



WMSC Commissioner Brief: W-0097 – Serious Injury – Potomac Yard Station construction site – February 14, 2021

Prepared for Washington Metrorail Safety Commission meeting on August 3, 2021

Safety event summary:

A Metrorail contractor working in the area of the new Potomac Yard Station on the Blue and Yellow Lines between Reagan National Airport Station and Braddock Road Station broke their left hip and femur.

Mass Electric Construction, who this contractor was working for to install conduits intended to carry fiber optic cables, reported that the contractor was injured while stepping over the third rail to cross from Track 1 to Track 2. The contractor was using their left leg as a plant leg between the third rail on Track 1 and the third rail on Track 2, and stated they were injured while moving their trailing right leg over the Track 1 third rail.

During this work, there was no train traffic in this area and third rail power was properly de-energized on both tracks for a weekend shutdown. The work crew was operating under Inaccessible Track protection, which means no vehicles could enter or exit the work area without the permission of the Roadway Worker In-Charge (RWIC) and the removal and installation of derailleurs (devices that would guide a vehicle off the tracks if it attempted to pass) that marked the end of the working limits.

The RWIC notified the Rail Operations Information Center (ROIC) of the injury, who called the Alexandria Fire Department. When the Alexandria Fire Department arrived, they were briefed and then transported on a Prime Mover work vehicle to the location of the injured contractor. They and the contractor were taken back out on the Prime Mover, and they then took the contractor to a hospital.

Although ROIC logs and the Alexandria Fire Department response indicate that the event was reported, Metrorail's radio, ambient, and phone recording systems did not have a record of this. Landlines and CCTV in this area were not operational during the weekend shutdown, and the RWIC did not report this event over the radio to the ROIC or ROCC controllers. The RWIC stated they used a cell phone to report this event because it was an emergency. The RWIC called Maintenance Operations Control (MOC), who he said transferred him to the ROIC. At the time of this event, the ROCC, including the ROIC, was operating out of its backup facility at the Jackson Graham Building in downtown D.C.

A Mass Electric Construction Foreman stated that they also used a phone on the roadway to contact a supervisor to report the injury.

The contractor had pre-existing conditions that increased their risk of such an injury, and a supervisor stated that this contractor had experienced similar injuries at least two other times. A Kiewit Corporation foreman, who was overseeing the work since Mass Electric Construction is their subcontractor, stated that they had noticed the contractor limping because of an injured hip prior to this serious injury. The contractor had more than 30 years of experience as a Journeyman Electrician. Mass Electric acknowledged that fatigue and overexertion may also have contributed to this serious injury.

The contractor was not tested for drugs and alcohol as required under Metrorail policy.



Probable Cause:

The probable cause of this event was Metrorail's lack of fatigue and medical fitness for duty standards for contractors.

Corrective Actions:

Mass Electric Construction conducted a safety stand-down.

Metrorail's Safety Department is considering whether to require confirmation of medical assessments prior to certain contractors conducting work.

Metrorail's Safety Department stated it would conduct site visits and safety observations to identify additional hazards and mitigations.

WMSC staff observations:

Metrorail does not require contractors to meet medical or other fitness for duty standards other than certain standards related to drug and alcohol testing. The WMSC expects to address this issue through the Fitness for Duty Audit. The report was provided to Metrorail in July for the technical review specified in the WMSC Program Standard.

Aspects of this investigation related to improving recording and documentation of all critical communications are required to be addressed through corrective action plans related to the WMSC's ROCC Audit issued in September 2020. This includes both the main facility in Landover, Md. and backup facilities.

The WMSC also reminds Metrorail that WMATA is responsible for its investigations, regardless of whether an event involves contractors or employees and regardless of whether an event occurs in part of the rail system that is in revenue service or that is shut down. This includes conducting interviews and other data collection required to appropriately determine the root cause(s) of events so that adequate mitigations can be developed and implemented. Safety is important for everyone in and around the system whether they are employees, contractors, riders or first responders.

Staff recommendation: Adopt final report.



Washington Metro Area Transit Authority
Department of Safety and Environmental
Management (SAFE)

FINAL REPORT OF INVESTIGATION A&I E21068

Date of Event:	2/14/2021
Type of Event:	Serious Injury
Incident Time:	15:34 hours.
Location:	Potomac Yard Station Construction Site, Chain Marker (CM) C1-479+40
Time and How received by SAFE:	16:00 hours SAFE On-call Phone
WMSC Notification Time:	17:38 hours
Rail Vehicle:	None
Injuries:	Fractured left femur and left hip
Damage:	None
SMS I/A Incident Number:	20210214#91841

Potomac Yard Station
Serious Injury
February 14, 2021

Table of Contents

Abbreviations and Acronyms----- 3
Executive Summary ----- 4
Incident Site ----- 4
Field Sketch/Schematics----- 5
Purpose and Scope ----- 5
Investigation Methods----- 5
Investigation ----- 6
 Advanced Information Management System (AIMS) ----- 9
 Audio Recording System (ARS) Chronological Event Timeline----- 10
 Office of System Maintenance Communication Section (COMM)----- 11
Interview Findings----- 11
Human Factors ----- 12
 Fatigue----- 12
 Post-Incident Toxicology Testing ----- 12
Immediate Mitigation to Prevent Recurrence ----- 12
Findings ----- 12
Weather ----- 13
Probable Cause ----- 13
Recommendations/Corrective Actions----- 13
Appendix A –TRST GOTRS----- 14
Appendix B – Mass Electric Construction Incident Investigation Report----- 19
Appendix C – Safety Briefing Script----- 21
Appendix D – Interviews ----- 22
 TRST----- 22
 Equipment Operator AA – RWIC----- 22
Appendix E - Written Statement----- 23
 Mass Electric Construction ----- 23
 Foreman One ----- 23
 Foreman Two ----- 23
 Electrician ----- 23
 Kiewit Corporation ----- 23
 Electrical Foreman----- 23

Abbreviations and Acronyms

AIMS	Advanced Information Management System
ARS	Audio Recording System
CCTV	Closed-Circuit Television
CM	Chain Marker
COMM	Office of Systems Maintenance Communication Section
EMS	Emergency Medical Services
GOTRS	General Orders and Track Rights System
ID	Identification Card
IT	Inaccessible Track
MOC	Maintenance Operations Control
MSRPH	Metrorail Safety Rules and Procedures Handbook
NOAA	National Oceanic and Atmospheric Administration
OJT	On-the-Job Training
PPE	Personal Protective Equipment
RJSB	Roadway Job Safety Briefing
ROCC	Rail Operations Control Center
RTC	Rail Traffic Controller
RTRA	Office of Rail Transportation
RWIC	Roadway Worker in Charge
RWP	Roadway Worker Protection
TRST	Office of Track and Structures
SAFE	Department of Safety and Environmental Management
SMS I/A	Safety Measurement System Incidents/Accidents
SOP	Standard Operating Procedure
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission

Executive Summary

On Sunday, February 14, 2021, at approximately 15:34 hours, a Contractor representing Mass Electric Construction was injured while performing their duties at Potomac Yard Station, Track 1 construction site.

Further investigation revealed that an Office of Track and Structures (TRST), Roadway Worker in Charge (RWIC) had a Red Tag Power Outage scheduled in General Orders and Track Rights System (GOTRS) under Inaccessible Track (IT), Roadway Worker Protection (RWP). Based on the GOTRS request, the RWIC provided RWP escort support to Mass Electric Construction contractors to hang conduits for Fiber Optic Cable. Per GOTRS, the RWIC working limits were from Chain Marker (CM) C1-413+04 to CM C1-517+36 and CM C2-413+22 to C2-488+86. See Appendix A.

In support of the incident investigation, Mass Electric Construction provided a copy of their incident investigation report. See Appendix B. Mass Electric Construction incident investigation report revealed that the Mass Electric Construction Contractor, a journeyman electrician contractor, was walking across from Track 1 to Track 2 at CM 479+40. As the contractor stepped over the third rail and pivoted on their planted left leg, they subsequently fell in pain. The Injured Contractor was removed from the construction site and transported for further medical evaluation to Inova Alexandria Hospital by Emergency Medical Services (EMS) personnel of the Alexandria Fire Department. Based on Mass Electric Construction investigation report, the medical staff performed x-rays and after review, the doctor determined that the Injured Contractor suffered a broken left femur along with a fractured hip. Additionally, the doctor indicated the injury is a pathological fracture caused by a preexisting medical condition and was not work-related.

The probable cause of this serious injury incident, based by the treating medical staff's assessment, was a pathological condition. The Contractor suffered femur and hip fracture due to a preexisting medical condition. Additionally, Mass Electric Construction reported that fatigue and overexertion might have contributed to the Contractor's serious injury. However, SAFE was unable to determine whether work environment, fatigue and overexertion contributed to the Contractor's injury.

Incident Site

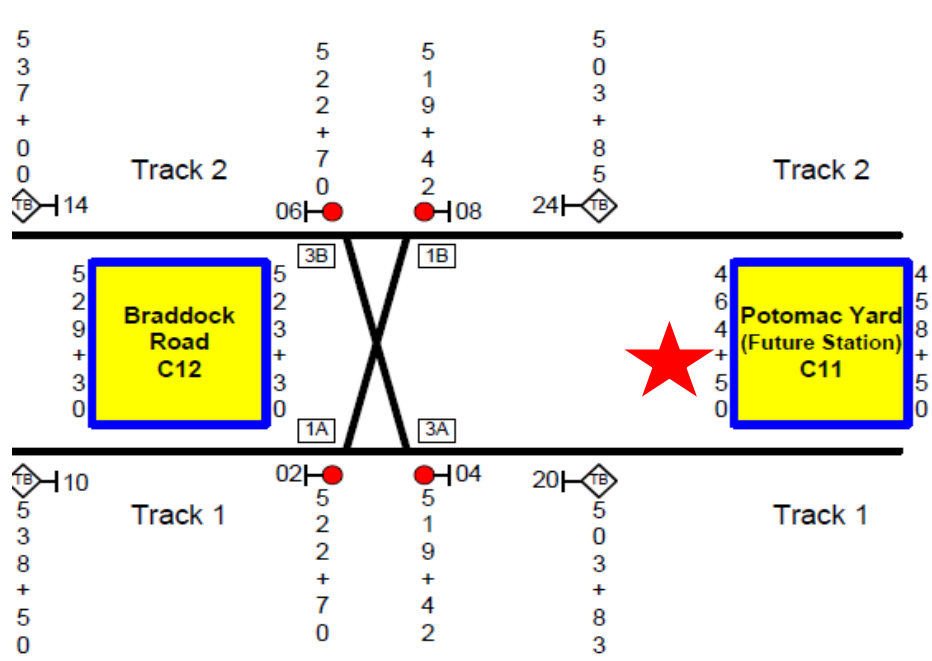
Potomac Yard Station, CM C1-479+40

TRST – GOTRS

Actual – Chain Marker C1-413+04 to C1-517+36 and C2-413+22 to C2-488+86

Protected – Chain Marker C1-408+04 to C2-522+36 and C2-408+22 to C2- 493+86

Field Sketch/Schematics



Purpose and Scope

The purpose of this incident investigation and candid self-evaluation is to collect and analyze available facts, determine the probable cause(s) of the incident, identify contributing factors, and make recommendations to prevent a recurrence.

Investigation Methods

The investigative methodologies included the following:

- Formal Written Statement – SAFE received four written statements from individuals as part of this investigation. The written statements included:
 - Foreman One
 - Foreman Two
 - Electrician
 - Electrical Foreman
- Formal Interview – SAFE conducted one interview as part of this investigation. The interview included:
 - RWIC
- Informal Interviews – Collected through conversations with individuals during the investigation to provide background and supporting information.
- Documentation Review – A collection of relevant work history information and process documentation contained in Metro systems of record. These records include:
 - Mass Electric Construction Incident Investigation Report
 - Metrorail Safety Rules and Procedures Handbook (MSRPH)

- National Oceanic and Atmospheric Administration (NOAA)
- Rail Operations Information Center (ROIC) summary report review
- Office of Systems Maintenance Communication Section (COMM)
- System Data Recording Review – A collection of information in Metro Data Recording Systems. This data includes:
 - Audio Recording System (ARS) playback [Radio and Phone Communications]
 - Advanced Information Management System (AIMS)
 - General Orders and Track Rights System (GOTRS)

Investigation

On Sunday, February 14, 2021, at approximately 15:34 hours, a Contractor representing Mass Electric Construction was injured while performing their duties at Potomac Yard Station, Track 1 construction site.

The RWIC had a Red Tag Power Outage scheduled in GOTRS under IT, RWP. The assigned RWIC utilized detailers in their specific working limits as their physical barrier to render the track inaccessible to rail vehicle movement into the working limits. The RWIC followed procedures to establish IT with detailers per the Metrorail Safety Rules and Procedures Handbook (MSRPH) RWP, 5.13.8. Inaccessible Track (IT).

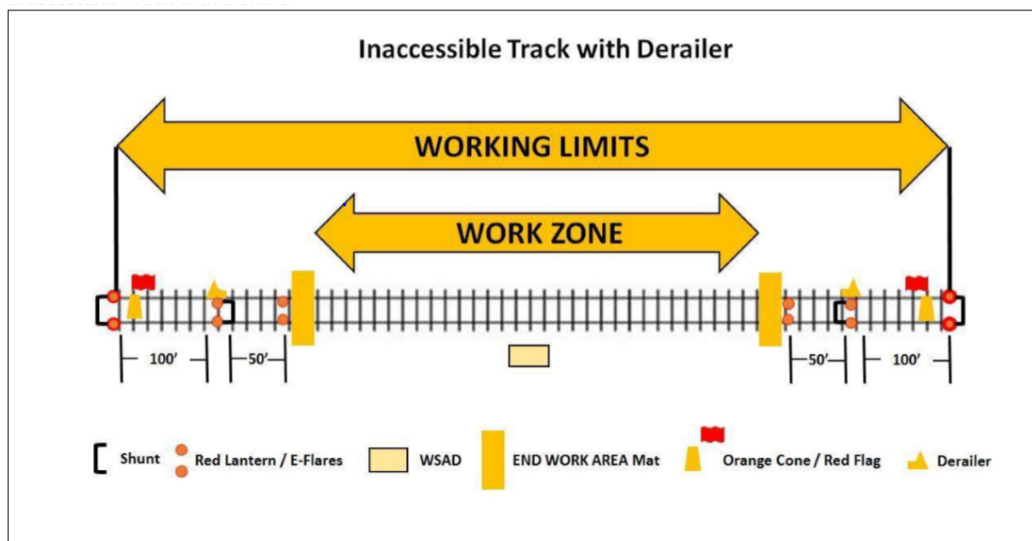


Diagram 1 – IT setup with derailleurs.

In support of the incident investigation, Mass Electric Construction conducted a reenactment of the serious injury incident. Mass Electric Construction personnel planned four repeatable methodologies of the actions that occurred involving the Injured Contractor. See Figures 1-4.



Figure 1 – Reportedly, the Injured Contractor was located at CM 479+40 and was in the process of stepping over the third rail and the adjacent running rail when crossing over from Track 1 to Track 2.



Figure 2 – The Injured Contractor stepped over the third rail leading with their left leg.



Figure 3 – The Injured Contractor assumed a braced position with firm footing, straddling the third rail.



Figure 4 – The Injured Contractor then stepped over the third rail and pivoted on their planted left leg, and subsequently fell between both of the third rails.

Advanced Information Management System (AIMS)

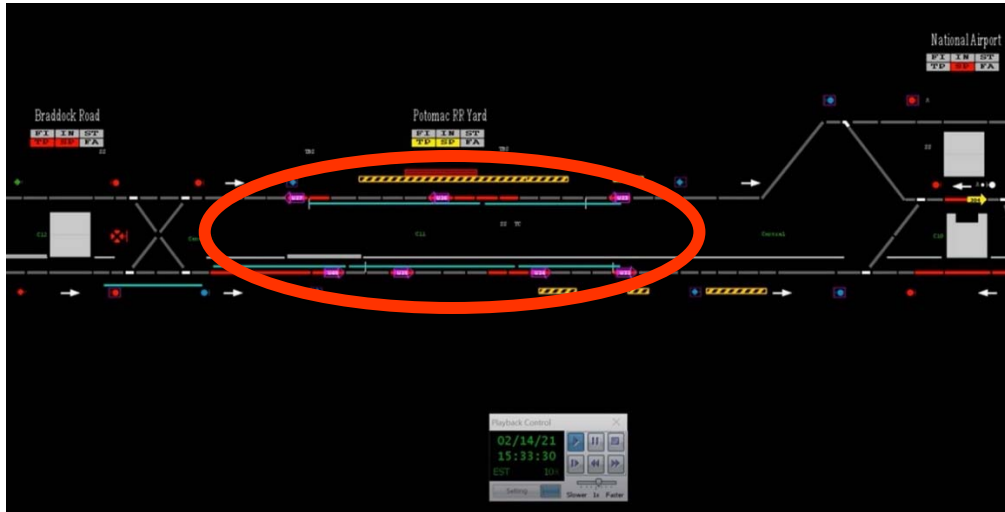


Diagram 2 - At 15:33 hours, the AIMS playback revealed the power display shows the third rail power was de-energized at Potomac Yard Station, Track 1, and Track 2 before the reported incident.



Diagram 3 - At 16:02 hours, the AIMS playback revealed, the power display indicated third rail power was de-energized at Potomac Yard Station, Track 1, and Track 2 before the fire department arriving on the scene and entering the roadway.



Diagram 4 - At 16:35 hours, the AIMS playback revealed that the power display indicated third rail power being de-energized at Potomac Yard Station, Track 1, and Track 2. AFD departed the scene and transported the Injured Contractor to Inova Alexandria Hospital for further medical evaluation.

Audio Recording System (ARS) Chronological Event Timeline

A review of ARS playback, i.e., phone, ambient, and radio communications, revealed the following:

Time	Description
05:56:42 hrs.	<u>RWIC</u> : Notified the ROCC Radio RTC and reported they are now the new Red Tag holder at Potomac Yard Station and indicated the Red Tag numbers. The RWIC noted they would be in charge of Red Tag, the work location, and all components associated with it from 06:00 hours to 18:00 hours. <u>ROCC Radio RTC</u> : Acknowledged. [Ops 3]
15:50 hrs.	<u>RWIC</u> : Notified <u>ROIC</u> and requested medical assistance for a contractor injured while performing their duties at Potomac Yard Station construction site. Reported the contractor stated their back and hip gave out while stepping over a rail. (<u>Rail Operations Information Center (ROIC) Summary Report Review, 2021</u>). [Phone]
15:52 hrs.	<u>ROIC Specialist</u> : Notified Alexandria Fire Department. (<u>ROIC Summary Report Review, 2021</u>).
15:58 hrs.	<u>ROIC Specialist</u> : Notified Metro Transit Police Department (MTPD). (<u>ROIC Summary Report Review, 2021</u>).
16:04 hrs.	<u>ROIC Specialist</u> : Notified the Fire Liaison. (<u>ROIC Summary Report Review, 2021</u>).
16:05 hrs.	<u>ROIC Specialist</u> : Notified the ROCC Radio Rail Traffic Controller. (<u>ROIC Summary Report Review, 2021</u>). [Ops 3]
16:05:32 hrs.	<u>ROIC Specialist</u> : Notified the ROCC Radio RTC and reported that they dispatched Alexandria Fire Department to the Potomac Yard Station construction site. The ROIC Specialist indicated that a contractor was injured while performing their duties. [Phone]

16:31 hrs.	The Alexandria Fire Department transported the Injured Contractor to Inova Alexandria Hospital. (ROIC Summary Report Review, 2021).
16:49:55 hrs.	<u>TRST General Superintendent</u> : Called the ROCC and inquired about the ROCC Alert email notification at approximately 16:47 hours, reporting a TRST employee was injured while performing their duties at the Potomac Yard station construction site. The TRST General Superintendent indicated the notification is incorrect information; it was not a TRST employee; it was a contractor. <u>ROCC</u> : Acknowledged and advised they will send out an updated notification. [Phone]

Office of System Maintenance Communication Section (COMM)

COMM personnel performed a comprehensive radio operational test at Potomac Yard Station, Tracks 1 and 2. The test was successful, and the signal was at an optimal level.

Note: After reviewing the Audio Recording System playback, there did not appear to be any communication deficiencies over the radio.

Interview Findings

SAFE conducted one virtual interview via Microsoft Teams. The interview identified the following key findings associated with this event and are as follows:

During the virtual interview, the RWIC stated they had a Red Tag Power Outage, IT protection scheduled in GOTRS that allowed piggybacking. The RWIC indicated they were the lead RWIC and had crew leaders. Before the work crew was allowed to enter the work location, all WMATA employees and contractors participated in the Roadway Job Safety Briefing (RJSB) by a designated safety briefer. The RWIC indicated the appropriate level of RWP protection was properly in place, and everyone was wearing approved PPE. The RWIC indicated there was no negligence involved in this incident of the Injured Contractor.

The Mass Electric Construction contractor reported to the RWIC and the Emergency Medical Services personnel of the Alexandria Fire Department that while at CM 479+40 on Track 1, they stepped over the third rail to enter Track 2 and subsequently fell in pain. The Injured Contractor did not lose consciousness and was fully alert. The RWIC indicated the Injured Contractor's supervisor stated this type of incident happened to the Injured Contractor approximately three times before. Once the responding Emergency Medical Services personnel of the Alexandria Fire Department arrived, they were briefed before entering the roadway. The Emergency Medical Services personnel boarded a Prime Mover and were transported to the scene using the Prime Mover and performed their assessment. The Injured Contractor complained of severe pain, and the Emergency Medical Services personnel administered pain medication to the Injured Contractor. Emergency Medical Services personnel secured the Injured Contractor on a Backboard Stretcher and safely placed them on the Prime Mover. The Emergency Medical Services personnel and the Injured Contractor were transported back to Potomac Yard Station Construction Site using the Prime Mover and safely exited the unit. Emergency Medical Services personnel of the Alexandria Fire Department then transported the Injured Contractor to Inova Alexandria Hospital for further medical evaluation.

Human Factors

Fatigue

Signs and symptoms of fatigue were examined that may have been present at the time of the incident. No signs or symptoms of fatigue were detected from the available data. However, based on Mass Electric Construction's incident investigation report, fatigue and overexertion might have contributed to the Contractor's serious injury. The incident time of the day did not suggest an increased risk of fatigue-related impairment.

Post-Incident Toxicology Testing

At the time of the incident, the injured contractor was not removed from service for post-incident toxicology testing. The injured contractor was removed from the construction site and subsequently transported to Inova Alexandria Hospital for further medical evaluation.

Immediate Mitigation to Prevent Recurrence

- Mass Electric Construction conducted a Safety Stand-Down with contractors working in the affected location as an internal corrective action plan. The discussion topic was to be attentive to all messages you receive from your physical, emotional, and mental bodies. Look out for your coworkers and over-communicating to the supervisor any health or safety-related concerns or issues.

Findings

- Due to the Potomac Yard Station Shutdown, CCTV and landlines were inoperative.
- The Injured Contractor was working inside the work area at the time of the incident.
- The AIMS playback showed the third rail power was de-energized while the work crew and the Emergency Medical Services personnel of the Alexandria Fire Department were on the roadway at Potomac Yard Station, Track 1, and Track 2.
- SAFE did not identify any audio recordings of the incident being reported or emergency first responders being dispatched.
- The ROCC is not fully functional when the ROCC transfers to their backup location at Jackson Graham Building (JGB). In addition, audio is unavailable at JGB because none of the console phones have the NICE Inform and ARS playback to allow phone conversations and audio to be recorded.
- All designated safety briefers were assigned to utilize the script and read the briefing aloud for all personnel to hear during the safety briefing. See Appendix C.
- The weekend shutdown was on the Yellow Line, from Braddock Rd Station to National Airport Station. The weekend shutdown was scheduled from 23:01 on February 12, 2021, to 04:00 on February 16, 2021, for signal upgrades for the future Potomac Yard Metro Station.
- Based on a review of the Mass Electric Construction incident investigation report, the Injured Contractor is a Journeyman Electrician with over thirty years of experience.
- On the day of the reported incident, the Rail Operations Control Center had transferred from the Carmen Turner Facility to the Jackson Graham Building's backup location.

Weather

At the time of the incident, National Oceanic and Atmospheric Administration (NOAA) recorded the temperature as 36°F with fog and 96% humidity. (Weather source: NOAA – Location: Alexandria, VA.)

Probable Cause

The probable cause of this serious injury incident, based by the treating medical staff's assessment, was a pathological condition. The Contractor suffered femur and hip fracture due to a preexisting medical condition. Additionally, Mass Electric Construction reported that fatigue and overexertion might have contributed to the Contractor's serious injury. However, SAFE was unable to determine whether work environment, fatigue and overexertion contributed to the Contractor's injury.

Recommendations/Corrective Actions

The following are the recommendations and corrective actions identified as a result of this investigation. These recommendations and corrective actions are tracked using WMATA's Safety Measurement System Incidents/Accidents (SMS I/A) Module and are verified by SAFE upon completion. The responsible department is identified in the corrective action code. Refer to the SMS I/A module for additional information.

Corrective Action Code	Description
91841_SAFECAPS_TRST_001	Review the option of requiring confirmation that contractors have completed appropriate medical assessments related to the job's essential physical requirements before allowing work to be done on the Authority's property. This certification is meant to help determine whether an employee can safely perform the job's requirements and help eliminate or mitigate any risks associated with allowing a contractor, who may not meet the physical requirements for duty, fulfilling their job requirements.
91841_SAFECAPS_SAFE_002	Conduct site visits and perform safety observations to identify any safety hazards of employees not safely completing the job's requirements and developing strategies to reduce their risk.

Appendix A –TRST GOTRS

GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM Track Rights Request

Request Summary

Request Number:	202103302300	Track Access:	True
Dates Requested:	02/12/2021 23:01 to: 02/16/2021 04:00	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:	[REDACTED]	Allow Piggybacks:	True
Requestor Organization:	DECO/MCAP	In Piggyback:	No
Switch Order:	Closed (2021044518)	Power Outage:	Red Tag Red Tag LOTO
Lock Out / Tag Out:	Yes	Additional AC:	
Request Title:	Potomac Yard Station Project		

Location, Work Type and Description

Location:	Mainline
Non-Wayside Location Type:	
Request Type:	Expedited
Charge Job Number:	
Contract Number:	
Maximo Work Order:	
Request Group:	No
Location Description:	Conduct work activities associated with our RSA21-526.
Request Description:	Ductbank Crossing, Trough Installation, Fiber Otic Cable Passage Way Verification, Install Pedestrian Bridge over Tracks
Work Type:	Other
Meeting Location:	C10 - C12
PB Meeting Location:	
Tools and Equipment:	Hi Rail Pick Ups, Hi Rail Mini Excavators, Hi Rail Dump Truck, Hi Rail Boom Truck, 24' Flatbed Carts
Equipment on Track:	

	Track 1		Track 2		
Actual Work Area:	C413+04	C517+36	Actual Work Area:	C413+22	C488+86
Protected Work Area:	C408+04	C522+36	Protected Work Area:	C408+22	C493+86

Date & Time

Start:	02/12/2021 23:01	End:	02/16/2021 04:00
--------	------------------	------	------------------

Contacts

Entered by

[REDACTED]
[REDACTED]

Requestor

[REDACTED]
[REDACTED]

As of 02/15/2021 21:55
1 of 5

Attachment 1 – Page 1 of 5.

Incident Date: 2/14/2021 Time: 15:34 hours.
Final Report – Serious Injury Rev. 1
E21068

Rev. 1 Drafted By: SAFE 705 – 03/04/2021
Rev. 1 Reviewed By: SAFE 701 – 04/15/2021
Rev. 1 Approved By: SAFE 70 – 07/22/2021

Page 14

GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

Track Rights Request

Request Summary			
Request Number:	202103302300	Track Access:	True
Dates Requested:	02/12/2021 23:01 to: 02/16/2021 04:00	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:	[REDACTED]	Allow Piggybacks:	True
Requestor Organization:	DECO/MCAP	In Piggyback:	No
Switch Order:	Closed (2021044518)	Power Outage:	Red Tag Red Tag LOTO
Lock Out / Tag Out:	Yes	Additional AC:	
Request Title:	Potomac Yard Station Project		

WMATA Manager	Emergency Contact
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

Support	
SUPPORT GROUP	Crew Size
TRST/STRUC	4
ESCORT GROUP	Crew Size
SMNT/PWR	2

Request Change History	
Date	Event
02/02/2021 15:04	Request was created.
02/08/2021 17:42	Request was edited. Field(s) changed: Start Date/Time. Start Date/Time: 2/13/2021 5:00:00 AM to 2/13/2021 4:01:00 AM.
02/09/2021 12:25	Request was edited. Field(s) changed: Location. Location: Track 1 Actual: C415+00 C480+00 Protected: C408+04 C493+86, Track 2 Actual: C415+00 C480+00 Protected: C408+22 C493+86 to Track 1 Actual: C413+04 C517+36 Protected: C408+04 C522+36, Track 2 Actual: C413+22 C488+86 Protected: C408+22 C493+86.
02/09/2021 12:45	Request status was changed to Approved
02/13/2021 03:05	Work Prep was completed.
02/13/2021 03:49	Request status was changed to Opened
02/14/2021 05:03	Work Prep was edited. Field(s) changed: Unit #. Unit #: 681 to 643.
02/15/2021 05:49	Work Prep was edited. Field(s) changed: Unit #. Unit #: 643 to 681.

As of 02/15/2021 21:55
2 of 5

Attachment 1 – Page 2 of 5.

GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

Track Rights Request

Request Summary			
Request Number:	202103302300	Track Access:	True
Dates Requested:	02/12/2021 23:01 to: 02/16/2021 04:00	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:	[REDACTED]	Allow Piggybacks:	True
Requestor Organization:	DECO/MCAP	In Piggyback:	No
Switch Order:	Closed (2021044518)	Power Outage:	Red Tag Red Tag LOTO
Lock Out / Tag Out:	Yes	Additional AC:	
Request Title:	Potomac Yard Station Project		

Request Change History	
Date	Event
02/15/2021 19:13	Work Prep was edited. Field(s) changed: Unit #. Unit #: 681 to 6286.
02/16/2021 00:54	Request status was changed to Closed

Request Group	
Request Number	Description

Piggyback
No active piggybacks found

Switch Order	
SO #:	2021044518
SO Status:	Closed
Lock Out/ Tag Out:	Yes
Location & Equipment Requested	
(HOLD - TRK 1) C11TB (C413+04) C12TP (C517+36) TRK 1 C11TB (C413+22) C12TB (C488+86) TRK 2	
Remarks:	

Red Tag information	
Red Tag #:	Red Tag

As of 02/15/2021 21:55
3 of 5

Attachment 1 – Page 3 of 5.

Incident Date: 2/14/2021 Time: 15:34 hours.
Final Report – Serious Injury Rev. 1
E21068

Rev. 1 Drafted By:	SAFE 705 – 03/04/2021
Rev. 1 Reviewed By:	SAFE 701 – 04/15/2021
Rev. 1 Approved By:	SAFE 70 – 07/22/2021

GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

Track Rights Request

Request Summary

Request Number:	202103302300	Track Access:	True
Dates Requested:	02/12/2021 23:01 to: 02/16/2021 04:00	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:	██████████	Allow Piggybacks:	True
Requestor Organization:	DECO/MCAP	In Piggyback:	No
Switch Order:	Closed (2021044518)	Power Outage:	Red Tag Red Tag LOTO
Lock Out / Tag Out:	Yes	Additional AC:	
Request Title:	Potomac Yard Station Project		

De-Energizing

Equipment Location	Equipment
C11TB	41
C11TP	31
C11TP	33
C12TB	43
C12TB	41
C12TP	31

Energizing

Equipment Location	Equipment
C11TB	41
C11TP	31
C11TP	33
C12TB	43
C12TB	41
C12TP	31

RSA

Track:

Interlock to Interlock: C408+04 - C522+36

RSA Power Outage: Red Tag

RSA Start Date/Time: 02/12/2021 23:01

RSA End Date/Time: 02/16/2021 04:00

Headway Impact:

RSA Comments:

As of 02/15/2021 21:55
4 of 5

GOTRS - GENERAL ORDERS & TRACK RIGHTS SYSTEM

Track Rights Request

Request Summary

Request Number:	202103302300	Track Access:	True
Dates Requested:	02/12/2021 23:01 to: 02/16/2021 04:00	Clear In Ten:	False
Request Status:	Closed	Equipment on Track:	0
Requestor:	[REDACTED]	Allow Piggybacks:	True
Requestor Organization:	DECO/MCAP	In Piggyback:	No
Switch Order:	Closed (2021044518)	Power Outage:	Red Tag Red Tag LOTO
Lock Out / Tag Out:	Yes	Additional AC:	
Request Title:	Potomac Yard Station Project		

Close-Out Summary

Final Status: Closed

Request To Begin Work: 02/12/2021 22:49

Switch Order Execution Was Authorized: 02/13/2021 00:14

Request to De-Energize: step not done

De-Energization Completed; RWIC notified: 02/13/2021 02:48

Hot Stick: 02/13/2021 04:02

Permission Given To Setup Work Site: 02/13/2021 04:02

Start Work: 02/13/2021 04:26

Work Site Cleared by Requestor: 02/15/2021 19:54

OCC Comments:

OCC Assistant Superintendent
Comments:

Requestor Comments:

OCC Delays

Unit #	Chain Marker	Gap From	Gap To	Gap Track ID	Entered By	Date
681	C455+15	C408+04	C455+15		[REDACTED]	13/58/2021 02:02

As of 02/15/2021 21:55
5 of 5

Attachment 1 – Page 5 of 5

Incident Date: 2/14/2021 Time: 15:34 hours.
Final Report – Serious Injury Rev. 1
E21068

Rev. 1 Drafted By:	SAFE 705 – 03/04/2021
Rev. 1 Reviewed By:	SAFE 701 – 04/15/2021
Rev. 1 Approved By:	SAFE 70 – 07/22/2021

Page 18

Appendix B – Mass Electric Construction Incident Investigation Report

MEC Incident Investigation Report

- 1st Aid Other Recordable Restricted Duty Recordable Lost Time Recordable
 Report Only Near Miss Auto / Equipment Property Damage

Project: Potomac Yard Station Project Number: 104006
 Address & Phone: [REDACTED]

Do not leave any blank lines. If a question does not apply, write N/A in space provided. Use additional sheet(s) if necessary and sign and date each additional page.

Description of Incident: _____
Employee was moving from outbound track to inbound track. The employee stepped over the first 3rd rail and pivoted on his planted left leg.
The employee the went down in pain. The employee was removed from site by EMS and taken to the hospital. At the hospital, x-rays determined that
the femur was broken near the hip along with a fractured hip. According to doctors, the injury is a pathological fracture caused by a pre-existing medical
condition and not the result of a work related injury.

I. IDENTIFICATION

- Name of Injured and/or Operator: [REDACTED]
- Home Address: [REDACTED]
- Phone Number: [REDACTED] PBS Number: [REDACTED]
- Gender: Male Female Age: 61 Date of Birth: [REDACTED]
- Date of Hire: _____ Time on Project: _____ years <1 months
 Time with the Company: 4 years _____ months Total Craft Experience: 30+ years _____ months
- Foreman: [REDACTED] General Foreman: [REDACTED]
- Superintendent: [REDACTED] General Superintendent: [REDACTED]
- Who of the following were present at the time of the incident:
 Foreman General Foreman Superintendent
- Date of Incident: 2 - 14 - 2021 Time of Incident: 3 : 34 AM (PM)
- Time Work Shift Began: 10 : 0 (AM) PM
- Specific Location of Incident: Tunnel retaining walls south of Station site
- Weather Conditions at Time of Incident: Cold (34 degrees), clear, wet from previous days weather
- Was Weather a Factor: Yes No Explain: NA
- Employee's Usual Title/Occupation/Craft: Journeyman Electrician
- Subcontractor (If Applicable): NA
- Employee's Task at Time of Incident: Measuring and marking strut anchors, included using a ladder
- WBS Element for Operation: 1592
- Name(s) of Those Who Witnessed and/or Heard the Incident: [REDACTED]
 Attach Witness Report(s): _____

II. INJURY

- Nature of Injury or Illness: Fractured leg near hip and fractured hip (pathological fracture) due to pre-existing medical condition
- Part(s) of Body Affected: Left leg
- Source - the Object or Substance Inflicting the Injury: None

III. PROPERTY DAMAGE

- Describe Property, Equipment or Material Damaged: None
- Nature of Damage (Describe): None
- Source - Object Inflicting Damage (e.g., Object, Equipment, Material, Vapor, Dust, Etc.): None

Attachment 2 – Page 1 of 2

IV. ROOT / CONTRIBUTING FACTORS (WHY DID THE INCIDENT HAPPEN?)

(Consider: Peoples' Positions, Attention to Work, Communications, Using PPE, Executing Work, Working Conditions, Engineering Design)

1. Employee's pre-existing condition
2. Fatigue/Overexertion
3. _____

V. CORRECTIVE ACTION: (NEEDS TO BE COMPLETED BY SUPERINTENDENT)

What Will Be Done in the Future To Prevent Recurrence?

MEC to holds safety stand-down to be held on next working day. Focus to be on listening to your body, watching out for each other, and over-communicating to supervisor any health or safety concerns or issues.

VI. LAGGING INDICATORS (CHECK ALL THAT APPLY)

People's Positions (If this had been done right, it would've prevented the incident.)			
<input type="checkbox"/> Alignment	<input type="checkbox"/> Line of Fire	<input type="checkbox"/> Overreaching	<input checked="" type="checkbox"/> Over Exertion <input type="checkbox"/> Repetition
Attention to Work (If this had been done right, it would've prevented the incident.)			
<input type="checkbox"/> Awareness of Surroundings	<input type="checkbox"/> Eyes on Task	<input type="checkbox"/> Mind on Task	<input type="checkbox"/> Pace
Communication (If this had been done right, it would've prevented the incident.)			
<input type="checkbox"/> JHA	<input type="checkbox"/> Plan	<input type="checkbox"/> Recognize Changes	<input type="checkbox"/> Task Coordination
Using PPE (Was it...)			
<input type="checkbox"/> In Good Condition	<input type="checkbox"/> In Use	<input type="checkbox"/> The Right Type	
Execution of Work (Did you...)			
<input type="checkbox"/> Select the Right Tool	<input type="checkbox"/> Follow Policies	<input type="checkbox"/> Work Safely	
<input type="checkbox"/> Use Tool Properly	<input type="checkbox"/> Verify Tool is in Good Condition		
Working Conditions (If this had been done right, it would've prevented the incident.)			
<input type="checkbox"/> Ambient Conditions	<input type="checkbox"/> Clean/Clear of Clutter	<input type="checkbox"/> Footing	
<input type="checkbox"/> Guards & Barriers	<input type="checkbox"/> Tools/Equipment Are Put Away	<input type="checkbox"/> Work Plan Design	
Other (Was this...)			
<input type="checkbox"/> Employee Medical Event	<input type="checkbox"/> Rework	<input checked="" type="checkbox"/> Other:	<input type="checkbox"/> Pathological Fracture due to pre-existing condition

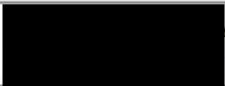
VII. ACCOUNTABILITY / DISCIPLINARY ACTION

Yes No Pending

Action(s) Taken:

NA

Report Completed by:



Date:



Appendix C – Safety Briefing Script for C-Line Braddock Rd Station to National Airport Station Shutdown

Safety Briefing Script for C-Line (C10-C12) Weekend Shutdown

02-12-2021 to 02-16-2021

ALL safety briefers are to read the briefing out loud for all personnel to hear during the safety briefing.

Hello, My Name is _____

This Holiday Weekend Shutdown is from: 23:01 on February 12, 2021 until 04:00 on February 16, 2021.

The RWIC on duty is – **PICO/RECP (See Contact Sheet)**.

Today's Date is _____, 2021

Safety Rule of the day is: _____

The current weather conditions are _____

Make sure to stay hydrated at all times.

This briefing is for the Weekend Shutdown area between C10-C12.

This is a **RED TAG** Power Outage. The RWIC is the RED Tag holder.

You must contact the RWIC before entering the work area.

The RWIC will be on **OPS-3** and can be reached by phone at _____

The single tracking using Inaccessible Track (IT) protection with wooden ties as the barriers.

The shunts, lights, wooden cross ties and work mats are at Chain Markers: **C1 408+04, C2 408+22, C1 519+00 and C2 493+80.**

No stations will be closed within the working limits.

The safety briefing location will be at **(C11) Future Potomac Yard station.**

Parking: There is NO PARKING in the Kiss-and-Ride lots, Handicap spaces, Bus Loops or on the sidewalks at any Metro station.

Safety Concerns

- There are RMM's in the work area, be diligent of movement at all times. During any work being performed, a watchman/lookout must be used.
- There are multiple work groups working within the area at all times.
- You must contact the work group leader to enter their area within the shutdown.
- Watch for poor footing, poor lighting at night, debris, loose cables, sound hazards, drilling, and obstacles.
- Proper footwear and face coverings/masks are required anytime entering the work area.
- Watch for items that could potentially fall on your feet and cause damage.
- Be mindful of social distancing and make sure that you are wearing a face mask/cover, as well as any other safety precautions.
- Be diligent to not damage any equipment that is located in the work area especially when working, walking or stepping around switch machines.
- Closest Hospitals: George Washington University Hospital and Mount Vernon Hospital.

Are there any questions concerning something I may or may not have covered?

Please have your PPE and ID cards ready for inspection.

Also, please ensure proper social distancing!

Please discard this script after 05:00hrs on 02-16-21

Appendix D – Interviews

TRST

Equipment Operator AA – RWIC

The Equipment Operator AA is a WMATA employee with nine years of service and approximately five years of experience as an Equipment Operator AA. The Equipment Operator AA held various positions such as Equipment Operator A, Equipment Operator B, Equipment Operator C, Equipment Operator D, and Laborer.

During the virtual interview, the RWIC representing TRST stated they had a Red Tag Power Outage, IT protection scheduled in GOTRS at Potomac Yard Station, Track 1, and Track 2 that allowed piggybacking. The RWIC was the lead RWIC and had crew leaders. The request title for the GOTRS rights was Potomac Yard Station Project. The purpose of the GOTRS rights was for Mass Electric Construction contractors to be escorted and hang conduits on the walls for Fiber Optic Cable Passage Way Verification. During the reported incident, the conduit was being hung on the Potomac Yard Station wall to Braddock Road Station, Track 1. Before entering the work location, all WMATA employees and contractors received a Safety Briefing regarding their work assignments by a designated safety briefer. All the workers were RWP qualified and followed RWP rules, signed an RJSB Form, had the appropriate level of RWP Protection in place, and were wearing approved PPE. The designated safety briefer was positioned at 2500 Potomac Greens Dr, Alexandria, VA 22314, outside a WMATA trailer.

The RWIC stated that a Mass Electric Construction contractor reported that a contractor was injured and needed medical assistance. Due to it being an emergency, the RWIC used his cell phone to contact MOC to report the incident. The RWIC contacted Maintenance Operation Control (MOC) and was transferred to ROIC. ROIC dispatched emergency Medical Services personnel of the Alexandria Fire Department. While the injured contractor was at CM 479+40 on Track 1, a contractor told them they stepped over the third rail to enter Track 2 and subsequently fell in pain. The injured contractor did not lose consciousness and was fully alert. The contractor's chief complaint to the RWIC was severe hip pain. The RWIC indicated the injured contractor's supervisor stated that this is the third time this incident happened to the injured contractor. Once the responding Emergency Medical Services personnel of the Alexandria Fire Department arrived, they were briefed before entering the roadway. The Emergency Medical Services boarded a Prime Mover and was transported to the scene and performed their assessment. The contractor complained of severe pain, and the Emergency Medical Services personnel administered pain medication to the contractor. The injured contractor was placed on a backboard using appropriate strapping devices. The contractor was then placed on a stretcher that was on the Prime Mover. The Prime Mover was operated back to Potomac Yard Station. Emergency Medical Services safely exited the unit, secured the contractor in the ambulance, and transported them to Inova Alexandria Hospital for further medical evaluations.

Appendix E - Written Statement

Mass Electric Construction

Foreman One

Foreman One stated in a written statement that while working on a ladder hanging conduit on the walls, they heard a scream. Foreman One turned around and saw the injured contractor lying on the roadway. The Foreman indicated at 15:34 hours; they immediately contacted their supervisor on the phone to explain what transpired. Foreman One then walked over to the injured contractor to check on their condition, contacted their supervisor again, and requested medical assistance. Forman One attempted to provide supportive care to the injured contractor to keep them comfortable until the fire department arrived.

Mass Electric Construction

Foreman Two

Foreman Two stated in a written statement that at approximately 15:30 hours, the injured contractor stepped over the third rail from Track 1 to enter Track 2 and subsequently fell in pain. Foreman Two indicated they heard the injured contractor say, I dislocated my hip. Foreman Two stated that they did not know the actual incident. At approximately 16:50 hours, AFD transported the injured contractor to Inova Alexandria Hospital for further medical evaluation.

Mass Electric Construction

Electrician

The Electrician stated in a written statement that the serious injury incident happened at approximately 15:34 hours. The Electrician said while performing their job duties; they noticed the injured contractor lying on the roadway. The contractors in the area explained to the Electrician what transpired. The RWIC was notified and requested medical assistance. Once the medics arrived at Potomac Yard Station, the derailleurs were removed so that the AFD could board the Prime Mover and travel down to the incident site on the unit. After the fire department performed their assessment, the fire department transported the injured contractor to Inova Alexandria Hospital for further medical evaluation.

Kiewit Corporation

Electrical Foreman

The Electrical Foreman stated in a written statement that the injured contractor was walking Track 2 to Track 1 to perform their assigned duties. The Electrical Foreman indicated the injured contractor was limping because their hip was bothering them. As the contractor stepped over the third rail, their hip gave out, causing them to fall in pain. When the contractor fell, they hit their head on the third rail and held their hip while yelling. The RWIC reported the incident and requested medical assistance.