

SCHOOL-RELATED CRASH INFRASTRUCTURE REVIEW

Location: Middlebrook Road at Century Boulevard

Crash Date: December 20, 2024

Crash Time: 11:38 AM

Local Case No.: 240060840

Review Date: July 15, 2025

Description of Incident

On Friday, December 20, 2024, at approximately 11:38 AM, a pedestrian was traveling over Middlebrook Road when a motorist traveling southbound on Middlebrook Road struck the pedestrian. The crash report indicated the subject location occurred within an unmarked crosswalk. The crash report indicated that the pedestrian suffered minor injuries. Daytime weather conditions were snowy, and the roadway surface was wet.

Figure 2 illustrates the crash location and direction of pedestrian and vehicle travel.

Location and Site Description

The subject location occurred near the signalized intersection of Middlebrook Road at Century Boulevard. Seneca Valley High School (HS) is located to the southeast at 19401 Crystal Rock Drive. Seneca Valley HS has a current enrollment of 2,385 students in grades 9th through 12th.

Seneca Valley High School (HS)

The majority of student arrivals are between 7:15 AM and 7:45 AM and dismissal occurs between 2:30 PM and 2:50 PM.

Middlebrook Road

Middlebrook Road is classified as a “town center boulevard”, consisting of two (2) 12-foot lanes in each direction divided by a raised grassy buffer, and is oriented in the north-south direction. Middlebrook Road is approximately three miles long, beginning at Father Hurley Boulevard to the north and terminating at Midcounty Highway to the south. At the crash location, Middlebrook Road has buffered sidewalks and no shoulders on both sides of the street. Parking is restricted.

The posted speed limit along Middlebrook Road is 35 mph. Montgomery County RideOn bus stops are located on both sides of the roadway to the north of the crash location. An uncontrolled marked crosswalk exists approximately 500 feet to the north at Celebration Way with a “State Law – Stop For Peds In Xwalk” sign.

Refer to **Figure 1** in the attachments for additional details on the Middlebrook Road segment.

Middlebrook Road at Century Boulevard

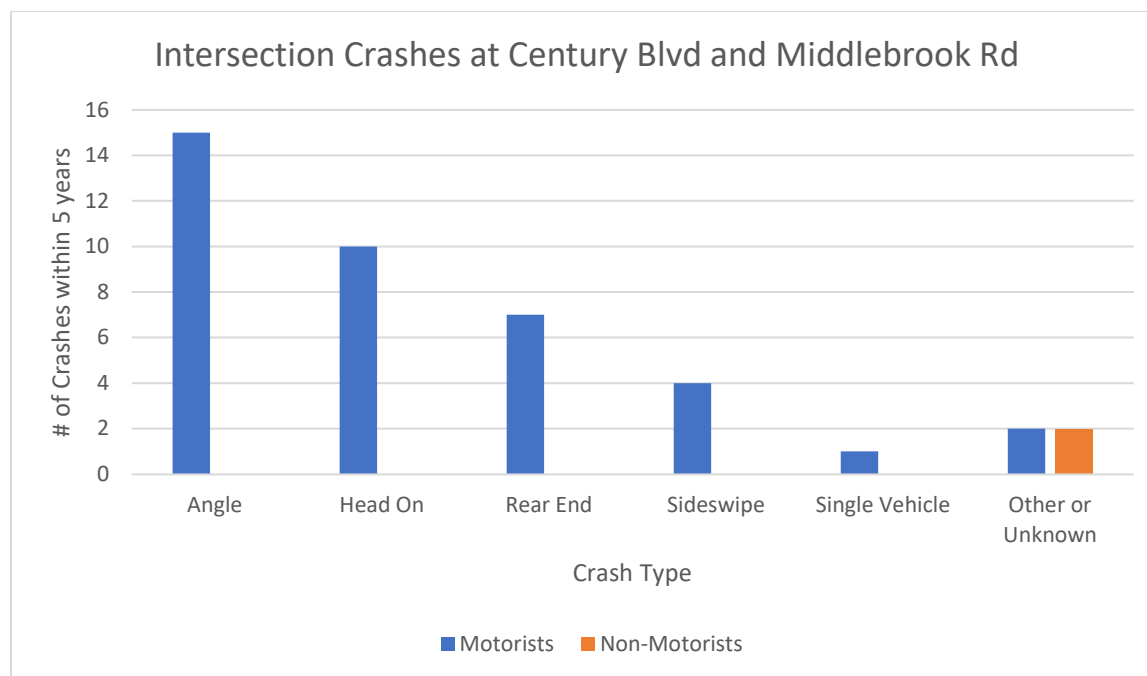
The intersection of Middlebrook Road at Century Boulevard is a signalized, four-legged intersection, with Century Boulevard extending easternly and westerly from Middlebrook Road. Century Boulevard is an undivided marked roadway with access to commercial businesses to the east, and access to commercial businesses to the west.

Pedestrian facilities at the corners of the intersection are not compliant with American's with Disabilities Act (ADA), and include missing and improperly angled ramps at the corners of the intersection. The crosswalks are diagonally hatched, and a pedestrian refuge island is installed on the north leg.

The Middlebrook Road corridor was evaluated to identify potential infrastructure, maintenance activities, and road user behaviors that contribute to increased safety risk at and in the vicinity of the school-related crash location. The Middlebrook Road corridor was reviewed between Father Hurley Boulevard to the north and MD 119 (Great Seneca Highway) to the south. Please refer to **Figure 1** for additional information.

Crash History

Crash data obtained from dataMontgomery indicates that 46 incidents occurred within the vicinity of the crash site between January 2020 and December 2024. Of these 46 incidents, 41 crashes occurred at or near the signalized intersection of Century Boulevard and Middlebrook Road, the subject crash incident. These 41 crashes included 24 injury crashes, 17 property damage crashes, and the crash type consisted of 15 angle collisions, 10 head on collisions, seven (7) rear end collisions, four (4) sideswipe collisions, one (1) single vehicle collisions, two (2) classified as “other”, and two (2) classified as “unknown”. Eight (8) of the incidents occurred during wet pavement conditions and 13 occurred in the dark/dusk. There were two (2) pedestrian-related crashes; one (1) is the subject crash and the other pedestrian crash resulted in an injury crash occurring in the daylight during clear weather conditions. The subject intersection crashes are summarized in the chart below.



The five (5) other crashes occurred at points not at the subject intersection of Middlebrook Road and Century Boulevard, including north of the intersection along Middlebrook Road, south of the intersection along Middlebrook Road, or east of the intersection within the parking lot. There were five (5) injury crashes and one (1) property damage crash, with two (2) rear end collisions, one (1) angle collision, one (1) head on collision, and one (1) classified as “other”. All five (5) collisions occurred in daylight and along a dry surface with clear or cloudy weather conditions.

All incidents are illustrated on Figure 3.

Field Observations

Field observations were performed on Monday, March 3, 2025, at approximately 11 AM. Weather conditions were clear, and the roadway surface was dry. Pedestrian and vehicular activity was consistent during the observation period. The Middlebrook Road approach consists of protected/permissive left-turn phasing, while the Century Boulevard approaches are split-phased. Pedestrian phases crossing Century Boulevard are on recall with a 10-second crossing time. Crossing Middlebrook Road, the pedestrian phase is actuated with a 25-second crossing time. The existing traffic signal does not include properly configured Accessible Pedestrian Signals (APS). APS provide auditory and tactile cues that indicate the roadway is safe for pedestrians to cross. A vertical curve exists along Middlebrook Rd, sloping downward in the southbound direction, and upward in the northbound direction. Pedestrians were observed crossing Middlebrook Road when there was a gap in traffic instead of waiting for the WALK phase, making a two-stage crossing and waiting within the median on the north leg or within the roadway on the south leg. Pedestrians crossing Century Boulevard conflict with permissive left-turning motorists from Middlebrook Road in both directions.

Findings

Site observations did not find any infrastructural deficiencies that contributed to this crash.

Maintenance Recommendations

While not related to the crash, the following were identified as recommendations to enhance the safety of the location:

- Update the traffic signal to include properly configured APS
- Install ADA-compliant pedestrian ramps and continental crosswalks at each leg of the intersection.

Site Photographs



Photo 1. Taken from southeast corner looking westbound along Century Blvd at the south leg crossing. Approximate crash location.



Photo 2. Intersection view from southwest corner.



Figure 1 – Middlebrook Rd at Century Blvd Observations

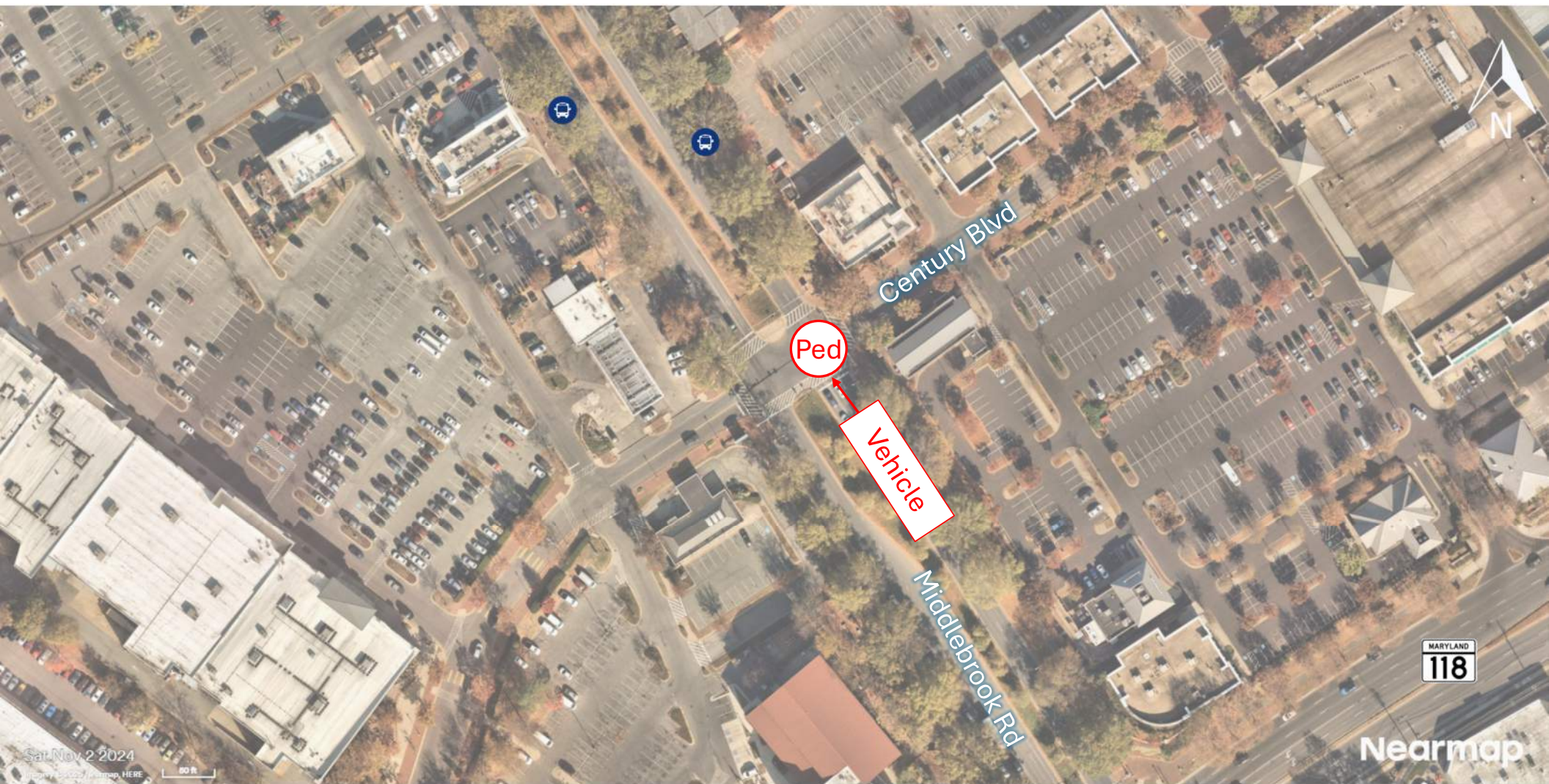


Figure 2 – Crash Diagram

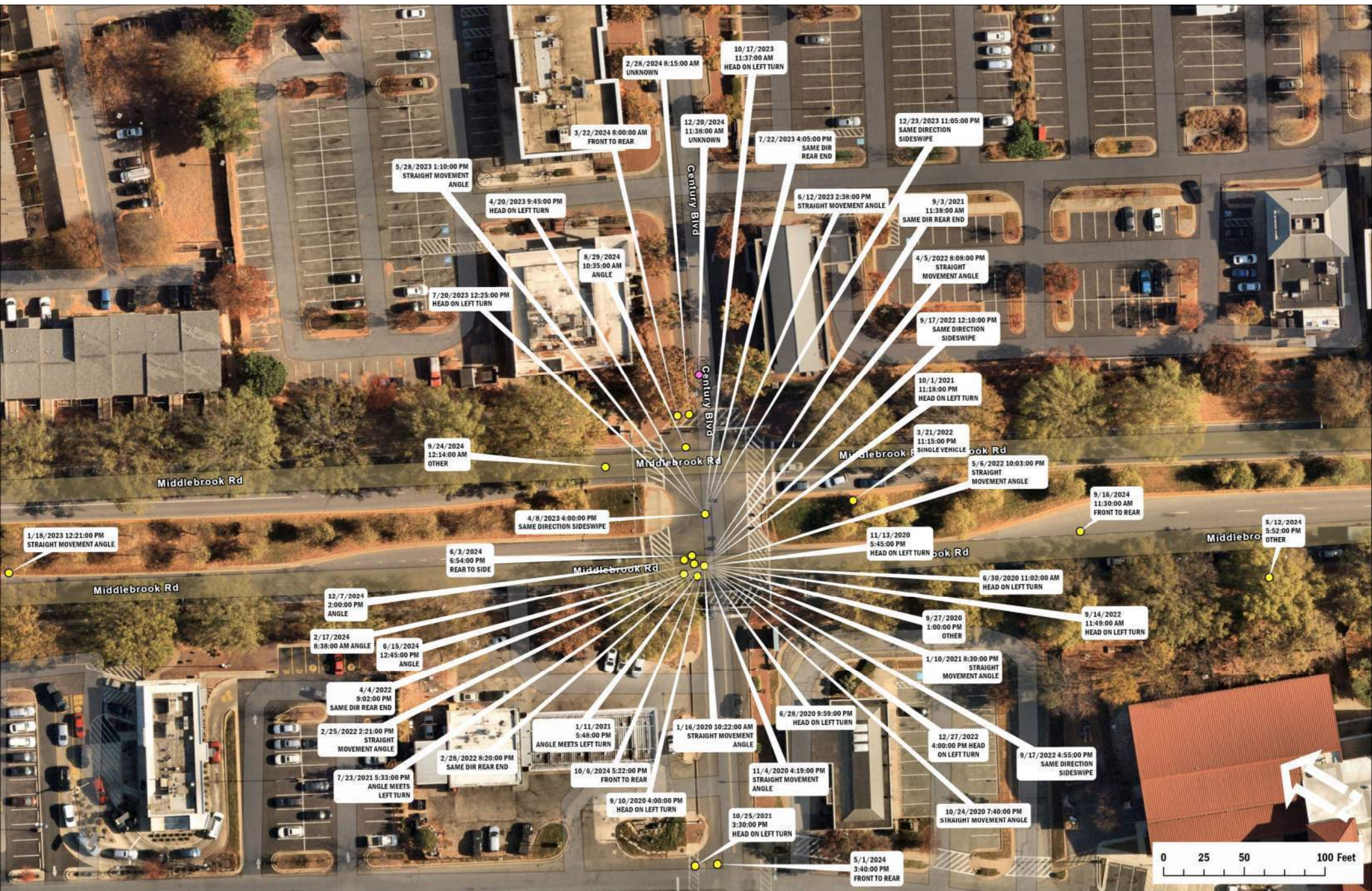


Figure 3 – Crash History (2020-2024)