STATE OF CALIFORNIA

EDMUND G. BROWN, Governor

COMMISSION ON CALIFORNIA STATE GOVERNMENT ORGANIZATION AND ECONOMY

1209 EIGHTH ST., SACRAMENTO

Chairman
HAROLD FURST
Berkeley

Vice Chairman
MILTON MARKS
Assemblyman, San Francisco

JOHN T. KNOX
Assemblyman, Richmond

DON B. LEIFFER
San Diego

GEORGE MILLER, JR.
Senator, Martinez

MANNING J. POST
Beverly Hills

RICHARD E. SHERWOOD
Los Angeles

ROY SORENSON
San Francisco

VERNON L. STURGEON
Senator, Paso Robles

DAIR TANDY
Oroville

FRANK D. TELLWRIGHT
Carmel

L. H. HALCOMB, JR.
Executive Secretary

April 7, 1965

Honorable Edmund G. Brown
Governor, State of California

Honorable Hugh M. Burns
President Pro Tempore, and to Members of the Senate

Honorable Jesse M. Unruh
Speaker, and to Members of the Assembly

Gentlemen:

On December 23, 1963 the California Council of Civil Engineers and Land Surveyors together with the Consulting Engineers Association of California requested this Commission to investigate the cost of engineering design and supervision of construction within state agencies. The California Committee for Engineering Efficiency, representing the above professional organizations, appeared before the Commission on January 11, 1964 and made the following principal charges and observations:

1. That all state agencies continue to expand their engineering staffs in competition with private consultants as a state policy.

2. That there is a resultant waste of state funds amounting to at least $25,000,000 per year.

3. That engineering costs of the Division of Highways, as taken from their own annual reports average 23 per cent of construction costs as compared with seven to ten per cent on turnpike and toll road authority projects where private consultants are employed.

4. That the Division of Beaches and Parks contracts with other state agencies for engineering work rather than employing private engineers.

5. That the use of consultants would speed the adoption of new and improved techniques with resultant improvement in the quality of the work performed.

6. That the overall time period for design and construction could be substantially reduced through the use of private engineers.

7. That there is no legal obstacle to the employment of private engineers despite the contention to the contrary by the California State Employees' Association.

Documentation of the above statements by the California Committee on Engineering Efficiency was limited to Items 3 and 7.

After a careful perusal of the material and testimony received, it appeared that a most serious and apparently well-documented charge had been made against the Division of Highways. Accordingly, a formal request was made by this Commission to the Division of Highways on February 25, 1964 for a detailed analysis of design and construction engineering costs as related to construction expenditures.

Within the guidelines established by the Commission, the staff of the Division of Highways commenced such a study and their report was received on July 3, 1964. In this study, preliminary and construction engineering costs were analyzed on a project basis over a ten-year period as well as for the 1962-63 fiscal year. General budget comparisons were presented in addition to a comparison of average preliminary and construction engineering costs with guide fees for the same work by private engineers.

After extensive and detailed review of this and subsequent reports by our staff, the Commission has concluded that the Division of Highways made an honest and painstaking effort to produce the facts concerning their engineering costs and that the assumptions made in preparing comparisons are both fair and reasonable. We are convinced that engineering costs, although high, are reasonable and that there is no valid basis for the charge of a waste of $25,000,000 per year in state funds. Further, no evidence was presented or discovered which would lead us to believe that greater use of private engineers would result in significantly reduced time for design and construction. The highway construction program in California is on schedule. The complete presentations of the Committee on Engineering Efficiency together with two resulting studies by the Division of Highways are on file in the office of the Commission. Inasmuch as they are available to you, their detail need not be repeated here.

It is true that an inadequate cost accounting method utilized by the Division until recently has prevented a conclusive answer in the past to repeated charges of excessive engineering costs. The newly adopted procedures now provide accurate cost figures and will permit somewhat more valid cost comparisons on a continuing basis. It must be recognized, however, that precise and exact comparisons of the cost of engineering work performed by

private consultants and a public agency as well as between public agencies is impractical and virtually impossible. This is so not because of the lack of data on costs but because of the inability to reach a common basis of equitable comparison.

Differences in administrative costs, not related to construction programs, further complicate meaningful comparisons. It is estimated that a more meaningful allocation of these administrative costs in the Division of Highways would result in a reduction of not less than 15 per cent and possibly as much as 25 per cent in reported engineering costs. In recent years administrative costs have been reported as less than two per cent, with the budget figure for the 1964-65 fiscal year forecasted at 1.8 per cent. In the opinion of Commission members any organization in private or public business capable of assuming responsibility for an operation as complex and widespread as the planning, construction, maintenance and operation of the state highway system under existing controls and audits would be considered most proficient if its costs of administration were held to even five per cent of total expenditures.

A factor affecting the allocation of engineering and other costs is the statutory requirement which limits Division of Highways expenditures for administration and maintenance to the proceeds from one cent of gas tax. This limit appears somewhat unrealistic today when it is remembered that it was set in 1929 when one cent was one-third of the total gas tax. In 1965, the limitation is still one cent while the gas tax has increased to eight cents (including the temporary one cent to be allocated for highway flood damage repair). In all probability, actual administrative costs have experienced an even greater proportionate increase. Undoubtedly administrative costs are charged to engineering at least to the extent that their proper classification might be in doubt. Accordingly, we suggest that action be taken by the State Legislature to remove or modify this artificial limitation on expenditures of the Division of Highways for administration.

Analysis of the material placed before us by both the Division of Highways and the private engineering organizations leads to the observation that no significant saving in cost would result if normal preliminary engineering work were to be performed by consultants by contract rather than by Division engineers. Evidence is to the contrary--it is reasonable to expect that total costs (engineering, construction maintenance and administration) might even be greater. In the Commission's judgment, however, the Division of Highways, as well as other state agencies, should avoid the recruitment of additional staff for peak loads or for the performance of unusual or other design activity requiring specialized talent not ordinarily found on the regular professional staff of the state agency.

It is suggested that consideration be given to the adoption of a state-wide policy which would outline the conditions under which it would be to the State's best interest to provide for engineering services by contract. Such a policy statement, preferably worked out in cooperation and in good faith with representatives of the private engineering organizations, would spell out the conditions under which consultants would be employed. Assurance would need to be provided, however, that adequate state engineering staff would be maintained to satisfy normal work requirements and thus assure that there would be no adverse effect on program, control or quality of work.

It is our belief that the adoption of reasonable policies for guidance in the use of engineering consultants by contract would result in the use of such consultants for a significant amount of design work. Accurate cost data as well as information on new or different techniques would thus be available on a continuing basis for comparison and control purposes. On the other hand, the Commission does not recommend that extensive use be made of consultants for construction engineering work. The State must retain basic and immediate responsibility for quality control, checking and processing payments to contractors, maintaining permanent records, obtaining reimbursement and for the performance of other services which in our belief cannot properly be delegated to a third party.

Commission staff analysis and detailed departmental study as well as the testimony received at the several public meetings of the Commission devoted to this subject were concerned primarily with engineering costs within the Division of Highways. The results have been constructive we believe--to Division of Highways officials and engineering consultants alike. A most cooperative spirit was evidenced by all parties concerned and a noticeable moderation of attitude has been detected since the start of the inquiry. It is suggested that similar self-appraisal of other departments utilizing engineering services would be equally constructive and to the benefit of the State.

Respectfully submitted,

Harold Furst

Harold Furst, Chairman
Assemblyman Milton Marks, Vice Chairman
Assemblyman John T. Knox
Don B. Leiffer
State Senator George Miller, Jr.
Manning J. Post
Richard E. Sherwood
Roy Sorenson
State Senator Vernon L. Sturgeon
Dair Tandy
Frank D. Tellwright