



U.S. Department  
of Transportation

**Federal Transit  
Administration**

Headquarters

1200 New Jersey Avenue, SE  
Washington, DC 20590

**SENT VIA EMAIL**

August 10, 2022

Mr. Steve Poftak  
General Manager  
Massachusetts Bay Transportation Authority  
10 Park Plaza  
Boston, MA 02116

Subject: Corrective Action Plan Approvals for Special Directive 22-4

Dear Mr. Poftak,

Thank you and your team for submitting corrective action plans (CAPs) to address the nine (9) required actions from the Federal Transit Administration (FTA) specified in Special Directive 22-4 related to the Massachusetts Bay Transportation Authority's (MBTA) Track Access and Maintenance of Way. These required actions include the following:

- FTA-TRA-22-001: MBTA must establish consistent PPE requirements for ROW personnel access. Personnel is inclusive of all employees, contractors, oversight, or other individuals who access the rail system and facilities.
- FTA-TRA-22-002: MBTA must implement and document consistent MOW compliance with ROW safety procedures, including PPE requirements for all personnel.
- FTA-TRA-22-003: MBTA must correct the track defects between Tufts Medical Center and Back Bay Stations on both north- and south-bound tracks.
- FTA-TRA-22-004: MBTA must document its MOW maintenance needs and develop and implement a schedule to ensure adequate track access to meet maintenance requirements.
- FTA-TRA-22-005: MBTA must develop and implement work plans to address MOW maintenance needs and manage on-going MOW workload.

- FTA-TRA-22-006: MBTA must expedite and sufficiently resource the transition to its new Enterprise Asset Management (EAM) system. In the meantime, MBTA must formalize and implement procedures and protocols to ensure the MOW managers and MOW inspectors share information and establish data-driven maintenance priorities.
- FTA-TRA-22-007: MBTA must develop and implement a process and reporting procedure that accurately communicates the number, severity, and significance of MOW defects to Executive Leadership.
- FT-TRA-22-008: MBTA must develop and implement a special maintenance repair plan to reduce the percentage of system track that is under a speed restriction.
- FTA-TRA-22-009: MBTA must restore Green Line work train capabilities.

#### FTA Approval of MBTA's CAPs for Special Directive 22-4

The FTA has completed its review of the MBTA's CAPs and initial submittals for the nine (9) required actions in Special Directive 22-4. These CAPs were submitted as required on July 15, 2022.

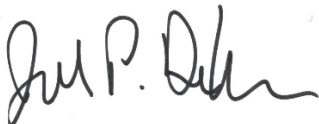
**The FTA finds that these CAPs, which include 70 distinct action items, adequately address the findings and required actions identified in Special Directive 22-4. Therefore, FTA approves them for implementation.**

In the attached CAP Evaluation Table, FTA has provided notes and considerations that may be useful for the MBTA team. These notes will assist MBTA to implement these actions and will support verification efforts by FTA and the Massachusetts Department of Public Utilities (DPU) regarding their completion.

#### **Conclusion**

We appreciate your efforts to enhance MBTA's safety performance, and we look forward to working with you and your team as the MBTA addresses these findings and required actions. Please contact our SMI Coordinator, Ms. Erin Powell, by phone at (771) 200-8016 or by email at [Erin.Powell@dot.gov](mailto:Erin.Powell@dot.gov) or our SMI CAP Manager, Mr. Cyrell McLemore, by phone at (312) 886-1625 or by email at [Cyrell.McLemore@dot.gov](mailto:Cyrell.McLemore@dot.gov) with any questions.

Sincerely,



Joe DeLorenzo  
Associate Administrator and  
Chief Safety Officer  
Office of Transit Safety and Oversight

Enclosure: Special Directive 22-4 Corrective Action Plan Evaluation Table

cc: Peter Butler, Regional Administrator, FTA Region 1  
Jeffrey Gonneville, Deputy General Manager, MBTA  
Ron Ester, Chief Safety Officer, MBTA  
Erik Stoothoff, Chief Engineer, MBTA  
Joe Cheever, Chief of Engineering and Maintenance, MBTA  
Elizabeth Cellucci, Director, Transportation Oversight Division, Massachusetts Department  
of Public Utilities

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
FTA-TRA-22-001	<p><u>Finding:</u> MBTA has not established consistent PPE requirements for ROW access.</p> <p><u>Required Action:</u> MBTA must establish consistent PPE requirements for ROW personnel access. Personnel is inclusive of all employees, contractors, oversight, or other individuals who access the rail system and facilities.</p>	1. Develop SMWG: The MBTA will establish a Safety Management Working Group (SMWG) comprised of stakeholder groups that will work collectively to assemble, review, and develop an agency-wide PPE Policy and compliance program for MBTA Safety Department to integrate into the MBTA Safety Plan.	7/18/22	<b>Action Item Approved</b>	
		2. Collect all existing PPE policies throughout the MBTA: The SMWG will compile all the current PPE policies throughout all the MBTA departments.	8/15/22	<b>Action Item Approved</b>	
		3. Review all existing policies: Review all existing PPE policies and identify inconsistencies, needed changes and improvements.	9/1/22	<b>Action Item Approved</b>	
		4. Create one consistent policy: The SMWG will create an agency-wide policy that will be used as the standard PPE policy for all MBTA departments and others who access the ROW.	10/1/22	<b>Action Item Approved</b>  Note: FTA will review this policy when it is developed and provide any comments to the MBTA.	
		5. Distribute the revised standard policy: The MBTA Safety Department will distribute the standard PPE	12/1/22	<b>Action Item Approved</b>  Note: FTA understands that the new PPE policy will be in effect with	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		Policy to all departments and others who access the ROW. This distribution will include an acknowledgement of receipt.		distribution of the revised standard policy, by December 1, 2022, and will begin verification activities at that time.	
		6. Promulgate minimum PPE requirements policy: MBTA will incorporate the standard PPE policy, into all MBTA departmental safety plans and the MBTA Rule Book.	11/1/22	<b>Action Item Approved</b>  Note: FTA understands that the new PPE policy will be ready in time to be incorporated in the update to the 2018 Operations Rulebook (4/1/23).	
		7. Develop Training Materials: The MBTA will develop training materials to ensure that all affected personnel are informed of the PPE requirements for accessing the ROW. Personnel is inclusive of all employees, contractors, oversight, or other individuals who access the rail system and facilities.	5/1/23	<b>Action Item Approved</b>  Note: FTA will verify initial communication and roll-out of the new standard PPE policy in November and December 2022 and the development and completion of training on this policy in Spring of 2023.	
		8. Training of affected personnel: The MBTA will provide training for all personnel that access the ROW on the new standard PPE policy. MBTA departments will ensure personnel are trained.	6/30/23	<b>Action Item Approved</b>	
		9. Verification: The MBTA will establish a consistent method for auditing	12/31/22	<b>Action Item Approved</b>	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		<p>compliance with the new PPE policy by developing a standard SRCP (Safety Rules Compliance Program) in conjunction with FTA-TRA-22-002.</p>		<p>Note: FTA and MDPU will also be auditing compliance with the new PPE policy.</p>	
		<p>10. CAP Verification: MBTA departments will evaluate actionable items/deliverables before submission to FTA to confirm there is reasonable evidence that the findings and this required action have been resolved, taking into account the scope and performance measures.</p>	<p>Ongoing</p>	<p><b>Action Item Approved</b></p>	
<p>FTA-TRA-22-002</p>	<p><u>Finding:</u> MOW personnel and contractors do not consistently follow MBTA's established PPE requirements or ROW safety procedures. <u>Required Action:</u> MBTA must implement and document consistent MOW compliance with ROW safety procedures, including PPE requirements for all personnel. Personnel is inclusive of all employees, contractors, oversight, or other individuals who access the rail system and facilities.</p>	<p>1. Develop Compliance monitoring program requirements: The MBTA PPE SMWG will develop a compliance check policy for verifying proper PPE usage from all departments that access the ROW. These compliance practices will align with the new PPE Policy developed in FTATRA-22-001. The MBTA will develop requirements for each department to include an SRCP program in their safety plans that meets the requirements of the compliance policy.</p>	<p>11/1/22</p>	<p><b>Action Item Approved</b></p> <p>Note: During the 7/21/22 bi-weekly meeting, FTA clarified that the compliance monitoring program and subsequent actions to address FTA-TRA-22-002 <b>should also include ROW safety procedures</b>, such as compliance with flagging requirements and speed restrictions for work crews, as well as PPE requirements.</p>	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		2. Distribute policy to all departments: The MBTA Safety Department will distribute the policy to all affected departments. This distribution will include an acknowledgement of receipt.	12/1/22	<b>Action Item Approved</b>	
		3. Monitor Compliance: MBTA departments will agree to carryout SRCP audits of work locations on a defined frequency and submit SRCP records to Safety for review, acceptance, and guidance for future SRCP activities.	12/31/22	<b>Action Item Approved</b>	
		4. Compliance verification: MBTA Safety and/or other departmental designees will perform regular audits to confirm compliance with the policy. Nonconformance of the policy will be documented and appropriate actions will be taken as described in the policy.	Ongoing	<b>Action Item Approved</b>  Note: FTA will verify action taken by the Safety Department and other departmental designees to confirm and address compliance with these requirements.	
		5. CAP Verification: MBTA departments will evaluate actionable items/deliverables before submission to FTA to confirm there is evidence that the findings and this required action have been resolved, taking into account	Ongoing	<b>Action Item Approved</b>  Note: FTA will coordinate with MBTA's responsible parties to review MBTA's internal verification activities.	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		the scope and performance measures.			
FTA-TRA-22-003	<p><u>Finding:</u> The curved track section on the Orange Line between the Tufts Medical Center and Back Bay Stations (both north- and south-bound) has been under speed restriction for an extended period dating back to 2019 due to excessive wear and defects.</p> <p><u>Required Action:</u> MBTA must correct the track defects between Tufts Medical Center and Back Bay Stations on both north- and south-bound tracks.</p>	<ol style="list-style-type: none"> <li>1. Schedule first diversion access to repair tracks: Schedule access and conduct preparations for the replacement of the 132#/115# low-side guardrail and for any follow-on work to be conducted. Dates: 7/10, 9/18, 9/25, 10/2/2022.</li> <li>2. Install south-bound track at Back Bay: An outage is scheduled for 7/10/22 to replace low-side southbound 115#/132# curve at the Back Bay. The high-side 115# rail to follow in sequence along with final re-gauging. The MBTA will apply any lessons learned from this work to subsequent work.</li> <li>3. Finalize all work plans and execute the rail replacement: MBTA Track Department will continue to prepare the welded stringers and drilled holes and assemblies for installation and utilize the planned access to execute the major guardrail installations and additional non-revenue days to install</li> </ol>	<p>10/1/22</p> <p>7/15/22</p> <p>10/15/22</p>	<p><b>Action Item Approved</b></p> <p><b>Action Item Approved</b></p> <p>Note: Based on discussion during the 7/21/22 and 8/4/22 bi-weekly meetings, FTA understands that this work in the curve has been completed. FTA will verify completion when the entire section of track has been restored.</p> <p><b>Action Item Approved</b></p>	



**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		high-side 115# rail and final re-gauging as necessary.			
		4. Remove speed restriction: Speed restriction removed or reduced between Tufts Medical Center to Mass Ave Stations on both northbound and southbound tracks.	10/31/22	<b>Action Item Approved</b>  Note: FTA will verify completion when the entire section of track has been restored.	
		5. CAP Verification: MBTA departments will evaluate actionable items/deliverables before submission to FTA to confirm there is evidence that the findings and this required action have been resolved, taking into account the scope and performance measures.	Ongoing	<b>Action Item Approved</b>	
FTA-TRA-22-004	<u>Finding:</u> MBTA does not provide adequate time to complete necessary MOW maintenance activities.  <u>Required Action:</u> MBTA must document its MOW maintenance needs and develop and implement a schedule to ensure adequate track access to meet maintenance requirements.	1. Develop a ROW Access SMWG: Develop a Safety Management Working Group (SMWG) for ROW Access Improvements to evaluate options and opportunities to perform more maintenance and construction work on the ROW, both during non-revenue hours and during service diversions.	7/31/22	<b>Action Item Approved</b>	
		2. Review other options to increase ROW access: Explore other options to increase ROW access time. These may include, bussing last train(s),	9/1/22	<b>Action Item Approved</b>  Note: FTA will expect MBTA to discuss these options during the first	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		reduced service, increased weekend diversion and extended full diversions.		bi-weekly meeting after this submittal is completed.	
		3. Establish a schedule for the work of the CAP: Implement a preliminary schedule that addresses all aspects of the anticipated changes to the ROW Access process, procedures, policies, and resource needs, as well as interim solutions to increase working time on the ROW to support the work of other CAPs associated with the findings of Special Directive FTA-TRA-22.	9/1/22	<b>Action Item Approved</b>  Note: FTA will review and monitor MBTA's implementation of this schedule.	
		4. Review the Access Report and any previous internal analysis to increase ROW time: Review the "MBTA: Safety Case for Improving Access" report (Access Report) and any previously internal analysis on that report to determine if there are any viable opportunities the MBTA can capitalize on and implement to increase ROW access.	10/1/22	<b>Action Item Approved</b>	
		5. Develop ROW Access Trial Plan: Develop enhancements to ROW access process and	4/1/23	<b>Action Item Approved</b>  Note: FTA expects to see this ROW Access Trial Plan coordinated with	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		procedures suitable for pilot trial.		the OCC staffing and E&M staffing plans.	
		6. Execute Trials and Iterations (1-3 phases): Execute phase 1 trial and then iterate with phase 2 & 3 incorporating any lessons learned from phase1.	9/1/23	<b>Action Item Approved</b>  Note: FTA will review any criteria developed by MBTA to assess the effectiveness/success of each trial and iteration.	
		7. Adopt ROW Access modifications: Formally accept changes to the ROW access procedures by SMWG, present to SMRC for ratification.	2/1/24	<b>Action Item Approved</b>	
		8. Establish a schedule for implementations of the proposed opportunities and options: Implement a schedule that addresses measures to ensure adequate track access to meet maintenance requirements.	11/1/23	<b>Action Item Approved</b>	
		9. Develop SOPs: Based on the determination of opportunities and options considered by the committee, the MBTA will develop Standard Operating Procedures (SOP) for implementing the enhanced ROW Access process.	12/31/23	<b>Action Item Approved</b>	
		10. Train staff on enhanced ROW Access process and	6/30/24	<b>Action Item Approved</b>	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		<p>procedures: As part of the SOP, the MBTA will develop a training program and train all staff on the enhanced ROW Access procedures. This material will be distributed, and formal training will be mandatory for all affected personnel prior to enactment.</p>			
		<p>11. Identify and Procure safety equipment: The MBTA will identify the type and quantity of safety equipment required to support the enhanced ROW Access procedures. Ensure that appropriate budgets are built to accommodate the changes.</p>	1/1/24	<b>Action Item Approved</b>	
		<p>12. Define staffing needs: The MBTA will identify the type and quantity of staff required to support the enhanced ROW Access procedures. Ensure that appropriate budgets are built to accommodate the changes.</p>	1/1/24	<b>Action Item Approved</b>	
		<p>13. CAP Verification: MBTA departments will evaluate actionable items/deliverables before submission to FTA to confirm there is evidence that the findings and this required action have been</p>	Ongoing	<b>Action Item Approved</b>	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		resolved, taking into account the scope and performance measures.			
FTA-TRA-22-005	<p><u>Finding:</u> MBTA's MOW departments have growing maintenance needs.</p> <p><u>Required Action:</u> MBTA must develop and implement work plans to address MOW maintenance needs and manage on-going MOW workload.</p>	1. Review the existing backlog of track defect corrective maintenance: MOW has collected all track defect data and created a prioritization process for identifying, by line, the most urgently needed corrective maintenance.	8/1/22	<p><b>Action Item Approved</b></p> <p>Note: FTA will review submittal with MBTA during next bi-weekly meeting (8/18/22).</p>	
		2. Review budget needs for materials for increased corrective maintenance: MOW will continue to analyze the backlog of corrective maintenance and review materials on hand and needed materials to address the backlog of corrective maintenance, as well as additional materials needed to sustain maintenance of the track infrastructure.	9/1/22	<p><b>Action Item Approved</b></p>	
		3. Schedule corrective maintenance work: MOW will continue the development of a schedule, by line, for addressing corrective maintenance needs. This plan is anticipated to be regionalized and predictable to pre-build into future ROW	12/31/22	<p><b>Action Item Approved</b></p>	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		<p>Diversion schedules and reserve dates for track areas to most efficiently address existing back-logs of corrective maintenance.</p>			
		<p>4. Budget for staffing increases: MOW will assess staffing needs based on prioritized scopes of maintenance work and their associated schedules.</p>	2/1/23	<b>Action Item Approved</b>	
		<p>5. Budget for equipment and vehicle needs: MOW will review existing inventory of equipment and vehicles to assess their condition for service while determining the quantity and type of equipment and vehicles needed to support the corrective maintenance backlog and sustained maintenance activities.</p>	2/1/23	<b>Action Item Approved</b>	
		<p>6. Develop regularly scheduled extended track access hours: Develop a schedule of preplanned weekend diversions for the purpose of granting MOW forces additional track time to perform needed repairs. These time windows will be scheduled in advance for</p>	10/1/22	<b>Action Item Approved</b>	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		coordination with Capital projects.			
		7. CAP Verification: MBTA departments will evaluate actionable items/deliverables before submission to FTA to confirm there is evidence that the findings and this required action have been resolved, taking into account the scope and performance measures.	Ongoing	<b>Action Item Approved</b>	
FTA-TRA-22-006	<p><u>Finding:</u> MBTA's data on MOW defects and work order status is insufficient to guide management planning.</p> <p><u>Required Action:</u> MBTA must expedite and sufficiently resource the transition to its new Enterprise Asset Management (EAM) system. In the meantime, data on MOW defects and work order status is insufficient to guide management planning.</p>	1. Assess EAM adoption schedule: The MBTA E&M and OCE Departments will review the existing EAM implementation schedule and the adoption status of other existing software solutions to determine what corrective actions are needed to provide digital tools to effectively support work planning and defect management practices while developing processes and resource needs to better manage data on MOW defects and work order status.	9/1/22	<b>Action Item Approved</b>	
		2. Resource Gap Assessment to enhance EAM adoption schedule: The MBTA E&M and OCE Departments will	10/1/22	<b>Action Item Approved</b>	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		determine what additional resources in the form of personnel, budget (Capital and Operating) and contracts are needed and where they will apply them in the process to complete the transition to its Enterprise Asset Management (EAM) system and implement robust maintenance planning.		Note: FTA will expect MBTA to review this deliverable during the next appropriate bi-weekly meeting.	
		3. Resource Acquisition to enhance EAM adoption schedule: The MBTA E&M and OCE Departments along with HR and Budget will secure the resources needed to accelerate EAM adoption.	12/1/22	<b>Action Item Approved</b>	
		4. No item identified		(Note, there is a numbering error in this CAP, that skips over number 4.)	
		5. Resource Allocation to enhance EAM adoption schedule: The MBTA E&M and OCE Departments along with HR and Budget will incorporate those resources into the department budgets and hiring plans to meet the plan.	6/30/23	<b>Action Item Approved</b>	
		6. Revise schedule for EAM adoption: Develop a revised schedule based on the	11/1/22	<b>Action Item Approved</b>	



**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		addition of planned resources.			
		7. Verification of Implementation Schedule: MBTA will verify that HR, Budget, OCE and E&M have all appropriately resourced their operating and capital budgets as well as built hiring plans and support contracts to achieve the EAM adoption acceleration plan.	6/30/23	<b>Action Item Approved</b>	
		8. Enhance work planning: MBTA MOW will enhance its work management planning to incorporate a strategy expanding to track defects that are not yet affecting service through operating restrictions.	7/1/23	<b>Action Item Approved</b>	
		9. Enhance maintenance management and execution capabilities: MBTA MOW will develop a hiring plan to increase the staff size to carry out the internally resourced maintenance activities.	12/31/22	<b>Action Item Approved</b>  Note: FTA will expect MBTA to review this deliverable during the next appropriate bi-weekly meeting.	
		10. Enhance capital renewal planning: MBTA OCE will work with MOW Capital Programs to develop a strategy for contracted capital renewal plan.	12/31/22	<b>Action Item Approved</b>	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		11. CAP Verification: MBTA departments will evaluate actionable items/deliverables before submission to FTA to confirm there is evidence that the findings and this required action have been resolved, taking into account the scope and performance measures.	Ongoing	<b>Action Item Approved</b>	
FTA-TRA-22-007	<p><u>Finding:</u> MBTA's MOW department is not providing prioritized and actionable information to Executive Leadership regarding the condition of MBTA's assets and infrastructure.</p> <p><u>Required Action:</u> MBTA must develop and implement a process and reporting procedure that accurately communicates the number, severity, and significance of MOW defects to Executive Leadership.</p>	1. Develop leading KPIs: Establish an E&M Working Group to review existing known conditions, required actions, potential consequences of no action, and determine appropriate indicators of performance that will highlight potential maintenance needs.	10/15/22	<p><b>Action Item Approved</b></p> <p><b>Note: FTA understands that, at FTA's request, the MBTA is expediting this action, developing initial reports on speed restrictions and other measures, which will be shared with FTA in advance of 10/15/22 and provided weekly to MBTA's Executive Leadership team.</b></p>	
		2. Develop the process for data collection and transparency: The assigned resources will be tasked to develop a data collection and review process that will inform MOW infrastructure condition reporting.	1/1/23	<b>Action Item Approved</b>	
		3. Create transparent reporting: Build reports and dashboards from the EAM system to produce asset performance reports.	4/1/23	<b>Action Item Approved</b>	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		4. Integrate Reporting into Maintenance Planning Process: Implement a business process where dashboards are regularly reviewed and used to inform maintenance planning.	6/30/23	<b>Action Item Approved</b>	
		5. Formalize the process: Once developed and formalized, the procedure will be implemented across the Authority and verified by Quality Management.	8/30/23	<b>Action Item Approved</b>	
		6. Communicate to Executive Leadership: Reports and dashboards will be used to clearly communicates the number, severity, and significance of MOW defects to Executive Leadership. Interim reporting will be provided prior to formalization of process.	Ongoing	<b>Action Item Approved</b>	
		7. CAP Verification: MBTA departments will evaluate actionable items/deliverables before submission to FTA to confirm there is evidence that the findings and this required action have been resolved, taking into account the scope and performance measures.	Ongoing	<b>Action Item Approved</b>  Note: FTA will monitor development and use of these reports as part of its verification activities for this CAP.	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
FTA-TRA-22-008	<p><u>Finding:</u> MBTA reports 9.6% of heavy rail track is under a speed restriction due to track defects and over two miles of Green Line track also are speed restricted. MBTA's management accepts an unsustainable level of speed restrictions due to deferred maintenance.</p> <p><u>Required Action:</u> MBTA must develop and implement a special maintenance repair plan to reduce the percentage of system track that is under a speed restriction.</p>	1. Create a special maintenance repair plan working group: Discipline experts will be assigned to develop a special maintenance repair plan that addresses the percentage of system track that is under a speed restriction.	7/31/22	<b>Action Item Approved</b>	
		2. Develop special maintenance repair plan: The Special Maintenance Repair Plan working group will develop a maintenance repair plan that addresses the system track speed restrictions.	9/1/22	<b>Action Item Approved</b>  Note: FTA will verify development and implementation of MBTA's special maintenance plan to address speed restricted track conditions; FTA also will request that MBTA review this plan at an appropriate bi-weekly meeting.	
		3. Formalize special maintenance repair plan: This plan will be formalized resourced with appropriate staff, materials, equipment, contracts, and funding.	12/31/22	<b>Action Item Approved</b>	
		4. Implement special maintenance repair plan – Internal: MOW shall procure the materials, equipment, labor, and schedule ROW access to execute the special maintenance repair plan for work that is coordinated and performed internally by MBTA resources.	Ongoing	<b>Action Item Approved</b>	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		5. Implement special maintenance repair plan – External: Capital Programs shall procure the contracts and schedule ROW access to execute the special maintenance repair plan for work that is agree upon to be performed by contracted resources.	Ongoing	<b>Action Item Approved</b>	
		6. Monitor, maintain and control the plan: As speed restrictions due to maintenance issues have the potential to impact operations into the future and the MBTA will continue to monitor, maintain and control the plan.	Continuous	<b>Action Item Approved</b>  Note: Changed numbering to 5-8; this CAP had two #5s as submitted.	
		7. Develop a budget plan to sustain the track conditions: The MBTA will develop a staffing plan, operating budget and capital budget necessary to maintain the tracks in a condition that reduces the total percentage of tracks with speed restrictions.	6/30/23	<b>Action Item Approved</b>	
		8. CAP Verification: MBTA departments will evaluate actionable items/deliverables before submission to FTA to confirm there is evidence	Ongoing	<b>Action Item Approved</b>	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		that the findings and this required action have been resolved, taking into account the scope and performance measures.			
FTA-TRA-22-009	<u>Finding:</u> MBTA's Green Line work train has been inoperable for at least 8 months.  <u>Required Action:</u> MBTA must restore Green Line work train capabilities.	1. MBTA will schedule and execute the repair of the Green Line crane car #4360: A purchase order has been issued to the Vendor, First Electric, for 4 newly built motors. Delivery date is 12-14 weeks which will bring the delivery date to the middle of September 2022. Installation will take 1-2 weeks once delivered.	10/30/22	<b>Action Item Approved</b>  Note: FTA will monitor and verify MBTA's progress in completing work to restore Green Line work trains, 4360, 4361 and 4362 to a serviceable condition. <b>FTA expects updates from Vehicle Maintenance on progress for repairs at each bi-weekly meeting.</b>	
		2. MBTA will schedule and execute the repair of the Green Line GPL work car #4361: The Green Line GPL (Generator, Pump, Lift) work car is being repaired to perform as a prime mover (locomotive)	12/1/22	<b>Action Item Approved</b>	
		3. MBTA will schedule and execute the repair of the Green Line flat car #4362: Vehicle Maintenance will repair the out of service 4362 Flat Car to include installation of safety chains	6/17/22	<b>Action Item Approved</b>	
		4. CAP Verification: MBTA departments will evaluate	Ongoing	<b>Action Item Approved</b>	

**Corrective Action Plan (CAP) Evaluation Matrix  
Special Directive 22-4: Track Maintenance and MOW**

Identification Number	Finding and Required Action	Proposed CAP Items	Proposed Due Date	FTA Comments	MBTA Response (if needed)
		actionable items/deliverables before submission to FTA to confirm there is evidence that the findings and this required action have been resolved, taking into account the scope and performance measures.			