The Los Angeles Plan

A Selected Traffic Program

Compiled by
The Los Angeles Traffic Commission

December, 1922
Origin and Objects of the Los Angeles Traffic Commission

THE LOS ANGELES Traffic Commission was created to fill the pressing need of an organization to solve the constantly increasing traffic congestion problems of the City of Los Angeles.

H. Z. Osborne, Jr., Chief Engineer of the Board of Public Utilities, was directed by the Board of Public Utilities to make a comprehensive survey and report on the subject of traffic congestion and detailed methods of relief. The preliminary report on this subject was adopted by the Board of Public Utilities on December 12th, 1921, and subsequently by the Honorable City Council on January 4th, 1922. In this report it was recommended that the representatives of the various civic and industrial organizations working on this problem, should be called into a conference to secure the benefit of the work of each, and at the same time, to avoid duplication of the work and to adjust conflicting recommendations before they were finally presented to the Honorable City Council for adoption. Subsequently, a conference was held of representatives of those organizations of Los Angeles who had manifested a sincere interest in the solution of the grave traffic problems confronting the City.

During this conference, the Los Angeles Traffic Commission was formally organized.

DEDICATED TO PUBLIC SERVICE

The Los Angeles Traffic Commission is founded on an ideal, is unselfishly dedicated to public service, and is unique in its organization and membership. It is dedicated to the solution of traffic problems, cooperating to the fullest extent with the City Planning Commission and other public bodies, and yet occupying a position which, in many cases, cannot be filled by any of them.

Public officials are, by the very nature of their office, prohibited from being participants. They must act in a judicial capacity and it is not appropriate for them to take sides for or against public improvements where there are conflicting interests and divided public opinion. City officials by reason of the position they occupy, are ethically prohibited from initiating such measures.

The Traffic Commission can function as a buffer between the public and the authorities. The Traffic Commission can actively advocate needed public improvements, circulate petitions, secure deeds for streets, solicit funds in accordance with the directions of the Honorable City Council for maintenance of the organization, secure agreements of property owners and aggressively advocate all measures in the interest of public welfare, looking toward the relief of traffic congestion in the city of Los Angeles, and its immediate vicinity.
PREFACE

THE LOS ANGELES PLAN is not original with the Traffic Commission. Credit for whatever virtue may attach to it rests entirely with the organizations and individuals who have contributed so generously with their suggestions as to improvements that would assist in bringing about much needed traffic relief.

The Automobile Club of Southern California has furnished in their report on traffic problems the basis for the major street plan which is suggested. The Traffic Commission considers this report of the Automobile Club one of the greatest civic contributions ever made to the City of Los Angeles— a noteworthy demonstration of unselfish service, not only to the motoring public, but to the community at large.

The Honorable Mayor and members of the Honorable City Council, the Board of Public Works, the City Planning Commission, the Board of Public Utilities, the Police and Fire Department, the County Board of Supervisors and many others of the City and County government have extended, in their official capacity, invaluable assistance in fostering the work of the Los Angeles Traffic Commission and making this presentation possible.

To the Los Angeles Chamber of Commerce, through the enlightened advice of its able President, Captain John D. Fredericks, and its able and indefatigable Secretary, Frank Wiggins, and to the equally potent forces for the advancement of public welfare—the Los Angeles “Times,” “Examiner,” “Herald,” “Express” and “Record”—to the Community Development Association—the Los Angeles Traffic Commission wishes to inscribe as a matter of public record, its appreciation of the work rendered to enable the development of the Los Angeles Plan.

ALL HAVE CO-OPERATED

Mr. Jess E. Stephens and Milton Bryan, City Attorney and Deputy City Attorney, respectively, have been in sympathy with the aims of the Commission and have contributed generously of their time and advice in helping solve its problems.

Major J. A. Griffin, City Engineer, and his able assistant, Mr. John R. Prince, have instituted a number of meritorious projects which are included in this report. Mr. G. Gordon Whitnall, Director, and Mr. W. H. Pierce, Past President of the City Planning Commission, have contributed many valuable suggestions. The co-operation of the City Planning Commission, as a whole, is herewith gratefully acknowledged. Acknowledgement is also made to Supervisor McClellan, Councilman Allan, in their representative character, as members of the Regional Planning Conference and to the work of this Conference for many valuable suggestions.

Much information was obtained through the sessions held by the Los Angeles Traffic Commission with the Board of Public Works. Messrs. Chas. H. Treat, Hugh McGuire and E. J. Delorey, together with General Schreiber, furnished a fund of practical information that has been incorporated in the recommendations that follow.

Space does not permit acknowledgment of all the assistance rendered, but the Traffic Commission also wishes to extend sincere thanks to the representatives of the seventy-five organizations composing the Los Angeles Traffic Commission, whose names appear in another part of this report and to the following gentlemen who have given freely of their time and thought:—


MAKE no little plans; they have no magic to stir men's blood and probably themselves will not be realized.

Make big plans; aim high in hope and work, remembering that a noble logical diagram once recorded will never die, but long after we are gone will be a living thing, asserting itself with ever-growing insistency.

—Daniel H. Burnham, Father of the “Chicago Plan.”
Traffic Problems of Los Angeles
Their Solution

LOS ANGELES today is the wonder city of the world. It is a city
of splendid industrial structures and beautiful homes. It is the
capital of the film world, and as such is the best advertised city
on earth. It has more automobiles per capita than any other large city
in America. Growth and development will continue with unceasing
persistency.

However, in our rejoicing over present and promised future great-
ness we must not lose sight of a few obstacles which must be overcome.
We must not ignore the fact that LOS ANGELES IS A CITY OF
NARROW STREETS, NARROW SIDEWALKS AND DANGEROUS
GRADE CROSSINGS.

LACK OF STREET AREA CAUSE OF CONGESTION

The result of this insufficiency of traffic arteries is traffic conges-
tion. This is apparent to the most casual observer and results are mani-
fested almost daily through the deplorable loss of life and limb. The
appalling list of fatalities that has placed Los Angeles at the head of
all cities for its traffic dangers is too well known to call for comment.

From a purely monetary standpoint traffic congestion is exacting
a terrific toll in loss of time and money from the citizenry of Los An-
geles. The Automobile Club of Southern California has stated that the
overcrowded condition of our thoroughfares is causing Los Angeles
citizens an economic loss of $12,000 daily, or more than $4,000,000 a
year. All of us help pay the bill—the street car rider, motorist, pedes-
trian and the merchant.

This economic loss is not limited to the loss of time resulting from
congestion. Property values are made unstable through the aimless
shifting of business centers. In time, if the question remains unsolved,
financiers, who through their confidence in the future of this city in-
vested tremendous fortunes in business structures, will hesitate in mak-
ing additional investments and look to a field where their investments
will not be jeopardized by an uncertain and shifting business center.
comprehensive scale. It is equally certain that the public will share these views if the problems are properly and forcefully presented to them.

DISTRIBUTE COST EQUITABLY; BOND ISSUE ADVOCATED

The necessity of a widespread understanding of a broad program becomes increasingly apparent when the financial angles of street opening and widening are considered. There is evident a growing public conviction that major street development costs should be cared for by an equitable distribution of the costs between abutting property owners and the city as a whole. In this stand there is obvious justice and it is our conviction that where the city as a whole is benefited largely by the improvement, the city as a whole should stand a reasonable part of the cost. Many improvement projects would have been accomplished in the past had the proper financial inducements been presented to property owners affected.

Recognition that the public is in sympathy with the idea of the people at large bearing part of the expense of major improvements is furnished by the recent election when the voters approved the measure providing that six cents of each $1.25 of tax levy should be set aside to provide for permanent public improvements. The fund accruing from this source will be very helpful, but, of course, entirely inadequate to provide means for major improvement on the large scale necessary. Estimates of revenues to be derived from this six-cent fund indicate that only from four to six hundred thousand dollars will be available yearly, and moreover, there is no assurance that this sum will be spent in street opening and widening. The amendment simply provides that the sum will be set aside for permanent public improvements.

Suggestions have been made that the City permit funds to accumulate from year to year, under the six-cent amendment, until such time as a sufficient amount of money is at hand to insure the City's participation in a great program. Unquestionably postponement would be result in the cost of the projects being increased to a point beyond the amount accumulated. It must be borne in mind that each succeeding year will find condemnation proceedings more costly through increased realty values and new structures will make the physical accomplishment of the work more complicated. The city of Chicago is today proceeding on an improvement program costing $50,000,000, which might have been accomplished for $5,000,000, had the proper foresight been exercised and support of the public forthcoming.

Against the available sum derived from the six-cent amendment many improvements present themselves of a most pressing character in which the City should share the expense to the extent of several million dollars. North Broadway, Mary street, East Seventh, South Main and West Eighth call to mind any number of projects the worthiness and urgency of which cannot be questioned. Experience has shown that they cannot be accomplished without participation of the whole city in their costs.

The six-cent amendment will be a wonderful help in the carrying out of this large program of urgently needed development. Properly administered, it will make finances immediately available in advance of the slow processes of opening and widening proceedings. It is a start in the right direction.

There are grounds for hope that the next State Legislature may also provide legal machinery whereby excess proceedings may also be instituted. If this is done the net cost of condemnation proceedings may be somewhat reduced. The benefits accruing under the operation of such a law, if passed, will of course be valuable to the carrying on of the program advocated.

THERE IS NO QUESTION, HOWEVER, THAT THE IMMEDIATE AND PRESSING NEED OF THE PRESENT SITUATION IS A BOND ISSUE COVERING A DEFINITE AND SPECIFIC PROGRAM. SUCH A PROCEEDING IS LEGAL AND IT IS THE ONLY METHOD THAT WILL GUARANTEE THE NECESSARY IMPETUS TO A COMPREHENSIVE PROGRAM OF STREET OPENING AND WIDENING.

PUBLIC NEEDS MUST GOVERN PRIORITY OF PROJECTS

In the Los Angeles Plan are included projects of varying degrees of urgency. The selection of the proper projects to be given precedence will be a matter that must be governed solely on the merits as to which offers the greatest immediate public benefits. Selection and the order of carrying out these projects is a matter of deep concern and should be handled by a properly and carefully selected representative group of citizens who would be actuated solely from the standpoint of public needs.

SUMMARY OF RECOMMENDATIONS

The Traffic Commission recommends as a logical order of procedure to insure the realization of the Los Angeles Plan the following program:

First. Proceed immediately to the appointment of a representative committee for the selection of a specific program from the projects outlined in the Los Angeles Plan.

Second. Embark at once on an intensive campaign to acquaint the city as a whole with the picture of the Greater Los Angeles given by the Los Angeles Plan.

Third. On selection of a program, let the Los Angeles Traffic Commission resolve itself into a militant group pledged to employ every legitimate means to the carrying out of whatever bond issue may be necessary to cover the city's cost in the program selected.

CHALLENGE OF THE PAST AND FUTURE

It is granted that the selection of a program and the carrying of a bond issue both entail large demands in the way of effort. Surely, however, no task could offer larger rewards for the individuals and organizations that dedicate themselves to its successful conclusion. It is not too much to say that the onward march of Los Angeles towards its place of destiny will be made immeasurably slower unless a solution is found for the traffic problem.

The problem is a task of enlightenment only. The spirit of Los Angeles which dictated such tremendous expenditures as have been made for the aqueduct, our harbor, will never falter in carrying out the Los Angeles Plan, once its vital need is understood. The past and the future both challenge us to immediate action in this great undertaking.
FOR SOME YEARS it has been generally admitted by all interested parties that viaducts must be built across the Los Angeles River, and it has been hoped that an early determination of the whole grade crossing situation would be finally arrived at, when the California Railroad Commission made its decision in the Union Terminal case. This decision, however, has been attacked in the courts, and it is impossible at this time to forecast the results of the attack, or the time that will be consumed, before final decision of the court. Meanwhile the necessity increases daily for the use of some, at least, of those viaducts.

The question involved in the viaduct situation is top of rail level of the rail lines on each side of the river, which, when established, will determine floor line of the viaducts at all such points, and an agreement as to the manner of bringing about this separation, which involves the limits of the first and future steps of this problem.

The depression of these tracks along the river has been conceded as feasible and desirable, and in fact, every grade crossing plan so far submitted by the rail lines, as well as others, has been predicated on the depression of these tracks.

This Commission believes that in view of the above, the city should endeavor to proceed with the viaduct plan, irrespective of the litigation over the California Railroad Commission's Union Terminal decision, along such lines as will permit of an early solution of the river crossing problem without compromising the California Railroad Commission's Union Terminal decision.

GRADE SURVEY RECOMMENDED

With this end in view the Los Angeles Traffic Commission recommends that the interested parties agree upon the grade line fixed by the California Railroad Commission, yielding a railway that will fit in with the Union Terminal plan, as set out in the California Railroad Commission's decision admitting of connections and service to industries and other railroad facilities along the Los Angeles River, free of grade crossing with main highways.

This survey should also result in an agreement as to the manner of bringing about this grade separation, which involves the limits of the first and future steps of the problem, together with an agreement concerning the just apportionment of expense for the construction of the viaducts.

Viaducts across the Los Angeles River should provide for street cars, autos and pedestrians; should have the shortest possible approaches, commensurate with grade of from three per cent to four and one-half per cent, but not greater than the latter, and should be constructed on Ninth street.
SEPARATION OF GRADES AT MAIN THOROUGHFARE INTERSECTIONS

The Los Angeles river viaducts, however, are only one part of the problem. Studies should be made and plans drawn for the separation of grades at main thoroughfare intersections in the outlying districts. This is proven by the congestion at such intersections and the tangle of traffic produced when traffic officers are not on duty and the delay to traffic at such intersections when officers are on duty.

Separation of grades at those main thoroughfare intersections can probably best be accomplished, in some instances by depression, but more frequently by the construction of ornamental viaducts in the center of the wider thoroughfares, such viaducts to carry width sufficient for one line of automobile traffic in each direction, and to be without sidewalks. Sufficient room should then be provided on each side of the approach to these viaducts to allow for a single line of traffic to pass at original street level on each side of the approach, these side highways to be used only for right-hand turns into the line of traffic on the intersecting street. By then constructing subways for pedestrians from all four corners across both streets, the intersections will be free of all conflict from cross traffic, both pedestrian and vehicular.

Long radius curves for curb returns of not less than thirty feet radius, preferably 40 or 50 foot radius, should also be constructed at the four corners, to admit of the free flow of traffic around these corners.

SEPARATION OF GRADES IN CONGESTED DISTRICTS

It has been heretofore shown that the streets in the congested district are too narrow to handle the traffic, and the traffic is further impeded by the cross traffic, and it is really these heavy flows of traffic lines, endeavoring to cross one another at intersections, that slows up and congests this district, rather than the width of the streets themselves. It is probable that one-way traffic streets would reduce this congestion somewhat, but as long as there is intersecting traffic, so long will there be intersection congestion.

The width of the streets in the congested district might be increased actually by arcading into buildings for a new sidewalk, moving the present curb line then to the present building line and increasing the traffic way of the streets by twice the width of the present sidewalk. This is worthy of close analytical study, particularly as to the cost and the methods of construction required, and as to the various types of buildings which would be affected, as well as the effect that it would have on the valuation of the properties affected, before definitely decided on. Should this be finally adopted however, the set-back line so established for the new sidewalk should be made a permanent set-back line, to which all future buildings should conform.

The width of streets in this congested district could also be increased by arcading back from the street line a sufficient distance to provide a two-way auto drive at the second floor level of all buildings, or at such level as would clear the trolley wires at street crossings, extending this driveway across the streets on overhead structures, so as to make them continuous. It has been suggested also that these second story driveways might be placed in the center of the block, thereby saving street frontage, which is very valuable, and constructing driveway at a point where, in nearly all blocks, the improvements and the property itself are of much less value than the corner lots.

In either event, if second story driveways be the necessity, in order to add to the service and value of the properties through which they run, parking space would have to be constructed over the alleys in the middle of the blocks and in the rear of the buildings, in order that the people using such driveways might have access for local business. This thought also is worthy of careful analysis and estimation for the purpose of ascertaining whether or not the expense involved would be offset by the greater freedom of movement, with particular attention to the possibilities of carrying certain of the east-west traffic across the north-south traffic by these means, making use of the high ground on Bunker Hill for the run-off to gain the elevation required, thereby shortening the approach.

SUBWAYS

The investigations of this Commission have not progressed sufficiently to make any definite recommendations with regard to subways, but it is felt that subways for strictly local service are problematical. The general consensus of opinion, based on the investigations so far had, appears to indicate that the requirements would be for

First—A north-south subway, to be located somewhere between Los Angeles street and Figueroa street, to be possibly part of a circuit system for later development, and to occupy first level, or to be as close to the pavement as possible.

Second—An east-west subway to be located under Bunker Hill, so as to make its principal loading and unloading platforms in the vicinity of Pershing square, the elevation of this tunnel to be such that it would permit of division under the north-south subway in place of crossing at grade, or to be connected up at its intersection with the north-south subway, in order to form a circuit system of operation, without grade crossing. The east-west subway should carry all trains and all interurban lines completely across the business district—that is to say, all trains in a segment from Pasadena eastward and southward to Long Beach, should enter the eastern portal and cross the business district, and, similarly, all trains from the segment from Glendale westward and northward to, at least, Santa Monica, and possibly further, should enter the west portal, and cross the business district to beyond the eastern portal. Probably the east-west subway should be the first constructed, and when traffic overloads the track capacity of this, the north-south subway should be built. Such subways, of course, could carry sidewalks and offer opportunity for the buildings along the line to open up in their basements frontages on the subway.

The question of arcading for new sidewalks, second story auto driveways, and subways, in and across the congested district, is one, however, that this Commission is not prepared, as yet, to make definite recommendations. The Commission has included it herein for the purpose of bringing it to the public mind, so that when action is finally required, we will have the benefit of the broadest thought on the matter.
Uniform Major Street Widths and Set Back Lines

Recommendation is made as part of the 1923 program, looking toward traffic congestion relief:—
1st: That the proposed permanent width of streets constituting the Los Angeles Plan be immediately determined.
2nd. That set-back lines for the streets, composing the Los Angeles Plan be established by ordinance, or by voluntary agreement of the property owners where such ordinance is not possible.
3rd. That set-back lines be established throughout the city to agree with well-known and popularly fixed lines, established by deed in most of the subdivisions throughout the City of Los Angeles.

Will We Tolerate Conditions Which Elicit Such Harmful Publicity?

Under the caption of "Doubtful Distinction," the Engineering News-Record of November 9th, made the following editorial comment:

ONE item in the census statistics of motor deaths stands out as a confirmation in figures of what anyone may observe in person. It is the common opinion of all visitors to Los Angeles that that busy city is the worst congested in America, and there is an unsurpassed disregard there of the accepted rules of traffic. Residents of the city rather resent this criticism; they possibly consider the cause of it only another evidence of the live qualities of the town.

What reckless driving in crowded streets means they may see when they read that in Los Angeles in 1921 the death rate from automobiles per 100,000 was 27.9; in 1920, 27.1, and in 1919, 24.1, as against an average in 1921 of 11.5 for the United States, 20.3 in Chicago, 18.8 in Manhattan, and about 15 for an average of all the large cities.

Los Angeles has the doubtful distinction of killing more of its citizens and visitors with automobiles than any other city in the country. A walk or ride through its streets would lead one to expect just this, but now the figures are here to confirm it possibly the city authorities will take some drastic action to supplement the efforts the city engineer is taking to guide traffic on to safer routes.
THE FOLLOWING is a serial list of the projects recommended by the Los Angeles Traffic Commission as comprising a comprehensive and correlated program of street opening, widening and improvement, as shown on the map attached hereto.

Our present “pioneer paths,” called streets, are painfully inadequate to permit free movement of the volume of traffic which the growth of the City requires. For this, greater width is recommended, wherever indicated, and physically feasible.

Long detours are now often required between trip terminals. This roundabout route involves wasted time for the vehicle, and unnecessarily increases the volume of traffic through congested intersections. For this, opening of new short-cut streets is recommended.

Improvement of parallel streets will do much to divide up, among a number of thoroughfares, the traffic now drawn to, and concentrated upon, the one improved street.

1. FIGUEROA STREET: Open, widen, and improve, northerly, from Pico street, remove all street car tracks, separate grades at First street, extend to North Broadway, near Savoy street, then carry through private property, and twenty feet higher than North Broadway, to Riverside drive, connecting to North Broadway at Elysian Park.

2. MACY STREET: Open and straighten, from Main street westerly to Sunset boulevard.

3. NORTH HILL: Tunnel from Sunset boulevard, paralleling Pacific Electric tracks to Temple street.

4. SPRING STREET: Open, widen, and improve, from Temple street to Sunset boulevard.

5. SAN PEDRO STREET: Open, widen, extend, and improve, northerly, from South Park avenue, via Mozart street, to Avenue 20, with a future provision for turning north on Avenue 18 to the San Fernando boulevard, via Humbolt, with separate grades at North Main, North Broadway and Pasadena avenue.

6. ANDERSON STREET: Open, widen to 100 feet, and improve, from Aliso to First street, with overhead crossing, at Aliso street, to connect Mission Road with First street.

7. SIXTH STREET: Open, widen, and ease grades, from Figueroa street to a “Y” connecting with Orange street, west of Lomis street, and Sixth street at Bixel avenue, thence west to the City limits.

8. Santee STREET: Open and widen, from Alameda street, at the Plaza, through private property to San Pedro street, along San Pedro street, to Second street, cut through private properay to Fifth street, along Maple avenue, to Eighth street, cut through private property to Santee street at Eighth, along Santee to East Adams.

9. EIGHTH STREET: Open, widen, straighten, and ease grades, from Alameda street west to the city limits.

10. EAST NINTH AND WEST TENTH STREETS: Open and widen, on East Ninth street, from Telegraph road to Towne avenue, thence along Tenth street to Crenshaw boulevard, thence via Country Club drive to City limits.

11. SAN FERNANDO TRUCK ROAD: Widen to eighty feet from Main street, via Avenue 20 to the north City limits.

12. SECOND STREET: Open, widen, extend, and improve, from Hill street, easterly, via Traction avenue, and cutting through private property to a direct connection with Whittier boulevard at Boyle avenue.

13. CAHUENGA PASS: Widen, ease grade, and improve from Highland avenue to Ventura boulevard.

14. VINE STREET: Improve from Melrose avenue north to Yucca street and west on Yucca street to a connection with Cahuenga avenue.

15. LAKE SHORE CONNECTION: Open and improve, through private property, from Glendale boulevard to Sunset Boulevard, with provision for Pacific Electric double tracks.

16. BEVERLY BOULEVARD: Open and widen, from the east portal of Second street tunnel to the west City limits.

17. VERMONT AVENUE: Widen between San Marino and Washington streets, with uniform set back line of 100 feet, from Los Feliz boulevard to the south City limits.

18. STATE STREET: Open and widen, northerly, to connect with the Mission road at Alhambra avenue.

19. BOYLE AVENUE: Open and widen, northly, to connect with the Mission road at
Alhambra avenue, and improve southerly via Soto street, to San Antonio street.

20. SLAUSON AVENUE:
   Widen and improve, from Pacific boulevard, westerly six miles to Redondo boulevard.

21. HOOVER STREET:
   Open and widen from Sunset boulevard, to Exposition boulevard and Figueroa street.
   Hoover is a diagonal thoroughfare which might be compared to Market street in San Francisco. It is recommended that this street be designated as a main north and south trunk thoroughfare, and that a setback line of 150 feet be established from Sunset boulevard to Exposition boulevard, and that the same 150-foot set-back be continued on Figueroa street to the south city limits.

22. NORMANDIE AVENUE:
   Open and widen, from Los Feliz boulevard to the south city limits.

23. WILSHIRE BOULEVARD:
   Open, widen, and improve, as per plans of the Community Development Association, easterly via Westlake Park and Orange street to Figueroa street.

24. EXPOSITION PARK BOULEVARD:
   Open, widen, and improve, as cross-town thoroughfare from Main street to west City limits.

25. SANTA BARBARA AVENUE:
   Open, widen, and improve on both sides, and parallel to the Los Angeles Railway tracks from Mesa drive easterly to Griffith avenue, thence via Thirty-seventh street to Santa Fe avenue.

26. BROADWAY:
   Extend by opening south to a junction with Moneta, with change of name from Moneta to Broadway.

27. CENTRAL AVENUE:
   Open, widen, and improve, from Jefferson, northerly to Tenth and Main streets.

28. SOUTH PARK AVENUE:
   Open, widen and improve, southerly from its proposed junction with Los Angeles street to Canal street, Wilmington.

29. EAST ADAMS STREET:
   Open, widen, and improve, from Main street to connect with San Antonio street and the Downey road. Viaducts over, or subways under, railroad crossings.

30. DOWNEY ROAD:
   Open, and improve, northerly to connect with the proposed East Ninth street.

31. LOS ANGELES STREET:
   Extend southerly through private property to Woodlawn at Thirty-seventh street.

32. HILL STREET:
   Extend and improve, southerly, from Washington street to Thirty-eighth street.

33. FLOWER STREET:
   Open and widen, from Washington street to Figueroa street at Thirty-eighth street.

34. THIRD STREET:
   Open, widen, and straighten, cutting through private property, from Fremont street to Vermont avenue. Take out jogs at Boylston street and Figueroa street.

35. HIGHLAND AVENUE:
   Open and widen, from Sunset boulevard to the south city limits.

36. RAMPART BOULEVARD:
   Widen and improve, from Sunset boulevard to Temple street.

37. ALVARADO STREET:
   Open, widen, and improve, from Glendale boulevard to Hoover street.

38. CHILDS AVENUE:
   Improve from Sunset boulevard northerly to a connection with Riverside drive in Griffith Park.

39. RIVERSIDE DRIVE:
   Open, widen, and improve, northerly from Dayton avenue to Burbank, with connection to Dark Canyon road.

40. SILVER LAKE BOULEVARD:
   Open, widen, and improve, as may be required, for a new short line thoroughfare from Glassell street, crossing Verdugo road, Glendale avenue, via Fletcher and Glorietta streets, crossing Riverside drive, skirting Silver Lake, viaduct under Sunset boulevard at Eliza street to a connection with Beverly boulevard, east of Vermont.

41. REDESDALE AVENUE:
   Extend southerly along the west bank of Silver Lake to the proposed Silver Lake boulevard—project number 40.

42. SCHUTZEN PARK ROAD:
   Open and improve, from Rosehill station at Armour street to Monterey road.

43. LORENA STREET:
   Improve from Brooklyn avenue at Indiana street to Downey road.

44. FREMONT STREET:
   Open and improve, through private property, from Sixth street south to Francisco street, then widen and improve, Francisco to Tenth street.

45. SEPULVEDA CANYON ROAD:
   From Sawtelle via Sepulveda Canyon through the Santa Monica mountains to Ventura boulevard opposite Van Nuys. Right-of-way to be subject to approval by Los Angeles City Water Department.
46. ARROYO SECO PARK WAY:  
Construct double roads, one on either side of channel from Pasadena to the Los Angeles river parkway.

47. LOS ANGELES RIVER PARKWAY:  
Construct double roads, one on either side of channel from San Fernando Valley to Long Beach.  
Through the industrial district these roads should pass under all railway and highway bridges with ramp connections to intersecting east and west thoroughfares.  
Where levees exist the road should be on top of the levee. This recommendation subject to overcoming of possible engineering problems in connection therewith.

48. CHAVEZ RAVINE:  
Northerly by tunnels, etc., from Figueroa street to Riverside drive.

49. GRAND AVENUE IMPROVEMENT DISTRICT:  
A general plan of opening and widening should be worked out for the entire district south of Pico street between Main and Figueroa streets, to avoid a shoe string business development which will be very unprofitable to real estate values, and undesirable from a traffic movement standpoint.

50. ALLEYS—IN CONGESTED DISTRICT:  
Open, widen, through the center of all blocks in the business district.  
The Commission is of the opinion that, in the face of the growing congestion, it will not be long before all merchandise deliveries across sidewalks will have to be stopped, as well as the opening of sidewalk vaults during the business hours of the day. This will leave the merchants the alternative of either making their outgoing shipments or receiving incoming merchandise before the opening of the business day or after closing of same, or the construction of alleys nearby, to receive same without blocking sidewalks or main thoroughfares. Alleys can be opened through the present blocks without loss of any except first floor space, as they can be arcaded and the present frontage retained. This, we believe, involves the property owners themselves and is not a public improvement involving appropriation of city funds.

51. CROSS GUTTER ELIMINATION:  
All swales, open culverts, or cross-gutters, should be removed from all important thoroughfares. This can only be done by construction of proper storm drains, of which the city is sadly in need.  
It is the opinion of this Commission that storm drains are of such vital importance to the city at large that they as well as main thoroughfares, should also participate in bond issues.

52. SET BACK LINES—MAJOR STREET WIDTHS:  
Recommendation is made, as part of the 1923 program, looking toward traffic congestion relief:—  
1st. That the proposed permanent width of streets constituting the Los Angeles Plan be immediately determined.  
2nd. That set-back lines for the streets composing the Los Angeles Plan be established by ordinance, or by voluntary agreement of the property owners where such ordinance is not possible.

3rd. That set-back lines be established throughout the city to agree with the well-known and popularly fixed building lines, as established by deed in most of the subdivisions throughout the City of Los Angeles, and that new construction be prohibited outside of the intersection of the projected building lines of the two streets.

53. PARALLEL BOULEVARDS:  
The cosmopolitan meaning of the word, "boulevard" is a wide street divided by a planting space, being in effect a double track thoroughfare, with one-way traffic on either side.  
TWO PARALLEL STREETS, each designated for one-way traffic, in opposite directions, would be equivalent to such a boulevard.  
REALIZATION OF THE WIDE BOULEVARD, no matter how desirable, involves consent of property owners, large appropriations, and, even when successful, long construction delays in time before the public can come into full use of the benefits.  
COMPLETE USE OF PAIRS OF PARALLEL STREETS can be secured at once, by legal regulation, without cost for construction work.

Project 54 - Fourth Street Tunnel  
Construct tunnel at Fourth Street to extend from Hill to Flower along Fourth.

Project 55 - Hyperion Avenue  
Extend Hyperion Avenue so as to make a boulevard which will extend from Santa Monica Boulevard to Ivanhoe Glendale Bridge.

Project 56 - Fifth Street  
Open Fifth Street from the congested district westerly to a connection with Sixth Street, in the vicinity of Bixel.

Project 57 - Viaducts over L. A. River  
Construct viaducts over Los Angeles River on the following streets: Ninth, Seventh, Fourth, Second, First, Macy, North Main and San Pedro.
Some Highlights on Traffic Congestion

In 1919 there were 62,600 automobiles registered in the City of Los Angeles. On December 1st, 1922, the city's automobile registration was in excess of 165,000.

In 1900 the Government census ranked Los Angeles thirty-fifth in population among the cities of the United States. The Government census of 1920 ranked Los Angeles the eleventh largest city in population.

During October, 1922, a total of 4,079 traffic accidents in Los Angeles were recorded by the Police Department, as against 2,047 in October, 1920.

In 1921 the death rate from auto accidents in Los Angeles per 100,000 population was 27.9, as against:

- For the whole United States: 11.5
- Average of all large cities: 15.0
- Manhattan: 18.8
- Chicago: 20.3

Based on recent checks, the following volumes of traffic are handled daily between the hours of 5:00 and 6:00 p.m. at Seventh and Broadway:

- Pedestrians: 18,000 to 20,000
- Automobiles: 1,200 to 1,400
- Street cars: 320 to 350

The intersection of Seventh and Broadway handles the largest volume of automobile traffic in the downtown district. From 7:00 a.m. to 6:00 p.m. a recent check showed a total of 13,468 passing automobiles at this intersection.

Fifth and Broadway is the busiest intersection in point of pedestrian traffic, checks showing a maximum of approximately 25,000 pedestrians per hour, as against a maximum of 23,000 at Seventh and Broadway.

The Los Angeles Railway operates in the congested district 8,404 car movements daily; the Pacific Electric more than 4,000 daily.

To Western and Wilshire Avenues goes the distinction of handling the largest volume of automobile traffic of any intersection in the city. More than 34,000 automobiles crossed this intersection in a recent check of 18 hours.

Delay Invites Disaster!

The Traffic Commission has presented the foregoing as an assemblage of the best thought on the subject.

"Something" must be done, and this "something" must be started NOW. Half measures are useless.

To put off adopting a plan, until the congested district dies of strangulation means that a new district will spring up elsewhere, leaving depreciation of property value, and disaster in its wake.

We must adopt some plan, and push it steadily and firmly along, completing it unit by unit, in the order of paramount necessity, acquiring property for improvements in advance of needs, where it can be done reasonably and in advance of probable improvement, and in all ways protecting the future of the plan, by present action.

We can do this NOW, at reasonable expense, but we cannot do this five, ten or fifteen years from now except at tremendous loss.

The plans submitted with this report are broad in scope, logical in requirements, and necessary to protect the growth of this city.

This Commission is prepared and willing to get behind this report, to back it up, to push it along until accomplished, and it can be accomplished, if the organization that helped in the making and the citizenry at large will lend to the Commission of their strength and back the Commission with their support.

We will then be

"Fifteen Years Ahead, Instead of Fifteen Years Behind"
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