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W-0433 – Collision at Shady Grove Station – August 21, 2025

Document Purpose

This WMSC written report on WMATA Metrorail's safety event investigation and review of Metrorail's findings in accordance with the WMSC Program Standard, in conjunction with the attached Metrorail investigation report that has undergone WMSC staff review, feedback, and Metrorail revision, describes the investigation activities, identifies factors causing or contributing to the accident, and sets forth ongoing, additional, or upcoming corrective actions and further oversight work (such as inspections and audits) as necessary or appropriate. The WMSC's ongoing oversight during the investigative process, including safety event reporting and verification, participation in investigative interviews, data review, consistent communication with the Metrorail investigations team, and feedback on Metrorail's reports leads to further improvements prior to consideration of the reports by WMSC Commissioners for adoption. The WMSC's safety event investigation oversight assures the sufficiency and thoroughness of Metrorail's investigations. The WMSC Commissioners are considering these documents (the WMSC review and Metrorail's investigation report) as a unified item for adoption at the Washington Metrorail Safety Commission meeting on August 4, 2026.

WMSC staff recommend adoption of this investigation.

Safety event summary:

On Thursday, August 21, 2025, an equipment operator was reversing Roadway Maintenance Machine (RMM) Spot Tamper (ST-04) towards Shady Grove Station after tamping[1] crossties in an established work zone. At 1:42 a.m., the left-side tamper head extension attached to ST-04 collided with the platform edge at Shady Grove Station on track 1 and became wedged into the concrete beneath the platform. After the collision, the Office of Track and Structures (TRST) work crew attempted to dislodge ST-04 from the platform, severing the hydraulic fluid line in the process.

Prior to the collision ST-04 departed Shady Grove Yard at 12:50 a.m. At approximately 1:16 a.m., the Radio Rail Traffic Controller (RTC) gave the Office of Track and Structures (TRST) Roadway Worker in Charge (RWIC) permission to set up the work area at Shady Grove Station, track 1, utilizing Exclusive Track Occupancy (ETO)[2] protection. After setting up the work area, the Radio RTC granted the RWIC permission to begin work at 1:35 a.m.

The TRST work crew began tamping the crossties utilizing ST-04. After tamping a small area, the RWIC instructed the equipment operator to move ST-04 back towards Shady Grove Station platform to check the completed work. The equipment operator began operating ST-04 in reverse before retracting the left-side tamper head extension as required. The RWIC heard a noise when ST-04 collided with the platform and went to check on the equipment operator. The TRST crew attempted to dislodge the head extension from the concrete and severed the hydraulic fluid line, causing a leak. The RWIC called the track supervisor at approximately 1:49 a.m., and reported a hydraulic fluid leak, but not the

[1] Tamping: A ballast maintenance method used to restore the track surface at a specific location after the track has settled. This involves raising the track to a desired elevation and using vibrating tamping tines to push and compact the ballast underneath the crossties.
[2] Exclusive Track Occupancy (ETO): A method of establishing working limits on controlled track in which the movement authority of the trains and other equipment are withheld by the train dispatcher or control operator or restricted by flagmen.

collision. The track supervisor then informed the Office of Car Track Equipment Maintenance (CTEM) Supervisor. During the event, the Roadway Worker in Charge (RWIC) did not report the collision, as required, to control center personnel, delaying all other required notifications.

The track supervisor did not become aware of the collision until they arrived on the scene. The collision wasn't reported until 2:36 a.m., approximately 54 minutes later, when the track supervisor contacted the operations manager in the control center and informed them that the hydraulic leak from ST-04 was caused by a collision. The CTEM Supervisor and Department of Safety personnel responded to the scene. Prime Mover (PM) 38 was located within the work zone and rescued ST-04, both units were dispatched to Shady Grove Yard.

There were no injuries as a result of this accident. There was damage to ST-04 and structural damage beneath the station's platform.

ST-04 and the equipment operator were removed from service in accordance with Metrorail policy. WMATA's Drug and Alcohol Program determined that the equipment operator complied with the Drug and Alcohol Policy and Testing Program Policy.

The probable cause and contributing factors of this safety event include:

- Loss/lack of situational awareness
- Failure to retract the extension before moving the Roadway Maintenance Machine (RMM)

Investigation W-0433 led to specific recommended corrective actions, which have been fully implemented as this investigation report is being presented for WMSC adoption. These include:

- The equipment operator attended refresher training following this event.
- The track supervisor and roadway worker in charge received verbal reinstruction regarding reporting procedures.
- Repairs to the concrete beneath the platform were completed.
- Repairs to the left-side tamper head extension of ST-04 and the hydraulic line were completed.

Washington Metropolitan Area Transit Authority
Department of Safety
Office of Safety Investigations

FINAL REPORT OF INVESTIGATION A&I E251408

Date of Event:	August 21, 2025
Type of Event:	A-3: Collision
Incident Time:	01:42 Hours
Location:	Shady Grove Station, track 1
Time and How received by Safety:	02:22 Hours – Safety Information Official (SIO)
Washington Metrorail Safety Commission (WMSC) Notification Time:	04:12 Hours
Responding Safety Officers:	Office of Safety Investigations (OSI) Office of Emergency Preparedness (OEP)
Rail Vehicle:	Spot Tamper – ST-04
Injuries:	None
Damage:	ST-04: Severed Hydraulic Line ST-04: Left-Side Tamper Head Extension Concrete area beneath the platform edge
Emergency Responders:	None
Safety Universal Data System (SUDS I/A) Number	20250825#129629

Shady Grove Station – Collision

August 21, 2025

Table of Contents

Abbreviations and Acronyms

AIMS	Advanced Information Management System
ARS	Audio Recording System
CAP	Corrective Action Plan
CCTV	Closed-Circuit Television
CMNT	Office of Car Maintenance
CMOR	Office of the Chief Fleet Officer
ELO	Emergency Medical Liaison Officer
EM	Emergency Management
EMS	Emergency Medical Services
FT	Foul Time
IIT	Incident Investigation Team
I/A	Incidents/Accidents
MICC	Metro Integrated Command and Communications Center
MOR	Metrorail Operating Rulebook
NOAA	National Oceanic and Atmospheric Administration
OEP	Office of Emergency Preparedness
PPE	Personal Protective Equipment
RTC	Rail Traffic Controller
RTRA	Office of Rail Transportation
RVO	Rail Vehicle Operator
SAFE	Department of Safety
SIO	Safety Information Officer
SPOTS	System Performance On-Time Summary
TRST	Department of Track and Structures
SUDS	Safety Universal Data System
VMDS	Vehicle Monitoring and Diagnostic System
WMATA	Washington Metropolitan Area Transit Authority
WMSC	Washington Metrorail Safety Commission
WSAD	Warning and Strobe Alarm Device

Executive Summary

**Note that all times listed are approximate and may contain minor variations due to differences between systems of record. **

On Thursday, August 21, 2025, the Equipment Operator was reversing the Roadway Maintenance Machine (RMM) Spot Tamper (ST04) towards Shady Grove Station after tamping a small area of crossties. At 01:42 hours, the left-side tamper head extension attached to ST-04 collided with the platform edge of Shady Grove Station on track 1 and became wedged into the concrete beneath the platform. After the collision, the Office of Track and Structures (TRST) work crew attempted to dislodge ST-04 from the platform, severing the hydraulic fluid line in the process. Prime Mover (PM) 38 was located within the work area and rescued ST-04.

The Roadway Worker in Charge (RWIC) notified a TRST Supervisor of the event. The TRST Supervisor contacted the Car Track Equipment Maintenance (CTEM) Supervisor and advised them of the event. The CTEM Supervisor contacted the Maintenance Operations Center (MOC) Maintenance Controller and advised them that they were en route to Shady Grove Station for the reported hydraulic fluid leak. The Maintenance Controller notified the Maintenance Manager and the Button Rail Traffic Controller (RTC). The Button RTC notified the Assistant Operations Manager (AOM), who then notified the Operations Manager (OM). The OM informed the Safety Information Official (SIO), who dispatched the Office of Safety Investigations (OSI) and the Office of Emergency Preparedness (OEP) Primary Responder.

At 04:28 hours, ST-04 and PM-38 were dispatched to Shady Grove Yard and secured.

The Equipment Operator was removed from service. ST-04 was removed from service for inspection and repairs.

There were no injuries, but there was damage to ST-04, Left-Side Tamper Head Extension, and the concrete area beneath the platform edge as a result of this event.

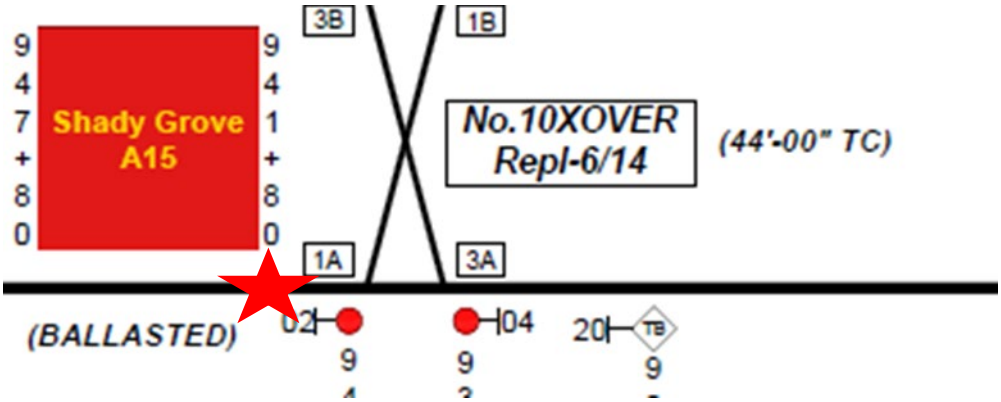
The probable cause of the Collision event at Shady Grove Station on August 21, 2025, was the Equipment Operator's lack of situational awareness. A contributing factor was the Equipment Operator’s inattention when they failed to retract the Left-Side Tamper Head Extension before moving the RMM.

Incident Site

Shady Grove Station, Track 1 – Concrete area beneath the platform

Shady Grove Station is an outdoor station with a center platform. There is a ballasted track and an interlocking on the inbound end of the station.

Field Sketch/Schematics



Purpose and Scope

The purpose of this accident 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.

Investigative Methods

The investigative methodologies included the following:

- Physical Site Assessment
- Formal Interviews – Safety interviewed four (4) individuals as part of this investigation. The interviews included persons present at, during, and after the incident, those directly involved in the response process, and representatives from the Washington Metrorail Safety Commission (WMSC). Safety interviewed the following individuals:
    - TRST RWIC
    - TRST Yard Supervisor
    - Equipment Operator
    - CTEM Supervisor
- Informal Interviews – Collected through conversations with individuals during the investigation to provide background and supporting information. Written statements were reviewed from personnel present during the event.
- Documentation Review – Collection of relevant work history information and process documentation contained in WMATA systems of record. These records include:
    - Metrorail Operating Rulebook (MOR)
    - National Oceanic and Atmospheric Administration (NOAA)
    - Employee Training Procedures & Records
    - Employee Certification Records

- 30-Day Work History
- Rail Transportation – Investigation Data
- Office of Car Track Equipment Maintenance – Rail Fleet Investigation Data
- Office of Track and Structure – Investigation Data
- Metro Integrated Command and Communications Center – Investigation Data
- Maximo Data (ST-04 Status Update)

- System Data Recording Review – Collection of information contained in Metro Data Recording Systems. This data includes:
  - Audio Recording System (ARS) playback
  - Closed-Circuit Television (CCTV)
  - System Performance On-Time Summary (SPOTS)
  - General Order and Track Rights System (GOTRS)

Investigation

On Wednesday, August 20, 2026, at 22:47 hours, the RWIC requested General Order and Track Rights System (GOTRS) track rights at Shady Grove Station from CM A1 895+00 to 946+80 to perform Tie Tamping and Joint Elimination. RMMs PM-38 and ST-04 were dispatched from Shady Grove Yard to the work location at Shady Grove Station on track 1 without incident.

ST04
Harsco Spot Tamper

Image 1 – Spot Tamper 04

On Thursday, August 21, 2026, at 00:59 hours, the Radio RTC instructed the Equipment Operator of ST-04 to verify the lunar at signal A15-32, then granted an absolute block to Shady Grove Station on track 1, and to use caution; RMM PM-38 was ahead. After setting up the work area, the Radio RTC granted the RWIC permission to begin work at 01:35 hours.

The TRST work crew began tamping the crossties while utilizing ST-04. After finishing tamping a small area, the RWIC instructed the Equipment Operator to move ST-04 towards Shady Grove Station Platform to verify the work. The Equipment Operator began operating ST-04 in reverse before retracting the left-side tamper head extension.

The Closed-Circuit Television (CCTV) showed that at 01:42 hours, ST-04 collided with the platform edge of Shady Grove Station on track 1. The tamper head extension became wedged into the concrete area beneath the platform edge, causing damage.

Image 2 – Image of ST-04 wedged into the concrete area beneath the platform.

The TRST work crew attempted to dislodge ST-04 from the platform, severing the hydraulic fluid line in the process. The RWIC did not inform the MICC of the collision but contacted a TRST Supervisor by cell phone at 01:50 hours to report the hydraulic fluid leak. The TRST Supervisor informed the Office of Car Track Equipment Maintenance (CTEM) Supervisor of the report.

The Audio Recording System (ARS) revealed that at 02:16 hours, the CTEM Supervisor contacted the Maintenance Operations Center (MOC) and reported that ST-04 was involved in an incident with damage to the hydraulic line, and advised that they were en route to Shady Grove Station. The Maintenance Controller advised the Maintenance Supervisor and Button RTC of the report.

The Radio RTC contacted the RWIC and inquired about what was happening with ST-04. The RWIC reported that ST-04 was leaking hydraulic fluid but did not report the collision. At 02:19

hours, the Button RTC notified the AOM, who then notified the OM. At 02:22 hours, the OM informed the SIO of the reported hydraulic fluid leak.

At 02:36 hours, the TRST Supervisor contacted the OM and revised the report to a minimal hydraulic fluid leak and that ST-04 was “stuck” in the platform. The OM contacted the SIO and revised the report to a collision at Shady Grove Station on track 1. The SIO dispatched personnel from OSI and OEP.

At 02:40 hours, the CTEM Supervisor arrived at Shady Grove Station and collaborated to determine how to dislodge ST-04 from the platform. At 02:42 hours, the Radio RTC contacted the RWIC again and inquired whether there had been a collision and when the RWIC would report the incident. The RWIC confirmed that the collision occurred and that they reported it to the TRST Supervisor. The RWIC confirmed that there were no injuries.

At 03:31 hours, the Safety personnel arrived at Shady Grove Station to conduct an investigation.

The TRST and CTEM Supervisors devised a plan to use PM-38, already in the work area, to dislodge ST-04 from the platform. At 04:07 hours, ST-04 was dislodged, and a second Equipment Operator was dispatched to move ST-04.

At 04:28 hours, the RWIC turned the red tag for the work area. ST-04 and PM-38 were dispatched to Shady Grove Yard. At 04:31 hours, the Interlocking Operator instructed the Equipment Operator to store ST-04 behind signal A99-100.

Image 3 – Before and after repairs photos of the concrete area beneath the platform.

During the formal interview, the Equipment Operator reported that they were tamping a small area of crossties. Afterward, the RWIC instructed them to back the RMM toward the platform. The Equipment Operator admitted that they did not retrack and secure the left tamper head before following the instruction. Consequently, the extension struck the corner edge of the platform.

On September 15, 2025, the hydraulic fluid line on ST-04 was repaired.

On September, 17, 2025, the Equipment Operator completed Re-Instruction Training.

On September 24, 2025, repairs to the concrete area beneath the platform were completed.

Chronological Event Timeline
A review of ARS playback, i.e., phone and radio communications, revealed the following timeline:

Time	Description
August 20, 2025	
22:47:00 hours	RWIC: Requested GOTRS track rights at Shady Grove Station from CM A1 895+00 to 946+80. Radio RTC: Acknowledged the request. [Radio Ops 1]
August 21, 2025	
00:50:00 hours	Interlocking Operator: Instructed the Equipment of ST04 to verify the lunar at signal A99-100, granted an absolute block to clear signal A99-24, and close-in to RMM PM-38. [Radio SG-YD2]
00:59:45 hours	Radio RTC: Instructed the Equipment Operator of ST-04 to verify the lunar at signal A15-32, granted an absolute block to Shady Grove Station on track 1, and to use caution; RMM PM-38 was ahead. RWIC: Acknowledged. [Radio Ops 1]
01:12:00 hours	RWIC: Confirmed third rail power was deenergized on track 1. Radio RTC: Acknowledged. [Radio Ops 1]
01:16:28 hours	Radio RTC: Granted permission to place shunts and clamp switches 1A and 3A in the normal position. RWIC: Acknowledged. [Radio Ops1]
01:19:00 hours	RWIC: Advised that shunts were placed and switches 1A and 3A were clamped in the normal position. Requested permission to utilize the RMM to set up the area. Radio RTC: Acknowledged. Granted permission to utilize the RMM to set up the remainder of the work area. [Radio Ops 1]
01:35:00 hours	RWIC: Advised that all shunts were in place. Radio RTC: Confirmed that shunts were observed. [Radio Ops1]
01:35:19 hours	Radio RTC: Granted permission to install the remaining safety equipment and to begin work. Advised that the clearing time was 04:00 hours. RWIC: Acknowledged [Radio Ops 1]
01:42:35 hours	ST-04 collided with the platform. [CCTV]
01:50:00 hours	TRST Supervisor: Reported that ST-04 had a Hydraulic Leak at Shady Grove Station. CTEM Supervisor: Acknowledged [Phone]
02:16:05 hours	CTEM Supervisor: Reported that ST04 was involved in an incident that included the hydraulic line and advised that they were en route to Shady Grove Station. Maintenance Controller: Acknowledged. [Phone PDAS]
02:17:36 hours	Maintenance Controller: Reported that ST04 was involved in an incident involving the hydraulic line and advised that the CTEM Supervisor was en route to Shady Grove Station.

Time	Description
	Maintenance Manager: Acknowledged. [Phone PDAS]
02:18:01 hours	Maintenance Controller: Reported that ST04 was involved in an incident involving the hydraulic line and advised that the CTEM Supervisor was en route to Shady Grove Station. Button RTC: Responded that they never contacted. [Phone Ops 1]
02:18:28 hours	Radio RTC: Inquired what was wrong with the unit. RWIC: Reported that ST04 was leaking hydraulic fluid. Radio RTC: Inquired how much fluid had leaked from the RMM and if any fluid was on the rail. RWIC: Responded that nothing was on the rail and that the RMM had a malfunction, nothing to get crazy, waiting for a Mechanic to fix it. Radio RTC: Inquired why the RWIC did not inform them. RWIC: Apologized and stated that they would inform them of everything. [Radio Ops 1]
02:19:30 hours	Button RTC: Advised that the RWIC reported ST04 had dripped hydraulic fluid, and the mechanic was en route. AOM: Instructed to back-track the route to check for fluid on the rails. Button RTC: Advised that there was nothing on the rails. AOM: Instructed to route ST04 into the yard. [Phone Ops 1]
02:20:19 hours	AOM: Advised that ST-04 was leaking hydraulic fluid; a Track Mechanic was en route. OM: Acknowledged. [Phone Rail 1]
02:22:12 hours	OM: Advised that ST-04 was leaking hydraulic fluid; a Track Mechanic was en route. SIO: Acknowledged. [Phone Rail 1]
02:36:00 hours	TRST Supervisor: Reported a very minimal hydraulic fluid leak, and ST-04 struck the very end of the platform, not the granite edge, but a small piece of the concrete, and the unit was stuck. OM: We received a call about a hydraulic spill; it was a collision with the platform? TRST Yard Supervisor: Asked if they needed to contact safety. OM: Advised that they would contact Safety. [Phone Rail 1]
02:39:20 hours	OM: Advised that ST-04 collided with the platform at Shady Grove Station. SIO: Acknowledged. Advised that an Investigator and Primary Responder were en route. [Phone Rail 1]
02:42:06 hours	Radio RTC: Informed the RWIC that they were notified that ST-04 made contact the platform at Shady Grove Station. RWIC: Responded, “Yes, it made contact with the platform, and the Mechanic was inspecting it.” Advised that they informed the Yard Supervisor. Radio RTC: Requested photos from the scene. Instructed to give a landline. [Radio Ops 1]
02:46:07 hours	RWIC: Contacted the Button RTC. Button RTC: Provided an email address to send the photos. [Phone Ops 1]

Time	Description
02:52:24 hours	Radio RTC: Inquired if there were any injuries. RWIC: Advised that there were no injuries. [Radio Ops 1]
03:10:24 hours	Radio RTC: Inquired if the Track Mechanic was on the scene. RWIC: Confirmed the Mechanic was on the scene; they arrived at 02:40 hours. [Radio Ops 1]
03:26:54 hours	SIO: Advised that the Safety personnel were on scene at Shady Grove Station. OM: Acknowledged. [Phone Rail 1]
03:36:02 hours	RWIC: Reported that Safety arrived at 03:31 hours and was investigating. Button RTC: Acknowledged [Phone Ops 1]
04:07:29 hours	SIO: Advised that the Safety personnel on scene reported that PM-38 had connected to ST-04.and was being pulled away from the platform. OM: Acknowledged. [Phone Rail 1]
04:11:26 hours	SIO notification to the WMSC and received an event scene release. [Phone EMER MGMT]
04:28:12 hours	Equipment Operator: Requested to move ST-04 and PM-38 to Shady Grove Yard. Radio RTC: Instructed the RWIC to turn in the red tag. [Radio Ops 1]
04:28:53 hours	Radio RTC: Granted an absolute block to signal A99-24. Instructed to contact the Tower. Equipment Operator: Acknowledged. [Radio Ops 1]
04:31:36 hours	Equipment Operator: Requested permission to enter Shady Grove Yard with ST-04 and PM-38. Interlocking Operator: Granted permission to enter the yard. Instructed to clear signal A99-100. Equipment Operator: Acknowledged. [Radio SG-YD2]
04:36:31 hours	Equipment Operator: Reported that ST-04 and PM-38 were secured behind signal A99-100. Interlocking Operator: Acknowledged. [Radio SG-YD2]

***Note: Times above may vary from other systems' timelines based on clock settings and reporting sources.*

Operations

Fleet

Office of Car Track Equipment Maintenance – Rail Fleet Investigation Data

CTEM observed that the ST-04 was jammed against the platform and would not move. PM-38 was used to hook the tow bar that pulled ST-04 away from the platform. The wear plates were broken, causing a jam on the slide. A hammer was used to break it loose.

Repairs were made to the left side work head's lower slide bar support assembly, and all damaged hoses and brackets were replaced or repaired. The work head was then moved in and out, and the tamping tools were turned on. The operational check was successful, and ST-04 was returned to service.

Infrastructure

Track and Structures

ST-04 was being used to spot-tamp at Shady Grove Station on track 1, just outside the platform limits. The Equipment Operator was instructed to back up but failed to secure the unit's arm before moving, causing it to strike the platform.

The Equipment Operator received a disciplinary action and completed re-instruction training.

Interview Findings and Written Statements
As part of the investigation launched into the event, Safety interviewed four (4) people. The interviews identified the following key findings associated with this event. The findings detailed below include reported information from involved personnel and may conflict with other data sources contained in the report.

Equipment Operator

- The EO stated that they forgot to retract the working arm on ST-04 after they finished working in the area.
- The EO stated that they disengaged the vibrators on the Spot Tamper after the work was completed, so they could hear better.
- The EO stated that they are familiar with the equipment and were first trained on the Spot Tamper back in 2013 and had completed recertification two times since then.
- The EO stated that the Spot Tamper became stuck after attempts to pry it from the platform.

CTEM Supervisor

- The Supervisor stated that the Yard Supervisor contacted them regarding the fluid leak.
- The Supervisor stated that when they arrived at Shady Grove Station, the hydraulic fluid line was already capped.
- The Supervisor stated that absorbent pads were utilized to contain the spilled fluid.

- The Supervisor stated that ST-04 was able to move under its own power after being dislodged from the platform.

TRST RWIC

- The RWIC stated that the EO extended the arm on ST-04 to tamp the field side.
- The RWIC stated that they instructed the EO to move to the platform then they heard a bang.
- The RWIC stated that they checked the condition of the EO, assessed the area, then attempted to pry the Spot Tamper away from the platform.
- The RWIC stated that they contacted the TRST Supervisor when they experienced an issue attempting to move ST-04.
- The RWIC stated that they reported the incident to the TRST Supervisor to allow them to take the lead.

TRST Supervisor

- The Supervisor stated that they were not on the scene when the incident occurred.
- The Supervisor stated that they received the call from the RWIC at 01:49 hours.
- The Supervisor stated that they notified the CTEM Supervisor.
- The Supervisor stated that they responded to the scene.

Weather

On August 21,2025, at the time of the incident, NOAA recorded the temperature as 74°F, with slight fog, winds 0 mph, and 82% humidity. Weather was not a contributing factor in this incident Weather source: NOAA – Location: Shady Grove, MD.

Related Rules and Procedures

Metrorail Operating Rulebook

11.9 Operating with Caution Roadway Maintenance Machines shall be operated with caution when moving over switches and frogs, through tunnels, over bridges, through curves with restraining rails, and while passing anyone on or near the track. Before reversing direction, the operator shall give a warning signal and ensure the way is clear.

11.10 Vigilant Lookout; Conduct Each employee shall assist the operator in keeping vigilant lookout for trains, other equipment, and obstructions, on or off the track, including people, vehicles, animals, contractors' equipment, or anything that could affect safe movement. While in motion, operators and occupants of equipment shall remain Page 84 of 276 METRORAIL OPERATING RULEBOOK vigilant, not engage in unnecessary conversation or in boisterous conduct while equipment is in motion.

Human Factors

Equipment Operator

Evidence of Fatigue

We evaluated signs and symptoms of fatigue that may have been present at the time of the incident. No signs or symptoms of fatigue were detected from the available data. Video of the incident was reviewed for signs of the Equipment Operator's fatigue. The EO demonstrated no signs of fatigue. The EO reported feeling Fully Alert at the time of the incident. EO reported experiencing no symptoms of fatigue in the time leading up to the incident.

Fatigue Risk

We evaluated incident data for fatigue risk factors. Risk factors for fatigue were not present. EO reported keeping a regular sleep schedule in the days leading up to the incident. The employee worked 10pm -6 am in the days leading up to the incident. The employee was awake for six hours at the time of the incident. The off-duty period was which provides an opportunity for 7-9 hours of sleep. The EO slept for six hours with a 3-hour nap on the day of the incident. The hour nap was not less than the employee's usual workday sleep duration. The EO reported no issues with sleep. No personal reasons to affect their sleep.

Post-Incident Toxicology Testing

WMATA's Drug and Alcohol Program determined that the Equipment Operator complied with the Drug and Alcohol Policy and Testing Program Policy 7.7.3/7.

Findings

- ST-04 was being operated in reverse when the event occurred.
- The RWIC did not initially report the event to the MICC.
- The work crew attempted to move ST-04 after the collision.
- After attempting to move ST-04, the hydraulic fluid line was damaged.
- Less than 8 ounces of fluid leaked.
- PM-38 was utilized to dislodge ST-04

Immediate Mitigation to Prevent Recurrence

- The EO was removed from service and escorted for post–incident testing.
- ST-04 was removed service for inspection and repairs.

Probable Cause Statement

The probable cause of the Collision event at Shady Grove Station on August 21, 2025, was the Equipment Operator's lack of situational awareness. A contributing factor was the Equipment Operator's inattention when they failed to retract the Left-Side Tamper Head Extension before moving the RMM.

Recommended Corrective Actions

Corrective Action Code	Description	Responsible Party	Estimated Completion Date
129629_SAFECAPS_TRST_001	Complete repairs to the concrete area beneath the platform.	TRST SRC	Completed
129629_SAFECAPS_TRST_002	Equipment Operator to complete reinstruction training.	TRST SRC	Completed
129629_SAFECAPS_CTEM_001	Operational repairs to ST-04 .	CTEM SRC	Completed

Appendices

Appendix A – Interview Summaries

The below narratives summarize the incident and represent the statements made by the involved individual. As such, times and details may present a conflict with the data contained in systems of record.

Track and Structures (TRST)

Track Equipment Operator:

The Equipment Operator is a Metro employee with 13 years of service and 13 years of experience as an Equipment Operator. The Equipment Operator Title holds a Roadway Worker Protection (RWP) Level 4 certification that expires in July 2026.

During the formal interview, the Equipment Operator stated that while operating ST 04 they started tamping in an area that had cables within the gauge of the rail. They were then instructed by the supervisor to extend the arm of the spot tamper and tamp the outside of the ties.

The Equipment Operator followed the instruction; once they tamped that area, they were informed to proceed back towards the platform by the supervisor so personnel can work. The Equipment Operator admittedly stated that they forgot to bring the arm in while traveling back towards to the platform at Shady Grove Track 1, contacted the platform with ST 04.

The Equipment operator attempted to move St 04 for several minutes, and that's when they realized they were lodged into the platform granite edge with the arm from ST 04.

The Equipment Operator brought it to the Supervisors attention that they couldn't move ST 04, and that's when the Supervisor contacted the yard Supervisor to report the incident.

The Equipment Operator first certified on ST 04 In 2013 and has been in class to recertify twice since 2013. The Equipment Operator has worked multiple shutdowns operating this type of equipment, along with jobs within their respective yard.

Track Supervisor:

The Track Supervisor wasn't out in the work area at the time of incident but received the call from the Supervisor that was out there at 01:49 hours. The Yard supervisor contacted CTEM mechanics at 01:50.

The Track Supervisor reported the work location to perform an investigation of the incident after being informed. The Yard Supervisor tried to contact SAFE personnel at 02:19 who wasn't on duty at that time.

The Track Supervisor then called MOC to report the incident to them, the Equipment Operator was an individual that usually operates all the spot tamping equipment and is familiar with their duties.

The Track Supervisor used the PM that was also in the work area to unwedge the ST 04 from the platform to clear up.

Roadway Worker in Charge (RWIC)

The RWIC stated that they were the RWIC for area that had two work locations within their Track Rights. One area would be welding; while the other area would be tamping near the platform at Shady Grove station Track 1.

The RWIC worked the tamping area near the platform at Shady Grove and the other Supervisor took a crew further southbound to perform the welding. The RWIC took two track personnel, with the operator and themselves.

The RWIC performed the corrections on the area that they're working in and instructed the Equipment Operator to move back so they could check the gauge.

The RWIC stated that they started to check the gauge, and they heard a loud boom from the ST 04. The RWIC then approached the Equipment Operator to see if they were ok. Once confirming that the Operator was fine the RWIC contacted the Yard Supervisor to report the incident.

The RWIC stated that they did this same job the night before at another location; the time from when the actual incident happened there was a 10-minute window. The RWIC stated around 02:30 that they contacted the Yard Superintendent to advise them what had occurred pertaining the incident with ST-04.

The RWIC deferred to the Senior Supervisor (Yard Supervisor) for communication between their self and central control, felt the Yard Supervisor was more "seasoned" in the situation and how to handle it with dealing with the communication aspect.

CTEM Supervisor

The Supervisor was contacted about the incident as a hydraulic leak as the initial problem by the Yard Supervisor. The Mechanic Supervisor contacted MOC to advise them they were headed to Shady Grove to investigate the matter.

The Supervisors' work crew arrived prior to the Mechanic Supervisor, in which they performed clean-up of the hydraulic spill within the track bed along with capping off the severed hydraulic line. The Mechanic Supervisor advised MOC of an accurate and updated description of the incident and assisted with the tow process with PM to get ST04 free from the platform.

The Supervisor and his personnel assisted TRST on getting ST04 back to A99for storage and tagged ST04 out of service once it was in service

Appendix B: Written Statements

Witness or Employee Statement Form
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
USE SEPARATE FORM FOR EACH PERSON

TO BE COMPLETED AND DISTRIBUTED WITHIN 24 HOURS

Page of

PERSONNEL INVOLVED (Use This Block For WMATA Employees and Contractors)

[redacted]

	Job Title	Department	Division/Section
[redacted]	Equipment Operator	TRST	Shady Grove

Last Day Worked (prior to)	Hours Worked (within last 24 hrs)	Overtime?
08-16-2025	Including today, 4 hours	NO

INVOLVED PERSON OR WITNESS (Use This Block For Non-WMATA Involved Person or Witness)

Name	Phone Number	E-Mail

Address

INCIDENT

Date	Incident Time	Date/Time Reported	Location
08-21-25	01:50	08-21-25 01:50	A15 platform

Incident ID# (From ROCC, BOCC, etc.)

Worksafe Incident #

What happened prior to the incident?

I used STO4 to tamp a small area of ties.

Describe the incident

After tamping the small area, I was told to back up. I didn't secure unit properly for traveling, which caused me to hit platform.

What happened after the incident?

Notified office supervision

Form Completed by: (Print Name [redacted] Date 08-21-25

Signature [redacted]

Witness or Employee Statement Form
WASHINGTON METROPOLITAN AREA TRANSIT AUTHORITY
USE SEPARATE FORM FOR EACH PERSON

TO BE COMPLETED AND DISTRIBUTED WITHIN 24 HOURS
Page of

PERSONNEL INVOLVED (Use This Block For WMATA Employees and Contractors)

[redacted]		Badge # [redacted]
Job Title: Super Visor	Department: TRST	Division/Section: A99
Last Day Worked (prior to): 08/19/25	Hours Worked (within last 24 hrs): 14	Overtime?: 6

INVOLVED PERSON OR WITNESS (Use This Block For Non-WMATA Involved Person or Witness)

[redacted]

Date	Incident Time	Date/Time Reported	Location
08/20/25	01:44am	01:49am	A15

Incident ID# (From ROCC, BOCC, etc.) | Worksafe Incident #

What happened prior to the incident?

Personnel/I briefed my team on A15 Platform

Describe the incident

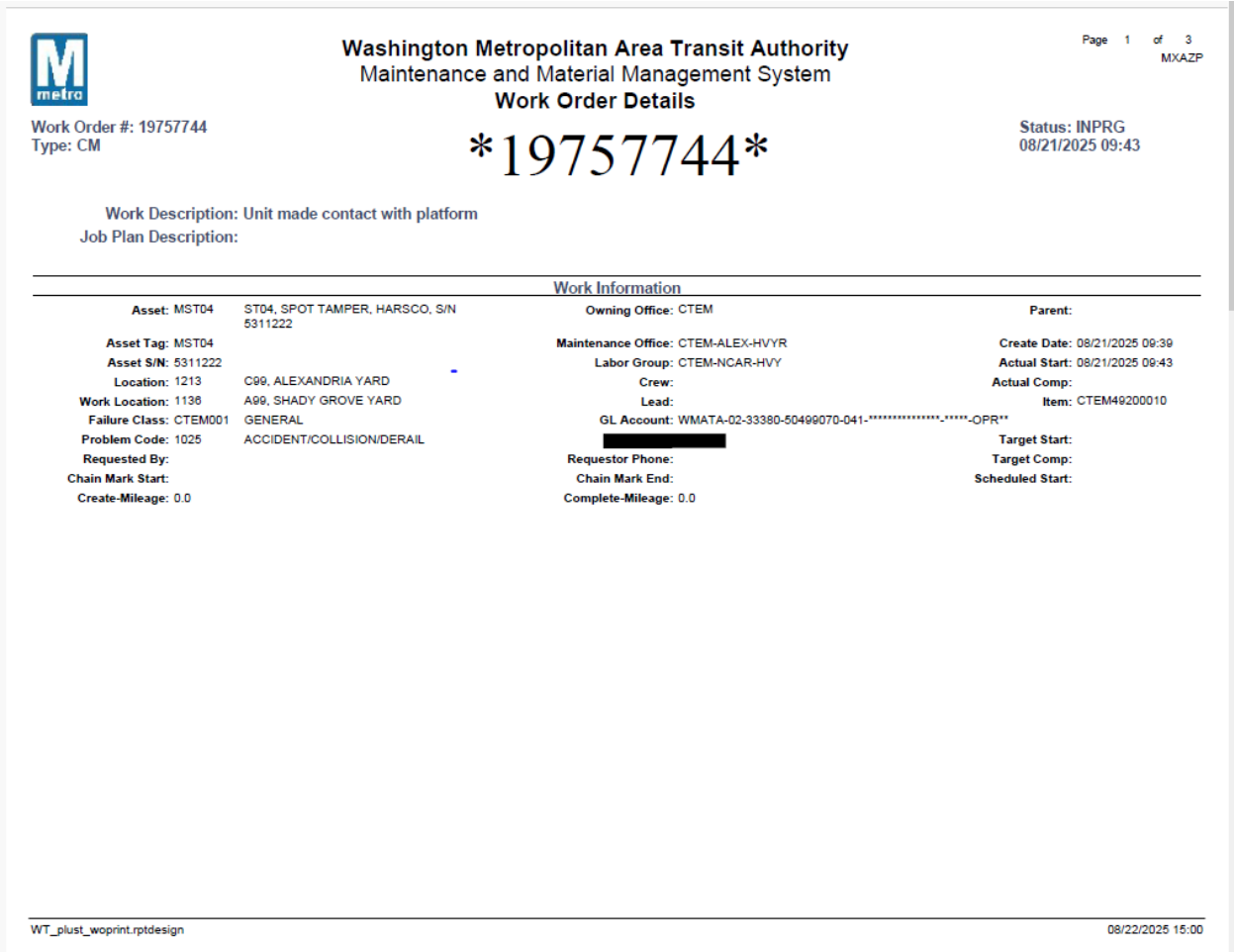
After getting permission to go to work by central, I positioned the spot tamper to correct TGV findings.
I then realized bonds and cables in area, I then communicated with the operator and told him we'll be tamping the outside only and he needs to adjust his teeth on spot tamper because of cables. After doing that I directed him to the area I needed tamped, After he tamped I told him back up so I can check elevation and that's when he backed In to platform

What happened after the incident?

Without adjusting the tamper back to the inside and got Wedged in.
After incident I then contacted my lead supervisor Brad and he made the phone calls to Mechanic / Safety & ROCC.

[redacted] Date 08/20/2025

Appendix C – Maximo Work Orders



Washington Metropolitan Area Transit Authority
Maintenance and Material Management System
Work Order Details

Page 1 of 3
MXAZP

Work Order #: 19757744
Type: CM

19757744

Status: INPRG
08/21/2025 09:43

Work Description: Unit made contact with platform
Job Plan Description:

Work Information

Asset:	MST04	ST04, SPOT TAMPER, HARSCO, S/N 5311222	**Owning Office:**	CTEM	**Parent:**
Asset Tag:	MST04		**Maintenance Office:**	CTEM-ALEX-HVYR	**Create Date:** 08/21/2025 09:39
Asset S/N:	5311222		**Labor Group:**	CTEM-NCAR-HVY	**Actual Start:** 08/21/2025 09:43
Location:	1213	C99, ALEXANDRIA YARD	**Crew:**		**Actual Comp:**
Work Location:	1136	A99, SHADY GROVE YARD	**Lead:**		**Item:** CTEM49200010
Failure Class:	CTEM001	GENERAL	**GL Account:**	WMATA-02-33380-50499070-041-**********-*****-OPR**	
Problem Code:	1025	ACCIDENT/COLLISION/DERAIL	[redacted]		**Target Start:**
Requested By:			**Requestor Phone:**		**Target Comp:**
Chain Mark Start:			**Chain Mark End:**		**Scheduled Start:**
Create-Mileage:	0.0		**Complete-Mileage:**	0.0	

WT_plust_woprint.rptdesign 08/22/2025 15:00

Washington Metropolitan Area Transit Authority
Maintenance and Material Management System
Work Order Details

Work Order #: 19757744
Type: CM

19757744

Status: INPRG
08/21/2025 09:43

Work Description: Unit made contact with platform
Job Plan Description:

Task IDs

Task ID	
10	While working, unit made contact with platform REPORT TO A99 LOOKED OVER UNIT CONDITION TIGHTEN CAPPED-PLUGGED OFF LEFT SIDE HEAD FITTINGS OPERATED UNIT IN TRAVEL BOTH DIRECTIONS OPERATED UNIT IN WORK INDEX BOTH DIRECTIONS SERVICE APPLY-RELEASE AND PARKING BRAKE RELEASE-APPLY FULLY OPERATIONAL TAMP HEAD SLIDE-HEAD LOCKS FULLY LOCKED BOTH SIDE HEADS AND SECURE INSTALLED ST04 TOW BAR BACK IN STOW POSISTION AND SECURED UNIT IS READY FOR TRAVEL ON ROADWAY TAMP HEAD ARE OUT OF SERVICE. ST04 Needs follow up and inspection Safety is involved Unit in shady grove While working at end of platform , operator went to back up and forgot to pull in left side tamping heads 1:50 am ST04 struck end of platform , with left tamping rail extended and hydraulic fluid leaking 2:00 – dispatched mechanics 2:45 – arrived 2:52- leak stopped – line was crushed, only fluid on ground was the fluid in the line for the vibrator, capped off lines Unit was jammed against platform and would not move, got PM38 hooked tow bar up and pull ST04 away from platform, wear plats broken and jamming slide, hammered to brake loose so we could head into lock position 4:15 tish cleared main [redacted]

Component: 000-400 CTEM-CAR TRACK EQUIPMENT (NON-REVENUE VEHICLES) **Work Accomp:** INSPECTED **Reason:** INCIDENT//ACCIDENT **Status:** INPRG **Position:** **Warranty?:** N

Actual Labor

Task ID	Labor	Start Date	End Date	Start Time	End Time	Approved?	Regular Hours	Premium Hours	Line Cost
10	[redacted]	08/20/2025	08/20/2025	02:00	06:00	N	04:00	00:00	$[redacted]
10	[redacted]	08/21/2025	08/21/2025	01:00	06:00	N	05:00	00:00	$[redacted]
10	[redacted]	08/21/2025	08/21/2025	02:00	06:00	N	04:00	00:00	$[redacted]
10	[redacted]	08/21/2025	08/21/2025	06:00	10:00	N	04:00	00:00	$[redacted]
10	[redacted]	08/21/2025	08/21/2025	02:00	06:00	N	04:00	00:00	$[redacted]
10	[redacted]	08/21/2025	08/21/2025	06:15	11:00	N	04:45	00:00	$[redacted]
10	[redacted]	08/21/2025	08/21/2025	02:00	06:00	N	04:00	00:00	$[redacted]
						Total Actual Hour/Labor:	29:45	00:00	$[redacted]

WT_plust_woprint.rptdesign 08/22/2025 15:00

Washington Metropolitan Area Transit Authority
Maintenance and Material Management System
Work Order Details

Work Order #: 19757744
Type: CM

19757744

Status: INPRG
08/21/2025 09:43

Work Description: Unit made contact with platform
Job Plan Description:

Measurements

Asset	Description	Asset Position	Measurement Point Description	Before Meas	After Meas	Last Meas	Last Meas Date	LL	UL	UNIT
927530	Diesel Engine, Cummins QSB 6.7		CTEM RUN HOURS		6125.00	6109.00	7/9/25 24:00	-2.000	1000000.0	HOUR

Failure Reporting

Cause	Remedy	Supervisor	Remark Date
		[redacted]	

Remarks:

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Appendix D – Why Tree