

ORIGINAL

Decision No. 8901.

BEFORE THE RAILROAD COMMISSION OF THE STATE OF CALIFORNIA.

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The Municipal League,

vs.

Southern Pacific Company, The
Atchison, Topeka and Santa Fe
Railway Company, and San Pedro,
Los Angeles and Salt Lake Rail-
road Company.

Case No. 970.

Central Development Association
of Los Angeles,

vs.

Southern Pacific Company, The
Atchison, Topeka and Santa Fe
Railway Company, and San Pedro,
Los Angeles and Salt Lake Rail-
road Company.

Case No. 971.

Civic Center Association of
Los Angeles,

vs.

Southern Pacific Company, The
Atchison, Topeka and Santa Fe
Railway Company, and San Pedro,
Los Angeles and Salt Lake Rail-
road Company.

Case No. 972.

City of Pasadena,

vs.

Pacific Electric Railway Company,
Southern Pacific Company, Atchi-
son, Topeka and Santa Fe Railway
Company, San Pedro, Los Angeles
and Salt Lake Railroad Company
and City of Los Angeles.

Case No. 974.

City of Alhambra,

vs.

Pacific Electric Railway Company,
Southern Pacific Company, Atchison,
Topeka and Santa Fe Railway Company,
San Pedro, Los Angeles and Salt
Lake Railroad Company and City of
Los Angeles.

Case No. 980.

City of San Gabriel,)
 vs.)
 Pacific Electric Railway Company,)
 Southern Pacific Company, Atchison,)
 Topeka and Santa Fe Railway Company,) Case No. 981.
 San Pedro, Los Angeles and Salt Lake)
 Railroad Company, and City of Los)
 Angeles.)

City of South Pasadena,)
 vs.)
 Pacific Electric Railway Company,)
 Southern Pacific Company, Atchison,)
 Topeka and Santa Fe Railway Company,) Case No. 983.
 San Pedro, Los Angeles and Salt Lake)
 Railroad Company, and City of Los)
 Angeles.)

In the Matter of the Application of)
 Southern Pacific Railroad Company,)
 Southern Pacific Company, and Los)
 Angeles & Salt Lake Railroad Company) Application No. 3546
 for approval of agreement for joint)
 terminal facilities in Los Angeles,)
 California.)

- ✓ Gibbon & Shelton, for Municipal League of the City of Los Angeles, Central Development Association of Los Angeles, and Civic Center Association of Los Angeles;
- ✓ Marshall Stimson, for Central Development Association of Los Angeles, and Municipal League of Los Angeles;
- ✓ **HOWARD A. SIMONS**, for Central Development Association of Los Angeles;
- ✓ Joseph Scott and Edward D. Lyman, for Los Angeles Chamber of Commerce;
- ✓ John Munger and J. H. Howard, for City of Pasadena;
- ✓ Albert Lee Stephens, Howard A. Robertson, Chas. S. Burnell, Jess E. Stephens and H. Z. Osborne, Jr., for City of Los Angeles;
- ✓ T. D. McFadden, for City of San Gabriel;
- ✓ William Hazlett, City Attorney, for City of South Pasadena;
- ✓ A. S. Halsted, for Los Angeles & Salt Lake Railroad Company;
- ✓ C. W. Durbrow and George D. Squires, for Southern Pacific Company;
- ✓ E. W. Camp and U. T. Clotfelter, for The Atchison, Topeka & Santa Fe Railway Company;
- ✓ Frank Karr and E. E. Morris, for Pacific Electric Railway;
- ✓ R. A. Rowan, for Los Angeles Realty Board;
- ✓ Fred P. Gregson, for Associated Jobbers of Los Angeles;

- ✓ F. L. Hilton & G. M. Lorraine, for City of Alhambra;
- ✓ Gibson, Dunn & Crutcher, for Los Angeles Railway;
- ✓ W. H. Workman, Jr., for Los Angeles City and County Viaducts Association;
- ✓ Will D. Gould, President, for Northwest Improvement Association;
- ✓ Charles W. Lyon, for City of Santa Monica and City of Venice;
- ✓ Herbert J. Goudge, for Business Men's Association of Los Angeles;
- W. C. Shelton, for Business Men's CO-operative Association;
- ✓ R. W. Kelly, for Brooklyn Avenue and Malabar Improvement Association;
- ✓ Leonard B. Slosson, for Municipal League of the City of Los Angeles;
- ✓ George A. Damon, for City Planning Association;
- ✓ Gordon G. Dunlop, Chairman of Los Angeles Conference of City Planning;
- ✓ J. G. Wingert, for City of Whittier;
- ✓ B. E. Page, for Business Men's Stability Association.

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By the Commission:

O P I N I O N

These seven cases and the applications, with the consent of the parties, were consolidated into one proceeding.

In the seven cases the various complainants have asked the Commission to make a comprehensive investigation into the entire railroad situation in the City of Los Angeles, to the end that there be brought about elimination of grade crossings, the consolidation and unification of the tracks of the various railroads, the establishment of a union passenger station, and better freight facilities, and the Commission is asked to make its orders for the execution of definite plans upon the completion of such investigation.

Application 3346 is a joint application by the Southern Pacific Company (hereinafter referred to as the Southern Pacific) and the Los Angeles and Salt Lake Railroad Company (hereinafter referred to as the Salt Lake) asking the Commission's approval of an agreement between the two companies providing for the joint use of the Los Angeles terminal.

facilities of the two roads, and also for the possible joint use of certain facilities by the Pacific Electric Railway (hereinafter referred to as the Pacific Electric) and for the construction and use by that company of certain new and additional facilities. The Los Angeles and Salt Lake Railroad Company is the same company referred to in some of these proceedings as the San Pedro, Los Angeles and Salt Lake Railroad Company.

1 - Review of Proceedings.

A brief history of these cases is necessary to an understanding of this proceeding. In July, 1915, several civic organizations of Los Angeles filed complaints against the Southern Pacific, the Salt Lake, The Atchison, Topeka and Santa Fe Railroad Company (hereinafter referred to as the Santa Fe), and the Pacific Electric, asking relief of the grade crossing evil and betterment of transportation facilities. These complainants were joined by a number of other civic and commercial organizations, and by several municipalities in the neighborhood of Los Angeles until, in August, 1916, there were before the Commission the seven complaints consolidated in this proceeding and a considerable number of informal complaints. In July, 1916, upon the request of the City Council of Los Angeles, the Commission, in an informal conference with the City Council, discussed the grade crossing, freight and passenger terminal conditions in Los Angeles and, at the conclusion of the conference, the City Council voted to contribute Twenty Thousand (20,000) Dollars toward the expense of a complete and thorough investigation to be made by the engineering department of the Commission.

(a) The Question of Jurisdiction.

The question of the Commission's jurisdiction was raised by the railroads and by the City of Los Angeles (hereinafter referred to as the City). In a hearing on this question of jurisdiction on September 15, 1916, all of the parties, except the City, urged that the Commission had specific jurisdiction over the issues presented. The City took the position that

jurisdiction over all railroad grade crossings in Los Angeles was in the City and not in the Commission.

In October, 1916, the Commission rendered decision No. 3605 dismissing all proceedings. This action was taken for the reason that, while in the Commission's opinion the jurisdiction in the matters involved, under the terms of the Public Utilities Act, rested with the Commission, nevertheless the investigation asked for required the expenditure of so considerable an amount of public money and was of such great importance to the communities and the carriers involved that, in the Commission's opinion, no action should be taken until it was definitely established where jurisdiction rested in the premises. All of the parties were in agreement with the position taken by the Commission.

The matter was taken to the Supreme Court of the State of California by two writs of mandamus. The Supreme Court made its decision in both mandamus proceedings on June 11, 1917, upholding the position of the complainants and the Commission and decided that the Commission had exclusive jurisdiction over the construction and operation of railroads on streets in the City of Los Angeles (Civic Center Ass'n. vs Railroad Commission, 175 Cal. 441.). The Court said:

"The effect upon the present case may be stated as follows:
"The City of Los Angeles has the power to open, widen, extend and improve streets and to regulate the ordinary uses thereof. The Railroad Commission, under Section 45 of the Public Utilities Act, has the power to make orders, which are binding upon the railroad companies under its supervision, to abolish grade crossings of the public streets of a city and to order a separation of grades so that the railroad and street shall not be upon the same level and generally to exercise the powers specified in that section. It cannot vacate the street or direct a cessation of the public use thereof. Its orders are to be directed to the railroad company and not to the city, except so far as may be necessary to apportion the expense of construction and maintenance of the particular mode of crossing which shall be required. The city has the power to alter the construction of its streets at such crossings, or any of them, by elevating them upon a viaduct so as to pass over the railroad or by making a subway passing under the railroad. In either case, if the change in the street does not interfere with the operation and use of the railroad at the time, the Com-

"mission cannot prevent the change and it may be made without the consent of the Commission. But if it does interfere, either at the time or afterward, whether by natural causes or lack of repair of the street as changed, or by reason of changes in the construction or use of the railroad subsequently directed or approved by the Commission, the city must conform to the orders of the Commission so as to avoid such interference.

"It is ordered that the Railroad Commission proceed to consider and determine, upon the merits, the complaints made to it by the plaintiffs herein, and that a writ of mandate be issued to it in accordance herewith."

The City thereupon filed a petition for re-hearing. This petition was dismissed by the Supreme Court and the matter of jurisdiction is considered as settled by the Commission.

(b) Engineering Investigation.

Immediately after the order of the Supreme Court dismissing the City's petition for re-hearing, the Commission in public hearing made arrangements for the necessary engineering investigation. The Commission stated (Transcript page 128):

"As is usual in formal complaints, the complainants will be permitted to introduce their evidence and then the defendants will present their testimony.

"The Railroad Commission proposes to conduct a thorough, comprehensive, and impartial investigation into the entire situation. The Commission will instruct its engineering department to make an exhaustive investigation and to prepare a report which will thereafter be introduced as evidence in these proceedings. Until this report has been prepared and introduced, and all the parties have had a fair opportunity to present their evidence and to cross-examine witnesses, no conclusion will be reached.

"I assume that it will be entirely unnecessary to say that the Railroad Commission approaches this case, as every other case, with an absolutely open mind and with an earnest desire to ascertain all the facts, so that a just and constructive solution of the problem may be reached. It is our intention to view this problem in the largest possible aspect and to reach a conclusion which will serve the needs not merely of today, but also of the future. The people of the City of Los Angeles and the surrounding communities and railroads are entitled to an exhaustive and thorough consideration of the problems here presented and such consideration they will receive from the Railroad Commission.

"In this work, which will mean so much to the people of this community and the surrounding communities, as well as the railroads, the Railroad Commission, of course, expects the fullest consideration and co-operation from all parties--the complainants, the railroad companies, and the public authorities."

In December, 1917, public hearings by the Commission were continued until further notice pending the completion of the report which the Commission had instructed its engineering department to make.

(c) Federal Control.

Shortly after the assumption of operating control of the country's railroads by the federal government, the United States Railroad Administration issued its general order for the unification, as far as possible, of railroad facilities, including terminals in cities. Los Angeles was one of the cities whose terminals the Director General of Railroads desired to unify. He made request on this Commission to give him the benefit of its investigation and its recommendations in the Los Angeles grade crossing and terminal situation. As a result of this request, the Commission's engineering department made two reports, the first one in September, 1918, and the second in January, 1919.

Both of these reports contained recommendations that could be put into effect during federal control and calculated to improve certain unsatisfactory traffic and grade crossing conditions, with the effect of considerable immediate savings in operating costs. While the recommendations in the first report were urged upon the Director General by the Commission alone, the proposals in the second report were the joint recommendations of the Railroad Administration's own engineers (who had been assigned to this problem by the Director General) and the engineers of this Commission.

These emergency recommendations, looking towards temporary unification of transportation facilities as a war measure, ceased to be controlling with the end of the war. With the railroad emergency passed and with the termination of federal control in sight, it was possible again to look towards the permanent rather than a temporary solution of the Los Angeles grade crossing

and terminal problem, and the Commission's engineering investigation was continued on that basis.

(d) Completion of engineering investigation and subsequent proceedings.

In July, 1919, the investigation by the Commission's engineers was completed and the chief engineer made his report to the Commission. This report was printed and distributed to all of the parties to these proceedings and was also made generally available.

At a hearing held February 17, 1920, the Commission arranged for a conference of engineers representing all interests to study the engineering department's report and to ascertain those matters on which there was agreement and those on which there was disagreement, asking the engineering conference to report to the Commission and give its reasons for the disagreements, if any. After a hearing on April 22, 1920, the Commission decided to withhold from consideration by the engineering conference questions of policy, apportionment of costs, operating agreements and financing.

The engineering conference made its report to the Commission on August 15, 1920, and a number of further public hearings were thereafter held until the proceeding was submitted.

A large number of exhibits were filed by the various parties to these proceedings. Much testimony was taken and witnesses for the complainants, the defendants, and the Commission were examined and cross-examined at great length. Arguments by counsel were heard by the Commission and briefs were filed, and the matter is now ready for a decision.

Since it will become necessary in this and in probable future decisions in this proceeding to make reference to some of the numerous exhibits introduced in these cases, a complete list is attached to this decision as Appendix "A."

2 - Results of Commission's
Engineering Investigation.

(a) Commission's Exhibit No. 1.

Commission's Exhibit No. 1, entitled "Report on Railroad Grade Crossing Elimination and Passenger and Freight Terminals in Los Angeles," by Richard Sachse, chief engineer, and dated July 31, 1919, contains the results of the investigation made by the Commission's engineers. As stated above, this report was printed and distributed not only to the parties in this proceeding, but to others interested in this matter.

The report goes exhaustively into all of the engineering matters before the Commission in these proceedings and deals with the following main divisions:

- (a) Grade crossing elimination,
- (b) Union passenger terminal,
- (c) Joint main line and industrial trackage,
- (d) Improvement and possible re-arrangement of freight and facilities,
- (e) Electric interurban, street railway, and automobile traffic,
- (f) City streets, viaducts, and bridges, and the relation of the transportation problem to the general subject of city planning.

Again, the engineering investigation distinguishes between:

- (a) Work to be done within the city limits of Los Angeles,
- (b) Work to be done outside the city limits of Los Angeles.

The work contemplated is dealt with in the report under the "unit system," and a program is laid down for--

- (a) Work to be commenced and carried out immediately after a plan has been adopted,
- (b) Work to be carried out later, and
- (c) Work for the more distant future.

It will not be possible, in this decision, to review Commission's Exhibit No. 1, even in a summary way, and only the conclusions and recommendations of the chief engineer, contained on this letter to the Commission, of July 31, 1919, will be here quoted.

"It will be convenient to give to the Commission in this letter our conclusions in the three main branches of the investigation (possibility of grade crossing elimination; desirability, location and plan for a union passenger terminal; possibility for improvement in the freight situation) and in the matters related to these three main branches.

Grade Crossing Elimination.

This is the most important of the three subjects and is the one that is of most vital importance to the public and to the railroads. It is also the controlling engineering element in the entire report and, to a large extent, governs the solution of the union terminal and freight problems. We believe that all complaints against the unsatisfactory grade crossing conditions in Los Angeles, within the scope of this report, can be satisfied and that a permanent solution of the problem can be had by the adoption of our recommendations. These are:

1. Eliminate all important grade crossings on both banks of the Los Angeles River through the depression of the railroad tracks and the elevation of the streets by means of the improvement of existing, and the construction of new, viaducts across the river and across the tracks adjacent to the river. The streets to be so treated are North Main, Macy, Aliso, East First, East Fourth, East Seventh and East Ninth Streets. The North Spring Street crossing is to be entirely eliminated and Alhambra Avenue crossing is to be protected by an improved interlocking plant. The recommendations should be carried out substantially in the order and according to the plans given in this report.
2. Allow tracks to remain on Alameda Street but eliminate all (except approximately 3 per cent) of the present railroad traffic by diversion to better channels. The remaining traffic (consisting of switching service) is to be handled at night between Macy and Ninth Streets. Eliminate all main line traffic from Alameda Street.
3. Bring about the elimination of 61 streets, 8 electric railway, and 2 steam railroad crossings by the adoption of the Santa Fe plan for an improved line between Los Angeles and Pasadena. Bring about the elimination of an additional 28 grade crossings on the Salt Lake Railroad by requiring that road to join in the construction and the use of the proposed Santa Fe line and by the abandonment and removal of its present tracks between the termini of the proposed line.

If, in addition to the existing rapid transit lines, a municipal electric line should be built between Los Angeles and Pasadena, this line should be located on the same right of way (additional width to be acquired) and should be combined with the Santa Fe and the Salt Lake between Los Angeles and Pasadena.

4. Depress Santa Fe Avenue and raise the Butte Street tracks to eliminate the grade crossing at Butte Street and Santa Fe Avenue.

Union Passenger Terminal.

After a most exhaustive consideration of all arguments for and against a union passenger station in Los Angeles, we have come to the conclusion that the establishment of such a station is desirable both from the standpoint of the public and from the standpoint of the railroads, that the cost is justified and that the project can be financed. The reasons for this conclusion are given in detail in the body of the report.

We have found three sites adapted to the location of such a station, viz: The Plaza site, the Santa Fe Station site, and the Southern Pacific Station site. Detailed plans and estimates have been worked up by us for each of these locations, and the recommendations contained in the report have been fitted to each of the plans. Of the three plans, the Plaza plan is the best and it is our recommendation that the Commission order the establishment of a union passenger station at this site substantially in accordance with the plan we have developed.

Freight.

We believe that the matter of proper freight facilities is of even greater importance to the City of Los Angeles than the matter of steam railroad passenger facilities. It is our conclusion that freight traffic conditions are not unsatisfactory and that no far reaching recommendations are necessary to bring about such further improvements as appear to us desirable. Our recommendations in this connection are:

1. Tracks should not be removed from Alameda Street at this time, but all possible traffic should be removed from that street (see recommendation No. 2 above).
2. The so-called "Santa Fe Alley Spur" should be removed north of Butte Street.
3. Dealing with switching service and spur tracks for the future, we recommend that:
 - (a) New permits be not granted for industry tracks longitudinally in the streets.
 - (b) All tracks now longitudinally in the streets be confined to industrial purposes only and be removed as soon as better access to the industries served can be obtained.

(c) All spur tracks to be built in general easterly and westerly direction from the river banks and not across east and west streets unless, by such construction, the crossing of important north and south streets is avoided.

4. The establishment of a union freight station for less than carload freight at the Santa Fe freight yard site on Santa Fe Avenue from First to Seventh Streets is recommended. The present Santa Fe freight station is to become a part of this union freight station. This we consider a very important recommendation and one that will be of great and permanent benefit to the railroads and to the shippers in Los Angeles.
5. The establishment of team yards along the east side of Alameda Street is recommended, as outlined in the report.
6. We recommend the construction of new freight yards farther away from the industrial district. A new yard is recommended for the Southern Pacific, following the plans of this road, along the San Fernando Road, and a new yard for the Santa Fe is recommended on the Fullerton line just east of Hobart, on land already acquired.

Related Recommendations

Related to the foregoing recommendations are certain other matters that are either before the Commission in various applications consolidated with this proceeding or that are important factors in the terminal problem and that fall within the scope of this report.

1. Union Passenger Station and Electric

Interurban Service: If our recommendation for the establishment of a union passenger station at the Plaza is adopted by the Commission, we recommend also the construction of a subway from the present Pacific Electric station at Sixth and Main Streets northerly along Main Street to and under the passenger station, changing to an elevated railroad along Ramirez Street and meeting the present line at the Aliso Street bridge. This line from here would continue as an elevated railway to Brooklyn Avenue where the present tracks and grade would be met. This subway construction along Main Street should be undertaken within the next five years.

The present elevated Pacific Electric structure in the rear of the Main Street Station should be extended to Alameda Street and thence south to Fourteenth Street.

We realize that this is a far-reaching recommendation but believe it justified and essential in the interest of transportation and city development in Los Angeles, for reasons given in the report.

2. Continuation of Consolidated Uptown Ticket Office: This matter is related to our recommendation for a union passenger station. We urge that the existing consolidated uptown ticket office be continued, pending the establishment of a union passenger station after the railroads return to private control. This recommendation is made because the present arrangement instituted by the United States Railroad Administration has proved satisfactory in every respect to the public and to the railroads.
3. Application 3346 (Southern Pacific Company and Salt Lake Railroad for approval of agreement covering joint terminal facilities). It follows as a result of the recommendations contained in this report that this application should be dismissed.
4. Application 2962 (Industrial Terminal Railway to issue stock for the construction of a switching and terminal railway): This application should be dismissed for the same reasons, although it will probably appear that with the adoption of our recommendations, another application of this nature will likely be filed later on in a modified form.
5. Application 3037 (Los Angeles and Salt Lake Railroad Company for authority to establish 14 grade crossings in order to enable the construction of a freight terminal on Alameda Street): We recommend that this application be denied since our recommendation for a less than carload union freight station at the Santa Fe site will take care of all such freight requirements.
6. Case 938 (Interlocking at Aliso Street and the Los Angeles River): In this case the Commission made its order directing the installation of an interlocking plant to control the Pacific Electric Railway, the Santa Fe and the Los Angeles and Salt Lake roads at this point. A supplemental order was later issued holding the matter in abeyance pending the completion of this report. Since our recommendations for the separation of grades and for a union passenger station will eliminate this crossing, the construction of this interlocker will not be necessary. An order should be issued to this effect after the adoption of our recommendations.

7. Pairing of Southern Pacific and Salt Lake Tracks between Los Angeles and Colton:

The recommendation for such pairing of tracks was made to the Director General jointly by the engineers representing the Federally controlled railroads and by the Commission. Although this recommendation is very clearly to the benefit of the interested railroads and although the improvement can be made with very small expenditure and although an annual saving in the cost of operation was estimated at \$173,025 (and this estimate has in the meantime increased), nothing has been done to carry out this recommendation. We can see no reason and have no explanation for the inaction on the part of the United States Railroad Administration. The recommended plan will work perfectly with our recommendations and we again urge that the proposed pairing of tracks as outlined in the report be put into effect by the action of this Commission as soon as the operating control of the roads is released by the Federal Government".

Detailed cost estimates for the work included in these recommendations are contained in Commission's Exhibit No. 1. In these estimates, distinction is made between the costs of the various steps in the proposed ultimate plan, with the ultimate capital expenditure for all recommendations estimated at \$32,233,445. Referring to this grand total, the report states,

"While a capital expenditure of over \$32,000,000 seems large, it should be remembered that this money is to be expended over a term of years. In any event, whether the foregoing recommendations are adopted or not, very large capital expenditures aggregating probably in the neighborhood of the sum estimated by us will become necessary in the near future if the transportation of Los Angeles is to keep pace with the growth and the industrial and business development of the City. The choice is not between a large expenditure if these recommendations are adopted and a small one if they are not adopted: it is rather between an adequate and carefully planned development without wasteful expenditures and a haphazard growth dictated, in the main, by private interests from the standpoint of each individual road. In either case the burden of capital and operating costs must, in the end, be borne by the public.

"It is impossible to estimate in dollars the direct and indirect savings and benefits through the carrying out of these plans that will accrue to the railroads, to the passengers, and to the shippers, and also to the people and enterprises affected by transportation conditions. We have no hesitation in saying, however, that, from the financial standpoint alone, the proposed expenditure is justified."

(b) The Engineering Conference.

There was opposition to and disagreement with, principally on the part of the railroads, certain of the conclusions and recommendations contained in Commission's Exhibit No. 1. This disagreement involved also what seemed to the Commission questions of fact and, in order to have the fullest information on all important engineering matters, it was decided to refer Exhibit No. 1 to a conference of engineers representing all parties.

Instructions were given to the engineers to carry this conference forward for the purpose of establishing, as clearly as possible, all matters of agreement and disagreement and to lay before the Commission the conference's views on the information and recommendations contained in this exhibit. In the course of the conference's activity, the question of the scope of its work arose and this matter was settled by the Commission's instructions issued as a result of the hearing held on April 22nd, which read as follows:

"The following instructions should govern the work of the engineering conference appointed to study the Los Angeles terminal report:

(1) The conference should consider the following engineering matters on the basis of the engineering department's report:

- (a) As regards grade crossing elimination and freight improvement, all matters of design, track layout and arrangement of facilities.

The matter of a passenger terminal is to be handled as follows: The conference is not to recommend the location of a union passenger terminal; nor

"is it to report on the policy of establishing such a terminal. It is to report on the three plans for passenger terminals set forth in the Commission's engineering department's report as to design, track layout, cost estimates, and operation.

- (b) Matters of unit costs and estimates for the work proposed under the various subdivisions of the report.
- (c) Matters of the advantages and the disadvantages of possible locations of the structures and facilities contemplated in the report, including grade separations and freight facilities.
- (d) Matters dealing with proposals and recommendations on electric transportation and recommendations affecting interurban rapid transit and street railway traffic.
- (e) Matters of operation and traffic, including street, electric and steam railway traffic and all other traffic in so far as it is affected by the problems under consideration.

(2) The engineering conference is not expected to deal with the following matters:

- (a) Apportionment of costs between the various parties.
- (b) Traffic arrangements and operating agreements as between the various parties.
- (c) Methods of financing.

(3) The Commission would like to have the conference report on the matters on which there is agreement between the engineers and on the matters on which there is disagreement, with reasons for the disagreement, if possible."

The engineering conference, in which twenty-two representatives of the various parties and three engineers of the Commission participated, divided its work among six sub-committees: grade crossing, union passenger terminal, freight, rapid transit, and street railways, estimate, and electrification. These sub-committees reported their conclusions and these, together with the summarization by the Commission's chief engineer and certain exceptions taken by individual engineers, were introduced as Commission's Exhibit No. 2.

It may be said that the result of the engineering conference was an endorsement of the recommendations of the Commission's engineers, with certain changes and modifications in the

proposed plans and with a revision of the cost estimates, due mainly to a revision of prices and costs as of March, 1920, reflecting the increased costs of labor and materials. This endorsement of the recommendations in Commission's Exhibit No. 1, however, was not unanimous, the Southern Pacific-Salt Lake-Pacific Electric engineers remaining in opposition to any plans not in conformity with the proposals advocated by this carrier group. The plans of these three interested railroads will hereafter be discussed. As a result of the study made by the engineering conference, the Commission's engineers revised certain of their plans and adopted a number of suggestions made by the conference. These revisions and changes are set forth in Commission's Exhibit No. 2.

3 - The position of the Railroads.

There are involved in these proceedings all of the steam and electric railroads operating in Los Angeles. The two steam lines, the Southern Pacific and the Salt Lake, and the interurban electric and street railway, and Pacific Electric occupy, in general, the same position on the major questions concerned in these cases. The Santa Fe occupies an independent position and the Los Angeles Railway, the local street railway, is affected and interested to only a minor degree.

(a) The Southern Pacific-Salt Lake-Pacific Electric position.

The view of these three carriers is set forth in the brief filed by counsel for the railroads. Substantially, it is as follows:

It is denied that the Commission has jurisdiction to order the joint use of tracks or terminal facilities of interstate railroads.

The freight terminal and industrial situation as it now exists in Los Angeles is satisfactory to all concerned.

Complete grade elimination may be effected under the Southern Pacific-Salt Lake plan.

The Commission's engineers' plan for relieving inter-urban traffic is impracticable.

The elimination of grade crossings will cost less under the Southern-Pacific-Salt Lake plan than under any other plan.

Public interest does not require the establishment of a union passenger terminal, the question of expense is controlling and the expense of a terminal at the Plaza is prohibitive.

The adoption of the Southern Pacific-Salt Lake, Salt Lake-Pacific Electric plan meets the requirements of the travelling public, the city and the carriers.

The Southern Pacific-Salt Lake plan, as it was placed before the Commission in Application No. 3346 and modified subsequently by the railroads, as shown on the so-called Titcomb plan, provided substantially for the joint use of the present Southern Pacific passenger station at Fifth and Alameda Streets and for joint use of Salt Lake trackage on the east side of the Los Angeles River, together with elevated track connections commencing in the vicinity of Sixth and Alameda Streets and running easterly and by bridge across the Los Angeles River to a connection with the tracks of the Salt Lake. Provision is also made for a proposed passenger train car yard to be located on property of the Salt Lake Company, and for an ultimate joint interchange yard, upon property of the Southern Pacific, between Dayton Avenue and Aliso Street.

The agreement also provides that the Salt Lake shall grant to the Southern Pacific, for the sole use of the Pacific Electric, without rental therefor, a right of way for the construction and

operation of a double track electric railway on the Salt Lake right of way, along the east bank of the river. It contemplates the continuation of the present Pacific Electric elevated structure from San Pedro Street easterly to Alameda Street. At Alameda Street, the Pacific Electric tracks would cross over the Southern Pacific steam elevated railroad, involving what may be called a "two-story crossing." West of Alameda Street, the Pacific Electric tracks would run parallel and adjacent to the Southern Pacific tracks across the river to the right of way to be acquired from the Salt Lake ^a to/connection with the present line. The construction and re-arrangement of numerous facilities are made necessary and are contemplated in this plan.

The plan itself and the agreement between the railroads do not make provision for a comprehensive elimination of grade crossings. The three roads declare themselves in general agreement, however, with the general plans shown in Commission's Exhibit No. 1, for the separation of grades.

The Southern Pacific is opposed to the Santa Fe's use of the proposed Southern Pacific-Salt Lake union passenger depot.

The position of the Pacific Electric was stated by its President, Mr. Paul Shoup, who declared:

"Our position is tied up absolutely, speaking as a Pacific Electric officer now, with the Southern Pacific and Salt Lake plan, and none other is acceptable or would be acceptable to us among the plans presented."

It may be stated, therefore, that the position of these three railroads is in favor of the grade crossing elimination program as developed by the Commission's engineers, and is in favor of a joint passenger station, provided that such a station is located at the point selected by these railroads and provided

the joint track and other facilities are constructed in accordance with the railroads' plans; and further provided that the Santa Fe has no part in such joint use. These three roads are opposed to any proposals that are in conflict with these proposed arrangements.

(b) The Santa Fe's Position.

The Santa Fe is in favor of a separation of grades under a reasonable plan in general agreement with the plan outlined in Commission's Exhibit No. 1.

The Company calls attention to the necessity of careful consideration in the final adoption of grade separation plans of the flood conditions of the Los Angeles River and the necessity of lowering the Santa Fe main line tracks, and, especially, to the importance of a proper division of the expense. A separation of grades between Los Angeles and Pasadena this Company believes to be a matter for the future, because of the large expense involved.

The Santa Fe is opposed to a union freight station for handling less than carload business.

In the matter of a union passenger station, the counsel stated the view of the railroad as follows:

"COMMISSIONER EDGERTON: Well, Mr. Camp, if there was-- and I only say this to get an expression of position from you--if it was decided that the union terminal passenger station was advisable, which of the various ones suggested does the Santa Fe prefer?"

"MR. CAMP: Well, of the three which Mr. Sachse says are the only three which have been proposed, I understand that we would not prefer but we would dislike least the Plaza. But we are very far from standing here and advocating the Plaza site. We are not at all. And it does seem to us that the Commission could leave that to the very indefinite future, go ahead with the elimination of grades. Now, the first proposition, as I understand it, is to eliminate grade crossings at Aliso and at Macy Streets, and that can be done without any reference to any union terminal station, passenger or freight. Why shouldn't it be done? And then discuss the terminal proposition at our leisure, say somewhere about 1935, or something of that sort."

(c) Position of Civic Organizations.

The Business Men's Association is in favor of the ordering by the Commission of steam railroad crossing elimination along the river and approves of the Salt Lake-Southern Pacific-Pacific Electric plan substantially as presented by these roads, and opposes the establishment of a union E.C.E. freight station.

The Central Development Association of Los Angeles endorses in all essentials the plans and recommendations of the Commission's engineers in Exhibit No. 1 and urges an order by the Commission adopting these plans and providing for successive steps for their consummation. A similar position was taken by the Los Angeles City and County Viaducts Association, the Northwest Association, the Brooklyn Avenue and Malabar Improvement Association and by the Civic Center Association.

The Business Men's Co-operative Association is in favor of the adoption of a comprehensive terminal and grade crossing plan and endorses the recommendations contained in Commission's Exhibit No. 1, especially as to the items of grade crossing elimination and union passenger terminal. This association, as also the organizations mentioned in the preceding paragraph, is opposed to the Southern Pacific-Salt Lake-Pacific Electric plan.

The Municipal League of Los Angeles suggests a further investigation, by the Commission, of a possible additional site for a union passenger station (at Sixth Street and the east bank of the Los Angeles River), which has not been reported on by our engineers, and on which no plans or estimates, except general sketches, are before the Commission. The Municipal League, however, has endorsed and is in favor of the grade crossing elimination plans in Commission's Exhibit No. 1.

(d) Position of the City.

Throughout these proceedings the City has maintained the position that an impartial and reliable investigation of the problems included in these cases should be made and that a program for their solution should be adopted based strictly on the merits of each feasible plan. The City urges that the Commission give due consideration to the necessity and convenience of the travelling and local public in Los Angeles and of the needs of the City as an important freight traffic center. The City also urges that the growing importance of Los Angeles, measured by the increasing population and industry, should be kept in mind and that relief be planned having regard to the reasonable needs of the future.

From this standpoint the City authorities and the City departments worked in close co-operation with the Commission's engineers during the investigation. The fact of the City contributing a considerable portion of the cost of the investigation further substantiated this position. The City has expressed its desire to further co-operate with the Commission in bringing about the realization of such plans as may be adopted and has offered to assume its share of the necessary cost. The City's attitude has been expressed by the City Council in formal resolutions after submission of the case, from which we quote:

"WHEREAS, for some years the matter of eliminating grade crossings and co-ordinating and re-adjusting the transportation lines of the City of Los Angeles, so that the same shall represent modern, up-to-date, convenient and safe transportation in the City, has been before the public of the City and surrounding Municipal Communities, and during that time considerable money has been spent by the City to secure the opinion upon the matter of numerous experts; and

"WHEREAS, the City has obtained the opinion of the great Municipal transportation expert, Bion J. Arnold, of Chicago, upon the matter, and that opinion specifies as a necessary factor in accomplishing these purposes the

"creation within the City of Los Angeles of Union Passenger and Freight Stations; and

"WHEREAS, later a Commission appointed by the City, consisting of three able and impartial engineers, announce that in their judgment the creation of joint passenger and freight terminals was necessary to the solution of these problems; and

"WHEREAS, finally, at a cost of \$20,000.00 to the City the matter was taken up with the State Railroad Commission for investigation and determination, and the engineering experts of the Commission have, after many months of investigation rendered an elaborate and costly report in which they also found that the creation of passenger and freight terminals were necessary to the accomplishment of the above mentioned purposes; and

"WHEREAS, the City Planning Commission, recently appointed by the Council for the purpose of making plans for the systematic development of our city along lines which shall provide for civic beauty as well as civic convenience and necessity, finds itself unable to enter upon the making of said plans until the matter of abolishing grade crossings and co-ordinating our city transportation service in Union Stations is decided upon and the same are definitely located; therefore be it

"RESOLVED: That the State Railroad Commission is informed that it is the judgment of this Body that these matters should be decided upon as soon as possible, and that their decision, in accordance with the universal findings of the above mentioned engineering experts, should provide for the establishment of both Union Passenger and Freight Stations in the City of Los Angeles, and no other solution will satisfy this Council."

(From resolution of City Council of August 30, 1920)

And, further from resolution of City Council of November 3, 1920:

"WHEREAS, the Chief Engineer of the State Railroad Commission has appeared before this council and explained in detail to it his report to the State Railroad Commission; and

"WHEREAS, this Council is deeply interested in having the State Railroad Commission decide the matter before it in a way which will best serve the interests of the City of Los Angeles, by the most complete elimination of railroad grade crossings and by providing the most efficient and comprehensive co-ordination of the transportation facilities of the City in a way which will best serve the present interests of the City and will most effectively provide for the entrance of other railroads desiring to build to the City in the future as well as for the extension of the present Harbor Terminal Railroad now owned by the City to a Union Station in the City to the end that our great and rapidly growing City shall, for both the present and the future, have the most efficient transportation service; and

"WHEREAS, the City Council, knowing that the State Railroad Commission has had the services of the best engineering experts and has, with the assistance of such experts, gone into the whole matter in a most complete and exhaustive manner, and we have the fullest confidence in the judgment and honesty of the Commission and its capacity to render a decision which will best serve the interests of all concerned; now, therefore, be it

"RESOLVED, That in view of the great importance of this matter to our City, we respectfully request of the State Railroad Commission as prompt a decision as is compatible with existing conditions, in order that proceedings may be speedily begun toward relieving the dangerous and intolerable conditions now existing; and be it

"FURTHER RESOLVED: That this Council desires to assure the State Railroad Commission of its readiness and willingness to co-operate with the Commission in any and every way in carrying out its findings and recommendations; and be it

"FURTHER RESOLVED: That the City Attorney be instructed to file no brief with the State Railroad Commission, either advocating or criticising any of the various suggestions made to said Commission in the hearings of these cases."

Aside from the official position of the parties to this proceeding, there have been filed with the Commission numerous resolutions by chambers of commerce, improvement associations, civic and commercial organizations, and by local authorities of communities adjacent to Los Angeles endorsing or condemning the so-called Southern Pacific-Salt Lake-Pacific Electric plan and also endorsing or condemning all or part of the recommendations made by the Commission's engineers and by the engineering conference.

4. Conclusions of the Commission.

There can be no doubt that the issues before the Commission have had a most thorough and impartial consideration and that every party represented has had the fullest opportunity to present its claims and to develop the advantages and weaknesses in any of the plans that have been presented. It is also apparent that the pending matter involves many technical questions which must be decided upon findings of fact made by technical men. Aside from the technical questions, a comprehensive program depends for its fulfillment to a great degree upon action within jurisdiction of the City, especially in so far as the matters of vacating or opening of city streets are concerned and in the matter of making available such portion of the cost of improvements as the City should bear.

The attitude of the carriers is quite clear. They are concerned with their own individual plans and there is no prospect that they will co-operate on their own accord to bring about a unification of transportation facilities with a view to reducing operating expenses or bettering the service and they are opposed to the adoption of a unified plan that will lay down the lines of their development in Los Angeles for the future.

The carriers are opposed to any considerable expenditures of new capital and this is a matter that must be given careful thought by this Commission. It is clear, however, that large expenditures will have to be made by all the carriers, the steam railroads, as well as the Pacific Electric, for urgently needed betterments, regardless of whether these expenditures are made by each railway in pursuance of its individual plans or whether they are made jointly in the working out of a unified plan. While we are mindful, therefore, of the fact that the question of cost in the last analysis may be the determining factor, we cannot ignore the other fact that large capital expenditures have to be incurred in any event by the railroads and by the City. The conclusion is reached in Commission's Exhibit No.1 that the choice is not between a large cost if a unified plan is adopted, as against a small one if no plan is followed. The choice is between an adequate and well planned development, on the one hand, and between inevitable wasteful expenditures and a haphazard growth dictated by the interests of the individual roads, keeping in mind that in either case, the burden of capital and operating costs must, in the end, be borne by the public.

The soundness of this conclusion has been confirmed by the testimony of all witnesses in this proceeding and we have no doubt of the superiority of a well thought out plan to take care of the present and future transportation needs of Los Angeles, as compared with haphazard competitive development, pro-

vided it is possible to carry out such a plan at a reasonable cost.

This opinion is in accordance with the conclusions reached not only by every technical and expert study made in recent years in similar terminal problems elsewhere in the the United States, but it is also the view adopted by the owners of the railroads themselves. The recognition of the necessity that in the future we must have in this country unified railroad terminal development in the larger cities has been definitely incorporated by Congress in the new Transportation Act. It is in that act also recognized that it will not be sufficient to leave the necessary terminal unification to the carriers alone. Power is given the Interstate Commerce Commission in the Esch-Cummins Act to order terminal unification.

This, it seems to us, is a sound and inevitable development. With the present relation between the railroads and the people, whereby the government undertakes to fix rates under a prescribed system designed to give to the railroad as nearly as may be a guaranteed income, in addition to a guaranteed reimbursement of operating expenses, it seems self-evident that every effort must be made to furnish the best possible transportation facilities at the lowest possible cost. It has been amply demonstrated in recent years that the points of greatest waste and greatest congestion in the railroad system are the terminals. We believe, therefore, that unification of terminals, wherever such unification is physically possible, and wherever operating economies can be effected, is bound to come and is only a question of time.

Applying these considerations to the proceeding before us, it is also evident that the elimination of grade crossings in the heart of the city, along the banks of the Los Angeles River, and on the main lines approaching the city can

be accomplished with greater certainty and at less cost than if grade crossing elimination is imposed upon each separate railroad as a separate undertaking.

The conditions in Los Angeles for a unified treatment of the railroad problem appear to be almost ideal. This is the conclusion in this proceeding, not only of the Commission's engineers, of the engineers of the City of Los Angeles, and the engineers representing parties other than the railroads, but the same conclusion was reached in investigations made by other engineers in years past. Similar decision was reached by a committee appointed by the Mayor of Los Angeles upon the request of the Public Utilities Committee of the Council to study this question on the basis of Commission's Exhibit No. 1. This committee, after an exhaustive study, made the following final recommendations in its report to the Mayor and ^{to} the City of Los Angeles:

"1st. The immediate abolition of grade crossings by carrying out the design of depressed tracks along the river banks, and the building of a Union Passenger Station at the Plaza, and the development of a multiple system of L.C.L. freight terminals, in general accord with the design set out in the Report; and,

"2nd. That the City join with and continue to cooperate with the State Railroad Commission in carrying out the plans for the above mentioned designs, as set out in the Report of the Chief Engineer of the Railroad Commission, accompanying his letter of transmittal of July 31, 1919."

~~XXXXXX~~
The engineers of all the steam railroads involved in this proceeding, who have taken part in this investigation as employees of the individual carriers, but who, during federal control, were employees of the United States Railroad Administration, then expressed themselves as in agreement with the principle of terminal unification and so reported to their respective superior federal officers.

We believe that the terminal unification and the grade crossing problem should not be disassociated and that the adoption of a plan providing for both problems is essential.

(a) - Grade Crossing Elimination.

There appears to be no disagreement as to the necessity and urgency for the elimination of the railroad grade crossings on both banks of the Los Angeles River and along Alameda Street. Neither is there ^{any} material dispute as to the method to be employed to bring about the elimination of the river grade crossings. To remedy the Alameda Street situation requires changes in the existing passenger and freight facilities and there is some dispute as to the methods to be followed to eliminate these crossings.

All parties appear to agree that the program and method for grade crossing elimination proposed in Commission's Exhibit No. 1 is a feasible and sound one. It remains to determine what should be the first step in the crossing elimination plan and, after definite and detailed plans for the elimination of the separate crossings have been filed with and accepted by the Commission, to apportion the cost to the interested parties.

Traffic studies made by our engineers, and reported in Commission's Exhibit No. 1, indicate that in 1917-18 about 65,000,000 people annually crossed the Los Angeles River and the tracks of the Santa Fe on the west side and of the Salt Lake on the east side, adjacent to the river, divided as follows:

	<u>People per annum:</u>
Over present 5 grade crossings	33,000,000
Over present 4 viaducts and bridges	<u>32,000,000</u>
Total -	65,000,000

The railroad traffic at the time of the investigation amounted to about 560 train movements each day, from 6 A.M. to 8 P.M., or at least 600 movements for 24 hours for the five existing grade crossings mentioned. On 7th Street the crossing

gates were found closed as much as 19 per cent of the daylight hours.

Numerous accidents have occurred on these crossings and the delay to vehicular traffic and to interurban electric cars, as also to street cars, is serious. There is no dispute that public safety, necessity, and convenience require the abolition of all of these grade crossings.

Commission's Exhibit No. 1 proposes that elimination be brought about by construction or reconstruction of viaducts across the railroads and the river with suitable grades of approach and through depression of the railroad tracks and the elevation of the streets. The streets affected by the river crossing program are the following: North Spring, North Main, Alhambra, Macy, Aliso, East 1st, East 4th, East 7th and East 9th, and the detail of the recommended depression of tracks and elevation of streets at these points is shown in Commission's Exhibit No. 1. The Engineering Conference, above referred to, approved of all these designs except at Aliso Street. There it was advised that the bridge should, in the future, provide for vehicles and pedestrians as well as the Pacific Electric tracks. The Commission is in agreement with this suggestion and when definite plans for this particular crossing are made, the design appearing on Page 173 of Commission's Exhibit No 1 should be modified accordingly.

On Alameda Street, the traffic studies indicate that in a year of the investigation approximately 78,000,000 people crossed Alameda Street in its most congested part (Spring Street to Alameda Street) divided as follows:

<u>Location</u>	<u>Important Streets</u>	<u>Electric Railways</u>	<u>People per annum crossing tracks</u>
North of Arcade Station	9	6	59,000,000
South of Arcade Station	4	1	19,000,000
Total -	13	7	78,000,000

The railroad traffic is very heavy; the average street north of the Arcade Station is crossed by 157 train movements each day, and the average street south of the station is crossed by 98 train movements.

Accidents have occurred and there is an important delay to both railroad, vehicular and electric railway traffic. At both Sixth and Seventh Streets the crossing gates are down over 15 per cent of the daylight hours. Both danger and delay will increase as time goes on.

It is not practicable to bring about on Alameda Street a physical separation of grades. For reasons stated fully in Commission's Exhibit No. 1, it is recommended by our engineers that the tracks be allowed to remain in that street, but that all except approximately 3 per cent of the present railroad traffic be diverted and that the remaining traffic, consisting of switching service only, be handled after midnight between 1 and 6 A.M. between Macy and Ninth Streets. All main-line traffic should be eliminated. This will do away with practically all danger and inconvenience resulting from grade crossing movements and will, at the same time, not disturb existing business and industrial conditions. Practically no increase in railroad operating costs is expected to result from this important change. The Engineering Conference, as also the Mayor's and City Council's Advisory Committee, is willing to continue industrial trackage and switching service on Alameda Street with the understanding that Alameda Street tracks shall not be connected with any station yards or express yards, nor switching yards, nor team yards, but that all such facilities shall be reached by tracks directly from the main lines on the river bank. The Commission believes that the suggested provision should be made an essential condition of the proposed

Alameda Street arrangement.

In Commission's Exhibit No. 1, it is recommended that between Los Angeles and Pasadena all grade crossings of the Santa Fe and of the Salt Lake be eliminated. This is to be effected by a reconstruction and partial relocation of the existing Santa Fe Line and abandonment of the present Salt Lake line and the latter road's participation in construction and joint use of the new trackage or roadbed. This plan will eliminate 61 street, 8 electric railway, 2 steam railroad crossings on the Santa Fe and 28 grade crossings on the Salt Lake. The Commission believes that this important grade crossing elimination plan should form a part of the general plan which it is proposed to lay down in this decision. We are of the opinion, however, that this work need not form part of the first step of such grade crossing elimination as should be immediately undertaken.

This first step should provide for grade separations at Macy, Aliso and Seventh Streets. This selection is because of the fact that at Macy Street the vehicular traffic is heavier than at any other existing crossing and the present highway bridge is entirely inadequate to handle this traffic. The present bridge is of ⁱⁿexpensive wooden construction and well along toward the end of its life. There is involved the crossing of three steam railroad tracks, two Santa Fe tracks on the west side of the river and a Salt Lake track on the east side.

Grade separation at Macy Street should be made substantially in accordance with Figure 41, Page 168, of Commission's Exhibit No. 1, that is, by depression of the railroad tracks adjacent to the river to elevation 272.0, City datum, and by raising Macy Street to elevation 297.0. The grades of approach on Macy Street should be 4%, as shown on Figure 41, just mentioned.

Grade separation at Macy Street, according to this plan, being predicated on partial depression of the tracks, it is absolutely necessary that the Aliso Street crossings be eliminated at the same time, because of the short distance between these streets and the fact that practicable railway grades cannot be laid leaving either street at its present elevation and separating the railway and street grades at the other.

Grade separation at Aliso Street should be accomplished substantially as shown on Figure 46, Page 175 of Commission's Exhibit No. 1. The local tracks only need to be constructed at this time and the plan should provide for the construction of a highway bridge as well as a railway bridge at some time in the future. The steam railway tracks should be, as shown, depressed to elevation 267.7 and the Pacific Electric tracks raised to elevation 294.2, both City datum.

In connection with the grade separations at Macy and Aliso Streets the Santa Fe should take up its present main line tracks across Macy Street at about Center Street and across Aliso Street, between Center Street and Los Angeles River, and divert all its traffic to the track adjacent to the west bank of the river.

The grade crossings on Seventh Street at both sides of the Los Angeles River are also immediately in order for elimination, because of the fact that the vehicular traffic is extremely heavy, as shown by Figure No. 22 in Commission's Exhibit No. 1, and there are three tracks of the Salt Lake on the east side of the river and four tracks of the Santa Fe on the west side. The railway traffic is also heavy.

The grades of Seventh Street and the railways on the east and west banks of the Los Angeles River should be separated by partial depression of the tracks and partial elevation of Seventh Street substantially as shown on Figure 56, Page 185, in Commission's Exhibit No. 1.

The carriers will be ordered to submit to the Commission, within a reasonable time, definite plans and cost estimates for these grade separations based on the general plans contained in Commission's Exhibit No. 1. It will be necessary that these plans be approved or modified by the City. The Commission, after approval or modification, will thereupon fix a fair division of cost by subsequent supplemental proceeding and order.

(b) - Freight Facilities.

Commission's Exhibit No. 1 proposes an improvement in the handling of less than carload freight in the City of Los Angeles by provision for a union freight station at the Santa Fe freight yard site on Santa Fe Avenue. The existing conditions relative to the handling of carload freight are found to be satisfactory and it is recommended that nothing be done to disturb this satisfactory situation. The importance of properly serving the large number of industries now having trackage connections with the Alameda Street line is recognized, and this is the reason for the recommendation against the removal of tracks from Alameda Street at this time. This matter has been discussed above in connection with the subject of grade crossing elimination.

The City urges against the adoption of a single union less than carload freight station and desires that provision be made for several of such stations in different parts of Los Angeles. There is, however, no opposition on the part of the City to the selection of the Santa Fe site for the first of such possible union freight stations. There is opposition on the part of the representatives of the railroads to the establishment of a union freight station either at the Santa Fe site or elsewhere. The railroads urge that the present practice of each carrier owning and operating its own freight stations be

continued and that each carrier be permitted to develop its freight facilities in view of its own needs.

We are impressed by the arguments advanced by our engineers that the existing freight facilities in Los Angeles cannot remain indefinitely in their present condition, and that large expenditures will shortly become necessary irrespective of whether the railroads act jointly or continue independent action in the future. We are not persuaded, however, that the freight situation is such as to require at this time a specific order for the establishment of a union less than carload freight station. Whether or not existing freight stations, or new ones to be established by the individual railroads, shall be operated as joint or union freight stations, may be left, we believe, for subsequent decision.

Regardless of whether or not there will come about a unification of freight facilities, we are convinced that the future handling of freight traffic in Los Angeles should be governed by certain considerations which appear to be the conclusions of a number of independent engineers who have studied this question and which also reflect the expressed desires of the Los Angeles city authorities. These are that--

- (1) new permits should not be granted for industrial tracks longitudinally in streets,
- (2) all tracks now longitudinally in streets be confined to use for industrial purposes only and be removed as soon as access to the industries served is otherwise obtained,
- (3) all spur tracks shall be built in a general easterly and westerly direction from the river banks and not across east and west streets, unless, by such construction, the crossing of more important north and south streets is avoided.

In this connection the establishment of team yards along the east side of Alameda Street is also recommended and suitable locations for such yards, in conformity with the general plan suggested in this decision, will be at College and Alameda Streets, at Macy and Alameda Streets, at the Los

Angeles Market site, and possibly at the proposed Salt Lake terminal site.

(c) - Union Passenger Station.

There has been presented before the Commission by the complainants in this proceeding, and by others, the most insistent advocacy for the establishment of a union passenger station and also, on the part of several of the carriers and other parties, the most insistent opposition to such a station. We are impressed that in the partisan arguments for and against a union station the essential facts have to some degree been lost sight of. We see no reason why this question should not be discussed on its merits and determined in accordance with the essential facts in the same manner that it has been agreed the other branches of this investigation should be decided.

The advantages and disadvantages of a union passenger terminal, we think, have been fairly and rather completely discussed in Commission's Exhibit No. 1. The statements contained in that exhibit that the establishment of a union passenger terminal is largely a question of its desirability and of its cost, and that it is not entirely a railroad matter, but also one of public policy, we believe to be statements of fact. To give the principal reasons for and against the establishment of a union station, we quote from Commission's Exhibit No. 1:

"A union passenger station is desirable for the following reasons:

- (1) As a gateway to the city, Los Angeles prefers one adequate, convenient and beautiful entrance to several separate gateways, none of which can by themselves have all the advantages of a single union depot. This is a matter of civic pride and of city planning for the future. Los Angeles, by reason of its wonderful advantages as a tourist center and as a center of travel, is justified

and is sound, in our opinion, in making this consideration one of the first importance.

- (2) There will be increased convenience to passengers. Since mail, express, and baggage is carried on passenger trains, it is more economical to handle this business at one station. \$10,000.00 per annum would be saved in the handling of mail if a terminal post office were established. The express business amounts, in tonnage, to about one-fourth of the less than carload freight business of Los Angeles and much would be saved by elimination of the wagon haul between the various depots. This saving cannot readily be estimated in terms of money and is dependent on the location of the main depot. The more central the location, the greater the saving. Baggage is also transferred between the stations and--while of lesser importance in cost--increased convenience would result.
- (3) Grade crossing elimination would be simplified. When it is maintained that there is no necessity for a union station, it must be remembered that the retention of more than one station will necessitate greater expenditure for the elimination of grade crossings, and, pending complete separation, will result in more vehicular movement across tracks at grade.
- (4) Present passenger facilities of the Santa Fe and the Salt Lake stations are inadequate. Large capital expenditures must soon be incurred in any event to satisfy present and future needs. This is true to a lesser extent of the Southern Pacific station also. A union depot will fill these needs better, permanently, and at a relatively smaller cost than piecemeal construction by individual roads regardless of the problem as a whole. If the three steam roads now had satisfactory facilities, this argument would be less important. Under existing conditions, it is of prime importance.
- (5) The topographical conditions and location of the railroads in Los Angeles are almost ideal and point definitely towards a union station. These natural conditions are such that a union station can be created with comparatively inexpensive connections between the roads at a relatively small capital expenditure. Long and costly approaches are eliminated and there is no doubt that the first cost will be relatively much smaller than for a similar undertaking in other communities of equal importance in the United States.

The principal arguments against the establishment of a union station are:

- (1) Los Angeles is not a through station. Practically all trains entering the city terminate there, and it is there that the majority of the passengers reach their destination. Only approximately 15 per cent of the total number of passengers transfer from one station to another.

(2) The first cost of any adequate union passenger terminal will be high and the saving in operating expenses will not alone warrant the resulting increase in fixed charges."

These points are discussed in detail in the report and the conclusion is reached that, taking all arguments into consideration, a union station is desirable, provided it is suitably located. Three locations were considered worthy of consideration and detailed analysis by the engineers making the investigation: The Plaza site, the Santa Fe site and the Southern Pacific site. A fourth, and what might be termed the Salt Lake site on the east bank of the Los Angeles River, was suggested after the completion of the engineering investigation. The arguments for this fourth site are general and no data are before the Commission sufficiently adequate or detailed to permit of any comparison in estimates of this site with the other three. It is apparent, however, that the location on the other side of the river from the main portion of the city is a serious disadvantage, and it is also apparent that there would be opposition on the part of the city authorities and of other parties to that location.

Detailed estimates and exhaustive comparative studies were made by the Commission's engineers for each of the three investigated sites. Plans for track layouts and other facilities were drawn and careful investigation was made in each case of the additional lands and other facilities required for each site, and of the lands and other facilities that would be released and become non-operative property in each instance. This information is available in Commission's Exhibit No. 1. The advantages and disadvantages of each of the three sites were set forth and the effect on cost and on operation was considered.

Recommendation is made to the Commission that a union passenger station at the Plaza site be established substantially in accordance with the plans contained in Commission's Exhibit No. 1, and the reasons for the selection of that site are stated as follows:

- (1) Size and shape of site. The Plaza site is much wider and longer than the Southern Pacific Station site and is equal to the Santa Fe site, which is too large.
- (2) Greater architectural and aesthetic possibilities. Civic pride and the advertising value of this feature is of particular significance to a tourist center. At the Plaza, a suitable park to set off the station is possible with least damage to business, and at least cost, and at the intersection of important streets. The Santa Fe freight station interferes at the Santa Fe site, which has the least possibilities in this respect.
- (3) Ultimate rapid transit. The Plaza site is on a more probable axis of the ultimate rapid transit system which would be nearer and more convenient to the station than with either the Southern Pacific or the Santa Fe plans. More interurban passengers would pass the Southern Pacific site than the Santa Fe site.
- (4) Because of the separation of passenger tracks from the future main switching leads along the west bank of the river, there would be less interference with switching with the Plaza plan than with the Santa Fe plan, which presents bad operating conditions because of too much traffic in one place. The Plaza plan is nearly equal to the Southern Pacific plan in this respect.
- (5) Least train coach equipment, and light engine mileage. The Plaza site is very superior to the other sites, largely due to the location at a more northerly point. The Southern Pacific plan is worst in this respect.
- (6) Union freight station. The Santa Fe site is particularly suitable for a union freight station, which is possible either with the Plaza or the Southern Pacific plans. The Plaza plan is equal to the Southern Pacific plan and both are better than the Santa Fe plan.
- (7) Grade crossing separation. With the Plaza plan, no elevated railway structures are necessary in uptown district or awkward subway and crossings in a very important thoroughfare, as with the Southern Pacific plan. The Plaza plan is nearly equal to the Santa Fe plan.
- (8) Accessibility by street car lines. Sixty per cent of the passengers use the street cars. With the Plaza plan more are accommodated without transfer than at the Southern Pacific or the Santa Fe sites. In this respect the Southern Pacific site is more convenient

than the Santa Fe site.

- (9) Distribution and collection of mail and express. The Plaza site is nearly as good as the Southern Pacific site. The Santa Fe site is farther and less accessible than either.
- (10) Operation of yard and coach yard. The Plaza site is better than the Santa Fe site because of the proximity of the coach yard, notwithstanding the fact that a through station is possible at the latter site. The Southern Pacific site is the worst as the coach yard is distant, a stub station is necessary and the approach is $\frac{1}{8}$ steep grade.
- (11) Property values. Considering ultimate appreciation and neglecting immediate disturbances, the Plaza plan is far superior and the Southern Pacific plan is far better than the Santa Fe plan. The ultimate appreciation with the station at the Plaza site and a union freight station at the Santa Fe site is estimated at over \$8,000,000. This is of advantage to the City in the restoration of depreciated property values.
- (12) Convenient to hotel, business, and shopping districts. The Plaza site is slightly less convenient than the Southern Pacific site, which is much superior to the Santa Fe site.
- (13) Accessibility by automobiles. The Plaza site is superior to the Southern Pacific site from all points except the business district, where the inferiority is slight. Both are better than the Santa Fe site.
- (14) Locomotive service and repair facilities. This is partly covered in No. 5. Otherwise the Plaza site is first, the Santa Fe second, and the Southern Pacific third with respect to use of present facilities and construction of new facilities.
- (15) Freight draying. The Plaza site is best inasmuch as passenger and freight vehicle traffic is separated. The Santa Fe site is worst since both classes would be in the same district.
- (16) Confinement of transportation facilities to natural channel -- the banks of the Los Angeles River. The departure of the Plaza site is not of great importance because of location and improvements. The Santa Fe site is slightly better than the Plaza site and much better than the Southern Pacific site.
- (17) Release of lands in industrial district. Arranged in order of benefit, the three plans compare as follows:
Plaza: Release Southern Pacific station and coach yard sites.
Santa Fe: Release Southern Pacific station site; use coach yard for team tracks.
Southern Pacific: Release coach yard site.
- (18) Segregation of freight and passenger routes. This is best accomplished by the Southern Pacific plan, but the Plaza plan is not much inferior.

The Santa Fe puts both passenger traffic and freight switching along the west bank and is in this way far inferior in this respect.

These and other considerations are discussed in the Exhibit.

More thought and study have been given to the selection of a site for a union passenger terminal, because of the clash of contending interests, than to any other feature of the entire transportation investigation. The availability of the various sites was tested against a set of general requirements which it is acknowledged are essential to the location of any union passenger depot. While it is true that there may be varying degrees of importance placed on different requirements, it is also true that a better and fairer judgment of the availability of a particular site can be reached in this manner than by depending alone on the arguments of the party whose interest is immediately affected.

We reach the conclusion from a careful consideration of all the evidence before us that the establishment of a union passenger depot is feasible and desirable, and is necessary in Los Angeles, and we are satisfied that the so-called Plaza location is superior to other possible locations and that/^{the} union passenger station should be located at that site. We come to that conclusion without subscribing on all points to the conclusions reached by our engineers in Commission's Exhibit No. 1 and in the testimony given by witnesses on that point, and without agreeing entirely with all the reasons given by the engineering conference when they, in part, endorse the report of the Commission's engineers, or with the report of the Mayor's and City Council's Advisory Committee.

The opposition on the part of the Southern Pacific, Salt Lake, and Pacific Electric Railroads, to the Plaza site, apart from the question of cost, is readily understood. The

representatives of these roads have frankly admitted that they are in opposition to any plan that will interfere with the consummation of their own proposal, which provides for a partial union passenger terminal on the present Southern Pacific depot site. It is to be noted, however, that even these railroads are not opposed to terminal unification per se; rather are they in favor of it. They do not desire, however, to depart from their own plans and hold their individual and immediate interests paramount.

The Commission finds as a fact that public necessity and convenience demand a unification of passenger terminal facilities in Los Angeles and an order will be made requiring the interested carriers to prepare, within a reasonable time, detailed plans and estimates for an adequate union passenger station at the so-called Plaza site. The exact location of the site cannot be prescribed at this time except to the extent that the union passenger station shall be located in the territory in the City of Los Angeles bounded by Commercial Street, North Main Street, Redondo Street, Alhambra Avenue and the Los Angeles River.

We are not prepared, at this time, to make a finding as to the minimum amount of expenditure that should be estimated and provided for in the construction of such a station, and are of the opinion that this matter should be left for subsequent decision. Neither do we believe it wise or necessary to insist that the plans for such a station, with its necessary facilities, should follow exactly and in detail the plans set forth in Commission's Exhibit No. 1. As a result of the engineering conference, and of the last hearings before the Commission, some important and some minor changes were made, or agreed to, in the plans first suggested by our engineers, and it is certain that other modifications and changes will develop with further study. We are also satisfied

that a plan can be made that will overcome the difficulties suggested during the last hearings by the railroads and by the representative of the Business Men's Association. The Los Angeles city authorities must, of necessity, have an important part in the design of any definite plan, and a modification of the plan in Commission's Exhibit No.1 may have to come about if it should definitely develop that the city is unwilling to vacate the necessary portions of streets and the Plaza.

The Commission, in reaching its conclusion that the union passenger depot should be located at the Plaza site, assumes that the City will carry out its repeatedly announced intention to further in every possible way the consumation of the general plan which, by resolution, the city authorities have so strongly urged the Commission to promulgate in this proceeding.

It remains to provide for suitable machinery and procedure to accomplish the end sought. As an initial step it will be necessary for the interested carriers to submit for the approval of the Commission detailed plans and estimates of the proposed union passenger terminal. The plans and estimates made by the carriers should be concurred in, or suggestions for modifications should be made, by the City. The Commission will not desire to approve or modify a plan until the plan fulfills, as nearly as may be, the joint and combined needs and desires of the interested parties. In view of the wide divergence on this subject, by the carriers themselves on the one hand and between the carriers and the City on the other hand, it is not reasonable to expect that an agreement will be reached on a plan or design if the matter is left to the individual action of these parties.

We are of the opinion, therefore, that the carriers should appoint an engineering Committee, with a chairman who shall be satis-

factory to the carriers, to the City of Los Angeles, and to the Commission. The City of Los Angeles should be also represented on this engineering committee.

Instructions are to be given to this engineering committee to prepare within the time specified by the Commission such plans and estimates as will completely and in good faith meet the requirements for a union passenger station laid down in this opinion and order. In case of disagreement by the engineering committee on any matter properly before the committee, and connected with the design and estimates of the plan, the decision of the chairman of the committee shall govern, with the understanding that each party shall have the right to present to the Commission its views when the plan and estimate is submitted to the Commission for final approval, as provided for in this decision.

It is ^{not} our intention that an engineer of the Commission should be a party to this conference but there can, of course, be no objection to the engineering conference keeping in close touch with the Commission, and the Commission's engineering department, in order that no delay or conflict may result from misunderstanding.

The engineering committee should also handle the preparation of the plans and estimates for the grade crossing eliminations heretofore discussed in this opinion.

The Commission is aware that such important questions as a division of cost of the proposed union terminal, the method of its financing and construction, provision for its operation, and other important legal, financial, and operating matters must have careful consideration and that conclusions must be

reached on such questions. It would serve no purpose, however, in our opinion, to deal with these matters at this time, and they will be left for further decision after plans and estimates have been submitted and approved.

(d) Electric Railway Transportation.

Two electric railways are affected by this proceeding: The Pacific Electric and the Los Angeles Railway.

The Los Angeles Railway operates the street car system (narrow gauge). It is of importance that arrangements should be possible to give adequate street car service to the proposed union passenger station and no difficulties will be encountered in that respect with the proposed Plaza location. The carrying out of the passenger terminal plan will result in some slight re-routing of car lines, but it is to be noted that, from the standpoint of street railway traffic, a union passenger station at the Plaza site will be very favorably located. Commission's Exhibit No.1 contains the recommendation that, to avoid street car congestion near the site of the Plaza terminal, a sub-tunnel under the present Broadway tunnel be constructed. This matter appears to require further study and will be a proper subject to refer to the proposed engineering committee.

The Los Angeles Railway will also, to some extent, be interested in and affected by a number of the grade crossing separations proposed in the general plan.

Plans affecting the Pacific Electric System and inter-urban electric rapid transit form an important part of these cases. An appreciation of the importance of the Pacific Electric service may be had when it is stated that, in 1918, approximately 68,000,000 passengers were carried on that system divided about equally between interurban and local passengers and, in 1917, this road carried 65,000,000 passengers, while in the same year

the steam roads of the entire state of California carried only 39,000,000.

The Pacific Electric is also an important freight carrier, its importance as a freight road being exceeded by only two California railroads, the Southern Pacific and the Santa Fe. It should be stated in this connection that the Pacific Electric is a subsidiary of the Southern Pacific, and the latter company controls the former through stock ownership. It is apparent that the proper development of this electric road is of vital importance to the well being of the communities interested in these proceedings.

In Commission's Exhibit No.1, the Pacific Electric problem is dealt with at some length and recommendations are made for the construction of a subway from the present station at Sixth and Main Streets northerly along Main Street to and under the Plaza union station, changing to an elevated railway along Ramirez Street, and meeting the present Pacific Electric line at the Aliso Street bridge. From here this line would continue as an elevated railway to Brooklyn Avenue where the present tracks would be met. It is further recommended in the exhibit that the Pacific Electric continue the present elevated structure at the rear of its Main Street station, elevating the Long Beach line to Fourteenth Street, with provision in the design for a future connection with the subway in Sixth Street. Recommendations dealing with grade separations on Pacific Electric lines have already been mentioned in connection with the discussion of grade crossings.

A considerable amount of testimony other than that given by the Commission's engineers was introduced relative to the Pacific Electric and the Company's President, Mr. Paul Shoup, gave testimony opposing a subway on Main Street. He

declared in favor of the method of dealing with Pacific Electric traffic proposed in the Southern Pacific-Salt Lake-Pacific Electric plan.

As long ago as 1911, the necessity and desirability of a north and south subway in the congested part of the city, located on Broadway, Spring, or Main Streets, and an east and west subway, making a connection between the Pacific Electric Hill and Main Street stations, were recognized by Mr. Bion J. Arnold in his report upon the transportation problem in Los Angeles. The Commission's engineers appear to be of the opinion that the construction of a north and south subway on Main Street is of greater urgency than an east and west subway. This view is endorsed by the engineering conference. It is apparent, however, that the building of any subway is not an immediate practical possibility and it is urged upon the Commission (and there seems to be no disagreement with that proposition) that the most pressing Pacific Electric traffic problems cannot find their solution in the immediate construction of subways in the heart of the city and that means must be found to take care of the traffic congestion on Hill Street and on the Hollywood line. The Commission is at this time engaged in a study of the specific Pacific Electric traffic and operating problem, and it may be expected that a more detailed analysis of the matters here discussed will be made in connection with that investigation. We believe, therefore, that a definite order requiring operating changes or new construction from the Pacific Electric, or permitting that Company to make material

changes, should not be made in this decision.

(e) Cost Estimates.

Cost estimates in considerable detail are included in Commission's Exhibit No.1. These estimates in that exhibit are of the years 1916 to 1918. The results were objected to by the railroads as not reflecting actual conditions at the time of the later hearings in these proceedings and the Commission asked the engineering conference to check and criticize the estimates and to revise the cost to a later date. This was done and in Commission's Exhibit No.2 (Report of Engineering Conference, dated August 13, 1920) the estimated costs are as of March, 1920. As might be expected, there is not, however, agreement on estimates of cost of the various plans proposed in Commission's Exhibit No.1 and their modifications.

The further fact should not be lost sight of that important changes in labor and material costs have occurred since March, 1920, and further important changes may confidently be expected in the future. On the whole, it may be said that the

1916 to 1918 costs were abnormally high and that the engineering conference costs, as of March, 1920, represented the approximate peak. Since then and speaking generally, the estimate totals for the work contemplated in Commission's Exhibit No.1 and 2 will have shown a decline. There is also objection on the part of the Commission's engineers to certain overhead cost estimates and to certain real estate valuations as used by the engineering conference.

In order to comprehend the items included in the general plan discussed in this proceeding and proposed in Commission's Exhibit No.1, a comparison of the estimates as made by the Commission's engineers, on the basis of prices of 1916 to 1918, and as revised by the engineering conference on the basis of prices of March, 1920, is shown in the following Table No. I. It should be remembered that Table I provides for what is termed the "ultimate plan". The table is included in this decision, not for the purpose of showing what would appear to the Commission to be estimates of sufficient exactness to base thereon a division of cost but merely to give an indication of the scope of the proposed development.

Estimated New Money Required for Union Passenger Station at Plaza and other improvements as made by Commission engineers based on 1915 to 1918 costs and estimates as revised by an

Est. No.	Group	Item	PHYSICAL CONSTRUCTION		ACQUISITION OF LAND	
			Est. Cost	Est. Cost	Est. Cost	Est. Cost
1 Passenger Terminal Approaches, etc.						
C 1		Approach S.P. Tracks, Alhambra Ave.	571,272	516,845	337,075	337,075
C 2		New Viaduct, S. Main St.	232,226	532,436		
C 3		New Viaduct, Macy St.	600,070	729,928	219,411	219,411
C 4		New Passenger Terminal	4,136,281	3,201,485	3,430,776	3,430,776
C 5		Sub-tunnel under Broadway Tunnel	581,920	695,858		
		Total	5,281,758	3,222,250	3,736,262	3,736,262
C A	2	Union Coach Yard	543,760	1,230,693	20,857	20,857
C B	4	Union Freight Station	2,394,404	5,456,569		
3 Viaducts over L.A. River						
M		Baker St. Approach to K. Edwy Bridge	111,051	202,535		
G		Removal N. Spring St. Bridge				
H		New Viaduct Main St.	423,669	780,509	17,159	17,159
H		New Viaduct Macy St.	321,382	585,560	5,679	5,679
H		New Viaduct 4th St.	773,165	1,408,707	46,468	46,468
H		New Viaduct 1st St.	376,589	682,446		
H		New Viaduct Aliso St.	347,785	633,664		
H		New Viaduct 7th St.	426,275	776,573		
H		New Viaduct 9th St.	369,484	673,162		
		Total	3,157,561	6,785,037	69,326	69,326
4 Depression of, and new, Tracks along River						
D		Connections West End Humboldt St. Bridge	41,286	109,694	11,363	11,363
H		Connections West End Humboldt St. Bridge	22,672	34,089		
H		Depression Alhambra Ave. East of River	65,983	110,432		
H		Depression and dbl. Tracking S.L. Tracks	271,389	1,004,392	29,407	29,407
H		Removal S. Fe Crossings Macy & Aliso Sts.	1,047	1,265		
H		Depression S. Fe Tracks So. of 9th St.	201,272	157,904		
C H		Depression S. Fe Tracks Edwy. to Aliso	92,793	520,922	93,295	93,295
C L		Depression S. Fe Tracks 7th to 9th Sts.	46,227	85,686		
		Total	723,436	2,028,546	139,975	139,975
5 New Brks. S.P. Bank of River N. of Humboldt St.						
D		New Approach Los Feliz Road Bridge	67,272	122,570		
C		New Tracks, Humboldt to Dayton, Kant Bank	136,070	329,688	31,274	31,274
H		New Connection S.P. & S.L. Alhambra Ave.	39,895	34,551	18,741	18,741
		Total	245,237	486,809	50,015	50,015
6 Butte St. Trackage & Santa Fe Ave. Subway						
H		Tracks Butte St., Alameda St. to River	90,186	210,127	3,716	3,716
Y		New Connection, Alameda to Butte Sts.	29,713	36,627	18,604	18,604
A A		Santa Fe Ave. Subway	37,860	82,842		
		Total	157,759	329,596	22,320	22,320
7 New Trackage River to Hobart & Connections						
Z		New Bridge and Wye East of River	269,218	411,110	49,405	49,405
A C		Sec. Track No. of Present S. Fe Main Line	31,610	51,319		
A D		Connection at Hobart, S. Fe and S.L.	41,200	26,443	6,310	6,310
		Total	341,928	488,872	55,715	55,715
8 New Freight Yards, S.P. and S. Fe						
A		New S.P. Yards, San Fernando Road	1,272,157	6,036,017		
O		New S. Fe Yards, East of Hobart	957,038	1,205,376		
		Total	2,229,195	7,241,393		
9 New Freight Terminal S.L. Nothing						
F	13	New Connections, Relief Alameda St. Switching	4,436	6,012		
10 Coal Yards						
A O		New Yard S.L. Terminal Hunter St.	395,537	440,006	+ 91,481	+ 91,481
A R		New Yard L.A. Market Property	176,694	321,936		
C D		New Yard S.P. Freight Station Site	50,155	220,507		
		Total	622,386	982,449	+ 91,481	+ 91,481
S	16	Release S.P. Station Site	+ 96,500	+275,442	-1,719,918	+1,719,918
V	17	Release S.P. Coach Yard Site	+ 44,964	+ 61,924	+ 1,451,249	+ 1,451,249
11 Electric Roads						
20 New Line P.E. Station to Brooklyn Ave. - 14th St.						
C H		Removal & Reconstruction P.E. - LA & 1st Sts.	39,074	53,070		
C H		Main St. Subway	3,757,251	5,380,752	97,405	97,405
H R		Double Tr. P.E. Elevated	1,092,116	1,780,079	482,030	482,030
		Total	4,288,441	7,213,891	581,435	581,435
21 New Surface Lines to proposed Union Sta. Nothing						
22 Freight Tracks						
L		Macy St. and River to Nehanda Yard	110,146	171,921	31,246	31,246
A B		Raise Transfer Track-Santa Fe & Butte St.	3,694	69,908		
		Total	113,840	241,829	31,246	31,246
GRAND TOTAL			21,173,314	20,457,523	1,291,492	1,291,492

+ Credits

(1) Est. Cost = Estimate Committee of Engineering Conference.

NOTE: The difference between the grand total "ultimate expenditure for all recommendations" of and the grand total of \$25,396,633.00 given in this table, is accounted for by the exclu-
 1. Reconstruction, joint use, and grade crossing elimination of Santa Fe and Salt Lake
 2. Pairing of Southern Pacific-Salt Lake tracks between Los Angeles and Colton.

Estimated for Money Required for Union Passenger Station at Plaza and other improvements as made by American engineers based on 1915 to 1918 costs and estimates as revised by an

Nat. Div. Group	Item	PHYSICAL CONSTRUCTION (1)		ACQUISITION OF LAND	
		R.A. Cost	R.L. Cost	R.A. Cost	R.L. Cost
1 Passenger Terminal approaches, etc.					
C D	Approach S.P. Tracks, Alhambra Ave.	571,270	516,842	557,075	557,075
C C	New Viaduct, N. Main St.	292,225	532,456		
C B	New Viaduct, Macy St.	400,070	729,928	219,411	219,411
C F	New Passenger Terminal	4,136,281	6,101,485	5,480,778	5,480,778
C G	Sub-tunnel under Broadway Tunnel	392,920	695,858		
	Total	5,281,756	8,223,250	5,736,264	5,736,264
C A	2 Union Coach Yard	543,760	1,230,693	20,857	20,857
C F	4 Union Freight Station	2,394,404	5,466,569		
3 Viaducts over L.A. River					
V	Baker St. Approach to K. Dawy Bridge	111,051	202,335		
G	Removal N. Spring St. Bridge				
H	New Viaduct Main St.	453,669	790,509	17,159	17,159
H	New Viaduct Macy St.	321,382	535,560	5,679	5,679
H	New Viaduct 4th St.	773,155	2,408,707	46,488	46,488
C	New Viaduct 1st St.	374,559	532,446		
E	New Viaduct Aliso St.	347,785	633,664		
U	New Viaduct 7th St.	426,275	776,673		
C K	New Viaduct 9th St.	369,484	673,162		
	Total	3,157,561	5,759,087	69,325	69,325
6 Depression of, and new, tracks along River					
D	Connections West End Humboldt St. Bridge	41,256	109,594	11,365	11,365
B	Connections West End Humboldt St. Bridge	22,679	34,039		
I	Depression Alhambra Ave. East of River	45,983	110,432		
H	Depression and dbl. Tracking S.L. Tracks	271,389	1,004,292	29,407	29,407
F	Removal S.F. Crossings Macy & Aliso Sts.	1,047	1,265		
F	Depression S.F. Tracks So. of 9th St.	201,272	151,904		
C H	Depression S.F. Tracks Bdry. to Aliso	92,763	528,922	98,205	98,205
C L	Depression S.F. Tracks 7th to 9th Sts.	46,227	85,596		
	Total	723,436	2,028,544	130,975	130,975
8 New Trks. S.P.S. Bank of River N. of Humboldt St.					
D	New Approach Los Felis Road Bridge	57,272	122,570		
C	New Tracks, Humboldt to Dayton, East Bank	256,070	328,638	31,274	31,274
J	New Connection S.P. & S.L. Alhambra Ave.	39,895	34,551	19,741	19,741
	Total	245,237	485,739	50,015	50,015
9 Butte St. Trackage & Santa Fe Ave. Subway					
K	Tracks Butte St., Alameda St. to River	90,186	210,127	3,716	3,716
V	New Connection, Alameda to Butte Sts.	29,712	56,827	18,604	18,604
A A	Santa Fe Ave. Subway	57,860	52,042		
	Total	167,758	349,796	22,320	22,320
10 New Trackage River to Hobart & Connections					
Z	New Bridge and Wye East of River	269,218	411,110	49,405	49,405
A C	Sec. Track No. of Present S.F. Main Line	31,510	51,319		
A D	Connection at Hobart, S.F. and S.L.	41,200	26,443	6,510	6,510
	Total	341,928	488,872	56,915	56,915
11 New Freight Yards, S.P. and S.F.					
A	New S.P. Yards, San Fernando Road	1,879,157	4,036,017		
D	New S.F. Yards, East of Hobart	957,030	1,203,376		
	Total	2,836,187	5,239,393		
12 New Freight Terminal S.L. Nothing					
F	13 New Connections, Relief Alameda St. Switching	4,436	6,012		
14 Coak Yards					
A O	New Yard S.L. Terminal Embar St.	395,537	440,006	+ 91,481	+ 91,481
A R	New Yard L.A. Market Property	175,594	321,936		
C B	New Yard S.P. Freight Station Site	50,155	220,507		
	Total	621,286	982,449	+ 91,481	+ 91,481
S	16 Release S.P. Station Site	+ 96,540	+275,442	-1,719,918	-1,719,918
F	17 Release S.P. Coach Yard Site	+ 44,964	+ 67,926	-1,551,750	-1,551,750
20 New Line P.E. Station to Brooklyn Ave. - 14th St.					
C H	Removal & Reconstruction P.E. - LA & 1st Sts.	35,074	53,070		
C H	Main St. Subway	3,757,252	6,380,752	97,405	97,405
D R	Double Tr. P.E. Elevated	1,092,114	1,750,019	482,030	482,030
	Total	4,884,440	8,231,841	579,435	579,435
21 New Surface Lines to proposed Union Sta. Nothing					
22 Freight Tracks					
L	Macy St. and River to Echandia Yard	110,146	171,911	31,246	31,246
A B	Trice Transfer Track - Santa Fe & Butte St.	8,634	69,908		
	Total	118,840	241,819	31,246	31,246
GRAND TOTAL		21,173,314	30,457,823	1,291,492	1,291,492

* Credits (1) Est. Com. = Estimate Committee of Engineering Conference.

NOTE: The difference between the grand total "ultimate expenditure for all recommendations" of and the grand total of \$25,396,633.00 given in this table, is accounted for by the excess:

1. Reconstruction, joint use, and grade crossing elimination of Santa Fe and Salt Lake
2. Pairing of Southern Pacific-Salt Lake tracks between Los Angeles and Gilton.

Proposed Station at Playa and other improvements proposed in Jointly-Filed Exhibit No. 1 showing estimates 1915 to 1918 costs and estimates as revised by engineering conference on 27 March, 1920 (ultimate plan).

FIXED COSTS		ACQUISITION OF PROPERTY				PROPERTY DAMAGE		TOTAL		
(1)		Land		Improvements						
R.R. Com.	Sta. Com.	R.R. Com.	Sta. Com.	R.R. Com.	Sta. Com.	R.R. Com.	Sta. Com.	R.R. Com.	Sta. Com.	
571,272	3164,847	987,075	987,075	17,548	212,752	0	0	2155,202	2268,670	
252,225	532,436					87,310	122,635	302,226	365,075	
400,070	728,928	210,411	210,411	80,455	148,510	91,951	55,215	700,901	1,152,169	
4,126,251	6,101,455	3,430,778	3,430,778	1048,104	1,909,609			3,655,213	11,452,072	
391,920	695,558							391,920	695,558	
5,281,755	8,223,250	3,786,264	3,786,264	1176,211	2,070,176	99,261	180,654	10,205,492	12,260,244	
543,760	1,230,698	20,657	20,657	65,682	112,498			629,710	1,370,154	
2,394,404	5,456,569			181,538	220,762			2,575,942	5,797,331	
111,051	202,235							111,051	202,235	
435,669	790,509	17,259	17,259			92,056	167,726	547,004	775,394	
321,383	535,560	5,679	5,679			50,495	55,562	337,557	646,601	
773,165	1,408,707	46,488	46,488			56,632	66,744	856,265	1,521,939	
376,539	502,446					15,650	28,514	390,209	710,960	
347,785	633,664					62,151	125,983	416,936	759,657	
426,275	776,573					161,516	257,473	587,791	1,024,151	
369,484	672,163					45,955	85,730	415,439	756,393	
3,157,561	5,757,037	69,325	69,325			431,255	785,747	3,658,132	6,606,130	
Over										
Age	41,256	109,594	11,363	11,363	7,272	12,158		59,641	134,215	
Age	22,670	34,089						22,670	34,089	
Age	45,983	110,432						45,983	110,432	
Age	271,389	1,004,392	29,407	29,407	27,800	50,662	25,000	45,550	2,229,911	
Age	1,047	1,265						1,047	1,265	
Age	201,272	151,904						201,272	151,904	
Age	92,763	520,922	98,205	98,205	15,471	28,125		206,459	658,315	
Age	45,227	35,696						45,227	35,696	
Age	723,436	2,023,344	130,975	128,975	50,495	92,000	25,000	45,550	2,402,377	
Old St.										
Age	57,272	122,570						57,272	122,570	
Age	136,070	323,688	31,274	31,274	4,120	7,507		173,464	367,459	
Age	39,895	34,551	18,741	19,741	5,856	10,688		64,502	63,960	
Age	245,237	465,789	50,015	50,015	9,966	18,195		305,230	565,999	
Bay										
Age	50,186	210,127	3,716	3,716	3,356	6,115		97,259	219,958	
Age	29,712	56,827	18,604	18,604	9,457	17,231		57,773	32,662	
Age	57,860	62,842						57,860	62,842	
Age	197,758	349,796	22,520	22,520	12,913	22,246		192,891	355,462	
Dons										
Age	269,218	411,110	49,405	49,405	3,501	6,379		322,124	456,894	
Age	31,510	51,319						31,510	51,319	
Age	41,200	26,443	6,310	6,310				47,510	32,753	
Age	341,928	469,672	50,715	55,715	3,501	6,379		401,204	560,966	
Age	1,878,157	4,036,017						1,878,157	4,036,017	
Age	957,030	1,203,376						957,030	1,203,376	
Age	2,835,187	5,239,393						2,835,187	5,239,393	
Other										
Age	4,436	6,012						4,436	6,012	
Age	395,537	440,006	+ 91,431	+ 91,481				204,056	368,525	
Age	176,694	321,936						176,694	321,936	
Age	50,155	220,507			98,116	178,787		140,271	399,274	
Age	622,306	982,449	+ 91,481	+ 91,481	99,116	173,787		629,022	1,068,735	
Age	+ 96,520	+ 272,442	+ 1,719,918	+ 1,719,918	573,704	1,004,195		+ 2,245,654	+ 652,166	
Age	+ 44,964	+ 61,904	+ 1,451,969	+ 1,451,969	121,861	222,006		+ 1,574,222	+ 1511,166	
San St.										
Age	37,074	53,070						37,074	53,070	
Age	3,757,231	6,388,752	97,405	97,405	26,160	47,664		3,880,916	6,533,821	
Age	1,092,114	1,780,019	482,030	482,030	97,446	178,547		1,671,590	2,440,596	
Age	4,088,459	8,231,841	579,435	579,435	123,606	226,211		5,591,480	9,037,487	
Nothing										
Age	110,146	171,921	31,246	31,246				141,392	203,167	
Age	8,574	69,908						8,574	69,908	
Age	118,840	241,819	31,246	31,246				150,066	273,065	
Age	21,173,314	30,457,523	2,291,492	2,291,492	2,376,311	4,330,638	355,316	1,012,152	25,396,633	45,092,104

Minute Committee of Engineering Conference.
 Estimate expenditure for all recommendations" of \$2,253,445.00, mentioned on page 16 of this decision, is accounted for by the exclusion from Table 1 of two items:
 - Proving elimination of Santa Fe and Salt Lake lines between Los Angeles and Pasadena, \$6,700,000.00
 - Tracks between Los Angeles and Colton, 136,812.00
 Total - \$6,836,812.00

TABLE I

Proposed Station at Playa and other improvements proposed in Commission's Exhibit No. 1 showing estimates 1915 to 1918 costs and estimates as revised by engineering conference on 23 March, 1920 (estimate only).

PHYSICAL CONSTRUCTION		ACQUISITION OF PROPERTY				PROPERTY DAMAGES		TOTAL	
(1)		Land		Improvements					
R.N. Con.	Est. Con.	R.N. Con.	Est. Con.	R.N. Con.	Est. Con.	R.N. Con.	Est. Con.	R.N. Con.	Est. Con.
571,272	816,842	307,075	307,075	17,642	313,752	0	0	316,002	326,670
292,226	532,456					87,310	122,659	303,276	365,075
400,070	729,928	219,411	219,411	80,489	146,610	31,951	58,215	730,901	1,132,169
4,136,281	6,101,485	3,430,778	3,430,778	1049,194	1,909,809			3,658,233	11,492,072
331,920	693,552							331,920	693,552
5,281,758	8,223,250	3,736,264	3,736,264	1178,211	2,070,176	99,261	180,684	10,305,492	18,260,244
543,760	1,230,693	20,887	20,887	65,043	118,598			629,710	1,270,154
2,394,404	5,456,568			121,539	730,762			2,575,942	5,797,331
111,051	202,335							111,051	202,335
433,665	790,509	17,159	17,159			92,056	167,726	547,004	975,394
321,328	590,560	5,679	5,679			30,495	56,562	357,497	646,801
773,165	1,408,707	46,428	46,428			36,632	56,744	855,265	1,531,939
374,539	592,448					15,650	28,514	390,209	710,960
347,765	633,664					60,151	125,583	426,936	759,657
426,275	776,673					141,516	257,473	567,791	1,034,151
369,454	673,163					45,955	85,730	415,419	758,593
3,137,551	5,755,037	69,326	69,326			431,255	785,747	3,698,132	6,608,130
Water									
Edge	41,286	109,594	11,363	11,363	7,222	13,152		59,941	134,216
Age	22,479	36,089						22,479	36,089
on	45,983	110,432						45,983	110,432
Age	271,389	1,004,292	29,407	29,407	27,800	50,662	25,000	45,550	353,632
Sta.	1,047	1,263						1,047	1,263
o	201,272	152,904						201,272	152,904
e.	92,783	528,922	98,203	98,203	15,471	28,188		206,459	655,315
e.	46,227	25,696						46,227	25,696
	723,436	2,026,344	139,975	139,975	50,493	92,008	25,000	45,550	937,910
Sold St.									
	57,272	122,570						57,272	122,570
Bank	136,070	328,698	31,274	31,274	4,120	7,507		175,464	387,469
e.	39,895	34,531	18,741	18,741	5,856	10,688		64,502	68,960
	265,237	485,789	50,015	50,015	9,976	18,195		306,230	553,999
St.									
	90,166	210,127	3,716	3,716	3,356	6,115		97,250	219,958
	29,712	56,627	18,604	18,604	9,437	17,231		37,773	92,662
	37,860	62,042						37,860	62,042
	157,738	349,796	22,320	22,320	12,813	23,346		192,881	399,462
Stations									
	269,218	411,110	49,405	49,405	3,501	6,379		322,124	466,894
	31,510	51,319						31,510	51,319
	41,200	26,443	6,310	6,310				47,510	32,753
	341,928	488,872	56,715	56,715	3,501	6,379		401,124	560,966
	1,878,157	4,036,017						1,878,157	4,036,017
	957,030	1,203,376						957,030	1,203,376
	2,835,187	5,239,393						2,835,187	5,239,393
Nothing	4,436	6,012						4,436	6,012
	395,537	440,006	+ 91,481	+ 91,481				304,056	348,525
	175,594	321,936						175,594	321,936
	50,155	220,507			98,116	178,787		140,271	399,274
	622,306	982,449	+ 91,481	+ 91,481	98,116	178,787		629,022	1,069,735
	+ 96,530	+275,442	+1,719,918	+1,719,918	573,104	1,004,195		+ 2,243,634	+ 392,155
	+ 44,964	+ 63,894	+ 1,661,000	+ 1,661,000	+ 121,841	+ 222,000		+ 1,574,282	+ 151,186
St.									
Sta.	31,076	63,070						31,076	63,070
	3,757,237	6,380,752	97,405	97,405	26,160	47,664		3,880,216	6,535,821
	1,092,114	1,790,019	482,030	482,030	97,446	178,567		1,672,590	2,440,596
	4,288,439	8,231,841	579,435	579,435	123,606	226,231		5,591,400	9,037,487
Nothing									
	110,146	171,511	31,246	31,246				141,392	203,157
St.	8,634	69,908						8,634	69,908
	118,840	241,819	31,246	31,246				150,066	273,065
	21,173,314	30,457,823	1,291,492	1,291,492	2,376,311	4,330,632	353,516	1,012,181	25,396,633

Finance Committee of Engineering Conference.
 Finance expenditure for all recommendations of \$32,233,445.00, mentioned on page 16 of this decision, in this table, is accounted for by the exclusion from Table I of two items:
 1. Proposed elimination of Santa Fe and Salt Lake lines between Los Angeles and Pasadena, \$6,700,000.00
 2. Proposed elimination of Santa Fe and Salt Lake lines between Los Angeles and Colton, \$136,312.00
 Total - \$6,836,312.00

The construction contemplated in Table I will be spread over a period of probably not less than ten years and the work will of necessity have to be done in successive steps. The first step provided for in this order, and extending over a period of probably five years, embraces, it will be noted, a beginning of the most important grade crossing separations, a beginning in the establishment of a union passenger terminal with the accompanying relief of Alameda Street, and certain other measures making for greater simplicity and economy in railroad operation. The cost of this first step will, of course, be much less than the total estimate. The approximate cost figure will be known after the plans of the engineering committee have been filed with the Commission.

It must be remembered that the present passenger stations of the Salt Lake and of the Santa Fe are acknowledged by these roads to be inadequate and unsatisfactory and, further, that large expenditures are necessary and now contemplated by the three steam railroads and by the Pacific Electric in meeting their urgent passenger and freight requirements. The Southern Pacific-Salt Lake-Pacific Electric plan, according to Southern Pacific-Salt Lake Exhibit No. 27, contemplates the expenditure of approximately seventeen million dollars for a partial and incomplete development. It cannot be said, in view of these facts, that an unreasonably large immediate expenditure is contemplated by the Commission or that we are not giving consideration to the important factor of cost in making this order.

Care must be taken in making comparison between different plans and estimates that the comparison is not between altogether unlike things. This difficulty repeatedly arose during these proceedings. The estimated cost of a partial plan manifestly cannot fairly be compared with the estimated cost of a comprehensive plan. Again, the cost of a plan to take care

of present needs only cannot fairly be compared with the cost of a plan intended to provide for the present as well as the future. Again, a plan considering the requirements of several of the carriers only cannot be compared with a program designed to take care of all of the carriers as well as of the city.

When capital costs are compared, it is also necessary not to lose sight of comparative operating costs, and of operating costs not only to the railroads, but also to the users of transportation in passenger and freight traffic, and to the community.

We repeat, therefore, that it is not practicable, at this time, to deal extensively with the matter of cost and division of expenditure and that this is one of the features that should be reserved for a subsequent decision.

(f) Associated Matters.

The present decision will dispose of Case 938 where, in Decision No. 3290, dated April 27, 1916, the Commission made its order directing the installation of a standard interlocking plant at Aliso Street and Los Angeles River. According to that order plans were to be submitted and the plant placed in operation within nine months. On July 28, 1916, the effective date of Decision No. 3290 was extended and the matter has since been held in abeyance. A separation of grades for the crossings of the Pacific Electric and the main line of the Salt Lake and the river tracks of the Santa Fe, and the removal of the crossing of the present main line Santa Fe tracks, does away with the necessity for this interlocking plant and this case may, therefore, be dismissed. An order will be issued by the Commission

to that effect.

In Application 2962, the Industrial Terminal Railway Company asks permission to issue stock for the purpose of acquisition of rights of way for a switching and terminal railroad approximately two miles in length, commencing on Alameda Street north of Aliso Street and running in an easterly and north-westerly direction across Ramirez Street, Macy Street, Lyon Street and crossing the tracks of the Santa Fe, across the Los Angeles River and across the tracks of the Salt Lake, terminating on the south side of Alhambra Avenue east of the Los Angeles River. The present decision makes the construction of such a railroad an impossibility and we believe that this application should, for that reason, be dismissed without prejudice. It is our understanding that such a dismissal is satisfactory to the applicants.

In Case 974, the City of Pasadena is complainant and the Pacific Electric Railway Company, the Southern Pacific Company, Atchison, Topeka and Santa Fe Railway Company, the San Pedro, Los Angeles and Salt Lake Railroad Company, and the City of Los Angeles are defendants.

In this complaint the City of Pasadena alleges that certain grade crossings maintained by defendants are dangerous and should be eliminated and asks further that the Commission's order in Case 938 should not be carried out.

The first is the crossing of Huntington Drive and the Pacific Electric, about one-third mile northeast of North Broadway and Mission Road Junction in the City of Los Angeles, where four Pacific Electric Railway tracks are crossed at grade. In the complaint, and in Exhibit "B" attached to the complaint, this crossing is referred to as the Mission Road crossing but since in Commission's Exhibit No. 1 the crossing of the Southern Pacific

tracks in Alhambra Avenue with Mission Road is referred to as the Mission Road crossing, the crossing complained of in this case will be referred to as the Huntington Drive crossing. It should be here noted that the Pacific Electric Railway Company and the City of Los Angeles are the only defendants having an interest in this crossing.

As noted in Commission's Exhibit No. 1, subsequent to the filing of this formal complaint, an agreement was reached between the City of Los Angeles and the Pacific Electric Railway whereby, through the construction of a new road and the relocation of a bridge, approximately all of the present traffic over this crossing would be diverted. It was proposed, therefore, that this crossing be excluded from the general investigation. This was done (trans. p. 132).

On August 7, 1917, the agreement referred to was filed with the Commission, it becoming City of Los Angeles Exhibit No. 2 in the consolidated proceeding. No grade crossings are to be opened or closed under this agreement and the Commission is not legally concerned. We may, however, take cognizance of the fact that the agreement has been carried out and the road constructed and approximately all of the traffic diverted from the crossing. No reason exists, therefore, for further consideration of this part of the complaint of the City of Pasadena.

The City of Pasadena also alleges that the grade crossings of the Pacific Electric tracks in Aliso Street and the Santa Fe and Salt Lake tracks on both sides of the Los Angeles River are improper, inadequate and insufficient for the reasonable protection of the public travelling on the Pacific Electric cars and asks that these crossings be eliminated. The complaint further alleges that the order made by the Commission on April 27, 1916, in Case 938 for the construction of a standard interlock-

ing plant at this crossing should not be enforced for the reason that its installation would not obviate the alleged delay at this crossing.

On July 28, 1916, thirteen days subsequent to the filing of the complaint in Case 974, the Commission made a decision extending until further order, the effective date of its order in Case 938 and the matter has since been held in abeyance pending a decision in this proceeding.

We have already stated that an order will be issued separating the grades of the Pacific Electric and the Santa Fe and Salt Lake at Aliso Street and Los Angeles River and if this is done it will automatically dispose of this part of the complaint in Case 974. Since all of the matters complained of by the City of Pasadena have been disposed of an order of dismissal without prejudice should be entered in Case 974. This will be done.

In Case 980, the City of Alhambra, in Case 981, the City of San Gabriel and, in Case 983, the City of South Pasadena make complaints almost identical with that of the City of Pasadena in Case 974.

For the reasons set forth above, these complaints should also be dismissed.

Summary

The conclusions reached by the Commission, after a thorough and careful investigation as indicated in this opinion may be summarized as follows:

1. Consideration of safety, public necessity and convenience, as also of operating economy and efficiency, requires the adoption of a comprehensive plan of transportation development in the territory under consideration in this proceeding, including in such a plan provision for gradual elimination of all important grade crossings on the Southern Pacific, Santa Fe, Salt Lake, and Pacific Electric, a unification of the steam railroad passenger facilities, and the construction of a union passenger station, the further development of freight facilities in accordance with principles insuring the lowest cost of service to both railroads and shippers, and the development of electric interurban

rapid transit doing away with present congestion and delay and through means of probable future subways in the congested portion of the city. The conclusions reached and the general recommendations made in Commission's Exhibits Nos. 1 and 2 in this proceeding may well serve as a guide to such development.

2. The general ultimate development plan, to the extent that it is advisable and possible to lay down specifications at this time, is indicated in its construction items in Table I in this opinion. This plan, of necessity, will be subject to modifications depending on changes of present conditions.

3. The accomplishment of the plan will have to be undertaken in successive steps, the character and extent of each step to be determined by the transportation needs of the community and the carriers, and by the financial condition of the parties.

4. The first step is indicated in this decision and it is estimated that the work contemplated can be completed in five years.

5. The first construction and other work to be undertaken towards the accomplishment of the first step should be as follows:

- (a) Grades should be separated at Macy, Aliso and Seventh Streets for reasons indicated and in the manner previously prescribed in this decision.
- (b) Relating to freight traffic, the interests of the City and of industrial development require the withholding by the city authorities of future permits for industrial tracks longitudinally in streets; the confining of longitudinal tracks now in the streets to industrial use only and the removal of such tracks as soon as access to the industries served can otherwise be obtained. All spur tracks should be served from the main lines on the river banks and future spur tracks should be built in a general easterly and westerly direction from the river and not across east and west streets, unless by such construction the crossing of more important north and south streets is avoided. The establishment of team yards along the east side of Alameda Street is desirable in the interests of both shippers and the railroads.
- (c) A union passenger station should be established and built at the Plaza site, as that site and the requirements for such a station are previously described in this decision. The construction of a union passenger depot, with its necessary facilities and the resulting changes in the Los Angeles transportation system will, in itself, because of railroad operating and other necessities, be an item of work that must be completed

in successive steps and spread over a considerable period of time. Arrangements to that end will have to be worked out by a competent engineering committee representing all the parties, under the chairmanship of a competent, impartial engineer, and under rules and instructions approved or laid down by this Commission.

6. With reference to the Pacific Electric interurban and local service, definite findings of fact relating to the first step in the ultimate plan, insofar as that Company is a party to these proceedings, should be held in abeyance until the investigation now being made by the Commission into the affairs of that Company is completed. It is a fact, however, that the Pacific Electric's most urgent service and traffic problems dealing with the Hill Street and the Hollywood situations are not affected by the present proceeding, and nothing contained in this decision will prevent or need delay a partial or complete solution of these difficulties.

7. Both the Pacific Electric and the Los Angeles Railway will have to make provision for adequate local street railway service to and from the union passenger station.

8. Other matters at issue in this proceeding will be decided in accordance with the foregoing findings of fact and opinion.

ORDER

Complaints having been filed by the Municipal League, Central Development Association, Civic Center Association, and the cities of Pasadena, Alhambra, San Gabriel and South Pasadena, and an application filed by Southern Pacific Railroad Company, et al., and all of these complaints and said application having been consolidated in this proceeding, and an exhaustive investigation into all of the matters connected therewith having been made by the Commission, public hearings having been held and the matters submitted, the Commission now makes its findings of fact as follows:

1. That the existing grade crossings of the Southern Pacific Company's tracks on Alameda Street, at College Street, North Main Street, Macy Street, Aliso Street, Commercial Street, Jackson Street, East First Street, East Second Street, East Third Street, East Fourth Street, East Sixth Street, Industrial Street, East Seventh Street, East Eighth Street, East Ninth Street, East Fourteenth Street and East Fifteenth Street, in the City of Los Angeles, are unsafe, and the continued use thereof, as a main line for the movement of trains of the said carrier, endangers the employes of the carrier and the public generally; that public interest and safety require that such dangerous conditions at said crossings be eliminated by the erection and use of a new structure or structures, to-wit, a union passenger station and buildings incidental thereto located as hereinafter designated, and by the making of additions to, extensions, improvements and changes in the existing railroad facilities of said Southern Pacific Company reasonably necessary and incidental to the use of said union passenger station.

2. That a new structure or structures, to-wit, a

union passenger station and buildings incidental thereto should be erected by the defendants, Southern Pacific Company, The Atchison, Topeka and Santa Fe Railway Company, the Los Angeles and Salt Lake Railroad Company and Pacific Electric Railway Company, to promote the security and convenience of their employes and of the public and to secure adequate service and facilities for the performance of said defendants, and each of them of their public utility functions in the State of California; and in connection therewith additions, extensions, improvements and changes in the existing facilities of said defendants ought reasonably to be made in accordance with the general recommendations and conclusions set forth in the foregoing opinion.

3. That the location and site of the union passenger station herein referred to best suited to promote public convenience and to secure adequate service and facilities, is within that portion of the city of Los Angeles bounded by Commercial Street, North Main Street, Redondo Street, Alhambra Avenue and the Los Angeles River.

4. That certain existing grade crossings adjacent to the Los Angeles River in the City of Los Angeles, to-wit, the crossing of Macy Street, a public street in the City of Los Angeles, and of the tracks of the Los Angeles Railway Corporation thereon by the tracks of The Atchison, Topeka and Santa Fe Railway Company and of the Los Angeles and Salt Lake Railroad Company; the crossing of Aliso Street, a public street in the City of Los Angeles and of the tracks of the Pacific Electric Railway Company thereon, by the tracks of The Atchison, Topeka and Santa Fe Railway Company and of the Los Angeles and Salt Lake Railroad Company, and the crossing of Seventh Street, a public street in the City of Los Angeles, and of the tracks of the Los Angeles Railway Corporation thereon, by the tracks of The Atchison, Topeka and Santa Fe Railway Company.

and of the Los Angeles and Salt Lake Railroad Company are unsafe, and the continued use thereof endangers the employes of said carriers and the public generally; that a separation of grades at said crossings is practicable and should be made.

Basing its order upon said findings of fact and the further findings and statements of fact contained in the opinion preceding this order.--

IT IS HEREBY ORDERED:

1. That said defendants, Southern Pacific Company, The Atchison, Topeka and Santa Fe Railway Company, Los Angeles and Salt Lake Railroad Company and Pacific Electric Railway Company, do make and construct such additions, extensions, improvements to, and changes in, their railroad facilities in the City of Los Angeles, and do erect a union passenger station and buildings incidental thereto in said City of Los Angeles^{paragraph 4 of} and perform such work and make and construct the necessary fills, cuts, viaducts and other works and structures necessary for a separation of grades at the crossings enumerated in the findings of fact preceding this order, all in the manner and within the time hereinafter specified in this order, and such other orders as this Commission may hereafter make, supplementary thereto.

2. The site of the union passenger station herein referred to shall be within that portion of the City of Los Angeles bounded by Commercial Street, North Main Street, Redondo Street, Alhambra Avenue and the Los Angeles River. The specific location of said station within said area will be hereafter fixed and designated, pursuant to final plans to be prepared therefor, as hereinafter provided.

3. That said defendants, Southern Pacific Company, The Atchison, Topeka and Santa Fe Railway Company, Los Angeles and Salt Lake Railroad Company and Pacific Electric Railway Company, and each of them, shall cause to be made and filed with

this Commission complete plans, specifications and estimates for such additions, extensions, improvements and changes in facilities and such new structure or structures, separation of grades and other work, as hereinabove referred to, as follows:

(a) Relating to grade crossing elimination:
There shall be filed within sixty days from the date of this order a general plan or plans providing for grade separations at Macy, Aliso and Seventh streets, in conformity with the specifications, contained in the preceding opinion; also, profile or profiles, and detail drawings of each viaduct provided herein, together with estimate of cost of construction for each viaduct and for incidental expenditures and for damages; such plans, profiles, drawings and estimates to be prepared as hereinafter provided for.

(b) Relating to a union passenger station:
There shall be filed within six months from the date of this order a general plan, or plans, with the necessary profile, or profiles, and general and detail drawings of a passenger union station located on the Plaza site, as described in the preceding opinion and findings of fact, together with all necessary facilities and changes in existing facilities; also, estimates of cost of construction of the union passenger depot, together with its necessary facilities and changes in existing facilities, and estimates of damages and of salvage; also, description and plans of the necessary temporary operating arrangements during the period of the transition pending the completion of new union passenger terminal facilities. All plans, profiles, drawings and estimates shall be prepared as hereinafter provided for.

The filing by said defendants jointly of such complete plans, specifications and estimates shall be deemed a compliance with this order in this particular.

4. Said defendants, and each of them, shall, within thirty (30) days from the date of this order, appoint their respective representatives--of whom there shall not be more than two (2) for each defendant--upon a joint engineering committee, which committee shall be charged with the preparation of complete plans, specifications and estimates, hereinbefore referred to. Said defendants shall also, within thirty (30) days from the date of this order, select and, subject to the approval of this Commission, appoint a disinterested engineer as chairman

of said engineering committee. If no such appointment be made within the time specified herein, the Commission will, itself, select and appoint the chairman of the engineering committee. The City of Los Angeles shall be entitled to be represented upon the said engineering committee in the same manner and upon the same terms and conditions as each of said defendants.

5. The engineering committee shall prepare all plans, specifications, profiles, designs and estimates in accordance with the provisions laid down in this decision, and with such further directions as may be issued from time to time by this Commission. In case of any disagreement by said committee on any matter properly before it, the decision of the chairman thereon shall be final; subject, however, to the ultimate approval of the Commission. Each party shall have the right to present to the Commission its individual views when the plans and estimates are submitted to the Commission for final approval.

6. The expense of all additions, extensions, improvements or changes in facilities and new structure or structures and other work herein ordered—other than that relating to the separation of grades, to be hereafter specifically provided for, but including the preparation of complete plans, specifications and estimates by the engineering committee-- shall be at the joint cost of said defendants upon such terms, as to the apportionment and division, as they may, within a reasonable time agree upon, which time is hereby fixed at thirty (30) days from and after the date of this order for the apportionment of cost of preparation of complete plans, specifications and estimates, and six (6) months from and after the date of this order for the apportionment of cost of all other work;

and in the event of their failure to so agree, then upon such terms and in such proportions and in the manner in which the Commission may, after further hearing, fix by supplemental order; provided, however, that all compensation for any representatives of the City of Los Angeles on the engineering committee shall be paid by said city.

7. Within twenty (20) days from the effective date of this order, the railroads shall file with the Commission a preliminary estimate of cost of preparing plans, specifications and estimates. After the appointment of the engineering committee, that committee shall file with the Commission weekly reports, in the form prescribed by the Commission, showing the progress of the work and the character and distribution of the work done. The engineering committee shall also keep account of its expenditures and shall file monthly reports of all expenditures with the carriers and with this Commission.

IT IS FURTHER ORDERED, That the complaint of the City of Pasadena against the Pacific Electric Railway Company, the Southern Pacific Company, The Atchison, Topeka and Santa Fe Railway Company, the Los Angeles and Salt Lake Railroad Company, and the City of Los Angeles, Case 974, which case is consolidated with this proceeding, relating to the grade crossing of the Pacific Electric tracks and Huntington Drive and to the grade crossing of the Pacific Electric tracks in Aliso Street and the Santa Fe and Salt Lake tracks on both sides of the Los Angeles River be, and the same hereby is dismissed without prejudice, for the reasons heretofore stated in this decision.

IT IS FURTHER ORDERED, that the complaints of the cities of Alhambra, San Gabriel and South Pasadena, in Cases 980, 981 and 983, all of which cases are consolidated with this proceeding and which complaints are identical with the complaint of the City of Pasadena in Case No. 974, hereinbefore referred to, be, and hereby are, dismissed for reasons controlling in Case No. 974, as hereinbefore indicated in this decision.

The effective date of this order is hereby fixed and designated as the twentieth day of May, 1921; and

IT IS HEREBY FURTHER ORDERED, that wherever in this order a time is fixed for the doing of any act or the compliance with any term or condition of this order, such time shall be computed from said effective date.

The Commission reserves the right to make such further order or orders in these proceedings and relating to the construction, operation, modification and abandonment of facilities, to costs and division of costs, and to all other matters relating thereto, as public safety, necessity and convenience may require, and as, in the opinion of the Commission, may be just and reasonable.

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 26th day of April, 1921.

Francis D. Devlin
H. D. Loveland
H. B. Brundage
James Martin
Charles H. Kowee
Commissioners.

APPENDIX "A"

Attached to Decision No. 8901

LIST OF EXHIBITS IN CASE 970 et seq.

Filed by the BUSINESS STABILITY ASSOCIATION

<u>Date Filed</u>	<u>Exhibit Number</u>	<u>Subject</u>
8-22&23-17	1	Plaza Terminal Plan.

Filed by The CALIFORNIA RAILROAD COMMISSION

<u>Date Filed</u>	<u>Exhibit Number</u>	<u>Subject</u>
2-17-20	1	Railroad Grade Crossing and Terminal Investigation Report by Engineering Department, Richard Sachse.
8-16-20	2	Report of Engineering Conference on Los Angeles Grade Crossing and Terminal Investigation. August 13, 1920

Filed by CENTRAL DEVELOPMENT ASSOCIATION

<u>Date Filed</u>	<u>Exhibit Number</u>	<u>Subject</u>
6-24-17	1	Large Map of Plaza Plan.
"	2	"
6-26-17	3	Plan of Smaller Proposed Plaza Terminal.
8-22&23-17	4	Track layout of Proposed Plaza "
11-21-17	5	Arrangement of terminal tracks, Proposed Plaza Plan.
"	6	Profile of N. Main Street to W. bank of L. A. River.
"	7	Section through Plaza Terminal with double arch.

Filed by CENTRAL DEVELOPMENT ASSOCIATION (Cont'd)

<u>Date Filed</u>	<u>Exhibit Number</u>	<u>Subject</u>
11-21-17	8	Section through Plaza Terminal with single arch.
"	9	Front elevation of Plaza Terminal.
"	10	Small map showing main tracks of 4 railroads and approaches.
"	11	Floor plan of Terminal.
"	12	Plan at Alameda Street level of terminal.
"	13	Diagram showing routes on yellow car lines serving Plaza and 5th Street station without change of cars.
11-22-17	14	Tabulation. Cost of Plaza Project; Cost of SP-SL-PE Project and Unit prices.
12-11-17	15A	Sketch map of S.P. Station at Arcade Site.
"	15B	Sketch map of Salt Lake Coach track.
"	15C	Sketch map of Santa Fe's coach track.
"	15D	Sketch map of Santa Fe station grounds.
"	15E	Sketch map of S.P. yards and shop grounds at Alhambra Street.
"	16	Cost Estimate of Proposed Plaza Terminal Coach Yards.
"	17	Detail of Hawgood's Cost estimate shown in Exhibit No. 14.
"	18	Large Map Showing Storrows revised terminal layout.
"	19	Map showing enlarged detail Plaza Terminal layout.
12-12-17	20	Blue print showing plans for Plaza Station building, drawn by Curlett, to which blue print is attached memorandum of costs.

Filed by CITY OF LOS ANGELES

<u>Date Filed</u>	<u>Exhibit Number</u>	<u>Subject</u>
6-26-17	1	Profile of Los Angeles River Bed.
"	2	Copy of Contract between City of L.A. and P.E.Ry.Co. covering new road to divert traffic from Huntington Drive Crossing of P.E.
"	3	Map showing trackage and Industrial Spurs.

.Filed by The CITY PLANNING ASSOCIATION

<u>Date Filed</u>	<u>Exhibit Number</u>	<u>Subject</u>
8-22&23-17	1	Diagram of Rapid Transit Lines - 10-22-14.
"	2	Satellite Map - Los Angeles District.
"	3	Diagram of Interurban and Steam Railroads.
8-17-20	4	Diagram of transportation.

Filed by SOUTHERN PACIFIC and SALT LAKE RAILROAD Companies.

<u>Date Filed</u>	<u>Exhibit Number</u>	<u>Subject</u>
6-24-17	1	Map Showing S.P.- S.L. Plan.
6-26-17	2	Profile of SP-SL Plan - Pigeon Farm to Hollenbeck Ave.
"	3	" " L.A. River to Arcade Depot.
"	4	Large Map of Proposed SP-SL Passenger Terminal.
8-22&23-17	5	Map Showing lands in Central Development Assn's depot Plan.
"	6	Map showing Ownerships of lands in Central Development Association's depot Plan.
"	7	Sketch of Track layout in Central Development Assn's depot Plan.
"	8	Plans of S.P. Arcade Station- "A" to "L" Inclusive.
"	9	Plan of S.P. Trackage, Macy to 6th Streets.
"	10	Profile of North Main Street.
"	11	" Macy "
"	12	" Aliso "
"	13	" Aliso and Anderson Streets.
"	13A	" Aliso Street. M.W. 861.
"	14	" Fourth "
"	15	" Seventh "
"	16	" Ninth "

Filed by SOUTHERN PACIFIC and SALT LAKE RAILROAD Companies (Cont'd)

<u>Date Filed</u>	<u>Exhibit Number</u>	<u>Subject</u>
8-22&23-17	17	"Official Transportation and City Map of Los Angeles".
"	18	Photograph of Proposed Grade Crossing Elimination at 6th and Alameda Streets.
11-20-17	19	Plan Showing 7th Street Separation of grades.
11-21-17	20	Letter of C.W. Durbrow to President Whelen, dated November 16, 1917, with 4 enclosures headed respectively "Plaza Plan; Exchange of Passenger Facilities; New Money to be spent by Southern Pacific Company; and New Money to be spent by Pacific Electric Railway Company and Salt Lake Railroad".
11-21-17	21	Titcomb's detailed estimate of Southern Pacific-Salt Lake plans (29 sheets).
"	22	Titcomb's estimate of cost of Barnard plan.
11-22-17	23	Salt Lake Company's first mortgage dated July 1, 1911, to Guaranty Trust Company of New York.
12-11-17	24	Profile from near 6th Street to L.A. River.
"	25	Estimate details of Grade Separation at Los Angeles.
8-18-20	26	Map of Present S. P. Station.
"	27	Comparative statement showing Cost of Complete Grade Crossing Elimination between S.P. - S.L. Plan and the Plaza Plan.
"	28	Estimate of Cost of Grade Crossing elimination along banks of Los Angeles River.
"	29	Blue Print - Proposed joint use of S.P. Station by L.A. & S.L. Ry.
"	30	Chart showing train operation at present S.P. Station.
"	31	Joint passenger station (pamphlet).
"	32	S.P.- S.L.- P.E. plan for elimination of grade crossings.