

Decision No. 7029.

ORIGINAL

BEFORE THE RAILROAD COMMISSION OF THE STATE OF CALIFORNIA

In the matter of the application of)
the COUNCIL OF THE CITY OF RICHMOND,)
State of California, for an order re-)
quiring the SOUTHERN PACIFIC COMPANY) Application No. 3781.
to enlarge the Macdonald Avenue Sub-)
way in the City of Richmond.)

D. J. Hall, City Attorney, for applicant.
Frank B. Austin for United States Railroad
Administration-Southern Pacific Railroad.
C. W. Durbrow, for Southern Pacific Company
Corporation.
George H. Harris, for San Francisco-Oakland
Terminal Railways.
William H. Schooler, in propria persona.

MARTIN, Commissioner.

O P I N I O N

The City of Richmond in this application seeks an order requiring the Southern Pacific to enlarge the Macdonald Avenue Subway, which crosses under the Southern Pacific Company's tracks between Sixteenth and Nineteenth Streets in said city. Public hearings were held at Richmond on May 8, and June 19, 1919.

The Macdonald Avenue Subway was constructed about ten years ago by the Southern Pacific Company at a cost of approximately \$60,000., of which \$10,000. was refunded to it by the East Shore and Suburban Railway Company, predecessor of the San Francisco-Oakland Terminal Railways, upon completion of the structure. The latter company also paid for

the laying of its track through the subway. The agreement between the two companies was made in July, 1907, and the plans were drawn in August, 1907, by the Southern Pacific Company, but the necessary franchise to install the structure was not passed by the City Council of Richmond until February, 1909, almost two years later.

Previous to the construction of the subway, the cars of the East Shore and Suburban Railway ran up to each side of the Southern Pacific Company's right of way, where the passengers were discharged and made to cross the tracks on foot. Traffic over the crossing grew quite heavy and finally a flagman employed at the crossing was run down and killed. As the City of Richmond was rapidly growing, it became necessary to make the electric car line continuous. In order to ^{do} this, it was necessary to install either an expensive interlocking plant or a separation of grades.

The design of the grade separation was prepared by the Southern Pacific Company, which used a remodeled steel structure originally bought for a crossing of Coyote Creek just north of San Jose. The subway as it exists today corresponds closely to the plans above-mentioned. It begins at a point about forty (40) feet more or less westerly from the westerly line of Seventeenth Street and extends easterly along the northerly half of Macdonald Avenue beneath the tracks of the Southern Pacific Company to a point thirty (30) feet westerly from the easterly line of Nineteenth Street.

The bridge superstructure of the subway is composed of sixteen thirty-foot spans in eight pairs for seven tracks and is laid out on a skew of $50^{\circ} 23'$. The overhead clearance

of the steel superstructure above the street paving is given at 16 feet, which is 2 feet greater than that required under the Commission's General Order No. 26. The approaches to the subway are very steep, being 212 feet more or less of 7.7% grade on the west or Sixteenth Street side and 210.5 feet more or less of 9% grade on the east or Nineteenth Street side. The subway is 41 feet 3 inches wide between side walls and is divided into two sections by a row of columns supporting the steel superstructure. These columns as designed for their original location at Coyote Creek were too short for their position in the subway, which made it necessary to construct the large concrete foundation blocks which encroach on the roadway in the subway at the present time.

The southerly barrel of the subway, which is 19 feet 10 $\frac{1}{2}$ inches wide in the clear, is used exclusively by the cars of the San Francisco-Oakland Terminal Railway. The northerly barrel is used by vehicular and pedestrian traffic and is 19 feet 9 $\frac{1}{2}$ inches wide in the clear, of which five feet are devoted to an elevated pedestrian sidewalk and 14 feet 8 $\frac{1}{2}$ inches to vehicles. The net street width is slightly less than the last figure, due to the encroachment of the column footings already mentioned. The paving through this section of the subway is in very poor condition.

At the hearing on May 8, 1919, at the suggestion of the presiding Commissioner, a committee of engineers representing the Commission and the various interests in these proceedings was appointed to investigate fully the condition of the subway and to make a report to the Commission as to the proper steps to be taken to place it in proper condition to adequately handle the

traffic with safety to the public.

The report of the engineers was submitted in evidence at the hearing of June 19, 1919. It was signed by all parties except the United States Railroad Administration, which submitted, through its representative, a minority report. An answer to this minority report was filed by the engineering department of the Commission.

The engineering report discusses three plans for the improvement of the subway, as follows:

Plan No. 1. Temporary Improvement.

This plan calls for the shifting of the existing track of the street railway away from the south wall of the subway toward the columns in the center of the subway, so that the cars clear the sides of the columns by 2 feet 6 inches. The existing five-foot sidewalk in the northerly section of the subway is to be removed and placed along the south wall of the southerly section. This leaves the northerly section with a width of 19 feet 8 $\frac{1}{2}$ inches entirely to road traffic. The estimated cost of these changes, which do not include repaving the north barrel of the subway except for the sidewalk portion, is \$3,215.00.

Plan No. 2. Permanent Improvement.

Under this plan it is proposed to eliminate pedestrian traffic from the subway altogether, by placing it in a tunnel across the Southern Pacific right of way just north of the north wall of the subway. The most important step under this plan is the cutting down of the excessively heavy grades which constitute the greatest drawback to the subway at present. It is possible, by acquiring three and one-half lots on the northeast corner of Nineteenth

Street and Macdonald Avenue, to reduce the 9% grade to a 5% grade. The acquisition of these lots is absolutely necessary to bring the subway to its greatest point of efficiency and to insure the success of Plan No. 2. The grade on the west side can be easily cut to 5% without any property damage. In addition to cutting down the grades it is proposed to double-track the subway and pave both sections so that all traffic will flow in the same direction in each section. This will do away with the present criss-crossing and blocking of traffic at the mouths of the subway. It will be necessary, under this plan, for the San Francisco-Oakland Terminal Railways to give up its right to transport standard freight cars through the subway, on account of the low overhead clearance of only 14 feet. The cost of the improvements, under this plan, will be very close to \$50,000.00. It is expected that these changes will take care of traffic growth for at least two decades.

Plan No. 3 contemplates the removal of the present steel structure and replacing it with girders spanning the full width of the subway. The foot subway and changes in grade are to be carried out under this plan as given under Plan No. 2. The cost of the changes required for this plan is estimated at \$103,675.00, or more than twice as much as for Plan No. 2. As this plan will only give about two feet additional width of pavement over Plan No. 2 for an additional cost of over \$53,000.00, it can as well as not be eliminated from further consideration in these proceedings.

The city authorities do not favor the adoption of Plan No. 1, as the placing of the sidewalk in the south barrel of the subway will land pedestrian traffic in the middle of the street at each end of the subway. Objection is also made by the city council to

the raising of money through assessment for temporary work, which is only required on account of the present financial condition of the railroads.

The United States Railroad Administration, in its minority report, favors the adoption of Plan No. 1 as the most favorable solution for immediately improving traffic conditions in the subway at a nominal cost, until such time as commodity prices return to a more nearly normal basis.

The railroad administration does not consider that it is necessary to make any radical change in grade, although it favors double-tracking of the street car line, in order to put the current of traffic in one direction in each opening of the subway. It also recommends the installation of a three-foot sidewalk in each barrel of the subway, thus doing away with the necessity of a foot subway.

A study of the modified plan No. 2 advanced by the railroad administration shows that it will not materially improve traffic conditions in the subway, on account of the lack of sufficient passing space between the sidewalks and the sides of street cars. This condition, combined with the existing grades, would render traffic conditions in the subway even more dangerous than they are at present, with the street cars confined to the south section and the vehicular traffic to the north section.

Plan No. 2, as recommended by the committee of engineers, appears to be the proper solution toward improving the subway and it is recommended that it be adopted in the order in this proceeding. The estimated cost of carrying out this plan is very close to \$50,000.00, which will have to be apportioned between the interested parties.

About \$15,000.00 of this \$50,000.00 will go toward the construction of the pedestrian subway and sidewalks leading thereto. The Southern Pacific Company some time ago offered to donate the right of way and \$750.00 toward the construction of this foot subway. The work was never started, as no agreement could be reached with the city as to the handling of the portion of the work under the railroad company's tracks.

In apportioning the cost of the improvements to the subway due consideration must be given the fact that the Southern Pacific Company paid out about \$60,000.00 and the street car company about \$13,000.00, all told, toward the original construction of the subway.

Under ordinary conditions, where a structure of this nature was originally paid for by a railroad company, and where subsequently an enlargement becomes necessary, it would seem proper to consider that fact in the division of the cost of such improvement. The present case differs from the ordinary case, however, in that the subway was not originally adequately or properly designed from the point of view of the public using the city streets, although ample accommodations were installed for future growth on the part of the railroad company. The use of a second-hand steel structure, necessitating the building of a narrow roadway, and the excessively heavy grades installed show without a doubt that proper consideration was not given the future growth of the city or the economical and convenient handling of the city's traffic.

A study of the detailed estimate of the improvements contemplated under Plan No. 2, with special reference to the correction of the inadequacy of existing abutment walls, pedestrian facilities, acquirement of land, etc., and a consideration of all the facts in the case, leads to the recommendation of the following as a fair apportionment of the cost of installa-

tion of this plan:

City of Richmond,	55%
Southern Pacific Co.,	30%
San Francisco-Oakland Terminal Railways,	15%

Examination of the above apportionment shows that the Southern Pacific Company's share about equals the estimated cost of the foot subway, the San Francisco-Oakland Terminal Railways' share about equals the cost of reconstructing the paving and double-tracking of its line, and the City of Richmond's share about equals the paving, grading, curbing and the probable reasonable cost of obtaining the lots found necessary to be acquired under Plan No. 2. It is therefore recommended that the carrying out of the improvements and the assessment of their cost be levied as follows, rather than on a percentage basis:

Southern Pacific Company is to build an adequate pedestrian tunnel, with sidewalk approaches on its right of way and station grounds just north of the north abutment of the existing subway, as shown on the location plan of the proposed changes and the cross section of the proposed rearrangement known as Plan No. 2, which plans are part of the "Report of the Committee of Engineers on the Improvement of the Macdonald Avenue Subway", Application No. 3781, made June 10, 1919, and received in evidence at the public hearing held in Richmond on June 19, 1919.

The San Francisco-Oakland Terminal Railways is to rearrange and properly construct its tracks in accordance with the report referred to, so as to have one track in each barrel of the subway, and is to re-grade and pave its tracks between the rails and two (2) feet outside thereof, to correspond with the paving in the remainder of the subway as installed by the City. The tracks are to be laid with girder rail, if required by the type of paving installed by the City.

The City of Richmond is to acquire the three and one-half lots on the northeast corner of Nineteenth Street and Macdonald Avenue, is to grade and pave the approaches on 5% grades and do all the remainder of the work necessary to bring Plan No. 2 to completion.

The following form of order is recommended.

O R D E R

CITY OF RICHMOND, having on May 25, 1918, filed with the Commission an application for an order requiring the Southern Pacific Company to enlarge the Macdonald Avenue Subway in the City of Richmond; public hearings having been held and the Commission having made a full investigation of the matter involved, and being fully advised in the premises; and it further appearing that the application should be granted subject to certain conditions and not otherwise;

IT IS HEREBY ORDERED, That the CITY OF RICHMOND, the SOUTHERN PACIFIC COMPANY and the SAN FRANCISCO-OAKLAND TERMINAL RAILWAYS be and the same hereby are ordered to improve the Macdonald Avenue Subway in accordance with Plan No. 2 of the "Report of the Committee of Engineers on the Improvement of Macdonald Avenue Subway", made June 10, 1919, and admitted to evidence at the hearing held in Richmond June 19, 1919; said improvements to be made subject to the following conditions, and not otherwise, viz.:

(1) Southern Pacific Company shall build an adequate pedestrian tunnel with sidewalk approaches on its right of way and station grounds just north of the north abutment of the existing subway, as shown on the location plan of the proposed changes (C. R. C. Eng. Dept. Drawing 413-64, Appl. 3781) and the cross-section of the proposed rearrangement known as Plan No. 2 (C. R. C. Eng. Dept. Drawing 413-61), described in the above-mentioned report.

(2) The San Francisco-Oakland Terminal Railways shall rearrange and properly construct its tracks according

to Plan No. 2 of said report, so as to have one track in each barrel of the subway, and is to pave its tracks between the rails and two (2) feet outside thereof, to correspond with the paving placed by the City in the remainder of the subway. The above tracks are to be laid with girder rail, if required to conform to the type of paving installed by the City.

(3) The City of Richmond shall acquire the three and one-half lots on the northeast corner of Nineteenth Street and Macdonald Avenue and shall grade and pave the subway approaches with grades not exceeding five (5) per cent, with the exception of those portions between the street car rails and two (2) feet outside thereof, which shall be graded and paved by the San Francisco-Oakland Terminal Railways, as hereinbefore ordered. The City of Richmond shall also extend the subway abutment walls, as required by the changes in grade, and shall do all the remainder of the work necessary to complete the subway in accordance with said Plan No. 2.

(4) All clearances in said subway shall conform to the Commission's General Order No. 26.

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

The foregoing Opinion and Order are hereby approved and ordered filed as the Opinion and Order of the Railroad

Commission of the State of California.

Dated at San Francisco, California, this 12th day
of January 1970.

Edwin O. Edwards
H. D. K. ...
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Commissioners.