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BEFORE THE RAILROAD COMMISSION OF THE STATE OF CALIFORNIA.

In the matter of the application of SOUTHERN PACIFIC COMPANY for permission to construct, maintain and operate at grade railroad crossings in the City of San Jose and the County of Santa Clara.

ORIGINAL

Application No. 1966.

Geo. D. Squires and Louis O'Neil for applicant

Earl Lamb for City of San Jose

- A. L. Hubbard and John Roll for Board of Supervisors, Santa Clara County.
- W. M. Sontheimer for Oak Hill Improvement Association
- W. S. Clayton for San Jose Chamber of Commerce
- S. S. Tompkins for Castle Bros. Protestants
- R. Blanchard for property owners on the Alameda

Protestants

- W. E. Foley for H. G. Coykendall
- Chas. D. Blancy for California State Highway Commission
- H. H. Sanborn for Rosenberg Bros. & Company
- C. L. Whitten and Robert R. Syer for Haven Company
- M. H. Robbins for Union Ice Company
- P. S. Williams for certain property owners

Chas. F. Fleming for Griffin & Skelley Company GORDON, Commissioner.

OPINION.

This application was filed with the Commission on Novomber Southern Pacific Company 19, 1915. The asks permission to cross at grade thirty-five public streets and highways in the City of San Jose and in unincorporated territory in Santa Clara County in the immediate vicinity of the City. Many of the principal streets in the City of San Jose and the most important roads in the county, near the boundaries of the city, are involved in this application and it is manifestly impossible to describe the entire situation

without reference to a map of the city and vicinity and the Southern Pacific tracks in and near San Jose. I shall, therefore, but briefly outline the general layout of the tracks and the streets and shall not attempt in this opinion to describe fully the relation of the streets to each other and to the tracks of Southern Pacific Company, either present or proposed. Elsewhere each of the proposed crossings will be separately considered and described in some detail.

At the present time the main line of the Coast Division of the Southern Pacific Company enters the City from the northwest near the end of Autumn Street, runs eastward across San Pedro. North First. North Second and North Third streets and then turns southerly and follows Fourth Street, crossing all east and west streets, through the heart of the City to Reed Street, where it enters private right of way and continues in the same general direction to and beyond the Oak Hill Cemetery and a crossing of the State Highway on the Monterey Road at Schuetzen. The Company's line to Niles branches from the main line near its crossing with Second Street and runs out of the City in a northerly direction. The Santa Cruz Branch leaves the main line near Polhemus Street north of the City, runs in a southerly direction to Senter Street. follows that street throughout its length and enters the City at San Augustine Street where it curves to the west. Then in an almost due south direction parallel with the west boundary of the city and about 50 feet inside the limits it runs to a point near Pine Street where it curves to the west with the city line across San Carlos Street.

The operation of the main line on Fourth Street is carried on under a fifty-year franchise which expires January 27, 1918. The railroad company has understood for some time past that its franchise on Fourth Street would not be renewed upon its expiration and ten years ago it commenced to secure a right of way along the route it proposed to follow on its new construction and on

which it must cross 35 streets and highways. In this application the company asks permission to make these crossings at grade.

The new line will follow the route of the present Santa Cruz Branch from its junction with the main line near Polhemus Street to a point near San Carlos Street; there it leaves that branch, curves to the east and continues in a southeasterly direction until it joins the existing main line opposite the Oak Hill Cometery and north of the Schuetzen Park crossing of the Monterey Road.

The application to cross the streets from Lenzen Avenue. the street farthest to the north of those covered by this application. to San Carlos Street, covers the construction of additional tracks and the rearrangement of existing tracks, while from San Carlos Street south all of the crossings will be new. The proposed crossings at Montgomery and Autumn Streets will also be new and will be necessitated by the construction of a wye track to connect the new line with the present main line which will form the Niles connection from Polhemus Street to its junction with the present Niles line near/Second Street. The new line, including that portion of the Santa Cruz line which will be used, will be about 4.4 miles in length, while the track to be abandoned is 6500 feet long. This disparity in the length of the new line and that of the old is occasioned by the need of keeping in use a large portion of the present main line for the Niles Branch and because the present main line south of Reed Street, where it is upon private rightof-way, has some thirteen industries located upon it which must receive service and which will be reached from the new main line at its junction with the old line or by a connecting track between the two main lines near the Oak Hill Cemetery. The track to be abandoned comprises the present main line between Reed Street on the south and Second Street on the north. This track, except for a few hundred feet between East Julian Street and North Second Street, is located in the center of Fourth Street and, including the two streets just mentioned, has ll grade crossings, that is, there are ten streets

intersecting Fourth Street between Reed and East Julian. These crossings will, of course, no longer exist when the track is removed from Fourth Street and it becomes of interest to note that a check of the movements across them, made by the railroad company, recorded 23,208 movements in 12 hours from 6:00 A.M. to 6:00 P.M. During the same day a check was made of the 21 proposed new crossings in the city limits of San Jose, and 11,538 movements were recorded.

When the project outlined above is carried out there will be some 16 regular trains per day over the streets crossed by the Niles connection. On the future main line about 80 regular trains will operate over the streets north of San Carlos Street and south of that street there will be about 32 regular movements. There will be in addition some extra trains and over some crossings there will be switching varying from occasional switching to continuous switching in the passenger yards, and this will be considered later and in connection with specific streets.

At the first of the five hearings held on this application it appeared that many of the streets for which application to cross has been made were of such a character and were so located that they could be closed, and following that hearing our engineering department made a report on each separate street involved in this application and tentatively considered the closing of many A copy of this report was sent to all of the interof them. ested parties who entered an appearance at the first hearing and it served as a basis for discussion at the later hearings. Most of the streets which are to be closed will have their traffic diverted to some adjacent street and almost all of the changes which will be recommended have been agreed to by representatives of the applicant and the city and the county. In this connection I wish to express my appreciation of the fair and open way in which all parties the /aiscussed these matters with the Commission and to state my belief that the co-operation of/parties with the Commission in

attempting to settle the many questions raised in connection with this application, to the best interest of all concerned, will result in leaving the railroad crossing situation of San Jose in excellent condition and will greatly increase the safety of those who use the streets

The application as filed states that the railroad company has applied to the City of San Jose for a franchise to operate a double track railroad over the city streets and that that application is pending. The franchise has not yet been granted and at the first hearing counsel for the Southern Pacific Stated that if the Commission granted the permission sought herein no franchise would be necessary from the City Council. The City Attorney contended that the Commission's power in this matter was permissive only and that when the permission of the Commission was secured the company must still secure franchises before it could legally cross the city streets. It seems to me unnecessary to go into the matter in this place. The Commission's decision would be exactly the same in either event and to discuss the matter now would not change the existing law or change the respective rights of the city and the railroad under the law.

No question was raised as to the propriety of granting or refusing this application in toto and in but one instance did it appear or was it suggested that a change of the line as now located would result in more satisfactory grade crossing conditions, and that matter will be discussed in its proper place in connection with the crossing involved. When the Fourth Street franchise expires, the present route, of course, can not be followed. It is absolutely necessary for the Southern Pacific Company to have some route through the City of San Jose which is not too far removed from the business and industrial centers of the City and this means that many busy and important streets must be crossed.

I shall recommend that this application be granted under the conditions and subject to the modifications set forth in the order herein and shall now discuss seriatim each of the 35 streets and crossings for which application has been made and shall take them/order from

north to south, considering in each case the conditions under which the application should be granted:

Lenzen Avenue:- The crossing of this street is located entirely in Sants Clara County and although the street does not appear to be of great importance and representatives of both the Chamber of Commerce and the Southern Pacific agreed at the first hearing that it should be closed, at the later hearings several protests against such a procedure were made by owners of property in the vicinity. The district in and around Lonzon Avenue is devoted to the fruit packing industry and considerable street room is needed for the handling of the large teams which houl fruit to and from the packing houses. In addition to this there is a property owner between Senter and Montgomery, with a large frontage on Lenzen Avenue, who is entitled to easy access to Stockton Avenue, which is the improved road to the city. Permission will, therefore, be granted for the construction of additional tracks across this crossing and as the view is considerably obscured it should be protected by an automatic flagmon.

Cinnabar Street:- The only point raised at the hearings regarding unincorporated territory in this street, which is in/Santa Clara County, was in connection with the proper protection to safeguard the crossing. A traffic check taken by the Southern Pacific Company indicates that the crossing is considerably used and during the fruit shipping season the traffic is much larger than the check indicates. In view of this and the fact that the view of trains is somewhat obscured I am of the opinion that an automatic flagman should be installed for the protection of this crossing.

Autumn Street:- This crossing is in the City of San Jose and will be crossed by the Niles connection. The property abutting on the crossing is owned by the Southern Pacific Company, and although it was considered at the first hearing as a street which could properly

be closed. I am satisfied that this can not be without impairing the convenience of those who live or do business in this vicinity and that consequently it should remain open. The crossing is on the Niles connection where the train service will be light and the speed of operation will undoubtedly be slow, so I believe no protection will be needed for it other than the usual crossing sign.

Montgomery Street:- This crossing is in Santa Clara County.

This street, like Autumn, crosses the Niles connection and should probably remain open. There will be not to exceed 16 trains per day over the track but the view is somewhat obstructed and I believe an automatic flagman should be installed to afford ample protection.

Julian Street:- The crossing in existence at this point at the present time is over the single track Santa Cruz line. Under the proposed construction 4 tracks will cross the street and as the view is more or less obstructed and the traffic will be heavy I believe it should be protected by an automatic flagman.

San Augustine Street:- The crossing of San Augustine Street is partly in the county and partly in the city. The track crosses the street at its junction with Senter Street and although it is not possible to close the street the actual crossing will be used very little if at all. For that reason no protection is necessary.

West Santa Clara Street, or the Alamoda:- This crossing is partly within the city and partly within the county, the dividing line being 50 or 60 feet west of the present track. This street is the most important of all those covered by this application. It is known in the city as West Santa Clara Street and in the County as The Alameda, or more generally it is known as The Alameda. It is an east and west street, 100 feet wide, through the central

business section of the city and 116' wide at the point of crossing, and both in the city and the county it is a highly improved thoroughfare; well paved, well cared for and running through one of the best residence districts in Santa Clara County.

The State Highway Commission has jurisdiction over it from the county line westward and it forms a connection to Los Catos and Santa Cruz and western points through the State Eighway system as well as being the main entrance to San Jose via the county road for the entire country lying west and north of the City of San Jose. San Jose Railroads has a double track on this street and on December 4th, of last year, when a traffic check was made by the Southern Pacific, some 4150 people in 305 street cars passed over the crossing during the 12 busy hours of the day. A check of other traffic that same day for the same length of time showed 322 automobiles, 763 teams, 1550 pedestrians, 157 metorcycles and 577 bicycles; a total, including passengers on the street cars, of over 7800 movements across the tracks in 12 hours. These figures are thought by the city to be low, and there is no question but that a check taken in the summer, especially on a Sunday or a holiday, would show much more traffic; but the figures quoted are sufficient to show the importance of the crossing and the extent of traffic on the Alameda.

There are at the present time two tracks across the Street and train movements number about 20 per day. The original proposal of the Southern Pacific Company was to construct on its new line 7 tracks across the street, four of which would be in the county and three in the city, and to protect the crossing by a human flagman or by crossing gates. When opposition to the grade crossing developed the company changed its plan to include but four tracks,

two passenger and two freight.

When this new line is in operation there will be over 80 trains per day over this crossing in addition to switching movements. The plan of the Southern Pacific Company contemplates the construction of its passenger yards between the Alamcda and Park Avenue, 1900 feet south, and the Company has asked to have San Fernando Street, about 950 feet south of the Alameda, closed so that a station building can be constructed across it and room can be obtained for switching in the passenger yards. If this scheme were carried out switching in the passenger yards could be done south of the Alameda and switching would be lighter across that street. There are, however, several objections to this plan, one of which is the closing of San Fernando Street, as will hereafter appear, and it is impossible to estimate the switching movements which will be made across the Alameda.

The City has taken the attitude that grade should be separated at this point and petitions signed by some 262 people who live along the Alameda, or own property there, have protested against a grade crossing being made. On the other hand a petition representing the entire frontage on the Alameda for some distance east of the track was presented to the Commission expressing a desire that the crossing should be made at grade. Other owners of property in the way vicinity also protested against the crossing being made in any/other than by a grade crossing.

In view of the Commission's well known attitude toward grade crossings and its firm belief so often expressed that dangerous grade crossings must eventually be elimated, it seems needless to say that the Commission will favor a grade separation on the Alameda if there are no physical difficulties in the way and the expense is not out of proportion to the benefits to be derived from such construction. It is clear that a grade separation should be made at this point if any where in the State and if the Commission sanctions the construction of a grade crossing in this instance it will be difficult for it to consistently require grade separations elsewhere. We have here a crossing over which from 7,000 to 10,000 peoples pass daily and over which

-9-

there will be upwards of 80 train movements on the track in 24 is hours. Thestreethes a car line upon it. It/one of the main arteries of the city and is by far the most important road leading from the city to the west and new which, it is estimated, forms a direct outlet to 50,000 people living in the western part of the county.

During the course of the hearing several different propositions were made as to the method to be followed in separating grades and all of these methods were discussed and approximate estimates were made of the cost of all those which appeared feasible.

One of the first proposals was that of raising the track of the Southern Pacific Company some 12 or 13 feet and depressing the street about 7 feet. To carry out this sort of construction would cost in the noighborhood of \$1,000,000.00. All industries located in the vicinity of this crossing would have to raise their spur tracks and in many cases raise the floors of their buildings and the cost of this was not included in the estimate. Many of the industries located close to the Alameda would have to reconstruct their buildings and loading platforms and a high retaining wall would have to be constructed through the city. Still another objection to this scheme is the fact that the ruling grade on the Southern Pacific tracks between San Francisco and San Joso is a .5%, which is about the grade which the Southern Pacific now has on its line into San Jose from the north. It would be unressonable, in my judgment, to require this grade to be increased, and to maintain this grade with an elevation of 13 ft. at the Alameda the fill would have to be carried for a considerable distance to the north which would make a grade crossing impossible at Julian Street, but would still not leave clearance at that street for a grade separation

One of the methods proposed of making a grade separation was to retain the present grade of the track and construct a viaduet entirely over the ruilroad yard. This is probably the cheapest of the grade separation schemes as far as the actual cost of construction is concerned as it was estimated to cost only about \$120,000. with

With this construction was figured to be some \$353,000. To obtain the clearance of 22 feet from the top of rail to the lowest member of the overhead structure, which has been found to be the minimum clearance consistent with safety and has been specified by the Commission in its general order on the subject of clearances, it would be necessary for the grade of the Alameda to be some 26' or 27' above the top of rail. A viaduet meeting these requirements would form an unsightly structure and one which I am satisfied would be unsatisfactory to the people of San Jose and Santa Clara County.

A grade acparation plan was submitted by the City Engineer which involved raising the tracks 6 / at the Alameda and depressing the street sufficient to make a clearance of 14%, which, allowing 4 foot for the depth of the girders, would mean depressing the street nearly 12 feet. The City Engineer's estimate of the cost of this type of construction was \$100,000.00. No allowance was included in this amount for property damage nor was any allowance made for reising spur tracks or making the necessary changes in the plants of the industries. which of money. would amount to a considerable sum. In addition to this substantial objection the objection montioned to the first plan, that of raising the grade of the railroad track for some distance north. would also obtain as the track at Julian Street would be too high to emble a grade crossing to be made and not high enough to permit of a separation of grades.

The three plans presented by the Southern Pacific Company, by which a grade separation could be made, had as their essential features the maintaining of the tracks at their present grade and depressing the street to secure the proper electronce. These plans were made on three bases, the cost of the subway proper being the same in all three cases, and estimates were made on all three

of these schemes. The total cost of the subway proper was estimated by the company to be \$99,250.00: With grades of approach at 3% and the cost of approaches was estimated to be \$279,350.00: / property damage was estimated to be \$100,000. making a total cost for the subway and approaches on 3% grades, including property damage, of \$478,500. With five per cent approaches the cost of the subway proper was the same; the cost of approaches was \$144,010. and the property damage was estimated at \$60,000, making the total \$503,250.00. With 7% grade the cost of the subway was the same; the cost of approaches was estimated to be \$83,630. and the property damage \$45,000. making a total cost of \$227,880.00:

The plans and estimates which have just been discussed were presented at the earlier hearings when it became apparent that the most feasible plan of construction was one by which the Southern Pecific tracks would remain in their present grade or with a maximum elevation of 2 ft. and the separation made by depressing the street, and both the Southern Pacific Company and the City were asked to file revised plans covering the cost of a subway on a 5% grade on that basis. The 5% grade was decided upon because 7% grades were thought to be too steep for this location and on the 3% grade the cost, including the property damage, would be much greater than the benefit to be derived from a grade two per cent lighter than the 5% grade.

Since the last hearing these plans have been filed by both the City and the Southern Pacific Company. The plan of the Southern Pacific Company shows a subway with a width in the clear of 59 feet. The bridge provides for 18 tracks and is supported on abutments and center columns. The grade of approach is 477 feet long to the west and 384 feet long to the east. On each side of the approaches at the present elevation of the road are readways 18 ft. wide and sidewalks 4 ft. in width. Stockton Avenue, which joins the Alameda about 200 feet west of the track intersection, is taken care of by depressing that street at its connection with the west approach of the

subway, and carrying the approach back 296 ft. on a 5% grade until it meets the present grade of Stockton Street. A roadway of 42 feet is provided in this approach with two 4-ft. sidewalks and a road at the present elevation of Stockton will remain on either side of the approach. These roads will be 21 ft. wide with 4 ft. sidewalks. On this plan the tracks of the San Jose Railroads are located next to the sidewalk on the extreme outer edge of the subway and approaches. The cost of this entire scheme not including property damage, is estimated by the Railroad Company to be about \$230,000. and this estimate has been checked by our engineering department and found to be reasonable.

The plan of the City Engineer is substantially similar to that of the Southern Pacific Company. The subway and approaches, as in the plan of the railroad company, are about 59 feet in width, including two 4-ft. sidewalks on either side. The tracks of the San Jose Railroads with 11 ft. centers are on the extreme south side of the subway and approaches. Stockton Avenue, under this plan, is not depressed, and traffic coming from Stockton Avenue is to be cared for by turning it, first west at the junction of Stockton Avenue with the Alameda to the west entrance of the subway and then east through the subway. The estimate made by the City Engineer, which our engineers have found to be substantially correct, is \$200,748. without property damage.

I am satisfied that the grade separation should be made on the basis of these plans, that is, the tracks of the Southern Pacific Company should remain in their present elevation, or with a raise not exceeding 2 feet, and the necessary clearance should be obtained by depressing the street. The difference between the plan presented by the City and the later plan of the Southern Pacific Company is one of detail and a decision as to which is the better can not be made from the data at hand but must be had after more complete plans are available and complete estimates and a careful canvass made of the extent of the property damaged. The item of property damage

is exceedingly important in a proposition of this sort and it is impossible to determine at this time what it will amount to on each of these two schemes. In the first estimates presented, the Southern Pacific Company estimated the property damage on a 5% subway plan, with approximately the same frontage effected, to be \$60,000, on the assumption that the assessed valuation placed on the property would, on the average, be the same as the property damage caused by this construction.

Another important reason why the details of this plan can not now be definitely decided is the fact that the Southern Pacific Company proposes to locate a station in the vicinity of the Alameda and its plans are not far enough matured so the exact type of subway structure can be outlined, and these plans, of course, cannot be worked out until the matters pending in this application are disposed of.

Either of the two plans last discussed is entirely satisfactory to the Commission and which plan shall be adopted may be left to the future and covered by a supplemental order if the interested parties are unable to unite on one plan or agree on the details. There are a few suggestions, however, I wish to make. Neither of the plans provide for a crossing for road traffic over the subway on the west side. If such provision were made it would be possible to go from one side of the street to the other without a long detour and it would do away with the need for turning vehicles on the comparatively narrow roadways which will remain after the approaches are constructed. For snother metter the junction of Stockton Road and the Alameda makes an acute angle on the west which should be eliminated by securing one or more lots on this corner and making them part of Stockton Avenue. It would be desirable to do this on either plan. If the plan of the city engineer is followed it will greatly decrease the difficulty in going from Stockton Avenue into the subway and if the plan of the Southern Pacific is followed and Stockton Avenue is depressed the difference in elevation to be overcome between the grade of the subway and the

present grade of Stockton Avenue will be lessened and the sharp engle avoided. If it should be found impossible to do this and the general plan of the railroad is adopted I believe that the location of the San Jose Railroad's tracks should be as shown by the City. The two approaches, namely, on Alameda and Stockton, will intersect at such a sharp angle that it will be impossible to see approaching trains, and the tracks for that reason should be on the south side of the subway so it will not be necessary for vehicles to cross them. If the general plan of the City Engineer is adopted the car tracks could be located either as shown on the plan of the City or as shown on the Southern Pacific plan without effecting the general scheme in any way.

Montion was made of but one physical difficulty in the way of this construction and that is the question of drainage. It appeared at one of the hearings that the Alameda, at the point of crossing, was subject to overflow which would make it impossible to keep this subway in use. Subsequent witnesses, some of them testifying from a knowledge of conditions extending over 15 years. were of the opinion that a condition of flood waters making it impossible to use this subway would arise on more occasions and that at other times the subway could be amply drained by the installation of a pump, and I can draw no other conclusion from the testimony. Having decided that there are no physical difficulties in the way of this construction and that an expenditure of \$500,000. for the purpose of separating grades at this very important crossing is not out of proportion to the benefit to be derived, the question than arises as to the division of expense.

This is one of the most difficult matters which a public utility body is called upon to determine. It is obvious that it can not be decided by any formula and that it is impossible to state in dollars and cents the exact benefits each party interested will derive from a grade separation but it should be clearly apparent

that the interest is mutual and all will benefit to some extent.

There are five parties interested in this crossing- Southern Pacific Company, City of San Jose, Santa Clara County, The State Highway Commission and the San Jose Railroads. I shall briefly discuss the attitude of these five parties towards this grade separation.

The Southern Pacific Company opposes the separation of grades but believes if the Railroad Commission orders a separation made the expense should be divided.

The officials of San Jose are unanimous that the separation should be made but they are unwilling to assume any expense connected therewith as the following resolution passed by the City Council on March 28th, and filed with the Commission after the last hearing, clearly indicates:

"Whereas, the Southern Pacific Company has applied for the privilege of laying four or more double tracks across the Alameda, and

"Whereas, it now appears from the hearing in the presence of Mr. Commissioner Gordon that a separation of grades will be hereby necessitated, therefore be it

"Resolved, that it be the sense of this Council that said proposed improvements are for the benefit of, and they are required by said Railroad Company, and further, that the City of San Jose be required to assume no portion of said expense."

It is the contention of the city that the Southern Pacific Company is attempting to create a hazardous condition at a crossing at which a minimum hazard now exists and that the company should stand the entire expense necessary to avoid creating this hazard.

The attitude of the Board of Supervisors is not so clear. The Chairman of the Board, however, who stated that he believed he represented the sentiment of the board, is of the opinion that the County should do nothing in this matter as the road has been turned over to the State Highway Commission, and that a grade separation is not needed here.

President Blaney. of the State Highway Commission, on the other hand, believes that the grades should Highway Commission be separated at this point and he states that the would be willing to stand part of the necessary expense, but that the Highway

Commission is absolutely without funds which it could devote to this purpose.

The San Jose Railroads is not greatly interested in this application. Its General Manager stated that he would prefer to cut his line in two at this point rather than stand any expense in connection with the grade separation.

The attitude of the property owners along the Alameda is not unanimous. Those who own property close to this crossing, which would be affected by the construction of any type of grade separation, are generally of the opinion that no separation should be made while those who are some distance away are insistent upon a separation of grades.

I have indicated previously that I am of the opinion that grades should be separated at this point. The need for separation is manifest at this time. As the City of San Jose grows and the population of the County increases it will be much more apparent. The whole track layout scheme of the Southern Pacific Company depends upon the disposition of this matter and if grades are not separated now the grade crossing will remain for many years in the future. If it were decided that no grade separation should take place on the Alameda the track layout is such that enough switching would be done across San Fernando Street, the next street to the south, so that street would be closed regardless of whether the Commission ordered it closed or the City voluntarily closed it. That the whole track plan in the vicinity of the Alemeda depends on the disposition of this matter is plain from the fact that 18 tracks will be built across the Alameda if grades are separated while but four would cross that street if a grade crossing were permitted.

The practice of Courts and Commissions in distributing expenses incident to grade separation is variable. In the past it the has been customary for cities and counties which have had/power to

-17-

do so to assess all the expense against the carriers. Recently, however, it has come to be generally accepted that the existence of grade crossings is something for which the carriers and the public are mutually responsible and that both parties should be mutually responsible for their elimination, and in accordance with this idea public service commissions and courts require a division of expense of grade separations on some basis which appears to them to be fair and equitable.

In this instance the Southern Pacific Company is unquestionably creating an additional hazard over that now existing at the Alemeda; but there is a crossing now in existence at this point and the additional hazard created is brought about to allow the by the attitude of the City in refusing/ the railroad company/right to continue to operate on Fourth Street, and it may be said that by this action the City merely transfers from Fourth Street to the Alameda an existing hazard. The situation here cannot be compared with that in which an entirely new crossing is sought. It more resembles an action before the Commission to abolish an existing crossing and there is no question that if this matter were before the Commission on an application for a separation of grades the City would be required to stand a substantial part of the cost. It does not appear to me to be fair in this case, where the Southern Pocific must have this crossing, to insist that it pay the full cost any more than it would appear to me to be fair, if conditions were reversed, for the Southern Pacific Company to take advantage of the needs of the City. The Commission in this matter has the power to require the Southern Pacific Company to pay for the full cost of this construction. It has no such power over the City of San Jose, Santa Clara County or the State Highway Commission. This, nevertheless, is not a resson why the Commission should make an order which it would not make if its powers were equal over the railroad company and the public bodies. In other words, to my mind it is not fair

and equitable that the Commission should, simply because it has the power, compel the Railroad Company to assume the entire expense for the construction of a facility which is beneficial not only to the railroad company but to the county and city.

not exactly clear. Whether in a case of this sort, where the STETC HIGHWAY Commission has taken over a part of the county highway system, an expense in connection with grade separations should be borne by the Highway Commission was not made apparent, but it is unnecessary to go into the matter at this time as it can be left for the two parties to determine without effecting in any way such orders as the Commission may make. The County's interest is plain, however, regardless of who is legally responsible for any expense to be incurred here. The construction of a subway at the Alameda/enable the residents in the county to go to and from the City of San Jose who had alameda with perfect safety and without delay and the precent grade crossing which is more or less dangerous as all grade crossings are, would be eliminated.

The interest of the San Jose Railroads is not great. Its tracks cross the Alameda and might continue to use a grade crossing of the Alameda in safety after additional tracks were built because of the precautions taken; precautions which are not taken by drivers of vehicles and pedestrians. At the same time a crossing, at separated grades, is absolutely safe and it is only fair that that company should assume some portion of the expense.

I believe the following division of expense, all things taken into consideration, to be fair and permission to cross will be granted substantially on these terms:

Any damage accruing to the property of the Southern Pacific Company by reason of the construction of this subway should be borne by the Southern Pacific Company. The expense of taking care of its tracks during the course of construction and

of relaying its tracks in the subway after the construction is completed should be borne by the San Jose Railroads.

to be incurred in the construction of this subway, and except the work in connection with the tracks of Southern Pacific Company, should be deemed part of the expense of this crossing and should bedivided as follows: 50% should be borne by Southern Pacific Company, 35% by the City of San Jose and 15% by Santa Clara County or by the State Highway Commission as the legal interests of these two parties may hereafter appear.

ean Fernando Street. This crossing, like that of the crossing on Alameda Street, is partly in the city and partly in the county. Under the new project the passenger yards are to be built and the station is to be constructed somewhere in the vicinity of Santa Clara and San Fernando Streets. It is the wish of the Company to construct the yards, as outlined in the discussion of Alameda Street, close San Fernando and build the station across that street. For station stops with a maximum train of 14 cars, space will be needed greater than the distance between any two streets in this vicinity. For that reason and because of passenger train switching across San Fernando, as well as on account of the need for additional room in which to build the station the railroad company desires San Fernando Street closed.

over it is not heavy. At the same time the nearest streets are some distances way; Alameda being 938 ft. north and Fark Street approximately the same distance to the south and San Fernando can not be closed without causing considerable inconvenience, as several witnesses testified at the hearings and as several with the Commission protests filed/indicate. The Criffin and Skelley Company have constructed a new packing plant on San Fernando and Bush Streetsand to reach that plant, if San Fernando Street were closed, it would be necessary for many of the fruit teams which deliver there, to

make a detour of these long blocks. With a grade separation made on the Alameda the need for closing San Fernando will be largely removed. The Southern Pacific Company will have ample room from this street to San Augustine to handle its trains and do its switching, as the station will probably be nearer that street than San Fernando, and it would be possible to do the switching either from north of the station or from a point far enough north of San Fernando so the latter street would not be blocked the greater part of the time, although undoubtedly considerable switching will still be done over it. The City Attorney desires to have this street remain open if possible while the Board of Supervisors seem perfectly willing to have it dosed.

The situation at San Fernando Street, to my mind, makes it more than ever clear that it is desirable to effect a grade separation at the Alameda. If a grade crossing were permitted on that street all of the switching of passenger trains would be done across San Fernando and the station would be so located that the longer trains operated by the Southern Pacific Company would block it when they made stops with a result that it would be more or less blocked during the day and during such time as it was not blocked the switching would make it so exceedingly dangerous that it would have to be closed for safety reasons. In view of the fact, however, that grade separation is to be made at Alameda this street can remain open and it should be protected by a human flagman 24 hours of the day.

Park Avenue— This crossing is partly in the city and partly in the county. There are three tracks at the crossing at the present time and there will be some 18 tracks when the new construction is completed. A street car line crosses the tracks on Park Avenue and the crossing should be protected by a human flagman 24 hours a day.

Pine Street - This street is partly in the city and partly in the county. It is a short street and is apparently unimportant. Southern Pacific Company owns the abutting property between Dupont and Mearney and is anxious to have it closed. There seems to be no objection to doing this and no hardship will be occasioned if it is done. Permission will, therefore, be granted to cross the street only upon condition that barriers are/erected across the Company's right of way so that the public cannot use the crossing.

San Carlos Street- This crossing is entirely in the City of San Jose. There are four tracks at present across the street and eleven will cross it when the new line is built. The crossing is near the junction of the new line with the Santa Cruz Branch and the crossings of each of these lines of railroad form crossings independent of each other. There is a car line upon the street and the traffic is extensive and for that reason the crossing should be well protected. Because of the fact that the two crossings are not together two human flagmen should be employed and each crossing should be protected by a flagman 24 hours per day. i member of the City Council of San Jose suggested that the Southern Pucific Company should be required to build an overhead crossing at this point. However desirable it may be to bring about grade separations it should be clear from the discussion in regard to . Mameda Street that the matter of expense is one which must be seriously considered and which prevents separations being made at this time at any but the most important crossings. The physical difficulties in the way of grade separations here are many and as several other crossings are of more importance it seems unnecessary to discuss this matter further.

San Salvador Street- This is quite an important street in the city. There will be four trucks scross it on the new construction and it should be protected by a human flagmen for 24 hours a day.

Naglee Avenue— This crossing is entirely in the City of San
Jose and the street does not appear to be of much importance at
the point at which the crossing is proposed. It was suggested at
the hearing that it should be closed across the track, and as the
Southern Pacific Company owns the abutting property for some
distance on each side of the crossing it appears to be very reasonable that this should be done. It was suggested that if a road
were constructed through property owned by Southern Pacific Company
on the north side of the proposed track between Nagles Avenue and
Home Street the closing of the street across the tracks would
occasion no inconvenience whatever. I believe the applicant should
be granted permission to construct the tracks across the street
only upon condition that traffic be/blocked across them and that
the street be constructed as outlined above and dedicated to the
City of San Jose.

Home Street— The crossing of Home Street is in the City of San Jose. A check of traffic across it for 12 hours on December 6, 1915, disclosed 120 movements. With the closing of Naglee Avenue some additional traffic will undoubtedly use it and as there is an obstruction at one corner of the crossing I believe it should be protected by an automatic flagman.

Harrison Street— This street is in the City of San Jose and although it has been dedicated it has not been opened for public use. The Southern Pacific Company owns the abutting property for some distance south and the street should be closed. This suggestion was made by Southern Pacific Company, approved by the City, and will be made a condition in the order.

Bird Avenue— This crossing is in the City of San Jose and is quite an important street. A car line occupies it and a traffic check made on December 6th disclosed some 436 movements over it. It should be protected by a human flagman during 24 hours in the day.

Jerome Street - This crossing is in the City of San Jose and it is a street of comparatively little importance. If closed but little inconvenience would result to those who live upon it or who so to and from residences along it. If a street is constructed parallel with the proposed track on the north thereof to connect Bird Street with Jerome Street, I am of the opinion that the crossing can be closed without inconvenience.

Martin Avenue - This crossing is in the City of San Jose. The portion of the street crossed by the proposed track extends but 60 feet south from Jerome Street and the Southern Pacific Company owns the abutting property on three sides. No inconvenience will be occasioned by its being closed and it should be 80 : closed when the track is built across it.

Fuller Avenue - The crossing of this Avenue is in the City of San Jose. Although the railroad company owns the property abutting the crossing for some distance on either side and it appeared at the earlier hearings that the street should be closed, the later hearings developed the fact that those who live on the westerly side of the track use the car service on Delmas Avenue, to the east of the track, and that this crossing is needed for their convenience. An automatic flagman should be installed for the protection of traffic at this crossing.

Delmas avenue - This crossing is in the City of San Jose. It is occupied by a street car line and on the day in which the Southern Pacific made a check of the traffic there were about 1200 movements across it. It was suggested that the grades be separated at this point but aside from the difficulties of bringing about grade separations which were mentioned in the discussion of other streets any form of grade separation here would interfere with the intersecting streets, and the suggestion to effect a grade separation at this point brought several protests from the residents of these streets. I believe that the crossing will be comparatively

safe if protected by human flagman 24 hours in the day and permission to cross will be granted subject to that condition.

Hull Street - This crossing will be in the City of San Jose. It will cross the street about at its intersection with Delmas Avenue. If a street is built north of the track to connect Delmas and Hull it will do away with two crossings of the track for vehicle drivers and others who wish to go from Hull Street to Delmas. As the Southern Pacific Company owns the property necessary to make this m sa, I am of the opinion that the Company should construct such a road and dedicate it, when constructed, to the City. Permission to cross Hull Street will be granted only upon this condition.

Chapin Street- This crossing is in the City of San Jose and is of considerable importance. It will be necessary for the street to remain open and traffic should be protected by the installation of an automatic flagman.

Atlanta Street - This crossing is in the City of San Jose. The street stub-ends at Guadaloupe Creek not for from the crossing and there are no houses between the Creek and Chapin Street. The railroad company owns all the abutting property between these points and is anxious to have the street closed. Inacmuch as no property will be damaged and no inconvenience suffered by doing this it should, of course, be done.

Memphis Street - This crossing is in the City of San Jose. The street is even of less importance than Atlanta Street, which it intersects at right angles near Guadaloupe Creek: The Southern Pacific Company owns the abutting property on both sides of the street for its entire length and the street should, of course, be closed.

Willow Street - This street is in Santa Clara County. It is occupied by a car line and a check in December showed 600 movements across it in 12 hours. It should undoubtedly be protected by a

human flagman for 24 hours.

Lelong Street - . The proposed crossing at Lelong Street is in the County and will be near the intersection of that street with Willow. Although this street is not of great importance it serves as the most convenient crossing for a number of people living south from the proposed track and probably can not be conveniently closed. The crossing can be much improved by grading a street on the corner of the lot northeasterly from the crossing, and by building a street persilel with the railroad track and on the south side of it between Willow and Lelong Street. The construction of the latter street will make it possible for traffic to go from Lelong Street to Willow Street without crossing the track whereas without it it would be necessary to cross the track twice. The property necessary to make both of these changes is owned by the Southern Pacific Company and I believe that it should make the necessary improvements and dedicate them to the County. With these crossings made there will be no obstructions to the view and as this crossing is close to Willow the flagman on that street can protect the Lelong Street crossing also so no protection will be ordered specifically for this crossing.

Bartlett Street - This crossing is in the City of San Jose. The street is not important and as the Southern Pacific Company owns all the abutting property between Bartlett and near its terminus on Goodyear Street, undoubtedly this street should be closed at its junction with the proposed track; but for the future convenience of those who will live there and have occasion to use the streets in this vicinity a street should be constructed by the railroad company, and dedicated to the city, on the northeasterly side of the track between Bartlett and Goodyear.

Goodyear Street- This crossing is in the City of San Jose and although it is not an important street, and the Southern Pacific Company, which owns the abutting property on both sides of the

crossing for a considerable distance, desires it closed, it is unguestionably the most convenient route for some property owners on the southwest side of the track and should remain open although no protection will be needed.

Sunnyside Avenue— This crossing is in the City of San Jose.

The track crosses Sunnyside Avenue at its intersection with Lick avenue. Although the country served by this street is not large Sunnyside is the only outlet for the people who live in its immediate vicinity and since traffic from it is mostly to the north some means of crossing the street should be provided. I am unwilling to recommend two crossings so close together as Lick and Sunnyside and I believe that one crossing at the junction of these two roads will amply serve public convenience. This crossing should be a right angle crossing midway between the center line of Lick Avenue and the center line of Sunnyside Avenue. Permission to cross Sunnyside Avenue will be made contingent upon a crossing of this kind being constructed.

Itek Avenue — This crossing is in the City of San Jose. Idek
Avenue is a street running in a general northerly and southerly direction. Traffic over it at the present time is exceedingly light
but it forms the most direct route to the city and serves considerable
acreage to the south of the crossing. For that reason it is
necessary that a crossing should be maintained here and one should be
constructed in accordance with the suggestion made in connection with
Sunnyside Avenue. There should also be constructed a road on the
south side of the track between Sunnyside Avenue and Lick Avenue
so traffic from Sunnyside Avenue can travel to Almaden Avenue without
crossing the track. The Southern Pacific Company owns the necessary
right of way to make this street and it should be made and dedicated
to the city by the Company.

Floyd Street - This crossing is in the City of San Jose and legally is short and unimportant. Barriers should be erected across the street and a road constructed northeast of the track over the Southern Pacific Company's right of way to Palm Street. This road should be built by the railroad company and dedicated to the city and county.

Polm Street - Palm Street is in Santa Clara County at the point of crossing and stub-ends at Almaden Avenue about 100 feet from the point where the proposed track will cross Palm Street. This street should be closed across the track and the construction of a road on the north side of the track mentioned in the previous street, will serve to amply and conveniently care for traffic. There should also be a street constructed by the railroad company on its property from Palm Street to Almaden Avenue on the north side of the track and this street should be dedicated to the County.

Almaden Avenue- This is quite an important county road, and as the view is obscured at several of the corners it should be protected by an automatic flagman.

Almaden Road - This crossing is in Santa Clara County and has considerable traffic over it. Two checks taken on different days disclosed 657 and 725 movements. It is 75 feet wide and next to the Monterey Road is one of the most important roads in this section of the country. Some protection should undoubtedly be afforded here but as the obstructions will not be great and the street is wide I believe that an automatic flagman will afford ample protection for some time to come. This flagman should be located in the center of the moad where it will be visible for some distance in both directions along the road from the crossing.

Monterey Road -The application covers a crossing of the Monterey Road in the County, at a point 250 / north of the junction of that road with Stone Avenue. The present main line of the Southern Pacific Company is some 300 / east of the located line at this point and the two lines come together about 1500 / south of this crossing. On the old line south of this junction there are two dangerous crossings within half a mile. One is the Tully Road, where the track is crossed at right angles, and the second is the Monterey road where the track crosses at an exceedingly sharp angle and forms a very dangerous grade crossing known as the Shuetzen Park crossing. Stone Avenue joins the Monterey Road on the west and will not be crossed directly by the proposed line although any traffic from Stone Avenue going in either direction along the Monterey Road would have to cross the main line track.

Before this application was filed and while the railroad company was negotiating with the city for a franchise a protest was received by the Commission from representatives of the Oak Hill Cemetery, which is located immediately south of Stone Avenue and west of the Monterey Road, against a grade crossing being made at this point. The objections were considered at the hearings and three suggested changes in plans were considered. The third of these plans, however, would not materially change conditions at the cemetery.

The first was that the located line of the railroad should be

changed, swing south of the cemetery and join the present main line some 1-1/2 miles further south than the junction proposed at Mick. This is not satisfactory to the Southern Pacific Company for the reason that the switch movements between the industries on the line to be abandoned south of Reed Street and north of the present proposed junction, must be made over the present main line. If the line were built as proposed this would necessitate additional switching movements of some three miles every time the industries in the vicinity of these streets were served, which would result in delay and would add considerably to the switching expense of the Company.

If this plan were followed the construction expense would be largely increased and the same favorable alignment could not be secured. The suggested line would be 1.5 miles longer than the line as located and the cost of grading this additional mileage would be considerable; one cut, it was estimated would cost \$40,000. But the most serious objection to such an extensive change of alignment is in connection with the purchase of the additional right of way. The company has been ten years securing the right of way for the line as located and has spent \$986,000 for it. If the line were changed to go back of the cemetery over 2.5 miles of the right of way now owned by the Company would be of no use for this construction and over four miles of additional right of way would have to be purchased over a route which would be publicly known and which, as a consequence of this knowledge, would cost the company a price considerably higher than the market value of the land.

The second suggestion was that a grade separation be made at the proposed crossing by raising the Monterey Road or depressing the track or by a combination of both of these methods and that Stone avenue and the entrance to the cemetery be provided with grade separations at the same time. At the lowest estimate using the cheapest form of construction, a crossing with separated grades at this point would cost considerable in excess of \$35,000. and even if this were done there would still remain in this immediate vicinity two grade crossings (Tully Road and Shuetzen Park) described by one witness as being "spattered by human blood" from the number of accidents which have taken place upon them.

The third suggestion is to my mind the only feacible and reasonable solution of this matter. It can be seen from the previous description that the Monterey Road roughly forms the chord of an arc made by the railroad and that this chord intersects the arc in two points; the couthern intersection being the Schuetzen Park Crossing and the northern extremity the crossing now proposed. This are is also intersected by the Tally Road which joins the Monterey Road but does

not cross it 1300 feet south of the proposed crossing. The Monterey Road has been taken over by the State Highway Commission. It was suggested that the proposed main line of the Southern Pacific be located on the present Monterey Road and that this road be followed from a point near where the track would cross it under the present location to where the road now crosses the Southern Pacific Company's rails at Schuetzen Park. In exchange for the right-of-way now occupied by the Monterey Road it was suggested that the Southern Pacific Company could construct a highway similar in type, and satisfactory to the State Highway Commission, on its present right of way and deed that right of way to the Highway Commission. In other words the railroad would run on the chord and the highway on the arc and three grade crossings would be eliminated.

This matter was taken up with President Blaney of the State Highway Commission, who advised the Commission by letter, of the State Highway Commission's attitude as follows:-

"In reply I would say that this Commission is most heartily in favor of the climination of such crossings and would be glad to favor an exchange of rights of way provided the interests of the State of California and of the traveling public are properly safeguarded."

"In view of the many bad accidents and loss of life which have already occurred at some of these crossings, we sincerely trust that they may be properly eliminated and think that such a solution would be a remarkable achievment."

Mr. Blaney: further testified at the hearings in regard to this matter and was enthusiastic ever the proposed change.

It seems to me to be in every way desirable. The present Schuetzen Park crossing and the Tully Road crossing will be entirely eliminated and it will be unnecessary to have a grade crossing at the location now proposed. The grade crossing of Stone Avenue will still remain and it will also be necessary for funerals using the Cak Hill Comentery to cross at Stone Avenue at grade, but since the traffic on Stone Avenue is light and the traffic to the cometery is confined to four or five funerals per day, while traffic on the Monterey Road amounts to 4500 movements in 12 hours, there can be no

comparison between the situations which would exist if this/were made and that which would obtain if the plans contemplated in the application were carried out. It will ost the Southern Pacific Company some \$21,000. to make the change proposed but I know of no other place in the State where this money can be expended to such good adventage in safeguarding human life. I believe that a human flagman should be placed at the intersection of Stone Avenue with the proposed track during the hours in which functals use the cemetery and I am satisfied that such an arrangement will safeguard the users of this crossing.

Permission will not be granted the applicant to cross the Monterey Road but the order will grant the company the right to cross Stone Avenue at grade provided a human flagman is installed for the protection of the crossing and a connection is graded from Stone Avenue and the cemetery entrance to the highway in its proposed location.

In the foregoing discussion of the streets to be crossed many changes have been suggested which will make considerable difference in the traffic movements on the streets affected by this new construction of the Southern Pacific Company. It is obviously impossible to determine in advance just what this traffic will amount to or just how it will be diverted from one street to another. I believe, for that reason, the Commission should reserve the right to make such further orders in regard to this application as may appear to it to be desirable, and particularly in the matter of protection. After this change is carried out it may be found that some crossings for which no protection has been ordered will need protection of some sort, or that crossings for which automatic flagmen have been required will need a more efficient form of protection and the Commission should have the right to order such changes made, without a further hearing.

ORDER.

SOUTHERN PACIFIC COMPANY, having applied to the Commission for permission to cross thirty-five (35) streets and public highways at grade in the City of San Jose and Santa Clara County, California, and unincorporated territory in the vicinity of San Jose in Santa Clara County, and a public hearing having been held and it appearing that this application should, in part, be granted subject to certain conditions, and that permission to cross West Santa Clara Street, or the Alamoda, should be granted only upon condition that the grades be separated,

IT IS REFERY ORDERED, That permission be and the same hereby is granted Southern Pacific Company to construct its tracks at grade across the following streets and highways in the City of San Jose and in Santa Clara County: Lenzen Avenue, Cinnabar Street, Autumn Street, Montgomory Street, Julian Street, San Augustine St., San Fernando Street, Park Avenue, Pine Street, San Carlos Street, San Salvador Street, Nagleo Avenue, Home Street, Harrison Street, Bird Avenue, Jerome Avenue, Martin Avenue, Fuller Avenue, Dolmas Avenue, Hull Street, Chapin Street, Atlanta Street, Memphis Street, Willow Street, Lelong Street, Bartlott Street, Goodyear Street, Sunnyside Avenue, Lick Avenue, Floyd Street, Palm Street, Alzaden Avenue, Almaden Road and Stone Avenue.

This permission is granted subject to the following conditions:

- (1) The entire exponse of constructing the crossings shall be borne by the applicant.
- (2) The expense of maintaining the crossings the reafter in good and first-class condition for the safe and convenient use of the public shall be borne by applicant.
- (5) Grades of approach shall not exceed four (4) per cent, and the crossings shall in every way be made safe for the passage thereover of vehicles and other mod traffic. All crossings for which

protection has not otherwise been ordered whall be protected by suitable crossing signs.

- (4) The following streets shall be protected by automatic flagmen of a type approved by the Commission: /Cinnabar Street, Montgomery Street, Julian Street, Home Street, Fuller Avenue, Chapin Street, Almaden Avenue and Almaden Road. The expense of installing these flagmen and the expense of their maintenance thereafter shall be borne by the applicant.
- (5) The crossings of the following streets shall be protected by a human flagman for 24 hours a day: San Fernando Street, Park Avenue , San Salvador Street, Bird Avenue, Dolinas Avenue and Willow Street.
- (6) The crossing of San Carlos shall be protected by two human flagmen for 24 hours a day.
- by applicant at (7) Barriers shall be lawfully erected to right of way across the following streets so the crossings can not be used as public crossings: Pine Street, Naglee Avenue, Harrison Street, Jerome Street, Martin Lvenue, Floyd Street, Palm Street, Atlanta Street, Momphis Street and Partlett Street.
- (8) Applicant shall construct a road between Naglee Avenue and Home Street on the north side of its right-and shall dedicate same to the City of San Jose.
- (9) Applicant shall construct a road parallel with its right-of-way and north thereof between Bird Street and Jerome Street and dedicate that street to the City of San Jose.
- (10) Applicant shall construct a street parallel with its right of way and on the north thereof between Delmas Avenue and Hull Street and dedicate same to the City of San Jose.
- (11) Permission to cross Telong Street is granted upon the condition that a street be graded on the corner of the let morth—the easterly from/crossing and that a street be built parallel with the reilroad reservation on the south side of it between Willow Avenue and Telong Street and that these streets be dedicated to the City of San Jose.

- (12) Applicant shall construct a street on the northeast side of its right of way between Bartlett and Goodyear Street and dedicate same to the City of San Jose.
- (13) Permission to cross Sunnyside Avenue is granted upon condition that this crossing be constructed at right angles across the track midway between the center line of Sunnyside Avenue and Lick Avenue.
- (14) Permission is granted for the crossing of Lick Avenue subject to the condition mentioned above and upon the further condition that a street be graded on the south side of the track between Sunnyside Avenue and Lick Avenue and dedicated to the City of San Jose.
- (15) Applicant shall construct a street from Floyd Street to Almaden Avenue on the north side of its track and dedicate this street to the County.
- (16) The automatic flagman to be erected for the protection of Almadan Road shall be installed in the middle of the highway.
- condition that the crossing of Tully Rose and the crossing known as the Schuetzen Park crossing of the present main line of the Southern Pacific Company be closed and abandoned as public highway crossings. Applicant shall install a human flagman at this crossing during the hours the Oak Hill Cemetery is open.

IT IS HEREBY FURTHER ORDERED, That the crossing at West Santa Clara Street, or the Alameda, shall be made by separating grades substantially in accordance with the revised plans for grade separation filed with the Commission by applicant or with the plans filed by the City of San Jose. The expense of this separation shall be borne as follows:-

- (1) Damage accruing to the property of Southern Pacific Company by reason of the construction of this subway shall be borne by Southern Pacific Company.
- (2) The expense of caring for its tracks during the course of construction and laying its tracks in the subway after its

completion, together with all expenses incident thereto, shall be borne by San Jose Railroads. All other expanse except that in connection with the track work of the Southern Pacific Company, shall be borne fifty (50) per cent by Southern Pacific Company, thirty-five (35) per cent by City of San Jose and fifteen (15) per cent by Santa Clara County or the State Highway Commission, as the legal rights in the premises of the two latter parties may hereafter appear.

The Commission reserves the right to make such further orders relative to the location, construction, operation, maintenance and protection of said crossings as to it may seem right and proper and to revoke its permission if, in its judgment, the public convenience and necessity demand such action.

The foregoing opinion and order are hereby approved and ordered filed as the opinion and order of the Railroad Commission of the State of California.

Dated at San Francisco, California, this 20th day of May 1, 1916.

Commissioners.