

**ORIGINAL**

Decision No. 69895

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Investigation into the status,  
safety, maintenance, use and  
protection or closing of the  
crossing at grade of the lines  
of the PACIFIC ELECTRIC RAILWAY  
COMPANY in the CITY OF SANTA ANA,  
California, with Greenville  
Street; Crossing No. 6N-38.34-C. )

Case No. 8105  
(Filed January 12, 1965)  
(Amended March 23, 1965)

Randolph Karr and Walt A. Steiger, by  
Randolph Karr, for Pacific Electric  
Railway Company, and Ronald E. Wolford,  
for the City of Santa Ana, respondents.  
Elmer Sjostrom, for the Commission staff.

O P I N I O N

A public hearing on the above-entitled matter was held before Commissioner Grover and Examiner Patterson in Santa Ana on May 12 and 13, 1965. The matter was heard on a consolidated record with Cases Nos. 8103 and 8111 involving Pacific Electric Railway crossings in the City of Huntington Beach and the City of Stanton, respectively. All three matters were submitted on May 13, 1965, and separate decisions will be rendered in each.

Another matter, Case No. 8104, involving two crossings of the Southern Pacific Company in the County of Orange, was continued to a date to be set, upon statements of counsel that agreement had been reached between Southern Pacific Company and the County of Orange to install automatic gates at the two crossings.

Investigation herein concerns the crossing at grade of Greenville Street with the Costa Mesa branch line track of the Pacific Electric Railway Company in the City of Santa Ana (Crossing No. 6N-38.34-C). Investigation was instituted to determine whether or not public health, safety and welfare require the relocation, widening, closing or other alteration of the crossing; the installation and maintenance of additional or improved protective devices at the crossing; and, if any changes are made, on what terms the work should be done and how the cost should be apportioned.

An Associate Transportation Engineer of the Commission staff prepared and presented a report (Exhibit 1) covering his analysis and recommendations for improved protection at the three Pacific Electric Railway Company crossings. His evidence concerning the Greenville Street crossing may be summarized as follows: The crossing consists of a single branch line track at a 90-degree angle with Greenville Street, which runs north and south. Width of the crossing and approaches is 24 feet. Visibility is impaired for vehicle drivers proceeding south by a large bean warehouse located adjacent to the crossing in the northwest quadrant, and visibility is impaired for vehicle drivers proceeding north by trees in the southwest quadrant. At a distance of 100 feet from the track a driver of a southbound vehicle has a visibility of 50 feet to his right. At a distance of 100 feet from the stop sign at the intersection of Greenville Street with Alton Avenue, just south of the crossing, a driver of a northbound vehicle has a visibility of 40 feet to his left; the visibility to the left increases to approximately 110 feet at the location of said stop

sign. During a three-hour traffic check commencing at 2:30 p.m., on Tuesday, March 2, 1965, the staff engineer counted 1,180 vehicles using the crossing including eight school buses, some of which did not contain pupils. The observed speed of the automobiles was approximately 50 miles per hour. He testified that according to a traffic check made by the City of Santa Ana it is estimated 4,614 vehicles use the crossing per day. The train traffic consists of one round trip per day. He stated that he had been informed that the railroad operations are performed only at night because of joint use of a certain section of the track with Southern Pacific Company which limits Pacific Electric's use to the night hours. The record indicates that the Pacific Electric switching could shift to the daylight hours if the then pending merger of the two companies were approved.

The accident record at the crossing since January 1, 1960, consists of one accident in which one person was injured. Present protection consists of one Standard No. 1 reflectorized crossing sign located south of the crossing and two reflectorized advance warning signs. Protection is also afforded by operating procedures which have required since 1933 that trains stop and flag this crossing.

The staff witness stated that he was aware that the City proposes to extend and connect sections of Fairview Street which is located west of Greenville Street so that Fairview Street will become a thoroughfare providing access to the San Diego freeway, which, it is anticipated, will be constructed through this portion of Orange County in 1968. He stated, however, that based on the use of the crossing by approximately 4,000 to 5,000 vehicles

a day, and considering the speed of such vehicles and the restricted visibility in two quadrants, he concluded that better protection than that presently provided is needed. He recommended that there be installed two Standard No. 8 flashing light signals supplemented with automatic gates, the installation cost to be apportioned 50-50 between the Railway and the City. He recommended the use of automatic gates rather than flashing lights alone because installations with automatic gates have proven superior. In this regard a report he had prepared dated October 1, 1964, entitled "Effectiveness of Automatic Crossing Gates in Southern California, 1954 through 1963" was introduced (Exhibit 2). This report, which was a study of accident experience over a ten-year period at 132 points in Southern California where automatic crossing gates were in place on December 31, 1963, shows that of the 101 installations where crossing protection had been upgraded to automatic gates, accidents have been decreased by 57 per cent, deaths decreased by 89 per cent and injuries decreased by 88 per cent.

A Public Projects Engineer for the Railway testified that in recent years significant improvements have been made in equipment and techniques for crossing protection. He stated that in the early stages of crossing protection it was considered necessary only to warn motorists of the presence of the track and for many years a signal device such as a crossing sign or a crossing sign augmented with flashing lights was deemed sufficient. He stated, however, that as the volume and speed of motor vehicle travel have increased this type of protection has become less

adequate, so that the presence of a positive barrier to the motorist, it now has been concluded, is the best crossing protection available, except for grade separation, and that lesser types of automatic protection are not economically justified. He stated that, in his opinion, the installation of flashing lights without crossing gates would provide little or no added protection over the presently installed Standard No. 1 crossing sign.

The installation proposed by the Railway at this crossing would include a Marquardt GCP Control Predictor. Predictors such as this, which have been in general use for about three years, have made the installation of automatic gates much more feasible than in the past, as the predictor eliminates unnecessary operation of the gates.

A Maintenance and Construction Engineer for the Railway presented in Exhibit 7 estimates of costs for upgrading the crossing protection. His estimate for installation of two Standard No. 8 flashing lights with Marquardt GCP Control is \$14,235 with an annual maintenance cost of \$616. If automatic gates are added to the installation, the total cost is estimated to be \$19,985 with an annual maintenance cost of \$840. He gave an approximate estimate that if the predictor control were to be eliminated from either installation the cost would be reduced by an amount of \$4,500 to \$5,000.

The City of Santa Ana takes the position that installation of a Standard No. 1 reflectorized crossing sign on Greenville Street north of the crossing for protection of southbound traffic is the only additional protection presently required at this crossing. The City's Director of Public Works testified

that the crossing has a very high degree of illumination from two 20,000 lumen mercury vapor luminaires installed recently following a meeting with representatives of the Railway and the Commission staff. He also pointed out that alignment of the street at the crossing is straight, that the grades are level on all approaches, and that although the speed of vehicles along Greenville Street may have been observed as 50 miles per hour, actual vehicle speeds in the immediate vicinity of the crossing are ordinarily much less than that because vehicular traffic is required to stop by the stop signs located at each of the four corners of the intersection of Greenville Street with Alton Avenue less than 100 feet south of the crossing. His testimony further indicated that the plans for development of Fairview Street, which parallels Greenville Street at a distance about 1,000 feet west, as a major arterial are progressing satisfactorily. The County of Orange has made allocations for construction of two connecting sections of Fairview Street and the City of Santa Ana has adopted a resolution to provide its share of funds for these projects in the 1965-1966 fiscal budget year. He testified that when Fairview Street is opened to traffic it is estimated that traffic on Greenville Street will drop from its present 4,700 vehicles per day to about 2,500 vehicles per day. He further testified that as additional access roads are developed in the area consideration may be given to closing the Greenville Street crossing. He estimated that after its ultimate development Fairview Street should carry from 28,000 to 30,000 vehicles per day. He testified that automatic gates will be installed at the Fairview Street crossing.

Based upon the evidence the Commission finds that Fairview Street will be developed as a major arterial providing access to the San Diego freeway; that said development will result in a decrease in vehicular traffic carried by Greenville Street; that the vehicular traffic over the crossing is controlled to a considerable degree by the 4-way stop signs located at the intersection of Greenville Street and Alton Avenue; that the one daily round trip made on the railway is protected by a stop and flag operation; and that the only additional protection presently required at the crossing is installation of a Standard No. 1 reflectorized crossing sign on Greenville Street at a location north of the crossing. The Commission concludes that such additional protection should be ordered.

ORDER

IT IS ORDERED that Pacific Electric Railway Company shall, within thirty days after the effective date hereof, supplement the existing protection at the Greenville Street crossing in the City of Santa Ana (Crossing No. 6N-38.34-C) by installing a Standard No. 1 reflectorized crossing sign on the west side of Greenville Street at a location north of the crossing.

The effective date of this order shall be twenty days after the date hereof.

Dated at San Francisco, California, this 2nd day of NOVEMBER, 1965.

Frederick B. Hallock  
President  
George J. Trover  
Commissioners  
Dallanma Berwick  
Commissioners