



WMSC Inspection Report 20260226

ISSUED 3/2/2026

Inspection Details

Title: Vibration Inspection

Location: Ballston-MU Station (K04) to West Falls Church Station (K06) Tracks 1 and 2, and Spring Hill (N04) to Reston Town Center (N07) Tracks 1 and 2

Date of Inspection: 2/26/2026

Time of Inspection: 12:00pm to 5:00pm

Unannounced

Risk-Based (Public Concern)

Functional Area: Track, Structures, Vehicles

Hazard Rating: 3B

Overview

On February 26, 2026, WMSC Inspectors conducted a risk-based inspection following a report, from a Metrorail rider, of significant vibrations on the shared Silver/Orange Line segment between East Falls Church and Ballston-MU stations on both tracks. WMSC Inspectors rode trains through the segments from Ballston-MU (K04) to West Falls Church (K06) and from Spring Hill (N04) to Reston Town Center (K07). Once the WMSC received this rider's safety concern, the WMSC reviewed Maximo¹ to see if any defects were reported in this area but did not identify any in Maximo. Therefore, the WMSC determined an in-field inspection necessary to further inspect and validate the safety concerns raised. After conducting this field inspection and reviewing the track geometry vehicle (TGV) data from this area, the WMSC did not identify any defects (as defined by Metrorail's track standards); however, the WMSC did identify potential "green" conditions that may be the cause of vibrations in the area.

A similar concern was previously identified last year, between the Ballston-MU Station (K04) and the East Falls Church Station (K05),² resulted in a speed restriction being placed on the area. The speed restriction was removed on October 22, 2025, after Metrorail added ballast to the area, as it was determined there was insufficient ballast in the reported area.

¹ Maximo is Metrorail's database for asset management; it tracks, manages, and reports all maintenance activity.

² <https://wmsc.gov/wp-content/uploads/2025/08/2025-08-06-Track-and-Rough-Ride-Inspection-Ballston-MU-to-West-Falls-Church-Station.pdf>



After the conclusion of the inspection, the inspector conducted a debrief with the Track and Structures (TRST) Senior Director, in accordance with Program Standard Section 6.F.1.

Defects and Corrective Actions

WMSC Inspections identify safety issues that may be classified as defects, findings, or recommendations. Findings and recommendations are defined by Program Standard Section 5.E.2 and 5.E.3, respectively. Ordinarily, issues identified in a WMSC inspection report are classified as defects. Defects are specific safety issues of non-conformance/non-compliance that are identified, and that require remedial action.

This inspection did not identify any findings or recommendations and therefore does not require a WMSC Corrective Action Plan in accordance with Program Standard Section 5.E.4.

Defect Observations and Determinations

Observation 1

See table for riding inspection for Spring Hill (N04) to Reston Town Center (N07) Track 1 and 2 and Ballston-MU Station (K04) to West Falls Church Station (K06) Track 1 and 2.

Lead Train Car #	Location	Ride Experience (defect)
7176	N07 to N04 Trk 1 Inbound	No vibration experienced
7308	N04 to N07 Trk 2 Outbound	No vibration experienced
7486	N07 to N04 Trk 1 Inbound	No vibration experienced
6063	N04 to N07 Trk 2 Outbound	No vibration experienced
7618	N07 to N04 Trk 1 Inbound	No vibration experienced
7538	K04 to K05 Trk 2 Outbound	No vibration experienced
7284	K05 to K04 Trk 1 Inbound	Vibration in interlocking. Harmonic vibration on ballasted section.
7624	K04 to K05 Trk 2 Outbound	No vibration experienced
7478	K05 to K04 Trk 1 Inbound	Vibration in interlocking. Harmonic vibration on ballasted section.
3065	K04 to K06 Trk 2 Outbound	No vibration experienced
7186	K06 to K04 Trk 1 Inbound	Vibration in interlocking. Harmonic vibration on ballasted section K05 to K04.
3156	K05 to K04 Trk 1 Inbound	Vibration in interlocking. Harmonic vibration on ballasted section.

Table 1. Shows results from each segment examined by the respective trains.



Observation 2

After riding the trains, WMSC Inspectors reviewed the track geometry vehicle (TGV) data from May 5, 2025 (most recent TGV run through this area). WMSC Inspectors identified what appears to be a cause of the vibration on Track #1's right rail, between East Falls Church (K05) and Ballston-MU (K04). Although the analysis revealed no track defects (all anomalies are within the "green" range, which Metrorail standards indicate as +/- 1.5 inches, the data *does indicate* a ride quality concern on the right rail even though the deviation is less than 1 inch. (Metrorail's track standards "yellow defect" threshold is 1.5 inches, TRST-1000 Table 106.4(a).) In the subject area, trains are currently permitted to run at a maximum allowable speed of 65 miles per hour (MPH), which can make conditions that are "green" noticeable to passengers. TGV data is below.

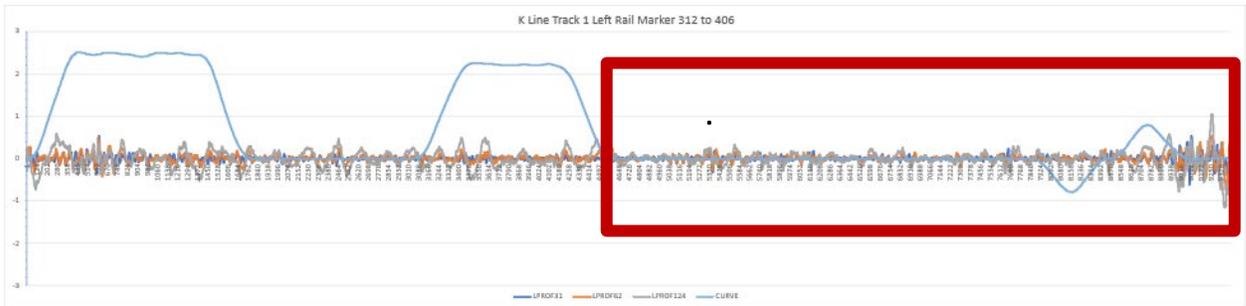


Photo 1: TGV data of the left rail showing no irregularities on the tangent track from K1 312+00 to 406+00.



Photo 2: TGV data of the right rail showing lateral irregularities compared to the left rail on the tangent track from K1 312+00 to 406+00.

Hazard Rating: 3B

Next Steps

Please respond **by Thursday, March 5, 2026**, to acknowledge receipt and to convey responses to the WMSC regarding what, if any, actions will be or have been taken in response.