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NATIONAL TRANSPORTATION SAFETY BOARD WASHINGTON, D.C.

ISSUED: June 7, 1982

Forwarded to: Honorable Francis T. Purcell Nassau County Executive County Executive Building SAFETY RECOMMENDATION(S) Mineola, New York 11501

About 2:18 a.m., e.s.t., on March 14, 1982, at a railroad/highway grade crossing on Herricks Road in Nassau County, New York, a 19-year-old male drove his southbound van, occupied by nine other teenagers, around a properly functioning lowered automatic gate with flashing lights, onto the main line tracks of the Long Island Railroad, and into the path of an oncoming train. The driver and eight passengers were killed and one passenger was injured critically.

> Herricks Road is a 4-lane highway, with a 60-foot-wide roadway near the crossing. On the southbound approach, NO STOPPING and NO STANDING signs are posted. A double yellow centerline separates opposing traffic, and a white lane line separates the travel lanes. The southbound approach is posted for a maximum speed of 40 mph while the northbound approach is posted for a maximum speed of 30 mph. The nearest street intersection is signalized.

> Almost 200 passenger trains, traveling at speeds up to 80 mph, and 18,000 motor vehicles use this crossing every day. Similar high volumes are common at grade crossings throughout Long Island, posing among the highest potential conflict rates in the Nation. Federal Railroad Administration accident records for Nassau County indicate that six persons were killed in four motor vehicle/train collisions at railroad/highway grade crossings with automatic gates in 1980 and 1981.

> From 1979 to 1981, in New York State there were 63 motor vehicle/train accidents at 473 public crossings with gates; these figures do not include either Nassau or Suffolk Counties. In Nassau County during this time period, there were 27 motor vehicle/train accidents at the 73 public crossings with gates. For this period, Nassau County incurred 8.2 fatalities per 100 public crossings with gates, while the remainder of New York State, excluding Suffolk County, had 0.6 fatalities per 100 public crossings with gates. Nassau County's higher rate can be attributed, for the most part, to the large numbers of trains and vehicles using the crossings in Nassau County.

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The Safety Board recognizes that the ultimate long-term solution to the problem of accidents at railroad/highway grade crossings is the separation of the grade, but recognizes that this solution is costly, that in some cases alternate solutions may suffice, and that interim solutions should be sought. Grade crossing safety can be enhanced in a number of ways, and the Safety Board is investigating several of these and their relevance to this and other crossings. These safety enhancements include full-quadrant gates, provision of a constant warning time to the motorist of an impending arrival of a train, and traffic divisional islands 1/ to deter vehicles from going around gates which are down. The latter, less costly, and nearer-term technique appears to be especially feasible at the Herricks Road crossing because of the wide, low-speed approaches.

The use of traffic divisional islands in regulating traffic by prohibiting specific movements is an accepted engineering approach. Both the American Association of State Highway and Transportation Official's publication "A Policy on Design of Urban Highways and Arterial Streets" and the U.S. Department of Transportation's "Manual on Uniform Traffic Control Devices" give guidance on the types and placement of islands. For example, it is stressed that when curbs are used, the mountable type is preferable and that the approach-end treatment requires careful consideration.

The Safety Board believes that a properly designed traffic divisional island could provide for a safer crossing at this location. Therefore, the Safety Board recommends that Nassau County, New York:

> Evaluate the feasibility of traffic divisional islands being used to deter vehicles from going around lowered gates on the Herricks Road approaches to the grade crossing of the main line of the Long Island Railroad and if the evaluation is favorable, construct an appropriately designed installation at an early date. (Class I, Urgent Action) (H-82-15)

BURNETT, Chairman, GOLDMAN, Vice Chairman, McADAMS and BURSLEY, Members, concurred in this recommendation.

y Jim Burnett Chairman

1/ Traffic divisional islands function to "...separate opposing traffic; also, they may be used to separate traffic in the same direction, e.g., to divide left-turn traffic in a median lane from the through traffic. Divisional islands are used to guide traffic around an obstruction within the roadway (such as a bridge pier), in advance of an intersection to separate opposing traffic and <u>may be located to prevent overtaking and passing at</u> <u>hazardous points</u>, such as sharp curves or narrow underpasses." (emphasis added) (Manual on Uniform Traffic Control Devices.)