

**ORIGINAL**Decision No. 72106

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Investigation into the status, safety, maintenance, use and protection or closing of various crossings at grade of the lines of Southern Pacific Company, The Atchison, Topeka and Santa Fe Railway Company, Union Pacific Railroad Company and Pacific Electric Railway Company in the County of San Bernardino, California, with various streets, roads and highways in said county.

Case No. 8135  
(Filed March 2, 1965)  
(Amended November 23, 1965)

Edward H. Robinson, Jr., for the County of San Bernardino; George D. Moe and Melvin R. Dykman by George D. Moe, for the State of California Department of Public Works Division of Highways; Neal W. McCrory, for The Atchison, Topeka and Santa Fe Railway Company; John H. Gordon, for the Southern Pacific Company; E. C. Renwick, W. Kennedy and B. J. Lawler by Ralph LePera, for the Union Pacific Railroad Co.; R. R. Campagna and Jesse Arias, Jr., for the City of San Bernardino; Hutton, Edwards & Lunceford by Bert L. Lunceford, for the City of Colton; J. E. Van Dell, for the City of Rialto; Philip E. Mead and Henry Røger, for the City of Fontana; respondents.  
Ralph Maloof, Edward and Mrs. Steblay, and W. H. Love, protestants.  
G. R. Mitchell, for the Brotherhood of Locomotive Engineers, interested party.  
Robert C. Marks, for the Commission staff.

O P I N I O N

After notice to all parties, nine days of hearings on the above matter were held before Examiner Rogers in San Bernardino, Rialto and Los Angeles. On August 19, 1966, the last day of hearing, the parties were granted time within which to file concurrent briefs. Upon the expiration thereof, the matter was submitted.

The case is an investigation, on the Commission's own motion, into the status, safety, maintenance, use of, and protection at, 63 crossings at grade over the tracks of The Atchison, Topeka and Santa Fe Railway Company (Santa Fe), the Southern Pacific Company<sup>1/</sup> (Southern Pacific), and the Union Pacific Railroad Co. (Union Pacific) in San Bernardino County.<sup>2/</sup>

Exhibit No. 2 herein was prepared by a Commission staff engineer relative to said 63 crossings. The engineer stated that he examined each crossing, noting the conditions thereat; that he asked the various public agencies involved for checks on the vehicular traffic thereat; that at approximately one-fourth of the crossings, the traffic counts were verified by spot checks; that he checked the train dispatchers' records for train traffic counts; and that as to five of the crossings on which closure is recommended,<sup>3/</sup> he made detailed examinations of the areas thereat.

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<sup>1/</sup> Two of the Southern Pacific crossings were formerly Pacific Electric Railway Company crossings. Pacific Electric was merged with Southern Pacific, the survivor, on August 13, 1965.

<sup>2/</sup> One Union Pacific crossing investigated was both in San Bernardino and Riverside Counties (Crossing No. 3-43.4), but is disregarded herein as the staff engineer made no recommendation relative thereto.

<sup>3/</sup> One of the crossings recommended for closure was Mill Street (Santa Fe Crossing No. 2B-1.3). This recommendation was changed during the hearings to upgrading the protection from one No. 1 crossing sign to two Standard No. 8 flashing-light signals and leaving the crossing. This removed the objections of the protestants.

The engineer stated that in making his recommendations hereinafter set forth relative to the protection at each crossing he considered the following factors, each of which he believed to be equally important:

1. Number of tracks
2. Maximum permitted train speed
3. Number of trains
4. Volume of vehicle traffic
5. Visibility of approaching trains
6. Grades of approach
7. Crossing width
8. Parallel street adjacent to track
9. Traffic signals adjacent to crossing
10. Type of vehicle traffic
11. Vehicle speed
12. Future traffic, population growth and area development

In addition to these factors, the engineer considered the accident history at each crossing. After evaluating all the factors involved, he determined that certain of the crossings investigated should have improved protection, some have adequate protection, some crossings should be altered and some closed.

The crossings involved are principally those on the "2" and "2B" lines of the Santa Fe in San Bernardino County (44 crossings). Also considered were 14 of the Southern Pacific "B" line crossings and 2 of the Southern Pacific "6T" line crossings and three Union Pacific "3" line crossings in said county.

The engineer recommended that the crossing protection be improved at 33 of the Santa Fe crossings. Said crossings include 10 in San Bernardino County, four in the city of San Bernardino, one in the city of Rialto and the city of San Bernardino, seven in the city of Rialto, two in the city of Fontana and San Bernardino County, four in the city of Fontana, one in the city of Upland, the city of Ontario and the county of San Bernardino, three in the city of Colton, and one in the city of Colton and the city of San Bernardino.

The engineer also recommended that two of the Union Pacific crossings, one in Ontario and San Bernardino County and one in San Bernardino County, and eight of the Southern Pacific crossings, seven in San Bernardino County and one in Redlands, have improved protection.

The engineer made no recommendations relative to the actual crossing protection at eight of the Santa Fe crossings, one of the Union Pacific crossings and seven of the Southern Pacific crossings, and said he considered the existing protection at each adequate.

The crossings not recommended for improved protection included Southern Pacific crossings Nos. B-525.4 (Milliken Avenue), B-534.7 (Cedar Avenue, at which a separation of grades has been proposed), B-537.5 (Meridian Avenue), B-538.4 (Third Street, which is to be closed in connection with a new separation of grades at Rancho Avenue), B-539.8 (New Mt. Vernon Avenue, which is to be a grade separation), 6T-56.02 (California Street) and 6T-56.06 (Rialto Avenue). The latter two crossings are to be abandoned when the Southern Pacific's Palmdale-Colton Bypass is completed. The engineer further testified relative to Meridian Avenue (Crossing No. B-537.5 in San Bernardino County), San Timoteo Canyon Road (Crossing No. B-546.7 in Redlands), and Allesandro Road (Crossing No. B-548.2 in San Bernardino County), that he recommended the crossings be altered within the last 50 feet of the approaches so as to provide a minimum width of 24 feet, and that in the case of the two latter crossings at which he recommended automatic gates, the widening should be accomplished before the installation of the automatic protection. The witness further stated that at Meridian

Avenue no automatic protection is recommended because of its negligible use, but the approaches are 27 feet wide with a 16 foot off-center crossing of the track, which leaves 11 feet of the approach on the west side of the road leading to open track. He recommended that the crossing be widened to not less than 24 feet and reflectorized blades installed on Standard No. 1 signs within sixty days after the effective date of the order herein.

The engineer stated that two of the Santa Fe crossings concerning which he made no recommendations for improved protection, namely, Devore Road (Crossing No. 2-71.0 in San Bernardino County) and Rialto Avenue (Crossing No. 2-83.4 in the City of San Bernardino), are to have automatic gates installed pursuant to prior orders of this Commission. At six of the Santa Fe crossings at which the engineer has recommended that improved protection be installed, he also recommended additional improvements. These crossings are as follows:

- |    |                  |                            |                          |
|----|------------------|----------------------------|--------------------------|
| 1. | Willow           | Avenue Crossing No. 2-85.2 | Rialto                   |
| 2. | Lilac            | Avenue Crossing No. 2-85.4 | Rialto                   |
| 3. | Locust           | Avenue Crossing No. 2-87.2 | San Bernardino<br>County |
| 4. | Rochester Avenue | Crossing No. 2-95.0        | San Bernardino<br>County |
| 5. | Vineyard         | Avenue Crossing No. 2-98.7 | San Bernardino<br>County |
| 6. | Baker            | Avenue Crossing No. 2-99.2 | San Bernardino<br>County |

The engineer recommended that at each of these crossings, in addition to improved protection, the last 50 feet of approaches be altered to provide a minimum roadway width of at least 24 feet.

The engineer also recommended that the Santa Fe crossings at Center Avenue in San Bernardino County (Crossing No. 2-97.0), "A" Street (Crossing No. 2B-2.5) and "H" Street (Crossing No. 2B-3.0) in the City of Colton, and Whittier Avenue (Crossing No. B-544.5) in San Bernardino County on the Southern Pacific, be closed. His

factual findings and stated reasons relative to each of said crossings are as follows:

Center Avenue, San Bernardino County  
(Santa Fe Crossing No. 2-97.0)

At a point 100 feet south of the track, visibility of approaching trains on the right for northbound drivers is restricted to 30 feet from the crossing. There are 10 trains and 410 vehicles per day over the crossing. Maximum permissible train speed is 90 miles per hour. There are two tracks. Protection is by Number 3 wigwags.

Center Avenue extends from Arrow Route on the north, across the Santa Fe tracks, to Sixth Street on the south, a distance of one mile.

Next adjacent crossings on either side of Center Avenue are Haven Avenue, one-quarter mile to the east, with daily traffic of 2,840, and Turner Avenue, one-quarter mile to the west, with daily traffic of 1,343. Turner Avenue and Haven Avenue are each about five miles long, running from 19th Street on the north to the San Bernardino Freeway, at which Haven Avenue has an interchange. The staff engineer has recommended that each of these crossings be protected with gates. The tracks are paralleled approximately 100 feet to the south by Eighth Street and 100 feet to the north by Humbolt Avenue. Eighth Street extends about two miles to the east of Center Avenue, and many miles to the west, through Upland and beyond. Humbolt Avenue is about one-half mile long, connecting with Haven Avenue on the east, but on the west it fails by 200 feet to connect with Turner Avenue.

There are approximately 175 houses in the area within one-quarter mile north of the tracks and one-quarter mile on either side of Center Avenue. There are four houses at the intersection

of Center Avenue and Eighth Avenue, south of the tracks. Two vacant industrial buildings are immediately east of Center Avenue, between the tracks and Eighth Street. There is one industry on Center Avenue between Sixth Street and Eighth Street. With this lack of development on Center Avenue south of the tracks, there is little reason why the use of Center Avenue is more convenient than using Haven Avenue or Turner Avenue.

"A" Street, Colton (Santa Fe Crossing No. 2B-2.5)

Visibility of approaching trains ranges between 50 and 800 feet for a driver 100 feet from the tracks. The crossing is used by 54 trains and 155 vehicles per day. This is a three track crossing. Protection consists of a No. 1 sign and stop signs. The authorized train speed is 20 miles per hour. "A" Street is about 2,700 feet long, running from Bordwell Avenue on the east to Pennsylvania Avenue on the west, crossing the Santa Fe tracks 500 feet from Pennsylvania Avenue.

Next adjacent crossings are Olive Street, 508 feet to the north, with daily traffic of 1,900, and the "C" Street grade separation, 900 feet to the south. The Olive Street crossing is protected by a wigwag. The engineer has recommended that the wigwag thereat be replaced by two Standard No. 8 flashers with automatic gates.

Seventh Street parallels the tracks 400 feet to the east, and Fifth Street-Pennsylvania Avenue parallels the tracks 500 feet to the west.

"H" Street, Colton (Santa Fe Crossing No. 2B-3.0)

There are four principal tracks in one group, and a single spur about 100 feet east of the main tracks. Visibility of approaching trains ranges between 25 feet and 600 feet for a driver 100 feet from the main tracks. The average daily traffic is 810 vehicles. There is no automatic protection at the crossing. There are five tracks, and the maximum authorized train speed is 20 miles per hour.

"H" Street crosses the principal business section of Colton lying along Eighth Street. It ends at Third Street, three blocks west of the tracks.

Next adjacent crossings are "I" Street, 400 feet south, with daily traffic of 8,000, and "E" Street, 1,200 feet north, with daily traffic of 475. Sixth Street parallels the tracks 150 feet to the east, and Fifth Street parallels the tracks 400 feet to the west. Each of these streets extends to streets which will cross the tracks. A total of 369 vehicles and 73 pedestrians used the "H" Street crossing between noon and 5:00 P. M. on Thursday, December 16, 1965, and 16 trains crossed "H" Street in the same period.

Whittier Avenue, San Bernardino County  
(Southern Pacific Crossing No. B-544.5)

Visibility of approaching trains ranges between 150 and 500 feet for a driver 100 feet from the track. There are 49 trains and 105 vehicles over the crossing each day. This is a three track crossing. Train speeds are 60 miles per hour. Protection is by a Number 3 wigwag plus a No. 1 sign.

Whittier Avenue extends about one mile from Barton Road on the north, deadending .1 mile south of Beaumont Avenue. It makes



a "T" intersection with Barton Road, a principal east-west road.

Next adjacent crossings on either side of Whittier Avenue are Barton Road (.3 mile to the west) and Beaumont Avenue (.9 mile to the east). Barton Road is protected by Standard No. 8 flashing light signals. It is recommended that these be supplemented with automatic gates.

Bryn Mawr Avenue intersects Barton Road 150 feet west of the rail line crossing of the latter, and has traffic of 180 vehicles per day. Vehicles moving between Bryn Mawr Avenue and points on Barton Road to the west do not cross the Southern Pacific tracks at Barton Road.

There are 27 homes, the "Bryn Mawr-Coachella Valley Groves" packing house, and a pest-control business located between the Southern Pacific tracks and Barton Road, adjacent to Whittier Avenue. Orange groves cover the entire area south of the tracks, extending beyond Beaumont Avenue. There are five houses in that area.

A total of 34 vehicles moved over the Whittier Avenue crossing between noon and 5:30 P. M. on December 3, 1965. Nine trains crossed Whittier Avenue between the same hours on that date. The engineer estimated that there would be 60 vehicles per day required to travel one-half mile greater distance per trip should the Whittier Avenue crossing be closed. In addition, he said, if school buses now picking up and discharging pupils at Whittier Avenue and First Street continue this practice, an added travel distance of 0.8 miles per trip would be required. With the exception of school buses, vehicles traveling between points on

Barton Road west of Whittier Avenue and points on Whittier Avenue or beyond would avoid two railroad crossings, that is, Barton Road and Whittier Avenue, by using Bryn Mawr Avenue instead of Whittier Avenue, with no increase in travel distance.

The staff engineer stated that, for the most part, the lines involved are single track with passing tracks, sidings and spurs as required. Maximum permitted train speeds range between 15 and 90 miles per hour. The approximate number of passenger trains and freight trains operated daily on each line are as follows:

	<u>UNION PACIFIC</u>	<u>SOUTHERN PACIFIC</u>		<u>SANTA FE</u>	<u>SANTA FE &amp; UNION PACIFIC</u>	
	<u>"3" Line</u>	<u>"B" Line</u>		<u>"2" Line</u>	<u>"2B" Line</u>	<u>"3" Line</u>
	<u>Ontario- Riverside</u>	<u>Guasti- Colton</u>	<u>Colton- Redlands</u>	<u>Upland- San Berdo.</u>	<u>Colton- San Berdo.</u>	<u>San Berdo.- Hesperia</u>
Passenger	4	4	4	5	7	12
Freight						
Through	10	28*	28	1#	31	35
Local	4	4	2	5	16	0
Helpers	<u>0</u>	<u>0</u>	<u>15</u>	<u>0</u>	<u>0</u>	<u>2</u>
Daily total	18	36	49	11	54	49

\*Ore trains (except for export) run to the Kaiser plant, about 5 miles east of Guasti.

#Coal train which runs to Kaiser plant, at Cherry Avenue. In addition, switching operations are performed at various points by local freights or switchers.

The engineer made the following recommendations for the type of protection and the time of installation thereof relative to each crossing herein considered at which, in his opinion, the existing crossing protection is inadequate. His recommendations were based on what he referred to as the "accident potential" at each crossing. This "accident potential" was determined by him after consideration of the 12 factors hereinbefore referred to,

exclusive of the accident history, none of which, in his opinion, was more important than the others. He recommended that gates be installed by June 30, 1967 at two Southern Pacific crossings, nine Santa Fe crossings and one Union Pacific crossing. He also recommended that protection at Mill Street, which terminates immediately west of the Santa Fe crossing, be by Standard No. 8 flashing lights installed on or before June 30, 1967. Each of the crossings recommended for increased protection in 1967 other than Mill Street has what he referred to as a significant accident history, i.e., at least one train-vehicle accident. His proposed scheduling relative to the remaining crossings which he believes should have increased protection is for the convenience of the affected parties and he stated it would make no difference when such crossings are improved provided all receive the increased protection by June 30, 1970, and that approximately one-third of the crossings be improved in each of the years 1968, 1969 and 1970.

SOUTHERN PACIFIC CROSSINGS

<u>Crossing Number</u>	<u>Street Name</u>	<u>Governmental Agency</u>	<u>Protection</u>	<u>Date of Installation (on or before June 30 of year indicated)</u>
B-523.9	Turner Avenue	San Bernardino Co.	Automatic Gates	1968
B-541.0	Hunts Lane	" "	" "	1968
B-542.6	Anderson Avenue	" "	" "	1969
B-543.6	Mountain View St.	" "	" "	1970
B-544.2	Barton Avenue	" "	" "	1967
B-545.4	Beaumont Avenue	" "	" "	1970
B-546.7	San Timoteo Can. Rd.	Redlands	" "	1969
B-548.2	Alessandro Rd.	San Bernardino Co.	" "	1967

UNION PACIFIC CROSSINGS

<u>Crossing Number</u>	<u>Street Name</u>	<u>Governmental Agency</u>	<u>Protection</u>	<u>Date of Installation (on or before June 30 of year indicated)</u>
3-41.2	Archibald Avenue	Ontario & S.B. Co.	Automatic Gates	1967
3-41.8	Turner Avenue	San Bernardino Co.	" "	1968

SANTA FE CROSSINGS

<u>Crossing Number</u>	<u>Street Name</u>	<u>Governmental Agency</u>	<u>Protection</u>	<u>Date of Installation (on or before June 30 of year indicated)</u>
2-74.0	Palm Avenue	San Bernardino Co.	Automatic Gates	1970
2-76.6	State Street	" " "	" "	1967
2-82.6	Rancho Avenue	San Bernardino City	" "	1969
2-83.9	Pepper Avenue	" " "	" "	1967
2-84.2	Eucalyptus Avenue	Rialto & S.B. City	" "	1968
2-84.4	Acacia Avenue	Rialto	" "	1968
2-84.7	Sycamore Street	"	" "	1969
2-84.8	Riverside Avenue	"	" "	1969
2-85.2	Willow Avenue	"	" "	1969
2-85.4	Lilac Avenue	"	" "	1968
2-85.7	Cactus Avenue	"	" "	1968
2-86.4	Cedar Avenue	"	" "	1969
2-87.2	Locust Avenue	San Bernardino Co.	" "	1967
2-87.7	Alder Avenue	Fontana & S.B. County	" "	1967
2-88.2	Palmetto Avenue	Fontana	" "	1968
2-88.5	Mango Avenue	"	" "	1968
2-88.7	Sierra Avenue	"	" "	1968
2-88.9	Juniper Avenue	"	" "	1967
2-89.7	Citrus Avenue	Fontana & S.B. County	" "	1968
2-93.7	Etiwanda Avenue	San Bernardino Co.	" "	1967
2-95.0	Rochester Avenue	" " "	2 No.8 Flashing Lights	1970
2-96.7	Haven Avenue	" " "	Automatic Gates	1967
2-97.2	Turner Avenue	" " "	" "	1969
2-98.2	Hellman Avenue	" " "	" "	1970
2-98.7	Vineyard Avenue	" " "	" "	1970
2-99.2	Baker Avenue	" " "	" "	1970
2-99.7	Grove Avenue	Upland, Ontario & S.B. County	Automatic Gates on Main Line; 2 No. 8 Flashing lights on spur	1970
2B-0.7	Rialto Avenue	San Bernardino City	Install Automatic Gates on removal of SP track crossing AT&SF track at Rialto Avenue and California Street	
2B-1.0	Walnut Street	San Bernardino City	2 No.8 Flashing Lights	1970
2B-1.3	Mill Street	San Bernardino Co. and Colton	" " " "	1967
2B-2.1	Laurel Street	Colton	Automatic Gates	1967
2B-2.4	Olive Street	"	" "	1969
2B-2.8	"E" Street	"	" "	1969

In addition to the foregoing, the engineer recommended that:

1. The cost of installing protective devices be allocated 50 percent to the railroad involved and 50 percent to the public agency involved, and that where more than one public agency is involved at a crossing, the latter 50 percent be divided equally between such agencies.

2. The cost of widening the three Southern Pacific and six Santa Fe crossings hereinbefore referred to, to a minimum of 24 feet, be borne by the public agency or agencies involved, except that each railroad should pay for the cost of preparing its track area to receive such widened paving.

#### Southern Pacific

The Southern Pacific agreed to the staff engineer's recommendations.

#### Union Pacific

The Union Pacific agreed to the staff engineer's recommendations concerning Archibald Avenue. It contends that Standard No. 8 flashing light signals will provide adequate protection at Turner Avenue.

The Union Pacific's public projects engineer for its California division testified, among other things, that the Turner Avenue crossing is protected by two Standard No. 8 flashing light signals which were installed in 1949; that immediately north of the crossing the land is agricultural and there is no building within approximately 0.4 mile thereof; that approximately 0.6 mile north of the crossing, Turner Avenue and Archibald Avenue join; that the

Archibald Avenue crossing of the Union Pacific is protected by gates and carries most of the traffic across the tracks; that Turner Avenue is not a major north-south street; that the State is proposing to construct an extension of the Pomona Freeway 0.5 mile south of the crossing; that, to the best of his knowledge, the extension will be constructed between 1968 and 1970; and that when the freeway is completed, Turner Avenue will deadend thereat. It was his opinion that the existing protection at Turner Avenue is adequate. The witness further testified that in making his recommendation he considered the 12 factors listed by the staff engineer plus the accident history at the crossing.

The staff engineer's report shows that at the Turner Avenue crossing there is one track, the authorized train speed is 79 miles per hour, the average daily traffic is 952 vehicles, the train traffic includes 18 regular trains, and since April, 1960, there has been no train-vehicle accident.

#### The City of Fontana

The City of Fontana contains three Santa Fe crossings entirely within its boundaries plus two crossings each of which is partly in the city and partly in the county of San Bernardino.

The public works director for Fontana agreed with the staff engineer's recommendations relative to all crossings but the Citrus Avenue crossing (Crossing No. 2-89.7) which is partly in the city and partly in the county, and the Sierra Avenue crossing (Crossing No. 2-88.7) which is entirely in the city. The witness had no quarrel with any of the Commission engineer's facts and stated that the City had placed funds for all crossings listed in

C. 8125 LM \*

the staff engineer's report but requested extra time in which to complete the work on the said crossings. The staff engineer recommended that both crossings be improved by June 30, 1968.

The City of Colton

Exclusive of Mill Street, which is partly in the city of San Bernardino and partly in the city of Colton, there are seven Sante Fe grade crossings and two grade separations in the city limits. These crossings and the staff engineer's findings relative thereto are as follows:

<u>Crossing Number</u>	<u>Street Name</u>	<u>No. of Tracks</u>	<u>Train Speed MPH</u>	<u>Protection</u>	<u>Daily Vehicle Counts</u>	<u>Train-Vehicle Accidents April 1960-Mar. 1965</u>
2B-2.1	Laurel Street	3	20	#3 Wigwag	3,500	2 Accidents 2 Injured
2B-2.4	Olive Street	3	20	#3 Wigwag	1,900	2 Accidents 2 Injured
2B-2.5	"A" Street	3	20	#1 Signs	155	1 Accident
2B-2.5-B	"C" Street	-	-	Underpass	-	-
2B-2.8	"E" Street	4	20	#8 FL's	475	0
2B-3.0	"H" Street	5	20	#1 Signs	810	0
2B-3.1	"I" Street	6	20	#3 Wigwags & Manual Gates	8,000	1 Accident
2B-3.2-A	Interstate 10	-	-	Overpass	-	-
2B-3.5	"N" Street	4	40	#8 FL's (C)	1,610	0 (B)  3 Accidents (A) 1 Killed

- (A) After present protection
- (B) Before present protection
- (C) Installed 6/24/60

The staff engineer recommended that gates be installed on Laurel Street, Olive Street and "E" Street, "A" Street and "H" Street be closed, and "I" Street and "N" Street be left as they are. He stated that a separation of grades has been proposed for "N" Street.

The chief of police and fire chief each appeared in opposition to closing streets. The gist of their argument was that the Santa Fe tracks divide the city into two parts, that there are emergencies, that long trains are on the tracks, and that with all streets open, alternate streets can be used if trains blockade some, but that if some streets are closed, unreasonable delay in responding to emergencies will result.

A witness with a place of business on "A" Street adjacent to the tracks opposed the closing of said street for the reasons it is narrow, that large trucks come to his place of business, that such trucks cannot turn around on the street, and that if the street is closed it will cost him more to have shipments of freight made to and from his place of business.

The executive director of the Urban Redevelopment Program for the City stated that plans call for "H" Street to remain open, that said street is classified as a collector street, that the City estimates by 1969 it will have 2500 or more vehicles per day over the crossing, and that if "H" Street is closed it will deter industry from settling in the area. He stated that the City has no plans to widen "H" Street.

The director of public works opposed the closing of any street in Colton and recommended protection by Standard No. 8 flashing light signals without gates at all Colton crossings but



"A" Street, at which he recommended that the existing protection, consisting of two Standard No. 1 signs augmented with boulevard stop signs, remain in place.

The city manager opposed the closing of any street for the reason that closing would upset the City's plans for development. He recommended Standard No. 8 flashing lights at Laurel Street, Olive Street and "H" Street, and Standard No. 8 flashing light signals at "A" Street at the appropriate time, that is, when the traffic count increases sufficiently to justify such protection. His recommendations for the time of installation of the Standard No. 8 flashing light signals were: Laurel Street in 1968, Olive Street in 1969, "H" Street in 1970, and "A" Street at some future date.

The City of San Bernardino

A witness for the City of San Bernardino objected to the staff engineer's report concerning city crossings in only one instance. He recommended that the Rancho Avenue crossing of the Santa Fe (Crossing No. 2-82.6) be improved with gates supplemented with Standard No. 8 flashing light signals by June 30, 1968, instead of June 30, 1969, as recommended by the staff engineer. His reasons were that approximately one-fourth mile south of the crossing there is an underpass for the Southern Pacific (formerly Pacific Electric Railway Company) tracks; that this line will be abandoned when the Palmdale-Colton Cutoff is completed; that as a result, the highway underpass will be demolished and an increase in traffic, predominantly truck traffic, using Rancho Avenue, is expected due to the fact that presently large gravel trucks cannot use the underpass and use alternate routes; and that when the underpass is

removed, such traffic will be at grade over the site of the existing underpass.

County of San Bernardino

The San Bernardino County traffic engineer in general agreed with the staff engineer's report but specifically disagreed with a few of the engineer's recommendations and made counter-proposals as follows:

1. Whittier Avenue (Southern Pacific Crossing No. B-544.5).

The staff engineer recommended that this crossing be closed.

The County engineer stated that while the traffic is currently light, the area is expected to develop as a residential area; that there is a need for another exit from the area south of the tracks other than the crossings which would remain if Whittier Avenue were closed, i.e., Bryn Mawr Avenue to the west and Beaumont Avenue to the south; and that a portion of the traffic going east to Redlands would be inconvenienced by the closure. The present protection at the crossing is Standard No. 3 wigwags, and there have been no accidents at the crossings in the previous five years. It was the witness' opinion that this protection is adequate and the crossing should remain open.

2. Center Avenue (Santa Fe Crossing No. 2-97.0).

The staff engineer recommended that this crossing be closed.

The County engineer opposed the closing of the crossing for the reasons that Humbolt Avenue, which is immediately north of the Santa Fe track and extends from Harrison Avenue on the east across Center Avenue and deadends at Turner Avenue on the west,

does not intersect Turner Avenue; that traffic is increasing in the area; and that the area north of the tracks is residential. He stated that protection is by two Standard No. 3 wigwags, there have been no accidents at the crossing, and he assumed the existing protection is adequate.

3. Grove Avenue (Santa Fe Crossing No. 2-99.7).

The staff engineer recommended gates on the main line and two Standard No. 8 flashing light signals on the spur track which is immediately north of the main line on or before June 30, 1970.

The County engineer stated that the spur currently is not in operation and that the County would go along with the two Standard No. 8 flashing light signals on the spur track but that the date of installation should be suspended until the spur is again placed in operation.

4. Turner Avenue (Union Pacific Crossing No. 3-41.8).

The staff engineer recommended that this crossing be improved with gates by June 30, 1968. The Union Pacific recommended that the existing protection remain.

The County engineer stated that currently Turner Avenue is being considered for repaving and road improvement; that originally Archibald Avenue, which is the next street west of this crossing, continued across the Ontario Airport runways; that Archibald Avenue has been detoured so it merges with Turner Avenue to avoid the airport; and that since the rerouting of Archibald Avenue there has been an increase in the Turner Avenue crossing traffic of from 360 cars per day to 950 cars per day. The County engineer agreed with the staff engineer's recommendation.

The City of Rialto

The City engineer stated that he did not basically differ with the staff engineer's recommendations relative to the type of crossing protection; he did, however, take issue with the scheduling of improvements for the stated reason that the City has many street crossings which, in his opinion, are more in need of immediate improvement than the grade crossings involved.

The Santa Fe

The Santa Fe agreed that the cost of installation of protective devices at Santa Fe crossings should be apportioned 50 percent to the Santa Fe and 50 percent to the governmental agency or agencies involved. It urges, however, that the interest of public safety is best promoted by a continuing or annual revision of crossings on a statewide basis or, at a minimum, on an area-wide basis to determine the need for upgrading protection. This investigation is concerned with certain specific crossings in San Bernardino County and the specific crossings are all we are concerned with at this time.

A Santa Fe signal department representative and its chief claim agent for the Coast Line made a detailed study of each Santa Fe crossing herein involved with respect to accident history and causes, traffic counts, types of vehicles, nature of the area, street layout, traffic patterns funneling into the crossing, the numbers and types of trains, the visibility, the lighting conditions, the speeds of vehicles, and whether or not the traffic is through traffic or local. Each grade crossing accident was analyzed to determine if increasing crossing protective devices

would have prevented the accident, or, conversely, if the absence of accident history at the grade crossing involved was attributable to the existing crossing protection or other factors. Based on said investigation and consideration of the stated factors, the Santa Fe recommended that eight crossings should be required to have automatic gates by June 30, 1967; that twelve crossings have adequate protection; and that an annual review should be made of the remaining crossings. Of the eight crossings which the staff engineer recommended for gates, the Santa Fe engineer stated that the following five should have gates installed by June 30, 1967:

1. State Street, Crossing No. 2-76.6,  
in the County of San Bernardino.
2. Alder Avenue, Crossing No. 2-87.7,  
in the City of Fontana and San Bernardino  
County.
3. Juniper Avenue, Crossing No. 2-88.9,  
in the City of Fontana.
4. Laurel Street, Crossing No. 2B-2.1,  
in the City of Colton.
5. Etiwanda Avenue, Crossing No. 2-93.7,  
in the County of San Bernardino.

The Santa Fe also recommended that Rialto Avenue (Crossing No. 2B-0.7), Sierra Avenue (Crossing No. 2-88.7), and Rancho Avenue (Crossing No. 2-82.6) have gates installed by June 30, 1966, rather than Pepper Avenue (Crossing No. 2-83.9), Locust Avenue (Crossing No. 2-87.2) and Haven Avenue (Crossing No. 2-96.7) as recommended by the staff engineer.

Rialto Avenue (Crossing No. 2B-0.7)

The staff engineer's report shows that there is one track at this crossing; that the authorized train speed is 15 miles per hour; that the crossing is protected by two Standard No. 8 flashing

light signals; that the average daily traffic is 10,600 vehicles, and that between April, 1960, and March, 1965, there were seven accidents at the crossing, in which one person was killed and two were injured. The staff engineer recommended that automatic gates be installed when the Southern Pacific track crossing the Santa Fe track at Rialto Avenue and at California Street is removed. These removals are to be effected when the Southern Pacific's Palmdale-Colton Cutoff is completed. The Santa Fe witness stated that the crossing is in immediate need of gates because of the accident history and the limited visibility in two quadrants.

Sierra Avenue (Crossing No. 2-88.7)

The staff engineer's report shows that this is a one track crossing; that the authorized train speed is 50 miles per hour; that the crossing is protected by four Standard No. 8 flashing light signals; that the average daily traffic is 11,000 vehicles; and that between April, 1960, and March, 1965, there were three accidents at the crossing in which nine persons were injured. The staff engineer recommended that gates be installed by June 30, 1968.

The Santa Fe witness stated that gates should be installed at this crossing by June 30, 1967, because of the high traffic count, the accident history and restricted visibility in two quadrants.

Rancho Avenue (Crossing No. 2-82.6)

The staff engineer's report shows that this is a one track crossing; that the authorized train speed is 30 miles per hour; that it is protected by two Standard No. 8 flashing light signals;

that the average daily traffic is 4,000 vehicles; and that there were no accidents between April, 1960, and March, 1965. He recommended that gates be installed by June 30, 1969.

The Santa Fe witness stated that gates should be installed by June 30, 1967 for the reasons that the predicted average daily traffic is 6,000 vehicles by 1968 due to the removal of a Pacific Electric overpass which will increase traffic on Rancho Avenue and that heavy cement trucks travel west on the south side of the track and immediately parallel thereto and turn north across the track.

The staff engineer's factual findings relative to the Pepper Avenue, Locust Avenue and Haven Avenue crossings, which he recommended be protected by gates in 1967, are as follows:

Pepper Avenue (Crossing No. 2-83.9)

This crossing is in the City of San Bernardino; there is one track; the maximum authorized train speed is 30 miles per hour; it is protected by a Standard No. 1 crossing sign; the average daily traffic is 1200 vehicles; and between April, 1960, and March, 1965, there were two accidents at the crossing, in which one person was killed and six were injured.

Locust Avenue (Crossing No. 2-87.2)

This crossing is in the County of San Bernardino; there is one track; the maximum authorized train speed is 90 miles per hour; it is protected by Standard No. 1 crossing signs plus boulevard stop signs; the average daily traffic is 1858 vehicles; and between April, 1960, and March, 1965, there was one accident, in which no one was killed or injured.

Haven Avenue (Crossing No. 2-96.7)

This crossing is in the County of San Bernardino; there is one track; the maximum authorized train speed is 90 miles per hour; it is protected by two Standard No. 8 flashing light signals; the average daily traffic is 2840 vehicles; and between April, 1960, and March, 1965, there were two accidents at the crossing, in which seven people were killed.

The Santa Fe witness stated that, in his opinion, twelve of the crossings which the staff engineer recommended for improved protection on or before June 30, 1970, now have adequate protection and will need no improved protection in the foreseeable future. He presented Exhibit No. 13 herein, containing detailed information relative to each of said crossings and photos thereof. The statistics relative to said crossings as prepared by the staff engineer are as follows:



<u>Crossing Number</u>	<u>Street Name</u>	<u>Governmental Agency</u>	<u>No. of Tracks</u>	<u>Train Speeds MPH</u>	<u>Protection</u>	<u>Daily Vehicle Counts</u>	<u>Recommended Protection</u>	<u>Number of Trains</u>	<u>Accidents April, 1960 to March, 1965</u>
2-74.0	Palm Avenue	San Bernardino County	2	79	#1 Signs	532	Gates, 1970	12 Pass. 37 Frt.	0
2-84.2	Eucalyptus Avenue	Rialto & S.B. City	1	30	#1 Signs <sup>✓</sup>	1,055	Gates, 1968	5 Pass. 6 Frt.	0
2-85.2	Willow Avenue	Rialto	2	30	#3 Wigwag @	600	Gates, 1969	5 Pass. 6 Frt. 2 Switch	0
2-85.7	Cactus Avenue	Rialto	3	90	#1 Signs <sup>✓</sup>	1,100	Gates, 1968	5 Pass. 6 Frt. 1 Switch	0
2-86.4	Cedar Avenue	Rialto	1	90	4 #8 FL's	1,509	Gates, 1969	5 Pass. 6 Frt.	0
2-95.0	Rochester Avenue	San Bernardino County	1	90	#3 Wigwag @	230	#8 FL's 1970	5 Pass. 6 Frt.	0
2-98.2	Hellman Avenue	San Bernardino County	1	75	#1 Signs	1,176	Gates, 1970	5 Pass. 5 Frt.	0
2-98.7	Vineyard Avenue	San Bernardino County	1	75	#1 Signs <sup>✓</sup>	2,818	Gates, 1970	5 Pass. 5 Frt.	0
2-99.2	Baker Avenue	San Bernardino County	1	75	#1 Signs <sup>✓</sup>	720	Gates, 1970	5 Pass. 5 Frt.	0
2-99.7	Grove Avenue	Upland and S.B. County	2	75	#8 FL's	7,081	Gates, 1970	1 per month	1 Accident 1 Injured
2B-1.0	Walnut Street	San Bernardino City	1	15	#1 Sign	1,250	2 #8 FL's, 1970	9 Pass. 3 Frt.	0
2B-2.8	"E" Street	Colton	4	20	#8 FL's	475	Gates, 1969	7 Pass. 47 Frt. 10 Switch	0

<sup>✓</sup> Plus Boulevard Stop Signs    @ Plus No.1 Crossing Sign

The Santa Fe recommended that increased protection not be required at the remaining Santa Fe crossings at the present time and that the said crossings should only be reviewed annually to determine the need, if any, for increased protection. This contention was not based on any showing of lack of need by the Santa Fe for added protection at the remaining crossings, but rather on the claimed lack of showing by the staff engineer that added protection will be required at any crossing investigated which the Santa Fe did not agree needs added protection on or before June 30, 1967.

Engineering Difficulties Pointed out by the Santa Fe

The Santa Fe also placed in evidence information relative to some of the hereinbefore referred to crossings at which engineering difficulties will be encountered when improvements are made in the protection (see Pages 39 to 49 inclusive of Exhibit 13). We realize there may be engineering difficulties in modifying the Santa Fe's protection at said crossings, but these are matters to be solved by the railroads and the governmental agencies concerned and are not matters of which we will presently take notice. Where safety at a crossing is involved, modification of the crossing will be required by the order herein.

Findings

On the evidence of record, we find that:

1. The facts set forth in Exhibit 2 herein are true.
2. Public safety requires the installation of improved or modified crossing protection at each of the crossings specified in ordering paragraphs Nos. 1, 2 and 3 in the order herein on or before June 30, 1967.

3. Public safety requires that certain crossings and/or approaches thereto specified in ordering paragraph No. 4 of the order herein be modified and/or improved, and the cost of said work divided between the railroad and/or governmental agency or agencies involved as specified in said ordering paragraph No. 4.

4. Public safety requires that the protection at certain crossings be modified on or before June 30, 1970, as set forth in ordering paragraphs Nos. 5, 6 and 7 of the order herein.

5. The cost of installing the protective devices at each crossing whereat the order herein requires increased or altered crossing protection should be allocated 50 percent to the railroad involved and 50 percent to the public agency or agencies involved.

6. Maintenance costs of protection should be divided between the railroads and the public agency or agencies involved pursuant to Section 1202.2 of the Public Utilities Code.

7. Public safety requires that the Center Avenue and "A" Street crossings at the Santa Fe Railway (2-97.0 and 2B-2.5) and the Whittier Avenue crossing at the Southern Pacific Company (B-544.5) be closed to the public.

Conclusion

We conclude that the crossing protection specified in the order which follows should be installed; that such installation should be effected on or before June 30, 1970; and that the expenses of any work done pursuant to the order herein should be apportioned as stated in the order herein.

O R D E R

IT IS ORDERED that:

1. On or before June 30, 1967, The Atchison, Topeka and Santa Fe Railway Company shall install two Standard No. 8 flashing light signals (General Order No. 75-B) supplemented with automatic gates at each of the following grade crossings:

<u>Crossing Number</u>	<u>Street Name</u>	<u>Governmental Agency</u>
2-76.6	State Street	San Bernardino County
2-83.9	Pepper Avenue	City of San Bernardino
2-87.2	Locust Avenue	San Bernardino County
2-87.7	Alder Avenue	City of Fontana and County of San Bernardino
2-88.9	Juniper Avenue	City of Fontana
2-93.7	Etiwanda Avenue	San Bernardino County
2-96.7	Haven Avenue	San Bernardino County
2B-0.7	Rialto Avenue	City of San Bernardino
2B-2.1	Laurel Street	City of Colton

2. On or before June 30, 1967, the Southern Pacific Company shall install two Standard No. 8 flashing light signals (General Order No. 75-B) supplemented with automatic gates at each of the following grade crossings:

<u>Crossing Number</u>	<u>Street Name</u>	<u>Governmental Agency</u>
B-544.2	Barton Avenue	San Bernardino County
B-548.2	Alessandro Road	San Bernardino County

3. On or before June 30, 1967, the Union Pacific Railroad Company shall install two Standard No. 8 flashing light signals (General Order No. 75-B) supplemented with automatic gates at the following grade crossing:

<u>Crossing Number</u>	<u>Street Name</u>	<u>Governmental Agency</u>
3-41.2	Archibald Avenue	City of Ontario and San Bernardino County

4. Within one year from the effective date of this order, the following crossings shall be widened to a minimum width of 24 feet, commencing 50 feet on each side of the crossing involved, over the track or tracks at said crossing. All work outside of lines two feet outside the outside rails at each crossing shall be performed and paid for by the governmental agency or agencies involved. At each of said crossings the railroad involved shall, at its expense, prepare the track area within lines two feet outside the outside rail to receive the paving and shall do the paving. The governmental agency or agencies involved shall bear the expense of the paving within lines two feet outside the outside rails. Said work shall be performed at each of the following crossings within the time specified in this ordering paragraph:

<u>Crossing Number</u>	<u>Street Name</u>	<u>Governmental Agency</u>	<u>Railroad</u>	<u>Time of Improvement</u>
B-537.5	Meridian Avenue	San Bernardino County	Southern Pacific	One year from effective date of this order
B-546.7	San Timoteo Canyon Road	City of Redlands	" "	When automatic protection installed per order herein
B-548.2	Alessandro Road	San Bernardino County	" "	"
2-85.2	Willow Avenue	City of Rialto	Santa Fe	One year from effective date of this order
2-85.4	Lilac Avenue	"	"	When automatic protection installed per order herein
2-87.2	Locust Avenue	San Bernardino County	"	"
2-95.0	Rochester Avenue	"	"	"
2-98.7	Vineyard Avenue	"	"	"
2-99.2	Baker Avenue	"	"	"

5. The Atchison, Topeka and Santa Fe Railway Company shall install automatic signal protection on or prior to June 30, 1970 at the following grade crossings:

<u>Crossing Number</u>	<u>Street Name</u>	<u>Governmental Agency</u>	<u>Protection</u>
2 - 74.0	Palm Ave.	San Bernardino County	Gates*
2 - 82.6	Rancho Ave.	City of San Bernardino	Gates
2 - 84.2	Eucalyptus Ave.	Rialto and San Berdo. City	Gates
2 - 84.4	Acacia Ave.	City of Rialto	Gates
2 - 84.7	Sycamore St.	" " "	Gates
2 - 84.8	Riverside Ave.	" " "	Gates
2 - 85.2	Willow Ave.	" " "	Gates
2 - 85.4	Lilac Ave.	" " "	Gates
2 - 85.7	Cactus Ave.	" " "	Gates
2 - 86.4	Cedar Ave.	" " "	Gates
2 - 88.2	Palmetto Ave.	City of Fontana	Gates
2 - 88.5	Mango Ave.	" " "	Gates
2 - 88.7	Sierra Ave.	" " "	Gates
2 - 89.7	Citrus Ave.	Fontana and San Berdo. County	Gates
2 - 95.0	Rochester Ave.	San Bernardino County	2 - #8's
2 - 97.2	Turner Ave.	" " "	Gates
2 - 98.2	Hellman Ave.	" " "	Gates
2 - 98.7	Vineyard Ave.	" " "	Gates
2 - 99.2	Baker Ave.	" " "	Gates
2 - 99.7	Grove Ave.	Upland, Ontario and San Bernardino County	Gates on Main, 2 #8's on Spur
2B-	1.0 Walnut Street	City of San Bernardino	2 #8's
2B-	1.3 Mill Street	Cities of San Berdo. and Colton	2 #8's
2B-	2.4 Olive Street	City of Colton	Gates
2B-	2.8 "E" Street	" " "	Gates
2B-	3.0 "H" Street	" " "	Gates

\* Where used herein "Gates" means 2 Standard No. 8 flashing light signals (General Order No. 75-B) supplemented with automatic gates.

Within one year from the effective date of this order

The Atchison, Topeka and Santa Fe Railway Company and the governmental agency involved at each crossing specified in this ordering paragraph shall advise this Commission in writing the time when each such crossing is to have the crossing protection specified in this ordering paragraph installed thereat. The Atchison, Topeka and Santa Fe Railway Company shall so schedule said installations that eight shall be installed by June 30, 1968, eight shall be installed by June 30, 1969, and nine shall be installed by June 30, 1970.

6. The Southern Pacific Company shall install automatic signal protection on or prior to June 30 of the year specified at the following grade crossings:

C. 8135 LM \*

<u>Crossing Number</u>	<u>Street Name</u>	<u>Governmental Agency</u>	<u>Protection</u>	<u>Year</u>
B-523.9	Turner Ave.	San Bernardino County	Gates*	1968
B-541.0	Hunts Lane	Cities of San Bernardino and Colton and County of San Bernardino	Gates	"
B-542.6	Anderson Ave.	San Bernardino County	Gates	1969
B-543.6	Mountain View Street	San Bernardino County	Gates	"
B-545.4	Beaumont Ave.	San Bernardino County	Gates	1970
B-546.7	San Timoteo Canyon Road	City of Redlands	Gates	"

\* Where used herein "Gates" means 2 Standard No. 8 flashing light signals (General Order No. 75-B) supplemented with automatic gates.

7. The Union Pacific Railroad Company shall install automatic signal protection on or prior to June 30, 1968 at the following grade crossing:

<u>Crossing Number</u>	<u>Street Name</u>	<u>Governmental Agency</u>	<u>Protection</u>
3-41.8	Turner Ave.	San Bernardino County	Two Standard No. 8 Flashing Light Sig- nals Supplemented with Automatic Gates

8. The Atchison, Topeka and Santa Fe Railway Company shall, at its expense, within 60 days after the effective date hereof, close the Center Avenue crossing in San Bernardino County (Crossing No. 2-97.0) and the "A" Street crossing in Colton (Crossing No. 2B-2.5) to vehicular traffic and remove the existing crossing protection.

9. The Southern Pacific Company shall, at its expense, within 60 days after the effective date hereof, close the Whittier Avenue crossing in San Bernardino County (Crossing No. B-544.5) to vehicular traffic and remove the existing crossing protection.

10. Installation cost for the signal work specified herein shall be apportioned 50 percent to the railroad involved and 50 percent to the public agency or agencies involved.



C. 8135 LM \*

11. Maintenance cost of automatic protection shall be divided between the railroad and the public agency or agencies involved pursuant to Section 1202.2 of the Public Utilities Code.

The Secretary of the Commission is directed to cause personal service of this decision to be made upon each of the respondents. The effective date of this decision as to each respondent shall be twenty days after the completion of such service as to each such respondent.

Dated at San Francisco, California, this 14  
day of MARCH 1967.

[Signature]  
President

[Signature]

[Signature]  
[Signature]  
Commissioners

Commissioner William M. Bennett, being necessarily absent, did not participate in the disposition of this proceeding.