Transit Authority
Washington, D.C.

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Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
0	0	Posted Speed	90.00		0	T		5	1	
0	0	Track Change	0.00		0	T		5	7	
0	0	Class Change	5.00		0	T		5	1	
0	9	Track Change	0.00		2	T		5	2	
0	10	Railroad	WMATA		2	T		5	2	
0	11	Subdivision	N LINE		2	T		5	2	
0	69	R Cant Neg	-0.60	26	8	T		5	2	38.897796 -77.177258
1	96	L Cant Neg	-0.30	22	10	T		5	2	38.897941 -77.177668
2	52	R Cant Neg	-0.40	16	11	T		5	2	38.898003 -77.177848
488	74	Up Marker	488.00		11	B		5	2	38.898142 -77.178246
488	28	R Align 62	2.11	23	11	B	3	5	2	38.898173 -77.178335
488	28	L Align 62	2.11	23	11	B	3	5	2	38.898173 -77.178335
489	1	Frog			13	E		5	2	38.898261 -77.178564
489	15	L Cant Neg	-1.00	33	14	E		5	2	38.898278 -77.178604
489	15	L Cant Neg	-1.00	33	14	E		5	2	38.898278 -77.178604
489	15	L Cant Neg	-1.00	33	14	E		5	2	38.898278 -77.178604
488	69	Lmt Speed 3	40.00	28	16	C		5	2	38.898222 -77.178464
490	99	Up Chain	490.00		16	B		5	2	38.898387 -77.178875
491	99	Lmt Speed 3	76.00	103	22	C		5	2	38.898642 -77.179500
491	99	Lmt Speed 3	76.00	103	22	C		5	2	38.898642 -77.179500
491	99	Lmt Speed 3	76.00	103	22	C		5	2	38.898642 -77.179500
500	44	Up Marker	500.00		27	T		5	2	38.899439 -77.181904
500	44	Up Marker	500.00		27	T		5	2	38.899439 -77.181904
507	14	Bridge Start			30	T		5	2	38.900234 -77.184189
507	14	Bridge Start			30	T		5	2	38.900234 -77.184189
510	99	Up Chain	510.00		27	T		5	2	38.900544 -77.185104
510	99	Up Chain	510.00		27	T		5	2	38.900544 -77.185104
514	4	Lmt Speed 3	48.00	96	29	C		5	2	38.901048 -77.186358
514	4	Lmt Speed 3	48.00	96	29	C		5	2	38.901048 -77.186358
514	4	Lmt Speed 3	48.00	96	29	C		5	2	38.901048 -77.186358
515	91	Excess Elevation	6.17	59	29	E	4	5	2	38.901377 -77.186858
515	91	Excess Elevation	6.17	59	29	E	4	5	2	38.901377 -77.186858
517	7	Excess Elevation	6.17	86	30	C	4	5	2	38.901611 -77.187132
517	7	Excess Elevation	6.17	86	30	C	4	5	2	38.901611 -77.187132
520	98	Up Marker	520.00		33	C		5	2	38.902284 -77.187686
520	98	Up Marker	520.00		33	C		5	2	38.902284 -77.187686
518	34	Excess Elevation	6.28	304	32	C	3	5	2	38.902850 -77.187960
518	34	Excess Elevation	6.28	304	32	C	3	5	2	38.902850 -77.187960
521	54	Excess Elevation	6.21	133	35	C	4	5	2	38.902673 -77.187890
521	54	Excess Elevation	6.21	133	35	C	4	5	2	38.902673 -77.187890
522	22	Excess Elevation	6.13	31	35	C	4	5	2	38.902850 -77.187960
522	22	Excess Elevation	6.13	31	35	C	4	5	2	38.902850 -77.187960
522	49	Excess Elevation	6.10	1	35	C	4	5	2	38.902921 -77.187985
522	49	Excess Elevation	6.10	1	35	C	4	5	2	38.902921 -77.187985
523	23	Excess Elevation	6.17	87	35	C	4	5	2	38.903119 -77.188041
523	23	Excess Elevation	6.17	87	35	C	4	5	2	38.903119 -77.188041
523	71	Excess Elevation	6.12	21	35	C	4	5	2	38.903248 -77.188068
523	71	Excess Elevation	6.12	21	35	C	4	5	2	38.903248 -77.188068
524	13	Excess Elevation	6.11	11	35	C	4	5	2	38.903362 -77.188087
524	13	Excess Elevation	6.11	11	35	C	4	5	2	38.903362 -77.188087
524	13	Excess Elevation	6.11	11	35	C	4	5	2	38.903362 -77.188087
524	13	Excess Elevation	6.11	11	35	C	4	5	2	38.903362 -77.188087
524	54	Excess Elevation	6.11	9	35	C	4	5	2	38.903474 -77.188101
524	54	Excess Elevation	6.11	9	35	C	4	5	2	38.903474 -77.188101
524	54	Excess Elevation	6.11	9	35	C	4	5	2	38.903474 -77.188101
524	54	Excess Elevation	6.11	9	35	C	4	5	2	38.903474 -77.188101
525	33	Excess Elevation	6.11	9	35	C	4	5	2	38.903689 -77.188112
525	33	Excess Elevation	6.11	9	35	C	4	5	2	38.903689 -77.188112
525	33	Excess Elevation	6.11	9	35	C	4	5	2	38.903689 -77.188112
525	33	Excess Elevation	6.11	9	35	C	4	5	2	38.903689 -77.188112
527	1	L Cant Pos	4.00	21	35	E		5	2	38.904145 -77.188079
527	1	L Cant Pos	4.00	21	35	E		5	2	38.904145 -77.188079
527	17	Bridge End			35	E		5	2	38.904188 -77.188072
527	17	Bridge End			35	E		5	2	38.904188 -77.188072
516	81	Lmt Speed 3	52.00	1050	35	C		5	2	38.901557 -77.187073

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Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
530	99	Up Chain	530.00		35	T		5	2	38.904953 -77.187897
540	99	Up Chain	540.00		35	T		5	2	38.907640 -77.187236
540	21	R Cant Neg	-0.70	16	35	T		5	2	38.907696 -77.187222
545	24	Excess Elevation	-6.25	93	39	B	3	5	2	38.909051 -77.186923
546	16	Excess Elevation	-6.12	14	38	C	4	5	2	38.909302 -77.186899
550	99	Up Chain	550.00		35	C		5	2	38.910352 -77.186966
550	14	Up Marker	550.00		35	C		5	2	38.910395 -77.186977
557	95	Excess Elevation	-6.14	19	33	C	4	5	2	38.912411 -77.187956
558	99	Bridge Start			34	E		5	2	38.912646 -77.188159
560	99	Up Chain	560.00		34	E		5	2	38.912868 -77.188367
561	0	Bridge End			35	E		5	2	38.913086 -77.188577
548	68	Lmt Speed 3	65.00	1228	35	C		5	2	38.909989 -77.186906
562	84	Frog			35	T		5	2	38.913487 -77.188967
562	97	L Cant Neg	-0.40	17	35	T		5	2	38.913516 -77.188994
563	80	Switch Pt			35	T		5	2	38.913696 -77.189171
564	54	Switch Pt			35	T		5	2	38.913858 -77.189327
564	80	R Cant Neg	-0.70	17	35	T		5	2	38.913914 -77.189382
565	25	Frog			35	T		5	2	38.914012 -77.189478
570	99	Up Chain	570.00		34	T		5	2	38.915043 -77.190488
570	10	Up Marker	570.00		34	T		5	2	38.915069 -77.190514
575	10	Excess Elevation	6.18	38	36	B	4	5	2	38.916183 -77.191580
575	38	Excess Elevation	6.11	3	36	C	4	5	2	38.916248 -77.191633
575	46	Excess Elevation	6.12	5	36	C	4	5	2	38.916266 -77.191648
575	74	Excess Elevation	6.16	57	36	C	4	5	2	38.916331 -77.191700
576	35	Excess Elevation	6.11	5	35	C	4	5	2	38.916473 -77.191812
575	48	Lmt Speed 3	81.00	177	34	C		5	2	38.916271 -77.191652
580	99	Up Chain	580.00		34	T		5	2	38.917348 -77.192419
590	99	Up Chain	590.00		34	T		5	2	38.919781 -77.194009
590	5	Up Marker	590.00		34	T		5	2	38.919798 -77.194020
600	99	Up Chain	600.00		33	T		5	2	38.922235 -77.195614
604	27	Bridge Start			35	T		5	2	38.923278 -77.196297
605	66	Bridge End			36	T		5	2	38.923617 -77.196519
610	99	Up Chain	610.00		35	B		5	2	38.924680 -77.197212
610	0	Up Marker	610.00		35	B		5	2	38.924682 -77.197214
619	92	Bridge Start			32	C		5	2	38.926863 -77.199242
620	99	Up Chain	620.00		32	C		5	2	38.926878 -77.199262

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Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
612	39	Lmt Speed 3	70.00	1173	31	C		5	2	38.925253 -77.197617
625	79	L Cant Pos	4.80	101	31	B		5	2	38.927851 -77.200850
626	85	Excess Elevation	-6.12	10	31	B	4	5	2	38.927989 -77.201176
627	37	Excess Elevation	-6.35	228	32	B	3	5	2	38.928049 -77.201341
630	99	Up Chain	630.00		33	C		5	2	38.928252 -77.202220
630	13	Up Marker	630.00		33	C		5	2	38.928259 -77.202272
629	56	Excess Elevation	-6.24	72	33	C	4	5	2	38.928228 -77.202069
632	31	Excess Elevation	-6.39	418	35	C	3	5	2	38.928291 -77.203076
634	75	Excess Elevation	-6.17	30	37	C	4	5	2	38.928183 -77.203916
637	56	Excess Elevation	-6.20	24	36	C	4	5	2	38.927886 -77.204818
638	8	Excess Elevation	-6.17	33	35	C	4	5	2	38.927812 -77.204973
638	12	L Cant Pos	4.20	52	35	C		5	2	38.927806 -77.204985
638	44	Excess Elevation	-6.17	24	35	C	4	5	2	38.927758 -77.205078
639	3	Excess Elevation	-6.16	44	35	C	4	5	2	38.927663 -77.205244
639	44	R Cant Pos	4.00	27	35	E		5	2	38.927593 -77.205356
640	99	Up Chain	640.00		34	E		5	2	38.927493 -77.205503
636	87	Lmt Speed 3	50.00	1193	32	C		5	2	38.927977 -77.204603
643	53	Switch Pt			32	T		5	2	38.926810 -77.206371
644	25	Frog			32	T		5	2	38.926670 -77.206547
643	94	L Cant Neg	-0.70	37	32	T		5	2	38.926731 -77.206472
644	77	Frog			31	T		5	2	38.926570 -77.206676
645	4	L Cant Neg	-1.60	17	31	T		5	2	38.926517 -77.206741
645	71	Switch Pt			31	T		5	2	38.926386 -77.206905
650	99	Up Chain	650.00		32	C		5	2	38.925583 -77.207998
649	61	Lmt Speed 3	53.00	62	34	C		5	2	38.925647 -77.207889
655	48	Platform Start			33	T		5	2	38.924811 -77.209645
660	99	Up Chain	660.00		29	T		5	2	38.924215 -77.211005
660	9	Up Marker	660.00		29	T		5	2	38.924200 -77.211039
661	38	Platform End			31	T		5	2	38.923995 -77.211457
670	99	Up Chain	670.00		28	E		5	2	38.922882 -77.214097
667	85	Lmt Speed 3	88.00	165	27	C		5	2	38.923124 -77.213425
676	27	Lmt Speed 3	83.00	174	22	C		5	2	38.922196 -77.216106
680	99	Up Chain	680.00		21	T		5	2	38.921714 -77.217262
680	7	Up Marker	680.00		21	T		5	2	38.921702 -77.217290
685	54	Excess Elevation	6.28	182	21	C	3	5	2	38.921051 -77.219036
685	3	Lmt Speed 3	54.00	96	25	C		5	2	38.921094 -77.218865

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
689	85	Platform Start			25	T		5	2	38.920845 -77.220520
690	99	Up Chain	690.00		25	T		5	2	38.920840 -77.220572
695	87	Platform End			28	T		5	2	38.920631 -77.222609
698	13	Switch Pt			29	T		5	2	38.920551 -77.223393
698	85	Frog			29	T		5	2	38.920525 -77.223643
700	99	Up Chain	700.00		28	T		5	2	38.920484 -77.224042
700	11	L Cant Neg	-0.30	18	28	T		5	2	38.920480 -77.224080
700	91	Frog			28	T		5	2	38.920459 -77.224372
701	35	L Cant Neg	-0.60	37	28	T		5	2	38.920445 -77.224524
701	93	Switch Pt			28	B		5	2	38.920425 -77.224721
705	75	R Cant Pos	4.20	21	27	E		5	2	38.920187 -77.226018
704	18	Lmt Speed 3	39.00	52	27	C		5	2	38.920318 -77.225496
707	35	R Cant Pos	4.10	23	27	B		5	2	38.920038 -77.226545
708	19	R Cant Pos	4.00	19	28	B		5	2	38.919960 -77.226821
710	99	Up Chain	710.00		29	B		5	2	38.919803 -77.227422
710	7	Up Marker	710.00		29	C		5	2	38.919796 -77.227452
713	84	Lmt Speed 3	76.00	871	34	C		5	2	38.919548 -77.228756
720	99	Up Chain	720.00		33	B		5	2	38.919403 -77.230900
728	18	Tunnel End			28	E		5	2	38.920456 -77.233301
723	17	Lmt Speed 3	37.00	515	28	C		5	2	38.919586 -77.231977
728	96	Platform Start			28	T		5	2	38.920626 -77.233467
730	99	Up Chain	730.00		28	T		5	2	38.920851 -77.233687
730	6	Up Marker	730.00		28	T		5	2	38.920869 -77.233704
734	90	Platform End			31	T		5	2	38.921933 -77.234745
740	99	Up Chain	740.00		32	E		5	2	38.923061 -77.235832
750	99	Up Chain	750.00		32	T		5	2	38.925236 -77.237957
750	14	Up Marker	750.00		32	T		5	2	38.925270 -77.237991
760	99	Up Chain	760.00		24	C		5	2	38.927436 -77.240100
765	21	Platform Start			23	T		5	2	38.928575 -77.241190
770	99	Up Chain	770.00		15	T		5	2	38.929618 -77.242207
770	5	Up Marker	770.00		14	T		5	2	38.929634 -77.242222
771	18	Platform End			0	T		5	2	38.929904 -77.242484
773	84	Lmt Speed 3	88.00	22	24	C		5	2	38.930453 -77.243051
777	54	Lmt Speed 3	88.00	43	26	C		5	2	38.931240 -77.243867
780	0	L Cant Neg	-0.80	40	26	T		5	2	38.931772 -77.244387
780	99	Up Chain	780.00		27	T		5	2	38.931772 -77.244387

Exception Report
Exception List Section
Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
780	26	L Cant Neg	-0.30	15	27	T		5	2	38.931829 -77.244442
785	12	Excess Elevation	-6.48	314	27	B	3	5	2	38.932844 -77.245533
790	99	Up Chain	790.00		31	C		5	2	38.933508 -77.246996
788	3	Excess Elevation	-6.22	270	30	C	4	5	2	38.933298 -77.246364
790	78	Excess Elevation	-6.12	20	31	C	4	5	2	38.933568 -77.247258
793	49	Excess Elevation	-6.11	6	32	C	4	5	2	38.933658 -77.248195
794	0	Excess Elevation	-6.13	32	32	C	4	5	2	38.933656 -77.248373
794	33	Excess Elevation	-6.14	30	32	C	4	5	2	38.933652 -77.248488
794	78	Excess Elevation	-6.15	43	32	C	4	5	2	38.933642 -77.248645
795	72	Excess Elevation	-6.13	11	33	C	4	5	2	38.933608 -77.248970
794	11	Lmt Speed 3	51.00	1051	34	C		5	2	38.933655 -77.248412
800	99	Up Chain	800.00		33	T		5	2	38.933281 -77.250404
800	9	Up Marker	800.00		33	T		5	2	38.933271 -77.250441
800	83	Bridge End			32	T		5	2	38.933200 -77.250720
810	99	Up Chain	810.00		33	C		5	2	38.932485 -77.253791
820	99	Up Chain	820.00		36	C		5	2	38.932248 -77.257273
820	8	Up Marker	820.00		36	C		5	2	38.932249 -77.257308
830	99	Up Chain	830.00		34	C		5	2	38.932690 -77.260754
840	99	Up Chain	840.00		31	C		5	2	38.933857 -77.263909
850	99	Up Chain	850.00		34	E		5	2	38.935659 -77.266524
850	9	Up Marker	850.00		34	E		5	2	38.935682 -77.266549
818	52	Lmt Speed 3	71.00	4259	33	C		5	2	38.932242 -77.256751
860	99	Up Chain	860.00		33	T		5	2	38.937747 -77.268830
870	99	Up Chain	870.00		34	C		5	2	38.939775 -77.271178
870	9	Up Marker	870.00		34	C		5	2	38.939794 -77.271207
880	99	Up Chain	880.00		33	C		5	2	38.941250 -77.274150
890	99	Up Chain	890.00		29	E		5	2	38.941867 -77.277552
890	6	Up Marker	890.00		29	E		5	2	38.941869 -77.277580
878	90	Lmt Speed 3	63.00	2073	29	C		5	2	38.941126 -77.273796
893	67	Frog			34	T		5	2	38.941947 -77.278857
894	65	Switch Pt			34	T		5	2	38.941968 -77.279198
895	37	Switch Pt			34	T		5	2	38.941984 -77.279450
895	69	R Cant Neg	-0.20	15	34	T		5	2	38.941990 -77.279561
896	9	Frog			34	T		5	2	38.941999 -77.279701
900	99	Up Chain	900.00		34	C		5	2	38.942095 -77.281067
910	99	Up Chain	910.00		34	C		5	2	38.942565 -77.284510

Exception Report
Exception List Section
Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
910	2	Up Marker	910.00		34	C		5	2	38.942566 -77.284525
920	99	Up Chain	920.00		32	C		5	2	38.943481 -77.287820
930	99	Up Chain	930.00		36	T		5	2	38.944760 -77.290900
930	9	Up Marker	930.00		36	T		5	2	38.944775 -77.290934
935	48	Bridge Start			34	C		5	2	38.945501 -77.292605
937	58	Bridge End			33	C		5	2	38.945759 -77.293258
940	99	Up Chain	940.00		34	C		5	2	38.946045 -77.294023
950	99	Up Chain	950.00		32	C		5	2	38.947050 -77.297280
950	6	Up Marker	950.00		32	C		5	2	38.947057 -77.297306
960	99	Up Chain	960.00		24	C		5	2	38.947754 -77.300689
970	99	Up Chain	970.00		32	C		5	2	38.948137 -77.304152
970	6	Up Marker	970.00		32	C		5	2	38.948138 -77.304180
980	99	Up Chain	980.00		34	C		5	2	38.948216 -77.307678
990	99	Up Chain	990.00		28	C		5	2	38.947955 -77.311156
990	15	Up Marker	990.00		28	C		5	2	38.947947 -77.311215
991	23	Bridge Start			27	C		5	2	38.947880 -77.311637
992	85	Bridge End			27	C		5	2	38.947778 -77.312189
1000	99	Up Chain	1000.00		27	T		5	2	38.947135 -77.314546
1007	90	Frog			31	T		5	2	38.946322 -77.317113
1008	88	Switch Pt			30	T		5	2	38.946221 -77.317432
1008	77	R Cant Neg	-0.30	19	30	T		5	2	38.946232 -77.317395
1009	61	Switch Pt			29	T		5	2	38.946145 -77.317669
1010	99	Up Chain	1010.00		29	T		5	2	38.946105 -77.317795
1010	34	Frog			29	T		5	2	38.946070 -77.317906
1020	99	Up Chain	1020.00		33	C		5	2	38.945184 -77.321083
1020	12	Up Marker	1020.00		34	C		5	2	38.945173 -77.321130
1030	99	Up Chain	1030.00		32	C		5	2	38.944680 -77.324579
1031	96	Bridge Start			32	C		5	2	38.944641 -77.325264
1033	93	Bridge End			32	C		5	2	38.944618 -77.325952
1040	99	Up Chain	1040.00		31	C		5	2	38.944667 -77.328073
1040	0	Up Marker	1040.00		31	C		5	2	38.944667 -77.328080
1050	99	Up Chain	1050.00		32	C		5	2	38.945122 -77.331526
1060	99	Up Chain	1060.00		31	T		5	2	38.946048 -77.334825
1060	5	Up Marker	1060.00		31	T		5	2	38.946055 -77.334847
1070	99	Up Chain	1070.00		23	B		5	2	38.947140 -77.338062
1073	83	Platform Start			17	T		5	2	38.947548 -77.339291

Exception Report
Exception List Section
Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

CH	FT	Parameter	Value	Length	Speed	TSC	LC	PC	Track	Peak Lat/Long
1079	87	Platform End			9	T		5	2	38.948048 -77.340813
1080	99	Up Chain	1080.00		8	T		5	2	38.948048 -77.340813
1080	13	Up Marker	1080.00		7	T		5	2	38.948048 -77.340813
1080	94	R Runoff	-9.62	31	1	T	0	5	2	
1081	0	L Runoff	9.90	31	1	T	0	5	2	
1081	5	Up Marker	1081.00		1	T		5	2	38.948048 -77.340813
1081	18	R Runoff	9.62	31	1	T	0	5	2	
1081	24	L Runoff	-9.90	31	1	T	0	5	2	
1081	99	L Runoff	5.84	31	1	T	0	5	2	
1082	17	R Runoff	-5.81	31	1	T	0	5	2	

Notes:

Cant Exceptions are in degrees
The following fields are irrelevant for Cant Exceptions: LC, PC

Exception Report
Curve Analysis Section
Chain 488 to Chain 1081

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N2 488+00 to N2 1081+00

Elevation plus(+) = L Rail High, minus(-) = R Rail High Curvature plus(+) = Curve to Right, minus(-) = Curve to Left

Track	Starting		Ending		Len	Spd	Average		Speed		Limiting Point		Total FT Grp	Limiting Speed at									
	CH	FT	CH	FT			Dag/M	inches	Post	Lmt	CH	FT		Deg/M	inches	3"	4"	5"	6"	7"	8"	9"	
2	2	99	489	85	263	13	2/41	0.17	90	41	488	69	2/44	0.19	28	1	41	47	52	57	61	65	69
2	489	85	494	54	470	20	-1/31	-3.42	90	77	491	99	-1/33	-3.43	103	1	77	83	88	93	98	103	107
2	510	24	515	94	571	29	5/20	5.95	90	48	514	4	5/25	5.94	96	1	48	51	54	56	58	61	63
2	515	94	529	62	1369	35	4/40	6.12	90	52	516	81	4/43	6.11	1050	1	52	55	58	61	63	65	68
2	541	81	561	17	1953	38	-2/55	-5.95	90	65	548	68	-2/55	-5.73	1228	1	65	69	72	76	79	82	85
2	571	54	579	98	845	36	1/52	6.03	90	82	575	48	1/56	6.11	177	1	82	86	90	94	98	102	105
2	609	31	623	94	1465	34	-1/55	-3.92	90	70	612	39	-1/58	-3.86	1173	1	70	75	80	85	89	93	97
2	623	94	642	52	1874	37	-5/07	-6.15	90	50	636	87	-5/06	-5.98	1193	1	50	53	55	58	60	63	65
2	646	17	653	3	687	32	4/07	5.29	90	53	649	61	4/10	5.28	62	1	53	56	59	62	65	67	70
2	663	35	671	23	789	31	1/34	5.77	90	88	667	85	1/39	6.01	165	1	88	93	98	102	106	110	114
2	672	52	679	0	649	24	-1/25	-4.05	90	83	676	27	-1/26	-4.05	174	1	83	89	95	100	105	109	114
2	681	13	689	44	832	21	4/28	6.24	90	54	685	3	4/29	6.20	96	1	54	57	60	62	65	67	70
2	701	61	706	36	476	27	-4/26	-1.99	90	40	704	18	-4/27	-1.96	52	1	40	44	47	51	54	56	59
2	707	25	718	70	1155	34	1/42	4.08	90	77	713	84	1/42	4.05	871	1	77	82	87	92	96	101	105
2	718	70	728	82	1013	31	6/55	3.94	90	37	723	17	6/57	3.75	515	1	37	40	42	45	47	49	51
2	738	31	740	65	235	33	-0/12	-0.99	90	166	739	62	-0/12	-0.98			166	189	207	223	239	253	267
2	741	62	744	13	252	32	0/13	0.95	90	152	743	7	0/15	0.97			152	169	185	200	213	226	239
2	756	99	760	59	361	26	0/23	1.85	90	124	758	92	0/28	2.13			124	135	146	156	165	174	182
2	761	20	764	69	350	23	-0/23	-1.91	90	128	763	32	-0/26	-2.11			128	141	152	162	172	181	190
2	772	6	776	16	411	18	-0/56	-2.25	90	89	773	84	-0/56	-2.25	22	1	89	97	105	112	119	125	131
2	776	16	779	29	314	25	0/48	1.96	90	89	777	54	0/55	2.13	43	1	89	97	105	112	118	125	131
2	781	25	799	12	1788	33	-4/55	-6.13	90	51	794	11	-4/57	-6.08	1051	1	51	54	56	59	61	64	66
2	804	75	851	24	4671	37	1/28	3.03	90	71	818	52	1/22	1.89	4259	1	71	78	85	91	96	102	107
2	853	20	856	72	353	34	-0/15	-1.27	90	148	855	68	-0/16	-1.31			148	168	183	197	210	222	234
2	865	67	890	13	2466	34	-1/53	-2.45	90	64	878	90	-1/54	-2.43	2073	1	64	69	75	79	84	88	92
2	897	8	926	43	2940	35	0/52	3.58	90	100	912	53	0/57	3.80			100	108	114	121	127	133	138
2	932	51	987	68	5534	35	-0/37	-2.47	90	107	987	67	-0/42	-2.76			107	117	125	133	140	147	154
2	987	68	999	65	1215	29	-1/22	-5.36	90	92	989	78	-1/22	-5.26			92	98	103	108	113	118	122
2	1012	63	1058	86	4640	36	0/57	3.95	90	100	1032	80	0/59	3.90			100	107	113	120	125	131	136
2	1064	73	1068	16	344	26	0/39	2.00	90	103	1066	51	0/40	2.07			103	113	122	130	138	145	152
2	1069	10	1072	88	379	21	-0/39	-1.90	90	101	1071	44	-0/40	-1.93			101	112	121	129	137	144	152

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Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

all (15)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160408-TW-1		
	2016	04	08				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TASS	Sub- Department	Power
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	B-Line, Tracks 1 and 2 – Various Locations as detailed below						

Inspection Summary

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

Activity Summaries

Inspection Activity #	1	Inspection Subject					Roadway Worker Protection Briefing			Activity Code		TASS	RWP	OBS
Job Briefing Employee Name/Title	TKIN Supervisor					Accompanied Inspector?	Y	Out Brief Conducted	No	Time	1000 – 1200	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	1&2	Chain Marker and/or Station(s)	From			To						
					B08 (Silver Spring)			B10 (Wheaton)						
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO Inspector was provided with a Job Safety Briefing prior to accessing the roadway at two locations. The briefing was complete and all associated hazards were discussed including clearance locations and track geometry (curves). The RWIC contacted central control to received clearance to enter each location.							Number of Defects		0				
								Recommended Finding?		No				
								Remedial Action Required?		No				
								Recommended Reinspection?		No				
Remedial Action	N/A													

Inspector in Charge – Signature		SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.18 14:57:02 -0400	Date	04/08/2016
Inspector in Charge – Name		Sean Thompson			
Inspection Team		Terrell Williams, Tino Sahoo, Mike Vitale			



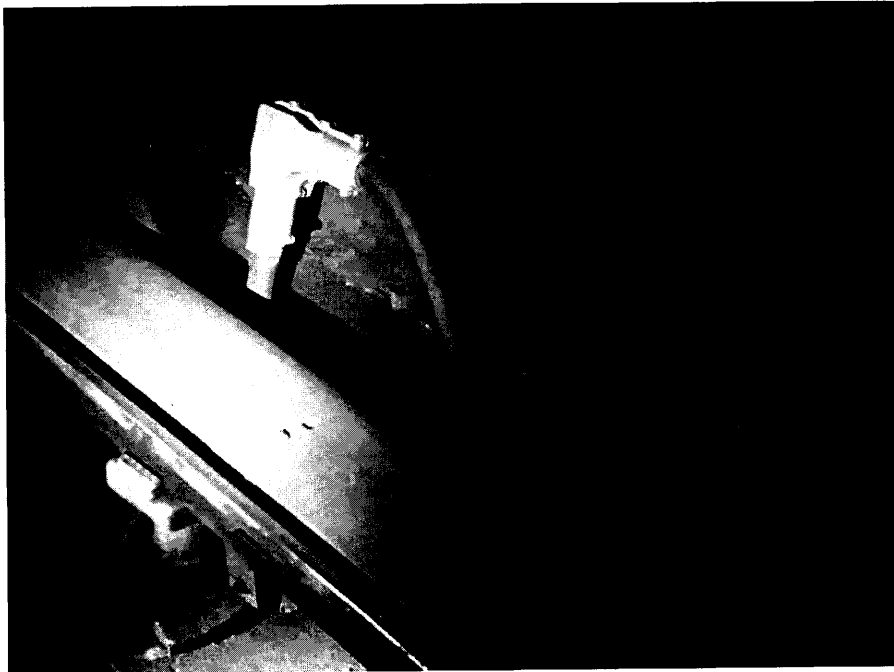
United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Inspection Activity #	2	Inspection Subject	Power Repairs Physical Inspection					Activity Code	TASS	TP	PI
Job Briefing Employee Name/Title	TKIN Supervisor		Accompanied Inspector?	Y	Out Brief Conducted	No	Time	1000 – 1200	Outside Shift	No	
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)	B-Line	Track Number	Track 1&2	Chain Marker and/or Station(s)	From			To			
					B08 (Silver Spring)			B10 (Wheaton)			
Vehicles	Head Car Number	Number of Cars		Equipment							
Description	FWSO performed a physical inspection of the repairs made at B1 CM 562+00 and B2 516+00. All repairs were made in accordance with WMATA's design criteria. FWSO noted a large amount of debris near jumper cables on the platform of track 2 at the Forest Glen Station (B09). In addition, FWSO noted damaged porcelain insulator clamps at B2 CM 516+00.							Number of Defects		2	
								Recommended Finding?		No	
								Remedial Action Required?		Yes	
								Recommended Reinspection?		Yes	
Remedial Action	WMATA should remove debris near jumper cables at platform of track 2 at B09 and make required repairs at B2 516+00.										

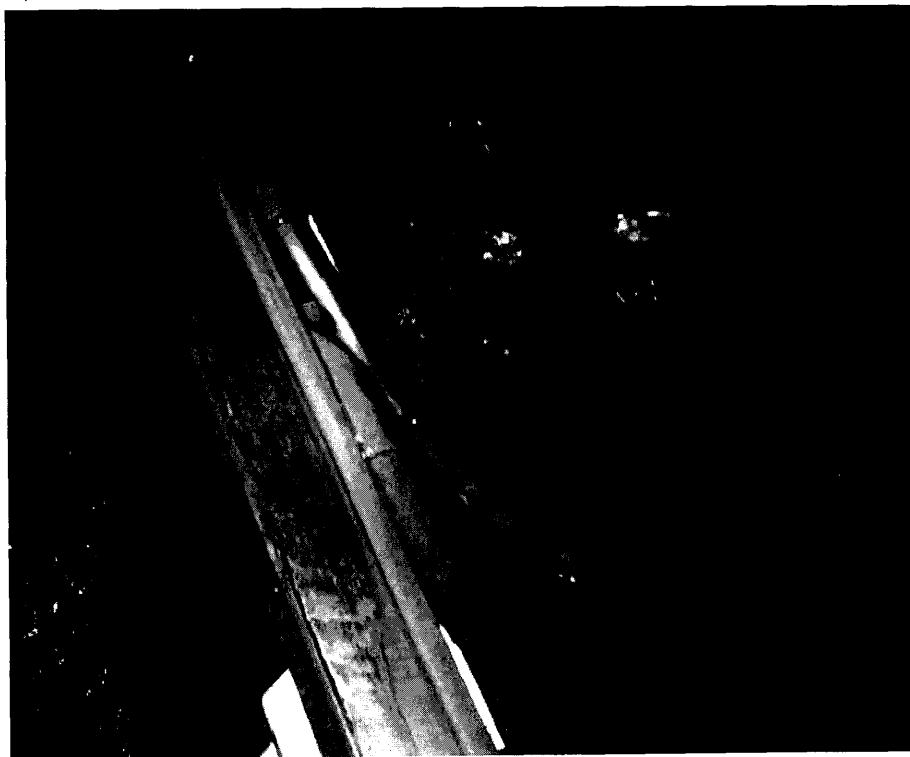
Photos:

New Boot and Cable at B1 CM 562+00

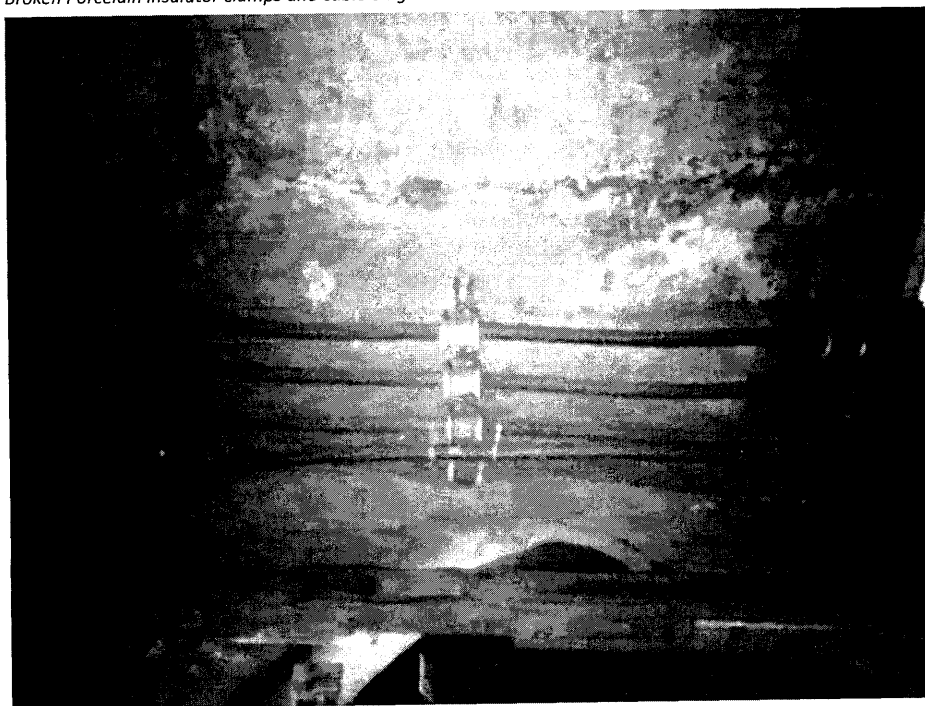




Repaired Cable at B2 CM 516+00



Broken Porcelain insulator clamps and cable on ground at B2 CM 516+00

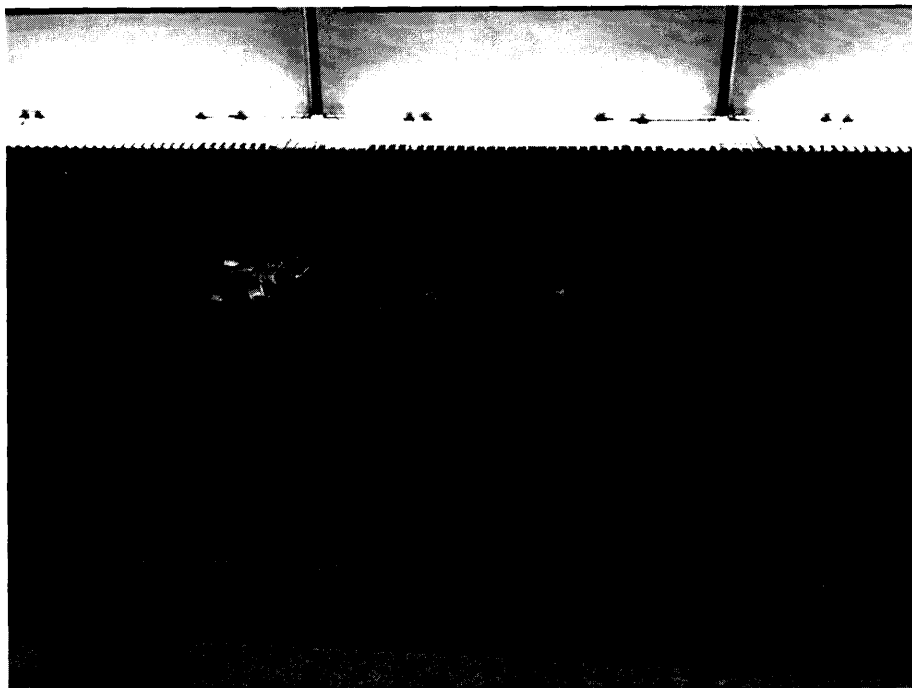




United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Debris on jumper cables and cables on ground on track 2 platform at B09.





Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

all (S) (L)

Inspection Date	YYYY	MM	DD	Report Number	20160407-WMATA-JMC-1		
	2016	04	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Rail Transportation	Sub-Department	Rail Operations Control Center
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Carmen Turner Facility – Rail Operations Control Center – 3500 Pennsy Drive, Hyattsville, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6	7	8
Activity Code	ROCC-GEN-MTG	ROCC-RAD-OBS	ROCC-ST/RC-PI					
Inspection Units	1	1	1					
Inspection Subunits	7	1	2					
Defects (Number)	0	4	0					
Recommended Finding	No	Yes	No					
Remedial Action Required?	No	Yes	No					
Recommend Reinspection	No	Yes	No					

Individual Inspection Activity

Inspection Activity #	1	Inspection Subject					General Meeting			Activity Code	ROCC	GEN	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	1900-2230	Outside Shift	Yes		
Related Reports				Related CAPS / Findings									
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP			Standard		Other / Title		Checklist Reference				
	MSRPH	1.69-1.79											
	ROCC Manual												
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	From		To				
Vehicles	Head Car Number		Number of Cars		Equipment								
Description	FWSO met with Assistant Superintendents [REDACTED] and [REDACTED]. During the meeting, we discussed a follow up from the previous evening/morning track safety and foul time. Controllers properly provided blocking protection and noted on the proper forms when maintenance personnel requested to work on the track. Asst. Supt D'Andrade met with the controllers and customer service employees informing them of the upcoming track inspections and where the Prime Movers would be							Number of Defects		0			
								Recommended Finding?		No			
								Action Required?		No			
								Recommend Reinspection?		No			

Inspector in Charge - Signature		James Cassatt, Jr	Digitally signed by James Cassatt, Jr DN: cn=James Cassatt, Jr, o=FRA, ou=DOT, email=james.cassatt@dot.gov, c=US Date: 2016.04.09 10:28:21 -0400	Date April 9, 2016
Inspector in Charge - Name Jim Cassatt		Inspection Team Jim Cassatt		



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	working and Maintenance personnel along with FTA and FRA inspectors would be walking track. FWSO monitored train and prime mover car movement, radio communications and the ROCC Operators (radio and button). The Operators performed their duties as per SOP's, Metrorail Safety Rules and Procedures Handbook and train movements. Both the Radio and Button Controller emphasized Safety, made radio announcements when unusual occurrences (i.e. track workers, delays etc) to operators, had job briefings with employees prior to fouling/clearing track to perform work.		
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Radio Procedures/Repeat Backs					Activity Code	ROCC	RAD	OBS
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	1900-2230	Outside Shift	Yes	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	MSRPH	1.73, 1.79									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
				X							X
Line(s)	ROCC	Track Number		Chain Marker			From	To			
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	<p>FWSO observed and monitored ROCC Controllers compliance with radio rules and monitored radio transmissions. Controllers re-enforced read backs with maintenance workers and operators. The Controllers and maintenance employees made proper radio transmissions when issuing and repeating back roadway access. The Controller made announcements, prior to issuing the access, to employees informing them of the time effective.</p> <p>The following radio transmissions defects were noted:</p> <ul style="list-style-type: none"> Unknown employees made an unnecessary communications at 1920 hours. The controller made an announcement at 1921 hours reminding all employees about proper radio procedures. The unknown employees failed to comply with MSRPH rule 1.73. At 1952 hours, train 715 failed to repeat back the permissive block authority at D&G Junction. At 1958 hours train 704 failed to repeat back the permissive block at West Falls Church. Radio communications were difficult to receive and transmit at various locations. WMATA needs to comply with CAP FTA-RAIL-1-14-B and FTA-RAIL-1-14-A. Unknown employees in the field, accidentally "push" the emergency button on the portable radio, causing an alarm to sound in the ROCC. The Asst. Supt explained that this is a common problem in the field. A suggestion was made to have a bulletin or permanent order issued to reinstruct employees on the proper use of portable radios. 						Number of Defects		4		
							Recommended Finding?		Yes		
							Remedial Action Required?		Yes		
							Recommend Reinspection?		Yes		
Remedial Action	FTA has issued a Corrective Action Plan (CAP) number FTA-RAIL-1-14-B and FTA-RAIL-1-14-A. WMATA's original estimate to request closure is Jan 2017.										

Inspection Activity #	3	Inspection Subject	Shift Transfers/Maintenance Personnel Roadway Access				Activity Code	ROCC	ST/R C	PI
Job Briefing	N/A	Accompanied	N/A	Out Brief	Yes	Time	1900-	Outside	Yes	



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Employee Name/Title					Inspector?		Conducted			2230	Shift	
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)	ROCC		Track Number		Chain Marker		From		To			
Vehicles	Head Car Number		Number of Cars		Equipment							
Description	FWSO performed a physical inspection of the Asst. Supt transfers from 3/1/2016-4/5/2016. FWSO also observed the transfer of the second and third shift Assistant Supt. present during the transfer. The transfer was well detailed explaining maintenance forces working and current track issues and train delays were discussed. The transfer was signed by all parties involved. Controllers properly recorded track "foul" time on the appropriate forms and blocking was properly provided on the tracks prior to giving the employees permission to work.							Number of Defects		0		
								Recommended Finding?		No		
								Remedial Action Required?		No		
								Recommend Reinspection?		No		
Remedial Action	N/A											



Inspection Form

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Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160409-WMATA-JLK-1		
	2016	04	09				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking Inspection of track in Branch Ave. Yard						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-WI-OBS	TRK-SW-PI	TRK-RAD-OBS	TRK-RWP-PI	
Inspection Units	1	1	15	1	1	
Inspection Subunits	4	2	0	10	5	
Defects (Number)	12	0	0	0	0	
Recommended Finding	YES	N/A	NO	NO	NO	
Remedial Action Required	YES	N/A	NO	NO	NO	
Recommended Reinspection	YES	N/A	NO	NO	NO	

Activity Summaries

Inspection Activity #	1	Inspection Subject				Track, Switch, Turnout and Third Rail Inspection				Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	RWIC [REDACTED] employee number [REDACTED] and RWIC [REDACTED]		Accompanied Inspector?		YES	Out Brief Conducted		YES	Time	1230 1630	Outside Shift	YES		
Related Reports	Ref				Rule or SOP		Standard		Other / Title		Checklist Reference			
Related Rules, SOPs, Standards, or Other	MSRPH				General Maintenance Standards									
	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)	Branch Ave. Yard	Track Number	#1, #2	Chain Marker and/or Station(s)	From				To					
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO Inspection team in conjunction with FRA support, conducted a focused walking inspection of WMATA Branch Avenue Yard track one, and two to include switches, turnouts, crossovers and components. During the inspection the following items were identified.										Number of Defects		12	
											Recommended Finding?		YES	
											Remedial Action Required?		YES	
											Recommended Reinspection?		YES	

Inspector in Charge - Signature		SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 14:47:28 -04'00'	Date	04/09/2016
Inspector in Charge - Name		Sean Thompson			
Inspection Team		Corwyn Foster, Justin Killingsworth			



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	<p>Fastners mssing 4 consecutive ties. Track # 1</p> <p>1 – miissing cover board 3rd rail . Yard Lead # 1 between Operators building and Command center.</p> <p>3- Insulated joint missing or loose end post . Track # 1</p> <p>1 - Insulated joint missing or loose end post at signal 178 Track # 1</p> <p>1 - Insulated joint missing or loose end post . SM 71B / 73B Track # 2</p> <p>Loose or missing fasteners in restraining rail , right rail from washouse to station signal. Track # 1</p> <p>Track Gage exceeds allowable in track with radius less than 1425 ft. Measured 57 5/8" gage.</p> <p>3 – Counts of defective ties 4 in a row. Yard Lead # 1 in cuve approaching SMetro station.</p>		
Remedial Action	Correct/repair defects.		



Inspection Form

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all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160409-WMATA-WHW-1		
	2016	04	09				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking Inspection of inbound and outbound leads of West Falls Church Yard						

Inspection Summary

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

Activity Summaries

Inspection Activity #	1	Inspection Subject					Track, Switch, Turnout and Third Rail Inspection			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	Supervisor [REDACTED]		Accompanied Inspector?		Yes	Out Brief Conducted		YES	Time	1100 1400	Outside Shift	NO		
Related Reports	Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Maintenance Standards											
	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)	West Falls Church Yard	Track Number	Lead	Chain Marker and/or Station(s)	From				To					
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO Inspection team in conjunction with FRA support, conducted a focused walking inspection of WMATA of switches, turnouts, and components at West Falls Church Yard During the inspection the following items were identified.							Number of Defects		8				
								Recommended Finding?		YES				
								Remedial Action Required?		YES				
								Recommended Reinspection?		YES				

Inspector in Charge - Signature	SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTA HQ, cn=SEAN L THOMPSON Date: 2016.04.12 14:45:06 -04'00'	Date 04-09-2016
Inspector in Charge - Name Sean Thompson	Inspection Team Alexander A. Nepa, William H. Wilson		



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	<p>Missing cover boards, TRST1000, 13.3.15. 1 and 2 outbound leads</p> <p>Three Wide Gage locations between crossing and portal on number two lead</p> <ul style="list-style-type: none"> 57-1/4 inch static + 1/8 lateral deflection on the low rail and 15/16 inch lateral deflection high rail totaling 58-1/4 inch gage 57-1/4 inch static + 5/8 inch lateral deflection totaling 57-7/8 inch gage 57-3/4 inch static + 1 inch lateral deflection on the high rail and 1/8 inch lateral deflection on the low rail totaling 58-15/16 inch gage <p>One Wide Gage location on the inter loop between 303 switch and B309 switch 57 inch Static + 1/2 inch lateral deflection on the high rail totaling 57-1/2 inch gage five tie length long.</p> <p>Out bound lead # 2 restraining rail, wide flange opening measuring 2-5/8 inch</p>		
Remedial Action	Repair/correct identified defects.		

Inspection Activity #	2	Inspection Subject	Observations comments to WMATA			Activity Code		TRK	WI	OBS						
Job Briefing Employee Name/Title	[REDACTED] (b)(6)		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	1100 1400	Outside Shift	No						
Related Reports	Related CAPS / Findings															
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference							
	COMMENTS															
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A					
		X						X								
Line(s)	West Falls Church Yard	Track Number	Crossing	Chain Marker and/or Station(s)	From			To								
Vehicles	Head Car Number		Number of Cars		Equipment											
Description	Observations made, 2 active warnings mast down at approach to crossing.						Number of Defects		1							
							Recommended Finding?		No							
							Remedial Action Required?		Optional							
							Recommended Reinspection?		No							
Remedial Action																

Inspection Activity #	3	Inspection Subject	Switch Inspection			Activity Code		TRK	SW	PI
Job Briefing Employee Name/Title	[REDACTED] (b)(6)		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	1100 1400	Outside Shift	No
Related Reports	Related CAPS / Findings									
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference	
	MSRPH		General Maintenance Standards							
	TRST1000									



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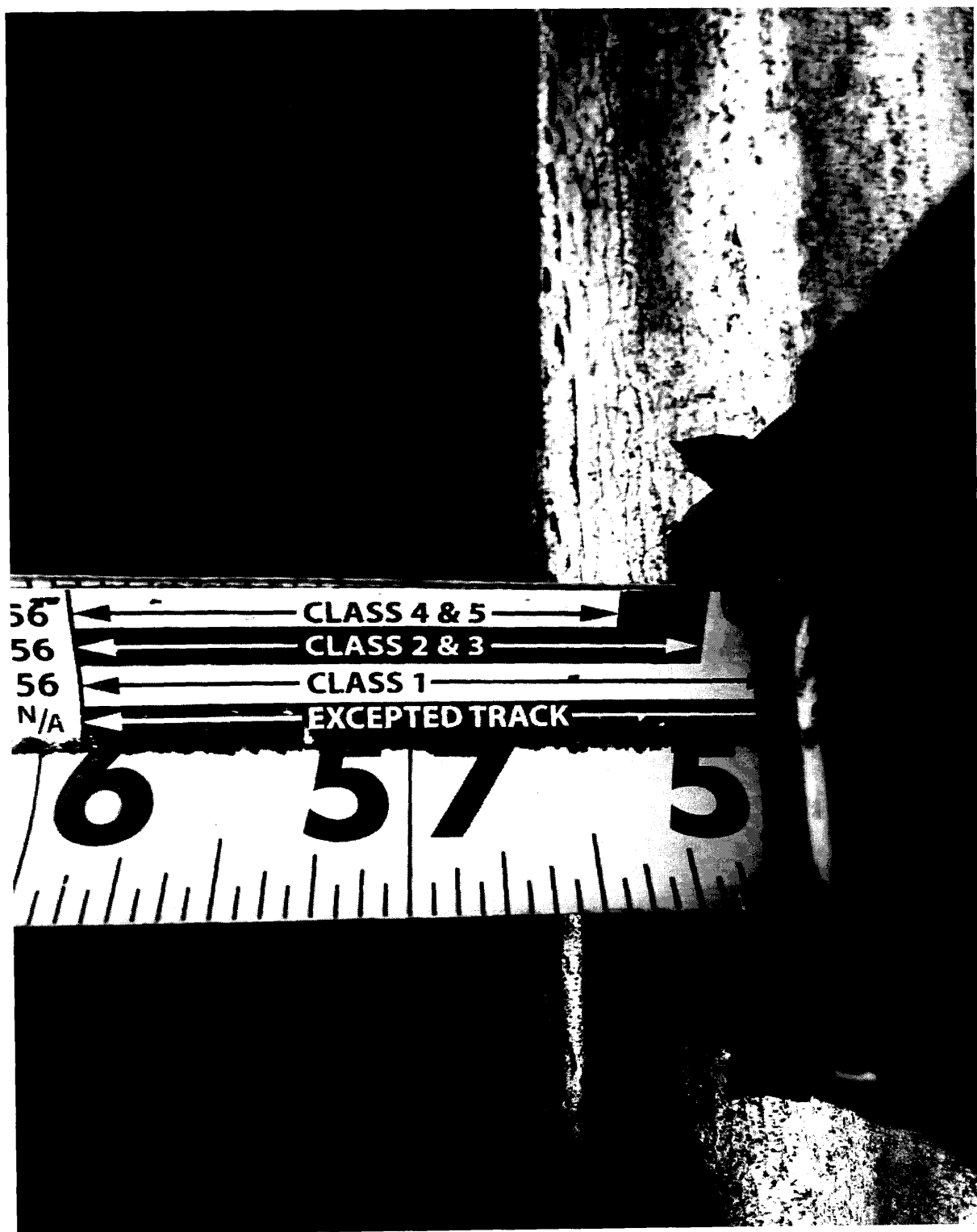
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
		Leads						X			
Line(s)	West Falls Church Yard	Track Number	Inner Loop	Chain Marker and/or Station(s)	From		To				
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	Switch 301 left point chipped 11 inches long 3/8 inch blunt starting seven inches back from tip of point.							Number of Defects		1	
								Recommended Finding?		1	
								Remedial Action Required?		YES	
								Recommended Reinspection?		Yes	
Remedial Action											

Inspection Activity #	4	Inspection Subject	Radio Observation				Activity Code		TRK	RAD	OBS
Job Briefing Employee Name/Title	[REDACTED] (b)(6)		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	1100 1400	Outside Shift	No	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	MSRPH	General Rules									
	TRST1000										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
		X						X			
Line(s)	West Falls Church Yard	Track Number	Leads	Chain Marker and/or Station(s)	From		To				
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	Moitored the radio communication between RWIC and West Falls Church Yard Operator, all communications were correct and legible.							Number of Defects		0	
								Recommended Finding?		No	
								Remedial Action Required?		No	
								Recommended Reinspection?		No	
Remedial Action		No									

Inspection Activity #	5	Inspection Subject	RWP Protection				Activity Code		TRK	RWP	PI
Job Briefing Employee Name/Title	[REDACTED] (b)(6)		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	1100 1400	Outside Shift	No	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	MSRPH	General Rules									
	TRST1000	RWPM									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A

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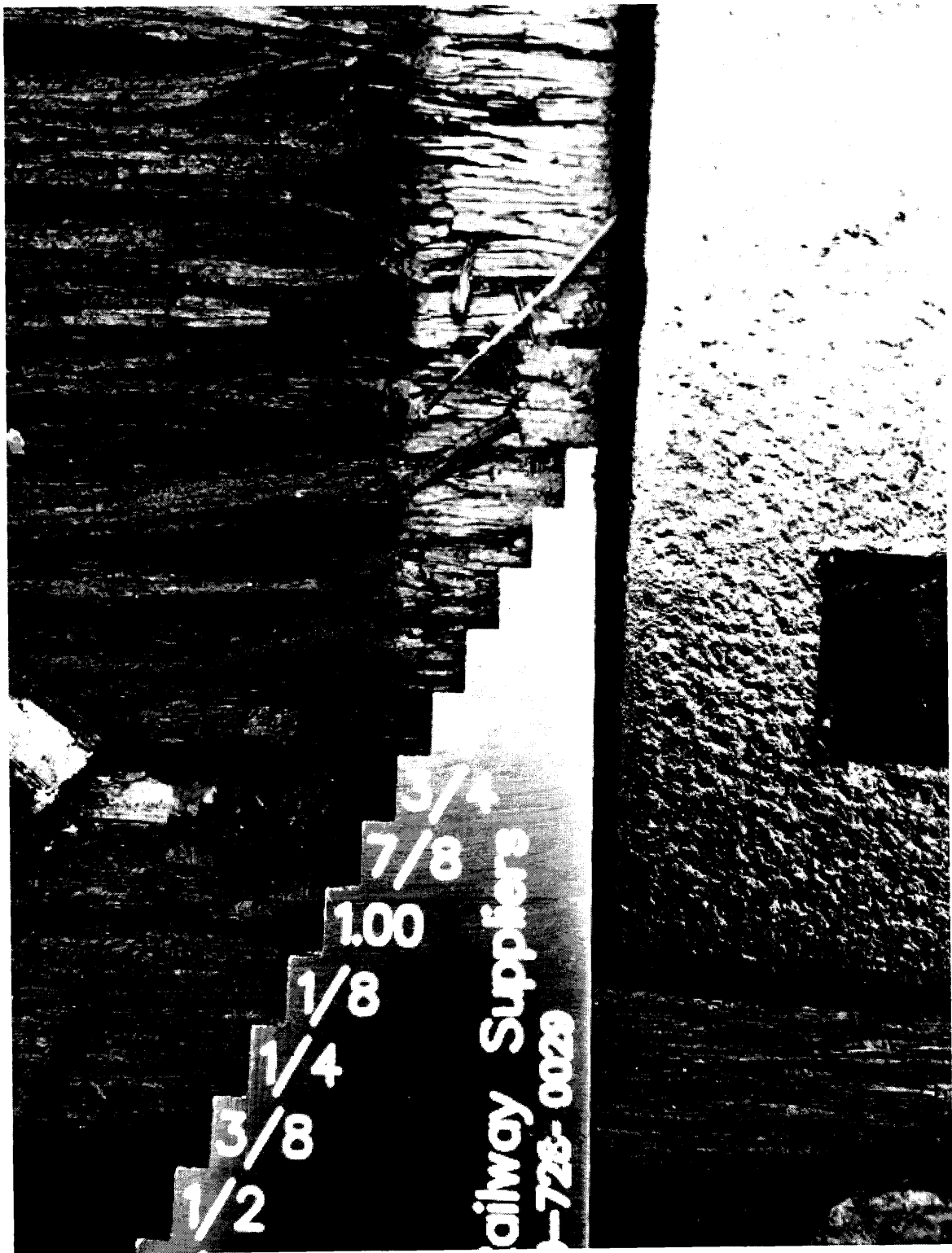
		X						X			
Line(s)	West Falls Church Yard	Track Number	Leads	Chain Marker and/or Station(s)	From		To				
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	FWSO, FRA and WMATA Supervisor met at West Falls Church Yard to perform a track inspection. A job briefing was completed, the appropriate forms were signed and visual verification of WMATA, RWP ID was performed. RWIC provided adequate warning of trains.						Number of Defects				
							Recommended Finding?				
							Remedial Action Required?				
							Recommended Reinspection?				
Remedial Action											



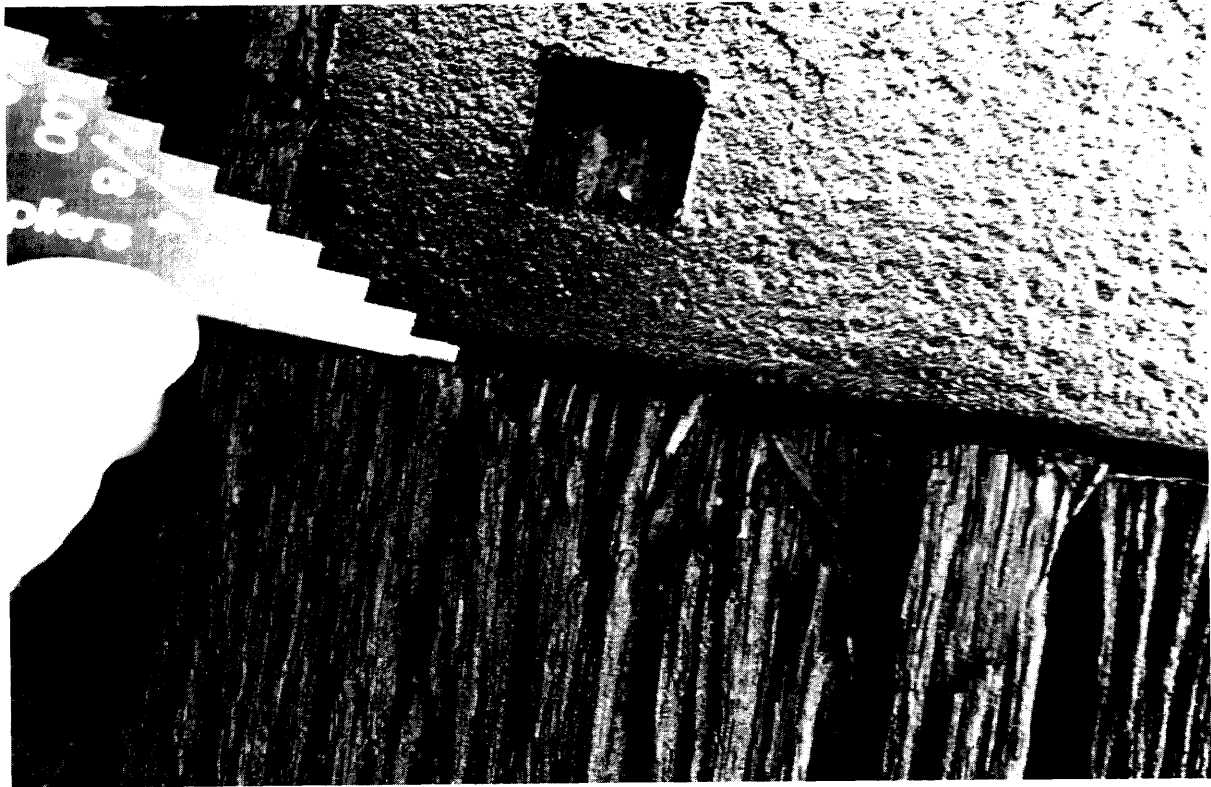
Bullet point one, 57-1/4 inch static gage measurement.



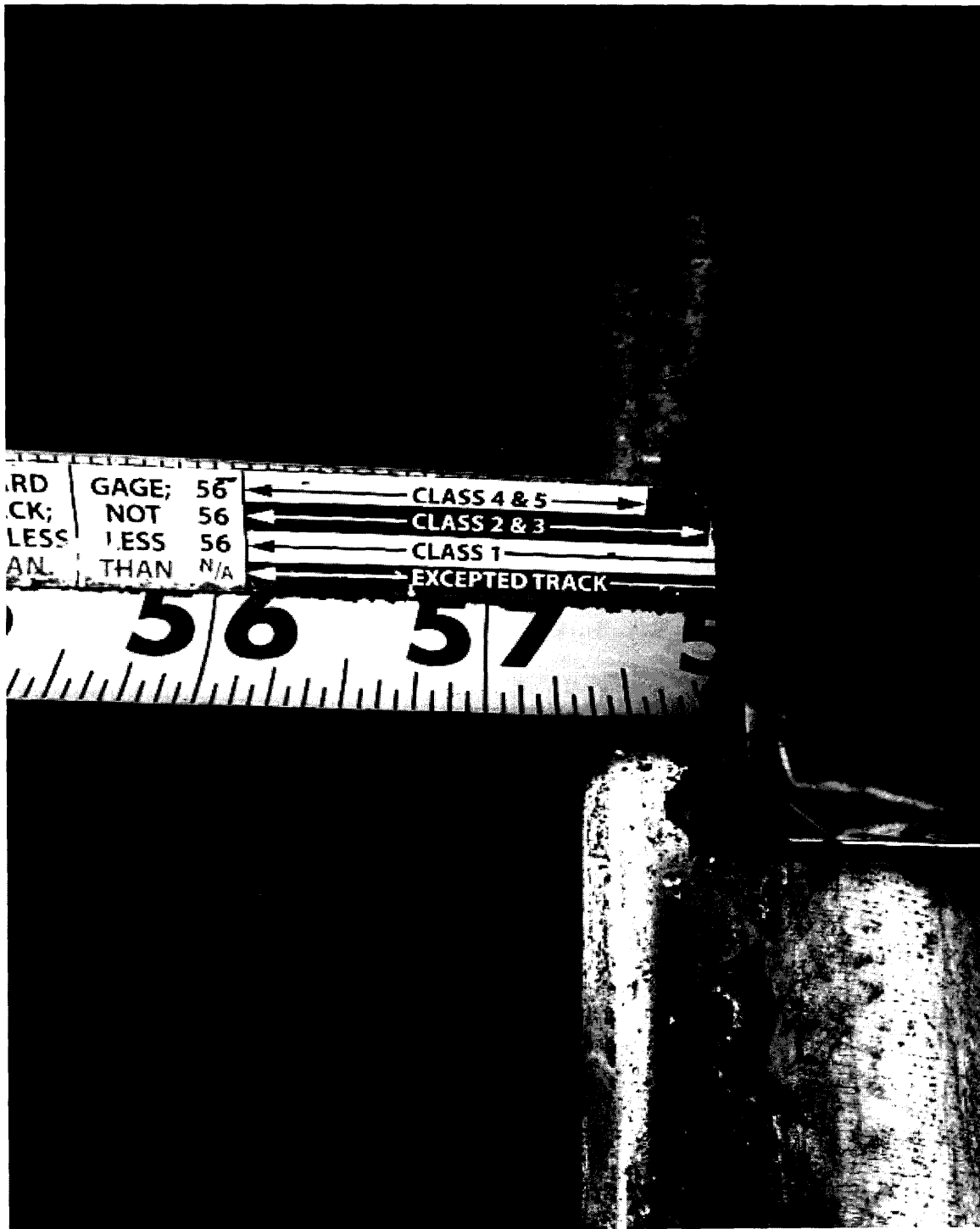
Bullet point one, dynamic plate movement marks.



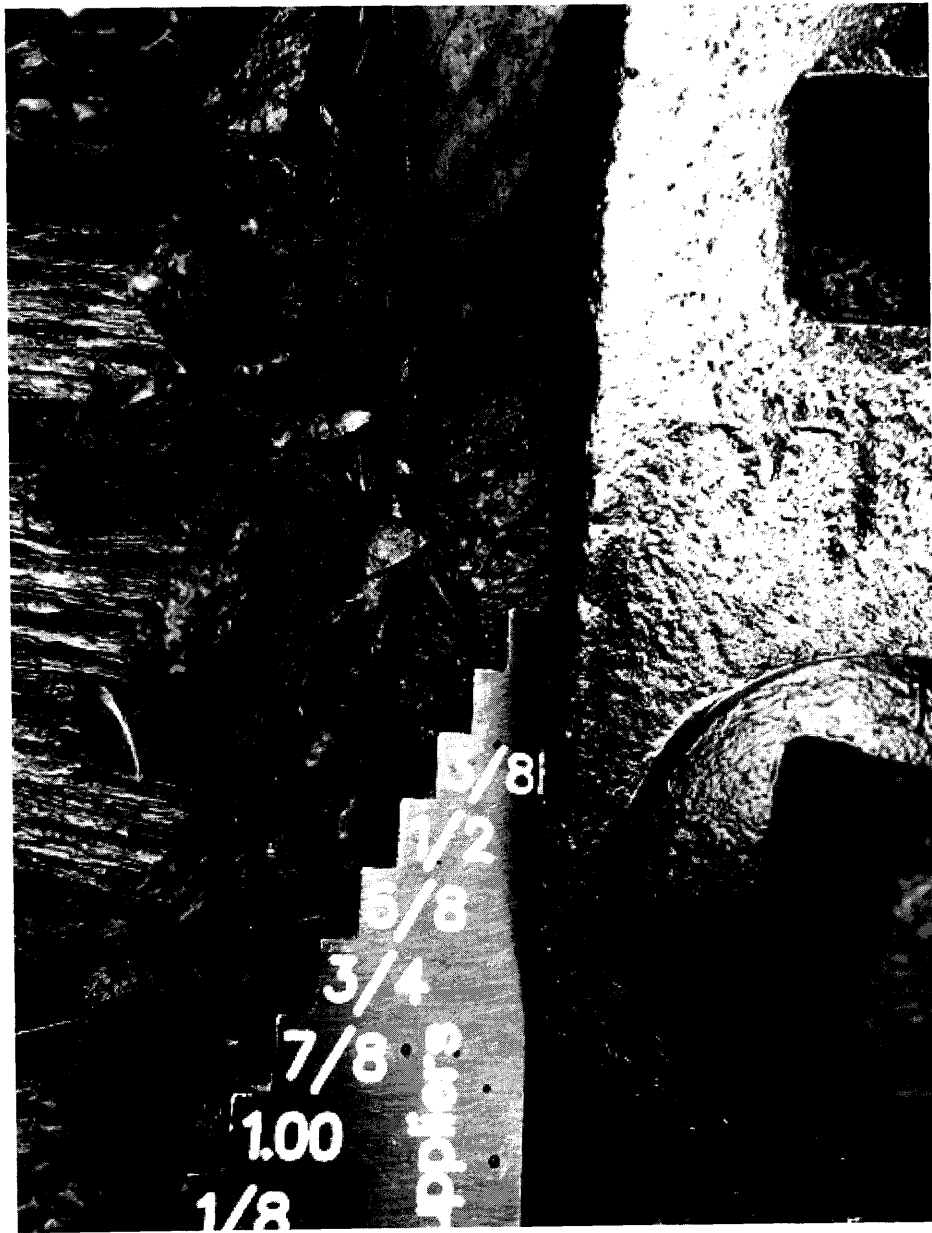
Bullet point one, 15/16 inch dynamic measurement high rail.



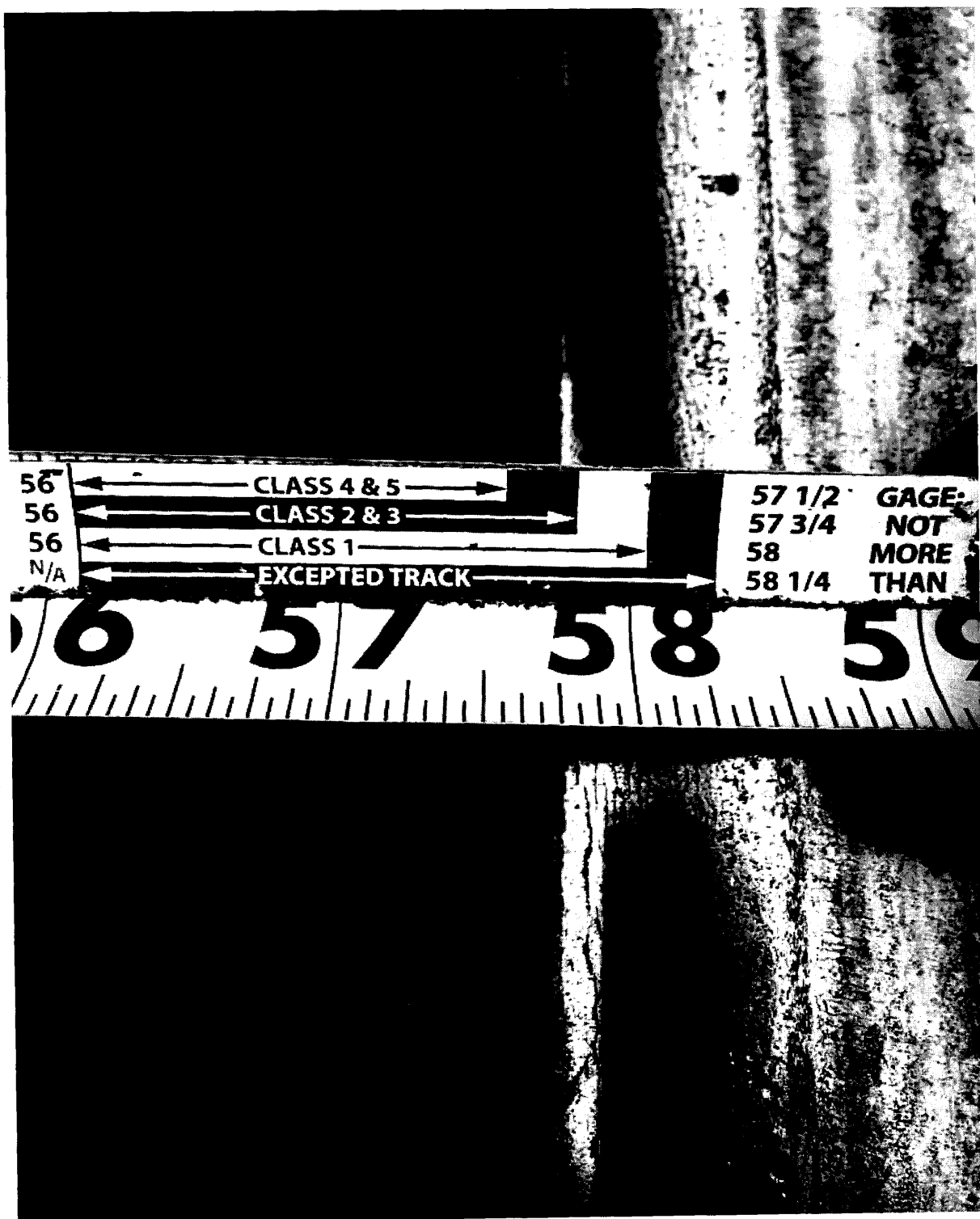
Bullet point one, 1/8 inch dynamic plate movement low side.



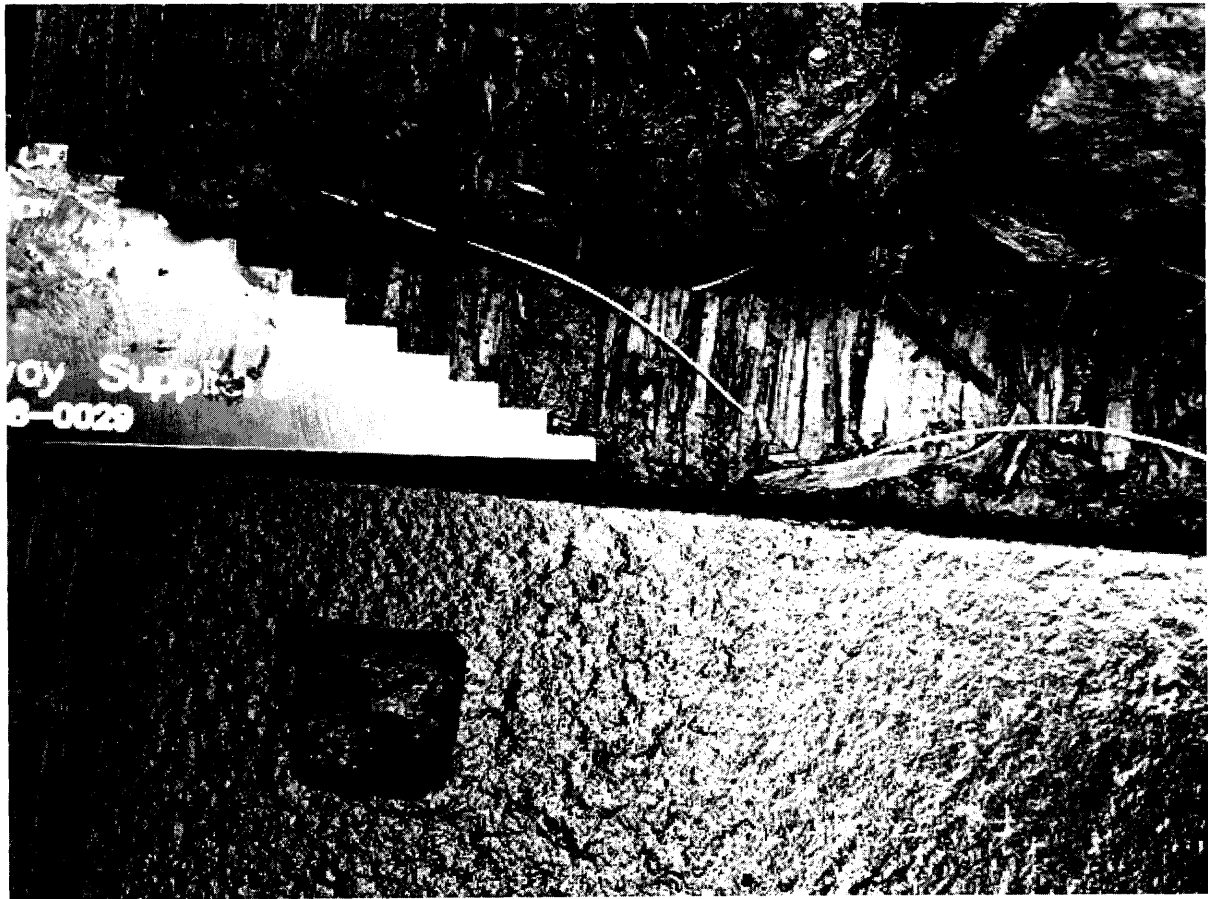
Bullet point two, 57-1/4 inch static gage.



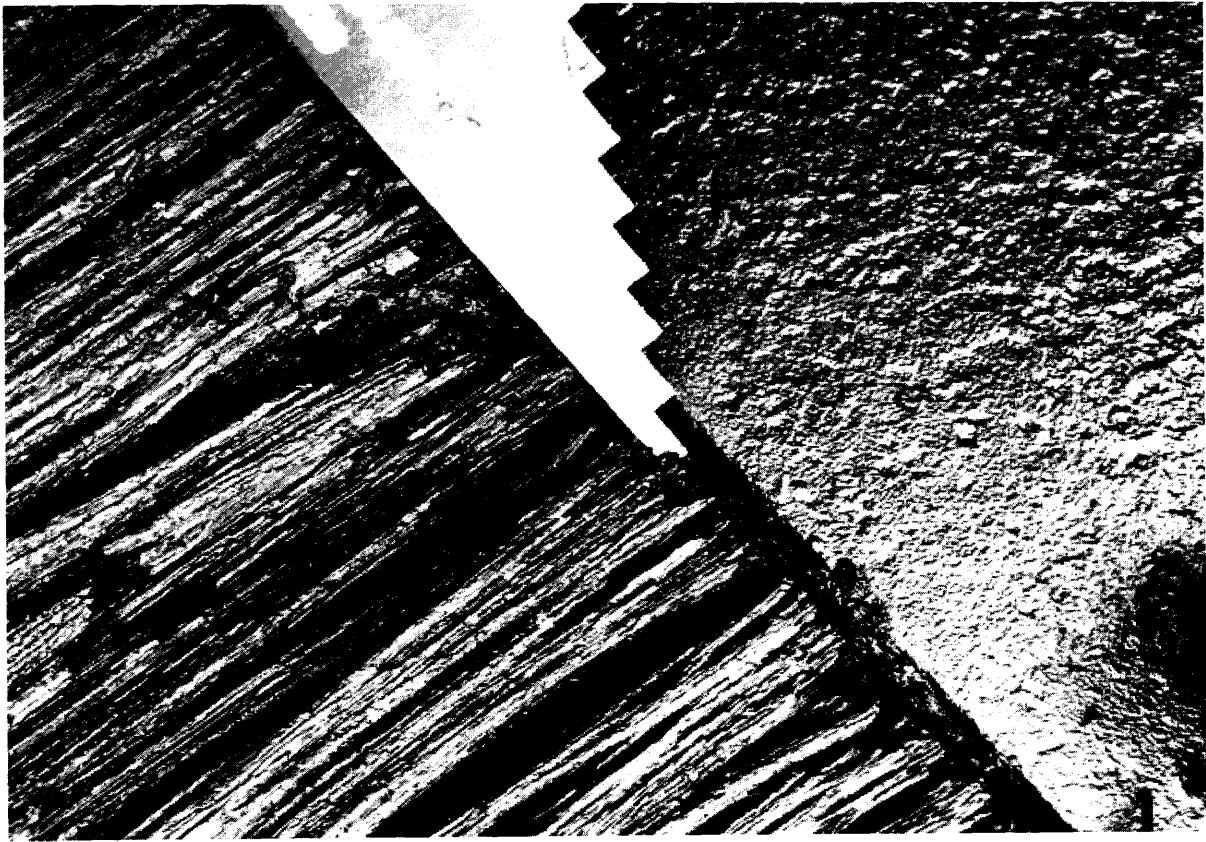
Bullet point two, 5/8 inch dynamic plate movement.



Bullet point three, 57-3/4 inch static gage.



Bullet point three, one inch dynamic plate movement high side.



Bullet point three, 1/8 inch dynamic plate movement low side.



Inspection Form

Form FTA-IR-1

United States Department of Transportation
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Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160406-WMATA-JMC-1		
	2016	04	06				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Rail Transportation	Sub- Department	Rail Operations Control Center
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Carmen Turner Facility – Rail Operations Control Center – 3500 Pennsy Drive, Hyattsville, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6	7	8
Activity Code	ROCC-GEN-MTG	ROCC-RAD-OBS	ROCC-ST/RC-PI					
Inspection Units	1	1	1					
Inspection Subunits	1	1	2					
Defects (Number)	0	2	0					
Recommended Finding	No	No	No					
Remedial Action Required?	No	No	Yes					
Recommend Reinspection	No	Yes	Yes					

Individual Inspection Activity

Inspection Activity #	1	Inspection Subject					General Meeting			Activity Code	ROCC	GEN	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	2000-0100	Outside Shift	Yes		
Related Reports				Related CAPS / Findings									
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	MSRPH		1.69-1.79										
	ROCC Manual												
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	From		To				
Vehicles	Head Car Number		Number of Cars		Equipment								
Description	FWSO met with Assistant Superintendents [REDACTED] and [REDACTED]. During the meeting, we discussed track safety and foul time. We also discussed that a bulletin or Permanent Order be issued to employees to make them aware of transfer times in the ROCC to allow minimum interruptions to a quality and safe transfer. FWSO monitored train and prime mover car movement, radio communications and the ROCC Operators (radio and button). The Operators performed their duties as per							Number of Defects		0			
								Recommended Finding?		No			
								Action Required?		No			
								Recommend Reinspection?		No			

Inspector in Charge - Signature	James Cassatt, Jr	Digitally signed by James Cassatt, Jr DN: cn=James Cassatt, Jr, o=FRA, ou=DOT, email=james.cassatt@dot.gov, c=US Date: 2016.04.09 09:36:55 -0400	Date April 9, 2016
Inspector in Charge - Name Jim Cassatt	Inspection Team Jim Cassatt		



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	SOP's, Metrorail Safety Rules and Procedures Handbook and train movements. Both the Radio and Button Controller emphasized Safety, made radio announcements when unusual occurrences (i.e. track workers, delays etc) to operators, had job briefings with employees prior to fouling/clearing track to perform work.		
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Radio Procedures					Activity Code	ROCC	RAD	OBS
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	2000-0100	Outside Shift	Yes	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	MSRPH	1.73, 1.79									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
				X							
Line(s)	ROCC	Track Number		Chain Marker	From		To				
Vehicles	Head Car Number	Number of Cars		Equipment							
Description	<p>FWSO observed and monitored ROCC Controllers compliance with radio rules and monitored radio transmissions. Controllers re-enforced read backs with maintenance workers and operators. The Controllers and maintenance employees made proper radio transmissions when issuing and repeating back roadway access. The Controller made announcements, prior to issuing the access, to employees informing them of the track outage and trains single tracking. Controller of the Orange/Blue/Silver line emphasized to PM 47 and 43 to have the trailing Prime Mover report clear of the interlockings. The following radio transmissions were noted:</p> <ul style="list-style-type: none"> An unknown employee made an unnecessary communication at 8:14 p.m. "I Knooow." This was made after the controller made announcements about train delays on the Yellow/Green Line. The unknown employee failed to comply with MSRPH rule 1.73. The Radio Controller emphasized proper radio procedures. Radio communications were difficult to receive and transmit at various locations. WMATA needs to comply with CAP FTA-RAIL-1-14-B and FTA-RAIL-1-14-A. 						Number of Defects		2		
							Recommended Finding?		Yes		
							Remedial Action Required?		No		
							Recommend Reinspection?		Yes		
Remedial Action	FTA has issued a Corrective Action Plan (CAP) number FTA-RAIL-1-14-B and FTA-RAIL-1-14-A. WMATA's original estimate to request closure is Jan 2017.										

Inspection Activity #	3	Inspection Subject	Shift Transfers/Maintenance Personnel Roadway Access					Activity Code	ROCC	ST/R C	PI
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	2000-0100	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

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				X							X
Line(s)	ROCC/ Red	Track Number		Chain Marker	From			To			
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	FWSO performed a physical inspection of the Asst. Supt transfer for 4/6/2016. FWSO also observed the transfer of the second and third shift Assistant Supt. present during the transfer. The transfer was well detailed explaining maintenance forces working and current track issues and train delays were discussed. The transfer was signed by all parties involved. FWSO also observed the Red Line Controller writing the proper information on the Maintenance Personnel Roadway Access Form for Medical Center to Friendship Heights.						Number of Defects		0		
							Recommended Finding?		No		
							Remedial Action Required?		No		
							Recommend Reinspection?		No		
Remedial Action	N/A										



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Call (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160407-WMATA-JMC-1		
	2016	04	07				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Rail Transportation	Sub-Department	Rail Operations Control Center
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Carmen Turner Facility - Rail Operations Control Center - 3500 Pennsy Drive, Hyattsville, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6	7	8
Activity Code	ROCC-GEN-MTG	ROCC-RAD-OBS	ROCC-ST/RC-PI					
Inspection Units	1	1	1					
Inspection Subunits	7	1	2					
Defects (Number)	0	4	0					
Recommended Finding	No	Yes	No					
Remedial Action Required?	No	Yes	No					
Recommend Reinspection	No	Yes	No					

Individual Inspection Activity

Inspection Activity #	1	Inspection Subject					General Meeting			Activity Code	ROCC	GEN	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	1900-2230	Outside Shift	Yes		
Related Reports				Related CAPS / Findings									
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	MSRPH		1.69-1.79										
	ROCC Manual												
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	From			To				
Vehicles	Head Car Number		Number of Cars		Equipment								
Description	FWSO met with Assistant Superintendents [REDACTED] and [REDACTED]. During the meeting, we discussed a follow up from the previous evening/morning track safety and foul time. Controllers properly provided blocking protection and noted on the proper forms when maintenance personnel requested to work on the track. Asst. Supt [REDACTED] met with the controllers and customer service employees informing them of the upcoming track inspections and where the Prime Movers would be								Number of Defects		0		
									Recommended Finding?		No		
									Action Required?		No		
									Recommend Reinspection?		No		

Inspector in Charge - Signature		James Cassatt, Jr	Digitally signed by James Cassatt, Jr DN: cn=James Cassatt, Jr, o=FRA, ou=DOT, email=james.cassatt@dot.gov, c=US Date: 2016.04.09 10:28:21 -0400	Date April 9, 2016
Inspector in Charge - Name Jim Cassatt		Inspection Team Jim Cassatt		



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	working and Maintenance personnel along with FTA and FRA inspectors would be walking track. FWSO monitored train and prime mover car movement, radio communications and the ROCC Operators (radio and button). The Operators performed their duties as per SOP's, Metrorail Safety Rules and Procedures Handbook and train movements. Both the Radio and Button Controller emphasized Safety, made radio announcements when unusual occurrences (i.e. track workers, delays etc) to operators, had job briefings with employees prior to fouling/clearing track to perform work.		
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Radio Procedures/Repeat Backs				Activity Code	ROCC	RAD	OBS
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	1900-2230	Outside Shift	Yes
Related Reports			Related CAPS / Findings							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard		Other / Title		Checklist Reference			
	MSRPH	1.73, 1.79								
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated
				X						N/A
Line(s)	ROCC	Track Number		Chain Marker	From		To			
Vehicles	Head Car Number	Number of Cars		Equipment						
Description	<p>FWSO observed and monitored ROCC Controllers compliance with radio rules and monitored radio transmissions. Controllers re-enforced read backs with maintenance workers and operators. The Controllers and maintenance employees made proper radio transmissions when issuing and repeating back roadway access. The Controller made announcements, prior to issuing the access, to employees informing them of the time effective.</p> <p>The following radio transmissions defects were noted:</p> <ul style="list-style-type: none"> Unknown employees made an unnecessary communications at 1920 hours. The controller made an announcement at 1921 hours reminding all employees about proper radio procedures. The unknown employees failed to comply with MSRPH rule 1.73. At 1952 hours, train 715 failed to repeat back the permissive block authority at D&G Junction. At 1958 hours train 704 failed to repeat back the permissive block at West Falls Church. Radio communications were difficult to receive and transmit at various locations. WMATA needs to comply with CAP FTA-RAIL-1-14-B and FTA-RAIL-1-14-A. Unknown employees in the field, accidentally "push" the emergency button on the portable radio, causing an alarm to sound in the ROCC. The Asst. Supt explained that this is a common problem in the field. A suggestion was made to have a bulletin or permanent order issued to reinstruct employees on the proper use of portable radios. 						Number of Defects		4	
							Recommended Finding?		Yes	
							Remedial Action Required?		Yes	
							Recommend Reinspection?		Yes	
Remedial Action	FTA has issued a Corrective Action Plan (CAP) number FTA-RAIL-1-14-B and FTA-RAIL-1-14-A. WMATA's original estimate to request closure is Jan 2017.									

Inspection Activity #	3	Inspection Subject	Shift Transfers/Maintenance Personnel Roadway Access				Activity Code	ROCC	ST/R C	PI
Job Briefing	N/A	Accompanied	N/A	Out Brief	Yes	Time	1900-	Outside	Yes	



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Employee Name/Title						Inspector?		Conducted			2230	Shift	
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)	ROCC		Track Number		Chain Marker		From		To				
Vehicles	Head Car Number		Number of Cars		Equipment								
Description	FWSO performed a physical inspection of the Asst. Supt transfers from 3/1/2016-4/5/2016. FWSO also observed the transfer of the second and third shift Assistant Supt. present during the transfer. The transfer was well detailed explaining maintenance forces working and current track issues and train delays were discussed. The transfer was signed by all parties involved. Controllers properly recorded track "foul" time on the appropriate forms and blocking was properly provided on the tracks prior to giving the employees permission to work.							Number of Defects		0			
								Recommended Finding?		No			
								Remedial Action Required?		No			
								Recommend Reinspection?		No			
Remedial Action	N/A												



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Cell (b)(6)

Inspection Date	YYYY	MM	DD	Report Number	20160406-WMATA-JMC-1		
	2016	04	06				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Rail Transportation	Sub- Department	Rail Operations Control Center
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Carmen Turner Facility – Rail Operations Control Center – 3500 Pennsy Drive, Hyattsville, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6	7	8
Activity Code	ROCC-GEN-MTG	ROCC-RAD-OBS	ROCC-ST/RC-PI					
Inspection Units	1	1	1					
Inspection Subunits	1	1	2					
Defects (Number)	0	2	0					
Recommended Finding	No	No	No					
Remedial Action Required?	No	No	Yes					
Recommend Reinspection	No	Yes	Yes					

Individual Inspection Activity

Inspection Activity #	1	Inspection Subject					General Meeting			Activity Code	ROCC	GEN	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	2000-0100	Outside Shift	Yes		
Related Reports						Related CAPS / Findings							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	MSRPH		1.69-1.79										
	ROCC Manual												
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	From		To				
Vehicles	Head Car Number		Number of Cars		Equipment								
Description	FWSO met with Assistant Superintendent [REDACTED] and [REDACTED]. During the meeting, we discussed track safety and foul time. We also discussed that a bulletin or Permanent Order be issued to employees to make them aware of transfer times in the ROCC to allow minimum interruptions to a quality and safe transfer. FWSO monitored train and prime mover car movement, radio communications and the ROCC Operators (radio and button). The Operators performed their duties as per							Number of Defects		0			
								Recommended Finding?		No			
								Action Required?		No			
								Recommend Reinspection?		No			

Inspector in Charge - Signature

James Cassatt, Jr

Digitally signed by James Cassatt, Jr
DN: cn=James Cassatt, Jr, o=FRA, ou=DOT, email=james.cassatt@dot.gov, c=US
Date: 2016.04.09 09:36:55 -04'00'

Date

April 9, 2016

Inspector in Charge - Name
Jim Cassatt

Inspection Team
Jim Cassatt



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	SOP's, Metrorail Safety Rules and Procedures Handbook and train movements. Both the Radio and Button Controller emphasized Safety, made radio announcements when unusual occurrences (i.e. track workers, delays etc) to operators, had job briefings with employees prior to fouling/clearing track to perform work.		
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Radio Procedures						Activity Code	ROCC	RAD	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	2000-0100	Outside Shift	Yes	
Related Reports				Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference			
	MSRPH		1.73, 1.79									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A	
				X							X	
Line(s)	ROCC		Track Number		Chain Marker		From		To			
Vehicles	Head Car Number		Number of Cars		Equipment							
Description	<p>FWSO observed and monitored ROCC Controllers compliance with radio rules and monitored radio transmissions. Controllers re-enforced read backs with maintenance workers and operators. The Controllers and maintenance employees made proper radio transmissions when issuing and repeating back roadway access. The Controller made announcements, prior to issuing the access, to employees informing them of the track outage and trains single tracking. Controller of the Orange/Blue/Silver line emphasized to PM 47 and 43 to have the trailing Prime Mover report clear of the interlockings. The following radio transmissions were noted:</p> <ul style="list-style-type: none"> An unknown employee made an unnecessary communication at 8:14 p.m. "I Knooow." This was made after the controller made announcements about train delays on the Yellow/Green Line. The unknown employee failed to comply with MSRPH rule 1.73. The Radio Controller emphasized proper radio procedures. Radio communications were difficult to receive and transmit at various locations. WMATA needs to comply with CAP FTA-RAIL-1-14-B and FTA-RAIL-1-14-A. 							Number of Defects		2		
								Recommended Finding?		Yes		
								Remedial Action Required?		No		
								Recommend Reinspection?		Yes		
Remedial Action	FTA has issued a Corrective Action Plan (CAP) number FTA-RAIL-1-14-B and FTA-RAIL-1-14-A. WMATA's original estimate to request closure is Jan 2017.											

Inspection Activity #	3	Inspection Subject	Shift Transfers/Maintenance Personnel Roadway Access						Activity Code	ROCC	ST/R C	PI
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	2000-0100	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	

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				X							X
Line(s)	ROCC/ Red	Track Number		Chain Marker	From		To				
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	FWSO performed a physical inspection of the Asst. Supt transfer for 4/6/2016. FWSO also observed the transfer of the second and third shift Assistant Supt. present during the transfer. The transfer was well detailed explaining maintenance forces working and current track issues and train delays were discussed. The transfer was signed by all parties involved. FWSO also observed the Red Line Controller writing the proper information on the Maintenance Personnel Roadway Access Form for Medical Center to Friendship Heights.					Number of Defects		0			
						Recommended Finding?		No			
						Remedial Action Required?		No			
						Recommend Reinspection?		No			
Remedial Action	N/A										



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

000 (4) (6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160409-WMATA-TGB-1		
	2016	04	09				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking inspection of track Alexandria Yard						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-SW-PI	TRK-RAD-OBS	TRK-RWP-PI		
Inspection Units	1	1	1	1		
Inspection Subunits	2	28	1	1		
Defects (Number)	17	20	1	0		
Recommended Finding		N/A	N/A	N/A		
Remedial Action Required	y	y	N/A	N/A		
Recommended Reinspection	y	N/A	N/A	N/A		

Activity Summaries

Inspection Activity #	1	Inspection Subject						Activity Code				
Job Briefing Employee Name/Title	[REDACTED] I&R Inspector, RWIC				Accompanied Inspector?	y	Out Brief Conducted	n	Time	1130 1500	Outside Shift	
Related Reports	Related CAPS / Findings											
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference			
	MSRPH		General Rules									
	TRST1000											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A	
		x						x				
Line(s)	Alexandria Yard	Track Number	various	Chain Marker and/or Station(s)	From		To					
					Alexandria Yard							
Vehicles	Head Car Number		Number of Cars		Equipment							
	n/a											
Description	FRA Inspectors were requested to perform a visual inspection of the track structure and turnouts in Alexandria Yard. RWIC Lovett performed the required job briefing with the inspection team prior to occupying the track, no exceptions taken. The following defects were observed or measured: -At Alexandria Yard on the prime mover storage track the FRA observed one RMM, KBR 925, parked in the foul of turnout.							Number of Defects		37		
								Recommended Finding?				
								Remedial Action Required?		y		
								Recommended Reinspection?		y		

Inspector in Charge - Signature		SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 14:46:45 -04'00'	Date	04/09/2016
Inspector in Charge - Name		Sean Thompson			
Inspection Team		Tom Beck, Joe Kennedy			



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	<p>-FRA observed that the ATC switch indicator boxes at 28 switches were found to have the padlock not locked or had no lock present</p> <p>-FRA observed a portable derail at the C99-218 signal that was lying on the ground in an un-secured position</p> <p>-A ¼" rail mismatch on the gage side of the high rail was measured at Signal C99-204</p> <p>-A static gage of 57 ¼" was measured in track at Signal C99-204</p> <p>-The rear access doors on Signal C99-204 were found to have unlocked padlocks on each of the three signal heads</p> <p>-4 loose bolts were observed at guardrail marker 465 on the Reverse Loop Track Guardrail</p> <p>-2 loose guardrail joint bars were observed at guardrail marker 465 on the Reverse Loop Track guardrail.</p> <p>-1/4" mismatch was measured on the guardrail face at guardrail marker 465 on the Reverse Loop Track.</p> <p>- Two loose bolts were observed on Reverse Loop Gaurdail at gaurdail marker 487</p> <p>-FRA observed Hlineside High Voltage cabinet #141-145 unsecured, with padlock lying on top of cabinet</p> <p>-Static gage of 57" and plate movement of 3/8" was measured on the high side of the curve 40 feet north of signal C99-189</p> <p>-One end approach and one regular third rail covers with two broken hangar brackets were observed missing 50 feet north of the 145 switch on the Outer Loop Track</p> <p>-Static gage of 57 1/8" and 1 1/16" plate movement was measured on low rail of curve for 7 consecutive crossties 50 feet north of the 145 switch on the Outer Loop Track. On 6 of the 7 crossties the screwlags were found broken off at the bottom of tie plates. Also observed at the same location were two missing guard rail braces and bolts. Track was removed from service by RWIC Lovett.</p> <p>-FRA Inspector performed a physical inspection of 28 turnouts in Alexandria yard. The following defects were noted:</p> <ul style="list-style-type: none">- Switch 223 two loose hold down bolts found on house top guardrail- Switch 227, 1 loose bolt in heel block, LH point- Sw 227, missing third rail coverboard end approach- Sw 229, two loose hold down bolts found on house top guardrail- Sw 205, one loose hold down bolt found on house top guardrail- Sw 201, three loose hold down bolts found on house top guardrail- Sw 197, three loose hold down bolts found on house top guardrail- Sw 195, loose adjustable braces LH point- Sw 195, two loose guardrail braces ahead of RH point- Sw 181, two loose hold down bolts found on house top guardrail- Sw 175, one loose hold down bolt found on house top guardrail- Sw 173, one missing holddown brace on frog- Sw 173, missing third rail coverboard end approach- Sw 155, heel of switch insecure, one loose, one missing heel bolt LH point- Sw 149B, three loose, 1 missing hold down bolts found on house top guardrail- Sw. 149B, heel of switch insecure, 2 loose heel block bolts LH point- Sw. 149B, 4 engine burns on closure rail south of frog- Sw 149A, three loose hold down bolts and three missing cotter keys on nuts on house top guardrail		
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Form FTA-IR-1

- Sw 147B, missing third rail coverboard end approach
- Sw 141, heel of switch insecure, missing cotter key on collar bolt RH point and two loose heel block bolts
- Sw 145, heels of switch insecure, missing cotter keys on collar bolts LH point
- Sw 145, heels of switch insecure, missing cotter keys on collar bolts RH point

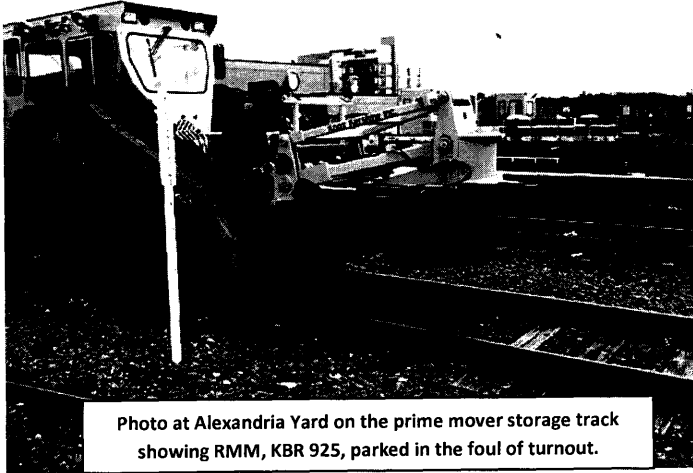


Photo at Alexandria Yard on the prime mover storage track showing RMM, KBR 925, parked in the foul of turnout.



Photo showing portable derail at the C99-218 signal that was lying on the ground in an un-secured position

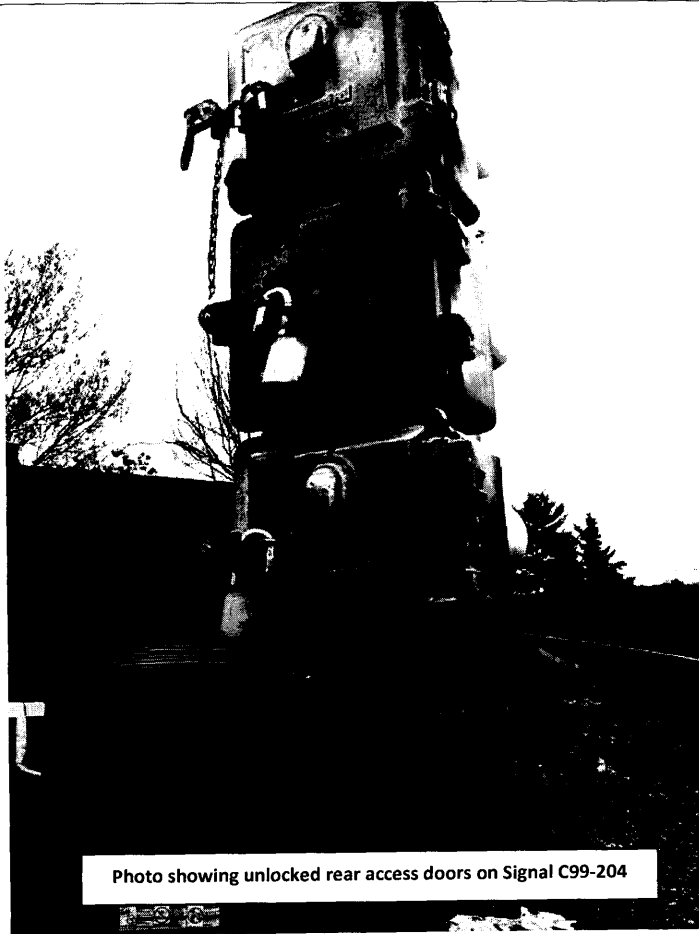




Photo showing High Voltage cabinet #141-145 unsecured, with
padlock lying on top of cabinet

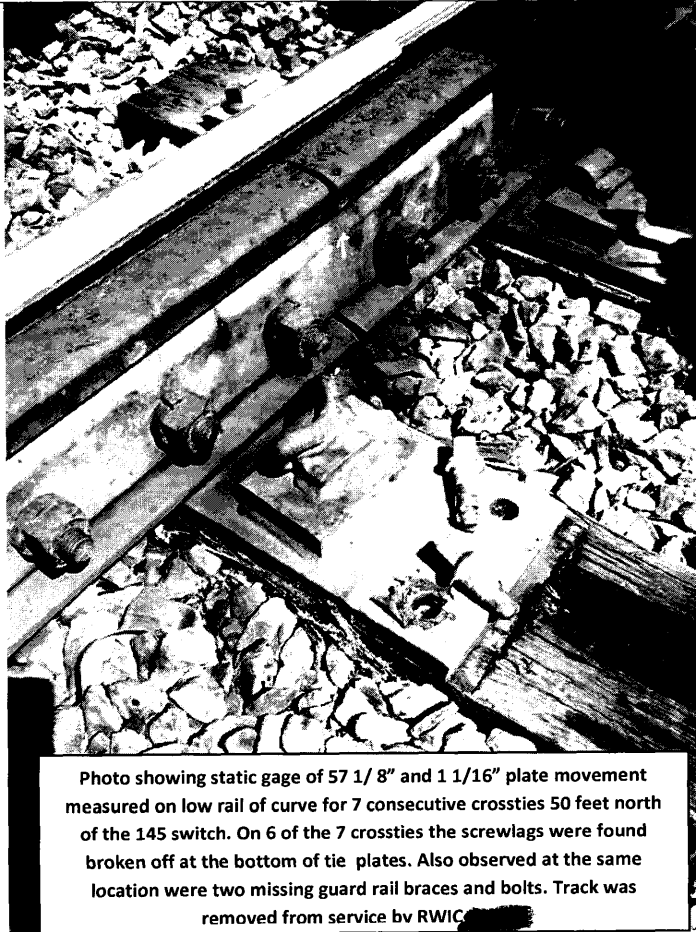


Photo showing static gage of 57 1/8" and 1 1/16" plate movement measured on low rail of curve for 7 consecutive crossties 50 feet north of the 145 switch. On 6 of the 7 crossties the screwlags were found broken off at the bottom of tie plates. Also observed at the same location were two missing guard rail braces and bolts. Track was removed from service by RWIC [REDACTED]

Remedial Action

Repair/correct defects.



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

all(k)(b)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160410-WMATA-TGB-4		
	2016	04	10				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking inspection of Green Line Southern to Branch Ave						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI					
Inspection Units	1					
Inspection Subunits	4.4					
Defects (Number)	63					
Recommended Finding	NO					
Remedial Action Required	YES					
Recommended Reinspection	YES					

Activity Summaries

Inspection Activity #	1	Inspection Subject				Observation of Green Line Track Inspection				Activity Code				
Job Briefing Employee Name/Title	A.	[REDACTED]				Accompanied Inspector?	Yes	Out Brief Conducted	No	Time	0800 1300	Outside Shift	No	
	B.	[REDACTED]												
Related Reports	Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Rules											
	TRST1000													
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)	Green Line	Track Number	1	Chain Marker and/or Station(s)	From			To						
					Southern			Branch Ave						
					F08			F11						
Vehicles	Head Car Number		Number of Cars		Equipment									
	n/a													
Description	FRA Inspectors were requested to perform a visual inspection of the track structure and turnouts in on the Green Line from Southern Station to Branch Ave Station, Track #1. RWIC Pierce performed the required job briefing with the inspection team prior to occupying the track, no exceptions taken. The following defects were observed or measured:							Number of Defects		63				
								Recommended Finding?		No				
								Remedial Action Required?		Yes				
								Recommended Reinspection?		Yes				

Inspector in Charge - Signature		SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 16:06:58 -04'00'	Date	04/10/2016
Inspector in Charge - Name		Sean Thompson			
Inspection Team		Tom Beck, Joe Kennedy			



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Form FTA-IR-1

	<p>-FRA observed that the blue light identifying communication and power-off boxes were not working at the following locations</p> <p>-Box ETS-115 Tracks 1 and 2</p> <p>-355+00 Trk 2</p> <p>-360+50, Trk 2</p> <p>-368+40, Trk 1</p> <p>-370+20, Trk 2</p> <p>-379+45 Trk 1</p> <p>-389+00 Trk 1 and 2</p> <p>-397+20, Trk 1 (Also broken lense)</p> <p>-405+25, Trk 1 and 2</p> <p>-412+60, Trk 2</p> <p>-420+70, Trk 1 and 2</p> <p>-428+65, Trk 1</p> <p>-435+60, Trk 1 and 2</p> <p>-444+75, Trk 1</p> <p>-488+20, Trk 1</p> <p>-496+00, Trk 1 and 2</p> <p>-504+20, Trk 1 and 2, also broken latch on open cabinet door #ETSF159</p> <p>-512+00, Trk 1</p> <p>-520+10, Trk 1</p> <p>-528+00, Trk 1 (also broken lense)</p> <p>-FRA observed broken or missing third rail covers at the following locations:</p> <p>-346+30 Trk 2</p> <p>-357+40 Trk 1 end approach</p> <p>-394+00 Trk 1</p> <p>-395+50 Trk 1</p> <p>-397+60 Trk 2 end approach</p> <p>-398+50 Trk 2</p> <p>-407+75 Trk 2</p> <p>-495+80 Trk 2</p> <p>-515+00 Trk 2</p> <p>-529+55 Trk 1, plus 3 broken brackets</p> <p>-319+00, 1 missing bolt, joint right rail, repaired by inspector</p> <p>-Insecure walkway plate at Trackside heater control box HCFOE33-2</p> <p>-339+80, gage trough drain obstructed</p> <p>- 365+30, one tie plate w/ no fastening bolts, one plate w/ no panrol clips, right rail</p> <p>-Naylor Station Platform, south end, FRA observed two Nolan push carts stored un-secured against station wall</p> <p>-381+55, Trk 1, gage trough drain obstructed</p> <p>-393+20, Trk 1, gage trough drain obstructed</p> <p>-397+90, Trk 1, right rail, 3 consecutive crossties with loose fasteners, 56 1/2" gage no plate movement</p> <p>-398+00, Trk1, 3 consecutive crossties with loose fasteners, 57" static gage, 3/16" plate movement right rail</p> <p>-398+30, Trk 1, 4 consecutive crossties with loose fasteners, 57 1/8" ststic gage, 1/8" plate movement right rail</p> <p>-399+40, Trk, 5 consecutive crossties with loose fasteners, 57 1/4" static gage with 1/16" plate movement right rail</p> <p>-400+15, Trk 1, 4 consecutive crossties with loose fasteners, 56 5/8" static with 1/8" plate movement right rail</p>		
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-402+20, Trk 1, 4 consecutive crossties with loose fasteners, 57" static gage, 1/8" plate movement right rail

-402+60, Trk 1, 4 consecutive crossties with loose fasteners, 57" static gage, no plate movement

402+70, Trk 1, 5 consecutive crossties with loose fasteners, 57 1/16" static gage, 1/4" plate movement right rail

-422+40, Trk 1, erosion of subgrade and ballast observed at bridge wingwall north end of bridge

-448+50, south end of Suitland Station platform, 20 loose floor tiles not adhered to platform slab, possible tripping hazard to public

-460+00, no working light fixtures on tunnel wall for approx 15 fixtures

-478+00 two bolts out on safety strap bars left rail, repaired by Metro inspector

-516+00, chain marker sign lying on right-of-way along Trk 1

-FRA Inspectors performed a physical inspection of 4 turnouts. The following defects were noted:

- Switch 3A, heel of switch insecure, 4 loose bolts in heel block, RH point
- Sw 3A, 12 loose spring washer studs and on frog plate
- Sw. 1A, 4 loose spring washer studs and on frog plate
- Sw 1A, 1/8" wear on frog point with overflow on both sides into flange



Photo showing Insecure walkway plate at trackside heater control box HCFOE33-2



Photo showing broken latch on open cabinet door #ETSF159

Remedial Action

Repair defects and report to FTA within 7 calendar days from issuance of report.



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

222 (b) (6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160410-WMATA-WHW-1		
	2016	04	10				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking Inspection of track one between West Falls Church to Vienna						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-WI-OBS	TRK-SW-PI	TRK-RAD-OBS	TRK-RWP-PI	
Inspection Units	1	1	1	1	4	
Inspection Subunits	6	1	4	1	3	
Defects (Number)	29	0	0	0	1	
Recommended Finding	YES	N/A	NO	NO	NO	
Remedial Action Required	YES	N/A	NO	NO	NO	
Recommended Reinspection	YES	N/A	NO	NO	NO	

Activity Summaries

Inspection Activity #	1	Inspection Subject				Track, Switch, Turnout and Third Rail Inspection			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	RWIC [REDACTED]		Accompanied Inspector?		Yes	Out Brief Conducted	YES	Time	0930 1400	Outside Shift	NO		
	Tk.Insp. [REDACTED]												
Watchman [REDACTED]		Engineer [REDACTED]											
Related Reports		Related CAPS / Findings											
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	MSRPH		General Maintenance Standards										
	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			
Line(s)	Orange	Track Number	ONE	Chain Marker and/or Station(s)	From		To						
					518+43		803+77						
Vehicles	Head Car Number		Number of Cars		Equipment								
Description	FWSO Inspection conducted by FRA support team, conducted a focused walking inspection of WMATA Orange Line Track One to include switches, turnouts, crossovers and components							Number of Defects		29			
								Recommended Finding?		YES			
								Remedial Action Required?		YES			

Inspector in Charge - Signature	SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 15:57:49 -0400	Date 04/10/2016
Inspector in Charge - Name Sean Thompson	Inspection Team Alexander Nepa, William Wilson		



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	<p>During the inspection the following items were identified.</p> <p>MISSING COVER BOARDS, TRST1000, 13.3.15. at</p> <ul style="list-style-type: none"> • K-06 Signal • 539+00 • 568+00 • 671+00 • 673+00 • 683+00 • 688+00 • 693+00 • 694+00 • 696+00 • 699+00 • 710+00 <p>Deffective 3rd Rail Restraint</p> <ul style="list-style-type: none"> • Rod Disconnected 584+00 • Both Rods Broken 699+00 <p>Deffective 3rd Rail Support Insulators Locations</p> <ul style="list-style-type: none"> • 2 in a row 667+00 • 3 in a row 677+37 • 3 in a row 668+00 • 3 in a row 693+00 <p>Deffective 3rd Rail End Support Insulator Locations</p> <ul style="list-style-type: none"> • 579+50 • K-08 3A Switch <p>Bolt missing from CWR Joint 610+00</p> <p>Disconnected Bond Wire 610+00</p> <p>Clips missing from tie plates 3 in a row 610+00</p> <p>Multiple rail joints without clips</p> <p>Deffective cross tie locations</p> <ul style="list-style-type: none"> • 9 in a row spanning 270 inches 528+50 • 3 in a row spanning 80 inches 534+70 • 4 in a row spanning 110 inches 534 +50 • 6 in a row spanning 180 inchec 568+00 <p>Less than required ties in a rail joint 44 inches between effective ties 544+80</p>	<p>Recommended Reinspection?</p>	<p>YES</p>
Remedial Action	Repair/correct identified defects.		

Inspection Activity #	2	Inspection Subject	Observations comments to WMATA				Activity Code		TRK	WI	OBS
Job Briefing Employee Name/Title	RWIC [redacted] Tk.Insp. [redacted] Watchman [redacted] Engineer [redacted]	[redacted] <i>all (b)(6)</i>	Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	2000 0300	Outside Shift	NO	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	COMMENTS										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A



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all (b)(6)

	X							X		X	
Line(s)	Orange	Track Number	One	Chain Marker and/or Station(s)	From		To				
					518+43		803+77				
Vehicles	Head Car Number		Number of Cars		Equipment						
Description							Number of Defects		0		
							Recommended Finding?		0		
							Remedial Action Required?		Optional		
							Recommended Reinspection?		No		
Remedial Action											

Inspection Activity #	3	Inspection Subject					Switch Inspection			Activity Code		TRK	SW	PI
Job Briefing Employee Name/Title	RWIC [REDACTED]					Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	0930 1400	Outside Shift	NO	
	Tk.Insp. L [REDACTED]													
	Watchman [REDACTED]													
	Engineer [REDACTED]													
Related Reports		Related CAPS / Findings												
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Maintenance Standards											
	TRST1000													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	One							X						
Line(s)	Orange	Track Number	One	Chain Marker and/or Station(s)	From		To							
					518+43		803+77							
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO Inspection conducted by FRA support team, conducted a focused walking inspection of WMATA Orange Line Track One to include 4 turnouts.						Number of Defects		0					
							Recommended Finding?		0					
							Remedial Action Required?		0					
							Recommended Reinspection?		0					
Remedial Action														

Inspection Activity #	4	Inspection Subject					Radio Communication Observation			Activity Code		TRK	RAD	OBS
Job Briefing Employee Name/Title	RWIC [REDACTED]					Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	0930 1400	Outside Shift	NO	
	Tk.Insp. L [REDACTED]													
	Watchman [REDACTED]													
	Engineer [REDACTED]													
Related Reports		Related CAPS / Findings												
Related Rules, SOPs,	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference						



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Standards, or Other	MSRPH		General Rules								
	TRST1000										
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)	Orange	Track Number	One	Chain Marker and/or Station(s)	From		To				
					518+43		803+77				
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	FWSO Inspection conducted by FRA support team, monitored radio communication between RWIC and ROCC Controller. All communications were correct and legible.							Number of Defects		0	
								Recommended Finding?		0	
								Remedial Action Required?		N/A	
								Recommended Reinspection?		N/A	
Remedial Action											

Inspection Activity #	5	Inspection Subject	Roadway Worker Protection				Activity Code		TRK	RWP	PI
Job Briefing Employee Name/Title	RWIC [redacted] Tk.Insp. [redacted] Watchman [redacted] Engineer [redacted]		Accompanied Inspector?		YES	Out Brief Conducted	YES	Time	0930 1400	Outside Shift	NO
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	MSRPH		General Rules								
	TRST1000		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)	Orange	Track Number	One	Chain Marker and/or Station(s)	From		To				
					518+43		803+77				
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	FWSO Inspection conducted by FRA support team, conducted a focused walking inspection of WMATA Orange Line Track One to include switches, turnouts, crossovers and components The inspection was conducted using TAW for protection on the ballasted track section, and foul time (per FRA request) on the elevated structure. The RWIC stopped everybody prior to entering the bridge and held us while he communicated with ROCC then stated we have foul time. During the inspection the following items were identified. As we exited the bridge the RWIC released the foul time, but did not brief the group before the type of protection had been changed.							Number of Defects		2	
								Recommended Finding?		0	
								Remedial Action Required?		N/A	
								Recommended Reinspection?		N/A	
Remedial Action											



Inspection Form

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all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	160410-WMATA-NAV-2		
	2016	04	10				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]				
Inspection Location	Walking inspection of D&G Junction track D3 and track D1.						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-WI-OBS	TRK-SW-PI	TRK-RAD-OBS	TRK-RWP-PI	RTRA-RC-OBS
Inspection Units	1	1	1	1	1	1
Inspection Subunits	1	1	1	1	4	1
Defects (Number)	15	0	3	0	0	1
Recommended Finding	YES	N/A	YES	NO	NO	YES
Remedial Action Required	YES	N/A	YES	NO	NO	YES
Recommended Reinspection	YES	N/A	YES	NO	NO	N/A

Activity Summaries

Inspection Activity #	1	Inspection Subject				Track, Switch, Turnout and Third Rail Inspection				Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	RWIC - [REDACTED] #Safety Supervisor - [REDACTED]		Accompanied Inspector?		YES	Out Brief Conducted		Yes	Time	0916 1640	Outside Shift	No		
Related Reports	Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Maintenance Standards											
	TRST1000													
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X									X				
Line(s)	Green Yellow	Track Number	1,3	Chain Marker and/or Station(s)	From				To					
					D3 283+80				D3 272+00					
					D1 272+00				D1 269+00					
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description	FRA inspectors, assisted by FWSO inspector, conducted a walking inspection of the Green/Yellow line at D&G interlocking on tracks D1 and D3.										Number of Defects		15	
	During the inspection the following items were identified. MISSING COVER BOARDS, TRST1000, 13.3.15: - TRACK 1: CM281+10 - End approach and 3 covers missing; CM272+00 - End										Recommended Finding?		YES	
											Remedial Action Required?		YES	
											Recommended Reinspection?		YES	

Inspector in Charge - Signature		SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, ou=U.S. Government, ou=DOT Headquarters, ou=FTA HQ, cn=SEAN L THOMPSON Date: 2016.04.12 15:56:23 -0400	Date	04/10/2016
Inspector in Charge - Name		Sean Thompson			
Inspection Team		Mike Pirato/Nathan Vance			



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	<p>approach cover missing; CM270+00 – 2 coverboards missing. - TRACK 2: CM282+60 – End approach cover missing;</p> <p>HEAD SURFACE/RUNNING SURFACE SPALLING, TRST1000, 5.11.7: - TRACK 1: CM272+00 on RH stock rail.</p> <p>DIRECT FIXATION RAIL SUPPORT TRST 1000 7.7, (Defective Fasteners): - TRACK 1: CM271+00 on Left rail 5 consecutive defective fasteners with 156" between effective fasteners (Black Condition); ; CM272+10 between #5A switch frog and #5B switch frog (in turnout track) 16 consecutive non-effective fasteners with 456" between effective fasteners (Black Condition).</p> <p>- TRACK 3: D98-44 Signal, 2 opposing non-effective fasteners at pier cap.</p> <p>- Numerous anchor bolts throughout all tracks that are sticking up out of the fastener more than 3" with many as high as 6-8" above fastener. With a 1 1/2" grout pad, a 11" anchor bolt that is 8" above the fastener would only be anchored 1 1/2" into the core concrete material. This is much less than the engineered design minimum of 6 1/2".</p> <p>CWR REMEDIAL ACTION NEEDED – TRST 1000 14.4.7 (Remedial Action – Joint Areas) - TRACK 2: CM272+80 End post missing in insulated joint on Left rail</p> <p>SAFETY RELATED ISSUES: - Loose walkway grating. Numerous walkway plates were observed to be missing anchor screws with a few plates rotated in walkway uncovering walkway box and enclosed wiring within.</p>		
Remedial Action			

Inspection Activity #	4	Inspection Subject	Observation comments to WMATA				Activity Code	TRK	WI	OBS	
Job Briefing Employee Name/Title	RWIC – [REDACTED] #Safety019 Supervisor – [REDACTED]		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	0916 1640	Outside Shift	NO	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	COMMENTS										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X									X	
Line(s)	Green Yellow	Track Number	1,3	Chain Marker and/or Station(s)	From		To				
					D3 283+80		D3 272+00				
					D1 272+00		D1 269+00				
Vehicles	Head Car Number		Number of Cars		Equipment						
	N/A		N/A								
Description	OBSERVATIONS MADE: - Observed radio communications between RWIC and ROCC. No defects were noted; no exceptions taken.						Number of Defects		0		
							Recommended Finding?		NO		
							Remedial Action Required?		NO		
							Recommended Reinspection?		NO		
Remedial Action											

Inspection Activity #	3	Inspection Subject	Switch Inspection			Activity Code	TRK	SW	PI	
Job Briefing	RWIC – [REDACTED] #Safety019		Accompanied	YES	Out Brief	YES	Time	0916	Outside	NO



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Employee Name/Title	Supervisor - (b)(6)		Inspector?		Conducted			1640	Shift		
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	MSRPH		General Maintenance Standards								
	TRST1000										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X									X	
Line(s)	Green Yellow	Track Number	1,3	Chain Marker and/or Station(s)	From		To				
					D3 283+80		D3 272+00				
					D1 272+00		D1 269+00				
Vehicles	Head Car Number		Number of Cars		Equipment						
	N/A		N/A								
Description	FRA inspectors conducted a physical inspection of two switches at D&G interlocking. TURNOUT STANDARDS, TRST1000, 9.27.1 - TRACK 1: #5A switch, House Top Guard bolts loose/missing and installed upside-down with missing cotter pins; #5A switch Right hand heel block shoulder bolt missing cotter pins. - TRACK 3: #5B switch, House Top Guard bolts missing cotter pins.						Number of Defects		3		
							Recommended Finding?		YES		
							Remedial Action Required?		YES		
							Recommended Reinspection?		YES		
Remedial Action											

Inspection Activity #	6	Inspection Subject	Operating Rule 3 - Speed Adherence			Activity Code		RTRA	RC	OBS	
Job Briefing Employee Name/Title	RWIC - (b)(6) #Safety (b)(6)		Accompanied Inspector?	YES	Out Brief Conducted	NO	Time	1645 1655	Outside Shift	NO	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	Speeds		OP Rule 3								
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X									X	
Line(s)	Green Yellow	Track Number	1	Chain Marker and/or Station(s)	From		To				
					D1 269+00		D1 273+00				
Vehicles	Head Car Number		Number of Cars		Equipment						
	N/A		N/A								
Description	OBSERVATIONS MADE: During inspection of track conditions on the D1 track at D&G interlocking, CM 269+00, track conditions were noted that a WMATA supervisor issued a 15 mile per hour(MPH) slow order for the location. This communication was made via radio to the ROCC and was confirmed by the subsequent announcement transmittal to trains that the 15MPH speed order existed and its' location. This was all observed by FRA, FTA, WMATA personel.						Number of Defects		1		
							Recommended Finding?		YES		
							Remedial Action Required?		YES		
							Recommended Reinspection?		N/A		

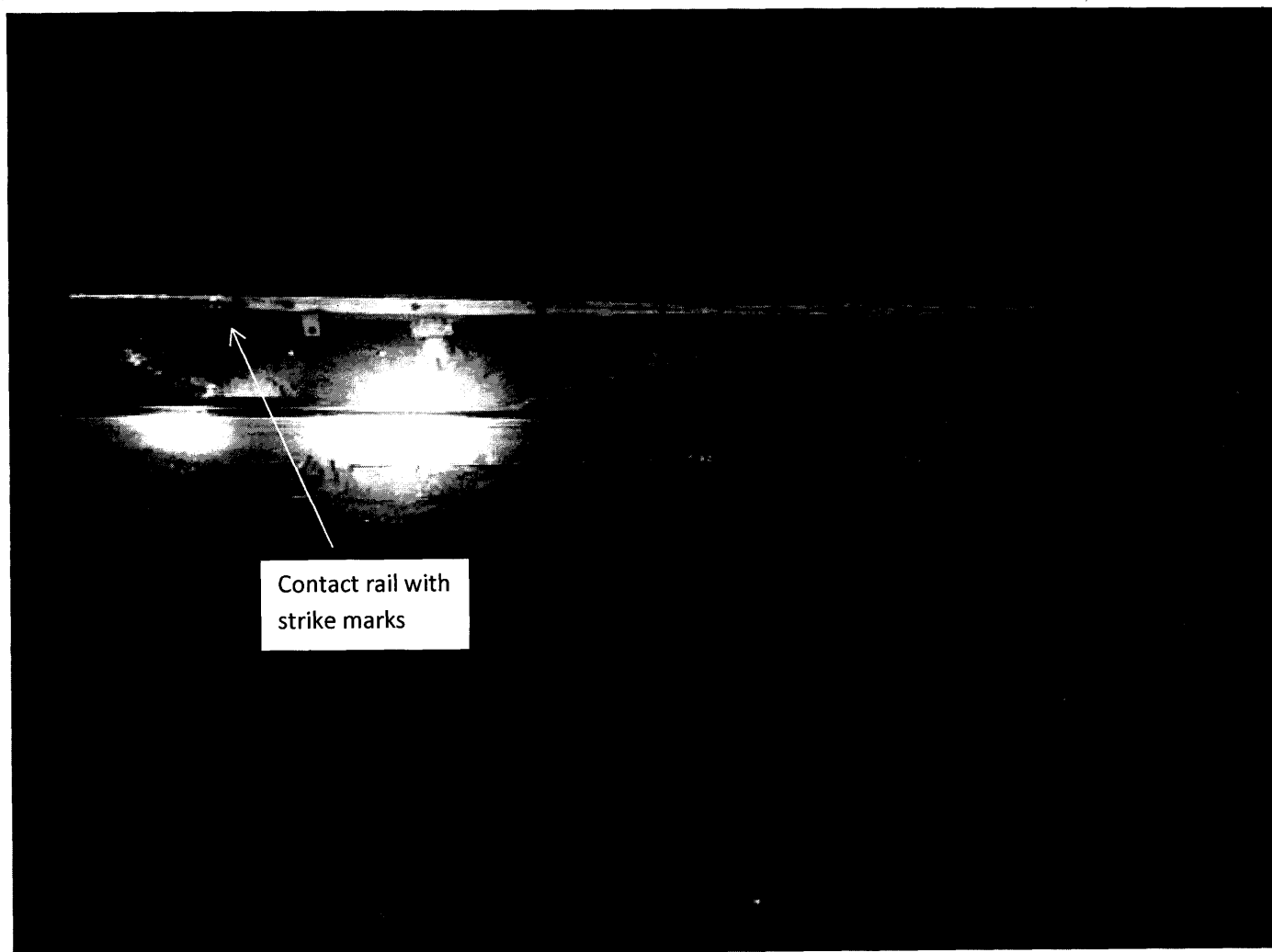


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	<p>Following the inspection at approximately 1650, FRA and FTA employees were being transported, by WMATA, back to New Carrollton yard when the supervisor at the D&G interlocking was heard, on WMATA radios, telling the ROCC that a train was operating through the speed restriction in excess of the slow ordered speed. The controller was then heard telling the train operator that there was a slow order at that location. The operator replied that he had not known that the slow order existed.</p> <p>At the time of the incident, there was a supervisor and track workers working at the D&G interlocking.</p>		
Remedial Action			

EXHIBITS ENCLOSED



Area of location where 3rd rail joint bar showed signs of striking.

Note the marks on the rail where measurements were taken after installation of fastener clips.

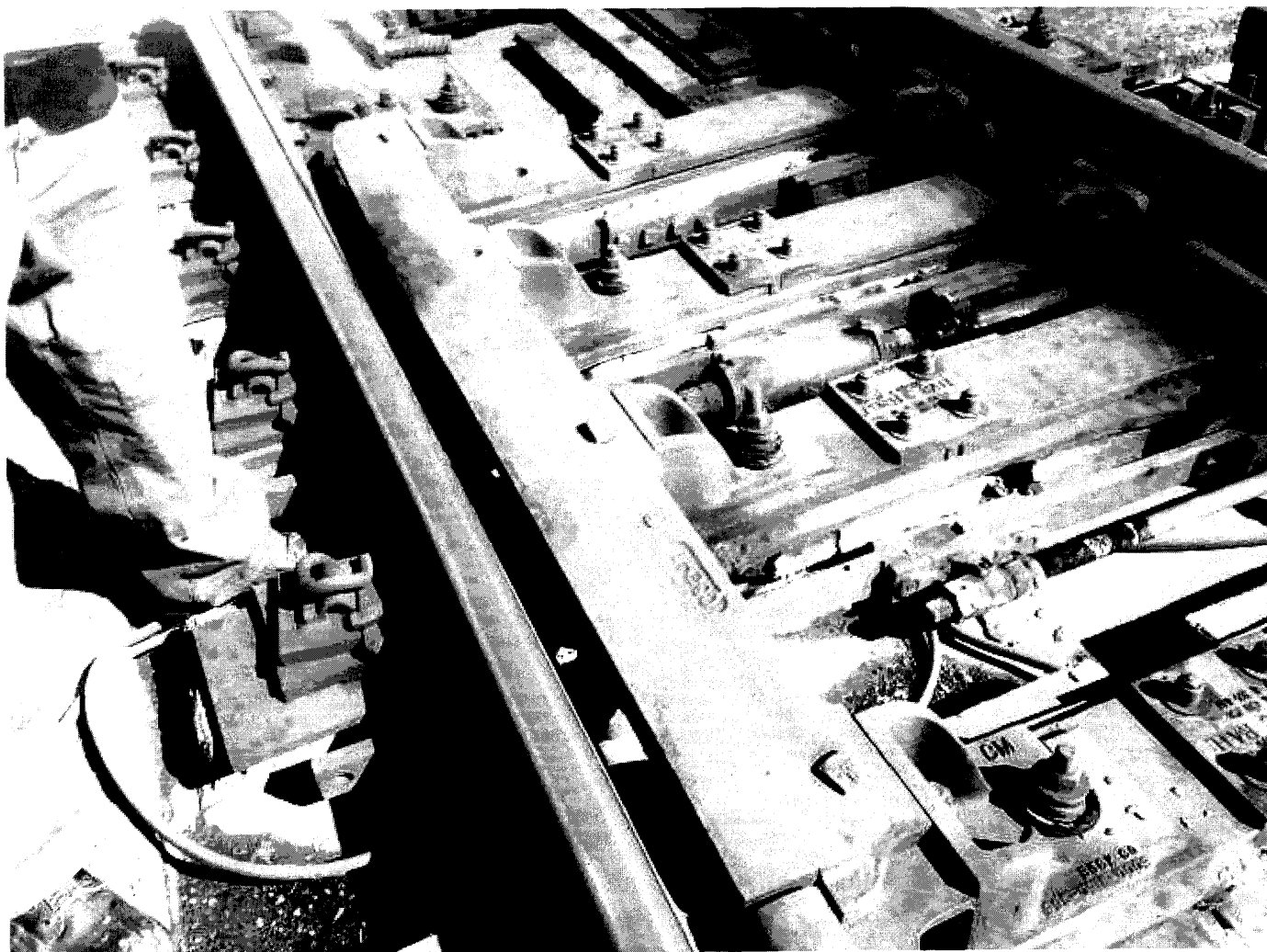
Measurements were taken by WMATA employees and indicate compliance with their standards in present condition.



DF Fastener defect at D&G Ariel.

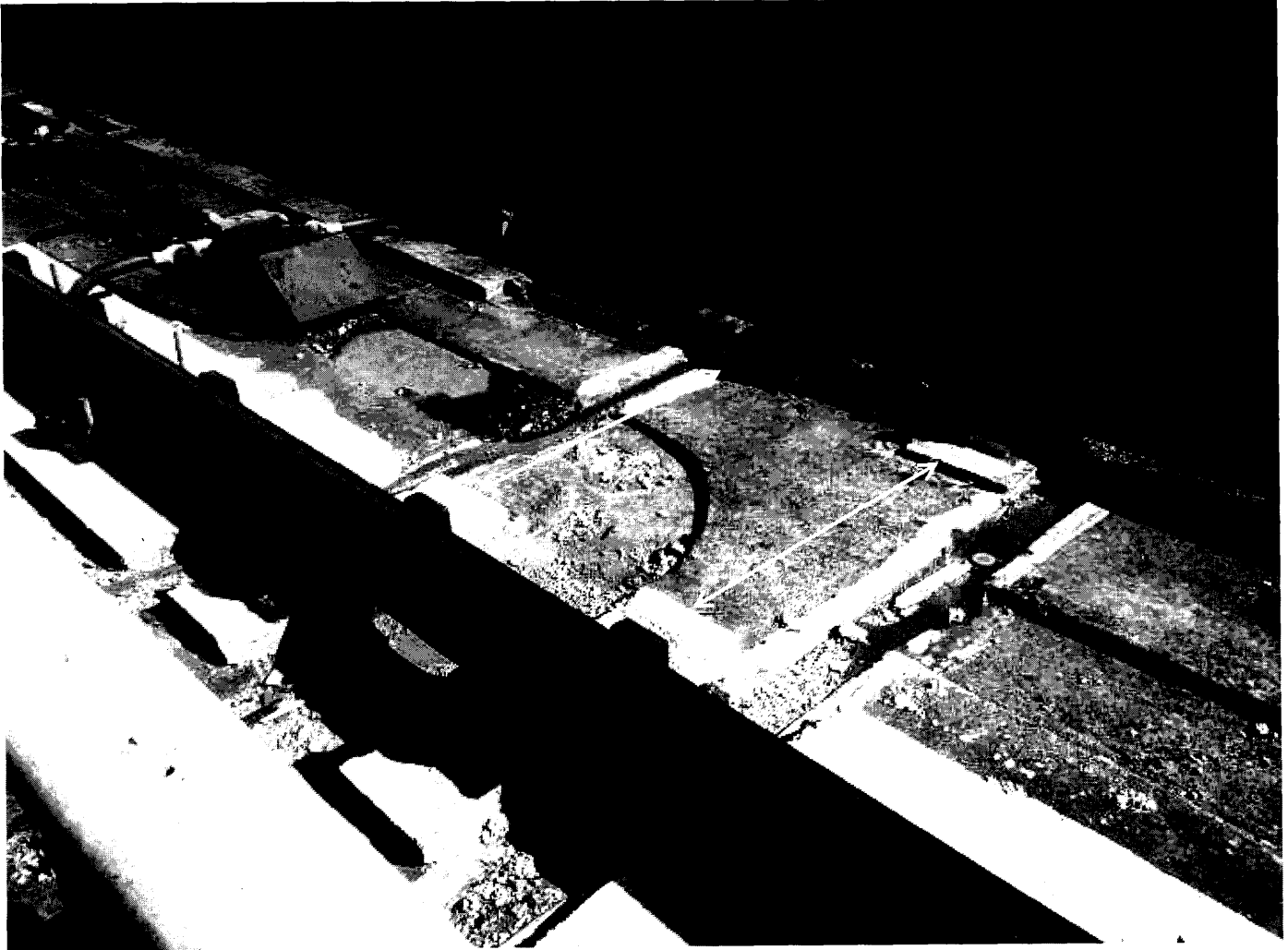
CM269+00 on Right rail 8 consecutive defective fasteners with 244" between effective fasteners.

This location was slow ordered to 15 miles per hour.



House Top Guardrail with bolts installed upside-down.

When installed this way, bolts appear to be performing correctly, but are hiding when the nuts get loose and ultimately fall off as in picture. Additionally, cotter pins can not be installed this way to prevent nuts from backing off.



Two consecutively opposed defective fasteners.



Typical DF anchor bolt installation defect. Note anchor bolt is 11 inches long and on this example the anchor bolts is 6 1/2 inches above the grout pad. With a 2 inch grout pad, this anchor bolt is 2 1/2 inches into base structure.



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

01160410

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160410-WMATA-NAV-1		
	2016	04	10				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Re-inspection of inspection report 20160407-WMATA-MWP-1 (3 rd rail measurements at E1 14+90 – 15+45).						
	Re-inspection of frog conditions and rail defects between E1 284+40 & E1 285+40.						

Inspection Summary

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

Activity Summaries

Inspection Activity #	1	Inspection Subject					Track, Switch, Turnout and Third Rail Inspection				Activity Code		TRK	WI	PI	
Job Briefing Employee Name/Title	RWIC [REDACTED] Supervisor		Accompanied Inspector?		YES	Out Brief Conducted		Yes	Time		0916 1640	Outside Shift		No		
Related Reports	Related CAPS / Findings															
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title			Checklist Reference						
	MSRPH		General Maintenance Standards													
	TRST1000															
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type		At-grade	Tunnel	Elevated	N/A				
	X									X						
Line(s)	Green Yellow	Track Number	1	Chain Marker and/or Station(s)	From				To							
					E1 14+70				E1 15+10							
					E1 284+40				E1 285+40							
Vehicles	Head Car Number		Number of Cars		Equipment		N/A									
	N/A		N/A													
Description	FRA inspectors, assisted by FWSO inspector, conducted a follow-up inspection of two specific noted defective conditions on the WMATA Green/Yellow Line track. The first re-inspection spot located on E1 at CM14+90 involved gage issues in running rails and 3 rd rail where 3/8" gage was noted and striking on the 3 rd rail joint bar. - During the follow up inspection, it was noted that missing fastener clips											Number of Defects		1		
												Recommended Finding?		NO		
												Remedial Action Required?		YES		
												Recommended Reinspection?		YES		

Inspector in Charge - Signature		SEAN L THOMPSON		Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 15:55:32 -0400		Date		04/10/2016
Inspector in Charge - Name		Sean Thompson		Inspection Team		Mike Pirato/Nathan Vance		



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	<p>previously noted had been replaced. Drainage conditions still existed with a 90 percent blocked center drain. WMATA personnel reviewed track conditions during the follow-up inspection and took track notes that included current static and dynamic running rail gage as well as 3rd rail gage and heights using Geismar track inspection tool and 3rd rail gauge. Running rails and 3rd rail gage (after work had been performed, including reinstall of fastener clips) indicated that current conditions during the follow up complied with WMATA maintenance standards.</p> <p>The second re-inspection spot located at E1 CM284.9 involved frog tread wear on 1A switch at Fort Totten Interlocking.</p> <ul style="list-style-type: none">- The follow-up inspection revealed that new frog had been installed at the location. <p>Railroad corrected conditions re-inspected with exception of the blocked drain and build-up of water/silt at location at E1 CM14+90.</p>		
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Observation comments to WMATA				Activity Code		TRK	WI	OBS
Job Briefing Employee Name/Title	RWIC [REDACTED] #Safety [REDACTED] Supervisor - [REDACTED] (616)		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	0916 1640	Outside Shift	NO	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	COMMENTS										
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	1	Chain Marker and/or Station(s)	From			To			
	Yellow				E1 14+70			E1 15+10			
					E1 284+40			E1 285+40			
Vehicles	Head Car Number		Number of Cars		Equipment						
	N/A		N/A								
Description	OBSERVATIONS MADE: - Observed radio communications between RWIC and ROCC. No defects were noted; no exceptions taken.						Number of Defects		0		
							Recommended Finding?		NO		
							Remedial Action Required?		NO		
							Recommended Reinspection?		NO		
Remedial Action	N/A										



Inspection Form

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United States Department of Transportation
Federal Transit Administration

all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160411-WMATA-NAV-1		
	2016	04	11				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking inspection of track 2 and between Vienna Station and West Falls Church station.						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6	7
Activity Code	TRK-WI-PI	TRK-WI-OBS	TRK-RWP-PI	TRK-SW-PI	TRK-RC-OBS		
Inspection Units	1	1	1	1	1		
Inspection Subunits	3	1	2	1	1		
Defects (Number)	12	0	1	0	2		
Recommended Finding	YES	N/A	NO	NO	NO		
Remedial Action Required	YES	N/A	NO	NO	YES		
Recommended Reinspection	YES	N/A	NO	NO	NO		

Activity Summaries

Inspection Activity #	1	Inspection Subject					Track, Switch, Turnout and Third Rail Inspection			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	RWIC - [REDACTED] Watchman [REDACTED] Inspector [REDACTED]		Accompanied Inspector?		YES	Out Brief Conducted		Yes	Time	1040 1551	Outside Shift		No	
Related Reports	Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Maintenance Standards											
	TRST1000													
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)	Orange	Track Number	2	Chain Marker and/or Station(s)	From			To						
	Silver				775+00			564+80						
Vehicles	Head Car Number		Number of Cars		Equipment	N/A								
	N/A		N/A											
Description	FRA inspectors conducted a focused walking inspection of WMATA Orange/Silver Line track two to include switches, turnouts, crossovers and components between McPherson Square Station and Foggy Bottom Station.							Number of Defects		12				
								Recommended Finding?		NO				
								Remedial Action Required?		YES				

Inspector in Charge - Signature		SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 16:03:21 -0400	Date	04/11/2016
Inspector in Charge - Name		Sean Thompson			
Inspection Team		Nathan Vance / Chris Schulte			



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	<p>During the inspection the following items were identified.</p> <p>MISSING COVER BOARDS, TRST1000, 13.3.15: - General condition along segment of loose 3rd rail cover boards.</p> <p>HEAD SURFACE/RUNNING SURFACE SPALLING, TRST1000, 5.11.7: - K2: CM579+20 shelling on Left rail</p> <p>3RD RAIL ANCHORS, TRST1000, 13.3.4: - K2: CM725+00 contact rail anchor cable broke; CM702+90 anchor bolts missing; CM661+90 anchor bolts missing; CM594+00 anchor bolts broken/missing; CM574+00 anchor bolt missing</p> <p>CONCENTRATED LOAD, TRST1000, 7.4.4: - CM709+30 on Both rails, spike between base of rail and tie plate.</p> <p>FASTENERS ON WOOD TIES, TRST1000, 7.5: - K2 CM689+40 on Right rail, 5 non-effective fasteners in row.</p> <p>BALLAST, TRST1000, 8.12.2 - CM673+50 5 ties in row have no shoulder ballast and shy crib ballast on Right rail with rail hanging 1/4" under load.</p> <p>CONTACT RAIL (3RD) INSULATORS, TRST1000, 13.3.9: - CM664+80 3 insulators in a row, cracked at the base.</p> <p>CENTER BROKE BAR, TRST1000, : - CM564+80 L rail, center broke joint bar, field side with 1" xlevel and 1" profile. Contact rail insulator also is not supporting rail at this location.</p>	<p>Recommended Reinspection?</p>	<p>YES</p>
Remedial Action	Correct/Repair defects.		

Inspection Activity #	2		Inspection Subject				Observation comments to WMATA			Activity Code		TRK	WI	OBS
Job Briefing Employee Name/Title	RWIC - [REDACTED] Watchman - [REDACTED] Inspector - [REDACTED]		all COSTA		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	1040 1551	Outside Shift	NO		
Related Reports			Related CAPS / Findings											
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	COMMENTS													
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	2		Chain Marker and/or Station(s)	From		To						
	Silver					K2 775+00		K2 564+80						
	Blue													
Vehicles	Head Car Number		Number of Cars		Equipment									
	N/A		N/A											
Description	OBSERVATIONS MADE: - CM 579+00 Power cables laying on ballast with 1 missing rubber and cable insulation; CM569+00 Power cables in ballast with insulation worn off.							Number of Defects		0				
								Recommended Finding?		NO				
								Remedial Action Required?		Optional				
								Recommended Reinspection?		NO				
Remedial Action	N/A													



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Inspection Activity #	3	Inspection Subject	Roadway Worker Protection				Activity Code		TRK	RWP	PI
Job Briefing Employee Name/Title	RWIC - [REDACTED] Watchman - [REDACTED] Inspector - L [REDACTED] + 3 additional roadway workers		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	1040 1551	Outside Shift	NO	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	WMATA - RWP	GENERAL									
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	2	Chain Marker and/or Station(s)	From			To			
	Silver				K2 564+80			K2564+80			
	Blue										
Vehicles	Head Car Number		Number of Cars		Equipment						
	N/A		N/A								
Description	RWP JOB BRIEFING: Roadway workers arriving on scene at CM564+80, to repair center broke joint bar, departed from transport train into roadway between the gage and cleared. The train proceeded past location of defect. The new roadway workers then entered the track to review scope of the work to be performed. No job briefing was performed when the new workers arrived into the RWIC's authority. FRA personnel requested the clearing of the track and explained RWP rules to the workers and requested that a breifing be completed before anyone else foul the track. This breifing was then conducted and any questions regarding RWP safety and rules were answered.						Number of Defects		1		
							Recommended Finding?		YES		
							Remedial Action Required?		Optional		
							Recommended Reinspection?		NO		
Remedial Action	N/A										

Inspection Activity #	4	Inspection Subject	Switch Inspection				Activity Code		TRK	SW	PI
Job Briefing Employee Name/Title	RWIC [REDACTED] Watchman [REDACTED] Inspector [REDACTED]		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	1040 1551	Outside Shift	NO	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference			
	MSRPH	General Maintenance Standards									
	TRST1000										
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	2	Chain Marker and/or Station(s)	From			To			
	Silver				775+00			564+80			
Vehicles	Head Car Number		Number of Cars		Equipment						
	N/A		N/A								



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Description	FRA inspectors conducted a physical inspection of two switches at Venice station on K2. No exceptions were noted. <i>Vienna?</i>	Number of Defects	0
		Recommended Finding?	NO
		Remedial Action Required?	NO
		Recommended Reinspection?	NO
Remedial Action			

Inspection Activity #	5	Inspection Subject					Operating Rule 3 – Speed Adherence			Activity Code		RTRA	RC	OBS
Job Briefing Employee Name/Title	RWIC - [REDACTED] Watchman [REDACTED] Inspector - [REDACTED] <i>all (b)(6)</i>		Accompanied Inspector?		YES	Out Brief Conducted		YES	Time	1040 1551	Outside Shift	NO		
Related Reports	Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	Speeds		OP Rule 3											
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	X							X						
Line(s)	Orange Silver	Track Number	2	Chain Marker and/or Station(s)	From				To					
					K2 564+80				K2564+80					
Vehicles	Head Car Number		Number of Cars		Equipment									
	N/A		N/A											
Description	OBSERVATIONS MADE: During inspection of track conditions on the K2 track a 15 mile per hour speed restriction was placed at this location account a center broke joint bar. The inspection team waited at the defect while workers were enroute to repair the condition. While at the location FRA inspectors and two of the three WMATA employees witnessed trains passing over the speed restriction at speeds greater than 15 miles per hour. These instances occurred at 14:29 and 15:04.									Number of Defects		2		
										Recommended Finding?		NO		
										Remedial Action Required?		YES		
										Recommended Reinspection?		N/A		
Remedial Action	WMATA must clarify its protocols for instituting and monitoring speed restrictions.													



Inspection Form

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all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160411-WMATA-JLK-1		
	2016	04	11				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking/Riding Inspection of track on Silver Line between Wiehle Reston East Station and Roslyn track # 1, and # 2 .						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI					
Inspection Units	1					
Inspection Subunits	4					
Defects (Number)	3					
Recommended Finding	YES					
Remedial Action Required	YES					
Recommended Reinspection	YES					

Activity Summaries

Inspection Activity #	1	Inspection Subject				Track, Switch, Turnout and Third Rail Inspection				Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	[REDACTED]		Employee number [REDACTED] and Inspector [REDACTED]		Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	0930 1330	Outside Shift	YES		
Related Reports					Related CAPS / Findings									
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Maintenance Standards											
	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)	Wiehle Reston East Station		Track Number	#1, # 2	Chain Marker and/or Station(s)		From		To					
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO inspection team in conjunction with FRA support, conducted a focused walking/ riding inspection of WMATA Silver Line Wiehle Reston East Station to Roslyn Station track one, and track two to include switches, turnouts, crossovers							Number of Defects		3				
								Recommended Finding?		YES				
								Remedial Action Required?		YES				

Inspector in Charge - Signature		SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: cn=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 16:01:20 -0400'	Date	04/11/2016
Inspector in Charge - Name		Inspection Team			
Sean Thompson		Justin Killingsworth, Corwyn Foster			



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	and components . During the inspection the following items were identified. 2- missing cover boards 1 – Obstruction by debris, 1073+00 Wiehle Reston East Station	Recommended Reinspection?	YES
Remedial Action	Complete repairs.		



Inspection Form

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Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160411-WMATA-AAN-1		
	2016	04	11				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking Inspection of track one between Silver Spring and Fort Totten, CM 451+00 to 284+00						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-WI-OBS	TRK-SW-PI	TRK-RAD-OBS	TRK-RWP-PI	
Inspection Units	1	1	1	1	1	
Inspection Subunits	5	1	4	1	3	
Defects (Number)	20	0	0	1	1	
Recommended Finding	YES	N/A	NO	NO	NO	
Remedial Action Required	YES	N/A	NO	NO	NO	
Recommended Reinspection	YES	N/A	NO	NO	NO	

Activity Summaries

Inspection Activity #	1	Inspection Subject				Track, Switch, Turnout and Third Rail Inspection				Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	RWIC level 4, employee number [REDACTED]		Track Inspector A employee number [REDACTED]		Advance Watchman employee number [REDACTED]		Accompanied Inspector?	Yes	Out Brief Conducted	YES	Time	1030 1430	Outside Shift	NO
	Related Reports						Related CAPS / Findings							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Maintenance Standards											
	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)	RED(B) LINE	Track Number	ONE	Chain Marker and/or Station(s)	From				To					
					451+00				284+00					
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO Inspection team in conjunction with FRA support, conducted a focused walking inspection of WMATA Red (B) Line, track one to include switches, turnouts, and crossovers between Silver Spring, CM 451+00 and Fort Totten, CM 284+00.										Number of Defects		20	
											Recommended Finding?		YES	
											Remedial Action Required?		YES	

Inspector in Charge - Signature		SEAN L THOMPSON		Digitally signed by SEAN L THOMPSON DN: cn=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 16:00:42 -0400		Date 04-11-2016	
Inspector in Charge - Name Sean Thompson		Inspection Team Alexander A. Nepa & William H. Wilson					



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	<p>During the inspection the following items were identified.</p> <p>MISSING COVER BOARDS, TRST1000, 13.3.15. CM421+00, 410+00, 407+00, 365+00, 366+00, 348+00, and at the B07-02 signal.</p> <p>BROKEN THIRD RAIL TENSION ANCHOR ARMS, CM407+00, 354+00, 316+90, 359+70 and 345+30.</p> <p>CROSS TIE DEFECTS</p> <ul style="list-style-type: none"> B08 switch, CM440+00 nine supporting non-defective crossties in a 40 foot segment. CM425+10 at speed box, three defective crossties in-a-row, space between non defective ties measured 109 inches. CM354+00, three defective crossties in a row, space between non-defective ties measured 102 inches. Blanked tie defect between CM425+00 and 385.00 all 10 foot ties supporting third rail support insulators have deteriorated to a point of non-effectiveness. <p>THIRD RAIL DEFECT, CM 421+00, collector striking the extreme edge of the third rail</p> <p>THIRD RAIL DEFECT, CM240+00 approximately 48 inches of the end of third rail was unsupported.</p> <p>FOULED BALLAST CONDITIONS, at B06 signal track two and B07 crossover, foul ballast conditions failing to provide adequate drainage and failing to maintain proper geometry. THESE CONDITIONS WERE PREVIOUSLY IDENTIFIED AND REPORTED IN AN FTA INSPECTION.</p>	<p>Recommended Reinspection?</p>	<p>YES</p>
Remedial Action	Repair/correct identified defects.		

Inspection Activity #	2	Inspection Subject	Observations comments to WMATA				Activity Code		TRK	WI	OBS
Job Briefing Employee Name/Title	RWIC level 4, [redacted] employee number [redacted] <i>all (16)</i>		Track Inspector [redacted] employee number [redacted]	Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	1030 1430	Outside Shift	NO
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	COMMENTS										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X							X			
Line(s)	Red (B) Line	Track Number	One	Chain Marker and/or Station(s)		From		To			
						451+00		284+00			
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	At 11:16 AM a train approaching Silver Spring Station passed the work group without slowing down or sounding the horn. This was reported to ROCC.							Number of Defects		1	
								Recommended Finding?		YES	
								Remedial Action Required?		YES	
								Recommended Reinspection?		N/A	



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Remedial Action															
Inspection Activity #	3		Inspection Subject					Switch Inspection			Activity Code		TRK	SW	PI
Job Briefing Employee Name/Title	RWIC level 4, [REDACTED] employee number 003868 Track Inspector [REDACTED] employee number 014539 Advance Watchman [REDACTED] employee number 012331					Accompanied Inspector?		YES	Out Brief Conducted		YES	Time	1030 1430	Outside Shift	NO
Related Reports		Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference						
	MSRPH		General Maintenance Standards												
	TRST1000														
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type		At-grade	Tunnel	Elevated	N/A			
	X								X						
Line(s)	Red (B) Line	Track Number	One	Chain Marker and/or Station(s)	From				To						
					451+00				284+00						
Vehicles	Head Car Number		Number of Cars		Equipment										
Description	FWSO Inspector with FRA support conducted a physical inspection of four switches between Silver Spring and Fort Totten. No defects were noted; no exceptions taken.										Number of Defects		0		
											Recommended Finding?		0		
											Remedial Action Required?		0		
											Recommended Reinspection?		0		
Remedial Action															

Inspection Activity #	4		Inspection Subject					Radio Observation			Activity Code		TRK	RAD	OSB
Job Briefing Employee Name/Title	RWIC level 4, [REDACTED] employee number [REDACTED] Track Inspector [REDACTED] employee number [REDACTED] Advance Watchman [REDACTED] employee number [REDACTED]					Accompanied Inspector?		YES	Out Brief Conducted		YES	Time	1030 1430	Outside Shift	NO
Related Reports		Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference						
	MSRPH		General Rules												
	TRST1000														
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type		At-grade	Tunnel	Elevated	N/A			
	X								X						
Line(s)	Red (B) line	Track Number	one	Chain Marker and/or Station(s)	From				To						
					451+00				284+00						
Vehicles	Head Car Number		Number of Cars		Equipment										
Description											Number of Defects				



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	Monitored the radio communication between RWIC and ROCC, all communications were correct and legible.							Recommended Finding?		0	
								Remedial Action Required?		N/A	
								Recommended Reinspection?		N/A	
Remedial Action											

Inspection Activity #	5		Inspection Subject				Roadway Worker Protection				Activity Code		TRK	RWP	PI
Job Briefing Employee Name/Title	RWIC level 4, [redacted] employee number 003868 Track Inspector A [redacted] employee number 014539 Advance Watchman [redacted] employee number 012331		[signature]		Accompanied Inspector?		YES	Out Brief Conducted		YES	Time	1030 1430	Outside Shift	NO	
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)			Red (B) line	Track Number	one	Chain Marker and/or Station(s)		From		To					
								451+00		284+00					
Vehicles			Head Car Number		Number of Cars		Equipment								
Description			FWSO with FRA support met WMATA personell at Silver Spring Station, once there a complete job briefing was completed, all WMATA RWP badged were checked and the job brierfing form signed. RWIC and advance watchman did an outstanding job providing protection for trains providing the required 15 seconds to clear, their efforts should be commended.							Number of Defects		0			
										Recommended Finding?		N/A			
										Remedial Action Required?		N/A			
										Recommended Reinspection?		N/A			
Remedial Action															



Inspection Form

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Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160411-WMATA-MKD-1		
	2016	04	11				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track & Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Track Geometry Vehicle – Orange Line from the C-05 (Rosslyn Station) to D-13 (New Carrollton) conducting Ultrasonic Track (UT) testing on #1 track.						

Inspection Summary

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

Activity Summaries

Inspection Activity #	1	Inspection Subject	Rules Compliance			Activity Code		TRK	TGV	RC	
Job Briefing Employee Name/Title	[REDACTED] RWIC Level 4		Accompanied Inspector?	Yes	Out Brief Conducted	Yes	Time	2230 to 0230	Outside Shift	Yes	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title		Checklist Reference					
	MSRPH	3.87.1, 3.122, 3.67, SOP #23.5.5.3									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		X	x	X	
Line(s)	C-05 to D-13 (Orange)	Track Number	1	Chain Marker and/or Station(s)	From		To				
Vehicles	Head Car Number	Number of Cars		Equipment	Track Geometry Vehicle (TGV)						
	N/A										
Description	FWSO team monitored the Track Geometry Vehicle/UT crew and their compliance with MSRPH rules: 3.87.1 – sounding of horns when exiting or entering tunnels 3.122 – sounding of the horn in short blasts when operated against the normal direction of traffic							Number of Defects		0	
								Recommended Finding?		No	
								Remedial Action Required?		No	
								Recommended Re-inspection?		No	

Inspector in Charge - Signature	MEDENIA DASHIELL		Digitally signed by MEDENIA DASHIELL DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FRAHQ, cn=MEDENIA DASHIELL Date: 2016.04.12 15:08:40 -0400	Date	04/12/2016
Inspector in Charge - Name	Medenia K. Dashiell				
Inspection Team	Medenia K. Dashiell – FWSO, James Payne – FRA				

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		3.67 – Rail vehicle not operated past or closer than a point 10-feet in approach of an interlocking signal or lamp displaying a red signal																					
		SOP #23 – 23.5.5.3 – Class II operators shall sound horns through stations.																					
		No deficiencies identified with or approach to interlocking signals and lamps.																					
Remedial Action		N/A																					
Inspection Activity #		2		Inspection Subject		Track Geometry Vehicle Testing				Activity Code		TRK		TGV		PI							
Job Briefing Employee Name/Title		Please See Above				Accompanied Inspector?		Yes		Out Brief Conducted		Yes		Time		2230 to 0230		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				<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>				X		X		X			
Line(s)		C-05 to D-13 (Orange)		Track Number		1		Chain Marker and/or Station(s)		From		To											
Vehicles		Head Car Number		Number of Cars		Equipment		Track Geometry Vehicle (TGV)															
		N/A																					
Description		FWSO and FRA accompanied the TGV/UT inspection team during its Ultrasonic (UT) testing on the Orange Line from C-05 (Rosslyn Station) to D-13 (New Carrollton) testing on #1 track. WMATA conducts UT rail integrity testing of its entire rail system a minimum of two (2) times a year. The TGV is capable of performing both track geometry and UT testing at the same time; however, there was no track geometry testing performed.										Number of Defects		0									
		- No significant defects (red/black) were found. Although the vehicle was stopped and reversed on several occasions to re-analyze data locations, only two (2) locations required on the ground hand verifications for potential deficiencies sited; however, none were found. A chase team was available in the case that an out of service defect was captured and verified.										Recommended Finding?		No									
		- At the present, WMATA does not have any written guidelines for its UT program. Survey reports are not provided to the Engineering Department after testing; however, a report is maintained on the vehicles' computer hard drive and can be produced when required.										Remedial Action Required?		No									
		- WMATA has only one crew member whom is UT certified to analyze the technical data and hand verify potential deficiencies as sited by the car. This employee (a former UT certified Sperry employee) is also responsible for the UT specialized components and maintenance for this area of the test vehicle. He has no official back up and maintains his certification generally in accordance to Sperry requirements (every 5 years).										Recommended Re-inspection?		No									



Remedial Action	<p>Recommendations:</p> <p>One of the contributing factors to the TGV crew's lack of knowledge is that the car only operates a handful of times throughout the year; a minimum for four (4) times for geometry and two (2) for UT testing of the entire system.</p> <ul style="list-style-type: none">• This technology is being underutilized and serious consideration should be given to expanding this program into full time deployment.• The current crew should be made a full time TGV crew and continual annual training should be provided to bring their knowledge up to the standards needed to operate such an expensive program.• Annual training should be specified for continual certifications and provided to an additional crew member to provide knowledge/support/relief to the one certified crew member; this would be a significant asset to the UT program. <p>WMATA must develop written maintenance standards and guidelines for its Ultrasonic Testing (UT) program. Survey reports are not provided to the Engineering Department after testing; the report is maintained on the vehicles' hard drive and can be produced when required.</p> <ul style="list-style-type: none">• WMATA could either adopt a standard as the railroad industry or work with a consultant such as the Sperry Rail Service or Herzog to determine standards that are more designed for the equipment that they operate. Since this is a closed system, WMATA would be able to adopt a set of standards that could differ from the rail industry.• Survey reports should be maintained independent from the vehicle's hard drive; perhaps uploaded onto the TRST's Maximo system or WMATA server for recordkeeping.
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Track Geometry Inspection Compliance Form

Subject	Track Geometry Inspection Compliance Form		
Purpose	The intent of this form is to verify compliance with the Track Geometry Inspection requirements detailed in the Washington Metropolitan Area Transit Authority (WMATA) 1000 Track Maintenance & Inspection Manual		
References	WMATA – 1000 Track Maintenance & Inspection Manual, revision 6, dated January 1, 2015 – section 11		
Date(s) of Review	04/11-12/2016	WMATA Department	Track and Structures (TRST)
FTA Reviewers	Medenic Dashiell James Payne - FRA	WMATA Person(s) Contacted	[REDACTED] [REDACTED]
Date	04/12/2016	Time	8200 to 0230
Location	Rosslyn to New Carrollton	Track #	1

Item	Required Observation	Compliant	Non-compliant	N/A
11.23.2	All measured values can be displayed in a graphic format;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Recorded on a computer hard drive;	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	Or printed as an exception report for the maintenance forces.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notes:				
11.23.3	User-defined measurement threshold values include:			
A	Track Gauge	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
B	Horizontal and Vertical Alignment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
C	Left and Right Surface	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
D	Cross-Level	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Item	Required Observation	Compliant	Non-compliant	N/A
E	Twist and Warp	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Notes: <i>No geometry testing conducted.</i>				
	How are noted defects Addressed?	Check One or More		
	Maximo	<input type="checkbox"/>		
	Email	<input type="checkbox"/>		
	Direct Contact with Supervisor for the specific territory	<input checked="" type="checkbox"/>		
	Chase Crew	<input checked="" type="checkbox"/>		
	Deferred	<input type="checkbox"/>		
Notes:				
	Onboard Calibration Verification – Method of Verification			
	Calibration Sticker indicating a current date	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Documentation (Specify in Notes)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
	Visual Verification	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Notes:				
Required Actions				
<input checked="" type="checkbox"/>	No action required			
<input type="checkbox"/>	Action required. WMATA will respond to FTA within ____ days demonstrating the action(s) taken to address the deficiencies noted in this inspection report. WMATA will provide FTA with a signed statement of completed action, accompanied by photographic evidence or reports from information management systems, or other evidence of completion as appropriate.			
Results/Comments				
<i>WMATA create official written guidelines for UT testing and additional crew training on UT.</i>				
Findings/Corrective Actions				

Item	Required Observation	Compliant	Non-compliant	N/A

NOTE: This form will be adjusted as FTA is informed of the internal standard operating procedures used by the WMATA TRST TGV team.



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160412-WMATA-JMC-1		
	2016	04	12				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Rail Transportation	Sub-Department	Rail Operations Control Center
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Carmen Turner Facility – Rail Operations Control Center – 3500 Pennsy Drive, Hyattsville, MD 20785						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6	7	8
Activity Code	ROCC-GEN-MTG	ROCC-RAD-OBS	ROCC-RC-OBS					
Inspection Units	1	1	1					
Inspection Subunits	2	1	4					
Defects (Number)	0	4	0					
Recommended Finding	No	Yes	No					
Remedial Action Required?	No	Yes	No					
Recommend Reinspection	No	Yes	No					

Individual Inspection Activity

Inspection Activity #	1	Inspection Subject					General Meeting			Activity Code	ROCC	GEN	OBS
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	0645-1100	Outside Shift	Yes		
Related Reports				Related CAPS / Findings									
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	MSRPH		1.69-1.79										
	ROCC Manual												
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	From		To				
Vehicles	Head Car Number		Number of Cars		Equipment								
Description	FWSO met with Assistant Superintendent [REDACTED]. During the meeting, we discussed track safety and radio procedures. Controllers properly provided blocking protection and noted on the proper forms when maintenance personnel requested to work on the track inspectors would be walking track. FWSO monitored train radio communications and the ROCC Operators (radio and button). The Operators performed their duties as per SOP's, Metrorail Safety Rules							Number of Defects		0			
								Recommended Finding?		No			
								Action Required?		No			
								Recommend Reinspection?		No			

Inspector in Charge - Signature

James Cassatt, Jr

Digitally signed by James Cassatt, Jr
DN: cn=James Cassatt, Jr, o=FRA, ou=DOT, email=james.cassatt@dot.gov,
c=US
Date: 2016.04.13 18:16:49 -04'00'

Date

April 12, 2016

Inspector in Charge - Name
Jim CassattInspection Team
Jim Cassatt, Shane Richardson

Form FTA-IR-1

Version date: 1/19/16



United States Department of Transportation
Federal Transit Administration

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	and Procedures Handbook and train movements. Both the Radio and Button Controller emphasized Safety, made radio announcements (including hourly announcements) when unusual occurrences (i.e. track workers, delays etc) to operators, had job briefings with employees prior to fouling/clearing track to perform work.		
Remedial Action	N/A		

Inspection Activity #	2	Inspection Subject	Radio Procedures/Repeat Backs				Activity Code	ROCC	RAD	OBS	
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	0645-1100	Outside Shift	Yes	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard		Other / Title		Checklist Reference				
	MSRPH	1.73, 1.79									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
				X							X
Line(s)	ROCC	Track Number		Chain Marker	From		To				
Vehicles	Head Car Number	Number of Cars		Equipment							
Description	<p>FWSO observed and monitored ROCC Controllers compliance with radio rules and monitored radio transmissions. Controllers re-enforced read backs with maintenance workers and operators. The Controllers, Maintenance, and ATC employees made proper radio transmissions when issuing and repeating back roadway access. The Controller made announcements, prior to issuing the access, to employees informing them of the time effective.</p> <p>The following radio transmissions defects were noted:</p> <ul style="list-style-type: none"> An unknown employee made an unnecessary communication "Come on man", at 0948 hours. The unknown employees failed to comply with MSRPH rule 1.73. At 0725 hours, train 411 failed to repeat back to hold two minutes at Arlington Cemetery. Radio communications were difficult to receive and transmit at various locations. WMATA needs to comply with CAP FTA-RAIL-1-14-B and FTA-RAIL-1-14-A. Unknown employees in the field, accidentally "push" the emergency button on the portable radio, causing an alarm to sound in the ROCC. The MOC Asst. Supt explained that this is a common problem in the field and stated it is very disruptive. A suggestion was made to have a bulletin or permanent order issued to reinstruct employees on the proper use of portable radios. 						Number of Defects		4		
							Recommended Finding?		Yes		
							Remedial Action Required?		Yes		
							Recommend Reinspection?		Yes		
Remedial Action	FTA has issued a Corrective Action Plan (CAP) number FTA-RAIL-1-14-B and FTA-RAIL-1-14-A. WMATA's original estimate to request closure is Jan 2017.										

Inspection Activity #	3	Inspection Subject	Maintenance Personnel Roadway Access				Activity Code	ROCC	RC	OBS
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	0645-1100	Outside Shift	Yes
Related Reports			Related CAPS / Findings							



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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)	ROCC		Track Number		Chain Marker	From		To			
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	Controllers properly blocked tracks prior to giving the employees permission to work. Controllers also made announcements to trains that workers would be working at specific locations reminding trains to use the horn, dim headlight and reduce speed to 35 mph.						Number of Defects		0		
							Recommended Finding?		No		
							Remedial Action Required?		No		
							Recommend Reinspection?		No		
Remedial Action	N/A										



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

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Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160412-WMATA-TGB-1		
	2016	04	12				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking inspection of the Orange Line New Carrollton Station to Landover Station						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI					
Inspection Units	1					
Inspection Subunits	1.6 mis					
Defects (Number)	50					
Recommended Finding	NO					
Remedial Action Required	Yes					
Recommended Reinspection	Yes					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	[REDACTED]			Accompanied Inspector?	Y	Out Brief Conducted	n	Time	1000 1300	Outside Shift	
Related Reports	Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference		
	MSRPH		General Rules								
	TRST1000										
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	x							x		x	
Line(s)	Orange Line	Track Number	1	Chain Marker and/or Station(s)	From			To			
					New Carrollton			Landover			
					D13			D10			
Vehicles	Head Car Number		Number of Cars		Equipment						
	n/a										
Description	FRA Inspectors were requested to perform a visual inspection of the track structure and turnouts in on the Orange Line from New Carrollton Station to Landover Station, Track #1. RWIC [REDACTED] performed the required job briefing with the inspection team prior to occupying the track, no exceptions taken. The following defects were observed or measured:							Number of Defects		50	
								Recommended Finding?		No	
								Remedial Action Required?		Yes	
								Recommended Reinspection?		Yes	

1 Inspector in Charge - Signature		SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 16:04:49 -0400	Date 04/12/2016
Inspector in Charge - Name Sean Thompson		Inspection Team Tom Beck, Joe Kennedy		



United States Department of Transportation
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<p>-FRA observed that the blue light identifying communication and power-off boxes were not working at the following locations</p> <ul style="list-style-type: none">-463+00 Trk 2-555+00 Trk 1, also broken cabinet doors on com/power cabinet-555+00 Trk 2 light working but cabinet door hanging-546+90 Trk 1, also broken door on cabinet-563+00 Trk 2-578+70 light working, open comm/power cabinet door <p>-FRA observed broken or missing third rail covers at the following locations:</p> <ul style="list-style-type: none">-583+40 Trk 2, 2 covers-576+70 Trk 2, 2 covers-559+20 Trk 2,-557+90 Trk 2-556+20 Trk 2, 3 covers-555+80 Trk 2-554+60 Trk 1-554+50 Trk 2-553+90 Trk 1-551+50 Trk 2-549+30 Trk 2-548+50 Trk 2, 2 covers-548+00 Trk 2-546+90 Trk 1-545+90 Trk 2-539+80 Trk 2-534+10 Trk 2-526+00 Trk 1, end approach missing <p>-592+60 Trk 1, 4 consecutive crossties under welded joint, ties plates cut 30%, right rail</p> <p>-592+10 Trk 1, 3 consecutive ties with broken anchor bolts left rail</p> <p>-589+00 Trk 1, 1 broken, 1 missing track bond left rail</p> <p>-581+40 Trk 1, 4 consecutive crossties with loose fasteners, right rail, static gage 56 1/2", no plate movement</p> <p>-562+30 Trk 2 broken third rail porcelain bracket/insulator</p> <p>-554+80 Trk 1, insecure guardrail on bridge</p> <p>-524+40 Trk 1, loose fasteners on four consecutive crossties, left rail, static gage 56 1/2" with 1/8" plate movement</p> <p>FRA Observed chain marker sign missing at the following location:</p> <ul style="list-style-type: none">-580+00 <p>FRA Observed insecure walkway plates at the following locations:</p> <ul style="list-style-type: none">-577+70 Trk 1-564+70 Middle walkway-562+40 Middle walkway-560+30 Middle walkway <p>FRA observed Headlight out on passing train head Car #5230 passing inspection Team at Chainmarker 569+00 Trk 2 at 11:12 AM</p> <p>FRA observed Headlight out on passing train head Car #3142 passing inspection Team at Chainmarker 545+00 Trk 2 at 11:45 AM</p>		
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	<p>-FRA Inspectors performed a physical inspection of 2 turnouts and 1 diamond. The following defects were noted:</p> <ul style="list-style-type: none">- 592+10, Trk 1, 3 consecutive timbers with missing pandrol clips left rail- 589+60, D13 Crossover frog, 2 missing pandrol clips and wedge on frog holddown plates <p>-524+00 West End of Landover Station Trk 1 side FRA observed unlocked door at #218 Mechanical Equipment Room</p>		
Remedial Action	Repair/correct defects.		



Inspection Form

Form FTA-IR-1

United States Department of Transportation
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Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160412-WMATA-JLK-1		
	2016	04	12				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Track and Structures	Sub- Department	Track Inspection
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Walking/Riding Inspection of track on Orange Line between Stadium - Armory Station and L' Enfant Plaza track # 1,						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI					
Inspection Units	1					
Inspection Subunits	4					
Defects (Number)	14					
Recommended Finding	YES					
Remedial Action Required	YES					
Recommended Reinspection	YES					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Track, Switch, Turnout and Third Rail Inspection			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	RWIC [REDACTED] Inspector employee number # [REDACTED], and [REDACTED] watchmen # [REDACTED]					Accompanied Inspector?	YES	Out Brief Conducted	YES	Time	0945 1230	Outside Shift	NO	
Related Reports	Related CAPS / Findings													
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference					
	MSRPH		General Maintenance Standards											
	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)	Stadium - Armory Station - L' Enfant Plaza		Track Number	#1	Chain Marker and/or Station(s)	From		To						
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO Inspection team in conjunction with FRA support, conducted a focused walking/ riding inspection of WMATA Orange Line Stadium - Armory Station to L' Enfant Plaza Station track one, to include switches, turnouts, crossovers and								Number of Defects		14			
									Recommended Finding?		YES			
									Remedial Action Required?		YES			

Inspector in Charge - Signature		SEAN L THOMPSON	Digitally signed by SEAN L THOMPSON DN: c=US, ou=U.S. Government, ou=DOT Headquarters, ou=FTAHQ, cn=SEAN L THOMPSON Date: 2016.04.12 16:10:36 -0400	Date	04/12/2016
Inspector in Charge - Name		Sean Thompson			
Inspection Team		Justin Killingsworth, Corwyn Foster			



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	<p>components.</p> <p>During the inspection the following items were identified.</p> <p>Stadium Armory platform 2- missing coverboards.</p> <p>D1- 199+00 2 MISSING COVER BOARDS D1- 199+00 1 MISSING COVER BOARDS D1- 188+40 1 MISSING COVER BOARDS D1- 182+80 WATER LEAKING OFF OF CATWALK AND TRACK EFFECTING TRACK FASTENERS. D1- 166+40 LEFT RAIL FASTENERS AND TIE CONDITION 4 IN A ROW , WATER AND TRASH IN TRACK BED D1- 165+20 LEFT RAIL 57" STATIC GAGE WITH ¼" DYNAMIC LOAD, 4 NON EFFECTIVE TIES 39' D1- 165+20 MISSING COVER BOARDS D1 - 143.90 MISSING COVER BOARDS D1- 146+00 CONCRETE BROKEN ON CATWALK D1- 144+30 MISSING COVER BOARDS D1- 115+00 WATER AND MUD CONDIITON EFFECTING TRACK CONDITIONS D1- 088+00 LESS THAN 1 BOLT PER RAIL END AT JOINT D04 INTERLOCKING - 1A SWITCH WITH TRASH AND DEBRIS.</p>	<p>Recommended Reinspection?</p>	<p>YES</p>
<p>Remedial Action</p>	<p>Correct/repair defects.</p>		



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

all (b)(6)

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160406-WMATA-TW-1		
	2016	04	06				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	TASS	Sub- Department	Power
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	WMATA C-Line – Track 1 – see details below						

Inspection Summary

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

Activity Summaries

Inspection Activity #	1	Inspection Subject				RWP	Activity Code		TASS	RWP	OBS	
Job Briefing Employee Name/Title	TRST Track Unit #679				Accompanied Inspector?	Y	Out Brief Conducted	N	Time	1000 – 1330	Outside Shift	N
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)	C-Line	Track Number	1	Chain Marker and/or Station(s)	From		To					
					C02 (McPherson Sq.)		C03 (Farragut West)					
					C04 (Foggy Bottom – GWU)		C05 (Rosslyn)					
Vehicles	Head Car Number		Number of Cars		Equipment							
Description	FWSO team was provided with a Job Safety Briefing prior to accessing the roadway. The briefing was complete and included safety rules, RWP rule, hazards, Type of protection, clearance area and special instructions related to the location and type of inspection being performed.							Number of Defects		0		
								Recommended Finding?		No		
								Remedial Action Required?		No		
								Recommended Reinspection?		No		
Remedial Action	N/A											

Inspector in Charge - Signature		SEAN L THOMPSON	Date		4-18-2016
Inspector in Charge Sean Thompson		Inspection Team Terrell Williams, Brian Finn, Tanmaya "Tino" Sahoo, [REDACTED]			

Digitally signed by SEAN L THOMPSON
DN: cn=U.S. Government, ou=DOT Headquarters, o=FTAHQ, cn=SEAN L THOMPSON
Date: 2016.04.18 14:54:48 -0400



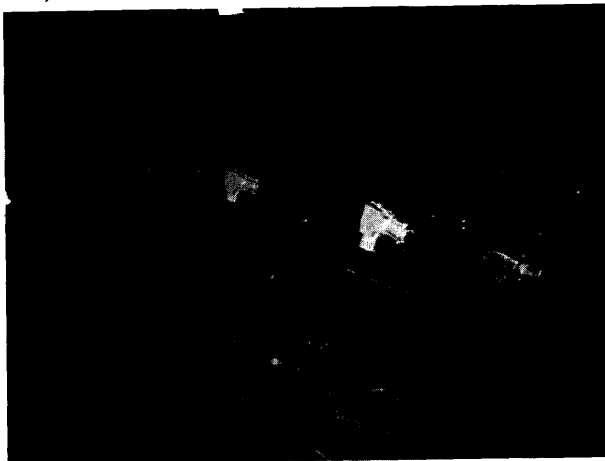
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Form FTA-IR-1

Inspection Activity #	2	Inspection Subject	Power Cable Repair Verification and Inspection				Activity Code	TASS	TP	PI	
Job Briefing Employee Name/Title	TRST Track Unit #679			Accompanied Inspector?	Y	Out Brief Conducted	N	Time	1000 – 1330	Outside Shift	No
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	1	Chain Marker and/or Station(s)		From		To			
						C02 (McPherson Sq.)		C03 (Farragut West)			
						C04 (Foggy Bottom – GWU)		C05 (Rosslyn)			
Vehicles	Head Car Number		Number of Cars		Equipment						
Description	<p>FWSO team performed a physical inspection of the repairs made at C1 CMs 27+20, 28+50, 31+00, 31+20, and C1 78+45. All repairs had been made according to the WMATA standard with the exception of C1 31+20 which has a unique configuration and C1 78+45 which was installed with too much slack in the expansion cable causing it to contact the ground. At C1 31+20, Pig-tails were run from the boot located on track one to the third rail on track two, over a small dividing wall. Due to the presence of this wall, WMATA feels that the use of conduit was not reasonable and has instead installed bracketing to keep the cables raised from the ground. WMATA engineering will review setup and make necessary corrections if required. FWSO also observed debris pile near recently repaired boots at C1 CM 28+50 as well as unusual wear patterns and multiple knocked off collector shoes were noted at the end approach near the Farragut West station platform on Track 1. Throughout the inspection FWSO noted multiple areas with missing cover boards. Finally, At C1 CM 027+20 in the area of the two kicker rails the third rail cable pot heads were observed to be laying directly on the ground.</p>						Number of Defects		5		
							Recommended Finding?		No		
							Remedial Action Required?		Yes		
							Recommended Reinspection?		No		
Remedial Action	<p>WMATA should remove debris near boots at C1 28+50.</p> <p>WMATA should provide FTA with results of engineering review of configuration at C1 31+20.</p> <p>WMATA should correct boot on ground issue noted a C1 27+20.</p> <p>WMATA should reinstall shorter cable at C1 78+45 to elevate cable from ground.</p>										

Photos:

Newly installed boots at C1 CM 27+20





Kicker Rail Boot on ground at C1 CM 27+20



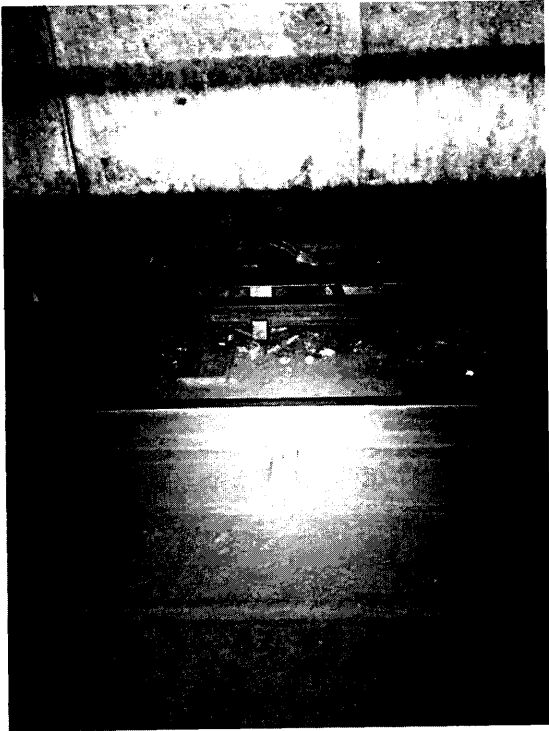
Debris near boots at C1 CM 28+50



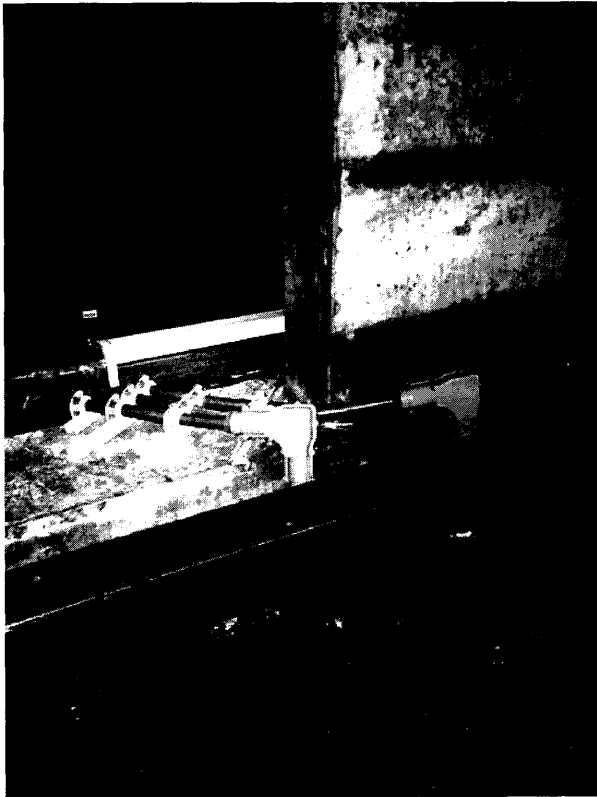
Newly installed boots at C1 CM 28+50



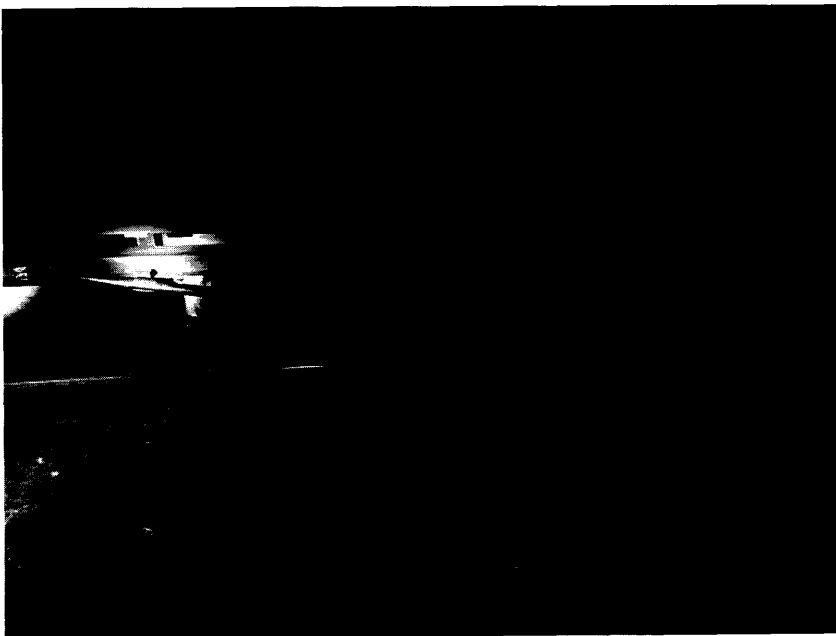
Newly installed boots at C1 CM 31+00



Non-standard installation of pigtails at C1 CM 31+20



Replaced Cable at C1 78+45 (Note: Cable is touching ground and WMATA noted this location as 78+00 in report)





Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

all (b)(6)

Inspection Date	YYYY	MM	DD	Report Number	20160419-WMATA-PSR-1		
	2016	04	19				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Rail Transportation	Sub- Department	Interlocking Operator Office
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Greenbelt Interlocking Operator Office, 5801 Sunnyside Avenue, College Park, MD 20740						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	RTTO-GEN-MTG	ROCC-RPB-OBS	RTTO-RC-OBS			
Inspection Units	1	1	1			
Inspection Subunits	1	1	1			
Defects (Number)	0	0	1			
Recommended Finding	0	0	0			
Remedial Action Required	0	0				
Recommend Reinspection	0	0				

Activity Summaries

Inspection Activity #	1	Inspection Subject					General Meeting with interlocking operator				Activity Code	RTTO	GEN	MTG
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A		Out Brief Conducted	Yes	Time	1000-1300	Outside Shift	No		
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			
	<input type="checkbox"/>	X	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X		
Line(s)			Track Number			Chain Marker	From		To					
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	I met with the first shift Interlocking Operator at Greenbelt yard to introduce myself. I discussed my roles and responsibilities and monitored the Interlocking Operator communications and train movements. I also observed the Operator properly lining routes for train movements in the yard.										Number of Defects		0	
											Recommended Finding?		No	
											Remedial Action Required?		No	
											Recommend Reinspection?		No	
Remedial Action	N/A													

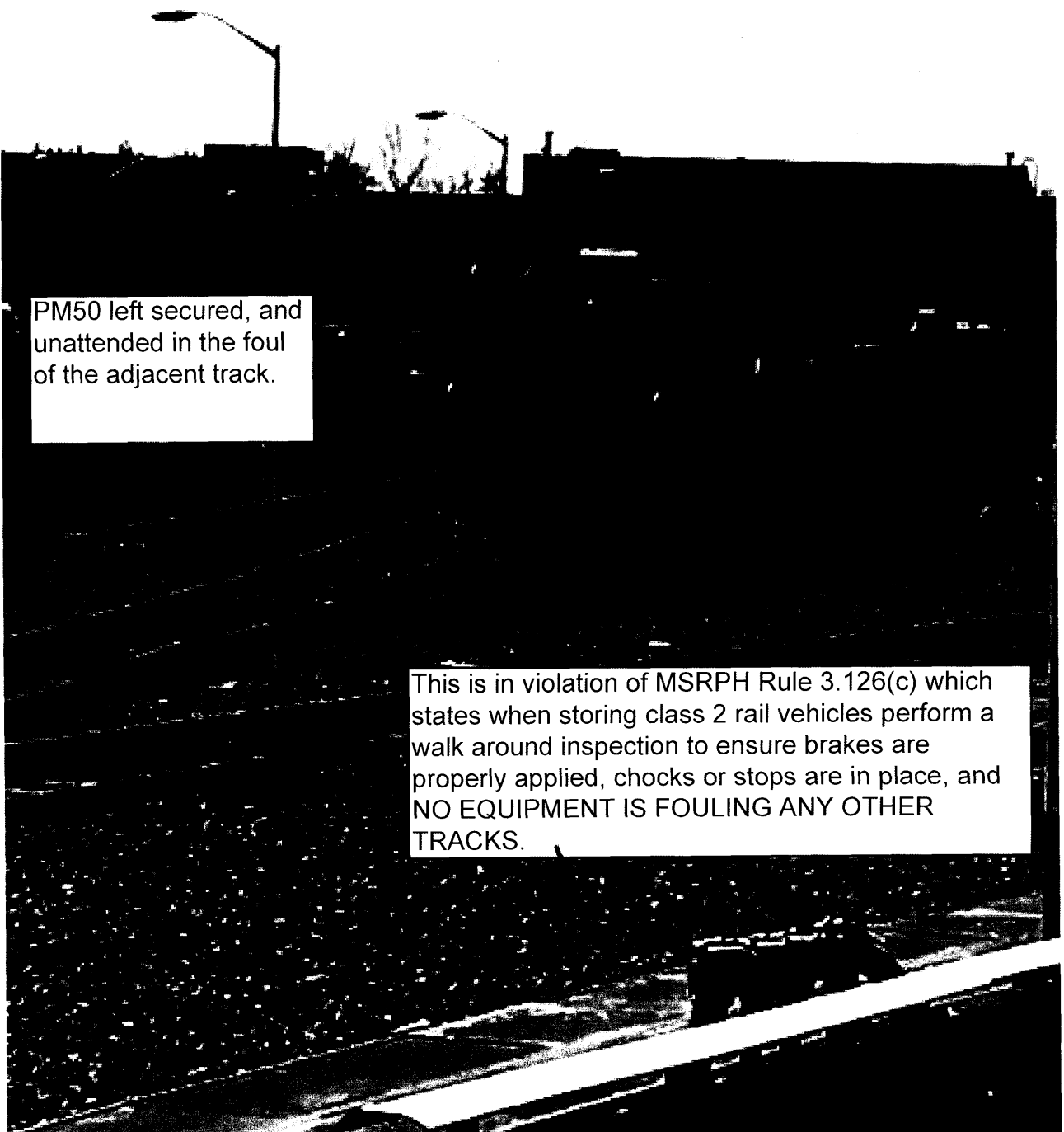
Inspector in Charge - Signature		PATRICK SHANE RICHARDSON <small>Digitally signed by PATRICK SHANE RICHARDSON DN: c=US, o=U.S. Government, ou=DOT FMCSABaltimoreMD, ou=FRA FMCSABaltimoreMD, cn=PATRICK SHANE RICHARDSON Date: 2016.04.21 10:06:14 -0400</small>	Date
Inspector in Charge - Name P. Shane Richardson			April 19, 2016
Inspection Team P. Shane Richardson			



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Inspection Activity #	2	Inspection Subject	Repeat Backs					Activity Code	ROCC	RPB	OBS
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	1000 – 1300	Outside Shift	No	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard		Other / Title		Checklist Reference				
	MSRPH	1.79									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	<input type="checkbox"/>	X	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Line(s)	N/A	Track Number		Chain Marker	From		To				
Vehicles	Head Car Number	Number of Cars		Equipment							
Description	<p>I observed the Greenbelt Yard Interlocking Operator for compliance with rule 1.79. I monitored radio transmissions and observed the following:</p> <p>1) The Interlocking Operator gave specific instructions to a yard operator on the movement of his train. His radio transmissions included phonetic spelling which the yard operator properly repeated the transmission prior to moving the equipment.</p> <p>2) The controller was persistent with the operator to elicit the repeat back when messaging was not clear.</p>						Number of Defects		0		
							Recommended Finding?		No		
							Remedial Action Required?		No		
							Recommend Reinspection?		No		
Remedial Action											
Inspection Activity #	3	Inspection Subject	Equipment in the foul of adjacent track					Activity Code	RTTO	RC	OBS
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	Yes	Time	1000 – 1300	Outside Shift	No	
Related Reports			Related CAPS / Findings								
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard		Other / Title		Checklist Reference				
	MSRPH	3.126(c)									
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	<input type="checkbox"/>	X	<input type="checkbox"/>			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Line(s)	N/A	Track Number		Chain Marker	From		To				
Vehicles	Head Car Number	Number of Cars		Equipment	PM50						
Description	<p>I observed PM50 left unattended in Greenbelt yard fouling the adjacent track in the yard. This is in violation of MSRPH rule 3.126(c) which states when storing class 2 rail vehicles perform a walk around inspection to ensure brakes are properly applied, chocks or stops are in place, and no equipment is fouling any other tracks.</p>						Number of Defects		1		
							Recommended Finding?		No		
							Remedial Action Required?		YES		
							Recommend Reinspection?		No		
Remedial Action											
Ensure that all equipment is left in the clear of adjacent tracks when left unattended.											



PM50 left secured, and
unattended in the foul
of the adjacent track.

This is in violation of MSRPH Rule 3.126(c) which
states when storing class 2 rail vehicles perform a
walk around inspection to ensure brakes are
properly applied, chocks or stops are in place, and
**NO EQUIPMENT IS FOULING ANY OTHER
TRACKS.**



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

all (K) (L)

Inspection Date	YYYY	MM	DD	Report Number	20160426-WMATA-PSR-3		
	2016	04	26				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Rail Transportation	Sub- Department	Orange Line
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Orange Line from L'Enfant Plaza to Vienna/ Vienna to Metro Center						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-RI-OBS					
Inspection Units	2					
Inspection Subunits	2					
Defects (Number)	0					
Recommended Finding	0					
Remedial Action Required	0					
Recommend Reinspection	0					

Activity Summaries

Inspection Activity #	1	Inspection Subject	Riding Inspection				Activity Code	TRK	RI	OBS
Job Briefing Employee Name/Title	N/A		Accompanied Inspector?	N/A	Out Brief Conducted	N/A	Time	1030-1115	Outside Shift	No
Related Reports			Related CAPS / Findings							
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP	Standard	Other / Title		Checklist Reference				
		MSRPH General Rules 1.14,1.17, 1.18,1.19,1.46,1.52,1.69 -1.84; MSRPH Safety Rules 4.3 SR 4.227; MSRPH Operating Rules 3.119,3.120, 3.121,3.79.1, 3.167, 3.168; MSRPH SOPs #4A,#8,#12,#15,#16,#35 ,#40,#43,#45,#50								

Inspector in Charge - Signature PATRICK SHANE RICHARDSON		Date April 26, 2016	
Inspector in Charge - Name Patrick Richardson	Inspection Team Patrick Richardson		



United States Department of Transportation
Federal Transit Administration

Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A
	X		X	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X
Line(s)	Orange Line	Track Number	1 AND 2	Chain Marker			From	To			
							L'Enfant Plaza	Vienna			
Vehicles	Head Car Number	Number of Cars		Equipment							
	5037	6									
Description	<p>FWSO conducted riding inspections on the Orange Line from L'Enfant Plaza to Vienna on tracks 1 and 2. The operator complied with MSRPH and applicable SOP's, including station announcements, proper berthing at the 8 car marker, sounding the horn when exiting and entering tunnel portals, and the 5 second pause prior to opening doors in stations with head out the window.</p> <p>During the ride the train operator encountered roadway workers beside the tracks in two separate locations; neither location was known by the operator prior to seeing the workers beside the tracks. The announcement by ROCC stating all locations where workers were located was announced while the operator was positioned outside the cab window, watching doors at the station platform. One location was located in a "blind" curve and although the workers were in the clear the operator did have to slow down quickly to get below 35 mph. A procedure needs to be in place to ensure that all train operators know where roadway workers are on or around the tracks, the current announcement system is not sufficient in ensuring that the operators received the radio announcement.</p>						Number of Defects		0		
							Recommended Finding?		No		
							Remedial Action Required?		No		
							Recommend Reinspection?		No		
Remedial Action	N/A										

Inspection Activity #	2	Inspection Subject	Riding Inspection				Activity Code		TRK		RI		OBS	
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	N/A	Time	1115-1200	Outside Shift	No			
Related Reports				Related CAPS / Findings										
Related Rules, SOPs, Standards, or Other	Ref	Rule or SOP		Standard		Other / Title		Checklist Reference						
		MSRPH General Rules 1.14,1.17, 1.18,1.19,1.46,1.52,1.69 -1.84; MSRPH Safety Rules 4.3 SR 4.227; MSRPH Operating Rules 3.119,3.120, 3.121,3.79.1, 3.167, 3.168; MSRPH SOPs #4A,#8,#12,#15,#16,#35 ,#40,#43,#45,#50												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A			
	x		X			<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X			
Line(s)	N/A	Track Number		Chain Marker			From	To						
							Vienna	Metro Center						
Vehicles	Head Car Number	Number of Cars		Equipment										
		6												
Description	FWSO conducted riding inspections on the Orange Line Vienna to Metro Center on						Number of Defects		0					



United States Department of Transportation
Federal Transit Administration

	tracks 1 and 2. The operator complied with MSRPH and applicable SOP's, including station announcements, proper berthing at the 8 car marker, sounding the horn when exiting and entering tunnel portals, and the 5 second pause prior to opening doors in stations with head out the window.	Recommended Finding?	No
		Remedial Action Required?	No
		Recommend Reinspection?	No
Remedial Action	N/A		



Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

see (b)(6)

Inspection Date	YYYY	MM	DD	Report Number	20160426-WMATA-PSR-2		
	2016	04	26				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Rail Transportation	Sub- Department	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Orange Line- Federal Center SW						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ROCC-ACCESS-REF					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	1					
Recommended Finding	0					
Remedial Action Required	0					
Recommend Reinspection	0					

Activity Summaries

Inspection Activity #	1	Inspection Subject						Refusal of Access				Activity Code	ROCC	ACCE SS	REF	
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	N/A	Time	0910	Outside Shift	No					
Related Reports				Related CAPS / Findings												
Related Rules, SOPs, Standards, or Other	Ref			Rule or SOP			Standard			Other / Title			Checklist Reference			
	Safety Directive 16-1															
	49 U.S.C. 5329															
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A					
	x		x	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		X				
Line(s)	Silver Line		Track Number	1	Chain Marker			From		To						
								Federal Center SW		New Carrollton						
Vehicles	Head Car Number		Number of Cars			Equipment										
			6													
Description	FWSO introduced myself and presented FTA badge and credentials to the operator prior to boarding at L'Enfant Plaza station and requested that the operator seek permission from ROCC to ride in the operator's cab for further inspections. FWSO proceeded to board lead car 3046 and awaited ROCC decision. Operator informed FWSO was denied access by the ROCC. FWSO off boarded the train at Federal Center without access to the operator's cab.											Number of Defects		1		
												Recommended Finding?		No		
												Remedial Action Required?		Yes		
												Recommend Reinspection?		No		

Inspector in Charge - Signature		Date	
PATRICK SHANE RICHARDSON		April 26, 2016	
Inspector in Charge - Name		Inspection Team	
P. Shane Richardson		P. Shane Richardson	



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Remedial Action	WMATA issued a system wide Temporary Order (T-16-06) Modification to MSRPH General Rule 1.49 which states "Only those employees and credentialed FTA personnel authorized by ROCC are permitted to ride in the cab with the person operating the train." WMATA has reinforced the need to comply with the Temporary Order via e-mail on 4/26/16 to ROCC Superintendents and ROCC Assistant Superintendents.
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Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

all (b)(6)

Inspection Date	YYYY	MM	DD	Report Number	20160426-WMATA-PSR-1		
	2016	04	26				
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Rail Transportation	Sub- Department	
Rail Agency Department Contact Information	Name		Email		Office Phone		Mobile Phone
	[REDACTED]		[REDACTED]		[REDACTED]		[REDACTED]
Inspection Location	Silver Line- L'Enfant Plaza						

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	ROCC-ACCESS-REF					
Inspection Units	1					
Inspection Subunits	1					
Defects (Number)	1					
Recommended Finding	0					
Remedial Action Required	0					
Recommend Reinspection	0					

Activity Summaries

Inspection Activity #	1	Inspection Subject					Refusal of Access			Activity Code	ROCC	ACCE SS	REF
Job Briefing Employee Name/Title	N/A			Accompanied Inspector?	N/A	Out Brief Conducted	N/A	Time	0910	Outside Shift	No		
Related Reports						Related CAPS / Findings							
Related Rules, SOPs, Standards, or Other	Ref		Rule or SOP		Standard		Other / Title		Checklist Reference				
	Safety Directive 16-1												
	49 U.S.C. 5329												
Inspection Location	Main Track	Yard	Station	OCC	RTA Facility	FTA Office	Track Type	At-grade	Tunnel	Elevated	N/A		
	X		X	<input type="checkbox"/>		<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	X		
Line(s)	Silver Line		Track Number	1	Chain Marker		From		To				
							L'Enfant Plaza		Capital Heights				
Vehicles	Head Car Number		Number of Cars		Equipment								
	3046		6										
Description	FWSO introduced myself and presented FTA badge and credentials to the operator prior to boarding at L'Enfant Plaza station and requested that the operator seek permission from ROCC to ride in the operator's cab for further inspections. FWSO proceeded to board lead car 3046 and awaited ROCC decision. Operator informed FWSO was denied access by the ROCC. FWSO off boarded the train at Federal Center without access to the operator's cab.							Number of Defects		1			
								Recommended Finding?		No			
								Remedial Action Required?		Yes			
								Recommend Reinspection?		No			

Inspector in Charge - Signature		Date April 26, 2016
PATRICK SHANE RICHARDSON		
Inspector in Charge - Name P. Shane Richardson	Inspection Team P. Shane Richardson	

Digitally signed by PATRICK SHANE RICHARDSON
DN: c=US, o=U.S. Government, ou=DOT FMCSABaltimoreMD, ou=FRA FMCSABaltimoreMD, cn=PATRICK SHANE RICHARDSON
Date: 2016.04.27 13:54:52 -0400



United States Department of Transportation
Federal Transit Administration

Form FTA-IR-1

Remedial Action	WMATA issued a system wide Temporary Order (T-16-06) Modification to MSRPH General Rule 1.49 which states "Only those employees and credentialed FTA personnel authorized by ROCC are permitted to ride in the cab with the person operating the train." WMATA has reinforced the need to comply with the Temporary Order via e-mail on 4/26/16 to ROCC Superintendents and ROCC Assistant Superintendents.
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Inspection Form

Form FTA-IR-1

United States Department of Transportation
Federal Transit Administration

Agency/Department Information

Inspection Date	YYYY	MM	DD	Report Number	20160427-WMATA-TW-1	
	2016	04	27			
Rail Agency Name	Washington Metropolitan Area Transit Authority			Rail Agency Department	Office of Track and Structures	Sub- Department
Rail Agency Department Contact Information	Name		Email		Office Phone	Mobile Phone
	[REDACTED] (b)(6)		[REDACTED] (b)(6)			
Inspection Location	Track #2 from Medical Center (A10) to Bethesda (A09)					

Inspection Summary

Inspection Activity #	1	2	3	4	5	6
Activity Code	TRK-WI-PI	TRK-RWP-OBS				
Inspection Units	1	1				
Inspection Subunits	1	1				
Defects (Number)	27	0				
Recommended Finding	27	0				
Remedial Action Required	Yes	No				
Recommended Reinspection	Yes	No				

Activity Summaries

Inspection Activity #	1	Inspection Subject					Walking Track Inspection from Medical Center to Bethesda Station			Activity Code		TRK	WI	PI
Job Briefing Employee Name/Title	Christina Shaver, Safety Manager					Accompanied Inspector?	No	Out Brief Conducted	No	Time	2100-0015	Outside Shift	Yes	
Related Reports						Related CAPS / Findings		Rail-4-28-A						
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			
	A10 to A09								Yes					
Line(s)			Track Number			Chain Marker and/or Station(s)	From		To					
				Medical Center (444+00)			Bethesda Station (395+07)							
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO Inspectors conducted track inspection of Red Line track #2 from Medical Center Station to Bethesda Station to assess conditions that need corrected in lieu of several recent arching and fire incidents on this section of track. Inspectors were accompanied by WMATA RWIC-4. Inspectors discovered mud, standing water, disconnected tensioning cable, metal equipment lose between 3rd rails at the interlocking, deteriorating and missing insulators, unknown debris on the track bed and catwalk, clogged drains, missing drain covers, missing 3rd rail coverboards,										Number of Defects		27	
											Recommended Finding?		27	
											Remedial Action Required?		Yes	
											Recommended Reinspection?		Yes	

Inspector in Charge - Signature

TERRELL A WILLIAMS

Digitally signed by TERRELL A WILLIAMS
DN: c=US, o=U.S. Government, ou=DOT Headquarters, ou=FTAHQ,
cn=TERRELL A WILLIAMS
Date: 2016.04.29 10:23:36 -04'00'

Date
4/29/2016

Inspector in Charge - Name
Terrell Williams

Inspection Team
Terrell Williams, [REDACTED] (b)(6)




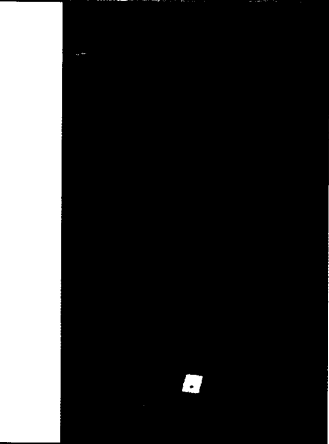
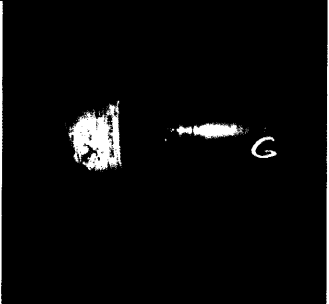
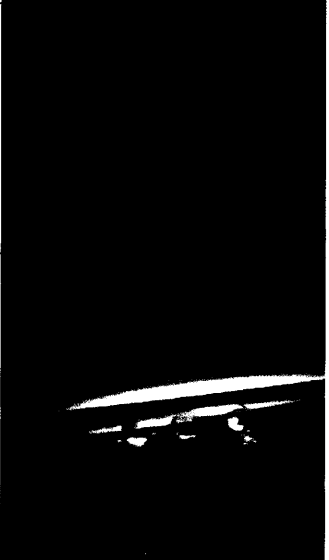
United States Department of Transportation
Federal Transit Administration

	expansion joint cable on the ground and drains filled with debris. Attached photos document several of our findings.											
Remedial Action	Recommend that WMATA immediately remove power on this segment of the Red line and begin implementing a work plan to remediate conditions that may lead to additional arching, smoking and fire events that may pose serious injury to passengers. Conditions noted in this report should be cross examined with previous FWSO inspections from the Track Safety Blitz activities of April 4-13, 2016.											






Inspection Activity #	2	Inspection Subject					Roadway Worker Protection			Activity Code		TRK	RWP	OBS
Job Briefing Employee Name/Title	Christine Shaver, Safety Manager					Accompanied Inspector?	Yes	Out Brief Conducted		Time	2100-0015	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)	Red Line	Track Number	#2	Chain Marker and/or Station(s)	From				To					
					444+00				395+07					
Vehicles	Head Car Number		Number of Cars		Equipment									
Description	FWSO Inspectors observed WMATA Roadway Escort perform Roadway Worker Protection briefing. The Level IV RWIC competently conducted a safety brief that included checking inspectors RWP Identifications, check for PPE and locations with restricted views and blind spots. Discussed the type of roadway worker protection (train approach warning), point of entry and exit onto and off the roadway, signaling for oncoming trains, hot spots and all manner of protection.								Number of Defects		0			
									Recommended Finding?		0			
									Remedial Action Required?		No			
									Recommended Reinspection?		No			
Remedial Action	None													

Item #	Chain Marker Start	Chain Marker End	Comments	Photo
1	A2 CM 444+00	A2 CM 442+00	Entire area is wet with standing water. Crib area underneath switch 3B has standing water as well.	
2	A2 CM 442+00		Third Rail Restraining Rod broken	
3	A2 CM 444+00	A2 CM 440+60	Track 2 side – All fluorescent fixtures	

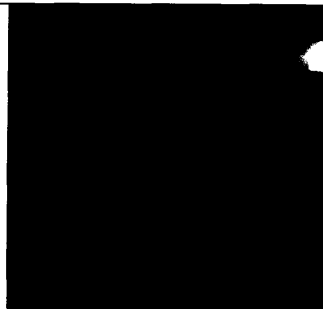
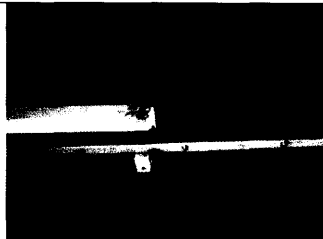


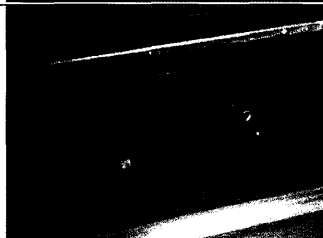


			mounted on the wall are out of order	
4	A2 CM 441+30		In the area between Switch 1B and 3A there is a pile of fiberglass pipe located between the third rails – on top of that pile is a metal gage rod. The pile poses a trip/fall hazard and the gage rod is highly conductive – this pile should be removed.	
5	A2 CM 440+00	A2 CM 435+70	Pieces of old third rail are lying in the gauge of the track and between the catwalk wall and the running rail.	
6	A2 CM 437+55		Fire Extinguisher located directly at the ETS Box needs re-charge.	
7	A2 CM 434+20	A2 CM 431+30	Standing Water – Water is not flowing into the drain. Approximately 6-feet of corrosion was observed on the web face, gage side of the rail and at all locations where the fasteners contact the base of the rail. The water is also present under the third rail.	
8	A2 CM 433+80		Third Rail Insulator is melted and broken. Concrete plenth under the insulator is cracked and broken.	



9	A2 CM 432+50		Pile of burned insulators are on the catwalk.	
10	A2 CM 430+75		ETS Box A118 – Blue Light is not working.	
11	A2 CM 428+20		Jumper cables for the 3 rd Rail Expansion Joint at Laying on the concrete due to rotted kindorf support pieces.	
12	A2 CM 427+40		Metal component that appears to be a train part was found in the roadway. Note: part was moved to the catwalk for retrieval.	
13	A2 CM 426+00		Metal component, similar to the one in item 12 was found on the catwalk. This one was damaged. An ID tag was noted with the following information on it: M18-31-0675	
14	A2 CM 423+50		Standing Water	
15	A2 CM 421+80		Old rail located in the gage of the track	
16	A2 CM 421+50	A2 CM 420+70	Standing water and the drain cover is missing in the gage of the track	



17	A2 CM 418+30		Jumper cables for the 3 rd Rail Expansion Joint at Laying on the concrete due to rotted kindorf support pieces.	
18	A2 CM 418+00	A2 CM 417+40	Old rail pieces in the gage of the track	
19	A2 CM 416+00	A2 CM 399+00	Third Rail Cover Boards were never installed when composite third rail was installed. This item has been noted on previous inspections.	
20	A2 CM 415+80		Drain cover is missing	See similar pic #16
21	A2 CM 410+00		Drain Cover is missing	See similar pic #16
22	A2 CM 409+00		Standing water and missing drain cover	See similar pic #16
23	A2 CM 408+80		Jumper cables for the 3 rd Rail Expansion Joint at Laying on the concrete.	
24	A2 CM 406+00		Drain is clogged with mud – Drain cover is missing	
25	A2 CM 405+60		Insulator is missing under the third rail	
26	A2 CM 402+10		Debris in the drain – cover dislodged	
27	A2 CM 397+00	A2 CM 396+00	Third Rail Cover Boards are not installed –	



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			this item has been noted previously.	
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