



Approved: August 16, 2023

Preliminary Report RRD23FR014

This information is preliminary and subject to change.

Southeastern Pennsylvania Transportation

Authority Trolley Derailment

Philadelphia, Pennsylvania

July 27, 2023

On July 27, 2023, about 10:18 p.m. local time, Southeastern Pennsylvania Transportation Authority (SEPTA) trolley 9107 derailed at the intersection of Island Avenue and Woodland Avenue in Philadelphia, Pennsylvania, and struck a sport utility vehicle and the Blue Bell Inn.¹ (See figure.) A SEPTA maintenance technician was moving the trolley from the Elmwood maintenance facility to the adjoining yard for temporary storage. As the maintenance technician operated trolley 9107 toward Island Avenue, he was unable to apply the air brakes and stop the trolley from moving downhill along Island Avenue. The maintenance technician jumped out of the trolley before the derailment and sustained minor injuries. The sport utility vehicle was occupied by four people, two of whom were transported to a local hospital with minor injuries. The Blue Bell Inn was occupied by one resident, who was not injured. Visibility conditions were dark, but the area was illuminated by ambient and street lighting; the temperature was 84°F with light wind and no precipitation. SEPTA estimated equipment damage to be about \$500,000. Longcare Appraisal & Adjustment estimated damage to the Blue Bell Inn to be about \$300,000.

¹ The trolley tracks at the derailment site were not separated; they shared a grade with highway traffic.

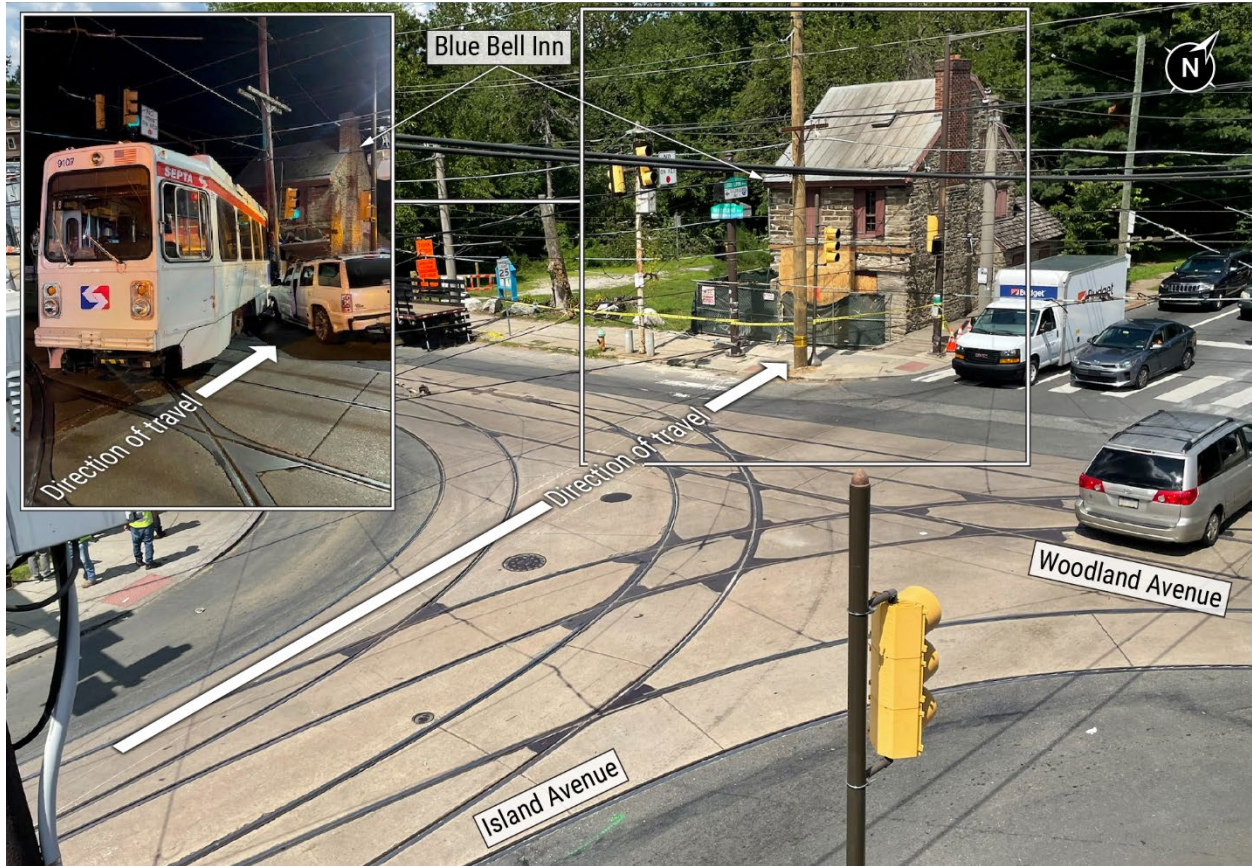


Figure. Overview of the accident area.

On the day of the accident, trolley 9107 was undergoing an air compressor replacement at SEPTA’s Elmwood maintenance facility. The replacement process spanned multiple shifts throughout the day and involved multiple maintenance personnel. As part of this process, maintenance personnel rendered the trolley’s air brakes inoperable to allow for the manual repositioning of the trolley within the facility. Shortly before the accident, a shift foreman instructed a maintenance technician to reposition the trolley for temporary storage. The maintenance technician told National Transportation Safety Board investigators that he had no indication (such as a tag or note) that the trolley’s air brakes had been rendered inoperable. The maintenance technician operated the trolley under its own power toward Island Avenue, but when he attempted to apply the air brakes, the trolley failed to stop. The trolley continued on the downhill grade along Island Avenue until it derailed at the intersection of Island Avenue and Woodland Avenue about 20 mph.

While on scene, National Transportation Safety Board investigators examined the accident location, equipment, and track; completed interviews; tested the trolley’s brake system; and gathered records related to employee training and certification as well as SEPTA policies and procedures.

The National Transportation Safety Board's investigation is ongoing. Future investigative activity will focus on SEPTA's trolley repair and maintenance practices, including pre-movement procedures for maintenance personnel as well as maintenance personnel training and supervision, and railroad oversight.

Parties to the investigation include the Federal Transit Administration, the Pennsylvania Department of Transportation, SEPTA, and the Transport Workers Union of Philadelphia Local 234.