

ORIGINALDecision No. 71484

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Application of the City of San Jose,
California, for permission to widen
Horning Street at grade across
existing tracks of the Southern
Pacific Company Crossing No. DA-45.2.

Application No. 48076
(Filed November 24, 1965)

Investigation into the status, safety,
maintenance, use and protection or
closing of crossings at grade of the
tracks of the Southern Pacific
Company by 10th Street and Horning
Street in the City of San Jose;
Crossings Nos. DA-45.3 and DA-45.2.

Case No. 8353
(Filed February 23, 1966)

Ferdinand P. Palla, City Attorney, by Donald C. Atkinson, Deputy City Attorney, for the City of San Jose, applicant in Application No. 48076 and respondent in Case No. 8353.
Harold Lentz, for Southern Pacific Company, respondent in Case No. 8353.
M. E. Getchel, for the Commission staff.

O P I N I O N

In Application No. 48076, the City of San Jose (City) seeks authority to widen Horning Street at grade across existing tracks of the Southern Pacific Company (Railroad) from two to four lanes.

Case No. 8353 is an investigation by the Commission into the status of the Railroad's Crossings Nos. DA-45.3 (Tenth Street) and DA-45.2 (Horning Street). The purposes of the investigation, as set forth in the Order Instituting Investigation, are to determine:

1. Whether or not the public health, safety and welfare require relocation, widening, closing or other alteration of said crossings or require installation and maintenance of additional or improved protective devices at said crossings.

2. Whether, if any of the above should be done, on what terms such shall be done, and to make such apportionment of costs among the affected parties as may appear just and reasonable.

3. Whether any other order or orders that may be appropriate in the lawful exercise of the Commission's jurisdiction should be issued.

These matters were heard on a common record before Examiner Mallory at San Jose on May 3 and 17, 1966, and were submitted on the latter date. Evidence was adduced by the Commission staff, the City, and the Railroad.

The City seeks authority to widen the crossing at Horning Street from a present width of 20 feet to a width of 60 feet, in connection with its project of widening Horning Street for its full length. Horning Street is a short street, four blocks long, running between Thirteenth Street on the east and Tenth Street on the West. The railroad crosses Horning Street at a 75-degree angle a short distance from the intersection of Horning with Tenth Street. At the time of the hearing, the City, using funds from an assessment district consisting of adjacent property owners, had begun the widening of Horning Street, but had made no alterations on the crossing area. The Horning Street crossing is now protected by crossarms (Standard No. 1 - General Order No. 75-B).

The railroad crosses Tenth Street at a 15-degree angle. The crossing has two lanes of vehicular traffic in each direction. The record shows that an access road or driveway approximately 10 feet wide runs adjacent to and parallels the east side of the railroad right-of-way between Tenth and Horning Streets. In the area of the two crossings the railroad is double tracks, one track is Railroad's San Jose-Niles (DA) main line, the other is used for switching movements.

Due to the proximity of Horning Street and Tenth Street at their intersection with the railroad, the widening of the Horning Street crossing will affect the Tenth Street crossing. The Commission staff asserts that whatever type of protection is installed at the Horning Street crossing will require an alteration of the existing protection (two Standard No. 8 flashing light signals) at the Tenth Street crossing.

The only contested issue in these proceedings is the type of protection which should be installed at the two crossings. The Commission staff and the Railroad recommend the installation of Standard No. 8 flashing light signals supplemented by gate arms and with predictor controls.^{1/} The City is of the opinion that Standard No. 8 flashing light signals without gate arms or predictor controls will provide adequate protection for the crossings, considering the safety record of the crossings, the overall traffic control needs of the City, and the funds available.

The staff recommends that the cost of installing automatic protection be apportioned 50 percent to the City and 50 percent to the Railroad and that the cost of maintenance of the automatic protection be apportioned 50 percent to the City and 50 percent to the Railroad pursuant to Section 1202.2 of the Public Utilities Code. There is no objection to this recommendation.

The following is a summary of the evidence adduced concerning the physical aspects of the crossing: The average daily train movement over the two crossings is 24 trains, of which 12 are through movements, and the remaining are local or switch movements. Daily traffic counts of vehicles using the crossing show the following:

^{1/} The Commission staff witness withdrew the recommendation contained in his Exhibit 1, that two of the four recommended No. 8 flashing lights be installed on raised islands in the median of each crossing and recommended, instead, that the four proposed signals be installed at the shoulders.

TABLE 1Average Daily Traffic (vehicles)

<u>Introduced by:</u>	<u>Horning Street</u>	<u>Tenth Street</u>	<u>Dates of Counts</u>
Staff	1,314	7,650	3/30/66
City	1,254	7,437	3/22 and 3/24/66

The train speed through the crossings, as set forth in Railroad's timetables, is 15 miles per hour. The posted speed limits for vehicular traffic are 35 miles per hour on Tenth Street and 25 miles per hour on Horning Street.

The accidents at each crossing in the period January 1, 1961 through January 30, 1966 are set forth in the following table:

TABLE 2Crossing Accident Record

<u>Horning Street</u>			<u>Tenth Street</u>		
<u>Date of Accident</u>	<u>Number</u>		<u>Date of Accident</u>	<u>Number</u>	
	<u>Killed</u>	<u>Injured</u>		<u>Killed</u>	<u>Injured</u>
1/25/61	-	1	5/14/64	-	-
6/21/62	-	-	5/30/65	-	-
8/20/63	-	1	11/12/65	-	1
			1/30/66	-	-
Totals	3	0		4	0
		2			1

The evidence shows that visibility at the Tenth Street crossing is restricted on the southeast quadrant and is fair or good in the other quadrants. At Horning Street, visibility is restricted in all quadrants, except the southwest quadrant.

The Commission staff witness testified that his recommendation concerning the installation of gate arms and predictor controls was predicated upon the following considerations: (a) the widening of Horning Street will probably increase vehicular traffic over each crossing, (b) view conditions at each crossing are bad, (c) three vehicle-train accidents occurred at each crossing in the period

January 1, 1961 through December 31, 1965, and (d) Tenth Street intersects the railroad tracks at a very acute angle.

The staff witness testified that the Commission staff has made two studies of the effectiveness of automatic gates at railroad grade crossings. One study of the accident history at 113 locations in Northern California between July 1, 1954 and June 30, 1964 revealed that the installation of automatic gates decreased the number of accidents by 78 percent, the number of fatalities by 93 percent, and the number of injuries by 89 percent. The other study of the accident history at 101 locations in Southern California between January 1, 1954 and December 31, 1963 revealed that the installation of automatic gates decreased the number of injuries by 88 percent. The staff studies also show automatic gates have been effective in the elimination of "two train" type of accidents which occur at multiple track crossings.

The staff witness stated that it is the policy of the staff to recommend that all new or modified crossings be protected by Standard No. 8 flashing lights with gate arms, unless unusual circumstances are involved. The staff witness did not indicate what unusual circumstances would, in his opinion, justify a recommendation that gate arms not be installed, other than very light vehicular traffic over the crossing.

A project engineer employed by the Railroad testified to recommendations concerning the type of crossing protection which should be installed, and the estimated costs of installation of various types of crossing protection. The witness concurred in general with the staff recommendation that the Standard No. 8 flashing lights with gate arms should be installed, but he recommended that predictor controls initially should be provided only to control signal activation due to approach of trains on the main line track.

The witness recommended, in addition to the above protection, that a neon "no left turn" sign be installed facing the access road, and that additional "heads" be installed on two of the light signals, so that the lights may be seen from all directions. The witness stated that if predictor controls initially are installed only on the main line track and experience should indicate the controls are necessary on the sidetrack in order to speed up vehicular traffic over the crossings, the additional controls can be installed at a later date without major modification of existing circuits.

From the evidence it appears that the following cost estimates for installation of protective devices and controls at Horning and Tenth Streets are reasonable:

Standard No. 8 Flashing Lights - Horning Street only	\$ 8,000
Standard No. 8 Flashing Lights Supplemented with Gate Arms, without predictor controls*	27,400
Standard No. 8 Flashing Lights Supplemented with Gate Arms, with predictor controls on main line track only*	37,550
Standard No. 8 Flashing Lights with Gate Arms, Horning Street and Tenth Street, with predictor controls on both tracks*	43,550

*Includes neon no left turn sign and additional light heads.

The City presented witnesses whose exhibits and testimony were designed to show that Standard No. 8 flashing red lights without gate arms provide adequate protection at the crossings; that predictor circuits are not required to eliminate overactivation of the signals; that the City has not budgeted sufficient funds to pay for crossing protection presently in the process of construction and the additional amounts which the City would be assessed if gate arms and predictors are required to be installed pursuant to the proceedings herein.

An exhibit presented by an engineer in the City's Department of Streets and Highways showed the number of accidents between railroad trains and other vehicles at Horning and Tenth Streets and at 12 other nearby crossings on the San Jose-Niles (DA) line. All such crossings are protected by Standard No. 8 flashing lights or lesser protection. The exhibit showed that in the period January 1, 1961 through February 28, 1966, for the crossings selected for comparison, only one other crossing (Taylor Street) had three accidents; all other crossings had fewer accidents or no accidents in this period. For the period from August 1, 1926, to the date of hearing, five crossings had more accidents than Horning or Tenth Street. The witness concluded from the accident records introduced by him that if the Horning Street crossing is protected by flashing light signals without gate arms, it would be no less safe than adjacent crossings so protected.

Exhibits were presented to show the length of signal activation and the number of cars in trains moving over the crossings involved herein on March 22, 23, 24, and 25, 1966. The exhibits show that, depending upon the number of cars in the train, signals at the Tenth Street crossing were activated for periods ranging from less than one minute to more than 40 minutes. From the exhibits, and the fact that train speeds on this line are 15 miles per hour or less, the witness concluded that the installation of predictors would not materially reduce the time that automobile traffic must wait while signals are activated. The witness testified that in his opinion the installation of gate arms with predictor controls could actually lengthen the time that automobile traffic would wait, because if only flashing lights are installed, automobile traffic would stop and then move across the tracks while the signals were working when slow trains approach the crossing.

A witness for the City testified concerning the budgeting, allocation and expenditure of funds available for street construction and repair and for installing protective devices and signalling on city streets. The witness described the various funds from which such monies are available and their lawful use. According to this witness the current City budget allocates \$25,000 to improvements at grade crossings including, in addition to installation of crossing protective devices, costs of street repair, widening and maintenance. The witness asserted this amount fails to cover the expense for three crossing projects now underway, and would fall far short of the monies needed to provide the protection recommended by the staff at the Horning and Tenth Street crossings. According to this witness, the total streets and highway budget for the current year exceeds \$8,000,000; but most of this money is in funds which can be used only for specified purposes, not including railroad grade crossing protection. The witness stated that, in the past, monies needed to complete grade crossing work had been diverted from unallocated funds or funds earmarked for purposes other than grade crossing protection, when amounts expended for grade crossing protection had exceeded the amounts budgeted therefor. The witness also testified that there is often a lag between the time funds are budgeted and are expended, and that the City recoups certain of its expenditures from the Grade Crossing Protection Fund administered by the Commission.

This witness also presented exhibits showing the total number of vehicular accidents within the City during 1964 and 1965, and showing the street intersections within the City having five or more vehicular accidents during that period. The first exhibit indicated that vehicle-train accidents are less than 0.2 percent of the total accidents within the City. However, the exhibit also shows that the severity of such accidents is much greater than for

vehicle accidents generally. The second exhibit shows that there are a number of intersections within the City which have a much greater incidence of accidents than the grade crossings here in issue. The witness asserted that money to be spent to improve the protection at the grade crossings here in issue would be better spent for additional traffic controls at street intersections which have a higher incidence of accidents.

The record indicates that there is a heavy amount of vehicular traffic over the Tenth Street crossing; that the widening of Horning Street will cause the vehicular traffic over that crossing to increase; and that train traffic over both crossings averages twenty-four trains per day. The record also shows that visibility at the crossing is poor in several quadrants and that the railroad crosses Horning Street and Tenth Street at an acute angle. These factors, together with the hazards which will exist because of the close configuration of the two crossings when the widening of Horning Street is completed, demonstrate the need for additional protection at both crossings. To postpone the needed improvement of protection at these crossings because adjacent crossings are not so protected, or because the City believes that its available funds may be better spent elsewhere, is not warranted.

The City recommended that predictor controls not be installed. The Railroad recommended that such controls be installed to regulate signal activation only in connection with movements over its main line. The purpose of predictor controls is to shorten the time during which automobile traffic is stopped because of the activation of signals. Installation of such controls primarily would benefit vehicular traffic; there is only the incidental benefit to the Railroad from less annoyance of drivers with train operations over the crossing. Predictors are necessary to provide adequate

control of vehicular traffic at crossings protected by gate arms. In consideration of the foregoing and the City's position concerning its ability to pay for its portion of costs for such devices, predictor controls will be required to be installed on the main line only.

The Commission finds that:

1. Public safety and welfare require the widening at grade of the crossing of Horning Street with the Southern Pacific Company tracks (DA-45.2). The costs of widening said crossing, except between lines two feet outside of rails, should be borne by the City.

2. Public safety and welfare require that protection at the Horning Street crossing (DA-45.2) be improved by the installation of Standard No. 8 flashing light signals with automatic gate arms, said signals to be activated by predictor controls on the main line, and that such signals shall be equipped with extra heads and a "no left turn" sign as set forth in Exhibit No. 14.

3. Public safety and welfare require that protection at the Tenth Street crossing (DA-45.3) be improved by supplementing the existing Standard No. 8 flashing light signals with automatic gate arms. The signals on the main line only should be activated by predictor controls.

4. The cost of installation and maintenance of the improved protection described in Findings 2 and 3 should be apportioned as follows: 50 percent to Southern Pacific Company and 50 percent to the City of San Jose.

The Commission concludes that Application No. 48076 should be granted to the extent provided by the order which follows, and that the crossings at Horning Street and Tenth Street should be protected and costs allocated as provided by said order.

O R D E R

IT IS ORDERED that:

1. The City of San Jose is authorized to widen and improve the grade crossing at Horning Street with the tracks of the Southern Pacific Company (DA-45.2) substantially in the manner and in accordance with the plans introduced in Application No. 48076, subject to the conditions as herein set forth. The cost of said project, except as hereinafter provided, shall be borne by applicant.

2. The work required to be performed at said crossing between lines two feet outside of rails and the work of installing signals and automatic gates shall be performed by the Southern Pacific Company.

3. Southern Pacific Company shall bear the entire cost of preparing the tracks to receive the pavement for the widened portions of the Horning Street crossing between lines two feet outside of rails and the full cost of improving the present crossing within said lines.

4. Southern Pacific Company shall, within six months after the effective date of this order, improve the protection of the crossing of Tenth Street (DA-45.3) with its Niles-San Jose main line by supplementing the existing Standard No. 8 flashing light signals (General Order No. 75-B) with gate arms, activated by predictor controls, substantially as set forth in Exhibit No. 14 herein.

5. Southern Pacific Company shall, within six months of the effective date of this order, improve the protection of the crossing of Horning Street (DA-45.2) with its Niles-San Jose main line by the installation of Standard No. 8 flashing light signals (General Order No. 75-B) supplemented with gate arms, and activated by predictor controls, substantially as set forth in Exhibit No. 14 herein.

6. The installation costs of said protective devices specified in numbered paragraphs 4 and 5 of this order shall be apportioned as follows: 50 percent to the Southern Pacific Company and 50 percent to the City of San Jose.

7. The maintenance costs for said automatic protective devices specified in numbered paragraphs 4 and 5 of this order shall be apportioned in the same manner as the installation costs are ordered to be apportioned in numbered paragraph 6, pursuant to the provisions of Section 1202.2 of the Public Utilities Code.

8. Within thirty days after the completion of the work hereinabove authorized or directed the City of San Jose and Southern Pacific Company shall so advise the Commission in writing.

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

Dated at San Francisco, California, this 1st day of NOVEMBER, 1966.

[Signature]
President
[Signature]
[Signature]
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Commissioners