Federal Railroad Administration
Office of Railroad Safety
Accident and Analysis Branch

Accident Investigation Report
HQ-2018-1288

CSX Transportation (CSX) Highway-Rail Grade Crossing Accident
College Park, Georgia
July 30, 2018

Note that 49 U.S.C. §20903 provides that no part of an accident or incident report, including this one, made by the Secretary of Transportation/Federal Railroad Administration under 49 U.S.C. §20902 may be used in a civil action for damages resulting from a matter mentioned in the report.

SYNOPSIS

At 4:10 p.m., EDT, on Monday, July 30, 2018, a southbound CSX Transportation (CSX) freight train Q19729 (Train 1), with 2 locomotives and 10 loaded intermodal cars, struck a private motor vehicle (Vehicle 1), with 4 occupants, at the highway-rail grade crossing at Buffington Road in College Park, Georgia. At the time of the accident, Train 1 was traveling south on the CSX Atlanta Terminal Subdivision, at a recorded speed of 38 mph, when the driver of Vehicle 1 reportedly drove around stopped traffic and the activated warning devices at Buffington Road, into the path of Train 1.

Three passengers in Vehicle 1 were killed and the driver sustained minor injuries. The crew of Train 1 was not injured. There was no derailment, or release of hazardous materials.

Weather at the time of the accident was daytime, cloudy, and 89 ºF

The Federal Railroad Administration (FRA) determined the probable cause of the accident was cause code M308 – Highway user deliberately disregarded crossing warning devices.

Additionally, FRA determined a contributing factor was cause code M304 – Highway user cited for violation of highway-rail grade crossing traffic laws.

This accident was not PTC preventable.

U.S. Department of Transportation
Federal Railroad Administration

FRA FACTUAL RAILROAD ACCIDENT REPORT

FRA File #HQ-2018-1288

TRAIN SUMMARY

1. Name of Railroad Operating Train #1	1a. Alphabetic Code	1b. Railroad Accident/Incident No.
CSX Transportation	CSX	000177906

GENERAL INFORMATION

1. Name of Railroad or Other Entity Responsible for Track Maintenance	1a. Alphabetic Code	1b. Railroad Accident/Incident No.
CSX Transportation	CSX	000177906

2. U.S. DOT Grade Crossing Identification Number	3. Date of Accident/Incident	4. Time of Accident/Incident
050367G	7/30/2018	4:10 PM

5. Type of Accident/Incident
RR Grade Crossing

6. Cars Carrying HAZMAT	7. HAZMAT Cars Damaged/Derailed	8. Cars Releasing HAZMAT	9. People Evacuated	10. Subdivision
0	0	0	0	CSX TRANSPORTATION - ATI

11. Nearest City/Town	12. Milepost *(to nearest tenth)*	13. State Abbr.	14. County
College Park	XXB12.4	GA	FULTON

15. Temperature (F)	16. Visibility	17. Weather	18. Type of Track
89 ˚F	Day	Cloudy	Main

19. Track Name/Number	20. FRA Track Class	21. Annual Track Density *(gross tons in millions)*	22. Time Table Direction
MAINLINE	Freight Trains-40, Passenger Trains-60	20.7	South

23. PTC Preventable	24. Primary Cause Code	25. Contributing Cause Code(s)
No	[M308] Highway user deliberately dis	M304

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OPERATING TRAIN #1

1. Type of Equipment Consist:	2. Was Equipment Attended?	3. Train Number/Symbol
Freight Train	Yes	Q19729

4. Speed (recorded speed, if available) R - Recorded E - Estimated	Code	5. Trailing Tons (gross excluding power units)	6a. Remotely Controlled Locomotive? 0 = Not a remotely controlled operation 1 = Remote control portable transmitter 2 = Remote control tower operation 3 = Remote control portable transmitter - more than one remote control transmitter	Code
38.0 MPH	R	1085		0

6. Type of Territory

Signalization: Signaled

Method of Operation/Authority for Movement: Signal Indication

Supplemental/Adjunct Codes: Q

7. Principal Car/Unit	a. Initial and Number	b. Position in Train	c. Loaded (yes/no)	8. If railroad employee(s) tested for drug/alcohol use, enter the number that were positive in the appropriate box	Alcohol	Drugs
(1) First Involved *(derailed, struck, etc.)*	CSXT 362	1	no		0	0
(2) Causing *(if mechanical, cause reported)*	0	0	no	9. Was this consist transporting passengers?		No

10. Locomotive Units (Exclude EMU, DMU, and Cab Car Locomotives.)	a. Head End	Mid Train b. Manual	Mid Train c. Remote	Rear End d. Manual	Rear End e. Remote	11. Cars (Include EMU, DMU, and Cab Car Locomotives.)	Loaded a. Freight	Loaded b. Pass.	Empty c. Freight	Empty d. Pass.	e. Caboose
(1) Total in Train	2	0	0	0	0	(1) Total in Equipment Consist	10	0	0	0	0
(2) Total Derailed	0	0	0	0	0	(2) Total Derailed	0	0	0	0	0

12. Equipment Damage This Consist	13. Track, Signal, Way & Structure Damage
587	16069

Number of Crew Members				Length of Time on Duty	
14. Engineers/Operators	15. Firemen	16. Conductors	17. Brakemen	18. Engineer/Operator	19. Conductor
1	0	1	0	Hrs: 10 Mins: 0	Hrs: 10 Mins: 0
Casualties to:	20. Railroad Employees	21. Train Passengers	22. Others	23. EOT Device?	24. Was EOT Device Properly Armed?
				N/A	N/A
Fatal	0	0	3	25. Caboose Occupied by Crew?	N/A
Nonfatal	0	0	1		

26. Latitude	27. Longitude
33.621849000	-84.499457000

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CROSSING INFORMATION

Highway User Involved		Rail Equipment Involved
1. Type: Auto		5. Equipment: Train (Units Pulling)
2. Vehicle Speed *(est. mph at impact)*: 35	3. Direction *(geographical)*: West	6. Position of Car Unit in Train: 1
4. Position of Involved Highway User: Moved over Crossing		7. Circumstance: Rail Equipment Struck Highway User
8a. Was the highway user and/or rail equipment involved in the impact transporting hazardous materials?: Neither		8b. Was there a hazardous materials release by: Neither

8c. State here the name and quantity of the hazardous material released, if any.
N/A

9. Type of Crossing	10. Signaled Crossing Warning	11. Roadway Conditions
1. Gates 4. Wig wags 7. Crossbucks 10. Flagged by crew 2. Cantilever FLS 5. Hwy. traffic signals 8. Stop signs 11. Other *(spec. in narr.)* 3. Standard FLS 6. Audible 9. Watchman 12. None 1, 3, 5	1, 1, 1	Dry

12. Location of Warning	13. Crossing Warning Interconnected with Highway Signals	14. Crossing Illuminated by Street Lights or Special Lights
Both Sides	Yes	No

15. Highway User's Age	16. Highway User's Gender	17. Highway User Went Behind or in Front of Train and Struck or was Struck by Second Train	18. Highway User
39	Female	No	Went around the gate

19. Driver Passed Standing Highway Vehicle	20. View of Track Obscured by *(primary obstruction)*
Yes	Not Obstructed

Casualties to:	Killed	Injured	21. Driver was	22. Was Driver in the Vehicle?
			Injured	Yes
23. Highway-Rail Crossing Users	3	1	24. Highway Vehicle Property Damage *(est. dollar damage)*	25. Total Number of Vehicle Occupants *(including driver)*: 4

26. Locomotive Auxiliary Lights?	27. Locomotive Auxiliary Lights Operational?
Yes	Yes
28. Locomotive Headlight Illuminated?	29. Locomotive Audible Warning Sounded?
Yes	Yes

10. Signaled Crossing Warning

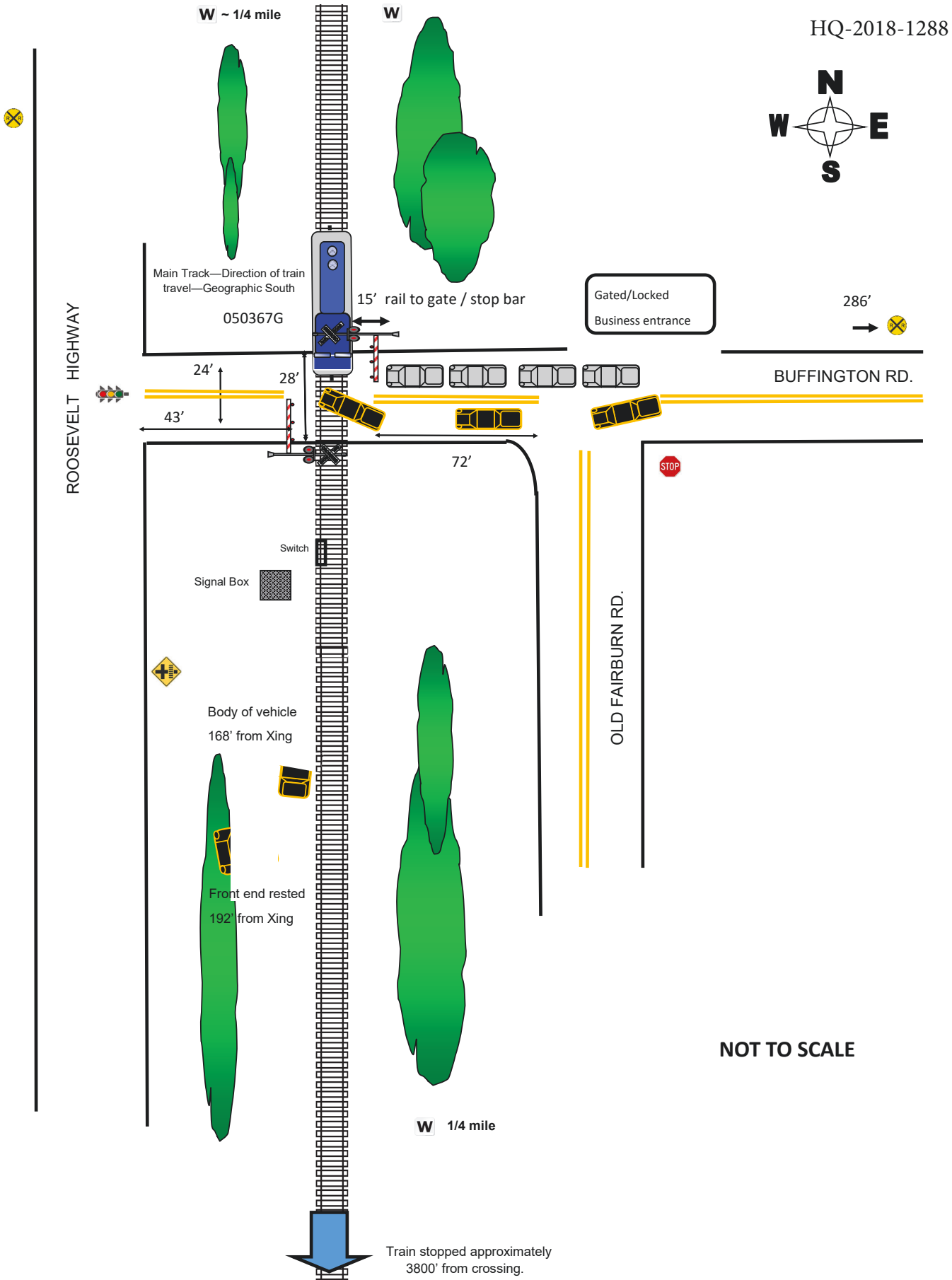
1 - Provided minimum 20-second warning
2 - Alleged warning time greater than 60 seconds
3 - Alleged warning time less than 20 seconds
4 - Alleged no warning
5 - Confirmed warning time greater than 60 seconds
6 - Confirmed warning time less than 20 seconds
7 - Confirmed no warning
N/A - N/A

Explanation Code

A - Insulated rail vehicle
B - Storm/lightning damage
C - Vandalism
D - No power/batteries dead
E - Devices down for repair
F - Devices out of service
G - Warning time greater than 60 seconds attributed to accident-involved train stopping short of the crossing, but within track circuit limits, while warning devices remain continuously active with no other in-motion train present
H - Warning time greater than 60 seconds attributed to track circuit failure (e.g., insulated rail joint or rail bonding failure, track or ballast fouled)
J - Warning time greater than 60 seconds attributed to other train/equipment within track circuit limits
K - Warning time less than 20 seconds attributed to signals timing out before train's arrival at the crossing/island circuit
L - Warning time less than 20 seconds attributed to train operating counter to track circuit design direction
M - Warning time less than 20 seconds attributed to train speed in excess of track circuit's design speed
N - Warning time less than 20 seconds attributed to signal system's failure to detect train approach
O - Warning time less than 20 seconds attributed to violation of special train operating instructions
P - No warning attributed to signal systems failure to detect the train
R - Other cause(s). Explain in Narrative Description

SKETCHES

Sketch - Sketch of Accident



NARRATIVE

CIRCUMSTANCES PRIOR TO THE ACCIDENT

CSX Transportation (CSX) southbound freight train Q19729 (Train 1) was an intermodal train consisting of 2 locomotives, 10 loaded multi-unit intermodal cars, measuring 1,500 feet in length and weighing 1,085 tons. All required pre-departure tests and inspections were performed by CSX mechanical personnel with no defects identified prior to departure. Train 1 originated in CSX Augusta Yard, Augusta, Georgia, on Monday, July 30, 2018, with a destination of Fairburn, Georgia. No special restrictions applied to Train 1, and there were no changes to the consist prior to the accident.

The crew of Train 1 consisted of an engineer and conductor, and was called to report for duty on Monday, July 30, 2018, at 6:10 a.m., EST, in Augusta. Both crew members had received the statutory off-duty period prior to reporting for duty. The Engineer was seated at the controls on the right side, and the Conductor was seated on the left side, of lead locomotive CSXT 362.

The accident occurred on the CSX Atlanta Terminal Subdivision in College Park, Georgia, which is orientated in a north and south direction, and is designated timetable south. Timetable direction will be used throughout this report. Through the accident area, there is a single main track identified as Main Track 1 that is tangent and without grade, and the maximum authorized speed of 50 mph. The method of operation on the Atlanta Terminal Subdivision is by signal indication from a Centralized Traffic Control System.

At Milepost (MP) XXB 12.4, Main Track 1 intersects with Buffington Road at a public highway-rail grade crossing with DOT Crossing Number 050367G (The crossing). The crossing is equipped with crossbucks, gates, flashing lights, bells, pavement markings, and advanced warning signs. Buffington Road is a 24-foot wide, two-lane, paved road with a posted speed limit of 45 mph.

At about 4:09 p.m., EST, as Train 1 was approaching the crossing, a black 2011 Chevrolet Impala (Vehicle 1) with four occupants was traveling westbound on Buffington Road at an estimated 35 mph. The active warning devices at the crossing had activated, and traffic was stopping for Train 1.

Weather at the time of the accident was daytime, cloudy, and 89 ºF.

THE ACCIDENT

At about 4:10 p.m., EST, Train 1 was entering the crossing at Buffington Road, traveling 38 mph on a clear signal indication and sounding the horn, when the Engineer observed Vehicle 1 drive around stopped traffic, and the lowered warning gates, and enter the crossing ahead of the train. Train 1 struck Vehicle 1 on the passenger side of the vehicle resulting in the separation of the front end of the vehicle from the passenger compartment. The front end of Vehicle 1 came to rest 192-feet from the point of impact (POI) at Buffington Road, and the passenger compartment was 168-feet from the POI, and about 20-feet from the west rail.

The Locomotive Engineer applied a full-service brake application, stopping in 2,407 feet, and made the required emergency announcement over the radio. The CSX Train Dispatcher reported the collision to emergency responders, and the Conductor dismounted the locomotive and walked back to assess the accident scene.

The South Fulton Police Department arrived on the scene first, at 4:15 p.m. followed by The South Fulton

Emergency Medical Services (EMS) and the South Fulton Fire Department. When EMS arrived on the scene at 4:16 p.m., the first responders reported the left front and left rear passengers of Vehicle 1 were both deceased. The passenger on the right rear side of the car was transported to an area hospital but later died of injuries. The driver of Vehicle 1 was transported and treated for minor injuries at a local hospital. Neither train crew member was injured.

Damage estimates were reported at $587 to railroad equipment and $16,069 to track and signals.

POST-ACCIDENT/INCIDENT INVESTIGATION

On July 30, 2018, the Federal Railroad Administration (FRA) began an investigation of the accident. FRA assigned a Grade Crossing and Hazmat inspector to the accident investigation. Upon commencing the investigation, FRA's Inspectors inspected the accident site, active warning devices at the crossing, and rule compliance of the Train 1 crew.

FRA conducted interviews with eyewitnesses and the crew of Train 1. Additionally, FRA's inspectors requested and received all records, forms, and other documentation necessary to conduct their final analysis and draw conclusions concerning the pertinent facts of the accident. The following analysis and conclusions, any possible contributing factors, and the probable cause represent the findings of FRA's investigation.

ANALYSIS AND CONCLUSION

Analysis – Locomotive Safety Appurtenances**:** CSXT 362 was equipped with a headlight, auxiliary lights, and an audible train horn warning device as required by Federal regulations. A review of CSX's locomotives calendar day inspection records and the locomotive inspection and repair records showed no defects that would have contributed to the accident.

CSX's mechanical department performed a post-accident inspection of CSXT 362 and found all locomotive safety appurtenances were functioning as intended, and in compliance with federal regulations.

Conclusion: FRA determined the locomotive appurtenances did not contribute to the cause or severity of the accident.

Analysis – Active Warning Device: Review of records and field inspections were performed involving the Buffington Road highway-rail grade crossing location for any contributing factors. The crossing was equipped with active warning devices (crossbucks, gates, bells, and flashing lights) and performed as intended. The lights and audible warning at the crossing activated at a distance which would provide more than the minimum warning time for vehicles approaching the crossing. The crossing signal system (Harmon Crossing Processor, HXP-3/PMD-3) was equipped with two standard flashing light masts (each with crossbucks and ENS signs), each with one pair of lights facing forward and each with one pair of backlights. The warning system was designed to provide 30-plus seconds of warning time prior to a train occupying the crossing. The signal recorder indicated a total warning time of 44 seconds. The active devices, stand-by power and electrical grounds were all tested and maintenance was performed by CSX Signal Department following the accident.

All aspects of the active warning devices were determined to be operating in good working order at the time of the inspections.

Conclusion: FRA determined the active warning devices did not contribute to the cause or severity of the accident.

Analysis – Railroad Operating Practices: FRA reviewed the event recorder of the lead locomotive (CSXT 362), and the forward-facing camera at the CSX offices in Atlanta, Georgia. No exceptions were taken to the operation of Train 1 by the crew. The locomotive download confirms the crew complied with all Federal regulations and railroad operating rules. The forwarding-facing camera on the lead locomotive shows Vehicle 1 as it passes stopped traffic and enters the crossing around the activated warning devices.

CSX provided records of the Train 1 crew's certification and operational testing for review by FRA, and no exceptions were taken. The Engineer and Conductor were both certified and qualified to operate on the assigned territory.

Conclusion: FRA determined railroad operating practices did not contribute to the cause or severity of the accident.

Analysis – Driver's Actions: FRA obtained a copy of the police report from the South Fulton Police Department as part of the investigation to analyze the operation of the struck vehicle. Police investigation and eyewitness reports revealed that traffic was stopped on Buffington Road at the crossing when the struck vehicle passed approximately four stopped vehicles and attempted to cross the railroad tracks with the gate arms down.

FRA concluded the driver of Vehicle 1 failed to yield to the striking train, and was cited for violation of highway-rail grade crossing traffic laws.

Conclusion: FRA Determined the driver's actions were the probable cause of the accident. (Cause code M308 and M304)

OVERALL CONCLUSION

FRA determined that CSX was in full compliance with its standards and all applicable Federal regulations. The crew of Train 1, and other witnesses, stated the gates were down and the struck vehicle deliberately drove around the stopped traffic and activated warning devices and into the path of Train 1. The actions of the driver of Vehicle 1 were also confirmed by the forward-facing camera on the lead locomotive.

PROBABLE CAUSE

FRA determined the probable cause of the accident was cause code M308 – Highway user deliberately disregarded crossing warning devices.

Additionally, FRA determined a contributing factor was cause code M304 – Highway user cited for violation of highway-rail grade crossing traffic laws.

This accident was not PTC preventable.