

NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

ISSUED: March 28, 1974

Forwarded to:

Honorable Norbert T. Tiemann
Administrator
Federal Highway Administration
400 Seventh Street, S. W.
Washington, D. C. 20590

SAFETY RECOMMENDATION(S)

H-74-12 thru 17

While conducting a special study on highway technical and operational standards, the National Transportation Safety Board became aware of a hazardous location on Interstate 87 in New York City. The problem concerns a curve to the right on the three southbound lanes of I-87, the Major Deegan Expressway, between the 233rd Street and Mosholu Parkway ramps.

The New York City Police Department has classified the location as hazardous as a result of numerous accidents which involved loss of vehicle control during wet-weather skidding. In several instances, vehicles skidded into a raised curb, vaulted into or over the median barrier, and collided with oncoming traffic. The median barrier is inadequate to restrain and redirect impacting vehicles.

Although accident data for the location are incomplete, preliminary data for the southbound lanes show that between January 1, 1972, and September 1973, there were 80 accidents, which resulted in 1 death and 71 injuries. Over the weekend of October 7, 1972, during a heavy rainfall, 11 accidents produced 17 injuries.

Potential hazards which probably combined to contribute to loss of vehicle control have been identified:

- A depression in the roadway at the terminus of the bridge that could at least partially cause vehicle bounce sufficient to precipitate skidding and loss of control.
- Skid resistance values on the roadway less than the minimum value established by the Federal Highway Administration, as a criterion to judge whether a roadway is conducive to skidding.
- Superelevation of the roadway in the curve that might cause vehicles to move unexpectedly to the left and subsequently strike the curb and guardrail.

- Possible inadequate drainage of the roadway caused by clogged storm drainage inlets.
- Absence of traffic control devices to warn drivers of the need to reduce speed in the curve during wet weather.

Potential hazards which would tend to permit vehicles to cross the median have also been identified:

- A curb on the raised median that causes vehicles to bounce excessively when they strike the curb at critical speed and angle.
- A median barrier with a configuration and structural strength which has not resisted the impacts of automobiles in attitudes created by the roadway conditions.
- Inadequate maintenance on the median barrier which permits broken or damaged parts to continue in service.

Police assigned to New York City's 50th Precinct have pointed out these hazards on numerous occasions to the city and State highway departments and have asked for improvements. The first such request was made on March 24, 1972. Both the State Department of Transportation and the New York City Transportation Administration, which is responsible for maintenance at the site, have failed to take any remedial action.

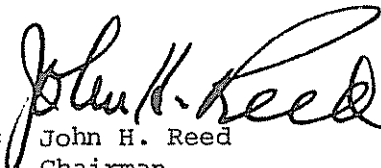
On October 30, 1973, the Safety Board orally informed the New York Division of the Federal Highway Administration of the hazards identified above. On December 14, 1973, another fatal accident occurred at the site, and again involved loss of vehicle control, violation of the median, and a head-on collision with oncoming traffic. On January 3, 1974, the Safety Board provided the New York Division of the Federal Highway Administration further information about the hazards.

On January 28, 1974, the Federal Highway Administration advised the Board that there were no plans for immediate improvements at the specific location, because a project for safety improvement along 5 miles of I-87 including the accident location is under design and is scheduled to go to construction in late spring or summer. However, because of the scheduling of the contract work and complexity of the contract, the treatment of the roadway for skid resistance probably will not be performed for approximately 2 years. The Board believes that such a delay exposes the driving public to continued unwarranted hazards.

Therefore, the National Transportation Safety Board recommends that the Federal Highway Administration, under authority of 23 USC 116, require the State of New York to take immediate action to:

- (1) Treat the surface of the three southbound lanes at the accident site to increase skid resistance and reduce skidding characteristics. This work should assure safe vehicle control into and out of the curve that lies between 233rd Street and Mosholu Parkway ramps on I-87. (Recommendation H-72-12).
- (2) Assure that the superelevation on the curve provides for safe operating conditions at posted speed limits. (Recommendation H-74-13).
- (3) Assure that drainage of water from the roadway is not hindered by clogged storm sewage inlets. (Recommendation H-74-14).
- (4) Correct the depressed roadway grade at the bridge terminus. (Recommendation H-74-15).
- (5) Improve the median island and install a type of median barrier that will prevent vaulting or penetration by an errant vehicle. The barrier should be of a configuration and structural strength which provides smooth redirection and eliminates snagging of luminaire poles and bases. (Recommendation H-74-16).
- (6) Immediate installation of traffic control devices to warn drivers of the hazardous pavement surface conditions and advisory speeds. (Recommendation H-74-17).

REED, Chairman, McADAMS, THAYER, BURGESS, and HALEY, Members, concurred in the above recommendations.


By: John H. Reed
Chairman

cc: New York State Department of Transportation
New York City Transportation Administration

